Analytical Resources, Incorporated
Analytical Chemists and Consultants

CLEANUP BENCH SHEET

CFB0053

Matrix: Tissue **Cleanup using: Organics - EPA 3630C Silica Gel Cleanup** **Printed: 2/9/2017 3:20:28PM**

Lab Number	Sample Container	Sample Name	Extract Container	Initial (mL)	Final (mL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
17A0053-12	A	PG-SMA1-2-3-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/9/2017	SDP	
17A0053-11	A	PG-WS-1-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/9/2017	SDP	
17A0053-10	A	PG-GP-1-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/9/2017	SDP	
17A0053-09	A	PG-PJ-1-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/9/2017	SDP	
17A0053-08	A	PG-SMA2-5-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/9/2017	SDP	
17A0053-07	A	PG-SMA2-4-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/9/2017	SDP	
17A0053-06	A	PG-SMA2-3-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/9/2017	SDP	
17A0053-05	A	PG-SMA2-2-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/9/2017	SDP	
17A0053-04	A	PG-SMA2-1-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/9/2017	SDP	
17A0053-01	A	PG-SMA1-1-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/9/2017	SDP	
16K0124-01	A	PG-T0-MUS-COC-161109	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/9/2017	SDP	
BFA0647-MSD1	-	Matrix Spike Dup	-	0.5	0.5	-	2/9/2017	SDP	
BFA0647-MS1	-	Matrix Spike	-	0.5	0.5	-	2/9/2017	SDP	
BFA0647-BS1	-	LCS	-	0.5	0.5	-	2/9/2017	SDP	
BFA0647-BLK1	-	Blank	-	0.5	0.5	-	2/9/2017	SDP	

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Cleanup Reviewed By Date

Analytical Resources, Incorporated

CLEANUP BATCH SUMMARY

Laboratory:	Analytical Resources, Inc.	SDG:	17A0053
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Cleanup Batch:	CFB0054	Cleanup Type:	GPC
Cleanup Method:	EPA 3640A GPC Cleanup	Analysis:	EPA 8270D-SIM

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARE	OBSERVATIONS
PG-SMA1-1-MUS-170105	17A0053-01	N1117021010.D	02/01/2017	
PG-PJ-1-MUS-170105	17A0053-09	N1117021016.D	02/01/2017	
PG-SMA1-2-3-MUS-170105	17A0053-12	N1117021019.D	02/01/2017	
PG-SMA2-1-MUS-170105	17A0053-04	N1117021011.D	02/01/2017	
PG-SMA2-2-MUS-170105	17A0053-05	N1117021012.D	02/01/2017	
PG-SMA2-4-MUS-170105	17A0053-07	N1117021014.D	02/01/2017	
PG-SMA2-5-MUS-170105	17A0053-08	N1117021015.D	02/01/2017	
PG-WS-1-MUS-170105	17A0053-11	N1117021018.D	02/01/2017	
PG-GP-1-MUS-170105	17A0053-10	N1117021103.D	02/01/2017	
PG-SMA2-3-MUS-170105	17A0053-06	N1117021013.D	02/01/2017	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

CLEANUP BENCH SHEET

CFB0054

Matrix: Tissue **Cleanup using: Organics - EPA 3640A GPC Cleanup** **Printed: 2/9/2017 3:22:46PM**

Lab Number	Sample Container	Sample Name	Extract Container	Initial (mL)	Final (mL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
17A0053-12	A	PG-SMA1-2-3-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/1/2017	WPW	
17A0053-11	A	PG-WS-1-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/1/2017	WPW	
17A0053-10	A	PG-GP-1-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/1/2017	WPW	
17A0053-09	A	PG-PJ-1-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/1/2017	WPW	
17A0053-08	A	PG-SMA2-5-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/1/2017	WPW	
17A0053-07	A	PG-SMA2-4-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/1/2017	WPW	
17A0053-06	A	PG-SMA2-3-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/1/2017	WPW	
17A0053-05	A	PG-SMA2-2-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/1/2017	WPW	
17A0053-04	A	PG-SMA2-1-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/1/2017	WPW	
17A0053-01	A	PG-SMA1-1-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/1/2017	WPW	
16K0124-01	A	PG-T0-MUS-COC-161109	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/1/2017	WPW	
BFA0647-MSD1	-	Matrix Spike Dup	-	0.5	0.5	-	2/1/2017	WPW	
BFA0647-MS1	-	Matrix Spike	-	0.5	0.5	-	2/1/2017	WPW	
BFA0647-BS1	-	LCS	-	0.5	0.5	-	2/1/2017	WPW	
BFA0647-BLK1	-	Blank	-	0.5	0.5	-	2/1/2017	WPW	

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Cleanup Reviewed By Date

BFA0647 16K0124 / 17A0053

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BLK

Analyst£ºWW
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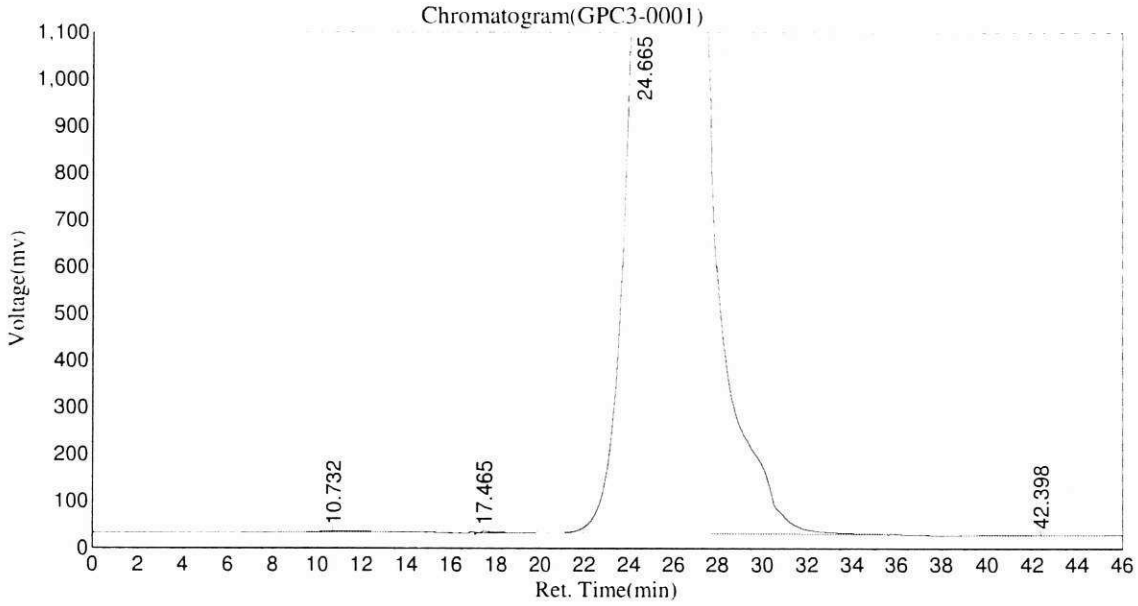

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		10.732	1892.776	251303.406	0.0673
2		17.465	4878.688	284772.813	0.0763
3		24.665	1349233.375	372737216.000	99.8163
4		42.398	855.021	150069.203	0.0402
Total			1356859.860	373423361.422	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	BAN Collect	17.000	0.100	0.00E+000	0.00E+000	0.0000
2	Pest Collect	21.000	0.100	0.00E+000	0.00E+000	0.0000
3	Pest Dump	35.000	0.100	0.00E+000	0.00E+000	0.0000
4	BAN Dump	36.000	0.100	0.00E+000	0.00E+000	0.0000

BFA0647 16K0124 / 17A0053

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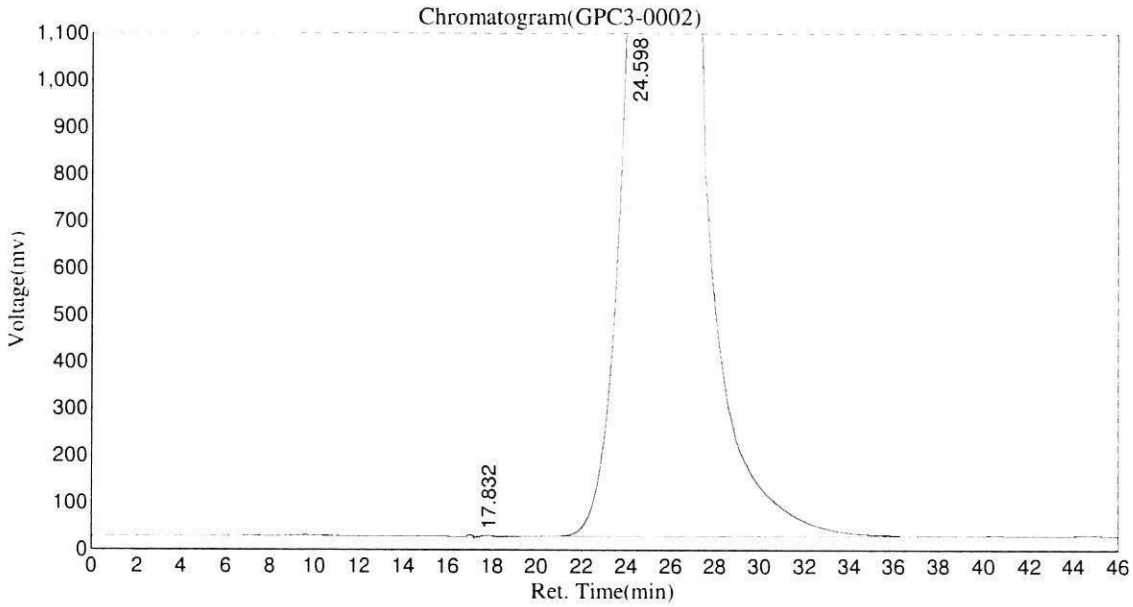

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.832	4186.750	363548.000	0.0970
2		24.598	1351818.375	374386080.000	99.9030
Total			1356005.125	374749628.000	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	BAN Collect	17.000	0.100	0.00E+000	0.00E+000	0.0000
2	Pest Collect	21.000	0.100	0.00E+000	0.00E+000	0.0000
3	Pest Dump	35.000	0.100	0.00E+000	0.00E+000	0.0000
4	BAN Dump	36.000	0.100	0.00E+000	0.00E+000	0.0000

BFA0647 16K0124 / 17A0053

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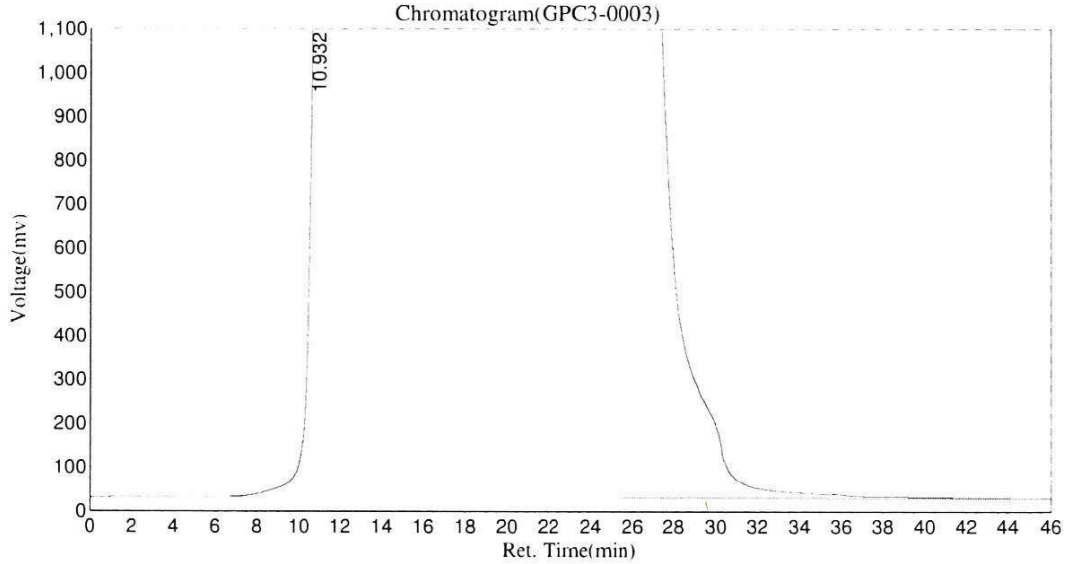

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		10.932	1347803.750	1447435264.000	100.0000
Total			1347803.750	1447435264.000	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	BAN Collect	17.000	0.100	0.00E+000	0.00E+000	0.0000
2	Pest Collect	21.000	0.100	0.00E+000	0.00E+000	0.0000
3	Pest Dump	35.000	0.100	0.00E+000	0.00E+000	0.0000
4	BAN Dump	36.000	0.100	0.00E+000	0.00E+000	0.0000

BFA0647 ~~16K0124~~ / 17A0053

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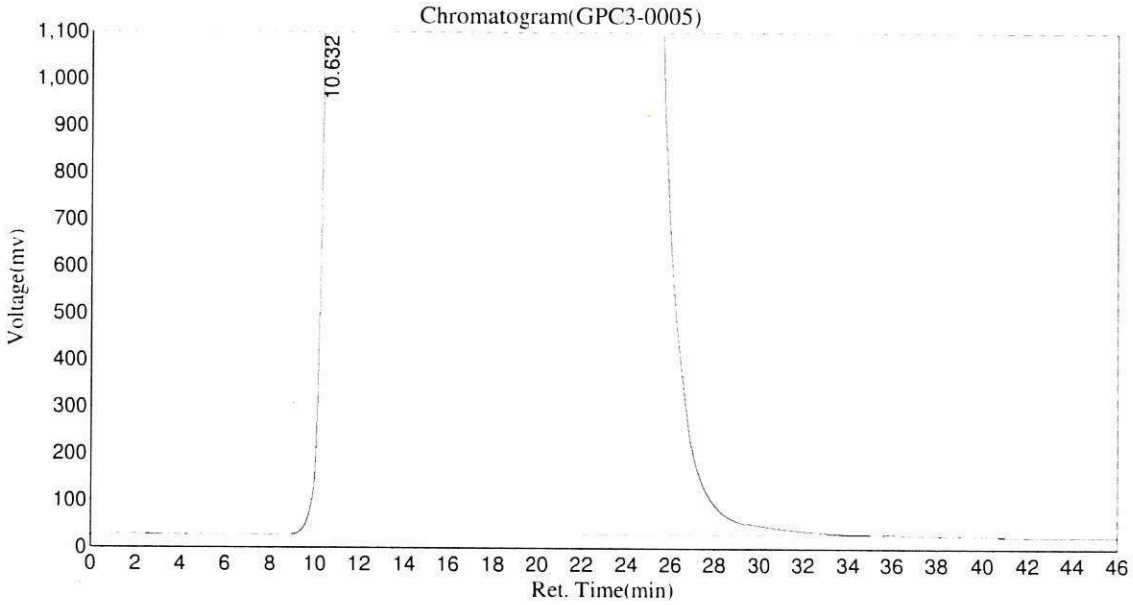

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		10.632	1352818.500	1263109376.000	100.0000
Total			1352818.500	1263109376.000	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	BAN Collect	17.000	0.100	0.00E+000	0.00E+000	0.0000
2	Pest Collect	21.000	0.100	0.00E+000	0.00E+000	0.0000
3	Pest Dump	35.000	0.100	0.00E+000	0.00E+000	0.0000
4	BAN Dump	36.000	0.100	0.00E+000	0.00E+000	0.0000

BFA0647 ~~16K0124~~ / 17A0053

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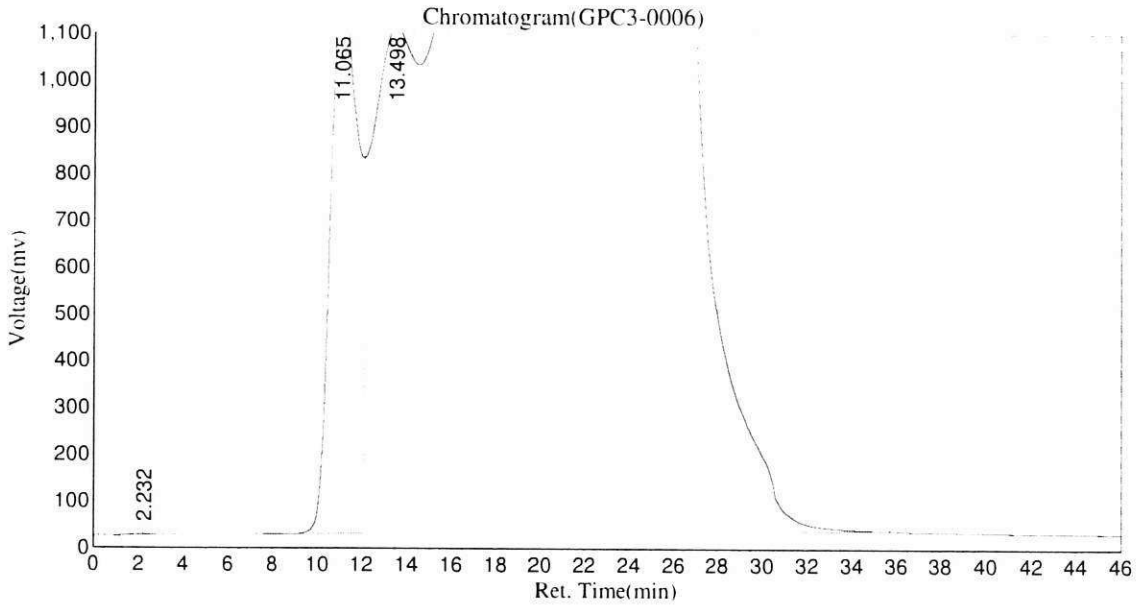

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		2.232	2017.805	221809.406	0.0170
2		11.065	1186788.000	102335560.000	7.8587
3		13.498	1080047.750	1199636864.000	92.1243
Total			2268853.555	1302194233.406	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	BAN Collect	17.000	0.100	0.00E+000	0.00E+000	0.0000
2	Pest Collect	21.000	0.100	0.00E+000	0.00E+000	0.0000
3	Pest Dump	35.000	0.100	0.00E+000	0.00E+000	0.0000
4	BAN Dump	36.000	0.100	0.00E+000	0.00E+000	0.0000

BFA0647 16K0124 / 17A0053

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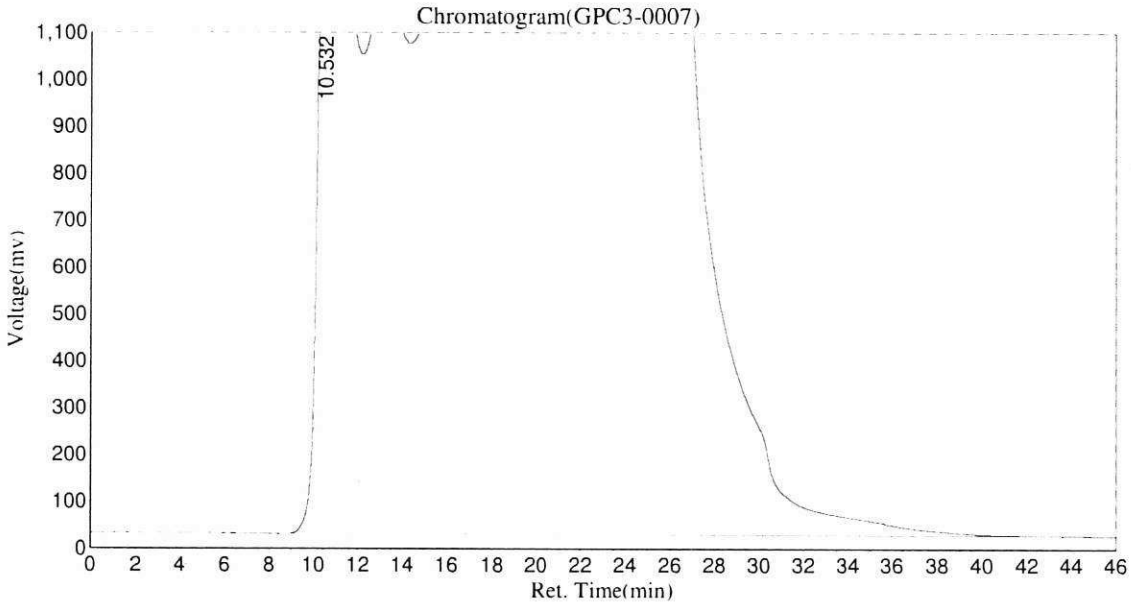

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		10.532	1349657.125	1422353920.000	100.0000
Total			1349657.125	1422353920.000	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	BAN Collect	17.000	0.100	0.00E+000	0.00E+000	0.0000
2	Pest Collect	21.000	0.100	0.00E+000	0.00E+000	0.0000
3	Pest Dump	35.000	0.100	0.00E+000	0.00E+000	0.0000
4	BAN Dump	36.000	0.100	0.00E+000	0.00E+000	0.0000

BFA0647 16K0124 / 17A0053

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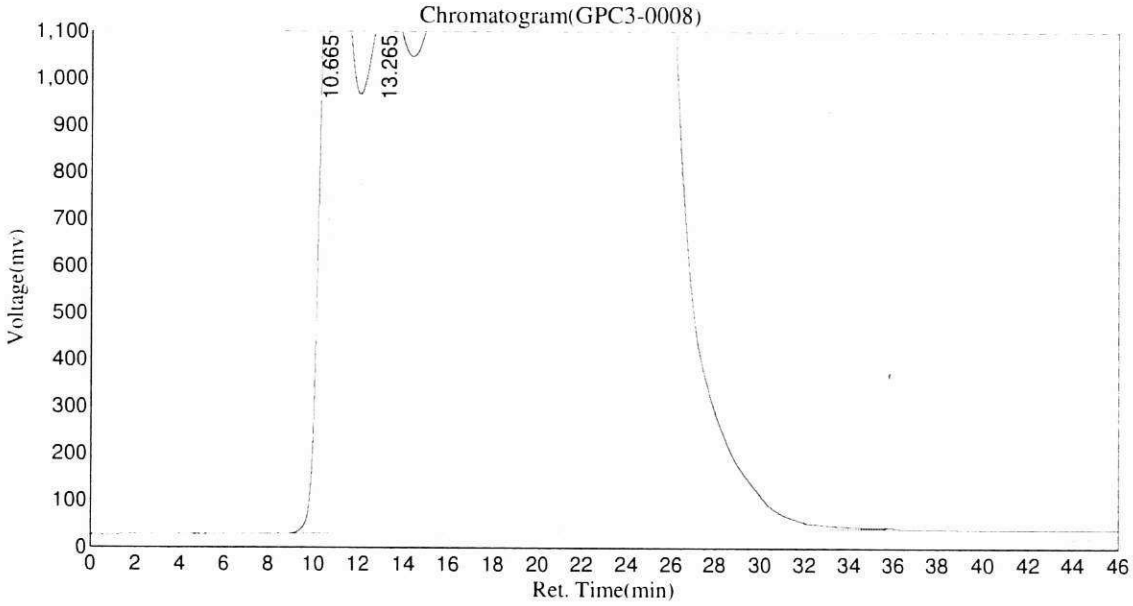

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		10.665	1350788.250	40699824.000	3.4401
2		13.265	1153888.250	1142399232.000	96.5599
Total			2504676.500	1183099056.000	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	BAN Collect	17.000	0.100	0.00E+000	0.00E+000	0.0000
2	Pest Collect	21.000	0.100	0.00E+000	0.00E+000	0.0000
3	Pest Dump	35.000	0.100	0.00E+000	0.00E+000	0.0000
4	BAN Dump	36.000	0.100	0.00E+000	0.00E+000	0.0000

BFA0647 ~~16K0124~~ / 17A0053

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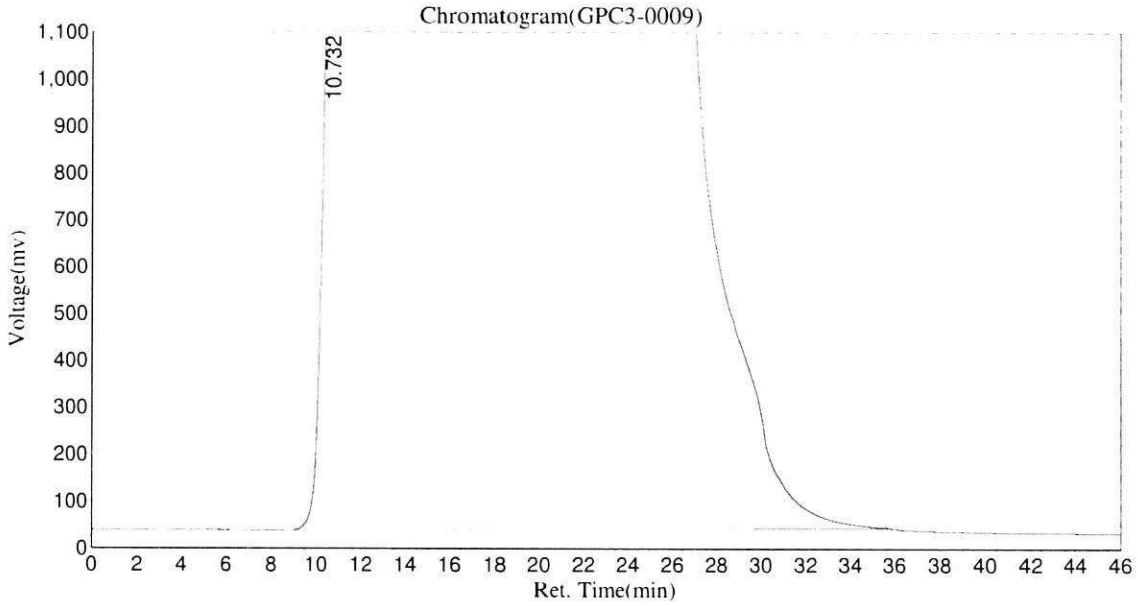
-96



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		10.732	1341333.375	1459236096.000	100.0000
Total			1341333.375	1459236096.000	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	BAN Collect	17.000	0.100	0.00E+000	0.00E+000	0.0000
2	Pest Collect	21.000	0.100	0.00E+000	0.00E+000	0.0000
3	Pest Dump	35.000	0.100	0.00E+000	0.00E+000	0.0000
4	BAN Dump	36.000	0.100	0.00E+000	0.00E+000	0.0000

BFA0647 16K0124 / 17A0053

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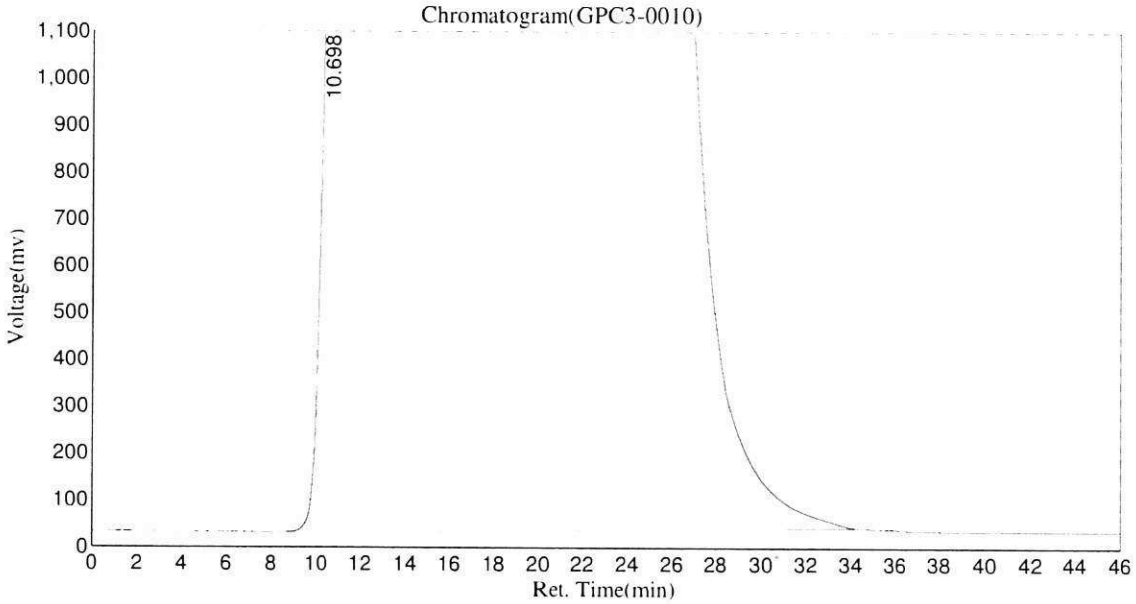
-97



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		10.698	1347706.500	1419859456.000	100.0000
Total			1347706.500	1419859456.000	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	BAN Collect	17.000	0.100	0.00E+000	0.00E+000	0.0000
2	Pest Collect	21.000	0.100	0.00E+000	0.00E+000	0.0000
3	Pest Dump	35.000	0.100	0.00E+000	0.00E+000	0.0000
4	BAN Dump	36.000	0.100	0.00E+000	0.00E+000	0.0000

BFA0647 16K0124 / 17A0053

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-98

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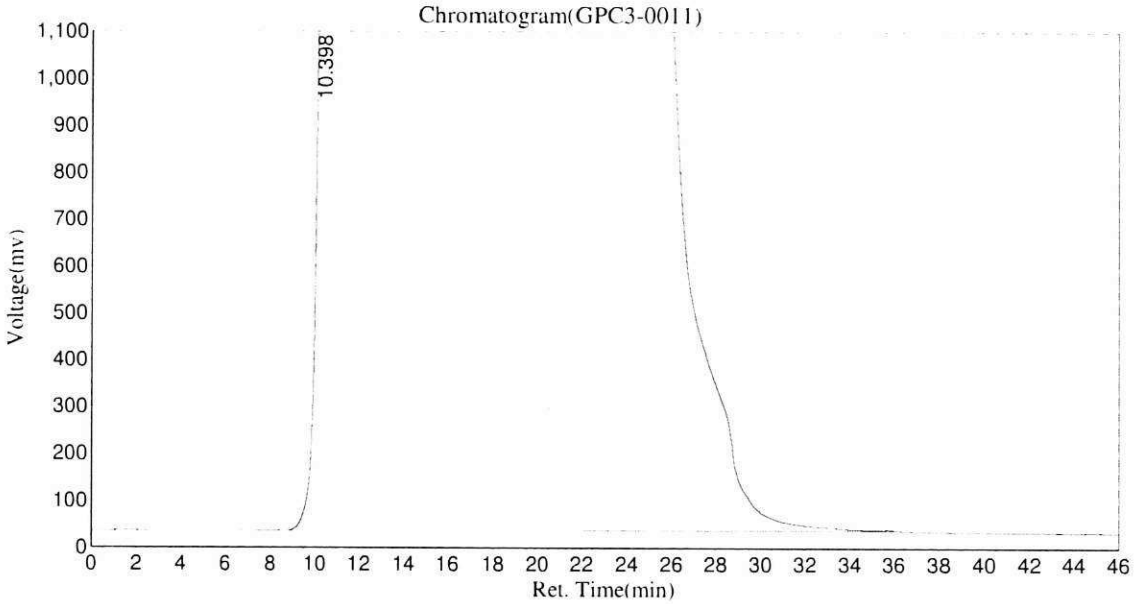

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		10.398	1344636.500	1376889088.000	100.0000
Total			1344636.500	1376889088.000	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	BAN Collect	17.000	0.100	0.00E+000	0.00E+000	0.0000
2	Pest Collect	21.000	0.100	0.00E+000	0.00E+000	0.0000
3	Pest Dump	35.000	0.100	0.00E+000	0.00E+000	0.0000
4	BAN Dump	36.000	0.100	0.00E+000	0.00E+000	0.0000

BFA0647 16K0124 / 17A0053

Date:2017-02-02,5:03:02 AM
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-99

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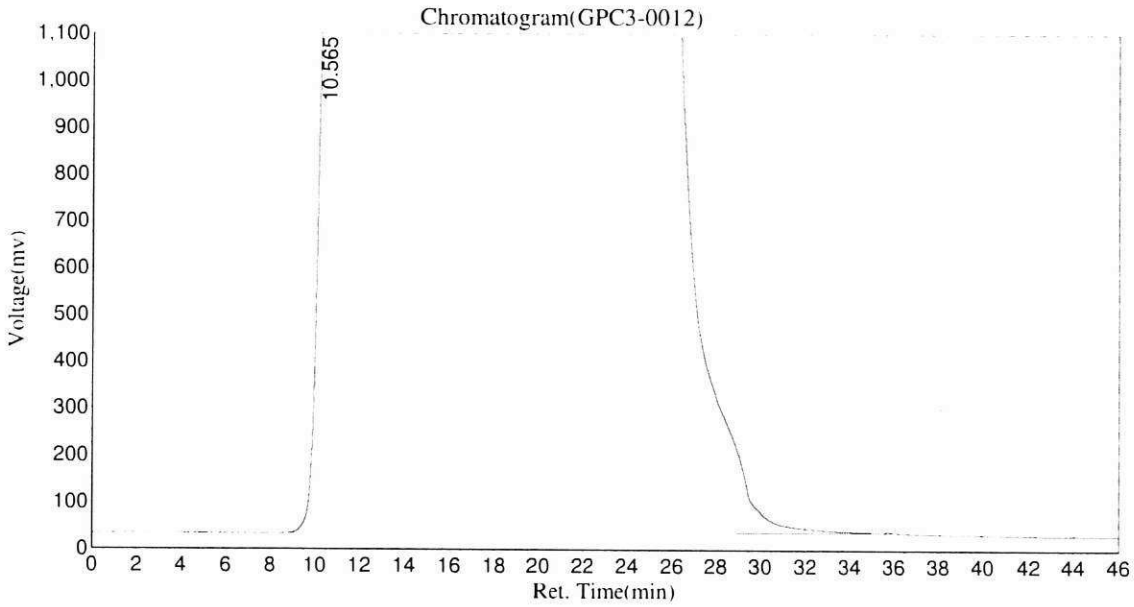

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		10.565	1346876.000	1386889088.000	100.0000
Total			1346876.000	1386889088.000	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	BAN Collect	17.000	0.100	0.00E+000	0.00E+000	0.0000
2	Pest Collect	21.000	0.100	0.00E+000	0.00E+000	0.0000
3	Pest Dump	35.000	0.100	0.00E+000	0.00E+000	0.0000
4	BAN Dump	36.000	0.100	0.00E+000	0.00E+000	0.0000

BFA0647 16K0124 / 17A0053

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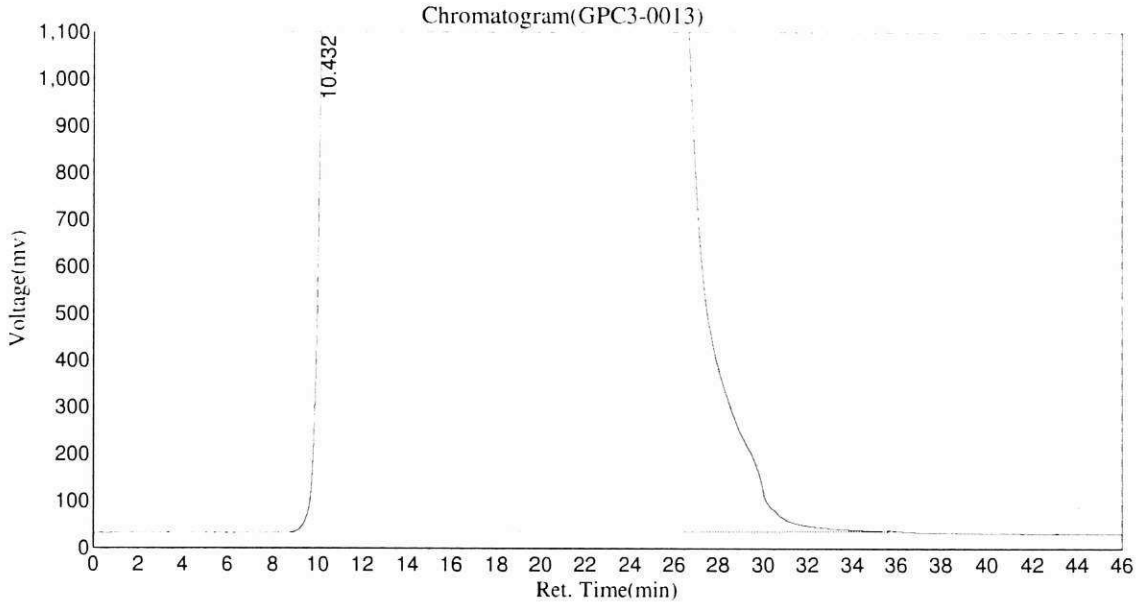


Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		10.432	1346963.000	1422436992.000	100.0000
Total			1346963.000	1422436992.000	100.000

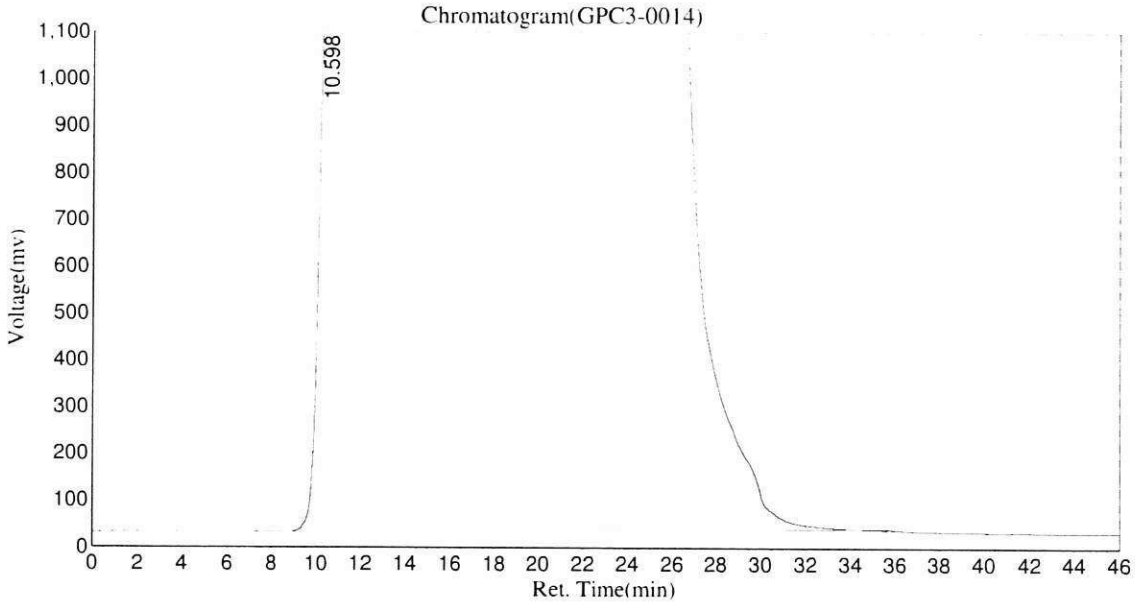
Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	BAN Collect	17.000	0.100	0.00E+000	0.00E+000	0.0000
2	Pest Collect	21.000	0.100	0.00E+000	0.00E+000	0.0000
3	Pest Dump	35.000	0.100	0.00E+000	0.00E+000	0.0000
4	BAN Dump	36.000	0.100	0.00E+000	0.00E+000	0.0000

BFA0647 16K0124 / 17A0053

Date:2017-02-02,6:38:28 AM
Data File:c:\n2000\data1\020117\GPC3-0014
Method File:C:\N2000\LL-Tiss.mtd

Analyst£ºWW
Date/Time2017-02-02,6:38:28 AM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		10.598	1347302.625	1410607872.000	100.0000
Total			1347302.625	1410607872.000	100.000

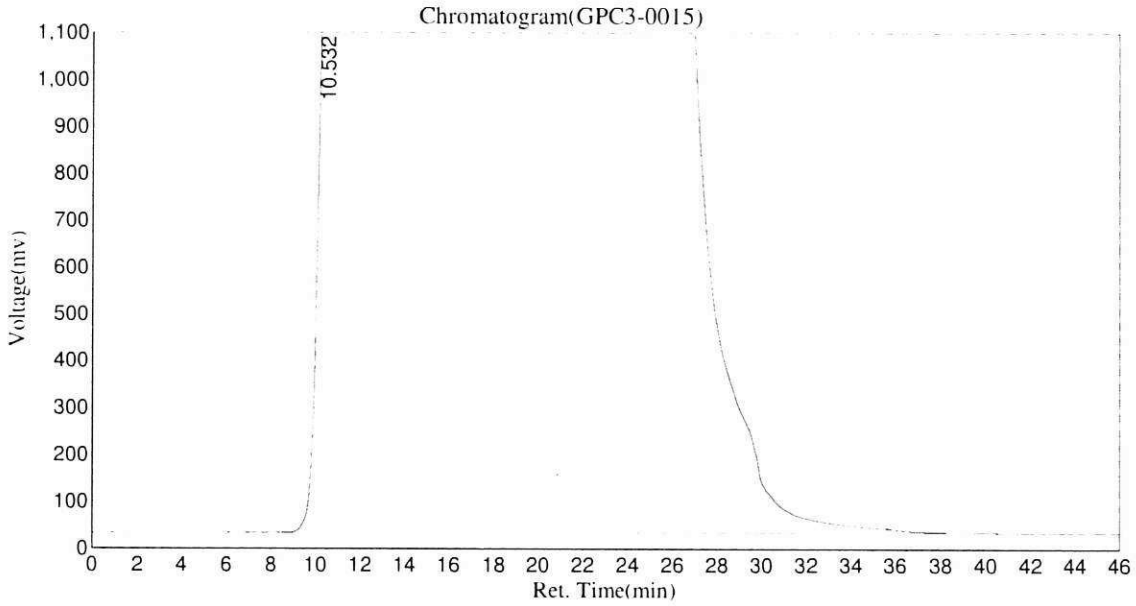
Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	BAN Collect	17.000	0.100	0.00E+000	0.00E+000	0.0000
2	Pest Collect	21.000	0.100	0.00E+000	0.00E+000	0.0000
3	Pest Dump	35.000	0.100	0.00E+000	0.00E+000	0.0000
4	BAN Dump	36.000	0.100	0.00E+000	0.00E+000	0.0000

BFA0647 16K0124 / 17A0053

Date:2017-02-02,7:26:11 AM
Data File:c:\n2000\data1\020117\GPC3-0015
Method File:C:\N2000\LL-Tiss.mtd

Analyst£ºWW
Date/Time2017-02-02,7:26:11 AM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		10.532	1347159.500	1451331328.000	100.0000
Total			1347159.500	1451331328.000	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	BAN Collect	17.000	0.100	0.00E+000	0.00E+000	0.0000
2	Pest Collect	21.000	0.100	0.00E+000	0.00E+000	0.0000
3	Pest Dump	35.000	0.100	0.00E+000	0.00E+000	0.0000
4	BAN Dump	36.000	0.100	0.00E+000	0.00E+000	0.0000

Analytical Resources, Incorporated

Form I
METHOD BLANK DATA SHEET
EPA 8270D-SIM

Blank

Laboratory:	Analytical Resources, Inc.			SDG:	17A0053
Client:	Anchor QEA, LLC			Project:	Port Gamble Shellfish Monitoring
Matrix:	Tissue	Laboratory ID:	BFA0647-BLK1	File ID:	N1117021007.D
Sampled:	N/A	Prepared:	01/31/17 13:45	Analyzed:	02/10/17 14:40
Solids:		Preparation:	EPA 3550C-Mod (Ultrasonic	Initial/Final:	10 g / 0.5 mL
Batch:	BFA0647	Sequence:	SFB0130	Calibration:	ZL00083
Instrument:	NT11	Column:	RXi-17Sil-MS		

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg)	Q	DL	RL
91-20-3	Naphthalene	1	0.60	U	0.50	0.60
91-57-6	2-Methylnaphthalene	1	0.50	U	0.50	0.50
208-96-8	Acenaphthylene	1	0.50	U	0.50	0.50
83-32-9	Acenaphthene	1	0.50	U	0.50	0.50
132-64-9	Dibenzofuran	1	0.50	U	0.50	0.50
86-73-7	Fluorene	1	0.50	U	0.50	0.50
85-01-8	Phenanthrene	1	0.50	U	0.50	0.50
120-12-7	Anthracene	1	0.50	U	0.50	0.50
206-44-0	Fluoranthene	1	0.50	U	0.50	0.50
129-00-0	Pyrene	1	0.50	U	0.50	0.50
56-55-3	Benzo(a)anthracene	1	0.50	U	0.50	0.50
218-01-9	Chrysene	1	0.50	U	0.50	0.50
205-99-2	Benzo(b)fluoranthene	1	0.50	U	0.50	0.50
207-08-9	Benzo(k)fluoranthene	1	0.50	U	0.50	0.50
205-82-3	Benzo(j)fluoranthene	1	0.50	U	0.50	0.50
50-32-8	Benzo(a)pyrene	1	0.50	U	0.50	0.50
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.50	U	0.50	0.50
53-70-3	Dibenzo(a,h)anthracene	1	0.50	U	0.50	0.50
191-24-2	Benzo(g,h,i)perylene	1	0.50	U	0.50	0.50
90-12-0	1-Methylnaphthalene	1	0.50	U	0.50	0.50
91-58-7	2-Chloronaphthalene	1	0.50	U	0.50	0.50
95-15-8	Benzo(b)thiophene	1	0.50	U	0.50	0.50

SURROGATES	ADDED (ug/kg)	CONC (ug/kg)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	15.000	7.88	52.5	30 - 160	
Dibenzo[a,h]anthracene-d14	15.000	9.75	65.0	30 - 160	
Fluoranthene-d10	15.000	9.63	64.2	30 - 160	

Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021007.D

Page 1

Date : 10-FEB-2017 14:40

Client ID:

Instrument: nt11.i

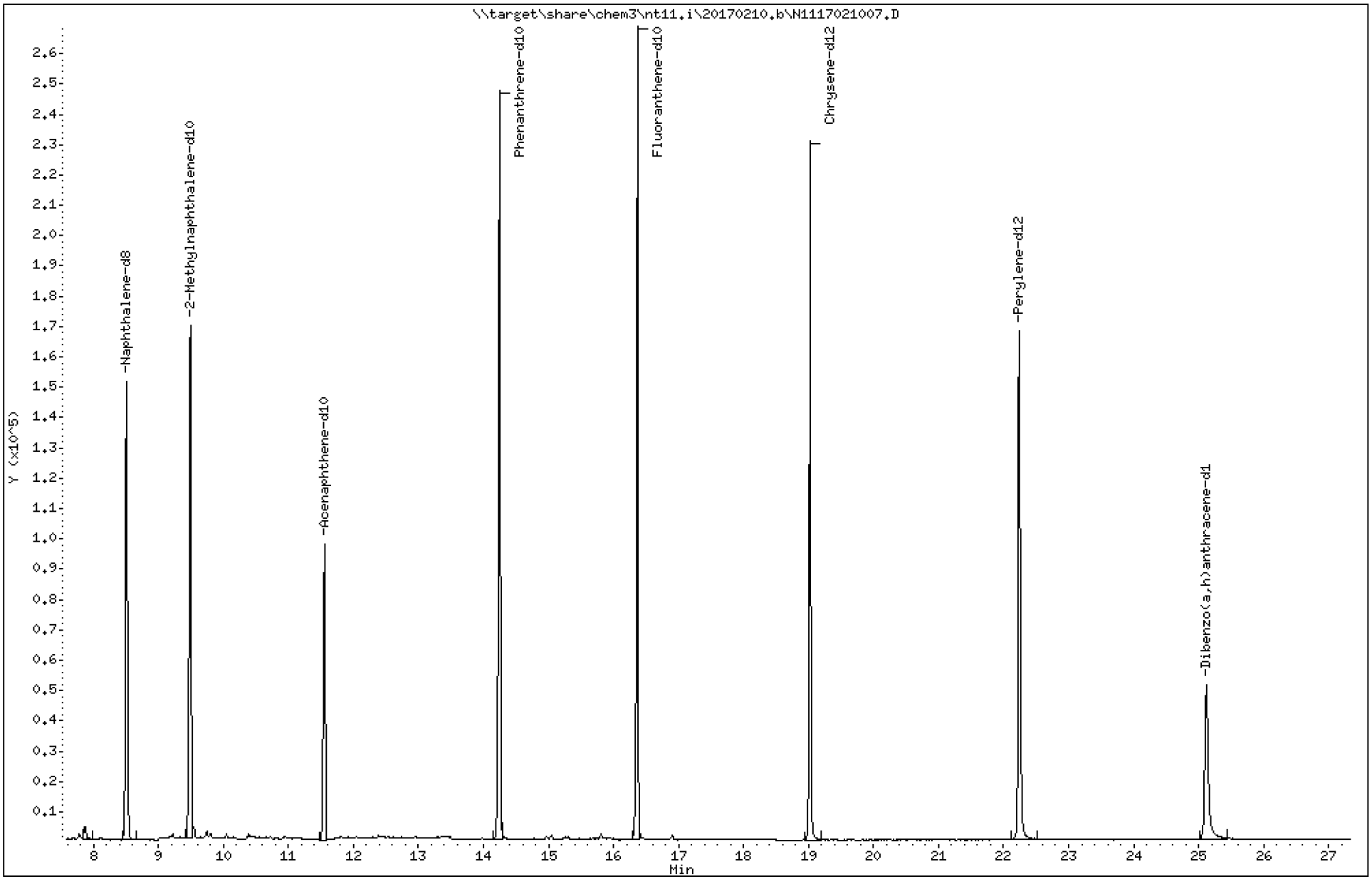
Sample Info: BFA0647-BLK1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

1059



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20170210.b\N1117021007.D
Lab Smp Id: BFA0647-BLK1
Inj Date : 10-FEB-2017 14:40 MS Autotune Date: 15-JAN-2015 15:59
Operator : VTS Inst ID: nt11.i
Smp Info : BFA0647-BLK1
Misc Info :
Comment   :
Method   : \\target\share\chem3\nt11.i\20170210.b\LOWSIM.m
Meth Date : 11-Feb-2017 08:35 nt11.i Quant Type: ISTD
Cal Date : 31-DEC-2016 09:30 Cal File: N1116123104.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14
Processing Host: VANS

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
*	1	Naphthalene-d8	136	8.509	8.526	(1.000)	263642	200.000	
	2	Naphthalene	128	Compound Not Detected.					
	3	Benzo(b)thiophene	134	Compound Not Detected.					
$	4	2-Methylnaphthalene-d10	152	9.498	9.508	(1.116)	178402	157.562	158
	5	2-Methylnaphthalene	142	Compound Not Detected.					
	6	1-Methylnaphthalene	142	Compound Not Detected.					
	7	2-Chloronaphthalene	162	Compound Not Detected.					
	8	Biphenyl	154	Compound Not Detected.					
	9	2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10	Acenaphthylene	152	Compound Not Detected.					
*	11	Acenaphthene-d10	164	11.555	11.564	(1.000)	181252	200.000	
	12	Acenaphthene	153	Compound Not Detected.					
	13	Dibenzofuran	168	Compound Not Detected.					
	14	2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15	Fluorene-d10	174	Compound Not Detected.					
	16	Fluorene	166	Compound Not Detected.					
	17	Dibenzothiophene	184	Compound Not Detected.					
*	18	Phenanthrene-d10	188	14.252	14.262	(1.000)	354769	200.000	
	19	Phenanthrene	178	Compound Not Detected.					
$	20	Anthracene-d10	188	Compound Not Detected.					
	21	Anthracene	178	Compound Not Detected.					
	22	Carbazole	167	Compound Not Detected.					
	23	1-Methylphenanthrene	192	Compound Not Detected.					
$	24	Fluoranthene-d10	212	16.367	16.367	(1.148)	363062	192.680	193
	25	Fluoranthene	202	Compound Not Detected.					
	26	Pyrene	202	Compound Not Detected.					
	27	Benzo(a)anthracene	228	Compound Not Detected.					
*	28	Chrysene-d12	240	19.024	19.024	(1.000)	344497	200.000	
	29	Chrysene	228	Compound Not Detected.					
	30	Benzo(b)fluoranthene	252	Compound Not Detected.					
	31	Benzo(k)fluoranthene	252	Compound Not Detected.					
	32	Benzo(j)fluoranthene	252	Compound Not Detected.					
$	33	Benzo(e)pyrene-d12	264	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
34	Benzo(e)pyrene	252	Compound Not Detected.					
35	Benzo(a)pyrene	252	Compound Not Detected.					
* 36	Perylene-d12	264	22.240	22.240	(1.000)	338290	200.000	
37	Perylene	252	Compound Not Detected.					
$ 38	Dibenzo(a,h)anthracene-d14	292	25.116	25.116	(1.129)	210633	194.972	195
39	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
40	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
41	Benzo(g,h,i)perylene	276	Compound Not Detected.					

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: N1117021007.D
Lab Smp Id: BFA0647-BLK1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20170210.b\LOWSIM.m
Misc Info:

Calibration Date: 10-FEB-2017
Calibration Time: 13:29
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	219654	109827	439308	263642	20.03
11 Acenaphthene-d10	135248	67624	270496	181252	34.01
18 Phenanthrene-d10	257021	128511	514042	354769	38.03
28 Chrysene-d12	259511	129756	519022	344497	32.75
36 Perylene-d12	257535	128768	515070	338290	31.36

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.53	8.03	9.03	8.51	-0.21
11 Acenaphthene-d10	11.56	11.06	12.06	11.56	-0.08
18 Phenanthrene-d10	14.26	13.76	14.76	14.25	-0.07
28 Chrysene-d12	19.02	18.52	19.52	19.02	0.00
36 Perylene-d12	22.24	21.74	22.74	22.24	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1117021007.D

Lab ID: BFA0647-BLK1
nt11.i, 20170210.b\LOWSIM.m,   10-FEB-2017 14:40

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20170210.b\LOWSIM.m, allpna.sub = 3.0000

Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

LCS / LCS DUPLICATE RECOVERY

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	17A0053
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Matrix:	Tissue	Analyzed:	02/10/17 15:16
Batch:	BFA0647	Laboratory ID:	BFA0647-BS1
Preparation:	EPA 3550C-Mod (Ultrasonic)	Sequence Name:	LCS
Initial/Final:	10 g / 0.5 mL		

COMPOUND	SPIKE ADDED (ug/kg)	LCS CONCENTRATION (ug/kg)	LCS % REC. #	QC LIMITS REC.
Naphthalene	15.0	7.80	52.0	30 - 160
2-Methylnaphthalene	15.0	8.30	55.3	30 - 160
Acenaphthylene	15.0	6.66	44.4	30 - 160
Acenaphthene	15.0	7.66	51.1	30 - 160
Dibenzofuran	15.0	8.55	57.0	30 - 160
Fluorene	15.0	8.86	59.1	30 - 160
Phenanthrene	15.0	9.32	62.2	30 - 160
Anthracene	15.0	7.56	50.4	30 - 160
Fluoranthene	15.0	9.36	62.4	30 - 160
Pyrene	15.0	9.70	64.7	30 - 160
Benzo(a)anthracene	15.0	9.47	63.1	30 - 160
Chrysene	15.0	9.91	66.1	30 - 160
Benzo(b)fluoranthene	15.0	10.9	72.4	30 - 160
Benzo(k)fluoranthene	15.0	9.90	66.0	30 - 160
Benzo(j)fluoranthene	15.0	10.8	72.0	30 - 160
Benzo(a)pyrene	15.0	8.07	53.8	30 - 160
Indeno(1,2,3-cd)pyrene	15.0	10.2	67.8	30 - 160
Dibenzo(a,h)anthracene	15.0	10.6	70.8	30 - 160
Benzo(g,h,i)perylene	15.0	9.81	65.4	30 - 160
1-Methylnaphthalene	15.0	7.95	53.0	30 - 160
2-Chloronaphthalene	15.0	7.51	50.0	30 - 160
Benzo(b)thiophene	15.0	7.79	52.0	30 - 160

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021008.D

Date : 10-FEB-2017 15:16

Client ID:

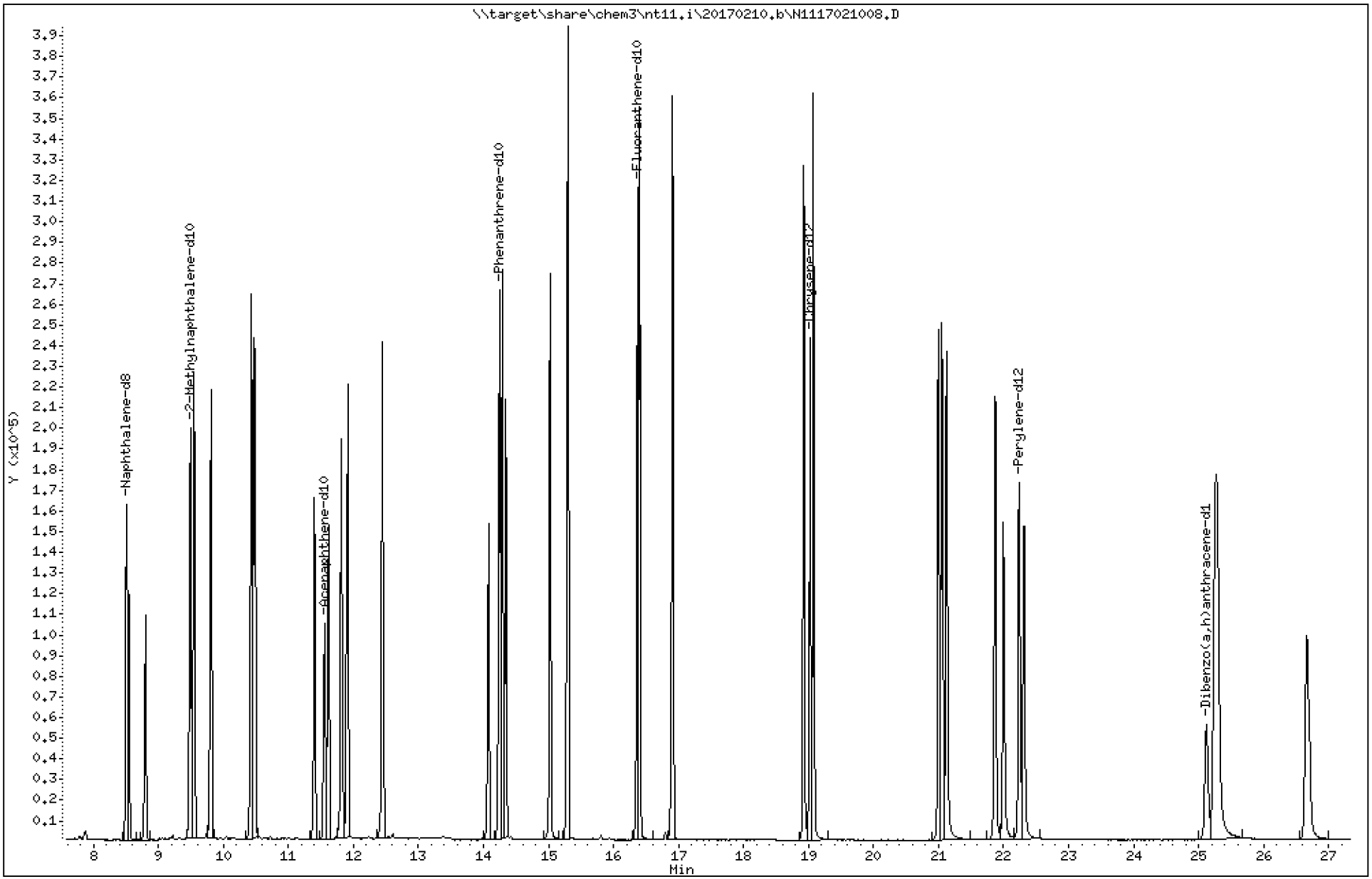
Instrument: nt11.i

Sample Info: BFA0647-BS1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

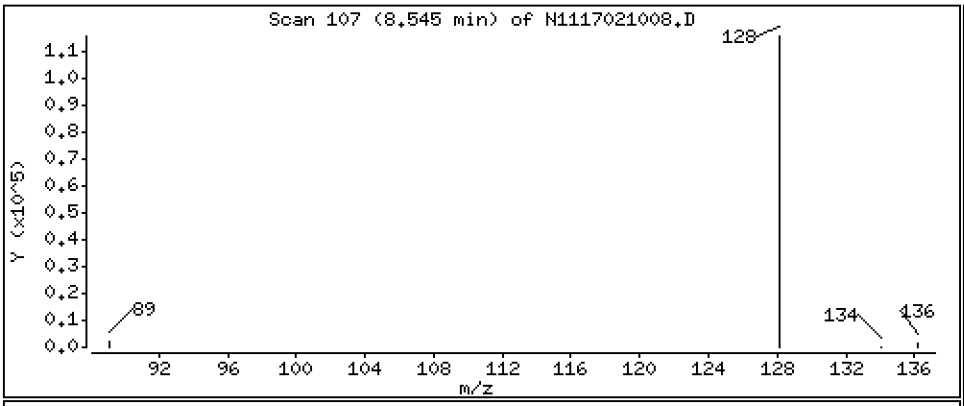
Operator: VTS

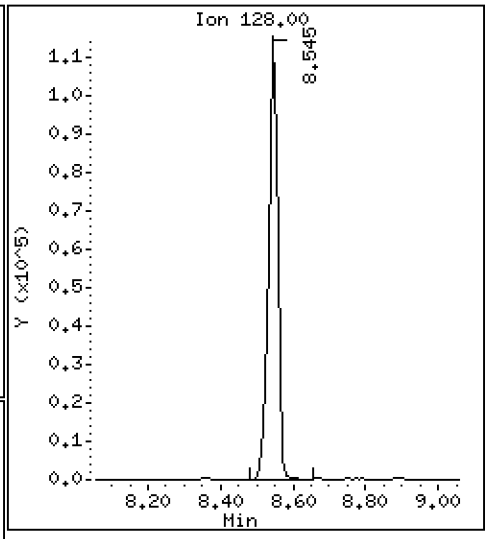
Column phase: Rxi-17Sil MS

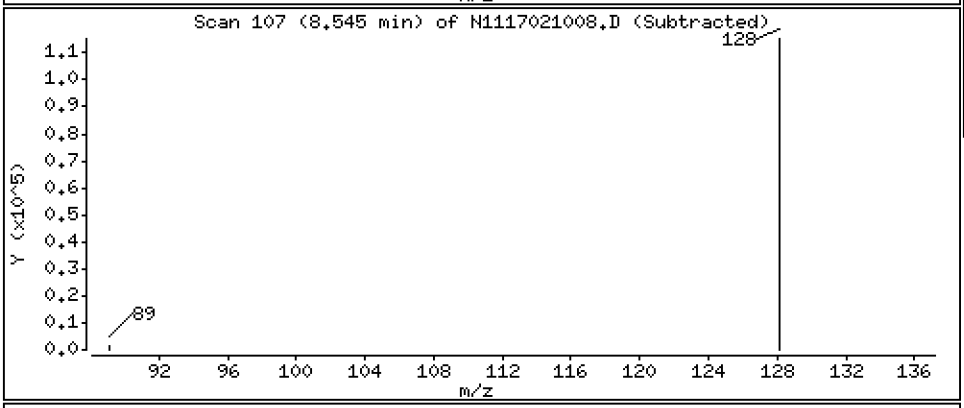
Column diameter: 0.25

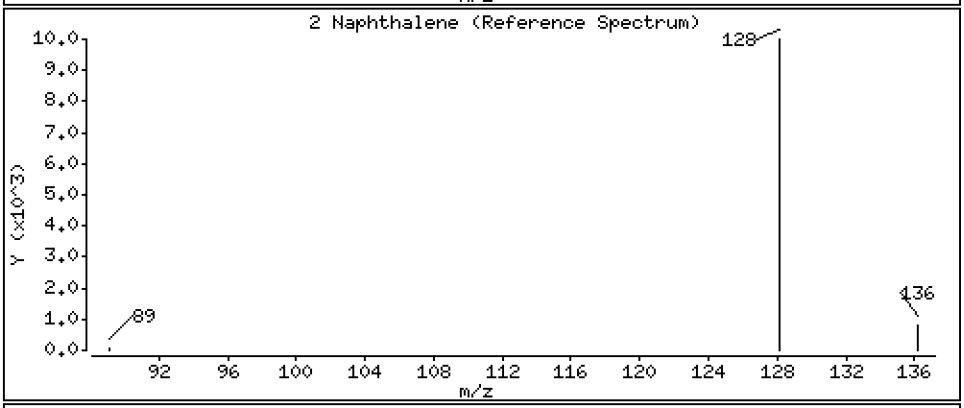
2 Naphthalene

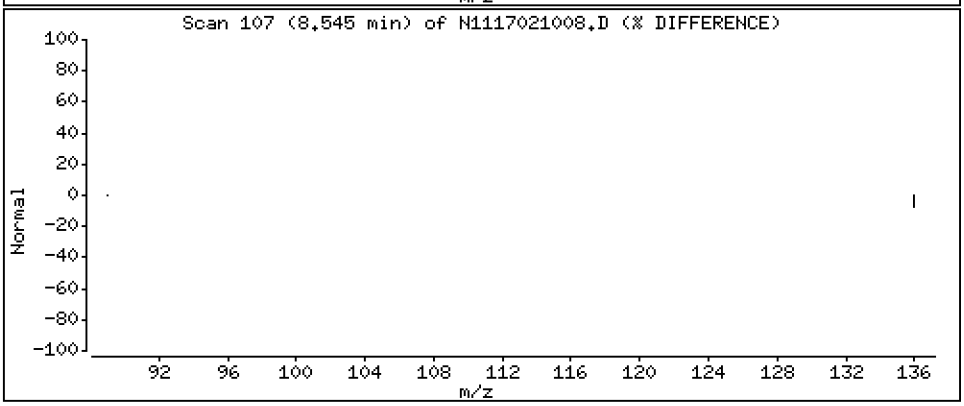
Concentration: 156 ng/mL











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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

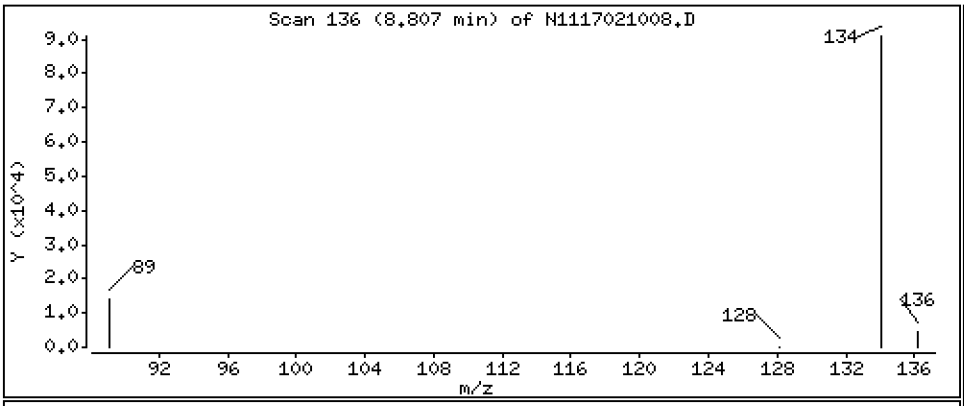
Operator: VTS

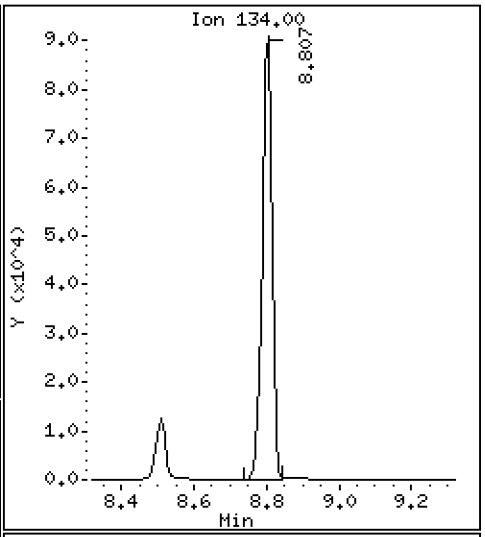
Column phase: Rxi-17Sil MS

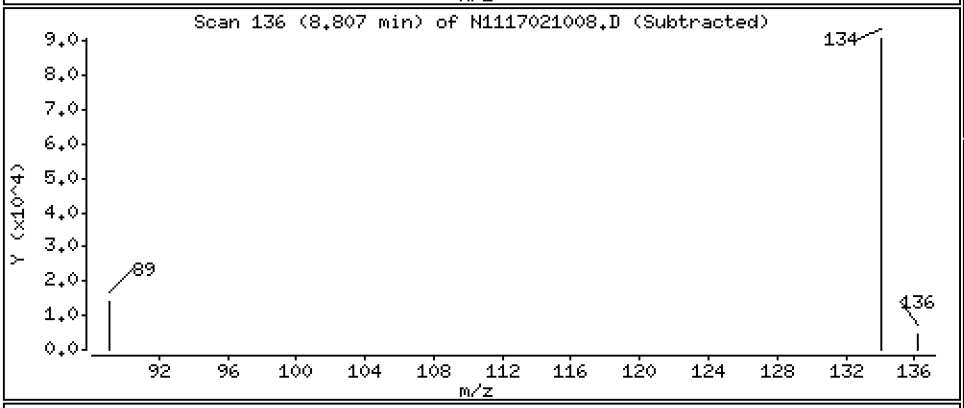
Column diameter: 0.25

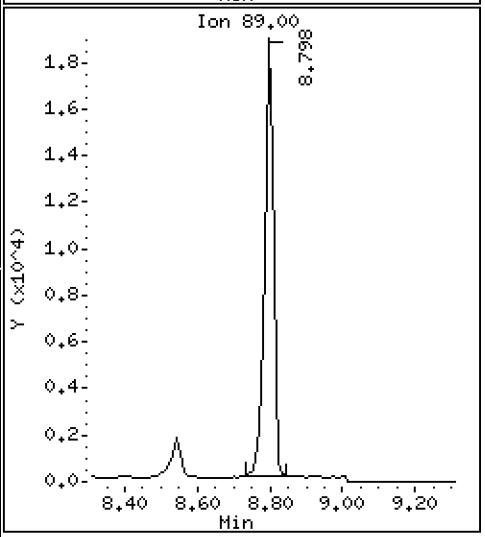
3 Benzo(b)thiophene

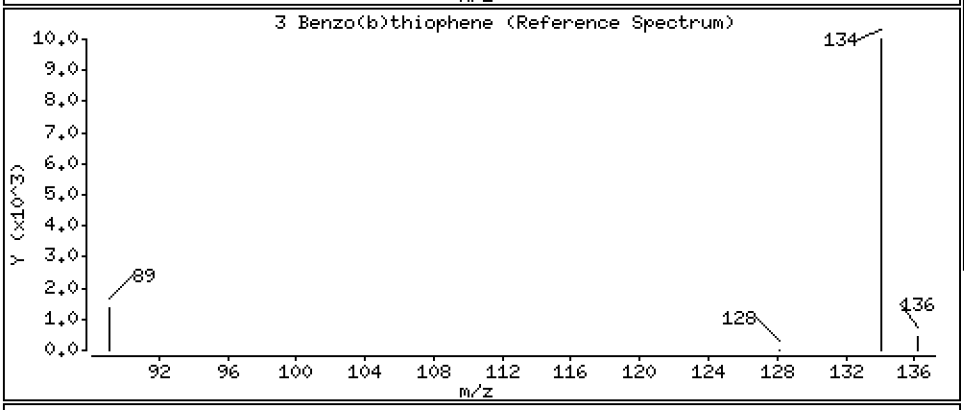
Concentration: 156 ng/mL

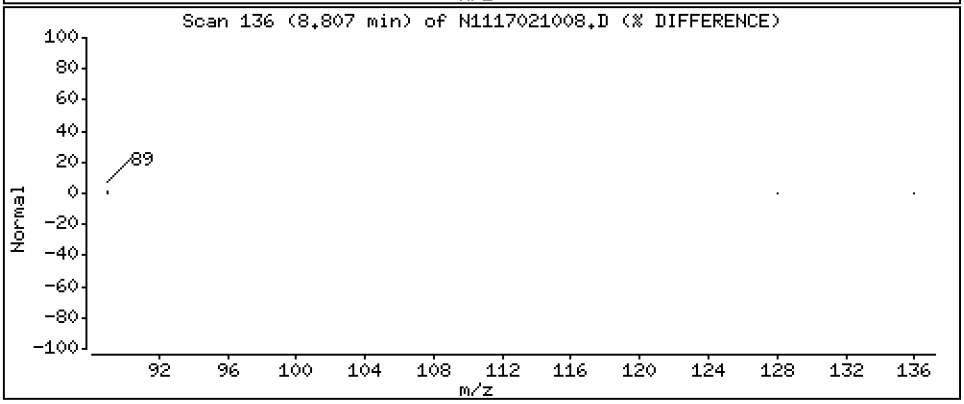












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

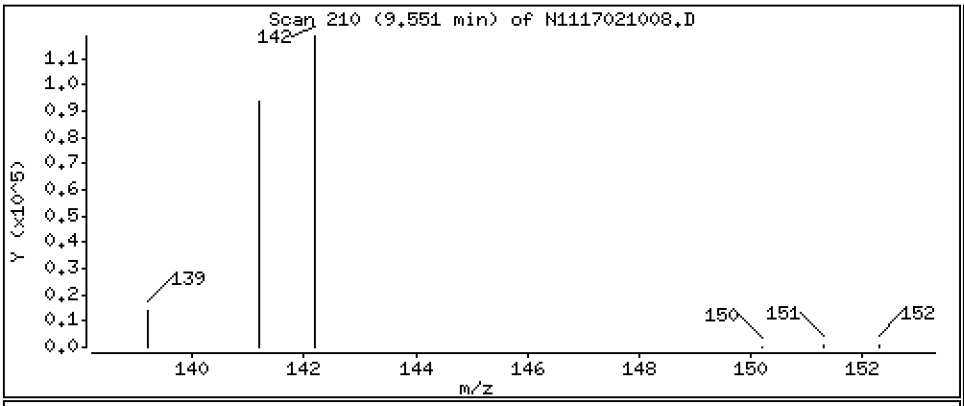
Operator: VTS

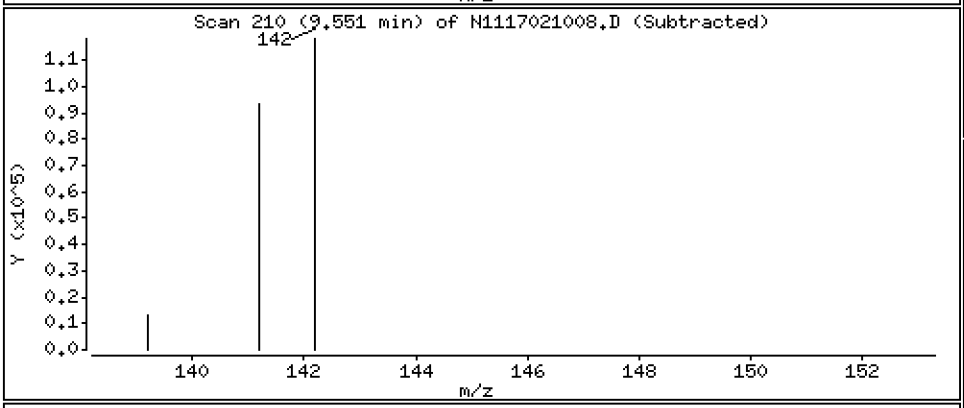
Column phase: Rxi-17Sil MS

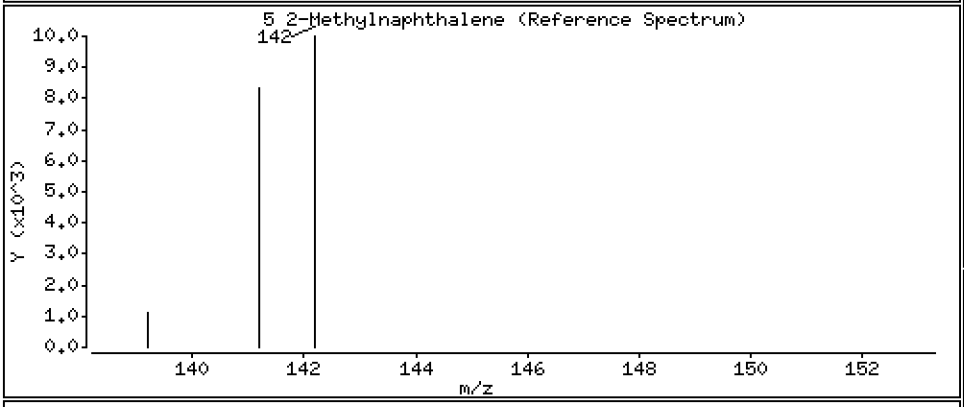
Column diameter: 0.25

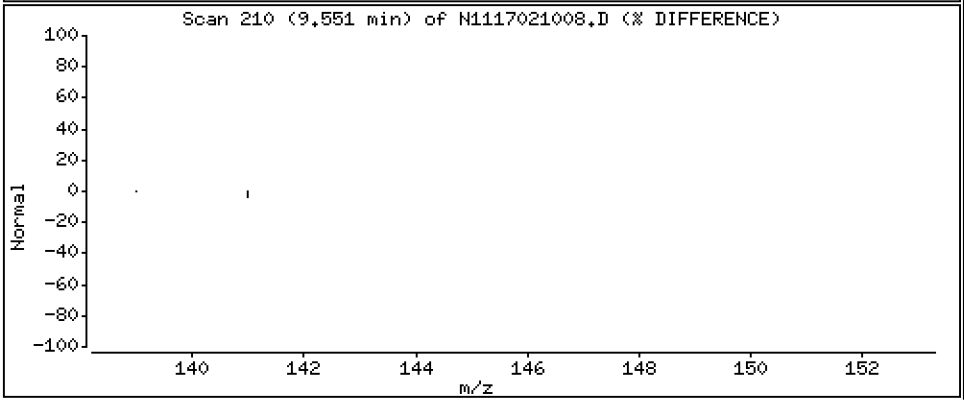
5 2-Methylnaphthalene

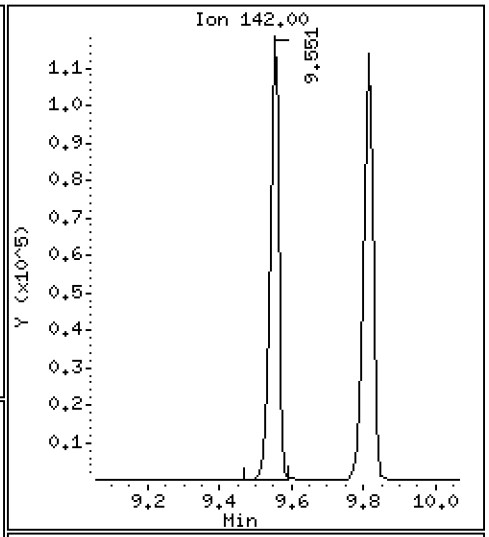
Concentration: 166 ng/mL

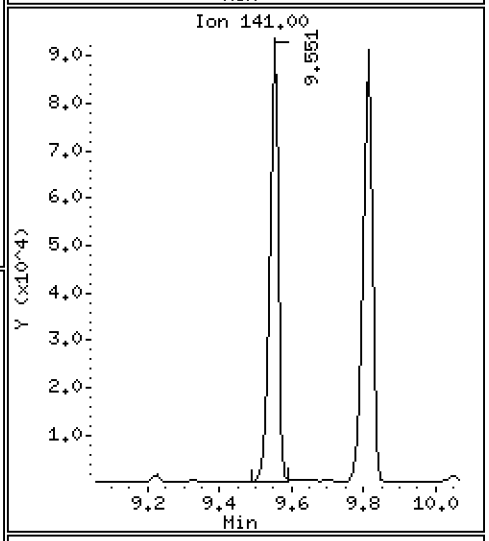


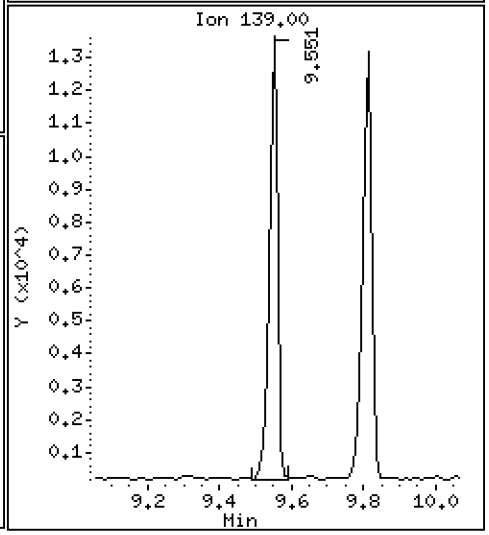












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021008.D

Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

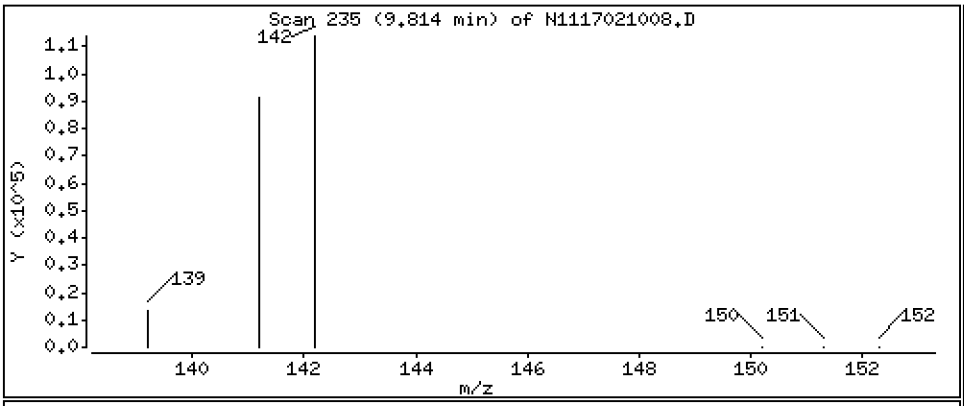
Operator: VTS

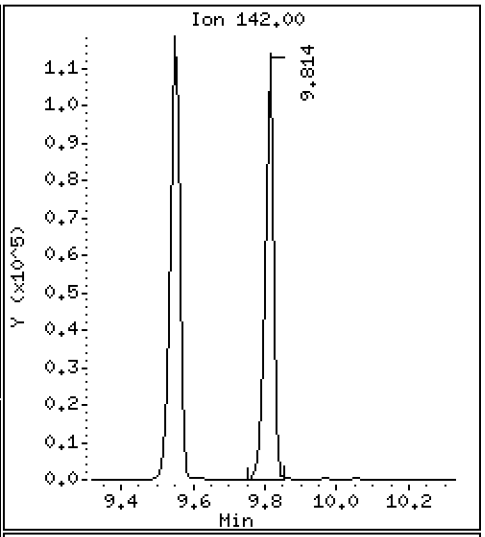
Column phase: Rxi-17Sil MS

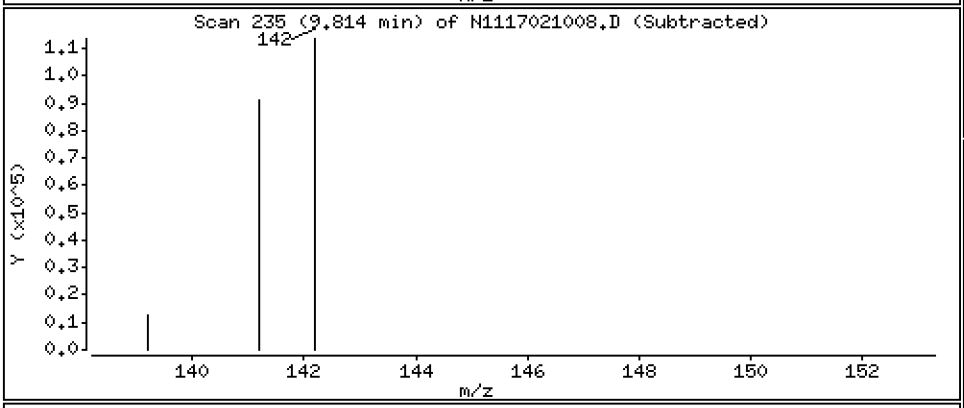
Column diameter: 0.25

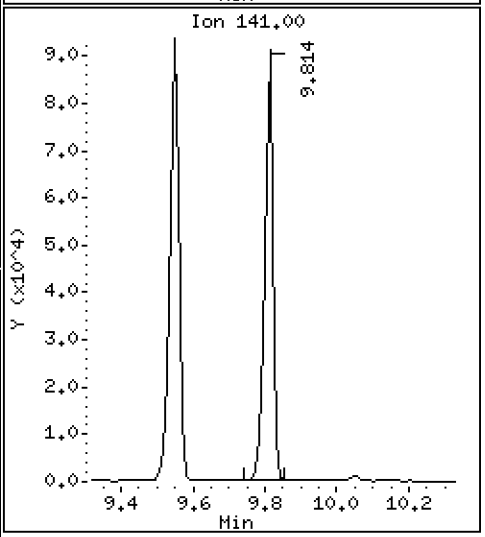
6 1-Methylnaphthalene

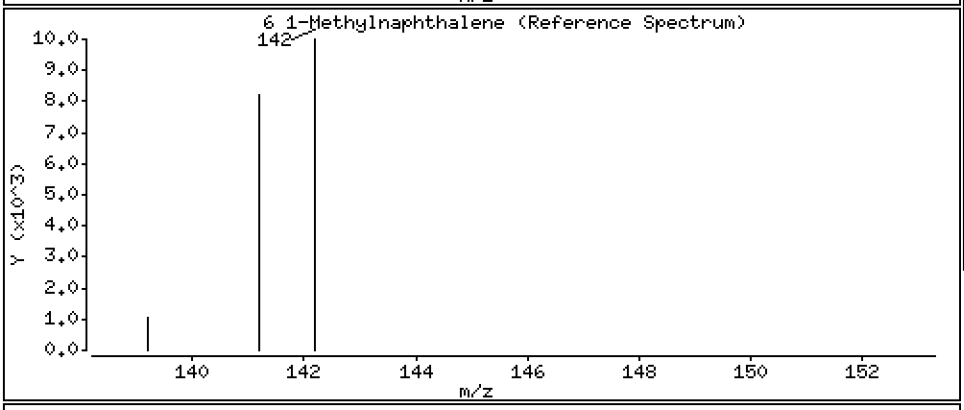
Concentration: 159 ng/mL

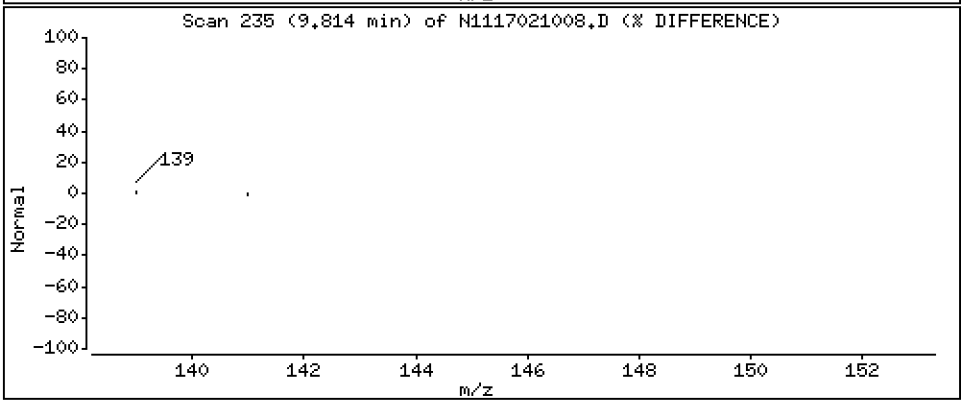












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

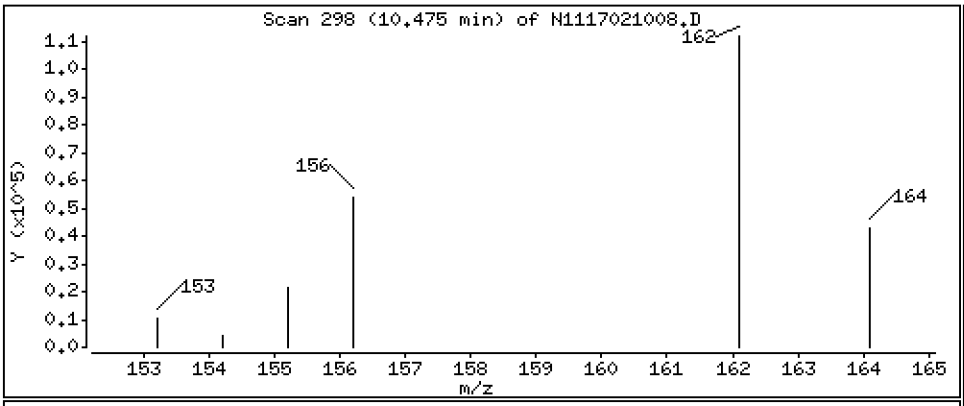
Operator: VTS

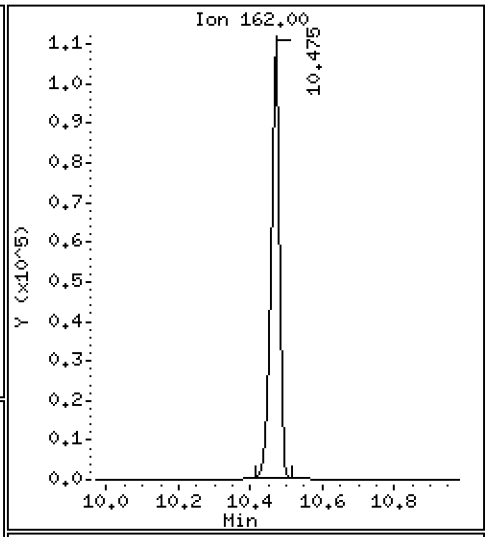
Column phase: Rxi-17Sil MS

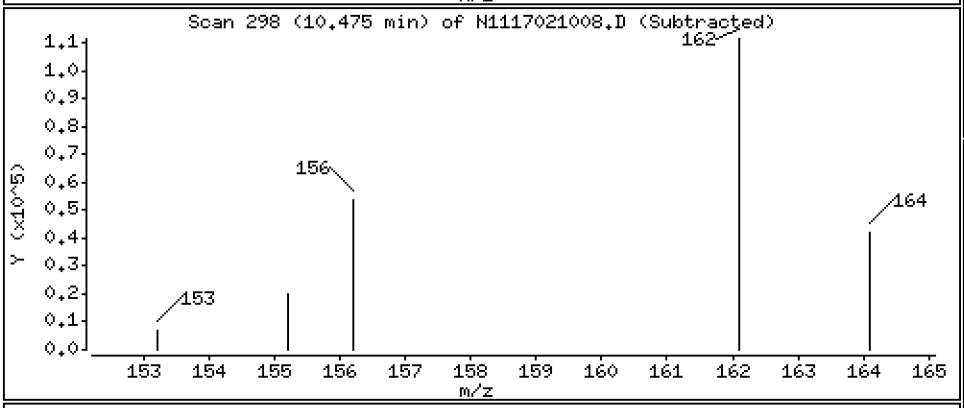
Column diameter: 0.25

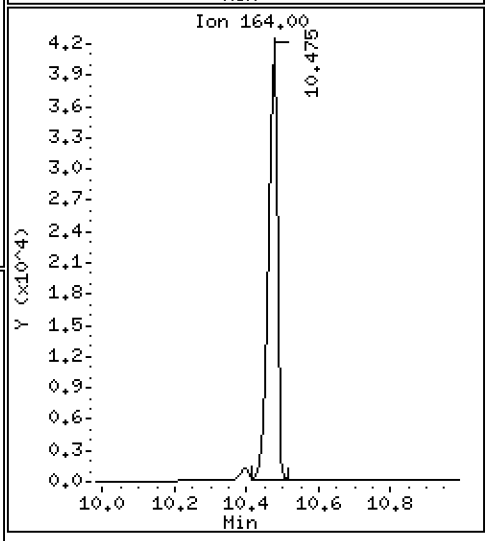
7 2-Chloronaphthalene

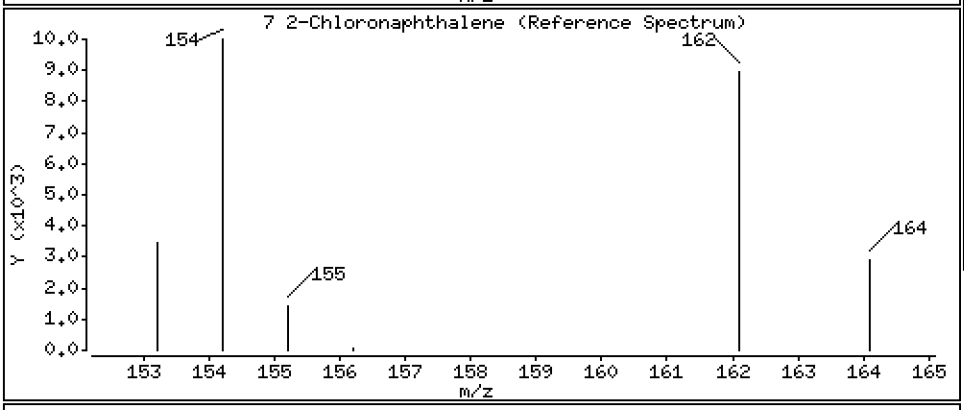
Concentration: 150 ng/mL

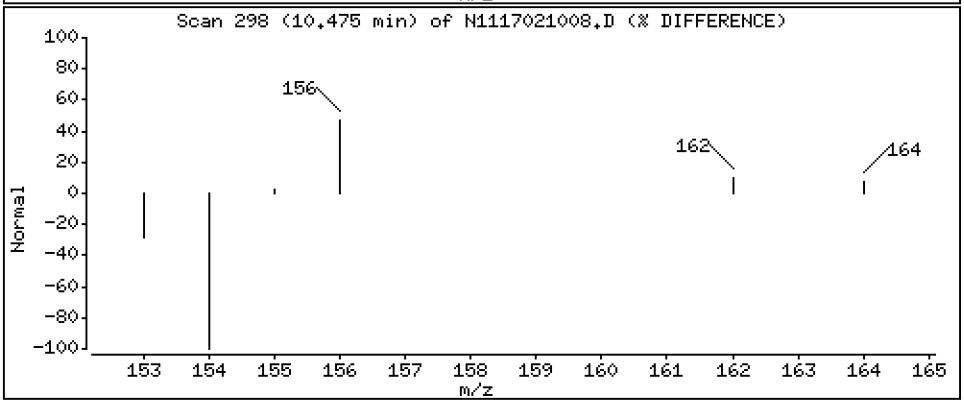












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

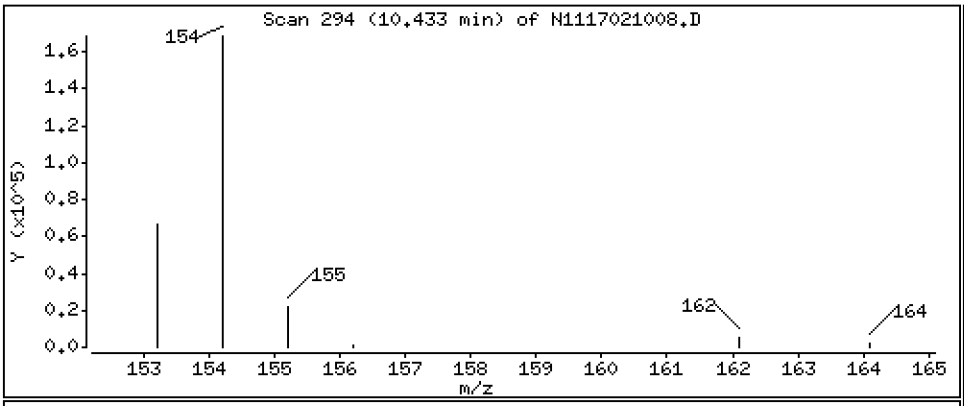
Operator: VTS

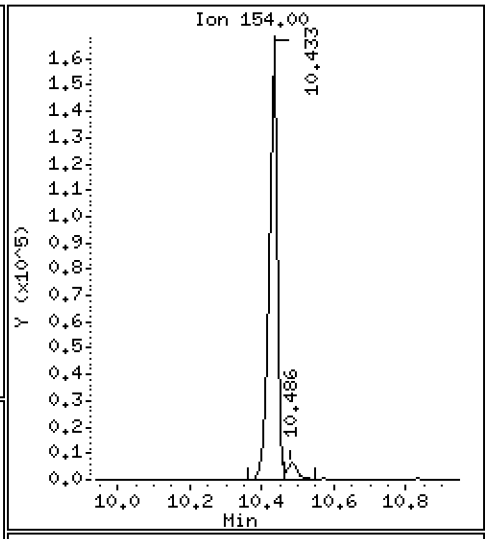
Column phase: Rxi-17Sil MS

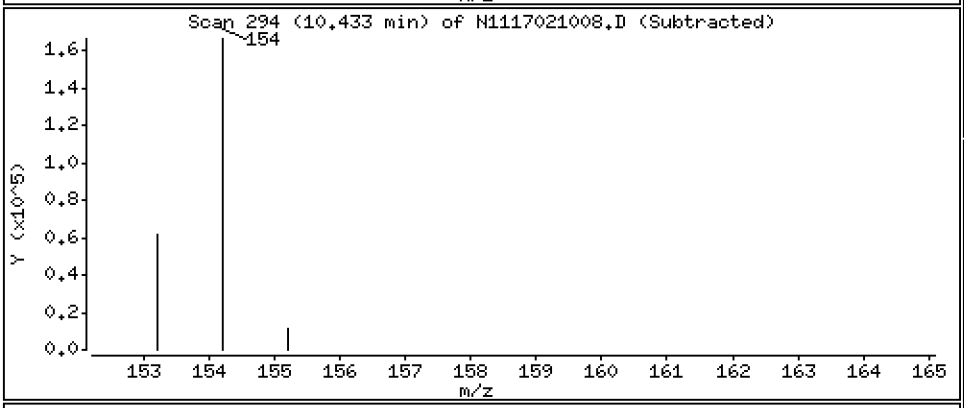
Column diameter: 0.25

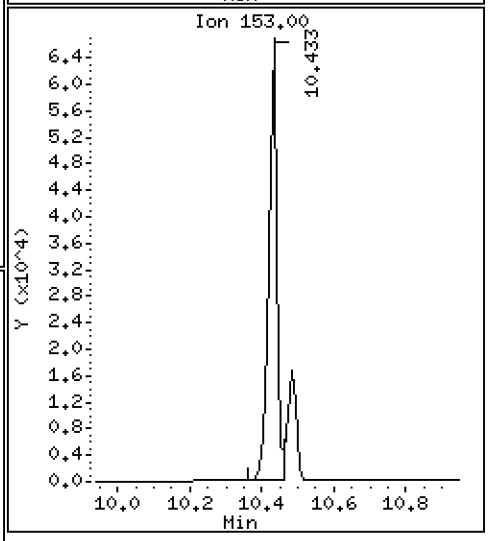
8 Biphenyl

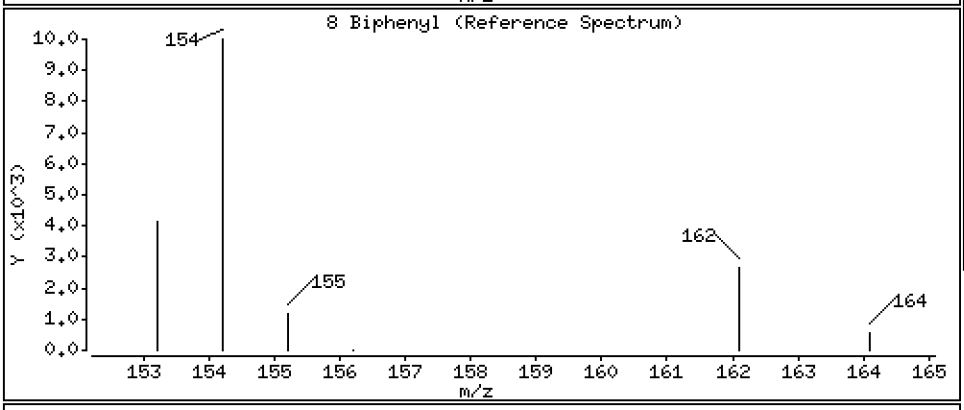
Concentration: 158 ng/mL

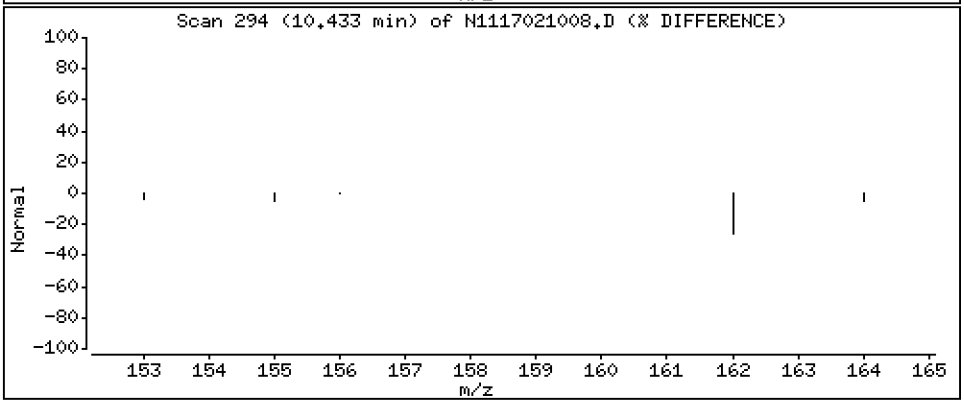












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

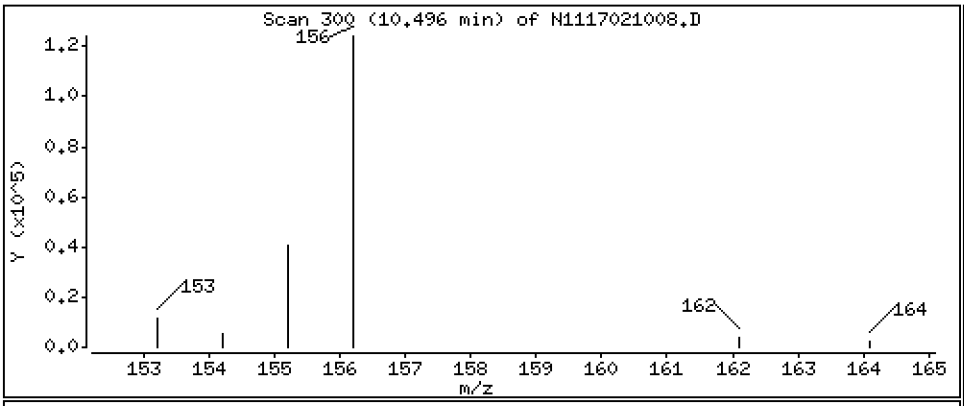
Operator: VTS

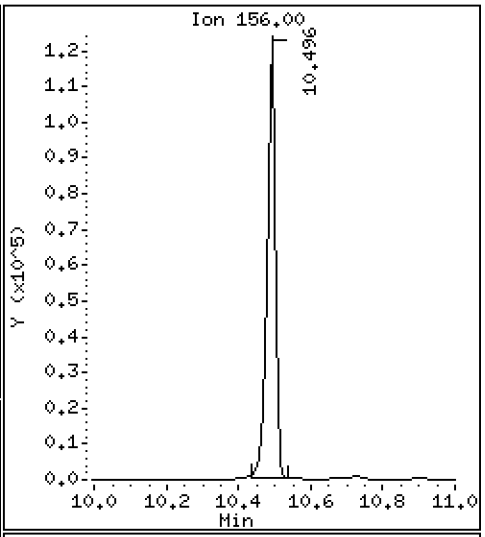
Column phase: Rxi-17Sil MS

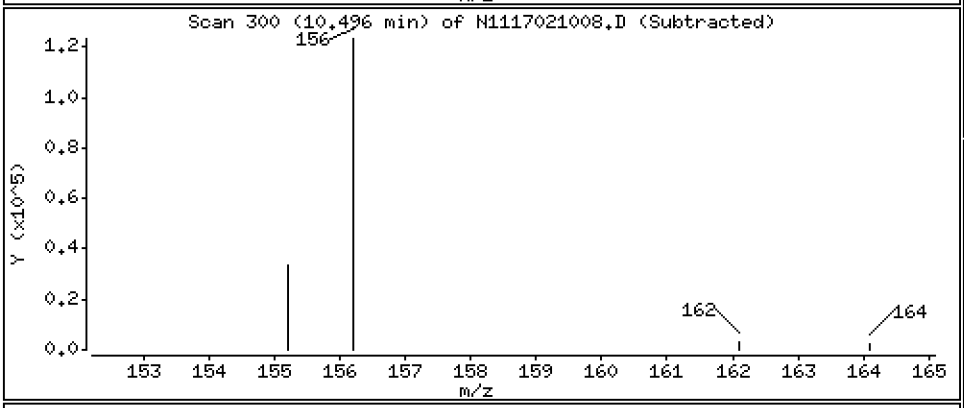
Column diameter: 0.25

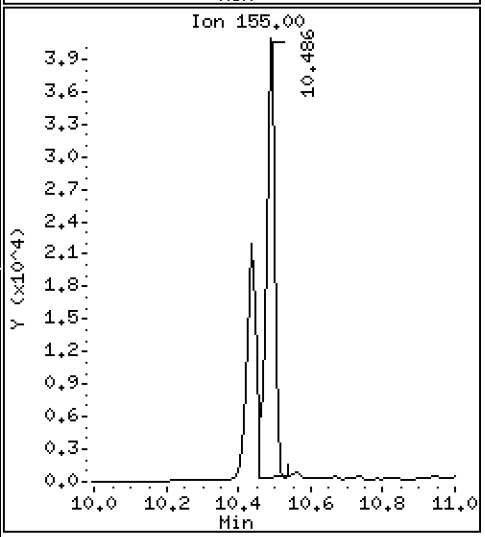
9 2,6-Dimethylnaphthalene

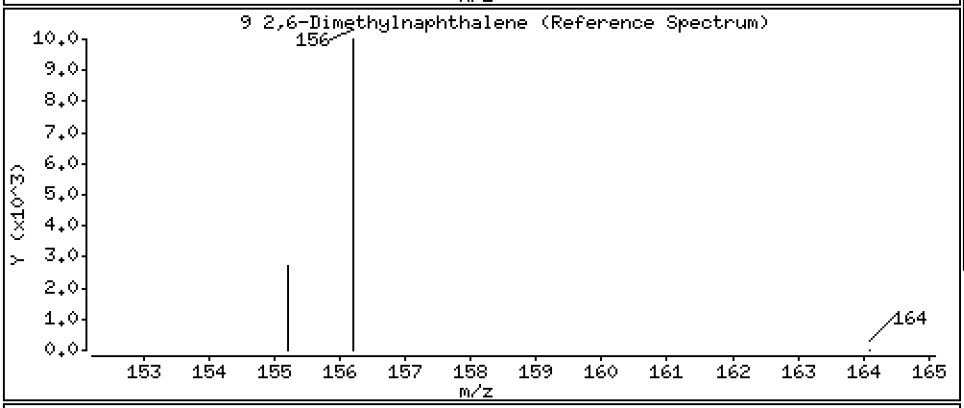
Concentration: 157 ng/mL

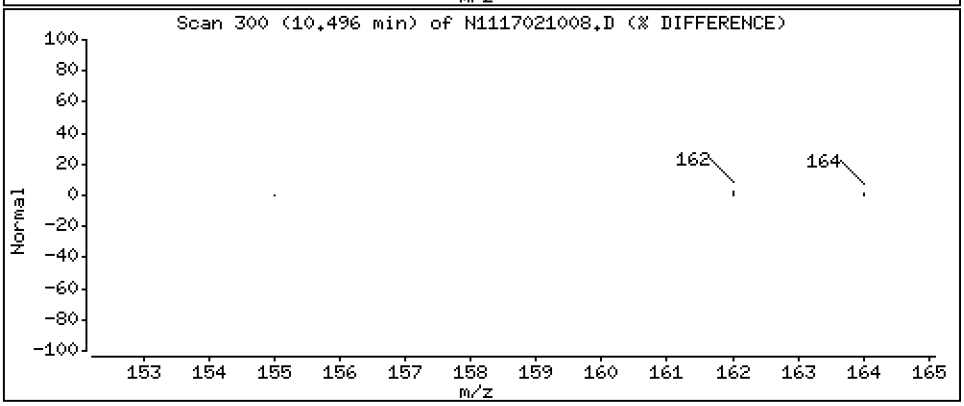












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

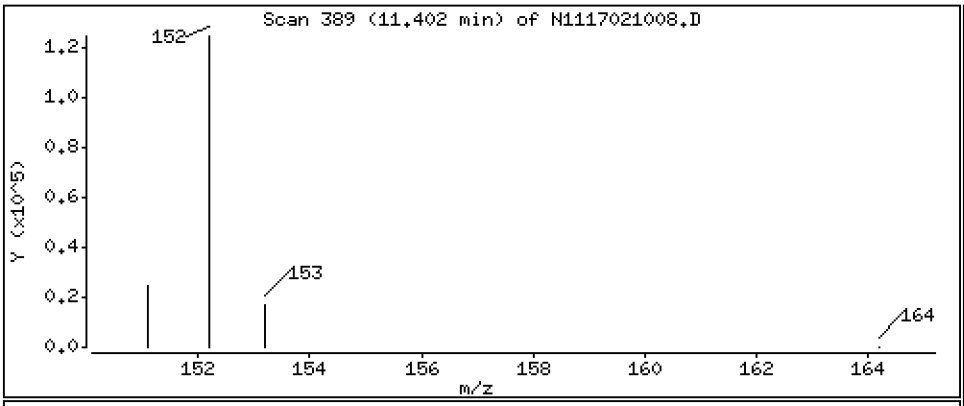
Operator: VTS

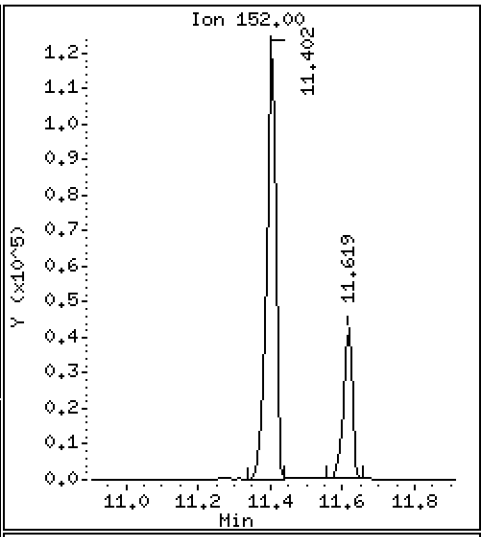
Column phase: Rxi-17Sil MS

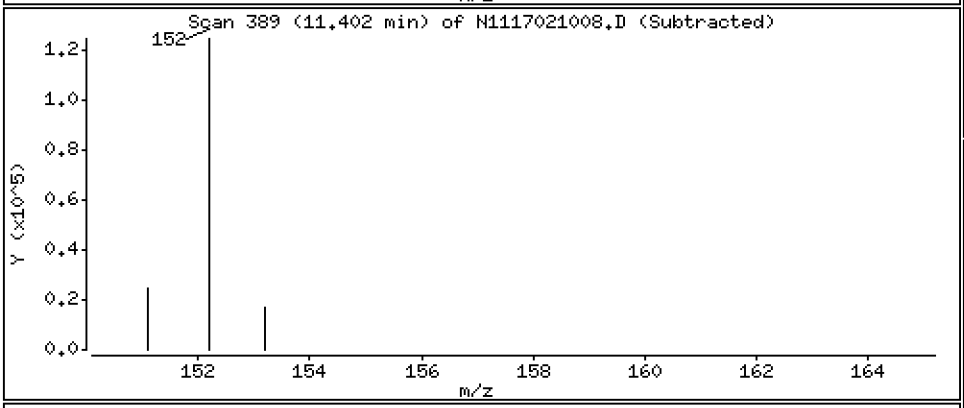
Column diameter: 0.25

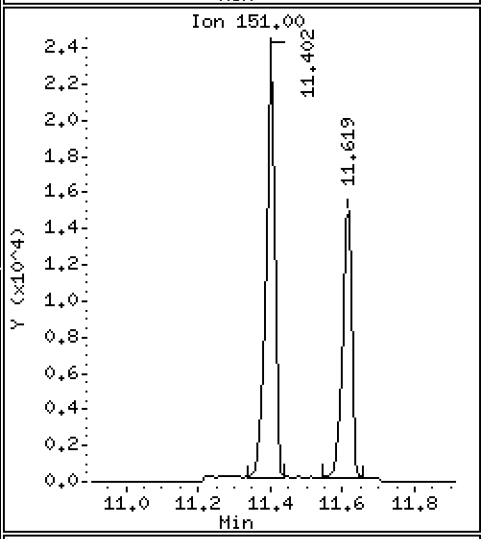
10 Acenaphthylene

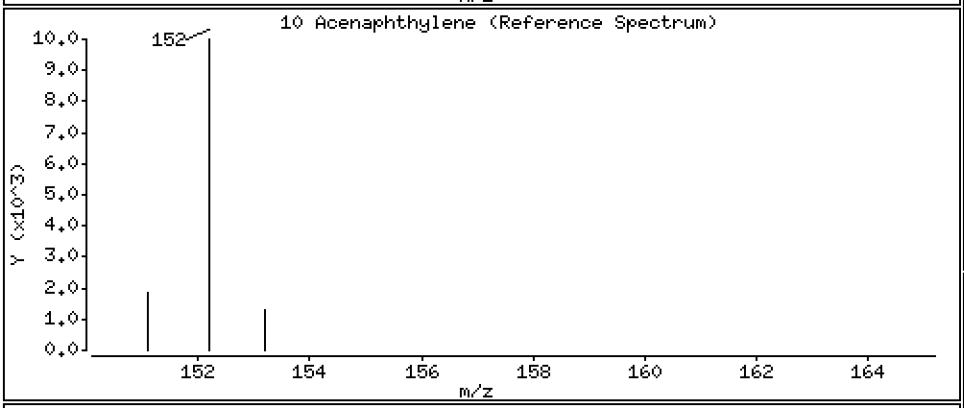
Concentration: 133 ng/mL

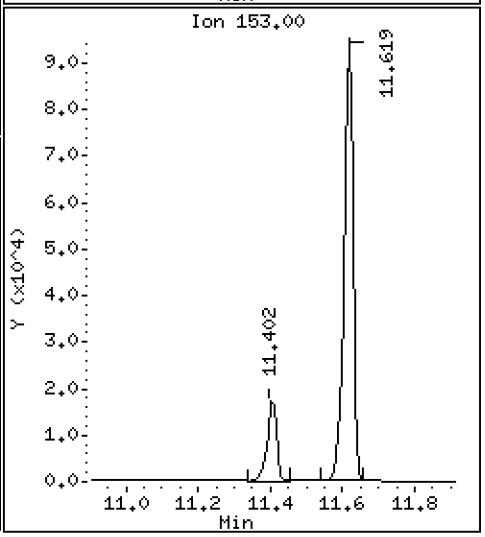


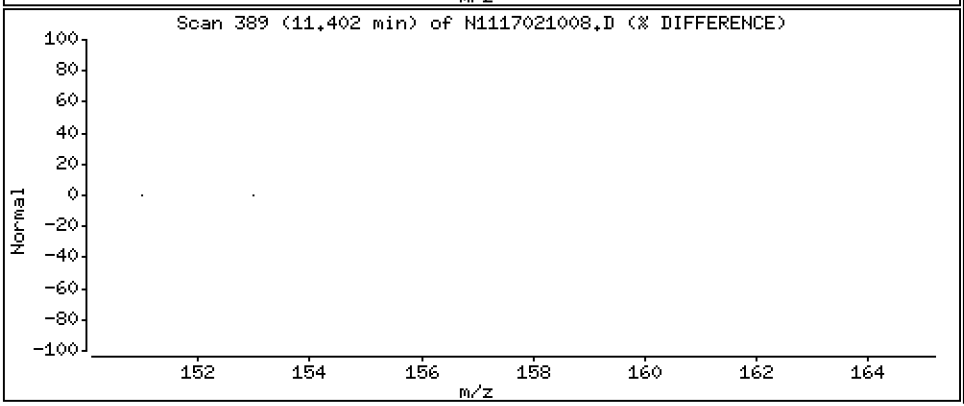












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

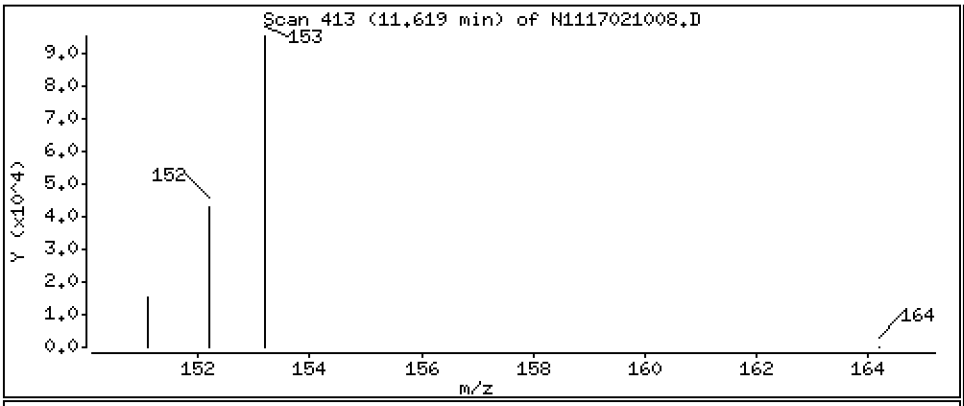
Operator: VTS

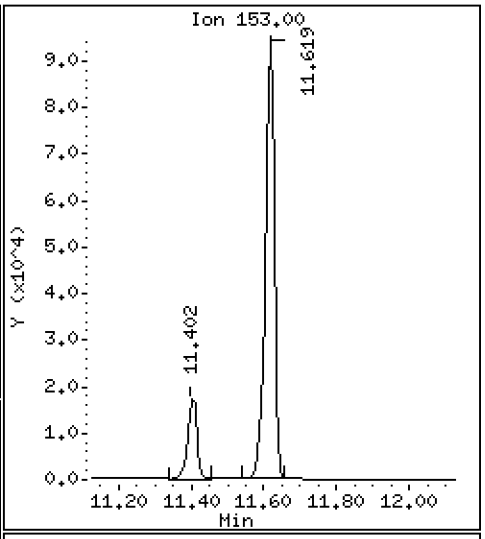
Column phase: Rxi-17Sil MS

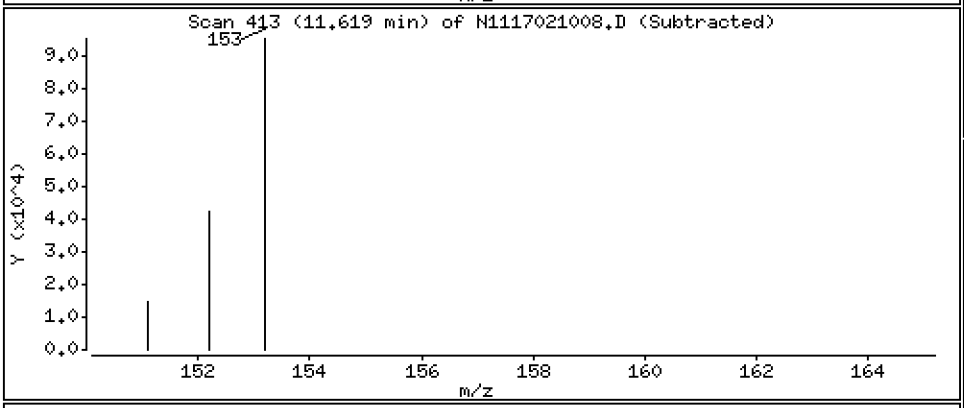
Column diameter: 0.25

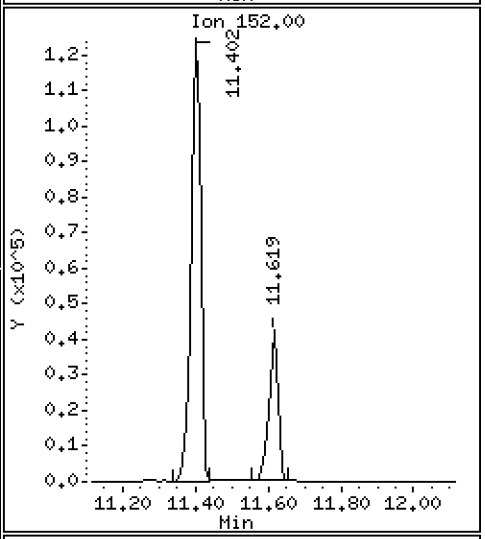
12 Acenaphthene

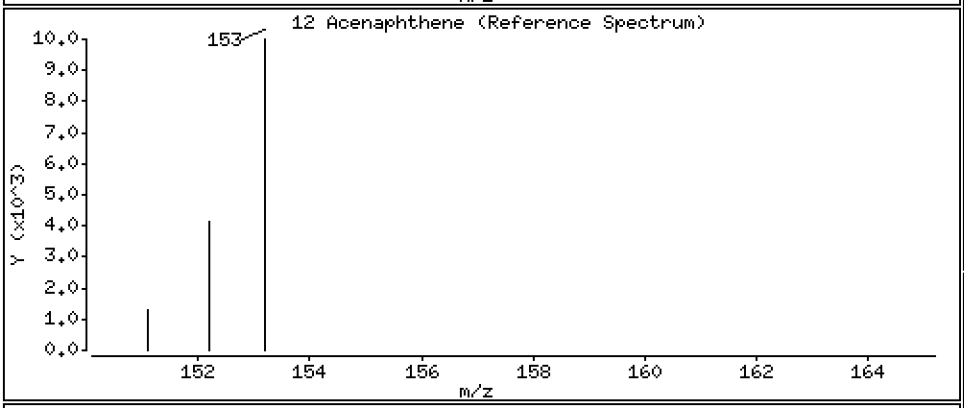
Concentration: 153 ng/mL

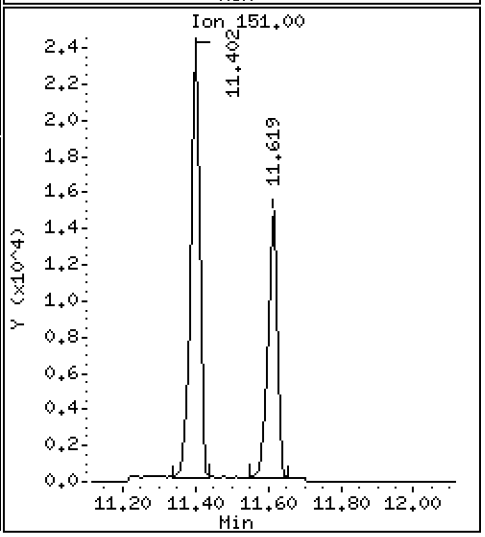


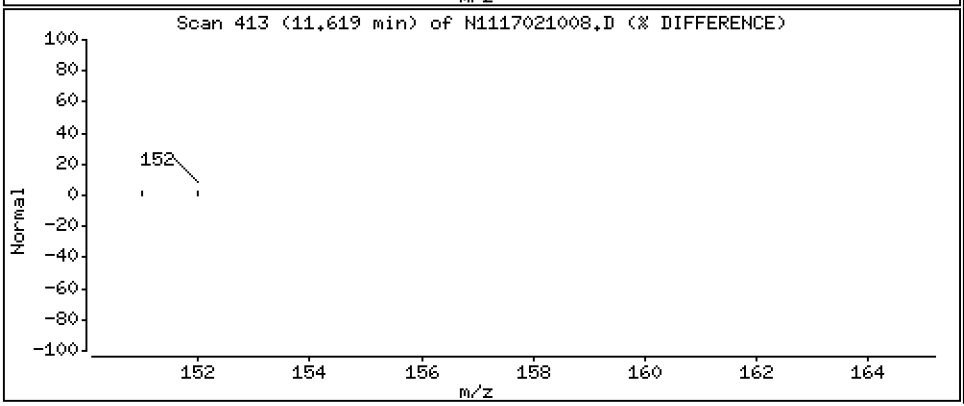












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

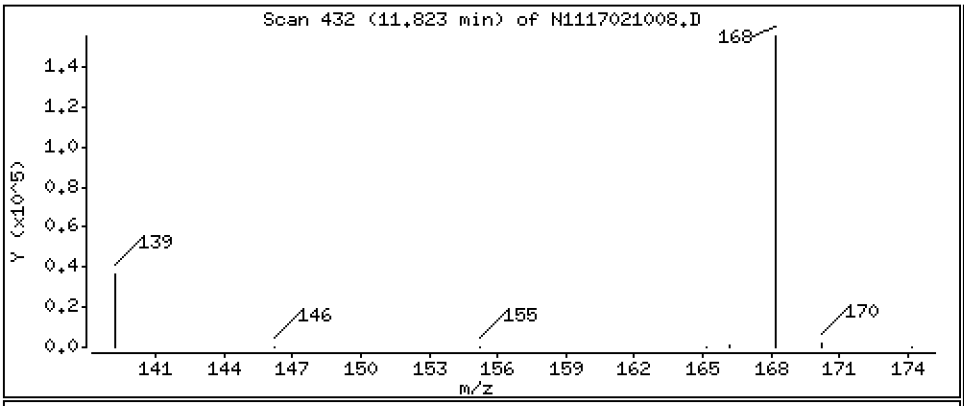
Operator: VTS

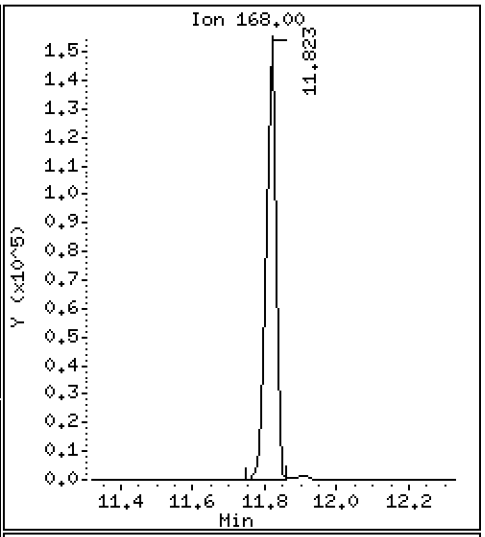
Column phase: Rxi-17Sil MS

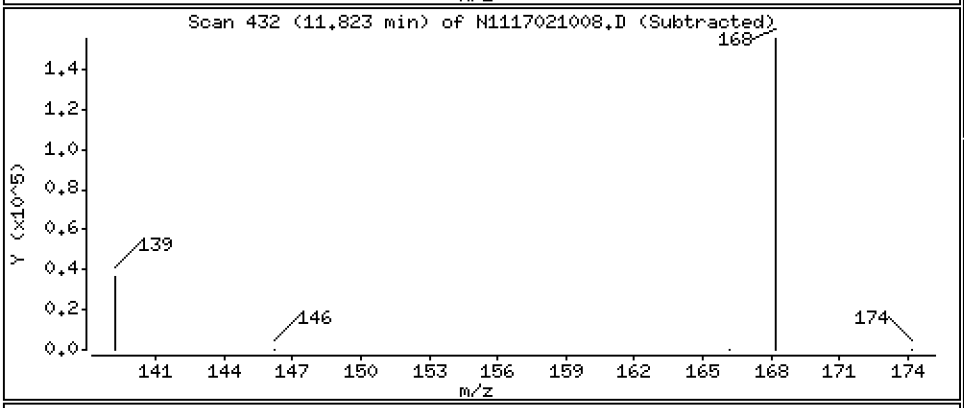
Column diameter: 0.25

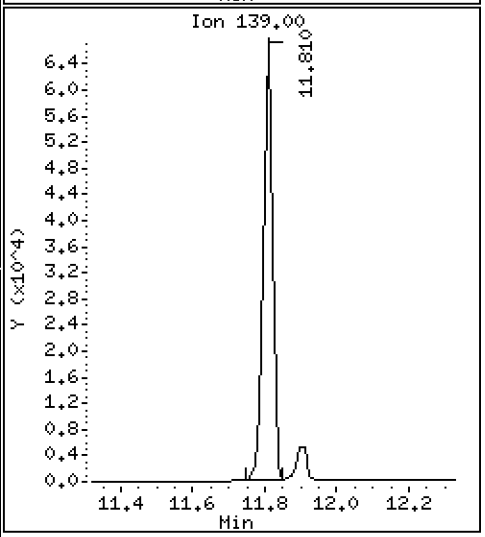
13 Dibenzofuran

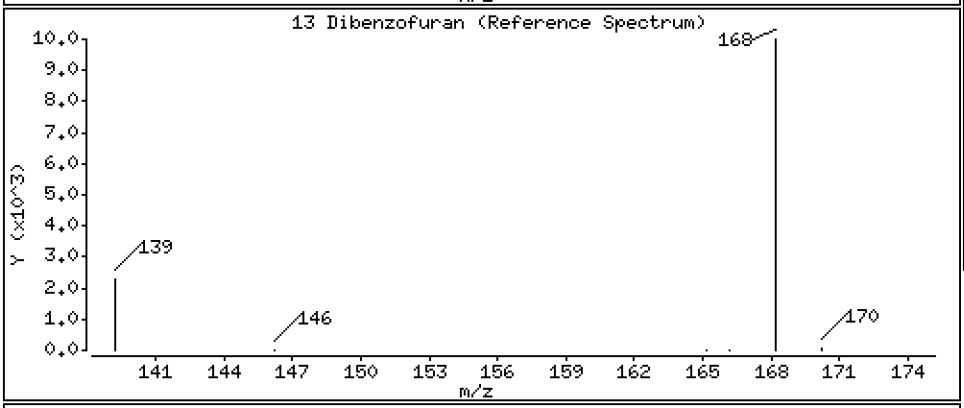
Concentration: 171 ng/mL

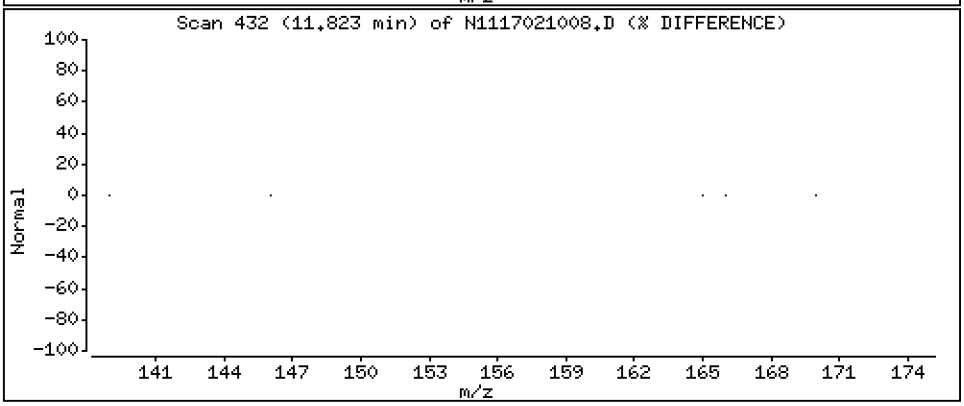












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

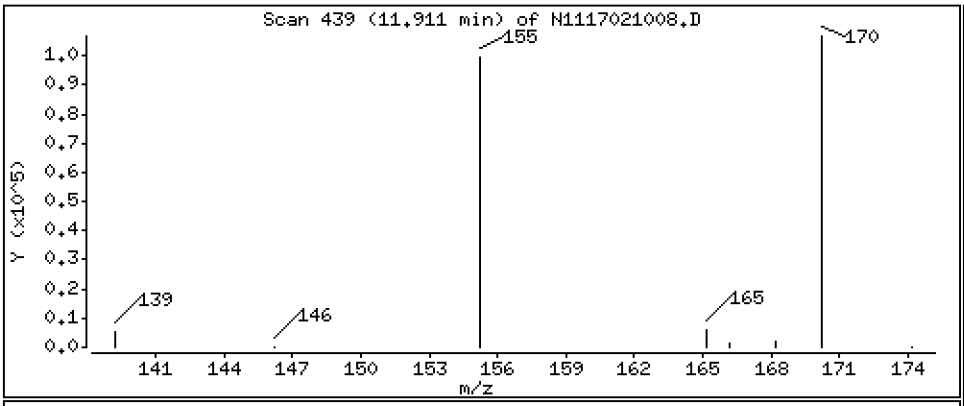
Operator: VTS

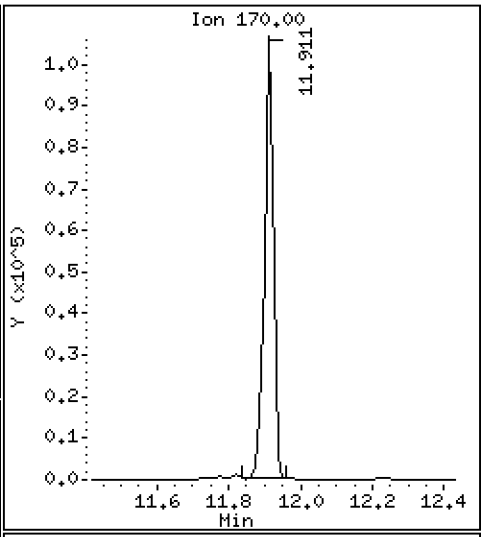
Column phase: Rxi-17Sil MS

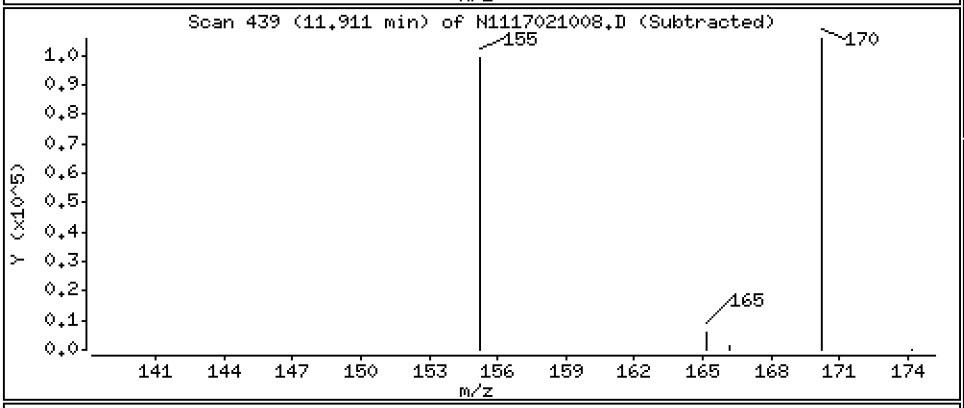
Column diameter: 0.25

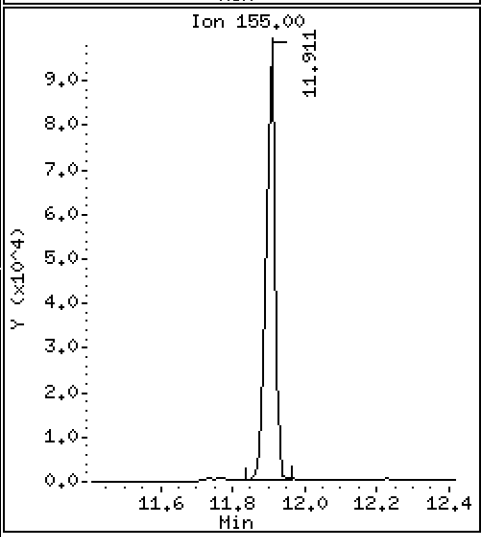
14 2,3,5-Trimethylnaphthalene

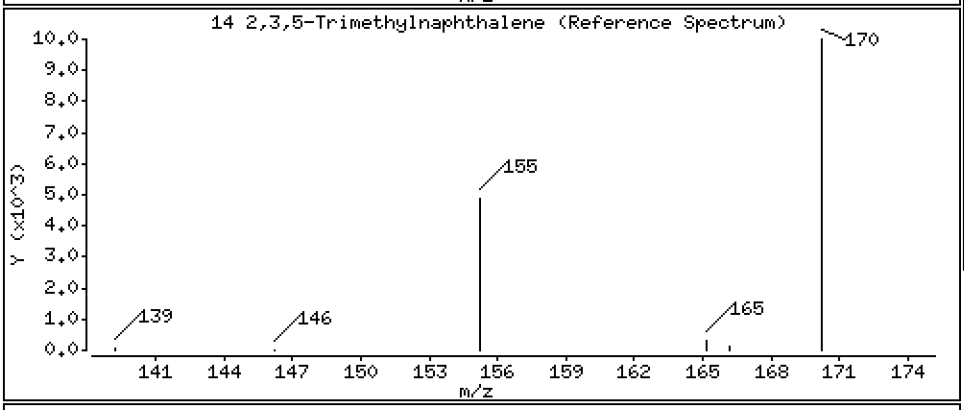
Concentration: 183 ng/mL

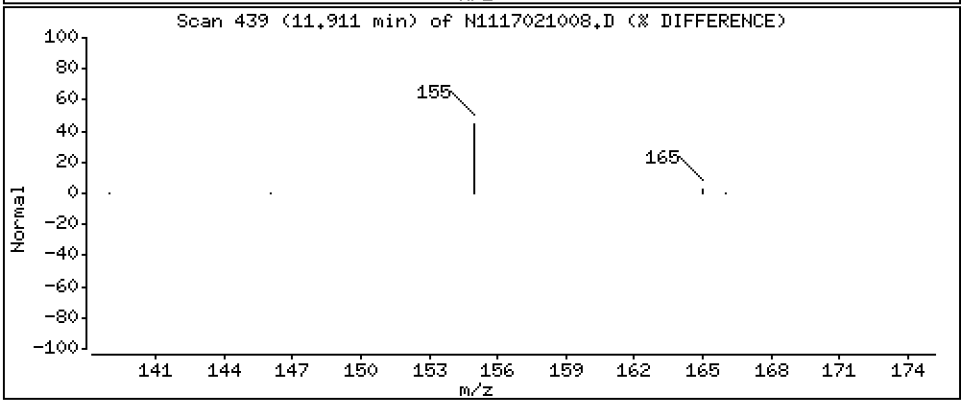












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

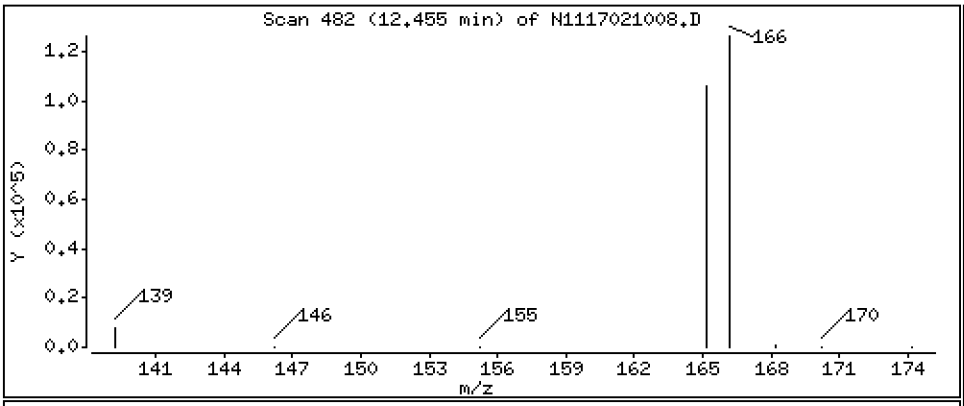
Operator: VTS

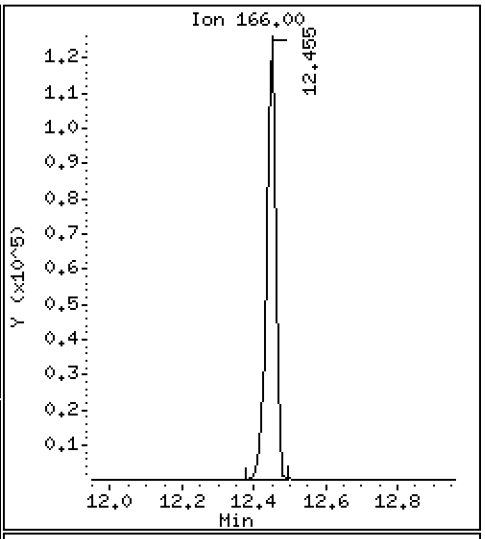
Column phase: Rxi-17Sil MS

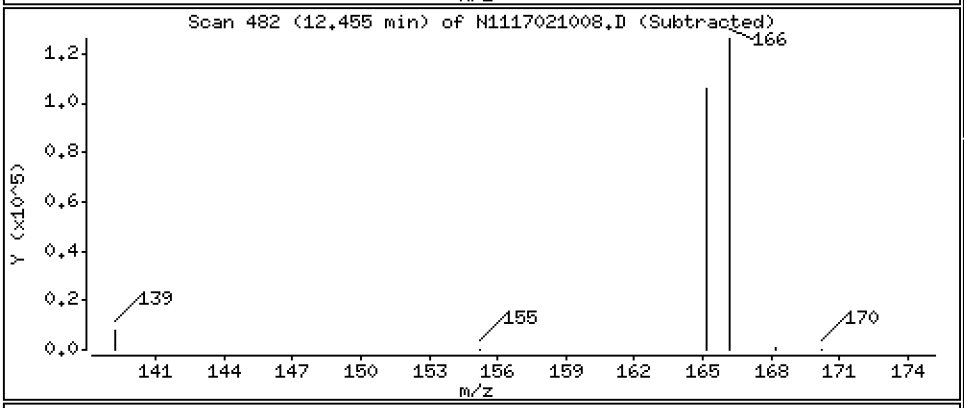
Column diameter: 0.25

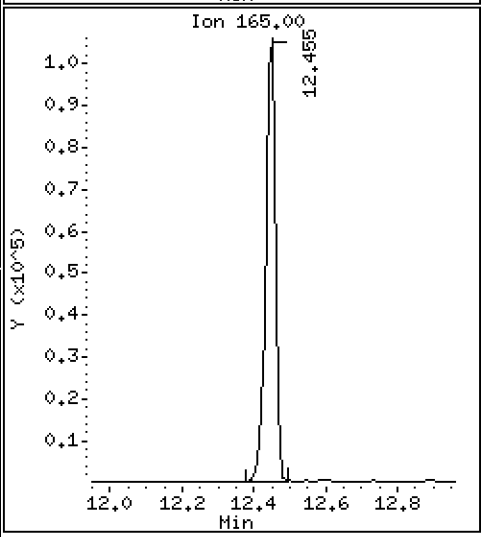
16 Fluorene

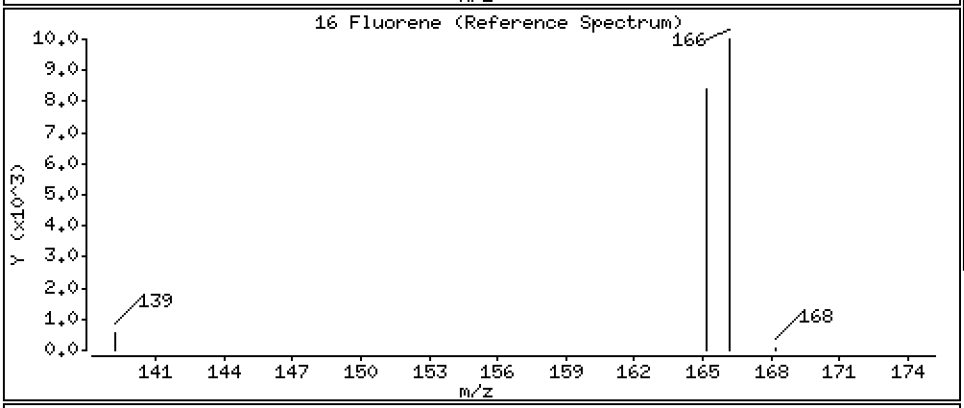
Concentration: 177 ng/mL

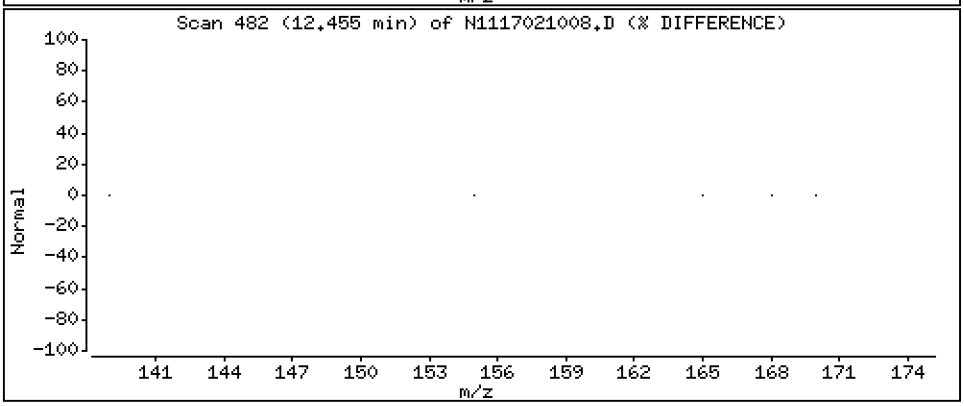












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021008.D

Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

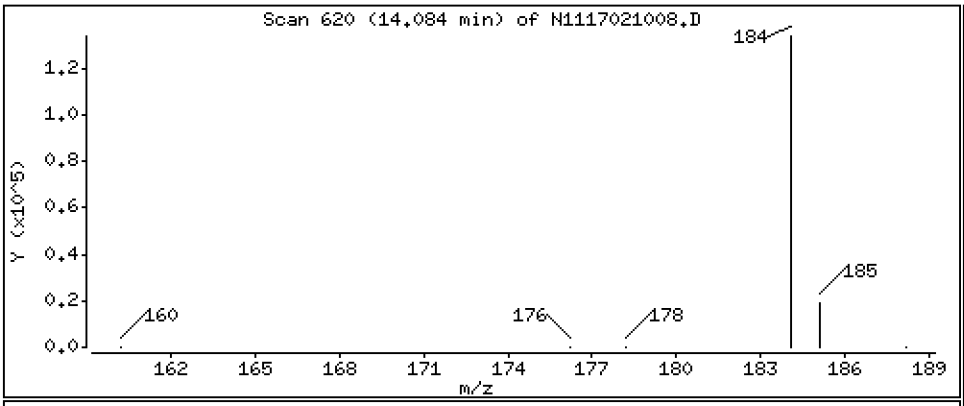
Operator: VTS

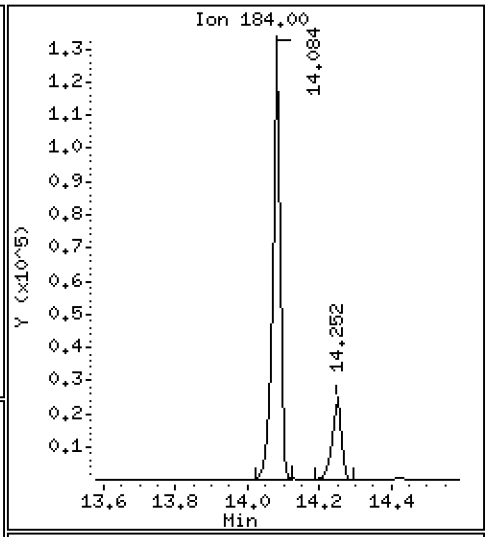
Column phase: Rxi-17Sil MS

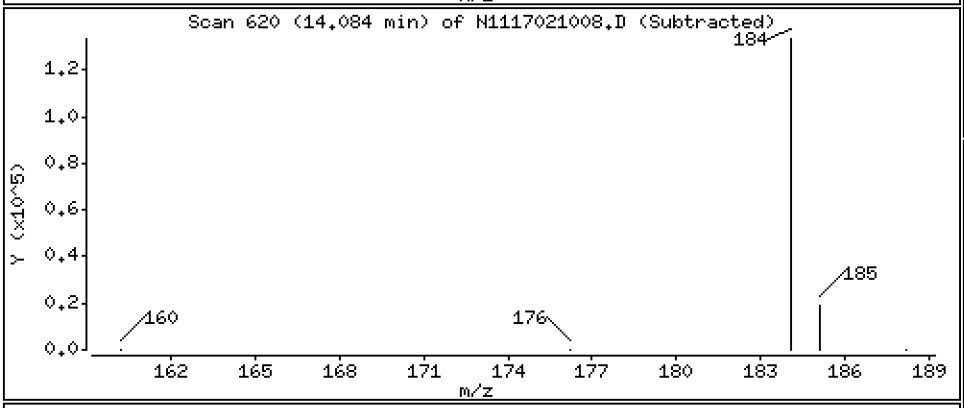
Column diameter: 0.25

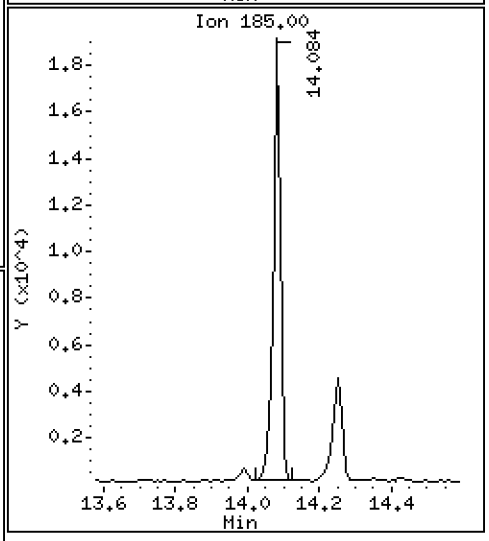
17 Dibenzothiophene

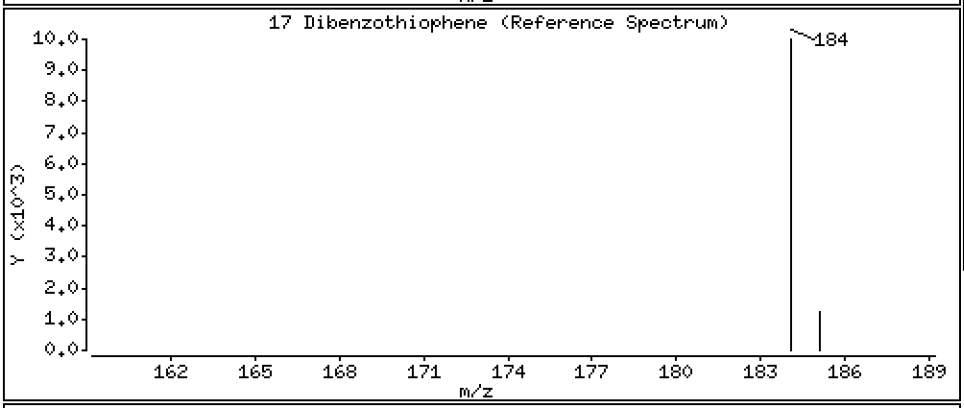
Concentration: 129 ng/mL

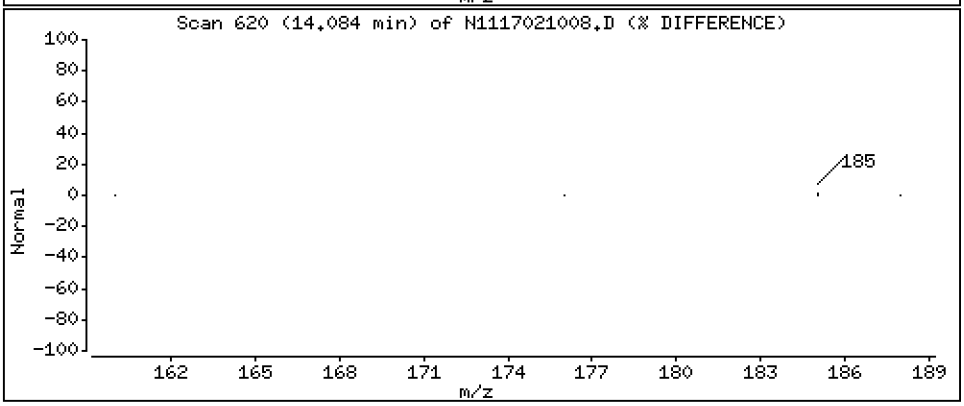












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

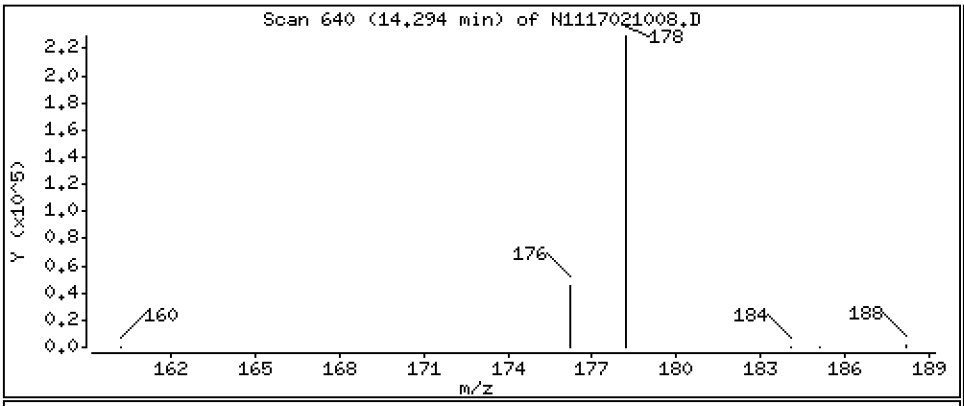
Operator: VTS

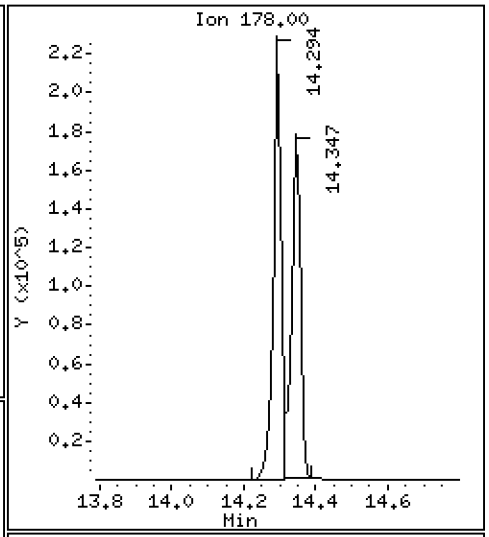
Column phase: Rxi-17Sil MS

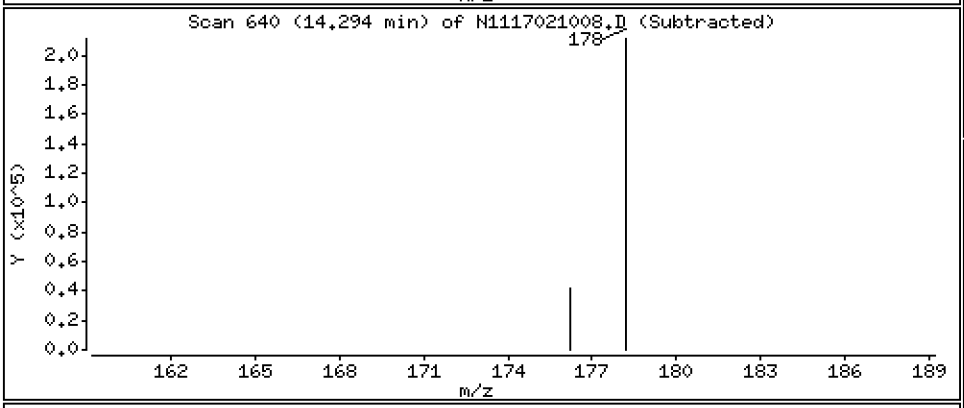
Column diameter: 0.25

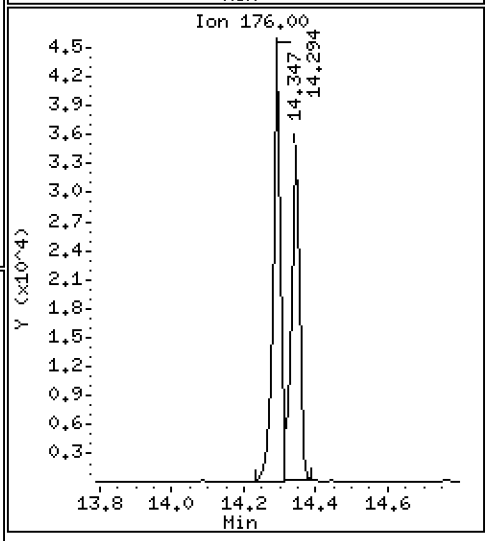
19 Phenanthrene

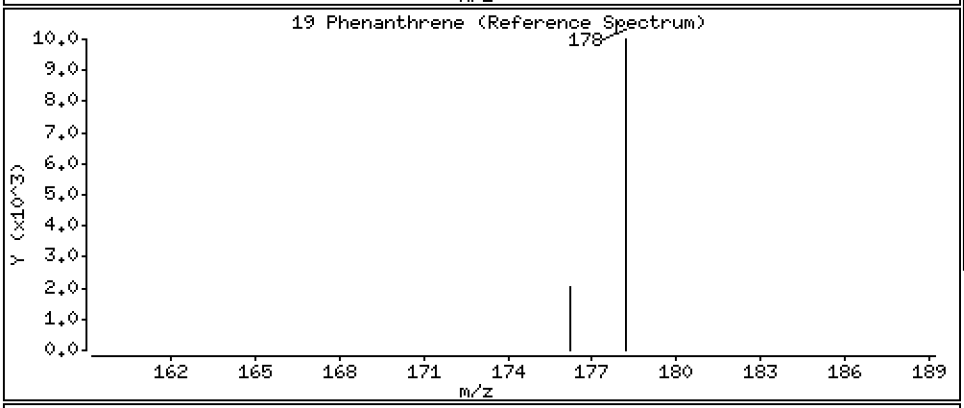
Concentration: 186 ng/mL

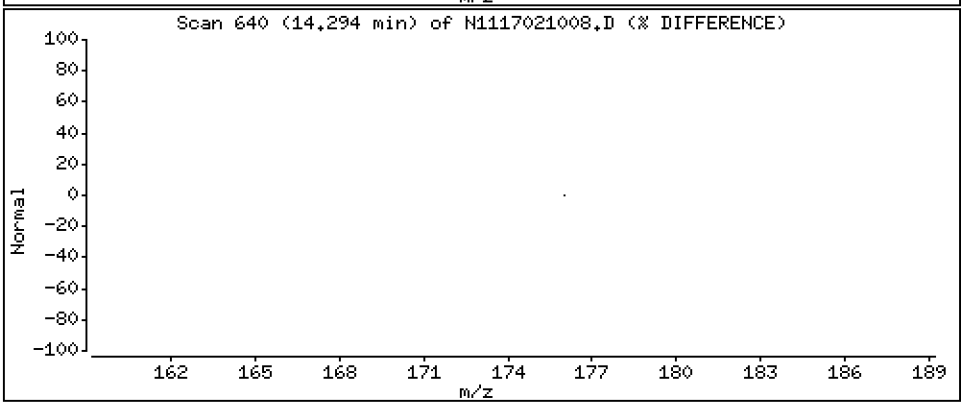












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

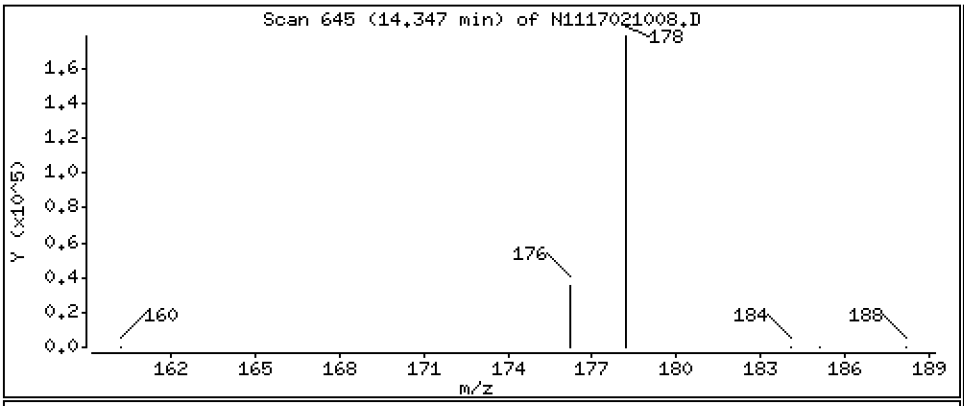
Operator: VTS

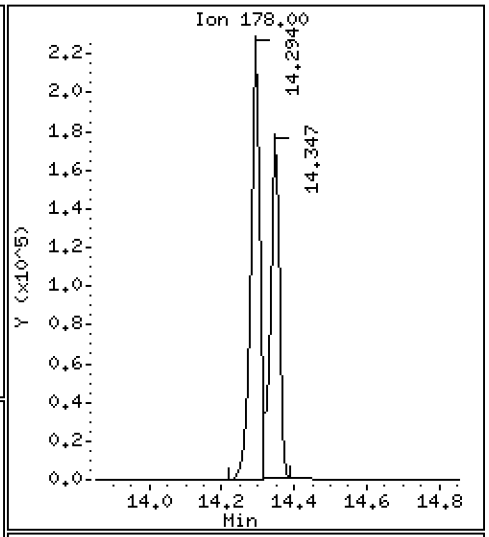
Column phase: Rxi-17Sil MS

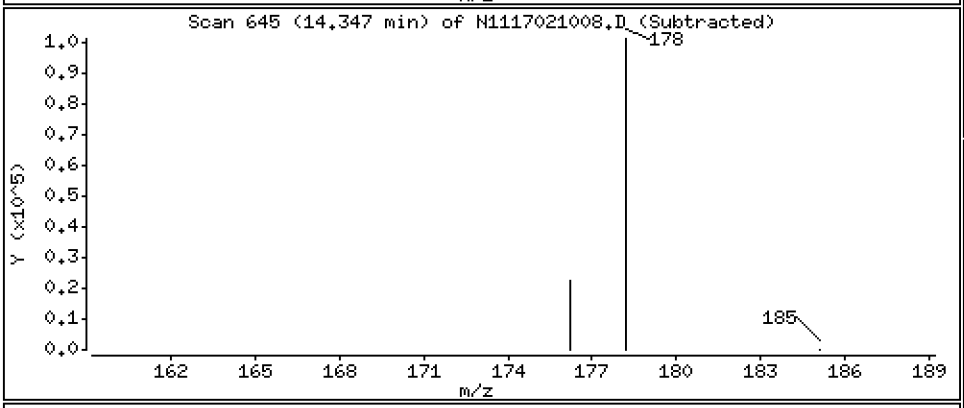
Column diameter: 0.25

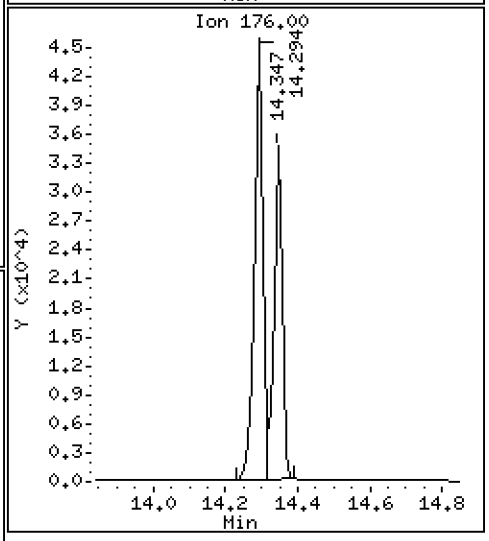
21 Anthracene

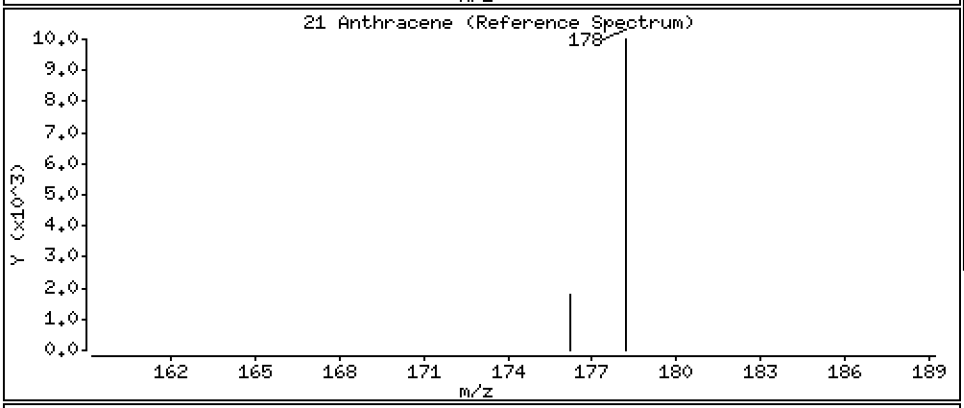
Concentration: 151 ng/mL

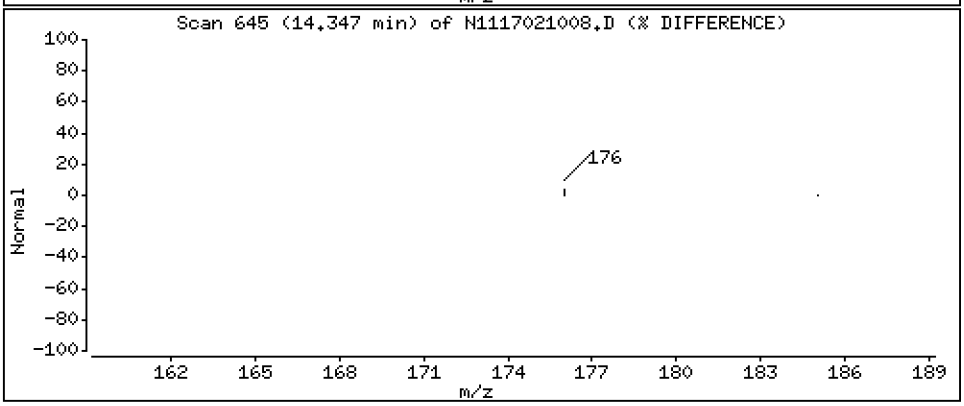












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

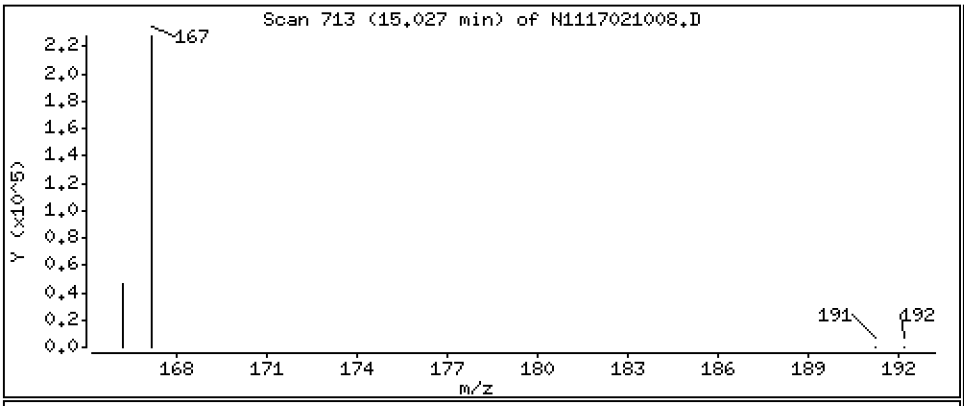
Operator: VTS

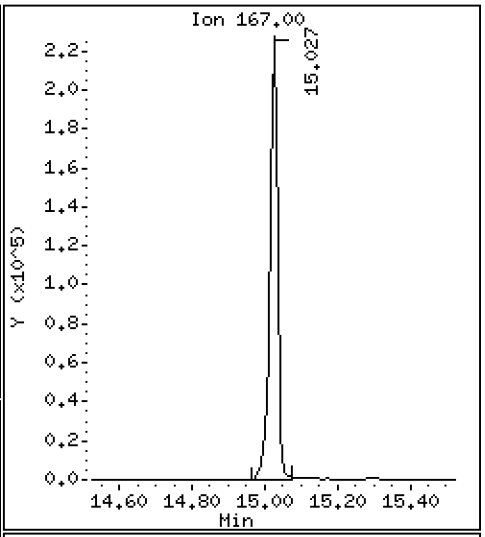
Column phase: Rxi-17Sil MS

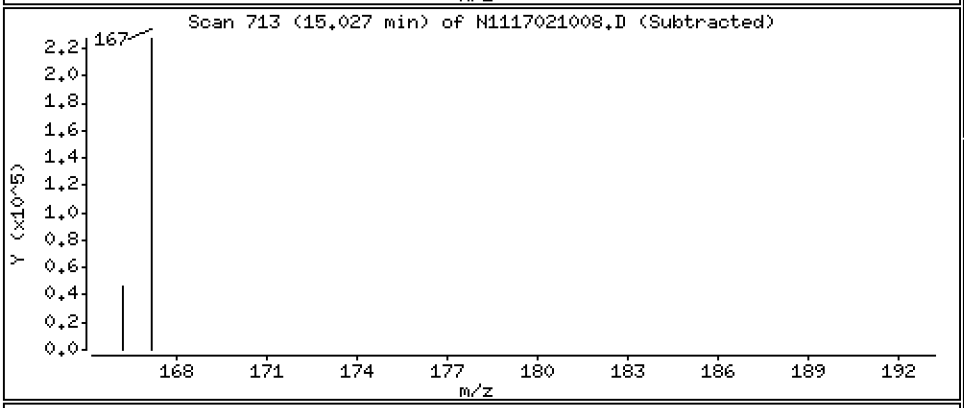
Column diameter: 0.25

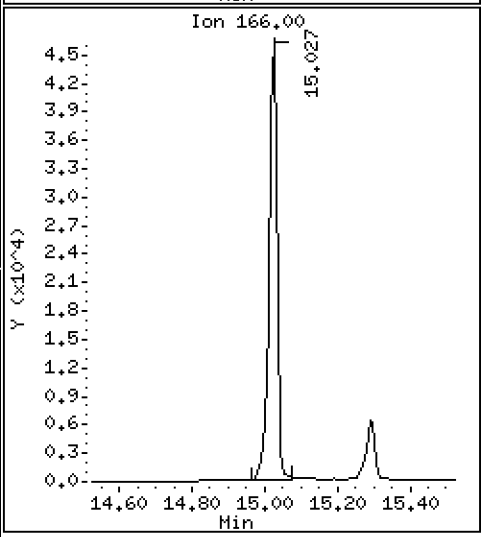
22 Carbazole

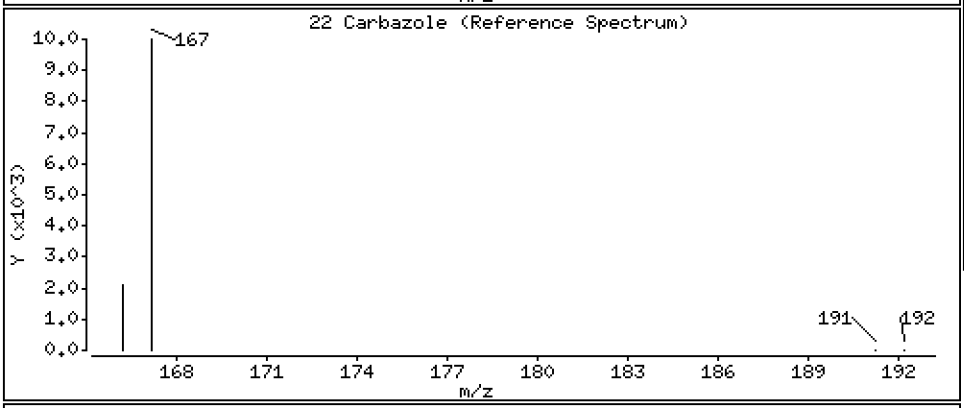
Concentration: 149 ng/mL

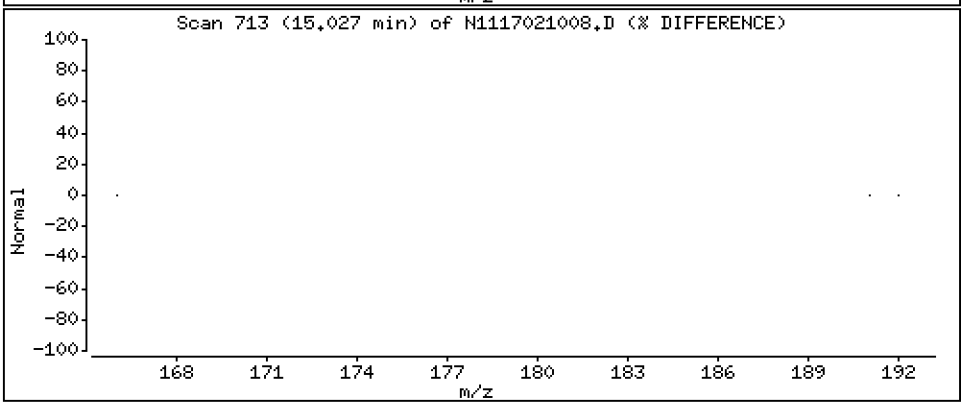












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

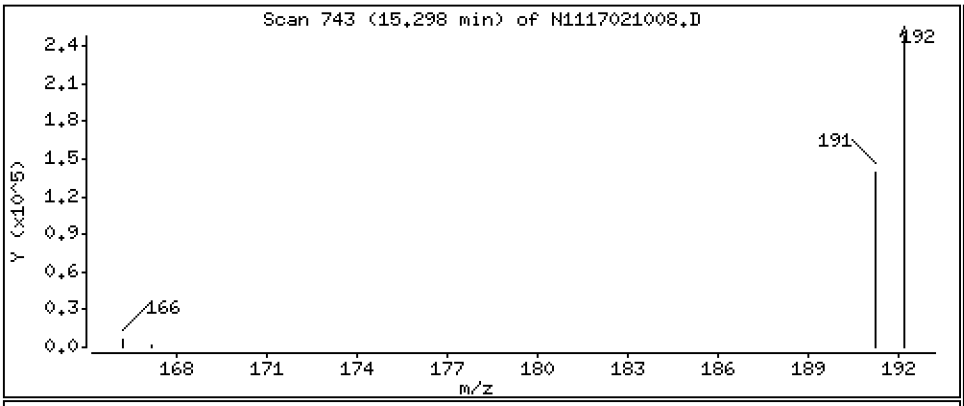
Operator: VTS

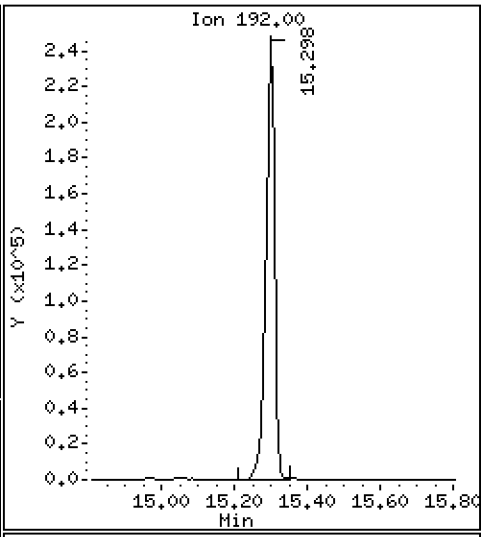
Column phase: Rxi-17Sil MS

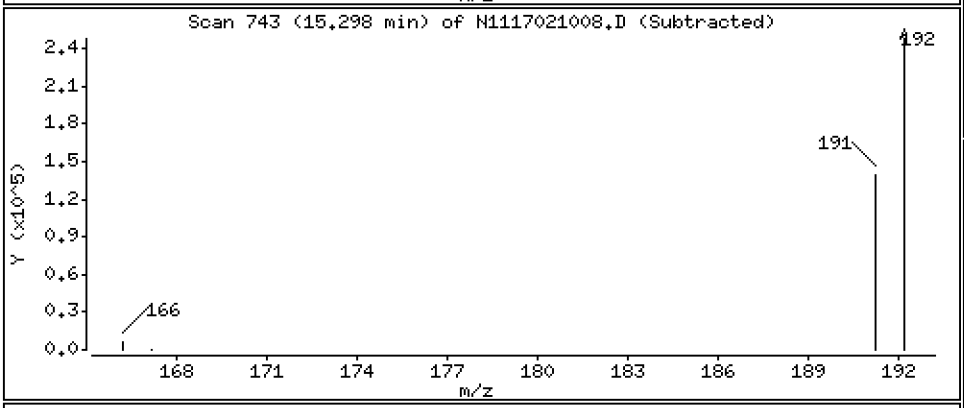
Column diameter: 0.25

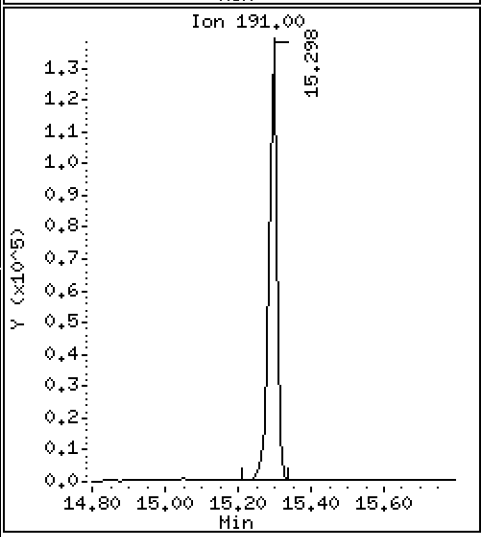
23 1-Methylphenanthrene

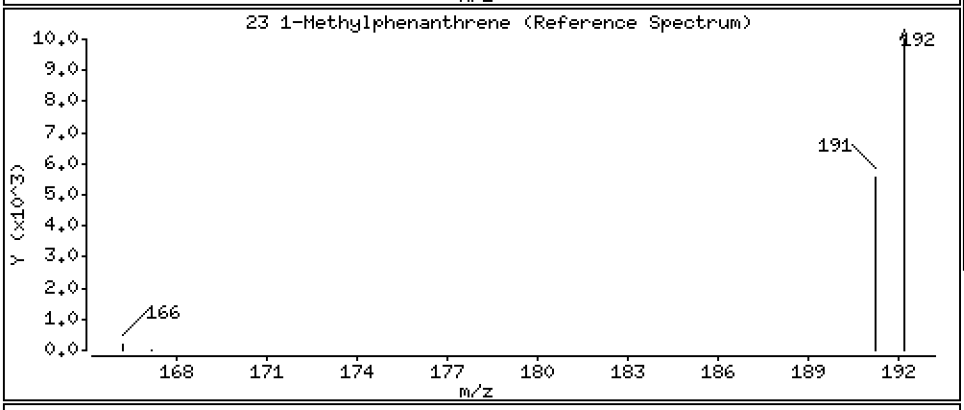
Concentration: 184 ng/mL

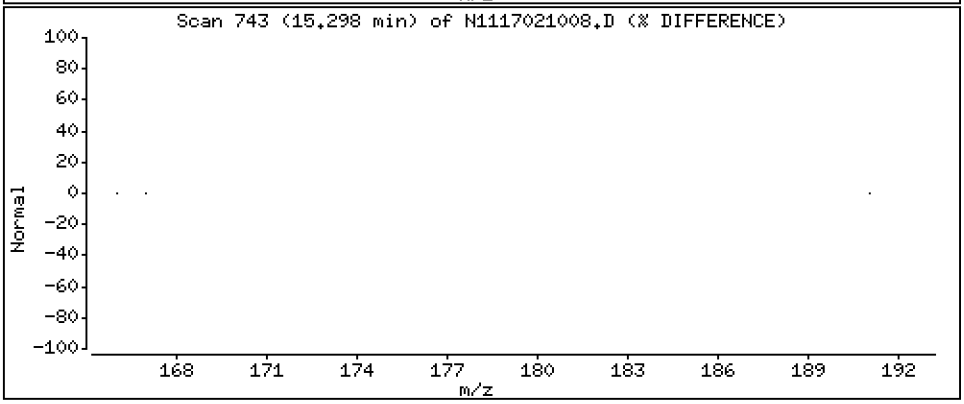












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Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

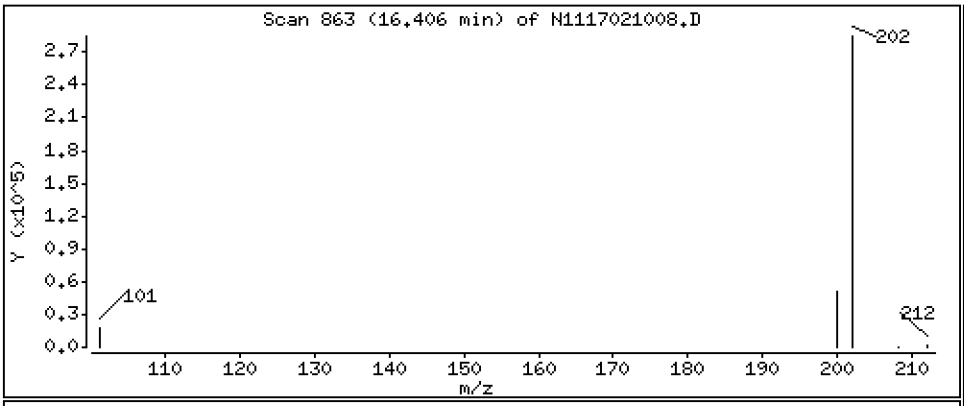
Operator: VTS

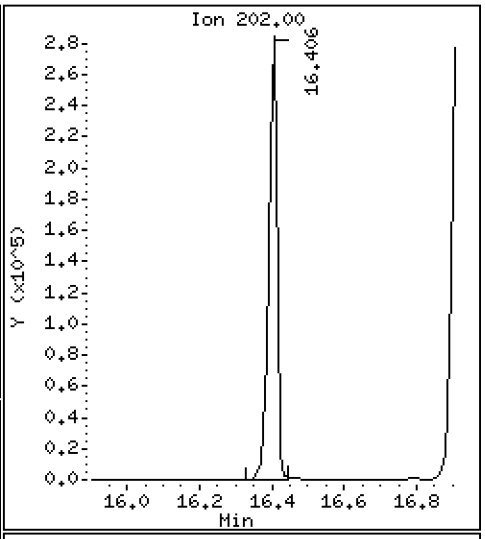
Column phase: Rxi-17Sil MS

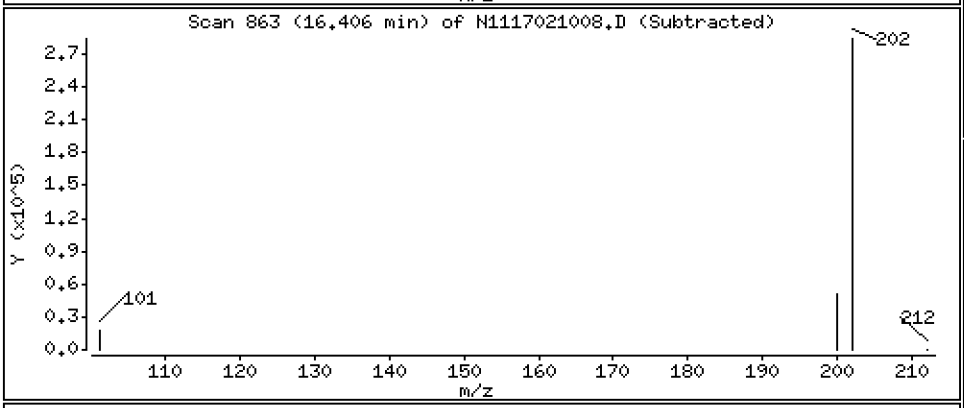
Column diameter: 0.25

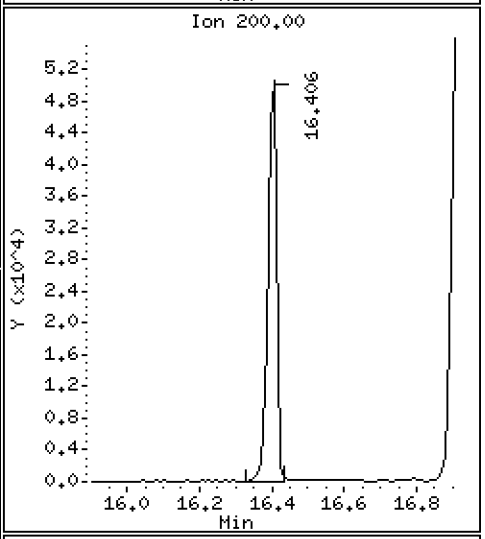
25 Fluoranthene

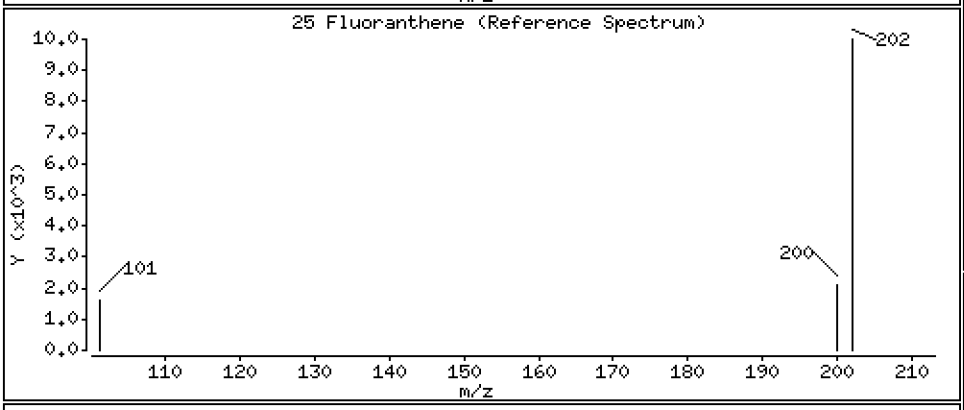
Concentration: 187 ng/mL

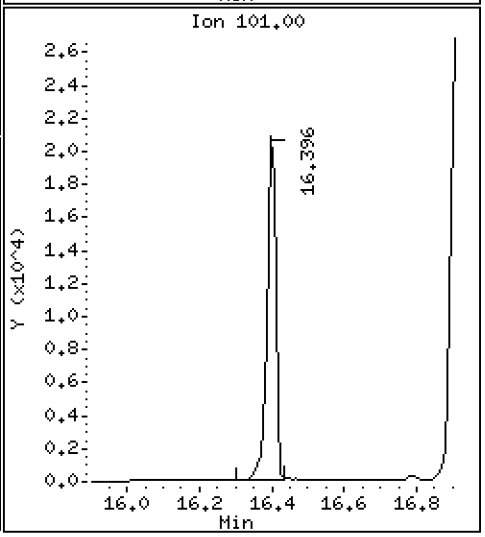


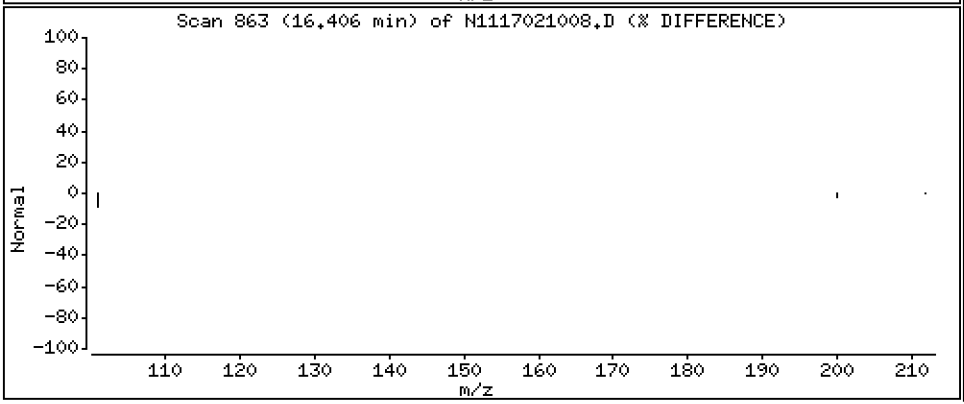












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

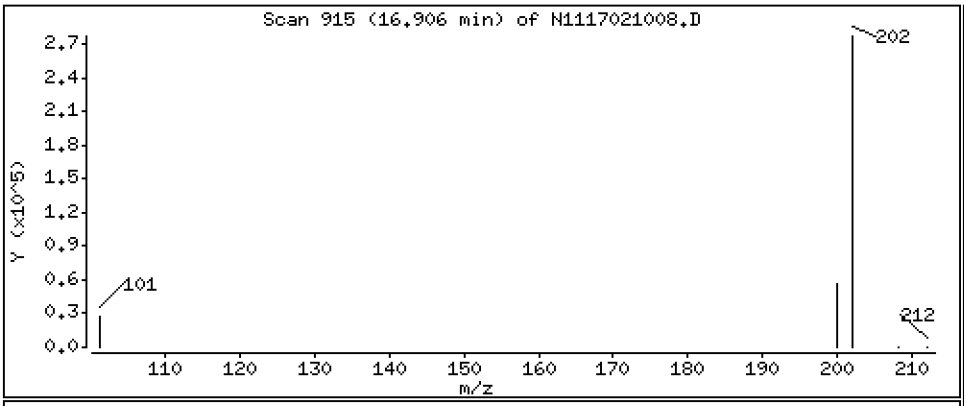
Operator: VTS

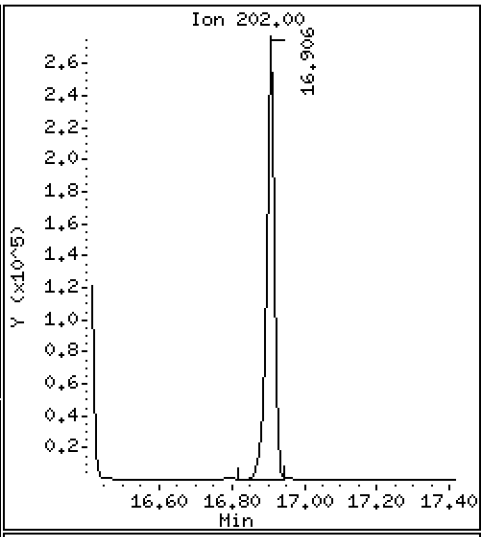
Column phase: Rxi-17Sil MS

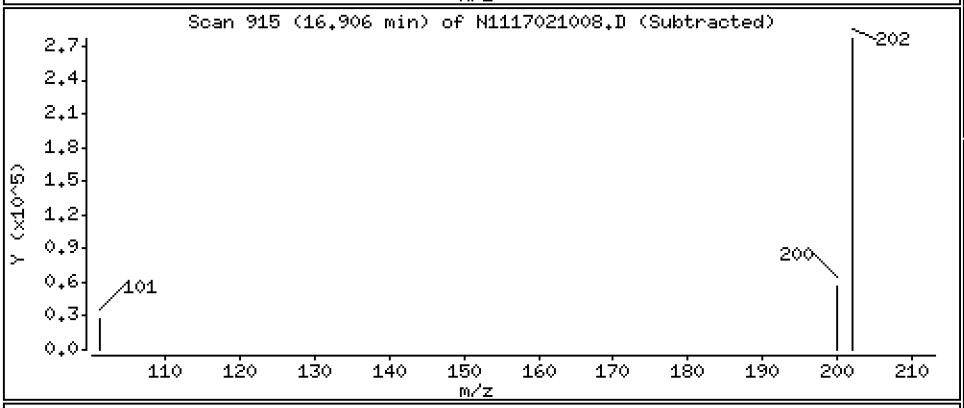
Column diameter: 0.25

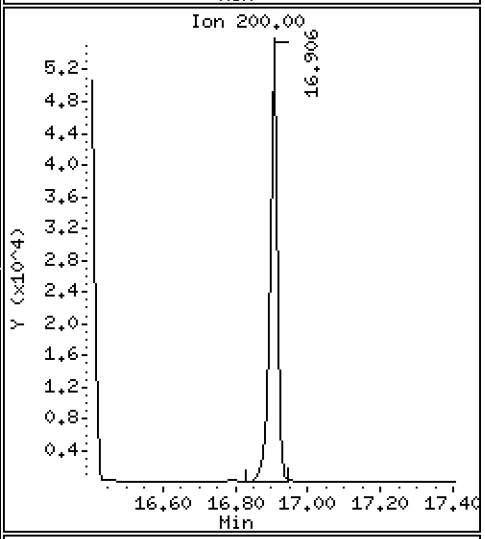
26 Pyrene

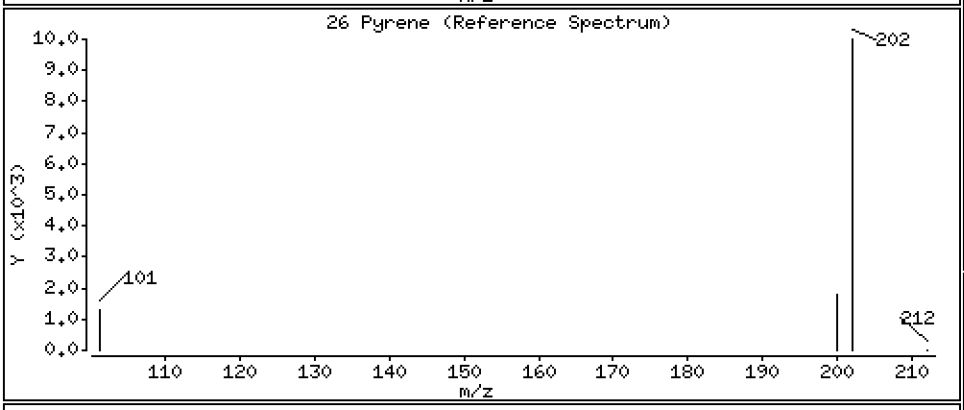
Concentration: 194 ng/mL

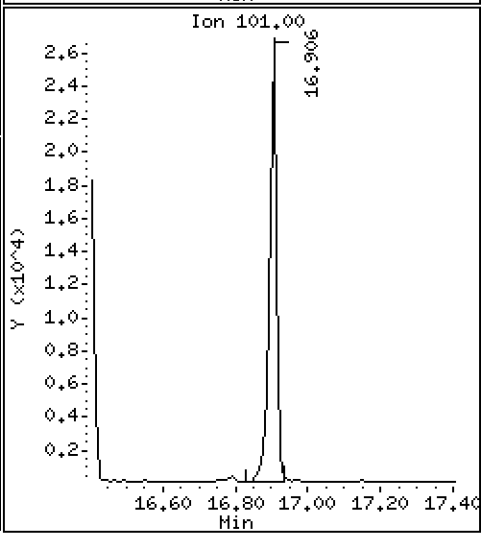


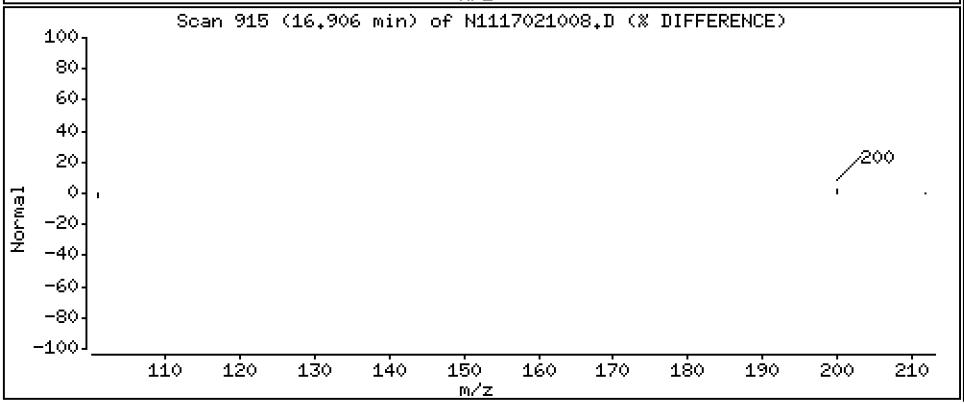












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

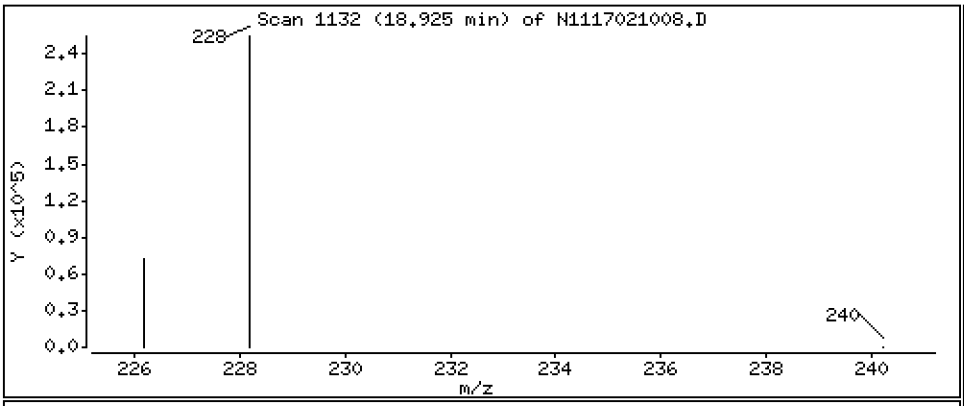
Operator: VTS

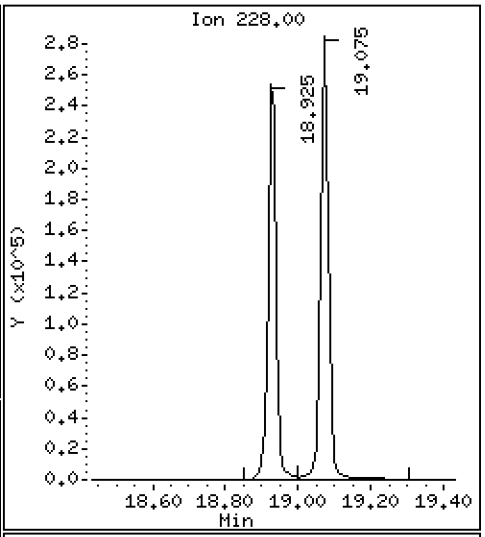
Column phase: Rxi-17Sil MS

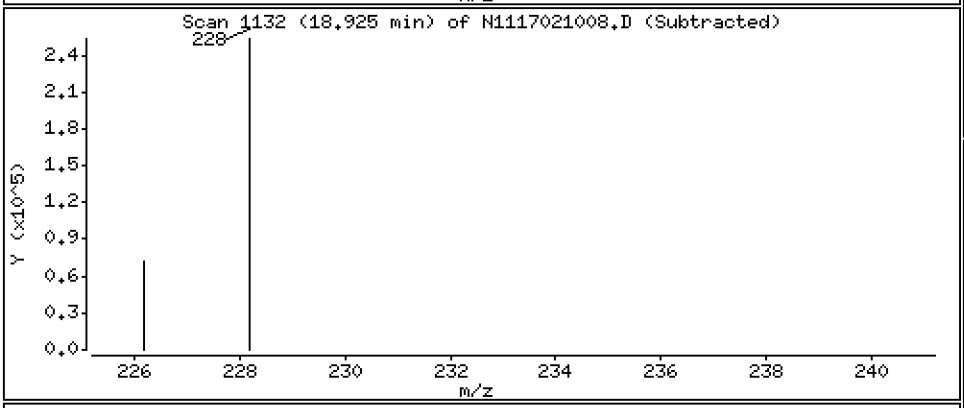
Column diameter: 0.25

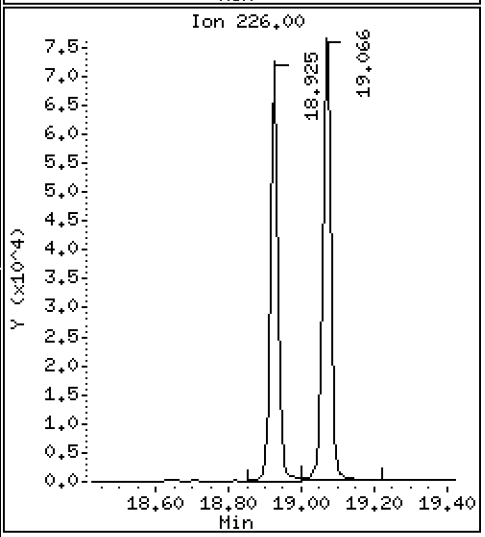
27 Benzo(a)anthracene

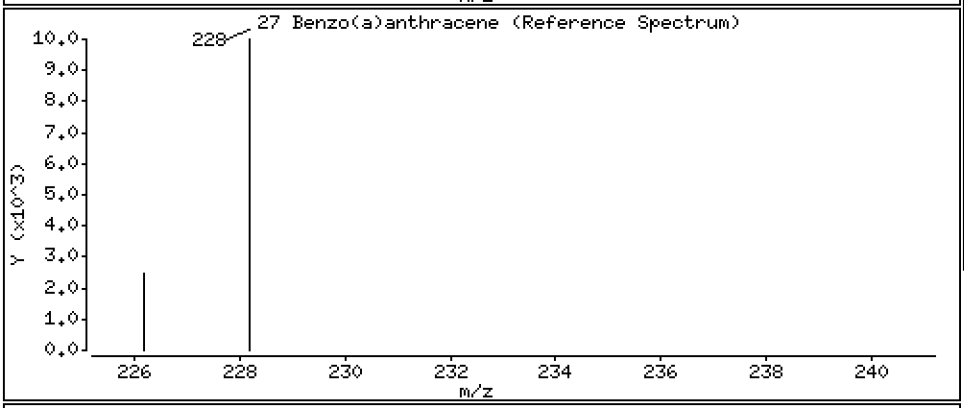
Concentration: 189 ng/mL

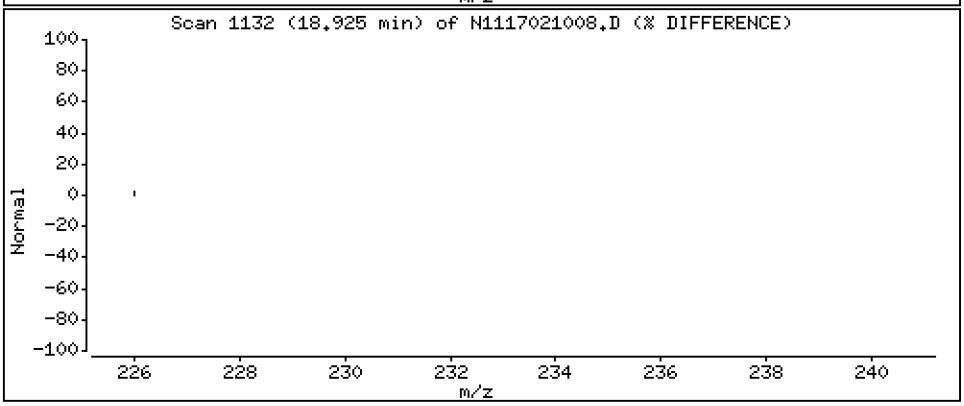












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021008.D

Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

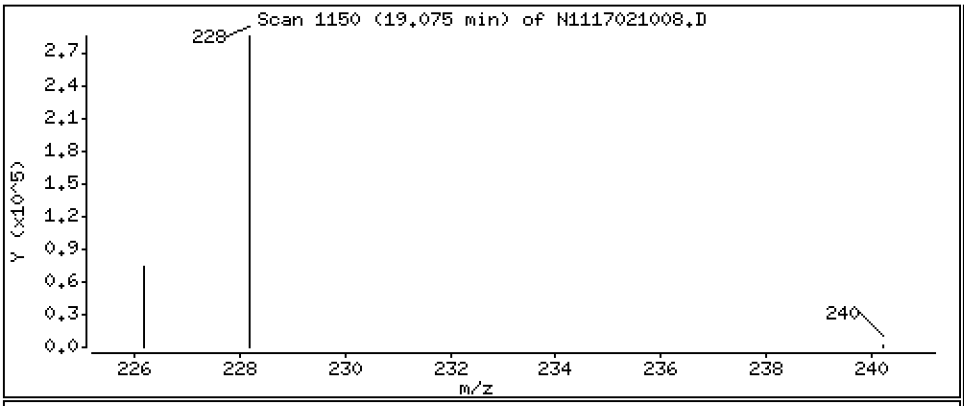
Operator: VTS

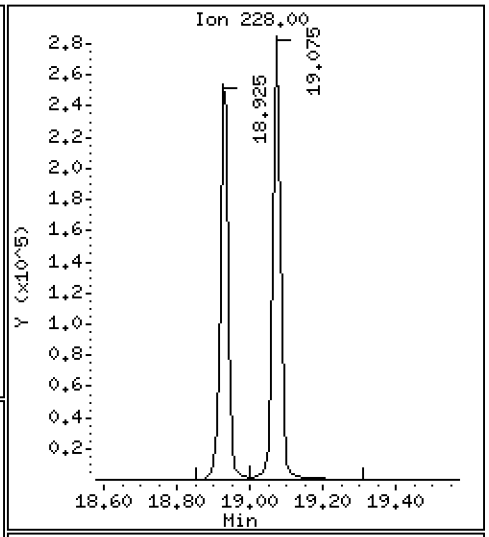
Column phase: Rxi-17Sil MS

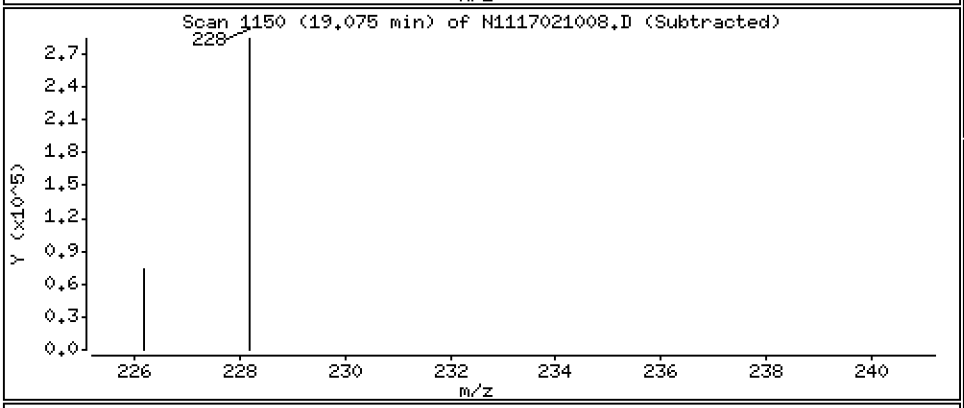
Column diameter: 0.25

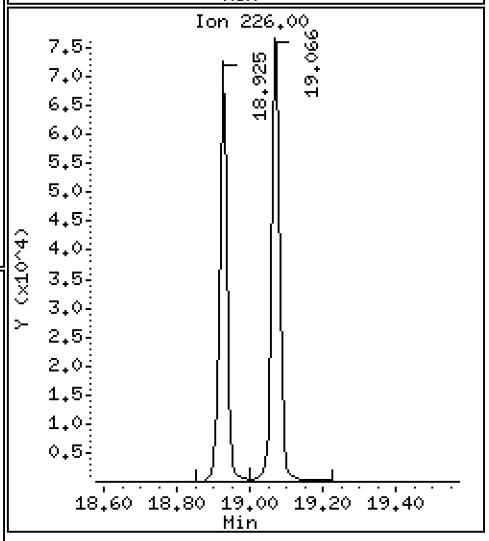
29 Chrysene

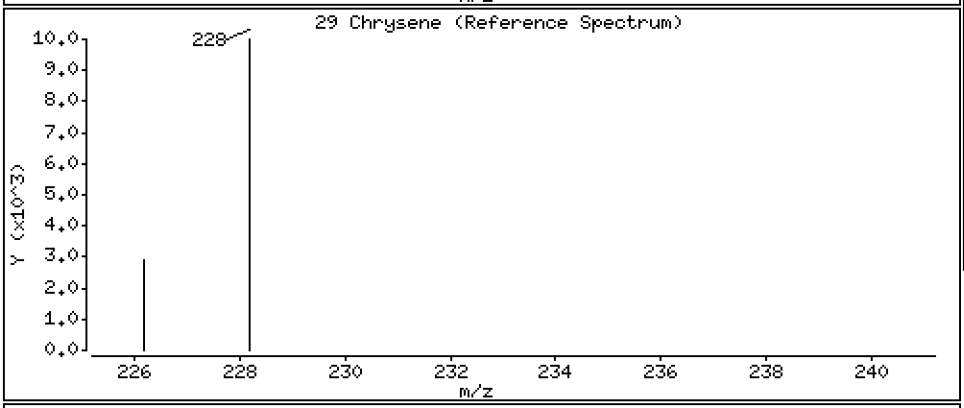
Concentration: 198 ng/mL

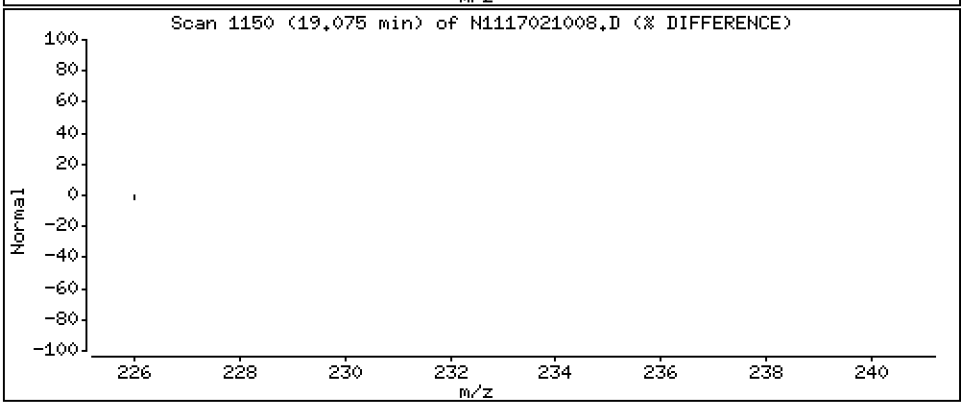












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

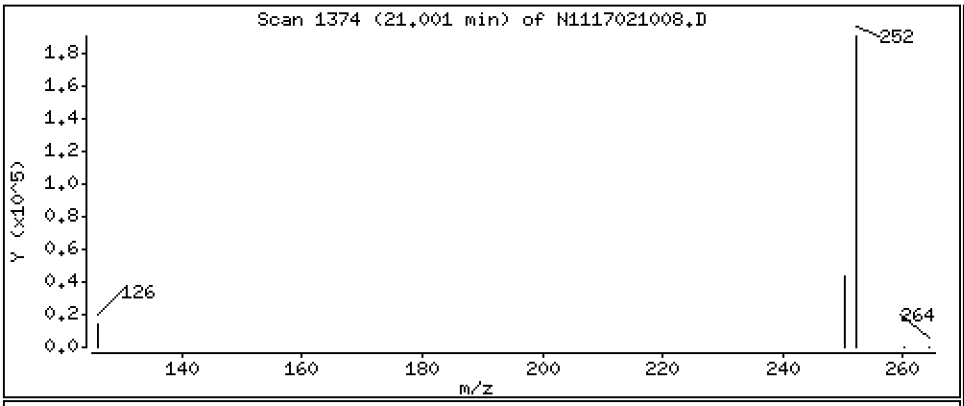
Operator: VTS

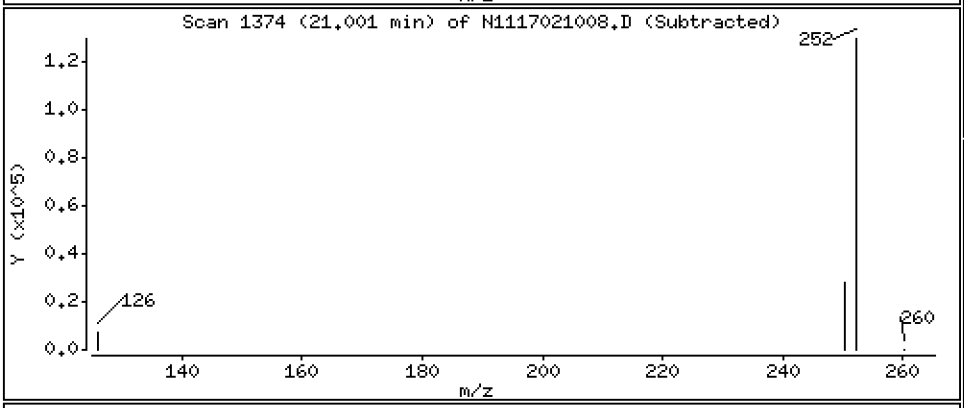
Column phase: Rxi-17Sil MS

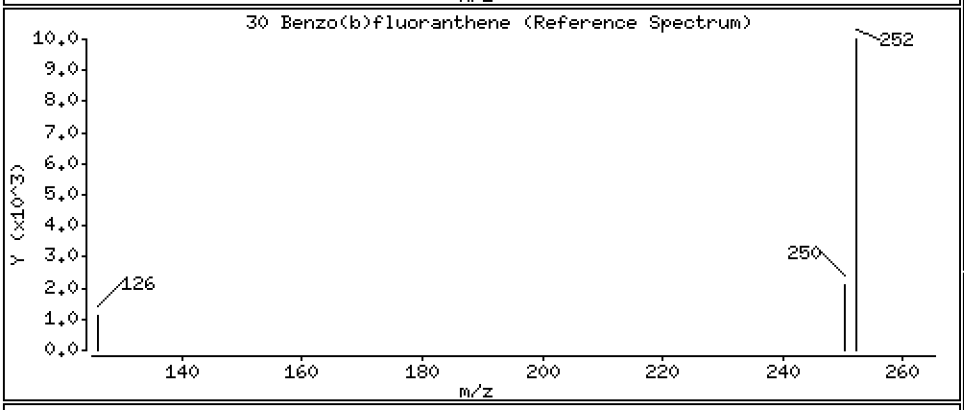
Column diameter: 0.25

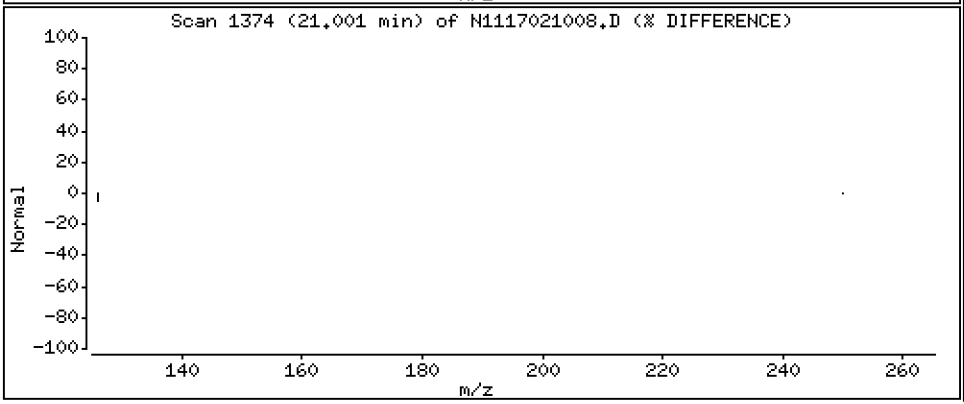
30 Benzo(b)fluoranthene

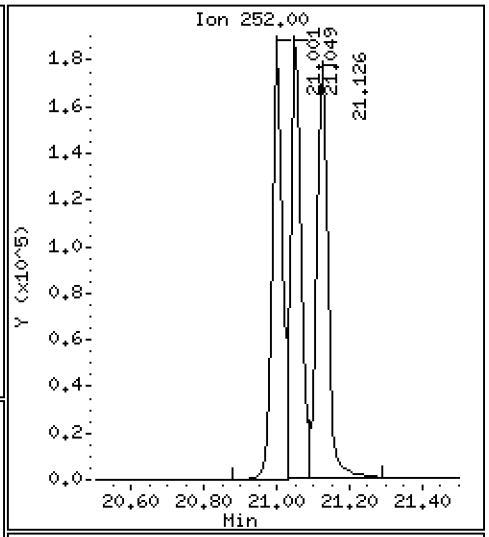
Concentration: 217 ng/mL

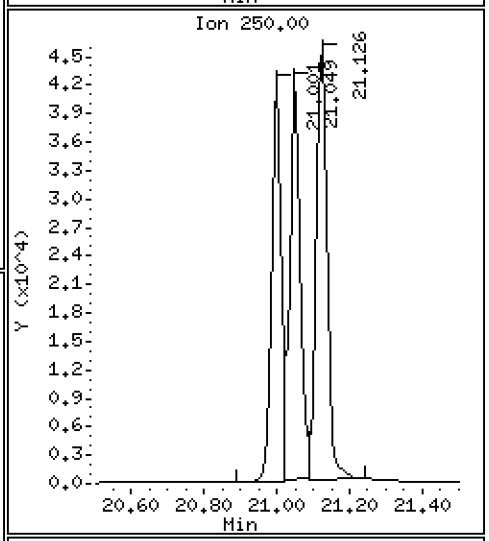


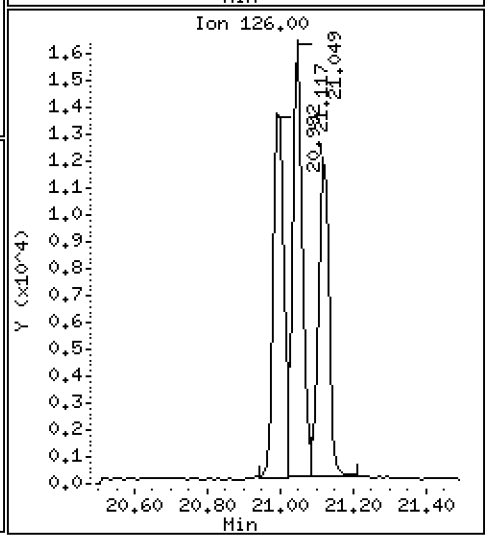












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

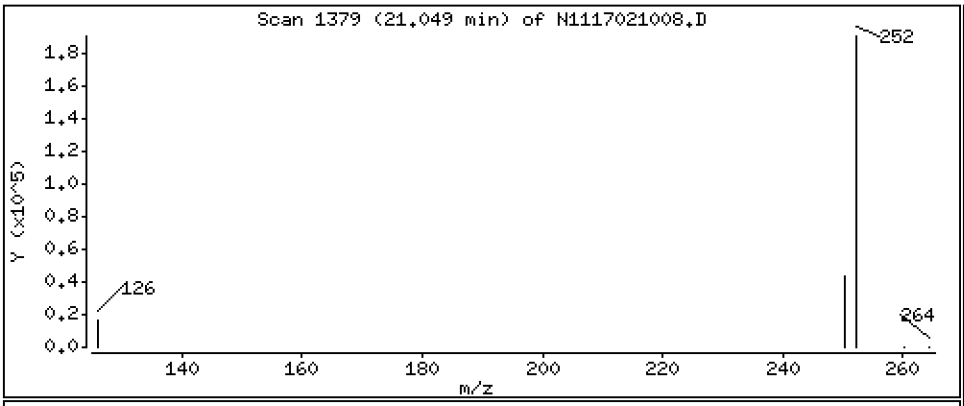
Operator: VTS

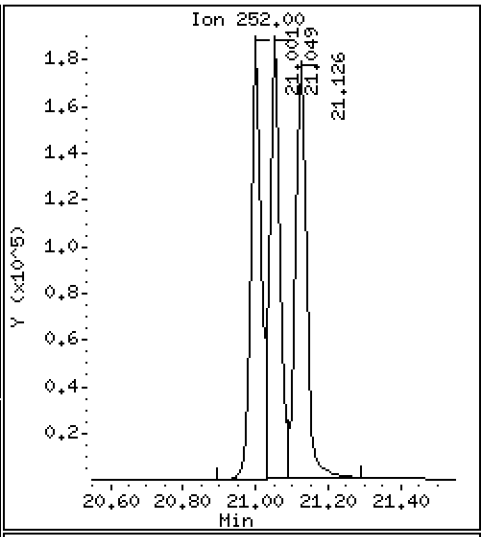
Column phase: Rxi-17Sil MS

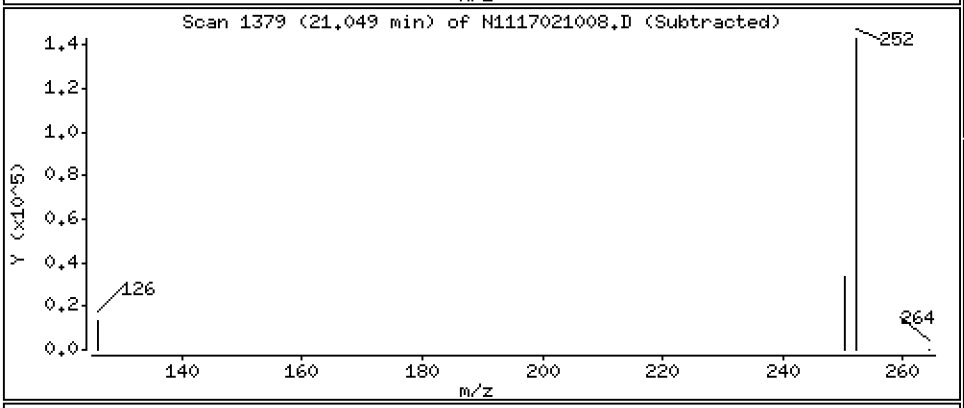
Column diameter: 0.25

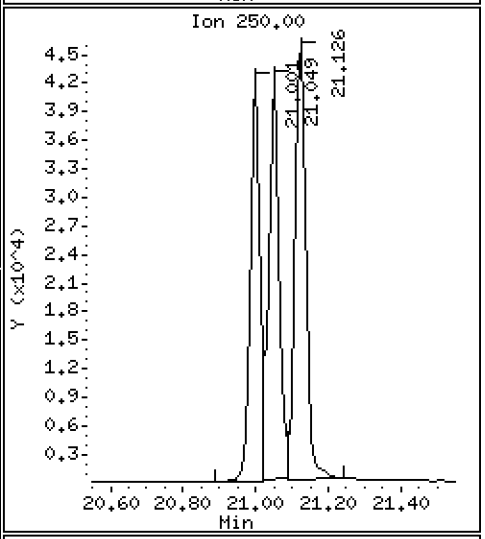
31 Benzo(k)fluoranthene

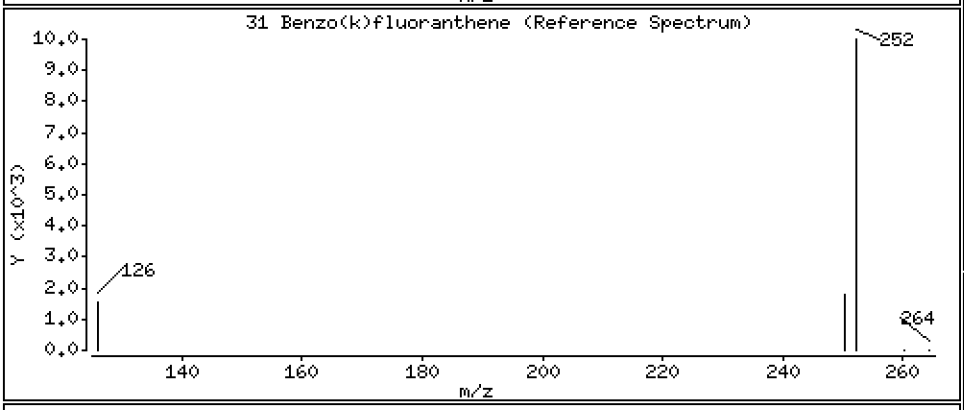
Concentration: 198 ng/mL

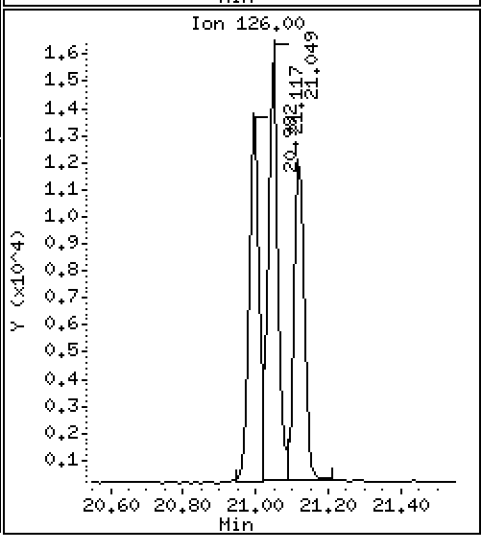


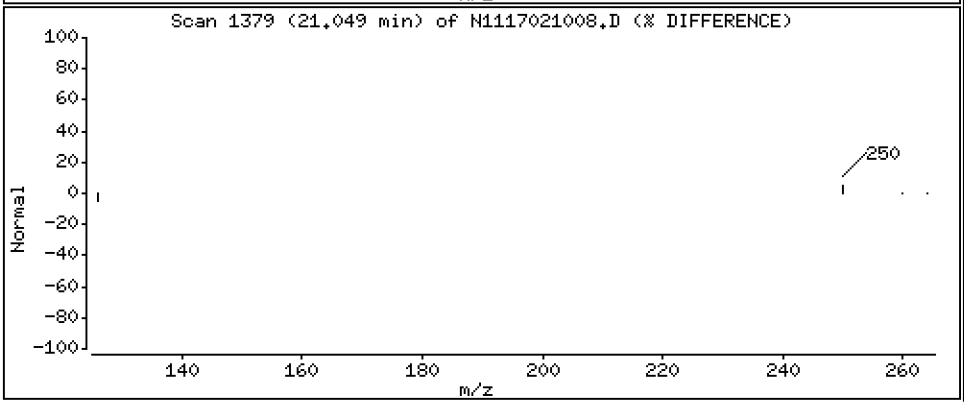












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021008.D

Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

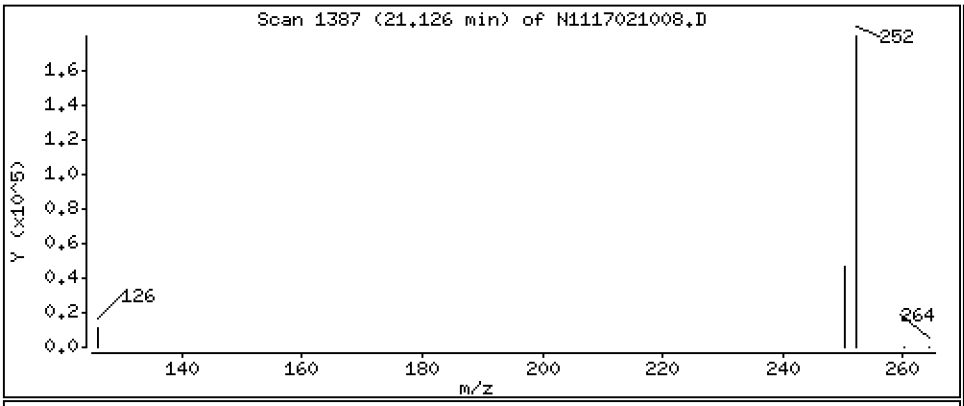
Operator: VTS

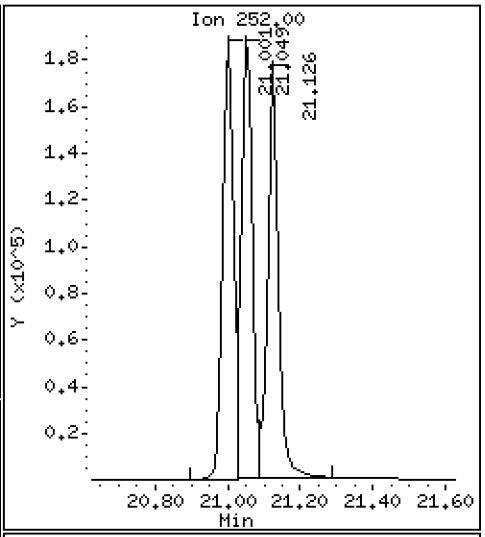
Column phase: Rxi-17Sil MS

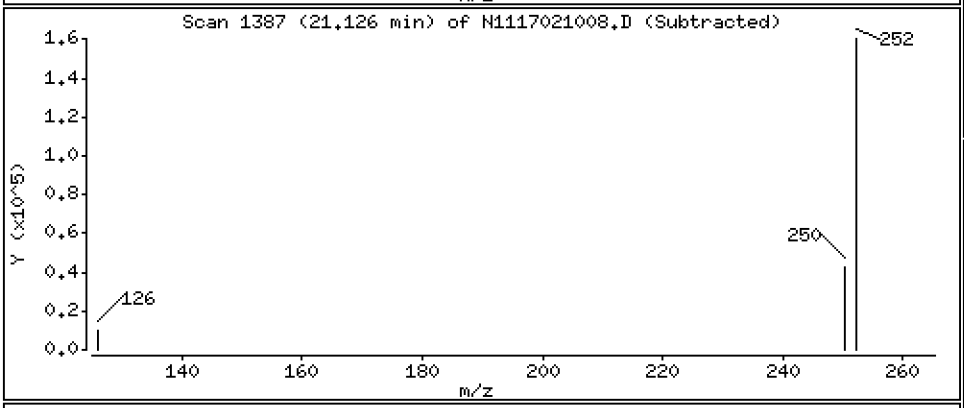
Column diameter: 0.25

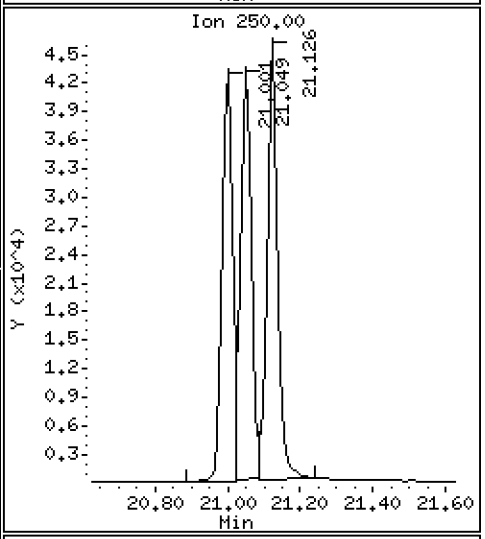
32 Benzo(j)fluoranthene

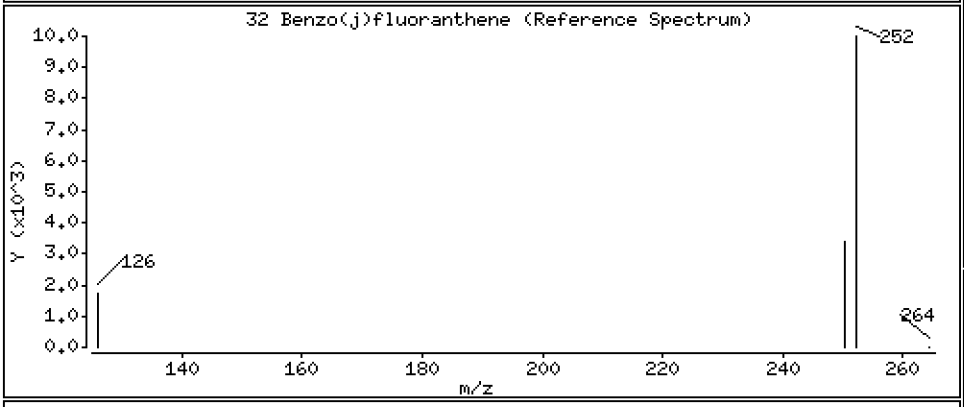
Concentration: 216 ng/mL

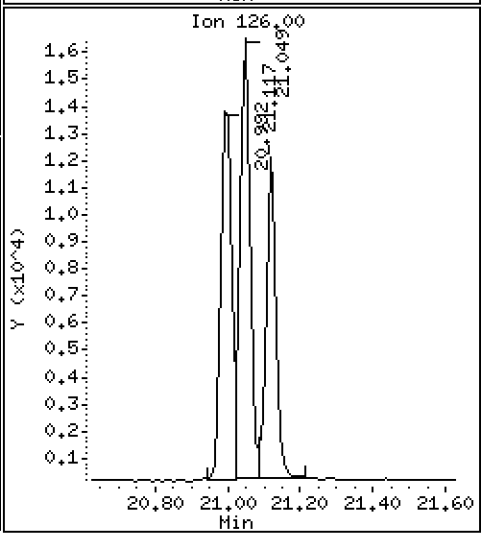


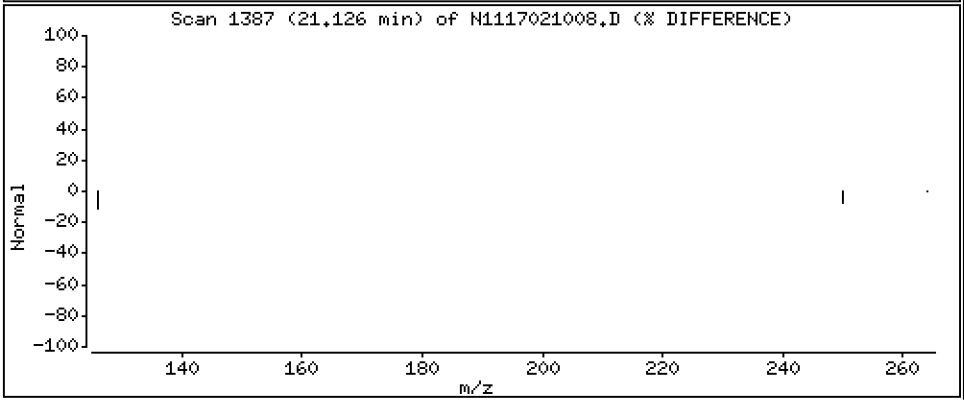












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

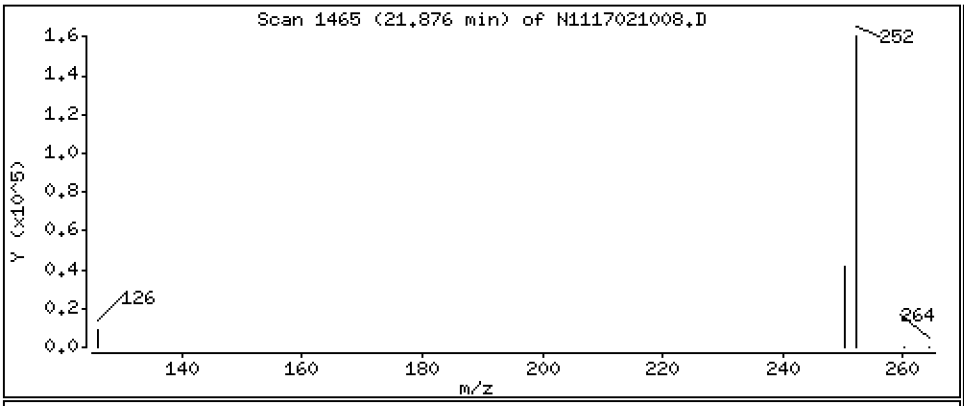
Operator: VTS

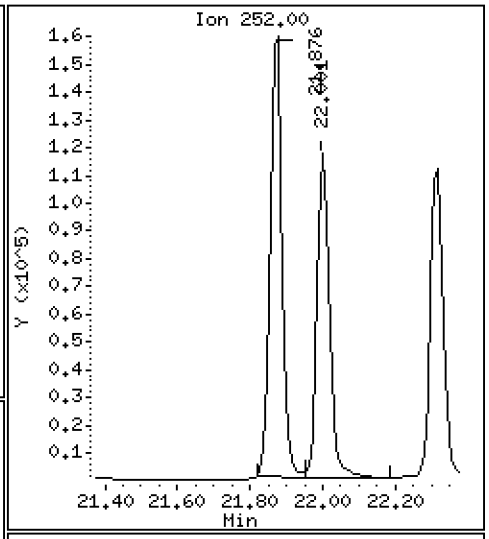
Column phase: Rxi-17Sil MS

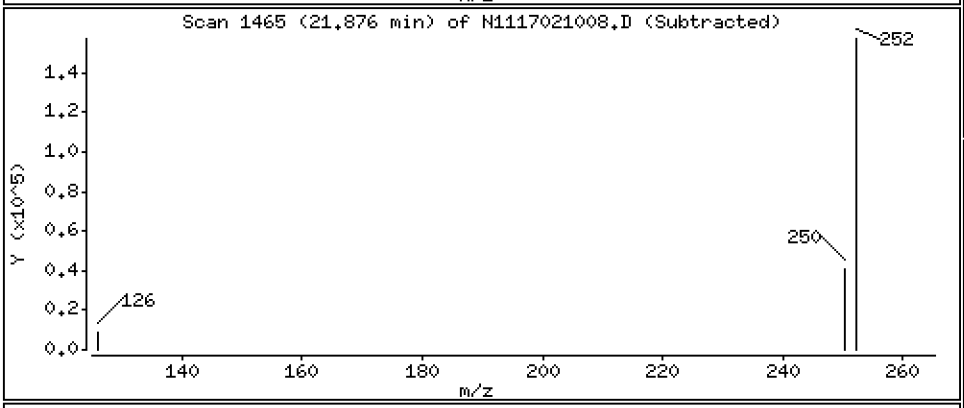
Column diameter: 0.25

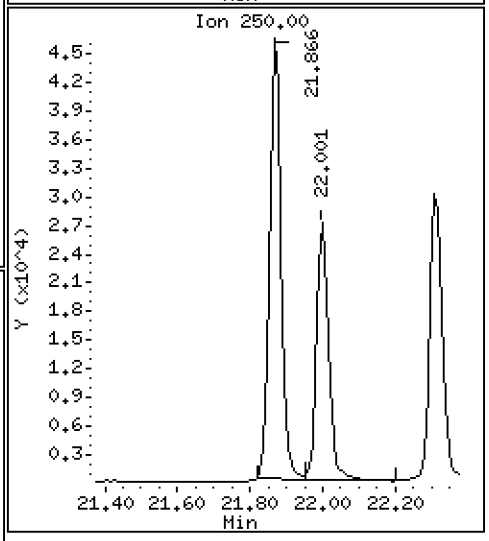
34 Benzo(e)pyrene

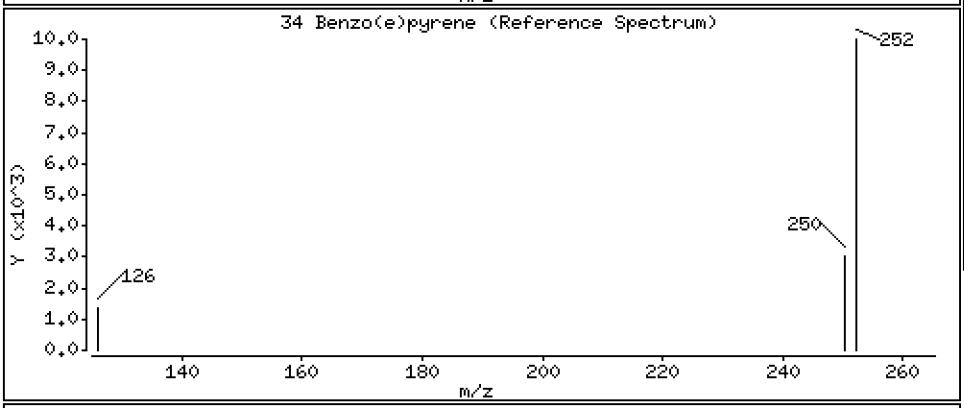
Concentration: 200 ng/mL

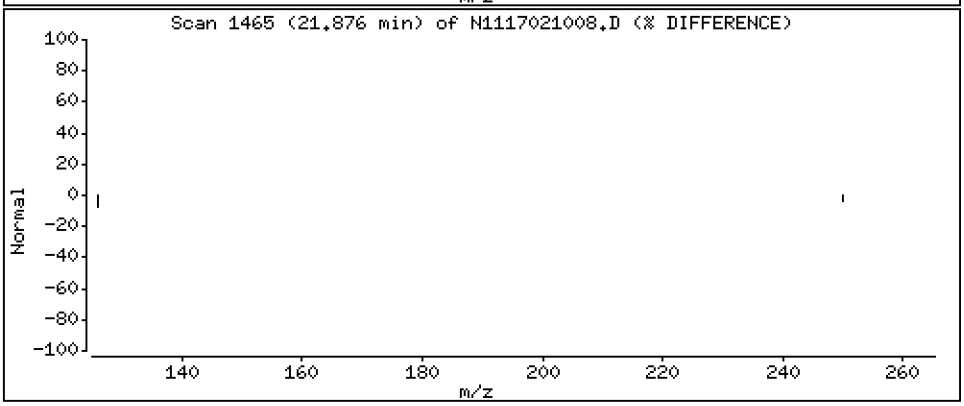












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

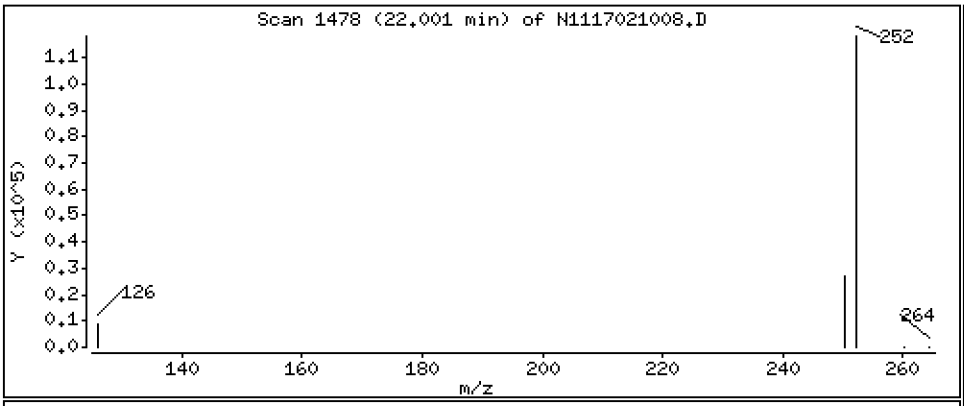
Operator: VTS

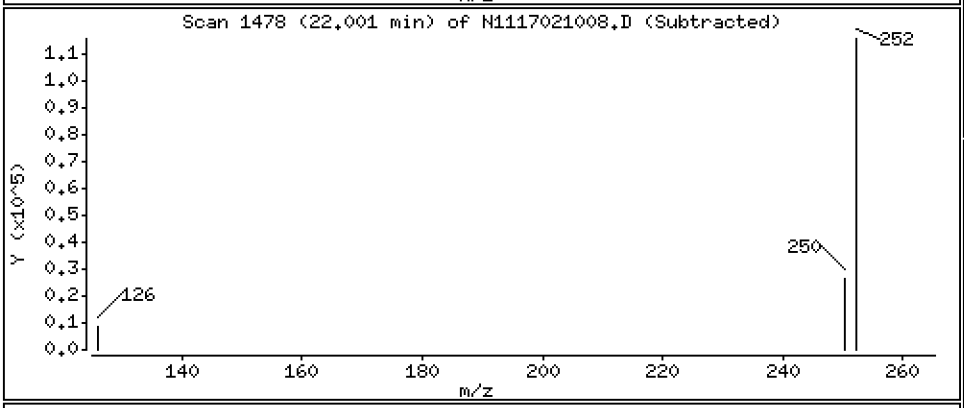
Column phase: Rxi-17Sil MS

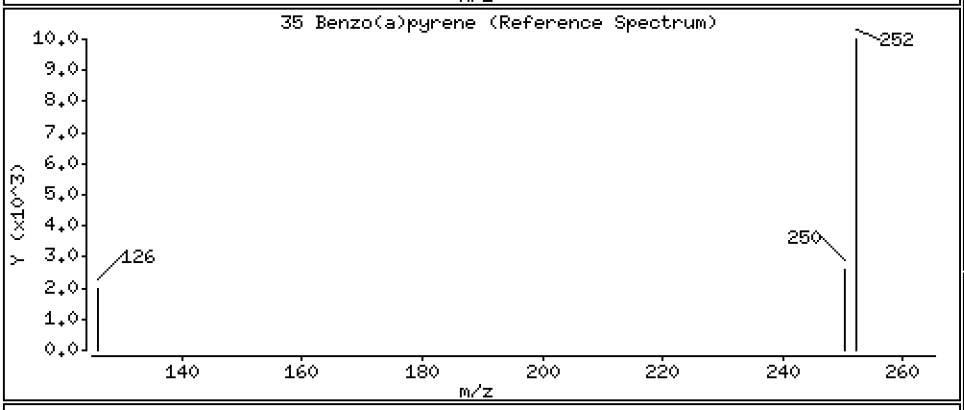
Column diameter: 0.25

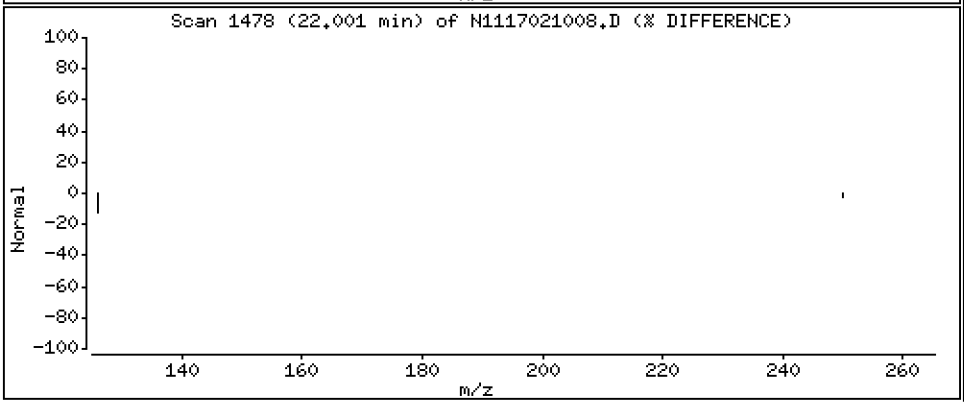
35 Benzo(a)pyrene

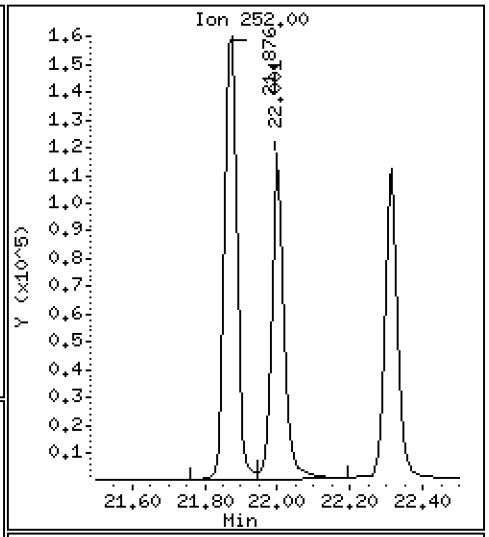
Concentration: 161 ng/mL

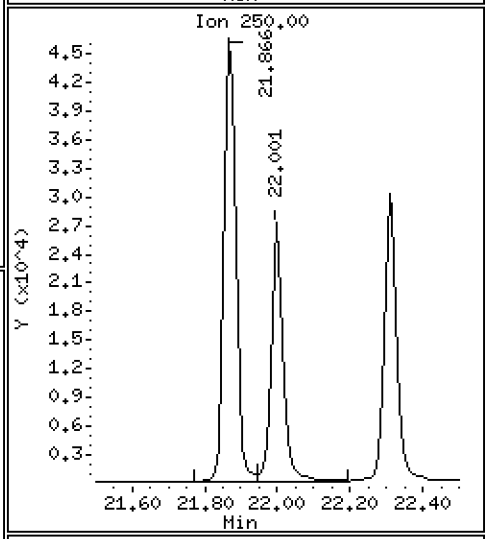


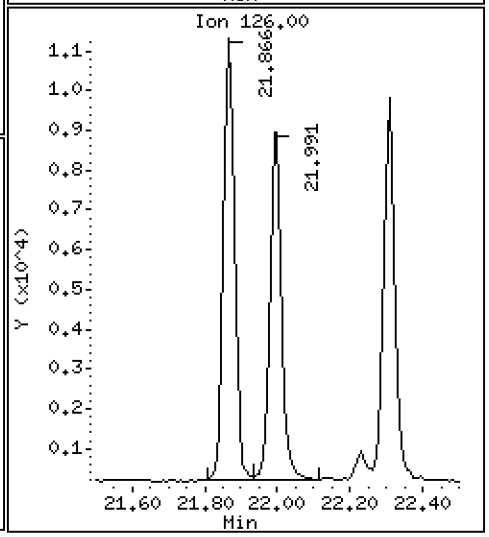












Date : 10-FEB-2017 15:16

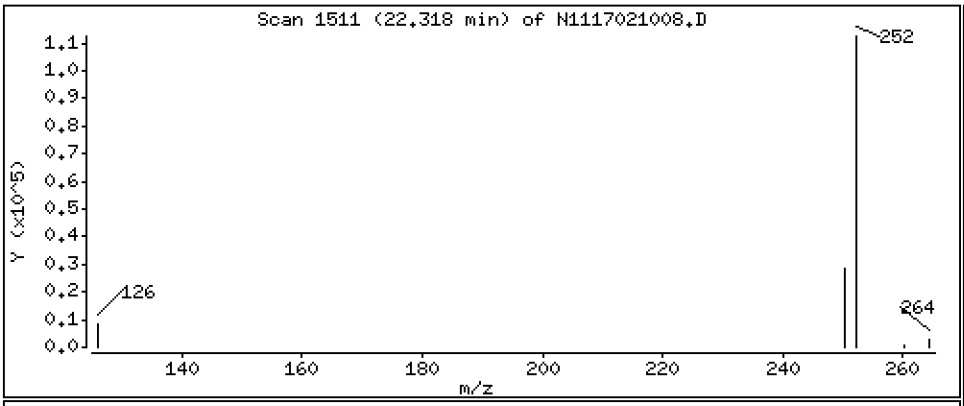
Client ID: Instrument: nt11.i

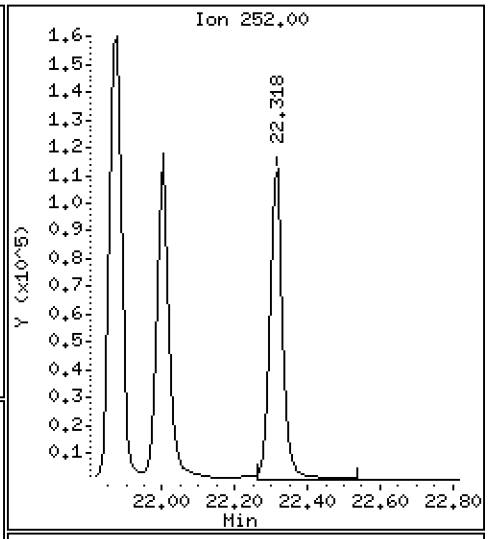
Sample Info: BFA0647-BS1

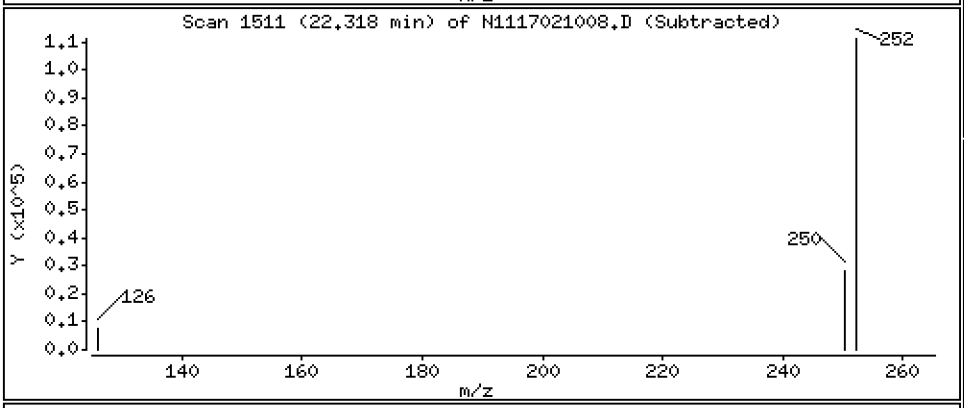
Operator: VTS

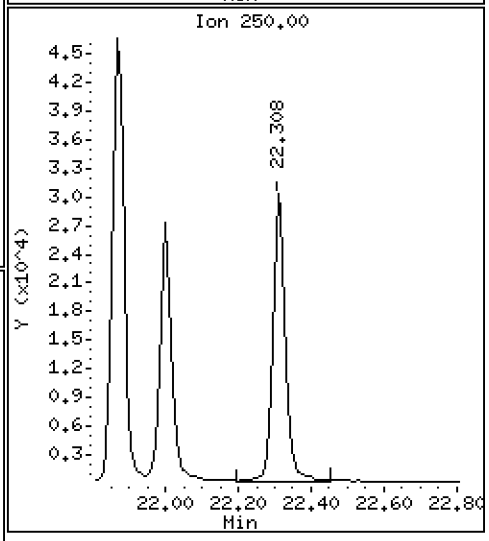
Column phase: Rxi-17Sil MS Column diameter: 0.25

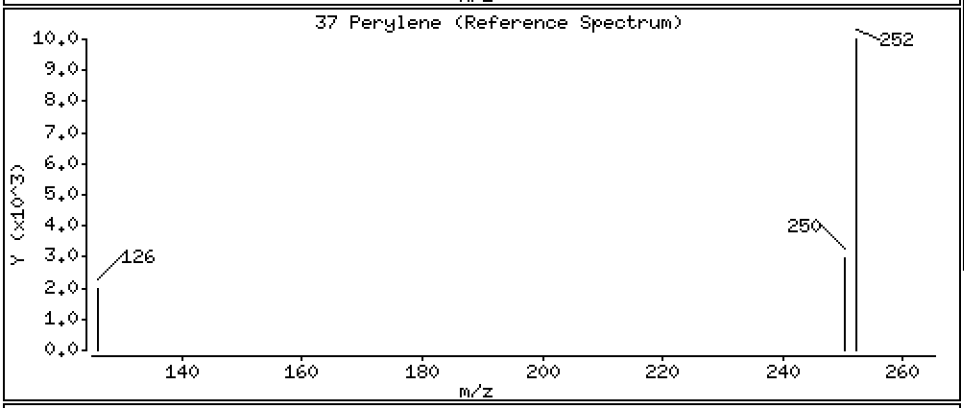
37 Perylene Concentration: 155 ng/mL

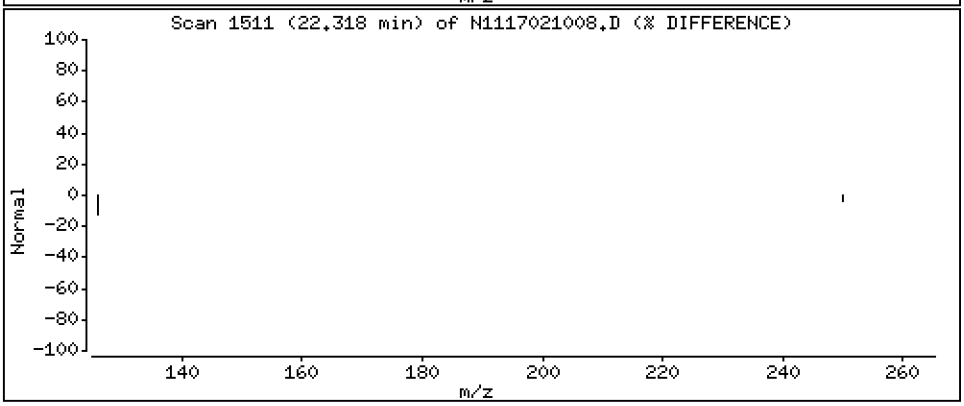












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

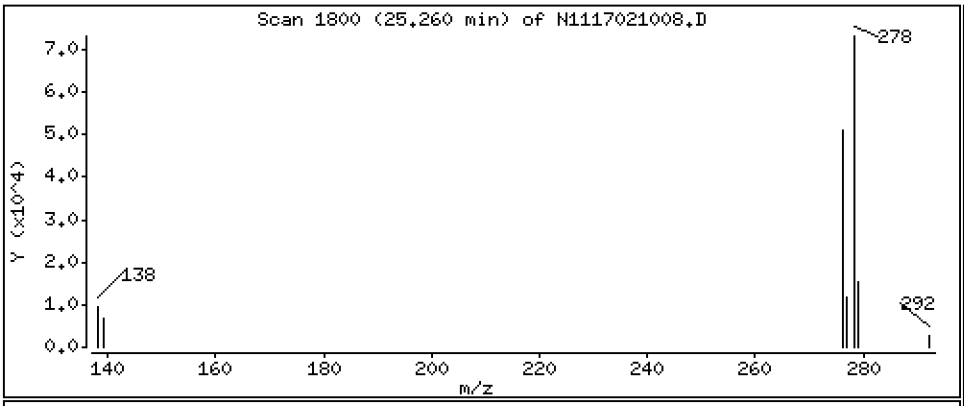
Operator: VTS

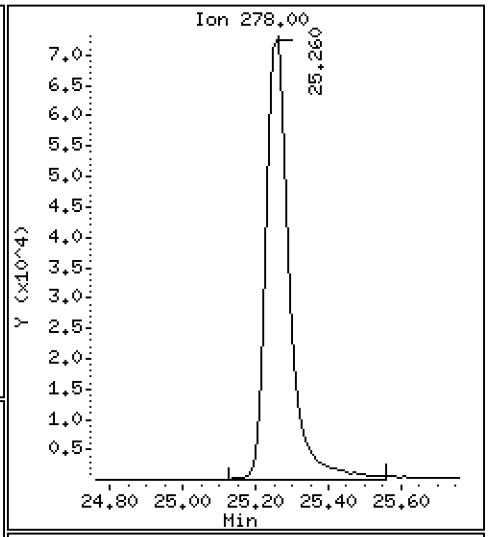
Column phase: Rxi-17Sil MS

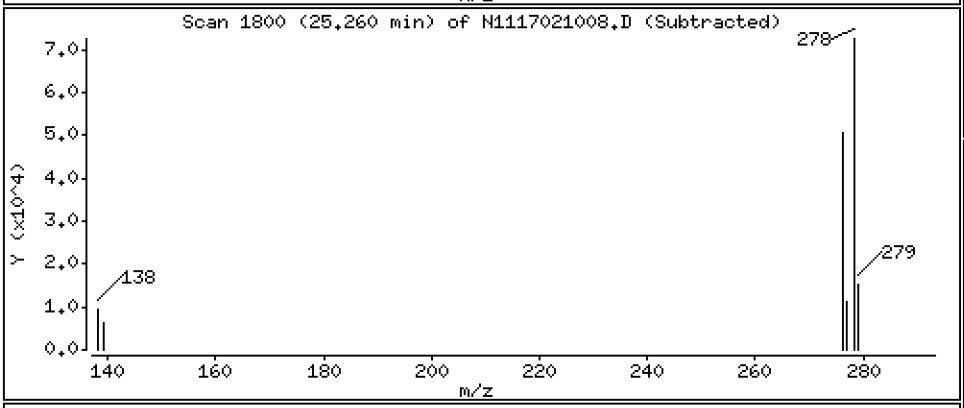
Column diameter: 0.25

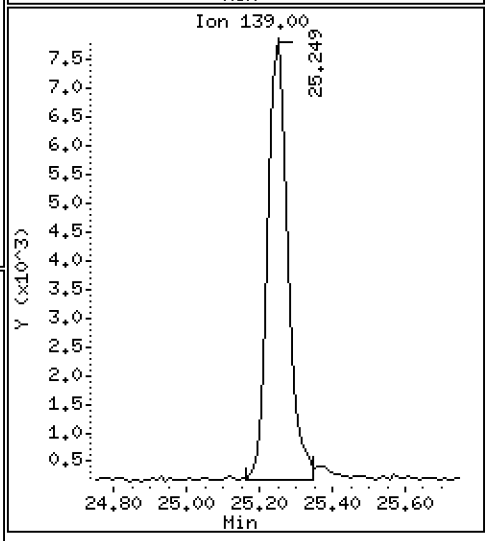
39 Dibenzo(a,h)anthracene

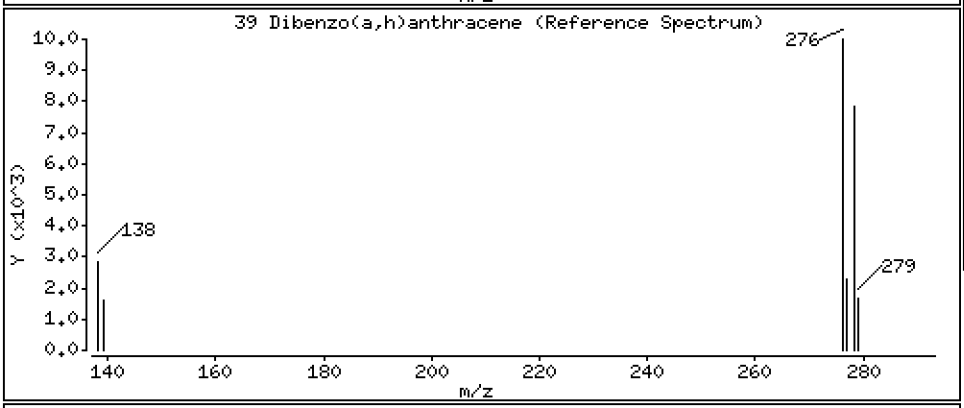
Concentration: 212 ng/mL

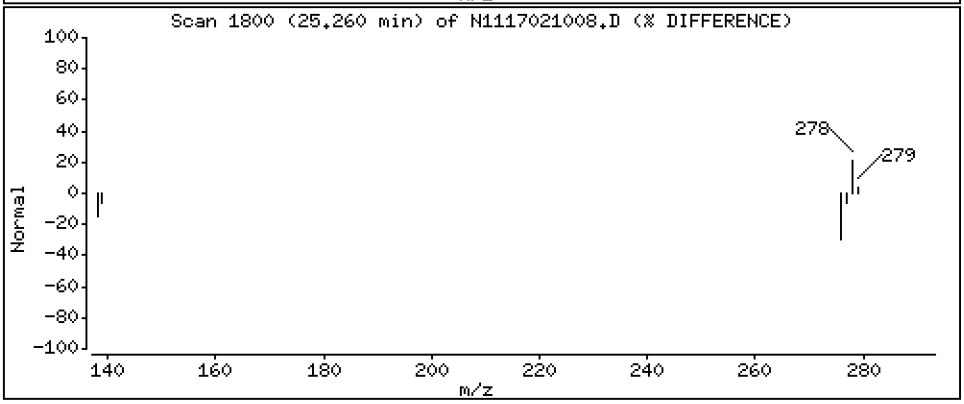












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

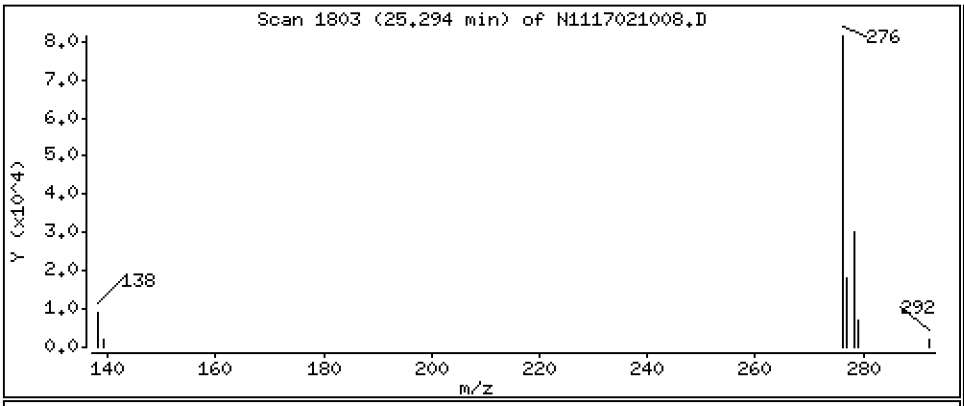
Operator: VTS

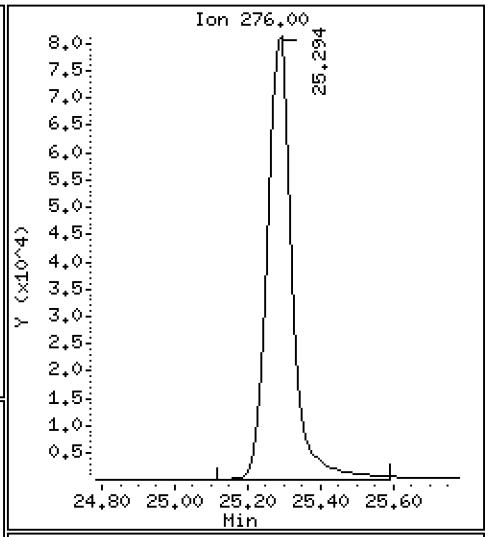
Column phase: Rxi-17Sil MS

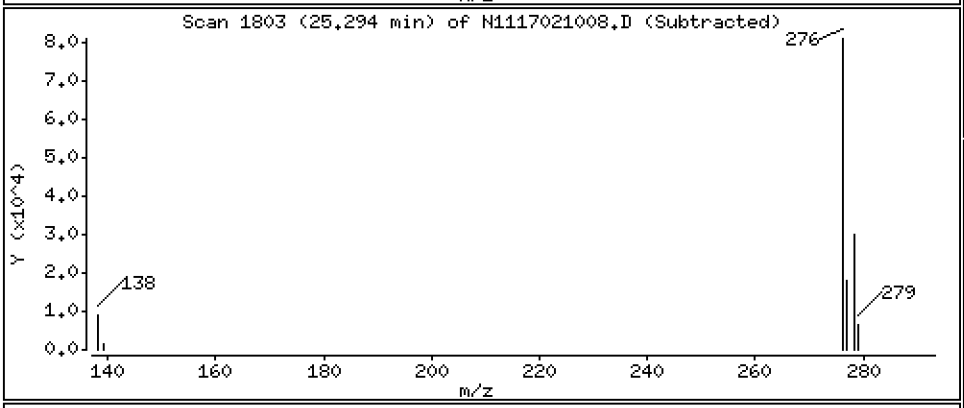
Column diameter: 0.25

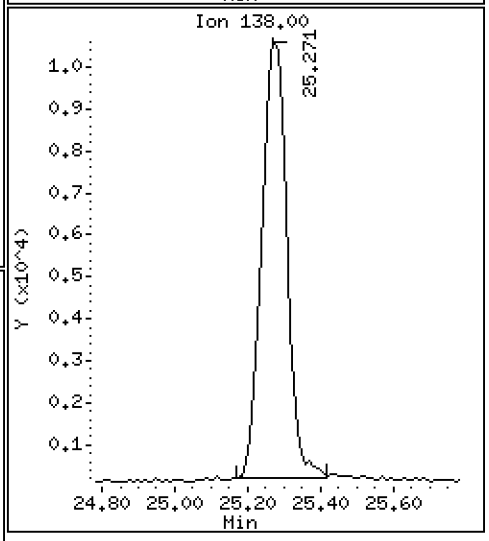
40 Indeno(1,2,3-cd)pyrene

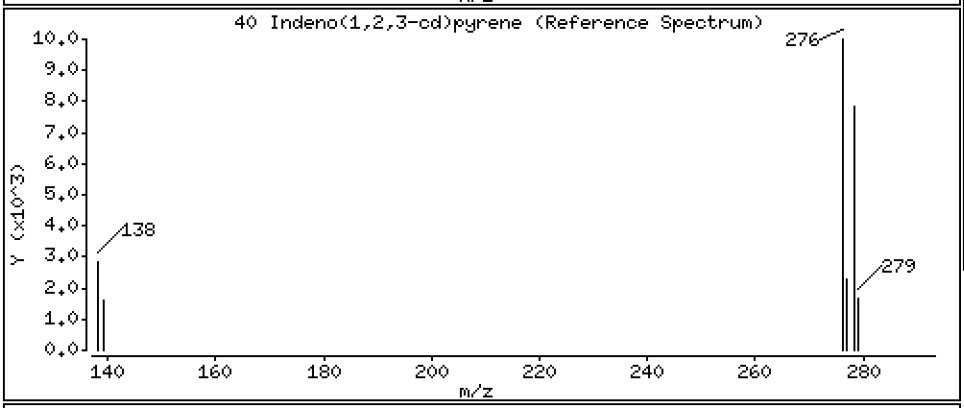
Concentration: 203 ng/mL

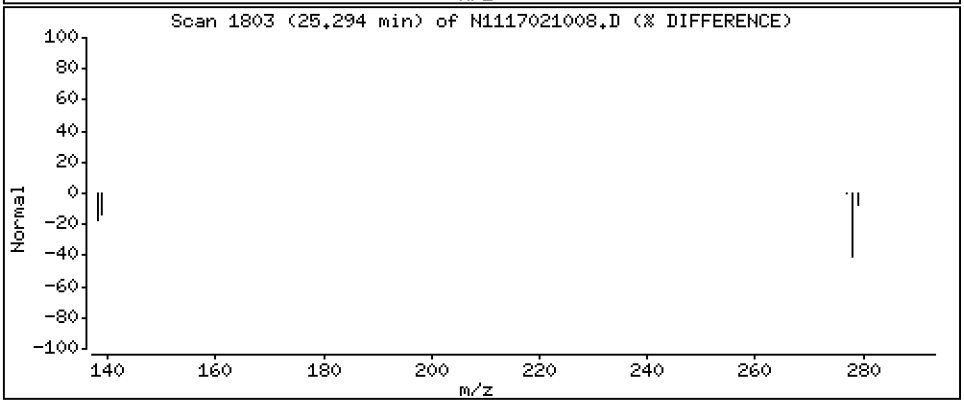












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021008.D

Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

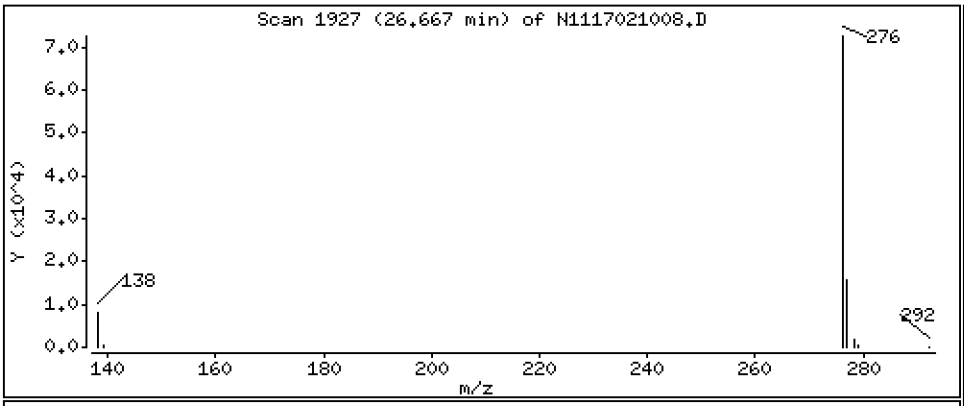
Operator: VTS

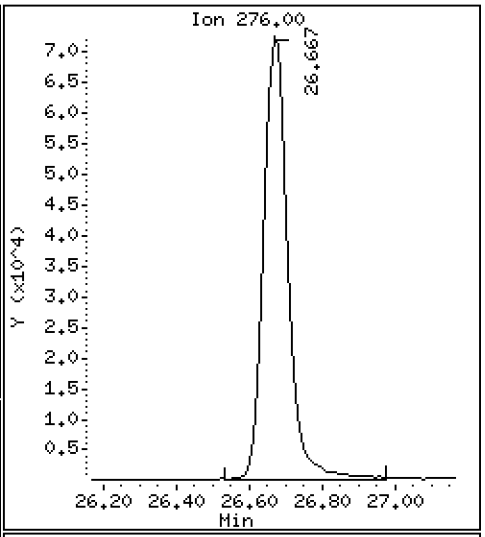
Column phase: Rxi-17Sil MS

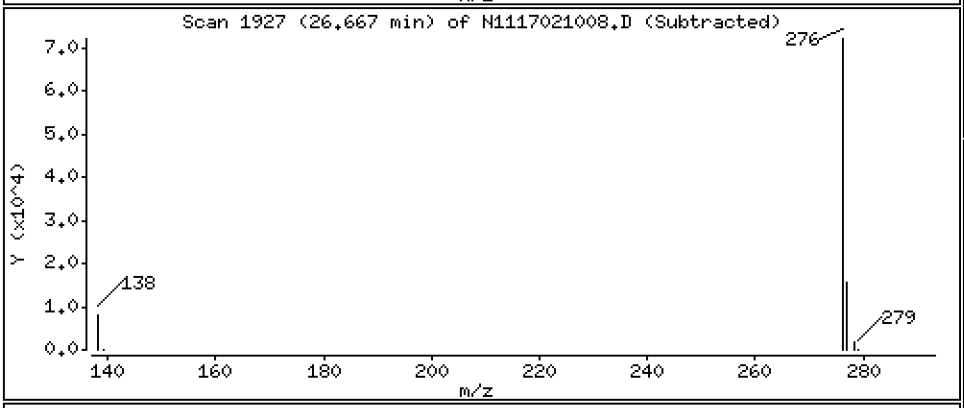
Column diameter: 0.25

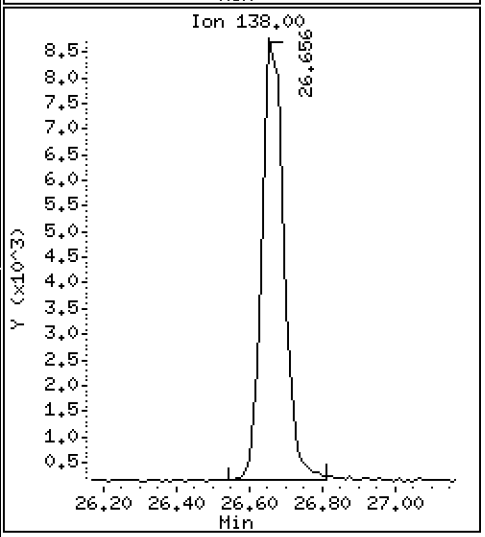
41 Benzo(g,h,i)perylene

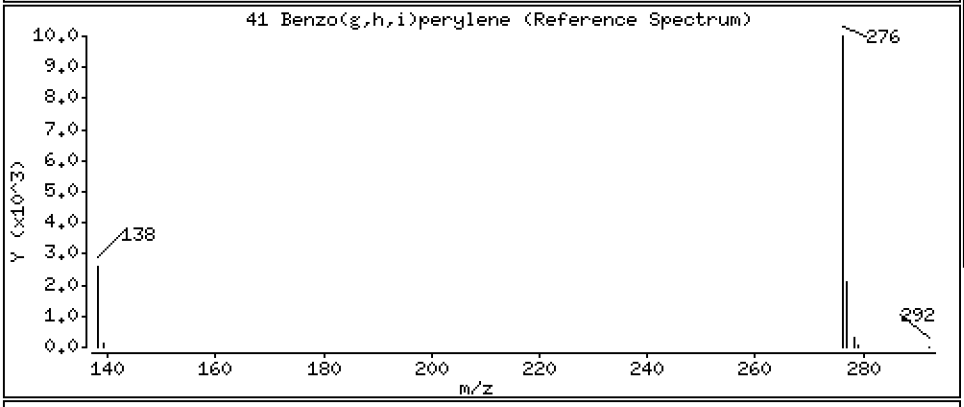
Concentration: 196 ng/mL

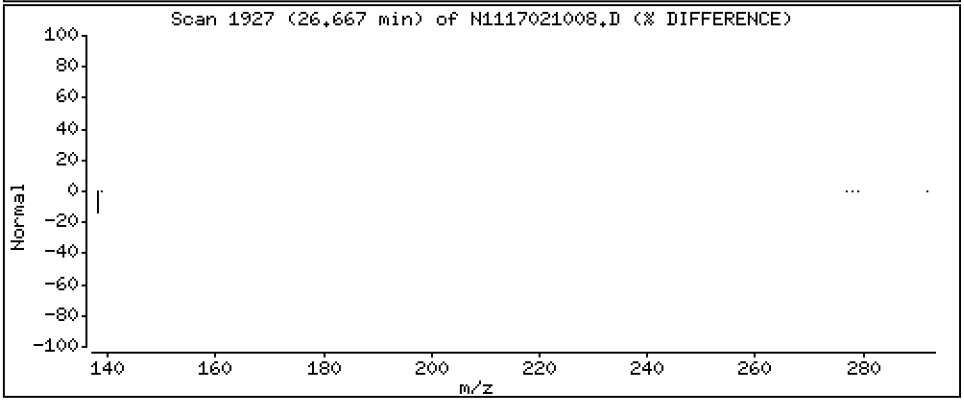












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20170210.b\N1117021008.D
Lab Smp Id: BFA0647-BS1
Inj Date : 10-FEB-2017 15:16 MS Autotune Date: 15-JAN-2015 15:59
Operator : VTS Inst ID: nt11.i
Smp Info : BFA0647-BS1
Misc Info :
Comment   :
Method   : \\target\share\chem3\nt11.i\20170210.b\LOWSIM.m
Meth Date : 11-Feb-2017 08:35 nt11.i Quant Type: ISTD
Cal Date : 31-DEC-2016 09:30 Cal File: N1116123104.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.509	8.526	(1.000)	263463	200.000	
	2 Naphthalene	128	8.545	8.554	(1.004)	205027	155.936	156
	3 Benzo(b)thiophene	134	8.807	8.816	(1.035)	166817	155.856	156
$	4 2-Methylnaphthalene-d10	152	9.498	9.508	(1.116)	190901	168.715	169
	5 2-Methylnaphthalene	142	9.550	9.561	(1.122)	215146	166.026	166
	6 1-Methylnaphthalene	142	9.813	9.823	(1.153)	207291	159.047	159
	7 2-Chloronaphthalene	162	10.475	10.475	(0.907)	209701	150.139	150
	8 Biphenyl	154	10.433	10.443	(0.903)	294029	158.313	158
	9 2,6-Dimethylnaphthalene	156	10.496	10.496	(0.908)	225978	156.905	157
	10 Acenaphthylene	152	11.401	11.410	(0.987)	220254	133.213	133
*	11 Acenaphthene-d10	164	11.555	11.564	(1.000)	184009	200.000	
	12 Acenaphthene	153	11.618	11.627	(1.005)	166751	153.179	153
	13 Dibenzofuran	168	11.822	11.822	(1.023)	276688	170.978	171
	14 2,3,5-Trimethylnaphthalene	170	11.911	11.923	(1.031)	189940	183.425	183
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.454	12.454	(1.078)	228230	177.158	177
	17 Dibenzothiophene	184	14.083	14.083	(0.988)	215863	128.646	129
*	18 Phenanthrene-d10	188	14.252	14.262	(1.000)	363382	200.000	
	19 Phenanthrene	178	14.294	14.293	(1.003)	387370	186.456	186
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.346	14.356	(1.007)	313246	151.216	151
	22 Carbazole	167	15.027	15.027	(1.054)	340230	148.827	149
	23 1-Methylphenanthrene	192	15.298	15.307	(1.073)	392532	184.239	184
$	24 Fluoranthene-d10	212	16.367	16.367	(1.148)	390656	202.410	202
	25 Fluoranthene	202	16.406	16.405	(1.151)	441069	187.163	187
	26 Pyrene	202	16.905	16.915	(0.889)	444642	193.995	194
	27 Benzo(a)anthracene	228	18.925	18.933	(0.995)	401790	189.377	189
*	28 Chrysene-d12	240	19.024	19.024	(1.000)	352838	200.000	
	29 Chrysene	228	19.074	19.074	(1.003)	431479	198.193	198
	30 Benzo(b)fluoranthene	252	21.001	21.001	(0.944)	399310	217.134	217
	31 Benzo(k)fluoranthene	252	21.049	21.049	(0.946)	392190	197.999	198
	32 Benzo(j)fluoranthene	252	21.126	21.125	(0.950)	381273	215.942	216
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	34 Benzo(e)pyrene	252	21.875	21.875	(0.984)	366108	199.578	200
	35 Benzo(a)pyrene	252	22.000	22.000	(0.989)	276600	161.338	161
*	36 Perylene-d12	264	22.240	22.240	(1.000)	341159	200.000	
	37 Perylene	252	22.317	22.317	(1.003)	277541	155.051	155
$	38 Dibenzo(a,h)anthracene-d14	292	25.116	25.116	(1.129)	245050	224.923	225
	39 Dibenzo(a,h)anthracene	278	25.260	25.260	(1.136)	318592	212.404	212
	40 Indeno(1,2,3-cd)pyrene	276	25.293	25.282	(1.137)	380474	203.274	203
	41 Benzo(g,h,i)perylene	276	26.666	26.666	(1.199)	329635	196.160	196

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: N1117021008.D
Lab Smp Id: BFA0647-BS1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20170210.b\LOWSIM.m
Misc Info:

Calibration Date: 10-FEB-2017
Calibration Time: 13:29
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	219654	109827	439308	263463	19.94
11 Acenaphthene-d10	135248	67624	270496	184009	36.05
18 Phenanthrene-d10	257021	128511	514042	363382	41.38
28 Chrysene-d12	259511	129756	519022	352838	35.96
36 Perylene-d12	257535	128768	515070	341159	32.47

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.53	8.03	9.03	8.51	-0.21
11 Acenaphthene-d10	11.56	11.06	12.06	11.56	-0.08
18 Phenanthrene-d10	14.26	13.76	14.76	14.25	-0.07
28 Chrysene-d12	19.02	18.52	19.52	19.02	0.00
36 Perylene-d12	22.24	21.74	22.74	22.24	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1117021008.D

Lab ID: BFA0647-BS1
nt11.i, 20170210.b\LOWSIM.m,   10-FEB-2017 15:16

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20170210.b\LOWSIM.m, allpna.sub = 3.0000

Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

PG-SMA2-2-MUS-170105

MS / MS DUPLICATE RECOVERY
EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	17A0053
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Matrix:	Tissue	Analyzed:	02/10/17 22:23
Batch:	BFA0647	Laboratory ID:	BFA0647-MS1
Preparation:	EPA 3550C-Mod (Ultrasonic)	Sequence Name::	Matrix Spike
Initial/Final:	10.02 g / 0.5 mL	Source Sample:	PG-SMA2-2-MUS-170105

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENTRATION (ug/kg)	MS CONCENTRATION (ug/kg)	MS % REC. #	QC LIMITS REC.
Naphthalene	15.0	ND	4.07	27.2 *	30 - 160
2-Methylnaphthalene	15.0	ND	5.01	33.5	30 - 160
Acenaphthylene	15.0	ND	5.09	34.0	30 - 160
Acenaphthene	15.0	ND	5.24	35.0	30 - 160
Dibenzofuran	15.0	ND	5.70	38.1	30 - 160
Fluorene	15.0	0.50	6.07	40.6	30 - 160
Phenanthrene	15.0	2.80	7.49	31.4	30 - 160
Anthracene	15.0	0.86	6.33	36.6	30 - 160
Fluoranthene	15.0	4.06	7.76	24.7 *	30 - 160
Pyrene	15.0	4.94	9.44	30.0	30 - 160
Benzo(a)anthracene	15.0	1.37	7.10	38.3	30 - 160
Chrysene	15.0	2.60	7.73	34.3	30 - 160
Benzo(b)fluoranthene	15.0	1.53	6.61	33.9	30 - 160
Benzo(k)fluoranthene	15.0	0.77	6.39	37.5	30 - 160
Benzo(j)fluoranthene	15.0	0.73	6.15	36.2	30 - 160
Benzo(a)pyrene	15.0	ND	6.14	41.0	30 - 160
Indeno(1,2,3-cd)pyrene	15.0	ND	6.18	41.3	30 - 160
Dibenzo(a,h)anthracene	15.0	ND	6.26	41.8	30 - 160
Benzo(g,h,i)perylene	15.0	ND	6.00	40.1	30 - 160
1-Methylnaphthalene	15.0	ND	4.92	32.9	30 - 160
2-Chloronaphthalene	15.0	ND	4.69	31.3	30 - 160
Benzo(b)thiophene	15.0	ND	4.04	27.0 *	30 - 160

* Values outside of QC limits

PG-SMA2-2-MUS-170105

MS / MS DUPLICATE RECOVERY
EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	17A0053
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Matrix:	Tissue	Analyzed:	02/10/17 22:59
Batch:	BFA0647	Laboratory ID:	BFA0647-MSD1
Preparation:	EPA 3550C-Mod (Ultrasonic)	Sequence Name::	Matrix Spike Dup
Initial/Final:	10.1 g / 0.5 mL	Source Sample:	PG-SMA2-2-MUS-170105

COMPOUND	SPIKE ADDED (ug/kg)	MSD CONCENTRATION (ug/kg)	MSD % REC. #	% RPD #		QC LIMITS RPD	QC LIMITS REC.
Naphthalene	14.9	7.49	50.5	59.1	*	30	30 - 160
2-Methylnaphthalene	14.9	8.79	59.2	54.8	*	30	30 - 160
Acenaphthylene	14.9	8.81	59.3	53.5	*	30	30 - 160
Acenaphthene	14.9	8.95	60.2	52.3	*	30	30 - 160
Dibenzofuran	14.9	9.79	65.9	52.7	*	30	30 - 160
Fluorene	14.9	9.99	63.9	48.7	*	30	30 - 160
Phenanthrene	14.9	12.5	65.4	50.1	*	30	30 - 160
Anthracene	14.9	10.7	66.5	51.5	*	30	30 - 160
Fluoranthene	14.9	13.2	61.3	51.6	*	30	30 - 160
Pyrene	14.9	16.1	75.5	52.5	*	30	30 - 160
Benzo(a)anthracene	14.9	12.4	74.2	54.3	*	30	30 - 160
Chrysene	14.9	13.4	72.9	53.8	*	30	30 - 160
Benzo(b)fluoranthene	14.9	11.2	64.9	51.4	*	30	30 - 160
Benzo(k)fluoranthene	14.9	10.9	68.2	52.2	*	30	30 - 160
Benzo(j)fluoranthene	14.9	10.5	66.0	52.5	*	30	30 - 160
Benzo(a)pyrene	14.9	10.4	69.9	51.4	*	30	30 - 160
Indeno(1,2,3-cd)pyrene	14.9	10.4	70.3	51.2	*	30	30 - 160
Dibenzo(a,h)anthracene	14.9	10.5	70.7	50.6	*	30	30 - 160
Benzo(g,h,i)perylene	14.9	10.2	69.0	52.2	*	30	30 - 160
1-Methylnaphthalene	14.9	8.74	58.8	55.9	*	30	30 - 160
2-Chloronaphthalene	14.9	8.55	57.6	58.4	*	30	30 - 160
Benzo(b)thiophene	14.9	7.54	50.7	60.4	*	30	30 - 160

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021020.D

Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

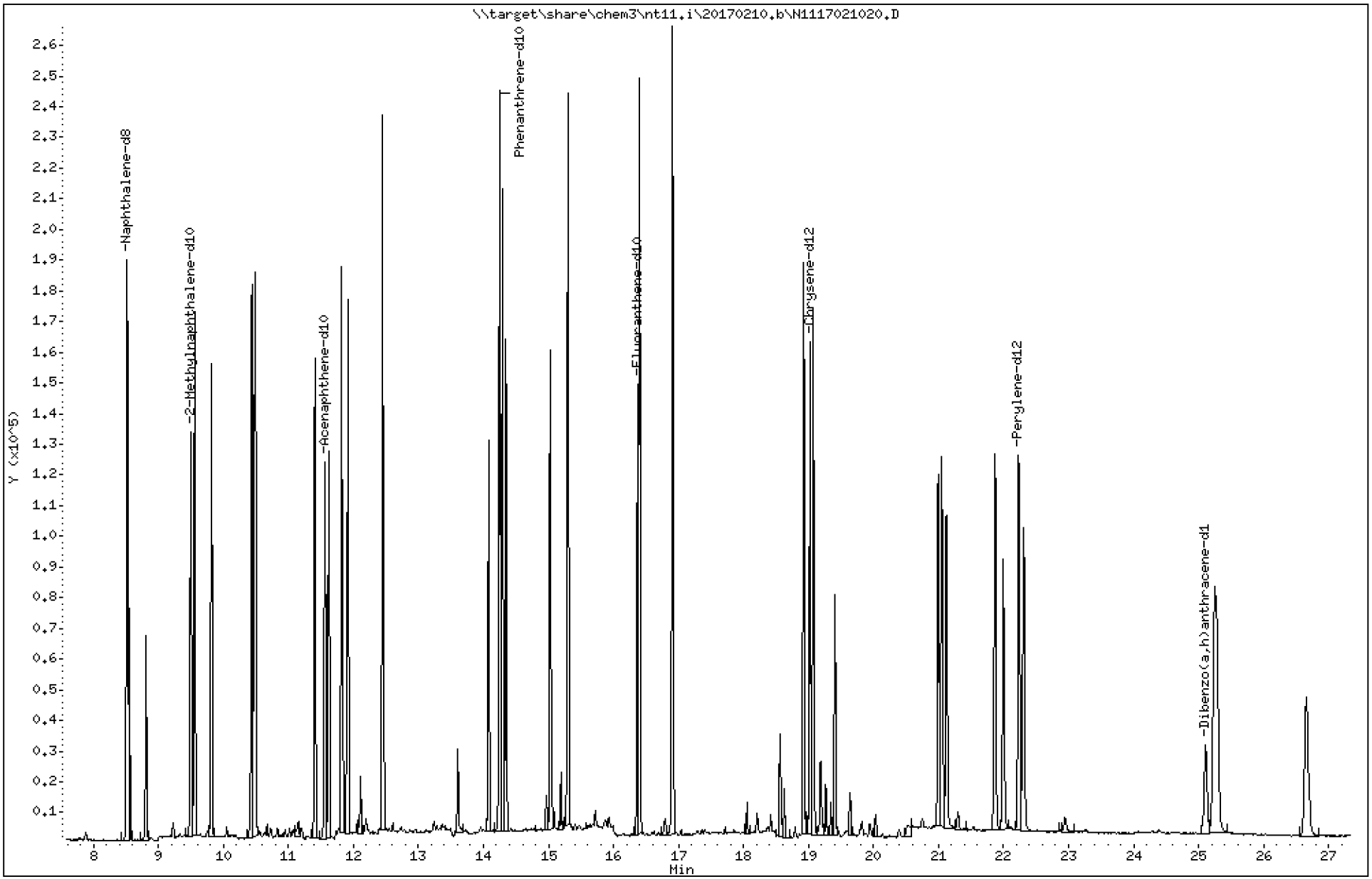
Sample Info: BFA0647-MS1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

1102



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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

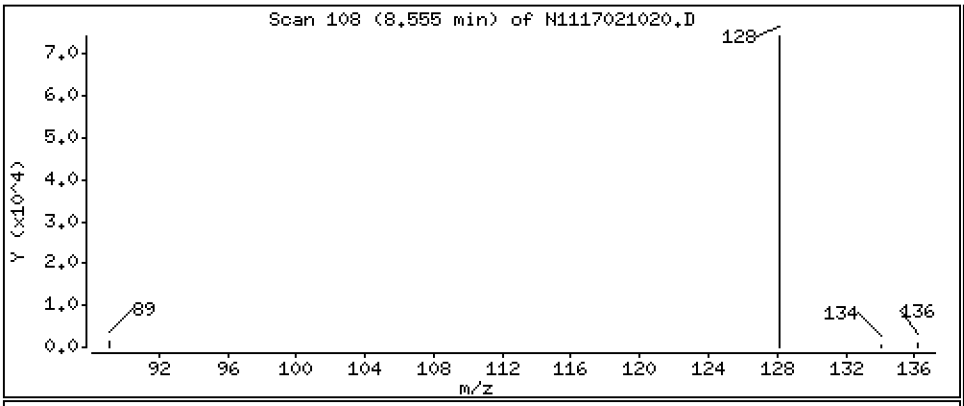
Operator: VTS

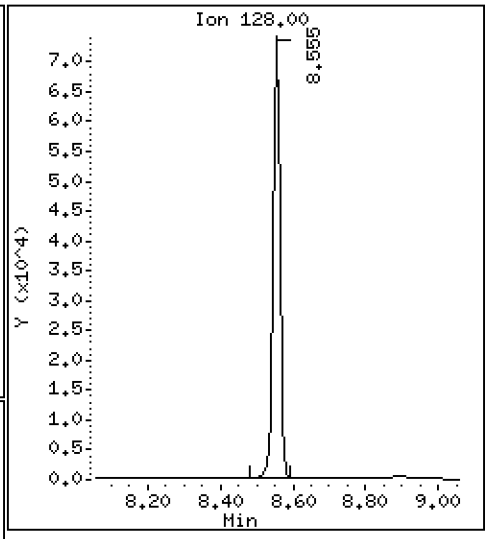
Column phase: Rxi-17Sil MS

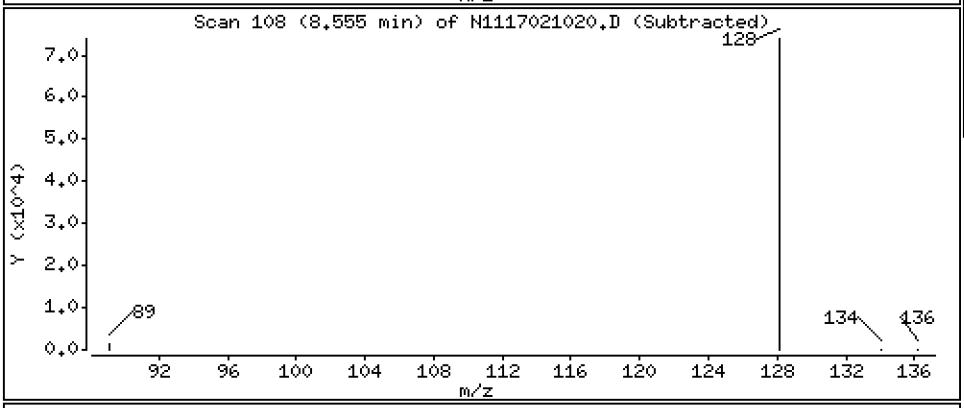
Column diameter: 0.25

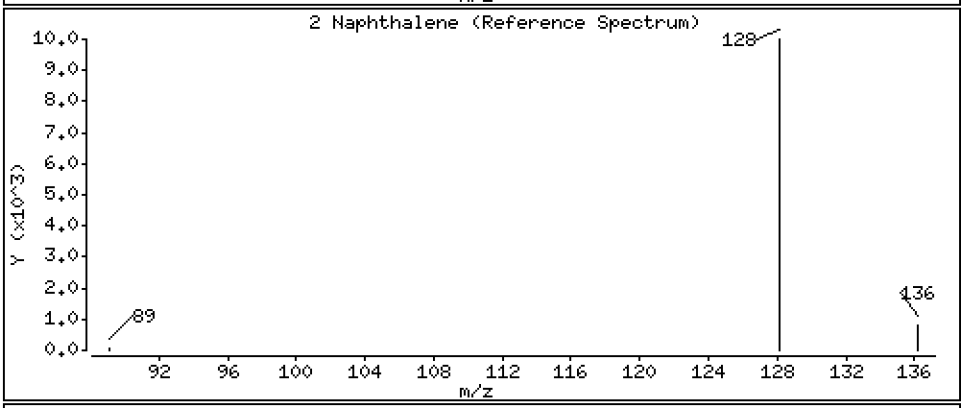
2 Naphthalene

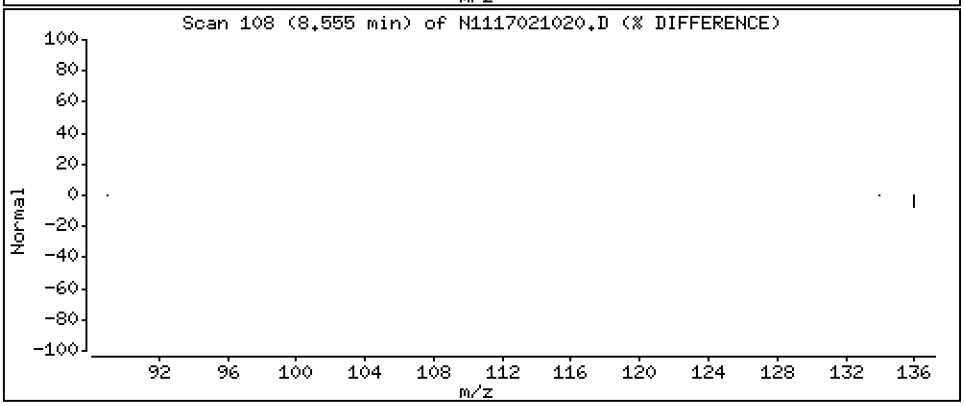
Concentration: 81.6 ng/mL











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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

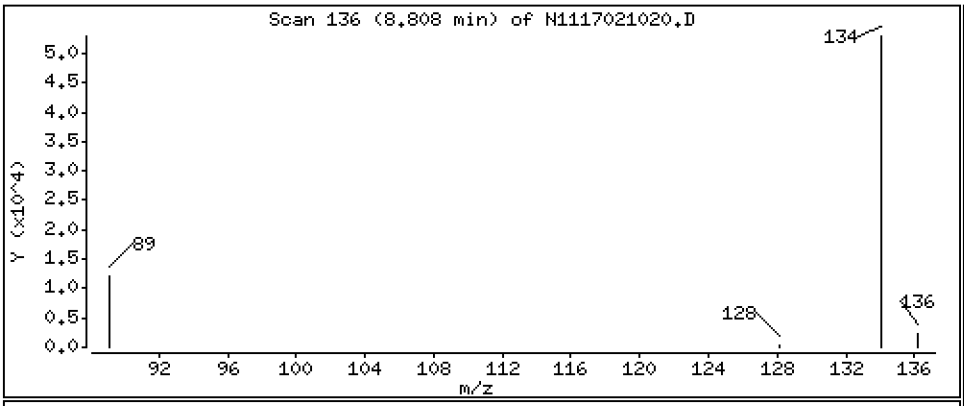
Operator: VTS

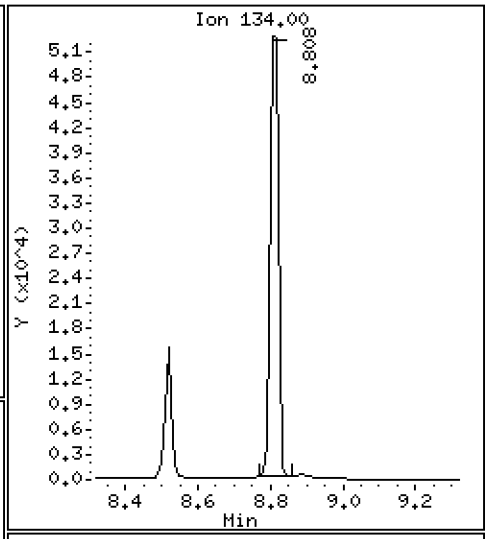
Column phase: Rxi-17Sil MS

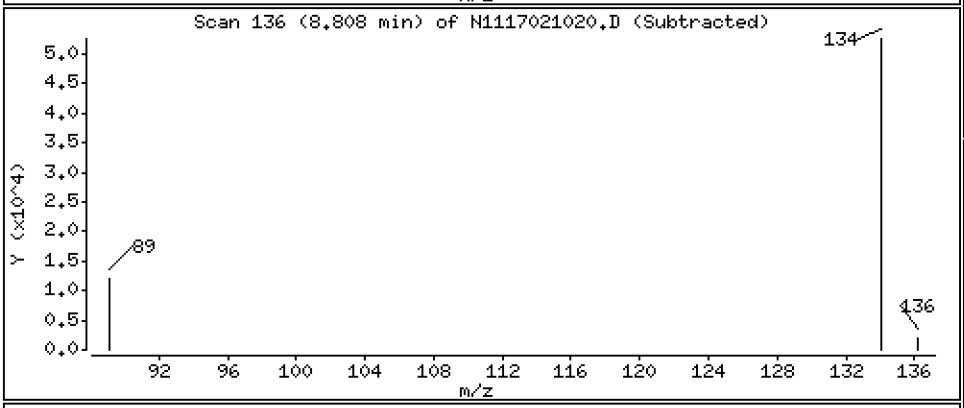
Column diameter: 0.25

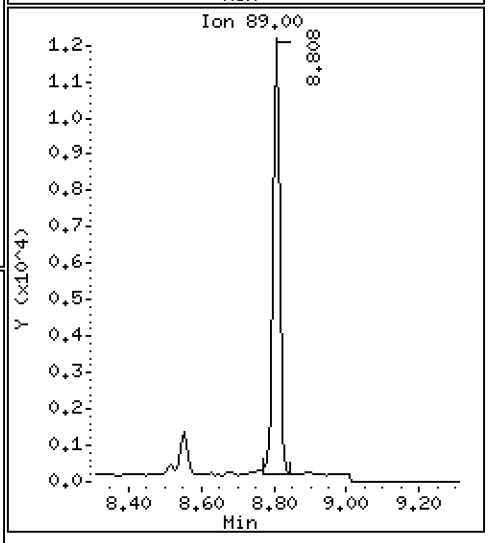
3 Benzo(b)thiophene

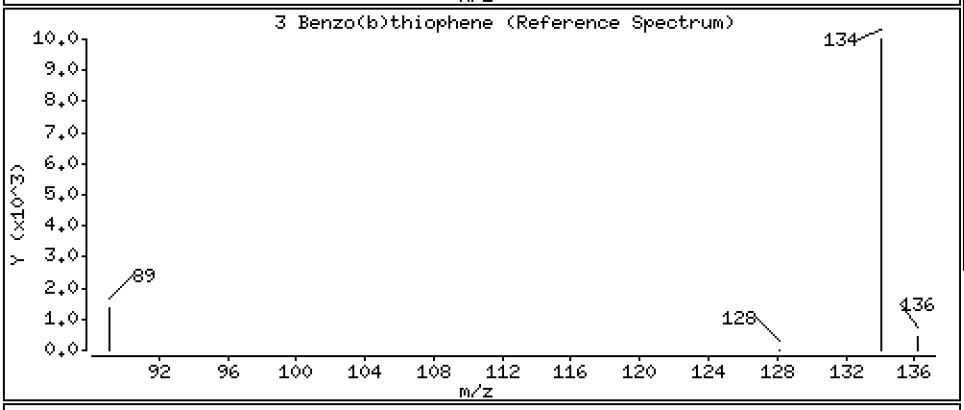
Concentration: 81.0 ng/mL

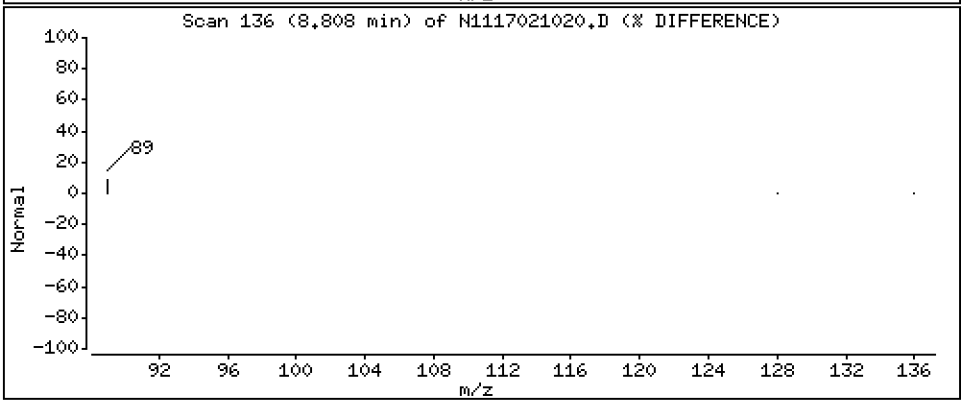












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

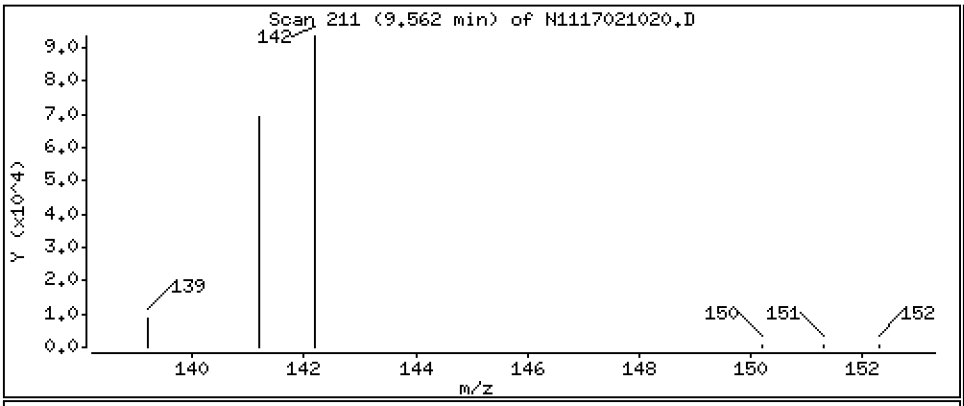
Operator: VTS

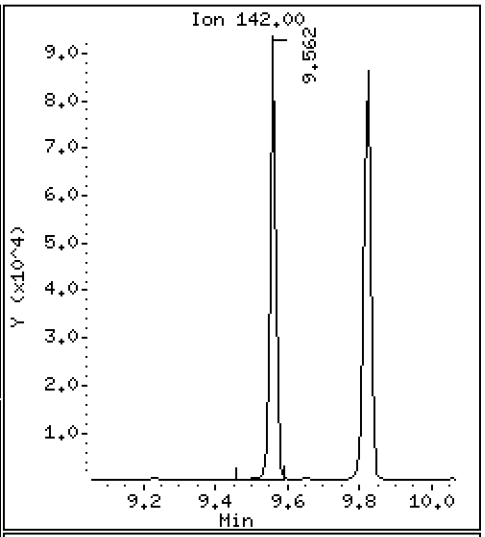
Column phase: Rxi-17Sil MS

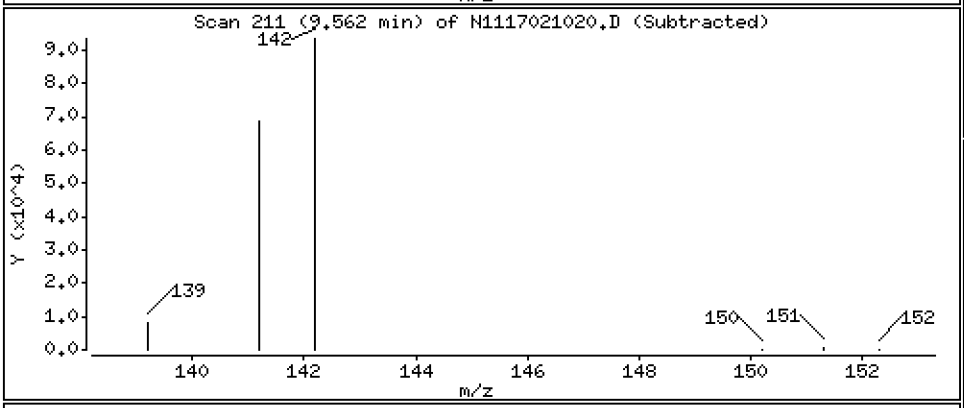
Column diameter: 0.25

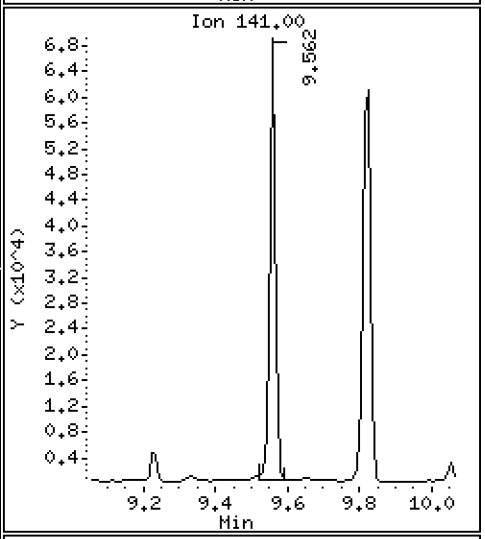
5 2-Methylnaphthalene

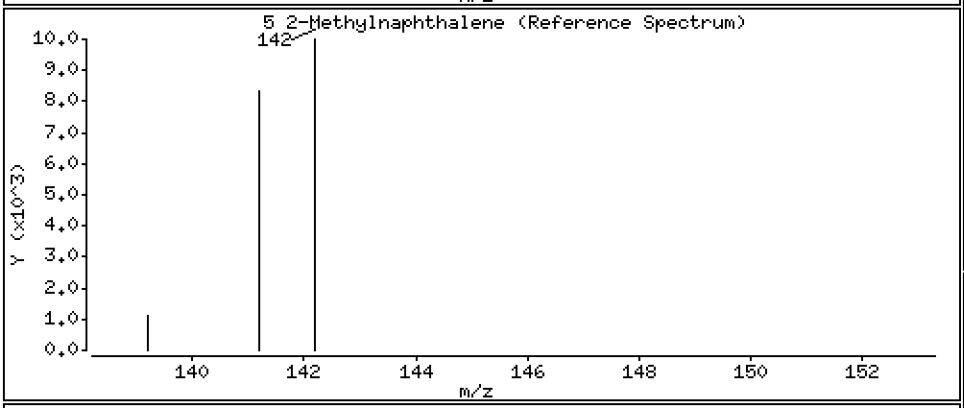
Concentration: 100 ng/mL

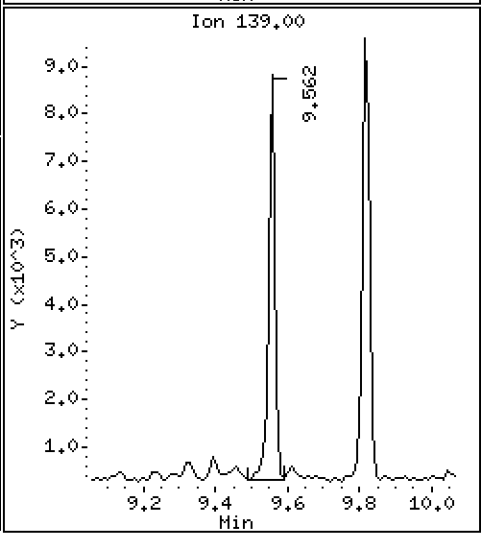


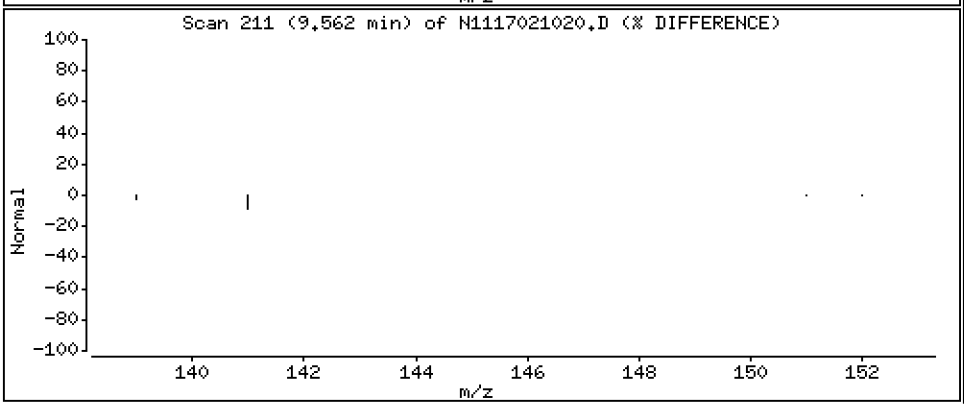












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

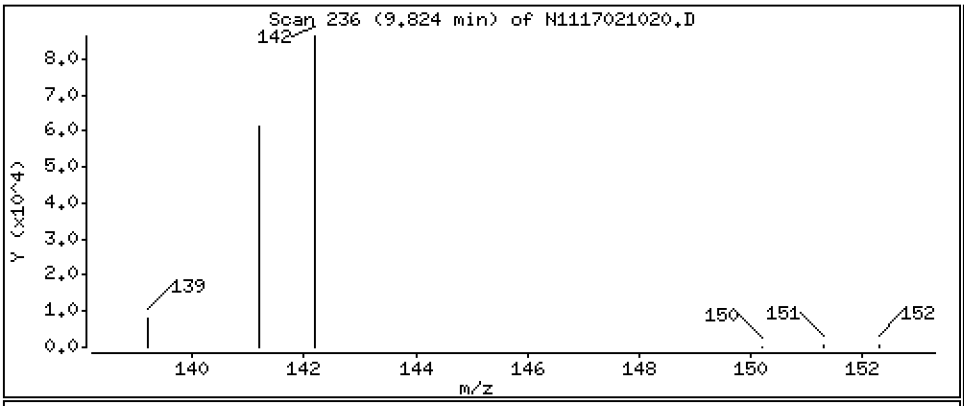
Operator: VTS

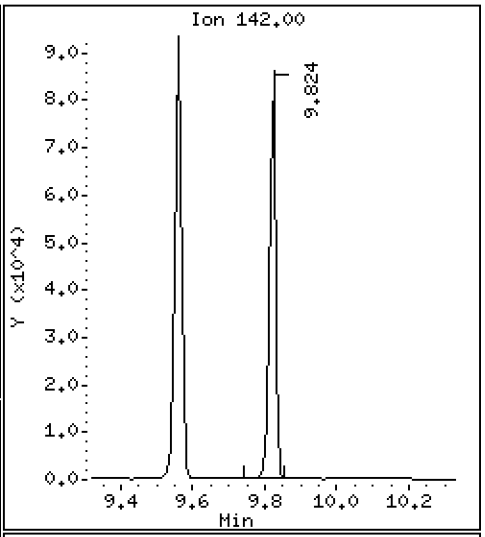
Column phase: Rxi-17Sil MS

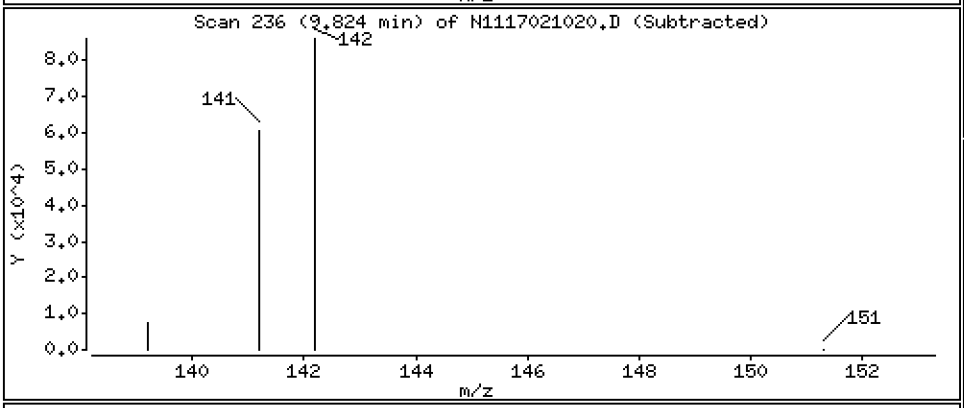
Column diameter: 0.25

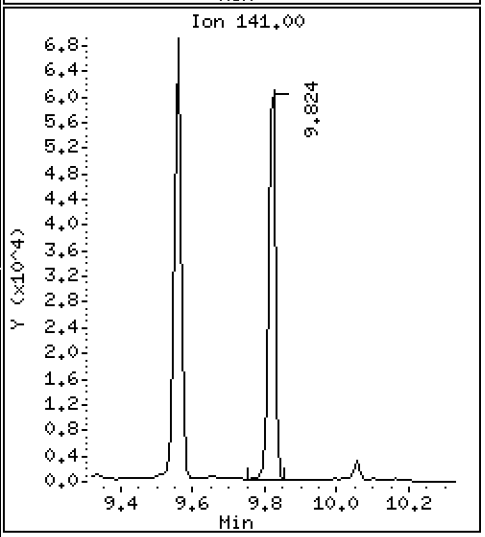
6 1-Methylnaphthalene

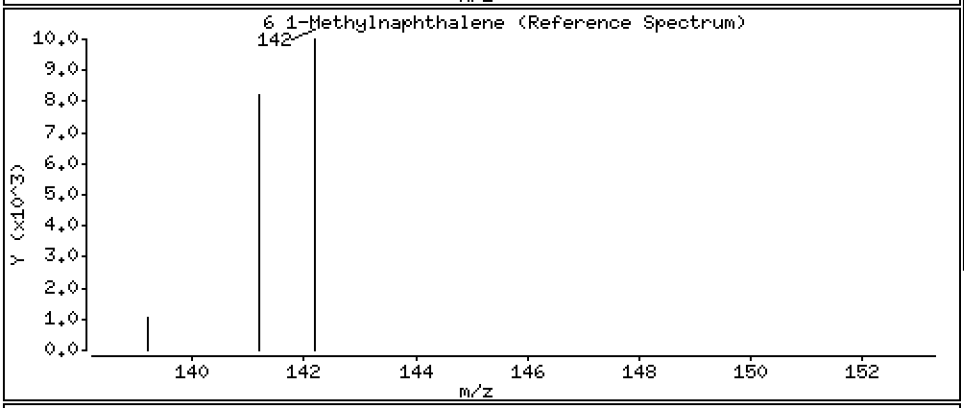
Concentration: 98.6 ng/mL

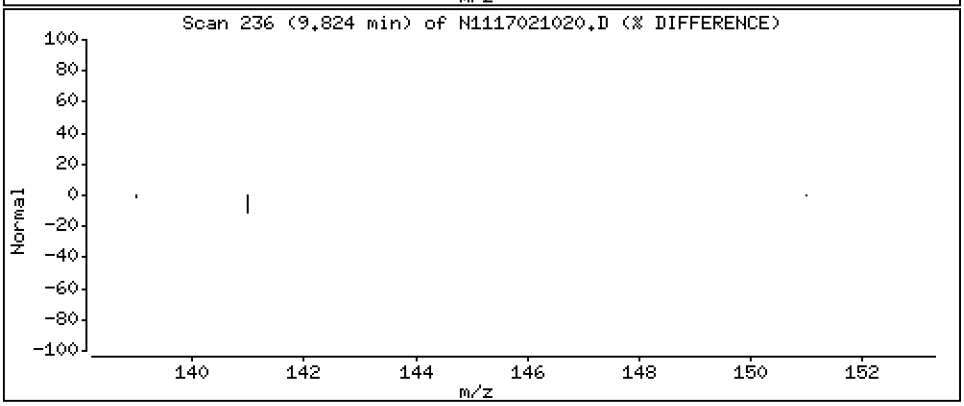












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

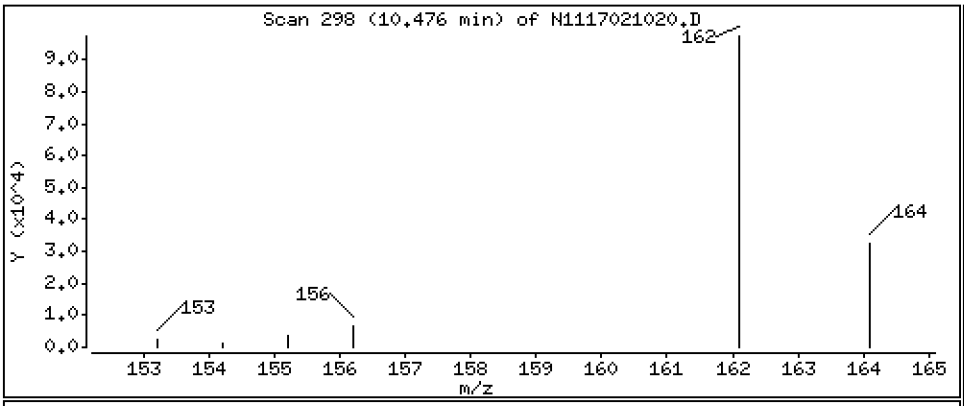
Operator: VTS

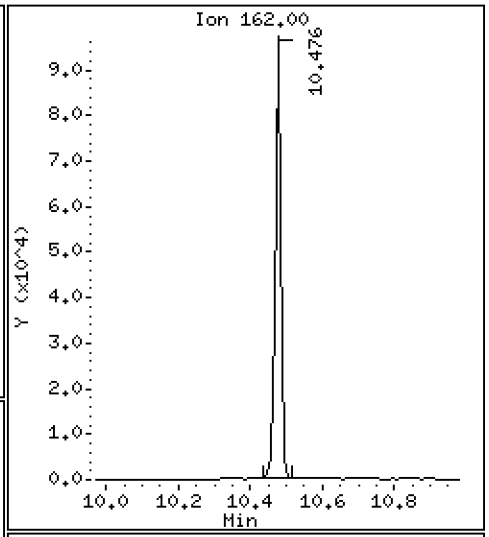
Column phase: Rxi-17Sil MS

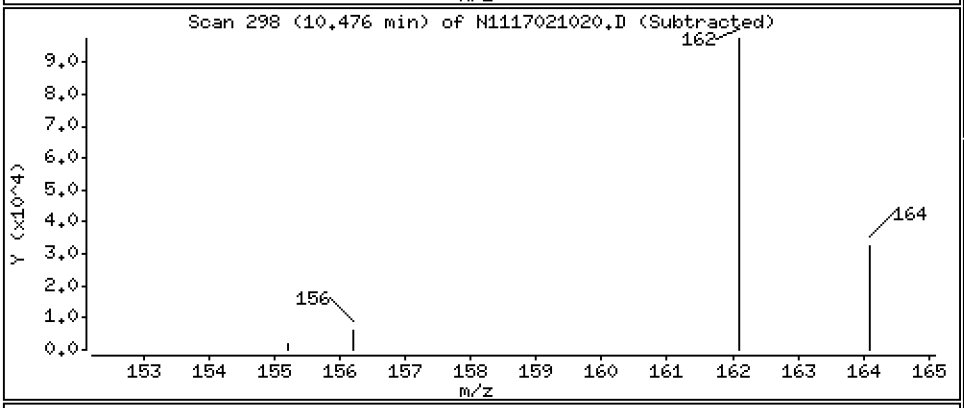
Column diameter: 0.25

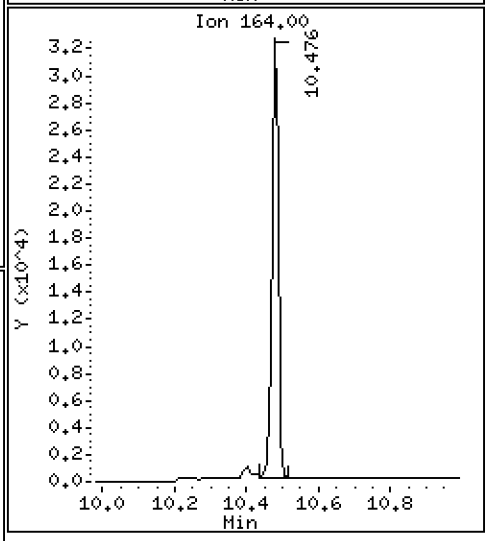
7 2-Chloronaphthalene

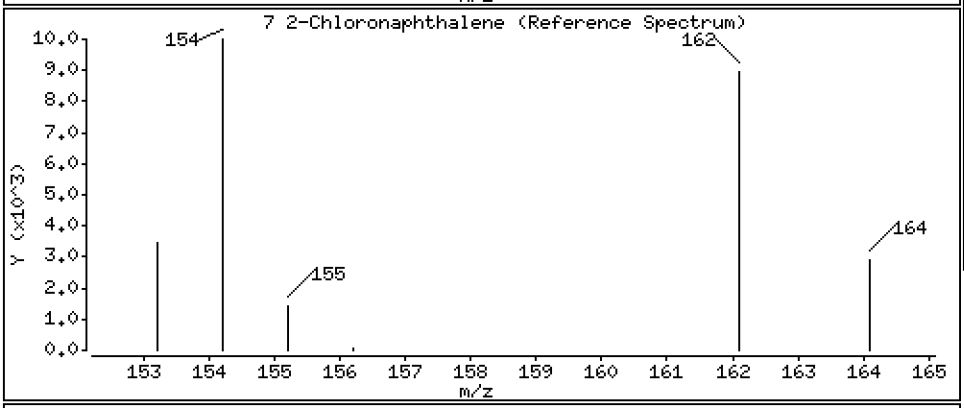
Concentration: 93.9 ng/mL

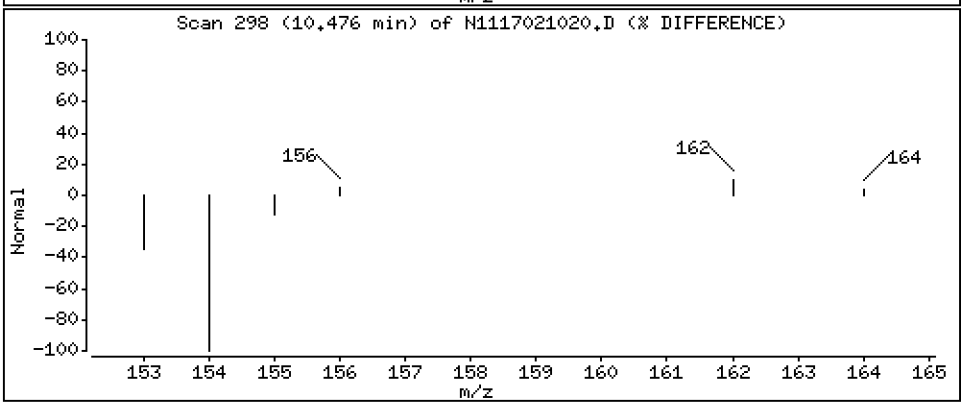












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

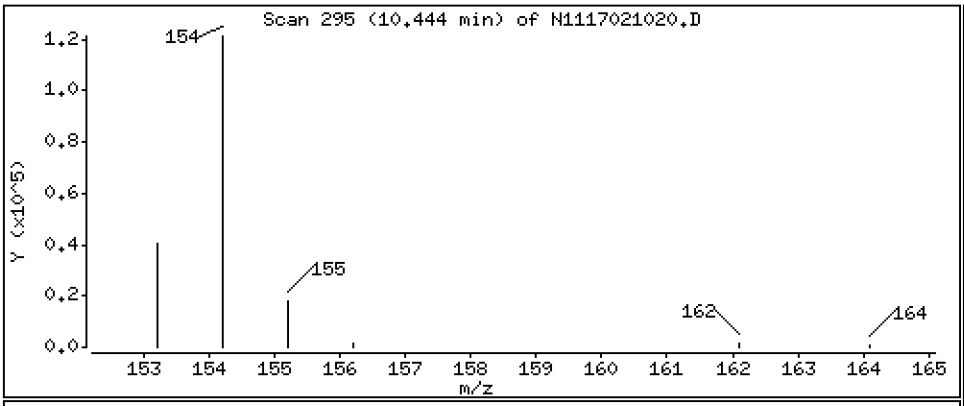
Operator: VTS

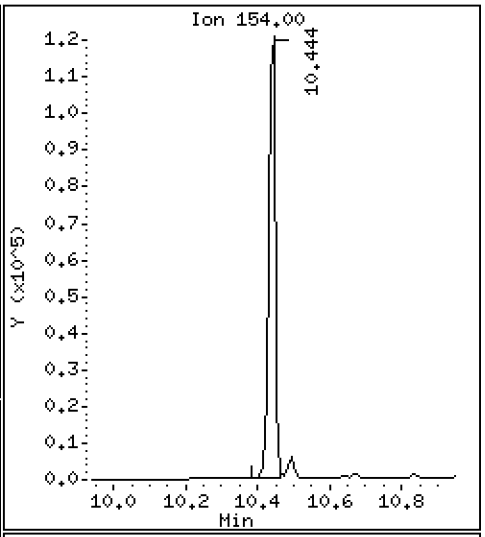
Column phase: Rxi-17Sil MS

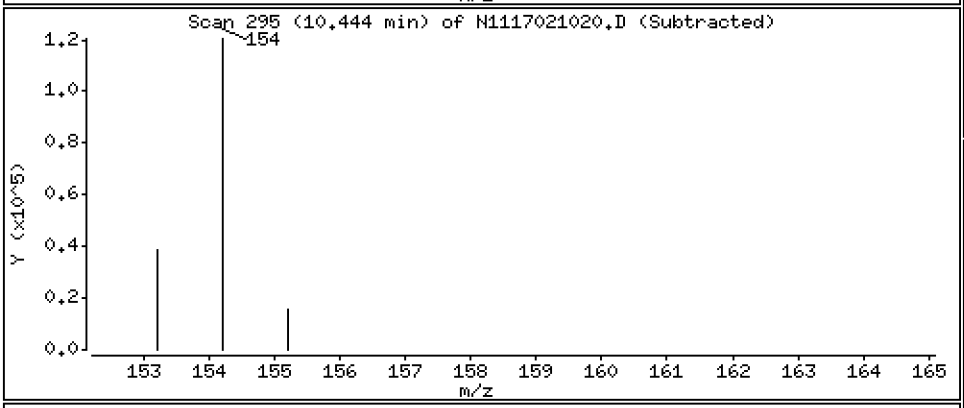
Column diameter: 0.25

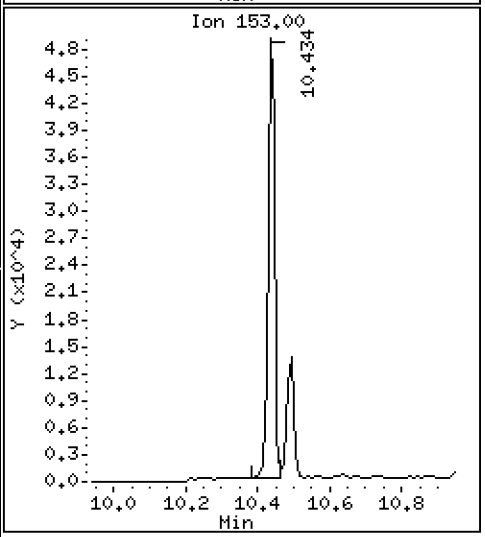
8 Biphenyl

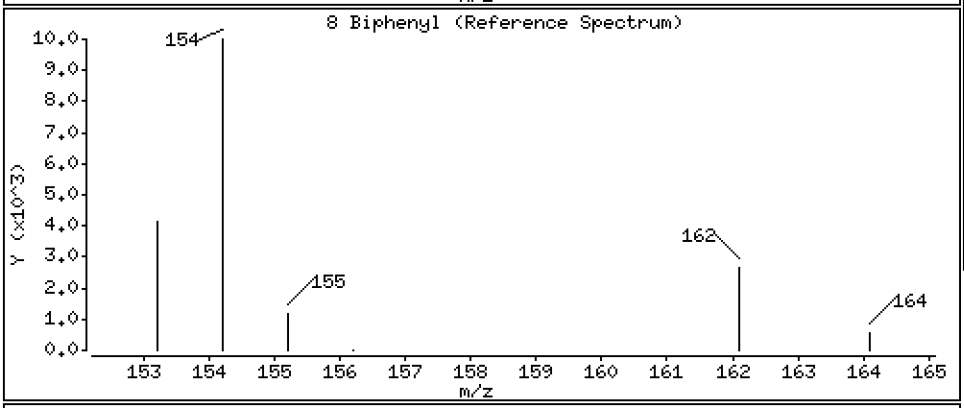
Concentration: 100 ng/mL

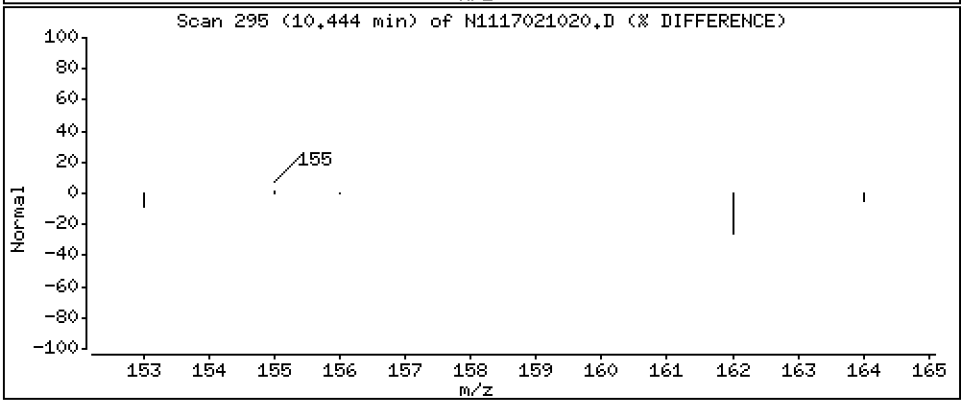












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

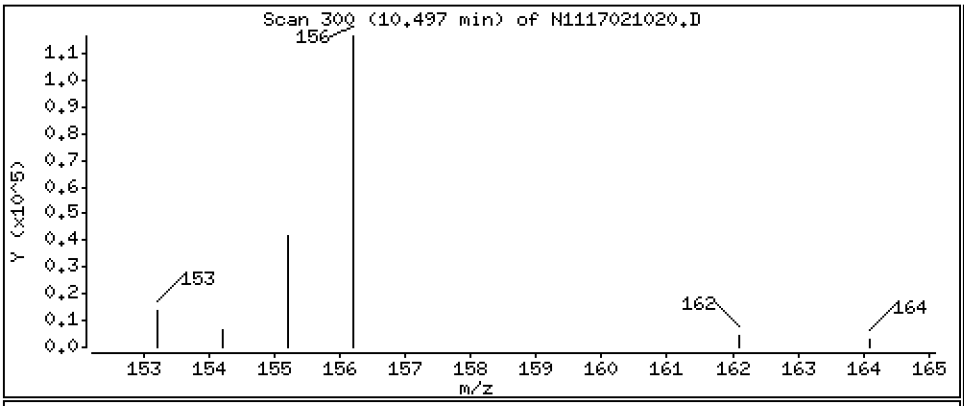
Operator: VTS

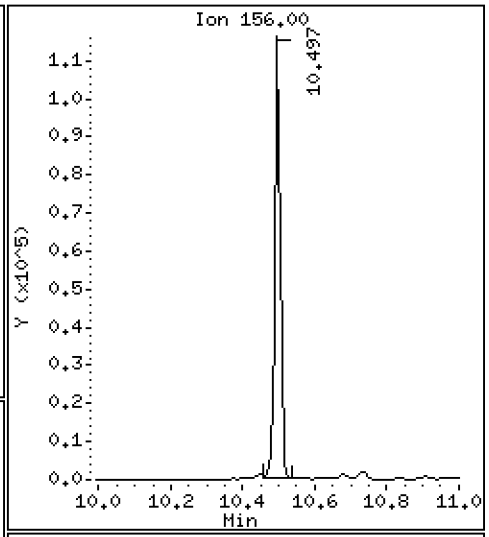
Column phase: Rxi-17Sil MS

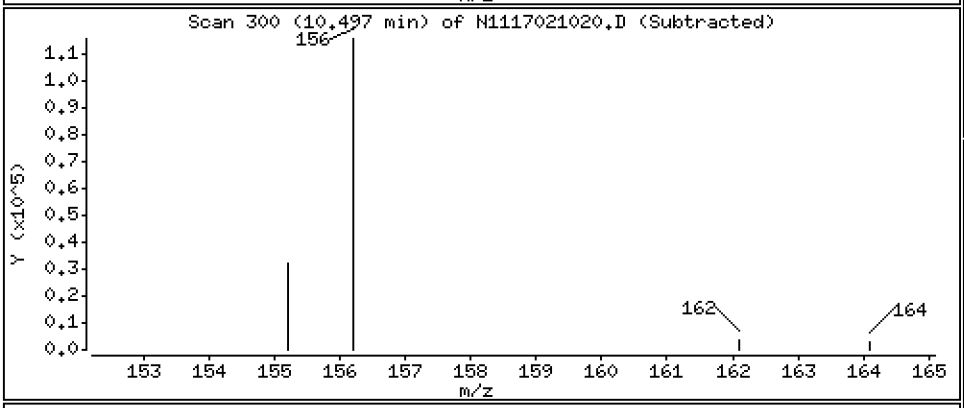
Column diameter: 0.25

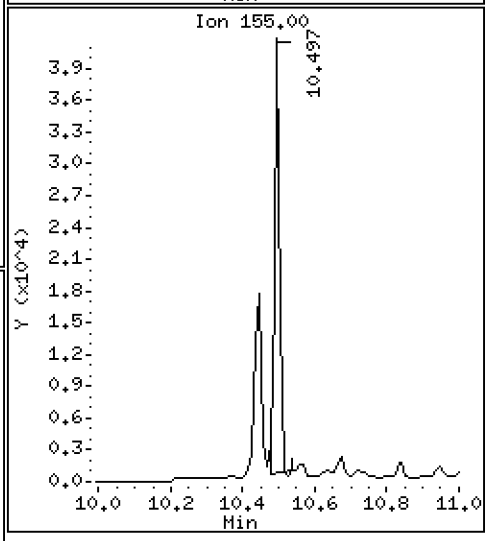
9 2,6-Dimethylnaphthalene

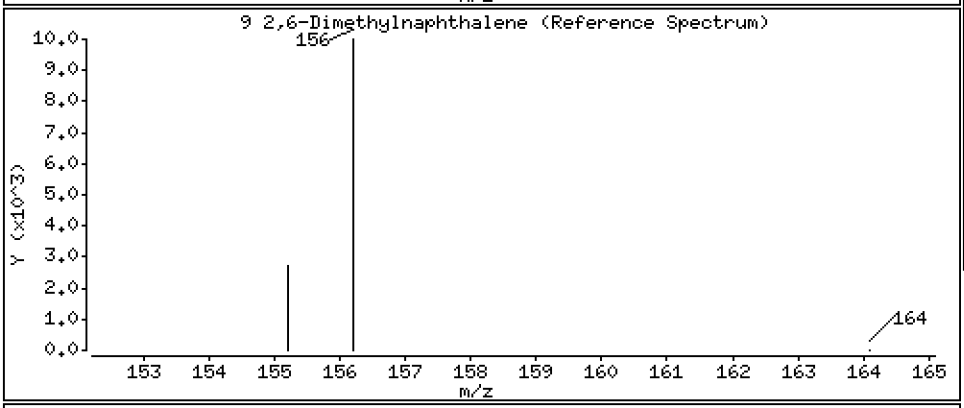
Concentration: 105 ng/mL

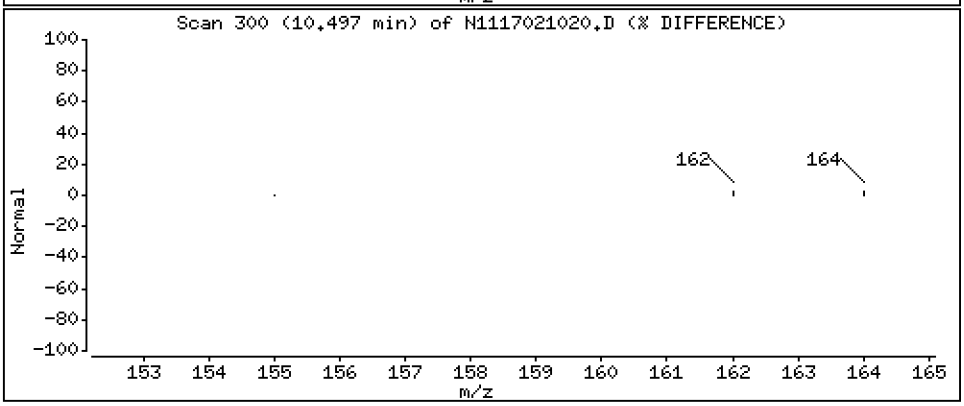












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

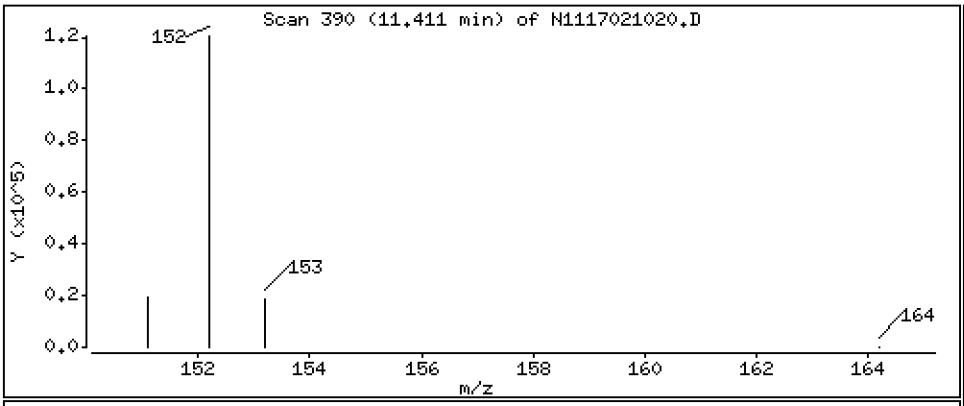
Operator: VTS

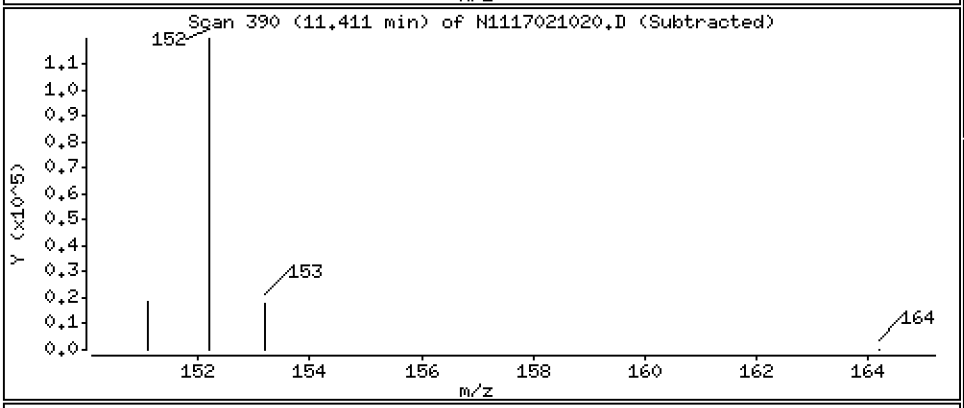
Column phase: Rxi-17Sil MS

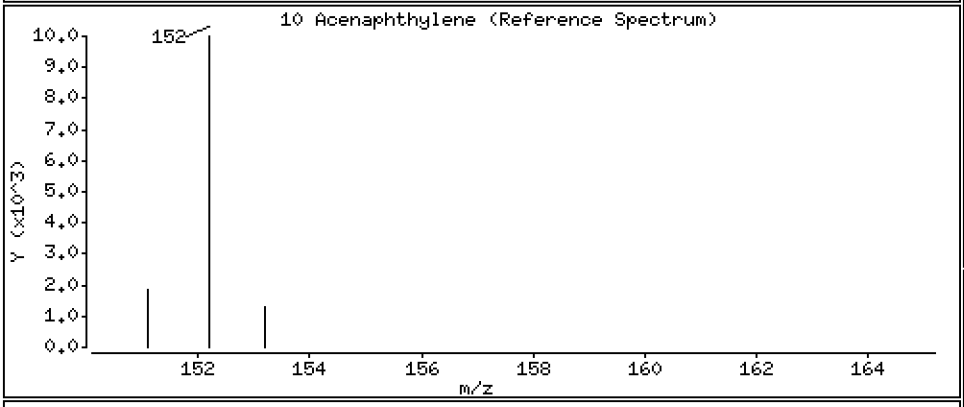
Column diameter: 0.25

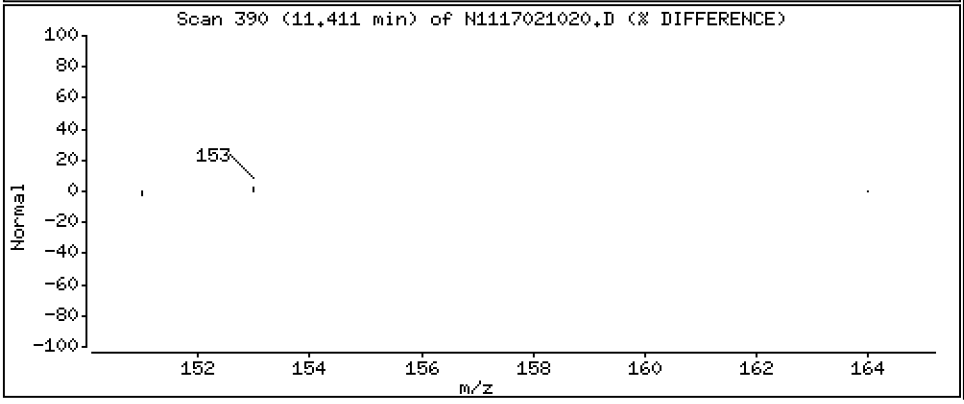
10 Acenaphthylene

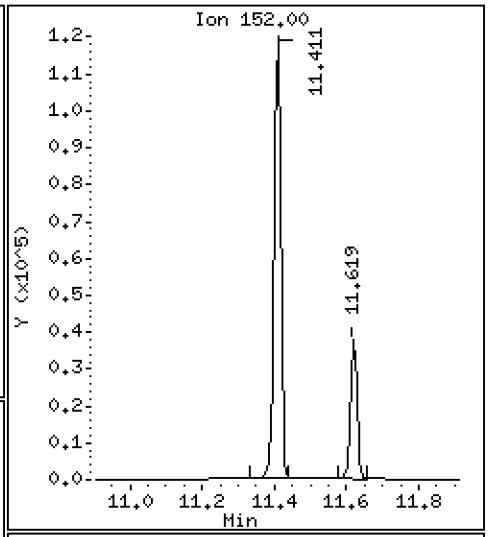
Concentration: 102 ng/mL

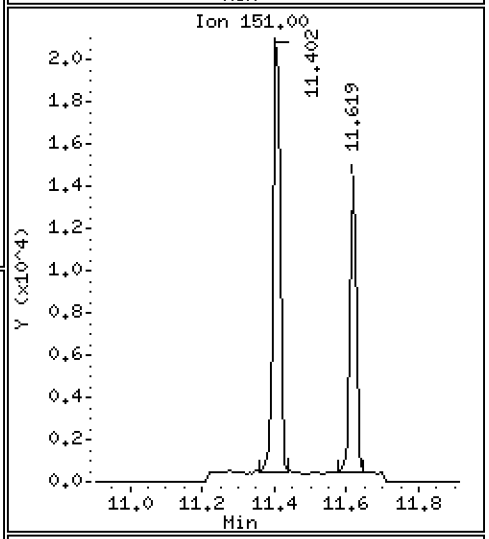


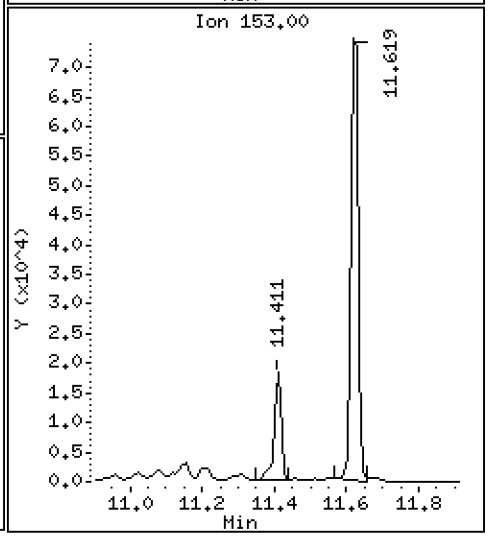












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

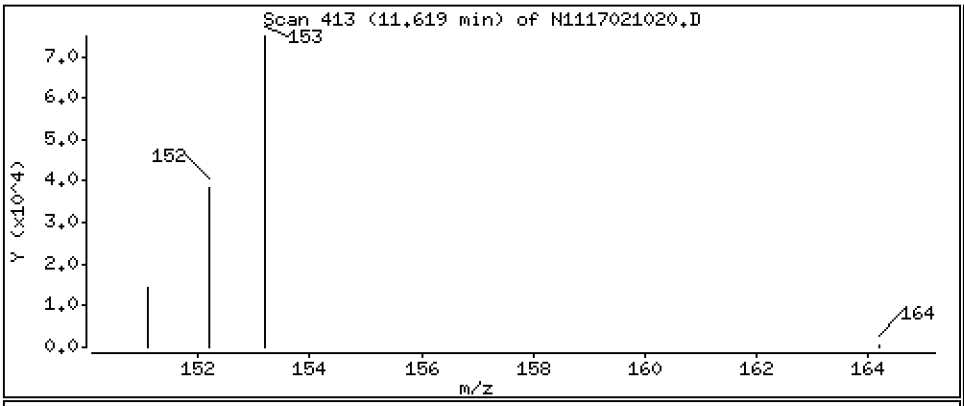
Operator: VTS

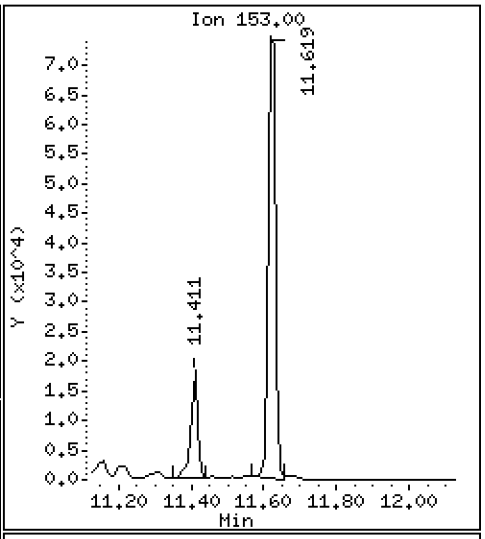
Column phase: Rxi-17Sil MS

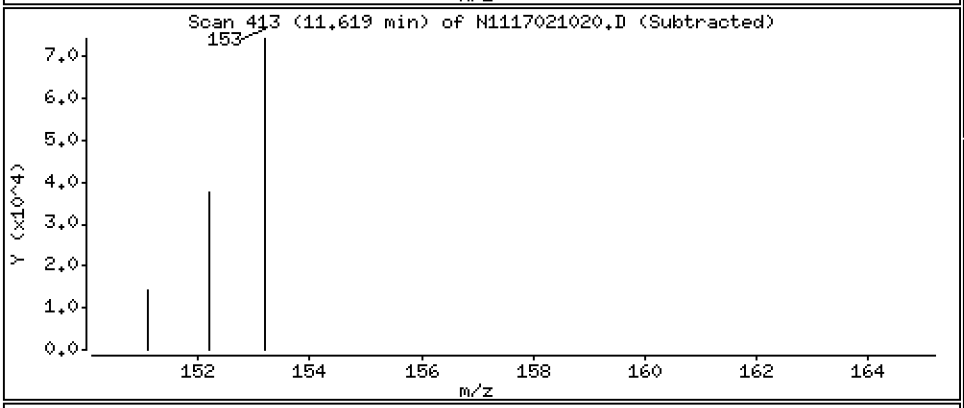
Column diameter: 0.25

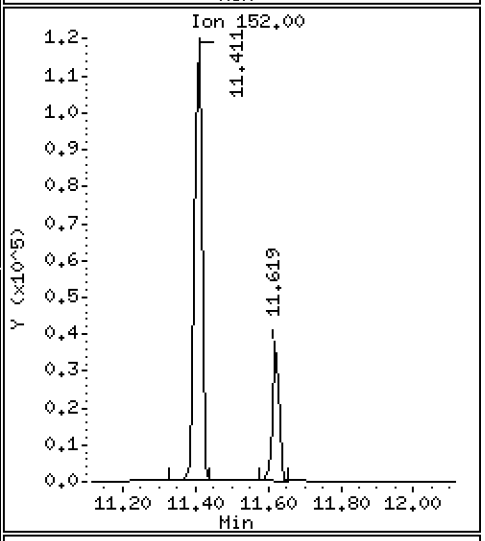
12 Acenaphthene

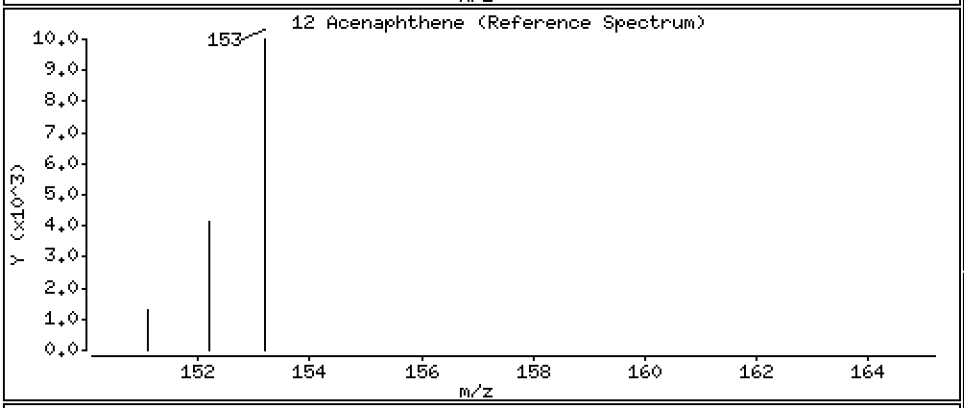
Concentration: 105 ng/mL

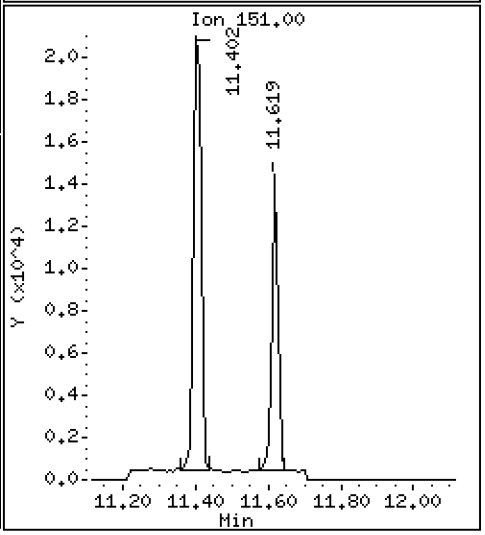


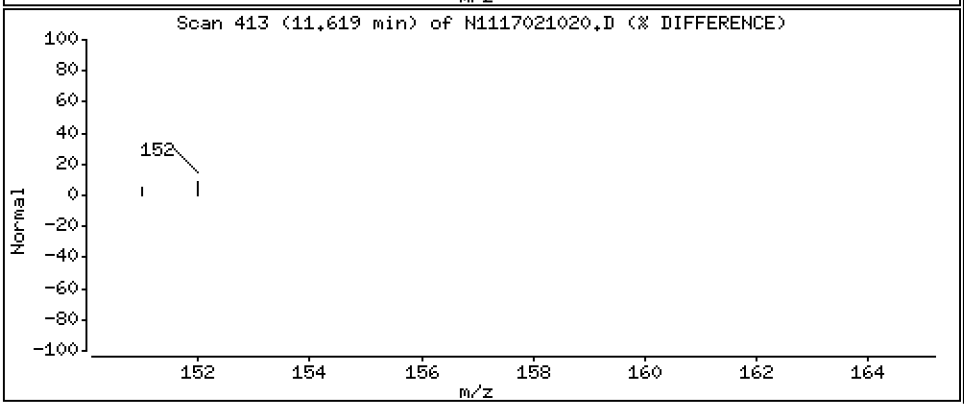












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

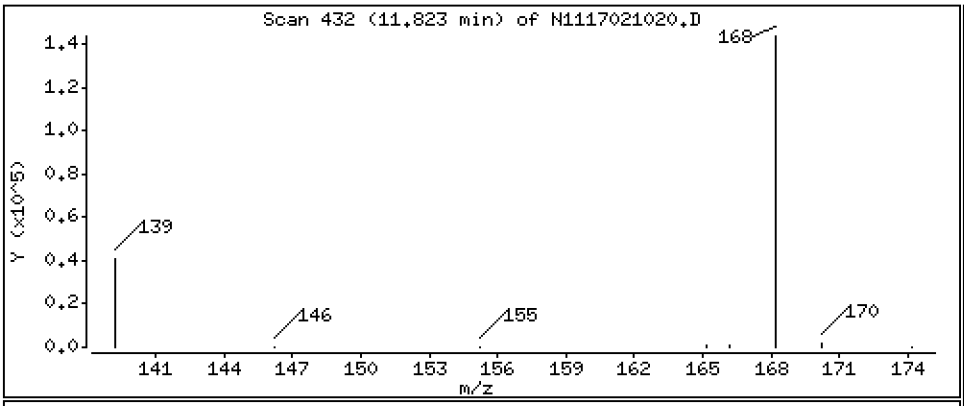
Operator: VTS

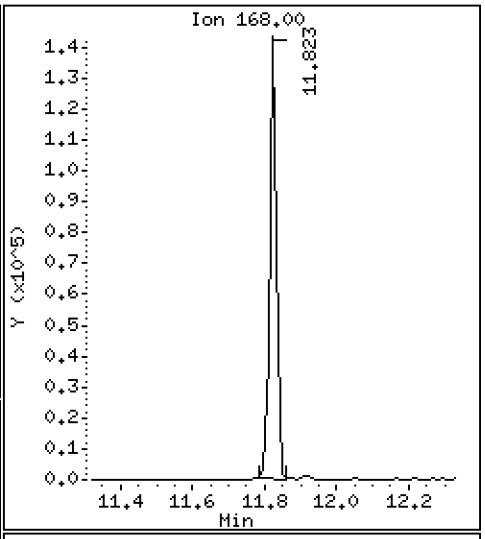
Column phase: Rxi-17Sil MS

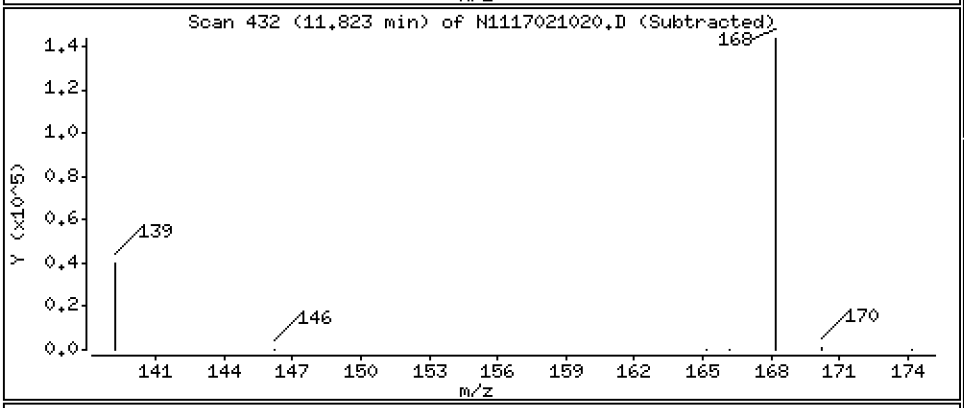
Column diameter: 0.25

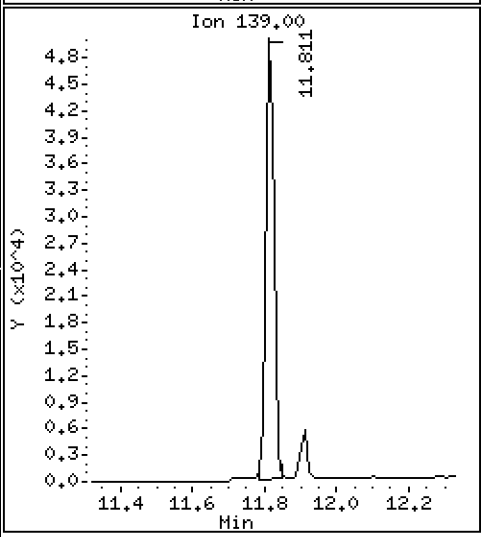
13 Dibenzofuran

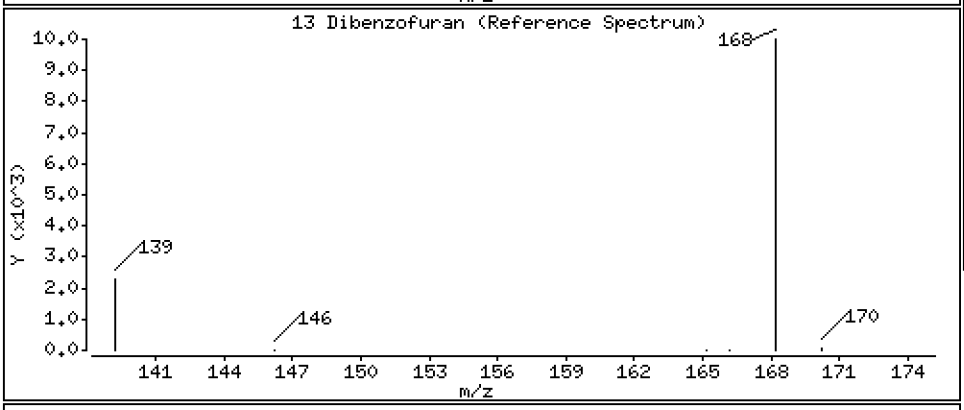
Concentration: 114 ng/mL

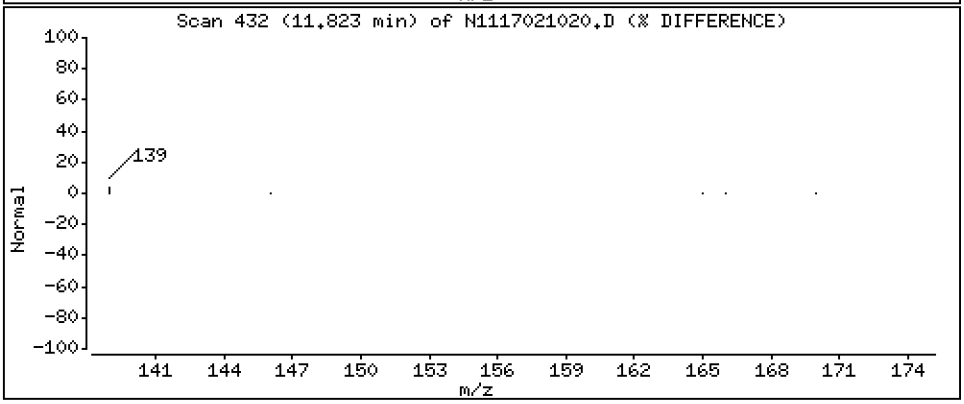












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021020.D

Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

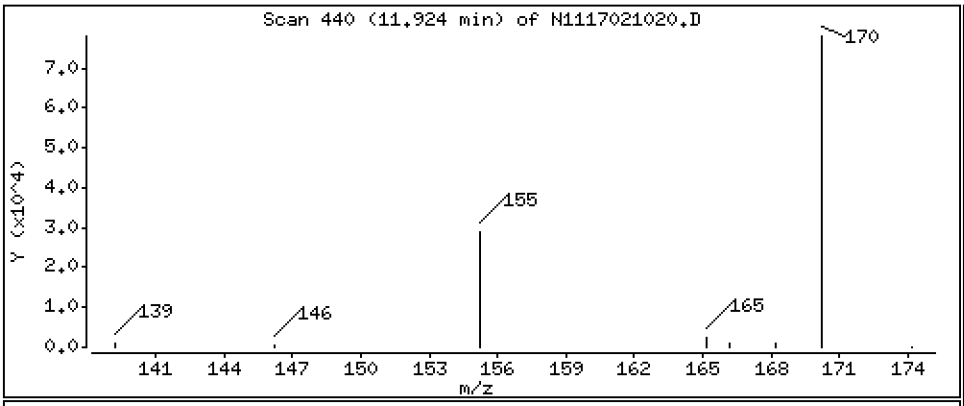
Operator: VTS

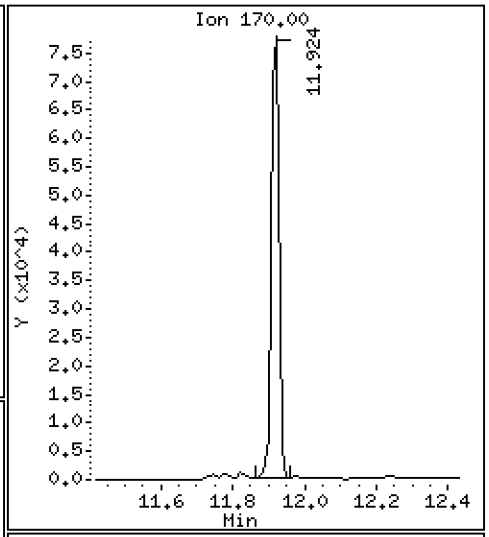
Column phase: Rxi-17Sil MS

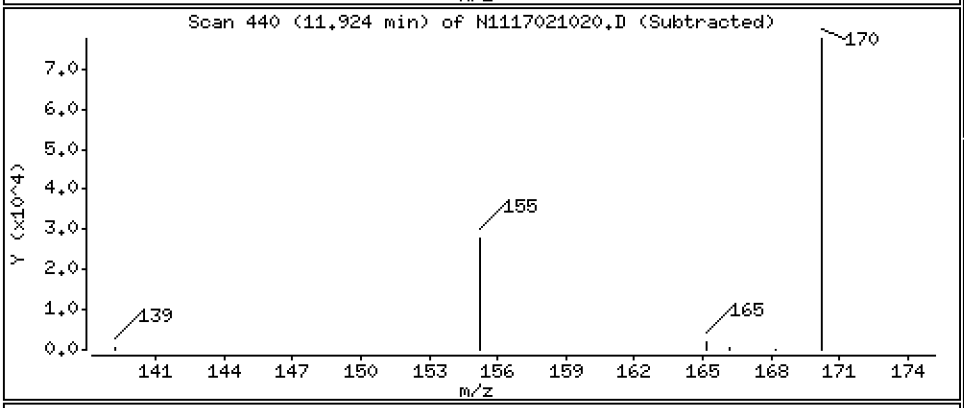
Column diameter: 0.25

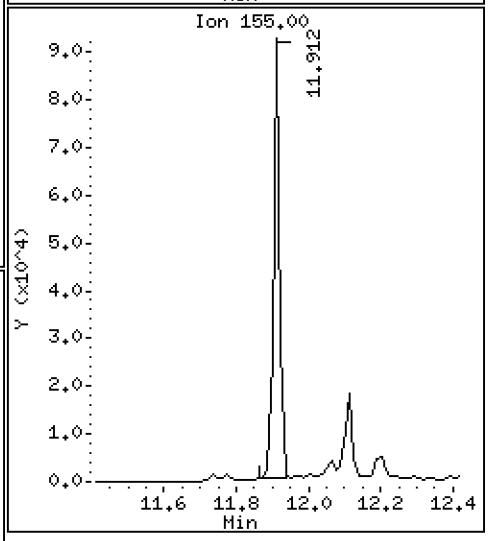
14 2,3,5-Trimethylnaphthalene

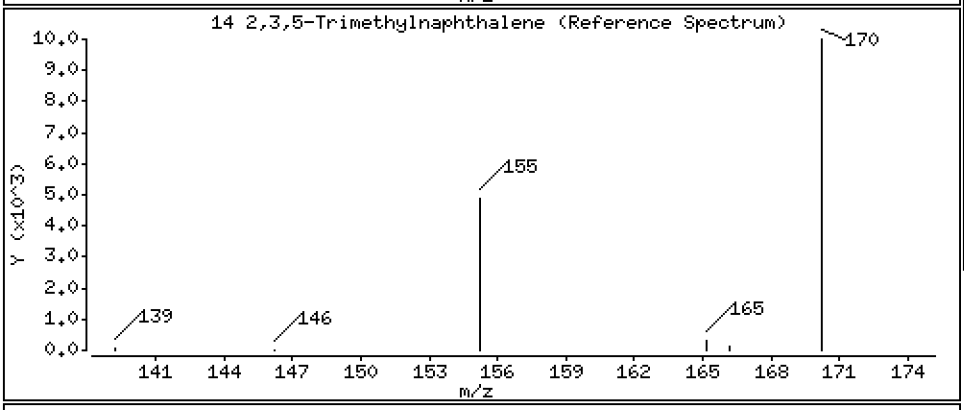
Concentration: 125 ng/mL

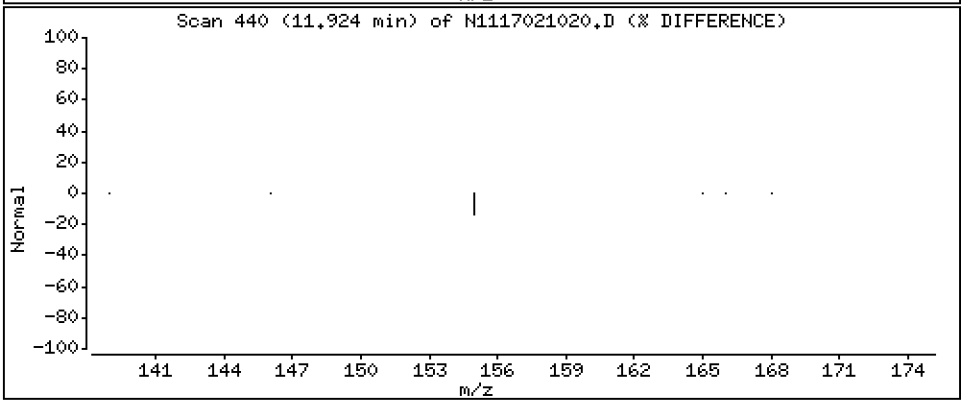












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021020.D

Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

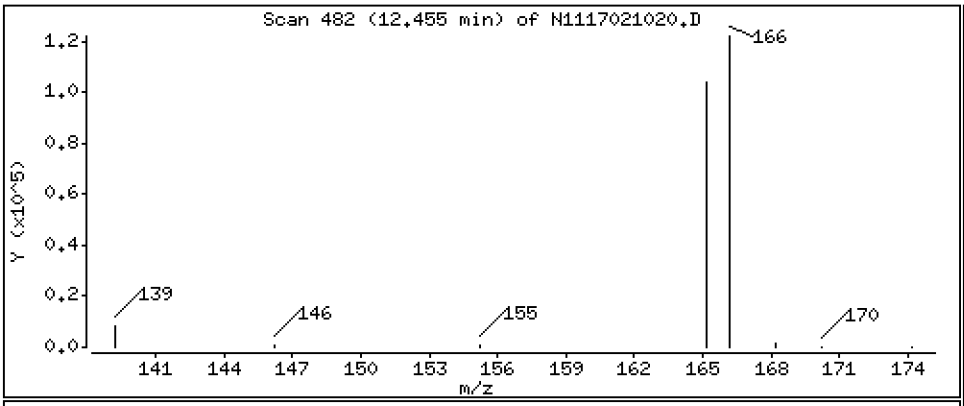
Operator: VTS

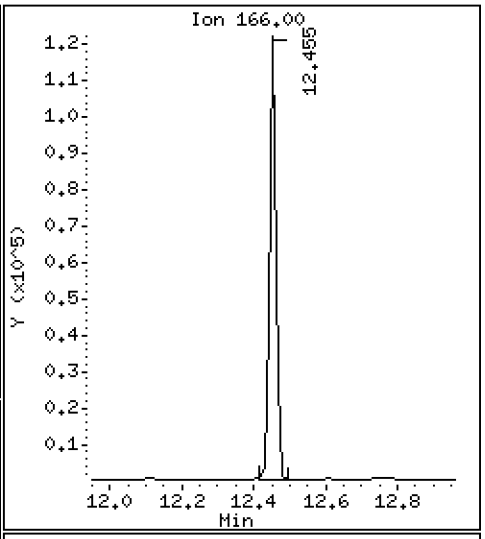
Column phase: Rxi-17Sil MS

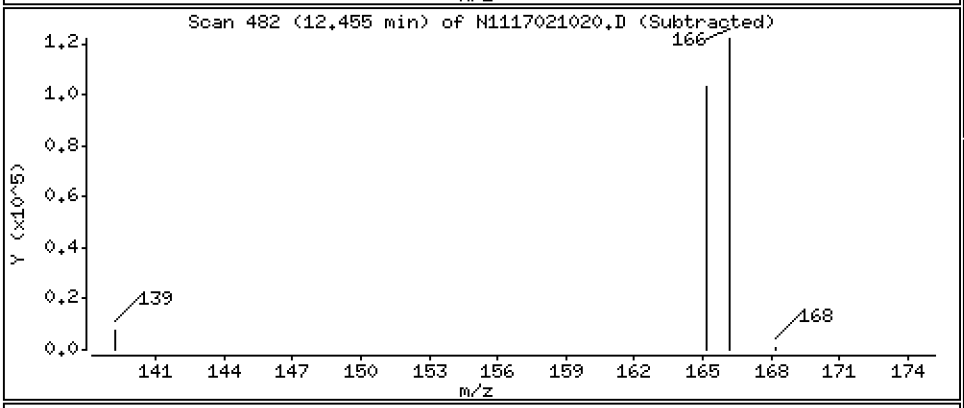
Column diameter: 0.25

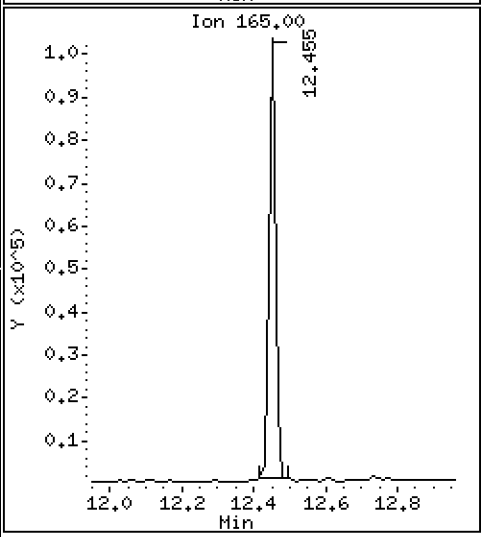
16 Fluorene

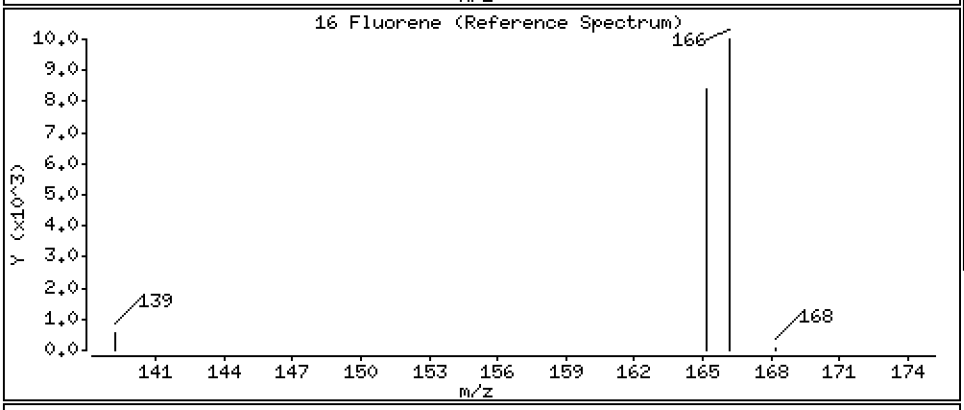
Concentration: 122 ng/mL

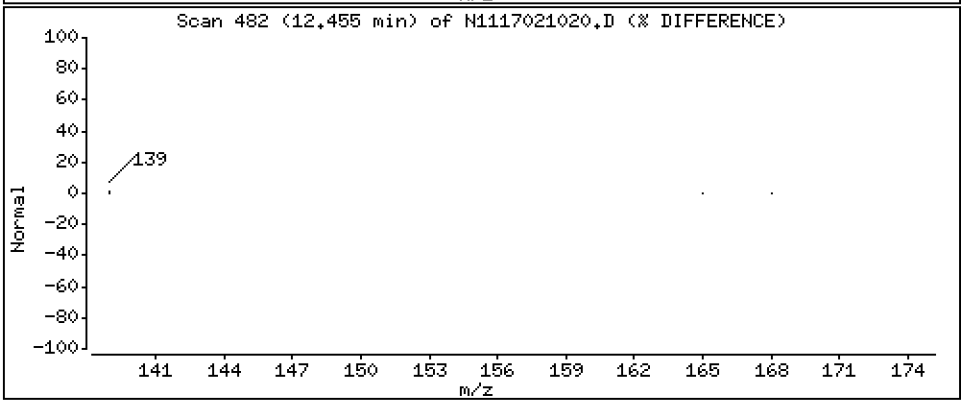












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

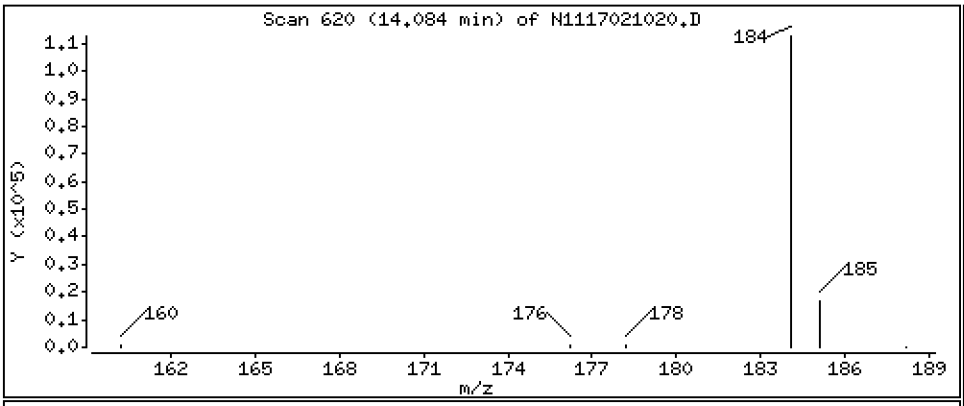
Operator: VTS

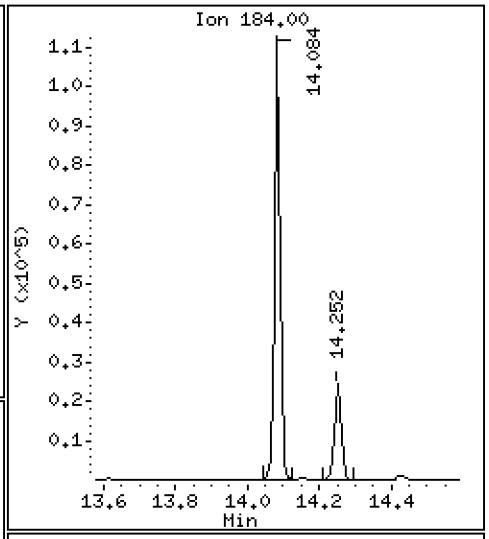
Column phase: Rxi-17Sil MS

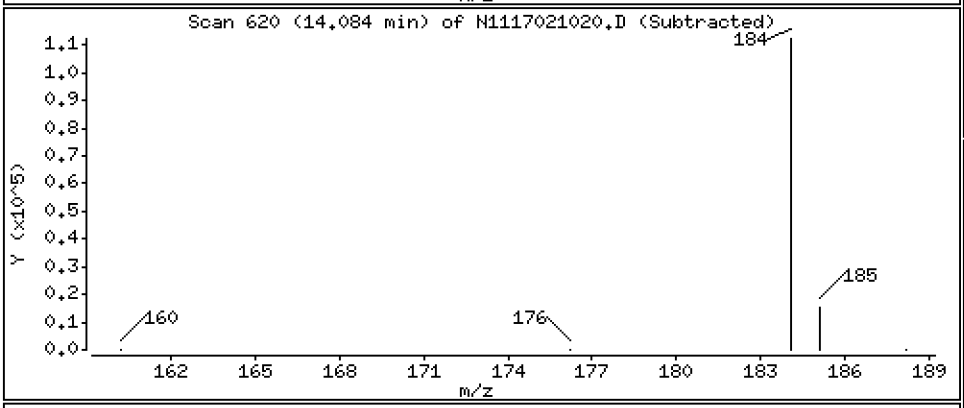
Column diameter: 0.25

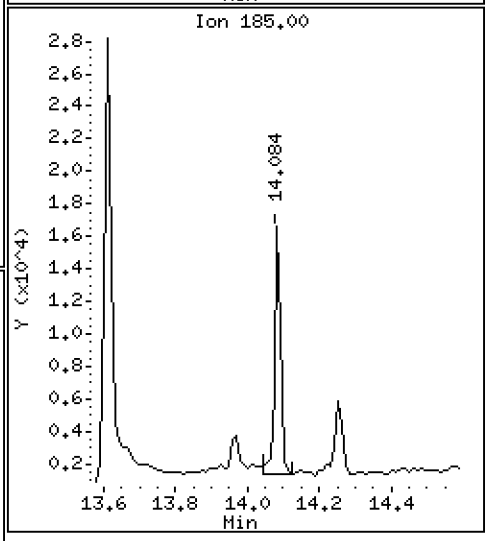
17 Dibenzothiophene

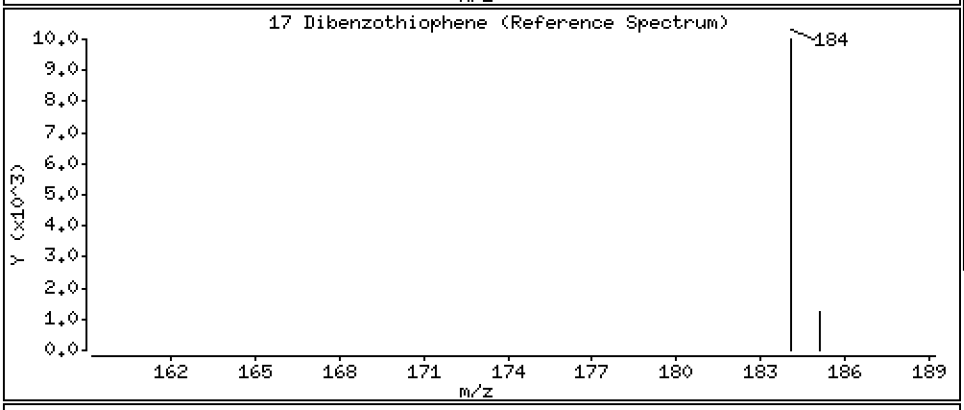
Concentration: 113 ng/mL

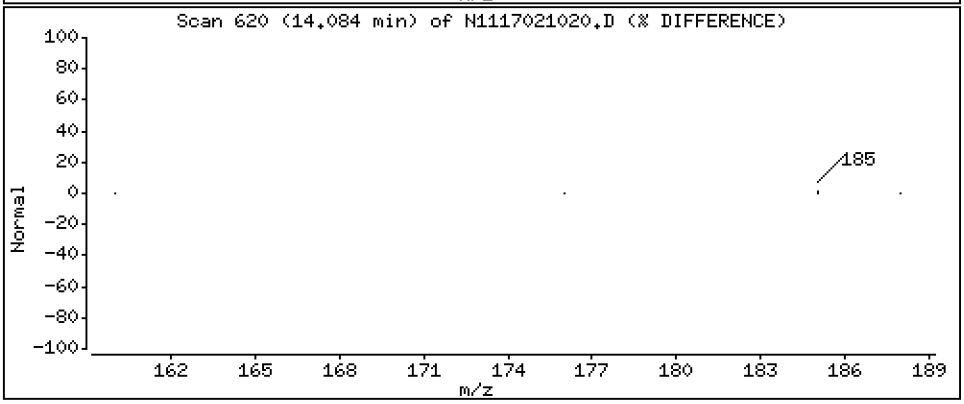












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

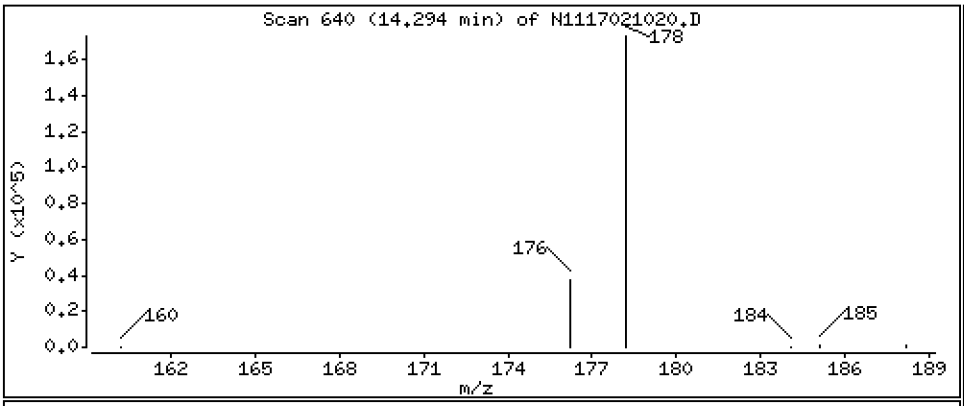
Operator: VTS

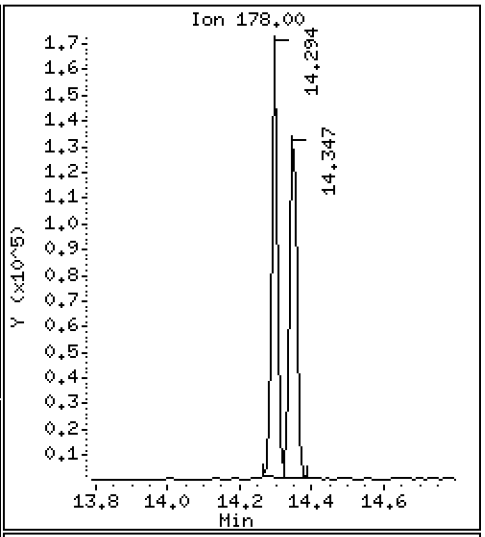
Column phase: Rxi-17Sil MS

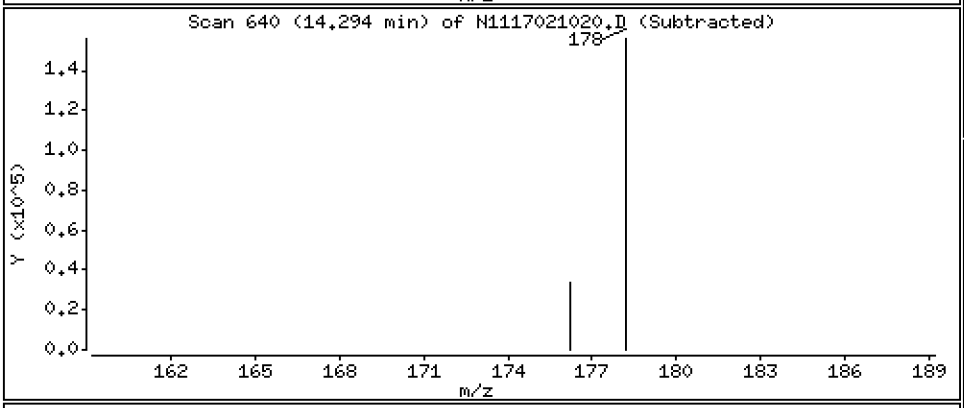
Column diameter: 0.25

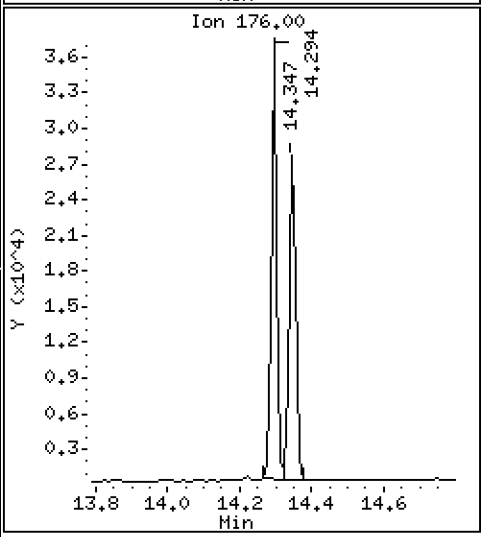
19 Phenanthrene

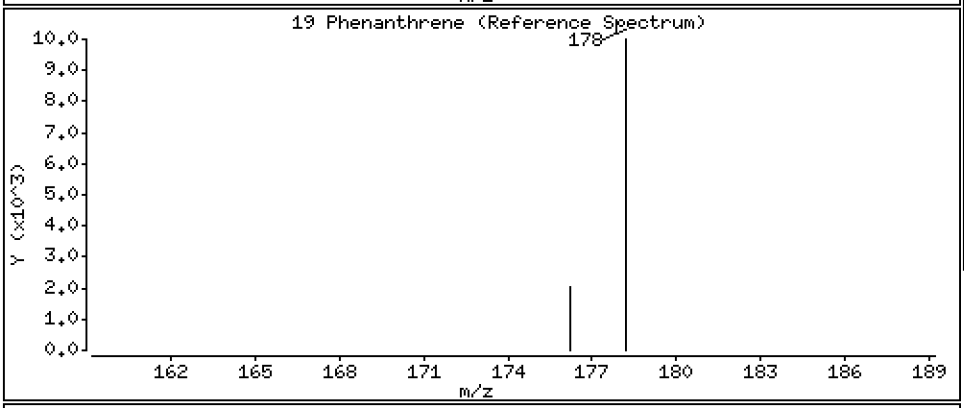
Concentration: 150 ng/mL

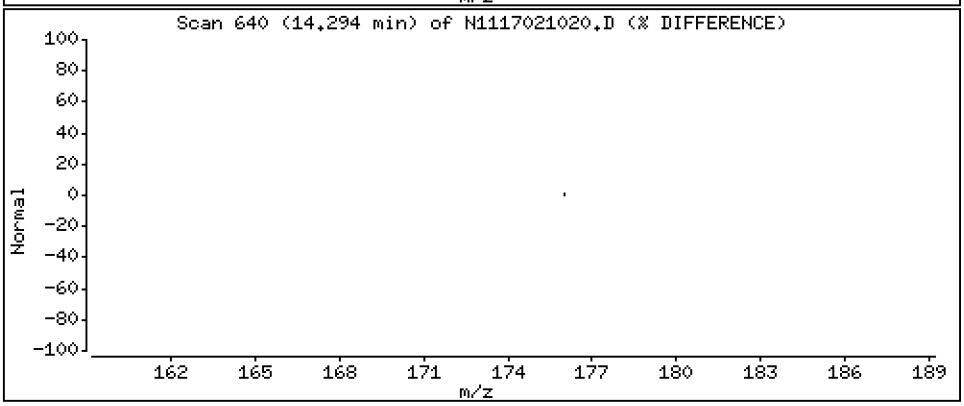












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

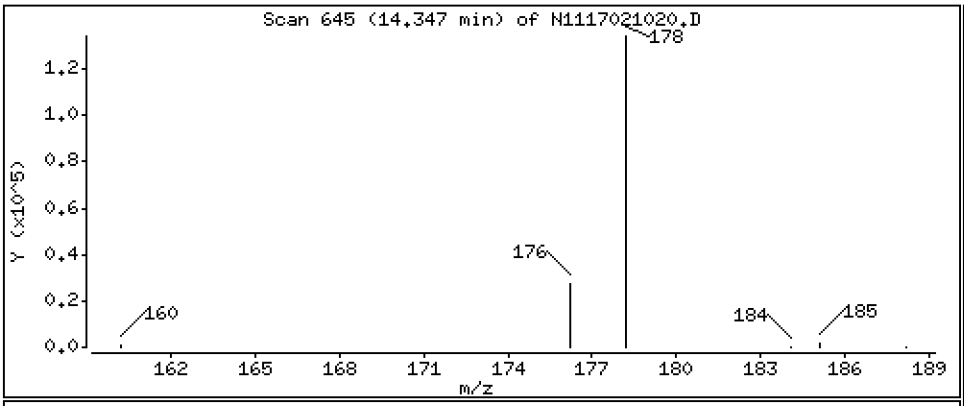
Operator: VTS

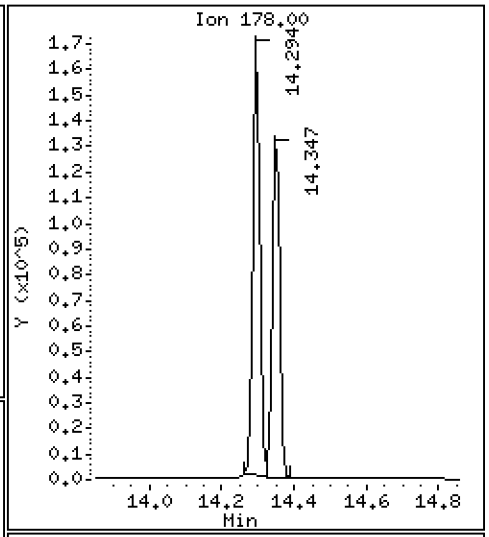
Column phase: Rxi-17Sil MS

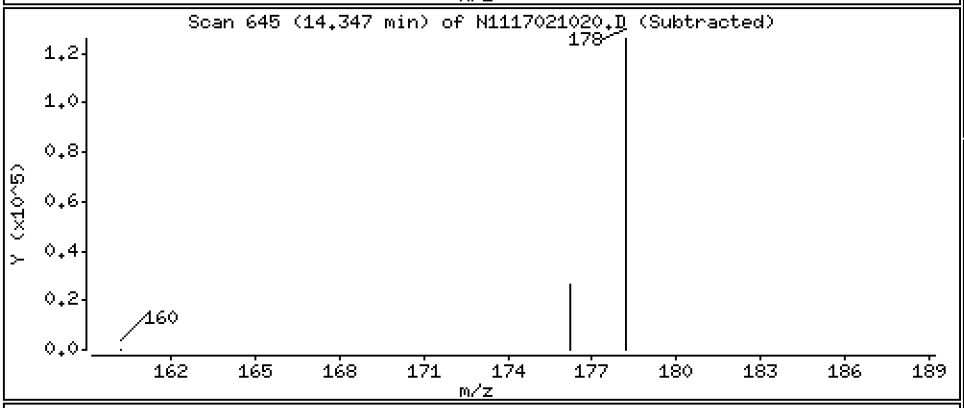
Column diameter: 0.25

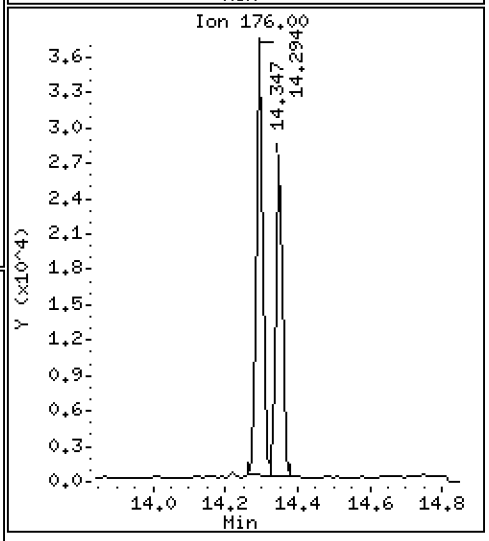
21 Anthracene

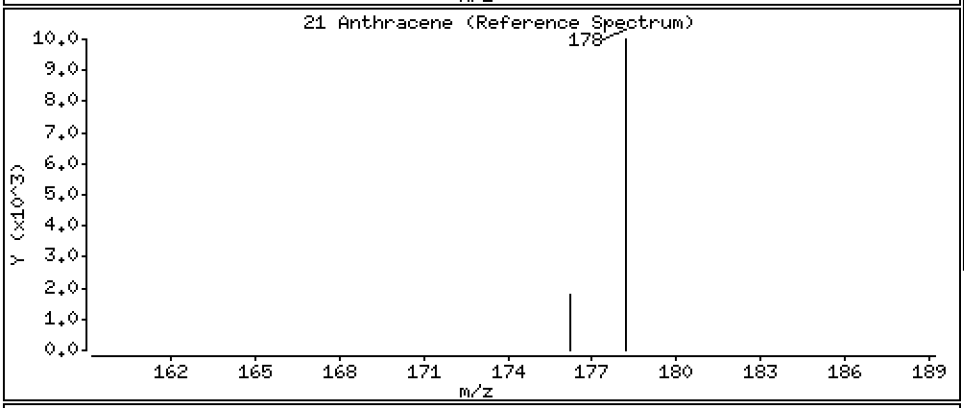
Concentration: 127 ng/mL

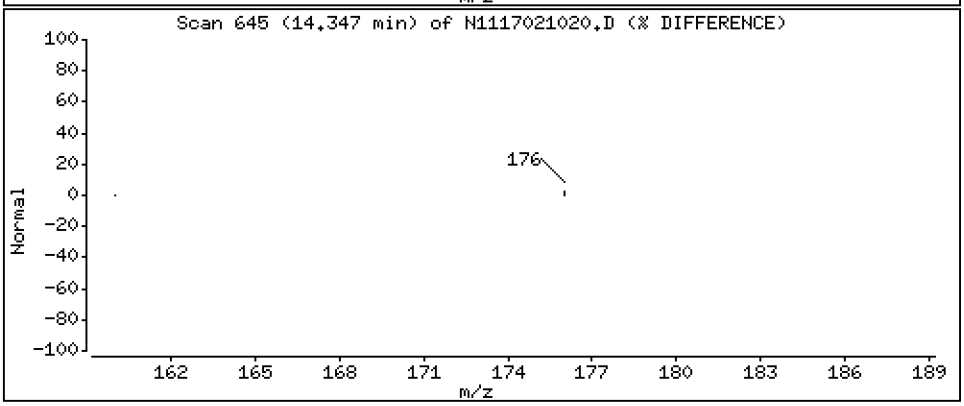












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

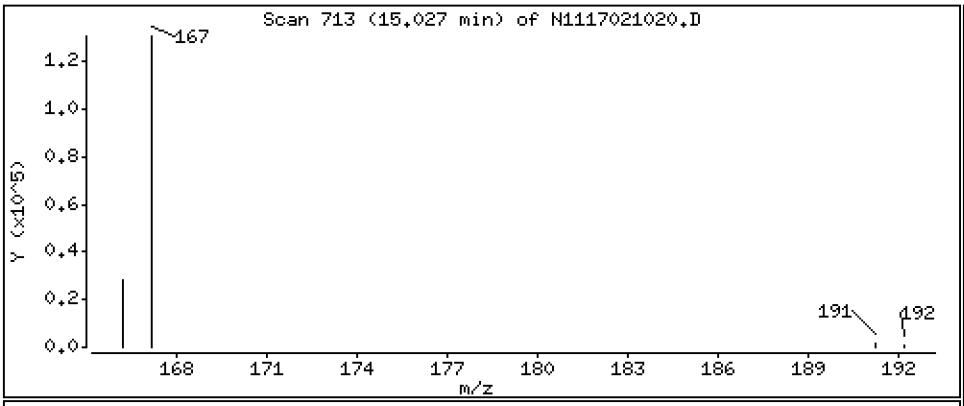
Operator: VTS

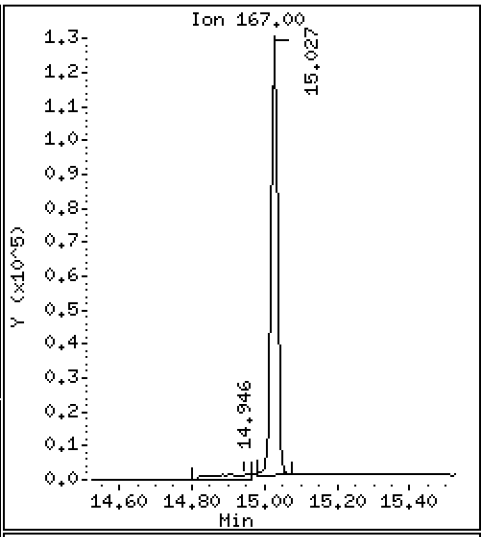
Column phase: Rxi-17Sil MS

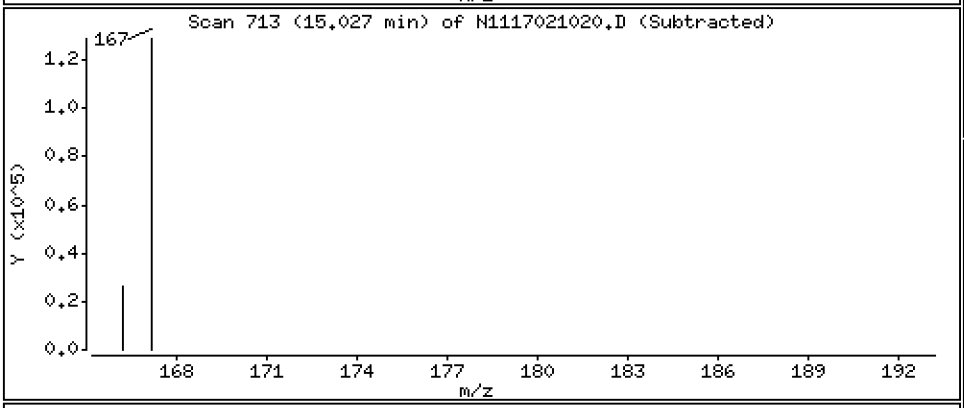
Column diameter: 0.25

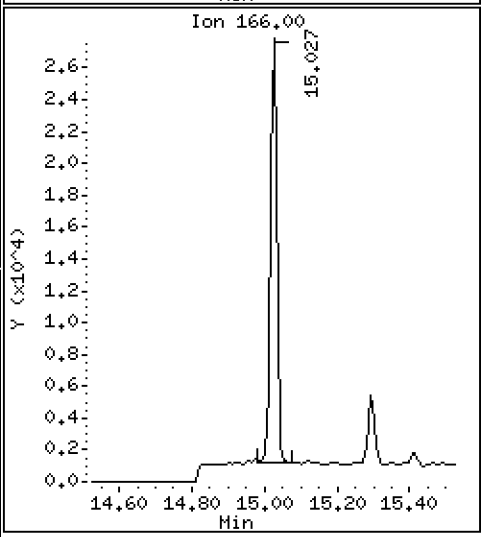
22 Carbazole

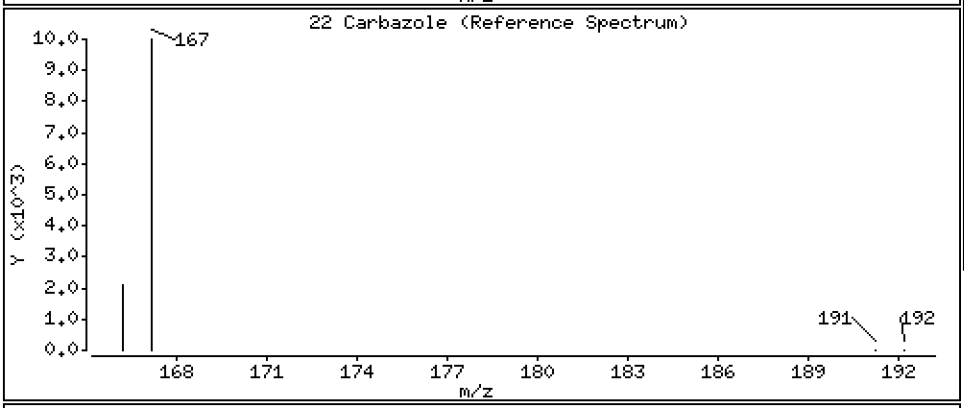
Concentration: 97.0 ng/mL

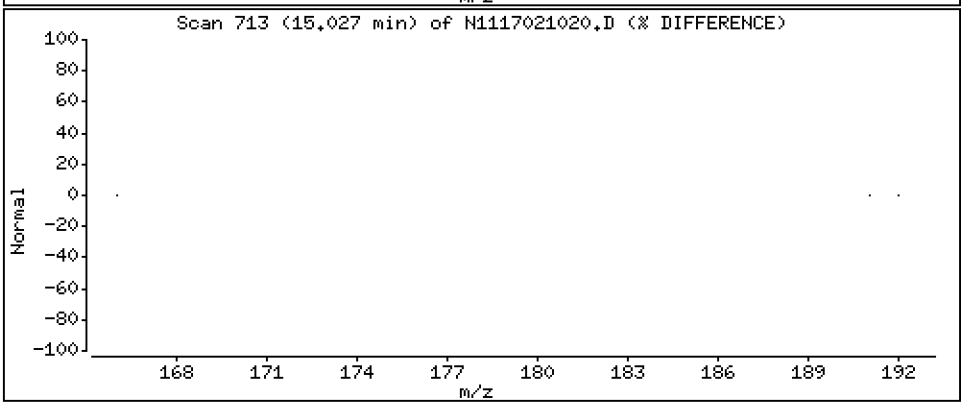












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

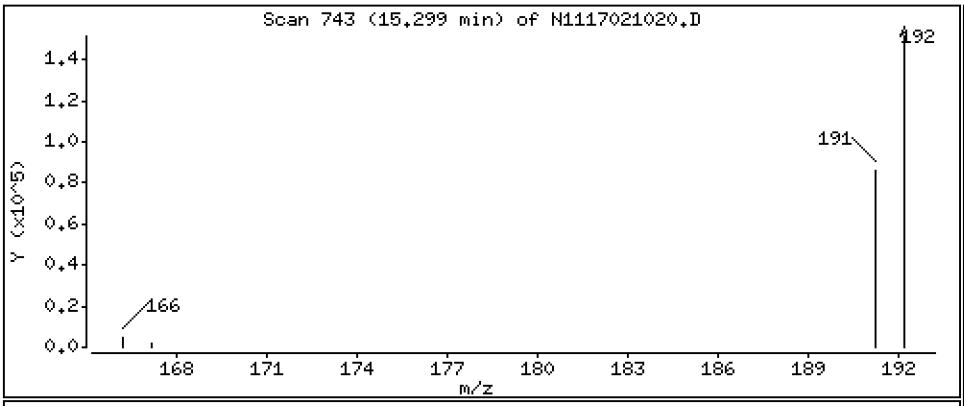
Operator: VTS

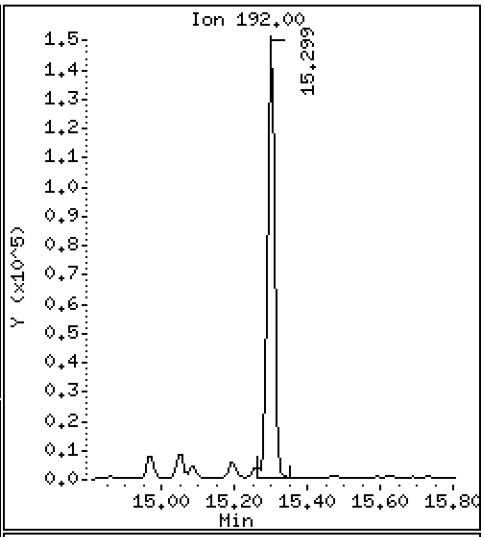
Column phase: Rxi-17Sil MS

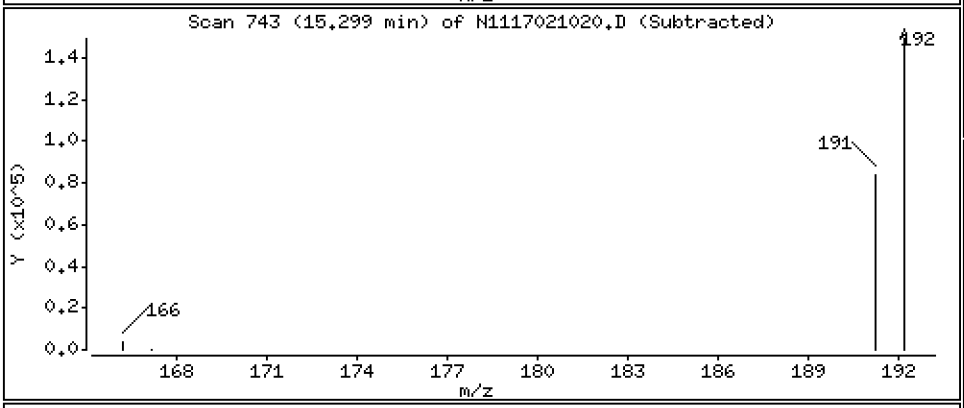
Column diameter: 0.25

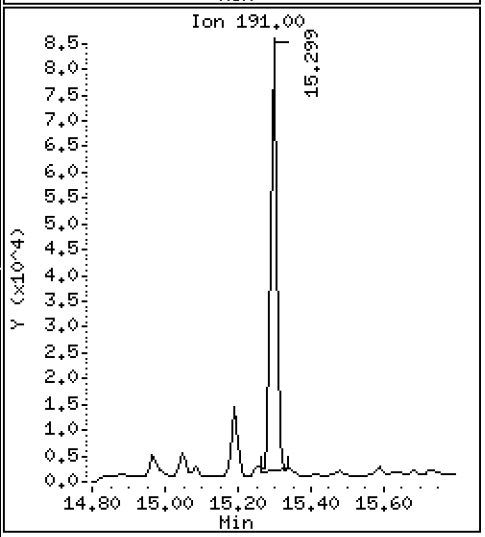
23 1-Methylphenanthrene

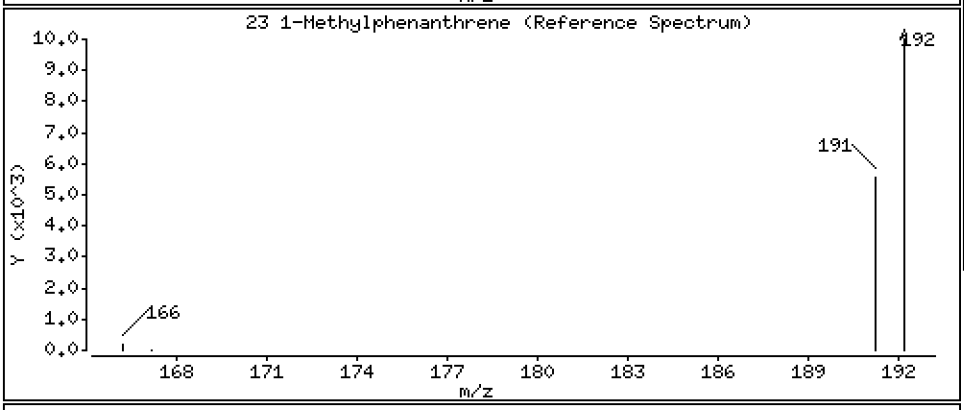
Concentration: 125 ng/mL

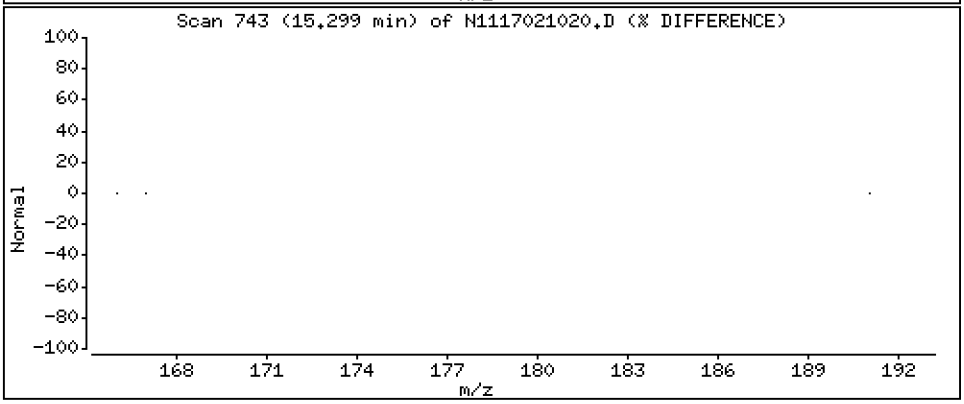












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

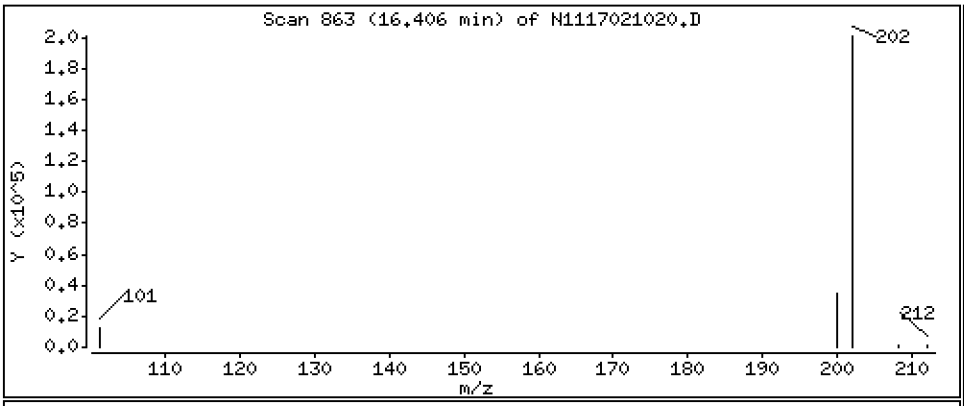
Operator: VTS

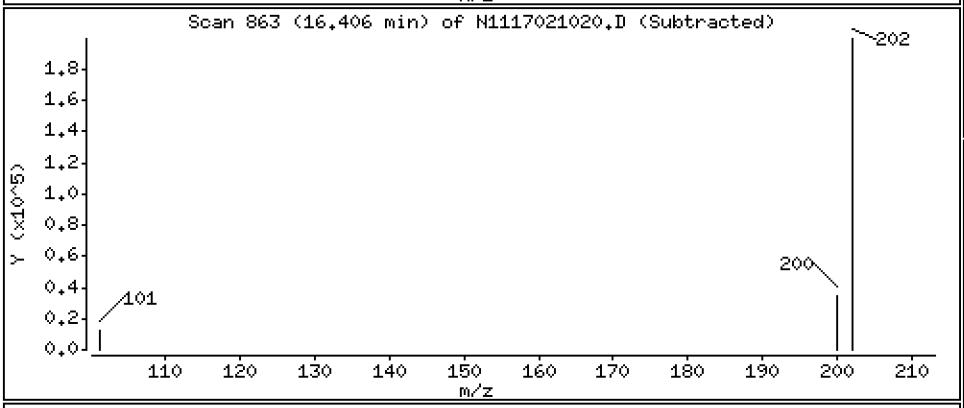
Column phase: Rxi-17Sil MS

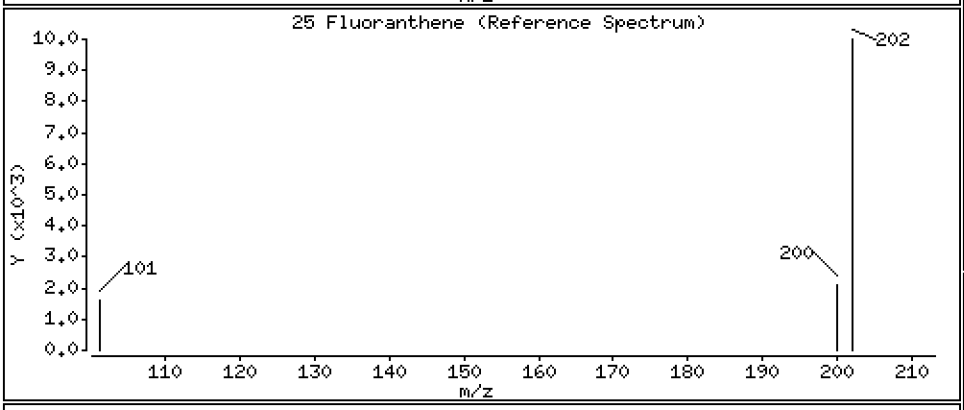
Column diameter: 0.25

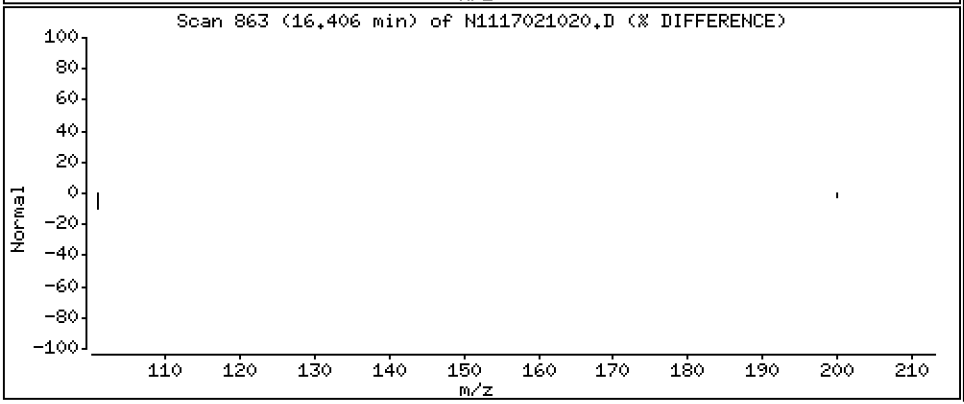
25 Fluoranthene

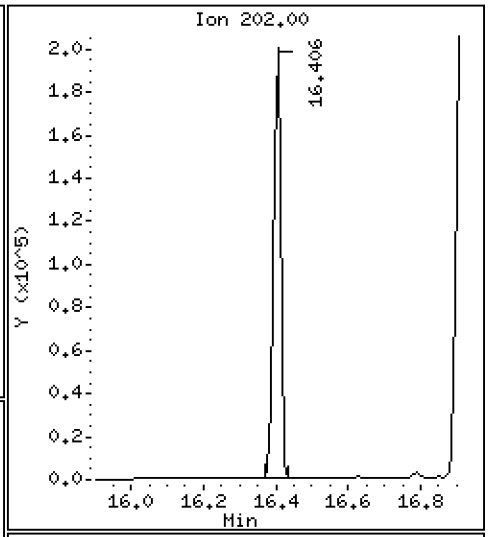
Concentration: 155 ng/mL

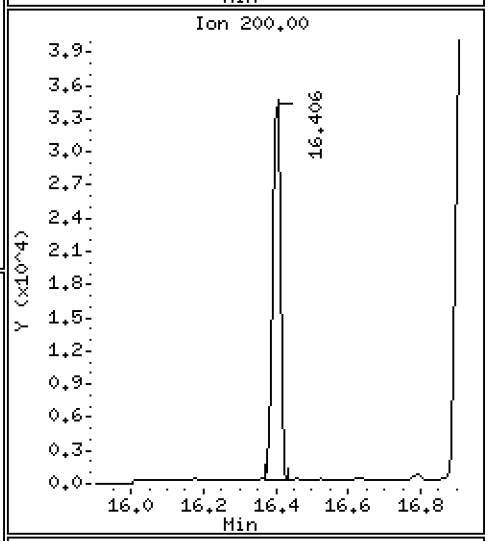


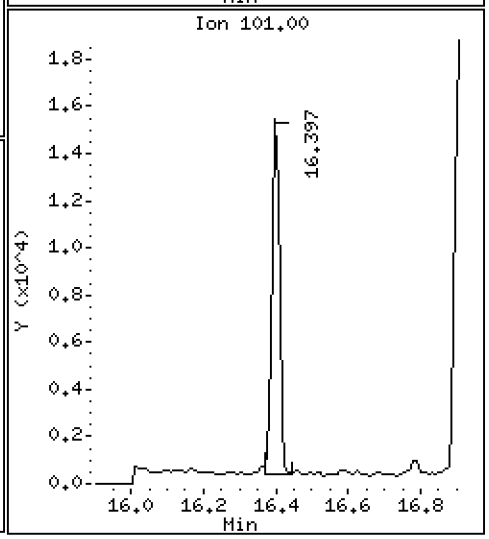












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

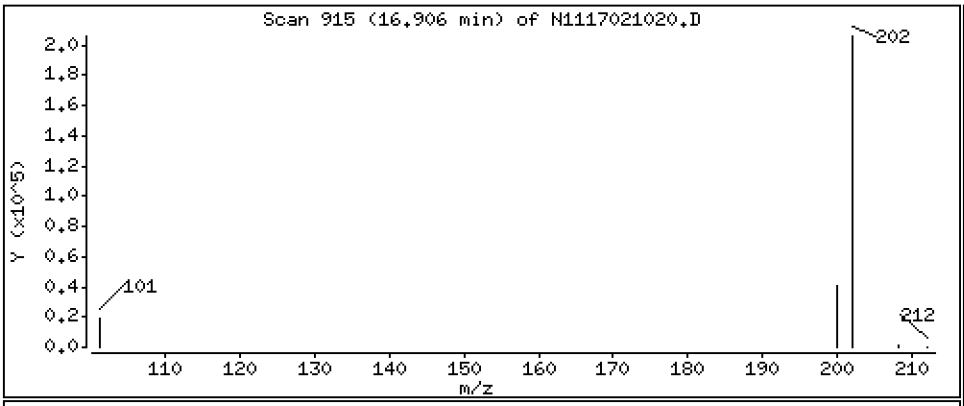
Operator: VTS

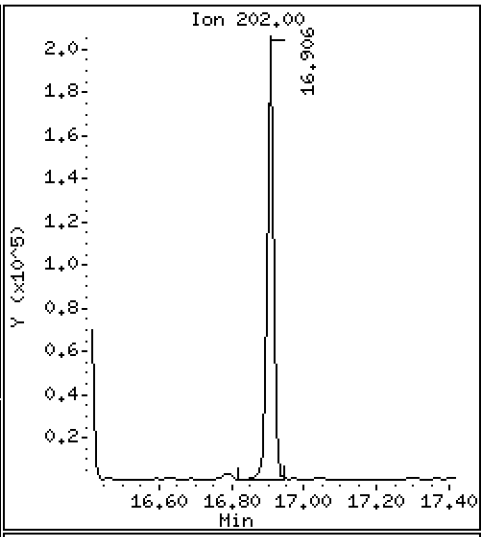
Column phase: Rxi-17Sil MS

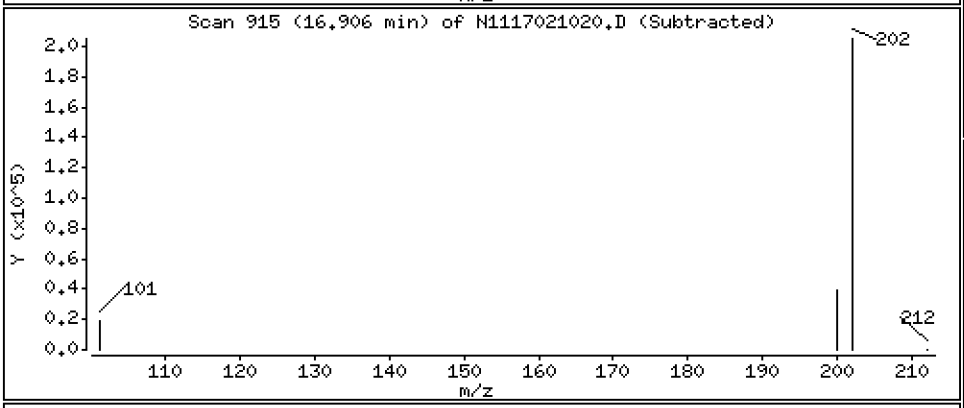
Column diameter: 0.25

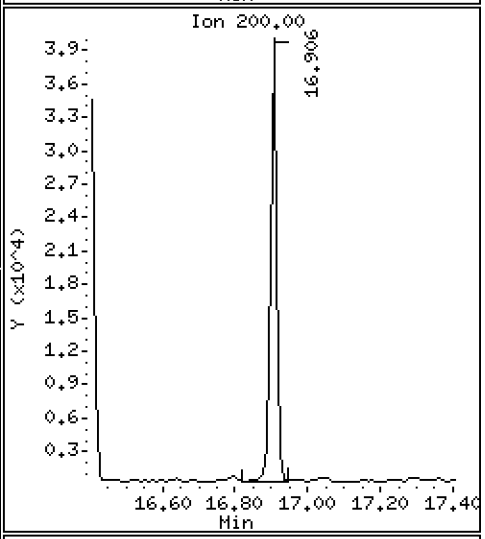
26 Pyrene

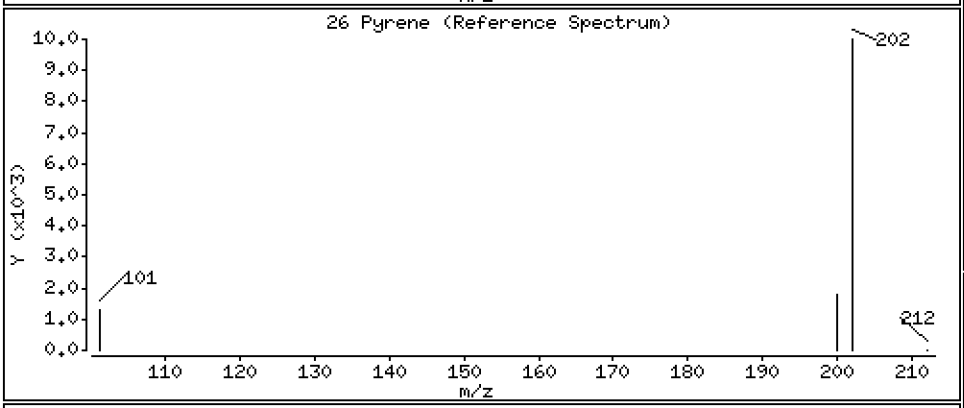
Concentration: 189 ng/mL

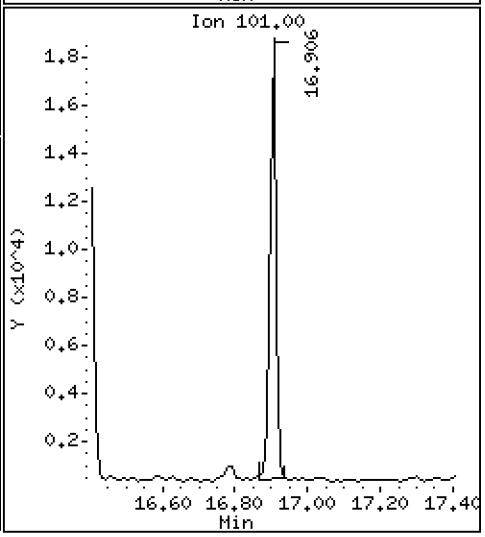


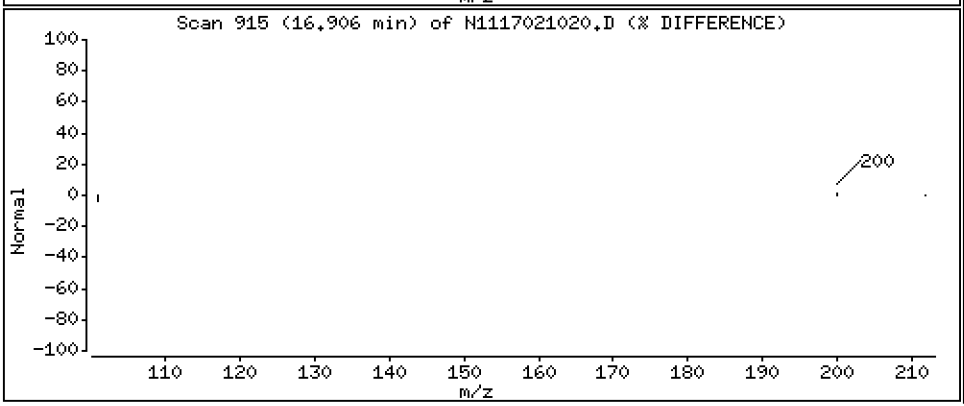












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021020.D

Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

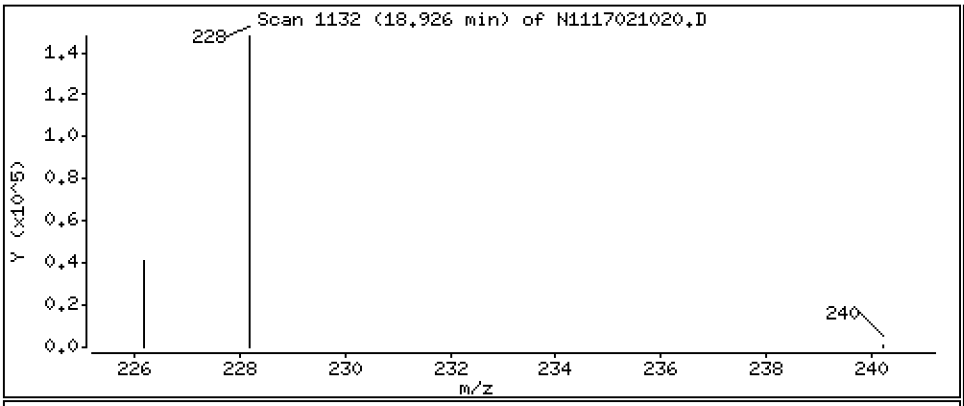
Operator: VTS

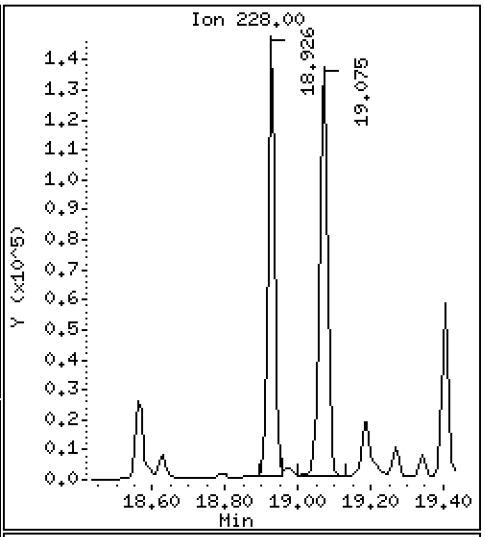
Column phase: Rxi-17Sil MS

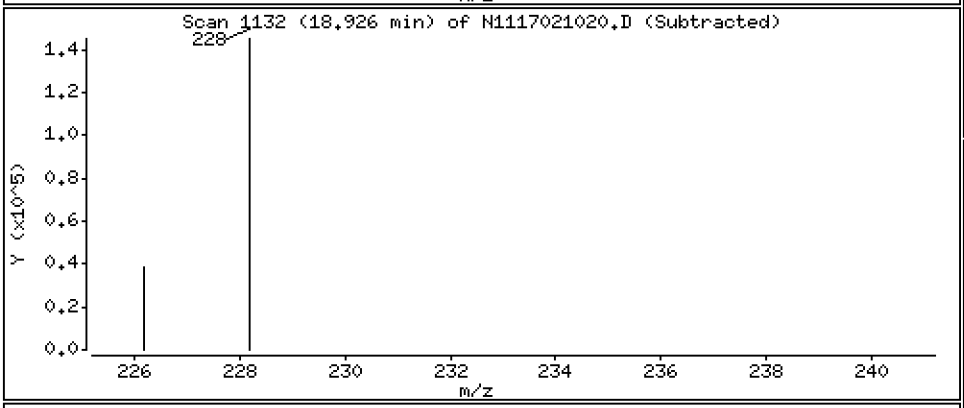
Column diameter: 0.25

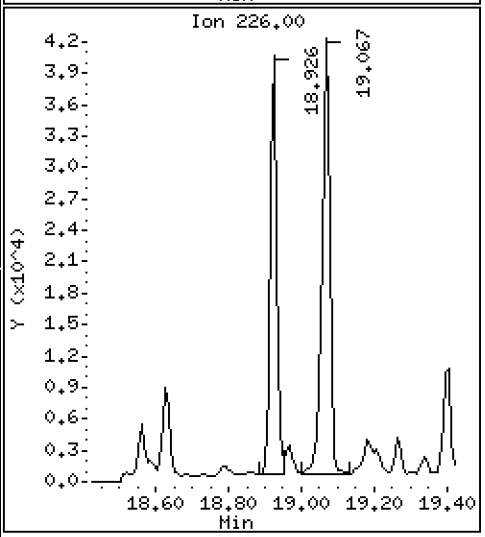
27 Benzo(a)anthracene

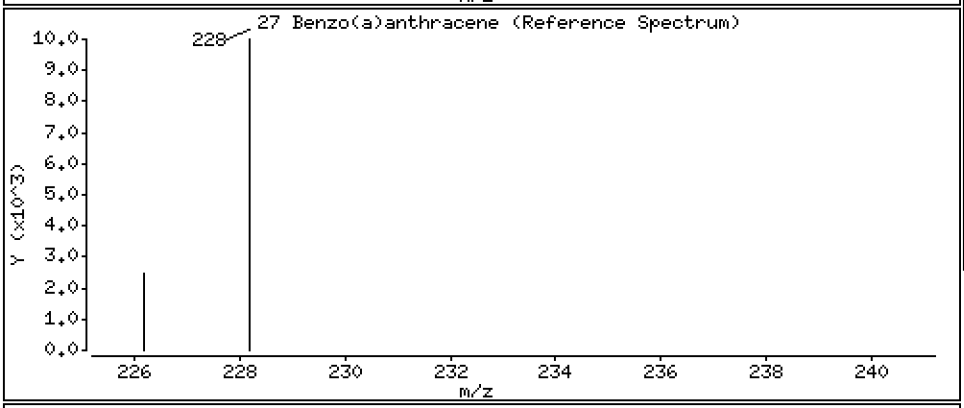
Concentration: 142 ng/mL

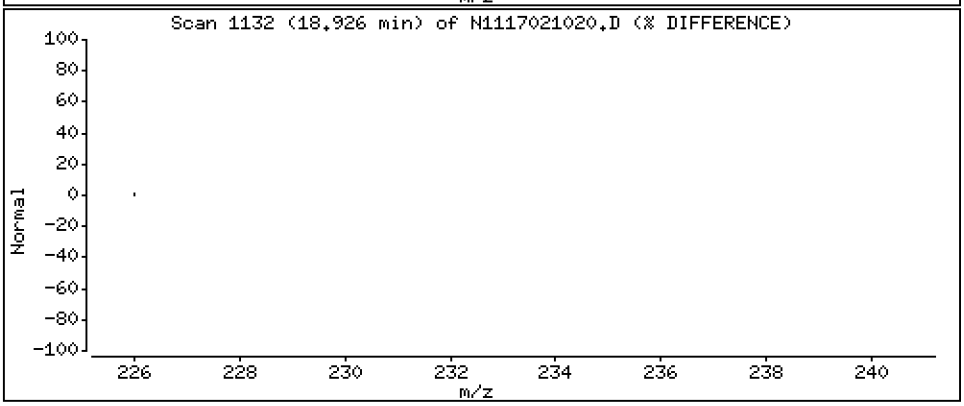












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021020.D

Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

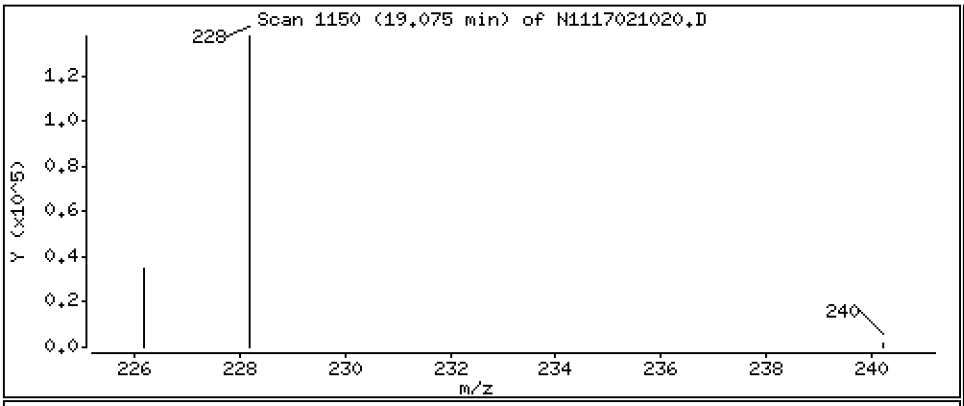
Operator: VTS

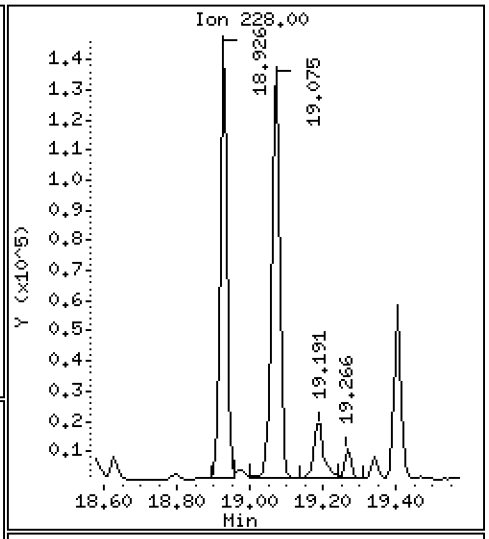
Column phase: Rxi-17Sil MS

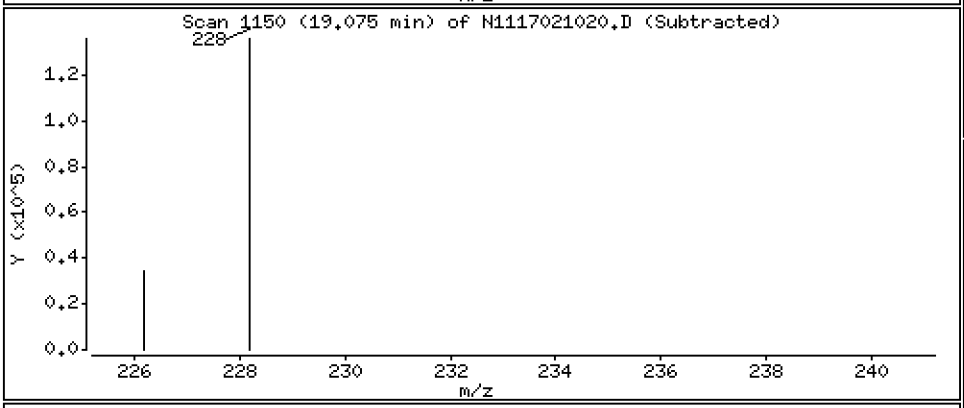
Column diameter: 0.25

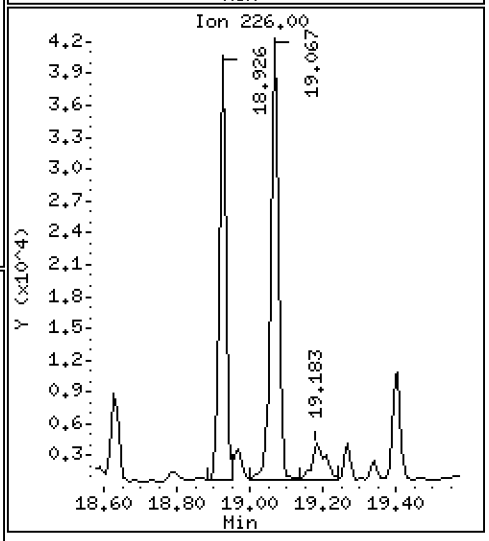
29 Chrysene

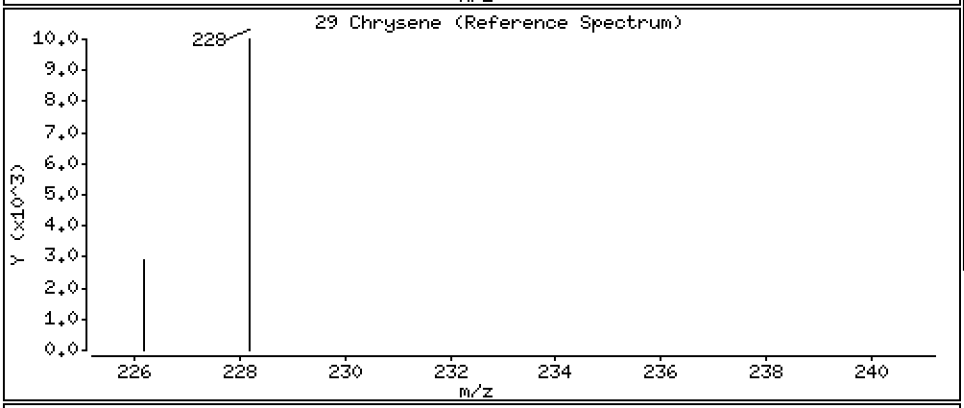
Concentration: 155 ng/mL

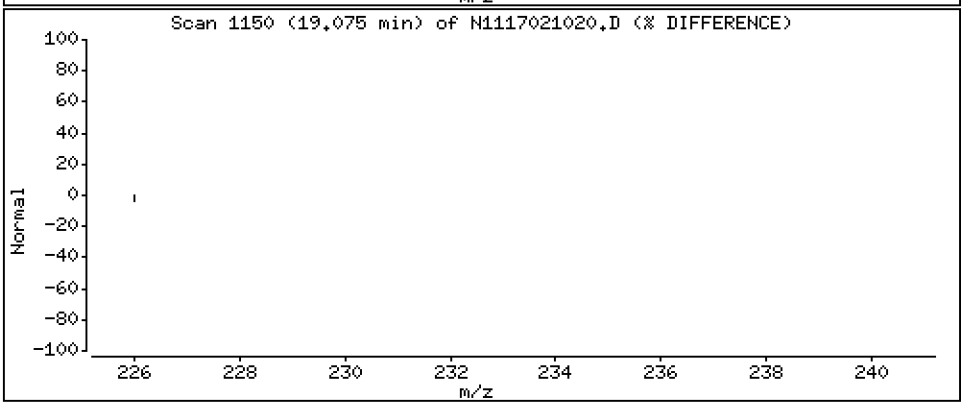












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

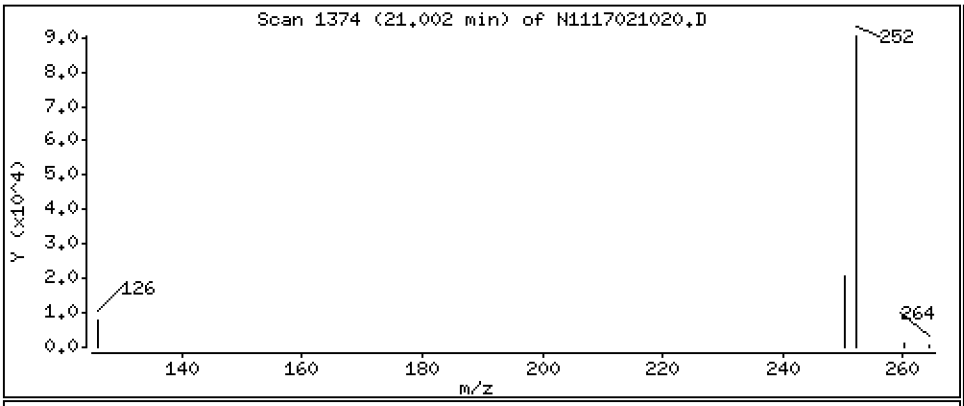
Operator: VTS

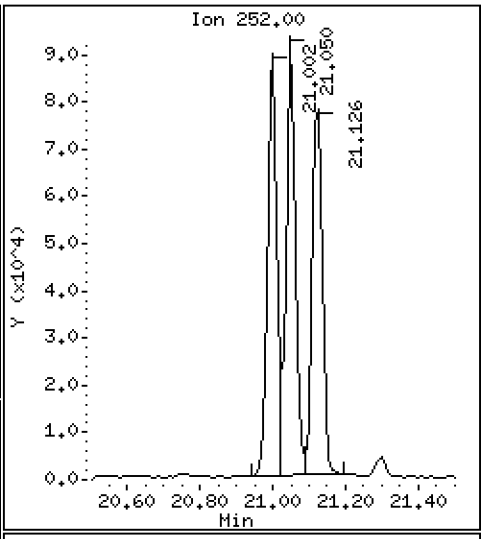
Column phase: Rxi-17Sil MS

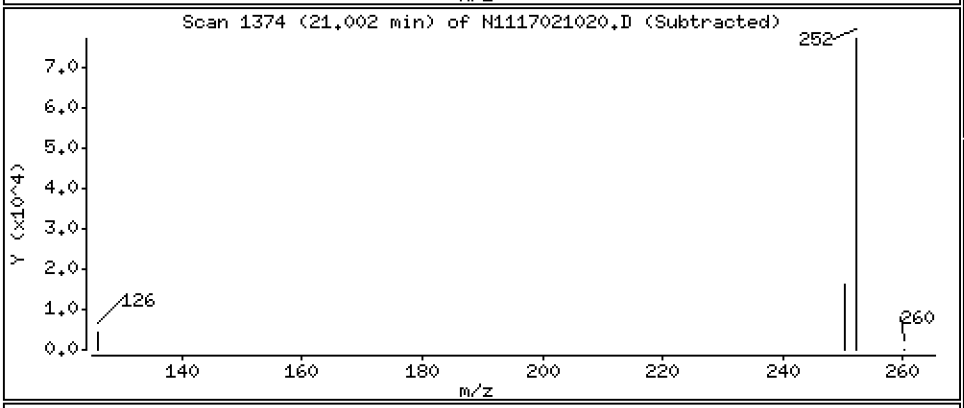
Column diameter: 0.25

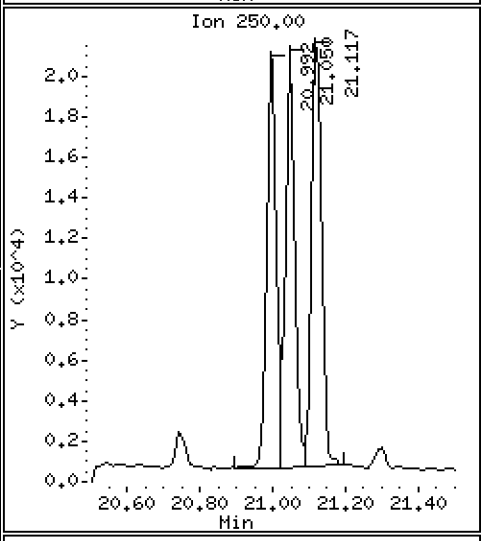
30 Benzo(b)fluoranthene

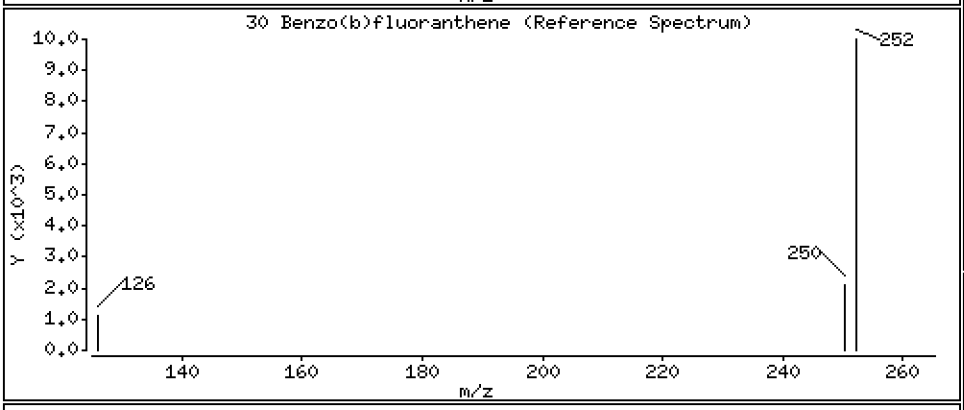
Concentration: 132 ng/mL

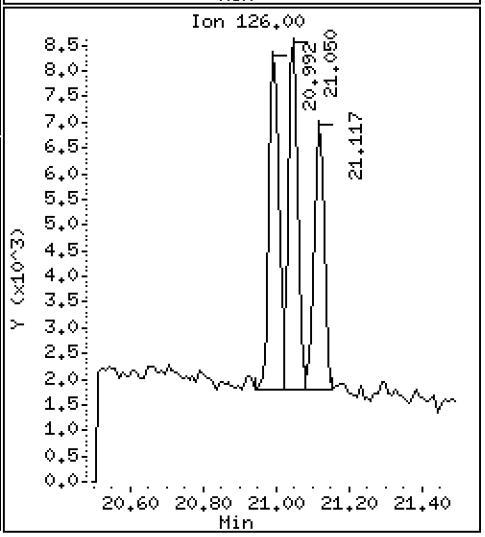


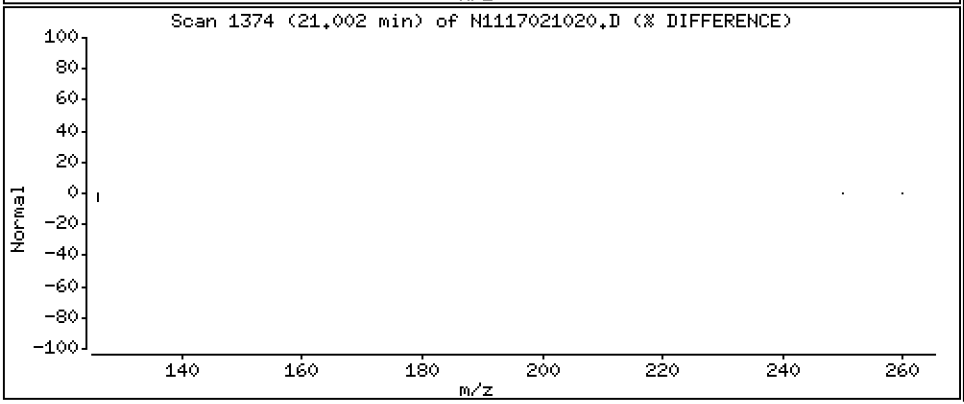












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021020.D

Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

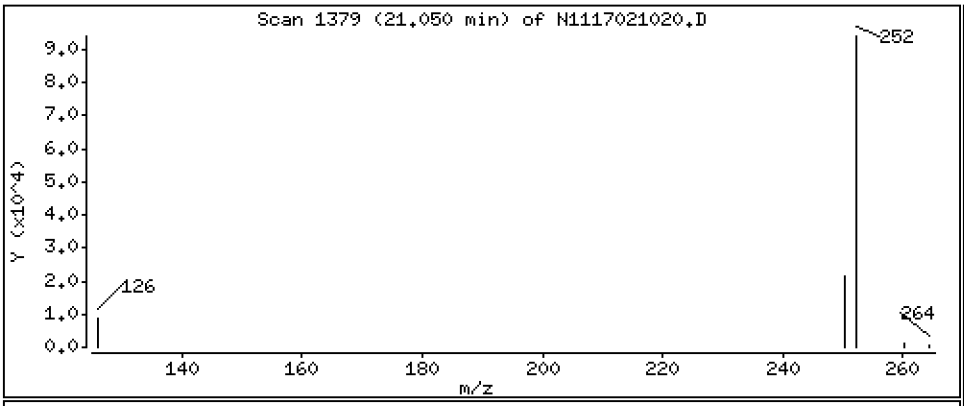
Operator: VTS

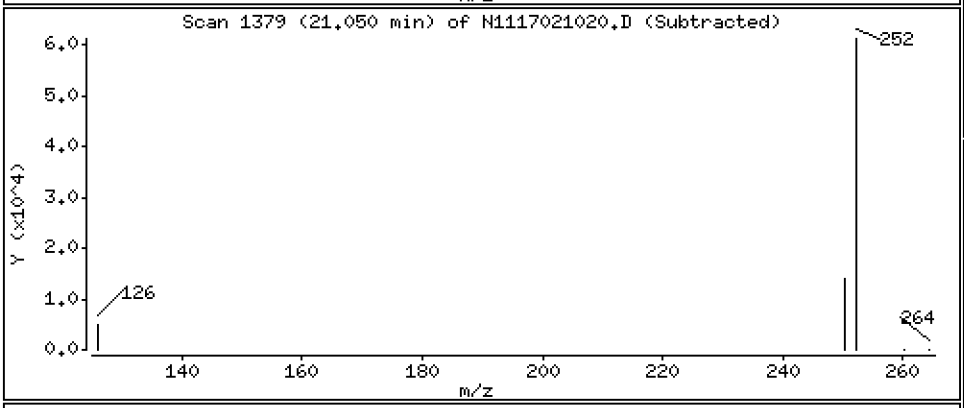
Column phase: Rxi-17Sil MS

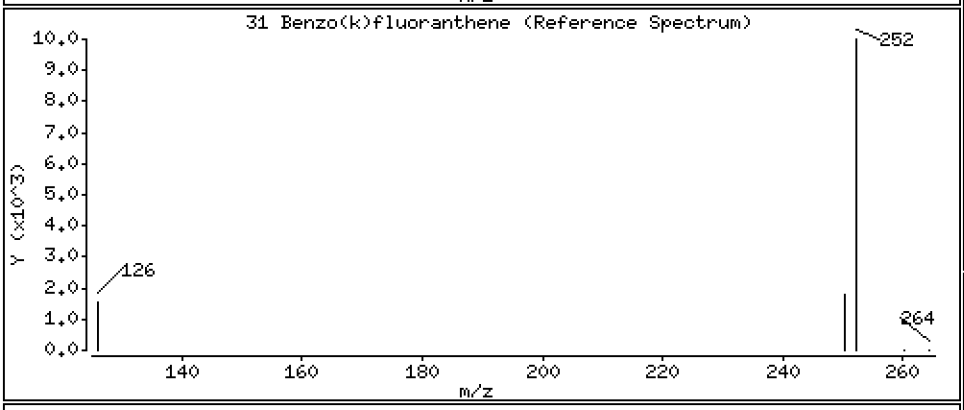
Column diameter: 0.25

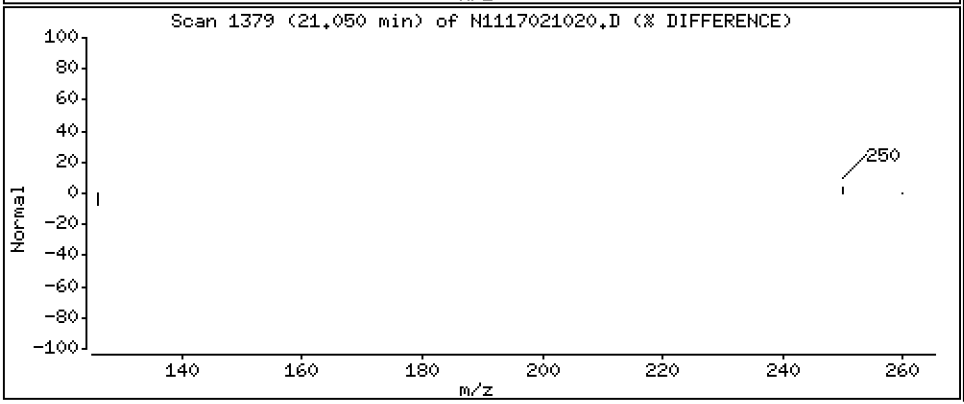
31 Benzo(k)fluoranthene

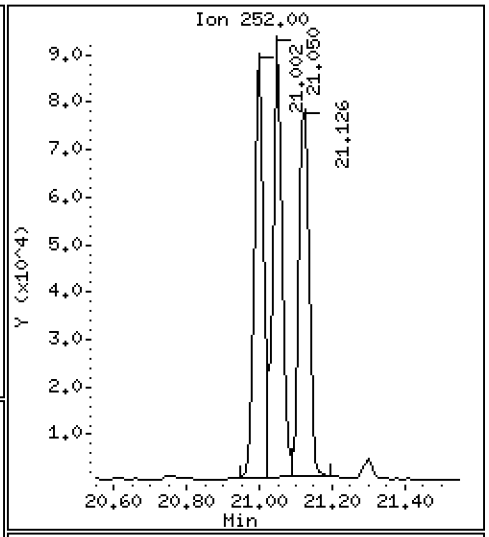
Concentration: 128 ng/mL

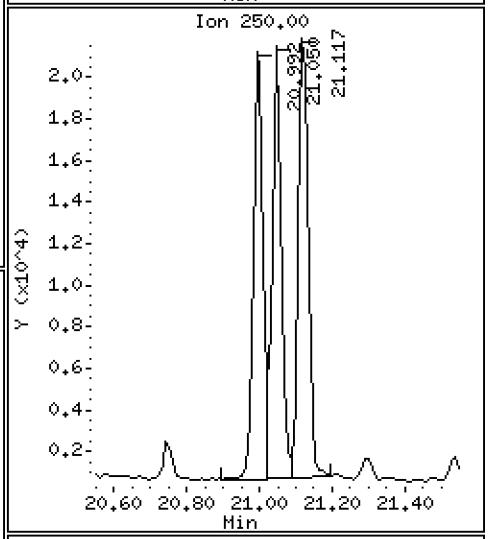


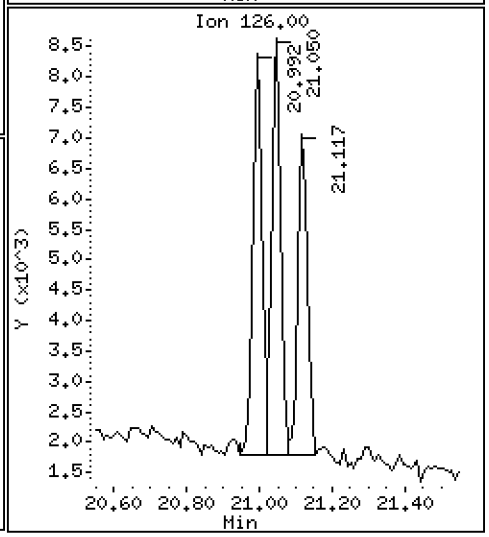












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021020.D

Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

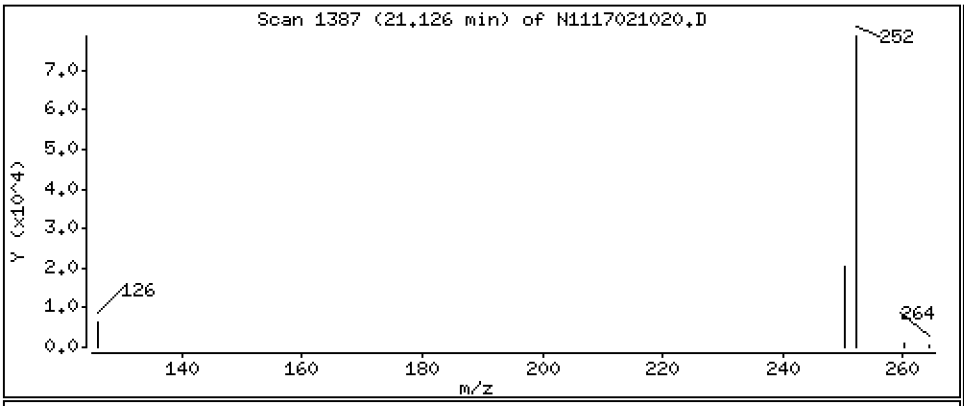
Operator: VTS

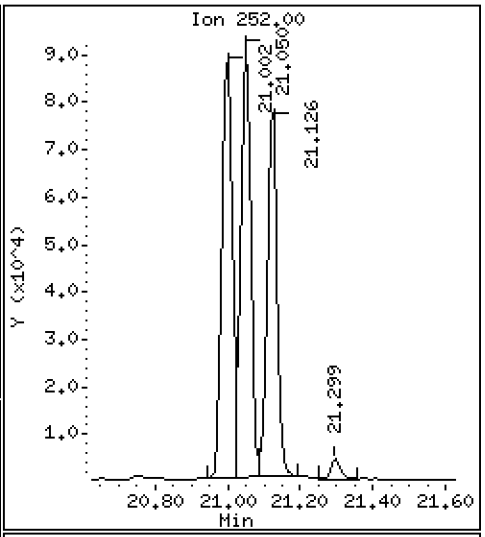
Column phase: Rxi-17Sil MS

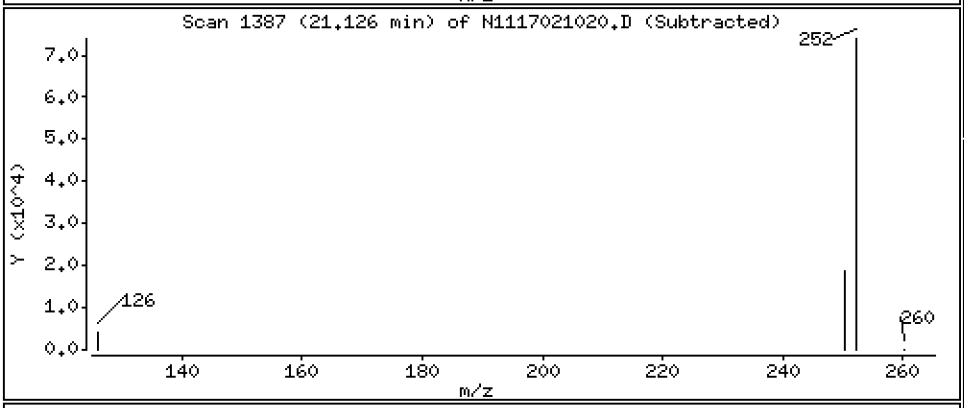
Column diameter: 0.25

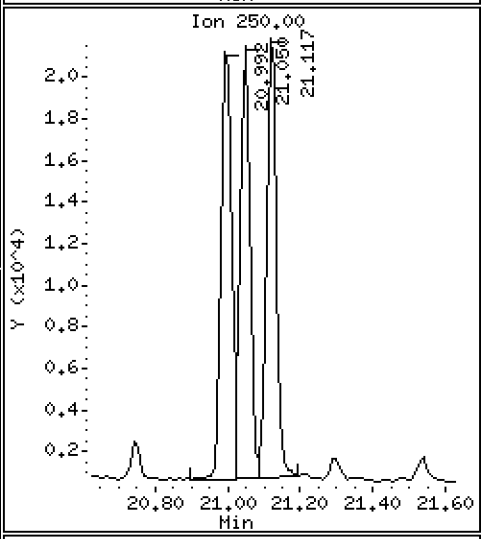
32 Benzo(j)fluoranthene

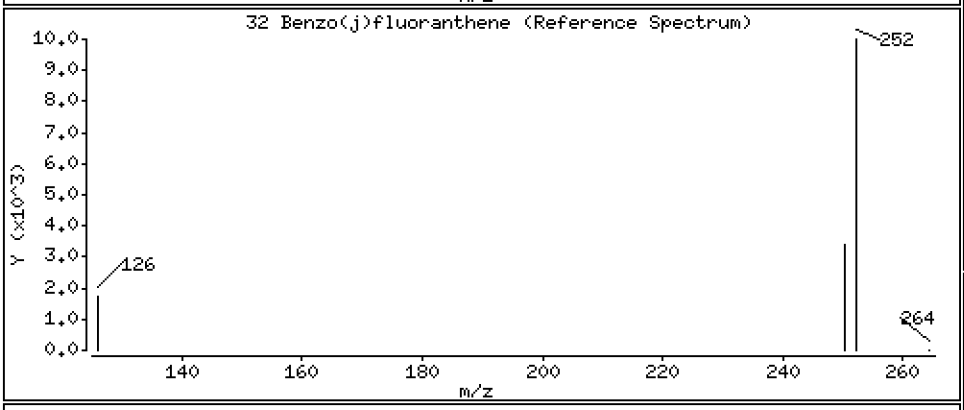
Concentration: 123 ng/mL

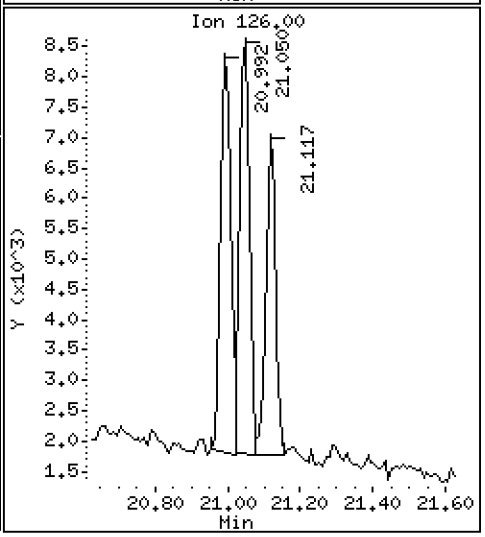


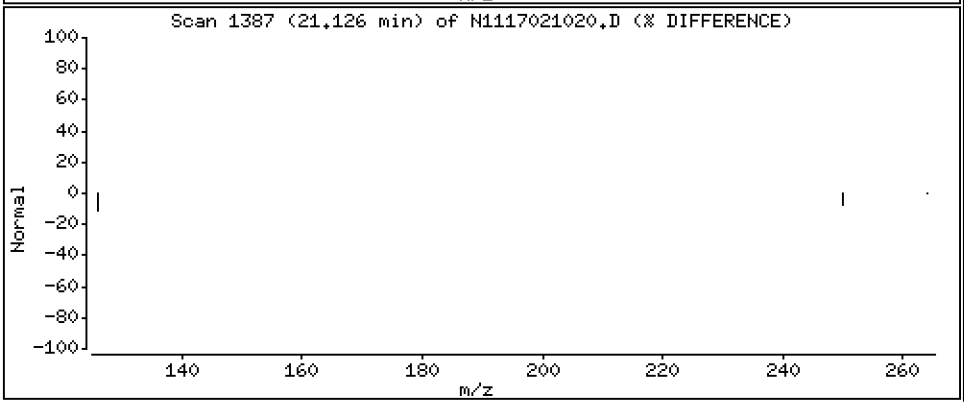












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

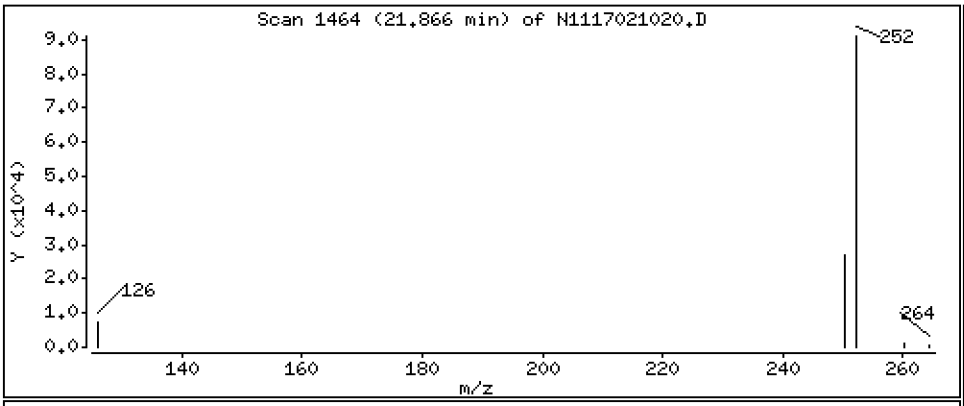
Operator: VTS

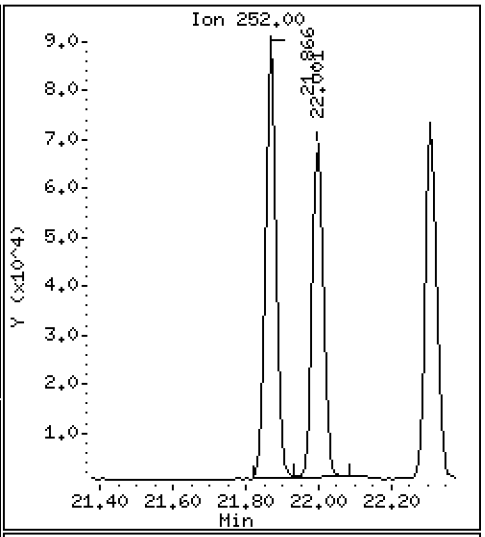
Column phase: Rxi-17Sil MS

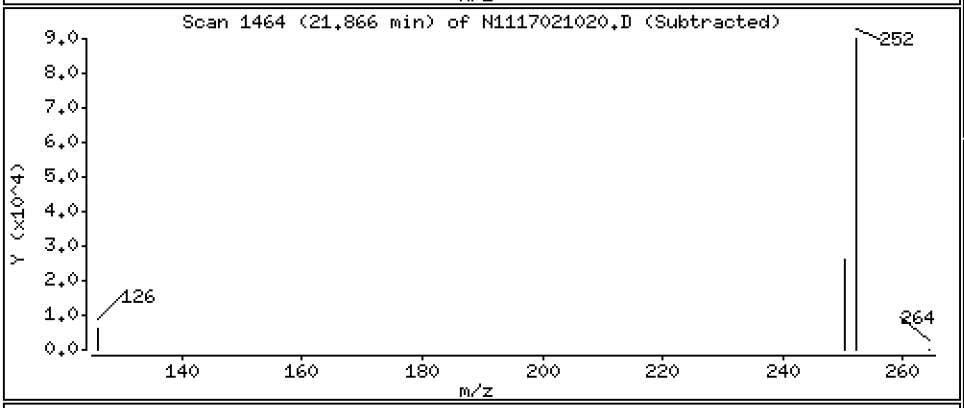
Column diameter: 0.25

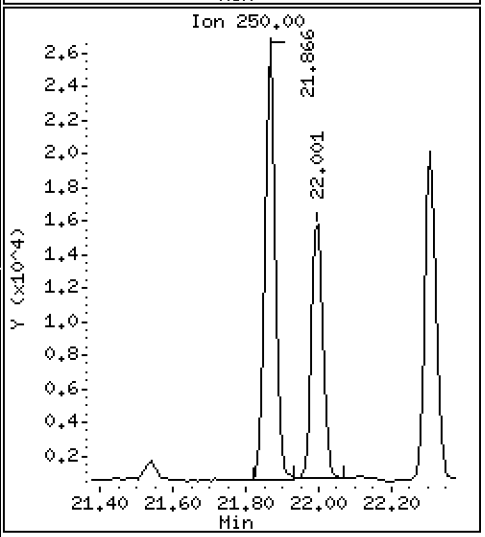
34 Benzo(e)pyrene

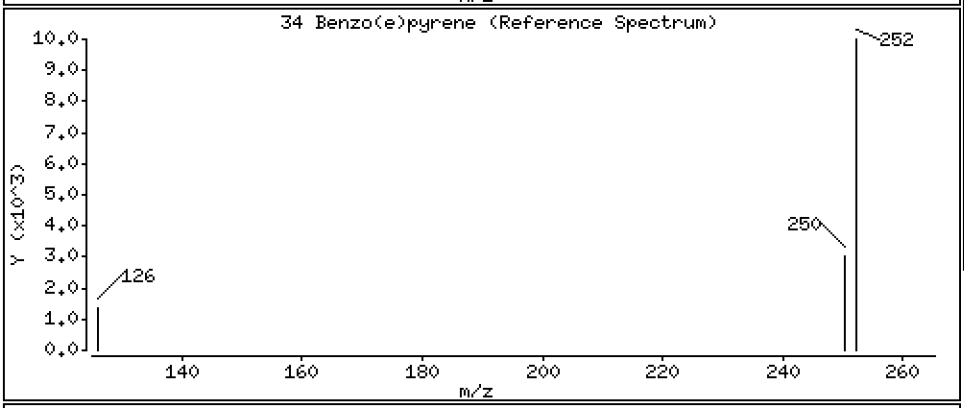
Concentration: 146 ng/mL

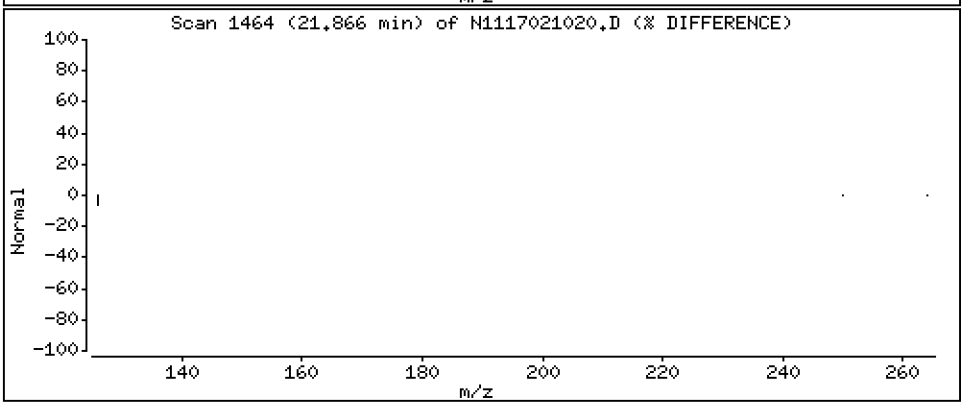












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021020.D

Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

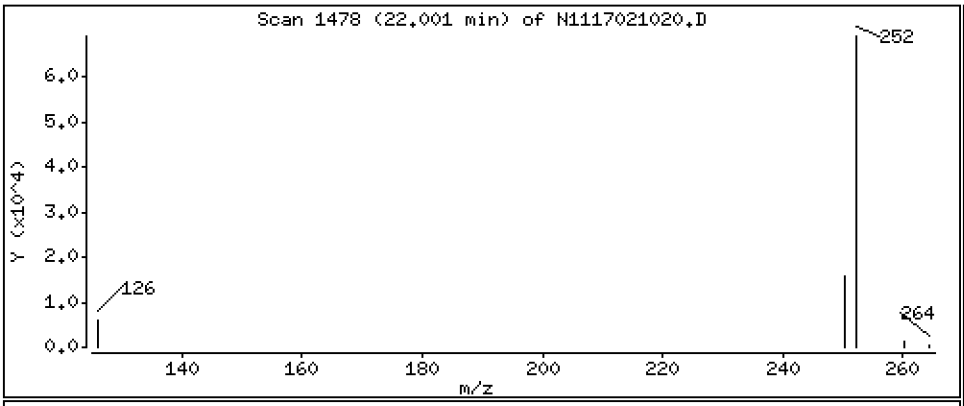
Operator: VTS

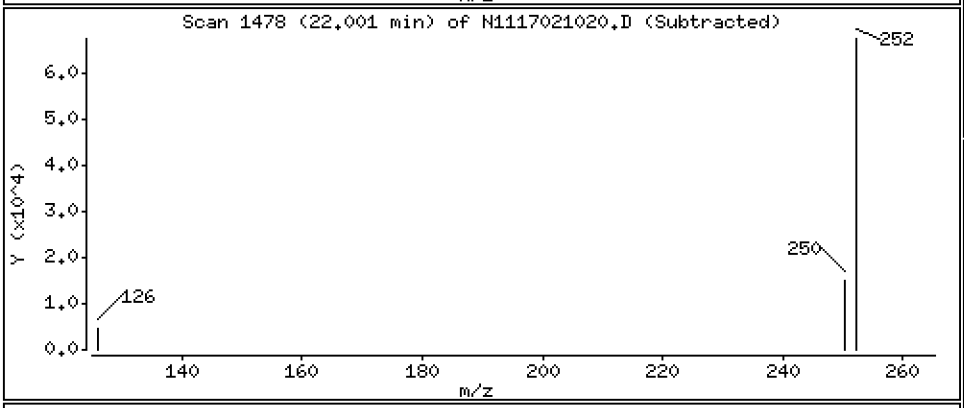
Column phase: Rxi-17Sil MS

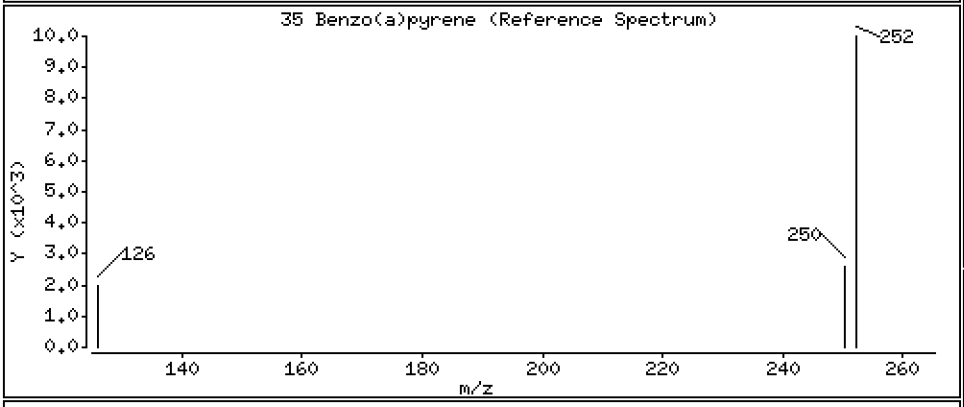
Column diameter: 0.25

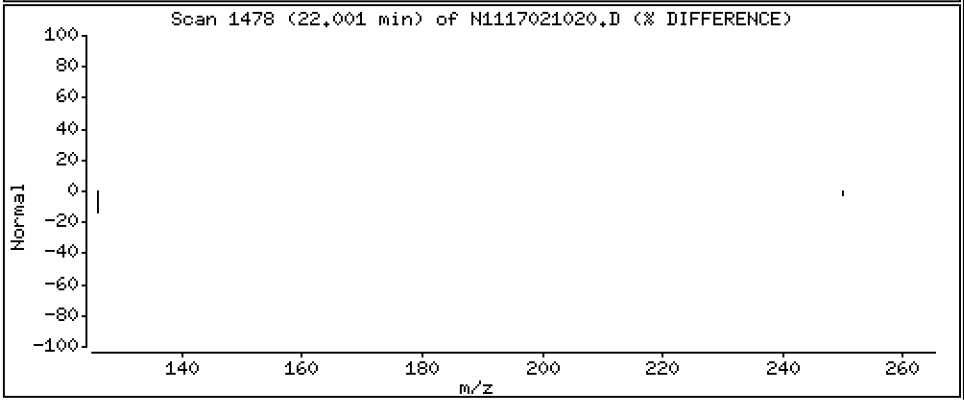
35 Benzo(a)pyrene

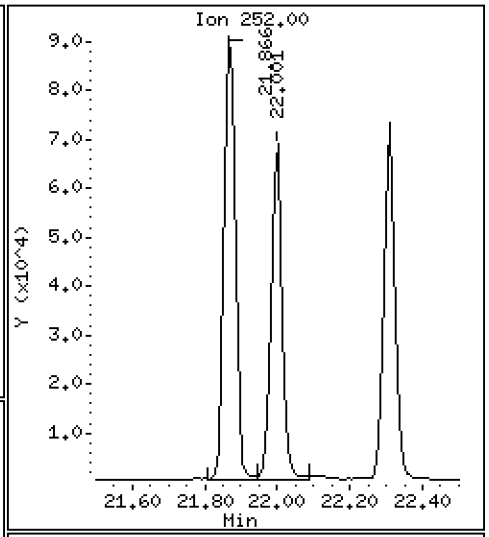
Concentration: 123 ng/mL

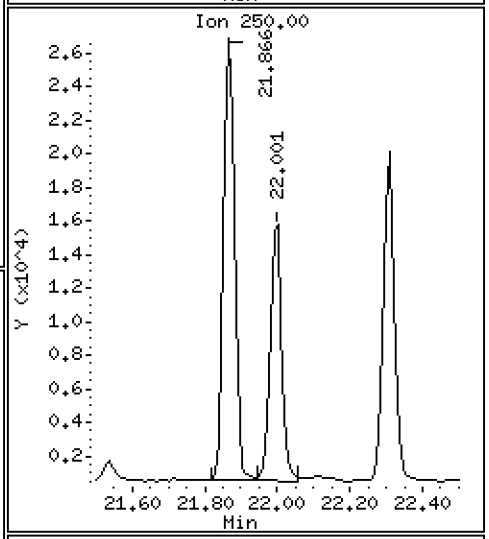


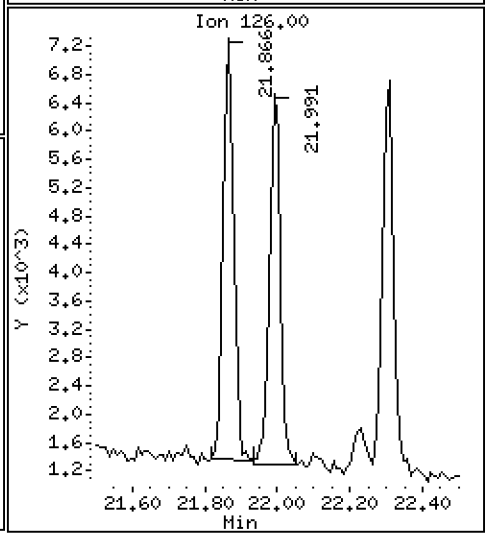












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

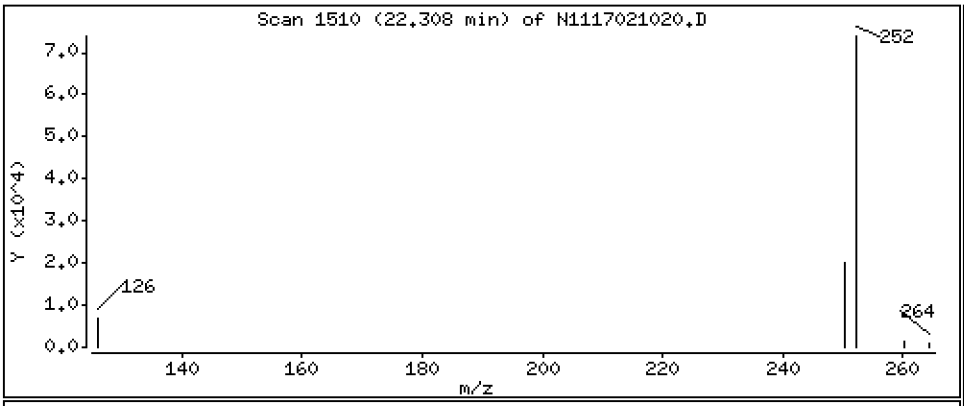
Operator: VTS

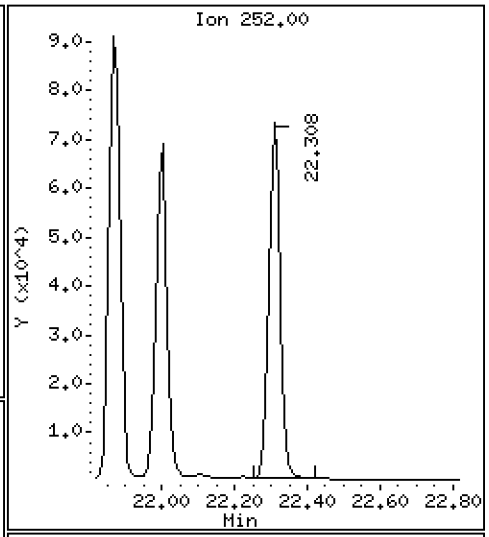
Column phase: Rxi-17Sil MS

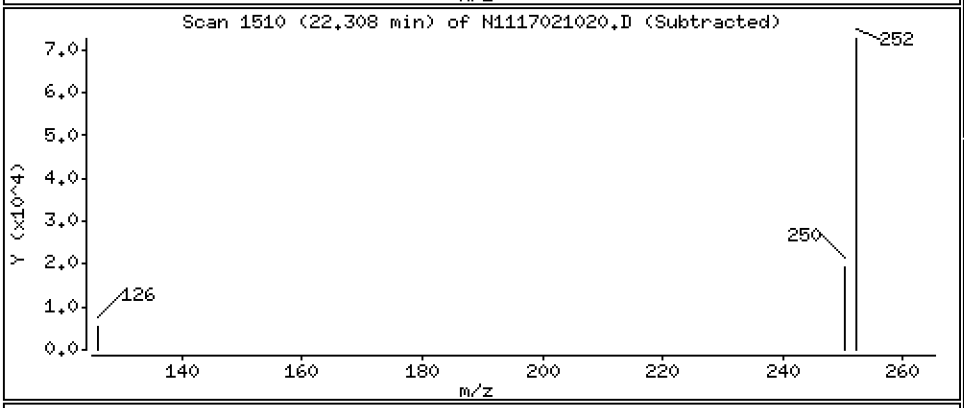
Column diameter: 0.25

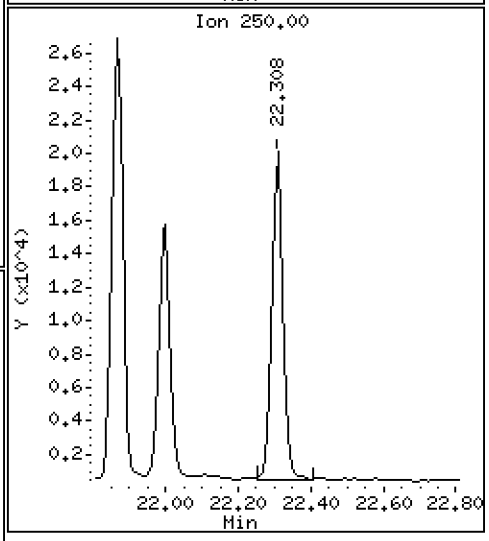
37 Perylene

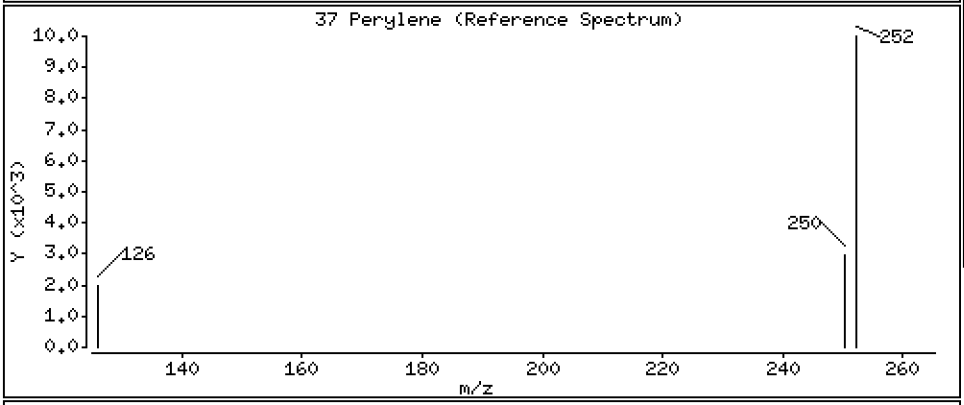
Concentration: 126 ng/mL

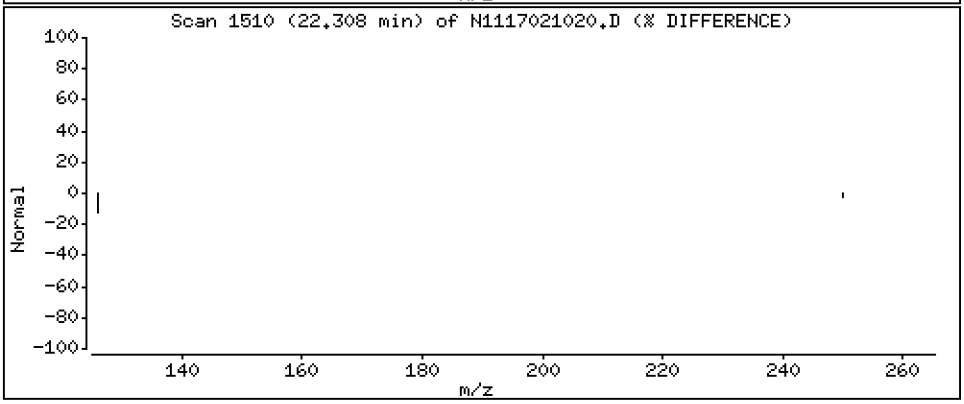












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

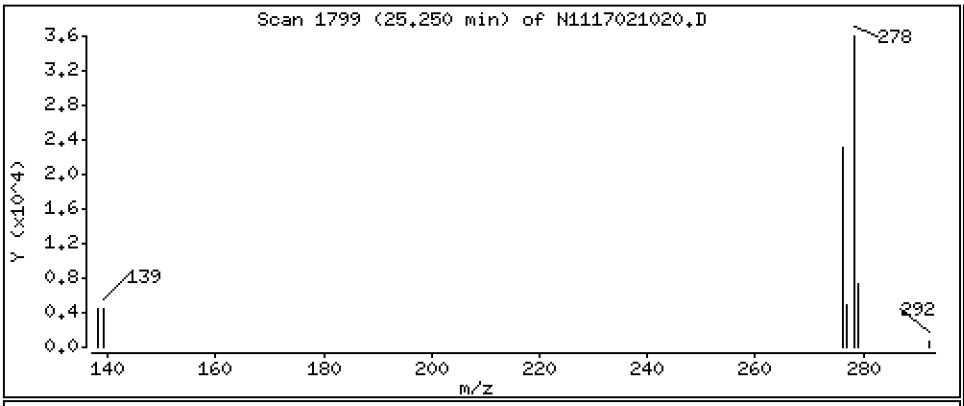
Operator: VTS

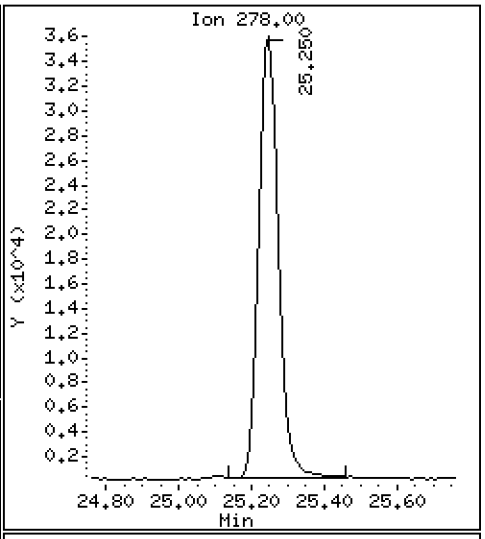
Column phase: Rxi-17Sil MS

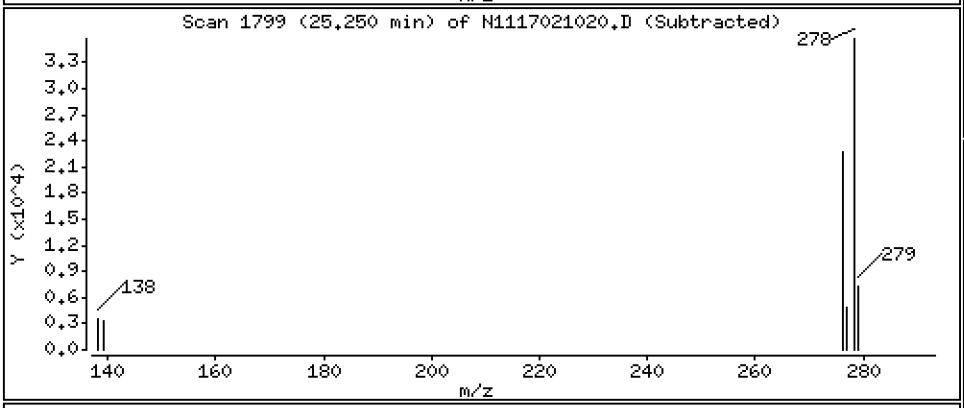
Column diameter: 0.25

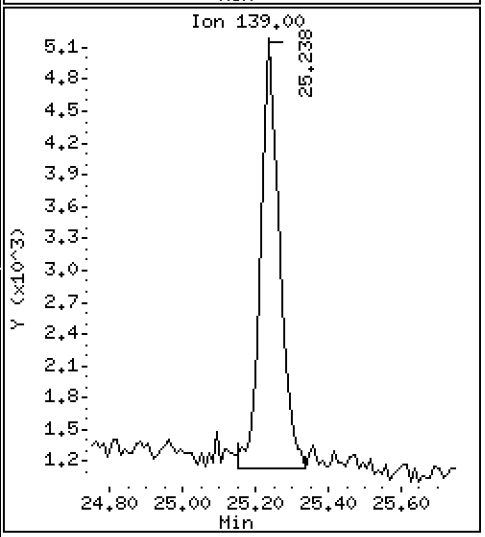
39 Dibenzo(a,h)anthracene

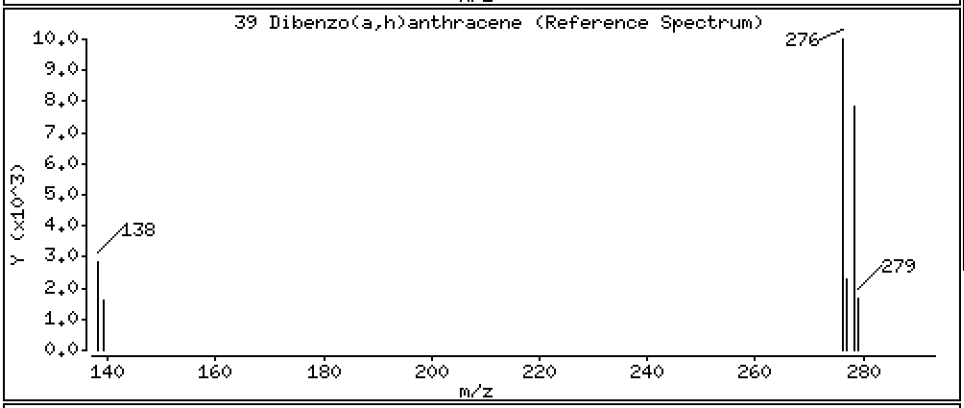
Concentration: 125 ng/mL

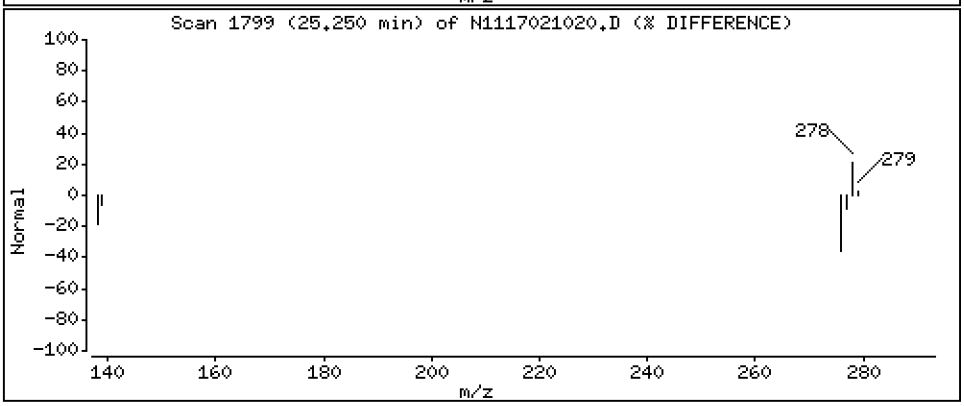












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021020.D

Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

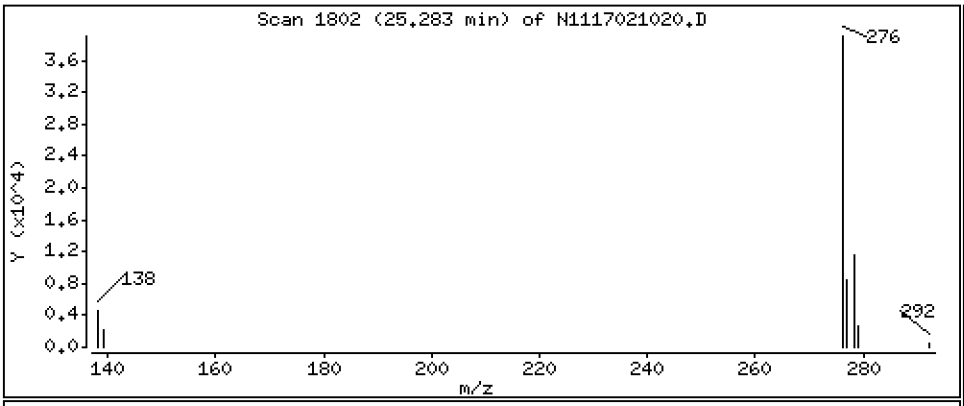
Operator: VTS

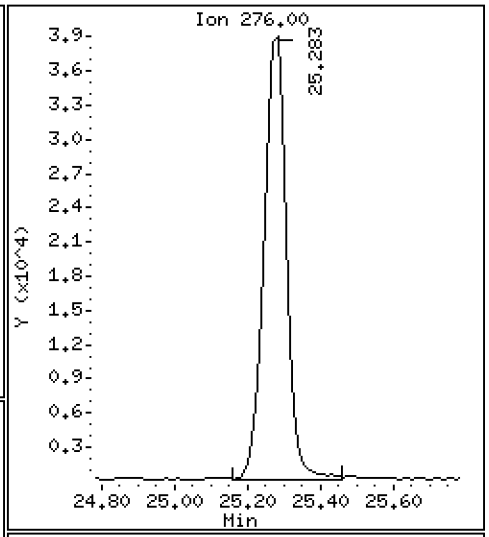
Column phase: Rxi-17Sil MS

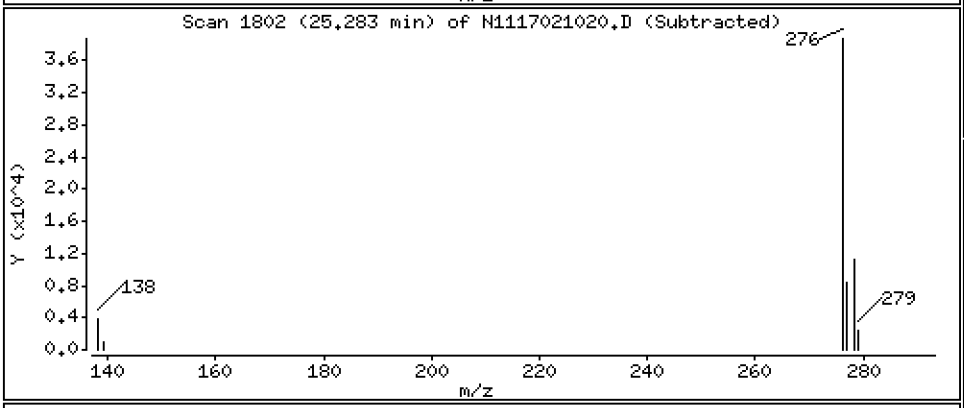
Column diameter: 0.25

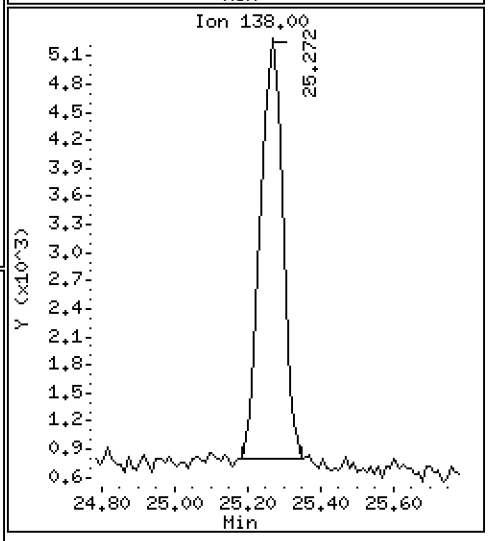
40 Indeno(1,2,3-cd)pyrene

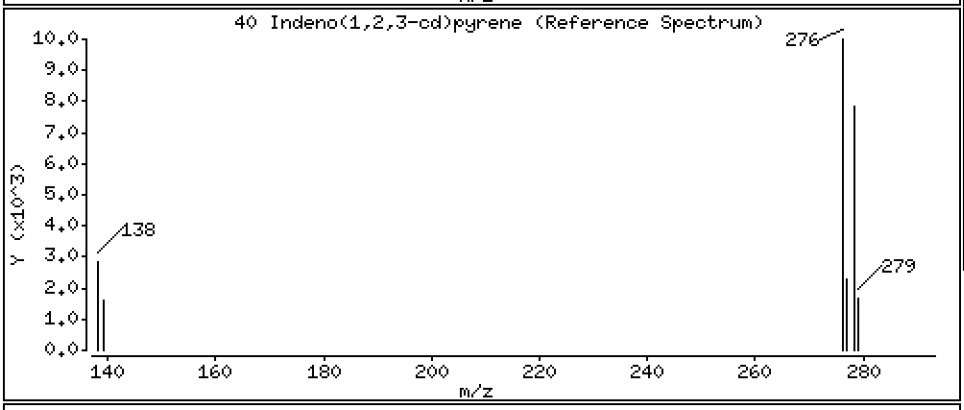
Concentration: 124 ng/mL

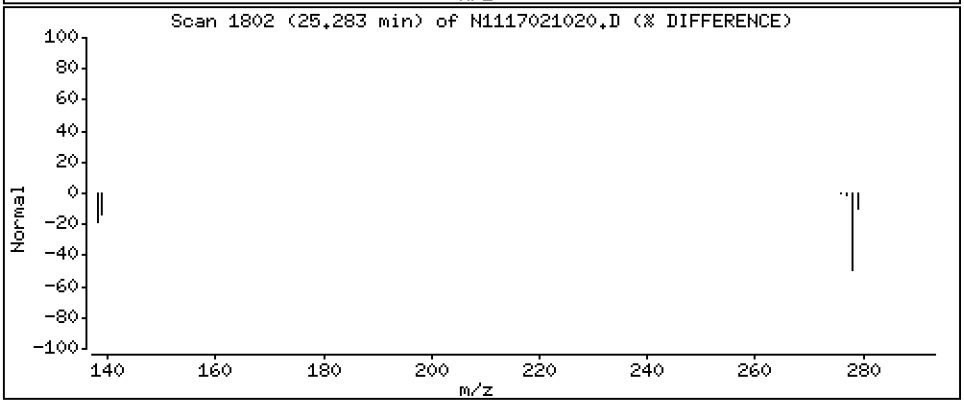












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021020.D

Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

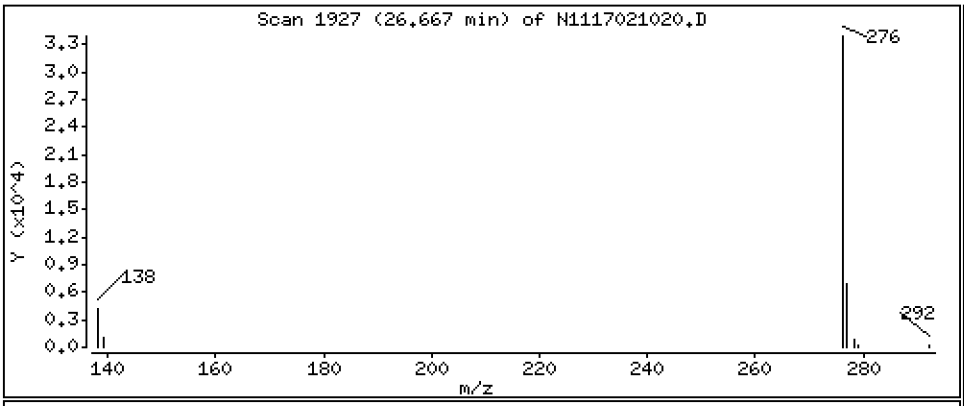
Operator: VTS

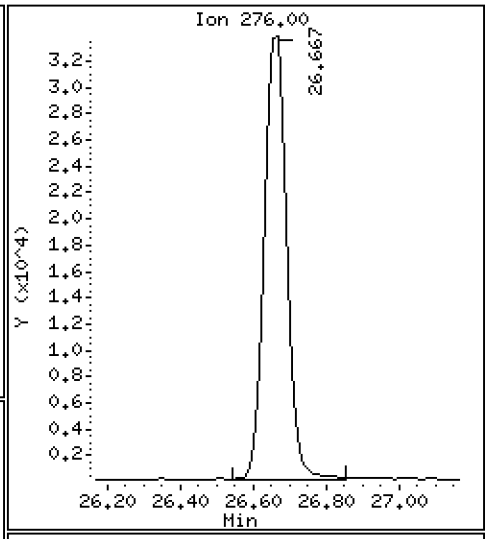
Column phase: Rxi-17Sil MS

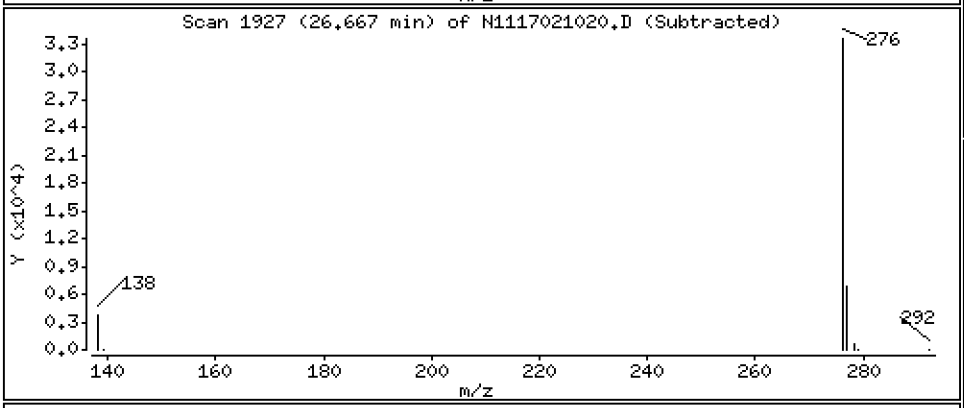
Column diameter: 0.25

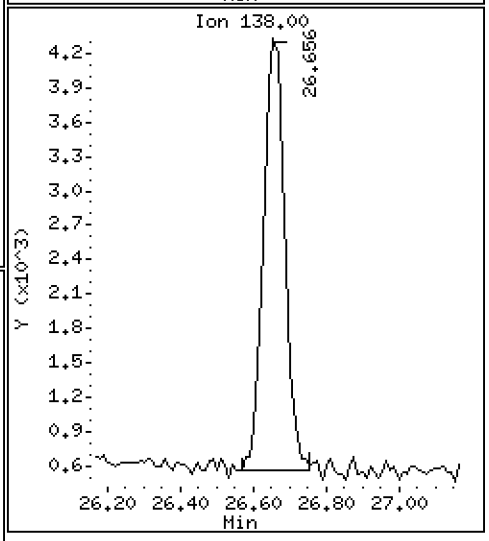
41 Benzo(g,h,i)perylene

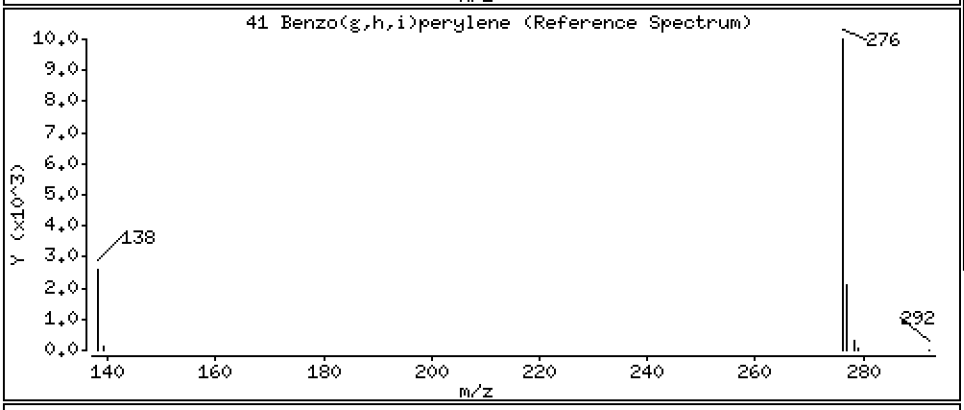
Concentration: 120 ng/mL

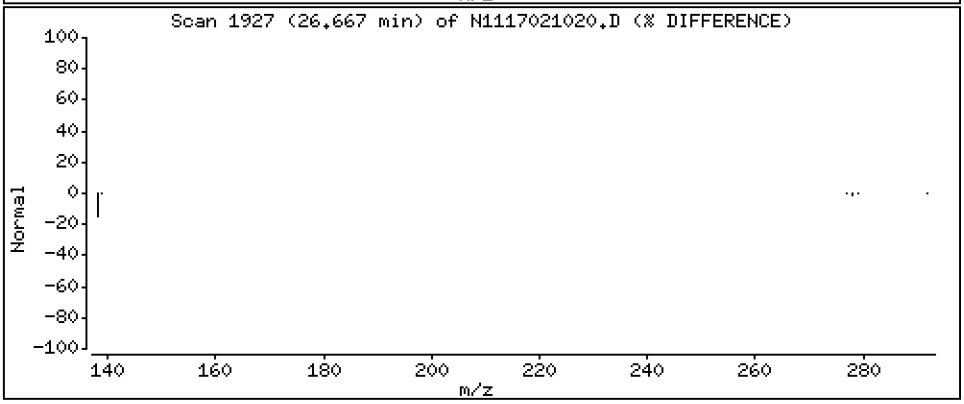












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20170210.b\N1117021020.D
Lab Smp Id: BFA0647-MS1
Inj Date : 10-FEB-2017 22:23 MS Autotune Date: 15-JAN-2015 15:59
Operator : VTS Inst ID: nt11.i
Smp Info : BFA0647-MS1
Misc Info :
Comment   :
Method   : \\target\share\chem3\nt11.i\20170210.b\LOWSIM.m
Meth Date : 11-Feb-2017 08:35 nt11.i Quant Type: ISTD
Cal Date : 31-DEC-2016 09:30 Cal File: N1116123104.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.518	8.526	(1.000)	240715	200.000	
	2 Naphthalene	128	8.554	8.554	(1.004)	98044	81.6157	81.6
	3 Benzo(b)thiophene	134	8.807	8.816	(1.034)	79223	81.0123	81.0
$	4 2-Methylnaphthalene-d10	152	9.509	9.508	(1.116)	101045	97.7411	97.7
	5 2-Methylnaphthalene	142	9.561	9.561	(1.122)	118833	100.368	100
	6 1-Methylnaphthalene	142	9.824	9.823	(1.153)	117365	98.5598	98.6
	7 2-Chloronaphthalene	162	10.475	10.475	(0.906)	123527	93.9180	93.9
	8 Biphenyl	154	10.444	10.443	(0.903)	175067	100.098	100
	9 2,6-Dimethylnaphthalene	156	10.496	10.496	(0.908)	142336	104.949	105
	10 Acenaphthylene	152	11.411	11.410	(0.987)	158885	102.047	102
*	11 Acenaphthene-d10	164	11.564	11.564	(1.000)	173279	200.000	
	12 Acenaphthene	153	11.619	11.627	(1.005)	107652	105.014	105
	13 Dibenzofuran	168	11.823	11.822	(1.022)	174193	114.308	114
	14 2,3,5-Trimethylnaphthalene	170	11.924	11.923	(1.031)	121690	124.793	125
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.455	12.454	(1.077)	147670	121.723	122
	17 Dibenzothiophene	184	14.084	14.083	(0.988)	137139	113.287	113
*	18 Phenanthrene-d10	188	14.252	14.262	(1.000)	262158	200.000	
	19 Phenanthrene	178	14.294	14.293	(1.003)	225079	150.171	150
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.346	14.356	(1.007)	189657	126.906	127
	22 Carbazole	167	15.027	15.027	(1.054)	159914	96.9606	97.0
	23 1-Methylphenanthrene	192	15.298	15.307	(1.073)	192833	125.455	125
$	24 Fluoranthene-d10	212	16.367	16.367	(1.148)	157413	113.052	113
	25 Fluoranthene	202	16.406	16.405	(1.151)	264278	155.444	155
	26 Pyrene	202	16.905	16.915	(0.889)	273204	189.114	189
	27 Benzo(a)anthracene	228	18.925	18.933	(0.995)	190221	142.247	142
*	28 Chrysene-d12	240	19.025	19.024	(1.000)	222392	200.000	
	29 Chrysene	228	19.075	19.074	(1.003)	212596	154.931	155
	30 Benzo(b)fluoranthene	252	21.001	21.001	(0.945)	170287	132.394	132
	31 Benzo(k)fluoranthene	252	21.049	21.049	(0.947)	177389	128.044	128
	32 Benzo(j)fluoranthene	252	21.126	21.125	(0.950)	152198	123.247	123
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	34 Benzo(e)pyrene	252	21.866	21.875	(0.984)	187426	146.083	146
	35 Benzo(a)pyrene	252	22.000	22.000	(0.990)	147460	122.978	123
*	36 Perylene-d12	264	22.231	22.240	(1.000)	238610	200.000	
	37 Perylene	252	22.308	22.317	(1.003)	157788	126.034	126
$	38 Dibenzo(a,h)anthracene-d14	292	25.105	25.116	(1.129)	95136	124.851	125
	39 Dibenzo(a,h)anthracene	278	25.249	25.260	(1.136)	131633	125.476	125
	40 Indeno(1,2,3-cd)pyrene	276	25.282	25.282	(1.137)	162124	123.843	124
	41 Benzo(g,h,i)perylene	276	26.667	26.666	(1.200)	141350	120.266	120

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: N1117021020.D
Lab Smp Id: BFA0647-MS1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20170210.b\LOWSIM.m
Misc Info:

Calibration Date: 10-FEB-2017
Calibration Time: 13:29
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	219654	109827	439308	240715	9.59
11 Acenaphthene-d10	135248	67624	270496	173279	28.12
18 Phenanthrene-d10	257021	128511	514042	262158	2.00
28 Chrysene-d12	259511	129756	519022	222392	-14.30
36 Perylene-d12	257535	128768	515070	238610	-7.35

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.53	8.03	9.03	8.52	-0.10
11 Acenaphthene-d10	11.56	11.06	12.06	11.56	0.00
18 Phenanthrene-d10	14.26	13.76	14.76	14.25	-0.07
28 Chrysene-d12	19.02	18.52	19.52	19.03	0.00
36 Perylene-d12	22.24	21.74	22.74	22.23	-0.04

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1117021020.D

Lab ID: BFA0647-MS1
nt11.i, 20170210.b\LOWSIM.m,   10-FEB-2017 22:23

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20170210.b\LOWSIM.m, allpna.sub = 3.0000

Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021021.D

Date : 10-FEB-2017 22:59

Client ID:

Sample Info: BFA0647-MSD1

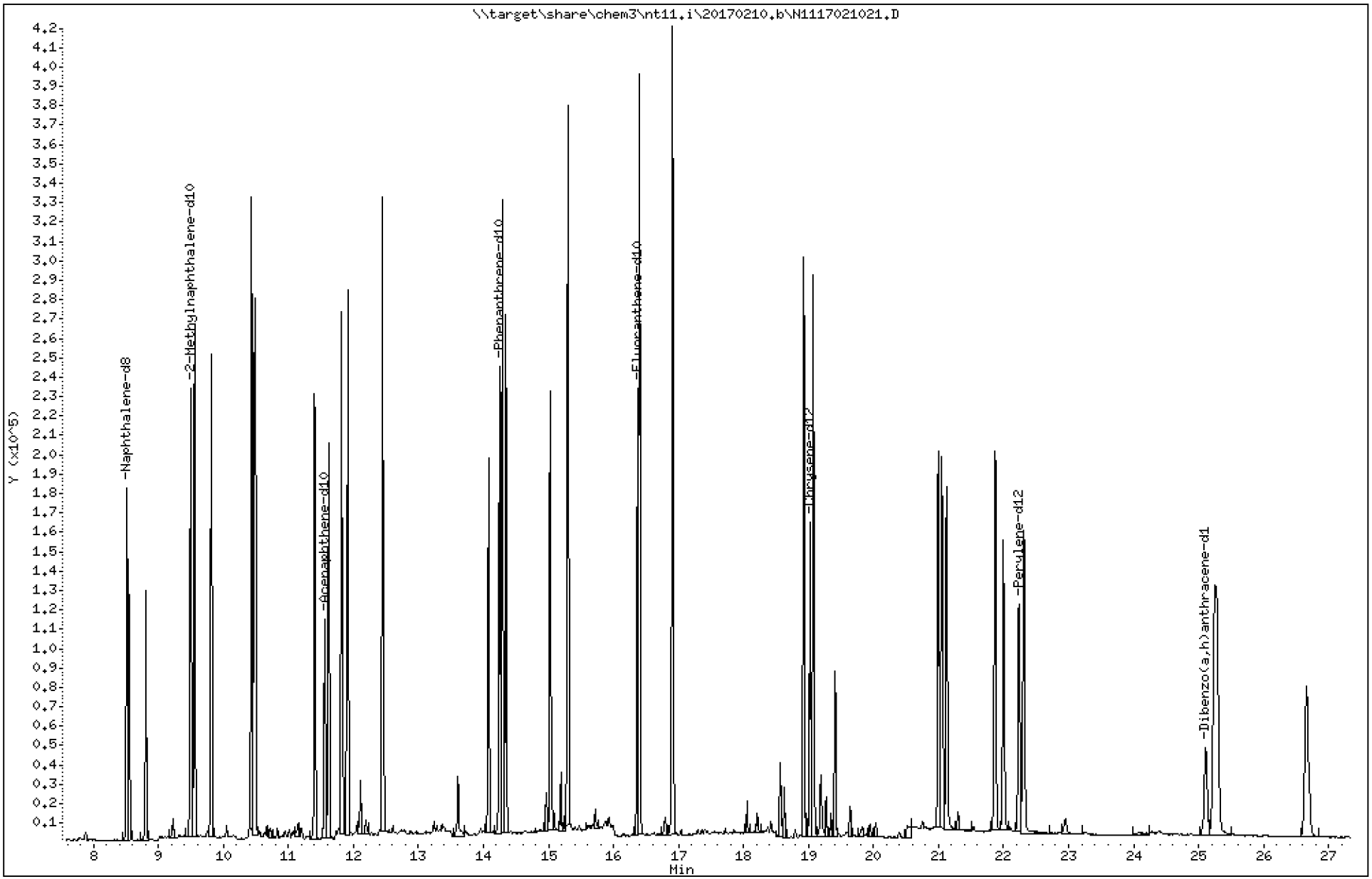
Column phase: Rxi-17Sil MS

Instrument: nt11.i

Operator: VTS

Column diameter: 0.25

1137



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Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

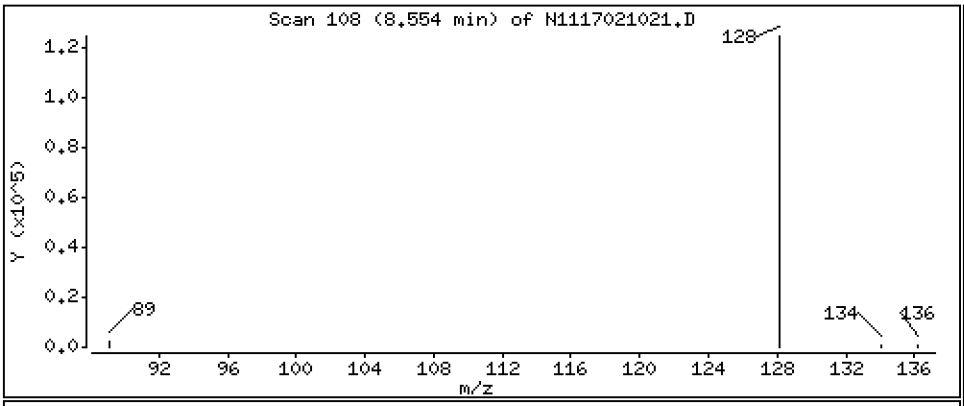
Operator: VTS

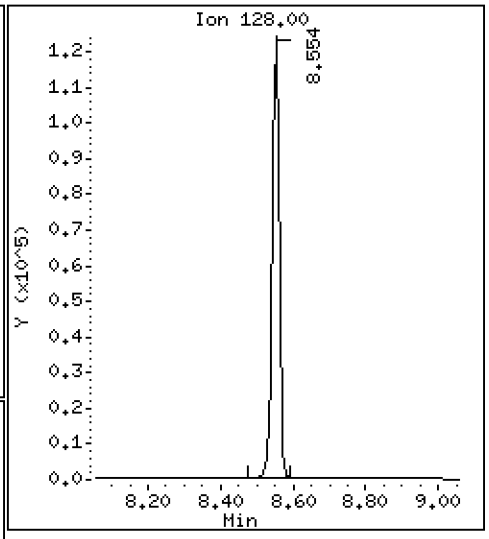
Column phase: Rxi-17Sil MS

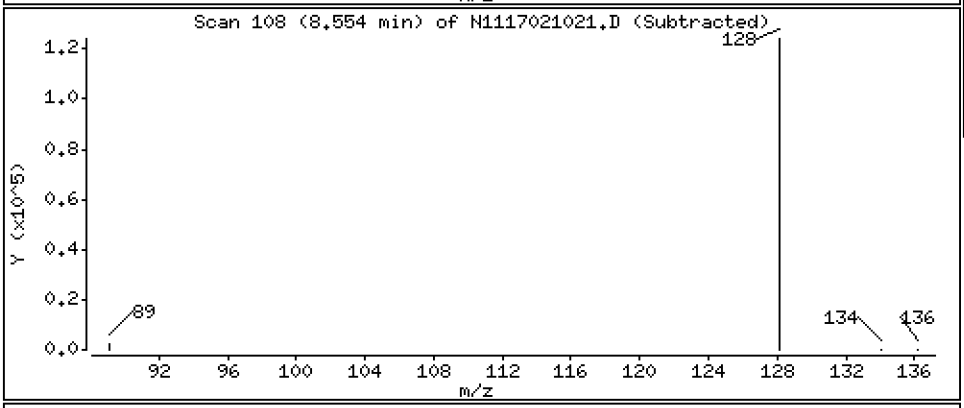
Column diameter: 0.25

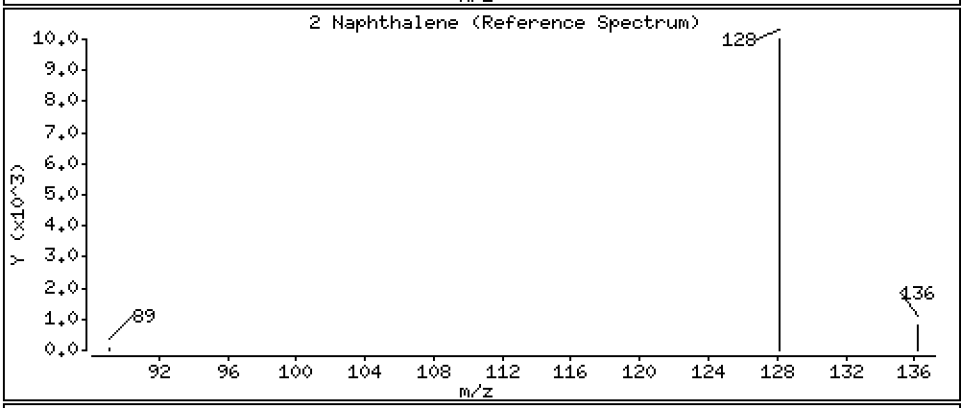
2 Naphthalene

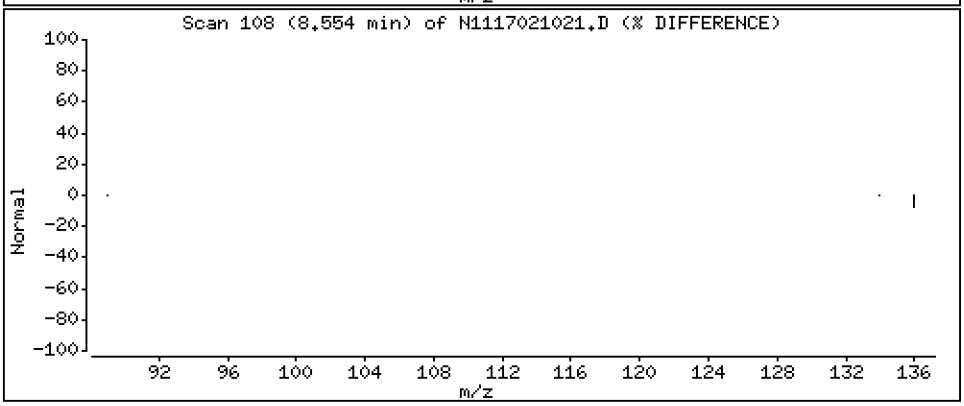
Concentration: 151 ng/mL











Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021021.D

Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

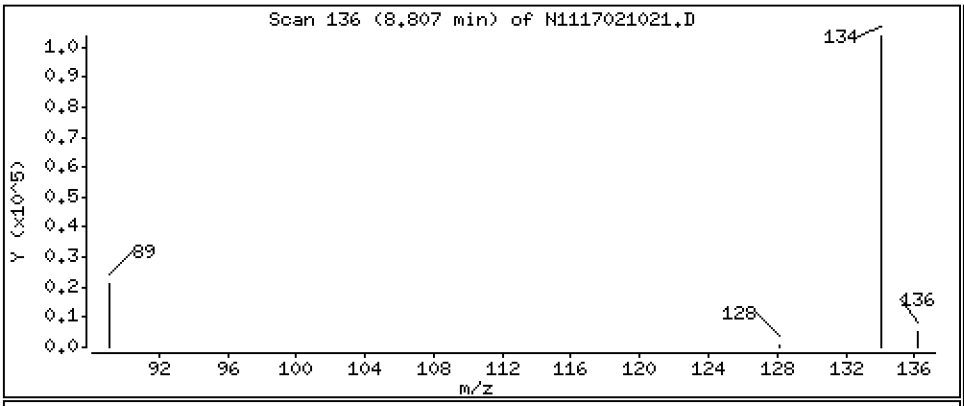
Operator: VTS

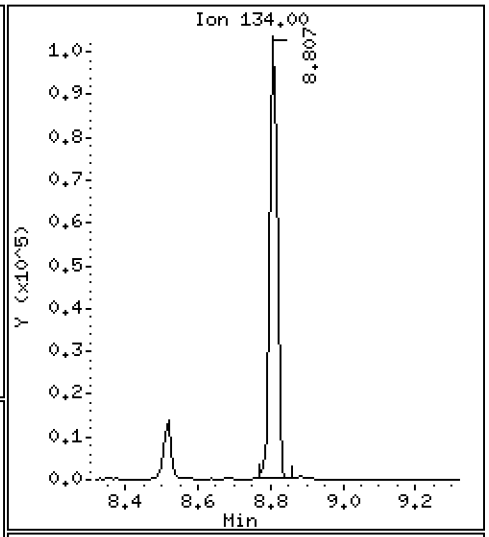
Column phase: Rxi-17Sil MS

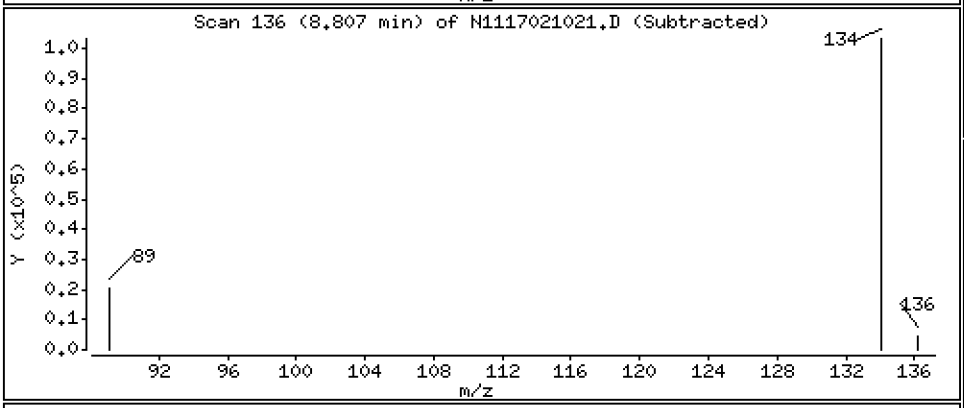
Column diameter: 0.25

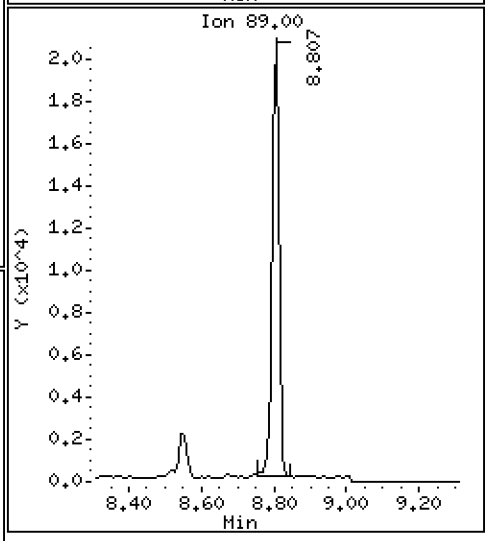
3 Benzo(b)thiophene

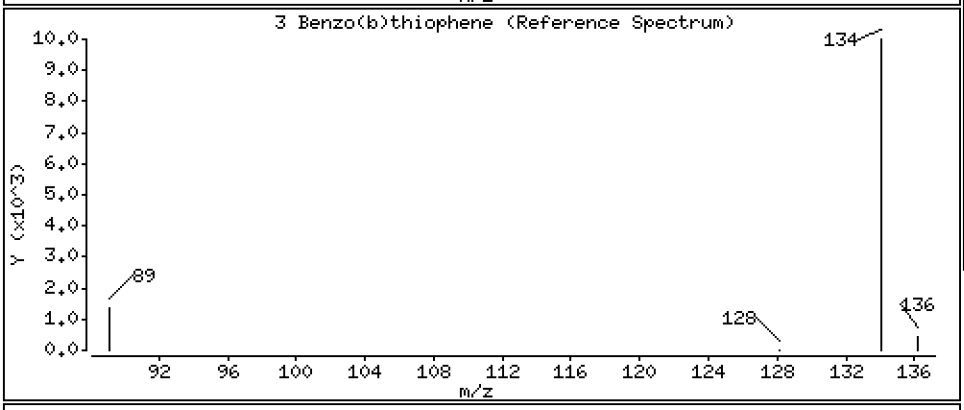
Concentration: 152 ng/mL

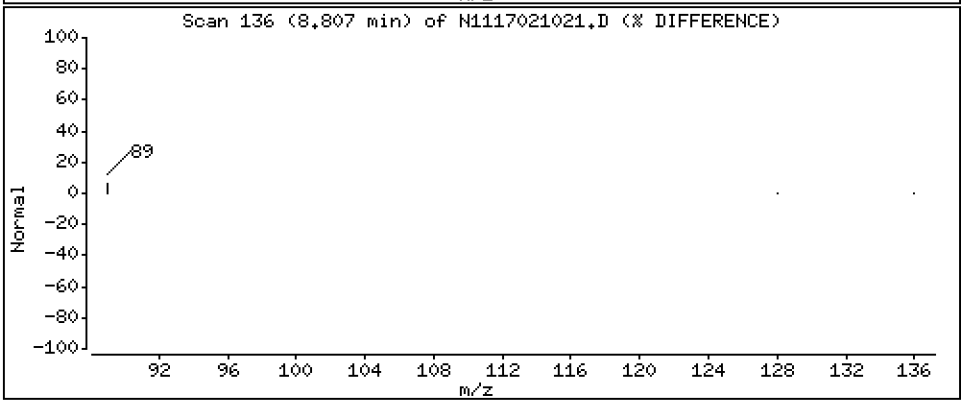












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021021.D

Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

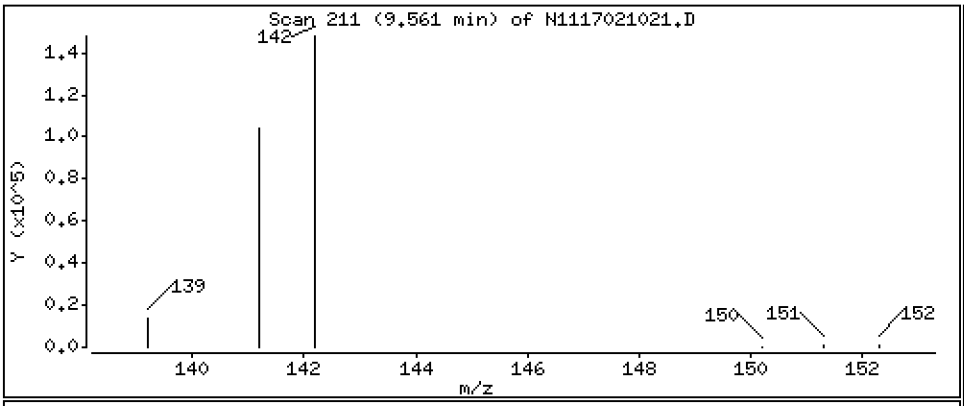
Operator: VTS

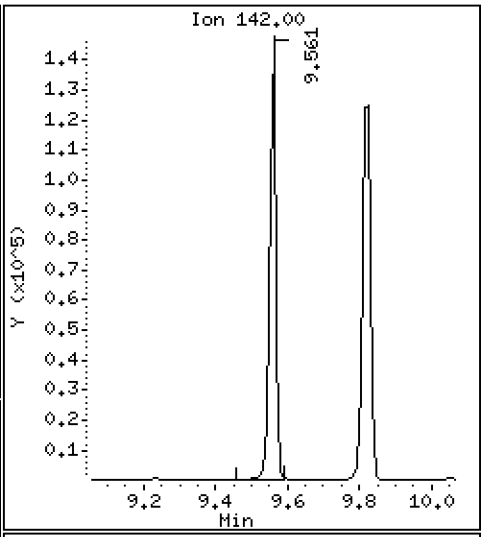
Column phase: Rxi-17Sil MS

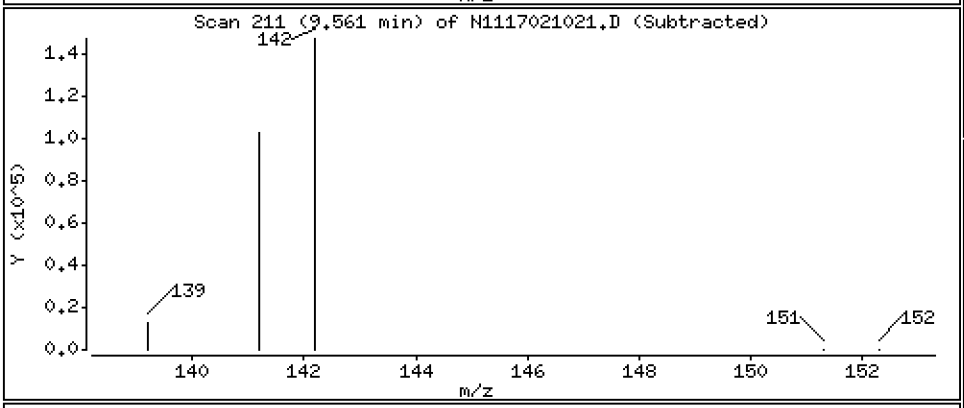
Column diameter: 0.25

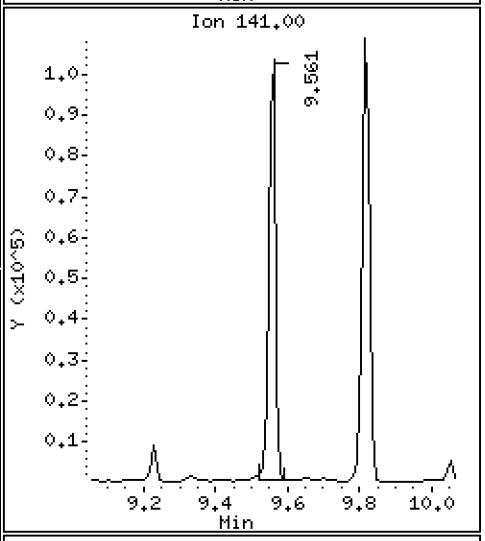
5 2-Methylnaphthalene

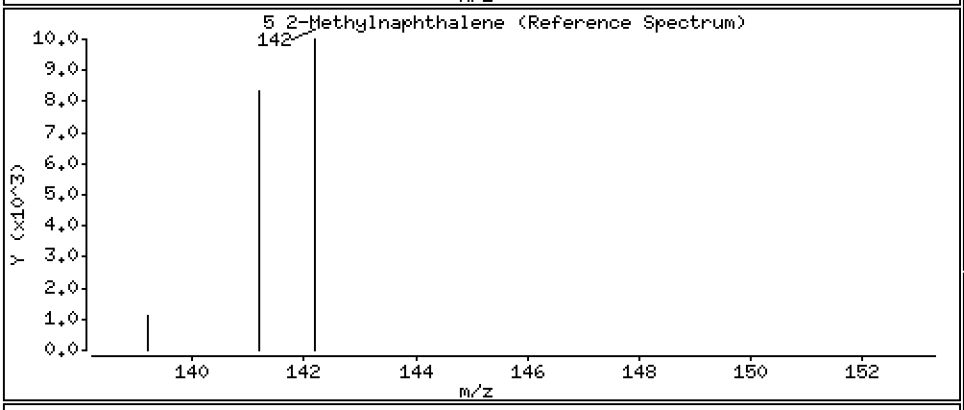
Concentration: 178 ng/mL

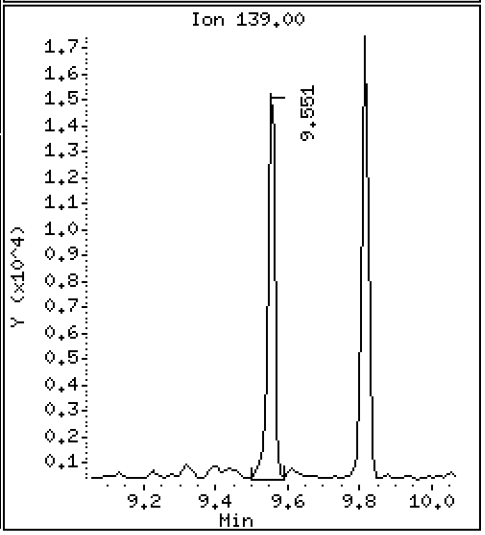


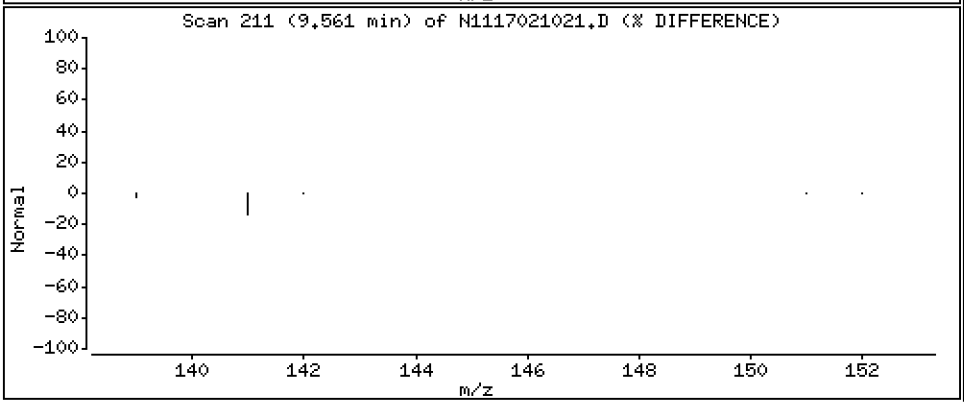












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021021.D

Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

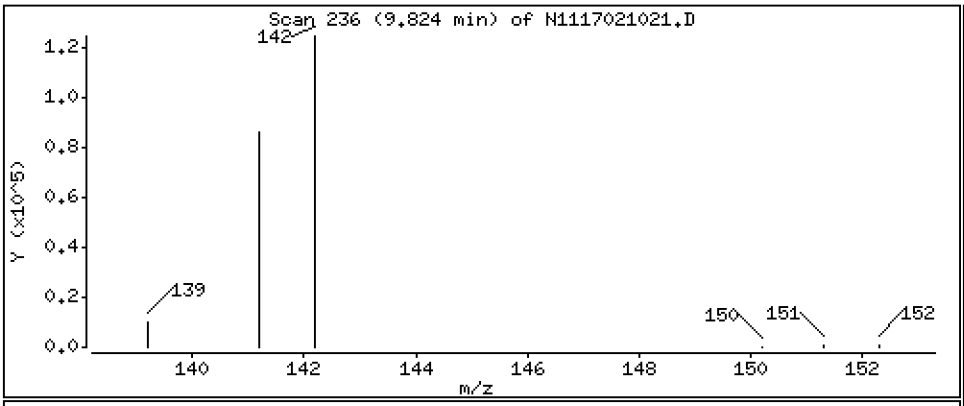
Operator: VTS

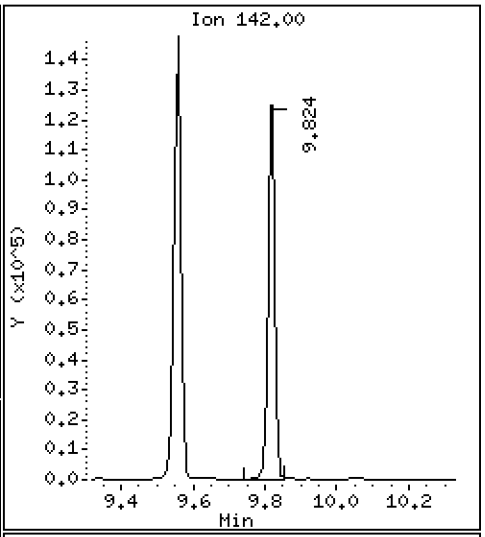
Column phase: Rxi-17Sil MS

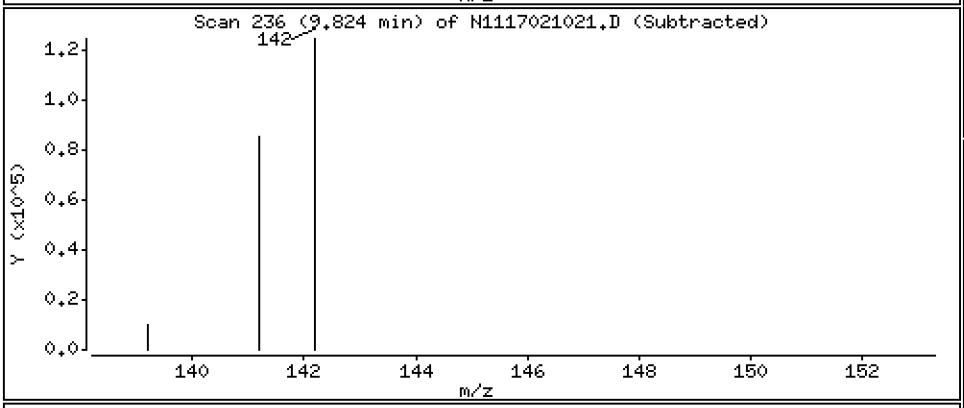
Column diameter: 0.25

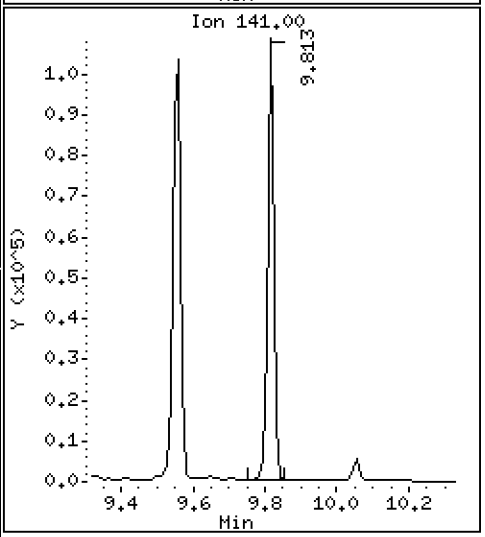
6 1-Methylnaphthalene

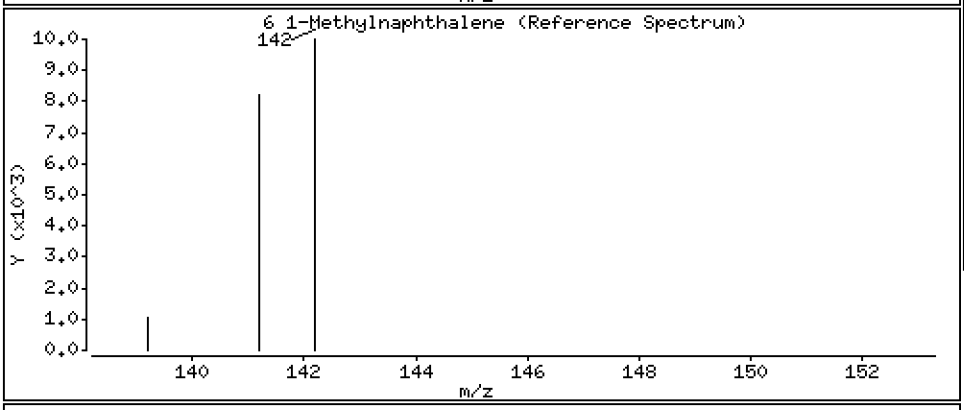
Concentration: 176 ng/mL

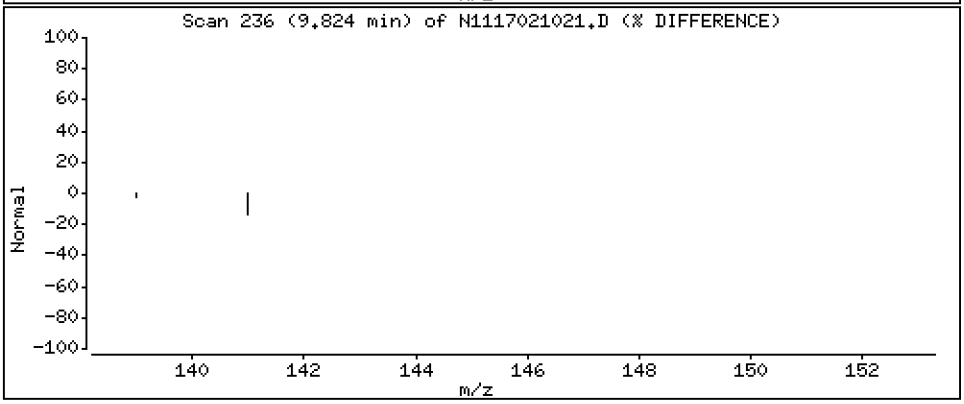












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Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

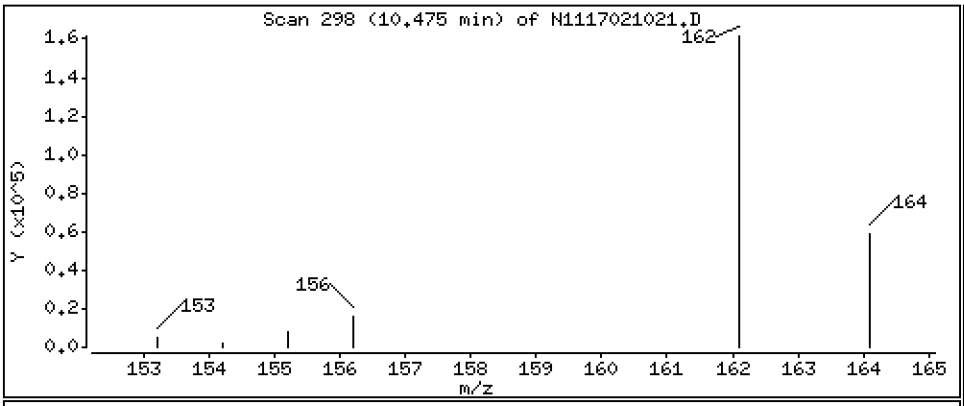
Operator: VTS

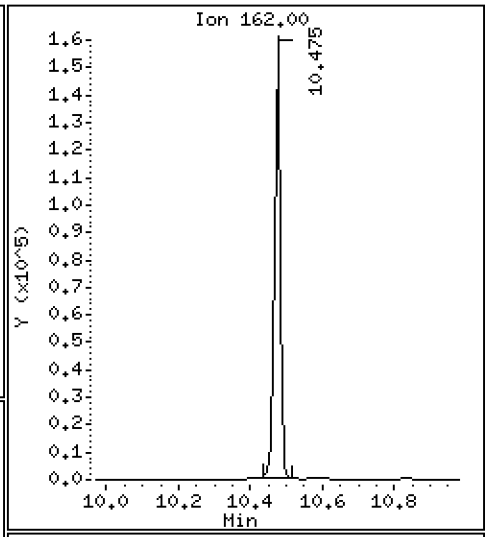
Column phase: Rxi-17Sil MS

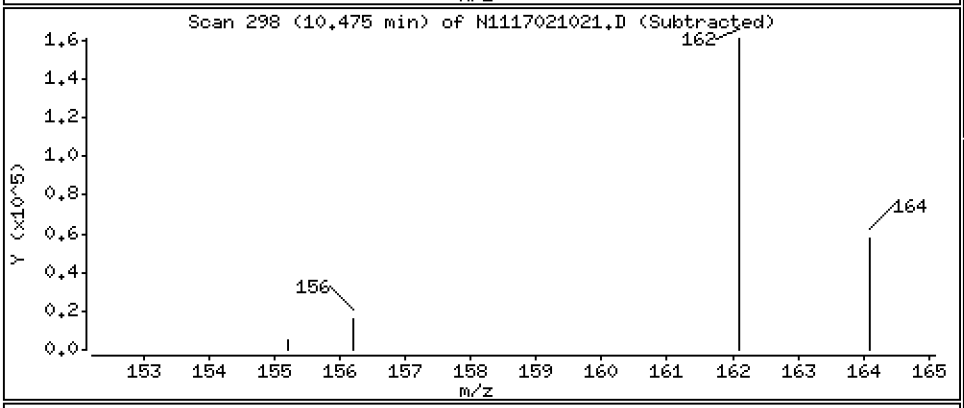
Column diameter: 0.25

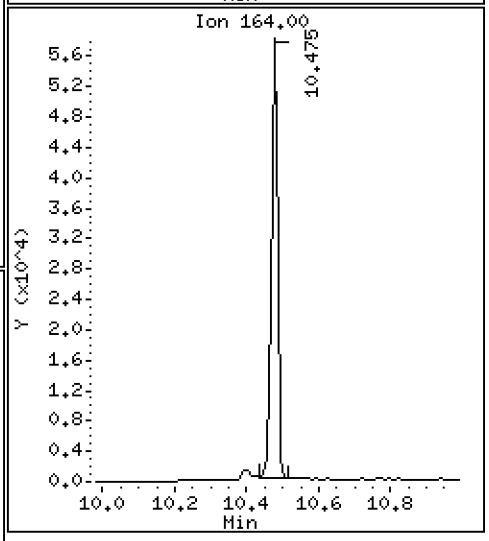
7 2-Chloronaphthalene

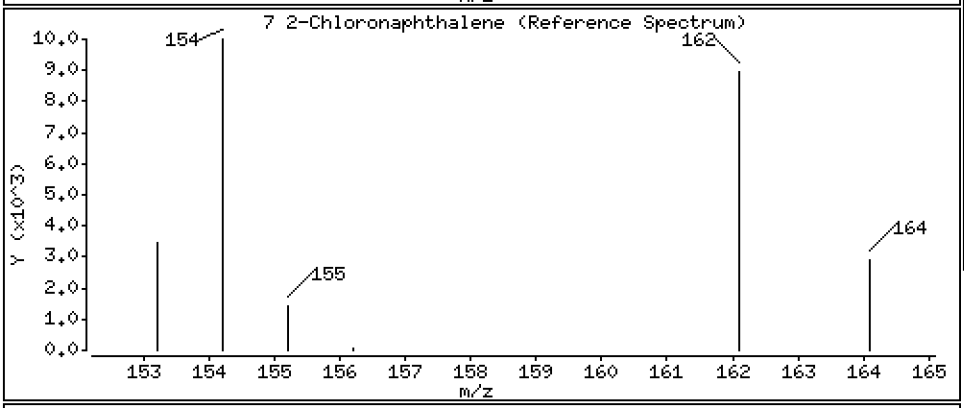
Concentration: 173 ng/mL

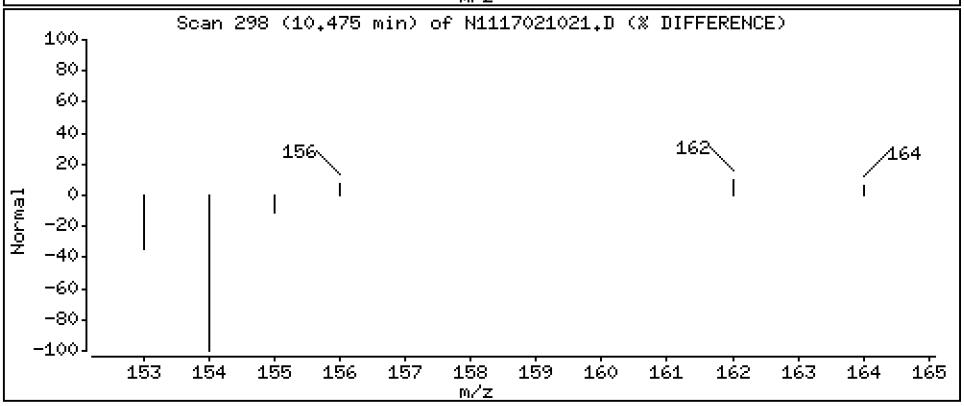












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Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

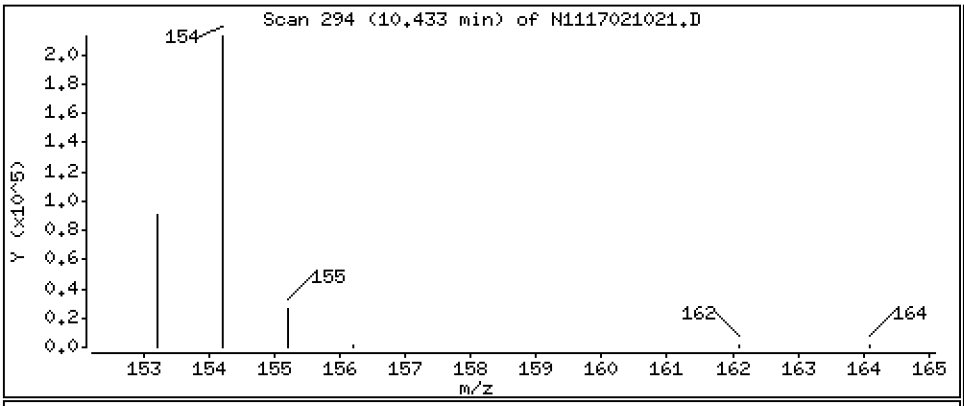
Operator: VTS

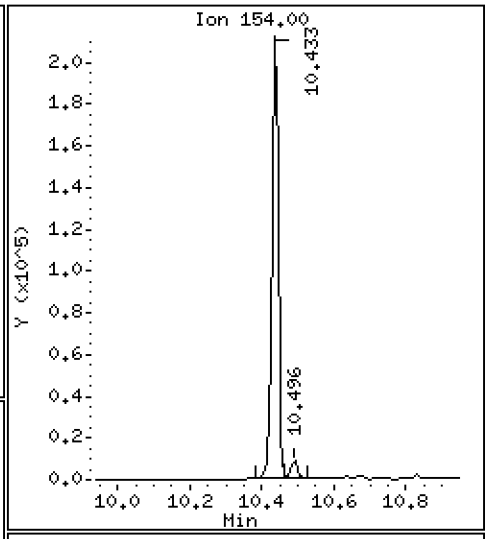
Column phase: Rxi-17Sil MS

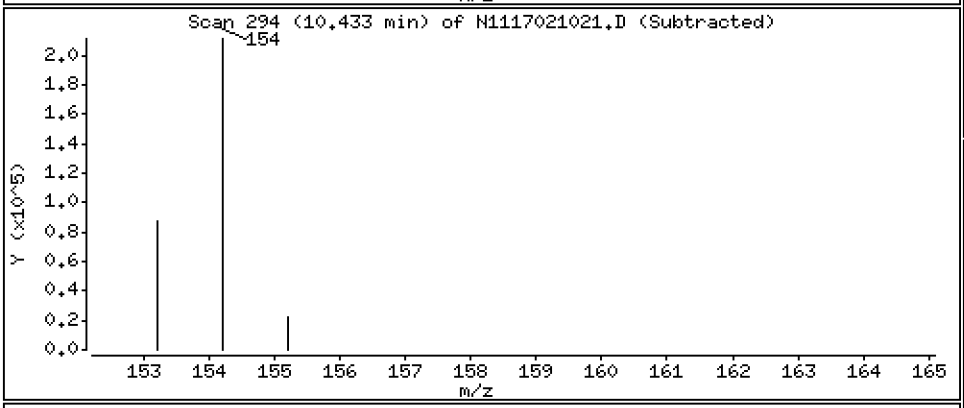
Column diameter: 0.25

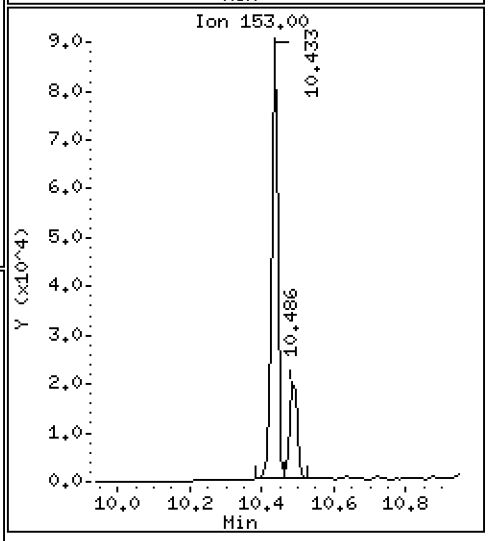
8 Biphenyl

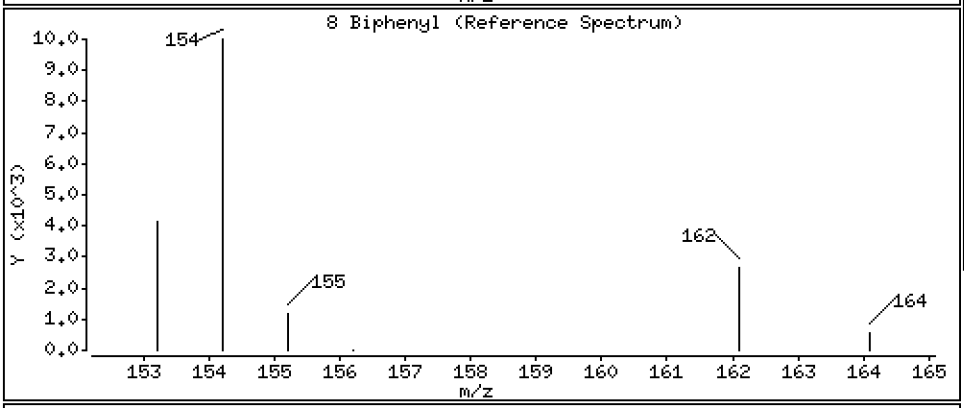
Concentration: 181 ng/mL

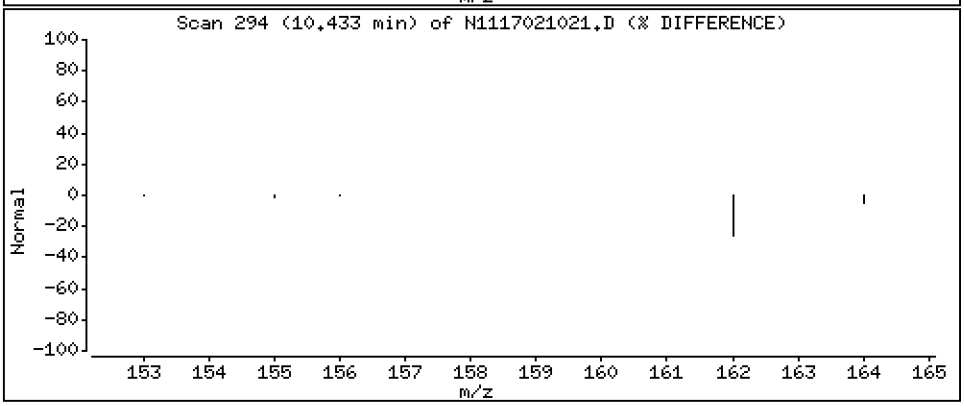












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Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

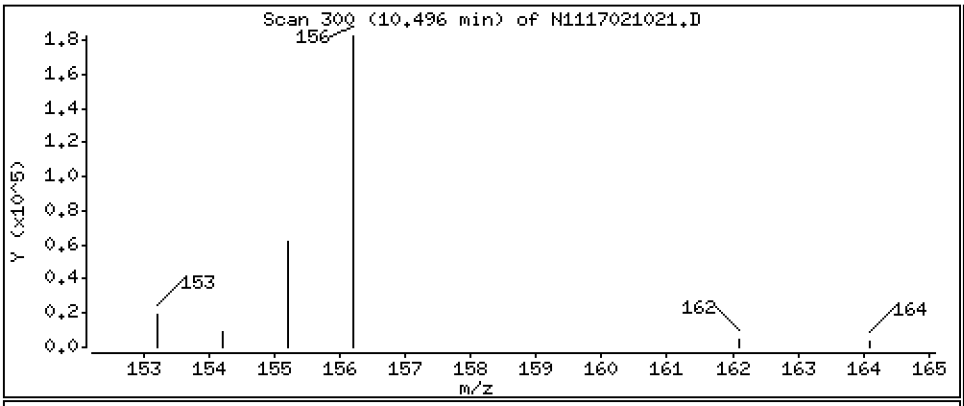
Operator: VTS

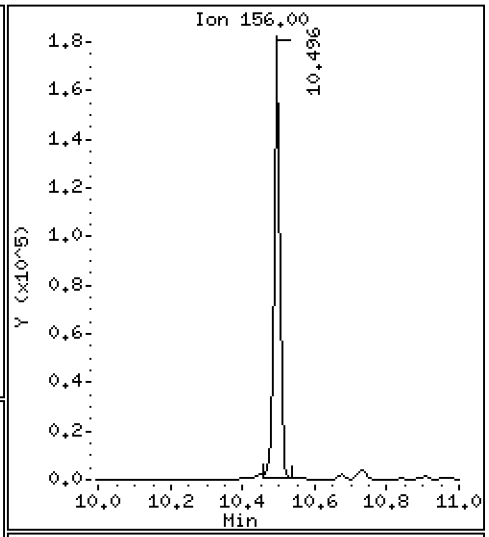
Column phase: Rxi-17Sil MS

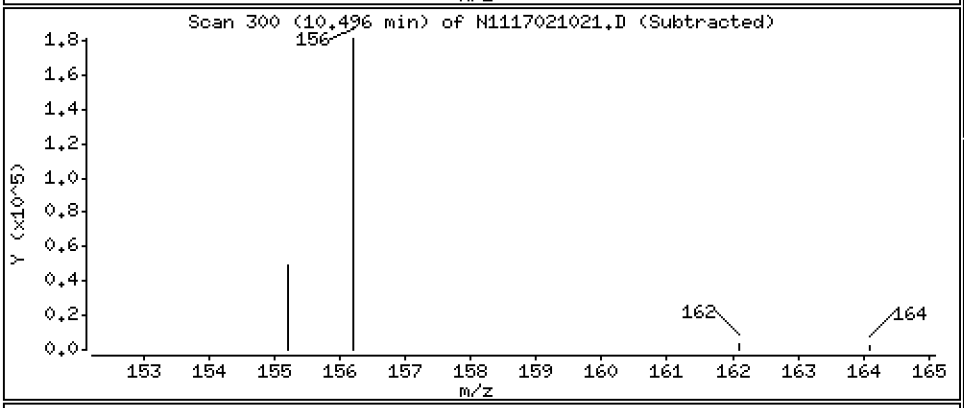
Column diameter: 0.25

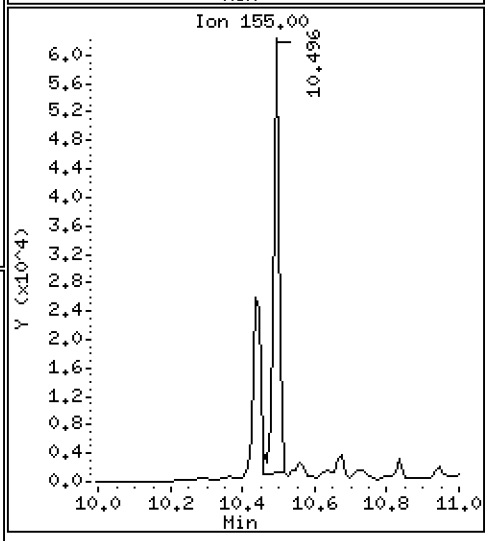
9 2,6-Dimethylnaphthalene

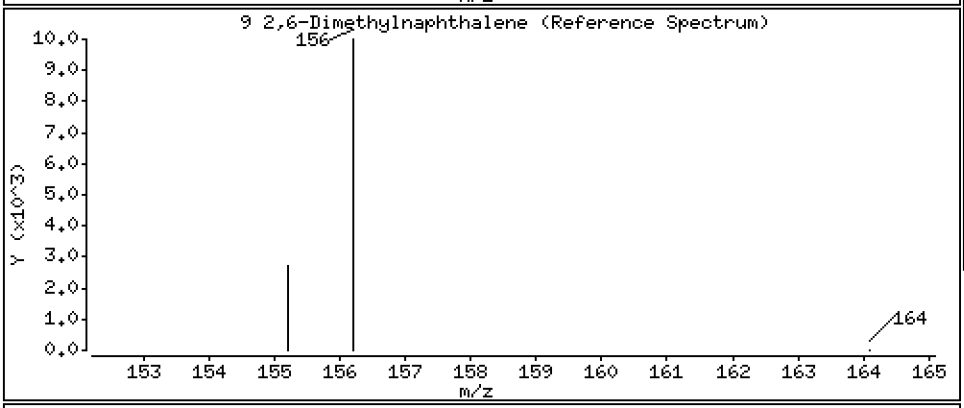
Concentration: 189 ng/mL

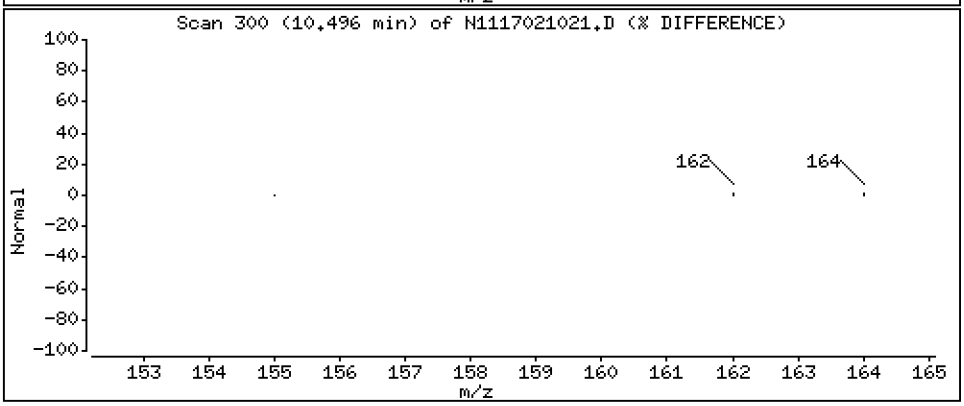












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Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

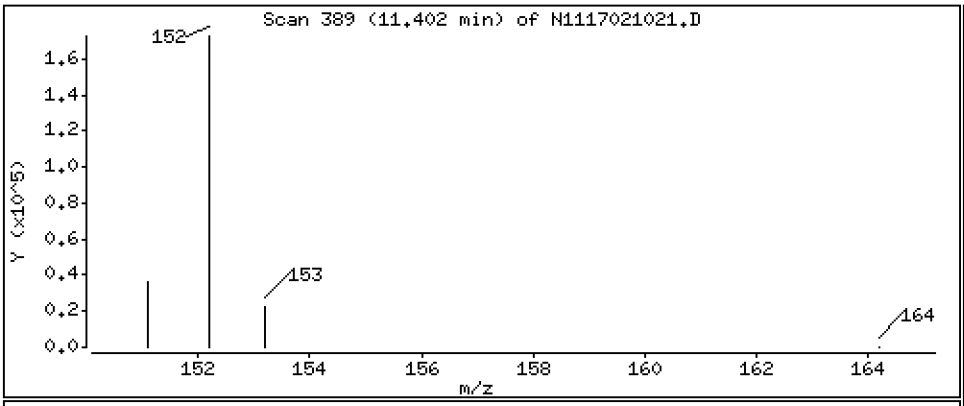
Operator: VTS

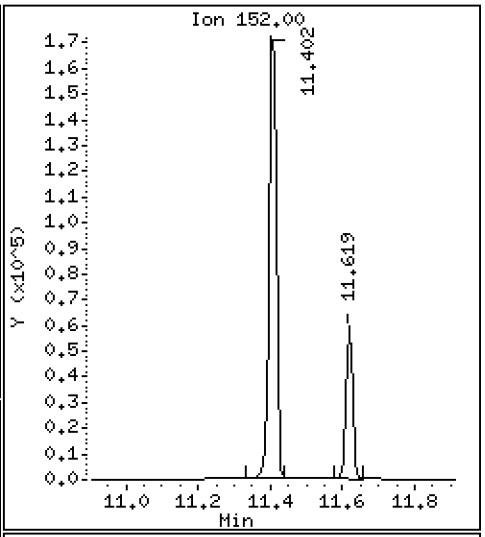
Column phase: Rxi-17Sil MS

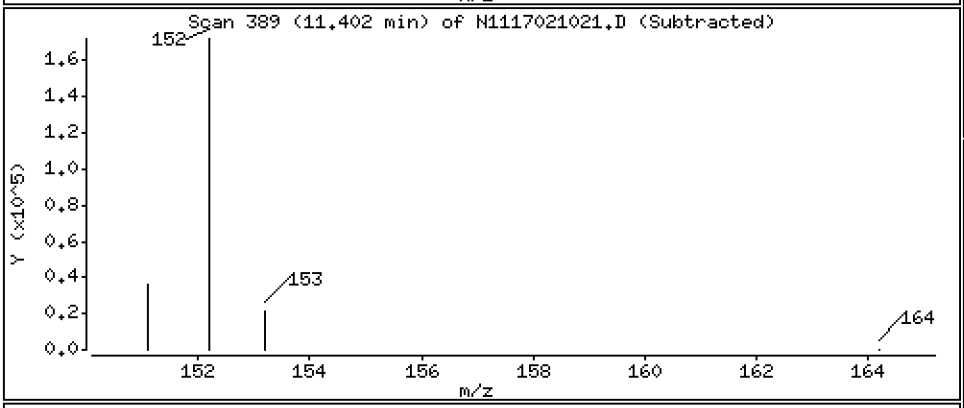
Column diameter: 0.25

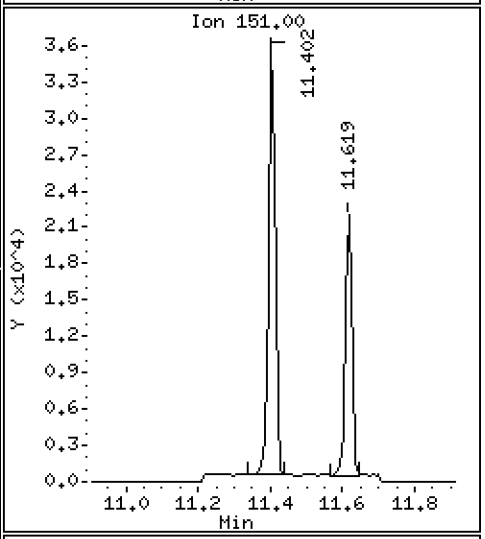
10 Acenaphthylene

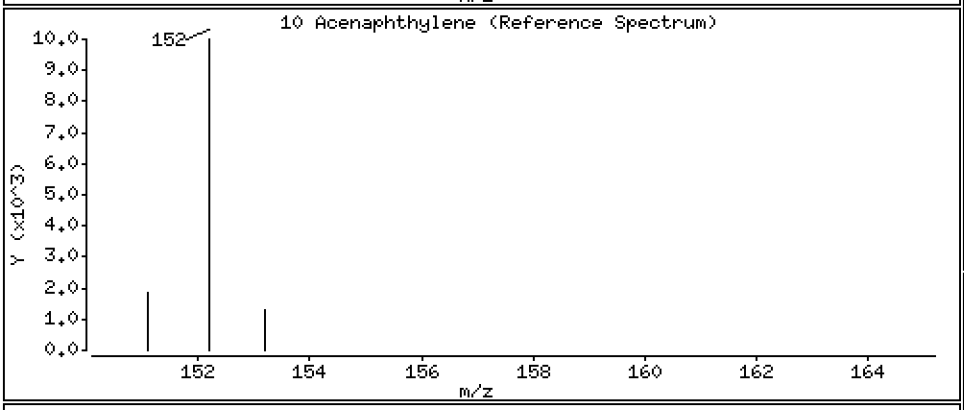
Concentration: 178 ng/mL

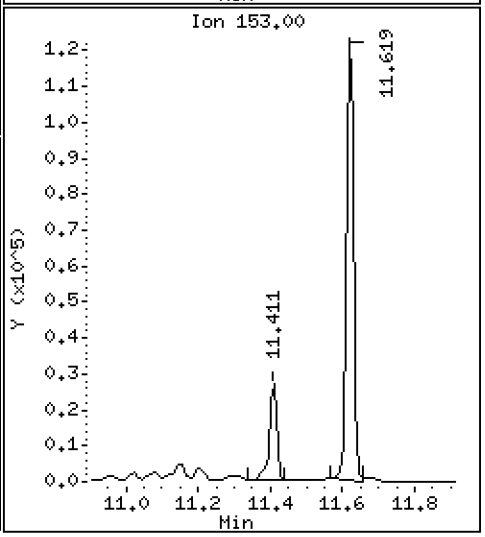


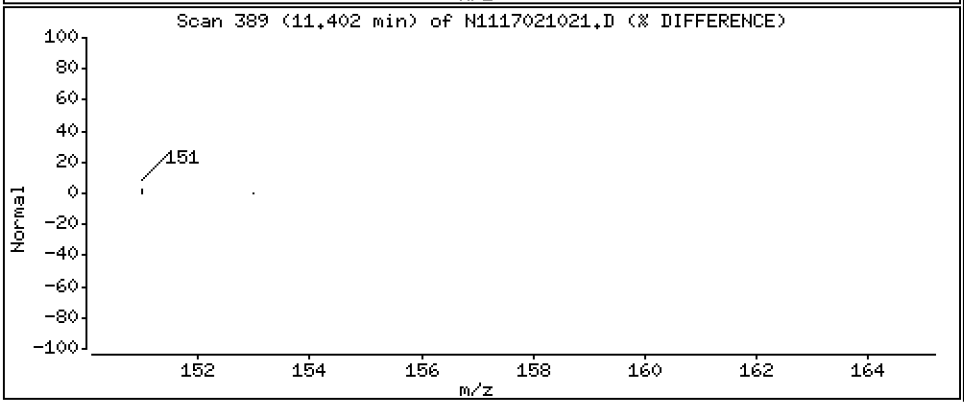












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Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

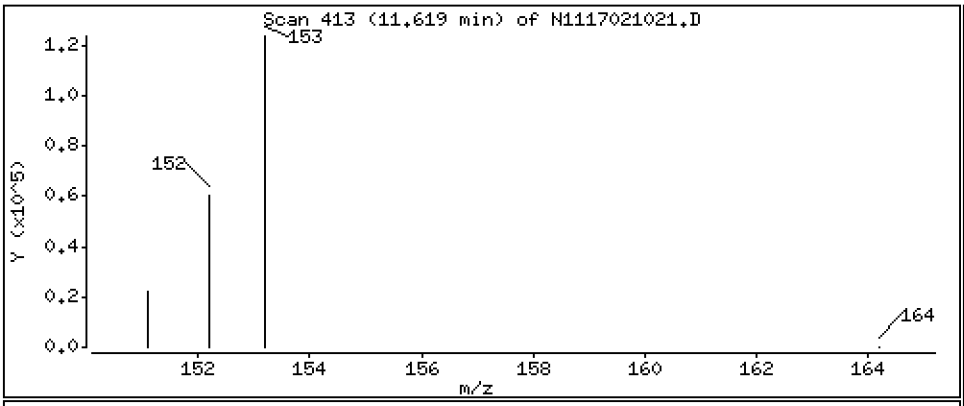
Operator: VTS

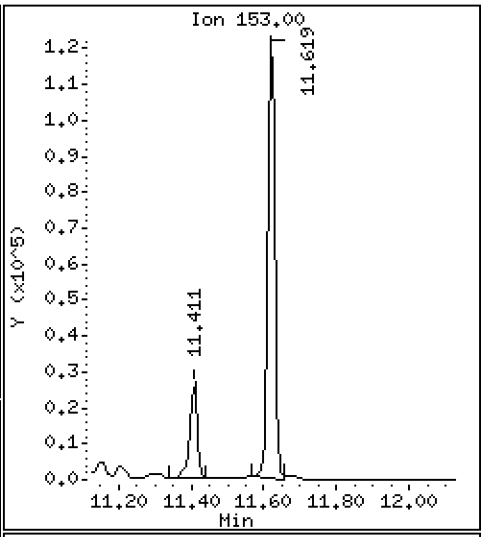
Column phase: Rxi-17Sil MS

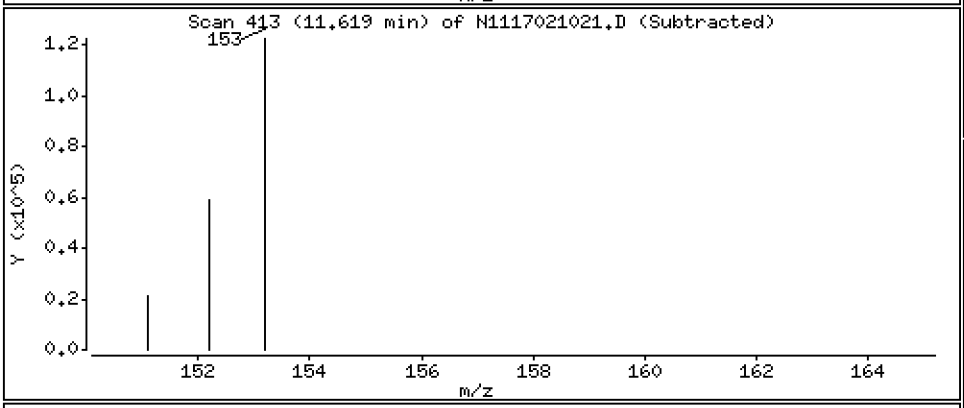
Column diameter: 0.25

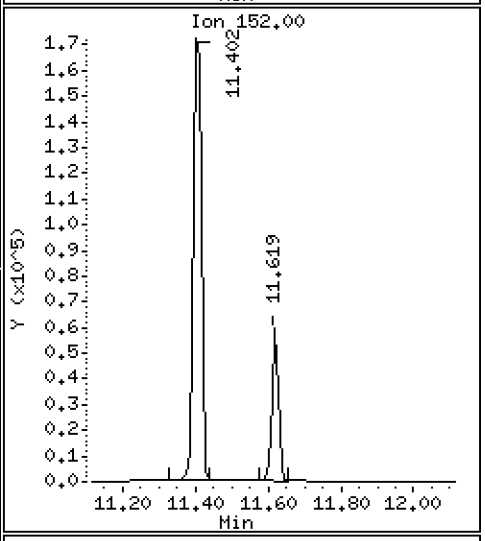
12 Acenaphthene

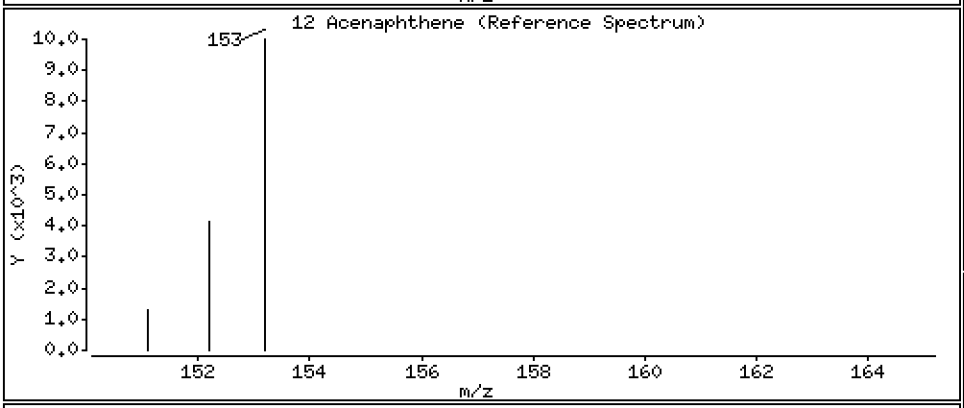
Concentration: 181 ng/mL

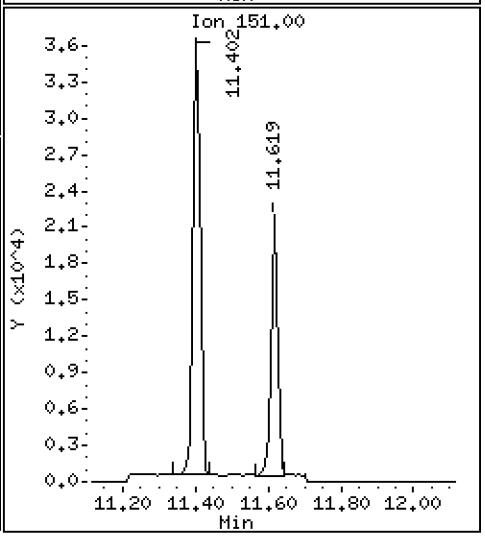


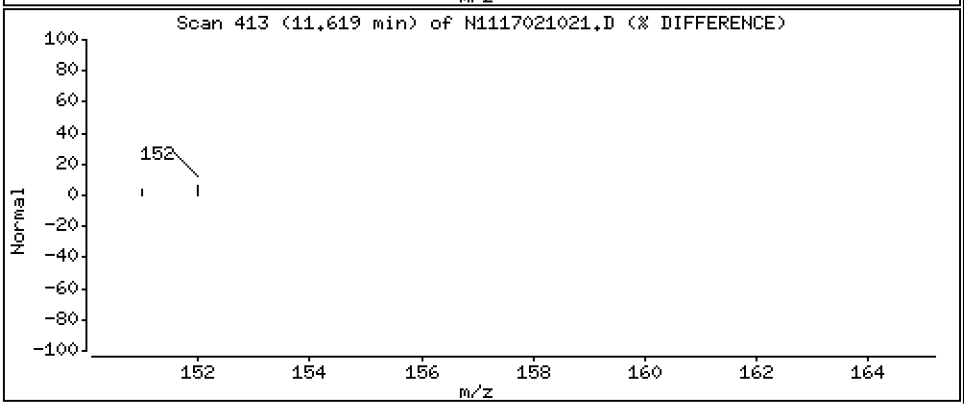












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Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

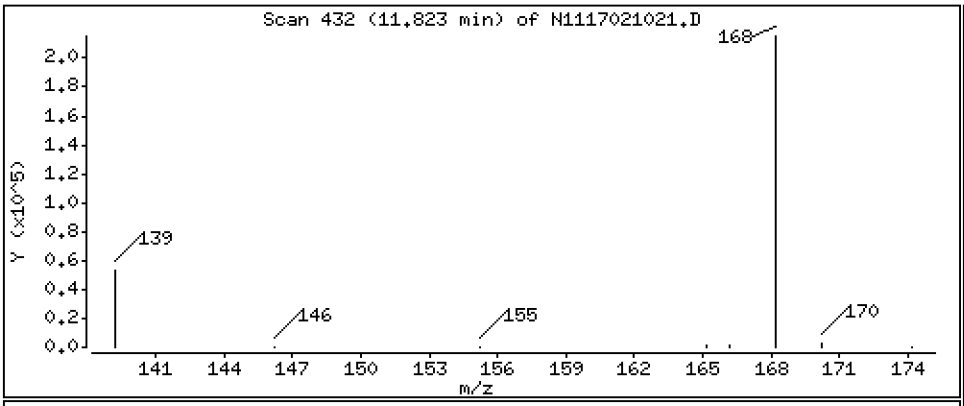
Operator: VTS

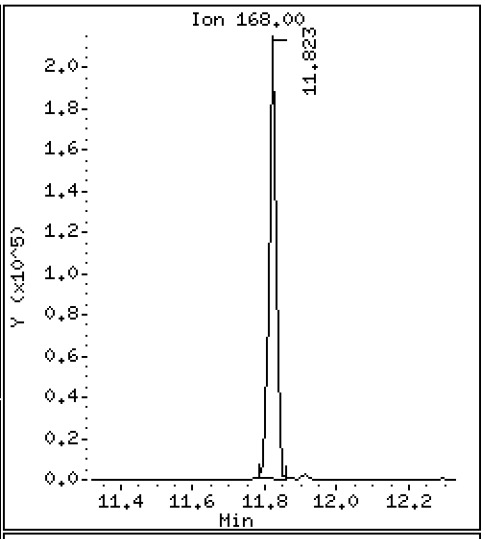
Column phase: Rxi-17Sil MS

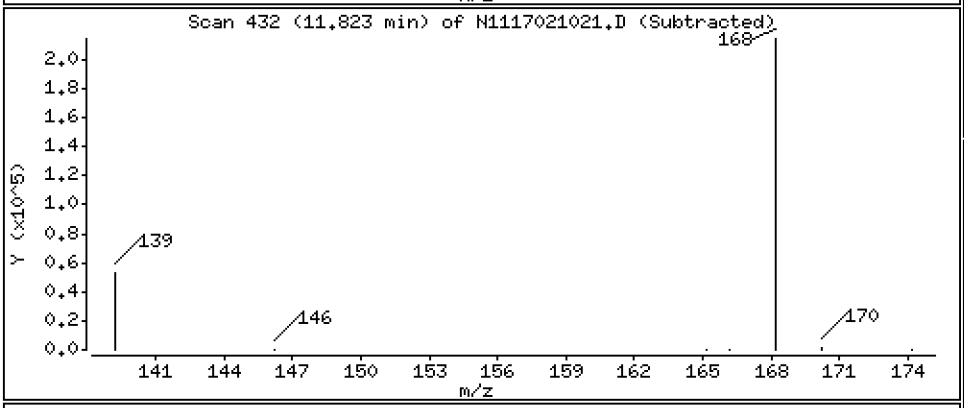
Column diameter: 0.25

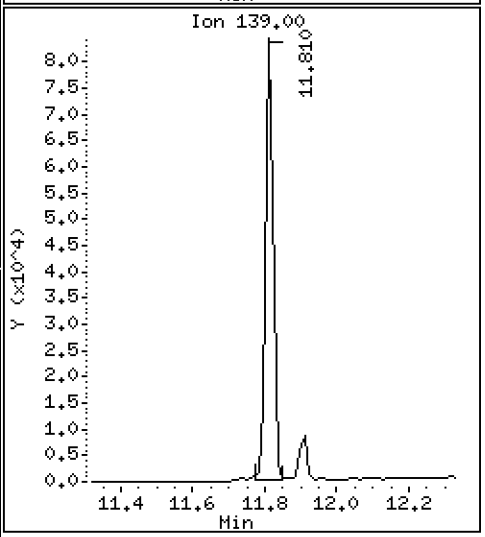
13 Dibenzofuran

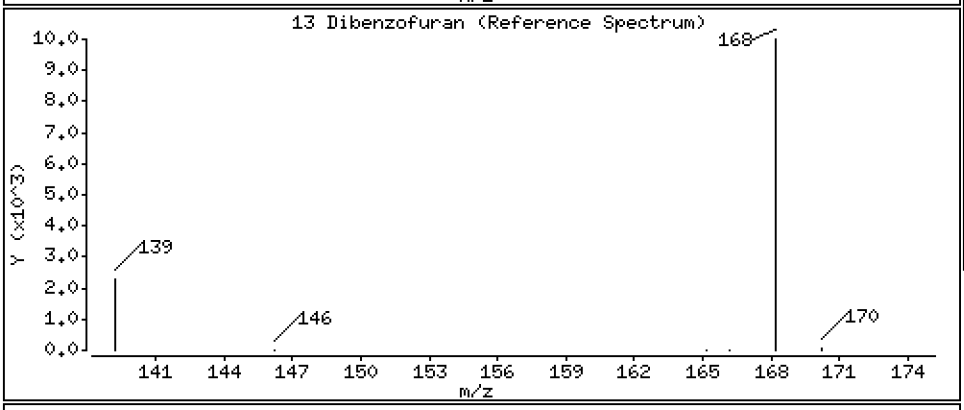
Concentration: 198 ng/mL

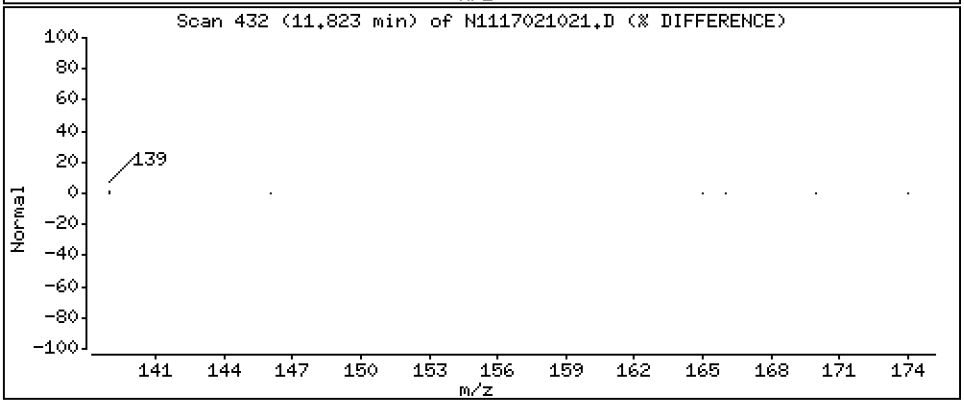












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Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

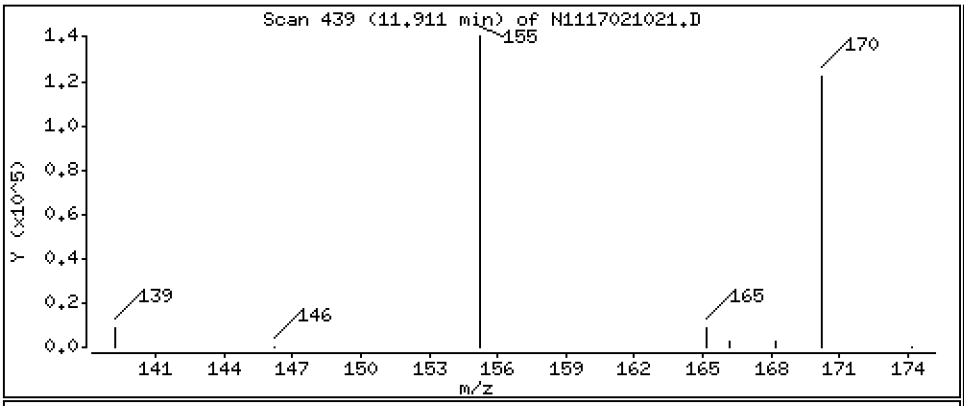
Operator: VTS

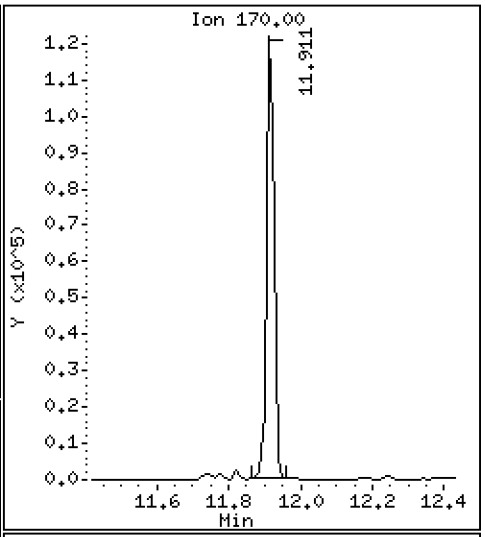
Column phase: Rxi-17Sil MS

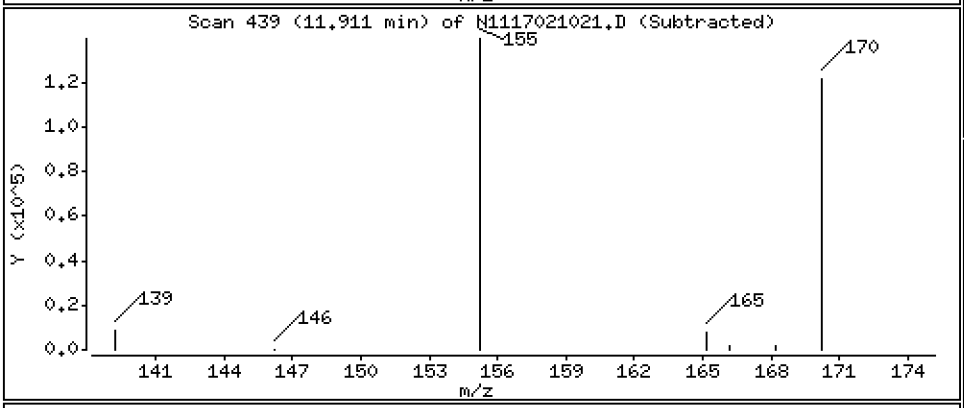
Column diameter: 0.25

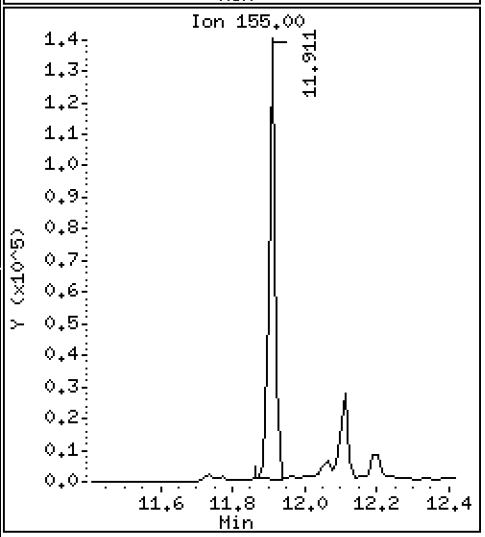
14 2,3,5-Trimethylnaphthalene

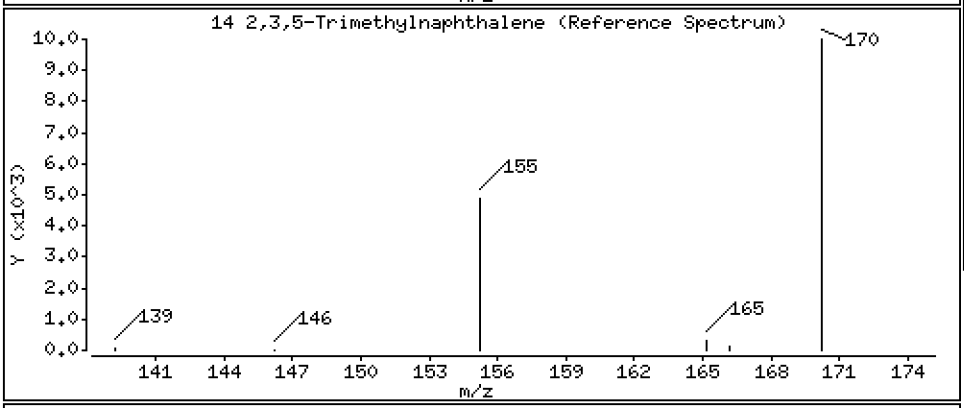
Concentration: 209 ng/mL

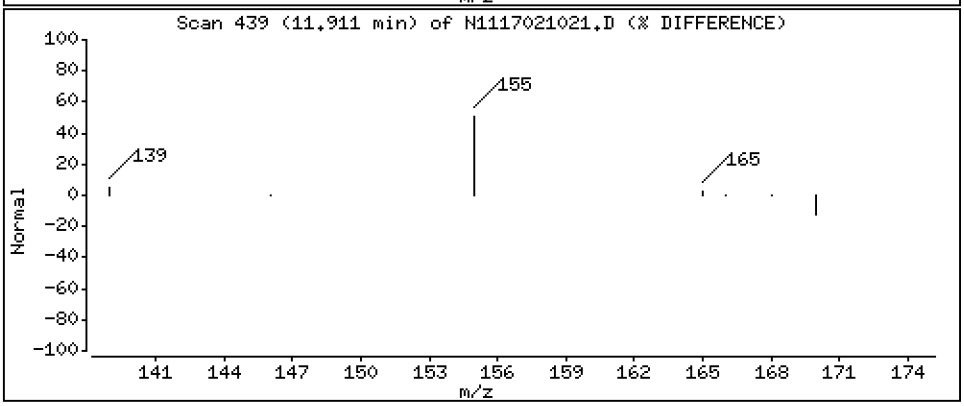












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021021.D

Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

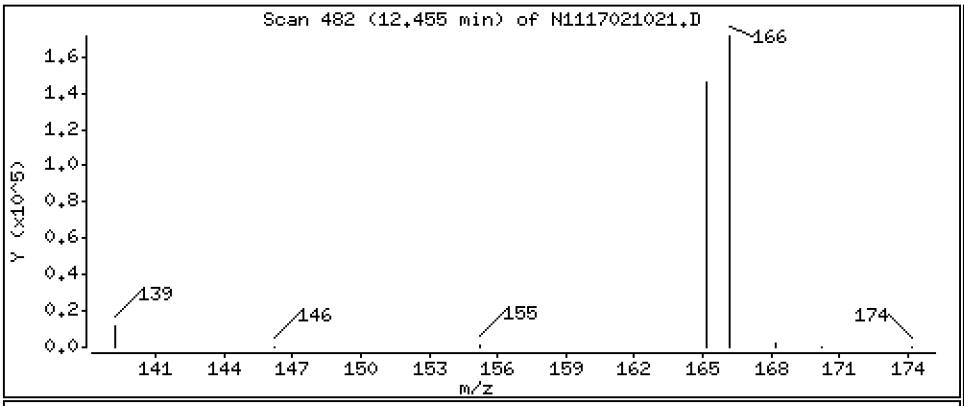
Operator: VTS

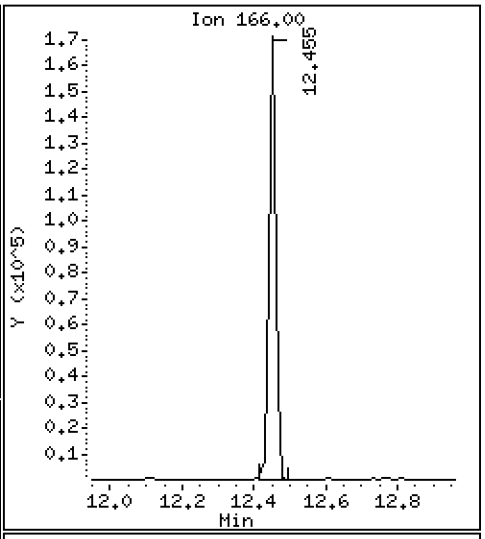
Column phase: Rxi-17Sil MS

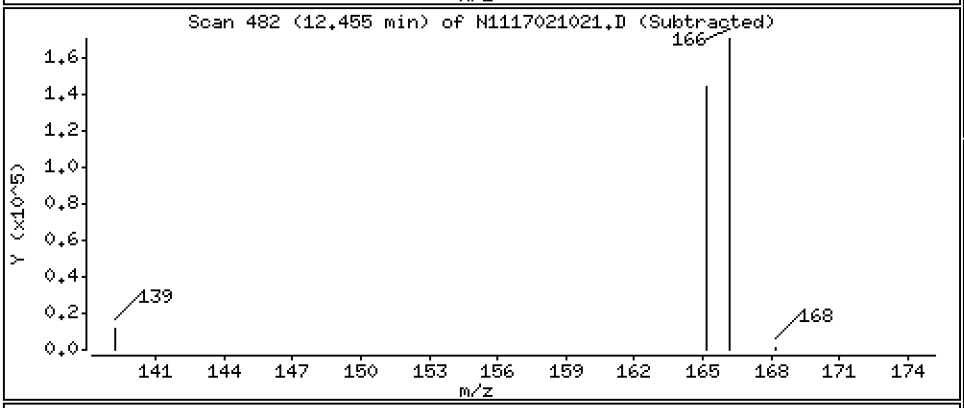
Column diameter: 0.25

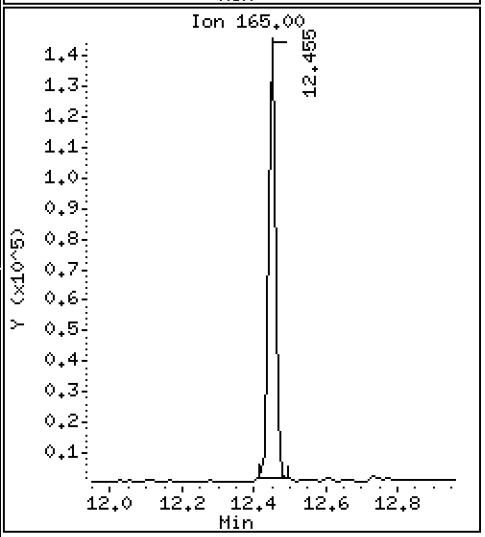
16 Fluorene

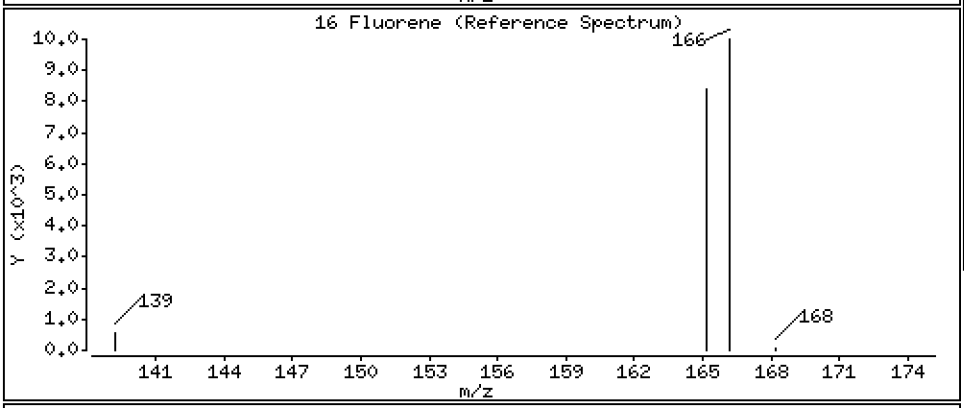
Concentration: 202 ng/mL

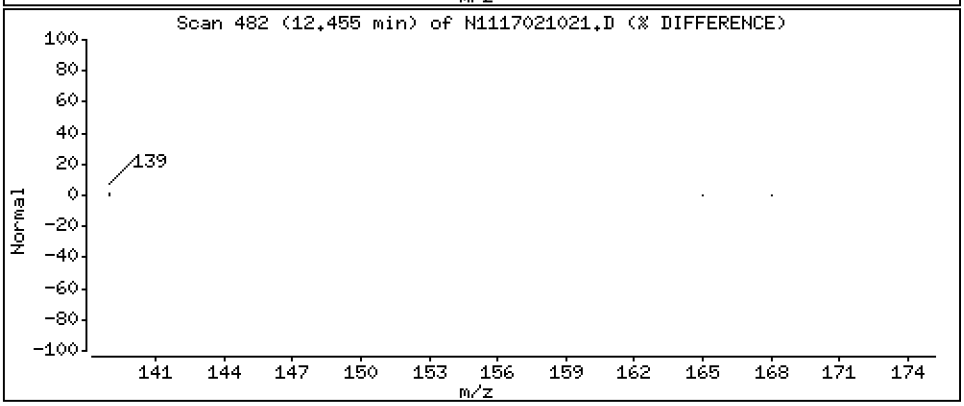












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021021.D

Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

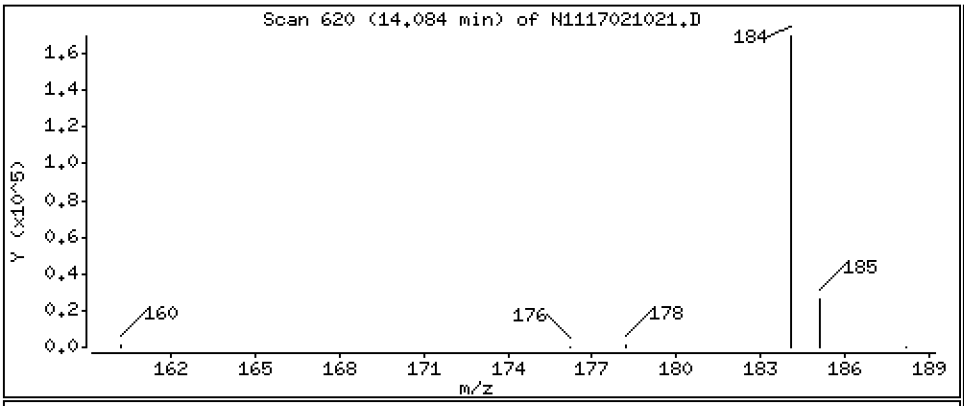
Operator: VTS

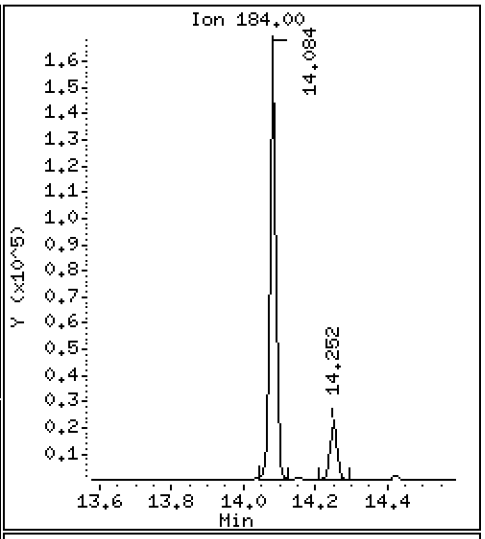
Column phase: Rxi-17Sil MS

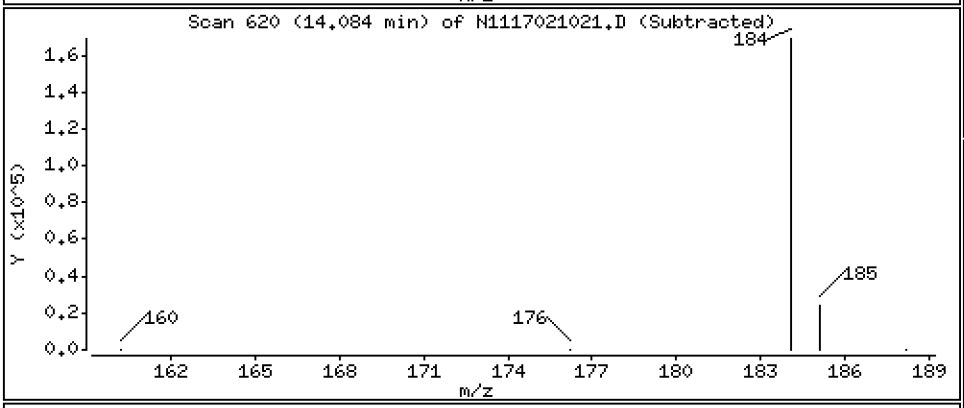
Column diameter: 0.25

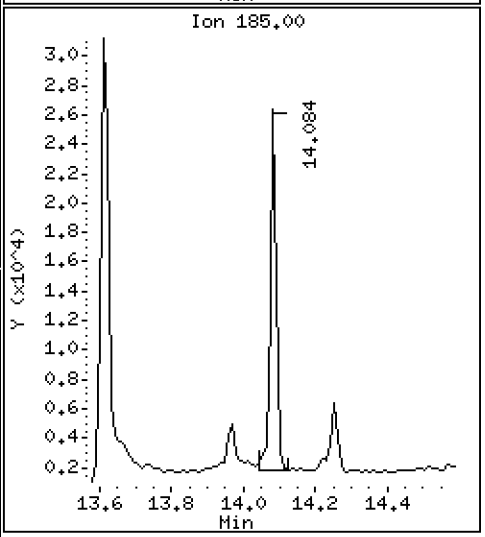
17 Dibenzothiophene

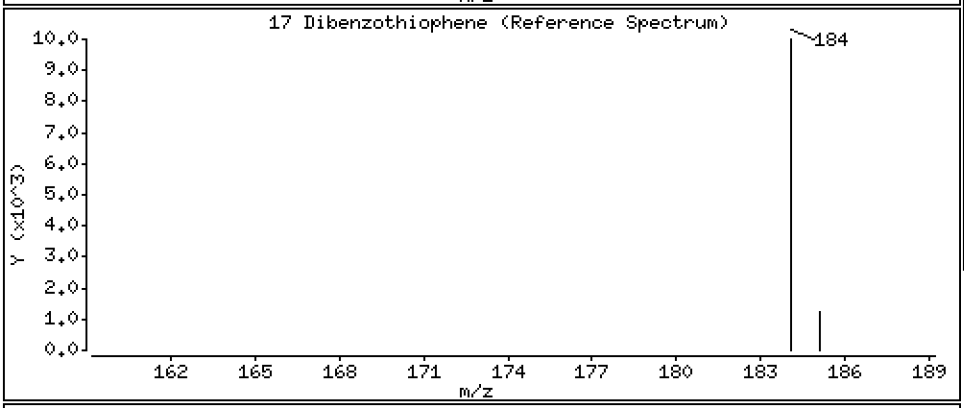
Concentration: 191 ng/mL

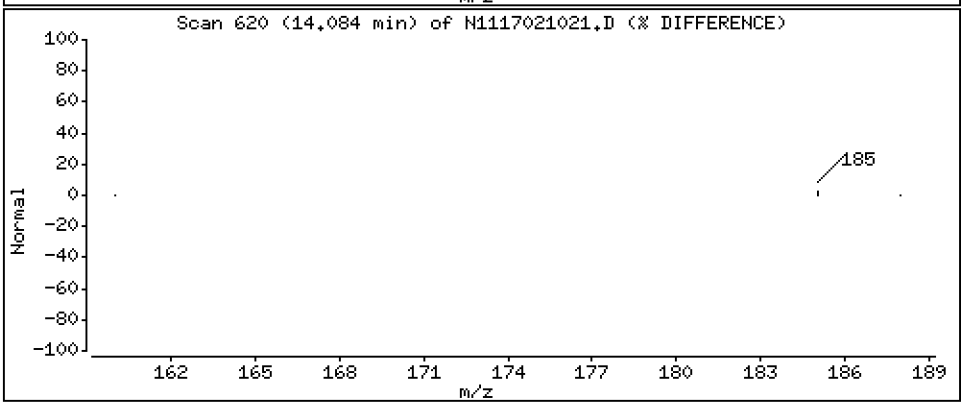












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Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

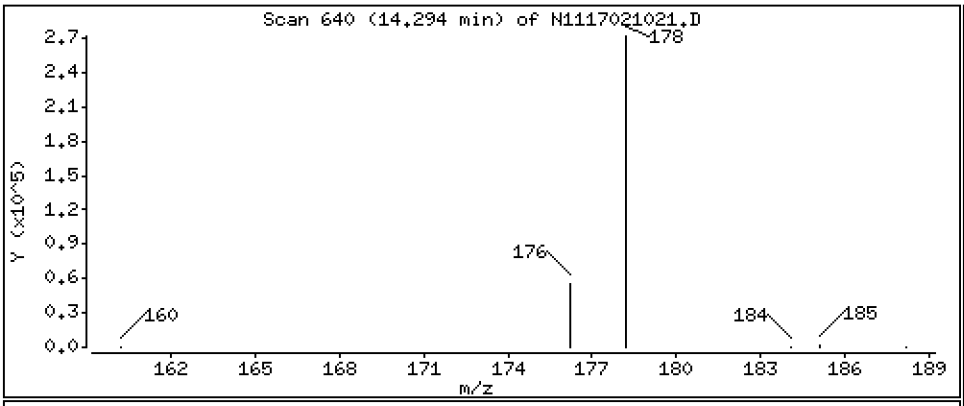
Operator: VTS

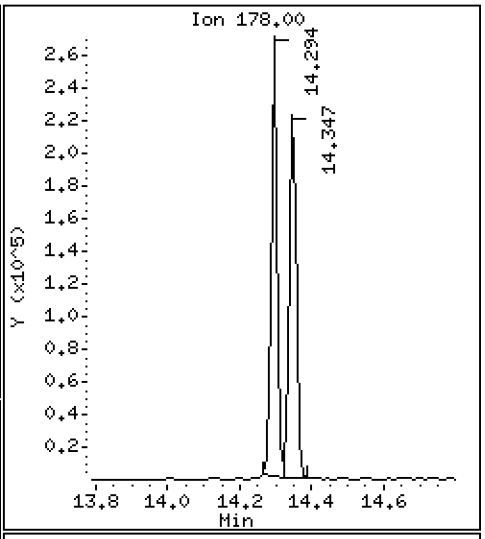
Column phase: Rxi-17Sil MS

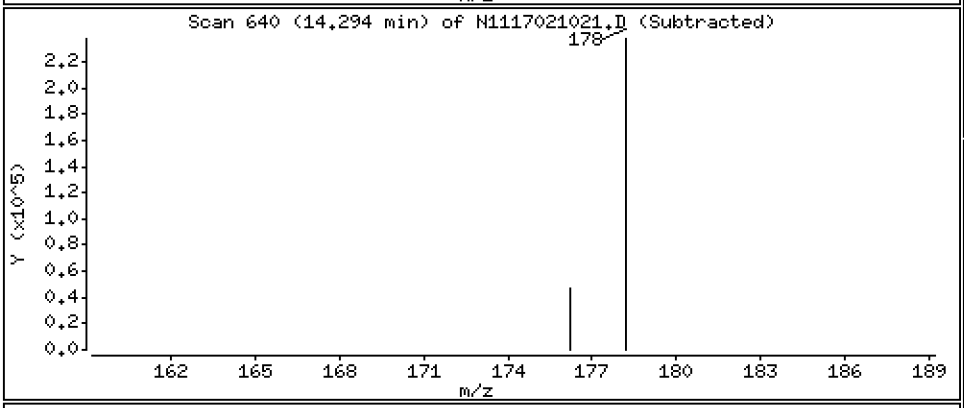
Column diameter: 0.25

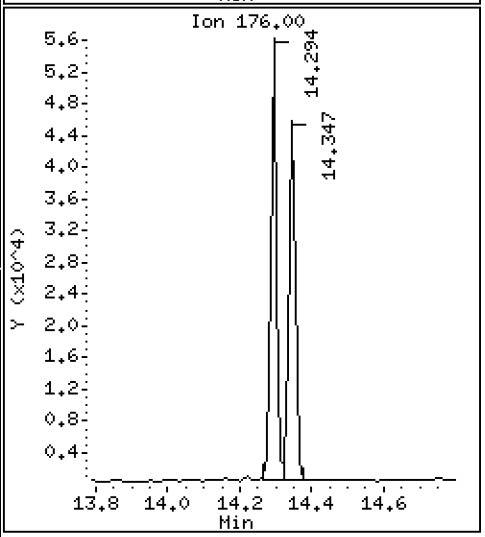
19 Phenanthrene

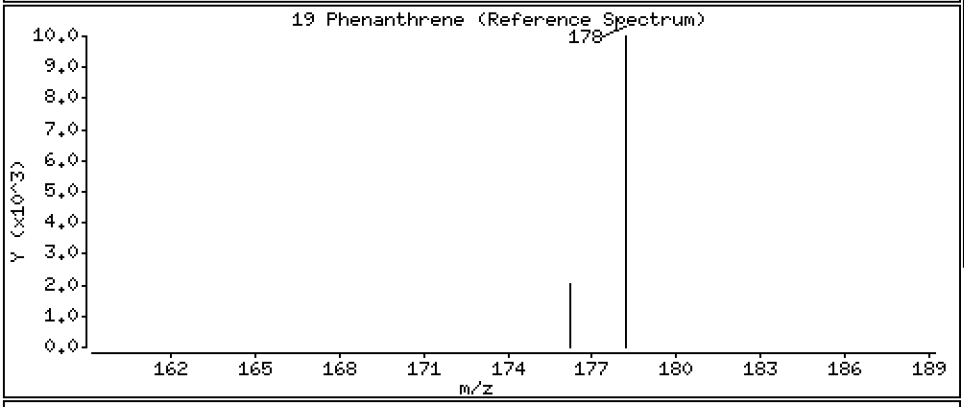
Concentration: 253 ng/mL

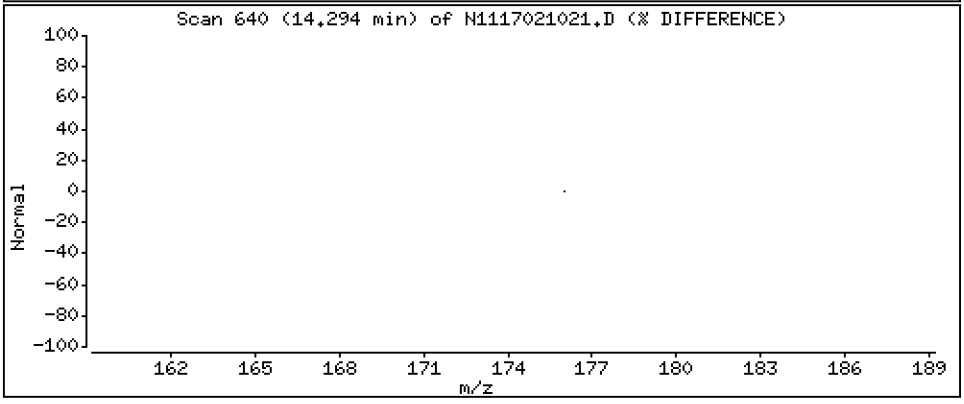












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Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

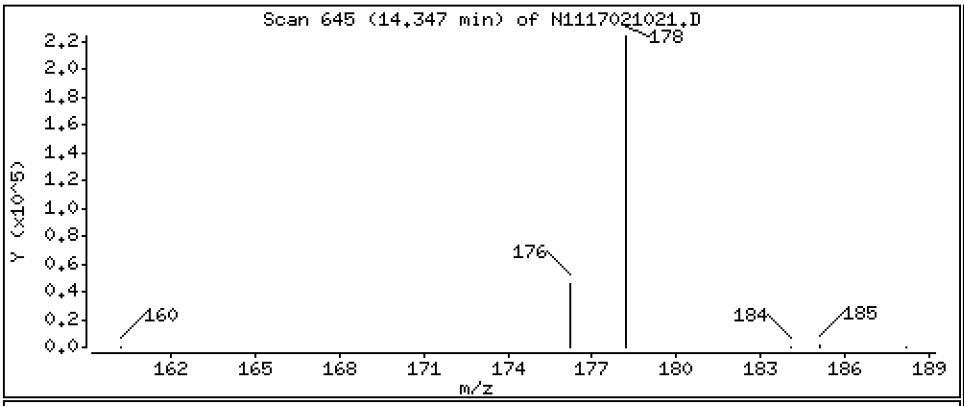
Operator: VTS

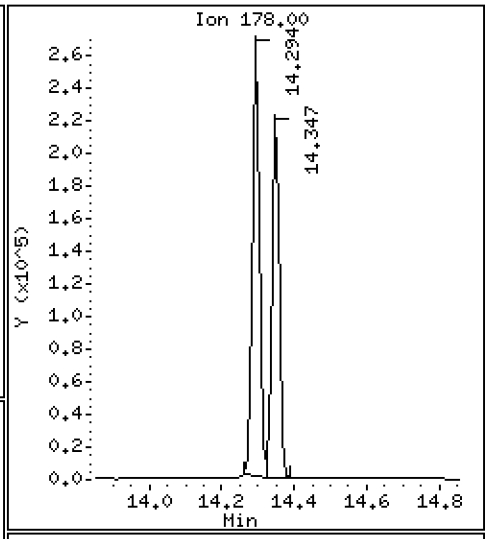
Column phase: Rxi-17Sil MS

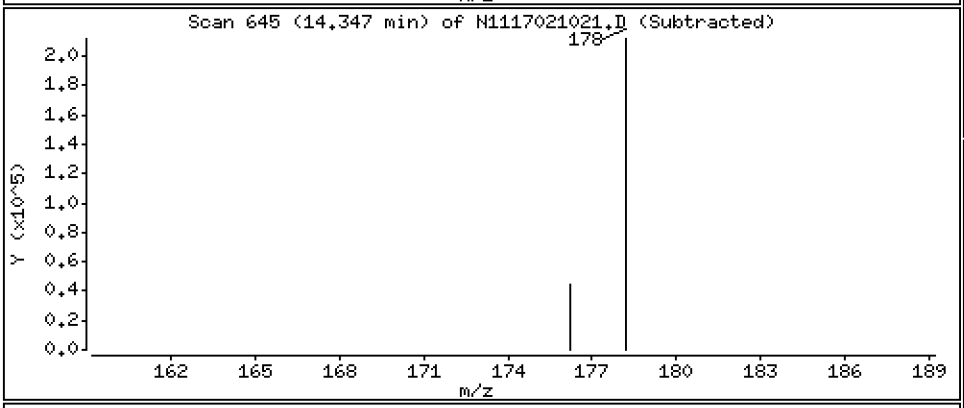
Column diameter: 0.25

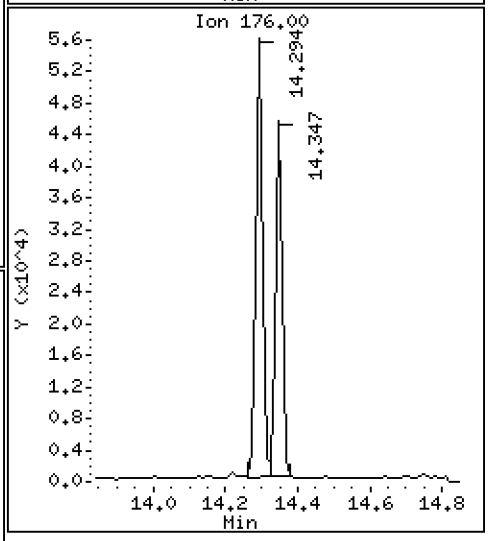
21 Anthracene

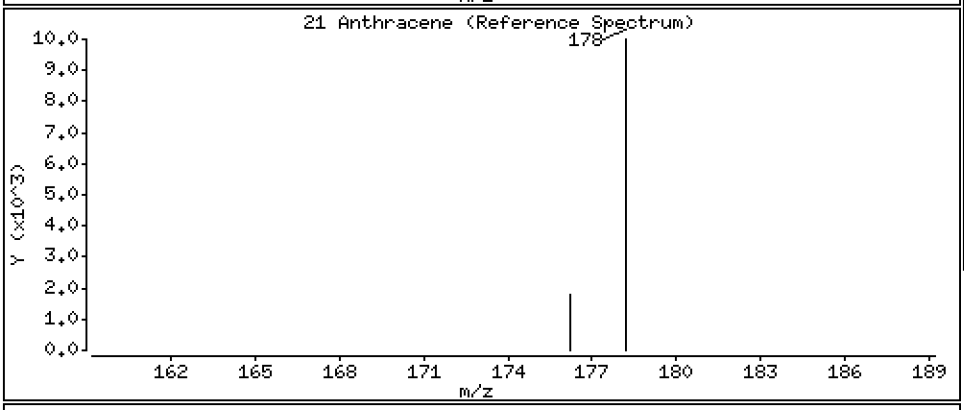
Concentration: 217 ng/mL

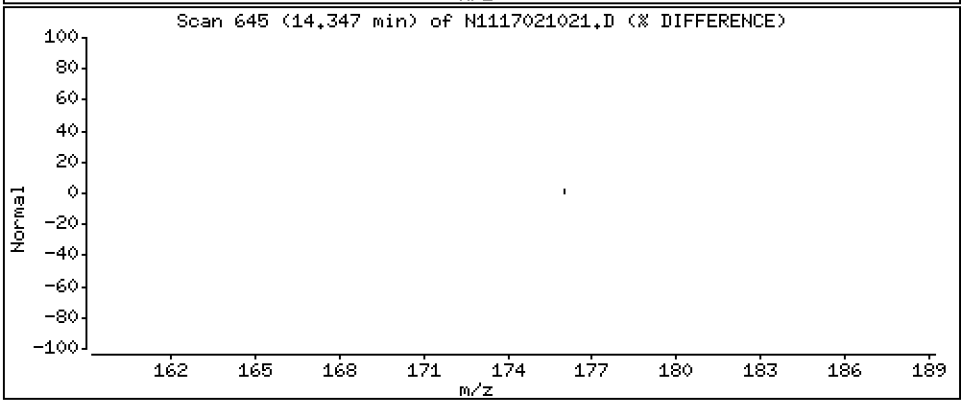












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Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

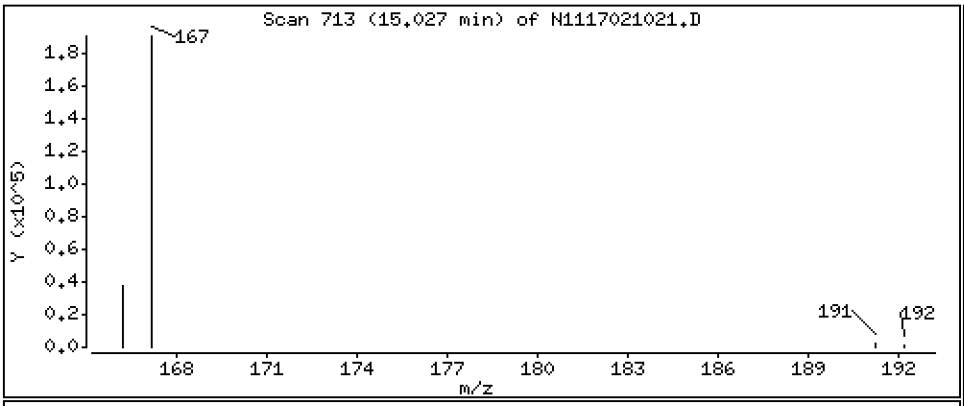
Operator: VTS

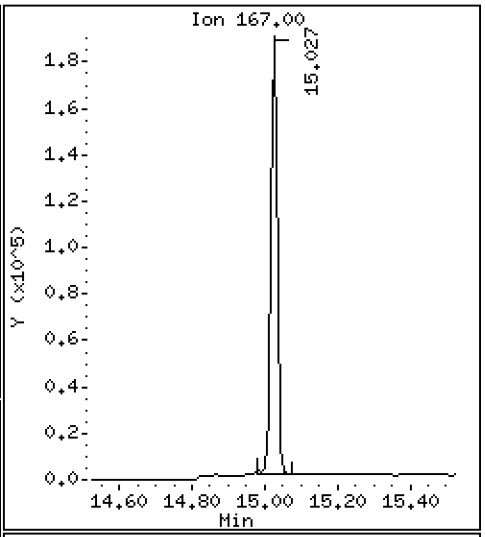
Column phase: Rxi-17Sil MS

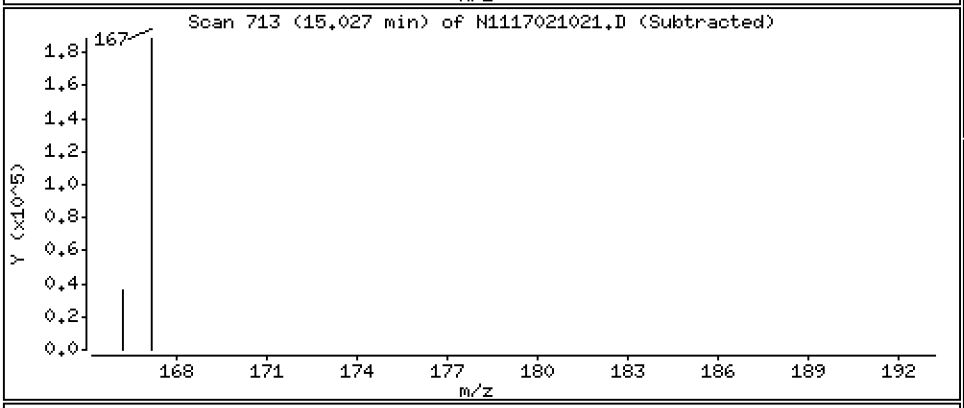
Column diameter: 0.25

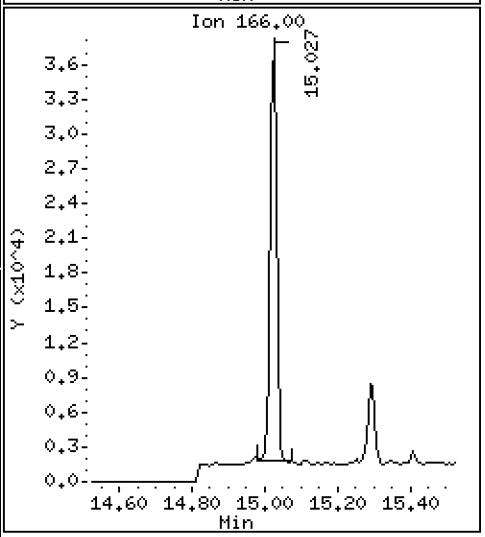
22 Carbazole

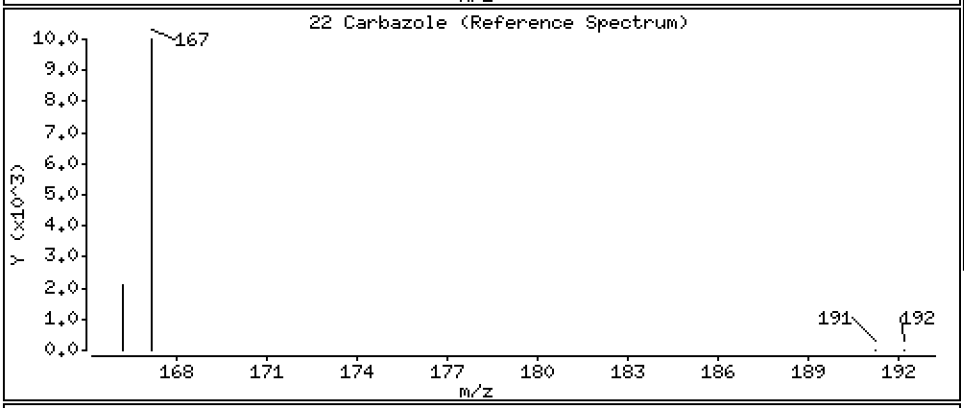
Concentration: 148 ng/mL

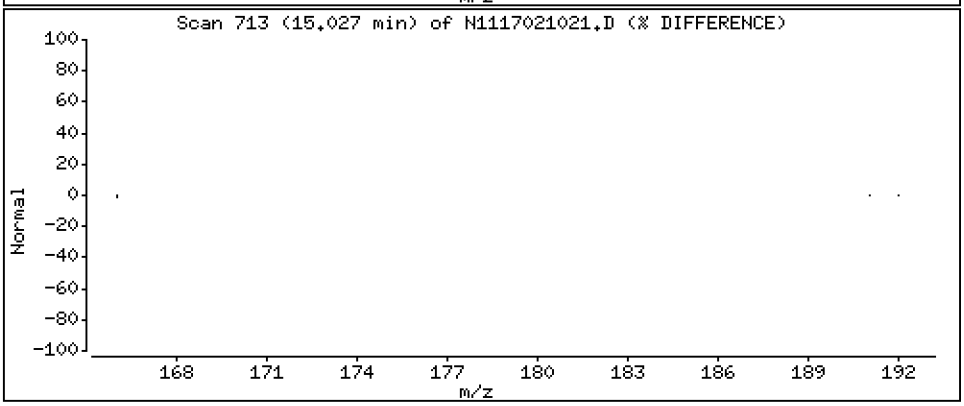












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Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

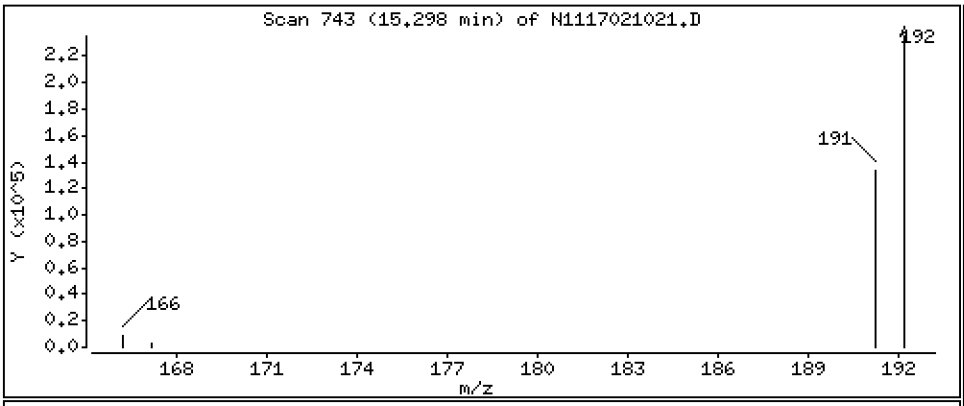
Operator: VTS

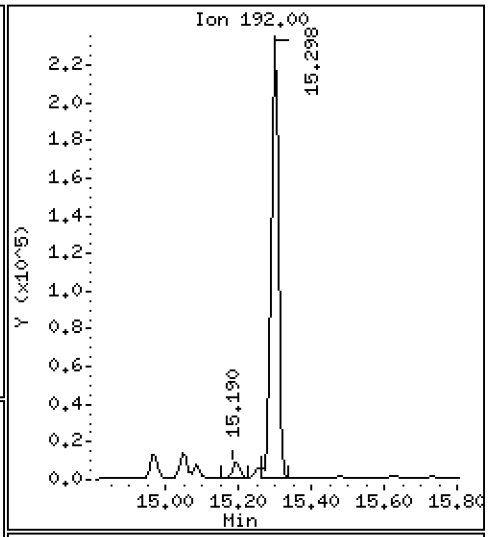
Column phase: Rxi-17Sil MS

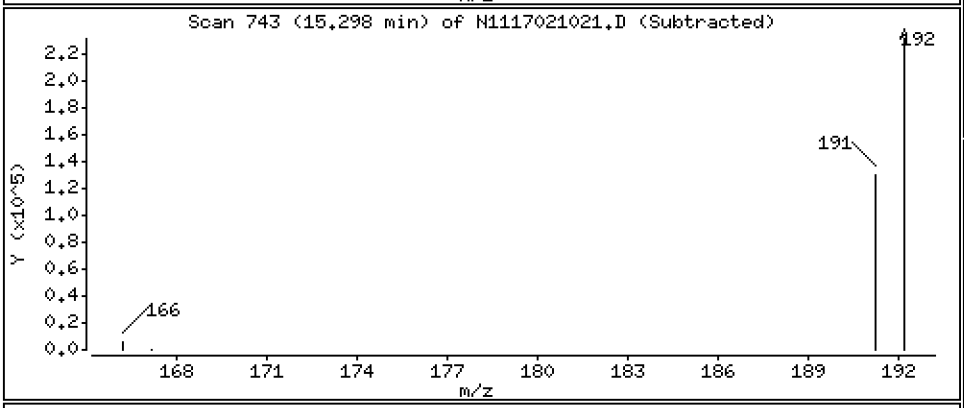
Column diameter: 0.25

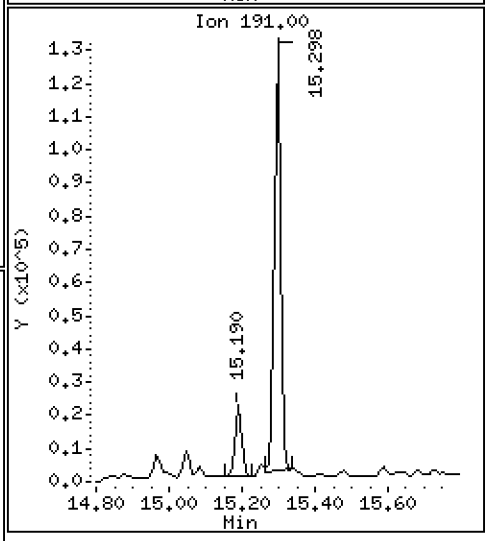
23 1-Methylphenanthrene

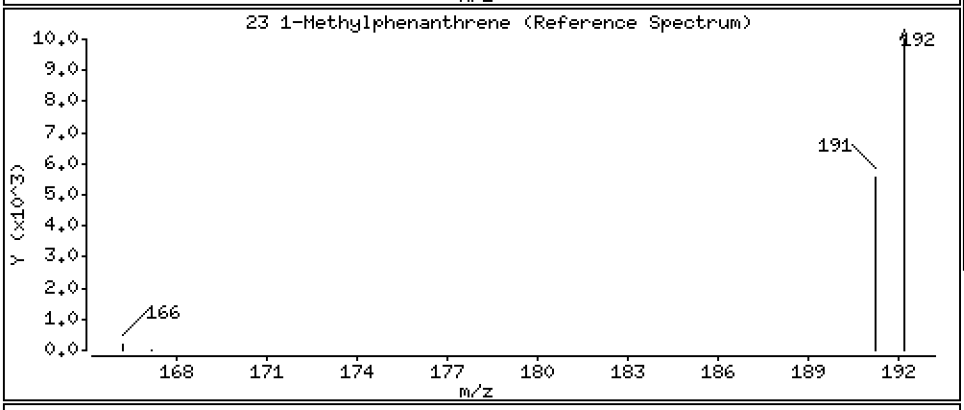
Concentration: 212 ng/mL

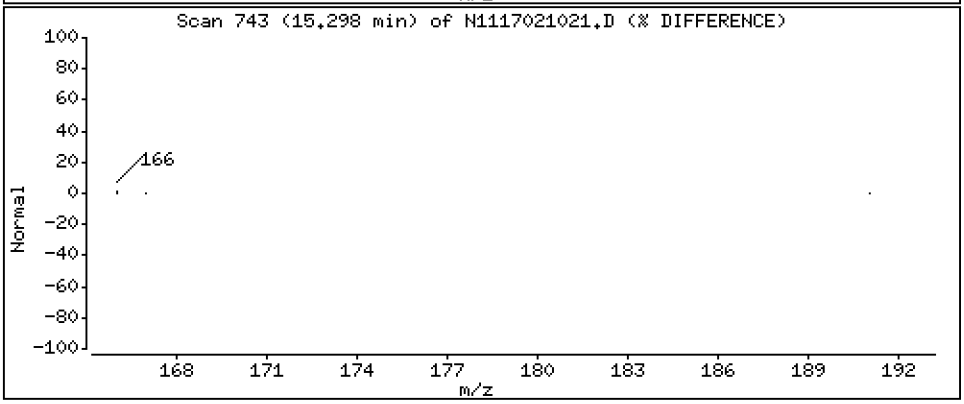












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Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

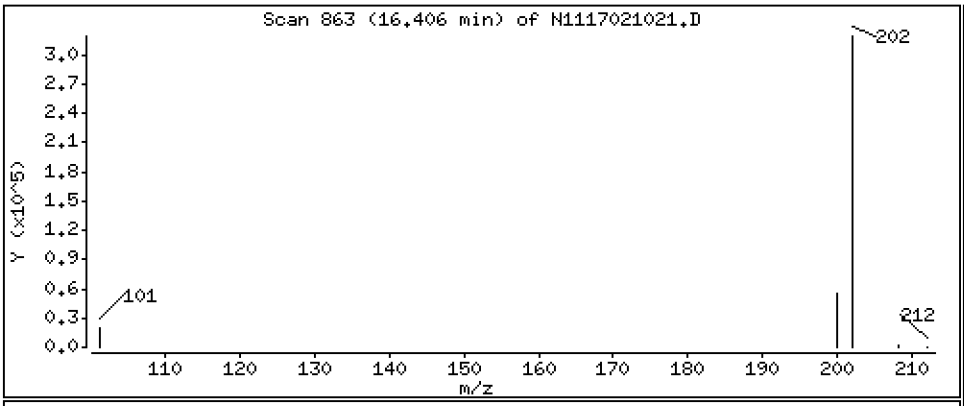
Operator: VTS

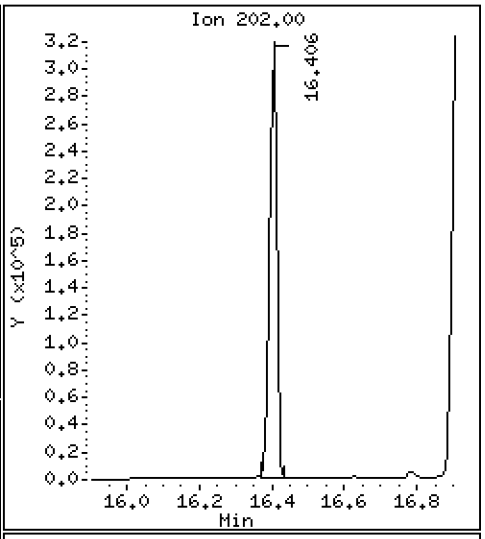
Column phase: Rxi-17Sil MS

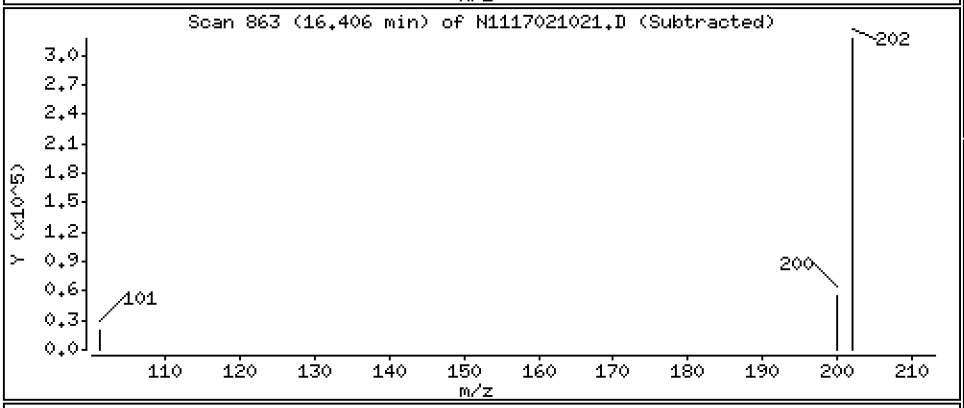
Column diameter: 0.25

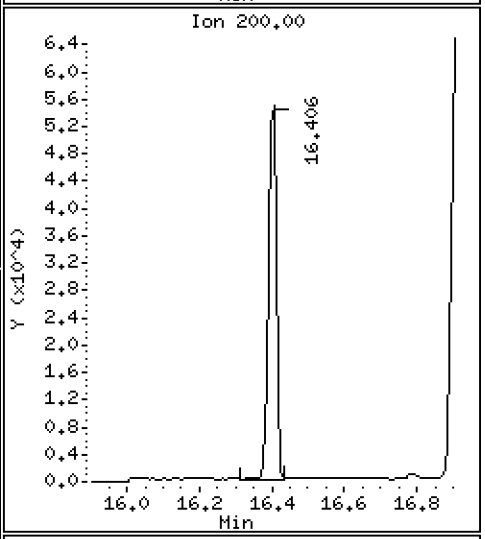
25 Fluoranthene

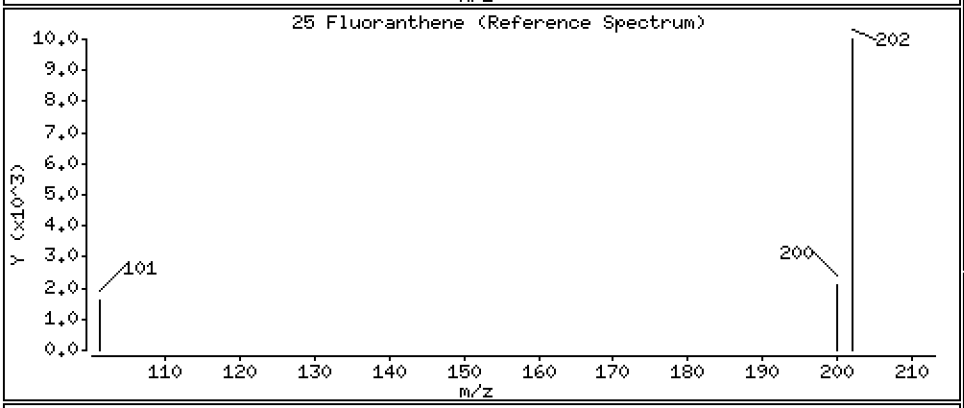
Concentration: 266 ng/mL

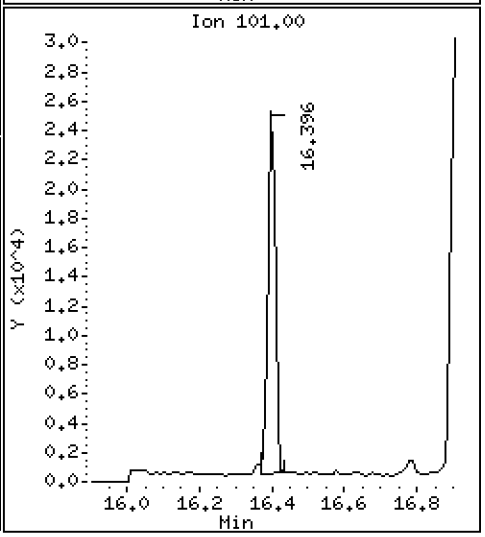


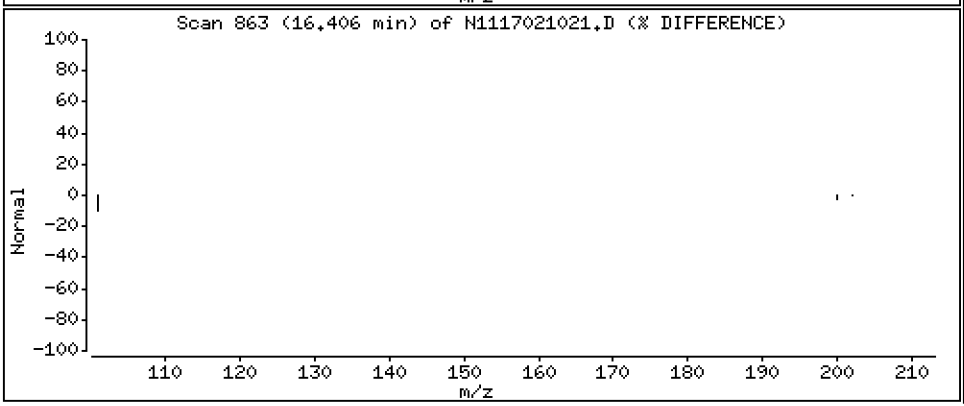












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Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

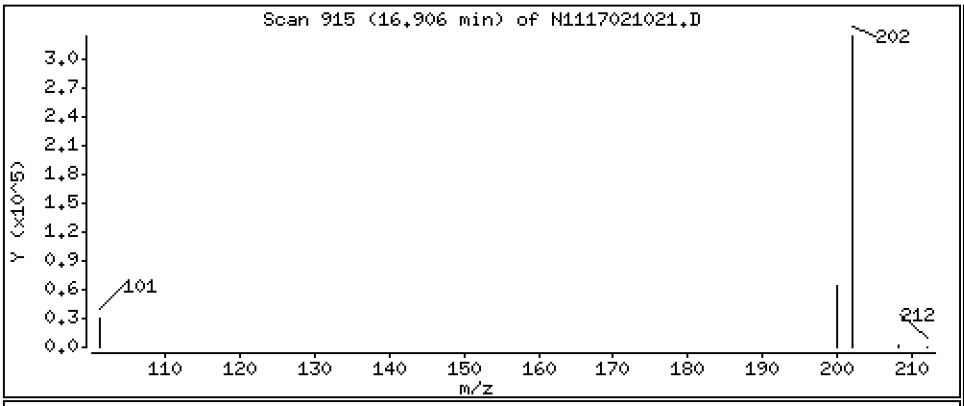
Operator: VTS

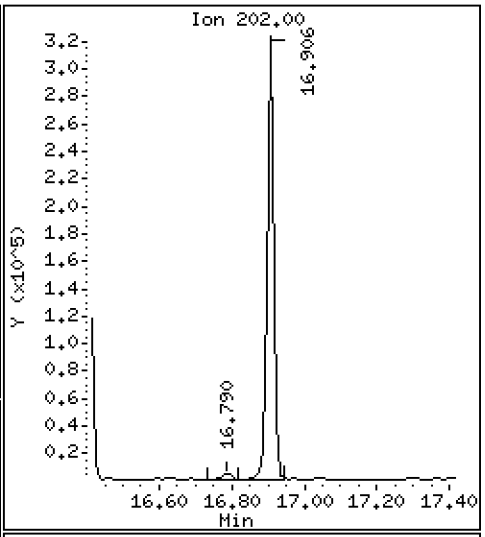
Column phase: Rxi-17Sil MS

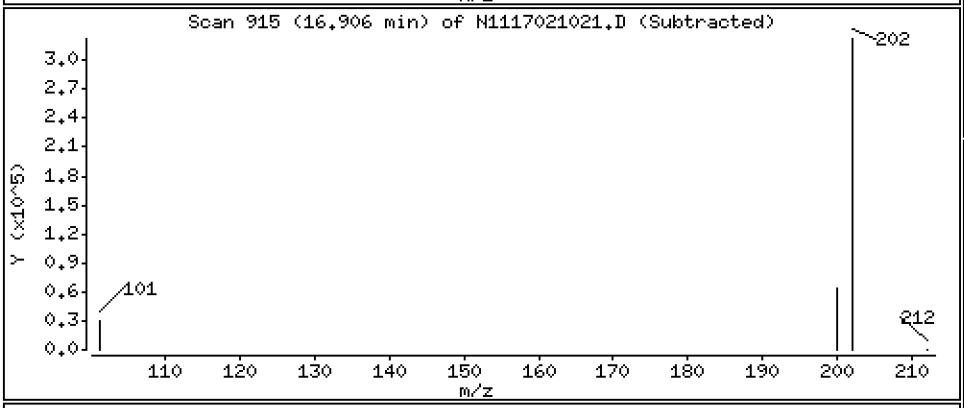
Column diameter: 0.25

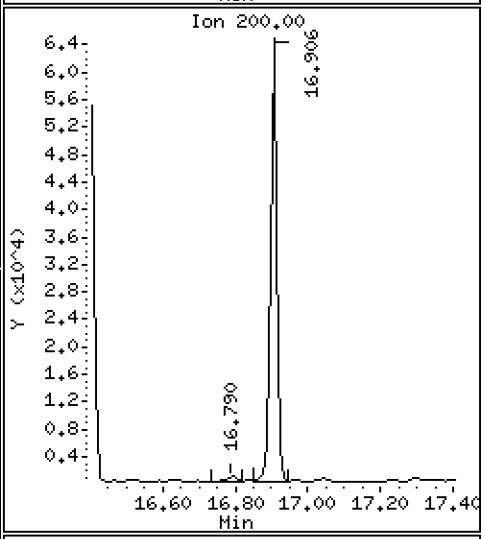
26 Pyrene

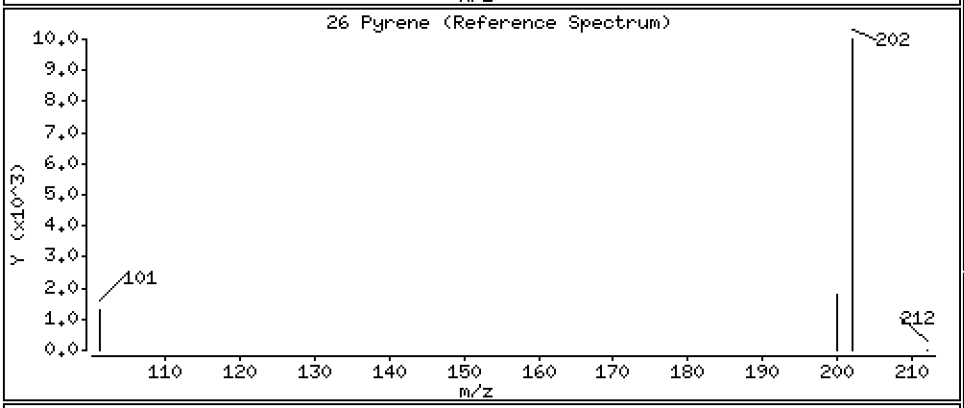
Concentration: 326 ng/mL

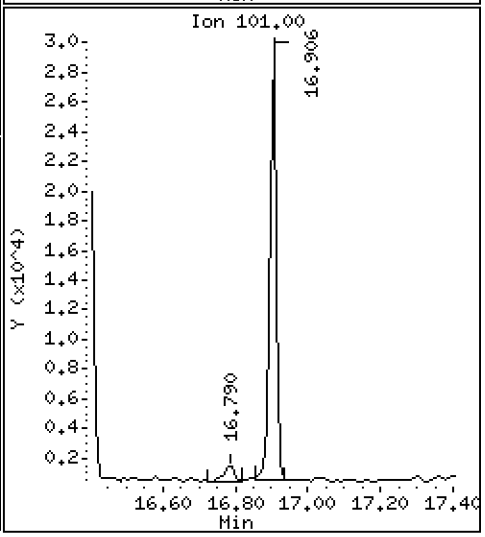


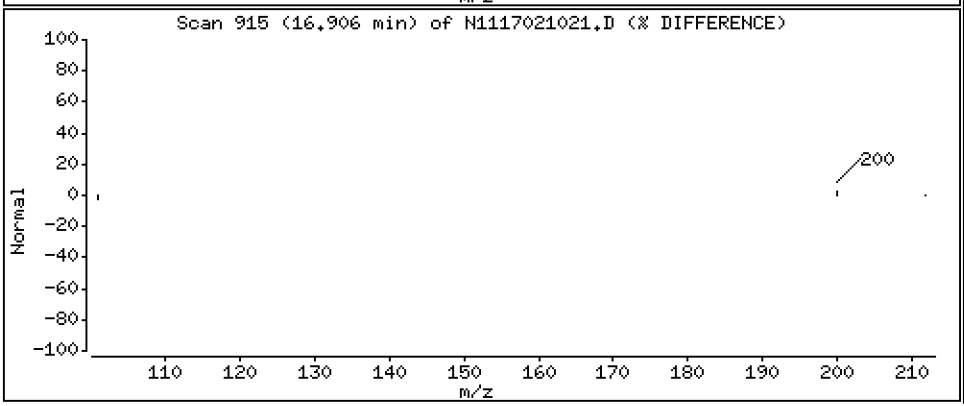












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021021.D

Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

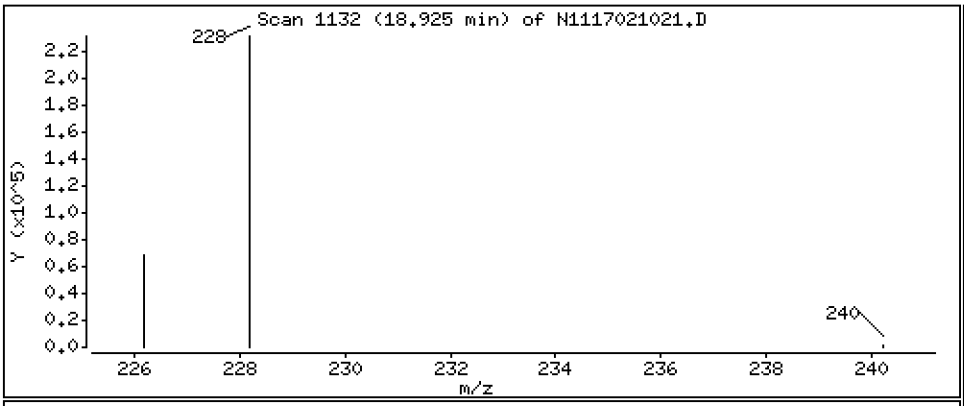
Operator: VTS

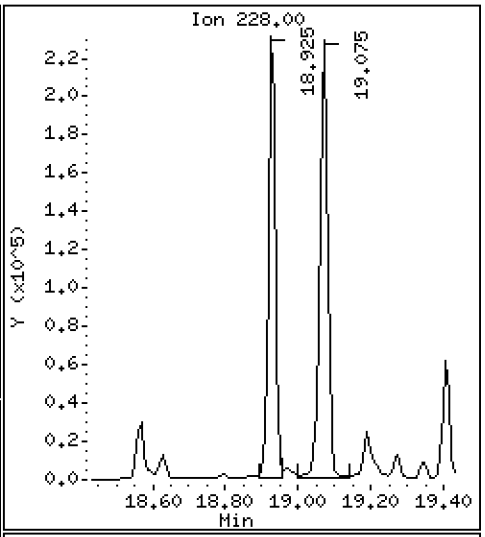
Column phase: Rxi-17Sil MS

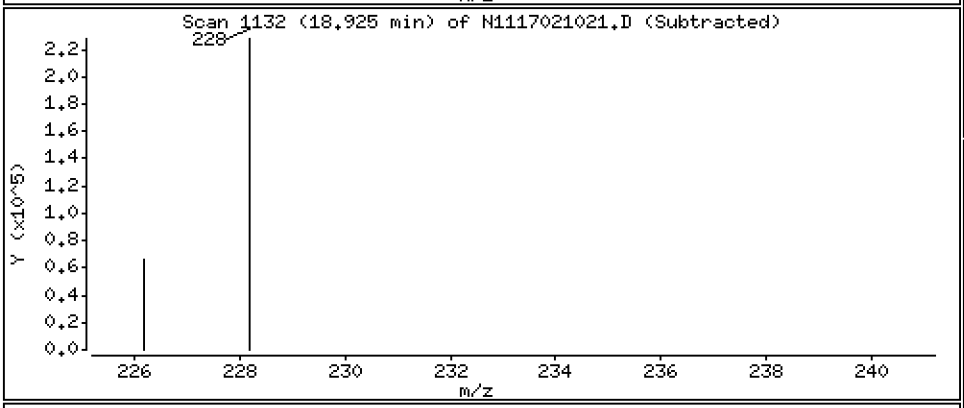
Column diameter: 0.25

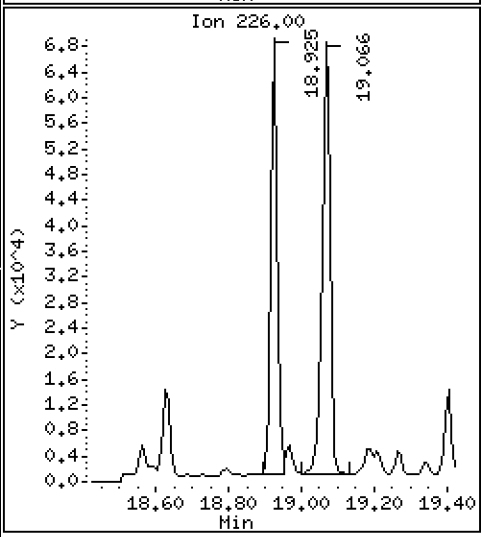
27 Benzo(a)anthracene

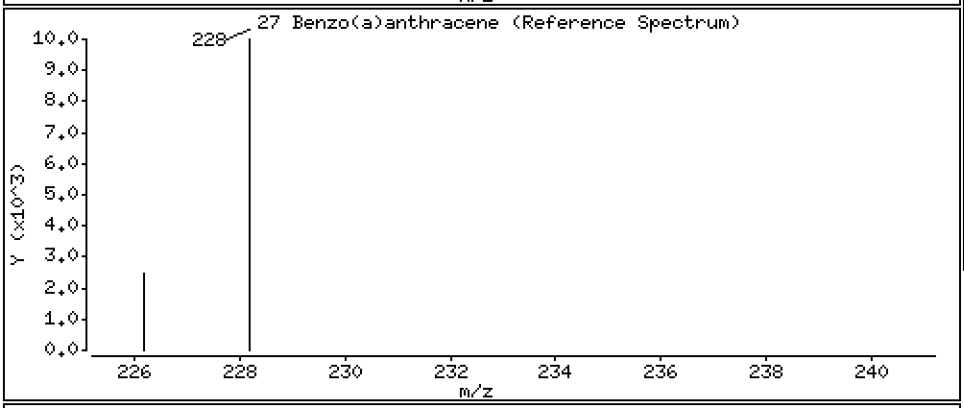
Concentration: 250 ng/mL

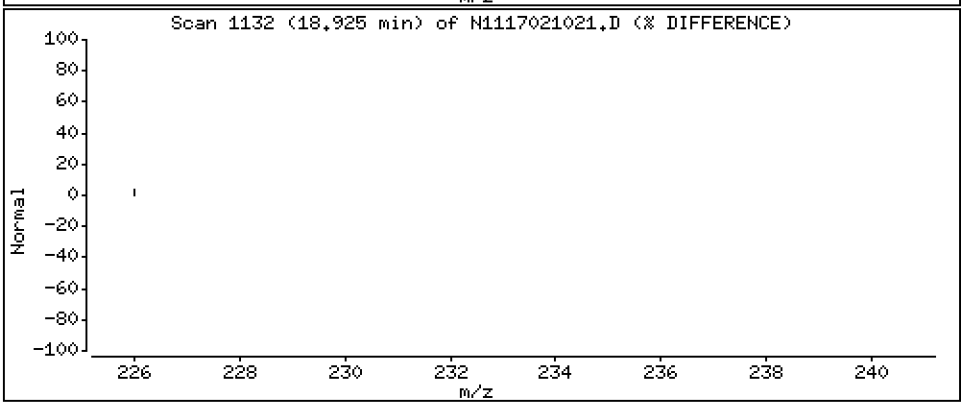












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021021.D

Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

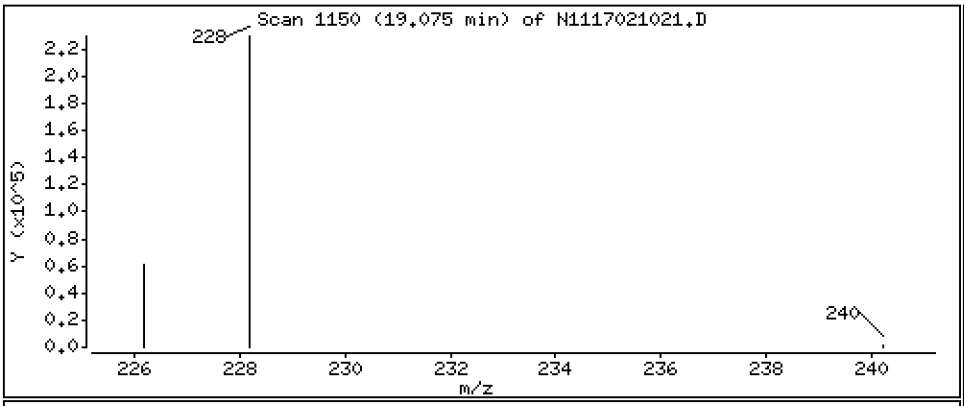
Operator: VTS

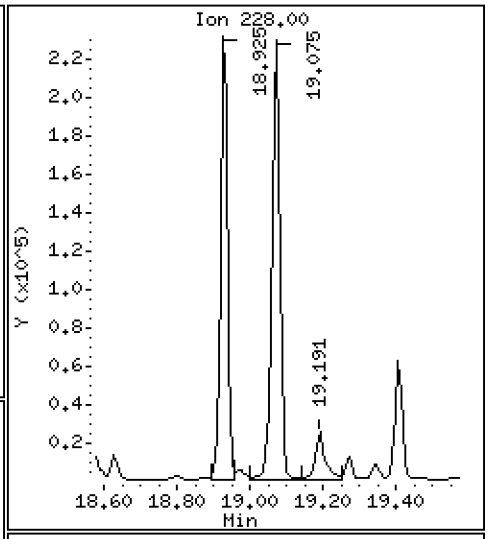
Column phase: Rxi-17Sil MS

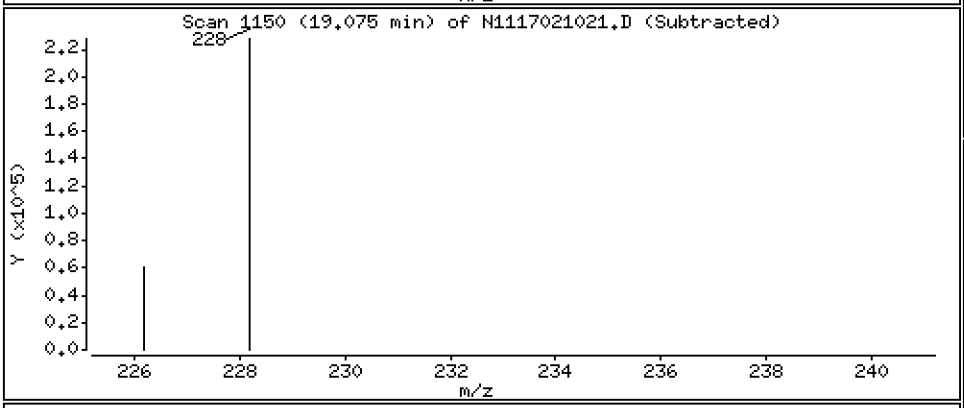
Column diameter: 0.25

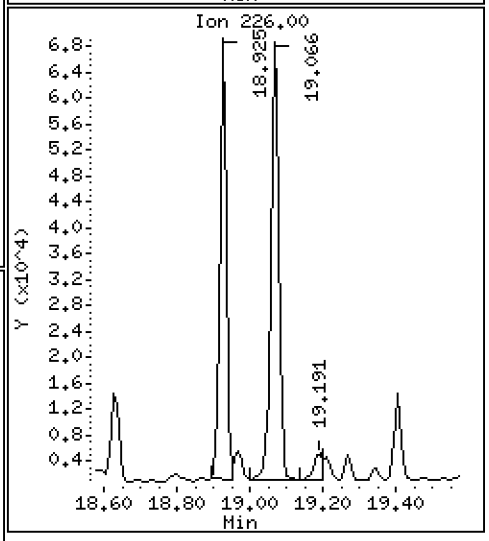
29 Chrysene

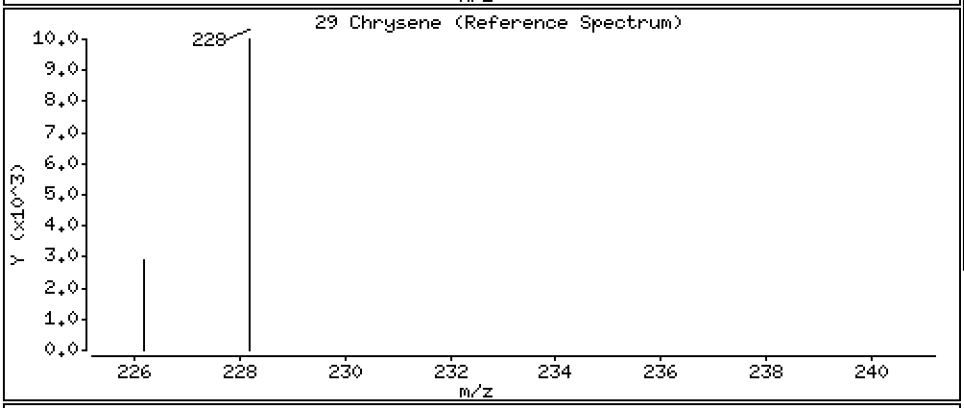
Concentration: 271 ng/mL

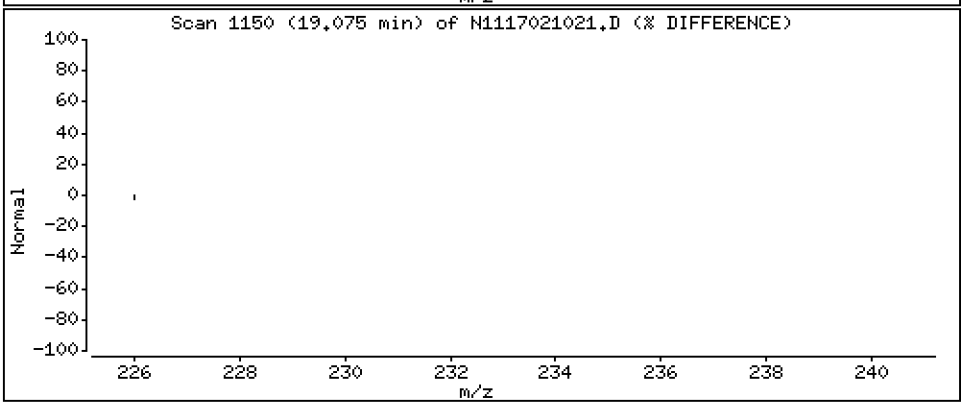












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Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

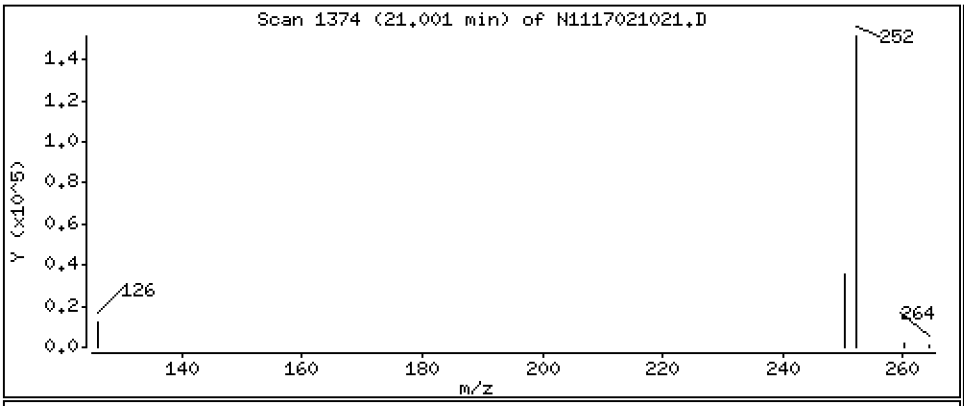
Operator: VTS

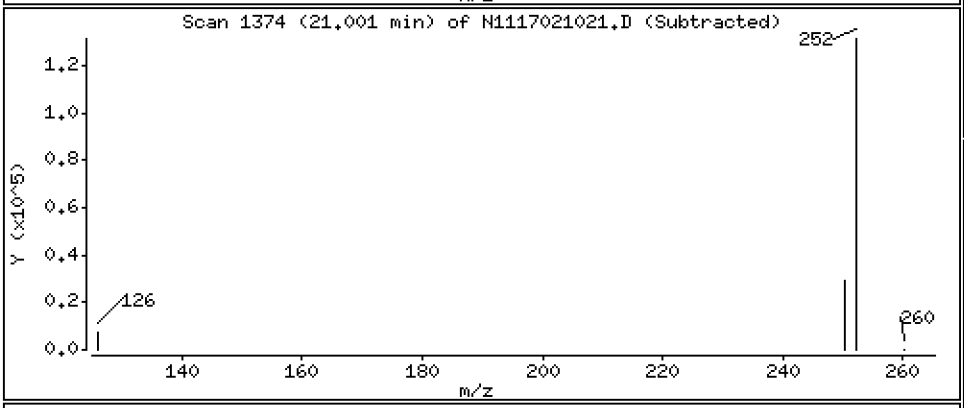
Column phase: Rxi-17Sil MS

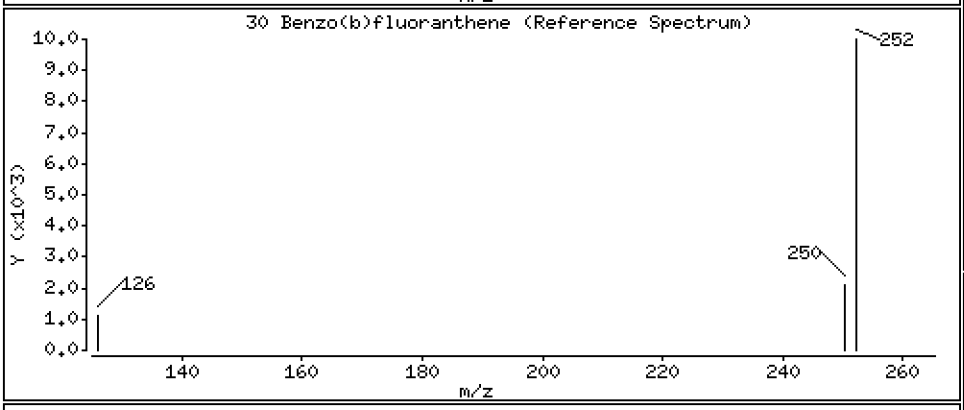
Column diameter: 0.25

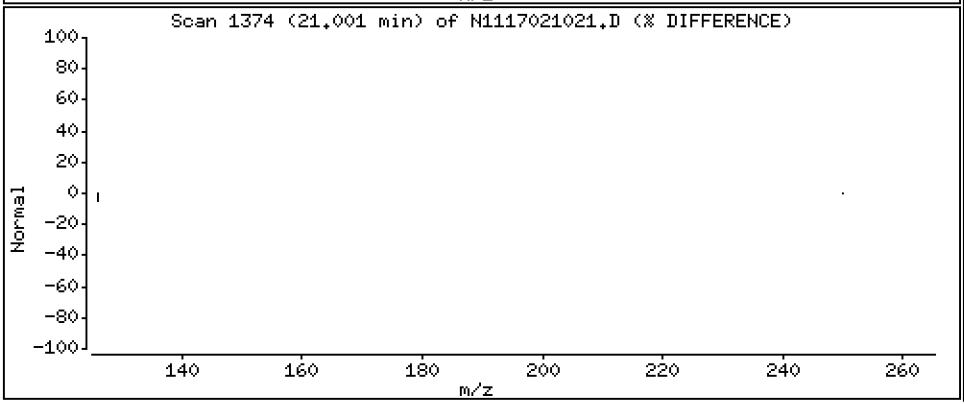
30 Benzo(b)fluoranthene

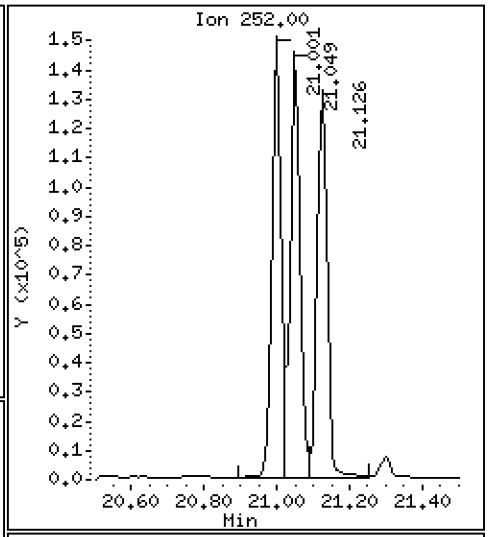
Concentration: 226 ng/mL

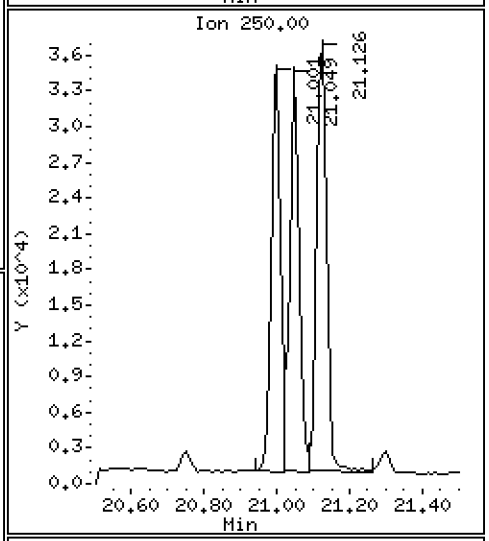


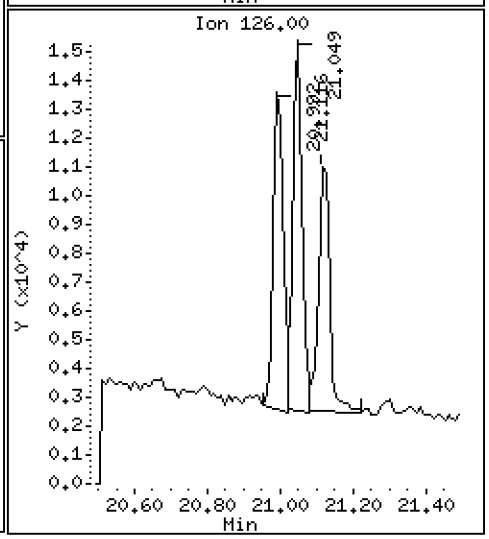












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021021.D

Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

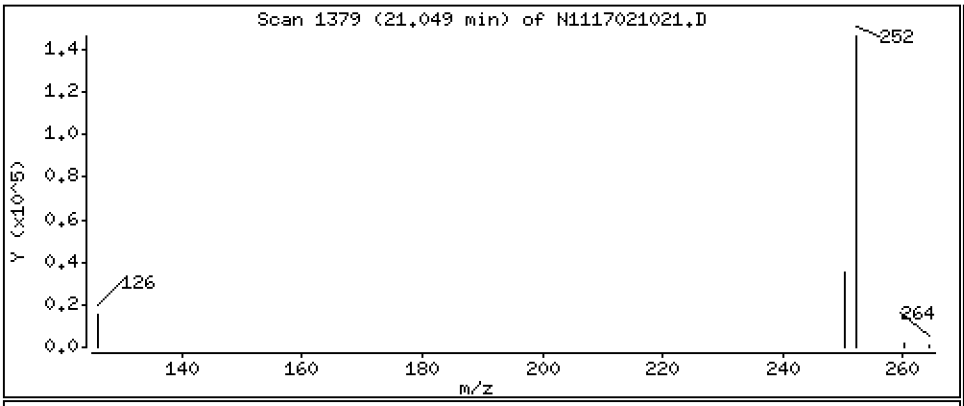
Operator: VTS

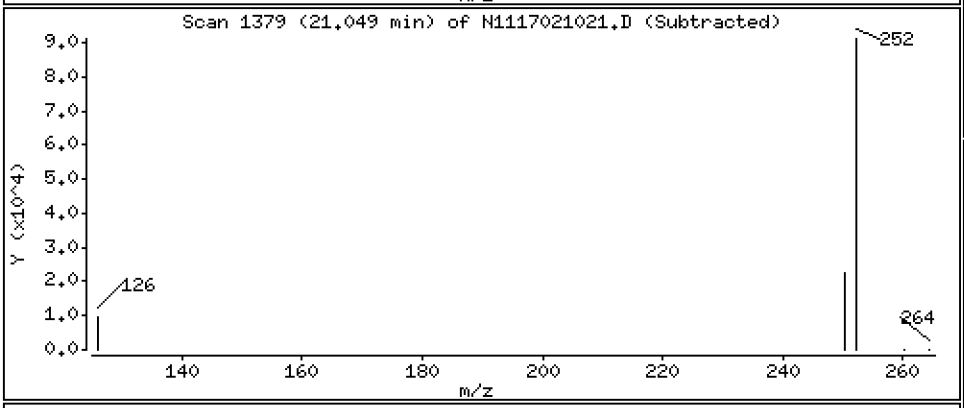
Column phase: Rxi-17Sil MS

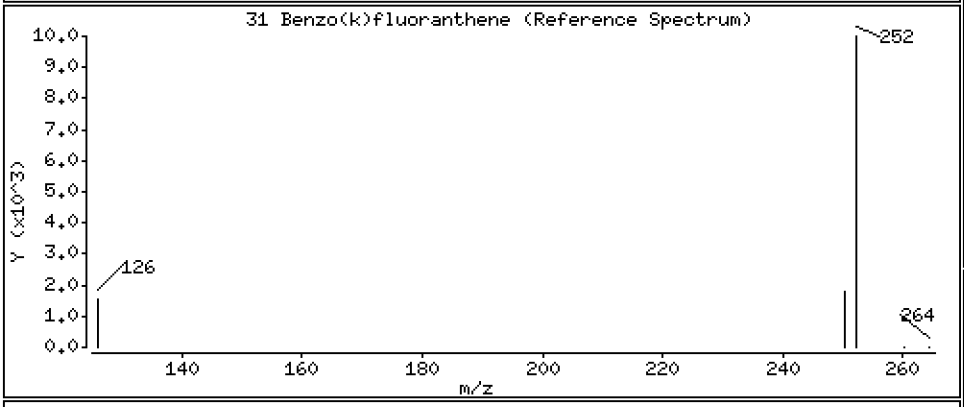
Column diameter: 0.25

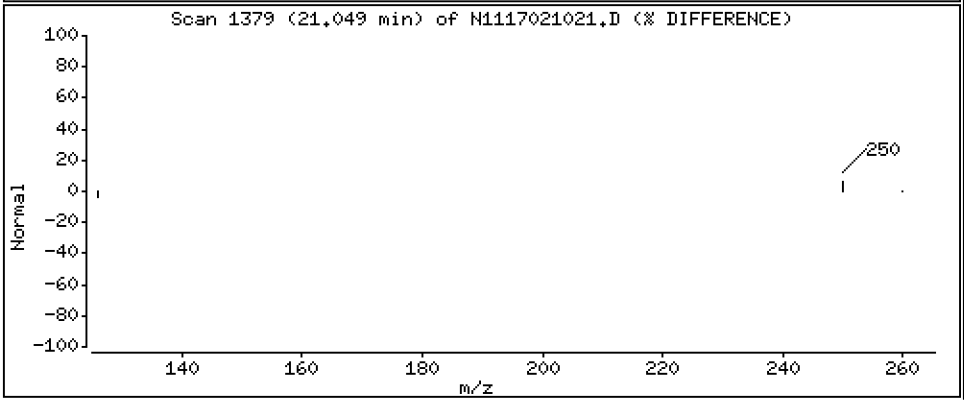
31 Benzo(k)fluoranthene

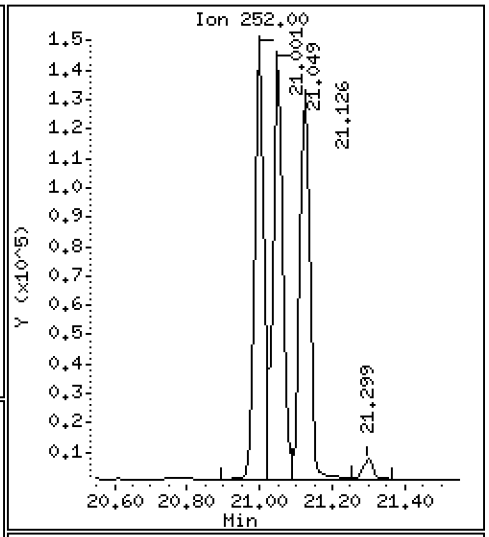
Concentration: 220 ng/mL

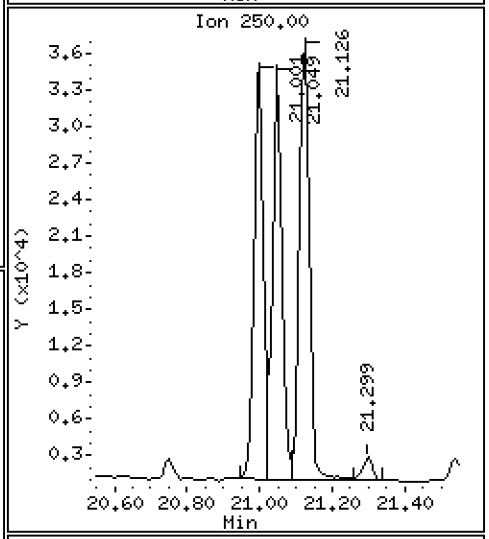


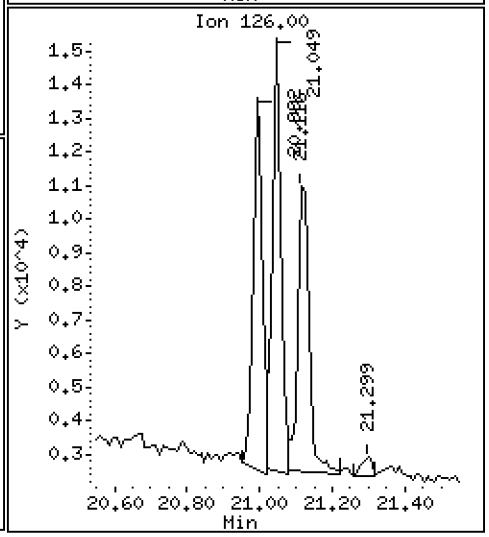












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021021.D

Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

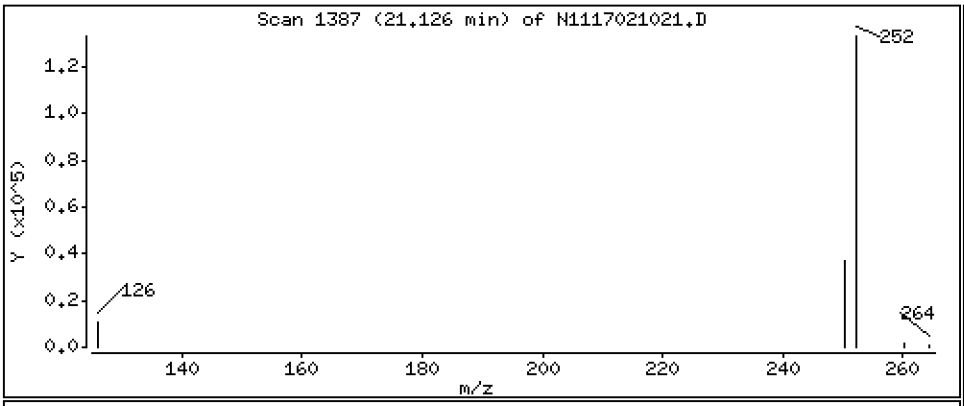
Operator: VTS

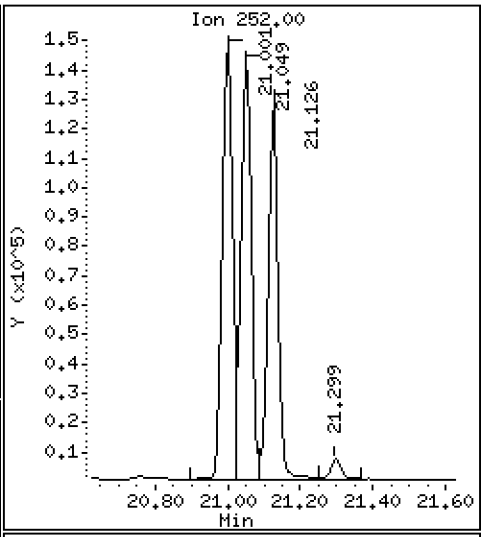
Column phase: Rxi-17Sil MS

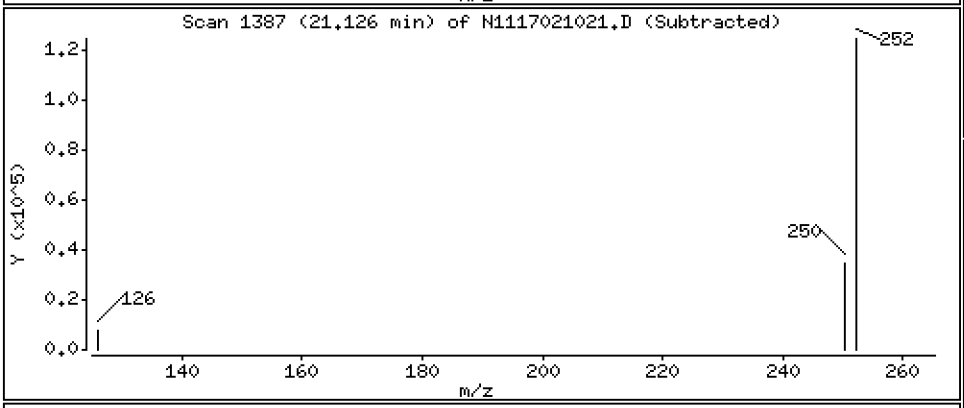
Column diameter: 0.25

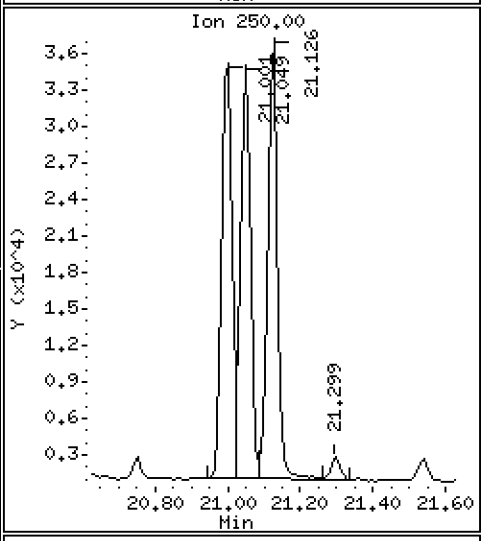
32 Benzo(j)fluoranthene

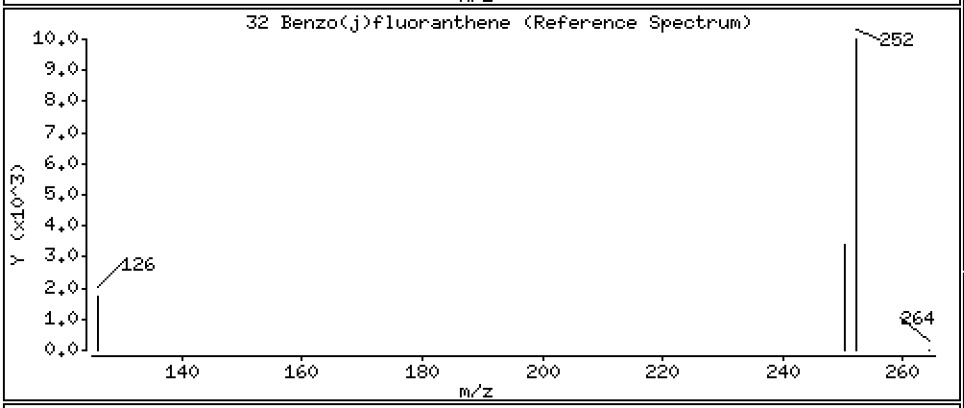
Concentration: 213 ng/mL

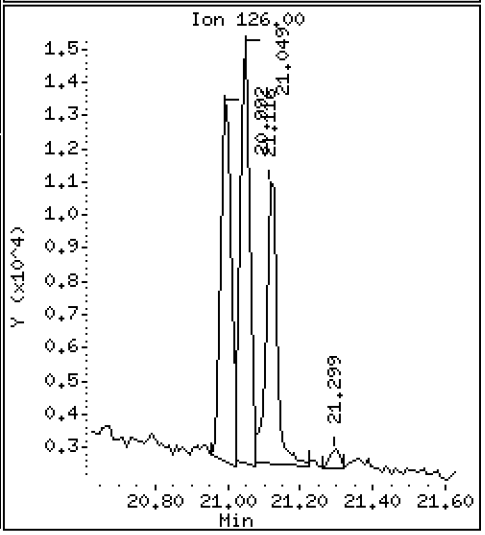


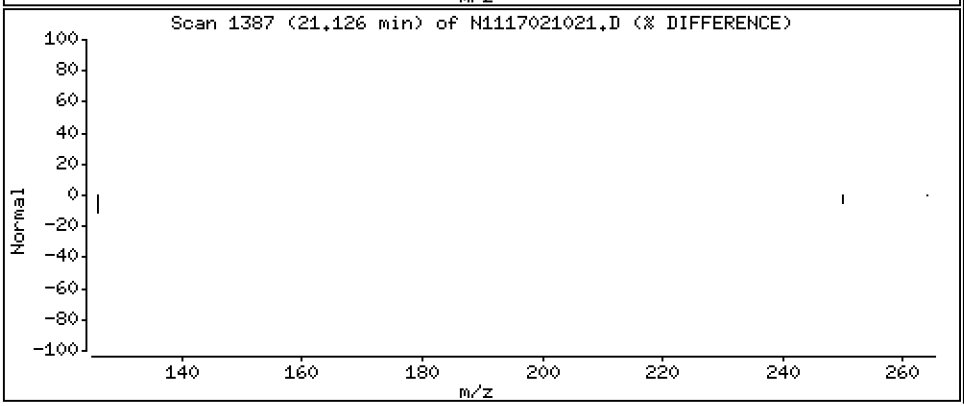












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Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

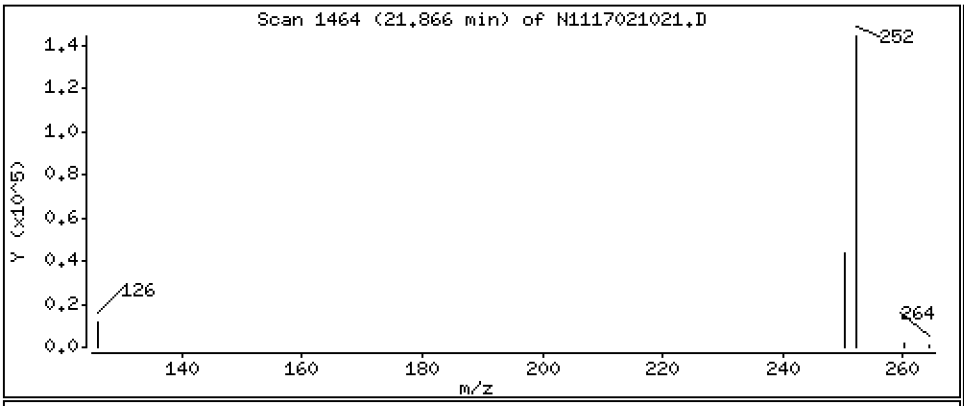
Operator: VTS

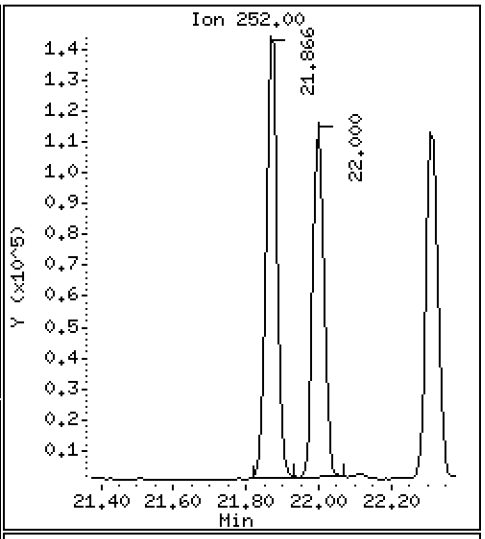
Column phase: Rxi-17Sil MS

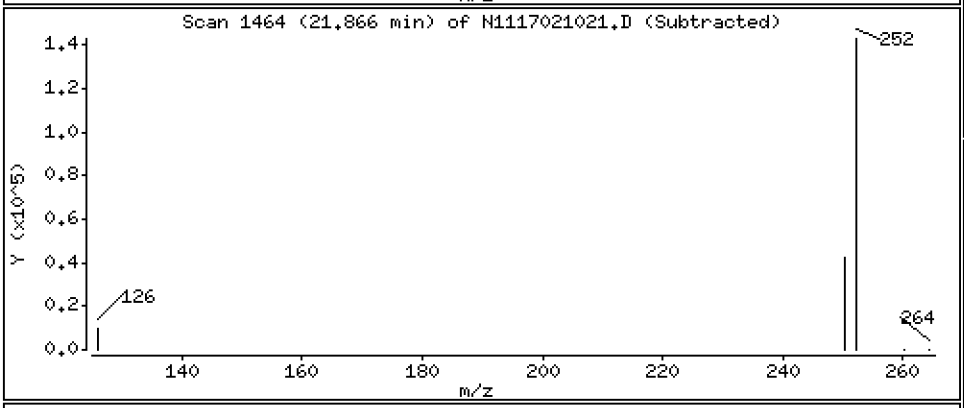
Column diameter: 0.25

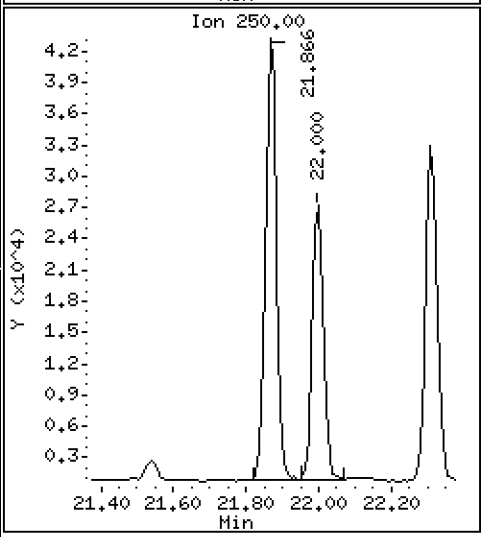
34 Benzo(e)pyrene

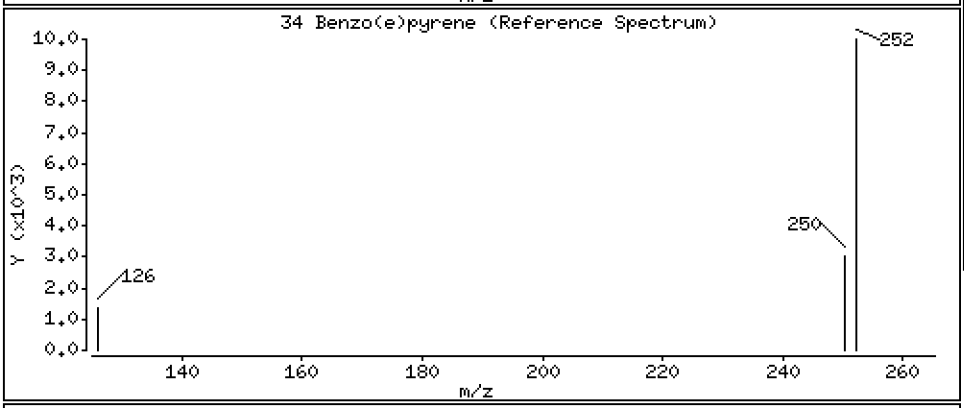
Concentration: 248 ng/mL

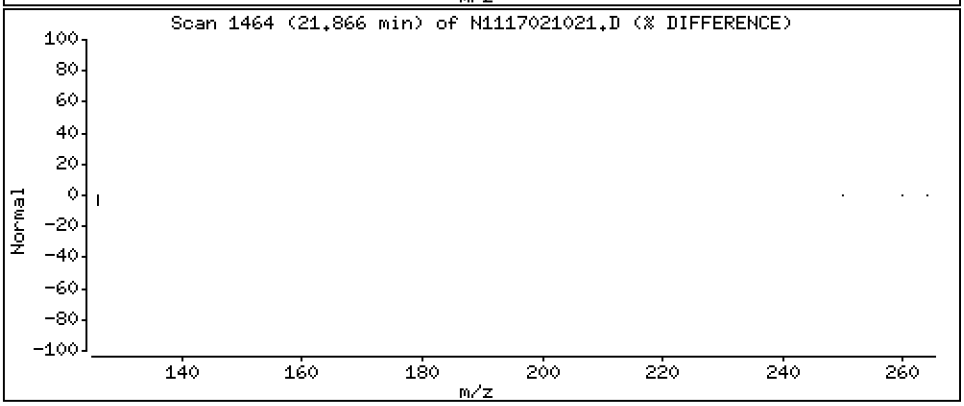












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Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

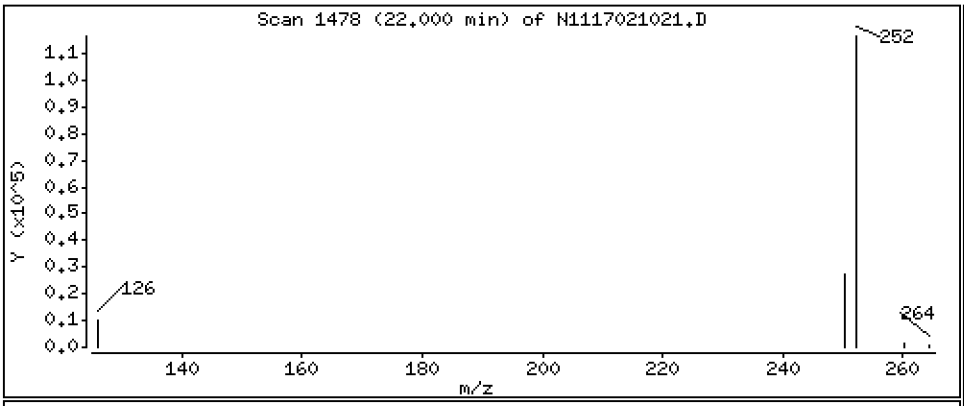
Operator: VTS

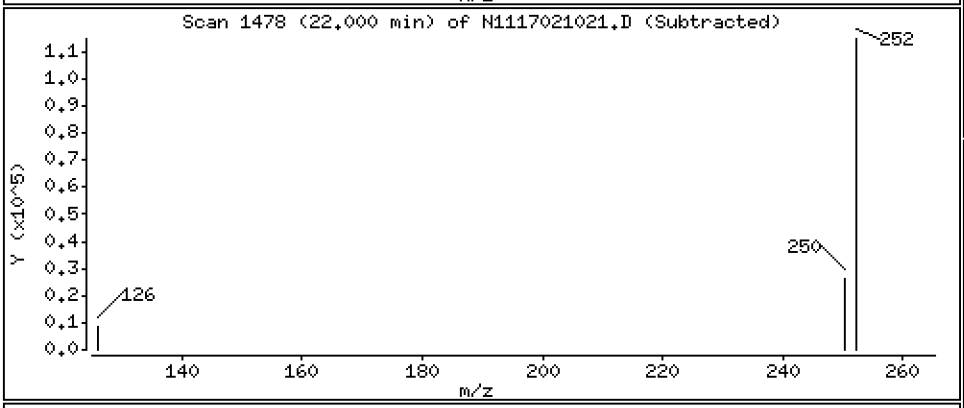
Column phase: Rxi-17Sil MS

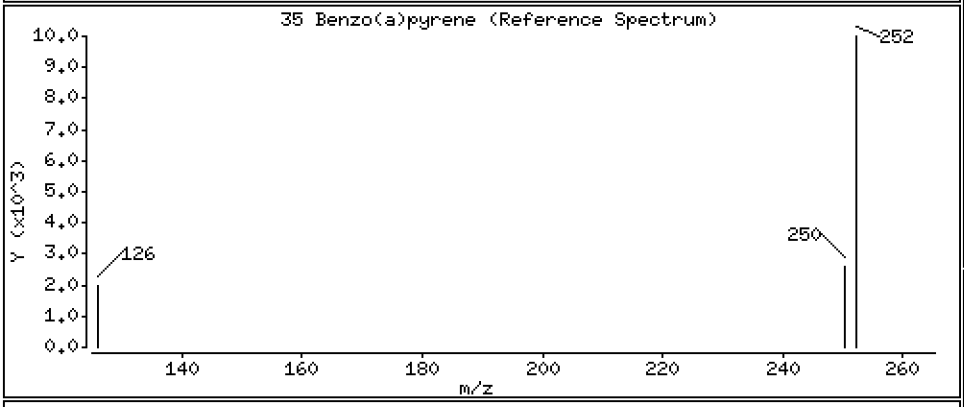
Column diameter: 0.25

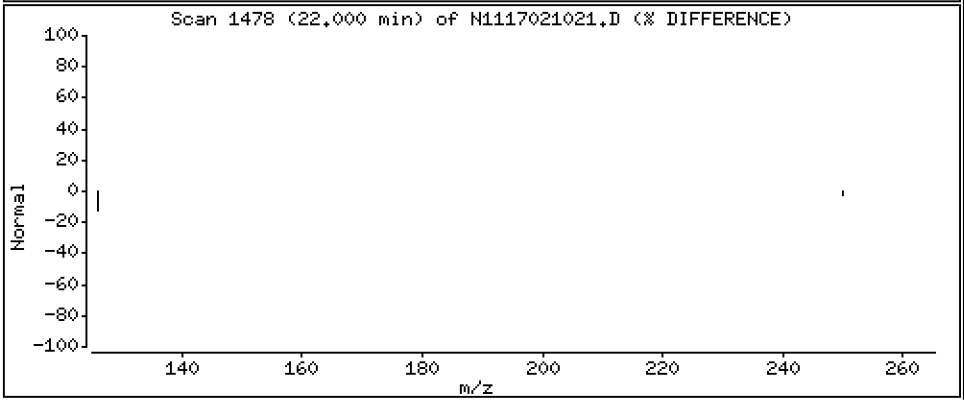
35 Benzo(a)pyrene

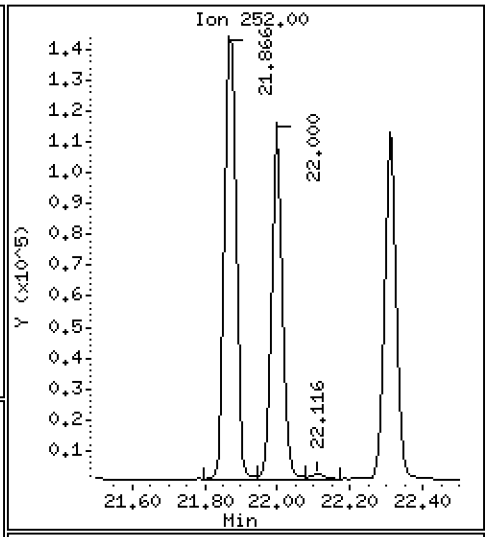
Concentration: 210 ng/mL

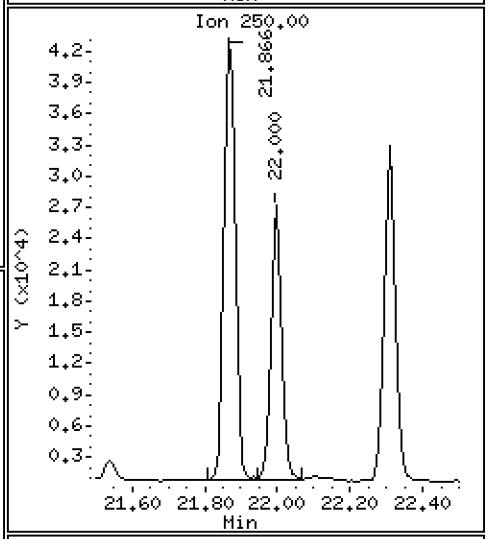


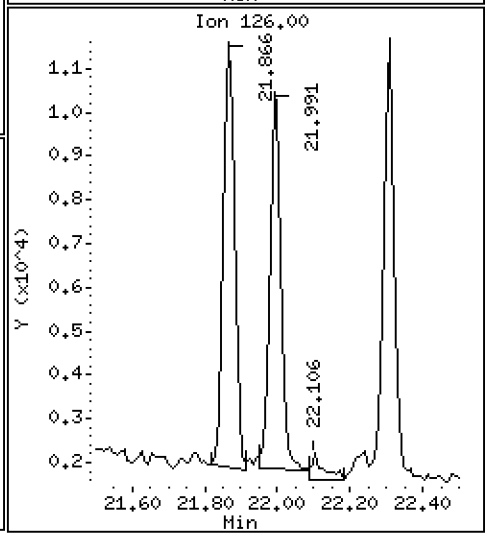












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Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

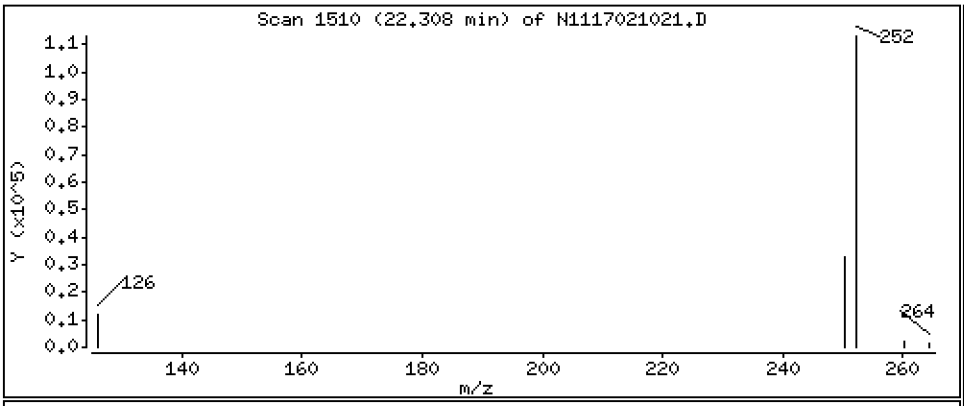
Operator: VTS

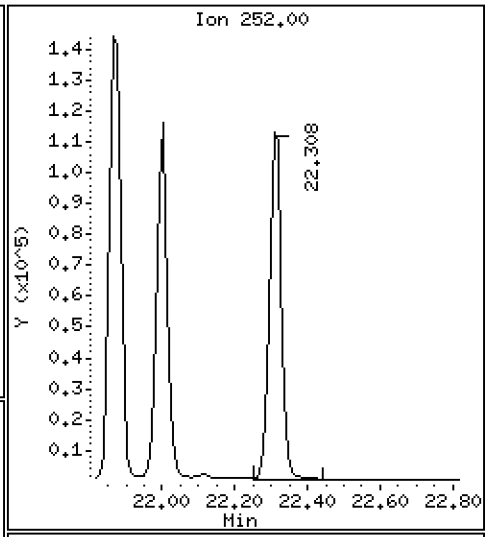
Column phase: Rxi-17Sil MS

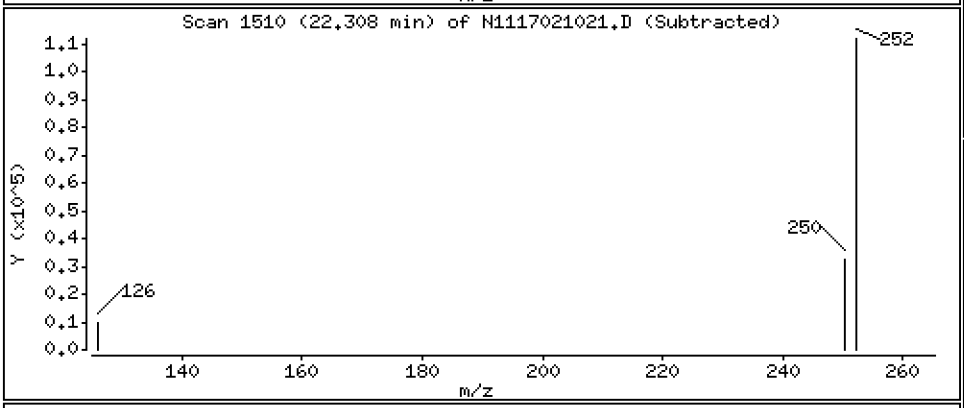
Column diameter: 0.25

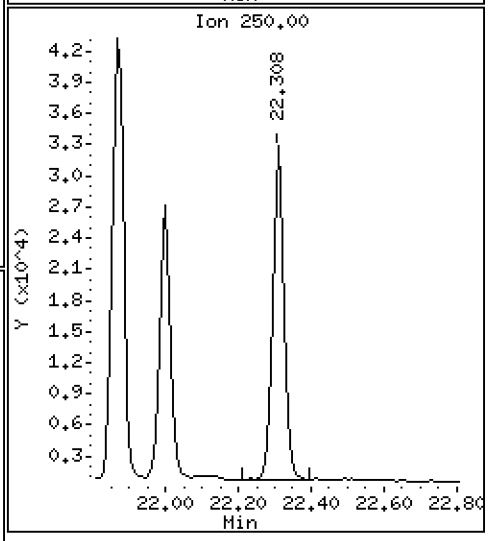
37 Perylene

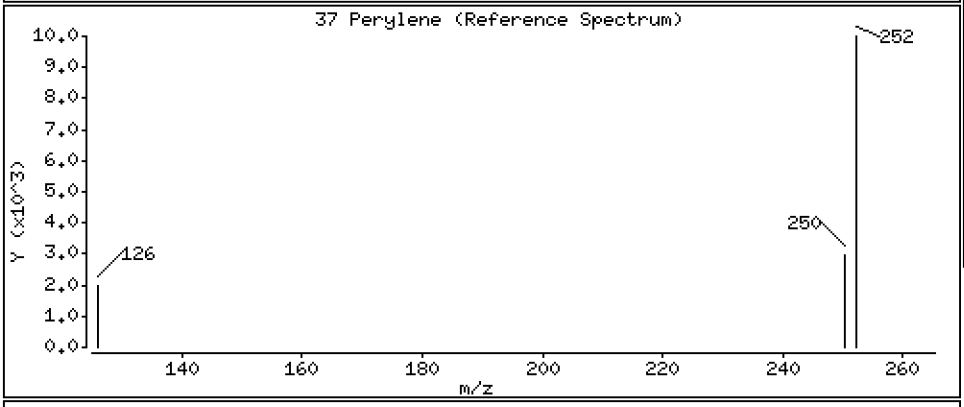
Concentration: 214 ng/mL

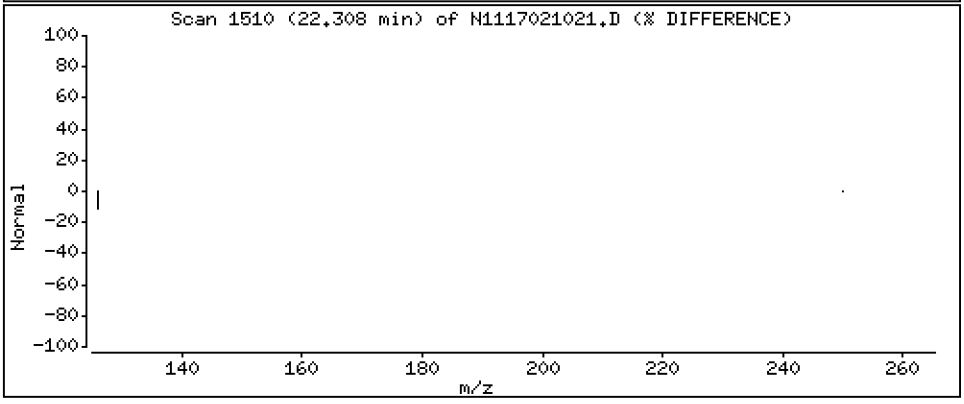












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Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

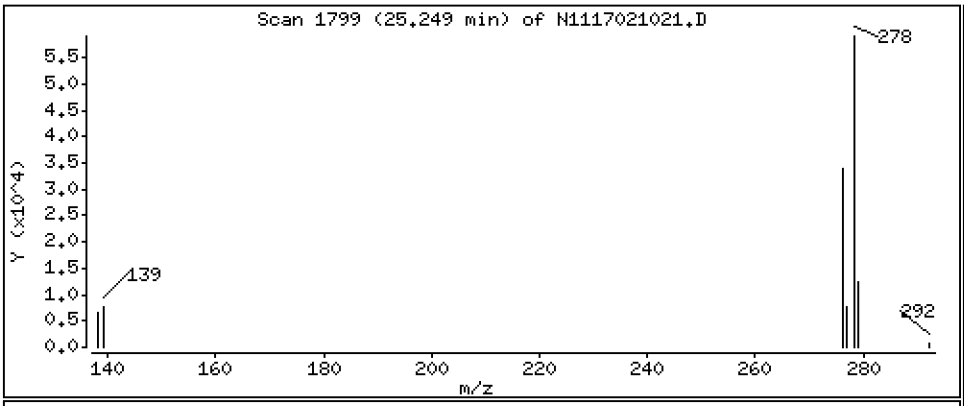
Operator: VTS

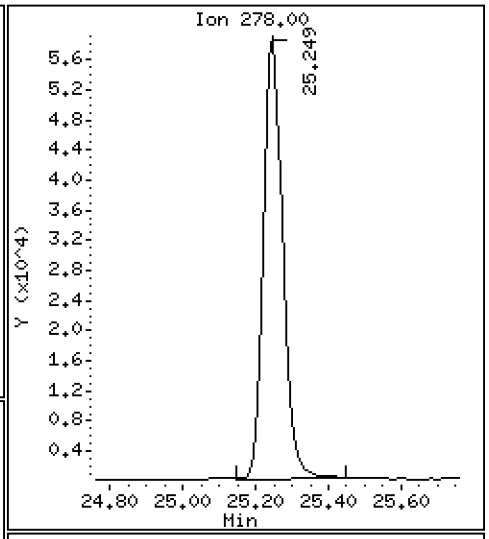
Column phase: Rxi-17Sil MS

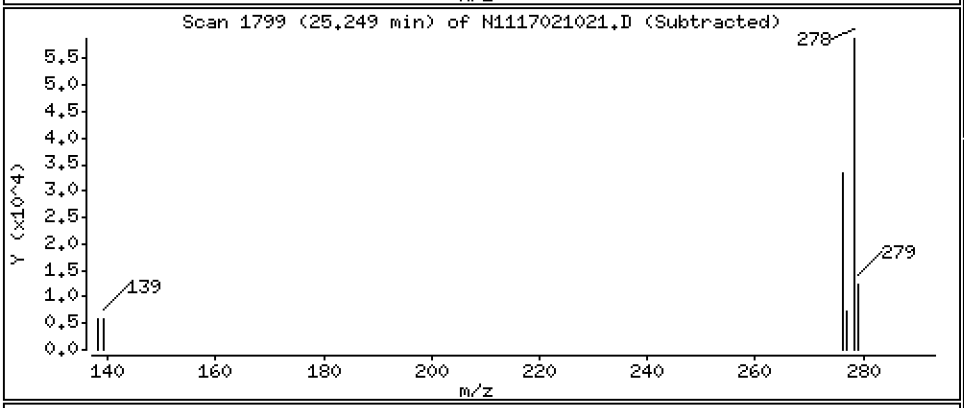
Column diameter: 0.25

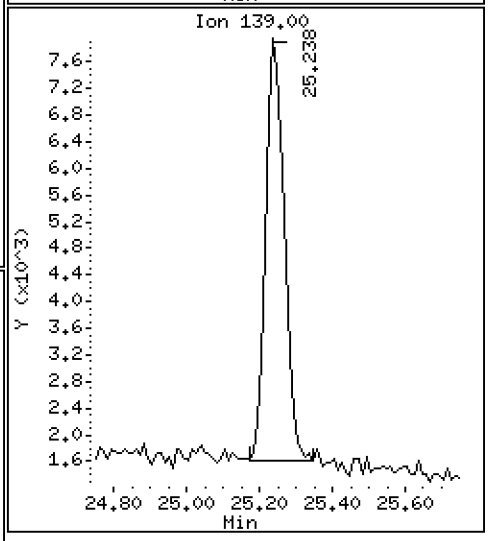
39 Dibenzo(a,h)anthracene

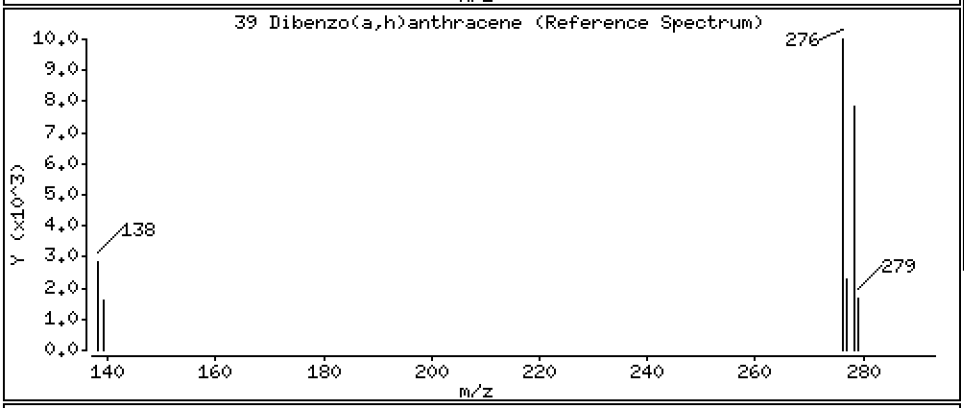
Concentration: 212 ng/mL

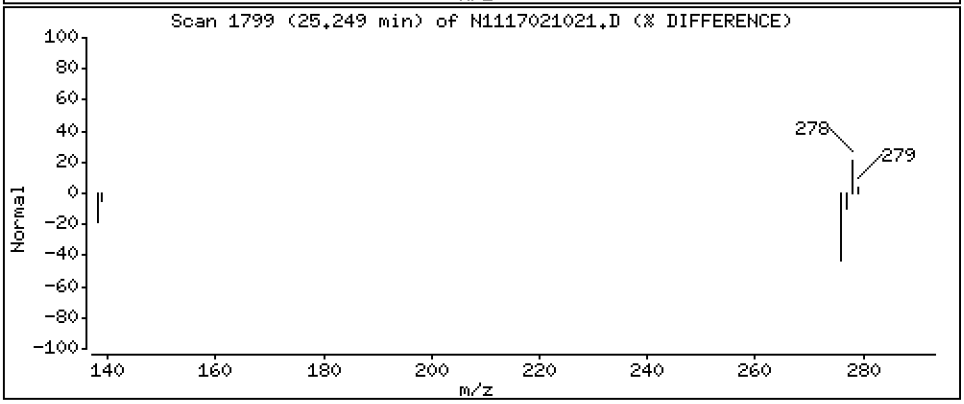












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021021.D

Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

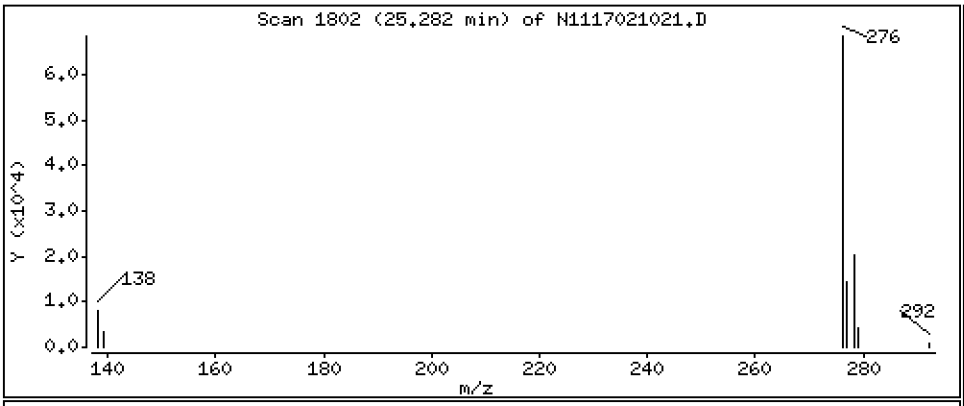
Operator: VTS

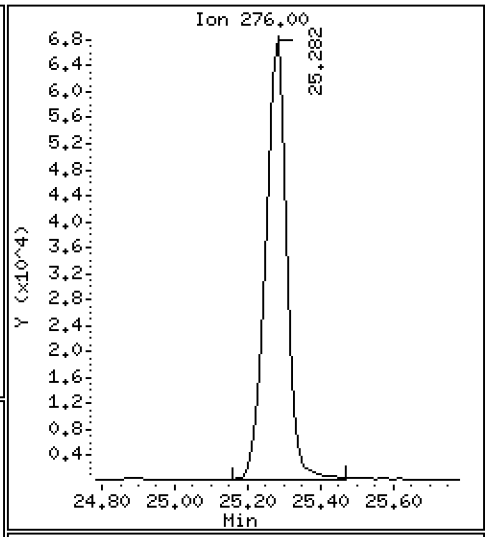
Column phase: Rxi-17Sil MS

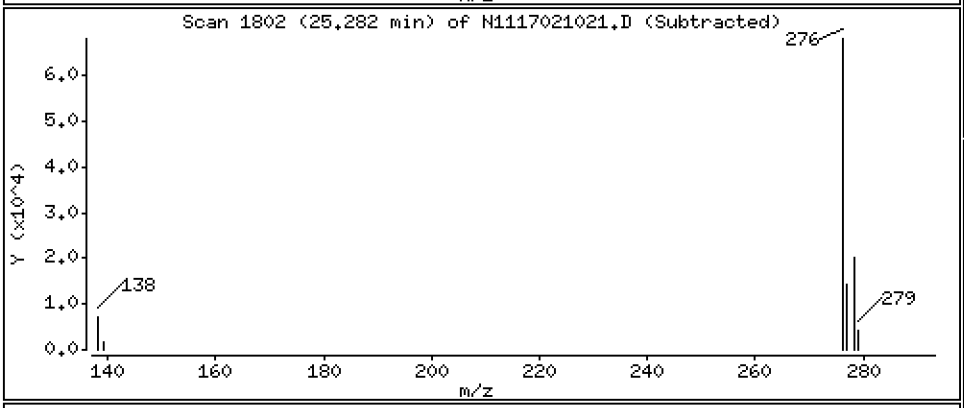
Column diameter: 0.25

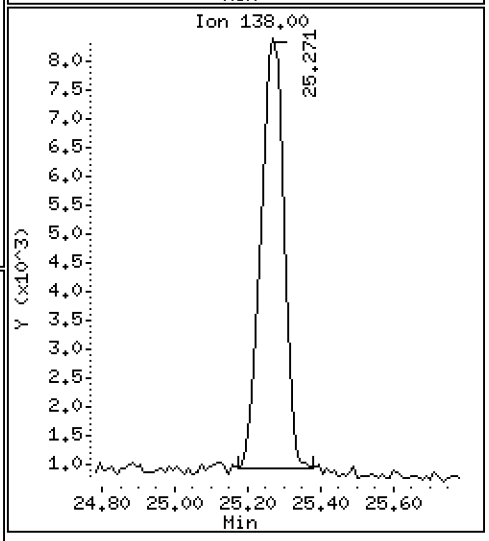
40 Indeno(1,2,3-cd)pyrene

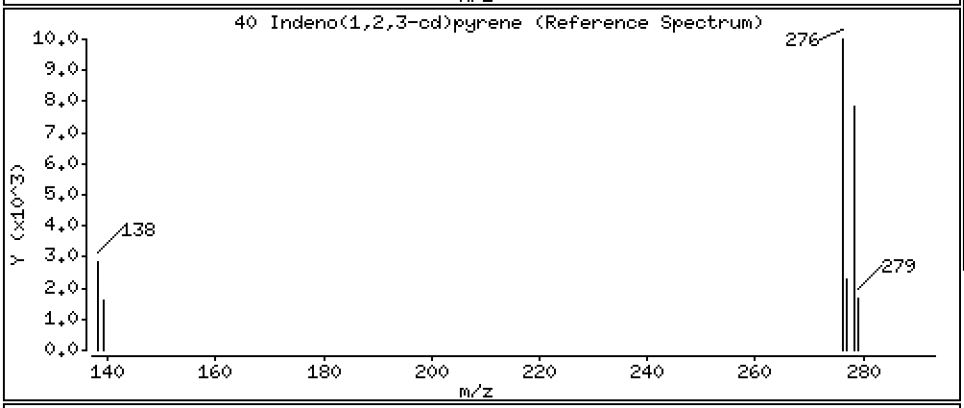
Concentration: 211 ng/mL

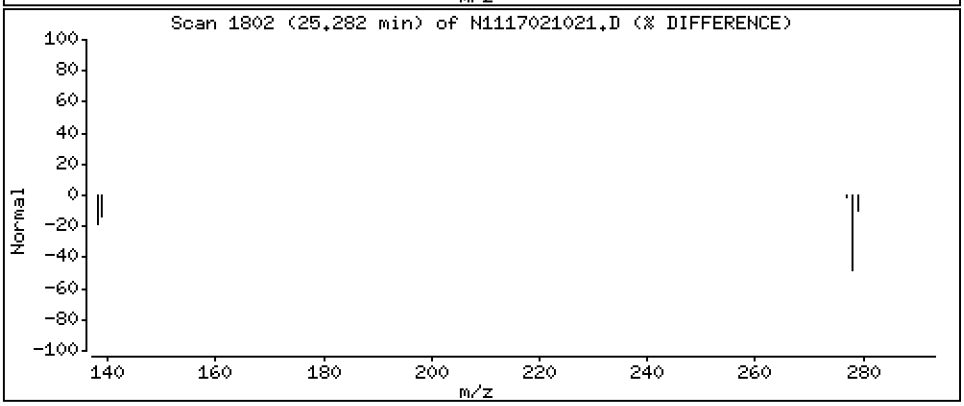












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021021.D

Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

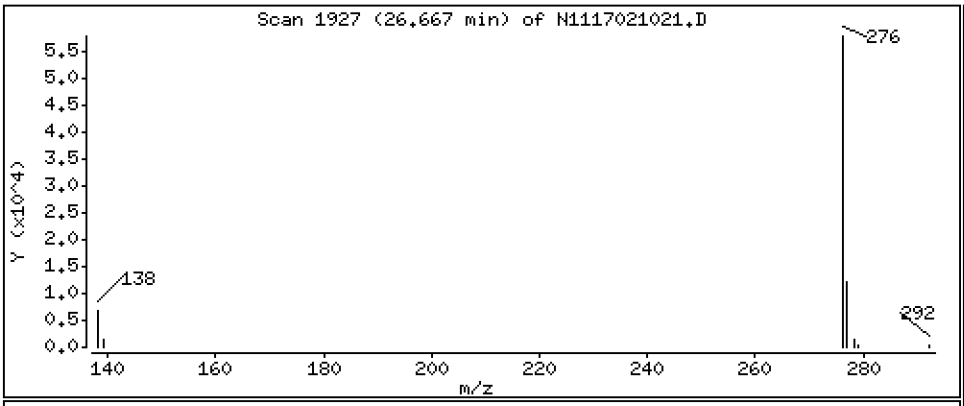
Operator: VTS

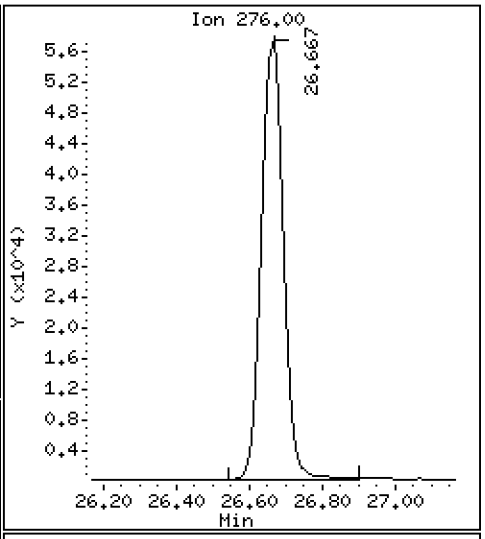
Column phase: Rxi-17Sil MS

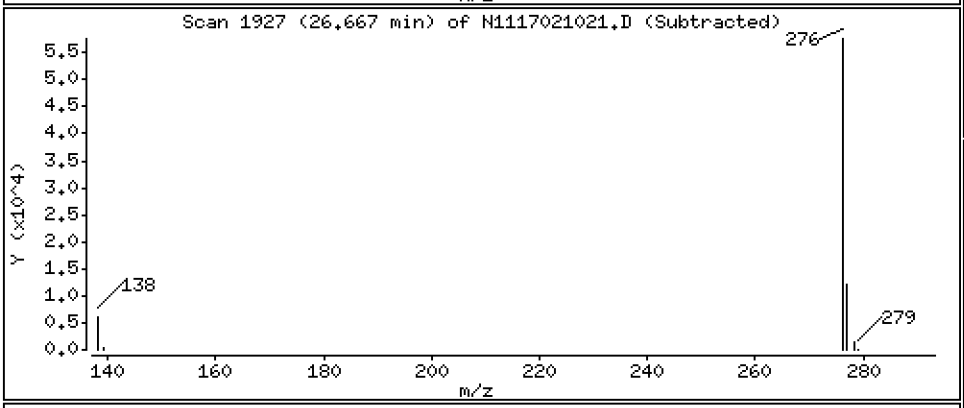
Column diameter: 0.25

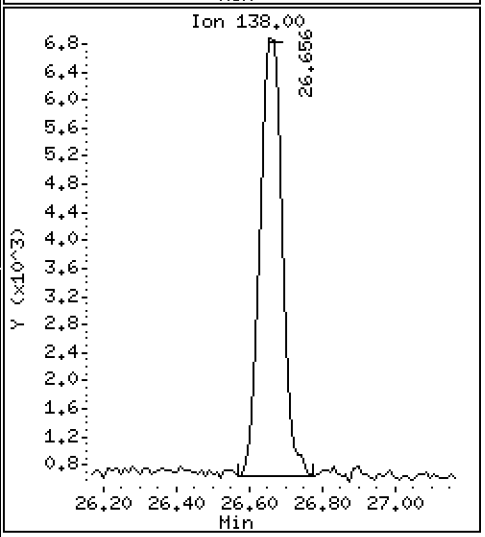
41 Benzo(g,h,i)perylene

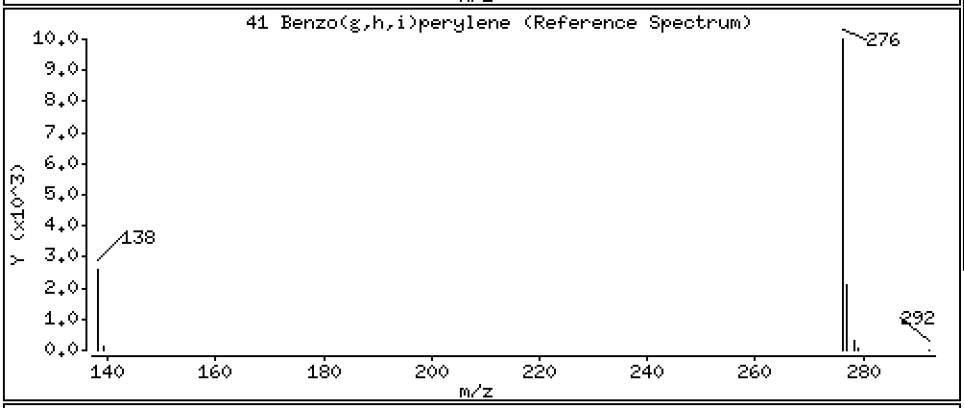
Concentration: 207 ng/mL

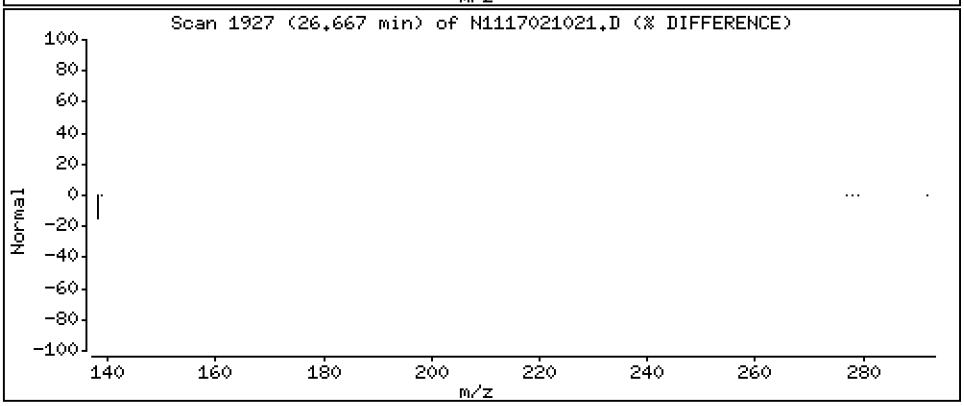












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20170210.b\N1117021021.D
Lab Smp Id: BFA0647-MSD1
Inj Date : 10-FEB-2017 22:59 MS Autotune Date: 15-JAN-2015 15:59
Operator : VTS Inst ID: nt11.i
Smp Info : BFA0647-MSD1
Misc Info :
Comment   :
Method   : \\target\share\chem3\nt11.i\20170210.b\LOWSIM.m
Meth Date : 11-Feb-2017 08:35 nt11.i Quant Type: ISTD
Cal Date : 31-DEC-2016 09:30 Cal File: N1116123104.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.518	8.526	(1.000)	226075	200.000	
	2 Naphthalene	128	8.554	8.554	(1.004)	170770	151.361	151
	3 Benzo(b)thiophene	134	8.807	8.816	(1.034)	139827	152.244	152
$	4 2-Methylnaphthalene-d10	152	9.498	9.508	(1.115)	168627	173.676	174
	5 2-Methylnaphthalene	142	9.561	9.561	(1.122)	197427	177.548	178
	6 1-Methylnaphthalene	142	9.824	9.823	(1.153)	197354	176.465	176
	7 2-Chloronaphthalene	162	10.475	10.475	(0.907)	206574	172.687	173
	8 Biphenyl	154	10.433	10.443	(0.903)	287236	180.575	181
	9 2,6-Dimethylnaphthalene	156	10.496	10.496	(0.908)	232653	188.612	189
	10 Acenaphthylene	152	11.401	11.410	(0.987)	251916	177.897	178
*	11 Acenaphthene-d10	164	11.555	11.564	(1.000)	157597	200.000	
	12 Acenaphthene	153	11.618	11.627	(1.005)	168503	180.730	181
	13 Dibenzofuran	168	11.822	11.822	(1.023)	274054	197.733	198
	14 2,3,5-Trimethylnaphthalene	170	11.911	11.923	(1.031)	185137	208.750	209
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.454	12.454	(1.078)	222608	201.753	202
	17 Dibenzothiophene	184	14.083	14.083	(0.988)	219037	191.296	191
*	18 Phenanthrene-d10	188	14.251	14.262	(1.000)	247966	200.000	
	19 Phenanthrene	178	14.293	14.293	(1.003)	358168	252.644	253
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.346	14.356	(1.007)	306295	216.682	217
	22 Carbazole	167	15.027	15.027	(1.054)	231400	148.335	148
	23 1-Methylphenanthrene	192	15.298	15.307	(1.073)	307710	211.651	212
$	24 Fluoranthene-d10	212	16.367	16.367	(1.148)	252858	191.993	192
	25 Fluoranthene	202	16.406	16.405	(1.151)	427394	265.774	266
	26 Pyrene	202	16.905	16.915	(0.889)	443289	326.223	326
	27 Benzo(a)anthracene	228	18.925	18.933	(0.995)	314855	250.314	250
*	28 Chrysene-d12	240	19.024	19.024	(1.000)	209184	200.000	
	29 Chrysene	228	19.074	19.074	(1.003)	349950	271.132	271
	30 Benzo(b)fluoranthene	252	21.001	21.001	(0.944)	280106	225.778	226
	31 Benzo(k)fluoranthene	252	21.049	21.049	(0.946)	294203	220.168	220
	32 Benzo(j)fluoranthene	252	21.126	21.125	(0.950)	253346	212.695	213
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	34 Benzo(e)pyrene	252	21.865	21.875	(0.983)	307414	248.410	248
	35 Benzo(a)pyrene	252	22.000	22.000	(0.989)	242647	209.798	210
*	36 Perylene-d12	264	22.240	22.240	(1.000)	230152	200.000	
	37 Perylene	252	22.307	22.317	(1.003)	258607	214.155	214
$	38 Dibenzo(a,h)anthracene-d14	292	25.105	25.116	(1.129)	153659	209.064	209
	39 Dibenzo(a,h)anthracene	278	25.249	25.260	(1.135)	214725	212.204	212
	40 Indeno(1,2,3-cd)pyrene	276	25.282	25.282	(1.137)	266156	210.782	211
	41 Benzo(g,h,i)perylene	276	26.666	26.666	(1.199)	234587	206.930	207

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: N1117021021.D
Lab Smp Id: BFA0647-MSD1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20170210.b\LOWSIM.m
Misc Info:

Calibration Date: 10-FEB-2017
Calibration Time: 13:29
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	219654	109827	439308	226075	2.92
11 Acenaphthene-d10	135248	67624	270496	157597	16.52
18 Phenanthrene-d10	257021	128511	514042	247966	-3.52
28 Chrysene-d12	259511	129756	519022	209184	-19.39
36 Perylene-d12	257535	128768	515070	230152	-10.63

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.53	8.03	9.03	8.52	-0.10
11 Acenaphthene-d10	11.56	11.06	12.06	11.56	-0.08
18 Phenanthrene-d10	14.26	13.76	14.76	14.25	-0.07
28 Chrysene-d12	19.02	18.52	19.52	19.02	0.00
36 Perylene-d12	22.24	21.74	22.74	22.24	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1117021021.D

Lab ID: BFA0647-MSD1
nt11.i, 20170210.b\LOWSIM.m,   10-FEB-2017 22:59

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20170210.b\LOWSIM.m, allpna.sub = 3.0000

Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

Analytical Resources, Incorporated
Analytical Chemists and Consultants

MASS SPECTROMETER
INSTRUMENT PERFORMANCE CHECK
EPA 8270D-SIM

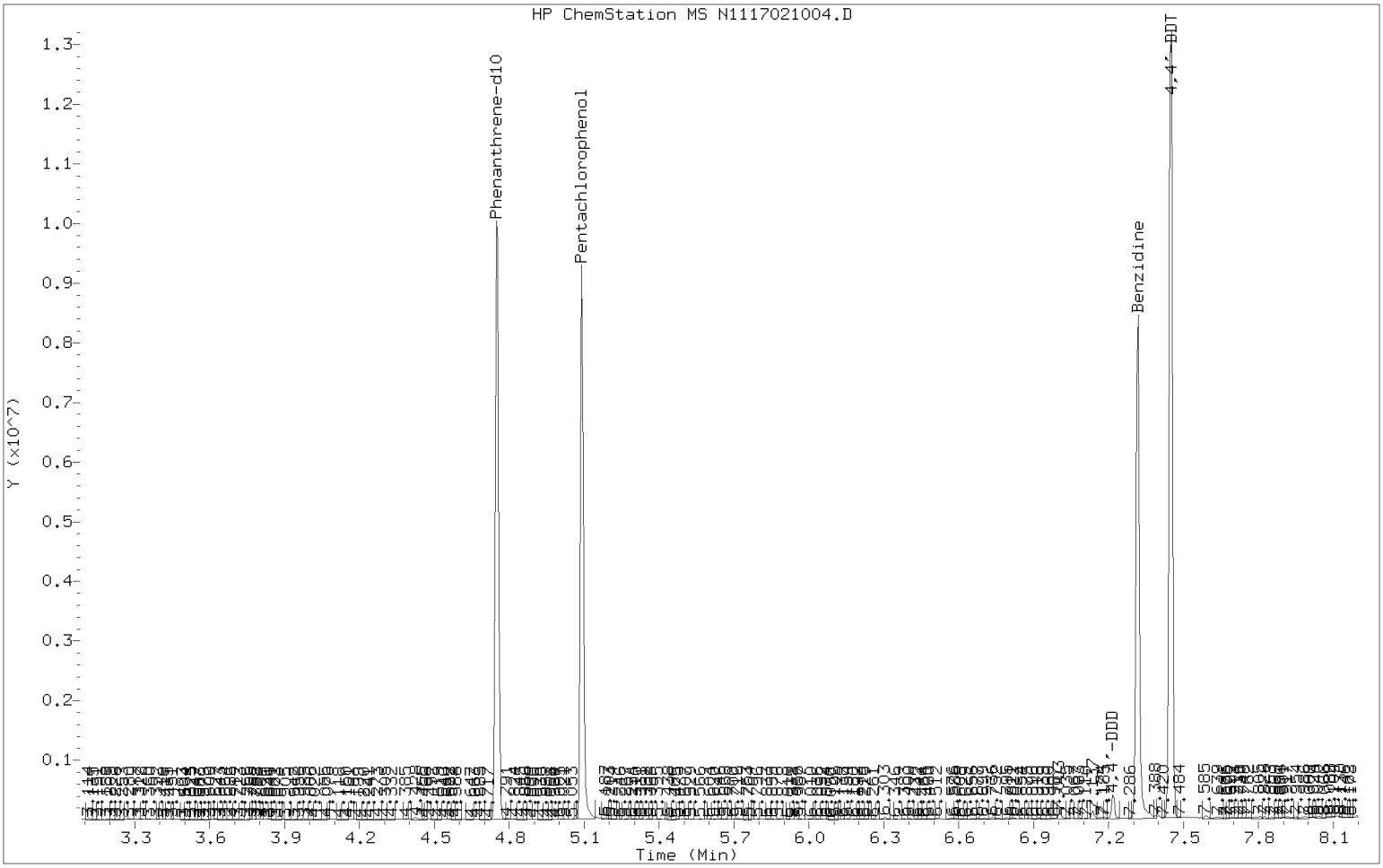
Laboratory:	Analytical Resources, Inc.	SDG:	17A0053
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Lab File ID:	N1117021004.D	Injection Date:	02/10/17
Instrument ID:	NT11	Injection Time:	13:08
Sequence:	SFB0130	Lab Sample ID:	SFB0130-TUN1

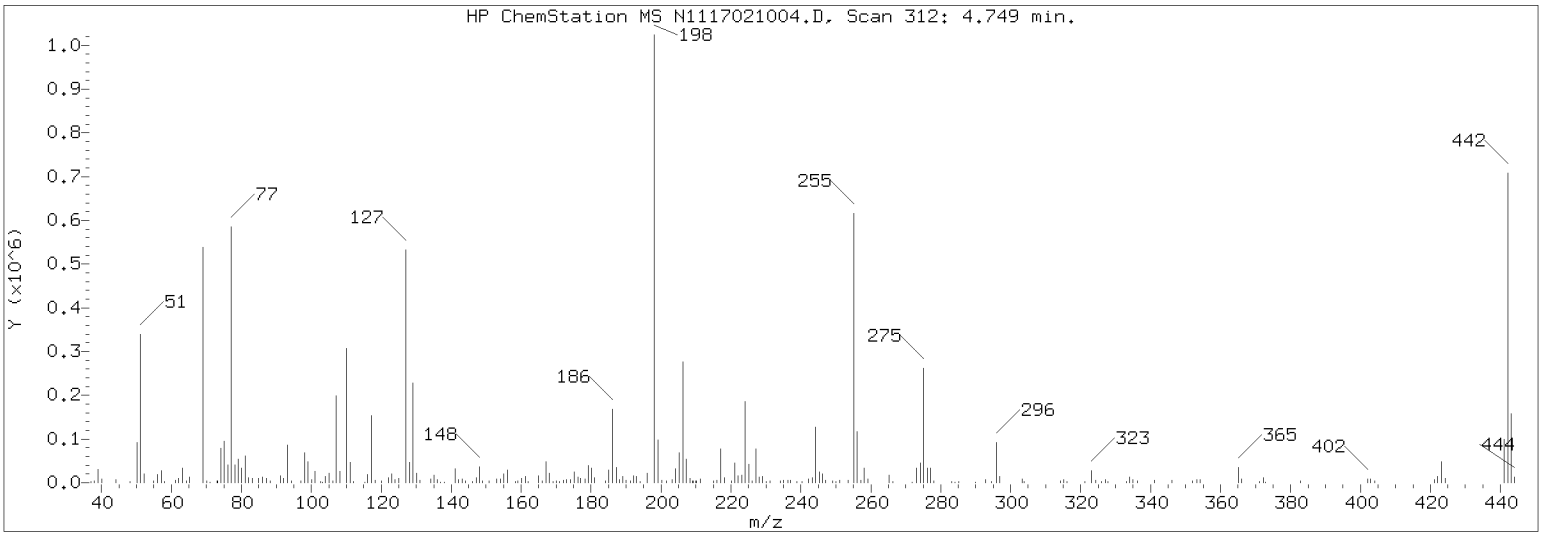
m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10 - 80% of 198	32.2	PASS
68	Less than 2% of 69	1.17	PASS
69	Less than 100% of 198	50.5	PASS
70	Less than 2% of 69	0.59	PASS
127	10 - 80% of 198	49.5	PASS
197	Less than 2% of 198	0	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	8.25	PASS
275	10 - 60% of 198	26.4	PASS
365	1 - 100% of 198	3.86	PASS
441	0.1 - 24% of 442	16	PASS
442	50 - 200% of 198	77.8	PASS
443	15 - 24% of 442	22.8	PASS

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
MS Tune	SFB0130-TUN1	N1117021004.D	02/10/2017	13:08
Initial Cal Check	SFB0130-ICV1	N1117021005.D	02/10/2017	13:29
Blank	BFA0647-BLK1	N1117021007.D	02/10/2017	14:40
LCS	BFA0647-BS1	N1117021008.D	02/10/2017	15:16
ZZZZZ	16K0124-01	N1117021009.D	02/10/2017	15:52
PG-SMA1-1-MUS-170105	17A0053-01	N1117021010.D	02/10/2017	16:27
PG-SMA2-1-MUS-170105	17A0053-04	N1117021011.D	02/10/2017	17:03
PG-SMA2-2-MUS-170105	17A0053-05	N1117021012.D	02/10/2017	17:39
PG-SMA2-3-MUS-170105	17A0053-06	N1117021013.D	02/10/2017	18:14
PG-SMA2-4-MUS-170105	17A0053-07	N1117021014.D	02/10/2017	18:50
PG-SMA2-5-MUS-170105	17A0053-08	N1117021015.D	02/10/2017	19:25
PG-PJ-1-MUS-170105	17A0053-09	N1117021016.D	02/10/2017	20:01
PG-WS-1-MUS-170105	17A0053-11	N1117021018.D	02/10/2017	21:12
PG-SMA1-2-3-MUS-17010	17A0053-12	N1117021019.D	02/10/2017	21:48
Matrix Spike	BFA0647-MS1	N1117021020.D	02/10/2017	22:23
Matrix Spike Dup	BFA0647-MSD1	N1117021021.D	02/10/2017	22:59
Calibration Check	SFB0130-CCV1	N1117021022.D	02/10/2017	23:35

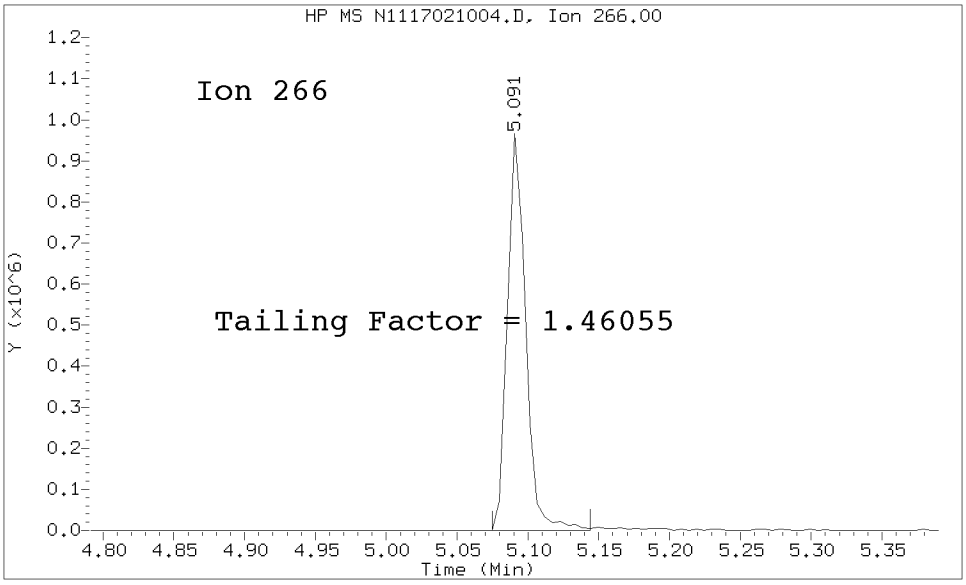
DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20170210.b/N1117021004.D/N1117021004.D
Method Used: \20170210.b\DFTPP.m Inst: nt11
Injection Date: 10-FEB-2017 13:08 Operator: VTS
Sample Info: SFB0130-TUN1 SFB0130-TUN1
Report Date: 02/10/2017 13:22



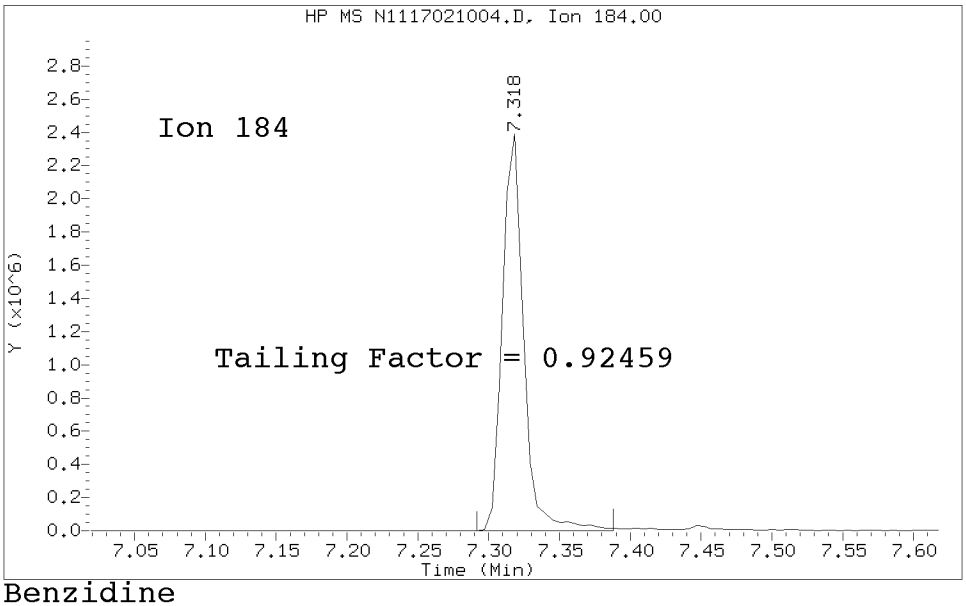


Datafile Analyzed: /20170210.b/N1117021004.D/N1117021004.D
Method Used: \20170210.b\DFTPP.m\sw846ddt.m Inst: nt11
Injection Date: 10-FEB-2017 13:08 Operator: JW
Sample Info: SFB0130-TUN1
Report Date: 02/10/2017 13:22



Pentachlorophenol
==========
 Exp. RT = 5.091
Found RT = 5.091

Tail Factor = 1.461 Maximum Allowed = 2.0



Benzidine
==========
 Exp. RT = 7.318
Found RT = 7.318

Tail Factor = 0.925 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.4605475	2.000	PASS
Benzidine	0.9245902	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	1909959			N/A
4,4-DDE	0	0.0	20.0	PASS
4,4-DDD	65124	3.3	20.0	PASS
4,4-DDD + DDE	65124	3.3	20.0	PASS

Tuning Sample, nt11.i/20170210.b/N1117021004.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	32.25
68	Less than 2.00% of mass 69	0.59 (1.17)
69	Mass 69 relative abundance	50.52
70	Less than 2.00% of mass 69	0.30 (0.59)
127	10.00 - 80.00% of mass 198	49.50
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	8.25
275	10.00 - 60.00% of mass 198	26.43
365	Greater than 1.00% of mass 198	3.86
441	0.01 - 24.00% of mass 442	12.46 (16.01)
442	50.00 - 200.00% of mass 198	77.79
443	15.00 - 24.00% of mass 442	17.76 (22.83)

Data File: N1117021004.D
Spectrum: Avg. Scans 311-313 (4.75), Background Scan 306
Location of Maximum: 198.00
Number of points: 256

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	1112	124.00	5327	199.00	67408	284.00	2629
38.00	3388	125.00	7215	200.00	5534	285.00	2459
39.00	22392	127.00	404480	201.00	2687	290.00	1612
43.00	682	128.00	39192	202.00	1347	292.00	815
44.00	2434	129.00	167040	203.00	7971	293.00	5695
48.00	763	130.00	13635	204.00	37280	294.00	2765
49.00	1388	131.00	4979	205.00	59656	295.00	1716
50.00	64376	134.00	6947	206.00	223168	296.00	68176
51.00	263488	135.00	12693	207.00	34656	297.00	11736
52.00	12367	136.00	7506	208.00	8855	298.00	753
55.00	2222	137.00	5835	209.00	5207	302.00	1190
56.00	12085	138.00	676	210.00	7572	303.00	8742
57.00	21528	140.00	884	211.00	9542	304.00	966
58.00	911	141.00	22016	215.00	3860	306.00	826
61.00	3551	142.00	6307	216.00	6472	314.00	3381
62.00	5999	143.00	4726	217.00	68328	315.00	7285
63.00	20632	144.00	2765	218.00	11061	316.00	3170
64.00	1454	146.00	2286	220.00	2443	317.00	712
65.00	9453	147.00	11927	221.00	41752	321.00	3119
68.00	4816	148.00	24160	222.00	11136	323.00	26048
69.00	412800	149.00	4182	223.00	18824	324.00	4622
70.00	2434	151.00	2506	224.00	149120	326.00	1146
71.00	709	153.00	6030	225.00	33584	327.00	5126
73.00	5947	154.00	5449	226.00	3161	328.00	2330
74.00	53128	155.00	13283	227.00	63456	332.00	2013
75.00	71008	156.00	20208	228.00	10071	333.00	1086
76.00	24624	157.00	1103	229.00	11696	334.00	15143
77.00	450432	158.00	3369	230.00	2508	335.00	4284
78.00	33960	159.00	3623	231.00	2769	336.00	1331
79.00	40216	160.00	6217	234.00	3441	341.00	2797
80.00	24872	161.00	10286	235.00	3920	346.00	4645
81.00	42200	162.00	2602	236.00	3821	352.00	3596
82.00	7059	165.00	9010	237.00	5195	353.00	6698
83.00	8376	166.00	6622	239.00	2496	354.00	6808
85.00	8268	167.00	42568	240.00	2578	355.00	765
86.00	9981	168.00	18328	241.00	3632	360.00	851
87.00	4336	169.00	2247	242.00	8334	365.00	31528
88.00	2738	170.00	2894	243.00	8173	366.00	4277
89.00	731	171.00	1108	244.00	101584	371.00	1592
91.00	10217	172.00	4512	245.00	15899	372.00	11666
92.00	10218	173.00	6041	246.00	19488	373.00	2352
93.00	63136	174.00	7358	247.00	4089	383.00	2427
94.00	2771	175.00	16085	249.00	3981	384.00	696
97.00	2493	176.00	6468	250.00	1761	391.00	1149
98.00	45304	177.00	9300	251.00	2017	392.00	720
99.00	35264	178.00	8422	253.00	2423	402.00	6785
100.00	4052	179.00	32344	254.00	3507	403.00	7205
101.00	18472	180.00	28536	255.00	497536	404.00	3648
103.00	5644	181.00	8094	256.00	92576	405.00	689

104.00	12071	182.00	900	257.00	5471	421.00	5545
105.00	14386	183.00	787	258.00	31272	422.00	9693
106.00	2769	184.00	2518	259.00	4949	423.00	38848
107.00	148608	185.00	20112	260.00	679	424.00	8628
108.00	22056	186.00	147584	261.00	1659	425.00	1546
109.00	836	187.00	35512	264.00	1144	431.00	758
110.00	225792	188.00	6217	265.00	13343	441.00	101776
111.00	37888	189.00	8546	266.00	1434	442.00	635584
112.00	3072	190.00	1791	272.00	3667	443.00	145088
115.00	673	191.00	3108	273.00	19472	444.00	11926
116.00	11843	192.00	13855	274.00	39968	445.00	1110
117.00	113096	193.00	10355	275.00	215936	470.00	1007
118.00	4622	194.00	3590	276.00	29696		
120.00	3147	195.00	1081	277.00	25912		
122.00	7183	196.00	23240	278.00	2282		
123.00	15024	198.00	817088	283.00	2736		

Analytical Resources, Incorporated
Analytical Chemists and Consultants

MASS SPECTROMETER
INSTRUMENT PERFORMANCE CHECK
EPA 8270D-SIM

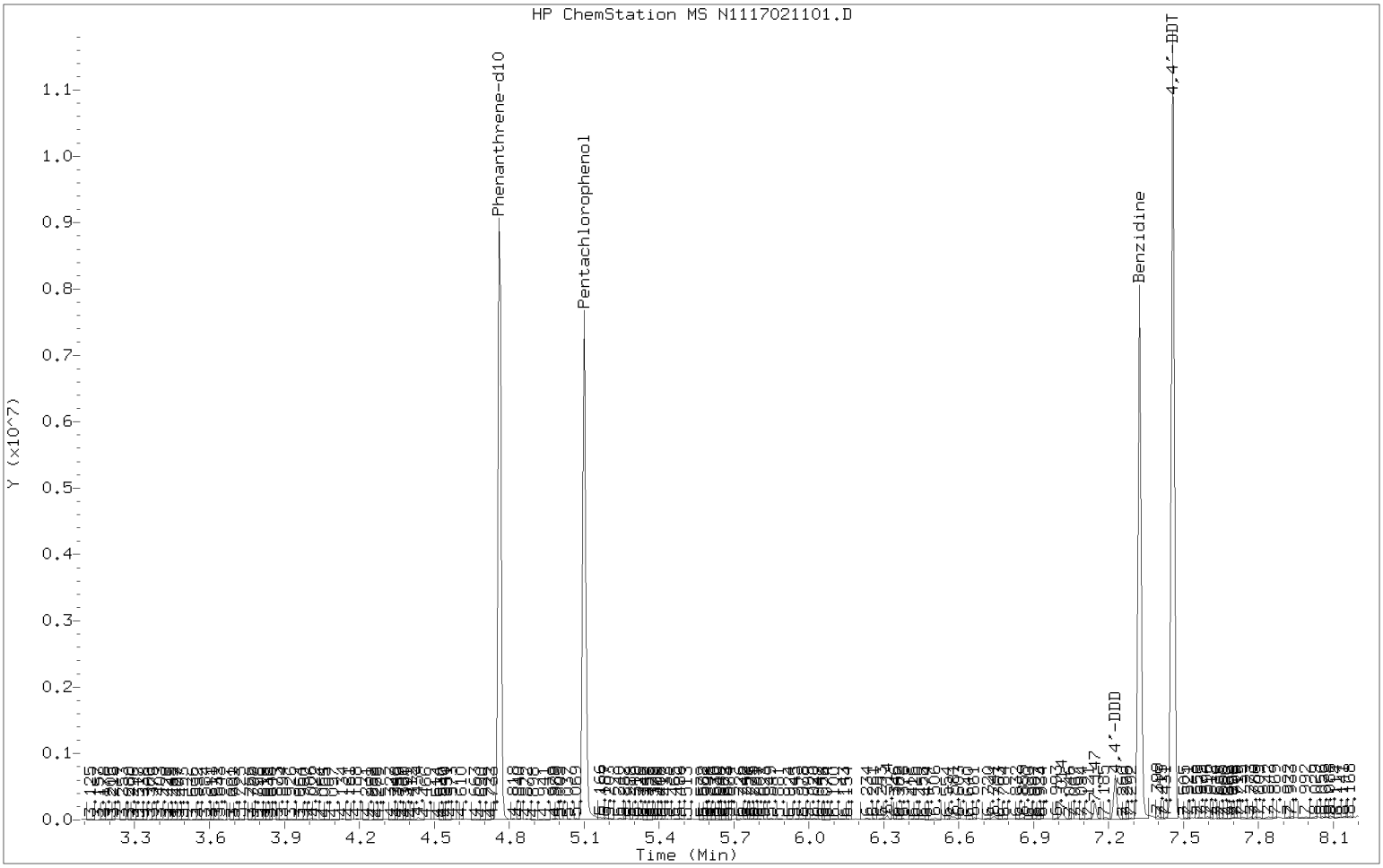
Laboratory:	Analytical Resources, Inc.	SDG:	17A0053
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Lab File ID:	N1117021101.D	Injection Date:	02/11/17
Instrument ID:	NT11	Injection Time:	10:17
Sequence:	SFB0152	Lab Sample ID:	SFB0152-TUN1

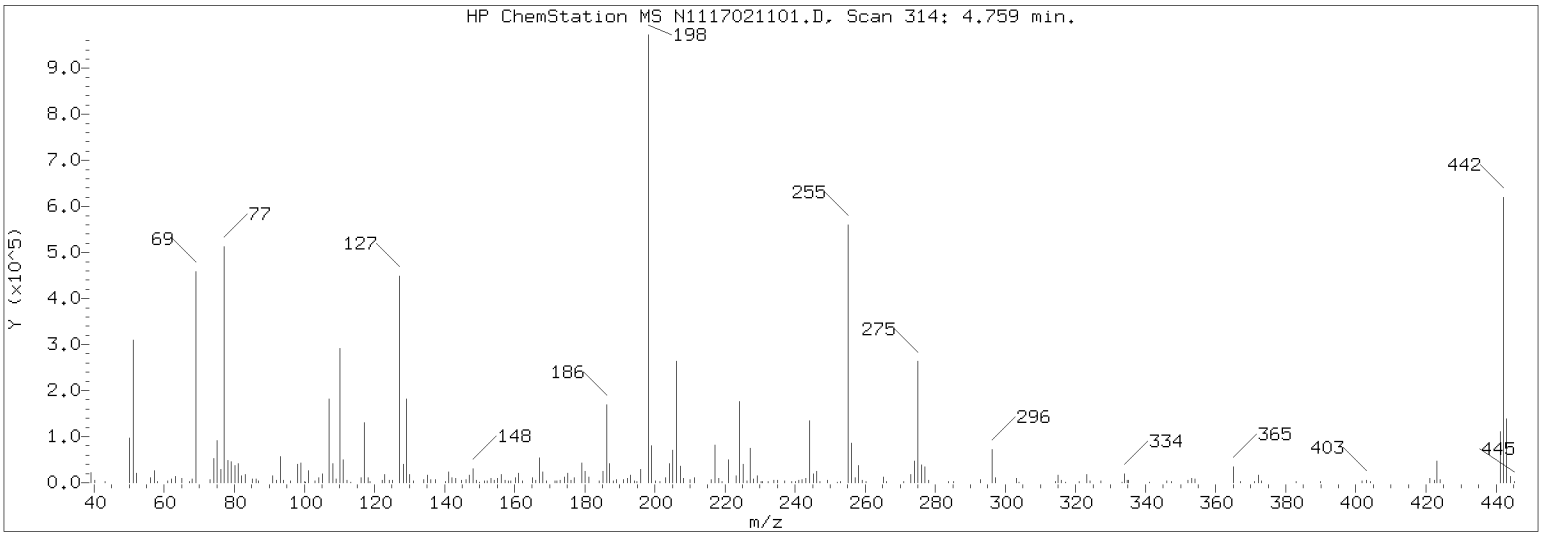
m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10 - 80% of 198	28.8	PASS
68	Less than 2% of 69	1.43	PASS
69	Less than 100% of 198	47.3	PASS
70	Less than 2% of 69	0	PASS
127	10 - 80% of 198	45.3	PASS
197	Less than 2% of 198	0.298	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	8.1	PASS
275	10 - 60% of 198	27.8	PASS
365	1 - 100% of 198	4.17	PASS
441	0.1 - 24% of 442	14.8	PASS
442	50 - 200% of 198	78.1	PASS
443	15 - 24% of 442	21.2	PASS

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
MS Tune	SFB0152-TUN1	N1117021101.D	02/11/2017	10:17
Initial Cal Check	SFB0152-ICV1	N1117021102.D	02/11/2017	10:36
PG-GP-1-MUS-170105	17A0053-10	N1117021103.D	02/11/2017	11:12
Calibration Check	SFB0152-CCV1	N1117021104.D	02/11/2017	11:47

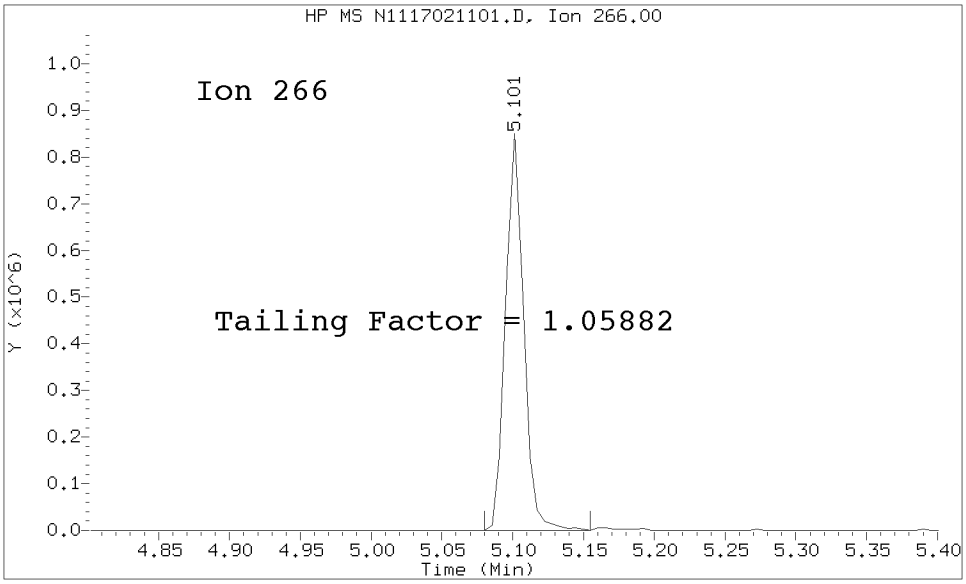
DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20170211.b/N1117021101.D/N1117021101.D
Method Used: \20170211.b\DFTPP.m Inst: nt11
Injection Date: 11-FEB-2017 10:17 Operator: VTS
Sample Info: SFB0152-TUN1 SFB0152-TUN1
Report Date: 02/11/2017 10:25



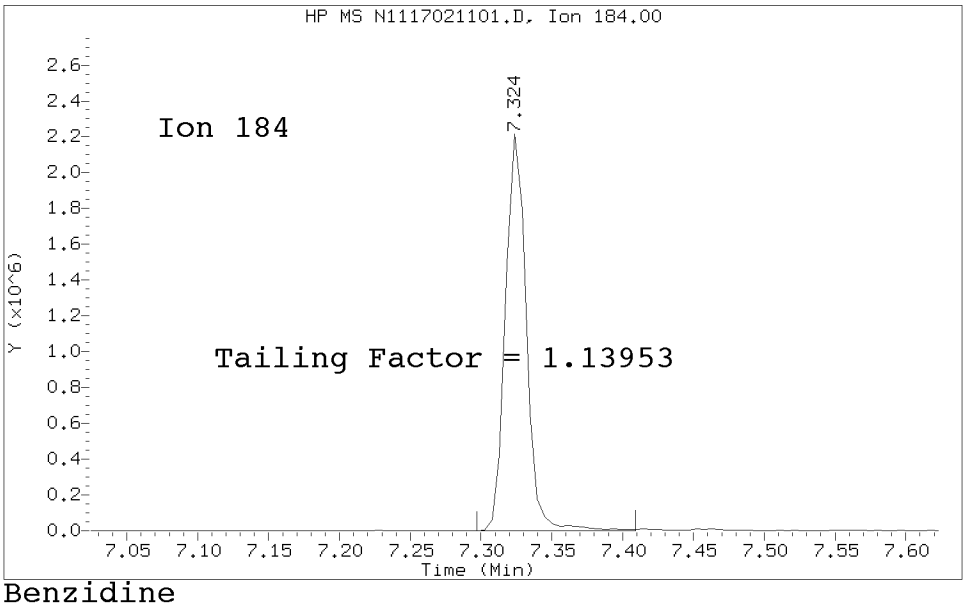


Datafile Analyzed: /20170211.b/N1117021101.D/N1117021101.D
Method Used: \20170211.b\DFTPP.m\sw846ddt.m Inst: nt11
Injection Date: 11-FEB-2017 10:17 Operator: JW
Sample Info: SFB0152-TUN1
Report Date: 02/11/2017 10:25



Pentachlorophenol
==========
 Exp. RT = 5.101
Found RT = 5.101

Tail Factor = 1.059 Maximum Allowed = 2.0



Benzidine
==========
 Exp. RT = 7.324
Found RT = 7.324

Tail Factor = 1.140 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.0588235	2.000	PASS
Benzidine	1.1395349	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	1635816			N/A
4,4-DDE	0	0.0	20.0	PASS
4,4-DDD	115997	6.6	20.0	PASS
4,4-DDD + DDE	115997	6.6	20.0	PASS

Tuning Sample, nt11.i/20170211.b/N1117021101.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	28.82
68	Less than 2.00% of mass 69	0.68 (1.43)
69	Mass 69 relative abundance	47.30
70	Less than 2.00% of mass 69	0.00 (0.00)
127	10.00 - 80.00% of mass 198	45.29
197	Less than 2.00% of mass 198	0.30
199	5.00 - 9.00% of mass 198	8.10
275	10.00 - 60.00% of mass 198	27.85
365	Greater than 1.00% of mass 198	4.17
441	0.01 - 24.00% of mass 442	11.55 (14.79)
442	50.00 - 200.00% of mass 198	78.09
443	15.00 - 24.00% of mass 442	16.57 (21.21)

Data File: N1117021101.D
Spectrum: Avg. Scans 313-315 (4.76), Background Scan 308
Location of Maximum: 198.00
Number of points: 248

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	1157	125.00	4401	196.00	21320	272.00	882
38.00	1579	127.00	336320	197.00	2216	273.00	13438
39.00	13966	128.00	25256	198.00	742528	274.00	40256
40.00	1944	129.00	144640	199.00	60112	275.00	206784
43.00	960	130.00	15159	200.00	4429	276.00	26904
49.00	862	131.00	2736	201.00	931	277.00	21832
50.00	64512	132.00	956	202.00	2731	278.00	5025
51.00	214016	133.00	1028	203.00	8939	279.00	741
52.00	14492	134.00	4856	204.00	32616	283.00	1199
55.00	696	135.00	12227	205.00	58696	284.00	1777
56.00	8469	136.00	5556	206.00	200576	285.00	3493
57.00	21112	137.00	5667	207.00	27616	293.00	7317
58.00	1659	140.00	851	208.00	7711	296.00	57808
61.00	4903	141.00	18208	209.00	2004	297.00	7032
62.00	4717	142.00	8080	210.00	4566	303.00	6587
63.00	11931	143.00	6385	211.00	11147	304.00	1498
64.00	1133	145.00	1746	215.00	1255	314.00	2798
65.00	7076	146.00	3365	216.00	5353	315.00	8421
67.00	1068	147.00	12302	217.00	60536	316.00	2724
68.00	5024	148.00	20008	218.00	6033	317.00	1361
69.00	351232	149.00	5556	219.00	812	321.00	2291
73.00	2116	150.00	670	220.00	1431	323.00	20560
74.00	43720	151.00	2197	221.00	37000	324.00	3725
75.00	70816	152.00	2329	222.00	4385	327.00	4303
76.00	20624	153.00	9291	223.00	15005	332.00	913
77.00	376256	154.00	3921	224.00	130792	333.00	2159
78.00	35536	155.00	10130	225.00	31528	334.00	14074
79.00	31504	156.00	15549	226.00	4002	335.00	7486
80.00	27256	157.00	4166	227.00	58368	341.00	2144
81.00	34136	158.00	3988	228.00	6643	346.00	3534
82.00	10418	159.00	2562	229.00	9534	347.00	2025
83.00	9184	160.00	5804	230.00	1129	352.00	6253
85.00	6919	161.00	13086	231.00	5634	353.00	6751
86.00	8510	162.00	2555	232.00	1878	354.00	6257
87.00	4459	164.00	1667	233.00	715	355.00	755
91.00	9035	165.00	8204	234.00	2706	365.00	30952
92.00	5168	166.00	4432	235.00	4417	366.00	1366
93.00	46472	167.00	40256	236.00	1795	367.00	773
94.00	3343	168.00	15056	237.00	2829	371.00	1839
95.00	956	169.00	3507	238.00	983	372.00	11032
96.00	1431	171.00	2090	239.00	2889	373.00	2022
98.00	31936	172.00	3167	240.00	711	383.00	2183
99.00	28760	173.00	3149	241.00	2890	384.00	703
100.00	1468	174.00	7927	242.00	5601	390.00	1893
101.00	18072	175.00	14678	243.00	8132	402.00	3948
103.00	3725	176.00	4239	244.00	102872	403.00	4871
104.00	8727	177.00	6464	245.00	12169	404.00	3114
105.00	10796	178.00	738	246.00	20440	421.00	7949
106.00	2930	179.00	31424	247.00	3577	422.00	4489

107.00	130144	180.00	20176	249.00	2767	423.00	41104
108.00	24760	181.00	10698	251.00	970	424.00	5946
109.00	3961	184.00	2917	252.00	671	426.00	875
110.00	209024	185.00	16215	253.00	3212	429.00	1454
111.00	35824	186.00	125760	254.00	2643	435.00	835
112.00	4061	187.00	31968	255.00	426368	441.00	85776
113.00	1569	188.00	4221	256.00	76408	442.00	579840
116.00	6968	189.00	5912	257.00	5371	443.00	123000
117.00	98248	190.00	729	258.00	28400	444.00	13198
118.00	8037	191.00	4517	259.00	4409	445.00	718
119.00	788	192.00	10188	260.00	819		
122.00	6089	193.00	12353	265.00	9162		
123.00	13878	194.00	3727	266.00	802		
124.00	4621	195.00	1710	271.00	762		

Analytical Resources, Incorporated
Analytical Chemists and Consultants

MASS SPECTROMETER
INSTRUMENT PERFORMANCE CHECK
EPA 8270D-SIM

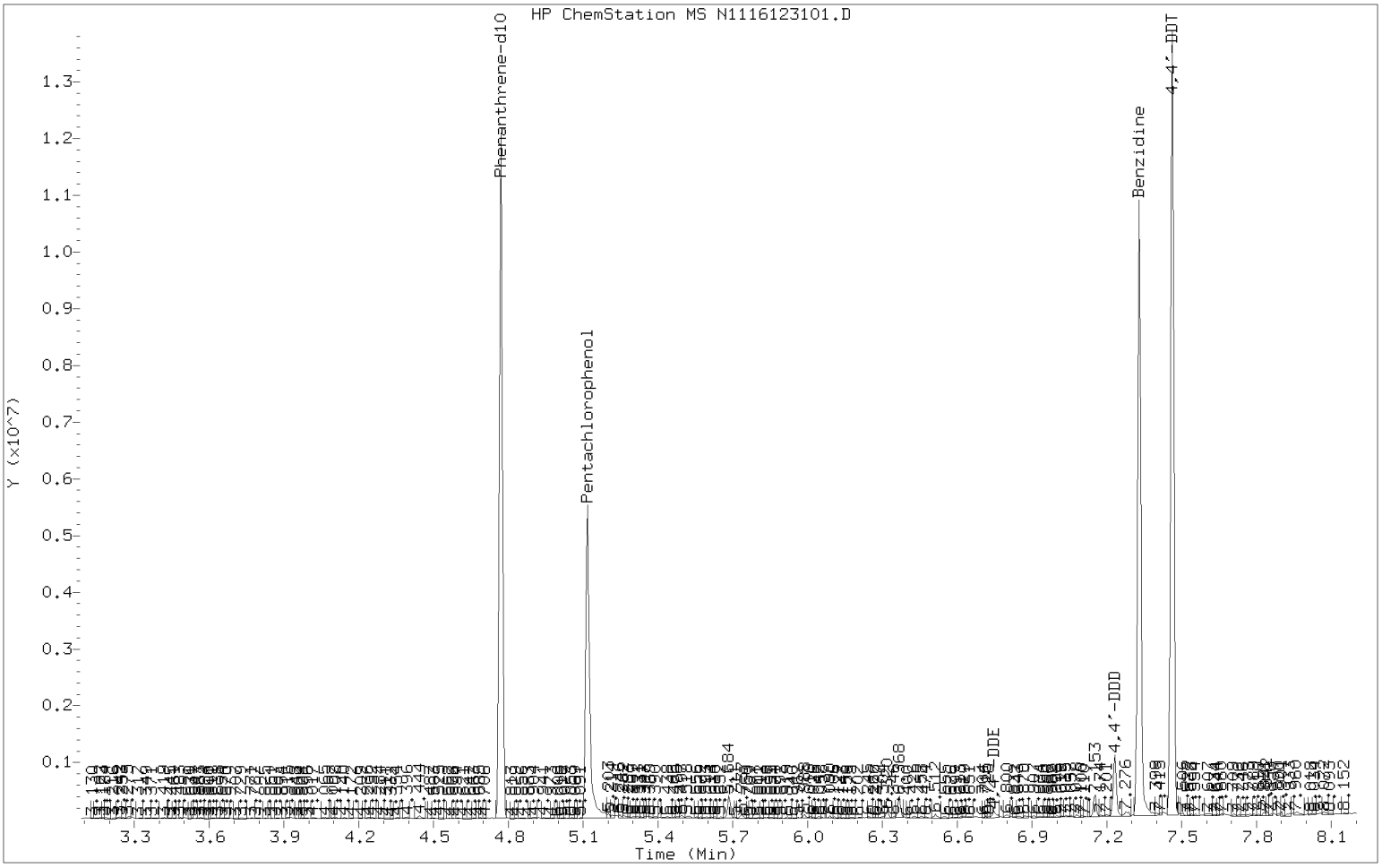
Laboratory:	Analytical Resources, Inc.	SDG:	17A0053
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Lab File ID:	N1116123101.D	Injection Date:	12/31/16
Instrument ID:	NT11	Injection Time:	08:12
Sequence:	SEL0401	Lab Sample ID:	SEL0401-TUN1

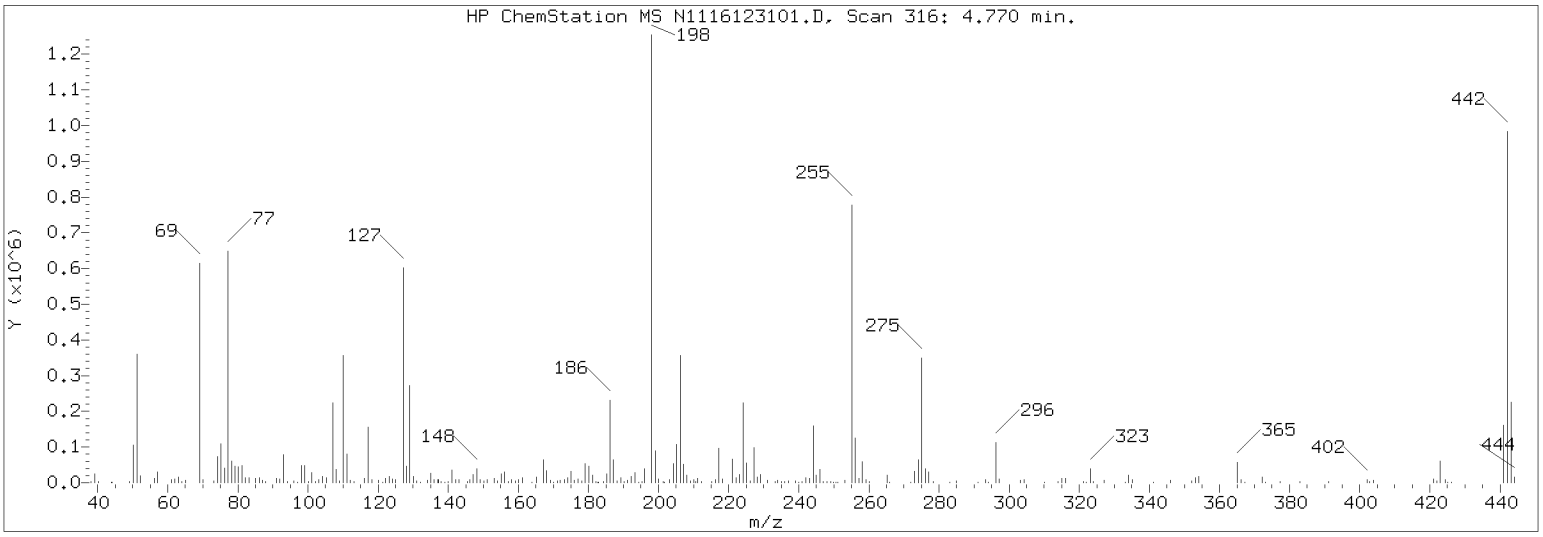
m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10 - 80% of 198	27.4	PASS
68	Less than 2% of 69	0	PASS
69	Less than 100% of 198	50.6	PASS
70	Less than 2% of 69	0.709	PASS
127	10 - 80% of 198	48	PASS
197	Less than 2% of 198	0	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	7.22	PASS
275	10 - 60% of 198	27.5	PASS
365	1 - 100% of 198	3.88	PASS
441	0.1 - 24% of 442	16.4	PASS
442	50 - 200% of 198	80.4	PASS
443	15 - 24% of 442	22.2	PASS

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
MS Tune	SEL0401-TUN1	N1116123101.D	12/31/2016	8:12
Cal Standard	SEL0401-CAL4	N1116123102.D	12/31/2016	8:28
Initial Cal Check	SEL0401-ICV1	N1116123102ICV.D	12/31/2016	8:28
Cal Standard	SEL0401-CAL6	N1116123103.D	12/31/2016	8:59
Cal Standard	SEL0401-CAL1	N1116123104.D	12/31/2016	9:30
Cal Standard	SEL0401-CAL5	N1116123105.D	12/31/2016	10:01
Cal Standard	SEL0401-CAL2	N1116123106.D	12/31/2016	10:32
Cal Standard	SEL0401-CAL3	N1116123107.D	12/31/2016	11:04
Secondary Cal Check	SEL0401-SCV1	N1116123108.D	12/31/2016	11:35
Blank	BEL0603-BLK1	N1116123109.D	12/31/2016	12:06
LCS	BEL0603-BS1	N1116123110.D	12/31/2016	12:37
ZZZZZ	16L0317-01	N1116123111.D	12/31/2016	13:08
ZZZZZ	16L0317-02	N1116123114.D	12/31/2016	14:42
ZZZZZ	16L0317-03	N1116123115.D	12/31/2016	15:13
ZZZZZ	16L0317-04	N1116123116.D	12/31/2016	15:45
ZZZZZ	16L0317-05	N1116123117.D	12/31/2016	16:16
ZZZZZ	16L0317-06	N1116123118.D	12/31/2016	16:47
ZZZZZ	16L0317-07	N1116123119.D	12/31/2016	17:18
ZZZZZ	16L0317-08	N1116123120.D	12/31/2016	17:50
ZZZZZ	16L0317-09	N1116123121.D	12/31/2016	18:21
ZZZZZ	16L0326-01	N1116123122.D	12/31/2016	18:52
Calibration Check	SEL0401-CCV1	N1116123125.D	12/31/2016	20:26

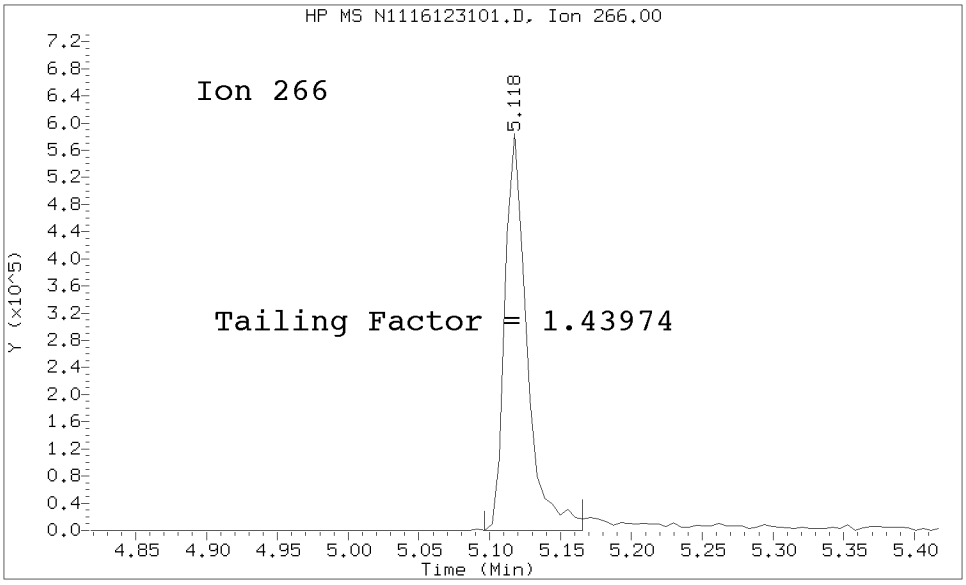
DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20161231.b/N1116123101.D/N1116123101.D
Method Used: \20161231.b\DFTPP.m Inst: nt11
Injection Date: 31-DEC-2016 08:12 Operator: VTS
Sample Info: SEL0401-TUN1 SEL0401-TUN1
Report Date: 12/31/2016 12:45



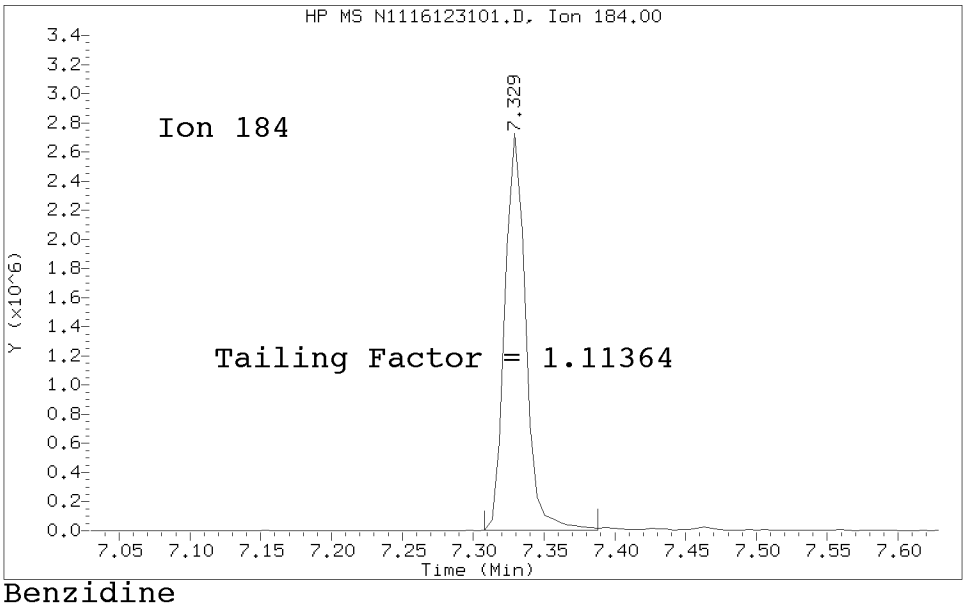


Datafile Analyzed: /20161231.b/N1116123101.D/N1116123101.D
Method Used: \20161231.b\DFTPP.m\sw846ddt.m Inst: nt11
Injection Date: 31-DEC-2016 08:12 Operator: JW
Sample Info: SEL0401-TUN1
Report Date: 12/31/2016 12:45



Pentachlorophenol
==========
 Exp. RT = 5.118
Found RT = 5.118

Tail Factor = 1.440 Maximum Allowed = 2.0



Benzidine
==========
 Exp. RT = 7.329
Found RT = 7.329

Tail Factor = 1.114 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.4397436	2.000	PASS
Benzidine	1.1136364	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	1823078			N/A
4,4-DDE	10805	0.6	20.0	PASS
4,4-DDD	178680	8.9	20.0	PASS
4,4-DDD + DDE	189485	9.4	20.0	PASS

Tuning Sample, nt11.i/20161231.b/N1116123101.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	27.42
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	50.60
70	Less than 2.00% of mass 69	0.36 (0.71)
127	10.00 - 80.00% of mass 198	47.99
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.22
275	10.00 - 60.00% of mass 198	27.50
365	Greater than 1.00% of mass 198	3.88
441	0.01 - 24.00% of mass 442	13.21 (16.44)
442	50.00 - 200.00% of mass 198	80.37
443	15.00 - 24.00% of mass 442	17.83 (22.19)

Data File: N1116123101.D
Spectrum: Avg. Scans 315-317 (4.77), Background Scan 310
Location of Maximum: 198.00
Number of points: 259

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	4112	127.00	472128	195.00	3783	276.00	35832
39.00	21872	128.00	35424	196.00	29136	277.00	24352
40.00	1591	129.00	200960	198.00	983872	278.00	1853
49.00	4352	130.00	17360	199.00	70992	283.00	1906
50.00	74792	131.00	2839	200.00	7543	285.00	4004
51.00	269824	132.00	889	201.00	4410	291.00	689
52.00	13561	134.00	5138	202.00	780	293.00	4172
55.00	789	135.00	14732	203.00	7183	294.00	886
56.00	10365	136.00	5834	204.00	37800	296.00	77968
57.00	26032	137.00	11901	205.00	76208	297.00	13062
61.00	6870	138.00	2543	206.00	284608	298.00	1321
62.00	5796	139.00	1910	207.00	37632	303.00	6888
63.00	15472	140.00	2791	208.00	15406	304.00	5144
64.00	2998	141.00	26608	209.00	3515	308.00	1139
65.00	7777	142.00	9094	210.00	3938	309.00	678
69.00	497792	143.00	6338	211.00	12659	310.00	864
70.00	3530	144.00	1120	212.00	5219	314.00	3485
71.00	1051	145.00	900	214.00	1328	315.00	10152
73.00	1859	146.00	5984	215.00	3055	316.00	8308
74.00	53200	147.00	13024	216.00	4570	317.00	847
75.00	78288	148.00	27952	217.00	75856	321.00	2592
76.00	30672	149.00	5354	218.00	9820	322.00	1406
77.00	512768	150.00	1705	220.00	766	323.00	26928
78.00	44392	151.00	5823	221.00	49304	324.00	5058
79.00	35568	153.00	9711	222.00	11169	327.00	3349
80.00	28552	154.00	5611	223.00	21232	329.00	784
81.00	40432	155.00	17800	224.00	174656	332.00	907
82.00	11373	156.00	25512	225.00	42944	333.00	710
83.00	10164	157.00	5182	226.00	3179	334.00	18216
84.00	2152	158.00	5392	227.00	79240	335.00	4623
85.00	8183	159.00	5750	228.00	11518	341.00	3116
86.00	12389	160.00	8734	229.00	12419	346.00	4062
87.00	4760	161.00	10188	231.00	6545	348.00	734
88.00	946	162.00	679	233.00	923	352.00	7346
91.00	10133	164.00	1681	234.00	3904	353.00	7570
92.00	9964	165.00	9710	235.00	5133	354.00	9753
93.00	62720	166.00	6278	236.00	2580	365.00	38208
94.00	2847	167.00	55048	237.00	2584	366.00	5638
96.00	3701	168.00	21792	239.00	1717	367.00	685
97.00	1665	169.00	3346	240.00	2183	370.00	738
98.00	38336	170.00	860	241.00	4842	371.00	882
99.00	37392	171.00	1565	242.00	9670	372.00	12613
100.00	3115	172.00	5740	243.00	10997	373.00	2840
101.00	21528	173.00	7105	244.00	121632	377.00	2390
102.00	2207	174.00	12440	245.00	15142	378.00	779
103.00	6397	175.00	25664	246.00	24496	383.00	3636
104.00	12228	176.00	6082	247.00	4057	384.00	775
105.00	12690	177.00	11109	248.00	1121	390.00	2090
106.00	1874	178.00	3887	249.00	3581	391.00	1461

107.00	172288	179.00	45320	250.00	2340	402.00	6904
108.00	26136	180.00	31904	251.00	830	403.00	7868
109.00	6103	181.00	17320	252.00	2065	404.00	3612
110.00	277696	182.00	2527	253.00	6217	405.00	854
111.00	55616	183.00	843	255.00	593856	421.00	8805
112.00	6239	184.00	4234	256.00	92000	422.00	6157
113.00	1118	185.00	19384	257.00	9514	423.00	49568
116.00	9080	186.00	165504	258.00	43800	424.00	8122
117.00	113552	187.00	47728	259.00	5413	425.00	1511
118.00	6157	188.00	4565	260.00	2007	426.00	717
120.00	2605	189.00	8903	265.00	13043	441.00	130000
121.00	711	190.00	2087	266.00	1555	442.00	790720
122.00	10998	191.00	4688	272.00	1799	443.00	175424
123.00	16246	192.00	17088	273.00	21744	444.00	14344
124.00	7190	193.00	17808	274.00	52248	445.00	950
125.00	7218	194.00	2470	275.00	270528		

INITIAL CALIBRATION DATA

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	17A0053
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Calibration:	ZL00083	Instrument:	NT11
Calibration Date:	12/31/2016 12:55	Column (1):	RXi-17Sil-MS

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
Naphthalene	10	1.003847	50	1.001275	100	0.9758562	250	1.062602	500	0.9820556	1000	0.9629658
2-Methylnaphthalene	10	0.9103806	50	0.9508846	100	0.95814	250	1.06781	500	1.012215	1000	1.00283
Acenaphthylene	10	1.647427	50	1.741513	100	1.761343	250	1.993984	500	1.833196	1000	1.805041
Acenaphthene	10	1.110055	50	1.156211	100	1.162354	250	1.281373	500	1.199898	1000	1.189345
Dibenzofuran	10	1.587854	50	1.694475	100	1.754052	250	1.936206	500	1.803204	1000	1.777581
Fluorene	10	1.323279	50	1.315215	100	1.354716	250	1.522897	500	1.4583	1000	1.427029
Phenanthrene	10	1.153031	50	1.135725	100	1.151657	250	1.226546	500	1.119446	1000	1.074277
Anthracene	10	1.105241	50	1.136145	100	1.149921	250	1.295038	500	1.085426	1000	1.069013
Fluoranthene	10	1.296262	50	1.263984	100	1.30226	250	1.410658	500	1.284922	1000	1.22416
Pyrene	10	1.338529	50	1.262826	100	1.296106	250	1.41204	500	1.281417	1000	1.204252
Benzo(a)anthracene	10	1.158433	50	1.170683	100	1.19074	250	1.299136	500	1.223838	1000	1.172871
Chrysene	10	1.232407	50	1.221908	100	1.250928	250	1.312616	500	1.223745	1000	1.162586
Benzo(b)fluoranthene	10	1.051834	50	1.022281	100	1.046711	250	1.151126	500	1.10065	1000	1.095952
Benzo(k)fluoranthene	10	1.144731	50	1.107831	100	1.137862	250	1.258147	500	1.165161	1000	1.153472
Carbazole	10	1.265106	50	1.236655	100	1.270232	250	1.329722	500	1.227712	1000	1.219916
Benzo(j)fluoranthene	10	0.9713139	50	0.9921422	100	0.9839014	250	1.152952	500	1.065556	1000	1.044594
Benzo(a)pyrene	10	0.9857074	50	0.95031	100	0.984937	250	1.083087	500	1.009812	1000	1.016452
Indeno(1,2,3-cd)pyrene	10	1.107322	50	0.9780917	100	1.05206	250	1.16699	500	1.118211	1000	1.161003
Dibenzo(a,h)anthracene	10	0.8962873	50	0.7794382	100	0.8340598	250	0.9318345	500	0.8977528	1000	0.9365236
Benzo(g,h,i)perylene	10	1.043281	50	0.9229693	100	0.9477007	250	1.021646	500	0.9711213	1000	1.004083
1-Methylnaphthalene	10	0.930743	50	0.9530673	100	0.9717923	250	1.103208	500	0.9960192	1000	0.981482
Perylene	10	1.033129	50	0.999426	100	1.032398	250	1.120913	500	1.05538	1000	1.054947
2-Chloronaphthalene	10	1.290662	50	1.525955	100	1.47794	250	1.680675	500	1.565743	1000	1.56756
Benzo(b)thiophene	10	0.759499	50	0.7903811	100	0.7933996	250	0.8815537	500	0.8240092	1000	0.8262029
2-Methylnaphthalene-d10	10	0.7671766	50	0.7958566	100	0.8316088	250	0.9750899	500	0.8888552	1000	0.8950724
Dibenzo[a,h]anthracene-d14	10	0.6167625	50	0.564575	100	0.5815519	250	0.701034	500	0.6665677	1000	0.7016884
Fluoranthene-d10	10	0.9871043	50	1.055741	100	1.048505	250	1.162744	500	1.072323	1000	1.047111

INITIAL CALIBRATION DATA

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	17A0053
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Calibration:	ZL00083	Instrument:	NT11
Calibration Date:	12/31/2016 12:55	Column (1):	RXi-17Sil-MS

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Naphthalene	0.9981003	3.5			RSD (20)	
2-Methylnaphthalene	0.9837101	5.6			RSD (20)	
Acenaphthylene	1.797084	6.4			RSD (20)	
Acenaphthene	1.183206	4.9			RSD (20)	
Dibenzofuran	1.758895	6.6			RSD (20)	
Fluorene	1.400239	5.9			RSD (20)	
Phenanthrene	1.143447	4.4			RSD (20)	
Anthracene	1.140131	7.2			RSD (20)	
Fluoranthene	1.297041	4.8			RSD (20)	
Pyrene	1.299195	5.4			RSD (20)	
Benzo(a)anthracene	1.202617	4.4			RSD (20)	
Chrysene	1.234032	3.9			RSD (20)	
Benzo(b)fluoranthene	1.078092	4.3			RSD (20)	
Benzo(k)fluoranthene	1.161201	4.4			RSD (20)	
Carbazole	1.258224	3.2			RSD (20)	
Benzo(j)fluoranthene	1.035077	6.6			RSD (20)	
Benzo(a)pyrene	1.005051	4.5			RSD (20)	
Indeno(1,2,3-cd)pyrene	1.09728	6.5			RSD (20)	
Dibenzo(a,h)anthracene	0.879316	7.0			RSD (20)	
Benzo(g,h,i)perylene	0.9851335	4.7			RSD (20)	
1-Methylnaphthalene	0.9893853	6.1			RSD (20)	
Perylene	1.049366	3.9			RSD (20)	
2-Chloronaphthalene	1.518089	8.6			RSD (20)	
Benzo(b)thiophene	0.8125076	5.1			RSD (20)	
2-Methylnaphthalene-d10	0.8589433	8.8			RSD (20)	
Dibenzo[a,h]anthracene-d14	0.6386966	9.4			RSD (20)	
Fluoranthene-d10	1.062255	5.4			RSD (20)	

A Street
16L0317
Laurel Station
16L0326

Analysis	Matrix	Method
8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg)	Water	EPA 8270D-SIM

Checklist: Initial Calibration Checklist-SVOA

#	Checklist Item	Response	Analyst Initials	Date
1	Element Calibration Code	YES	VTS	01/04/2017
	Comments: *ZL00083*			
2	DFTPP Tune met criteria	YES	VTS	01/04/2017
3	DDT breakdown <20%	YES	VTS	01/04/2017
4	Peak Tailing factor <= 2%	YES	VTS	01/04/2017
5	ICal meets 20% RSD, LR COD, and QR COD limits	YES	VTS	01/04/2017
6	NO ICAL Q Flag applied	YES	VTS	01/04/2017
7	Manual integrations include before/after pictures	YES	VTS	01/04/2017
8	Spectral Library matches updated	NA	VTS	01/04/2017
9	Internal Standard areas within 50-200% from reference	YES	VTS	01/04/2017
10	Minimum response factors met	YES	VTS	01/04/2017
11	All SCV within +/- 20% (DOD)	YES	VTS	01/04/2017
	Comments: *Solution expired 12/26/16. All within 20%*			
12	All SCV within +/- 30%	YES	VTS	01/04/2017
13	NO Linear or Quadratic fits used	YES	VTS	01/04/2017
14	NO Calibration points dropped	YES	VTS	01/04/2017
15	Additional notes	NA	VTS	01/04/2017
16	Reviewer approval (Reviewer)	YES	BB	01/04/2017

* = Indicates Automated Response from Element DataSyst

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 31-DEC-2016 08:28
End Cal Date : 31-DEC-2016 11:04
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt11.i\20161231.b\lowsim.m
Last Edit : 31-Dec-2016 12:31 van
Curve Type : Average

Calibration File Names:
Level 1: \\target\share\chem3\nt11.i\20161231.b\N1116123104.D
Level 2: \\target\share\chem3\nt11.i\20161231.b\N1116123106.D
Level 3: \\target\share\chem3\nt11.i\20161231.b\N1116123107.D
Level 4: \\target\share\chem3\nt11.i\20161231.b\N1116123102.D
Level 5: \\target\share\chem3\nt11.i\20161231.b\N1116123105.D
Level 6: \\target\share\chem3\nt11.i\20161231.b\N1116123103.D

Compound	10.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
2 Naphthalene	1.00385	1.00127	0.97586	1.06260	0.98206	0.96297	0.99810	3.525
3 Benzo(b)thiophene	0.75950	0.79038	0.79340	0.88155	0.82401	0.82620	0.81251	5.149
5 2-Methylnaphthalene	0.91038	0.95088	0.95814	1.06781	1.01221	1.00283	0.98371	5.634
6 1-Methylnaphthalene	0.93074	0.95307	0.97179	1.10321	0.99602	0.98148	0.98939	6.086
7 2-Chloronaphthalene	1.29066	1.52595	1.47794	1.68068	1.56574	1.56756	1.51809	8.566
8 Biphenyl	1.81065	2.06316	1 97102	2.22216	2.04125	2.00375	2.01867	6.634
9 2,6-Dimethylnaphthalene	1.39283	1.48193	1.51604	1.75351	1.62569	1.62232	1.56538	8.153
10 Acenaphthylene	1.64743	1.74151	1.76134	1.99398	1.83320	1.80504	1.79708	6.437
12 Acenaphthene	1.11006	1.15621	1.16235	1.28137	1.19990	1.18935	1.18321	4.850
13 Dibenzofuran	1.58785	1.69447	1.75405	1.93621	1.80320	1.77758	1.75890	6.590
14 2,3,5-Trimethylnaphthalene	1.00007	1.04759	1.10342	1.25350	1.17736	1.17111	1.12551	8.282
16 Fluorene	1.32328	1.31521	1.35472	1.52290	1.45830	1.42703	1.40024	5.920
17 Dibenzothiophene	0.86551	0.91754	0.92192	1.00898	0.92351	0.90370	0.92353	5.102
19 Phenanthrene	1.15303	1.13573	1.15166	1.22655	1.11945	1.07428	1.14345	4.370
21 Anthracene	1.10524	1.13615	1.14992	1.29504	1.08543	1.06901	1.14013	7.166
22 Carbazole	1.26511	1.23665	1.27023	1.32972	1.22771	1.21992	1.25822	3.212
23 1-Methylphenanthrene	1.08572	1.14899	1.16099	1.29410	1.18423	1.16172	1.17263	5.816
25 Fluoranthene	1.29626	1.26398	1.30226	1.41066	1.28492	1.22416	1.29704	4.813
26 Pyrene	1.33853	1.26283	1.29611	1.41204	1.28142	1.20425	1.29919	5.437
27 Benzo(a)anthracene	1.15843	1.17068	1.19074	1.29914	1.22384	1.17287	1.20262	4.363
29 Chrysene	1.23241	1.22191	1.25093	1.31262	1.22375	1.16259	1.23403	3.940
30 Benzo(b)fluoranthene	1.05183	1.02228	1.04671	1.15113	1.10065	1.09595	1.07809	4.341
31 Benzo(k)fluoranthene	1.14473	1.10783	1.13786	1.25815	1.16516	1.15347	1.16120	4.414
32 Benzo(j)fluoranthene	0.97131	0.99214	0.98390	1.15295	1.06556	1.04459	1.03508	6.615
34 Benzo(e)pyrene	1.01853	1.04968	1.05395	1.15567	1.09420	1.08037	1.07540	4.397
35 Benzo(a)pyrene	0.98571	0.95031	0.98494	1.08309	1.00981	1.01645	1.00505	4.454
37 Perylene	1.03313	0.99943	1.03240	1.12091	1.05538	1.05495	1.04937	3.867
39 Dibenzo(a,h)anthracene	0.89629	0.77944	0.83406	0.93183	0.89775	0.93652	0.87932	6.952

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 31-DEC-2016 08:28
End Cal Date : 31-DEC-2016 11:04
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt11.i\20161231.b\lowsim.m
Last Edit : 31-Dec-2016 12:31 van
Curve Type : Average

	Compound	10.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	40 Indeno(1,2,3-cd)pyrene	1.10732	0.97809	1.05206	1.16699	1.11821	1.16100	1.09728	6.535
	41 Benzo(g,h,i)perylene	1.04328	0.92297	0.94770	1.02165	0.97112	1.00408	0.98513	4.660
$	4 2-Methylnaphthalene-d10	0.76718	0.79586	0.83161	0.97509	0.88886	0.89507	0.85894	8.842
$	15 Fluorene-d10	0.91974	0.91177	0.92607	1.04754	0.98062	0.97429	0.96001	5.390
$	20 Anthracene-d10	1.11208	0.93118	0.96346	1.04332	0.94594	0.94085	0.98947	7.325
$	24 Fluoranthene-d10	0.98710	1.05574	1 04851	1.16274	1.07232	1.04711	1.06225	5.376
$	33 Benzo(e)pyrene-d12	0.94169	0.96445	0.97436	1.06024	1.00264	1.00444	0.99130	4.165
$	38 Dibenzo(a,h)anthracene-d14	0.61676	0.56457	0.58155	0.70103	0.66657	0.70169	0.63870	9.361

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ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt11.i\20161231.b\lowsim.m
Batch File: \\target\share\chem3\nt11.i\20161231.b
Inst ID: nt11.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	N1116123102	N1116123103	N1116123104	N1116123105	N1116123106	N1116123107
INJ.DATE:	31-DEC-2016	31-DEC-2016	31-DEC-2016	31-DEC-2016	31-DEC-2016	31-DEC-2016
INJ.TIME:	08:28	08:59	09:30	10:01	10:32	11:04

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
*	1 Naphthalene-d8	7.226	7.226	7.226	7.226	7.226	7.226	7.226	6.976-7.476	7.226	0.000
	2 Naphthalene	7.262	7.253	7.253	7.253	7.253	7.253	7.262	7.012-7.512	7.254	0.004
	3 Benzo(b)thiophene	7.515	7.515	7.515	7.515	7.515	7.515	7.515	7.265-7.765	7.515	0.000
$	4 2-Methylnaphthalene-d1	8.201	8.201	8.201	8.201	8.201	8.201	8.201	7.951-8.451	8.201	0.000
	5 2-Methylnaphthalene	8.254	8.254	8.254	8.254	8.254	8.254	8.254	8.004-8.504	8.254	0.000
	6 1-Methylnaphthalene	8.516	8.516	8.516	8.516	8.516	8.516	8.516	8.266-8.766	8.516	0.000
	7 2-Chloronaphthalene	9.168	9.168	9.168	9.168	9.168	9.168	9.168	8.918-9.418	9.168	0.000
	8 Biphenyl	9.136	9.126	9.136	9.126	9.126	9.126	9.136	8.886-9.386	9.129	0.005
	9 2,6-Dimethylnaphthalen	9.189	9.189	9.189	9.189	9.189	9.189	9.189	8.939-9.439	9.189	0.000
	10 Acenaphthylene	10.098	10.098	10.098	10.098	10.098	10.098	10.098	9.848-10.348	10.098	0.000
*	11 Acenaphthene-d10	10.252	10.252	10.252	10.252	10.252	10.252	10.252	10.002-10.502	10.252	0.000
	12 Acenaphthene	10.315	10.315	10.315	10.315	10.315	10.315	10.315	10.065-10.565	10.315	0.000
	13 Dibenzofuran	10.519	10.519	10.519	10.519	10.519	10.519	10.519	10.269-10.769	10.519	0.000
	14 2,3,5-Trimethylnaphtha	10.608	10.608	10.608	10.608	10.608	10.608	10.608	10.358-10.858	10.608	0.000
$	15 Fluorene-d10	11.088	11.088	11.088	11.088	11.088	11.088	11.088	10.838-11.338	11.088	0.000
	16 Fluorene	11.151	11.139	11.151	11.139	11.139	11.139	11.151	10.901-11.401	11.143	0.007
	17 Dibenzothiophene	12.778	12.767	12.767	12.767	12.767	12.767	12.778	12.528-13.028	12.769	0.004

Reviewer 1 VD Date: 12.31.16

Reviewer 2 [illegible] Date: 1/4/17

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

1199

Method File: \\target\share\chem3\nt11.i\20161231.b\lowsim.m
Batch File: \\target\share\chem3\nt11.i\20161231.b
Inst ID: nt11.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
*	18 Phenanthrene-d10	12.946	12.946	12.946	12.946	12.946	12.946	12.946	12.696-13.196	12.946	0 000
	19 Phenanthrene	12.988	12.988	12.988	12.988	12.988	12.988	12.988	12.738-13.238	12.988	0.000
$	20 Anthracene-d10	13.009	13.009	13.009	13.009	13.009	13.009	13.009	12.759-13.259	13.009	0.000
	21 Anthracene	13.040	13.040	13.040	13.040	13 040	13.040	13.040	12.790-13.290	13.040	0.000
	22 Carbazole	13.713	13.713	13.723	13.713	13.722	13.713	13.713	13.463-13.963	13.716	0.005
	23 1-Methylphenanthrene	13.984	13.985	13.985	13.984	13.984	13.984	13.984	13.734-14.234	13.984	0.000
$	24 Fluoranthene-d10	15.056	15.056	15.056	15.056	15.056	15.056	15.056	14.806-15.306	15.056	0.000
	25 Fluoranthene	15.084	15.085	15.085	15.084	15.084	15.084	15.084	14.834-15.334	15.084	0.000
	26 Pyrene	15.594	15.594	15.594	15.594	15.594	15.594	15.594	15.344-15.844	15.594	0.000
	27 Benzo(a)anthracene	17.611	17.603	17.603	17.602	17.602	17.602	17.611	17.361-17.861	17.604	0.003
*	28 Chrysene-d12	17.702	17.702	17.702	17.702	17.702	17.702	17.702	17.452-17.952	17.702	0.000
	29 Chrysene	17.752	17.752	17.752	17.752	17.752	17.752	17.752	17.502-18.002	17.752	0.000
	30 Benzo(b)fluoranthene	19.677	19.677	19.677	19.677	19.677	19.677	19.677	19.427-19.927	19.677	0.000
	31 Benzo(k)fluoranthene	19.734	19.735	19.725	19.734	19.735	19.735	19.734	19.484-19.984	19.733	0.004
	32 Benzo(j)fluoranthene	19.802	19.802	19.802	19.802	19.802	19.802	19.802	19.552-20.052	19.802	0.000
$	33 Benzo(e)pyrene-d12	20.484	20.475	20.475	20.474	20.474	20.474	20.484	20.234-20.734	20.476	0.004
	34 Benzo(e)pyrene	20.551	20.551	20.551	20.551	20.551	20.551	20.551	20.301-20.801	20.551	0.000
	35 Benzo(a)pyrene	20.686	20.686	20.686	20.676	20.686	20.686	20.686	20.436-20.936	20.684	0.004
*	36 Perylene-d12	20.926	20.917	20.917	20.916	20.916	20.916	20.926	20.676-21.176	20.918	0.004
	37 Perylene	20.993	20.993	20.993	20.993	20.993	20.993	20.993	20.743-21.243	20.993	0.000
$	38 Dibenzo(a,h)anthracene	23.808	23.809	23.798	23.797	23.809	23.809	23.808	23.558-24.058	23 805	0.006
	39 Dibenzo(a,h)anthracene	23.941	23.942	23.942	23.941	23.941	23.942	23.941	23.691-24.191	23.941	0.000

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

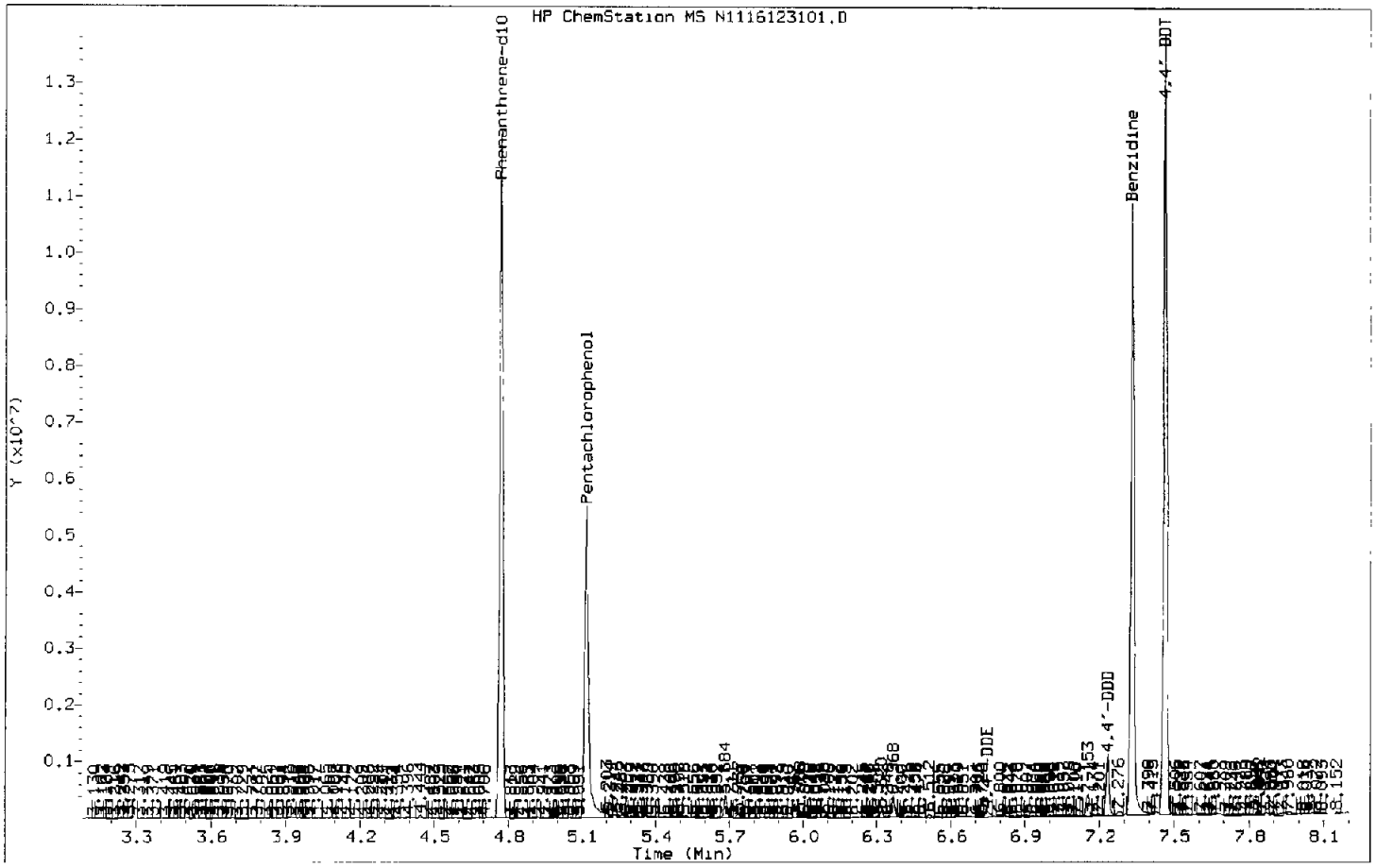
1200

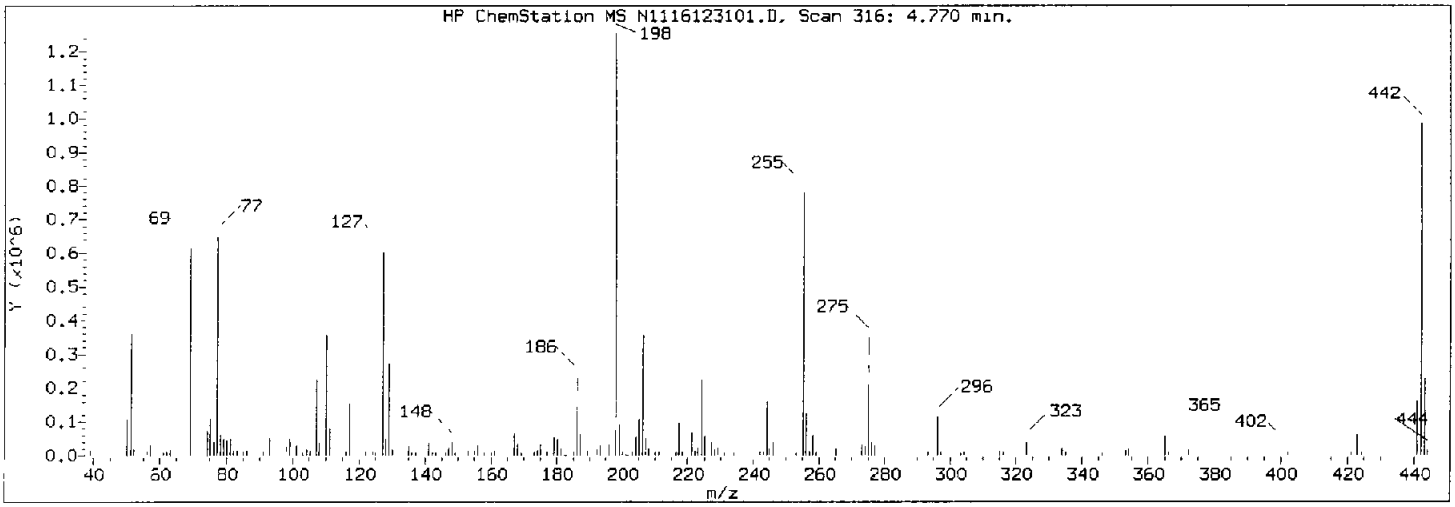
Method File: \\target\share\chem3\nt11.i\20161231.b\lowsim.m
Batch File: \\target\share\chem3\nt11.i\20161231.b
Inst ID: nt11.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
40 Indeno(1,2,3-cd)pyrene	23.986	23.986	23.975	23.975	23.975	23.975	23.986	23.736-24.236	23.978	0.006
41 Benzo(g,h,i)perylene	25.370	25.370	25.370	25.359	25.370	25.370	25.370	25.120-25.620	25.368	0.005

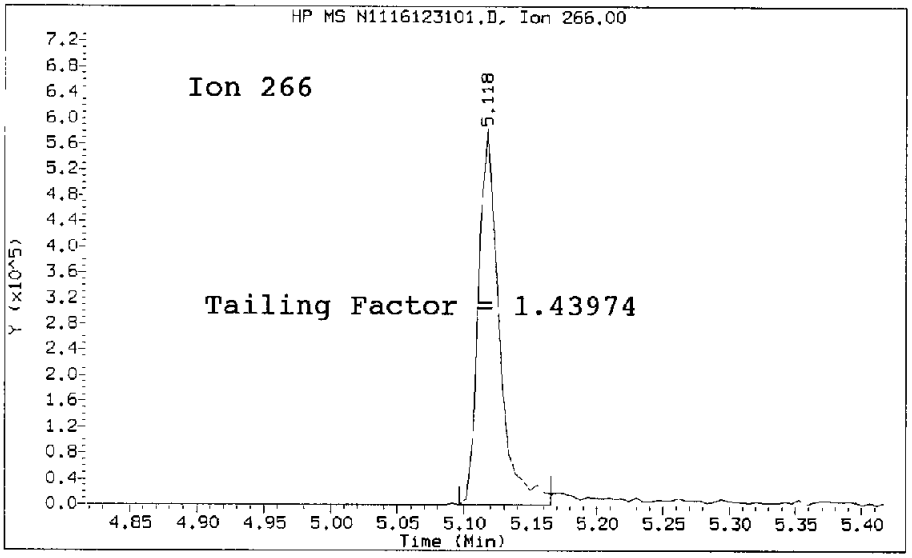
DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20161231.b/N1116123101.D/N1116123101.D
Method Used: \20161231.b\DFTPP.m Inst: nt11
Injection Date: 31-DEC-2016 08:12 Operator: VTS
Sample Info: SEL0401-TUN1 SEL0401-TUN1
Report Date: 12/31/2016 12:45



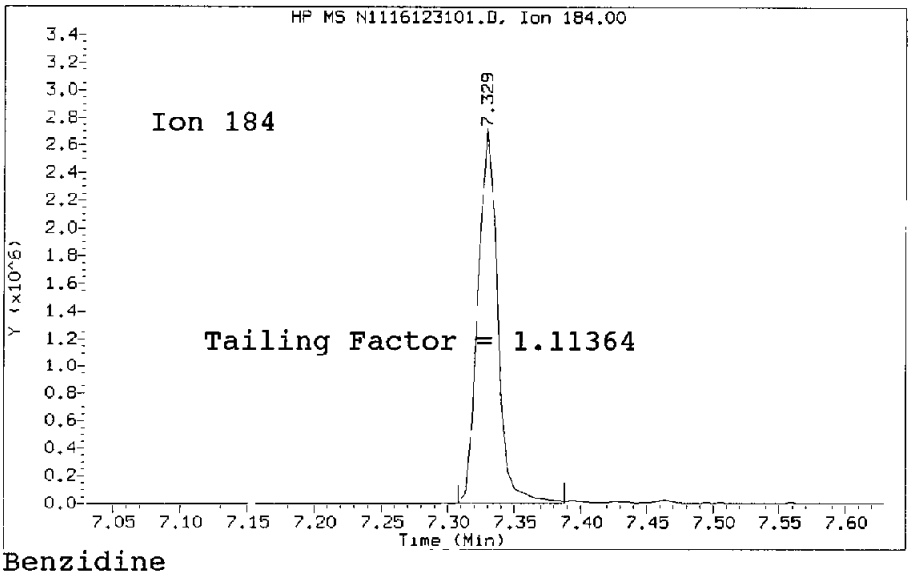


Datafile Analyzed: /20161231.b/N1116123101.D/N1116123101.D
Method Used: \20161231.b\DFTPP.m\sw846ddt.m Inst: nt11
Injection Date: 31-DEC-2016 08:12 Operator: JW
Sample Info: SEL0401-TUN1
Report Date: 12/31/2016 12:45



Pentachlorophenol
==========
Exp. RT = 5.118
Found RT = 5.118

Tail Factor = 1.440 Maximum Allowed = 2.0



Benzidine
==========
Exp. RT = 7.329
Found RT = 7.329

Tail Factor = 1.114 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.4397436	2.000	PASS
Benzidine	1.1136364	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	1823078			N/A
4,4-DDE	10805	0.6	20.0	PASS
4,4-DDD	178680	8.9	20.0	PASS
4,4-DDD + DDE	189485	9.4	20.0	PASS

Tuning Sample, nt11.i/20161231.b/N1116123101.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	27.42
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	50.60
70	Less than 2.00% of mass 69	0.36 (0.71)
127	10.00 - 80.00% of mass 198	47.99
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.22
275	10.00 - 60.00% of mass 198	27.50
365	Greater than 1.00% of mass 198	3.88
441	0.01 - 24.00% of mass 442	13.21 (16.44)
442	50.00 - 200.00% of mass 198	80.37
443	15.00 - 24.00% of mass 442	17.83 (22.19)

Data File: N1116123101.D
Spectrum: Avg. Scans 315-317 (4.77), Background Scan 310
Location of Maximum: 198.00
Number of points: 259

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	4112	127.00	472128	195.00	3783	276.00	35832
39.00	21872	128.00	35424	196.00	29136	277.00	24352
40.00	1591	129.00	200960	198.00	983872	278.00	1853
49.00	4352	130.00	17360	199.00	70992	283.00	1906
50.00	74792	131.00	2839	200.00	7543	285.00	4004
51.00	269824	132.00	889	201.00	4410	291.00	689
52.00	13561	134.00	5138	202.00	780	293.00	4172
55.00	789	135.00	14732	203.00	7183	294.00	886
56.00	10365	136.00	5834	204.00	37800	296.00	77968
57.00	26032	137.00	11901	205.00	76208	297.00	13062
61.00	6870	138.00	2543	206.00	284608	298.00	1321
62.00	5796	139.00	1910	207.00	37632	303.00	6888
63.00	15472	140.00	2791	208.00	15406	304.00	5144
64.00	2998	141.00	26608	209.00	3515	308.00	1139
65.00	7777	142.00	9094	210.00	3938	309.00	678
69.00	497792	143.00	6338	211.00	12659	310.00	864
70.00	3530	144.00	1120	212.00	5219	314.00	3485
71.00	1051	145.00	900	214.00	1328	315.00	10152
73.00	1859	146.00	5984	215.00	3055	316.00	8308
74.00	53200	147.00	13024	216.00	4570	317.00	847
75.00	78288	148.00	27952	217.00	75856	321.00	2592
76.00	30672	149.00	5354	218.00	9820	322.00	1406
77.00	512768	150.00	1705	220.00	766	323.00	26928
78.00	44392	151.00	5823	221.00	49304	324.00	5058
79.00	35568	153.00	9711	222.00	11169	327.00	3349
80.00	28552	154.00	5611	223.00	21232	329.00	784
81.00	40432	155.00	17800	224.00	174656	332.00	907
82.00	11373	156.00	25512	225.00	42944	333.00	710
83.00	10164	157.00	5182	226.00	3179	334.00	18216
84.00	2152	158.00	5392	227.00	79240	335.00	4623
85.00	8183	159.00	5750	228.00	11518	341.00	3116
86.00	12389	160.00	8734	229.00	12419	346.00	4062
87.00	4760	161.00	10188	231.00	6545	348.00	734
88.00	946	162.00	679	233.00	923	352.00	7346
91.00	10133	164.00	1681	234.00	3904	353.00	7570
92.00	9964	165.00	9710	235.00	5133	354.00	9753
93.00	62720	166.00	6278	236.00	2580	365.00	38208
94.00	2847	167.00	55048	237.00	2584	366.00	5638
96.00	3701	168.00	21792	239.00	1717	367.00	685
97.00	1665	169.00	3346	240.00	2183	370.00	738
98.00	38336	170.00	860	241.00	4842	371.00	882
99.00	37392	171.00	1565	242.00	9670	372.00	12613
100.00	3115	172.00	5740	243.00	10997	373.00	2840
101.00	21528	173.00	7105	244.00	121632	377.00	2390
102.00	2207	174.00	12440	245.00	15142	378.00	779
103.00	6397	175.00	25664	246.00	24496	383.00	3636
104.00	12228	176.00	6082	247.00	4057	384.00	775
105.00	12690	177.00	11109	248.00	1121	390.00	2090
106.00	1874	178.00	3887	249.00	3581	391.00	1461

107.00	172288	179.00	45320	250.00	2340	402.00	6904
108.00	26136	180.00	31904	251.00	830	403.00	7868
109.00	6103	181.00	17320	252.00	2065	404.00	3612
110.00	277696	182.00	2527	253.00	6217	405.00	854
111.00	55616	183.00	843	255.00	593856	421.00	8805
112.00	6239	184.00	4234	256.00	92000	422.00	6157
113.00	1118	185.00	19384	257.00	9514	423.00	49568
116.00	9080	186.00	165504	258.00	43800	424.00	8122
117.00	113552	187.00	47728	259.00	5413	425.00	1511
118.00	6157	188.00	4565	260.00	2007	426.00	717
120.00	2605	189.00	8903	265.00	13043	441.00	130000
121.00	711	190.00	2087	266.00	1555	442.00	790720
122.00	10998	191.00	4688	272.00	1799	443.00	175424
123.00	16246	192.00	17088	273.00	21744	444.00	14344
124.00	7190	193.00	17808	274.00	52248	445.00	950
125.00	7218	194.00	2470	275.00	270528		

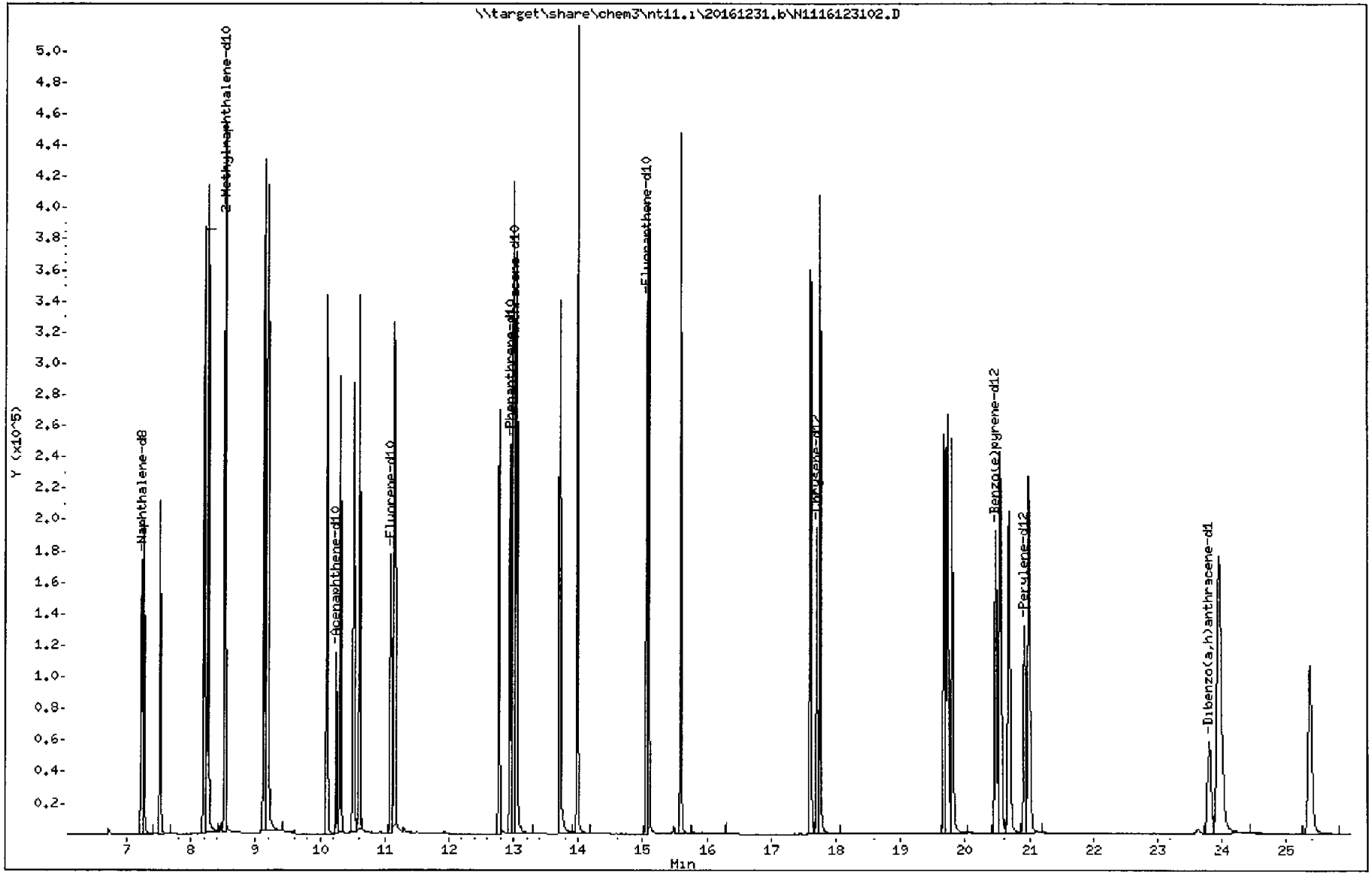
Data File: \\target\share\chem3\nt11.1\20161231.b\N1116123102.D
Date : 31-DEC-2016 08:28
Client ID:
Sample Info: SEL0401-CAL4

Instrument: nt11.1

Operator: VTS

Column phase: Rx1-17Sil MS

Column diameter: 0.25



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20161231.b\N1116123102.D
Lab Smp Id: SEL0401-CAL4
Inj Date : 31-DEC-2016 08:28 MS Autotune Date: 15-JAN-2015 15:59
Operator : VTS Inst ID: nt11.i
Smp Info : SEL0401-CAL4
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20161231.b\lowsim.m
Meth Date : 31-Dec-2016 12:34 van Quant Type: ISTD
Cal Date : 31-DEC-2016 09:30 Cal File: N1116123104.D
Als bottle: 2 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14
Processing Host: VANS

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)
*	1	Naphthalene-d8	136	7.225	7.225	(1.000)	219654	200.000	
	2	Naphthalene	128	7.261	7.253	(1.005)	291756	250.000	266
	3	Benzo(b)thiophene	134	7.514	7.515	(1.040)	242046	250.000	271
$	4	2-Methylnaphthalene-d10	152	8.201	8.201	(1.135)	267728	250.000	284
	5	2-Methylnaphthalene	142	8.253	8.253	(1.142)	293186	250.000	271
	6	1-Methylnaphthalene	142	8.516	8.516	(1.179)	302905	250.000	279
	7	2-Chloronaphthalene	162	9.167	9.167	(0.894)	284135	250.000	277
	8	Biphenyl	154	9.136	9.136	(0.891)	375678	250.000	275
	9	2,6-Dimethylnaphthalene	156	9.188	9.188	(0.896)	296448	250.000	280
	10	Acenaphthylene	152	10.098	10.098	(0.985)	337103	250.000	277
*	11	Acenaphthene-d10	164	10.251	10.252	(1.000)	135248	200.000	
	12	Acenaphthene	153	10.315	10.315	(1.006)	216629	250.000	271
	13	Dibenzofuran	168	10.519	10.519	(1.026)	327335	250.000	275
	14	2,3,5-Trimethylnaphthalene	170	10.607	10.607	(1.035)	211917	250.000	278
$	15	Fluorene-d10	174	11.087	11.088	(1.082)	177097	250.000	273
	16	Fluorene	166	11.151	11.151	(1.088)	257461	250.000	272
	17	Dibenzothiophene	184	12.777	12.767	(0.987)	324162	250.000	273
*	18	Phenanthrene-d10	188	12.945	12.945	(1.000)	257021	200.000	
	19	Phenanthrene	178	12.987	12.987	(1.003)	394060	250.000	268
$	20	Anthracene-d10	188	13.008	13.008	(1.005)	335193	250.000	264
	21	Anthracene	178	13.040	13.040	(1.007)	416065	250.000	284
	22	Carbazole	167	13.713	13.722	(1.059)	427208	250.000	264
	23	1-Methylphenanthrene	192	13.984	13.984	(1.080)	415765	250.000	276
$	24	Fluoranthene-d10	212	15.055	15.055	(1.163)	373562	250.000	274
	25	Fluoranthene	202	15.084	15.084	(1.165)	453211	250.000	272
	26	Pyrene	202	15.593	15.593	(0.881)	458050	250.000	272
	27	Benzo(a)anthracene	228	17.610	17.602	(0.995)	421425	250.000	270
*	28	Chrysene-d12	240	17.701	17.702	(1.000)	259511	200.000	
	29	Chrysene	228	17.751	17.751	(1.003)	425798	250.000	266
	30	Benzo(b)fluoranthene	252	19.676	19.677	(0.940)	370569	250.000	267
	31	Benzo(k)fluoranthene	252	19.734	19.725	(0.943)	405021	250.000	271
	32	Benzo(j)fluoranthene	252	19.801	19.801	(0.946)	371157	250.000	278
$	33	Benzo(e)pyrene-d12	264	20.483	20.474	(0.979)	341312	250.000	267

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
	34 Benzo(e)pyrene	252	20.551	20.551	(0.982)	372033	250.000	269
	35 Benzo(a)pyrene	252	20.685	20.685	(0.989)	348666	250.000	269
*	36 Perylene-d12	264	20.925	20.916	(1.000)	257535	200.000	
	37 Perylene	252	20.993	20.993	(1.003)	360843	250.000	267
$	38 Dibenzo(a,h)anthracene-d14	292	23.808	23.798	(1.130)	225676	250.000	274
	39 Dibenzo(a,h)anthracene	278	23.941	23.941	(1.144)	299975	250.000	265
	40 Indeno(1,2,3-cd)pyrene	276	23.985	23.974	(1.146)	375676	250.000	266
	41 Benzo(g,h,i)perylene	276	25.370	25.370	(1.212)	328867	250.000	259

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: N1116123102.D
Lab Smp Id: SEL0401-CAL4
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20161231.b\lowsim.m
Misc Info:

Calibration Date: 31-DEC-2016
Calibration Time: 08:28
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	219654	109827	439308	219654	0.00
11 Acenaphthene-d10	135248	67624	270496	135248	0.00
18 Phenanthrene-d10	257021	128511	514042	257021	0.00
28 Chrysene-d12	259511	129756	519022	259511	0.00
36 Perylene-d12	257535	128768	515070	257535	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	7.23	6.73	7.73	7.23	0.00
11 Acenaphthene-d10	10.25	9.75	10.75	10.25	0.00
18 Phenanthrene-d10	12.95	12.45	13.45	12.95	0.00
28 Chrysene-d12	17.70	17.20	18.20	17.70	0.00
36 Perylene-d12	20.93	20.43	21.43	20.93	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1116123102.D

Lab ID: SEL0401-CAL4
nt11.i, 20161231.b\lowsim.m, 31-DEC-2016 08:28

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20161231.b\lowsim.m, allpna.sub = 3.0000

Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20161231.b

Instrument: nt11.i Date: 31-DEC-2016 Method: 20161231.b\lowsim.m

INITIAL CAL: 16-DEC-2016

Compound	%RSD or R^2
NO Q-FLAGS	

ICV CAL: N1116123102.D 31-DEC-2016 08:28

Compound	%D
Pyrene	28.3
Dibenzo(a,h)anthracene	21.8
Carbazole	24.0

Data File: \\target\share\chem3\nt11.1\20161231.b\N1116123103.D

Date : 31-DEC-2016 08:59

Client ID:

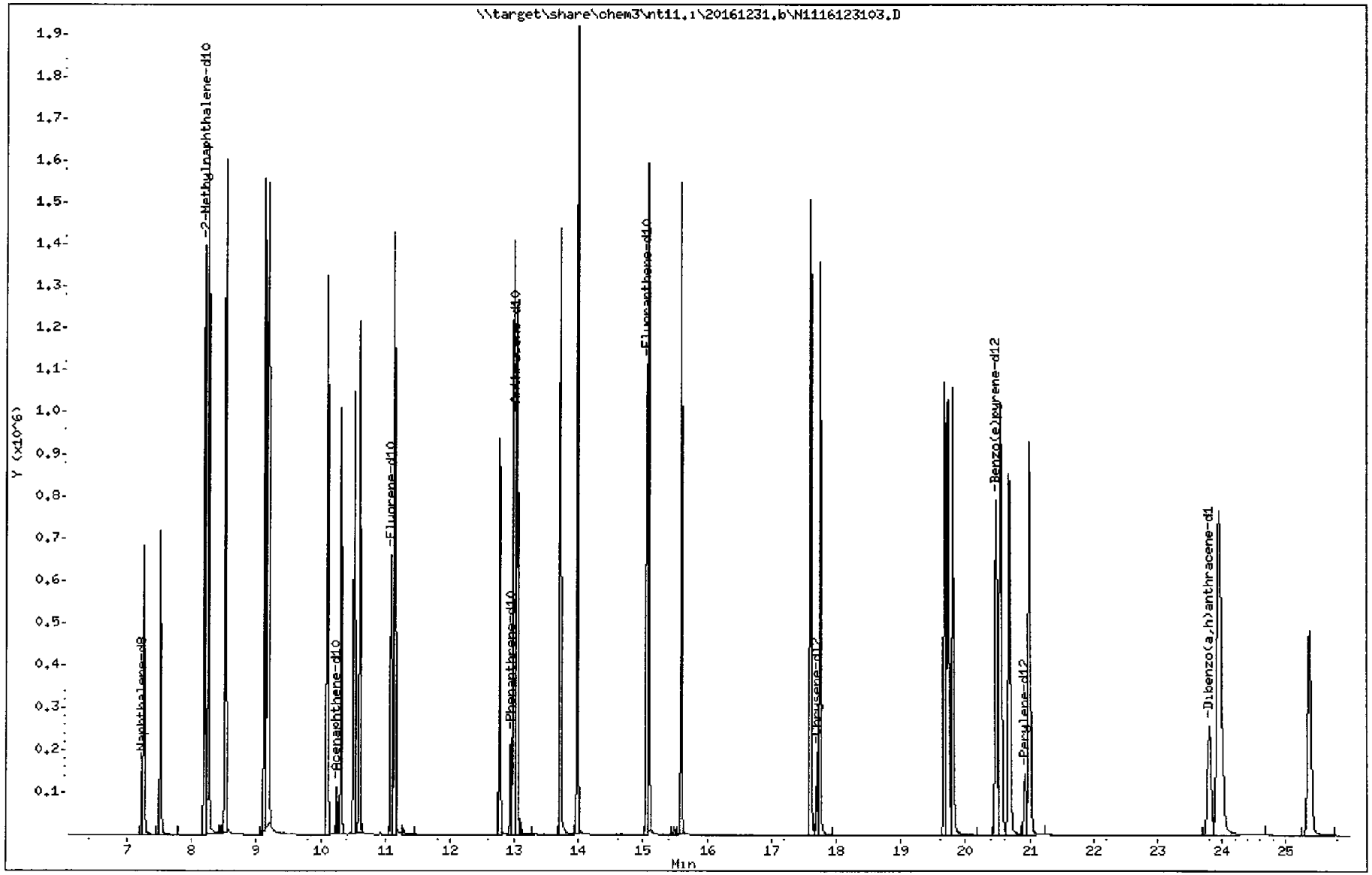
Instrument: nt11.1

Sample Info: SEL0401-CAL6

Operator: VTS

Column phase: Rx1-17Sil MS

Column diameter: 0.25



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20161231.b\N1116123103.D
Lab Smp Id: SEL0401-CAL6
Inj Date : 31-DEC-2016 08:59 MS Autotune Date: 15-JAN-2015 15:59
Operator : VTS Inst ID: nt11.i
Smp Info : SEL0401-CAL6
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20161231.b\lowsim.m
Meth Date : 31-Dec-2016 12:34 van Quant Type: ISTD
Cal Date : 31-DEC-2016 09:30 Cal File: N1116123104.D
Als bottle: 3 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
*	1 Naphthalene-d8	136	7.225	7.225	(1.000)	213511	200.000	
	2 Naphthalene	128	7.253	7.253	(1.004)	1028019	1000.00	965
	3 Benzo(b)thiophene	134	7.515	7.515	(1.040)	882017	1000.00	1020
$	4 2-Methylnaphthalene-d10	152	8.201	8.201	(1.135)	955539	1000.00	1040
	5 2-Methylnaphthalene	142	8.253	8.253	(1.142)	1070576	1000.00	1020
	6 1-Methylnaphthalene	142	8.516	8.516	(1.179)	1047786	1000.00	992
	7 2-Chloronaphthalene	162	9.167	9.167	(0.894)	1047091	1000.00	1030
	8 Biphenyl	154	9.125	9.136	(0.890)	1338455	1000.00	993
	9 2,6-Dimethylnaphthalene	156	9.188	9.188	(0.896)	1083668	1000.00	1040
	10 Acenaphthylene	152	10.098	10.098	(0.985)	1205722	1000.00	1000
*	11 Acenaphthene-d10	164	10.252	10.252	(1.000)	133595	200.000	
	12 Acenaphthene	153	10.315	10.315	(1.006)	794453	1000.00	1010
	13 Dibenzofuran	168	10.519	10.519	(1.026)	1187380	1000.00	1010
	14 2,3,5-Trimethylnaphthalene	170	10.607	10.607	(1.035)	782273	1000.00	1040
$	15 Fluorene-d10	174	11.088	11.088	(1.082)	650800	1000.00	1010
	16 Fluorene	166	11.133	11.151	(1.086)	953220	1000.00	1020
	17 Dibenzothiophene	184	12.767	12.767	(0.986)	1159468	1000.00	979
*	18 Phenanthrene-d10	188	12.945	12.945	(1.000)	256606	200.000	
	19 Phenanthrene	178	12.987	12.987	(1.003)	1378329	1000.00	940
$	20 Anthracene-d10	188	13.008	13.008	(1.005)	1207138	1000.00	951
	21 Anthracene	178	13.040	13.040	(1.007)	1371576	1000.00	938
	22 Carbazole	167	13.713	13.722	(1.059)	1565189	1000.00	970
	23 1-Methylphenanthrene	192	13.984	13.984	(1.080)	1490518	1000.00	991
$	24 Fluoranthene-d10	212	15.055	15.055	(1.163)	1343475	1000.00	986
	25 Fluoranthene	202	15.084	15.084	(1.165)	1570634	1000.00	944
	26 Pyrene	202	15.593	15.593	(0.881)	1614986	1000.00	927
	27 Benzo(a)anthracene	228	17.602	17.602	(0.994)	1572902	1000.00	975
*	28 Chrysene-d12	240	17.702	17.702	(1.000)	266214	200.000	
	29 Chrysene	228	17.751	17.751	(1.003)	1559109	1000.00	942
	30 Benzo(b)fluoranthene	252	19.677	19.677	(0.941)	1529637	1000.00	1020
	31 Benzo(k)fluoranthene	252	19.734	19.725	(0.943)	1609918	1000.00	993
	32 Benzo(j)fluoranthene	252	19.801	19.801	(0.947)	1457956	1000.00	1010
$	33 Benzo(e)pyrene-d12	264	20.474	20.474	(0.979)	1401911	1000.00	1010

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
34	Benzo(e)pyrene	252	20.551	20.551	(0.983)	1507882	1000.00	1000
35	Benzo(a)pyrene	252	20.685	20.685	(0.989)	1418678	1000.00	1010
* 36	Perylene-d12	264	20.916	20.916	(1.000)	279143	200.000	
37	Perylene	252	20.993	20.993	(1.004)	1472406	1000.00	1010
$ 38	Dibenzo(a,h)anthracene-d14	292	23.808	23.798	(1.138)	979357	1000.00	1100
39	Dibenzo(a,h)anthracene	278	23.941	23.941	(1.145)	1307120	1000.00	1070
40	Indeno(1,2,3-cd)pyrene	276	23.985	23.974	(1.147)	1620429	1000.00	1060
41	Benzo(g,h,i)perylene	276	25.370	25.370	(1.213)	1401414	1000.00	1020

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: N1116123103.D
Lab Smp Id: SEL0401-CAL6
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20161231.b\lowsim.m
Misc Info:

Calibration Date: 31-DEC-2016
Calibration Time: 08:28
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	219654	109827	439308	213511	-2.80
11 Acenaphthene-d10	135248	67624	270496	133595	-1.22
18 Phenanthrene-d10	257021	128511	514042	256606	-0.16
28 Chrysene-d12	259511	129756	519022	268214	3.35
36 Perylene-d12	257535	128768	515070	279143	8.39

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	7.23	6.73	7.73	7.23	0.00
11 Acenaphthene-d10	10.25	9.75	10.75	10.25	0.00
18 Phenanthrene-d10	12.95	12.45	13.45	12.95	0.00
28 Chrysene-d12	17.70	17.20	18.20	17.70	0.00
36 Perylene-d12	20.93	20.43	21.43	20.92	-0.04

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1116123103.D

Lab ID: SEL0401-CAL6
nt11.i, 20161231.b\lowsim.m, 31-DEC-2016 08:59

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20161231.b\lowsim.m, allpna.sub = 3.0000

Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123104.D

Date : 31-DEC-2016 09:30

Client ID:

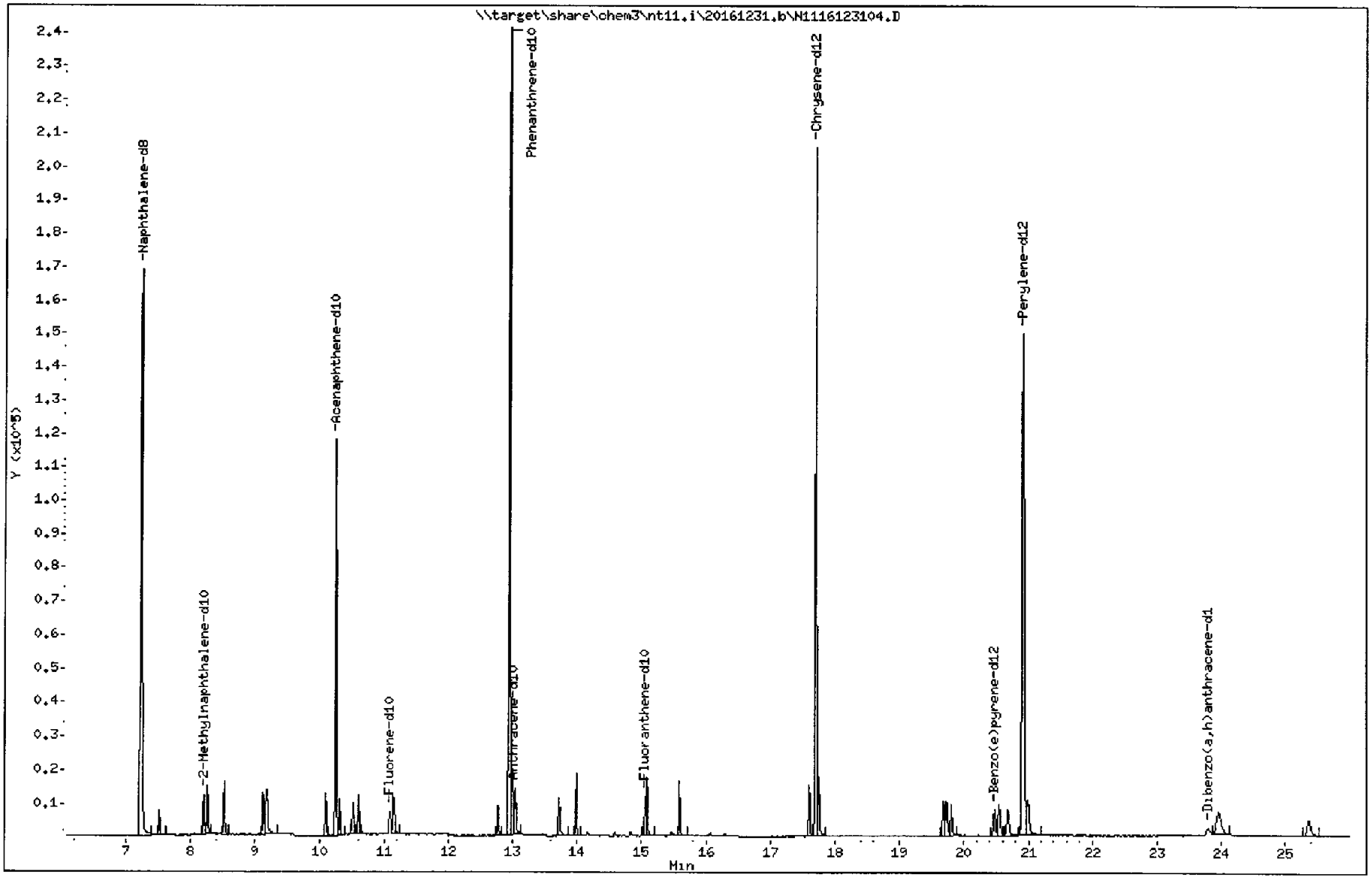
Sample Info: SEL0401-CAL1

Column phase: Rxi-17Sil MS

Instrument: nt11.i

Operator: VTS

Column diameter: 0.25



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20161231.b\N1116123104.D
Lab Smp Id: SEL0401-CAL1
Inj Date : 31-DEC-2016 09:30 MS Autotune Date: 15-JAN-2015 15:59
Operator : VTS Inst ID: nt11.i
Smp Info : SEL0401-CAL1
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20161231.b\lowsim.m
Meth Date : 31-Dec-2016 12:34 van Quant Type: ISTD
Cal Date : 31-DEC-2016 09:30 Cal File: N1116123104.D
Als bottle: 4 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
*	1 Naphthalene-d8	136	7.225	7.225	(1.000)	239658	200.000	
	2 Naphthalene	128	7.253	7.253	(1.004)	12029	10.0000	10.1
	3 Benzo(b)thiophene	134	7.515	7.515	(1.040)	9101	10.0000	9.35(M)
$	4 2-Methylnaphthalene-d10	152	8.201	8.201	(1.135)	9193	10.0000	8.93
	5 2-Methylnaphthalene	142	8.253	8.253	(1.142)	10909	10.0000	9.25
	6 1-Methylnaphthalene	142	8.516	8.516	(1.179)	11153	10.0000	9.41
	7 2-Chloronaphthalene	162	9.167	9.167	(0.894)	9576	10.0000	8.50(M)
	8 Biphenyl	154	9.136	9.136	(0.891)	13454	10.0000	8.97
	9 2,6-Dimethylnaphthalene	156	9.188	9.188	(0.896)	10334	10.0000	8.90
	10 Acenaphthylene	152	10.096	10.096	(0.985)	12223	10.0000	9.17
*	11 Acenaphthene-d10	164	10.252	10.252	(1.000)	148389	200.000	
	12 Acenaphthene	153	10.315	10.315	(1.006)	8236	10.0000	9.38
	13 Dibenzofuran	168	10.519	10.519	(1.026)	11781	10.0000	9.03
	14 2,3,5-Trimethylnaphthalene	170	10.607	10.607	(1.035)	7420	10.0000	8.89(M)
$	15 Fluorene-d10	174	11.088	11.086	(1.082)	6824	10.0000	9.58(M)
	16 Fluorene	166	11.151	11.151	(1.088)	9818	10.0000	9.45
	17 Dibenzothiophene	184	12.767	12.767	(0.986)	12279	10.0000	9.37
*	18 Phenanthrene-d10	188	12.945	12.945	(1.000)	283739	200.000	
	19 Phenanthrene	178	12.987	12.987	(1.003)	16358	10.0000	10.1
$	20 Anthracene-d10	188	13.008	13.008	(1.005)	15777	10.0000	11.2
	21 Anthracene	178	13.040	13.040	(1.007)	15680	10.0000	9.69
	22 Carbazole	167	13.722	13.722	(1.060)	17948	10.0000	10.1
	23 1-Methylphenanthrene	192	13.984	13.984	(1.080)	15403	10.0000	9.26
$	24 Fluoranthene-d10	212	15.055	15.055	(1.163)	14004	10.0000	9.29
	25 Fluoranthene	202	15.084	15.084	(1.165)	18390	10.0000	9.99
	26 Pyrene	202	15.593	15.593	(0.881)	18945	10.0000	10.3
	27 Benzo(a)anthracene	228	17.602	17.602	(0.994)	16396	10.0000	9.63
*	28 Chrysene-d12	240	17.702	17.702	(1.000)	283072	200.000	
	29 Chrysene	228	17.751	17.751	(1.003)	17443	10.0000	9.99
	30 Benzo(b)fluoranthene	252	19.677	19.677	(0.941)	15127	10.0000	9.76
	31 Benzo(k)fluoranthene	252	19.725	19.725	(0.943)	16463	10.0000	9.86
	32 Benzo(j)fluoranthene	252	19.801	19.801	(0.947)	13969	10.0000	9.38
$	33 Benzo(e)pyrene-d12	264	20.474	20.474	(0.979)	13543	10.0000	9.50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
	34 Benzo(e)pyrene	252	20.551	20.551	(0.983)	14648	10.0000	9.47
	35 Benzo(a)pyrene	252	20.685	20.685	(0.989)	14176	10.0000	9.61
*	36 Perylene-d12	264	20.916	20.916	(1.000)	287631	200.000	
	37 Perylene	252	20.993	20.993	(1.004)	14858	10.0000	9.85
S	38 Dibenzo(a,h)anthracene-d14	292	23.797	23.790	(1.138)	8870	10.0000	9.66(M)
	39 Dibenzo(a,h)arthracene	278	23.941	23.941	(1.145)	12890	10.0000	10.2
	40 Indeno(1,2,3-cd)pyrene	276	23.974	23.974	(1.146)	15925	10.0000	10.1
	41 Benzo(g,h,i)perylene	276	25.370	25.370	(1.213)	15001	10.0000	10.6

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: N1116123104.D
Lab Smp Id: SEL0401-CAL1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20161231.b\lowsim.m
Misc Info:

Calibration Date: 31-DEC-2016
Calibration Time: 08:28
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	219654	109827	439308	239658	9.11
11 Acenaphthene-d10	135248	67624	270496	148389	9.72
18 Phenanthrene-d10	257021	128511	514042	283739	10.40
28 Chrysene-d12	259511	129756	519022	283072	9.08
36 Perylene-d12	257535	128768	515070	287631	11.69

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	7.23	6.73	7.73	7.23	0.00
11 Acenaphthene-d10	10.25	9.75	10.75	10.25	0.00
18 Phenanthrene-d10	12.95	12.45	13.45	12.95	0.00
28 Chrysene-d12	17.70	17.20	18.20	17.70	0.00
36 Perylene-d12	20.93	20.43	21.43	20.92	-0.04

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1116123104.D

Lab ID: SEL0401-CAL1
nt11.i, 20161231.b\lowsim.m, 31-DEC-2016 09:30

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

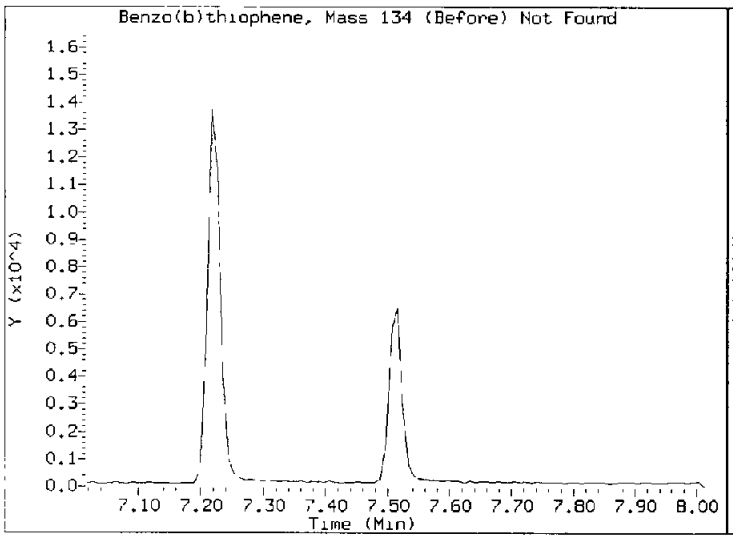
NONE

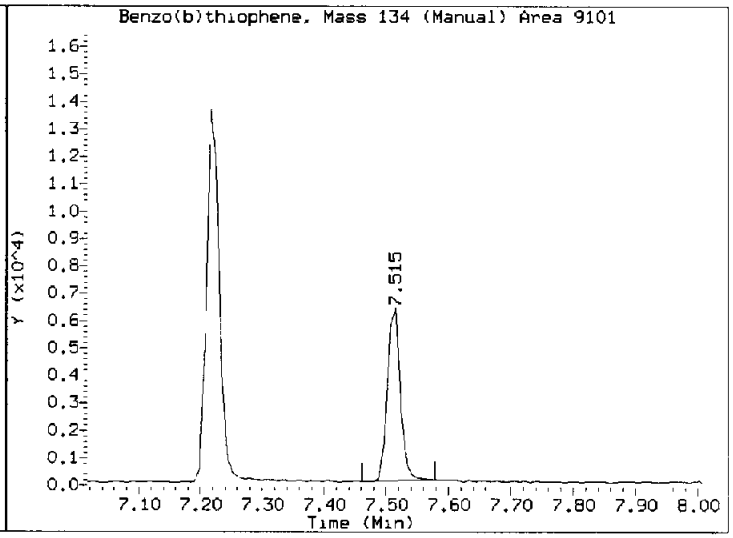
On Column LOD for nt11.i, 20161231.b\lowsim.m, allpna.sub = 3.0000

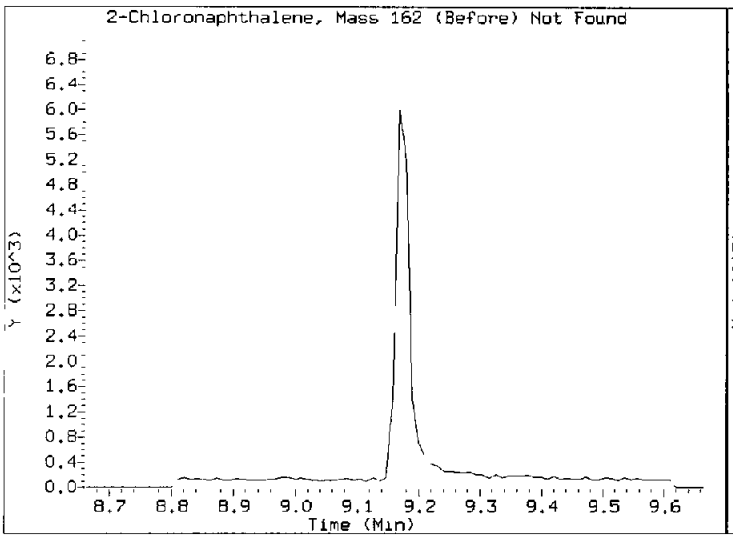
Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

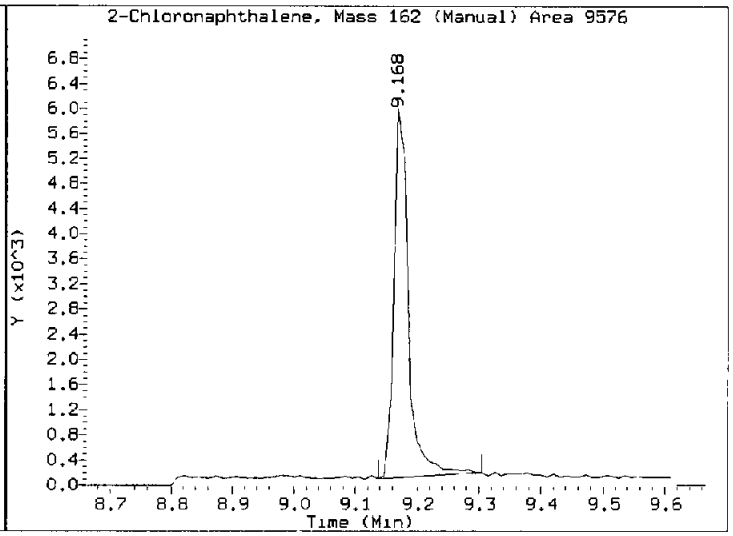
Quant Ion Manual Peak Adjustment Report

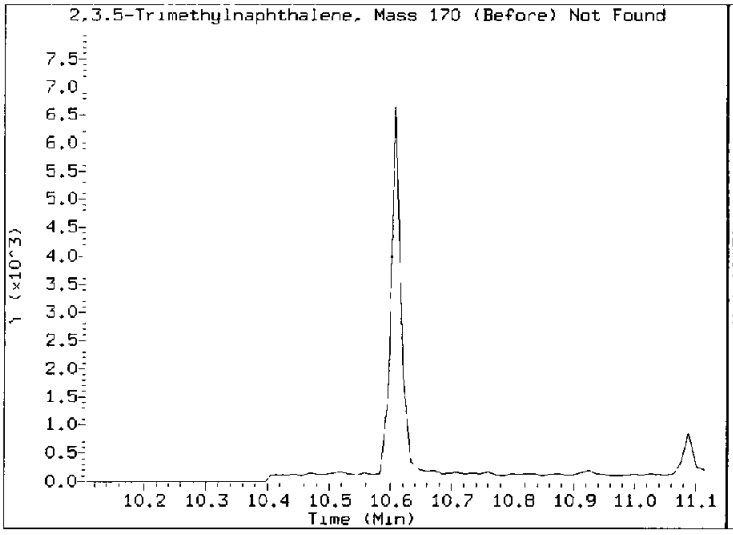
Datafile: //target/share/chem3/nt11.i/20161231.b/N1116123104.D
Injection Date: 31-DEC-2016 09:30
Lab ID:SEL0401-CAL1 Client ID:
Report Date: 12/31/2016 12:39

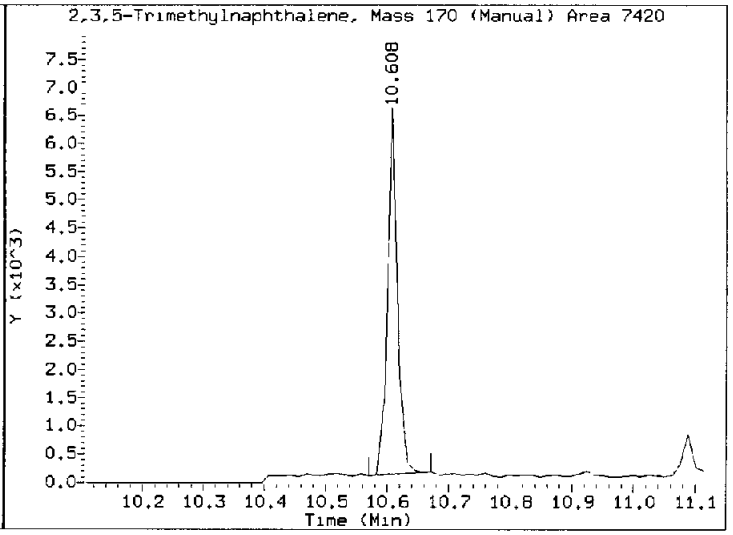






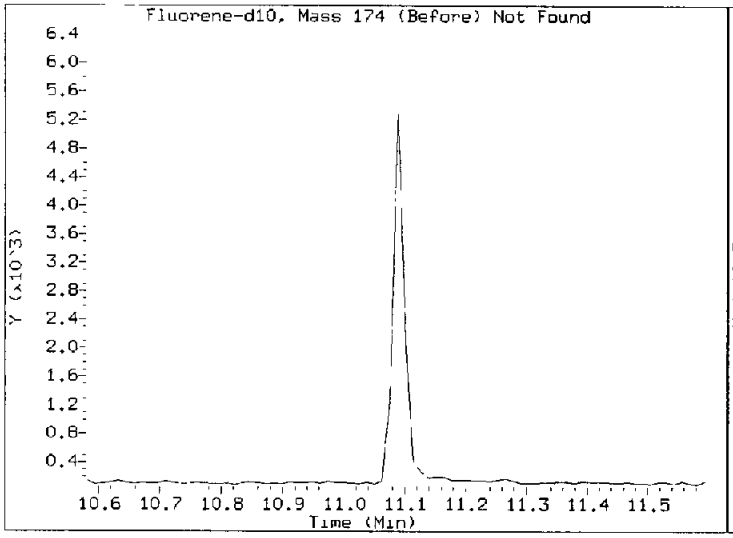


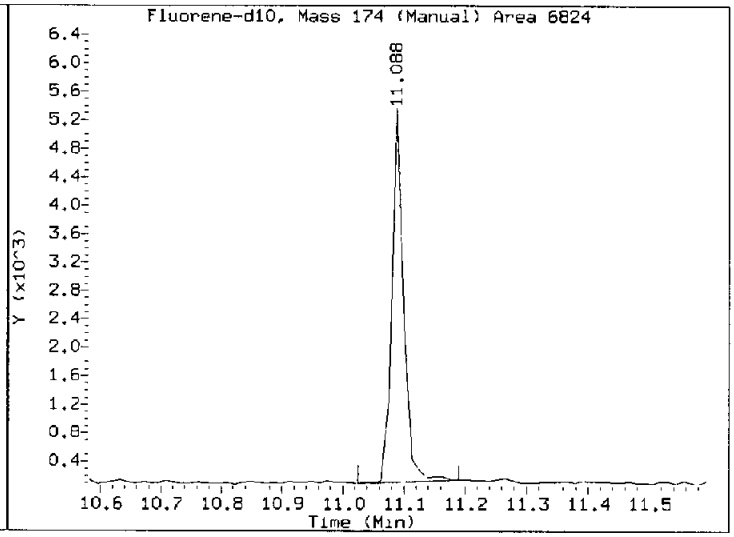


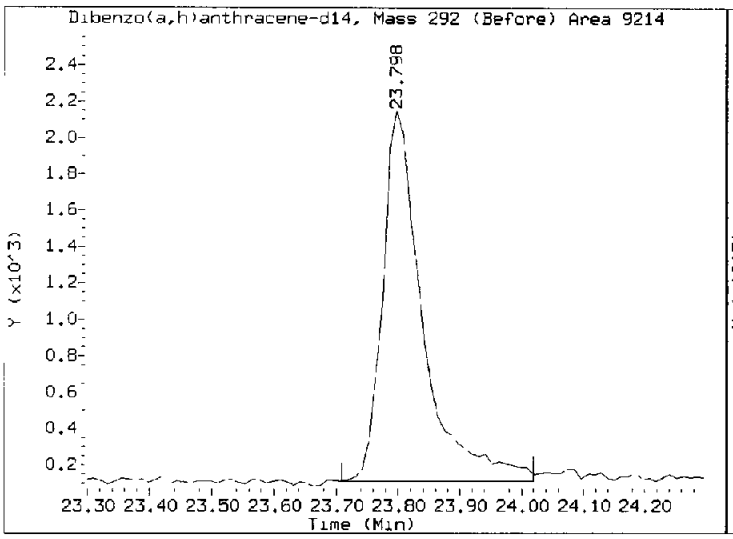


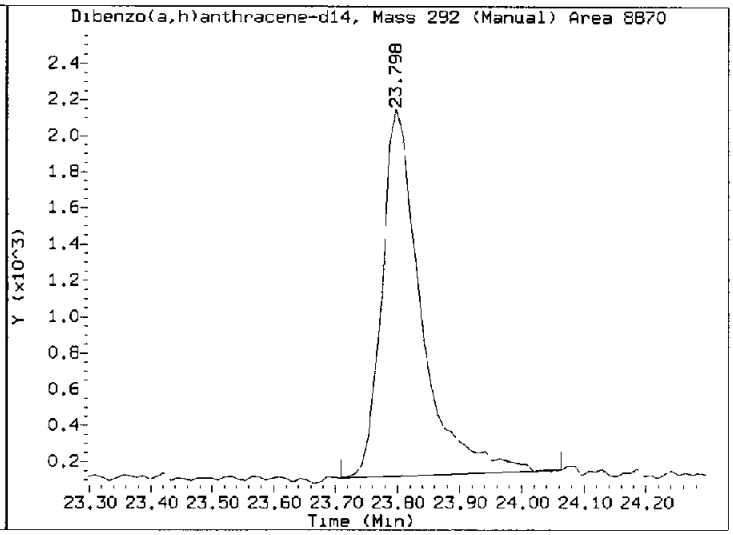
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt11.i/20161231.b/N1116123104.D
Injection Date: 31-DEC-2016 09:30
Lab ID:SEL0401-CAL1 Client ID:
Report Date: 12/31/2016 12:39



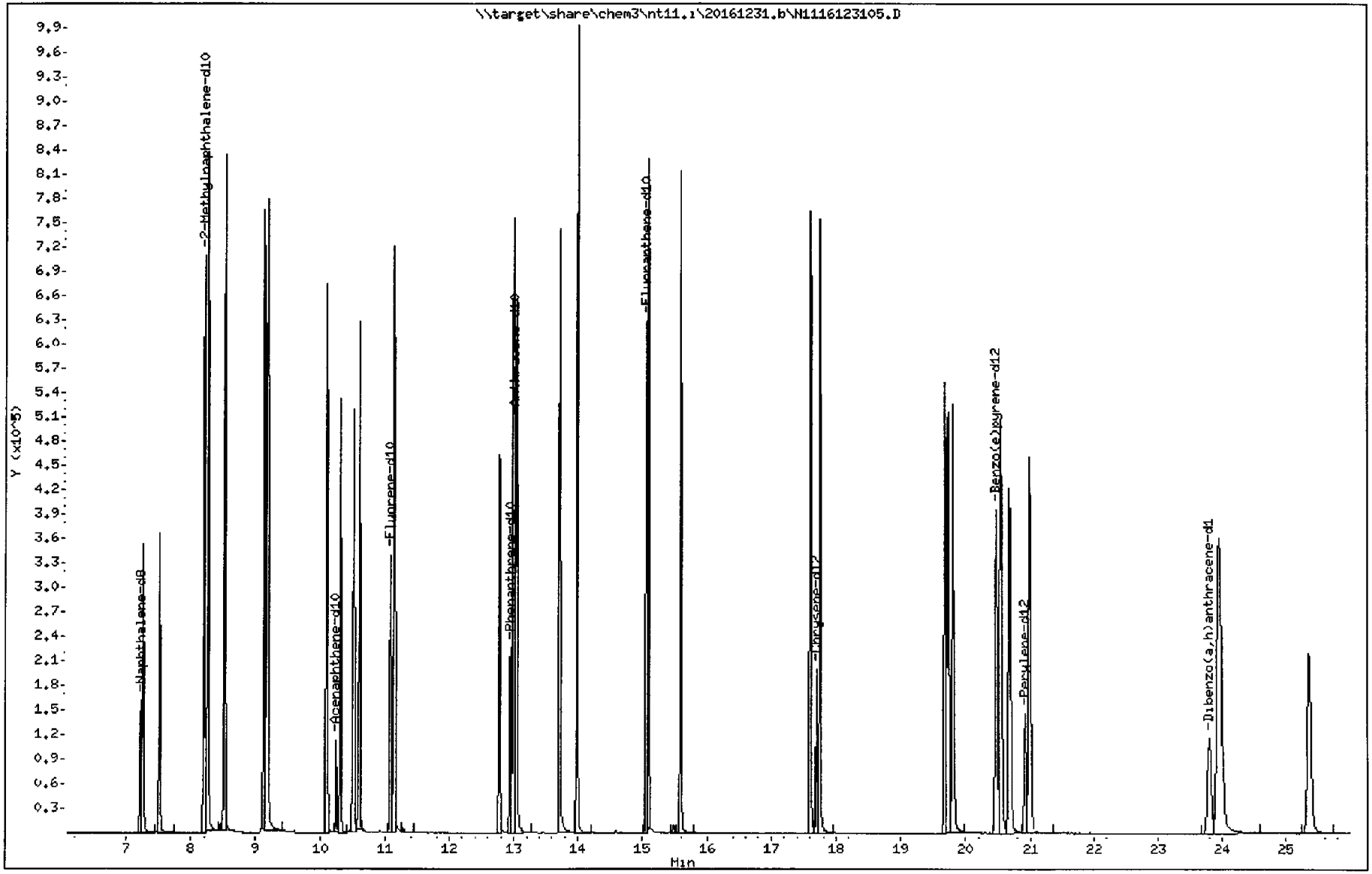






Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123105.D
Date : 31-DEC-2016 10:01
Client ID:
Sample Info: SEL0401-CAL5

Instrument: nt11.i
Operator: VTS
Column phase: Rxi-17Sil MS
Column diameter: 0.25



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20161231.b\N1116123105.D
Lab Smp Id: SEL0401-CAL5
Inj Date : 31-DEC-2016 10:01 MS Autotune Date: 15-JAN-2015 15:59
Operator : VTS Inst ID: nt11.i
Smp Info : SEL0401-CAL5
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20161231.b\lowsim.m
Meth Date : 31-Dec-2016 12:34 van Quant Type: ISTD
Cal Date : 31-DEC-2016 09:30 Cal File: N1116123104.D
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
*	1 Naphthalene-d8	136	7.225	7.225	(1.000)	218999	200.000	
	2 Naphthalene	128	7.252	7.253	(1.004)	537673	500.000	492
	3 Benzo(b)thiophene	134	7.514	7.515	(1.040)	451143	500.000	507
$	4 1-Methylnaphthalene-d10	152	8.201	8.201	(1.135)	486648	500.000	517
	5 2-Methylnaphthalene	142	8.253	8.253	(1.142)	554185	500.000	514
	6 1-Methylnaphthalene	142	8.516	8.516	(1.179)	545318	500.000	503
	7 2-Chloronaphthalene	162	9.167	9.167	(0.894)	536396	500.000	516
	8 Biphenyl	154	9.125	9.130	(0.890)	699297	500.000	506
	9 2,6-Dimethylnaphthalene	156	9.188	9.188	(0.896)	556933	500.000	519
	10 Acenaphthylene	152	10.098	10.098	(0.985)	628021	500.000	510
*	11 Acenaphthene-d10	164	10.251	10.252	(1.000)	137033	200.000	
	12 Acenaphthene	153	10.315	10.315	(1.006)	411064	500.000	507
	13 Dibenzofuran	168	10.519	10.519	(1.026)	617745	500.000	513
	14 2,3,5-Trimethylnaphthalene	170	10.607	10.607	(1.035)	403344	500.000	523
$	15 Fluorene-d10	174	11.087	11.088	(1.082)	335941	500.000	511
	16 Fluorene	166	11.138	11.151	(1.086)	499588	500.000	521
	17 Dibenzothiophene	184	12.767	12.767	(0.986)	613283	500.000	500
*	18 Phenanthrene-d10	188	12.945	12.945	(1.000)	265632	200.000	
	19 Phenanthrene	178	12.987	12.987	(1.003)	743402	500.000	490
$	20 Anthracene-d10	188	13.008	13.008	(1.005)	628161	500.000	478
	21 Anthracene	178	13.040	13.040	(1.007)	720810	500.000	476
	22 Carbazole	167	13.713	13.722	(1.059)	815299	500.000	488
	23 1-Methylphenanthrene	192	13.984	13.984	(1.080)	786426	500.000	505
$	24 Fluoranthene-d10	212	15.055	15.055	(1.163)	712108	500.000	505
	25 Fluoranthene	202	15.084	15.084	(1.165)	853291	500.000	495
	26 Pyrene	202	15.593	15.593	(0.881)	869166	500.000	493
	27 Benzo(a)anthracene	228	17.602	17.602	(0.994)	830111	500.000	509
*	28 Chrysene-d12	240	17.701	17.702	(1.000)	271314	200.000	
	29 Chrysene	228	17.751	17.751	(1.003)	830048	500.000	496
	30 Benzo(b)fluoranthene	252	19.676	19.677	(0.941)	771176	500.000	510
	31 Benzo(k)fluoranthene	252	19.734	19.725	(0.943)	816376	500.000	502
	32 Benzo(j)fluoranthene	252	19.801	19.801	(0.947)	746567	500.000	515
$	33 Benzo(e)pyrene-d12	264	20.474	20.474	(0.979)	702503	500.000	506

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
	34 Benzo(e)pyrene	252	20.551	20.551	(0.983)	766660	500.000	509
	35 Benzo(a)pyrene	252	20.676	20.685	(0.989)	707530	500.000	502
*	36 Perylene-d12	264	20.916	20.916	(1.000)	280262	200.000	
	37 Perylene	252	20.993	20.993	(1.004)	739457	500.000	503
S	38 Dibenzo(a,h)anthracene-d14	292	23.797	23.798	(1.138)	467034	500.000	522
	39 Dibenzo(a,h)anthracene	278	23.941	23.941	(1.145)	629015	500.000	510
	40 Indeno(1,2,3-cd)pyrene	276	23.974	23.974	(1.146)	783480	500.000	510
	41 Benzo(g,h,i)perylene	276	25.359	25.370	(1.212)	680421	500.000	493

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: N1116123105.D
Lab Smp Id: SEL0401-CAL5
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20161231.b\lowsim.m
Misc Info:

Calibration Date: 31-DEC-2016
Calibration Time: 08:28
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	219654	109827	439308	218999	-0.30
11 Acenaphthene-d10	135248	67624	270496	137033	1.32
18 Phenanthrene-d10	257021	128511	514042	265632	3.35
28 Chrysene-d12	259511	129756	519022	271314	4.55
36 Perylene-d12	257535	128768	515070	280262	8.82

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	7.23	6.73	7.73	7.23	0.00
11 Acenaphthene-d10	10.25	9.75	10.75	10.25	0.00
18 Phenanthrene-d10	12.95	12.45	13.45	12.95	0.00
28 Chrysene-d12	17.70	17.20	18.20	17.70	0.00
36 Perylene-d12	20.93	20.43	21.43	20.92	-0.05

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1116123105.D

Lab ID: SEL0401-CAL5
nt11.i, 20161231.b\lowsim.m, 31-DEC-2016 10:01

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20161231.b\lowsim.m, allpna.sub = 3.0000

Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123106.D

Date : 31-DEC-2016 10:32

Client ID:

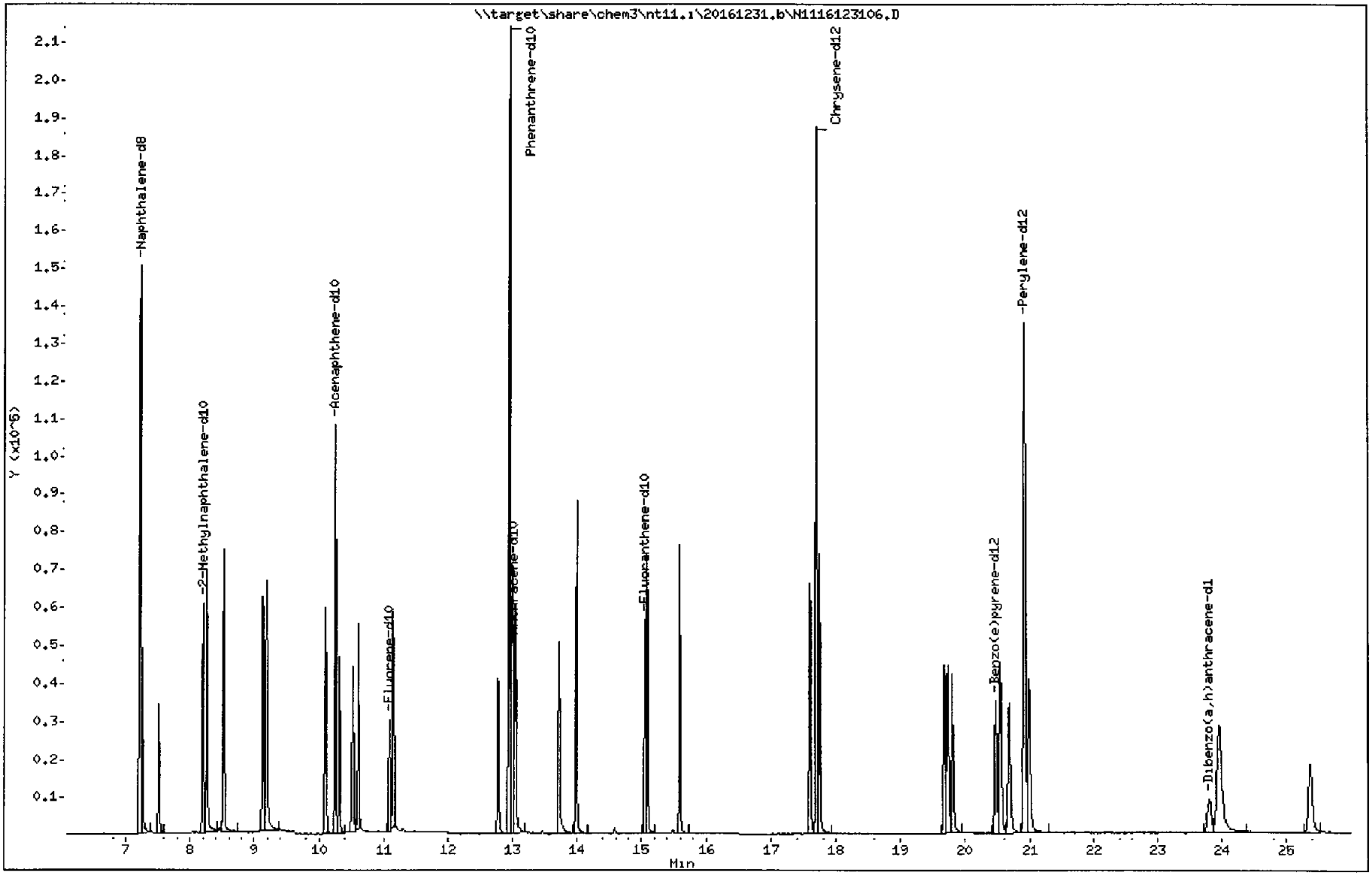
Sample Info: SEL0401-CAL2

Instrument: nt11.i

Operator: VTS

Column phase: Rx1-17Sil MS

Column diameter: 0.25



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20161231.b\N1116123106.D
Lab Smp Id: SEL0401-CAL2
Inj Date : 31-DEC-2016 10:32 MS Autotune Date: 15-JAN-2015 15:59
Operator : VTS Inst ID: nt11.i
Smp Info : SEL0401-CAL2
Misc Info : 16-
Comment :
Method : \\target\share\chem3\nt11.i\20161231.b\lowsim.m
Meth Date : 31-Dec-2016 12:34 van Quant Type: ISTD
Cal Date : 31-DEC-2016 09:30 Cal File: N1116123104.D
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14
Processing Host: VANS

		QUANT SIG					AMOUNTS CAL-AMT	ON-COL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng/mL)	(ng/mL)
*	1 Naphthalene-d8	136	7.225	7.225	(1.000)	212581	200.000	
	2 Naphthalene	128	7.252	7.253	(1.004)	53213	50.0000	50.2
	3 Benzo(b)thiophene	134	7.515	7.515	(1.040)	42005	50.0000	48.6(M)
$	4 2-Methylnaphthalene-d10	152	8.201	8.201	(1.135)	42296	50.0000	46.3(M)
	5 2-Methylnaphthalene	142	8.253	8.253	(1.142)	50535	50.0000	48.3
	6 1-Methylnaphthalene	142	8.516	8.516	(1.179)	50651	50.0000	48.2
	7 2-Chloronaphthalene	162	9.167	9.167	(0.894)	50672	50.0000	50.3
	8 Biphenyl	154	9.125	9.136	(0.890)	68511	50.0000	51.1
	9 2,6-Dimethylnaphthalene	156	9.188	9.188	(0.896)	49210	50.0000	47.3(M)
	10 Acenaphthylene	152	10.098	10.098	(0.985)	57830	50.0000	48.5
*	11 Acenaphthene-d10	164	10.251	10.252	(1.000)	132827	200.000	
	12 Acenaphthene	153	10.315	10.315	(1.006)	38394	50.0000	48.9
	13 Dibenzofuran	168	10.519	10.519	(1.026)	56268	50.0000	48.2
	14 2,3,5-Trimethylnaphthalene	170	10.607	10.607	(1.035)	34787	50.0000	46.5(M)
$	15 Fluorene-d10	174	11.088	11.088	(1.082)	30277	50.0000	47.5
	16 Fluorene	166	11.139	11.151	(1.086)	43674	50.0000	47.0
	17 Dibenzothiophene	184	12.767	12.767	(0.986)	56773	50.0000	49.7
*	18 Phenanthrene-d10	188	12.945	12.945	(1.000)	247500	200.000	
	19 Phenanthrene	178	12.987	12.987	(1.003)	70273	50.0000	49.7
$	20 Anthracene-d10	188	13.008	13.008	(1.005)	57617	50.0000	47.1
	21 Anthracene	178	13.040	13.040	(1.007)	70299	50.0000	49.8
	22 Carbazole	167	13.722	13.722	(1.060)	76518	50.0000	49.1
	23 1-Methylphenanthrene	192	13.984	13.984	(1.080)	71094	50.0000	49.0
$	24 Fluoranthene-d10	212	15.055	15.055	(1.163)	65324	50.0000	49.7
	25 Fluoranthene	202	15.084	15.084	(1.165)	78209	50.0000	48.7
	26 Pyrene	202	15.593	15.593	(0.881)	80860	50.0000	48.6
	27 Benzo(a)anthracene	228	17.602	17.602	(0.994)	74960	50.0000	48.7
*	28 Chrysene-d12	240	17.702	17.702	(1.000)	256124	200.000	
	29 Chrysene	228	17.751	17.751	(1.003)	78240	50.0000	49.5
	30 Benzo(b)fluoranthene	252	19.676	19.677	(0.941)	67228	50.0000	47.4
	31 Benzo(k)fluoranthene	252	19.734	19.725	(0.943)	72854	50.0000	47.7
	32 Benzo(g)fluoranthene	252	19.801	19.801	(0.947)	65246	50.0000	47.9(M)
$	33 Benzo(e)pyrene-d12	264	20.474	20.474	(0.979)	63425	50.0000	48.6(M)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
34 Benzo(e)pyrene	252	20.551	20.551	(0.983)	69030	50.0000	48.8
35 Benzo(a)pyrene	252	20.685	20.685	(0.989)	62495	50.0000	47.3
S 36 Perylene-d12	264	20.916	20.916	(1.000)	263051	200.000	
37 Perylene	252	20.993	20.993	(1.004)	65725	50.0000	47.6
S 38 Dibenzo(a,h)anthracene-d14	292	23.808	23.798	(1.138)	37128	50.0000	44.2(M)
39 Dibenzo(a,h)anthracene	278	23.941	23.941	(1.145)	51258	50.0000	44.3
40 Indeno(1,2,3-cd)pyrene	276	23.974	23.974	(1.146)	64322	50.0000	44.6
41 Benzo(g,h,i)perylene	276	25.370	25.370	(1.213)	60697	50.0000	46.8

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: N1116123106.D
Lab Smp Id: SEL0401-CAL2
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20161231.b\lowsim.m
Misc Info: 16-

Calibration Date: 31-DEC-2016
Calibration Time: 08:28
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	219654	109827	439308	212581	-3.22
11 Acenaphthene-d10	135248	67624	270496	132827	-1.79
18 Phenanthrene-d10	257021	128511	514042	247500	-3.70
28 Chrysene-d12	259511	129756	519022	256124	-1.31
36 Perylene-d12	257535	128768	515070	263051	2.14

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	7.23	6.73	7.73	7.23	0.00
11 Acenaphthene-d10	10.25	9.75	10.75	10.25	0.00
18 Phenanthrene-d10	12.95	12.45	13.45	12.95	0.00
28 Chrysene-d12	17.70	17.20	18.20	17.70	0.00
36 Perylene-d12	20.93	20.43	21.43	20.92	-0.05

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1116123106.D

Lab ID: SEL0401-CAL2
nt11.i, 20161231.b\lowsim.m, 31-DEC-2016 10:32

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

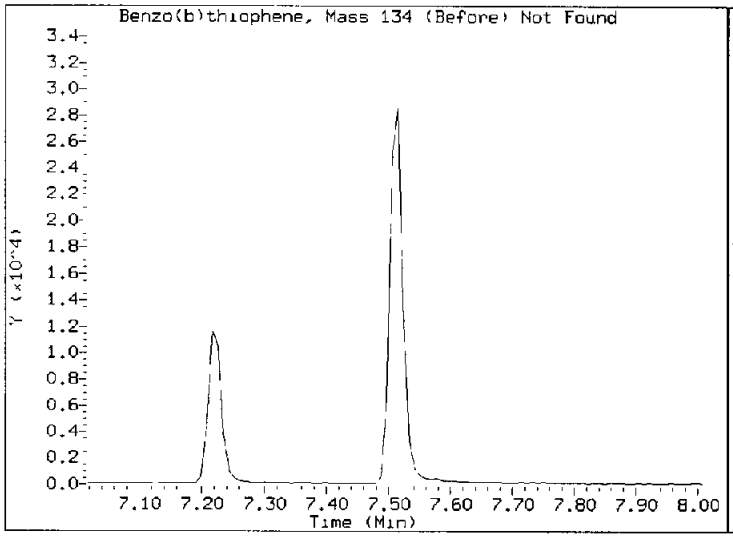
NONE

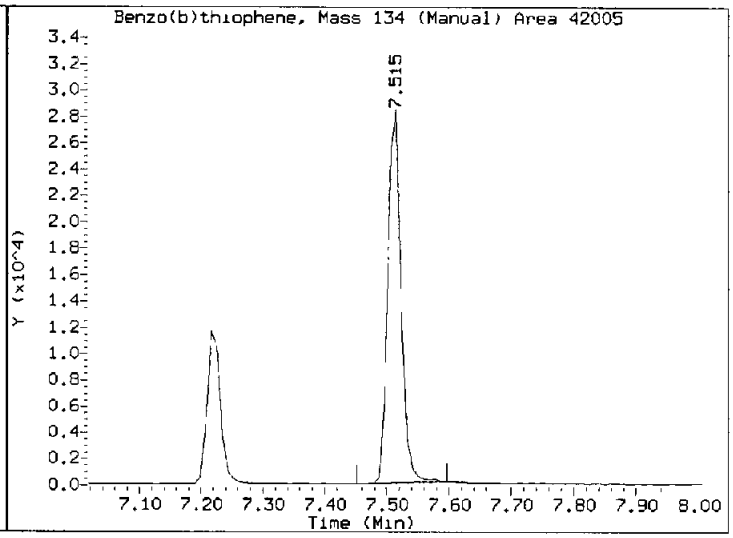
On Column LOD for nt11.i, 20161231.b\lowsim.m, allpna.sub = 3.0000

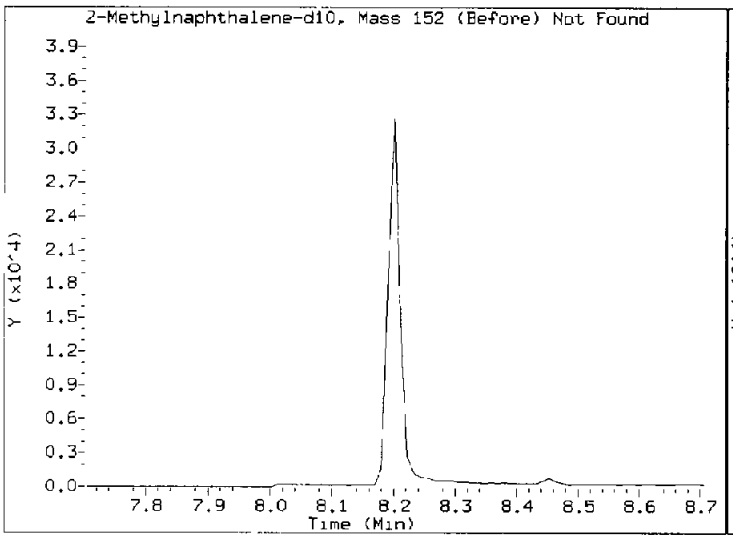
Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

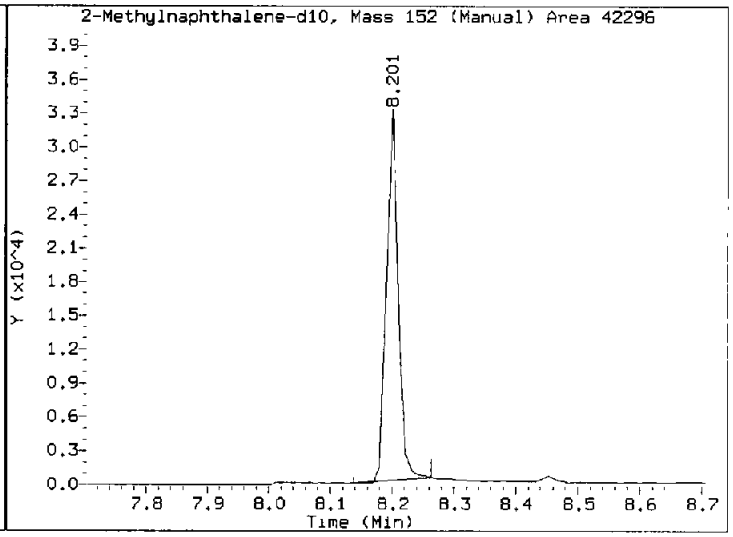
Quant Ion Manual Peak Adjustment Report

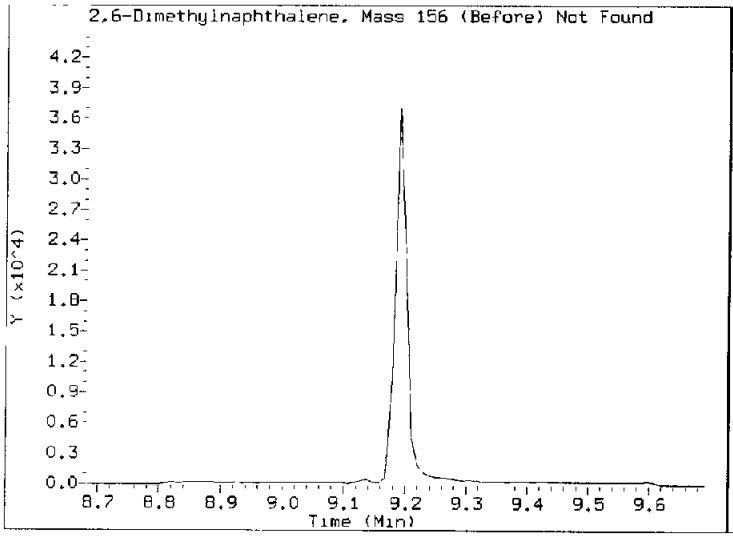
Datafile: //target/share/chem3/nt11.i/20161231.b/N1116123106.D
Injection Date: 31-DEC-2016 10:32
Lab ID:SEL0401-CAL2 Client ID:
Report Date: 12/31/2016 12:39

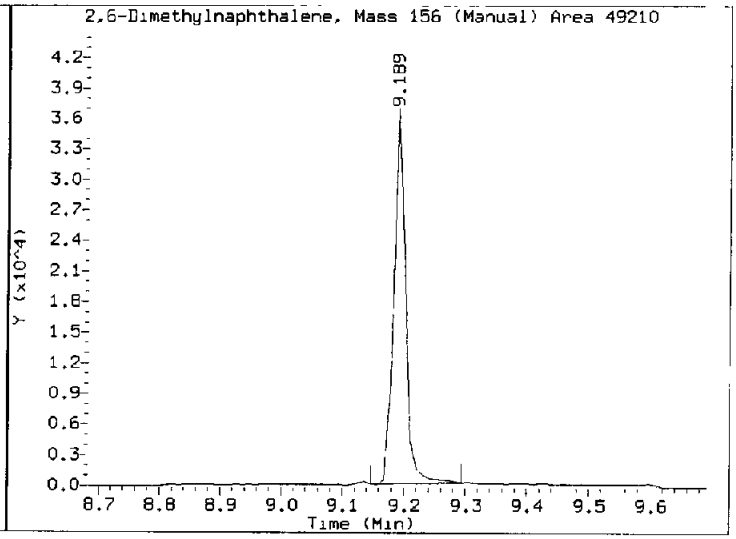






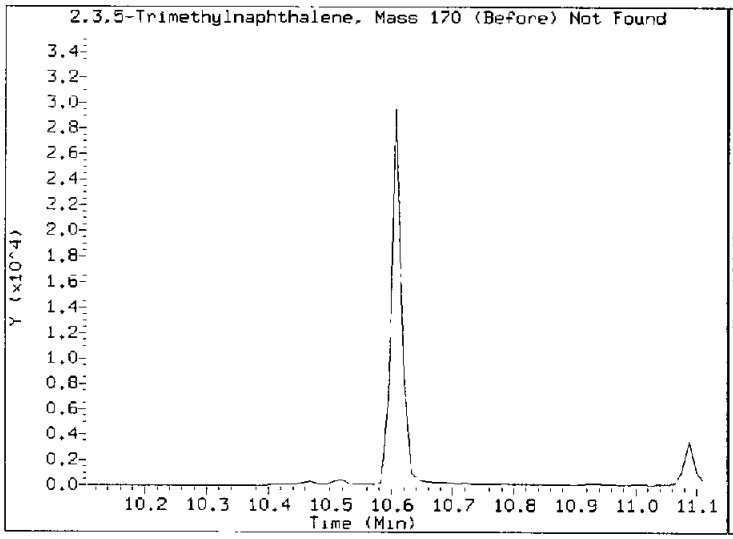


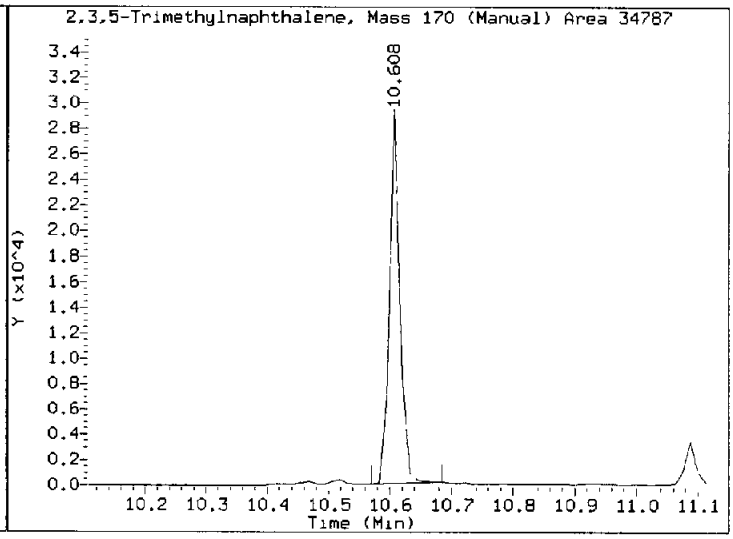


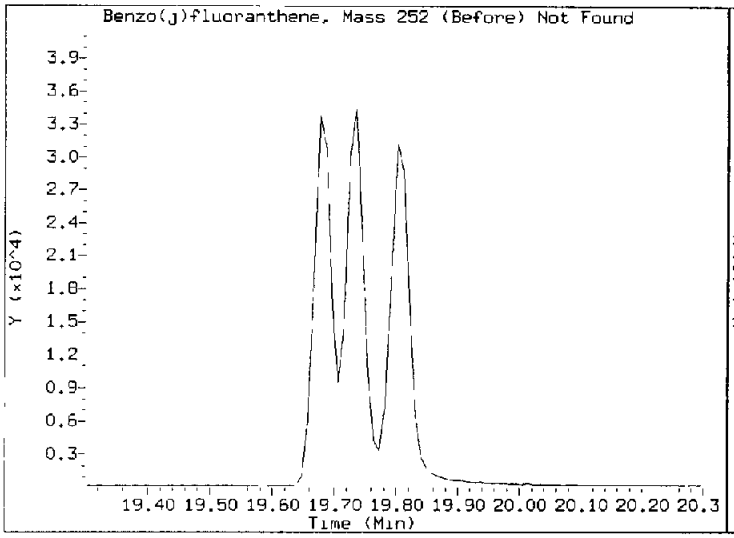


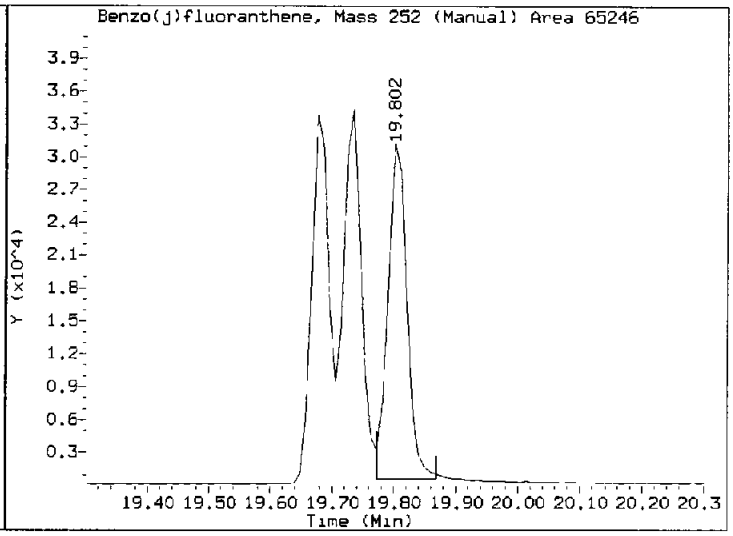
Quant Ion Manual Peak Adjustment Report

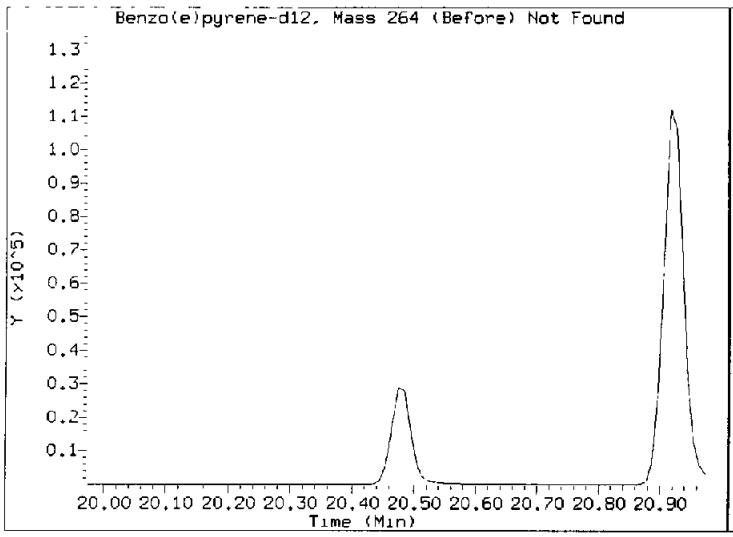
Datafile: //target/share/chem3/nt11.i/20161231.b/N1116123106.D
Injection Date: 31-DEC-2016 10:32
Lab ID:SEL0401-CAL2 Client ID:
Report Date: 12/31/2016 12:39

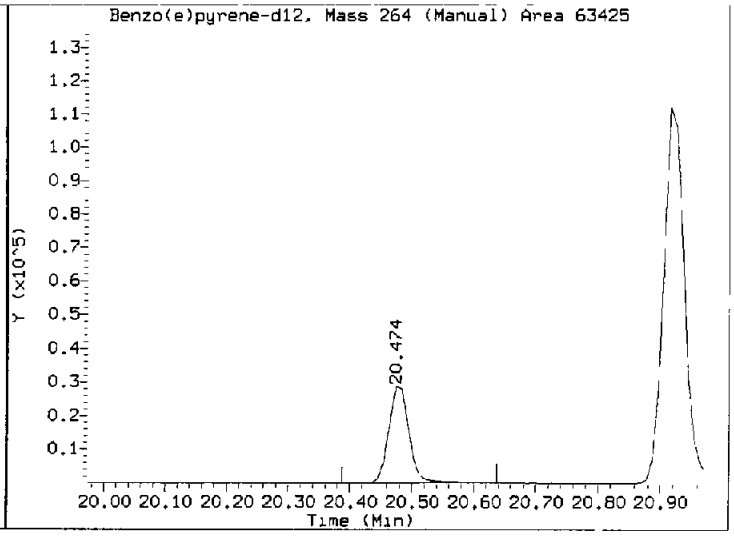






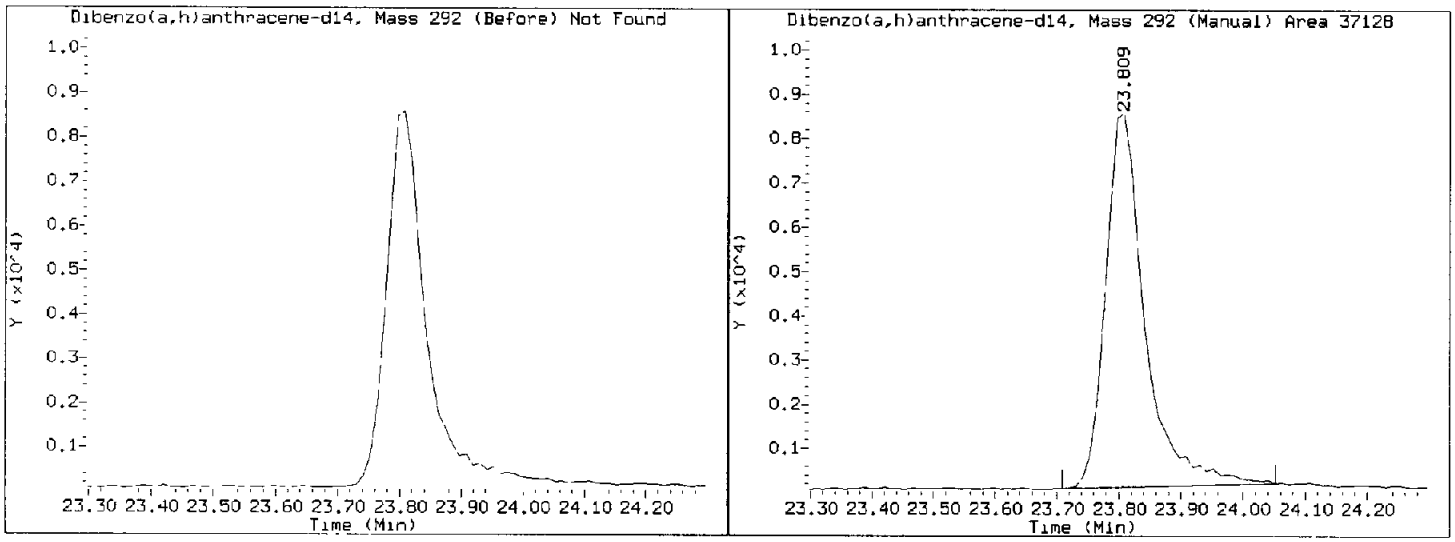






Quant Ion Manual Peak Adjustment Report

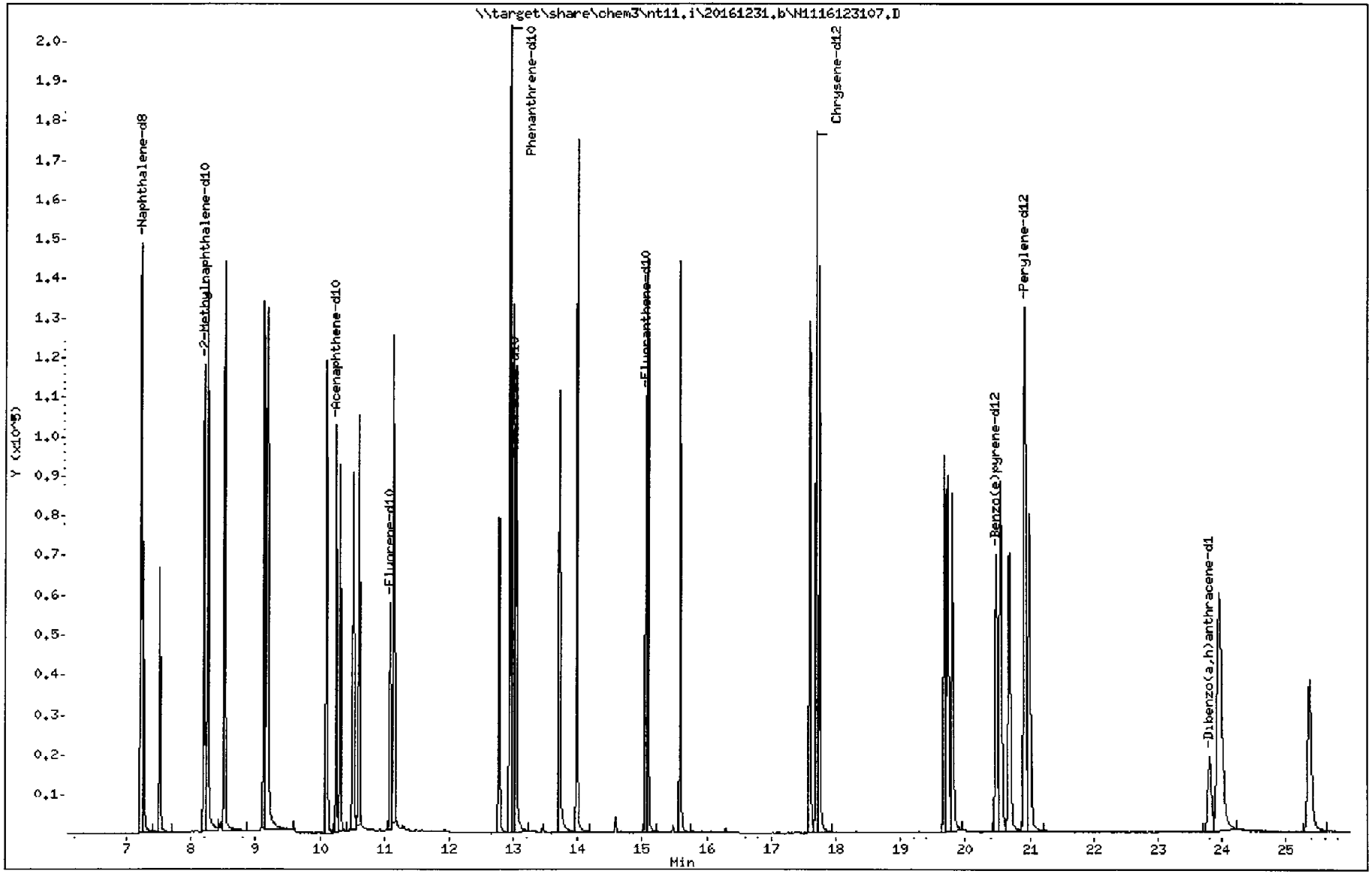
Datafile: //target/share/chem3/nt11.i/20161231.b/N1116123106.D
Injection Date: 31-DEC-2016 10:32
Lab ID:SEL0401-CAL2 Client ID:
Report Date: 12/31/2016 12:39



Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123107.D
Date : 31-DEC-2016 11:04
Client ID:
Sample Info: SEL0401-CAL3

Instrument: nt11.i
Operator: VTS
Column diameter: 0.25

Column phase: Rxi-17Sil MS



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20161231.b\N1116123107.D
Lab Smp Id: SEL0401-CAL3
Inj Date : 31-DEC-2016 11:04 MS Autotune Date: 15-JAN-2015 15:59
Operator : VTS Inst ID: nt11.i
Smp Info : SEL0401-CAL3
Misc Info : 16-
Comment :
Method : \\target\share\chem3\nt11.i\20161231.b\lowsim.m
Meth Date : 31-Dec-2016 12:34 van Quant Type: ISTD
Cal Date : 31-DEC-2016 09:30 Cal File: N1116123104.D
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
*	1 Naphthalene-d8	136	7.225	7.225	(1.000)	208170	200.000	
	2 Naphthalene	128	7.253	7.253	(1.004)	101572	100.000	97.8
	3 Benzo(b)thiophene	134	7.515	7.515	(1.040)	82581	100.000	97.6(M)
$	4 2-Methylnaphthalene-d10	152	8.201	8.201	(1.135)	86558	100.000	96.8(M)
	5 2-Methylnaphthalene	142	8.253	8.253	(1.142)	99728	100.000	97.4
	6 1-Methylnaphthalene	142	8.516	8.516	(1.179)	101149	100.000	98.2
	7 2-Chloronaphthalene	162	9.167	9.167	(0.894)	94464	100.000	97.4(M)
	8 Biphenyl	154	9.125	9.136	(0.890)	125960	100.000	97.6(M)
	9 2,6-Dimethylnaphthalene	156	9.188	9.188	(0.896)	96899	100.000	96.8(M)
	10 Acenaphthylene	152	10.098	10.098	(0.985)	112578	100.000	98.0
*	11 Acenaphthene-d10	164	10.251	10.252	(1.000)	127832	200.000	
	12 Acenaphthene	153	10.315	10.315	(1.006)	74293	100.000	98.2
	13 Dibenzofuran	168	10.519	10.519	(1.026)	112112	100.000	99.7
	14 2,3,5-Trimethylnaphthalene	170	10.607	10.607	(1.035)	70526	100.000	98.0(M)
$	15 Fluorene-d10	174	11.088	11.088	(1.082)	59191	100.000	96.5
	16 Fluorene	166	11.138	11.151	(1.086)	86588	100.000	96.7
	17 Dibenzothiophene	184	12.767	12.767	(0.986)	109440	100.000	99.8
*	18 Phenanthrene-d10	188	12.945	12.945	(1.000)	237418	200.000	
	19 Phenanthrene	178	12.987	12.987	(1.003)	136712	100.000	101
$	20 Anthracene-d10	188	13.008	13.008	(1.005)	114371	100.000	97.4
	21 Anthracene	178	13.040	13.040	(1.007)	136506	100.000	101
	22 Carbazole	167	13.713	13.722	(1.059)	150788	100.000	101
	23 1-Methylphenanthrene	192	13.984	13.984	(1.080)	137820	100.000	99.0
$	24 Fluoranthene-d10	212	15.055	15.055	(1.163)	124467	100.000	98.7
	25 Fluoranthene	202	15.084	15.084	(1.165)	154590	100.000	100
	26 Pyrene	202	15.593	15.593	(0.881)	158191	100.000	99.8
	27 Benzo(a)anthracene	228	17.602	17.602	(0.994)	145331	100.000	99.0
*	28 Chrysene-d12	240	17.702	17.702	(1.000)	244102	200.000	
	29 Chrysene	228	17.751	17.751	(1.003)	152677	100.000	101
	30 Benzo(b)fluoranthene	252	19.676	19.677	(0.941)	135434	100.000	97.1
	31 Benzo(k)fluoranthene	252	19.734	19.725	(0.943)	147228	100.000	98.0
	32 Benzo(j)fluoranthene	252	19.801	19.801	(0.947)	127307	100.000	95.1(M)
$	33 Benzo(e)pyrene-d12	264	20.474	20.474	(0.979)	126073	100.000	98.3(M)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
	34 Benzo(e)pyrene	252	20.551	20.551	(0.983)	136371	100.000	98.0
	35 Benzo(a)pyrene	252	20.685	20.685	(0.989)	127441	100.000	98.0
*	36 Perylene-d12	264	20.916	20.916	(1.000)	258780	200.000	
	37 Perylene	252	20.993	20.993	(1.004)	133582	100.000	98.4
$	38 Dibenzo(a,h)arthracene-d14	292	23.808	23.798	(1.138)	75247	100.000	91.1(M)
	39 Dibenzo(a,h)arthracene	278	23.941	23.941	(1.145)	107919	100.000	94.3
	40 Indeno(1,2,3-cd)pyrene	276	23.974	23.974	(1.146)	136126	100.000	95.9
	41 Benzo(g,h,i)perylene	276	25.370	25.370	(1.213)	122623	100.000	96.2

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: N1116123107.D
Lab Smp Id: SEL0401-CAL3
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20161231.b\lowsim.m
Misc Info: 16-

Calibration Date: 31-DEC-2016
Calibration Time: 08:28
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	219654	109827	439308	208170	-5.23
11 Acenaphthene-d10	135248	67624	270496	127832	-5.48
18 Phenanthrene-d10	257021	128511	514042	237418	-7.63
28 Chrysene-d12	259511	129756	519022	244102	-5.94
36 Perylene-d12	257535	128768	515070	258780	0.48

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	7.23	6.73	7.73	7.23	0.00
11 Acenaphthene-d10	10.25	9.75	10.75	10.25	0.00
18 Phenanthrene-d10	12.95	12.45	13.45	12.95	0.00
28 Chrysene-d12	17.70	17.20	18.20	17.70	0.00
36 Perylene-d12	20.93	20.43	21.43	20.92	-0.05

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1116123107.D

Lab ID: SEL0401-CAL3
nt11.i, 20161231.b\lowsim.m, 31-DEC-2016 11:04

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

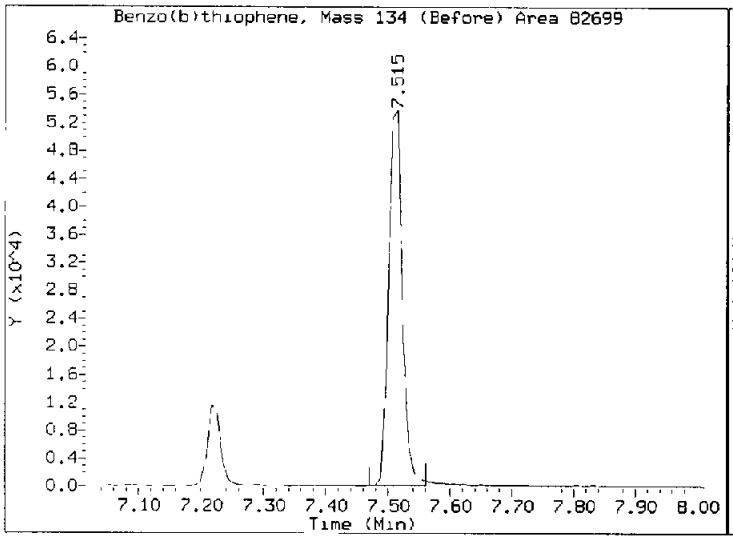
NONE

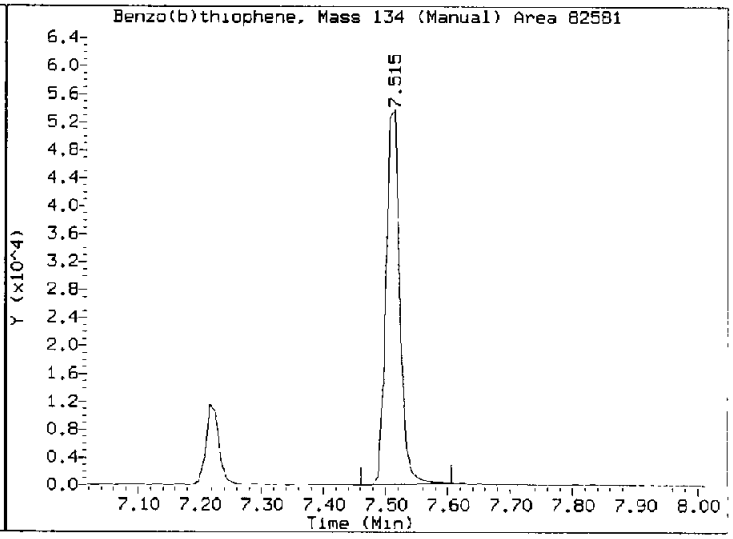
On Column LOD for nt11.i, 20161231.b\lowsim.m, allpna.sub = 3.0000

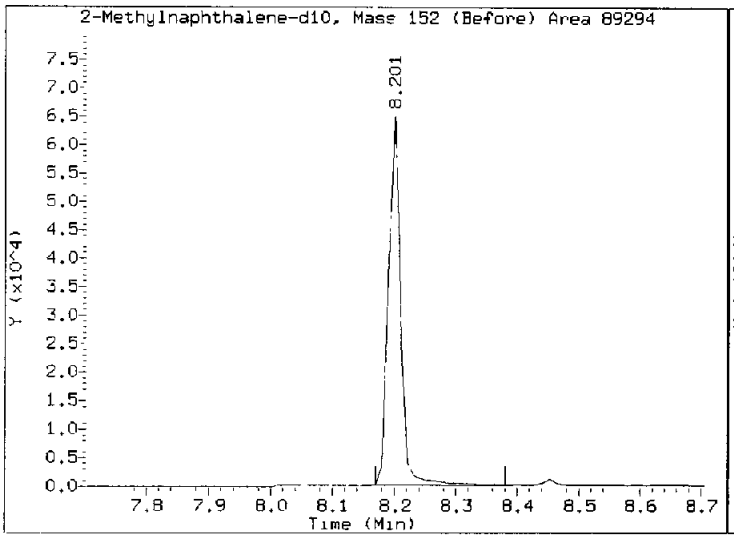
Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

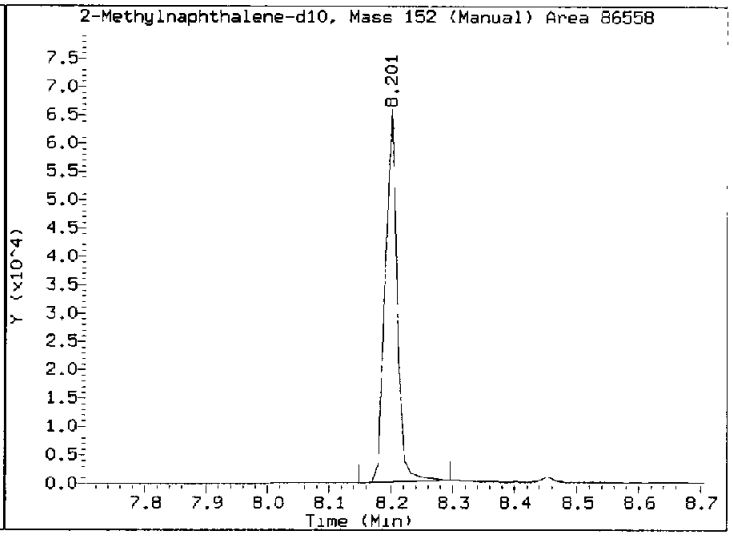
Quant Ion Manual Peak Adjustment Report

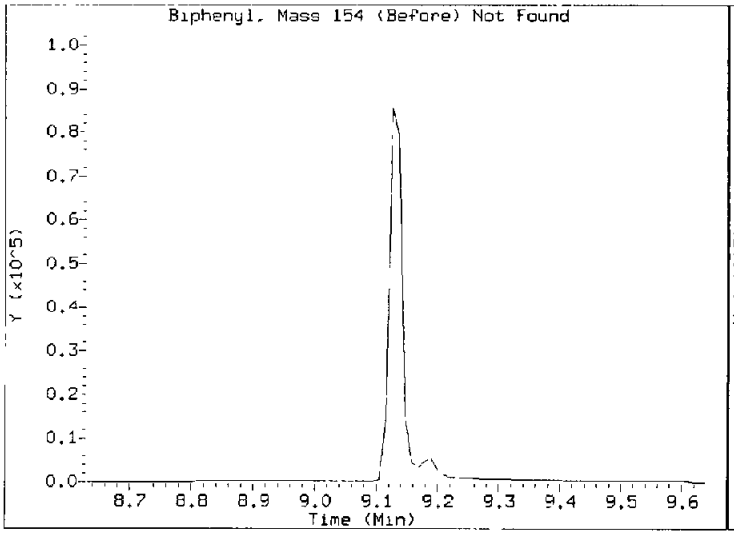
Datafile: //target/share/chem3/nt11.i/20161231.b/N1116123107.D
Injection Date: 31-DEC-2016 11:04
Lab ID:SEL0401-CAL3 Client ID:
Report Date: 12/31/2016 12:39

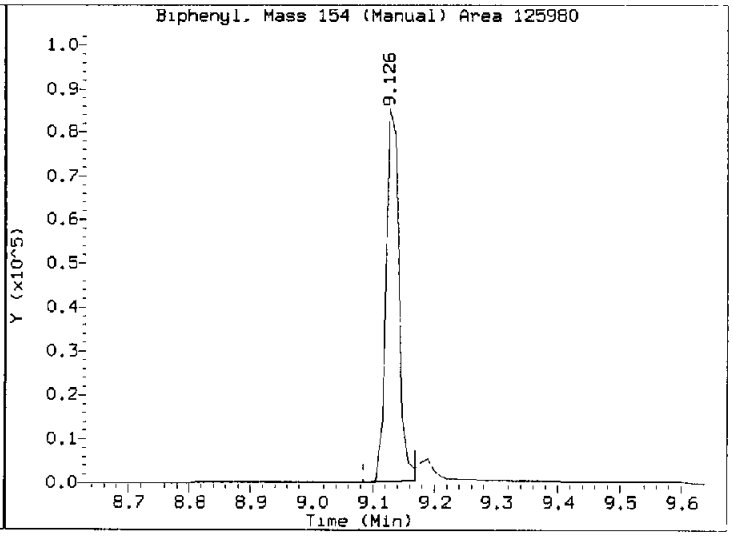






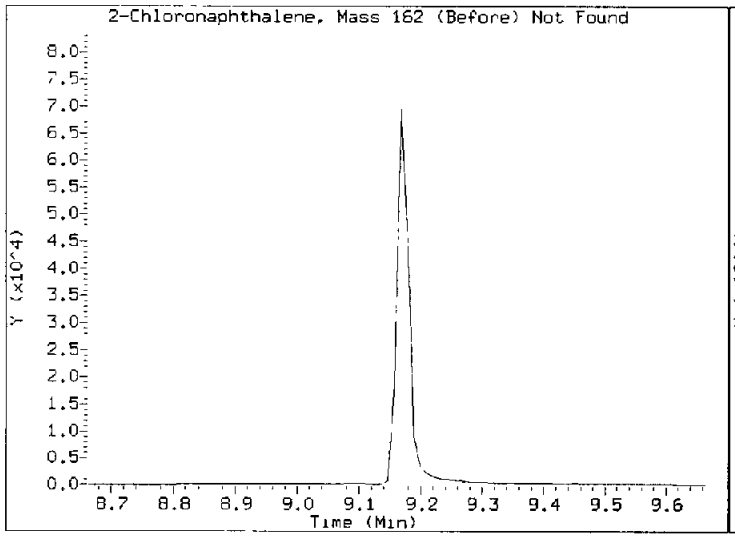


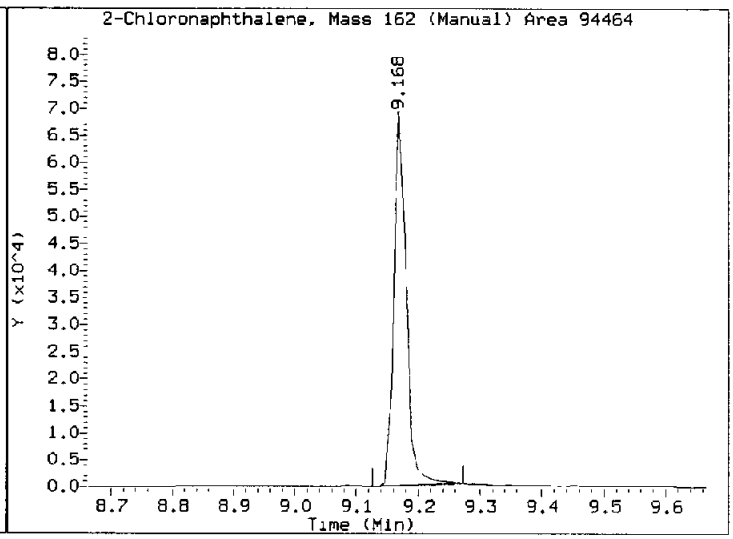


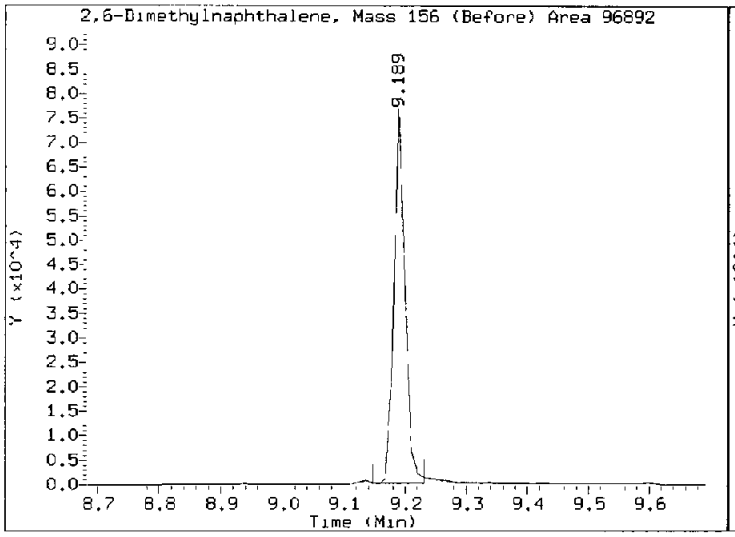


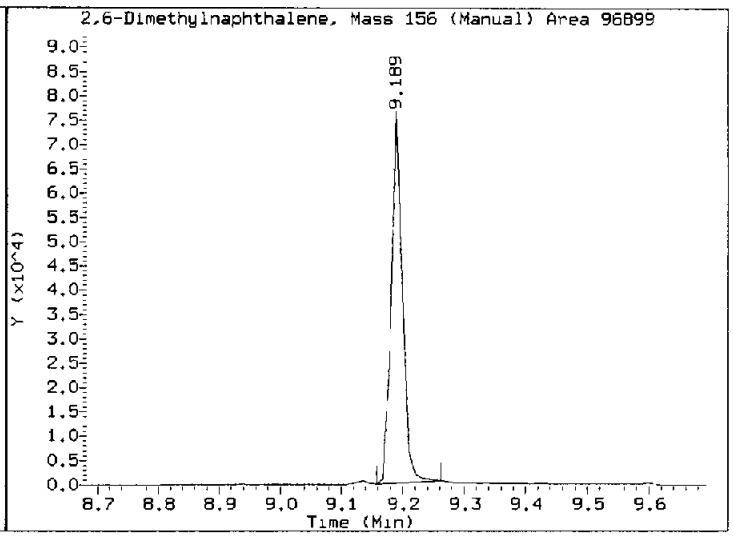
Quant Ion Manual Peak Adjustment Report

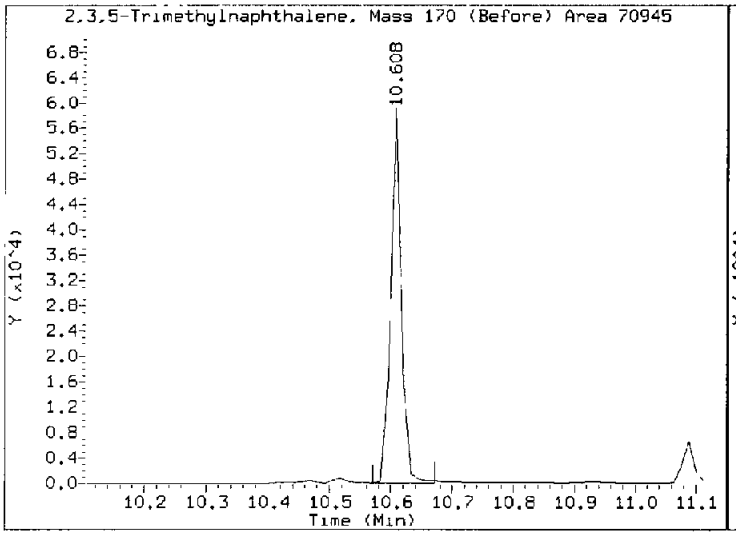
Datafile: //target/share/chem3/nt11.i/20161231.b/N1116123107.D
Injection Date: 31-DEC-2016 11:04
Lab ID:SEL0401-CAL3 Client ID:
Report Date: 12/31/2016 12:39

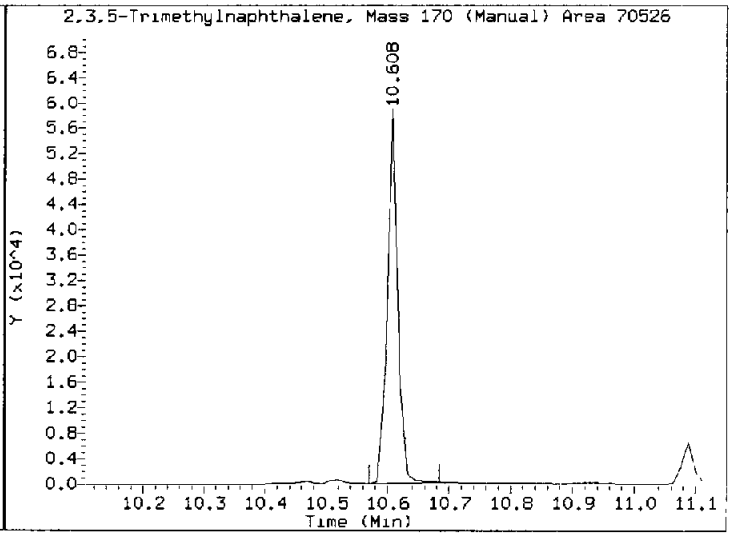






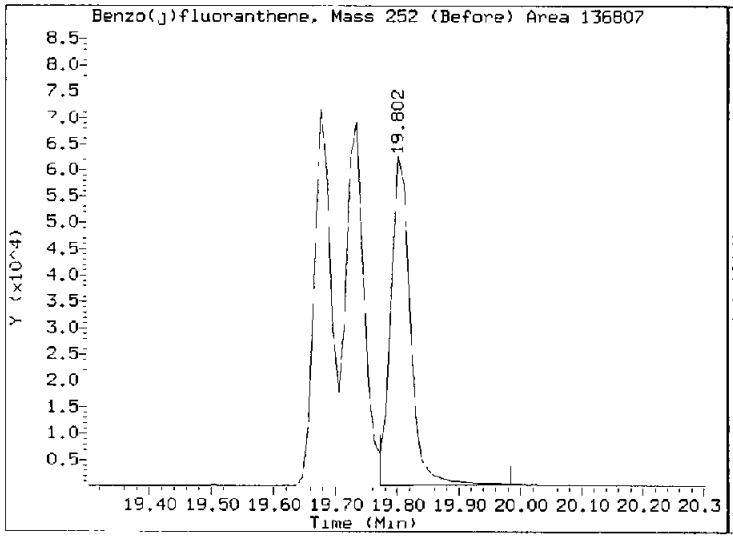


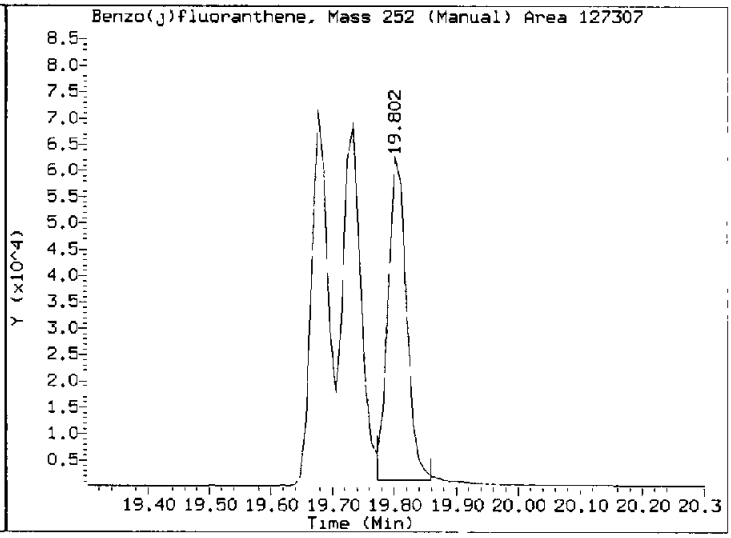


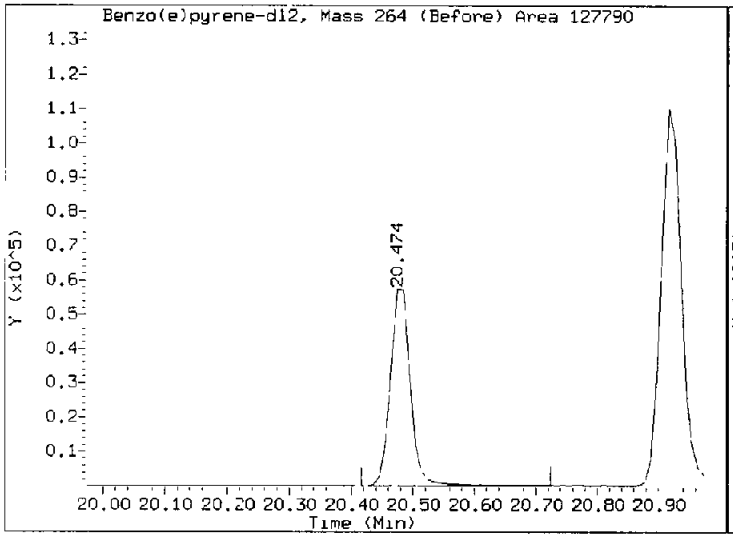


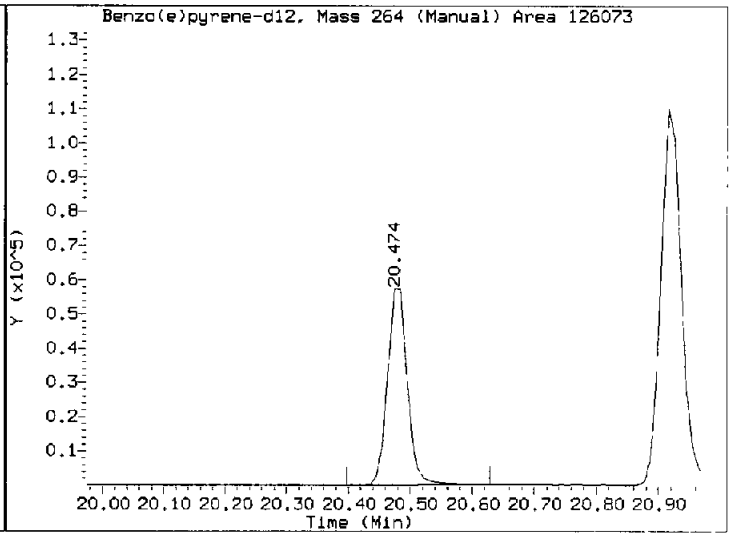
Quant Ion Manual Peak Adjustment Report

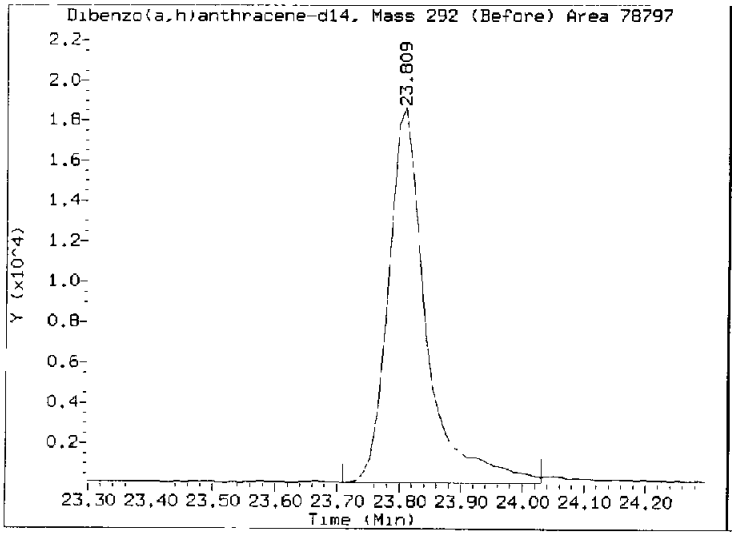
Datafile: //target/share/chem3/nt11.i/20161231.b/N1116123107.D
Injection Date: 31-DEC-2016 11:04
Lab ID:SEL0401-CAL3 Client ID:
Report Date: 12/31/2016 12:39

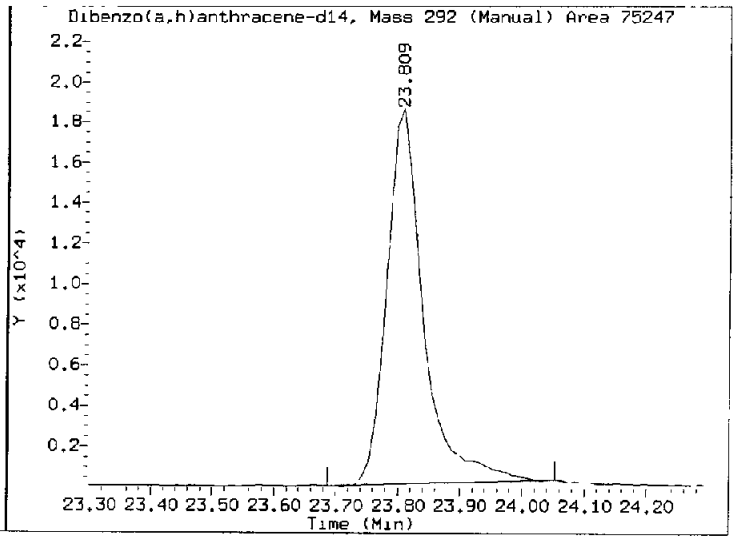












Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123108.D

Date : 31-DEC-2016 11:35

Client ID:

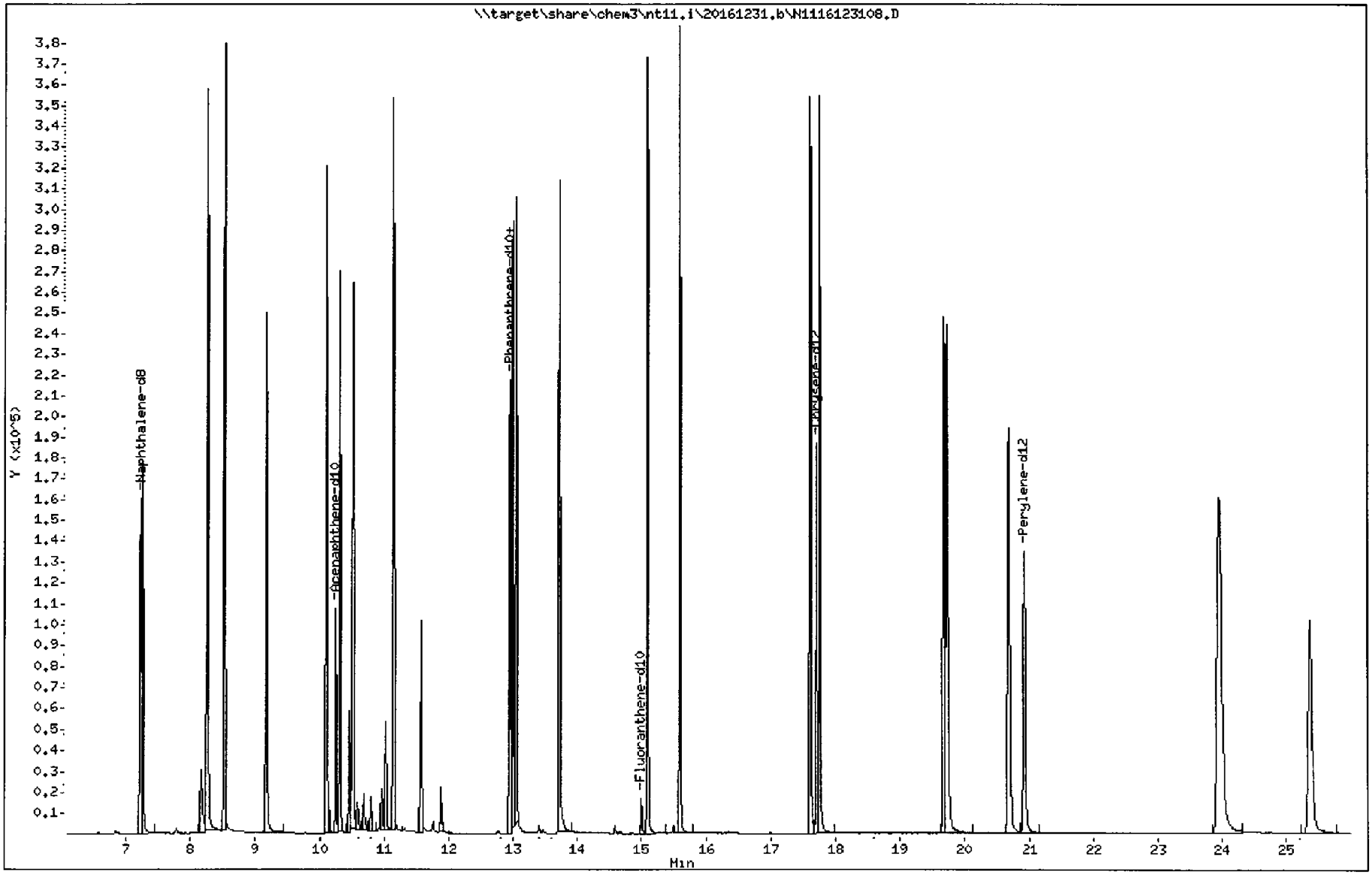
Sample Info: SEL0401-SCV1

Instrument: nt11.i

Operator: WTS

Column phase: Rx1-17Sil MS

Column diameter: 0.25



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20161231.b\N1116123108.D
Lab Smp Id: SEL0401-SCV1
Inj Date : 31-DEC-2016 11:35 MS Autotune Date: 15-JAN-2015 15:59
Operator : VTS Inst ID: nt11.i
Smp Info : SEL0401-SCV1
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20161231.b\lowsim.m
Meth Date : 31-Dec-2016 12:34 van Quant Type: ISTD
Cal Date : 31-DEC-2016 09:30 Cal File: N1116123104.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: newpna.sub
Target Version: 4.14
Processing Host: VANS

	Compound	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	7.225	7.225	(1.000)	210327	200.000	
	2 Naphthalene	128	7.253	7.253	(1.004)	263035	250.596	251
$	4 2-Methylnaphthalene-d10	152	Compound Not Detected.					
	5 2-Methylnaphthalene	142	8.253	8.253	(1.142)	257930	249.327	249
	6 1-Methylnaphthalene	142	8.516	8.516	(1.179)	246162	236.587	237
	10 Acenaphthylene	152	10.098	10.098	(0.985)	293179	254.726	255
*	11 Acenaphthene-d10	164	10.252	10.252	(1.000)	128092	200.000	
	12 Acenaphthene	153	10.315	10.315	(1.006)	209513	276.477	276
	13 Dibenzofuran	168	10.519	10.519	(1.026)	321591	285.478	285
	16 Fluorene	166	11.138	11.151	(1.086)	240770	268.478	268
*	18 Phenanthrene-d10	188	12.945	12.945	(1.000)	246665	200.000	
	19 Phenanthrene	178	12.987	12.987	(1.003)	354560	251.418	251
	21 Anthracene	178	13.040	13.040	(1.007)	334329	237.762	238
$	24 Fluoranthene-d10	212	15.007	15.055	(1.159)	1972	1.50522	1.51
	25 Fluoranthene	202	15.084	15.084	(1.165)	404582	252.915	253
	26 Pyrene	202	15.593	15.593	(0.881)	409188	246.982	247
	27 Benzo(a)anthracene	228	17.602	17.602	(0.994)	388934	253.509	254
*	28 Chrysene-d12	240	17.702	17.702	(1.000)	255043	200.000	
	29 Chrysene	228	17.751	17.751	(1.003)	380528	241.811	242
	30 Benzo(b)fluoranthene	252	19.676	19.677	(0.941)	361602	252.797	253
	31 Benzo(k)fluoranthene	252	19.734	19.725	(0.943)	403824	262.109	262
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
	35 Benzo(a)pyrene	252	20.685	20.685	(0.989)	331475	248.577	249
*	36 Perylene-d12	264	20.916	20.916	(1.000)	265358	200.000	
	37 Perylene	252	Compound Not Detected.					
$	38 Dibenz(a,h)anthracene-d14	292	Compound Not Detected.					
	39 Dibenz(a,h)anthracene	278	23.941	23.941	(1.145)	280435	240.373	240
	40 Indeno(1,2,3-cd)pyrene	276	23.974	23.974	(1.146)	361280	248.156	248
	41 Benzo(g,h,i)perylene	276	25.370	25.370	(1.213)	322290	246.575	247

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: N1116123108.D
Lab Smp Id: SEL0401-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20161231.b\lowsim.m
Misc Info:

Calibration Date: 31-DEC-2016
Calibration Time: 08:28
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	219654	109827	439308	210327	-4.25
11 Acenaphthene-d10	135248	67624	270496	128092	-5.29
18 Phenanthrene-d10	257021	128511	514042	246665	-4.03
28 Chrysene-d12	259511	129756	519022	255043	-1.72
36 Perylene-d12	257535	128768	515070	265358	3.04

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	7.23	6.73	7.73	7.23	0.00
11 Acenaphthene-d10	10.25	9.75	10.75	10.25	0.00
18 Phenanthrene-d10	12.95	12.45	13.45	12.95	0.00
28 Chrysene-d12	17.70	17.20	18.20	17.70	0.00
36 Perylene-d12	20.93	20.43	21.43	20.92	-0.05

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1116123108.D

Lab ID: SEL0401-SCV1
nt11.i, 20161231.b\lowsim.m, 31-DEC-2016 11:35

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20161231.b\lowsim.m, newpna.sub = 3.0000

Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Fluoranthene-d10 (Surr) 0.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000

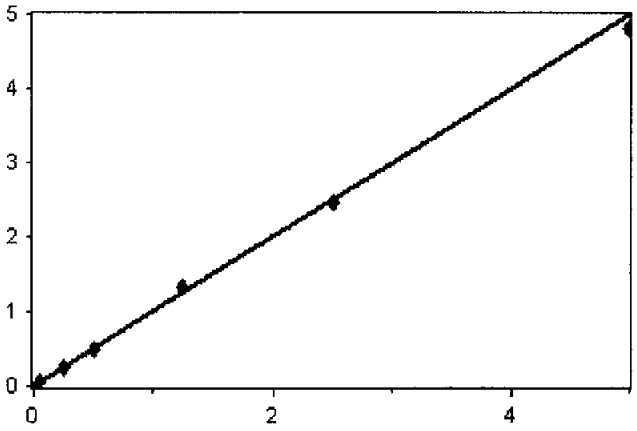
Calibration Report

Instrument:	**NT11**	**Calibration Date:**	**31-Dec-2016 12:55 By VTS**
Calibration ID:	**ZL00083**	**Last Edit Date:**	**31-Dec-2016 12:56 By VTS**

8270D-SIM PAH Low (0.0

Naphthalene

8270D-SIM PAH Low (0 01 ug/L - 0.5 ug/kg) - Naphthalene



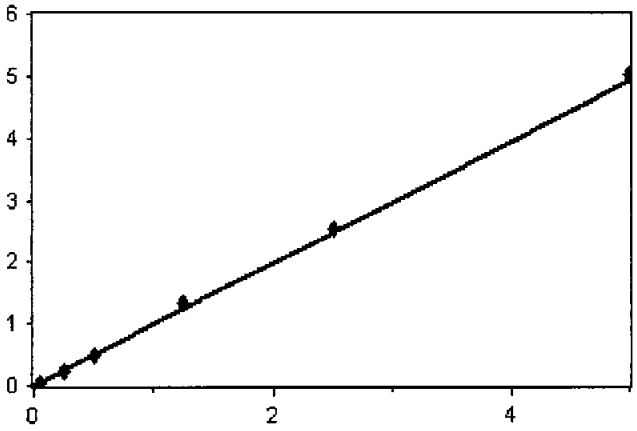
Average RF

RF RSD: 3.5253

[Conc] = 0.9981003 * [Response]

2-Methylnaphthalene

8270D-SIM PAH Low (0 01 ug/L - 0 5 ug/kg) - 2-Methylnaphthaler



Average RF

RF RSD: 5.634266

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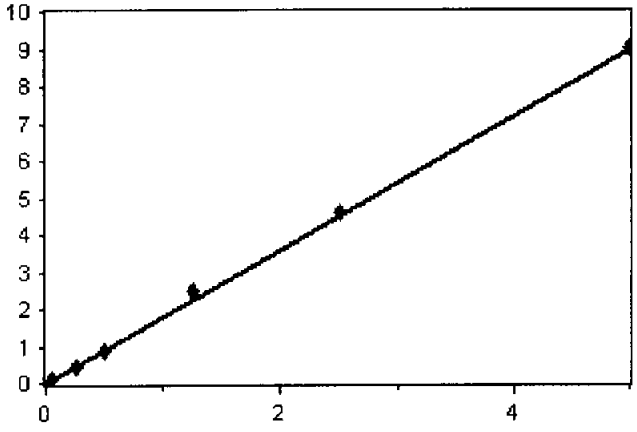
Acenaphthylene

8270D-SIM PAH Low (0 01 ug/L - 0 5 ug/kg) - Acenaphthylene



Average RF

RF RSD: 6.436631

[Conc] = 1.797084 * [Response]

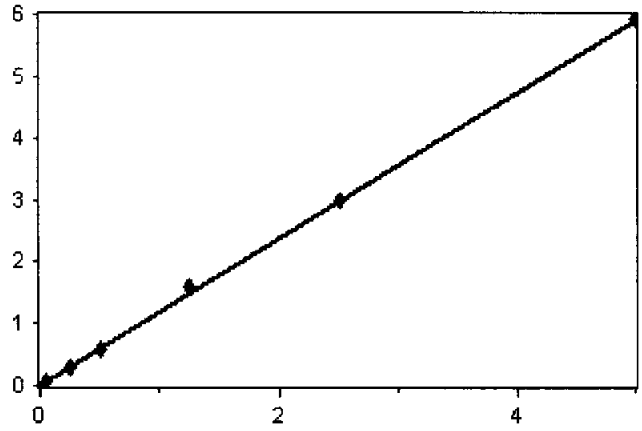
Calibration Report

Instrument:	**NT11**	**Calibration Date:**	**31-Dec-2016 12:55 By VTS**
Calibration ID:	**ZL00083**	**Last Edit Date:**	**31-Dec-2016 12:56 By VTS**

8270D-SIM PAH Low (0.0

Acenaphthene

8270D-SIM PAH Low (0 01 ug/L - 0 5 ug/kg) - Acenaphthene



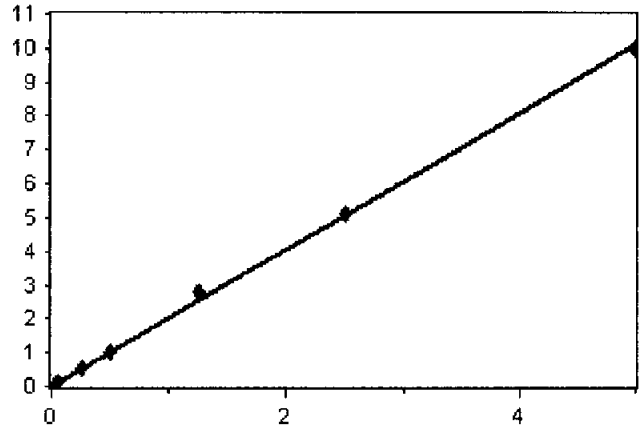
Average RF

RF RSD: 4.850335

[Conc] = 1.183206 * [Response]

Biphenyl

8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - Biphenyl



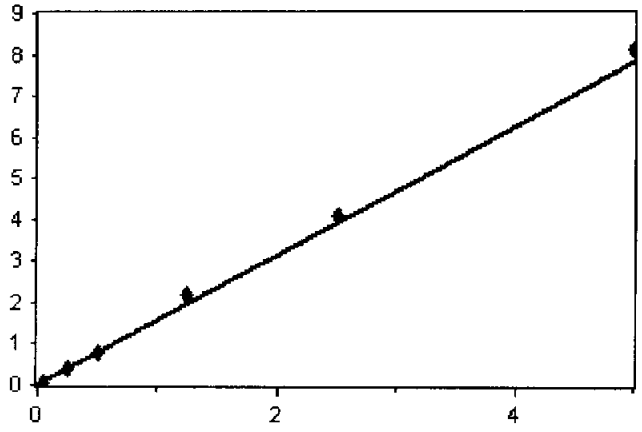
Average RF

RF RSD: 6.633739

[Conc] = 2.018666 * [Response]

2,6-Dimethylnaphthalene

3270D-SIM PAH Low (0 01 ug/L - 0.5 ug/kg) - 2,6-Dimethylnaphthal



Average RF

RF RSD: 8.153153

[Conc] = 1.565384 * [Response]

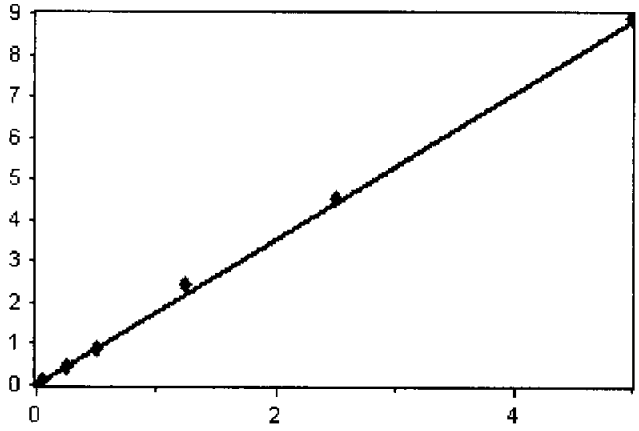
Calibration Report

Instrument:	**NT11**	**Calibration Date:**	**31-Dec-2016 12:55 By VTS**
Calibration ID:	**ZL00083**	**Last Edit Date:**	**31-Dec-2016 12:56 By VTS**

8270D-SIM PAH Low (0.0

Dibenzofuran

8270D-SIM PAH Low (0 01 ug/L - 0.5 ug/kg) - Dibenzofuran



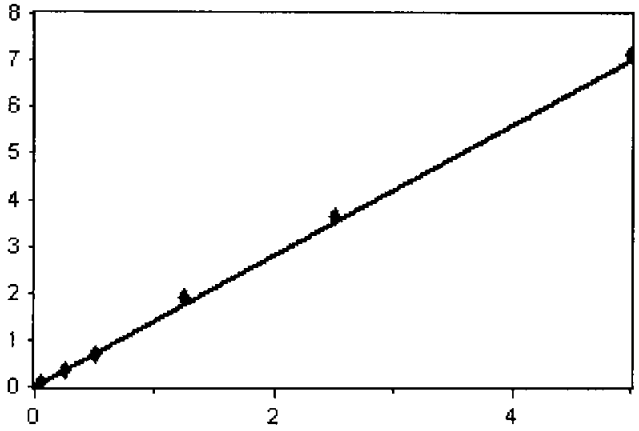
Average RF

RF RSD: 6.590145

[Conc] = 1.758895 * [Response]

Fluorene

8270D-SIM PAH Low (0.01 ug/L - 0 5 ug/kg) - Fluorene



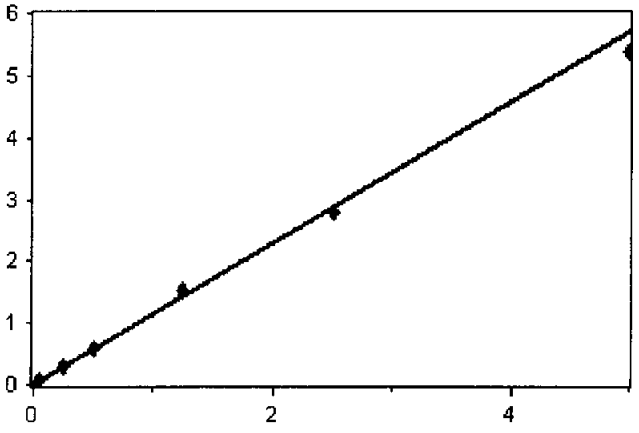
Average RF

RF RSD: 5.920069

[Conc] = 1.400239 * [Response]

Phenanthrene

8270D-SIM PAH Low (0 01 ug/L - 0 5 ug/kg) - Phenanthrene



Average RF

RF RSD: 4.370087

[Conc] = 1.143447 * [Response]

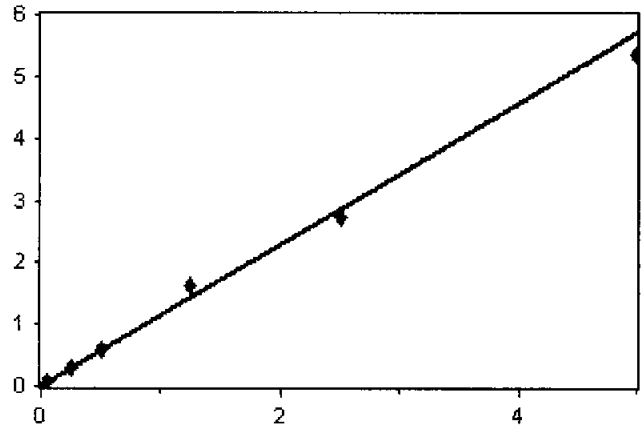
Calibration Report

Instrument:	**NT11**	**Calibration Date:**	**31-Dec-2016 12:55 By VTS**
Calibration ID:	**ZL00083**	**Last Edit Date:**	**31-Dec-2016 12:56 By VTS**

8270D-SIM PAH Low (0.0

Anthracene

8270D-SIM PAH Low (0 01 ug/L - 0 5 ug/kg) - Anthracene



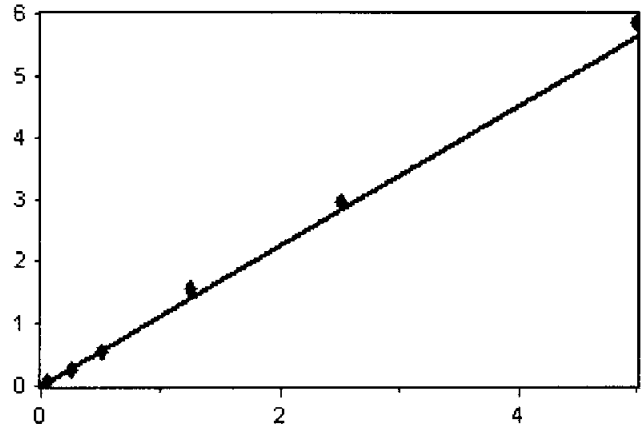
Average RF

RF RSD: 7.165979

[Conc] = 1.140131 * [Response]

2,3,5-Trimethylnaphthalene

270D-SIM PAH Low (0 01 ug/L - 0 5 ug/kg) - 2,3,5-Trimethylnaphthe



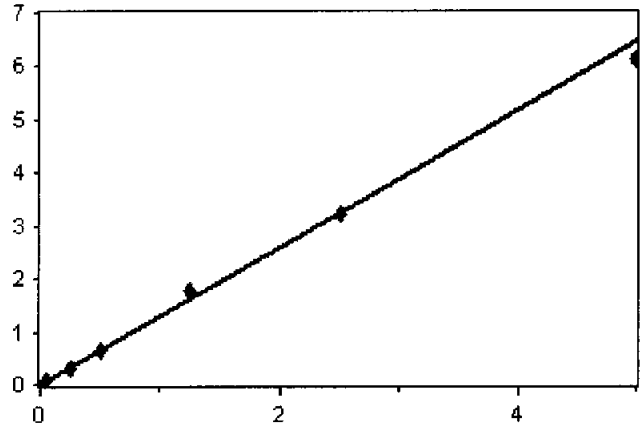
Average RF

RF RSD: 8.281944

[Conc] = 1.125509 * [Response]

Fluoranthene

8270D-SIM PAH Low (0.01 ug/L - 0 5 ug/kg) - Fluoranthene



Average RF

RF RSD: 4.813317

[Conc] = 1.297041 * [Response]

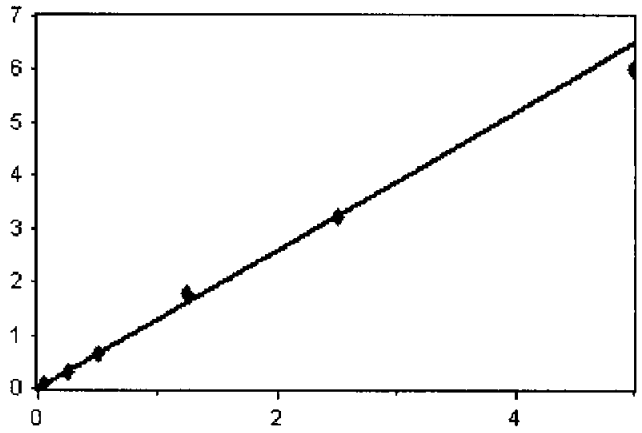
Calibration Report

Instrument:	**NT11**	**Calibration Date:**	**31-Dec-2016 12:55 By VTS**
Calibration ID:	**ZL00083**	**Last Edit Date:**	**31-Dec-2016 12:56 By VTS**

8270D-SIM PAH Low (0.0

Pyrene

8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - Pyrene



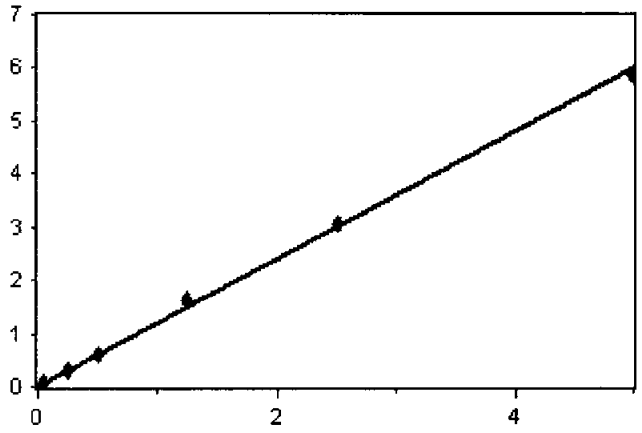
Average RF

RF RSD: 5.436503

[Conc] = 1.299195 * [Response]

Benzo(a)anthracene

8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - Benzo(a)anthracer



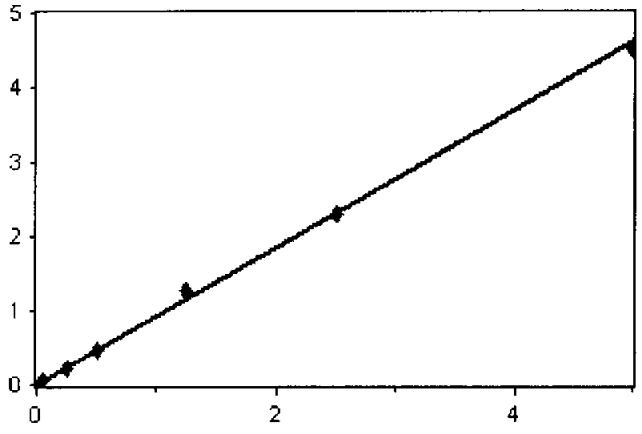
Average RF

RF RSD: 4.362763

[Conc] = 1.202617 * [Response]

Dibenzothiophene

8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - Dibenzothiophene



Average RF

RF RSD: 5.101806

[Conc] = 0.9235267 * [Response]

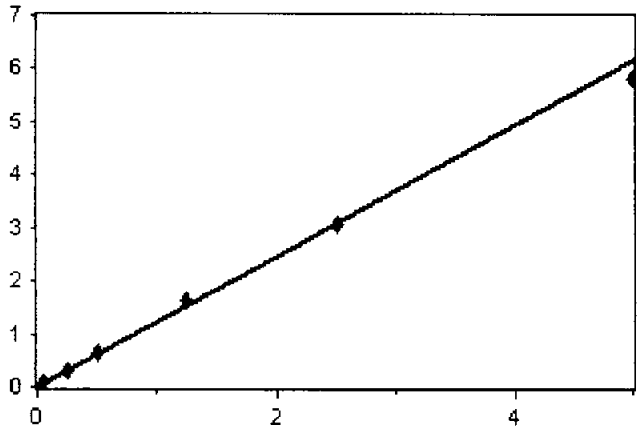
Calibration Report

Instrument:	**NT11**	**Calibration Date:**	**31-Dec-2016 12:55 By VTS**
Calibration ID:	**ZL00083**	**Last Edit Date:**	**31-Dec-2016 12:56 By VTS**

8270D-SIM PAH Low (0.0

Chrysene

8270D-SIM PAH Low (0 01 ug/L - 0.5 ug/kg) - Chrysene



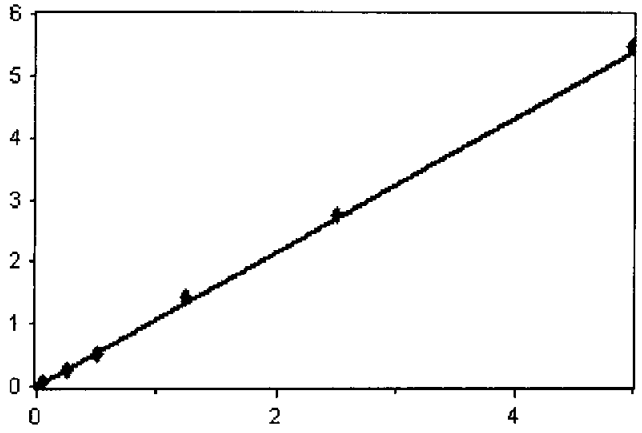
Average RF

RF RSD: 3.940153

[Conc] = 1.234032 * [Response]

Benzo(b)fluoranthene

8270D-SIM PAH Low (0 01 ug/L - 0 5 ug/kg) - Benzo(b)fluoranthe



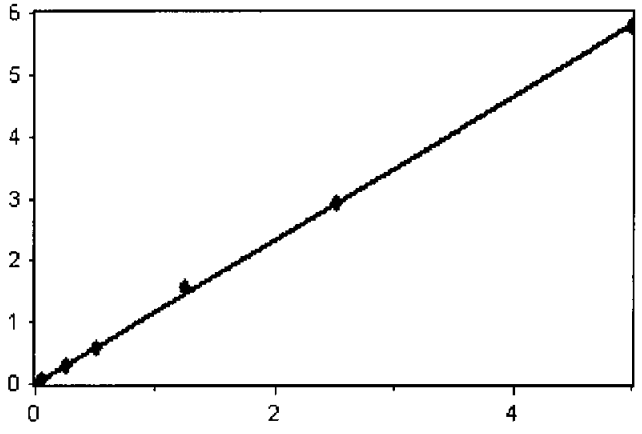
Average RF

RF RSD: 4.34092

[Conc] = 1.078092 * [Response]

Benzo(k)fluoranthene

8270D-SIM PAH Low (0 01 ug/L - 0 5 ug/kg) - Benzo(k)fluoranther



Average RF

RF RSD: 4.41446

[Conc] = 1.161201 * [Response]

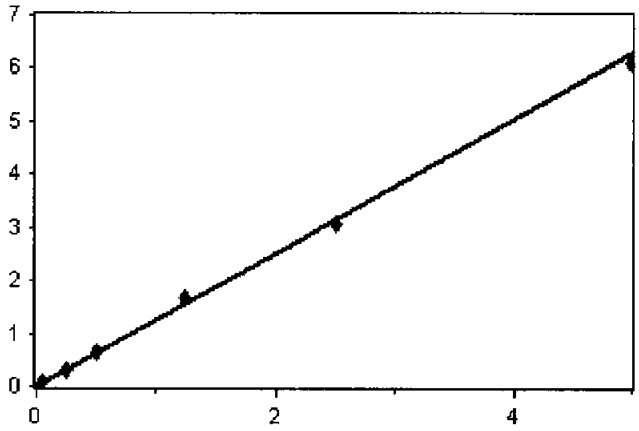
Calibration Report

Instrument:	**NT11**	**Calibration Date:**	**31-Dec-2016 12:55 By VTS**
Calibration ID:	**ZL00083**	**Last Edit Date:**	**31-Dec-2016 12:56 By VTS**

8270D-SIM PAH Low (0.0

Carbazole

8270D-SIM PAH Low (0 01 ug/L - 0 5 ug/kg) - Carbazole



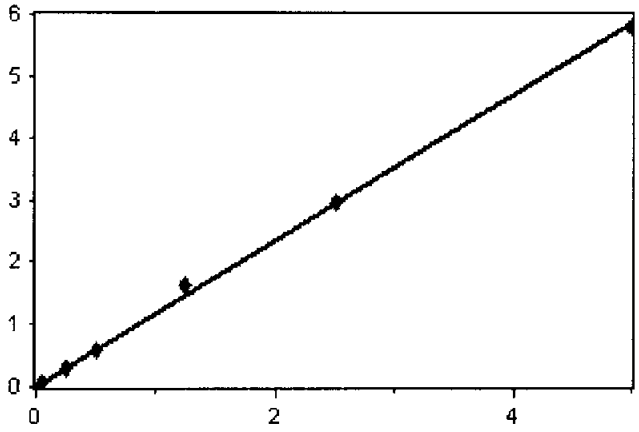
Average RF

RF RSD: 3.212159

[Conc] = 1.258224 * [Response]

1-Methylphenanthrene

8270D-SIM PAH Low (0 01 ug/L - 0 5 ug/kg) - 1-Methylphenanthre



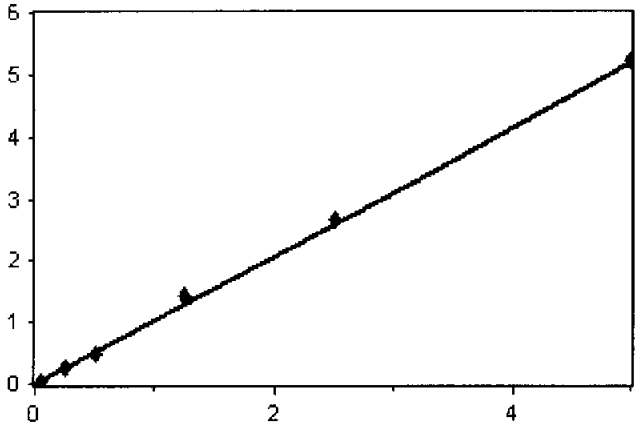
Average RF

RF RSD: 5.816212

[Conc] = 1.172626 * [Response]

Benzo(j)fluoranthene

8270D-SIM PAH Low (0 01 ug/L - 0.5 ug/kg) - Benzo(j)fluoranther



Average RF

RF RSD: 6.615181

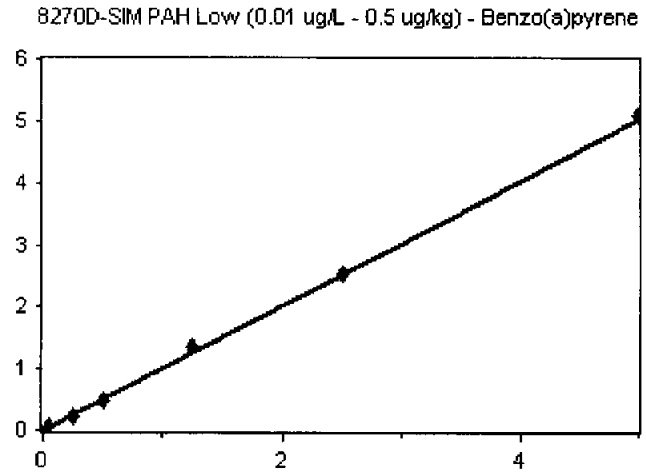
[Conc] = 1.035077 * [Response]

Calibration Report

Instrument:	**NT11**	**Calibration Date:**	**31-Dec-2016 12:55 By VTS**
Calibration ID:	**ZL00083**	**Last Edit Date:**	**31-Dec-2016 12:56 By VTS**

8270D-SIM PAH Low (0.0

Benzo(a)pyrene

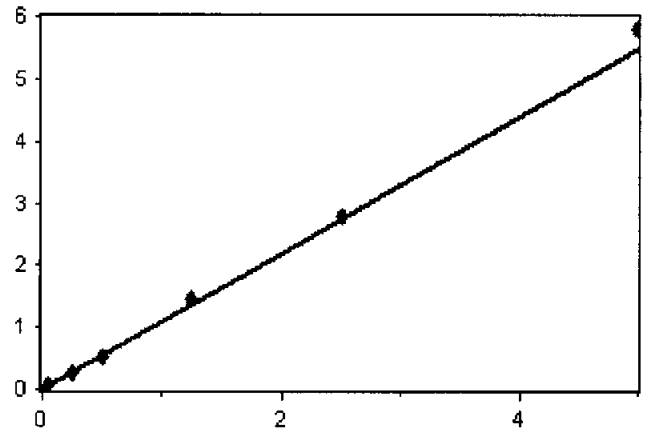


Average RF

RF RSD: 4.453594

[Conc] = 1.005051 * [Response]

Indeno(1,2,3-cd)pyrene

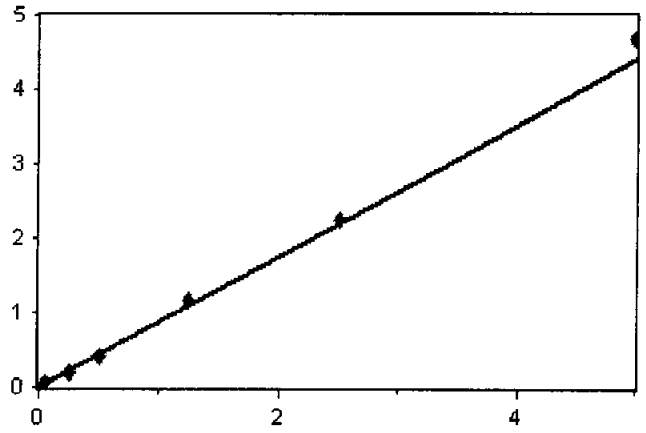


Average RF

RF RSD: 6.535008

[Conc] = 1.09728 * [Response]

Dibenzo(a,h)anthracene



Average RF

RF RSD: 6.951658

[Conc] = 0.879316 * [Response]

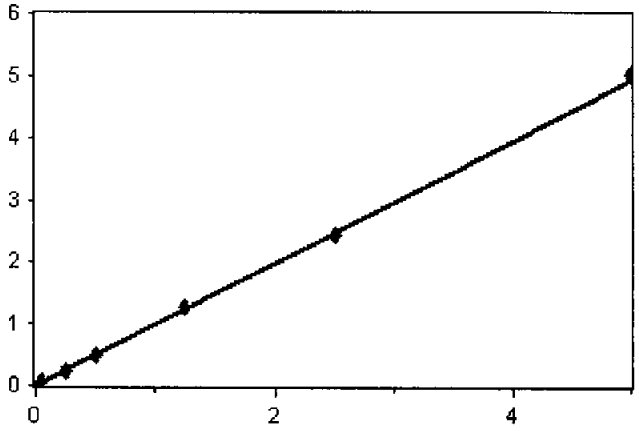
Calibration Report

Instrument:	**NT11**	**Calibration Date:**	**31-Dec-2016 12:55 By VTS**
Calibration ID:	**ZL00083**	**Last Edit Date:**	**31-Dec-2016 12:56 By VTS**

8270D-SIM PAH Low (0.0

Benzo(g,h,i)perylene

8270D-SIM PAH Low (0.01 ug/L - 0 5 ug/kg) - Benzo(g,h,i)perylen



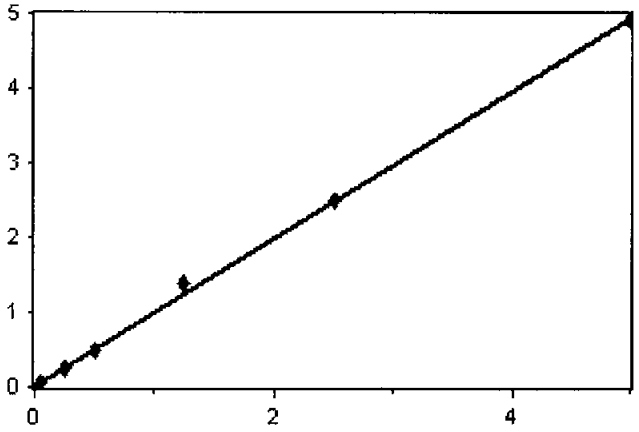
Average RF

RF RSD: 4.659534

[Conc] = 0.9851335 * [Response]

1-Methylnaphthalene

8270D-SIM PAH Low (0 01 ug/L - 0 5 ug/kg) - 1-Methylnaphthaler



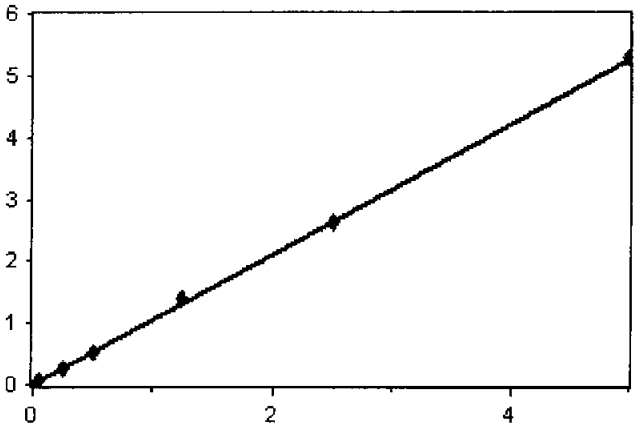
Average RF

RF RSD: 6.086142

[Conc] = 0.9893853 * [Response]

Perylene

8270D-SIM PAH Low (0 01 ug/L - 0 5 ug/kg) - Perylene



Average RF

RF RSD: 3.866678

[Conc] = 1.049366 * [Response]

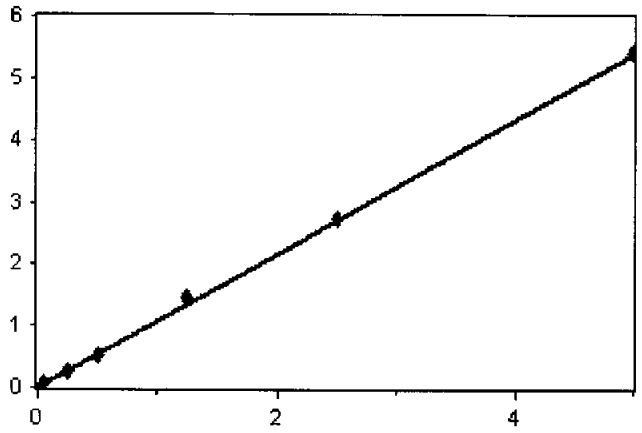
Calibration Report

Instrument:	**NT11**	**Calibration Date:**	**31-Dec-2016 12:55 By VTS**
Calibration ID:	**ZL00083**	**Last Edit Date:**	**31-Dec-2016 12:56 By VTS**

8270D-SIM PAH Low (0.0

Benzo(e)pyrene

8270D-SIM PAH Low (0 01 ug/L - 0 5 ug/kg) - Benzo(e)pyrene



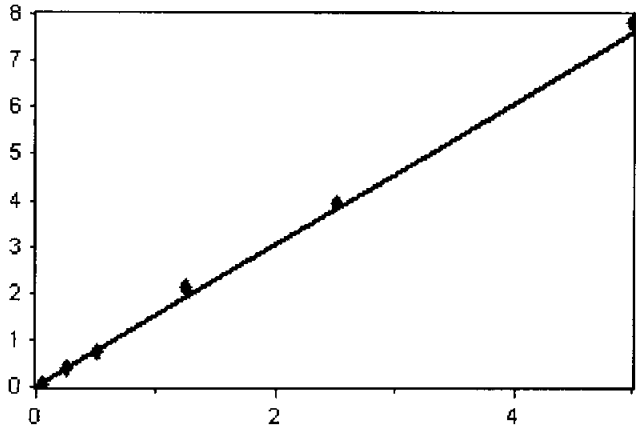
Average RF

RF RSD: 4.396722

[Conc] = 1.075401 * [Response]

2-Chloronaphthalene

8270D-SIM PAH Low (0 01 ug/L - 0 5 ug/kg) - 2-Chloronaphthaler



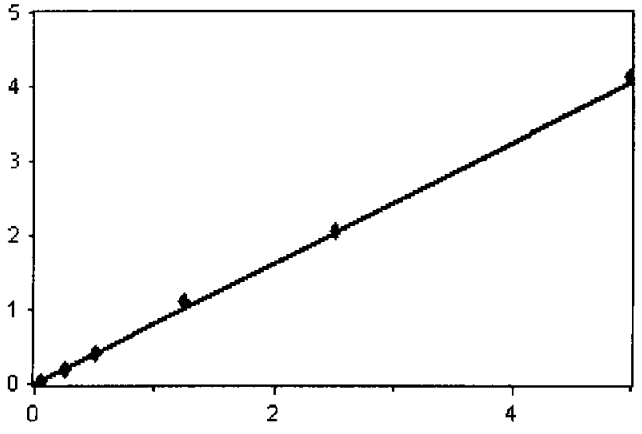
Average RF

RF RSD: 8.565905

[Conc] = 1.518089 * [Response]

Benzo(b)thiophene

8270D-SIM PAH Low (0 01 ug/L - 0 5 ug/kg) - Benzo(b)thiophene



Average RF

RF RSD: 5.149146

[Conc] = 0.8125076 * [Response]

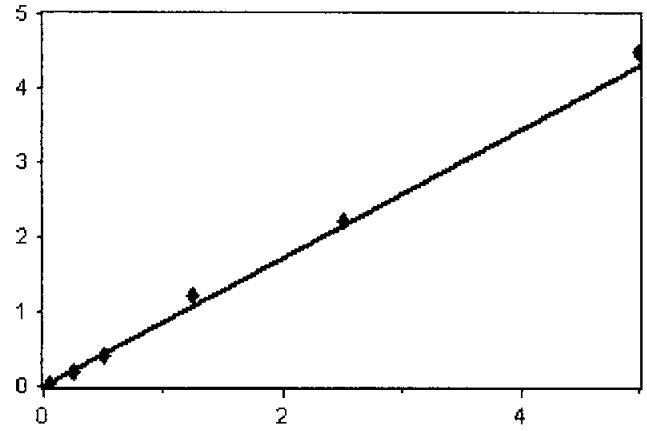
Calibration Report

Instrument:	**NT11**	**Calibration Date:**	**31-Dec-2016 12:55 By VTS**
Calibration ID:	**ZL00083**	**Last Edit Date:**	**31-Dec-2016 12:56 By VTS**

8270D-SIM PAH Low (0.0

2-Methylnaphthalene-d10

8270D-SIM PAH Low (0 01 ug/L - 0 5 ug/kg) - 2-Methylnaphthalene-



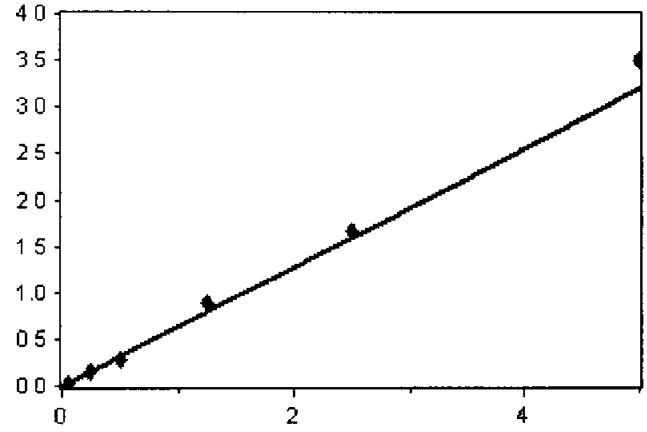
Average RF

RF RSD: 8.841695

[Conc] = 0.8589433 * [Response]

Dibenzo[a,h]anthracene-d14

270D-SIM PAH Low (0 01 ug/L - 0 5 ug/kg) - Dibenzo[a,h]anthracer



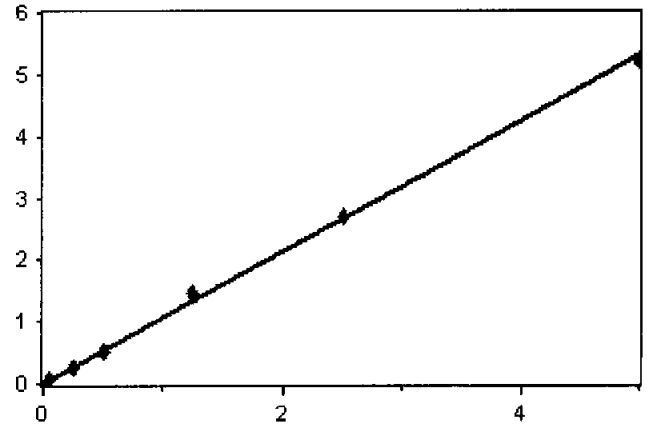
Average RF

RF RSD: 9.3605

[Conc] = 0.6386966 * [Response]

Fluoranthene-d10

8270D-SIM PAH Low (0 01 ug/L - 0.5 ug/kg) - Fluoranthene-d10



Average RF

RF RSD: 5.376334

[Conc] = 1.062255 * [Response]

Analytical Resources, Incorporated

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.
SDG: 17A0053
Client: Anchor QEA, LLC
Project: Port Gamble Shellfish Monitoring
Calibration: ZL00083
Laboratory ID: SEL0401-SCV1
Sequence: SEL0401
Sequence Name: SIMPNA SCV
Standard ID: E007699

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Naphthalene	250.00	251	0.2	20.00
2-Methylnaphthalene	250.00	249	-0.3	20.00
Acenaphthylene	250.00	255	1.9	20.00
Acenaphthene	250.00	276	10.6	20.00
Dibenzofuran	250.00	285	14.2	20.00
Fluorene	250.00	268	7.4	20.00
Phenanthrene	250.00	251	0.6	20.00
Anthracene	250.00	238	-4.9	20.00
Fluoranthene	250.00	253	1.2	20.00
Pyrene	250.00	247	-1.2	20.00
Benzo(a)anthracene	250.00	254	1.4	20.00
Chrysene	250.00	242	-3.3	20.00
Benzo(b)fluoranthene	250.00	253	1.1	20.00
Benzo(k)fluoranthene	250.00	262	4.8	20.00
Benzo(a)pyrene	250.00	249	-0.6	20.00
Indeno(1,2,3-cd)pyrene	250.00	248	-0.7	20.00
Dibenzo(a,h)anthracene	250.00	240	-3.9	20.00
Benzo(g,h,i)perylene	250.00	247	-1.4	20.00
1-Methylnaphthalene	250.00	237	-5.4	20.00
Benzofluoranthenes, Total	500.00	515	3.0	

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123108.D

Page 1

Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

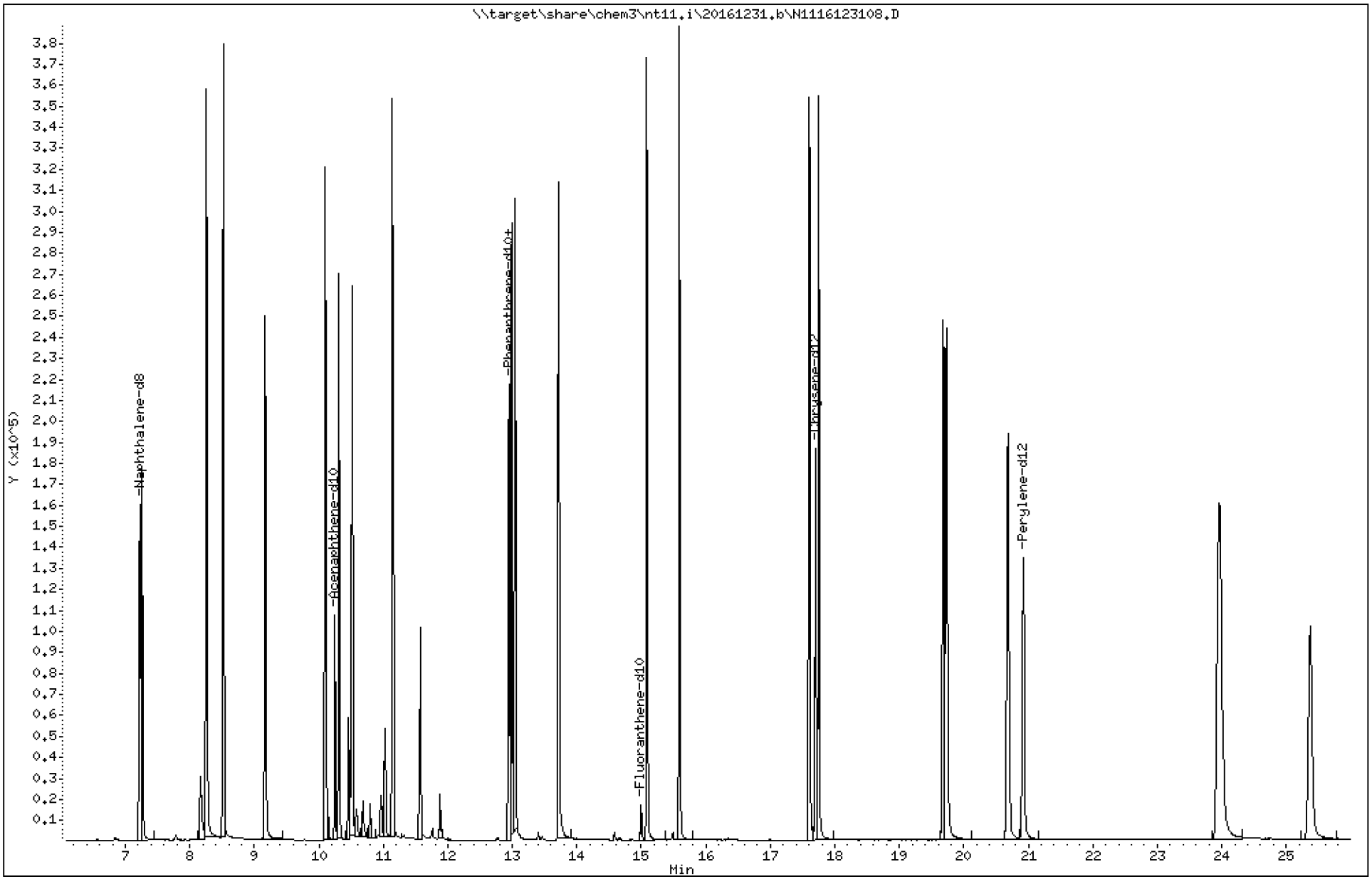
Sample Info: SEL0401-SCV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

1262



Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123108.D

Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

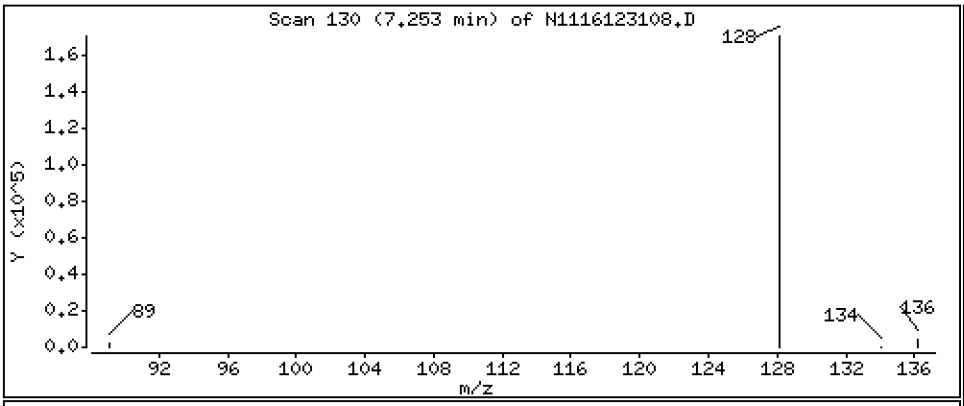
Operator: VTS

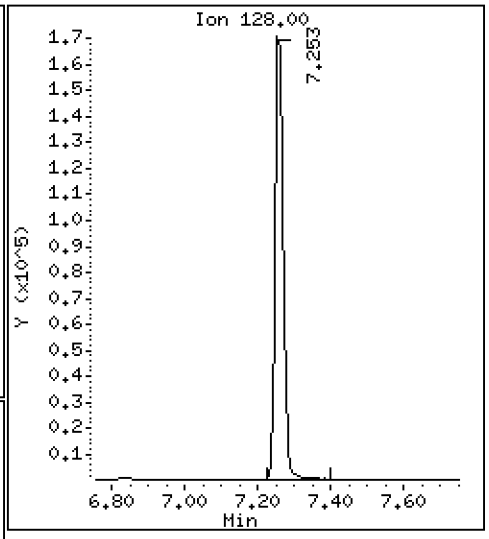
Column phase: Rxi-17Sil MS

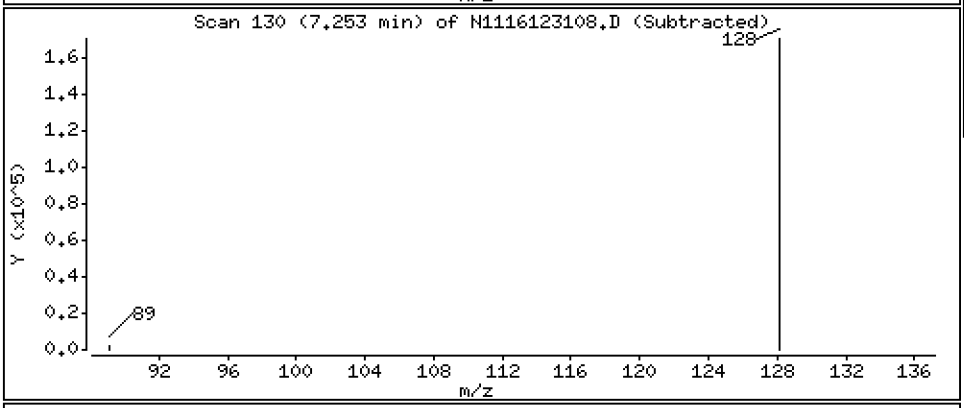
Column diameter: 0.25

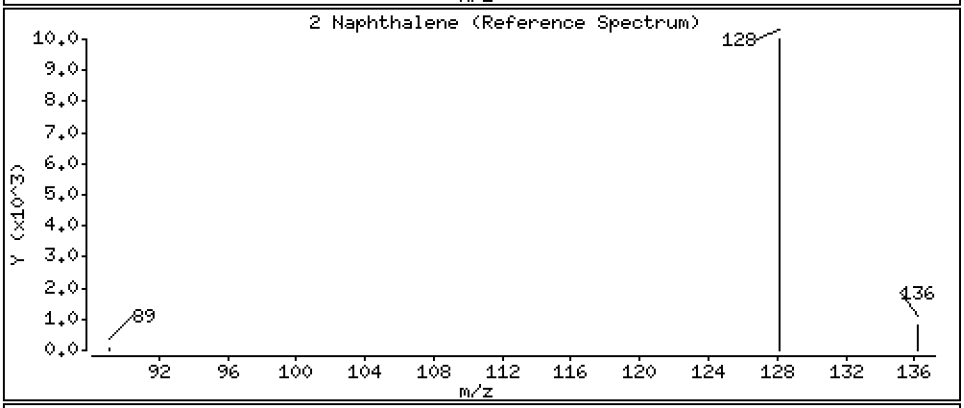
2 Naphthalene

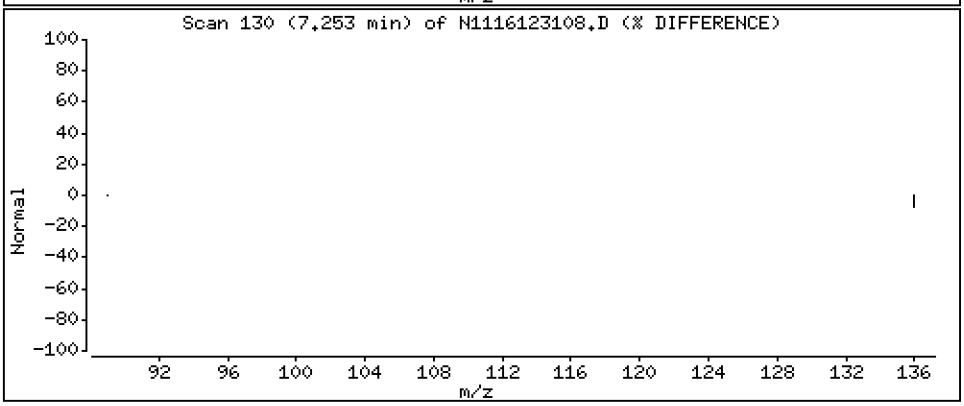
Concentration: 251 ng/mL











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Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

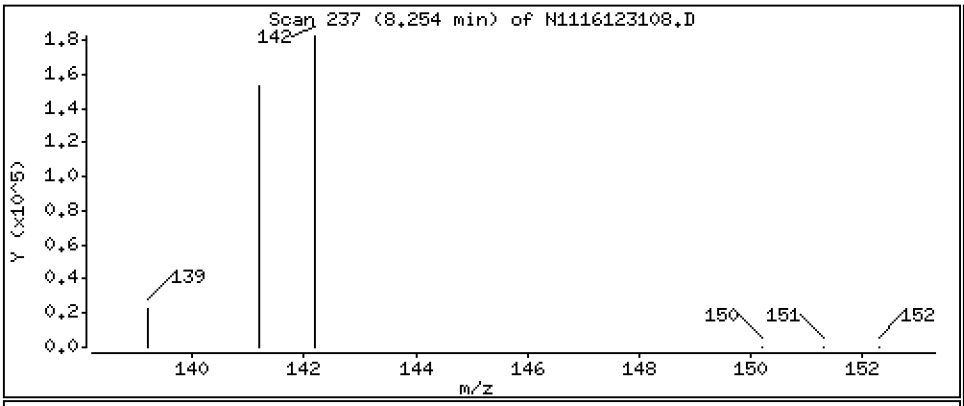
Operator: VTS

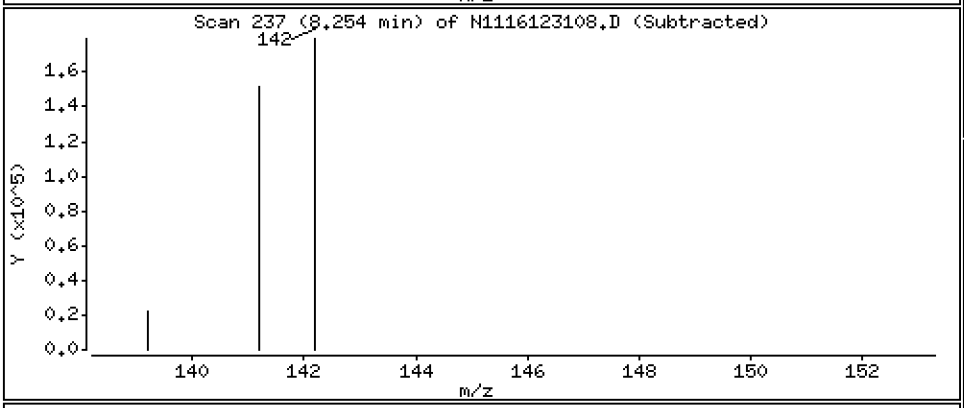
Column phase: Rxi-17Sil MS

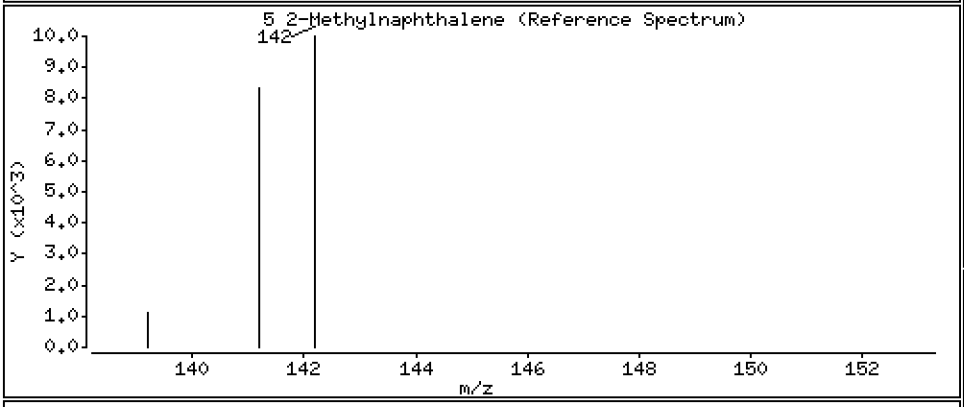
Column diameter: 0.25

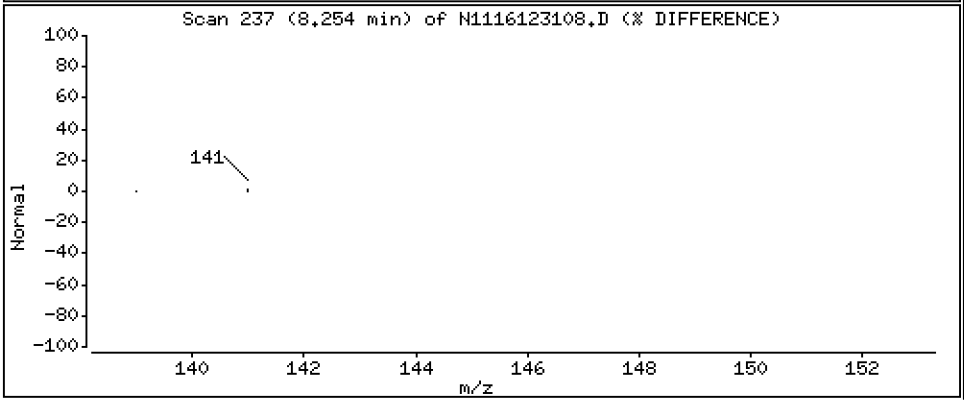
5 2-Methylnaphthalene

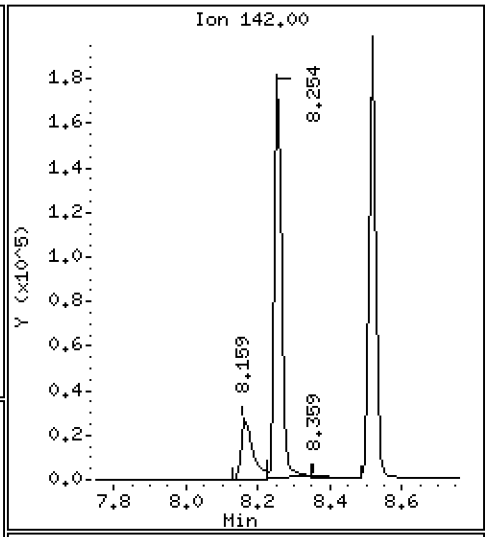
Concentration: 249 ng/mL

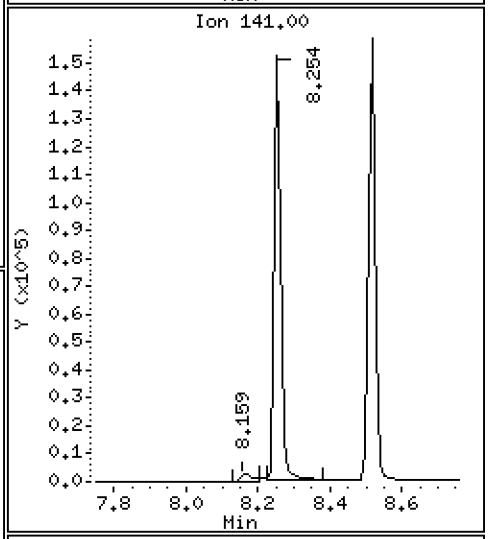


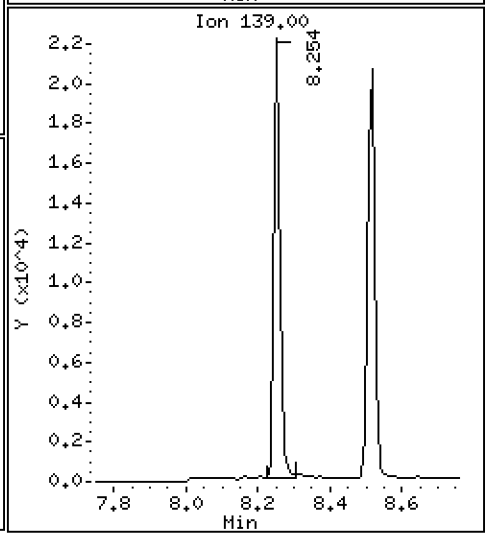












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Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

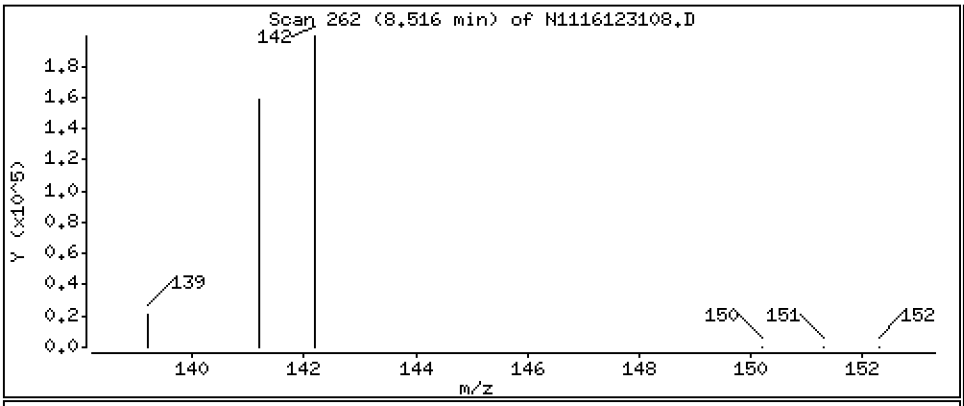
Operator: VTS

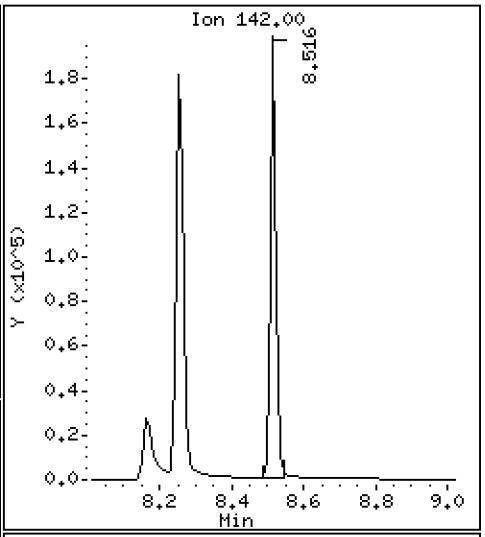
Column phase: Rxi-17Sil MS

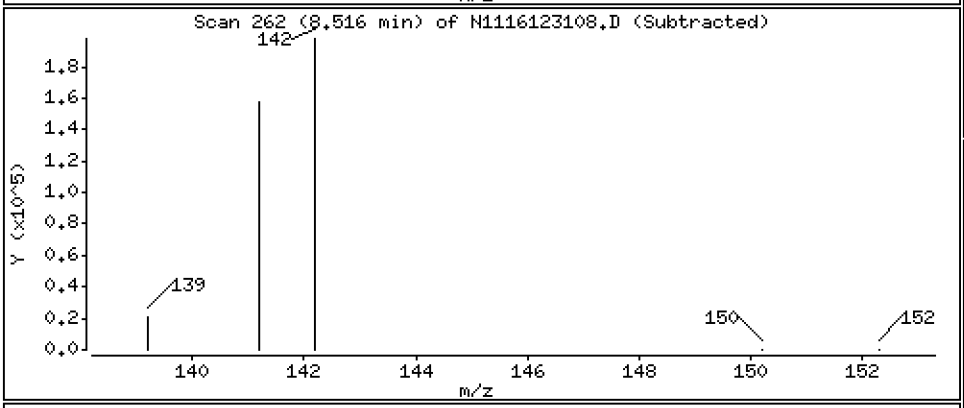
Column diameter: 0.25

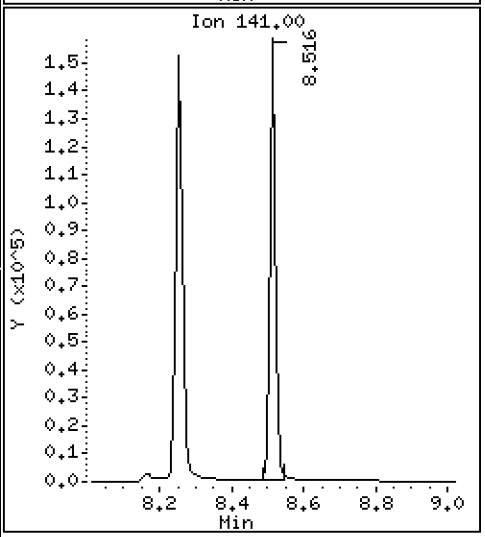
6 1-Methylnaphthalene

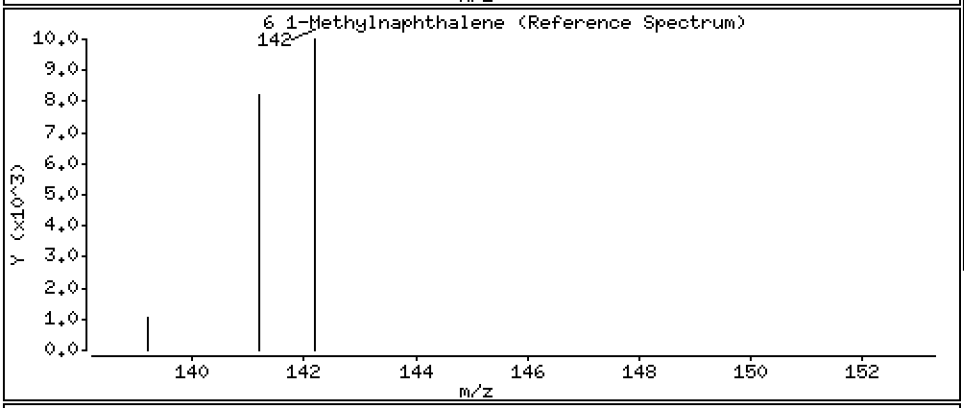
Concentration: 237 ng/mL

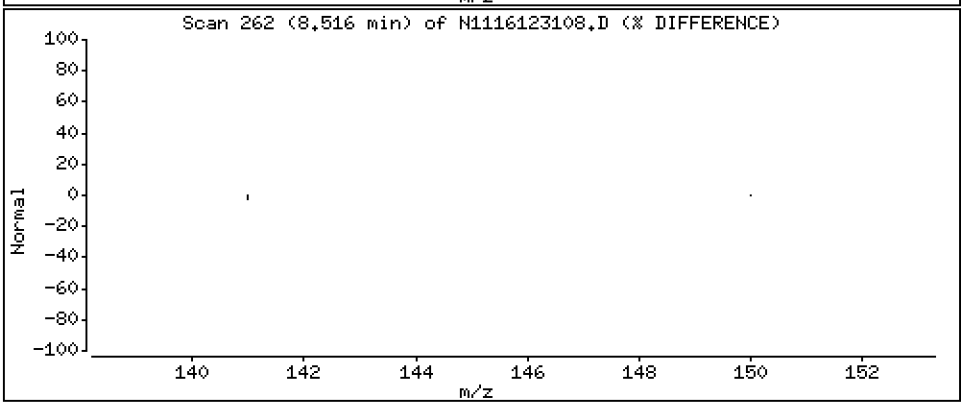












Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123108.D

Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

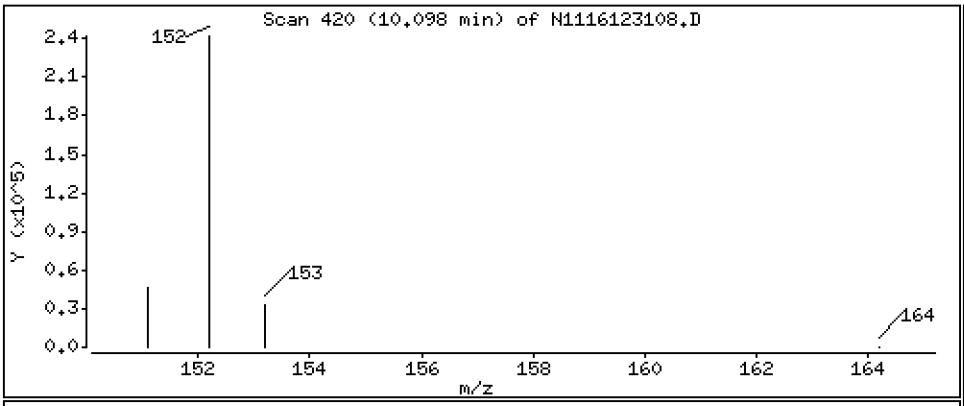
Operator: VTS

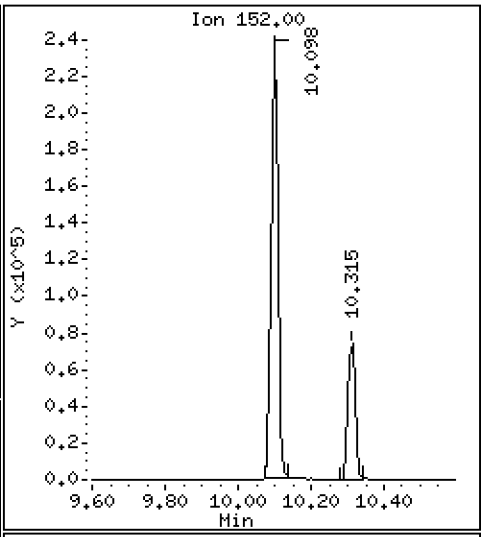
Column phase: Rxi-17Sil MS

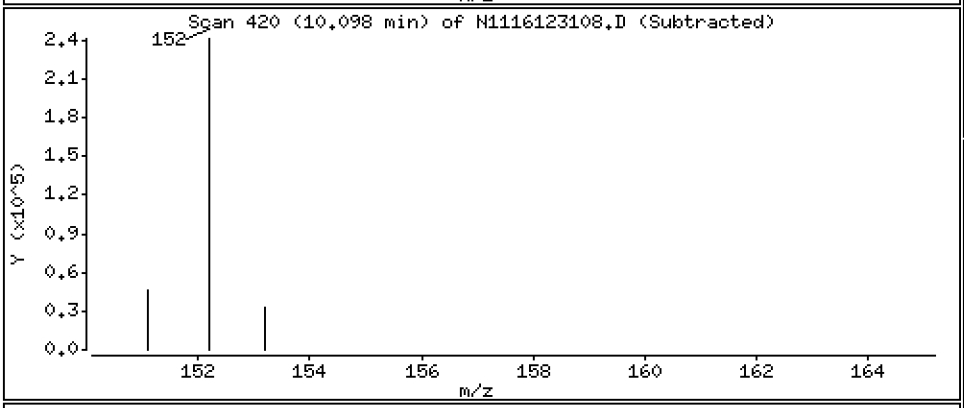
Column diameter: 0.25

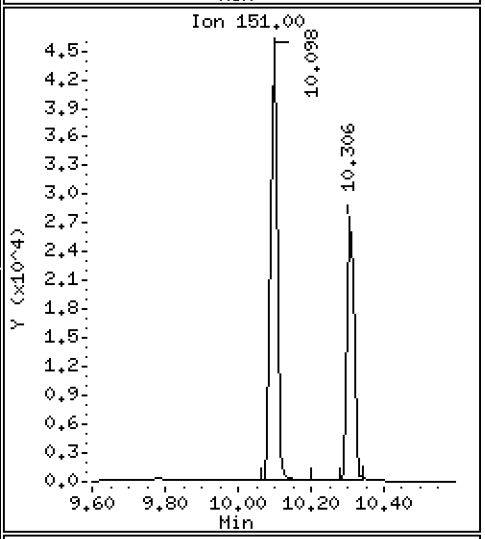
10 Acenaphthylene

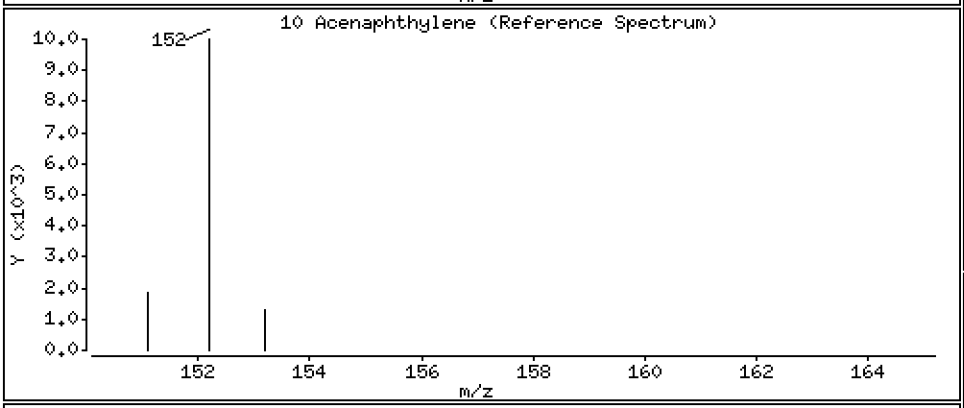
Concentration: 255 ng/mL

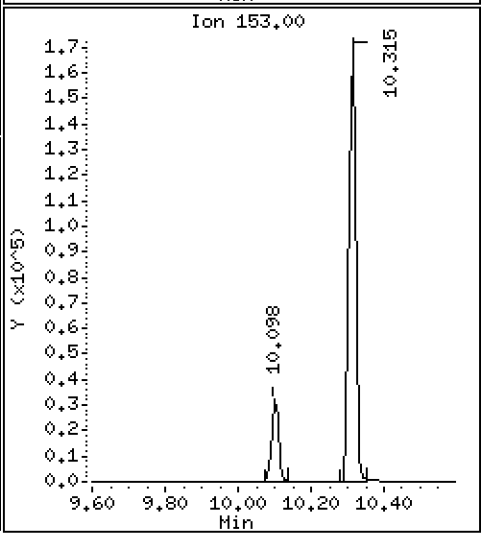


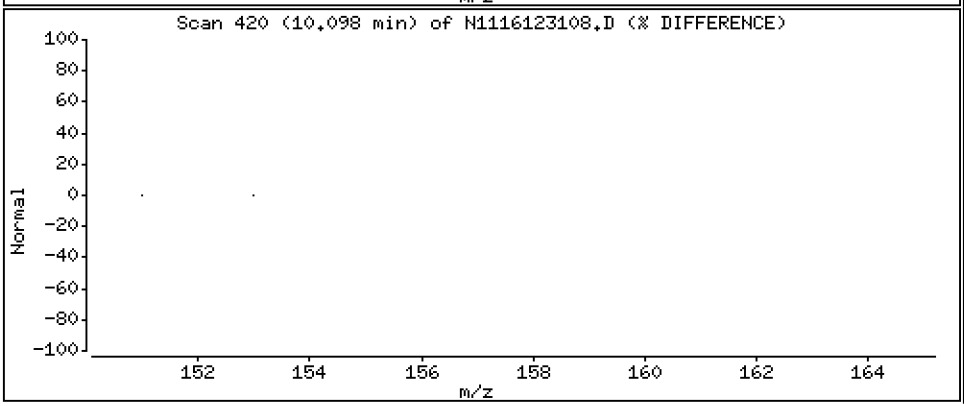












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Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

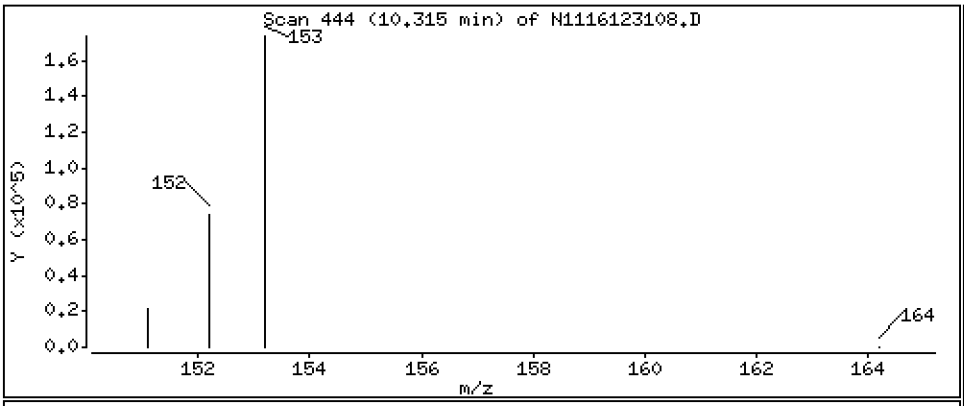
Operator: VTS

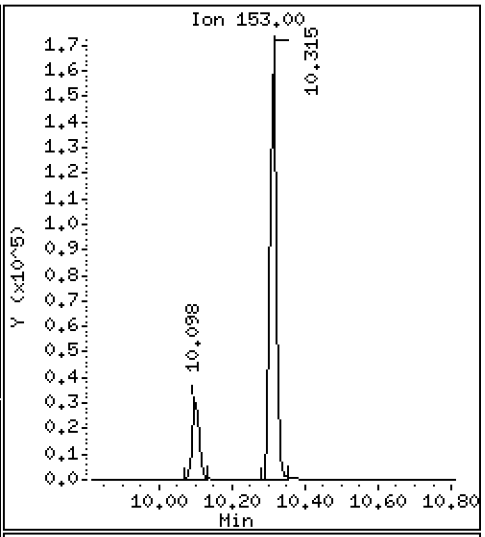
Column phase: Rxi-17Sil MS

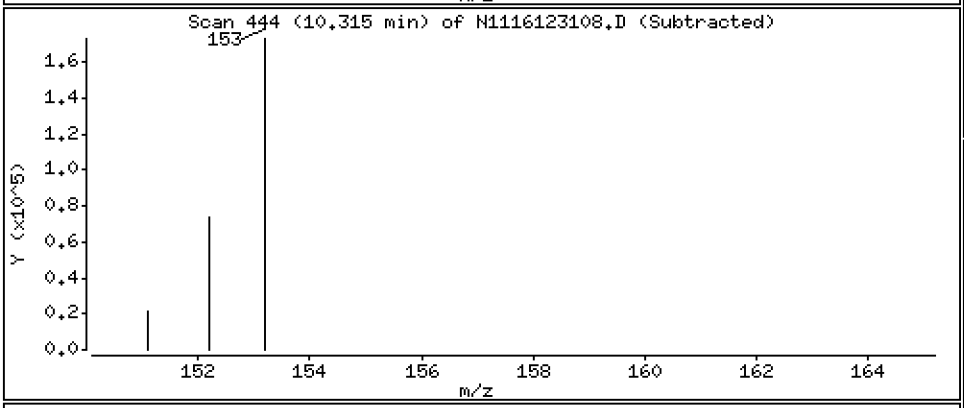
Column diameter: 0.25

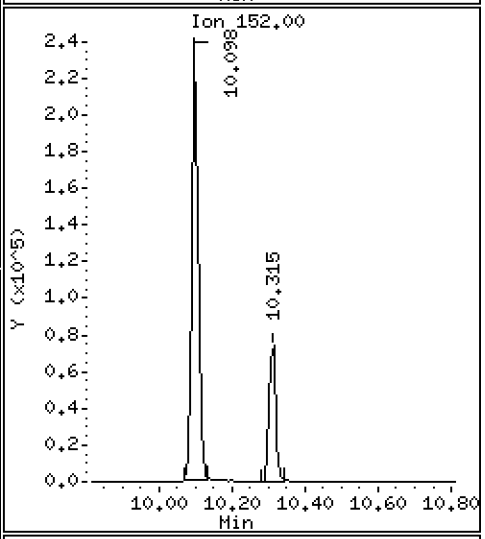
12 Acenaphthene

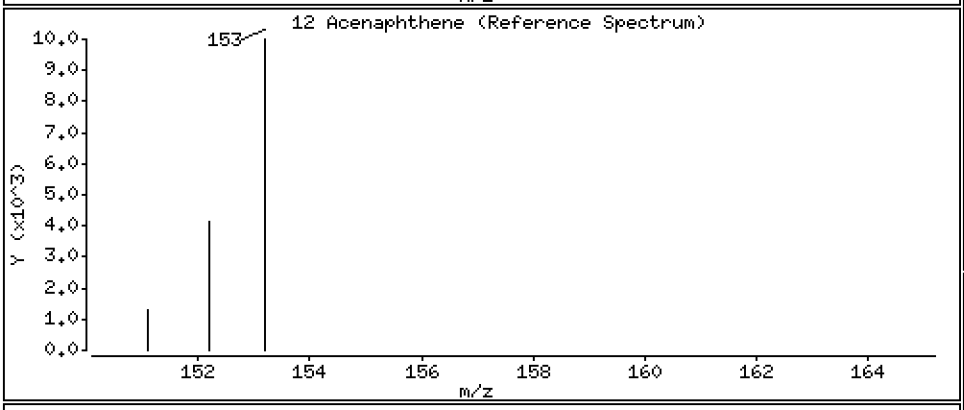
Concentration: 276 ng/mL

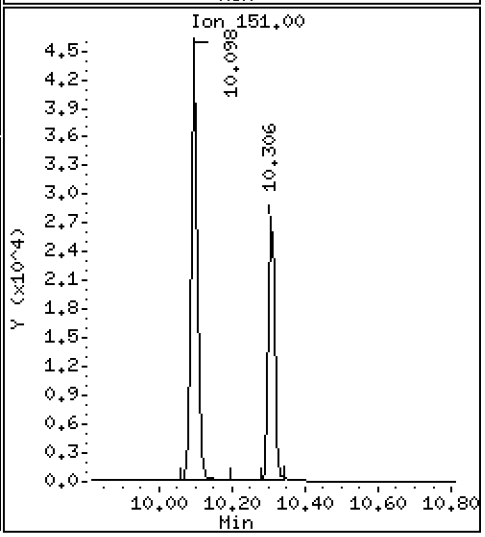


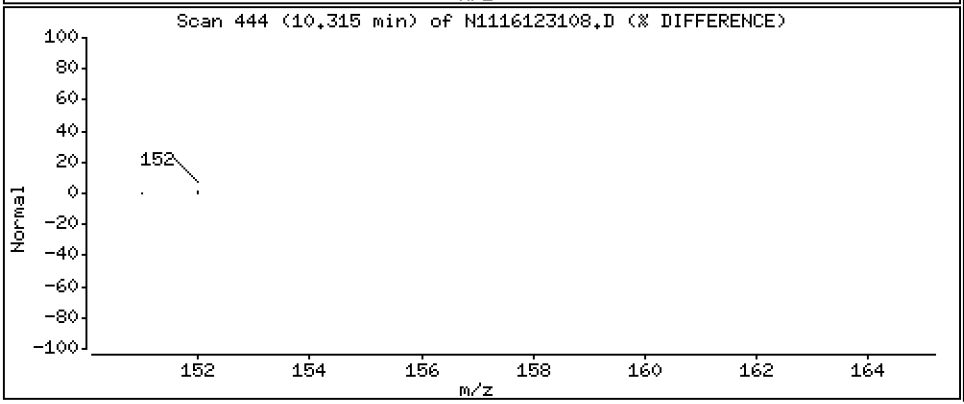












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Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

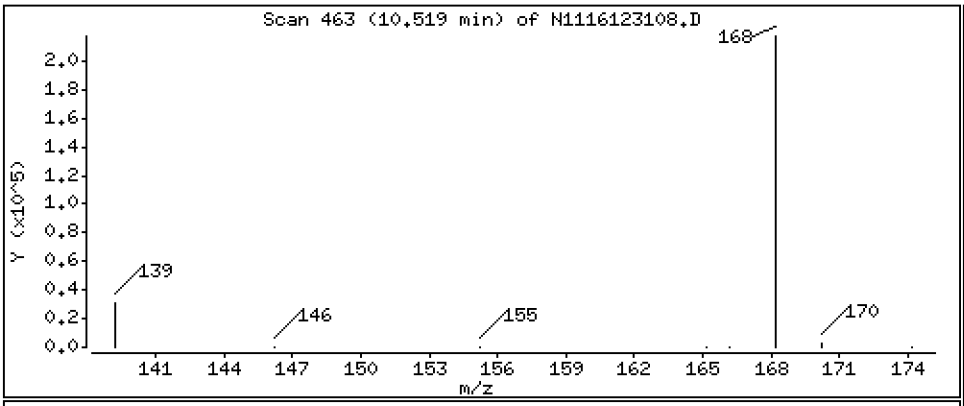
Operator: VTS

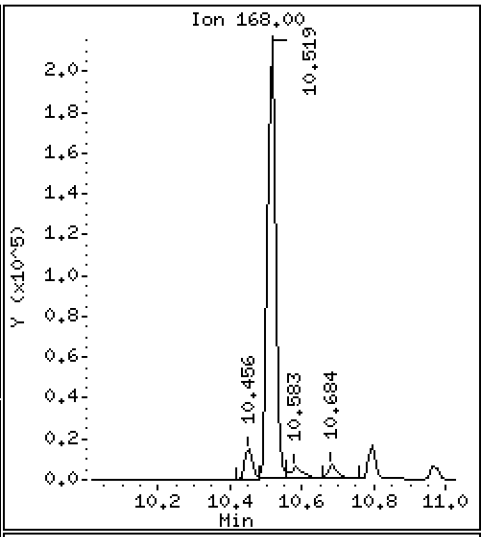
Column phase: Rxi-17Sil MS

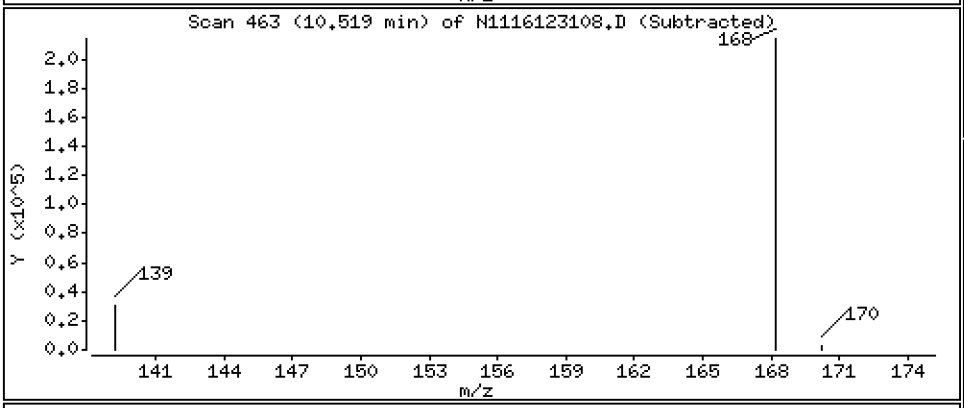
Column diameter: 0.25

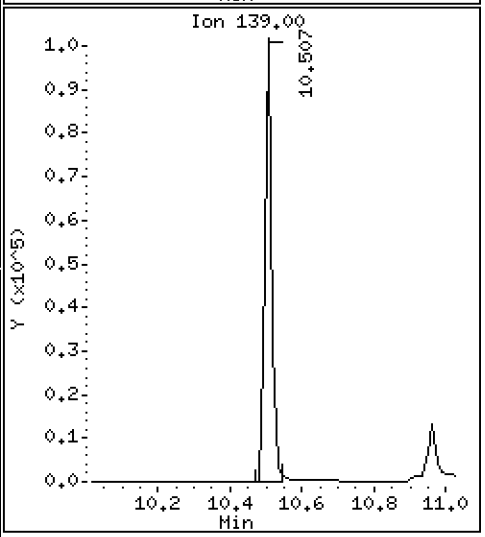
13 Dibenzofuran

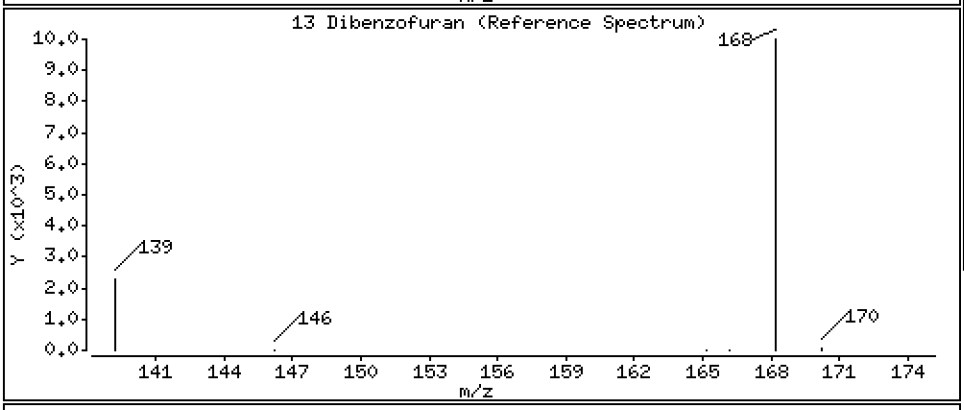
Concentration: 285 ng/mL

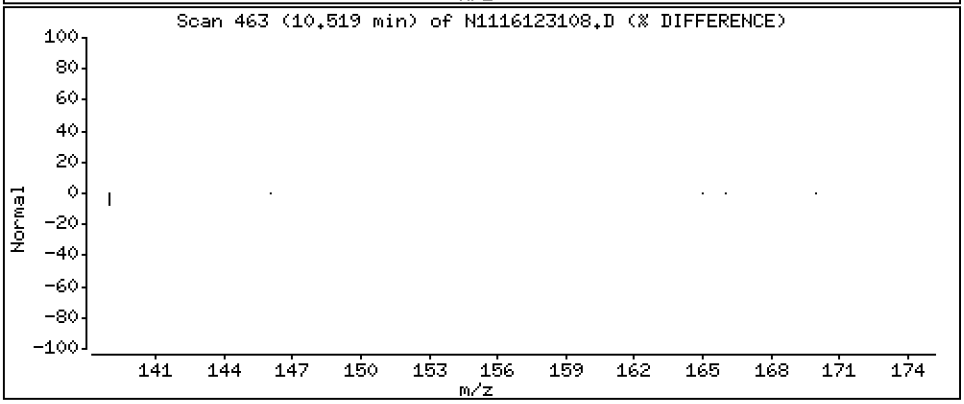












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Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

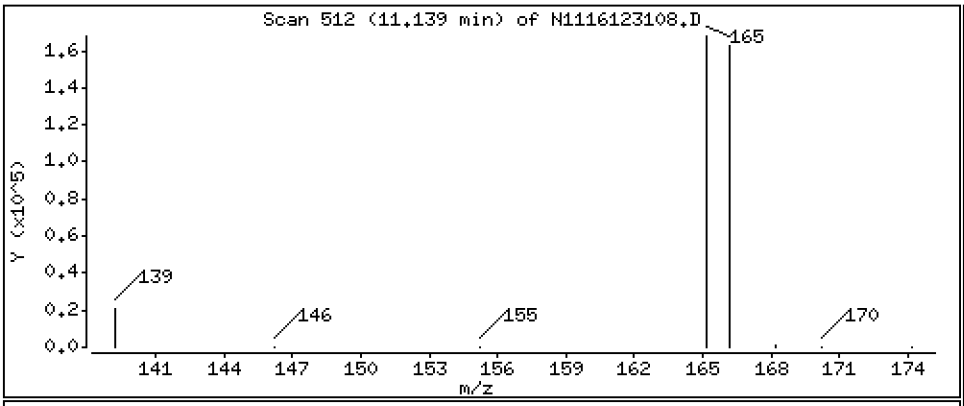
Operator: VTS

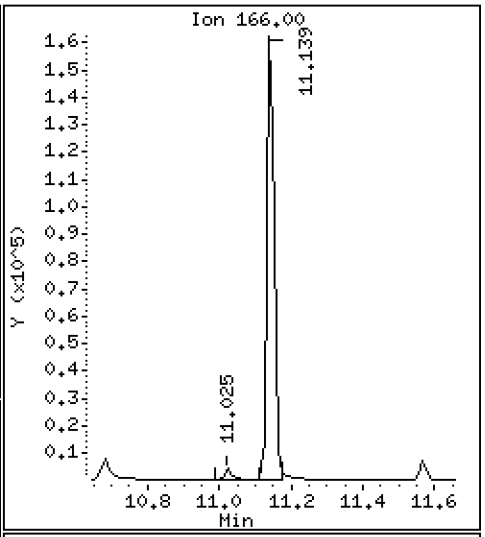
Column phase: Rxi-17Sil MS

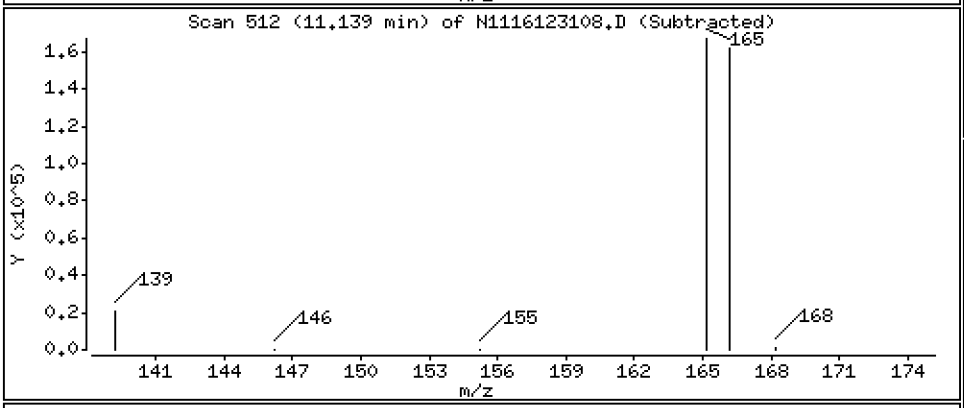
Column diameter: 0.25

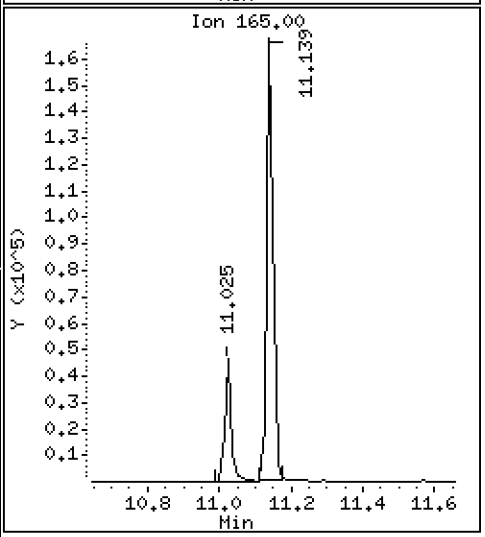
16 Fluorene

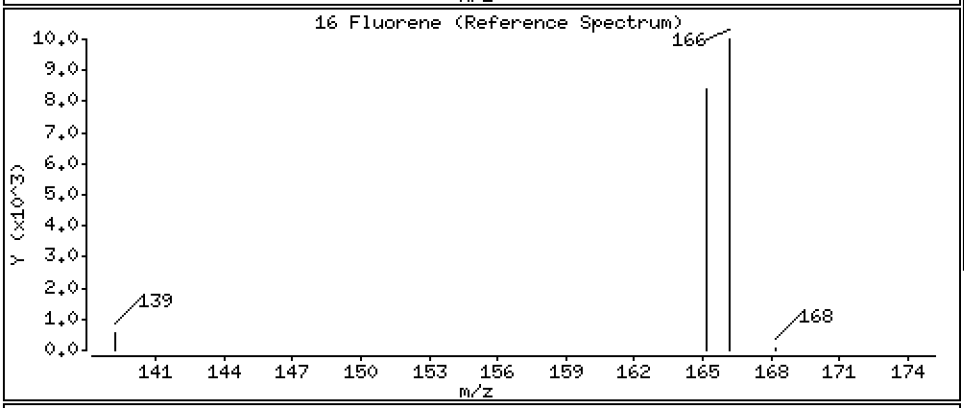
Concentration: 268 ng/mL

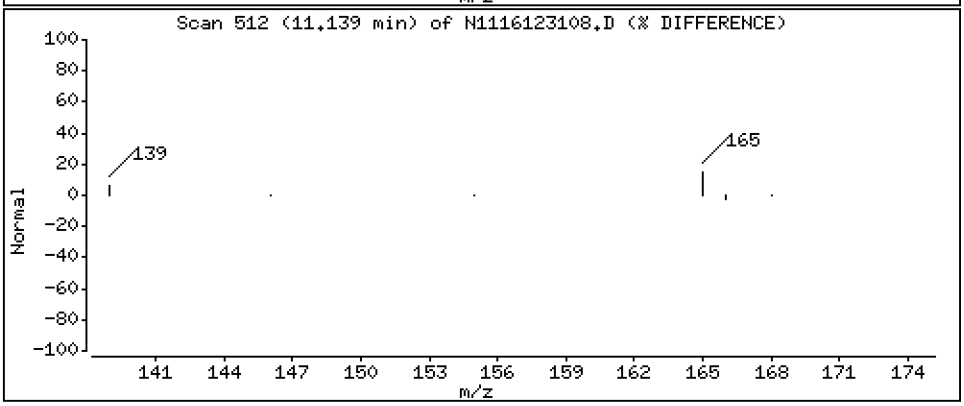












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Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

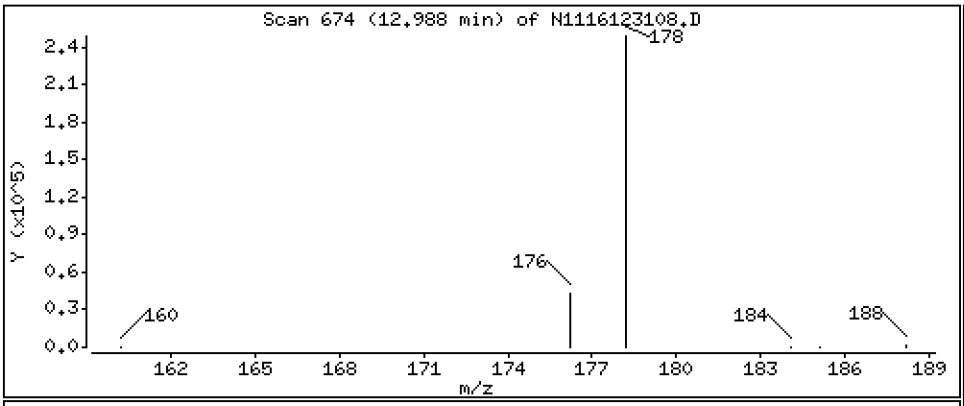
Operator: VTS

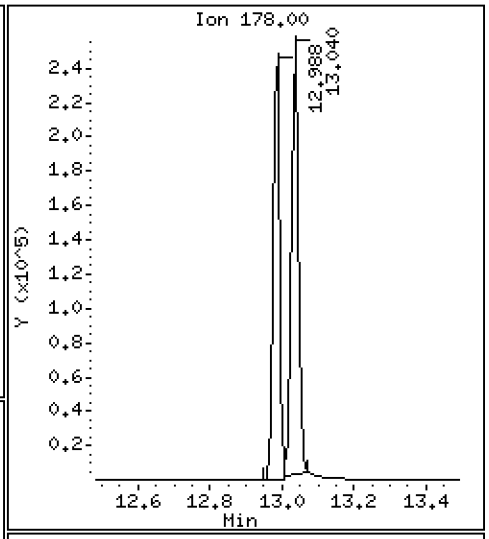
Column phase: Rxi-17Sil MS

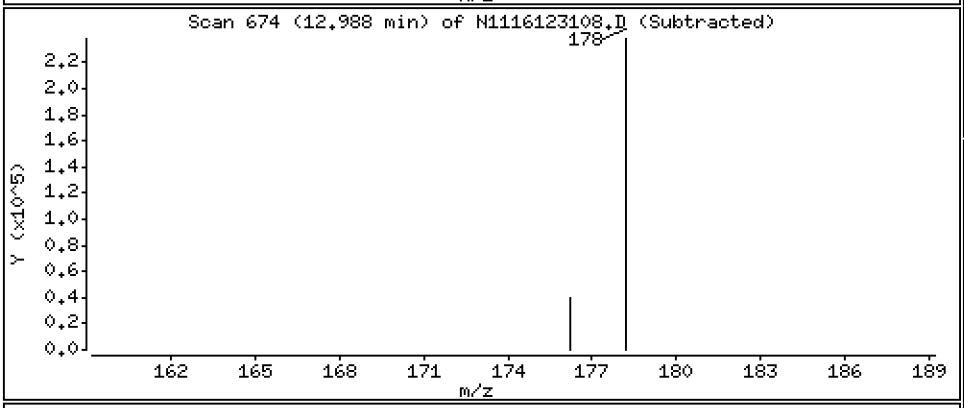
Column diameter: 0.25

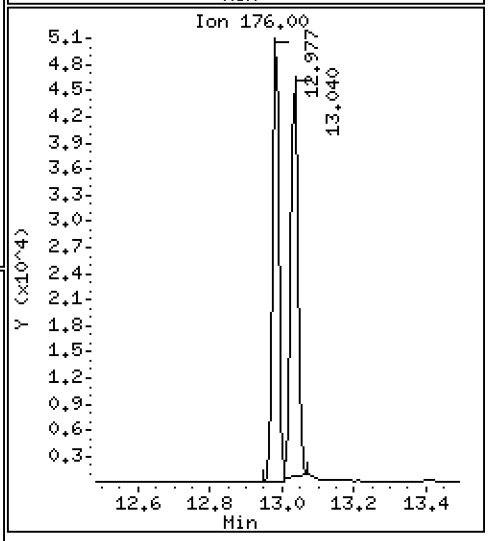
19 Phenanthrene

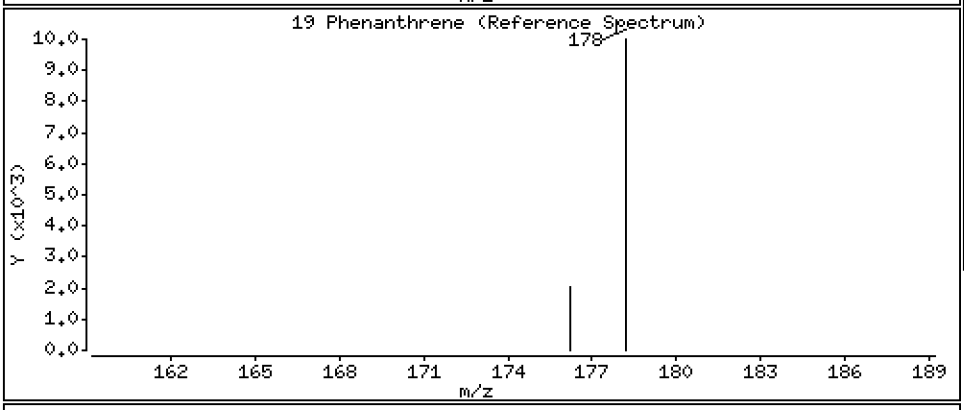
Concentration: 251 ng/mL

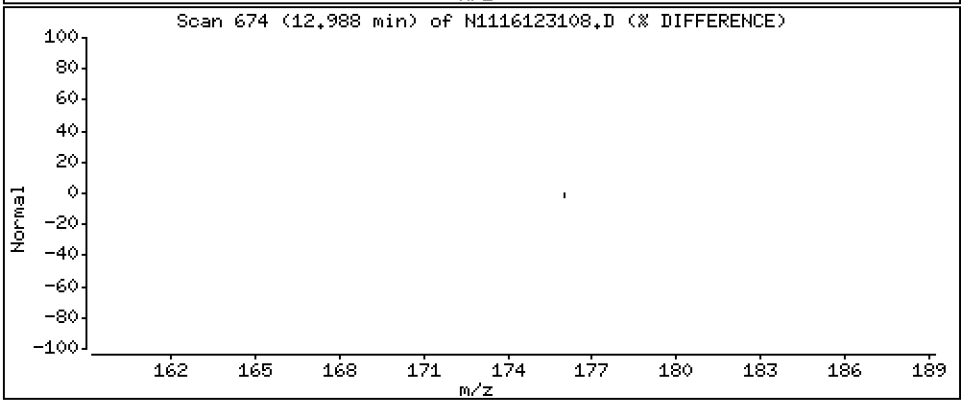












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Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

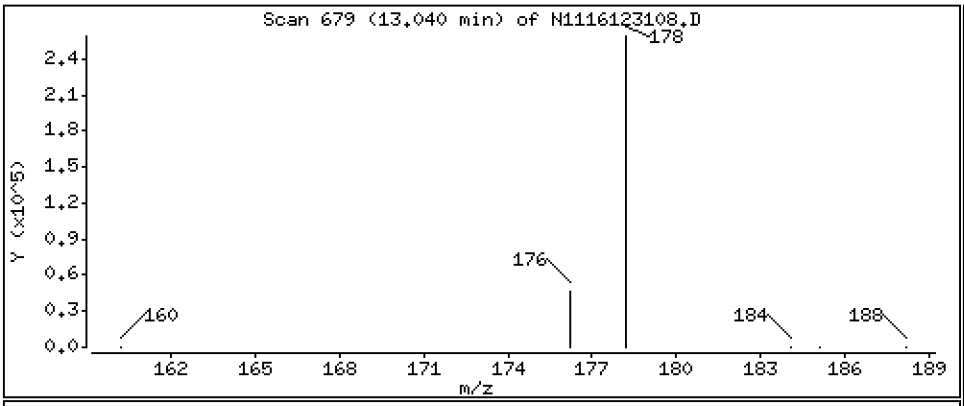
Operator: VTS

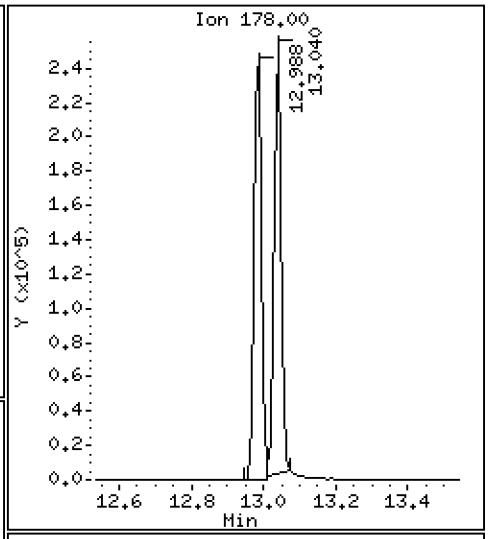
Column phase: Rxi-17Sil MS

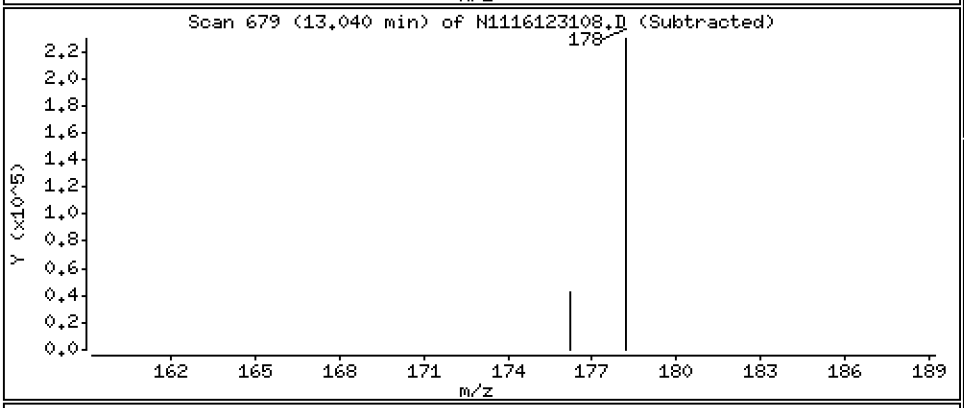
Column diameter: 0.25

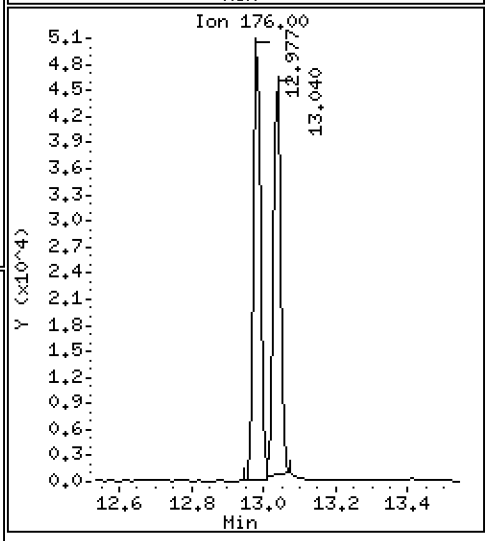
21 Anthracene

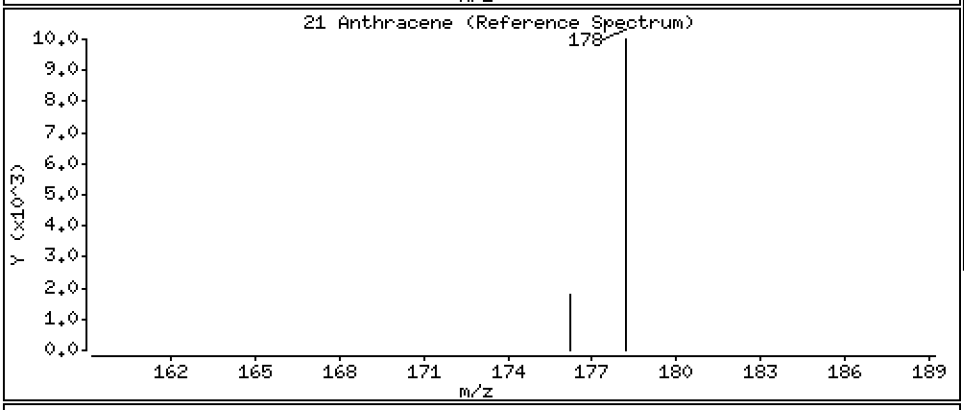
Concentration: 238 ng/mL

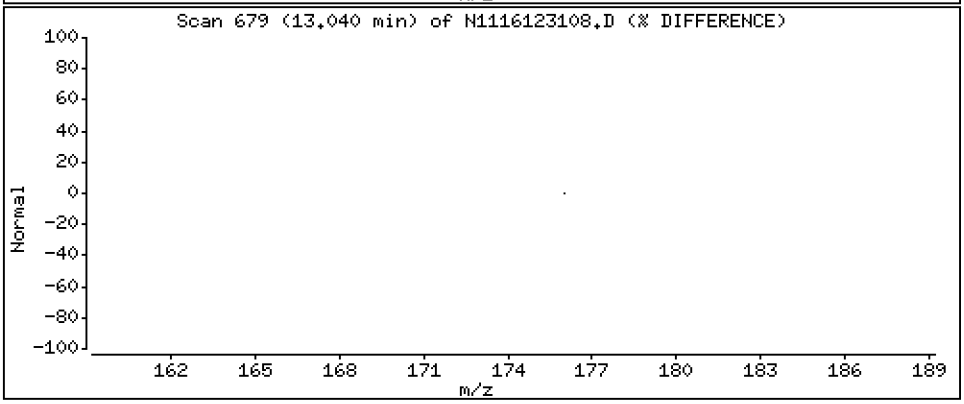












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Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

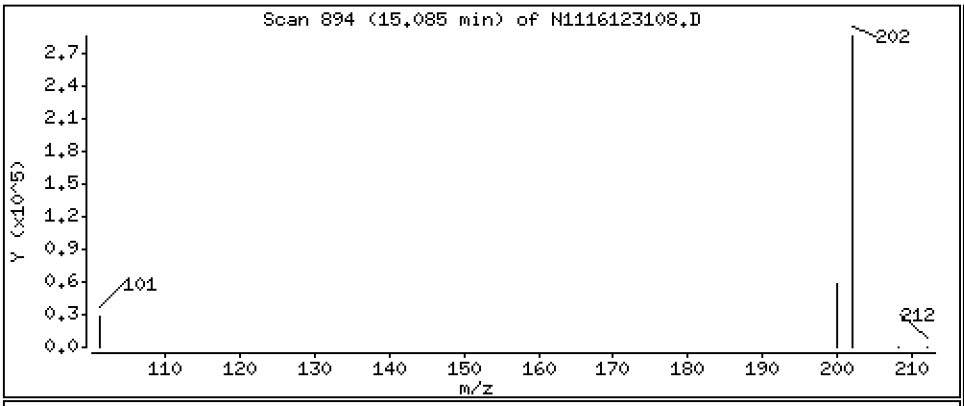
Operator: VTS

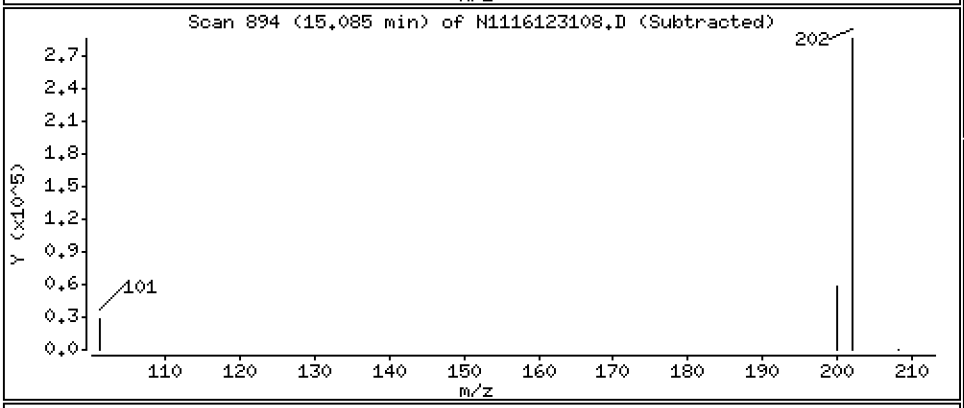
Column phase: Rxi-17Sil MS

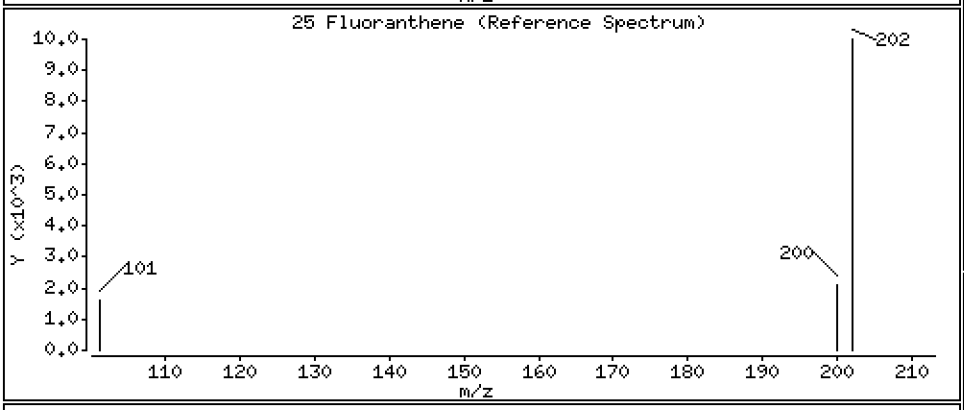
Column diameter: 0.25

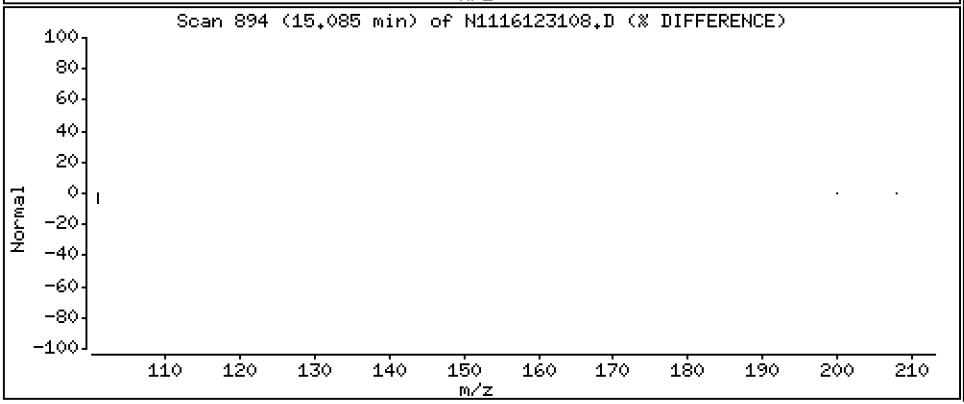
25 Fluoranthene

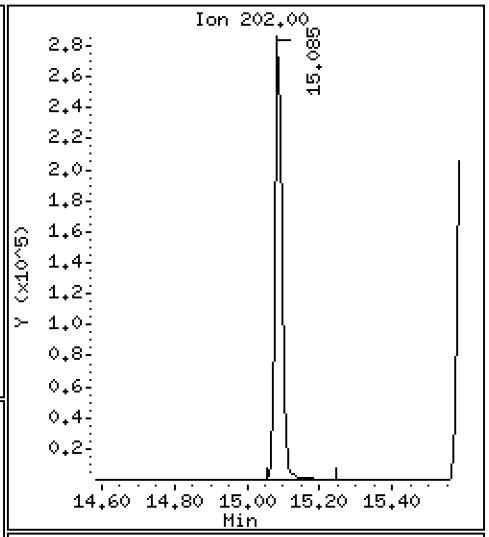
Concentration: 253 ng/mL

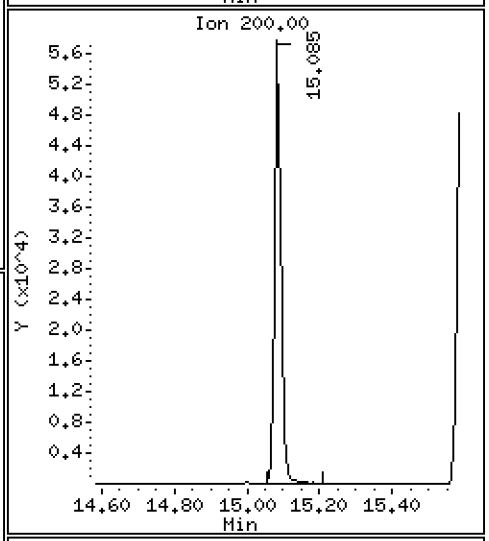


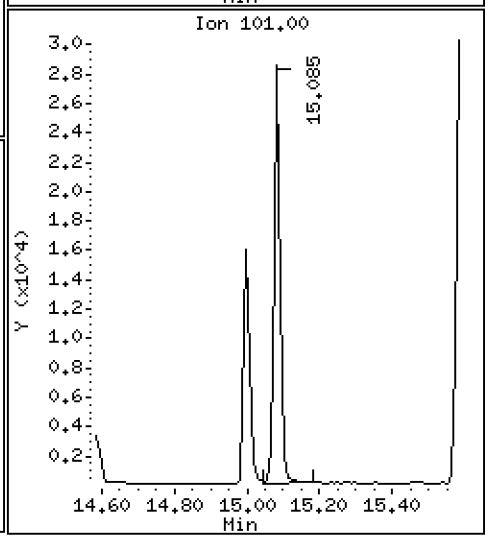












Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123108.D

Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

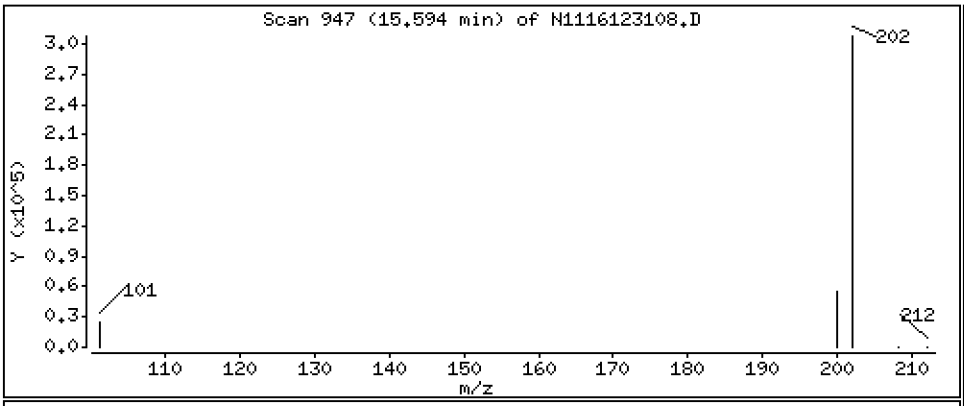
Operator: VTS

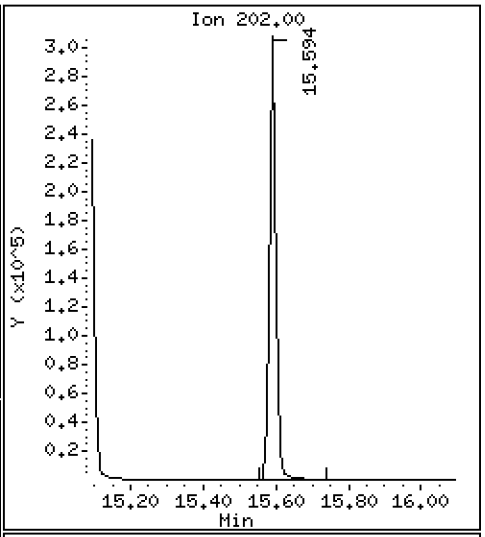
Column phase: Rxi-17Sil MS

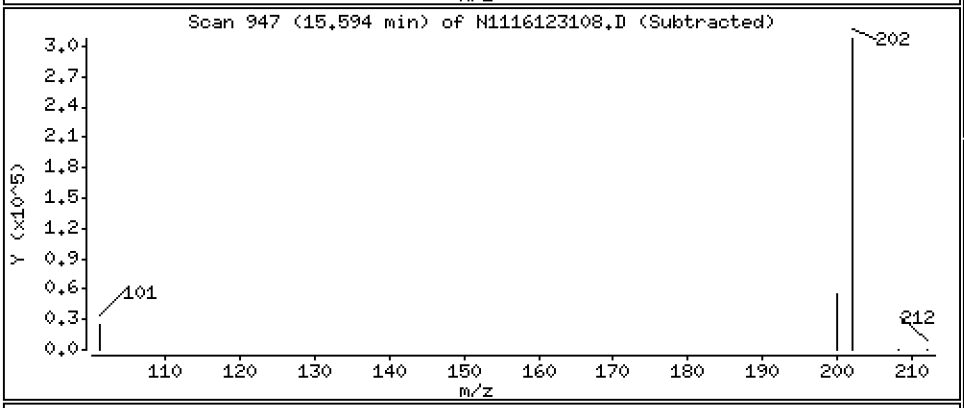
Column diameter: 0.25

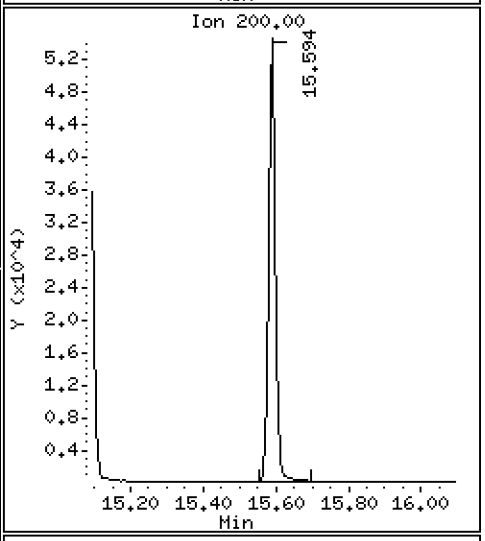
26 Pyrene

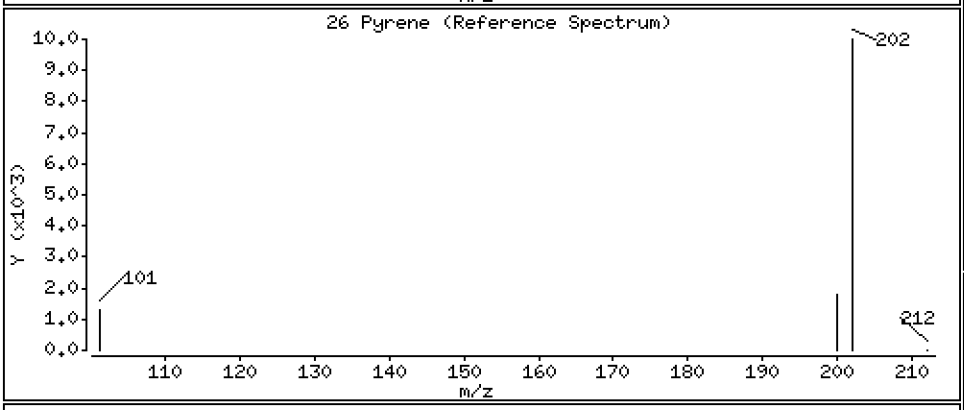
Concentration: 247 ng/mL

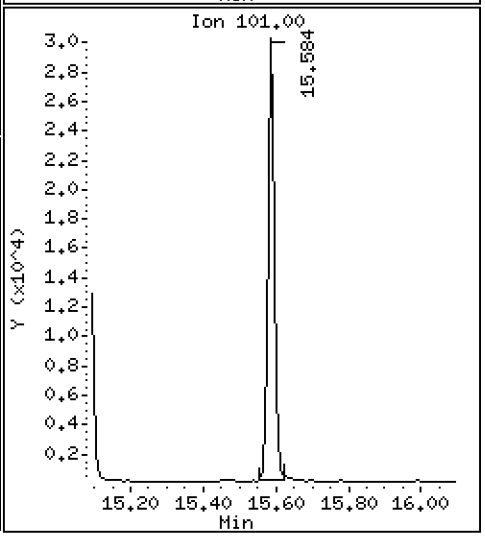


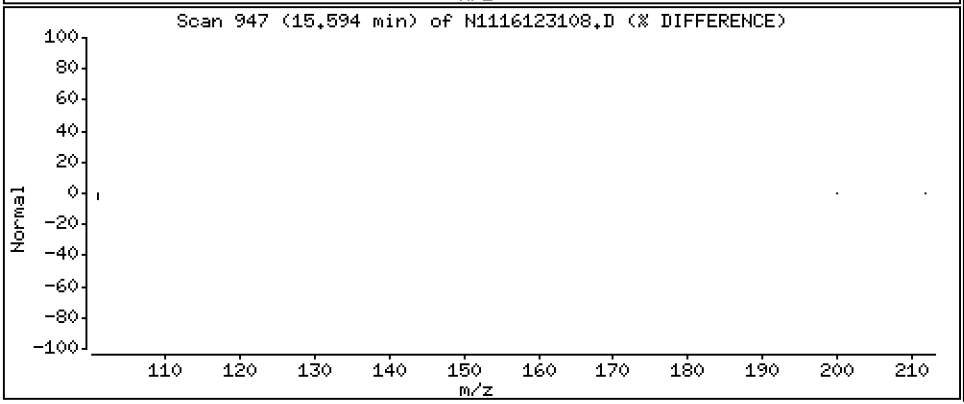












Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123108.D

Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

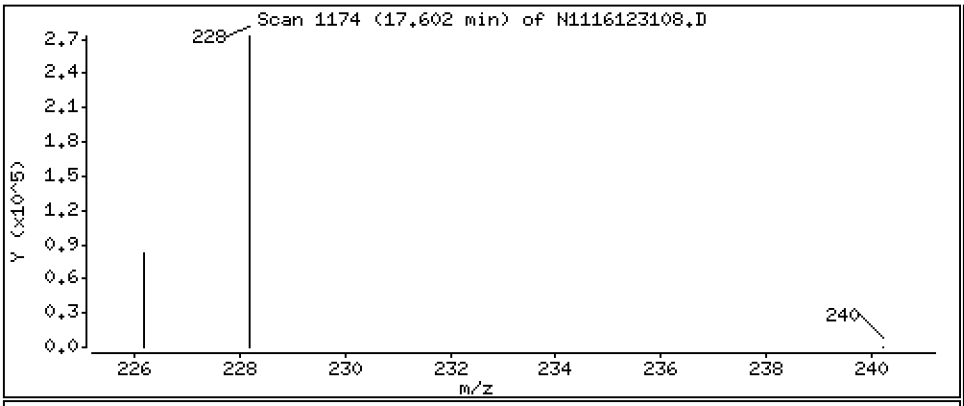
Operator: VTS

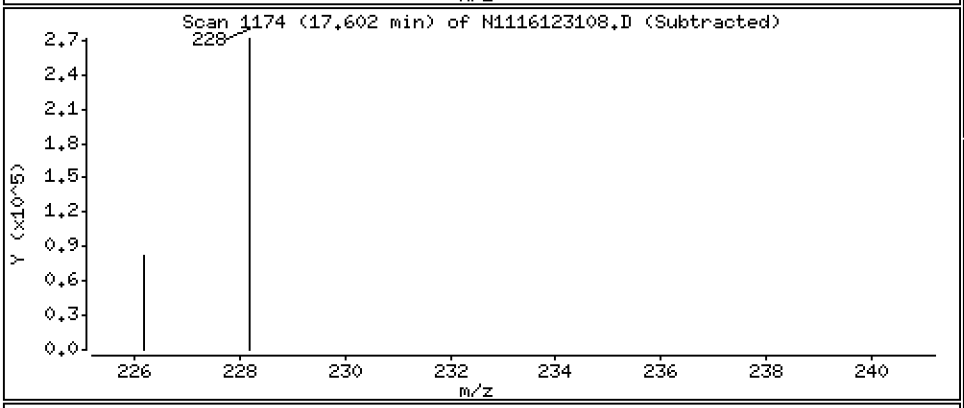
Column phase: Rxi-17Sil MS

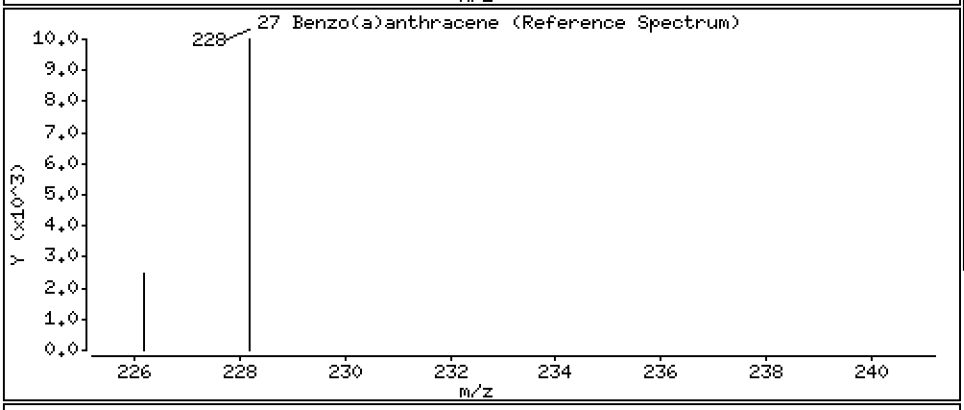
Column diameter: 0.25

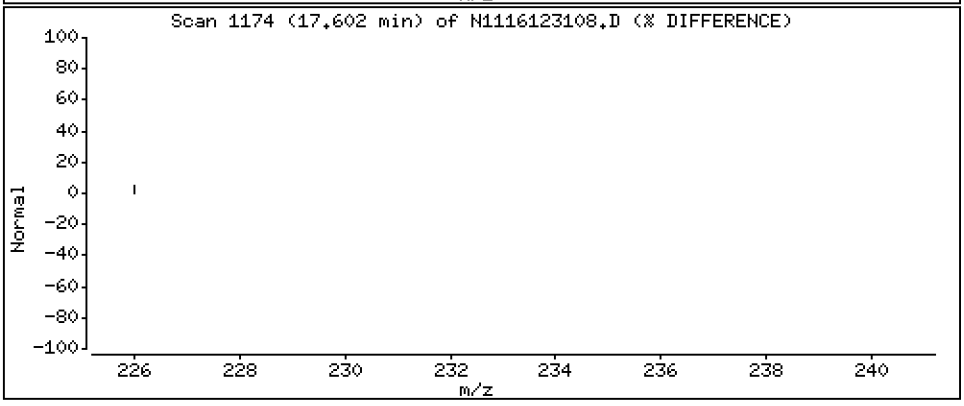
27 Benzo(a)anthracene

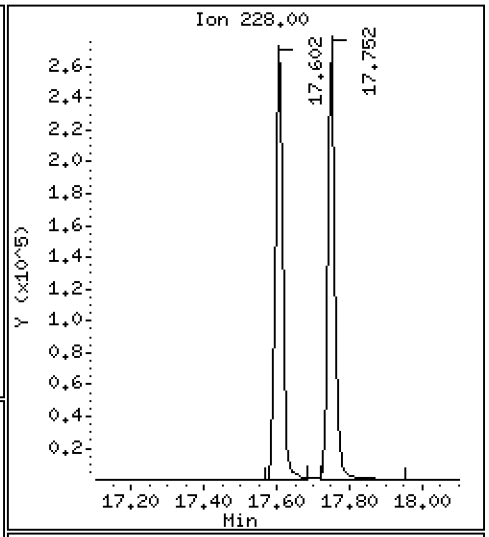
Concentration: 254 ng/mL

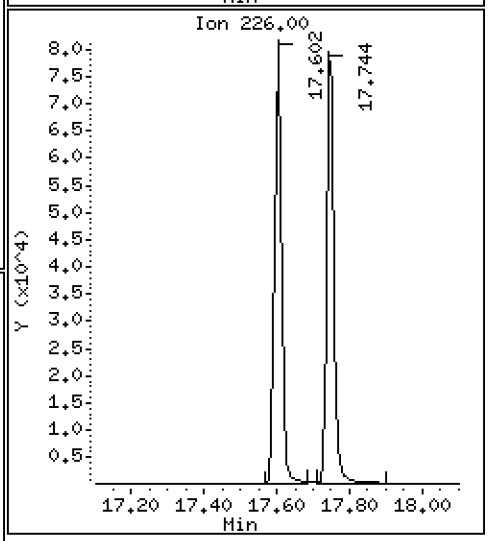












Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123108.D

Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

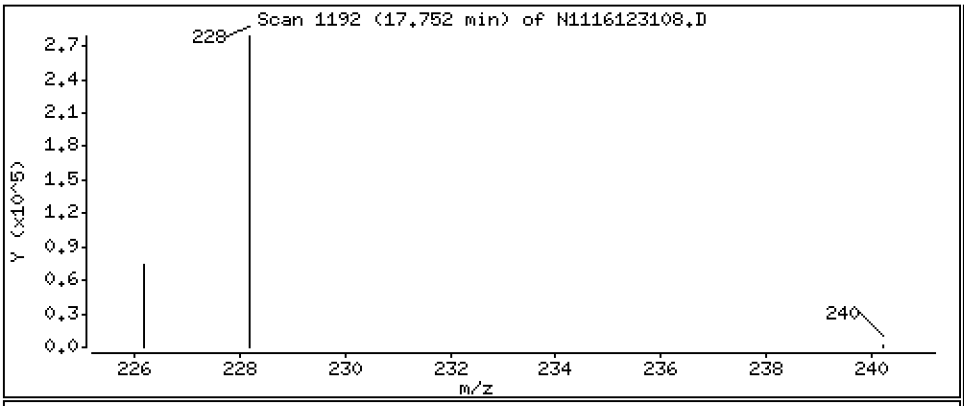
Operator: VTS

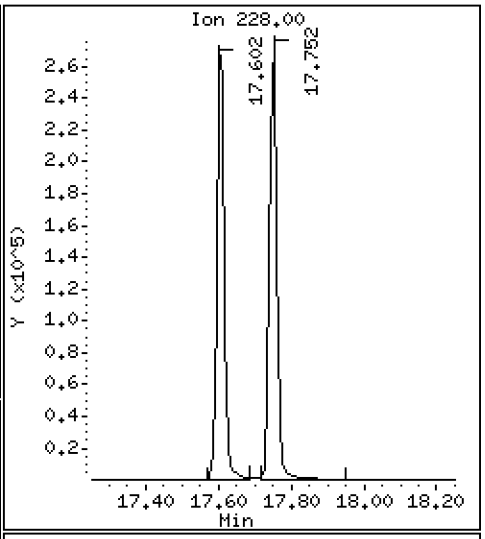
Column phase: Rxi-17Sil MS

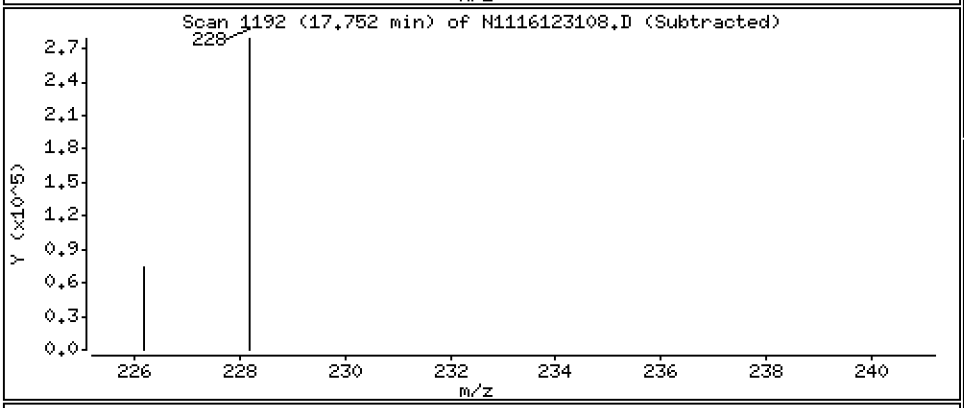
Column diameter: 0.25

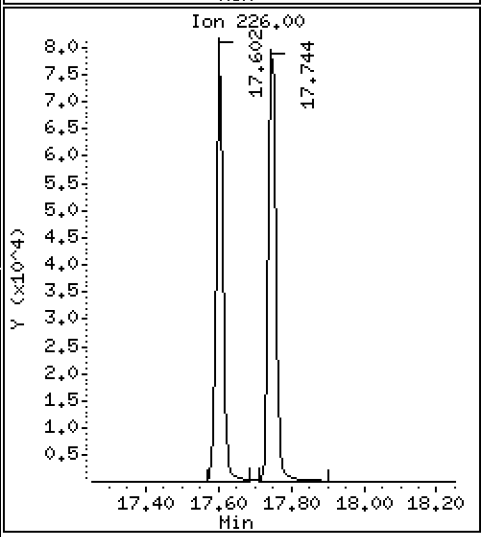
29 Chrysene

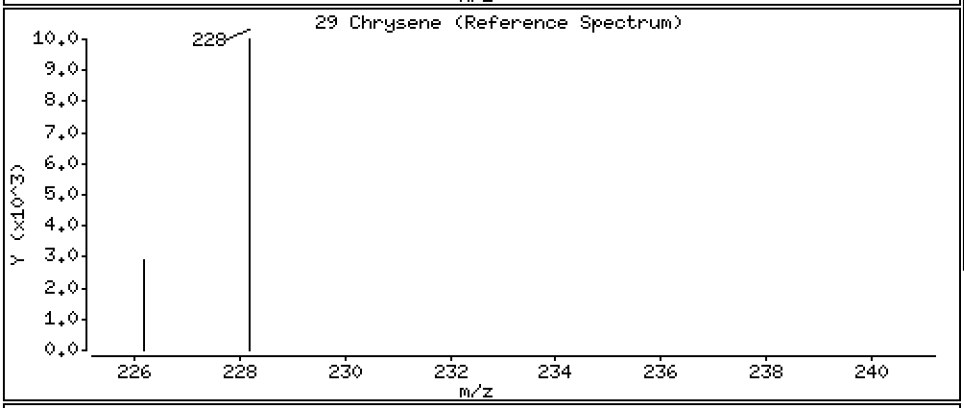
Concentration: 242 ng/mL

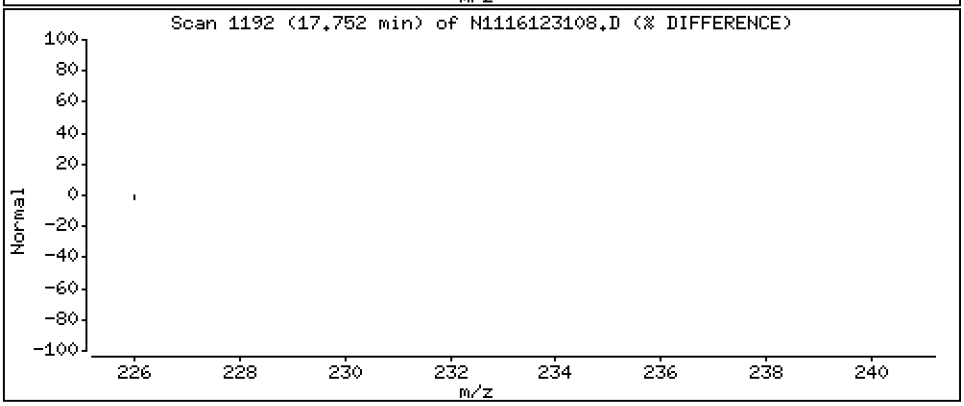












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Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

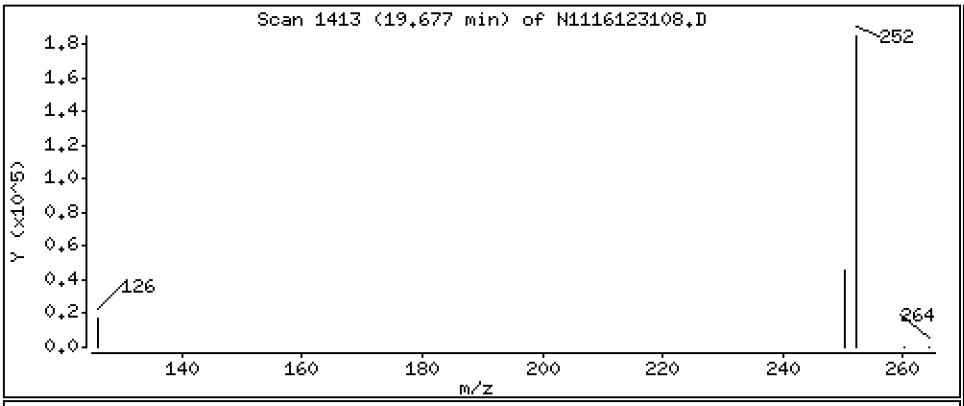
Operator: VTS

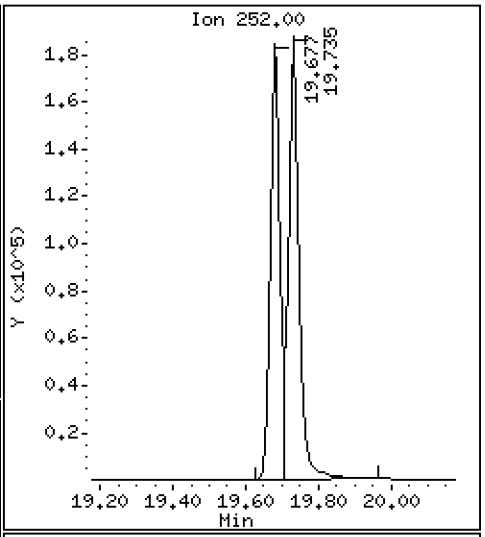
Column phase: Rxi-17Sil MS

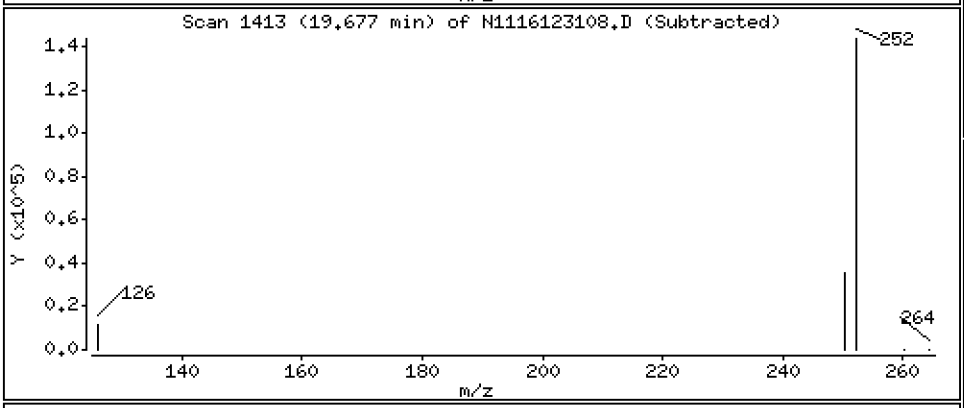
Column diameter: 0.25

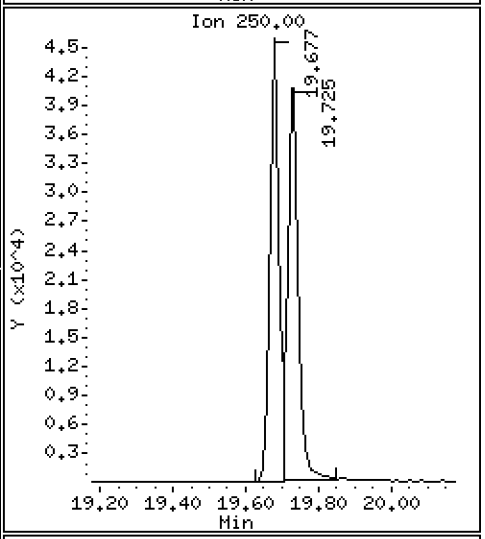
30 Benzo(b)fluoranthene

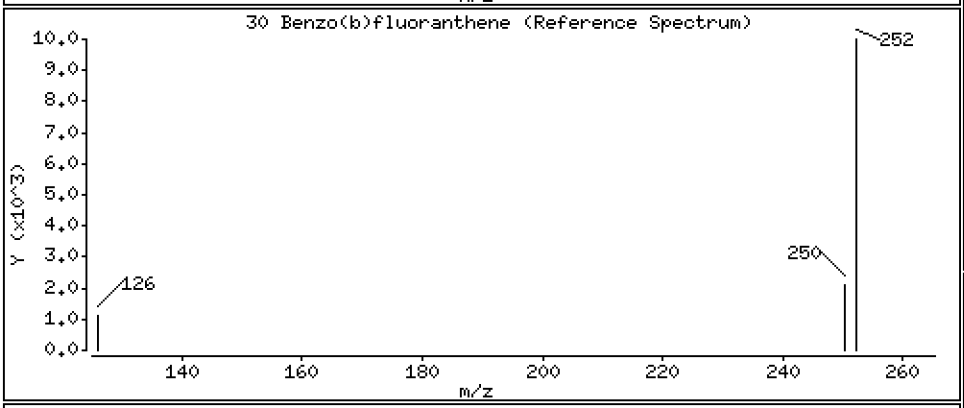
Concentration: 253 ng/mL

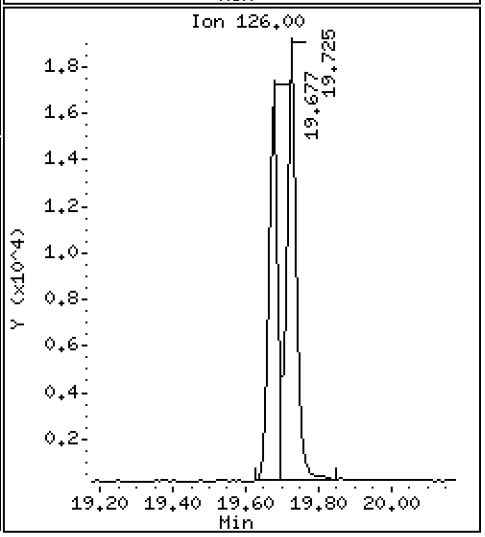


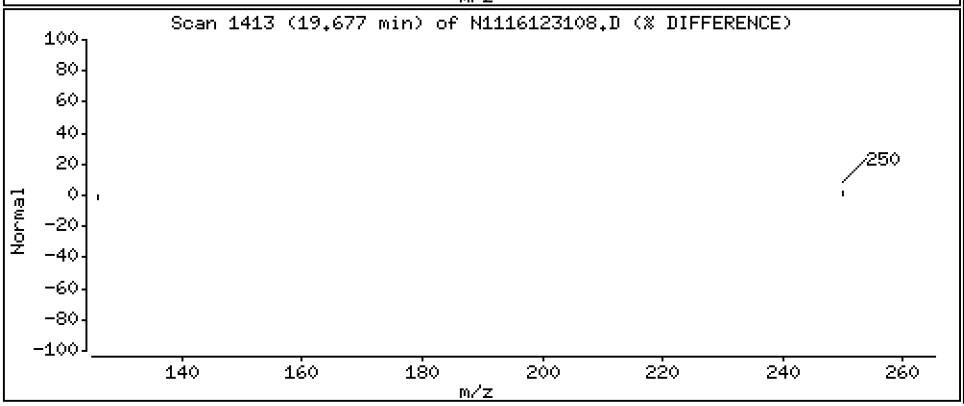












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Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

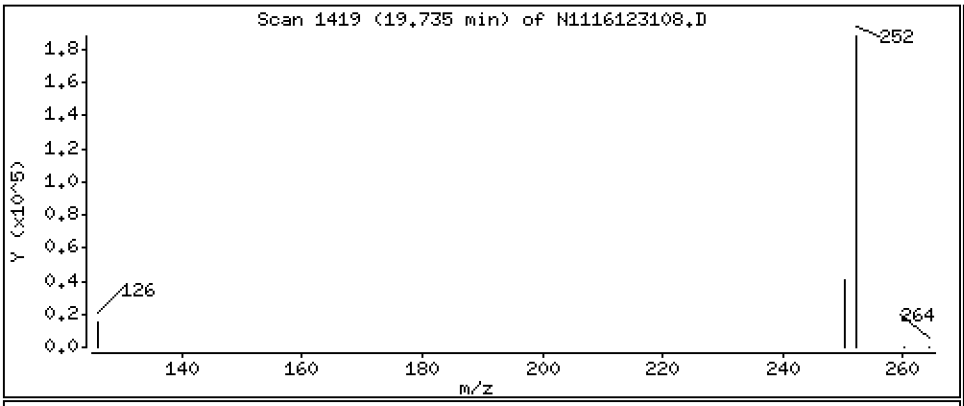
Operator: VTS

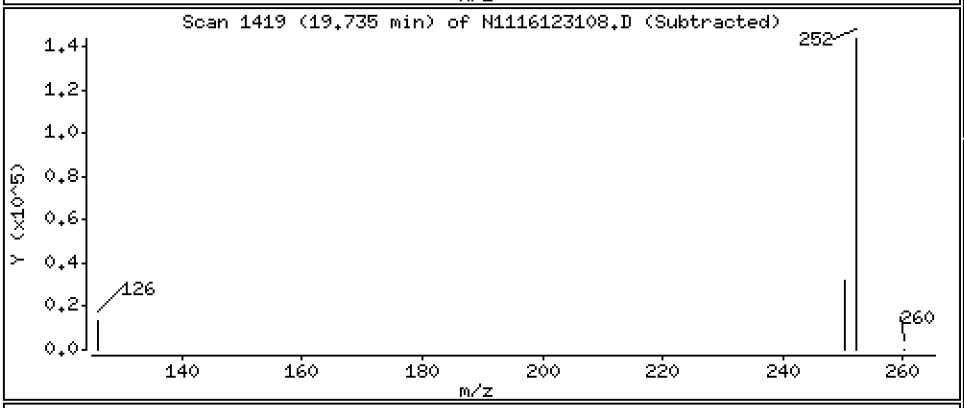
Column phase: Rxi-17Sil MS

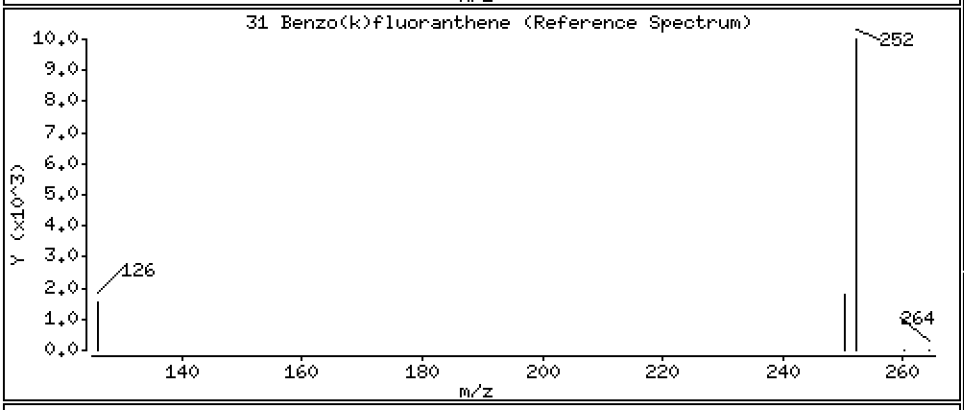
Column diameter: 0.25

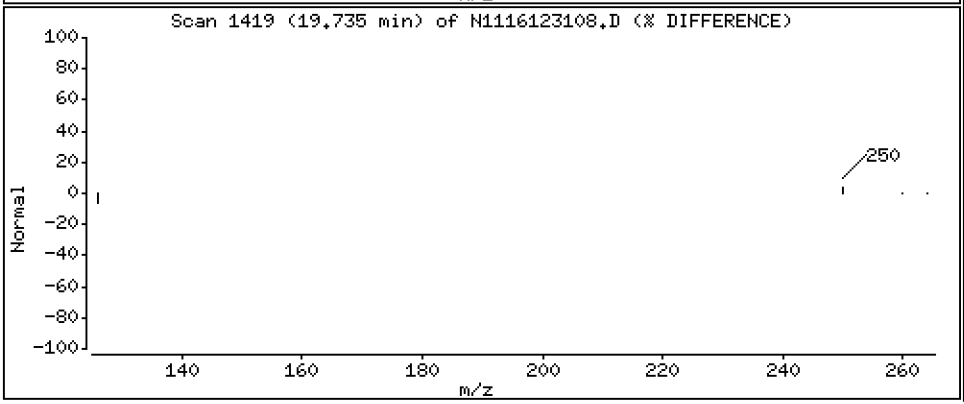
31 Benzo(k)fluoranthene

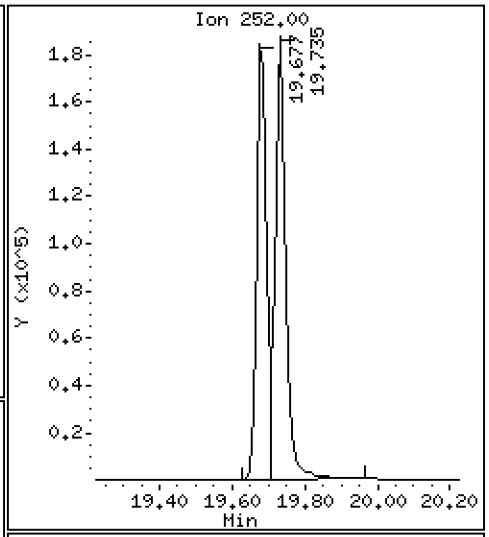
Concentration: 262 ng/mL

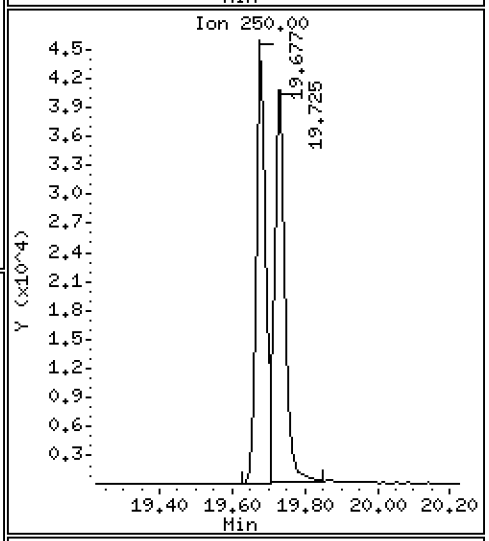


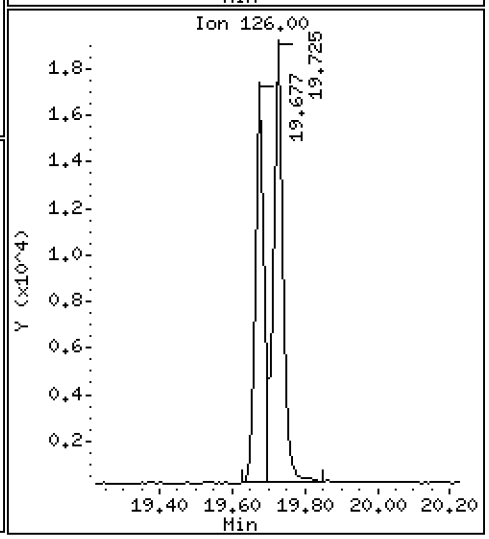












Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123108.D

Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

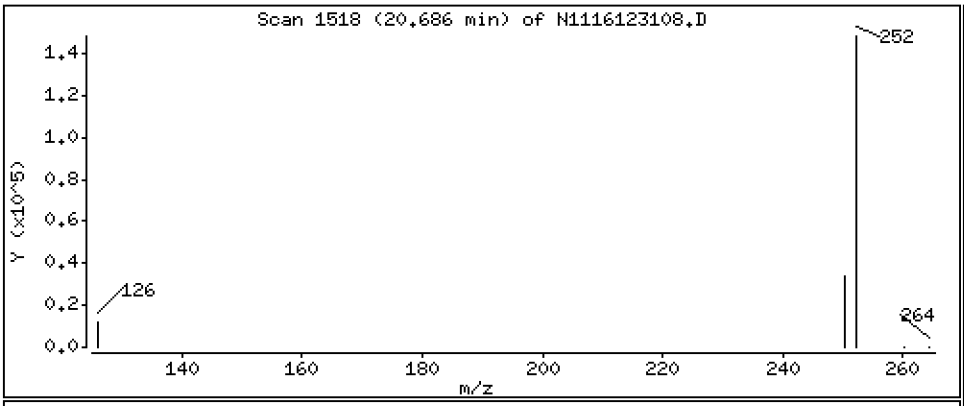
Operator: VTS

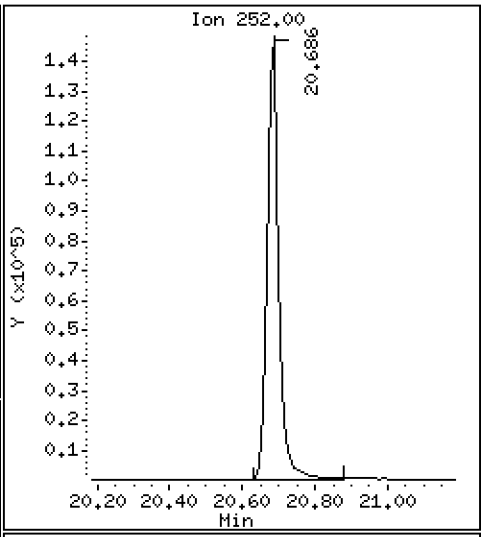
Column phase: Rxi-17Sil MS

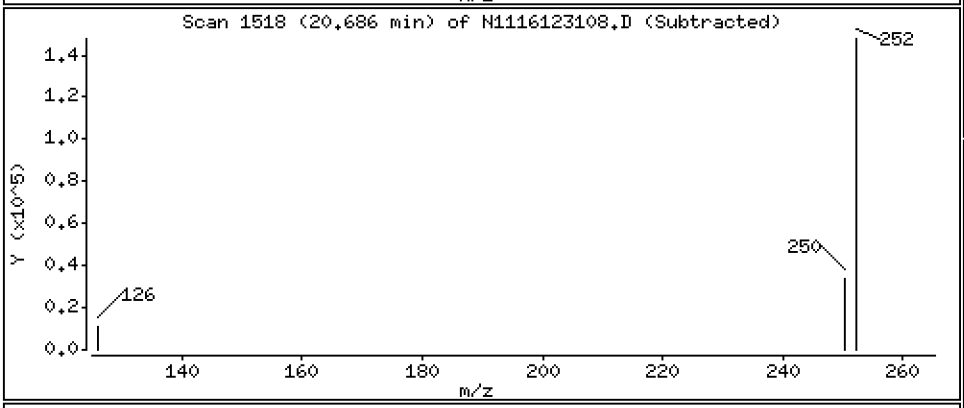
Column diameter: 0.25

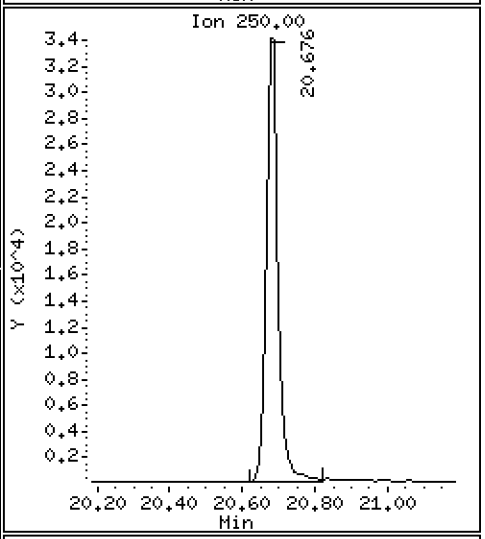
35 Benzo(a)pyrene

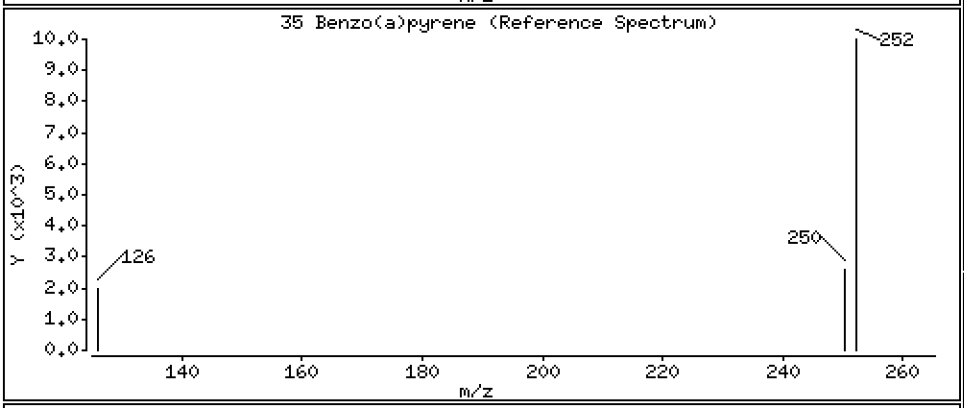
Concentration: 249 ng/mL

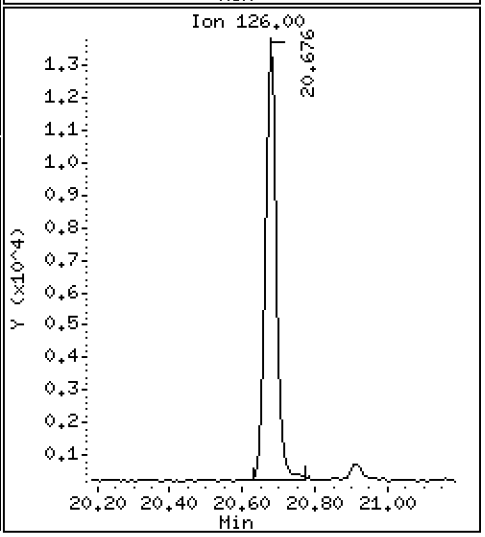


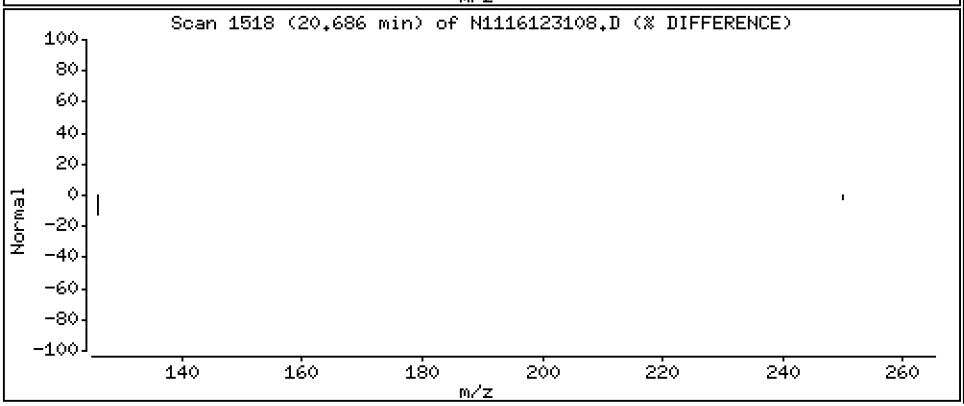












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Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

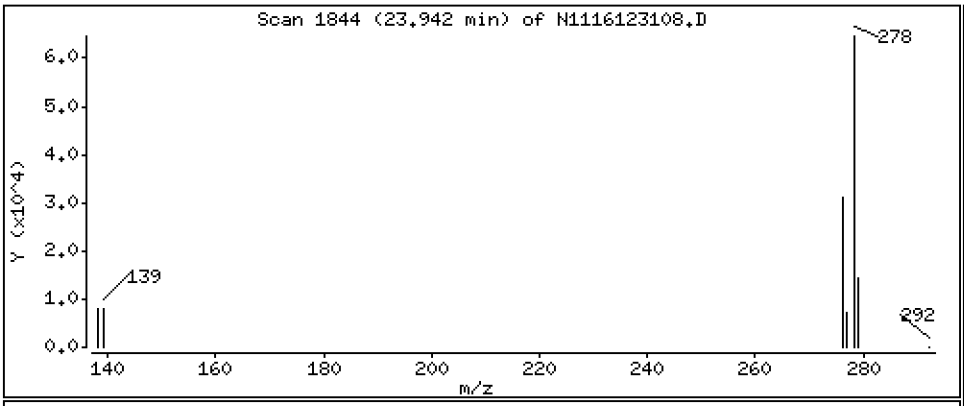
Operator: VTS

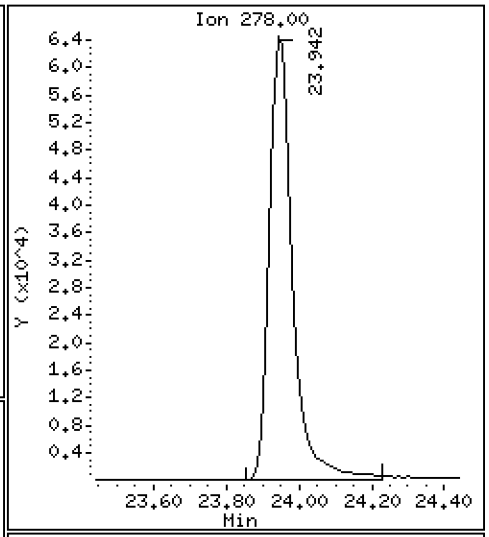
Column phase: Rxi-17Sil MS

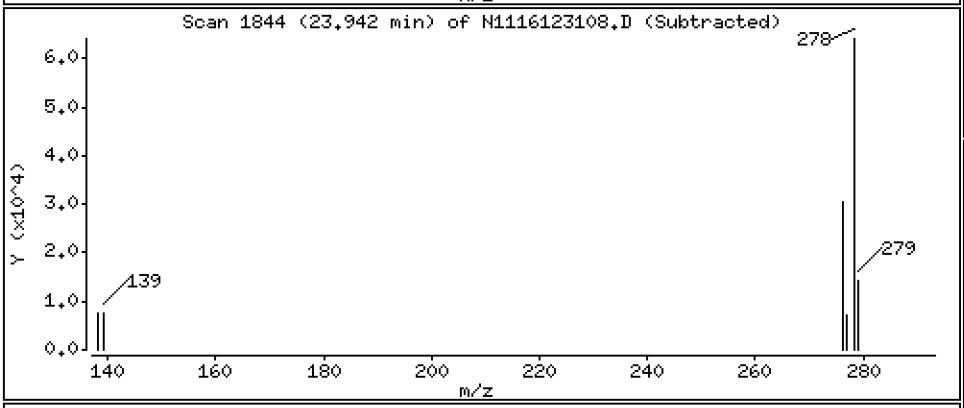
Column diameter: 0.25

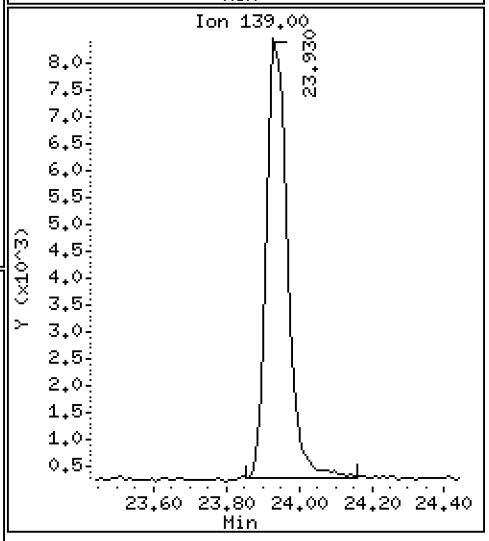
39 Dibenzo(a,h)anthracene

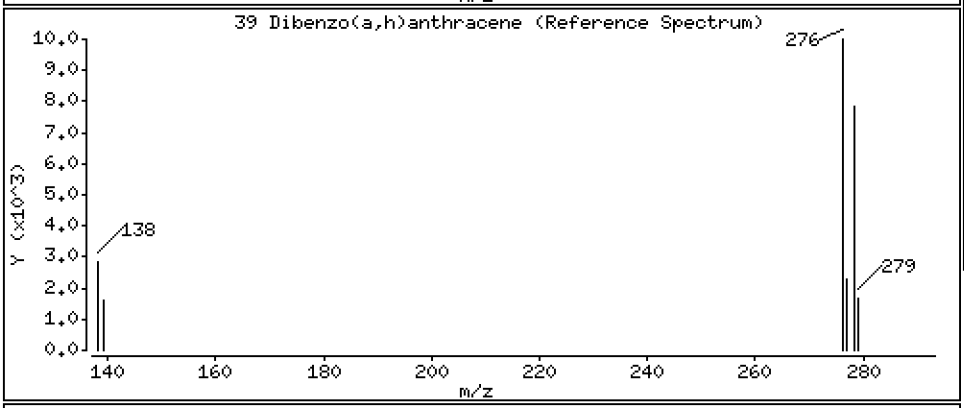
Concentration: 240 ng/mL

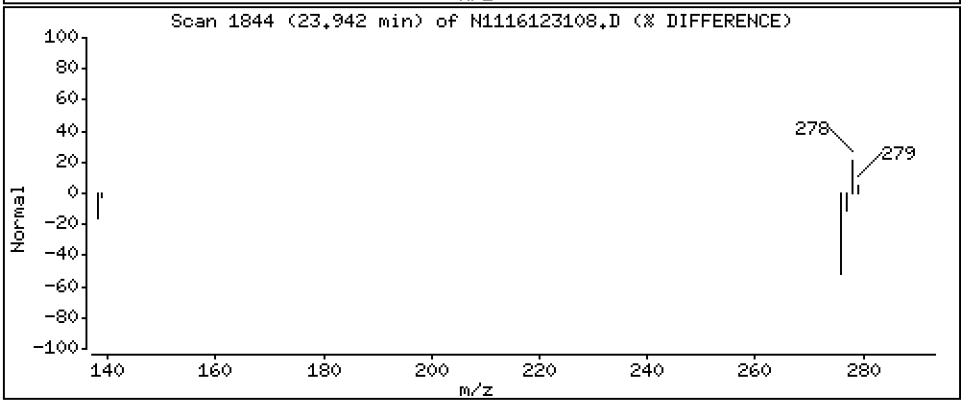












Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123108.D

Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

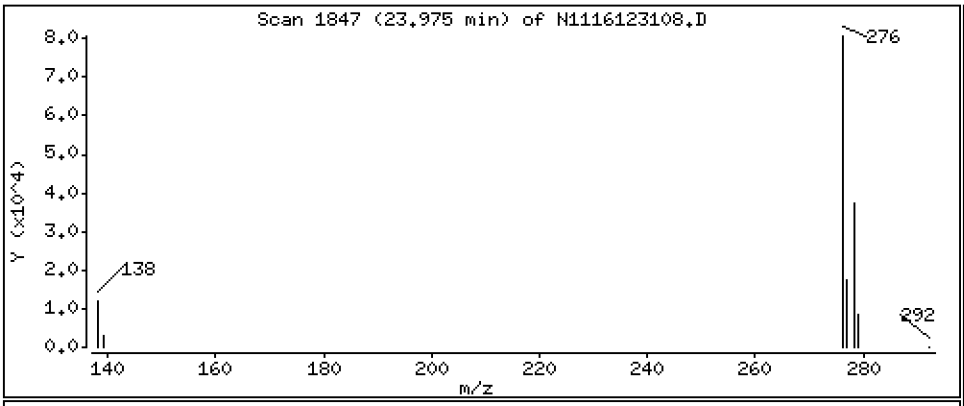
Operator: VTS

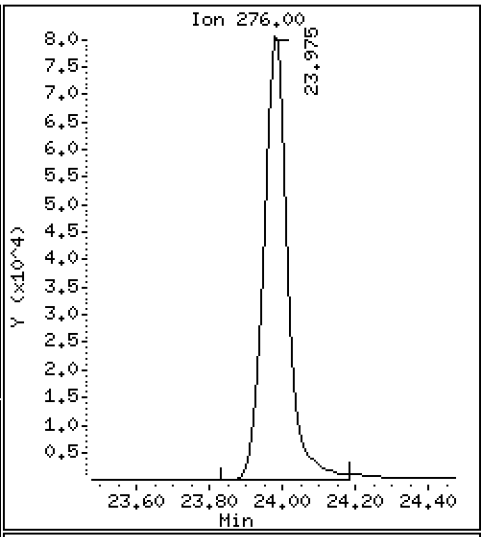
Column phase: Rxi-17Sil MS

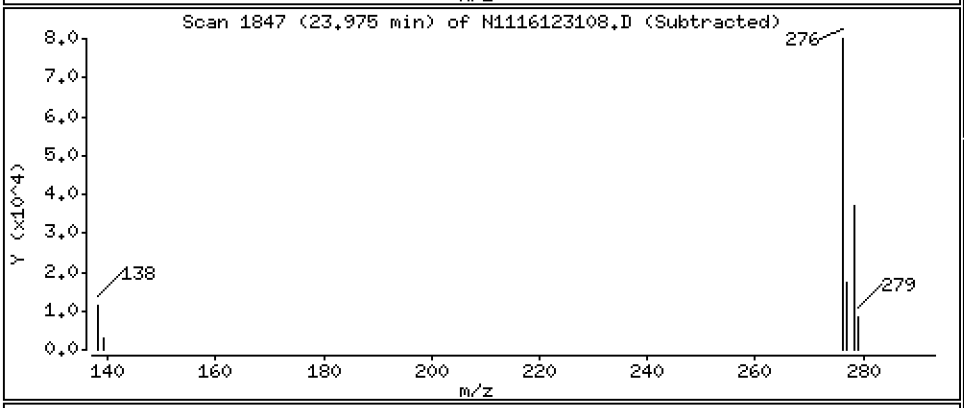
Column diameter: 0.25

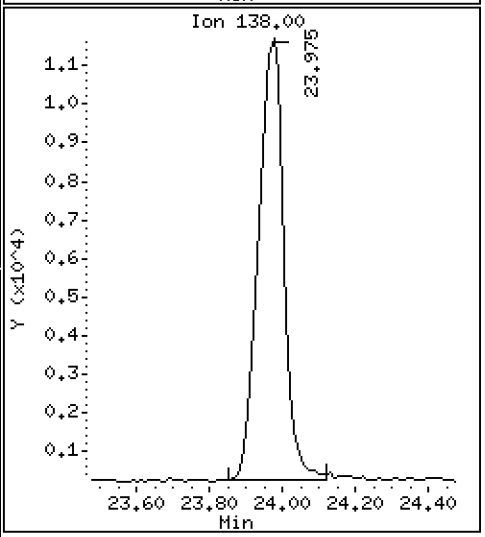
40 Indeno(1,2,3-cd)pyrene

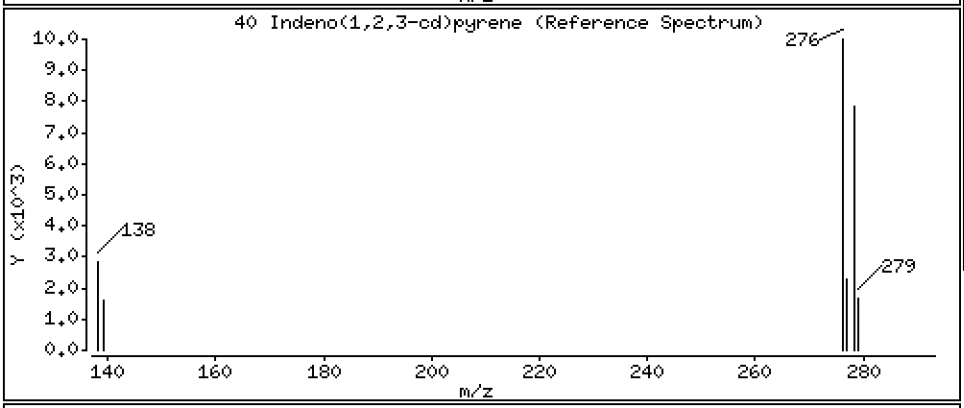
Concentration: 248 ng/mL

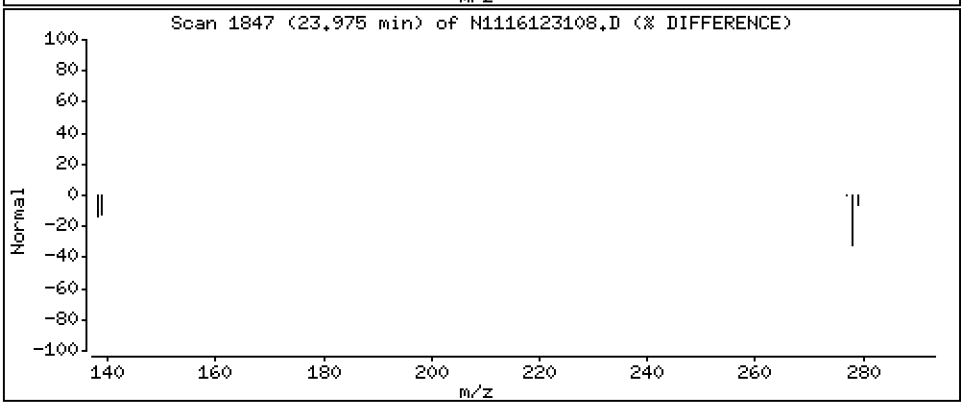












Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123108.D

Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

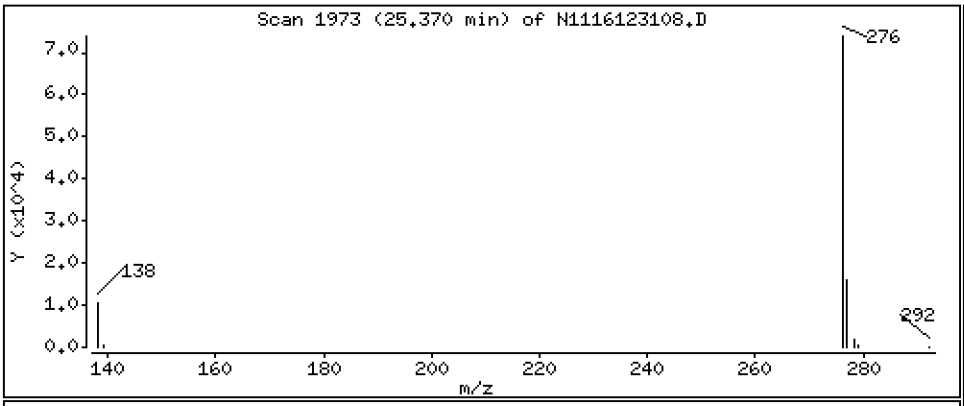
Operator: VTS

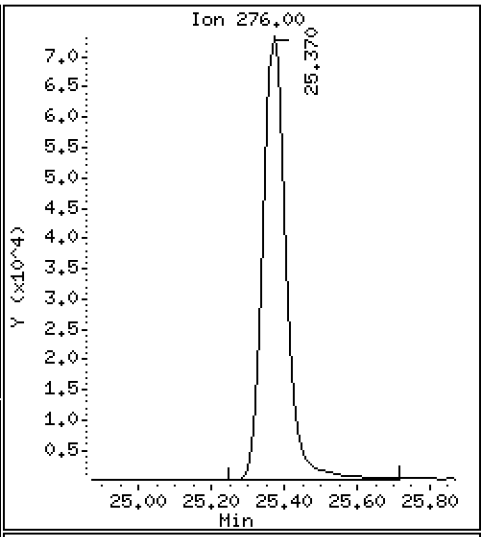
Column phase: Rxi-17Sil MS

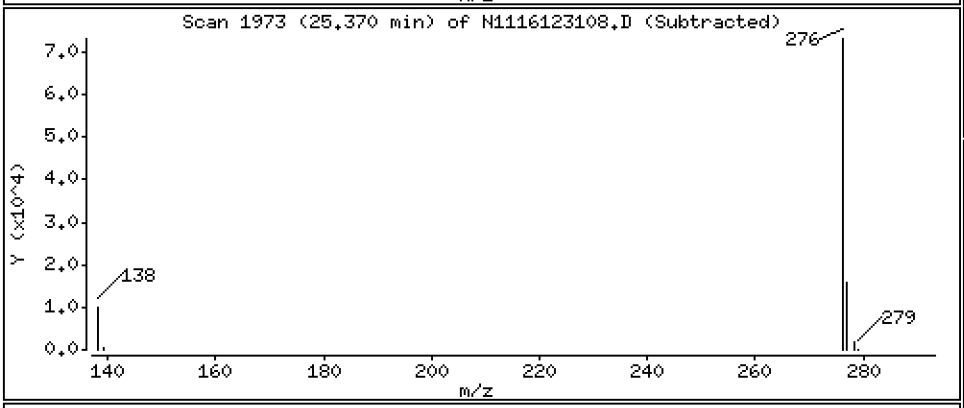
Column diameter: 0.25

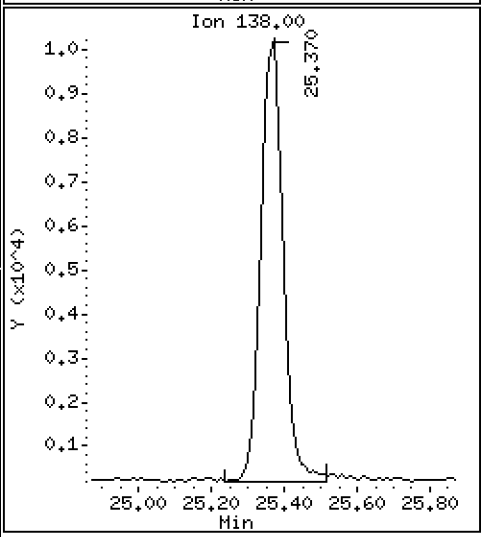
41 Benzo(g,h,i)perylene

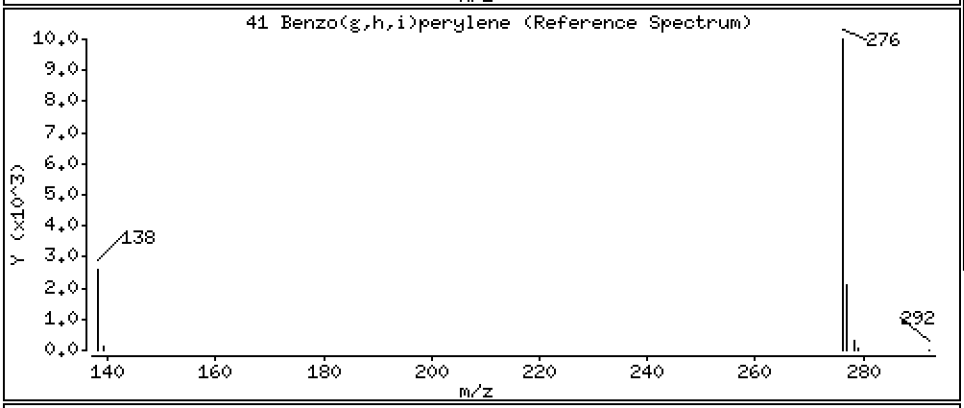
Concentration: 247 ng/mL

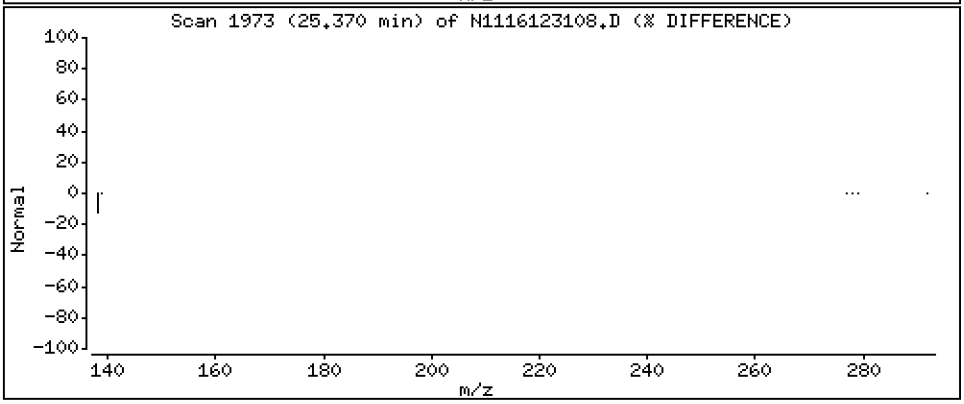












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20161231.b\N1116123108.D
Lab Smp Id: SEL0401-SCV1
Inj Date : 31-DEC-2016 11:35 MS Autotune Date: 15-JAN-2015 15:59
Operator : VTS Inst ID: nt11.i
Smp Info : SEL0401-SCV1
Misc Info :
Comment   :
Method   : \\target\share\chem3\nt11.i\20161231.b\lowsim.m
Meth Date : 31-Dec-2016 12:34 van Quant Type: ISTD
Cal Date : 31-DEC-2016 09:30 Cal File: N1116123104.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: newpna.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	7.225	7.225	(1.000)	210327	200.000	
	2 Naphthalene	128	7.253	7.253	(1.004)	263035	250.596	251
$	4 2-Methylnaphthalene-d10	152	Compound Not Detected.					
	5 2-Methylnaphthalene	142	8.253	8.253	(1.142)	257930	249.327	249
	6 1-Methylnaphthalene	142	8.516	8.516	(1.179)	246162	236.587	237
	10 Acenaphthylene	152	10.098	10.098	(0.985)	293179	254.726	255
*	11 Acenaphthene-d10	164	10.252	10.252	(1.000)	128092	200.000	
	12 Acenaphthene	153	10.315	10.315	(1.006)	209513	276.477	276
	13 Dibenzofuran	168	10.519	10.519	(1.026)	321591	285.478	285
	16 Fluorene	166	11.138	11.151	(1.086)	240770	268.478	268
*	18 Phenanthrene-d10	188	12.945	12.945	(1.000)	246665	200.000	
	19 Phenanthrene	178	12.987	12.987	(1.003)	354560	251.418	251
	21 Anthracene	178	13.040	13.040	(1.007)	334329	237.762	238
$	24 Fluoranthene-d10	212	15.007	15.055	(1.159)	1972	1.50522	1.51
	25 Fluoranthene	202	15.084	15.084	(1.165)	404582	252.915	253
	26 Pyrene	202	15.593	15.593	(0.881)	409188	246.982	247
	27 Benzo(a)anthracene	228	17.602	17.602	(0.994)	388934	253.609	254
*	28 Chrysene-d12	240	17.702	17.702	(1.000)	255043	200.000	
	29 Chrysene	228	17.751	17.751	(1.003)	380528	241.811	242
	30 Benzo(b)fluoranthene	252	19.676	19.677	(0.941)	361602	252.797	253
	31 Benzo(k)fluoranthene	252	19.734	19.725	(0.943)	403824	262.109	262
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
	35 Benzo(a)pyrene	252	20.685	20.685	(0.989)	331475	248.577	249
*	36 Perylene-d12	264	20.916	20.916	(1.000)	265358	200.000	
	37 Perylene	252	Compound Not Detected.					
$	38 Dibenzo(a,h)anthracene-d14	292	Compound Not Detected.					
	39 Dibenzo(a,h)anthracene	278	23.941	23.941	(1.145)	280435	240.373	240
	40 Indeno(1,2,3-cd)pyrene	276	23.974	23.974	(1.146)	361280	248.156	248
	41 Benzo(g,h,i)perylene	276	25.370	25.370	(1.213)	322290	246.575	247

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: N1116123108.D
Lab Smp Id: SEL0401-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20161231.b\lowsim.m
Misc Info:

Calibration Date: 31-DEC-2016
Calibration Time: 08:28
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	219654	109827	439308	210327	-4.25
11 Acenaphthene-d10	135248	67624	270496	128092	-5.29
18 Phenanthrene-d10	257021	128511	514042	246665	-4.03
28 Chrysene-d12	259511	129756	519022	255043	-1.72
36 Perylene-d12	257535	128768	515070	265358	3.04

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	7.23	6.73	7.73	7.23	0.00
11 Acenaphthene-d10	10.25	9.75	10.75	10.25	0.00
18 Phenanthrene-d10	12.95	12.45	13.45	12.95	0.00
28 Chrysene-d12	17.70	17.20	18.20	17.70	0.00
36 Perylene-d12	20.93	20.43	21.43	20.92	-0.05

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1116123108.D

Lab ID: SEL0401-SCV1
nt11.i, 20161231.b\lowsim.m,   31-DEC-2016 11:35

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20161231.b\lowsim.m, newpna.sub = 3.0000

Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Fluoranthene-d10 (Surr) 0.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000

Analytical Resources, Incorporated

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.
SDG: 17A0053
Client: Anchor QEA, LLC
Project: Port Gamble Shellfish Monitoring
Calibration: ZL00083
Laboratory ID: SEL0401-SCV1
Sequence: SEL0401
Standard ID: E007699

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Naphthalene	250.00	251	0.2	20.00
2-Methylnaphthalene	250.00	249	-0.3	20.00
Acenaphthylene	250.00	255	1.9	20.00
Acenaphthene	250.00	276	10.6	20.00
Dibenzofuran	250.00	285	14.2	20.00
Fluorene	250.00	268	7.4	20.00
Phenanthrene	250.00	251	0.6	20.00
Anthracene	250.00	238	-4.9	20.00
Fluoranthene	250.00	253	1.2	20.00
Pyrene	250.00	247	-1.2	20.00
Benzo(a)anthracene	250.00	254	1.4	20.00
Chrysene	250.00	242	-3.3	20.00
Benzo(b)fluoranthene	250.00	253	1.1	20.00
Benzo(k)fluoranthene	250.00	262	4.8	20.00
Benzo(a)pyrene	250.00	249	-0.6	20.00
Indeno(1,2,3-cd)pyrene	250.00	248	-0.7	20.00
Dibenzo(a,h)anthracene	250.00	240	-3.9	20.00
Benzo(g,h,i)perylene	250.00	247	-1.4	20.00
1-Methylnaphthalene	250.00	237	-5.4	20.00
Benzofluoranthenes, Total	500.00	515	3.0	

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123108.D

Date : 31-DEC-2016 11:35

Client ID:

Sample Info: SEL0401-SCV1

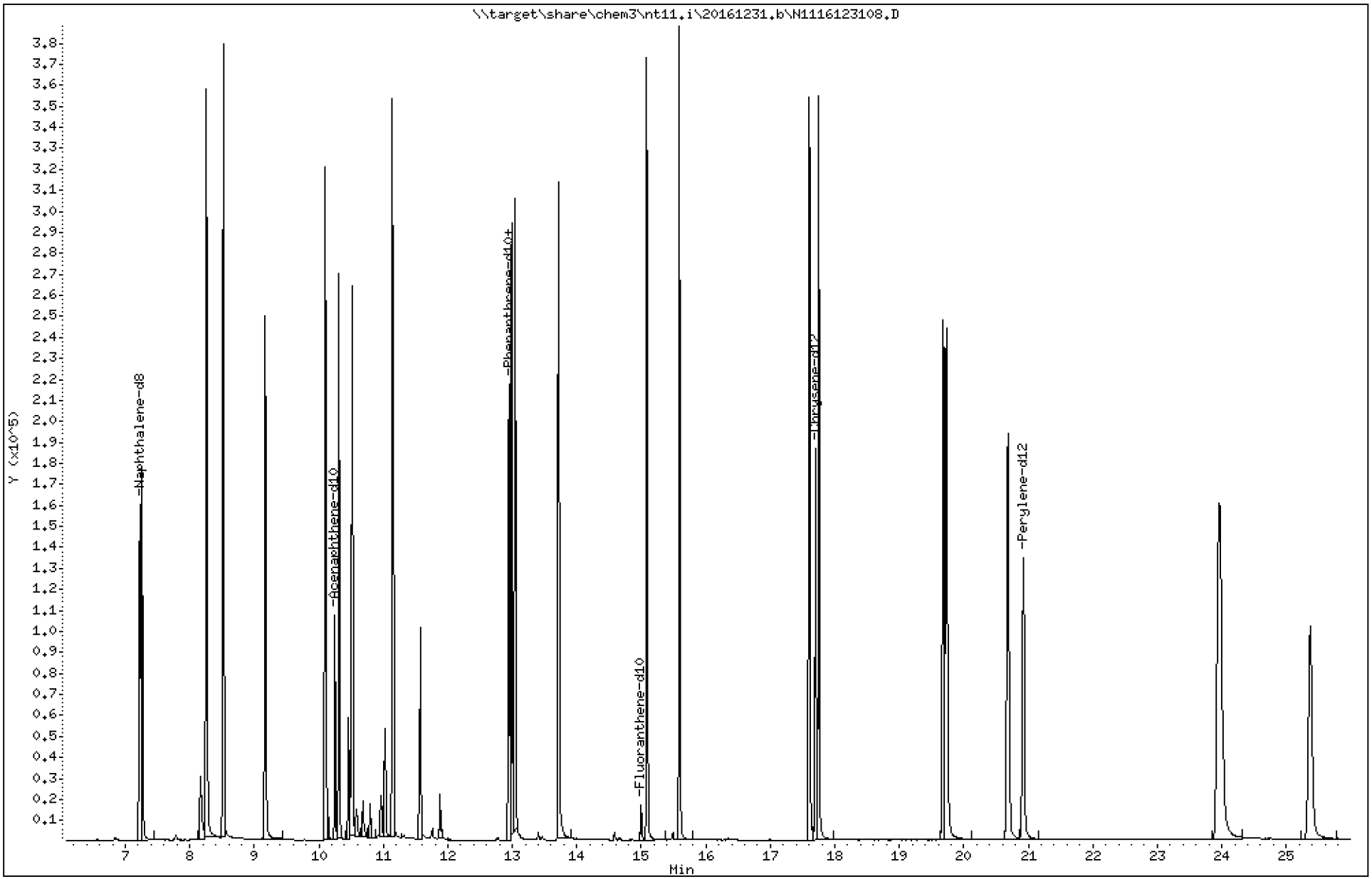
Column phase: Rxi-17Sil MS

Instrument: nt11.i

Operator: VTS

Column diameter: 0.25

1286



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Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

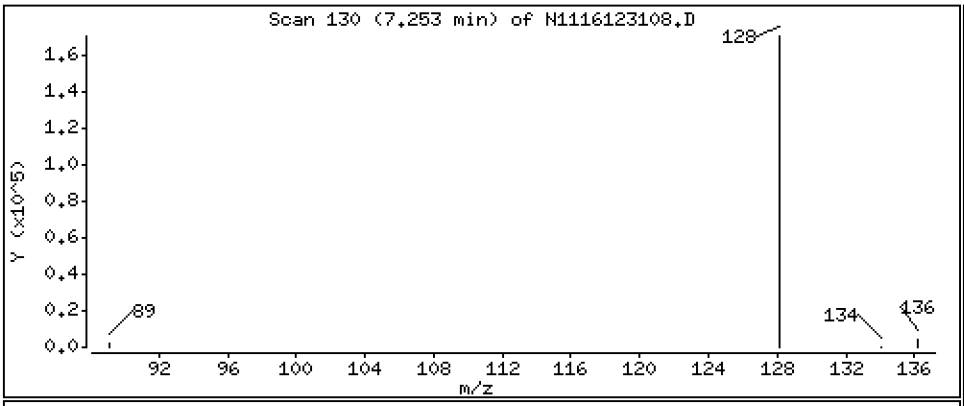
Operator: VTS

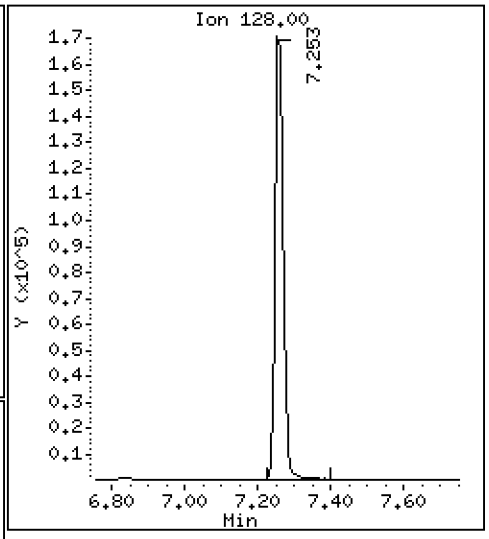
Column phase: Rxi-17Sil MS

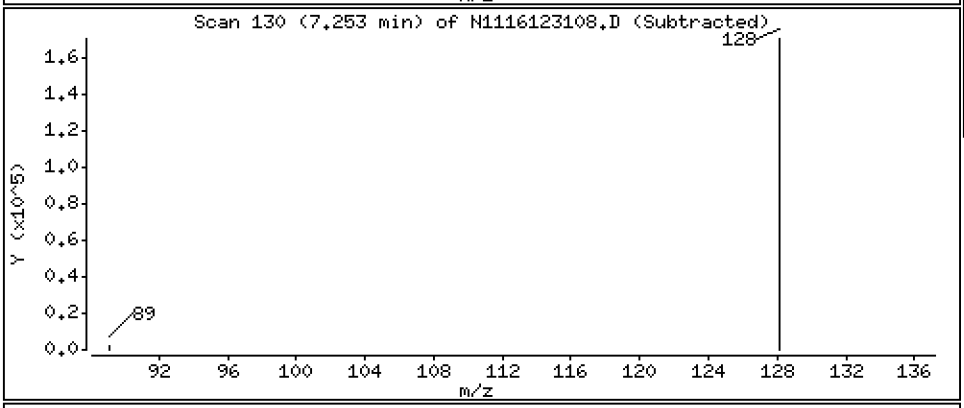
Column diameter: 0.25

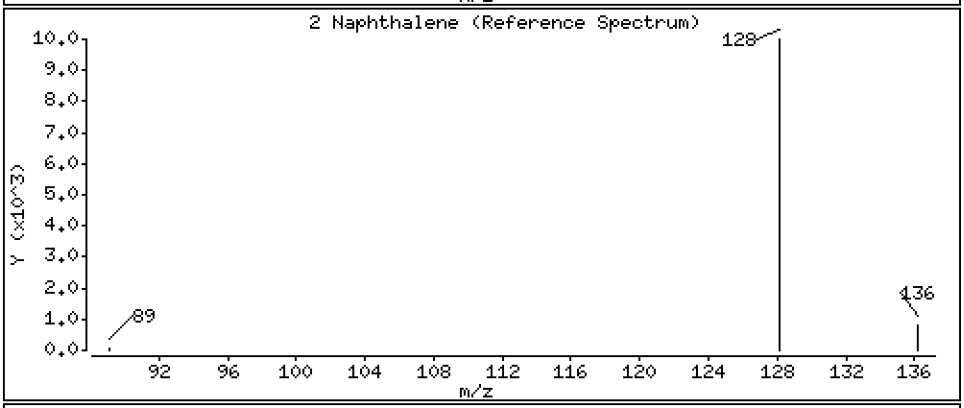
2 Naphthalene

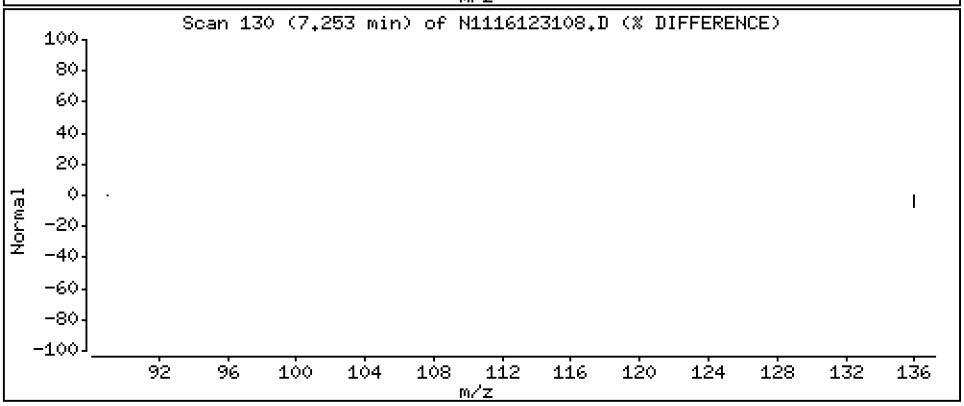
Concentration: 251 ng/mL











Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123108.D

Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

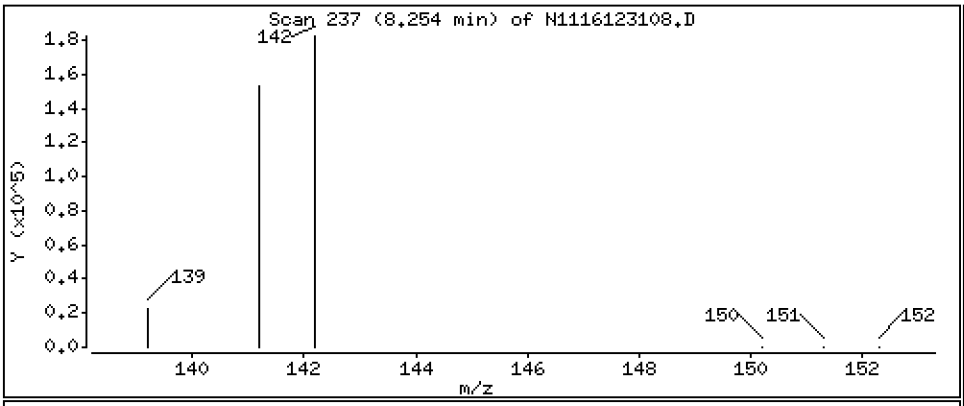
Operator: VTS

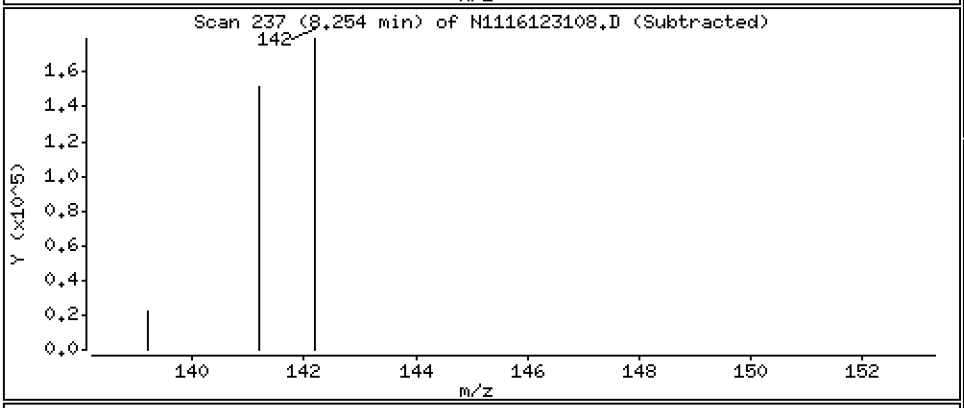
Column phase: Rxi-17Sil MS

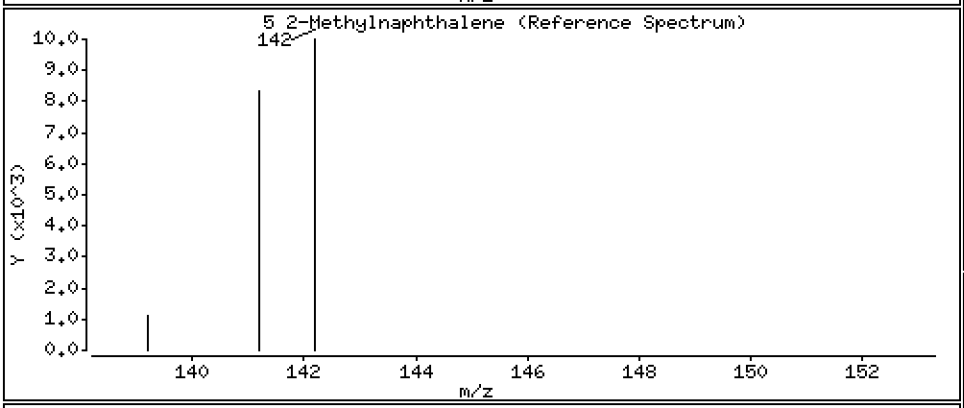
Column diameter: 0.25

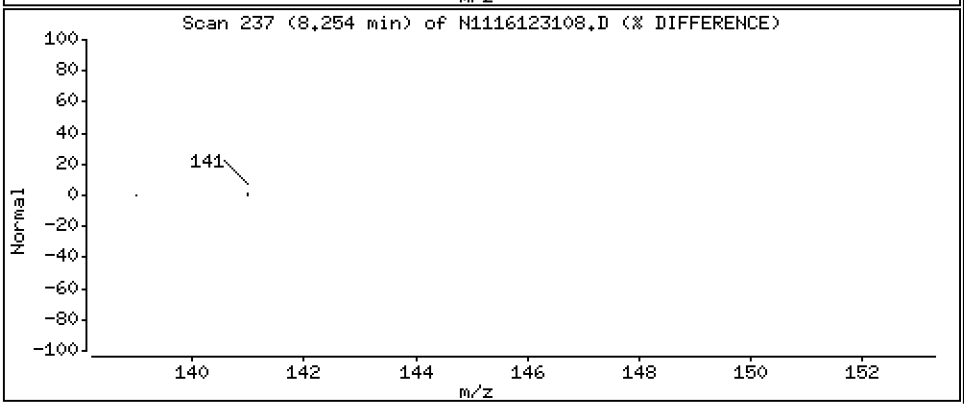
5 2-Methylnaphthalene

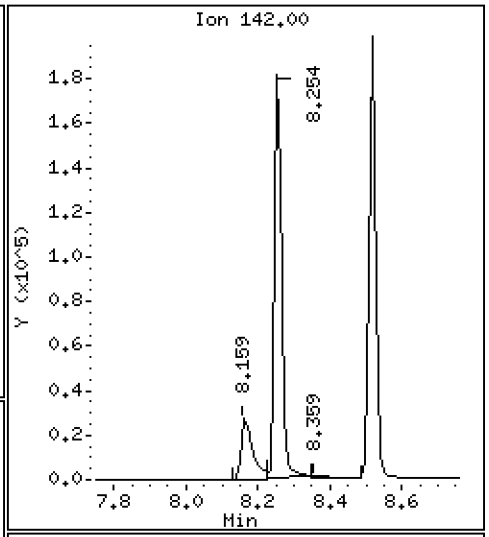
Concentration: 249 ng/mL

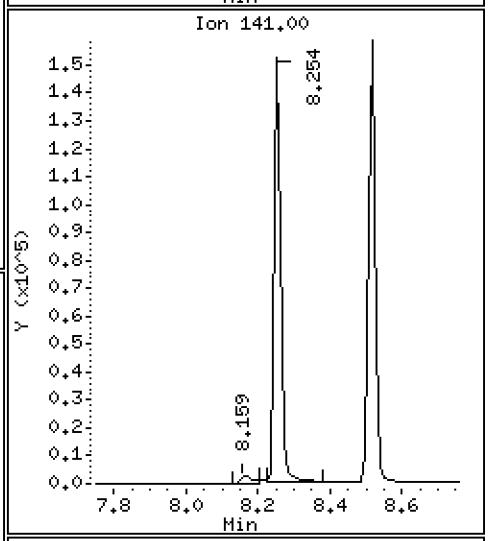


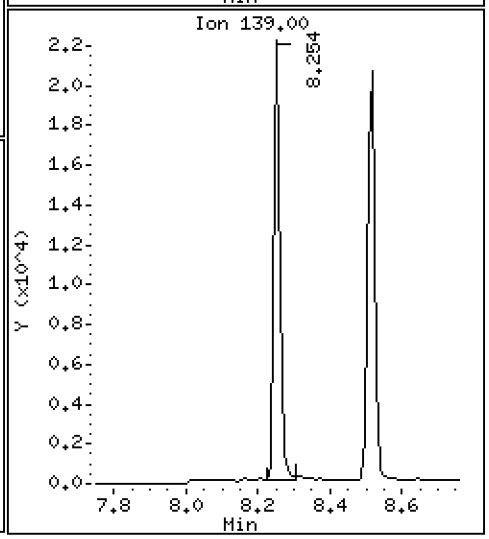












Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123108.D

Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

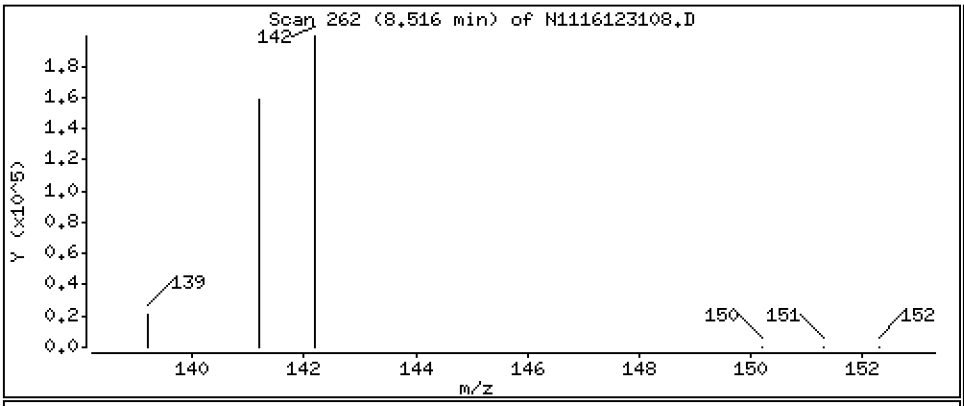
Operator: VTS

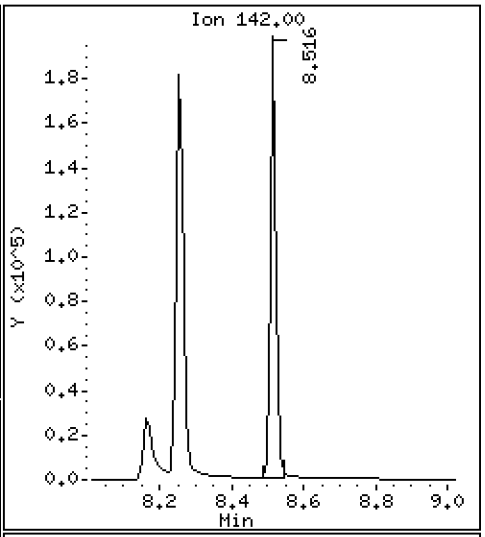
Column phase: Rxi-17Sil MS

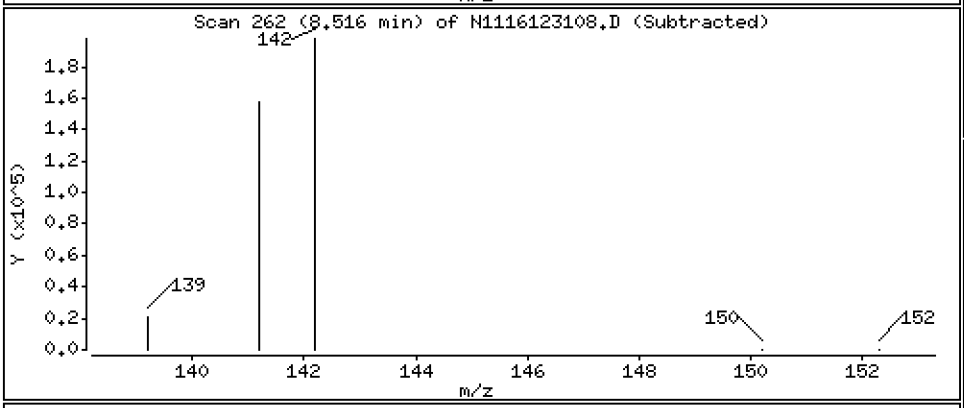
Column diameter: 0.25

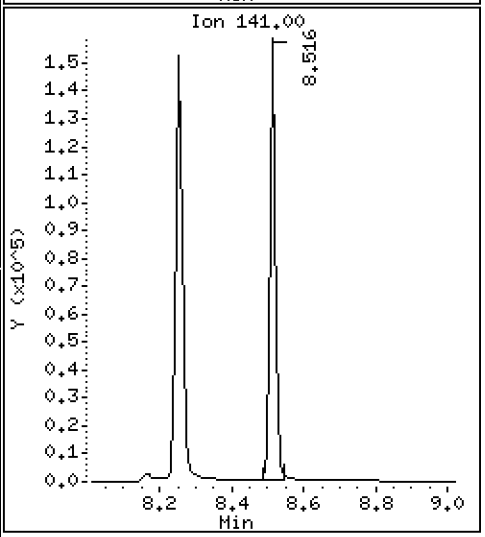
6 1-Methylnaphthalene

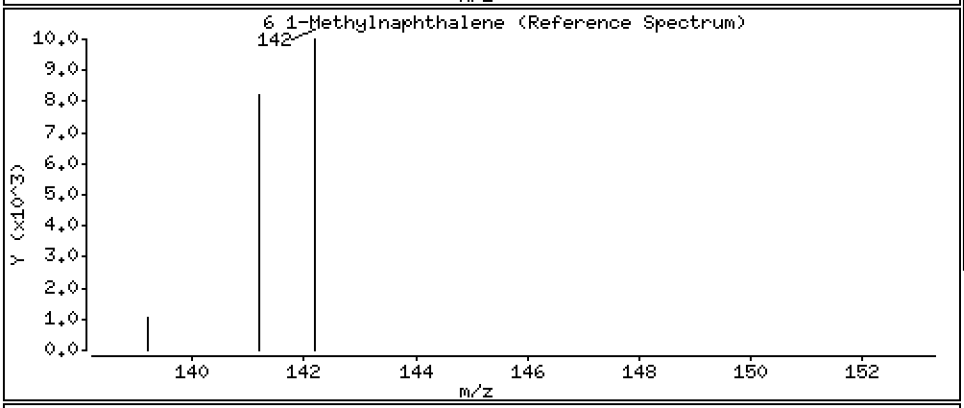
Concentration: 237 ng/mL

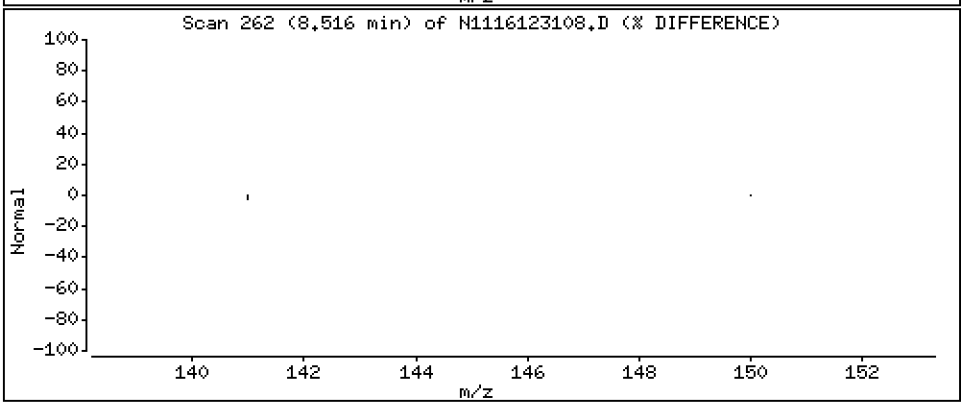












Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123108.D

Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

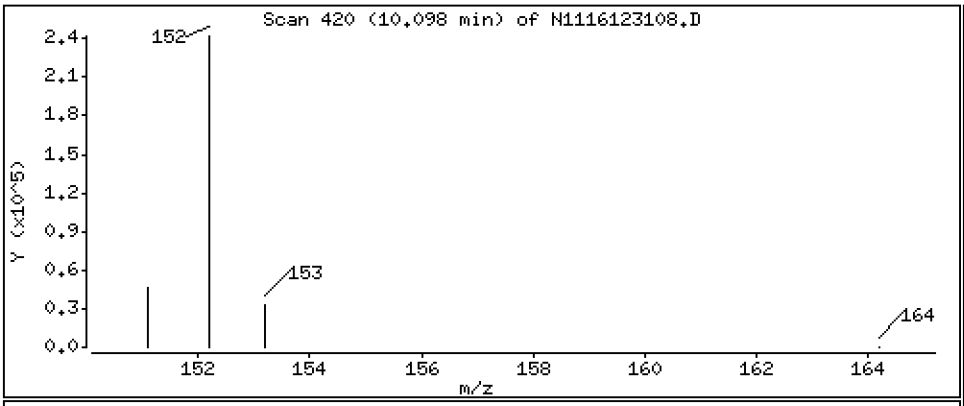
Operator: VTS

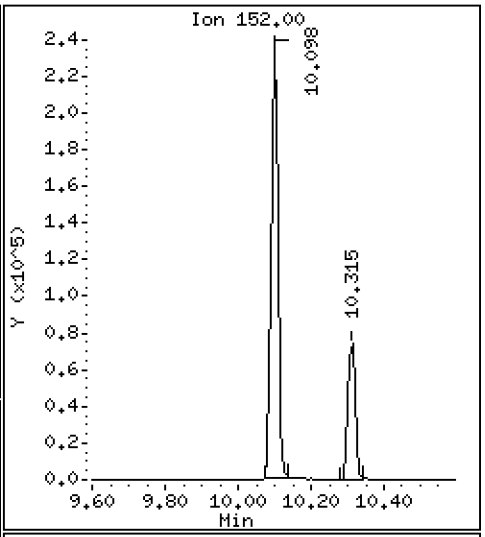
Column phase: Rxi-17Sil MS

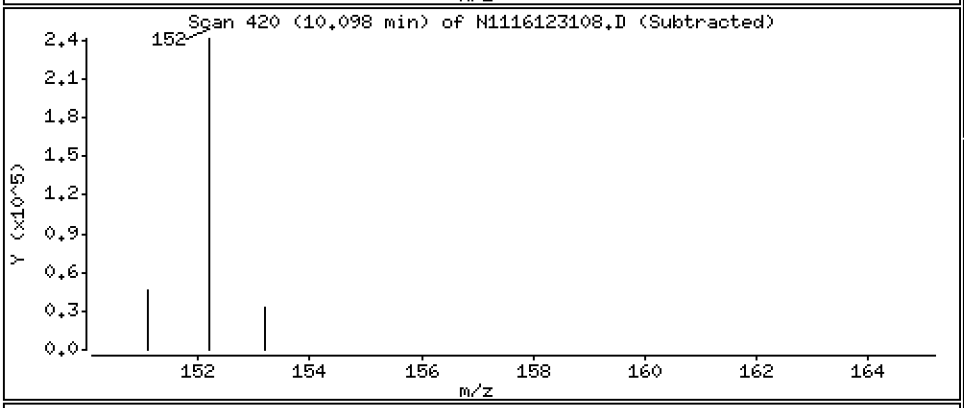
Column diameter: 0.25

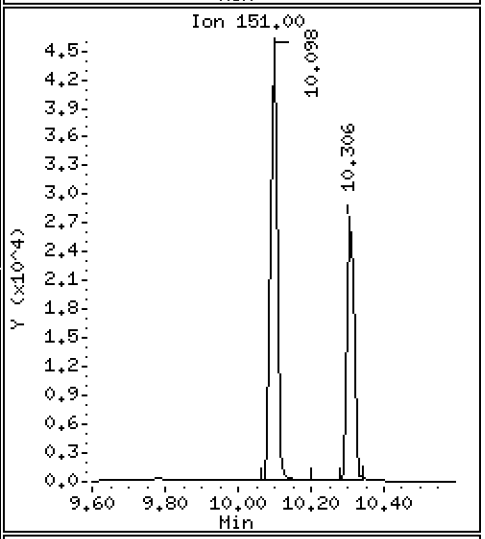
10 Acenaphthylene

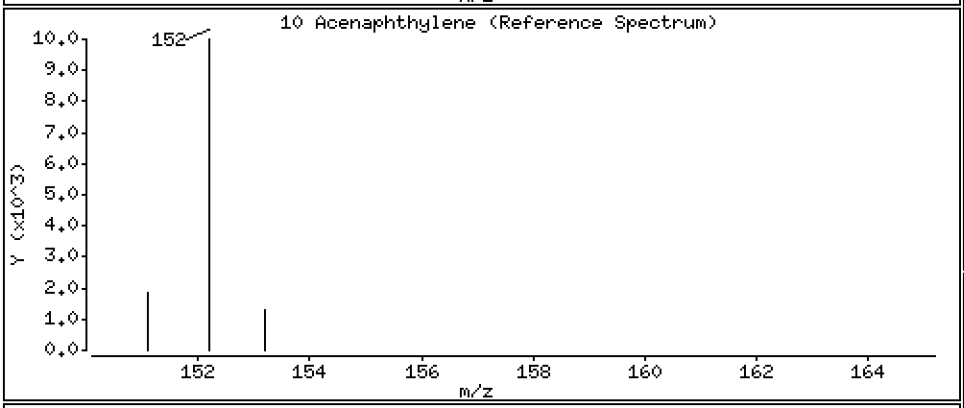
Concentration: 255 ng/mL

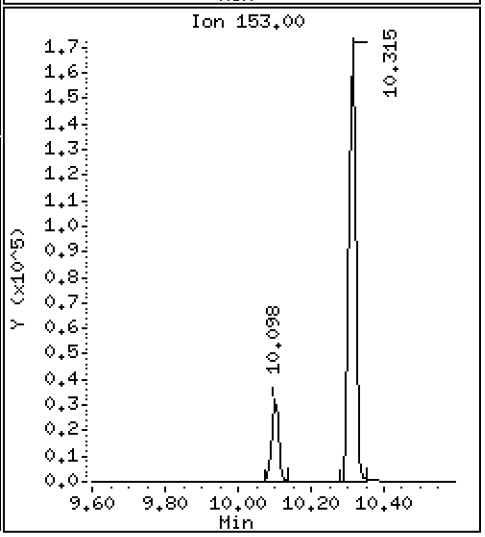


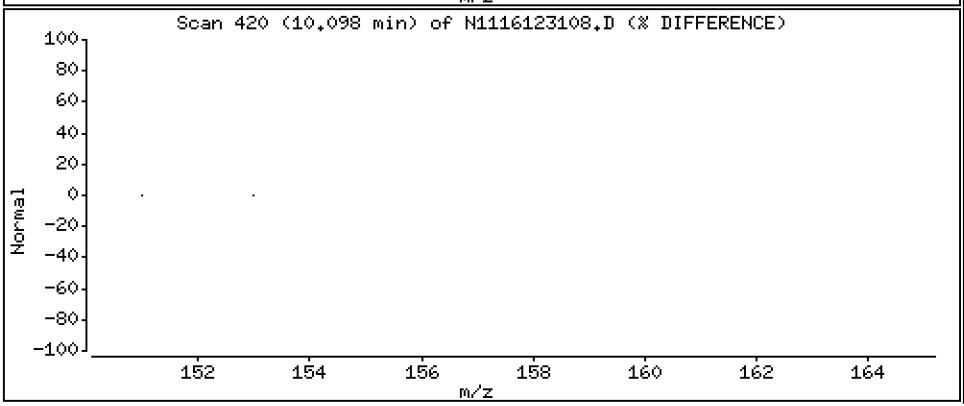












Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123108.D

Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

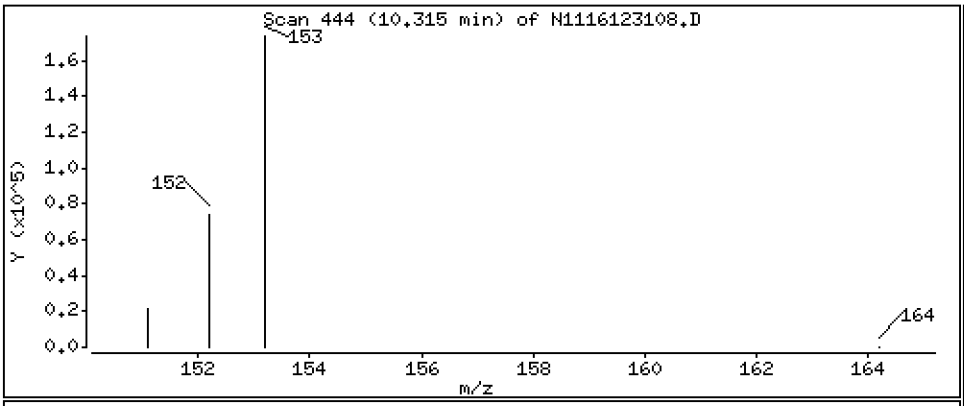
Operator: VTS

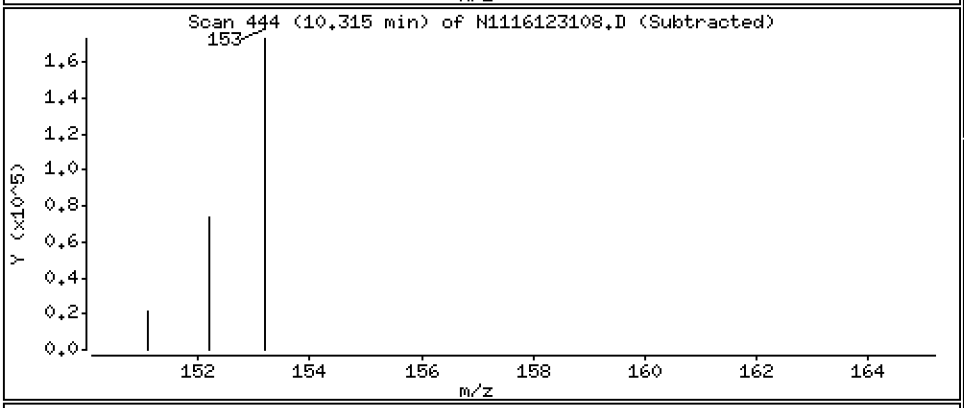
Column phase: Rxi-17Sil MS

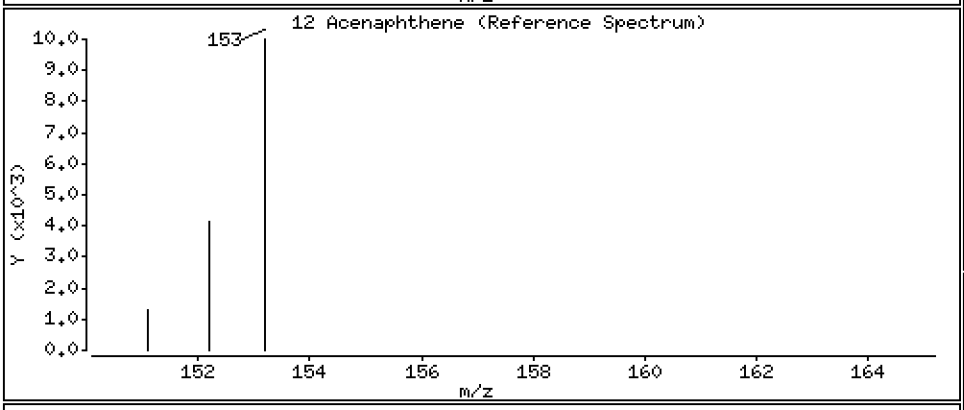
Column diameter: 0.25

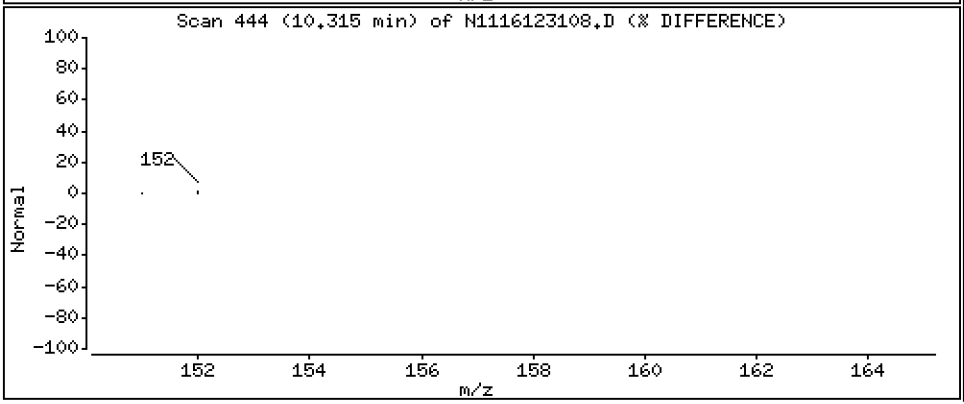
12 Acenaphthene

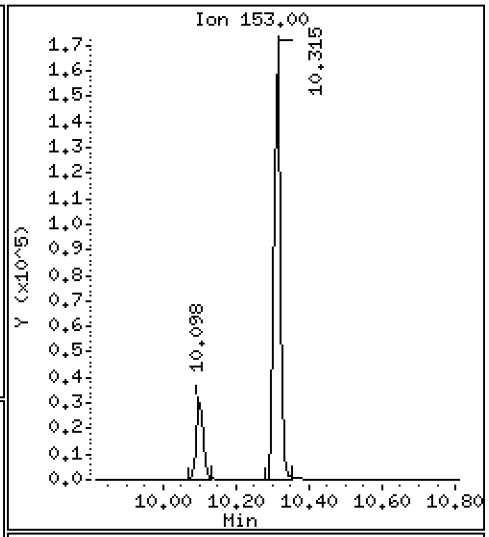
Concentration: 276 ng/mL

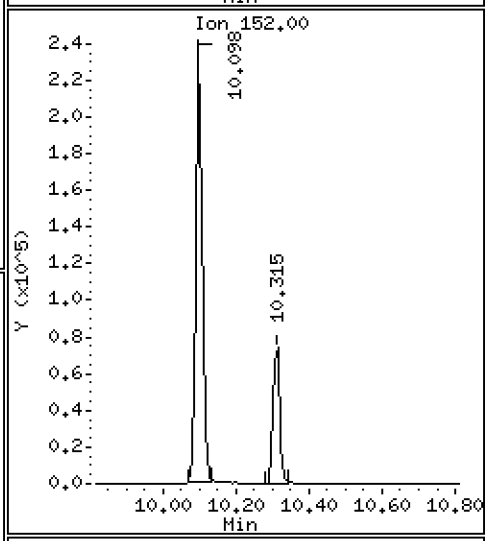


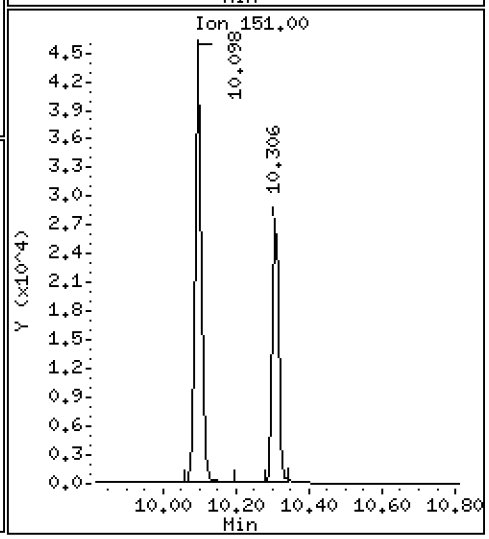












Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123108.D

Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

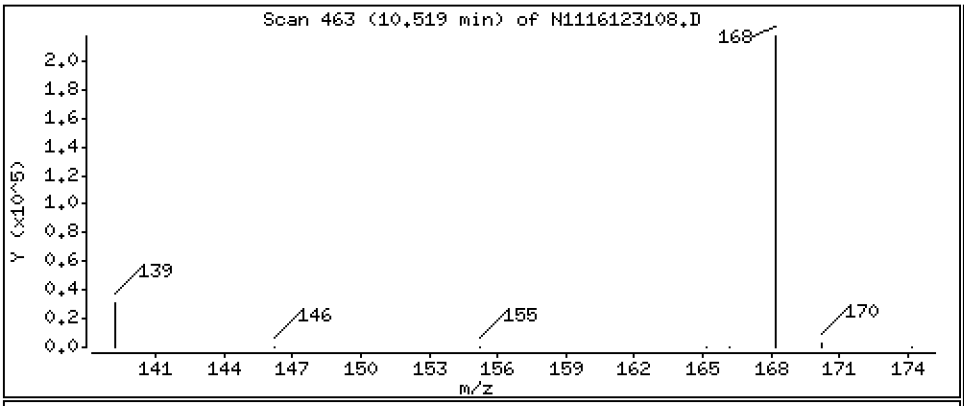
Operator: VTS

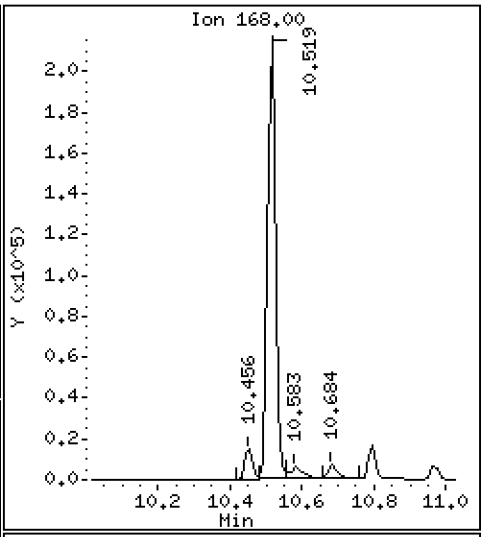
Column phase: Rxi-17Sil MS

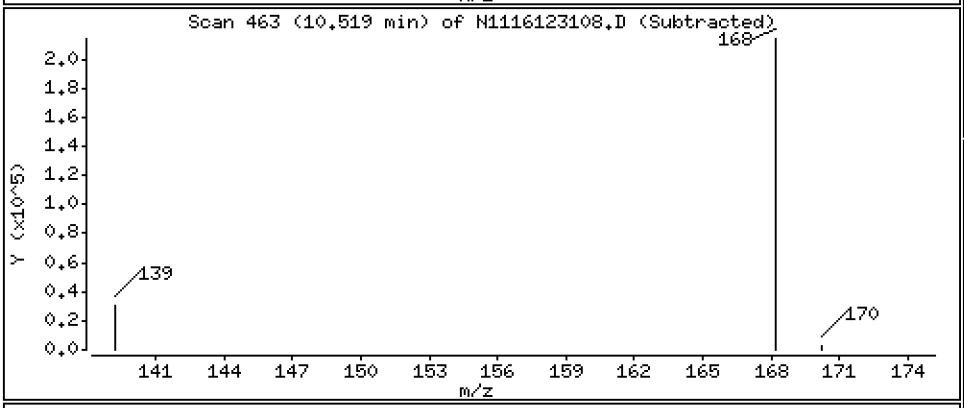
Column diameter: 0.25

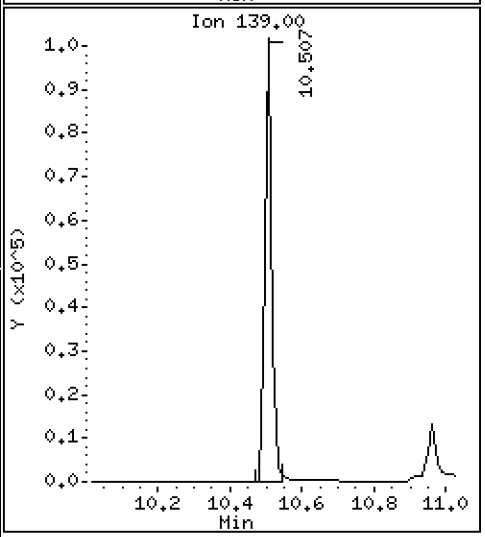
13 Dibenzofuran

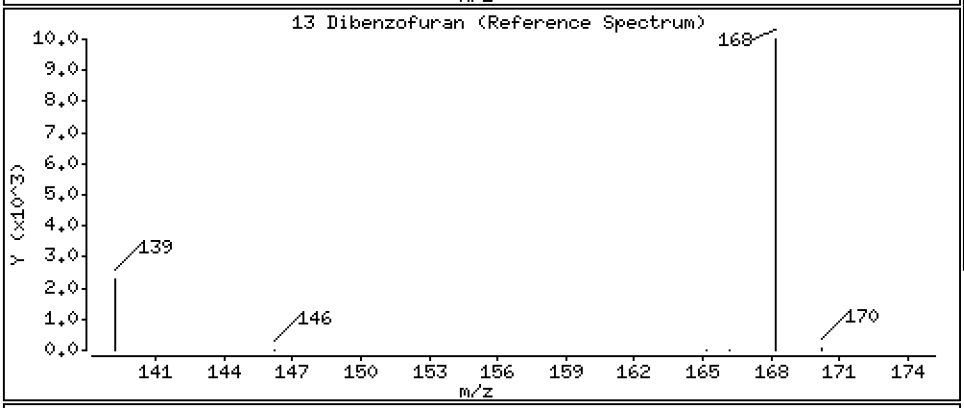
Concentration: 285 ng/mL

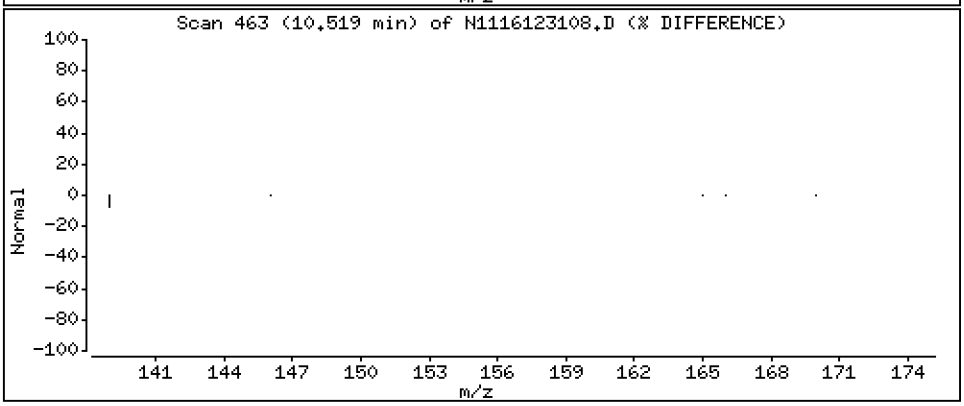












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Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

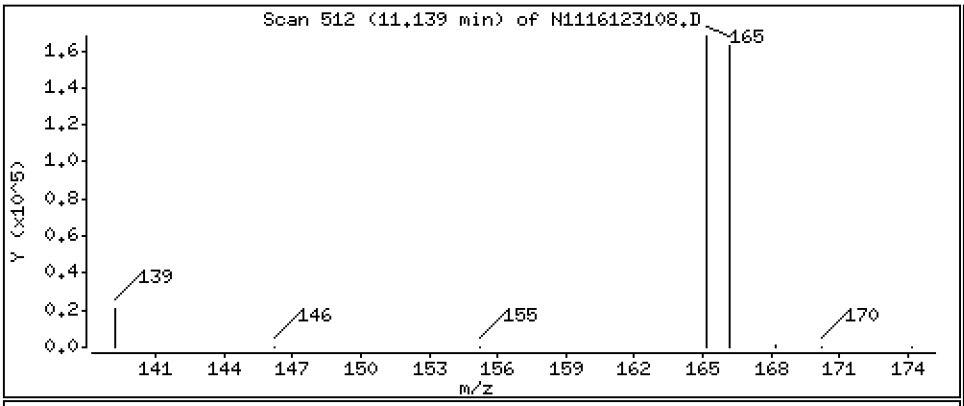
Operator: VTS

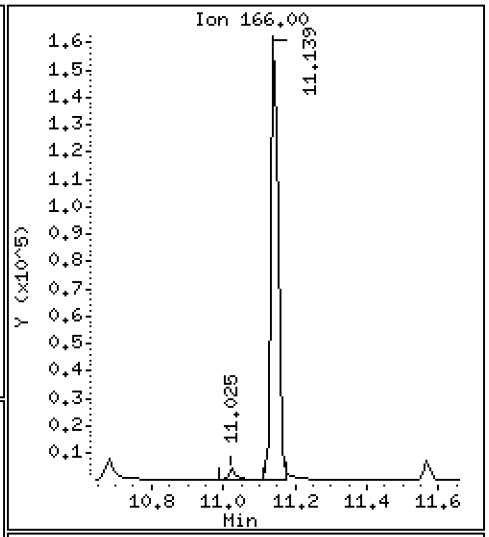
Column phase: Rxi-17Sil MS

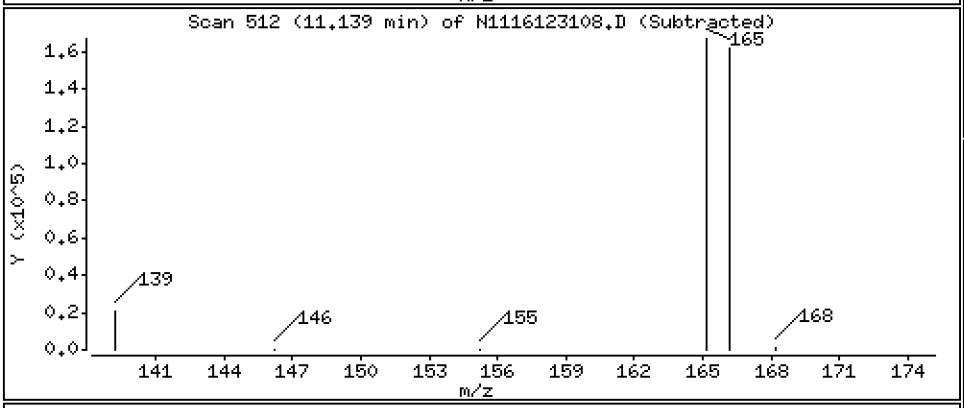
Column diameter: 0.25

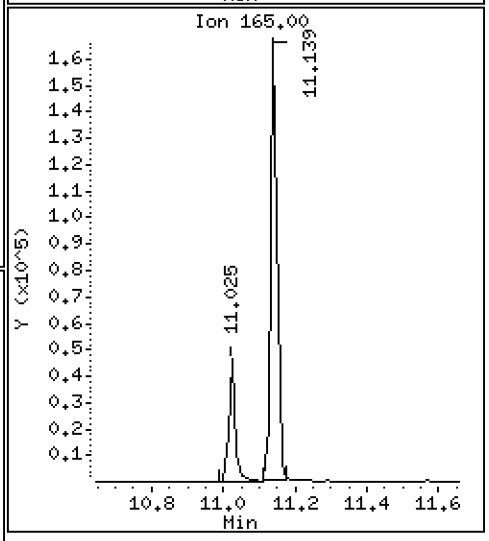
16 Fluorene

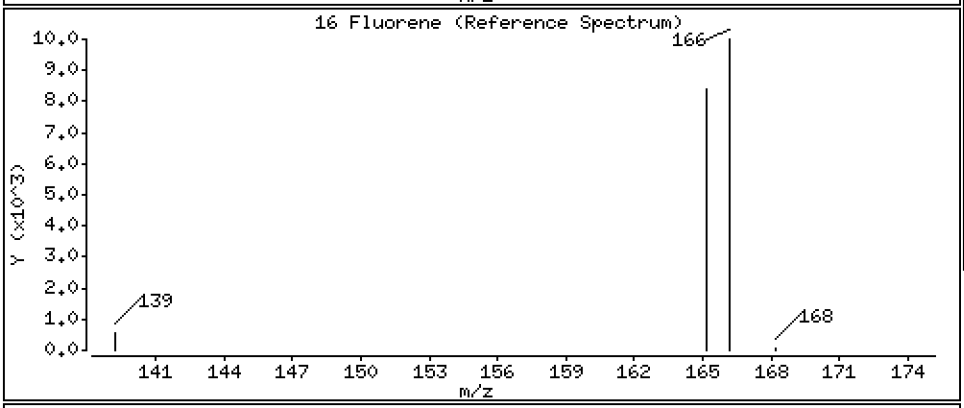
Concentration: 268 ng/mL

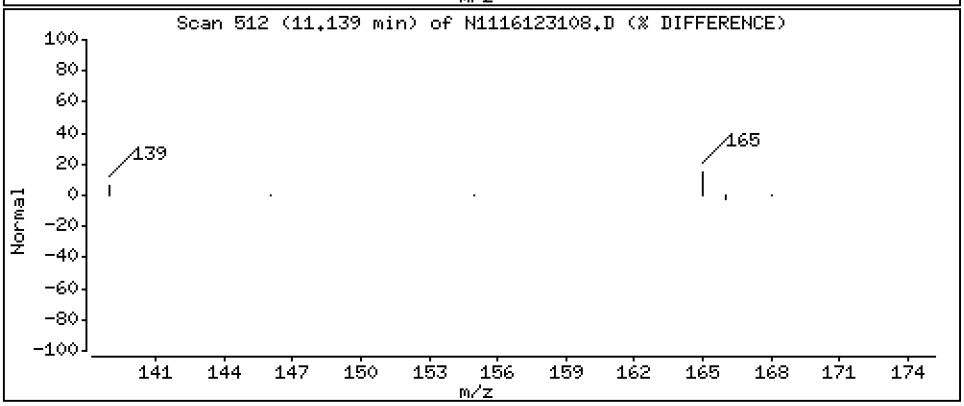












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Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

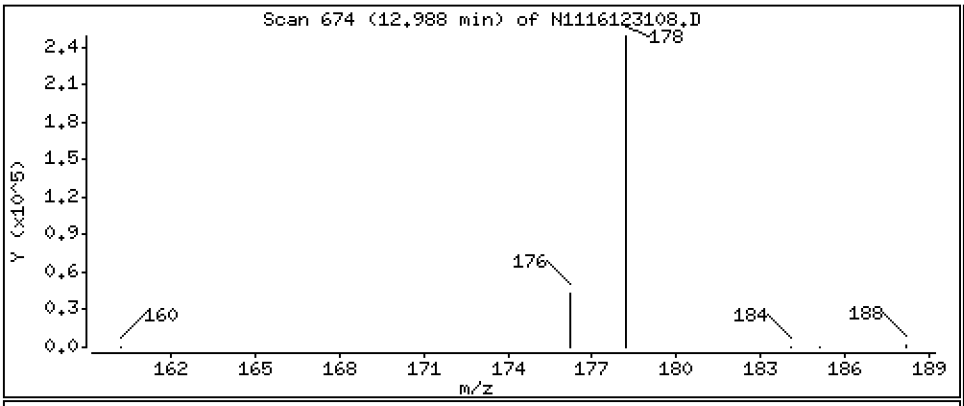
Operator: VTS

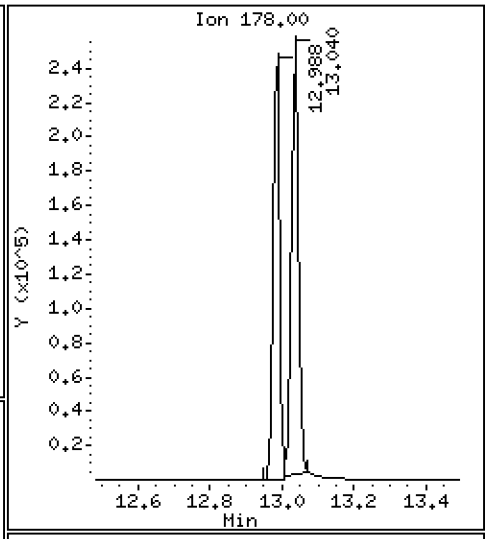
Column phase: Rxi-17Sil MS

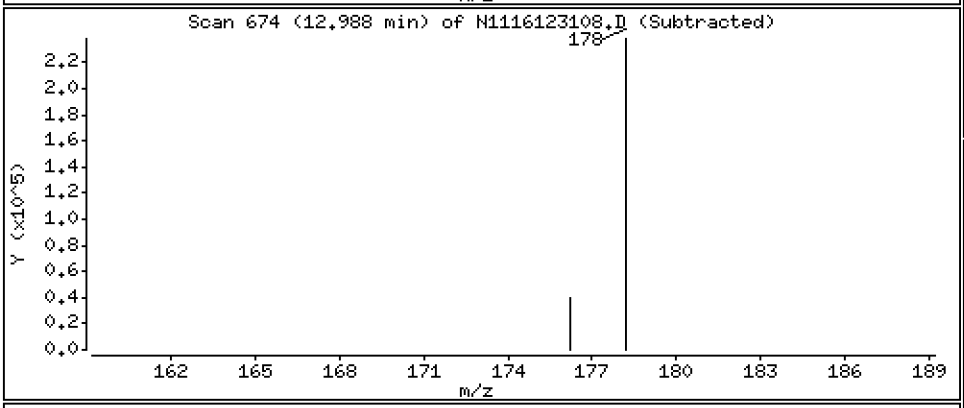
Column diameter: 0.25

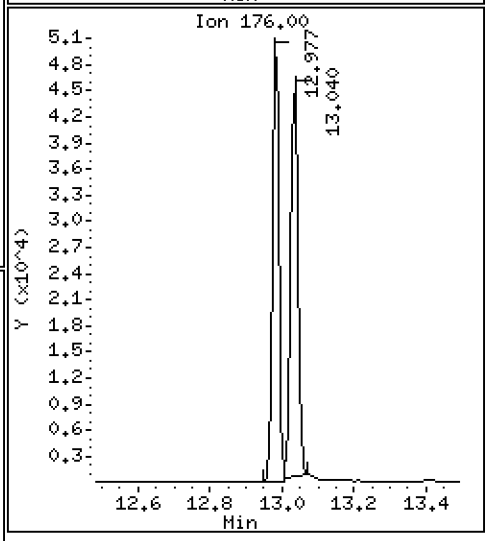
19 Phenanthrene

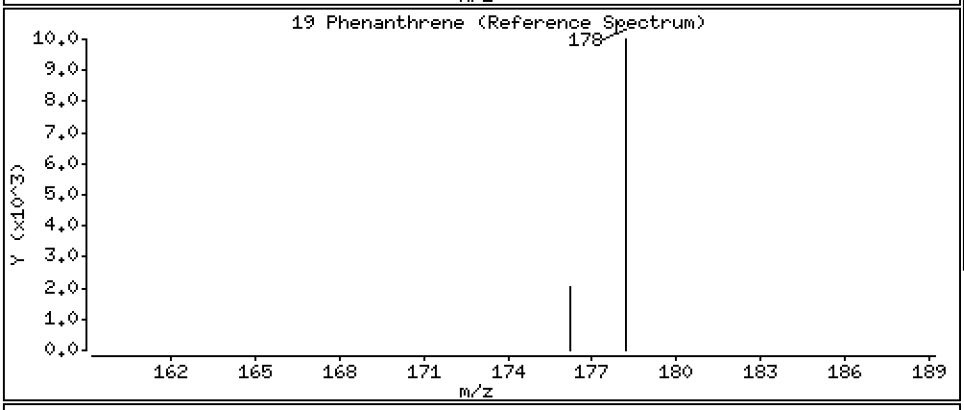
Concentration: 251 ng/mL

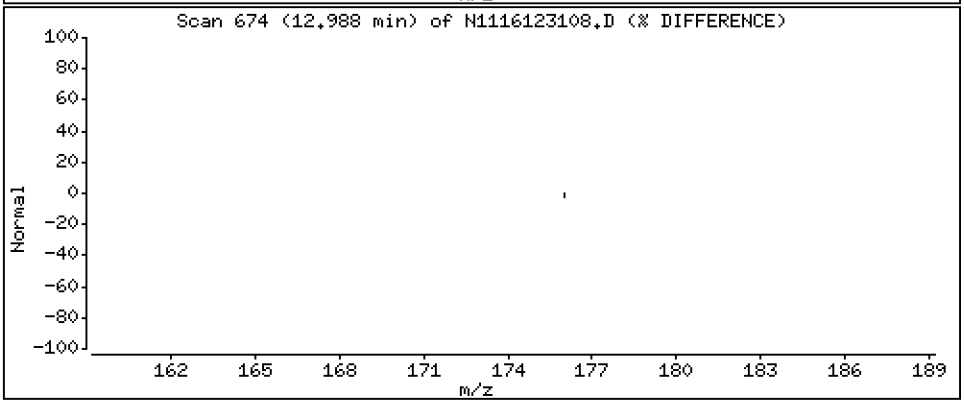












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Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

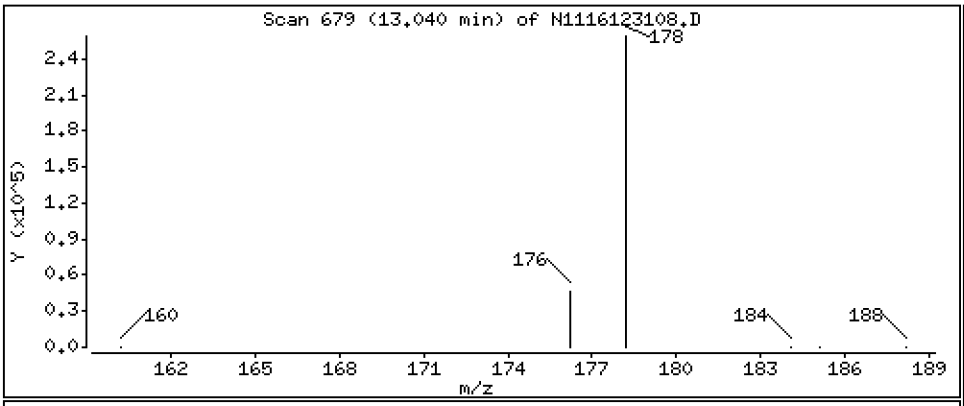
Operator: VTS

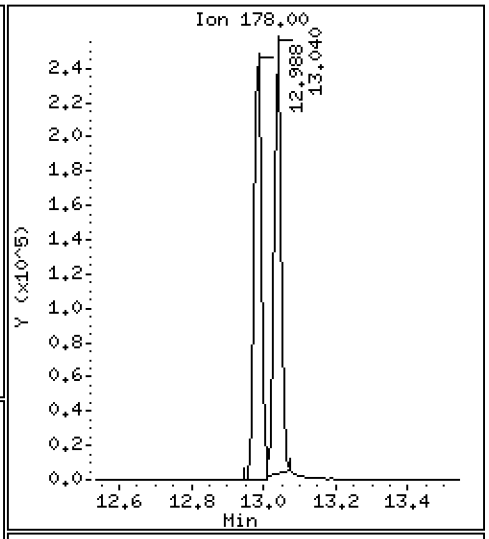
Column phase: Rxi-17Sil MS

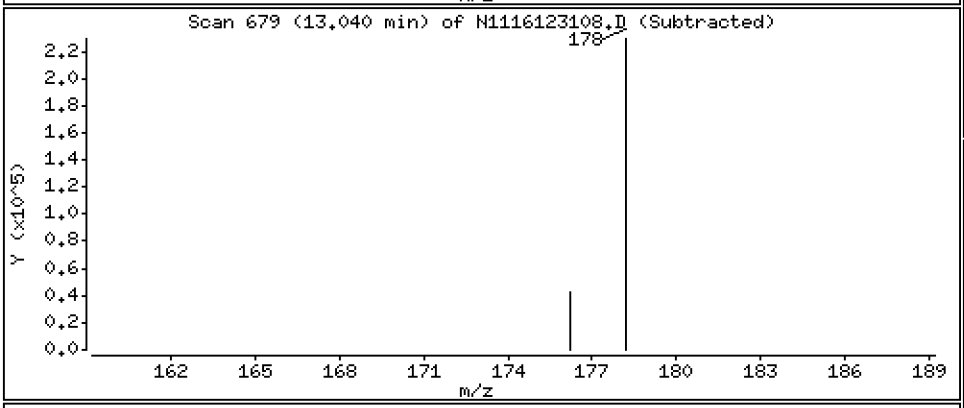
Column diameter: 0.25

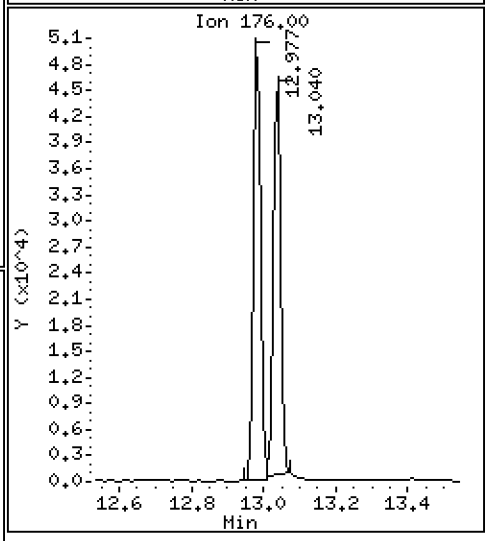
21 Anthracene

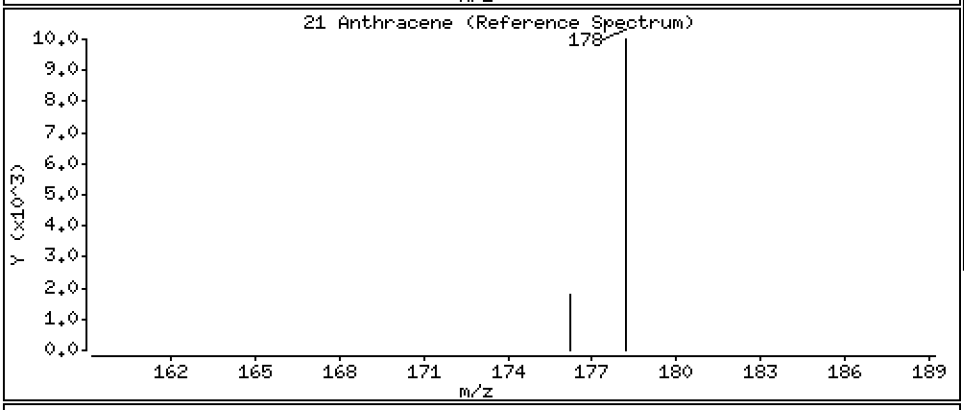
Concentration: 238 ng/mL

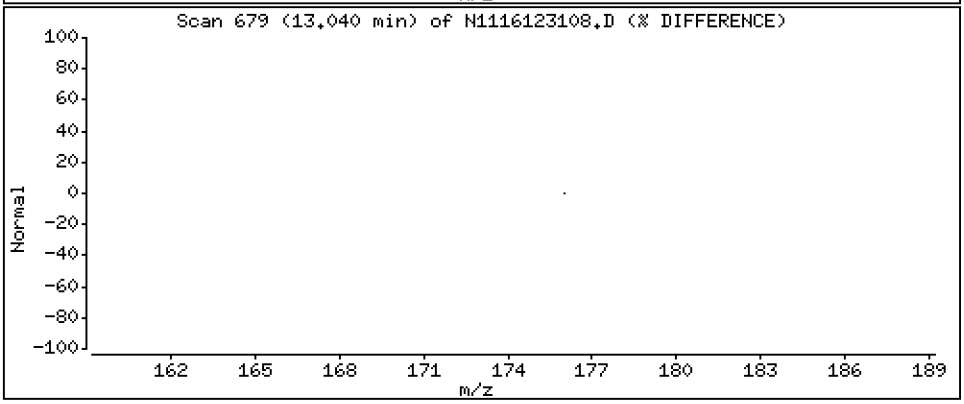












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Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

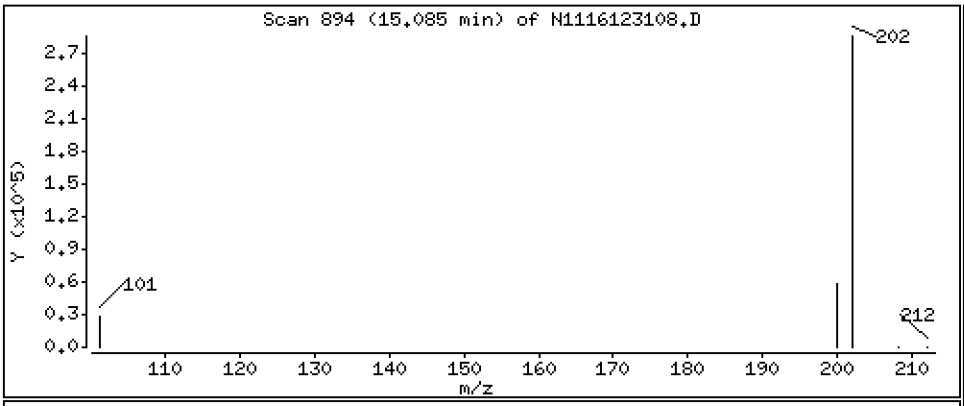
Operator: VTS

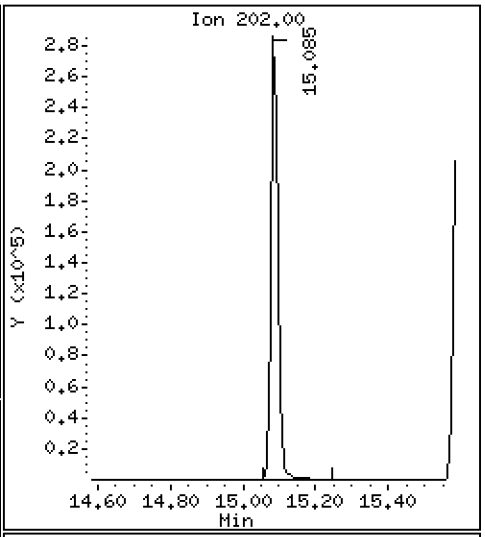
Column phase: Rxi-17Sil MS

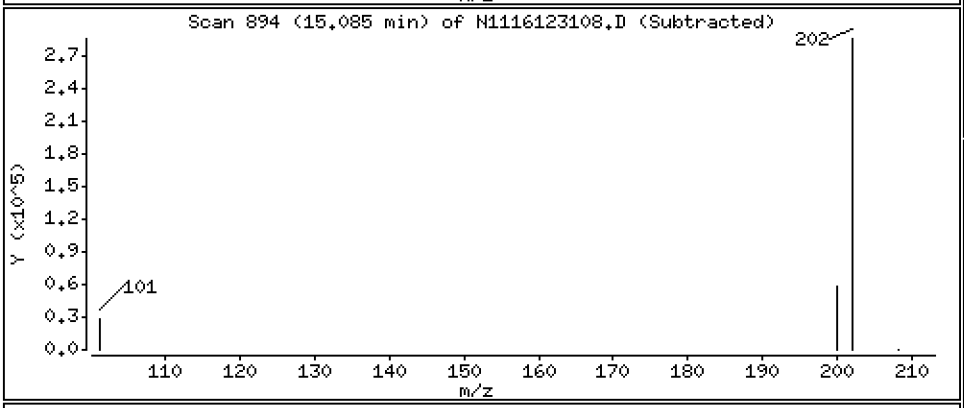
Column diameter: 0.25

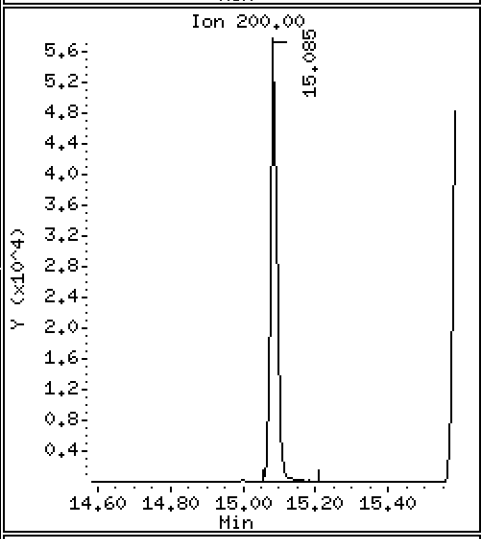
25 Fluoranthene

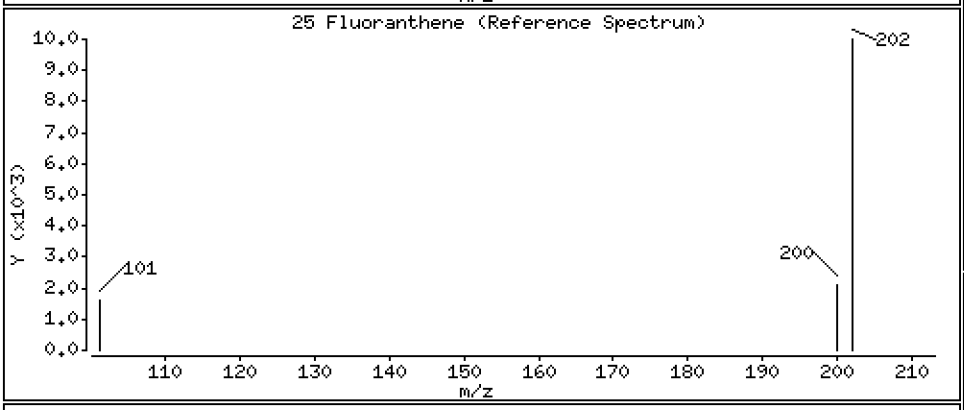
Concentration: 253 ng/mL

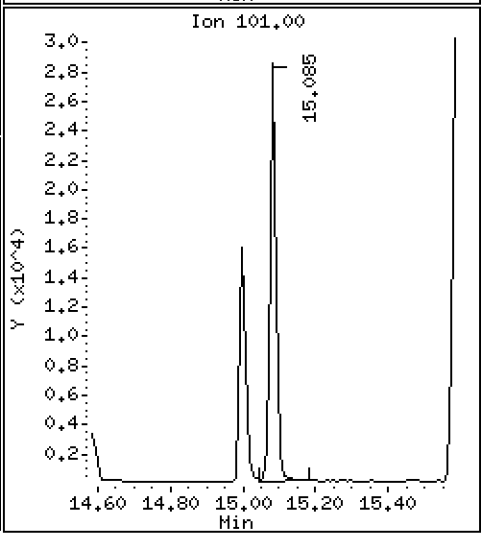


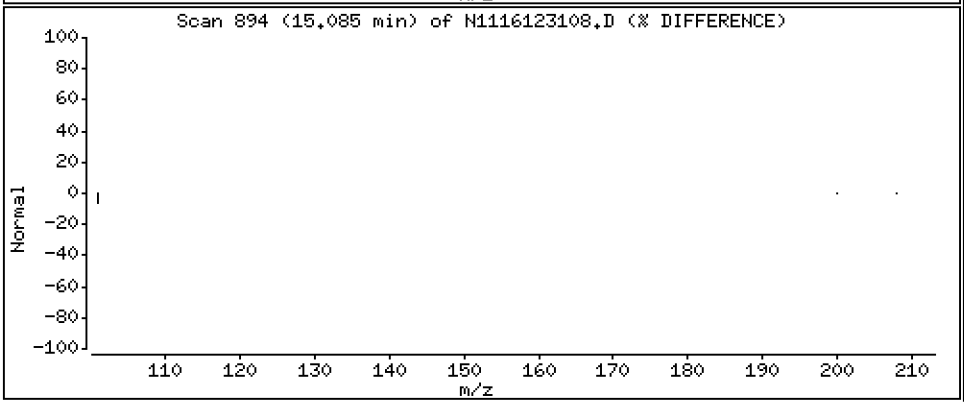












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Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

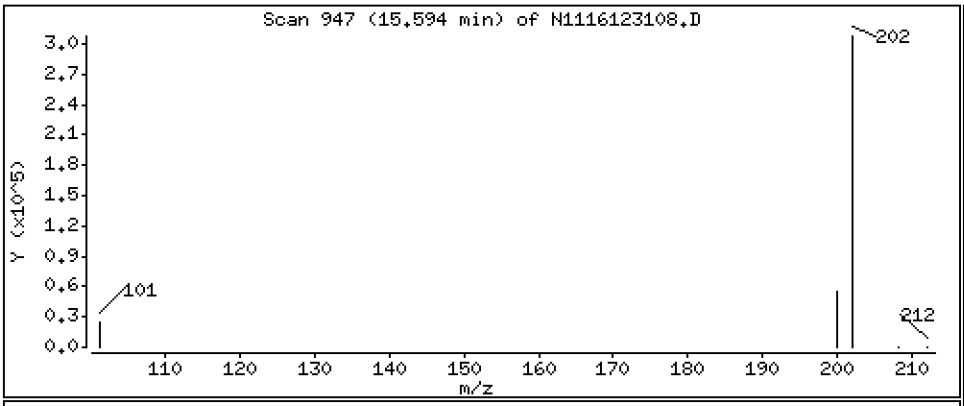
Operator: VTS

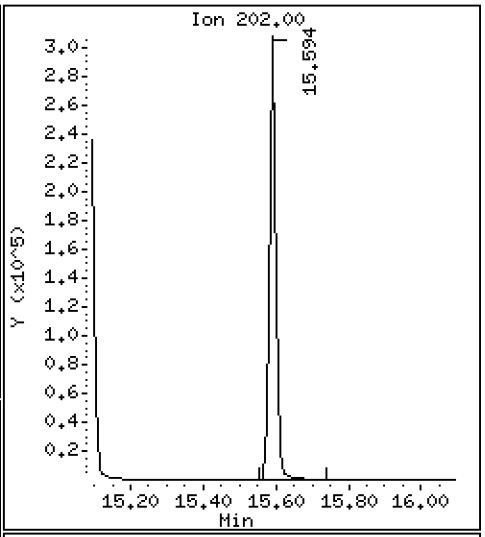
Column phase: Rxi-17Sil MS

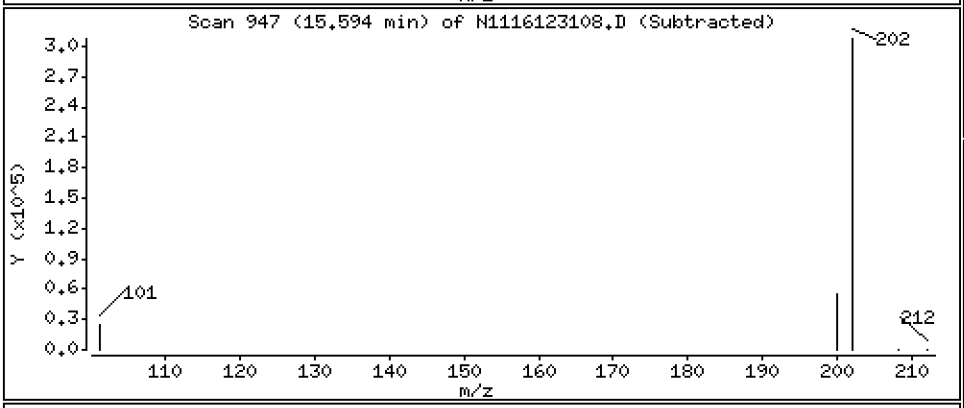
Column diameter: 0.25

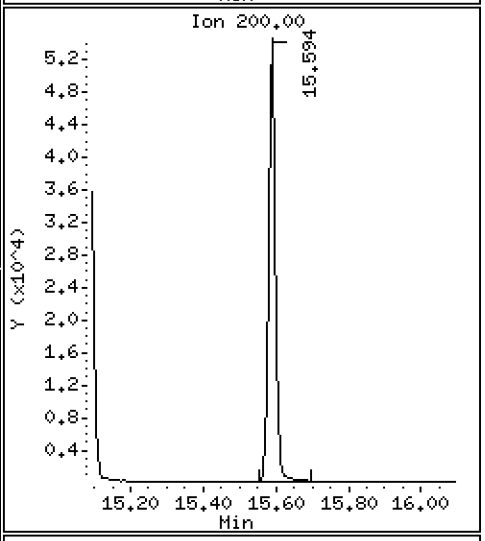
26 Pyrene

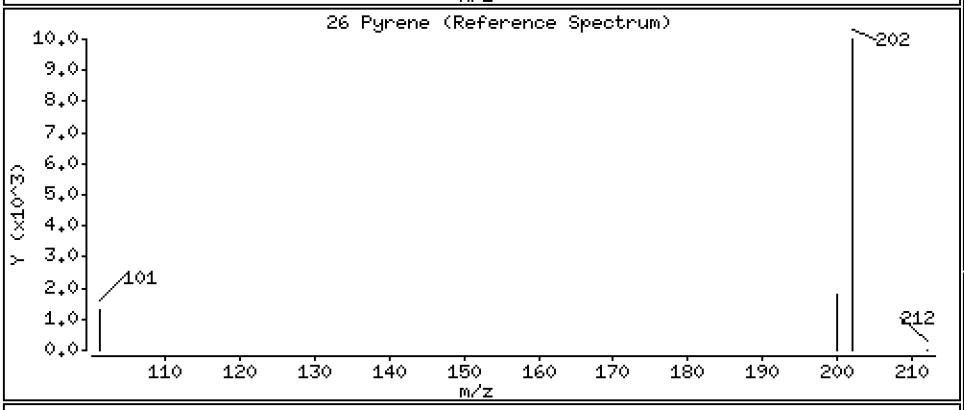
Concentration: 247 ng/mL

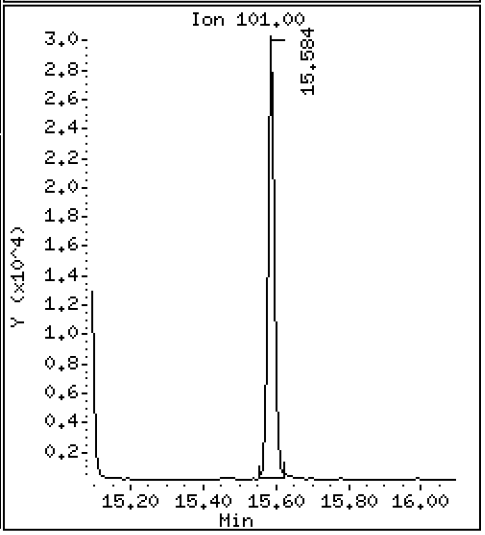


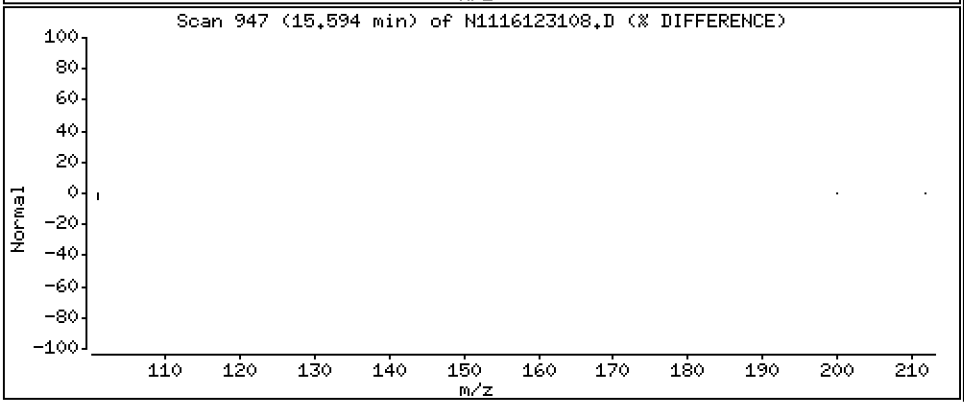












Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123108.D

Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

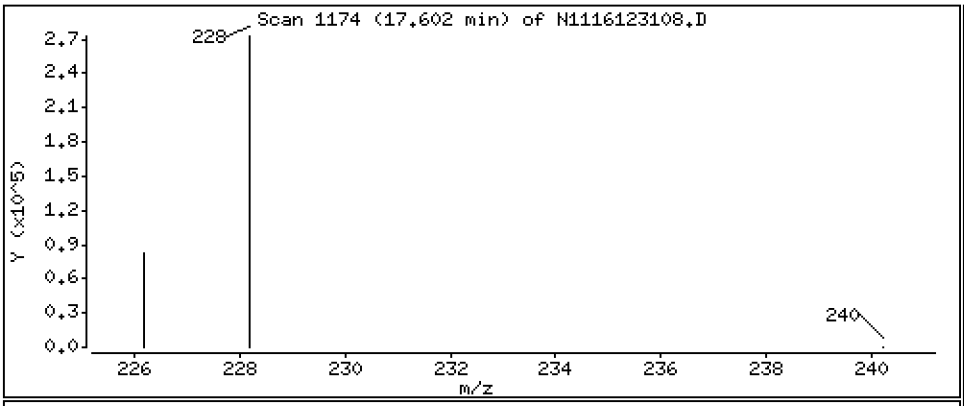
Operator: VTS

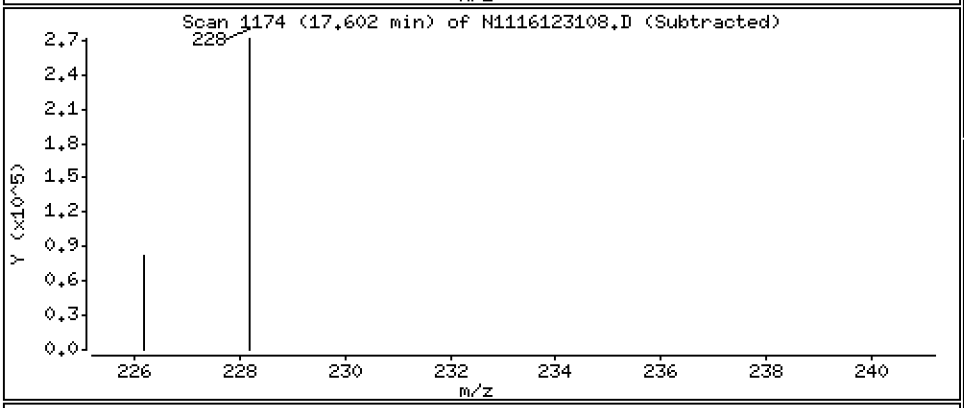
Column phase: Rxi-17Sil MS

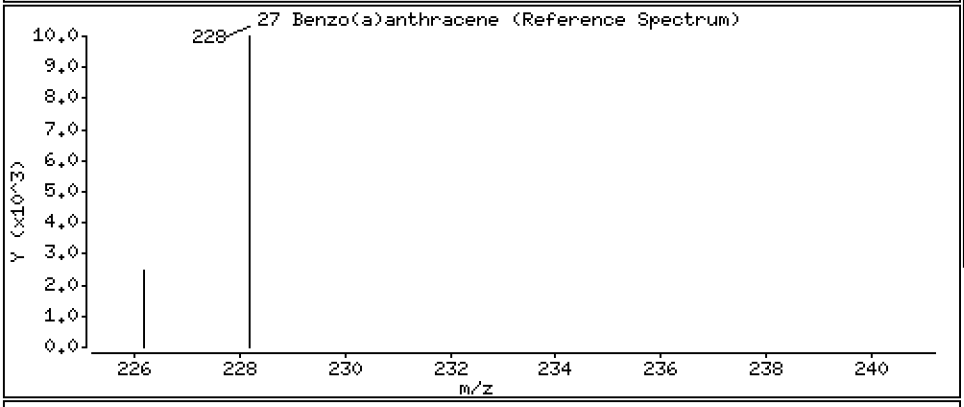
Column diameter: 0.25

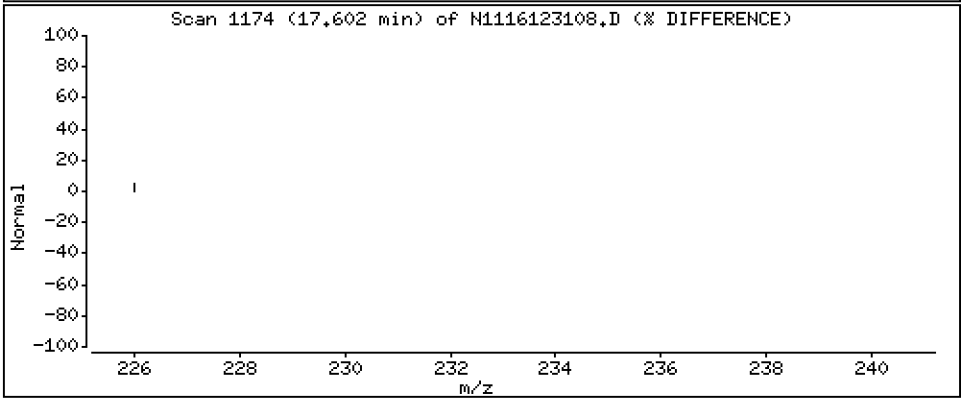
27 Benzo(a)anthracene

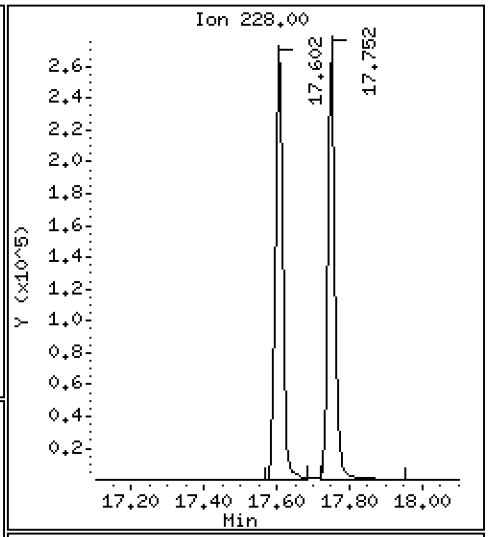
Concentration: 254 ng/mL

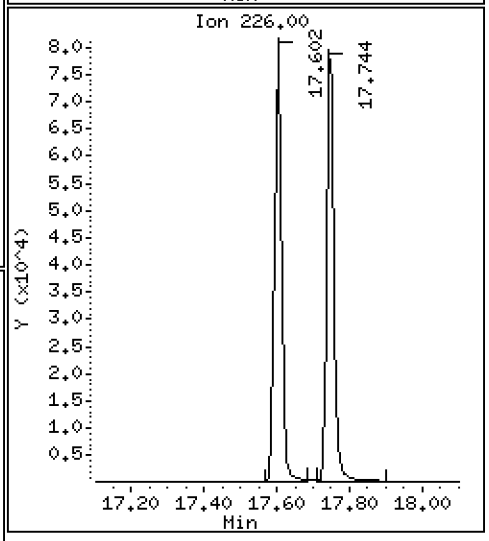












Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123108.D

Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

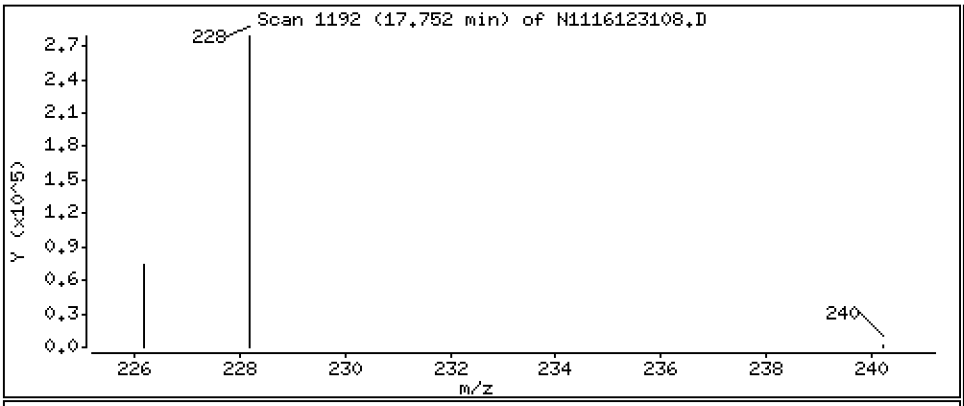
Operator: VTS

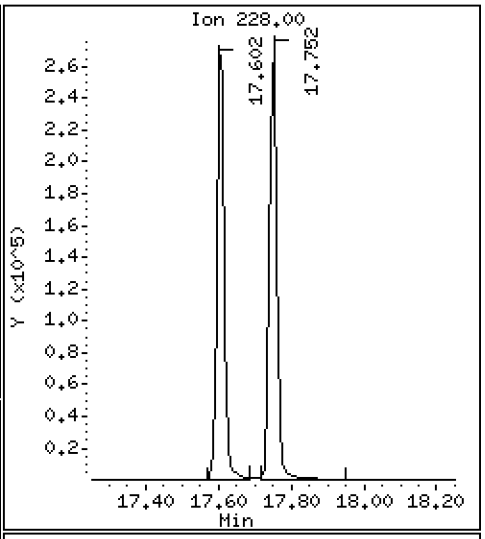
Column phase: Rxi-17Sil MS

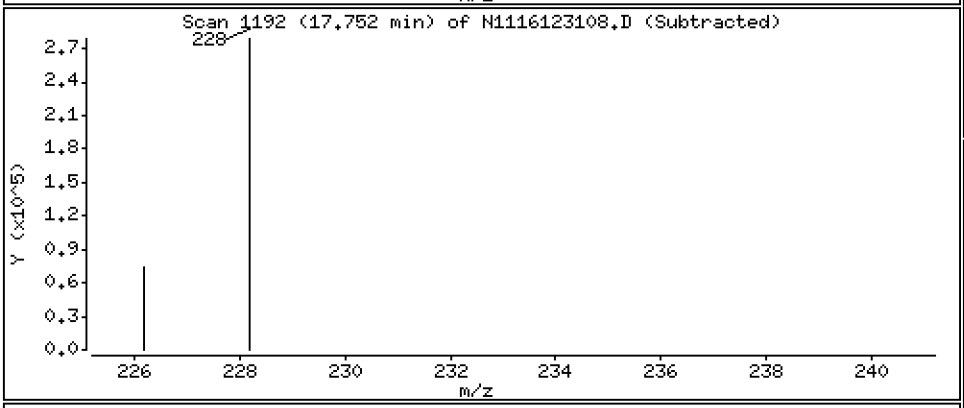
Column diameter: 0.25

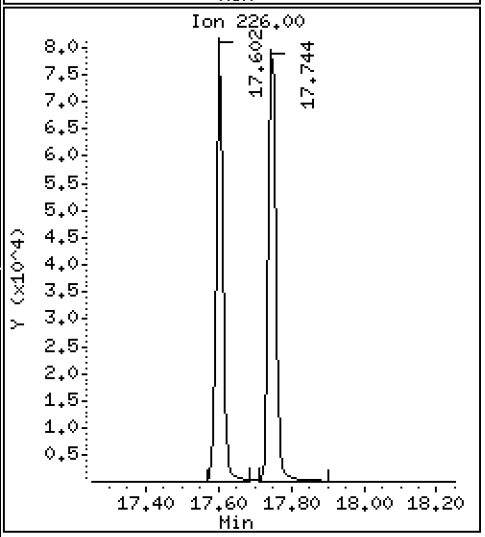
29 Chrysene

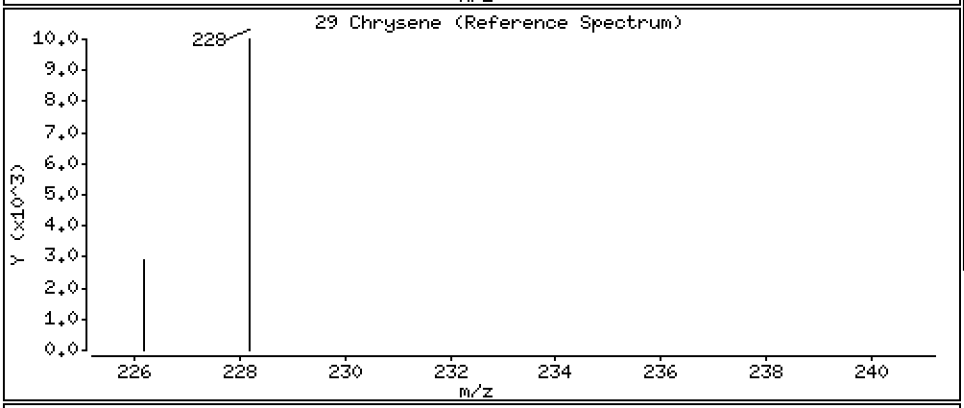
Concentration: 242 ng/mL

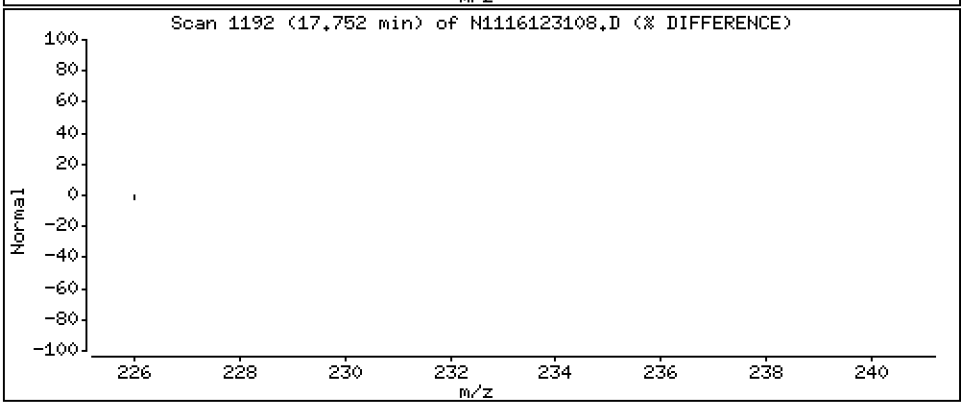












Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123108.D

Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

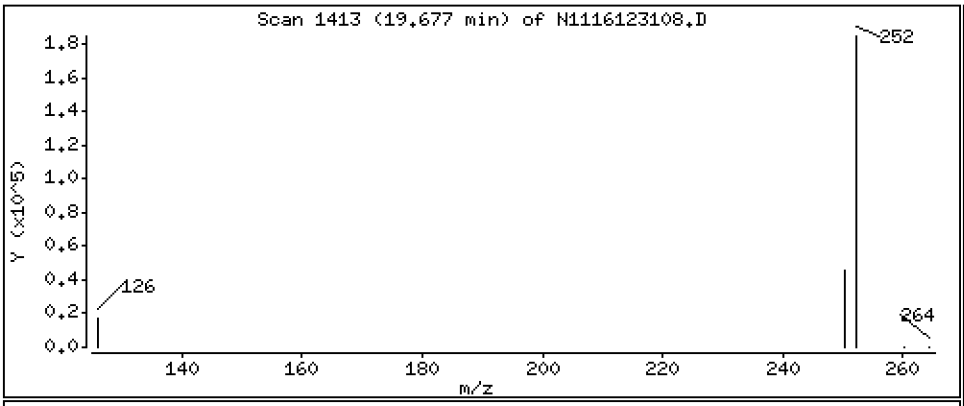
Operator: VTS

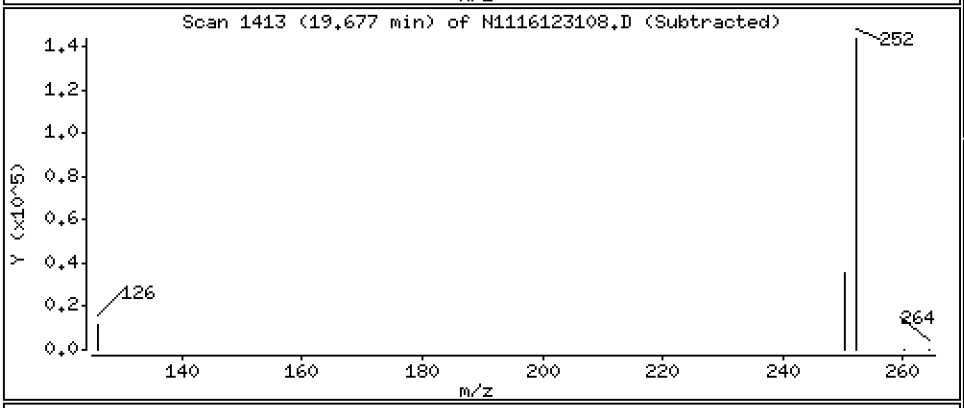
Column phase: Rxi-17Sil MS

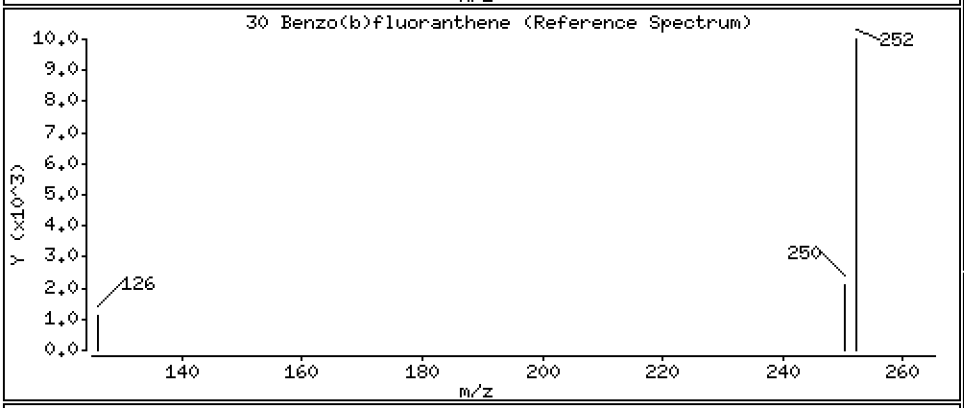
Column diameter: 0.25

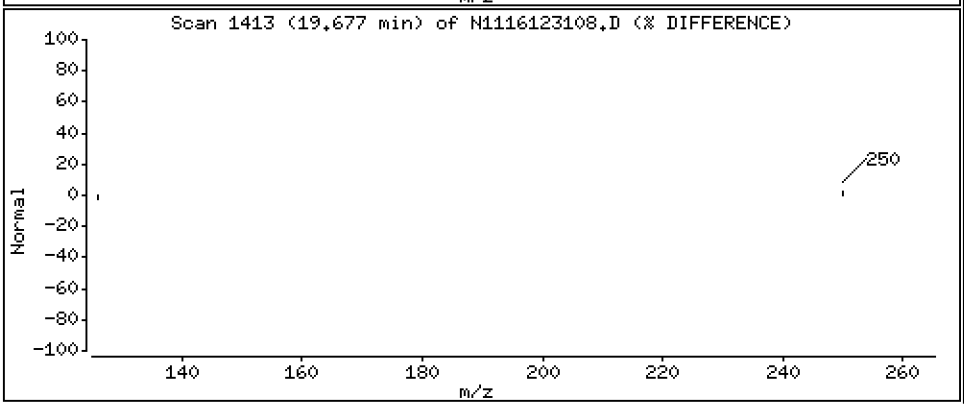
30 Benzo(b)fluoranthene

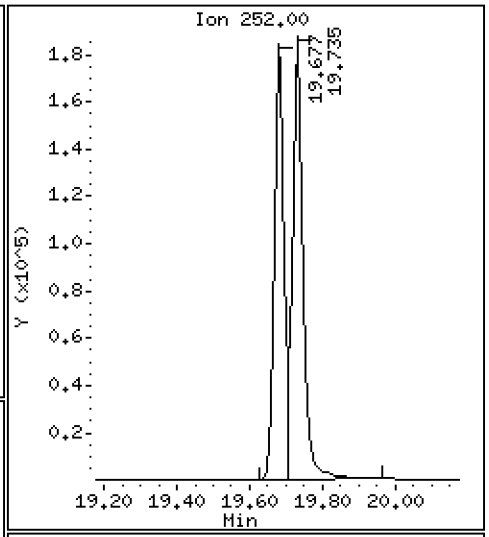
Concentration: 253 ng/mL

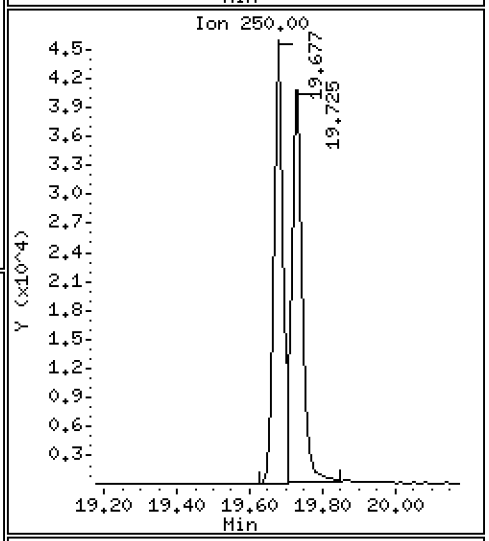


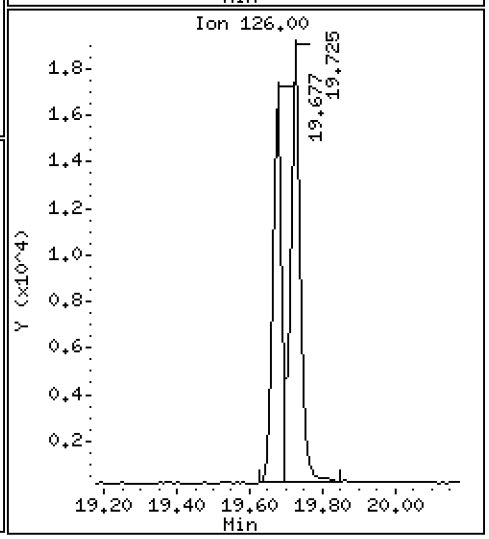












Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123108.D

Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

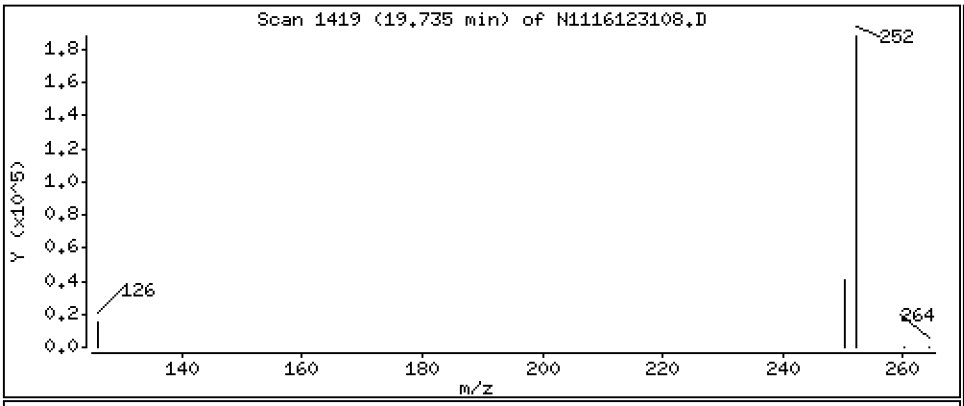
Operator: VTS

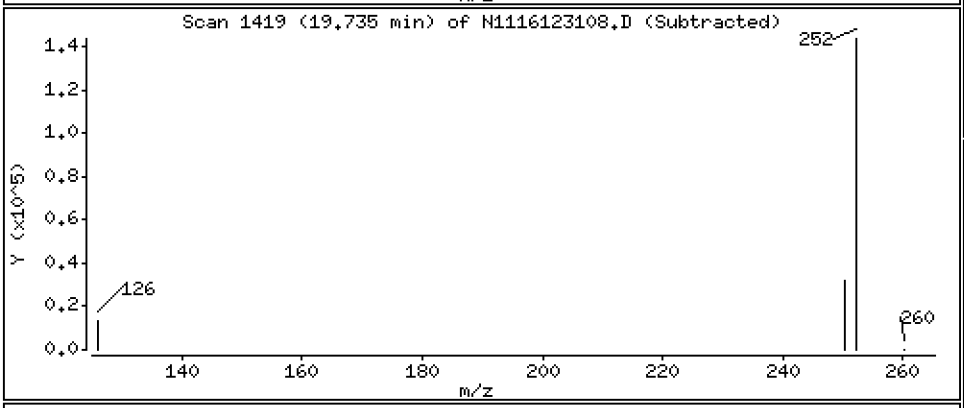
Column phase: Rxi-17Sil MS

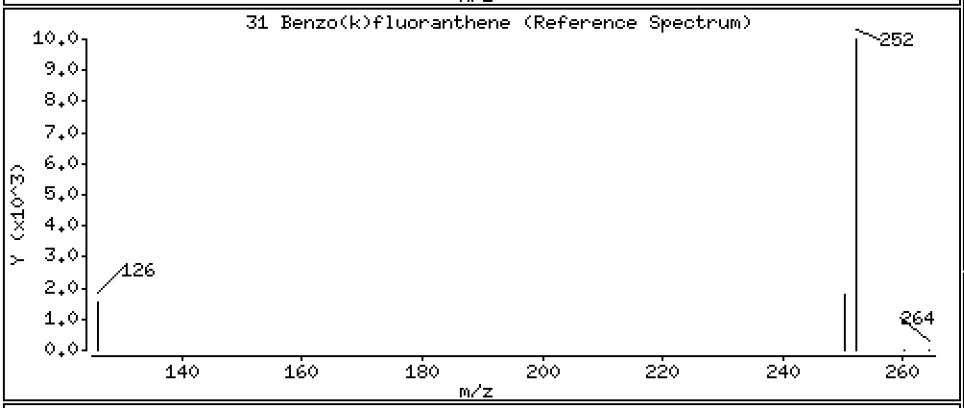
Column diameter: 0.25

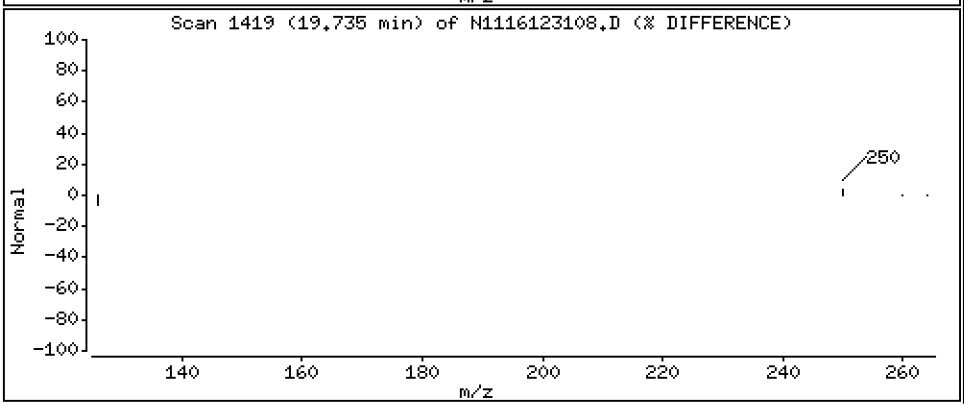
31 Benzo(k)fluoranthene

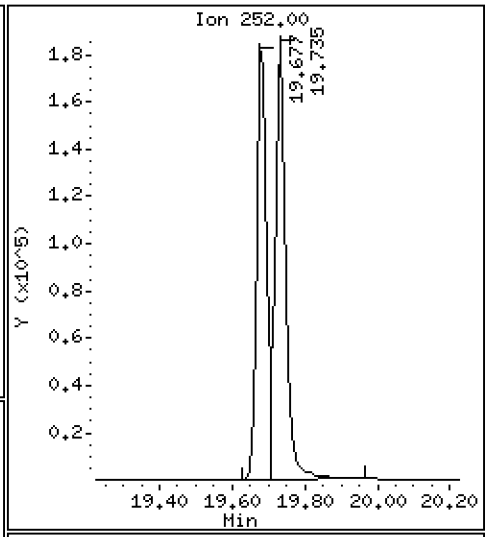
Concentration: 262 ng/mL

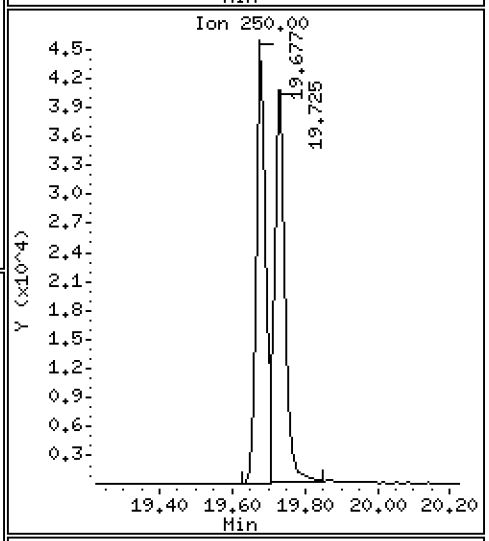


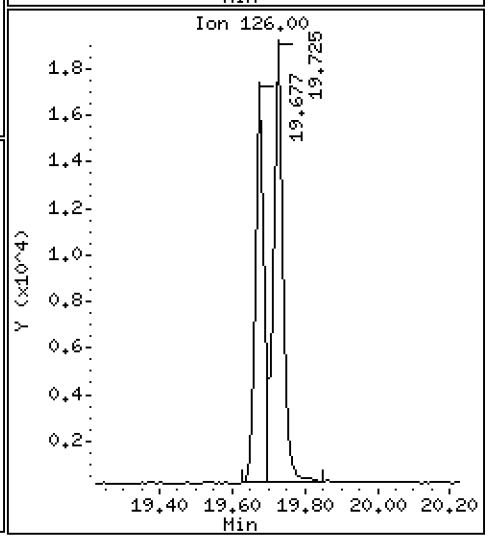












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Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

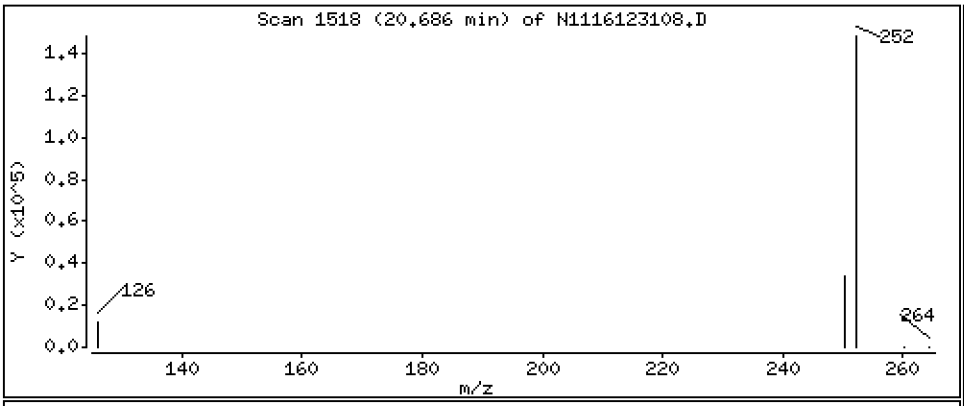
Operator: VTS

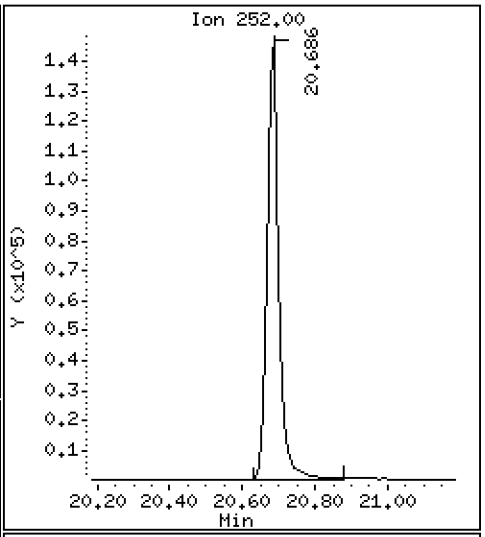
Column phase: Rxi-17Sil MS

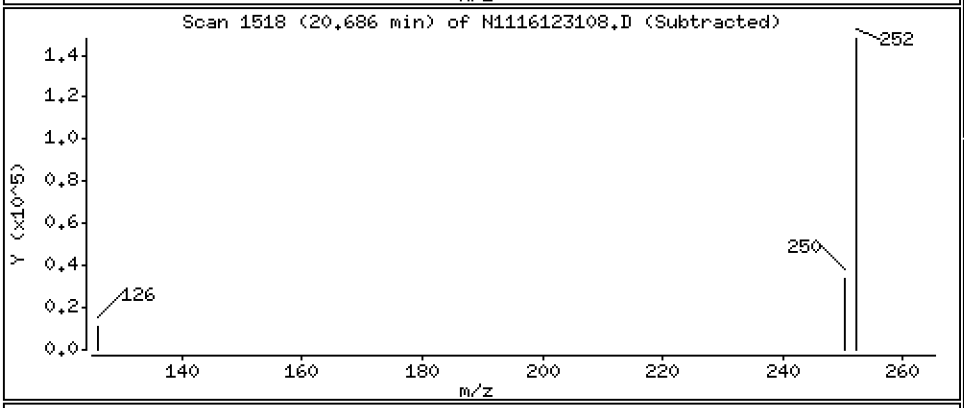
Column diameter: 0.25

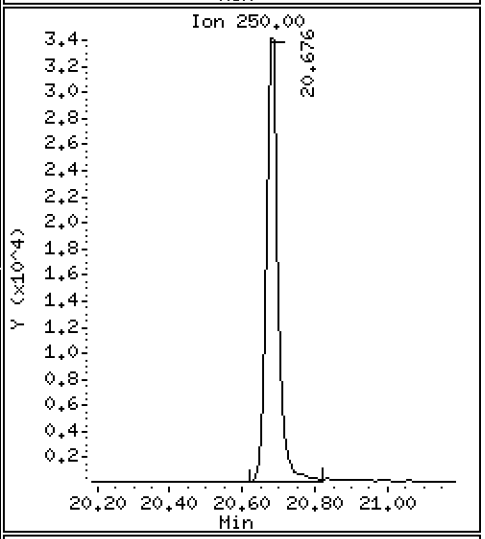
35 Benzo(a)pyrene

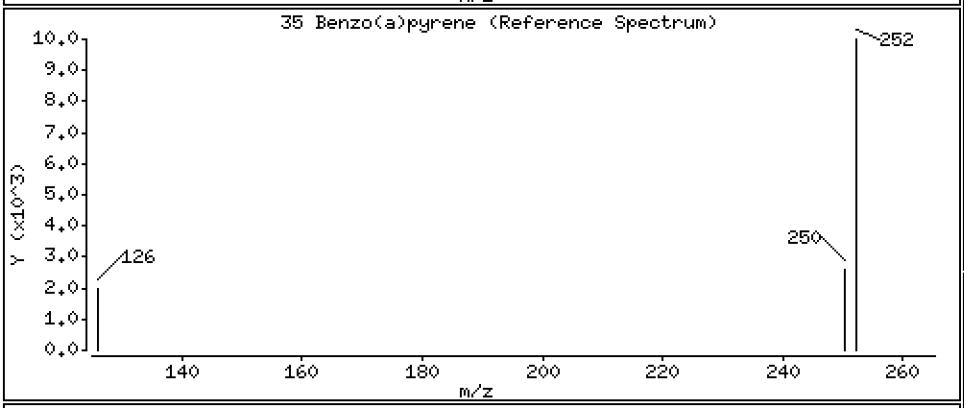
Concentration: 249 ng/mL

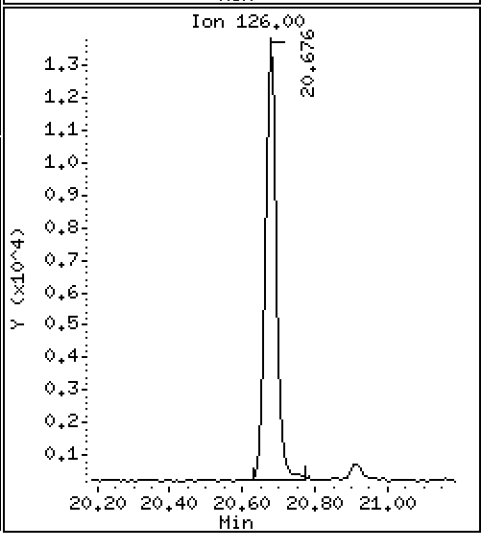


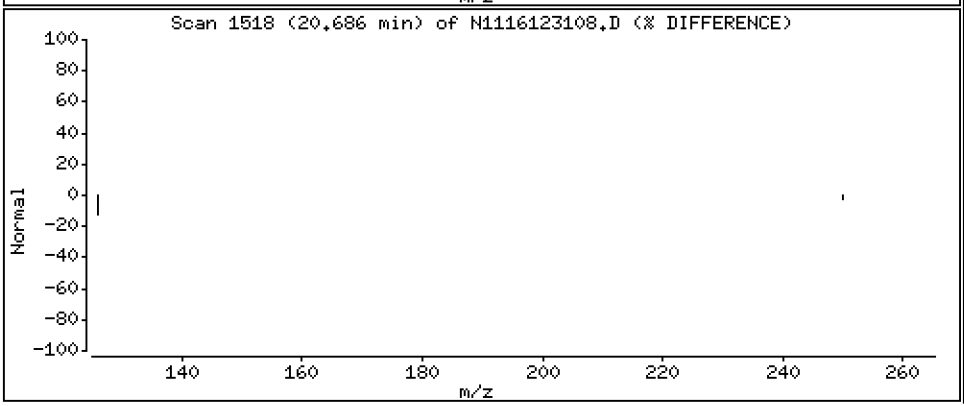












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Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

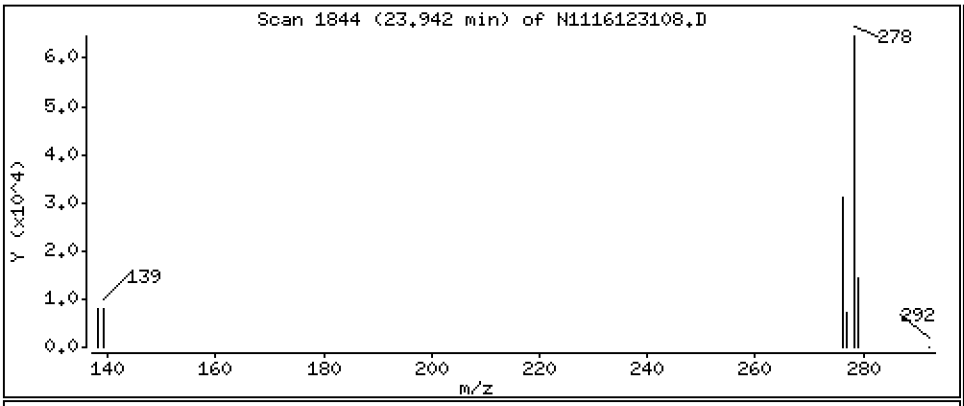
Operator: VTS

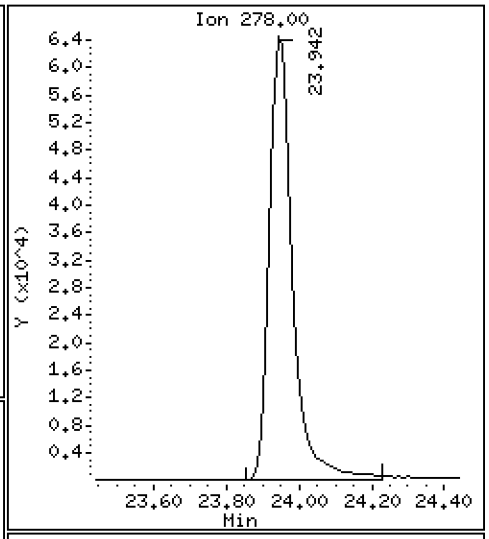
Column phase: Rxi-17Sil MS

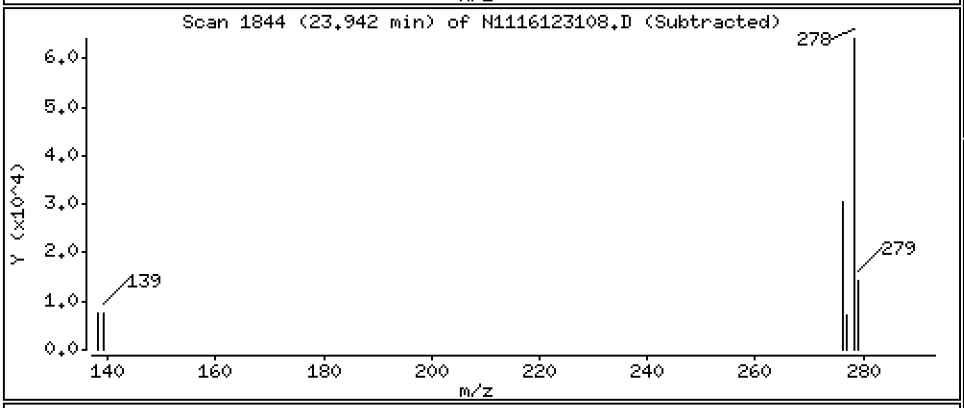
Column diameter: 0.25

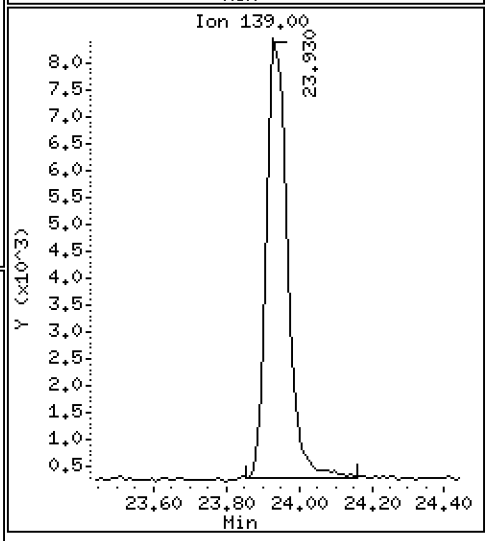
39 Dibenzo(a,h)anthracene

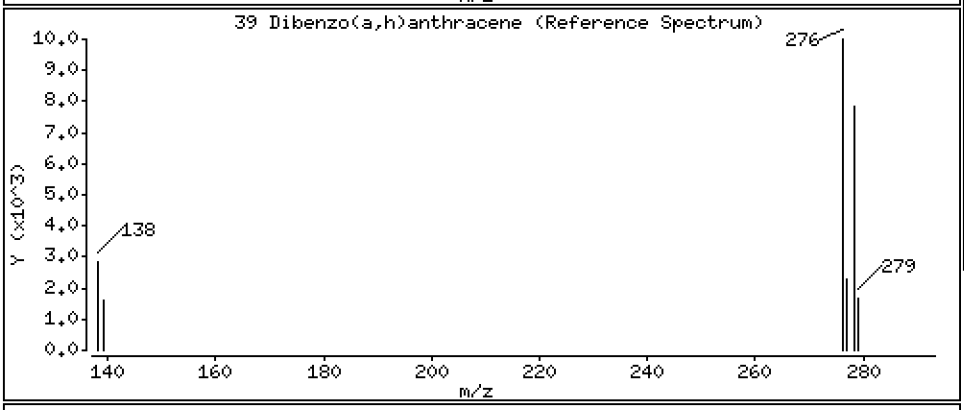
Concentration: 240 ng/mL

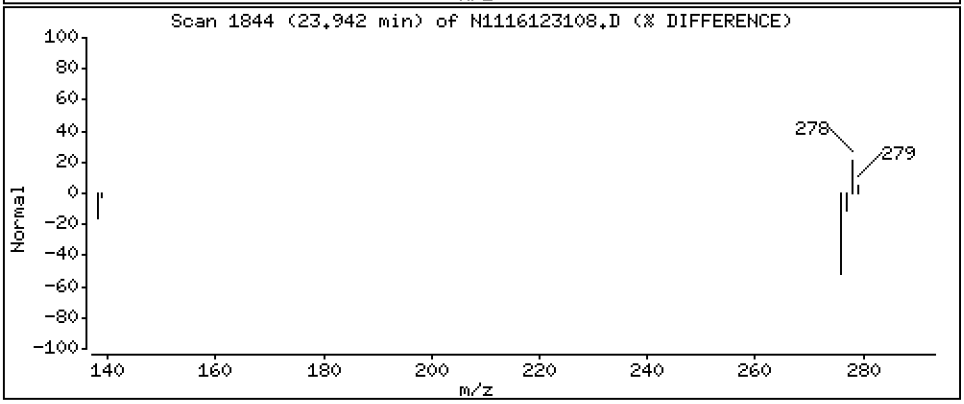












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Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

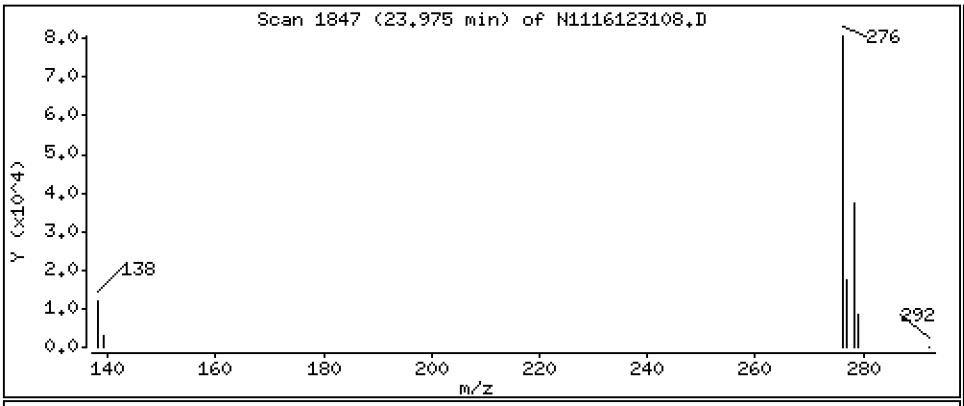
Operator: VTS

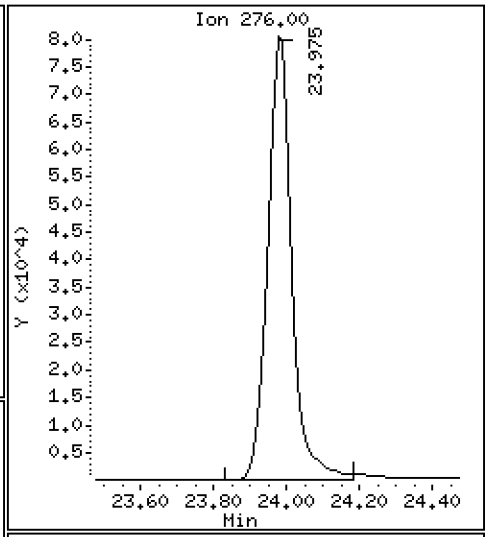
Column phase: Rxi-17Sil MS

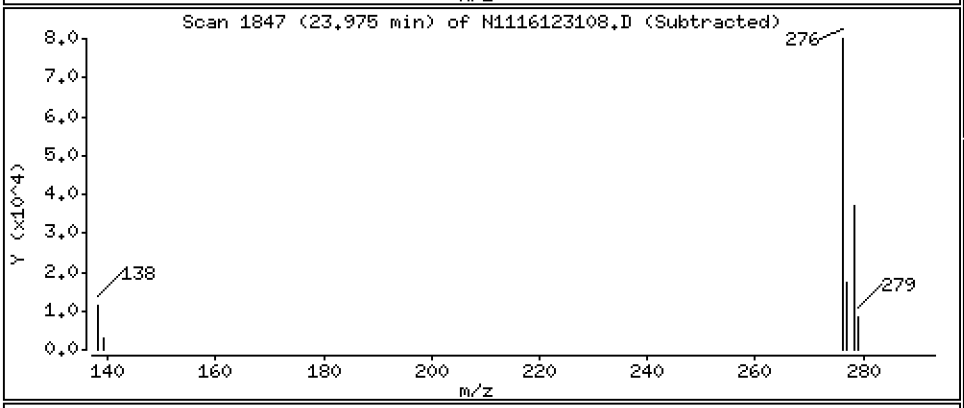
Column diameter: 0.25

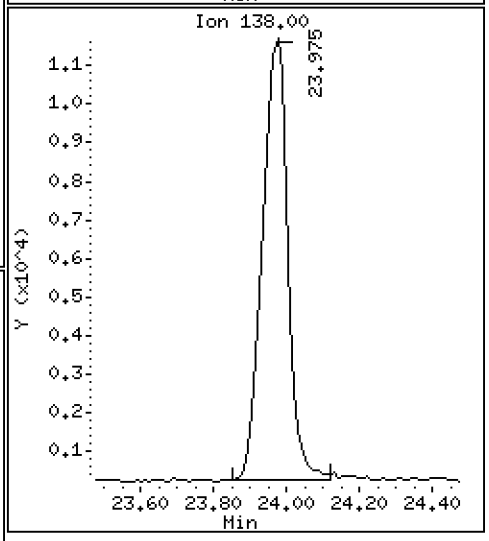
40 Indeno(1,2,3-cd)pyrene

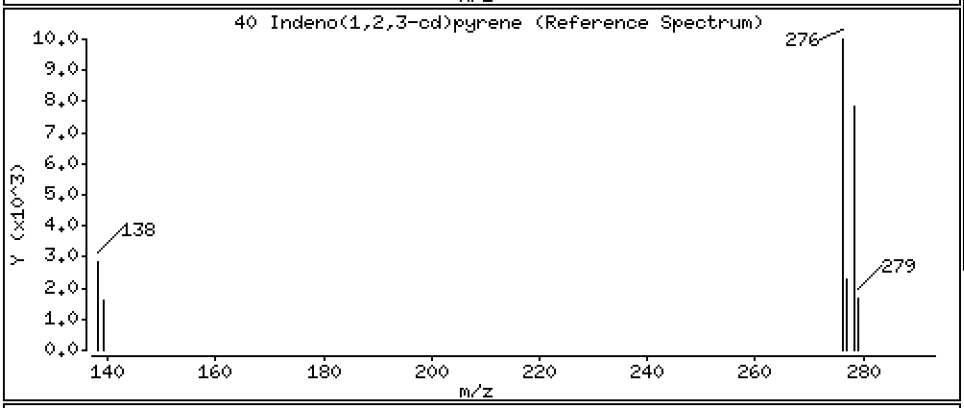
Concentration: 248 ng/mL

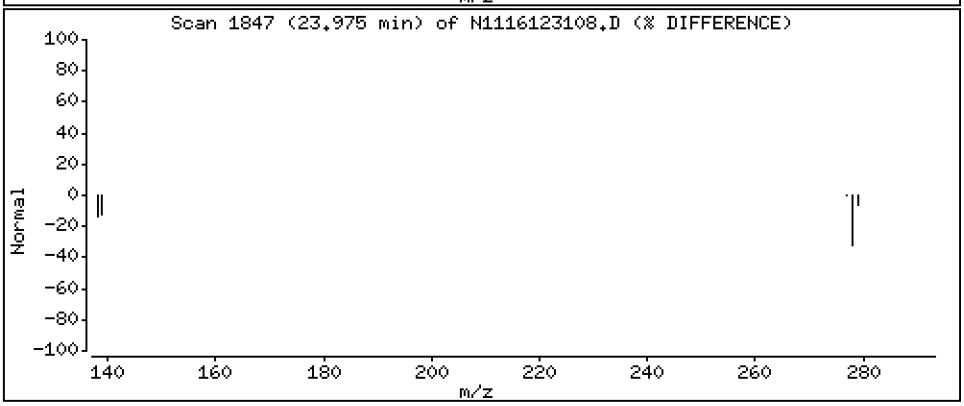












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Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

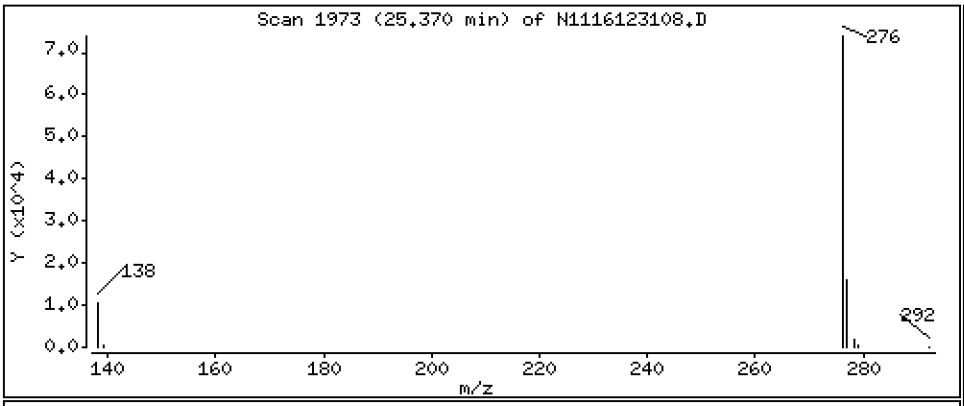
Operator: VTS

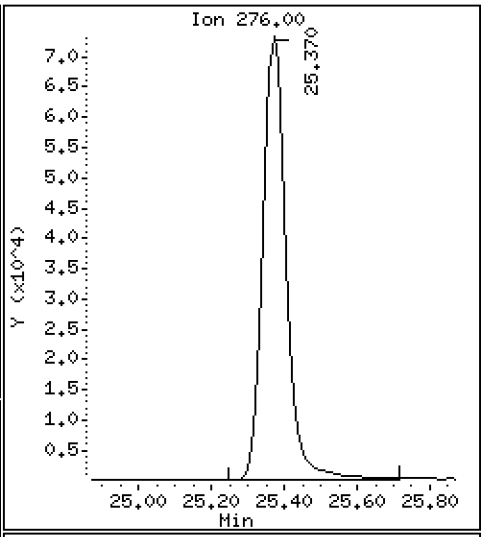
Column phase: Rxi-17Sil MS

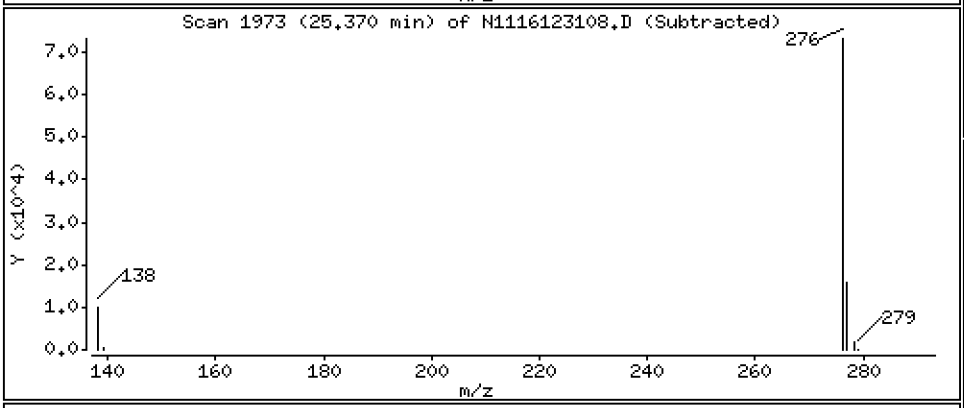
Column diameter: 0.25

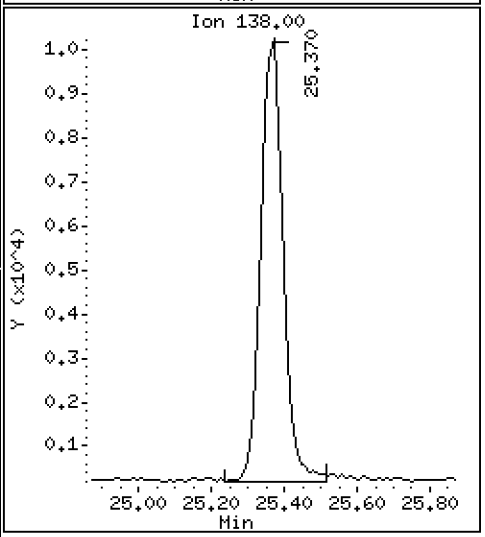
41 Benzo(g,h,i)perylene

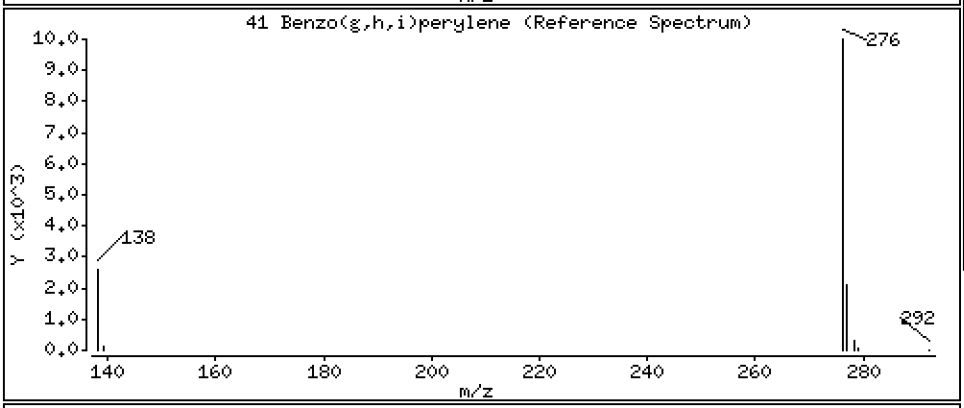
Concentration: 247 ng/mL

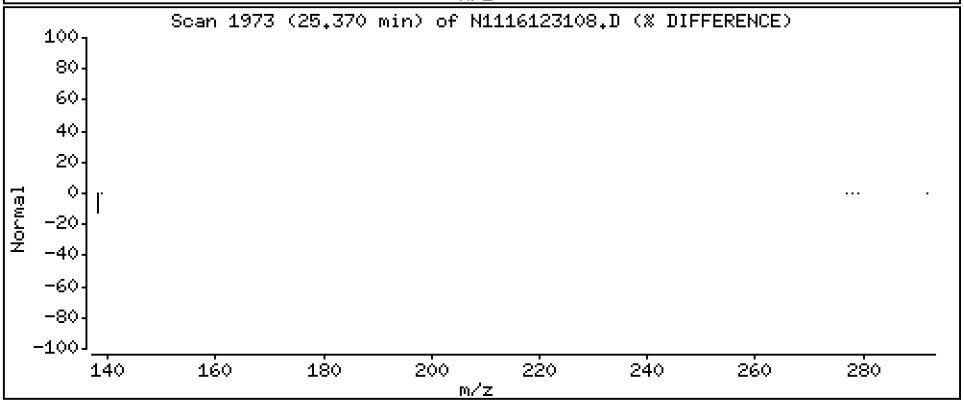












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20161231.b\N1116123108.D
Lab Smp Id: SEL0401-SCV1
Inj Date : 31-DEC-2016 11:35 MS Autotune Date: 15-JAN-2015 15:59
Operator : VTS Inst ID: nt11.i
Smp Info : SEL0401-SCV1
Misc Info :
Comment   :
Method   : \\target\share\chem3\nt11.i\20161231.b\lowsim.m
Meth Date : 31-Dec-2016 12:34 van Quant Type: ISTD
Cal Date : 31-DEC-2016 09:30 Cal File: N1116123104.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: newpna.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	7.225	7.225	(1.000)	210327	200.000	
	2 Naphthalene	128	7.253	7.253	(1.004)	263035	250.596	251
$	4 2-Methylnaphthalene-d10	152	Compound Not Detected.					
	5 2-Methylnaphthalene	142	8.253	8.253	(1.142)	257930	249.327	249
	6 1-Methylnaphthalene	142	8.516	8.516	(1.179)	246162	236.587	237
	10 Acenaphthylene	152	10.098	10.098	(0.985)	293179	254.726	255
*	11 Acenaphthene-d10	164	10.252	10.252	(1.000)	128092	200.000	
	12 Acenaphthene	153	10.315	10.315	(1.006)	209513	276.477	276
	13 Dibenzofuran	168	10.519	10.519	(1.026)	321591	285.478	285
	16 Fluorene	166	11.138	11.151	(1.086)	240770	268.478	268
*	18 Phenanthrene-d10	188	12.945	12.945	(1.000)	246665	200.000	
	19 Phenanthrene	178	12.987	12.987	(1.003)	354560	251.418	251
	21 Anthracene	178	13.040	13.040	(1.007)	334329	237.762	238
$	24 Fluoranthene-d10	212	15.007	15.055	(1.159)	1972	1.50522	1.51
	25 Fluoranthene	202	15.084	15.084	(1.165)	404582	252.915	253
	26 Pyrene	202	15.593	15.593	(0.881)	409188	246.982	247
	27 Benzo(a)anthracene	228	17.602	17.602	(0.994)	388934	253.609	254
*	28 Chrysene-d12	240	17.702	17.702	(1.000)	255043	200.000	
	29 Chrysene	228	17.751	17.751	(1.003)	380528	241.811	242
	30 Benzo(b)fluoranthene	252	19.676	19.677	(0.941)	361602	252.797	253
	31 Benzo(k)fluoranthene	252	19.734	19.725	(0.943)	403824	262.109	262
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
	35 Benzo(a)pyrene	252	20.685	20.685	(0.989)	331475	248.577	249
*	36 Perylene-d12	264	20.916	20.916	(1.000)	265358	200.000	
	37 Perylene	252	Compound Not Detected.					
$	38 Dibenzo(a,h)anthracene-d14	292	Compound Not Detected.					
	39 Dibenzo(a,h)anthracene	278	23.941	23.941	(1.145)	280435	240.373	240
	40 Indeno(1,2,3-cd)pyrene	276	23.974	23.974	(1.146)	361280	248.156	248
	41 Benzo(g,h,i)perylene	276	25.370	25.370	(1.213)	322290	246.575	247

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: N1116123108.D
Lab Smp Id: SEL0401-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20161231.b\lowsim.m
Misc Info:

Calibration Date: 31-DEC-2016
Calibration Time: 08:28
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	219654	109827	439308	210327	-4.25
11 Acenaphthene-d10	135248	67624	270496	128092	-5.29
18 Phenanthrene-d10	257021	128511	514042	246665	-4.03
28 Chrysene-d12	259511	129756	519022	255043	-1.72
36 Perylene-d12	257535	128768	515070	265358	3.04

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	7.23	6.73	7.73	7.23	0.00
11 Acenaphthene-d10	10.25	9.75	10.75	10.25	0.00
18 Phenanthrene-d10	12.95	12.45	13.45	12.95	0.00
28 Chrysene-d12	17.70	17.20	18.20	17.70	0.00
36 Perylene-d12	20.93	20.43	21.43	20.92	-0.05

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1116123108.D

Lab ID: SEL0401-SCV1
nt11.i, 20161231.b\lowsim.m,   31-DEC-2016 11:35

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20161231.b\lowsim.m, newpna.sub = 3.0000

Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Fluoranthene-d10 (Surr) 0.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000

Analytical Resources, Incorporated
Analytical Chemists and Consultants

INITIAL CALIBRATION CHECK

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	17A0053
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Instrument ID:	NT11	Calibration:	ZL00083
Lab File ID:	N1116123102ICV.D	Calibration Date:	12/31/16 12:55
Sequence:	SEL0401	Injection Date:	12/31/16
Lab Sample ID:	SEL0401-ICV1	Injection Time:	08:28
Sequence Name:	Initial Cal Check		

		CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Naphthalene	A	250.00	266	0.9981003	1.0626020		6.4	20
2-Methylnaphthalene	A	250.00	271	0.9837101	1.0678100		8.4	20
1-Methylnaphthalene	A	250.00	279	0.9893853	1.1032080		11.6	20
Acenaphthylene	A	250.00	277	1.7970840	1.9939840		10.8	20
Acenaphthene	A	250.00	271	1.1832060	1.2813730		8.4	20
Dibenzofuran	A	250.00	275	1.7588950	1.9362060		10.0	20
Fluorene	A	250.00	272	1.4002390	1.5228970		8.8	20
Phenanthrene	A	250.00	268	1.1434470	1.2265460		7.2	20
Anthracene	A	250.00	284	1.1401310	1.2950380		13.6	20
Fluoranthene	A	250.00	272	1.2970410	1.4106580		8.8	20
Pyrene	A	250.00	272	1.2991950	1.4120400		8.8	20
Benzo(a)anthracene	A	250.00	270	1.2026170	1.2991360		8.0	20
Chrysene	A	250.00	266	1.2340320	1.3126160		6.4	20
Benzo(b)fluoranthene	A	250.00	267	1.0780920	1.1511260		6.8	20
Benzo(k)fluoranthene	A	250.00	271	1.1612010	1.2581470		8.4	20
Benzo(j)fluoranthene	A	250.00	278	1.0350770	1.1529520		11.2	20
Benzo(a)pyrene	A	250.00	269	1.0050510	1.0830870		7.6	20
Perylene	A	250.00	267	1.0493660	1.1209130		6.8	20
Indeno(1,2,3-cd)pyrene	A	250.00	266	1.0972800	1.1669900		6.4	20
Dibenzo(a,h)anthracene	A	250.00	265	0.8793160	0.9318345		6.0	20
Benzo(g,h,i)perylene	A	250.00	259	0.9851335	1.0216460		3.6	20
2-Methylnaphthalene-d10	A	250.00	284	0.8589433	0.9750899		13.6	20
Dibenzo[a,h]anthracene-d14	A	250.00	274	0.6386966	0.7010340		9.6	20
Fluoranthene-d10	A	250.00	274	1.0622550	1.1627440		9.6	20

* Values outside of QC limits

1310

Data File: \\target\share\chem3\nt11.i\20161231.b\ICV\N1116123102ICV.D

Date : 31-DEC-2016 08:28

Client ID:

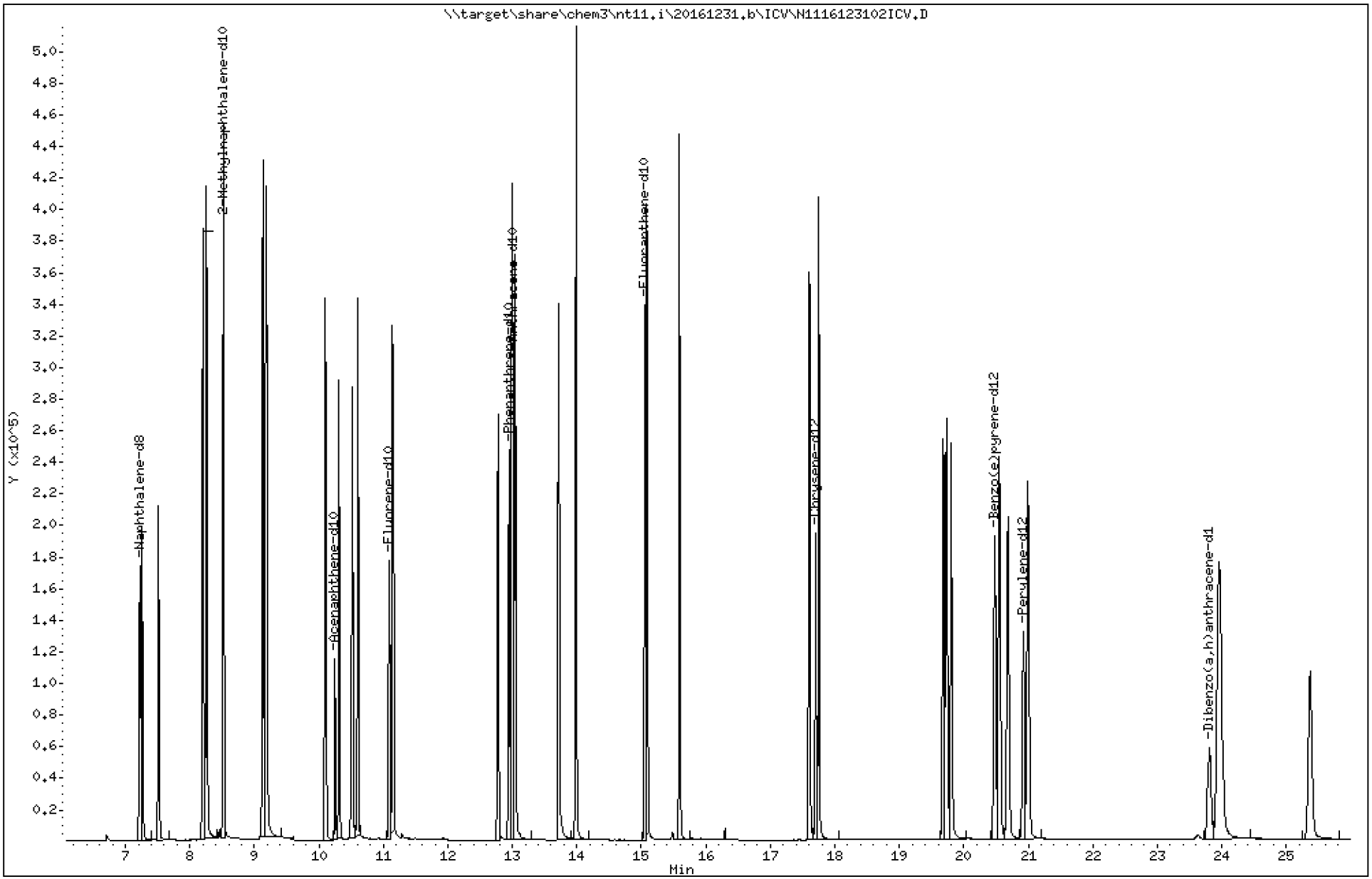
Instrument: nt11.i

Sample Info: SEL0401-ICV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20161231.b\ICV\N1116123102ICV.D
Lab Smp Id: SEL0401-ICV1
Inj Date : 31-DEC-2016 08:28 MS Autotune Date: 15-JAN-2015 15:59
Operator : VTS Inst ID: nt11.i
Smp Info : SEL0401-ICV1
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20161231.b\ICV\lowsim.m
Meth Date : 04-Jan-2017 08:31 nt11.i Quant Type: ISTD
Cal Date : 31-DEC-2016 09:30 Cal File: N1116123104.D
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
*	1 Naphthalene-d8	136	7.225	7.225	(1.000)	219654	200.000	
	2 Naphthalene	128	7.261	7.261	(1.005)	291756	250.000	266
	3 Benzo(b)thiophene	134	7.514	7.514	(1.040)	242046	250.000	271
$	4 2-Methylnaphthalene-d10	152	8.201	8.201	(1.135)	267728	250.000	284
	5 2-Methylnaphthalene	142	8.253	8.253	(1.142)	293186	250.000	271
	6 1-Methylnaphthalene	142	8.516	8.516	(1.179)	302905	250.000	279
	7 2-Chloronaphthalene	162	9.167	9.167	(0.894)	284135	250.000	277
	8 Biphenyl	154	9.136	9.136	(0.891)	375678	250.000	275
	9 2,6-Dimethylnaphthalene	156	9.188	9.188	(0.896)	296448	250.000	280
	10 Acenaphthylene	152	10.098	10.098	(0.985)	337103	250.000	277
*	11 Acenaphthene-d10	164	10.251	10.251	(1.000)	135248	200.000	
	12 Acenaphthene	153	10.315	10.315	(1.006)	216629	250.000	271
	13 Dibenzofuran	168	10.519	10.519	(1.026)	327335	250.000	275
	14 2,3,5-Trimethylnaphthalene	170	10.607	10.607	(1.035)	211917	250.000	278
$	15 Fluorene-d10	174	11.087	11.087	(1.082)	177097	250.000	273
	16 Fluorene	166	11.151	11.151	(1.088)	257461	250.000	272
	17 Dibenzothiophene	184	12.777	12.777	(0.987)	324162	250.000	273
*	18 Phenanthrene-d10	188	12.945	12.945	(1.000)	257021	200.000	
	19 Phenanthrene	178	12.987	12.987	(1.003)	394060	250.000	268
$	20 Anthracene-d10	188	13.008	13.008	(1.005)	335193	250.000	264
	21 Anthracene	178	13.040	13.040	(1.007)	416065	250.000	284
	22 Carbazole	167	13.713	13.713	(1.059)	427208	250.000	264
	23 1-Methylphenanthrene	192	13.984	13.984	(1.080)	415765	250.000	276
$	24 Fluoranthene-d10	212	15.055	15.055	(1.163)	373562	250.000	274
	25 Fluoranthene	202	15.084	15.084	(1.165)	453211	250.000	272
	26 Pyrene	202	15.593	15.593	(0.881)	458050	250.000	272
	27 Benzo(a)anthracene	228	17.610	17.610	(0.995)	421425	250.000	270
*	28 Chrysene-d12	240	17.701	17.701	(1.000)	259511	200.000	
	29 Chrysene	228	17.751	17.751	(1.003)	425798	250.000	266
	30 Benzo(b)fluoranthene	252	19.676	19.676	(0.940)	370569	250.000	267
	31 Benzo(k)fluoranthene	252	19.734	19.734	(0.943)	405021	250.000	271
	32 Benzo(j)fluoranthene	252	19.801	19.801	(0.946)	371157	250.000	278
$	33 Benzo(e)pyrene-d12	264	20.483	20.483	(0.979)	341312	250.000	267

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
	34 Benzo(e)pyrene	252	20.551	20.551	(0.982)	372033	250.000	269
	35 Benzo(a)pyrene	252	20.685	20.685	(0.989)	348666	250.000	269
*	36 Perylene-d12	264	20.925	20.925	(1.000)	257535	200.000	
	37 Perylene	252	20.993	20.993	(1.003)	360843	250.000	267
$	38 Dibenzo(a,h)anthracene-d14	292	23.808	23.808	(1.138)	225676	250.000	274
	39 Dibenzo(a,h)anthracene	278	23.941	23.941	(1.144)	299975	250.000	265
	40 Indeno(1,2,3-cd)pyrene	276	23.985	23.985	(1.146)	375676	250.000	266
	41 Benzo(g,h,i)perylene	276	25.370	25.370	(1.212)	328887	250.000	259

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: N1116123102ICV.D
Lab Smp Id: SEL0401-ICV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20161231.b\ICV\lowsim.m
Misc Info:

Calibration Date: 31-DEC-2016
Calibration Time: 08:28
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	219654	109827	439308	219654	0.00
11 Acenaphthene-d10	135248	67624	270496	135248	0.00
18 Phenanthrene-d10	257021	128511	514042	257021	0.00
28 Chrysene-d12	259511	129756	519022	259511	0.00
36 Perylene-d12	257535	128768	515070	257535	0.00

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	7.23	6.73	7.73	7.23	0.00
11 Acenaphthene-d10	10.25	9.75	10.75	10.25	0.00
18 Phenanthrene-d10	12.95	12.45	13.45	12.95	0.00
28 Chrysene-d12	17.70	17.20	18.20	17.70	0.00
36 Perylene-d12	20.93	20.43	21.43	20.93	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1116123102ICV.D

Lab ID: SEL0401-ICV1
nt11.i, 20161231.b\ICV\lowsim.m,   31-DEC-2016 08:28

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

On Column LOD for nt11.i, 20161231.b\ICV\lowsim.m, allpna.sub = 3.0000

Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20161231.b\ICV

Instrument: nt11.i Date: 31-DEC-2016 Method: 20161231.b\ICV\lowsim.m

INITIAL CAL: 31-DEC-2016

Compound	%RSD or R^2
NO Q-FLAGS	

ICV CAL: N1116123102ICV.D 31-DEC-2016 08:28

Compound	%D
NO Q-FLAGS	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

INITIAL CALIBRATION CHECK

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	17A0053
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Instrument ID:	NT11	Calibration:	ZL00083
Lab File ID:	N1117021102.D	Calibration Date:	12/31/16 12:55
Sequence:	SFB0152	Injection Date:	02/11/17
Lab Sample ID:	SFB0152-ICV1	Injection Time:	10:36
Sequence Name:	Initial Cal Check		

		CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Naphthalene	A	250.00	227	0.9981003	0.9068753		-9.2	20
1-Methylnaphthalene	A	250.00	224	0.9893853	0.8884326		-10.4	20
2-Methylnaphthalene	A	250.00	233	0.9837101	0.9166097		-6.8	20
2-Chloronaphthalene	A	250.00	214	1.5180890	1.3005700		-14.4	20
Acenaphthylene	A	250.00	209	1.7970840	1.5036900		-16.4	20
Acenaphthene	A	250.00	208	1.1832060	0.9822100		-16.8	20
Dibenzofuran	A	250.00	220	1.7588950	1.5475330		-12.0	20
Fluorene	A	250.00	223	1.4002390	1.2468570		-10.8	20
Phenanthrene	A	250.00	217	1.1434470	0.9936872		-13.2	20
Anthracene	A	250.00	214	1.1401310	0.9748735		-14.4	20
Fluoranthene	A	250.00	207	1.2970410	1.0718740		-17.2	20
Pyrene	A	250.00	225	1.2991950	1.1668180		-10.0	20
Benzo(a)anthracene	A	250.00	221	1.2026170	1.0625220		-11.6	20
Chrysene	A	250.00	216	1.2340320	1.0670610		-13.6	20
Benzo(b)fluoranthene	A	250.00	249	1.0780920	1.0745050		-0.4	20
Benzo(k)fluoranthene	A	250.00	245	1.1612010	1.1372120		-2.0	20
Benzo(j)fluoranthene	A	250.00	245	1.0350770	1.0128810		-2.0	20
Benzo(a)pyrene	A	250.00	230	1.0050510	0.9236701		-8.0	20
Indeno(1,2,3-cd)pyrene	A	250.00	210	1.0972800	0.9205484		-16.0	20
Dibenzo(a,h)anthracene	A	250.00	216	0.8793160	0.7601322		-13.6	20
Benzo(g,h,i)perylene	A	250.00	213	0.9851335	0.8378204		-14.8	20
Benzo(b)thiophene	A	250.00	237	0.8125076	0.7698051		-5.2	20
2-Methylnaphthalene-d10	A	250.00	238	0.8589433	0.8168851		-4.8	20
Dibenzo[a,h]anthracene-d14	A	250.00	223	0.6386966	0.5705407		-10.8	20
Fluoranthene-d10	A	250.00	218	1.0622550	0.9254209		-12.8	20

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.i\20170211.b\N1117021102.D

Date : 11-FEB-2017 10:36

Client ID:

Sample Info: SFB0152-ICV1

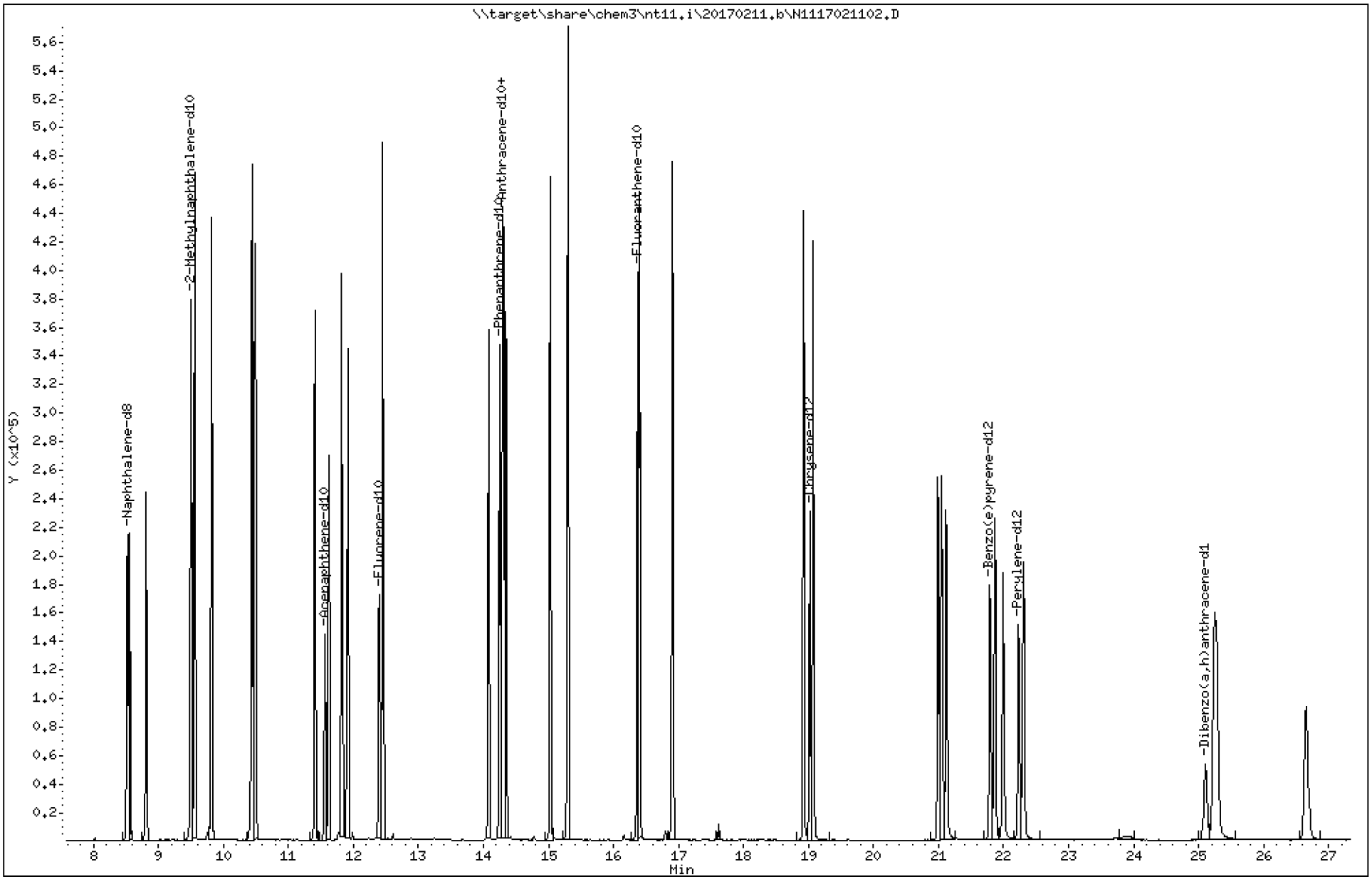
Column phase: Rxi-17Sil MS

Instrument: nt11.i

Operator: VTS

Column diameter: 0.25

1317



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20170211.b\N1117021102.D
Lab Smp Id: SFB0152-ICV1
Inj Date : 11-FEB-2017 10:36 MS Autotune Date: 15-JAN-2015 15:59
Operator : VTS Inst ID: nt11.i
Smp Info : SFB0152-ICV1
Misc Info :
Comment   :
Method   : \\target\share\chem3\nt11.i\20170211.b\lowsim.m
Meth Date : 11-Feb-2017 13:29 nt11.i Quant Type: ISTD
Cal Date : 31-DEC-2016 09:30 Cal File: N1116123104.D
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14
Processing Host: VANS

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)
*	1	Naphthalene-d8	136	8.527	8.527	(1.000)	279915	200.000	
	2	Naphthalene	128	8.554	8.554	(1.003)	317310	250.000	227
	3	Benzo(b)thiophene	134	8.816	8.816	(1.034)	269350	250.000	237
$	4	2-Methylnaphthalene-d10	152	9.508	9.508	(1.115)	285823	250.000	238
	5	2-Methylnaphthalene	142	9.561	9.561	(1.121)	320716	250.000	233
	6	1-Methylnaphthalene	142	9.824	9.824	(1.152)	310857	250.000	224
	7	2-Chloronaphthalene	162	10.475	10.475	(0.906)	318087	250.000	214
	8	Biphenyl	154	10.443	10.443	(0.903)	415756	250.000	211
	9	2,6-Dimethylnaphthalene	156	10.496	10.496	(0.908)	324476	250.000	212
	10	Acenaphthylene	152	11.410	11.410	(0.987)	367765	250.000	209
*	11	Acenaphthene-d10	164	11.564	11.564	(1.000)	195660	200.000	
	12	Acenaphthene	153	11.627	11.627	(1.005)	240224	250.000	208
	13	Dibenzofuran	168	11.822	11.822	(1.022)	378488	250.000	220
	14	2,3,5-Trimethylnaphthalene	170	11.924	11.924	(1.031)	248828	250.000	226
$	15	Fluorene-d10	174	12.404	12.404	(1.073)	212006	250.000	226
	16	Fluorene	166	12.454	12.454	(1.077)	304950	250.000	223
	17	Dibenzothiophene	184	14.083	14.083	(0.988)	396671	250.000	230
*	18	Phenanthrene-d10	188	14.251	14.251	(1.000)	373303	200.000	
	19	Phenanthrene	178	14.293	14.293	(1.003)	463683	250.000	217
$	20	Anthracene-d10	188	14.315	14.315	(1.004)	407329	250.000	221
	21	Anthracene	178	14.346	14.346	(1.007)	454904	250.000	214
	22	Carbazole	167	15.027	15.027	(1.054)	475723	250.000	203
	23	1-Methylphenanthrene	192	15.298	15.298	(1.073)	450218	250.000	206
$	24	Fluoranthene-d10	212	16.367	16.367	(1.148)	431828	250.000	218
	25	Fluoranthene	202	16.406	16.406	(1.151)	500167	250.000	207
	26	Pyrene	202	16.905	16.905	(0.889)	509691	250.000	225
	27	Benzo(a)anthracene	228	18.925	18.925	(0.995)	464132	250.000	221
*	28	Chrysene-d12	240	19.016	19.016	(1.000)	349457	200.000	
	29	Chrysene	228	19.066	19.066	(1.003)	466115	250.000	216
	30	Benzo(b)fluoranthene	252	20.991	20.991	(0.944)	382067	250.000	249
	31	Benzo(k)fluoranthene	252	21.049	21.049	(0.947)	404364	250.000	245
	32	Benzo(j)fluoranthene	252	21.116	21.116	(0.950)	360155	250.000	245
$	33	Benzo(e)pyrene-d12	264	21.789	21.789	(0.980)	313055	250.000	222

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
	34 Benzo(e)pyrene	252	21.865	21.865	(0.984)	337641	250.000	221
	35 Benzo(a)pyrene	252	21.990	21.990	(0.989)	328434	250.000	230
*	36 Perylene-d12	264	22.231	22.231	(1.000)	284460	200.000	
	37 Perylene	252	22.307	22.307	(1.003)	334121	250.000	224
$	38 Dibenzo(a,h)anthracene-d14	292	25.105	25.105	(1.129)	202870	250.000	223
	39 Dibenzo(a,h)anthracene	278	25.238	25.238	(1.135)	270284	250.000	216
	40 Indeno(1,2,3-cd)pyrene	276	25.271	25.271	(1.137)	327324	250.000	210
	41 Benzo(g,h,i)perylene	276	26.655	26.655	(1.199)	297908	250.000	213

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: N1117021102.D
Lab Smp Id: SFB0152-ICV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20170211.b\lowsim.m
Misc Info:

Calibration Date: 10-FEB-2017
Calibration Time: 13:29
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	219654	109827	439308	279915	27.43
11 Acenaphthene-d10	135248	67624	270496	195660	44.67
18 Phenanthrene-d10	257021	128511	514042	373303	45.24
28 Chrysene-d12	259511	129756	519022	349457	34.66
36 Perylene-d12	257535	128768	515070	284460	10.45

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.53	8.03	9.03	8.53	0.00
11 Acenaphthene-d10	11.56	11.06	12.06	11.56	0.00
18 Phenanthrene-d10	14.25	13.75	14.75	14.25	0.00
28 Chrysene-d12	19.02	18.52	19.52	19.02	0.00
36 Perylene-d12	22.23	21.73	22.73	22.23	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1117021102.D

Lab ID: SFB0152-ICV1
nt11.i, 20170211.b\lowsim.m,   11-FEB-2017 10:36

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

On Column LOD for nt11.i, 20170211.b\lowsim.m, allpna.sub = 3.0000

Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20170211.b

Instrument: nt11.i Date: 11-FEB-2017 Method: 20170211.b\lowsim.m

INITIAL CAL: 31-DEC-2016

Compound	%RSD or R^2
NO Q-FLAGS	

ICV CAL: N1117021102.D 11-FEB-2017 10:36

Compound	%D
NO Q-FLAGS	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

INITIAL CALIBRATION CHECK

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	17A0053
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Instrument ID:	NT11	Calibration:	ZL00083
Lab File ID:	N1117021005.D	Calibration Date:	12/31/16 12:55
Sequence:	SFB0130	Injection Date:	02/10/17
Lab Sample ID:	SFB0130-ICV1	Injection Time:	13:29
Sequence Name:	Initial Cal Check		

		CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Naphthalene	A	250.00	229	0.9981003	0.9151454		-8.4	20
1-Methylnaphthalene	A	250.00	222	0.9893853	0.8784468		-11.2	20
2-Methylnaphthalene	A	250.00	229	0.9837101	0.9027099		-8.4	20
2-Chloronaphthalene	A	250.00	223	1.5180890	1.3549880		-10.8	20
Acenaphthylene	A	250.00	208	1.7970840	1.4961190		-16.8	20
Acenaphthene	A	250.00	211	1.1832060	0.9998882		-15.6	20
Dibenzofuran	A	250.00	221	1.7588950	1.5513930		-11.6	20
Fluorene	A	250.00	224	1.4002390	1.2528700		-10.4	20
Phenanthrene	A	250.00	220	1.1434470	1.0062620		-12.0	20
Anthracene	A	250.00	212	1.1401310	0.9682720		-15.2	20
Fluoranthene	A	250.00	211	1.2970410	1.0944750		-15.6	20
Pyrene	A	250.00	213	1.2991950	1.1063230		-14.8	20
Benzo(a)anthracene	A	250.00	212	1.2026170	1.0203560		-15.2	20
Chrysene	A	250.00	214	1.2340320	1.0580040		-14.4	20
Benzo(b)fluoranthene	A	250.00	252	1.0780920	1.0846830		0.8	20
Benzo(k)fluoranthene	A	250.00	235	1.1612010	1.0924460		-6.0	20
Benzo(j)fluoranthene	A	250.00	252	1.0350770	1.0413970		0.8	20
Benzo(a)pyrene	A	250.00	230	1.0050510	0.9246120		-8.0	20
Indeno(1,2,3-cd)pyrene	A	250.00	225	1.0972800	0.9879481		-10.0	20
Dibenzo(a,h)anthracene	A	250.00	232	0.8793160	0.8174673		-7.2	20
Benzo(g,h,i)perylene	A	250.00	219	0.9851335	0.8644457		-12.4	20
Benzo(b)thiophene	A	250.00	236	0.8125076	0.7678584		-5.6	20
2-Methylnaphthalene-d10	A	250.00	236	0.8589433	0.8125483		-5.6	20
Dibenzo[a,h]anthracene-d14	A	250.00	239	0.6386966	0.6108019		-4.4	20
Fluoranthene-d10	A	250.00	216	1.0622550	0.9175729		-13.6	20

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021005.D

Date : 10-FEB-2017 13:29

Client ID:

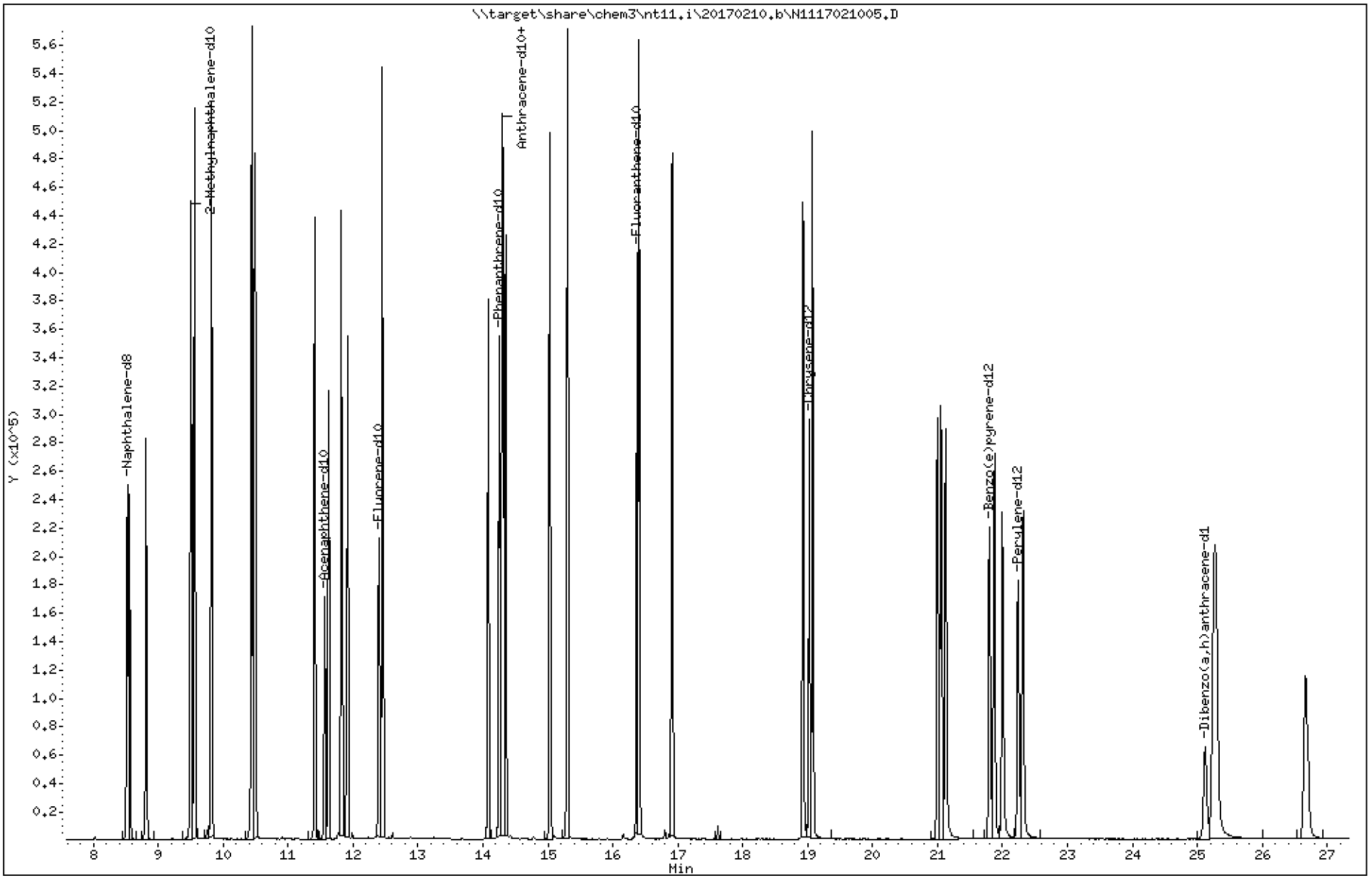
Instrument: nt11.i

Sample Info: SFB0130-ICV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20170210.b\N1117021005.D
Lab Smp Id: SFB0130-ICV1
Inj Date : 10-FEB-2017 13:29 MS Autotune Date: 15-JAN-2015 15:59
Operator : VTS Inst ID: nt11.i
Smp Info : SFB0130-ICV1
Misc Info :
Comment   :
Method   : \\target\share\chem3\nt11.i\20170210.b\LOWSIM.m
Meth Date : 11-Feb-2017 08:35 nt11.i Quant Type: ISTD
Cal Date : 31-DEC-2016 09:30 Cal File: N1116123104.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14
Processing Host: VANS

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)
*	1	Naphthalene-d8	136	8.526	8.526	(1.000)	326356	200.000	
	2	Naphthalene	128	8.554	8.554	(1.003)	373329	250.000	229
	3	Benzo(b)thiophene	134	8.816	8.816	(1.034)	313244	250.000	236
$	4	2-Methylnaphthalene-d10	152	9.508	9.508	(1.115)	331475	250.000	236
	5	2-Methylnaphthalene	142	9.561	9.561	(1.121)	368256	250.000	229
	6	1-Methylnaphthalene	142	9.823	9.823	(1.152)	358358	250.000	222
	7	2-Chloronaphthalene	162	10.475	10.475	(0.906)	372708	250.000	223
	8	Biphenyl	154	10.443	10.443	(0.903)	471651	250.000	212
	9	2,6-Dimethylnaphthalene	156	10.496	10.496	(0.908)	372643	250.000	216
	10	Acenaphthylene	152	11.410	11.410	(0.987)	411528	250.000	208
*	11	Acenaphthene-d10	164	11.564	11.564	(1.000)	220051	200.000	
	12	Acenaphthene	153	11.627	11.627	(1.005)	275033	250.000	211
	13	Dibenzofuran	168	11.822	11.822	(1.022)	426732	250.000	221
	14	2,3,5-Trimethylnaphthalene	170	11.923	11.923	(1.031)	285211	250.000	230
$	15	Fluorene-d10	174	12.404	12.404	(1.073)	235930	250.000	223
	16	Fluorene	166	12.454	12.454	(1.077)	344619	250.000	224
	17	Dibenzothiophene	184	14.083	14.083	(0.987)	441155	250.000	225
*	18	Phenanthrene-d10	188	14.262	14.262	(1.000)	424023	200.000	
	19	Phenanthrene	178	14.293	14.293	(1.002)	533348	250.000	220
$	20	Anthracene-d10	188	14.314	14.314	(1.004)	453093	250.000	216
	21	Anthracene	178	14.356	14.356	(1.007)	513212	250.000	212
	22	Carbazole	167	15.027	15.027	(1.054)	535271	250.000	201
	23	1-Methylphenanthrene	192	15.307	15.307	(1.073)	503765	250.000	203
$	24	Fluoranthene-d10	212	16.367	16.367	(1.148)	486340	250.000	216
	25	Fluoranthene	202	16.405	16.405	(1.150)	580103	250.000	211
	26	Pyrene	202	16.915	16.915	(0.889)	565995	250.000	213
	27	Benzo(a)anthracene	228	18.933	18.933	(0.995)	522014	250.000	212
*	28	Chrysene-d12	240	19.024	19.024	(1.000)	409280	200.000	
	29	Chrysene	228	19.074	19.074	(1.003)	541275	250.000	214
	30	Benzo(b)fluoranthene	252	21.001	21.001	(0.944)	471200	250.000	252
	31	Benzo(k)fluoranthene	252	21.049	21.049	(0.946)	474572	250.000	235
	32	Benzo(j)fluoranthene	252	21.125	21.125	(0.950)	452396	250.000	252
$	33	Benzo(e)pyrene-d12	264	21.798	21.798	(0.980)	392619	250.000	228

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
	34 Benzo(e)pyrene	252	21.875	21.875	(0.984)	428634	250.000	229
	35 Benzo(a)pyrene	252	22.000	22.000	(0.989)	401663	250.000	230
*	36 Perylene-d12	264	22.240	22.240	(1.000)	347530	200.000	
	37 Perylene	252	22.317	22.317	(1.003)	402035	250.000	220
$	38 Dibenzo(a,h)anthracene-d14	292	25.116	25.116	(1.129)	265340	250.000	239
	39 Dibenzo(a,h)anthracene	278	25.260	25.260	(1.136)	355118	250.000	232
	40 Indeno(1,2,3-cd)pyrene	276	25.282	25.282	(1.137)	429177	250.000	225
	41 Benzo(g,h,i)perylene	276	26.666	26.666	(1.199)	375526	250.000	219

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: N1117021005.D
Lab Smp Id: SFB0130-ICV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20170210.b\LOWSIM.m
Misc Info:

Calibration Date: 10-FEB-2017
Calibration Time: 12:05
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	219654	109827	439308	326356	48.58
11 Acenaphthene-d10	135248	67624	270496	220051	62.70
18 Phenanthrene-d10	257021	128511	514042	424023	64.98
28 Chrysene-d12	259511	129756	519022	409280	57.71
36 Perylene-d12	257535	128768	515070	347530	34.94

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.53	8.03	9.03	8.53	0.00
11 Acenaphthene-d10	11.56	11.06	12.06	11.56	0.00
18 Phenanthrene-d10	14.26	13.76	14.76	14.26	0.00
28 Chrysene-d12	19.02	18.52	19.52	19.02	0.00
36 Perylene-d12	22.24	21.74	22.74	22.24	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1117021005.D

Lab ID: SFB0130-ICV1
nt11.i, 20170210.b\LOWSIM.m,   10-FEB-2017 13:29

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

On Column LOD for nt11.i, 20170210.b\LOWSIM.m, allpna.sub = 3.0000

Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20170210.b

Instrument: nt11.i Date: 10-FEB-2017 Method: 20170210.b\LOWSIM.m

INITIAL CAL: 31-DEC-2016

Compound	%RSD or R^2
NO Q-FLAGS	

ICV CAL: N1117021005.D 10-FEB-2017 13:29

Compound	%D
NO Q-FLAGS	

CONTINUING CALIBRATION CHECK
EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	17A0053
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Instrument ID:	NT11	Calibration:	ZL00083
Lab File ID:	N1116123125.D	Calibration Date:	12/31/16 12:55
Sequence:	SEL0401	Injection Date:	12/31/16
Lab Sample ID:	SEL0401-CCV1	Injection Time:	20:26
Sequence Name:	SIM PAH 250		

		CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Naphthalene	A	250.00	265	0.9981003	1.0598990		6.2	50
2-Methylnaphthalene	A	250.00	275	0.9837101	1.0824310		10.0	50
1-Methylnaphthalene	A	250.00	276	0.9893853	1.0927210		10.4	50
Acenaphthylene	A	250.00	273	1.7970840	1.9623130		9.2	50
Acenaphthene	A	250.00	272	1.1832060	1.2864810		8.7	50
Dibenzofuran	A	250.00	276	1.7588950	1.9444670		10.6	50
Fluorene	A	250.00	275	1.4002390	1.5387070		9.9	50
Phenanthrene	A	250.00	268	1.1434470	1.2237620		7.0	50
Anthracene	A	250.00	284	1.1401310	1.2953820		13.6	50
Fluoranthene	A	250.00	275	1.2970410	1.4283580		10.1	50
Pyrene	A	250.00	256	1.2991950	1.3279230		2.2	50
Benzo(a)anthracene	A	250.00	268	1.2026170	1.2888120		7.2	50
Chrysene	A	250.00	267	1.2340320	1.3196280		6.9	50
Benzo(b)fluoranthene	A	250.00	276	1.0780920	1.1893290		10.3	50
Benzo(k)fluoranthene	A	250.00	262	1.1612010	1.2180000		4.9	50
Benzo(j)fluoranthene	A	250.00	291	1.0350770	1.2056220		16.5	50
Benzo(a)pyrene	A	250.00	270	1.0050510	1.0857580		8.0	50
Perylene	A	250.00	271	1.0493660	1.1373950		8.4	50
Indeno(1,2,3-cd)pyrene	A	250.00	267	1.0972800	1.1712500		6.7	50
Dibenzo(a,h)anthracene	A	250.00	261	0.8793160	0.9165516		4.2	50
Benzo(g,h,i)perylene	A	250.00	259	0.9851335	1.0201070		3.6	50
2-Methylnaphthalene-d10	A	250.00	279	0.8589433	0.9569111		11.4	50
Dibenzo[a,h]anthracene-d14	A	250.00	268	0.6386966	0.6857614		7.4	50
Fluoranthene-d10	A	250.00	277	1.0622550	1.1770880		10.8	50

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123125.D

Date : 31-DEC-2016 20:26

Client ID:

Instrument: nt11.i

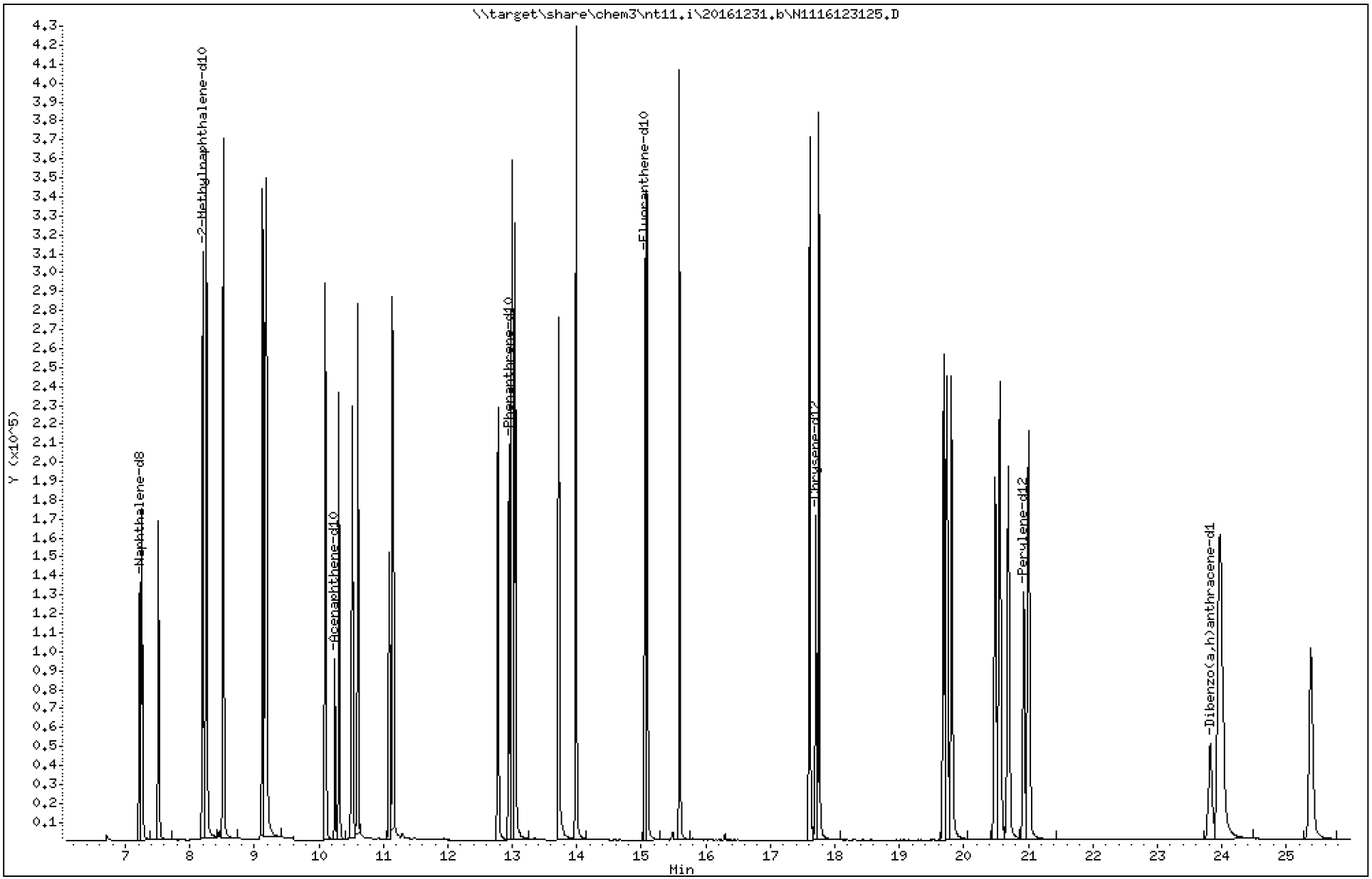
Sample Info: SEL0401-CCV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

1331



Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123125.D

Date : 31-DEC-2016 20:26

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-CCV1

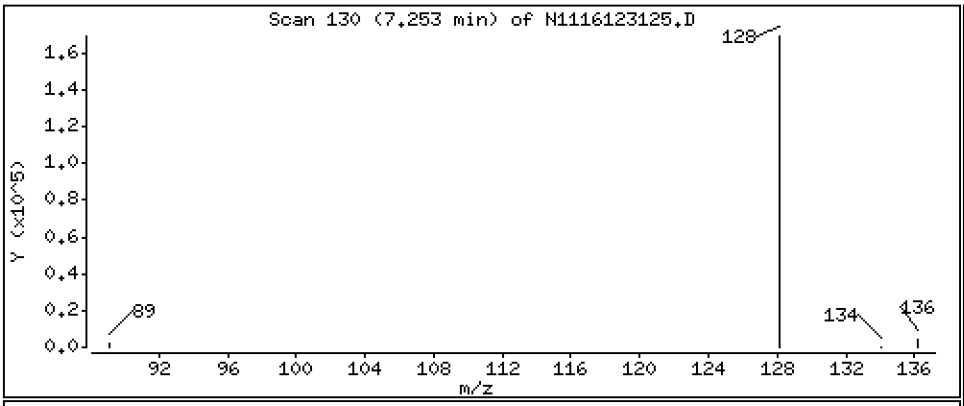
Operator: VTS

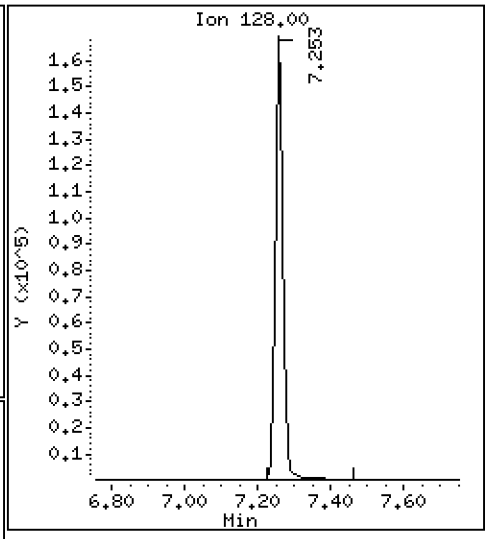
Column phase: Rxi-17Sil MS

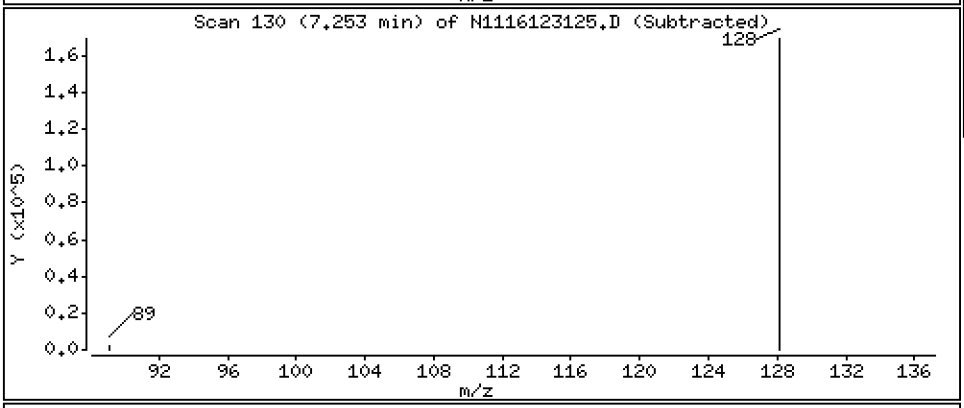
Column diameter: 0.25

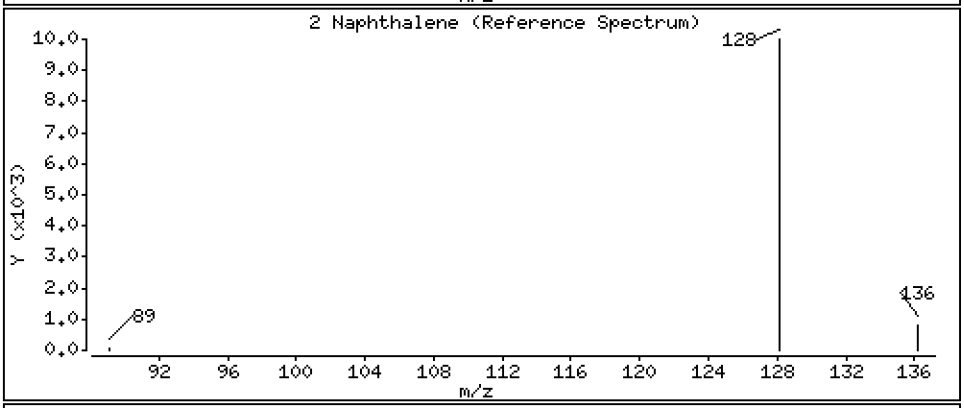
2 Naphthalene

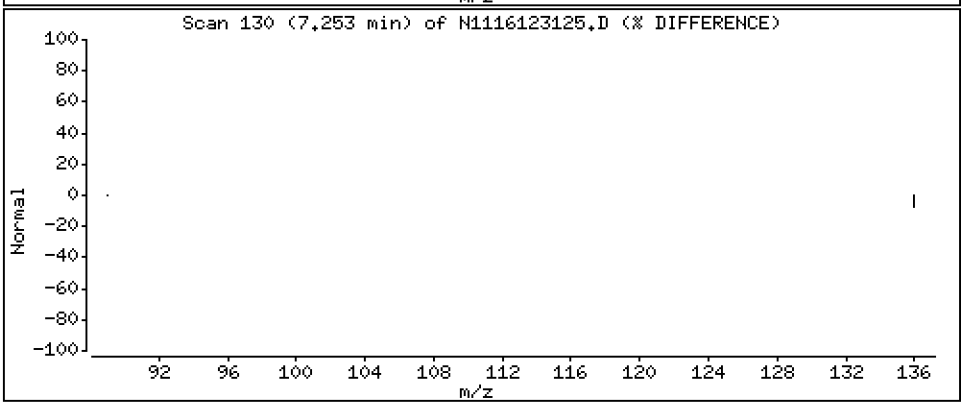
Concentration: 265 ng/mL











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Date : 31-DEC-2016 20:26

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-CCV1

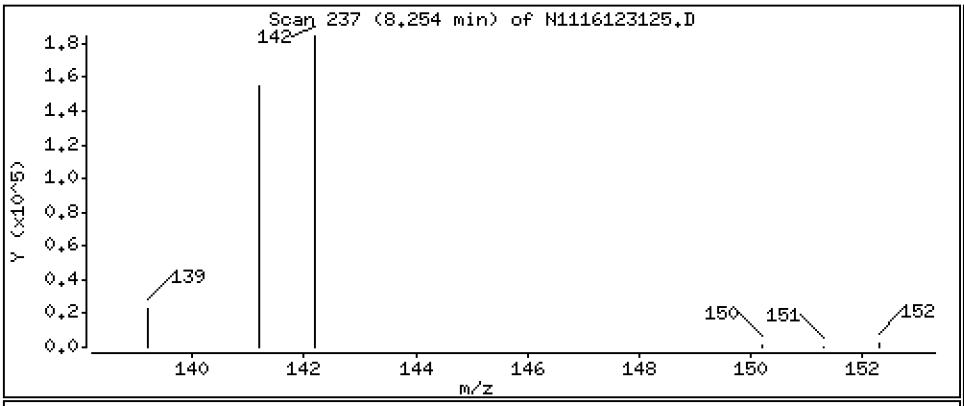
Operator: VTS

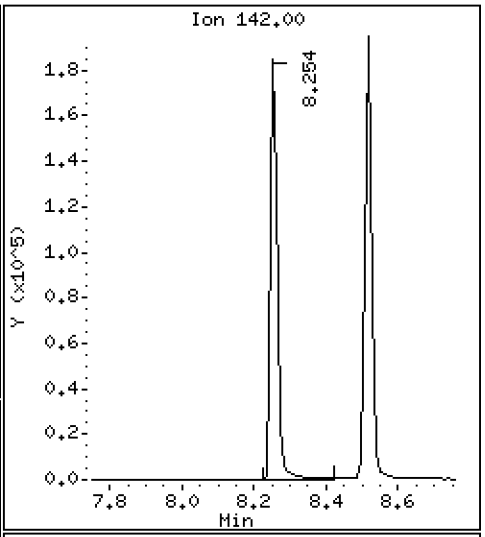
Column phase: Rxi-17Sil MS

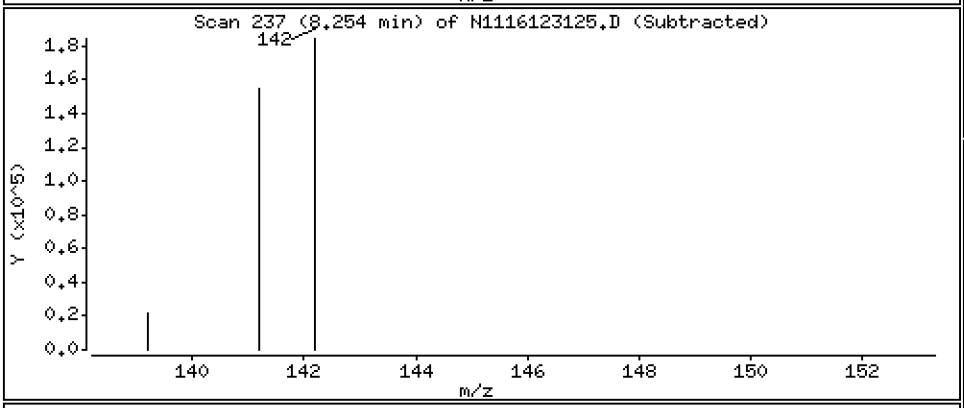
Column diameter: 0.25

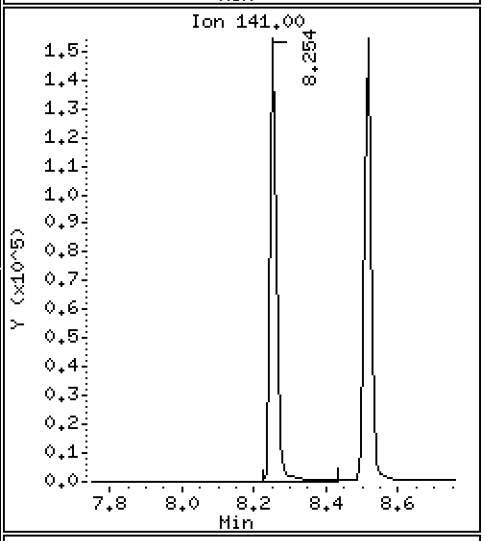
5 2-Methylnaphthalene

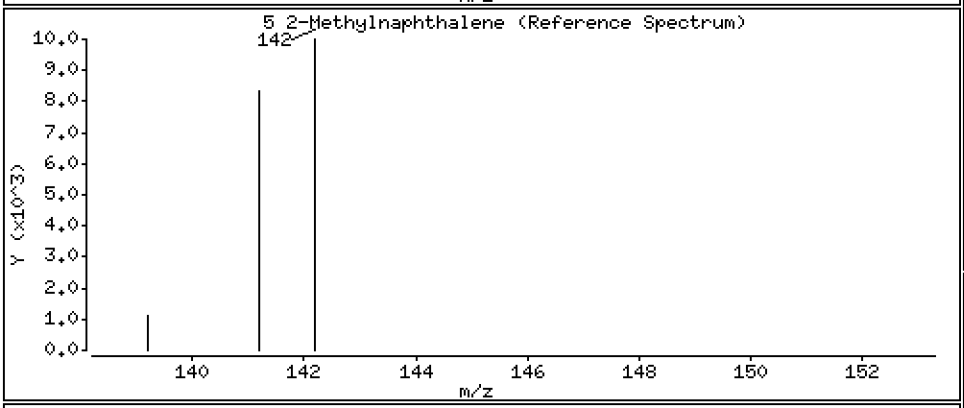
Concentration: 275 ng/mL

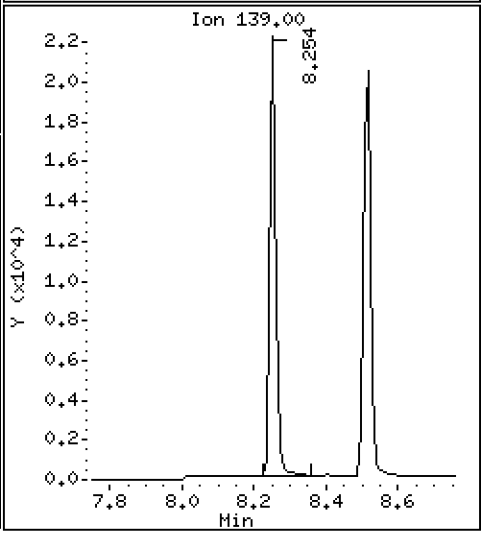


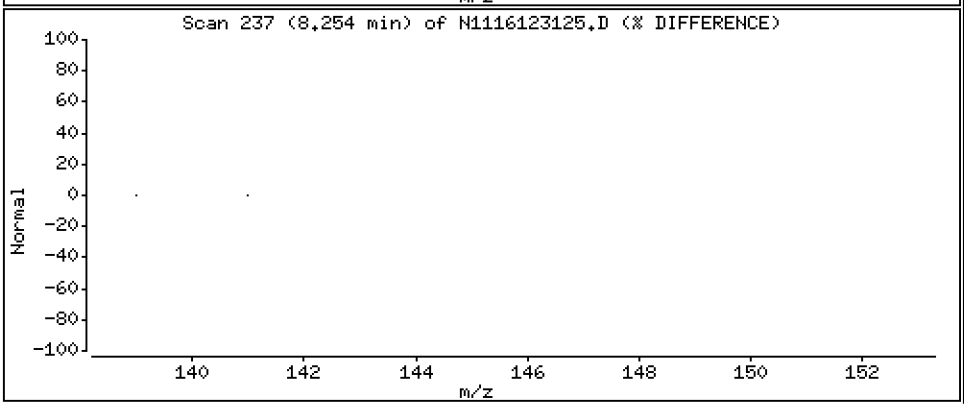












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Date : 31-DEC-2016 20:26

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-CCV1

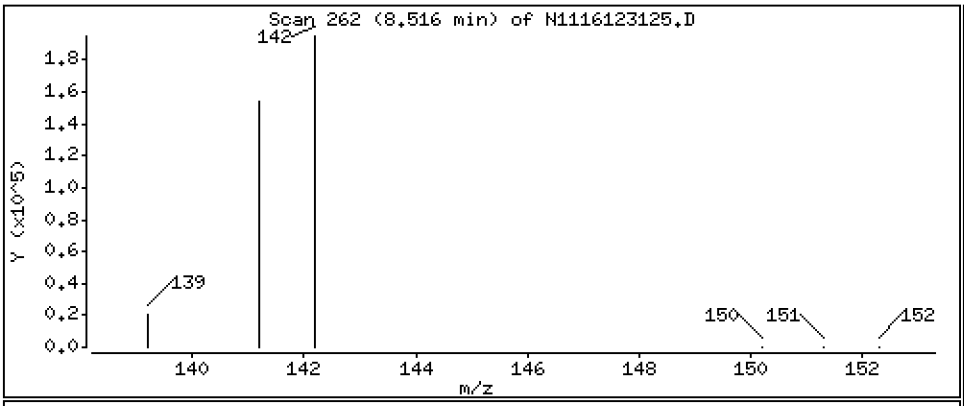
Operator: VTS

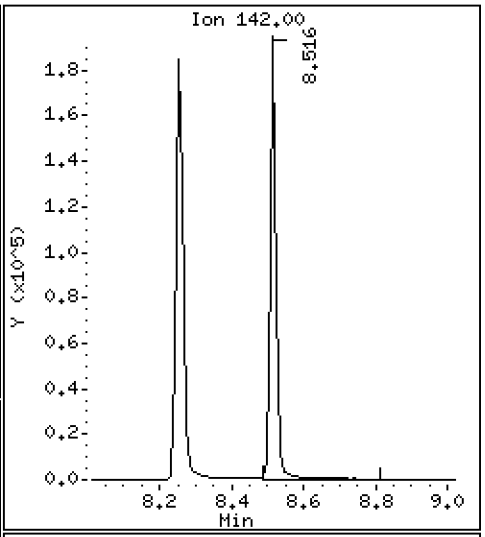
Column phase: Rxi-17Sil MS

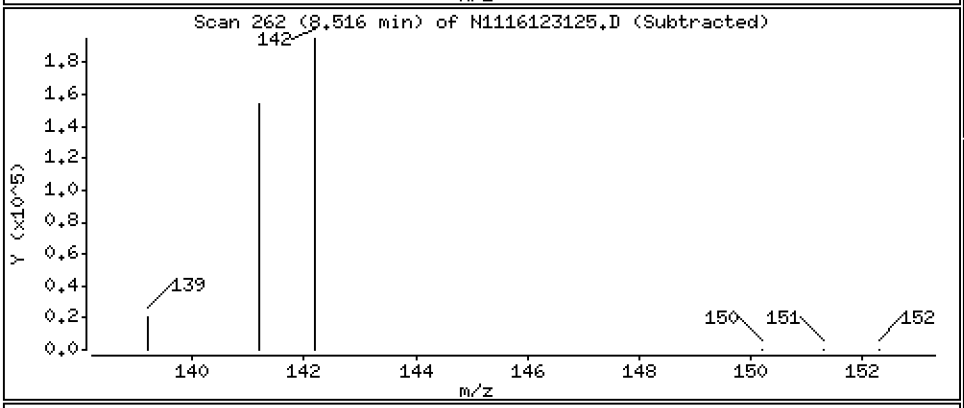
Column diameter: 0.25

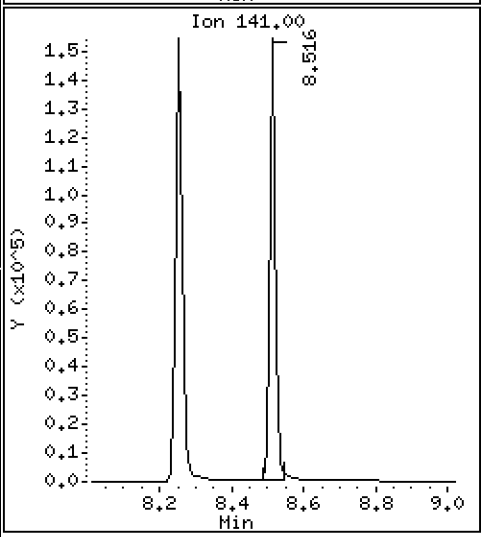
6 1-Methylnaphthalene

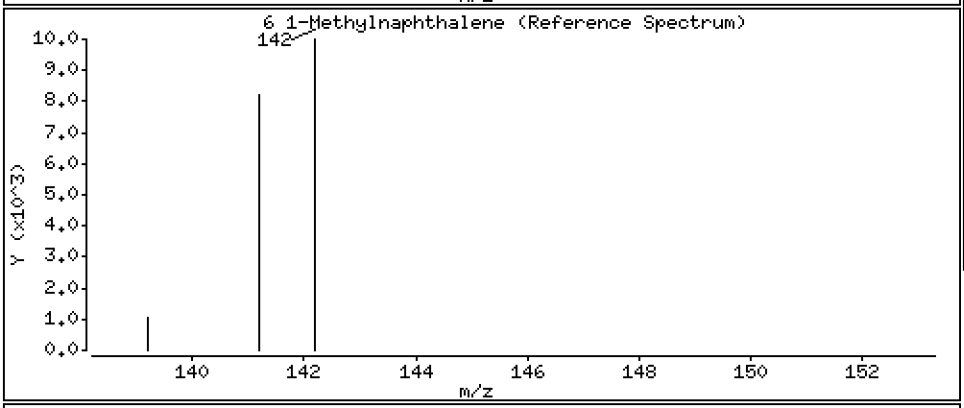
Concentration: 276 ng/mL

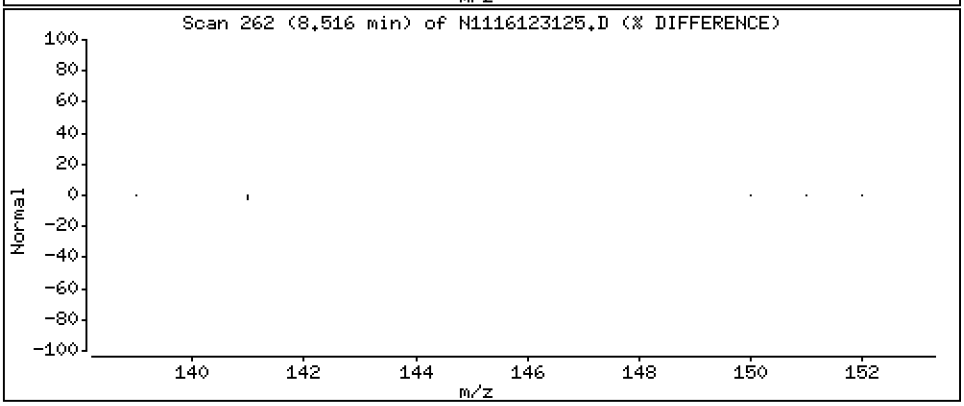












Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123125.D

Date : 31-DEC-2016 20:26

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-CCV1

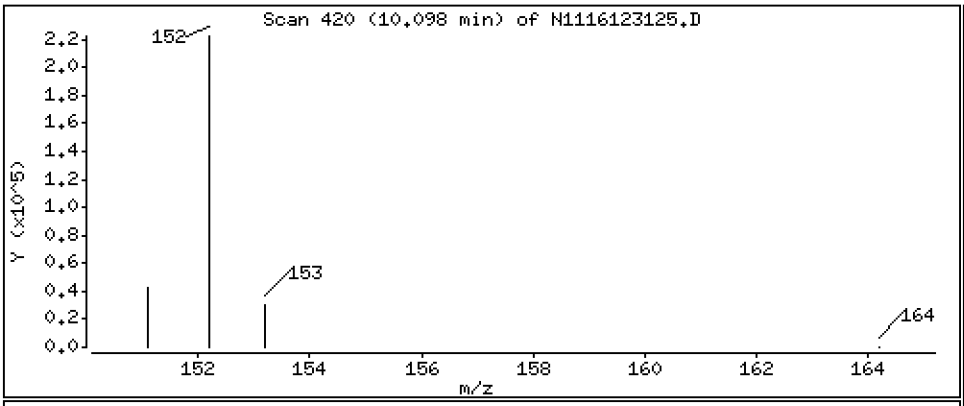
Operator: VTS

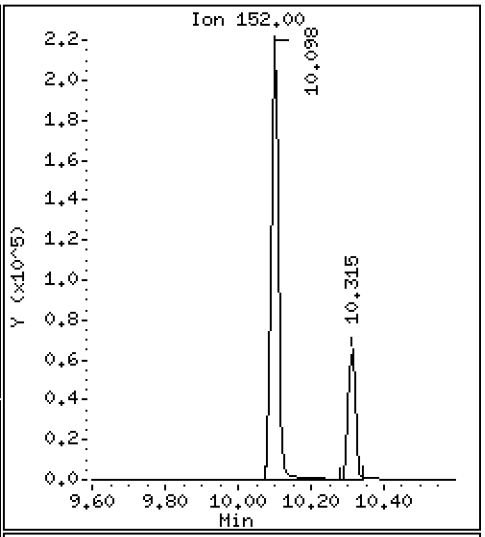
Column phase: Rxi-17Sil MS

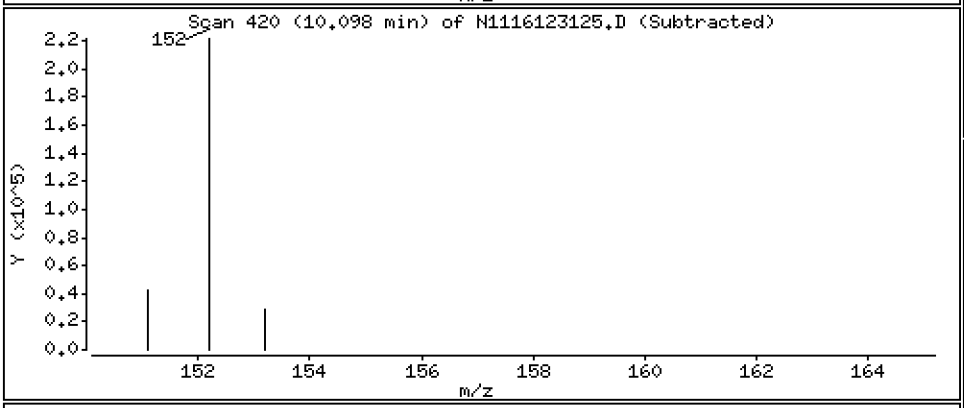
Column diameter: 0.25

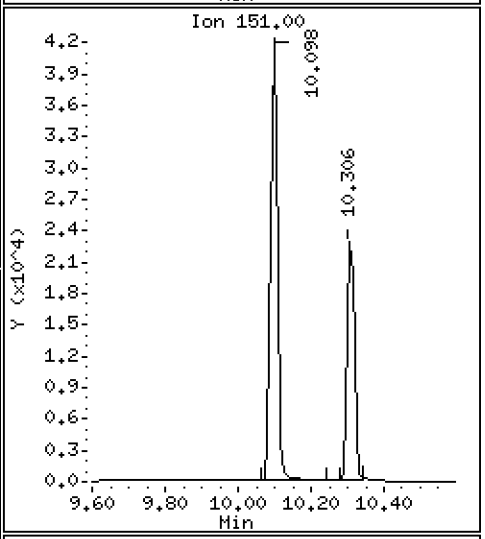
10 Acenaphthylene

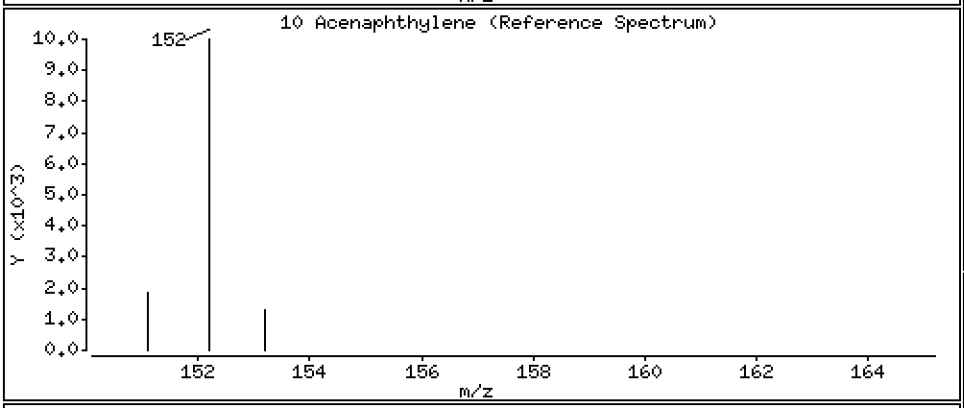
Concentration: 273 ng/mL

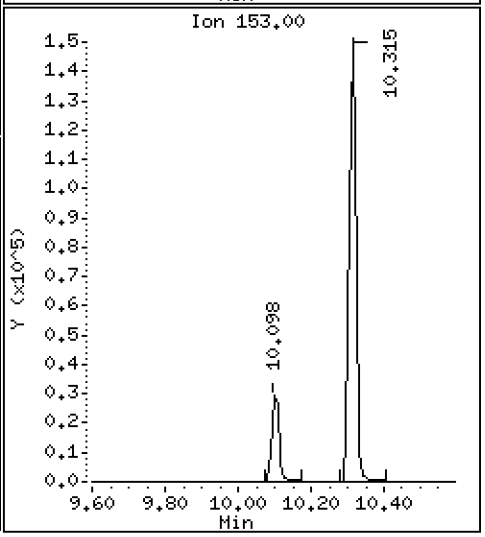


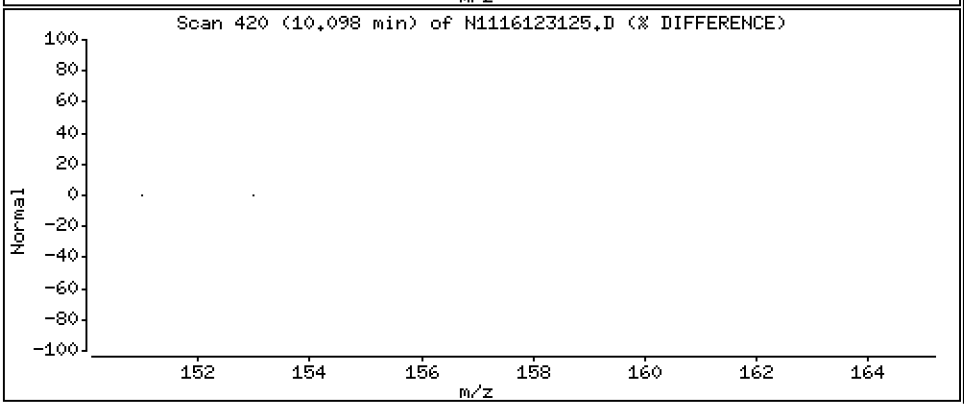












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Date : 31-DEC-2016 20:26

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-CCV1

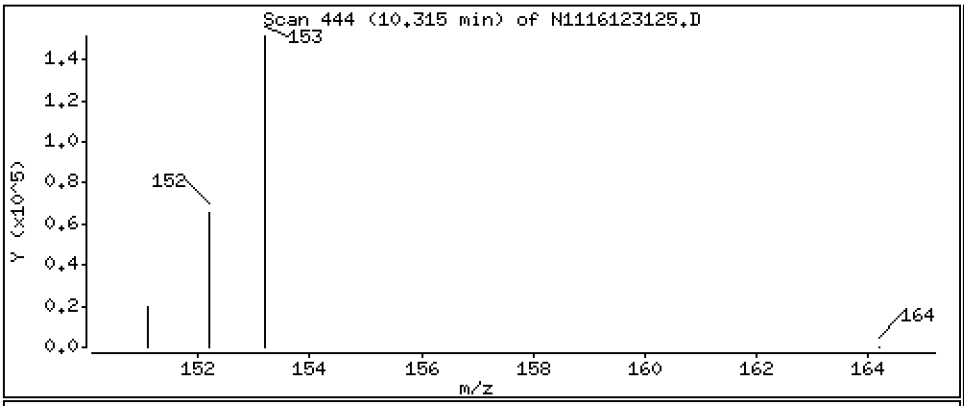
Operator: VTS

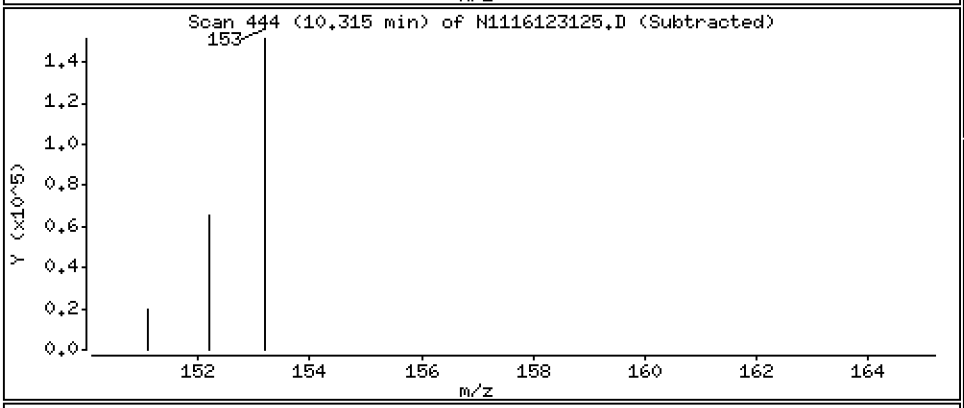
Column phase: Rxi-17Sil MS

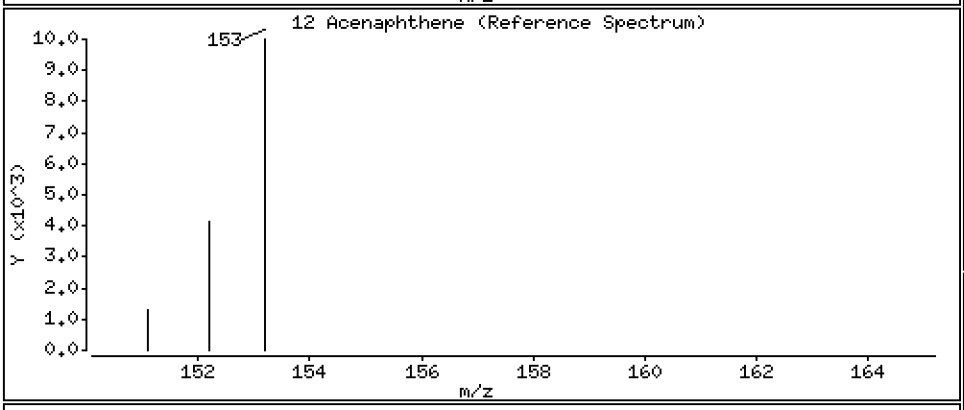
Column diameter: 0.25

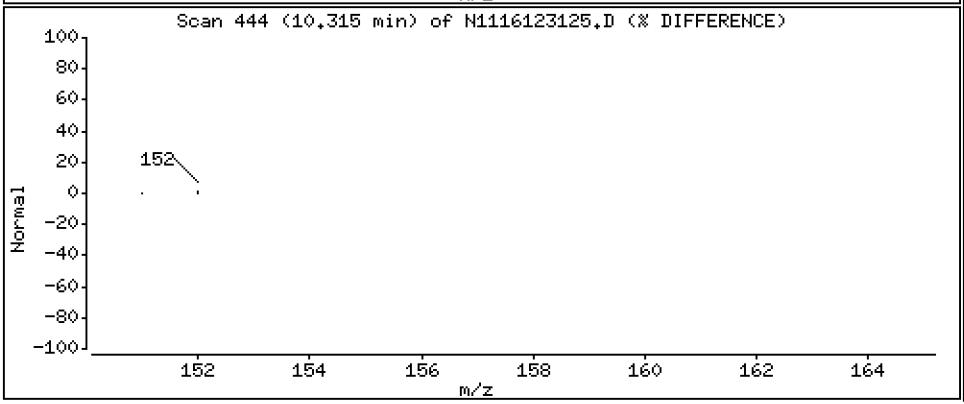
12 Acenaphthene

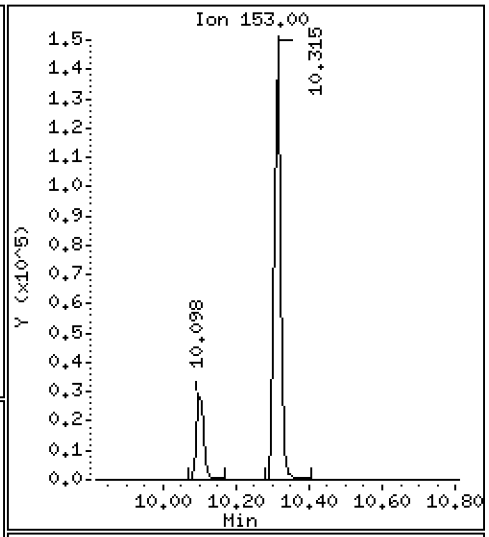
Concentration: 272 ng/mL

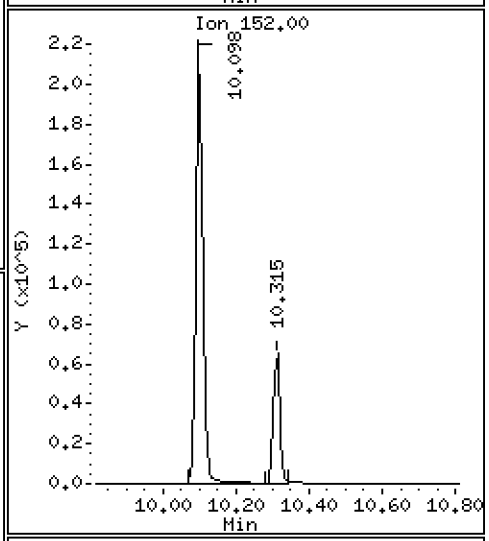


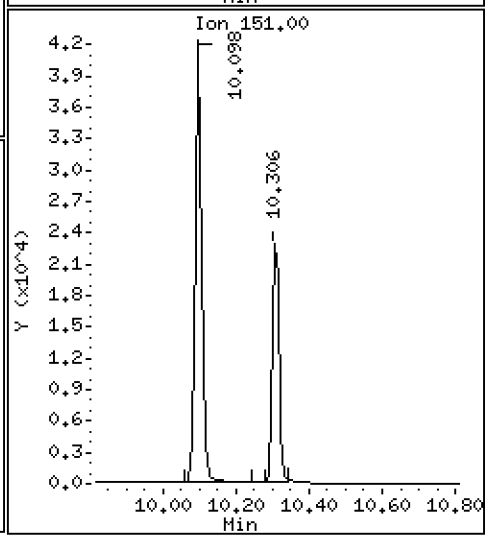












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Date : 31-DEC-2016 20:26

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-CCV1

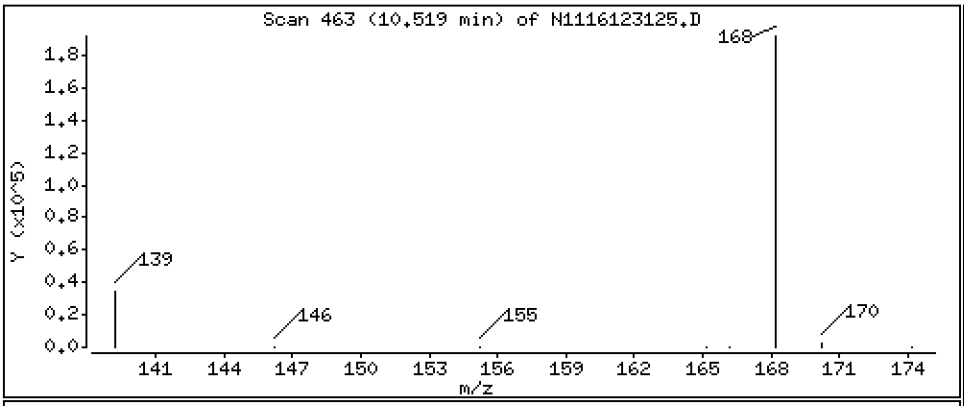
Operator: VTS

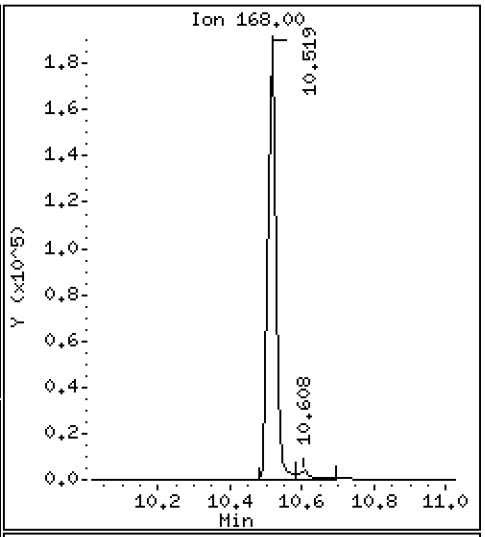
Column phase: Rxi-17Sil MS

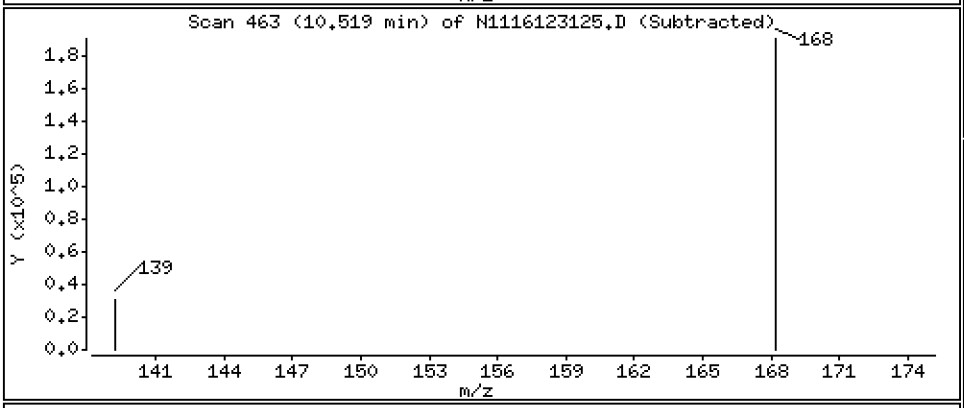
Column diameter: 0.25

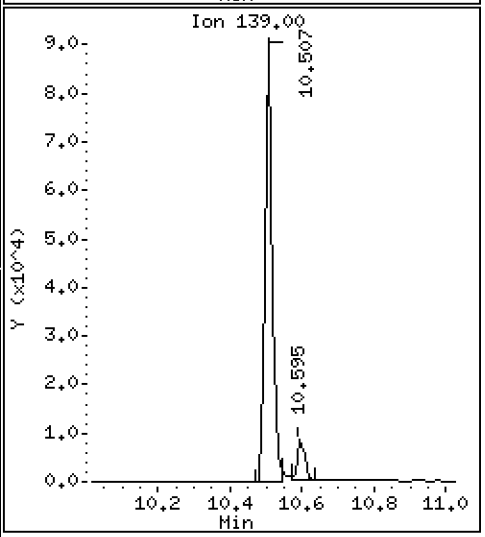
13 Dibenzofuran

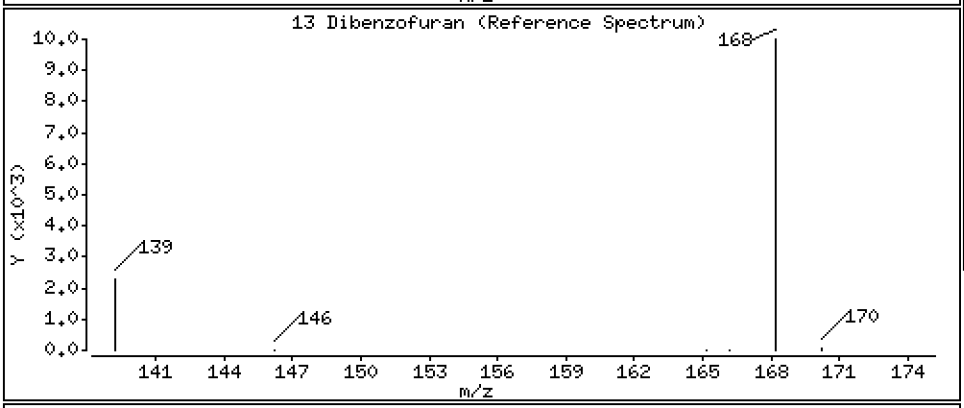
Concentration: 276 ng/mL

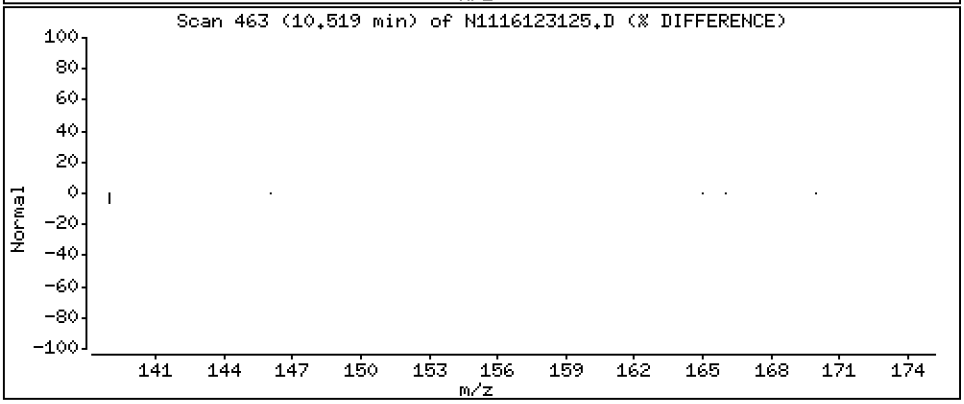












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Date : 31-DEC-2016 20:26

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-CCV1

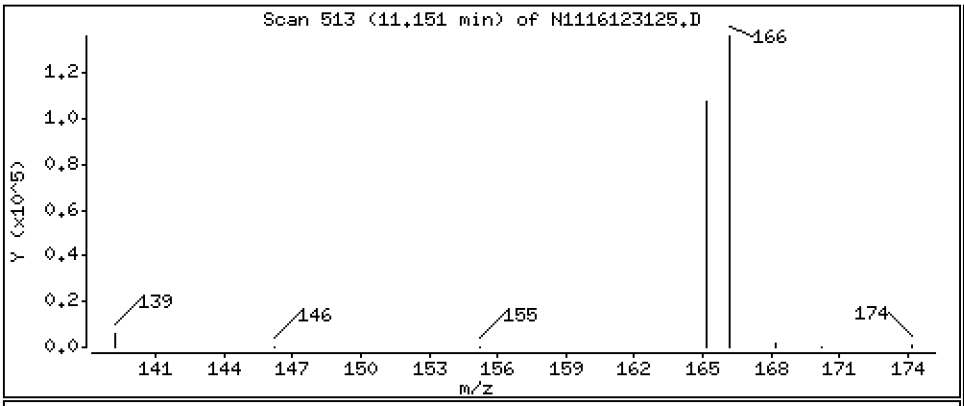
Operator: VTS

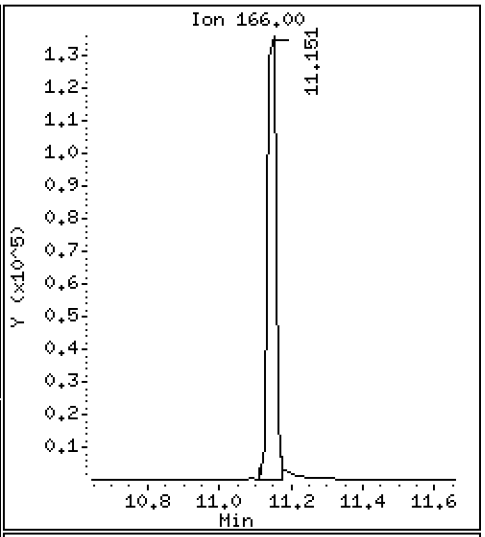
Column phase: Rxi-17Sil MS

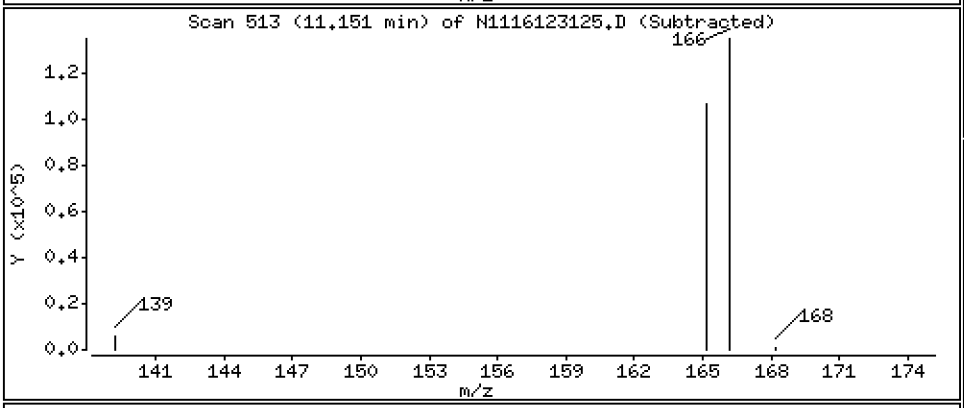
Column diameter: 0.25

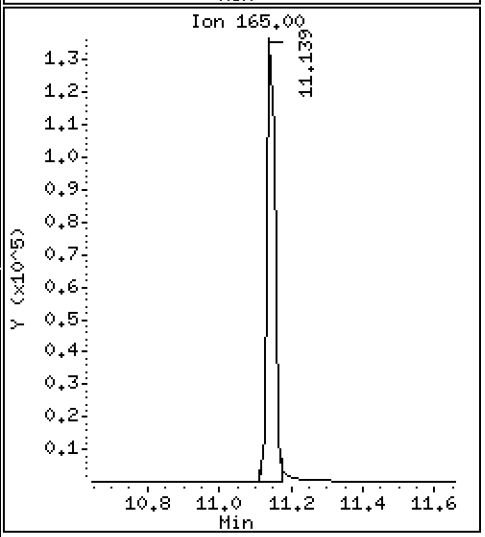
16 Fluorene

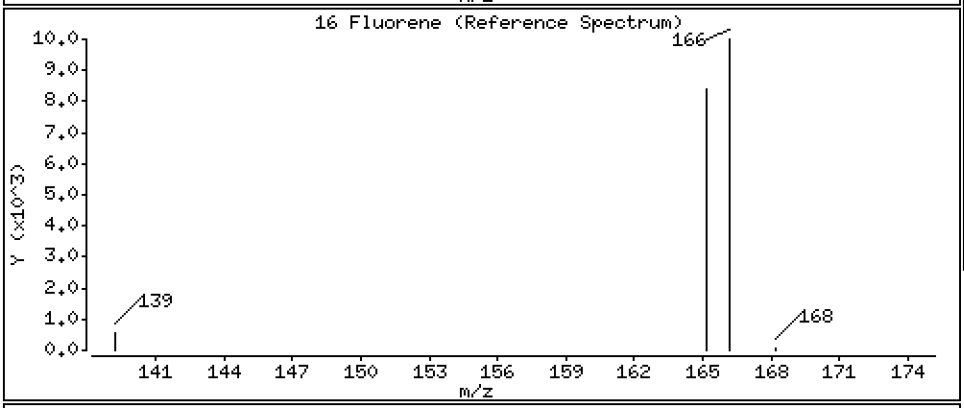
Concentration: 275 ng/mL

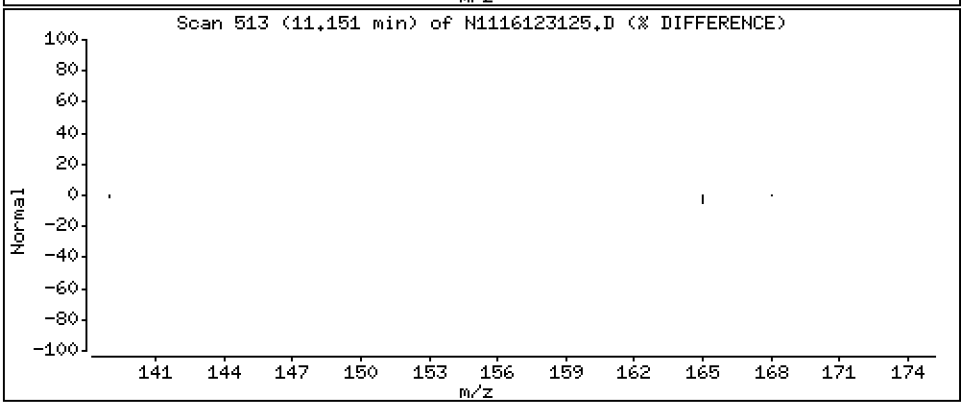












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Date : 31-DEC-2016 20:26

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-CCV1

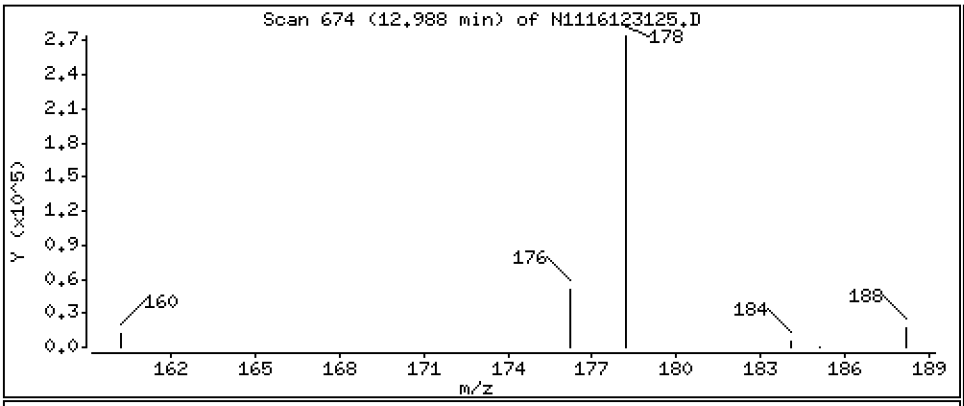
Operator: VTS

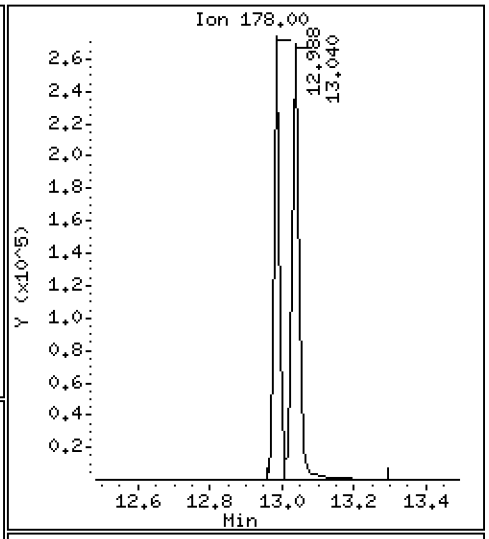
Column phase: Rxi-17Sil MS

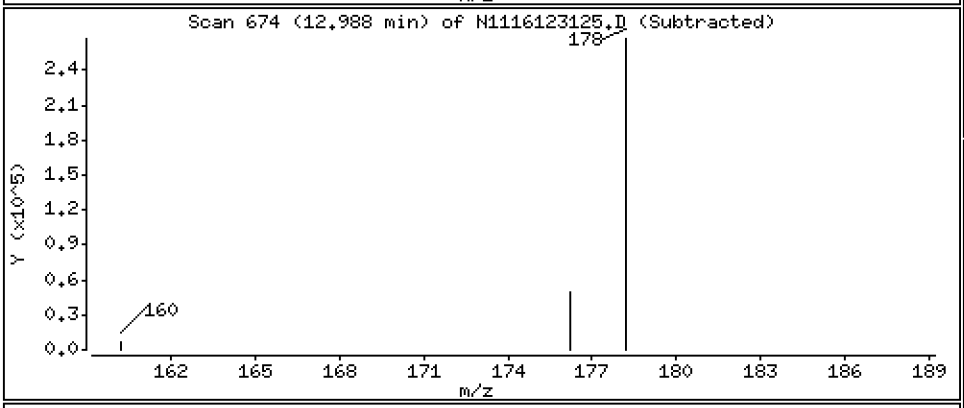
Column diameter: 0.25

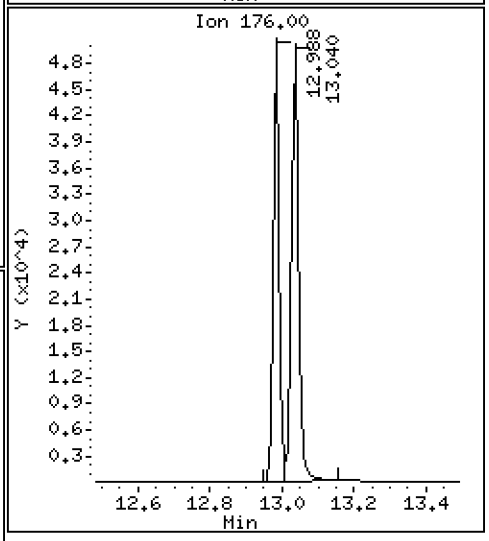
19 Phenanthrene

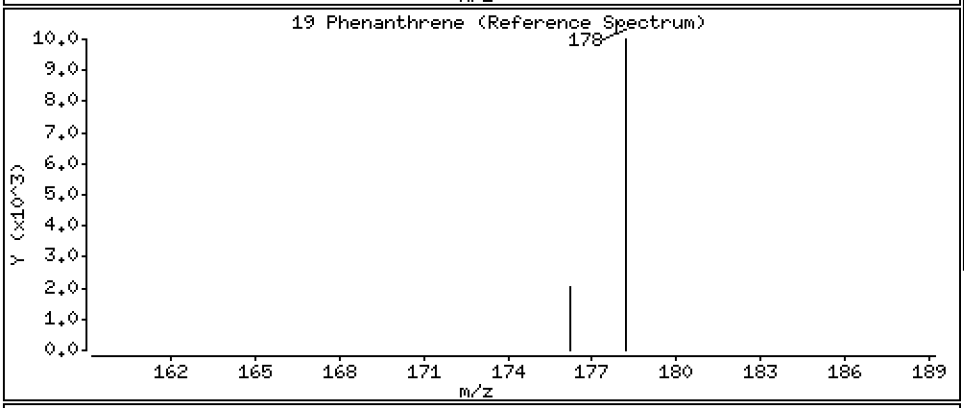
Concentration: 268 ng/mL

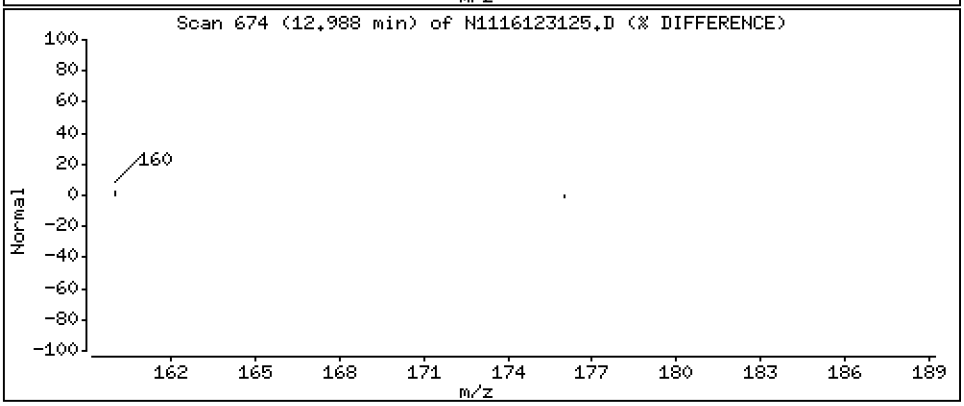












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Date : 31-DEC-2016 20:26

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-CCV1

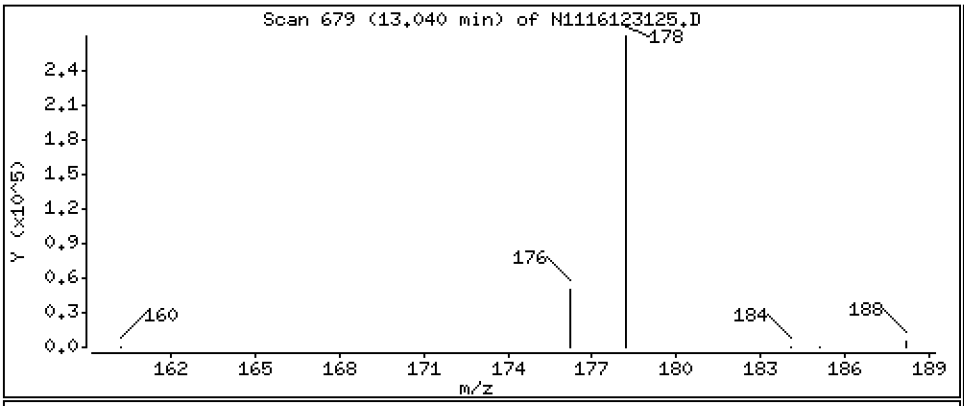
Operator: VTS

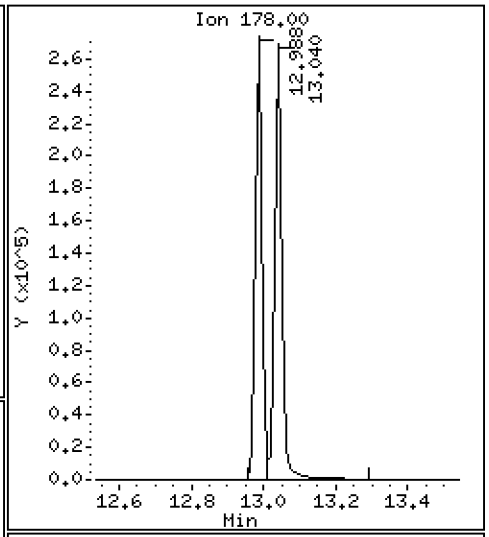
Column phase: Rxi-17Sil MS

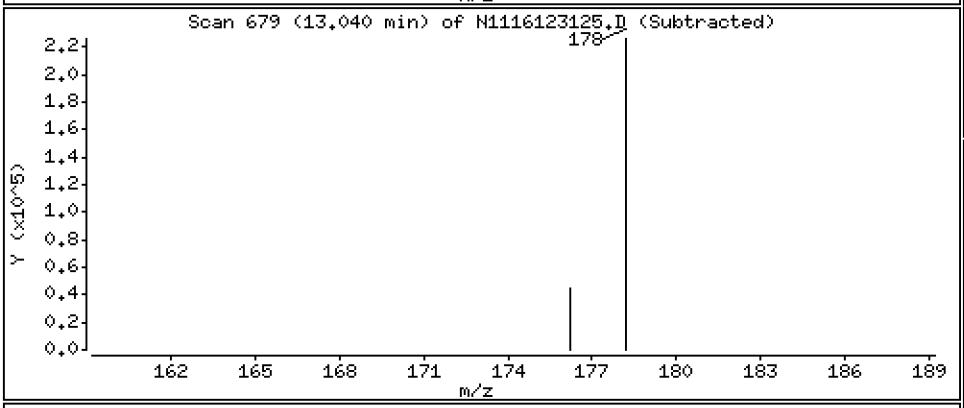
Column diameter: 0.25

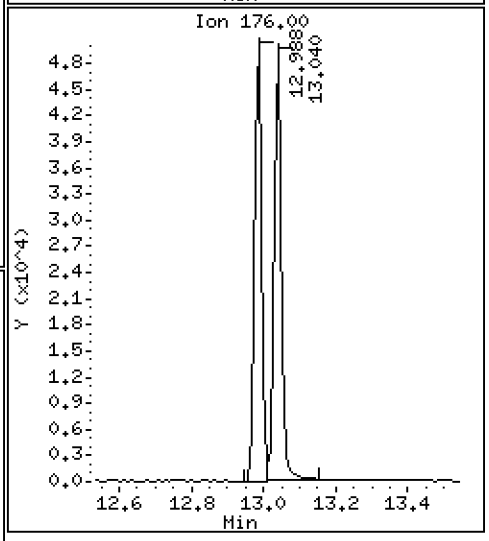
21 Anthracene

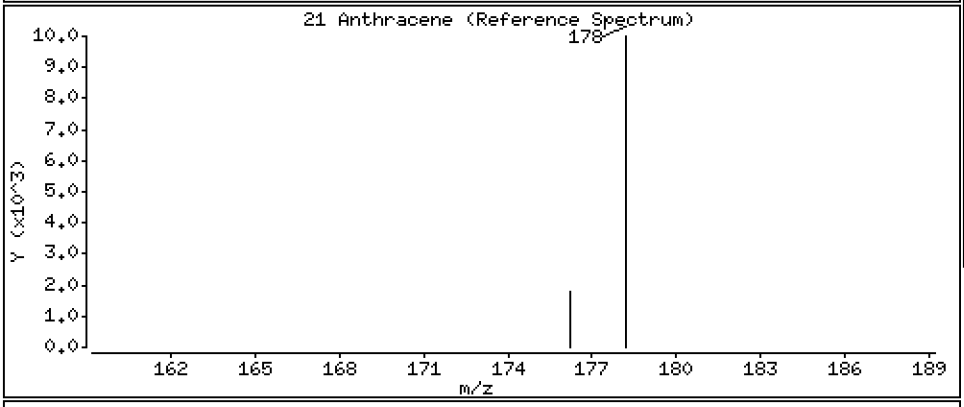
Concentration: 284 ng/mL

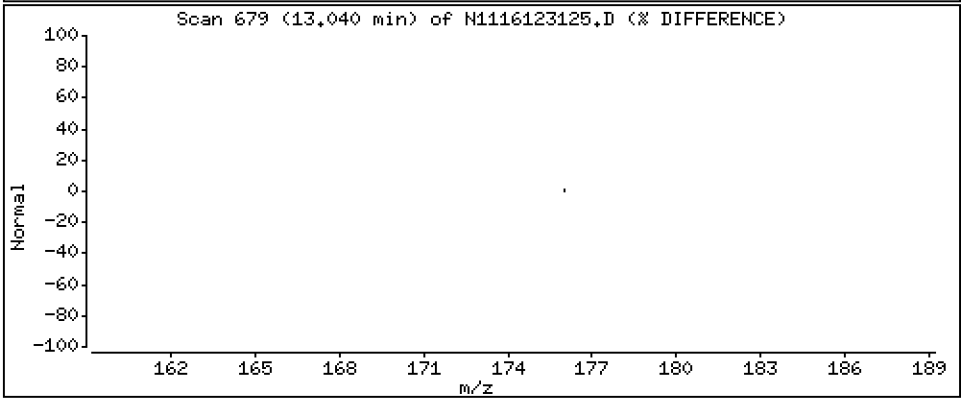












Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123125.D

Date : 31-DEC-2016 20:26

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-CCV1

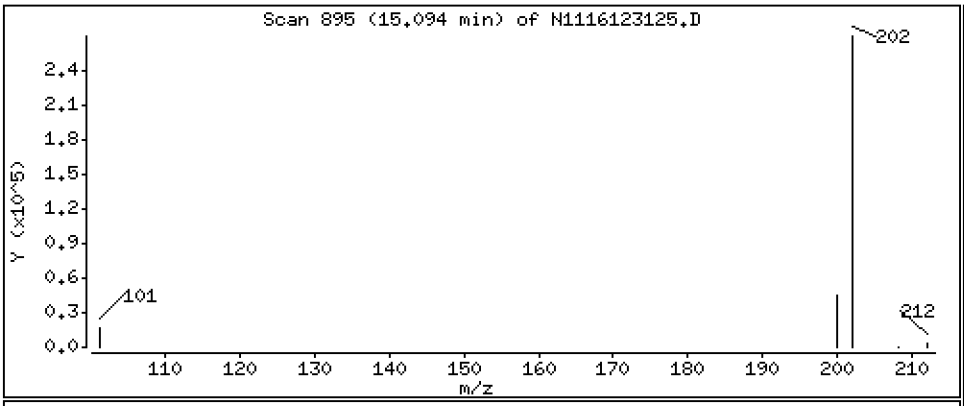
Operator: VTS

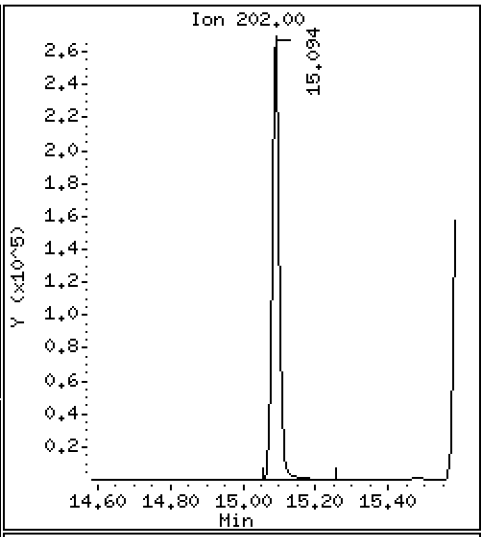
Column phase: Rxi-17Sil MS

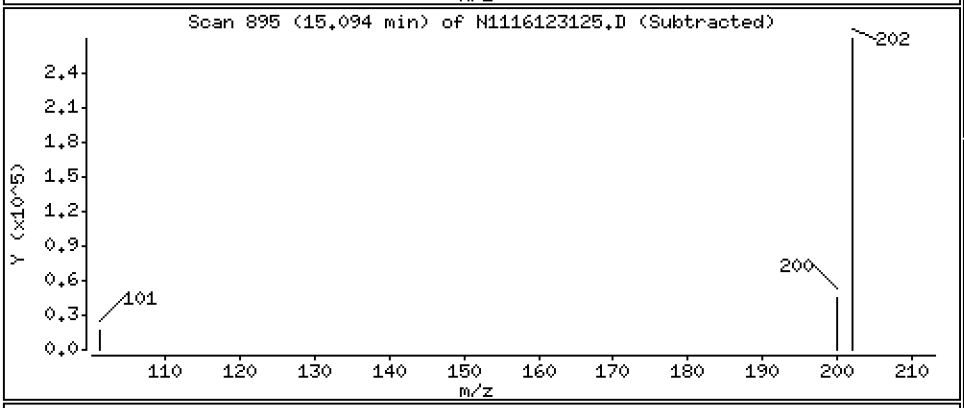
Column diameter: 0.25

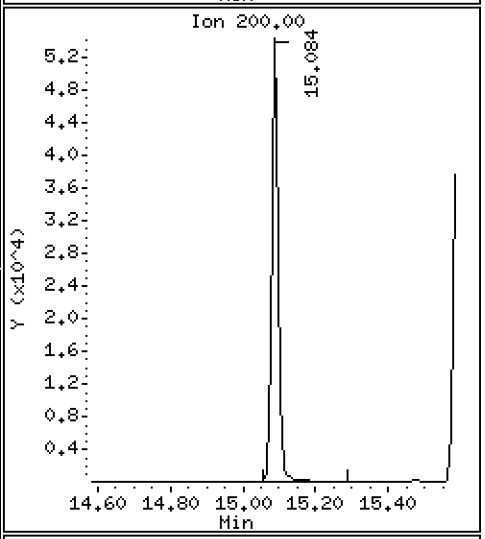
25 Fluoranthene

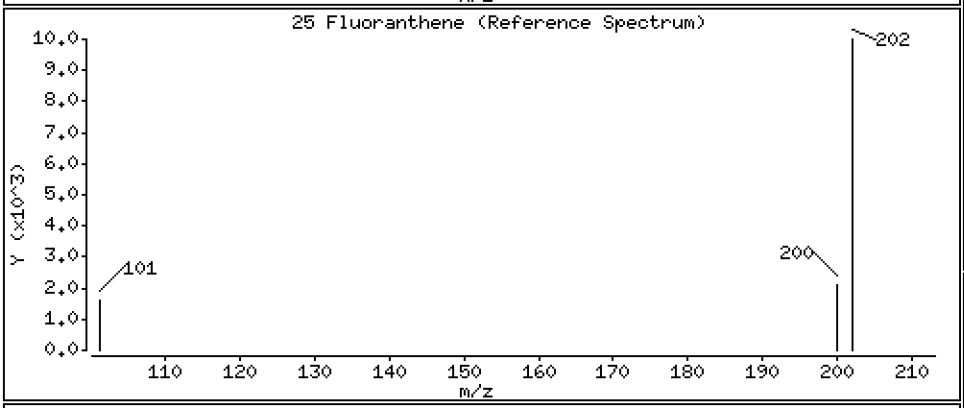
Concentration: 275 ng/mL

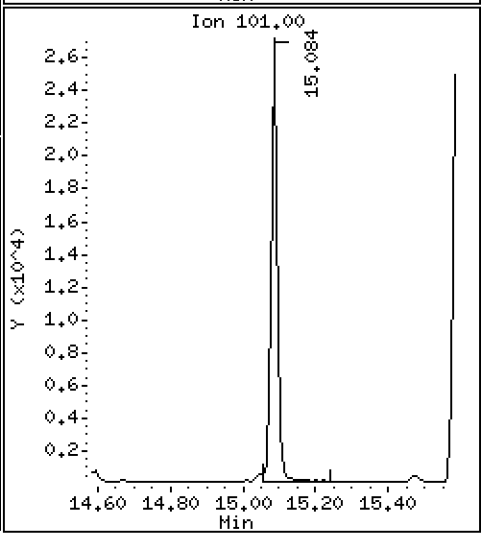


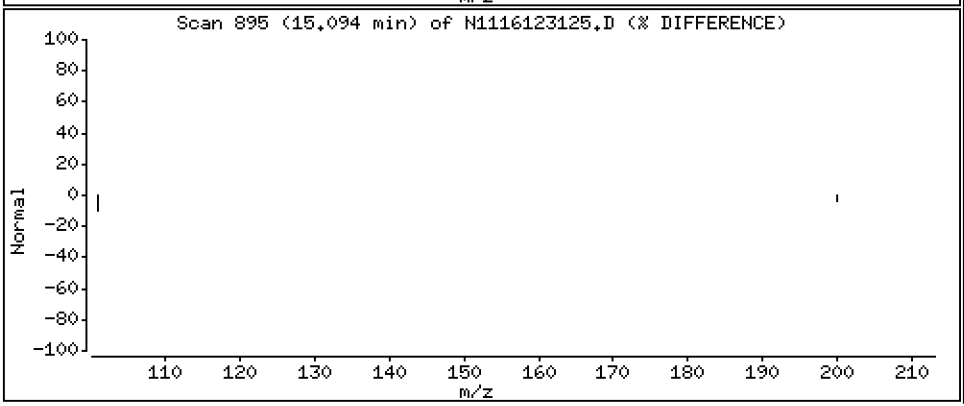












Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123125.D

Date : 31-DEC-2016 20:26

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-CCV1

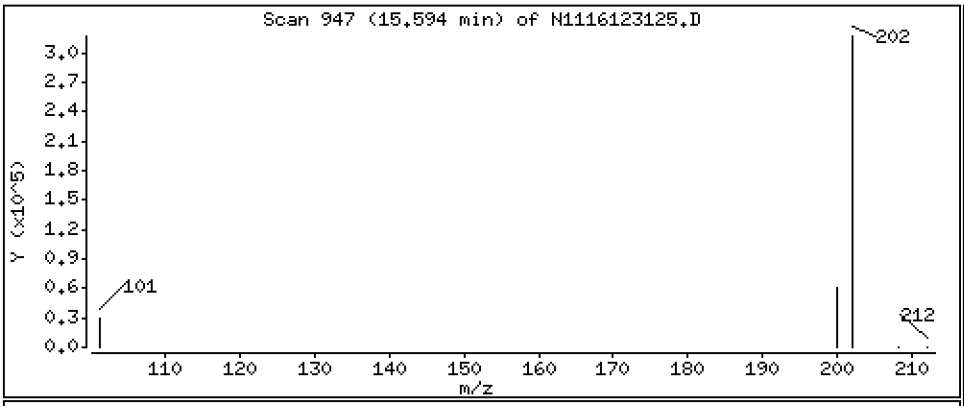
Operator: VTS

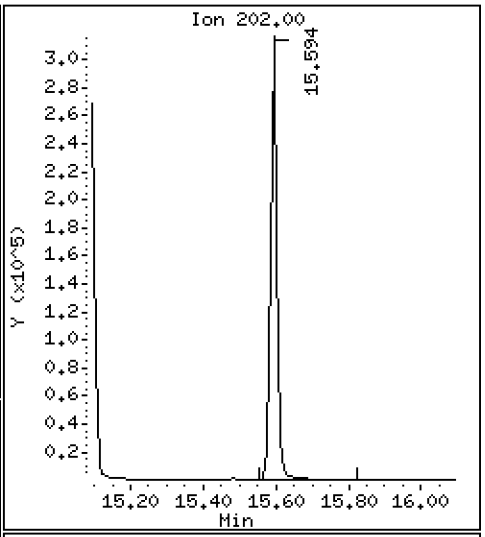
Column phase: Rxi-17Sil MS

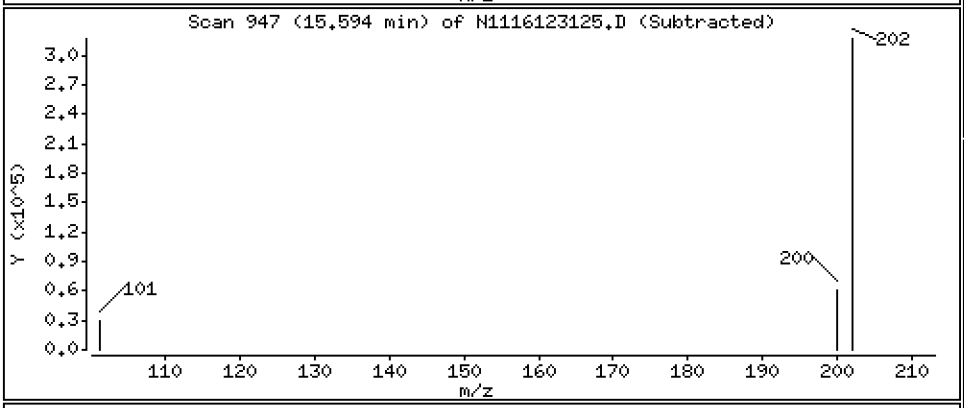
Column diameter: 0.25

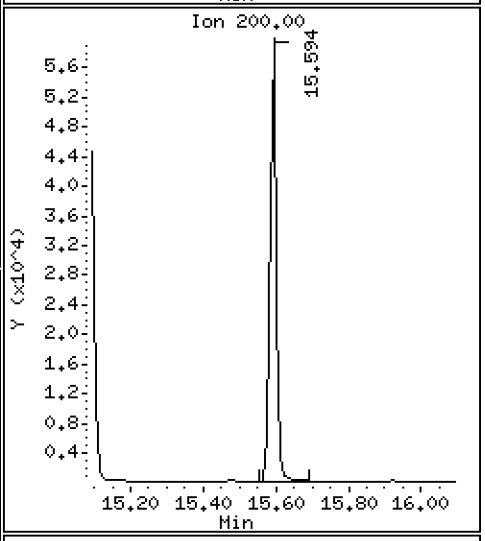
26 Pyrene

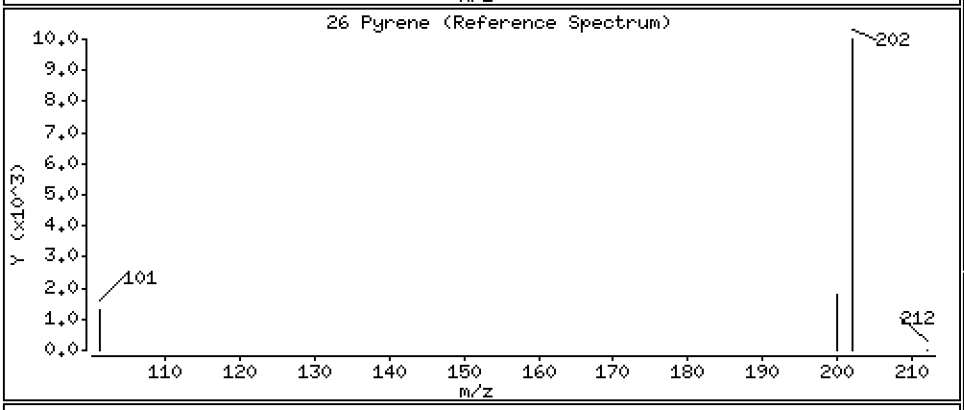
Concentration: 256 ng/mL

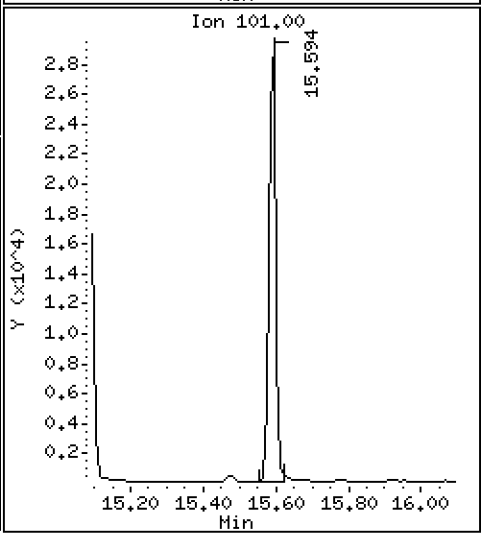


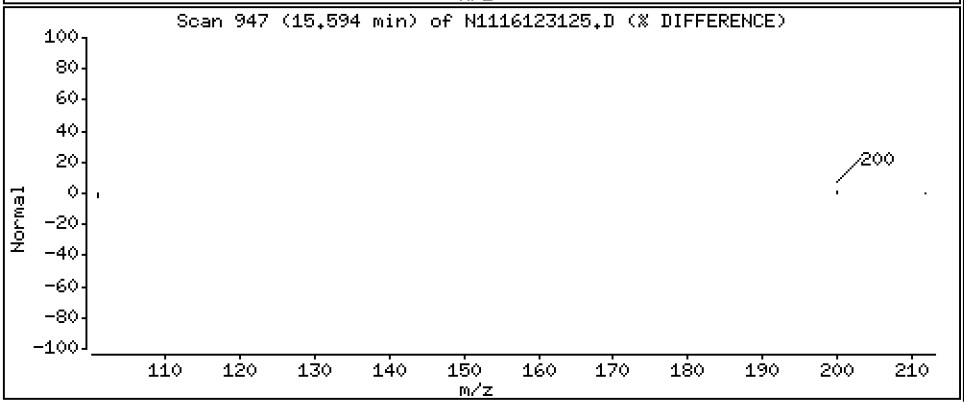












Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123125.D

Date : 31-DEC-2016 20:26

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-CCV1

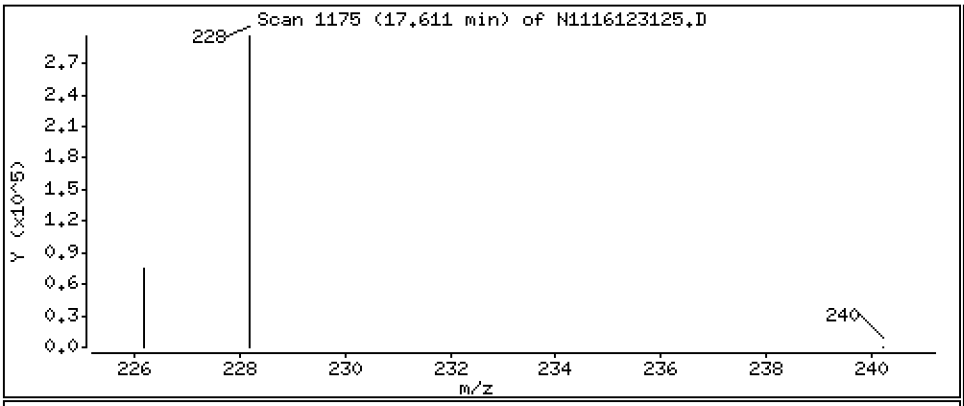
Operator: VTS

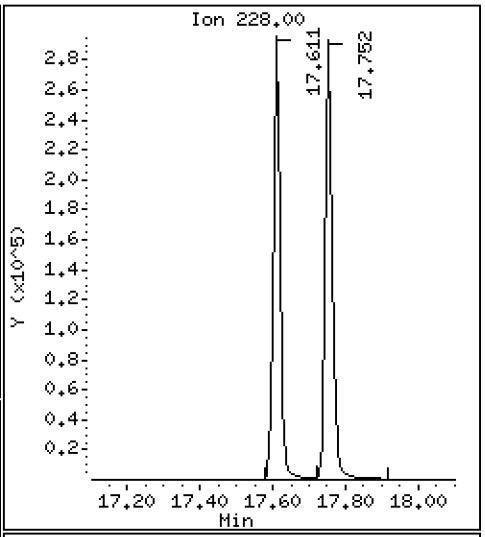
Column phase: Rxi-17Sil MS

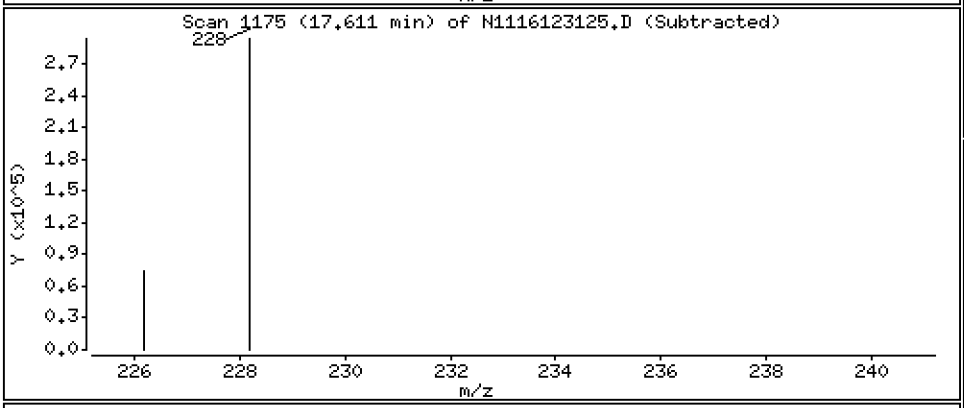
Column diameter: 0.25

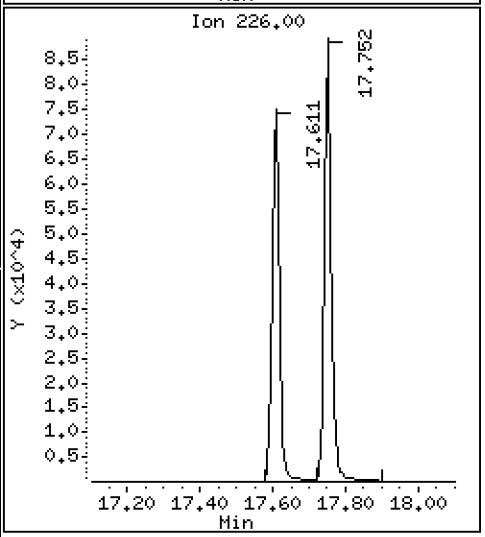
27 Benzo(a)anthracene

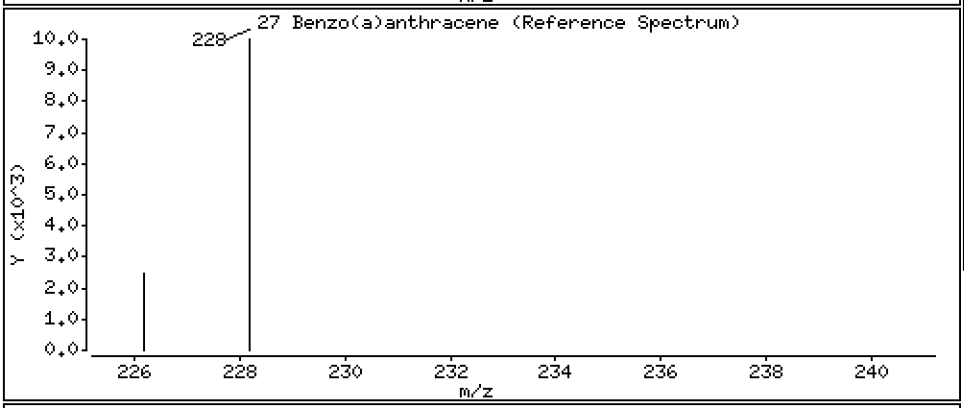
Concentration: 268 ng/mL

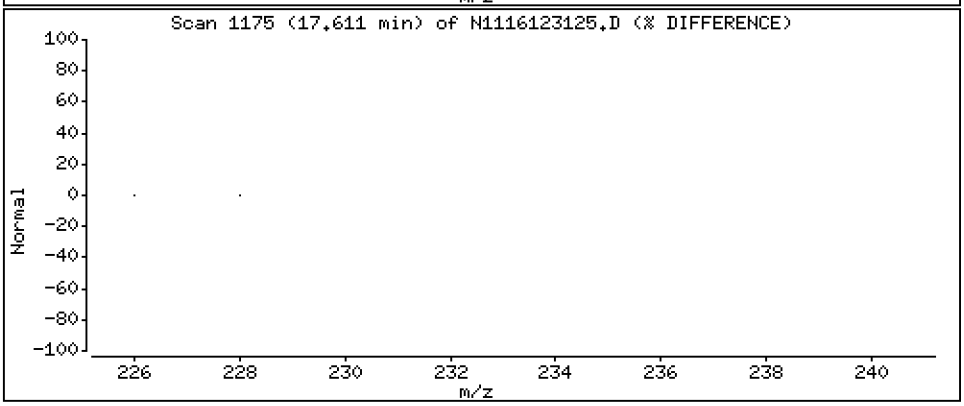












Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123125.D

Date : 31-DEC-2016 20:26

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-CCV1

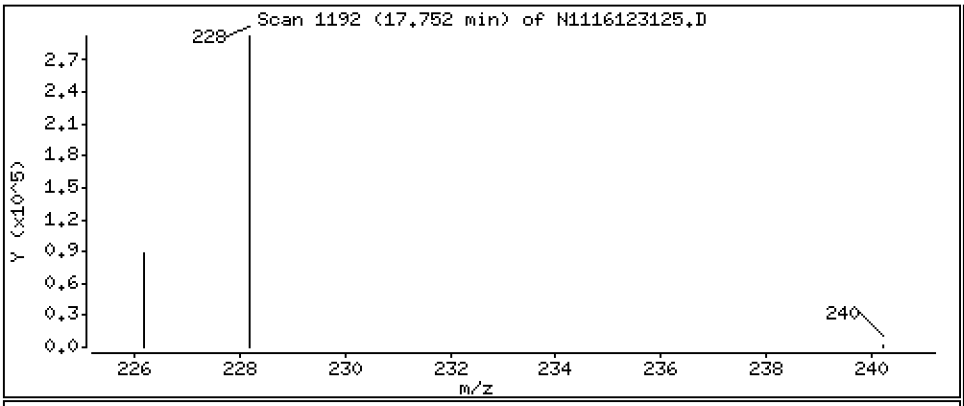
Operator: VTS

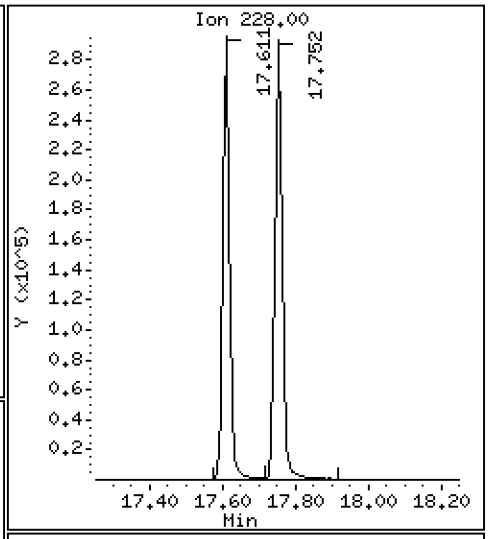
Column phase: Rxi-17Sil MS

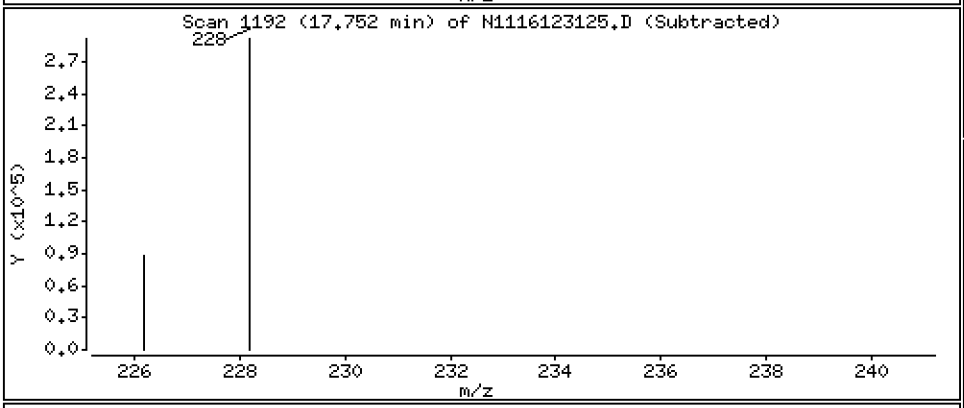
Column diameter: 0.25

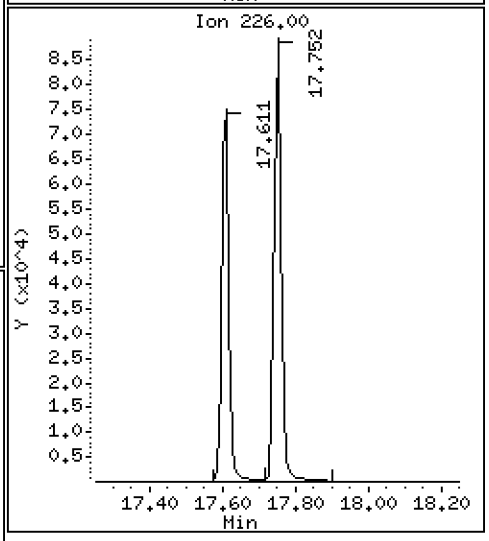
29 Chrysene

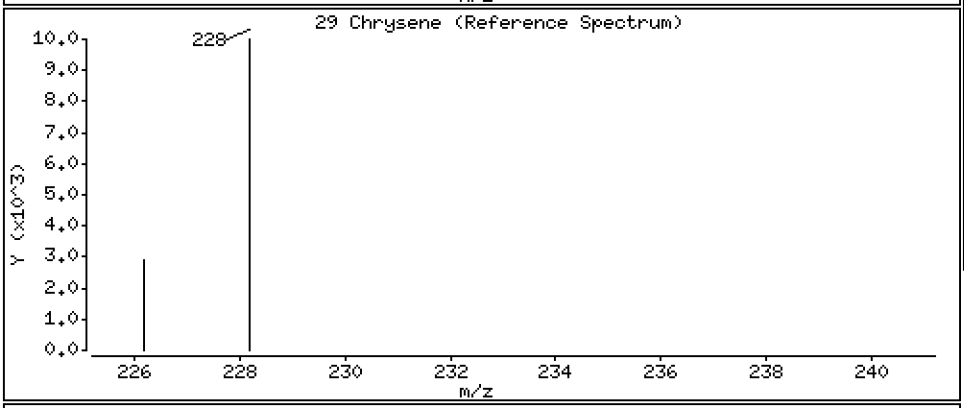
Concentration: 267 ng/mL

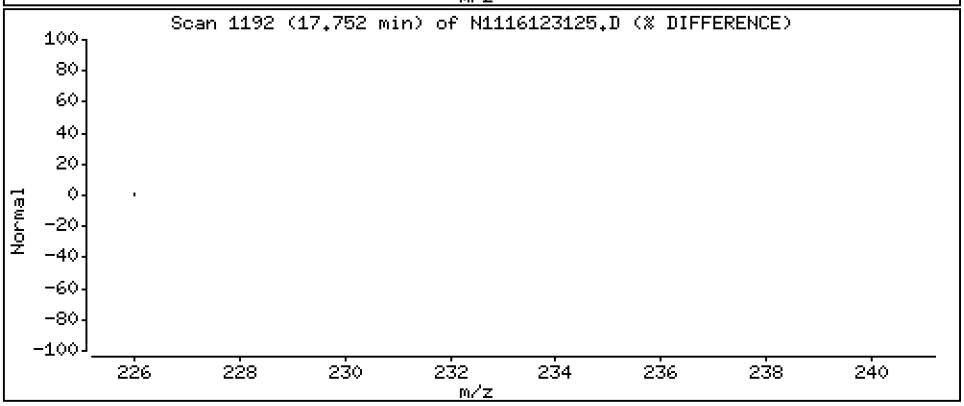












Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123125.D

Date : 31-DEC-2016 20:26

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-CCV1

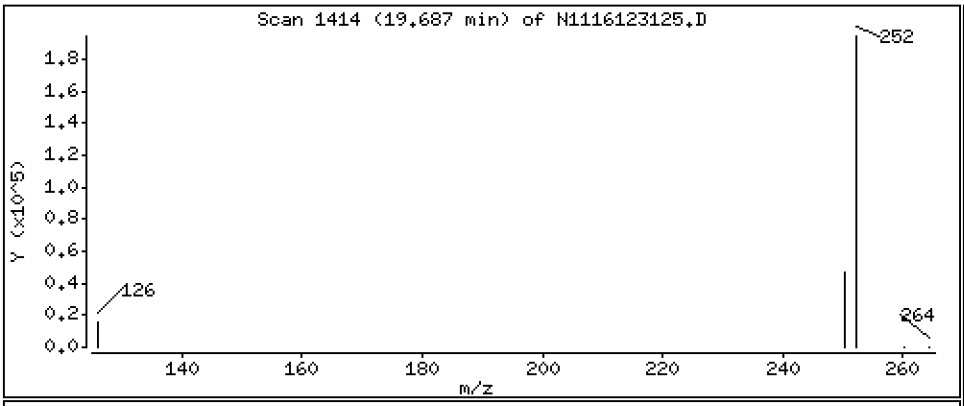
Operator: VTS

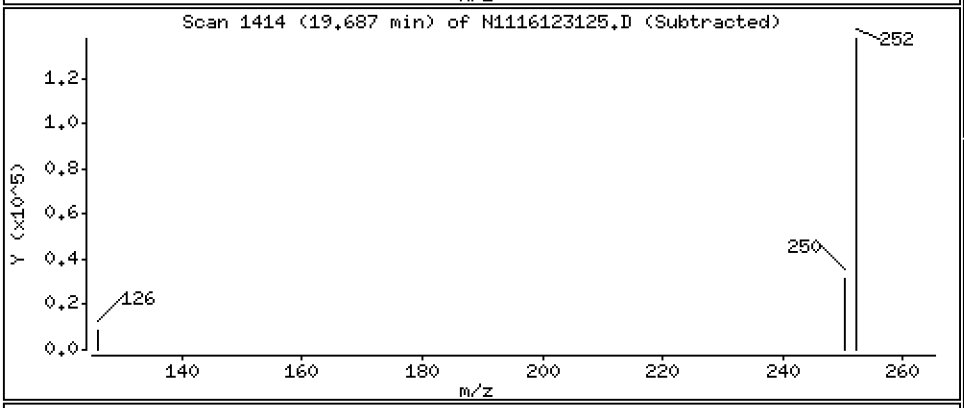
Column phase: Rxi-17Sil MS

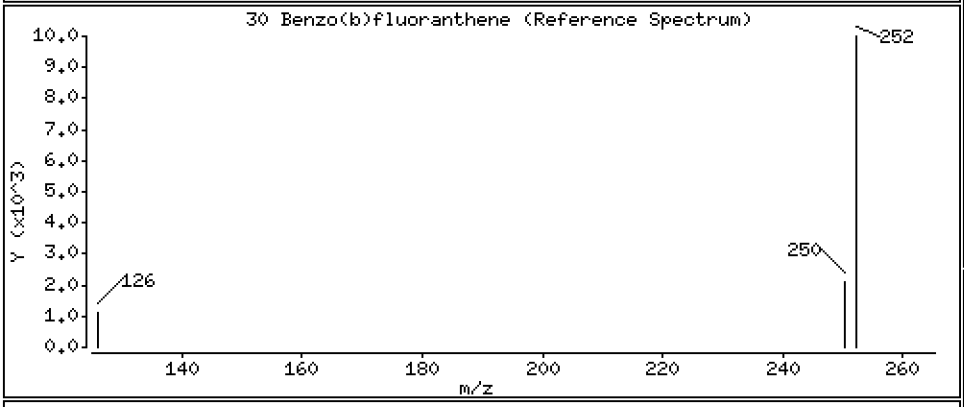
Column diameter: 0.25

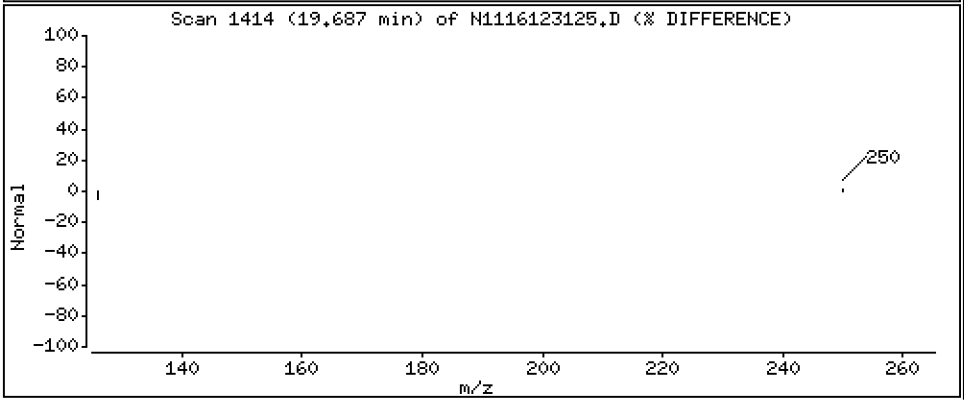
30 Benzo(b)fluoranthene

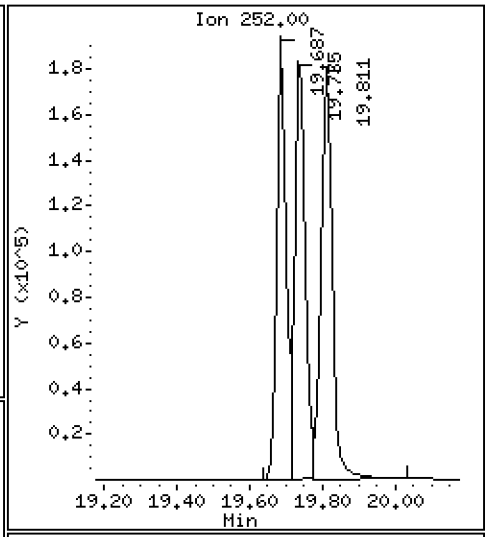
Concentration: 276 ng/mL

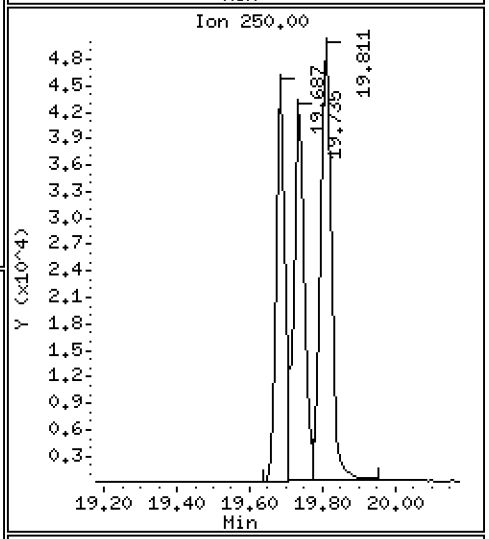


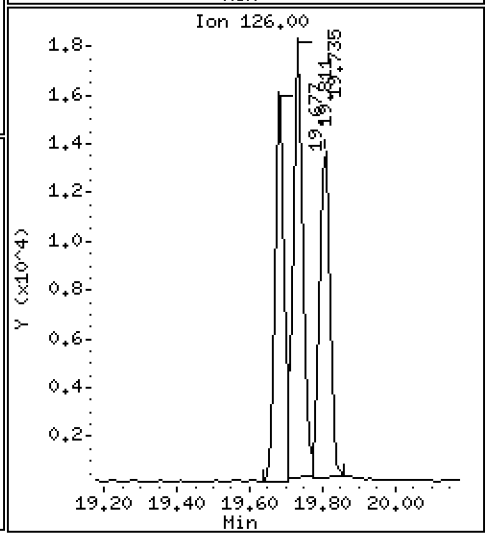












Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123125.D

Date : 31-DEC-2016 20:26

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-CCV1

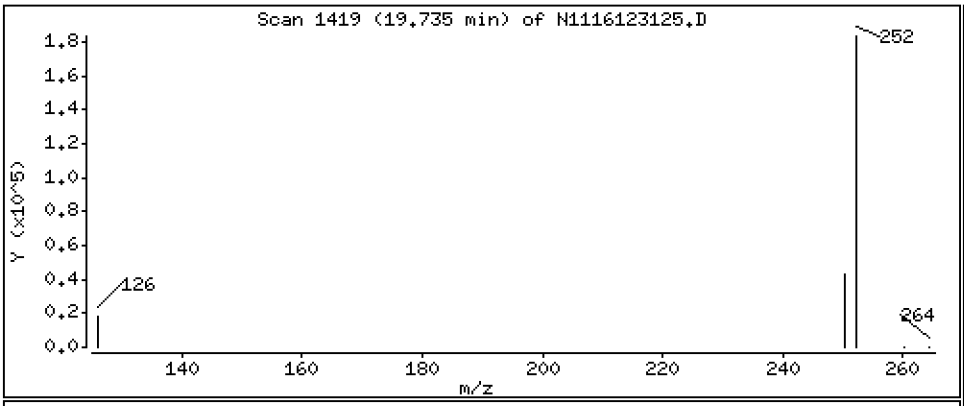
Operator: VTS

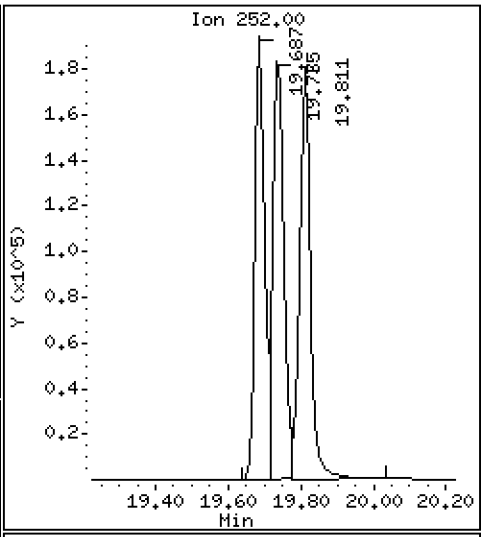
Column phase: Rxi-17Sil MS

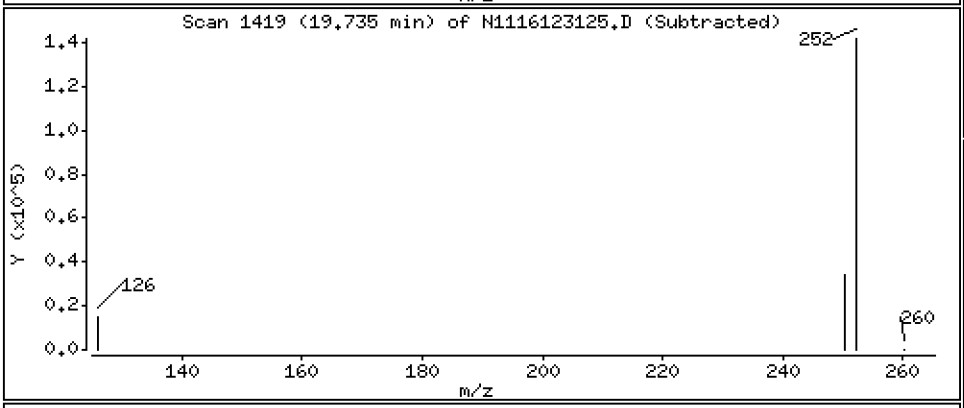
Column diameter: 0.25

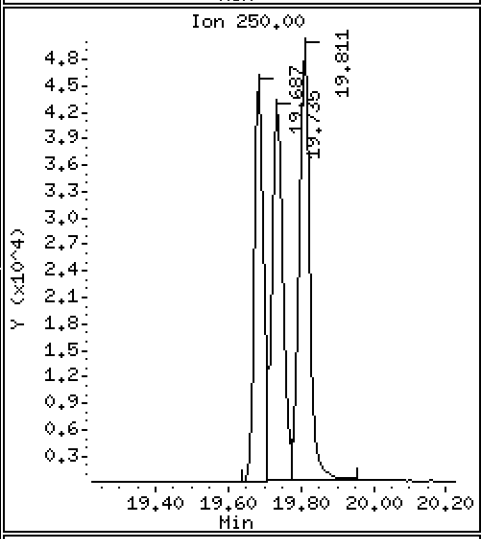
31 Benzo(k)fluoranthene

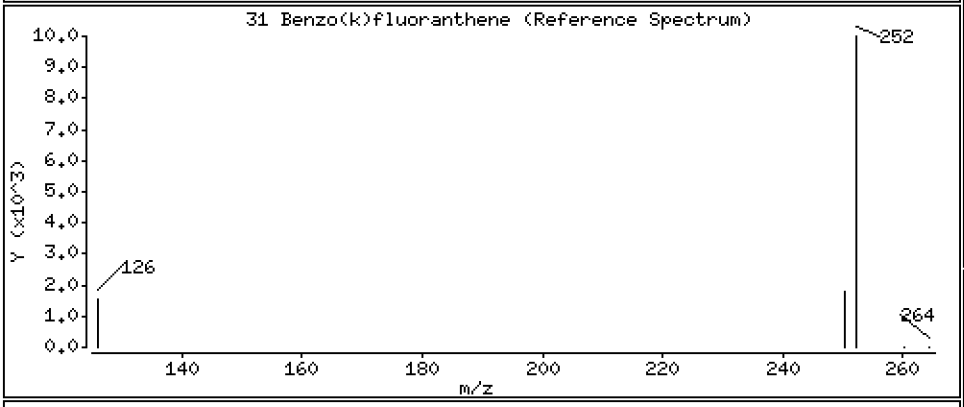
Concentration: 262 ng/mL

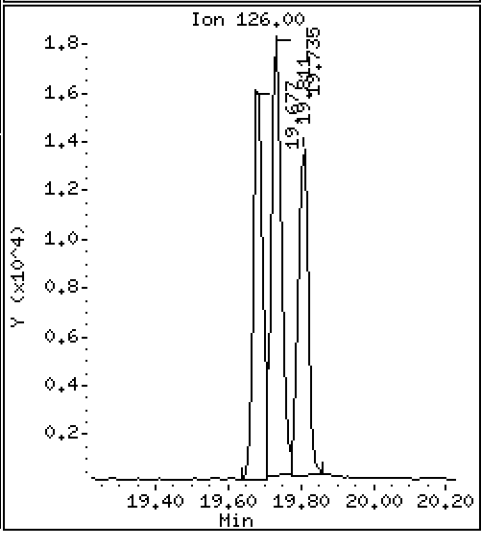


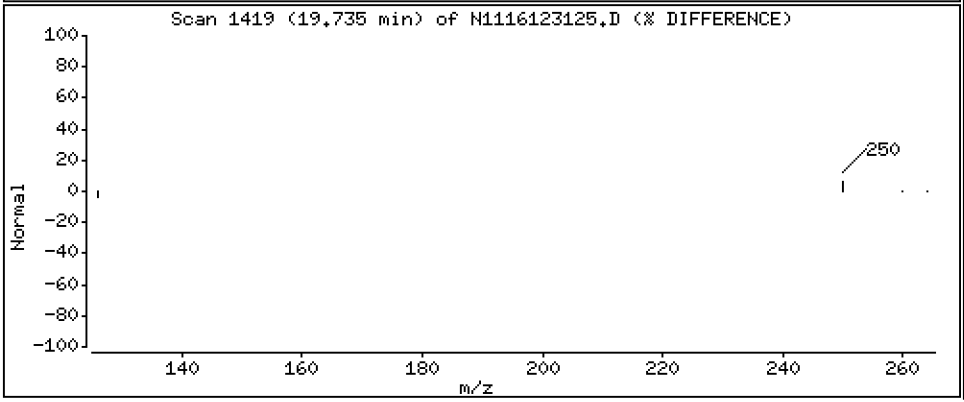












Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123125.D

Date : 31-DEC-2016 20:26

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-CCV1

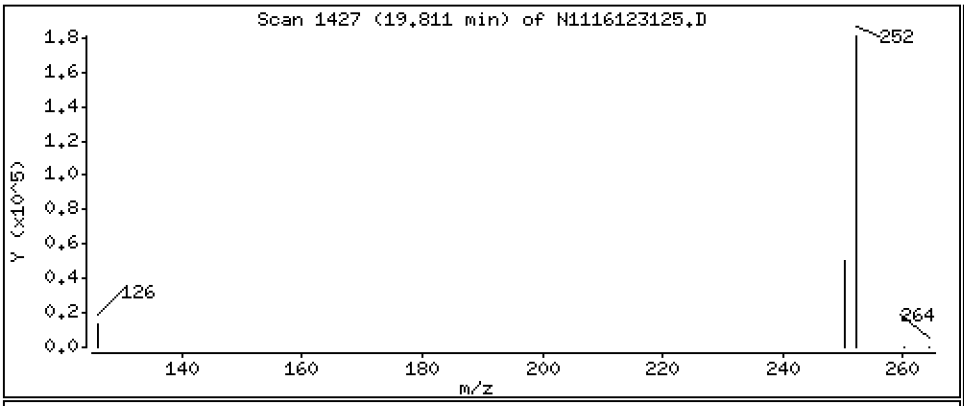
Operator: VTS

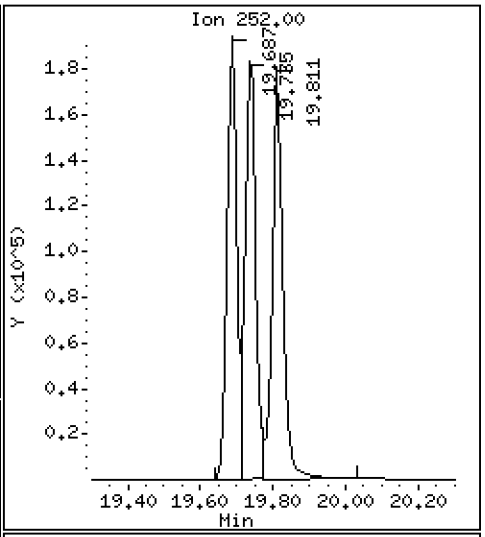
Column phase: Rxi-17Sil MS

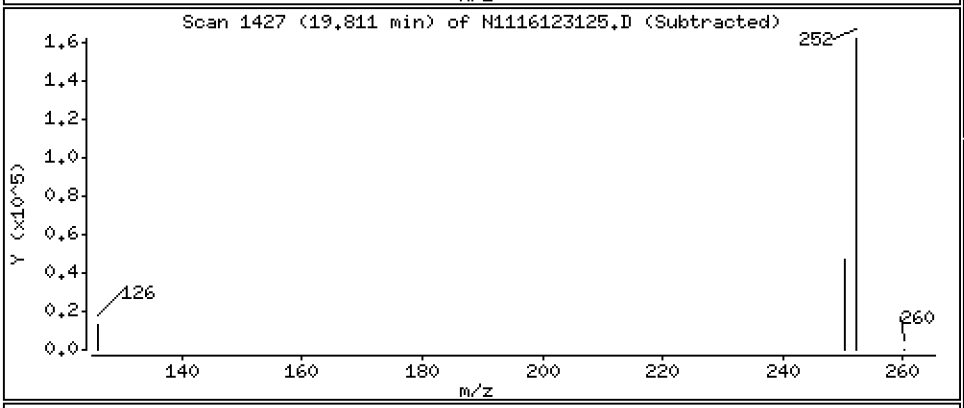
Column diameter: 0.25

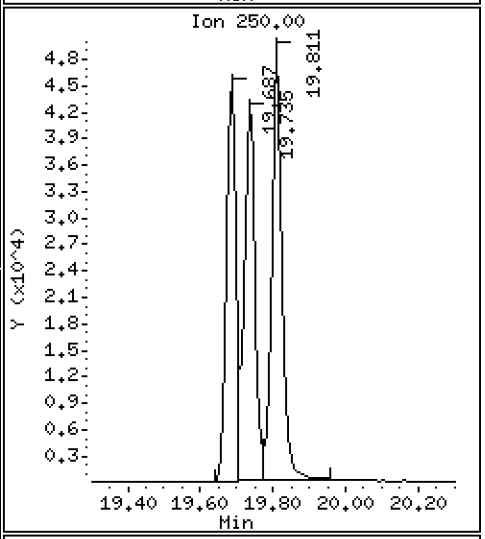
32 Benzo(j)fluoranthene

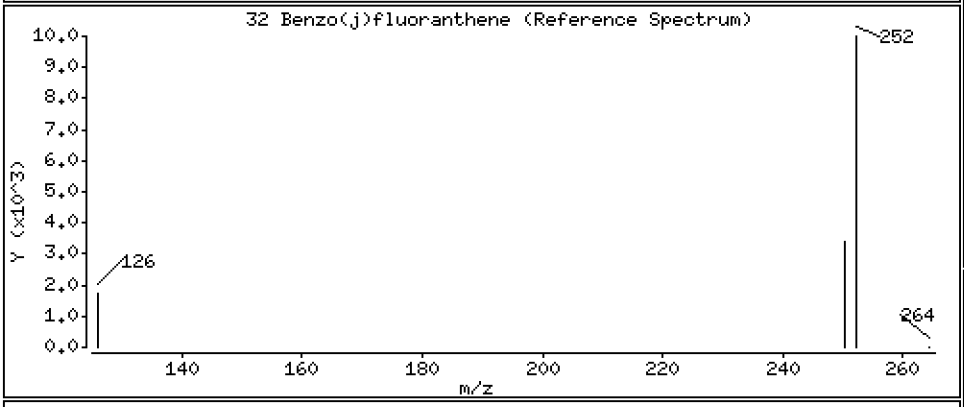
Concentration: 291 ng/mL

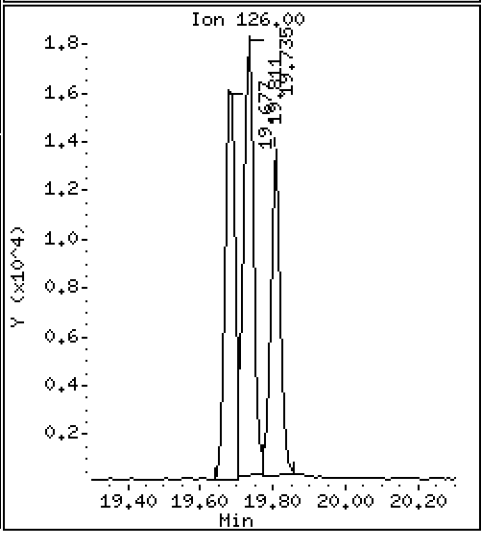


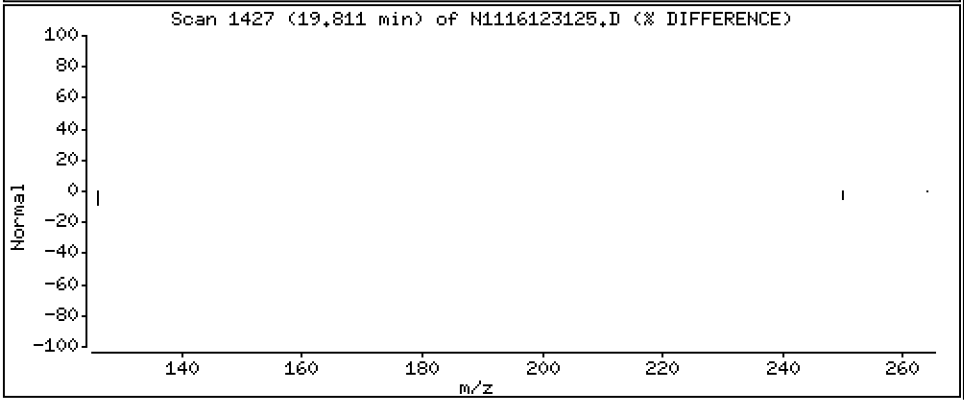












Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123125.D

Date : 31-DEC-2016 20:26

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-CCV1

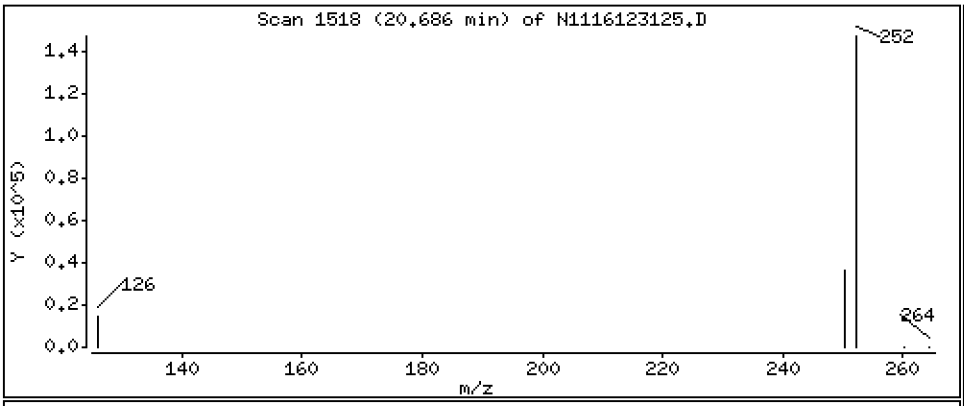
Operator: VTS

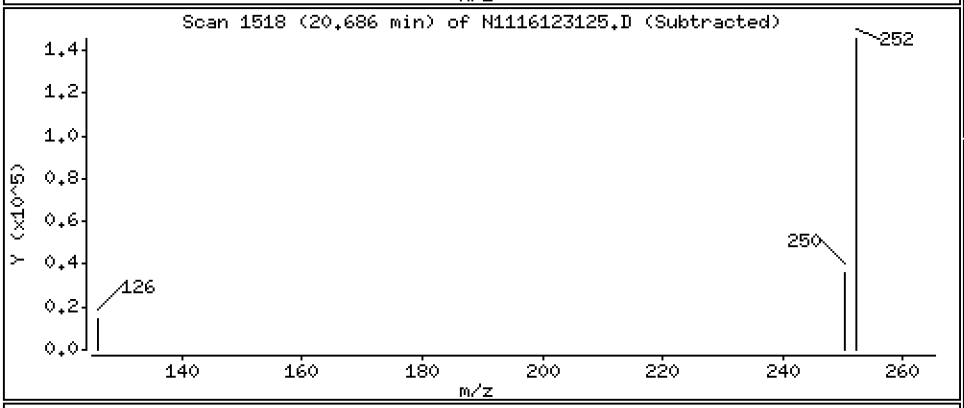
Column phase: Rxi-17Sil MS

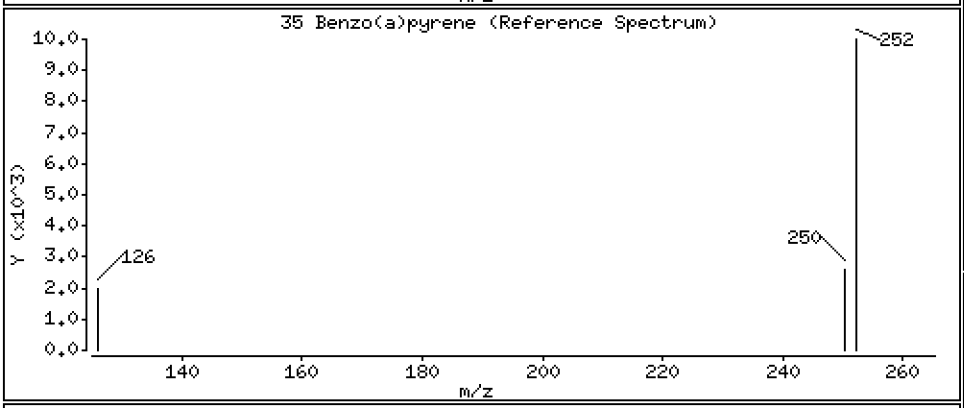
Column diameter: 0.25

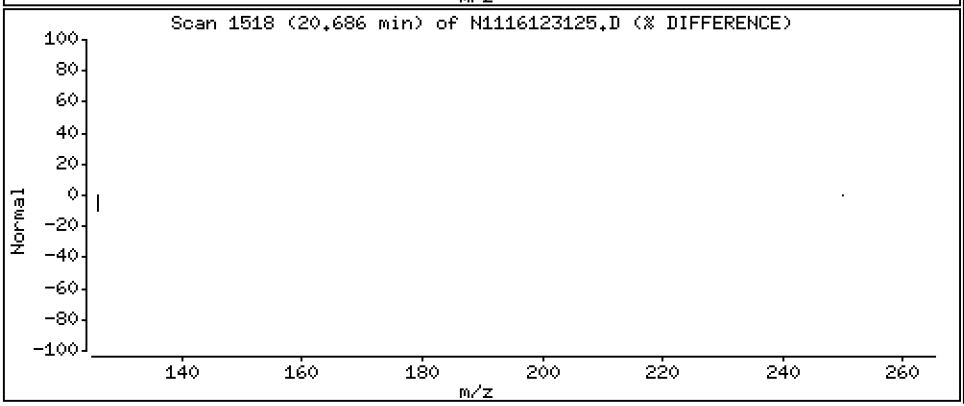
35 Benzo(a)pyrene

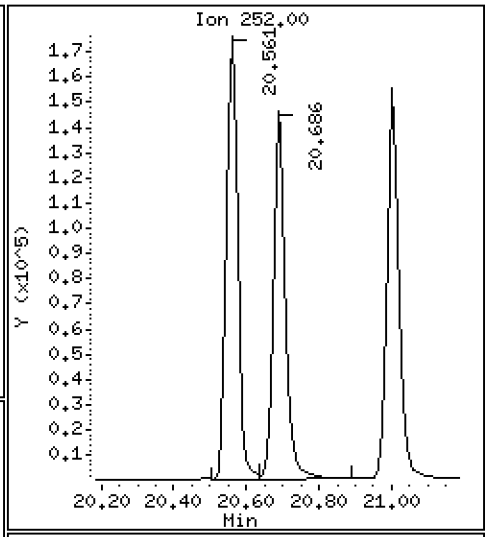
Concentration: 270 ng/mL

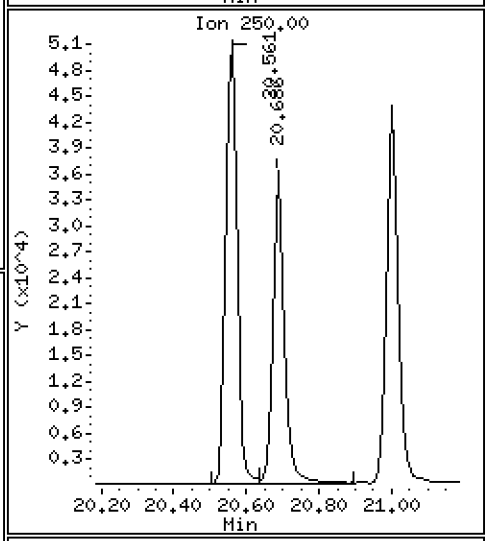


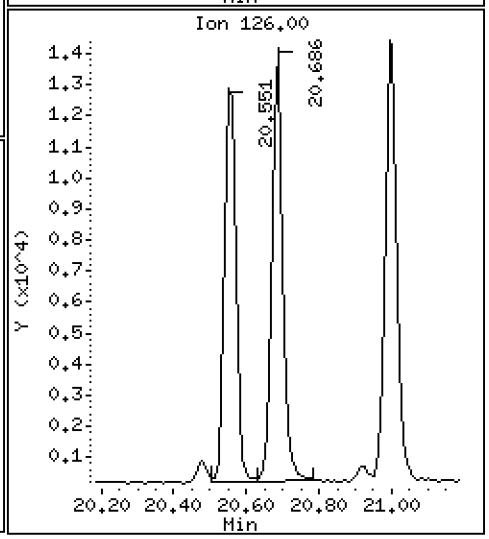












Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123125.D

Date : 31-DEC-2016 20:26

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-CCV1

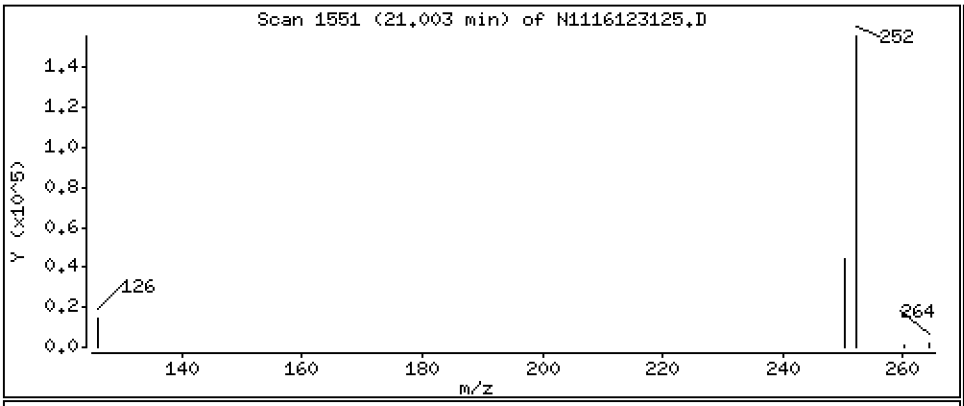
Operator: VTS

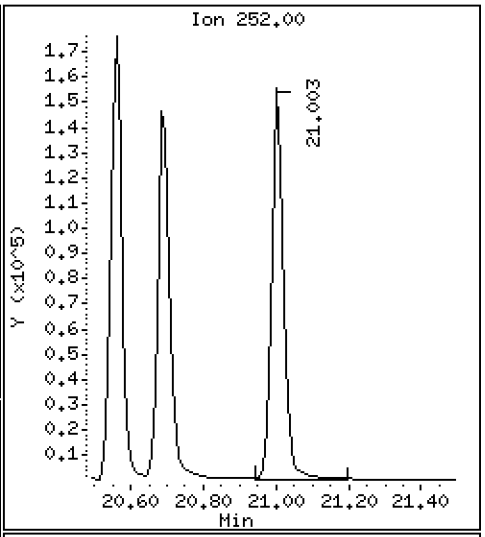
Column phase: Rxi-17Sil MS

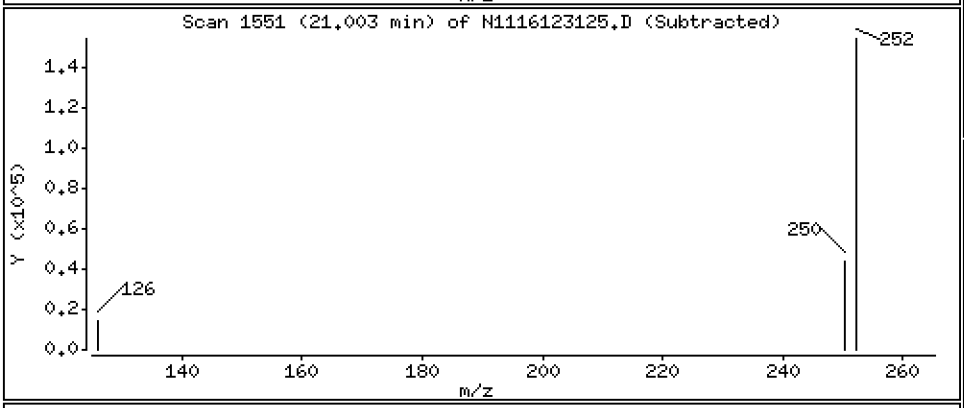
Column diameter: 0.25

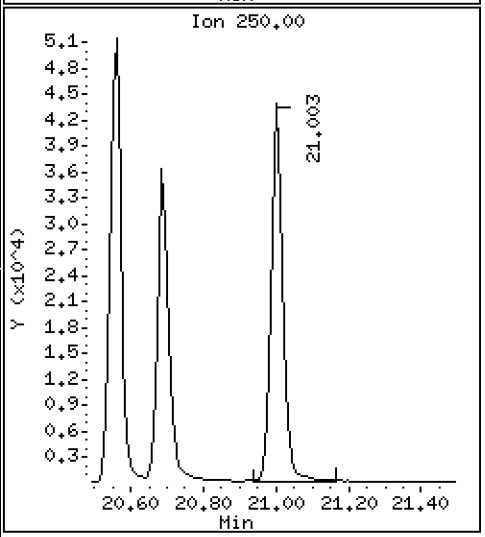
37 Perylene

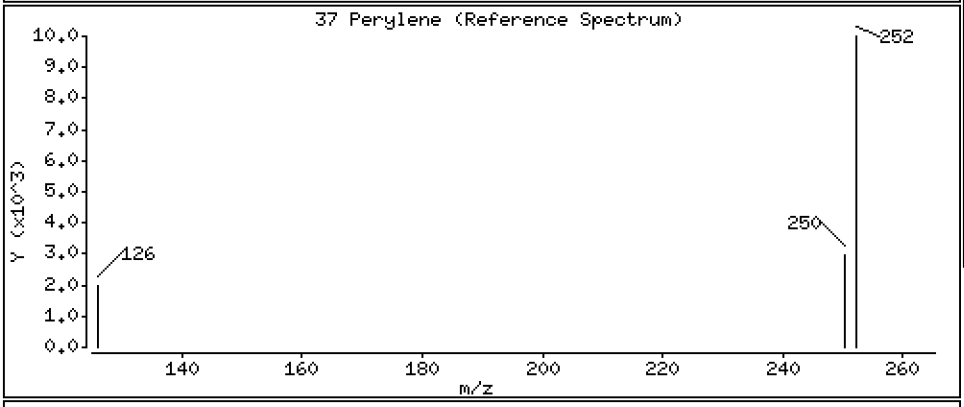
Concentration: 271 ng/mL

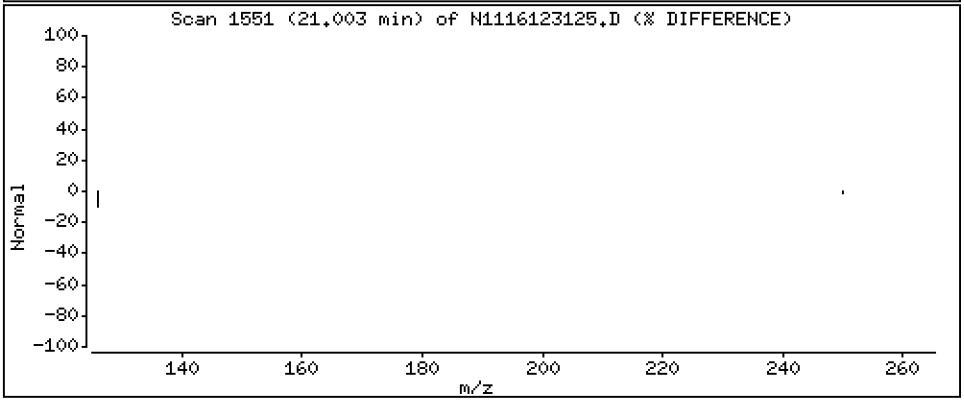












Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123125.D

Date : 31-DEC-2016 20:26

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-CCV1

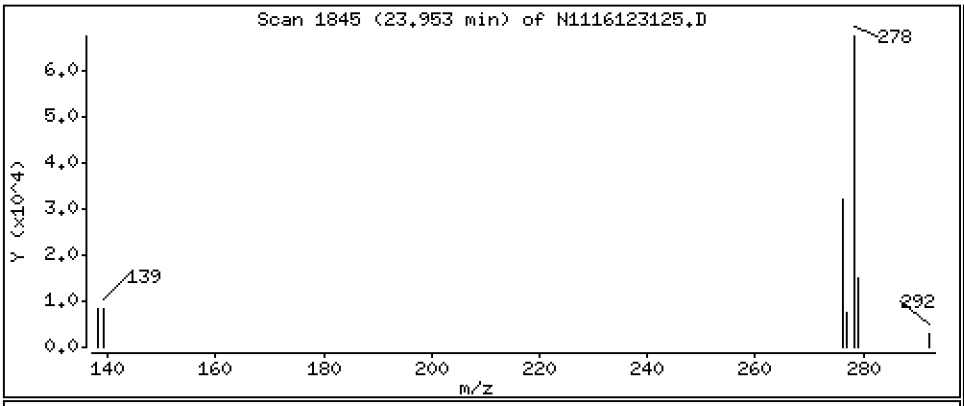
Operator: VTS

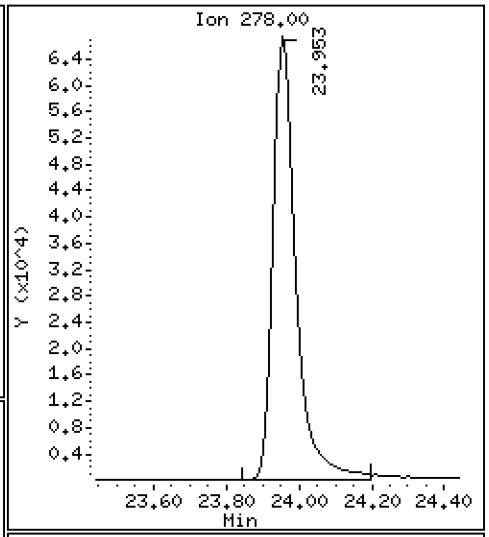
Column phase: Rxi-17Sil MS

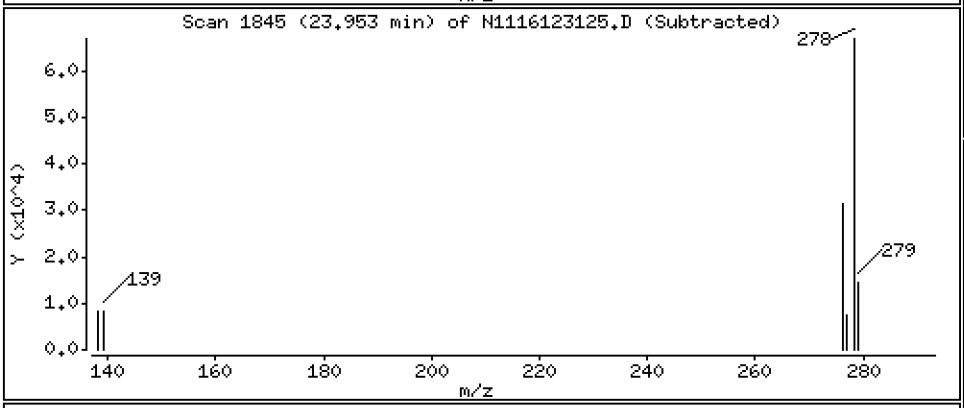
Column diameter: 0.25

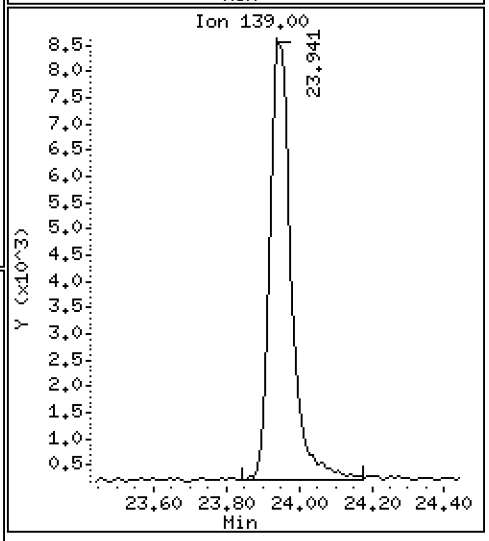
39 Dibenzo(a,h)anthracene

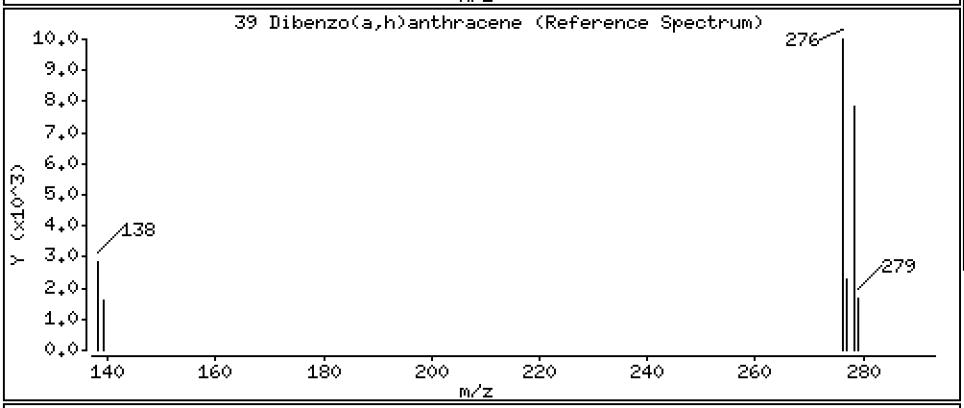
Concentration: 261 ng/mL

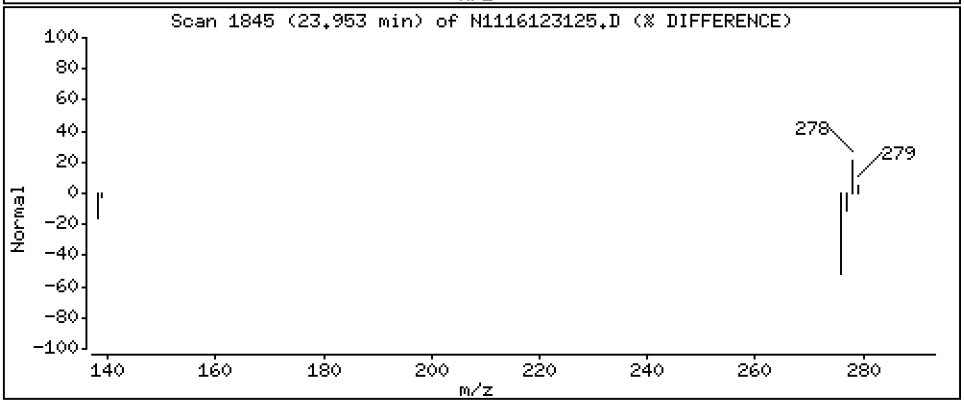












Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123125.D

Date : 31-DEC-2016 20:26

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-CCV1

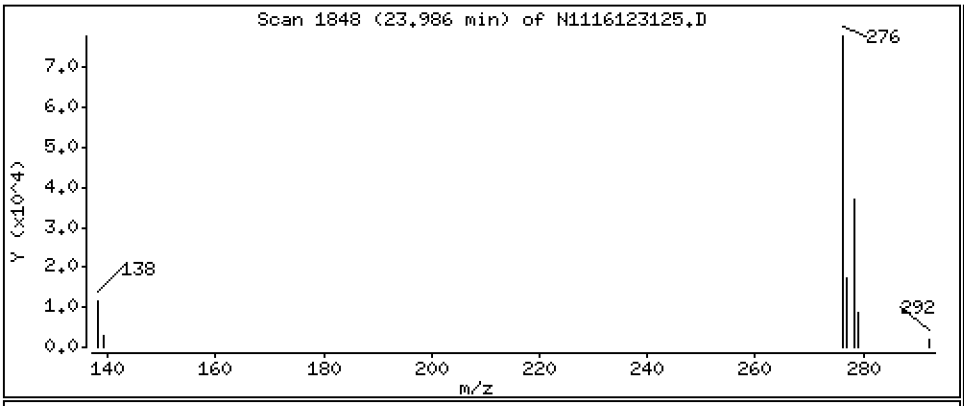
Operator: VTS

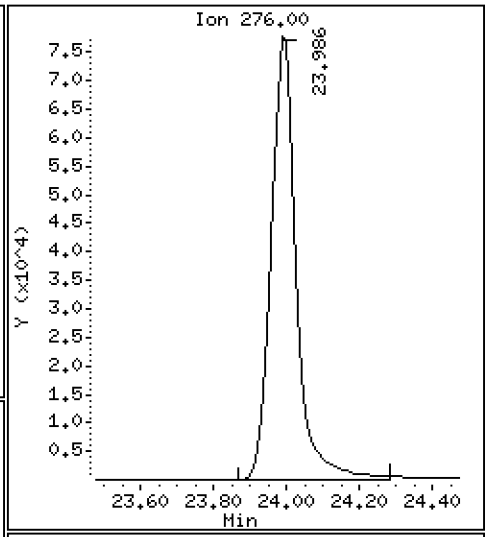
Column phase: Rxi-17Sil MS

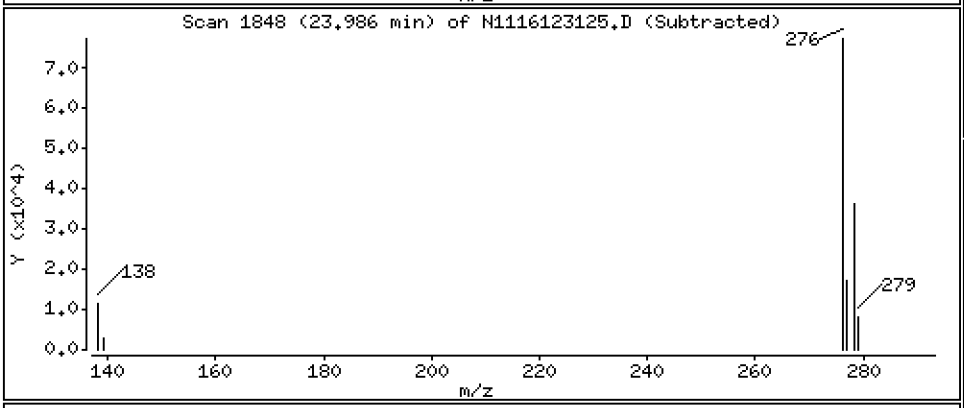
Column diameter: 0.25

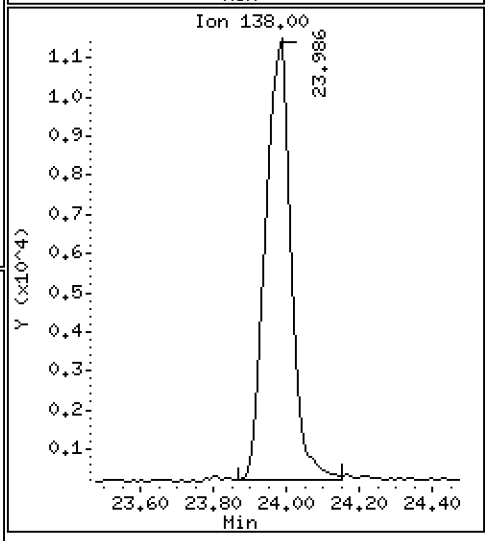
40 Indeno(1,2,3-cd)pyrene

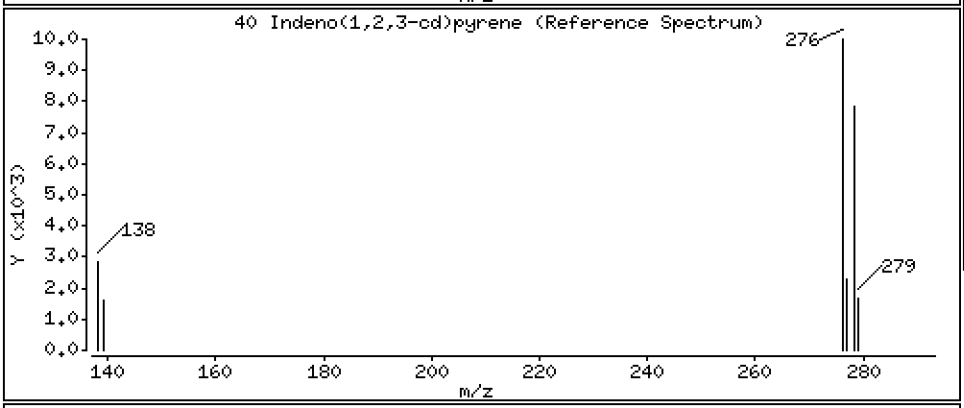
Concentration: 267 ng/mL

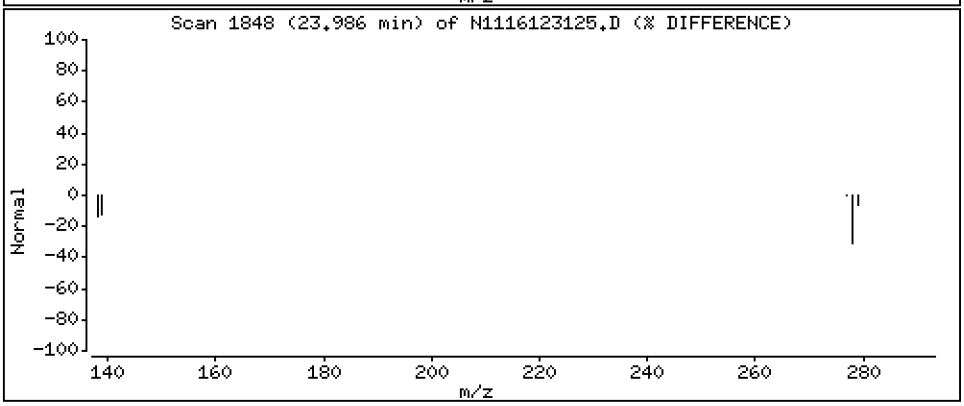












Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123125.D

Date : 31-DEC-2016 20:26

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-CCV1

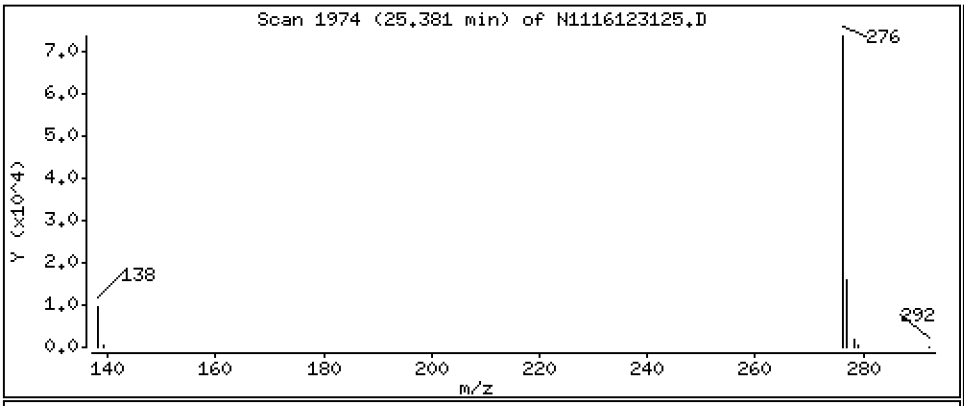
Operator: VTS

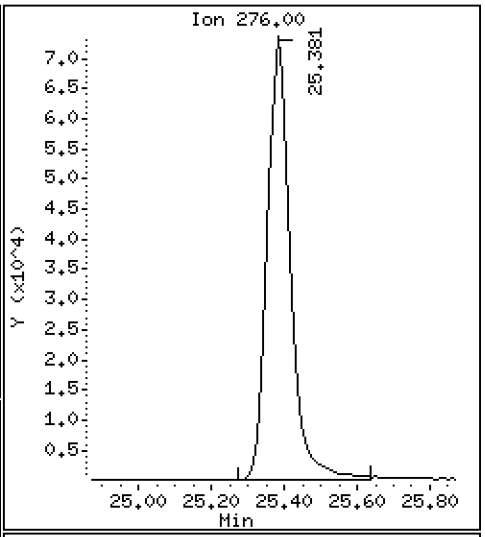
Column phase: Rxi-17Sil MS

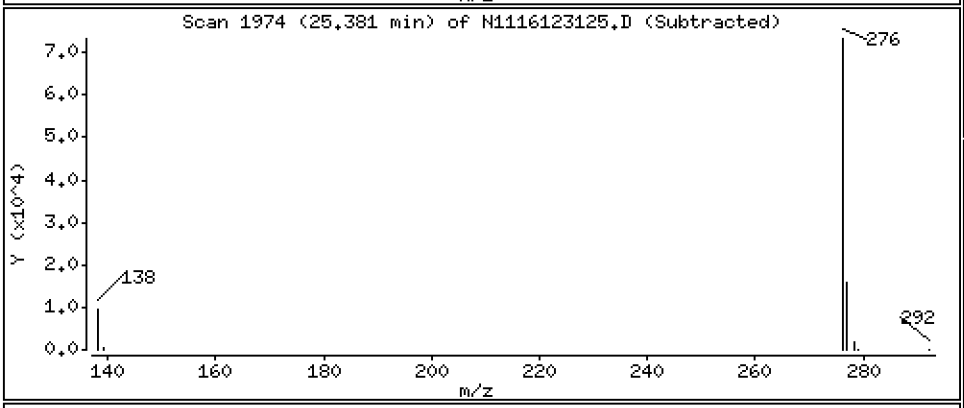
Column diameter: 0.25

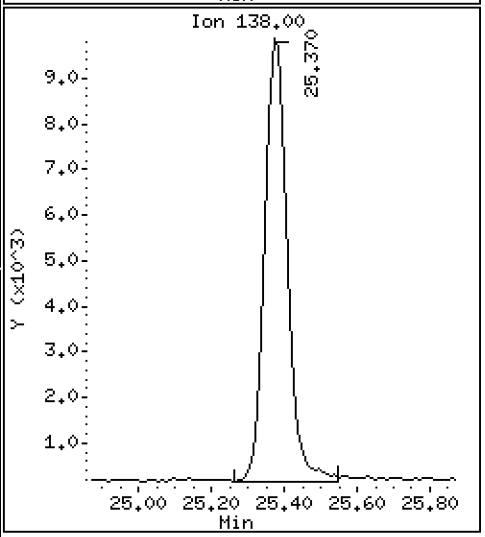
41 Benzo(g,h,i)perylene

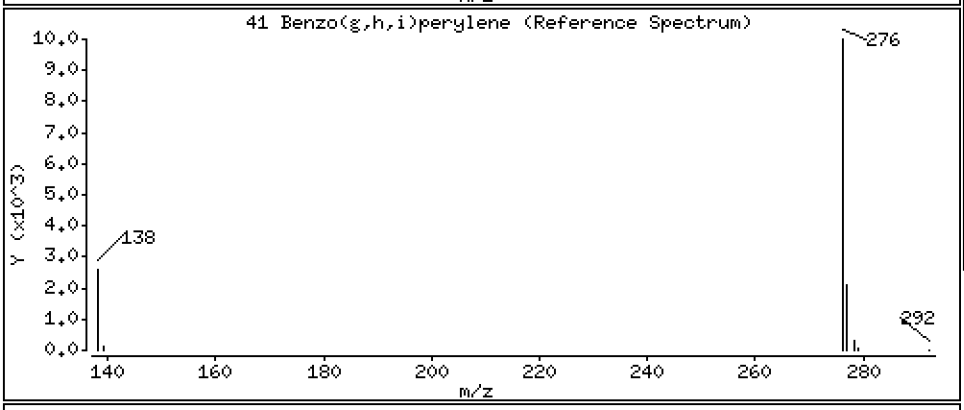
Concentration: 259 ng/mL

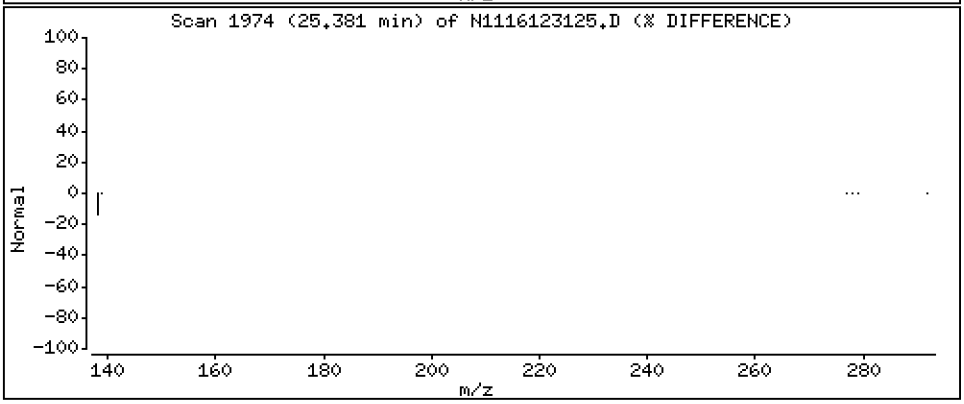












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20161231.b\N1116123125.D
Lab Smp Id: SEL0401-CCV1
Inj Date : 31-DEC-2016 20:26 MS Autotune Date: 15-JAN-2015 15:59
Operator : VTS Inst ID: nt11.i
Smp Info : SEL0401-CCV1
Misc Info :
Comment   :
Method   : \\target\share\chem3\nt11.i\20161231.b\lowsim.m
Meth Date : 04-Jan-2017 08:10 van Quant Type: ISTD
Cal Date : 31-DEC-2016 09:30 Cal File: N1116123104.D
Als bottle: 25
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: newpna.sub
Target Version: 4.14
Processing Host: VANS

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1	Naphthalene-d8	136	7.225	7.225	(1.000)	189529	200.000	
	2	Naphthalene	128	7.252	7.253	(1.004)	251102	265.479	265
$	4	2-Methylnaphthalene-d10	152	8.201	8.201	(1.135)	226703	278.514	279
	5	2-Methylnaphthalene	142	8.253	8.253	(1.142)	256440	275.089	275
	6	1-Methylnaphthalene	142	8.516	8.516	(1.179)	258878	276.111	276
	10	Acenaphthylene	152	10.098	10.098	(0.985)	286537	272.986	273
*	11	Acenaphthene-d10	164	10.251	10.252	(1.000)	116816	200.000	
	12	Acenaphthene	153	10.315	10.315	(1.006)	187852	271.821	272
	13	Dibenzofuran	168	10.519	10.519	(1.026)	283931	276.376	276
	16	Fluorene	166	11.151	11.151	(1.088)	224682	274.722	275
*	18	Phenanthrene-d10	188	12.945	12.945	(1.000)	224943	200.000	
	19	Phenanthrene	178	12.987	12.987	(1.003)	344096	267.560	268
	21	Anthracene	178	13.040	13.040	(1.007)	364234	284.042	284
$	24	Fluoranthene-d10	212	15.055	15.055	(1.163)	330972	277.026	277
	25	Fluoranthene	202	15.094	15.084	(1.166)	401624	275.311	275
	26	Pyrene	202	15.593	15.593	(0.881)	406449	255.528	256
	27	Benzo(a)anthracene	228	17.610	17.602	(0.995)	394478	267.918	268
*	28	Chrysene-d12	240	17.702	17.702	(1.000)	244863	200.000	
	29	Chrysene	228	17.751	17.751	(1.003)	403910	267.341	267
	30	Benzo(b)fluoranthene	252	19.686	19.677	(0.941)	374835	275.795	276
	31	Benzo(k)fluoranthene	252	19.734	19.725	(0.943)	383871	262.229	262
	32	Benzo(j)fluoranthene	252	19.811	19.801	(0.947)	379970	291.192	291
	35	Benzo(a)pyrene	252	20.685	20.685	(0.989)	342193	270.075	270
*	36	Perylene-d12	264	20.926	20.916	(1.000)	252132	200.000	
	37	Perylene	252	21.002	20.993	(1.004)	358467	270.972	271
$	38	Dibenzo(a,h)anthracene-d14	292	23.819	23.798	(1.138)	216128	268.422	268
	39	Dibenzo(a,h)anthracene	278	23.952	23.941	(1.145)	288865	260.587	261
	40	Indeno(1,2,3-cd)pyrene	276	23.985	23.974	(1.146)	369137	266.853	267
	41	Benzo(g,h,i)perylene	276	25.381	25.370	(1.213)	321502	258.875	259

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: N1116123125.D
Lab Smp Id: SEL0401-CCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20161231.b\lowsim.m
Misc Info:

Calibration Date: 31-DEC-2016
Calibration Time: 08:28
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	219654	109827	439308	189529	-13.71
11 Acenaphthene-d10	135248	67624	270496	116816	-13.63
18 Phenanthrene-d10	257021	128511	514042	224943	-12.48
28 Chrysene-d12	259511	129756	519022	244863	-5.64
36 Perylene-d12	257535	128768	515070	252132	-2.10

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	7.23	6.73	7.73	7.23	0.00
11 Acenaphthene-d10	10.25	9.75	10.75	10.25	0.00
18 Phenanthrene-d10	12.95	12.45	13.45	12.95	0.00
28 Chrysene-d12	17.70	17.20	18.20	17.70	0.00
36 Perylene-d12	20.93	20.43	21.43	20.93	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1116123125.D

Lab ID: SEL0401-CCV1
nt11.i, 20161231.b\lowsim.m,   31-DEC-2016 20:26

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20161231.b\lowsim.m, newpna.sub = 3.0000

Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Fluoranthene-d10 (Surr) 0.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000

SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	17A0053
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Instrument ID:	NT11	Calibration:	ZL00083
Lab File ID:	N1116123108.D	Calibration Date:	12/31/16 12:55
Sequence:	SEL0401	Injection Date:	12/31/16
Lab Sample ID:	SEL0401-SCV1	Injection Time:	11:35
Sequence Name:	SIMPNA SCV		

		CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Naphthalene	A	250.00	251	0.9981003	1.0004800		0.2	50
2-Methylnaphthalene	A	250.00	249	0.9837101	0.9810628		-0.3	50
1-Methylnaphthalene	A	250.00	237	0.9893853	0.9363020		-5.4	50
Acenaphthylene	A	250.00	255	1.7970840	1.8310530		1.9	50
Acenaphthene	A	250.00	276	1.1832060	1.3085160		10.6	50
Dibenzofuran	A	250.00	285	1.7588950	2.0085000		14.2	50
Fluorene	A	250.00	268	1.4002390	1.5037320		7.4	50
Phenanthrene	A	250.00	251	1.1434470	1.1499320		0.6	50
Anthracene	A	250.00	238	1.1401310	1.0843180		-4.9	50
Fluoranthene	A	250.00	253	1.2970410	1.3121670		1.2	50
Pyrene	A	250.00	247	1.2991950	1.2835110		-1.2	50
Benzo(a)anthracene	A	250.00	254	1.2026170	1.2199790		1.4	50
Chrysene	A	250.00	242	1.2340320	1.1936120		-3.3	50
Benzo(b)fluoranthene	A	250.00	253	1.0780920	1.0901560		1.1	50
Benzo(k)fluoranthene	A	250.00	262	1.1612010	1.2174470		4.8	50
Benzo(a)pyrene	A	250.00	249	1.0050510	0.9993292		-0.6	50
Indeno(1,2,3-cd)pyrene	A	250.00	248	1.0972800	1.0891850		-0.7	50
Dibenzo(a,h)anthracene	A	250.00	240	0.8793160	0.8454541		-3.9	50
Benzo(g,h,i)perylene	A	250.00	247	0.9851335	0.9716383		-1.4	50

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123108.D

Date : 31-DEC-2016 11:35

Client ID:

Sample Info: SEL0401-SCV1

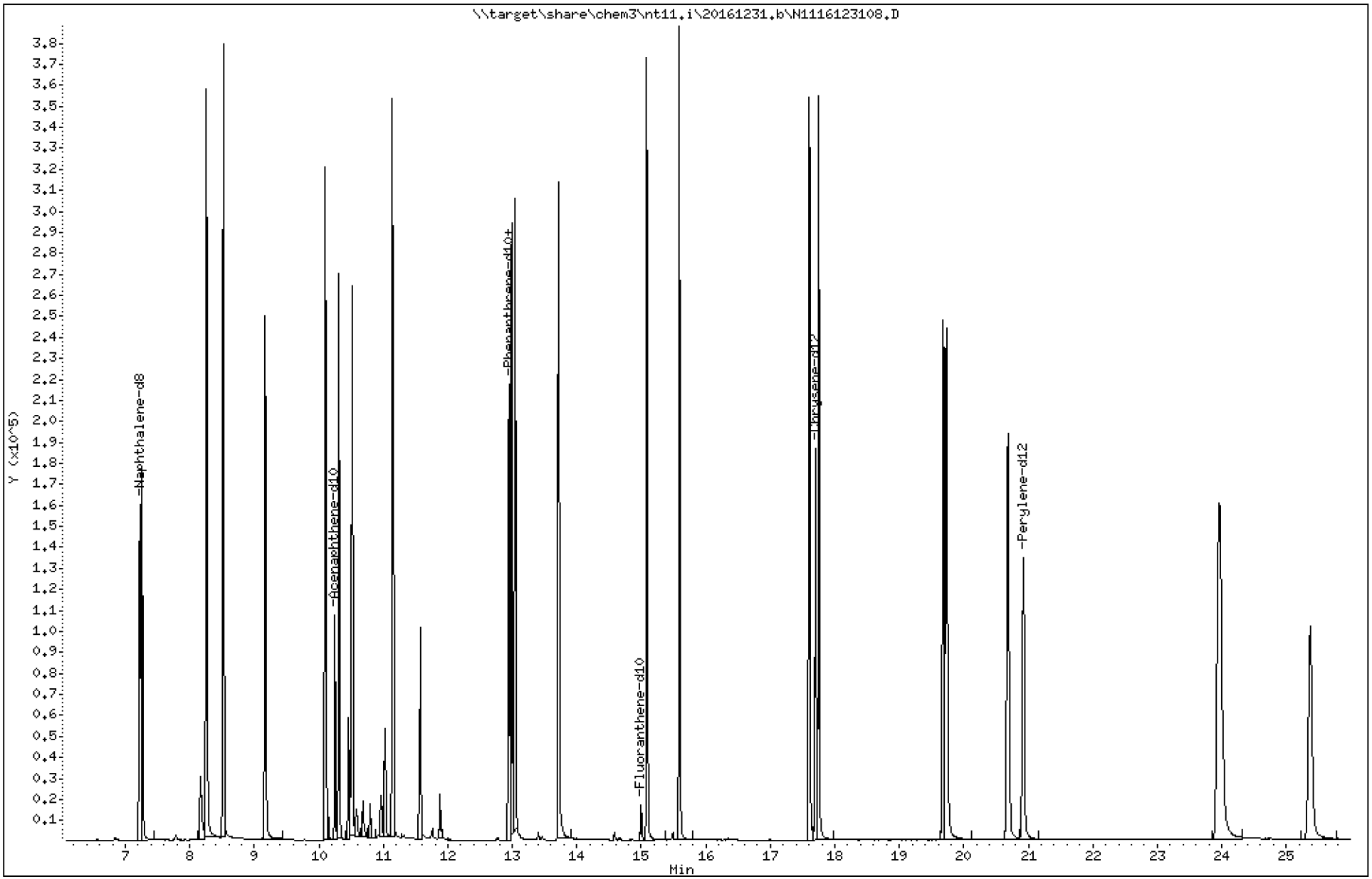
Column phase: Rxi-17Sil MS

Instrument: nt11.i

Operator: VTS

Column diameter: 0.25

1357



Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123108.D

Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

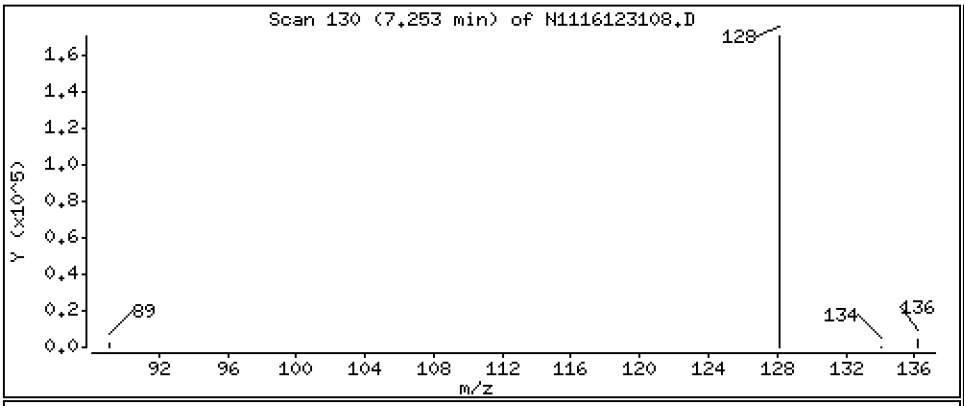
Operator: VTS

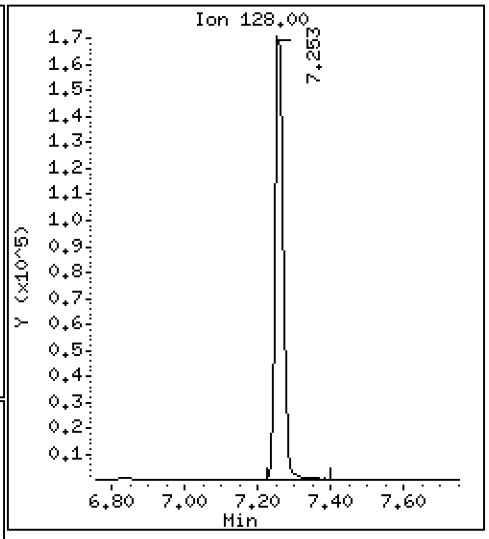
Column phase: Rxi-17Sil MS

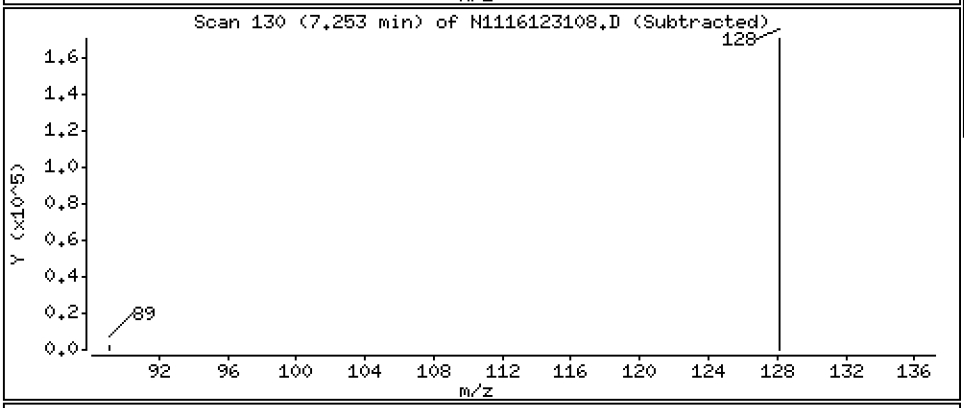
Column diameter: 0.25

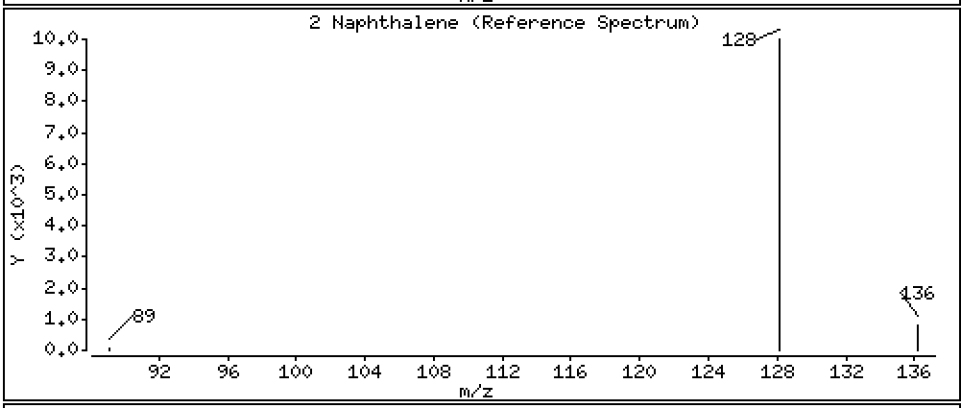
2 Naphthalene

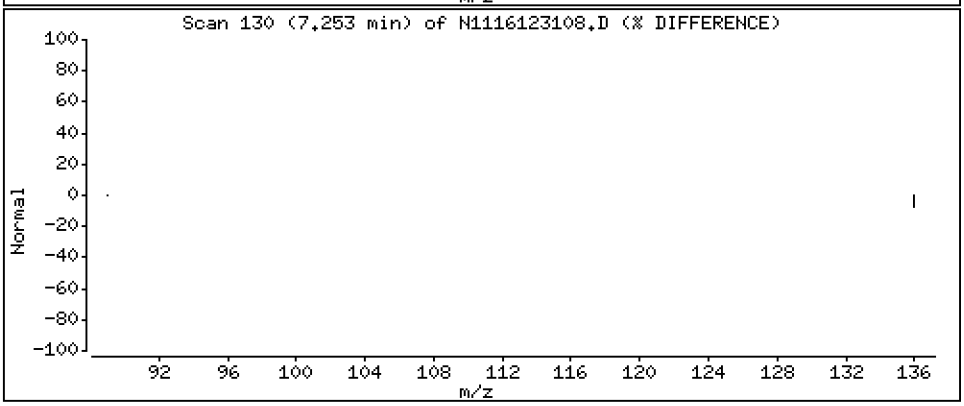
Concentration: 251 ng/mL











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Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

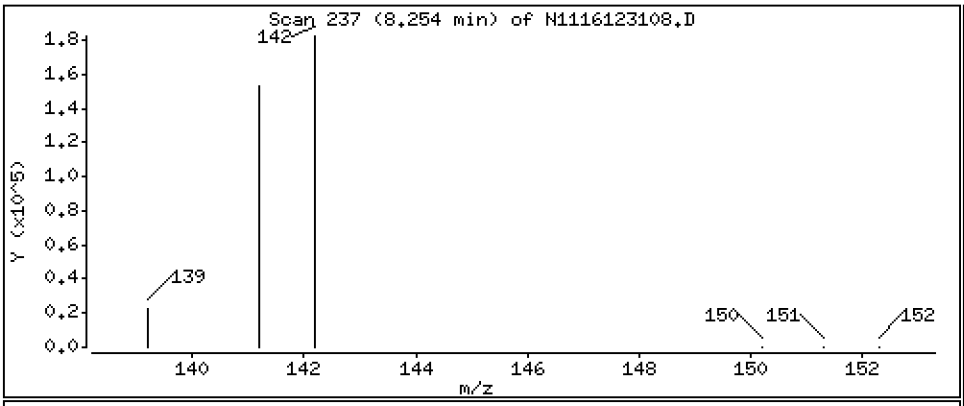
Operator: VTS

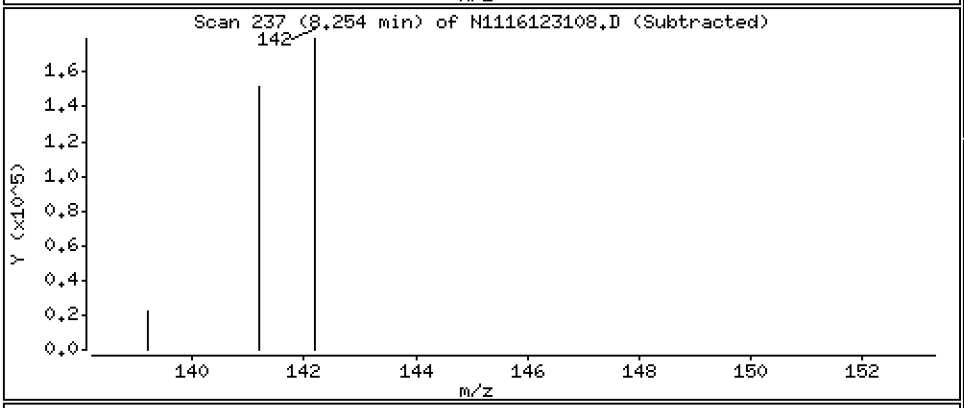
Column phase: Rxi-17Sil MS

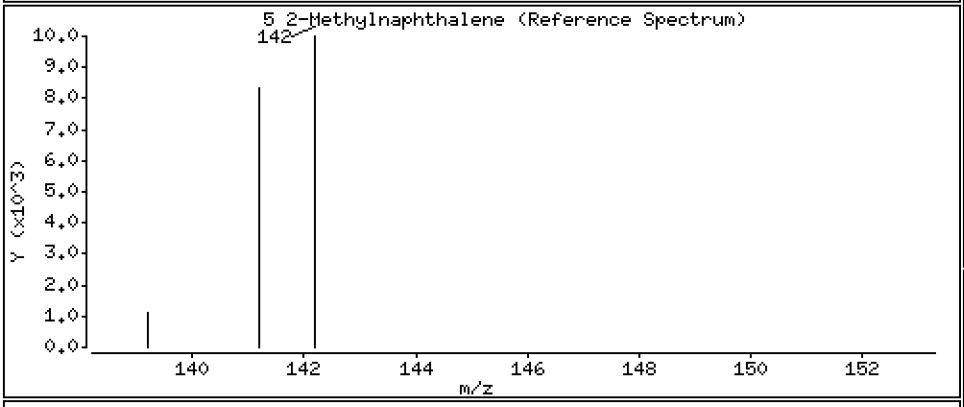
Column diameter: 0.25

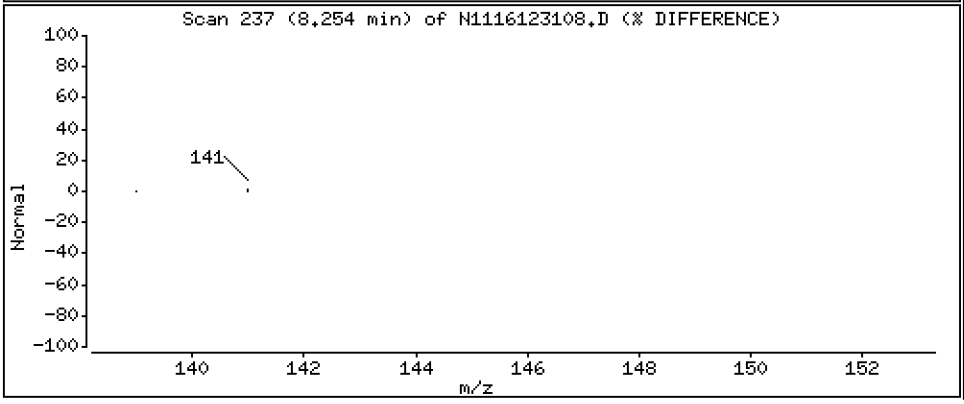
5 2-Methylnaphthalene

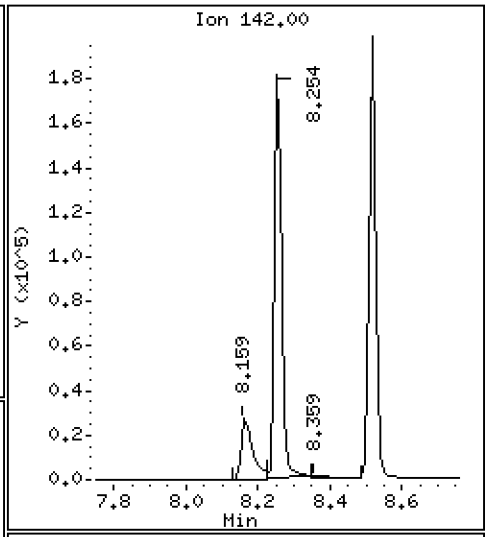
Concentration: 249 ng/mL

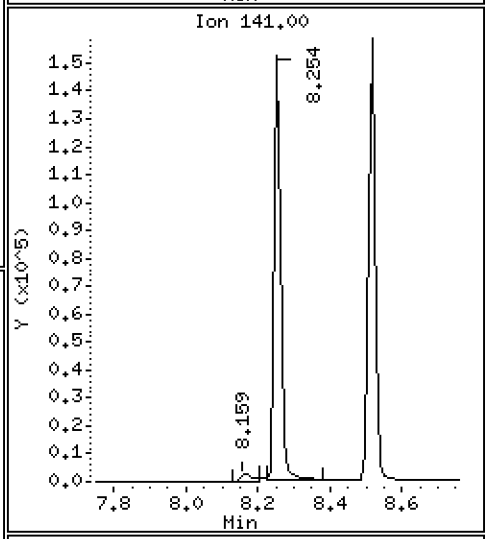


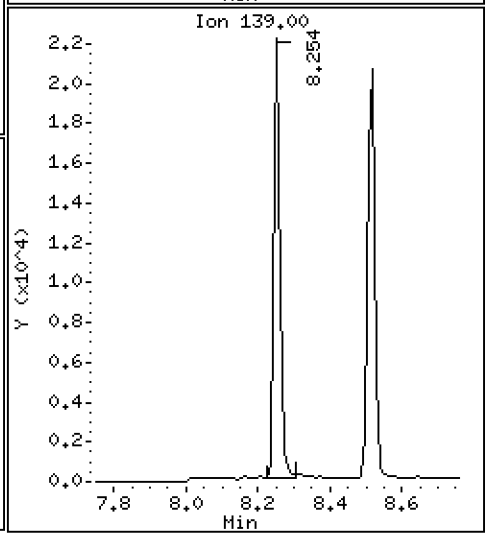












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Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

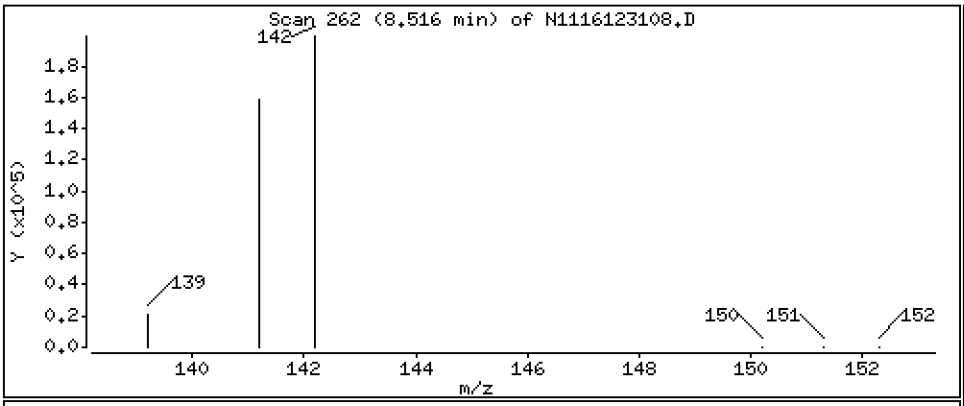
Operator: VTS

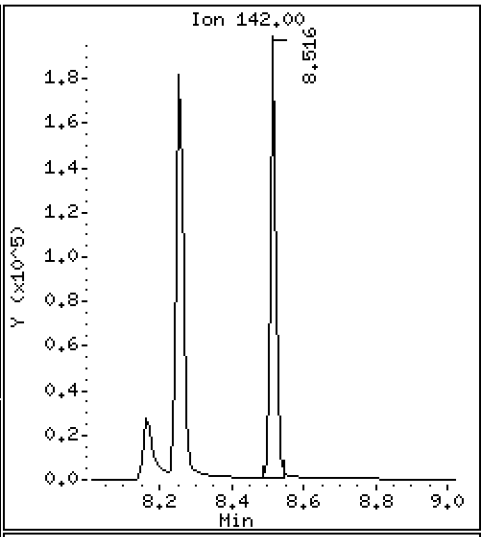
Column phase: Rxi-17Sil MS

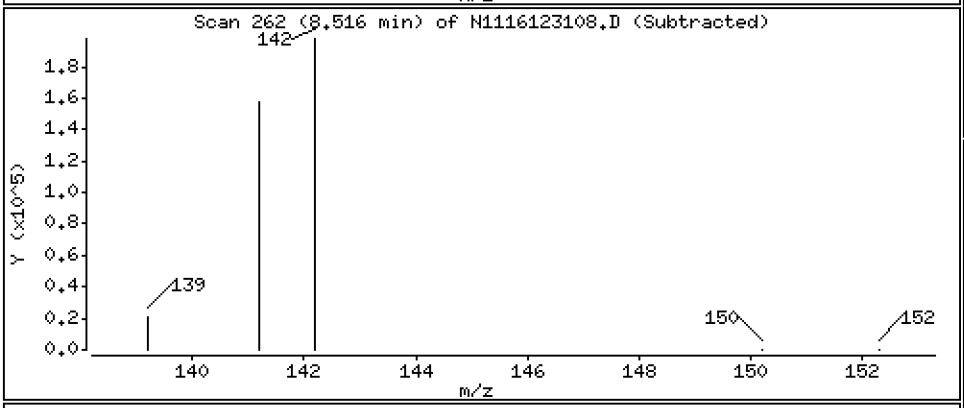
Column diameter: 0.25

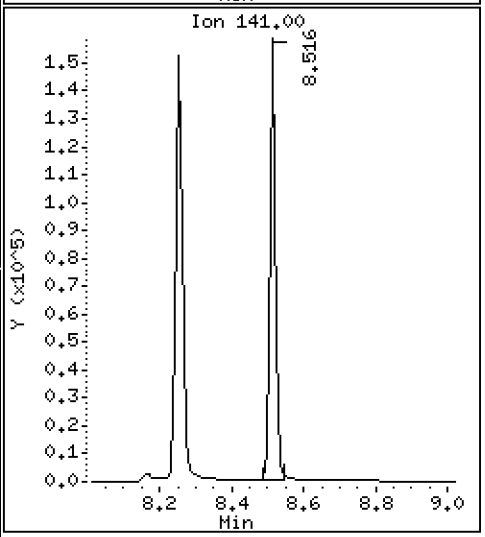
6 1-Methylnaphthalene

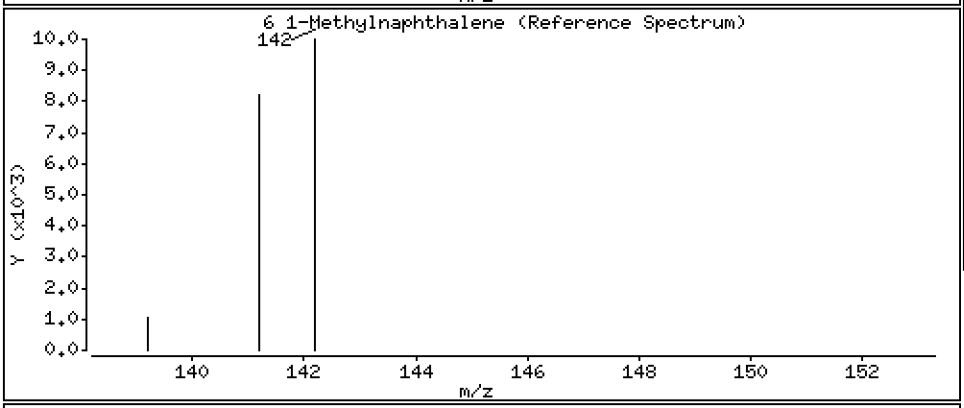
Concentration: 237 ng/mL

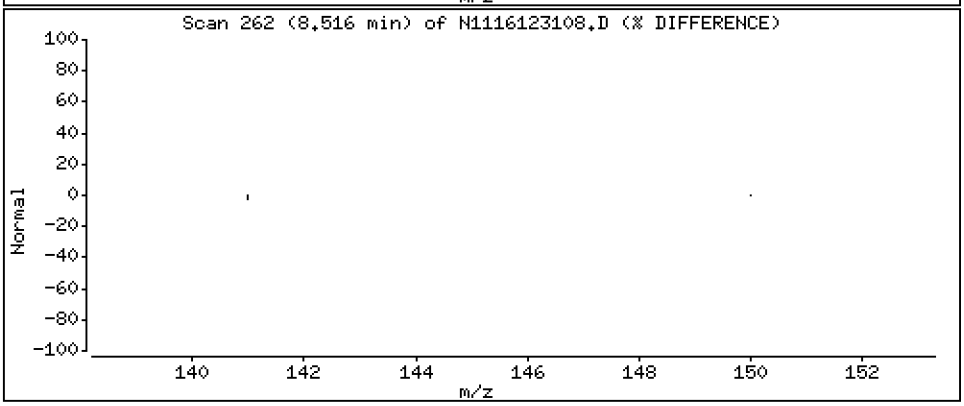












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Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

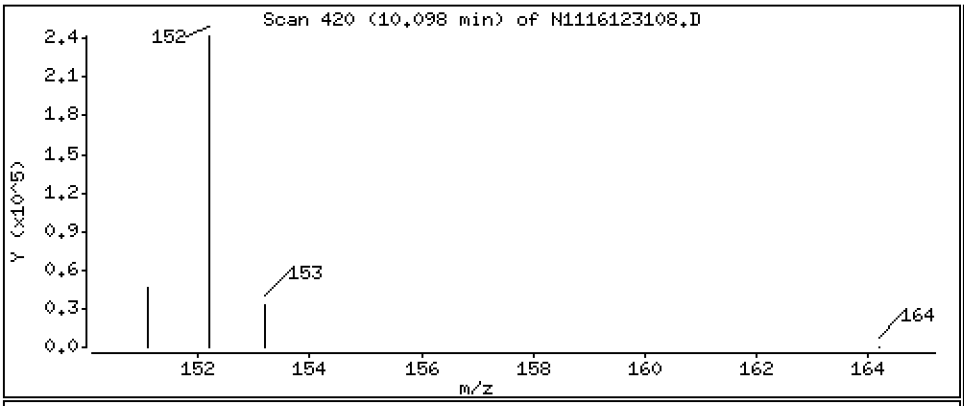
Operator: VTS

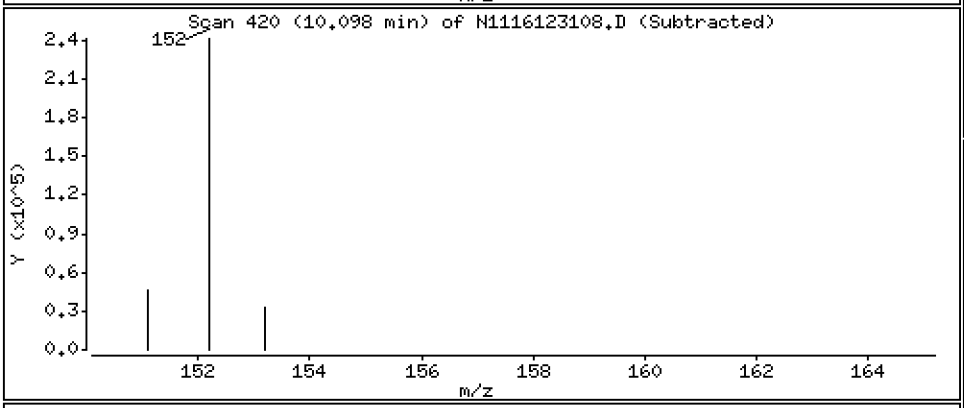
Column phase: Rxi-17Sil MS

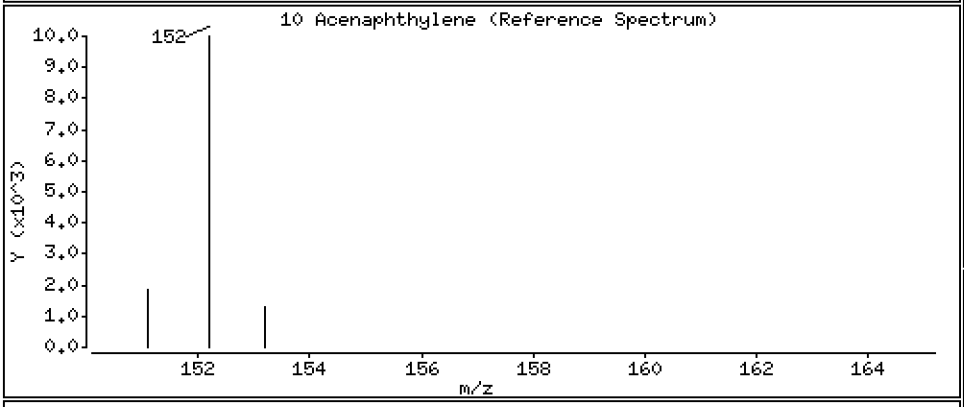
Column diameter: 0.25

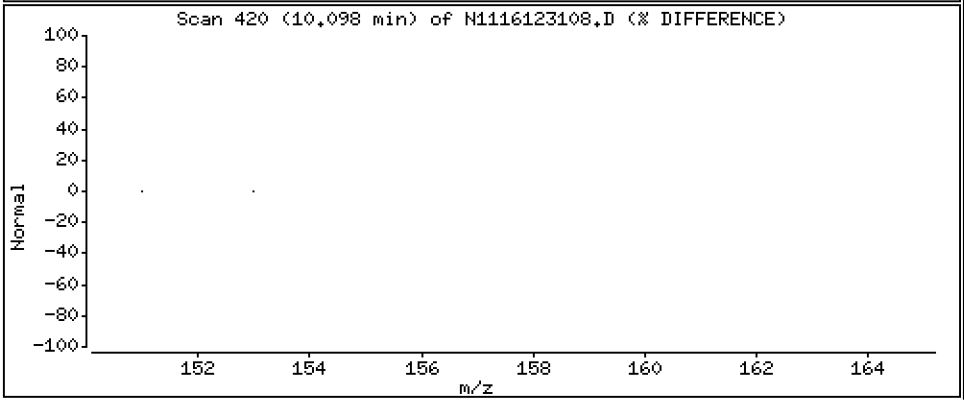
10 Acenaphthylene

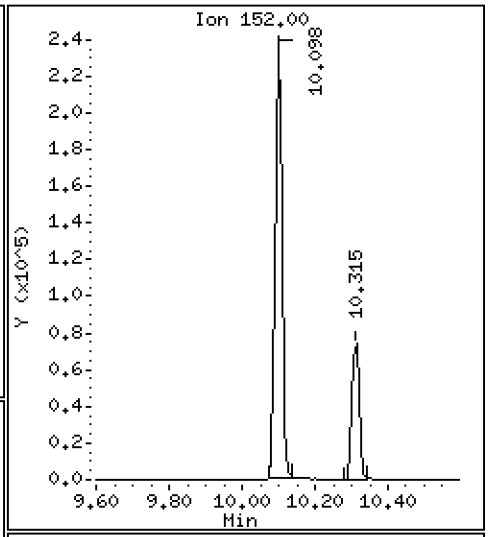
Concentration: 255 ng/mL

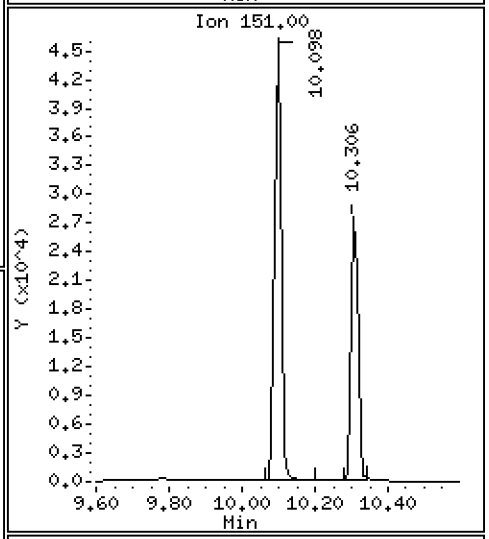


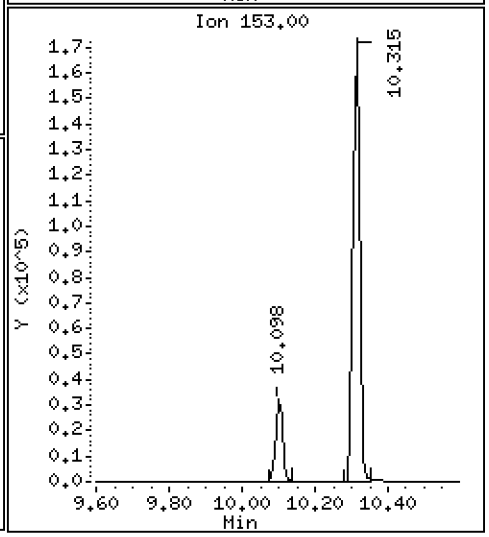












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Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

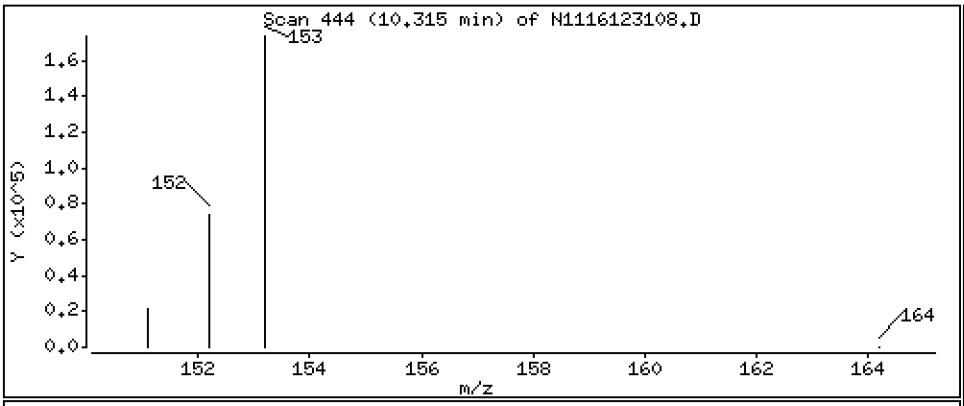
Operator: VTS

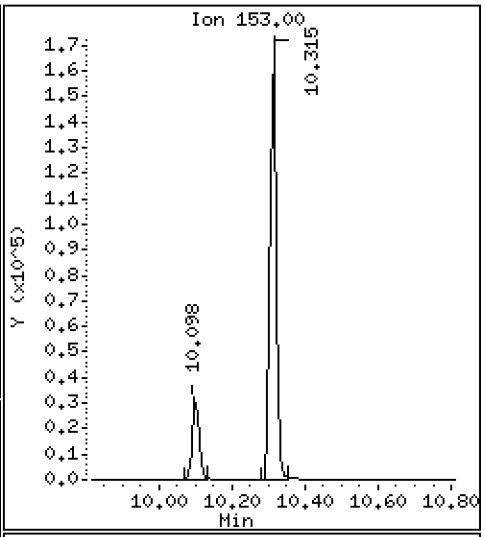
Column phase: Rxi-17Sil MS

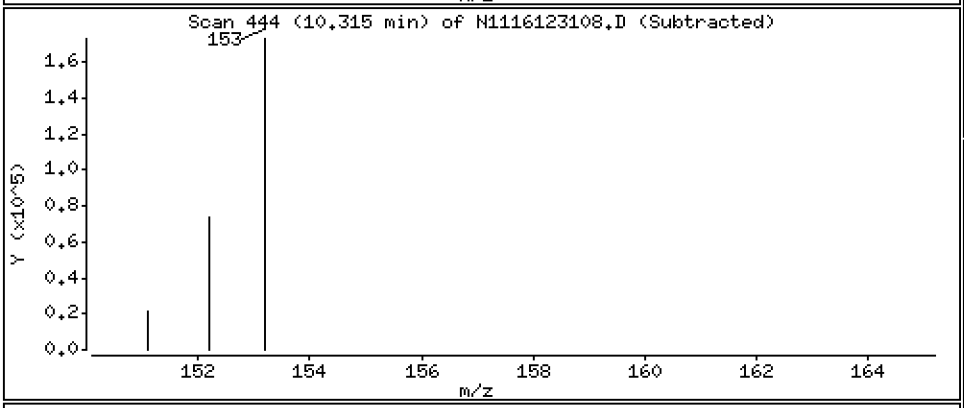
Column diameter: 0.25

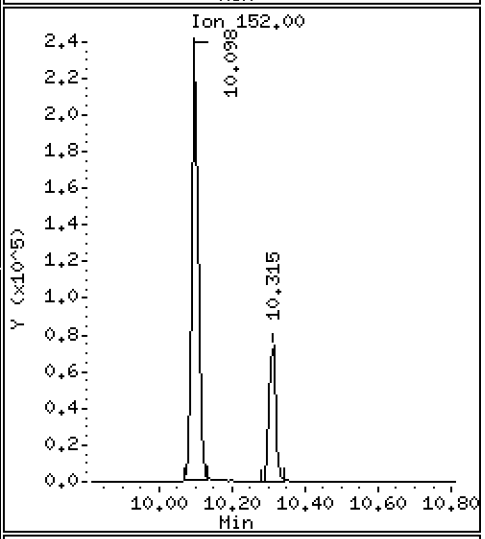
12 Acenaphthene

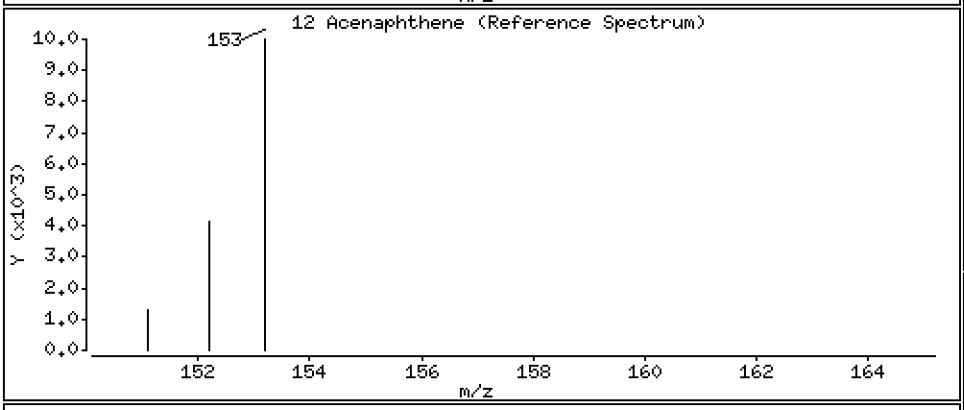
Concentration: 276 ng/mL

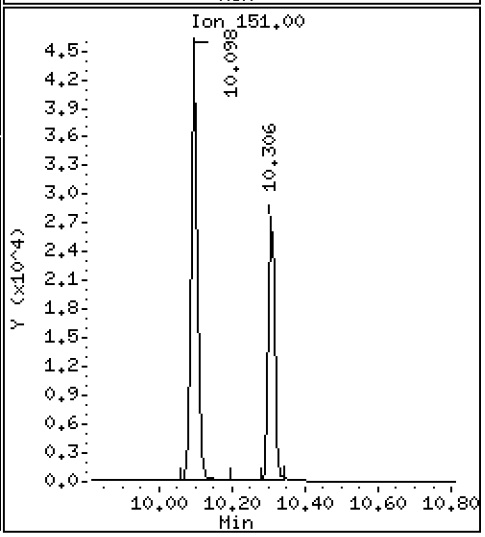


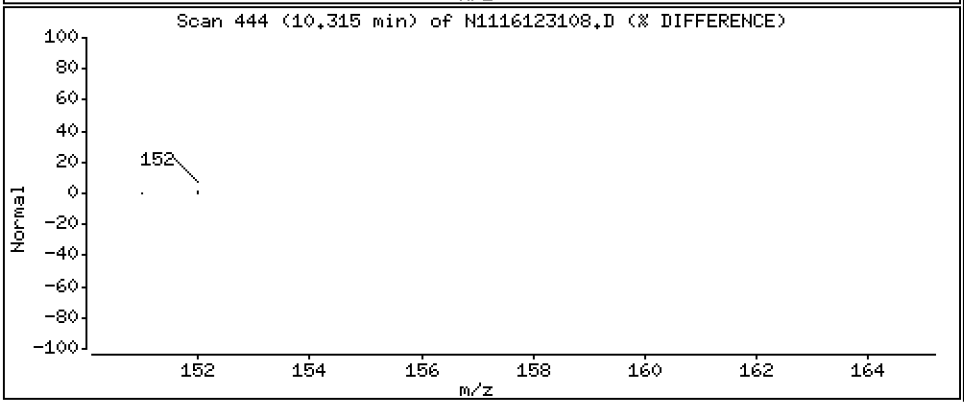












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Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

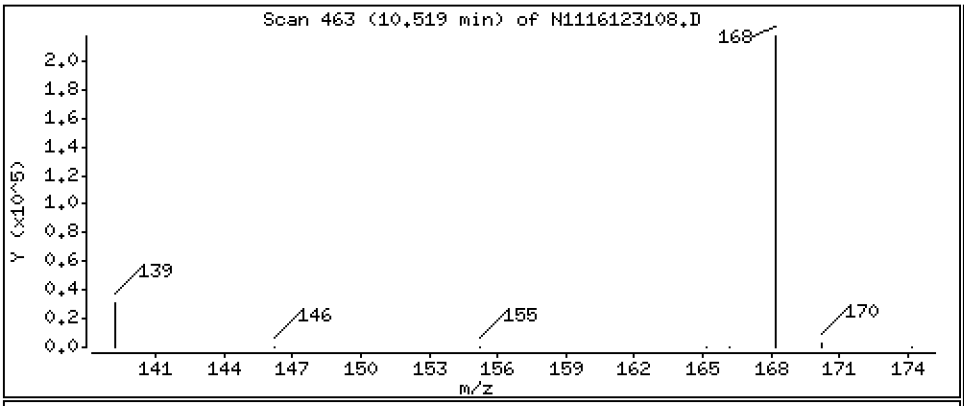
Operator: VTS

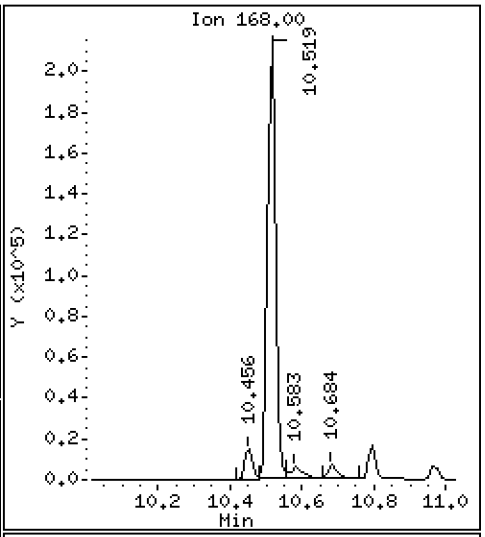
Column phase: Rxi-17Sil MS

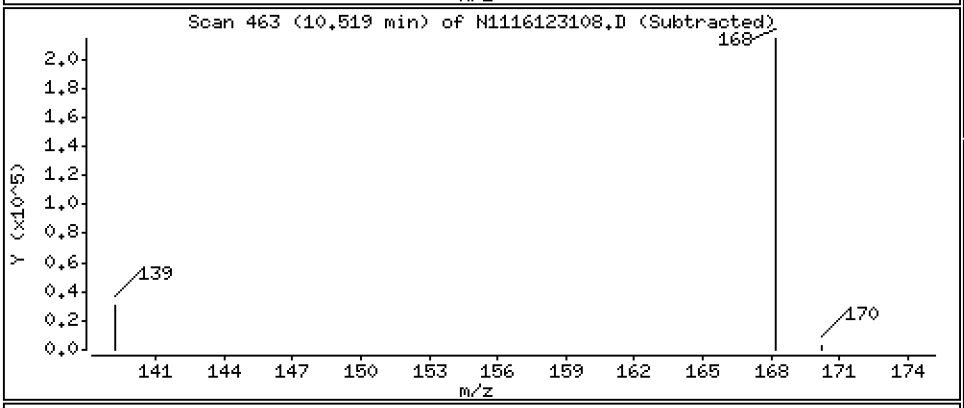
Column diameter: 0.25

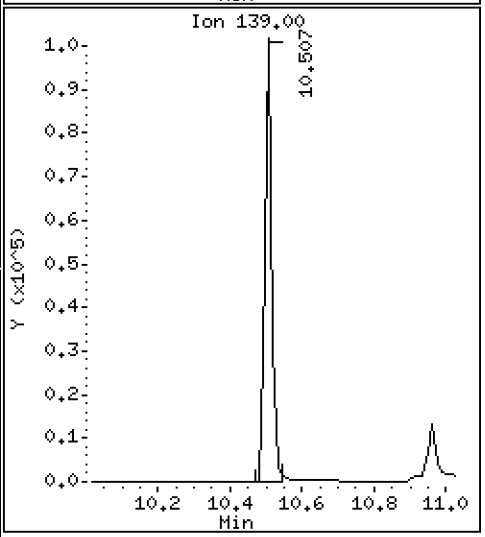
13 Dibenzofuran

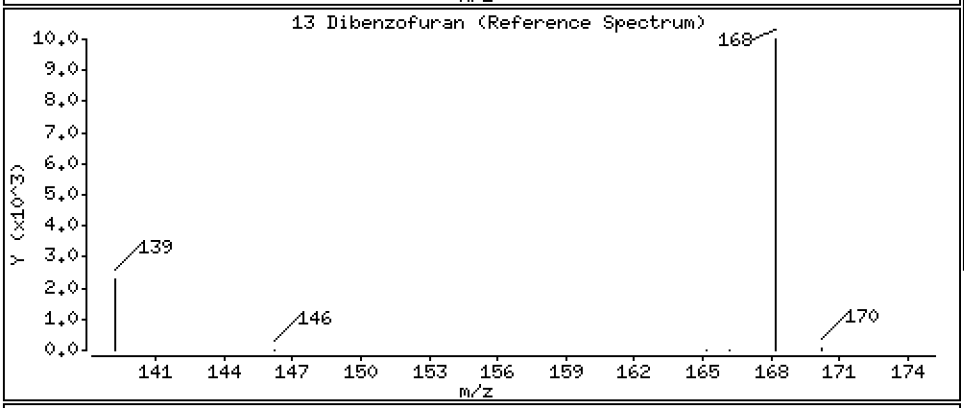
Concentration: 285 ng/mL

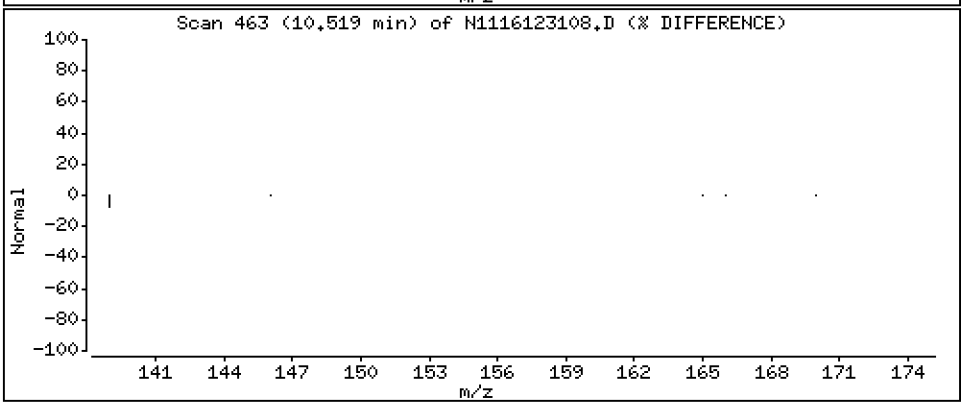












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Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

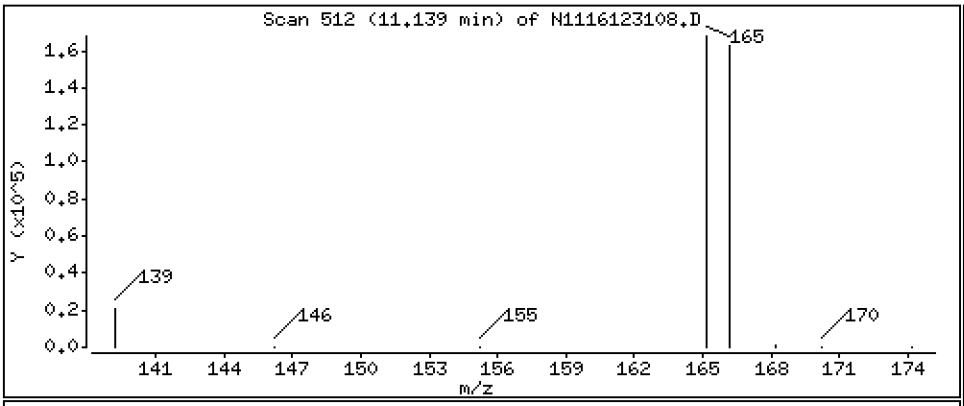
Operator: VTS

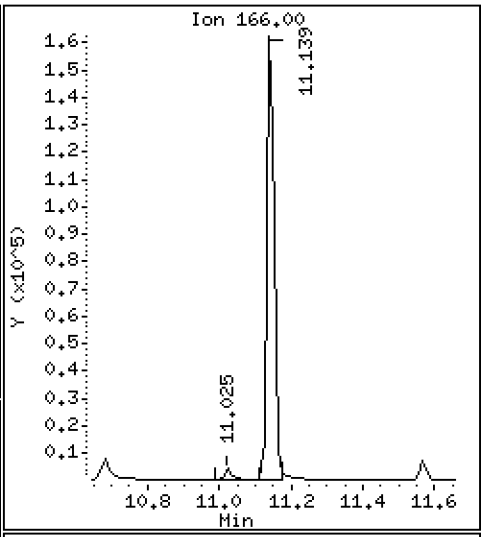
Column phase: Rxi-17Sil MS

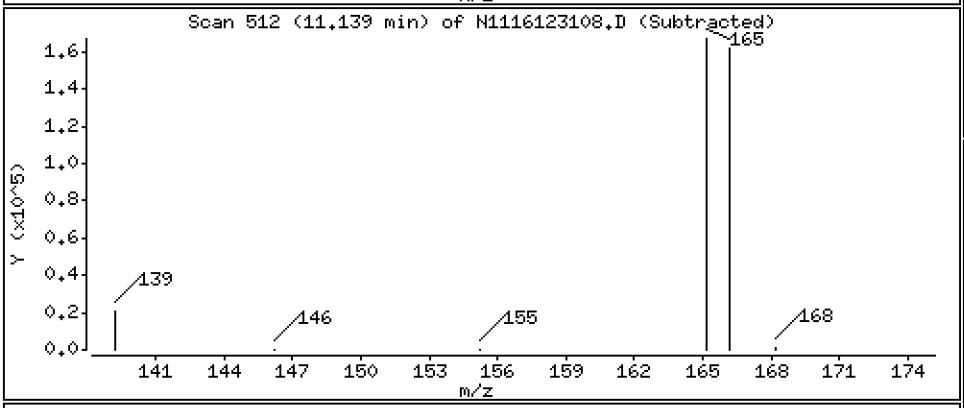
Column diameter: 0.25

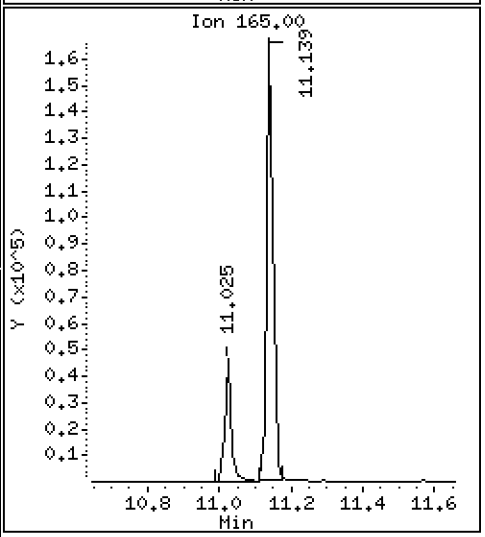
16 Fluorene

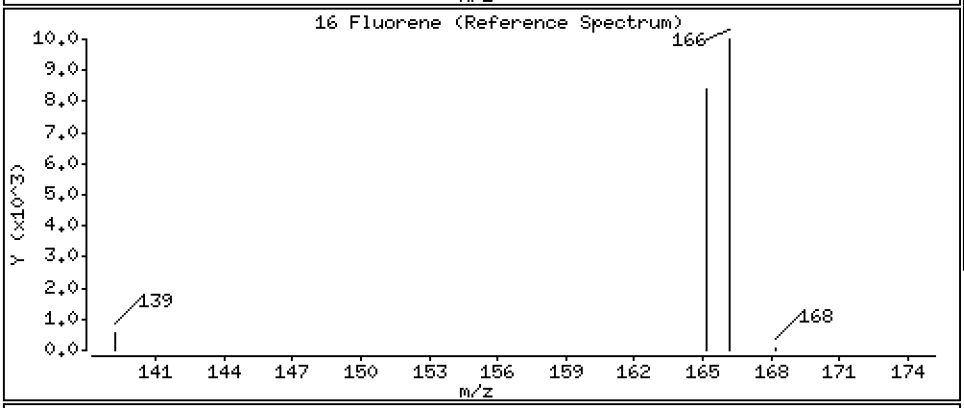
Concentration: 268 ng/mL

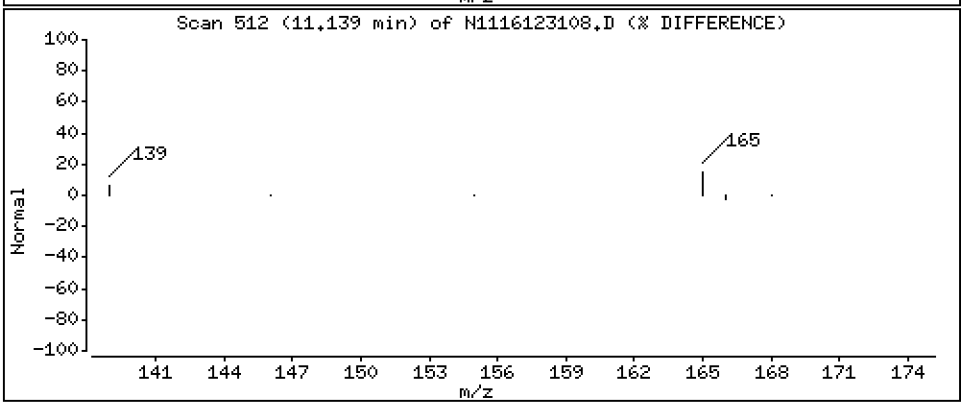












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Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

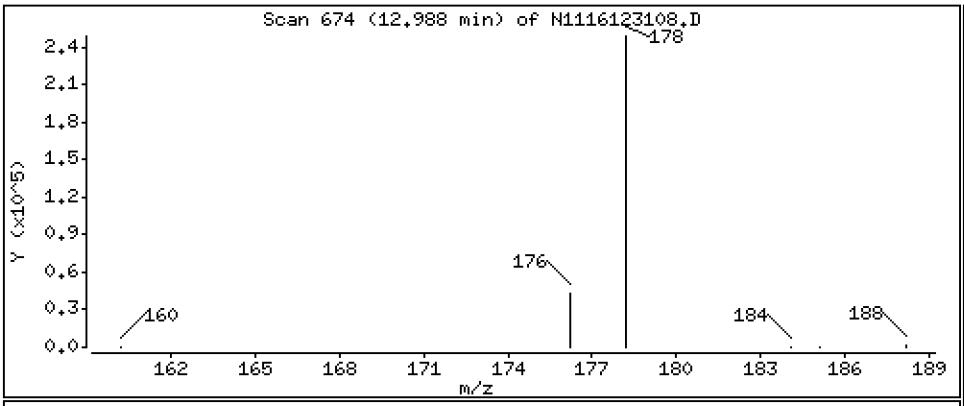
Operator: VTS

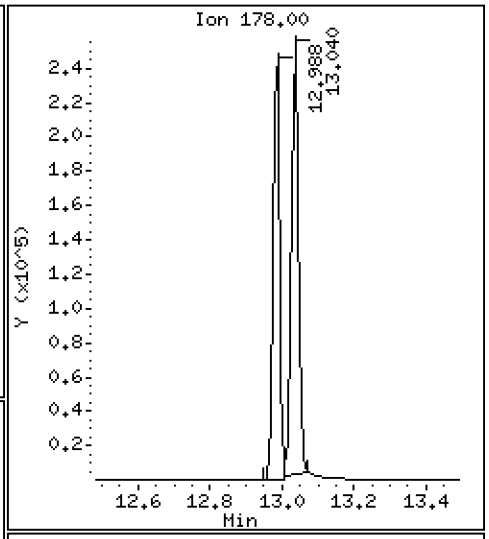
Column phase: Rxi-17Sil MS

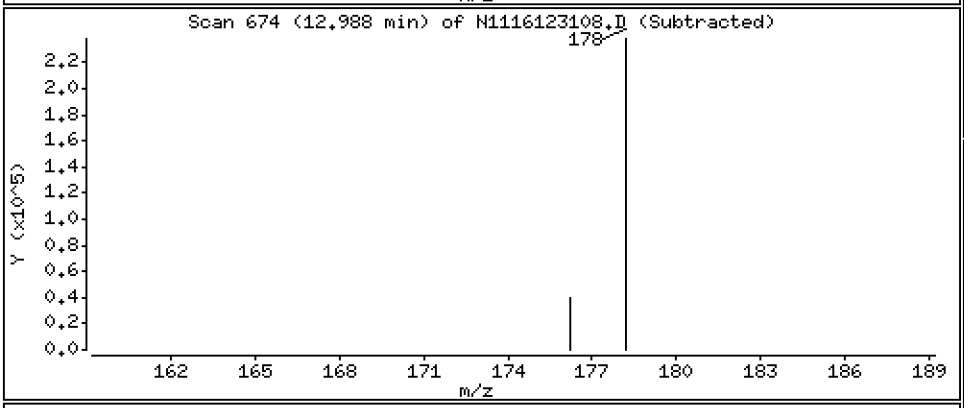
Column diameter: 0.25

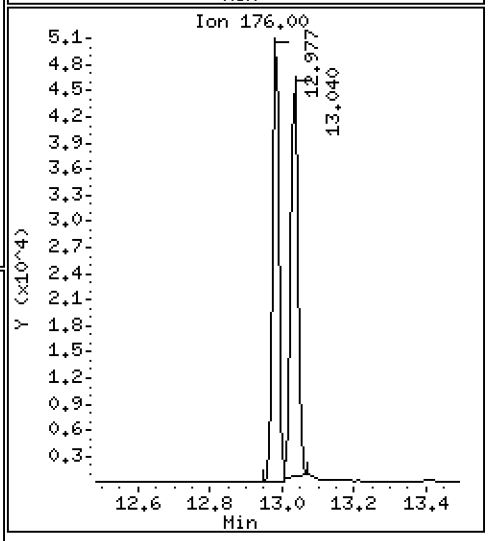
19 Phenanthrene

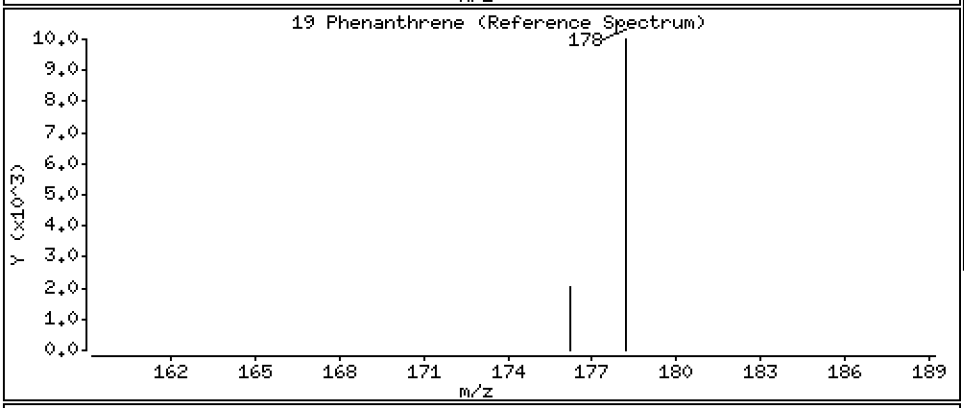
Concentration: 251 ng/mL

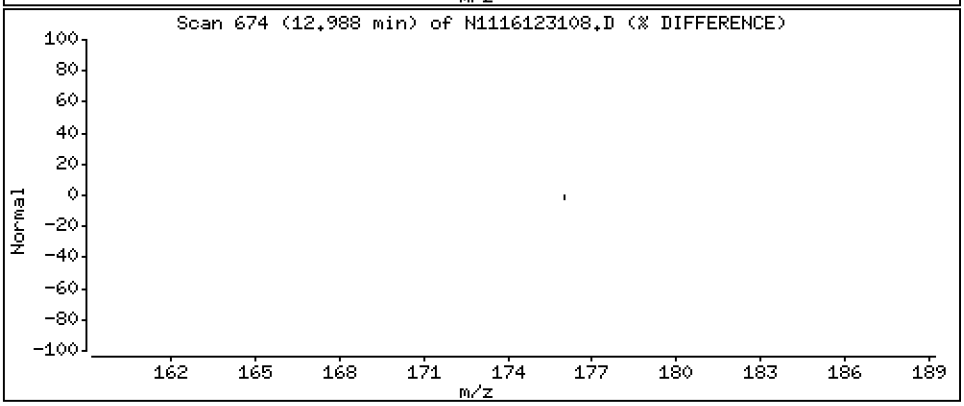












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Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

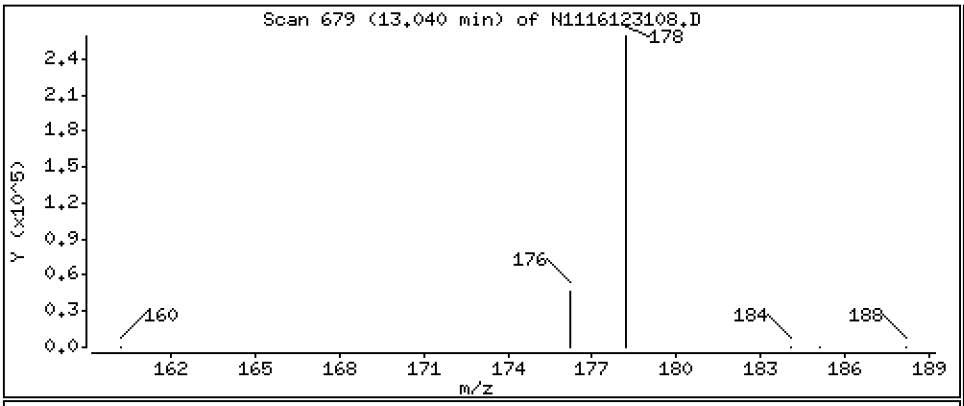
Operator: VTS

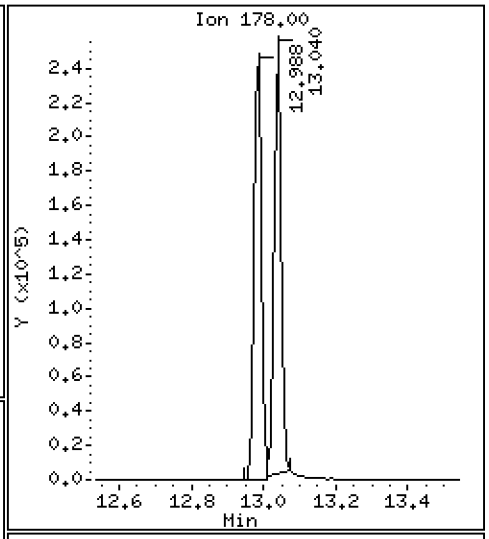
Column phase: Rxi-17Sil MS

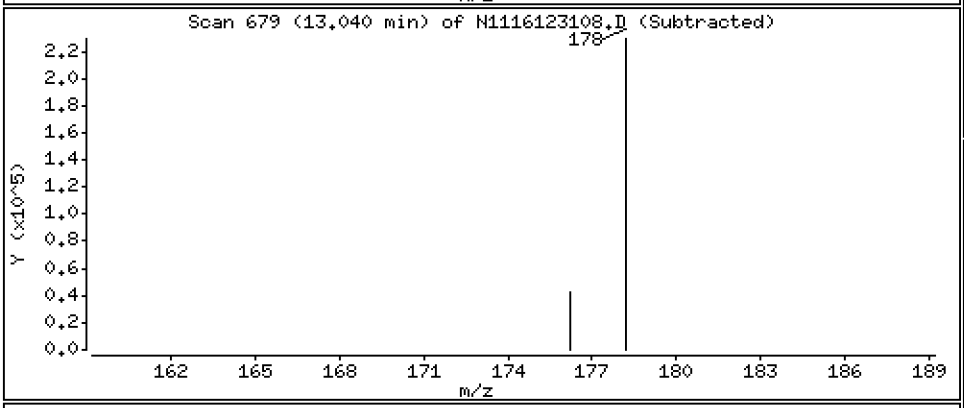
Column diameter: 0.25

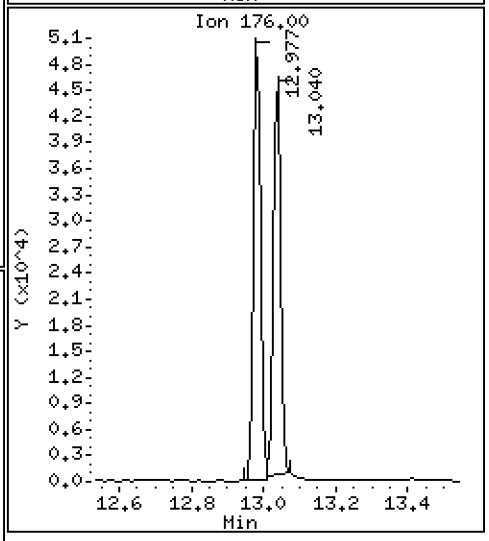
21 Anthracene

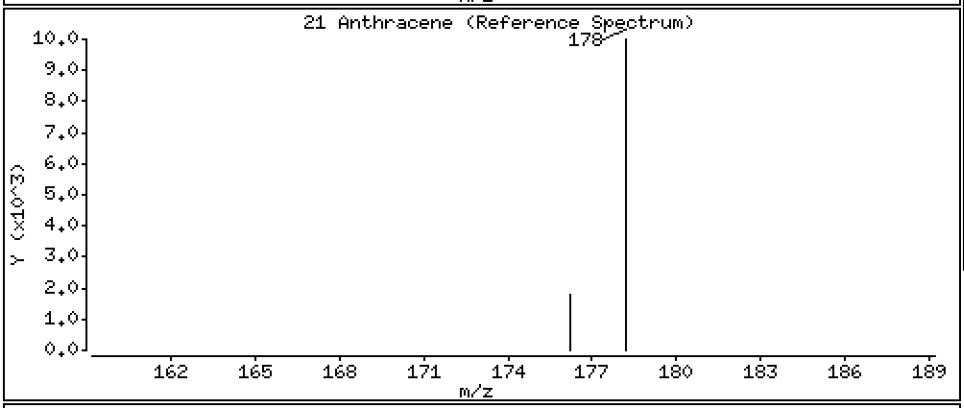
Concentration: 238 ng/mL

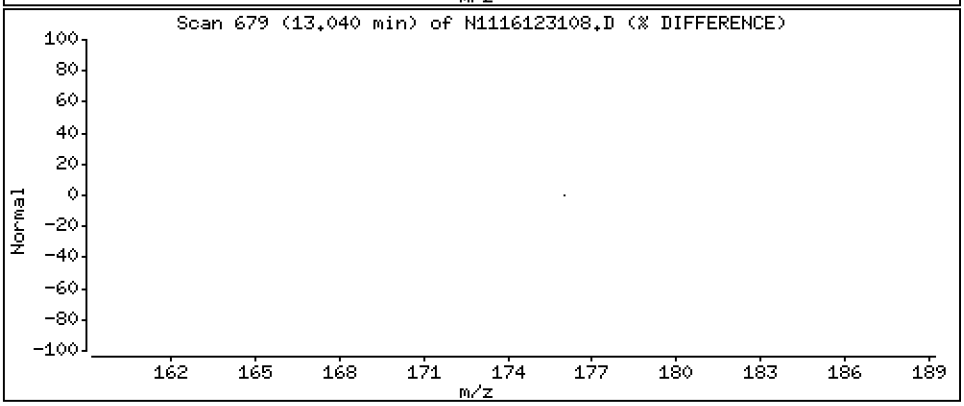












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Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

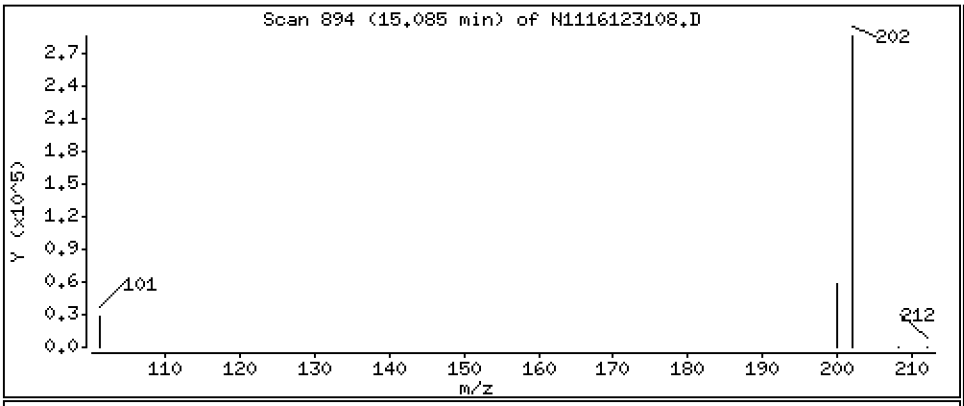
Operator: VTS

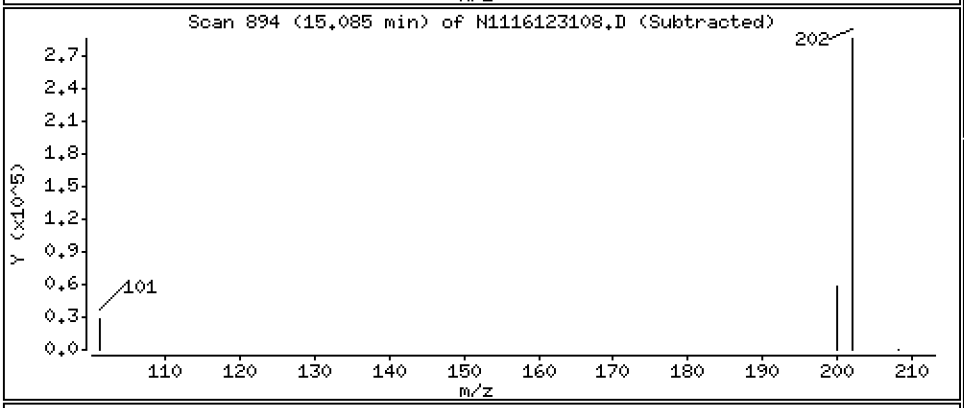
Column phase: Rxi-17Sil MS

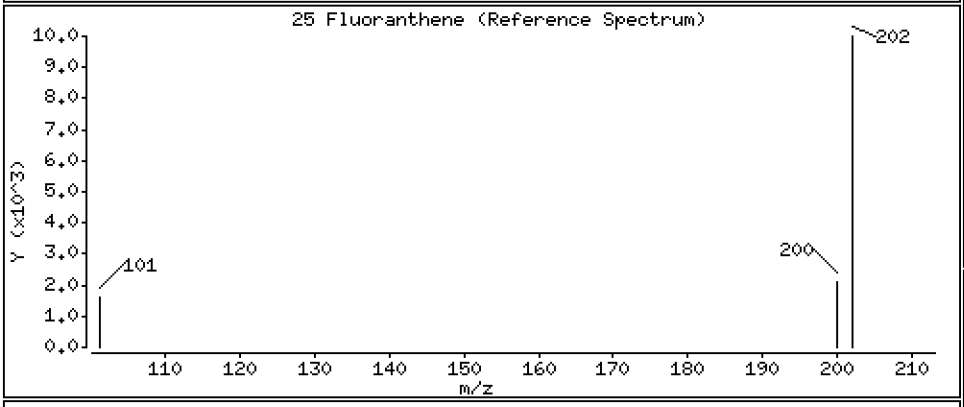
Column diameter: 0.25

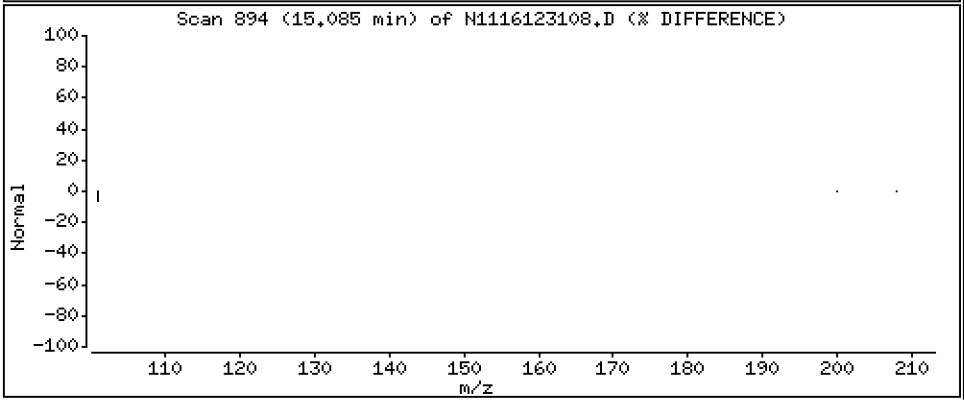
25 Fluoranthene

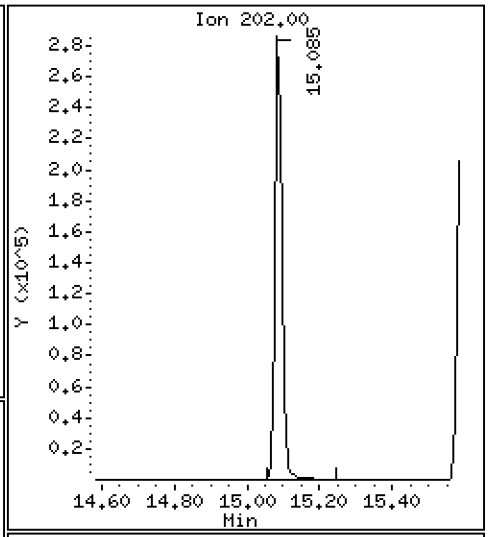
Concentration: 253 ng/mL

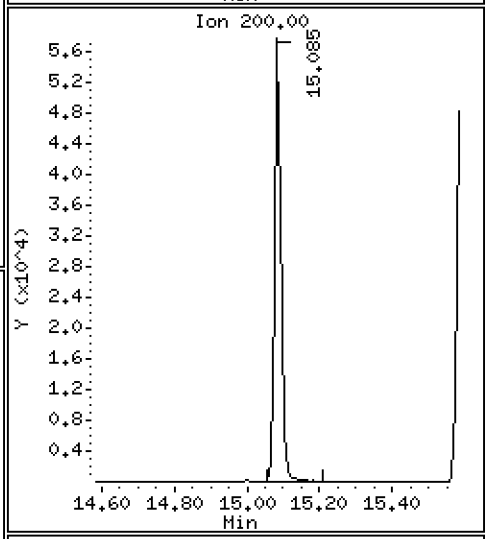


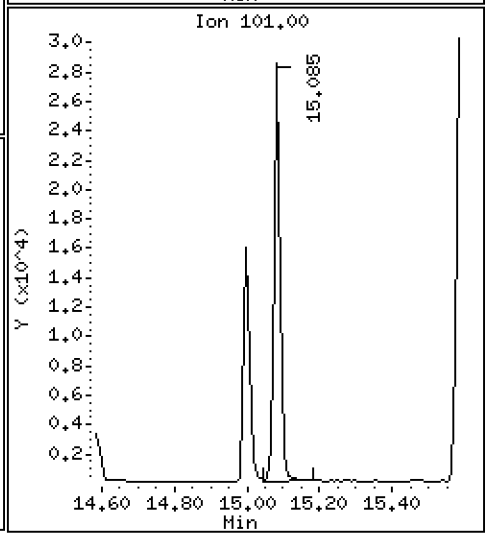












Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123108.D

Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

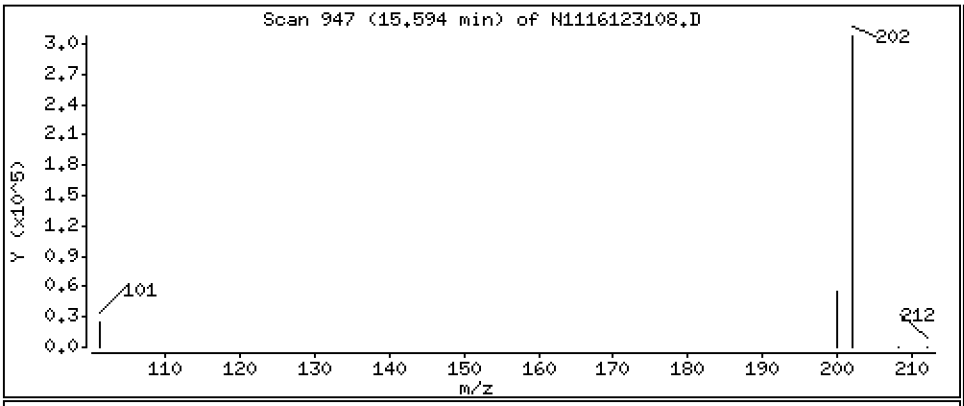
Operator: VTS

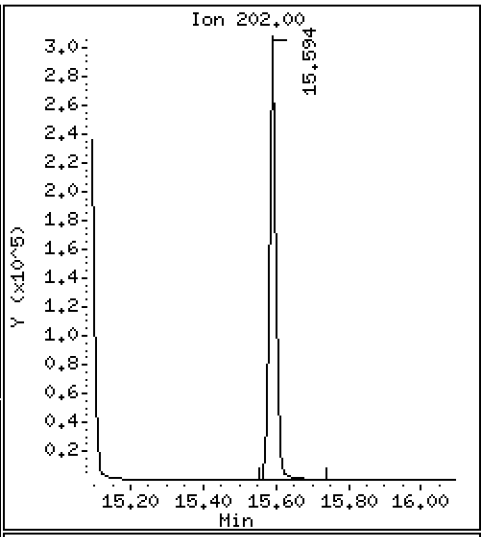
Column phase: Rxi-17Sil MS

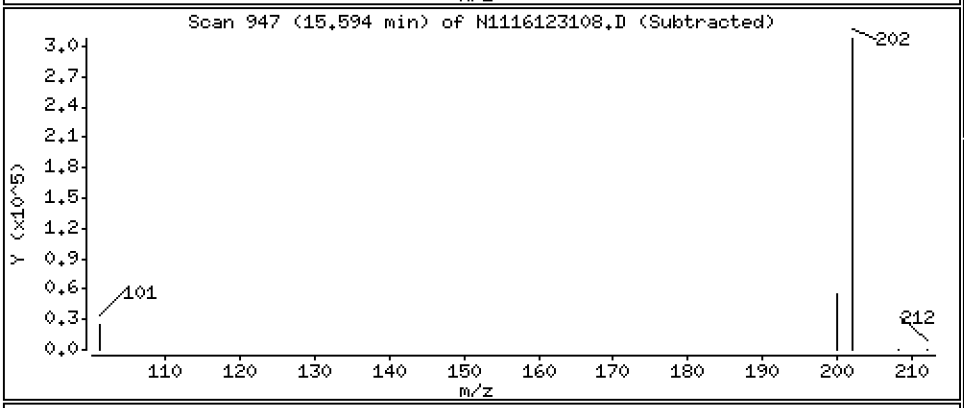
Column diameter: 0.25

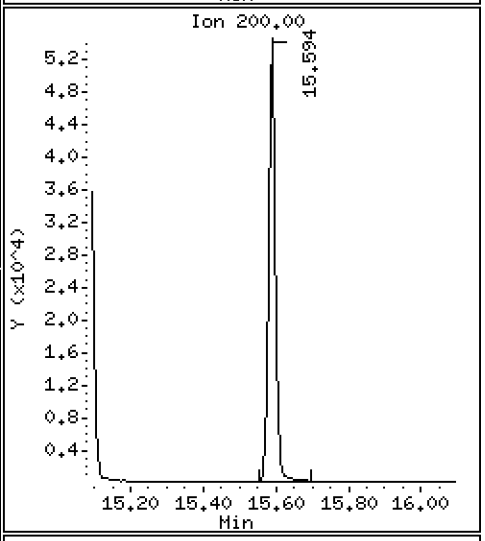
26 Pyrene

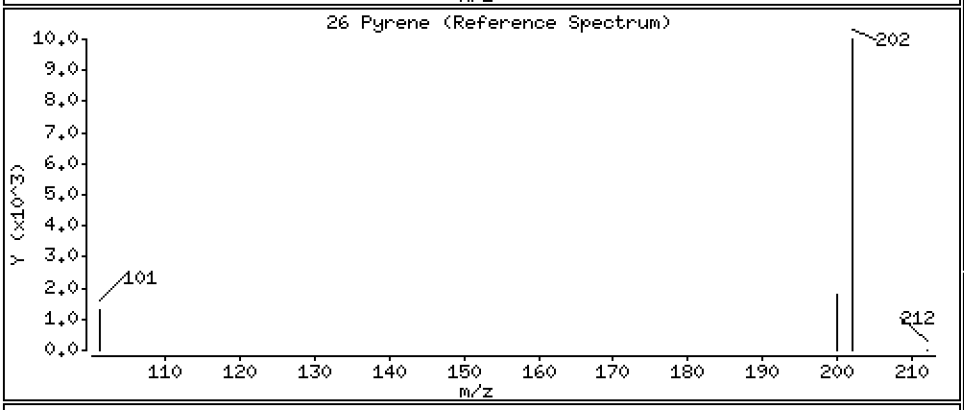
Concentration: 247 ng/mL

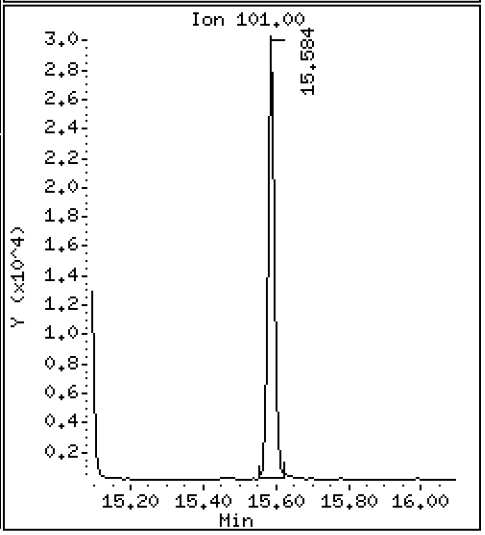


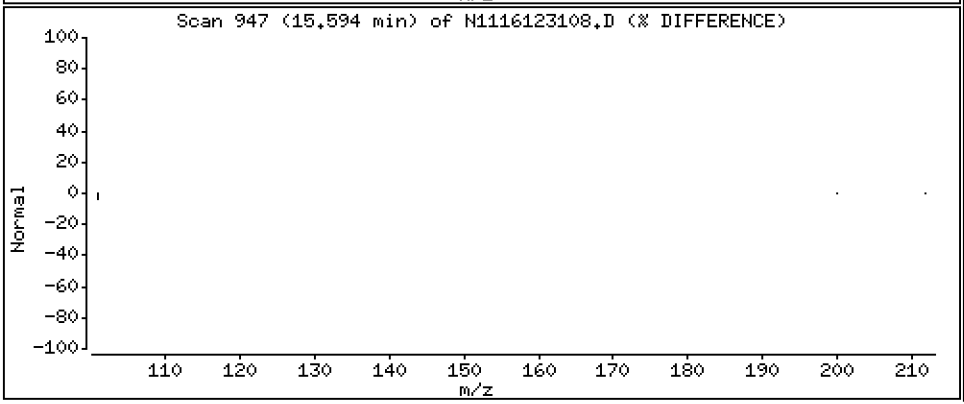












Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123108.D

Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

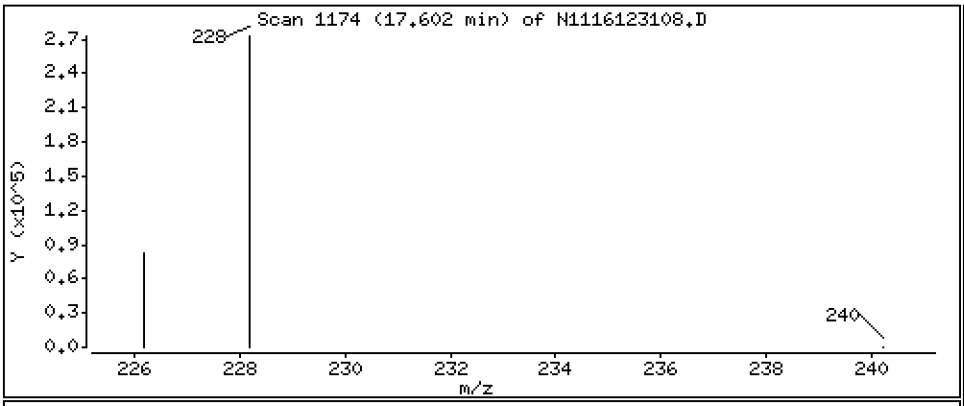
Operator: VTS

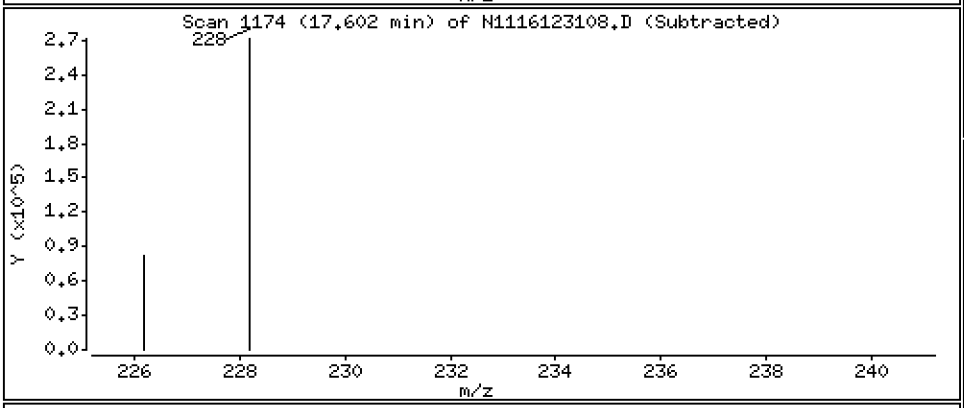
Column phase: Rxi-17Sil MS

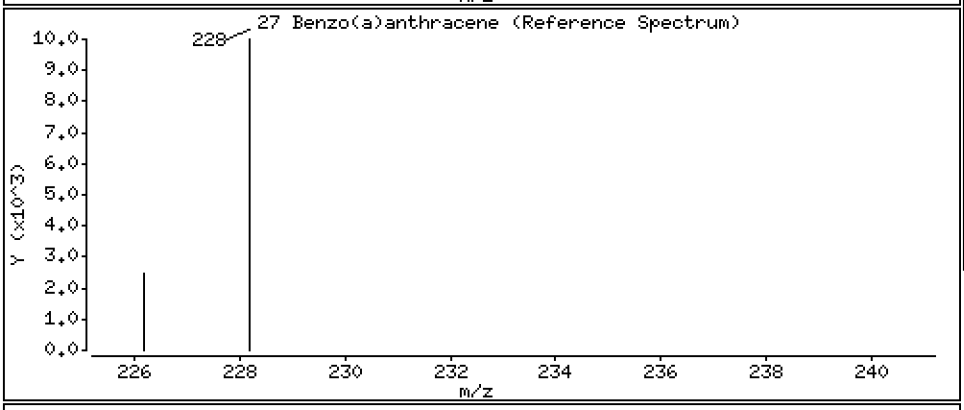
Column diameter: 0.25

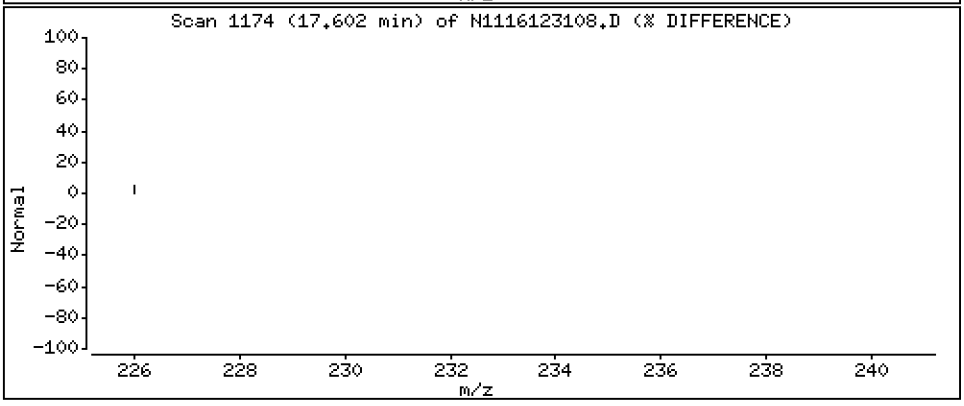
27 Benzo(a)anthracene

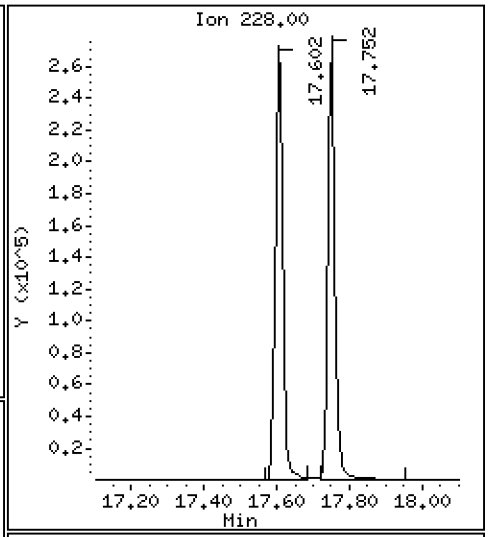
Concentration: 254 ng/mL

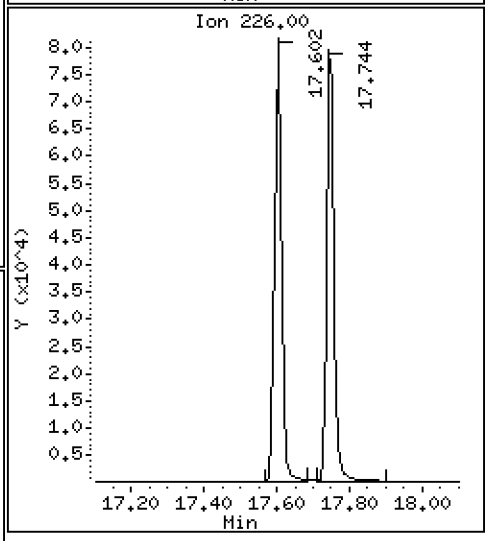












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Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

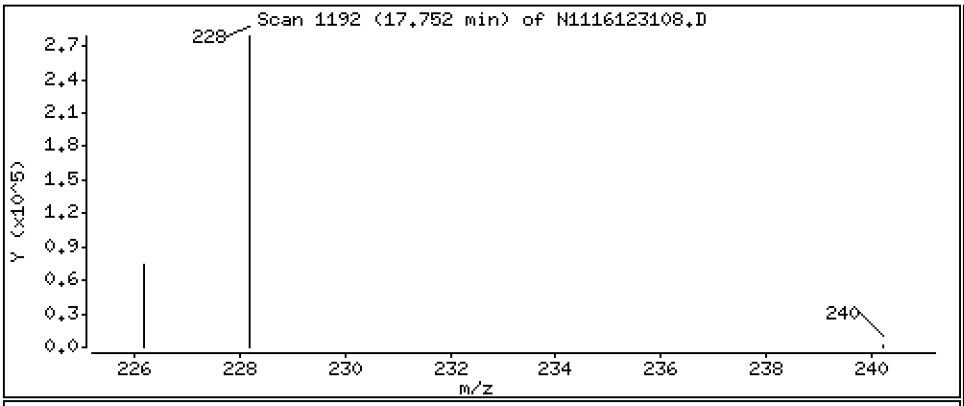
Operator: VTS

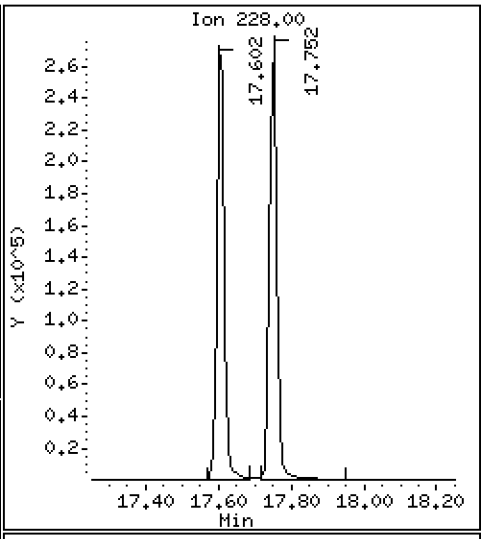
Column phase: Rxi-17Sil MS

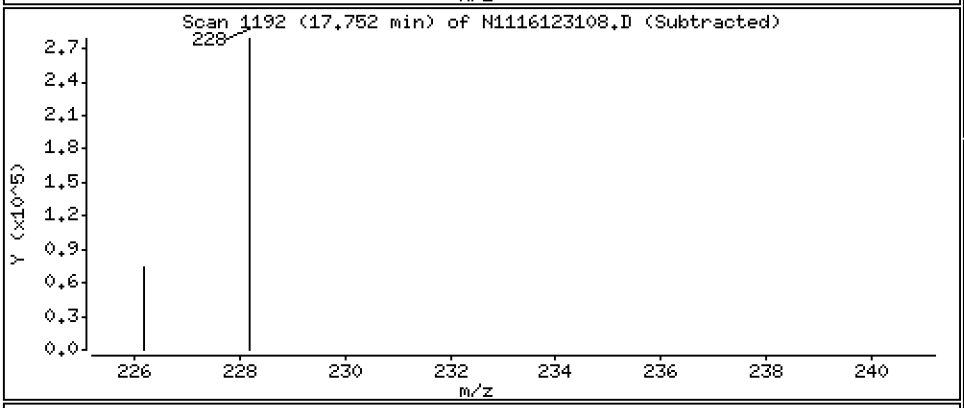
Column diameter: 0.25

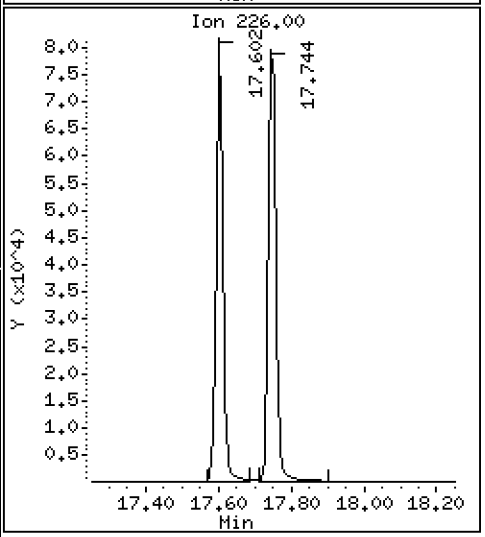
29 Chrysene

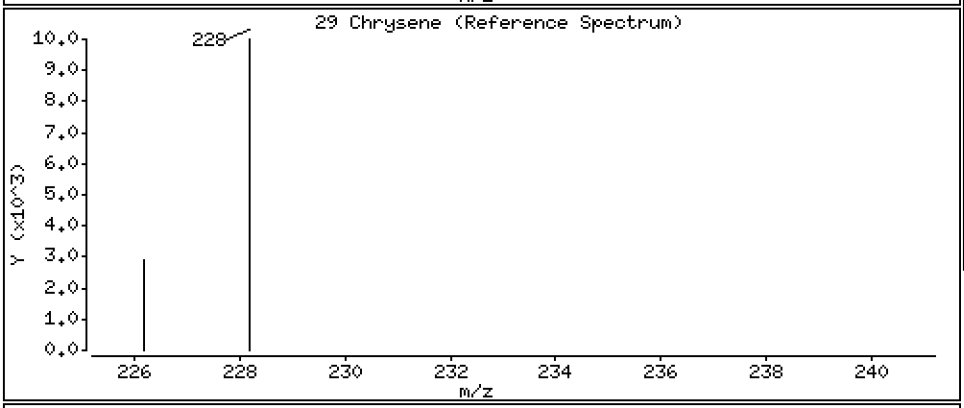
Concentration: 242 ng/mL

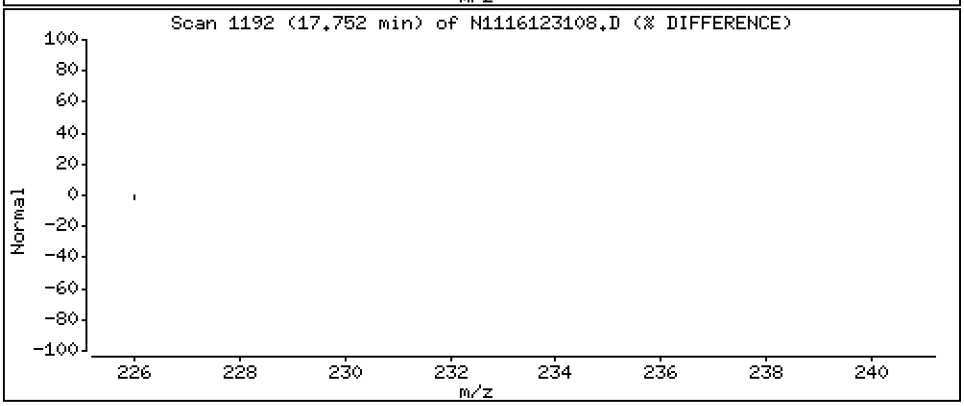












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Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

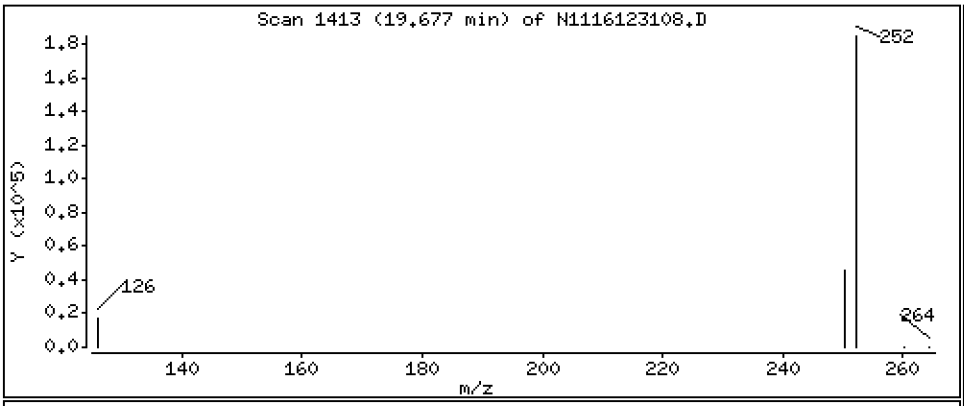
Operator: VTS

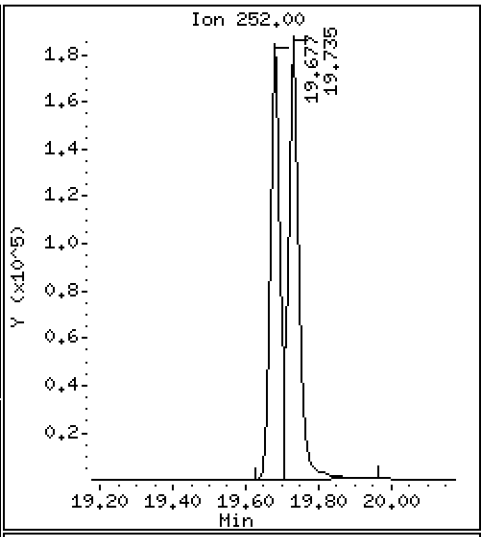
Column phase: Rxi-17Sil MS

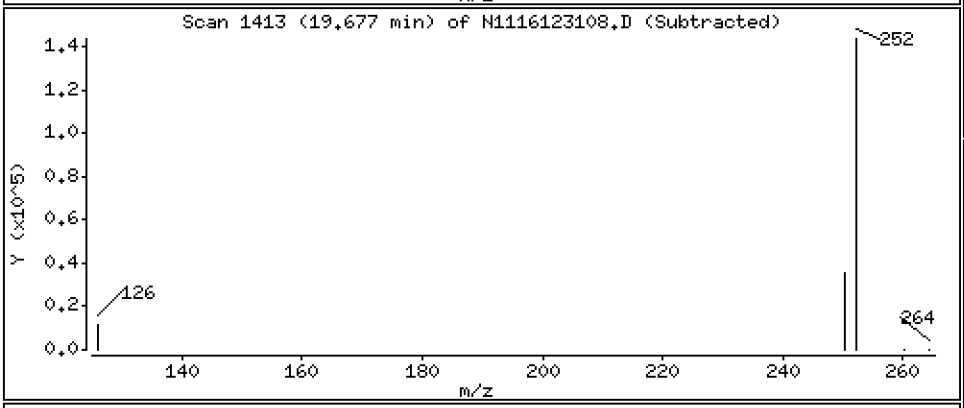
Column diameter: 0.25

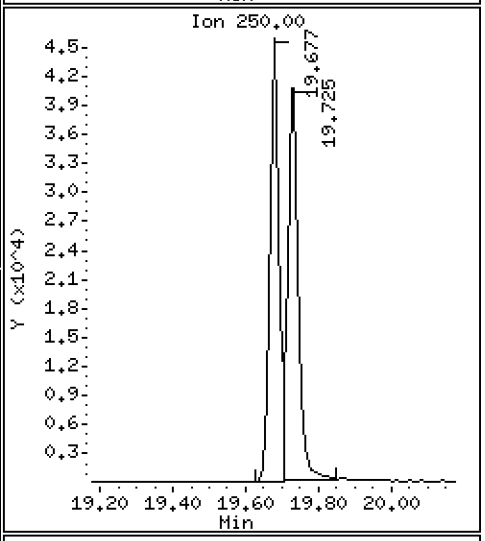
30 Benzo(b)fluoranthene

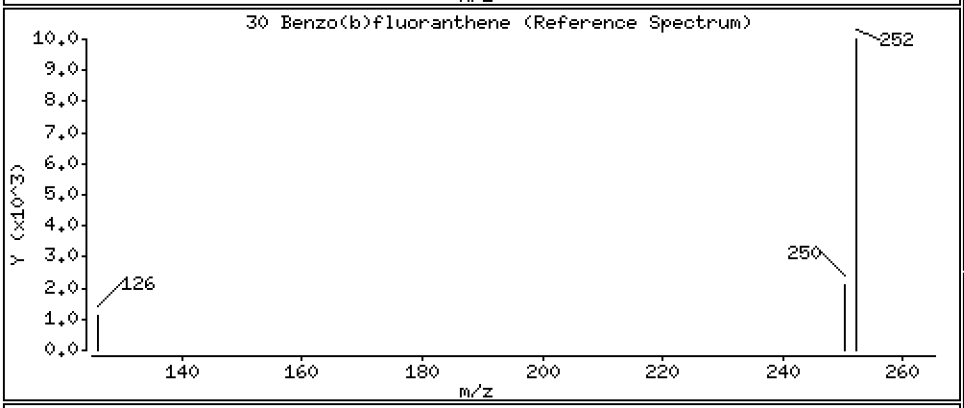
Concentration: 253 ng/mL

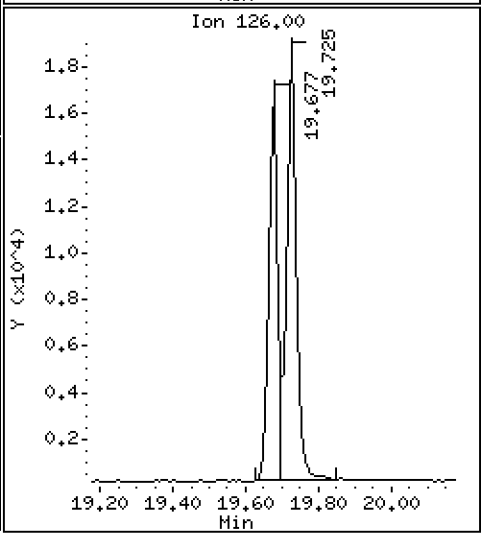


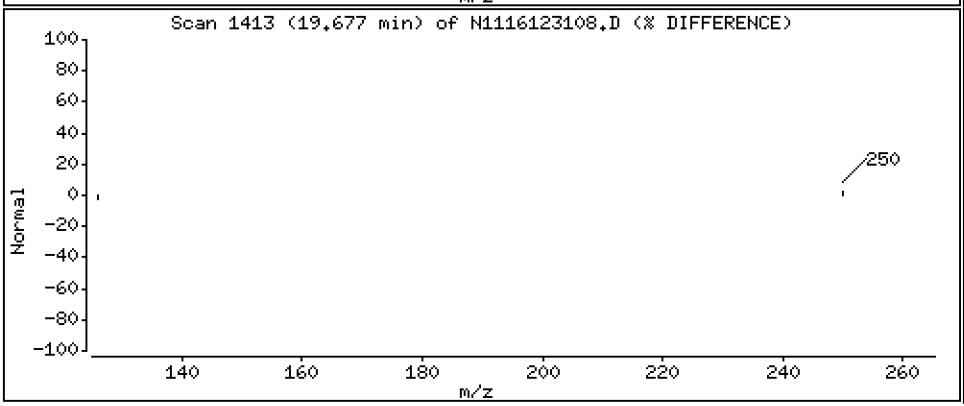












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Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

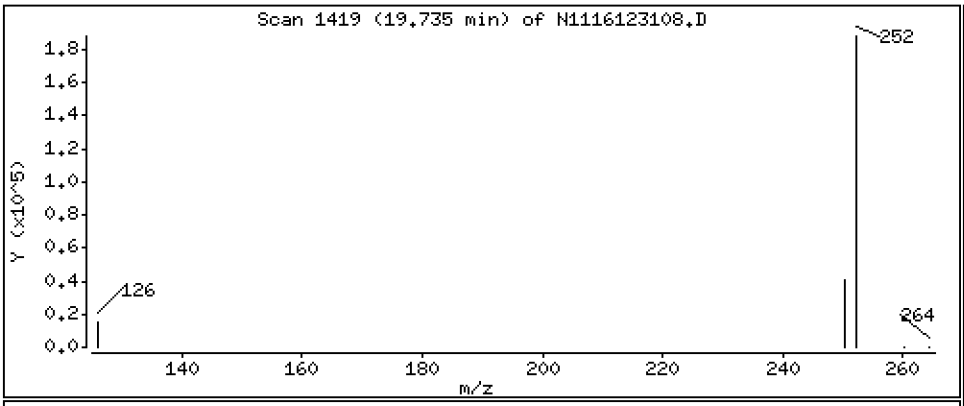
Operator: VTS

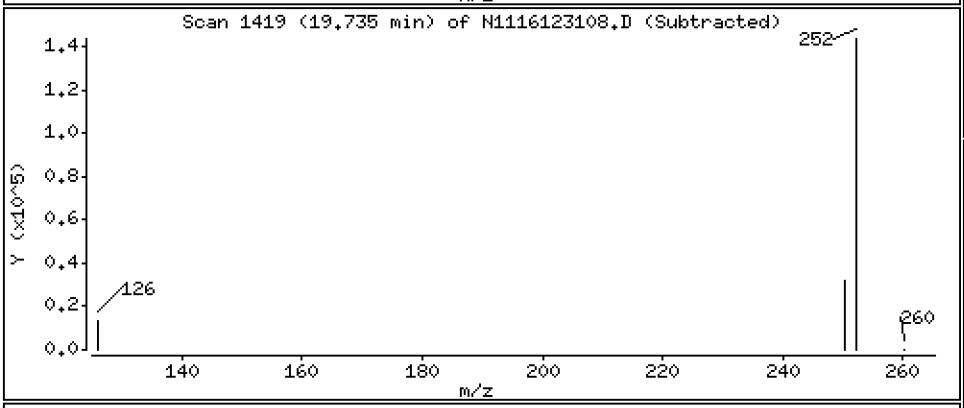
Column phase: Rxi-17Sil MS

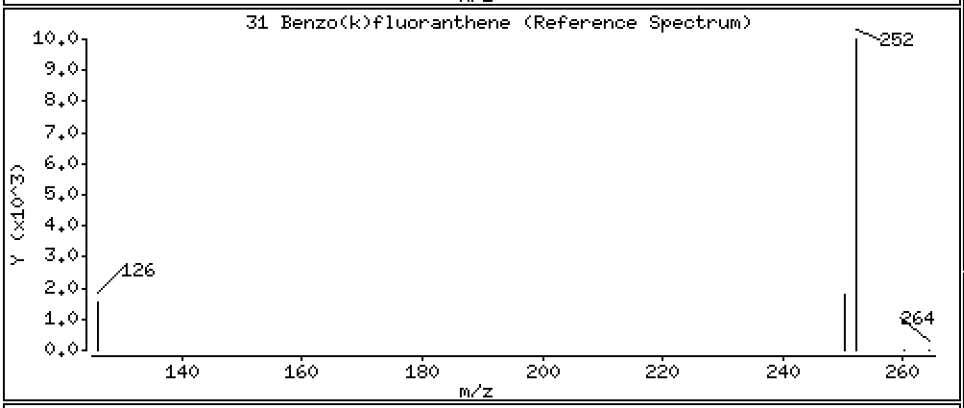
Column diameter: 0.25

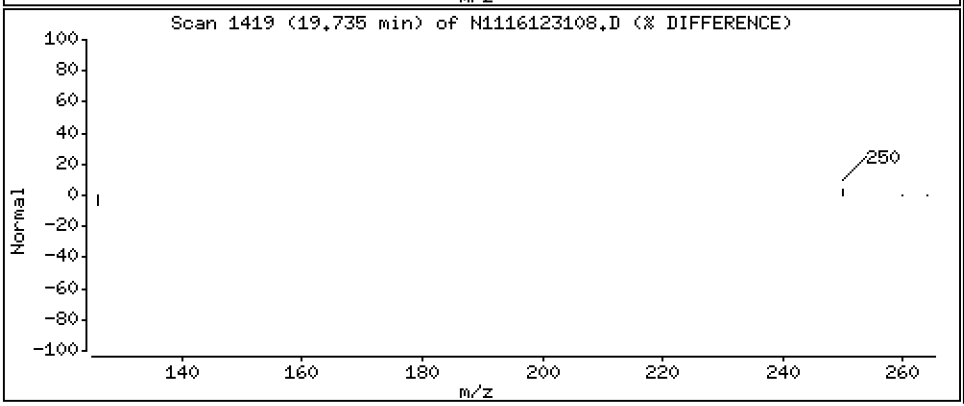
31 Benzo(k)fluoranthene

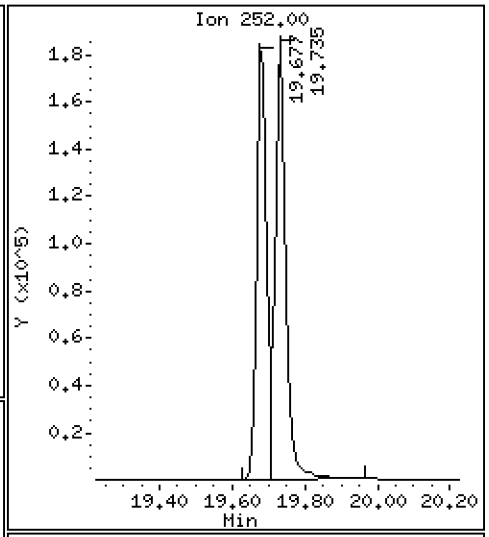
Concentration: 262 ng/mL

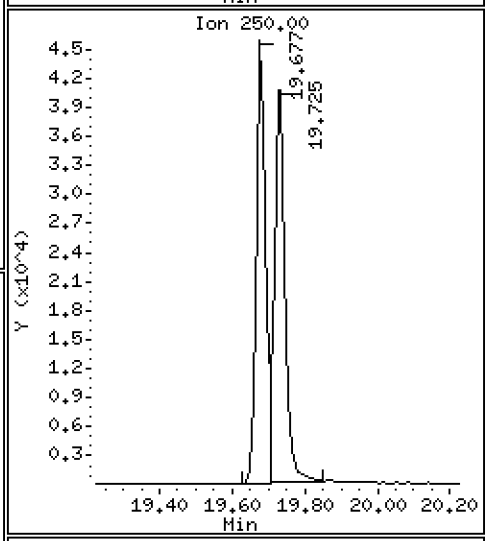


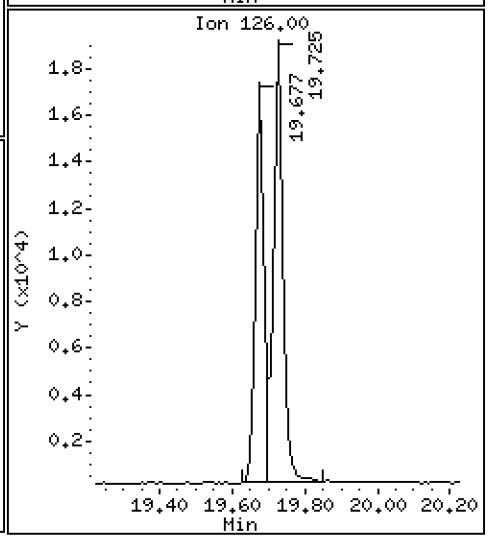












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Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

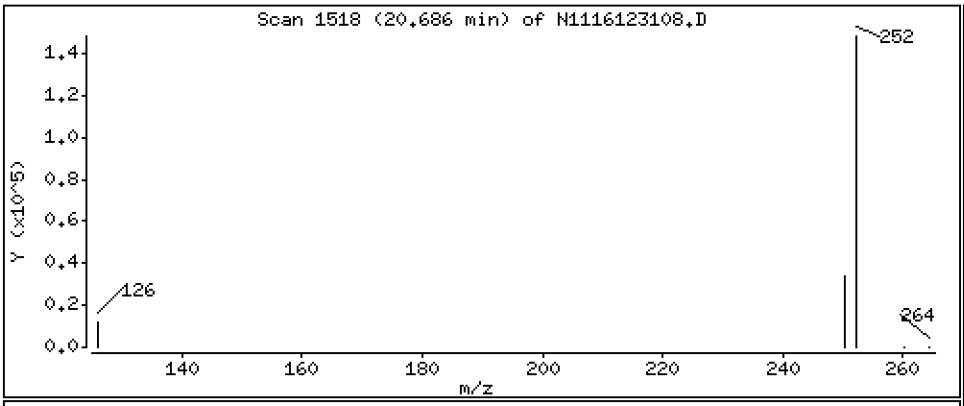
Operator: VTS

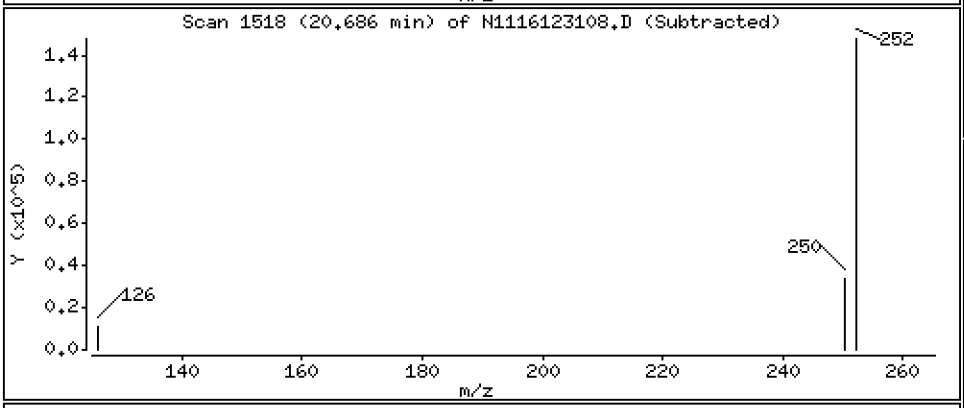
Column phase: Rxi-17Sil MS

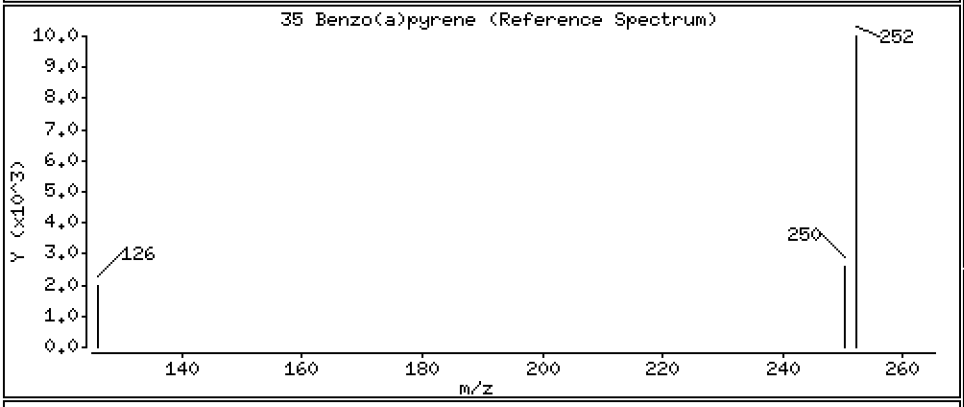
Column diameter: 0.25

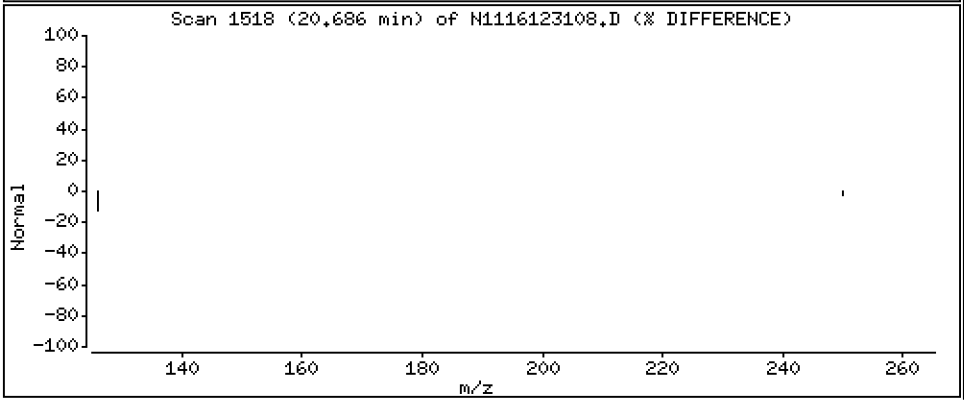
35 Benzo(a)pyrene

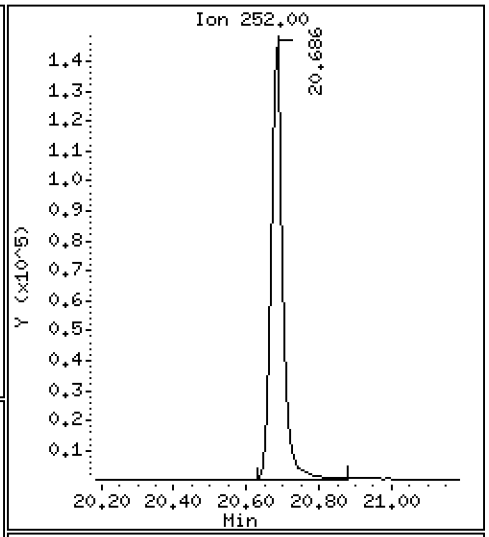
Concentration: 249 ng/mL

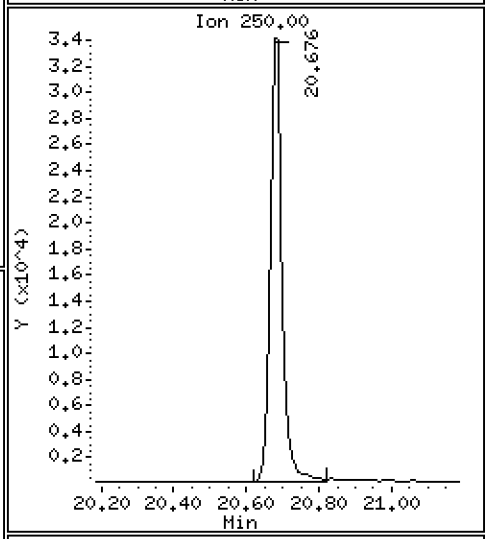


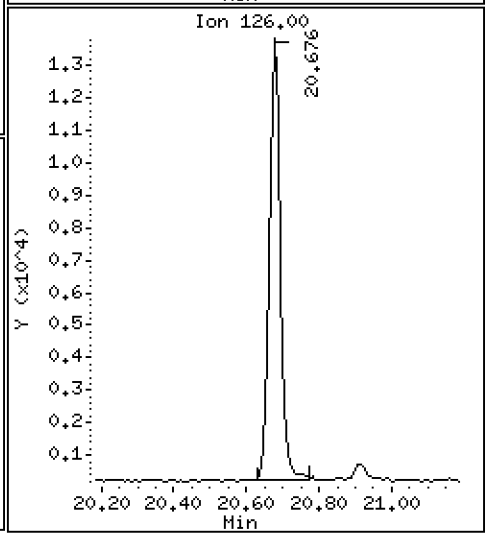












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Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

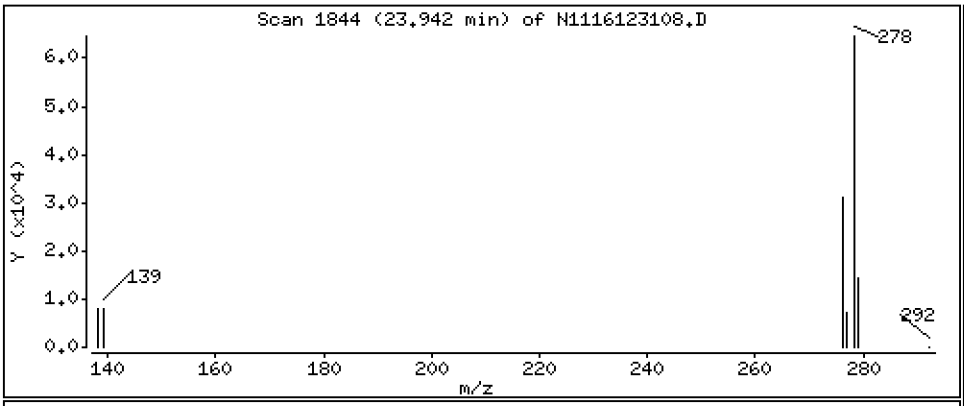
Operator: VTS

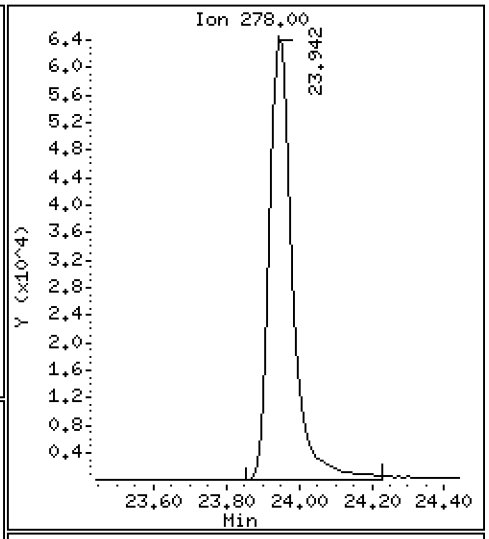
Column phase: Rxi-17Sil MS

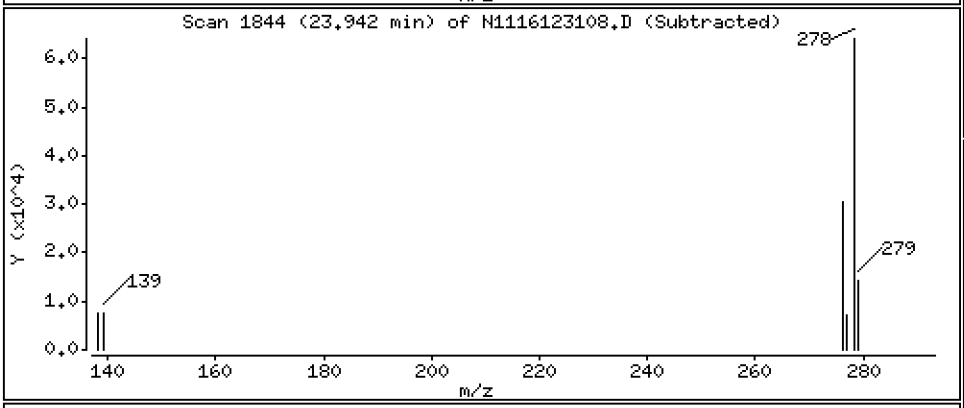
Column diameter: 0.25

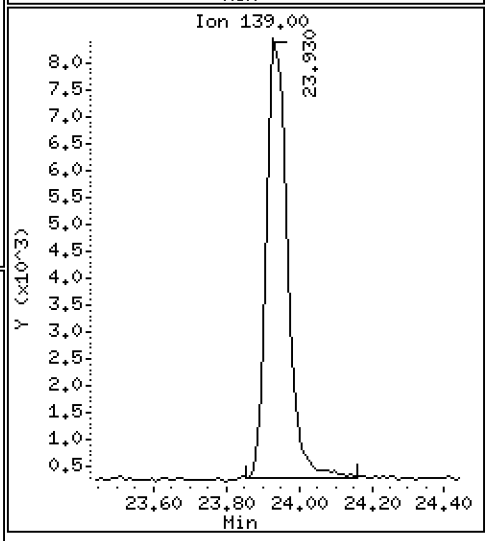
39 Dibenzo(a,h)anthracene

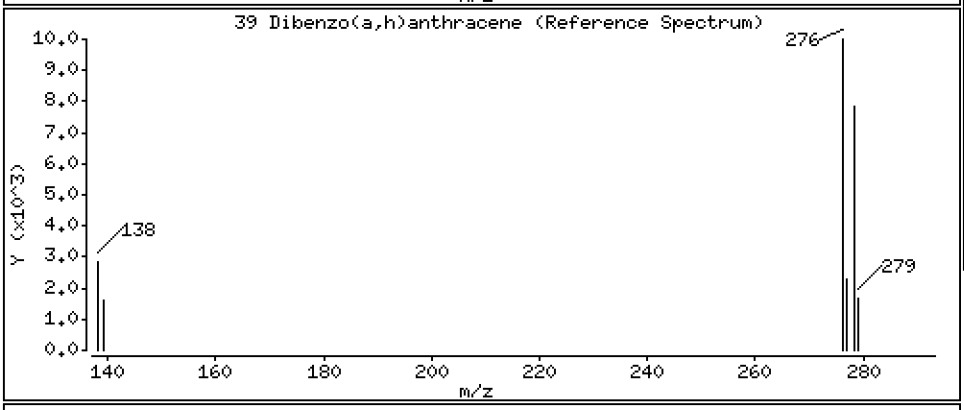
Concentration: 240 ng/mL

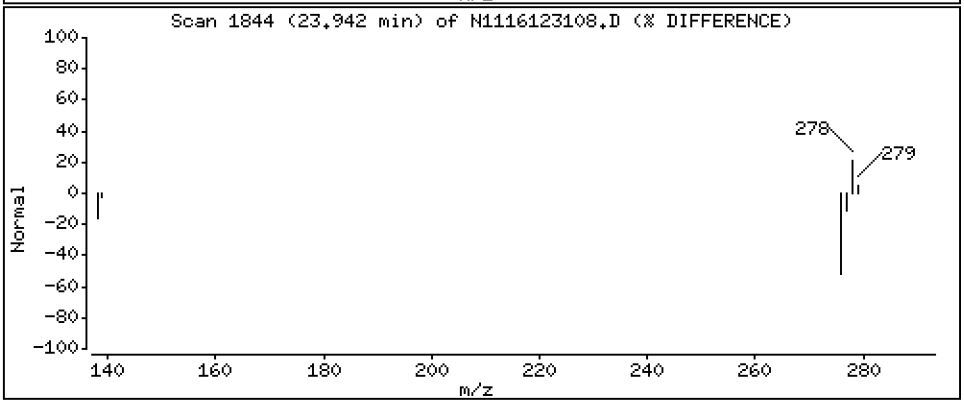












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Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

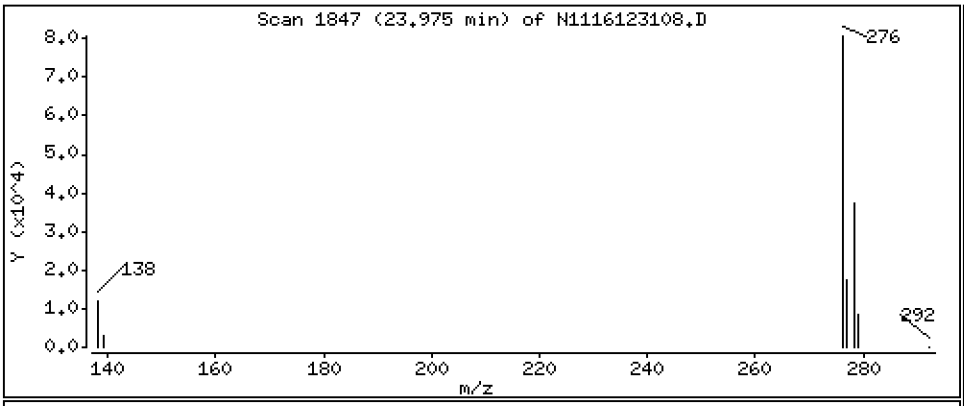
Operator: VTS

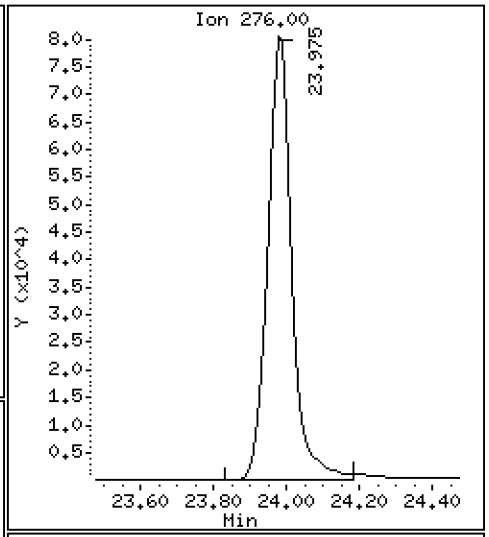
Column phase: Rxi-17Sil MS

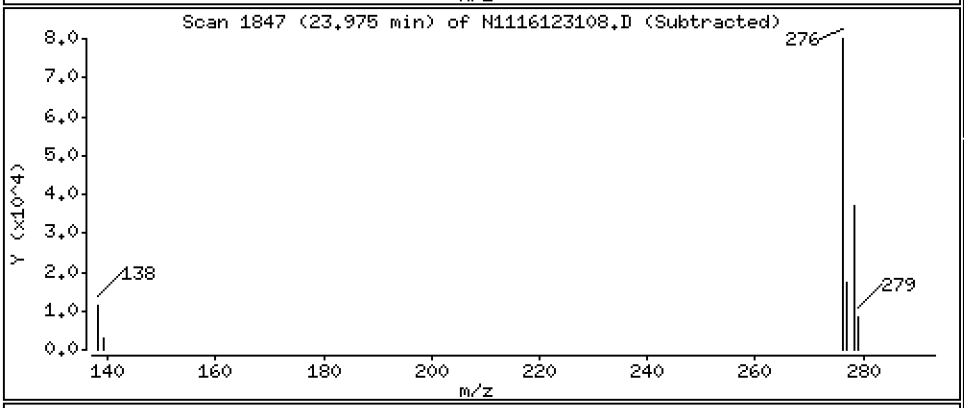
Column diameter: 0.25

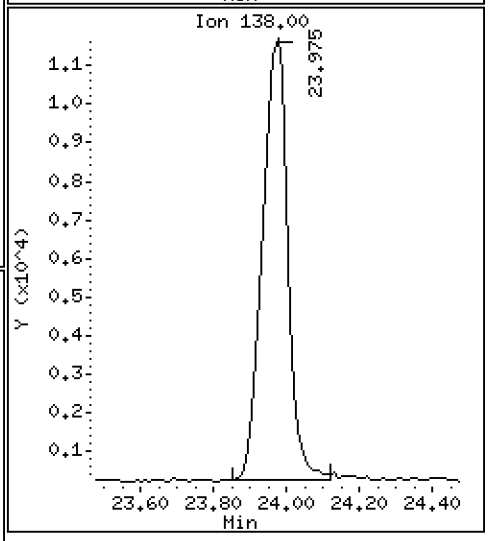
40 Indeno(1,2,3-cd)pyrene

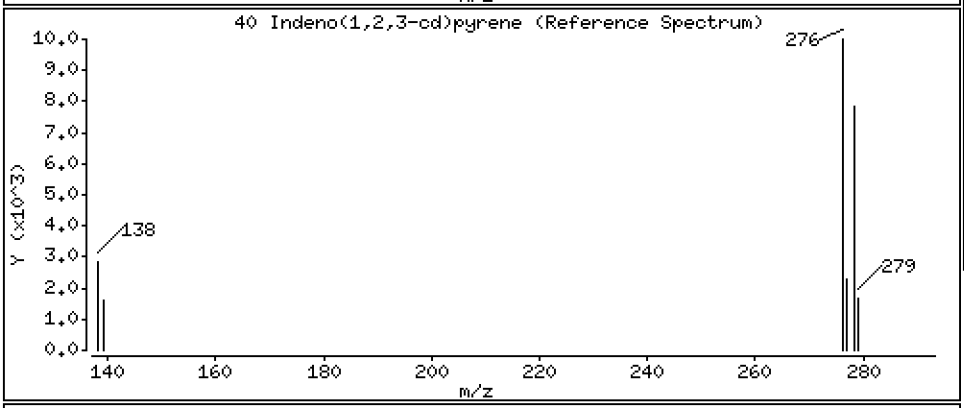
Concentration: 248 ng/mL

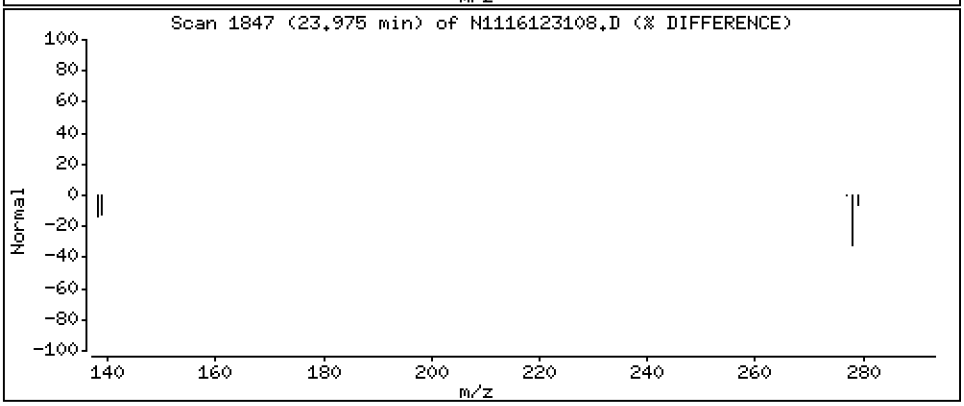












Data File: \\target\share\chem3\nt11.i\20161231.b\N1116123108.D

Date : 31-DEC-2016 11:35

Client ID:

Instrument: nt11.i

Sample Info: SEL0401-SCV1

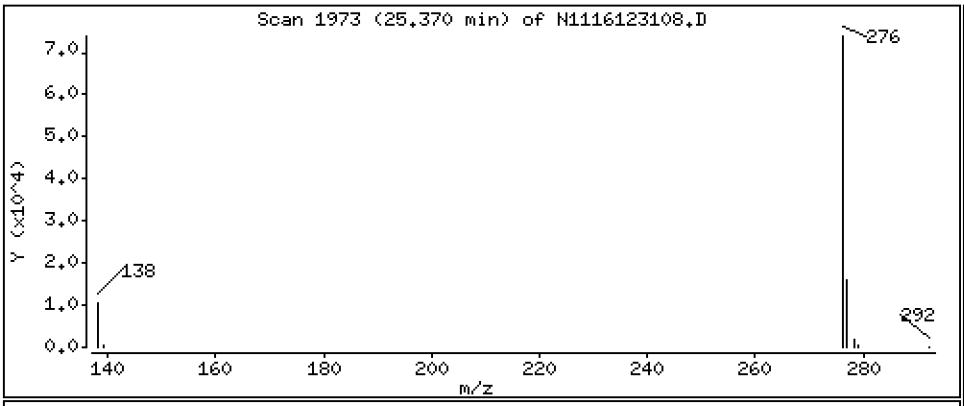
Operator: VTS

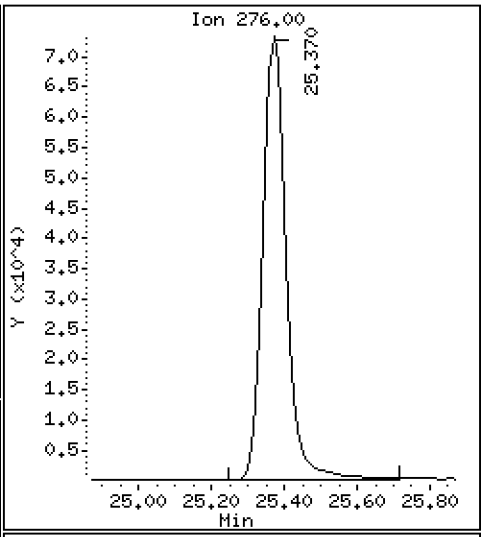
Column phase: Rxi-17Sil MS

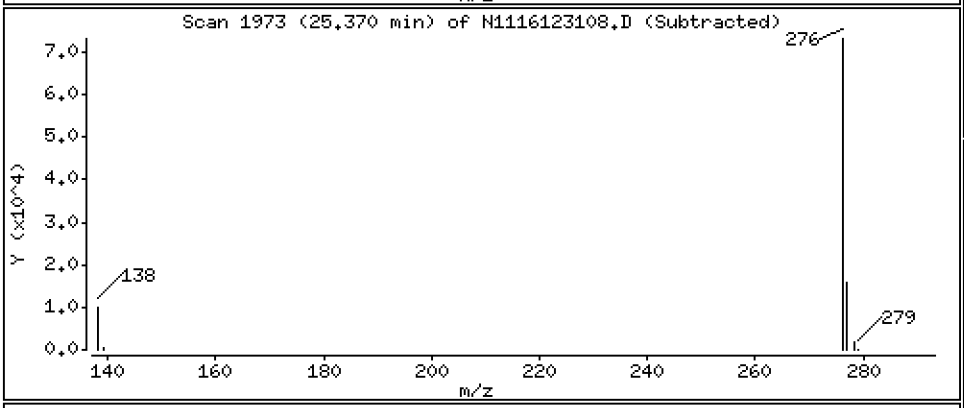
Column diameter: 0.25

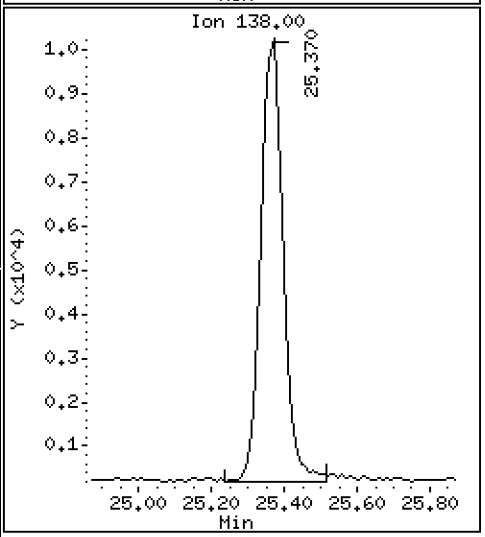
41 Benzo(g,h,i)perylene

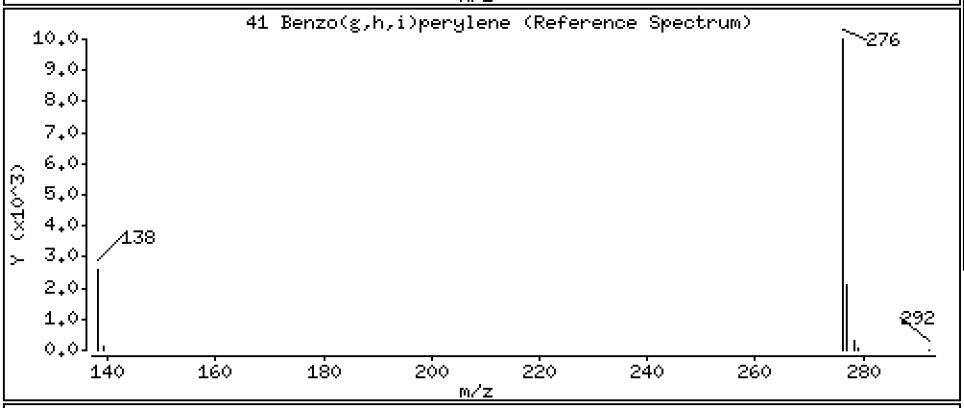
Concentration: 247 ng/mL

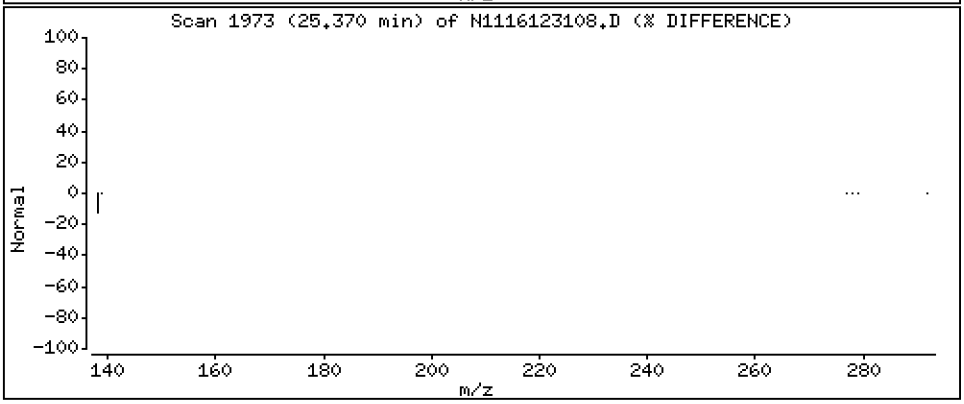












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20161231.b\N1116123108.D
Lab Smp Id: SEL0401-SCV1
Inj Date : 31-DEC-2016 11:35 MS Autotune Date: 15-JAN-2015 15:59
Operator : VTS Inst ID: nt11.i
Smp Info : SEL0401-SCV1
Misc Info :
Comment   :
Method   : \\target\share\chem3\nt11.i\20161231.b\lowsim.m
Meth Date : 31-Dec-2016 12:34 van Quant Type: ISTD
Cal Date : 31-DEC-2016 09:30 Cal File: N1116123104.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: newpna.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	7.225	7.225	(1.000)	210327	200.000	
	2 Naphthalene	128	7.253	7.253	(1.004)	263035	250.596	251
$	4 2-Methylnaphthalene-d10	152	Compound Not Detected.					
	5 2-Methylnaphthalene	142	8.253	8.253	(1.142)	257930	249.327	249
	6 1-Methylnaphthalene	142	8.516	8.516	(1.179)	246162	236.587	237
	10 Acenaphthylene	152	10.098	10.098	(0.985)	293179	254.726	255
*	11 Acenaphthene-d10	164	10.252	10.252	(1.000)	128092	200.000	
	12 Acenaphthene	153	10.315	10.315	(1.006)	209513	276.477	276
	13 Dibenzofuran	168	10.519	10.519	(1.026)	321591	285.478	285
	16 Fluorene	166	11.138	11.151	(1.086)	240770	268.478	268
*	18 Phenanthrene-d10	188	12.945	12.945	(1.000)	246665	200.000	
	19 Phenanthrene	178	12.987	12.987	(1.003)	354560	251.418	251
	21 Anthracene	178	13.040	13.040	(1.007)	334329	237.762	238
$	24 Fluoranthene-d10	212	15.007	15.055	(1.159)	1972	1.50522	1.51
	25 Fluoranthene	202	15.084	15.084	(1.165)	404582	252.915	253
	26 Pyrene	202	15.593	15.593	(0.881)	409188	246.982	247
	27 Benzo(a)anthracene	228	17.602	17.602	(0.994)	388934	253.609	254
*	28 Chrysene-d12	240	17.702	17.702	(1.000)	255043	200.000	
	29 Chrysene	228	17.751	17.751	(1.003)	380528	241.811	242
	30 Benzo(b)fluoranthene	252	19.676	19.677	(0.941)	361602	252.797	253
	31 Benzo(k)fluoranthene	252	19.734	19.725	(0.943)	403824	262.109	262
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
	35 Benzo(a)pyrene	252	20.685	20.685	(0.989)	331475	248.577	249
*	36 Perylene-d12	264	20.916	20.916	(1.000)	265358	200.000	
	37 Perylene	252	Compound Not Detected.					
$	38 Dibenzo(a,h)anthracene-d14	292	Compound Not Detected.					
	39 Dibenzo(a,h)anthracene	278	23.941	23.941	(1.145)	280435	240.373	240
	40 Indeno(1,2,3-cd)pyrene	276	23.974	23.974	(1.146)	361280	248.156	248
	41 Benzo(g,h,i)perylene	276	25.370	25.370	(1.213)	322290	246.575	247

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: N1116123108.D
Lab Smp Id: SEL0401-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20161231.b\lowsim.m
Misc Info:

Calibration Date: 31-DEC-2016
Calibration Time: 08:28
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	219654	109827	439308	210327	-4.25
11 Acenaphthene-d10	135248	67624	270496	128092	-5.29
18 Phenanthrene-d10	257021	128511	514042	246665	-4.03
28 Chrysene-d12	259511	129756	519022	255043	-1.72
36 Perylene-d12	257535	128768	515070	265358	3.04

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	7.23	6.73	7.73	7.23	0.00
11 Acenaphthene-d10	10.25	9.75	10.75	10.25	0.00
18 Phenanthrene-d10	12.95	12.45	13.45	12.95	0.00
28 Chrysene-d12	17.70	17.20	18.20	17.70	0.00
36 Perylene-d12	20.93	20.43	21.43	20.92	-0.05

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1116123108.D

Lab ID: SEL0401-SCV1
nt11.i, 20161231.b\lowsim.m,   31-DEC-2016 11:35

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20161231.b\lowsim.m, newpna.sub = 3.0000

Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Fluoranthene-d10 (Surr) 0.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000

Analytical Resources, Incorporated

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	17A0053
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Sequence:	SEL0401	Instrument:	NT11
		Calibration:	ZL00083

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
DFTPP	SEL0401-TUN1	N1116123101.D	Water	12/31/16 08:12
Initial Cal Check	SEL0401-ICV1	N1116123102ICV.D	Water	12/31/16 08:28
Cal Standard	SEL0401-CAL4	N1116123102.D	Water	12/31/16 08:28
Cal Standard	SEL0401-CAL6	N1116123103.D	Water	12/31/16 08:59
Cal Standard	SEL0401-CAL1	N1116123104.D	Water	12/31/16 09:30
Cal Standard	SEL0401-CAL5	N1116123105.D	Water	12/31/16 10:01
Cal Standard	SEL0401-CAL2	N1116123106.D	Water	12/31/16 10:32
Cal Standard	SEL0401-CAL3	N1116123107.D	Water	12/31/16 11:04
SIMPNA SCV	SEL0401-SCV1	N1116123108.D	Water	12/31/16 11:35
ZZZZZ	BEL0603-BLK1	N1116123109.D	Water	12/31/16 12:06
ZZZZZ	BEL0603-BS1	N1116123110.D	Water	12/31/16 12:37
ZZZZZ	16L0317-01	N1116123111.D	Water	12/31/16 13:08
ZZZZZ	16L0317-02	N1116123114.D	Water	12/31/16 14:42
ZZZZZ	16L0317-03	N1116123115.D	Water	12/31/16 15:13
ZZZZZ	16L0317-04	N1116123116.D	Water	12/31/16 15:45
ZZZZZ	16L0317-05	N1116123117.D	Water	12/31/16 16:16
ZZZZZ	16L0317-06	N1116123118.D	Water	12/31/16 16:47
ZZZZZ	16L0317-07	N1116123119.D	Water	12/31/16 17:18
ZZZZZ	16L0317-08	N1116123120.D	Water	12/31/16 17:50
ZZZZZ	16L0317-09	N1116123121.D	Water	12/31/16 18:21
ZZZZZ	16L0326-01	N1116123122.D	Water	12/31/16 18:52
SIM PAH 250	SEL0401-CCV1	N1116123125.D	Water	12/31/16 20:26

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Printed: 1/4/2017 8:27:36AM

ANALYSIS SEQUENCE

SEL0401

Instrument: NT11 Element Column ID: E006480
Calibration ID: ZL00052 Tune File: 161216.U
EM Voltage: 2353

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SEL0401-TUN1	DFTPP	QC		1	E007446		
SEL0401-CAL4	Cal Standard	QC		2	E006577	E002870	
SEL0401-CAL6	Cal Standard	QC		3	E006579	E002870	
SEL0401-CAL1	Cal Standard	QC		4	E006574	E002870	
SEL0401-CAL5	Cal Standard	QC		5	E006578	E002870	
SEL0401-CAL2	Cal Standard	QC		6	E006575	E002870	
SEL0401-CAL3	Cal Standard	QC		7	E006576	E002870	
SEL0401-SCV1	SIMPNA SCV	QC		8	E007699	E002870	
SEL0401-ICV1	Initial Cal Check	QC		9	E006577	E002870	
BEL0603-BLK1	Blank	QC		10		E002870	
BEL0603-BS1	LCS	QC		11		E002870	
16L0317-01	A-HCMW2-122116	SIM PAH Low (0.01 ug/L - 0.	D 01	12		E002870	
BEL0603-MS1	Matrix Spike	QC		13		E002870	
BEL0603-MSD1	Matrix Spike Dup	QC		14		E002870	
16L0317-02	A-DOTMW4-122116	SIM PAH Low (0.01 ug/L - 0.	D 01	15		E002870	
16L0317-03	A-MW16-122016	SIM PAH Low (0.01 ug/L - 0.	D 01	16		E002870	
16L0317-04	A-MW24-122016	SIM PAH Low (0.01 ug/L - 0.	D 01	17		E002870	
16L0317-05	A-MW26-122016	SIM PAH Low (0.01 ug/L - 0.	D 01	18		E002870	
16L0317-06	A-MW28-122016	SIM PAH Low (0.01 ug/L - 0.	D 01	19		E002870	
16L0317-07	A-MW29-122016	SIM PAH Low (0.01 ug/L - 0.	D 01	20		E002870	
16L0317-08	A-MW30-122016	SIM PAH Low (0.01 ug/L - 0.	D 01	21		E002870	
16L0317-09	A-DUP1-122016	SIM PAH Low (0.01 ug/L - 0.	D 01	22		E002870	

Printed: 1/4/2017 8:27:36AM

ANALYSIS SEQUENCE

SEL0401

Instrument: NT11 Element Column ID: E006480
Calibration ID: ZL00052 Tune File: 161216.U
EM Voltage: 2353

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
16L0326-01	MW-6	SIM PAH Low (0.01 ug/L - 0.	D 01	23		E002870	
BEL0603-MS2	Matrix Spike	QC		24		E002870	
BEL0603-MSD2	Matrix Spike Dup	QC		25		E002870	
SEL0401-CCV1	SIM PAH 250	QC		26	E006577	E002870	

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INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20161231.b

	Time	Filename	LabID	ClientId	DF											
1	0812	N1116123101.D	SEL0401-TUN1		1	NO ISTDS FOUND										
2	0828	N1116123102.D	SEL0401-CAL4		1	7.23	219654	10.25	135248	12.95	257021	17.70	259511	20.93	257535	
3	0859	N1116123103.D	SEL0401-CAL6		1	7.23	213511	10.25	133595	12.95	256606	17.70	268214	20.92	279143	
4	0930	N1116123104.D	SEL0401-CAL1		1	7.23	239658	10.25	148389	12.95	283739	17.70	283072	20.92	287631	
5	1001	N1116123105.D	SEL0401-CAL5		1	7.23	218999	10.25	137033	12.95	265632	17.70	271314	20.92	280262	
6	1032	N1116123106.D	SEL0401-CAL2		1	7.23	212581	10.25	132827	12.95	247500	17.70	256124	20.92	263051	
7	1104	N1116123107.D	SEL0401-CAL3		1	7.23	208170	10.25	127832	12.95	237418	17.70	244102	20.92	258780	
8	1135	N1116123108.D	SEL0401-SCV1		1	7.23	210327	10.25	128092	12.95	246665	17.70	255043	20.92	265358	
9	1206	N1116123109.D	BEL0603-BLK1		1	7.23	215545	10.25	128323	12.95	248564	17.70	249010	20.93	243234	
10	1237	N1116123110.D	BEL0603-BS1		1	7.23	206110	10.25	126178	12.95	240860	17.70	244295	20.93	246679	
11	1308	N1116123111.D	16L0317-01		1	7.23	204933	10.25	119575	12.95	233788	17.70	233370	20.93	240033	
12	1340	N1116123112.D	BEL0603-MS1		1	7.23	210247	10.25	127026	12.95	247336	17.70	253277	20.93	259486	
13	1411	N1116123113.D	BEL0603-MSD1		1	7.23	216185	10.25	131547	12.95	254742	17.70	259479	20.93	272609	
14	1442	N1116123114.D	16L0317-02		1	7.23	219441	10.25	127259	12.95	244027	17.70	255696	20.93	274985	
15	1513	N1116123115.D	16L0317-03		1	7.23	201908	10.25	116067	12.95	214738	17.70	228289	20.93	251376	
16	1545	N1116123116.D	16L0317-04		1	7.23	200171	10.26	148127	12.95	228712	17.70	217290	20.93	252799	
17	1616	N1116123117.D	16L0317-05		1	7.23	211331	10.25	129954	12.95	237454	17.70	229653	20.93	246879	
18	1647	N1116123118.D	16L0317-06		1	7.23	192570	10.25	111434	12.95	209330	17.70	201850	20.93	236366	
19	1718	N1116123119.D	16L0317-07		1	7.23	215538	10.25	129527	12.95	243632	17.70	251142	20.93	273122	
20	1750	N1116123120.D	16L0317-08		1	7.23	212351	10.25	124164	12.95	241635	17.70	251376	20.93	278226	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20161231.b

	Time	Filename	LabID	ClientId	DF									
21	1821	N1116123121.D	16L0317-09		1	7.23	200623	10.25	115063	12.95	219070	17.70	227704	20.93	245014
22	1852	N1116123122.D	16L0326-01		1	7.23	198305	10.25	116953	12.95	216978	17.70	219572	20.93	251218
23	1923	N1116123123.D	BEL0603-MS2		1	7.23	187113	10.25	111583	12.95	209184	17.70	223098	20.93	256608
24	1955	N1116123124.D	BEL0603-MSD2		1	7.23	209921	10.25	128082	12.95	240741	17.70	250308	20.93	282454
25	2026	N1116123125.D	SEL0401-CCV1		1	7.23	189529	10.25	116816	12.95	224943	17.70	244863	20.93	252132

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20161231.b

ARI Job No.: SEL0 Method: DFTPP.m Instrument: nt11.i Date: 31-DEC-2016

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0812	N1116123101.D	SEL0401-TUN1		1	NO MANUAL INTEGRATION
0828	N1116123102.D	SEL0401-CAL4		1	NO MANUAL INTEGRATION
0859	N1116123103.D	SEL0401-CAL6		1	NO MANUAL INTEGRATION
0930	N1116123104.D	SEL0401-CAL1		1	Benzo(b)thiophene, 2-Chloronaphthalene, 2,3,5-Trimethylnaphthalene, Dibenzo(a,h)anthracene-d14, Fluorene-d10,
1001	N1116123105.D	SEL0401-CAL5		1	NO MANUAL INTEGRATION
1032	N1116123106.D	SEL0401-CAL2		1	Benzo(j)fluoranthene, Benzo(b)thiophene, 2,6-Dimethylnaphthalene, 2,3,5-Trimethylnaphthalene, 2-Methylnaphthalene-d10, Dibenz Benzo(e)pyrene-d12,
1104	N1116123107.D	SEL0401-CAL3		1	Benzo(j)fluoranthene, Benzo(b)thiophene, 2-Chloronaphthalene, 2,6-Dimethylnaphthalene, 2,3,5-Trimethylnaphthalene, Biphenyl, 2-Methylnaphthalene-d10, Dibenzo(a,h)anthracene-d14, Benzo(e)pyrene-d12,
1135	N1116123108.D	SEL0401-SCV1		1	NO MANUAL INTEGRATION
1206	N1116123109.D	BEL0603-BLK1		1	NO MANUAL INTEGRATION
1237	N1116123110.D	BEL0603-BS1		1	NO MANUAL INTEGRATION
1308	N1116123111.D	16L0317-01		1	NO MANUAL INTEGRATION
1340	N1116123112.D	BEL0603-MS1		1	NO MANUAL INTEGRATION
1411	N1116123113.D	BEL0603-MSD1		1	NO MANUAL INTEGRATION
1442	N1116123114.D	16L0317-02		1	NO MANUAL INTEGRATION
1513	N1116123115.D	16L0317-03		1	NO MANUAL INTEGRATION
1545	N1116123116.D	16L0317-04		1	NO MANUAL INTEGRATION
1616	N1116123117.D	16L0317-05		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20161231.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1647	N1116123118.D	16L0317-06		1	NO MANUAL INTEGRATION
1718	N1116123119.D	16L0317-07		1	NO MANUAL INTEGRATION
1750	N1116123120.D	16L0317-08		1	NO MANUAL INTEGRATION
1821	N1116123121.D	16L0317-09		1	NO MANUAL INTEGRATION
1852	N1116123122.D	16L0326-01		1	NO MANUAL INTEGRATION
1923	N1116123123.D	BEL0603-MS2		1	NO MANUAL INTEGRATION
1955	N1116123124.D	BEL0603-MSD2		1	NO MANUAL INTEGRATION
2026	N1116123125.D	SEL0401-CCV1		1	NO MANUAL INTEGRATION

Analytical Resources, Incorporated

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	17A0053
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Sequence:	SFB0130	Instrument:	NT11
		Calibration:	ZL00083

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
DFTPP	SFB0130-TUN1	N1117021004.D	Tissue	02/10/17 13:08
Initial Cal Check	SFB0130-ICV1	N1117021005.D	Tissue	02/10/17 13:29
Blank	BFA0647-BLK1	N1117021007.D	Tissue	02/10/17 14:40
LCS	BFA0647-BS1	N1117021008.D	Tissue	02/10/17 15:16
ZZZZZ	16K0124-01	N1117021009.D	Tissue	02/10/17 15:52
PG-SMA1-1-MUS-170105	17A0053-01	N1117021010.D	Tissue	02/10/17 16:27
PG-SMA2-1-MUS-170105	17A0053-04	N1117021011.D	Tissue	02/10/17 17:03
PG-SMA2-2-MUS-170105	17A0053-05	N1117021012.D	Tissue	02/10/17 17:39
PG-SMA2-3-MUS-170105	17A0053-06	N1117021013.D	Tissue	02/10/17 18:14
PG-SMA2-4-MUS-170105	17A0053-07	N1117021014.D	Tissue	02/10/17 18:50
PG-SMA2-5-MUS-170105	17A0053-08	N1117021015.D	Tissue	02/10/17 19:25
PG-PJ-1-MUS-170105	17A0053-09	N1117021016.D	Tissue	02/10/17 20:01
PG-WS-1-MUS-170105	17A0053-11	N1117021018.D	Tissue	02/10/17 21:12
PG-SMA1-2-3-MUS-170105	17A0053-12	N1117021019.D	Tissue	02/10/17 21:48
PG-SMA2-2-MUS-170105	BFA0647-MS1	N1117021020.D	Tissue	02/10/17 22:23
PG-SMA2-2-MUS-170105	BFA0647-MSD1	N1117021021.D	Tissue	02/10/17 22:59
SIM PAH 250	SFB0130-CCV1	N1117021022.D	Tissue	02/10/17 23:35

Port Gamble Shellfish Monitoring

17A0053

Analysis	Matrix	Method
8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg)	Tissue	EPA 8270D-SIM

Checklist: Analyst Checklist-SVOA

#	Checklist Item	Response		Analyst Initials	Date
1	DFTPP abundance and time criteria met	YES		VTS	02/11/2017
2	DDT Breakdown <20% and Peak Tailing <=2	YES		VTS	02/11/2017
3	ICV/CCV Meets %D	YES		VTS	02/11/2017
4	ICAL/ICV/CCV Q Flag - NONE required	YES		VTS	02/11/2017
5	Internal Standard areas within 50-200%	YES		VTS	02/11/2017
	Comments: *Samples 16K0124-01, 17a0053-01 and -05 are within limits. See dod-istd report.*				
6	Retention times within windows and Coelution summary checked	YES		VTS	02/11/2017
7	Manual integrations include summary and before/after pictures	YES		VTS	02/11/2017
8	Project specific requirements have been met	YES		VTS	02/11/2017
9	Sample dilution factors have been correctly applied	NA		VTS	02/11/2017
10	AUTOCHECK: Blank checked for exceedence of criteria	YES	*	VTS	02/11/2017
11	AUTOCHECK: Check blank spike recovery	YES	*	VTS	02/11/2017
12	AUTOCHECK: Check blank spike/blank spike duplicate RPD. If exceeded include outliers in exception report.	NA	*	VTS	02/11/2017
13	AUTOCHECK: Compounds in method designated as blank spike compounds are present	YES	*	VTS	02/11/2017
14	AUTOCHECK: Check %RPD between sample and sample duplicate	NA	*	VTS	02/11/2017
15	AUTOCHECK: Matrix spike recoveries within limits	NO	*	VTS	02/11/2017
	Comments: *Recoveries are advisory for tissue MS and MSD. Matrix Spike Recovery for Benzo(b)thiophene (27.0%) was outside acceptance limits (30-160) in BFA0647-MS1 for 8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - Flagged value is not within established control limits.* *Matrix Spike Recovery for Fluoranthene (24.7%) was outside acceptance limits (30-160) in BFA0647-MS1 for 8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - Flagged value is not within established control limits.* *Matrix Spike Recovery for Naphthalene (27.2%) was outside acceptance limits (30-160) in BFA0647-MS1 for 8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - Flagged value is not within established control limits.*				
16	AUTOCHECK: Matrix spike/matrix spike duplicate RPD within limits	NO	*	VTS	02/11/2017
	Comments: *In general the MS recoveries are about 1/2 of msd including the surrogates which indicates an overall loss while processing the extracts. No corrective action taken. All recoveries and %RPD are advisory for a tissue matrix Matrix Spike Duplicate RPD for 1-Methylnaphthalene (55.9%) was above the acceptance limit (30) in BFA0647-MSD1 for 8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg)*				

* = Indicates Automated Response from Element DataSyst

Port Gamble Shellfish Monitoring
17A0053

Analysis	Matrix	Method
8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg)	Tissue	EPA 8270D-SIM

Checklist: Analyst Checklist-SVOA

#	Checklist Item	Response	Analyst Initials	Date

- Flagged value is not within established control limits.

Matrix Spike Duplicate RPD for 2-Chloronaphthalene (58.4%) was above the acceptance limit (30) in BFA0647-MSD1 for 8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg)
- Flagged value is not within established control limits.

Matrix Spike Duplicate RPD for 2-Methylnaphthalene (54.8%) was above the acceptance limit (30) in BFA0647-MSD1 for 8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg)
- Flagged value is not within established control limits.

Matrix Spike Duplicate RPD for Acenaphthene (52.3%) was above the acceptance limit (30) in BFA0647-MSD1 for 8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg)
- Flagged value is not within established control limits.

Matrix Spike Duplicate RPD for Acenaphthylene (53.5%) was above the acceptance limit (30) in BFA0647-MSD1 for 8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg)
- Flagged value is not within established control limits.

Matrix Spike Duplicate RPD for Anthracene (51.5%) was above the acceptance limit (30) in BFA0647-MSD1 for 8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg)
- Flagged value is not within established control limits.

Matrix Spike Duplicate RPD for Benzo(a)anthracene (54.3%) was above the acceptance limit (30) in BFA0647-MSD1 for 8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg)
- Flagged value is not within established control limits.

Matrix Spike Duplicate RPD for Benzo(a)pyrene (51.4%) was above the acceptance limit (30) in BFA0647-MSD1 for 8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg)
- Flagged value is not within established control limits.

Matrix Spike Duplicate RPD for Benzo(b)fluoranthene (51.4%) was above the acceptance limit (30) in BFA0647-MSD1 for 8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg)
- Flagged value is not within established control limits.

Matrix Spike Duplicate RPD for Benzo(b)thiophene (60.4%) was above the acceptance limit (30) in BFA0647-MSD1 for 8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg)
- Flagged value is not within established control limits.

Matrix Spike Duplicate RPD for Benzo(g,h,i)perylene (52.2%) was above the acceptance limit (30) in BFA0647-MSD1 for 8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg)
- Flagged value is not within established control limits.

Matrix Spike Duplicate RPD for Benzo(j)fluoranthene (52.5%) was above the acceptance limit (30) in BFA0647-MSD1 for 8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg)
- Flagged value is not within established control limits.

Matrix Spike Duplicate RPD for Benzo(k)fluoranthene (52.2%) was above the acceptance limit (30) in BFA0647-MSD1 for 8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg)

Port Gamble Shellfish Monitoring

17A0053

Analysis	Matrix	Method
8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg)	Tissue	EPA 8270D-SIM

Checklist: Analyst Checklist-SVOA

#	Checklist Item	Response		Analyst Initials	Date
	- Flagged value is not within established control limits.				
	Matrix Spike Duplicate RPD for Chrysene (53.8%) was above the acceptance limit (30) in BFA0647-MSD1 for 8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) *- Flagged value is not within established control limits.*				
	Matrix Spike Duplicate RPD for Dibenzo(a,h)anthracene (50.6%) was above the acceptance limit (30) in BFA0647-MSD1 for 8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) *- Flagged value is not within established control limits.*				
	Matrix Spike Duplicate RPD for Dibenzofuran (52.7%) was above the acceptance limit (30) in BFA0647-MSD1 for 8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) *- Flagged value is not within established control limits.*				
	Matrix Spike Duplicate RPD for Fluoranthene (51.6%) was above the acceptance limit (30) in BFA0647-MSD1 for 8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) *- Flagged value is not within established control limits.*				
	Matrix Spike Duplicate RPD for Fluorene (48.7%) was above the acceptance limit (30) in BFA0647-MSD1 for 8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) *- Flagged value is not within established control limits.*				
	Matrix Spike Duplicate RPD for Indeno(1,2,3-cd)pyrene (51.2%) was above the acceptance limit (30) in BFA0647-MSD1 for 8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) *- Flagged value is not within established control limits.*				
	Matrix Spike Duplicate RPD for Naphthalene (59.1%) was above the acceptance limit (30) in BFA0647-MSD1 for 8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) *- Flagged value is not within established control limits.*				
	Matrix Spike Duplicate RPD for Phenanthrene (50.1%) was above the acceptance limit (30) in BFA0647-MSD1 for 8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) *- Flagged value is not within established control limits.*				
	Matrix Spike Duplicate RPD for Pyrene (52.5%) was above the acceptance limit (30) in BFA0647-MSD1 for 8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) *- Flagged value is not within established control limits.*				
17	AUTOCHECK: List of compounds listed as spiked are present	YES	*	VTS	02/11/2017
18	AUTOCHECK: Check SRM limits for exceedance	NA	*	VTS	02/11/2017
19	AUTOCHECK: Check Surrogate recoveries	YES	*	VTS	02/11/2017
20	AUTOCHECK: Checks Surrogate spike list against Analysis	YES	*	VTS	02/11/2017
21	Analyst checklist completed (PEER)	YES		BB	02/13/2017
22	Data is locked and Status is Analyzed (PEER)	YES		BB	02/13/2017
23	Data file, Calibration, Sequence, Batch, and Cleanup PDF's are attached (PEER)	YES		BB	02/13/2017

* = Indicates Automated Response from Element DataSyst

Port Gamble Shellfish Monitoring

17A0053

Analysis	Matrix	Method
8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg)	Tissue	EPA 8270D-SIM

Checklist: Analyst Checklist-SVOA

#	Checklist Item	Response	Analyst Initials	Date
24	Color warnings have been addressed and (or) qualified (PEER)	YES	BB	02/13/2017
25	Qualifers have been correctly added (PEER)	YES	BB	02/13/2017
26	Checklist completed and status is peer reviewed (REVIEWER)	YES	BB	02/13/2017
27	Dilutions are linear (50-200%) and appropriate (REVIEWER)	NA	BB	02/13/2017
28	All requested samples have been reported (REVIEWER)	YES	BB	02/13/2017
29	Color warnings have been addressed, narrated and (or) qualified (REVIEWER)	YES	BB	02/13/2017
30	List of samples in this sequence that will require additional runs-verify reshot created (ANALYST)	YES	VTS	02/11/2017
	Comments: *Sample 17A0053-10 was mis-injected by the autosampler and is being rerun today in next sequence.*			
31	List of samples in this sequence that are re-analysis or dilutions of samples (ANALYST)	NA	VTS	02/11/2017
32	Additional Notes (ANALYST, PEER, and REVIEWER)	YES	VTS	02/11/2017
	Comments: *Sample 17A0053-10 was mis-injected by the autosampler and is being rerun today in next sequence.* *MS LOOKS TO BE 1/2 OF MSD (WIDE RPD'S) SEE #15,16*			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Printed: 2/11/2017 8:26:10AM

ANALYSIS SEQUENCE

SFB0130

Instrument: NT11 Element Column ID: E006481
Calibration ID: ZL00083 Tune File: 161216.U
EM Voltage: 2247

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SFB0130-TUN1	DFTPP	QC		1	E007446		
SFB0130-ICV1	Initial Cal Check	QC		2	E006577	E002870	
BFA0647-BLK1	Blank	QC		3		E002870	
BFA0647-BS1	LCS	QC		4		E002870	
16K0124-01	PG-T0-MUS-COC-161109	SIM PAH Low (0.01 ug/L - 0.	A 02	5		E002870	
17A0053-01	PG-SMA1-1-MUS-170105	SIM PAH Low (0.01 ug/L - 0.	A 02	6		E002870	
17A0053-04	PG-SMA2-1-MUS-170105	SIM PAH Low (0.01 ug/L - 0.	A 02	7		E002870	
17A0053-05	PG-SMA2-2-MUS-170105	SIM PAH Low (0.01 ug/L - 0.	A 02	8		E002870	
17A0053-06	PG-SMA2-3-MUS-170105	SIM PAH Low (0.01 ug/L - 0.	A 02	9		E002870	
17A0053-07	PG-SMA2-4-MUS-170105	SIM PAH Low (0.01 ug/L - 0.	A 02	10		E002870	
17A0053-08	PG-SMA2-5-MUS-170105	SIM PAH Low (0.01 ug/L - 0.	A 02	11		E002870	
17A0053-09	PG-PJ-1-MUS-170105	SIM PAH Low (0.01 ug/L - 0.	A 02	12		E002870	
17A0053-11	PG-WS-1-MUS-170105	SIM PAH Low (0.01 ug/L - 0.	A 02	13		E002870	
17A0053-12	PG-SMA1-2-3-MUS-170105	SIM PAH Low (0.01 ug/L - 0.	A 02	14		E002870	LIMITED VOLUME, only take minimum amount
BFA0647-MS1	Matrix Spike	QC		15		E002870	
BFA0647-MSD1	Matrix Spike Dup	QC		16		E002870	
SFB0130-CCV1	SIM PAH 250	QC		17	E006577	E002870	

1392

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20170210.b

	Time	Filename	LabID	ClientId	DF									
1	1145	N1117021001.D	SFB0130-TUN1		1	NO ISTDS FOUND								
2	1205	N1117021002.D	SFB0130-ICV1		1	8.53	508392	11.56	354460	14.26	673289	19.02	627104	22.24	522109
3	1240	N1117021003.D			1	8.53	501918	11.56	350269	14.25	674154	19.02	619406	22.24	552136
4	1308	N1117021004.D	SFB0130-TUN1		1	NO ISTDS FOUND								
5	1329	N1117021005.D	SFB0130-ICV1		1	8.53	326356	11.56	220051	14.26	424023	19.02	409280	22.24	347530
6	1405	N1117021006.D	SFB0130-LCV1		1	8.53	319083	11.56	212604	14.25	420984	19.02	391743	22.24	351171
7	1440	N1117021007.D	BFA0647-BLK1		1	8.51	263642	11.56	181252	14.25	354769	19.02	344497	22.24	338290
8	1516	N1117021008.D	BFA0647-BS1		1	8.51	263463	11.56	184009	14.25	363382	19.02	352838	22.24	341159
9	1552	N1117021009.D	16K0124-01		1	8.51	251510	11.56	149373	14.25	238222	19.02	198528	22.24	214455
10	1627	N1117021010.D	17A0053-01		1	8.52	214273	11.56	144698	14.25	234960	19.02	201157	22.24	213059
11	1703	N1117021011.D	17A0053-04		1	8.51	214970	11.56	145064	14.25	237830	19.02	206658	22.24	216657
12	1739	N1117021012.D	17A0053-05		1	8.51	218333	11.56	147879	14.25	236713	19.02	203457	22.24	217634
13	1814	N1117021013.D	17A0053-06		1	8.52	220641	11.56	149754	14.25	241636	19.02	208692	22.24	226680
14	1850	N1117021014.D	17A0053-07		1	8.52	228488	11.56	156874	14.25	250109	19.02	219541	22.24	233325
15	1925	N1117021015.D	17A0053-08		1	8.52	219069	11.56	148509	14.25	240804	19.02	211300	22.24	224848
16	2001	N1117021016.D	17A0053-09		1	8.51	219004	11.56	151898	14.25	243924	19.02	208748	22.24	221150
17	2036	N1117021017.D	17A0053-10		1	NO ISTDS FOUND								
18	2112	N1117021018.D	17A0053-11		1	8.52	224155	11.56	150650	14.25	240836	19.02	214297	22.24	224273
19	2148	N1117021019.D	17A0053-12		1	8.52	227725	11.56	158745	14.25	251996	19.02	207529	22.23	228830
20	2223	N1117021020.D	BFA0647-MS1		1	8.52	240715	11.56	173279	14.25	262158	19.03	222392	22.23	238610

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20170210.b

	Time	Filename	LabID	ClientId	DF									
21	2259	N1117021021.D	BFA0647-MSD1		1	8.52	226075	11.56	157597	14.25	247966	19.02	209184	22.24	230152
22	2335	N1117021022.D	SFB0130-CCV1		1	8.53	278606	11.56	216962	14.25	406542	19.02	325570	22.23	266441

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20170210.b

ARI Job No.: SFB0 Method: DFTPP.m Instrument: nt11.i Date: 10-FEB-2017

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1145	N1117021001.D	SFB0130-TUN1		1	NO MANUAL INTEGRATION
1205	N1117021002.D	SFB0130-ICV1		1	NO MANUAL INTEGRATION
1240	N1117021003.D			1	NO MANUAL INTEGRATION
1308	N1117021004.D	SFB0130-TUN1		1	NO MANUAL INTEGRATION
1329	N1117021005.D	SFB0130-ICV1		1	NO MANUAL INTEGRATION
1405	N1117021006.D	SFB0130-LCV1		1	NO MANUAL INTEGRATION
1440	N1117021007.D	BFA0647-BLK1		1	NO MANUAL INTEGRATION
1516	N1117021008.D	BFA0647-BS1		1	NO MANUAL INTEGRATION
1552	N1117021009.D	16K0124-01		1	NO MANUAL INTEGRATION
1627	N1117021010.D	17A0053-01		1	Acenaphthene, 1-Methylphenanthrene,
1703	N1117021011.D	17A0053-04		1	Acenaphthene, 1-Methylphenanthrene,
1739	N1117021012.D	17A0053-05		1	Acenaphthene, 1-Methylphenanthrene,
1814	N1117021013.D	17A0053-06		1	Acenaphthene, 2,3,5-Trimethylnaphthalene, 1-Methylphenanthrene, Dibenzothiophene,
1850	N1117021014.D	17A0053-07		1	Acenaphthene, 1-Methylphenanthrene, Dibenzothiophene,
1925	N1117021015.D	17A0053-08		1	2,3,5-Trimethylnaphthalene, 1-Methylphenanthrene,
2001	N1117021016.D	17A0053-09		1	Acenaphthene, 1-Methylphenanthrene,
2036	N1117021017.D	17A0053-10		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20170210.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2112	N1117021018.D	17A0053-11		1	1-Methylphenanthrene, Dibenzothiophene,
2148	N1117021019.D	17A0053-12		1	2,3,5-Trimethylnaphthalene, 1-Methylphenanthrene, Dibenzothiophene,
2223	N1117021020.D	BFA0647-MS1		1	NO MANUAL INTEGRATION
2259	N1117021021.D	BFA0647-MSD1		1	NO MANUAL INTEGRATION
2335	N1117021022.D	SFB0130-CCV1		1	NO MANUAL INTEGRATION

Autosampler Failed – sigh –

Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021017.D

Date : 10-FEB-2017 20:36

Client ID:

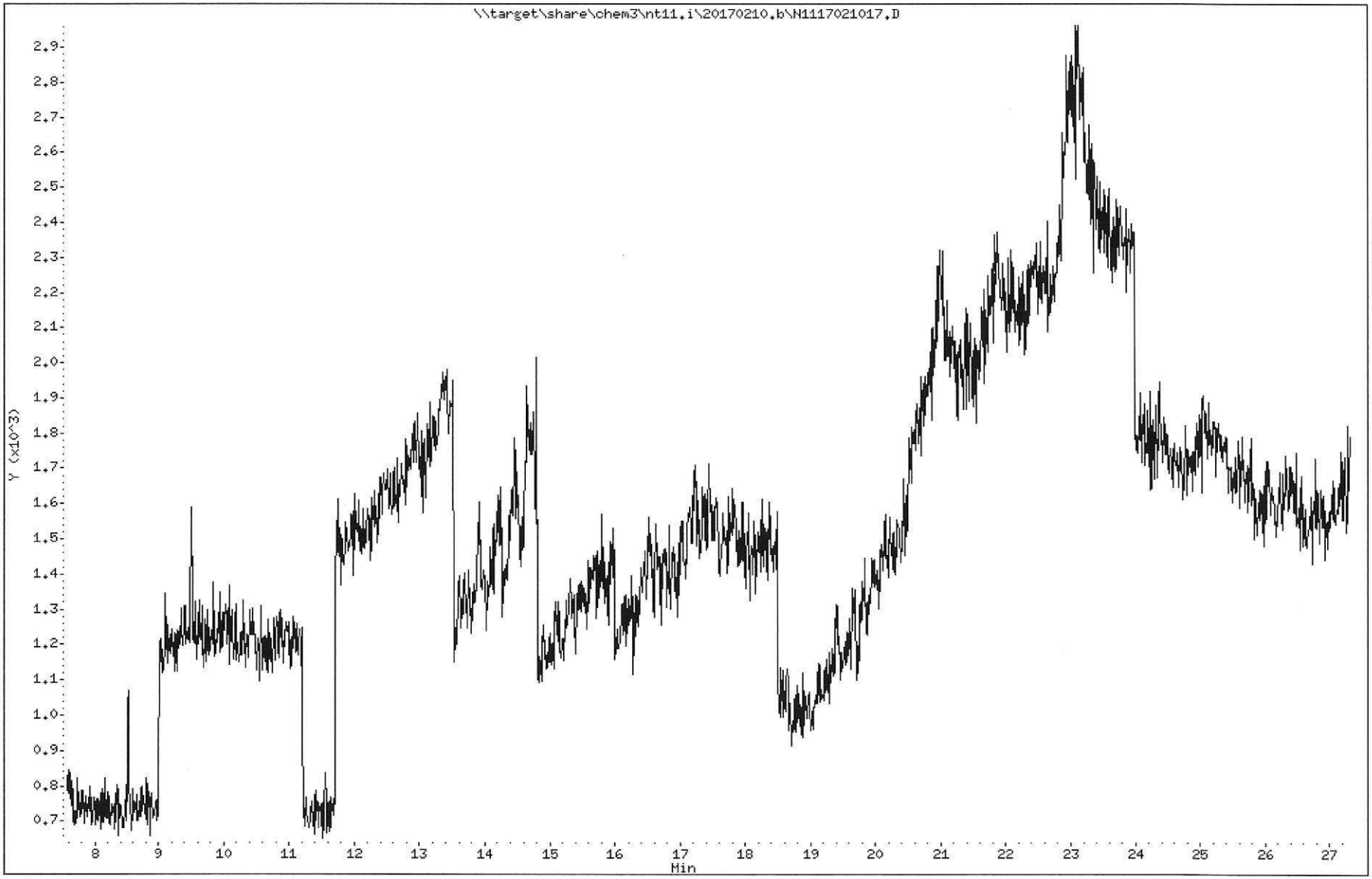
Sample Info: 17A0053-10

Instrument: nt11.i

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



Analytical Resources, Incorporated

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	17A0053
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Sequence:	SFB0152	Instrument:	NT11
		Calibration:	ZL00083

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
DFTPP	SFB0152-TUN1	N1117021101.D	Tissue	02/11/17 10:17
Initial Cal Check	SFB0152-ICV1	N1117021102.D	Tissue	02/11/17 10:36
PG-GP-1-MUS-170105	17A0053-10	N1117021103.D	Tissue	02/11/17 11:12
SIM PAH 250	SFB0152-CCV1	N1117021104.D	Tissue	02/11/17 11:47

Port Gamble Shellfish Monitoring

17A0053

Analysis	Matrix	Method
8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg)	Tissue	EPA 8270D-SIM

Checklist: Analyst Checklist-SVOA

#	Checklist Item	Response		Analyst Initials	Date
1	DFTPP abundance and time criteria met	YES		VTS	02/11/2017
2	DDT Breakdown <20% and Peak Tailing <=2	YES		VTS	02/11/2017
3	ICV/CCV Meets %D	YES		VTS	02/11/2017
4	ICAL/ICV/CCV Q Flag - NONE required	YES		VTS	02/11/2017
5	Internal Standard areas within 50-200%	YES		VTS	02/11/2017
	Comments: *See dod-istd report. All internal standards are within limits.*				
6	Retention times within windows and Coelution summary checked	YES		VTS	02/11/2017
7	Manual integrations include summary and before/after pictures	YES		VTS	02/11/2017
8	Project specific requirements have been met	YES		VTS	02/11/2017
9	Sample dilution factors have been correctly applied	NA		VTS	02/11/2017
10	AUTOCHECK: Blank checked for exceedence of criteria	NR	*	VTS	02/11/2017
	Comments: *No blanks were analyzed in this sequence. see sfb0130*				
11	AUTOCHECK: Check blank spike recovery	YES	*	VTS	02/11/2017
12	AUTOCHECK: Check blank spike/blank spike duplicate RPD. If exceeded include outliers in exception report.	NA	*	VTS	02/11/2017
13	AUTOCHECK: Compounds in method designated as blank spike compounds are present	YES	*	VTS	02/11/2017
14	AUTOCHECK: Check %RPD between sample and sample duplicate	NA	*	VTS	02/11/2017
15	AUTOCHECK: Matrix spike recoveries within limits	YES	*	VTS	02/11/2017
16	AUTOCHECK: Matrix spike/matrix spike duplicate RPD within limits	NA	*	VTS	02/11/2017
17	AUTOCHECK: List of compounds listed as spiked are present	YES	*	VTS	02/11/2017
18	AUTOCHECK: Check SRM limits for exceedance	NA	*	VTS	02/11/2017
19	AUTOCHECK: Check Surrogate recoveries	YES	*	VTS	02/11/2017
20	AUTOCHECK: Checks Surrogate spike list against Analysis	YES	*	VTS	02/11/2017
21	Analyst checklist completed (PEER)	YES		BB	02/13/2017
22	Data is locked and Status is Analyzed (PEER)	YES		BB	02/13/2017
23	Data file, Calibration, Sequence, Batch, and Cleanup PDF's are attached (PEER)	YES		BB	02/13/2017
24	Color warnings have been addressed and (or) qualified (PEER)	YES		BB	02/13/2017
25	Qualifers have been correctly added (PEER)	YES		BB	02/13/2017

* = Indicates Automated Response from Element DataSyst

Port Gamble Shellfish Monitoring
17A0053

Analysis	Matrix	Method
8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg)	Tissue	EPA 8270D-SIM

Checklist: Analyst Checklist-SVOA

#	Checklist Item	Response	Analyst Initials	Date
26	Checklist completed and status is peer reviewed (REVIEWER)	YES	BB	02/13/2017
27	Dilutions are linear (50-200%) and appropriate (REVIEWER)	NA	BB	02/13/2017
28	All requested samples have been reported (REVIEWER)	YES	BB	02/13/2017
29	Color warnings have been addressed, narrated and (or) qualified (REVIEWER)	YES	BB	02/13/2017
30	List of samples in this sequence that will require additional runs-verify reshot created (ANALYST)	NA	VTS	02/11/2017
31	List of samples in this sequence that are re-analysis or dilutions of samples (ANALYST)	YES	VTS	02/11/2017
	Comments: *17A0053-10 rerun due to autosampler failure in first queue*			
32	Additional Notes (ANALYST, PEER, and REVIEWER)	NA	VTS	02/11/2017

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Printed: 2/11/2017 1:32:17PM

ANALYSIS SEQUENCE

SFB0152

Instrument: NT11 Element Column ID: E006481
Calibration ID: ZL00083 Tune File: 161216.U
EM Voltage: 2200

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SFB0152-TUN1	DFTPP	QC		1	E007446		
SFB0152-ICV1	Initial Cal Check	QC		2	E006577	E002870	
17A0053-10	PG-GP-1-MUS-170105	SIM PAH Low (0.01 ug/L - 0.	A 02	3		E002870	LIMITED VOLUME, only take minimum amount
SFB0152-CCV1	SIM PAH 250	QC		4	E006577	E002870	

1401

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20170211.b

	Time	Filename	LabID	ClientId	DF	
1	1017	N1117021101.D	SFB0152-TUN1		1	|NO ISTDS FOUND||
2	1036	N1117021102.D	SFB0152-ICV1		1	| 8.53 279915||11.56 195660||14.25 373303||19.02 349457||22.23 284460|
3	1112	N1117021103.D	17A0053-10		1	| 8.51 185577||11.56 115607||14.25 182847||19.02 158037||22.23 165563|
4	1147	N1117021104.D	SFB0152		1	| 8.53 222333||11.56 174915||14.25 340745||19.02 288185||22.23 235835|

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20170211.b

ARI Job No.: SFB0 Method: DFTPP.m Instrument: nt11.i Date: 11-FEB-2017

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1017	N1117021101.D	SFB0152-TUN1		1	NO MANUAL INTEGRATION
1036	N1117021102.D	SFB0152-ICV1		1	NO MANUAL INTEGRATION
1112	N1117021103.D	17A0053-10		1	Acenaphthene, Benzo(a)anthracene, 1-Methylphenanthrene,
1147	N1117021104.D	SFB0152		1	NO MANUAL INTEGRATION

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG/WO:	17A0053
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Sequence:	SEL0401	Instrument:	NT11
Calibration:	ZL00083	Calibration Date:	12/31/2016

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SEL0401-ICV1 (Water)			Lab File ID: N1116123102ICV.D				Analyzed: 12/31/16 08:28	
2-Methylnaphthalene-d10	250.00	114	80 - 120	8.201	8.201	0.0000	N/A	
Dibenzo[a,h]anthracene-d14	250.00	110	80 - 120	23.808	23.80433	0.0037	N/A	
Fluoranthene-d10	250.00	110	80 - 120	15.055	15.055	0.0000	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG/WO:	17A0053
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Sequence:	SFB0130	Instrument:	NT11
Calibration:	ZL00083	Calibration Date:	12/31/2016

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SFB0130-ICV1 (Tissue)				Lab File ID: N1117021005.D			Analyzed: 02/10/17 13:29	
2-Methylnaphthalene-d10	250.00	94.4	80 - 120	9.508	8.201	1.3070	N/A	
Dibenzo[a,h]anthracene-d14	250.00	95.6	80 - 120	25.116	23.80433	1.3117	N/A	
Fluoranthene-d10	250.00	86.4	80 - 120	16.367	15.055	1.3120	N/A	
BFA0647-BLK1 (Tissue)				Lab File ID: N1117021007.D			Analyzed: 02/10/17 14:40	
2-Methylnaphthalene-d10	15.000	52.5	30 - 160	9.498	8.201	1.2970	N/A	
Dibenzo[a,h]anthracene-d14	15.000	65.0	30 - 160	25.116	23.80433	1.3117	N/A	
Fluoranthene-d10	15.000	64.2	30 - 160	16.367	15.055	1.3120	N/A	
BFA0647-BS1 (Tissue)				Lab File ID: N1117021008.D			Analyzed: 02/10/17 15:16	
2-Methylnaphthalene-d10	15.000	56.2	30 - 160	9.498	8.201	1.2970	N/A	
Dibenzo[a,h]anthracene-d14	15.000	75.0	30 - 160	25.116	23.80433	1.3117	N/A	
Fluoranthene-d10	15.000	67.5	30 - 160	16.367	15.055	1.3120	N/A	
17A0053-01 (Tissue)				Lab File ID: N1117021010.D			Analyzed: 02/10/17 16:27	
2-Methylnaphthalene-d10	14.691	55.5	30 - 160	9.498	8.201	1.2970	N/A	
Dibenzo[a,h]anthracene-d14	14.691	67.8	30 - 160	25.116	23.80433	1.3117	N/A	
Fluoranthene-d10	14.691	59.3	30 - 160	16.367	15.055	1.3120	N/A	
17A0053-04 (Tissue)				Lab File ID: N1117021011.D			Analyzed: 02/10/17 17:03	
2-Methylnaphthalene-d10	14.940	61.8	30 - 160	9.498	8.201	1.2970	N/A	
Dibenzo[a,h]anthracene-d14	14.940	75.5	30 - 160	25.116	23.80433	1.3117	N/A	
Fluoranthene-d10	14.940	66.2	30 - 160	16.367	15.055	1.3120	N/A	
17A0053-05 (Tissue)				Lab File ID: N1117021012.D			Analyzed: 02/10/17 17:39	
2-Methylnaphthalene-d10	14.735	57.0	30 - 160	9.498	8.201	1.2970	N/A	
Dibenzo[a,h]anthracene-d14	14.735	67.7	30 - 160	25.105	23.80433	1.3007	N/A	
Fluoranthene-d10	14.735	61.2	30 - 160	16.367	15.055	1.3120	N/A	
17A0053-06 (Tissue)				Lab File ID: N1117021013.D			Analyzed: 02/10/17 18:14	
2-Methylnaphthalene-d10	14.955	52.1	30 - 160	9.498	8.201	1.2970	N/A	
Dibenzo[a,h]anthracene-d14	14.955	66.9	30 - 160	25.115	23.80433	1.3107	N/A	
Fluoranthene-d10	14.955	60.5	30 - 160	16.367	15.055	1.3120	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG/WO:	17A0053
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Sequence:	SFB0130	Instrument:	NT11
Calibration:	ZL00083	Calibration Date:	12/31/2016

Surrogate Compound	Spike Level ug/kg	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
17A0053-07 (Tissue)			Lab File ID: N1117021014.D			Analyzed: 02/10/17 18:50		
2-Methylnaphthalene-d10	14.851	42.7	30 - 160	9.498	8.201	1.2970	N/A	
Dibenzo[a,h]anthracene-d14	14.851	52.4	30 - 160	25.116	23.80433	1.3117	N/A	
Fluoranthene-d10	14.851	47.3	30 - 160	16.367	15.055	1.3120	N/A	
17A0053-08 (Tissue)			Lab File ID: N1117021015.D			Analyzed: 02/10/17 19:25		
2-Methylnaphthalene-d10	14.955	54.6	30 - 160	9.498	8.201	1.2970	N/A	
Dibenzo[a,h]anthracene-d14	14.955	70.6	30 - 160	25.116	23.80433	1.3117	N/A	
Fluoranthene-d10	14.955	62.5	30 - 160	16.367	15.055	1.3120	N/A	
17A0053-09 (Tissue)			Lab File ID: N1117021016.D			Analyzed: 02/10/17 20:01		
2-Methylnaphthalene-d10	14.896	60.1	30 - 160	9.498	8.201	1.2970	N/A	
Dibenzo[a,h]anthracene-d14	14.896	72.5	30 - 160	25.105	23.80433	1.3007	N/A	
Fluoranthene-d10	14.896	62.1	30 - 160	16.367	15.055	1.3120	N/A	
17A0053-11 (Tissue)			Lab File ID: N1117021018.D			Analyzed: 02/10/17 21:12		
2-Methylnaphthalene-d10	14.706	59.0	30 - 160	9.498	8.201	1.2970	N/A	
Dibenzo[a,h]anthracene-d14	14.706	70.1	30 - 160	25.105	23.80433	1.3007	N/A	
Fluoranthene-d10	14.706	63.9	30 - 160	16.367	15.055	1.3120	N/A	
17A0053-12 (Tissue)			Lab File ID: N1117021019.D			Analyzed: 02/10/17 21:48		
2-Methylnaphthalene-d10	14.851	37.4	30 - 160	9.498	8.201	1.2970	N/A	
Dibenzo[a,h]anthracene-d14	14.851	46.4	30 - 160	25.105	23.80433	1.3007	N/A	
Fluoranthene-d10	14.851	41.6	30 - 160	16.367	15.055	1.3120	N/A	
BFA0647-MS1 (Tissue)			Lab File ID: N1117021020.D			Analyzed: 02/10/17 22:23		
2-Methylnaphthalene-d10	14.970	32.6	30 - 160	9.509	8.201	1.3080	N/A	
Dibenzo[a,h]anthracene-d14	14.970	41.6	30 - 160	25.105	23.80433	1.3007	N/A	
Fluoranthene-d10	14.970	37.7	30 - 160	16.367	15.055	1.3120	N/A	
BFA0647-MSD1 (Tissue)			Lab File ID: N1117021021.D			Analyzed: 02/10/17 22:59		
2-Methylnaphthalene-d10	14.851	57.9	30 - 160	9.498	8.201	1.2970	N/A	
Dibenzo[a,h]anthracene-d14	14.851	69.7	30 - 160	25.105	23.80433	1.3007	N/A	
Fluoranthene-d10	14.851	64.0	30 - 160	16.367	15.055	1.3120	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG/WO:	17A0053
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Sequence:	SFB0152	Instrument:	NT11
Calibration:	ZL00083	Calibration Date:	12/31/2016

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SFB0152-ICV1 (Tissue)			Lab File ID: N1117021102.D				Analyzed: 02/11/17 10:36	
2-Methylnaphthalene-d10	250.00	95.2	80 - 120	9.508	8.201	1.3070	N/A	
Dibenzo[a,h]anthracene-d14	250.00	89.2	80 - 120	25.105	23.80433	1.3007	N/A	
Fluoranthene-d10	250.00	87.2	80 - 120	16.367	15.055	1.3120	N/A	
17A0053-10 (Tissue)			Lab File ID: N1117021103.D				Analyzed: 02/11/17 11:12	
2-Methylnaphthalene-d10	14.720	54.0	30 - 160	9.498	8.201	1.2970	N/A	
Dibenzo[a,h]anthracene-d14	14.720	72.6	30 - 160	25.105	23.80433	1.3007	N/A	
Fluoranthene-d10	14.720	61.7	30 - 160	16.367	15.055	1.3120	N/A	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.
SDG: 17A0053
Client: Anchor QEA, LLC
Project: Port Gamble Shellfish Monitoring
Sequence: SEL0401
Instrument: NT11
Calibration: ZL00083

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SEL0401-ICV1)		(Water)	Lab File ID: N1116123102ICV.D					Analyzed: 12/31/16 08:28	
Naphthalene-d8	219654	7.225	219654	7.225	100	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	135248	10.251	135248	10.251	100	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	257021	12.945	257021	12.945	100	50 - 200	0.0000	+/-0.50	
Chrysene-d12	259511	17.701	259511	17.701	100	50 - 200	0.0000	+/-0.50	
Perylene-d12	257535	20.925	257535	20.925	100	50 - 200	0.0000	+/-0.50	
Secondary Cal Check (SEL0401-SCV1)		(Water)	Lab File ID: N1116123108.D					Analyzed: 12/31/16 11:35	
Naphthalene-d8	210327	7.225	219654	7.225	96	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	128092	10.252	135248	10.251	95	50 - 200	-0.0010	+/-0.50	
Phenanthrene-d10	246665	12.945	257021	12.945	96	50 - 200	0.0000	+/-0.50	
Chrysene-d12	255043	17.702	259511	17.701	98	50 - 200	-0.0010	+/-0.50	
Perylene-d12	265358	20.916	257535	20.925	103	50 - 200	0.0090	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.
SDG: 17A0053
Client: Anchor QEA, LLC
Project: Port Gamble Shellfish Monitoring
Sequence: SFB0130
Instrument: NT11
Calibration: ZL00083

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SFB0130-ICV1)		(Tissue)		Lab File ID: N1117021005.D				Analyzed: 02/10/17 13:29	
Naphthalene-d8	326356	8.526	219654	7.225	149	50 - 200	-1.3010	+/-0.50	
Acenaphthene-d10	220051	11.564	135248	10.251	163	50 - 200	-1.3130	+/-0.50	
Phenanthrene-d10	424023	14.262	257021	12.945	165	50 - 200	-1.3170	+/-0.50	
Chrysene-d12	409280	19.024	259511	17.701	158	50 - 200	-1.3230	+/-0.50	
Perylene-d12	347530	22.24	257535	20.925	135	50 - 200	-1.3150	+/-0.50	
Blank (BFA0647-BLK1)		(Tissue)		Lab File ID: N1117021007.D				Analyzed: 02/10/17 14:40	
Naphthalene-d8	263642	8.509	219654	7.225	120	50 - 200	-1.2840	+/-0.50	
Acenaphthene-d10	181252	11.555	135248	10.251	134	50 - 200	-1.3040	+/-0.50	
Phenanthrene-d10	354769	14.252	257021	12.945	138	50 - 200	-1.3070	+/-0.50	
Chrysene-d12	344497	19.024	259511	17.701	133	50 - 200	-1.3230	+/-0.50	
Perylene-d12	338290	22.24	257535	20.925	131	50 - 200	-1.3150	+/-0.50	
LCS (BFA0647-BS1)		(Tissue)		Lab File ID: N1117021008.D				Analyzed: 02/10/17 15:16	
Naphthalene-d8	263463	8.509	219654	7.225	120	50 - 200	-1.2840	+/-0.50	
Acenaphthene-d10	184009	11.555	135248	10.251	136	50 - 200	-1.3040	+/-0.50	
Phenanthrene-d10	363382	14.252	257021	12.945	141	50 - 200	-1.3070	+/-0.50	
Chrysene-d12	352838	19.024	259511	17.701	136	50 - 200	-1.3230	+/-0.50	
Perylene-d12	341159	22.24	257535	20.925	132	50 - 200	-1.3150	+/-0.50	
PG-SMA1-1-MUS-170105 (17A0053-01)		(Tissue)		Lab File ID: N1117021010.D				Analyzed: 02/10/17 16:27	
Naphthalene-d8	214273	8.518	219654	7.225	98	50 - 200	-1.2930	+/-0.50	
Acenaphthene-d10	144698	11.555	135248	10.251	107	50 - 200	-1.3040	+/-0.50	
Phenanthrene-d10	234960	14.251	257021	12.945	91	50 - 200	-1.3060	+/-0.50	
Chrysene-d12	201157	19.024	259511	17.701	78	50 - 200	-1.3230	+/-0.50	
Perylene-d12	213059	22.24	257535	20.925	83	50 - 200	-1.3150	+/-0.50	
PG-SMA2-1-MUS-170105 (17A0053-04)		(Tissue)		Lab File ID: N1117021011.D				Analyzed: 02/10/17 17:03	
Naphthalene-d8	214970	8.509	219654	7.225	98	50 - 200	-1.2840	+/-0.50	
Acenaphthene-d10	145064	11.555	135248	10.251	107	50 - 200	-1.3040	+/-0.50	
Phenanthrene-d10	237830	14.251	257021	12.945	93	50 - 200	-1.3060	+/-0.50	
Chrysene-d12	206658	19.024	259511	17.701	80	50 - 200	-1.3230	+/-0.50	
Perylene-d12	216657	22.24	257535	20.925	84	50 - 200	-1.3150	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.
SDG: 17A0053
Client: Anchor QEA, LLC
Project: Port Gamble Shellfish Monitoring
Sequence: SFB0130
Instrument: NT11
Calibration: ZL00083

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
PG-SMA2-2-MUS-170105 (17A0053-05)		(Tissue)		Lab File ID: N1117021012.D				Analyzed: 02/10/17 17:39	
Naphthalene-d8	218333	8.509	219654	7.225	99	50 - 200	-1.2840	+/-0.50	
Acenaphthene-d10	147879	11.555	135248	10.251	109	50 - 200	-1.3040	+/-0.50	
Phenanthrene-d10	236713	14.252	257021	12.945	92	50 - 200	-1.3070	+/-0.50	
Chrysene-d12	203457	19.024	259511	17.701	78	50 - 200	-1.3230	+/-0.50	
Perylene-d12	217634	22.24	257535	20.925	85	50 - 200	-1.3150	+/-0.50	
PG-SMA2-3-MUS-170105 (17A0053-06)		(Tissue)		Lab File ID: N1117021013.D				Analyzed: 02/10/17 18:14	
Naphthalene-d8	220641	8.517	219654	7.225	100	50 - 200	-1.2920	+/-0.50	
Acenaphthene-d10	149754	11.555	135248	10.251	111	50 - 200	-1.3040	+/-0.50	
Phenanthrene-d10	241636	14.251	257021	12.945	94	50 - 200	-1.3060	+/-0.50	
Chrysene-d12	208692	19.024	259511	17.701	80	50 - 200	-1.3230	+/-0.50	
Perylene-d12	226680	22.24	257535	20.925	88	50 - 200	-1.3150	+/-0.50	
PG-SMA2-4-MUS-170105 (17A0053-07)		(Tissue)		Lab File ID: N1117021014.D				Analyzed: 02/10/17 18:50	
Naphthalene-d8	228488	8.517	219654	7.225	104	50 - 200	-1.2920	+/-0.50	
Acenaphthene-d10	156874	11.555	135248	10.251	116	50 - 200	-1.3040	+/-0.50	
Phenanthrene-d10	250109	14.251	257021	12.945	97	50 - 200	-1.3060	+/-0.50	
Chrysene-d12	219541	19.024	259511	17.701	85	50 - 200	-1.3230	+/-0.50	
Perylene-d12	233325	22.24	257535	20.925	91	50 - 200	-1.3150	+/-0.50	
PG-SMA2-5-MUS-170105 (17A0053-08)		(Tissue)		Lab File ID: N1117021015.D				Analyzed: 02/10/17 19:25	
Naphthalene-d8	219069	8.517	219654	7.225	100	50 - 200	-1.2920	+/-0.50	
Acenaphthene-d10	148509	11.555	135248	10.251	110	50 - 200	-1.3040	+/-0.50	
Phenanthrene-d10	240804	14.251	257021	12.945	94	50 - 200	-1.3060	+/-0.50	
Chrysene-d12	211300	19.024	259511	17.701	81	50 - 200	-1.3230	+/-0.50	
Perylene-d12	224848	22.24	257535	20.925	87	50 - 200	-1.3150	+/-0.50	
PG-PJ-1-MUS-170105 (17A0053-09)		(Tissue)		Lab File ID: N1117021016.D				Analyzed: 02/10/17 20:01	
Naphthalene-d8	219004	8.508	219654	7.225	100	50 - 200	-1.2830	+/-0.50	
Acenaphthene-d10	151898	11.555	135248	10.251	112	50 - 200	-1.3040	+/-0.50	
Phenanthrene-d10	243924	14.251	257021	12.945	95	50 - 200	-1.3060	+/-0.50	
Chrysene-d12	208748	19.024	259511	17.701	80	50 - 200	-1.3230	+/-0.50	
Perylene-d12	221150	22.24	257535	20.925	86	50 - 200	-1.3150	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.
SDG: 17A0053
Client: Anchor QEA, LLC
Project: Port Gamble Shellfish Monitoring
Sequence: SFB0130
Instrument: NT11
Calibration: ZL00083

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
PG-WS-1-MUS-170105 (17A0053-11)		(Tissue)		Lab File ID: N1117021018.D				Analyzed: 02/10/17 21:12	
Naphthalene-d8	224155	8.517	219654	7.225	102	50 - 200	-1.2920	+/-0.50	
Acenaphthene-d10	150650	11.555	135248	10.251	111	50 - 200	-1.3040	+/-0.50	
Phenanthrene-d10	240836	14.251	257021	12.945	94	50 - 200	-1.3060	+/-0.50	
Chrysene-d12	214297	19.024	259511	17.701	83	50 - 200	-1.3230	+/-0.50	
Perylene-d12	224273	22.24	257535	20.925	87	50 - 200	-1.3150	+/-0.50	
PG-SMA1-2-3-MUS-170105 (17A0053-12)		(Tissue)		Lab File ID: N1117021019.D				Analyzed: 02/10/17 21:48	
Naphthalene-d8	227725	8.518	219654	7.225	104	50 - 200	-1.2930	+/-0.50	
Acenaphthene-d10	158745	11.555	135248	10.251	117	50 - 200	-1.3040	+/-0.50	
Phenanthrene-d10	251996	14.252	257021	12.945	98	50 - 200	-1.3070	+/-0.50	
Chrysene-d12	207529	19.024	259511	17.701	80	50 - 200	-1.3230	+/-0.50	
Perylene-d12	228830	22.231	257535	20.925	89	50 - 200	-1.3060	+/-0.50	
Matrix Spike (BFA0647-MS1)		(Tissue)		Lab File ID: N1117021020.D				Analyzed: 02/10/17 22:23	
Naphthalene-d8	240715	8.518	219654	7.225	110	50 - 200	-1.2930	+/-0.50	
Acenaphthene-d10	173279	11.564	135248	10.251	128	50 - 200	-1.3130	+/-0.50	
Phenanthrene-d10	262158	14.252	257021	12.945	102	50 - 200	-1.3070	+/-0.50	
Chrysene-d12	222392	19.025	259511	17.701	86	50 - 200	-1.3240	+/-0.50	
Perylene-d12	238610	22.231	257535	20.925	93	50 - 200	-1.3060	+/-0.50	
Matrix Spike Dup (BFA0647-MSD1)		(Tissue)		Lab File ID: N1117021021.D				Analyzed: 02/10/17 22:59	
Naphthalene-d8	226075	8.518	219654	7.225	103	50 - 200	-1.2930	+/-0.50	
Acenaphthene-d10	157597	11.555	135248	10.251	117	50 - 200	-1.3040	+/-0.50	
Phenanthrene-d10	247966	14.251	257021	12.945	96	50 - 200	-1.3060	+/-0.50	
Chrysene-d12	209184	19.024	259511	17.701	81	50 - 200	-1.3230	+/-0.50	
Perylene-d12	230152	22.24	257535	20.925	89	50 - 200	-1.3150	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.
SDG: 17A0053
Client: Anchor QEA, LLC
Project: Port Gamble Shellfish Monitoring
Sequence: SFB0152
Instrument: NT11
Calibration: ZL00083

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SFB0152-ICV1)		(Tissue)		Lab File ID: N1117021102.D				Analyzed: 02/11/17 10:36	
Naphthalene-d8	279915	8.527	219654	7.225	127	50 - 200	-1.3020	+/-0.50	
Acenaphthene-d10	195660	11.564	135248	10.251	145	50 - 200	-1.3130	+/-0.50	
Phenanthrene-d10	373303	14.251	257021	12.945	145	50 - 200	-1.3060	+/-0.50	
Chrysene-d12	349457	19.016	259511	17.701	135	50 - 200	-1.3150	+/-0.50	
Perylene-d12	284460	22.231	257535	20.925	110	50 - 200	-1.3060	+/-0.50	
PG-GP-1-MUS-170105 (17A0053-10)		(Tissue)		Lab File ID: N1117021103.D				Analyzed: 02/11/17 11:12	
Naphthalene-d8	185577	8.509	219654	7.225	84	50 - 200	-1.2840	+/-0.50	
Acenaphthene-d10	115607	11.555	135248	10.251	85	50 - 200	-1.3040	+/-0.50	
Phenanthrene-d10	182847	14.252	257021	12.945	71	50 - 200	-1.3070	+/-0.50	
Chrysene-d12	158037	19.016	259511	17.701	61	50 - 200	-1.3150	+/-0.50	
Perylene-d12	165563	22.231	257535	20.925	64	50 - 200	-1.3060	+/-0.50	

Analytical Resources, Incorporated

HOLDING TIME SUMMARY

Analysis: EPA 8270D-SIM

Laboratory: Analytical Resources, Inc. SDG: 17A0053

Client: Anchor QEA, LLC Project: Port Gamble Shellfish Monitoring

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
PG-SMA1-1-MUS-170105 17A0053-01	01/05/17 10:15	01/06/17 16:03	01/31/17 13:45	26	365	02/10/17 16:27	10	40	
PG-SMA2-1-MUS-170105 17A0053-04	01/05/17 13:02	01/06/17 16:03	01/31/17 13:45	26	365	02/10/17 17:03	10	40	
PG-SMA2-2-MUS-170105 17A0053-05	01/05/17 12:50	01/06/17 16:03	01/31/17 13:45	26	365	02/10/17 17:39	10	40	
PG-SMA2-3-MUS-170105 17A0053-06	01/05/17 12:40	01/06/17 16:03	01/31/17 13:45	26	365	02/10/17 18:14	10	40	
PG-SMA2-4-MUS-170105 17A0053-07	01/05/17 12:30	01/06/17 16:03	01/31/17 13:45	26	365	02/10/17 18:50	10	40	
PG-SMA2-5-MUS-170105 17A0053-08	01/05/17 12:20	01/06/17 16:03	01/31/17 13:45	26	365	02/10/17 19:25	10	40	
PG-PJ-1-MUS-170105 17A0053-09	01/05/17 14:53	01/06/17 16:03	01/31/17 13:45	25	365	02/10/17 20:01	10	40	
PG-GP-1-MUS-170105 17A0053-10	01/05/17 14:43	01/06/17 16:03	01/31/17 13:45	25	365	02/11/17 11:12	11	40	
PG-WS-1-MUS-170105 17A0053-11	01/05/17 14:35	01/06/17 16:03	01/31/17 13:45	25	365	02/10/17 21:12	10	40	
PG-SMA1-2-3-MUS-170105 17A0053-12	01/05/17 00:00	01/06/17 16:03	01/31/17 13:45	26	365	02/10/17 21:48	10	40	
Matrix Spike BFA0647-MS1	01/05/17 12:50	01/06/17 16:03	01/31/17 13:45	26	365	02/10/17 22:23	10	40	
Matrix Spike Dup BFA0647-MSD1	01/05/17 12:50	01/06/17 16:03	01/31/17 13:45	26	365	02/10/17 22:59	10	40	

* Indicates hold time exceedance.

Analytical Resources, Incorporated

METHOD DETECTION AND REPORTING LIMITS

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.
SDG: 17A0053
Client: Anchor QEA, LLC
Project: Port Gamble Shellfish Monitoring
Matrix: Tissue
Instrument: NT11

Analyte	MDL	RL	Units
Naphthalene	0.50	0.60	ug/kg
1-Methylnaphthalene	0.50	0.50	ug/kg
2-Methylnaphthalene	0.50	0.50	ug/kg
2-Chloronaphthalene	0.50	0.50	ug/kg
Acenaphthylene	0.50	0.50	ug/kg
Acenaphthene	0.50	0.50	ug/kg
Dibenzofuran	0.50	0.50	ug/kg
Fluorene	0.50	0.50	ug/kg
Phenanthrene	0.50	0.50	ug/kg
Anthracene	0.50	0.50	ug/kg
Fluoranthene	0.50	0.50	ug/kg
Pyrene	0.50	0.50	ug/kg
Benzo(a)anthracene	0.50	0.50	ug/kg
Chrysene	0.50	0.50	ug/kg
Benzo(b)fluoranthene	0.50	0.50	ug/kg
Benzo(k)fluoranthene	0.50	0.50	ug/kg
Benzo(j)fluoranthene	0.50	0.50	ug/kg
Benzo(a)pyrene	0.50	0.50	ug/kg
Indeno(1,2,3-cd)pyrene	0.50	0.50	ug/kg
Dibenzo(a,h)anthracene	0.50	0.50	ug/kg
Benzo(g,h,i)perylene	0.50	0.50	ug/kg
Benzo(b)thiophene	0.50	0.50	ug/kg

Analytical Resources, Incorporated

METHOD DETECTION AND REPORTING LIMITS

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.
SDG: 17A0053
Client: Anchor QEA, LLC
Project: Port Gamble Shellfish Monitoring
Matrix: Water
Instrument: NT11

Analyte	MDL	RL	Units
Naphthalene	0.001	0.010	ug/L
2-Methylnaphthalene	0.001	0.010	ug/L
1-Methylnaphthalene	0.0009	0.010	ug/L
2-Chloronaphthalene	0.001	0.010	ug/L
Acenaphthylene	0.002	0.010	ug/L
Acenaphthene	0.003	0.010	ug/L
Dibenzofuran	0.002	0.010	ug/L
Fluorene	0.002	0.010	ug/L
Phenanthrene	0.001	0.010	ug/L
Anthracene	0.001	0.010	ug/L
Carbazole	0.001	0.010	ug/L
Fluoranthene	0.002	0.010	ug/L
Pyrene	0.001	0.010	ug/L
Benzo(a)anthracene	0.0008	0.010	ug/L
Chrysene	0.0009	0.010	ug/L
Benzo(b)fluoranthene	0.0005	0.010	ug/L
Benzo(k)fluoranthene	0.003	0.010	ug/L
Benzo(j)fluoranthene	0.002	0.010	ug/L
Benzofluoranthenes, Total	0.004	0.010	ug/L
Benzo(a)pyrene	0.002	0.010	ug/L
Perylene	0.006	0.010	ug/L
Indeno(1,2,3-cd)pyrene	0.001	0.010	ug/L
Dibenzo(a,h)anthracene	0.001	0.010	ug/L
Benzo(g,h,i)perylene	0.001	0.010	ug/L

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET

PG-SMA1-1-MUS-170105

SM 2540 G-97

TotalAnalytes

Laboratory: Analytical Resources, Inc. Project: Port Gamble Shellfish Monitoring

Client: Anchor QEA, LLC SDG: 17A0053

Matrix: Tissue Laboratory ID: 17A0053-01 File ID:

Sampled: 01/05/17 10:15 Prepared: 01/30/17 14:08 Analyzed: 01/31/17 09:54

Solids (wt%): 0.00 Preparation: No Prep Extractions Initial/Final: 1 g / 1 g

Batch: BFA0625 Sequence: Calibration: Instrument: NA

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	12.9	1		0.0400	

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET

PG-SMA2-1-MUS-170105

SM 2540 G-97

TotalAnalytes

Laboratory: Analytical Resources, Inc. Project: Port Gamble Shellfish Monitoring

Client: Anchor QEA, LLC SDG: 17A0053

Matrix: Tissue Laboratory ID: 17A0053-04 File ID:

Sampled: 01/05/17 13:02 Prepared: 01/30/17 14:08 Analyzed: 01/31/17 09:54

Solids (wt%): 0.00 Preparation: No Prep Extractions Initial/Final: 1 g / 1 g

Batch: BFA0625 Sequence: Calibration: Instrument: NA

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	13.1	1		0.0400	

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET

PG-SMA2-2-MUS-170105

SM 2540 G-97
TotalAnalytes

Laboratory: Analytical Resources, Inc. Project: Port Gamble Shellfish Monitoring

Client: Anchor QEA, LLC SDG: 17A0053

Matrix: Tissue Laboratory ID: 17A0053-05 File ID:

Sampled: 01/05/17 12:50 Prepared: 01/30/17 14:08 Analyzed: 01/31/17 09:54

Solids (wt%): 0.00 Preparation: No Prep Extractions Initial/Final: 1 g / 1 g

Batch: BFA0625 Sequence: Calibration: Instrument: NA

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	12.8	1		0.0400	

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET

PG-SMA2-3-MUS-170105

SM 2540 G-97

TotalAnalytes

Laboratory: Analytical Resources, Inc. Project: Port Gamble Shellfish Monitoring

Client: Anchor QEA, LLC SDG: 17A0053

Matrix: Tissue Laboratory ID: 17A0053-06 File ID:

Sampled: 01/05/17 12:40 Prepared: 01/30/17 14:08 Analyzed: 01/31/17 09:54

Solids (wt%): 0.00 Preparation: No Prep Extractions Initial/Final: 1 g / 1 g

Batch: BFA0625 Sequence: Calibration: Instrument: NA

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	15.7	1		0.0400	

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET

PG-SMA2-4-MUS-170105

SM 2540 G-97

TotalAnalytes

Laboratory: Analytical Resources, Inc. Project: Port Gamble Shellfish Monitoring

Client: Anchor QEA, LLC SDG: 17A0053

Matrix: Tissue Laboratory ID: 17A0053-07 File ID:

Sampled: 01/05/17 12:30 Prepared: 01/30/17 14:08 Analyzed: 01/31/17 09:54

Solids (wt%): 0.00 Preparation: No Prep Extractions Initial/Final: 1 g / 1 g

Batch: BFA0625 Sequence: Calibration: Instrument: NA

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	14.1	1		0.0400	

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET

PG-SMA2-5-MUS-170105

SM 2540 G-97
TotalAnalytes

Laboratory: Analytical Resources, Inc. Project: Port Gamble Shellfish Monitoring

Client: Anchor QEA, LLC SDG: 17A0053

Matrix: Tissue Laboratory ID: 17A0053-08 File ID:

Sampled: 01/05/17 12:20 Prepared: 01/30/17 14:08 Analyzed: 01/31/17 09:54

Solids (wt%): 0.00 Preparation: No Prep Extractions Initial/Final: 1 g / 1 g

Batch: BFA0625 Sequence: Calibration: Instrument: NA

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	16.2	1		0.0400	

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET

PG-PJ-1-MUS-170105

SM 2540 G-97
TotalAnalytes

Laboratory: Analytical Resources, Inc. Project: Port Gamble Shellfish Monitoring

Client: Anchor QEA, LLC SDG: 17A0053

Matrix: Tissue Laboratory ID: 17A0053-09 File ID:

Sampled: 01/05/17 14:53 Prepared: 01/30/17 14:08 Analyzed: 01/31/17 09:54

Solids (wt%): 0.00 Preparation: No Prep Extractions Initial/Final: 1 g / 1 g

Batch: BFA0625 Sequence: Calibration: Instrument: NA

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	15.9	1		0.0400	

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET

PG-GP-1-MUS-170105

SM 2540 G-97
TotalAnalytes

Laboratory: Analytical Resources, Inc. Project: Port Gamble Shellfish Monitoring

Client: Anchor QEA, LLC SDG: 17A0053

Matrix: Tissue Laboratory ID: 17A0053-10 File ID:

Sampled: 01/05/17 14:43 Prepared: 01/30/17 14:08 Analyzed: 01/31/17 09:54

Solids (wt%): 0.00 Preparation: No Prep Extractions Initial/Final: 1 g / 1 g

Batch: BFA0625 Sequence: Calibration: Instrument: NA

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	16.3	1		0.0400	

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET

PG-WS-1-MUS-170105

SM 2540 G-97
TotalAnalytes

Laboratory: Analytical Resources, Inc. Project: Port Gamble Shellfish Monitoring

Client: Anchor QEA, LLC SDG: 17A0053

Matrix: Tissue Laboratory ID: 17A0053-11 File ID:

Sampled: 01/05/17 14:35 Prepared: 01/30/17 14:08 Analyzed: 01/31/17 09:54

Solids (wt%): 0.00 Preparation: No Prep Extractions Initial/Final: 1 g / 1 g

Batch: BFA0625 Sequence: Calibration: Instrument: NA

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	15.2	1		0.0400	

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET

PG-SMA1-2-3-MUS-170105

SM 2540 G-97
TotalAnalytes

Laboratory: Analytical Resources, Inc. Project: Port Gamble Shellfish Monitoring

Client: Anchor QEA, LLC SDG: 17A0053

Matrix: Tissue Laboratory ID: 17A0053-12 File ID:

Sampled: 01/05/17 00:00 Prepared: 01/30/17 14:08 Analyzed: 01/31/17 09:54

Solids (wt%): 0.00 Preparation: No Prep Extractions Initial/Final: 1 g / 1 g

Batch: BFA0625 Sequence: Calibration: Instrument: NA

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	15.0	1		0.0400	

PREPARATION BATCH SUMMARY

SM 2540 G-97

Laboratory: Analytical Resources, Inc. SDG: 17A0053

Client: Anchor QEA, LLC Project: Port Gamble Shellfish Monitoring

Batch: BFA0625 Batch Matrix: Tissue Preparation: No Prep Extractions

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
PG-SMA1-1-MUS-170105	17A0053-01		01/30/17 14:08	
PG-SMA2-1-MUS-170105	17A0053-04		01/30/17 14:08	
PG-SMA2-2-MUS-170105	17A0053-05		01/30/17 14:08	Do a Duplicate
PG-SMA2-3-MUS-170105	17A0053-06		01/30/17 14:08	
PG-SMA2-4-MUS-170105	17A0053-07		01/30/17 14:08	
PG-SMA2-5-MUS-170105	17A0053-08		01/30/17 14:08	
PG-PJ-1-MUS-170105	17A0053-09		01/30/17 14:08	
PG-GP-1-MUS-170105	17A0053-10		01/30/17 14:08	LIMITED VOLUME, only take minimum amount needed
PG-WS-1-MUS-170105	17A0053-11		01/30/17 14:08	
PG-SMA1-2-3-MUS-170105	17A0053-12		01/30/17 14:08	LIMITED VOLUME, only take minimum amount needed
PG-SMA2-2-MUS-170105	BFA0625-DUP1		01/31/17 09:53	

Analytical Resources, Incorporated

DUPLICATES

SM 2540 G-97

PG-SMA2-2-MUS-170105

Laboratory: Analytical Resources, Inc.
SDG: 17A0053
Client: Anchor QEA, LLC
Project: Port Gamble Shellfish Monitoring
Matrix: Tissue
Laboratory ID: BFA0625-DUP1
Batch: BFA0625
Lab Source ID: 17A0053-05
Preparation: No Prep Extractions
Initial/Final: 1 g / 1 g
Source Sample Name: PG-SMA2-2-MUS-170105
% Solids:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (%)	C	DUPLICATE CONCENTRATION (%)	C	RPD %	Q
Total Solids		12.8		12.9		1.25	

*: Values outside of QC limits
L: Analyte concentration is <=5 times the reporting limit and the replicate control limit defaults to Dup = +/- RL instead of 20% RPD

Analytical Resources, Incorporated

HOLDING TIME SUMMARY

Analysis: SM 2540 G-97

Laboratory: Analytical Resources, Inc. SDG: 17A0053

Client: Anchor QEA, LLC Project: Port Gamble Shellfish Monitoring

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
PG-SMA1-1-MUS-170105 17A0053-01	01/05/17 10:15	01/06/17 16:03	01/30/17 14:08	25	365	01/31/17 09:54	26	365	
PG-SMA2-1-MUS-170105 17A0053-04	01/05/17 13:02	01/06/17 16:03	01/30/17 14:08	25	365	01/31/17 09:54	26	365	
PG-SMA2-2-MUS-170105 17A0053-05	01/05/17 12:50	01/06/17 16:03	01/30/17 14:08	25	365	01/31/17 09:54	26	365	
PG-SMA2-3-MUS-170105 17A0053-06	01/05/17 12:40	01/06/17 16:03	01/30/17 14:08	25	365	01/31/17 09:54	26	365	
PG-SMA2-4-MUS-170105 17A0053-07	01/05/17 12:30	01/06/17 16:03	01/30/17 14:08	25	365	01/31/17 09:54	26	365	
PG-SMA2-5-MUS-170105 17A0053-08	01/05/17 12:20	01/06/17 16:03	01/30/17 14:08	25	365	01/31/17 09:54	26	365	
PG-PJ-1-MUS-170105 17A0053-09	01/05/17 14:53	01/06/17 16:03	01/30/17 14:08	24	365	01/31/17 09:54	26	365	
PG-GP-1-MUS-170105 17A0053-10	01/05/17 14:43	01/06/17 16:03	01/30/17 14:08	24	365	01/31/17 09:54	26	365	
PG-WS-1-MUS-170105 17A0053-11	01/05/17 14:35	01/06/17 16:03	01/30/17 14:08	24	365	01/31/17 09:54	26	365	
PG-SMA1-2-3-MUS-170105 17A0053-12	01/05/17 00:00	01/06/17 16:03	01/30/17 14:08	25	365	01/31/17 09:54	26	365	
Duplicate BFA0625-DUP1	01/05/17 12:50	01/06/17 16:03	01/31/17 09:53	25	365	01/31/17 09:54	26	365	

* Indicates hold time exceedance.

Analytical Resources, Incorporated

METHOD DETECTION AND REPORTING LIMITS

SM 2540 G-97

Laboratory: Analytical Resources, Inc.
SDG: 17A0053
Client: Anchor QEA, LLC
Project: Port Gamble Shellfish Monitoring
Matrix: Tissue
Instrument:

Analyte	MDL	RL	Units
Total Solids		0.0400	%

Analytical Resources, Incorporated
Analytical Chemists and Consultants

20 March 2017

Nathan Soccorsy
Anchor QEA, LLC
720 Olive Way, Suite 1900
Seattle, WA 98101

RE: Port Gamble Shellfish Monitoring

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)	Associated SDG ID(s)
17A0053	N/A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the reqirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Amanda Volgardsen For Cheronne Oreiro, Project Manager

Cert# 100006

PJLA Testing
Accreditation # 66169

4611 S. 134th Place, Suite 100 • Tukwila, WA 98168 • Ph: (206) 695-6200 • Fax: (206) 695-6202

Anchor QEA, LLC	Project: Port Gamble Shellfish Monitoring	
720 Olive Way, Suite 1900	Project Number: [none]	**Reported:**
Seattle WA, 98101	Project Manager: Nathan Soccorsy	20-Mar-2017 15:46

Case Narrative

Sample Receipt

Eleven tissue samples were received January 6, 2017 under ARI workorder 17A0053. For details regarding sample receipt, please refer to the Cooler Receipt Form. The samples were prepped in the lab on January 30, 2017. Samples PG-SMA1-2-MUS-170105 and PG-SMA1-3-MUS-170105 were composited in the lab to make sample PG-SMA1-2-3-MUS-170105, which was used for analysis.

Dioxin/Furans - EPA Method 1613

Due to low matrix recovery for the samples, all samples except PG-WS-1-MUS-170105, and PG-SMA1-2-3-MUS-170105 were re-extracted. Samples PG-WS-1-MUS-170105 and PG-SMA1-2-3-MUS-170105 were reported as is per the client.

The samples were extracted and analyzed within the recommended holding times. Analysis was performed using an application specific column recently developed by Restek. The RTX-DIoxin2 column has unique isomer separation for the 2378-TCDF, eliminating the need for confirmation analysis.

Initial and continuing calibrations were within method requirements.

Labeled internal standard areas were within limits.

The all cleanup surrogate percent recoveries were out of control low for samples PG-GP-1-MUS-170105, and PG-SMA1-2-3-MUS-170105. Except 13C12-2,3,4,7,8-PeCDF for sample PG-GP-1-MUS-170105,and 37C14-2,3,7,8-TCDD for both samples. These samples were not re-extracted due to limited sample volume. Sample PG-SMA2-4-MUS-1-170105 has low surrogate percent recoveries for 13C12-1,2,3,4,6,7,8-HpCFD, 13C12-1,2,3,4,7,8-HxCDD, and 13C12-3,4,6,7,8-HxCDF. All other re-extract sample surrogate recoveries were within control limits. No further actions were taken.

The method blank BFA0657 has various analyte contamination. All of these analytes have been flagged with an “J” qualifier on the method blank, all associated samples that contain these anlaytes have been flagged with an “B” qualifier. Method blank BFB0538 also has various analyte contamination. All of these analytes have been flagged with “J” qualifiers on the blank, and all associated samples that contain the analytes have been flagged with an “B” qualifier. No further actions were taken.

The OPR (Ongoing Precision and Recovery) standard percent recoveries were within control limits.

Polynuclear Aromatic Hydrocarbons (PAH) - EPA Method SW8270D-SIM

The sample were extracted and analyzed within the recommended holding times.

Anchor QEA, LLC	Project: Port Gamble Shellfish Monitoring	
720 Olive Way, Suite 1900	Project Number: [none]	**Reported:**
Seattle WA, 98101	Project Manager: Nathan Soccorsy	20-Mar-2017 15:46

Case Narrative

Initial and continuing calibrations were within method requirements.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The LCS percent recoveries were within control limits.

A matrix spike and matrix spike duplicate were prepared in conjunction with sample PG-SMA2-1-MUS-170105.The matrix spike BFA0647 has low percent recoveries for Naphthalene, Fluoranthene, and benzo(a)thiophene. The matrix spike duplicate has high RPD's for all analytes. This indicates an overall loss while processing extracts. All percent recoveries and RPDs are advisory for a tissue matrix. No further actions were taken.

Total Cadmium - EPA Method 6010C

Sample PG-GP-1-MUS-1701105 was consumed before the metals analysis was reached.

The samples were digested and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

The method blank BFA0668 has Cadmium contamination below the reporting limit. The Cadmium has been flagged with an "J" qualifier on the method blank. No further actions were taken.

The LCS percent recoveries were within control limits.

A matrix spike, and a matrix duplicate were prepared in conjunction with sample PG-SMA2-2-MUS-170105. The matrix spike percent recovery and matrix duplicate RPD were within control limits.

Percent Lipids

The sample were prepared and analyzed within the recommended holding times.

The method blank was free of contaminates.

A matrix duplicate was prepared in conjunction with sample PG-SMA2-2-MUS-170105. The matrix duplicate RPD was within control limits.

Analytical Report

Anchor QEA, LLC	Project: Port Gamble Shellfish Monitoring	
720 Olive Way, Suite 1900	Project Number: [none]	**Reported:**
Seattle WA, 98101	Project Manager: Nathan Soccorsy	20-Mar-2017 15:46

Case Narrative

17A0053

Chain of Custody Record & Laboratory Analysis Request

Laboratory Number:

Date: January 05, 2017
Project Name: Port Gamble Bay Shellfish Monitoring
Project Number: 160388-01.01
Project Manager: Nathan Soccorsy
Phone Number: 206.287.9130
Shipment Method:

Line	Field Sample ID	Collection Date/Time	Matrix	Containers	Lipids	PAHs	Dioxin/Furans	Cadmium	PCB Congeners	Comments/Preservation
1	PG-SMA1-1-MUS-170105	01/05/17 1015	Tissue	1	x	x	x	x	x	
2	PG-SMA1-2-MUS-170105	01/05/17 1045	Tissue	1	x	x	x	x	x	
3	PG-SMA1-3-MUS-170105	01/05/17 1115	Tissue	1	x	x	x	x	x	
4	PG-SMA2-1-MUS-170105	01/05/17 1302	Tissue	1	x	x	x	x	x	
5	PG-SMA2-2-MUS-170105	01/05/17 1250	Tissue	1	x	x	x	x	x	
6	PG-SMA2-3-MUS-170105	01/05/17 1240	Tissue	1	x	x	x	x	x	
7	PG-SMA2-4-MUS-170105	01/05/17 1230	Tissue	1	x	x	x	x	x	
8	PG-SMA2-5-MUS-170105	01/05/17 1220	Tissue	1	x	x	x	x	x	
9	PG-PJ-1-MUS-170105	01/05/17 1453	Tissue	1	x	x	x	x	x	
10	PG-GP-1-MUS-170105	01/05/17 1443	Tissue	1	x	x	x	x	x	
11	PG-WS-1-MUS-170105	01/05/17 1435	Tissue	1	x	x	x	x	x	
12	PG-SMA1-10 -MUS-170105	01/05/17	Tissue	1	x	x	x	x	x	
13										
14										
15										

Notes:

Relinquished By: Alexandra Kapoff Company: Anchor QEA, LLC 1/6/17 1603
Signature/Printed Name Date/Time

Received By: Company:
Signature/Printed Name Date/Time

Relinquished By: Paul Mark Company: ARI 1/6/17 1603
Signature/Printed Name Date/Time

Received By: Company:
Signature/Printed Name Date/Time

5 of 627

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Anchor QEA

Project Name: Port Gamble Bay Shellfish Monitoring

COC No(s): _____ NA

Delivered by: Fed-Ex UPS Courier (Hand Delivered) Other: _____

Assigned ARI Job No: 170053

Tracking No: _____ NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	(NO)
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc.)	(YES)	NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry) 1.3

Time: _____

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: D005276

Cooler Accepted by: PM Date: 01/06/2017 Time: 16:11

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	(NO)
What kind of packing material was used? ...	Bubble Wrap (Wet Ice) Gel Packs Baggies Foam Block Paper Other: _____		
Was sufficient ice used (if appropriate)?	NA	(YES)	NO
Were all bottles sealed in individual plastic bags?		YES	(NO)
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		(YES)	NO
Did the number of containers listed on COC match with the number of containers received?		(YES)	NO
Did all bottle labels and tags agree with custody papers?		(YES)	NO
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)...	(NA)	YES	NO
Were all VOC vials free of air bubbles?	(NA)	YES	NO
Was sufficient amount of sample sent in each bottle?	PM	(YES)	(NO)
Date VOC Trip Blank was made at ARI	(NA)		

Was Sample Split by ARI : (NA) YES Date/Time: _____ Equipment: _____ Split by: _____

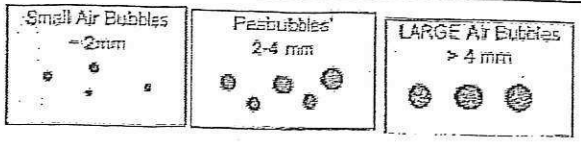
Samples Logged by: PM Date: 01/06/2017 Time: 16:15

*** Notify Project Manager of discrepancies or concerns ***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: Date:



Small → "sm" (< 2 mm)	
Peabubbles → "pb" (2 to < 4 mm)	
Large → "lg" (4 to < 6 mm)	
Headspace → "hs" (> 6 mm)	

Analytical Resources, Incorporated

Internal Chain of Custody

Client:	Anchor QEA, LLC	Received:	06-Jan-2017 16:03
Project:	Port Gamble Shellfish Monitoring	Received By:	Paul Mork
Number:	[none]	Temp (°C):	1.30

17A0053-01 (PG-SMA1-1-MUS-170105) Sampled 01/05/2017 10:15

Current Status	*Out*	*Location*	*In*
17A0053-01 A [Glass WM, Clear, 16 oz]		*Hazard Info:Anthracene [0.605715ug/kg];Benzo(a)anthracene [0.8717189ug/kg];B*	
Sample Receiving	01/06/2017 16:25 by PAM	***START***	01/06/2017 16:25 by PAM
Extractions	01/09/2017 18:25 by WPW	Organic Extractions	01/10/2017 16:34 by WPW
Organics	01/30/2017 16:01 by JLW	R-05 M05 Ext	01/31/2017 12:59 by YQL
Sample Receiving	02/01/2017 10:00 by PAM	F-05	02/01/2017 10:00 by PAM
	02/17/2017 09:56 by PAM	F-51 E5-5	02/17/2017 09:56 by PAM
Extractions	02/22/2017 06:32 by NPL	Dioxin Lab	by
Sample Receiving	02/22/2017 10:02 by PAM	Dioxin Lab	02/22/2017 10:02 by PAM

17A0053-04 (PG-SMA2-1-MUS-170105) Sampled 01/05/2017 13:02

Current Status	*Out*	*Location*	*In*
17A0053-04 A [Glass WM, Clear, 16 oz]		*Hazard Info:Anthracene [0.7395618ug/kg];Benzo(a)anthracene [1.163815ug/kg];B*	
Sample Receiving	01/06/2017 16:26 by PAM	***START***	01/06/2017 16:26 by PAM
Extractions	01/09/2017 18:25 by WPW	Organic Extractions	01/10/2017 16:34 by WPW
Organics	01/30/2017 16:01 by JLW	R-05 M05 Ext	01/31/2017 12:59 by YQL
Sample Receiving	02/01/2017 10:00 by PAM	F-05	02/01/2017 10:00 by PAM
	02/17/2017 09:56 by PAM	F-51 E5-5	02/17/2017 09:56 by PAM
Extractions	02/22/2017 06:32 by NPL	Dioxin Lab	by
Sample Receiving	02/22/2017 10:02 by PAM	Dioxin Lab	02/22/2017 10:02 by PAM

17A0053-05 (PG-SMA2-2-MUS-170105) Sampled 01/05/2017 12:50

Current Status	*Out*	*Location*	*In*
17A0053-05 A [Glass WM, Clear, 16 oz]		*Hazard Info:Anthracene [0.8570972ug/kg];Benzo(a)anthracene [1.368571ug/kg];B*	
Sample Receiving	01/06/2017 16:27 by PAM	***START***	01/06/2017 16:27 by PAM
Extractions	01/09/2017 18:25 by WPW	Organic Extractions	01/10/2017 16:34 by WPW
Organics	01/30/2017 16:01 by JLW	R-05 M05 Ext	01/31/2017 12:59 by YQL
Sample Receiving	02/01/2017 10:00 by PAM	F-05	02/01/2017 10:00 by PAM
	02/17/2017 09:56 by PAM	F-51 E5-5	02/17/2017 09:56 by PAM
Extractions	02/22/2017 06:32 by NPL	Dioxin Lab	by
Sample Receiving	02/22/2017 10:02 by PAM	Dioxin Lab	02/22/2017 10:02 by PAM

17A0053-06 (PG-SMA2-3-MUS-170105) Sampled 01/05/2017 12:40

Current Status	*Out*	*Location*	*In*
17A0053-06 A [Glass WM, Clear, 16 oz]		*Hazard Info:Percent Lipids [1.216601%];Anthracene [2.227283ug/kg];Benzo(a)an*	
Sample Receiving	01/06/2017 16:27 by PAM	***START***	01/06/2017 16:27 by PAM
Extractions	01/09/2017 18:25 by WPW	Organic Extractions	01/10/2017 16:34 by WPW
Organics	01/30/2017 16:01 by JLW	R-05 M05 Ext	01/31/2017 12:59 by YQL
Sample Receiving	02/01/2017 10:00 by PAM	F-05	02/01/2017 10:00 by PAM
	02/17/2017 09:56 by PAM	F-51 E5-5	02/17/2017 09:56 by PAM
Extractions	02/22/2017 06:32 by NPL	Dioxin Lab	by
Sample Receiving	02/22/2017 10:02 by PAM	Dioxin Lab	02/22/2017 10:02 by PAM

17A0053-07 (PG-SMA2-4-MUS-170105) Sampled 01/05/2017 12:30

Current Status	*Out*	*Location*	*In*
17A0053-07 A [Glass WM, Clear, 16 oz]		*Hazard Info:Percent Lipids [1.059825%];Anthracene [1.116252ug/kg];Benzo(a)ant*	
Sample Receiving	01/06/2017 16:27 by PAM	***START***	01/06/2017 16:27 by PAM

Analytical Resources, Incorporated

Internal Chain of Custody

Client:	Anchor QEA, LLC	Received:	06-Jan-2017 16:03
Project:	Port Gamble Shellfish Monitoring	Received By:	Paul Mork
Number:	[none]	Temp (°C):	1.30

17A0053-07 (PG-SMA2-4-MUS-170105) Sampled 01/05/2017 12:30

Current Status	*Out*	*Location*	*In*
17A0053-07 A [Glass WM, Clear, 16 oz]		*Hazard Info:Percent Lipids [1.059825%];Anthracene [1.116252ug/kg];Benzo(a)ant*	
Extractions	01/09/2017 18:25 by WPW	Organic Extractions	01/10/2017 16:34 by WPW
Organics	01/30/2017 16:01 by JLW	R-05 M05 Ext	01/31/2017 12:59 by YQL
Sample Receiving	02/01/2017 10:00 by PAM	F-05	02/01/2017 10:00 by PAM
	02/17/2017 09:56 by PAM	F-51 E5-5	02/17/2017 09:56 by PAM
Extractions	02/22/2017 06:32 by NPL	Dioxin Lab	by
Sample Receiving	02/22/2017 10:02 by PAM	Dioxin Lab	02/22/2017 10:02 by PAM

17A0053-08 (PG-SMA2-5-MUS-170105) Sampled 01/05/2017 12:20

Current Status	*Out*	*Location*	*In*
17A0053-08 A [Glass WM, Clear, 16 oz]		*Hazard Info:Percent Lipids [1.287649%];Acenaphthene [2.899392ug/kg];Anthrace*	
Sample Receiving	01/06/2017 16:27 by PAM	***START***	01/06/2017 16:27 by PAM
Extractions	01/09/2017 18:25 by WPW	Organic Extractions	01/10/2017 16:34 by WPW
Organics	01/30/2017 16:01 by JLW	R-05 M05 Ext	01/31/2017 12:59 by YQL
Sample Receiving	02/01/2017 10:00 by PAM	F-05	02/01/2017 10:00 by PAM
	02/17/2017 09:57 by PAM	F-51 E5-5	02/17/2017 09:57 by PAM
Extractions	02/22/2017 06:32 by NPL	Dioxin Lab	by
Sample Receiving	02/22/2017 10:03 by PAM	Dioxin Lab	02/22/2017 10:03 by PAM

17A0053-09 (PG-PJ-1-MUS-170105) Sampled 01/05/2017 14:53

Current Status	*Out*	*Location*	*In*
17A0053-09 A [Glass WM, Clear, 16 oz]		*Hazard Info:Percent Lipids [1.231213%];Benzo(a)anthracene [0.5551788ug/kg];B*	
Sample Receiving	01/06/2017 16:28 by PAM	***START***	01/06/2017 16:28 by PAM
Extractions	01/09/2017 18:25 by WPW	Organic Extractions	01/10/2017 16:34 by WPW
Organics	01/30/2017 16:01 by JLW	R-05 M05 Ext	01/31/2017 12:59 by YQL
Sample Receiving	02/01/2017 10:00 by PAM	F-05	02/01/2017 10:00 by PAM
	02/17/2017 09:58 by PAM	F-51 E5-5	02/17/2017 09:58 by PAM
Extractions	02/22/2017 06:32 by NPL	Dioxin Lab	by
Sample Receiving	02/22/2017 10:03 by PAM	Dioxin Lab	02/22/2017 10:03 by PAM

17A0053-10 (PG-GP-1-MUS-170105) Sampled 01/05/2017 14:43

Current Status	*Out*	*Location*	*In*
17A0053-10 A [Glass WM, Clear, 16 oz]		*Hazard Info:Percent Lipids [1.193726%];Benzo(e)pyrene [0.6824681ug/kg];Chryse*	
Sample Receiving	01/06/2017 16:28 by PAM	***START***	01/06/2017 16:28 by PAM
Extractions	01/09/2017 18:25 by WPW	Organic Extractions	01/10/2017 16:34 by WPW
Organics	01/30/2017 16:01 by JLW	R-05 M05 Ext	01/31/2017 12:59 by YQL
	01/31/2017 14:40 by JLW	Consumed	by

17A0053-11 (PG-WS-1-MUS-170105) Sampled 01/05/2017 14:35

Current Status	*Out*	*Location*	*In*
17A0053-11 A [Glass WM, Clear, 16 oz]		*Hazard Info:Percent Lipids [1.250973%];Anthracene [0.8117059ug/kg];Benzo(a)an*	
Sample Receiving	01/06/2017 16:29 by PAM	***START***	01/06/2017 16:29 by PAM
Extractions	01/09/2017 18:25 by WPW	Organic Extractions	01/10/2017 16:34 by WPW
Organics	01/30/2017 16:01 by JLW	R-05 M05 Ext	01/31/2017 12:59 by YQL
Sample Receiving	02/01/2017 10:00 by PAM	F-05	02/01/2017 10:00 by PAM
	02/17/2017 09:58 by PAM	F-51 E5-5	02/17/2017 09:58 by PAM

Analytical Resources, Incorporated

Internal Chain of Custody

Client:	Anchor QEA, LLC	Received:	06-Jan-2017 16:03
Project:	Port Gamble Shellfish Monitoring	Received By:	Paul Mork
Number:	[none]	Temp (°C):	1.30

17A0053-11 (PG-WS-1-MUS-170105) Sampled 01/05/2017 14:35

Current Status	*Out*	*Location*	*In*
17A0053-11 A [Glass WM, Clear, 16 oz]		*Hazard Info:Percent Lipids [1.250973%];Anthracene [0.8117059ug/kg];Benzo(a)an*	
Extractions	02/22/2017 06:32 by NPL	Dioxin Lab	by
Sample Receiving	02/22/2017 10:03 by PAM	Dioxin Lab	02/22/2017 10:03 by PAM

17A0053-12 (PG-SMA1-2-3-MUS-170105) Sampled 01/05/2017 00:00

Current Status	*Out*	*Location*	*In*
17A0053-12 A [Glass WM, Clear, 16 oz]		*Hazard Info:Percent Lipids [1.265217%];Acenaphthene [0.6214851ug/kg];Anthrac*	
Sample Receiving	01/31/2017 08:59 by PAM	***START***	01/31/2017 08:59 by PAM
Organics	01/31/2017 14:40 by JLW	Consumed	by

PG-SMA1-1-MUS-170105

Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270D-SIM

Polycyclic Aromatic Hydrocarbons (PAH) low level

Laboratory:	Analytical Resources, Inc.			SDG:	17A0053
Client:	Anchor QEA, LLC			Project:	Port Gamble Shellfish Monitoring
Matrix:	Tissue	Laboratory ID:	17A0053-01	File ID:	N1117021010.D
Sampled:	01/05/17 10:15	Prepared:	01/31/17 13:45	Analyzed:	02/10/17 16:27
Solids:		Preparation:	EPA 3550C-Mod (Ultrasonic	Initial/Final:	10.21 g / 0.5 mL
Batch:	BFA0647	Sequence:	SFB0130	Calibration:	ZL00083
Instrument:	NT11	Column:	RXi-17Sil-MS		

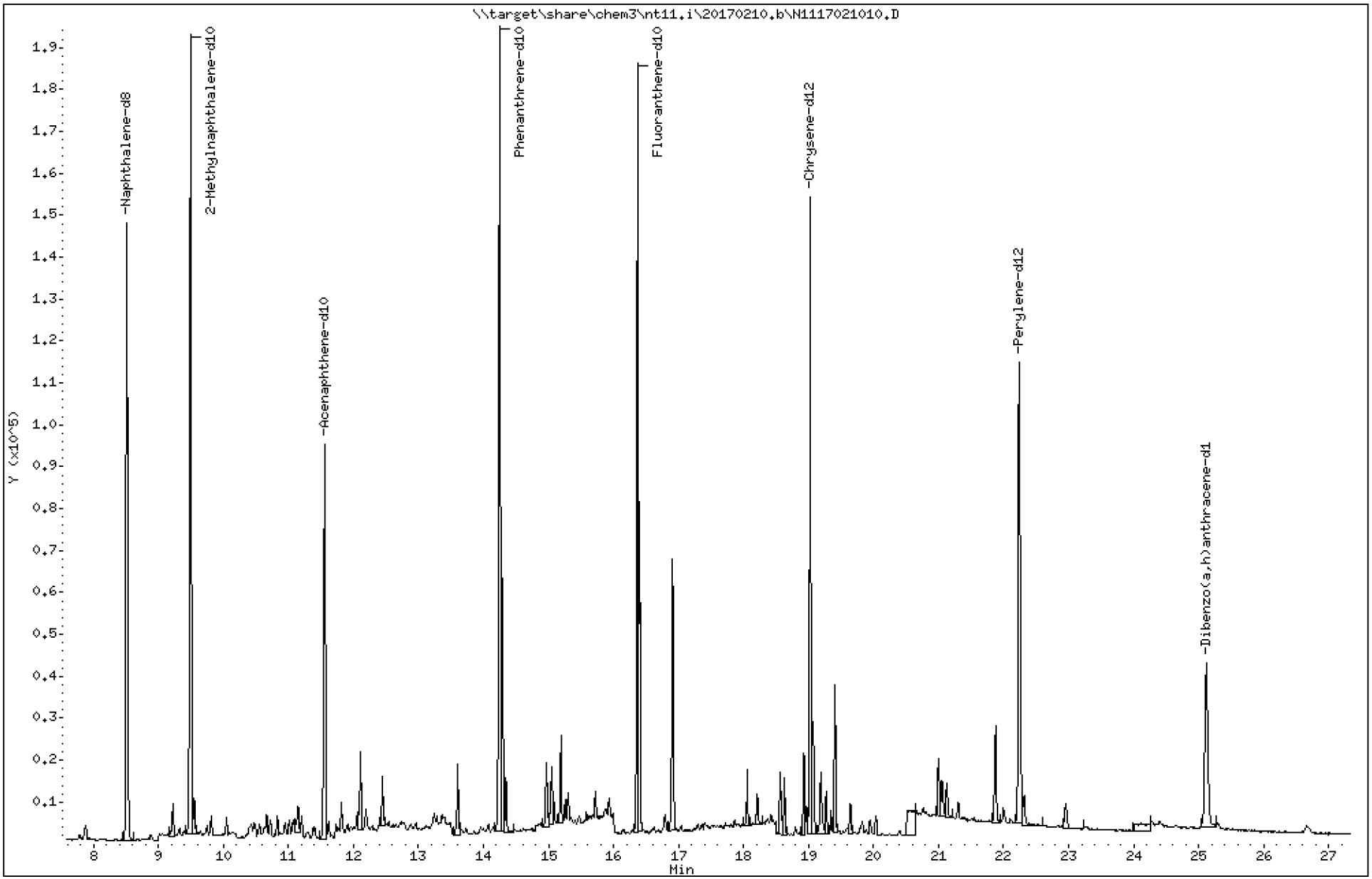
CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg)	Q	DL	RL
91-20-3	Naphthalene	1	0.59	U	0.49	0.59
91-57-6	2-Methylnaphthalene	1	0.49	U	0.49	0.49
208-96-8	Acenaphthylene	1	0.49	U	0.49	0.49
83-32-9	Acenaphthene	1	0.49	U	0.49	0.49
86-73-7	Fluorene	1	0.51		0.49	0.49
85-01-8	Phenanthrene	1	2.76		0.49	0.49
120-12-7	Anthracene	1	0.61		0.49	0.49
206-44-0	Fluoranthene	1	2.90		0.49	0.49
129-00-0	Pyrene	1	2.90		0.49	0.49
56-55-3	Benzo(a)anthracene	1	0.87		0.49	0.49
218-01-9	Chrysene	1	1.96		0.49	0.49
205-99-2	Benzo(b)fluoranthene	1	0.90		0.49	0.49
207-08-9	Benzo(k)fluoranthene	1	0.55		0.49	0.49
50-32-8	Benzo(a)pyrene	1	0.49	U	0.49	0.49
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.49	U	0.49	0.49
53-70-3	Dibenzo(a,h)anthracene	1	0.49	U	0.49	0.49
191-24-2	Benzo(g,h,i)perylene	1	0.49	U	0.49	0.49
1985-5-0	Perylene	1	0.49	U	0.49	0.49
197-97-2	Benzo(e)pyrene	1	1.51		0.49	0.49

SURROGATES	ADDED (ug/kg)	CONC (ug/kg)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	14.691	8.15	55.5	30 - 160	
Dibenzo[a,h]anthracene-d14	14.691	9.96	67.8	30 - 160	
Fluoranthene-d10	14.691	8.72	59.3	30 - 160	

Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021010.D
Date : 10-FEB-2017 16:27
Client ID:
Sample Info: 17A0053-01

Instrument: nt11.i
Operator: VTS
Column diameter: 0.25

Column phase: Rxi-17Sil MS



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Date : 10-FEB-2017 16:27

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-01

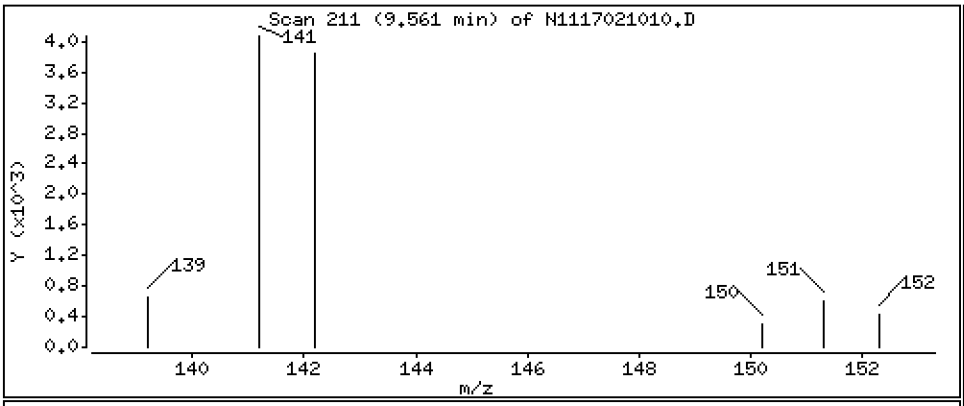
Operator: VTS

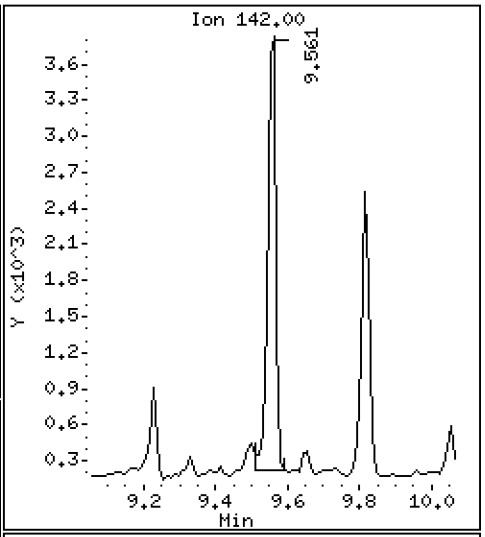
Column phase: Rxi-17Sil MS

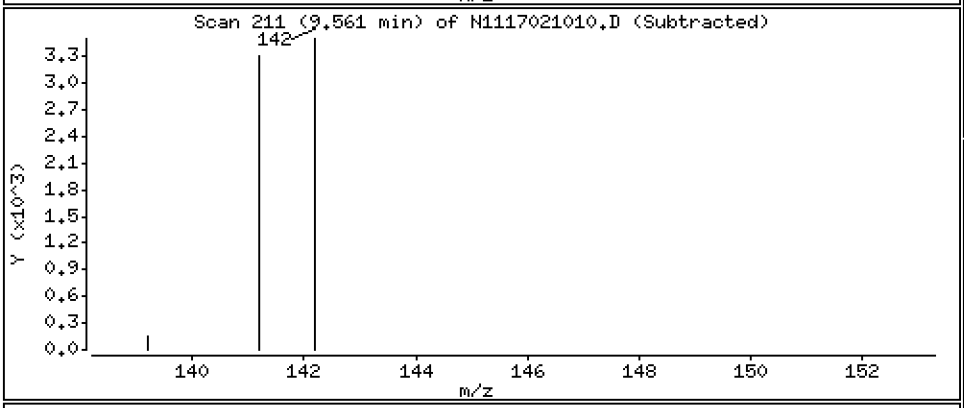
Column diameter: 0.25

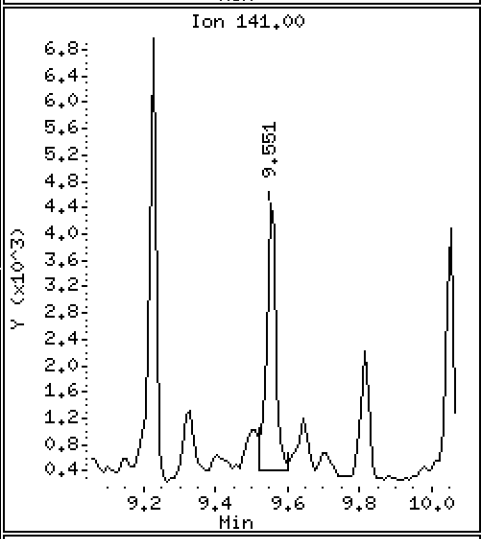
5 2-Methylnaphthalene

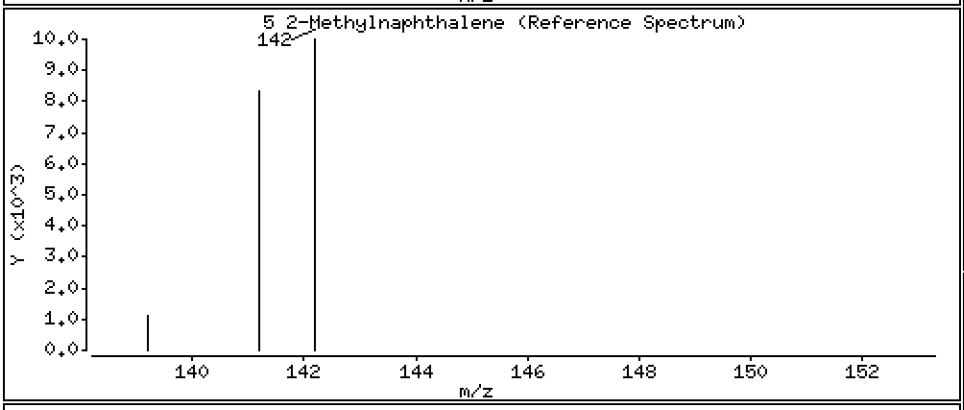
Concentration: 6.07 ng/mL

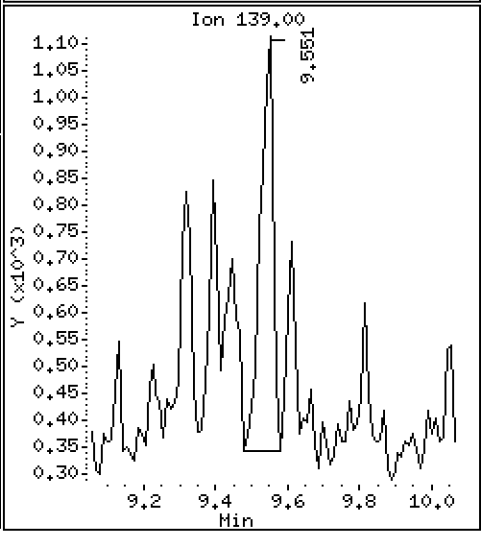


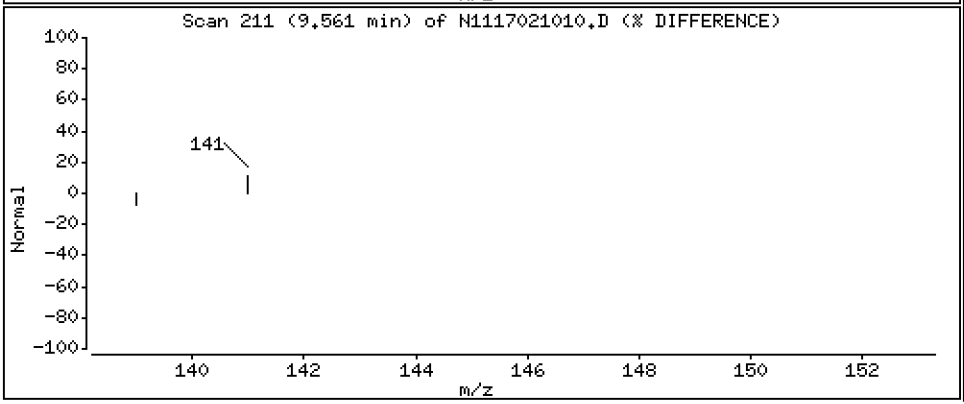












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Date : 10-FEB-2017 16:27

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-01

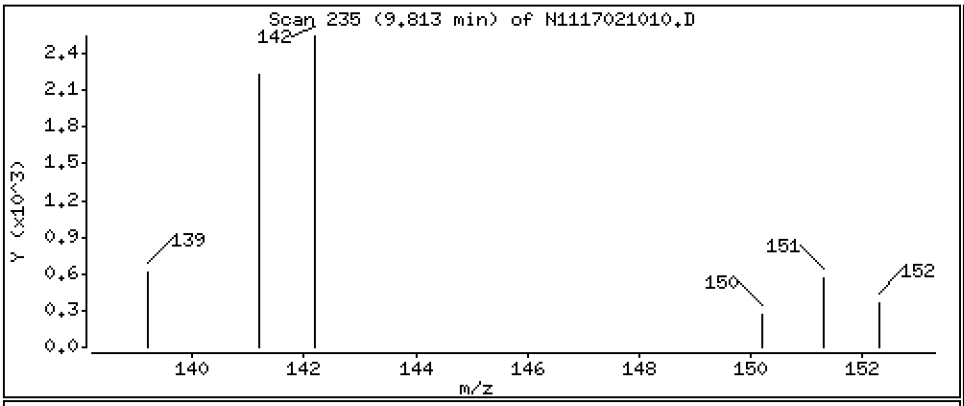
Operator: VTS

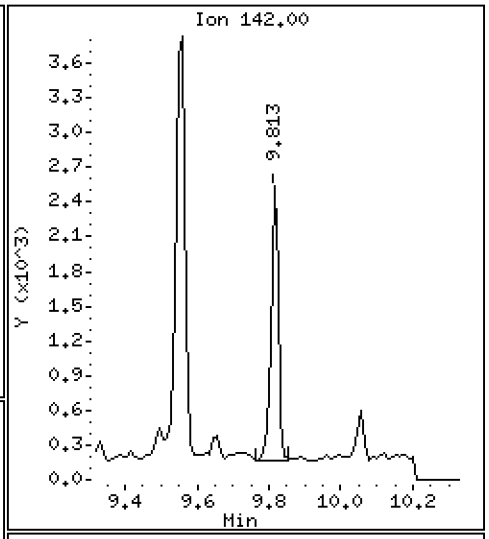
Column phase: Rxi-17Sil MS

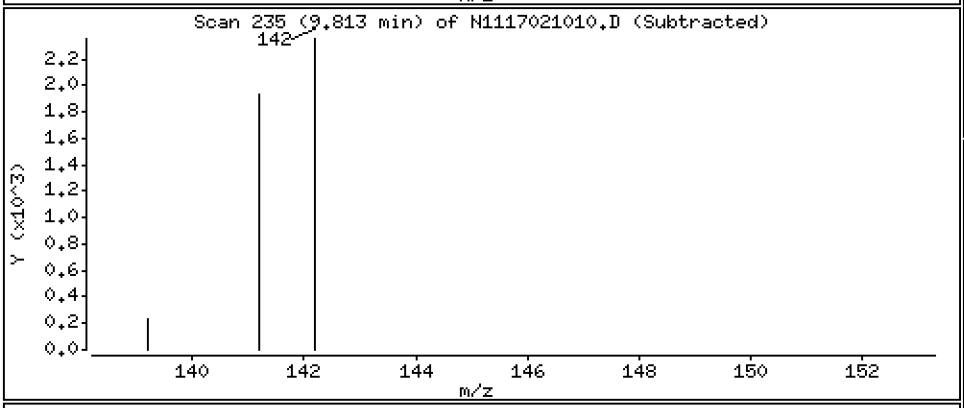
Column diameter: 0.25

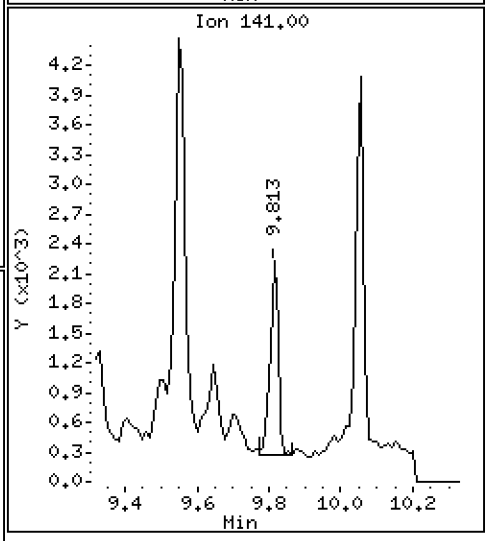
6 1-Methylnaphthalene

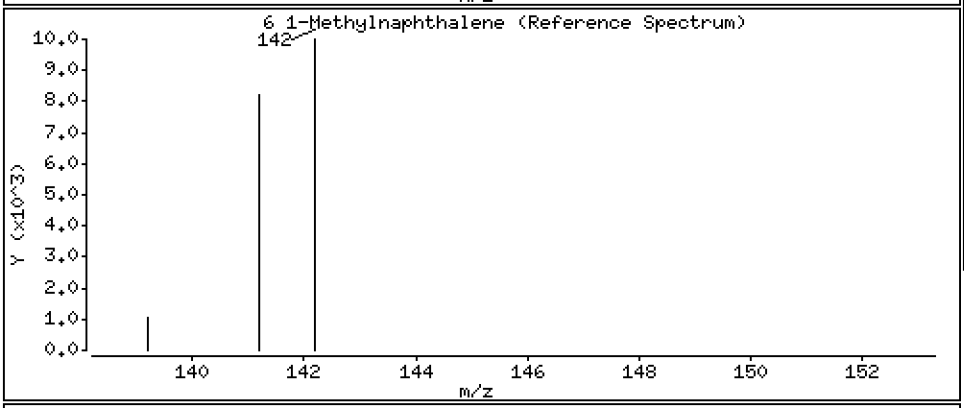
Concentration: 3.43 ng/mL

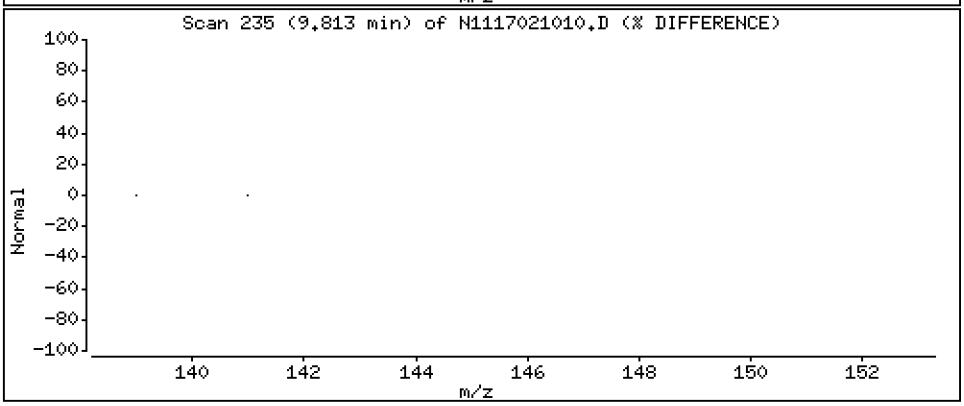












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Date : 10-FEB-2017 16:27

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-01

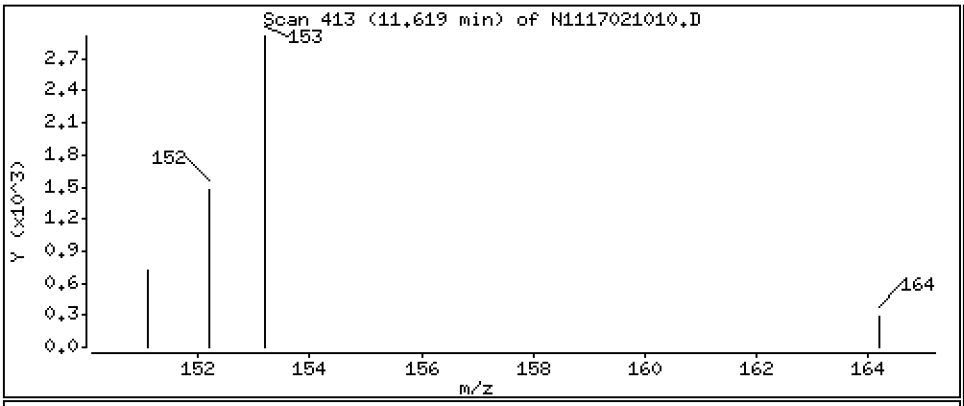
Operator: VTS

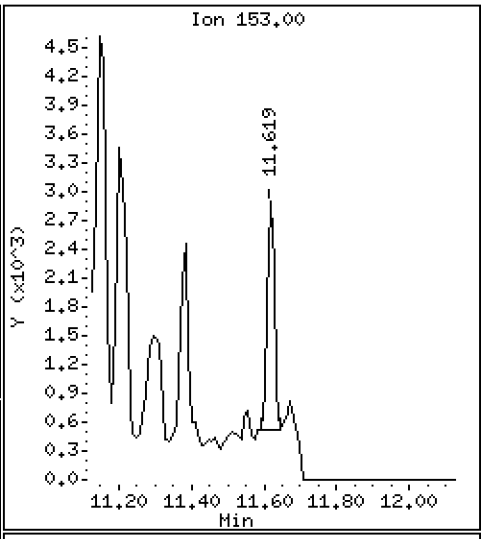
Column phase: Rxi-17Sil MS

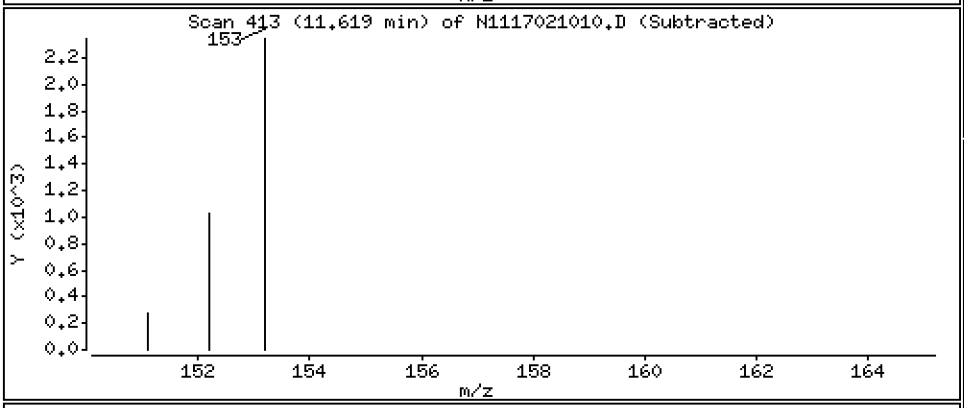
Column diameter: 0.25

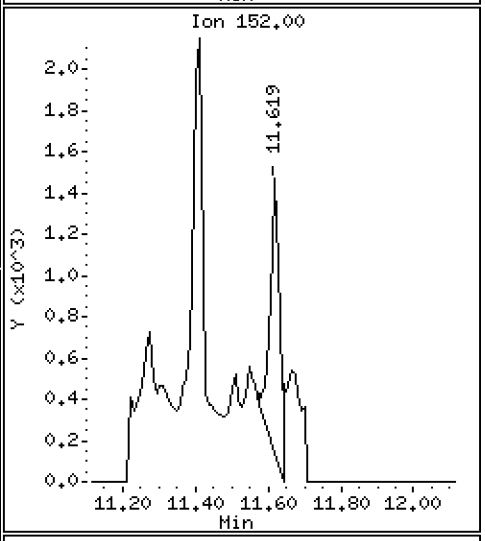
12 Acenaphthene

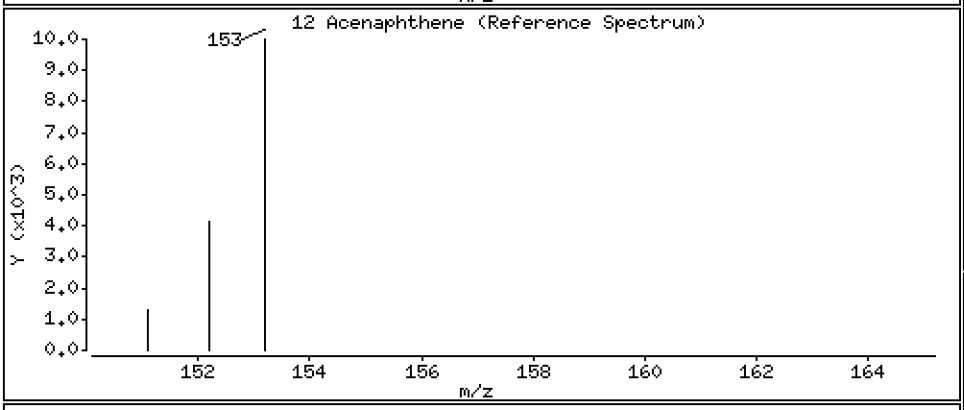
Concentration: 3.93 ng/mL

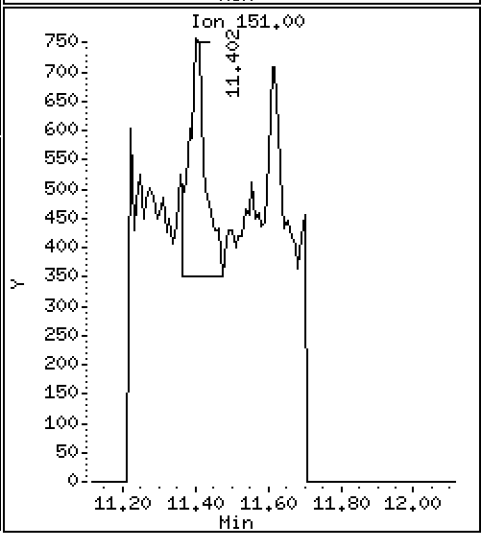


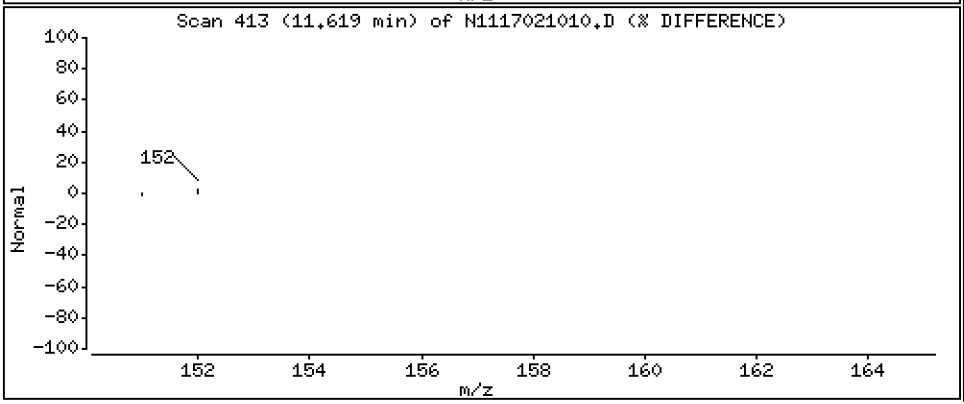












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Date : 10-FEB-2017 16:27

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-01

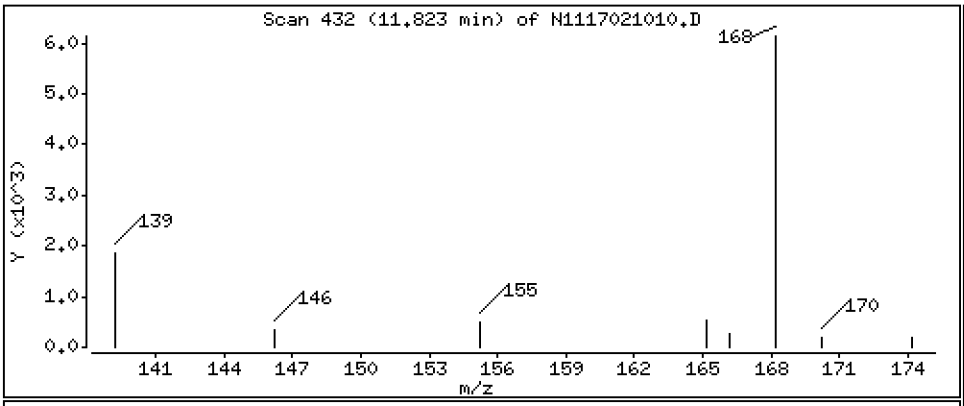
Operator: VTS

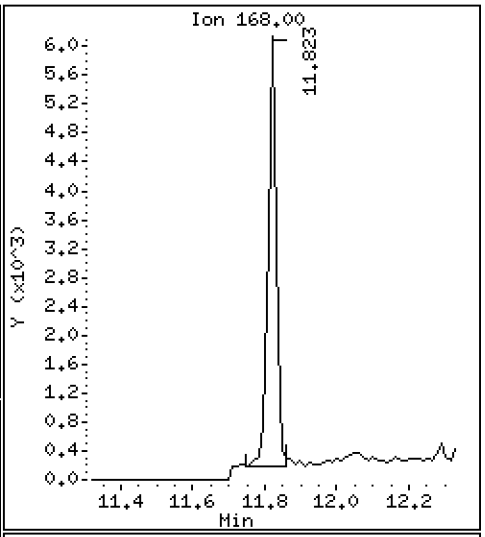
Column phase: Rxi-17Sil MS

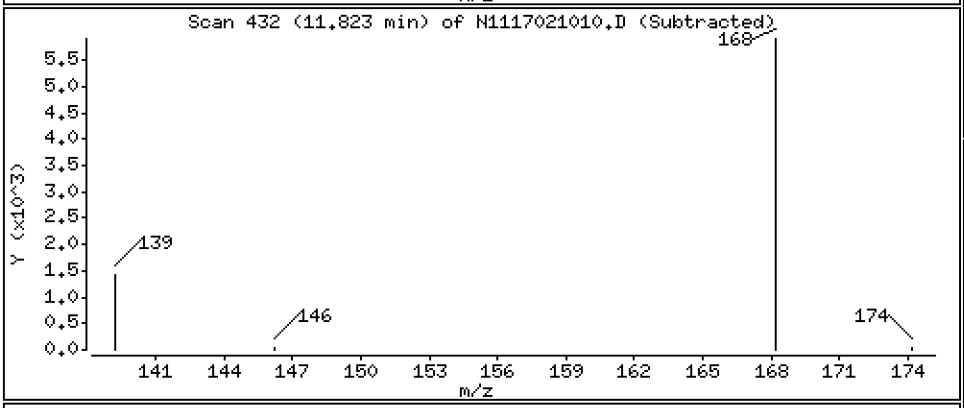
Column diameter: 0.25

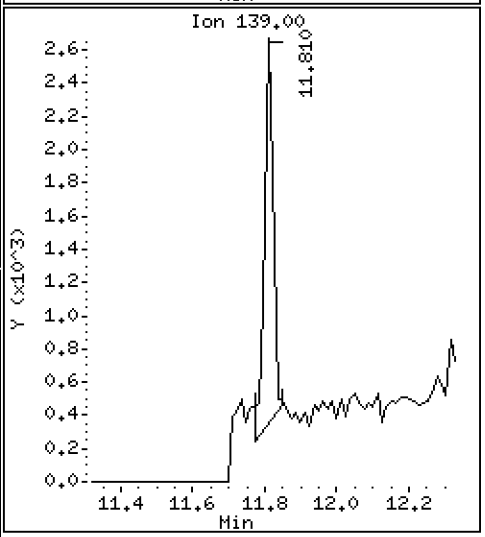
13 Dibenzofuran

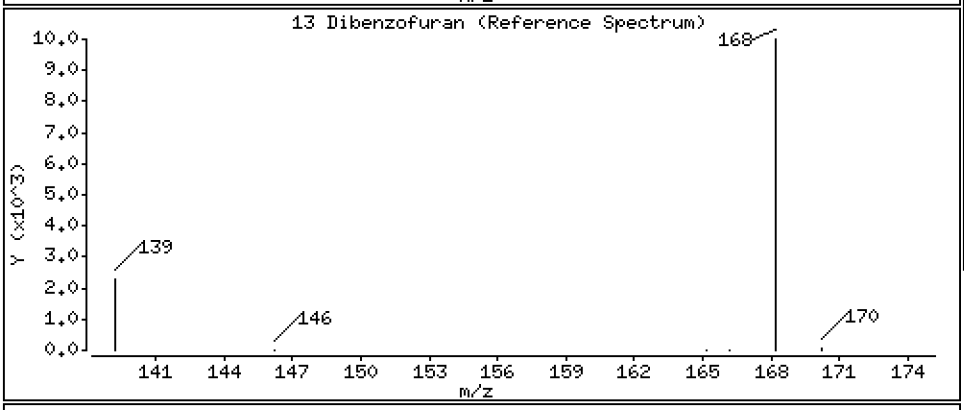
Concentration: 7.16 ng/mL

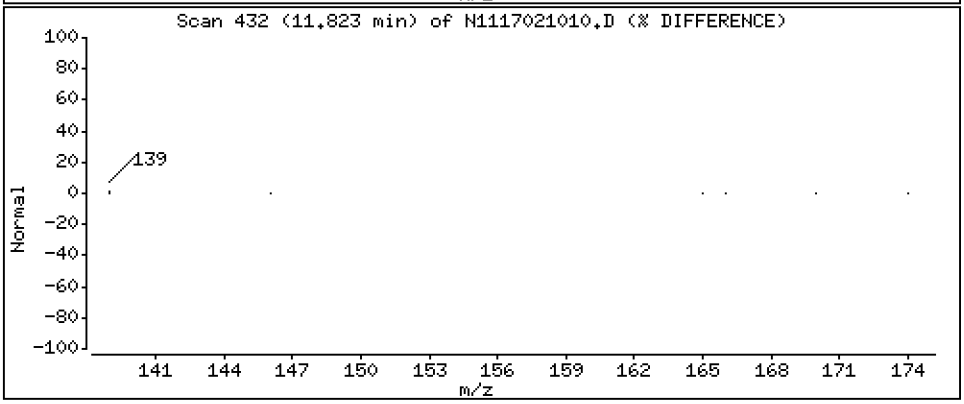












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Date : 10-FEB-2017 16:27

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-01

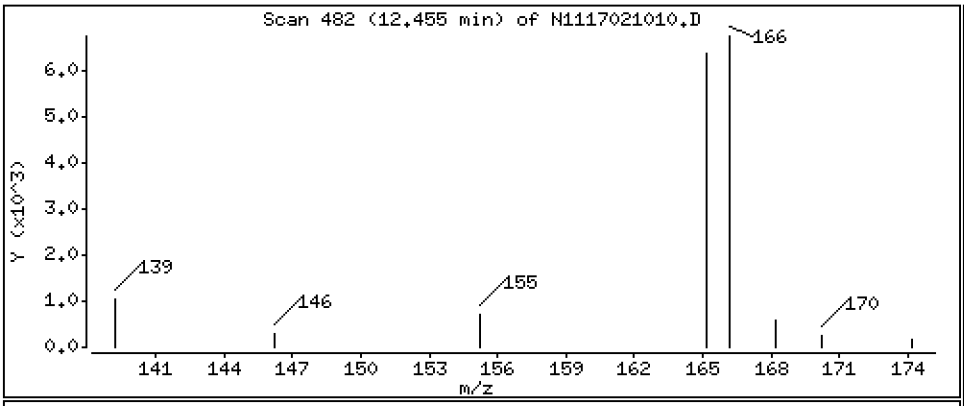
Operator: VTS

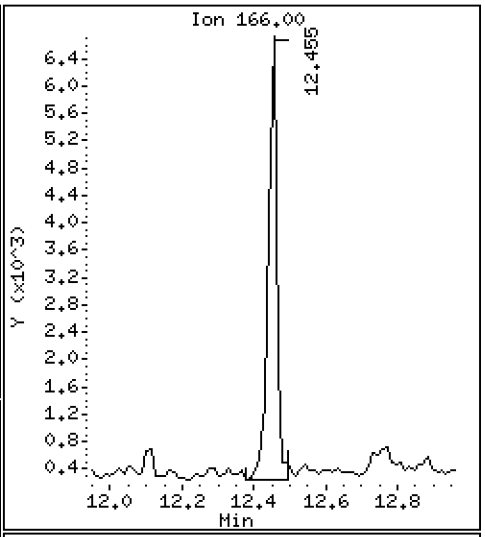
Column phase: Rxi-17Sil MS

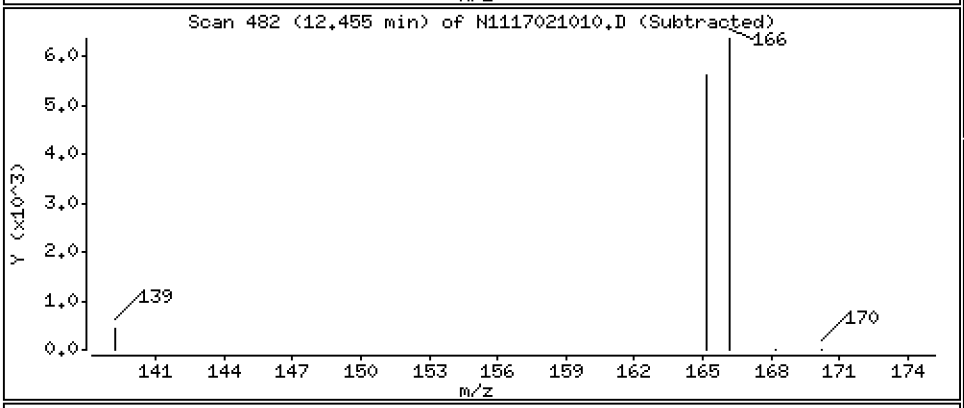
Column diameter: 0.25

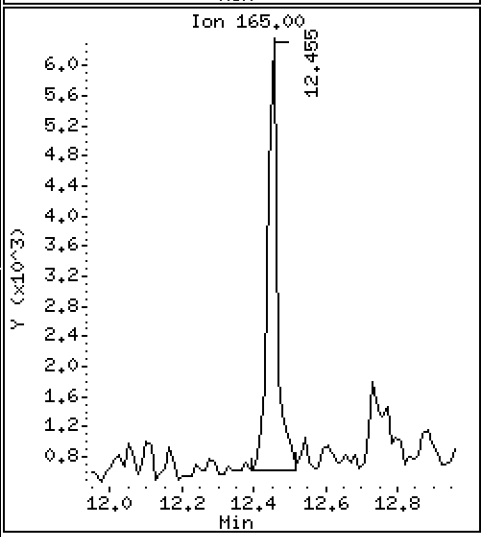
16 Fluorene

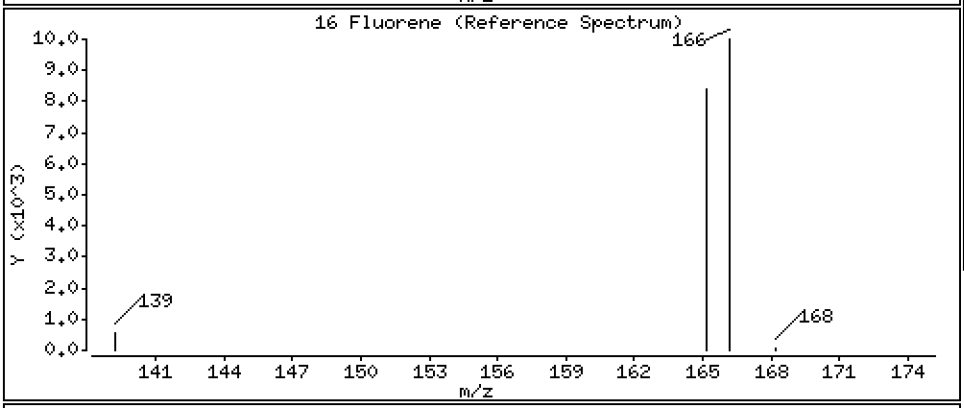
Concentration: 10.4 ng/mL

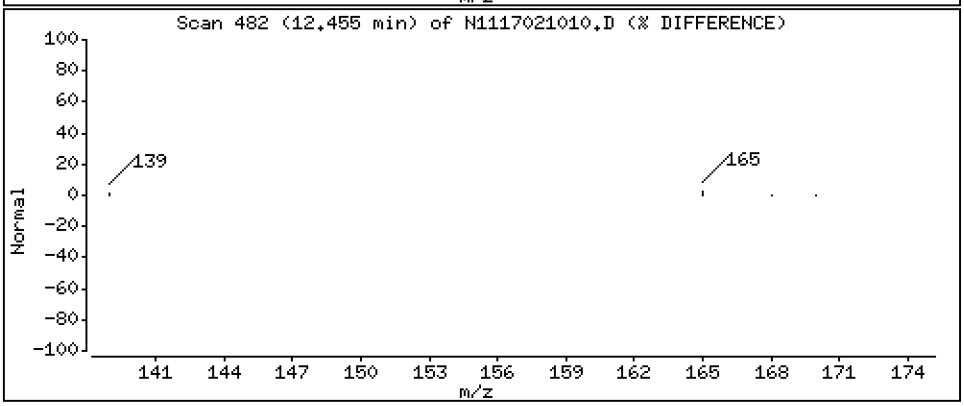












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Date : 10-FEB-2017 16:27

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-01

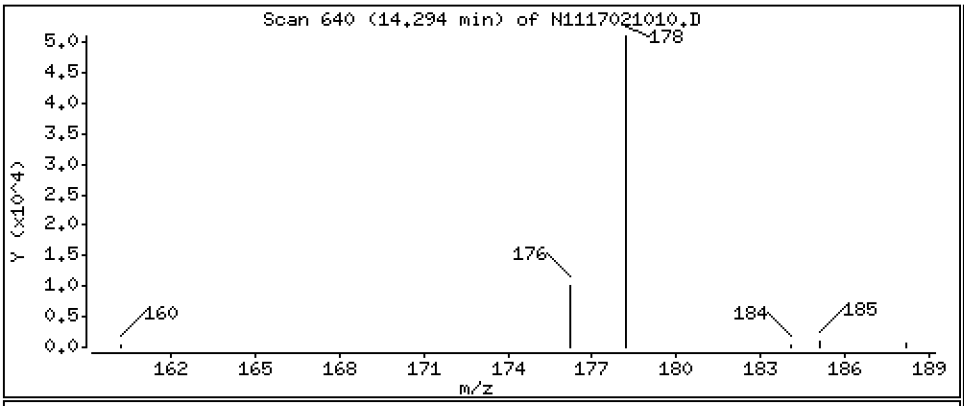
Operator: VTS

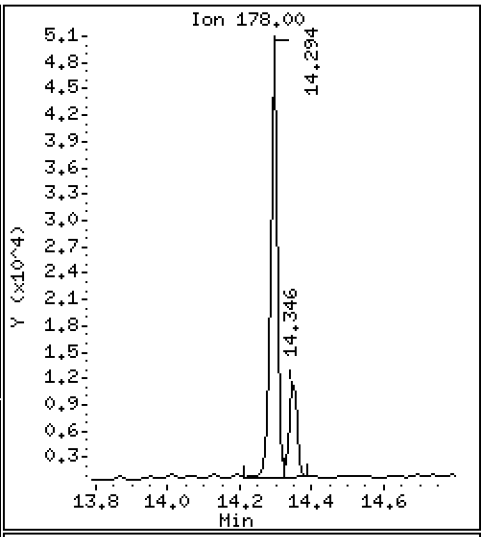
Column phase: Rxi-17Sil MS

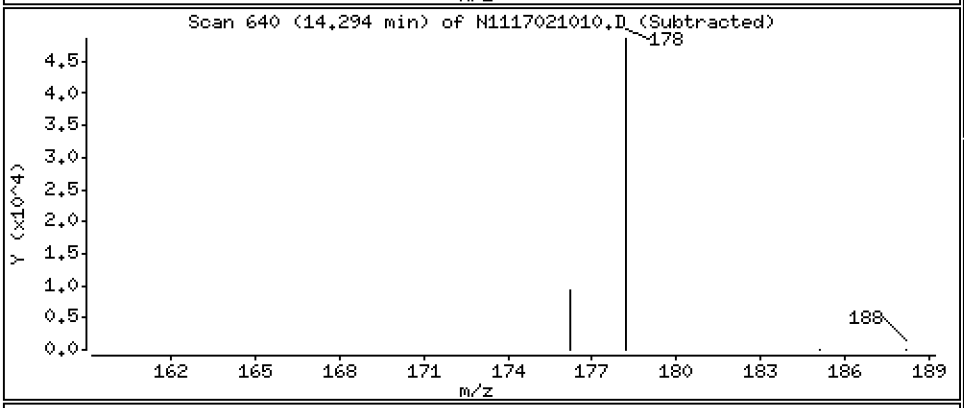
Column diameter: 0.25

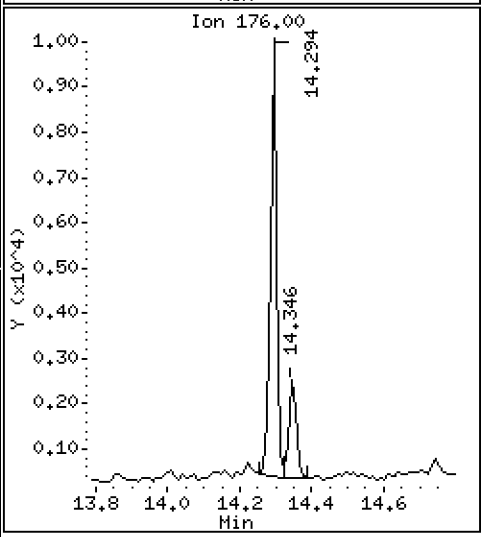
19 Phenanthrene

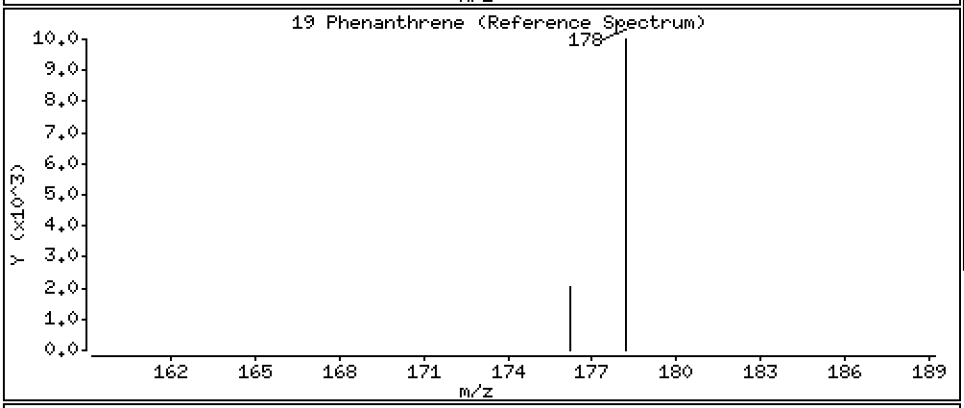
Concentration: 56.4 ng/mL

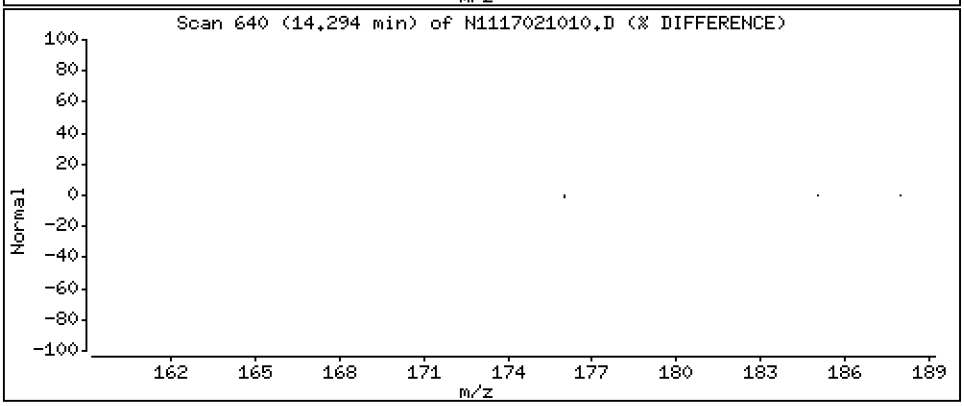












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Date : 10-FEB-2017 16:27

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-01

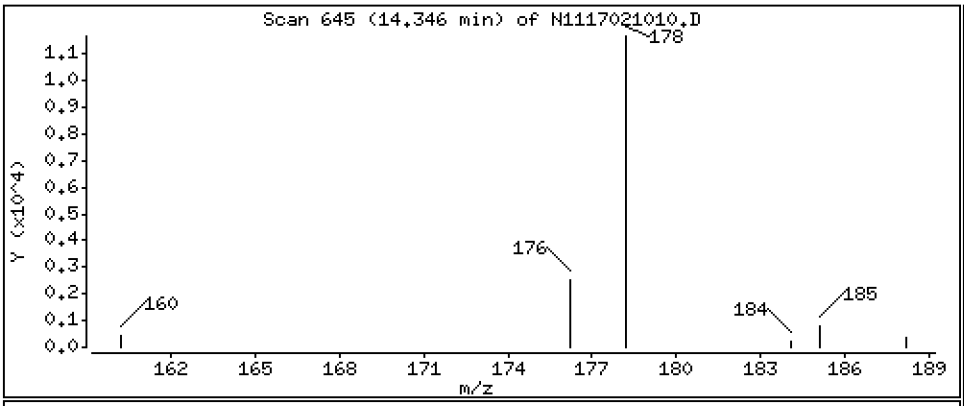
Operator: VTS

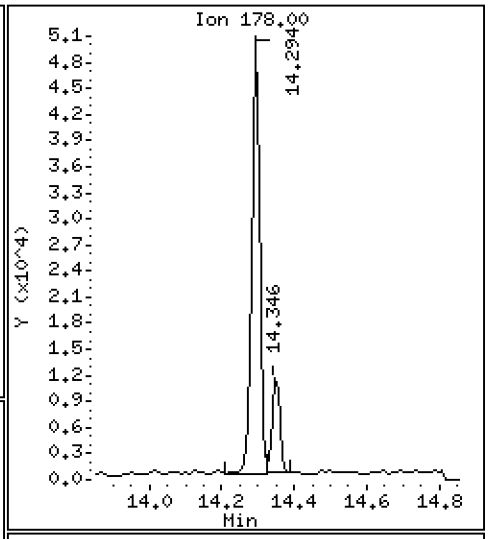
Column phase: Rxi-17Sil MS

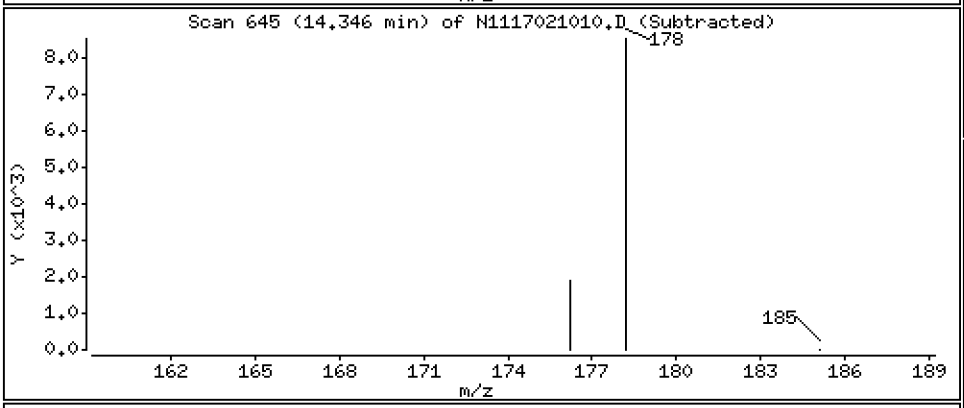
Column diameter: 0.25

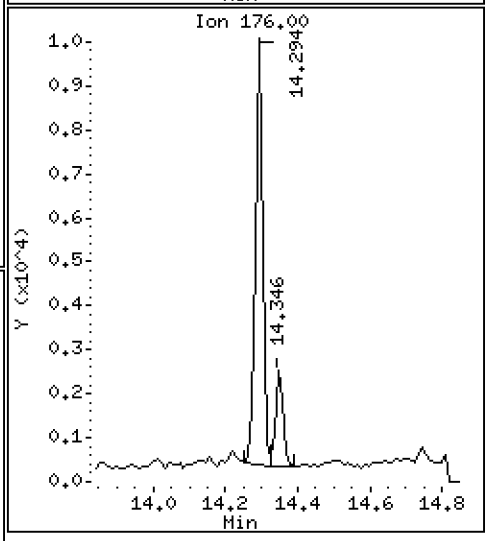
21 Anthracene

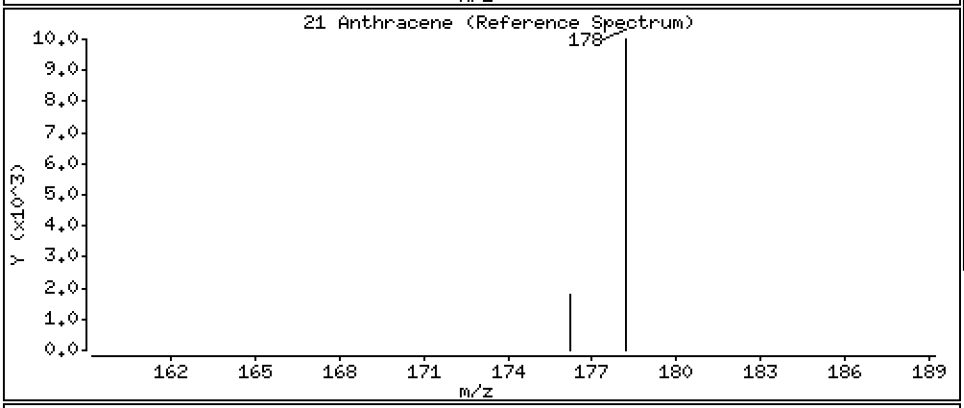
Concentration: 12.4 ng/mL

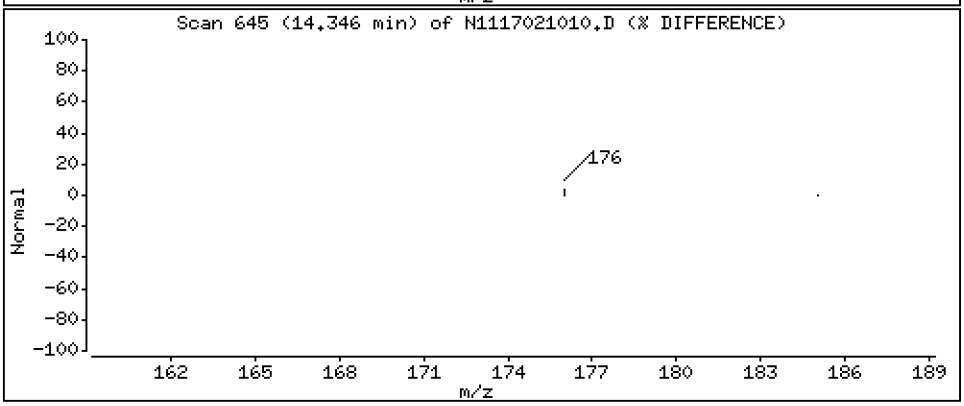












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Date : 10-FEB-2017 16:27

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-01

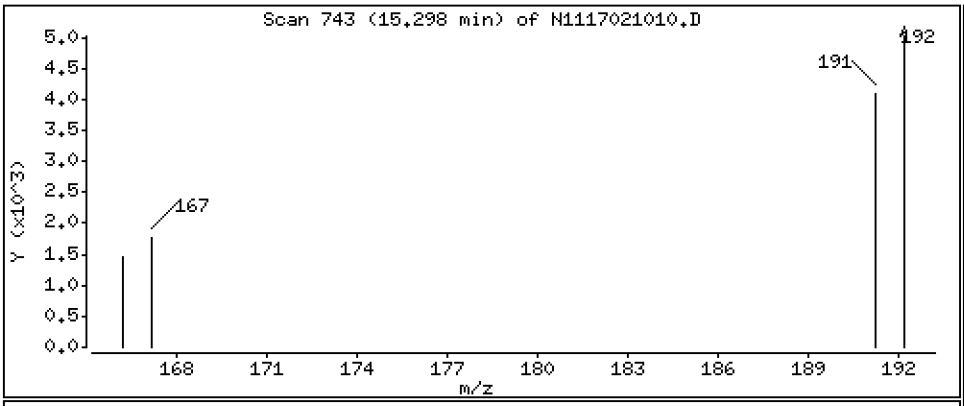
Operator: VTS

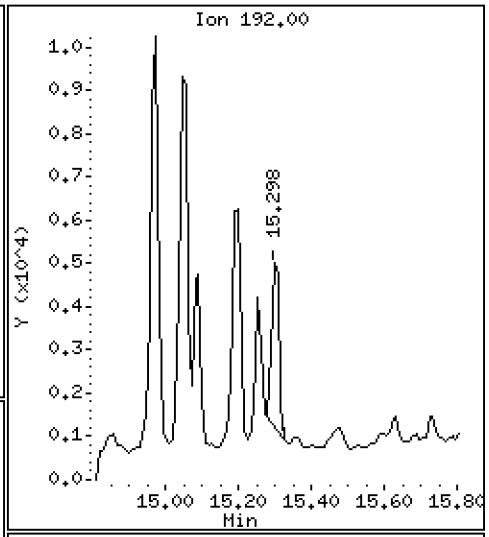
Column phase: Rxi-17Sil MS

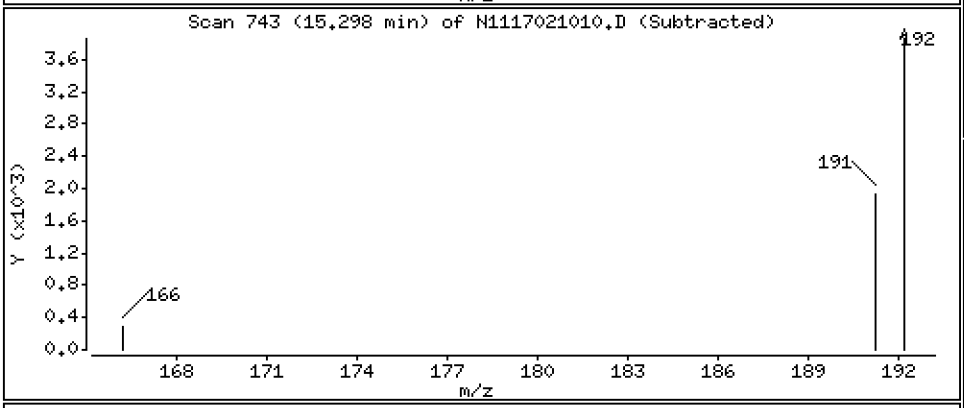
Column diameter: 0.25

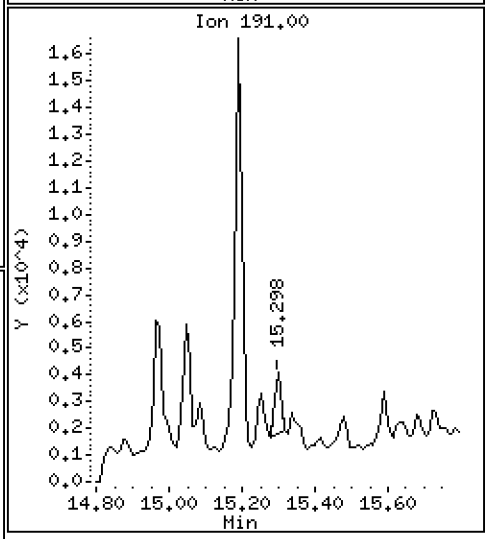
23 1-Methylphenanthrene

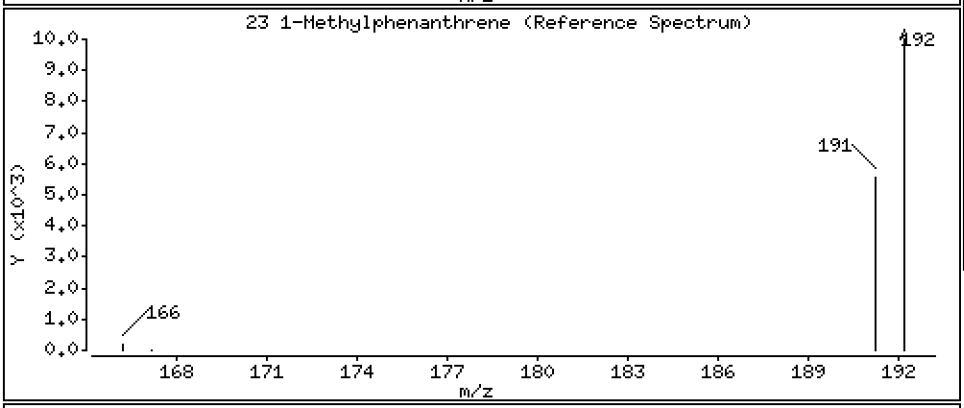
Concentration: 3.82 ng/mL

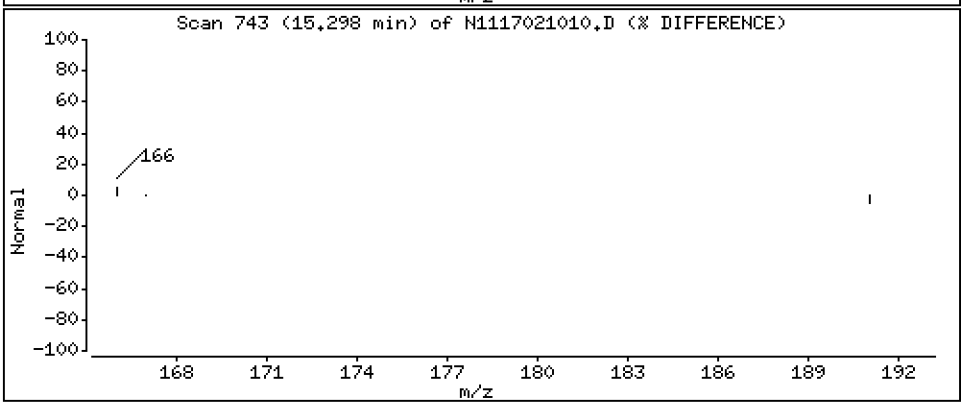












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Date : 10-FEB-2017 16:27

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-01

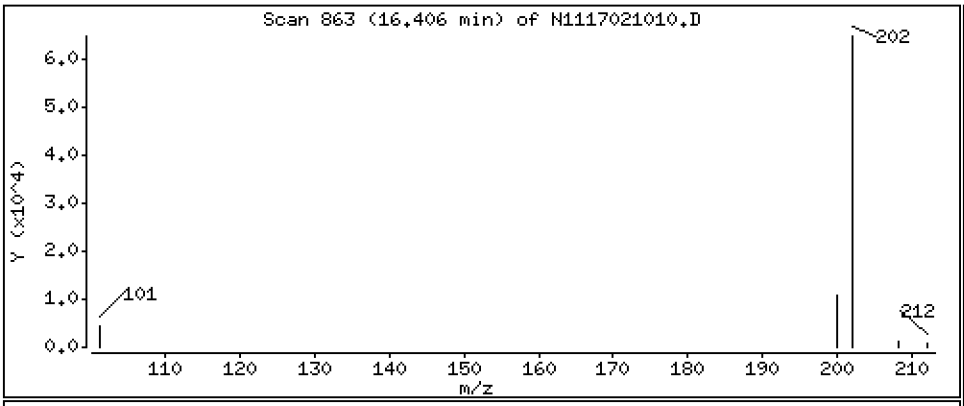
Operator: VTS

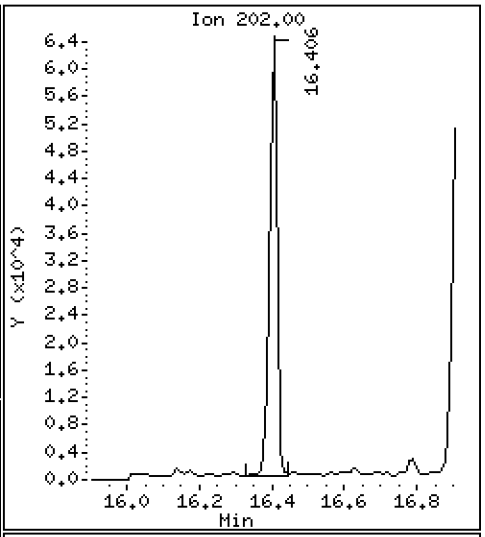
Column phase: Rxi-17Sil MS

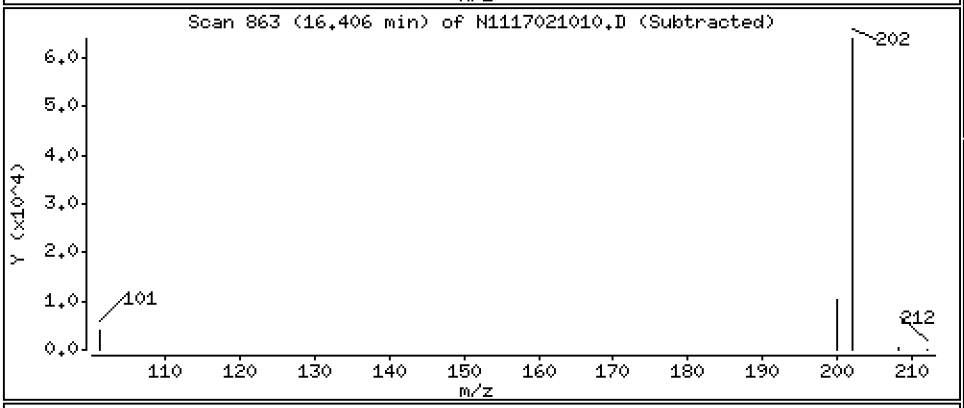
Column diameter: 0.25

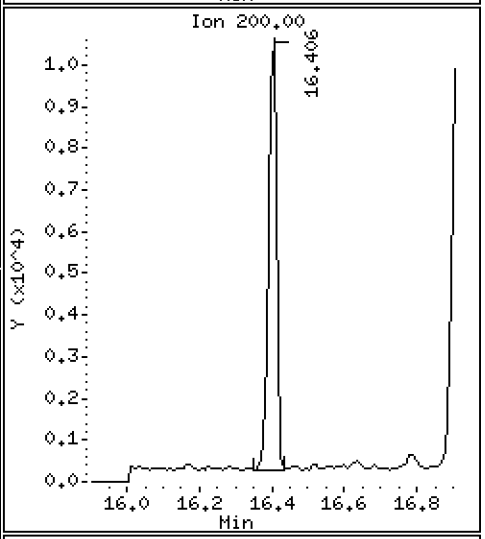
25 Fluoranthene

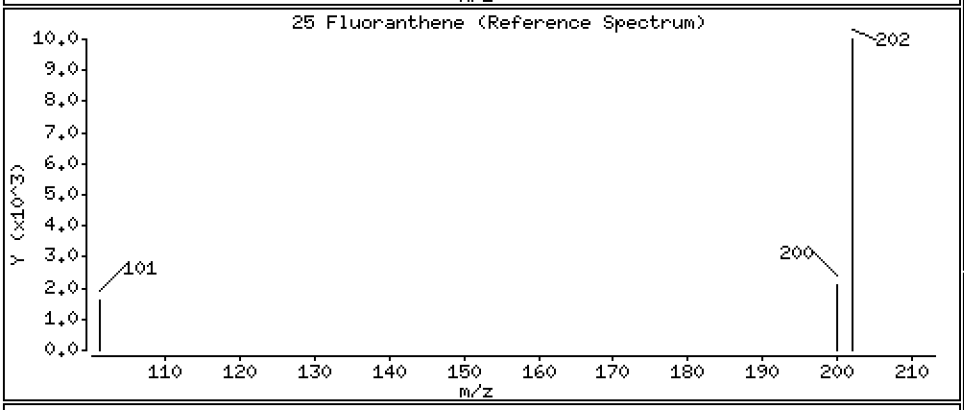
Concentration: 59.2 ng/mL

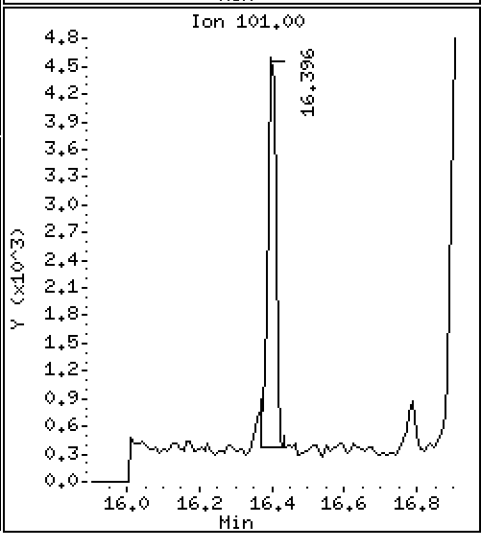


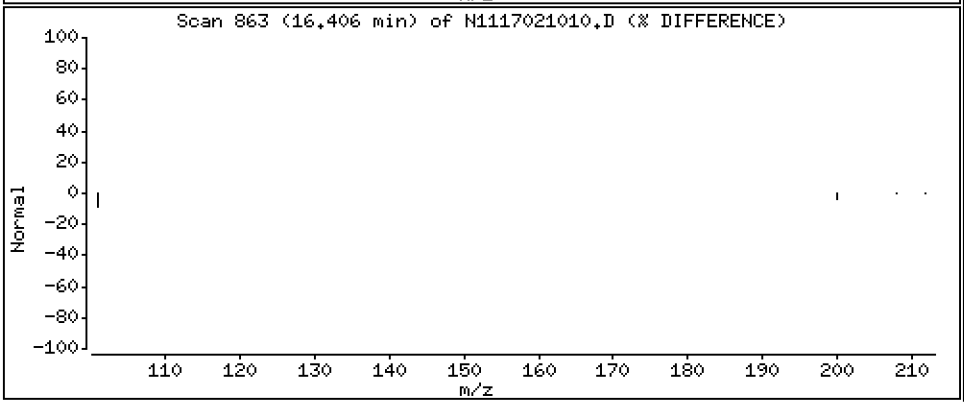












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Date : 10-FEB-2017 16:27

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-01

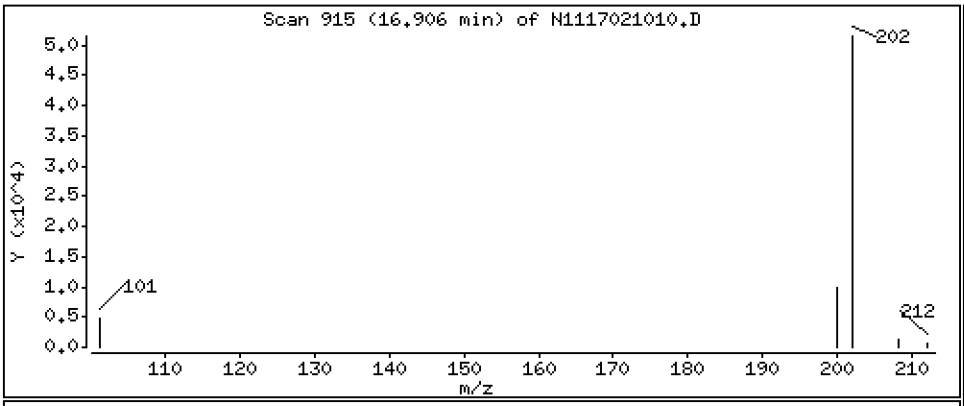
Operator: VTS

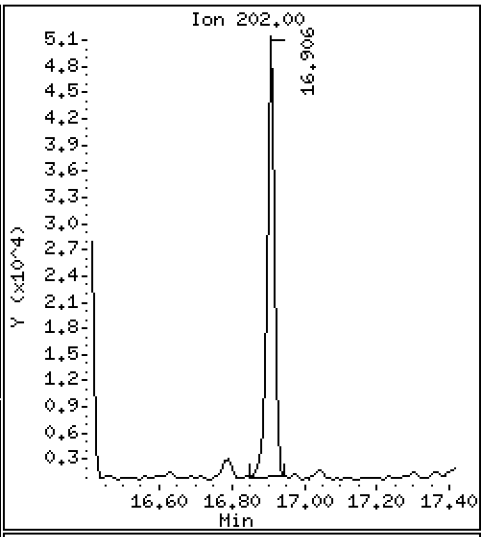
Column phase: Rxi-17Sil MS

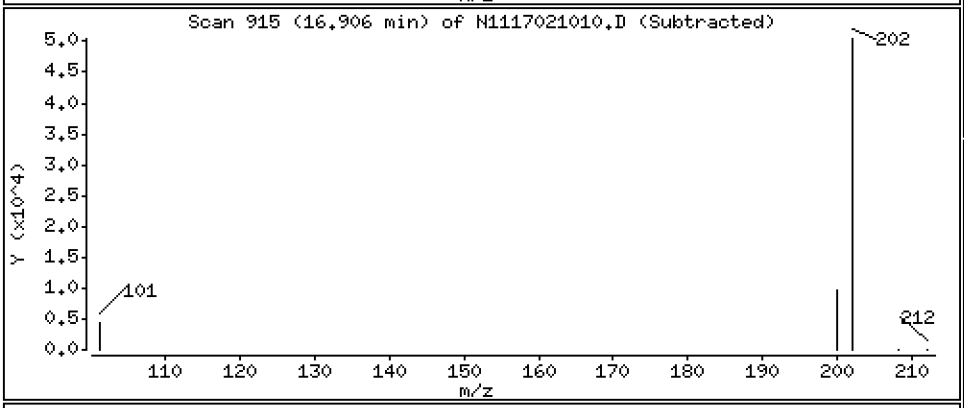
Column diameter: 0.25

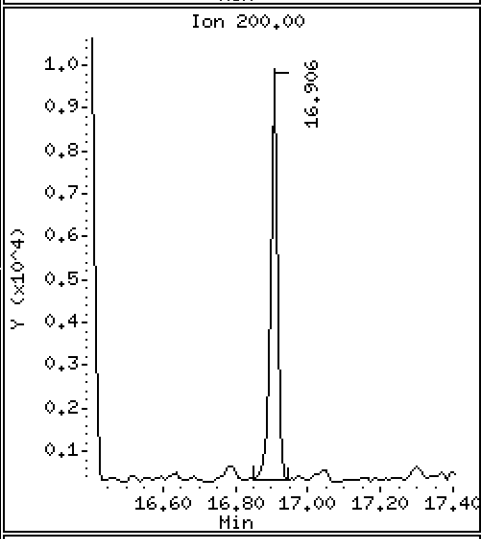
26 Pyrene

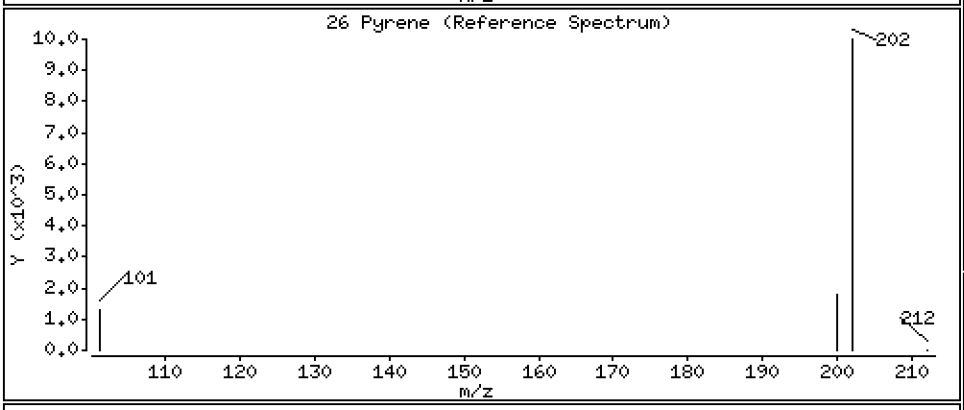
Concentration: 59.3 ng/mL

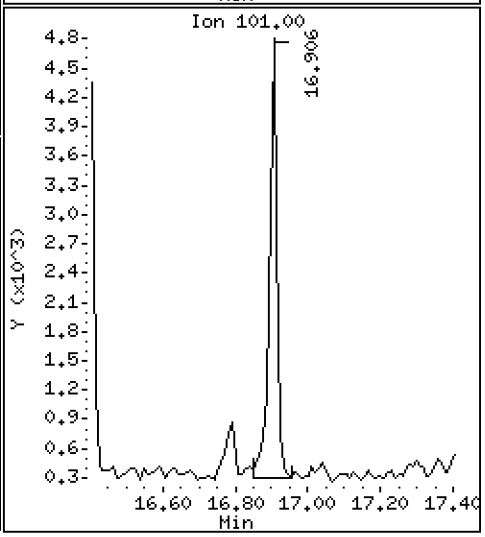


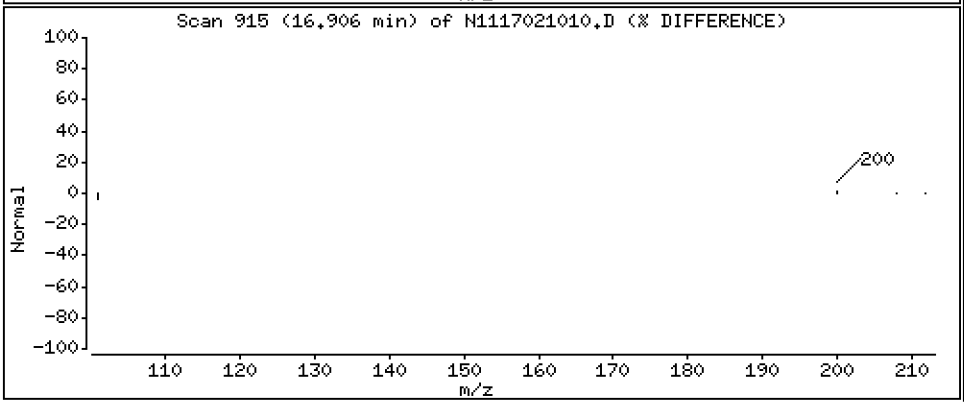












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021010.D

Date : 10-FEB-2017 16:27

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-01

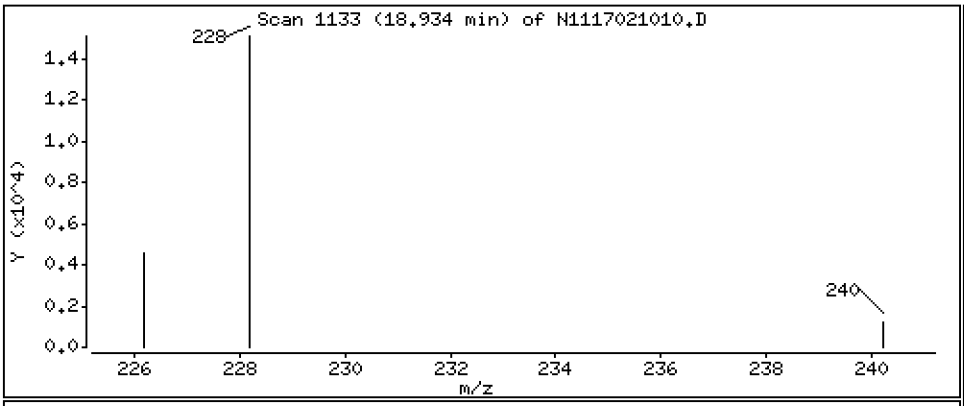
Operator: VTS

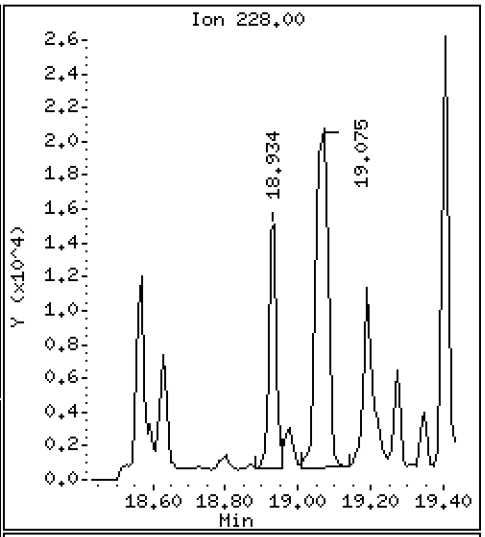
Column phase: Rxi-17Sil MS

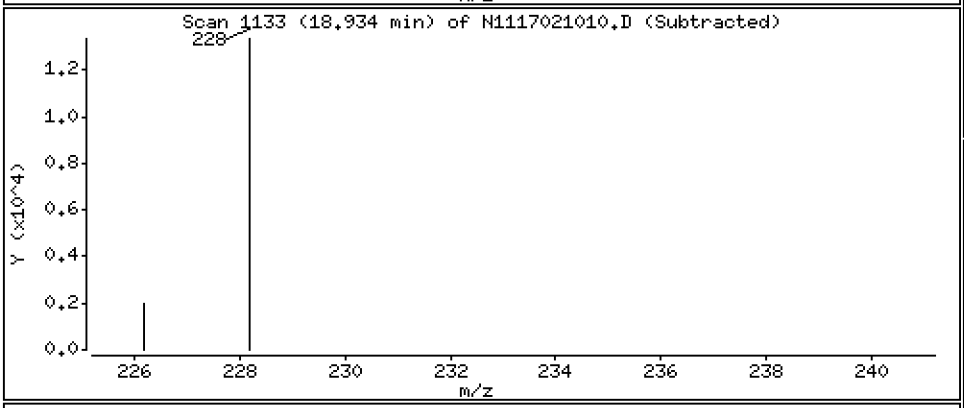
Column diameter: 0.25

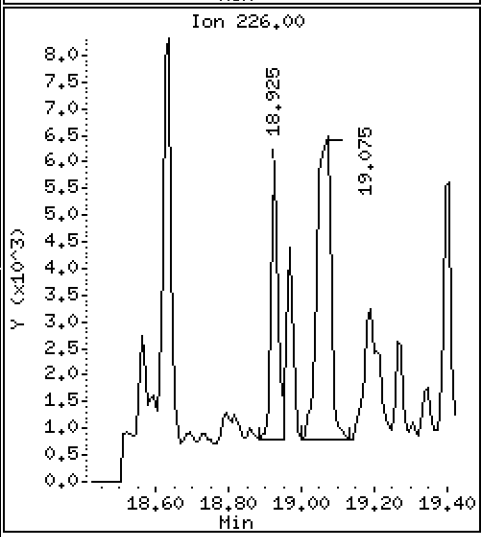
27 Benzo(a)anthracene

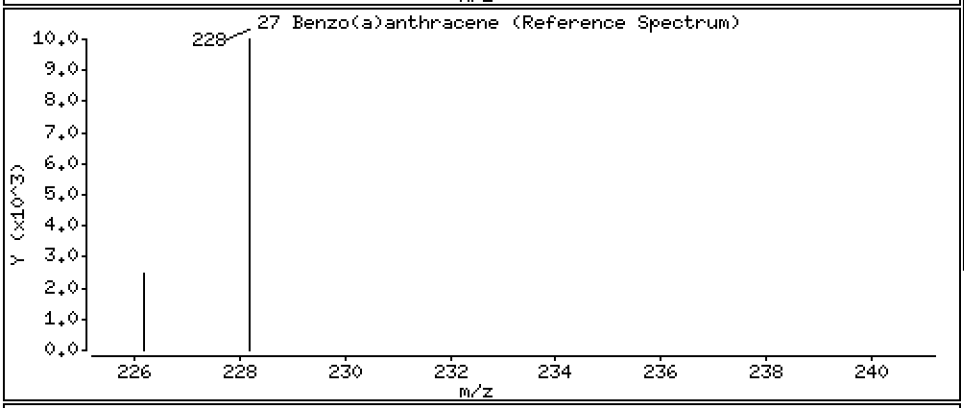
Concentration: 17.8 ng/mL

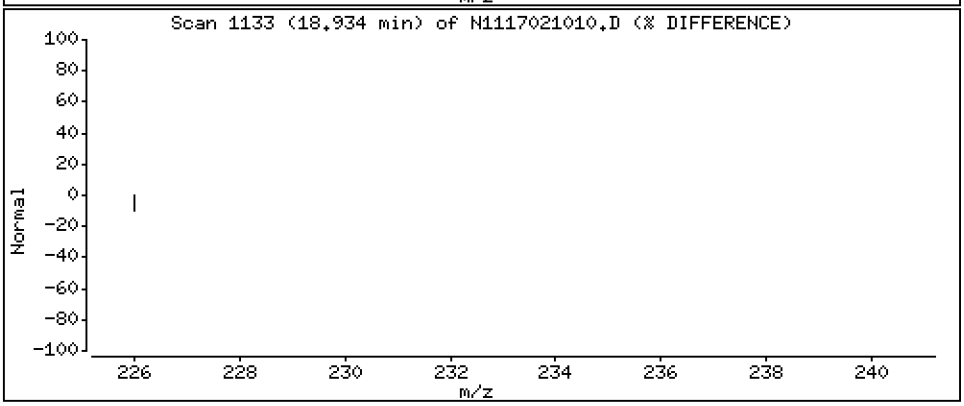












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Date : 10-FEB-2017 16:27

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-01

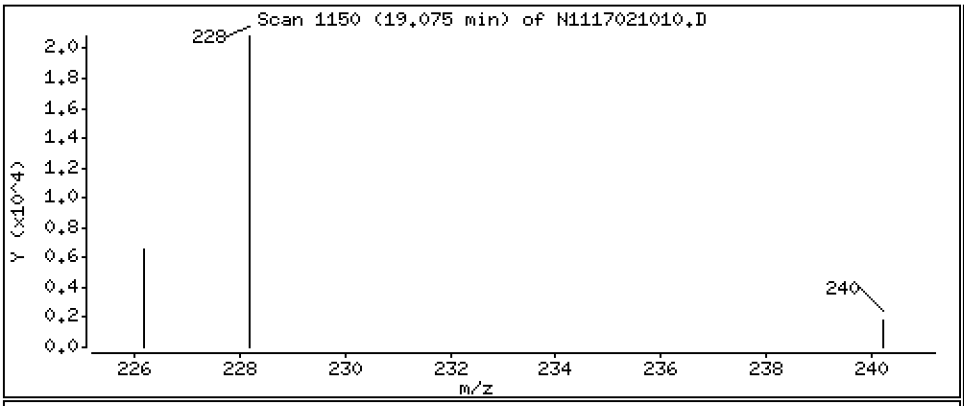
Operator: VTS

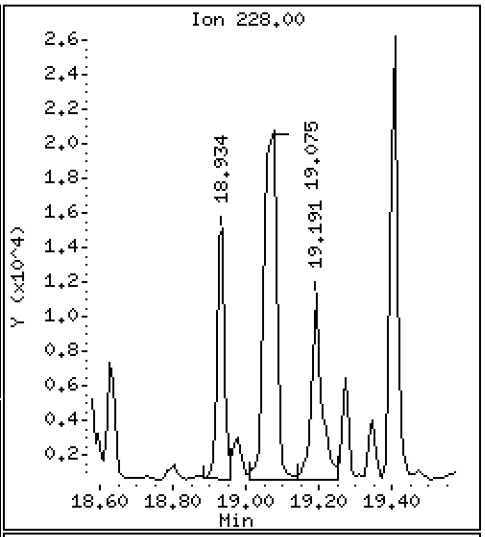
Column phase: Rxi-17Sil MS

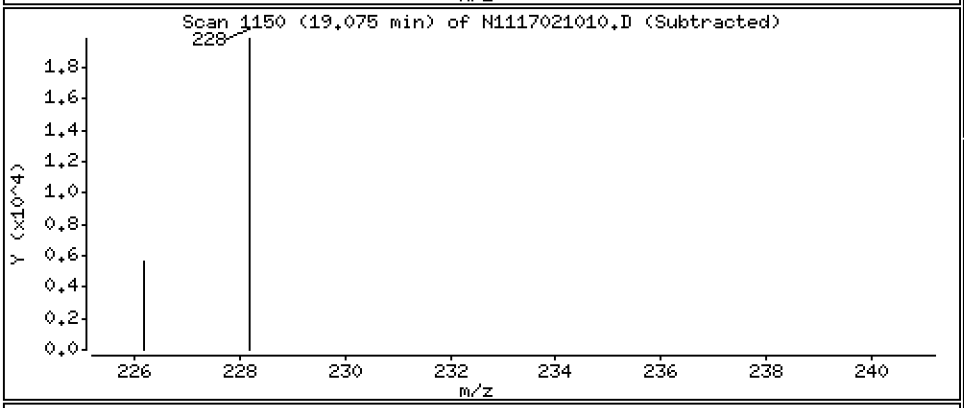
Column diameter: 0.25

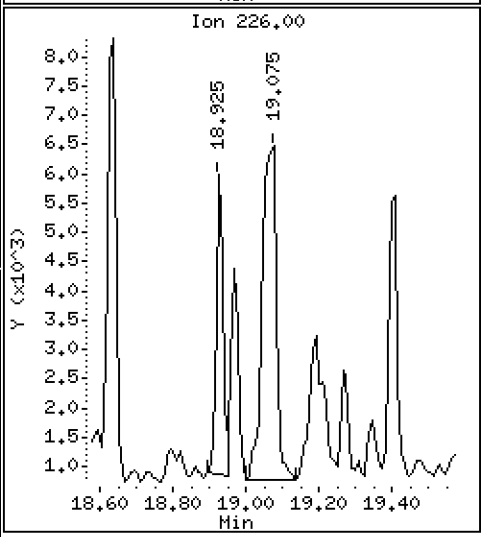
29 Chrysene

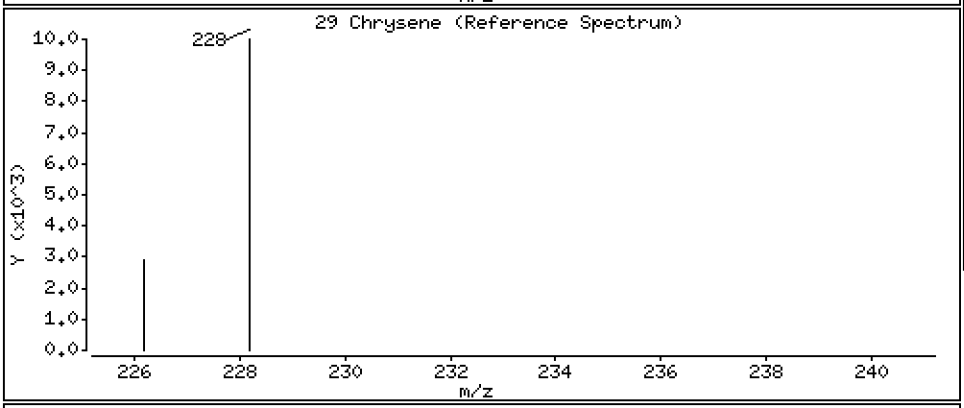
Concentration: 40.1 ng/mL

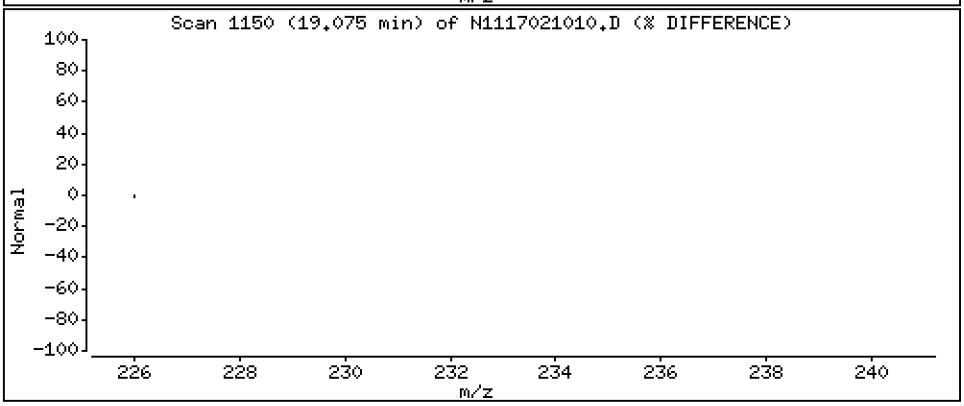












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Date : 10-FEB-2017 16:27

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-01

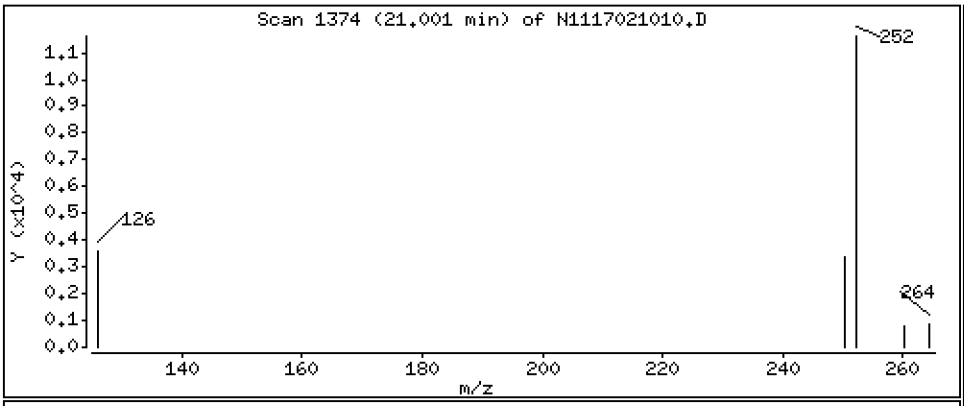
Operator: VTS

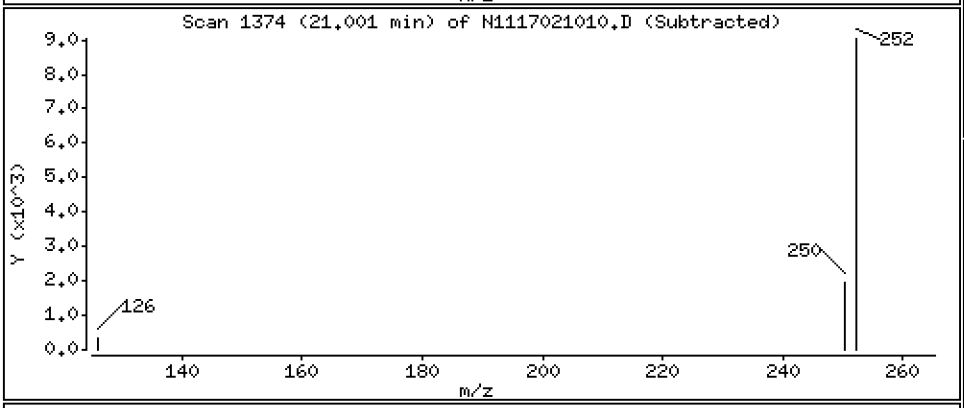
Column phase: Rxi-17Sil MS

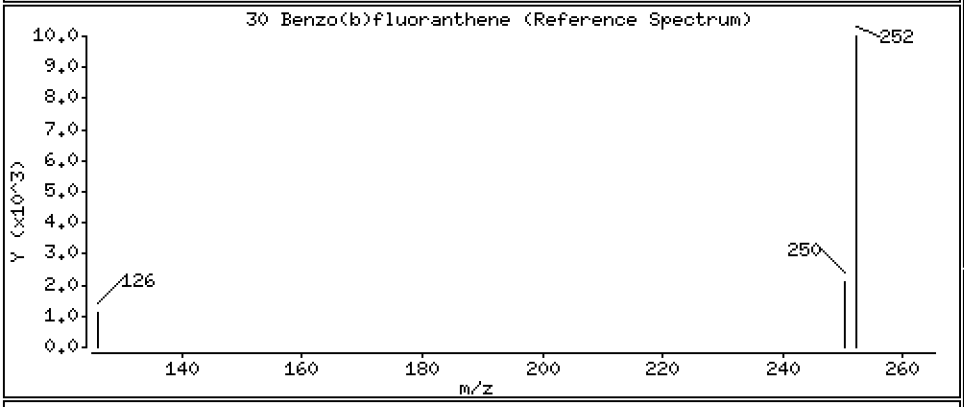
Column diameter: 0.25

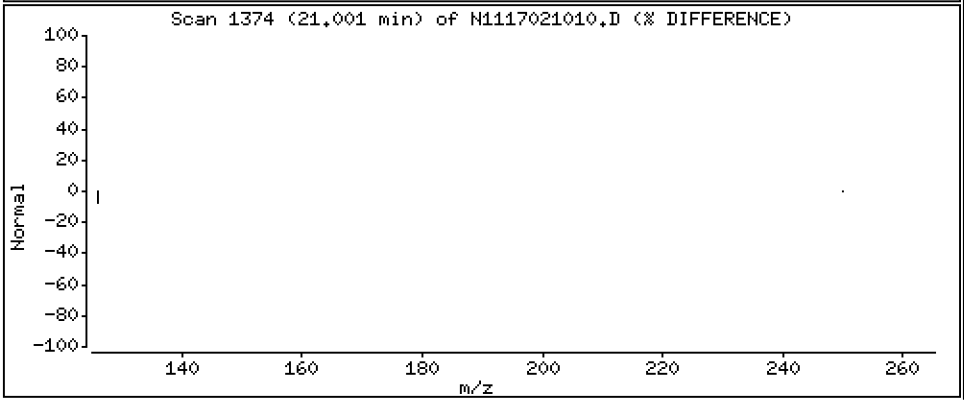
30 Benzo(b)fluoranthene

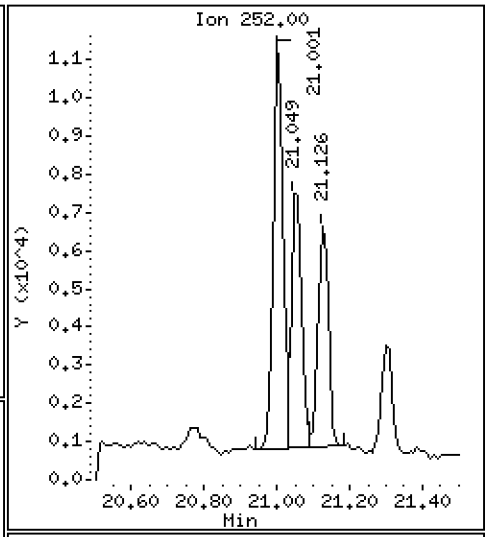
Concentration: 18.4 ng/mL

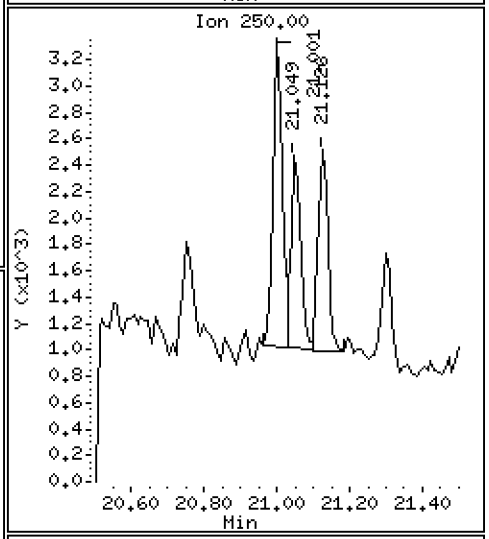


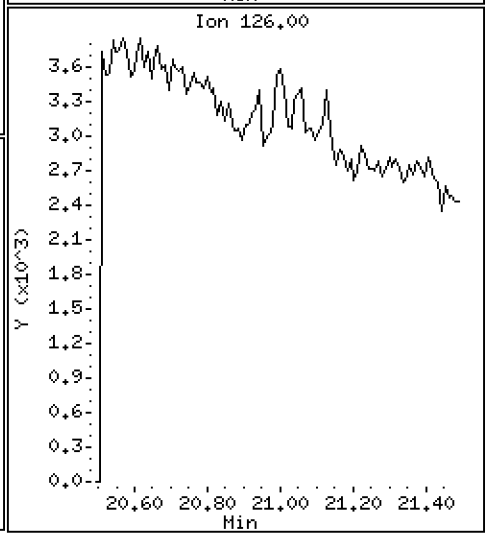












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021010.D

Date : 10-FEB-2017 16:27

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-01

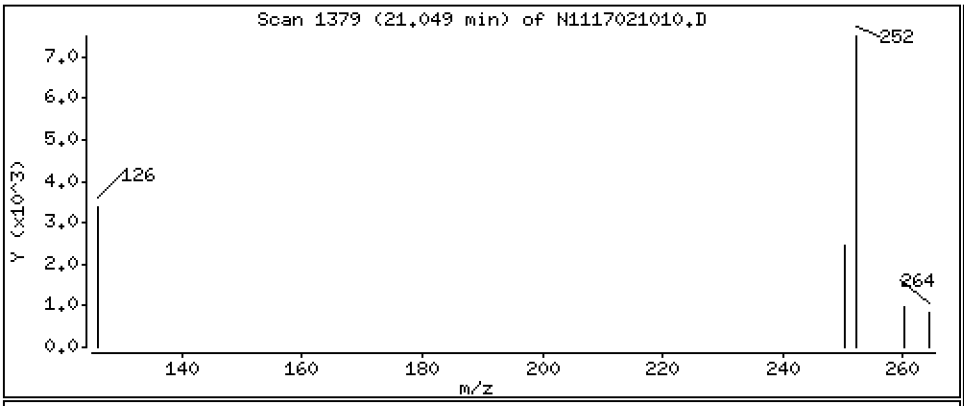
Operator: VTS

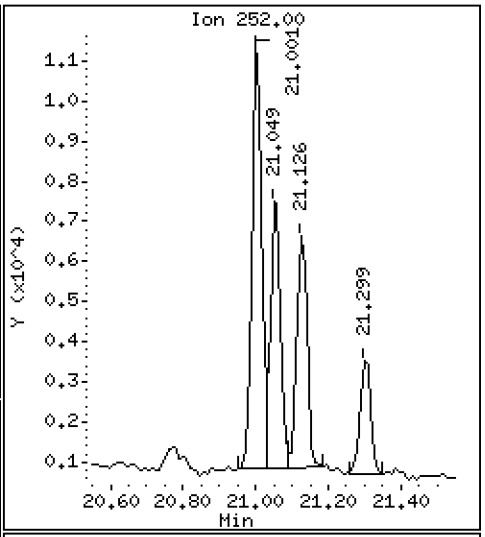
Column phase: Rxi-17Sil MS

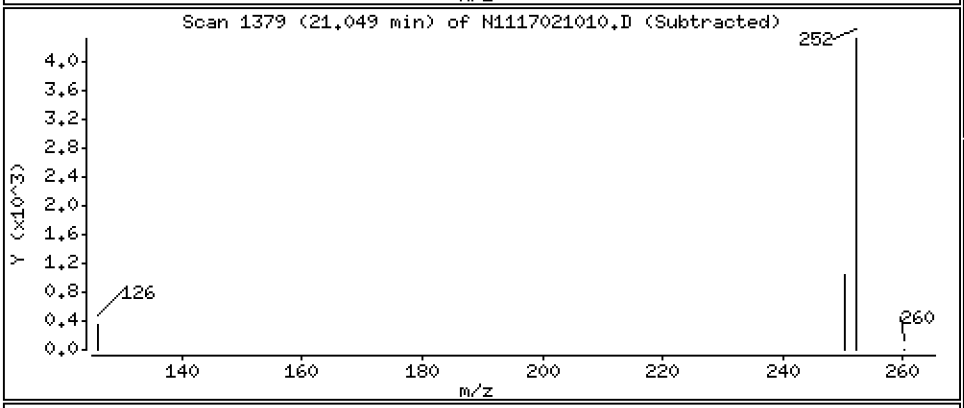
Column diameter: 0.25

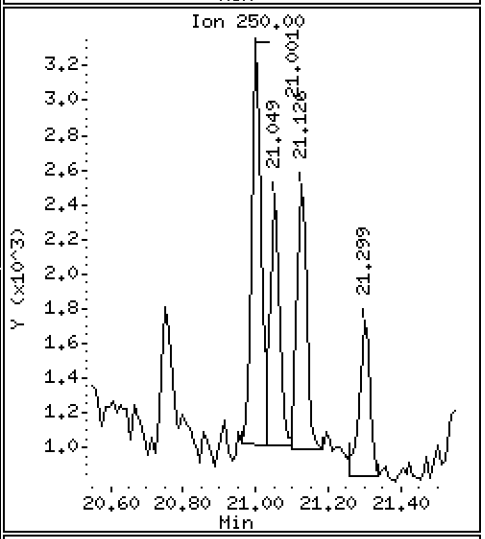
31 Benzo(k)fluoranthene

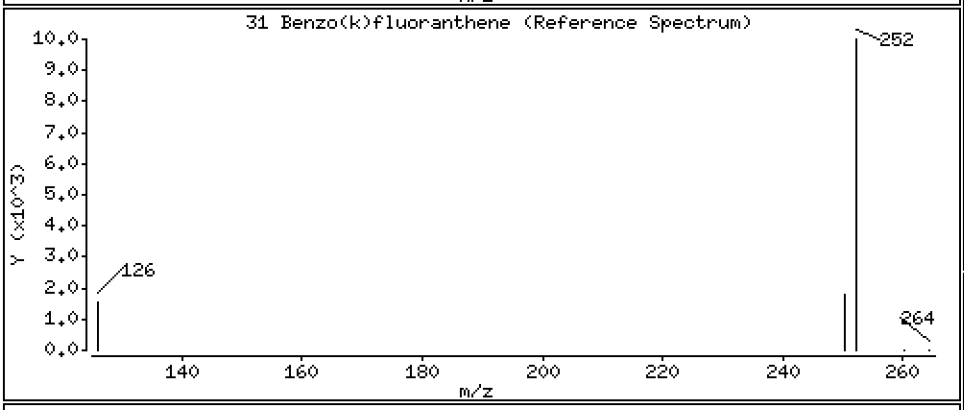
Concentration: 11.2 ng/mL

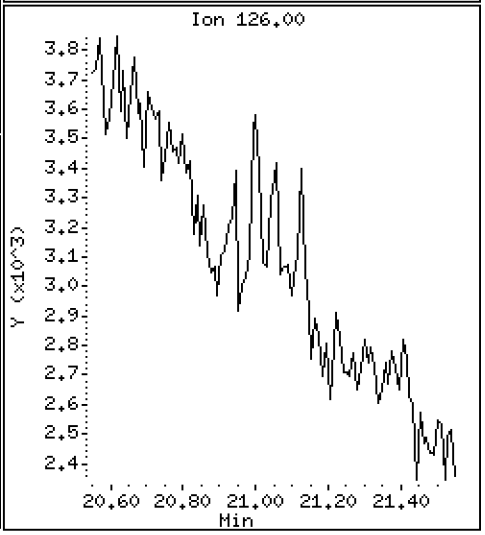


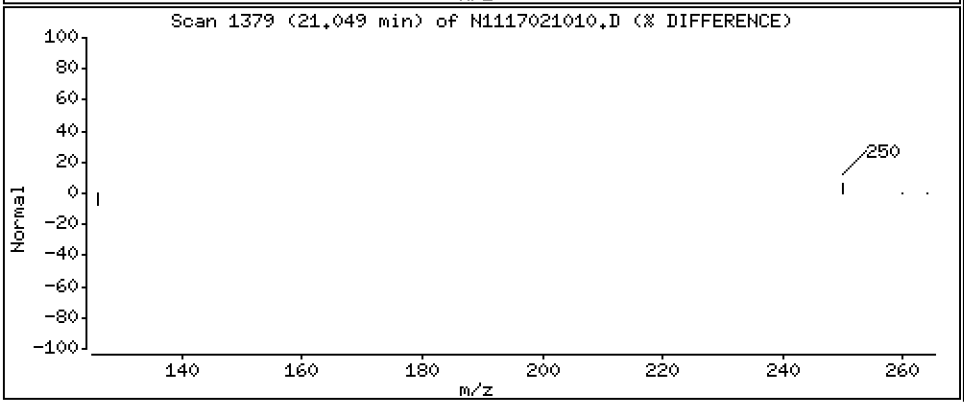












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021010.D

Date : 10-FEB-2017 16:27

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-01

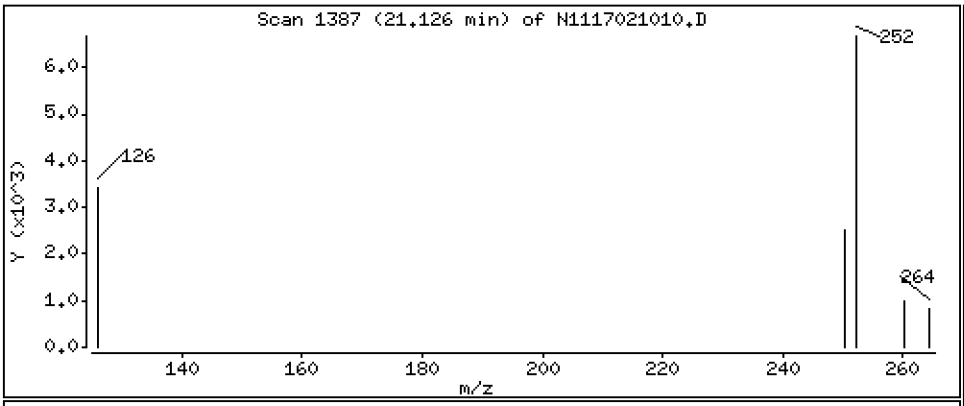
Operator: VTS

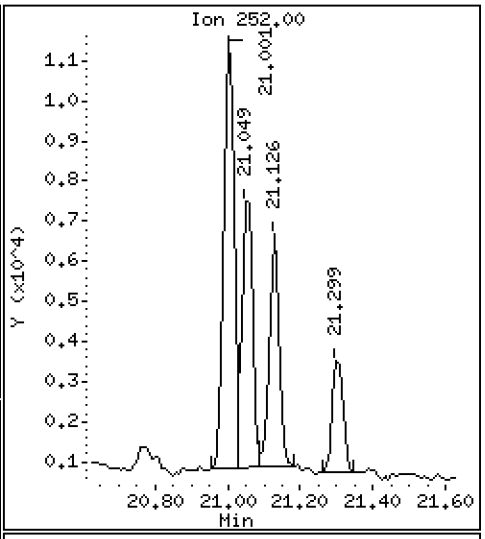
Column phase: Rxi-17Sil MS

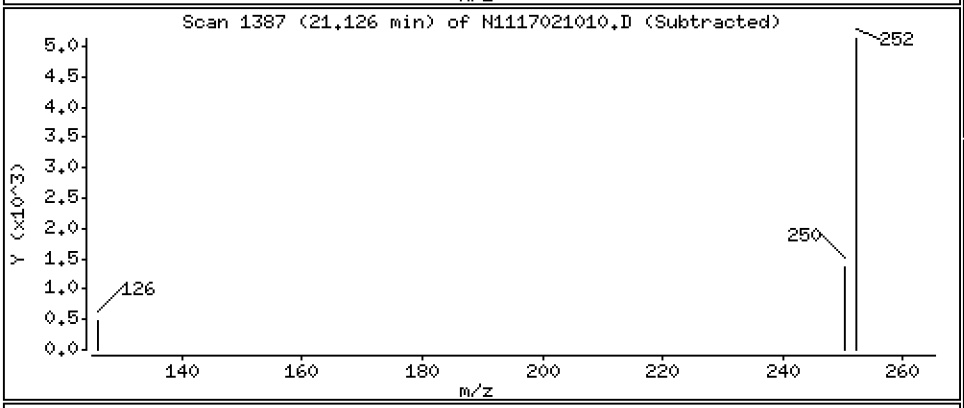
Column diameter: 0.25

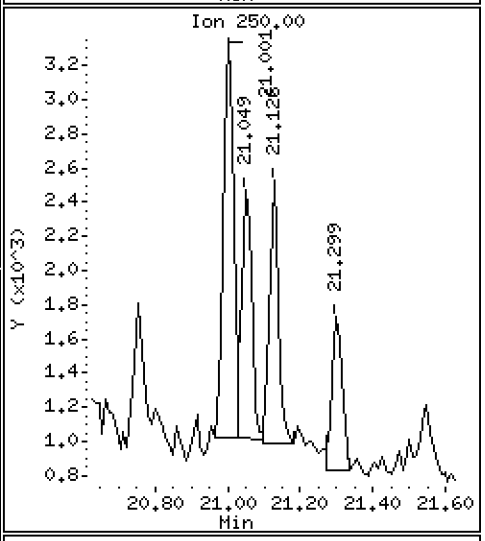
32 Benzo(j)fluoranthene

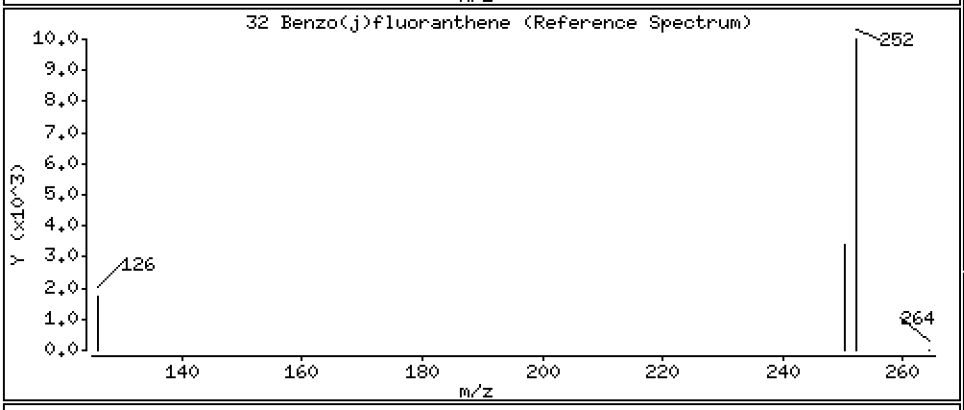
Concentration: 10.4 ng/mL

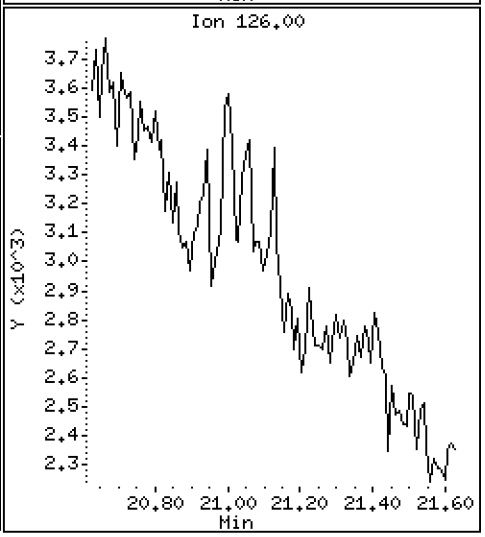


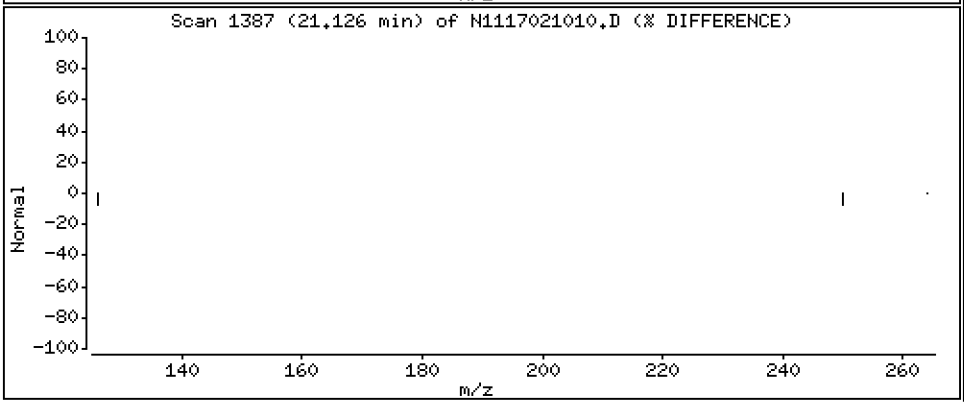












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Date : 10-FEB-2017 16:27

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-01

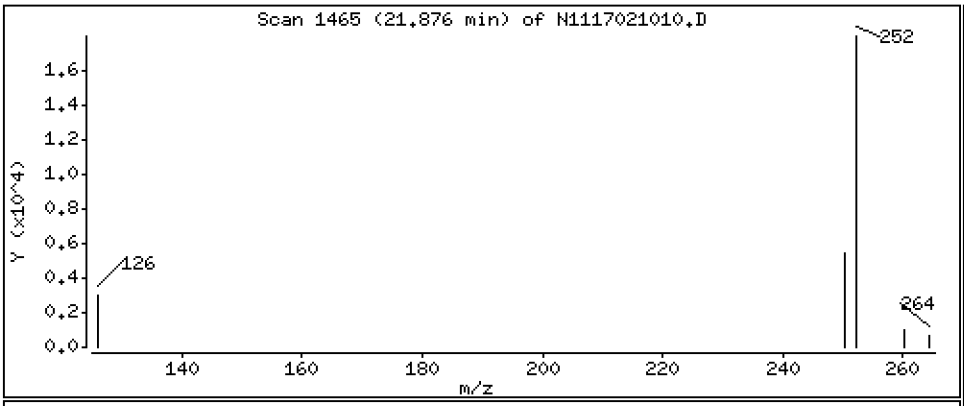
Operator: VTS

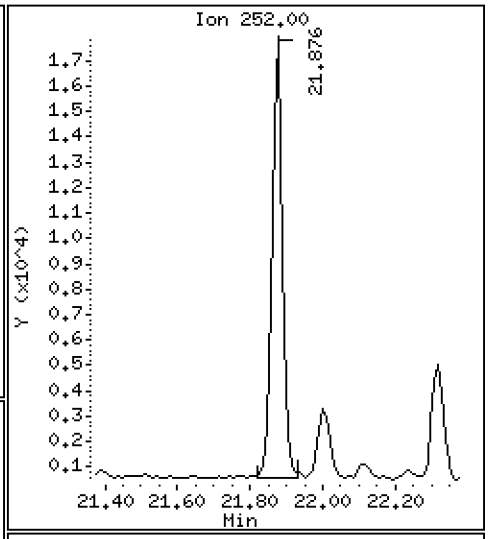
Column phase: Rxi-17Sil MS

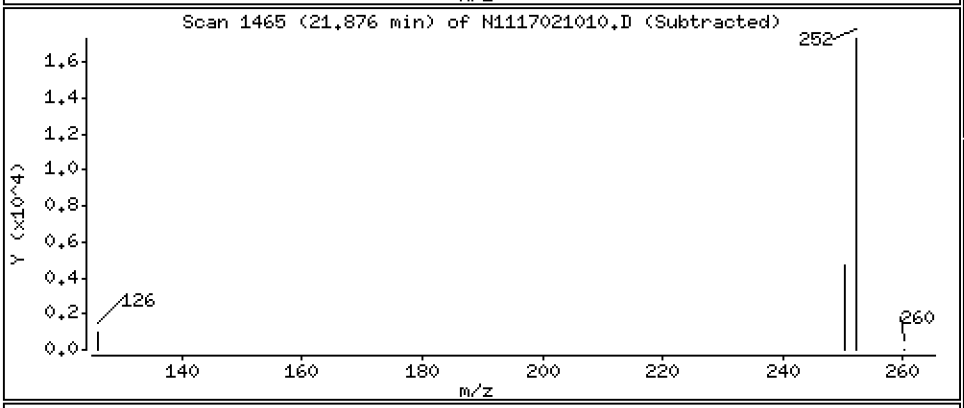
Column diameter: 0.25

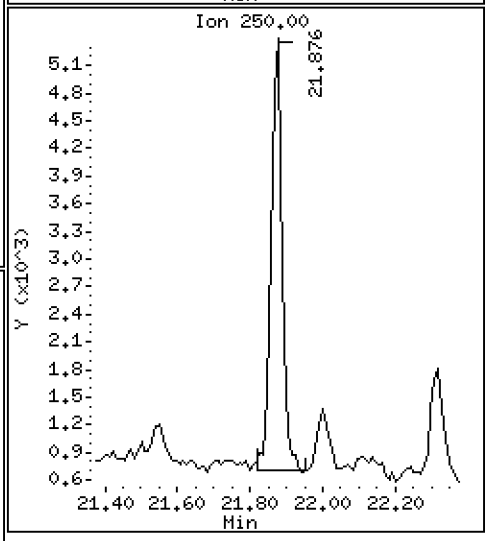
34 Benzo(e)pyrene

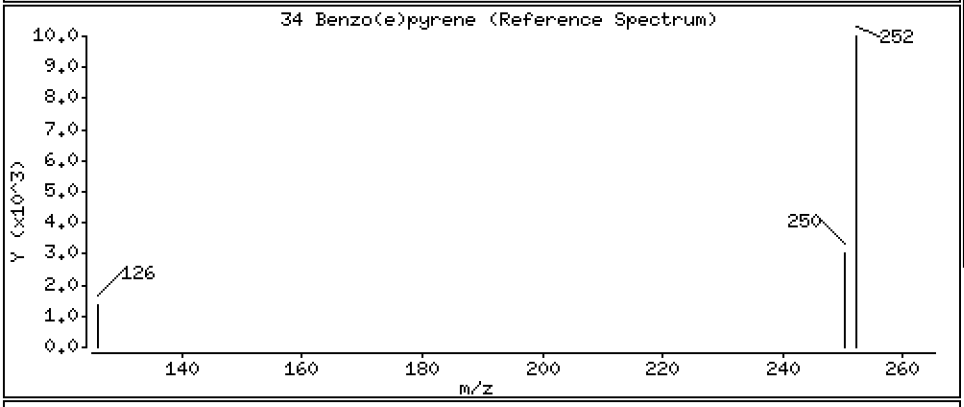
Concentration: 30.8 ng/mL

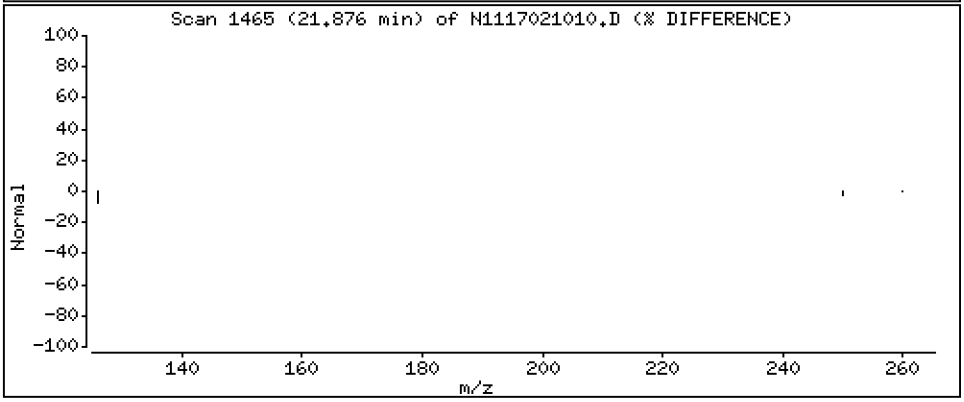












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021010.D

Date : 10-FEB-2017 16:27

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-01

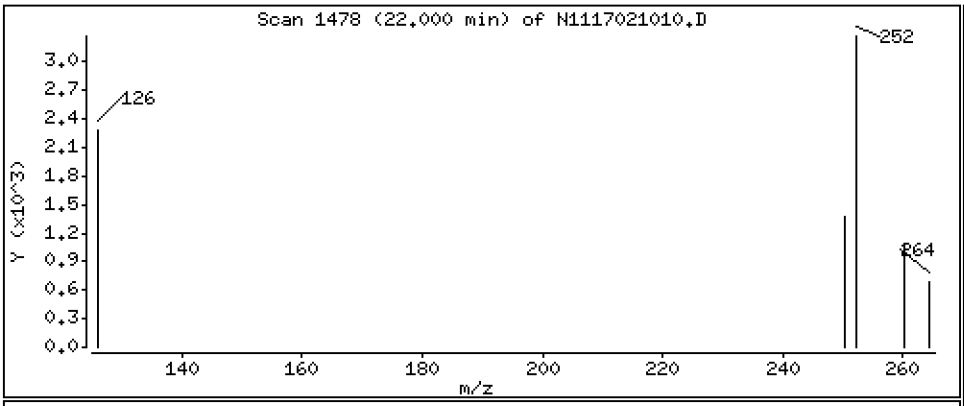
Operator: VTS

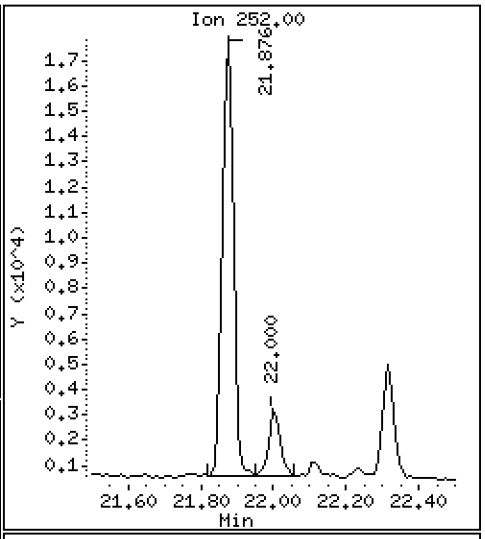
Column phase: Rxi-17Sil MS

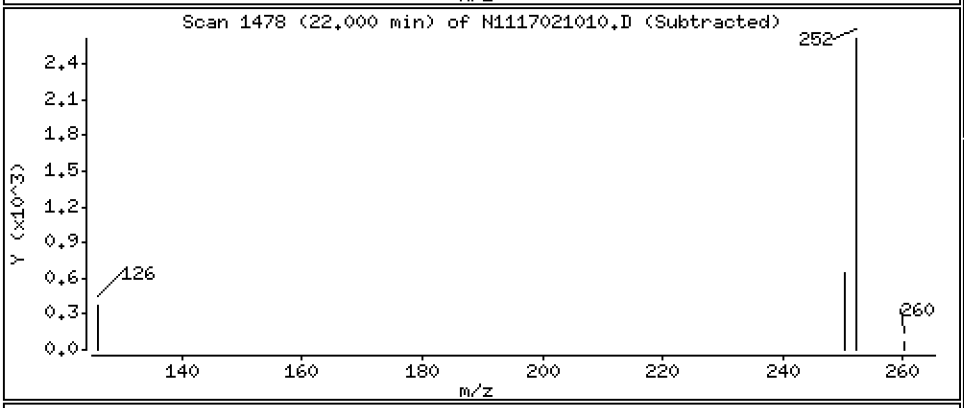
Column diameter: 0.25

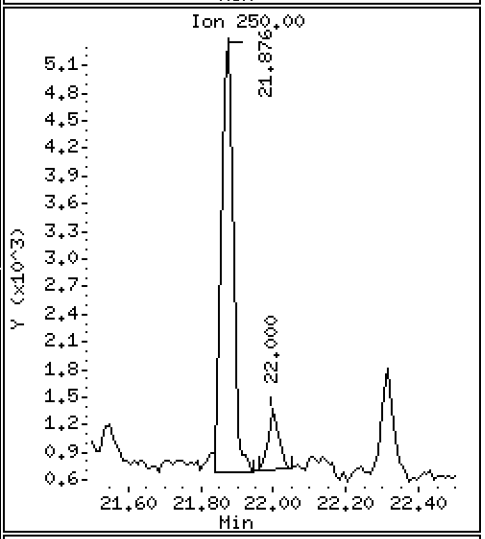
35 Benzo(a)pyrene

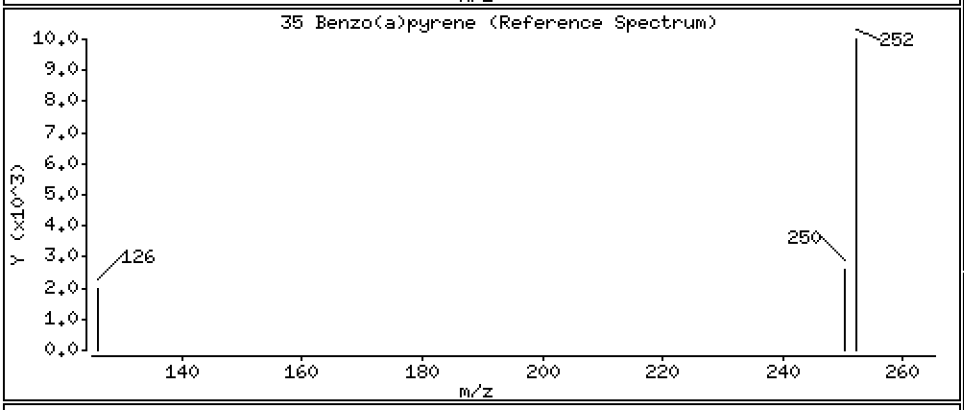
Concentration: 5.68 ng/mL

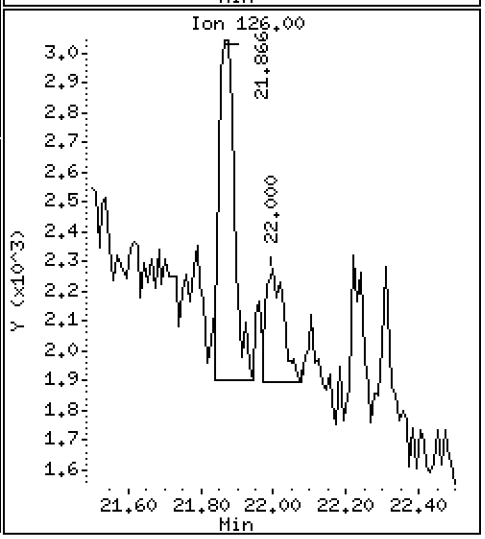


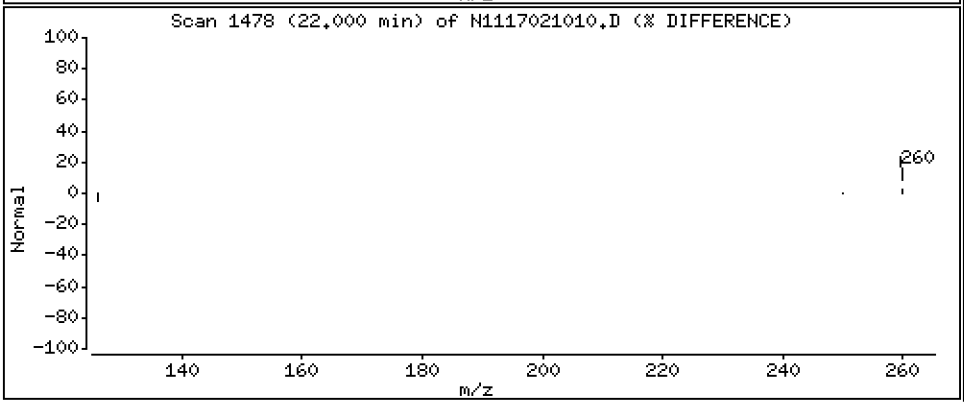












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021010.D

Date : 10-FEB-2017 16:27

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-01

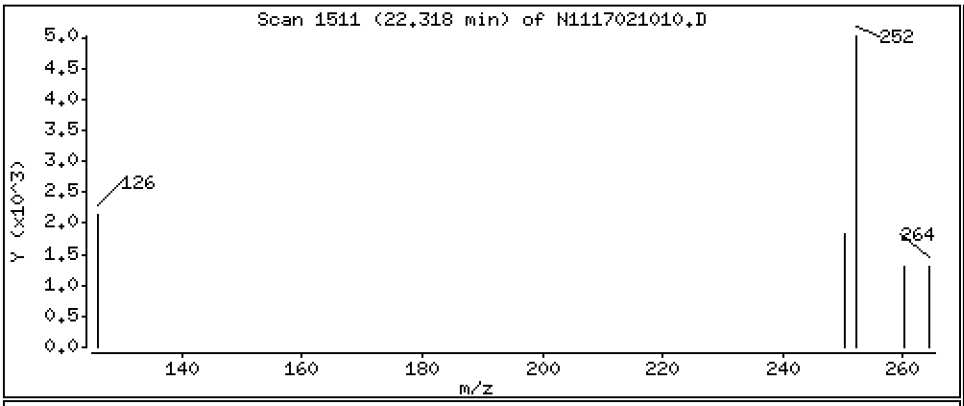
Operator: VTS

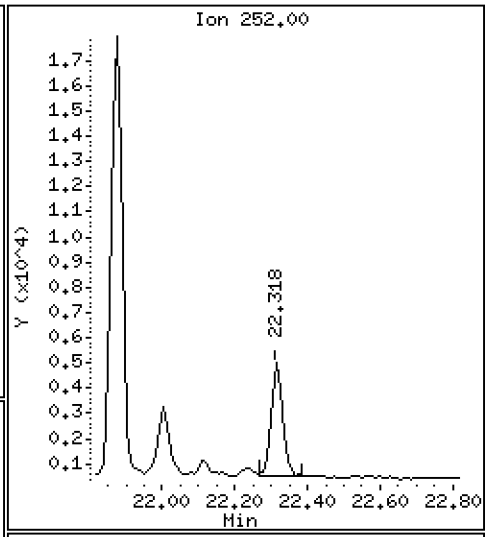
Column phase: Rxi-17Sil MS

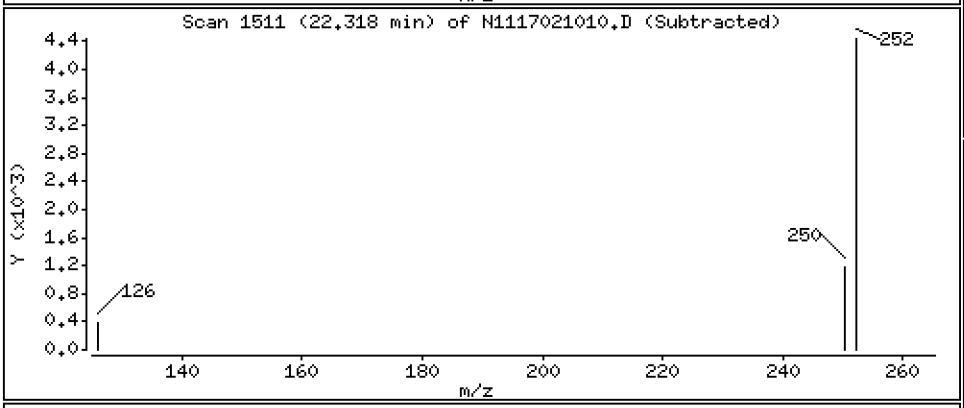
Column diameter: 0.25

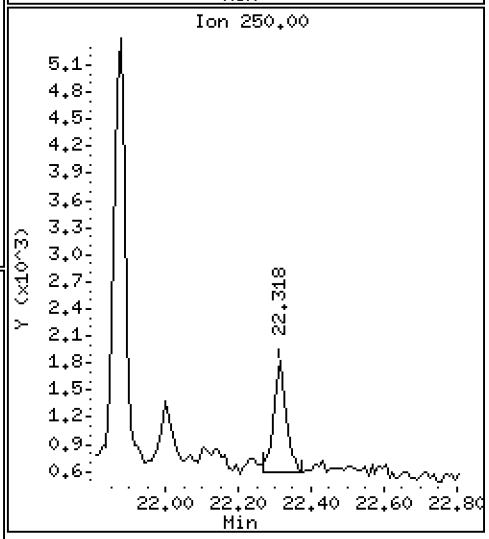
37 Perylene

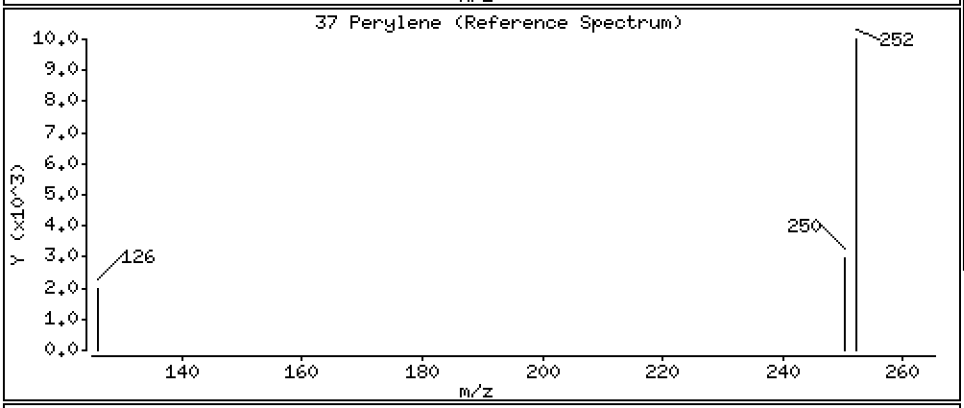
Concentration: 9.26 ng/mL

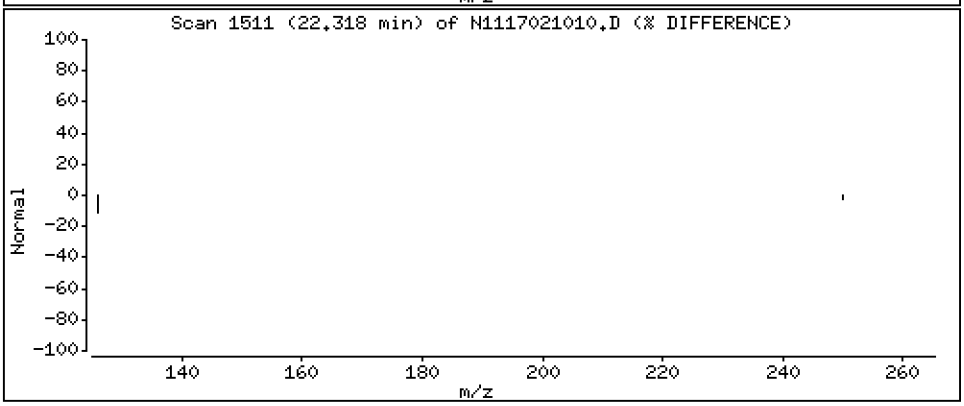












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021010.D

Date : 10-FEB-2017 16:27

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-01

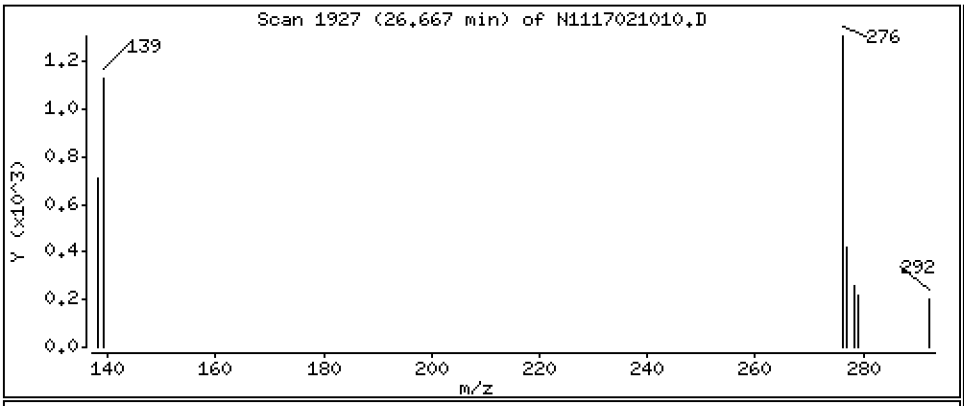
Operator: VTS

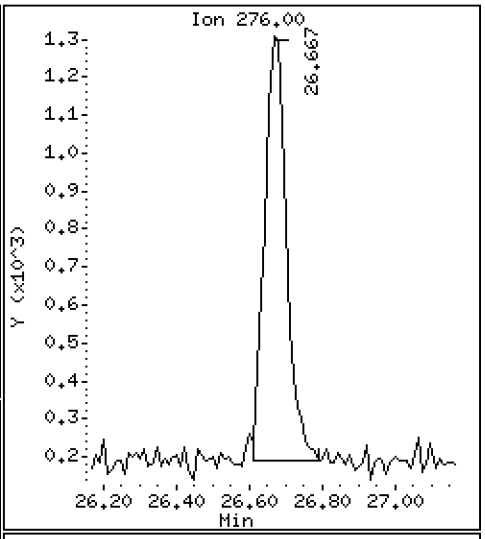
Column phase: Rxi-17Sil MS

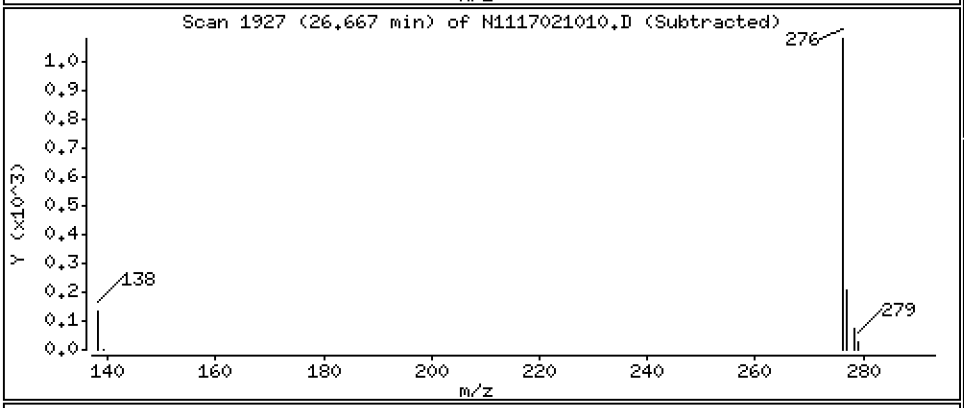
Column diameter: 0.25

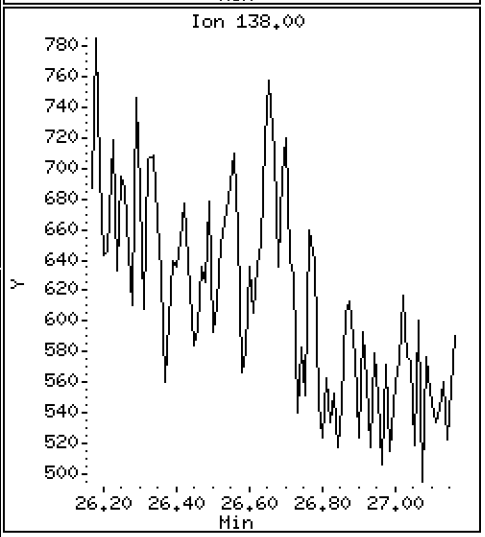
41 Benzo(g,h,i)perylene

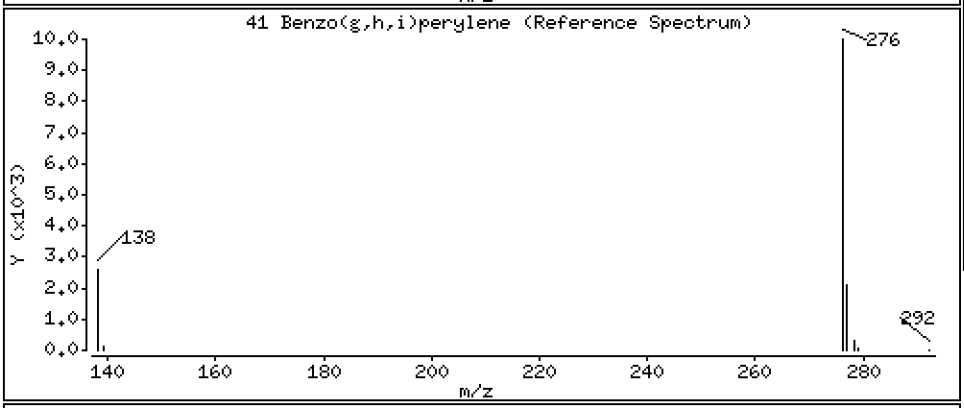
Concentration: 4.37 ng/mL

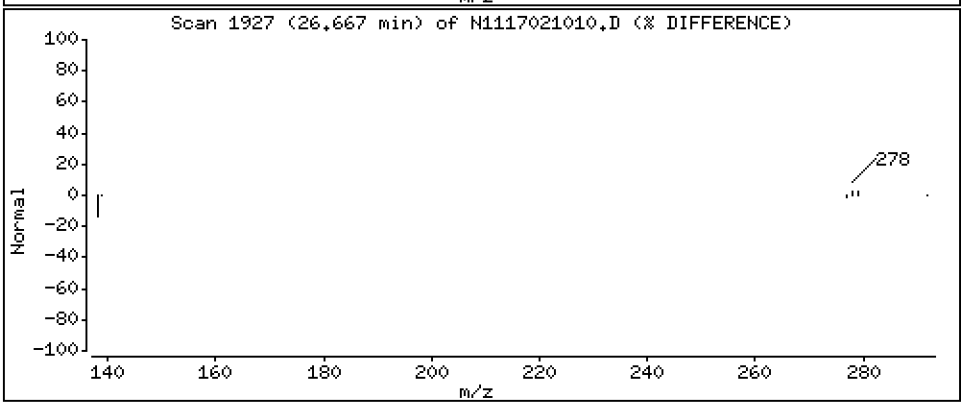












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20170210.b\N1117021010.D
Lab Smp Id: 17A0053-01
Inj Date : 10-FEB-2017 16:27 MS Autotune Date: 15-JAN-2015 15:59
Operator : VTS Inst ID: nt11.i
Smp Info : 17A0053-01
Misc Info :
Comment   :
Method   : \\target\share\chem3\nt11.i\20170210.b\LOWSIM.m
Meth Date : 11-Feb-2017 08:35 nt11.i Quant Type: ISTD
Cal Date : 31-DEC-2016 09:30 Cal File: N1116123104.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.518	8.526	(1.000)	214273	200.000	
	2 Naphthalene	128	Compound Not Detected.					
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.498	9.508	(1.115)	153083	166.351	166
	5 2-Methylnaphthalene	142	9.561	9.561	(1.122)	6397	6.06976	6.07
	6 1-Methylnaphthalene	142	9.813	9.823	(1.152)	3639	3.43304	3.43
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	Compound Not Detected.					
*	11 Acenaphthene-d10	164	11.555	11.564	(1.000)	144698	200.000	
	12 Acenaphthene	153	11.618	11.627	(1.005)	3364	3.92973	3.93(M)
	13 Dibenzofuran	168	11.822	11.822	(1.023)	9109	7.15811	7.16
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.454	12.454	(1.078)	10549	10.4130	10.4
	17 Dibenzothiophene	184	Compound Not Detected.					
*	18 Phenanthrene-d10	188	14.251	14.262	(1.000)	234960	200.000	
	19 Phenanthrene	178	14.293	14.293	(1.003)	75788	56.4184	56.4
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.346	14.356	(1.007)	16567	12.3687	12.4
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	15.298	15.307	(1.073)	5269	3.82477	3.82(M)
$	24 Fluoranthene-d10	212	16.367	16.367	(1.148)	222113	177.984	178
	25 Fluoranthene	202	16.406	16.405	(1.151)	90237	59.2198	59.2
	26 Pyrene	202	16.905	16.915	(0.889)	77438	59.2618	59.3
	27 Benzo(a)anthracene	228	18.933	18.933	(0.995)	21531	17.8005	17.8
*	28 Chrysene-d12	240	19.024	19.024	(1.000)	201157	200.000	
	29 Chrysene	228	19.074	19.074	(1.003)	49793	40.1178	40.1
	30 Benzo(b)fluoranthene	252	21.001	21.001	(0.944)	21077	18.3520	18.4
	31 Benzo(k)fluoranthene	252	21.049	21.049	(0.946)	13888	11.2270	11.2
	32 Benzo(j)fluoranthene	252	21.126	21.125	(0.950)	11417	10.3540	10.4
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	34 Benzo(e)pyrene	252	21.875	21.875	(0.984)	35341	30.8488	30.8
	35 Benzo(a)pyrene	252	22.000	22.000	(0.989)	6082	5.68052	5.68
*	36 Perylene-d12	264	22.240	22.240	(1.000)	213059	200.000	
	37 Perylene	252	22.317	22.317	(1.003)	10356	9.26393	9.26
$	38 Dibenzo(a,h)anthracene-d14	292	25.116	25.116	(1.129)	138408	203.421	203
	39 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	40 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	41 Benzo(g,h,i)perylene	276	26.666	26.666	(1.199)	4591	4.37464	4.37

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: N1117021010.D
Lab Smp Id: 17A0053-01
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20170210.b\LOWSIM.m
Misc Info:

Calibration Date: 10-FEB-2017
Calibration Time: 13:29
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	219654	109827	439308	214273	-2.45
11 Acenaphthene-d10	135248	67624	270496	144698	6.99
18 Phenanthrene-d10	257021	128511	514042	234960	-8.58
28 Chrysene-d12	259511	129756	519022	201157	-22.49
36 Perylene-d12	257535	128768	515070	213059	-17.27

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.53	8.03	9.03	8.52	-0.10
11 Acenaphthene-d10	11.56	11.06	12.06	11.56	-0.08
18 Phenanthrene-d10	14.26	13.76	14.76	14.25	-0.07
28 Chrysene-d12	19.02	18.52	19.52	19.02	0.00
36 Perylene-d12	22.24	21.74	22.74	22.24	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1117021010.D

Lab ID: 17A0053-01
nt11.i, 20170210.b\LOWSIM.m,   10-FEB-2017 16:27

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

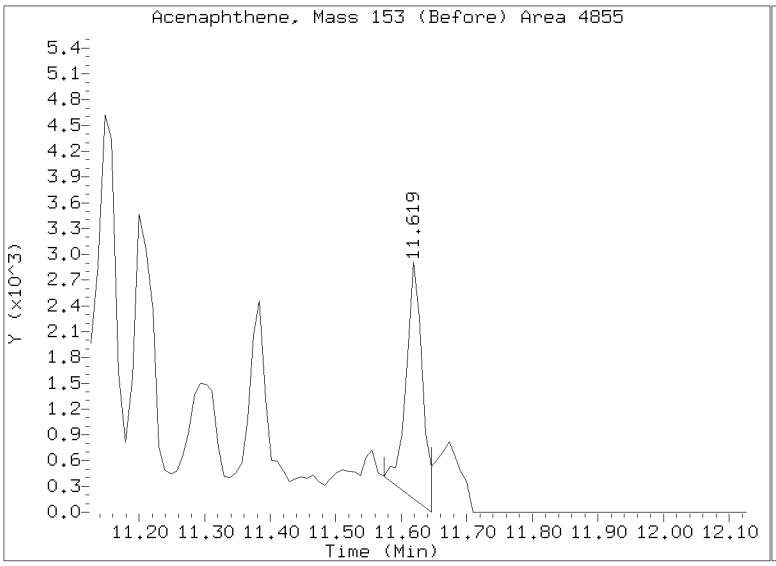
NONE

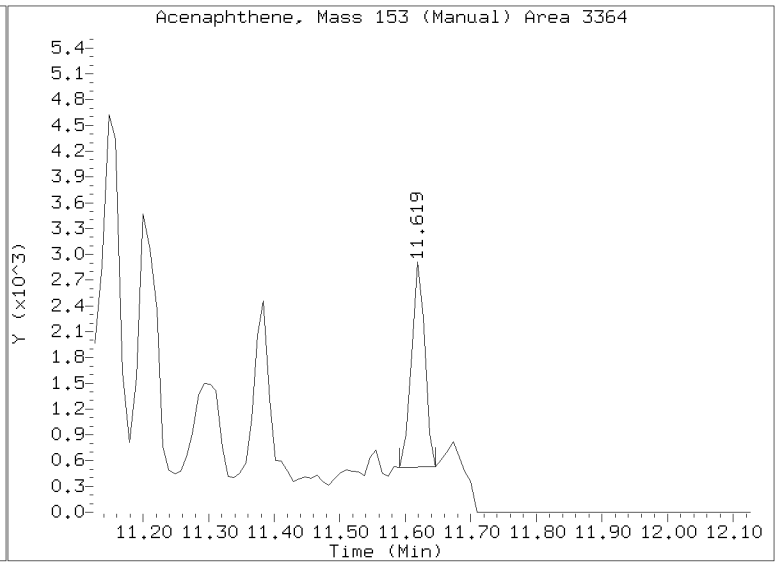
On Column LOD for nt11.i, 20170210.b\LOWSIM.m, allpna.sub = 3.0000

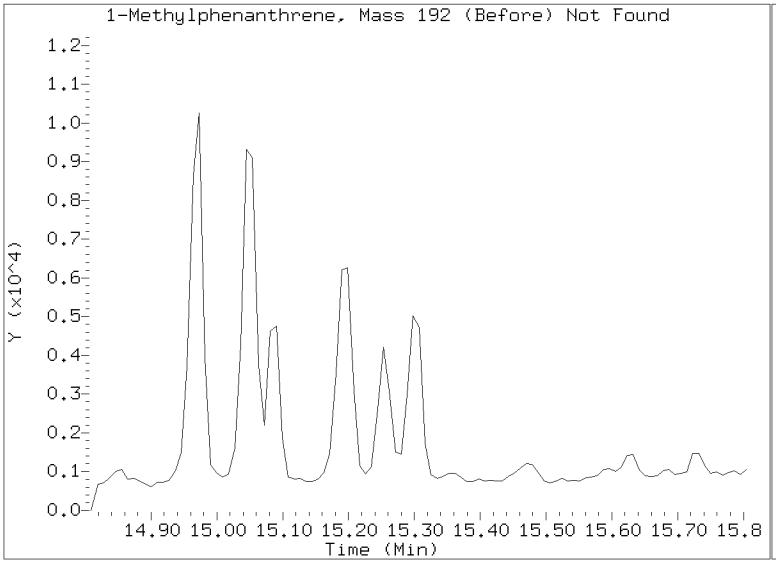
Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

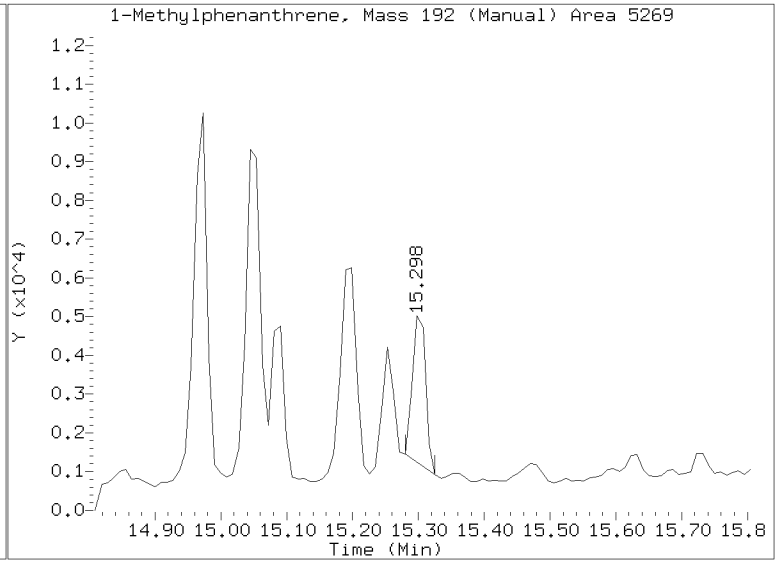
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt11.i/20170210.b/N1117021010.D
Injection Date: 10-FEB-2017 16:27
Lab ID:17A0053-01 Client ID:
Report Date: 02/11/2017 08:35









PG-SMA2-1-MUS-170105

Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270D-SIM

Polycyclic Aromatic Hydrocarbons (PAH) low level

Laboratory:	Analytical Resources, Inc.			SDG:	17A0053
Client:	Anchor QEA, LLC			Project:	Port Gamble Shellfish Monitoring
Matrix:	Tissue	Laboratory ID:	17A0053-04	File ID:	N1117021011.D
Sampled:	01/05/17 13:02	Prepared:	01/31/17 13:45	Analyzed:	02/10/17 17:03
Solids:		Preparation:	EPA 3550C-Mod (Ultrasonic	Initial/Final:	10.04 g / 0.5 mL
Batch:	BFA0647	Sequence:	SFB0130	Calibration:	ZL00083
Instrument:	NT11	Column:	RXi-17Sil-MS		

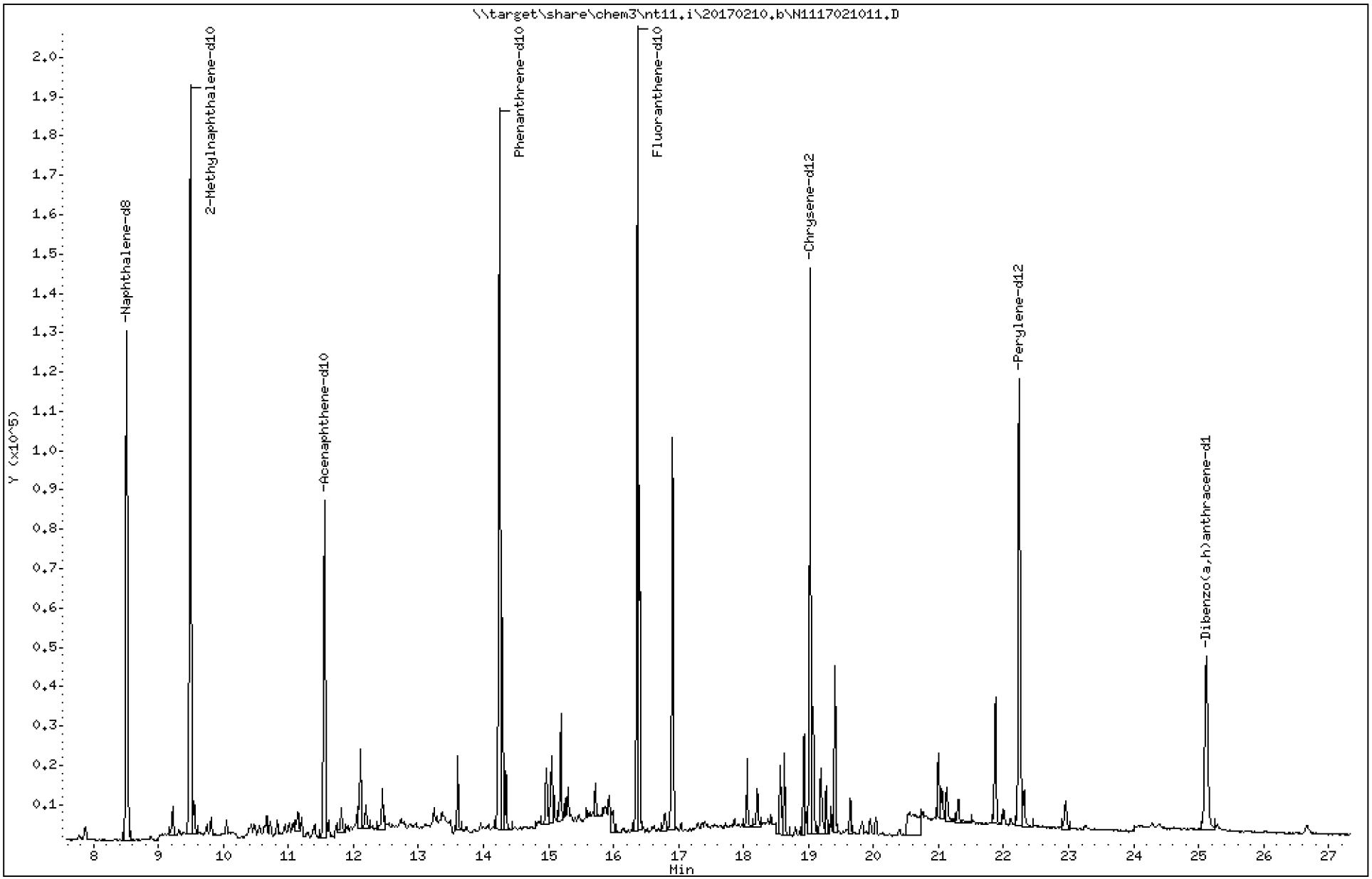
CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg)	Q	DL	RL
91-20-3	Naphthalene	1	0.60	U	0.50	0.60
91-57-6	2-Methylnaphthalene	1	0.50	U	0.50	0.50
208-96-8	Acenaphthylene	1	0.50	U	0.50	0.50
83-32-9	Acenaphthene	1	0.50	U	0.50	0.50
86-73-7	Fluorene	1	0.50	U	0.50	0.50
85-01-8	Phenanthrene	1	2.62		0.50	0.50
120-12-7	Anthracene	1	0.74		0.50	0.50
206-44-0	Fluoranthene	1	3.43		0.50	0.50
129-00-0	Pyrene	1	4.58		0.50	0.50
56-55-3	Benzo(a)anthracene	1	1.16		0.50	0.50
218-01-9	Chrysene	1	2.31		0.50	0.50
205-99-2	Benzo(b)fluoranthene	1	1.07		0.50	0.50
207-08-9	Benzo(k)fluoranthene	1	0.51		0.50	0.50
50-32-8	Benzo(a)pyrene	1	0.50	U	0.50	0.50
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.50	U	0.50	0.50
53-70-3	Dibenzo(a,h)anthracene	1	0.50	U	0.50	0.50
191-24-2	Benzo(g,h,i)perylene	1	0.50	U	0.50	0.50
1985-5-0	Perylene	1	0.60		0.50	0.50
197-97-2	Benzo(e)pyrene	1	2.10		0.50	0.50

SURROGATES	ADDED (ug/kg)	CONC (ug/kg)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	14.940	9.24	61.8	30 - 160	
Dibenzo[a,h]anthracene-d14	14.940	11.3	75.5	30 - 160	
Fluoranthene-d10	14.940	9.89	66.2	30 - 160	

Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021011.D
Date : 10-FEB-2017 17:03
Client ID:
Sample Info: 17A0053-04

Instrument: nt11.i
Operator: VTS
Column diameter: 0.25

Column phase: Rxi-17Sil MS



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Date : 10-FEB-2017 17:03

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-04

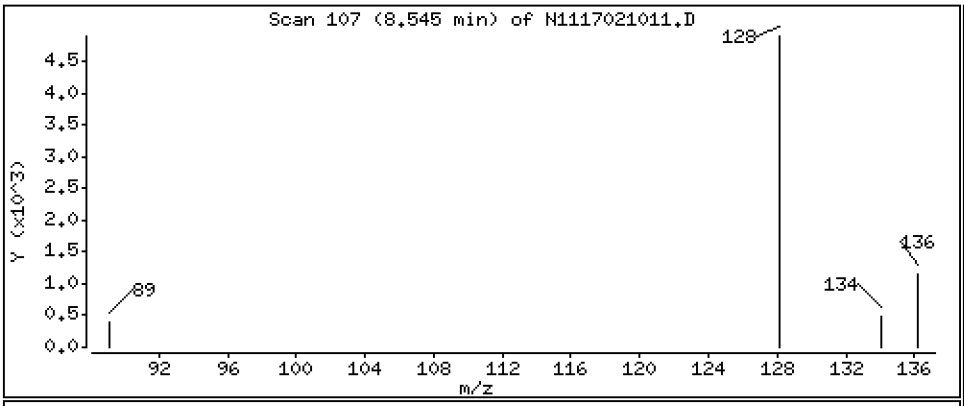
Operator: VTS

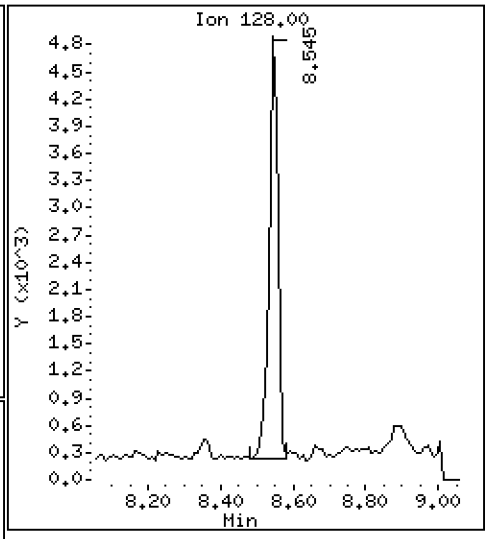
Column phase: Rxi-17Sil MS

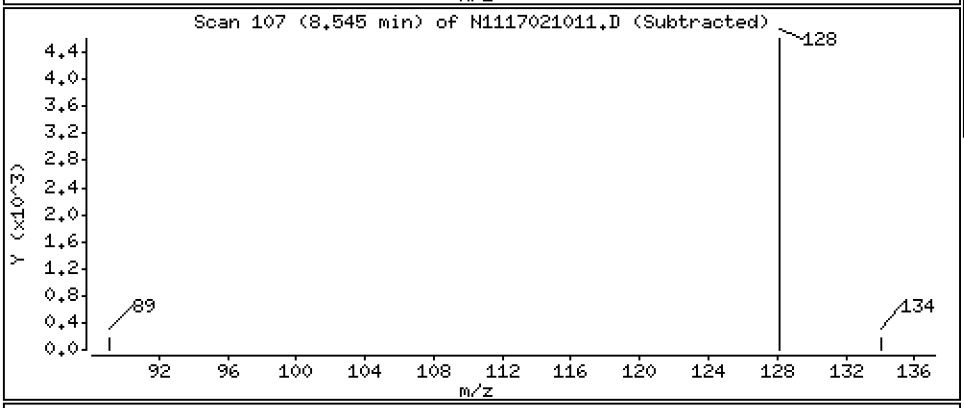
Column diameter: 0.25

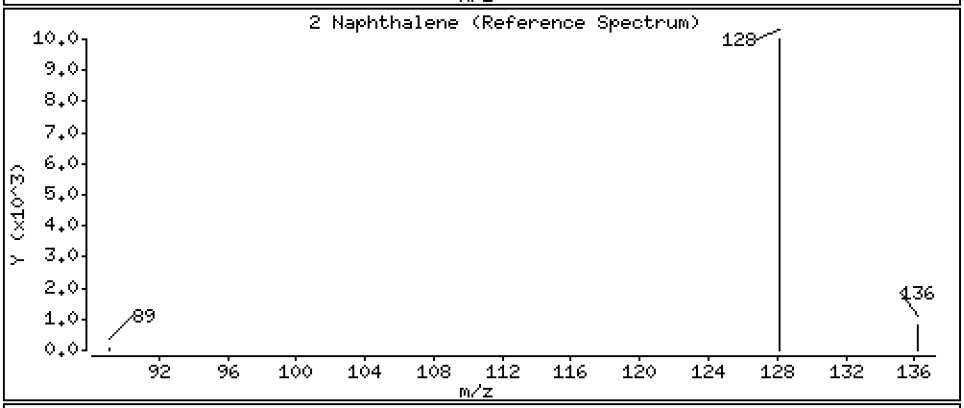
2 Naphthalene

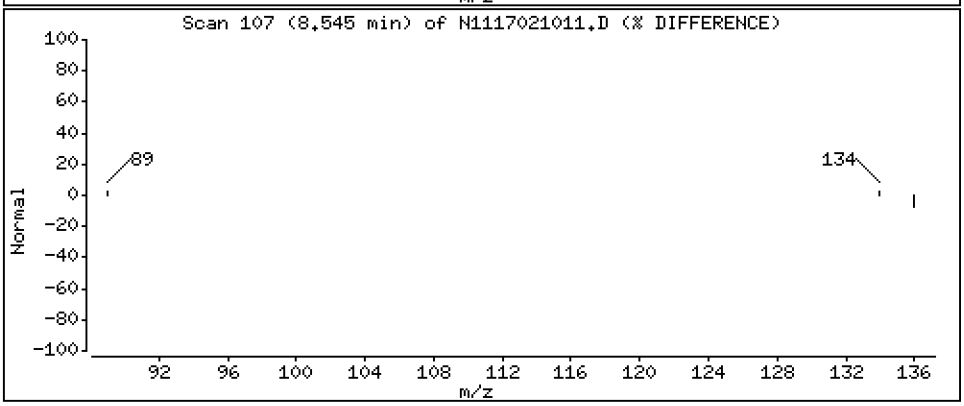
Concentration: 7.55 ng/mL











Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021011.D

Date : 10-FEB-2017 17:03

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-04

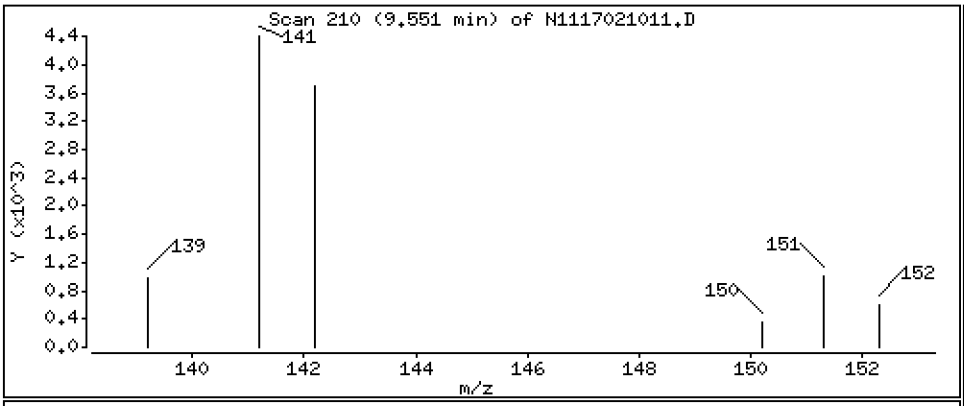
Operator: VTS

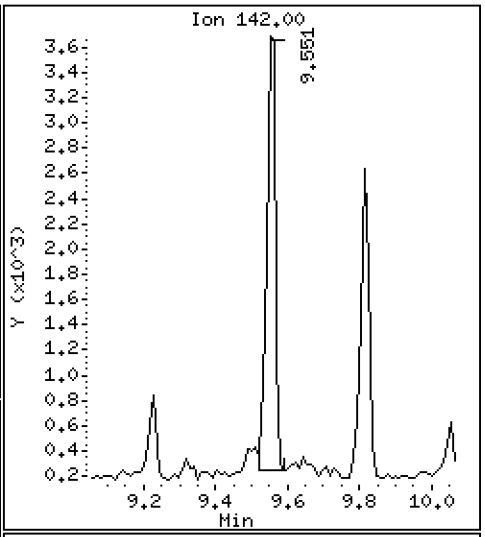
Column phase: Rxi-17Sil MS

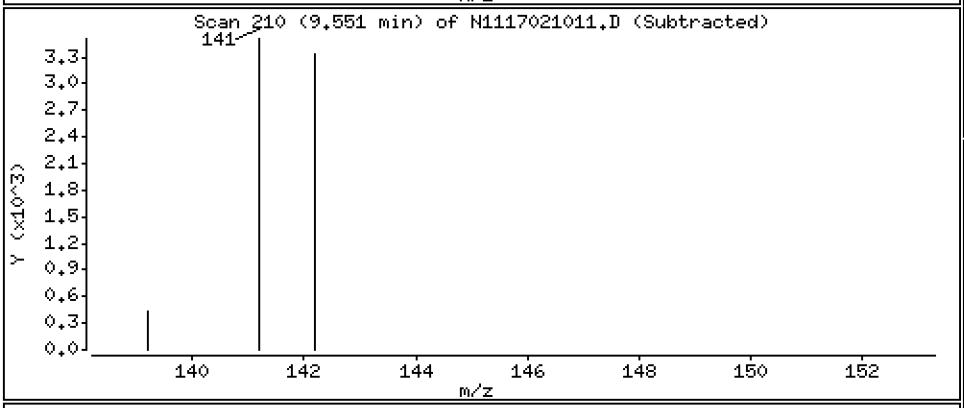
Column diameter: 0.25

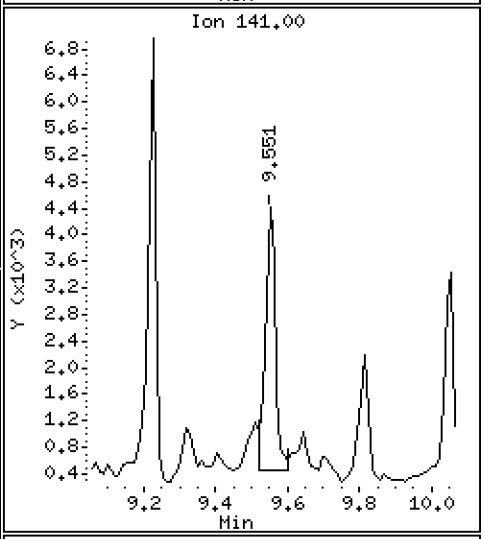
5 2-Methylnaphthalene

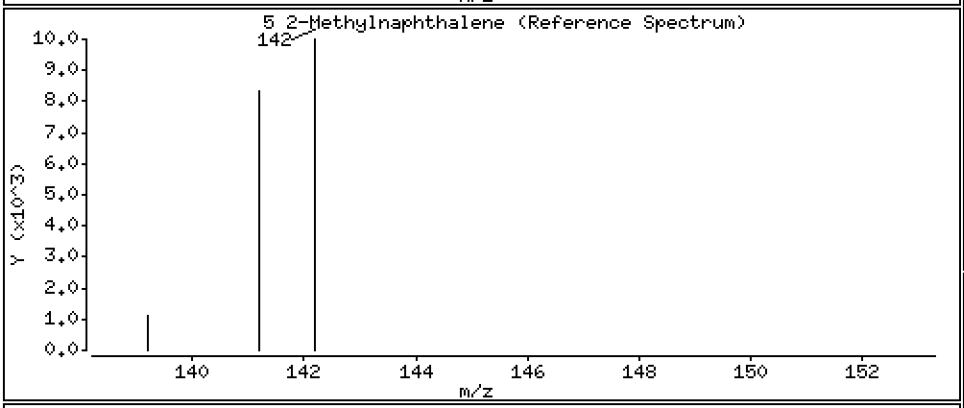
Concentration: 6.14 ng/mL

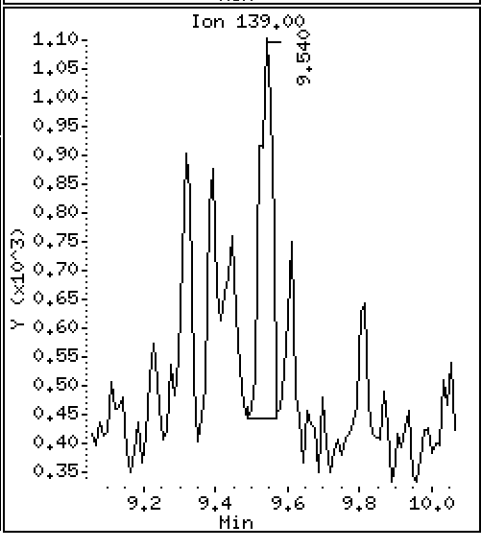


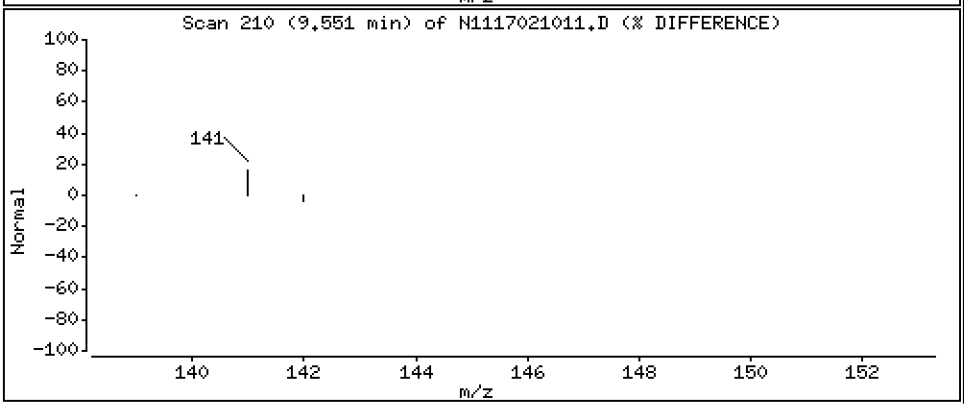












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Date : 10-FEB-2017 17:03

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-04

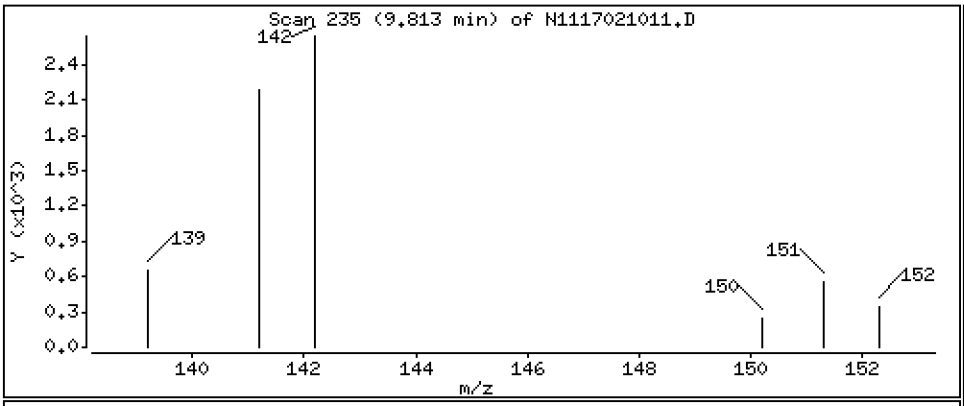
Operator: VTS

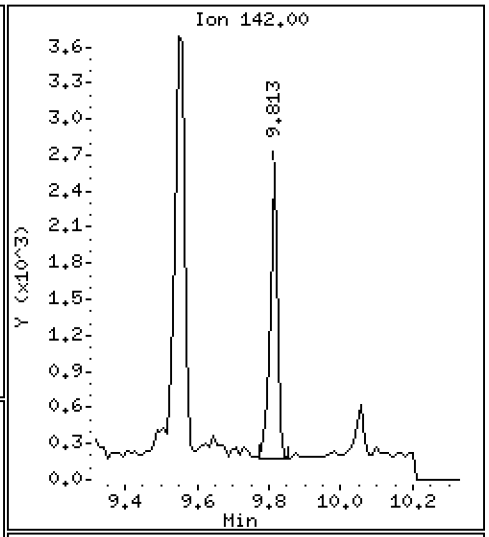
Column phase: Rxi-17Sil MS

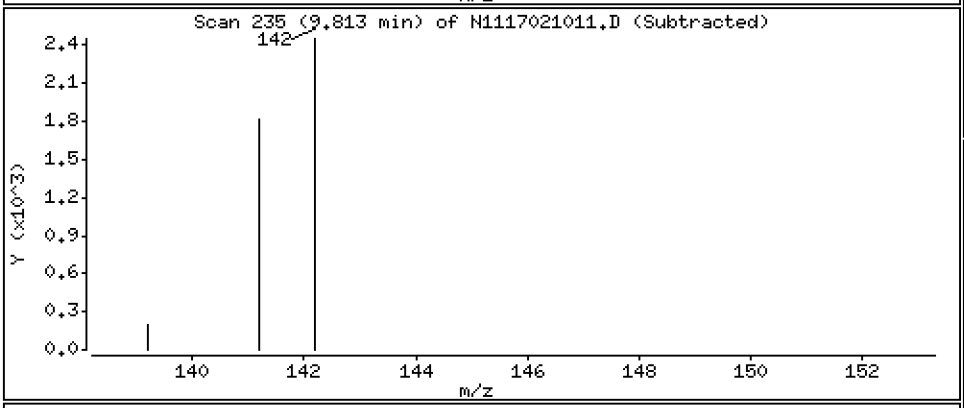
Column diameter: 0.25

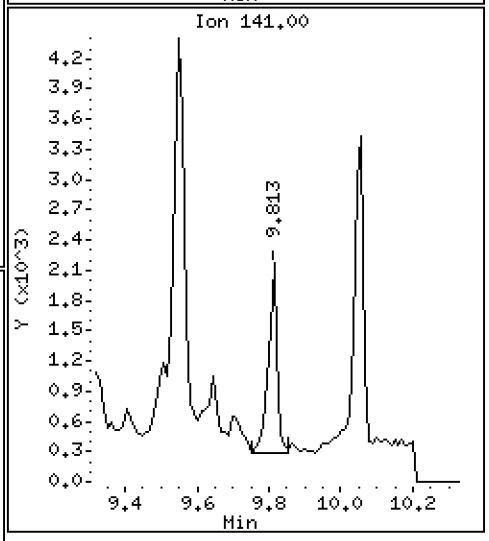
6 1-Methylnaphthalene

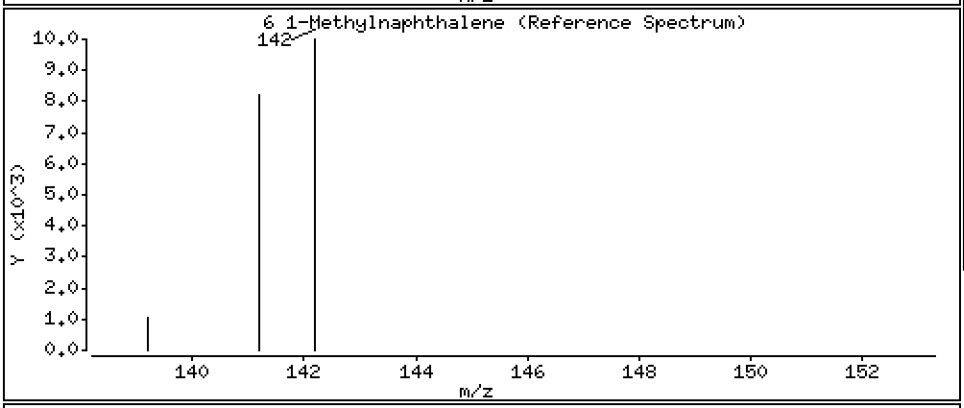
Concentration: 3.76 ng/mL

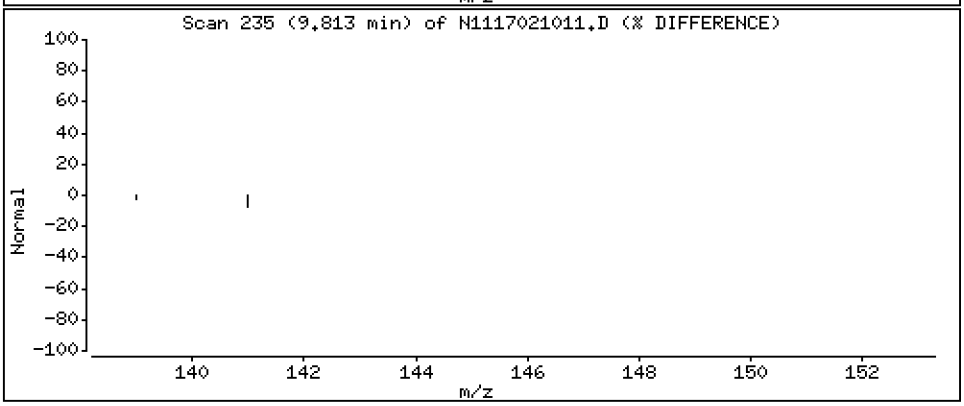












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Date : 10-FEB-2017 17:03

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-04

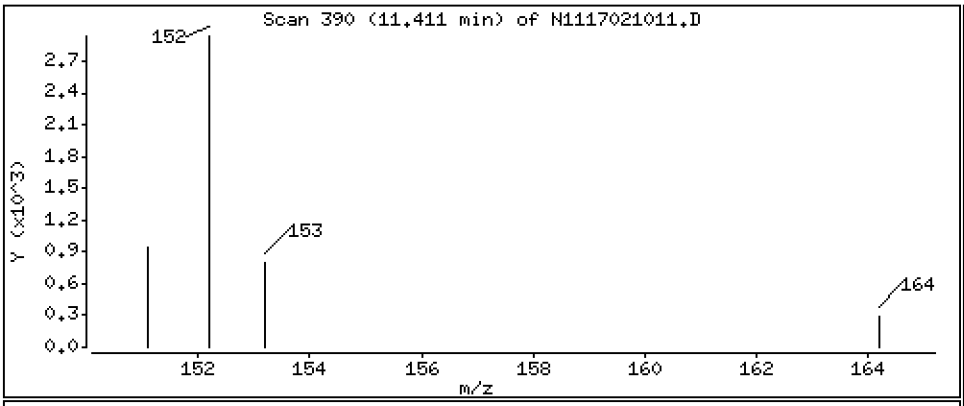
Operator: VTS

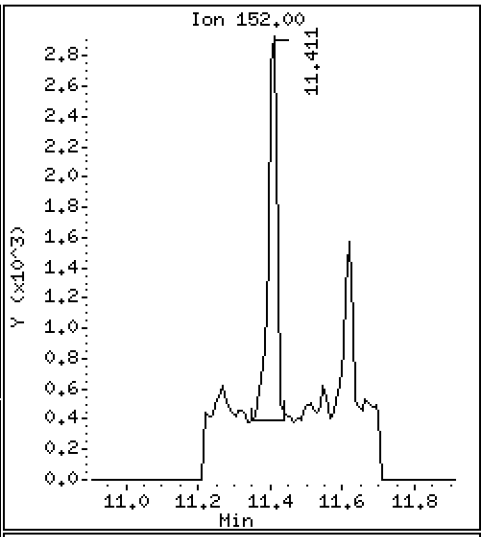
Column phase: Rxi-17Sil MS

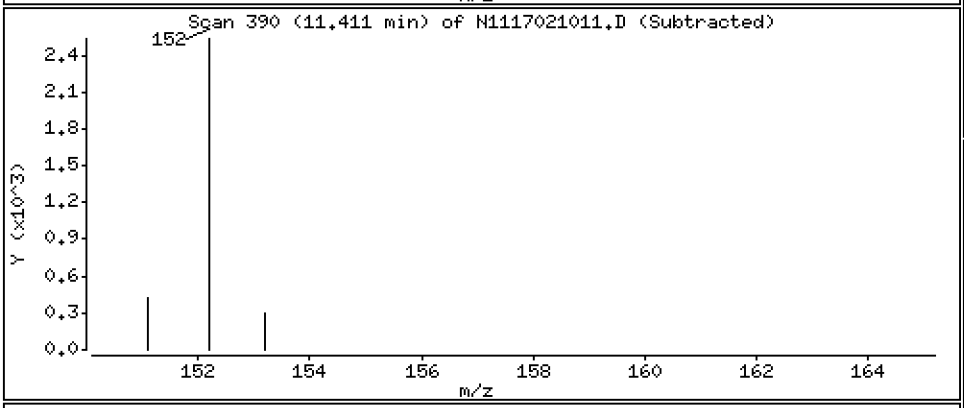
Column diameter: 0.25

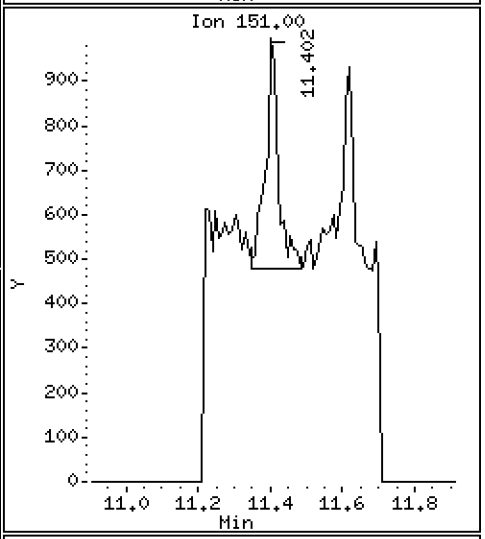
10 Acenaphthylene

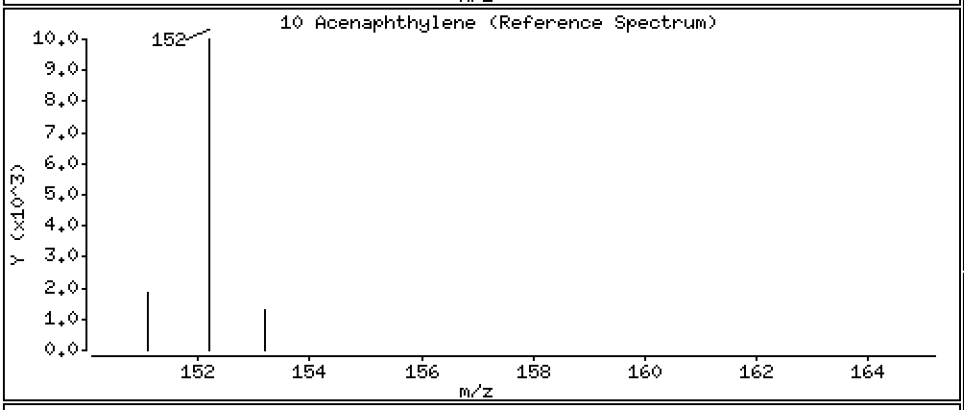
Concentration: 3.33 ng/mL

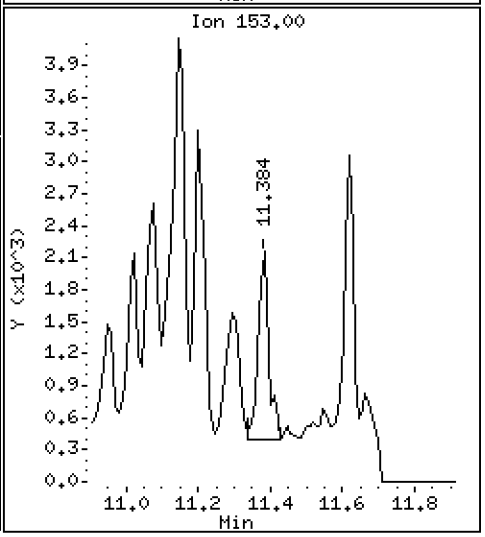


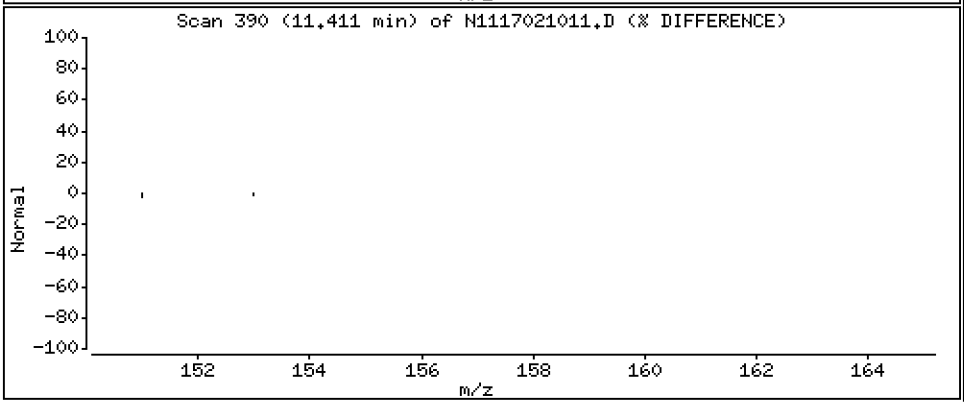












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Date : 10-FEB-2017 17:03

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-04

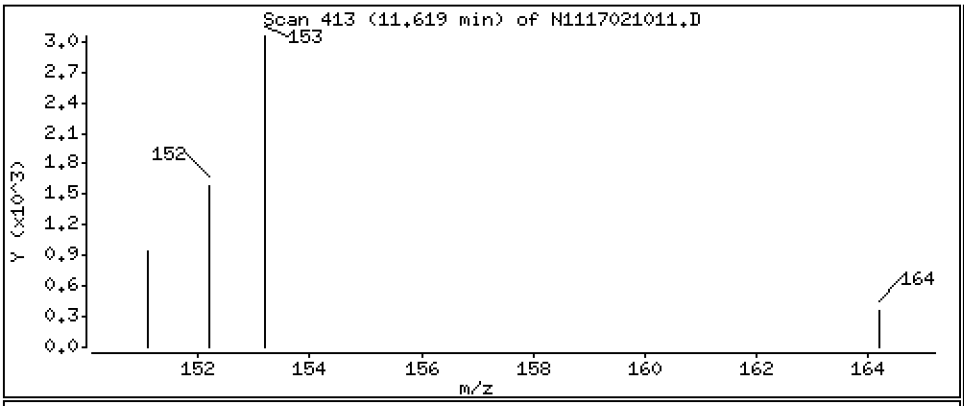
Operator: VTS

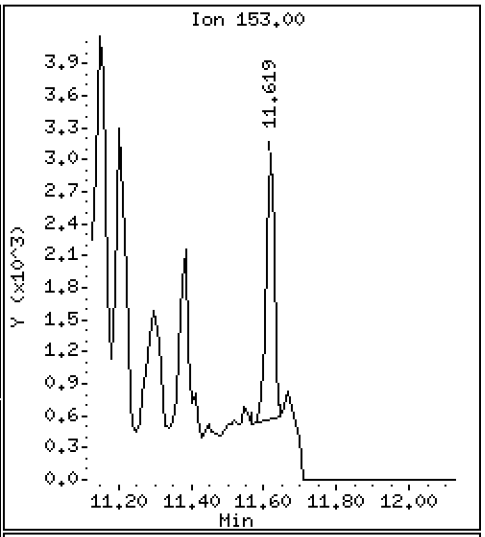
Column phase: Rxi-17Sil MS

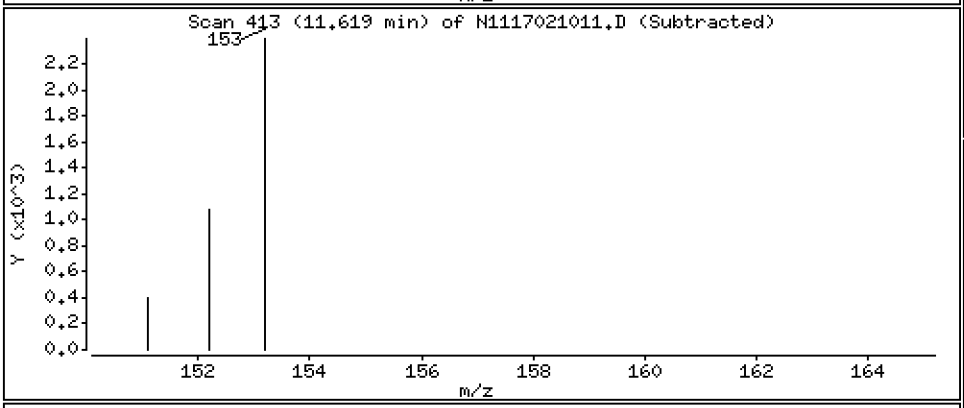
Column diameter: 0.25

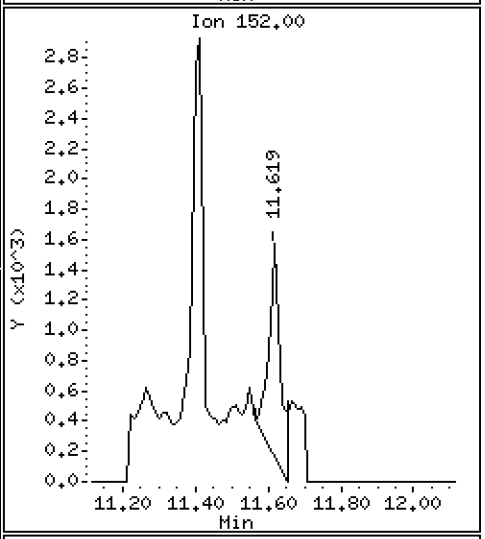
12 Acenaphthene

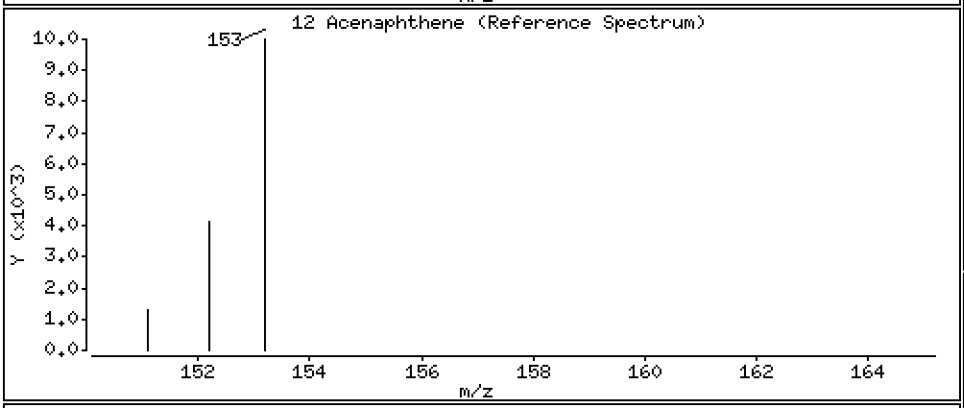
Concentration: 4.65 ng/mL

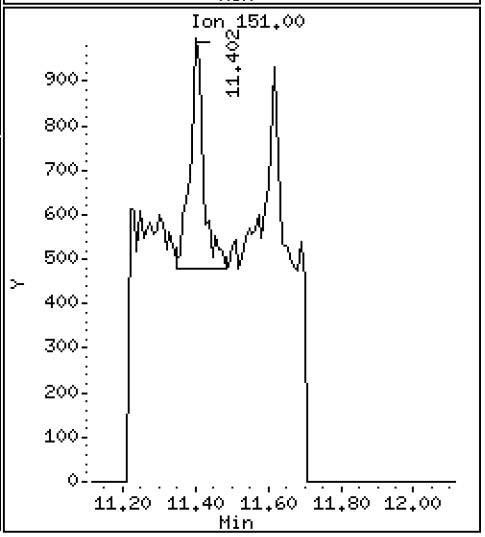


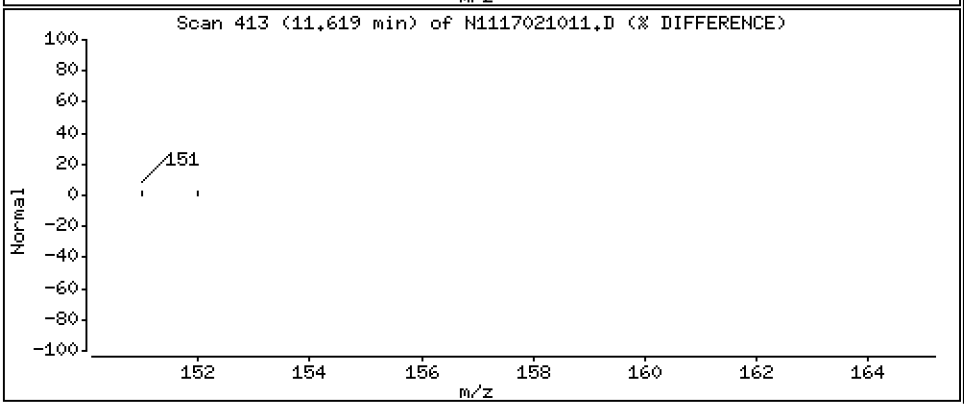












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Date : 10-FEB-2017 17:03

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-04

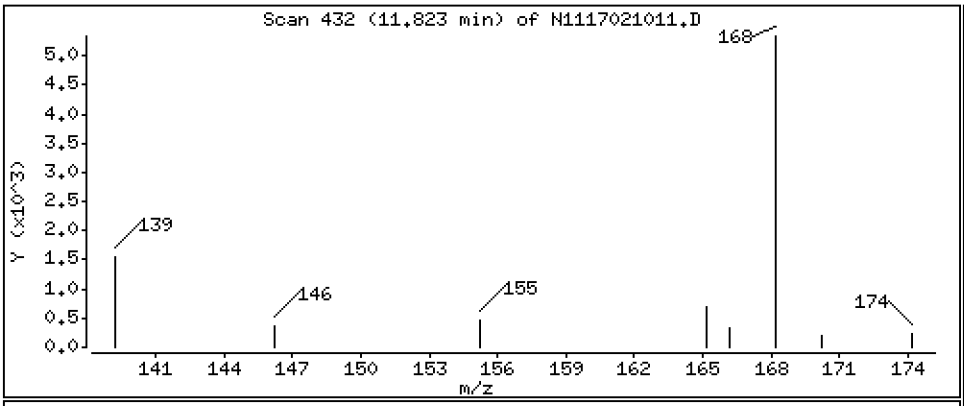
Operator: VTS

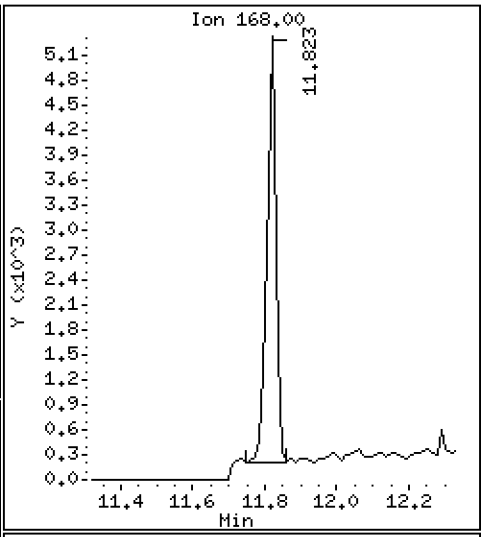
Column phase: Rxi-17Sil MS

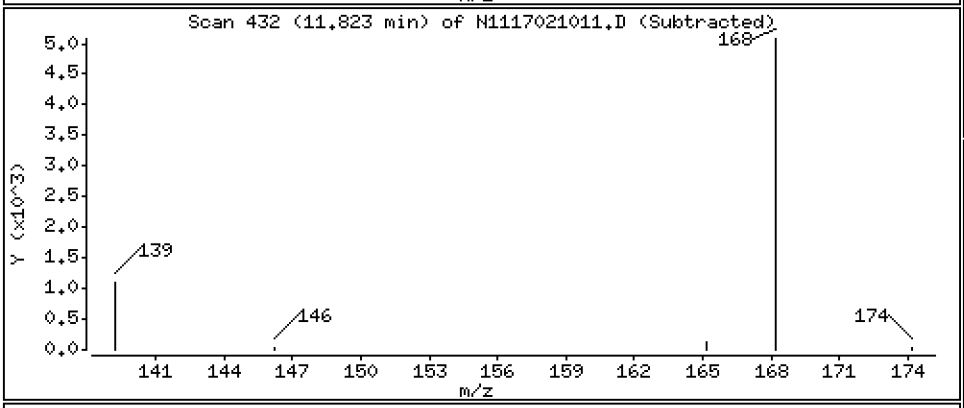
Column diameter: 0.25

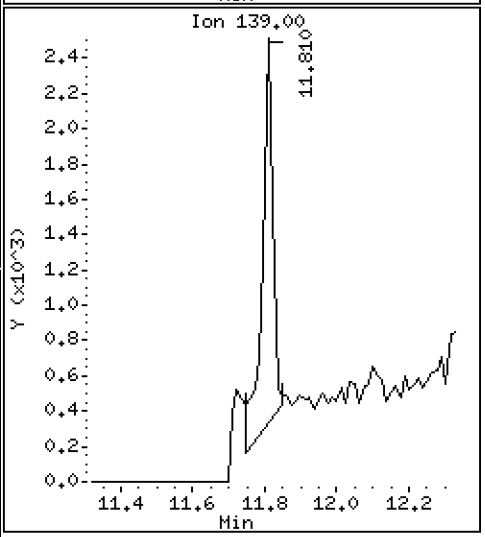
13 Dibenzofuran

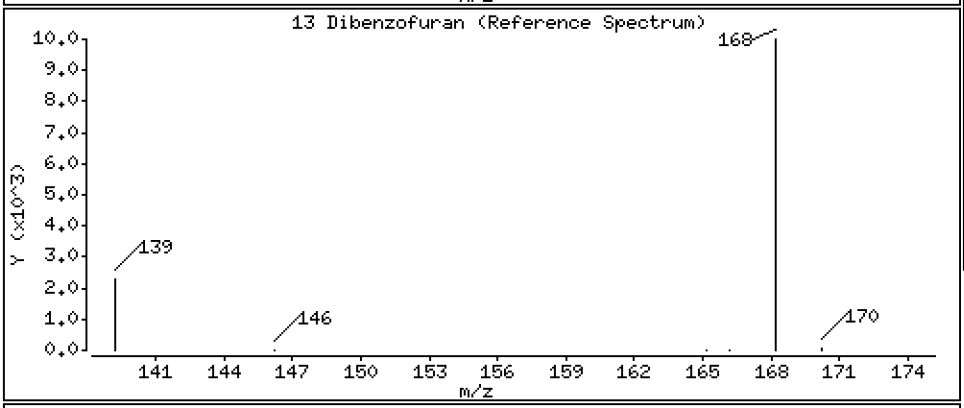
Concentration: 6.79 ng/mL

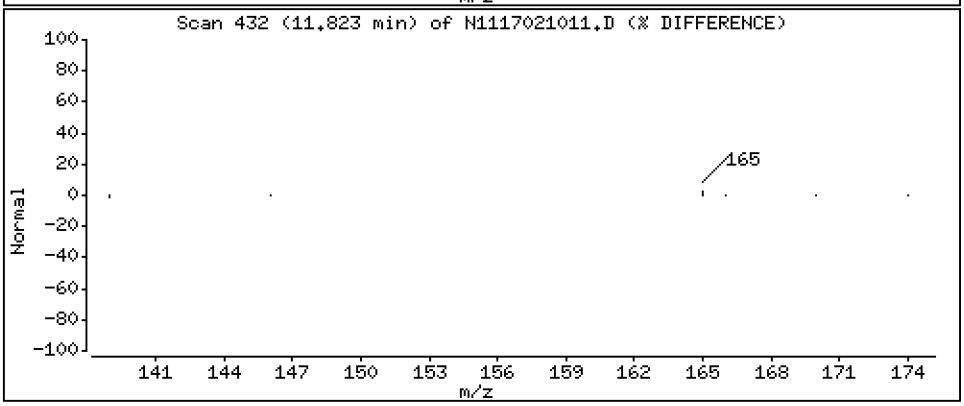












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Date : 10-FEB-2017 17:03

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-04

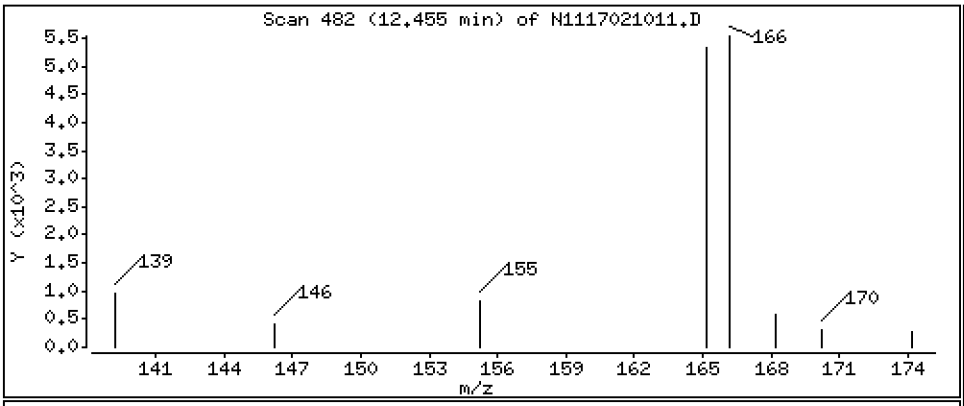
Operator: VTS

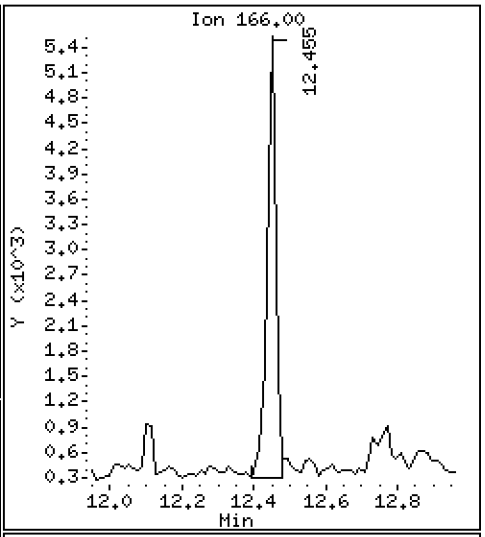
Column phase: Rxi-17Sil MS

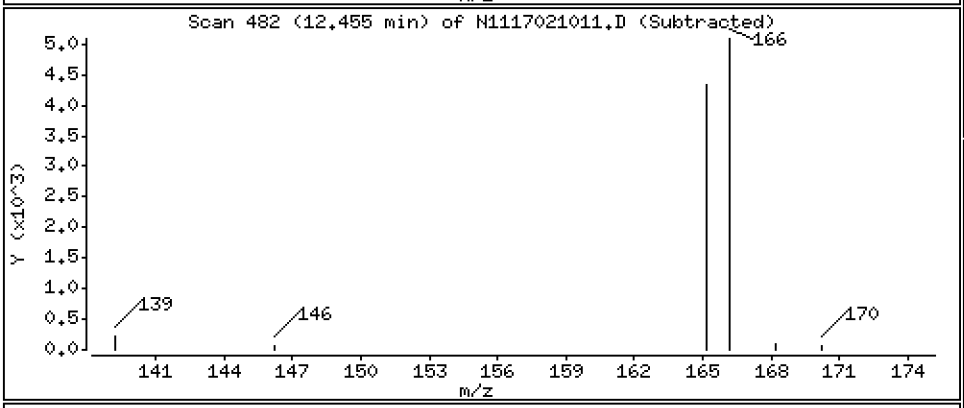
Column diameter: 0.25

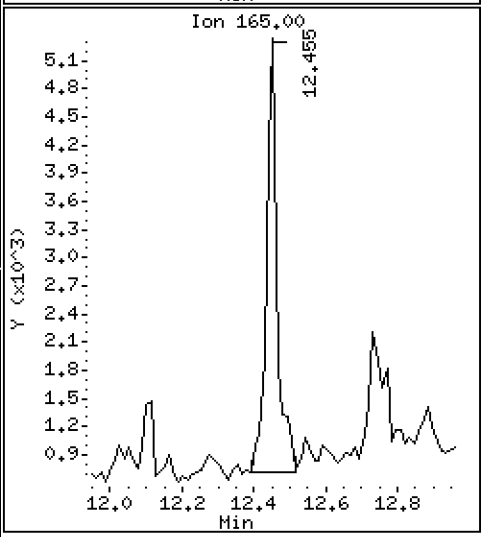
16 Fluorene

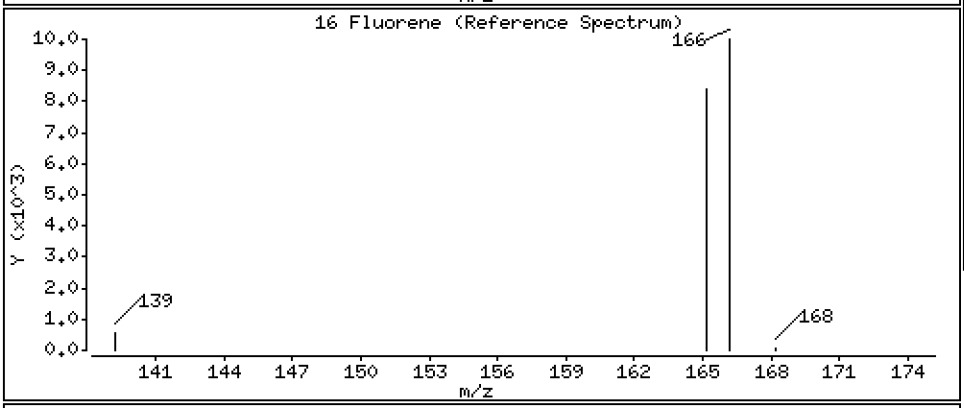
Concentration: 9.02 ng/mL

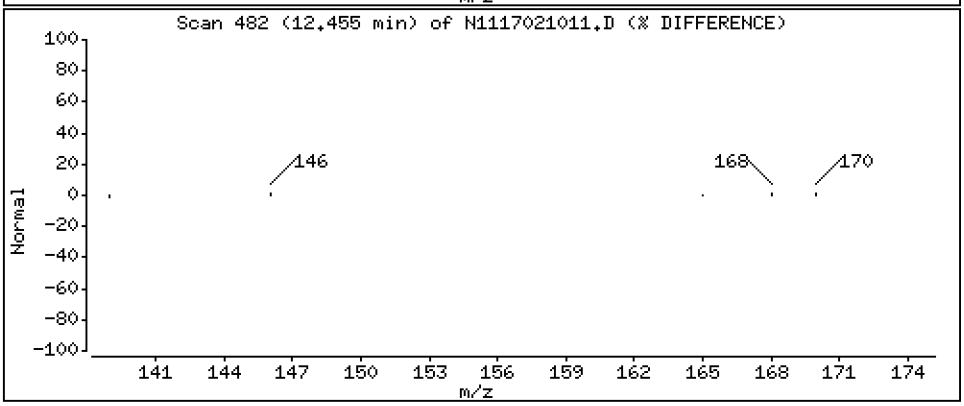












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Date : 10-FEB-2017 17:03

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-04

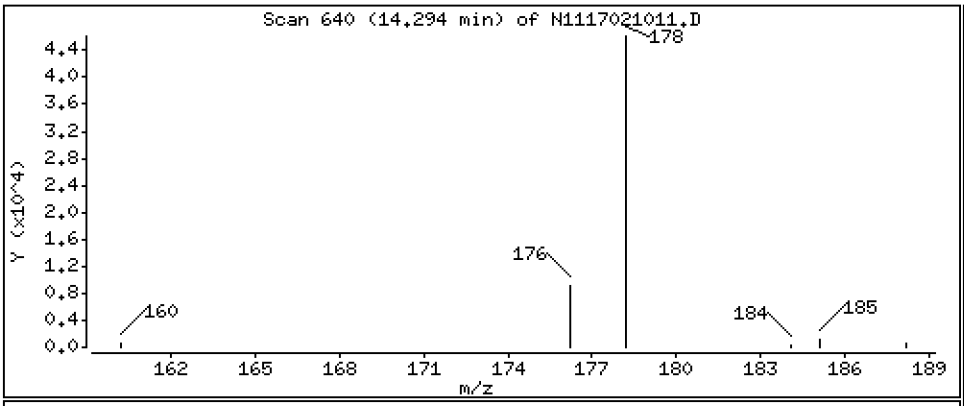
Operator: VTS

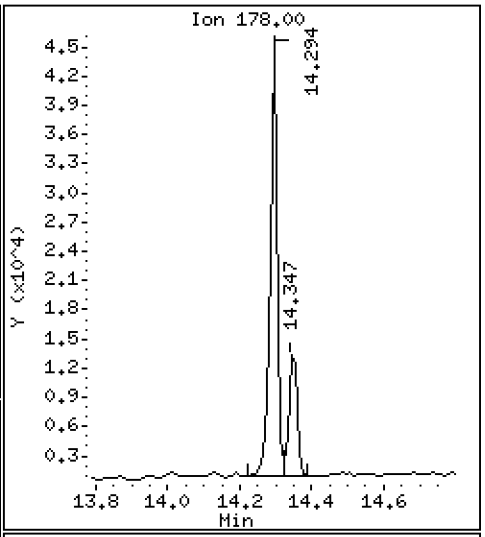
Column phase: Rxi-17Sil MS

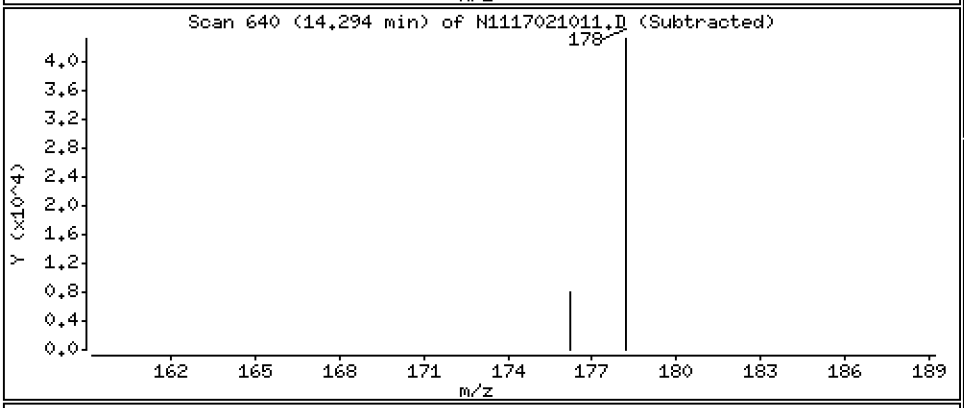
Column diameter: 0.25

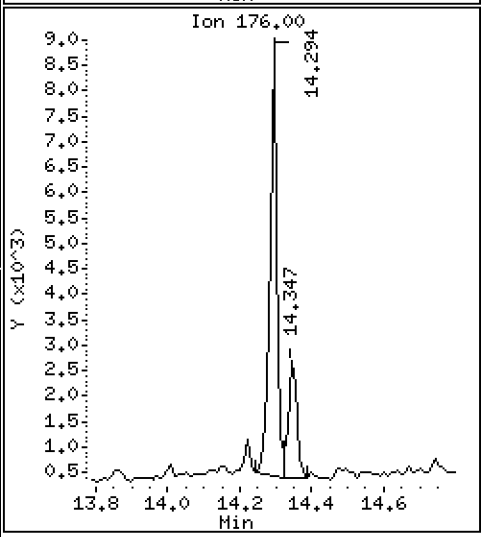
19 Phenanthrene

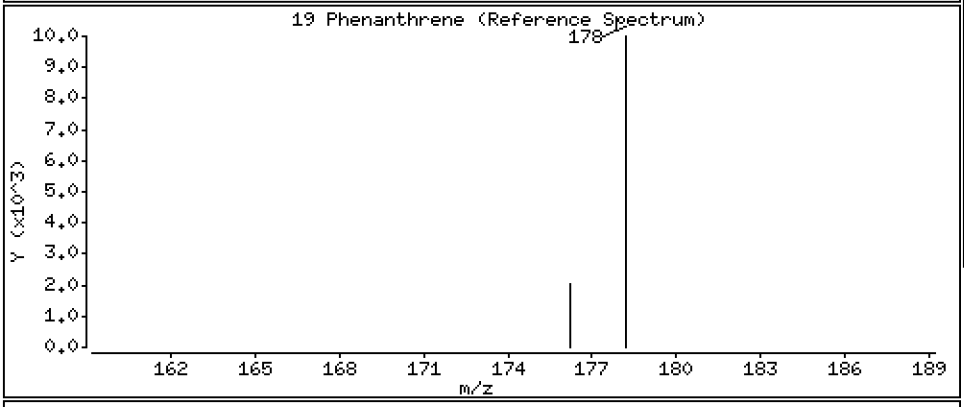
Concentration: 52.6 ng/mL

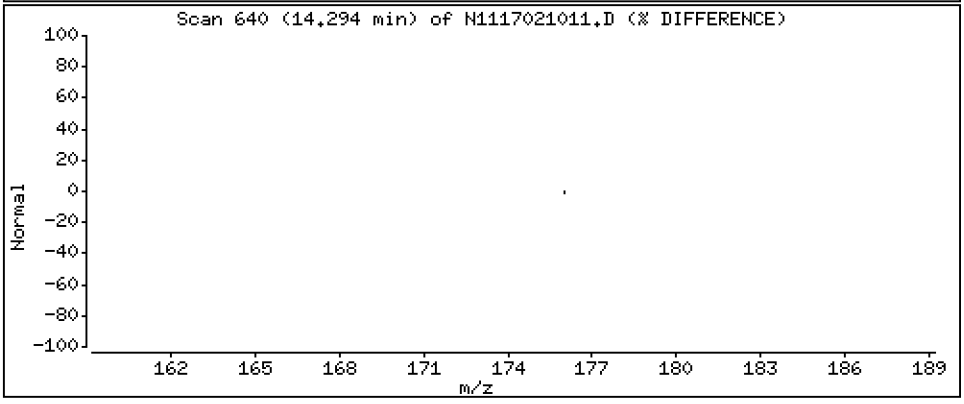












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Date : 10-FEB-2017 17:03

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-04

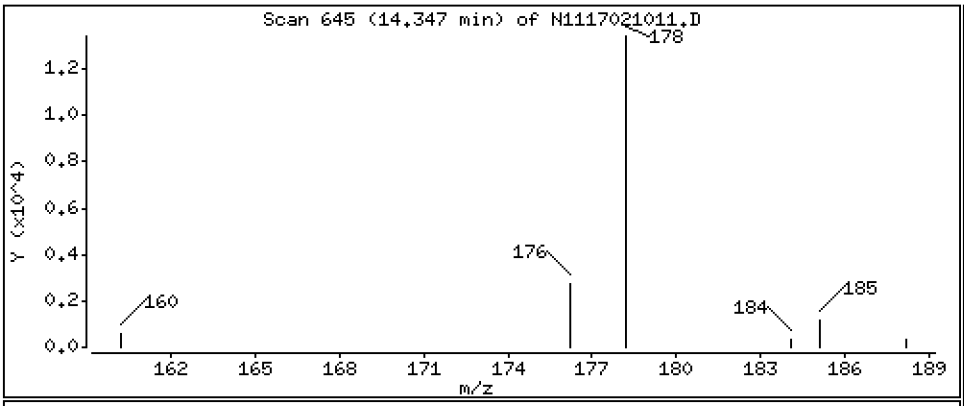
Operator: VTS

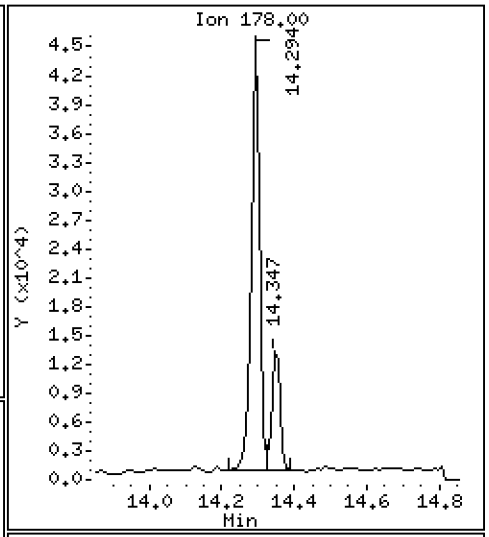
Column phase: Rxi-17Sil MS

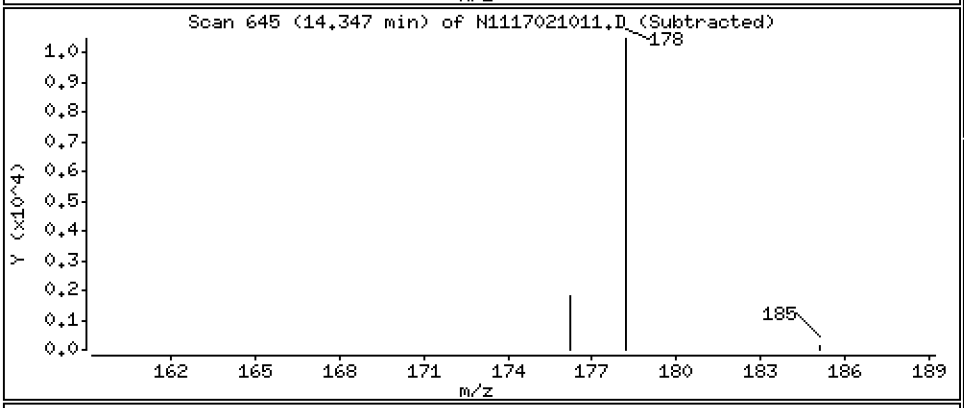
Column diameter: 0.25

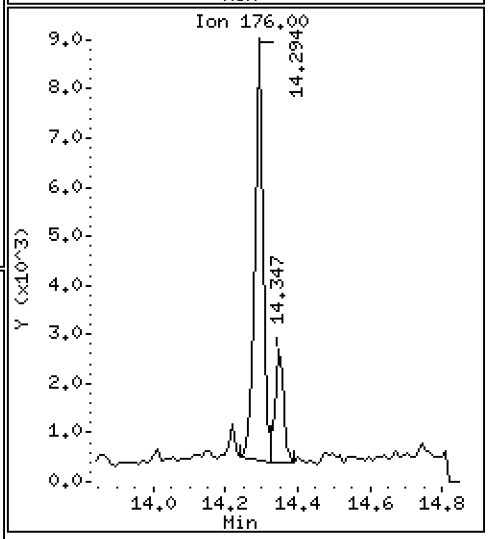
21 Anthracene

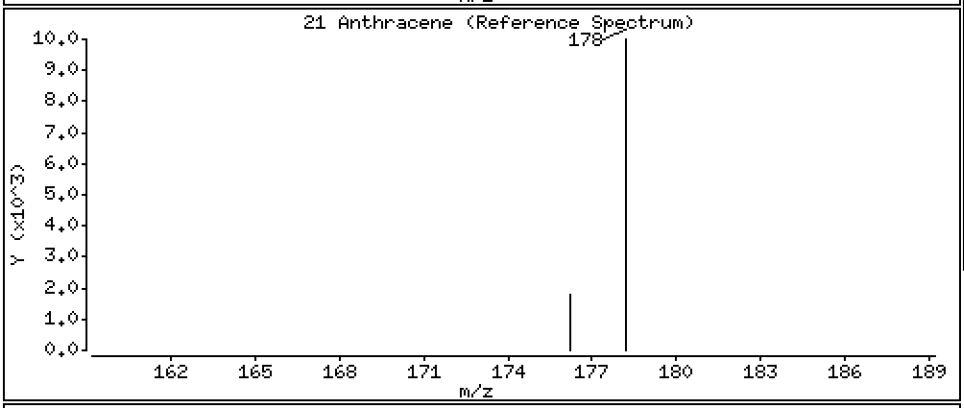
Concentration: 14.9 ng/mL

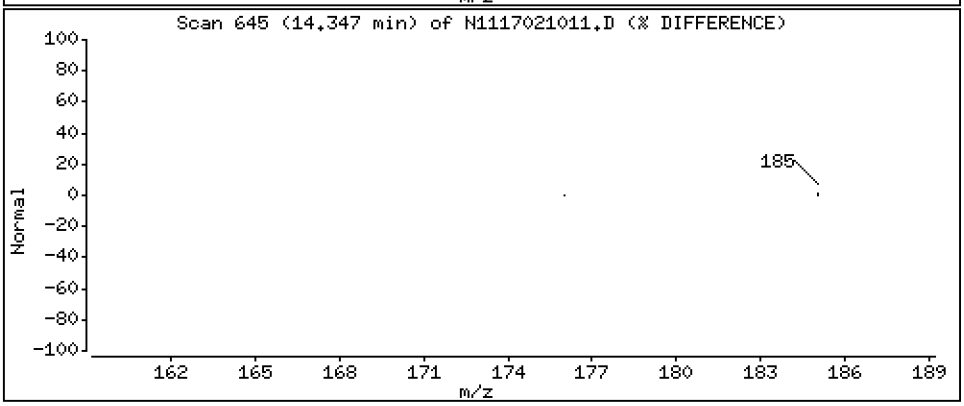












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Date : 10-FEB-2017 17:03

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-04

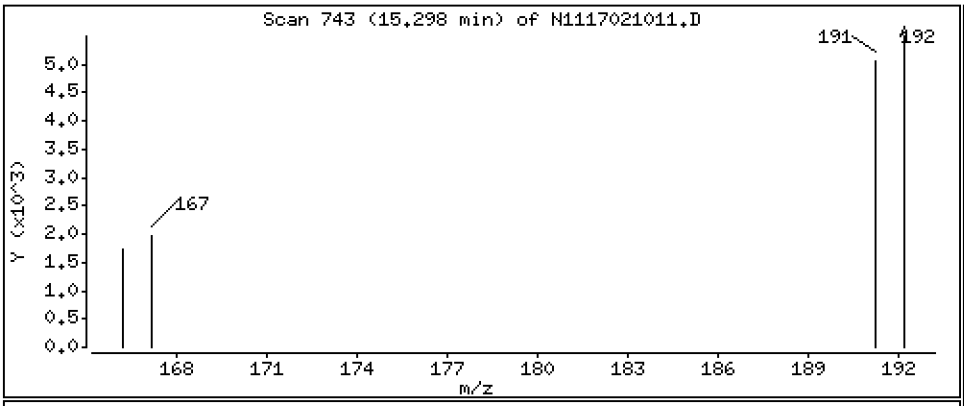
Operator: VTS

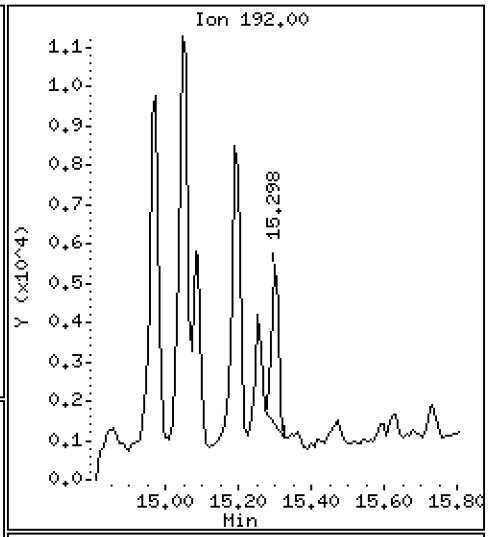
Column phase: Rxi-17Sil MS

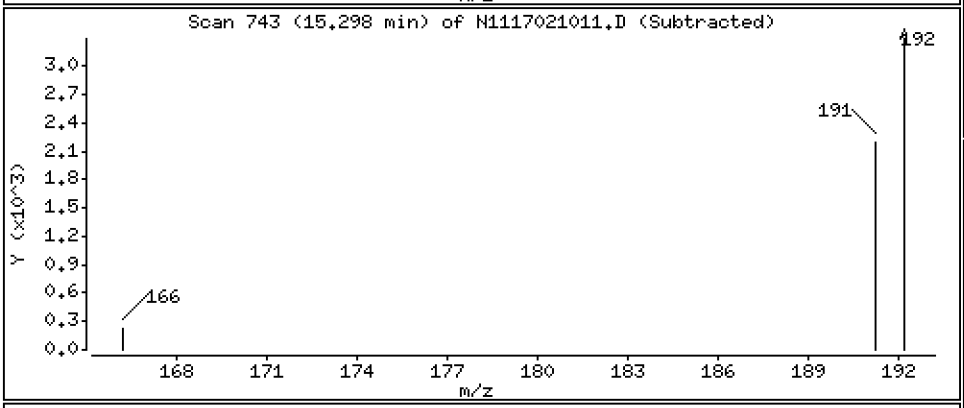
Column diameter: 0.25

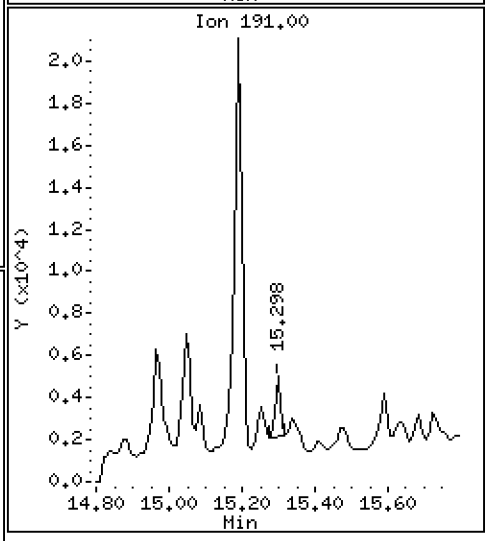
23 1-Methylphenanthrene

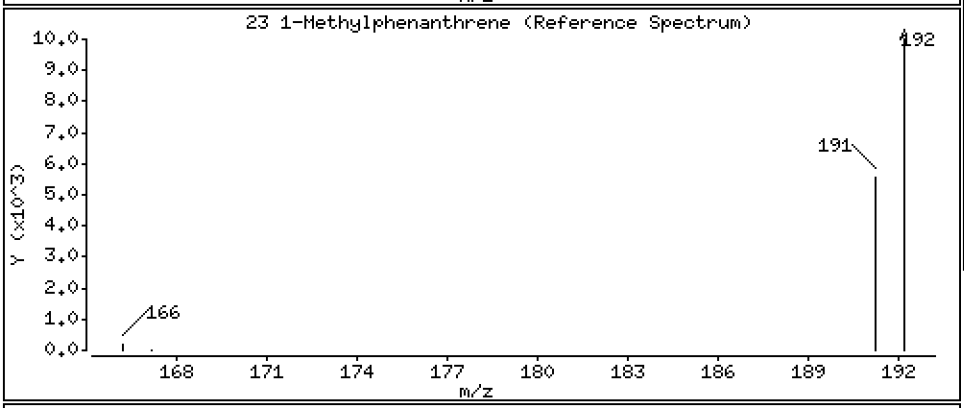
Concentration: 3.73 ng/mL

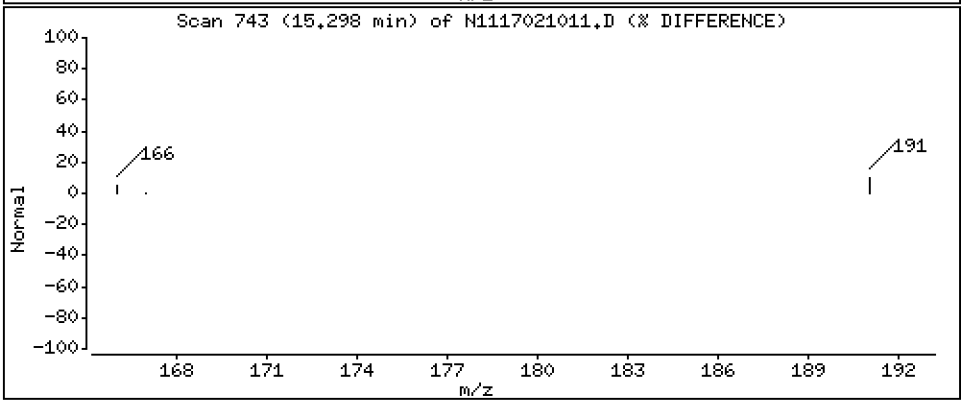












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021011.D

Date : 10-FEB-2017 17:03

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-04

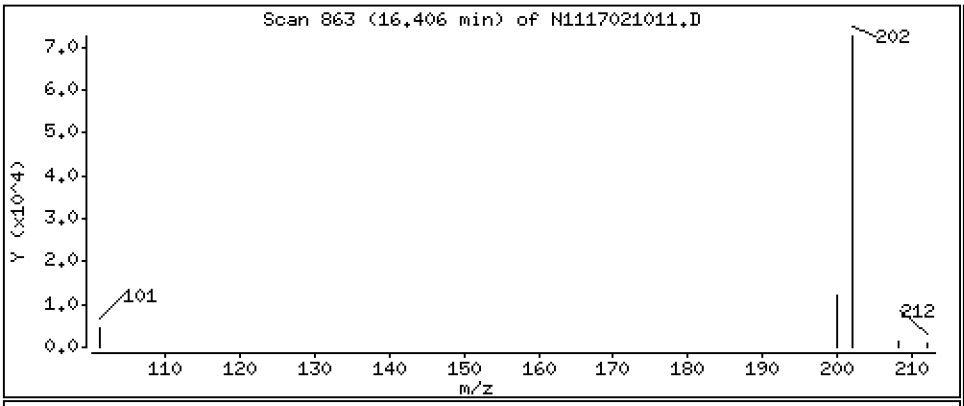
Operator: VTS

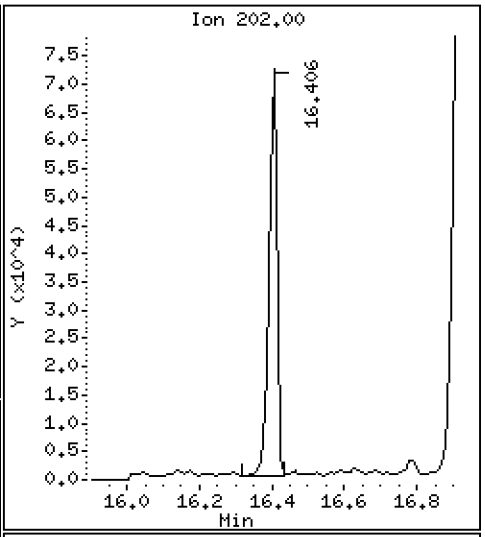
Column phase: Rxi-17Sil MS

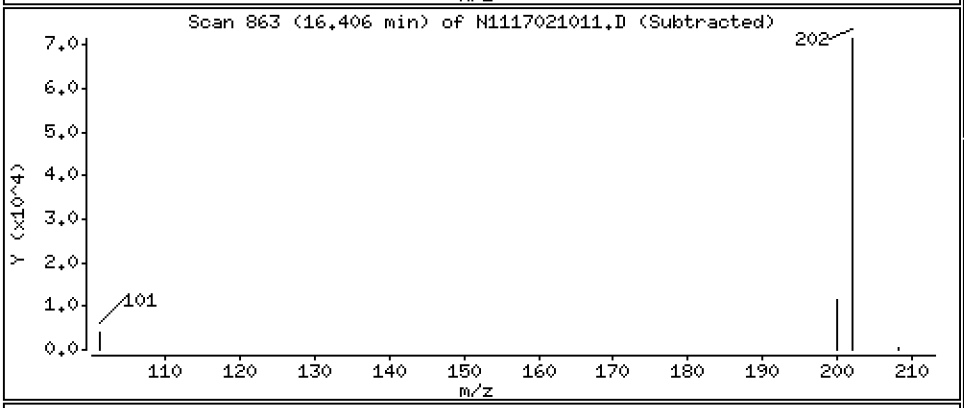
Column diameter: 0.25

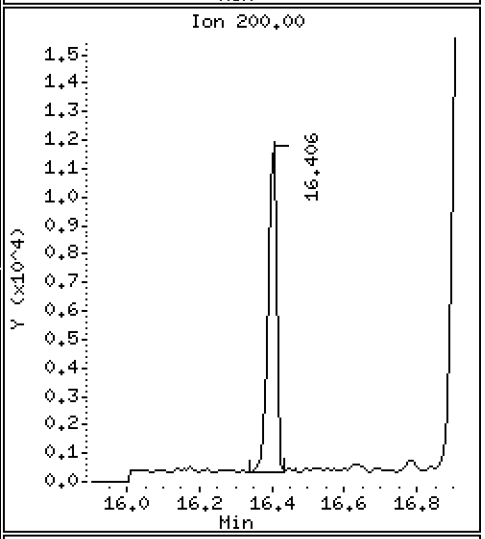
25 Fluoranthene

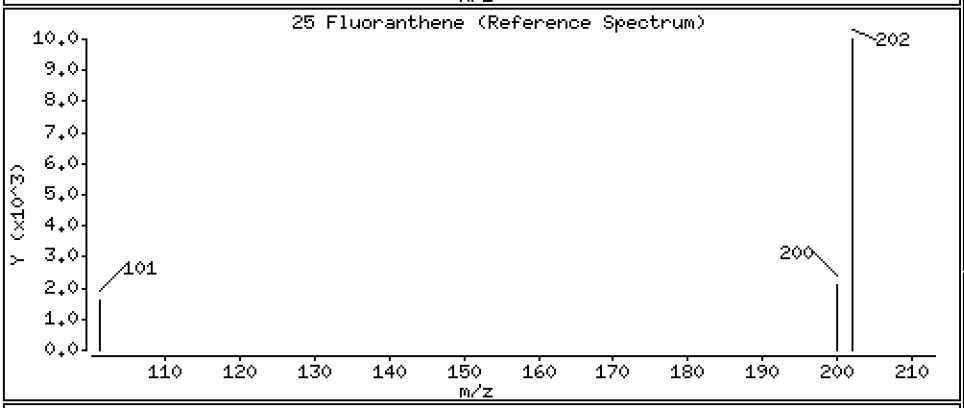
Concentration: 68.9 ng/mL

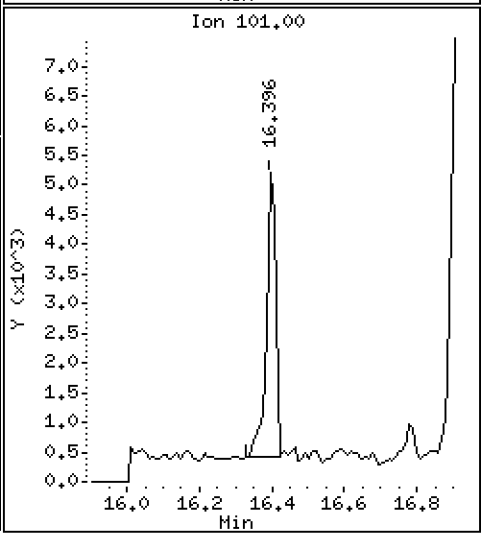


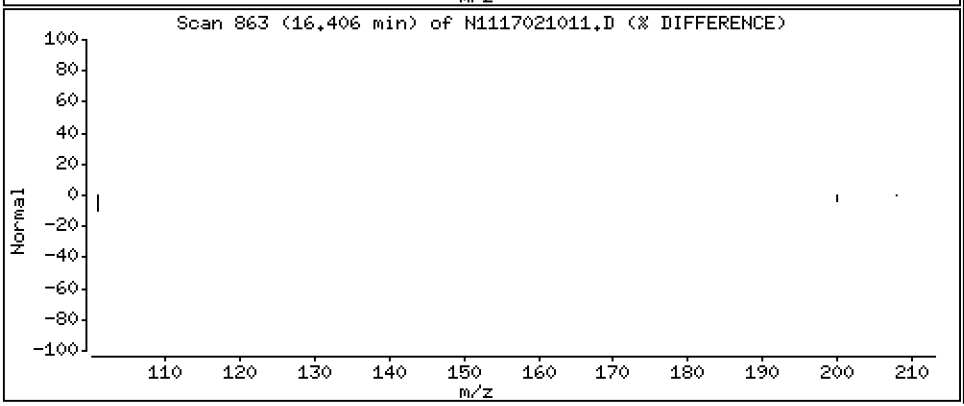












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021011.D

Date : 10-FEB-2017 17:03

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-04

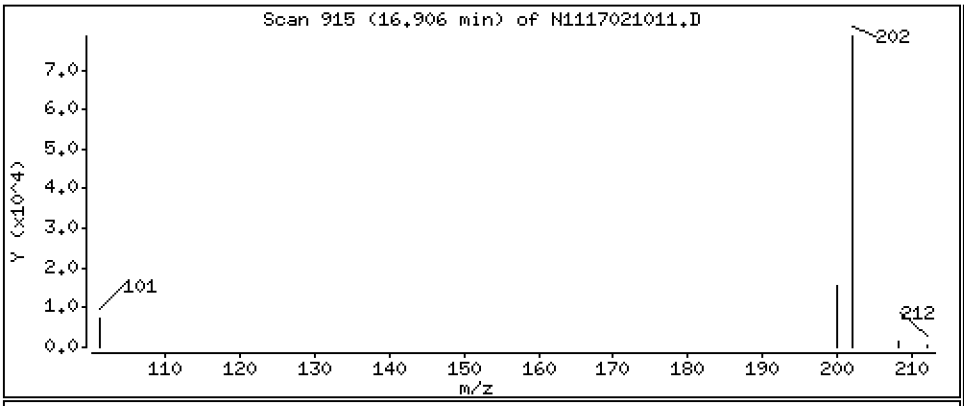
Operator: VTS

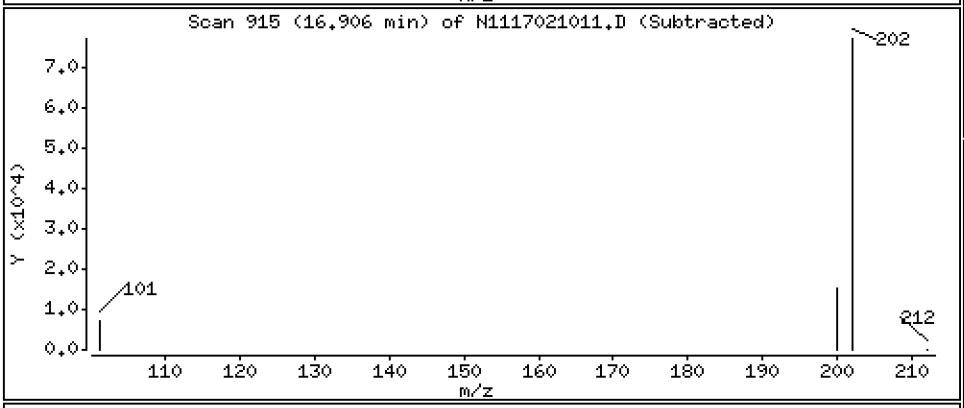
Column phase: Rxi-17Sil MS

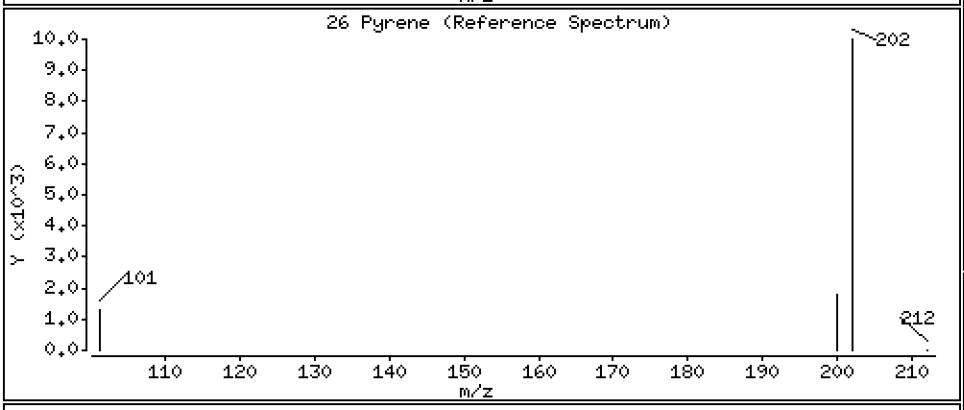
Column diameter: 0.25

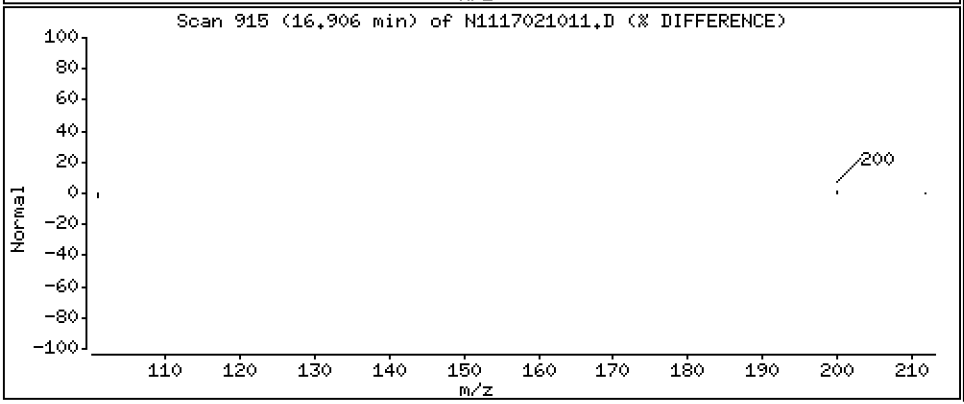
26 Pyrene

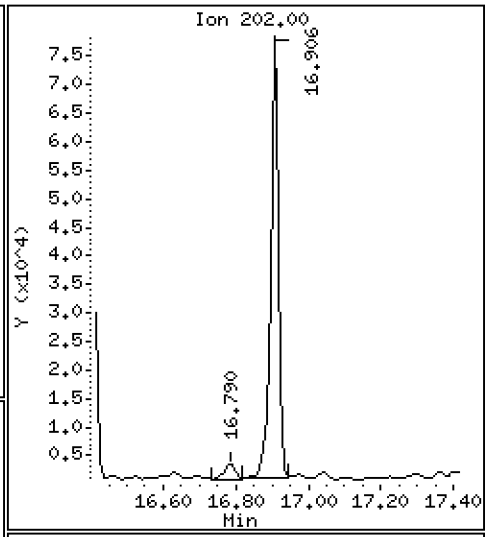
Concentration: 92.1 ng/mL

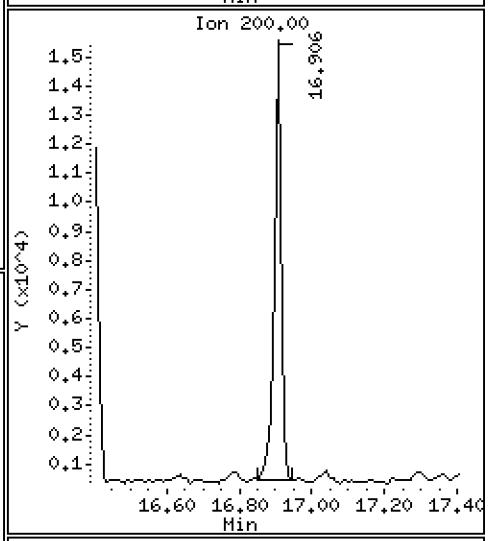


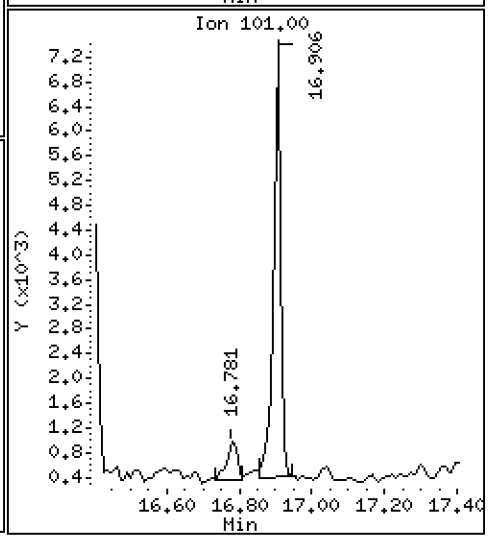












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021011.D

Date : 10-FEB-2017 17:03

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-04

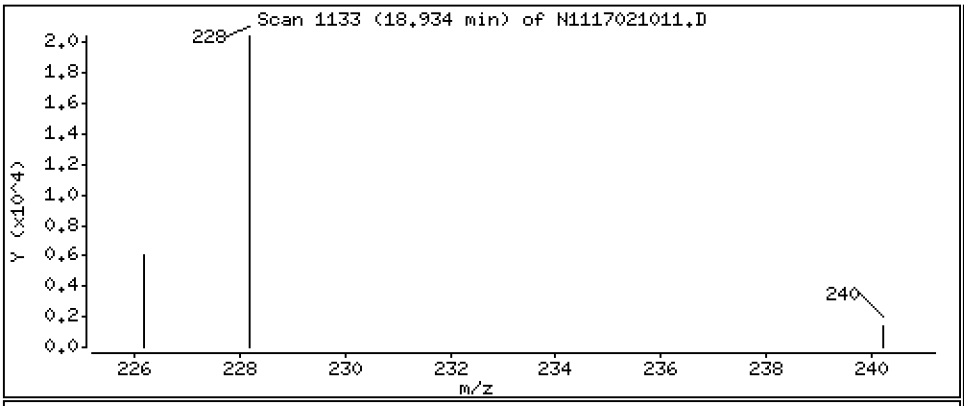
Operator: VTS

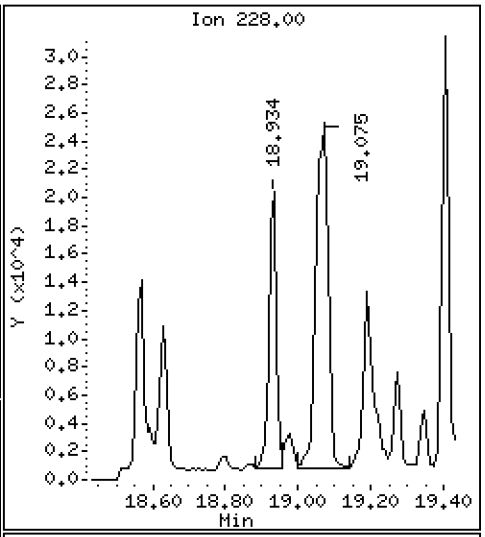
Column phase: Rxi-17Sil MS

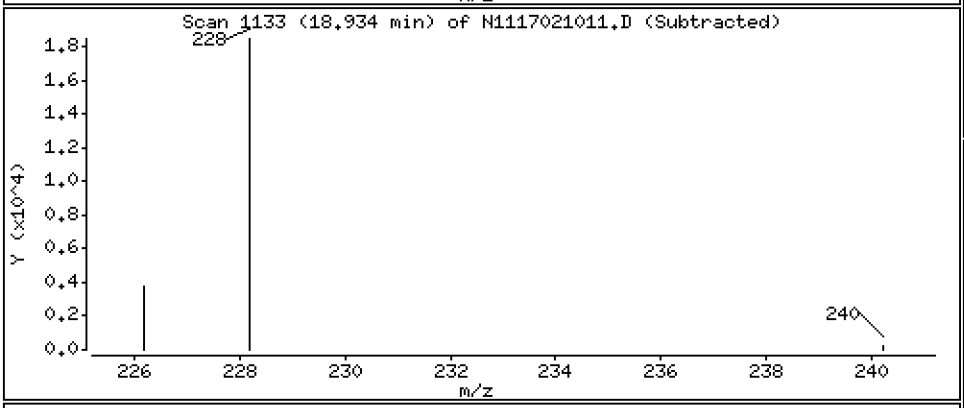
Column diameter: 0.25

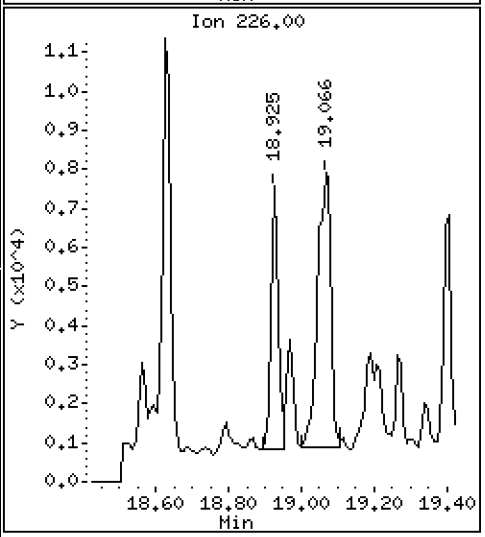
27 Benzo(a)anthracene

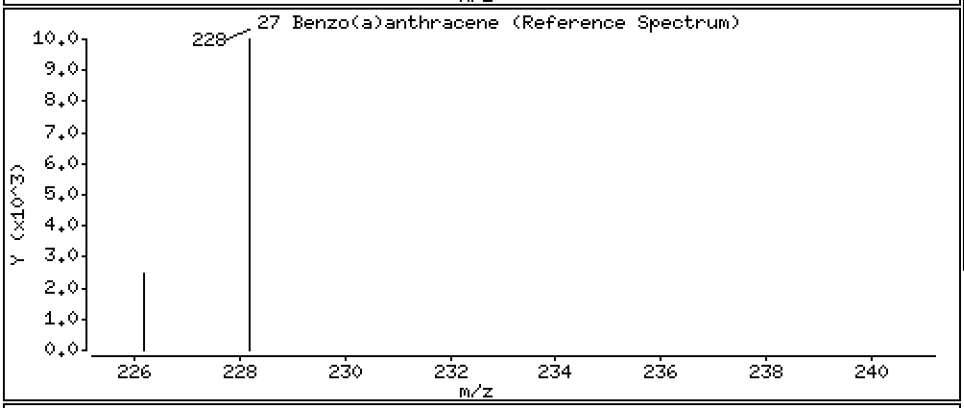
Concentration: 23.4 ng/mL

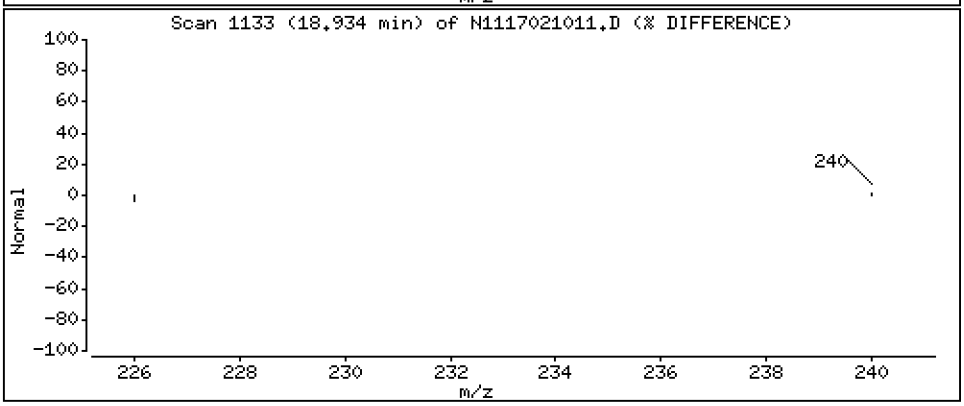












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021011.D

Date : 10-FEB-2017 17:03

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-04

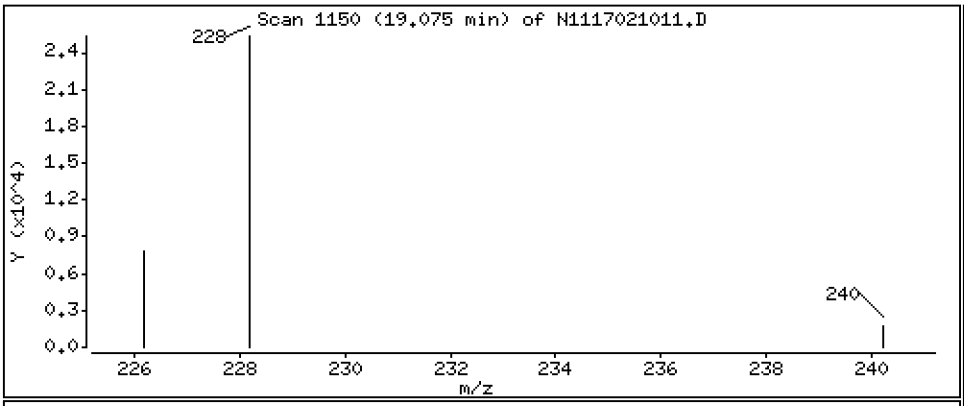
Operator: VTS

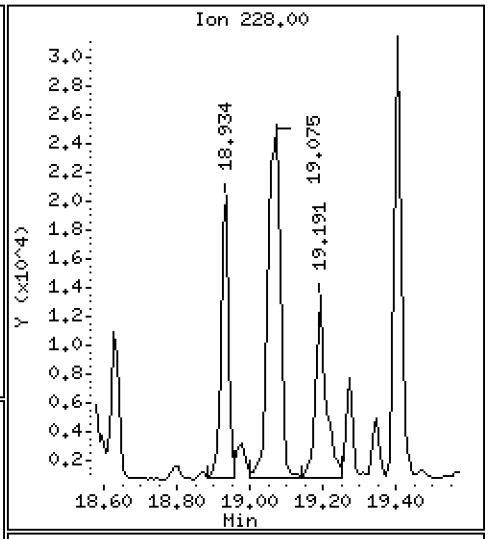
Column phase: Rxi-17Sil MS

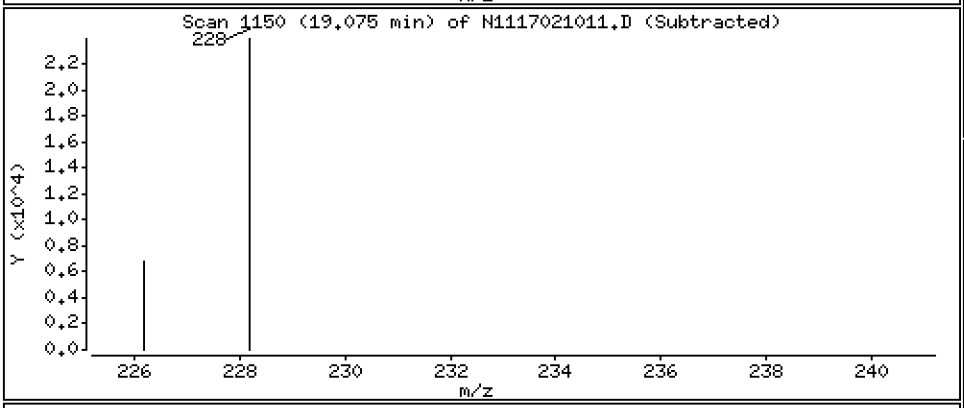
Column diameter: 0.25

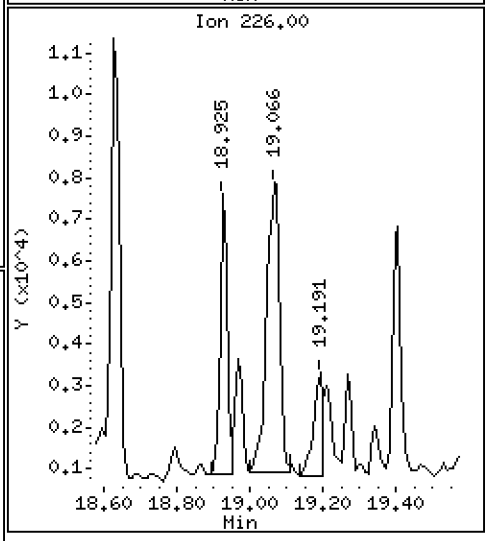
29 Chrysene

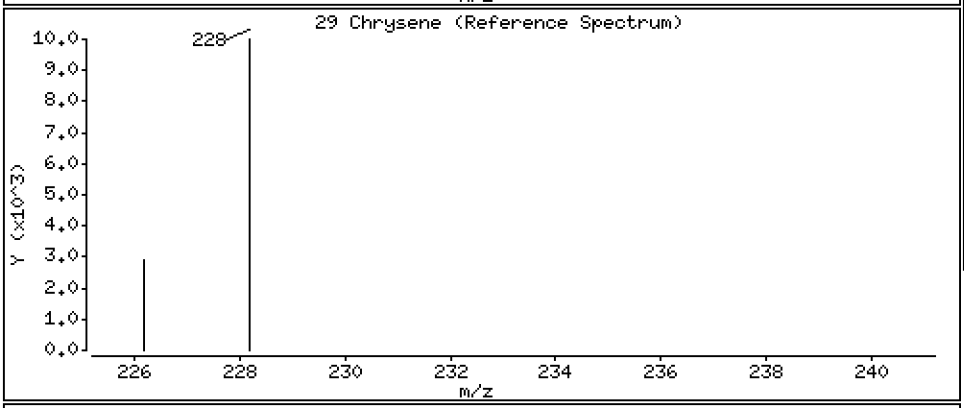
Concentration: 46.4 ng/mL

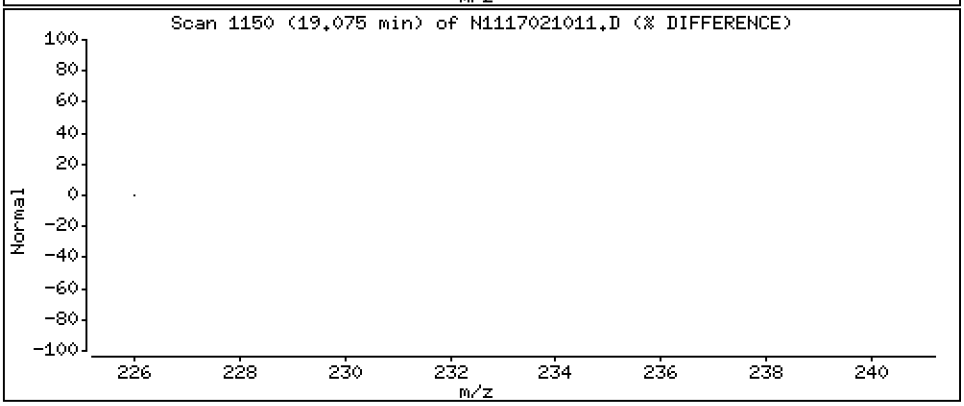












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Date : 10-FEB-2017 17:03

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-04

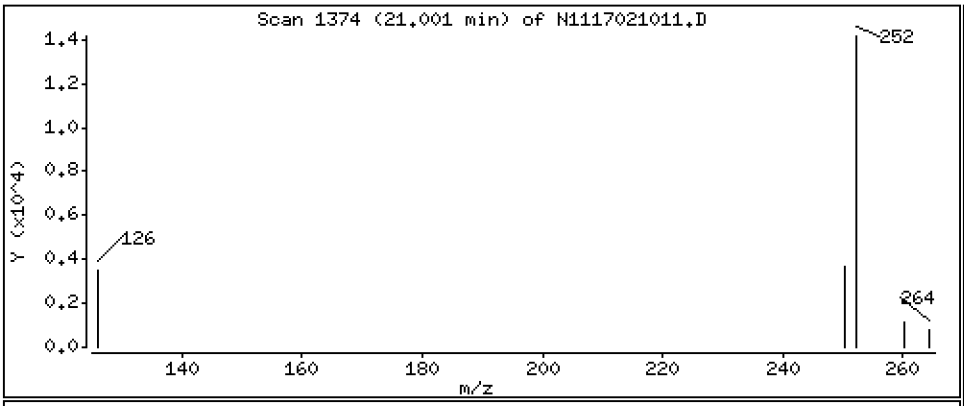
Operator: VTS

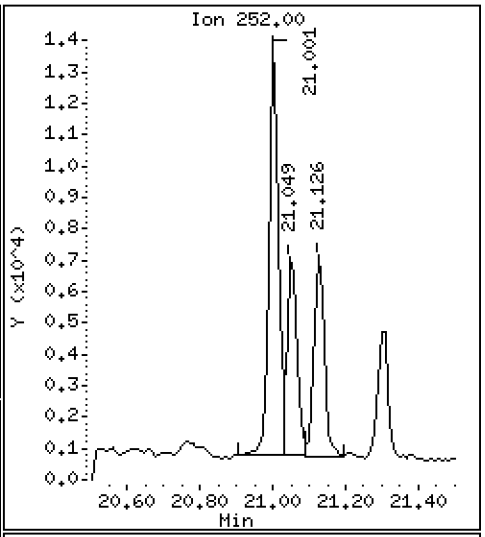
Column phase: Rxi-17Sil MS

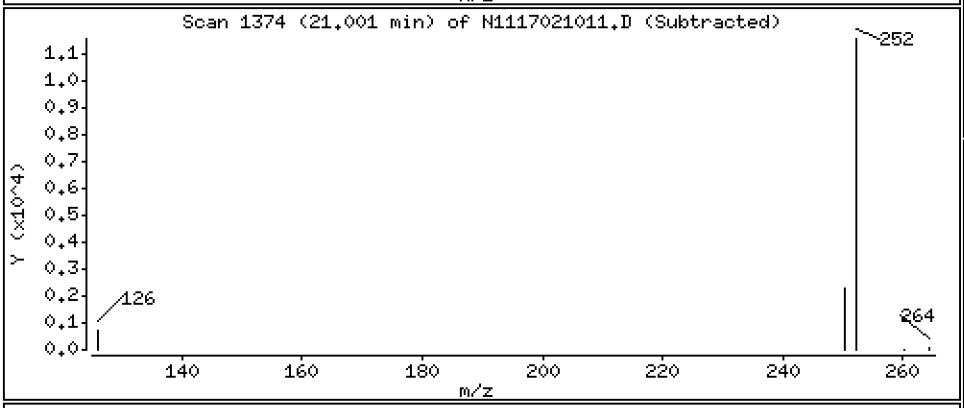
Column diameter: 0.25

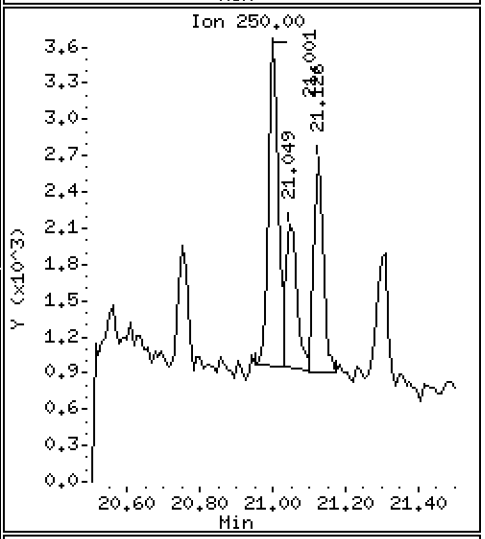
30 Benzo(b)fluoranthene

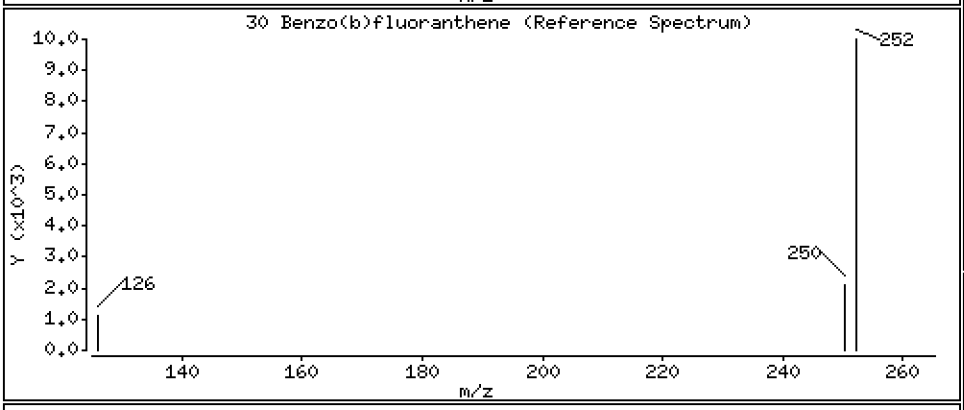
Concentration: 21.6 ng/mL

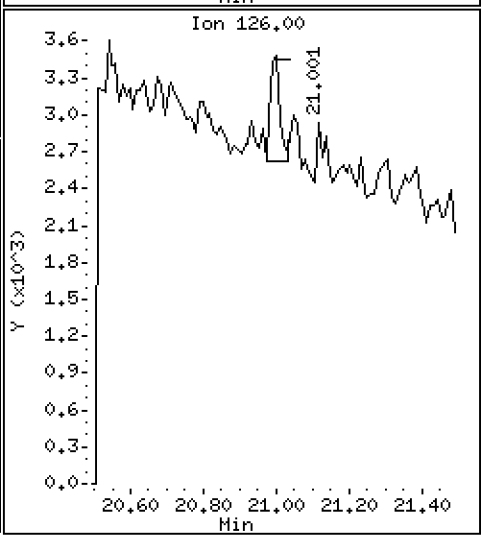


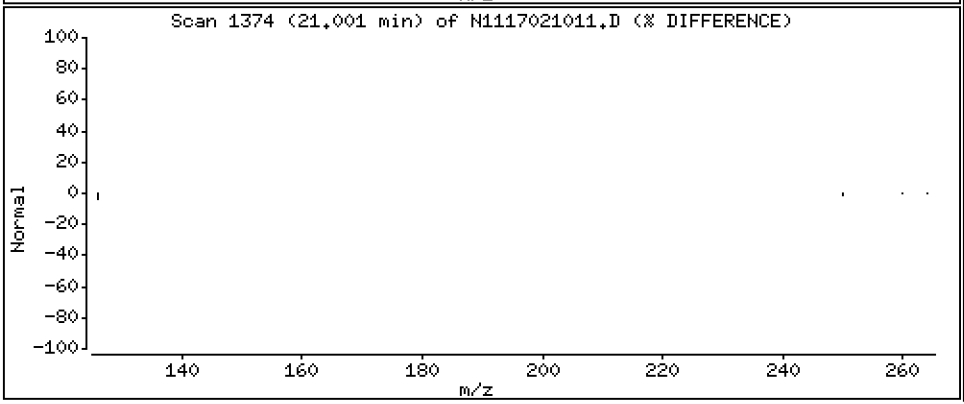












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021011.D

Date : 10-FEB-2017 17:03

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-04

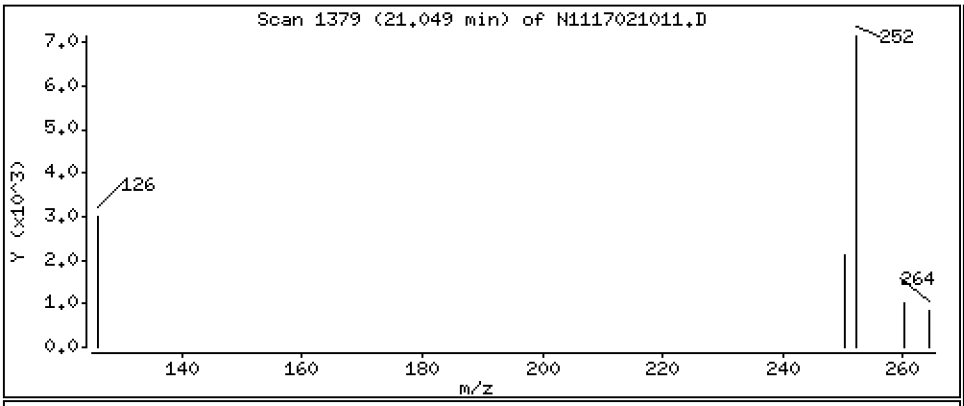
Operator: VTS

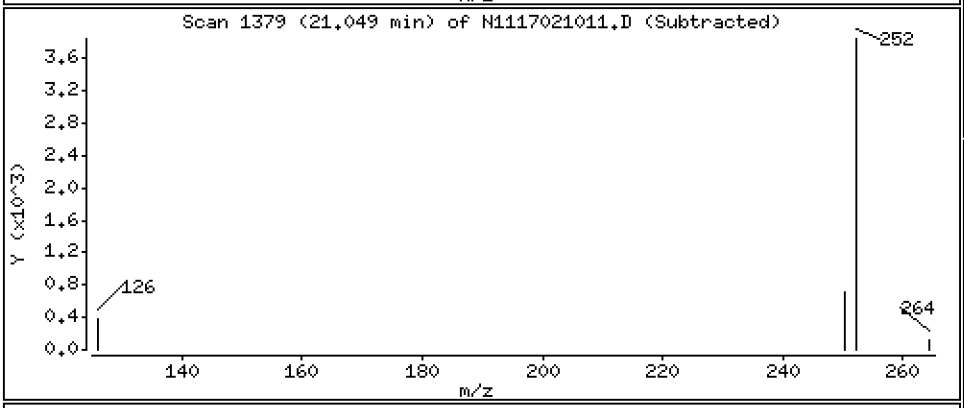
Column phase: Rxi-17Sil MS

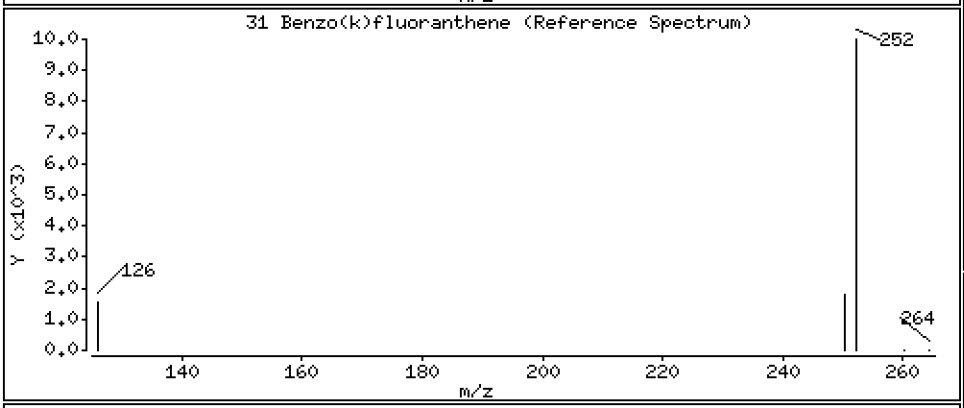
Column diameter: 0.25

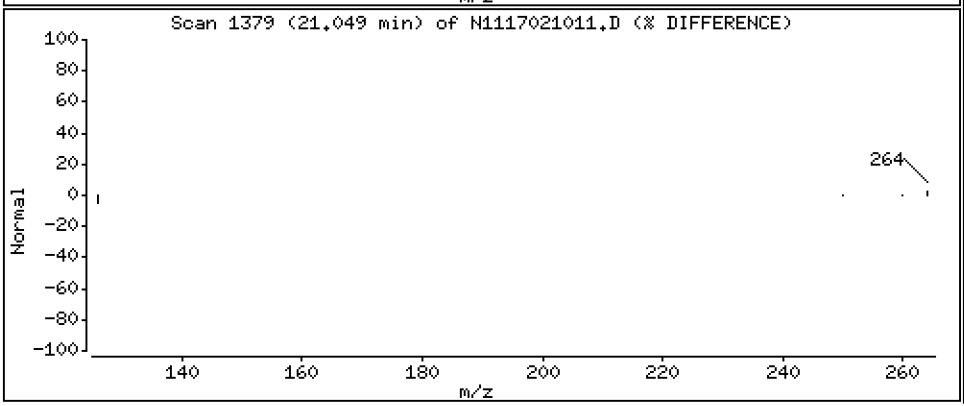
31 Benzo(k)fluoranthene

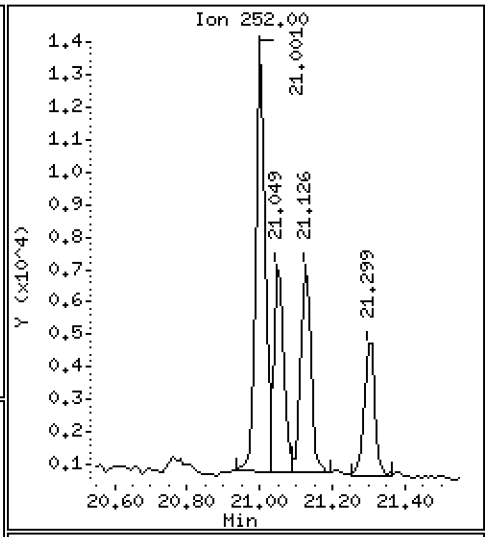
Concentration: 10.3 ng/mL

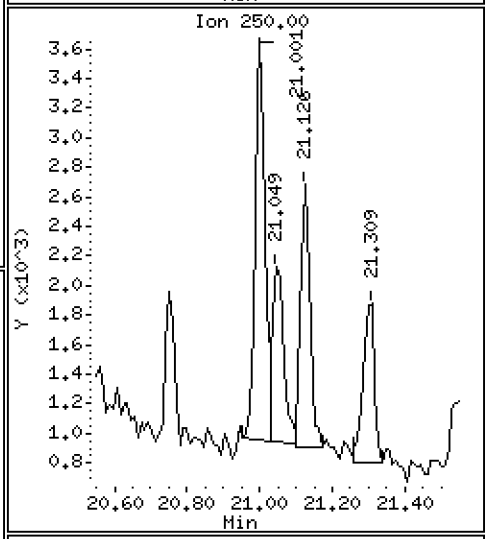


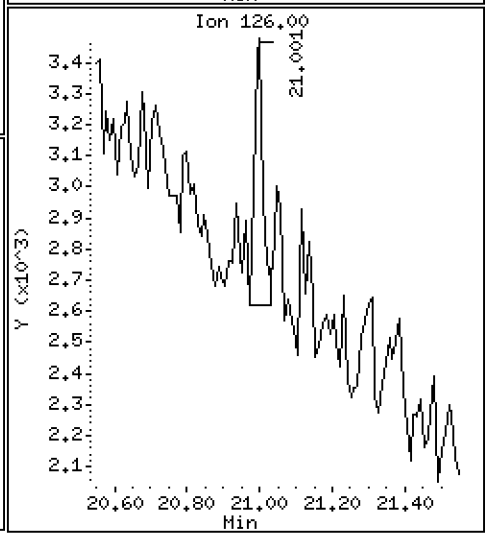












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021011.D

Date : 10-FEB-2017 17:03

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-04

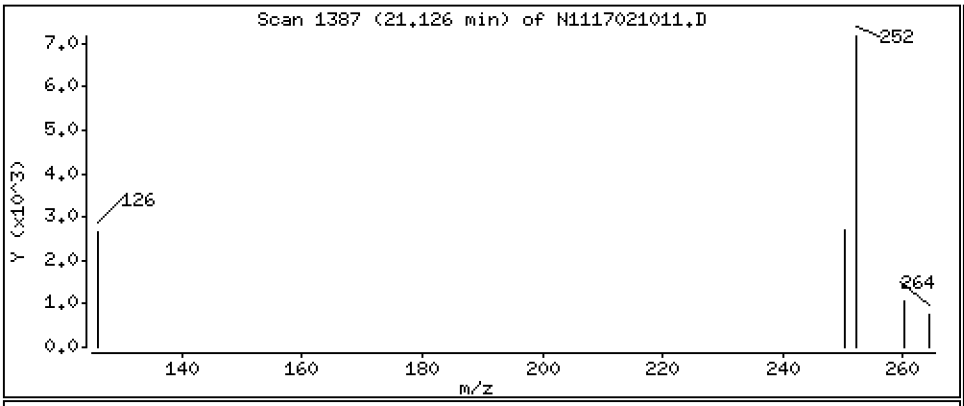
Operator: VTS

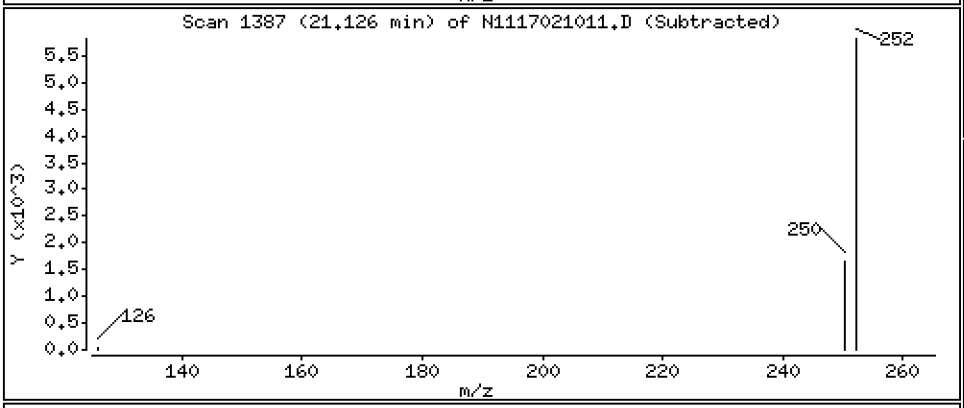
Column phase: Rxi-17Sil MS

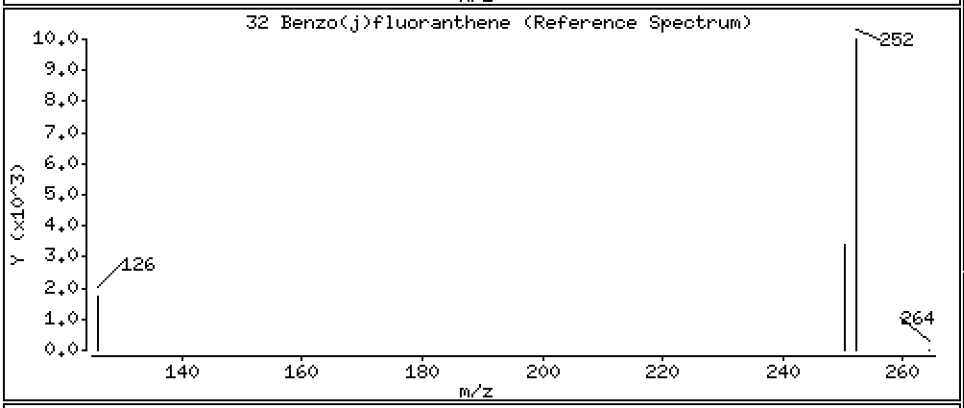
Column diameter: 0.25

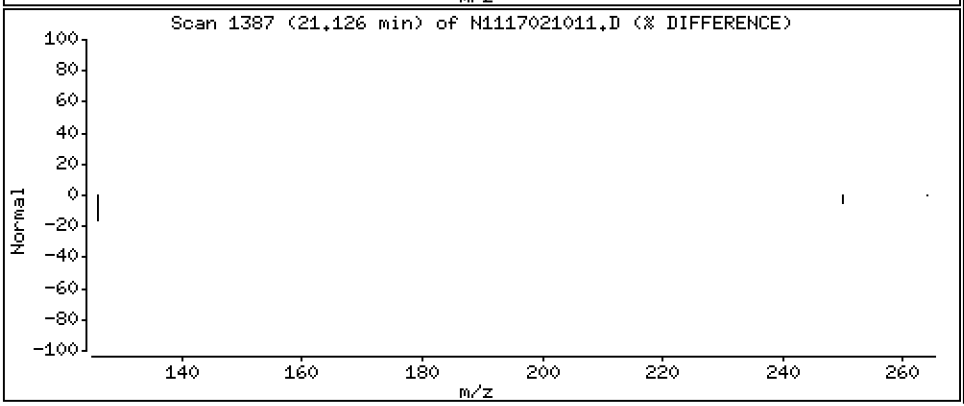
32 Benzo(j)fluoranthene

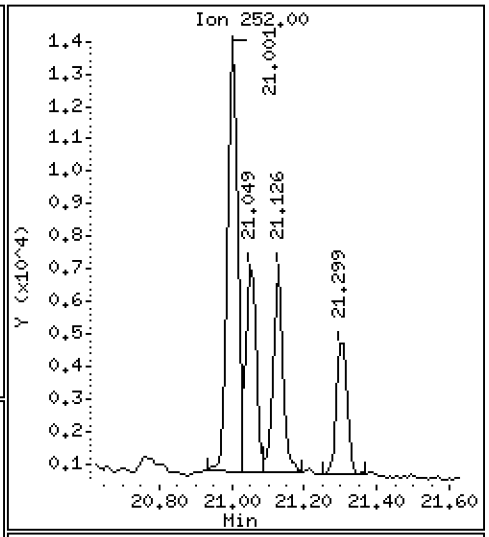
Concentration: 11.1 ng/mL

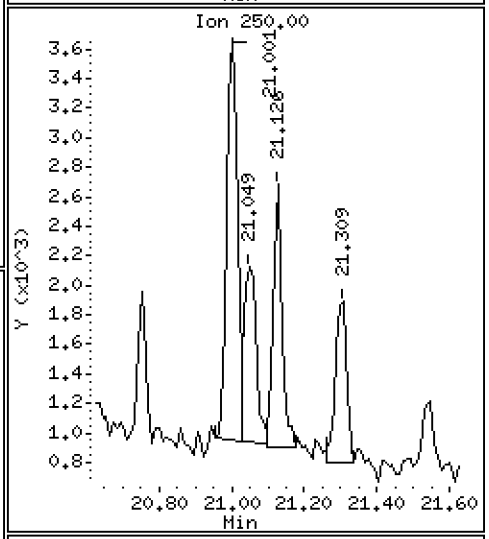


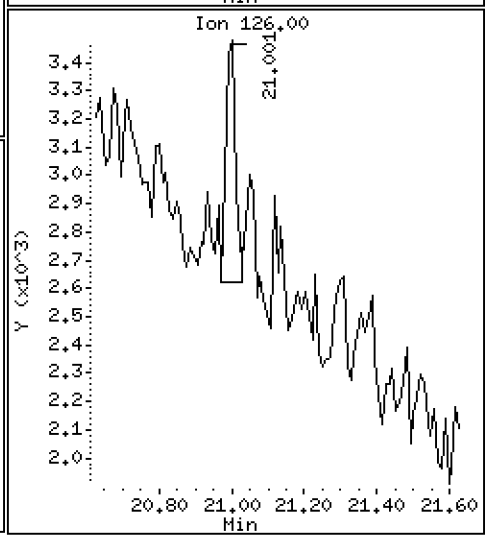












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021011.D

Date : 10-FEB-2017 17:03

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-04

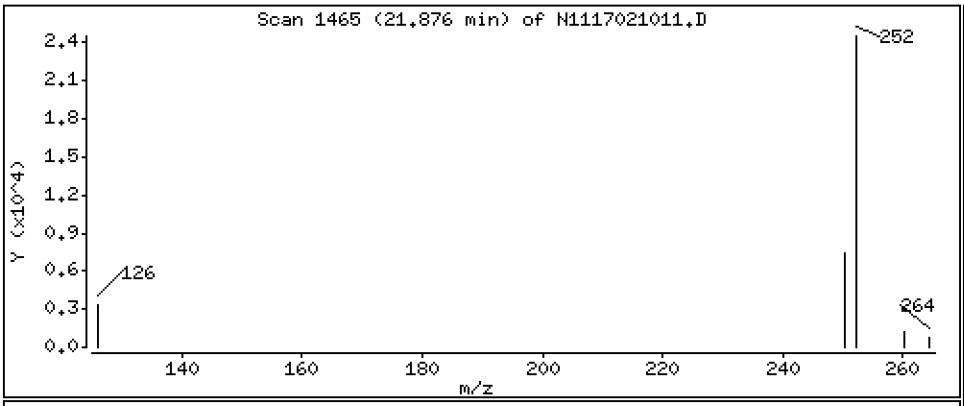
Operator: VTS

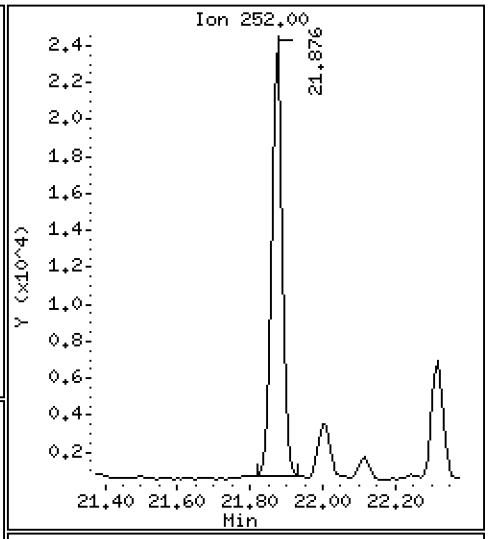
Column phase: Rxi-17Sil MS

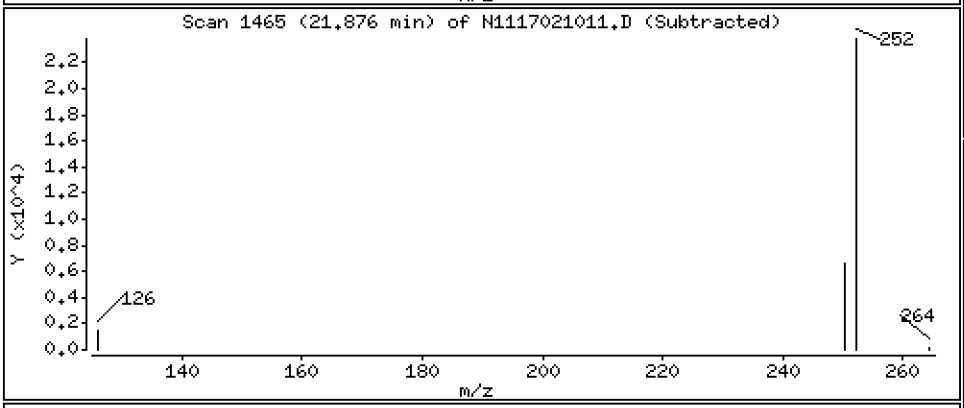
Column diameter: 0.25

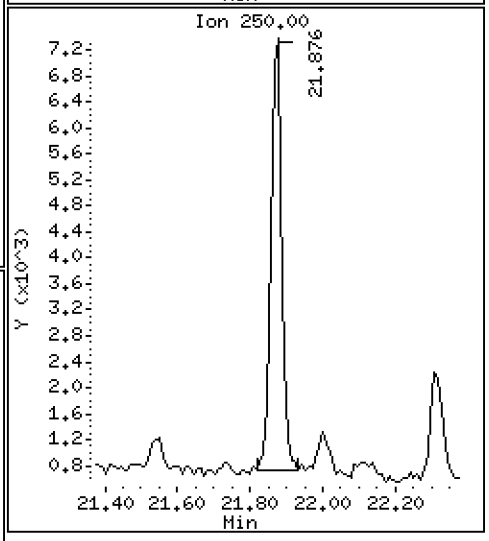
34 Benzo(e)pyrene

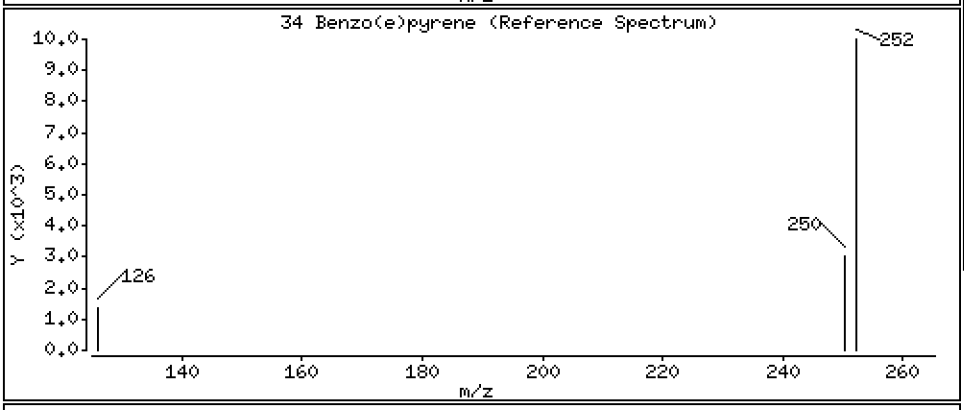
Concentration: 42.1 ng/mL

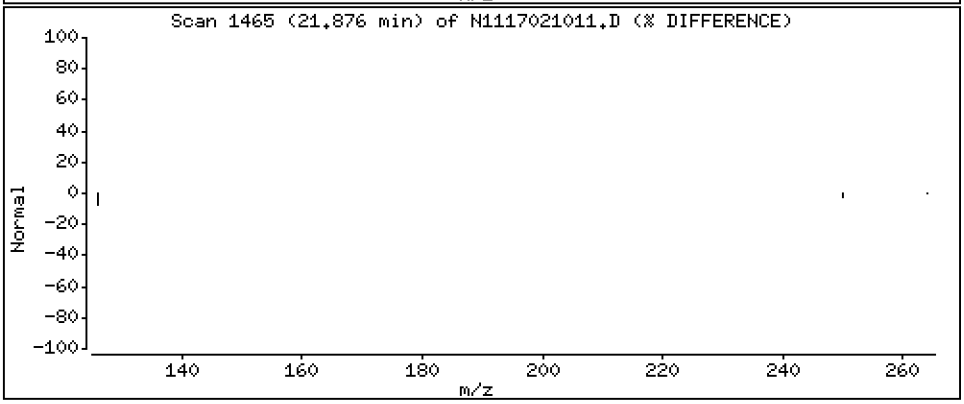












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021011.D

Date : 10-FEB-2017 17:03

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-04

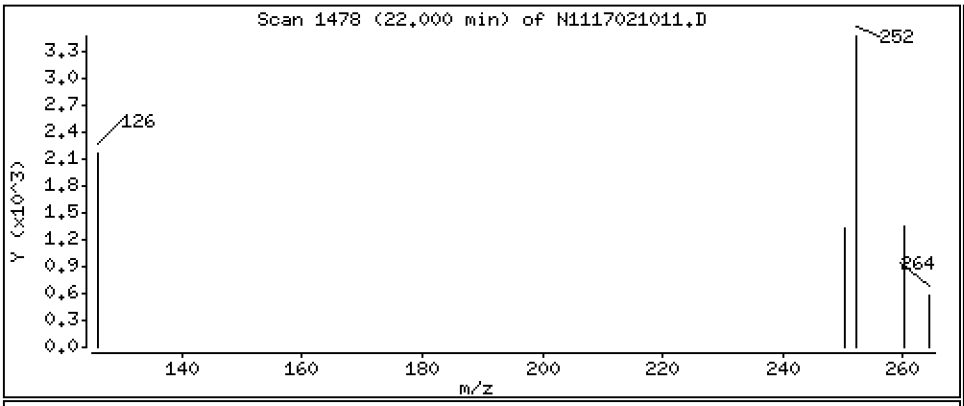
Operator: VTS

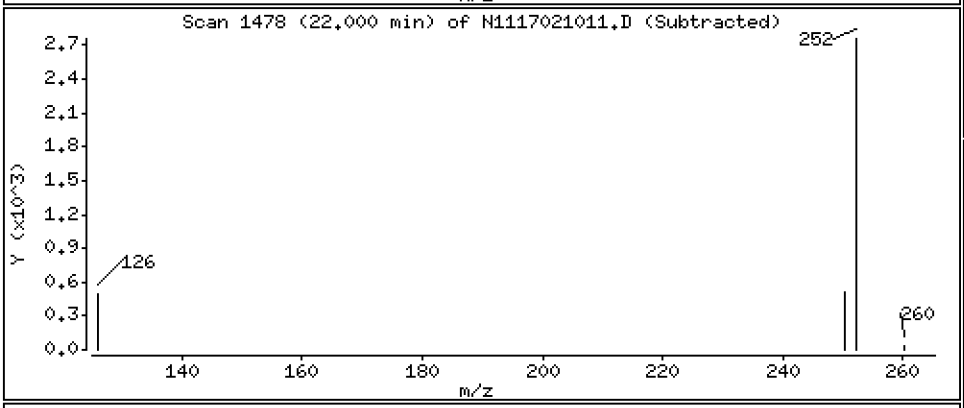
Column phase: Rxi-17Sil MS

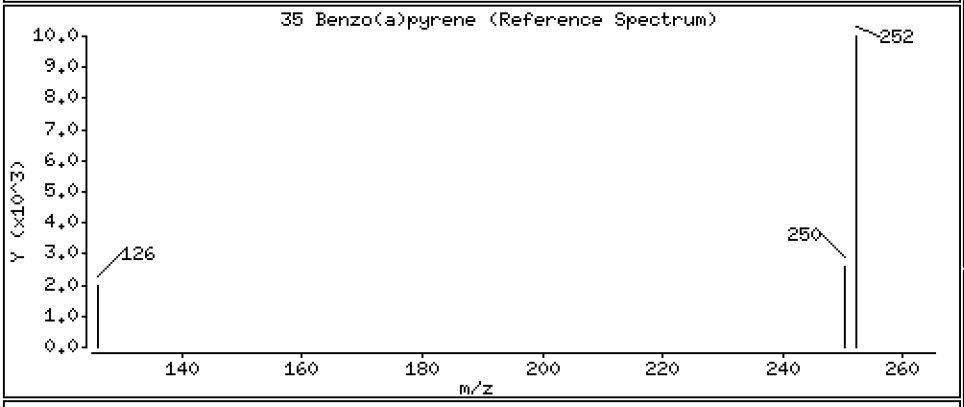
Column diameter: 0.25

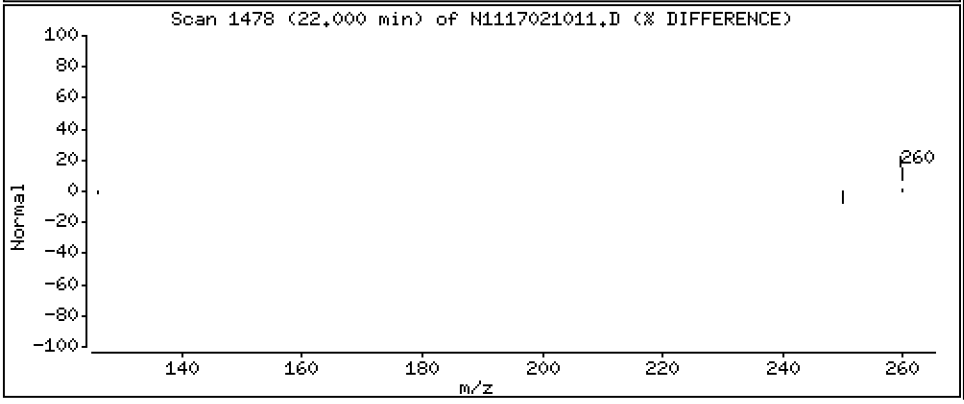
35 Benzo(a)pyrene

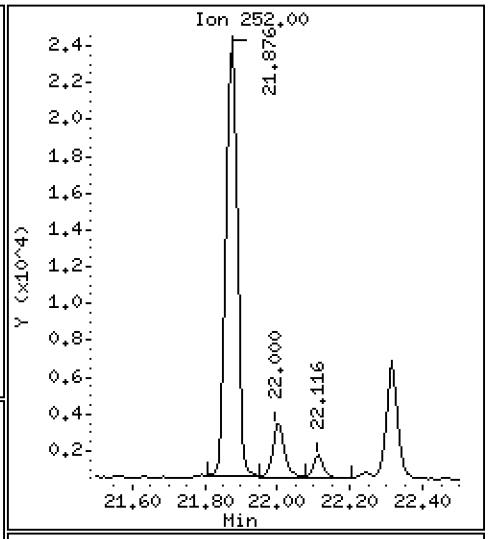
Concentration: 6.40 ng/mL

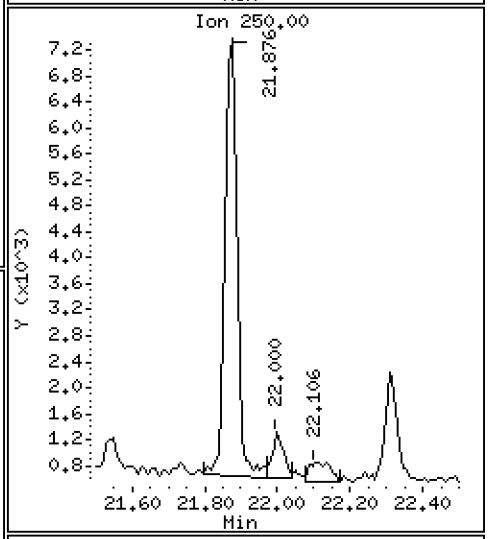


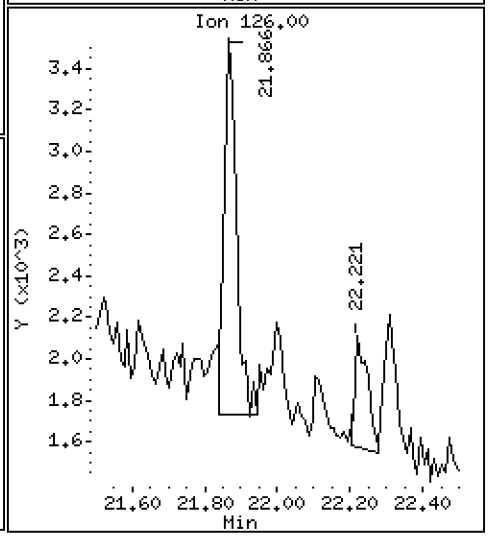












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Date : 10-FEB-2017 17:03

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-04

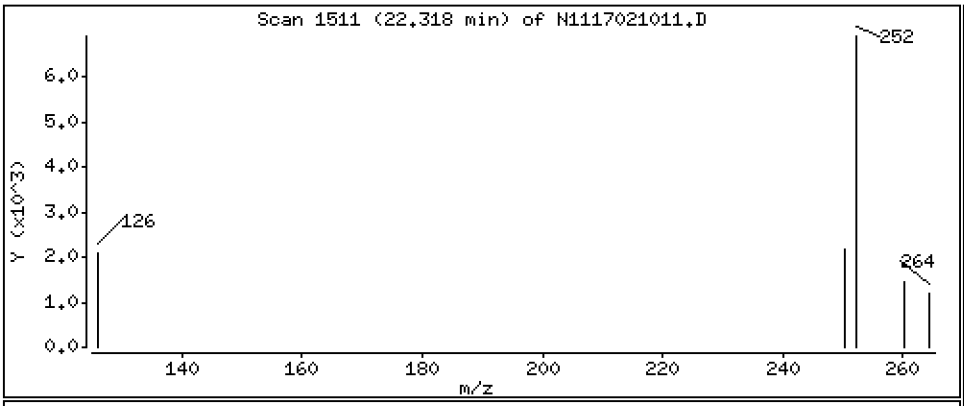
Operator: VTS

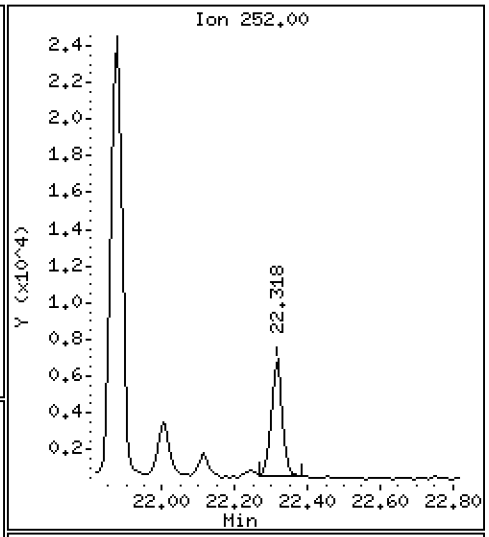
Column phase: Rxi-17Sil MS

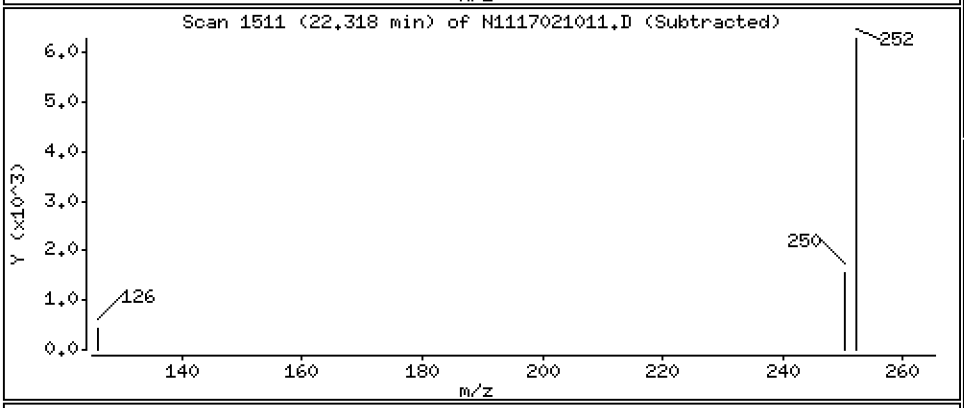
Column diameter: 0.25

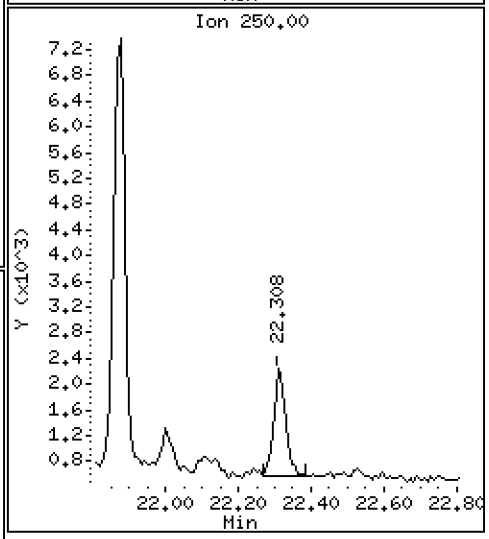
37 Perylene

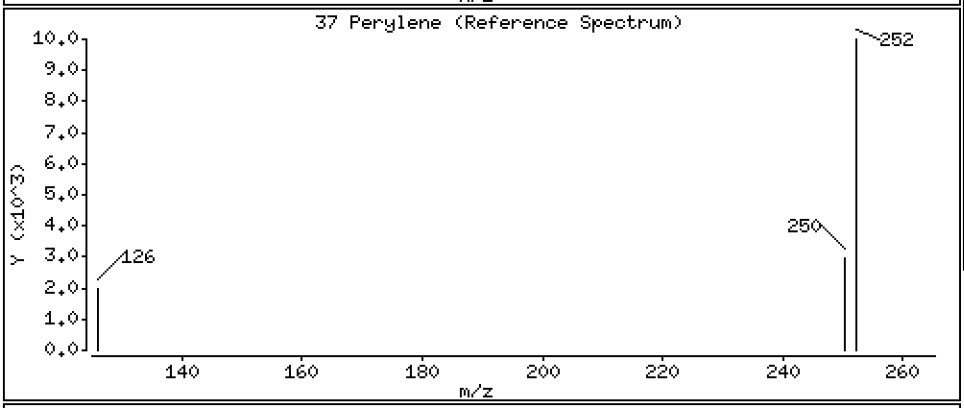
Concentration: 12.0 ng/mL

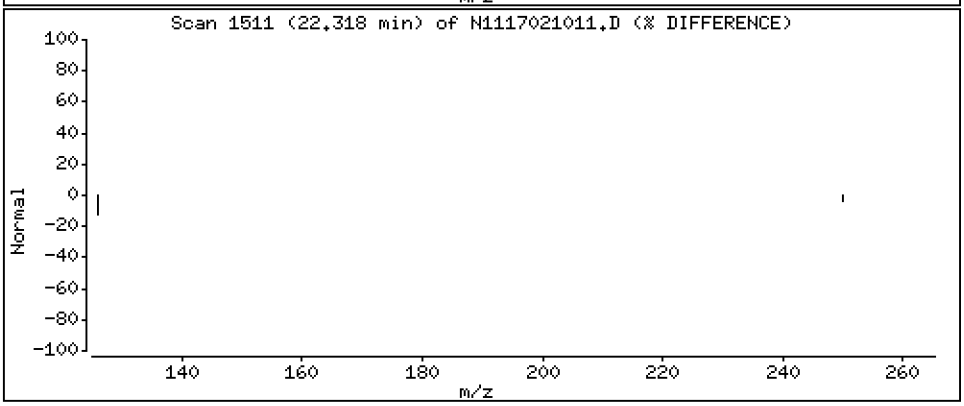












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021011.D

Date : 10-FEB-2017 17:03

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-04

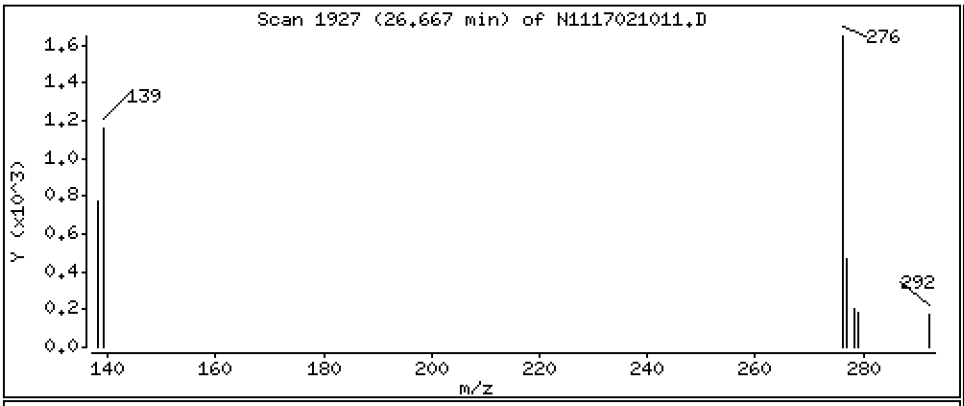
Operator: VTS

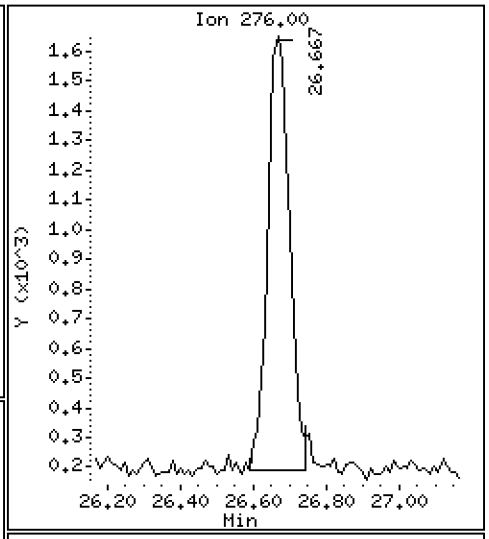
Column phase: Rxi-17Sil MS

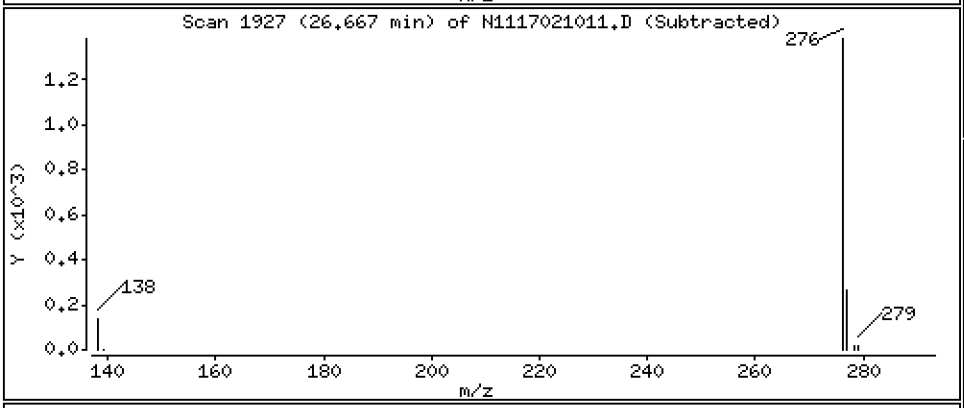
Column diameter: 0.25

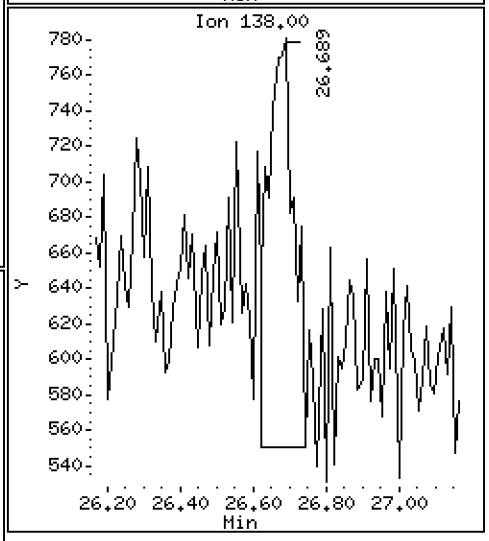
41 Benzo(g,h,i)perylene

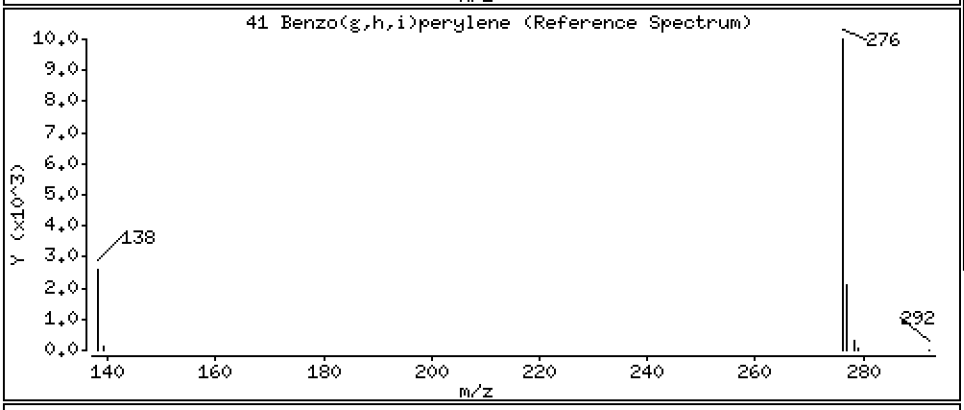
Concentration: 5.65 ng/mL

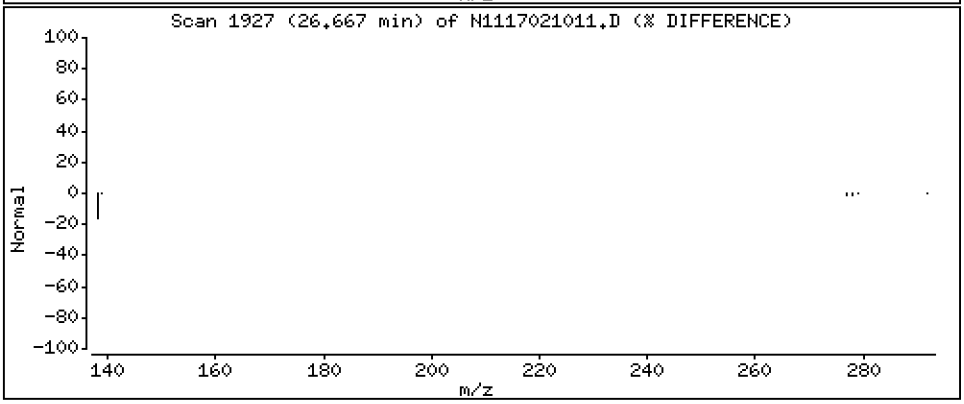












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20170210.b\N1117021011.D
Lab Smp Id: 17A0053-04
Inj Date : 10-FEB-2017 17:03 MS Autotune Date: 15-JAN-2015 15:59
Operator : VTS Inst ID: nt11.i
Smp Info : 17A0053-04
Misc Info :
Comment   :
Method   : \\target\share\chem3\nt11.i\20170210.b\LOWSIM.m
Meth Date : 11-Feb-2017 08:35 nt11.i Quant Type: ISTD
Cal Date : 31-DEC-2016 09:30 Cal File: N1116123104.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.509	8.526	(1.000)	214970	200.000	
	2 Naphthalene	128	8.545	8.554	(1.004)	8097	7.54748	7.55
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.498	9.508	(1.116)	171218	185.454	185
	5 2-Methylnaphthalene	142	9.550	9.561	(1.122)	6489	6.13709	6.14
	6 1-Methylnaphthalene	142	9.813	9.823	(1.153)	3997	3.75855	3.76
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	11.410	11.410	(0.987)	4336	3.32653	3.33
*	11 Acenaphthene-d10	164	11.555	11.564	(1.000)	145064	200.000	
	12 Acenaphthene	153	11.618	11.627	(1.005)	3991	4.65041	4.65(M)
	13 Dibenzofuran	168	11.822	11.822	(1.023)	8660	6.78810	6.79
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.454	12.454	(1.078)	9157	9.01615	9.02
	17 Dibenzothiophene	184	Compound Not Detected.					
*	18 Phenanthrene-d10	188	14.251	14.262	(1.000)	237830	200.000	
	19 Phenanthrene	178	14.293	14.293	(1.003)	71458	52.5531	52.6
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.346	14.356	(1.007)	20134	14.8504	14.9
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	15.298	15.307	(1.073)	5200	3.72913	3.73(MH)
$	24 Fluoranthene-d10	212	16.367	16.367	(1.148)	250981	198.690	199
	25 Fluoranthene	202	16.406	16.405	(1.151)	106272	68.9015	68.9
	26 Pyrene	202	16.905	16.915	(0.889)	123580	92.0559	92.1
	27 Benzo(a)anthracene	228	18.933	18.933	(0.995)	29040	23.3694	23.4
*	28 Chrysene-d12	240	19.024	19.024	(1.000)	206658	200.000	
	29 Chrysene	228	19.074	19.074	(1.003)	59172	46.4053	46.4
	30 Benzo(b)fluoranthene	252	21.001	21.001	(0.944)	25202	21.5792	21.6
	31 Benzo(k)fluoranthene	252	21.049	21.049	(0.946)	12917	10.2686	10.3
	32 Benzo(j)fluoranthene	252	21.126	21.125	(0.950)	12414	11.0712	11.1
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
34	Benzo(e)pyrene	252	21.875	21.875	(0.984)	49072	42.1231	42.1
35	Benzo(a)pyrene	252	22.000	22.000	(0.989)	6965	6.39721	6.40
* 36	Perylene-d12	264	22.240	22.240	(1.000)	216657	200.000	
37	Perylene	252	22.317	22.317	(1.003)	13684	12.0377	12.0
$ 38	Dibenzo(a,h)anthracene-d14	292	25.116	25.116	(1.129)	156699	226.480	226
39	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
40	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
41	Benzo(g,h,i)perylene	276	26.666	26.666	(1.199)	6029	5.64947	5.65

QC Flag Legend

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

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: N1117021011.D
Lab Smp Id: 17A0053-04
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20170210.b\LOWSIM.m
Misc Info:

Calibration Date: 10-FEB-2017
Calibration Time: 13:29
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	219654	109827	439308	214970	-2.13
11 Acenaphthene-d10	135248	67624	270496	145064	7.26
18 Phenanthrene-d10	257021	128511	514042	237830	-7.47
28 Chrysene-d12	259511	129756	519022	206658	-20.37
36 Perylene-d12	257535	128768	515070	216657	-15.87

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.53	8.03	9.03	8.51	-0.21
11 Acenaphthene-d10	11.56	11.06	12.06	11.56	-0.08
18 Phenanthrene-d10	14.26	13.76	14.76	14.25	-0.07
28 Chrysene-d12	19.02	18.52	19.52	19.02	0.00
36 Perylene-d12	22.24	21.74	22.74	22.24	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1117021011.D

Lab ID: 17A0053-04
nt11.i, 20170210.b\LOWSIM.m,   10-FEB-2017 17:03

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

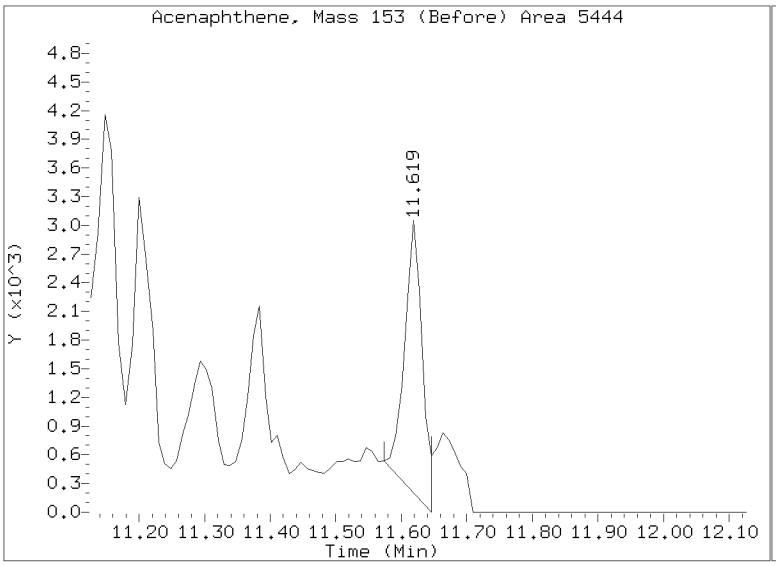
NONE

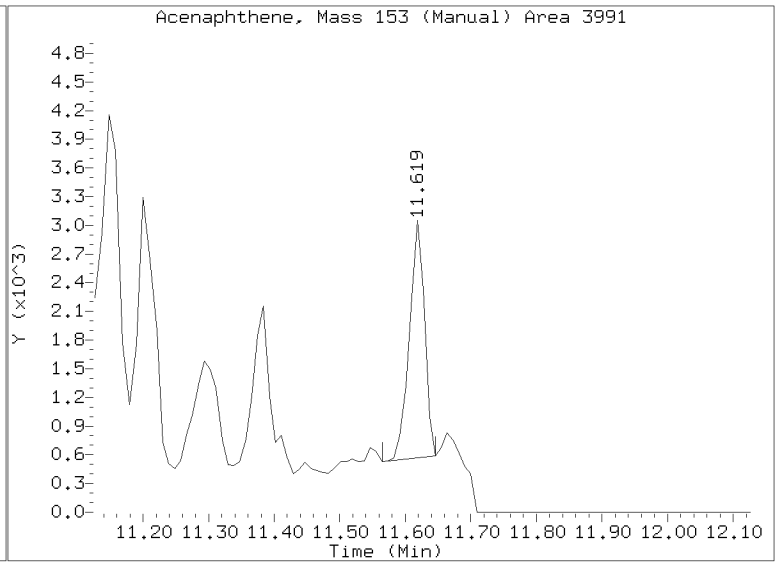
On Column LOD for nt11.i, 20170210.b\LOWSIM.m, allpna.sub = 3.0000

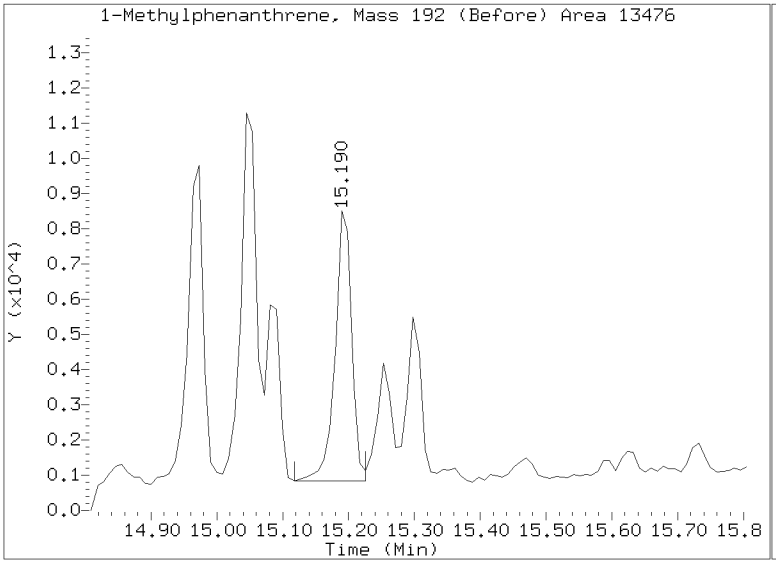
Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

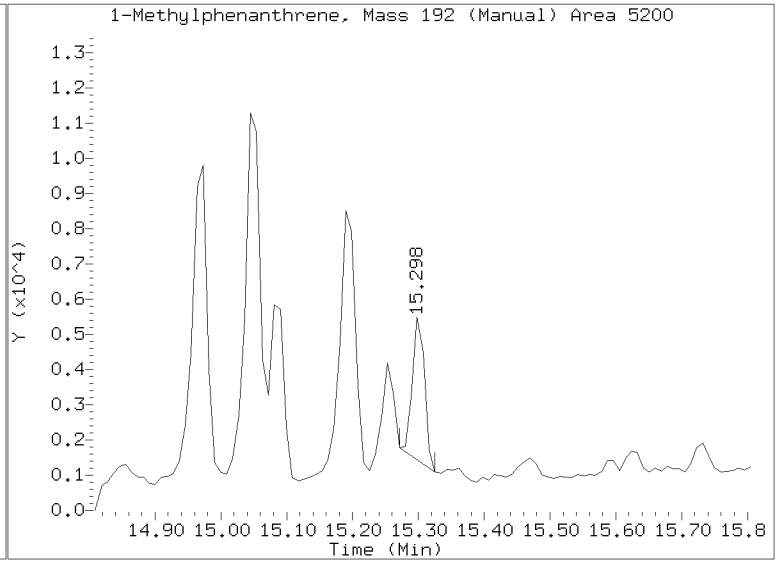
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt11.i/20170210.b/N1117021011.D
Injection Date: 10-FEB-2017 17:03
Lab ID:17A0053-04 Client ID:
Report Date: 02/11/2017 08:35









PG-SMA2-2-MUS-170105

Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270D-SIM

Polycyclic Aromatic Hydrocarbons (PAH) low level

Laboratory:	Analytical Resources, Inc.			SDG:	17A0053
Client:	Anchor QEA, LLC			Project:	Port Gamble Shellfish Monitoring
Matrix:	Tissue	Laboratory ID:	17A0053-05	File ID:	N1117021012.D
Sampled:	01/05/17 12:50	Prepared:	01/31/17 13:45	Analyzed:	02/10/17 17:39
Solids:		Preparation:	EPA 3550C-Mod (Ultrasonic	Initial/Final:	10.18 g / 0.5 mL
Batch:	BFA0647	Sequence:	SFB0130	Calibration:	ZL00083
Instrument:	NT11	Column:	RXi-17Sil-MS		

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg)	Q	DL	RL
91-20-3	Naphthalene	1	0.59	U	0.49	0.59
91-57-6	2-Methylnaphthalene	1	0.49	U	0.49	0.49
208-96-8	Acenaphthylene	1	0.49	U	0.49	0.49
83-32-9	Acenaphthene	1	0.49	U	0.49	0.49
86-73-7	Fluorene	1	0.50		0.49	0.49
85-01-8	Phenanthrene	1	2.80		0.49	0.49
120-12-7	Anthracene	1	0.86		0.49	0.49
206-44-0	Fluoranthene	1	4.06		0.49	0.49
129-00-0	Pyrene	1	4.94		0.49	0.49
56-55-3	Benzo(a)anthracene	1	1.37		0.49	0.49
218-01-9	Chrysene	1	2.60		0.49	0.49
205-99-2	Benzo(b)fluoranthene	1	1.53		0.49	0.49
207-08-9	Benzo(k)fluoranthene	1	0.77		0.49	0.49
50-32-8	Benzo(a)pyrene	1	0.49	U	0.49	0.49
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.49	U	0.49	0.49
53-70-3	Dibenzo(a,h)anthracene	1	0.49	U	0.49	0.49
191-24-2	Benzo(g,h,i)perylene	1	0.49	U	0.49	0.49
1985-5-0	Perylene	1	0.74		0.49	0.49
197-97-2	Benzo(e)pyrene	1	2.75		0.49	0.49

SURROGATES	ADDED (ug/kg)	CONC (ug/kg)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	14.735	8.41	57.0	30 - 160	
Dibenzo[a,h]anthracene-d14	14.735	9.98	67.7	30 - 160	
Fluoranthene-d10	14.735	9.02	61.2	30 - 160	

Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021012.D

Date : 10-FEB-2017 17:39

Client ID:

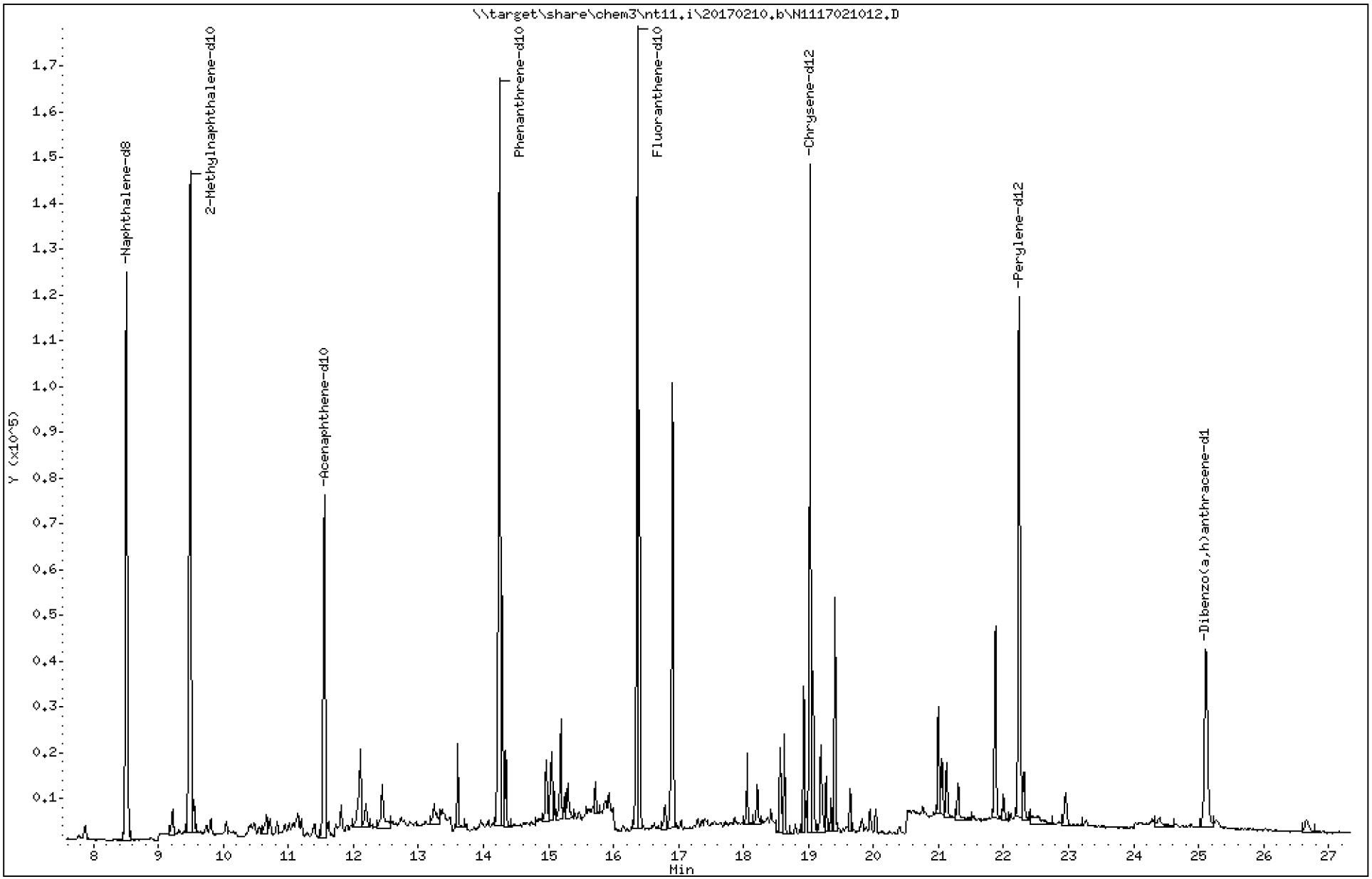
Sample Info: 17A0053-05

Instrument: nt11.i

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021012.D

Date : 10-FEB-2017 17:39

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-05

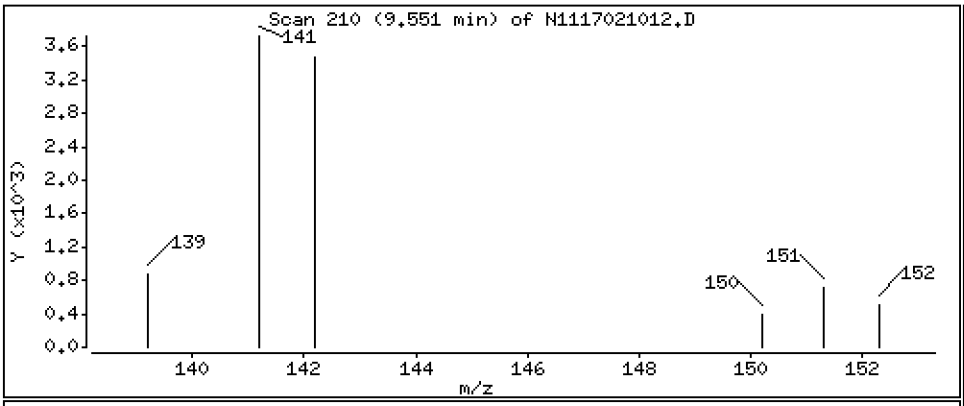
Operator: VTS

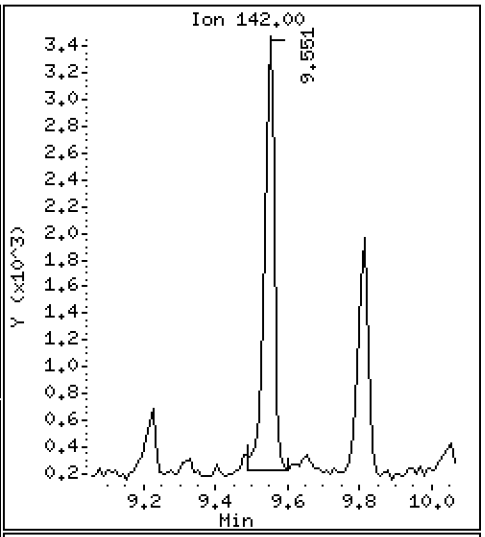
Column phase: Rxi-17Sil MS

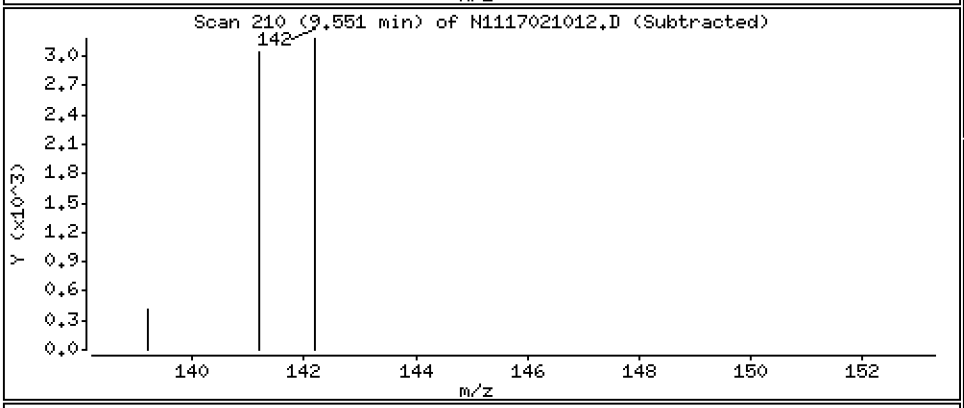
Column diameter: 0.25

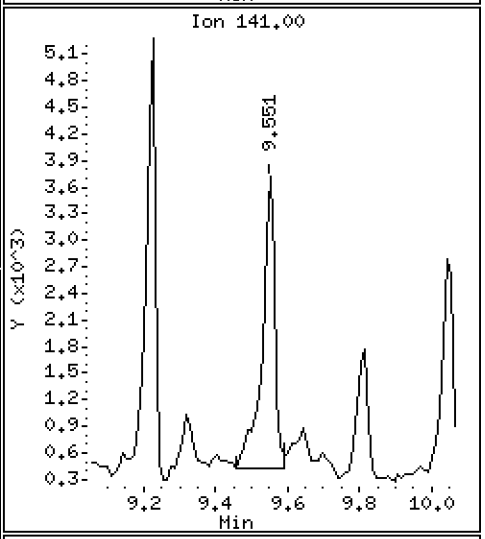
5 2-Methylnaphthalene

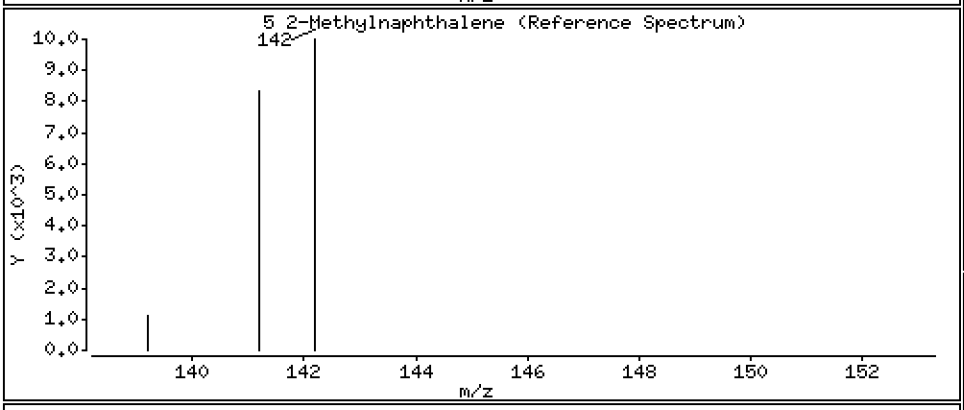
Concentration: 6.14 ng/mL

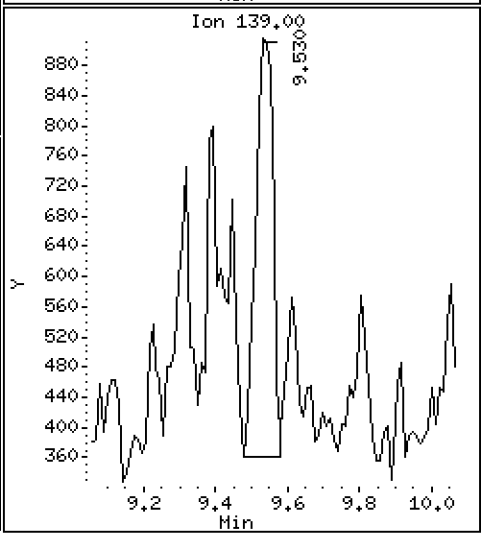


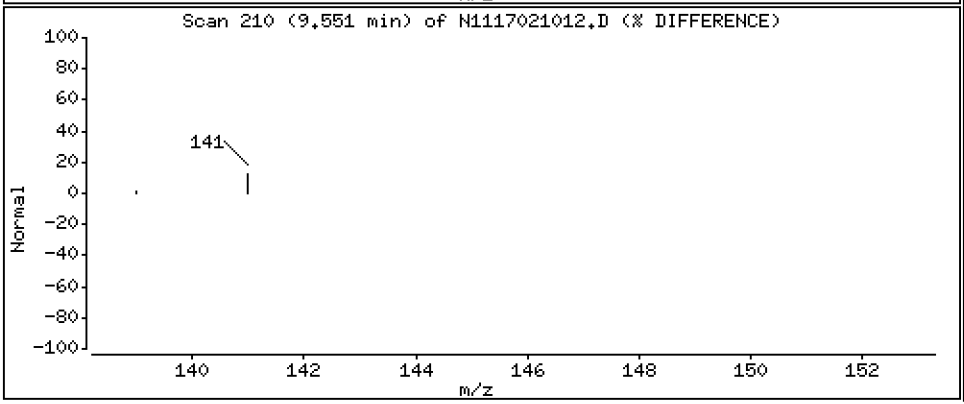












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021012.D

Date : 10-FEB-2017 17:39

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-05

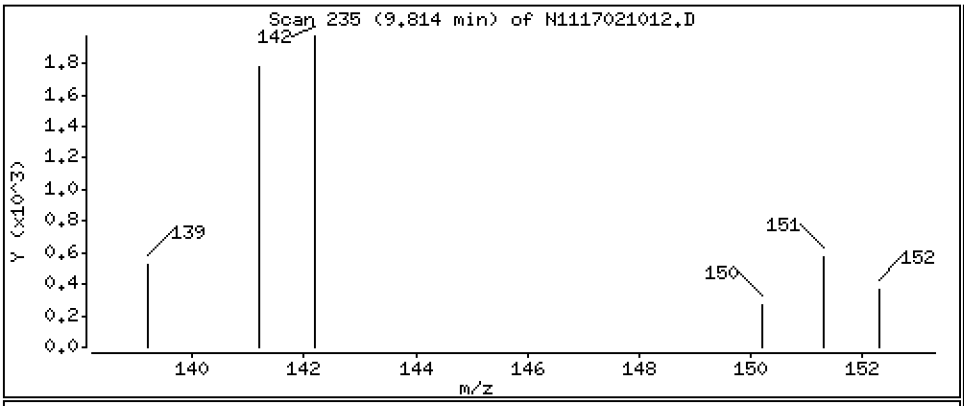
Operator: VTS

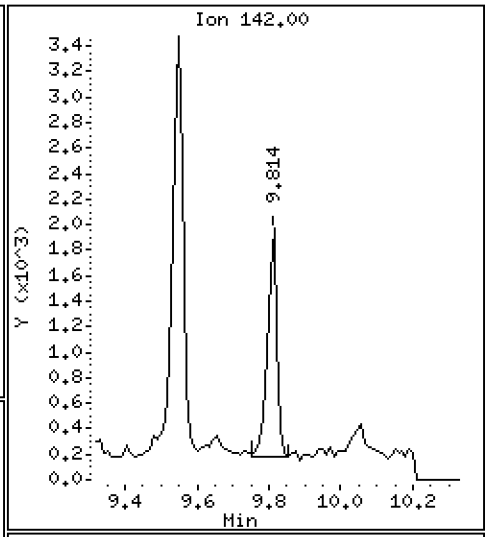
Column phase: Rxi-17Sil MS

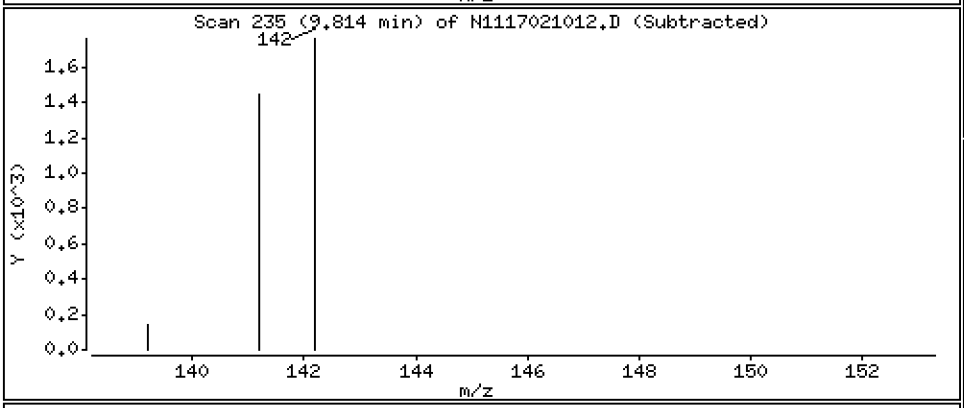
Column diameter: 0.25

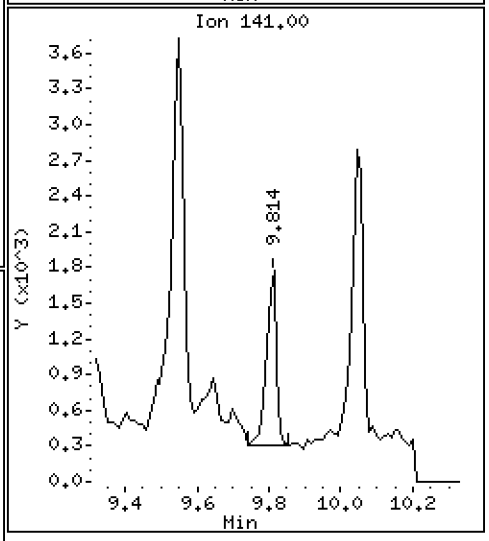
6 1-Methylnaphthalene

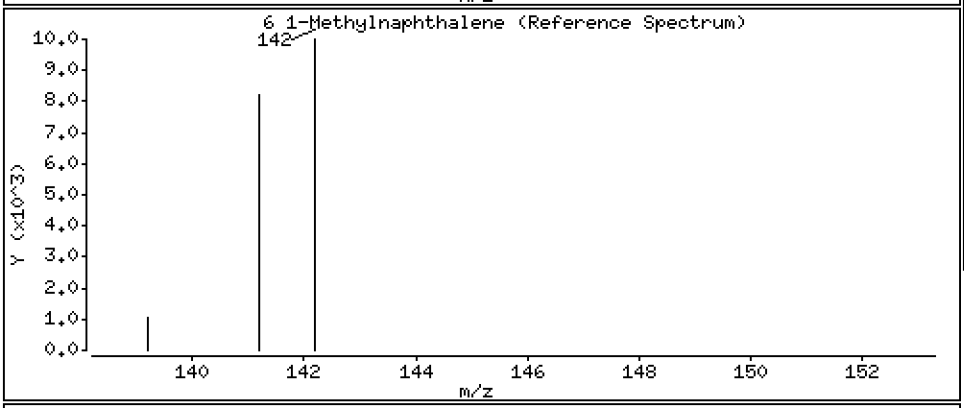
Concentration: 3.33 ng/mL

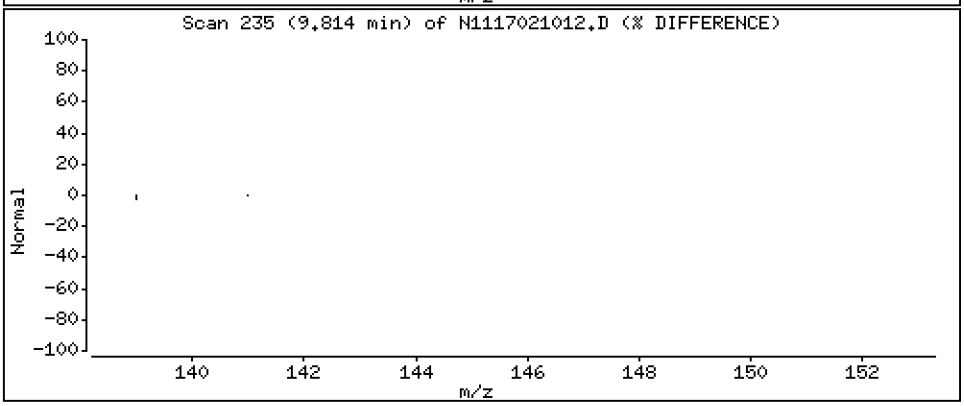












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Date : 10-FEB-2017 17:39

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-05

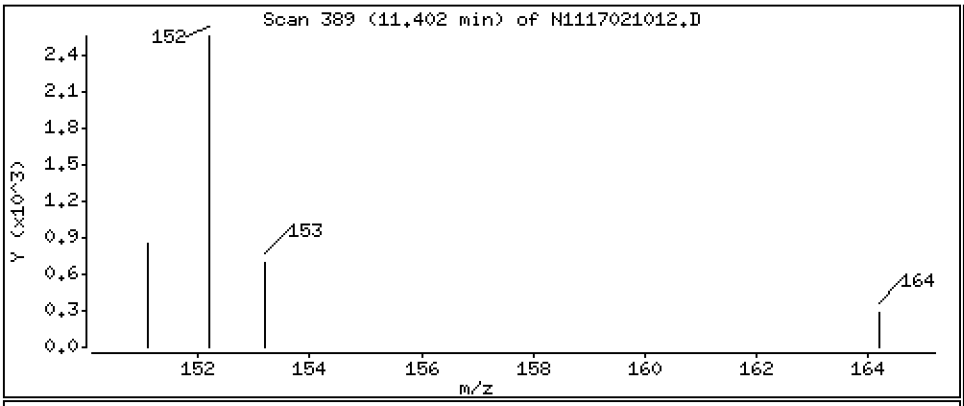
Operator: VTS

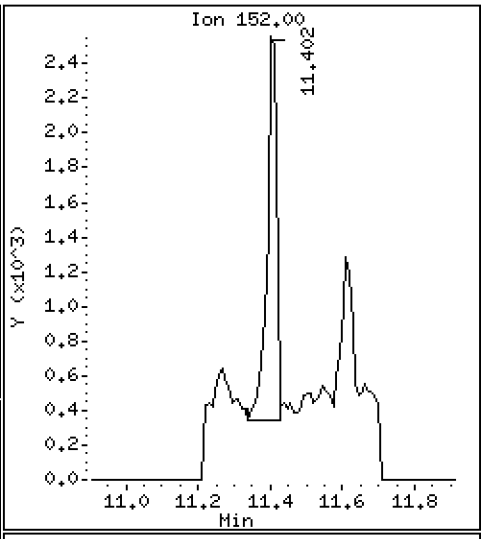
Column phase: Rxi-17Sil MS

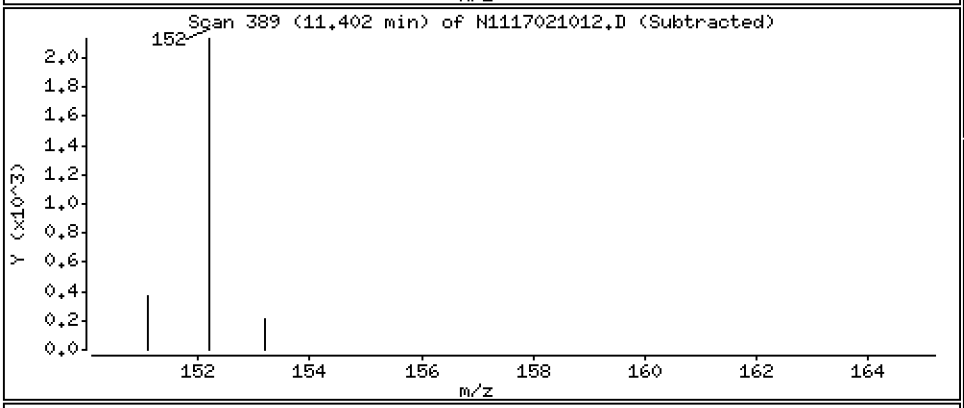
Column diameter: 0.25

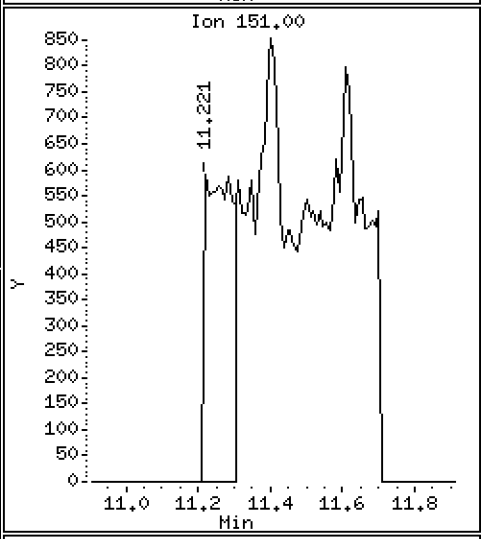
10 Acenaphthylene

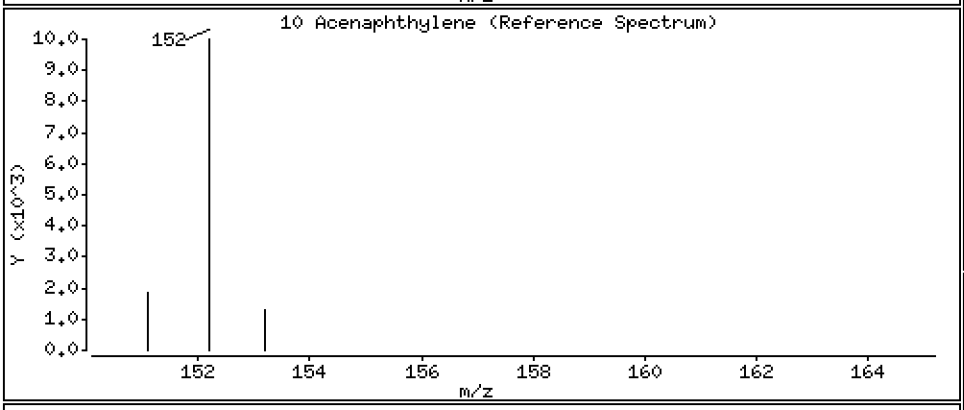
Concentration: 3.13 ng/mL

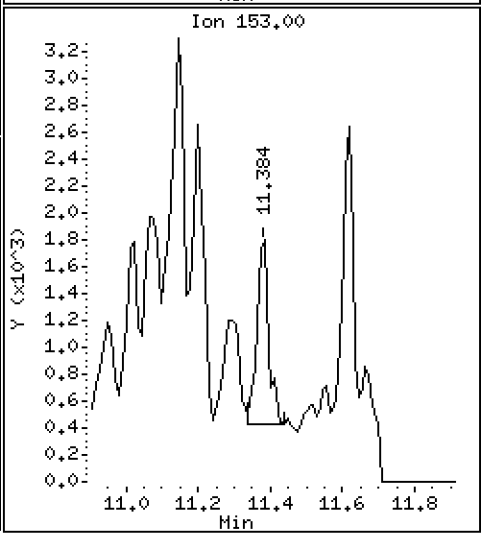


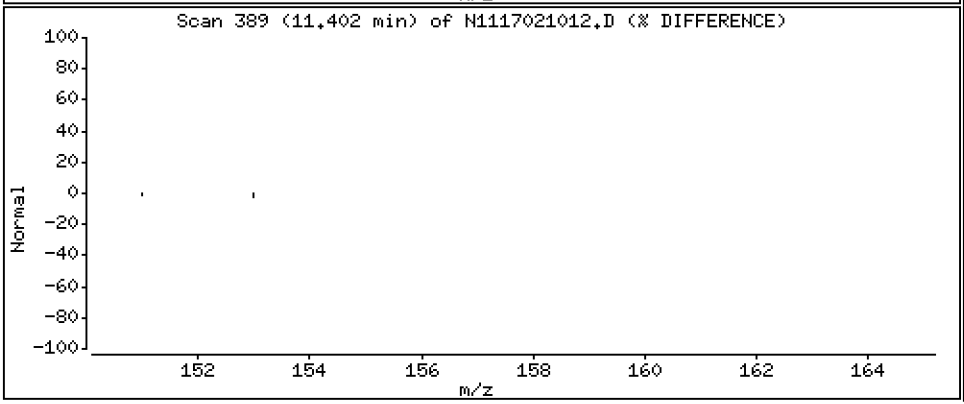












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Date : 10-FEB-2017 17:39

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-05

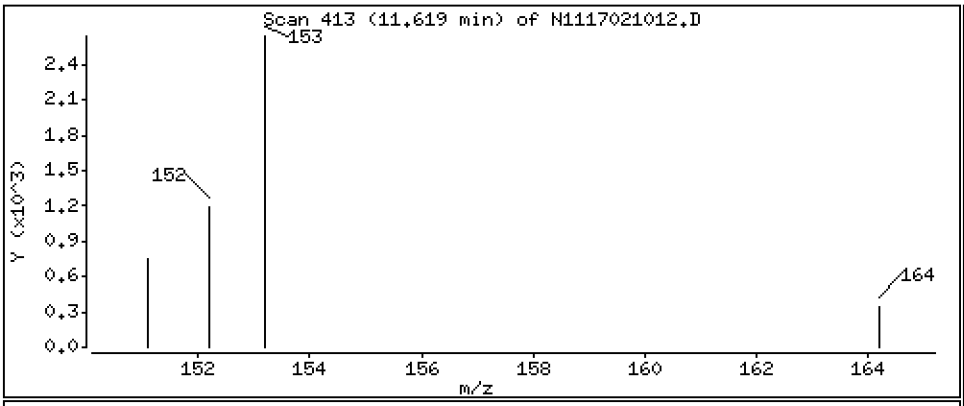
Operator: VTS

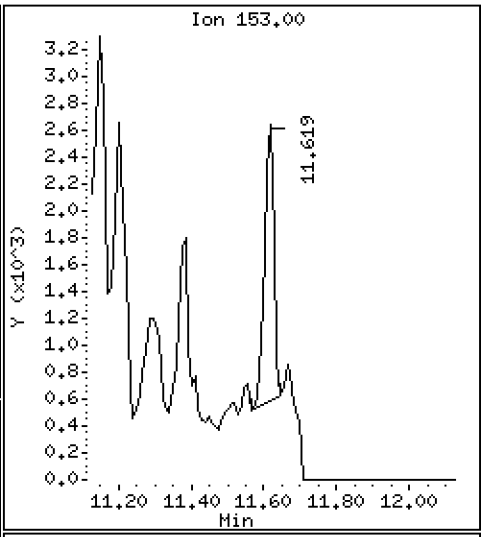
Column phase: Rxi-17Sil MS

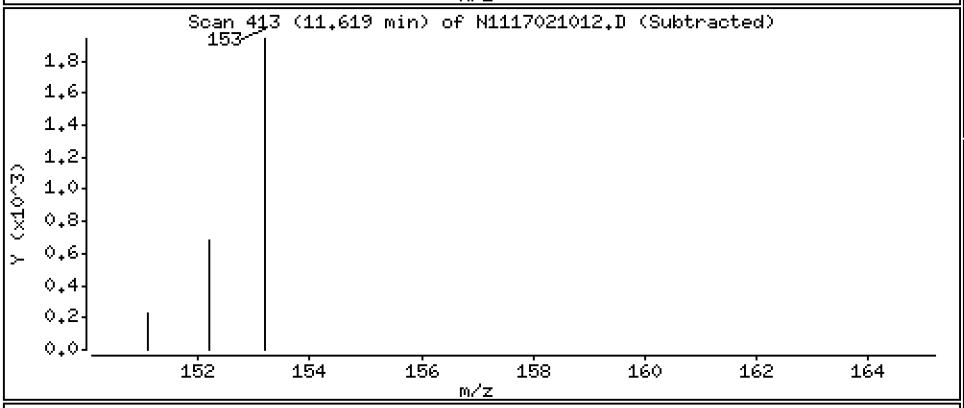
Column diameter: 0.25

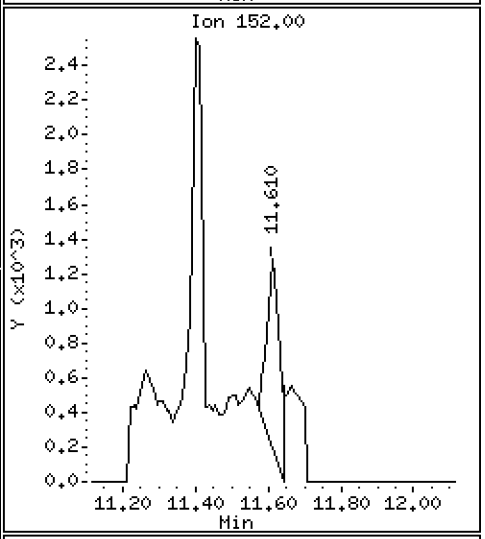
12 Acenaphthene

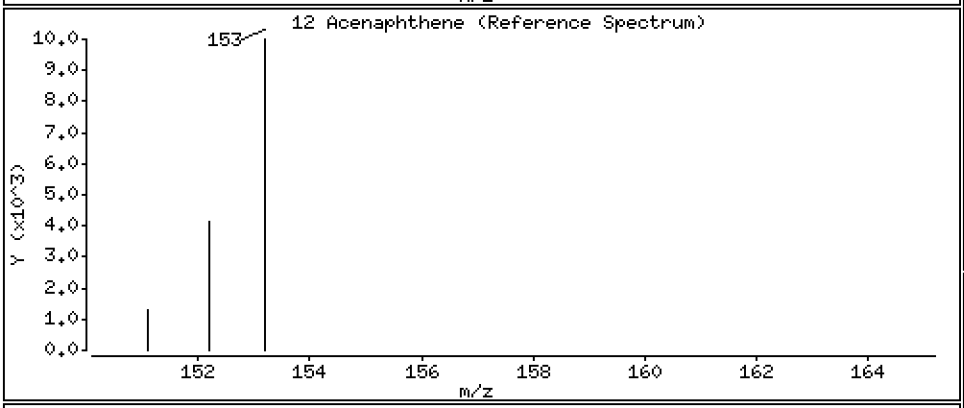
Concentration: 4.29 ng/mL

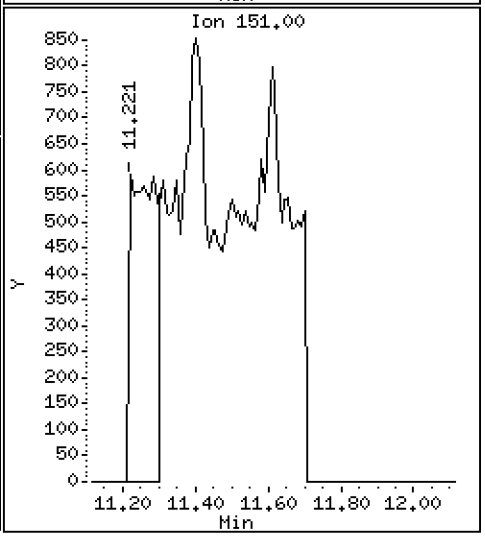


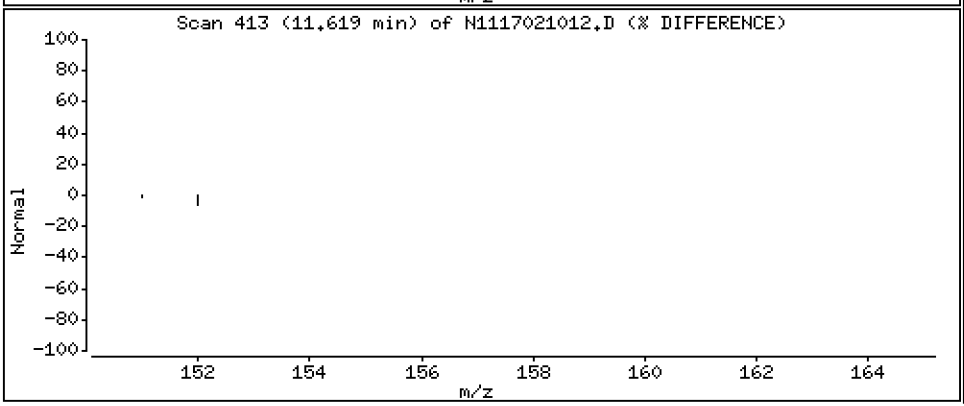












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Date : 10-FEB-2017 17:39

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-05

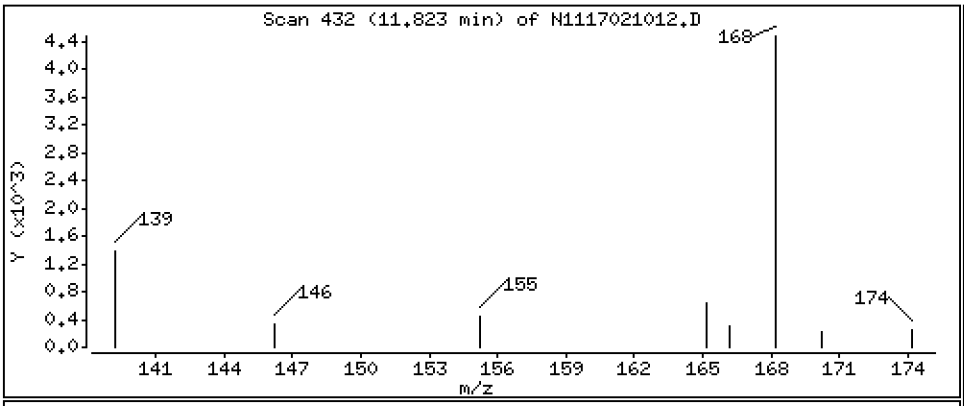
Operator: VTS

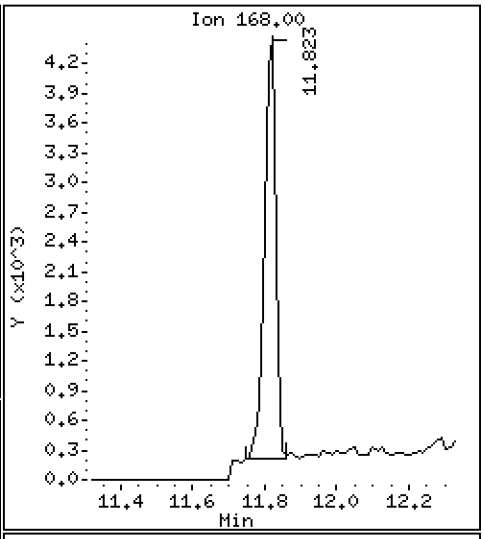
Column phase: Rxi-17Sil MS

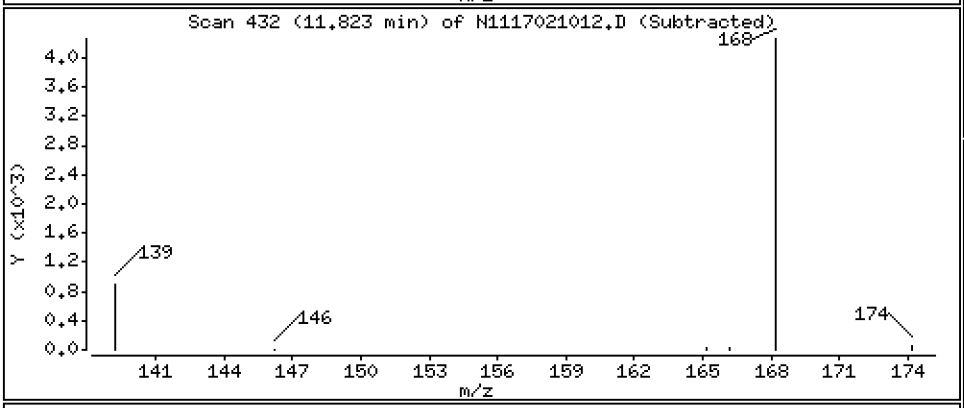
Column diameter: 0.25

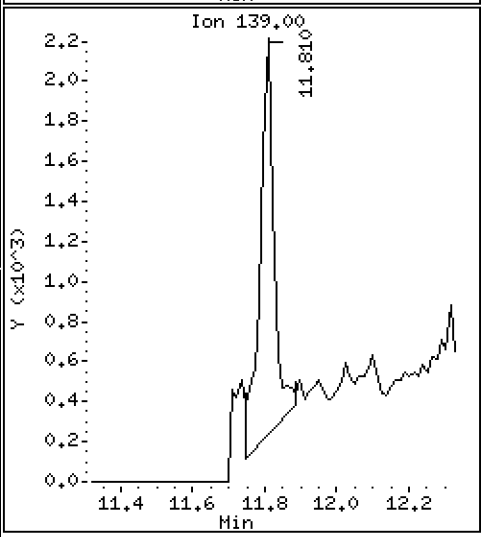
13 Dibenzofuran

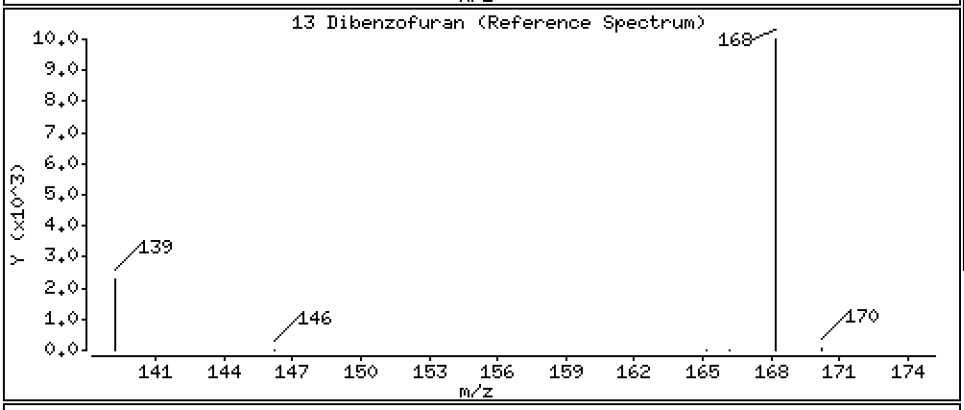
Concentration: 6.94 ng/mL

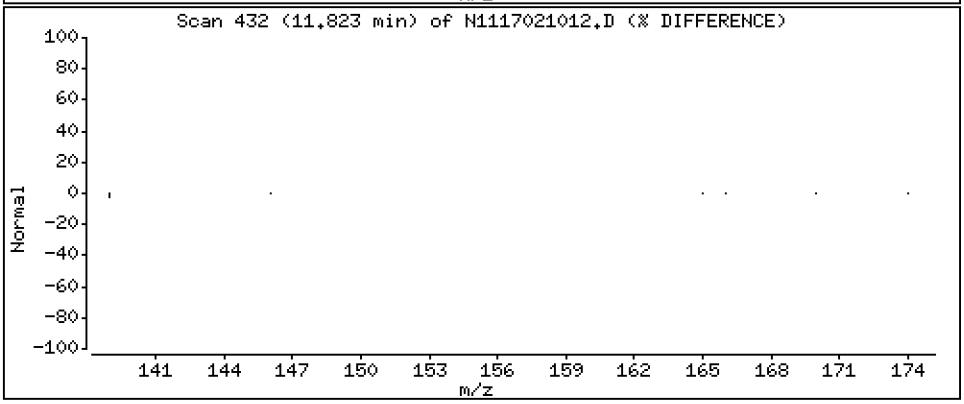












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Date : 10-FEB-2017 17:39

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-05

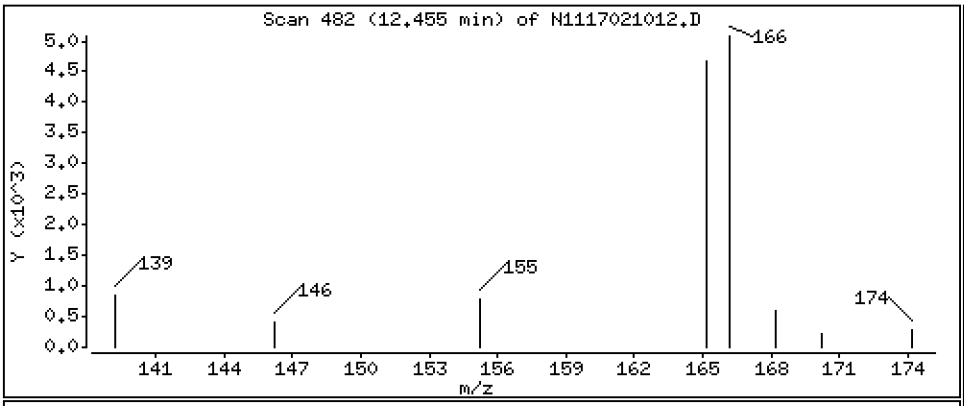
Operator: VTS

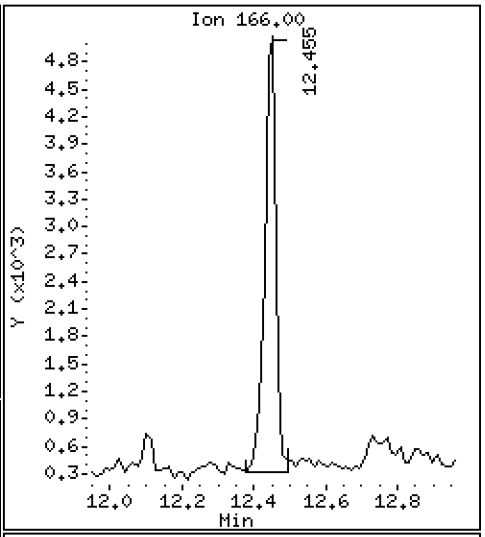
Column phase: Rxi-17Sil MS

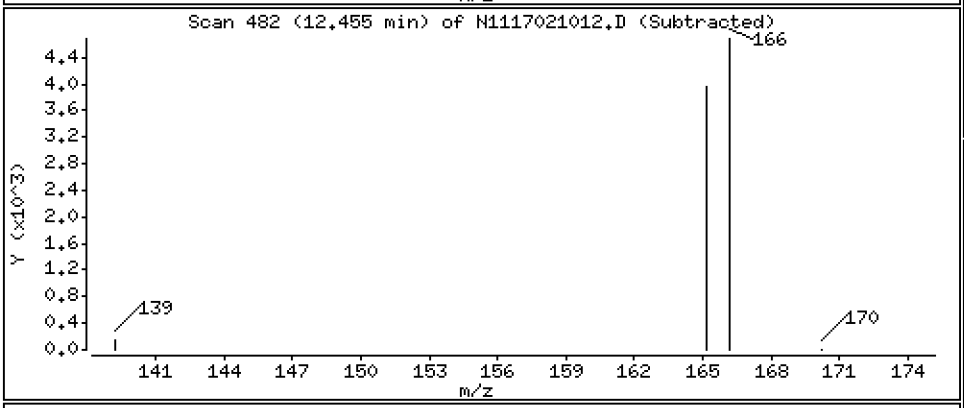
Column diameter: 0.25

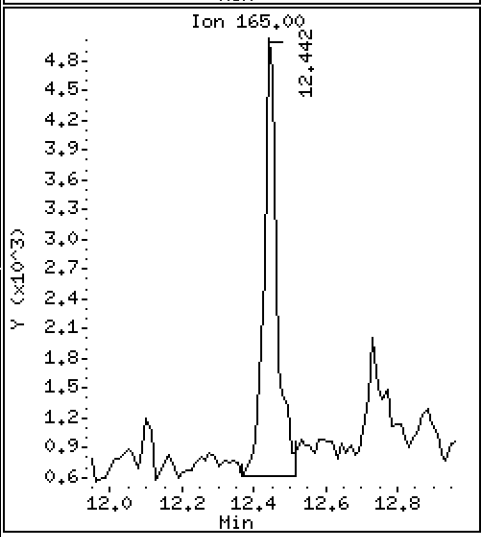
16 Fluorene

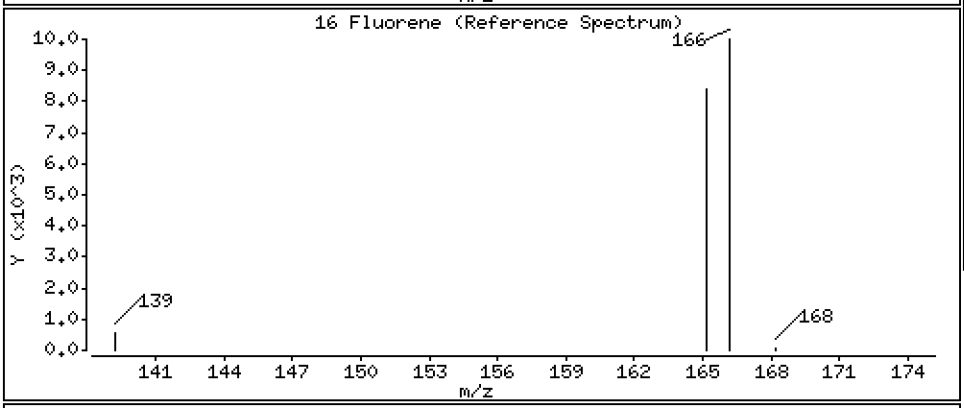
Concentration: 10.1 ng/mL

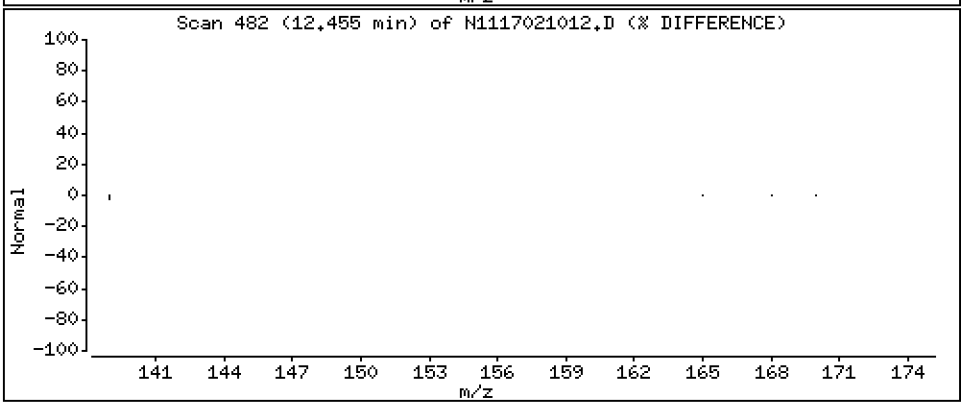












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Date : 10-FEB-2017 17:39

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-05

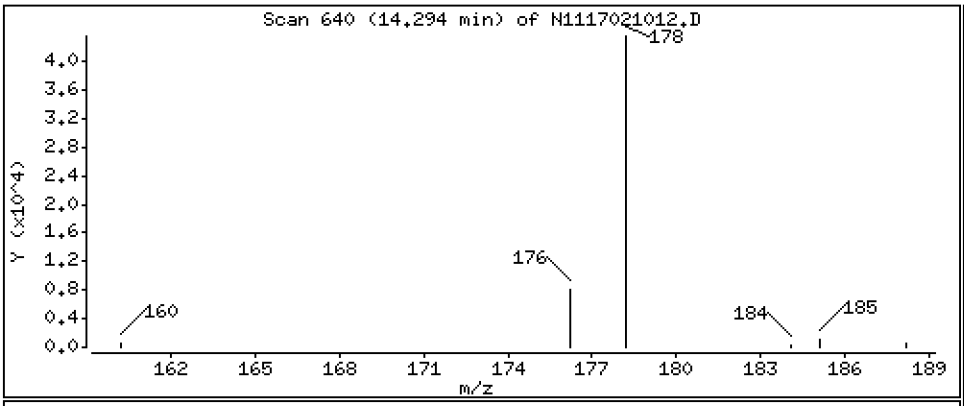
Operator: VTS

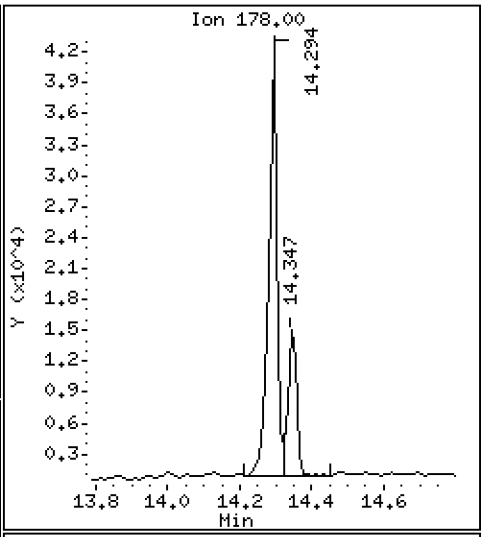
Column phase: Rxi-17Sil MS

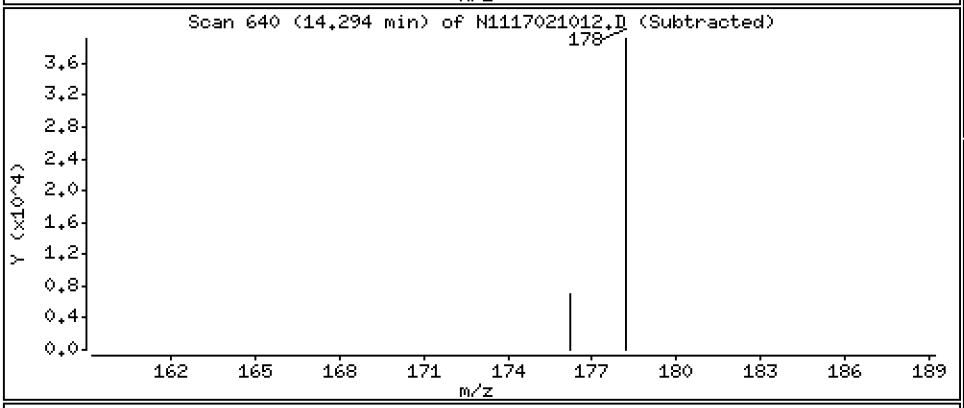
Column diameter: 0.25

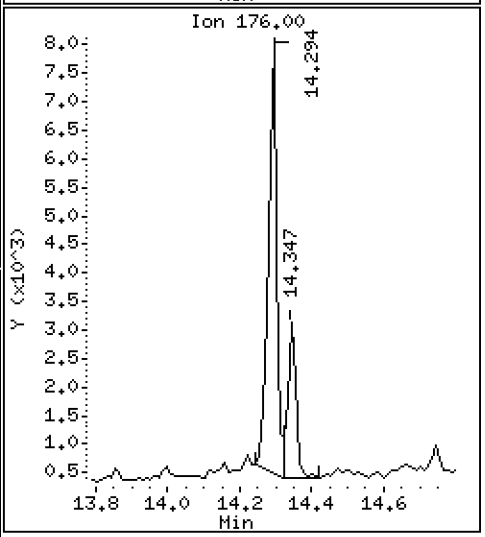
19 Phenanthrene

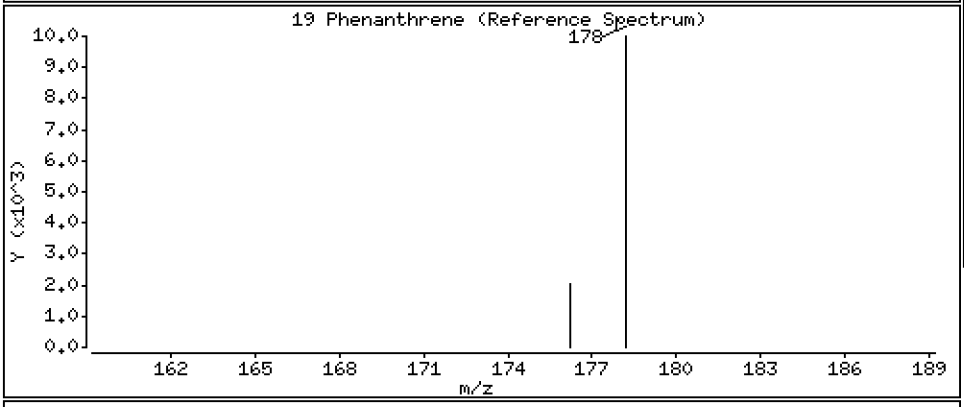
Concentration: 57.0 ng/mL

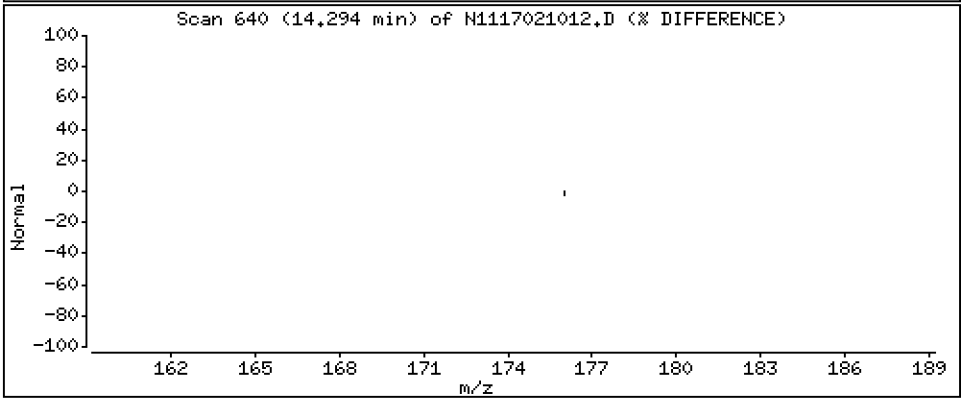












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Date : 10-FEB-2017 17:39

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-05

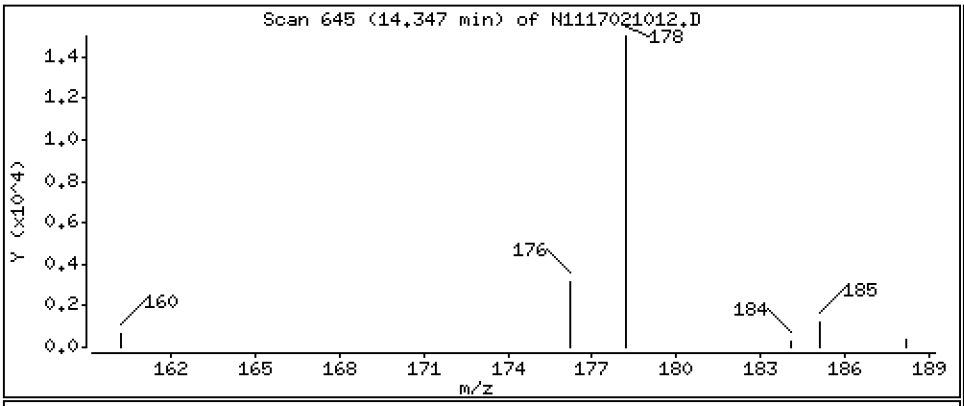
Operator: VTS

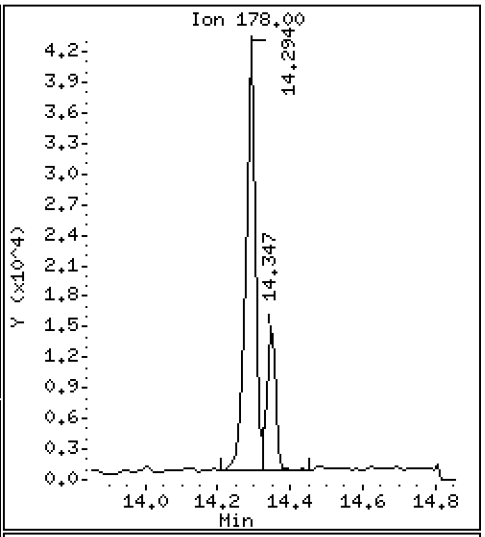
Column phase: Rxi-17Sil MS

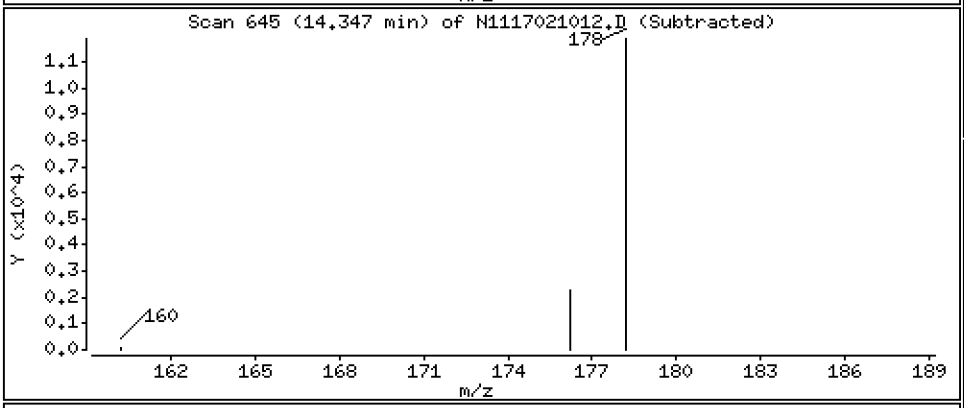
Column diameter: 0.25

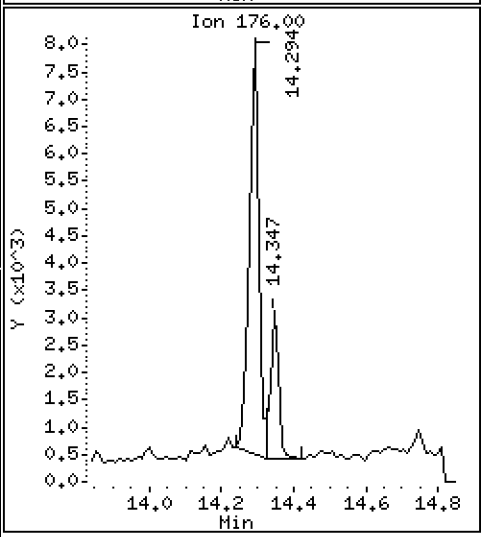
21 Anthracene

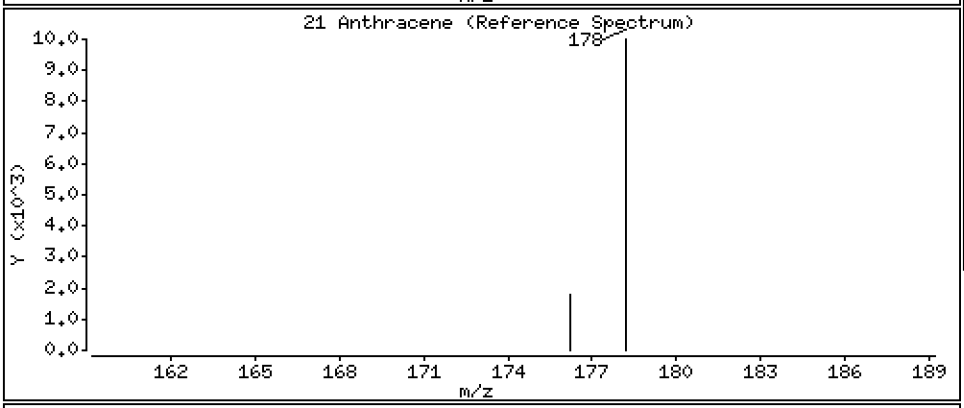
Concentration: 17.5 ng/mL

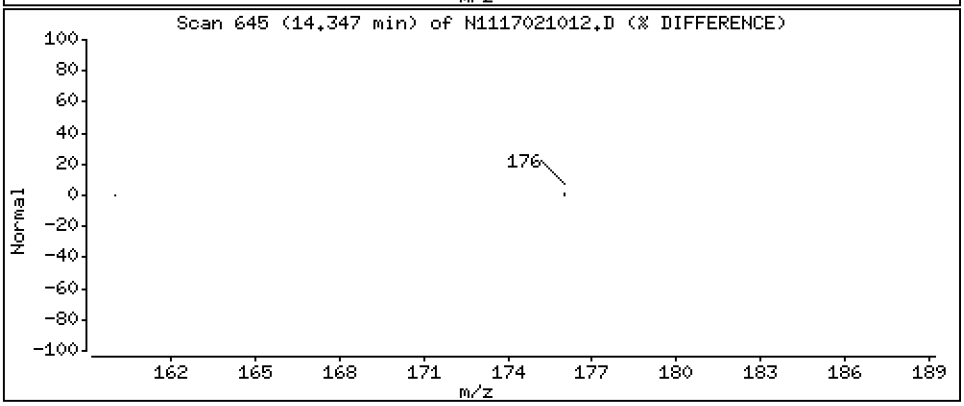












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Date : 10-FEB-2017 17:39

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-05

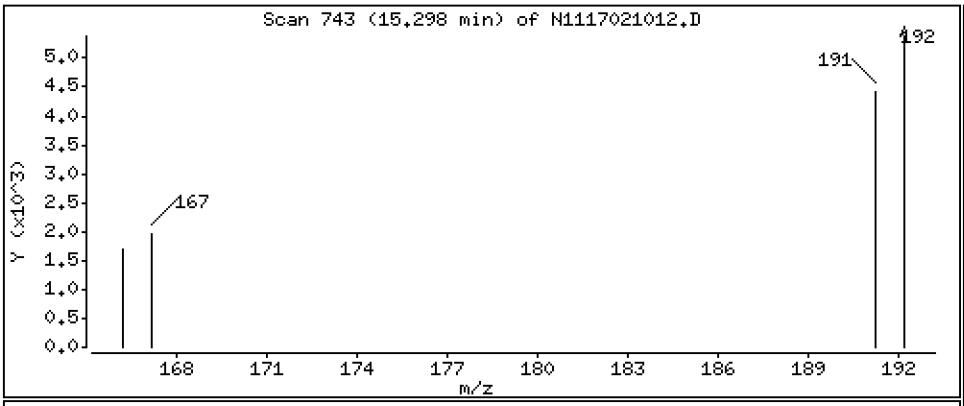
Operator: VTS

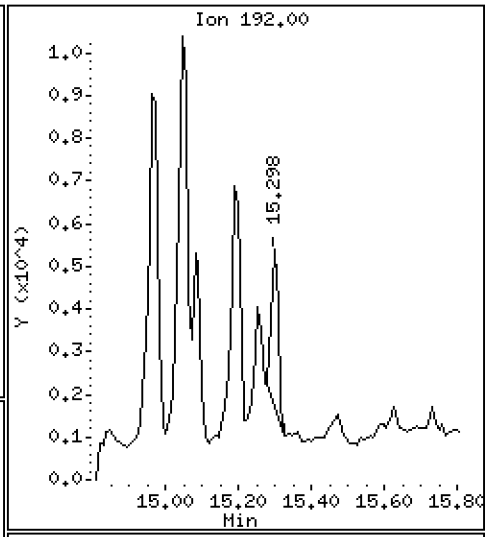
Column phase: Rxi-17Sil MS

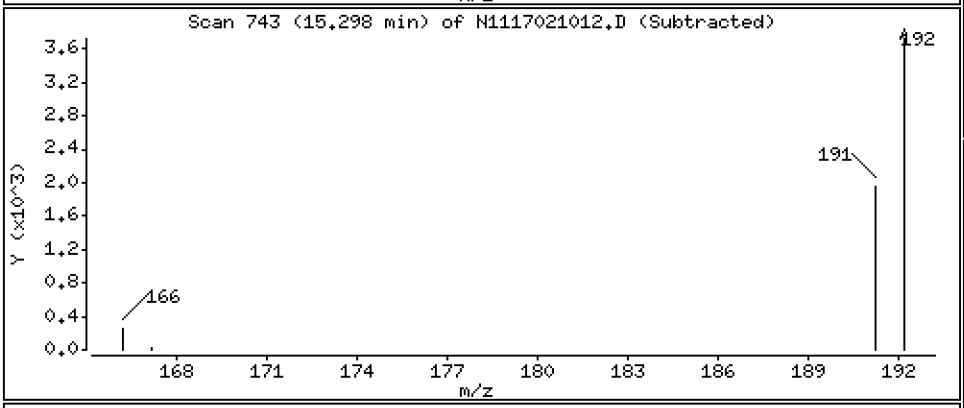
Column diameter: 0.25

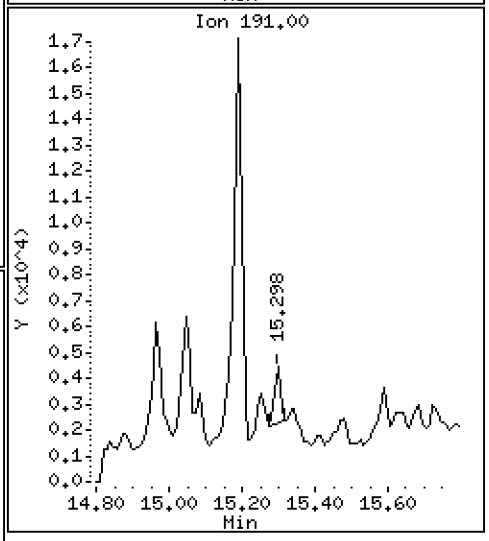
23 1-Methylphenanthrene

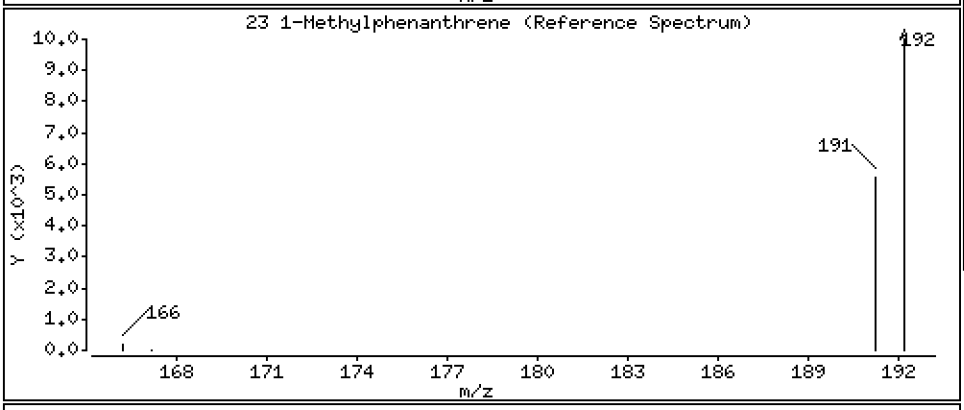
Concentration: 3.26 ng/mL

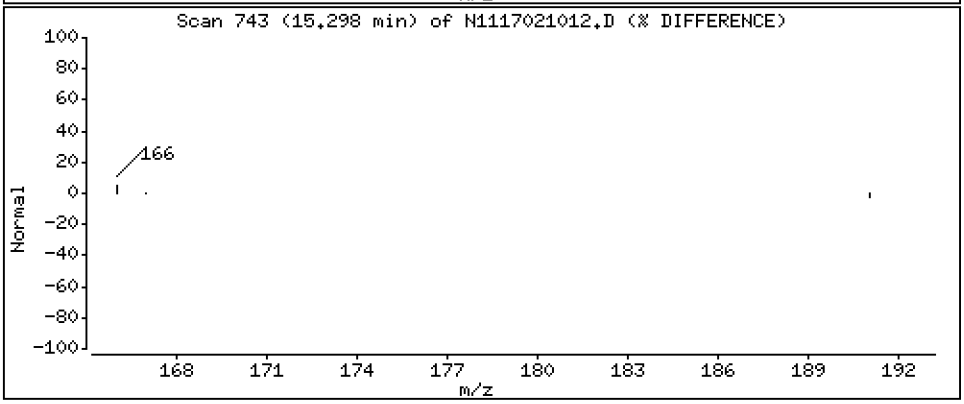












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021012.D

Date : 10-FEB-2017 17:39

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-05

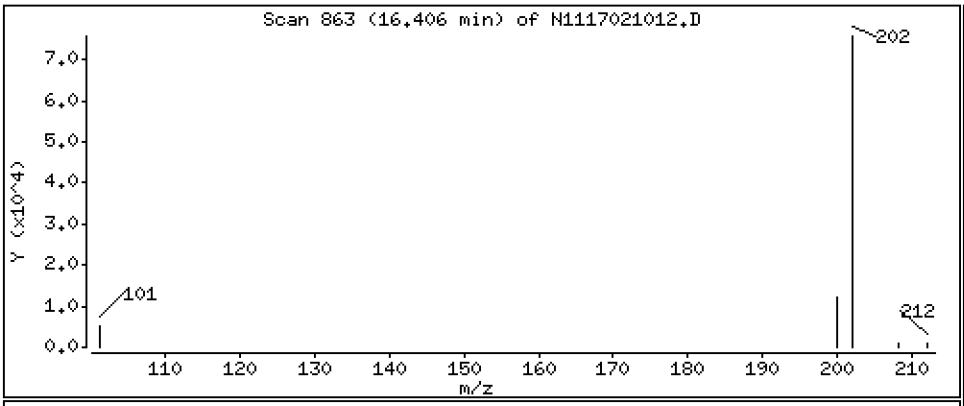
Operator: VTS

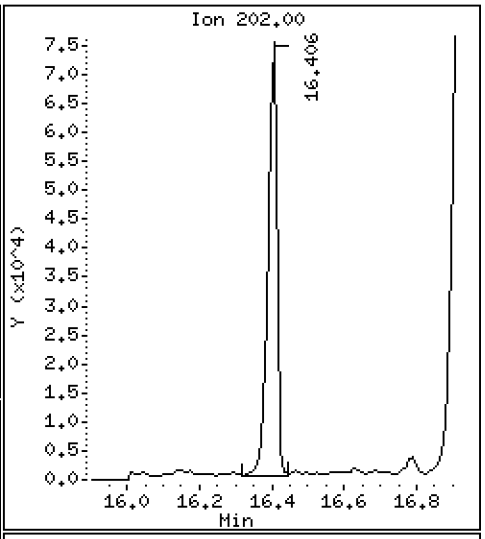
Column phase: Rxi-17Sil MS

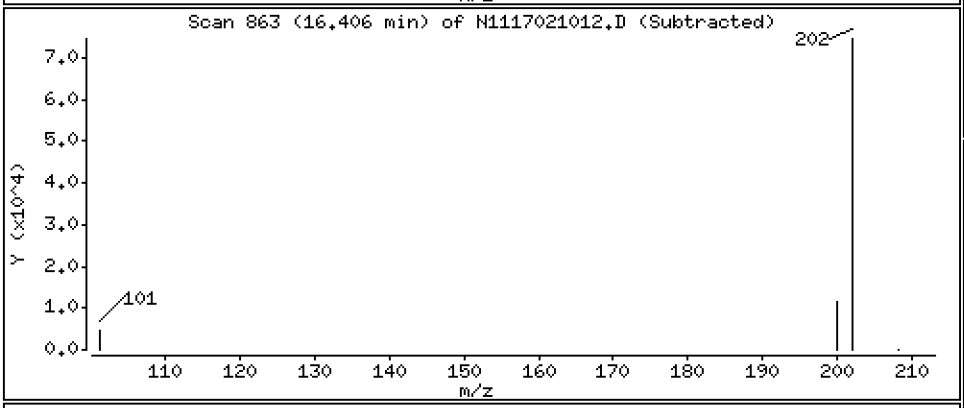
Column diameter: 0.25

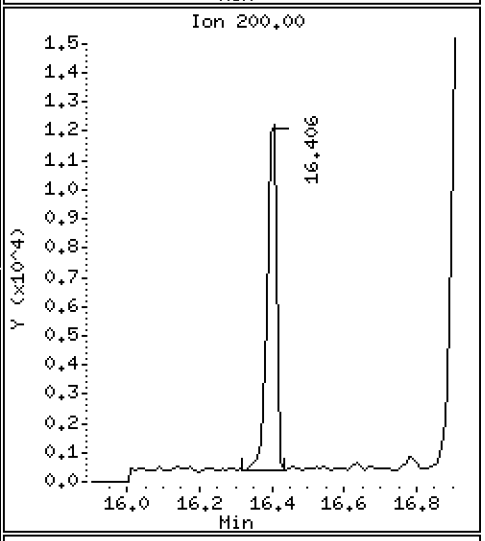
25 Fluoranthene

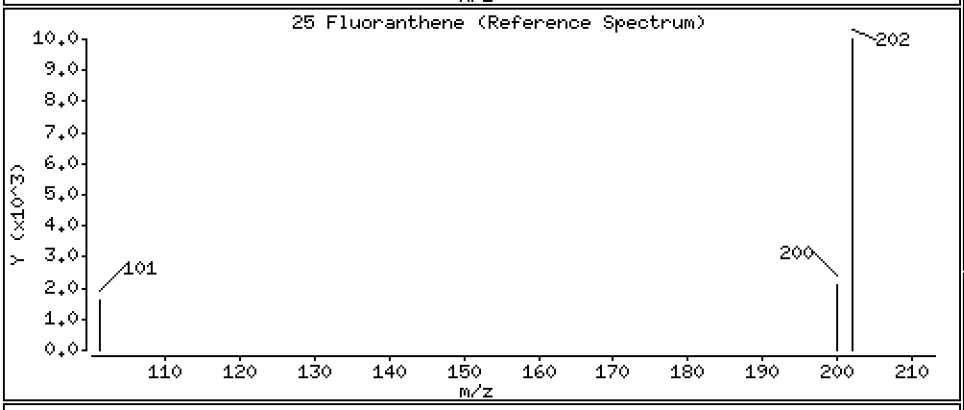
Concentration: 82.6 ng/mL

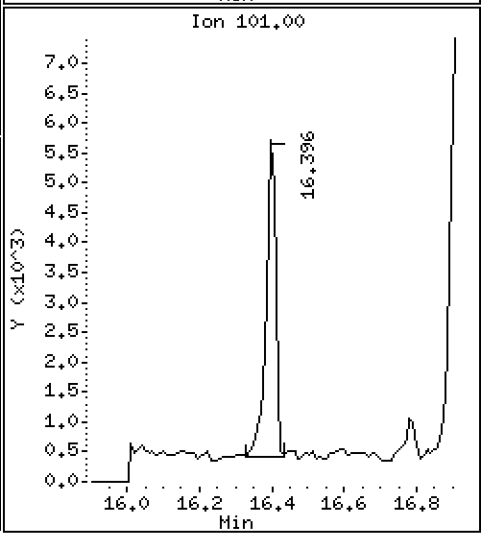


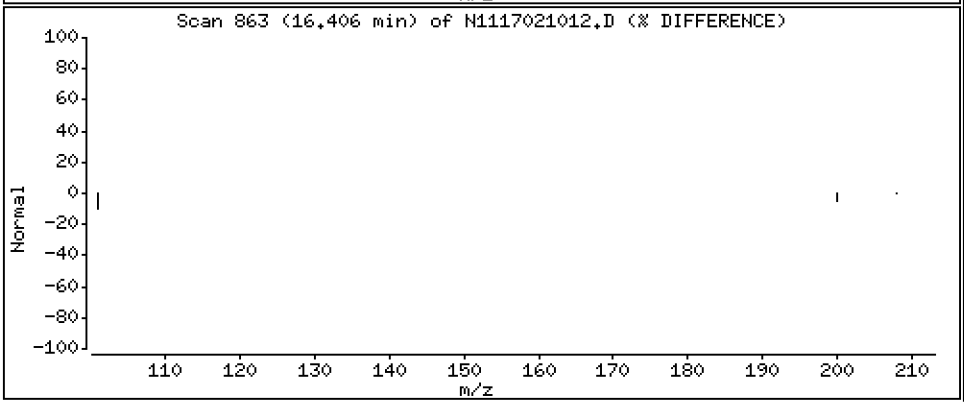












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021012.D

Date : 10-FEB-2017 17:39

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-05

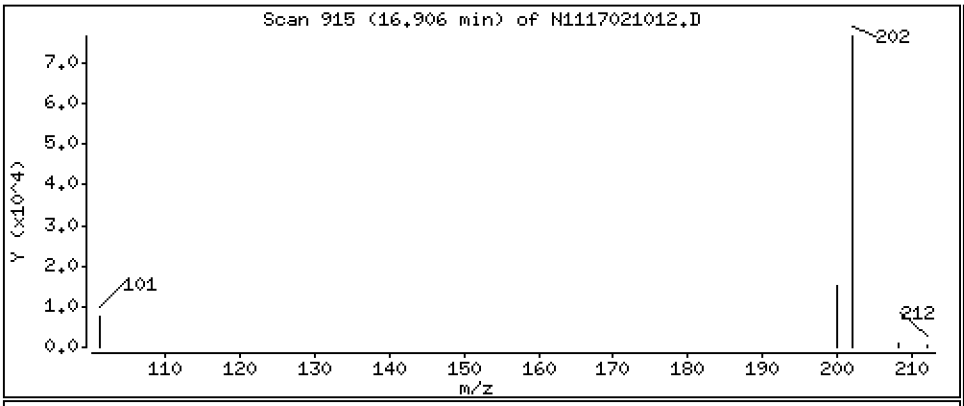
Operator: VTS

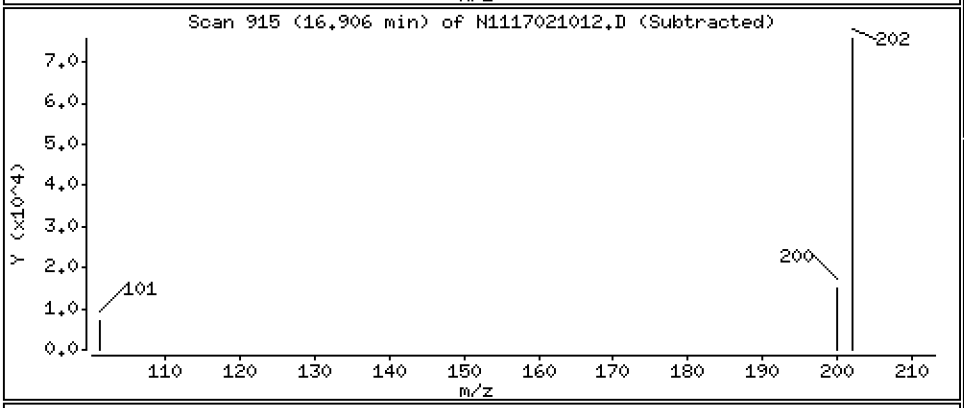
Column phase: Rxi-17Sil MS

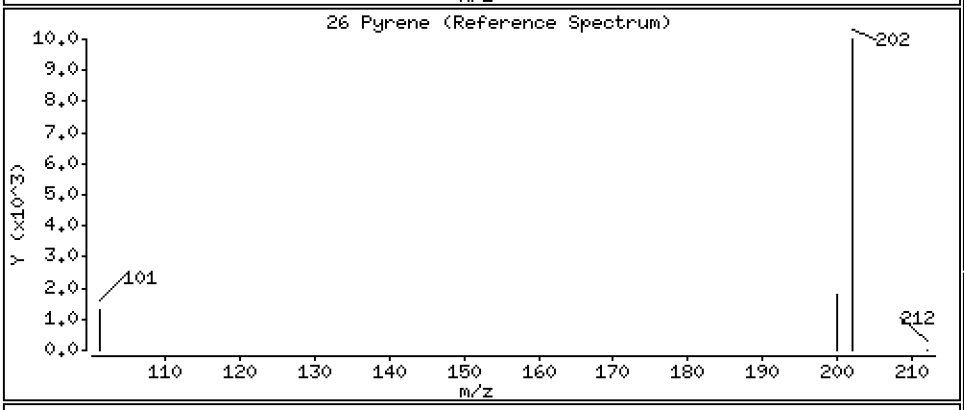
Column diameter: 0.25

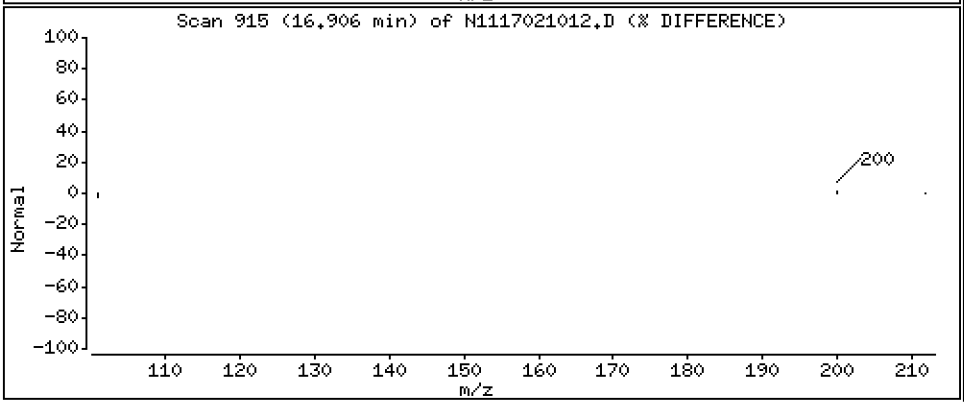
26 Pyrene

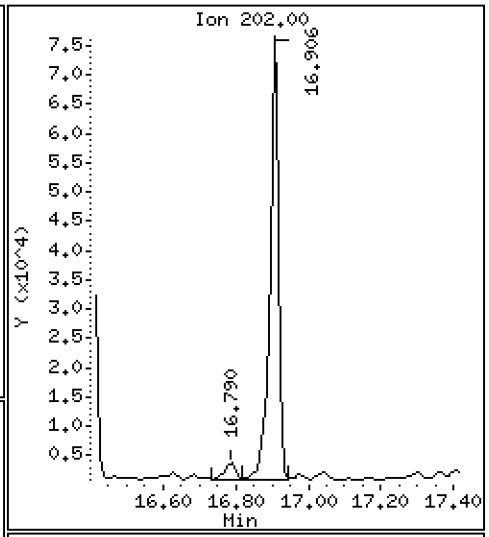
Concentration: 101 ng/mL

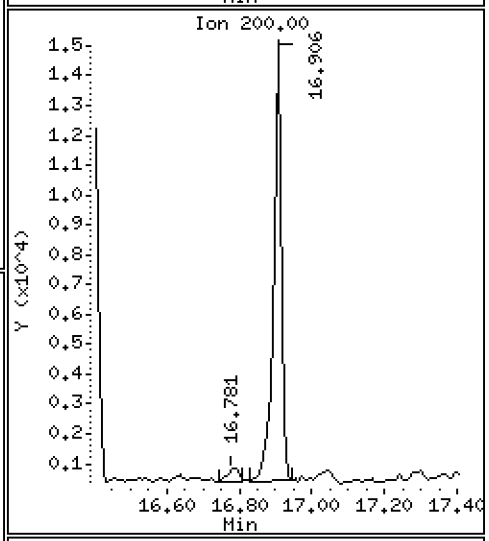


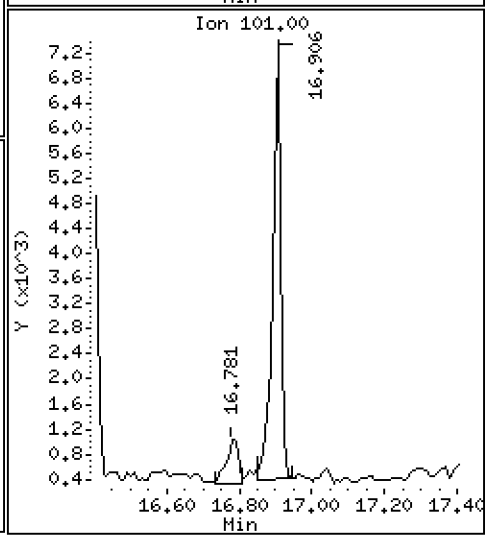












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021012.D

Date : 10-FEB-2017 17:39

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-05

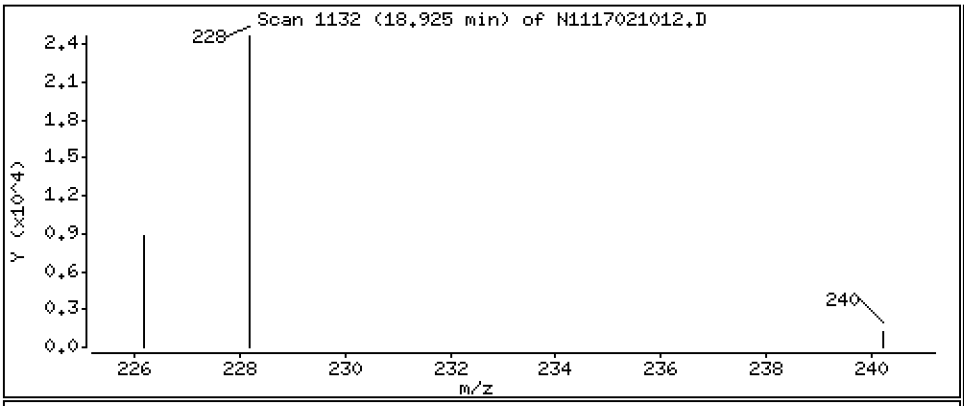
Operator: VTS

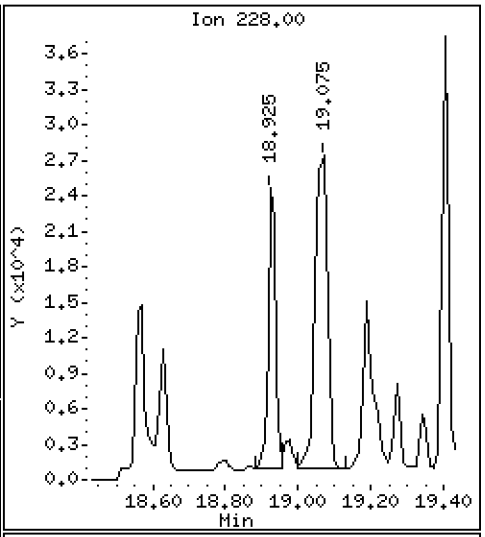
Column phase: Rxi-17Sil MS

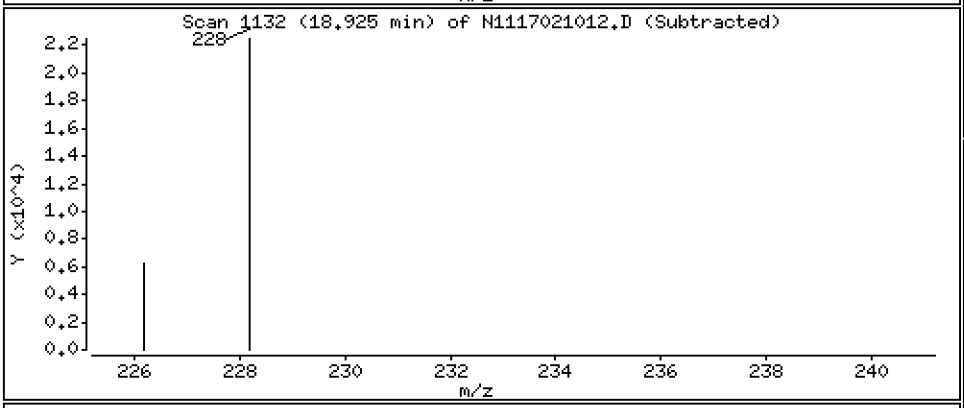
Column diameter: 0.25

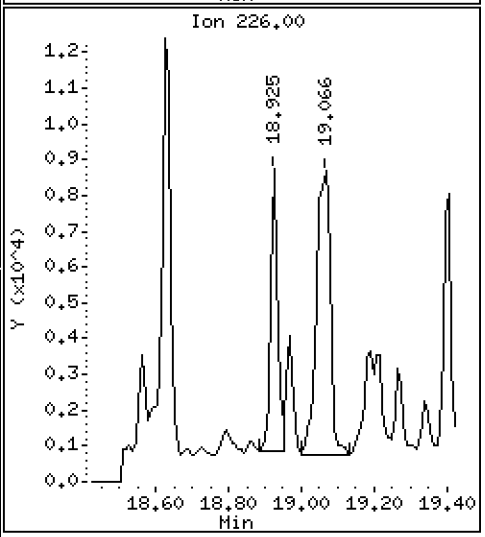
27 Benzo(a)anthracene

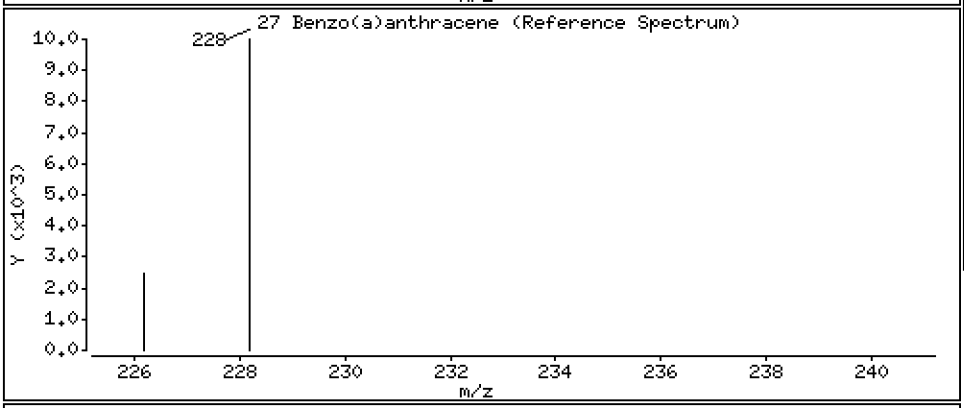
Concentration: 27.9 ng/mL

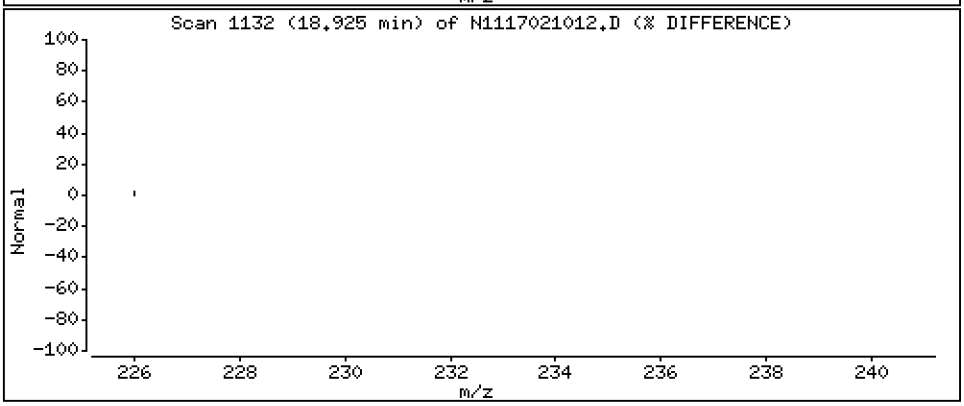












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021012.D

Date : 10-FEB-2017 17:39

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-05

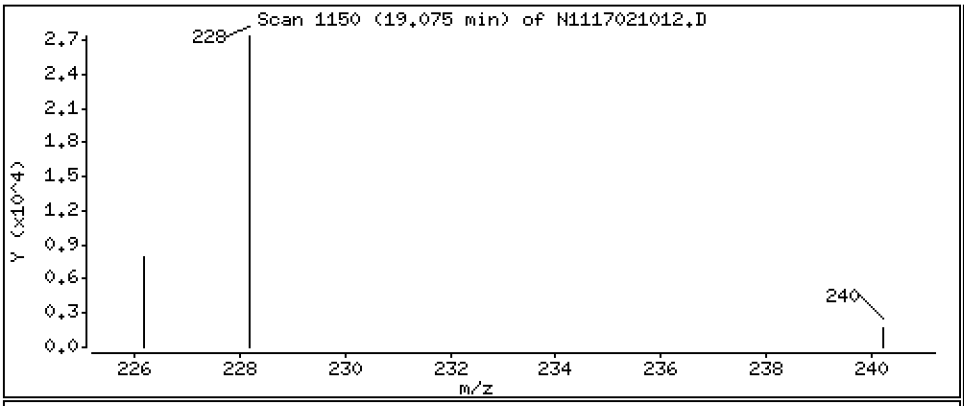
Operator: VTS

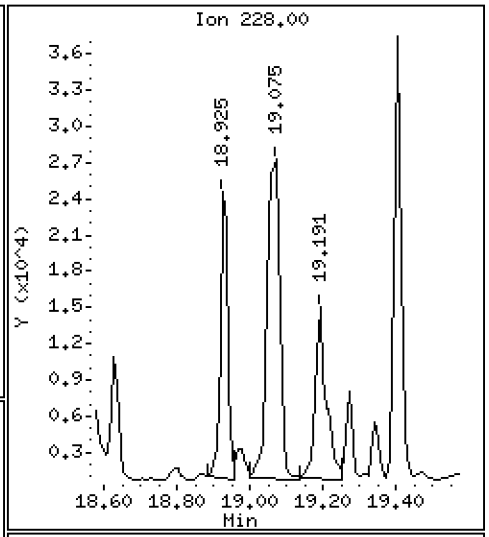
Column phase: Rxi-17Sil MS

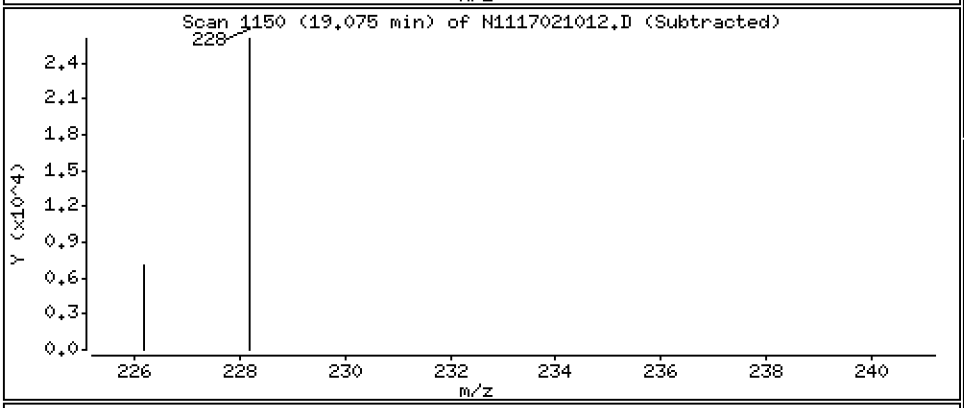
Column diameter: 0.25

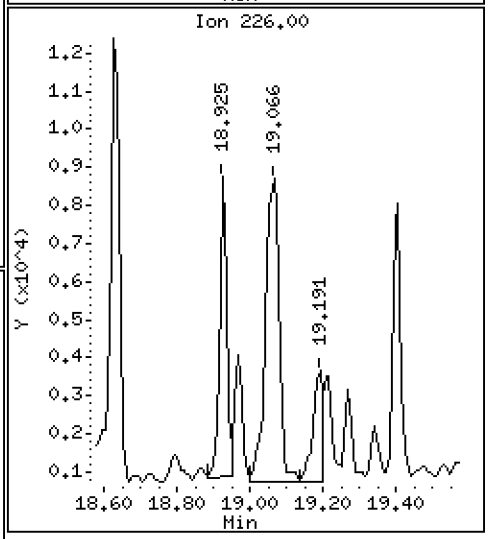
29 Chrysene

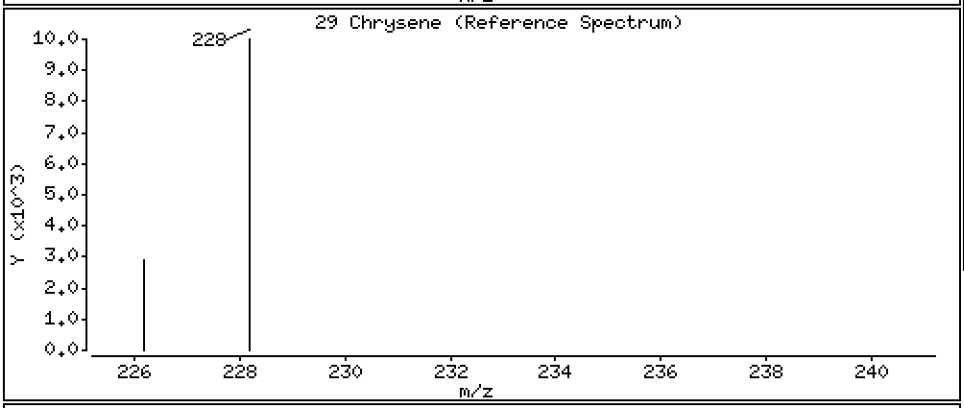
Concentration: 52.9 ng/mL

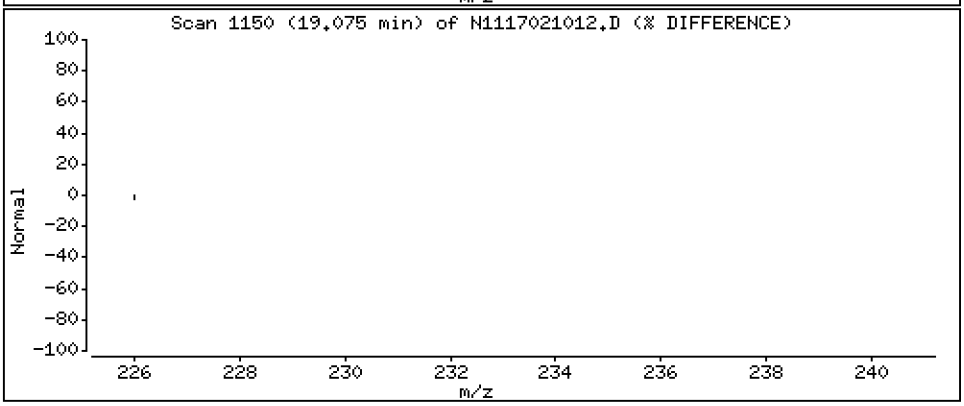












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021012.D

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Client ID:

Instrument: nt11.i

Sample Info: 17A0053-05

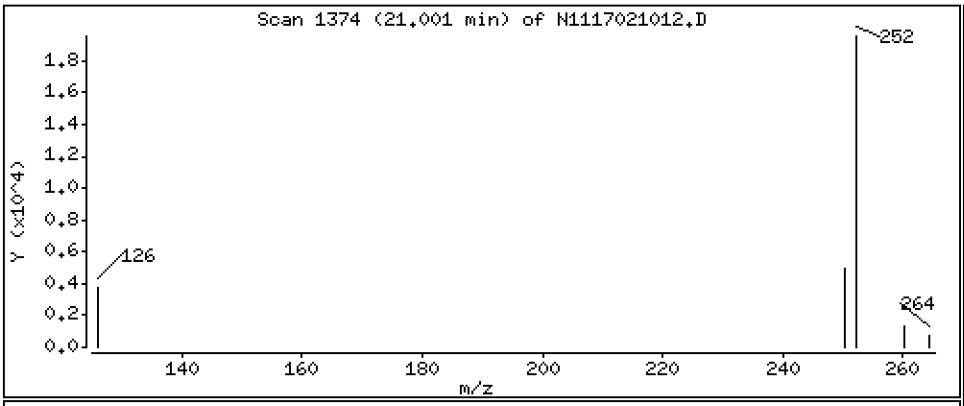
Operator: VTS

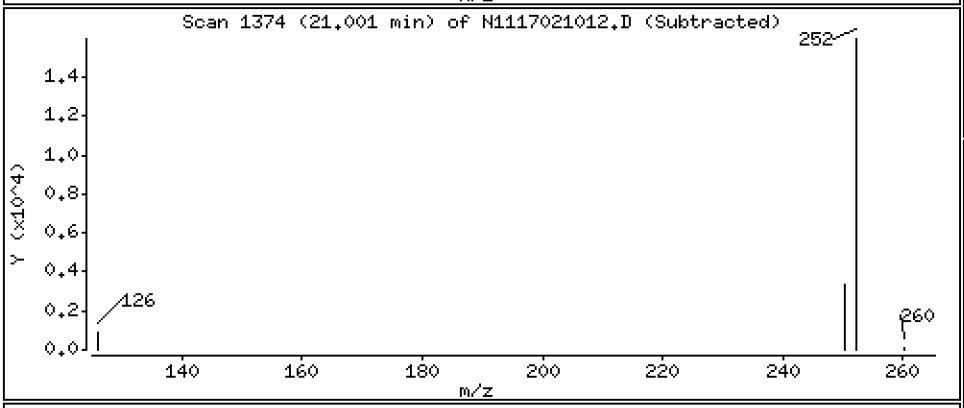
Column phase: Rxi-17Sil MS

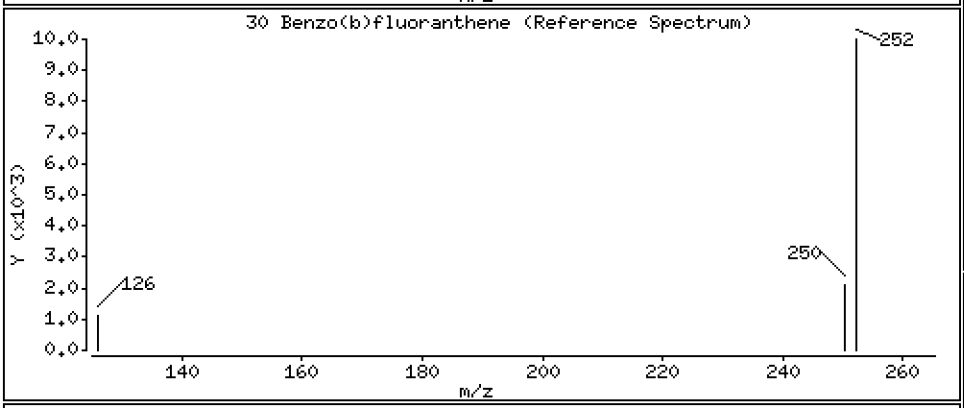
Column diameter: 0.25

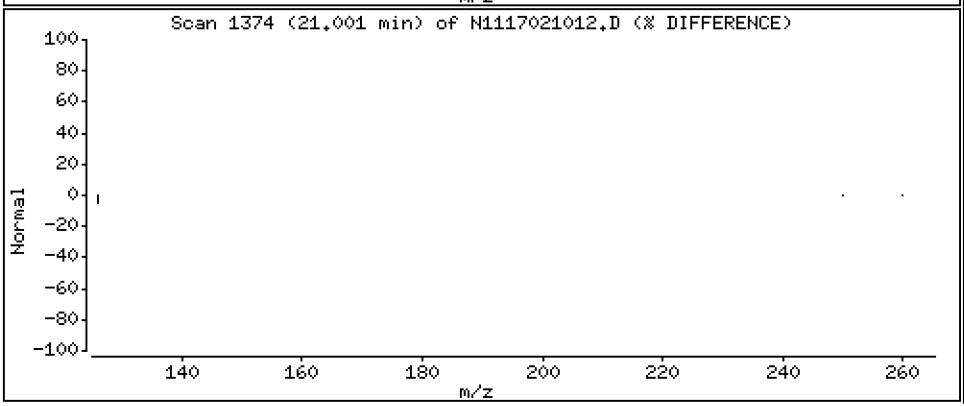
30 Benzo(b)fluoranthene

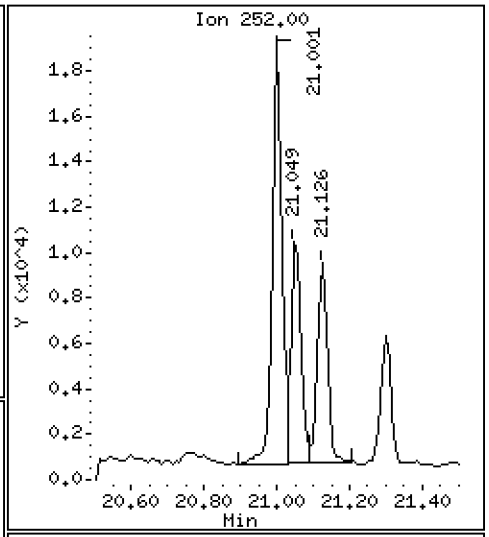
Concentration: 31.2 ng/mL

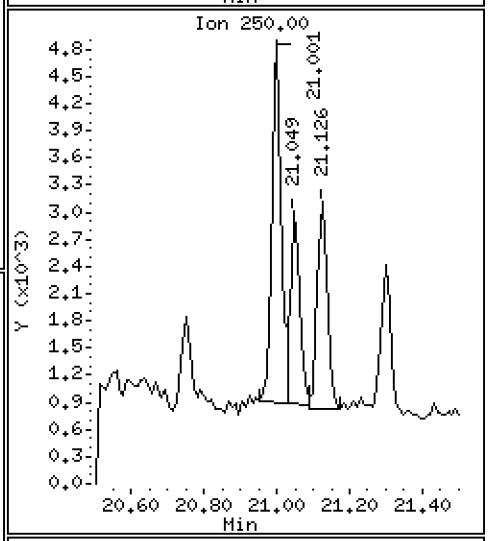


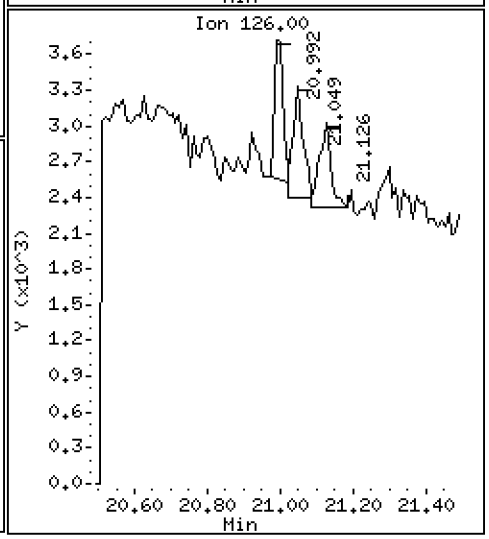












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021012.D

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Client ID:

Instrument: nt11.i

Sample Info: 17A0053-05

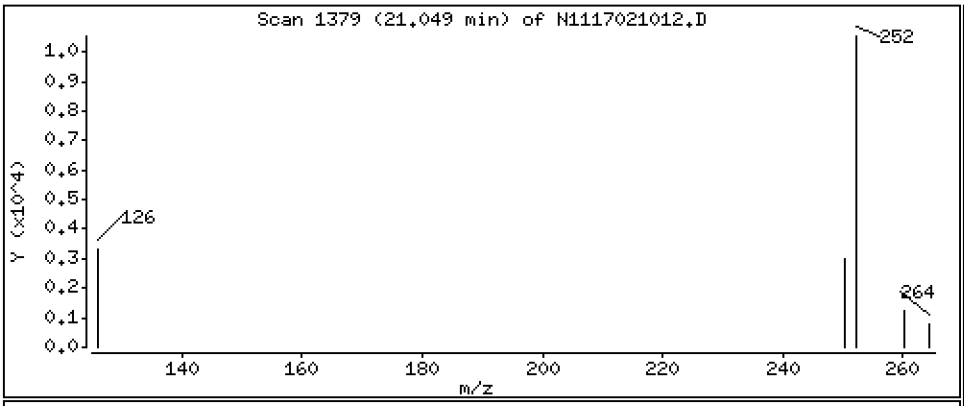
Operator: VTS

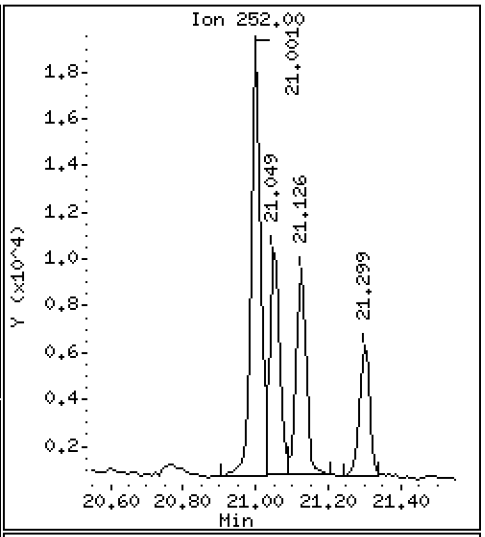
Column phase: Rxi-17Sil MS

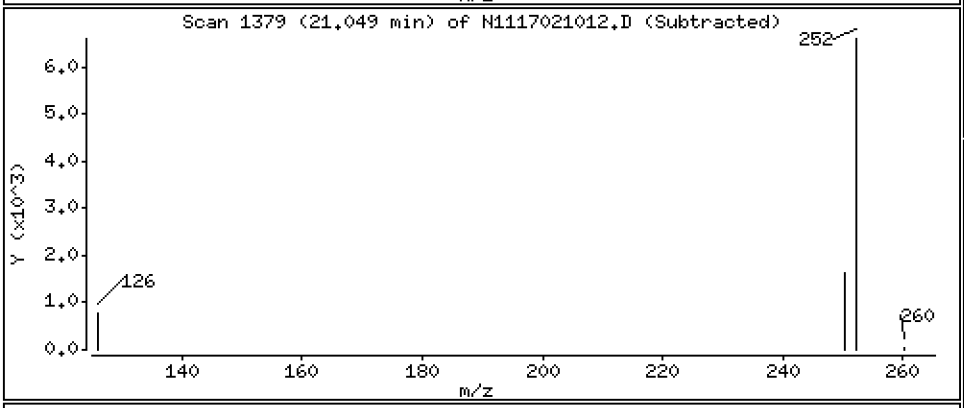
Column diameter: 0.25

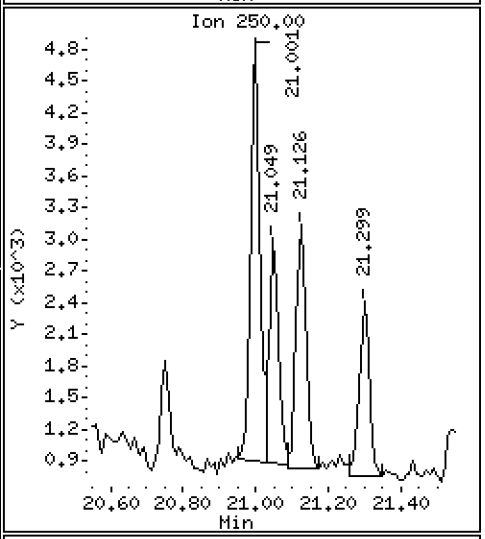
31 Benzo(k)fluoranthene

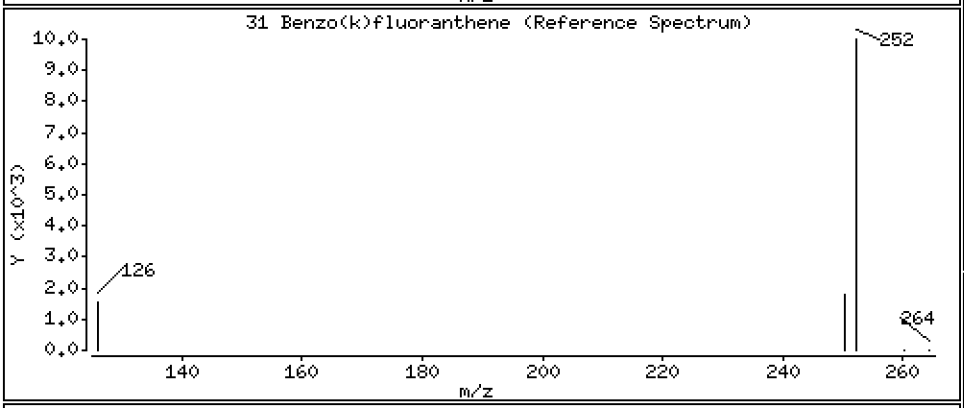
Concentration: 15.7 ng/mL

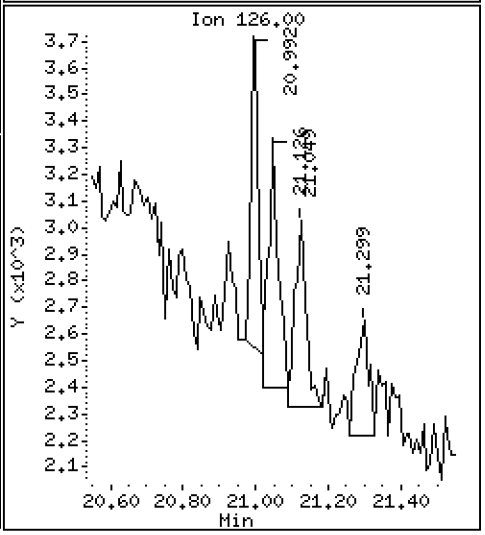


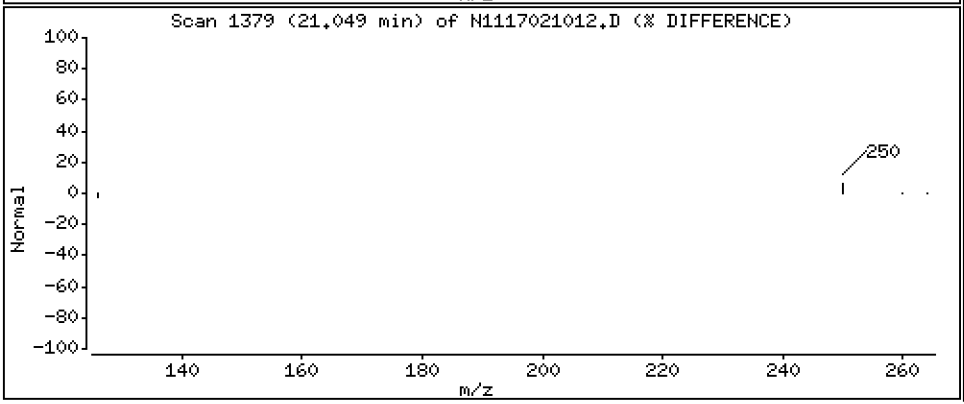












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021012.D

Date : 10-FEB-2017 17:39

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-05

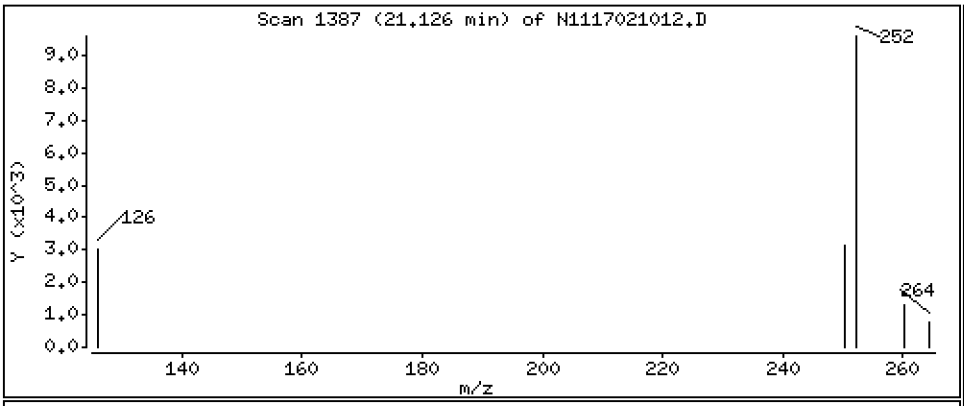
Operator: VTS

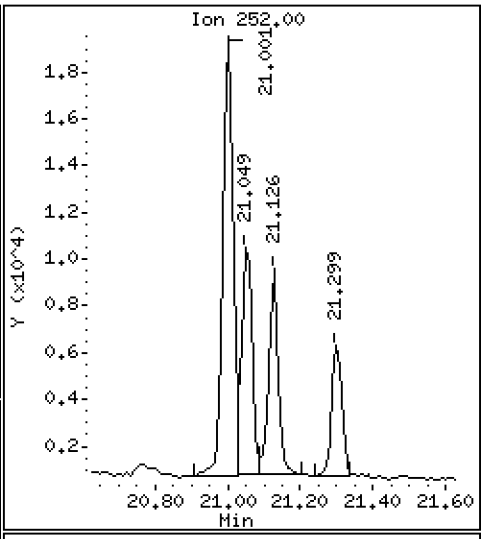
Column phase: Rxi-17Sil MS

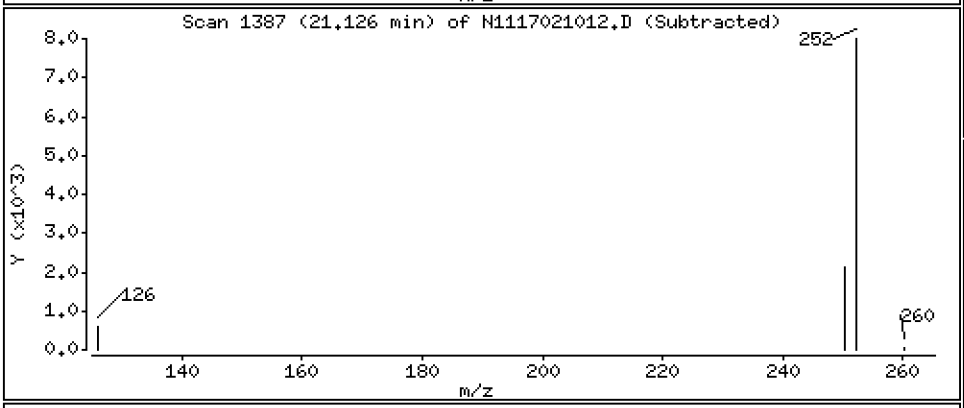
Column diameter: 0.25

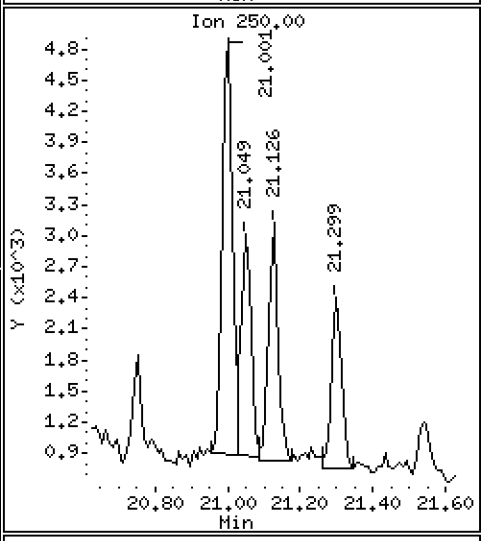
32 Benzo(j)fluoranthene

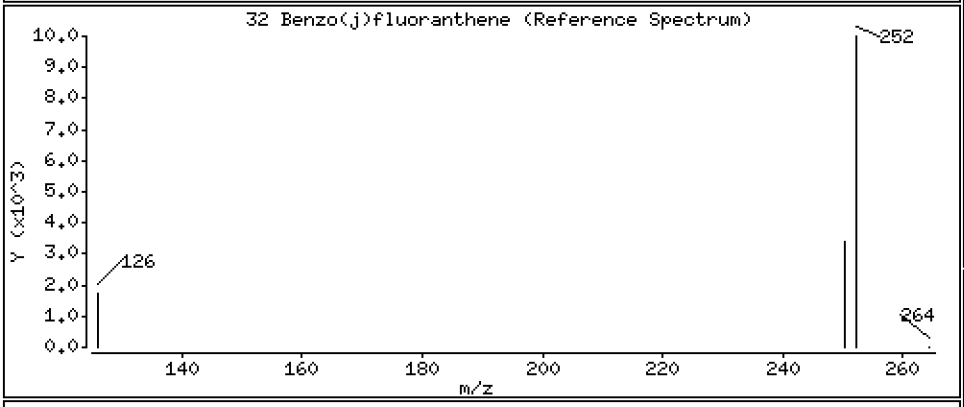
Concentration: 14.8 ng/mL

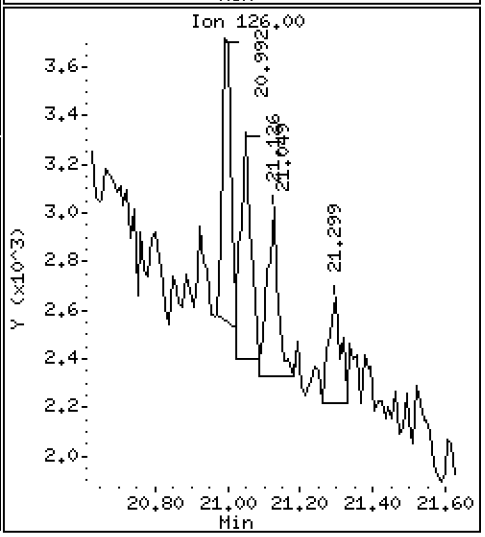


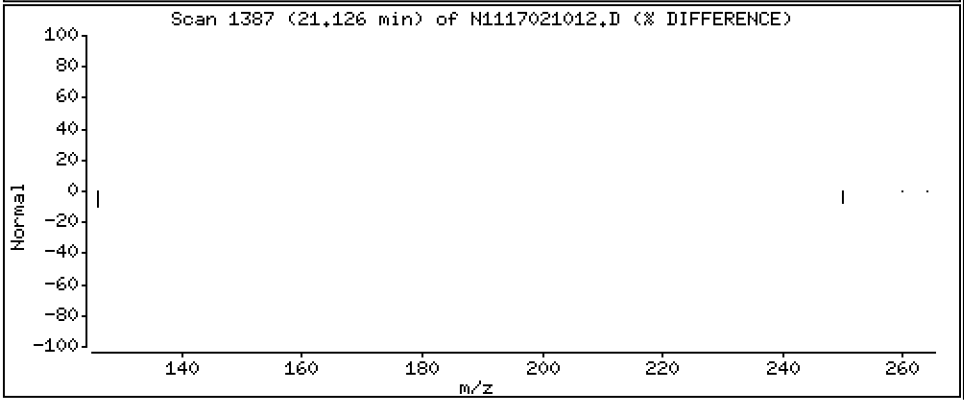












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021012.D

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Client ID:

Instrument: nt11.i

Sample Info: 17A0053-05

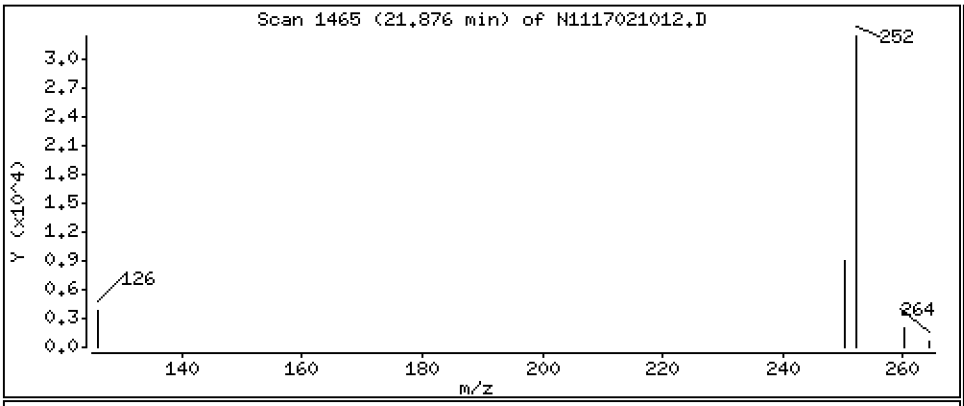
Operator: VTS

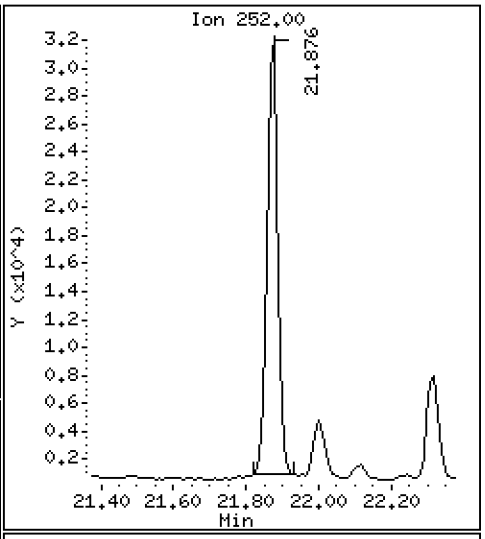
Column phase: Rxi-17Sil MS

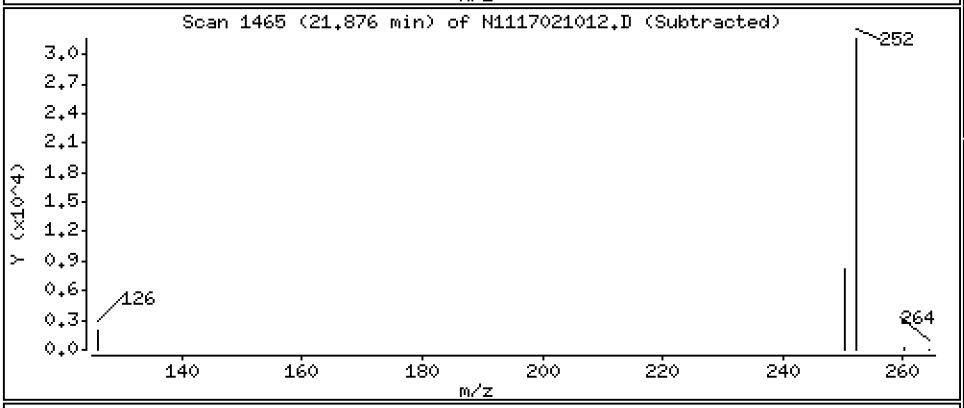
Column diameter: 0.25

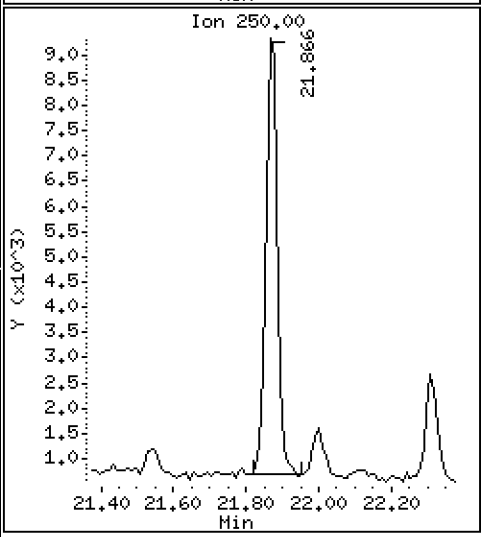
34 Benzo(e)pyrene

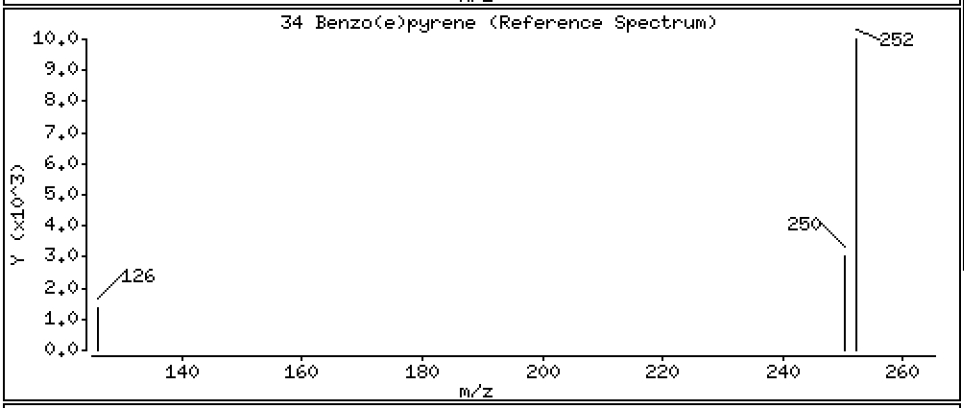
Concentration: 56.1 ng/mL

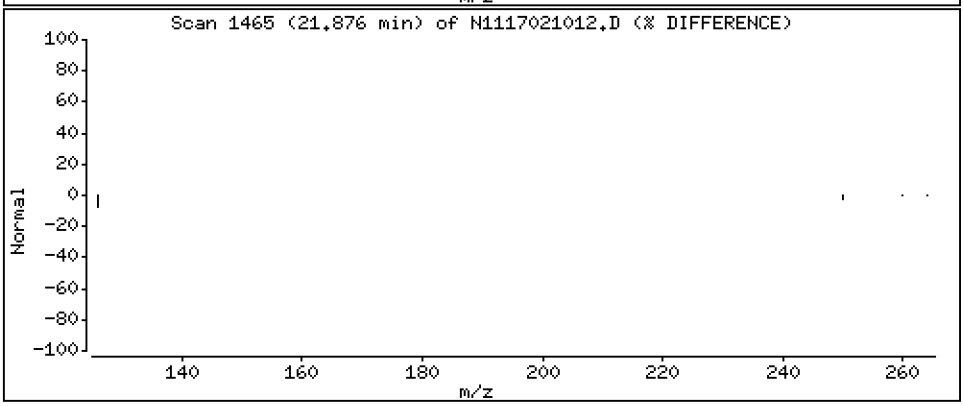












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021012.D

Date : 10-FEB-2017 17:39

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-05

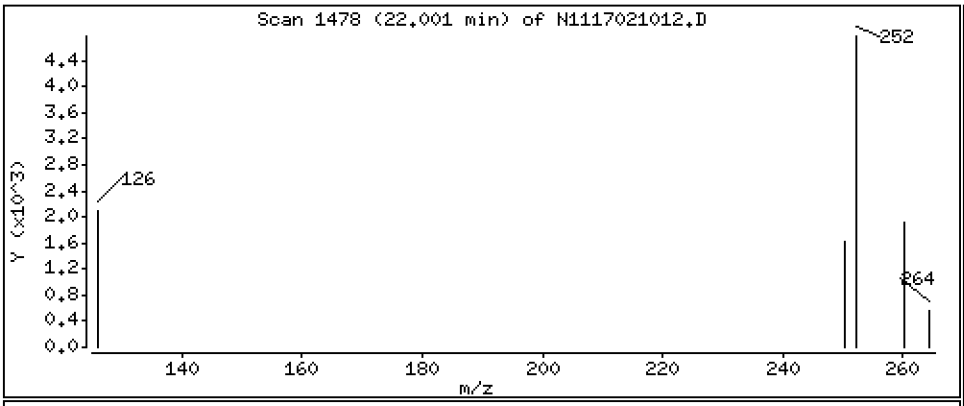
Operator: VTS

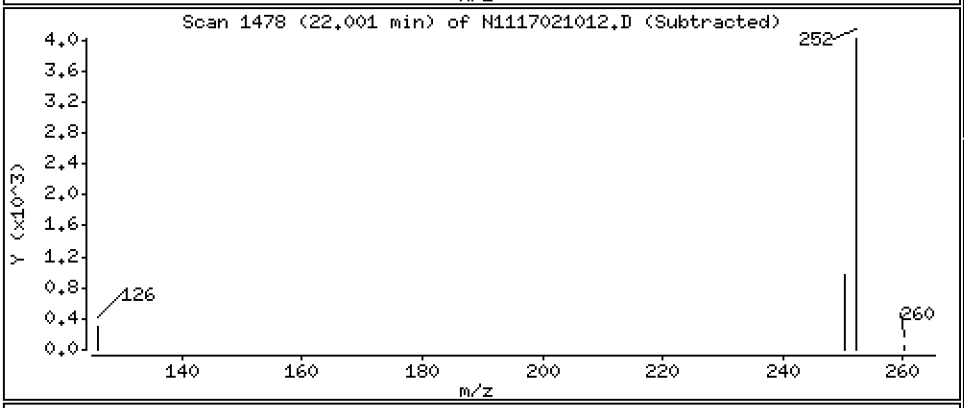
Column phase: Rxi-17Sil MS

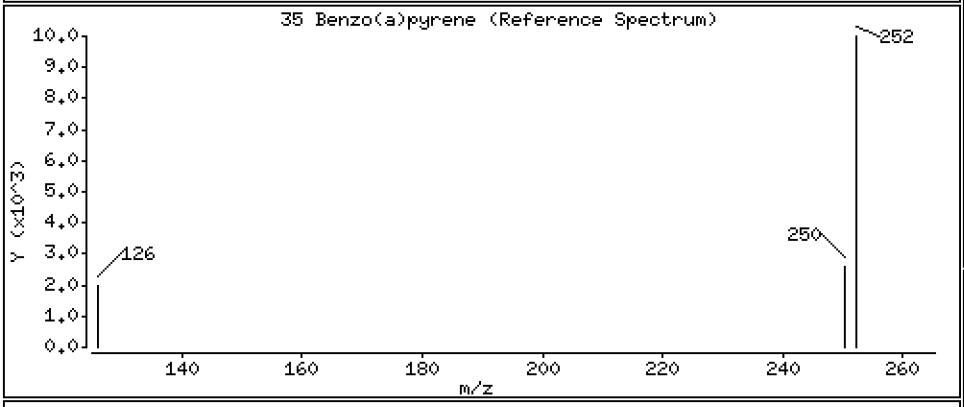
Column diameter: 0.25

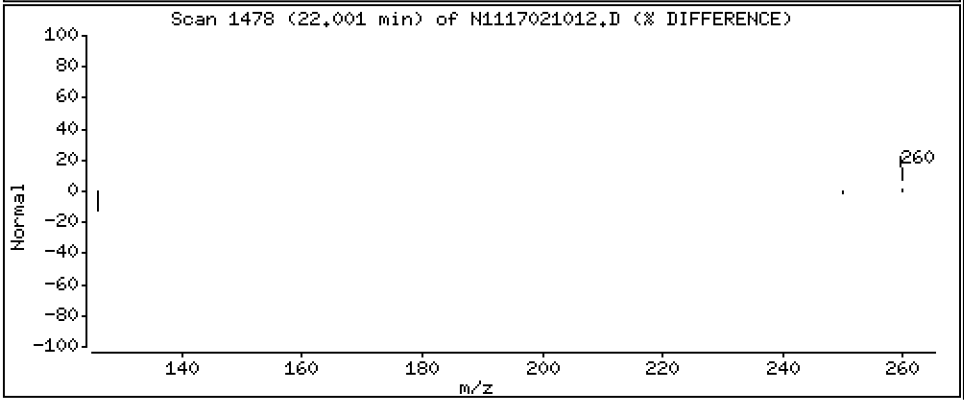
35 Benzo(a)pyrene

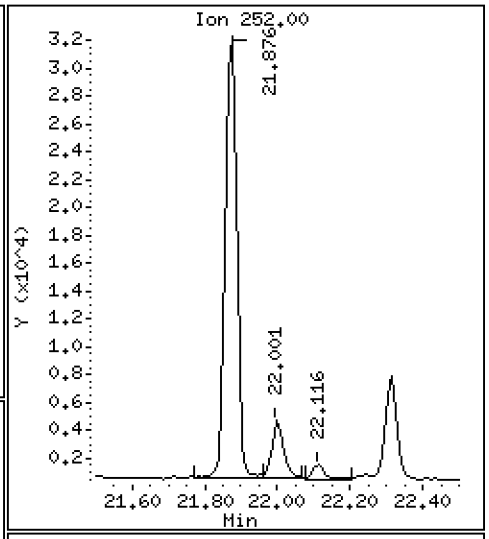
Concentration: 8.80 ng/mL

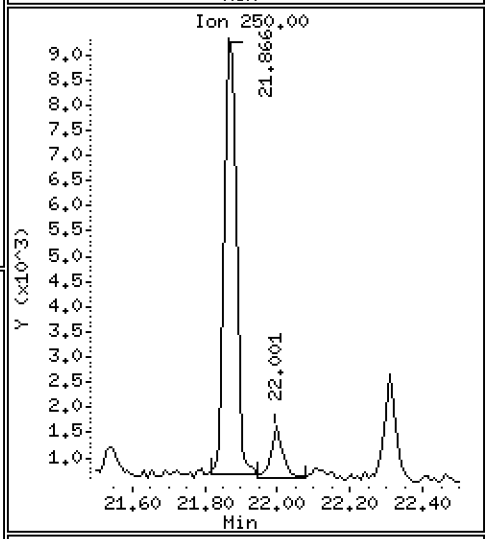


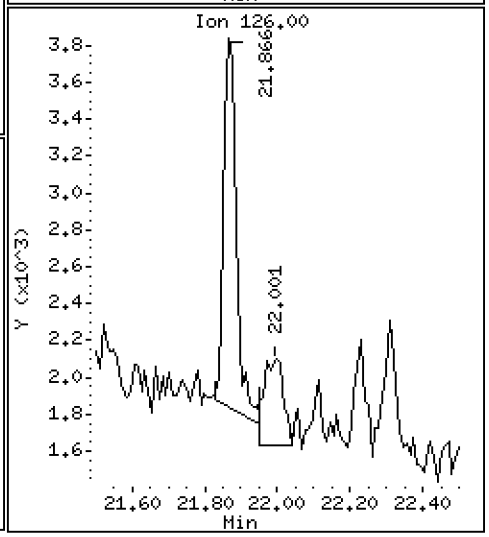












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Date : 10-FEB-2017 17:39

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-05

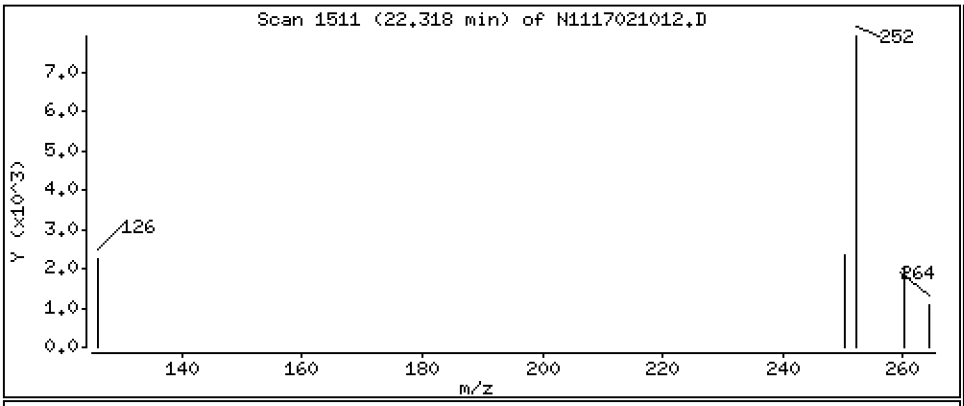
Operator: VTS

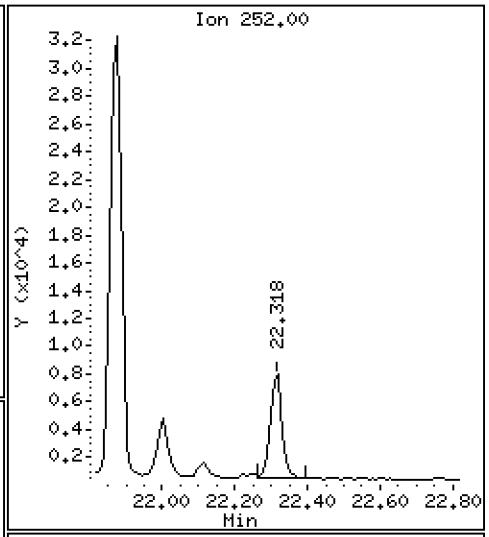
Column phase: Rxi-17Sil MS

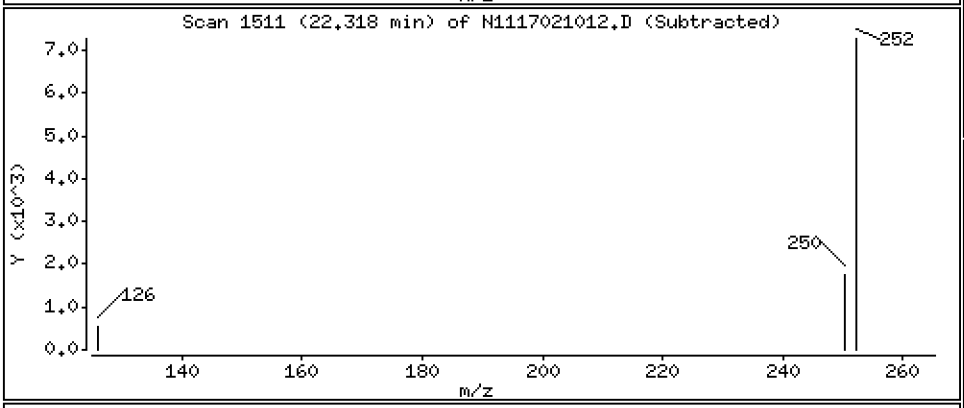
Column diameter: 0.25

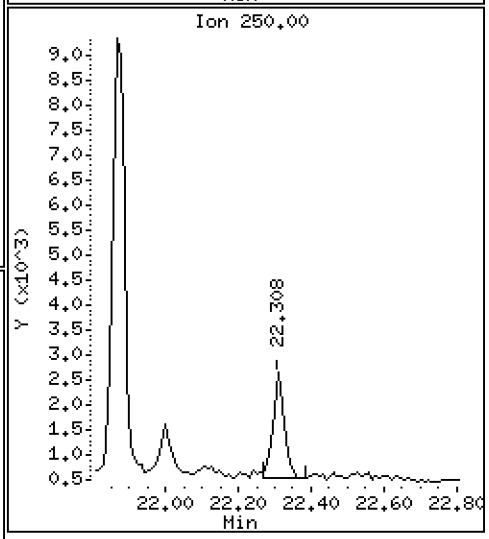
37 Perylene

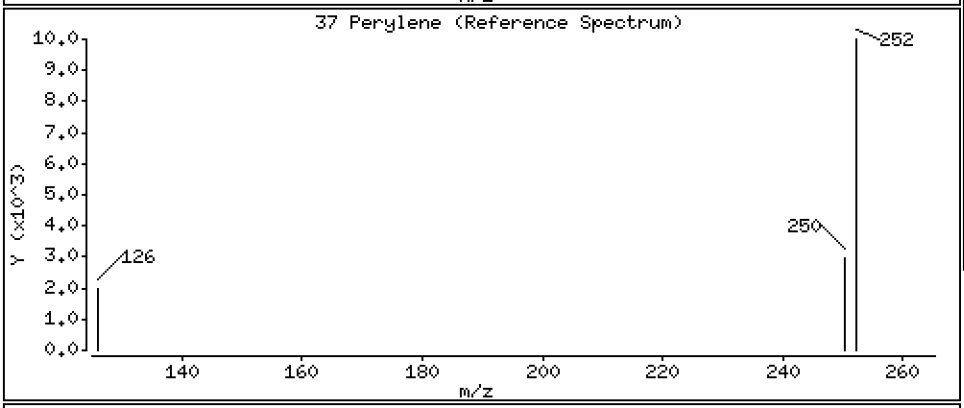
Concentration: 15.0 ng/mL

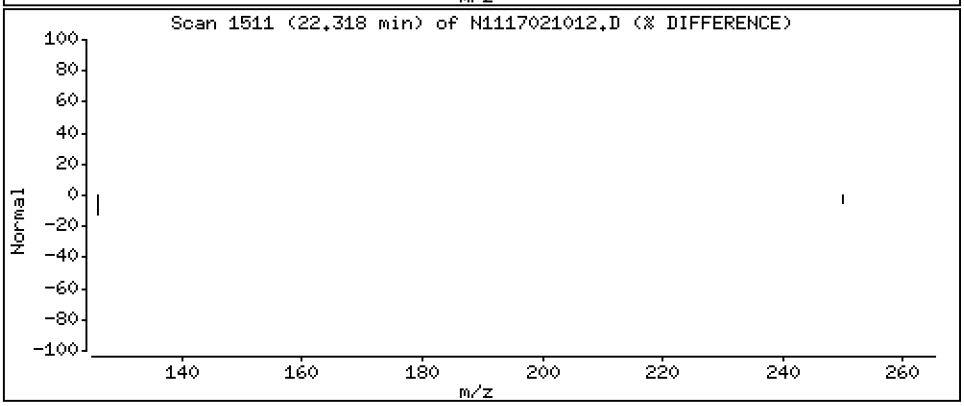












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021012.D

Date : 10-FEB-2017 17:39

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-05

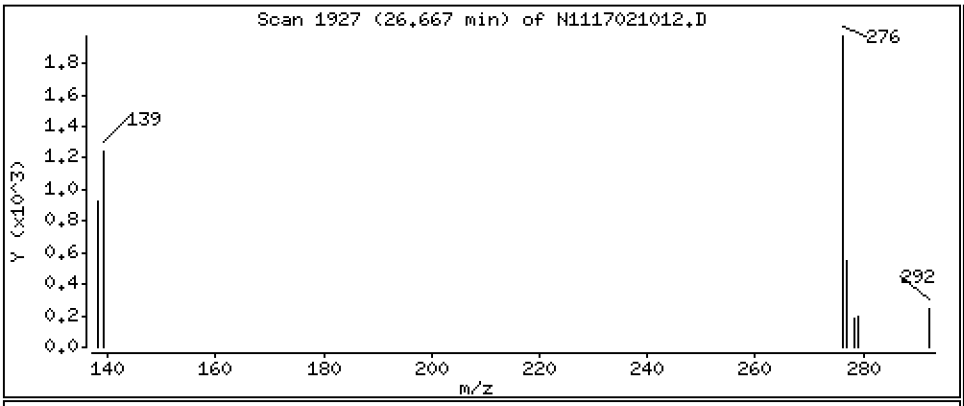
Operator: VTS

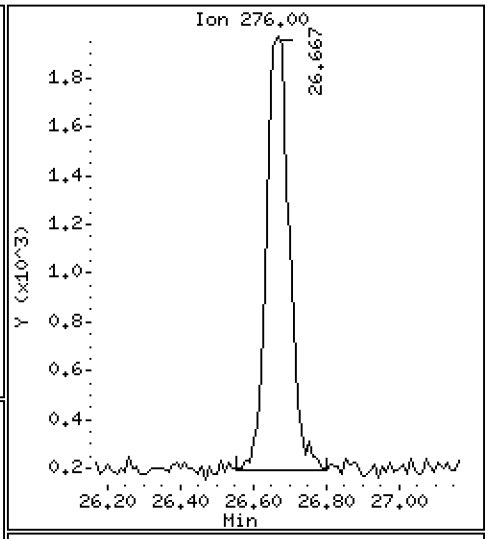
Column phase: Rxi-17Sil MS

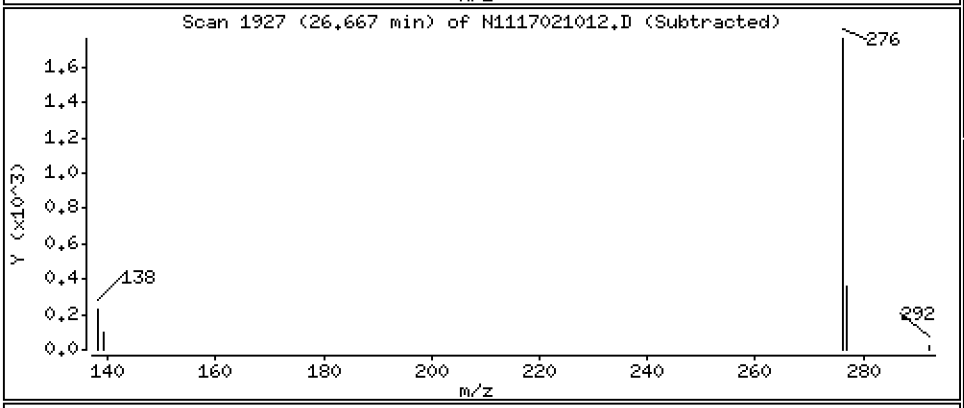
Column diameter: 0.25

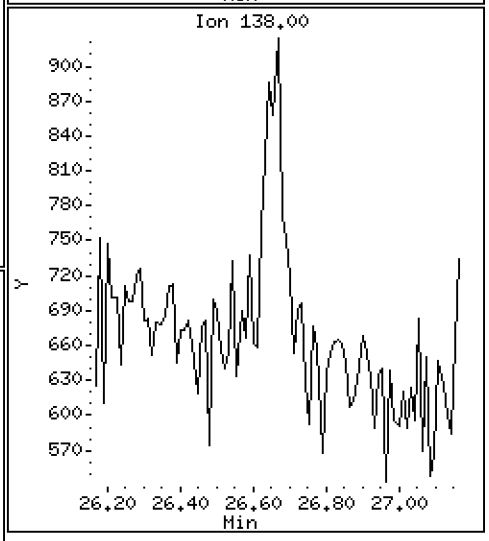
41 Benzo(g,h,i)perylene

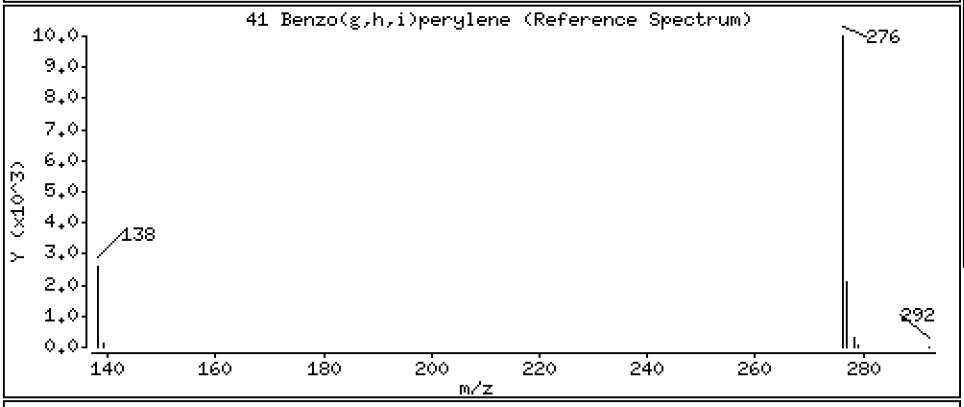
Concentration: 7.14 ng/mL

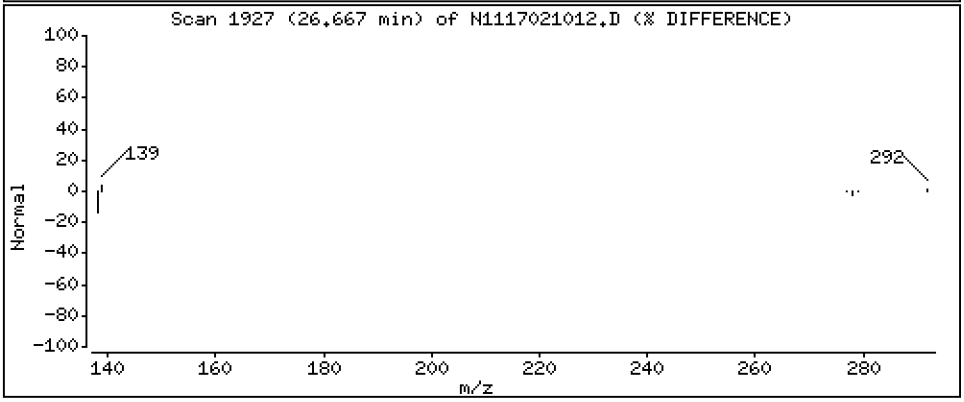












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20170210.b\N1117021012.D
Lab Smp Id: 17A0053-05
Inj Date : 10-FEB-2017 17:39 MS Autotune Date: 15-JAN-2015 15:59
Operator : VTS Inst ID: nt11.i
Smp Info : 17A0053-05
Misc Info :
Comment   :
Method   : \\target\share\chem3\nt11.i\20170210.b\LOWSIM.m
Meth Date : 11-Feb-2017 08:35 nt11.i Quant Type: ISTD
Cal Date : 31-DEC-2016 09:30 Cal File: N1116123104.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.509	8.526	(1.000)	218333	200.000	
	2 Naphthalene	128	Compound Not Detected.					
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.498	9.508	(1.116)	160476	171.142	171
	5 2-Methylnaphthalene	142	9.550	9.561	(1.122)	6595	6.14127	6.14
	6 1-Methylnaphthalene	142	9.813	9.823	(1.153)	3593	3.32661	3.33
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	11.401	11.410	(0.987)	4154	3.12623	3.13
*	11 Acenaphthene-d10	164	11.555	11.564	(1.000)	147879	200.000	
	12 Acenaphthene	153	11.618	11.627	(1.005)	3757	4.29442	4.29(M)
	13 Dibenzofuran	168	11.822	11.822	(1.023)	9021	6.93646	6.94
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.454	12.454	(1.078)	10497	10.1388	10.1
	17 Dibenzothiophene	184	Compound Not Detected.					
*	18 Phenanthrene-d10	188	14.252	14.262	(1.000)	236713	200.000	
	19 Phenanthrene	178	14.294	14.293	(1.003)	77157	57.0121	57.0
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.346	14.356	(1.007)	23548	17.4505	17.5
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	15.298	15.307	(1.066)	4525	3.26037	3.26(MH)
$	24 Fluoranthene-d10	212	16.367	16.367	(1.148)	230836	183.604	184
	25 Fluoranthene	202	16.406	16.405	(1.151)	126872	82.6456	82.6
	26 Pyrene	202	16.905	16.915	(0.889)	132922	100.573	101
	27 Benzo(a)anthracene	228	18.925	18.933	(0.995)	34089	27.8641	27.9
*	28 Chrysene-d12	240	19.024	19.024	(1.000)	203457	200.000	
	29 Chrysene	228	19.074	19.074	(1.003)	66398	52.8915	52.9
	30 Benzo(b)fluoranthene	252	21.001	21.001	(0.944)	36642	31.2339	31.2
	31 Benzo(k)fluoranthene	252	21.049	21.049	(0.946)	19846	15.7061	15.7
	32 Benzo(j)fluoranthene	252	21.126	21.125	(0.950)	16637	14.7709	14.8
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
34	Benzo(e)pyrene	252	21.875	21.875	(0.984)	65624	56.0784	56.1
35	Benzo(a)pyrene	252	22.000	22.000	(0.989)	9624	8.79976	8.80
* 36	Perylene-d12	264	22.240	22.240	(1.000)	217634	200.000	
37	Perylene	252	22.317	22.317	(1.003)	17182	15.0470	15.0
$ 38	Dibenzo(a,h)anthracene-d14	292	25.105	25.116	(1.129)	141228	203.203	203
39	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
40	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
41	Benzo(g,h,i)perylene	276	26.666	26.666	(1.199)	7656	7.14184	7.14

QC Flag Legend

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

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: N1117021012.D
Lab Smp Id: 17A0053-05
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20170210.b\LOWSIM.m
Misc Info:

Calibration Date: 10-FEB-2017
Calibration Time: 13:29
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	219654	109827	439308	218333	-0.60
11 Acenaphthene-d10	135248	67624	270496	147879	9.34
18 Phenanthrene-d10	257021	128511	514042	236713	-7.90
28 Chrysene-d12	259511	129756	519022	203457	-21.60
36 Perylene-d12	257535	128768	515070	217634	-15.49

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.53	8.03	9.03	8.51	-0.21
11 Acenaphthene-d10	11.56	11.06	12.06	11.56	-0.08
18 Phenanthrene-d10	14.26	13.76	14.76	14.25	-0.07
28 Chrysene-d12	19.02	18.52	19.52	19.02	0.00
36 Perylene-d12	22.24	21.74	22.74	22.24	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1117021012.D

Lab ID: 17A0053-05
nt11.i, 20170210.b\LOWSIM.m,   10-FEB-2017 17:39

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

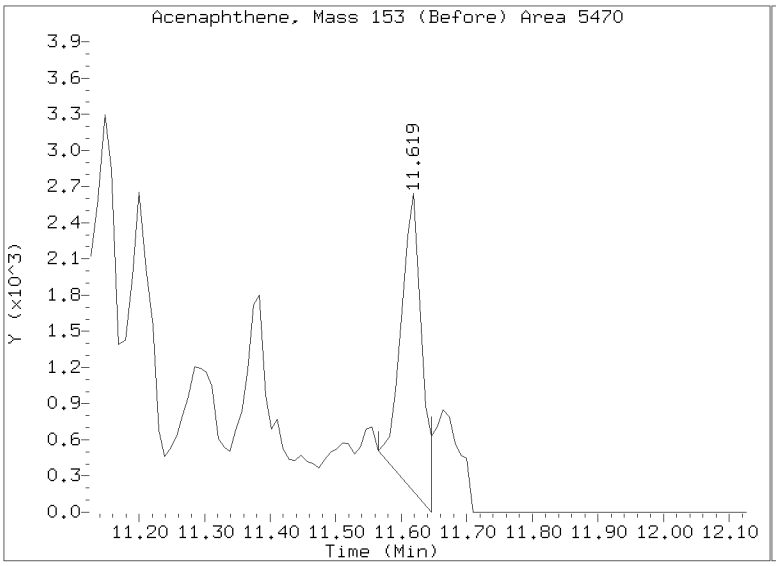
NONE

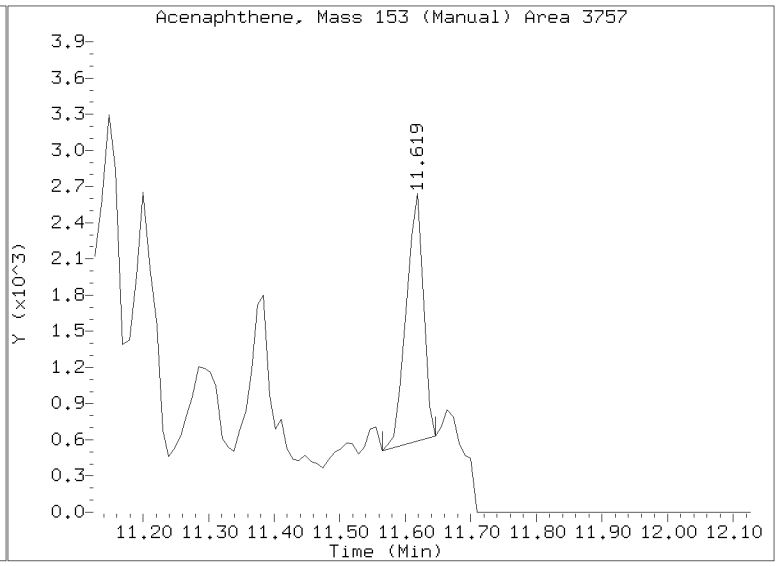
On Column LOD for nt11.i, 20170210.b\LOWSIM.m, allpna.sub = 3.0000

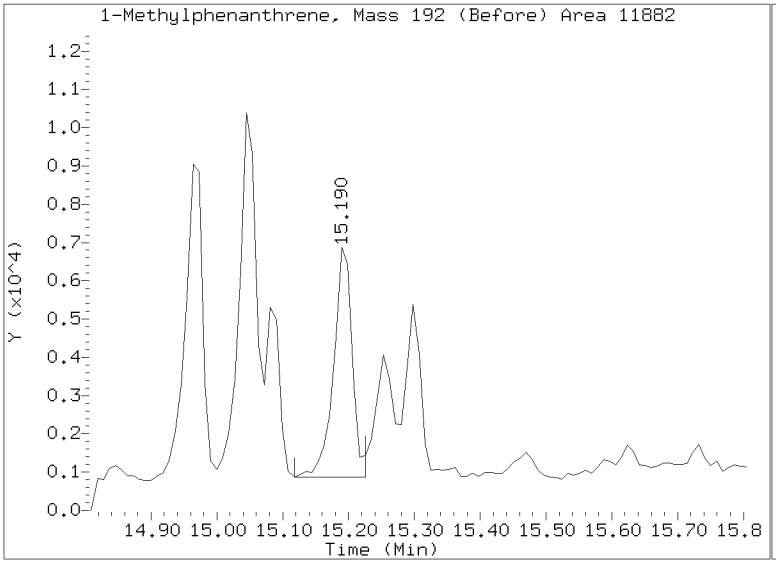
Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

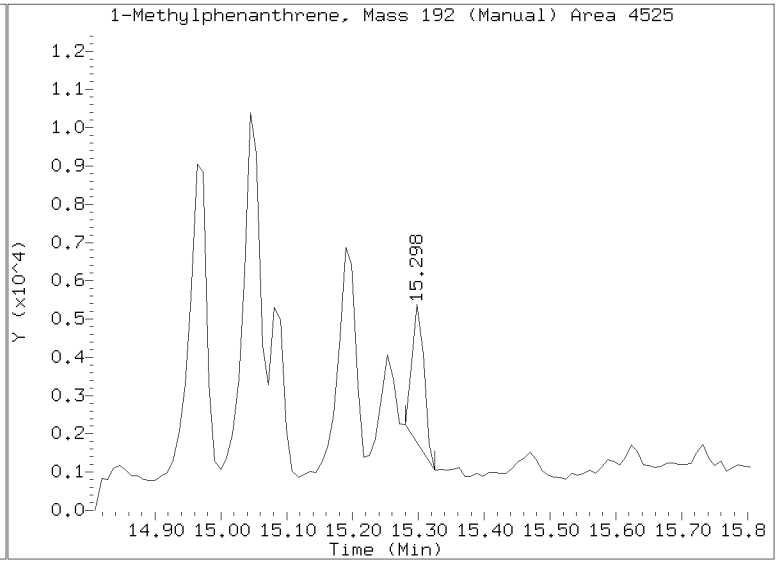
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt11.i/20170210.b/N1117021012.D
Injection Date: 10-FEB-2017 17:39
Lab ID:17A0053-05 Client ID:
Report Date: 02/11/2017 08:35









PG-SMA2-3-MUS-170105

Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270D-SIM

Polycyclic Aromatic Hydrocarbons (PAH) low level

Laboratory:	Analytical Resources, Inc.			SDG:	17A0053
Client:	Anchor QEA, LLC			Project:	Port Gamble Shellfish Monitoring
Matrix:	Tissue	Laboratory ID:	17A0053-06	File ID:	N1117021013.D
Sampled:	01/05/17 12:40	Prepared:	01/31/17 13:45	Analyzed:	02/10/17 18:14
Solids:		Preparation:	EPA 3550C-Mod (Ultrasonic	Initial/Final:	10.03 g / 0.5 mL
Batch:	BFA0647	Sequence:	SFB0130	Calibration:	ZL00083
Instrument:	NT11	Column:	RXi-17Sil-MS		

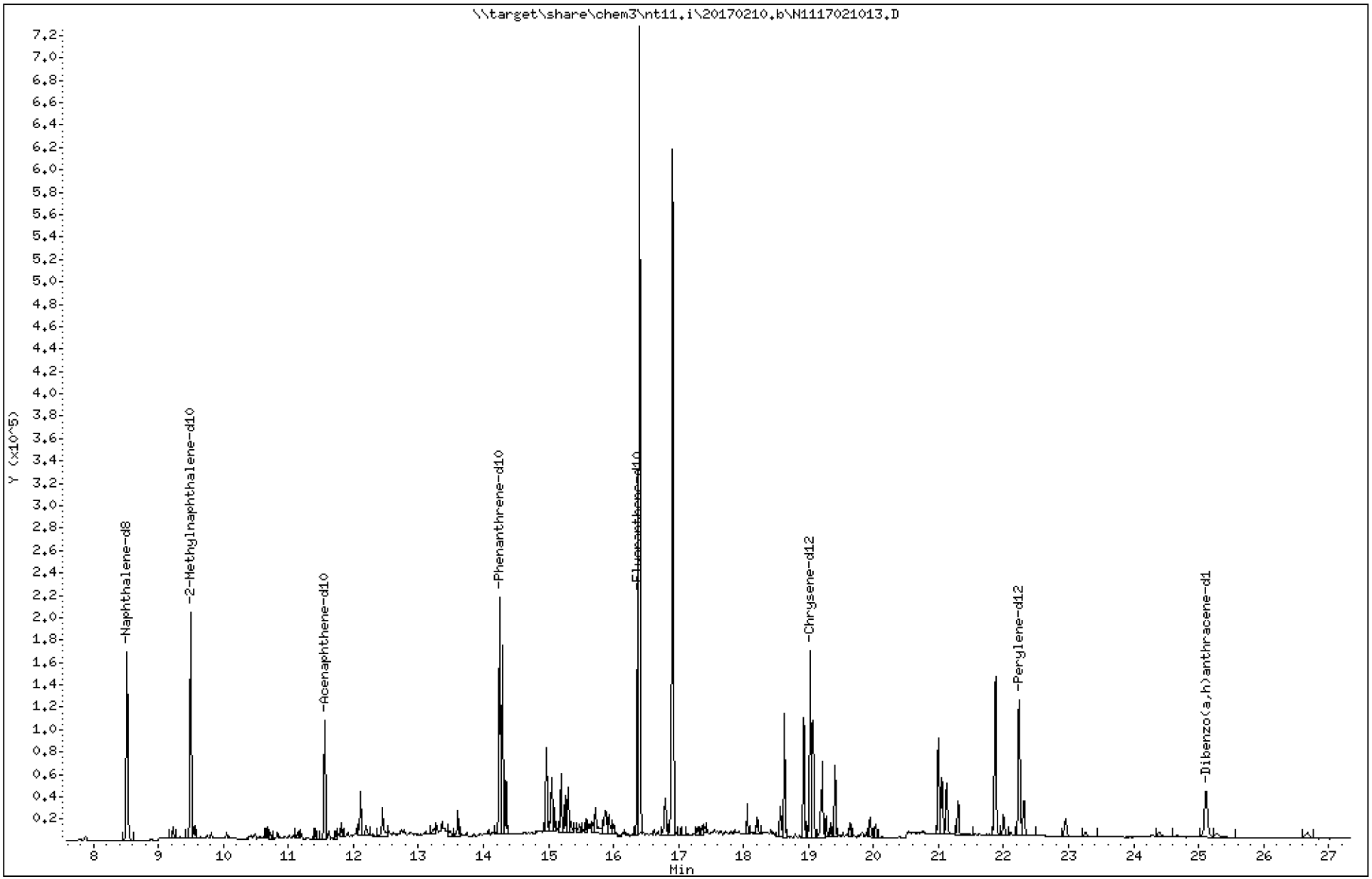
CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg)	Q	DL	RL
91-20-3	Naphthalene	1	0.60	U	0.50	0.60
91-57-6	2-Methylnaphthalene	1	0.50	U	0.50	0.50
208-96-8	Acenaphthylene	1	0.50	U	0.50	0.50
83-32-9	Acenaphthene	1	0.50	U	0.50	0.50
86-73-7	Fluorene	1	0.83		0.50	0.50
85-01-8	Phenanthrene	1	7.09		0.50	0.50
120-12-7	Anthracene	1	2.23		0.50	0.50
206-44-0	Fluoranthene	1	24.8		0.50	0.50
129-00-0	Pyrene	1	25.5		0.50	0.50
56-55-3	Benzo(a)anthracene	1	4.56		0.50	0.50
218-01-9	Chrysene	1	7.67		0.50	0.50
205-99-2	Benzo(b)fluoranthene	1	5.17		0.50	0.50
207-08-9	Benzo(k)fluoranthene	1	2.90		0.50	0.50
50-32-8	Benzo(a)pyrene	1	1.34		0.50	0.50
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.50	U	0.50	0.50
53-70-3	Dibenzo(a,h)anthracene	1	0.50	U	0.50	0.50
191-24-2	Benzo(g,h,i)perylene	1	0.66		0.50	0.50
1985-5-0	Perylene	1	2.11		0.50	0.50
197-97-2	Benzo(e)pyrene	1	9.03		0.50	0.50

SURROGATES	ADDED (ug/kg)	CONC (ug/kg)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	14.955	7.80	52.1	30 - 160	
Dibenzo[a,h]anthracene-d14	14.955	10.0	66.9	30 - 160	
Fluoranthene-d10	14.955	9.05	60.5	30 - 160	

Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021013.D
Date : 10-FEB-2017 18:14
Client ID:
Sample Info: 17A0053-06

Instrument: nt11.i
Operator: VTS
Column diameter: 0.25

Column phase: Rxi-17Sil MS



Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021013.D

Date : 10-FEB-2017 18:14

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-06

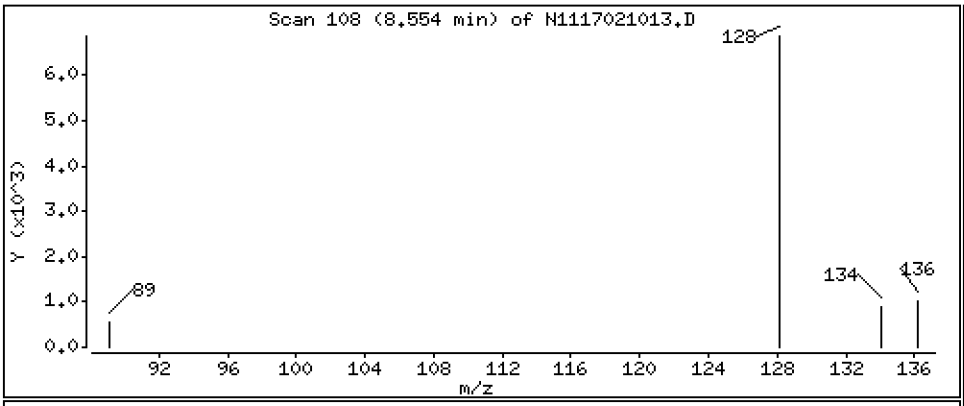
Operator: VTS

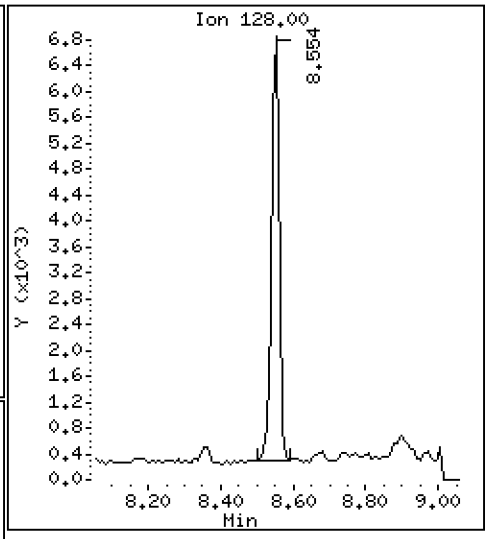
Column phase: Rxi-17Sil MS

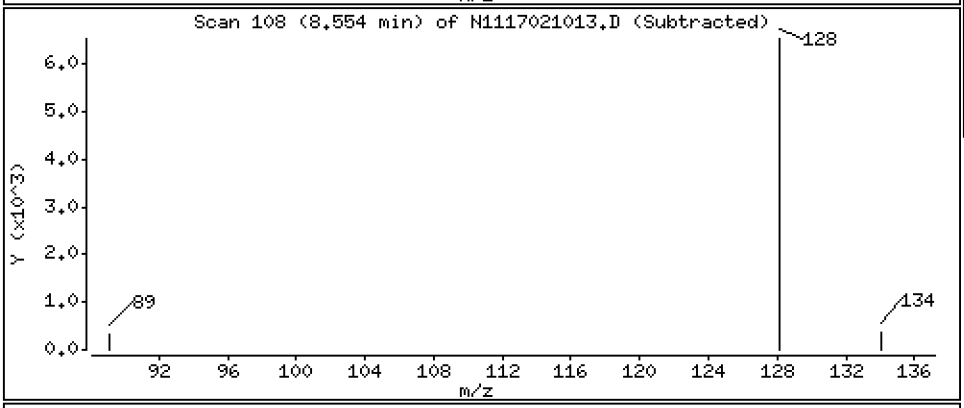
Column diameter: 0.25

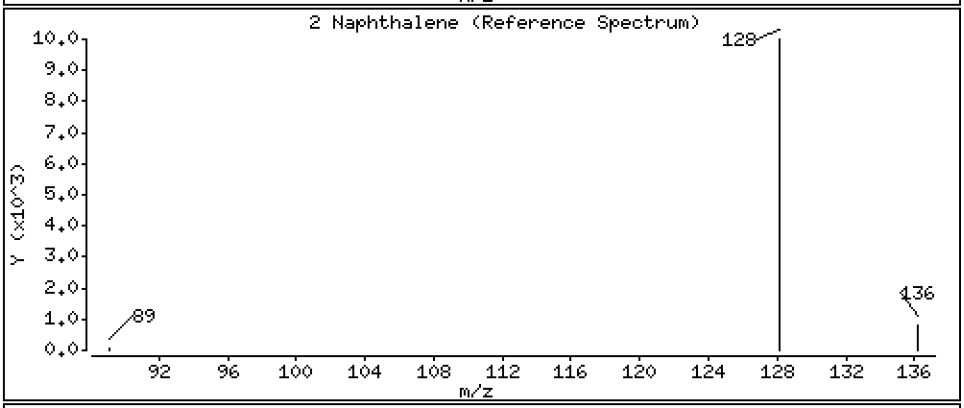
2 Naphthalene

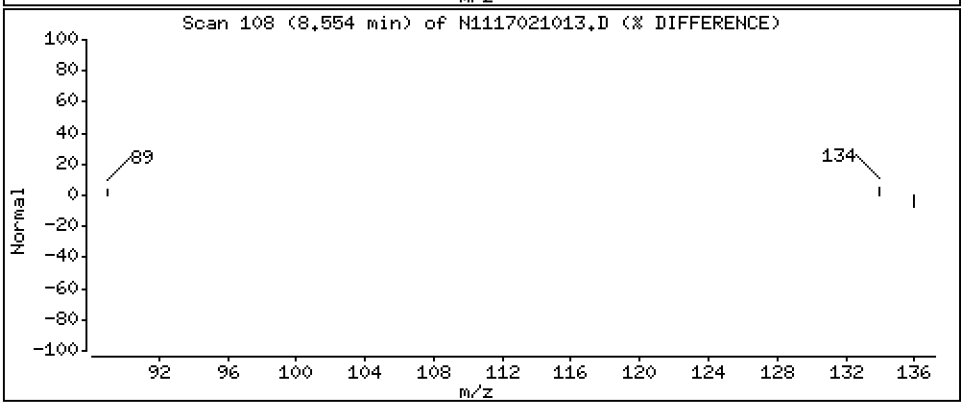
Concentration: 8.92 ng/mL











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Date : 10-FEB-2017 18:14

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-06

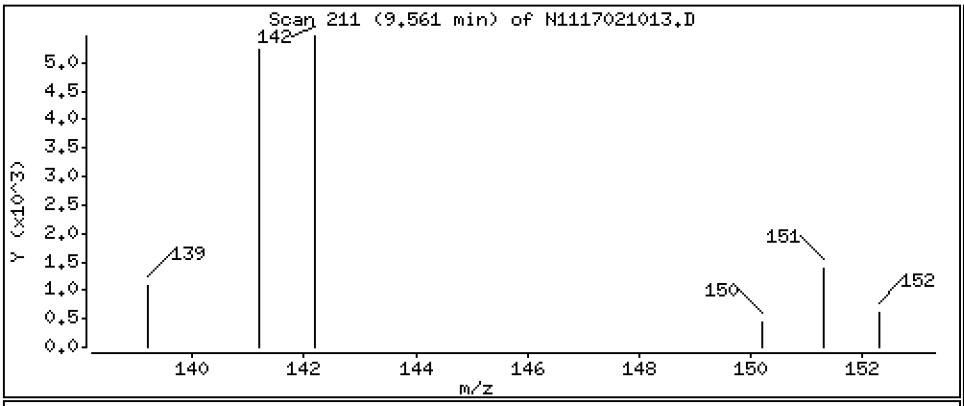
Operator: VTS

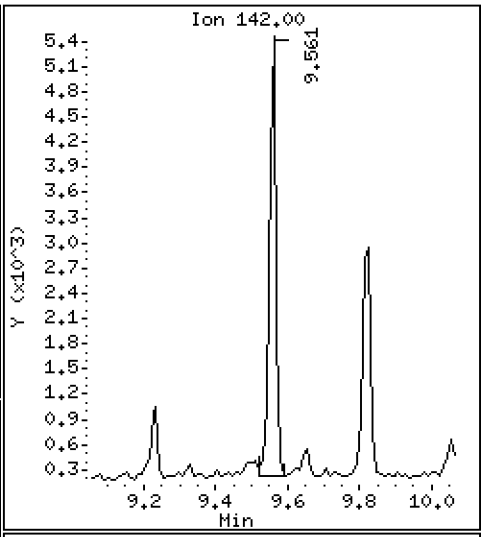
Column phase: Rxi-17Sil MS

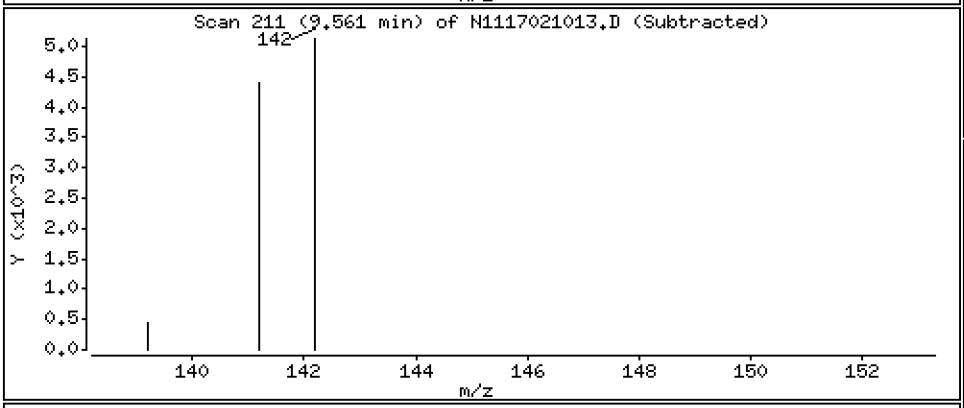
Column diameter: 0.25

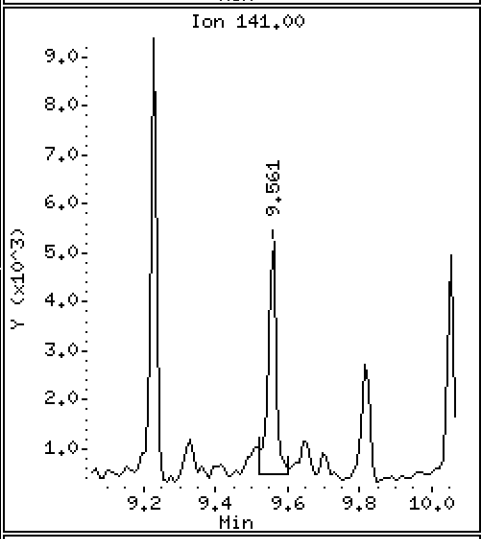
5 2-Methylnaphthalene

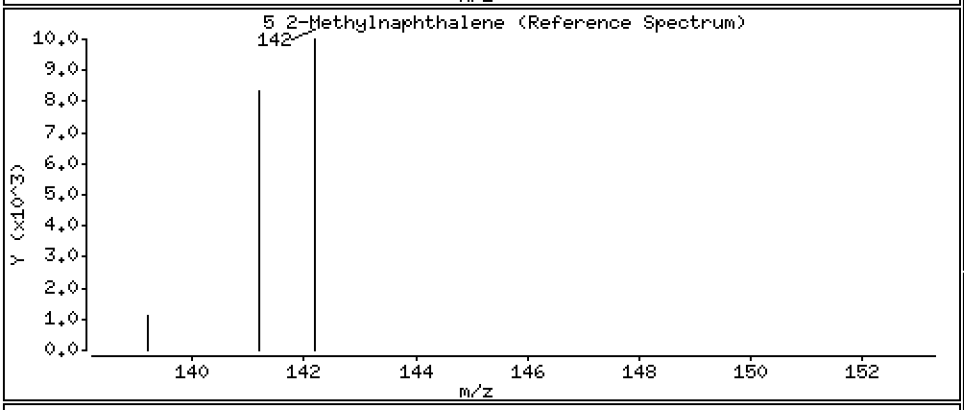
Concentration: 7.00 ng/mL

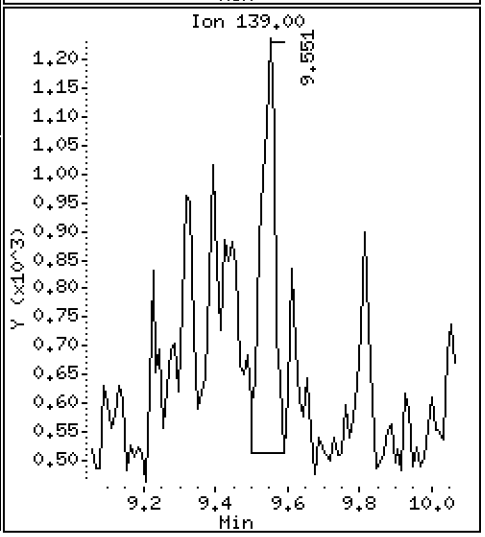


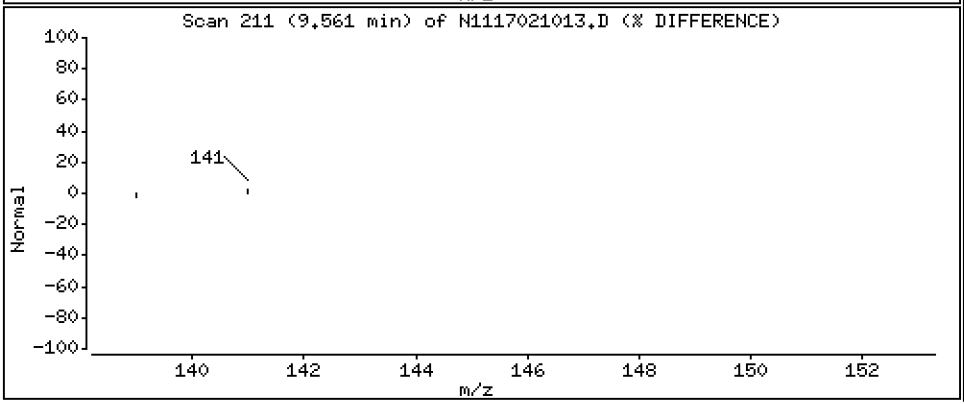












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Date : 10-FEB-2017 18:14

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-06

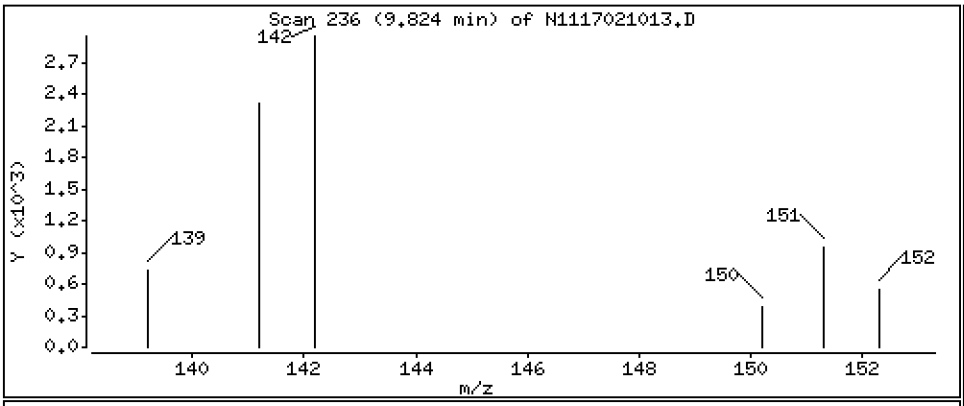
Operator: VTS

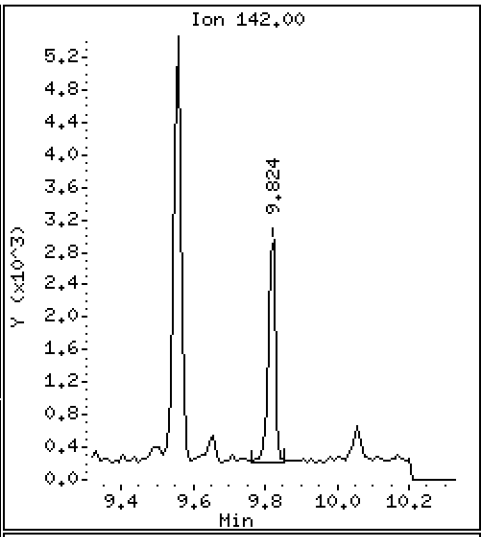
Column phase: Rxi-17Sil MS

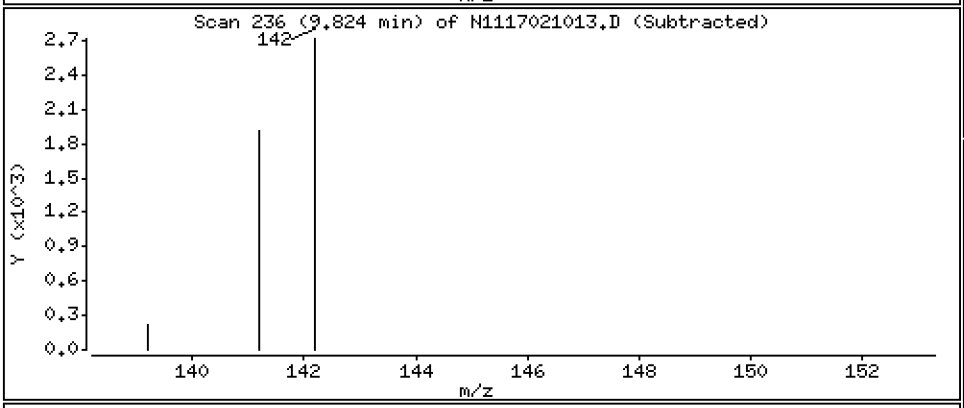
Column diameter: 0.25

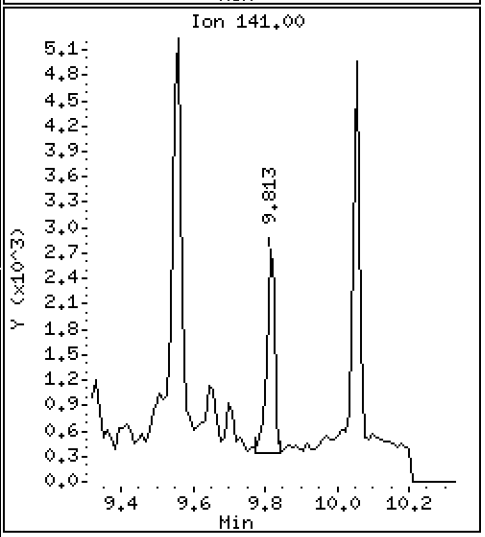
6 1-Methylnaphthalene

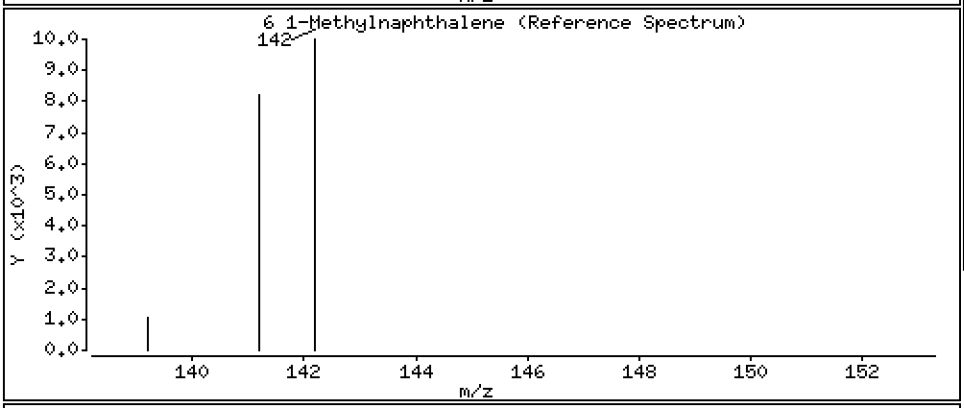
Concentration: 3.94 ng/mL

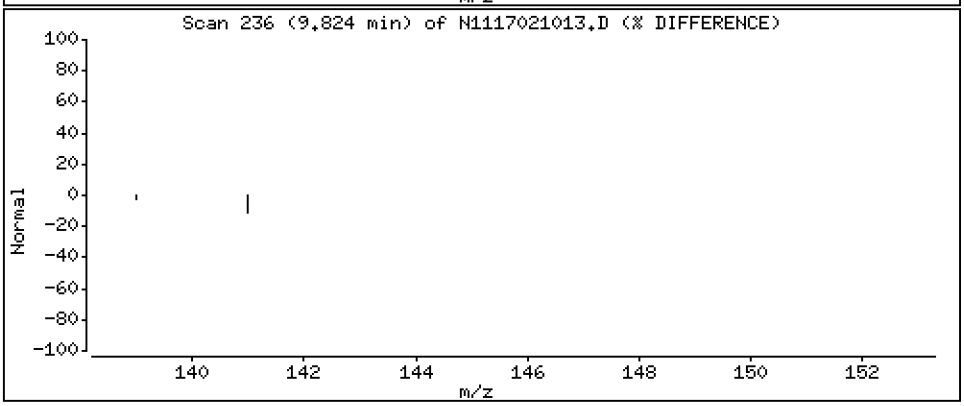












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Date : 10-FEB-2017 18:14

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-06

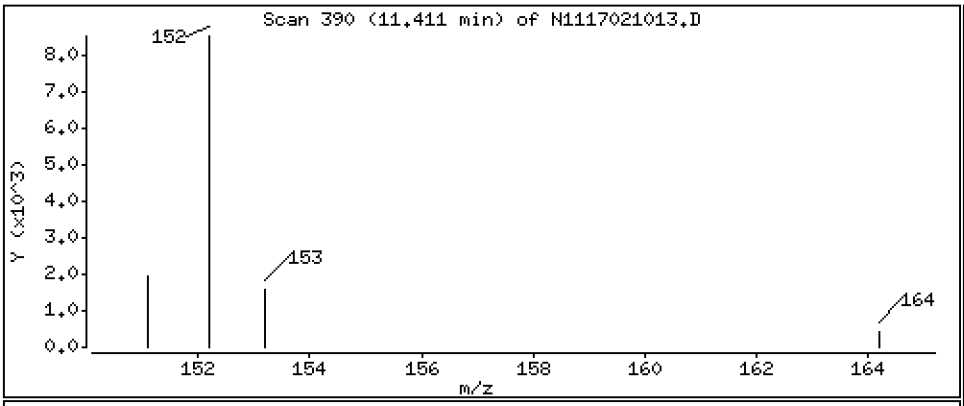
Operator: VTS

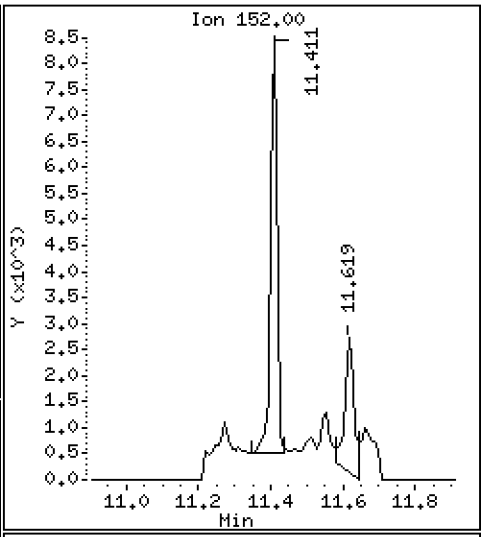
Column phase: Rxi-17Sil MS

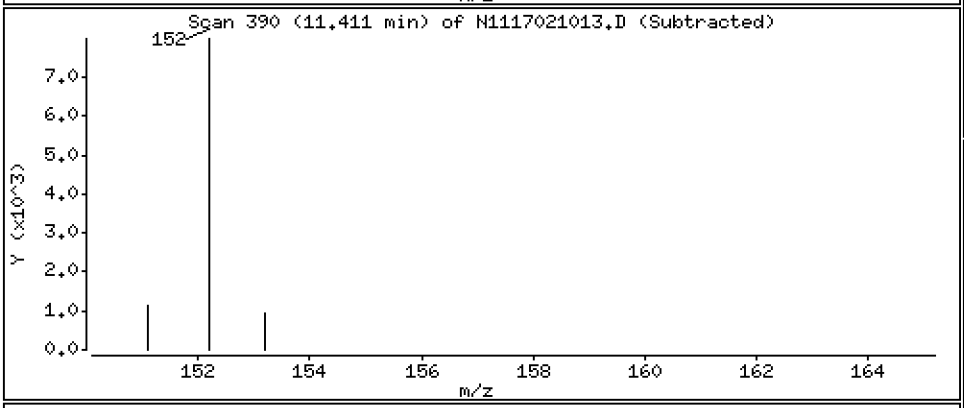
Column diameter: 0.25

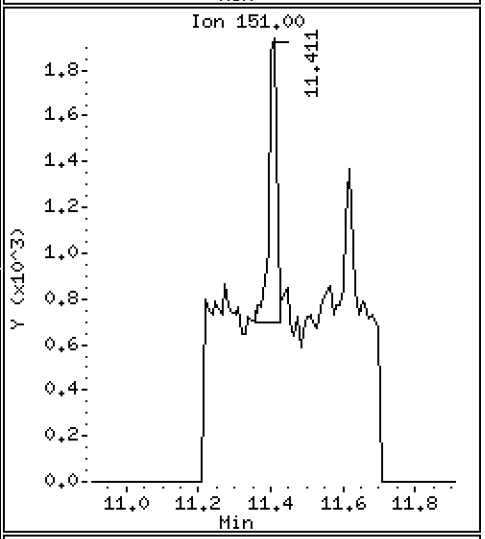
10 Acenaphthylene

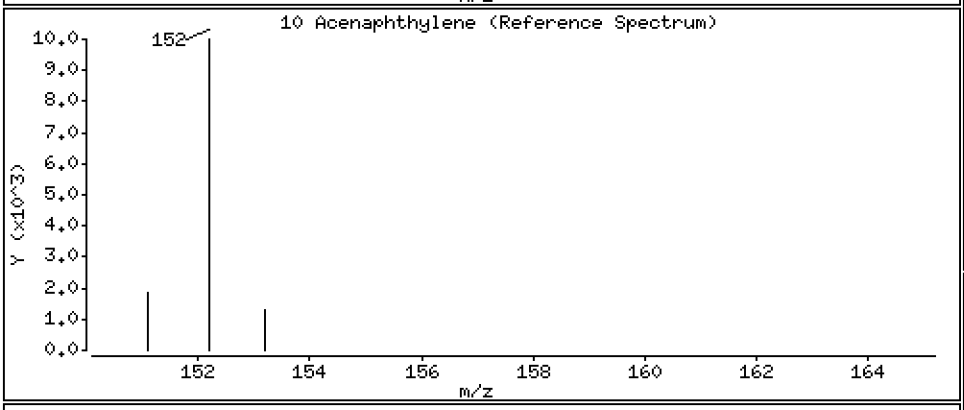
Concentration: 7.45 ng/mL

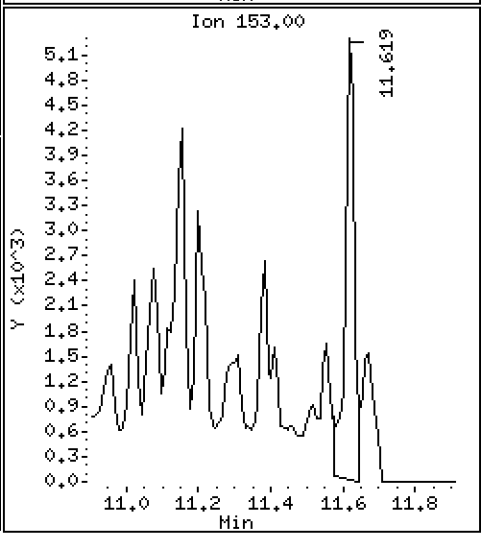


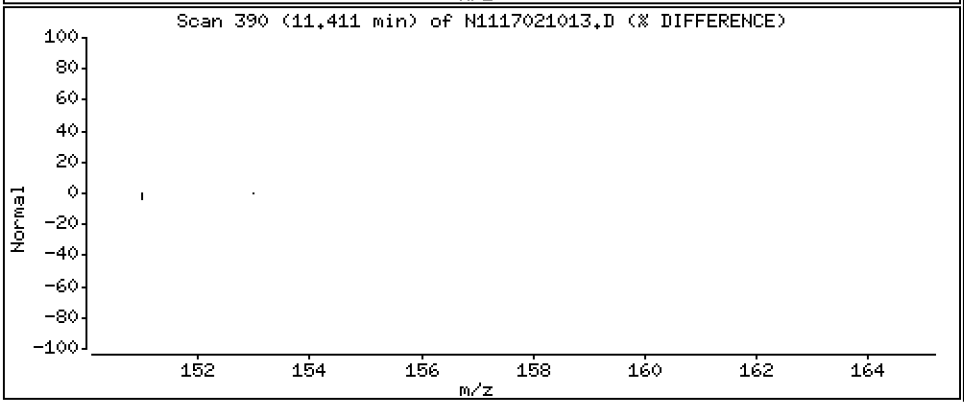












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Date : 10-FEB-2017 18:14

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-06

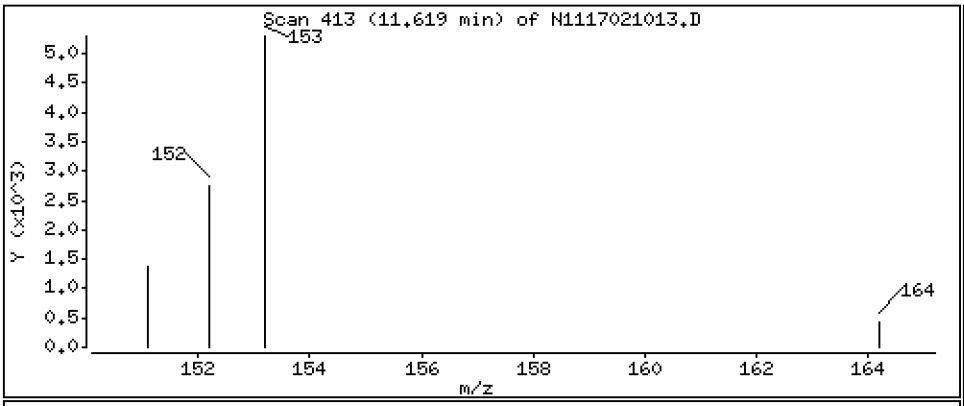
Operator: VTS

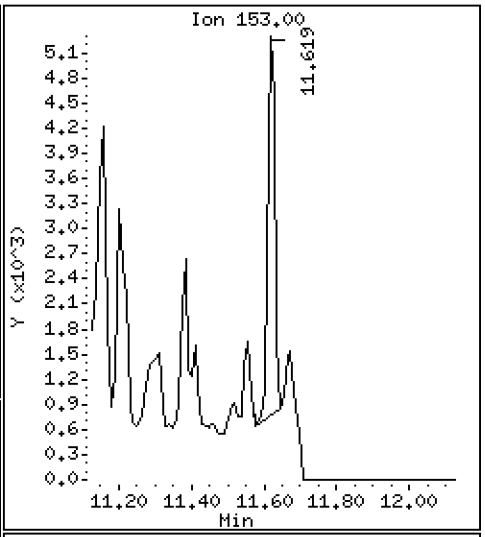
Column phase: Rxi-17Sil MS

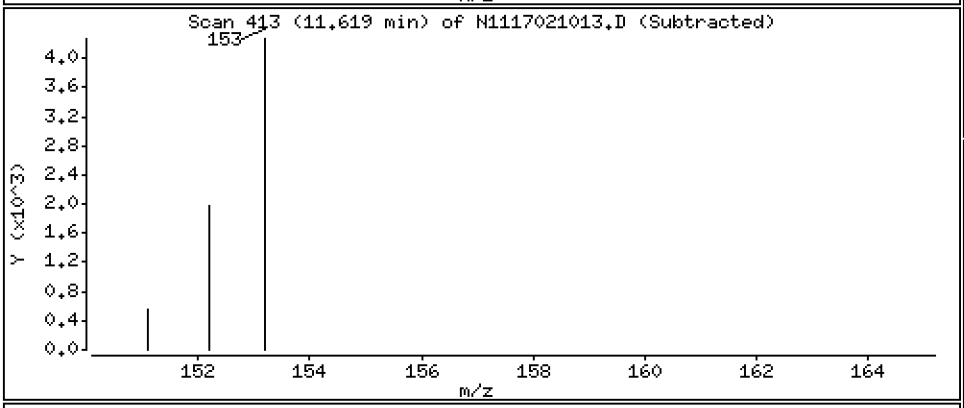
Column diameter: 0.25

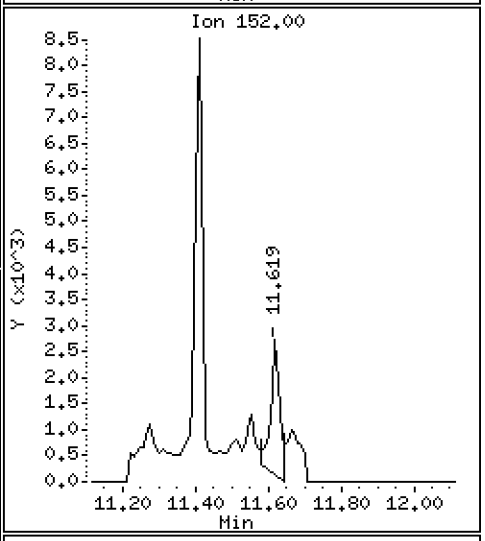
12 Acenaphthene

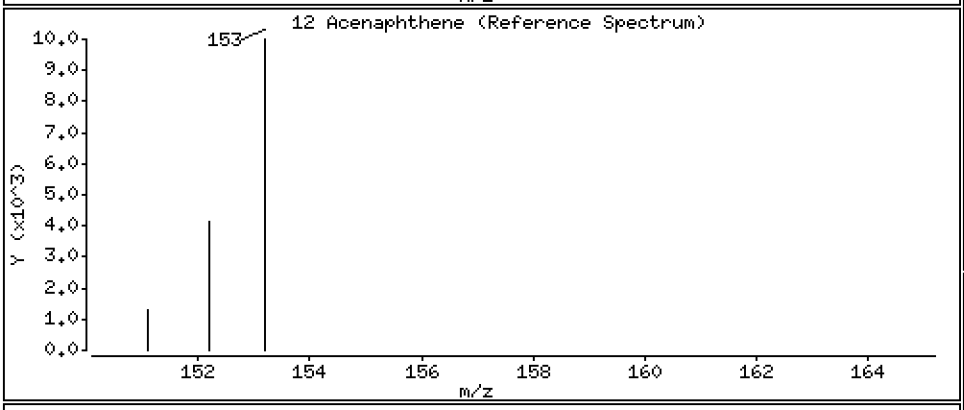
Concentration: 7.04 ng/mL

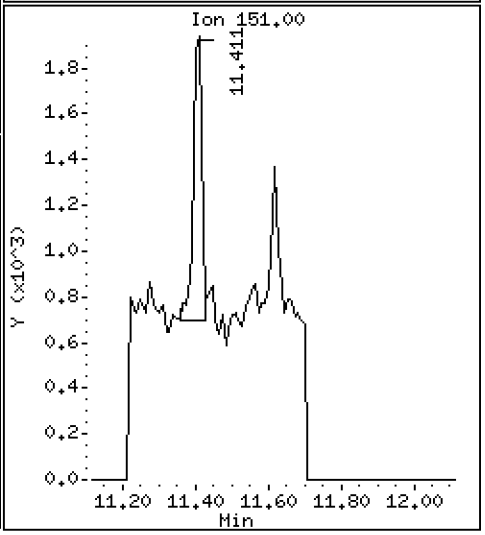


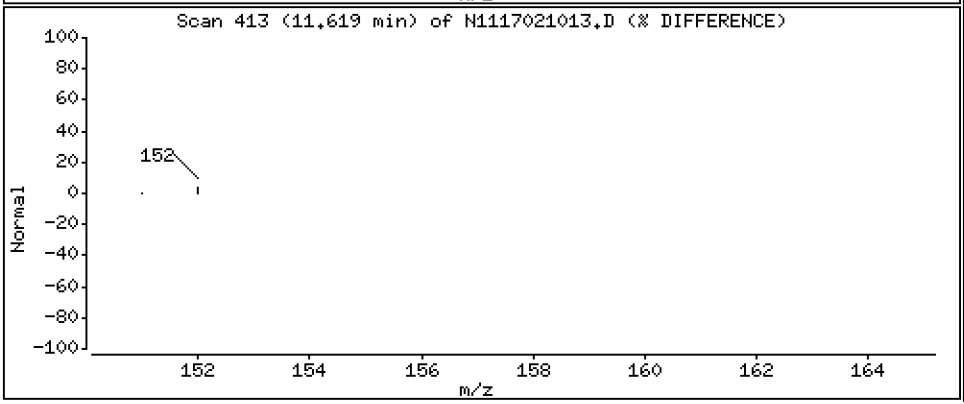












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Date : 10-FEB-2017 18:14

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-06

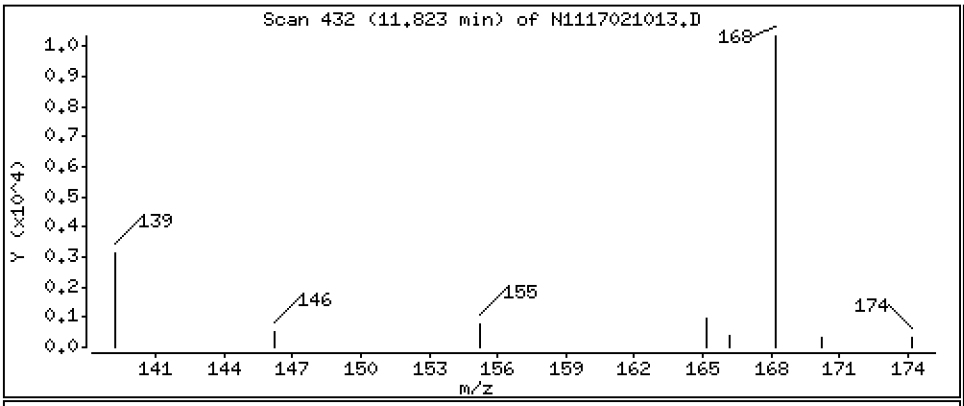
Operator: VTS

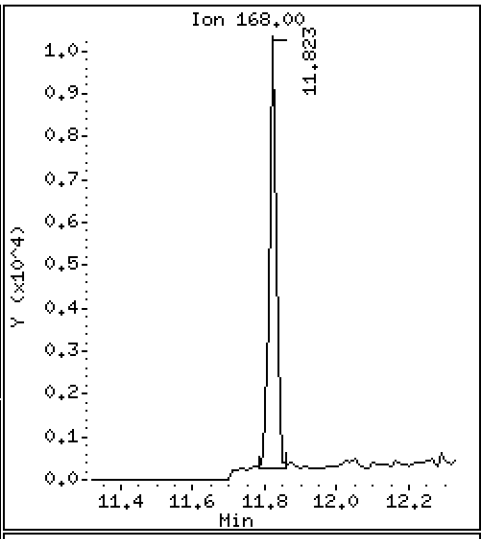
Column phase: Rxi-17Sil MS

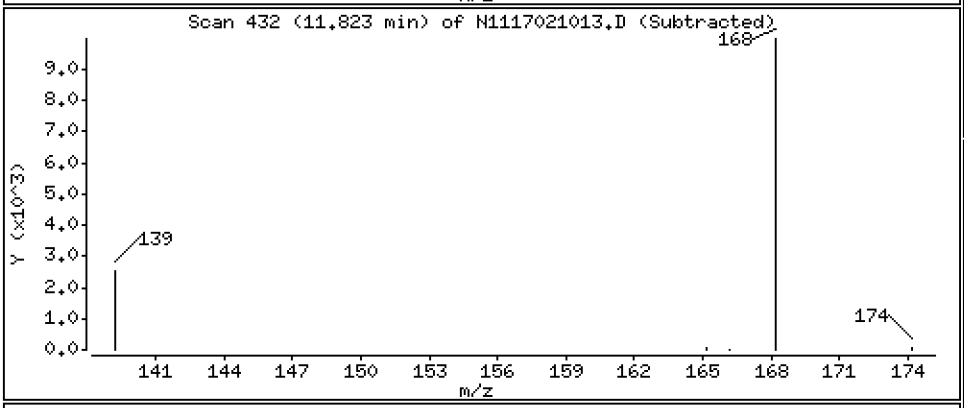
Column diameter: 0.25

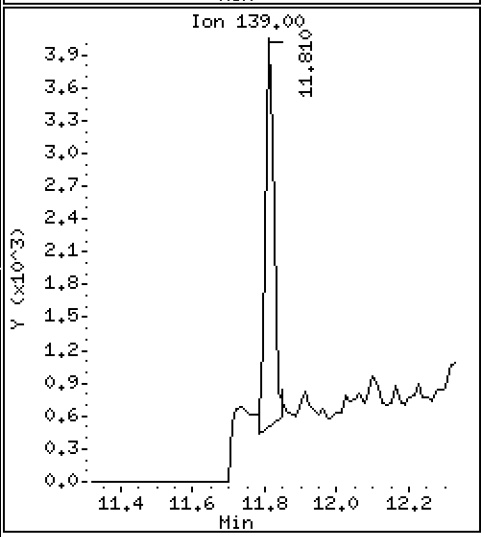
13 Dibenzofuran

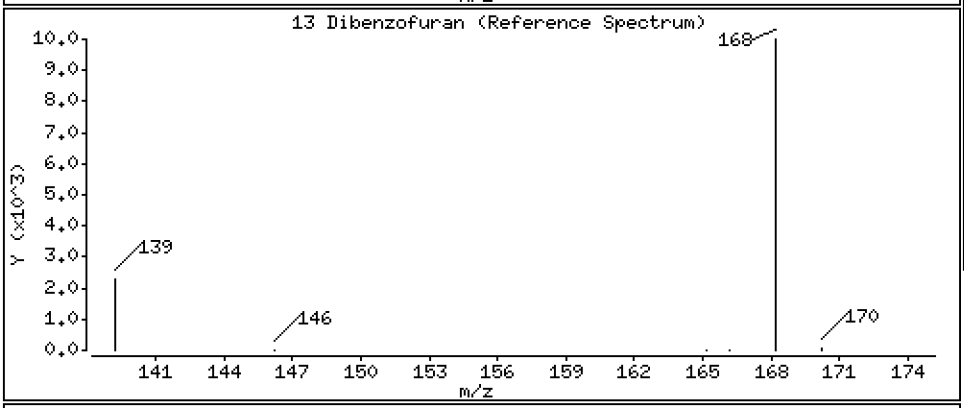
Concentration: 9.73 ng/mL

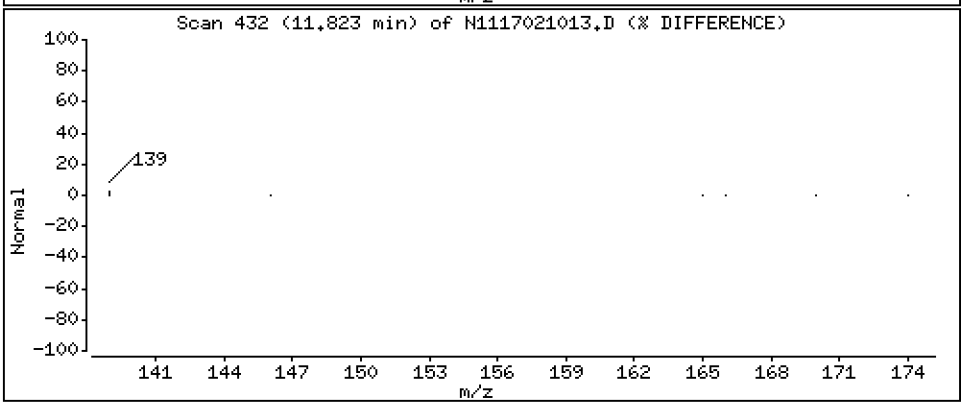












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Date : 10-FEB-2017 18:14

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-06

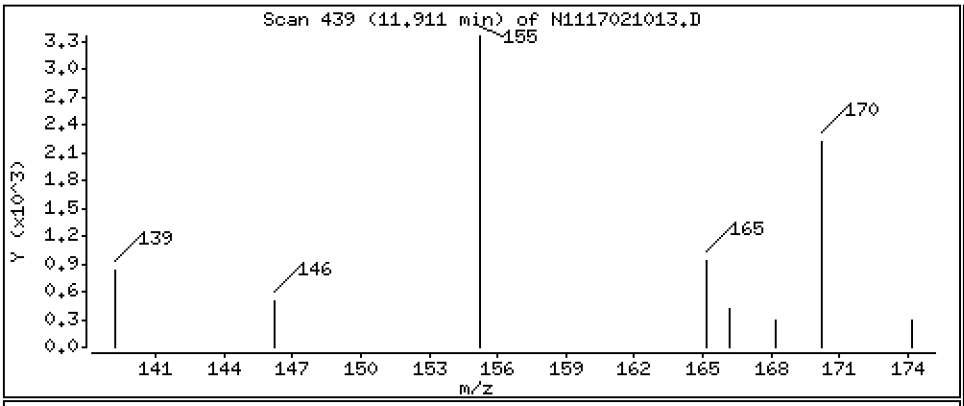
Operator: VTS

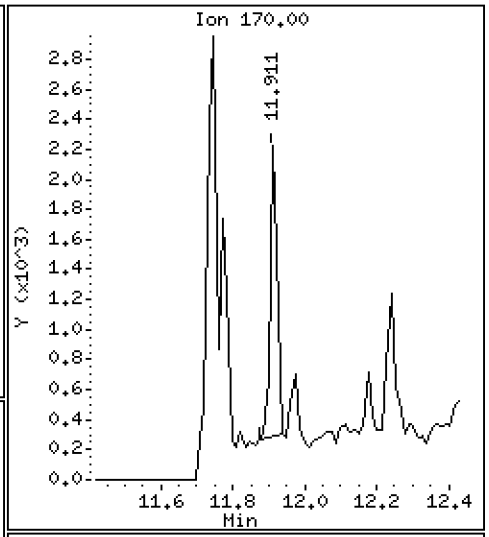
Column phase: Rxi-17Sil MS

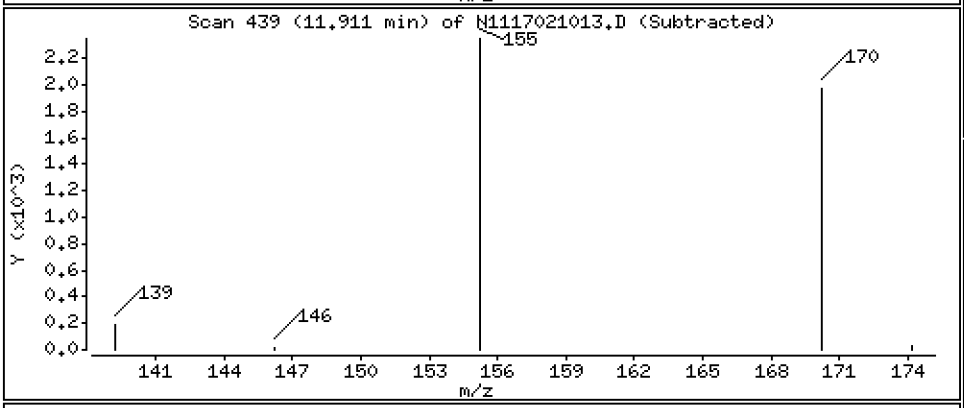
Column diameter: 0.25

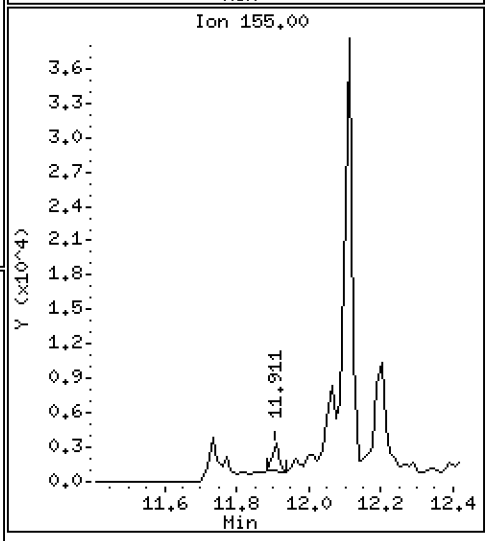
14 2,3,5-Trimethylnaphthalene

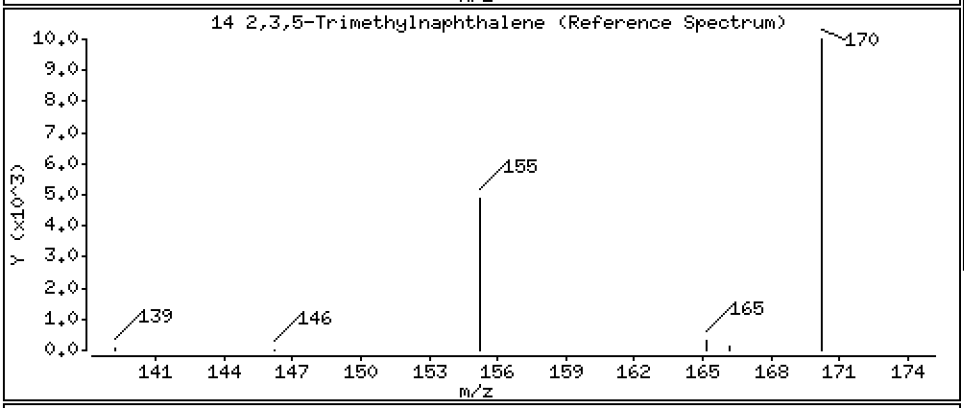
Concentration: 3.22 ng/mL

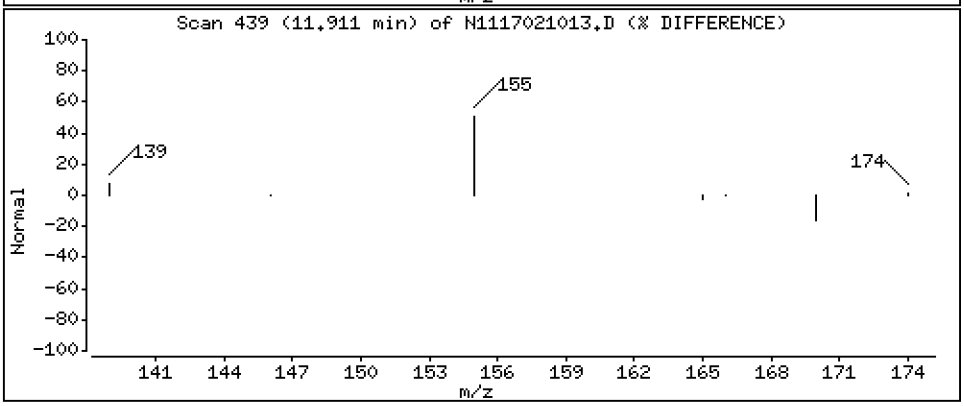












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Date : 10-FEB-2017 18:14

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-06

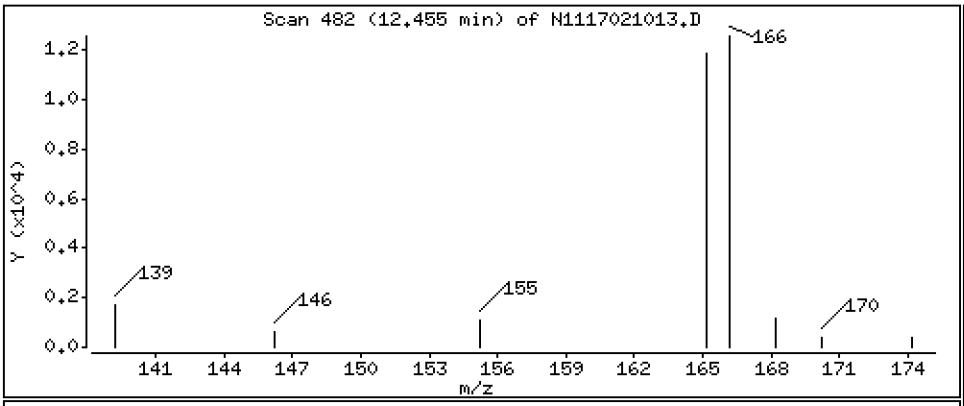
Operator: VTS

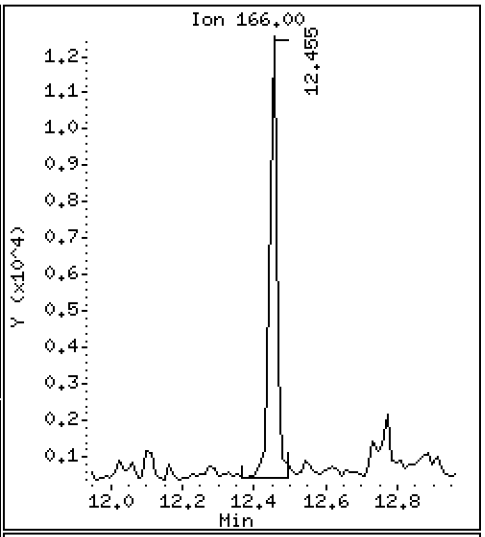
Column phase: Rxi-17Sil MS

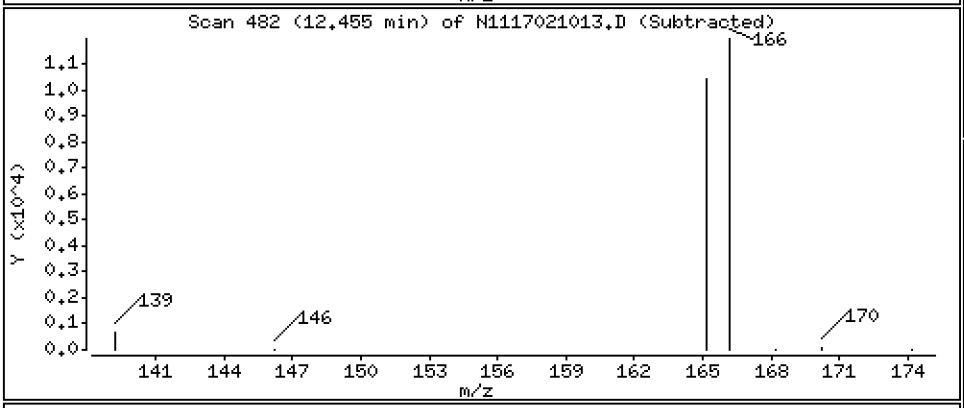
Column diameter: 0.25

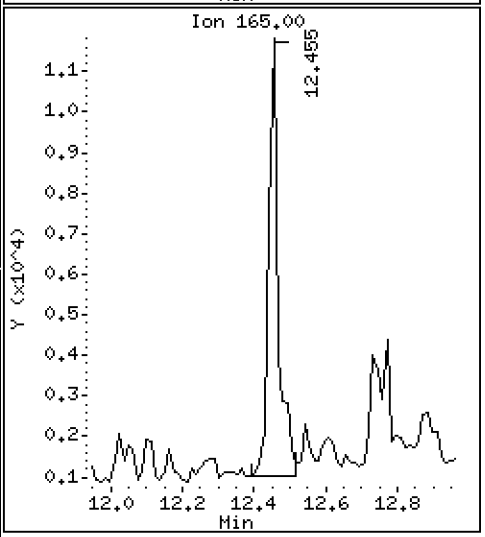
16 Fluorene

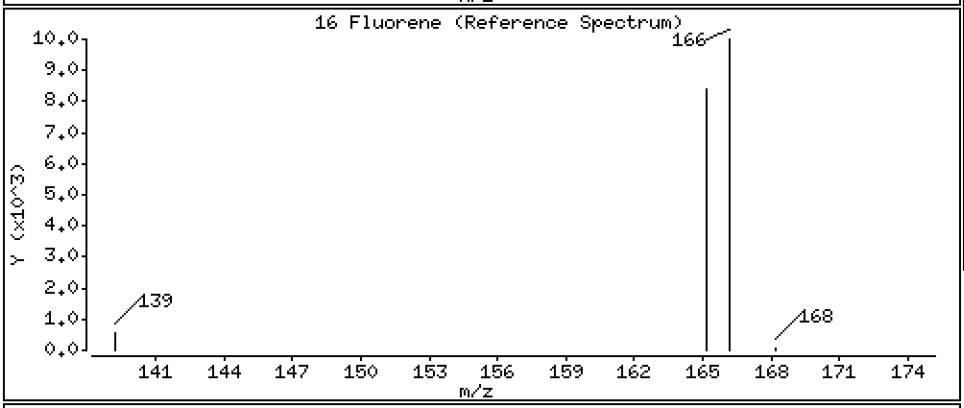
Concentration: 16.6 ng/mL

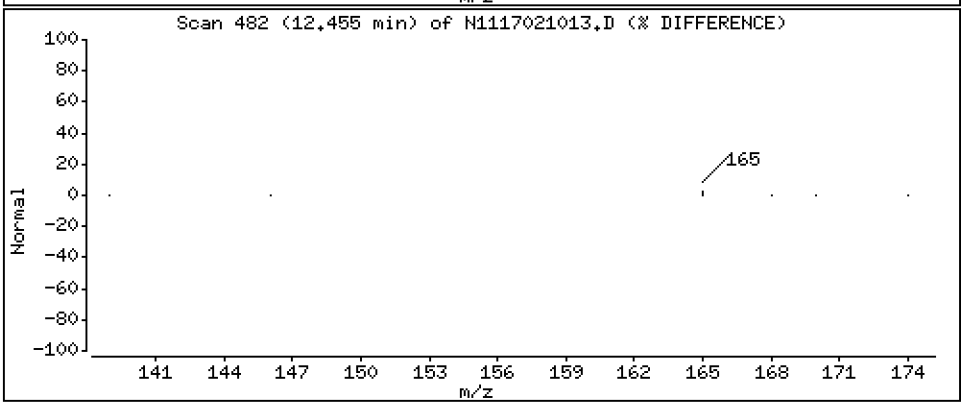












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021013.D

Date : 10-FEB-2017 18:14

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-06

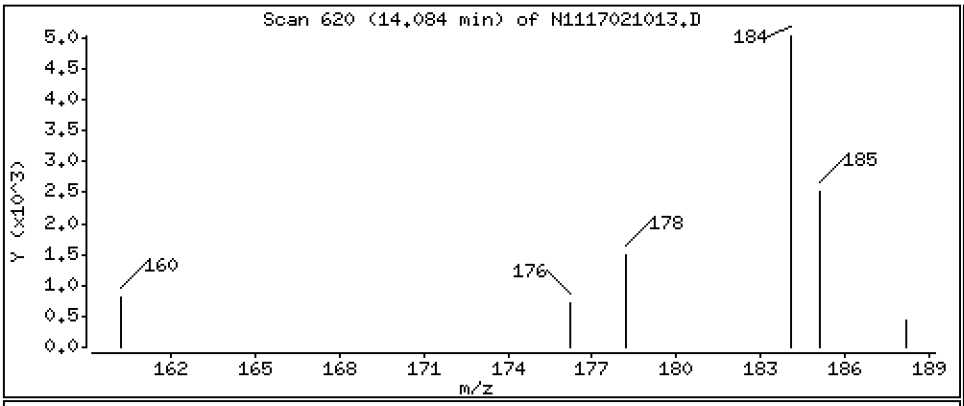
Operator: VTS

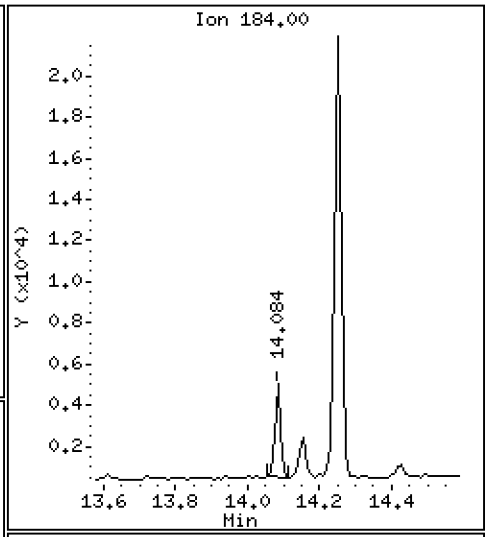
Column phase: Rxi-17Sil MS

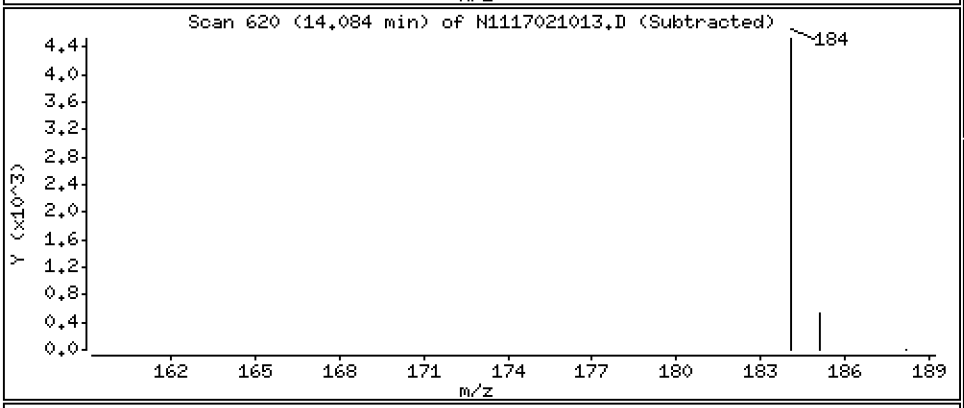
Column diameter: 0.25

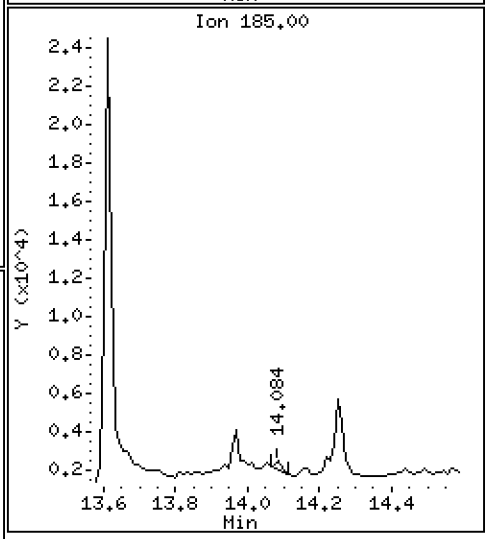
17 Dibenzothiophene

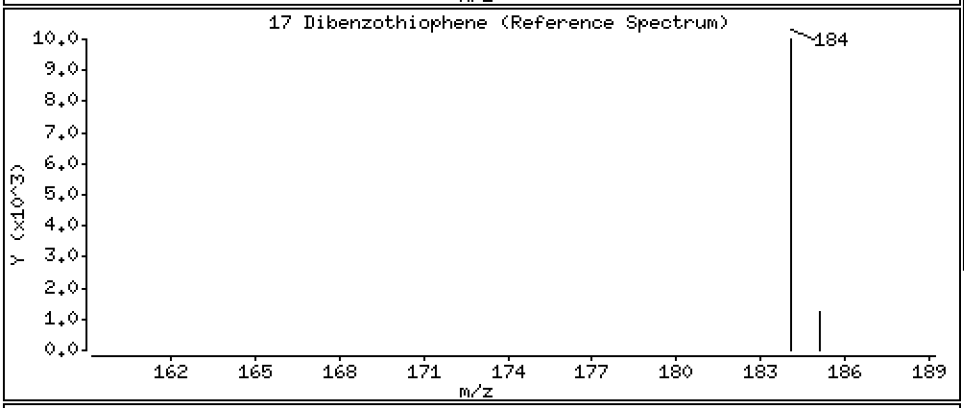
Concentration: 5.24 ng/mL

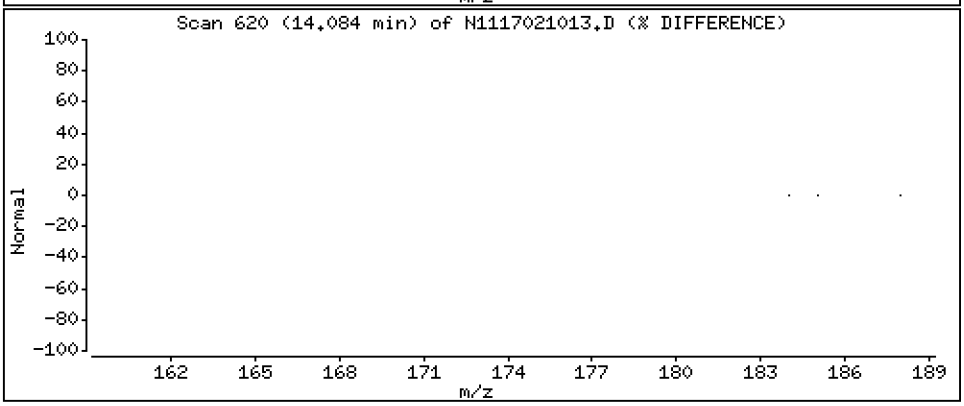












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021013.D

Date : 10-FEB-2017 18:14

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-06

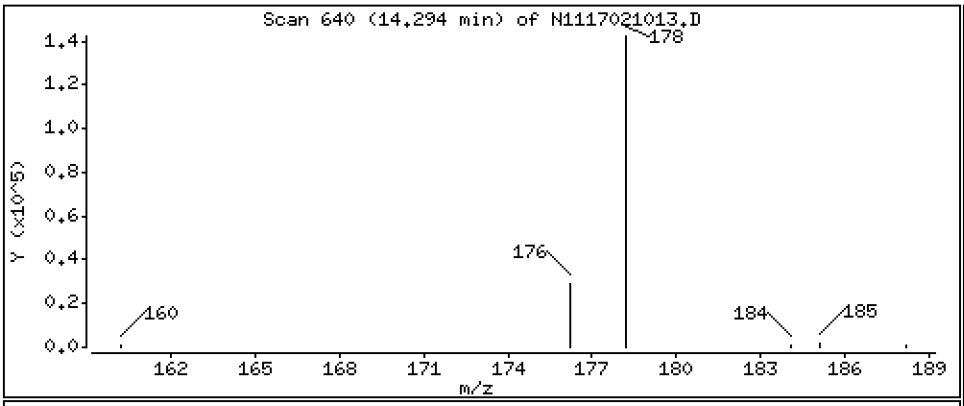
Operator: VTS

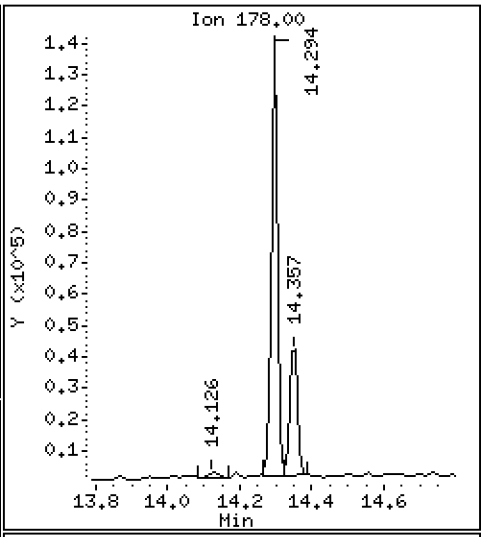
Column phase: Rxi-17Sil MS

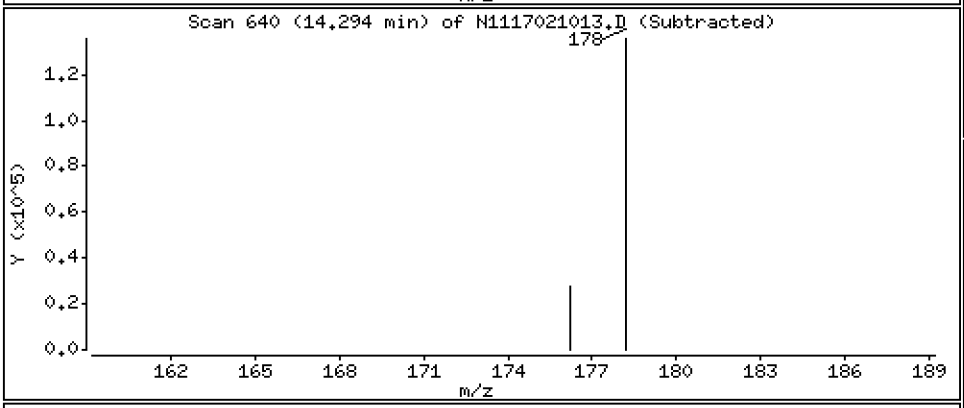
Column diameter: 0.25

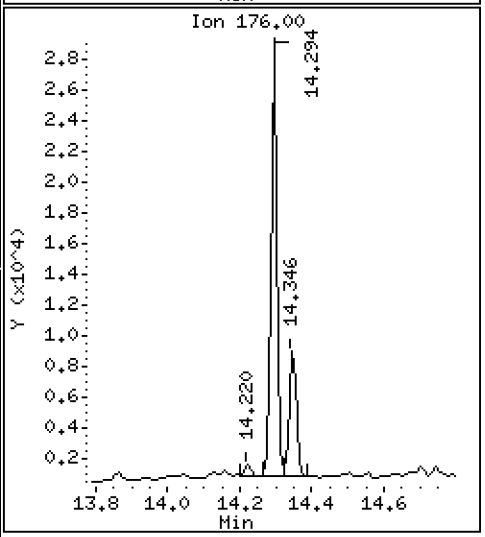
19 Phenanthrene

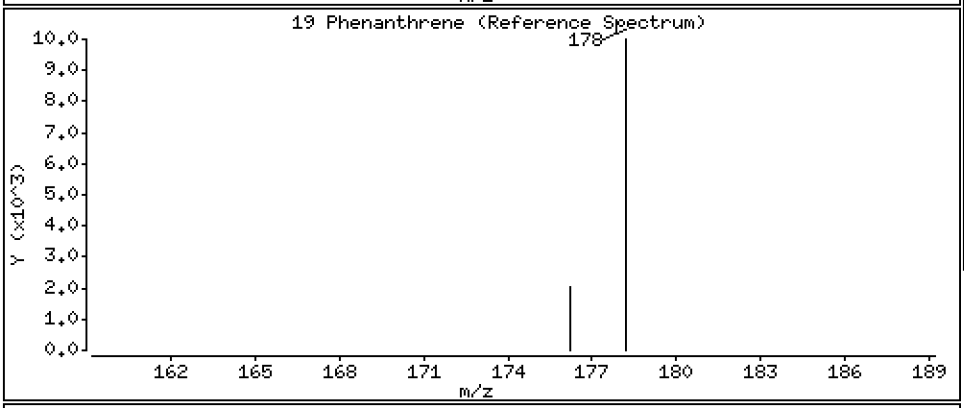
Concentration: 142 ng/mL

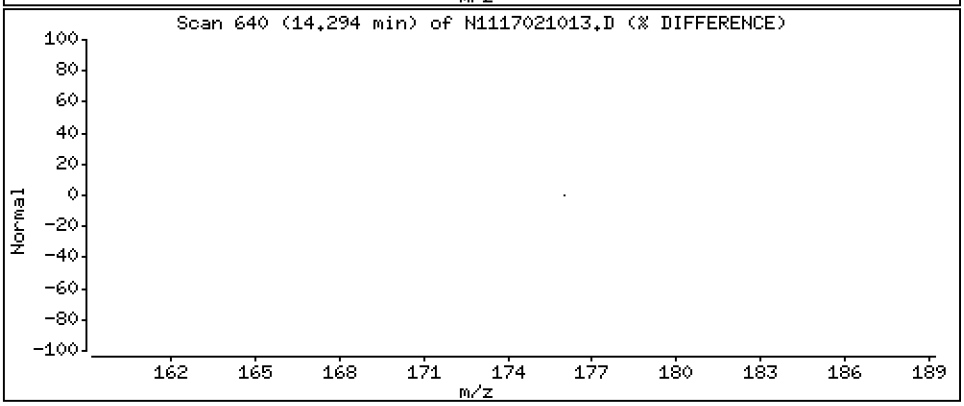












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Date : 10-FEB-2017 18:14

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-06

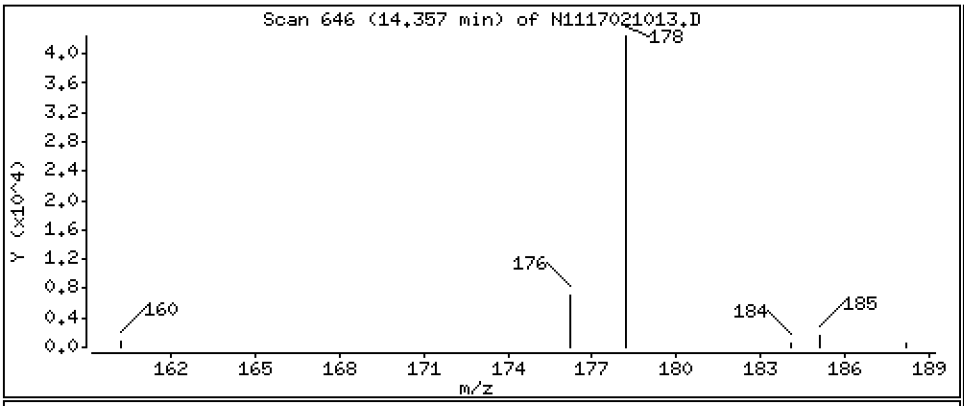
Operator: VTS

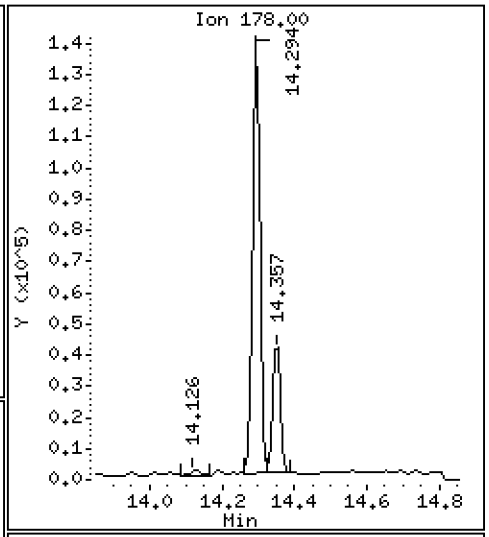
Column phase: Rxi-17Sil MS

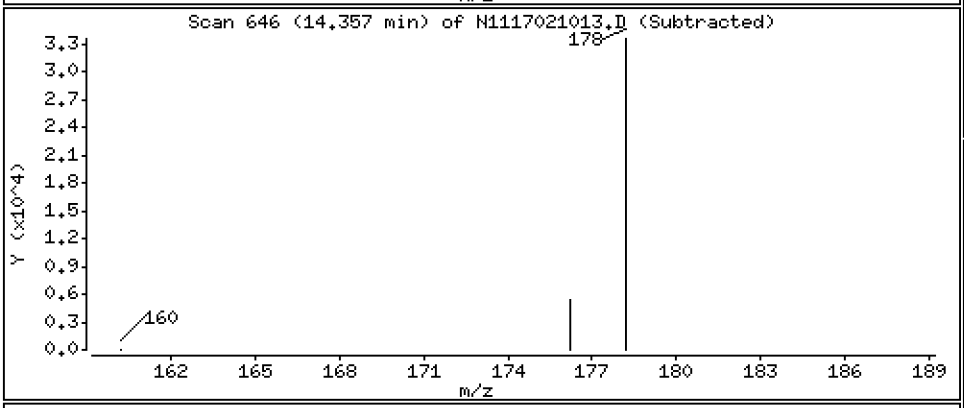
Column diameter: 0.25

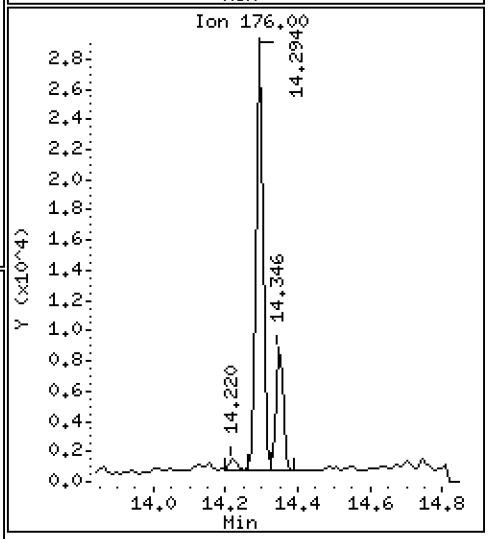
21 Anthracene

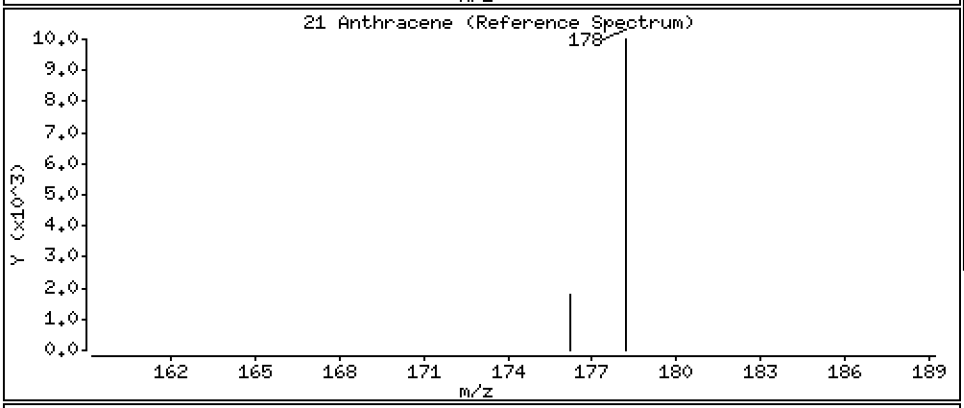
Concentration: 44.7 ng/mL

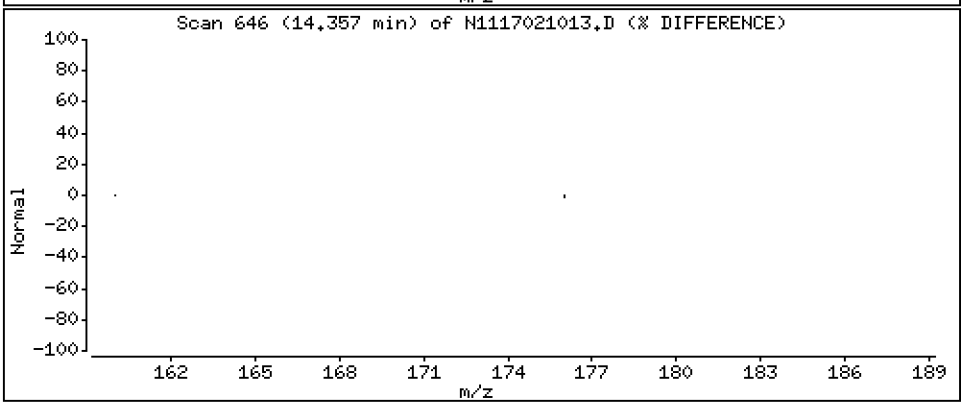












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Date : 10-FEB-2017 18:14

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-06

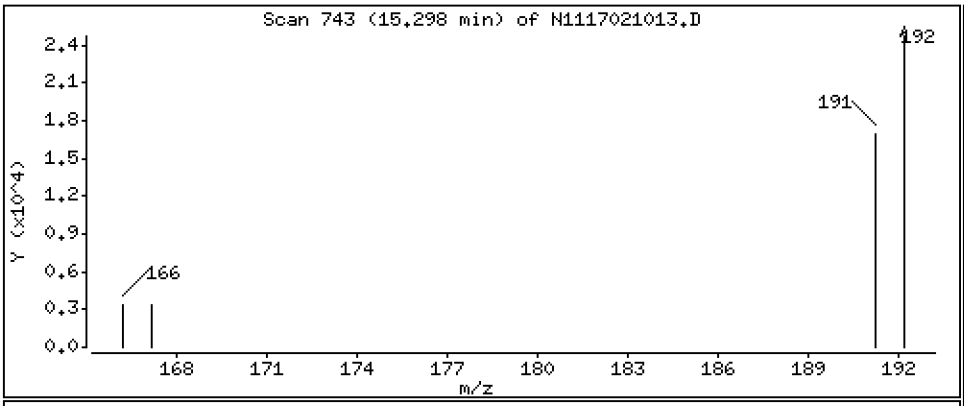
Operator: VTS

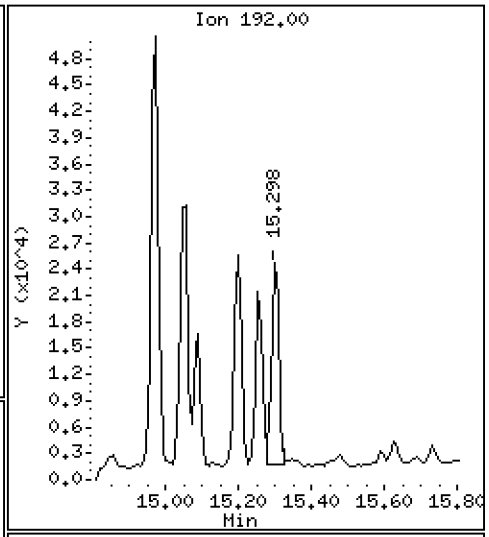
Column phase: Rxi-17Sil MS

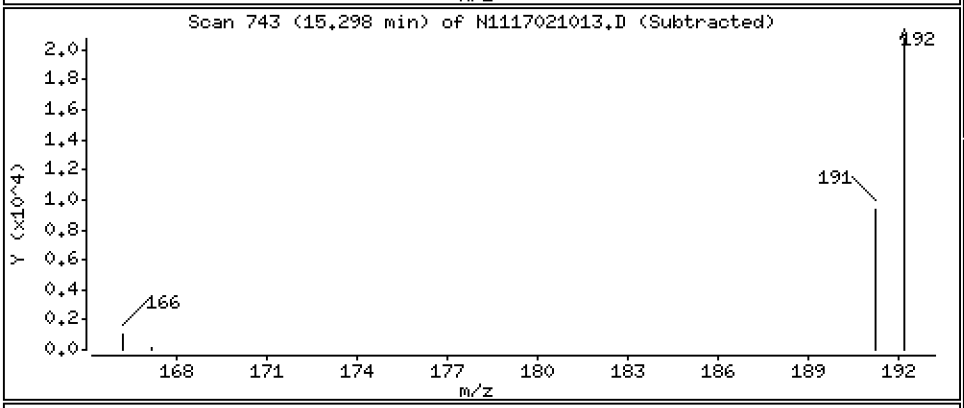
Column diameter: 0.25

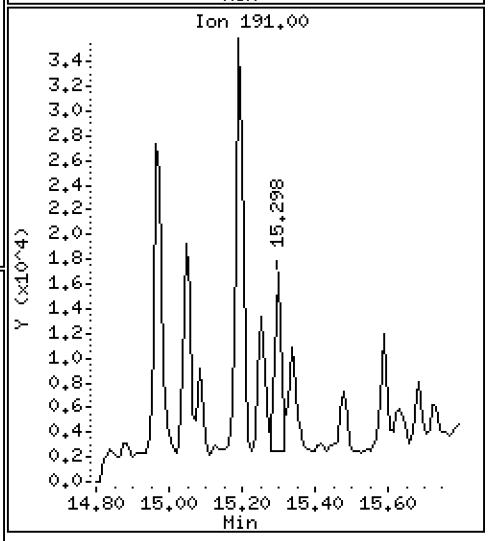
23 1-Methylphenanthrene

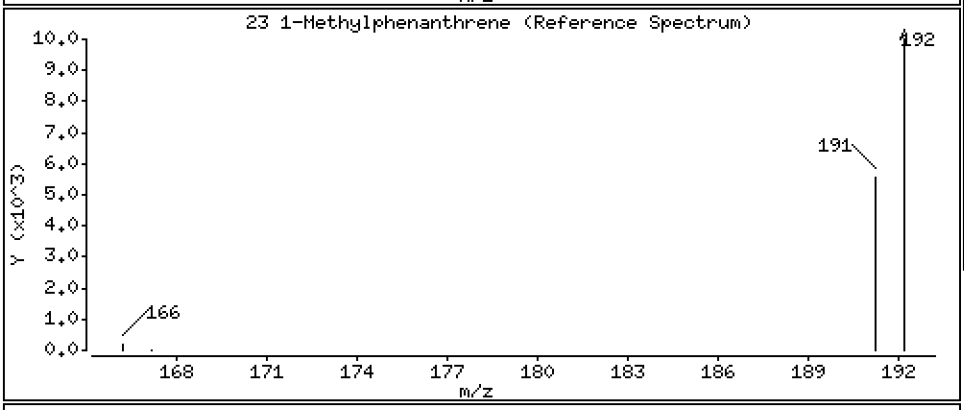
Concentration: 22.4 ng/mL

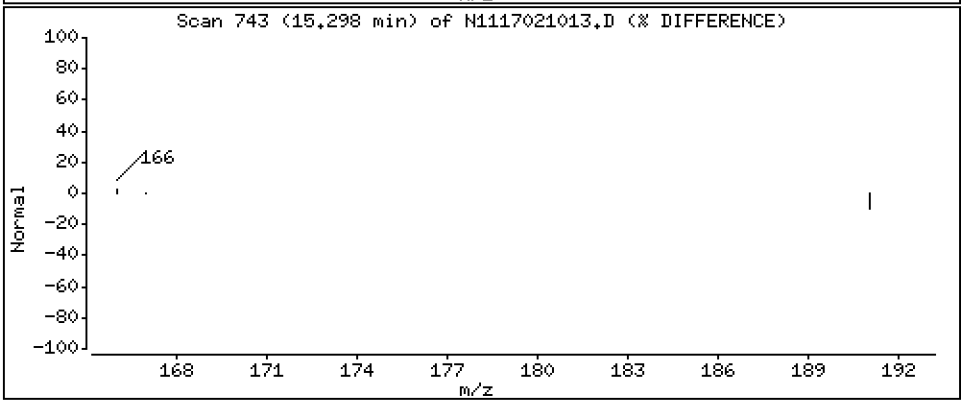












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Date : 10-FEB-2017 18:14

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-06

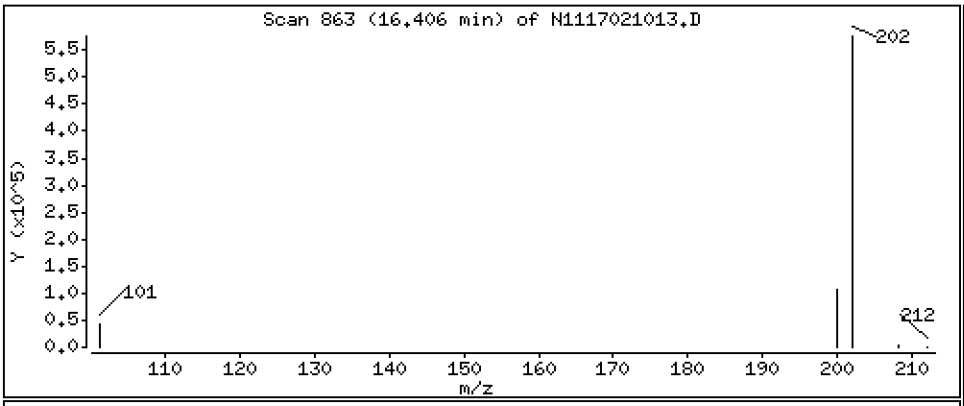
Operator: VTS

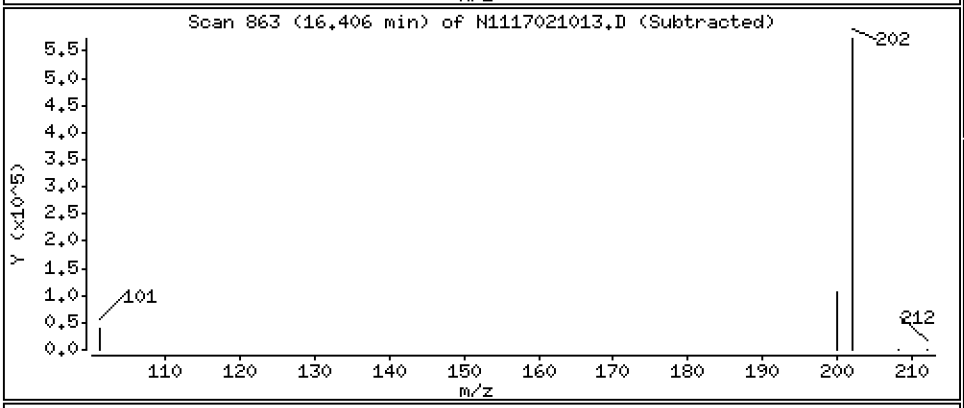
Column phase: Rxi-17Sil MS

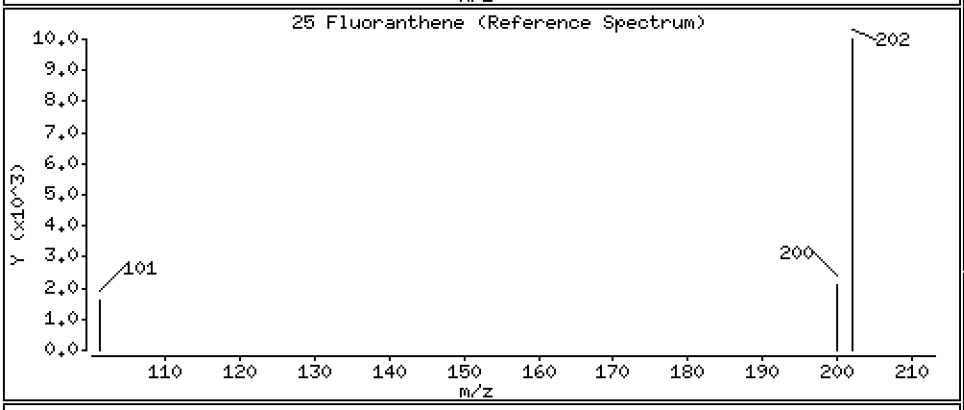
Column diameter: 0.25

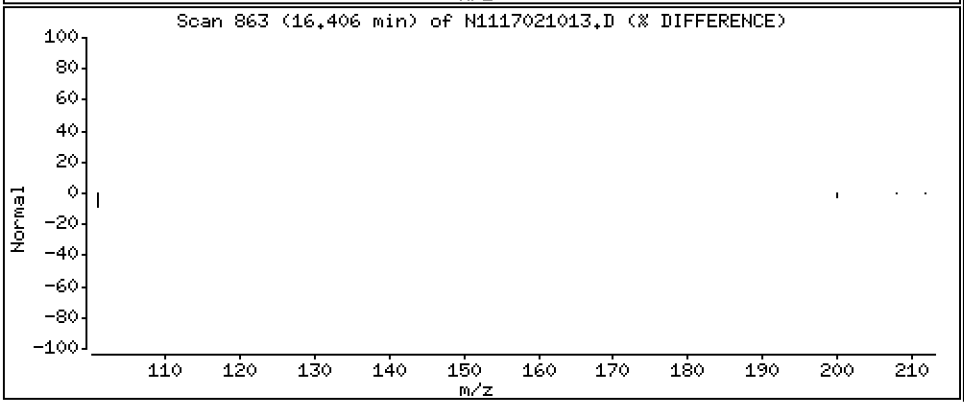
25 Fluoranthene

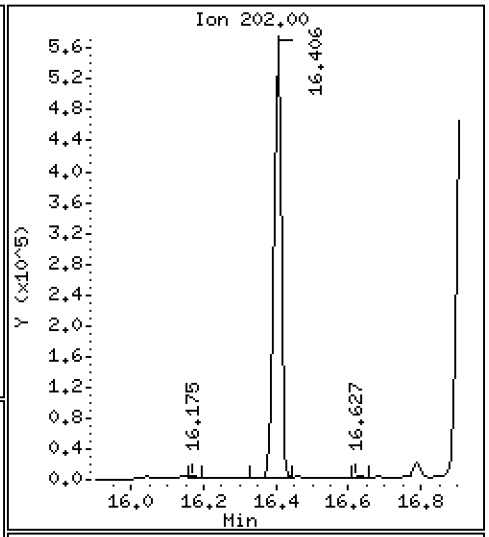
Concentration: 498 ng/mL

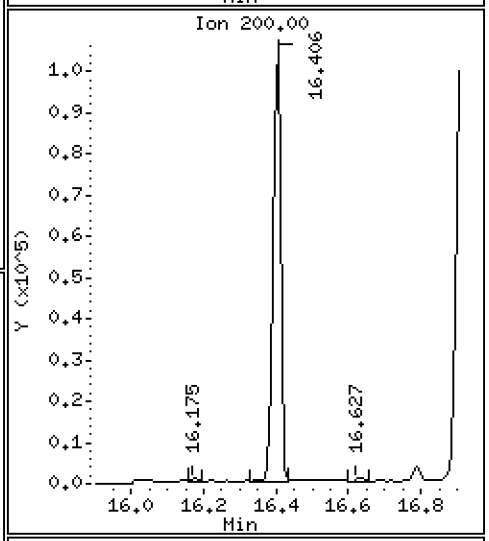


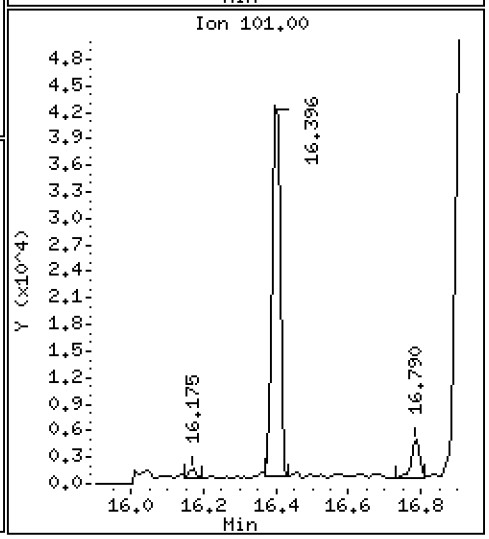












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021013.D

Date : 10-FEB-2017 18:14

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-06

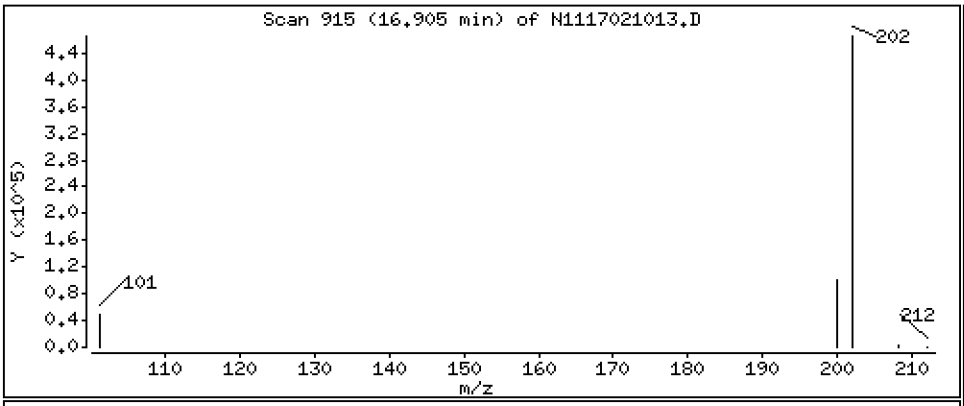
Operator: VTS

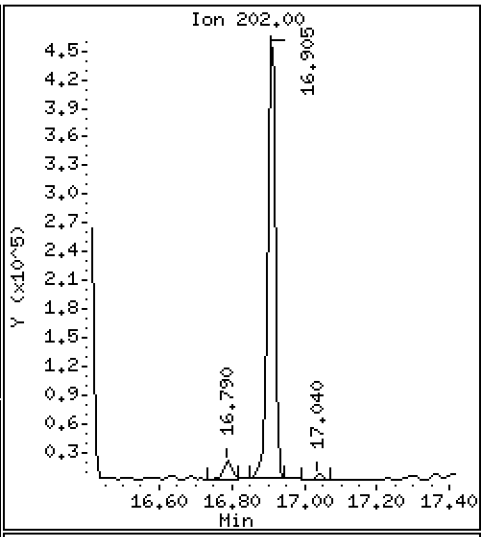
Column phase: Rxi-17Sil MS

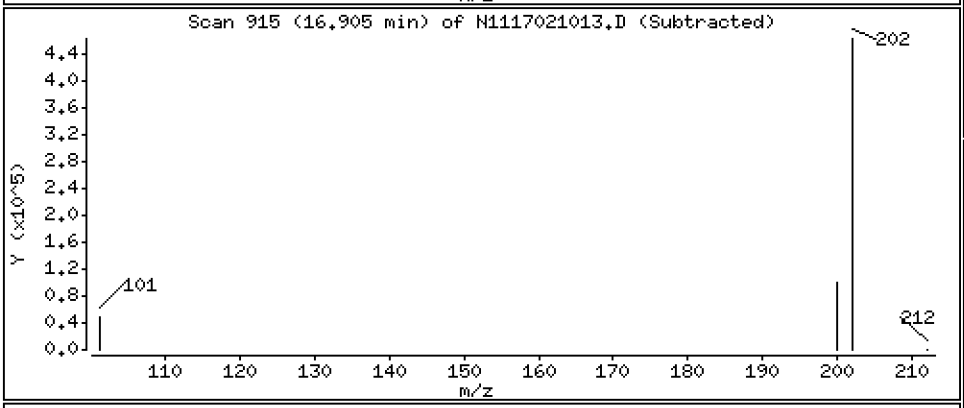
Column diameter: 0.25

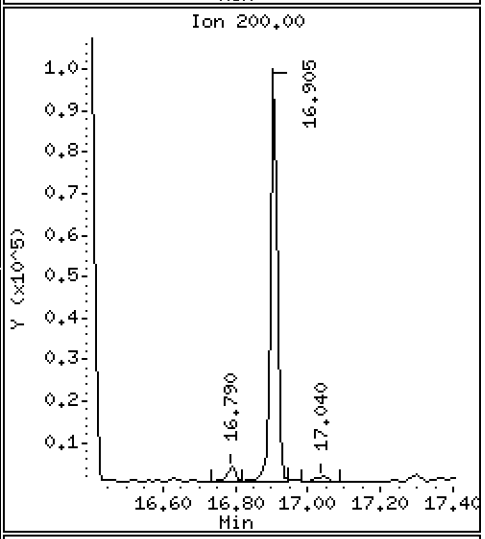
26 Pyrene

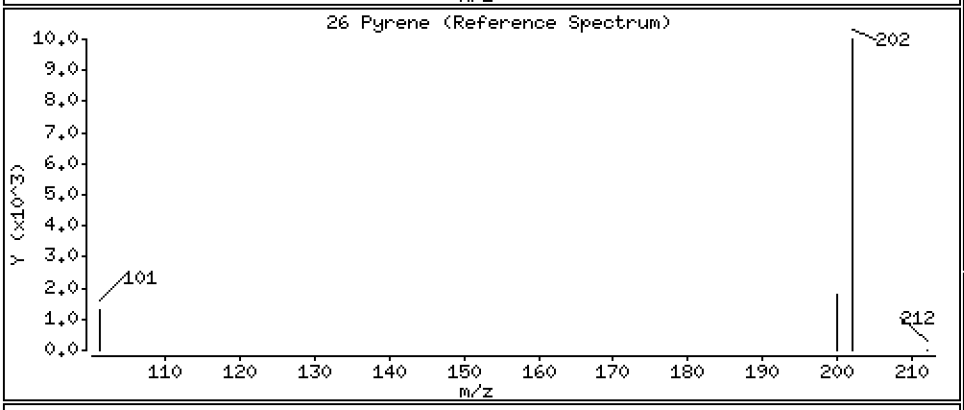
Concentration: 511 ng/mL

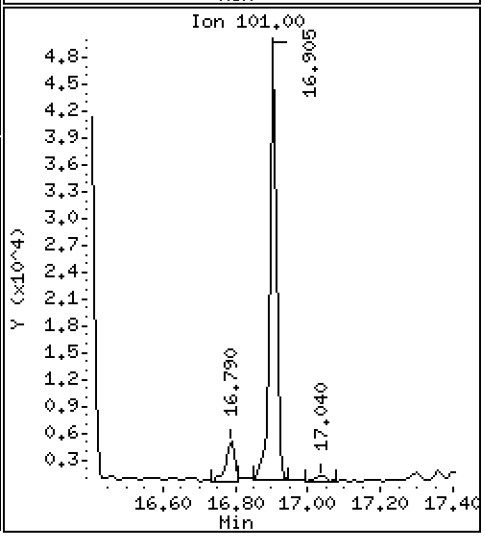


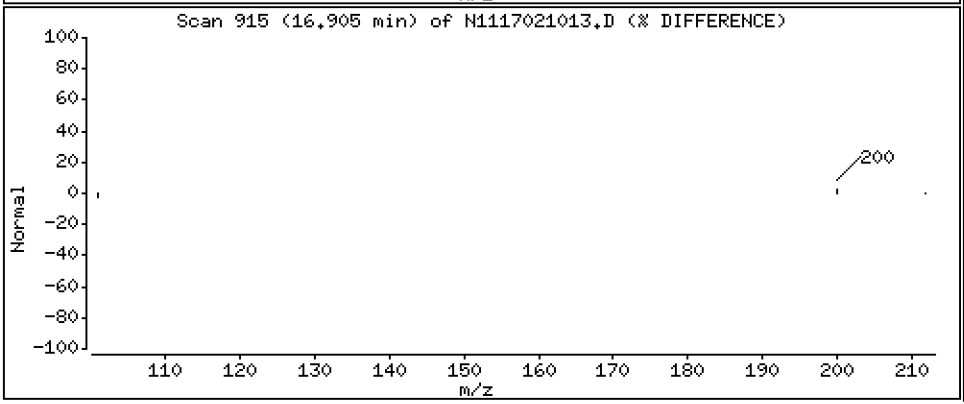












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021013.D

Date : 10-FEB-2017 18:14

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-06

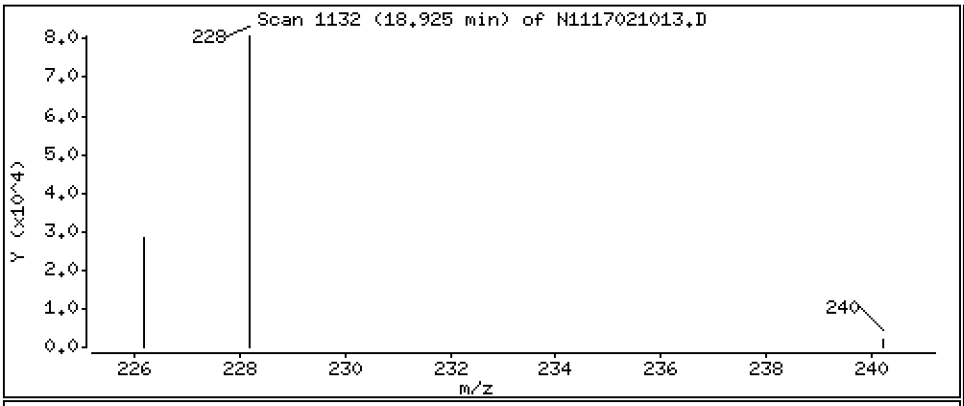
Operator: VTS

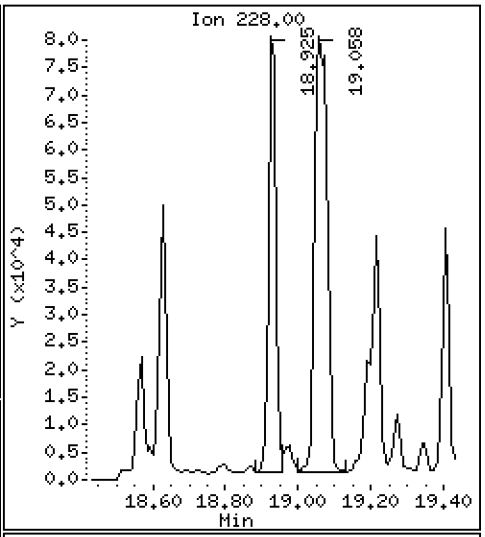
Column phase: Rxi-17Sil MS

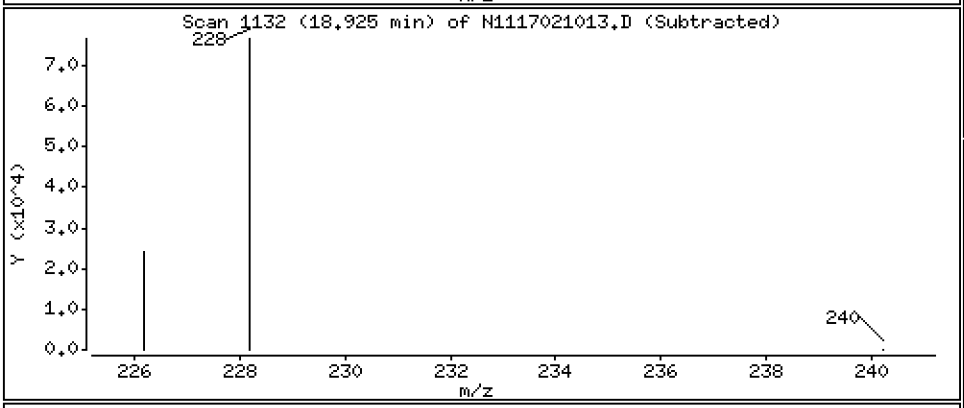
Column diameter: 0.25

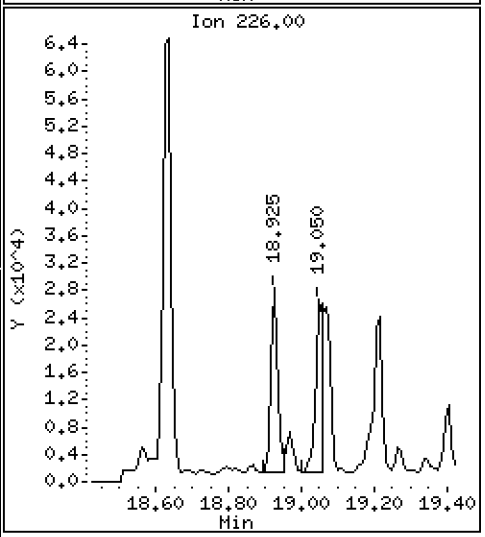
27 Benzo(a)anthracene

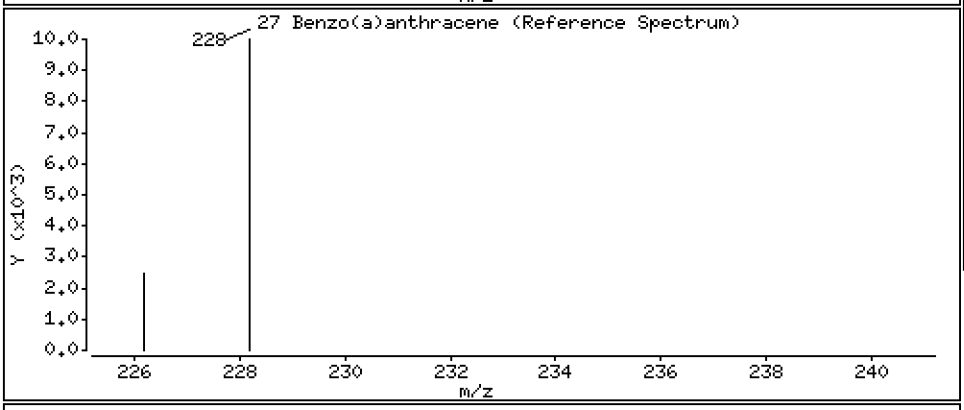
Concentration: 91.4 ng/mL

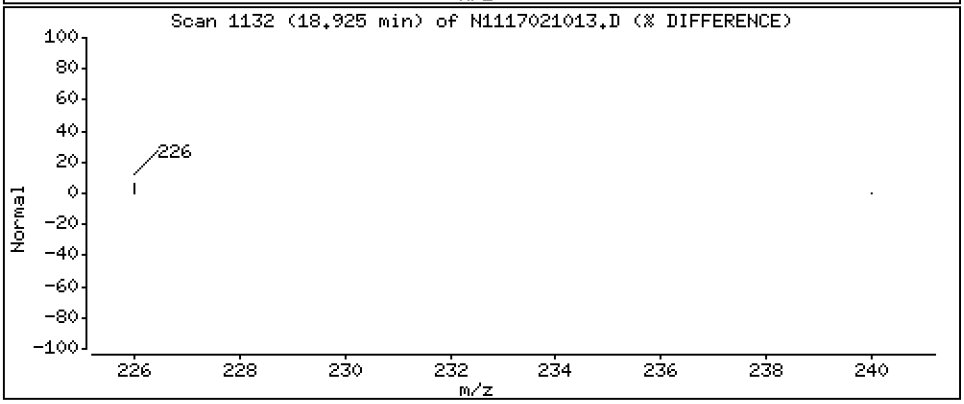












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Date : 10-FEB-2017 18:14

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-06

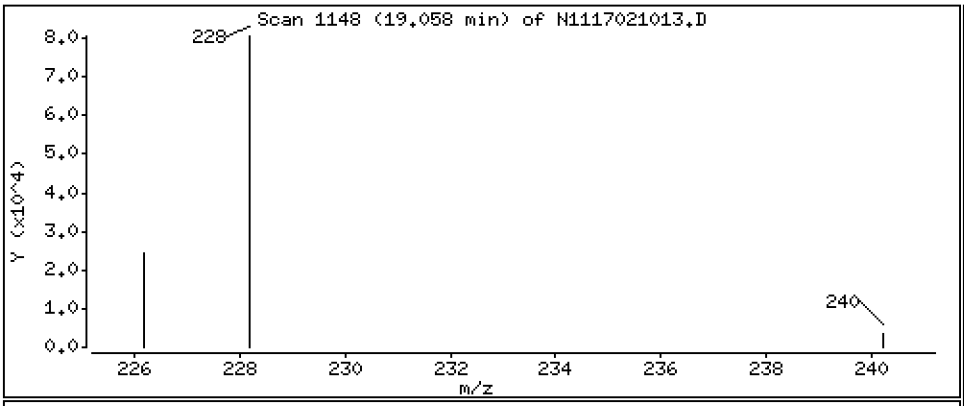
Operator: VTS

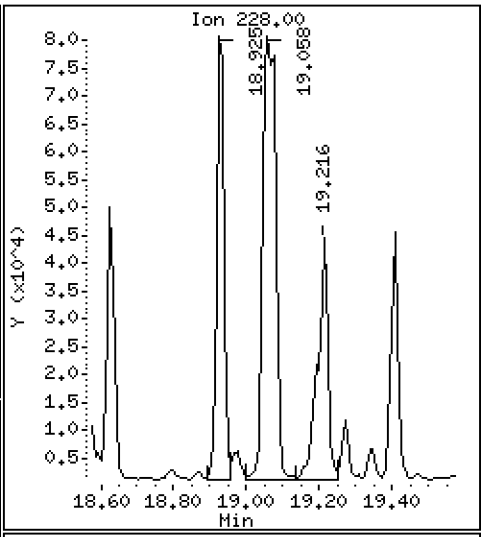
Column phase: Rxi-17Sil MS

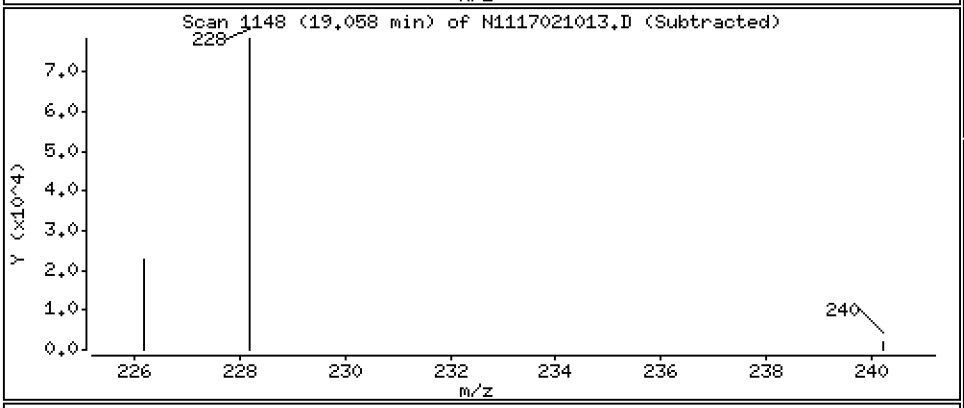
Column diameter: 0.25

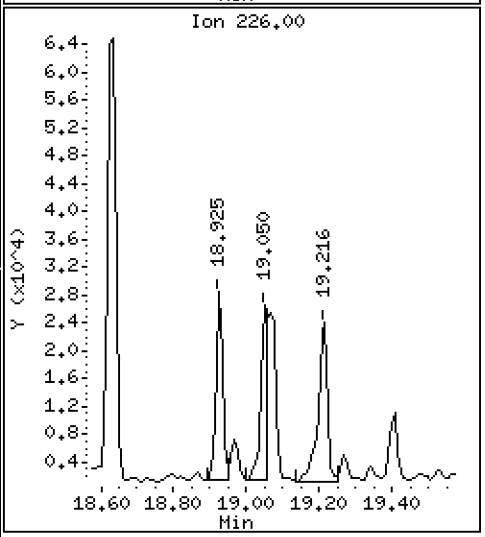
29 Chrysene

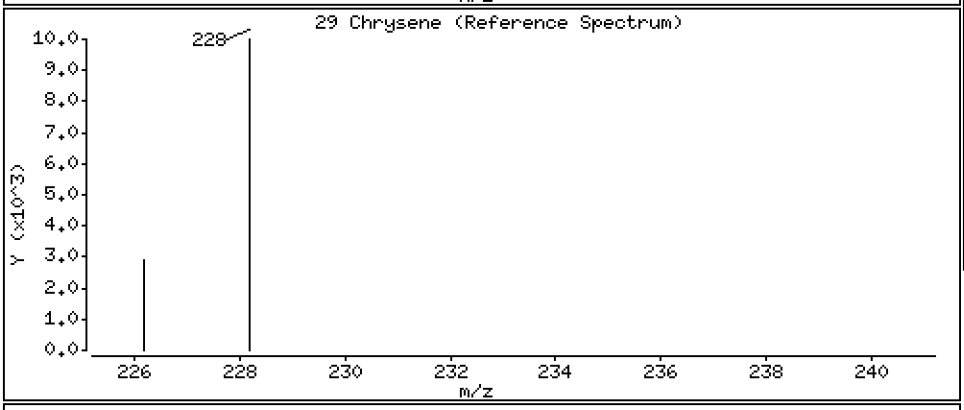
Concentration: 154 ng/mL

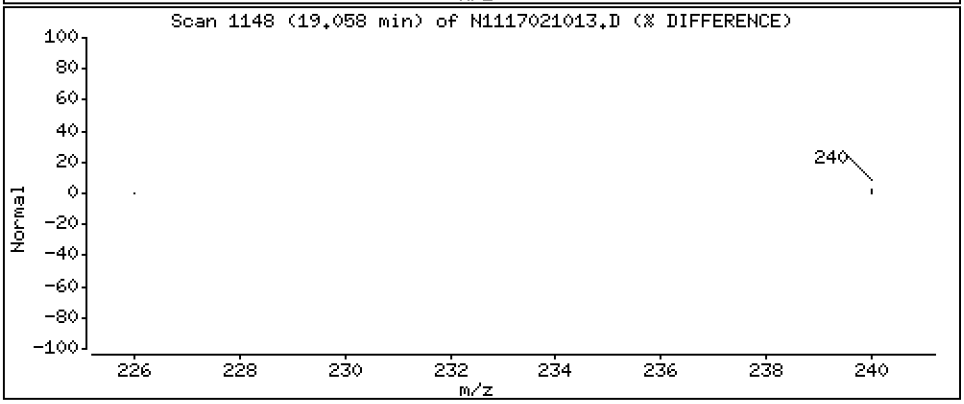












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Date : 10-FEB-2017 18:14

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-06

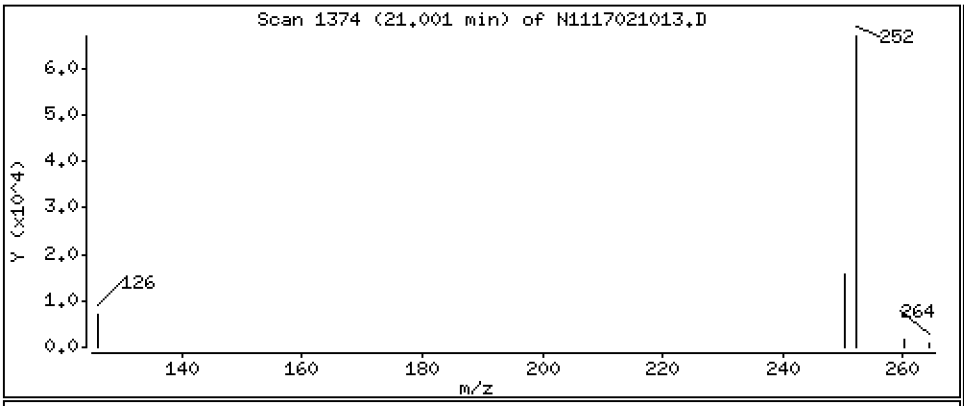
Operator: VTS

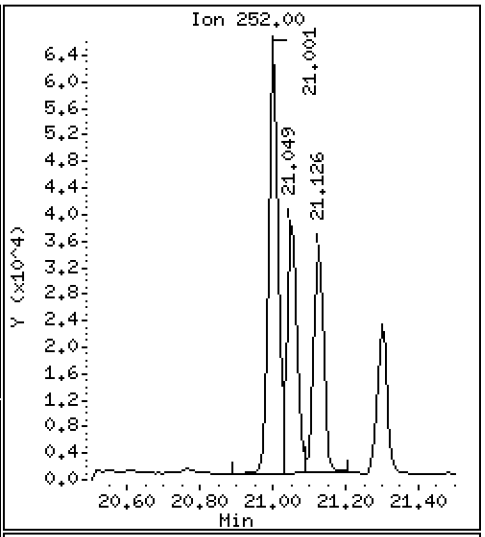
Column phase: Rxi-17Sil MS

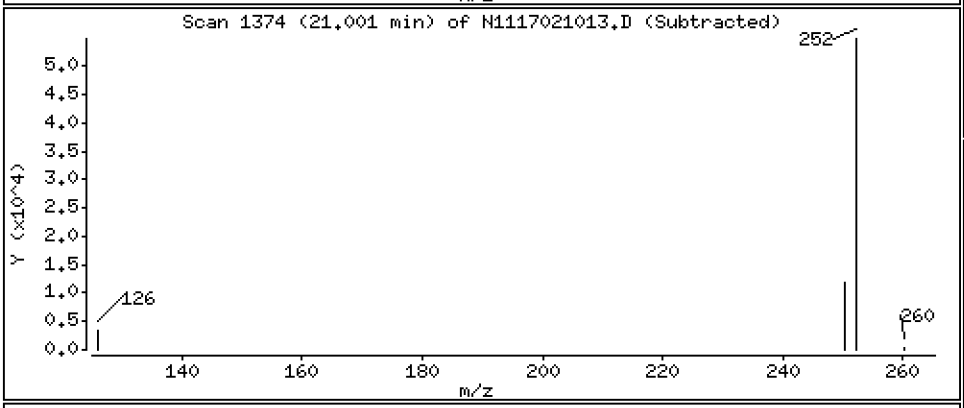
Column diameter: 0.25

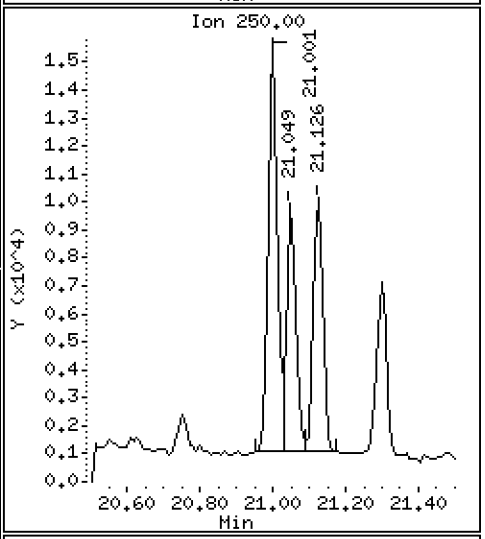
30 Benzo(b)fluoranthene

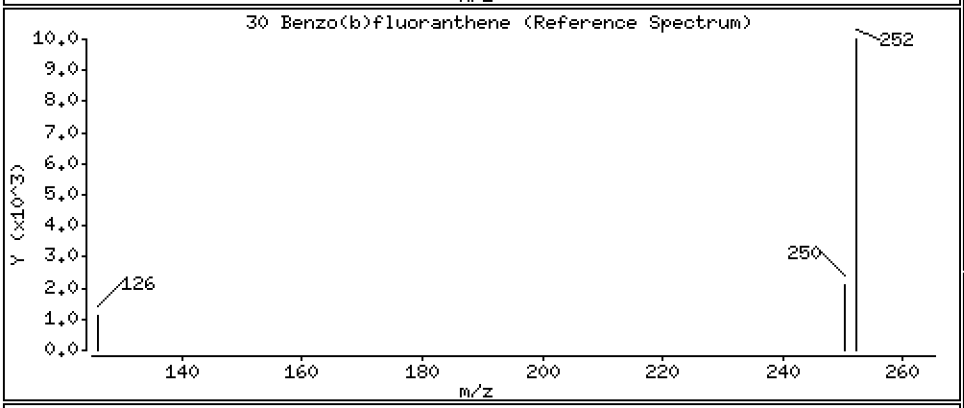
Concentration: 104 ng/mL

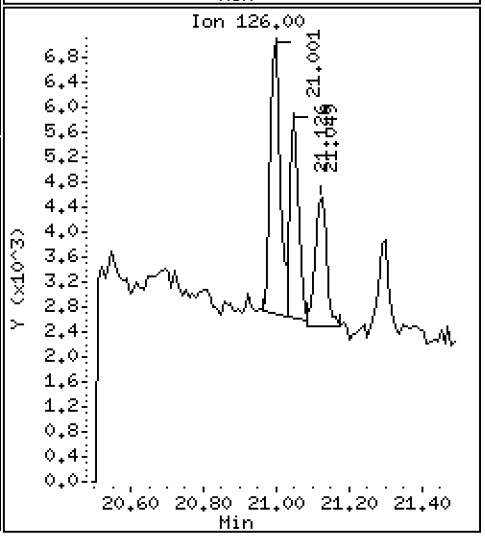


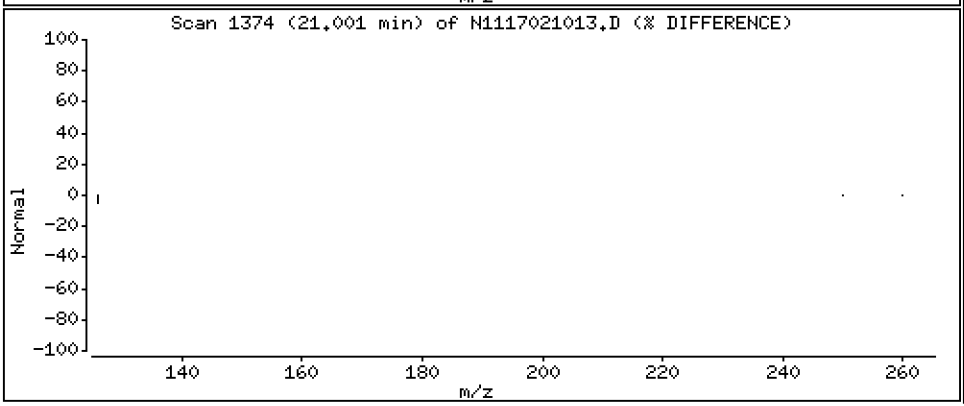












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021013.D

Date : 10-FEB-2017 18:14

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-06

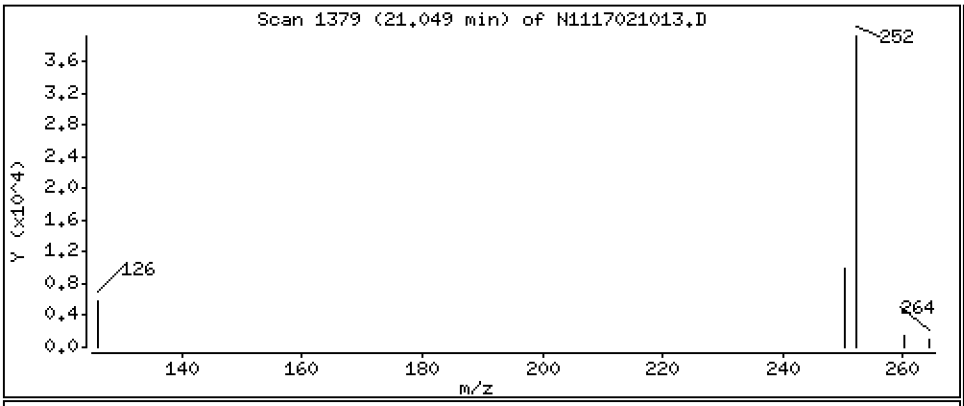
Operator: VTS

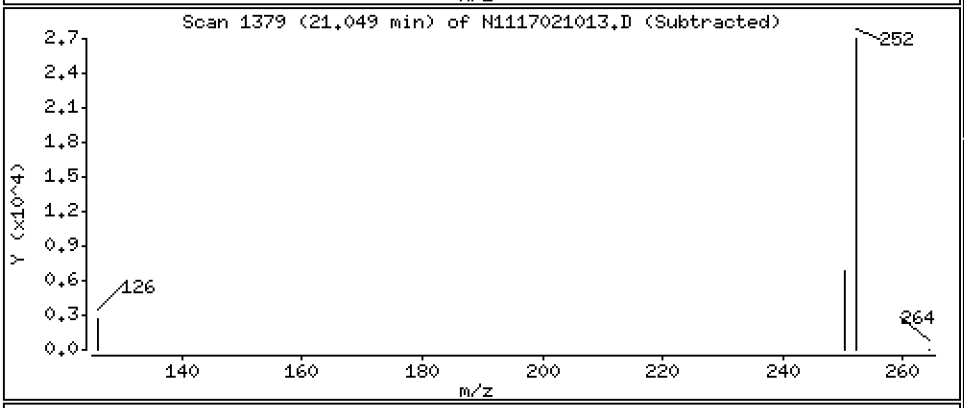
Column phase: Rxi-17Sil MS

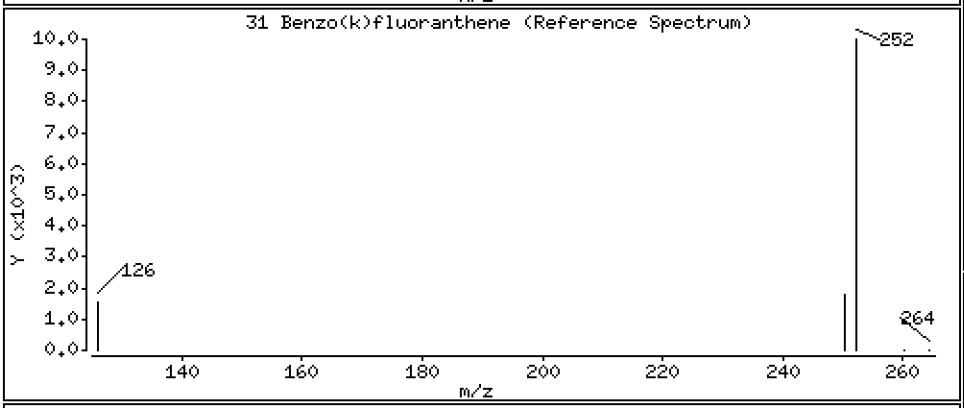
Column diameter: 0.25

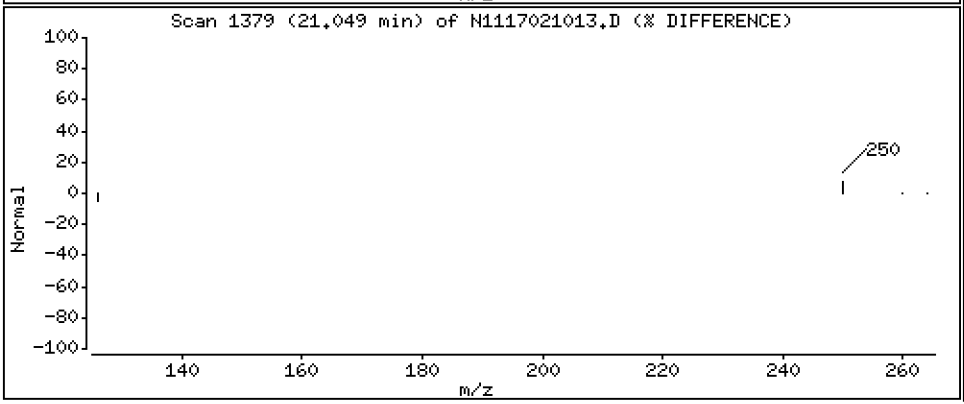
31 Benzo(k)fluoranthene

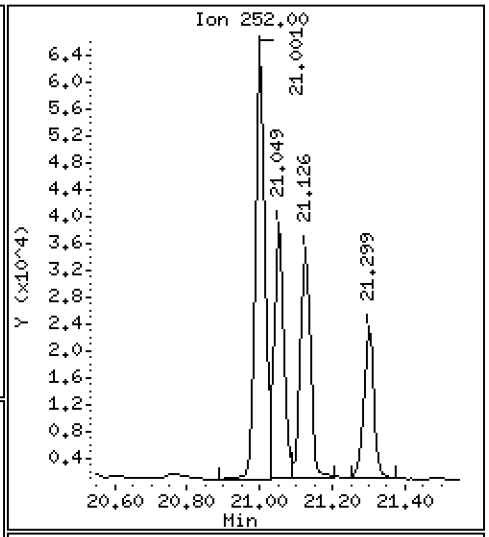
Concentration: 58.2 ng/mL

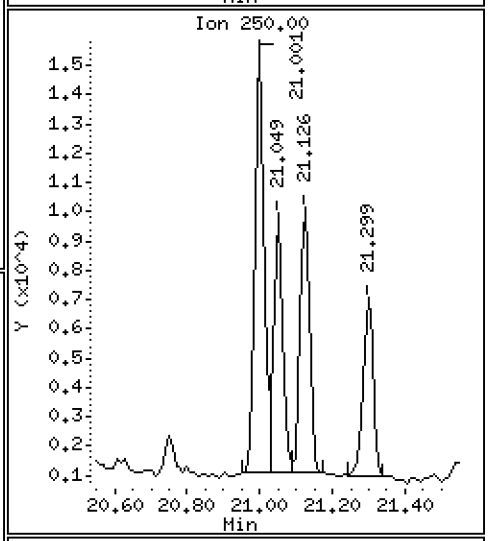


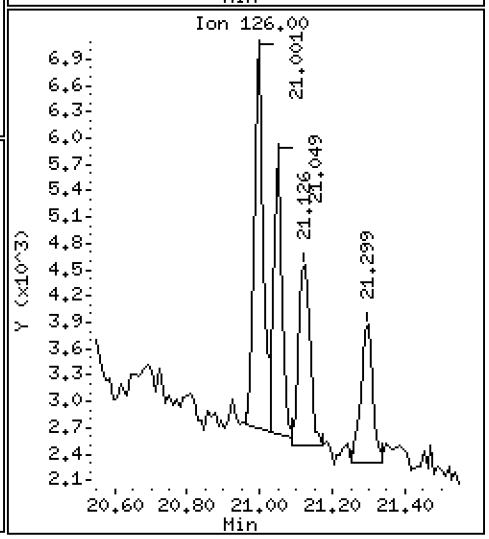












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021013.D

Date : 10-FEB-2017 18:14

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-06

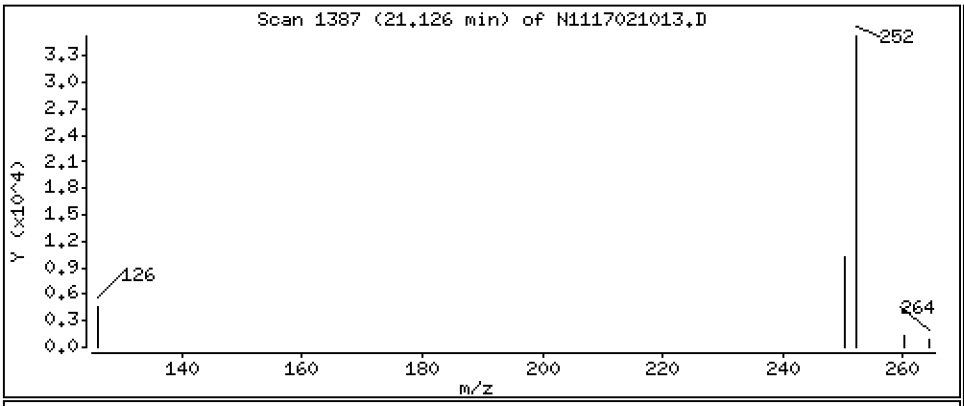
Operator: VTS

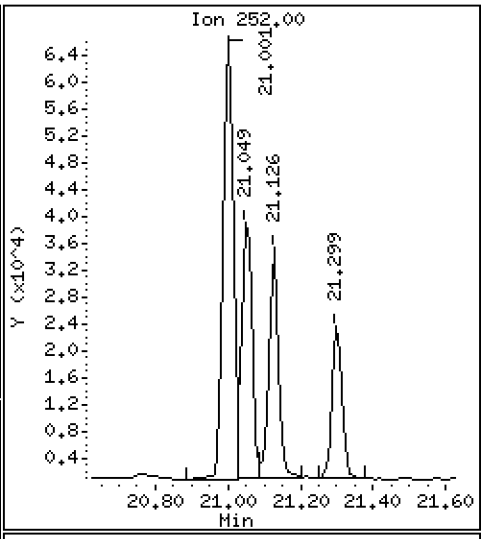
Column phase: Rxi-17Sil MS

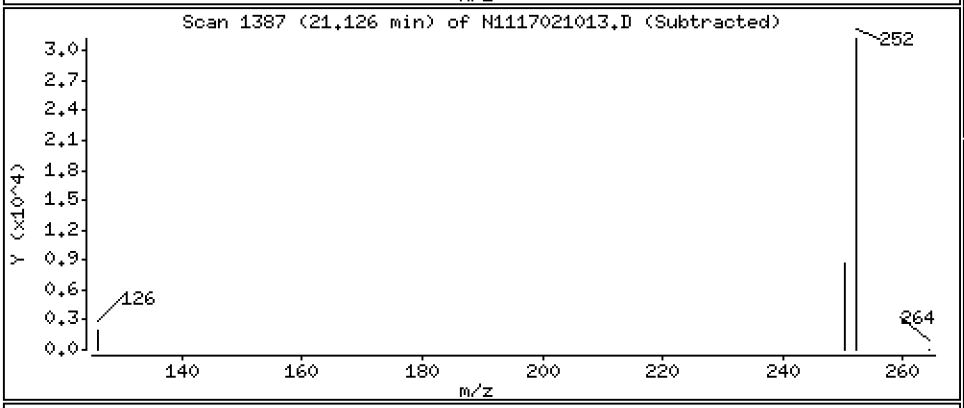
Column diameter: 0.25

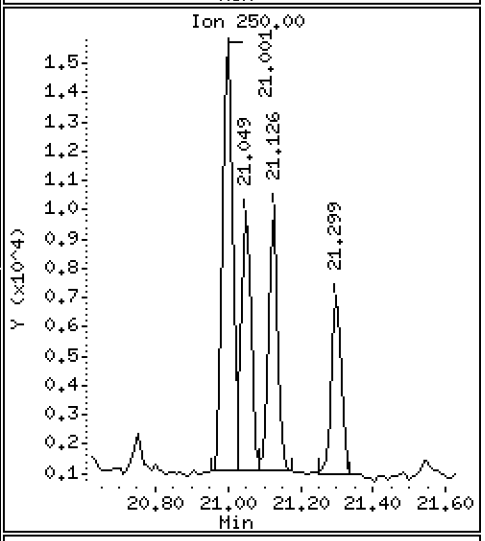
32 Benzo(j)fluoranthene

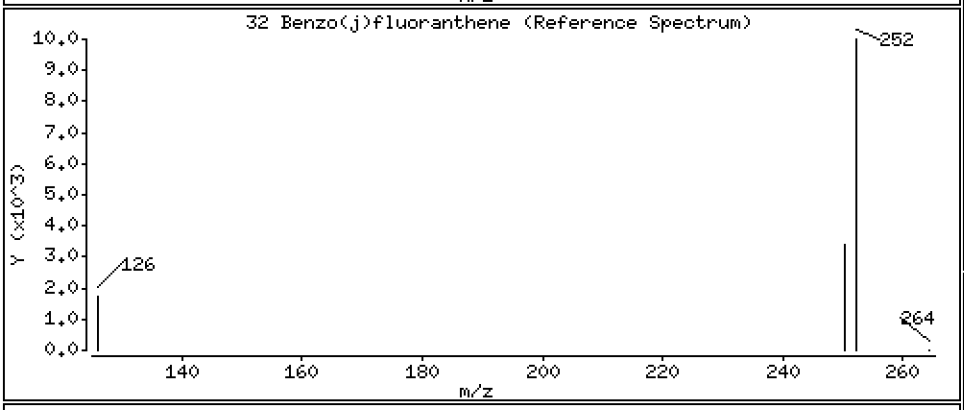
Concentration: 55.1 ng/mL

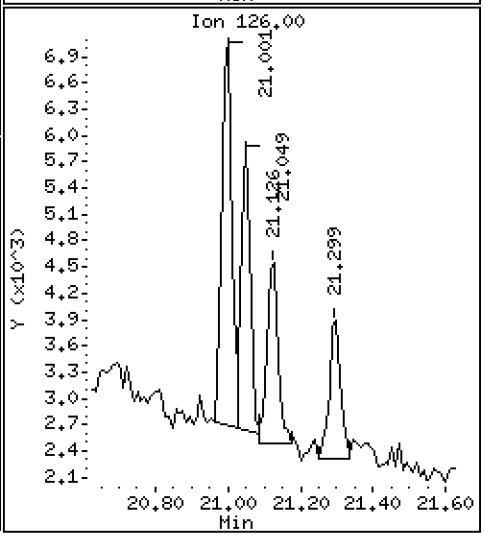


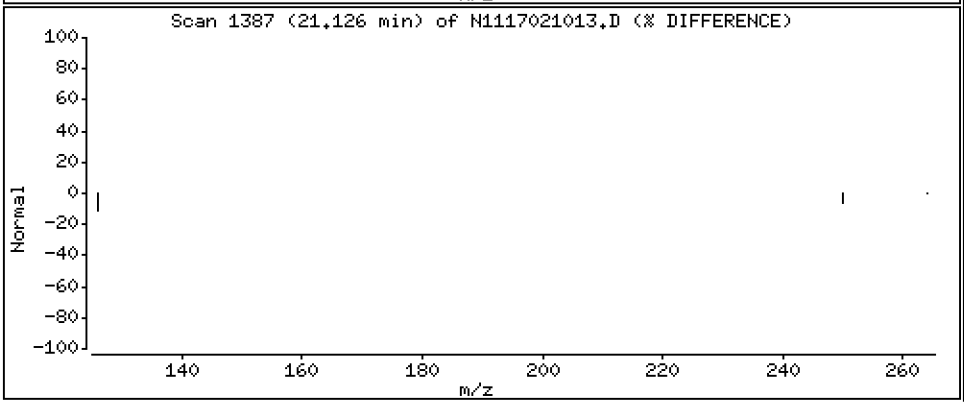












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Date : 10-FEB-2017 18:14

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-06

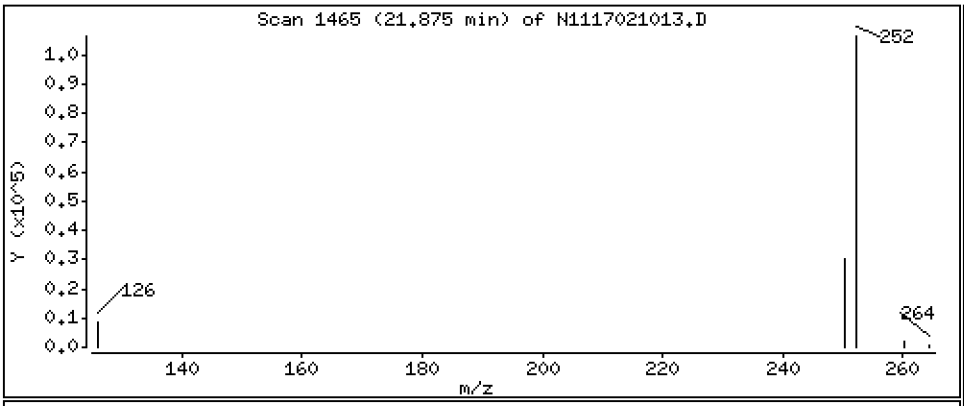
Operator: VTS

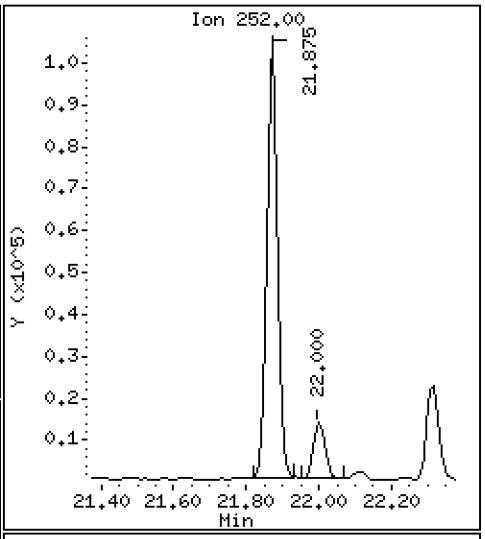
Column phase: Rxi-17Sil MS

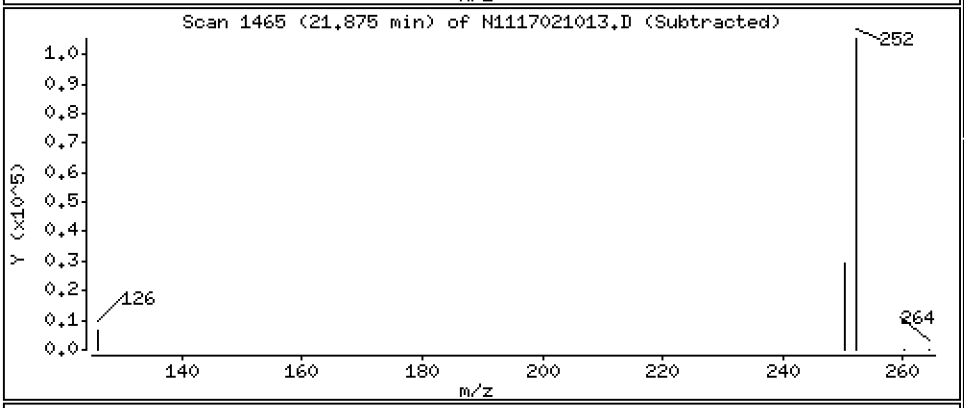
Column diameter: 0.25

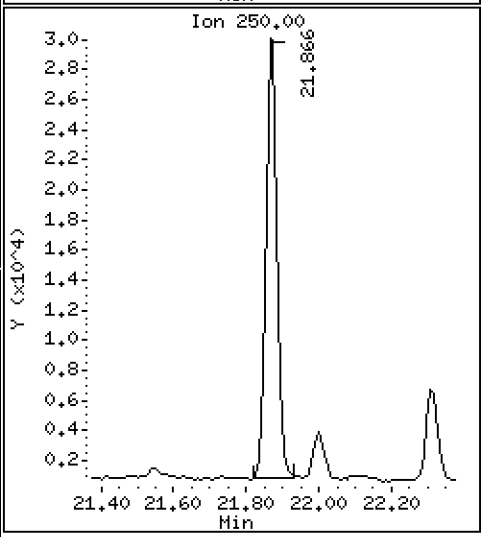
34 Benzo(e)pyrene

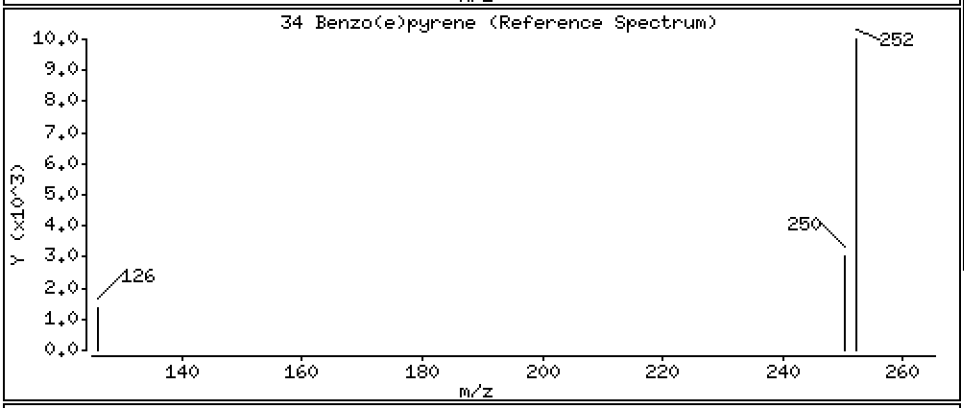
Concentration: 181 ng/mL

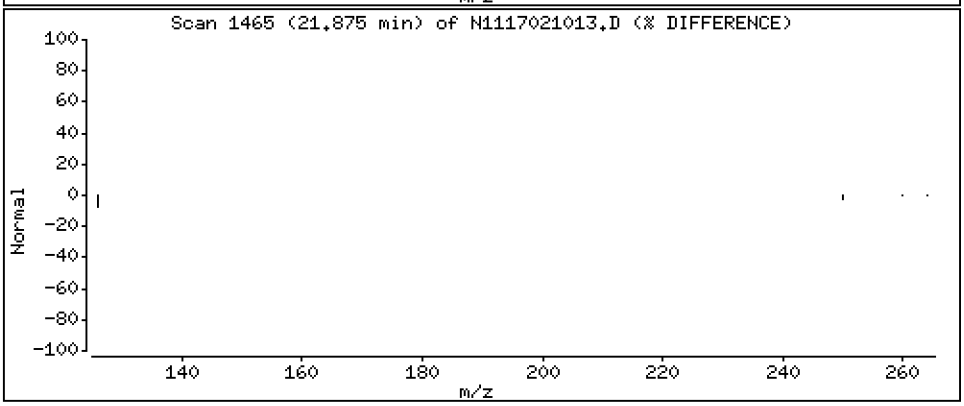












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021013.D

Date : 10-FEB-2017 18:14

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-06

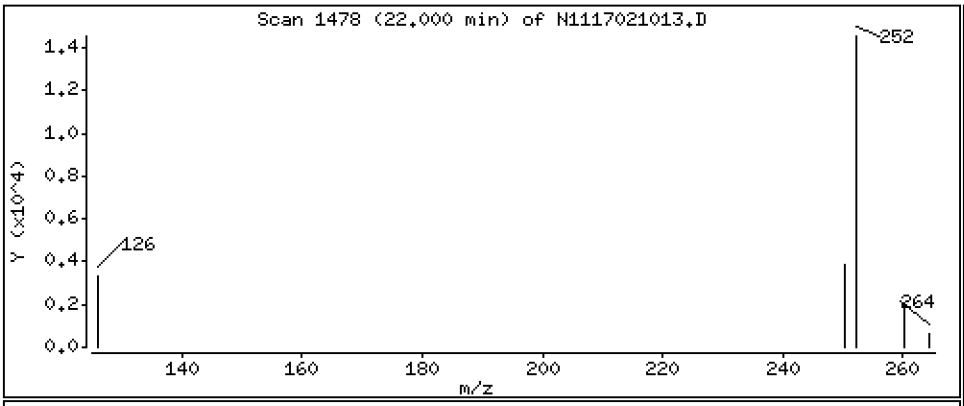
Operator: VTS

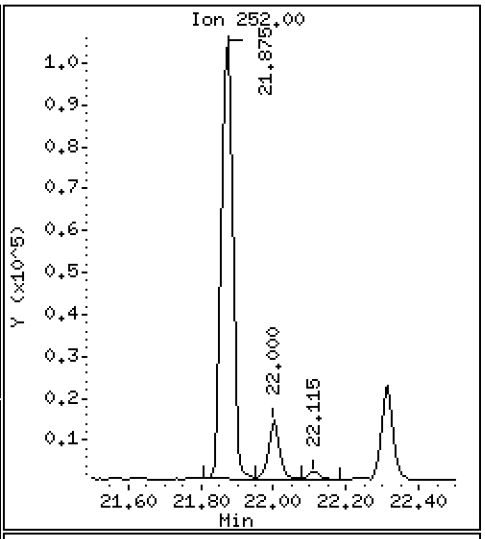
Column phase: Rxi-17Sil MS

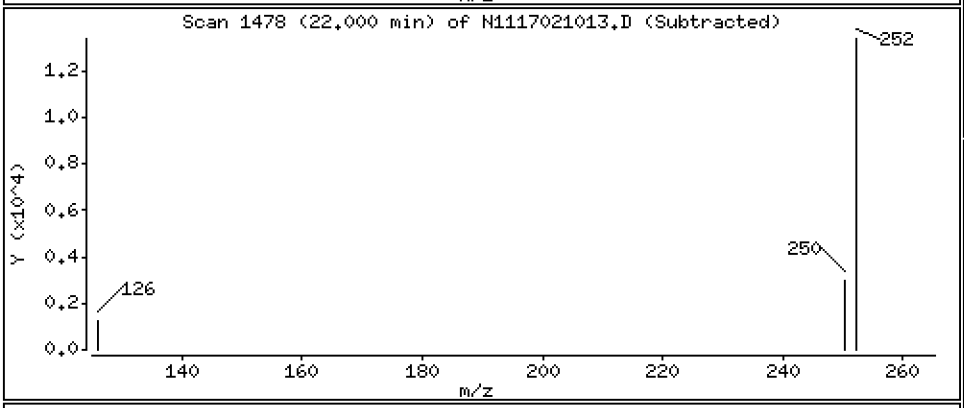
Column diameter: 0.25

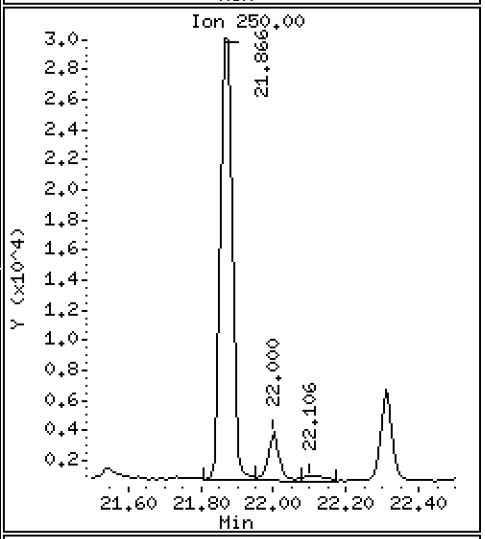
35 Benzo(a)pyrene

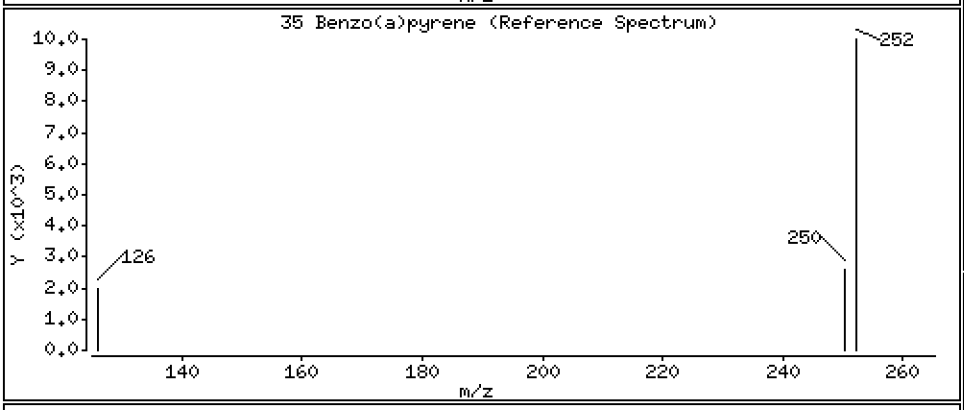
Concentration: 26.8 ng/mL

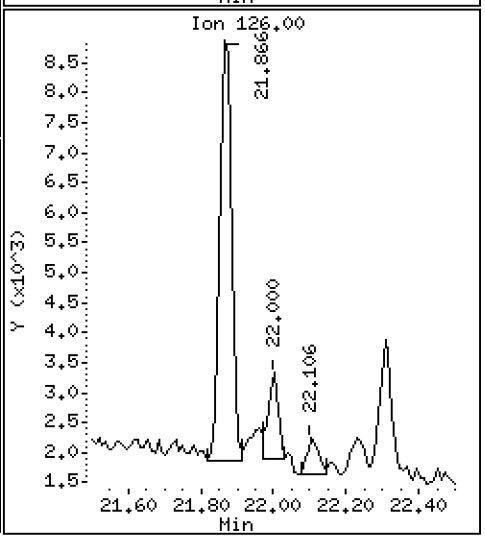


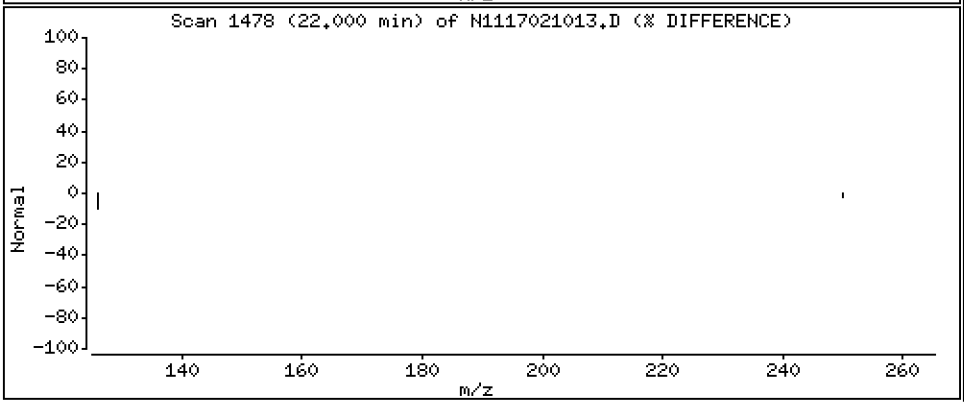












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Date : 10-FEB-2017 18:14

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-06

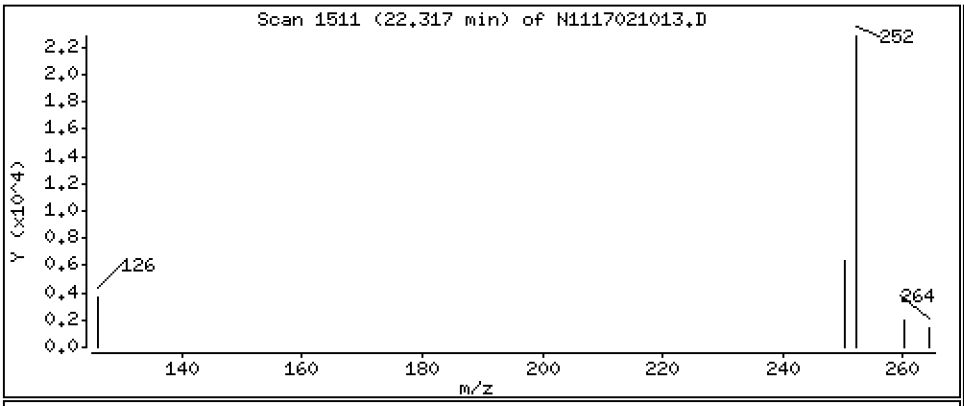
Operator: VTS

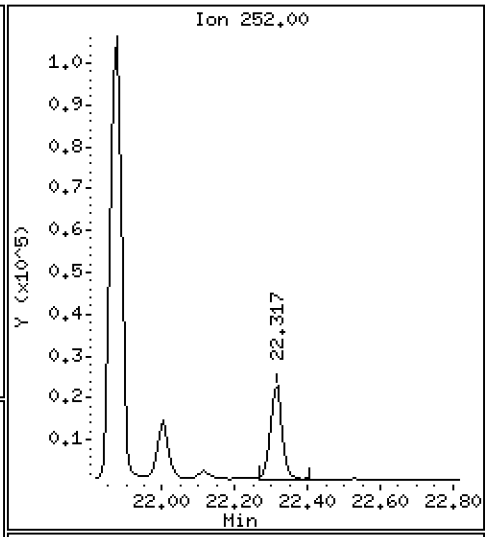
Column phase: Rxi-17Sil MS

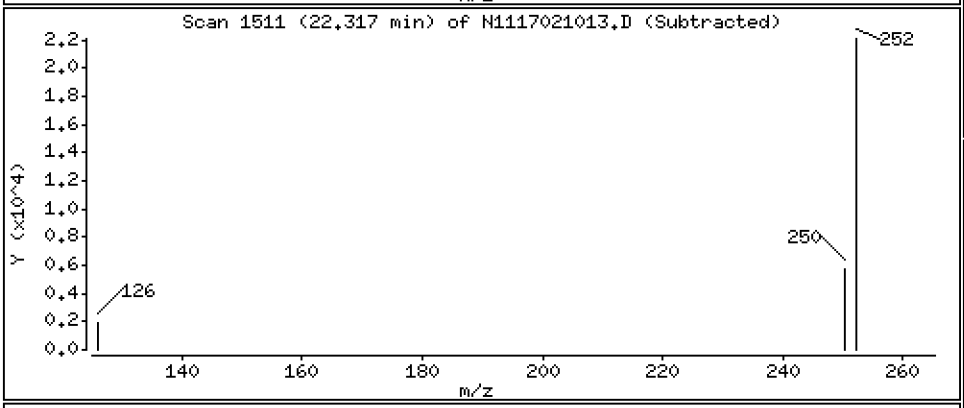
Column diameter: 0.25

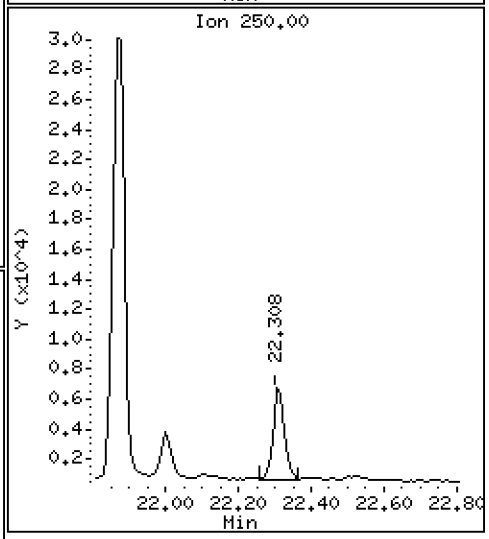
37 Perylene

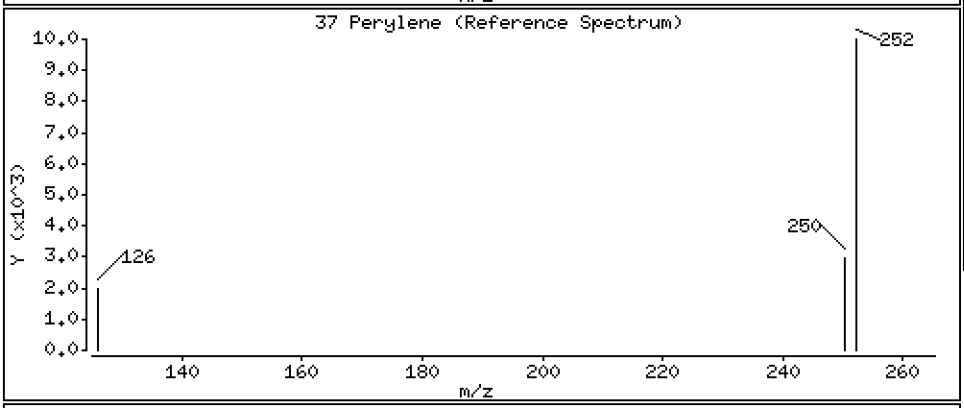
Concentration: 42.4 ng/mL

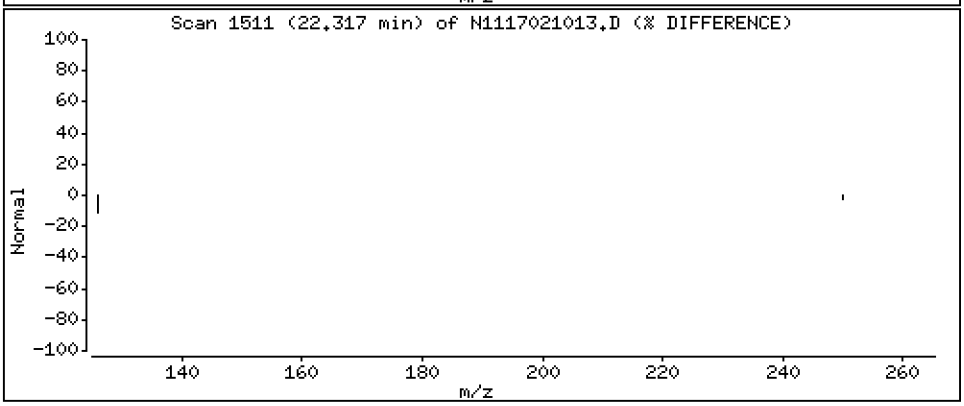












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Date : 10-FEB-2017 18:14

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-06

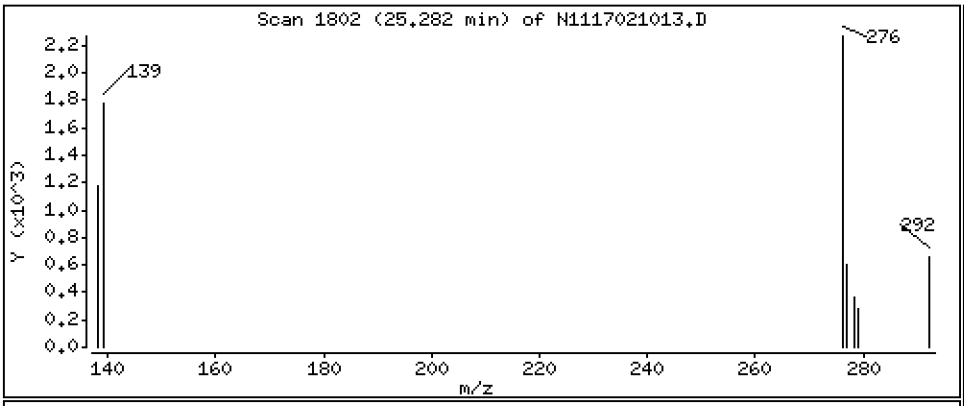
Operator: VTS

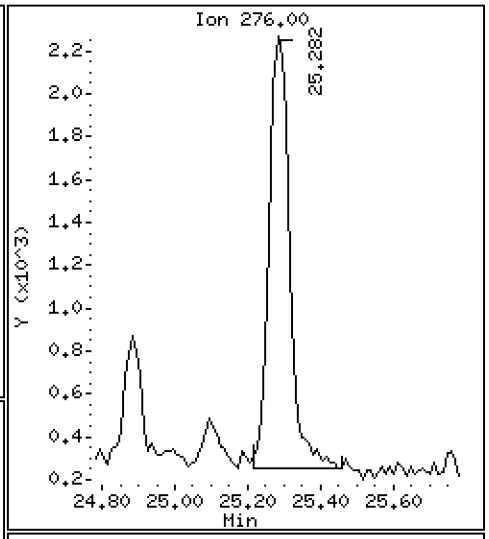
Column phase: Rxi-17Sil MS

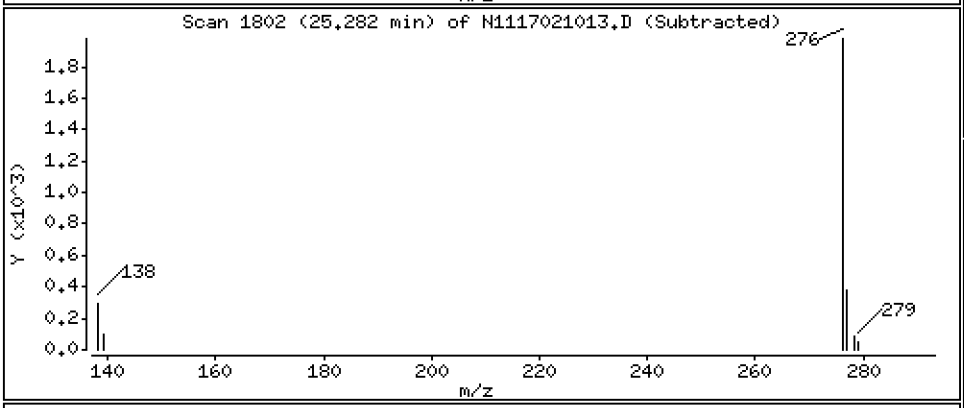
Column diameter: 0.25

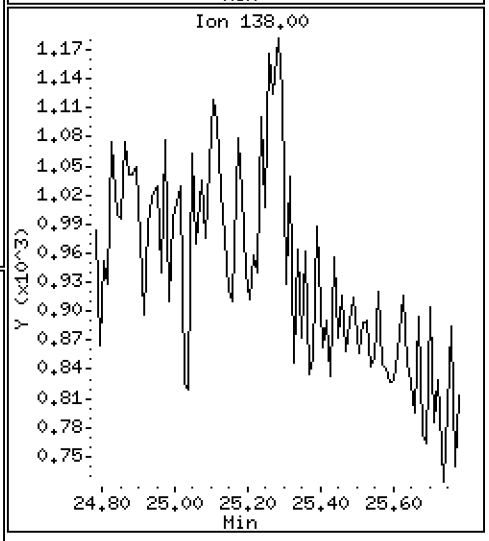
40 Indeno(1,2,3-cd)pyrene

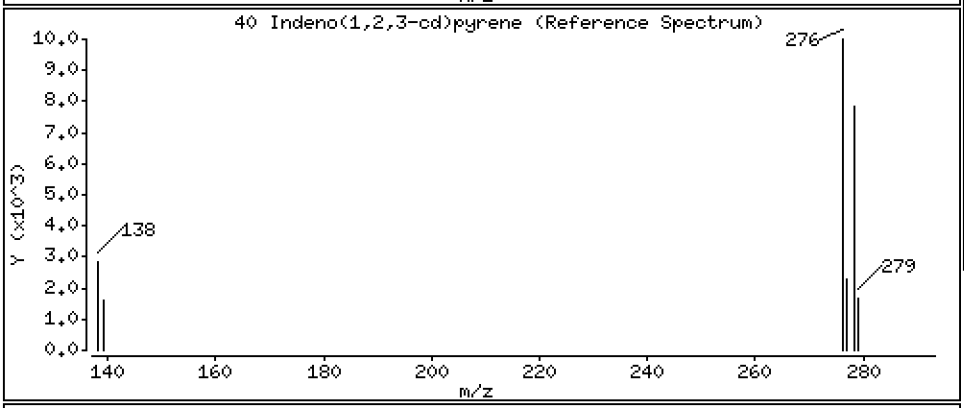
Concentration: 6.26 ng/mL

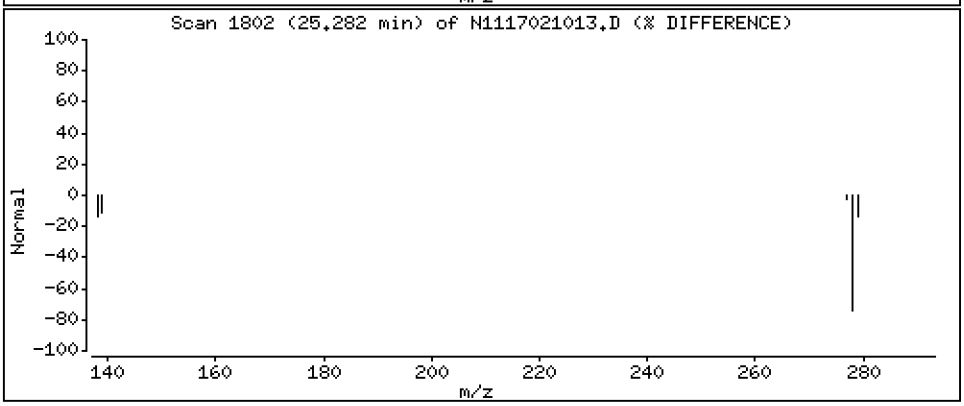












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Date : 10-FEB-2017 18:14

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-06

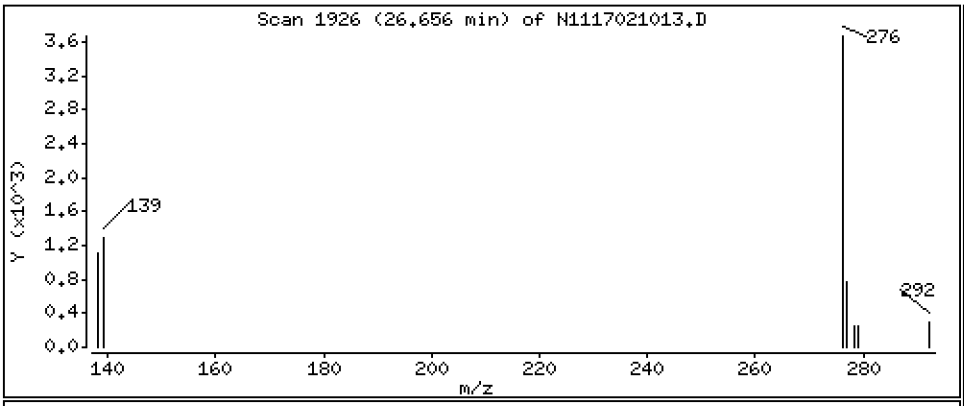
Operator: VTS

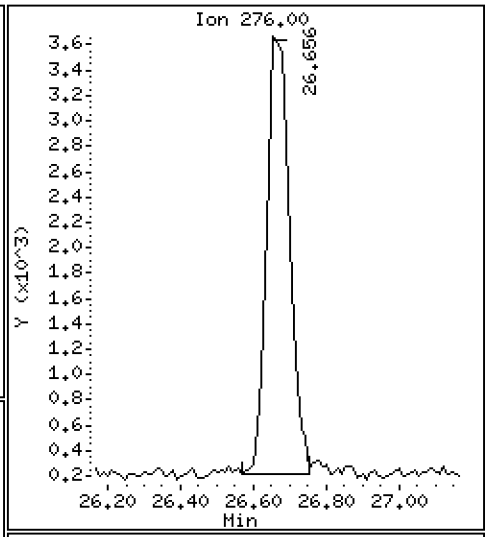
Column phase: Rxi-17Sil MS

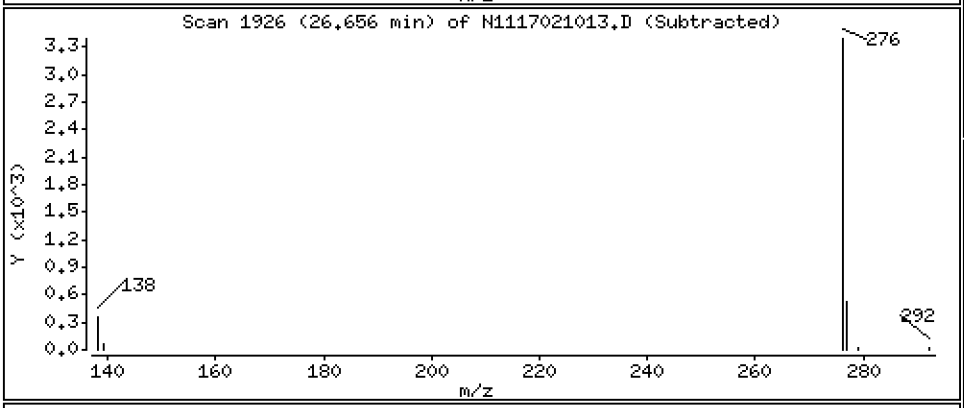
Column diameter: 0.25

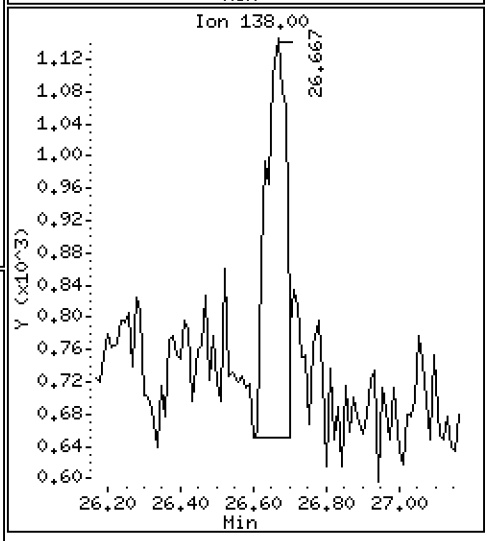
41 Benzo(g,h,i)perylene

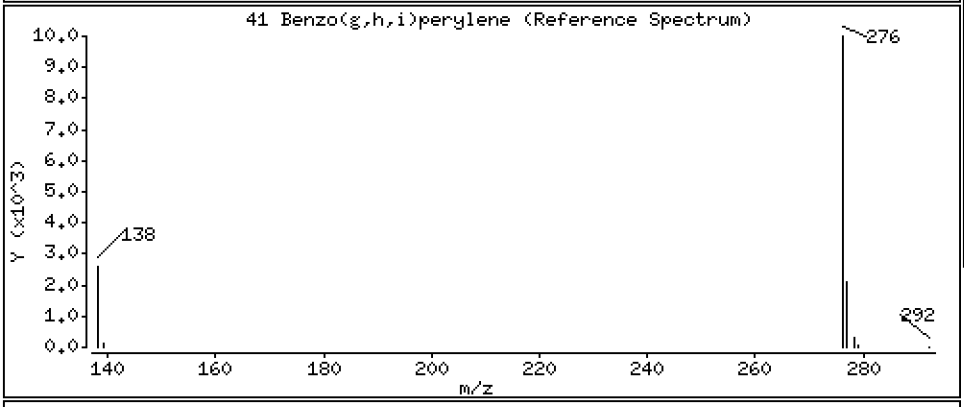
Concentration: 13.3 ng/mL

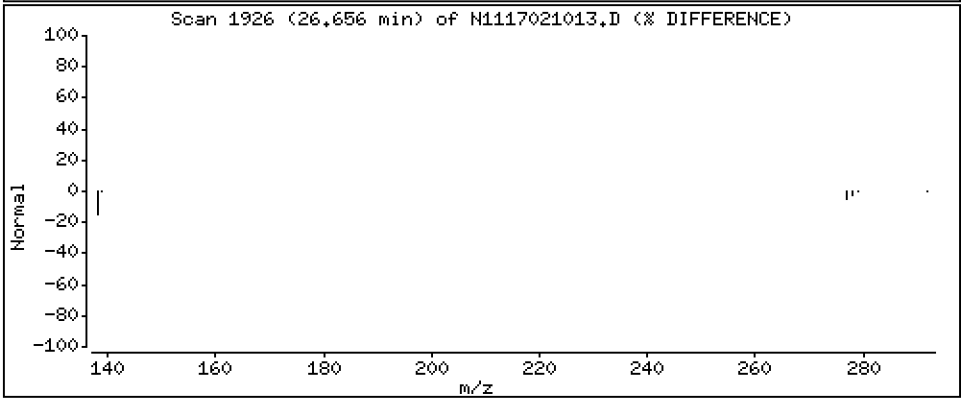












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20170210.b\N1117021013.D
Lab Smp Id: 17A0053-06
Inj Date : 10-FEB-2017 18:14 MS Autotune Date: 15-JAN-2015 15:59
Operator : VTS Inst ID: nt11.i
Smp Info : 17A0053-06
Misc Info :
Comment   :
Method   : \\target\share\chem3\nt11.i\20170210.b\LOWSIM.m
Meth Date : 11-Feb-2017 08:35 nt11.i Quant Type: ISTD
Cal Date : 31-DEC-2016 09:30 Cal File: N1116123104.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.517	8.526	(1.000)	220641	200.000	
	2 Naphthalene	128	8.553	8.554	(1.004)	9821	8.91919	8.92
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.498	9.508	(1.115)	148185	156.381	156
	5 2-Methylnaphthalene	142	9.561	9.561	(1.122)	7594	6.99757	7.00
	6 1-Methylnaphthalene	142	9.823	9.823	(1.153)	4301	3.94047	3.94
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	11.410	11.410	(0.987)	10021	7.44722	7.45
*	11 Acenaphthene-d10	164	11.555	11.564	(1.000)	149754	200.000	
	12 Acenaphthene	153	11.618	11.627	(1.005)	6233	7.03539	7.04(M)
	13 Dibenzofuran	168	11.822	11.822	(1.023)	12810	9.72659	9.73
	14 2,3,5-Trimethylnaphthalene	170	11.911	11.923	(1.031)	2713	3.21923	3.22(M)
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.454	12.454	(1.078)	17382	16.5786	16.6
	17 Dibenzothiophene	184	14.083	14.083	(0.988)	5850	5.24294	5.24(MH)
*	18 Phenanthrene-d10	188	14.251	14.262	(1.000)	241636	200.000	
	19 Phenanthrene	178	14.293	14.293	(1.003)	196447	142.199	142
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.356	14.356	(1.007)	61545	44.6793	44.7
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	15.297	15.307	(1.073)	31769	22.4240	22.4(M)
$	24 Fluoranthene-d10	212	16.367	16.367	(1.148)	232987	181.540	182
	25 Fluoranthene	202	16.405	16.405	(1.151)	780968	498.365	498
	26 Pyrene	202	16.905	16.915	(0.889)	693104	511.268	511
	27 Benzo(a)anthracene	228	18.925	18.933	(0.995)	114701	91.4038	91.4
*	28 Chrysene-d12	240	19.024	19.024	(1.000)	208692	200.000	
	29 Chrysene	228	19.057	19.074	(1.002)	198184	153.910	154
	30 Benzo(b)fluoranthene	252	21.000	21.001	(0.944)	126659	103.657	104
	31 Benzo(k)fluoranthene	252	21.048	21.049	(0.946)	76542	58.1580	58.2
	32 Benzo(j)fluoranthene	252	21.125	21.125	(0.950)	64642	55.1009	55.1
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	34 Benzo(e)pyrene	252	21.875	21.875	(0.984)	220706	181.076	181
	35 Benzo(a)pyrene	252	22.000	22.000	(0.989)	30551	26.8197	26.8
*	36 Perylene-d12	264	22.240	22.240	(1.000)	226680	200.000	
	37 Perylene	252	22.317	22.317	(1.003)	50449	42.4173	42.4
$	38 Dibenzo(a,h)anthracene-d14	292	25.115	25.116	(1.129)	145322	200.749	201
	39 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	40 Indeno(1,2,3-cd)pyrene	276	25.282	25.282	(1.137)	7787	6.26138	6.26
	41 Benzo(g,h,i)perylene	276	26.655	26.666	(1.199)	14862	13.3106	13.3

QC Flag Legend

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

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: N1117021013.D
Lab Smp Id: 17A0053-06
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20170210.b\LOWSIM.m
Misc Info:

Calibration Date: 10-FEB-2017
Calibration Time: 13:29
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	219654	109827	439308	220641	0.45
11 Acenaphthene-d10	135248	67624	270496	149754	10.73
18 Phenanthrene-d10	257021	128511	514042	241636	-5.99
28 Chrysene-d12	259511	129756	519022	208692	-19.58
36 Perylene-d12	257535	128768	515070	226680	-11.98

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.53	8.03	9.03	8.52	-0.11
11 Acenaphthene-d10	11.56	11.06	12.06	11.56	-0.08
18 Phenanthrene-d10	14.26	13.76	14.76	14.25	-0.07
28 Chrysene-d12	19.02	18.52	19.52	19.02	-0.00
36 Perylene-d12	22.24	21.74	22.74	22.24	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1117021013.D

Lab ID: 17A0053-06
nt11.i, 20170210.b\LOWSIM.m,   10-FEB-2017 18:14

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

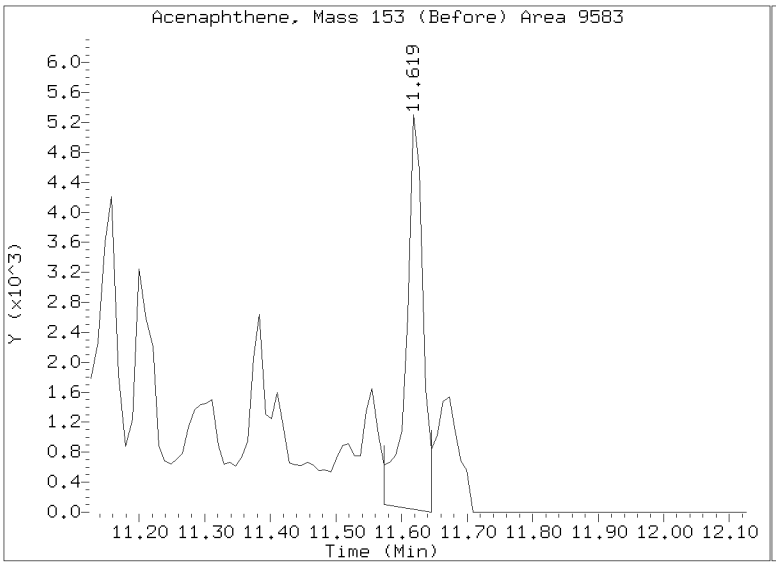
NONE

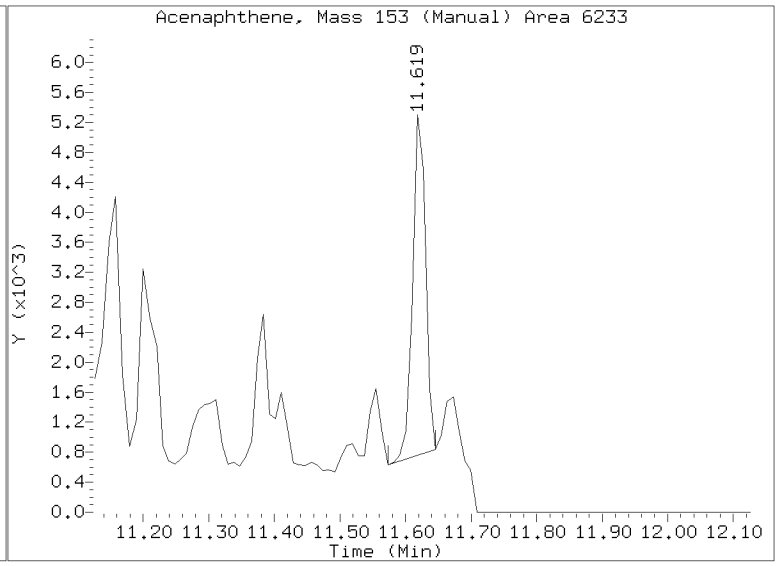
On Column LOD for nt11.i, 20170210.b\LOWSIM.m, allpna.sub = 3.0000

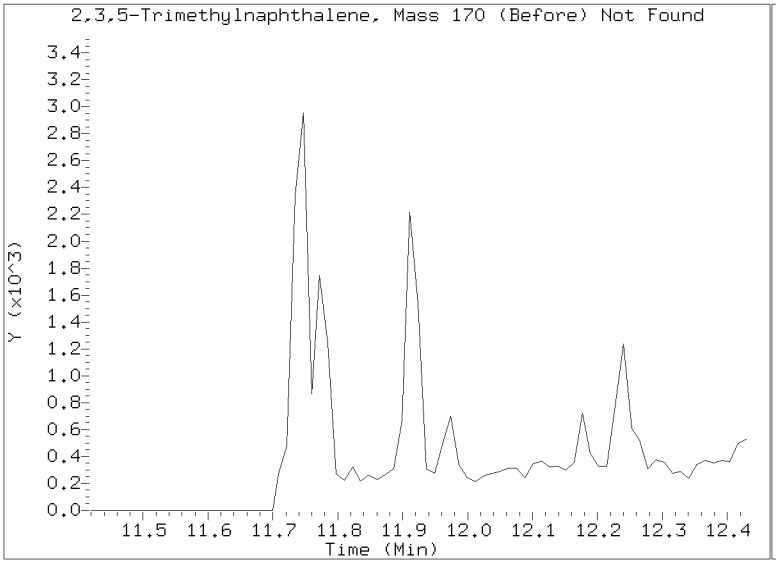
Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

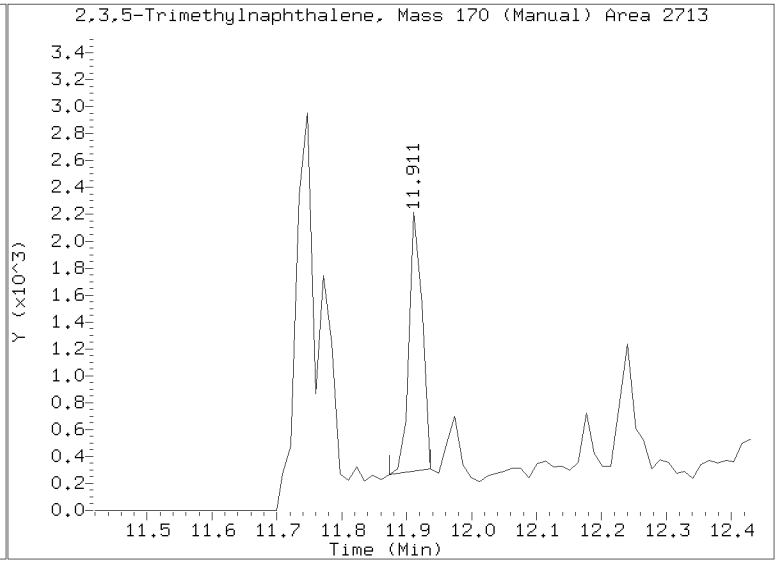
Quant Ion Manual Peak Adjustment Report

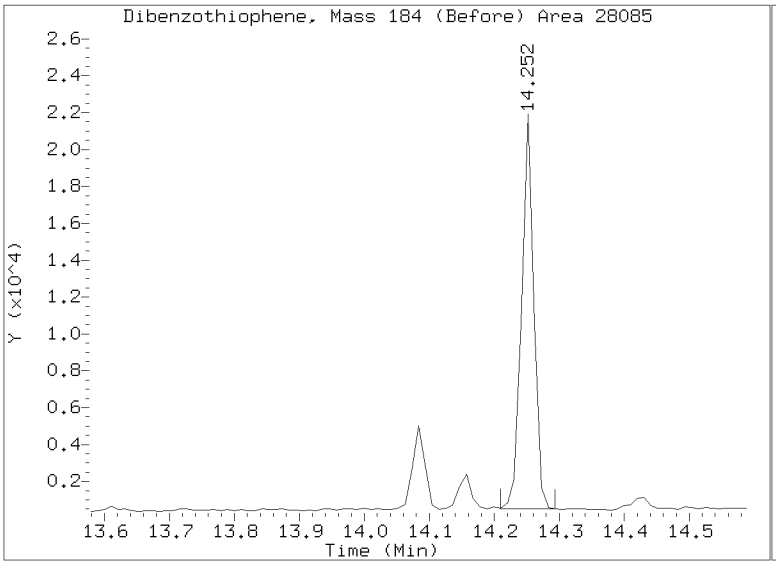
Datafile: //target/share/chem3/nt11.i/20170210.b/N1117021013.D
Injection Date: 10-FEB-2017 18:14
Lab ID:17A0053-06 Client ID:
Report Date: 02/11/2017 08:35

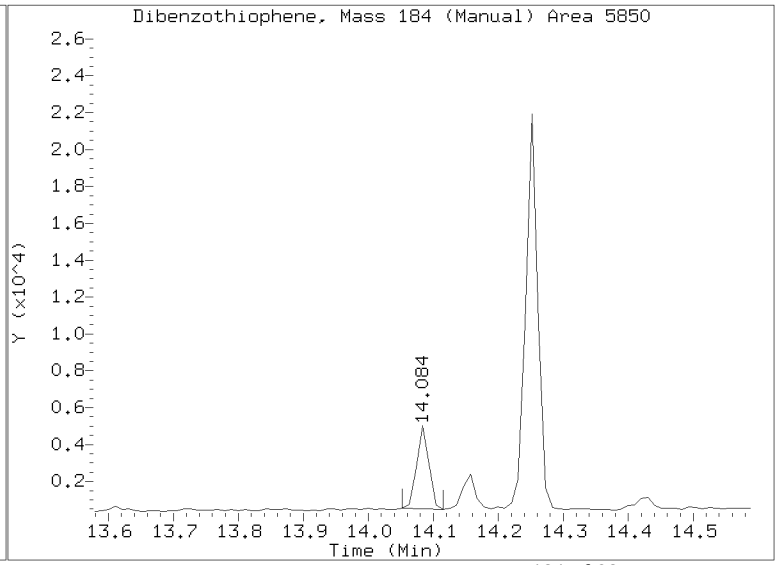






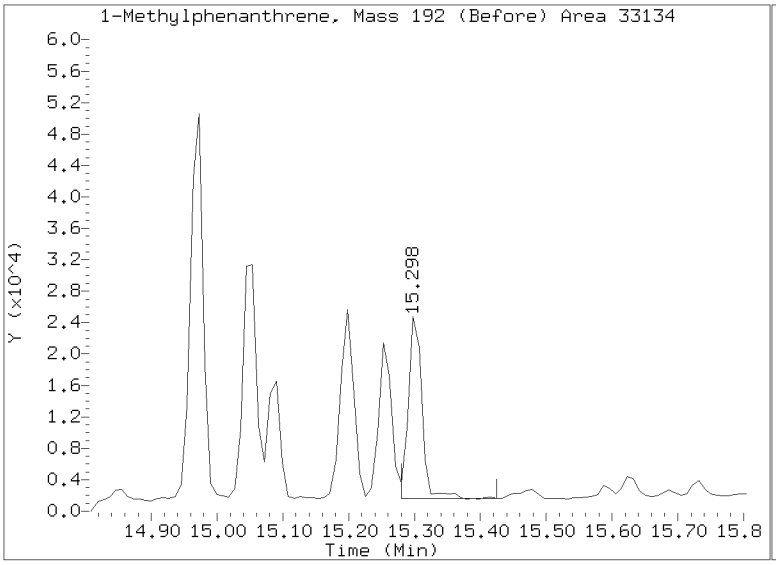


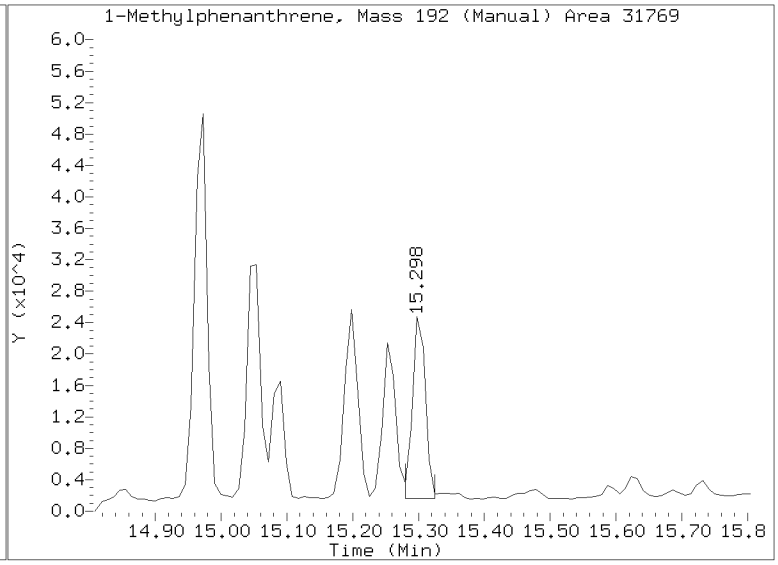




Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt11.i/20170210.b/N1117021013.D
Injection Date: 10-FEB-2017 18:14
Lab ID:17A0053-06 Client ID:
Report Date: 02/11/2017 08:35





PG-SMA2-4-MUS-170105

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D-SIM
Polycyclic Aromatic Hydrocarbons (PAH) low level

Laboratory:	Analytical Resources, Inc.			SDG:	17A0053
Client:	Anchor QEA, LLC			Project:	Port Gamble Shellfish Monitoring
Matrix:	Tissue	Laboratory ID:	17A0053-07	File ID:	N1117021014.D
Sampled:	01/05/17 12:30	Prepared:	01/31/17 13:45	Analyzed:	02/10/17 18:50
Solids:		Preparation:	EPA 3550C-Mod (Ultrasonic	Initial/Final:	10.1 g / 0.5 mL
Batch:	BFA0647	Sequence:	SFB0130	Calibration:	ZL00083
Instrument:	NT11	Column:	RXi-17Sil-MS		

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg)	Q	DL	RL
91-20-3	Naphthalene	1	0.59	U	0.50	0.59
91-57-6	2-Methylnaphthalene	1	0.50	U	0.50	0.50
208-96-8	Acenaphthylene	1	0.50	U	0.50	0.50
83-32-9	Acenaphthene	1	0.50	U	0.50	0.50
86-73-7	Fluorene	1	0.50	U	0.50	0.50
85-01-8	Phenanthrene	1	3.04		0.50	0.50
120-12-7	Anthracene	1	1.12		0.50	0.50
206-44-0	Fluoranthene	1	9.35		0.50	0.50
129-00-0	Pyrene	1	10.3		0.50	0.50
56-55-3	Benzo(a)anthracene	1	2.73		0.50	0.50
218-01-9	Chrysene	1	5.35		0.50	0.50
205-99-2	Benzo(b)fluoranthene	1	3.41		0.50	0.50
207-08-9	Benzo(k)fluoranthene	1	1.83		0.50	0.50
50-32-8	Benzo(a)pyrene	1	0.85		0.50	0.50
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.50	U	0.50	0.50
53-70-3	Dibenzo(a,h)anthracene	1	0.50	U	0.50	0.50
191-24-2	Benzo(g,h,i)perylene	1	0.61		0.50	0.50
1985-5-0	Perylene	1	1.42		0.50	0.50
197-97-2	Benzo(e)pyrene	1	6.00		0.50	0.50

SURROGATES	ADDED (ug/kg)	CONC (ug/kg)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	14.851	6.34	42.7	30 - 160	
Dibenzo[a,h]anthracene-d14	14.851	7.79	52.4	30 - 160	
Fluoranthene-d10	14.851	7.02	47.3	30 - 160	

Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021014.D

Date : 10-FEB-2017 18:50

Client ID:

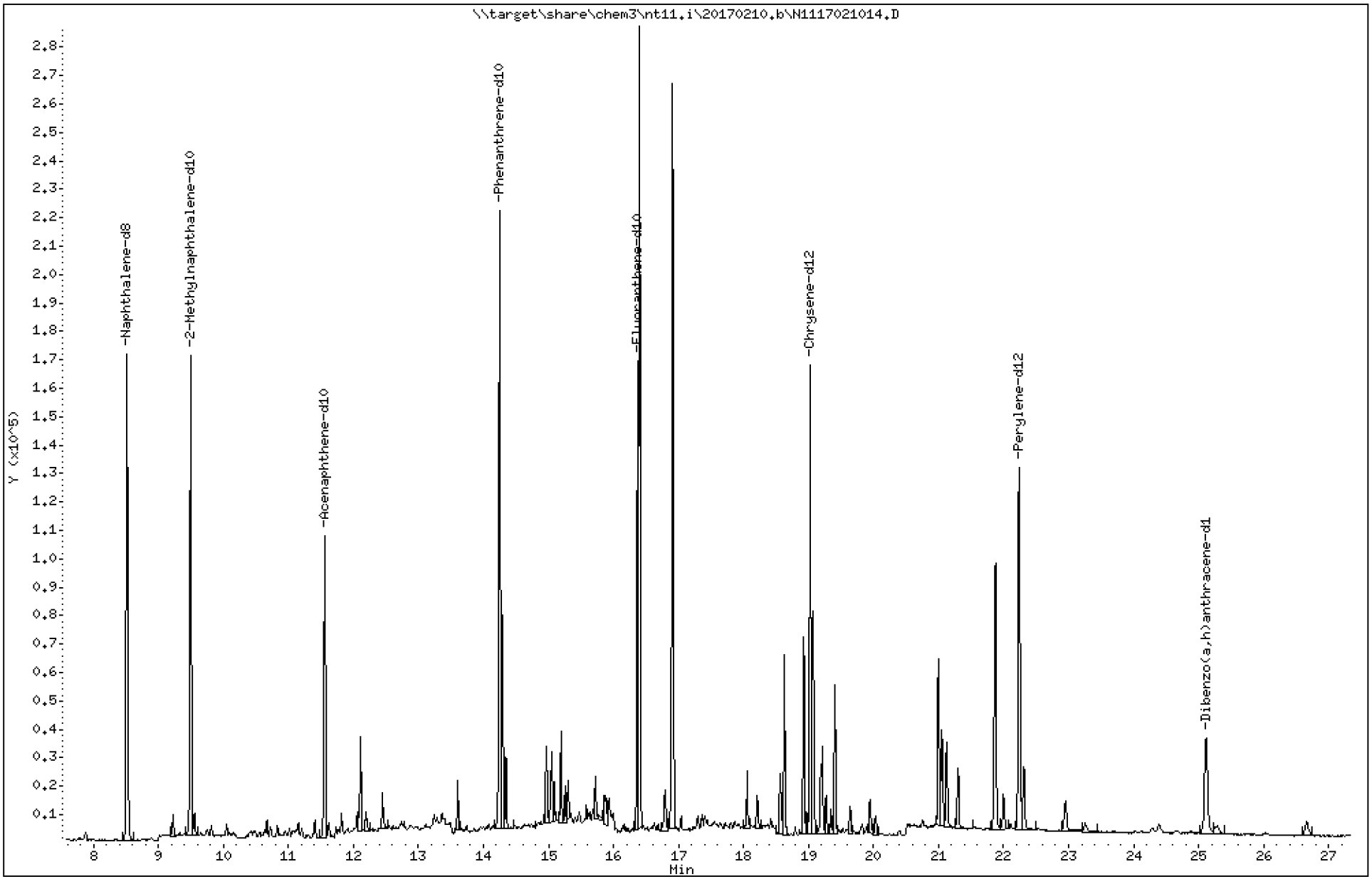
Sample Info: 17A0053-07

Instrument: nt11.i

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021014.D

Date : 10-FEB-2017 18:50

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-07

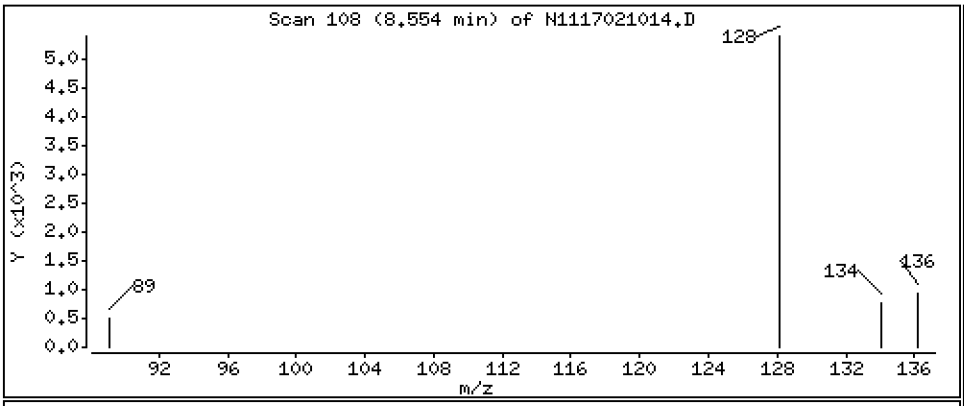
Operator: VTS

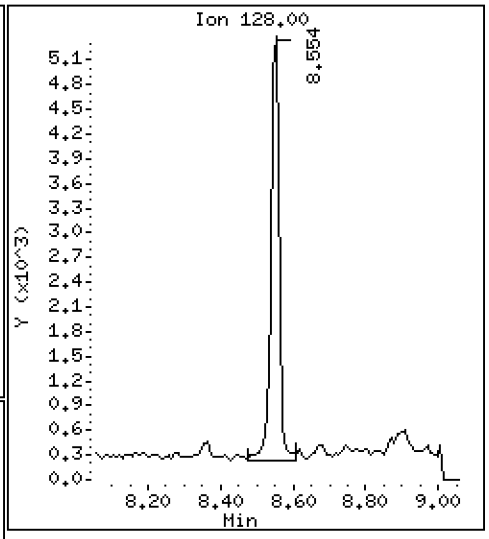
Column phase: Rxi-17Sil MS

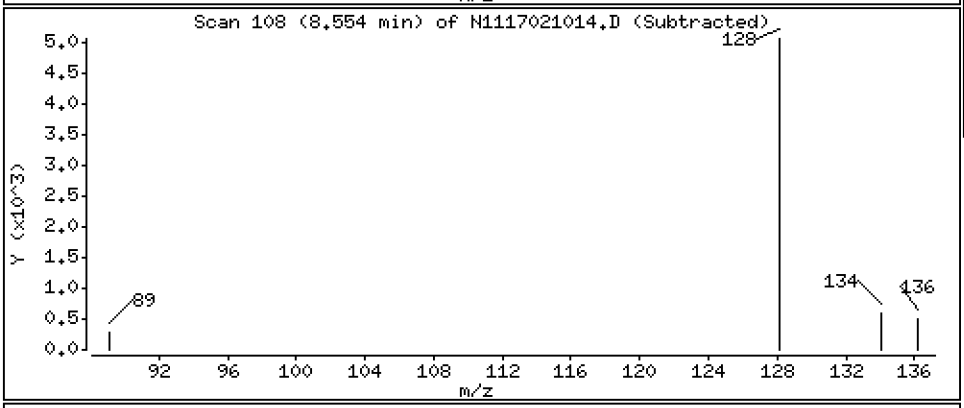
Column diameter: 0.25

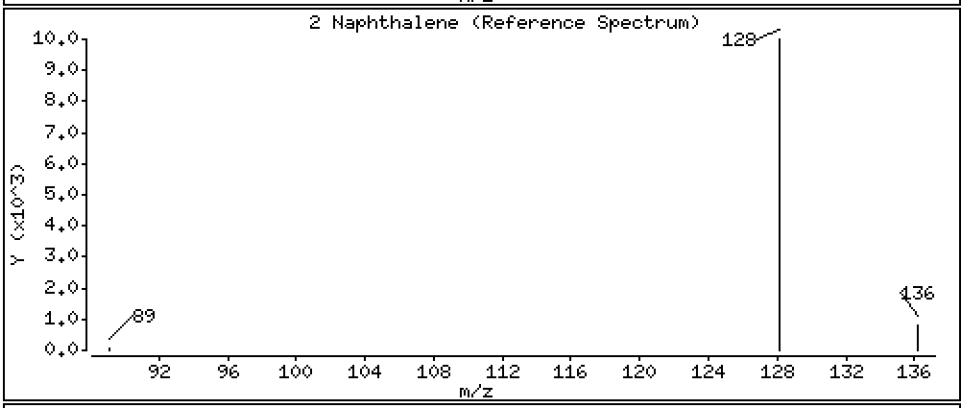
2 Naphthalene

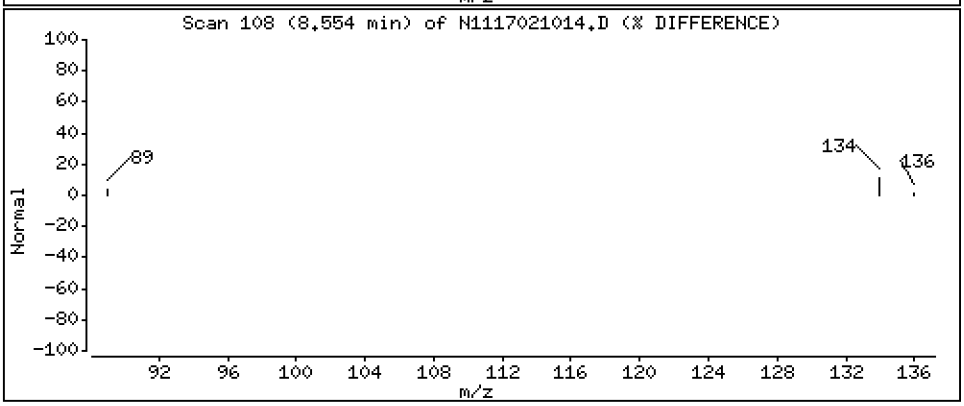
Concentration: 7.35 ng/mL











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Date : 10-FEB-2017 18:50

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-07

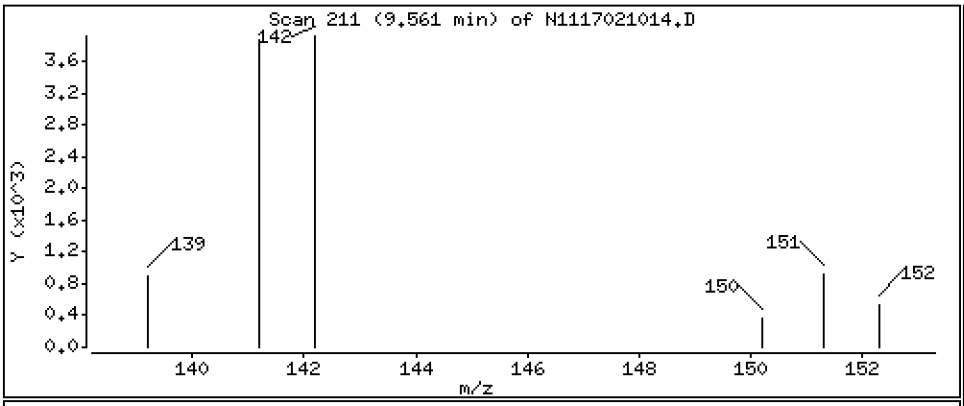
Operator: VTS

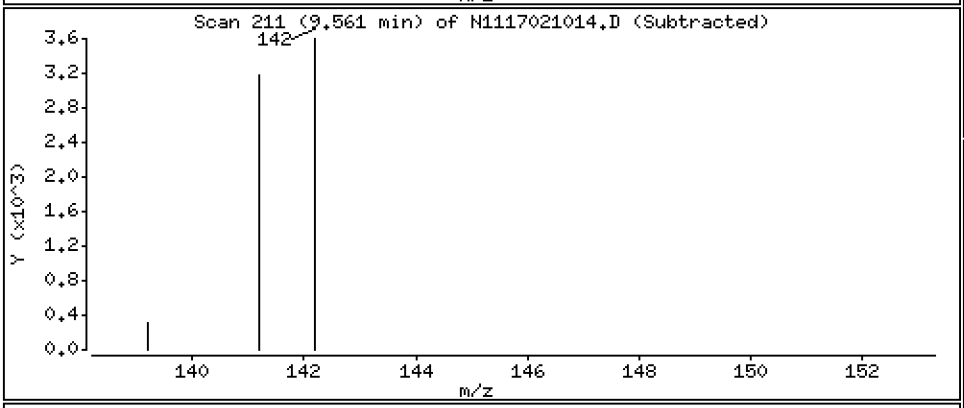
Column phase: Rxi-17Sil MS

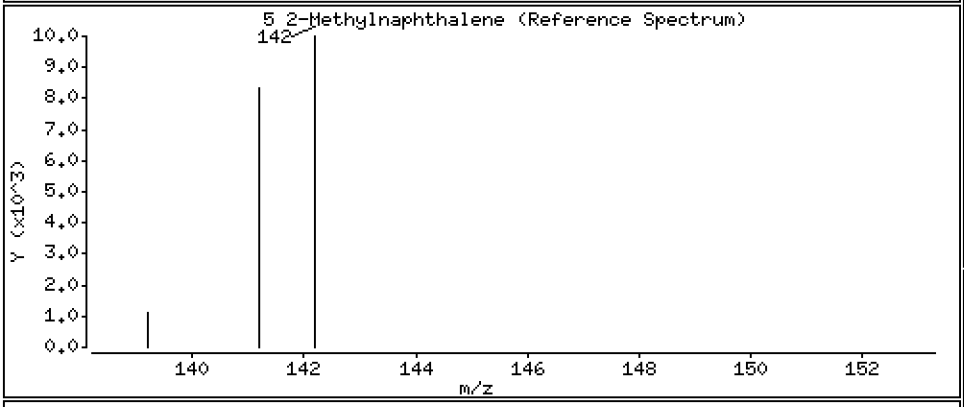
Column diameter: 0.25

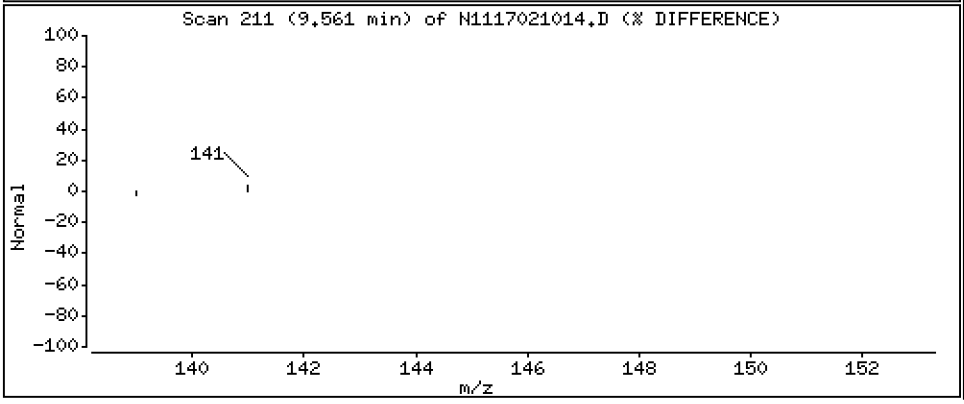
5 2-Methylnaphthalene

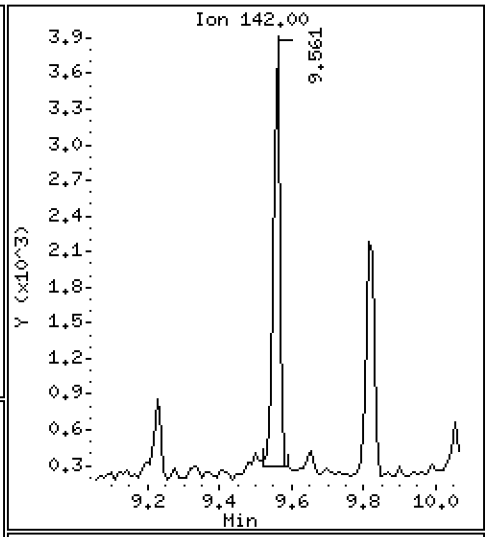
Concentration: 4.59 ng/mL

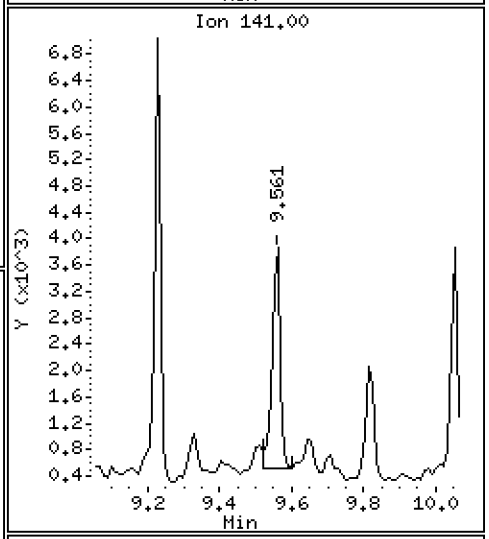


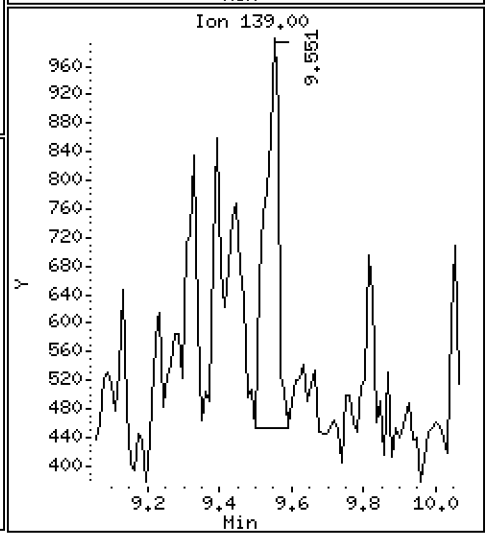












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Date : 10-FEB-2017 18:50

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-07

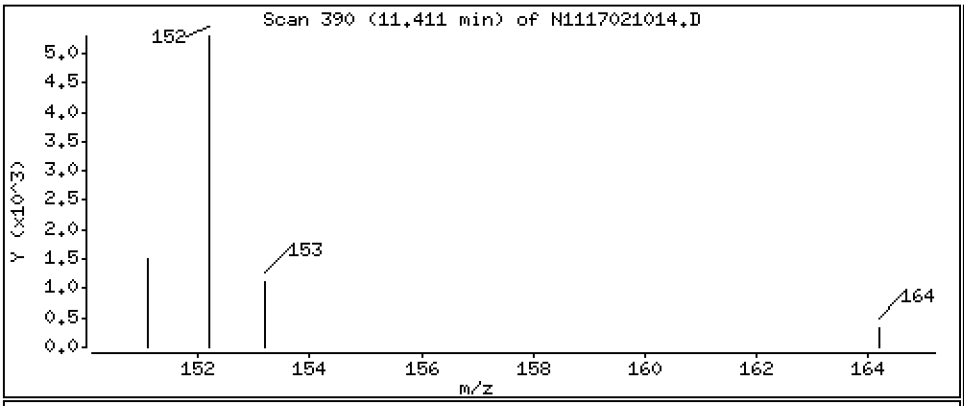
Operator: VTS

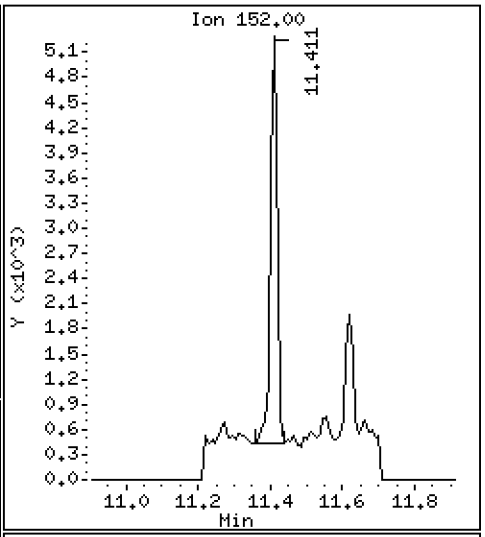
Column phase: Rxi-17Sil MS

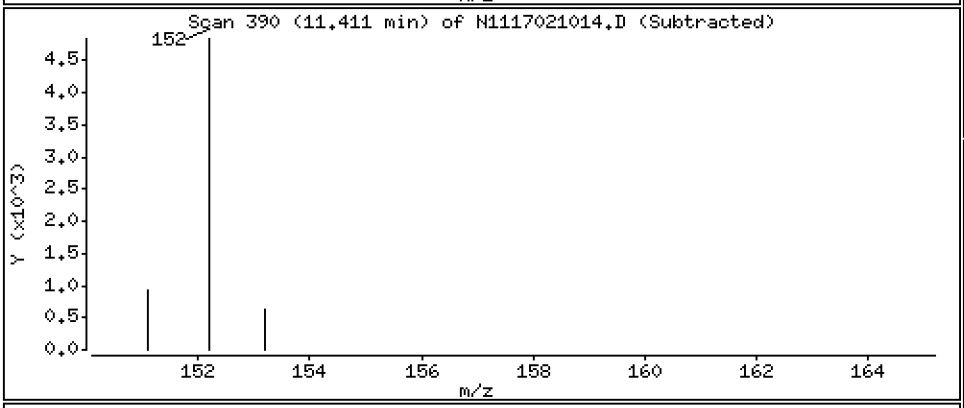
Column diameter: 0.25

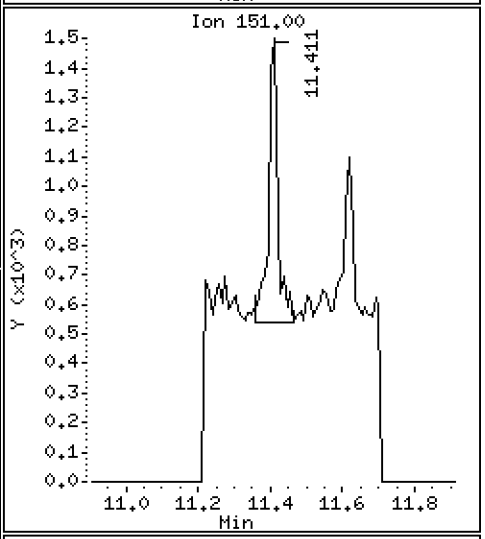
10 Acenaphthylene

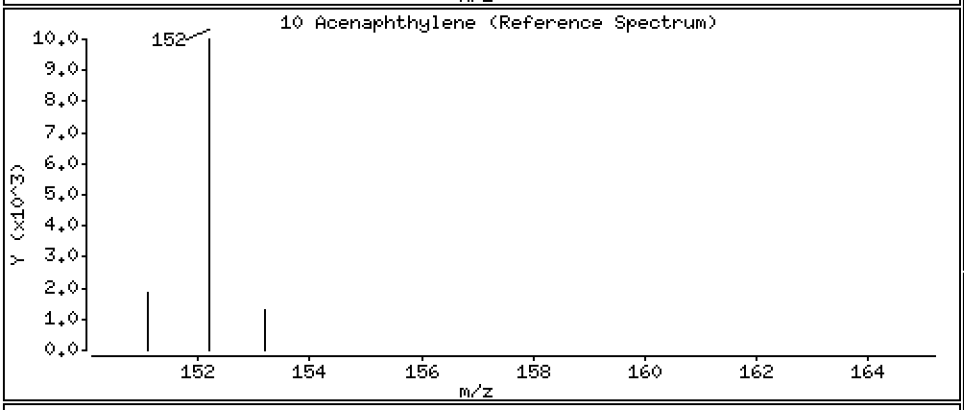
Concentration: 4.51 ng/mL

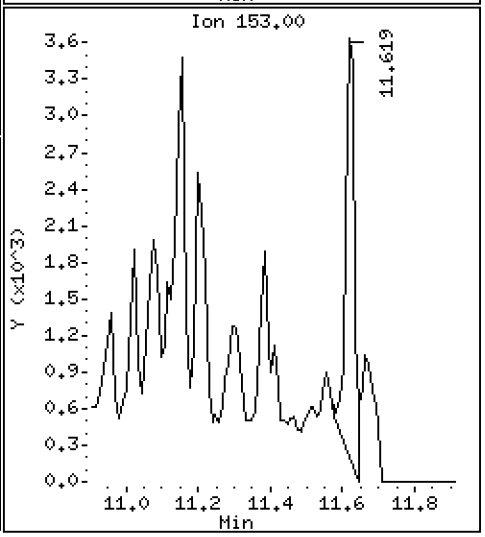


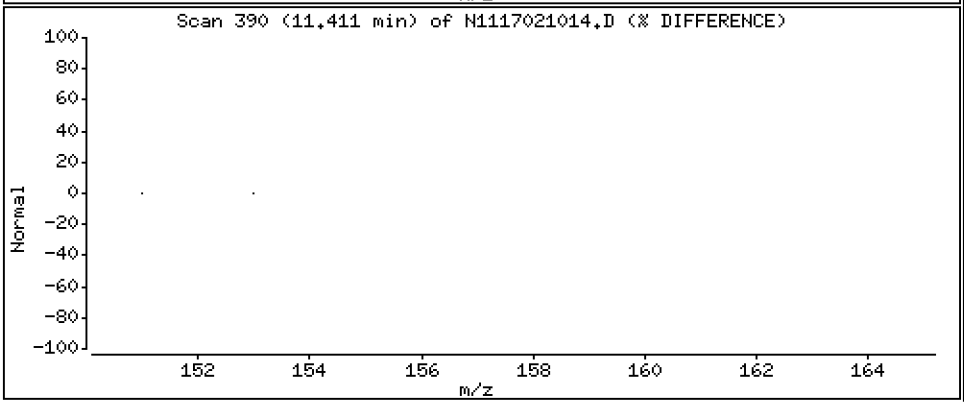












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Date : 10-FEB-2017 18:50

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-07

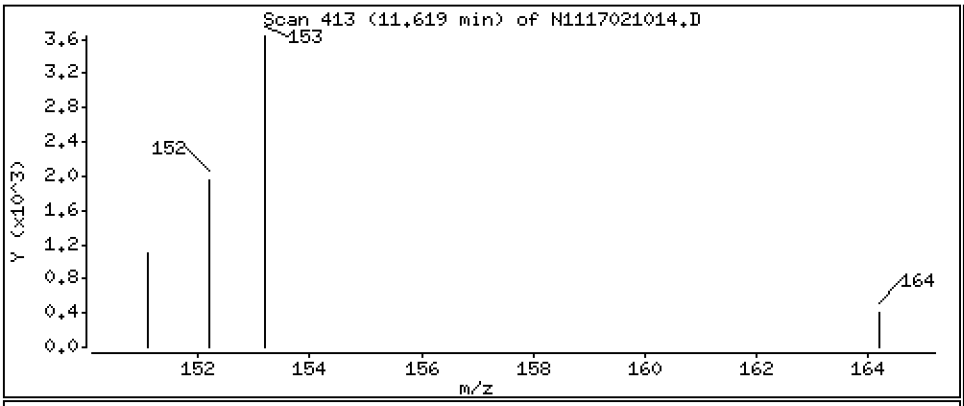
Operator: VTS

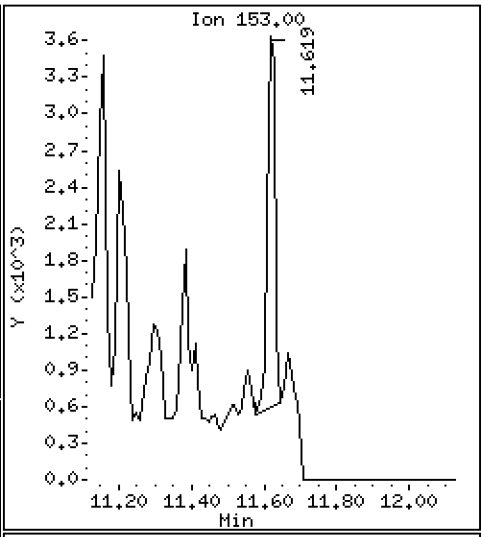
Column phase: Rxi-17Sil MS

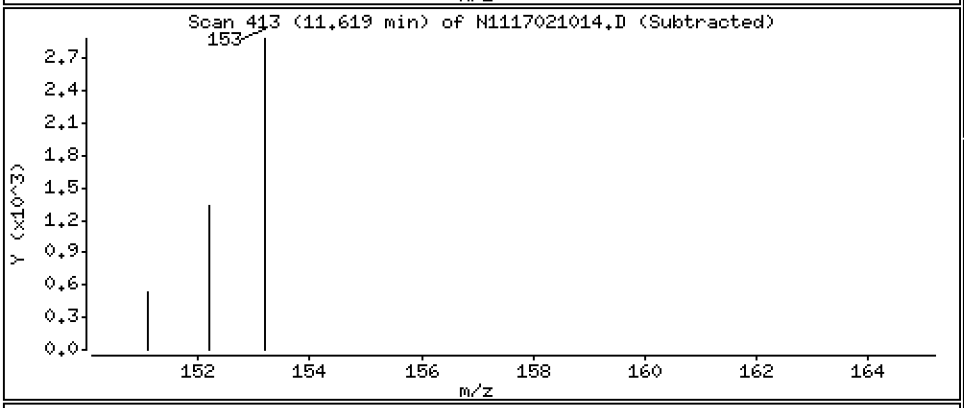
Column diameter: 0.25

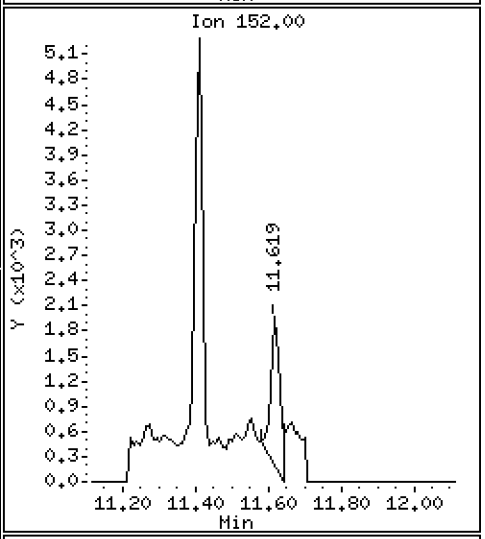
12 Acenaphthene

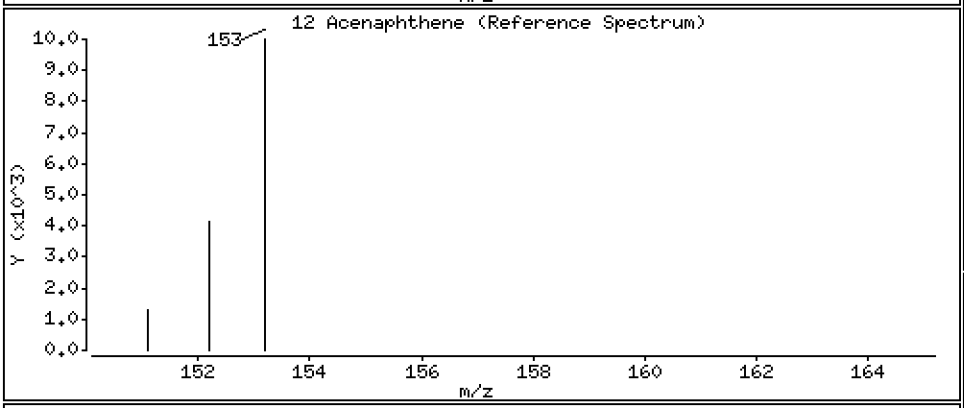
Concentration: 4.95 ng/mL

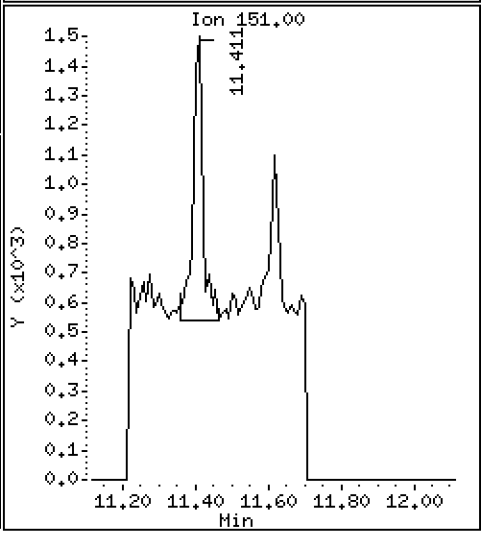


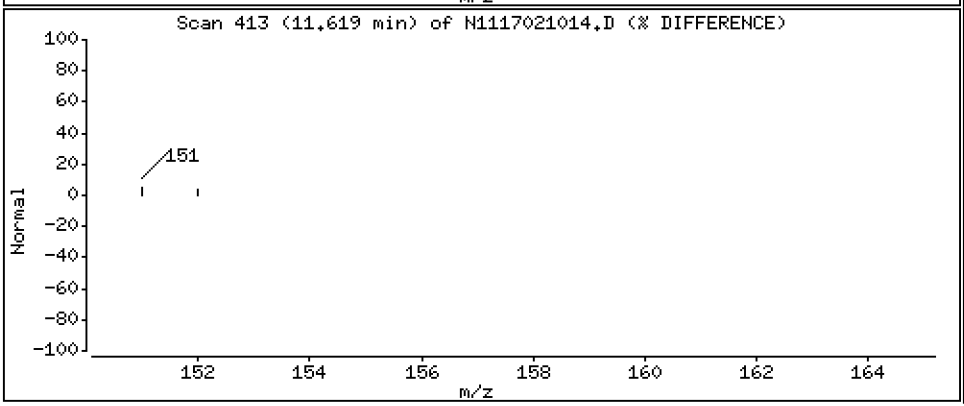












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021014.D

Date : 10-FEB-2017 18:50

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-07

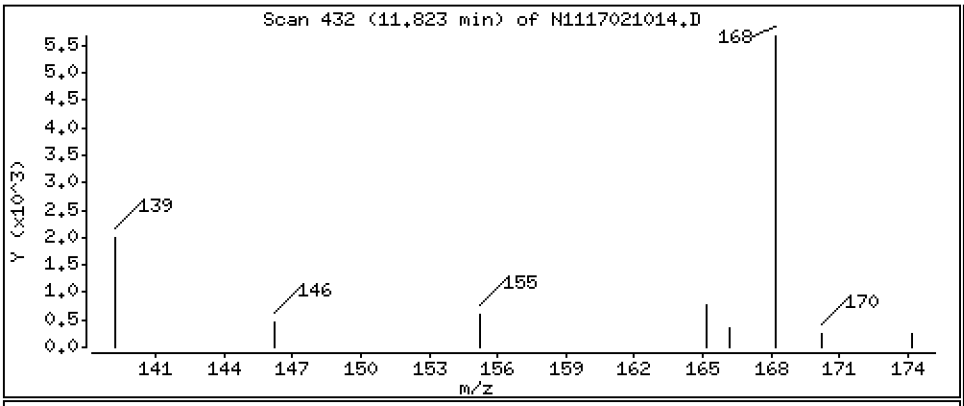
Operator: VTS

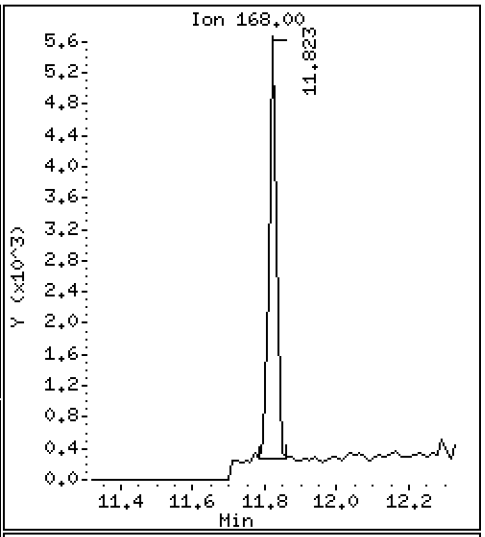
Column phase: Rxi-17Sil MS

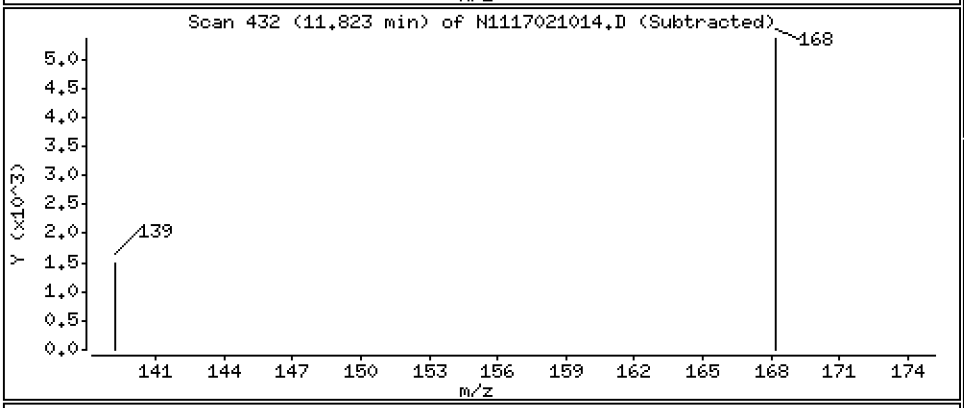
Column diameter: 0.25

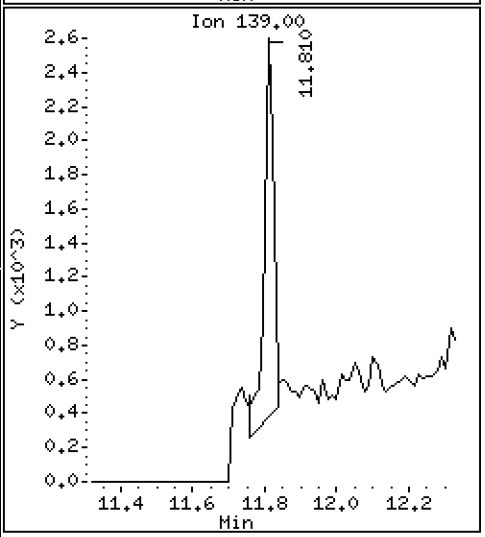
13 Dibenzofuran

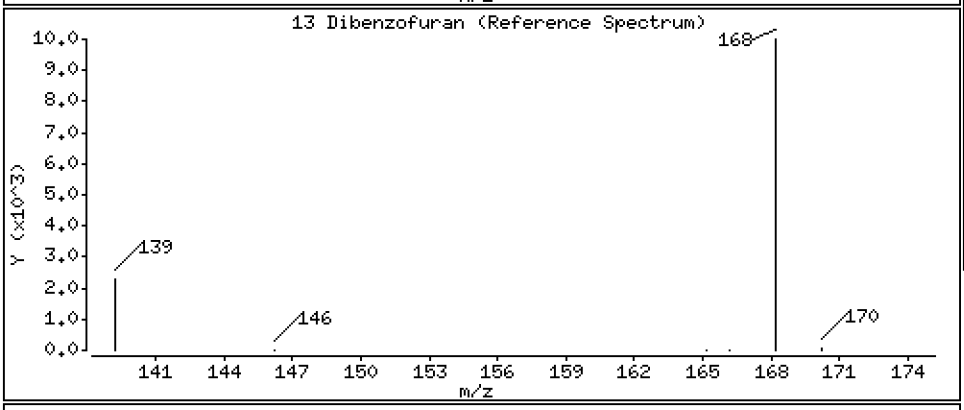
Concentration: 5.27 ng/mL

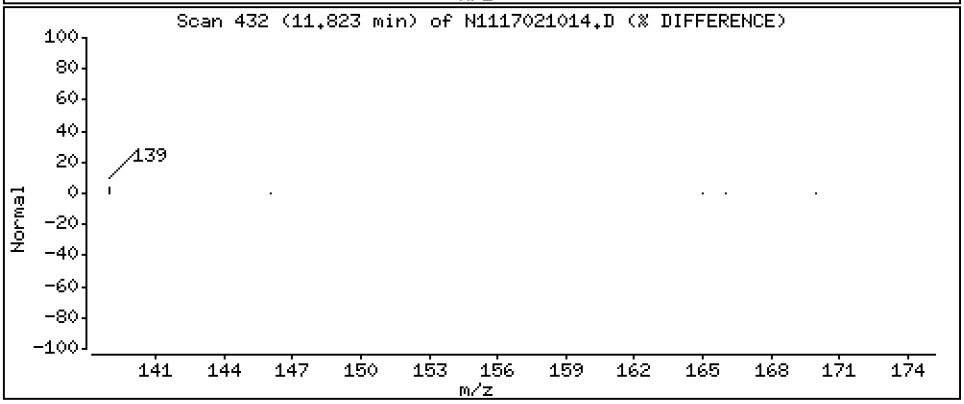












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021014.D

Date : 10-FEB-2017 18:50

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-07

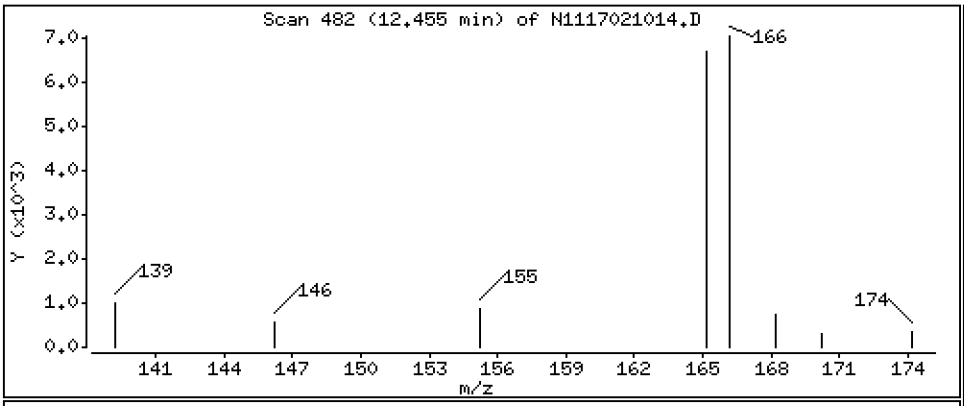
Operator: VTS

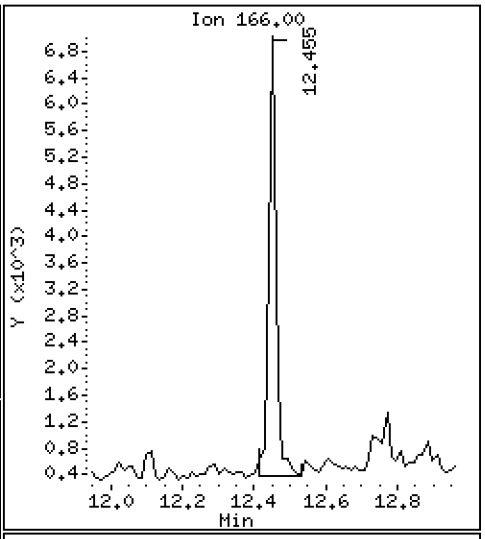
Column phase: Rxi-17Sil MS

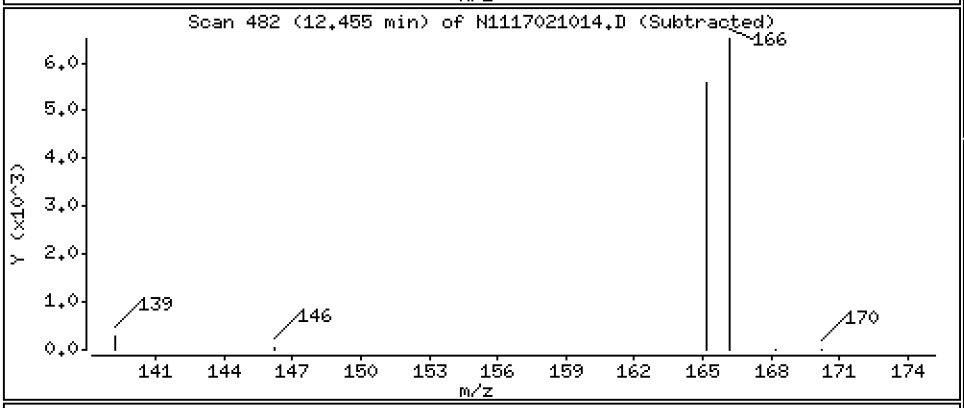
Column diameter: 0.25

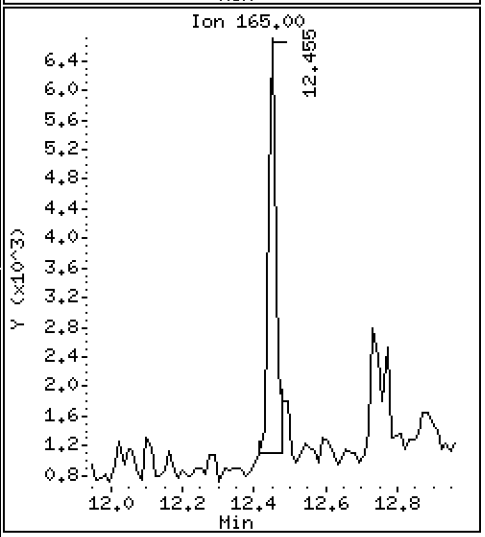
16 Fluorene

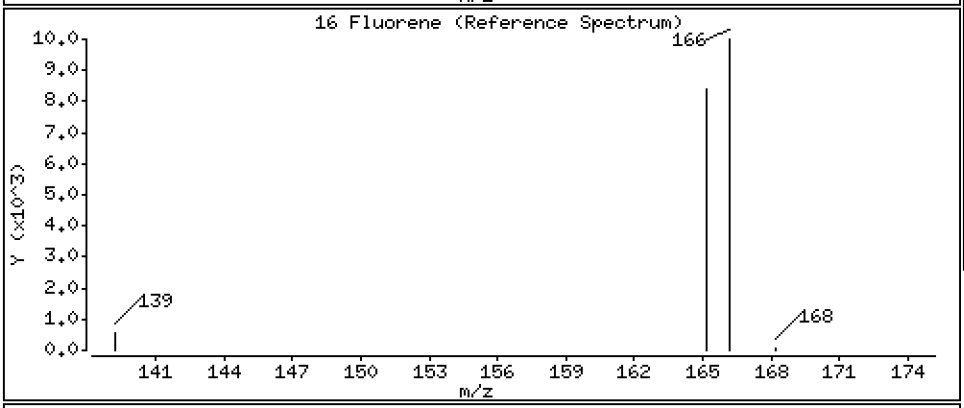
Concentration: 8.71 ng/mL

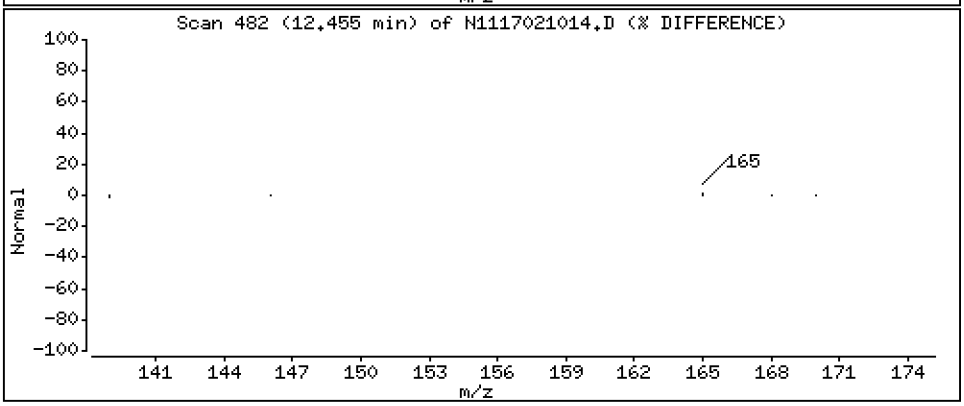












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Date : 10-FEB-2017 18:50

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-07

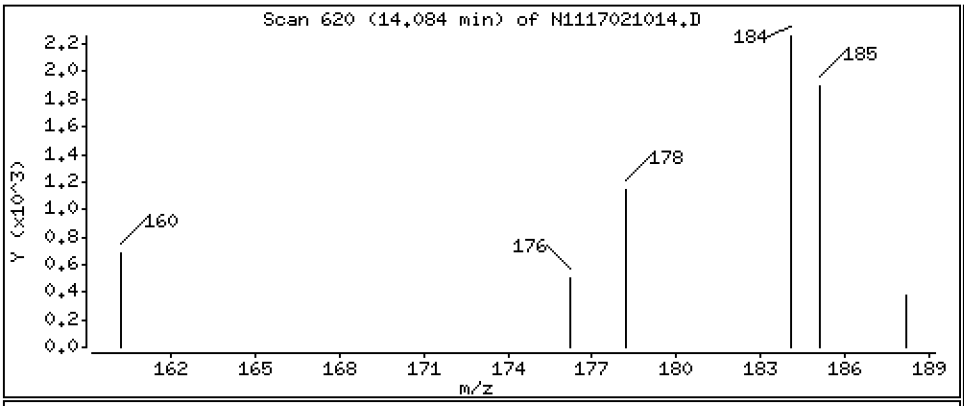
Operator: VTS

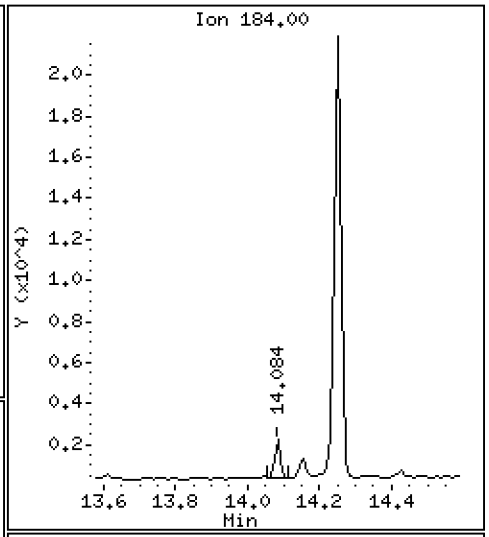
Column phase: Rxi-17Sil MS

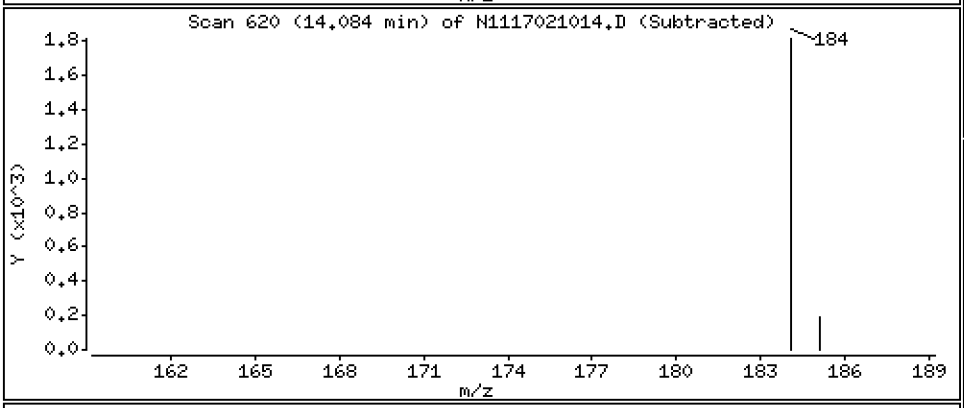
Column diameter: 0.25

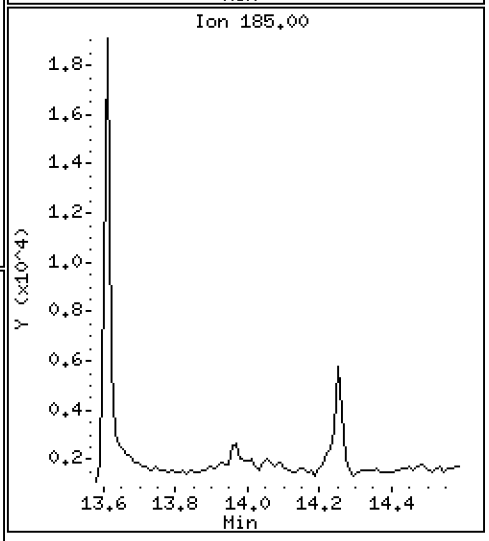
17 Dibenzothiophene

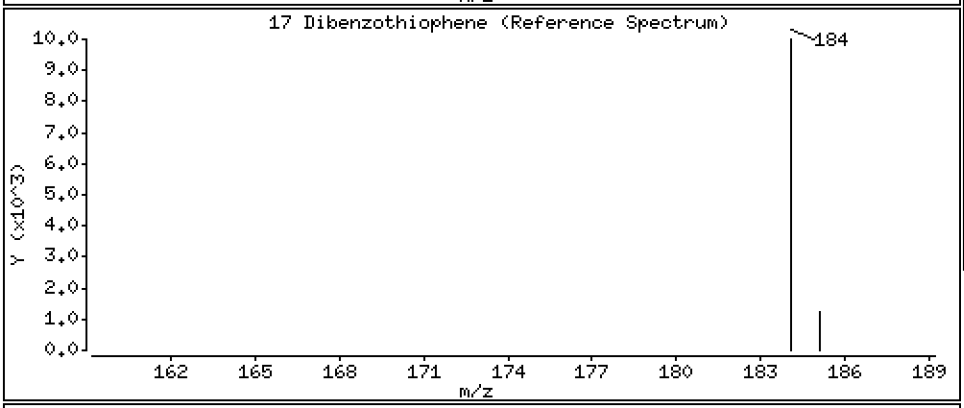
Concentration: 2.03 ng/mL

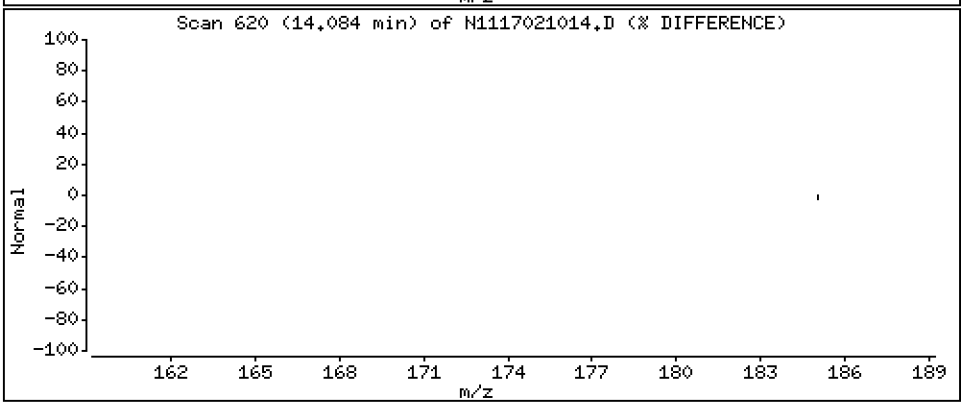












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Date : 10-FEB-2017 18:50

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-07

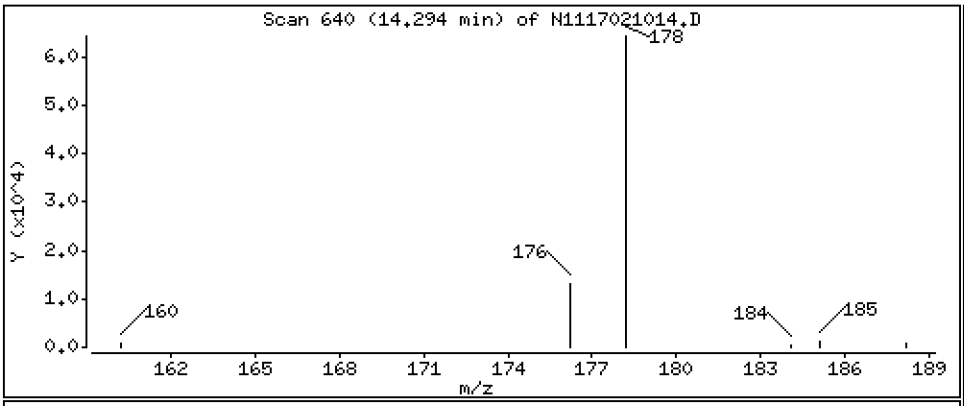
Operator: VTS

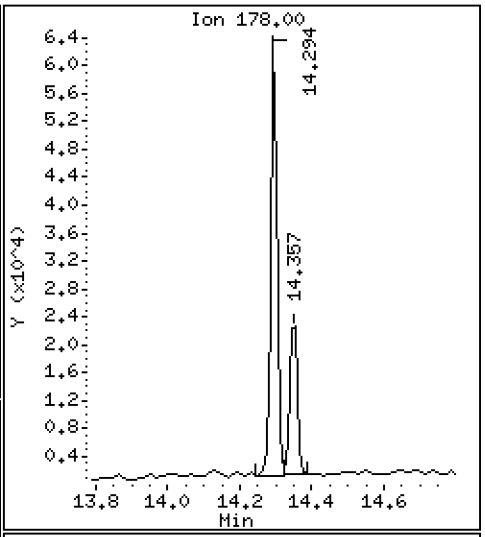
Column phase: Rxi-17Sil MS

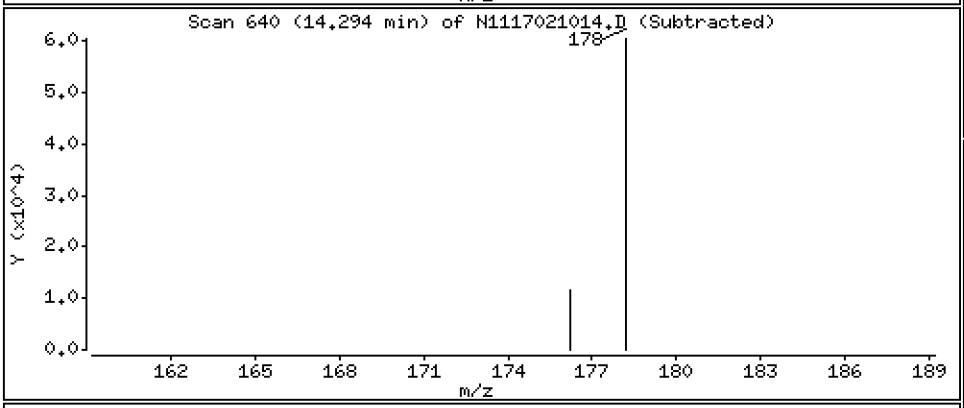
Column diameter: 0.25

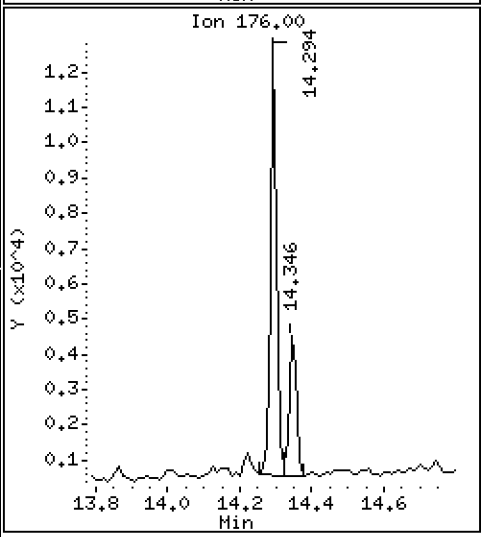
19 Phenanthrene

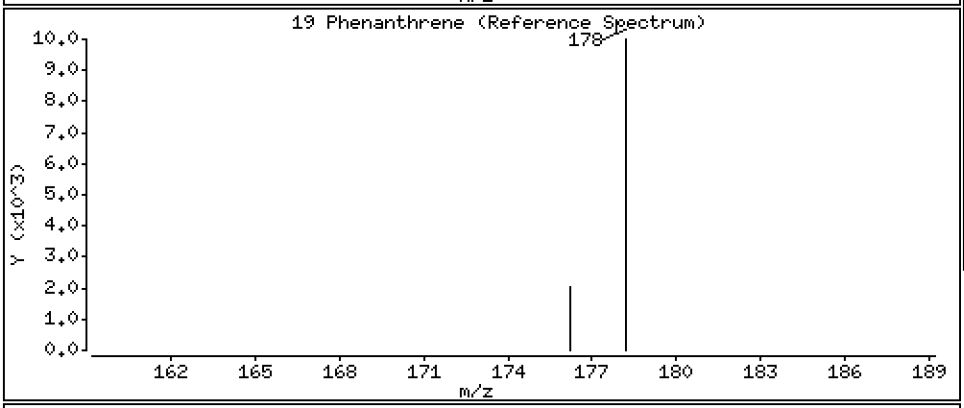
Concentration: 61.4 ng/mL

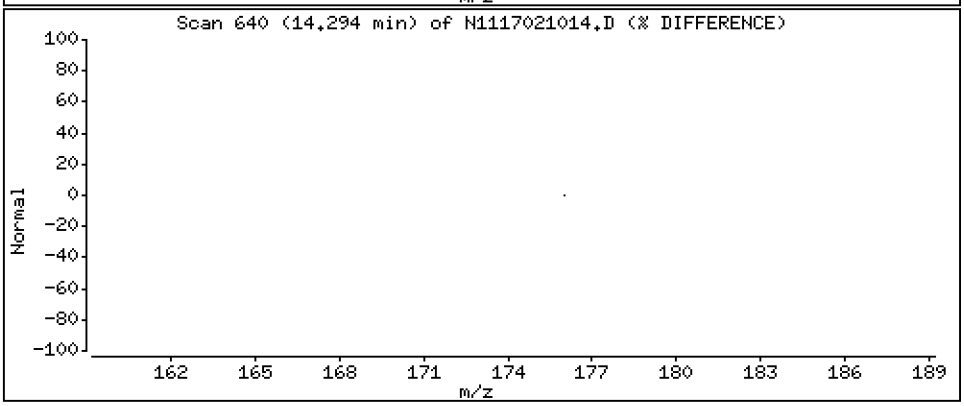












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Date : 10-FEB-2017 18:50

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-07

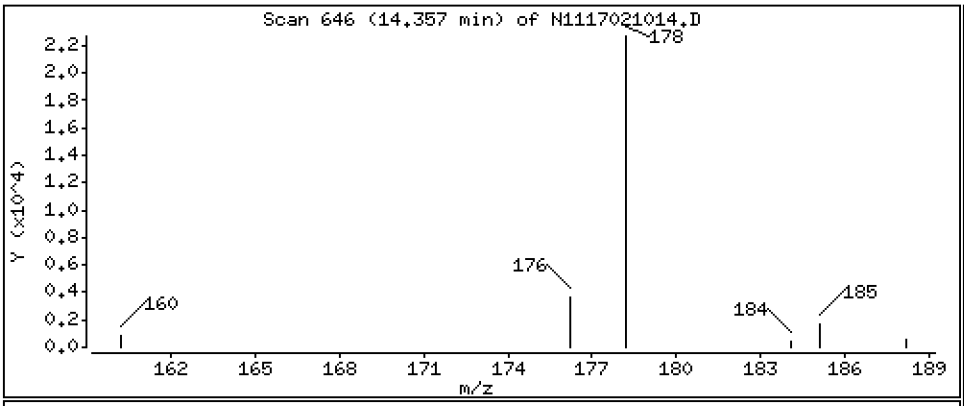
Operator: VTS

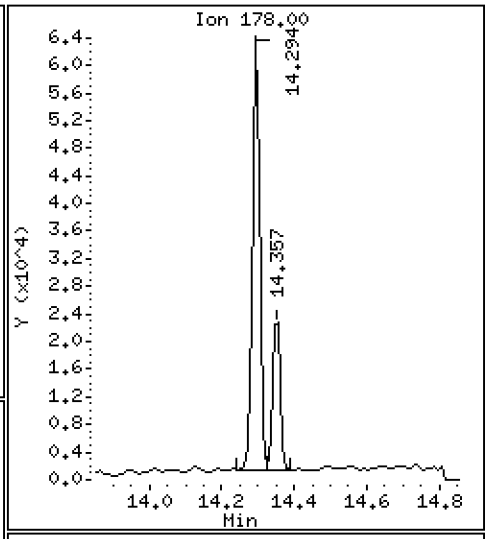
Column phase: Rxi-17Sil MS

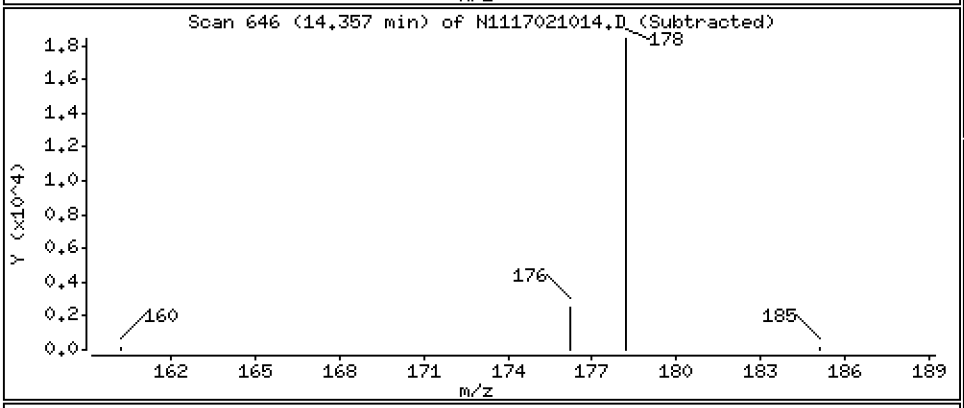
Column diameter: 0.25

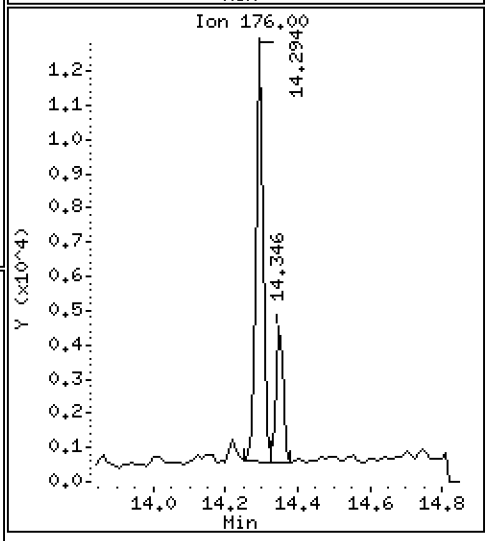
21 Anthracene

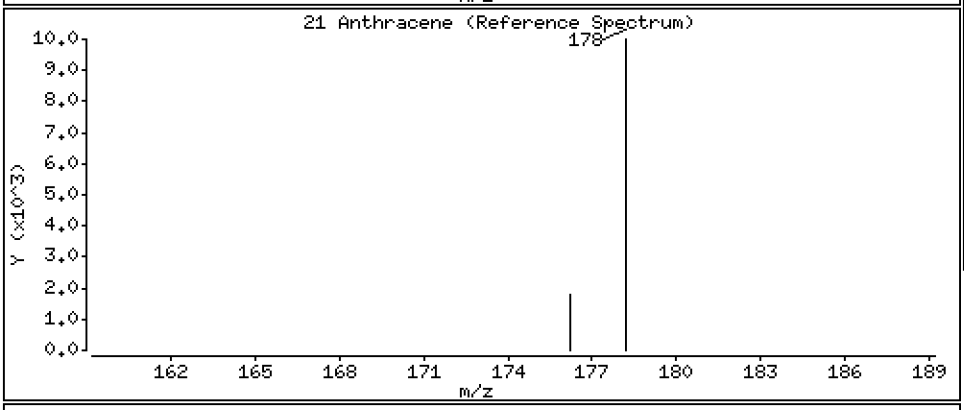
Concentration: 22.5 ng/mL

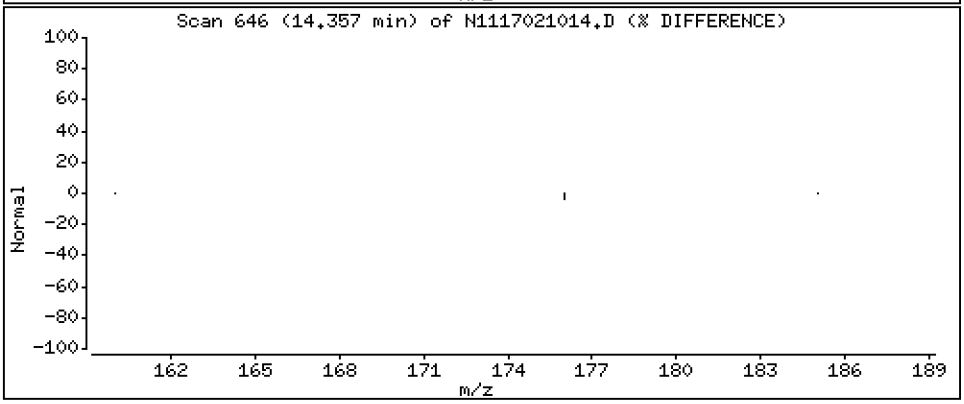












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021014.D

Date : 10-FEB-2017 18:50

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-07

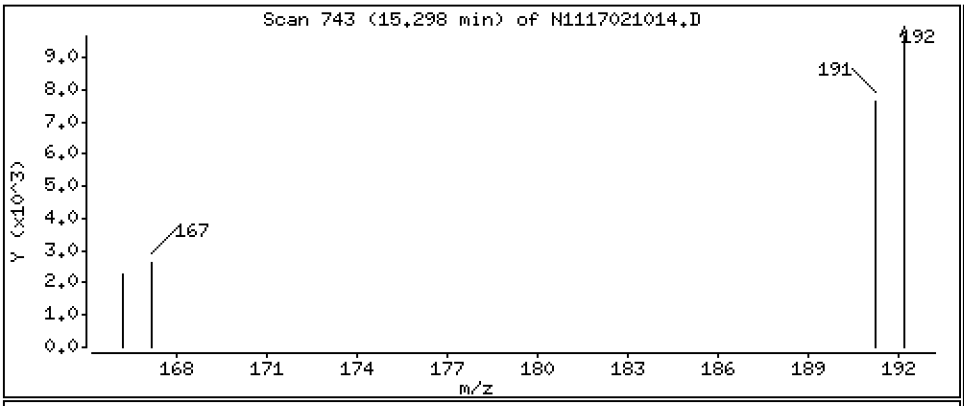
Operator: VTS

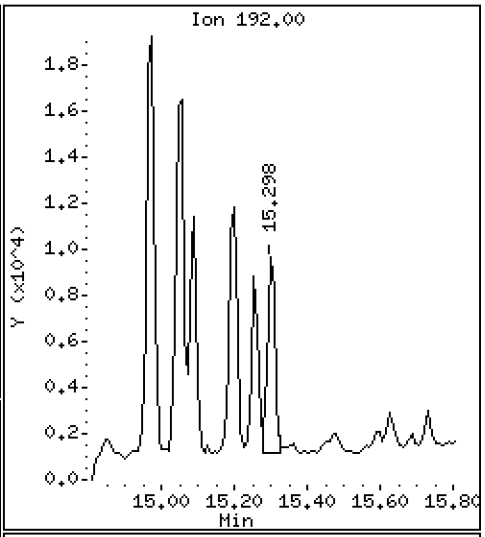
Column phase: Rxi-17Sil MS

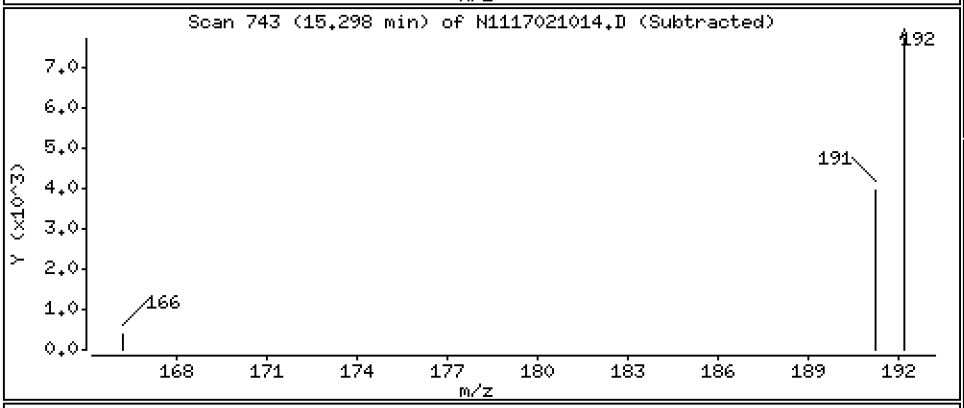
Column diameter: 0.25

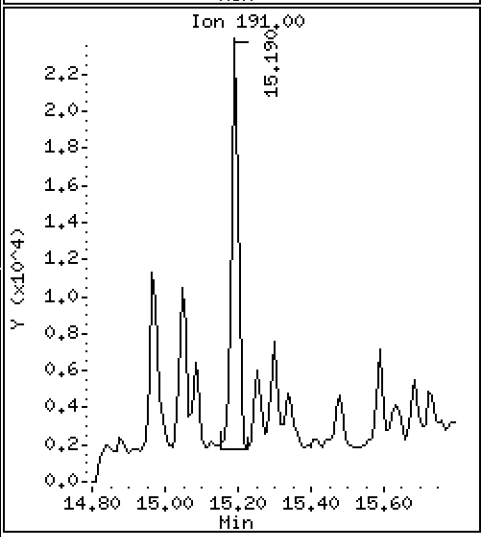
23 1-Methylphenanthrene

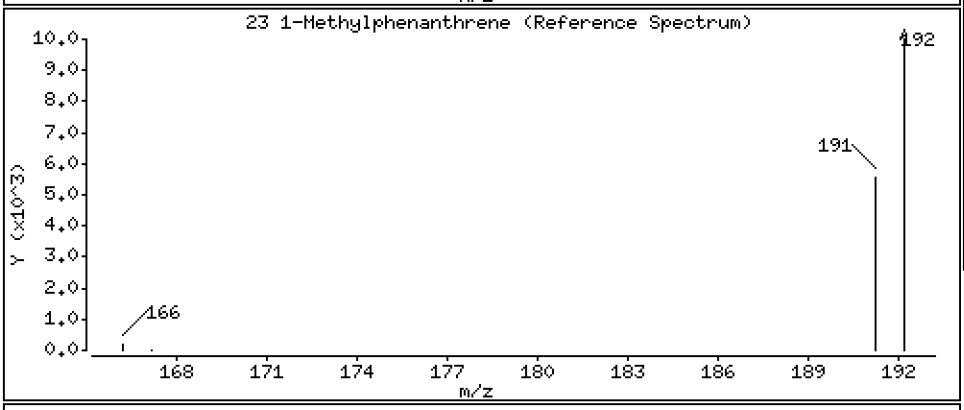
Concentration: 8.17 ng/mL

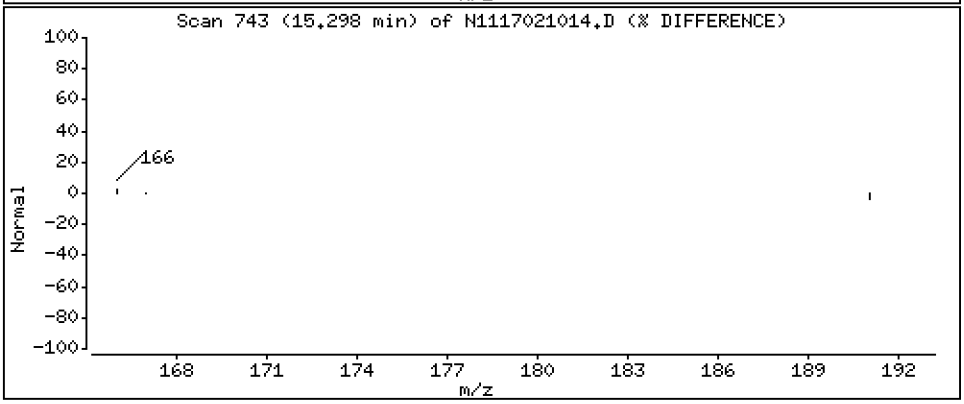












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Date : 10-FEB-2017 18:50

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-07

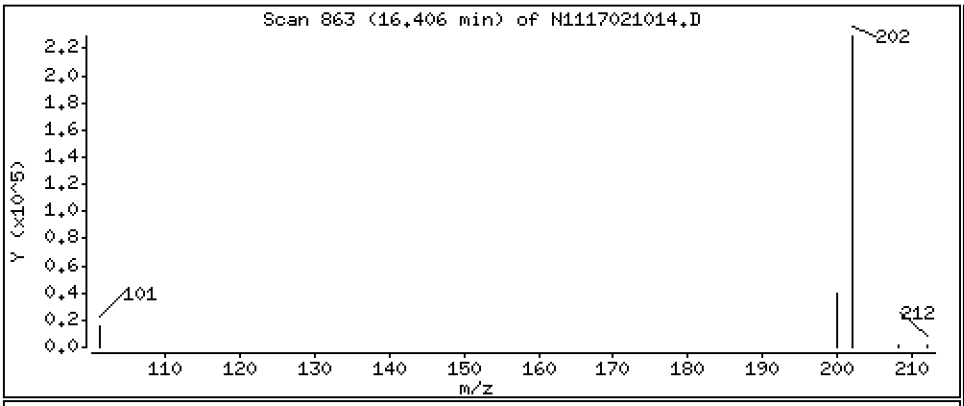
Operator: VTS

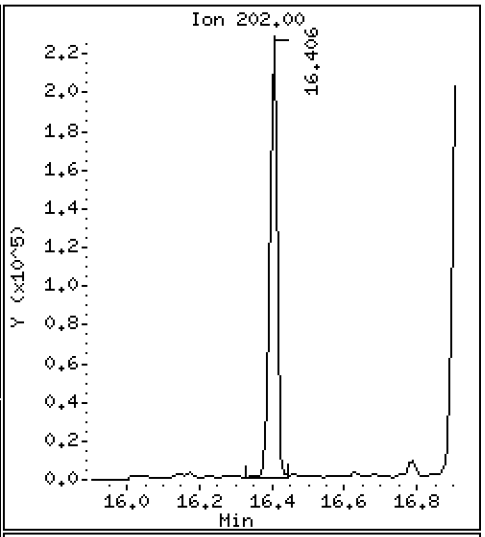
Column phase: Rxi-17Sil MS

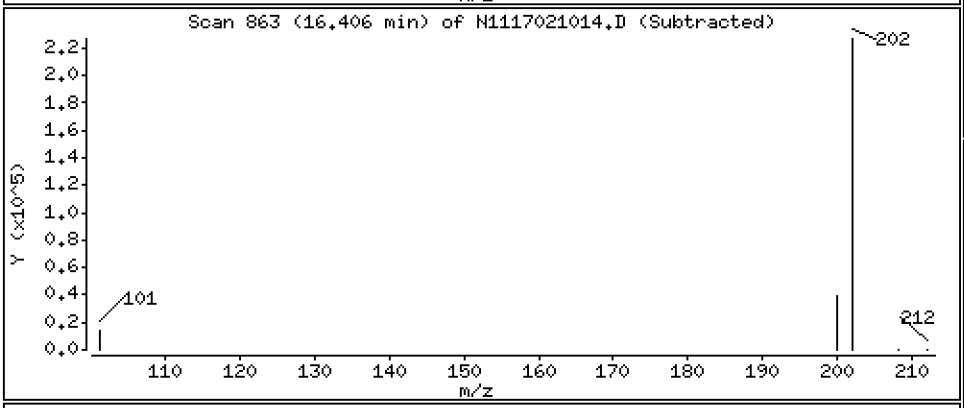
Column diameter: 0.25

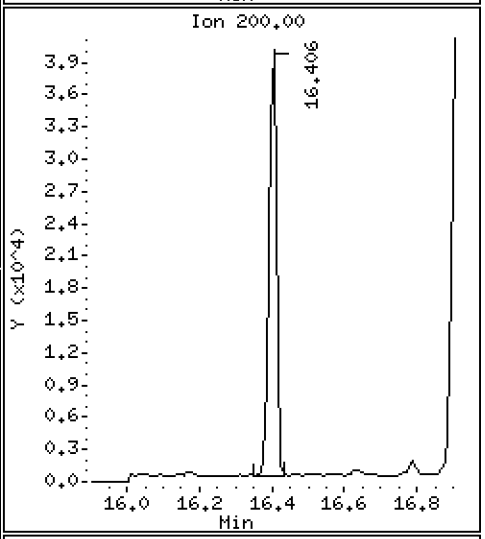
25 Fluoranthene

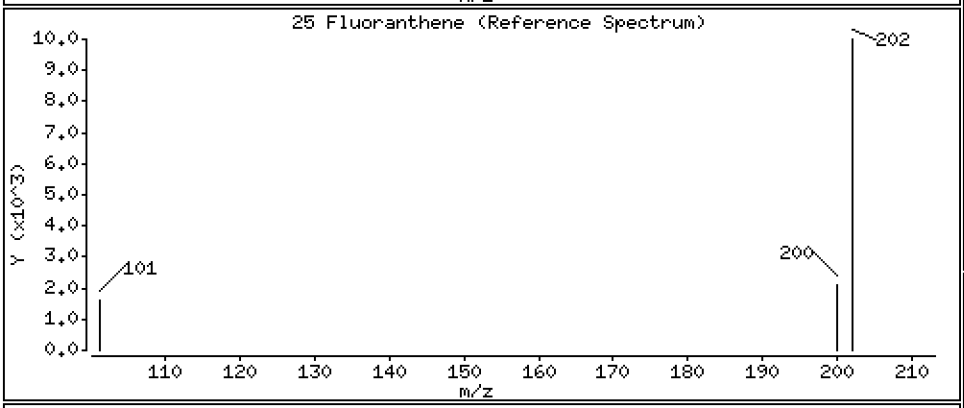
Concentration: 189 ng/mL

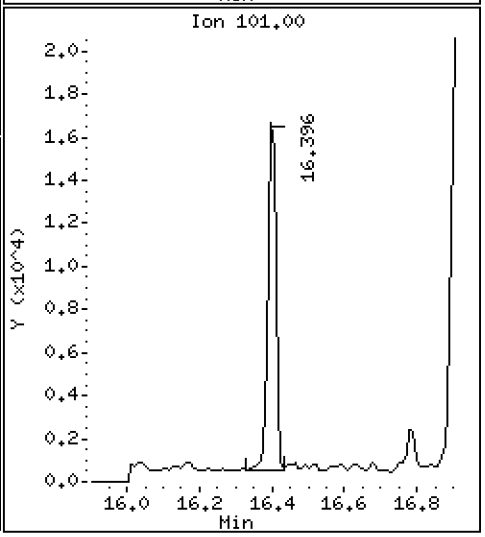


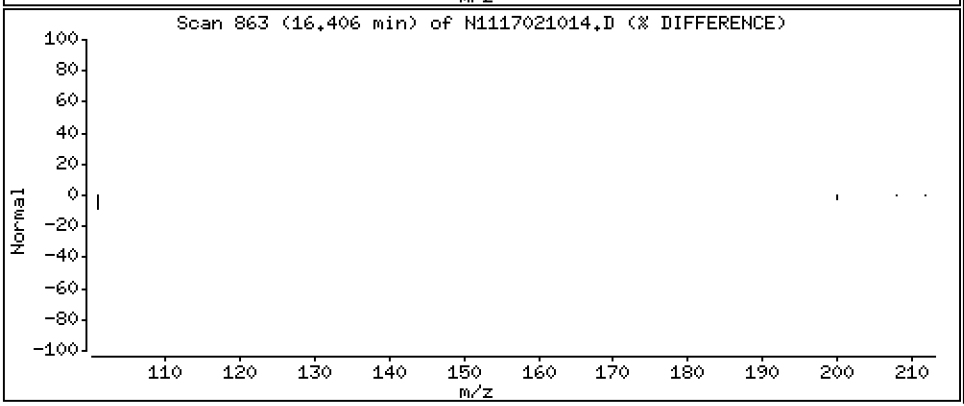












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Client ID:

Instrument: nt11.i

Sample Info: 17A0053-07

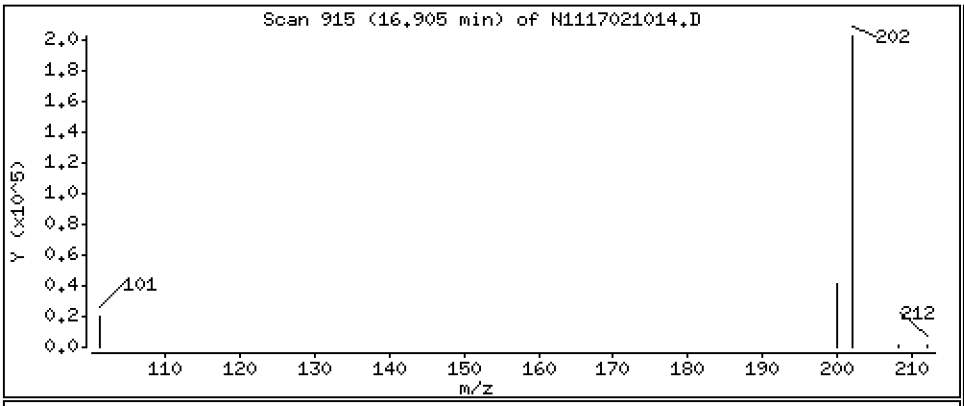
Operator: VTS

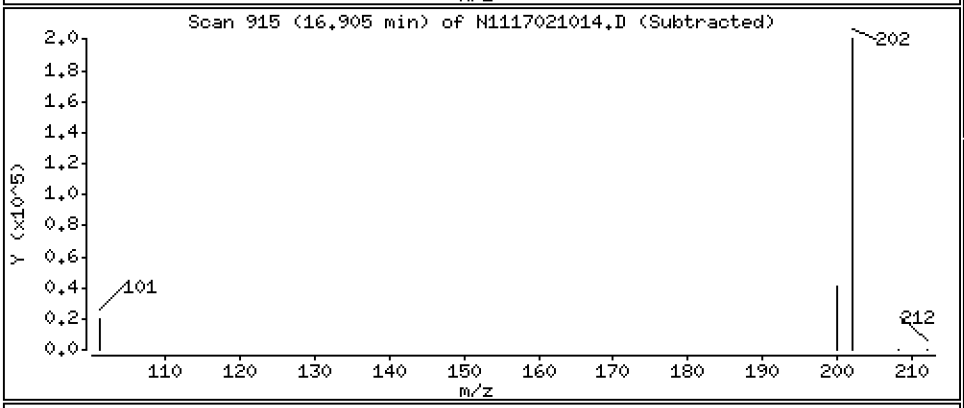
Column phase: Rxi-17Sil MS

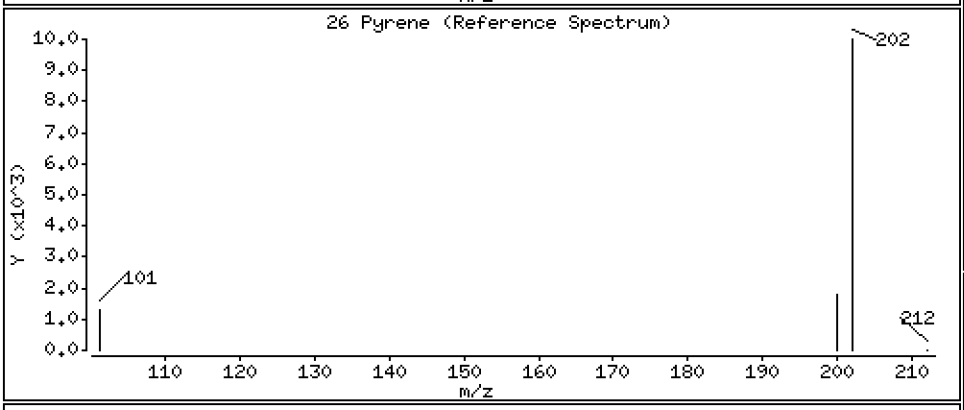
Column diameter: 0.25

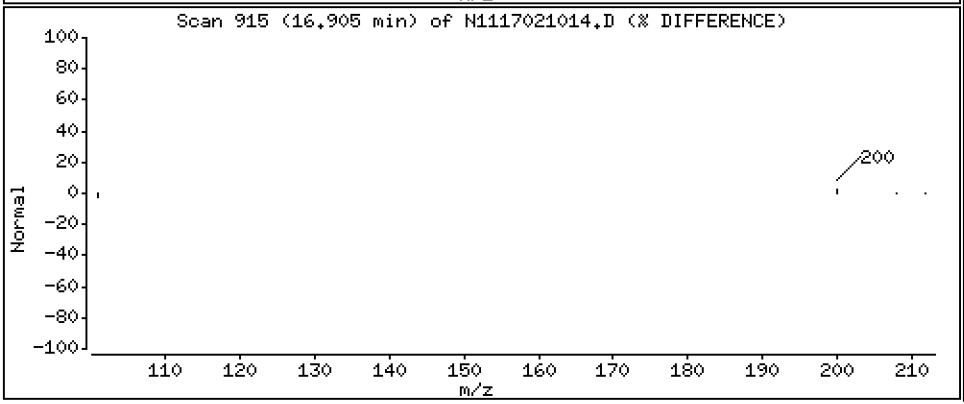
26 Pyrene

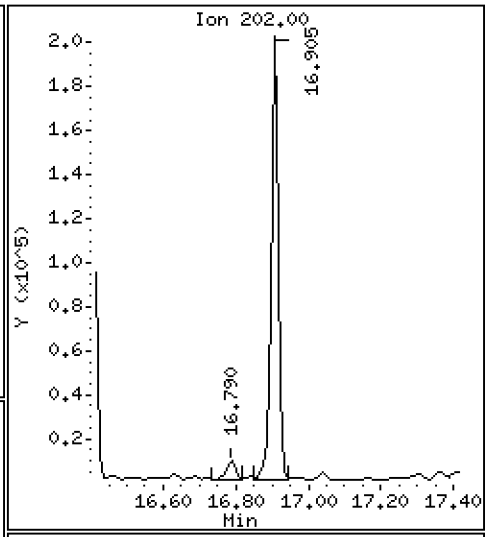
Concentration: 209 ng/mL

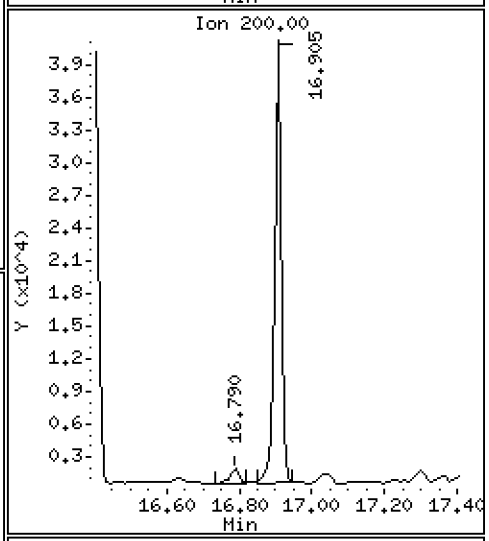


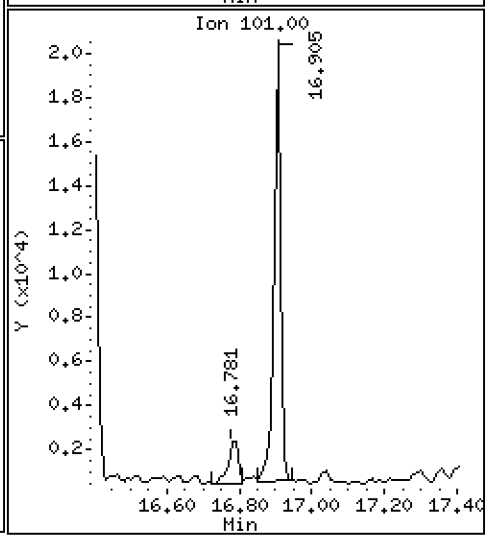












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Client ID:

Instrument: nt11.i

Sample Info: 17A0053-07

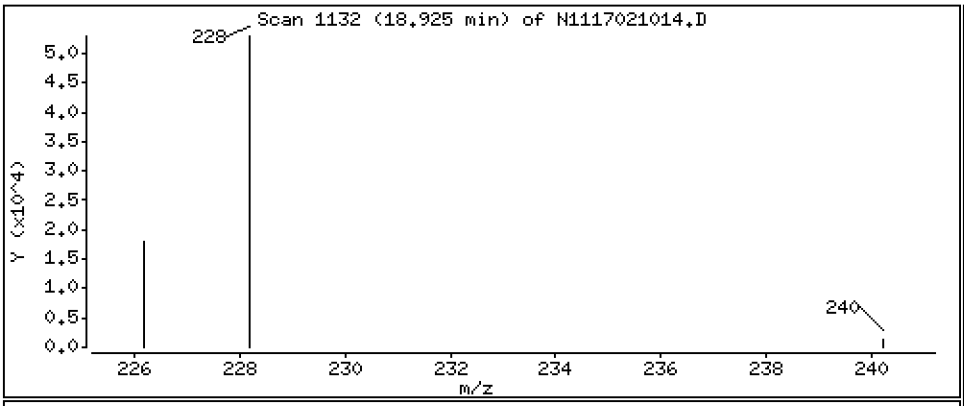
Operator: VTS

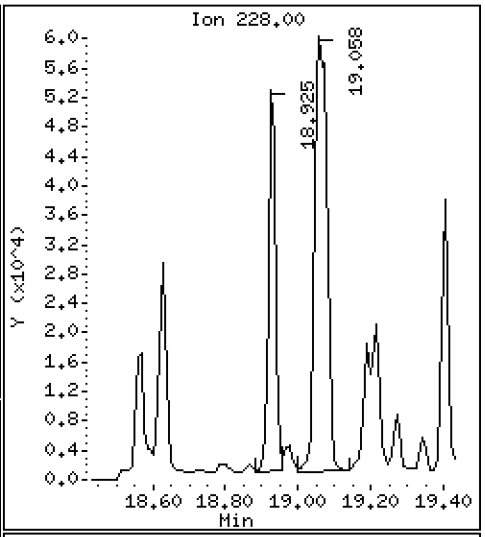
Column phase: Rxi-17Sil MS

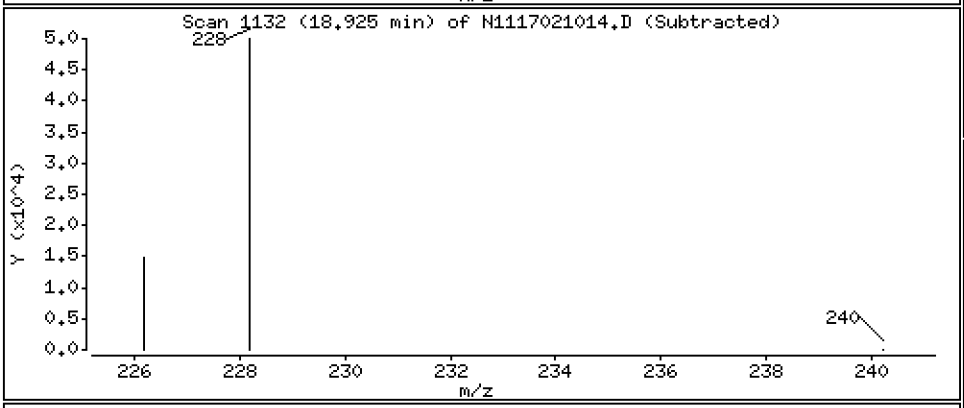
Column diameter: 0.25

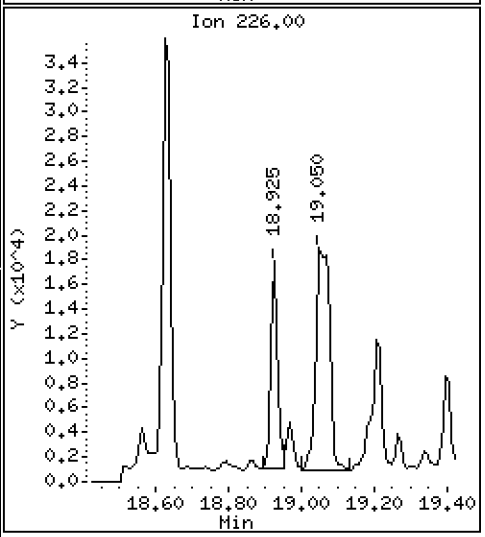
27 Benzo(a)anthracene

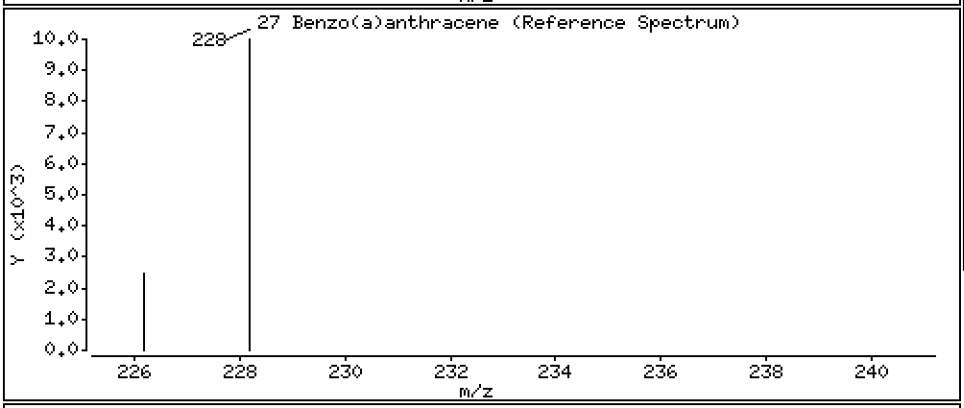
Concentration: 55.2 ng/mL

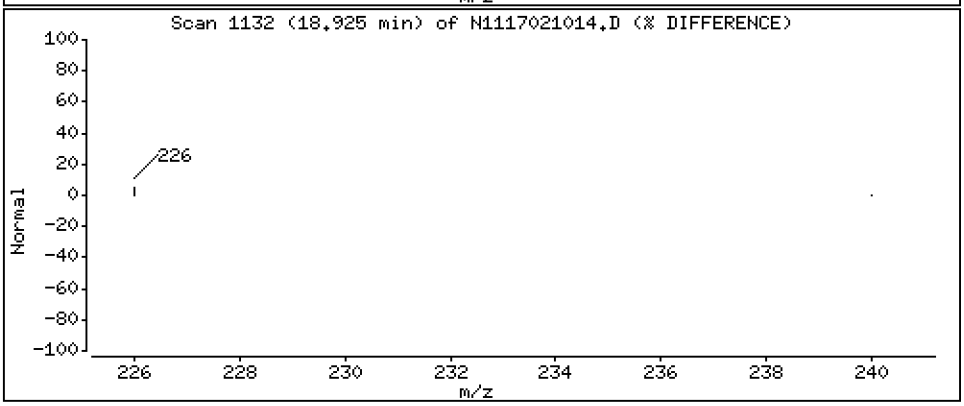












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021014.D

Date : 10-FEB-2017 18:50

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-07

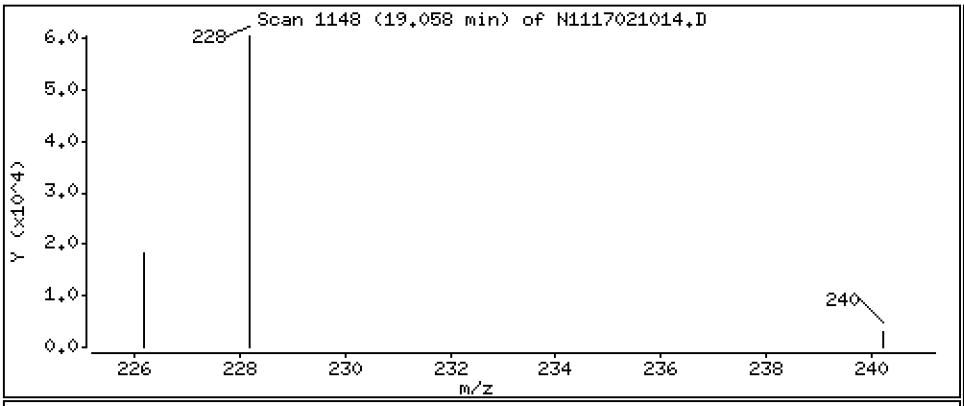
Operator: VTS

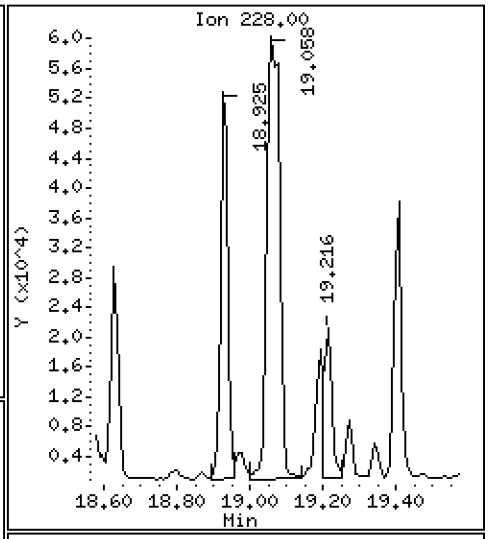
Column phase: Rxi-17Sil MS

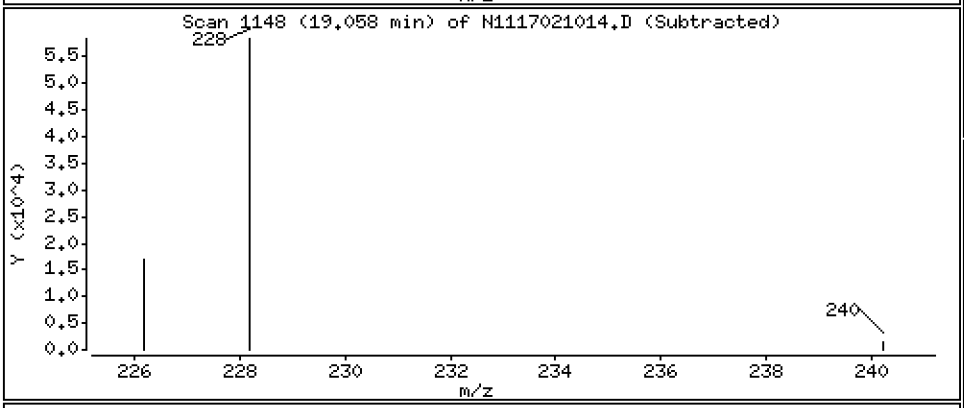
Column diameter: 0.25

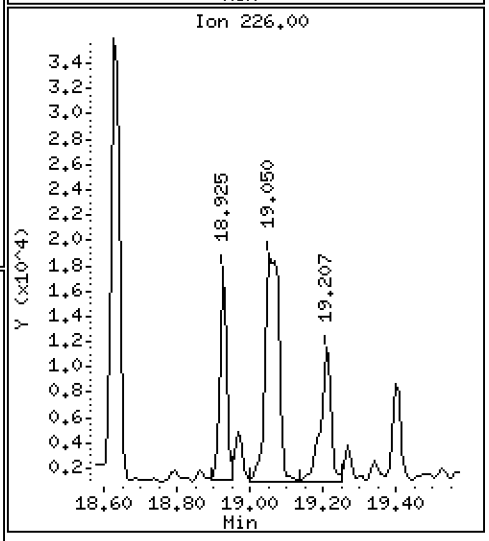
29 Chrysene

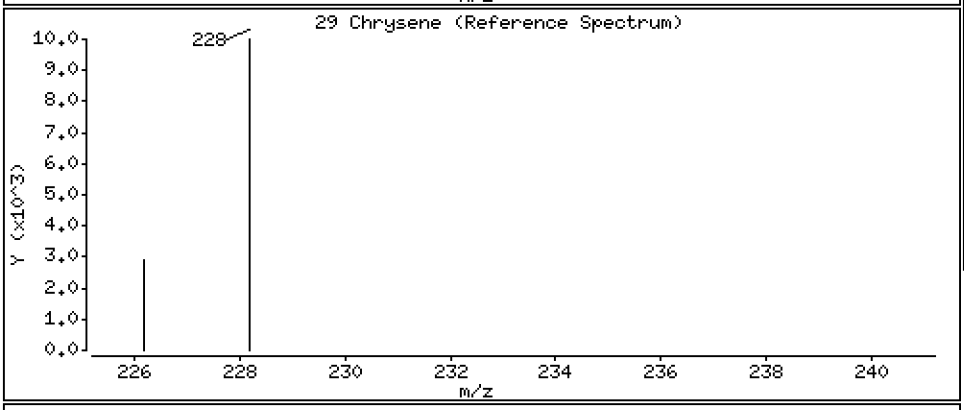
Concentration: 108 ng/mL

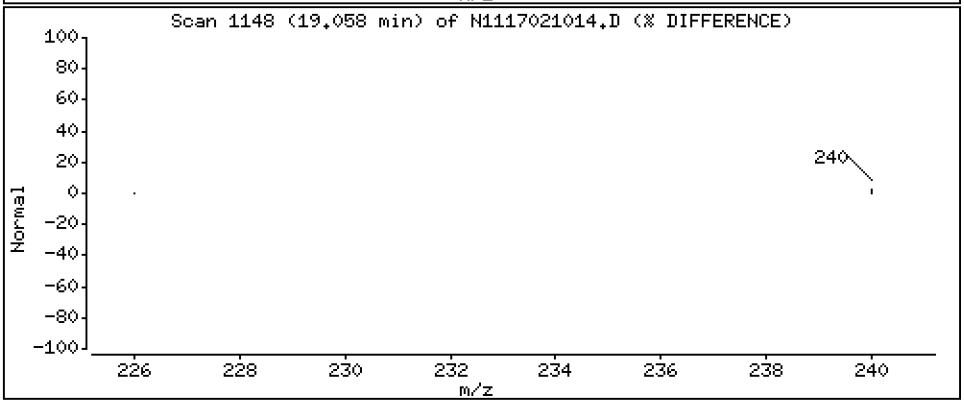












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021014.D

Date : 10-FEB-2017 18:50

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-07

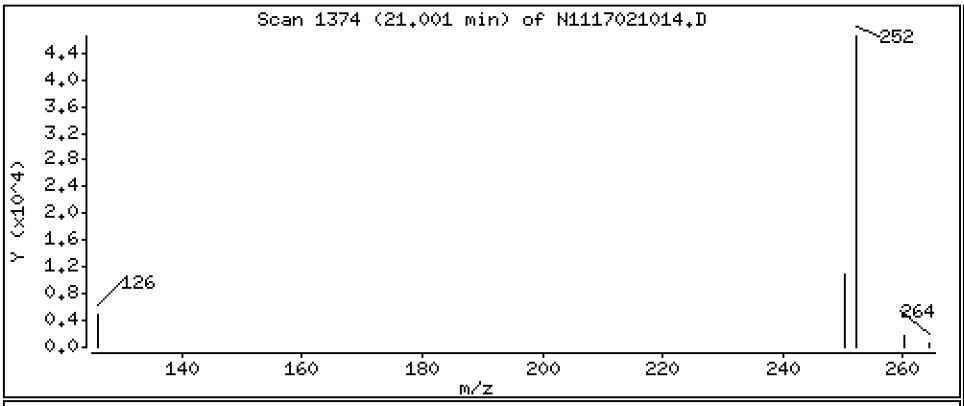
Operator: VTS

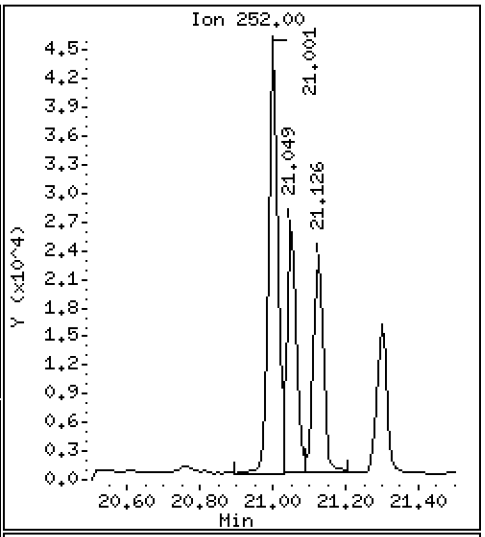
Column phase: Rxi-17Sil MS

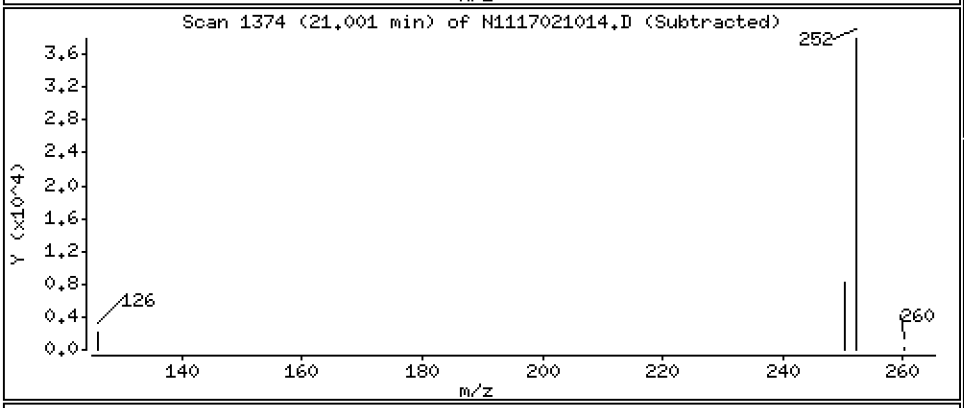
Column diameter: 0.25

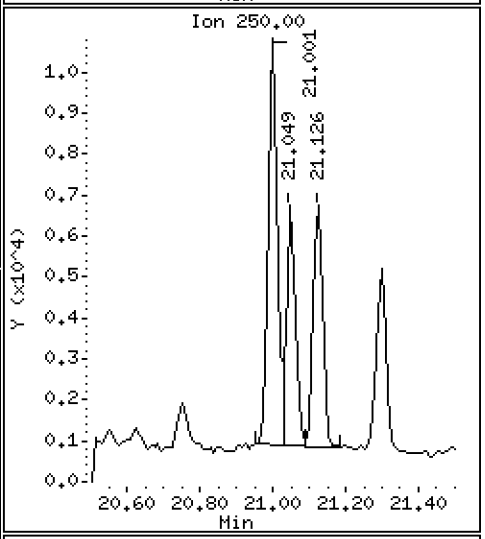
30 Benzo(b)fluoranthene

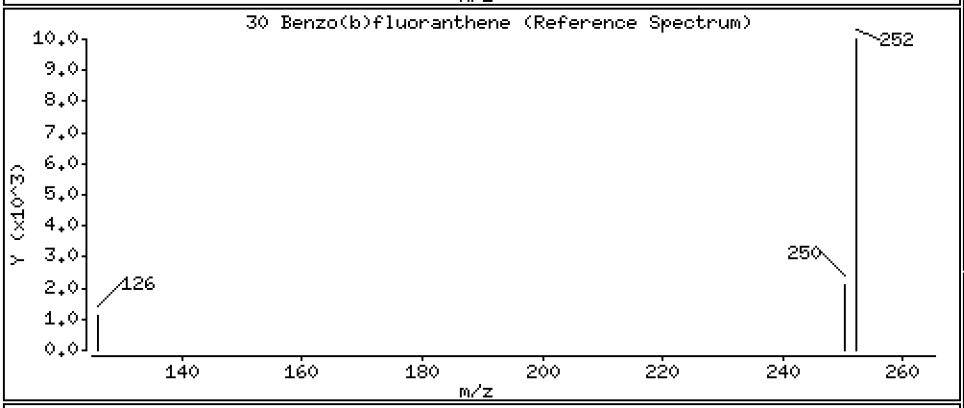
Concentration: 69.0 ng/mL

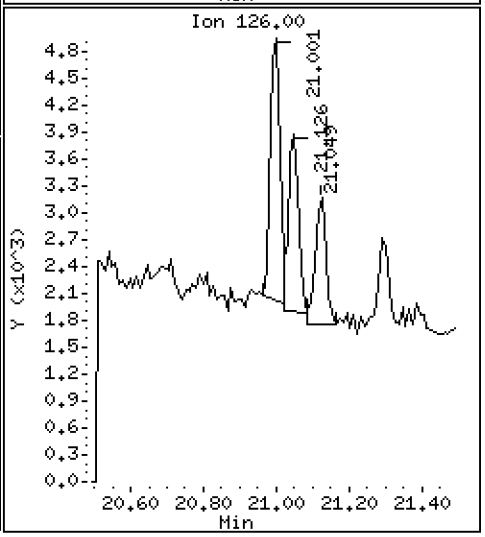


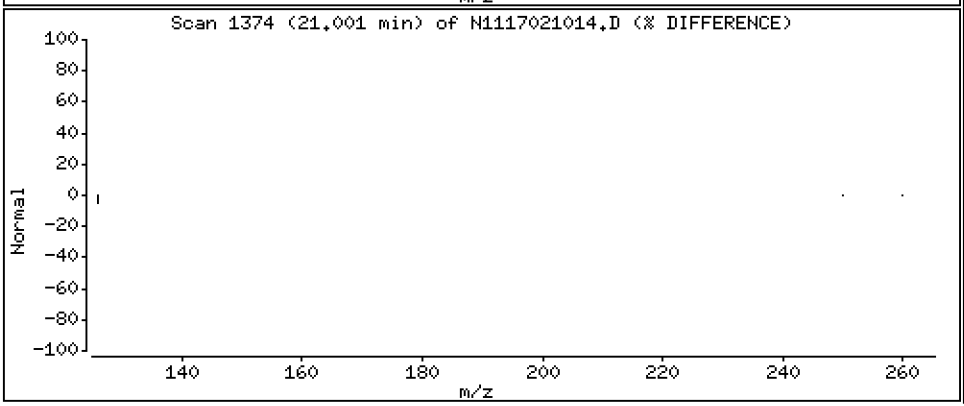












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021014.D

Date : 10-FEB-2017 18:50

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-07

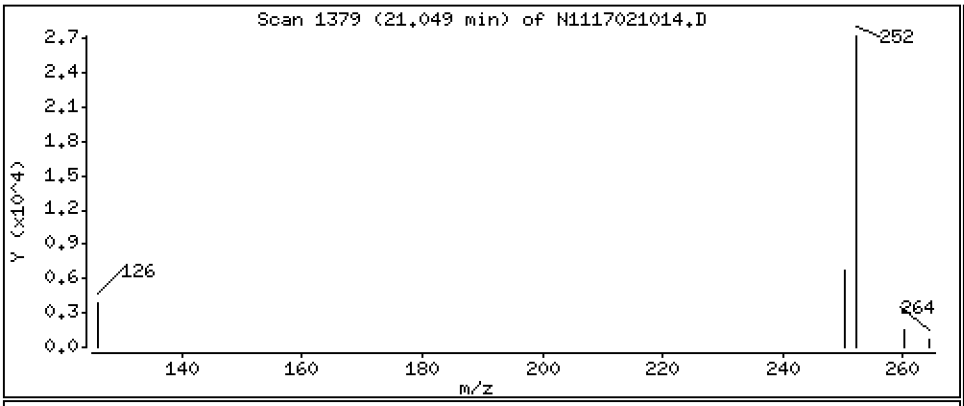
Operator: VTS

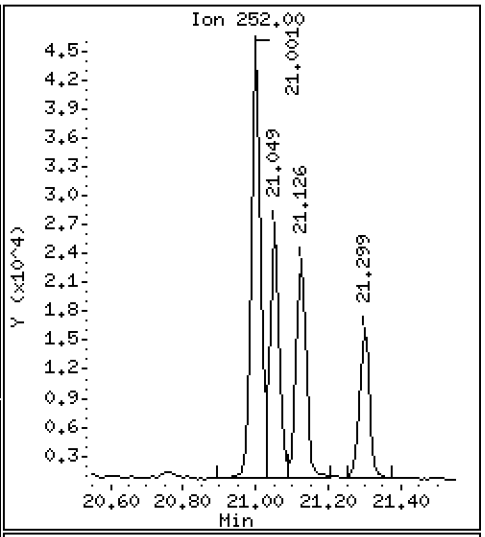
Column phase: Rxi-17Sil MS

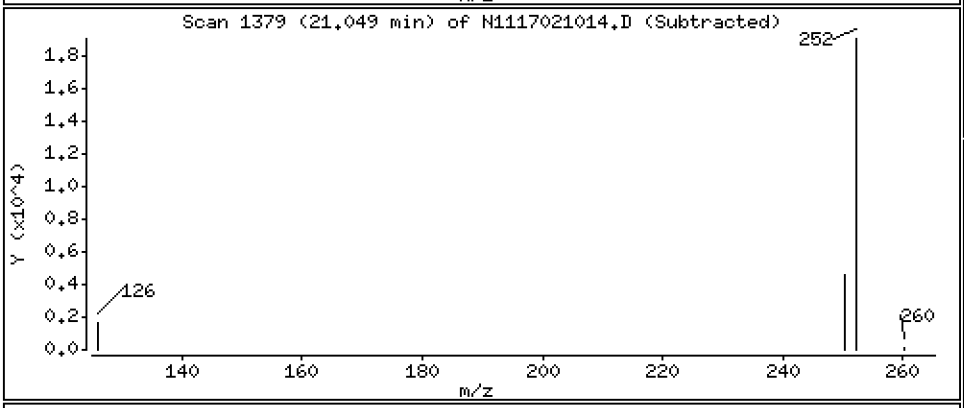
Column diameter: 0.25

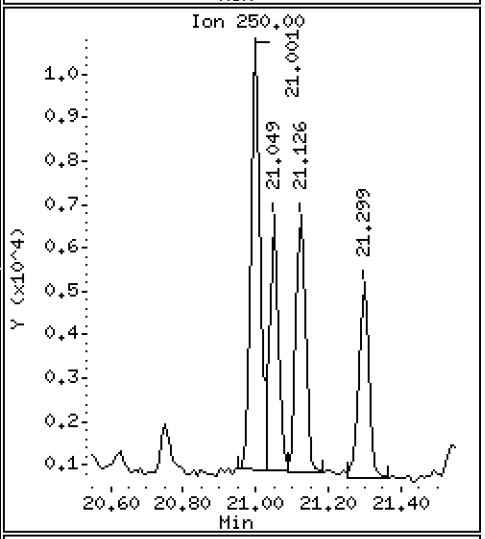
31 Benzo(k)fluoranthene

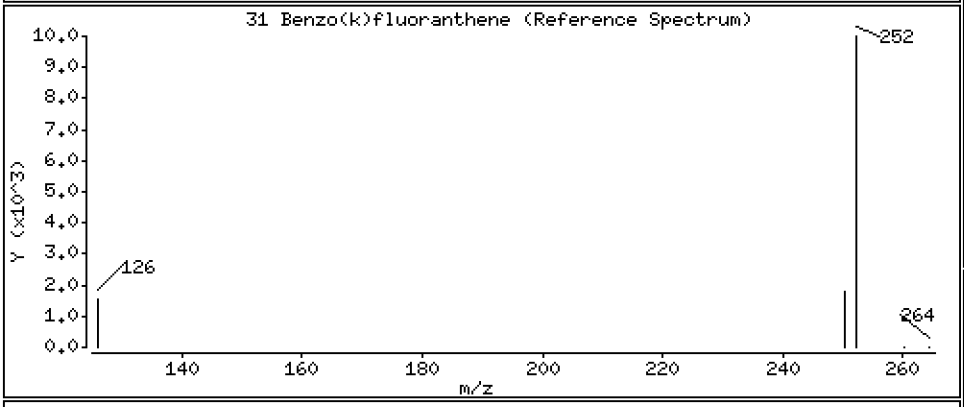
Concentration: 37.0 ng/mL

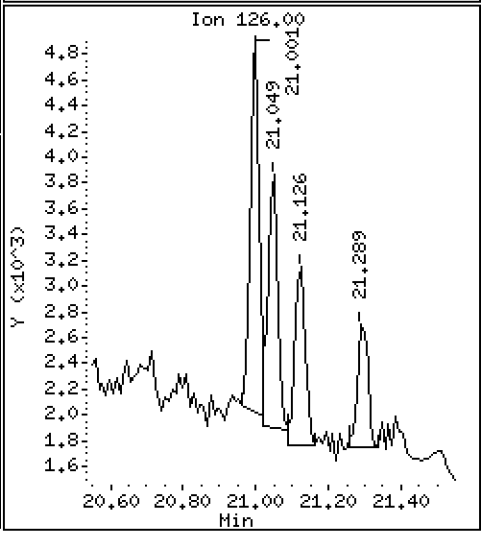


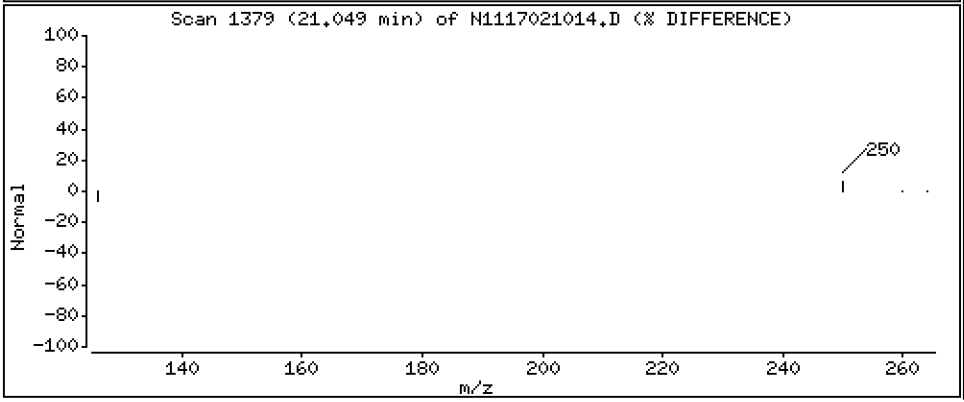












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Date : 10-FEB-2017 18:50

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-07

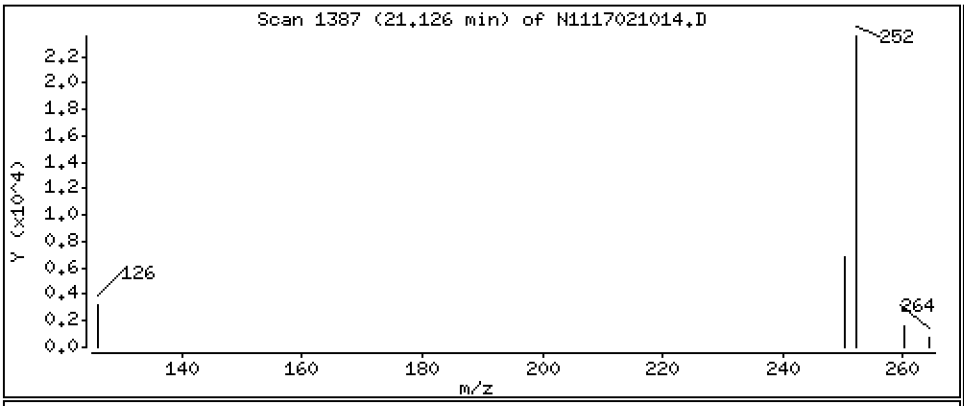
Operator: VTS

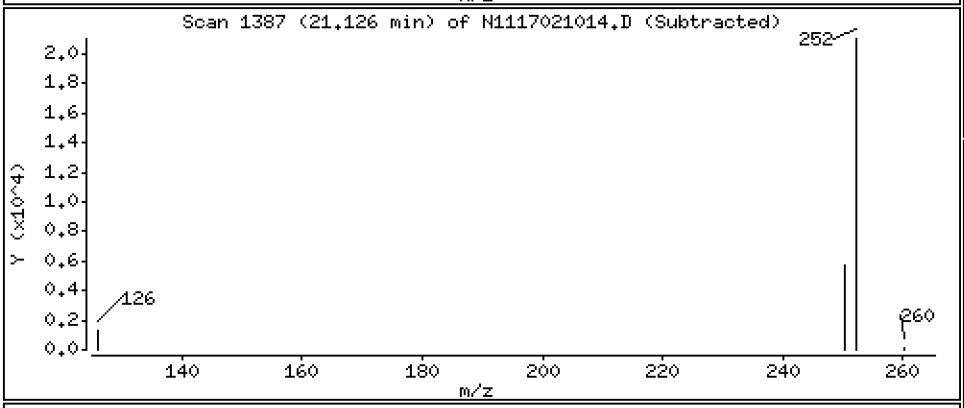
Column phase: Rxi-17Sil MS

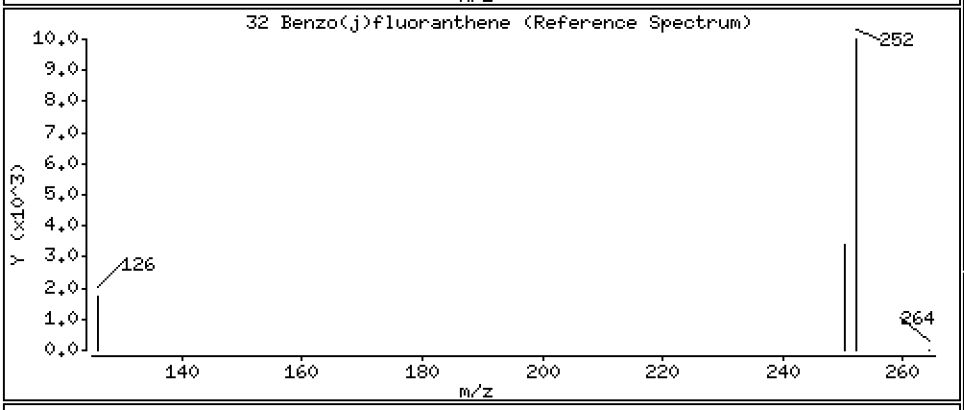
Column diameter: 0.25

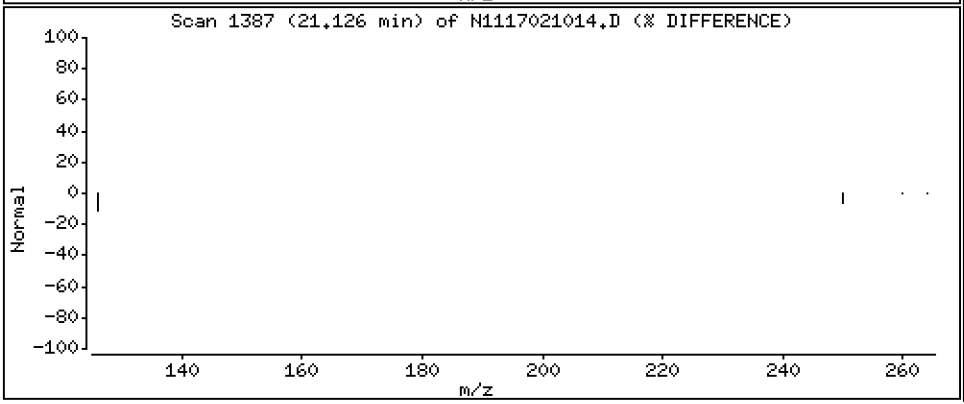
32 Benzo(j)fluoranthene

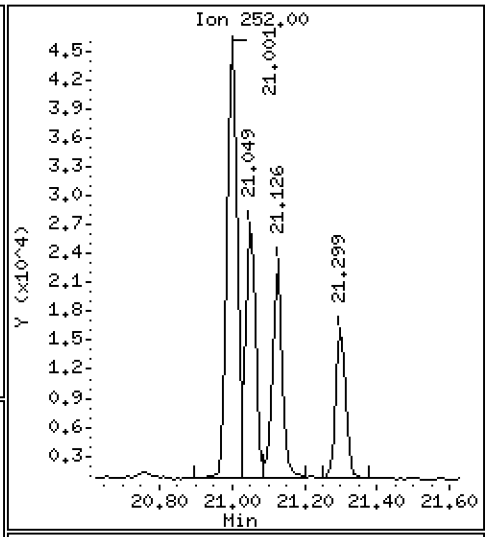
Concentration: 35.7 ng/mL

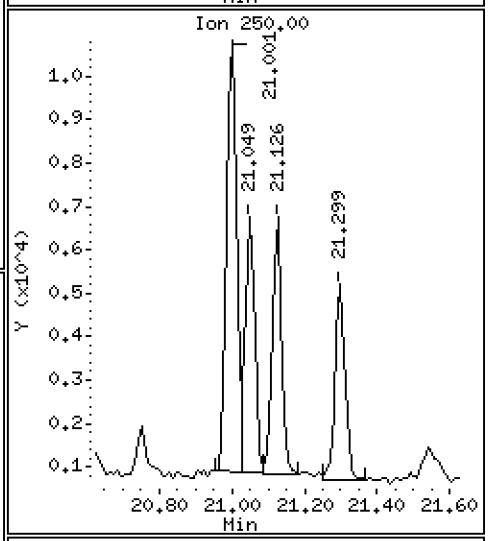


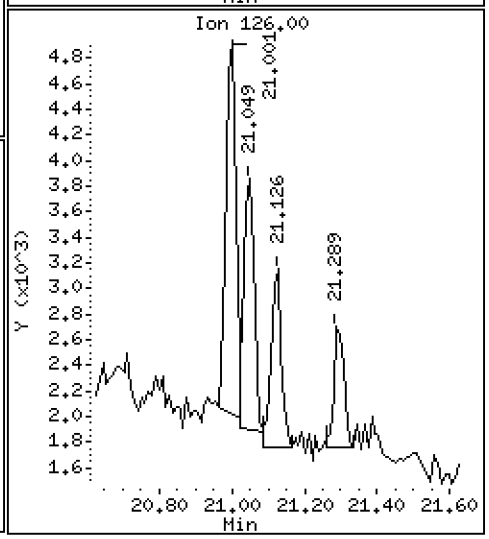












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Date : 10-FEB-2017 18:50

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-07

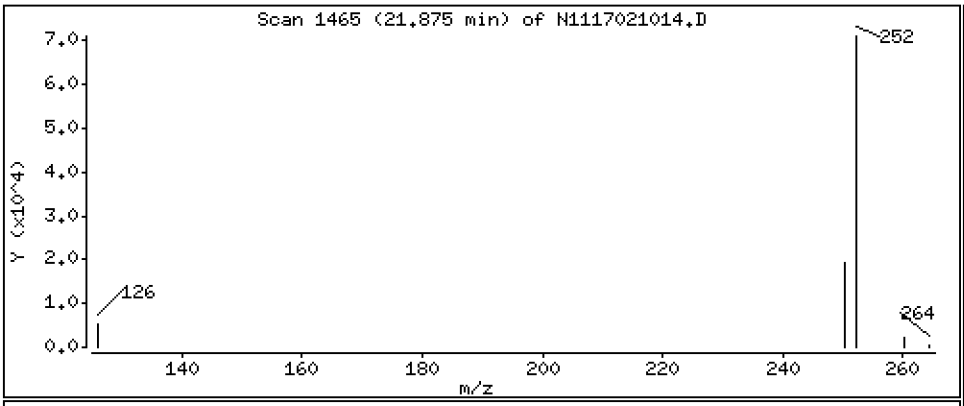
Operator: VTS

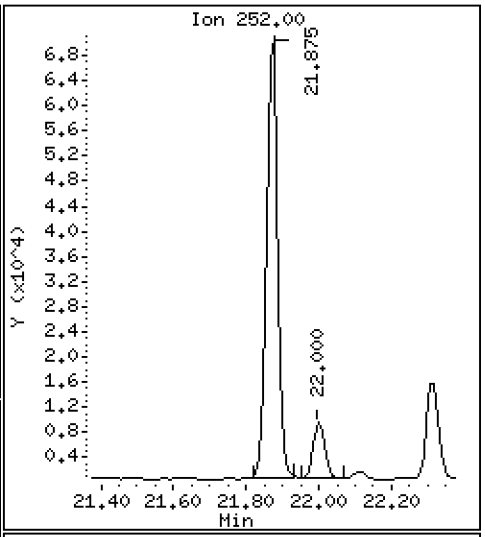
Column phase: Rxi-17Sil MS

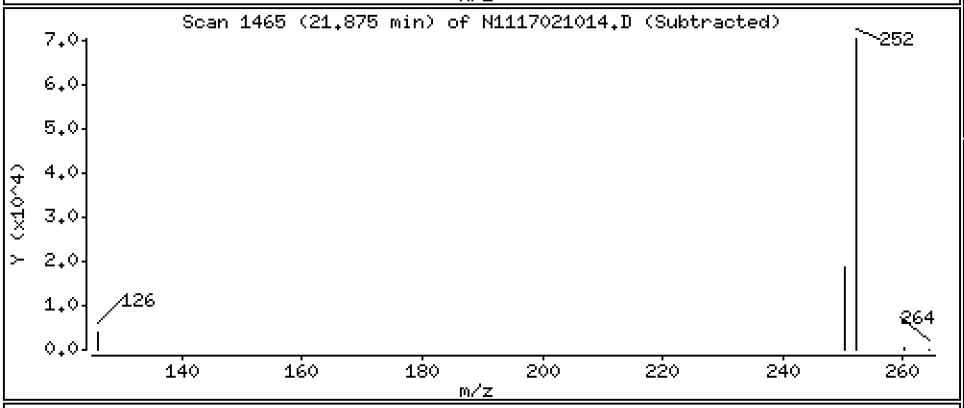
Column diameter: 0.25

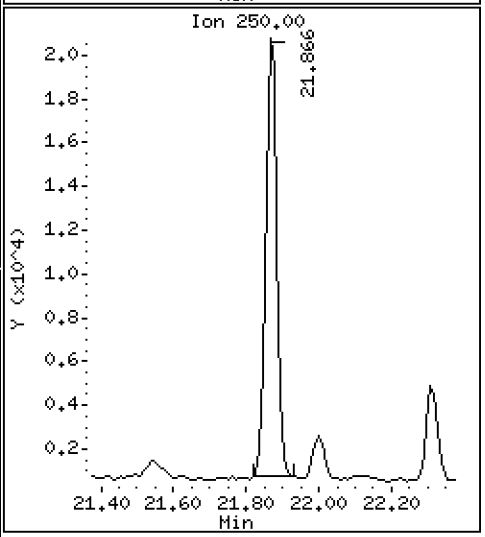
34 Benzo(e)pyrene

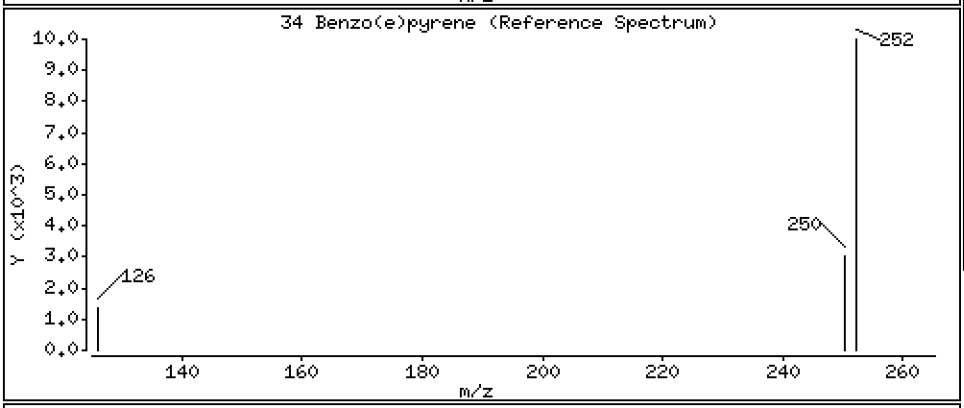
Concentration: 121 ng/mL

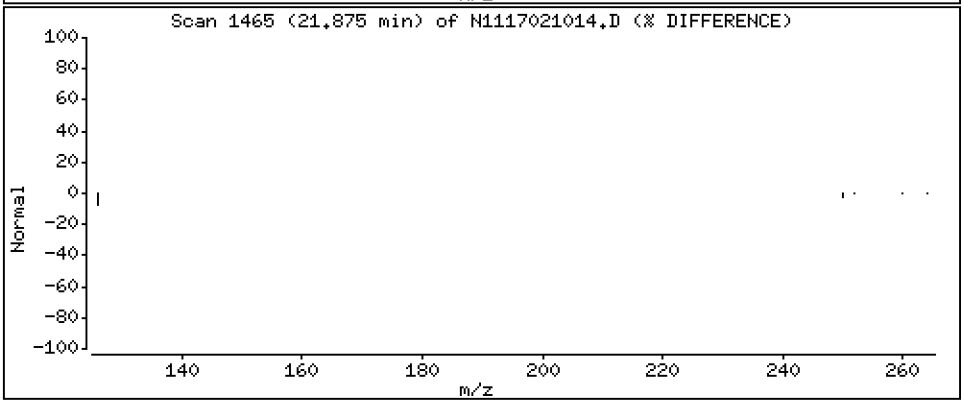












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021014.D

Date : 10-FEB-2017 18:50

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-07

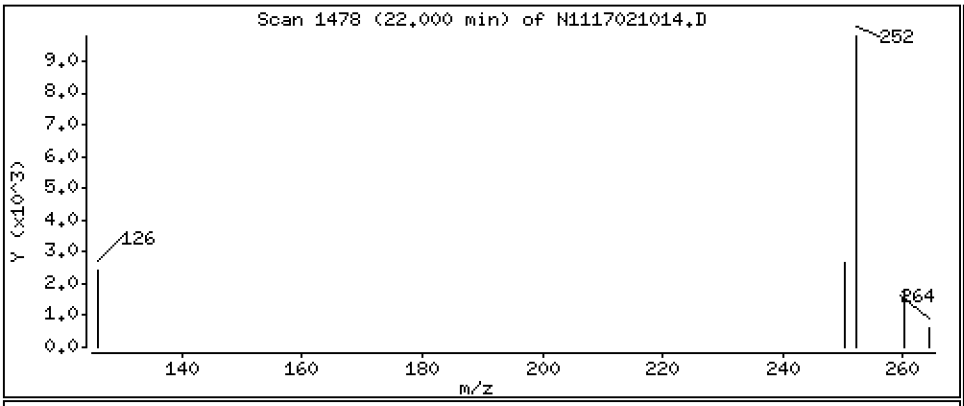
Operator: VTS

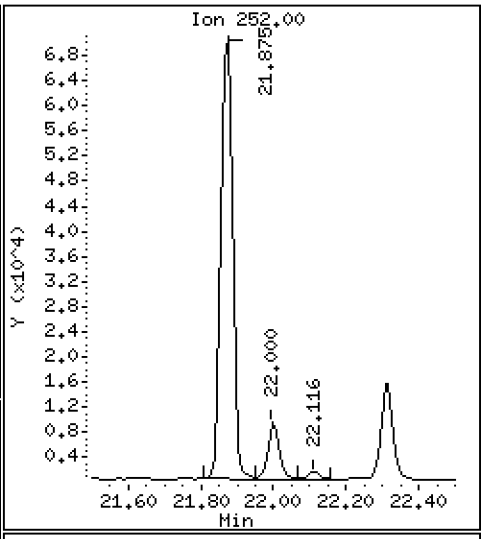
Column phase: Rxi-17Sil MS

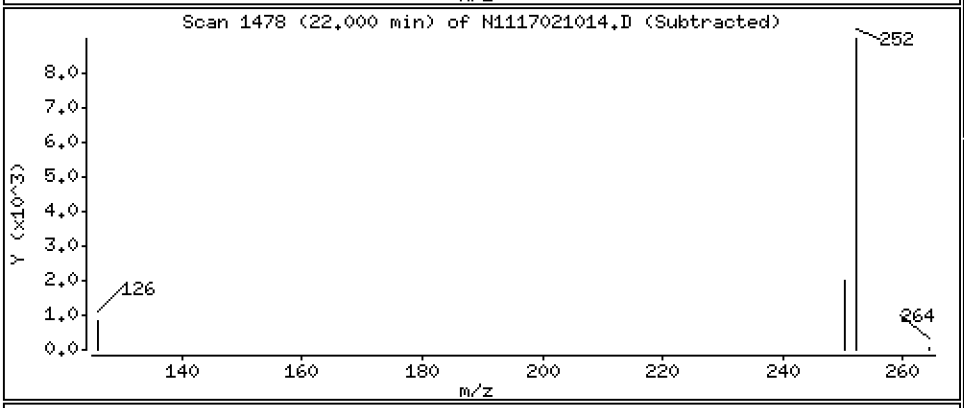
Column diameter: 0.25

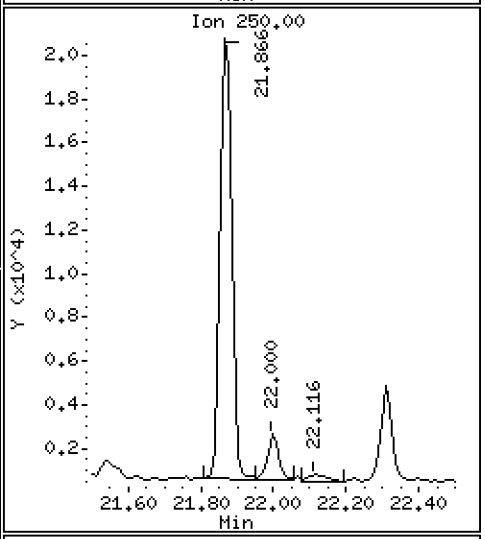
35 Benzo(a)pyrene

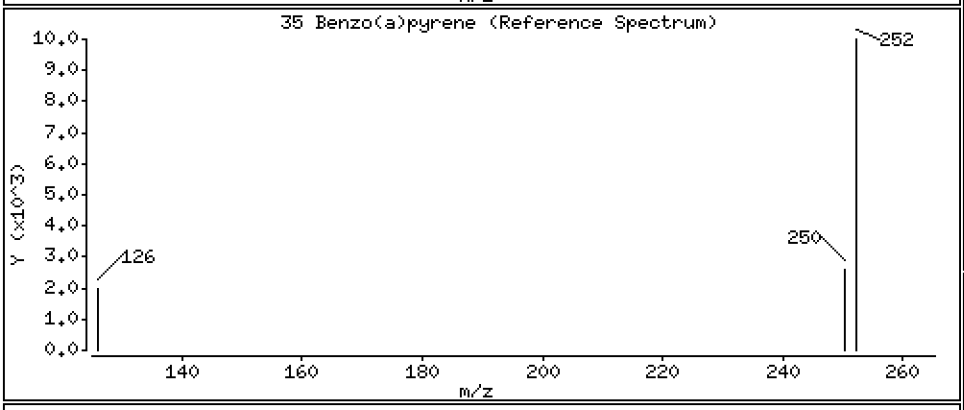
Concentration: 17.1 ng/mL

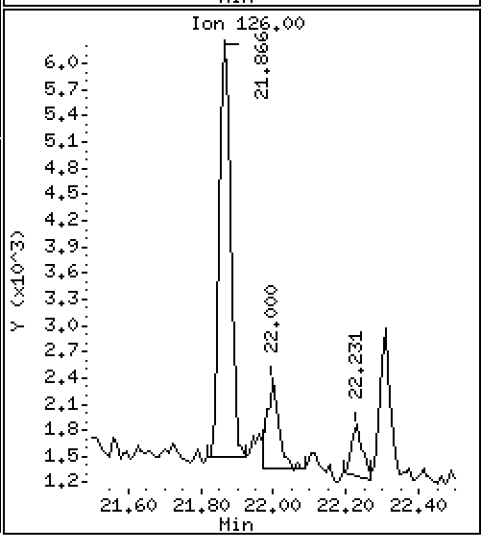


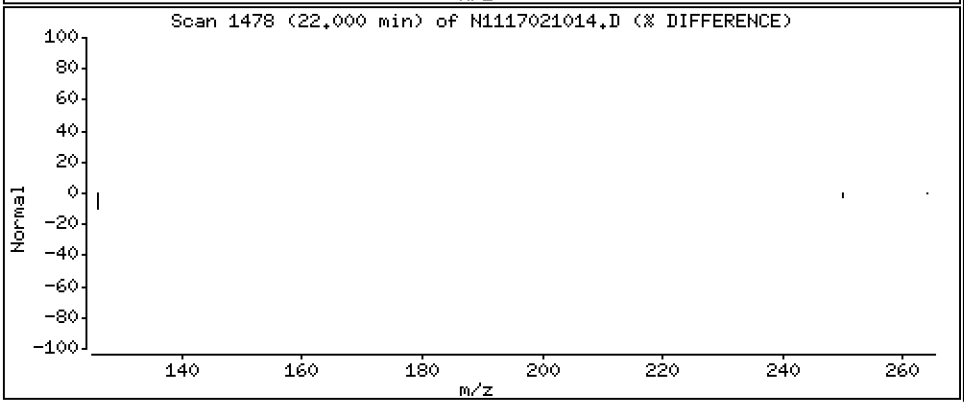












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Date : 10-FEB-2017 18:50

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-07

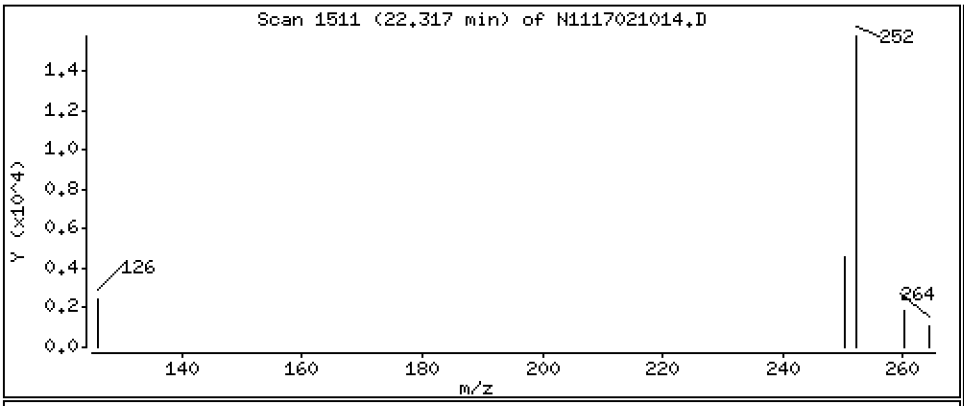
Operator: VTS

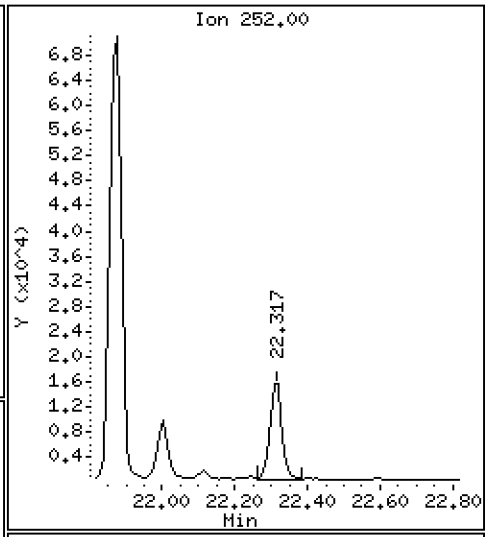
Column phase: Rxi-17Sil MS

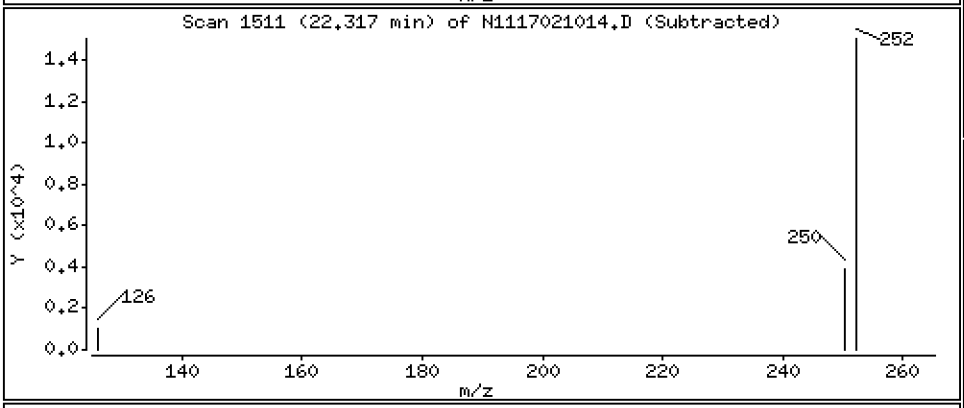
Column diameter: 0.25

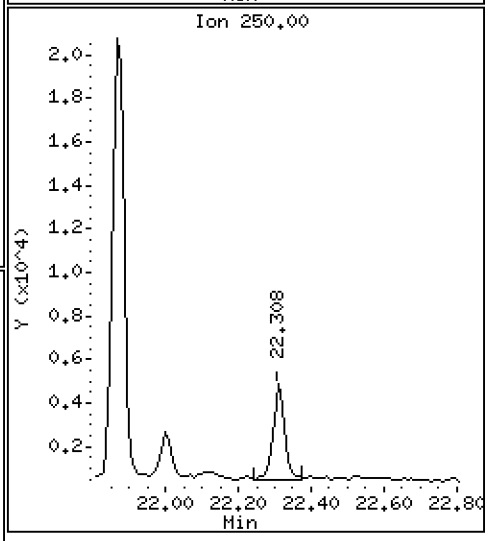
37 Perylene

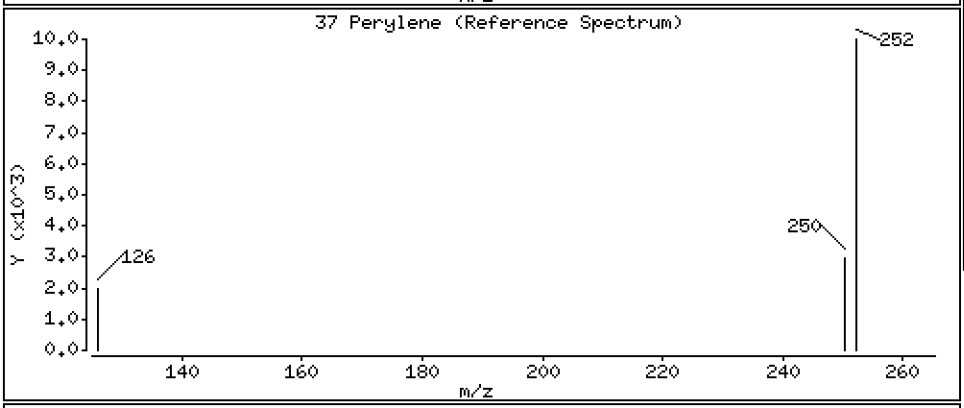
Concentration: 28.7 ng/mL

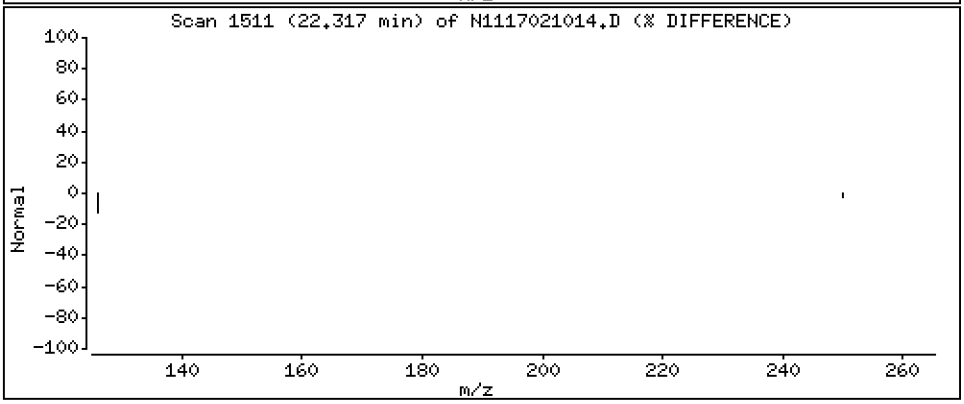












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Date : 10-FEB-2017 18:50

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-07

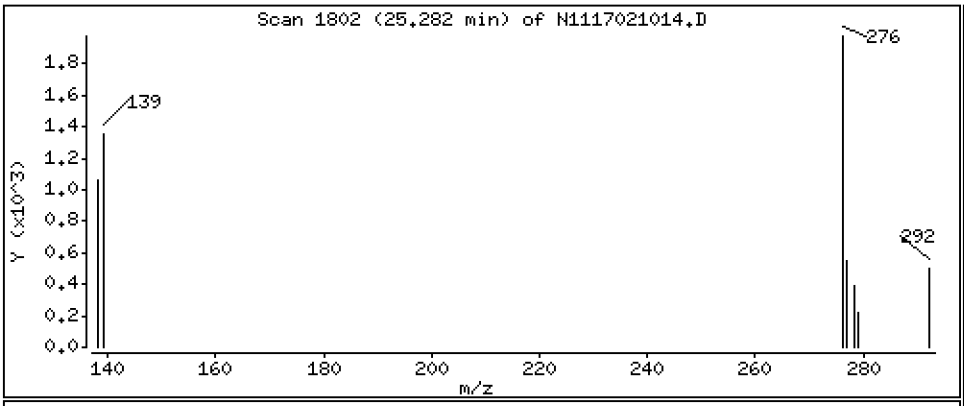
Operator: VTS

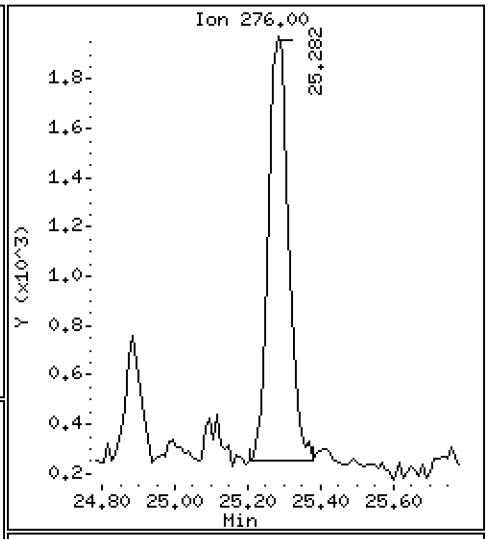
Column phase: Rxi-17Sil MS

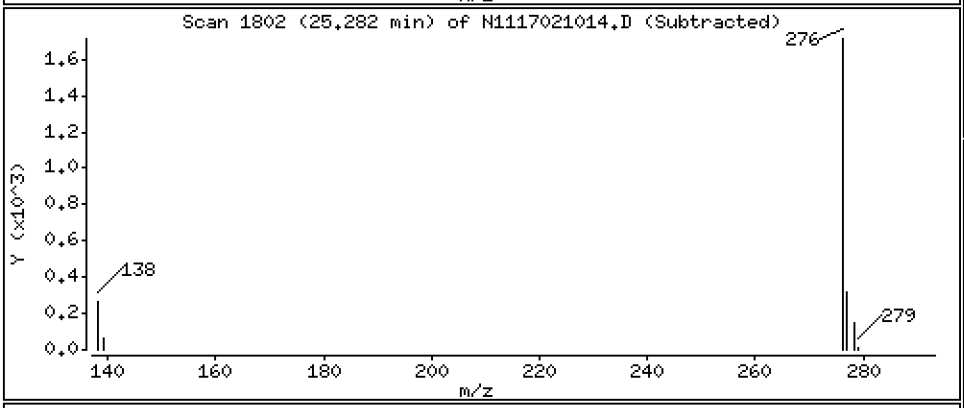
Column diameter: 0.25

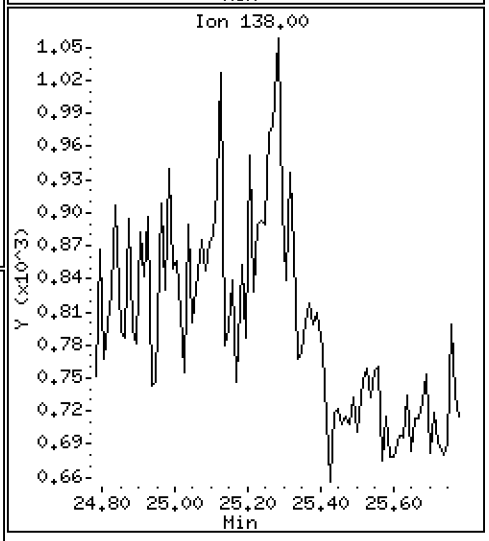
40 Indeno(1,2,3-cd)pyrene

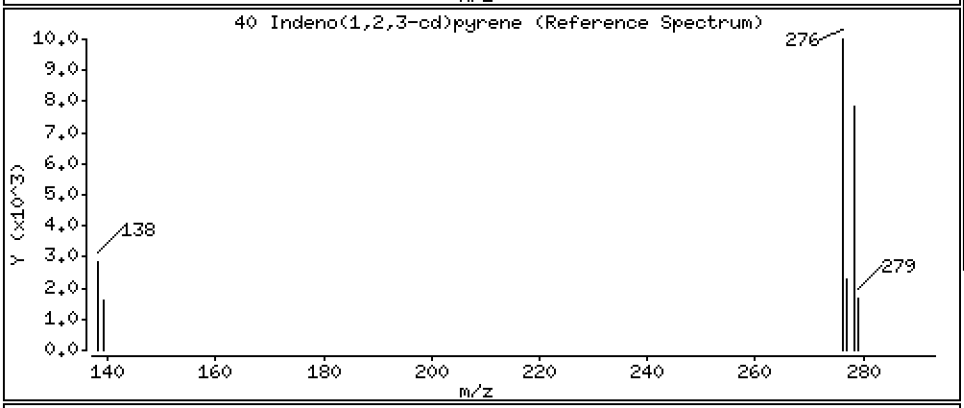
Concentration: 5.03 ng/mL

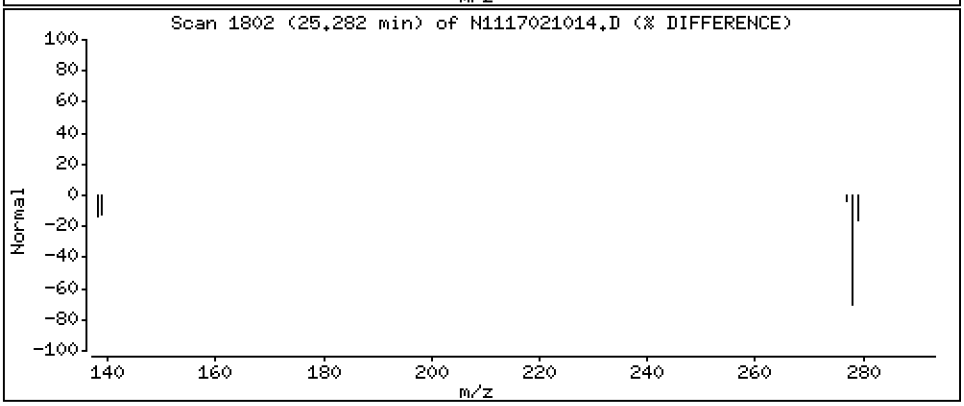












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021014.D

Date : 10-FEB-2017 18:50

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-07

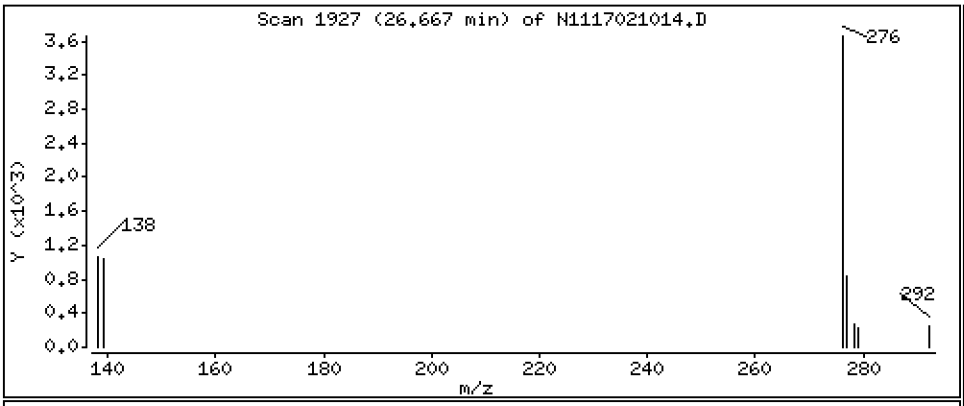
Operator: VTS

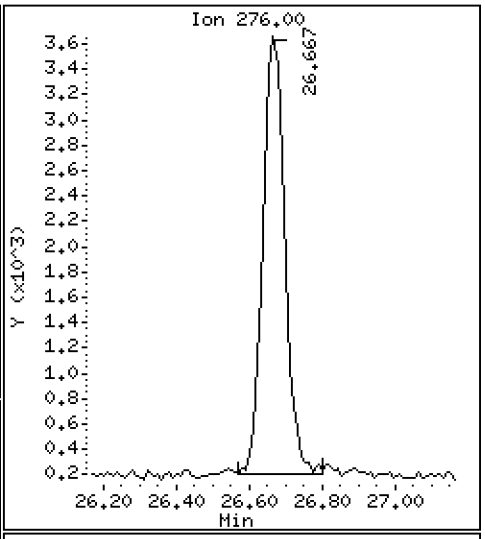
Column phase: Rxi-17Sil MS

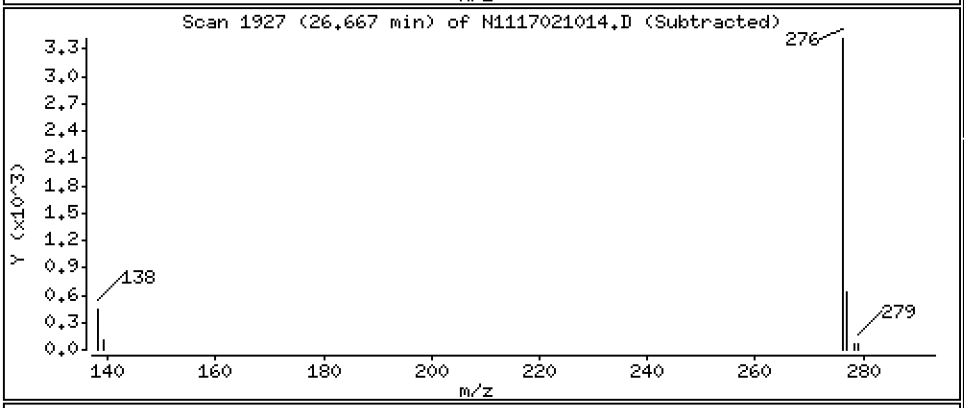
Column diameter: 0.25

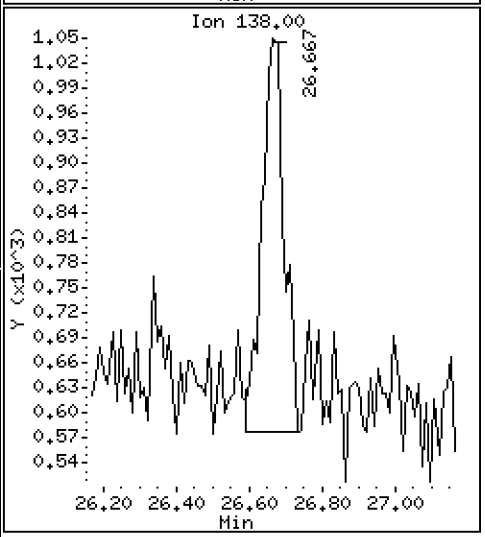
41 Benzo(g,h,i)perylene

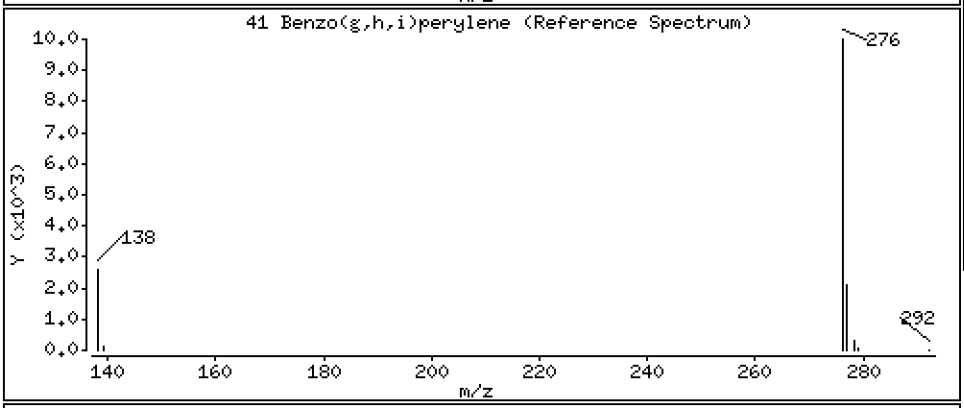
Concentration: 12.3 ng/mL

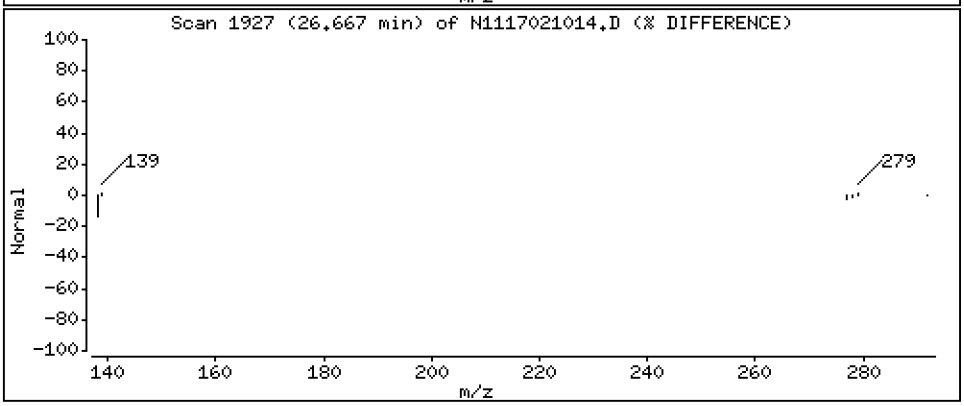












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20170210.b\N1117021014.D
Lab Smp Id: 17A0053-07
Inj Date : 10-FEB-2017 18:50 MS Autotune Date: 15-JAN-2015 15:59
Operator : VTS Inst ID: nt11.i
Smp Info : 17A0053-07
Misc Info :
Comment   :
Method   : \\target\share\chem3\nt11.i\20170210.b\LOWSIM.m
Meth Date : 11-Feb-2017 08:35 nt11.i Quant Type: ISTD
Cal Date : 31-DEC-2016 09:30 Cal File: N1116123104.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.517	8.526	(1.000)	228488	200.000	
	2 Naphthalene	128	8.554	8.554	(1.004)	8380	7.34914	7.35
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.498	9.508	(1.115)	125722	128.119	128
	5 2-Methylnaphthalene	142	9.561	9.561	(1.122)	5155	4.58699	4.59
	6 1-Methylnaphthalene	142	Compound Not Detected.					
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	11.410	11.410	(0.987)	6357	4.50986	4.51
*	11 Acenaphthene-d10	164	11.555	11.564	(1.000)	156874	200.000	
	12 Acenaphthene	153	11.618	11.627	(1.005)	4594	4.95005	4.95(M)
	13 Dibenzofuran	168	11.822	11.822	(1.023)	7268	5.26810	5.27
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.454	12.454	(1.078)	9563	8.70705	8.71
	17 Dibenzothiophene	184	14.083	14.083	(0.988)	2342	2.02786	2.03(MH)
*	18 Phenanthrene-d10	188	14.251	14.262	(1.000)	250109	200.000	
	19 Phenanthrene	178	14.293	14.293	(1.003)	87834	61.4253	61.4
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.356	14.356	(1.007)	32149	22.5483	22.5
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	15.298	15.307	(1.073)	11978	8.16818	8.17(M)
$	24 Fluoranthene-d10	212	16.367	16.367	(1.148)	188356	141.792	142
	25 Fluoranthene	202	16.405	16.405	(1.151)	306348	188.870	189
	26 Pyrene	202	16.905	16.915	(0.889)	297778	208.801	209
	27 Benzo(a)anthracene	228	18.925	18.933	(0.995)	72870	55.1996	55.2
*	28 Chrysene-d12	240	19.024	19.024	(1.000)	219541	200.000	
	29 Chrysene	228	19.057	19.074	(1.002)	146273	107.982	108
	30 Benzo(b)fluoranthene	252	21.001	21.001	(0.944)	86736	68.9624	69.0
	31 Benzo(k)fluoranthene	252	21.049	21.049	(0.946)	50106	36.9872	37.0
	32 Benzo(j)fluoranthene	252	21.125	21.125	(0.950)	43118	35.7071	35.7
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	34 Benzo(e)pyrene	252	21.875	21.875	(0.984)	151975	121.135	121
	35 Benzo(a)pyrene	252	22.000	22.000	(0.989)	20074	17.1204	17.1
*	36 Perylene-d12	264	22.240	22.240	(1.000)	233325	200.000	
	37 Perylene	252	22.317	22.317	(1.003)	35163	28.7229	28.7
$	38 Dibenzo(a,h)anthracene-d14	292	25.116	25.116	(1.129)	117235	157.337	157
	39 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	40 Indeno(1,2,3-cd)pyrene	276	25.282	25.282	(1.137)	6434	5.02612	5.03
	41 Benzo(g,h,i)perylene	276	26.666	26.666	(1.199)	14164	12.3242	12.3

QC Flag Legend

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

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: N1117021014.D
Lab Smp Id: 17A0053-07
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20170210.b\LOWSIM.m
Misc Info:

Calibration Date: 10-FEB-2017
Calibration Time: 13:29
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	219654	109827	439308	228488	4.02
11 Acenaphthene-d10	135248	67624	270496	156874	15.99
18 Phenanthrene-d10	257021	128511	514042	250109	-2.69
28 Chrysene-d12	259511	129756	519022	219541	-15.40
36 Perylene-d12	257535	128768	515070	233325	-9.40

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.53	8.03	9.03	8.52	-0.11
11 Acenaphthene-d10	11.56	11.06	12.06	11.56	-0.08
18 Phenanthrene-d10	14.26	13.76	14.76	14.25	-0.07
28 Chrysene-d12	19.02	18.52	19.52	19.02	-0.00
36 Perylene-d12	22.24	21.74	22.74	22.24	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1117021014.D

Lab ID: 17A0053-07
nt11.i, 20170210.b\LOWSIM.m,   10-FEB-2017 18:50

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

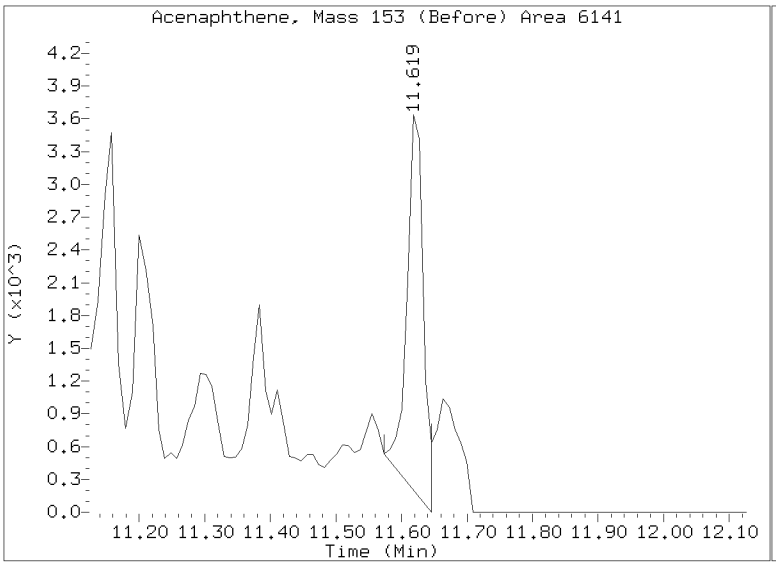
NONE

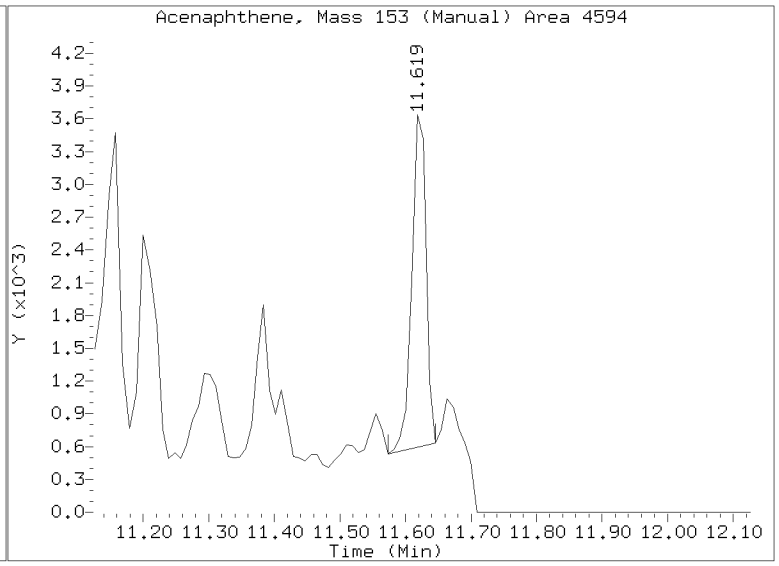
On Column LOD for nt11.i, 20170210.b\LOWSIM.m, allpna.sub = 3.0000

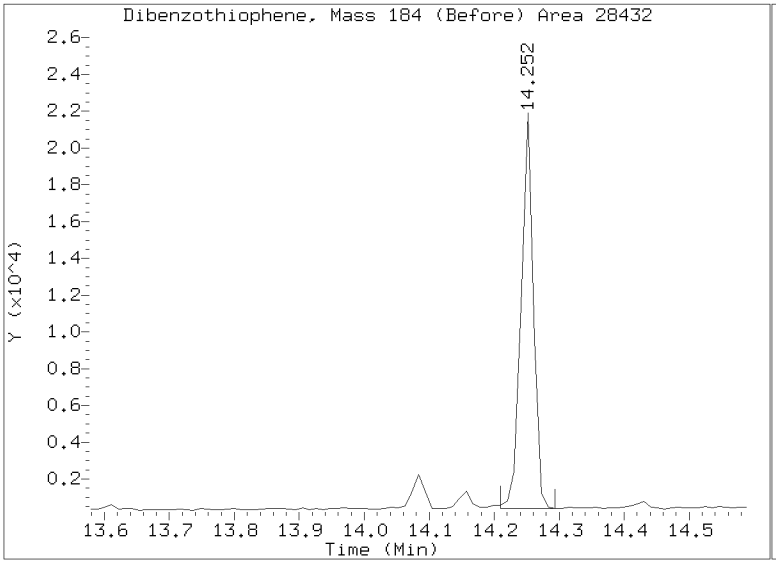
Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

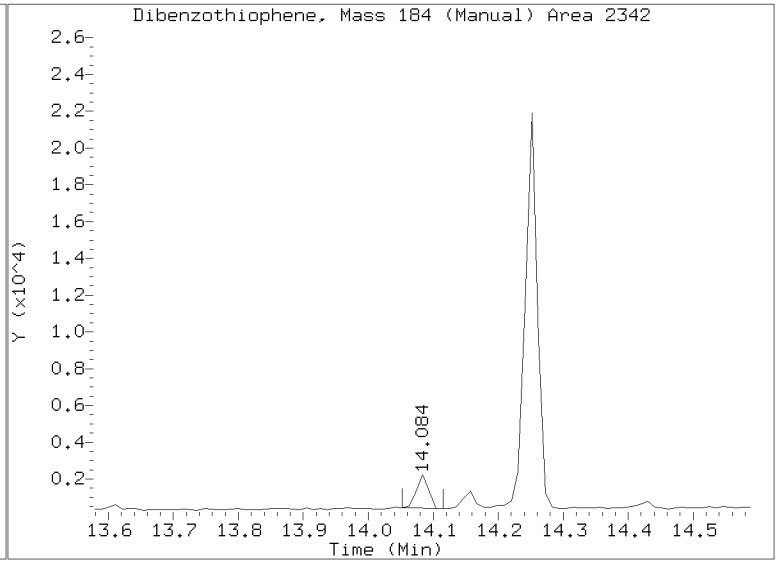
Quant Ion Manual Peak Adjustment Report

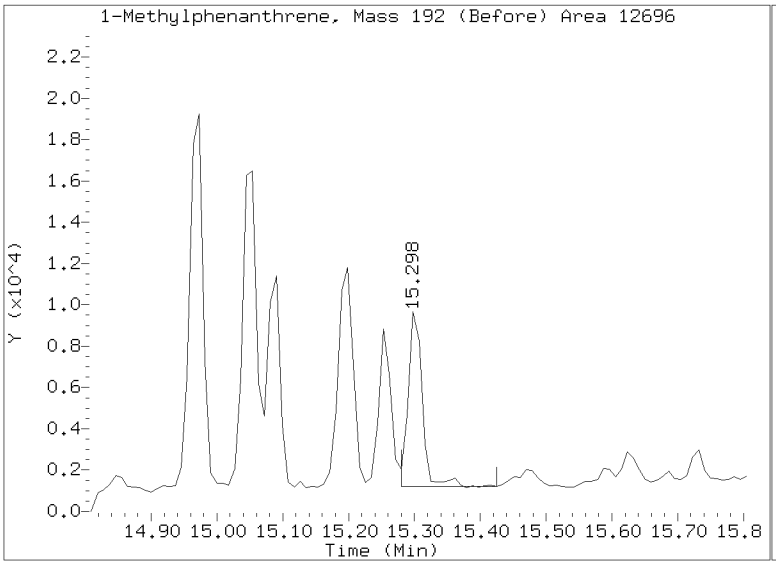
Datafile: //target/share/chem3/nt11.i/20170210.b/N1117021014.D
Injection Date: 10-FEB-2017 18:50
Lab ID:17A0053-07 Client ID:
Report Date: 02/11/2017 08:35

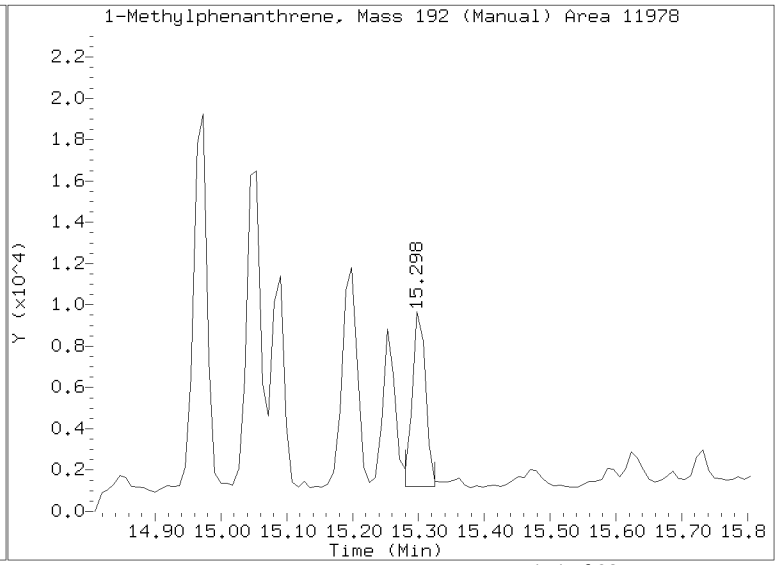












PG-SMA2-5-MUS-170105

Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270D-SIM

Polycyclic Aromatic Hydrocarbons (PAH) low level

Laboratory:	Analytical Resources, Inc.			SDG:	17A0053
Client:	Anchor QEA, LLC			Project:	Port Gamble Shellfish Monitoring
Matrix:	Tissue	Laboratory ID:	17A0053-08	File ID:	N1117021015.D
Sampled:	01/05/17 12:20	Prepared:	01/31/17 13:45	Analyzed:	02/10/17 19:25
Solids:		Preparation:	EPA 3550C-Mod (Ultrasonic	Initial/Final:	10.03 g / 0.5 mL
Batch:	BFA0647	Sequence:	SFB0130	Calibration:	ZL00083
Instrument:	NT11	Column:	RXi-17Sil-MS		

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg)	Q	DL	RL
91-20-3	Naphthalene	1	2.20		0.50	0.60
91-57-6	2-Methylnaphthalene	1	0.68		0.50	0.50
208-96-8	Acenaphthylene	1	0.50	U	0.50	0.50
83-32-9	Acenaphthene	1	2.90		0.50	0.50
86-73-7	Fluorene	1	3.28		0.50	0.50
85-01-8	Phenanthrene	1	11.9		0.50	0.50
120-12-7	Anthracene	1	2.71		0.50	0.50
206-44-0	Fluoranthene	1	17.5		0.50	0.50
129-00-0	Pyrene	1	16.8		0.50	0.50
56-55-3	Benzo(a)anthracene	1	5.25		0.50	0.50
218-01-9	Chrysene	1	7.15		0.50	0.50
205-99-2	Benzo(b)fluoranthene	1	4.45		0.50	0.50
207-08-9	Benzo(k)fluoranthene	1	2.25		0.50	0.50
50-32-8	Benzo(a)pyrene	1	1.42		0.50	0.50
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.50	U	0.50	0.50
53-70-3	Dibenzo(a,h)anthracene	1	0.50	U	0.50	0.50
191-24-2	Benzo(g,h,i)perylene	1	0.64		0.50	0.50
1985-5-0	Perylene	1	1.42		0.50	0.50
197-97-2	Benzo(e)pyrene	1	5.76		0.50	0.50

SURROGATES	ADDED (ug/kg)	CONC (ug/kg)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	14.955	8.17	54.6	30 - 160	
Dibenzo[a,h]anthracene-d14	14.955	10.6	70.6	30 - 160	
Fluoranthene-d10	14.955	9.34	62.5	30 - 160	

Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021015.D

Date : 10-FEB-2017 19:25

Client ID:

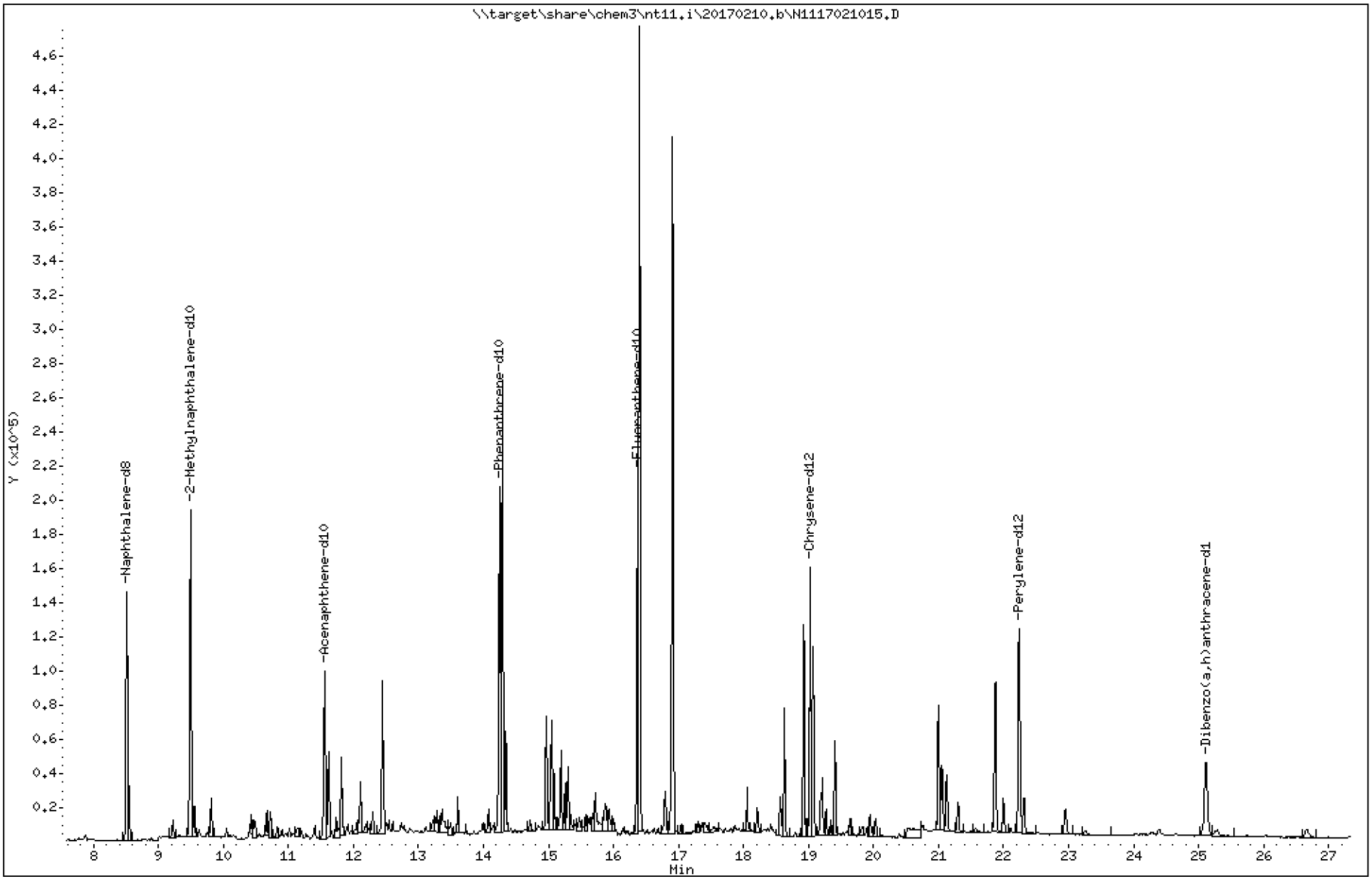
Sample Info: 17A0053-08

Instrument: nt11.i

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 10-FEB-2017 19:25

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-08

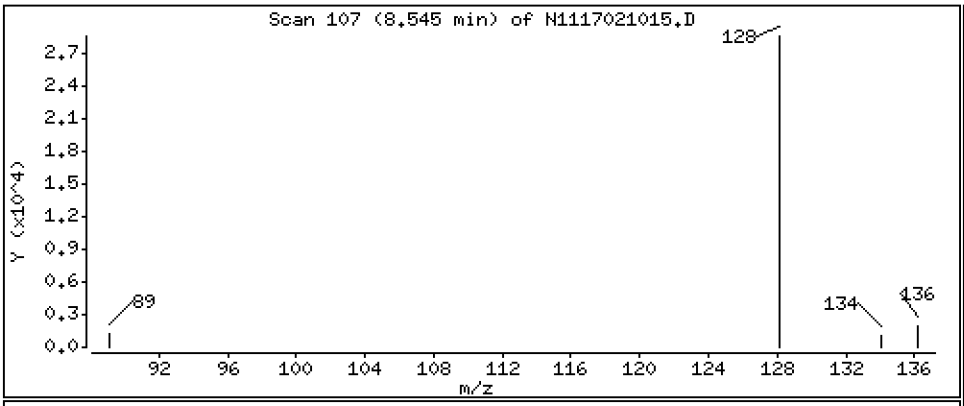
Operator: VTS

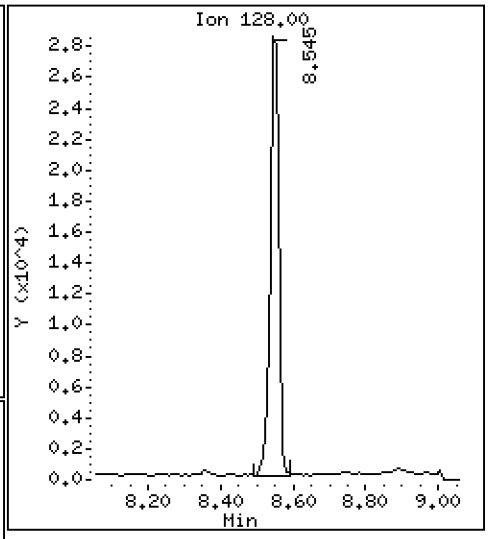
Column phase: Rxi-17Sil MS

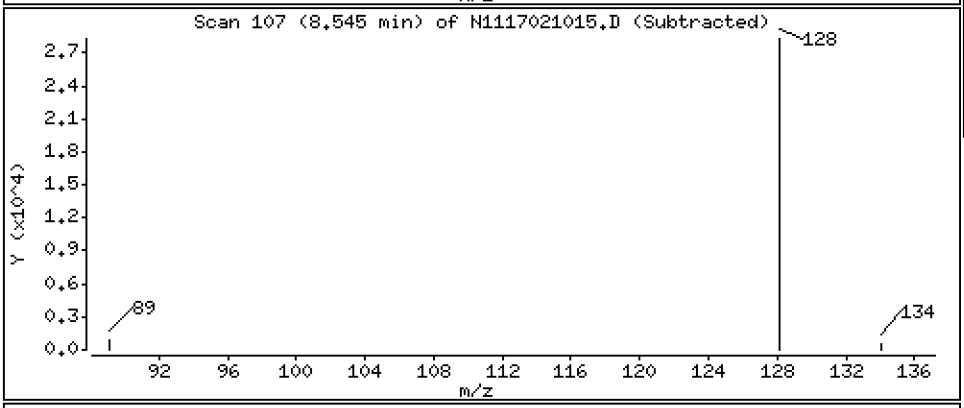
Column diameter: 0.25

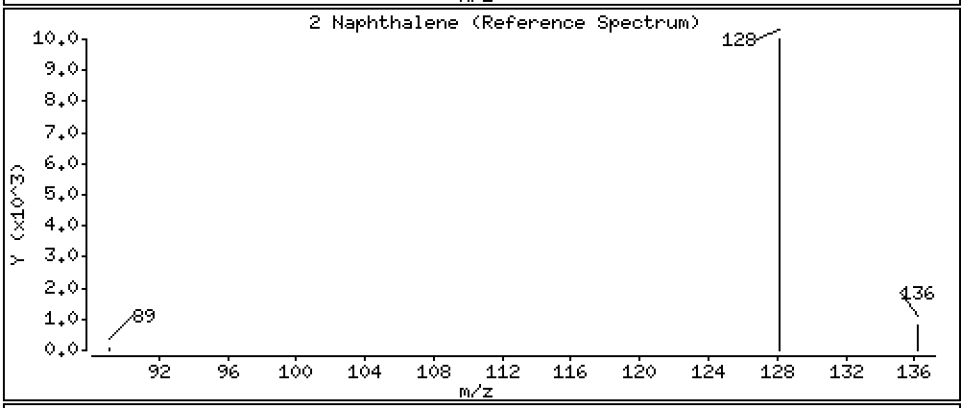
2 Naphthalene

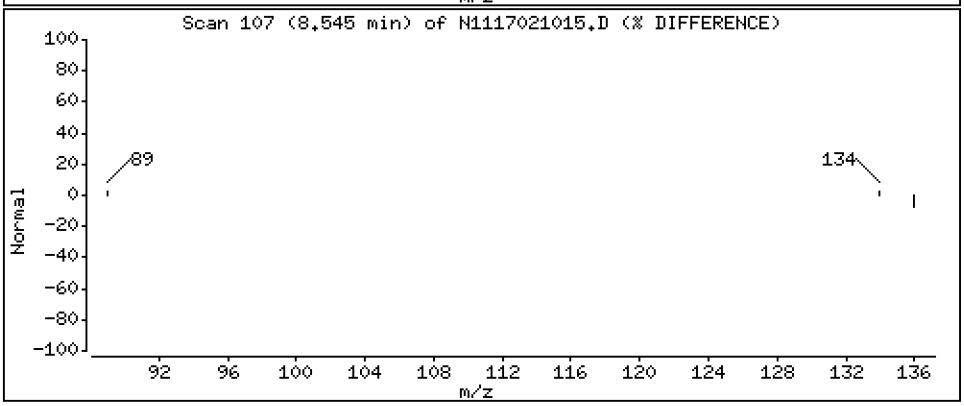
Concentration: 44.1 ng/mL











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Date : 10-FEB-2017 19:25

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-08

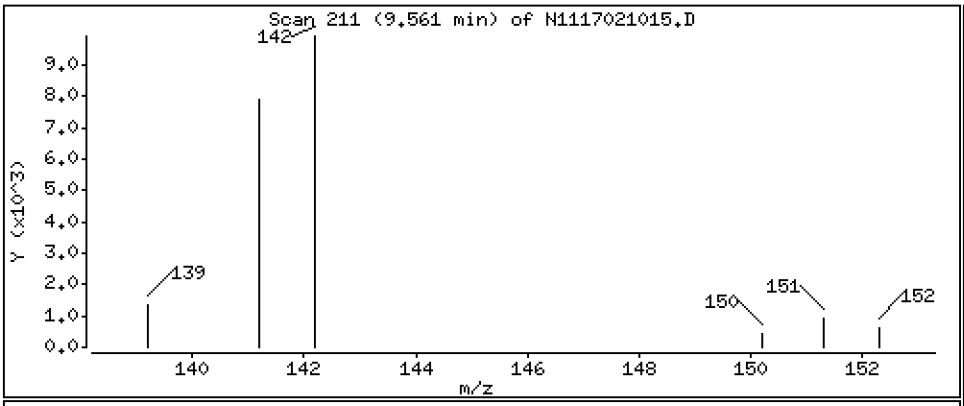
Operator: VTS

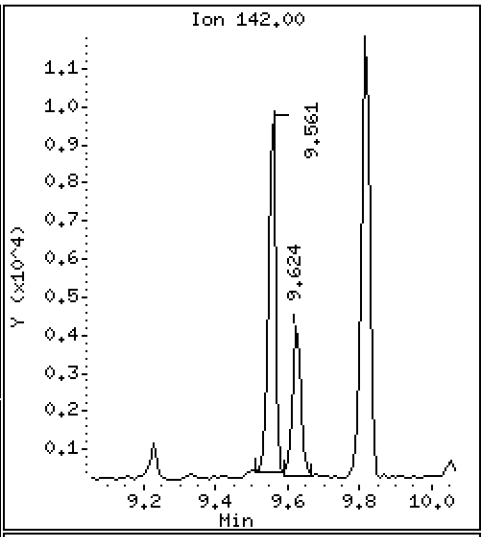
Column phase: Rxi-17Sil MS

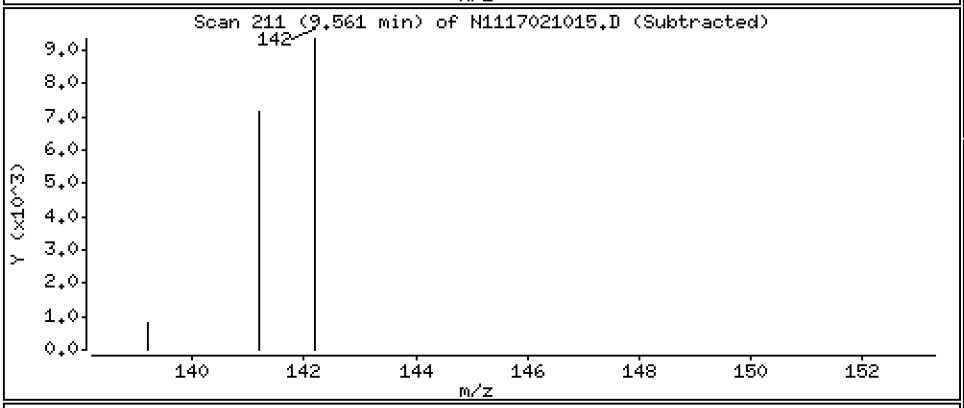
Column diameter: 0.25

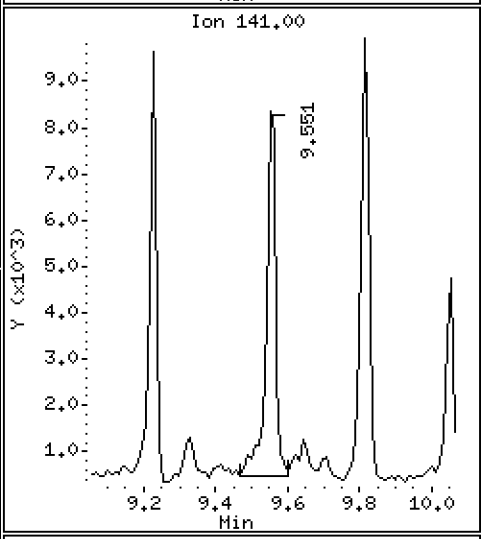
5 2-Methylnaphthalene

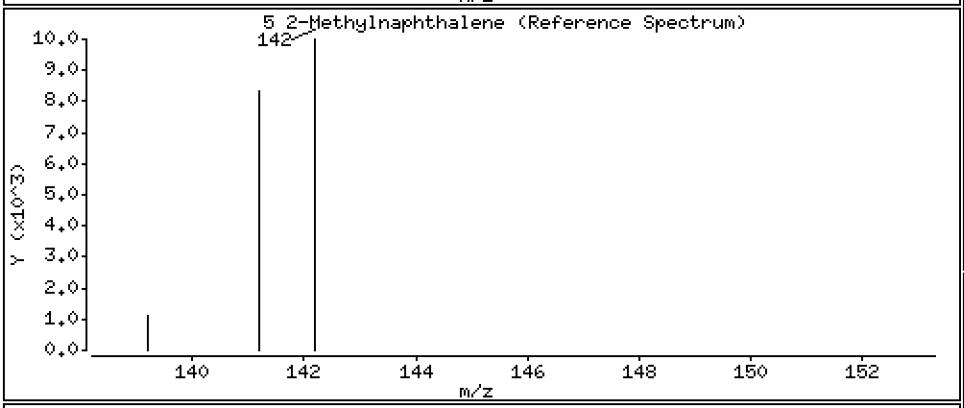
Concentration: 13.7 ng/mL

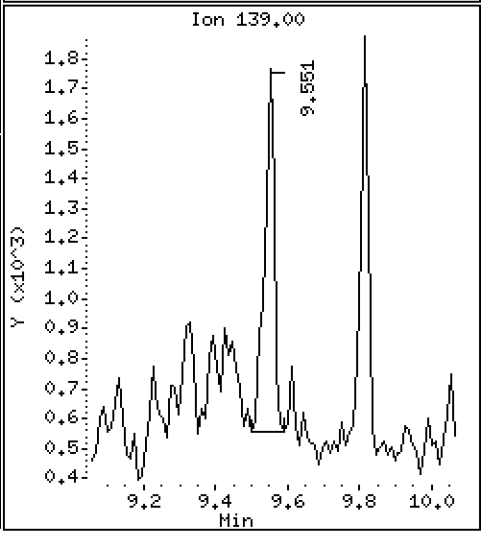


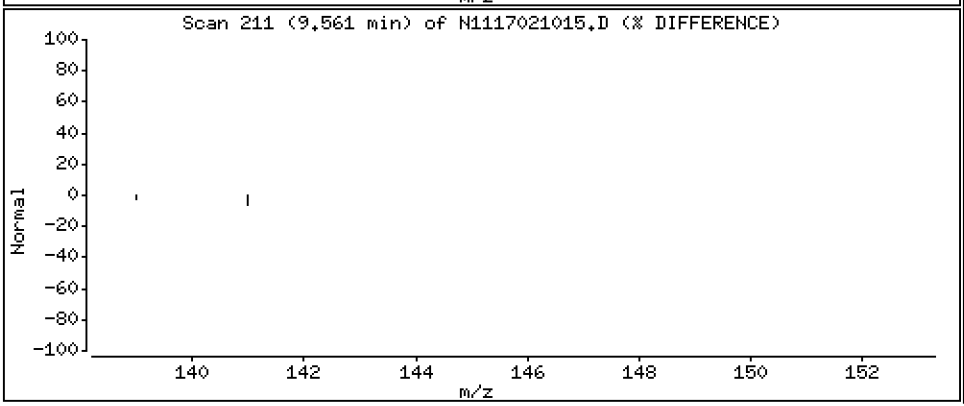












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Date : 10-FEB-2017 19:25

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-08

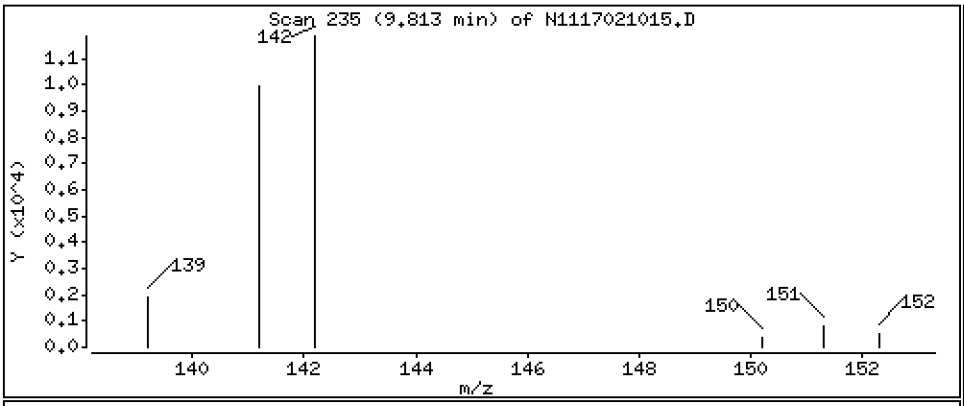
Operator: VTS

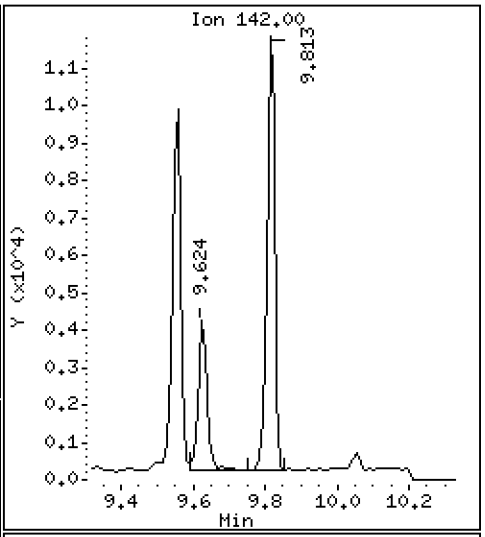
Column phase: Rxi-17Sil MS

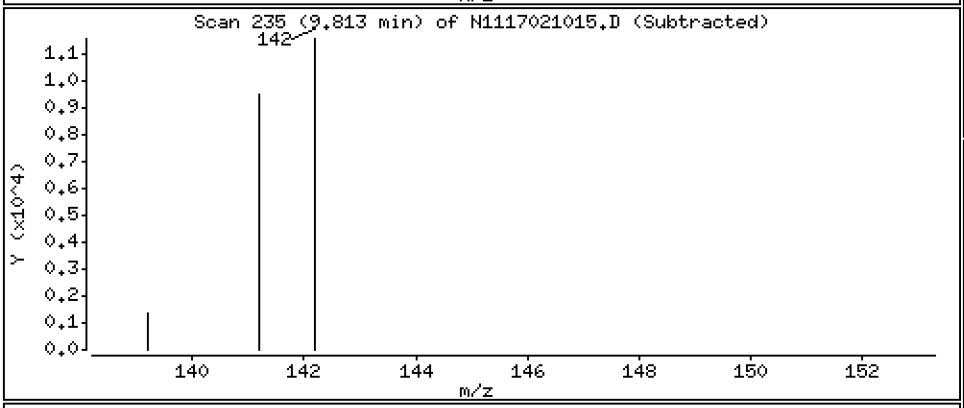
Column diameter: 0.25

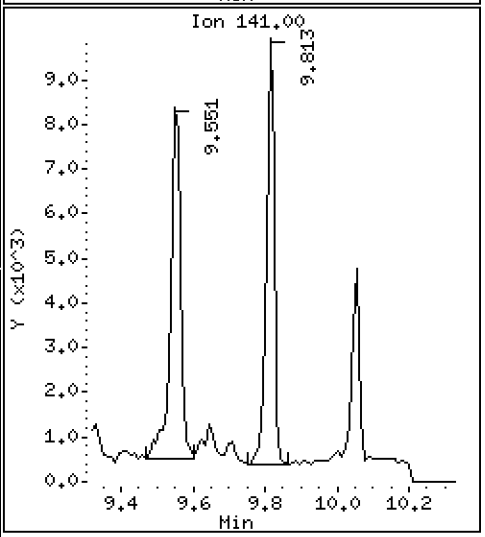
6 1-Methylnaphthalene

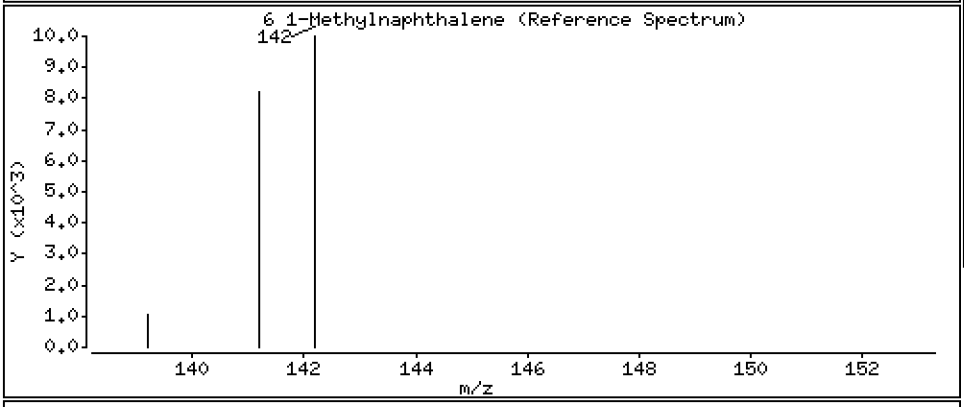
Concentration: 17.6 ng/mL

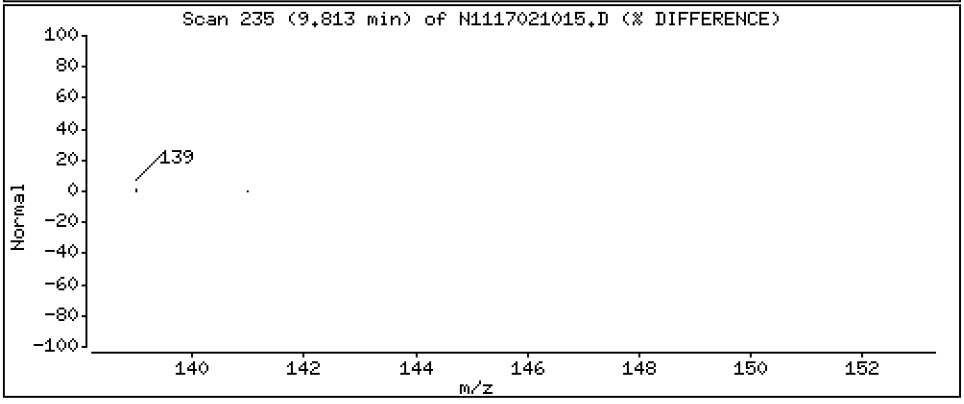












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021015.D

Date : 10-FEB-2017 19:25

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-08

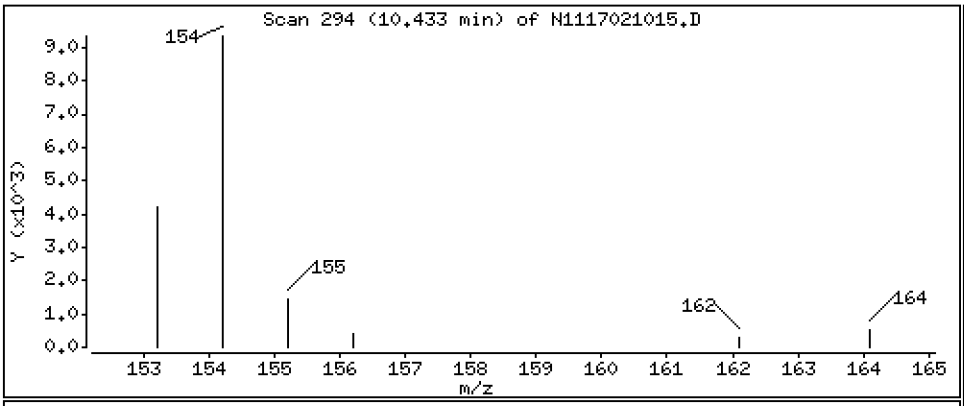
Operator: VTS

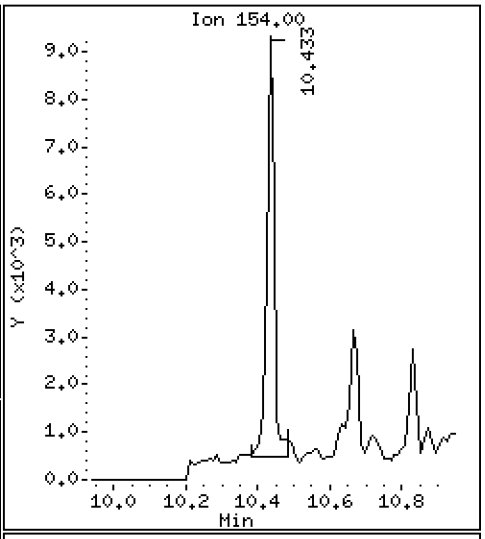
Column phase: Rxi-17Sil MS

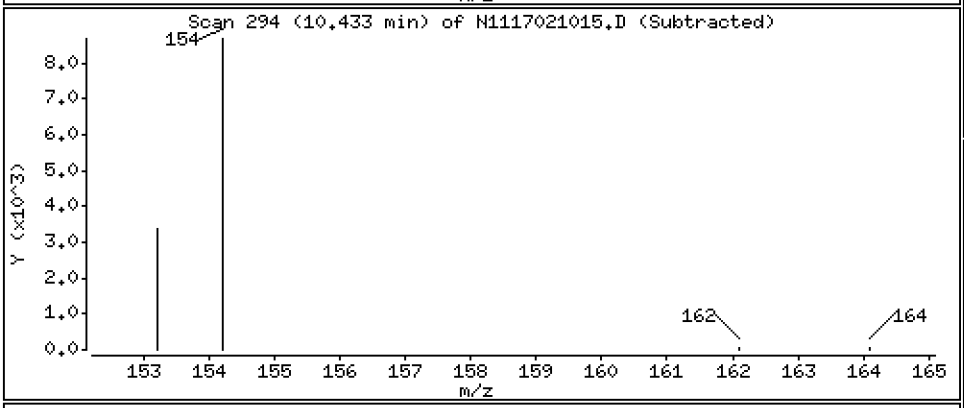
Column diameter: 0.25

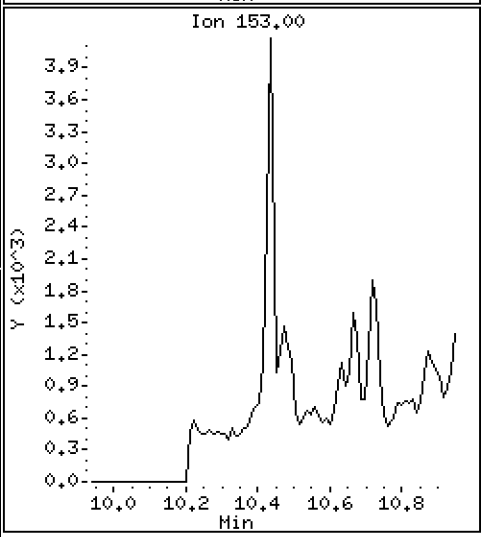
8 Biphenyl

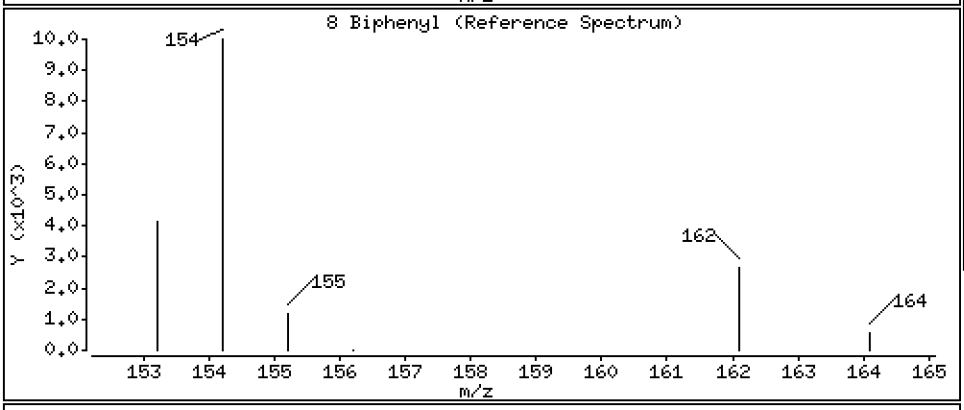
Concentration: 9.01 ng/mL

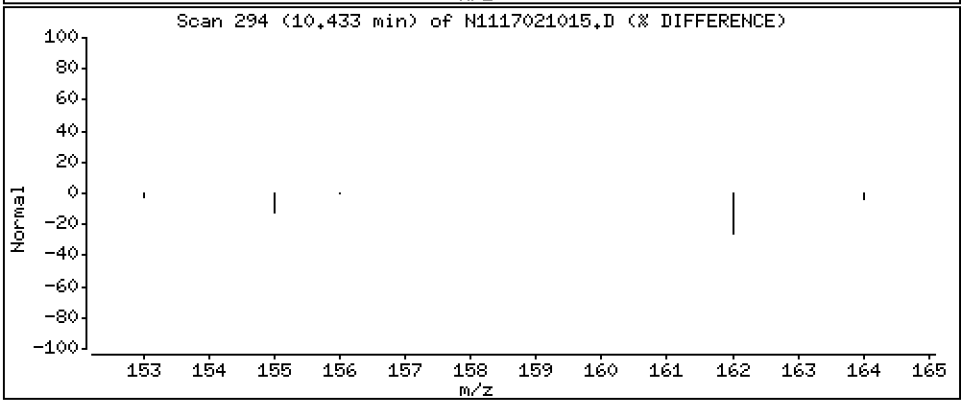












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Date : 10-FEB-2017 19:25

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-08

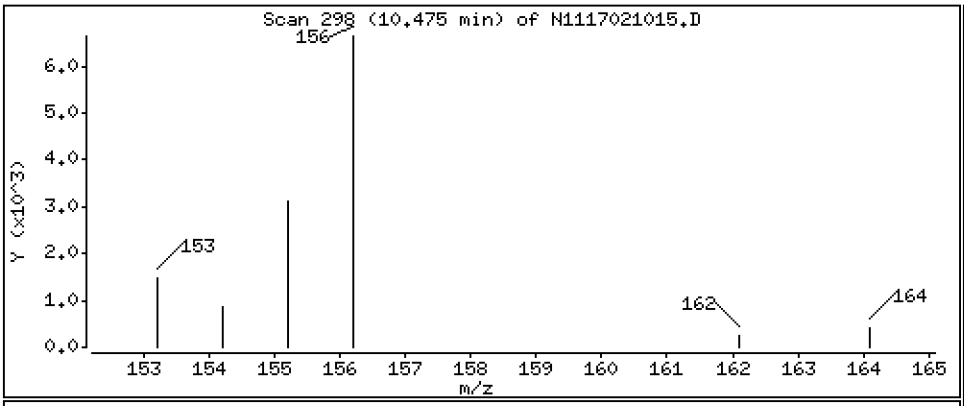
Operator: VTS

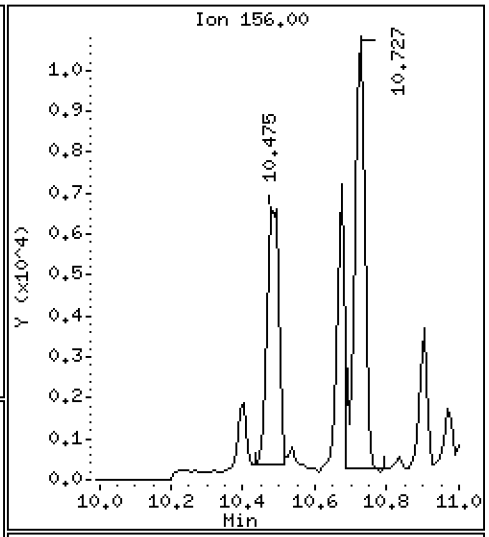
Column phase: Rxi-17Sil MS

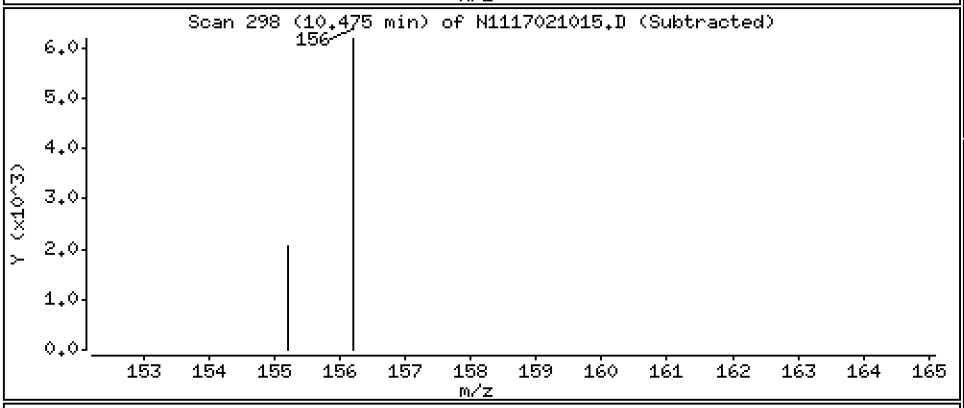
Column diameter: 0.25

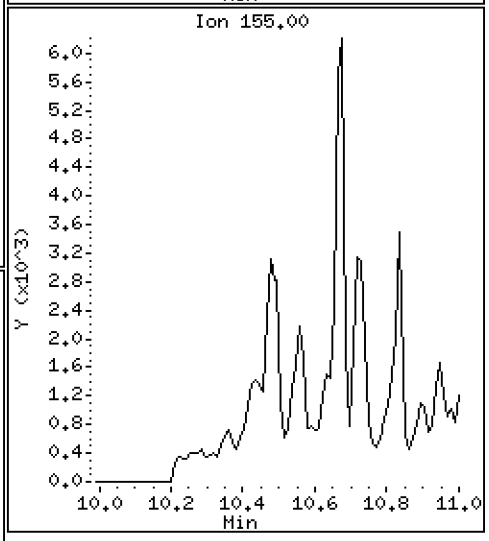
9 2,6-Dimethylnaphthalene

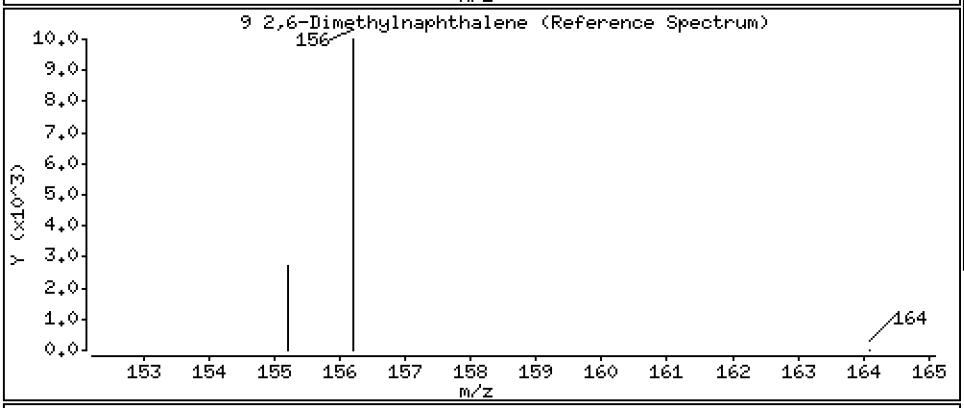
Concentration: 13.9 ng/mL

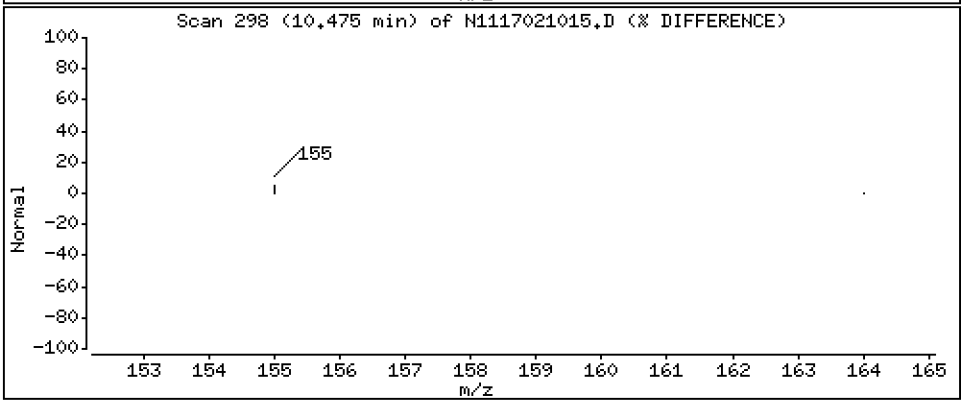












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Date : 10-FEB-2017 19:25

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-08

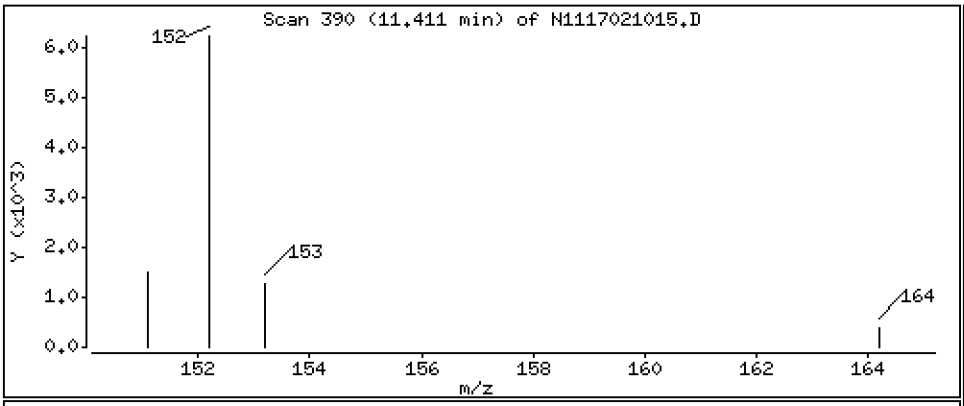
Operator: VTS

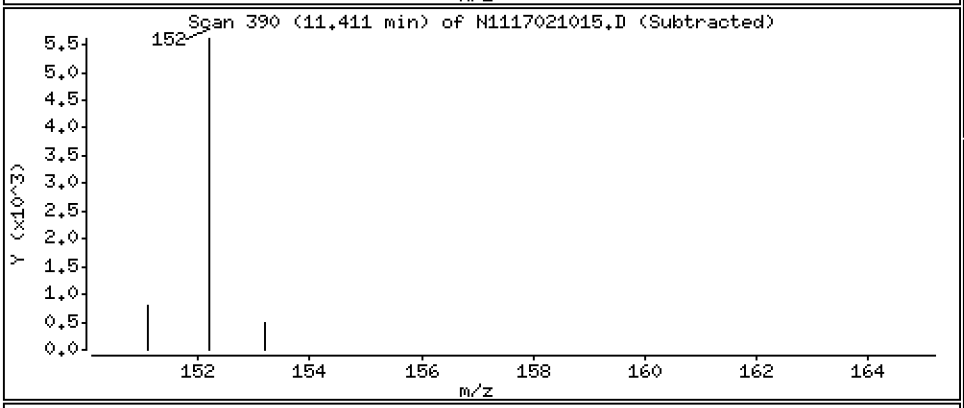
Column phase: Rxi-17Sil MS

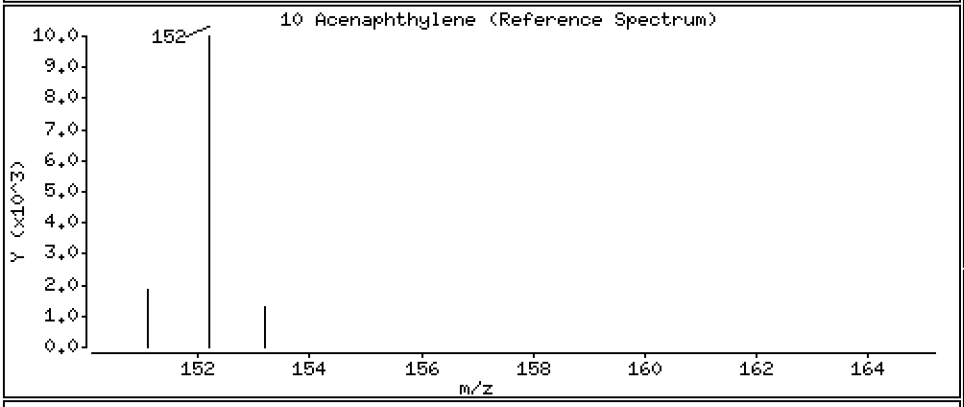
Column diameter: 0.25

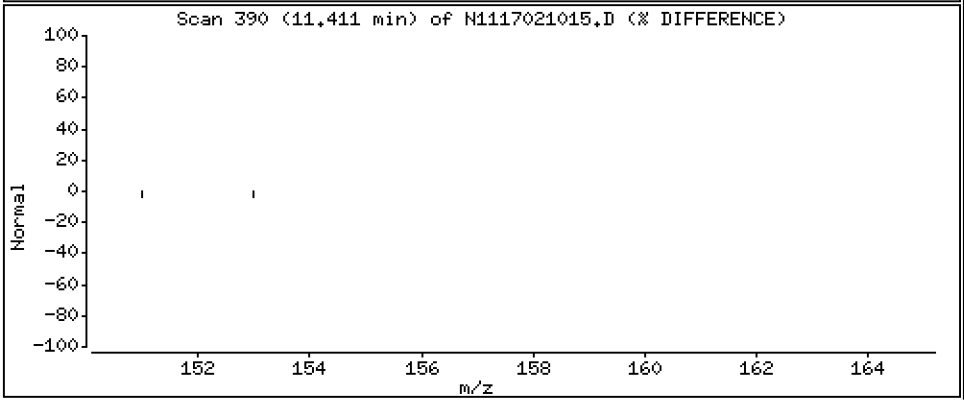
10 Acenaphthylene

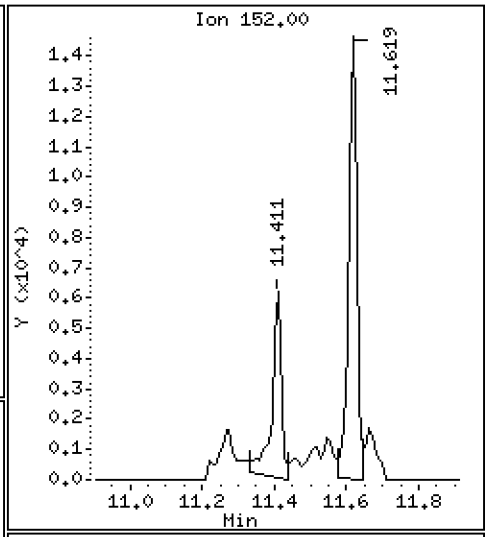
Concentration: 8.41 ng/mL

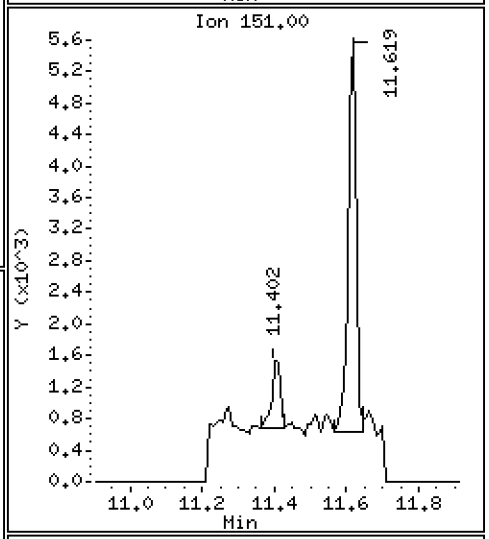


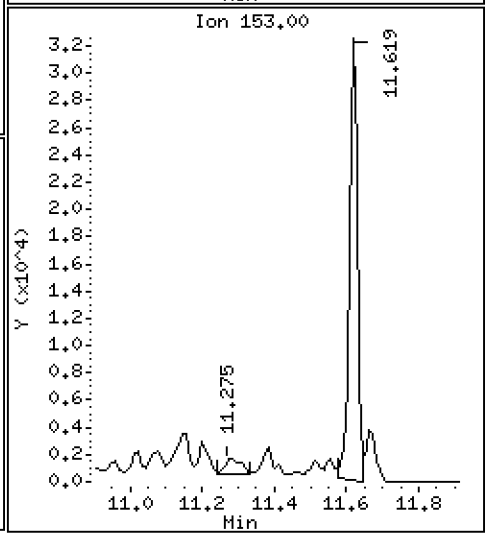












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Date : 10-FEB-2017 19:25

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-08

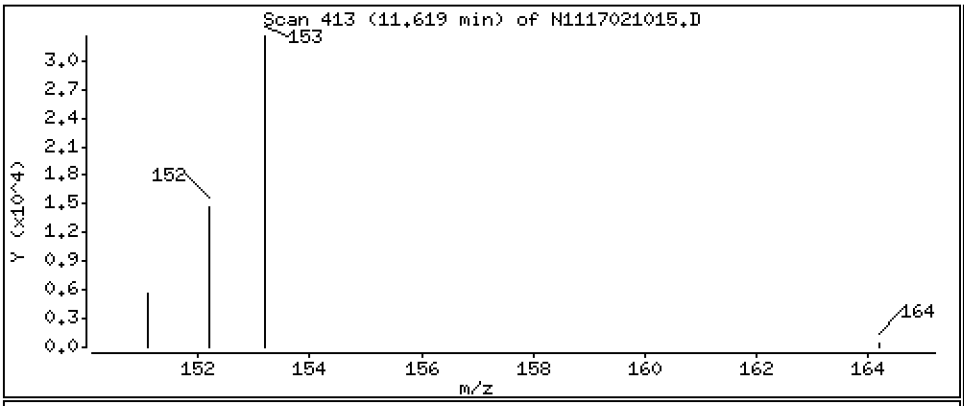
Operator: VTS

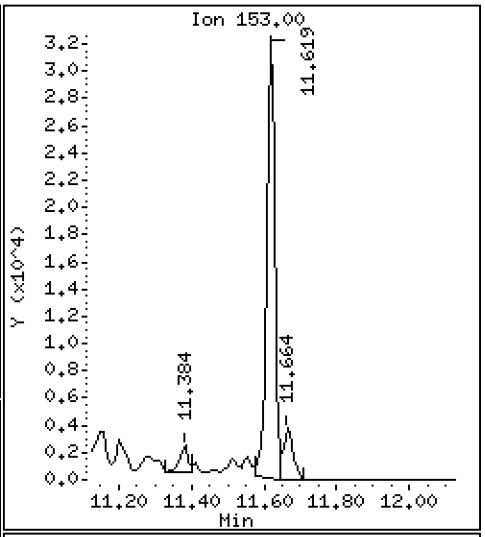
Column phase: Rxi-17Sil MS

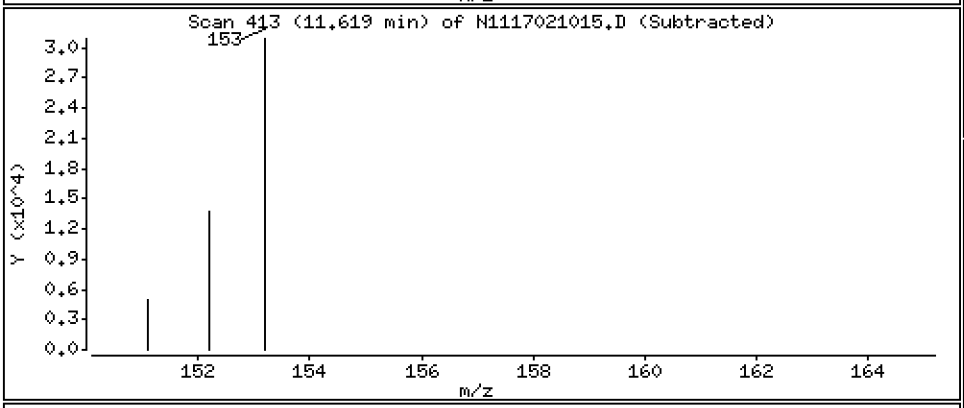
Column diameter: 0.25

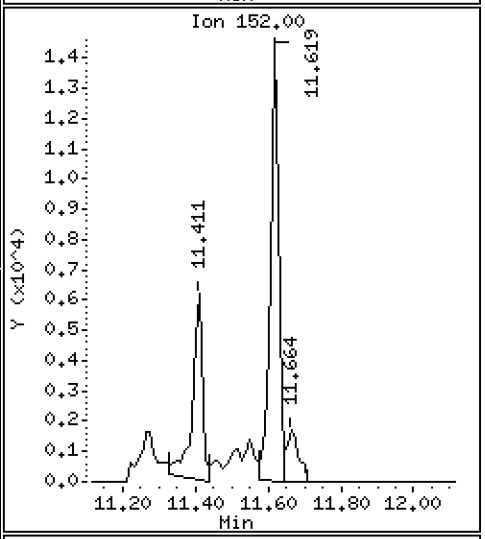
12 Acenaphthene

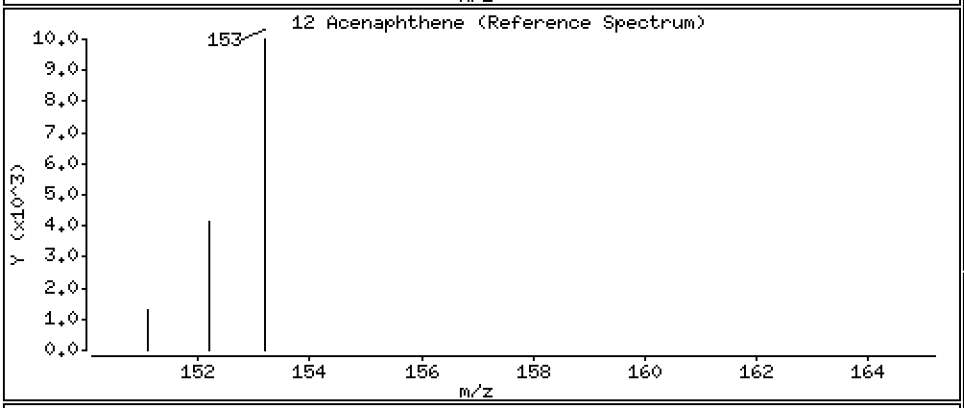
Concentration: 58.2 ng/mL

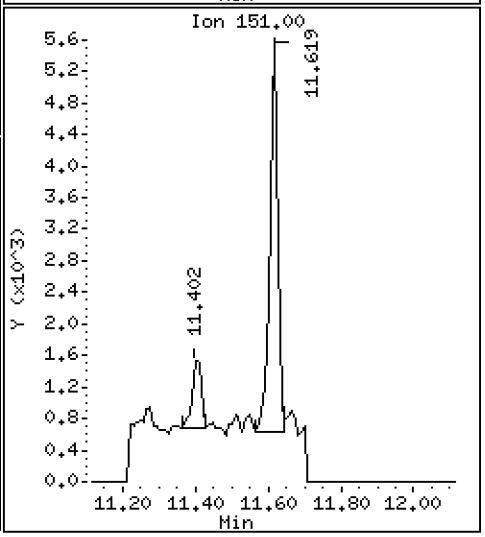


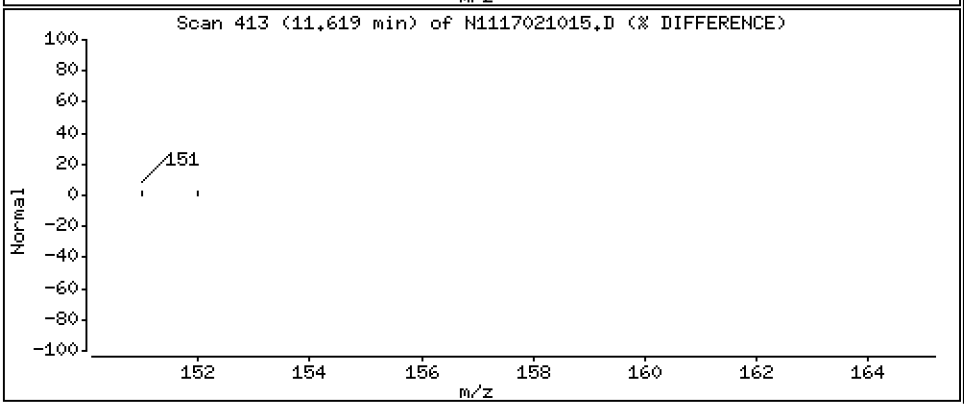












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Date : 10-FEB-2017 19:25

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-08

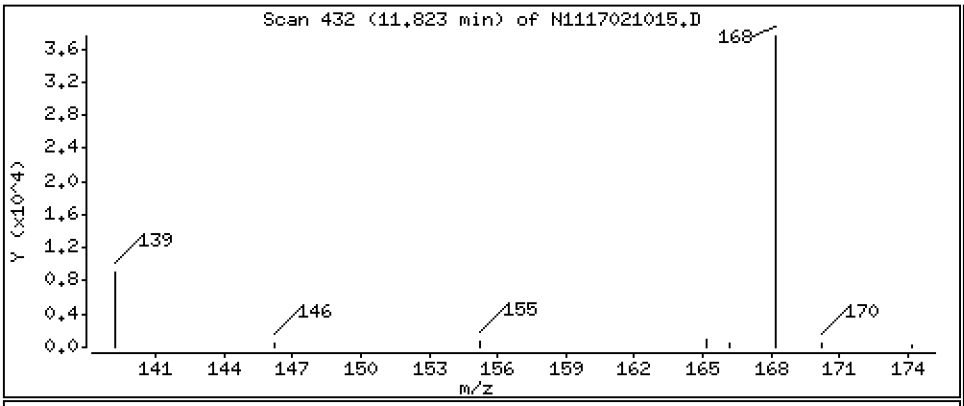
Operator: VTS

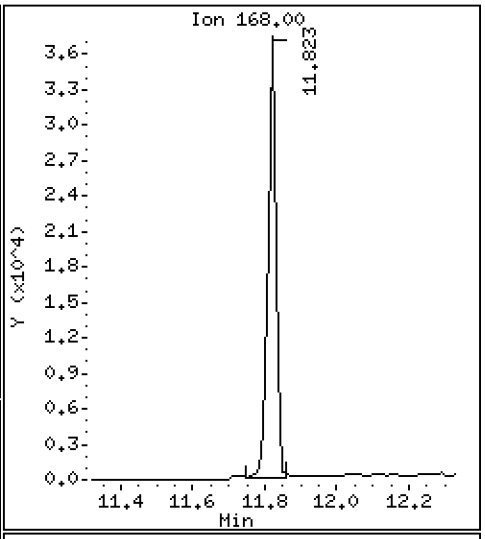
Column phase: Rxi-17Sil MS

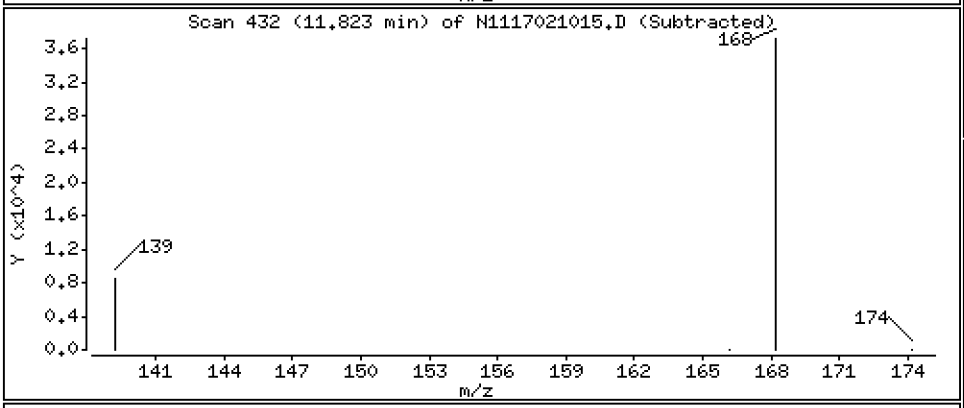
Column diameter: 0.25

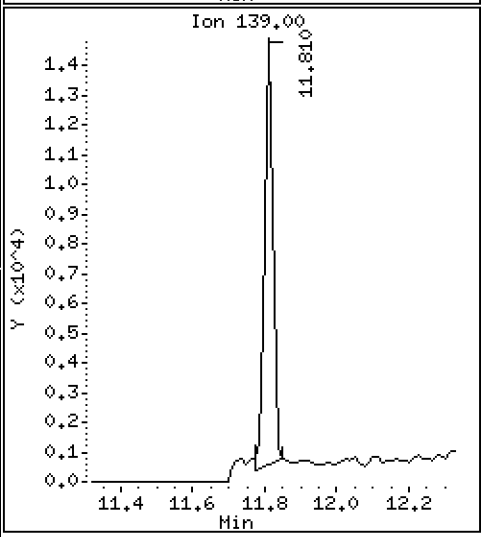
13 Dibenzofuran

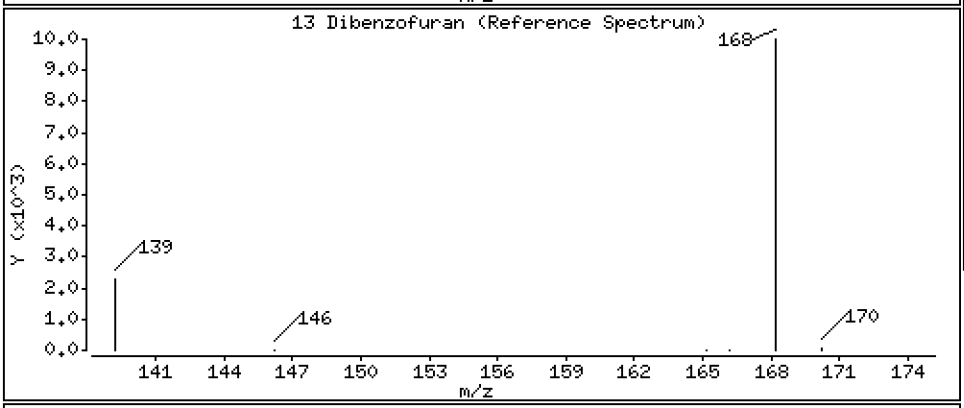
Concentration: 41.8 ng/mL

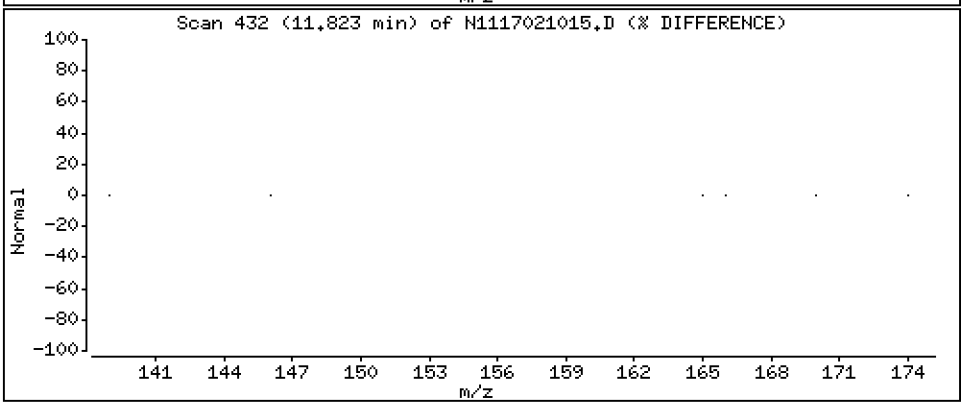












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Date : 10-FEB-2017 19:25

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-08

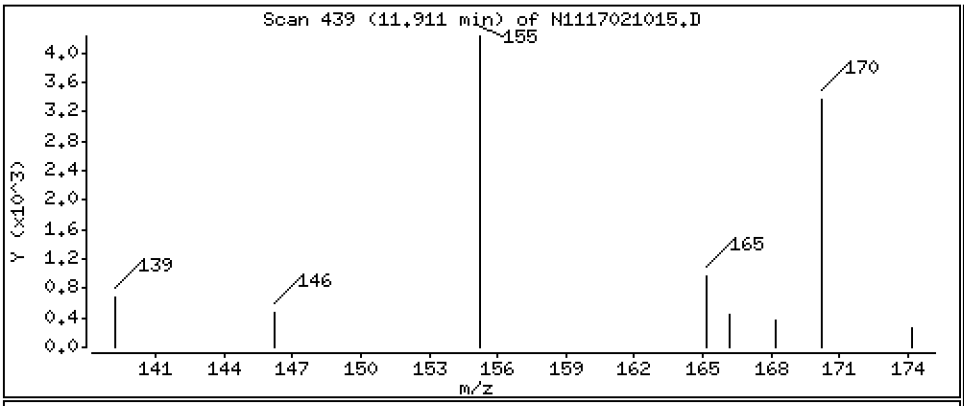
Operator: VTS

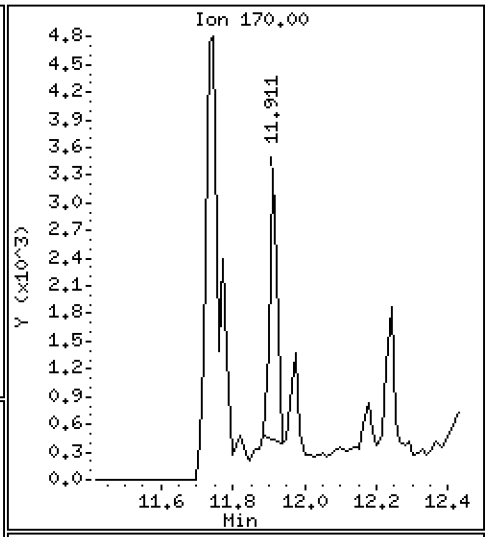
Column phase: Rxi-17Sil MS

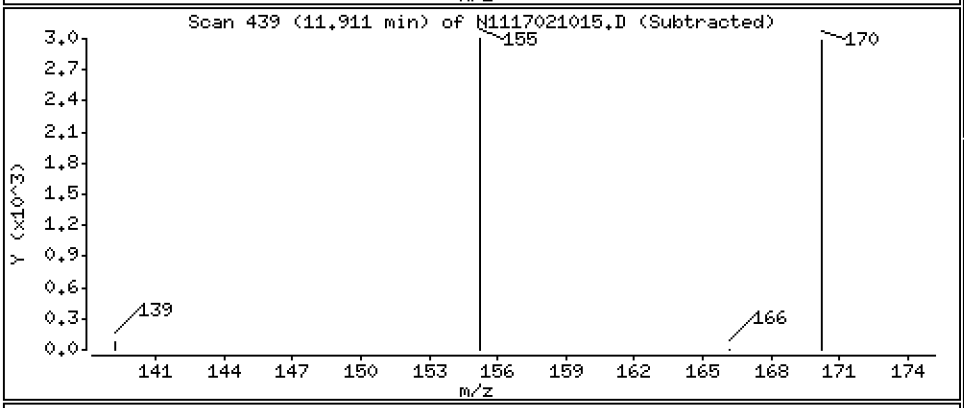
Column diameter: 0.25

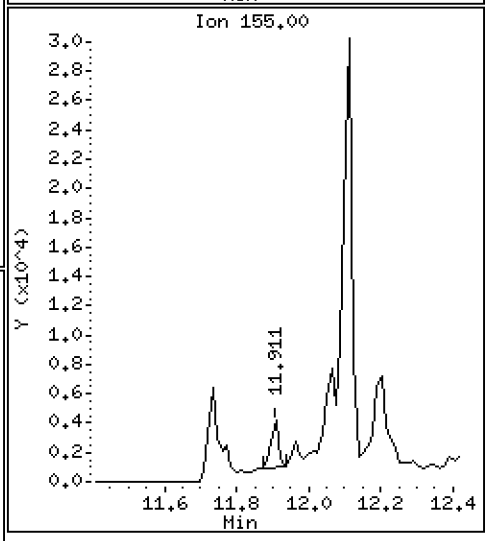
14 2,3,5-Trimethylnaphthalene

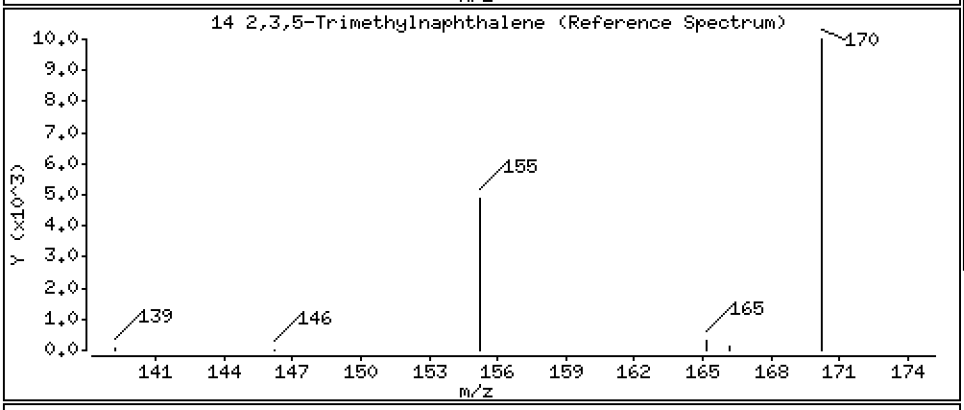
Concentration: 5.26 ng/mL

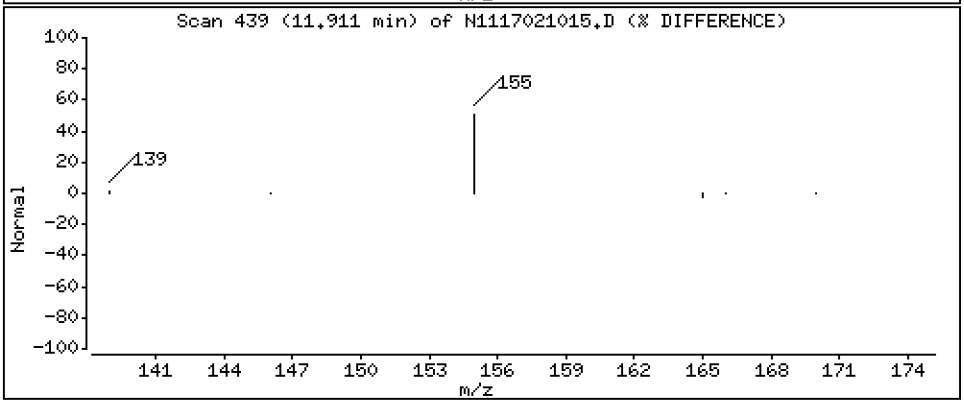












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Date : 10-FEB-2017 19:25

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-08

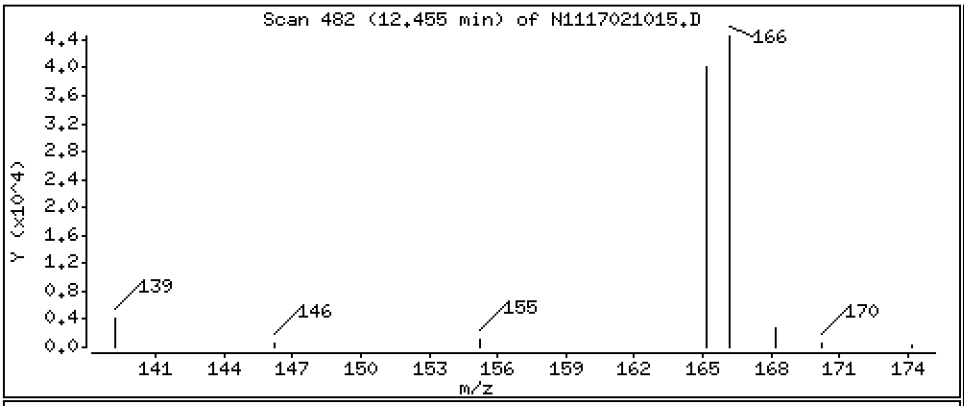
Operator: VTS

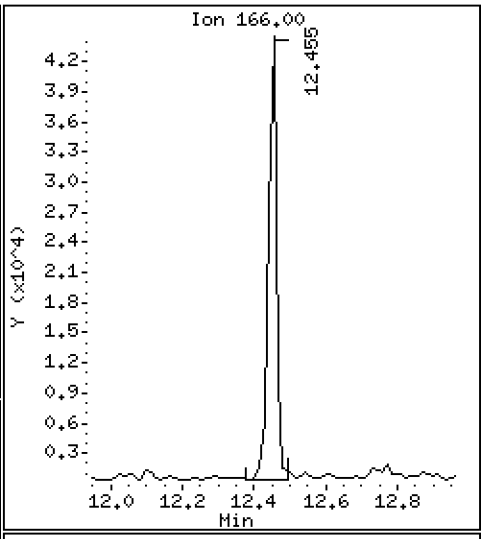
Column phase: Rxi-17Sil MS

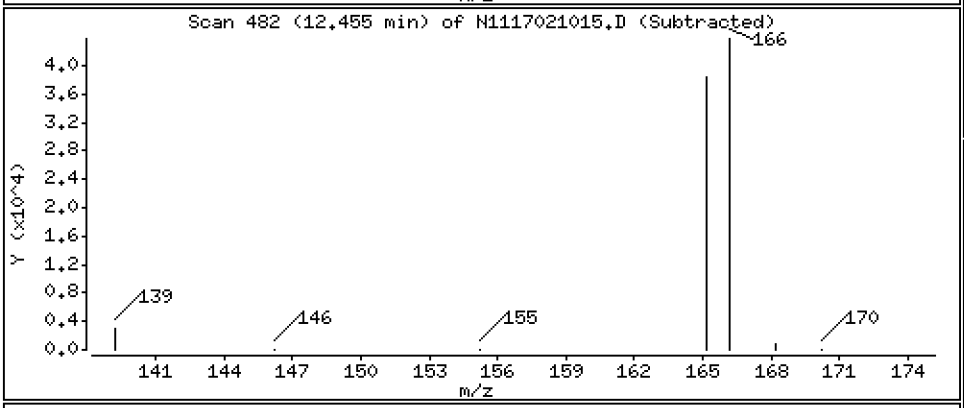
Column diameter: 0.25

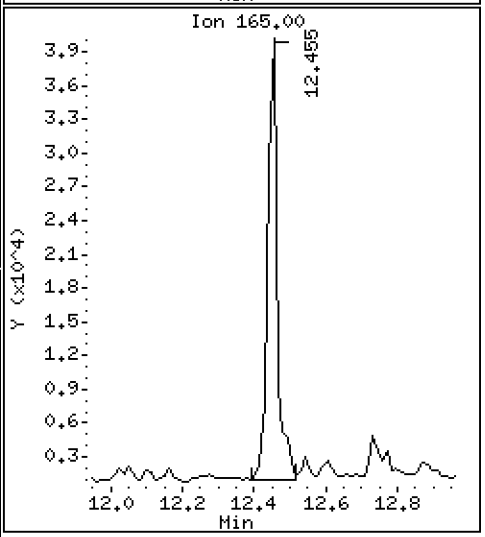
16 Fluorene

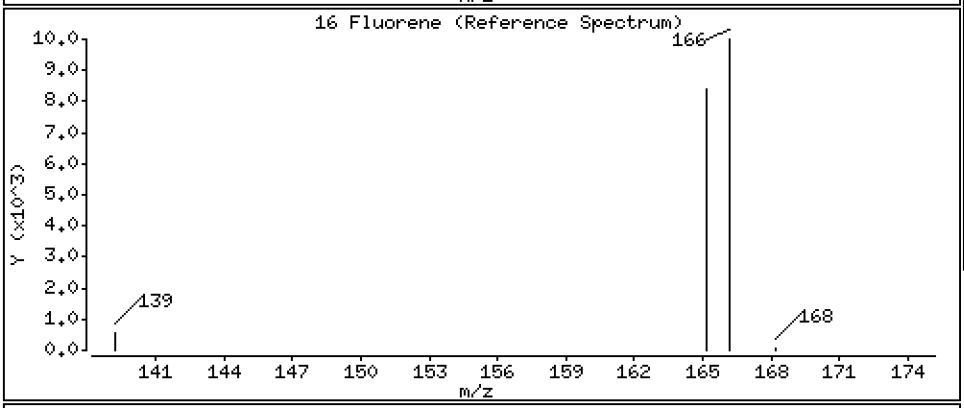
Concentration: 65.8 ng/mL

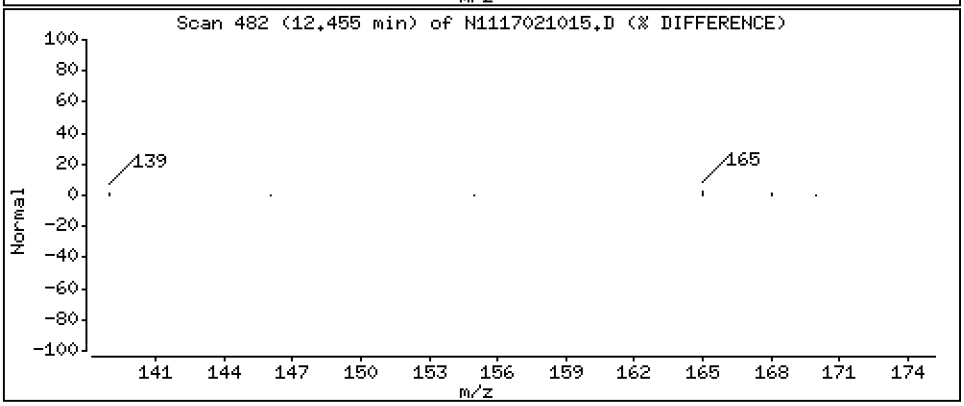












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Date : 10-FEB-2017 19:25

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-08

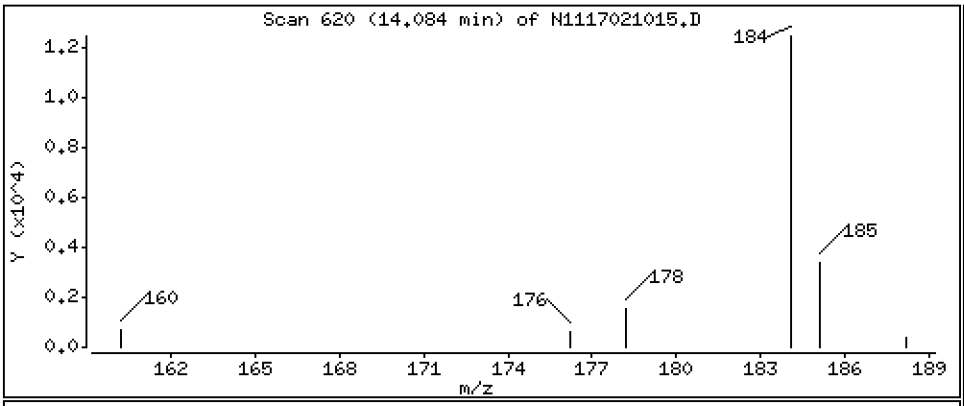
Operator: VTS

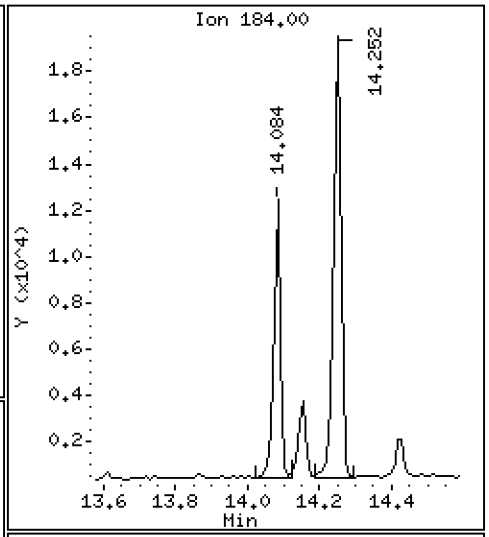
Column phase: Rxi-17Sil MS

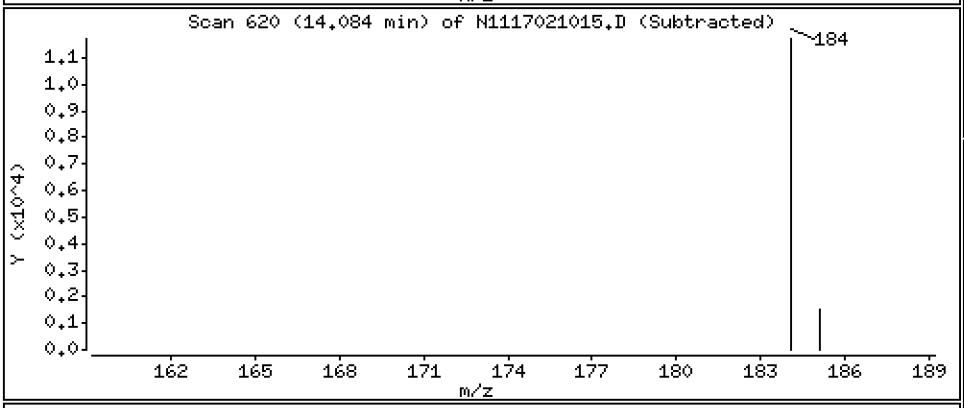
Column diameter: 0.25

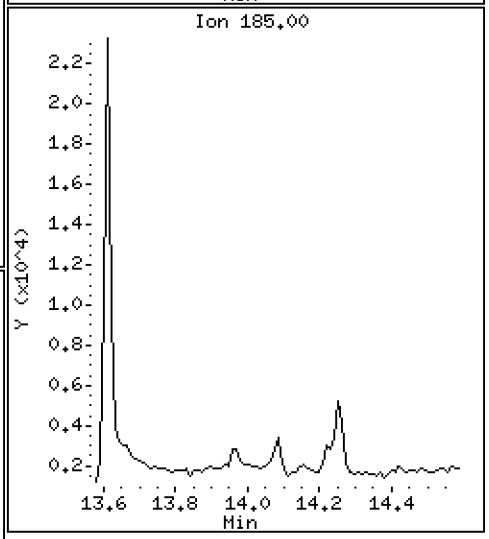
17 Dibenzothiophene

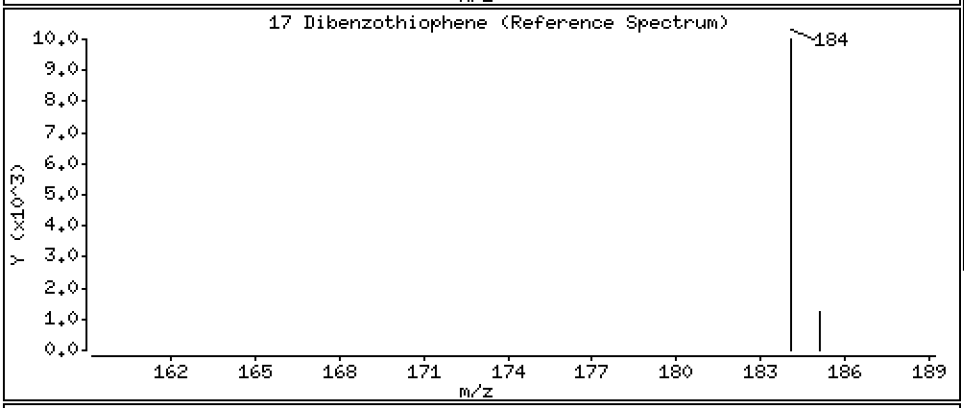
Concentration: 15.7 ng/mL

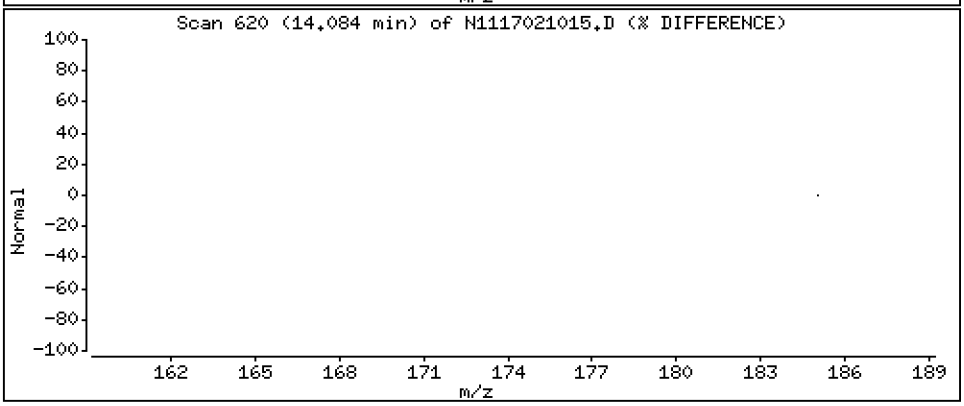












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Date : 10-FEB-2017 19:25

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-08

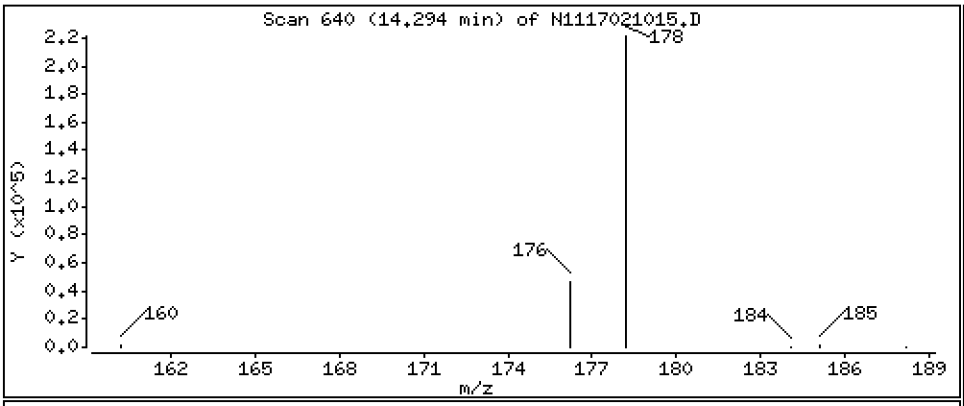
Operator: VTS

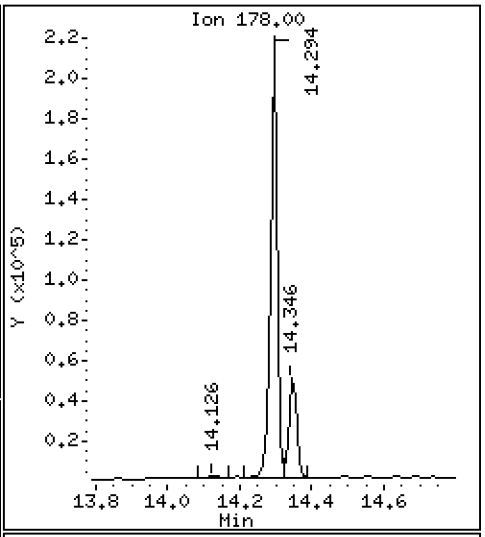
Column phase: Rxi-17Sil MS

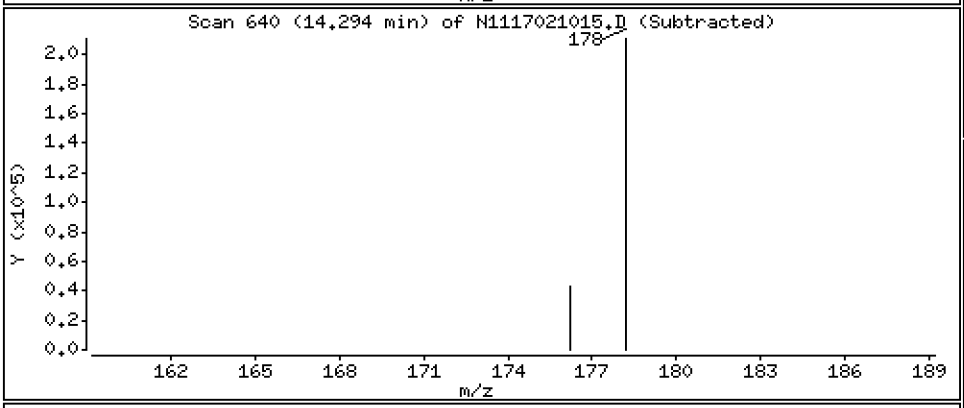
Column diameter: 0.25

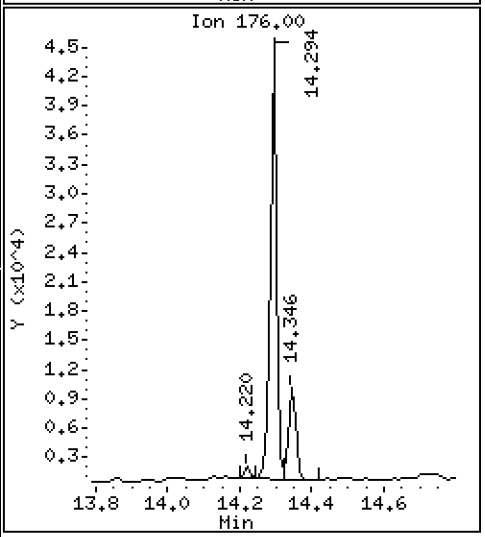
19 Phenanthrene

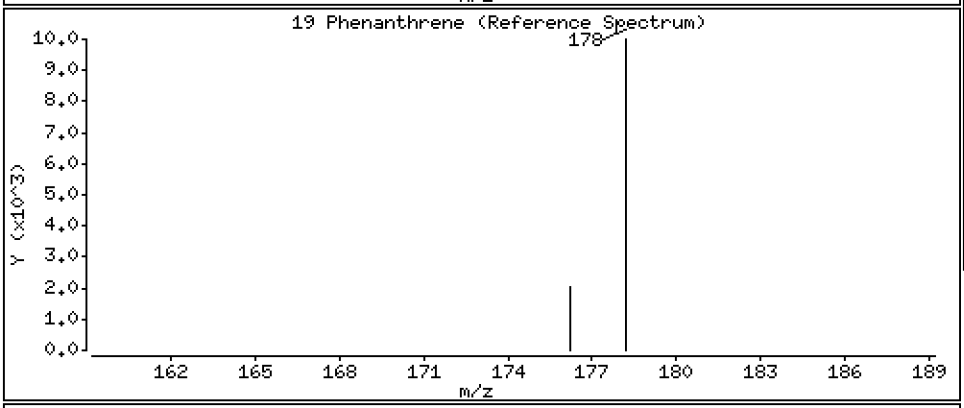
Concentration: 239 ng/mL

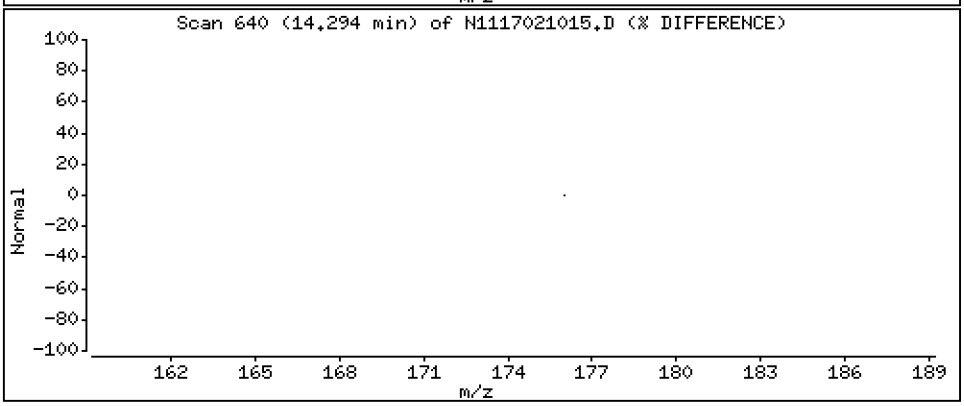












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021015.D

Date : 10-FEB-2017 19:25

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-08

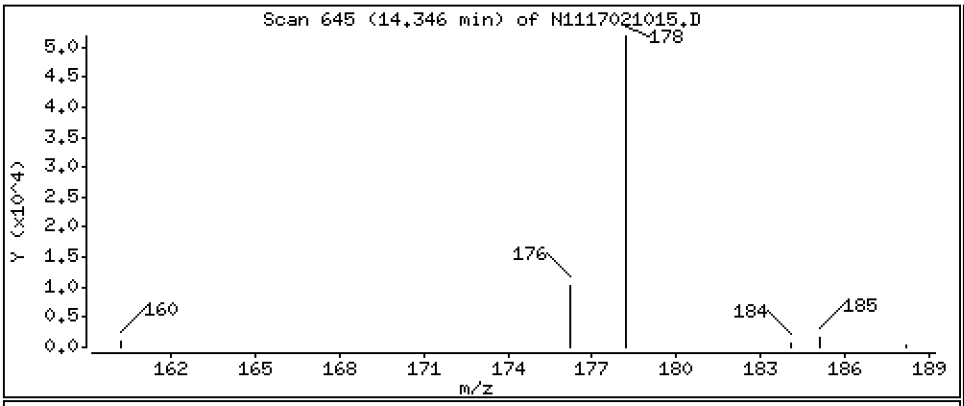
Operator: VTS

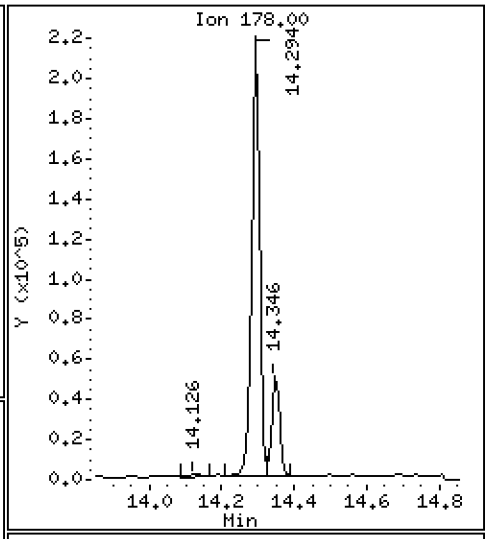
Column phase: Rxi-17Sil MS

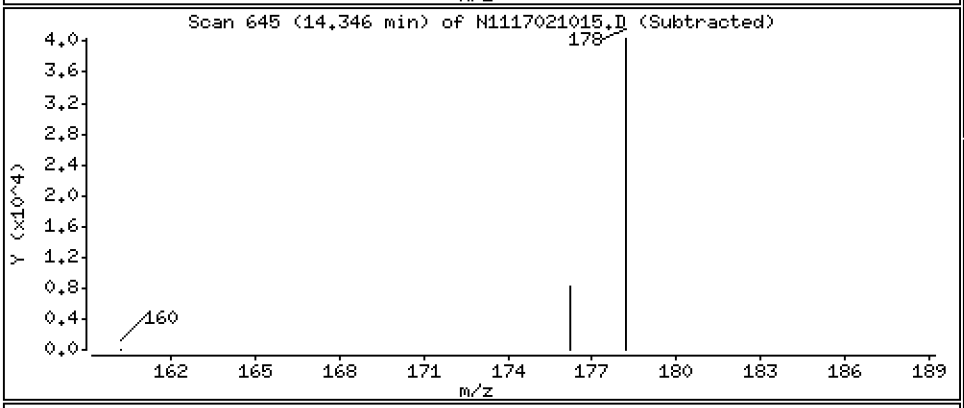
Column diameter: 0.25

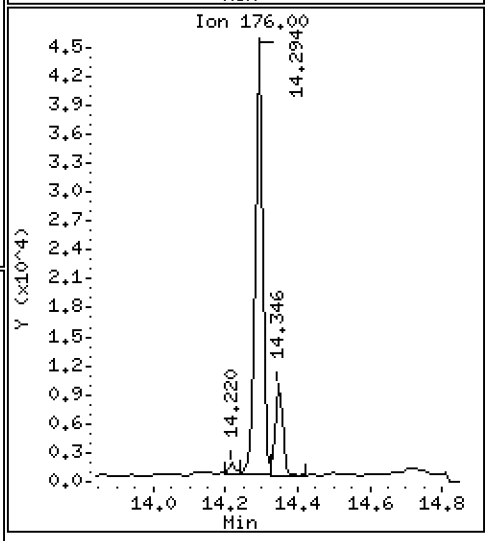
21 Anthracene

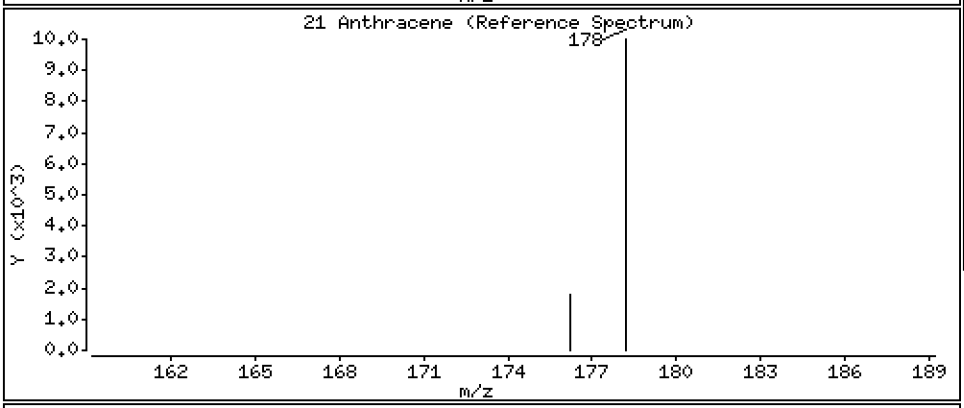
Concentration: 54.3 ng/mL

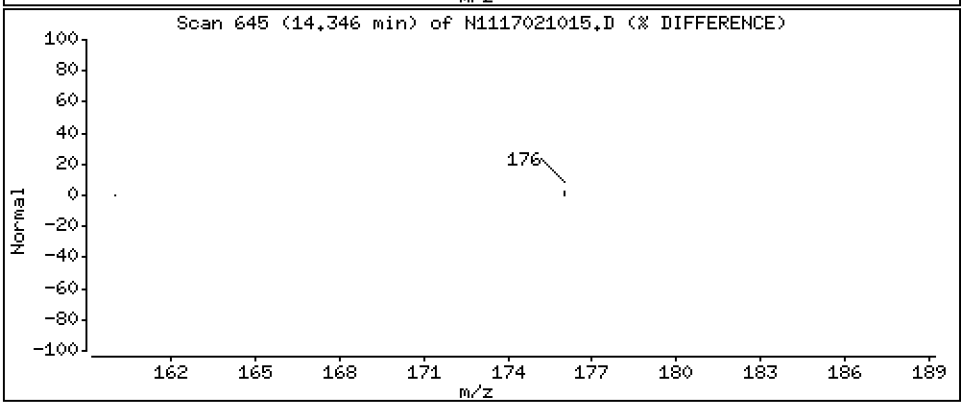












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Date : 10-FEB-2017 19:25

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-08

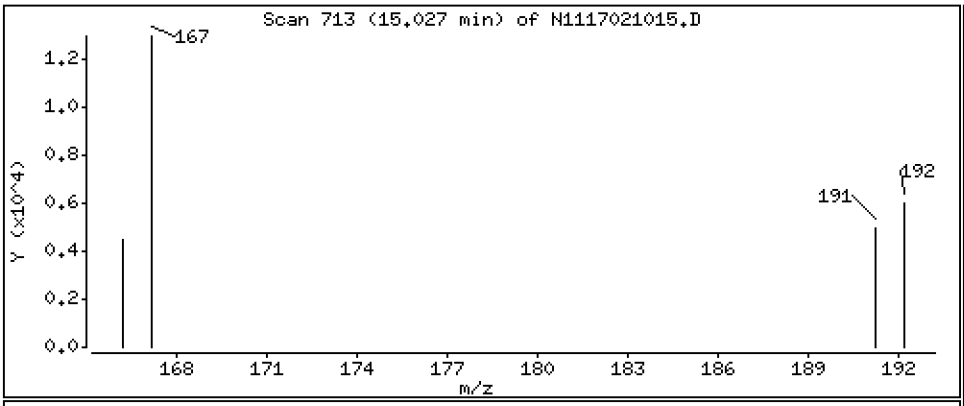
Operator: VTS

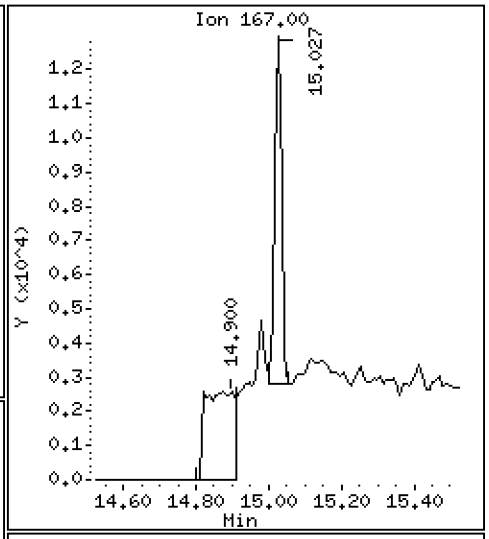
Column phase: Rxi-17Sil MS

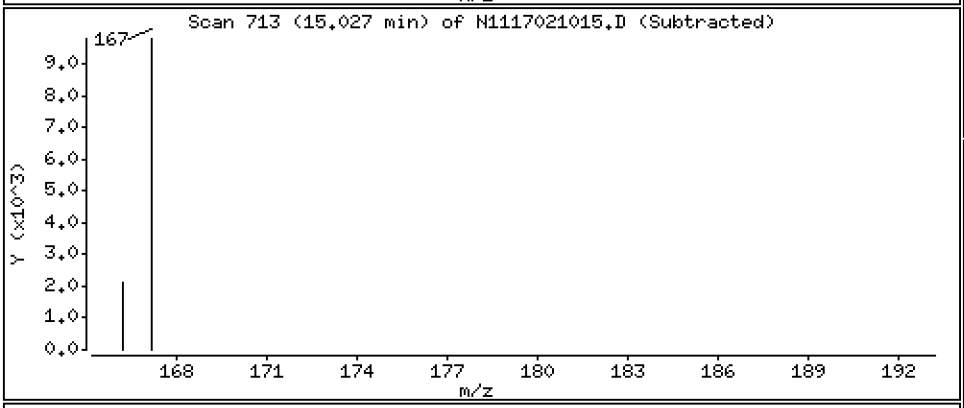
Column diameter: 0.25

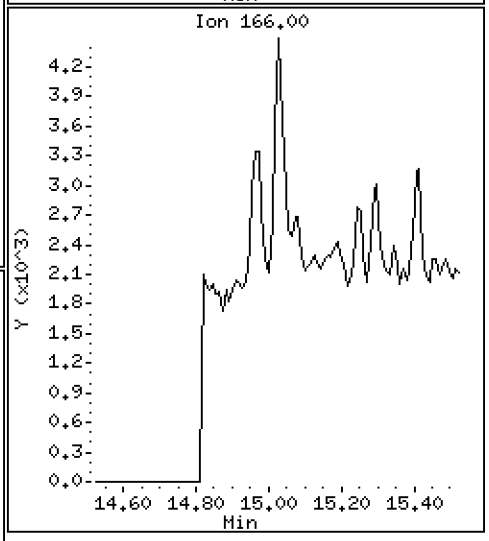
22 Carbazole

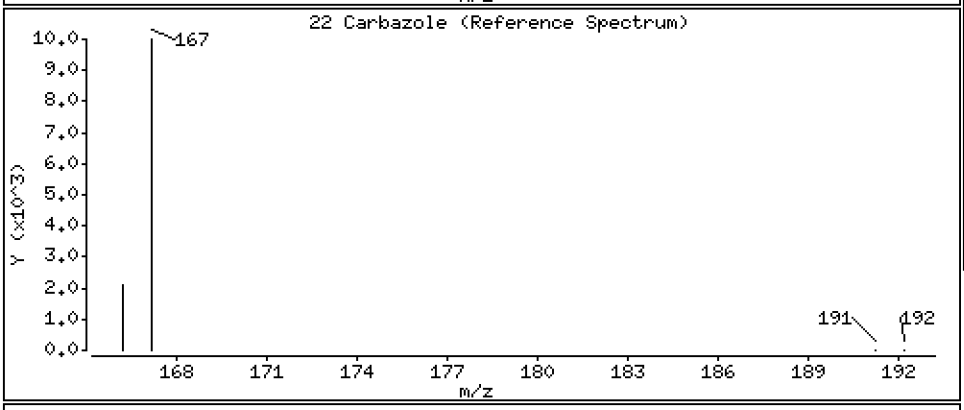
Concentration: 8.98 ng/mL

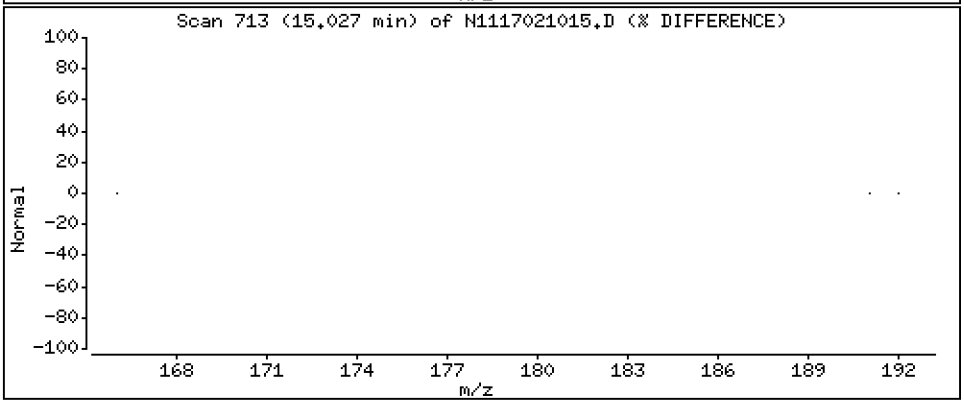












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Date : 10-FEB-2017 19:25

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-08

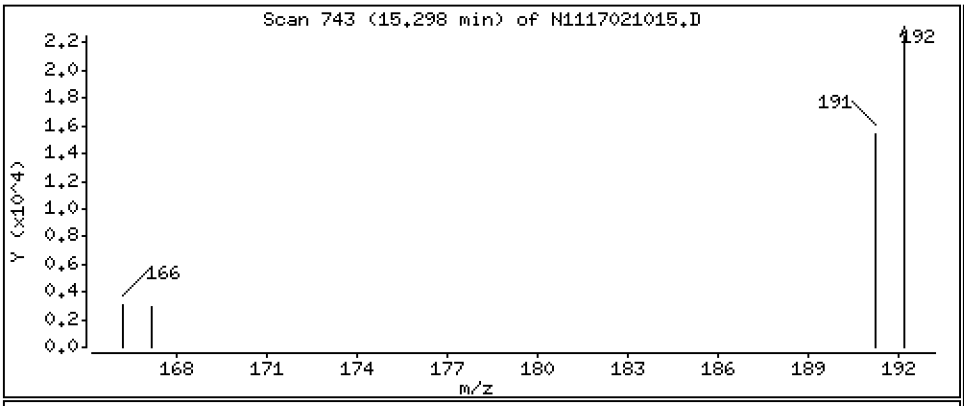
Operator: VTS

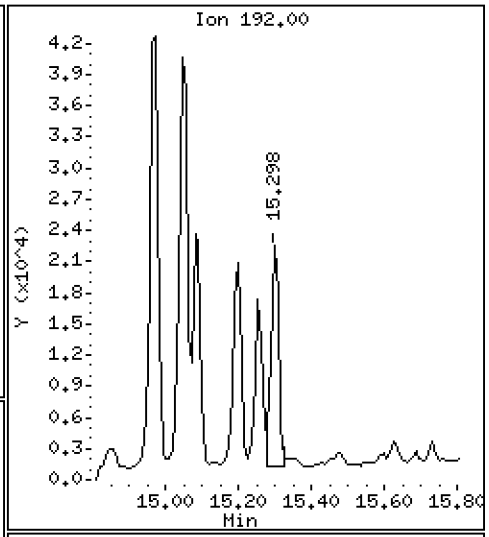
Column phase: Rxi-17Sil MS

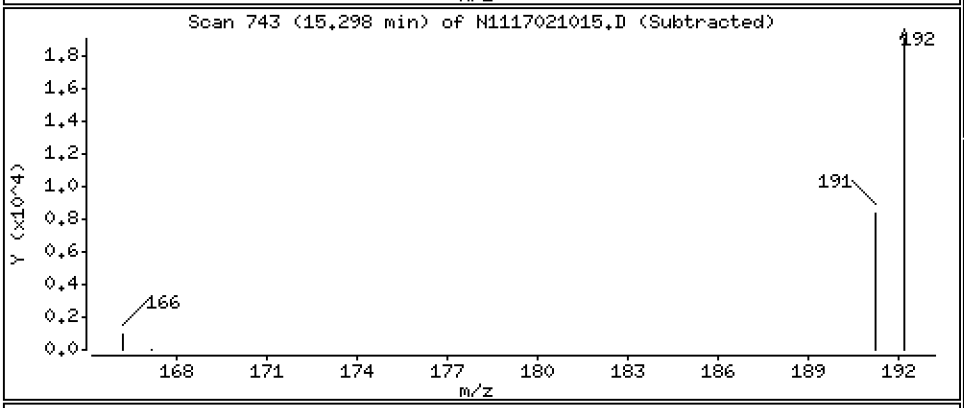
Column diameter: 0.25

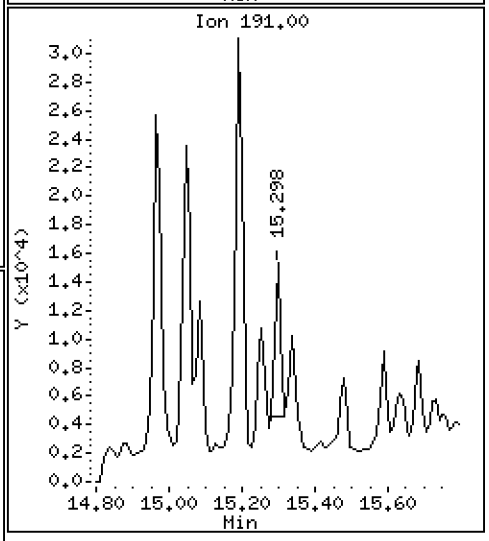
23 1-Methylphenanthrene

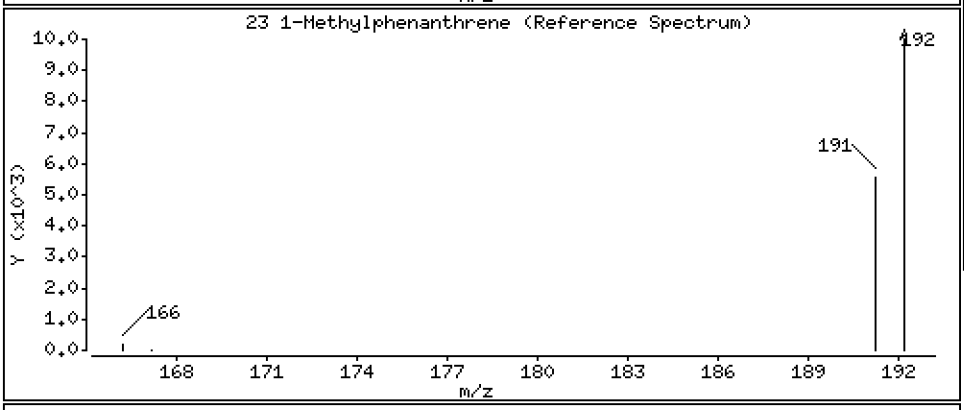
Concentration: 21.5 ng/mL

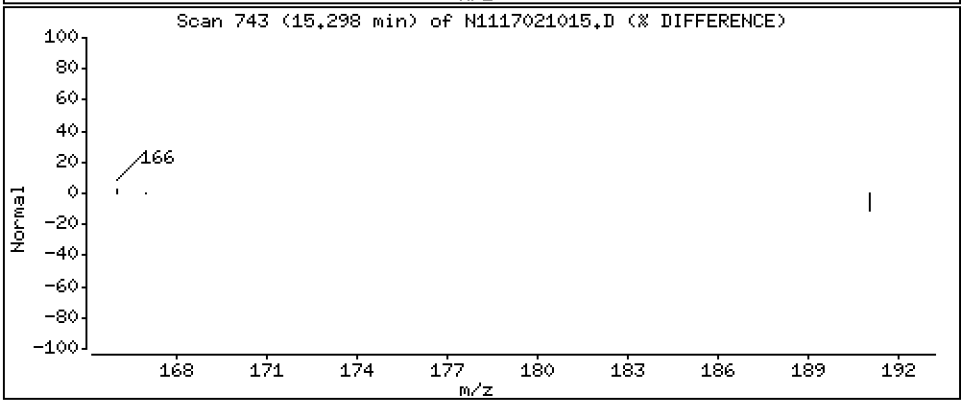












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Date : 10-FEB-2017 19:25

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-08

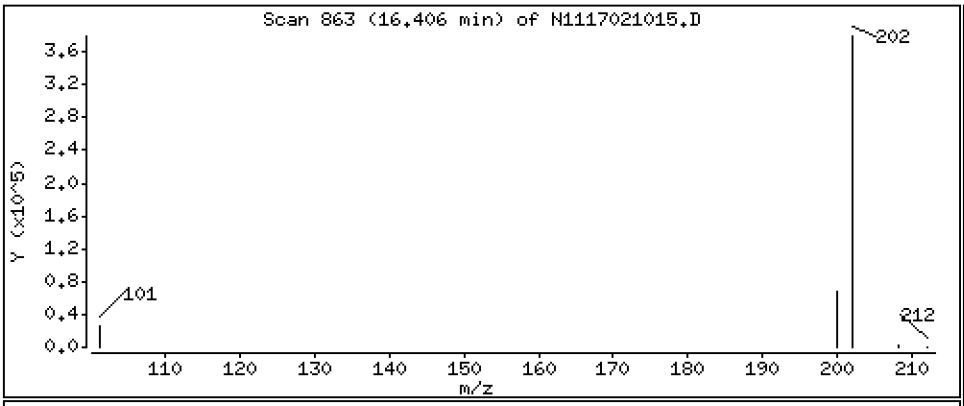
Operator: VTS

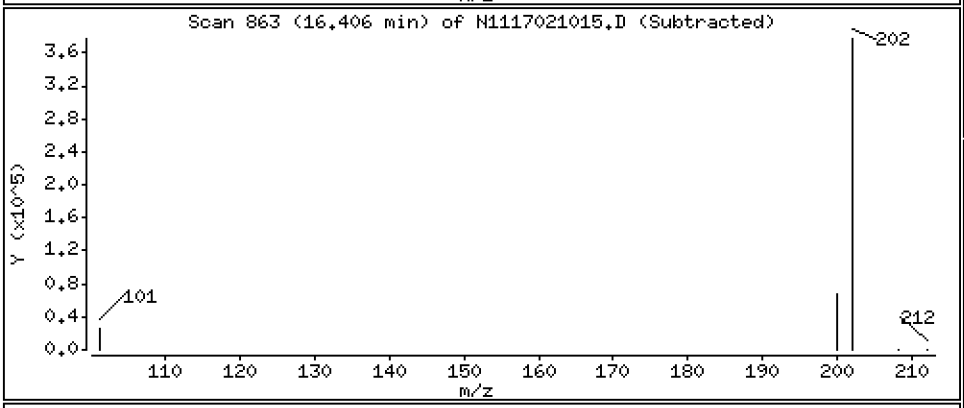
Column phase: Rxi-17Sil MS

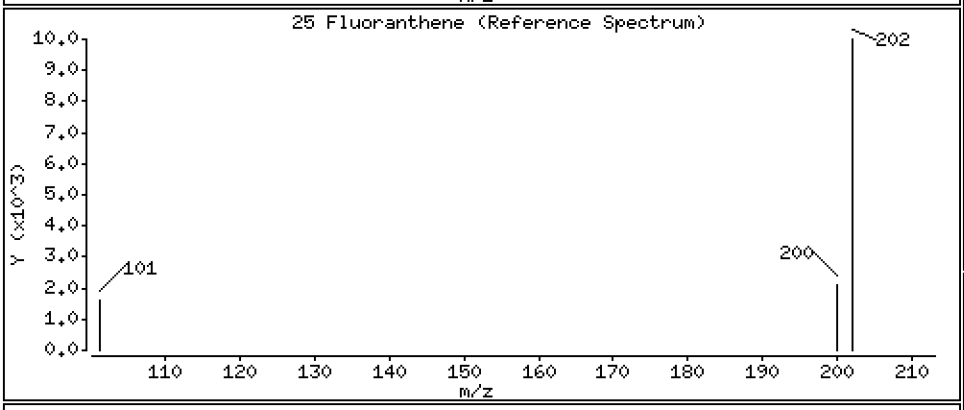
Column diameter: 0.25

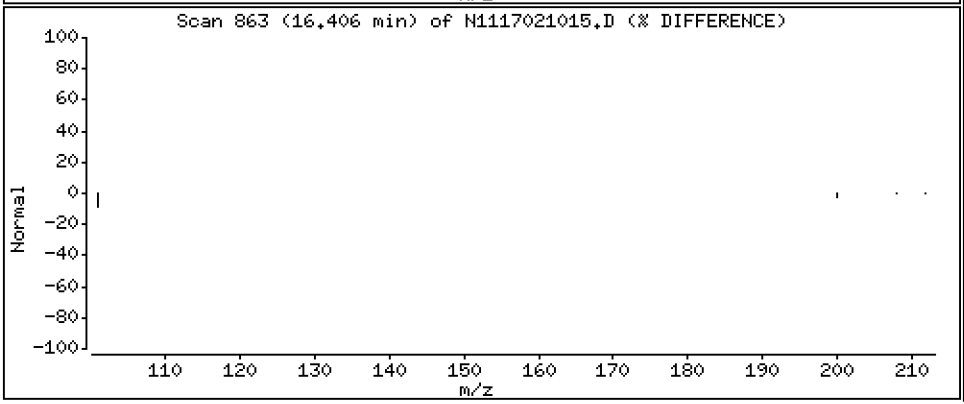
25 Fluoranthene

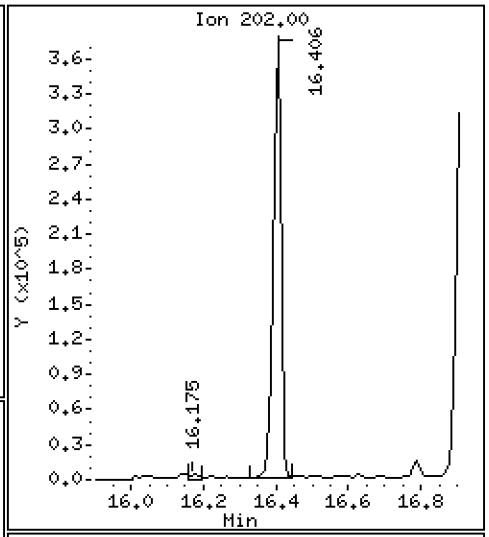
Concentration: 350 ng/mL

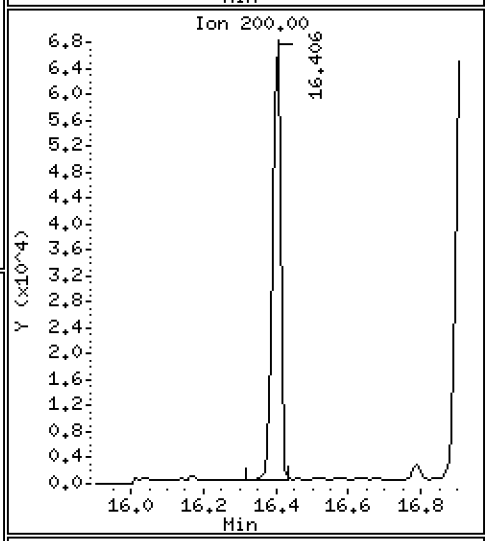


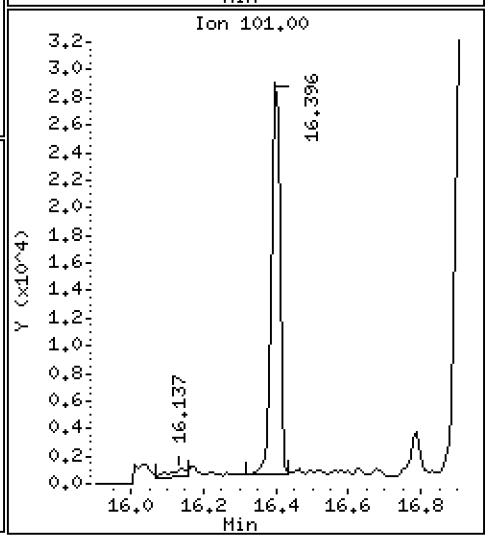












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Client ID:

Instrument: nt11.i

Sample Info: 17A0053-08

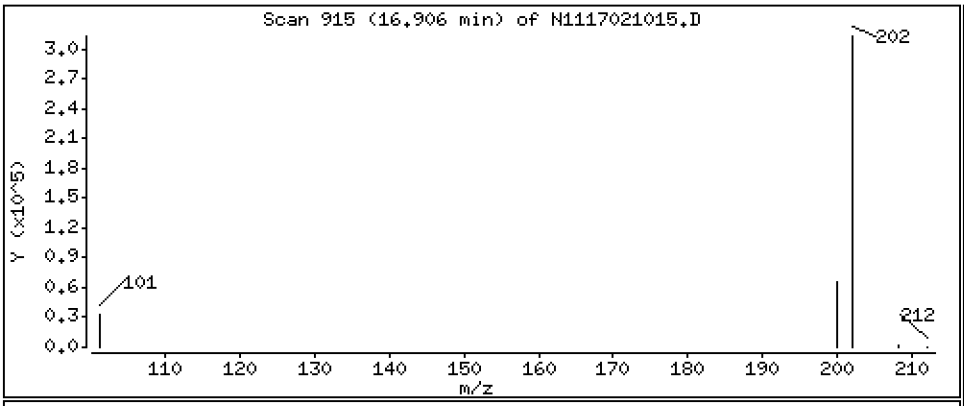
Operator: VTS

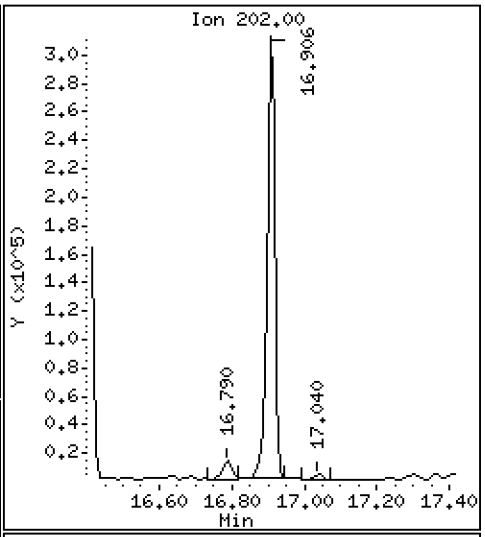
Column phase: Rxi-17Sil MS

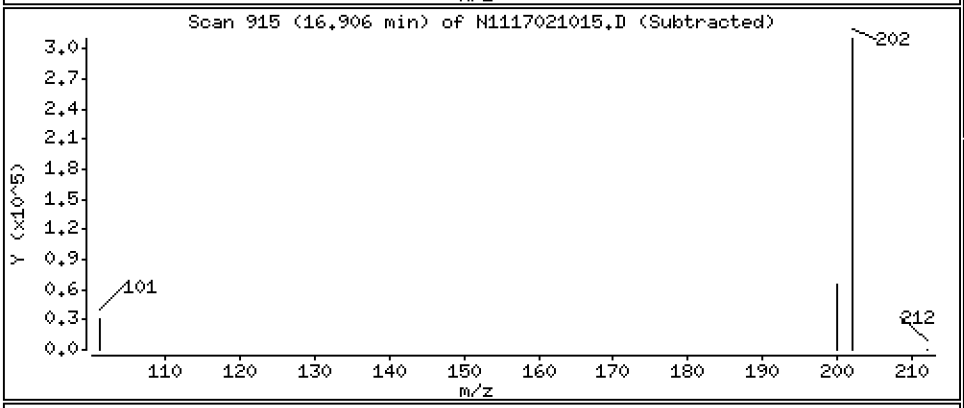
Column diameter: 0.25

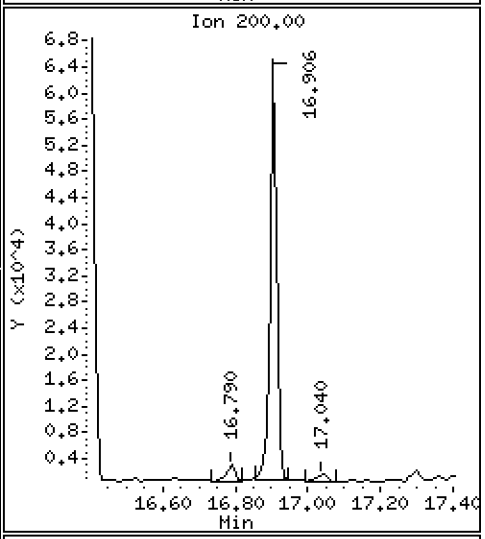
26 Pyrene

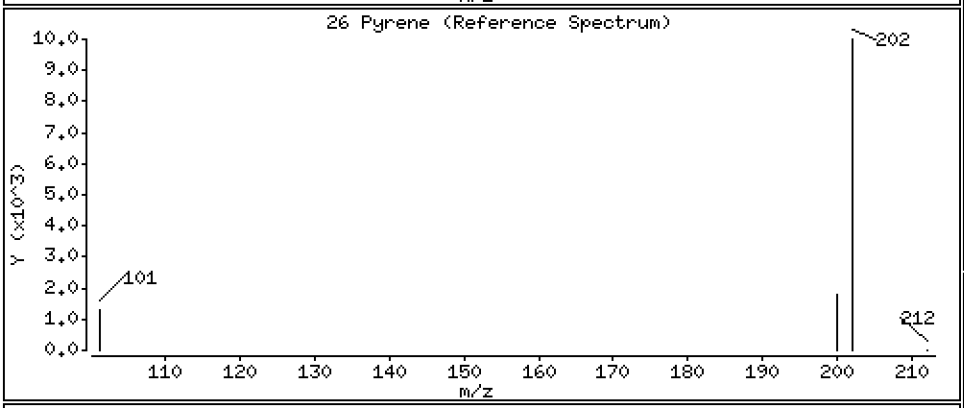
Concentration: 337 ng/mL

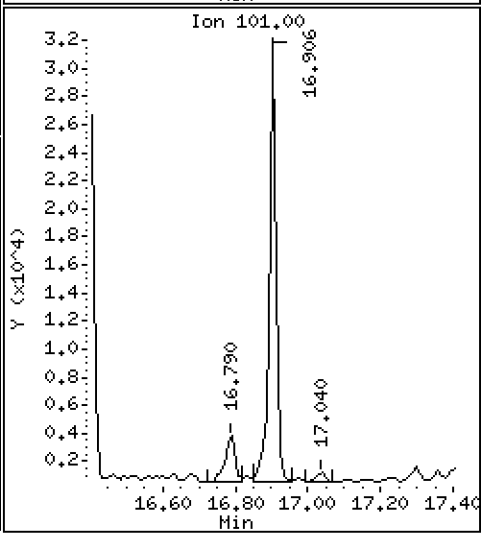


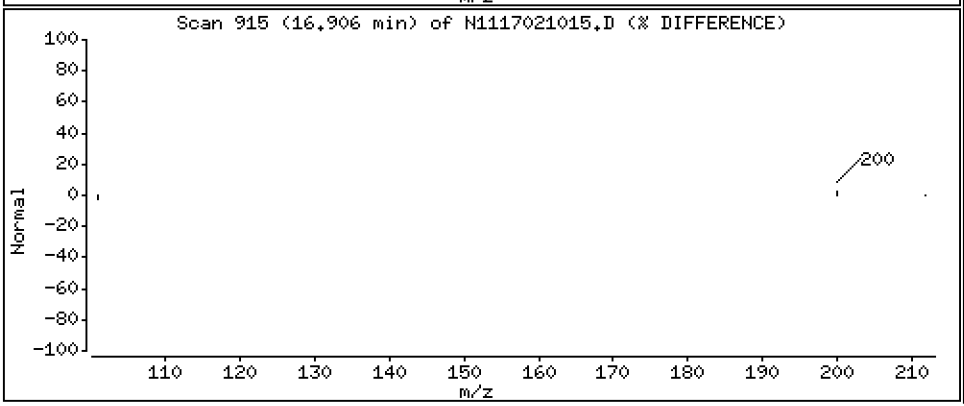












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Date : 10-FEB-2017 19:25

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-08

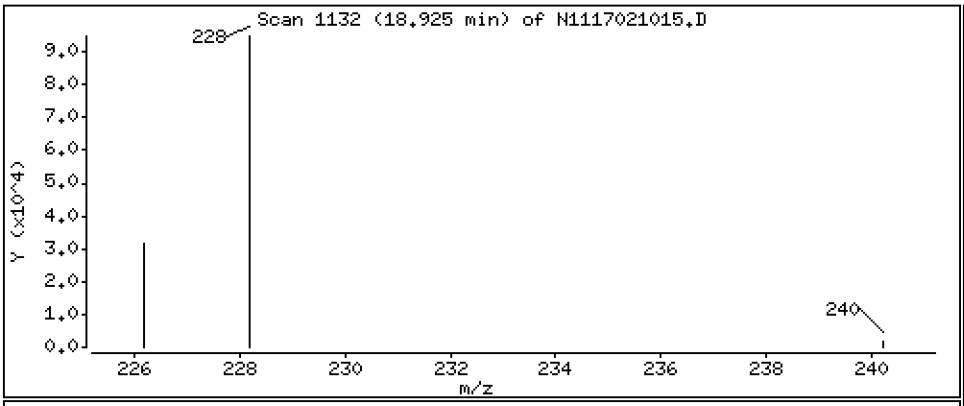
Operator: VTS

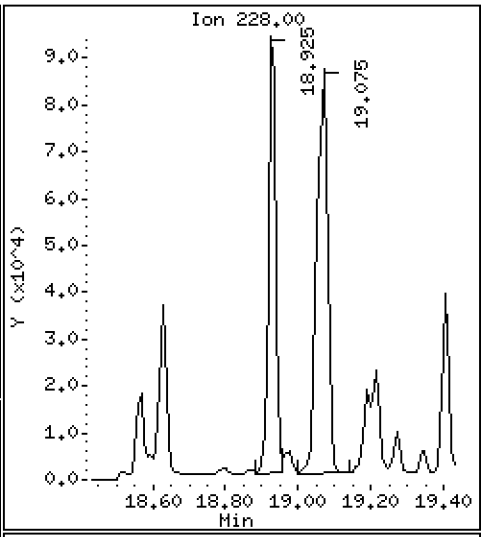
Column phase: Rxi-17Sil MS

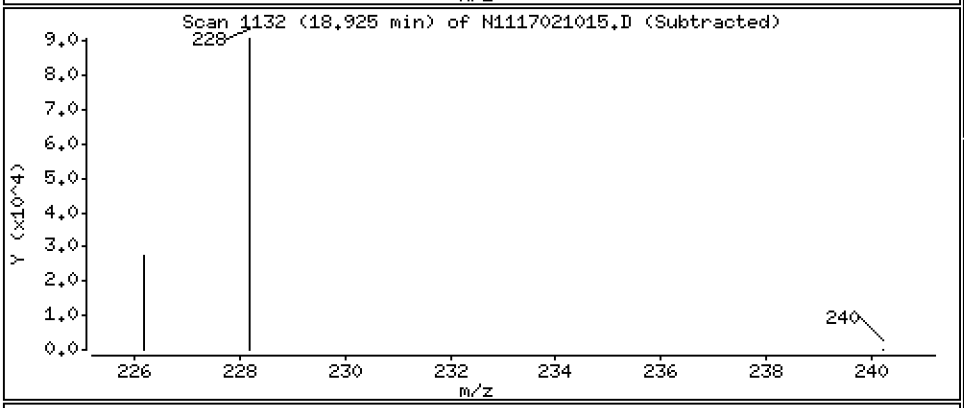
Column diameter: 0.25

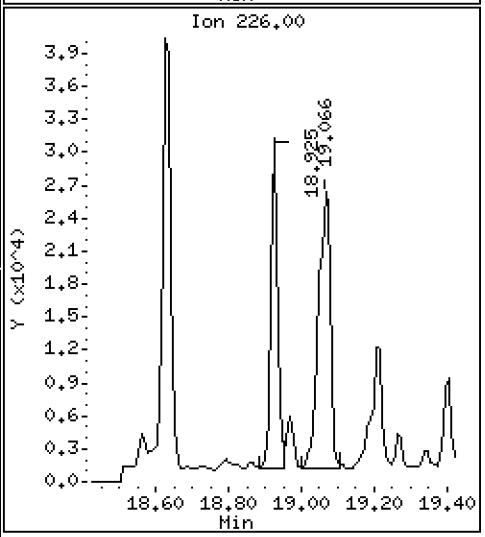
27 Benzo(a)anthracene

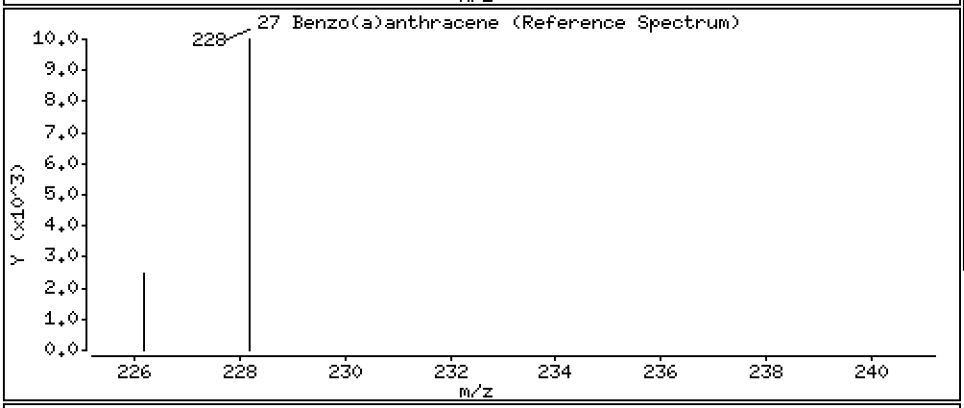
Concentration: 105 ng/mL

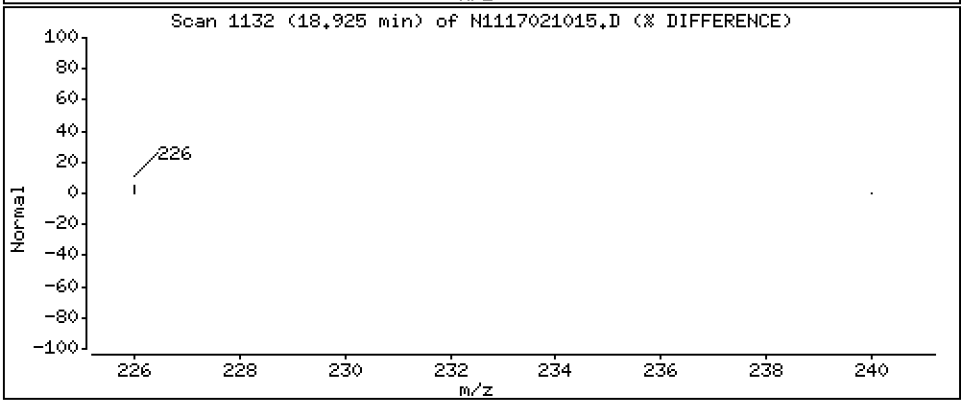












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Date : 10-FEB-2017 19:25

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-08

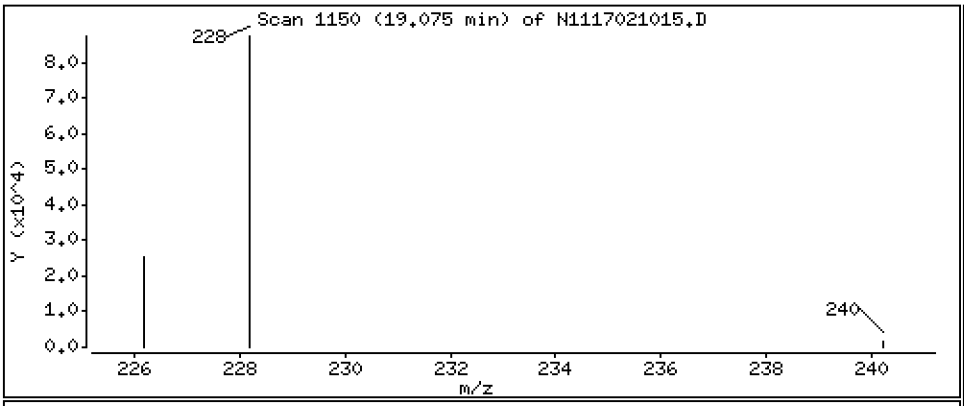
Operator: VTS

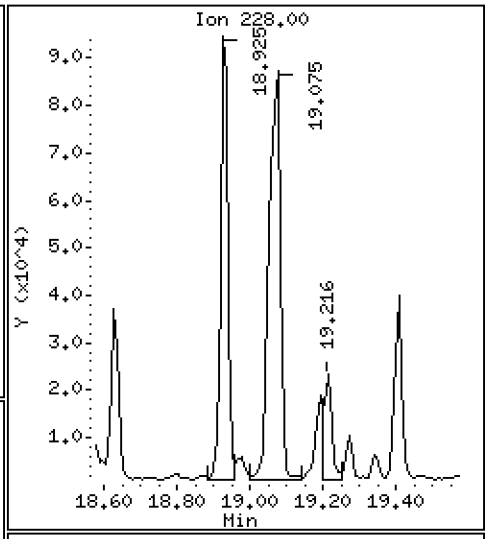
Column phase: Rxi-17Sil MS

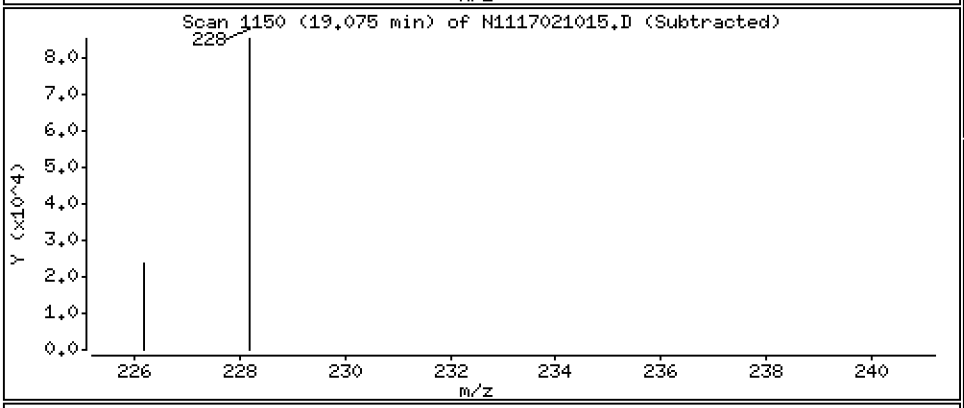
Column diameter: 0.25

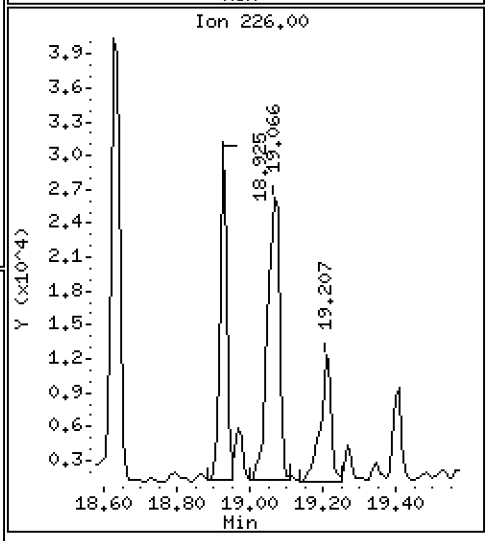
29 Chrysene

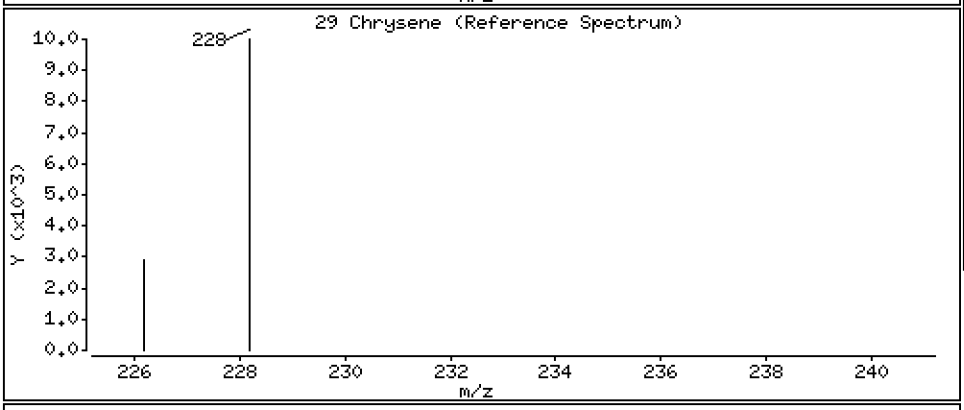
Concentration: 143 ng/mL

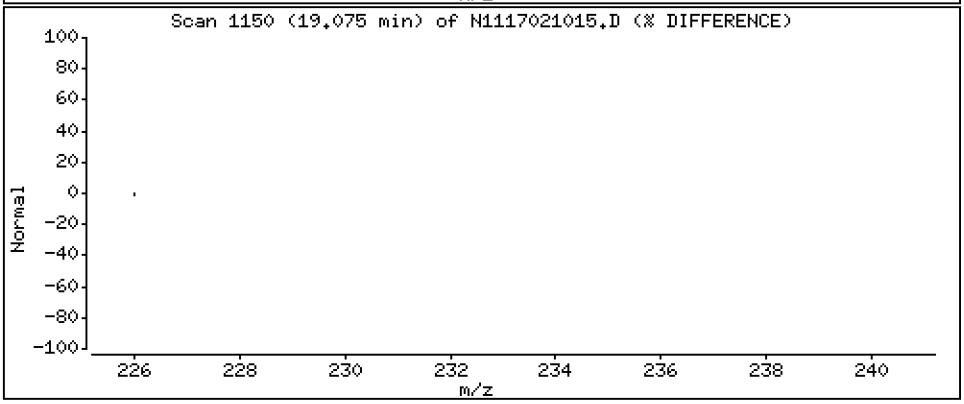












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Date : 10-FEB-2017 19:25

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-08

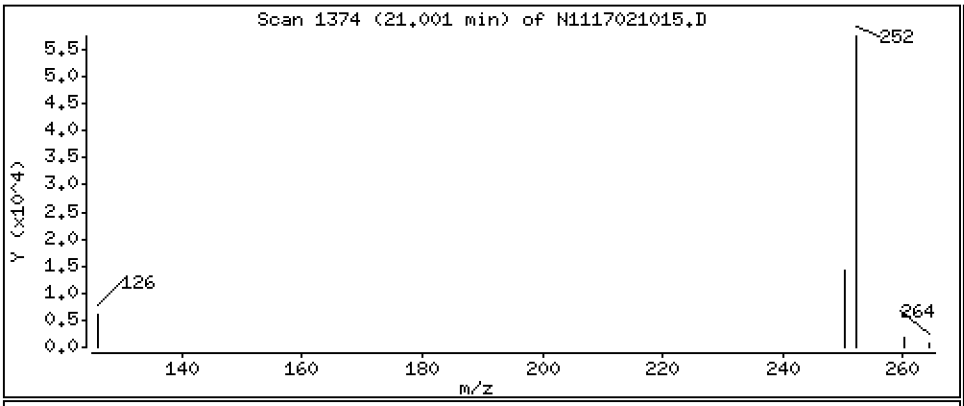
Operator: VTS

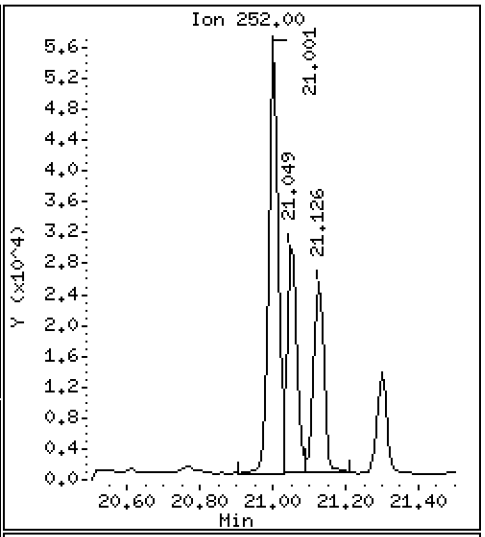
Column phase: Rxi-17Sil MS

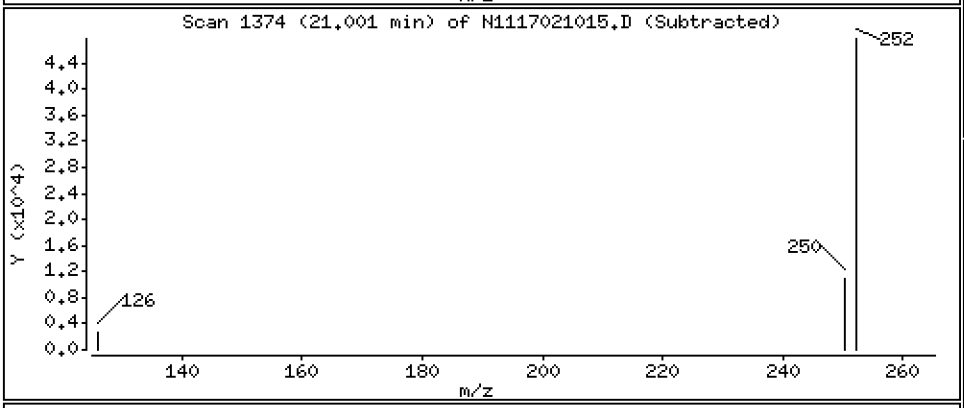
Column diameter: 0.25

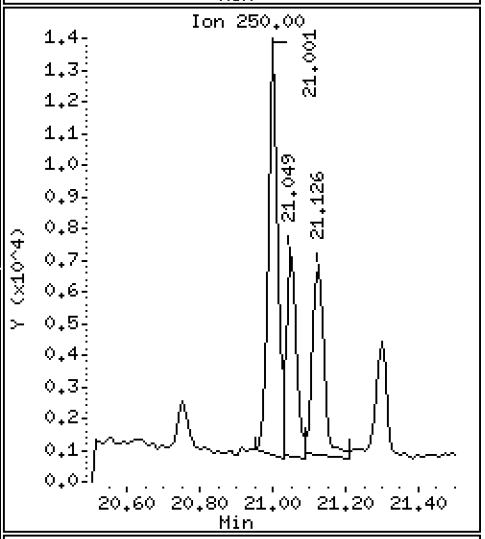
30 Benzo(b)fluoranthene

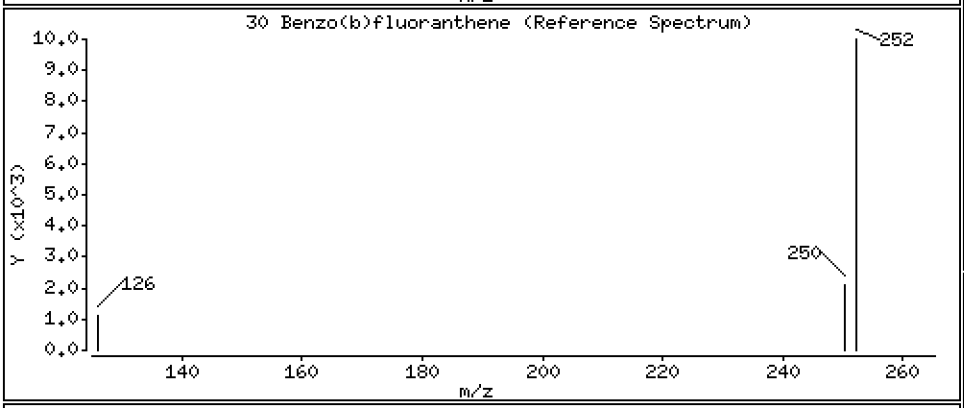
Concentration: 89.3 ng/mL

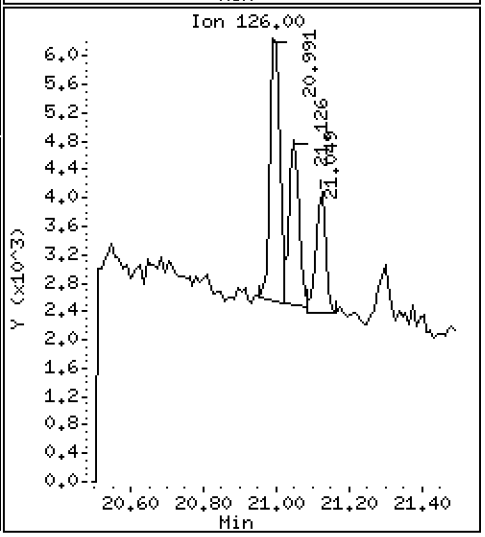


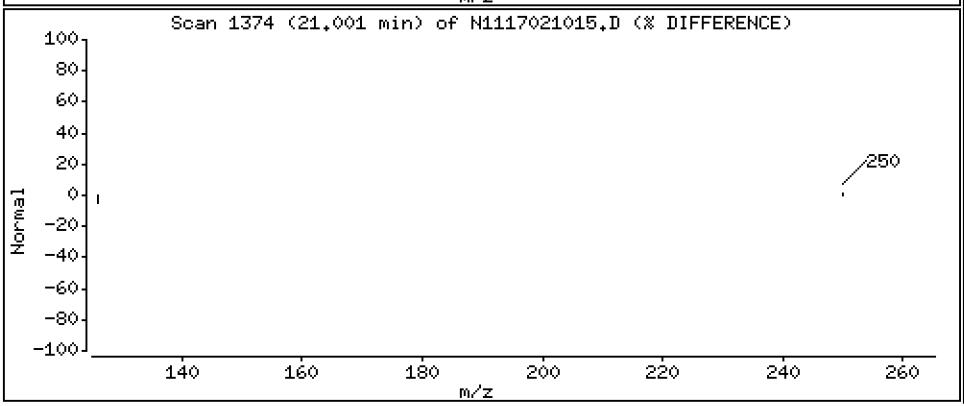












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021015.D

Date : 10-FEB-2017 19:25

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-08

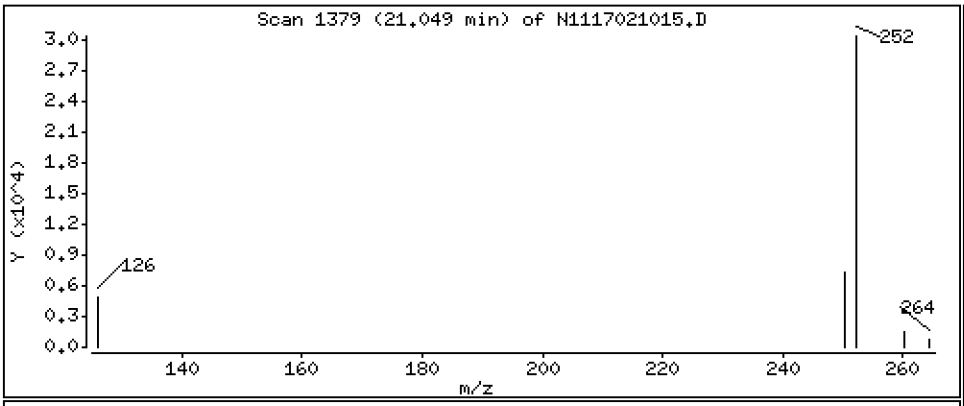
Operator: VTS

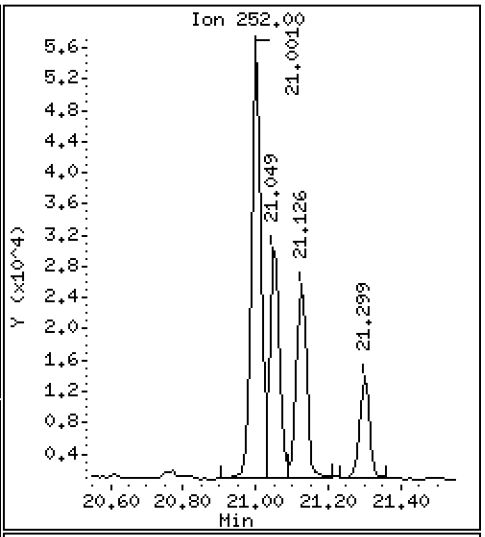
Column phase: Rxi-17Sil MS

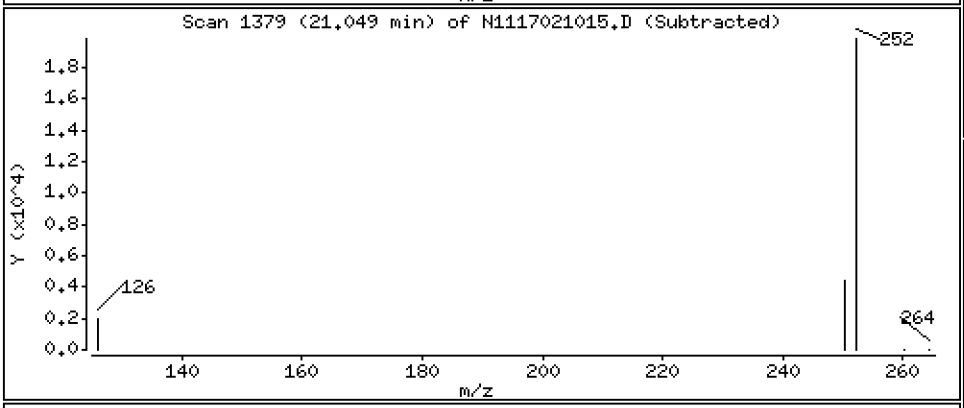
Column diameter: 0.25

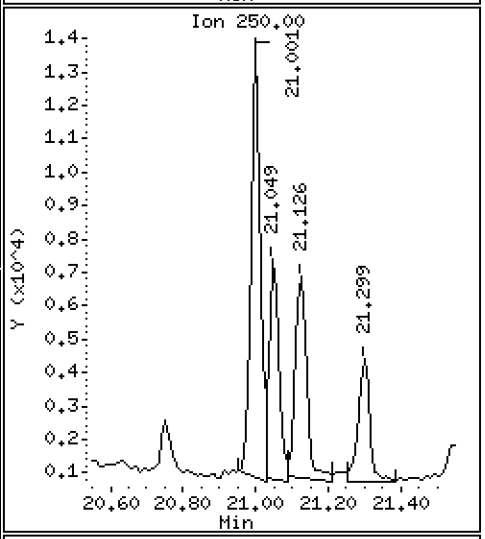
31 Benzo(k)fluoranthene

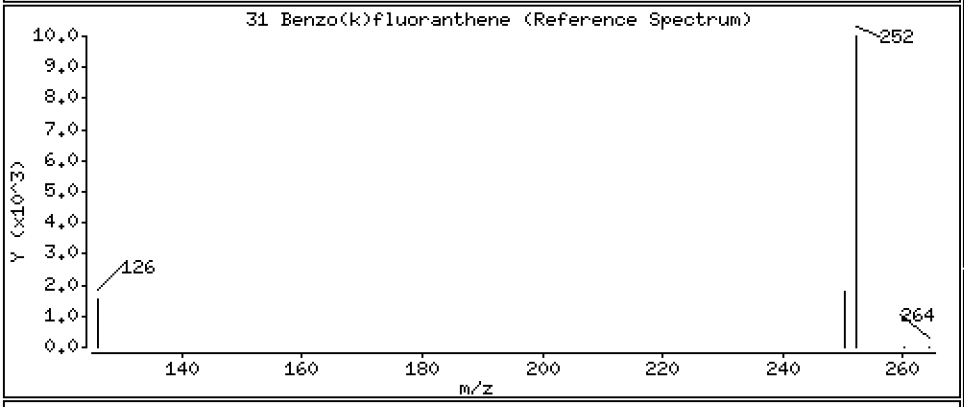
Concentration: 45.0 ng/mL

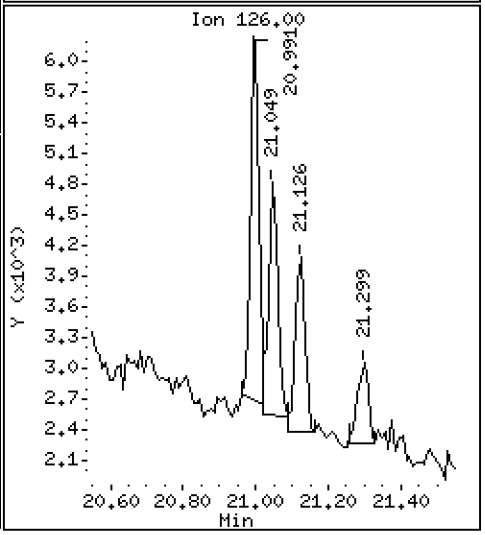


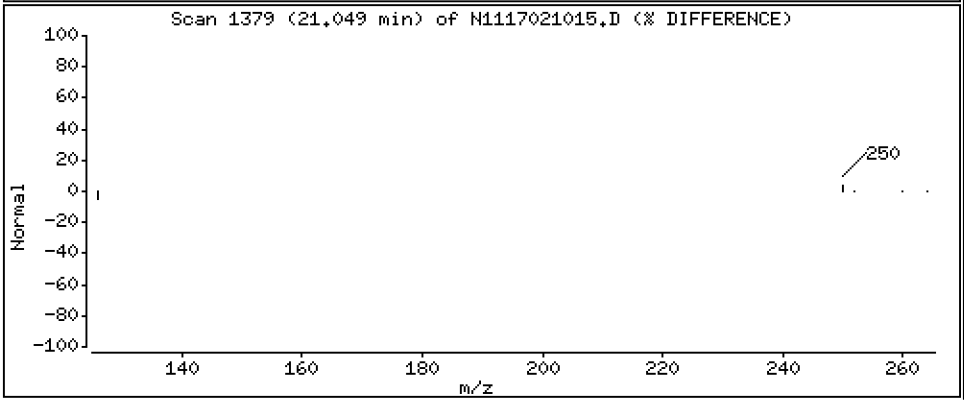












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021015.D

Date : 10-FEB-2017 19:25

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-08

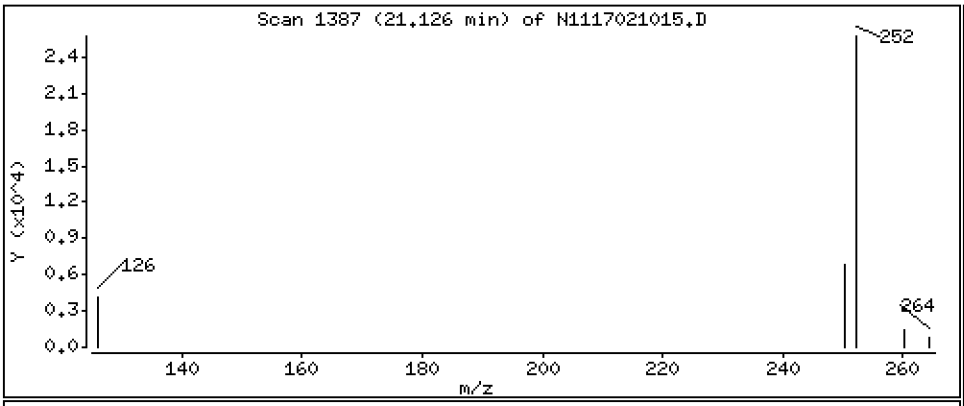
Operator: VTS

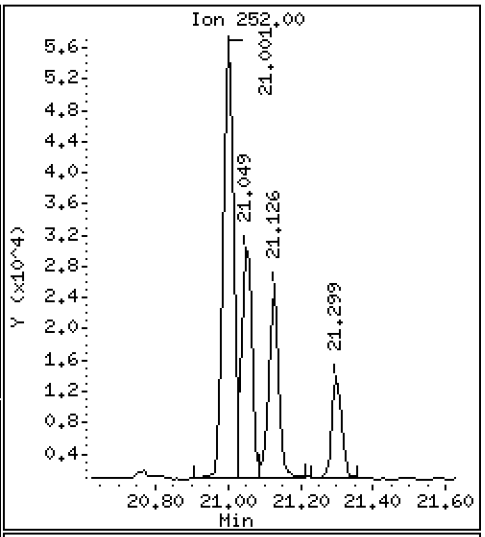
Column phase: Rxi-17Sil MS

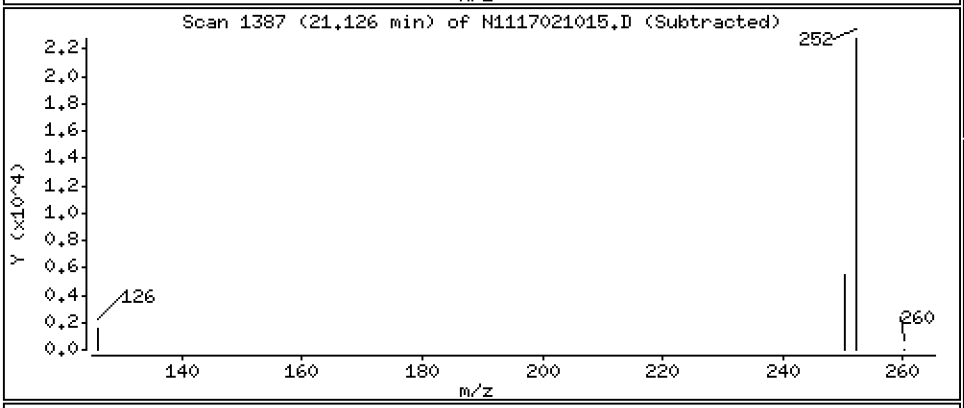
Column diameter: 0.25

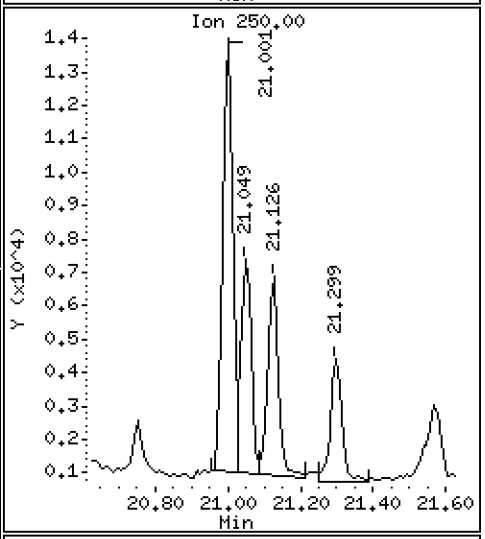
32 Benzo(j)fluoranthene

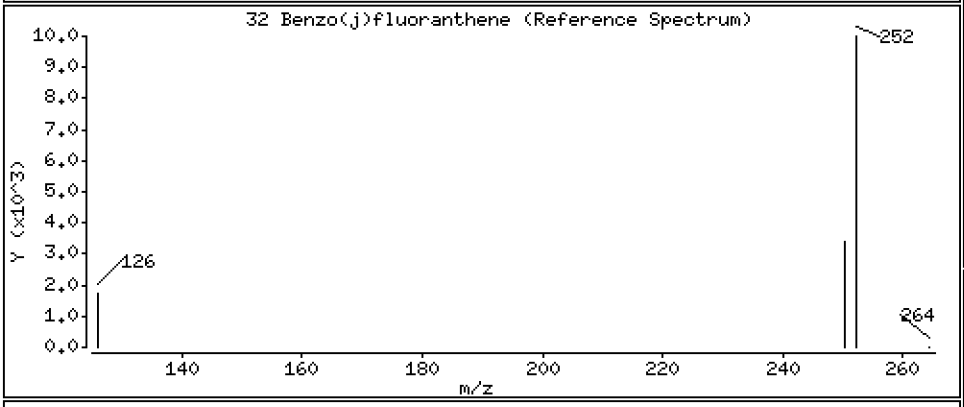
Concentration: 42.0 ng/mL

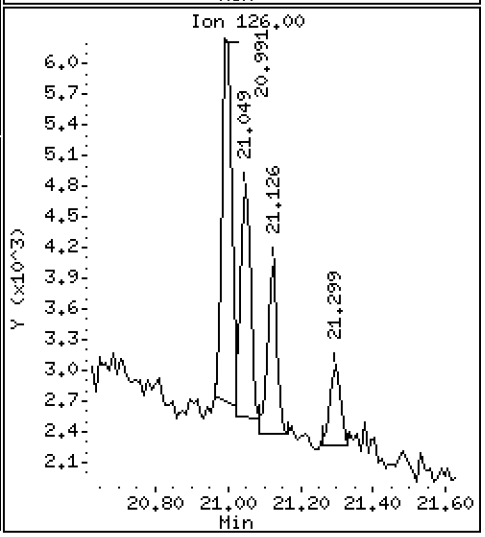


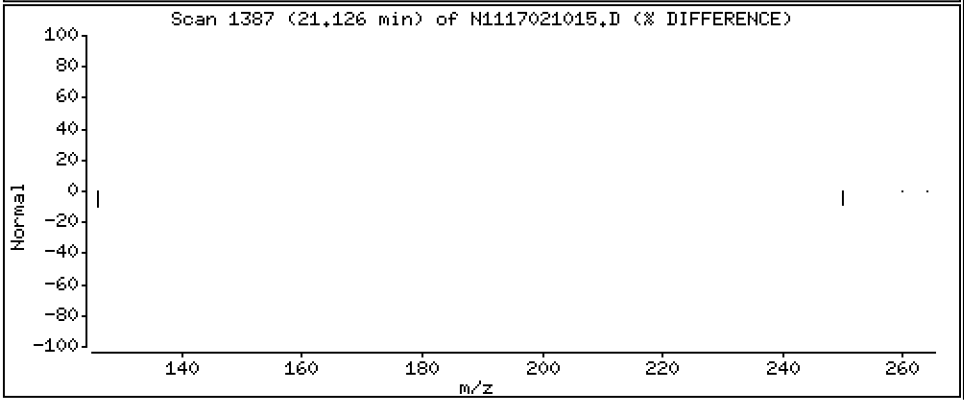












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Date : 10-FEB-2017 19:25

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-08

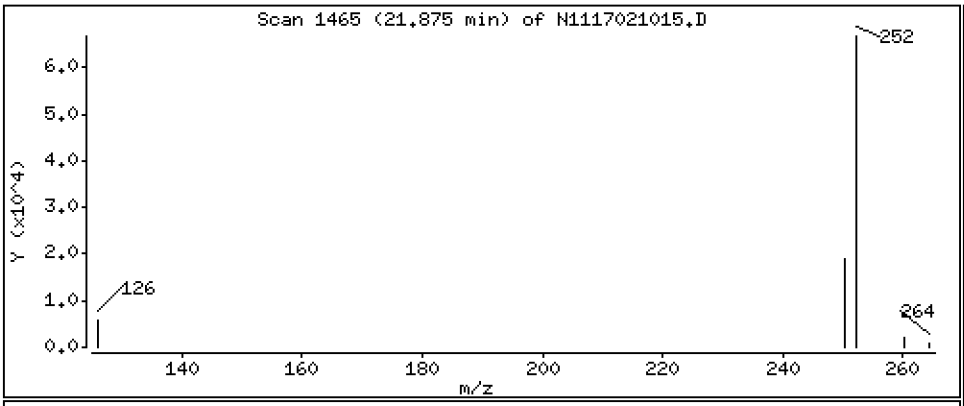
Operator: VTS

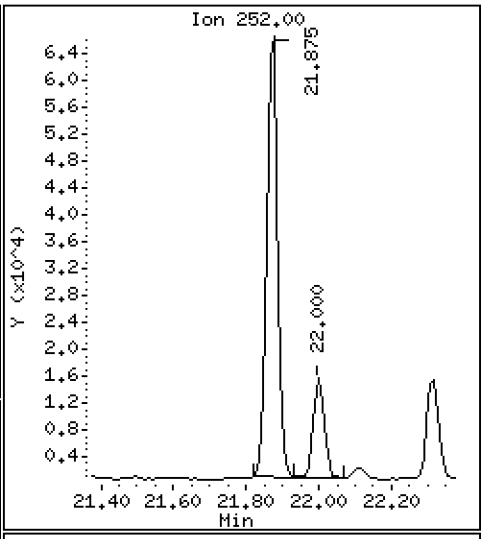
Column phase: Rxi-17Sil MS

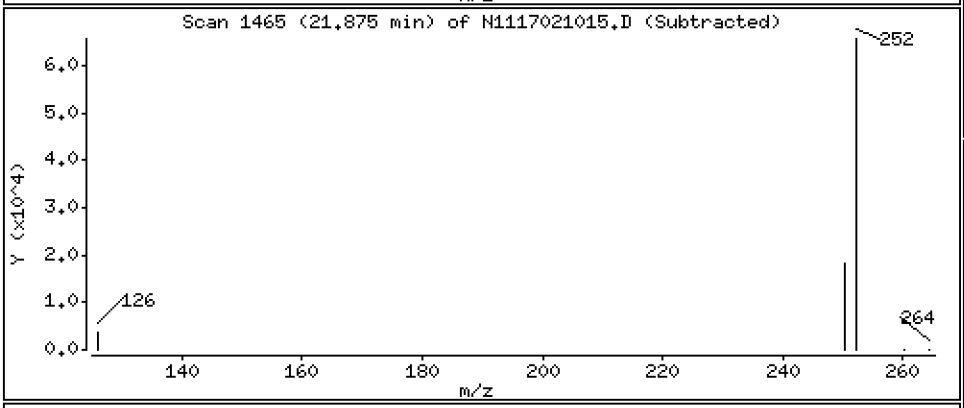
Column diameter: 0.25

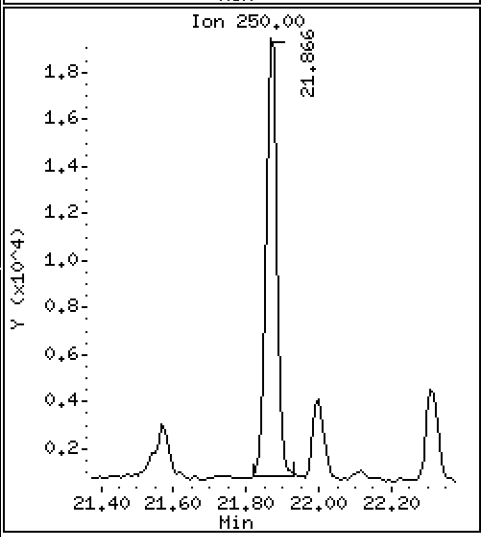
34 Benzo(e)pyrene

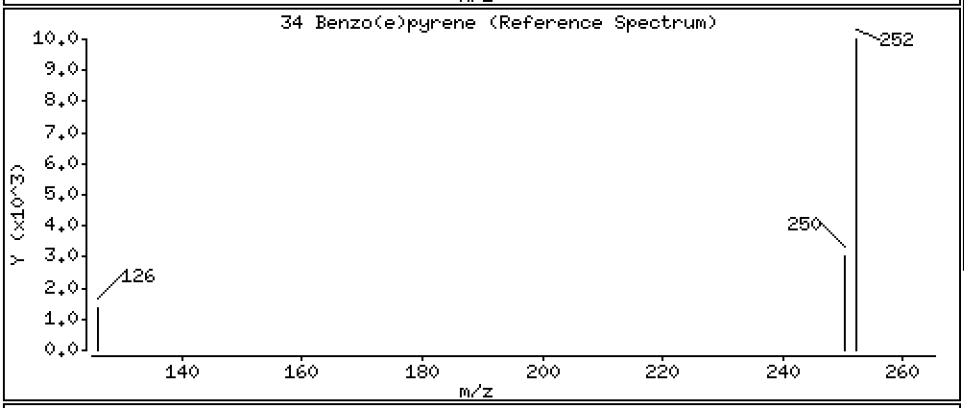
Concentration: 116 ng/mL

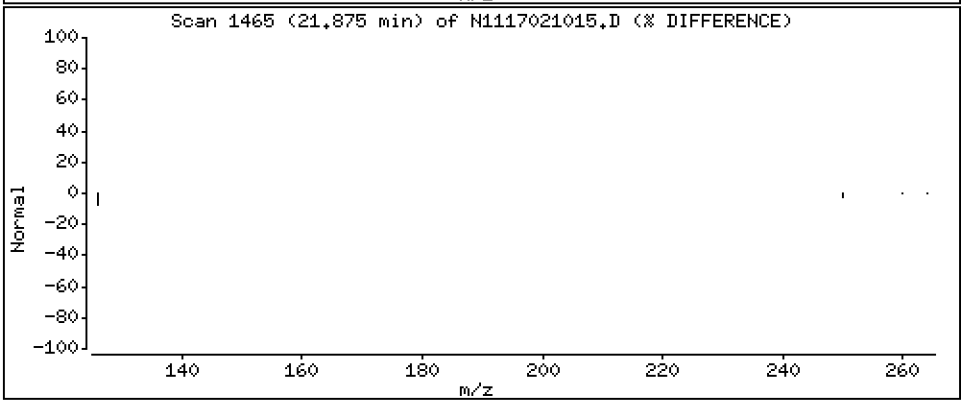












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021015.D

Date : 10-FEB-2017 19:25

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-08

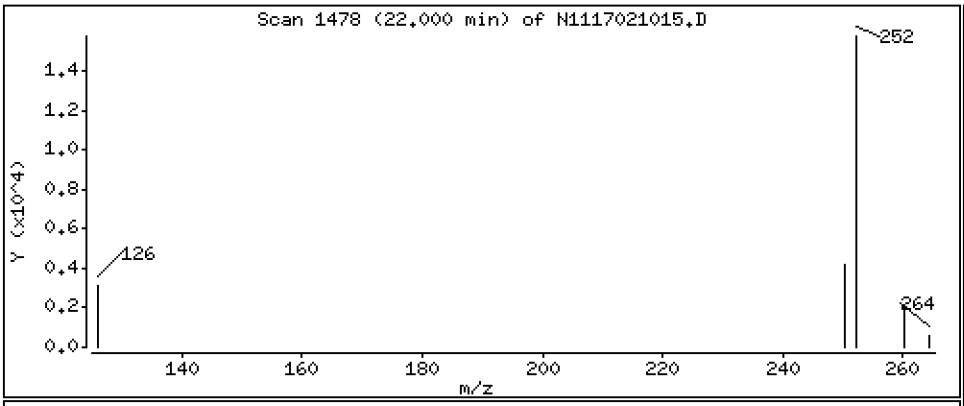
Operator: VTS

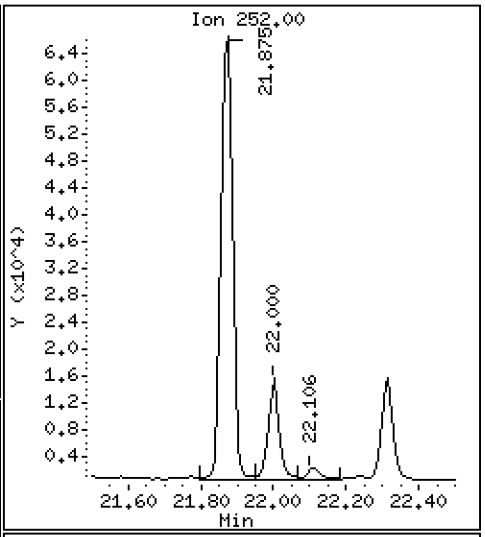
Column phase: Rxi-17Sil MS

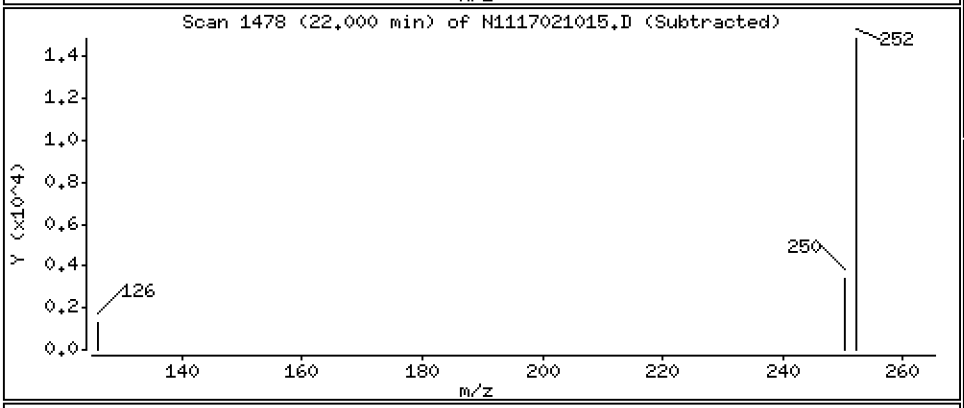
Column diameter: 0.25

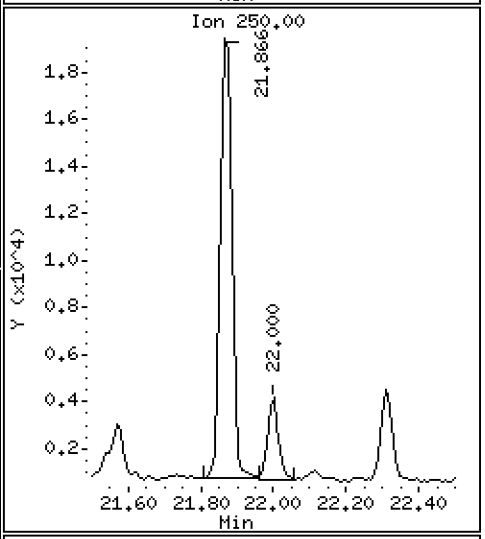
35 Benzo(a)pyrene

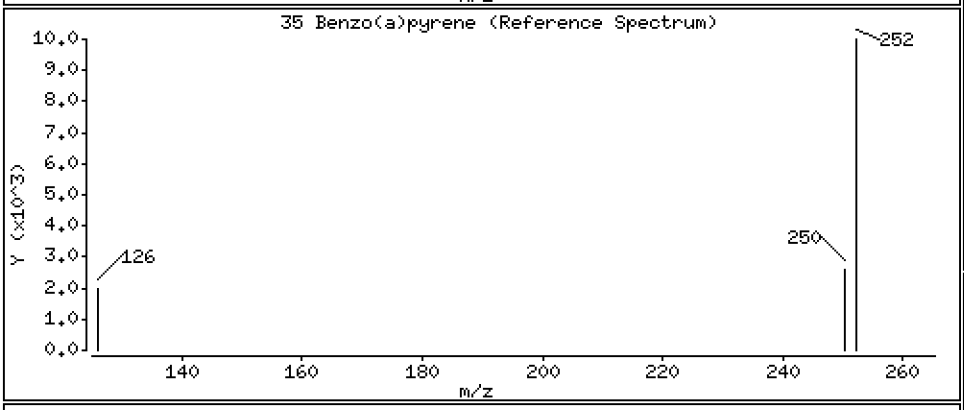
Concentration: 28.5 ng/mL

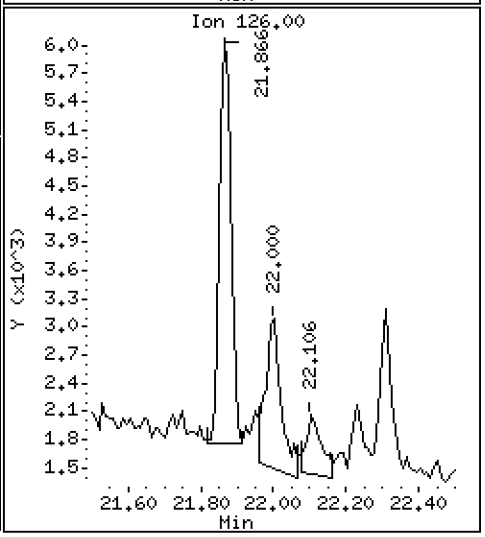


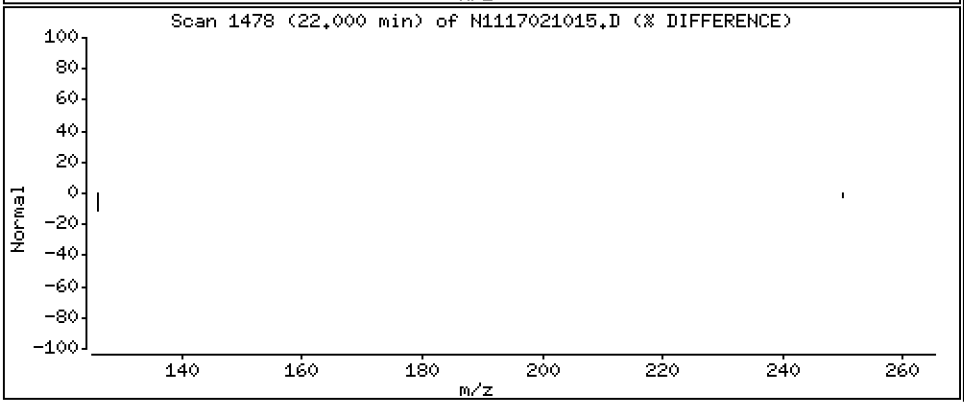












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Date : 10-FEB-2017 19:25

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-08

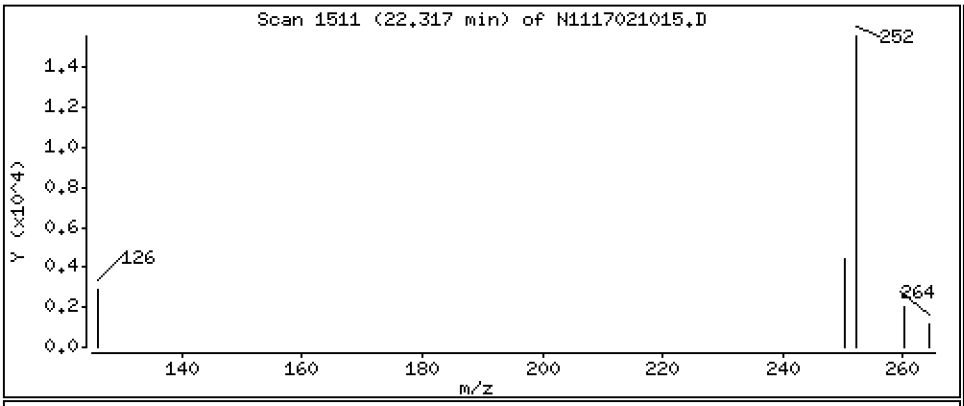
Operator: VTS

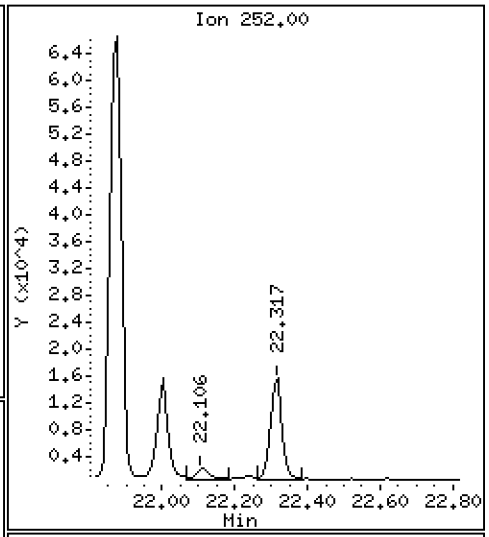
Column phase: Rxi-17Sil MS

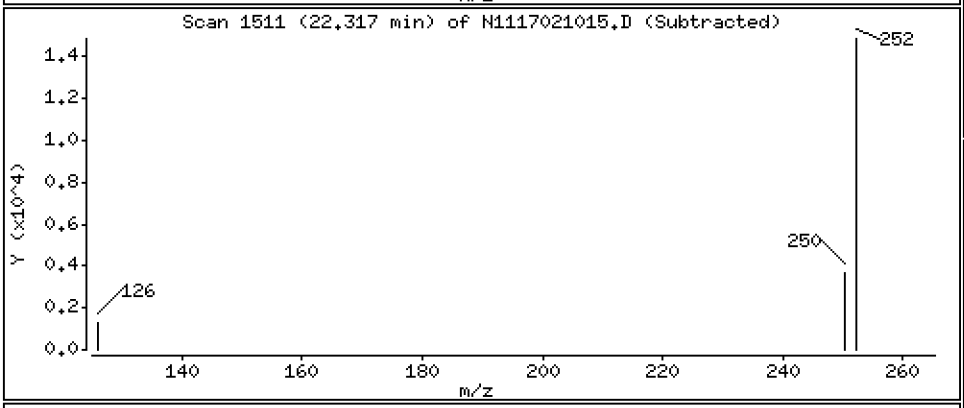
Column diameter: 0.25

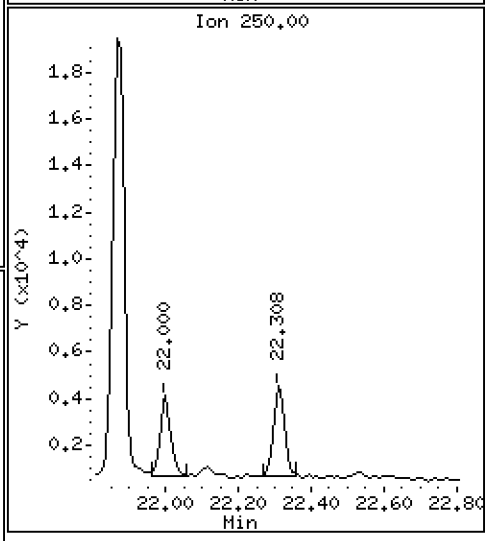
37 Perylene

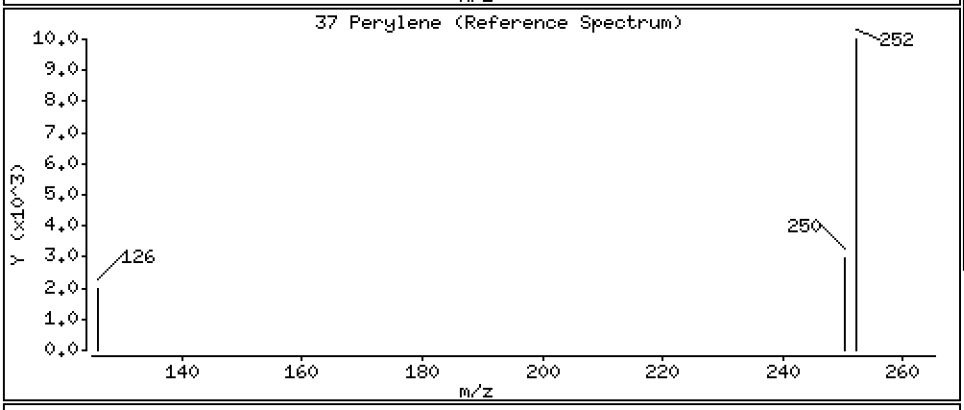
Concentration: 28.6 ng/mL

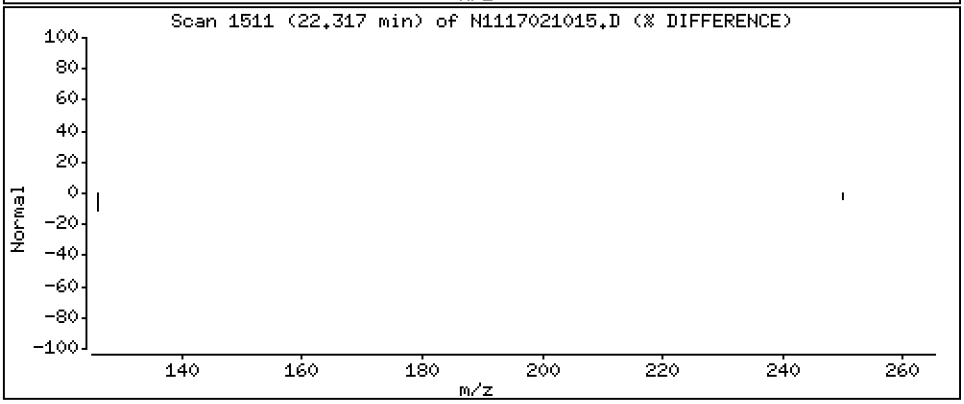












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Date : 10-FEB-2017 19:25

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-08

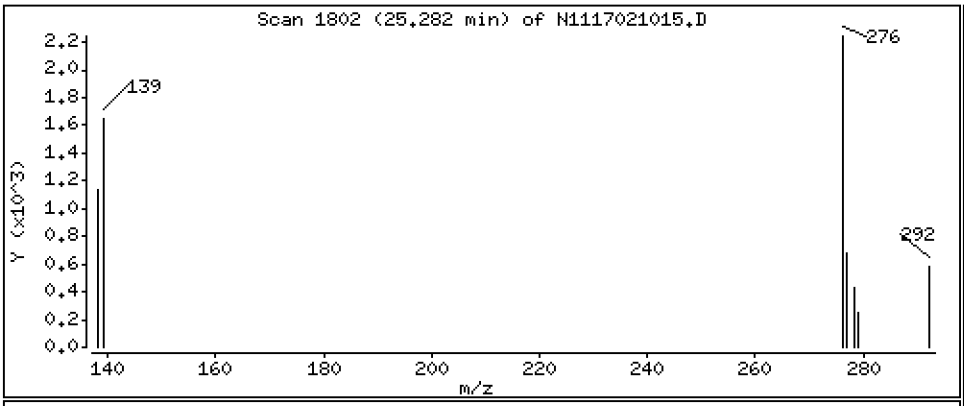
Operator: VTS

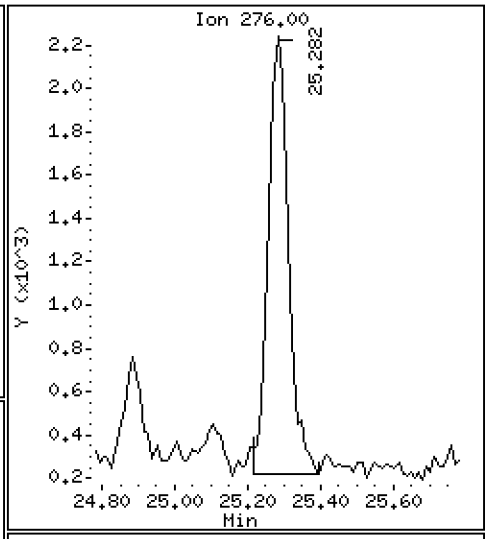
Column phase: Rxi-17Sil MS

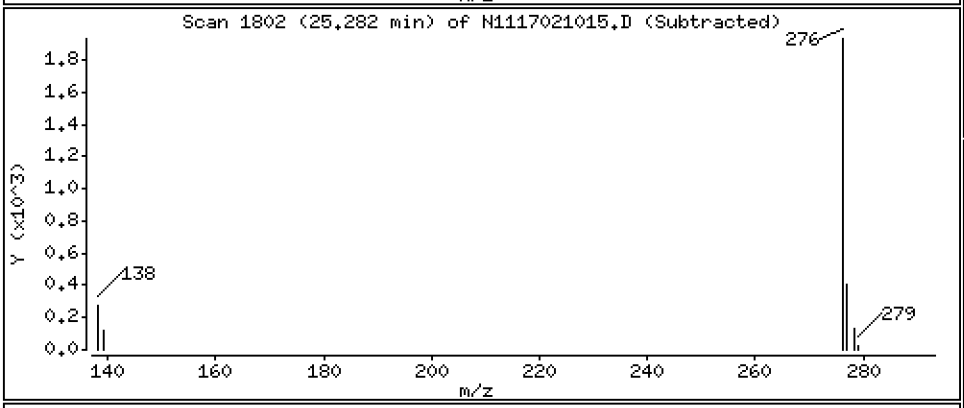
Column diameter: 0.25

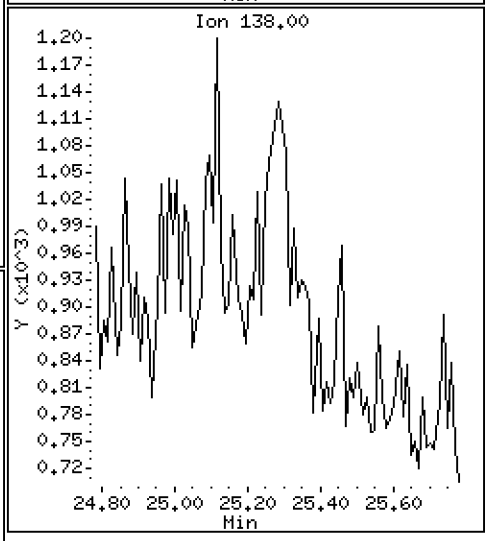
40 Indeno(1,2,3-cd)pyrene

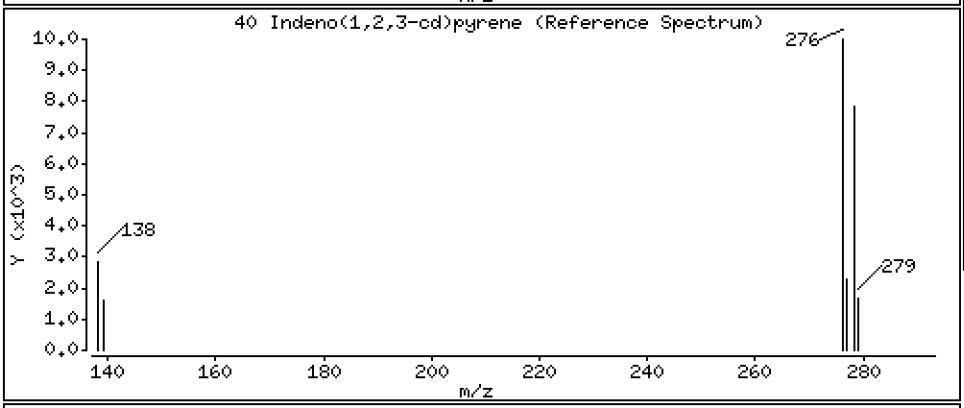
Concentration: 6.19 ng/mL

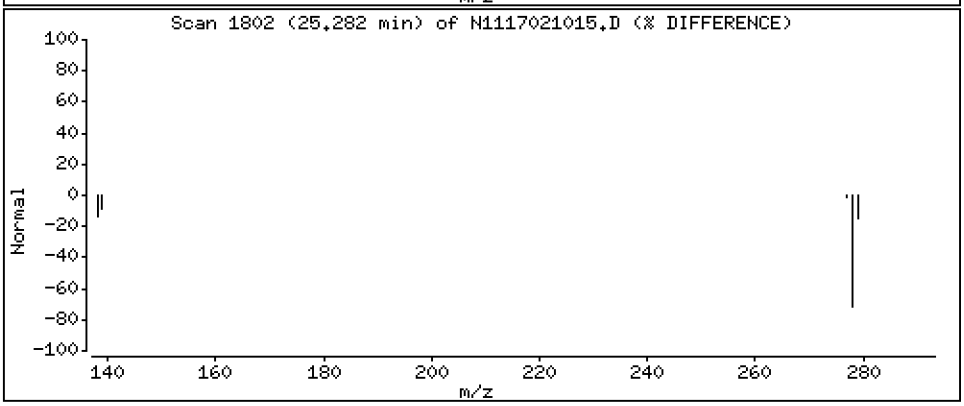












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Date : 10-FEB-2017 19:25

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-08

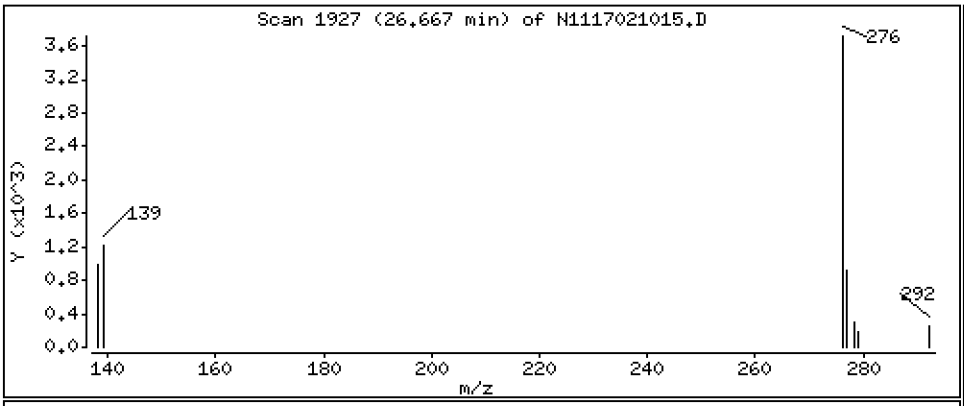
Operator: VTS

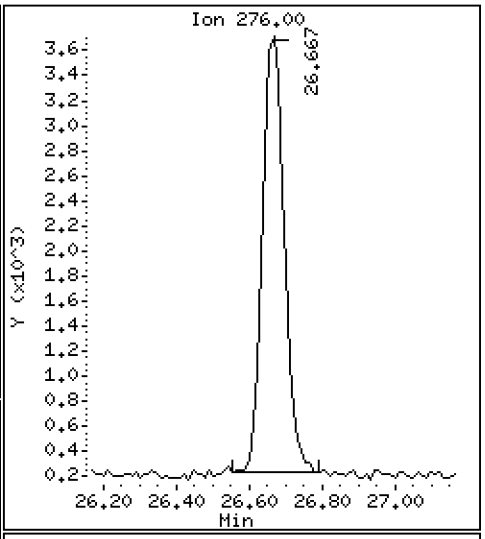
Column phase: Rxi-17Sil MS

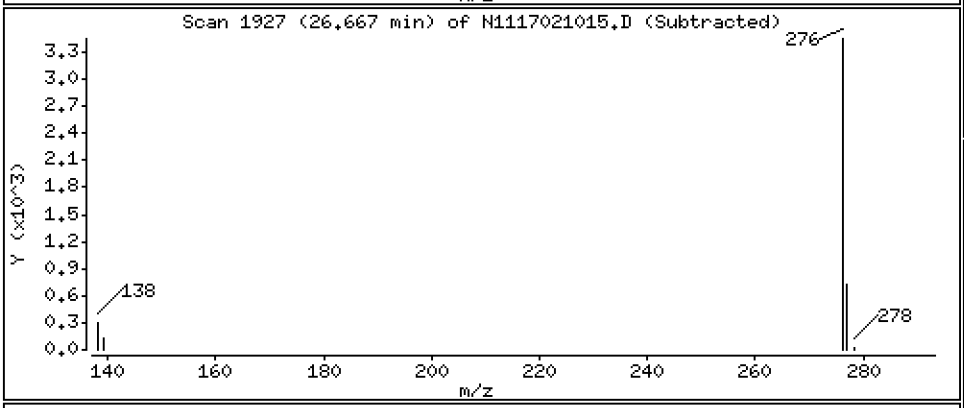
Column diameter: 0.25

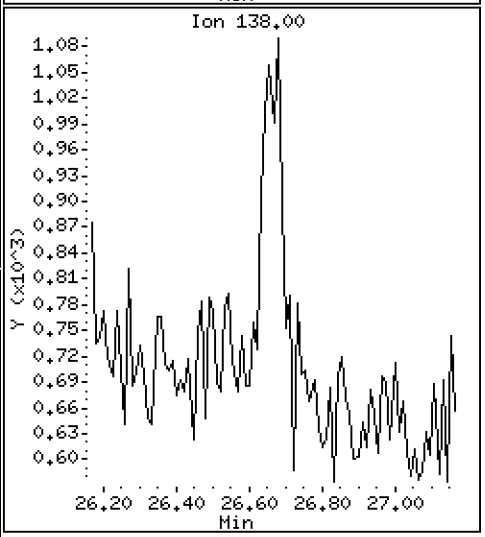
41 Benzo(g,h,i)perylene

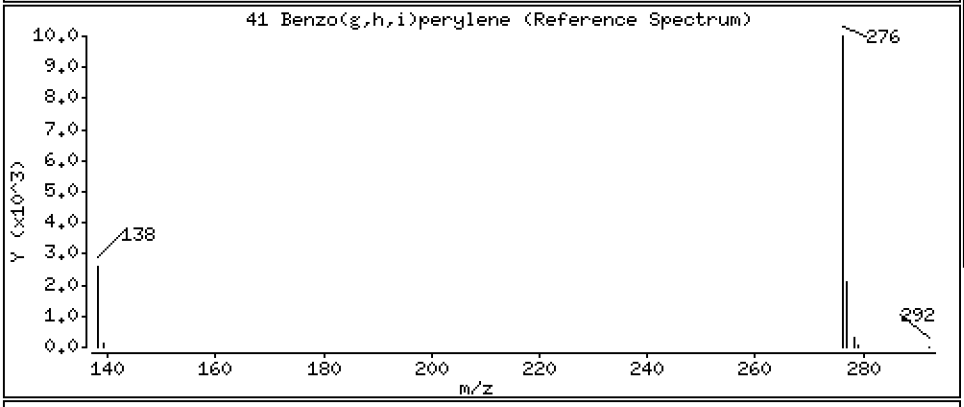
Concentration: 12.8 ng/mL

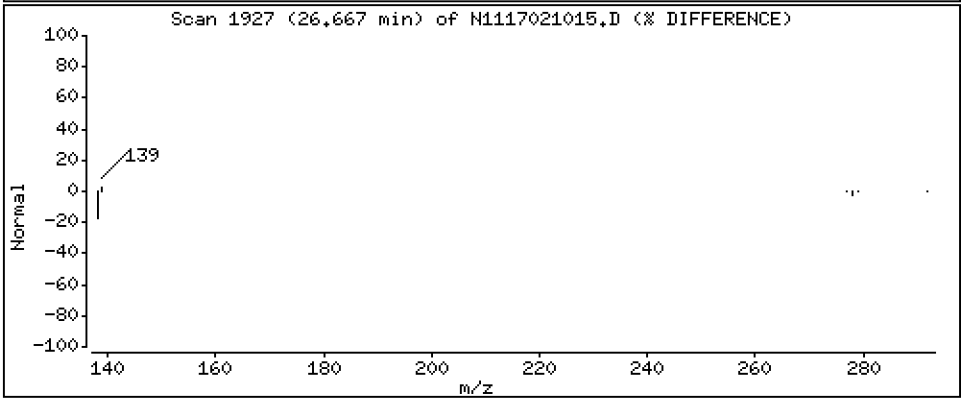












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20170210.b\N1117021015.D
Lab Smp Id: 17A0053-08
Inj Date : 10-FEB-2017 19:25 MS Autotune Date: 15-JAN-2015 15:59
Operator : VTS Inst ID: nt11.i
Smp Info : 17A0053-08
Misc Info :
Comment   :
Method   : \\target\share\chem3\nt11.i\20170210.b\LOWSIM.m
Meth Date : 11-Feb-2017 08:35 nt11.i Quant Type: ISTD
Cal Date : 31-DEC-2016 09:30 Cal File: N1116123104.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.517	8.526	(1.000)	219069	200.000	
	2 Naphthalene	128	8.545	8.554	(1.003)	48160	44.0516	44.1
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.498	9.508	(1.115)	154153	163.846	164
	5 2-Methylnaphthalene	142	9.561	9.561	(1.122)	14787	13.7234	13.7
	6 1-Methylnaphthalene	142	9.813	9.823	(1.152)	19107	17.6310	17.6
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	10.433	10.443	(0.903)	13511	9.01364	9.01
	9 2,6-Dimethylnaphthalene	156	10.475	10.496	(0.907)	16107	13.8571	13.9
	10 Acenaphthylene	152	11.410	11.410	(0.987)	11225	8.41192	8.41
*	11 Acenaphthene-d10	164	11.555	11.564	(1.000)	148509	200.000	
	12 Acenaphthene	153	11.618	11.627	(1.005)	51100	58.1618	58.2
	13 Dibenzofuran	168	11.822	11.822	(1.023)	54596	41.8021	41.8
	14 2,3,5-Trimethylnaphthalene	170	11.911	11.923	(1.031)	4392	5.25522	5.26(M)
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.454	12.454	(1.078)	68408	65.7933	65.8
	17 Dibenzothiophene	184	14.083	14.083	(0.988)	17404	15.6519	15.7
*	18 Phenanthrene-d10	188	14.251	14.262	(1.000)	240804	200.000	
	19 Phenanthrene	178	14.293	14.293	(1.003)	329204	239.120	239
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.346	14.356	(1.007)	74506	54.2754	54.3
	22 Carbazole	167	15.026	15.027	(1.054)	13609	8.98327	8.98
	23 1-Methylphenanthrene	192	15.298	15.307	(1.073)	30391	21.5254	21.5(M)
$	24 Fluoranthene-d10	212	16.367	16.367	(1.148)	239670	187.392	187
	25 Fluoranthene	202	16.405	16.405	(1.151)	547219	350.408	350
	26 Pyrene	202	16.905	16.915	(0.889)	462353	336.845	337
	27 Benzo(a)anthracene	228	18.925	18.933	(0.995)	133788	105.298	105
*	28 Chrysene-d12	240	19.024	19.024	(1.000)	211300	200.000	
	29 Chrysene	228	19.074	19.074	(1.003)	187045	143.466	143
	30 Benzo(b)fluoranthene	252	21.001	21.001	(0.944)	108260	89.3209	89.3
	31 Benzo(k)fluoranthene	252	21.049	21.049	(0.946)	58792	45.0352	45.0
	32 Benzo(j)fluoranthene	252	21.125	21.125	(0.950)	48880	42.0049	42.0
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	34 Benzo(e)pyrene	252	21.875	21.875	(0.984)	139754	115.594	116
	35 Benzo(a)pyrene	252	22.000	22.000	(0.989)	32196	28.4941	28.5
*	36 Perylene-d12	264	22.240	22.240	(1.000)	224848	200.000	
	37 Perylene	252	22.317	22.317	(1.003)	33694	28.5606	28.6
$	38 Dibenzo(a,h)anthracene-d14	292	25.116	25.116	(1.129)	152012	211.702	212
	39 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	40 Indeno(1,2,3-cd)pyrene	276	25.282	25.282	(1.137)	7637	6.19080	6.19
	41 Benzo(g,h,i)perylene	276	26.666	26.666	(1.199)	14228	12.8466	12.8

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: N1117021015.D
Lab Smp Id: 17A0053-08
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20170210.b\LOWSIM.m
Misc Info:

Calibration Date: 10-FEB-2017
Calibration Time: 13:29
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	219654	109827	439308	219069	-0.27
11 Acenaphthene-d10	135248	67624	270496	148509	9.80
18 Phenanthrene-d10	257021	128511	514042	240804	-6.31
28 Chrysene-d12	259511	129756	519022	211300	-18.58
36 Perylene-d12	257535	128768	515070	224848	-12.69

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.53	8.03	9.03	8.52	-0.11
11 Acenaphthene-d10	11.56	11.06	12.06	11.56	-0.08
18 Phenanthrene-d10	14.26	13.76	14.76	14.25	-0.07
28 Chrysene-d12	19.02	18.52	19.52	19.02	-0.00
36 Perylene-d12	22.24	21.74	22.74	22.24	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1117021015.D

Lab ID: 17A0053-08
nt11.i, 20170210.b\LOWSIM.m,   10-FEB-2017 19:25

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

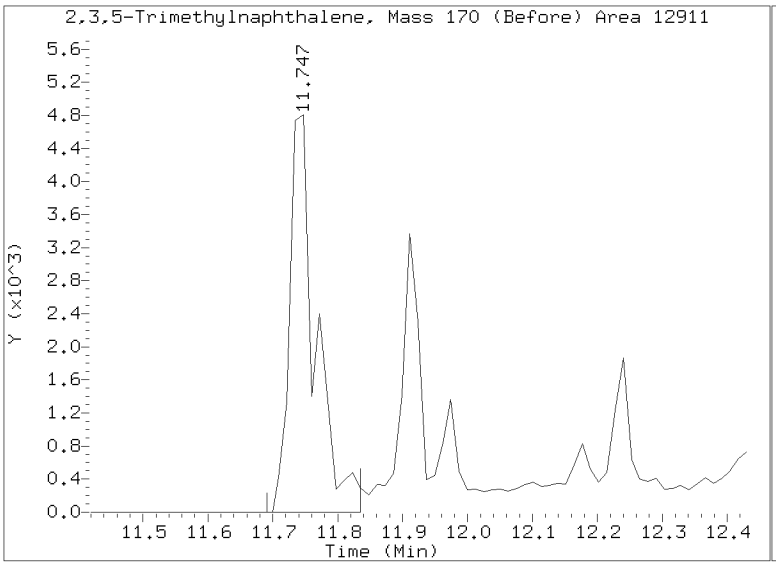
NONE

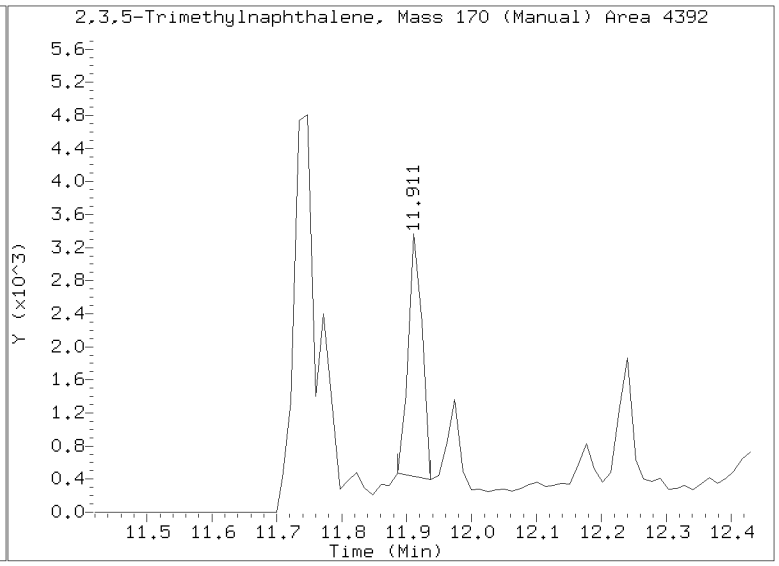
On Column LOD for nt11.i, 20170210.b\LOWSIM.m, allpna.sub = 3.0000

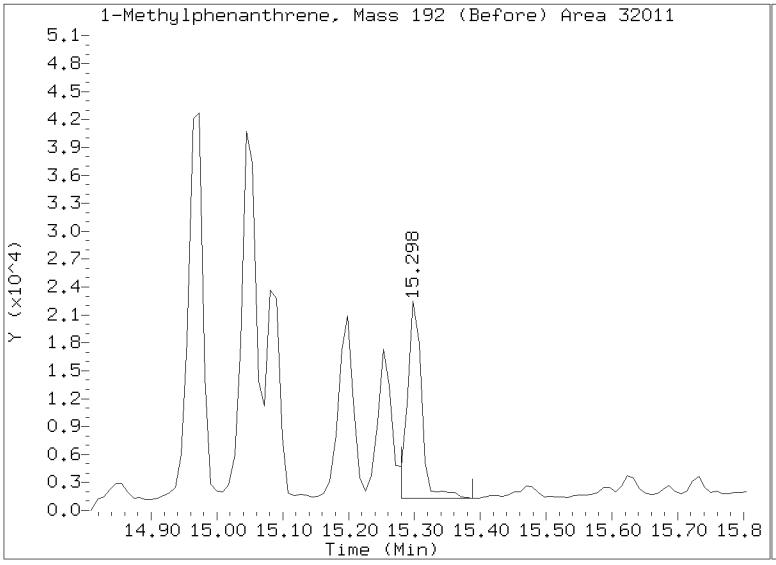
Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

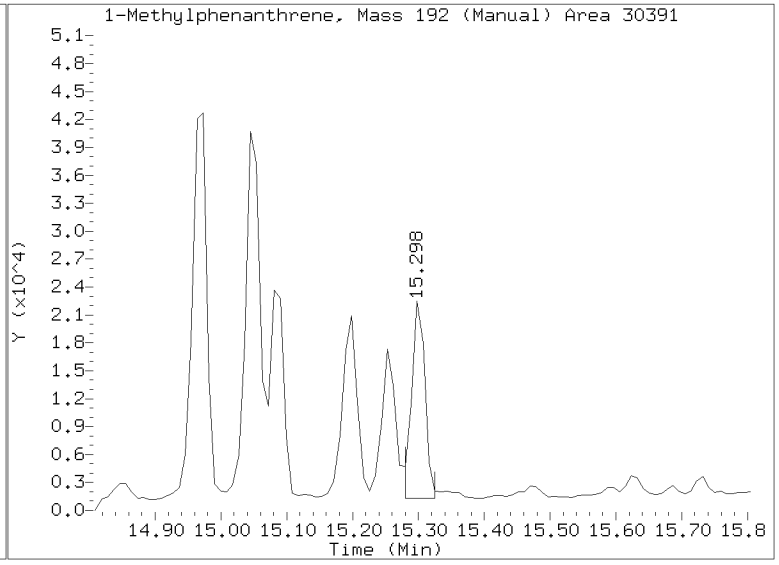
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt11.i/20170210.b/N1117021015.D
Injection Date: 10-FEB-2017 19:25
Lab ID:17A0053-08 Client ID:
Report Date: 02/11/2017 08:35









PG-PJ-1-MUS-170105

Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270D-SIM

Polycyclic Aromatic Hydrocarbons (PAH) low level

Laboratory:	Analytical Resources, Inc.			SDG:	17A0053
Client:	Anchor QEA, LLC			Project:	Port Gamble Shellfish Monitoring
Matrix:	Tissue	Laboratory ID:	17A0053-09	File ID:	N1117021016.D
Sampled:	01/05/17 14:53	Prepared:	01/31/17 13:45	Analyzed:	02/10/17 20:01
Solids:		Preparation:	EPA 3550C-Mod (Ultrasonic	Initial/Final:	10.07 g / 0.5 mL
Batch:	BFA0647	Sequence:	SFB0130	Calibration:	ZL00083
Instrument:	NT11	Column:	RXi-17Sil-MS		

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg)	Q	DL	RL
91-20-3	Naphthalene	1	0.60	U	0.50	0.60
91-57-6	2-Methylnaphthalene	1	0.50	U	0.50	0.50
208-96-8	Acenaphthylene	1	0.50	U	0.50	0.50
83-32-9	Acenaphthene	1	0.50	U	0.50	0.50
86-73-7	Fluorene	1	0.50	U	0.50	0.50
85-01-8	Phenanthrene	1	1.86		0.50	0.50
120-12-7	Anthracene	1	0.50	U	0.50	0.50
206-44-0	Fluoranthene	1	2.53		0.50	0.50
129-00-0	Pyrene	1	2.77		0.50	0.50
56-55-3	Benzo(a)anthracene	1	0.56		0.50	0.50
218-01-9	Chrysene	1	1.58		0.50	0.50
205-99-2	Benzo(b)fluoranthene	1	0.65		0.50	0.50
207-08-9	Benzo(k)fluoranthene	1	0.50	U	0.50	0.50
50-32-8	Benzo(a)pyrene	1	0.50	U	0.50	0.50
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.50	U	0.50	0.50
53-70-3	Dibenzo(a,h)anthracene	1	0.50	U	0.50	0.50
191-24-2	Benzo(g,h,i)perylene	1	0.50	U	0.50	0.50
1985-5-0	Perylene	1	0.50	U	0.50	0.50
197-97-2	Benzo(e)pyrene	1	0.96		0.50	0.50

SURROGATES	ADDED (ug/kg)	CONC (ug/kg)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	14.896	8.95	60.1	30 - 160	
Dibenzo[a,h]anthracene-d14	14.896	10.8	72.5	30 - 160	
Fluoranthene-d10	14.896	9.25	62.1	30 - 160	

Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021016.D

Date : 10-FEB-2017 20:01

Client ID:

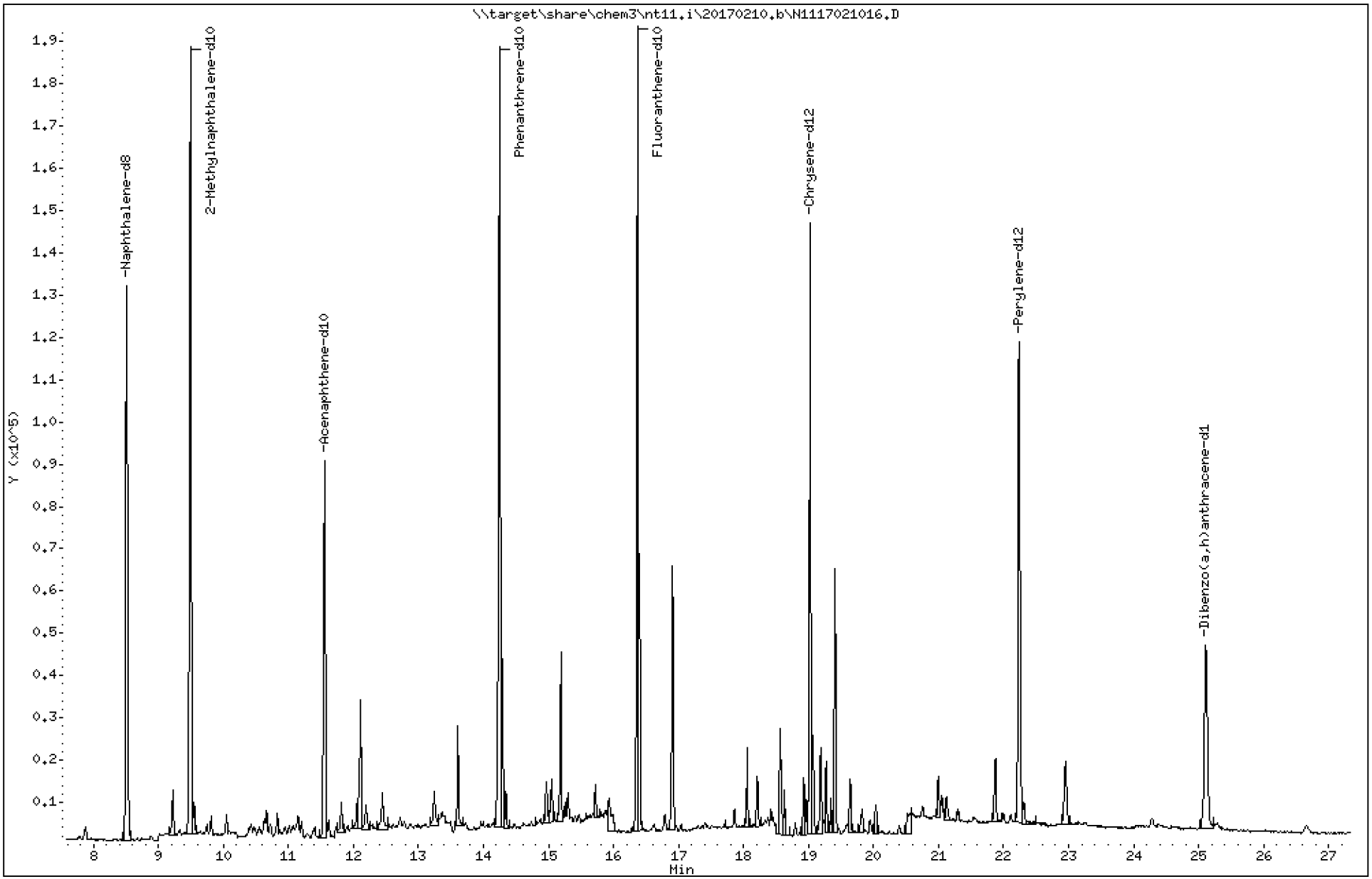
Sample Info: 17A0053-09

Instrument: nt11.i

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 10-FEB-2017 20:01

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-09

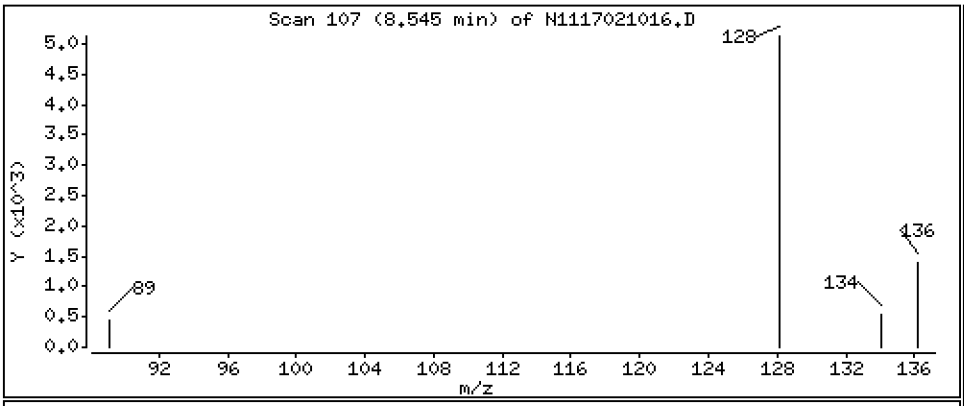
Operator: VTS

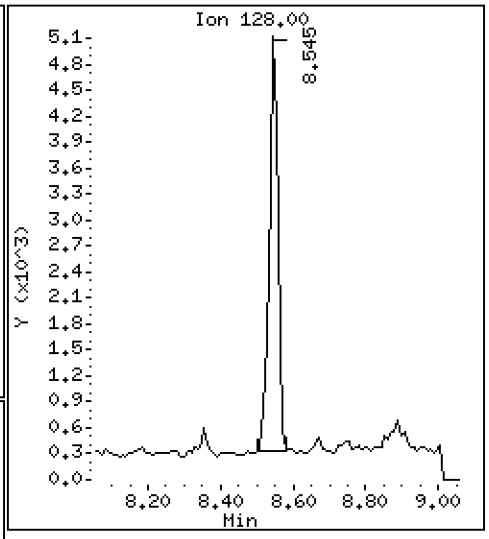
Column phase: Rxi-17Sil MS

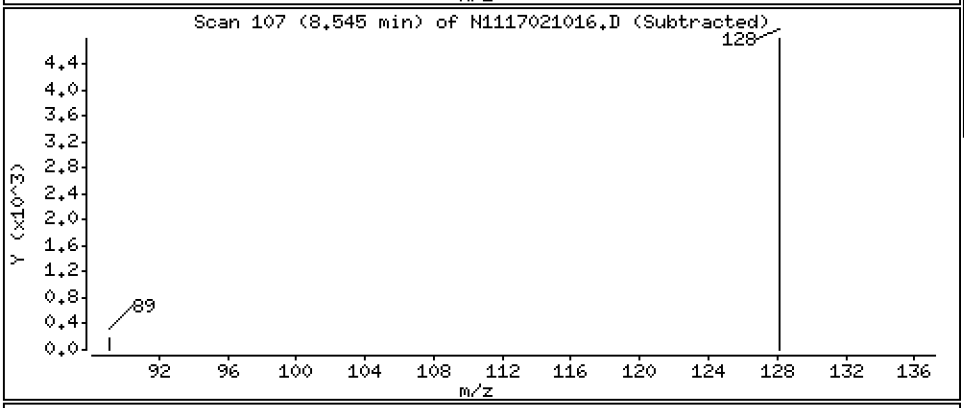
Column diameter: 0.25

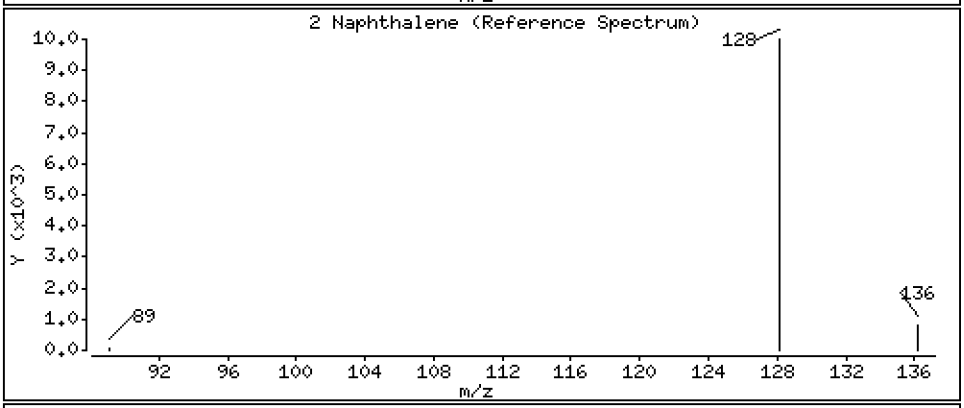
2 Naphthalene

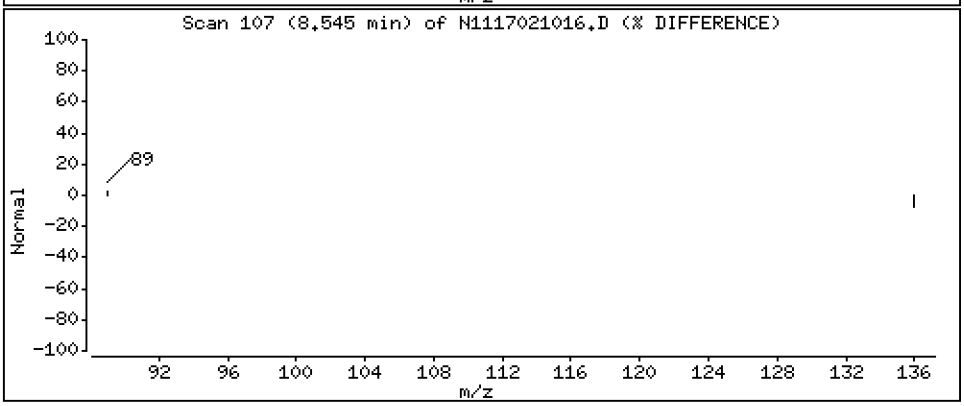
Concentration: 7.45 ng/mL











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Date : 10-FEB-2017 20:01

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-09

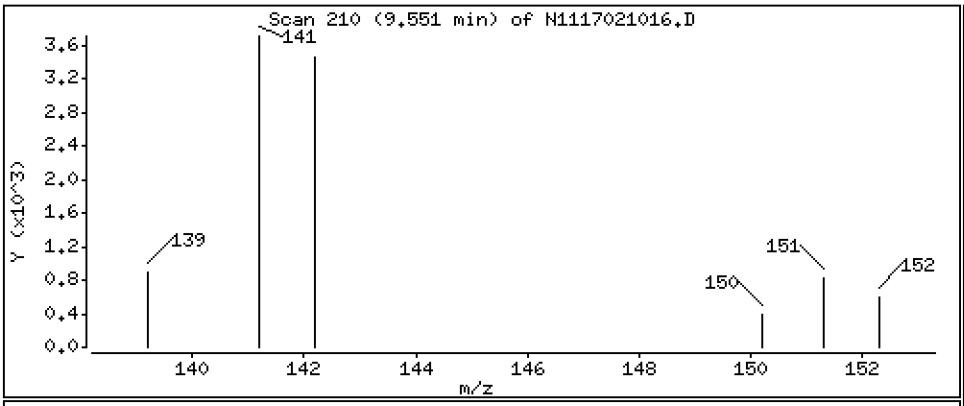
Operator: VTS

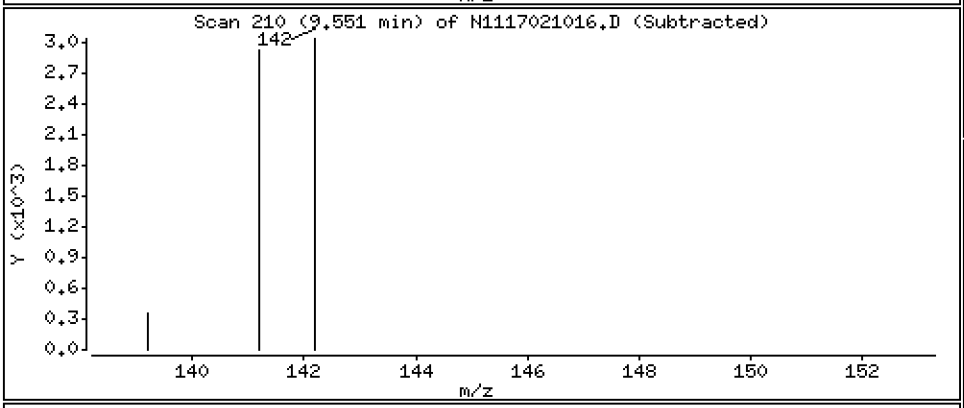
Column phase: Rxi-17Sil MS

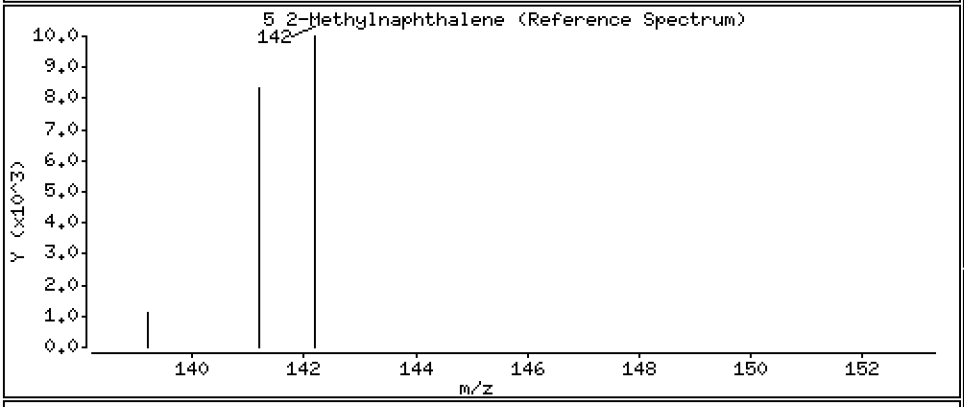
Column diameter: 0.25

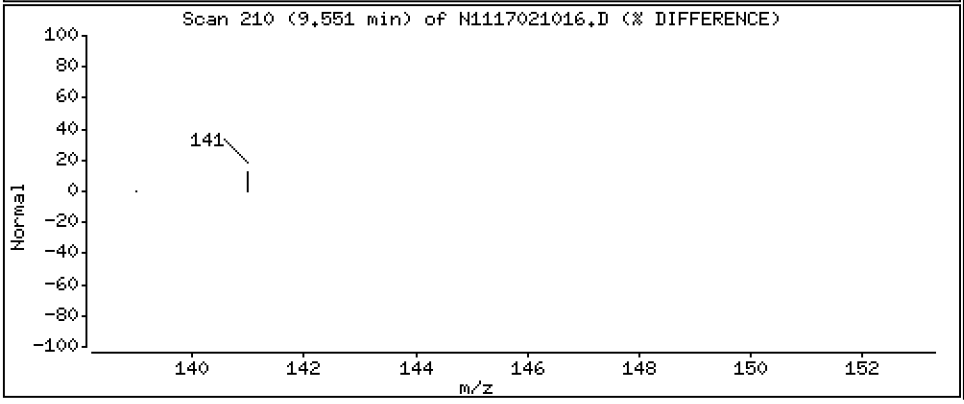
5 2-Methylnaphthalene

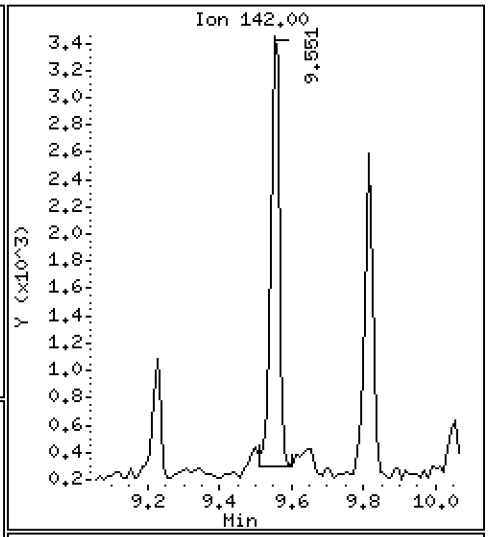
Concentration: 5.42 ng/mL

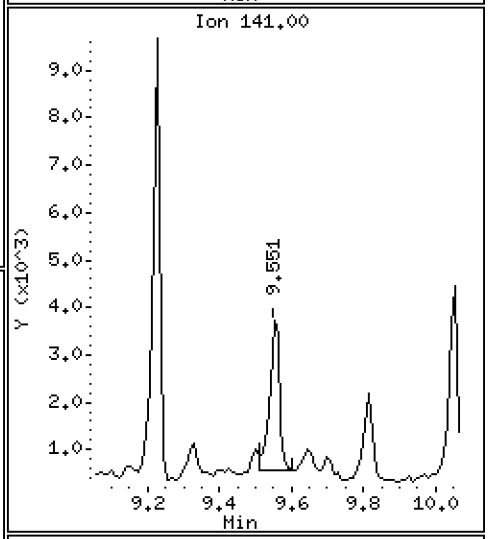


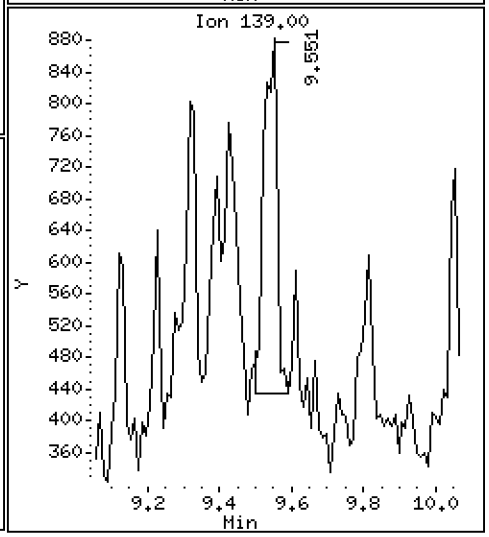












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Date : 10-FEB-2017 20:01

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-09

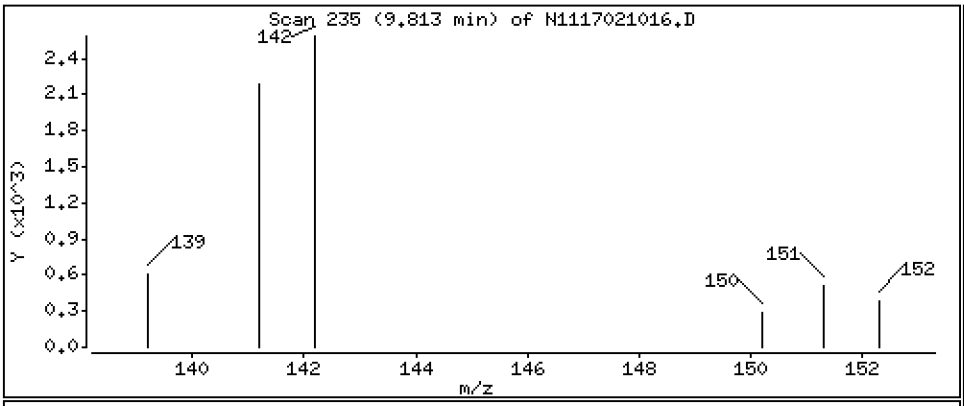
Operator: VTS

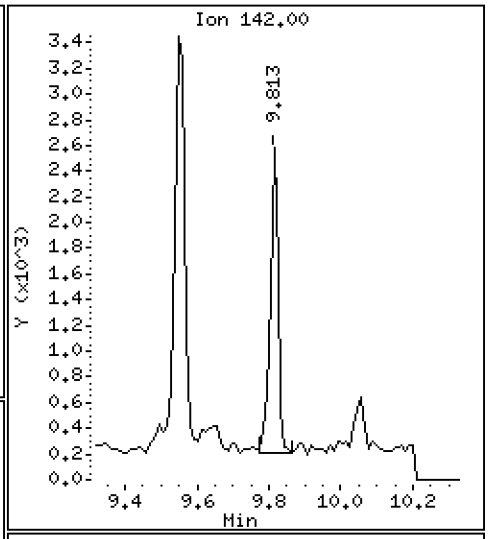
Column phase: Rxi-17Sil MS

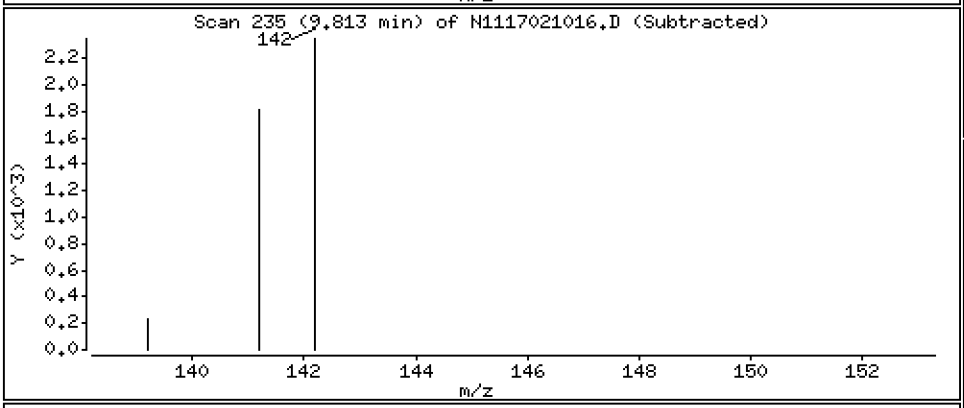
Column diameter: 0.25

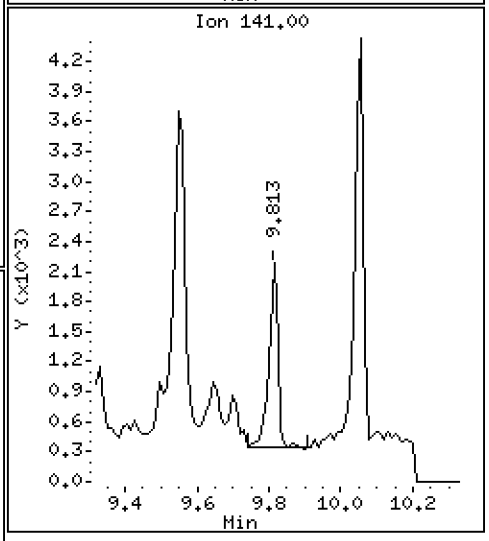
6 1-Methylnaphthalene

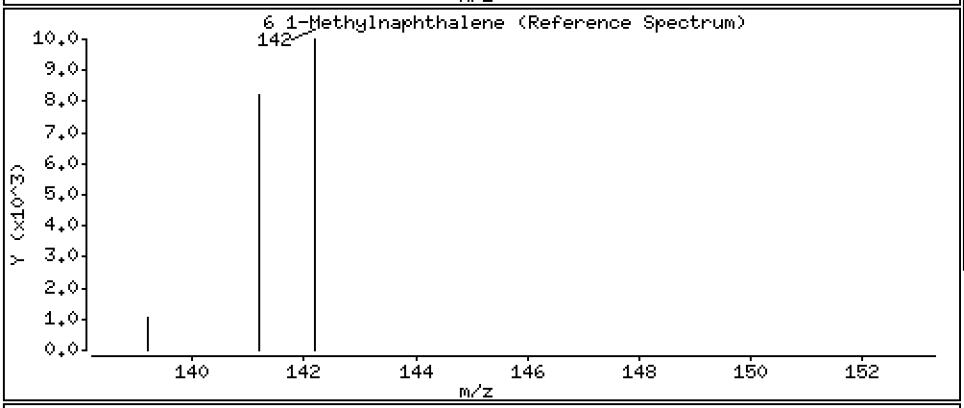
Concentration: 3.57 ng/mL

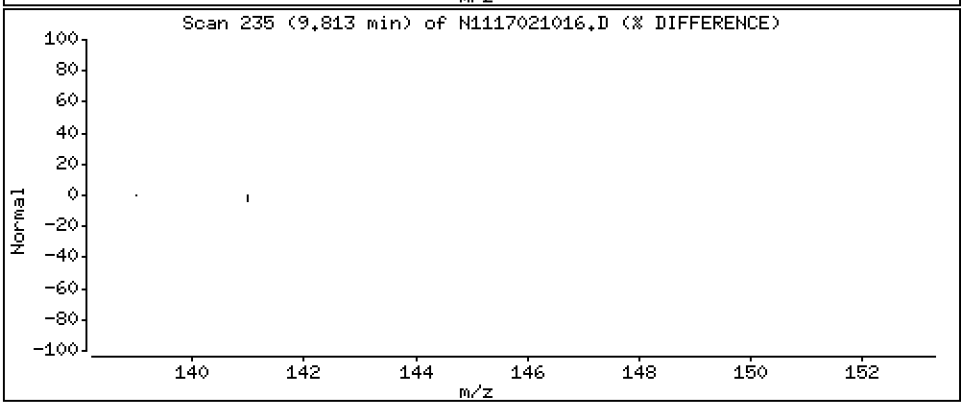












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Date : 10-FEB-2017 20:01

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-09

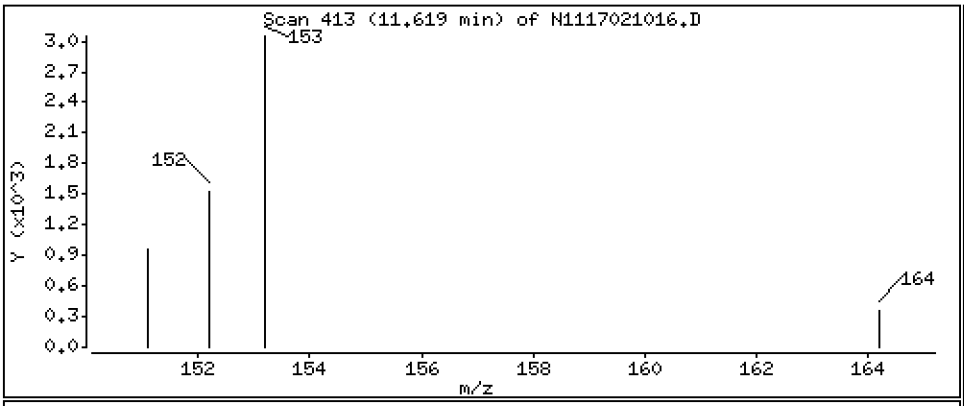
Operator: VTS

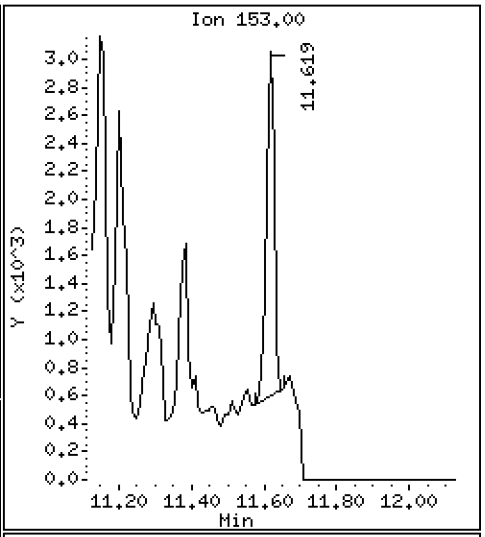
Column phase: Rxi-17Sil MS

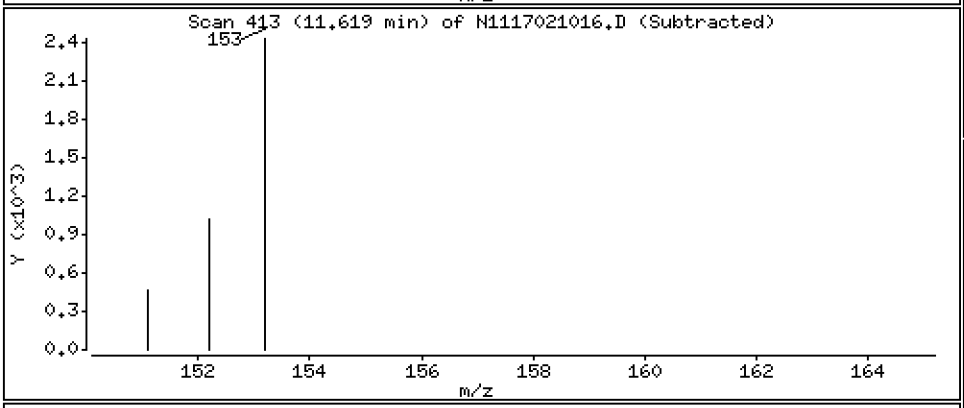
Column diameter: 0.25

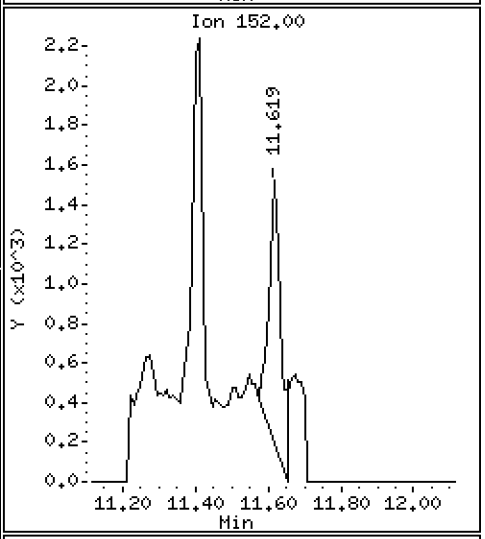
12 Acenaphthene

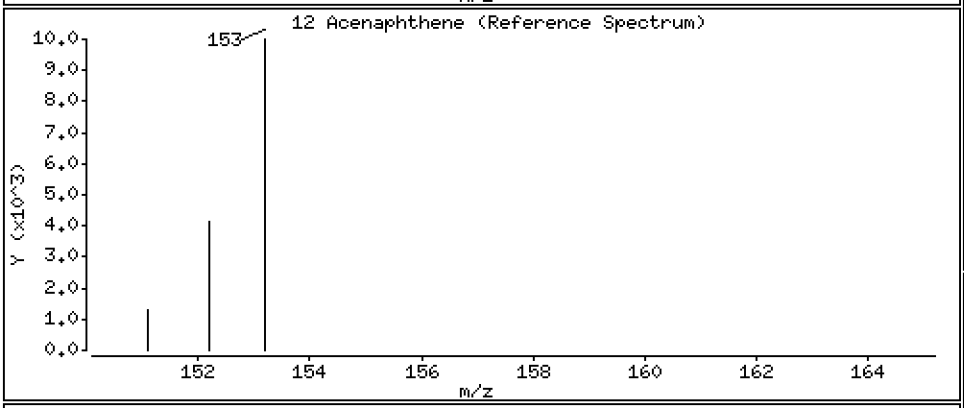
Concentration: 4.20 ng/mL

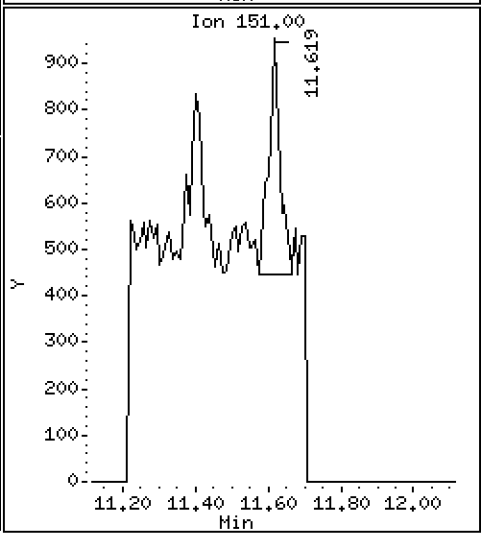


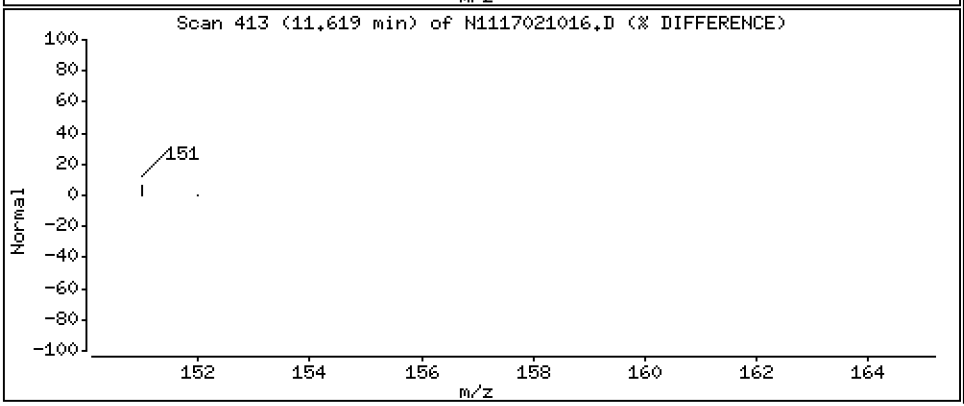












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021016.D

Date : 10-FEB-2017 20:01

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-09

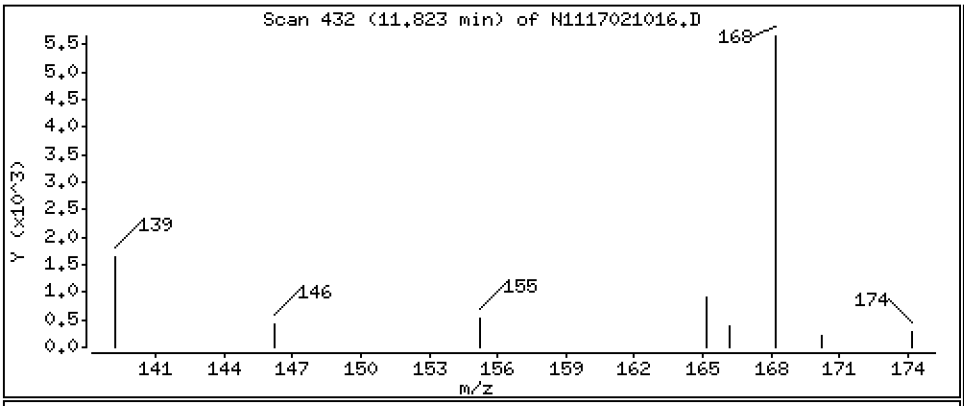
Operator: VTS

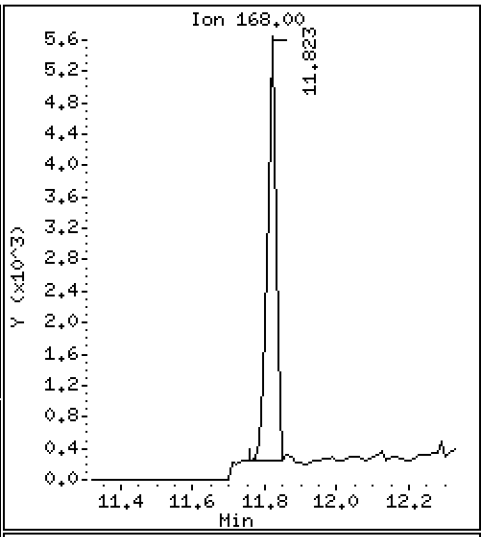
Column phase: Rxi-17Sil MS

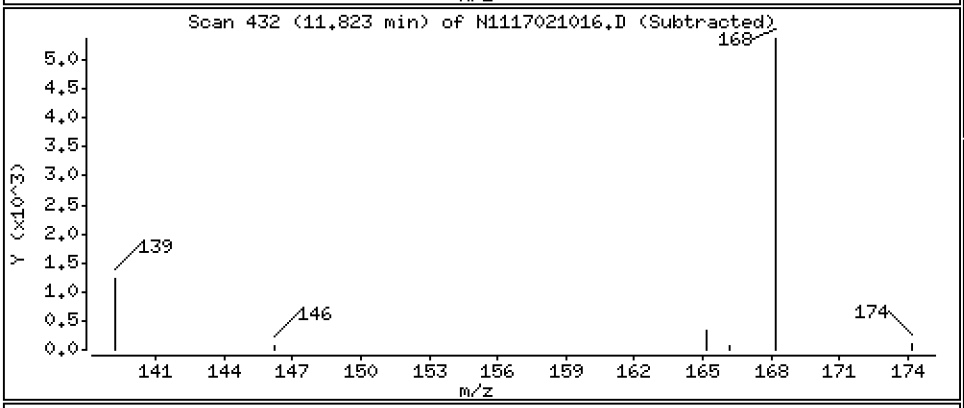
Column diameter: 0.25

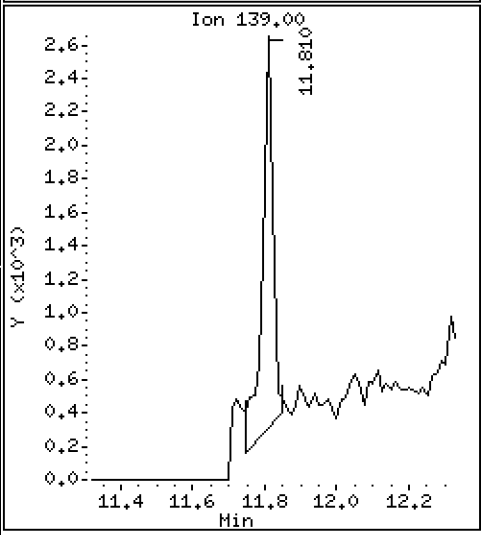
13 Dibenzofuran

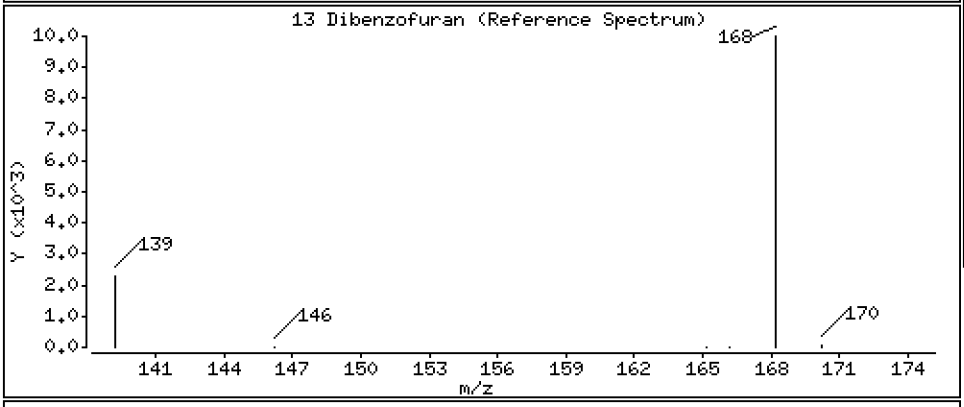
Concentration: 6.52 ng/mL

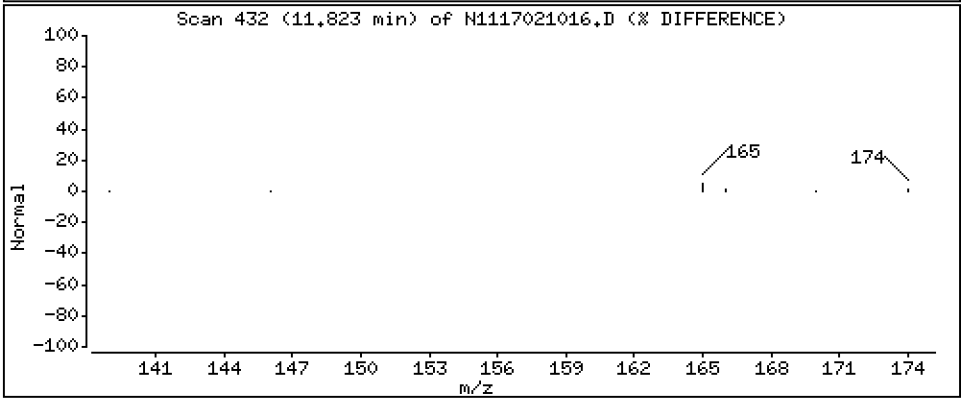












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021016.D

Date : 10-FEB-2017 20:01

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-09

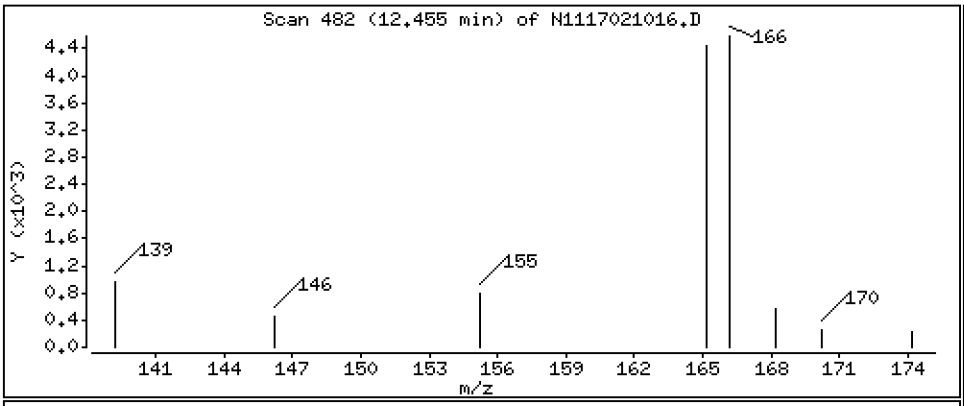
Operator: VTS

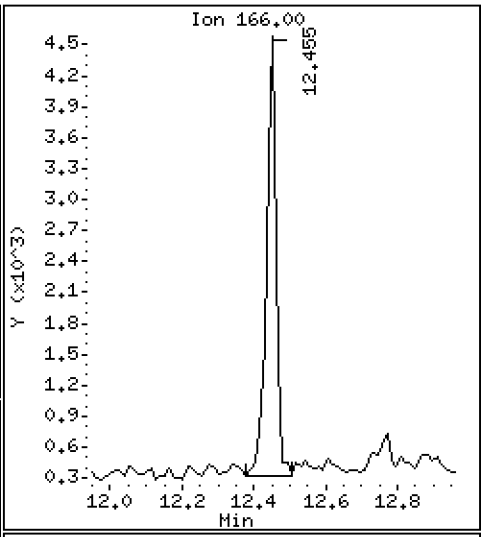
Column phase: Rxi-17Sil MS

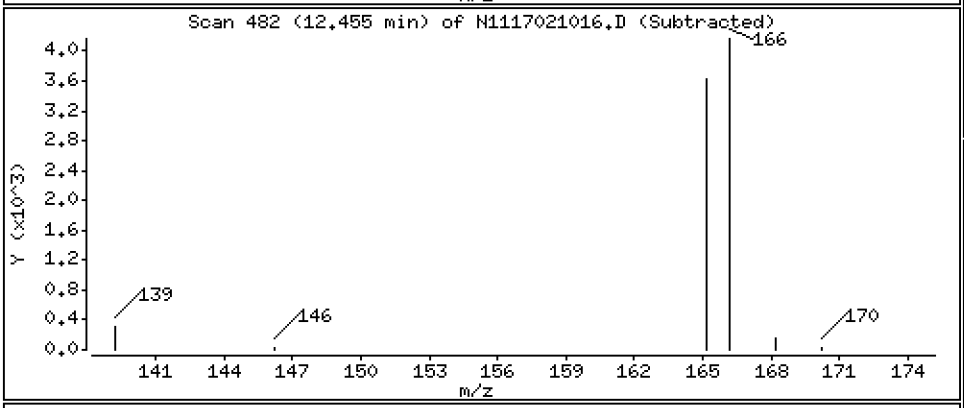
Column diameter: 0.25

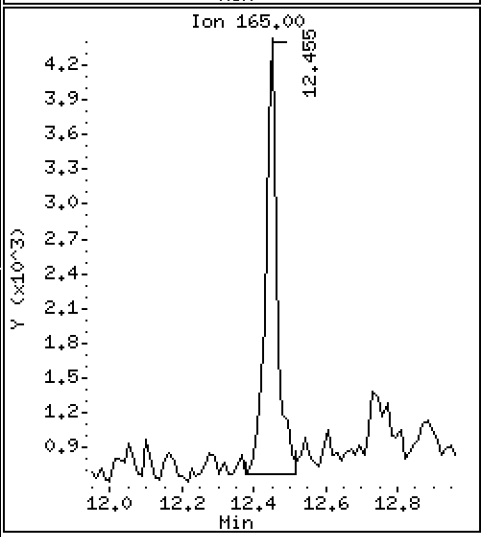
16 Fluorene

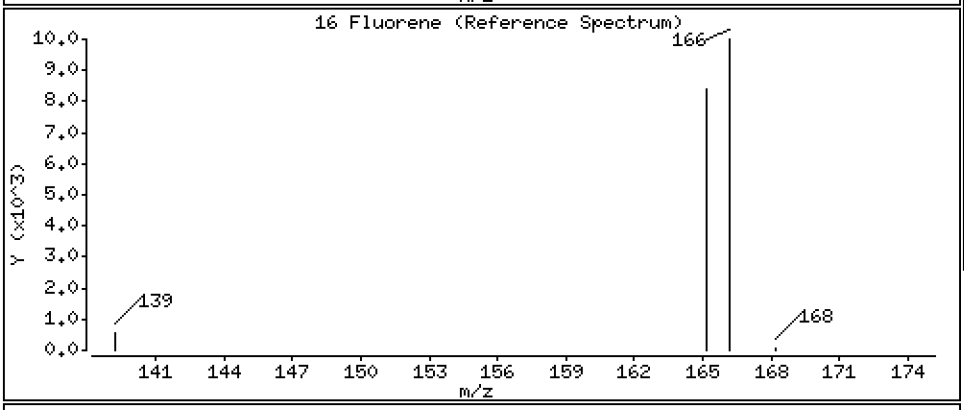
Concentration: 7.52 ng/mL

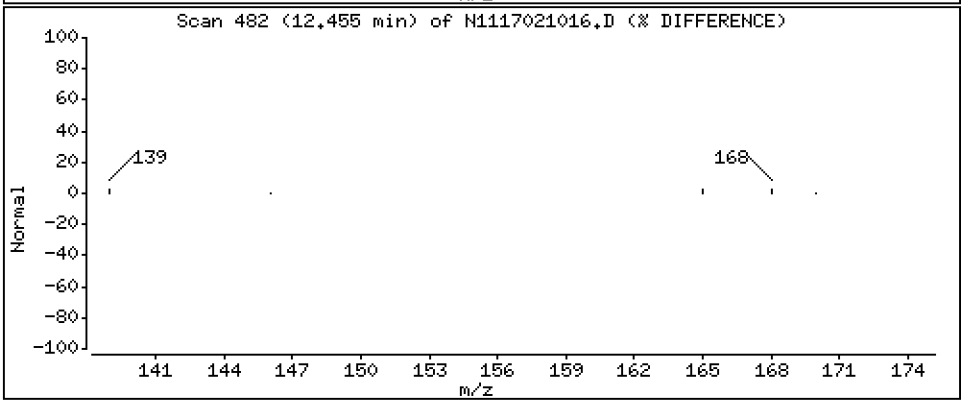












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Date : 10-FEB-2017 20:01

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-09

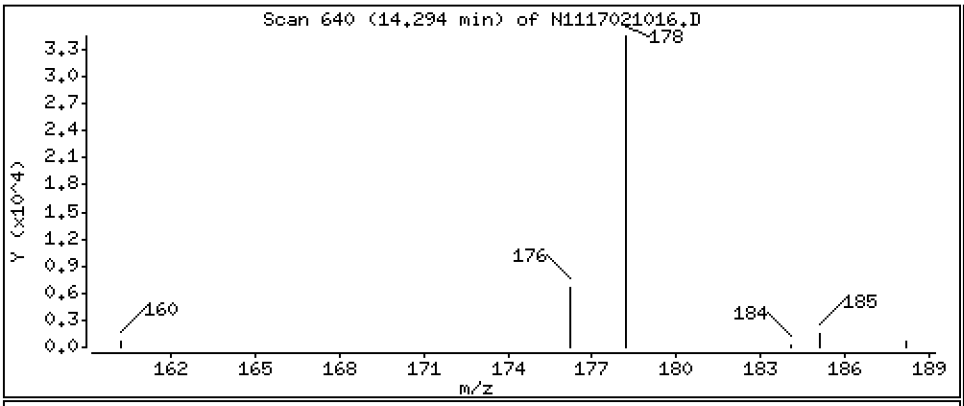
Operator: VTS

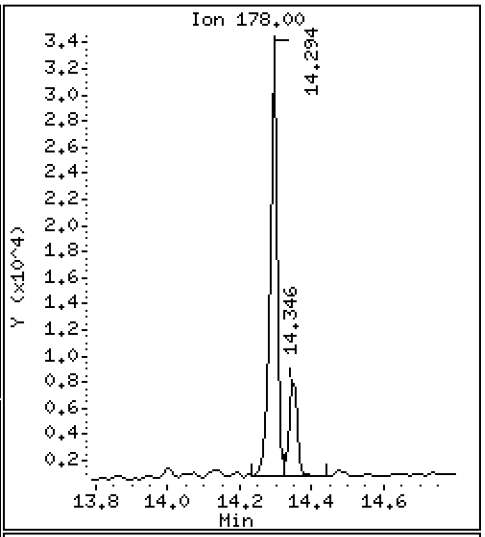
Column phase: Rxi-17Sil MS

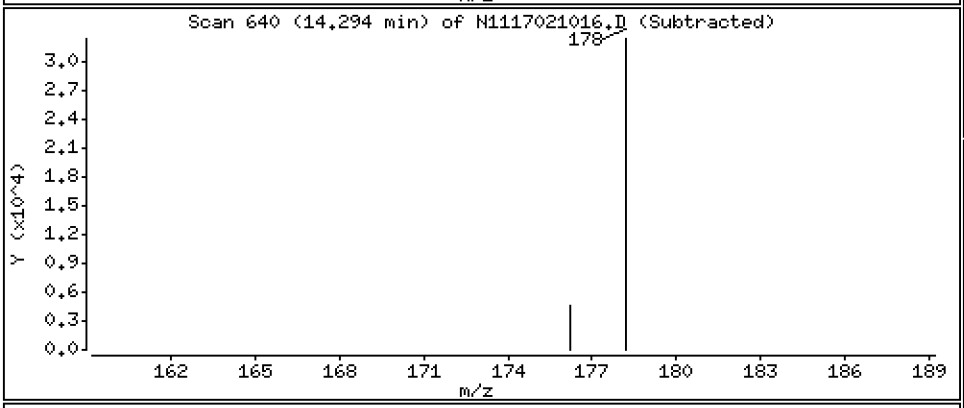
Column diameter: 0.25

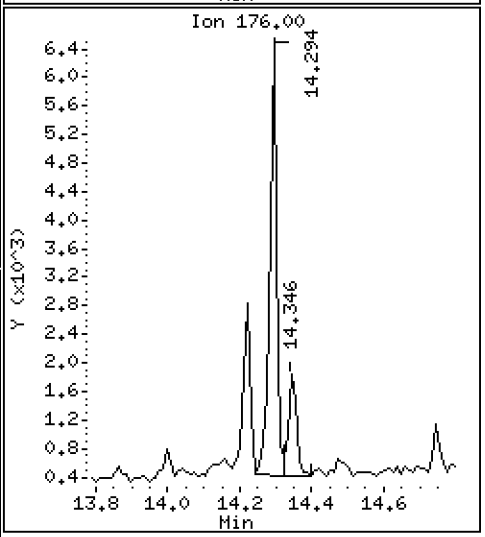
19 Phenanthrene

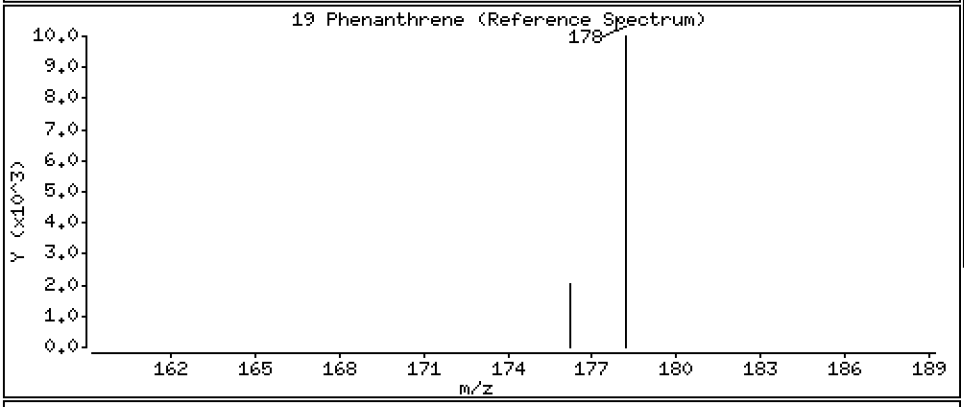
Concentration: 37.5 ng/mL

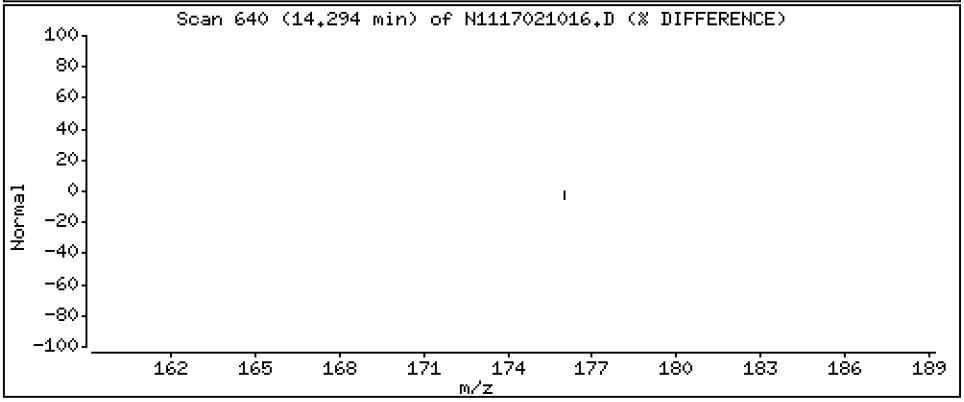












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Date : 10-FEB-2017 20:01

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-09

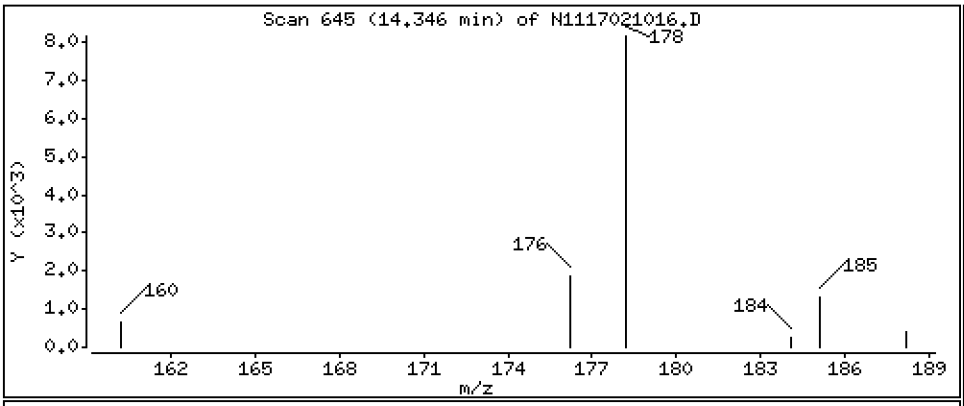
Operator: VTS

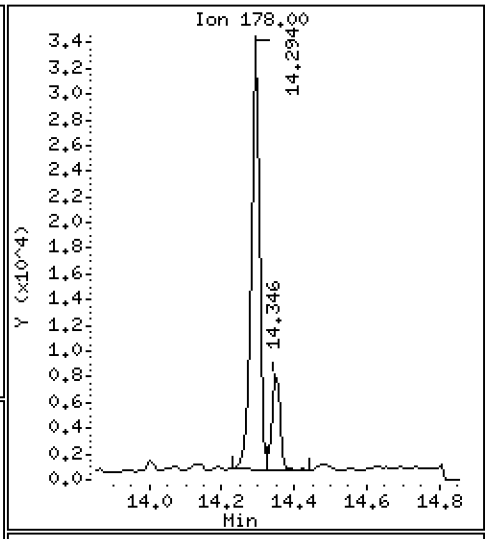
Column phase: Rxi-17Sil MS

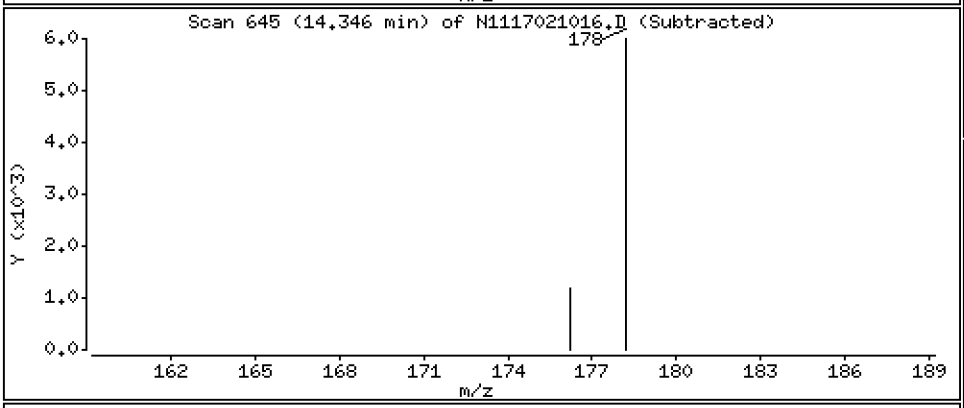
Column diameter: 0.25

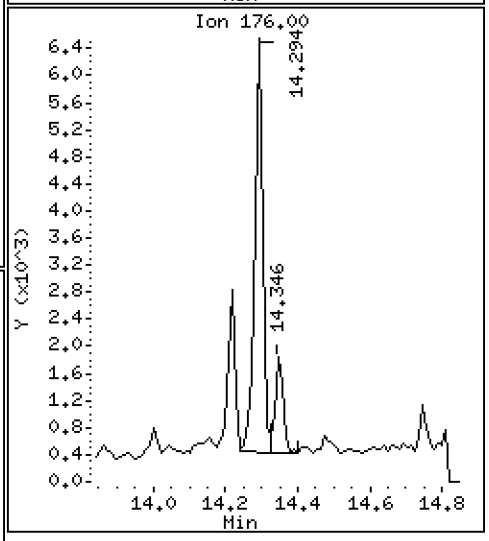
21 Anthracene

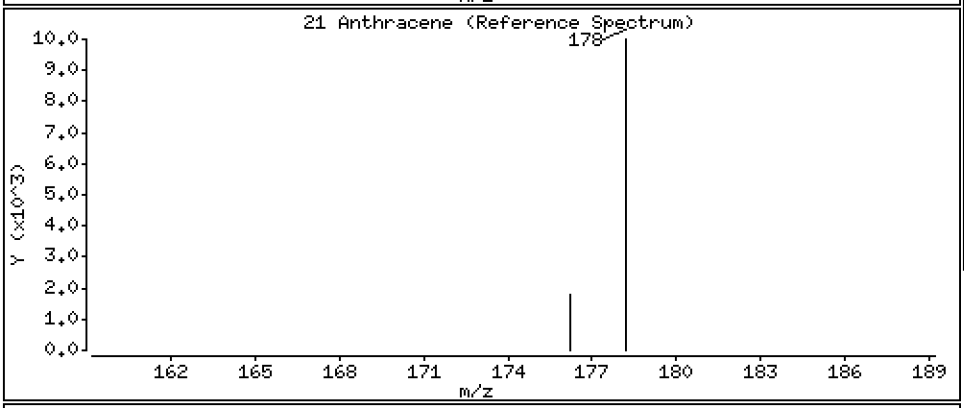
Concentration: 8.46 ng/mL

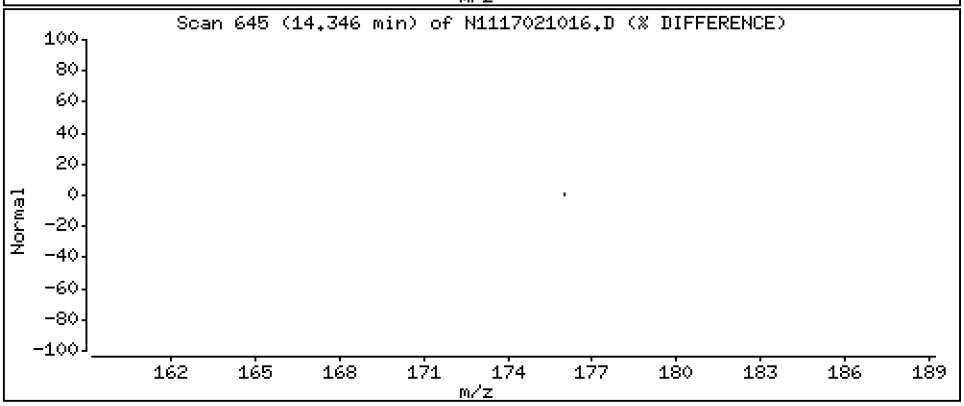












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Date : 10-FEB-2017 20:01

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-09

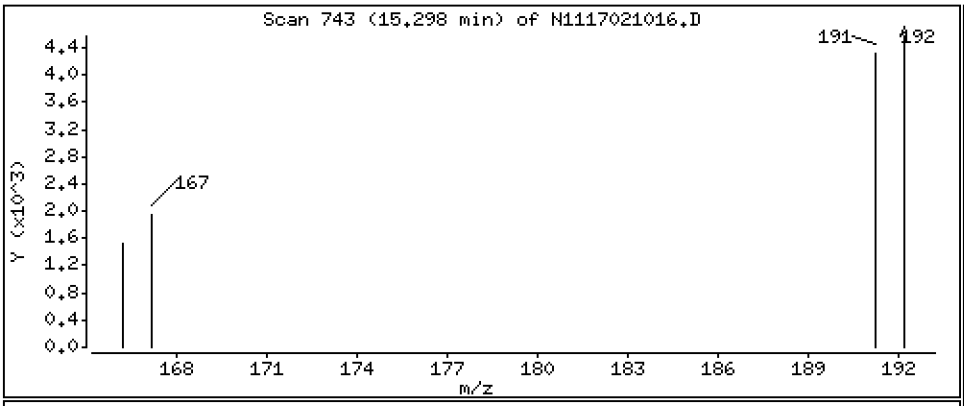
Operator: VTS

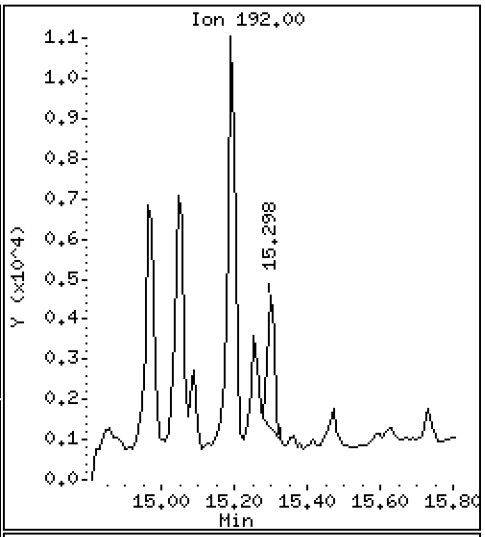
Column phase: Rxi-17Sil MS

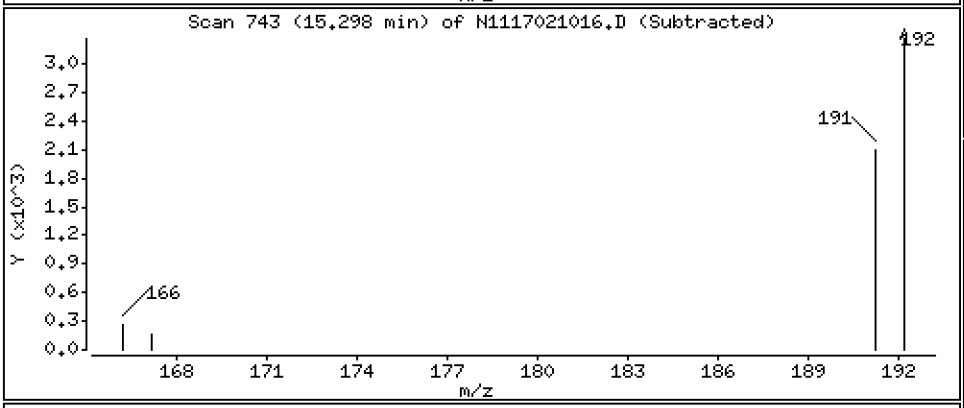
Column diameter: 0.25

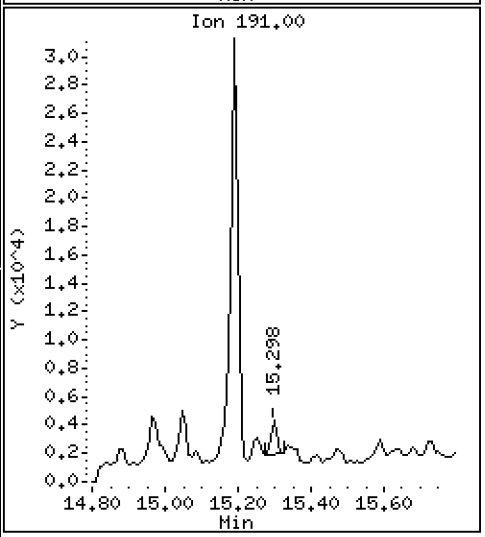
23 1-Methylphenanthrene

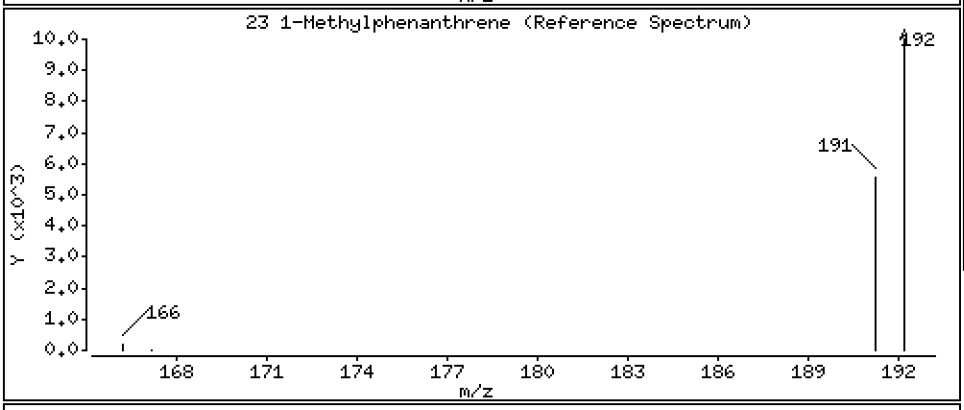
Concentration: 2.89 ng/mL

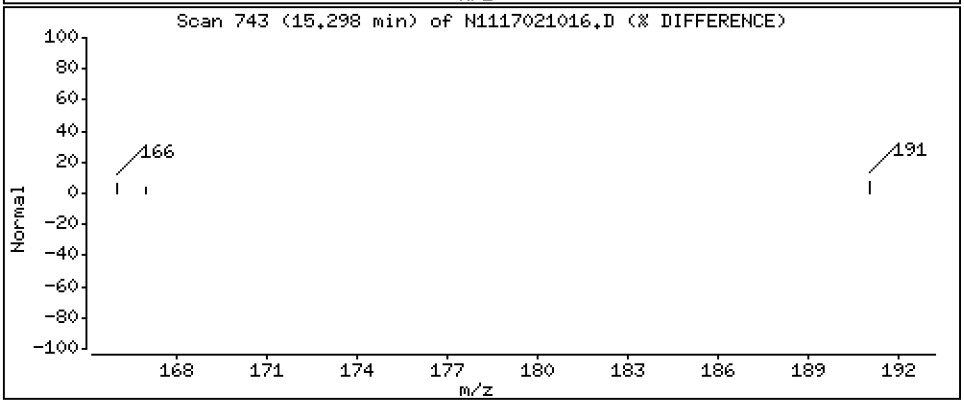












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Date : 10-FEB-2017 20:01

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-09

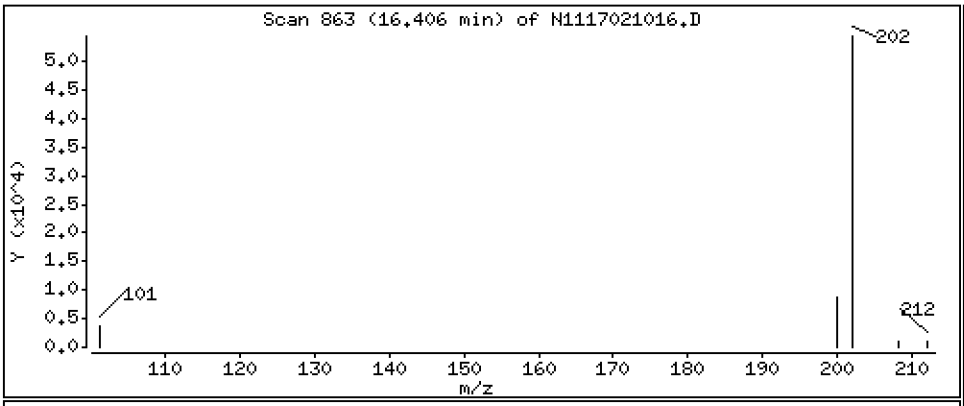
Operator: VTS

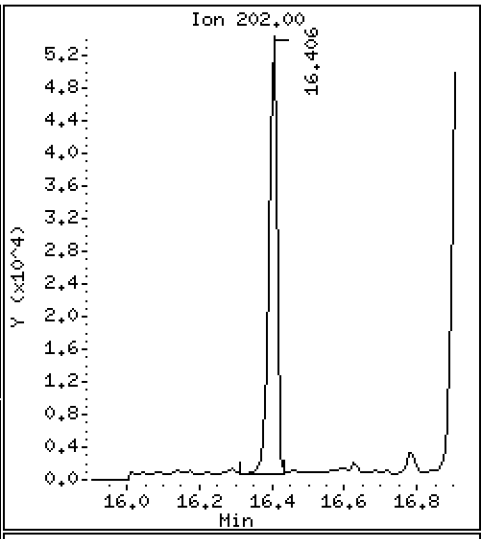
Column phase: Rxi-17Sil MS

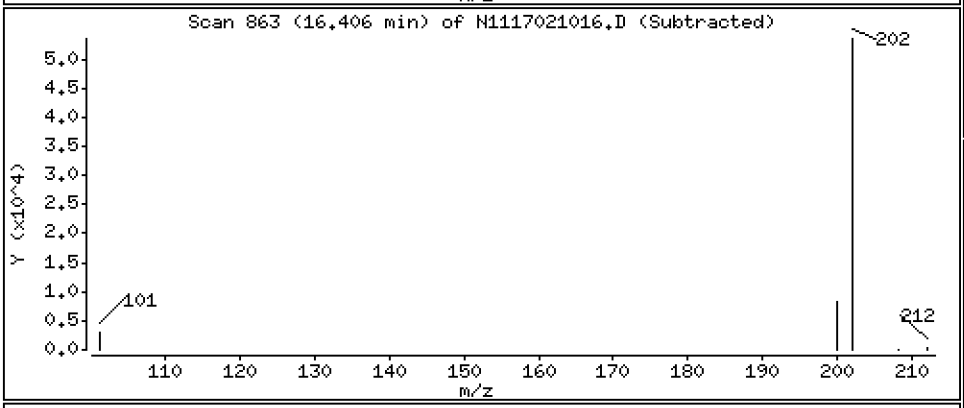
Column diameter: 0.25

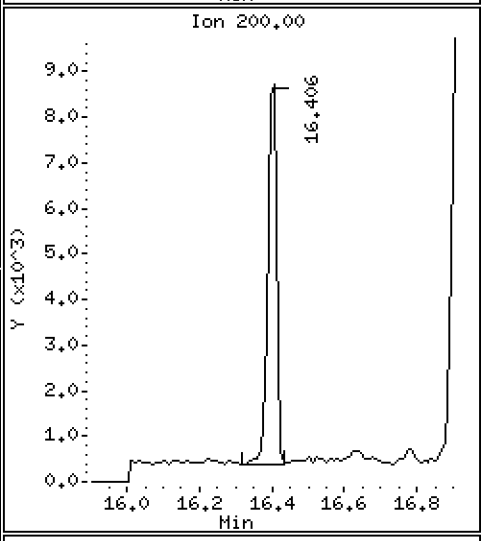
25 Fluoranthene

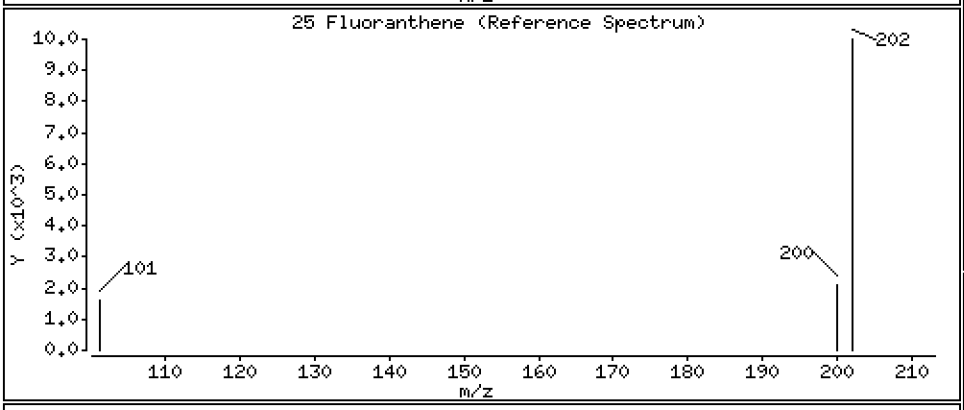
Concentration: 50.9 ng/mL

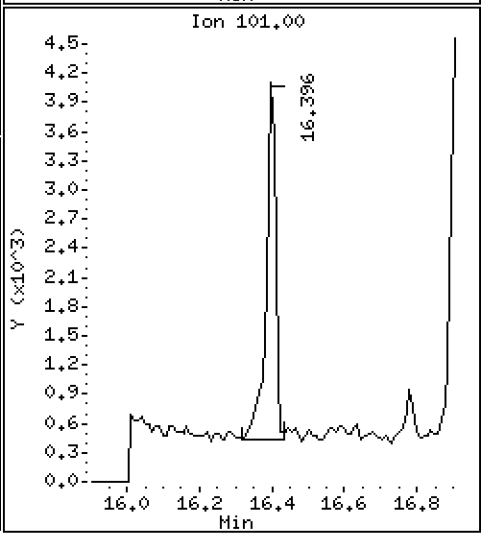


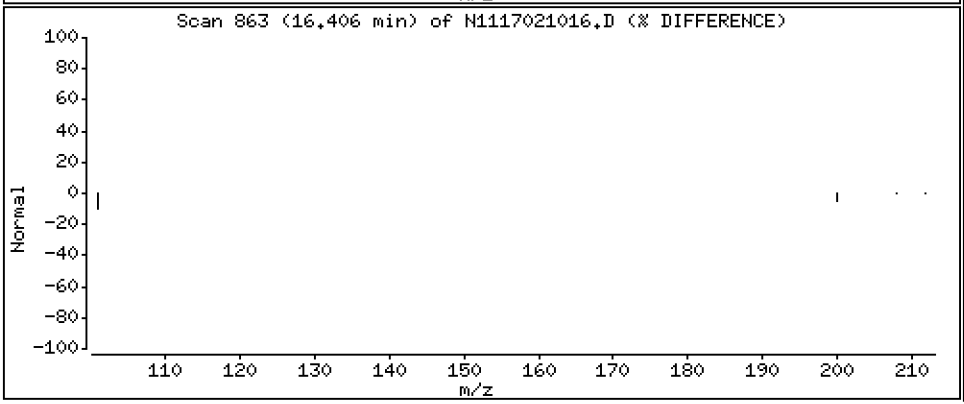












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Client ID:

Instrument: nt11.i

Sample Info: 17A0053-09

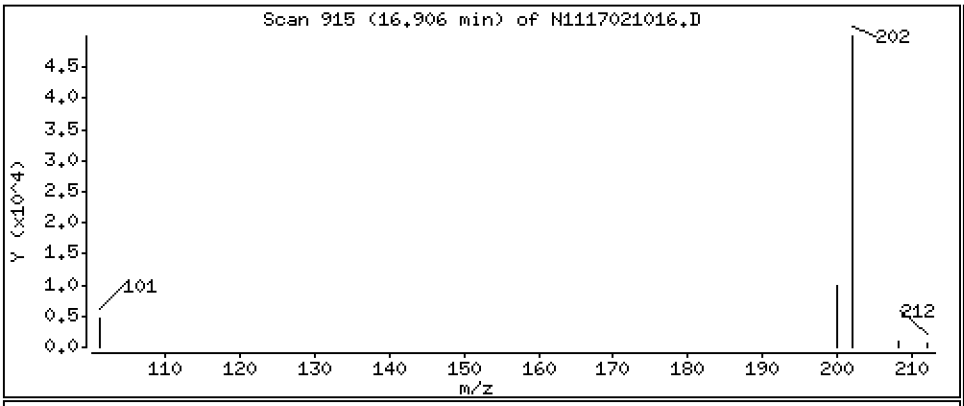
Operator: VTS

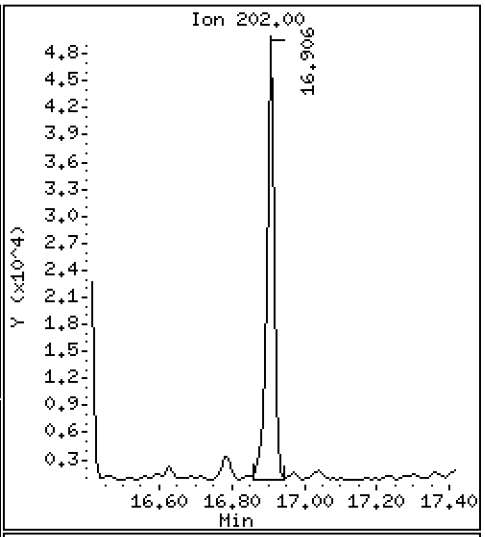
Column phase: Rxi-17Sil MS

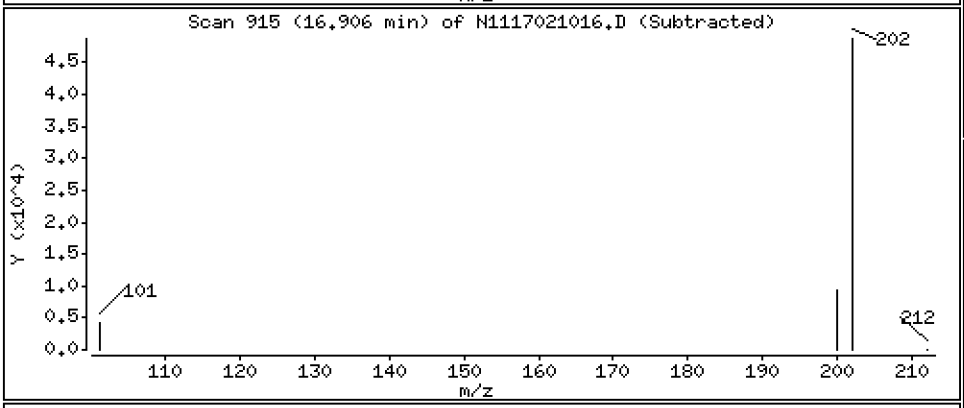
Column diameter: 0.25

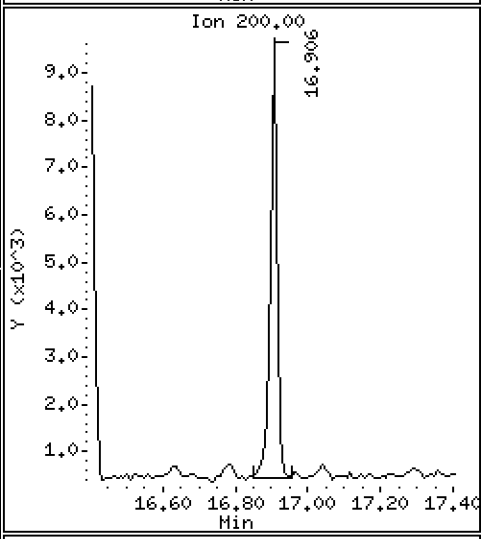
26 Pyrene

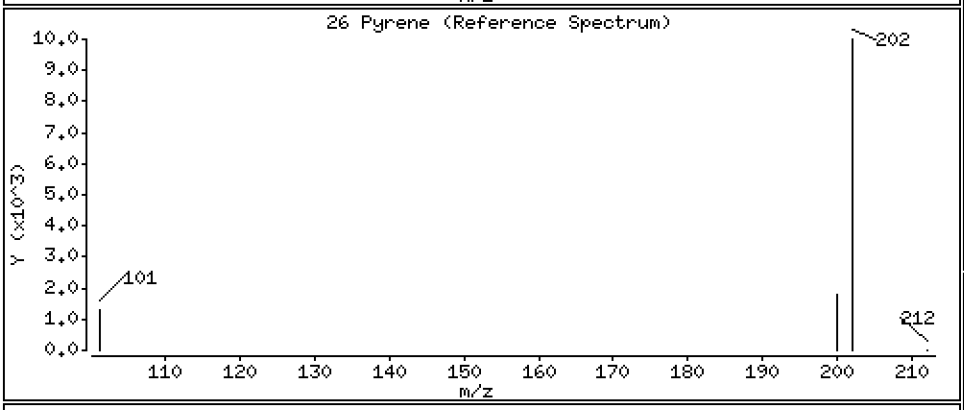
Concentration: 55.9 ng/mL

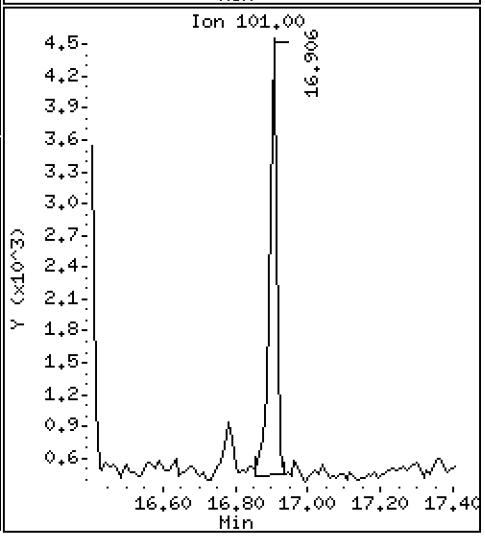


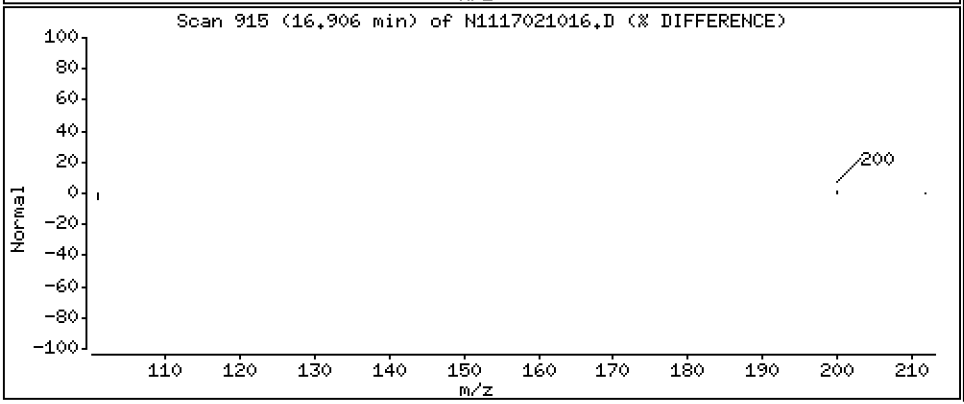












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Client ID:

Instrument: nt11.i

Sample Info: 17A0053-09

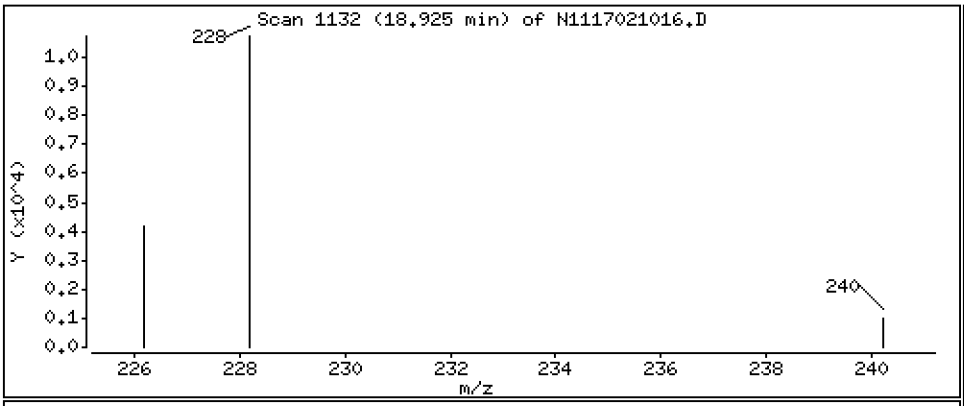
Operator: VTS

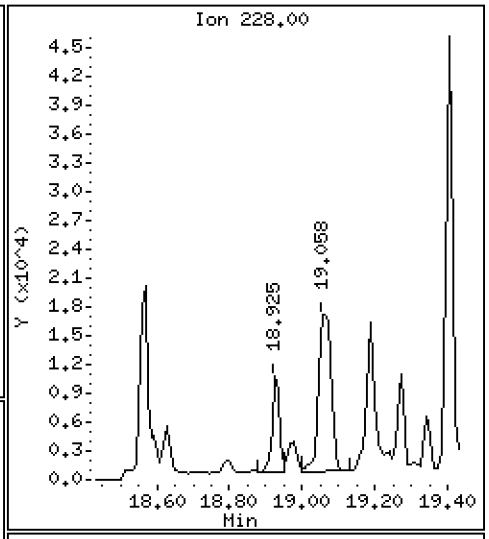
Column phase: Rxi-17Sil MS

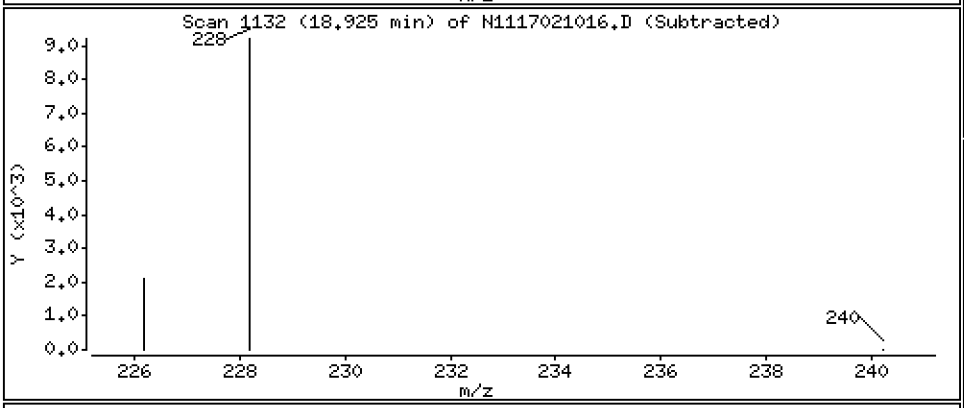
Column diameter: 0.25

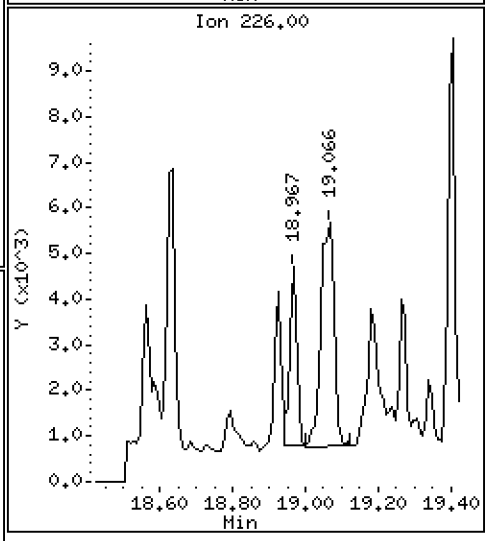
27 Benzo(a)anthracene

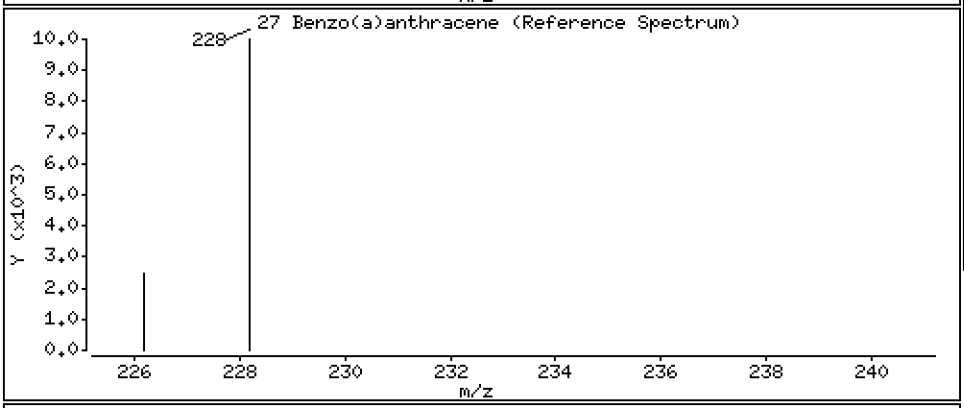
Concentration: 11.2 ng/mL

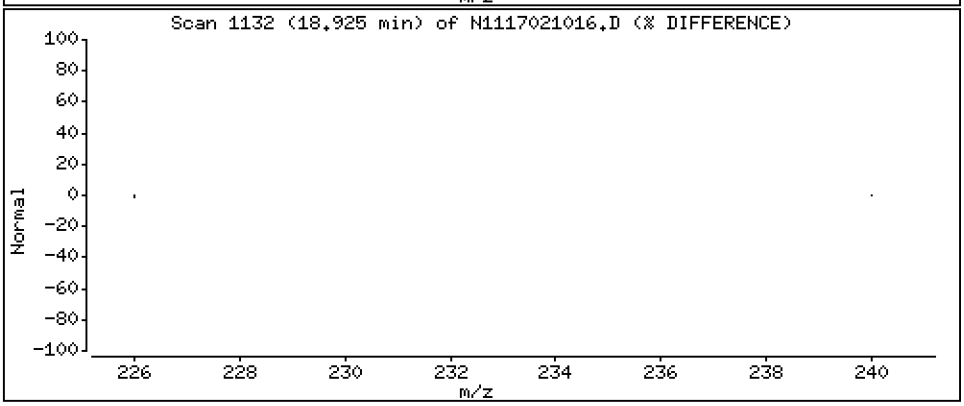












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Date : 10-FEB-2017 20:01

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-09

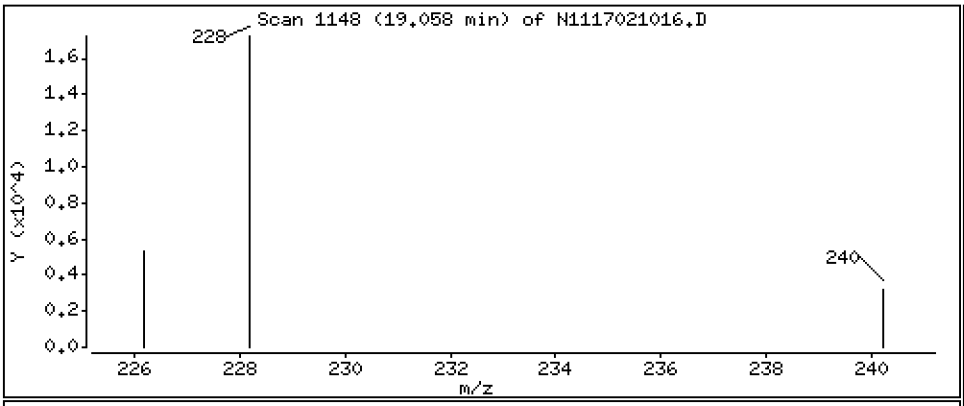
Operator: VTS

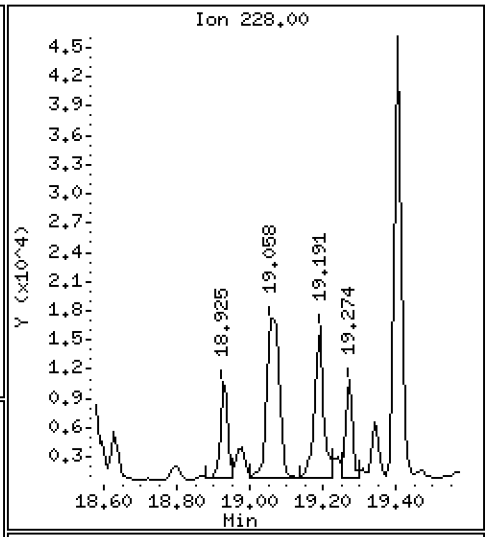
Column phase: Rxi-17Sil MS

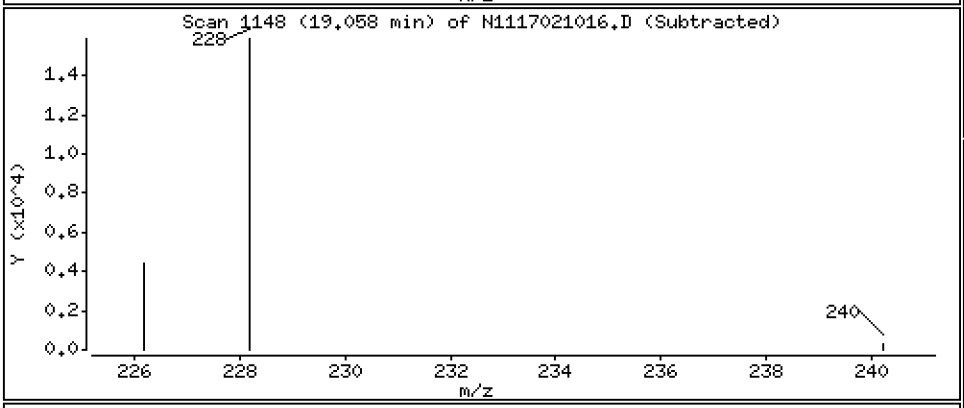
Column diameter: 0.25

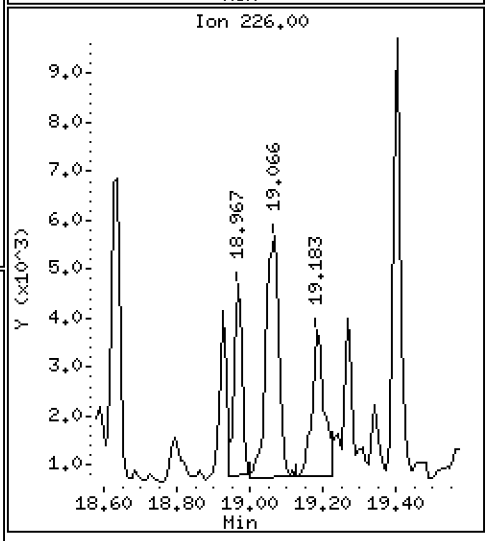
29 Chrysene

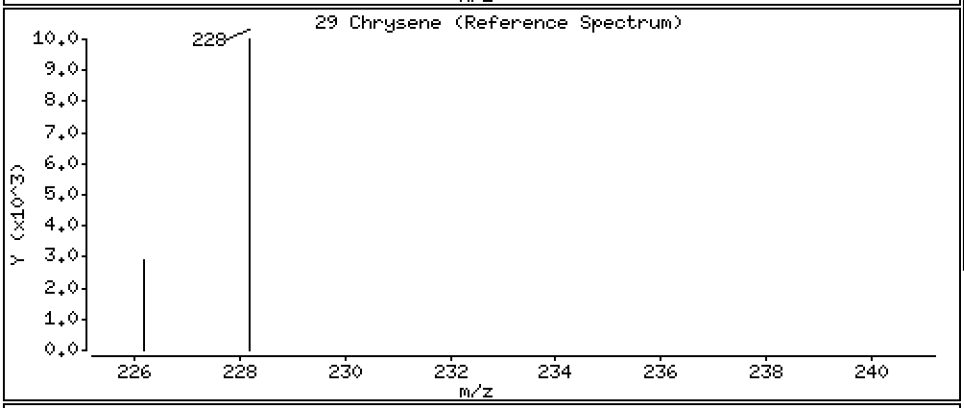
Concentration: 31.9 ng/mL

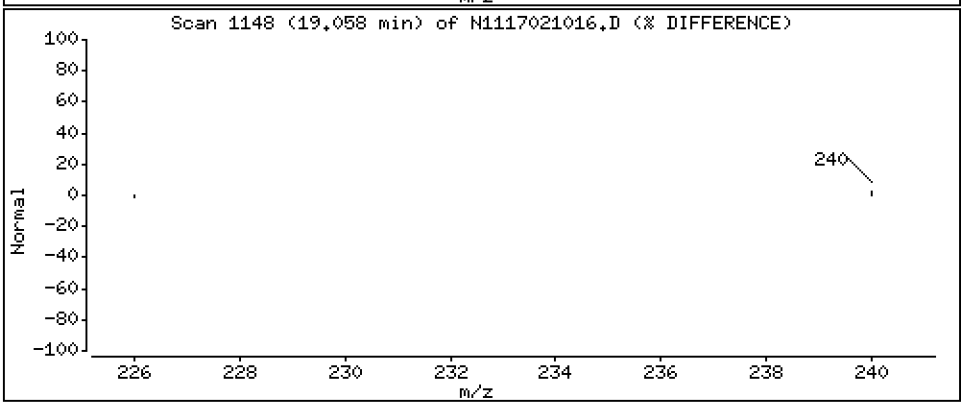












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Date : 10-FEB-2017 20:01

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-09

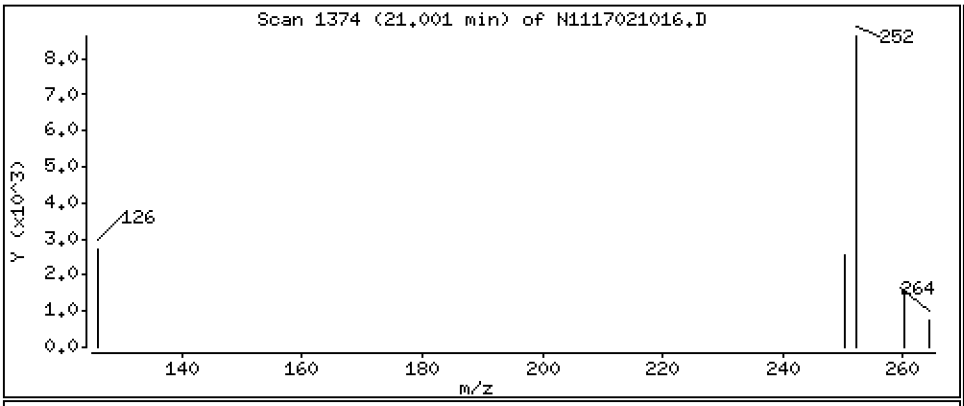
Operator: VTS

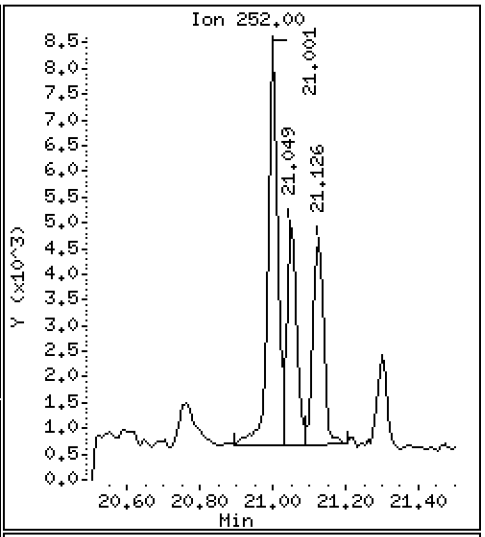
Column phase: Rxi-17Sil MS

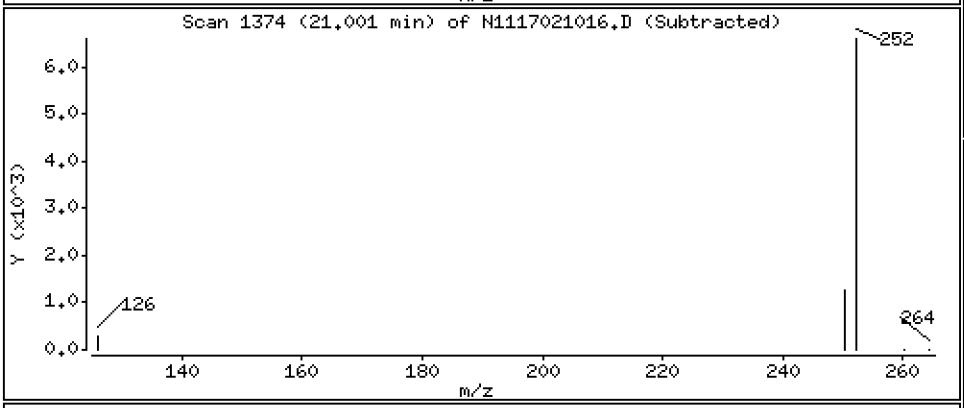
Column diameter: 0.25

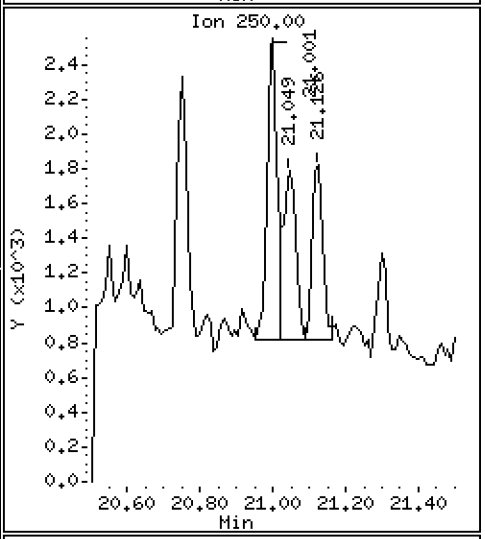
30 Benzo(b)fluoranthene

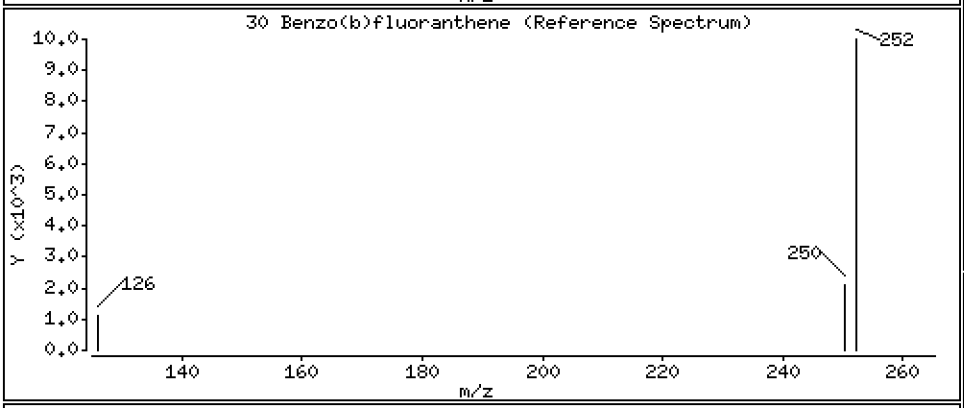
Concentration: 13.2 ng/mL

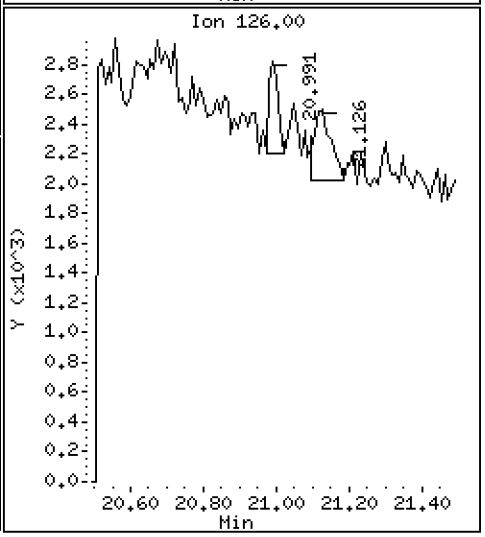


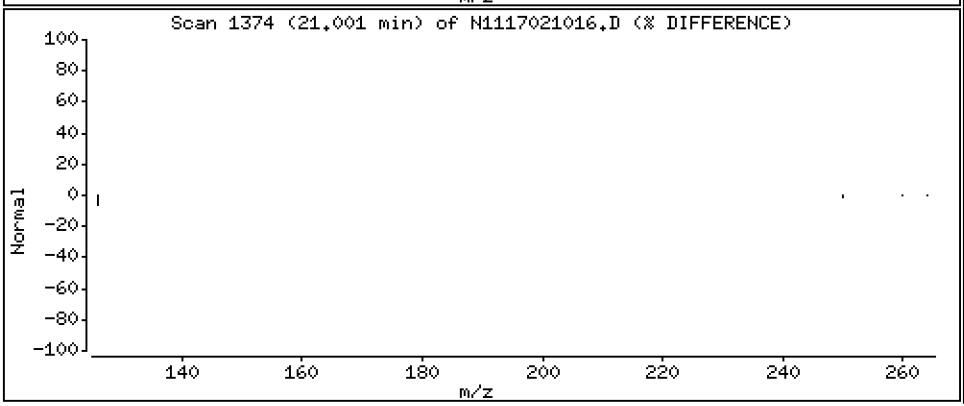












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Date : 10-FEB-2017 20:01

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-09

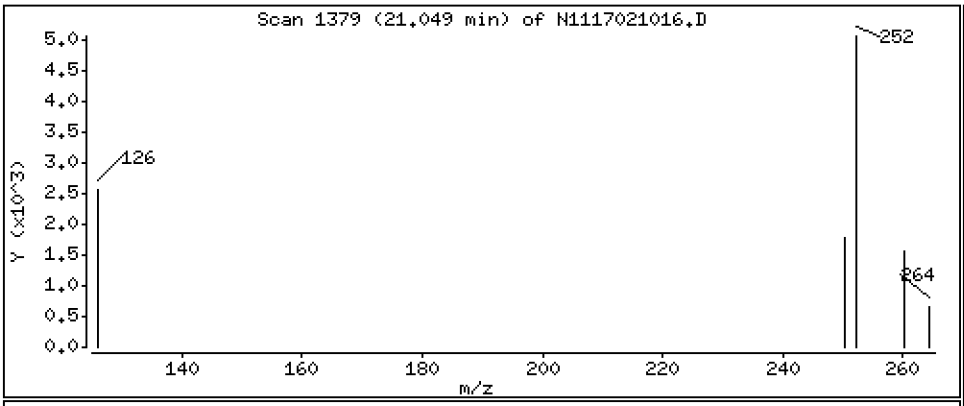
Operator: VTS

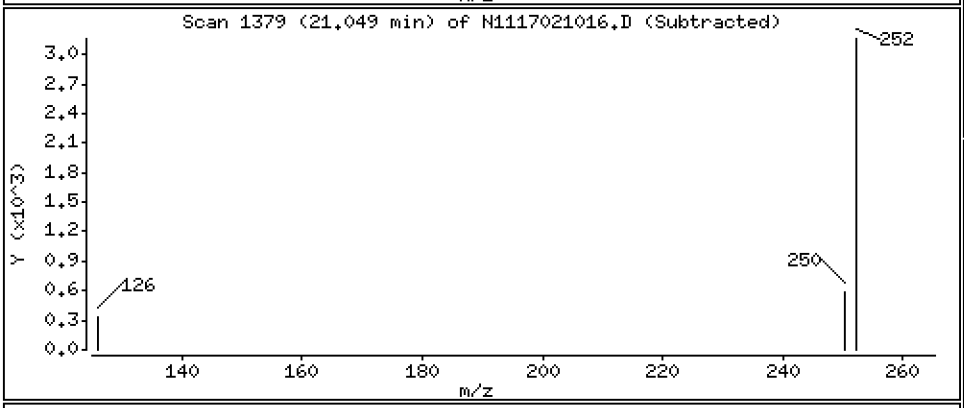
Column phase: Rxi-17Sil MS

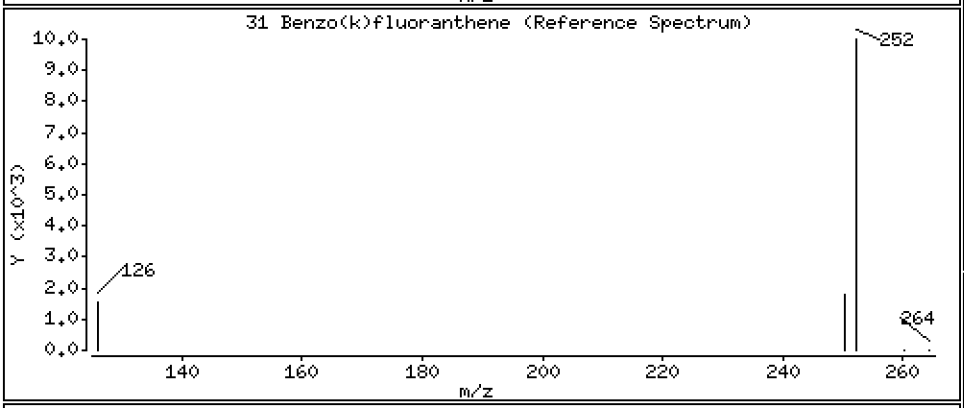
Column diameter: 0.25

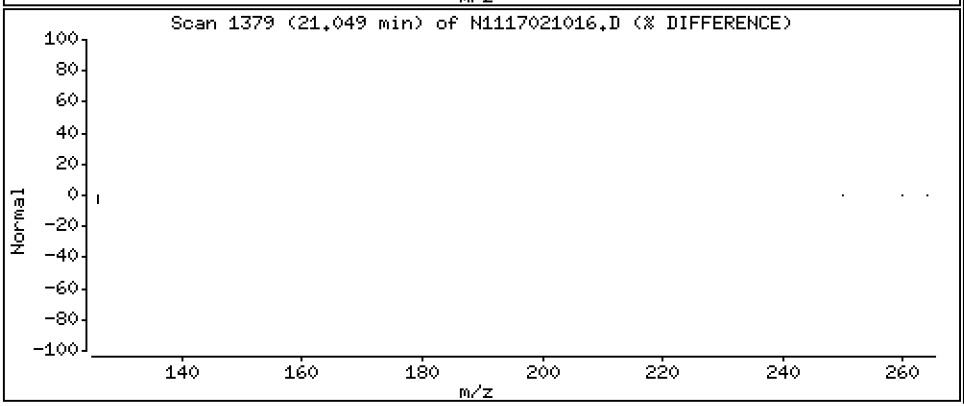
31 Benzo(k)fluoranthene

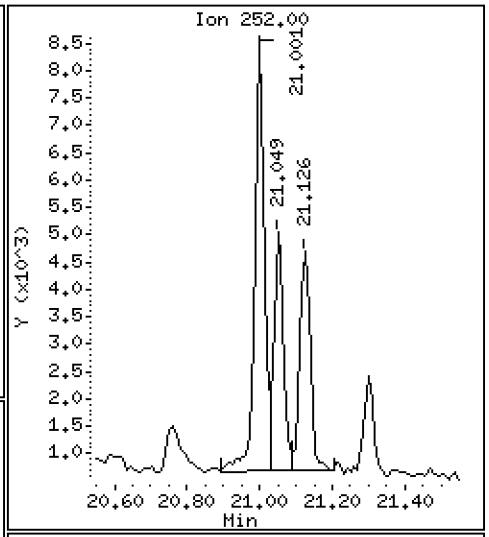
Concentration: 6.76 ng/mL

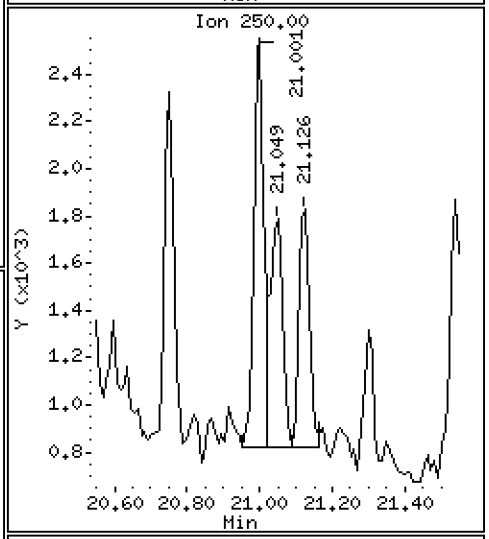


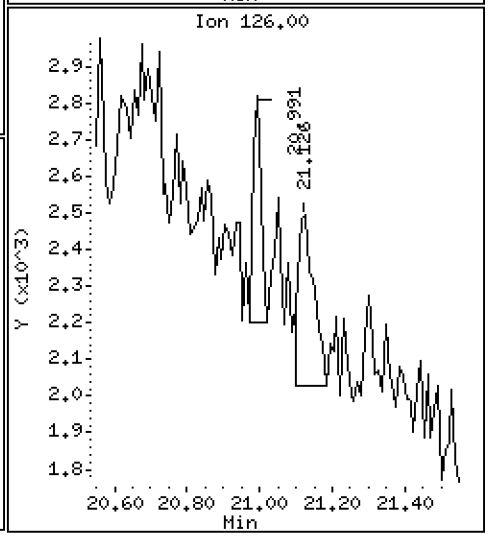












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021016.D

Date : 10-FEB-2017 20:01

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-09

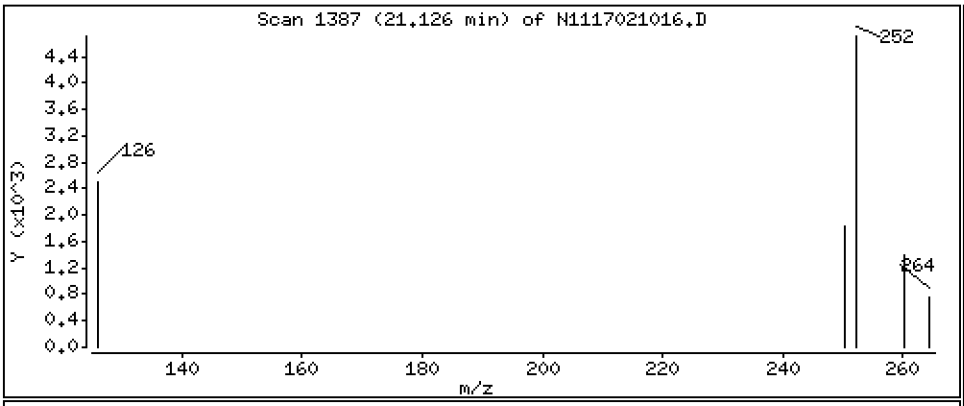
Operator: VTS

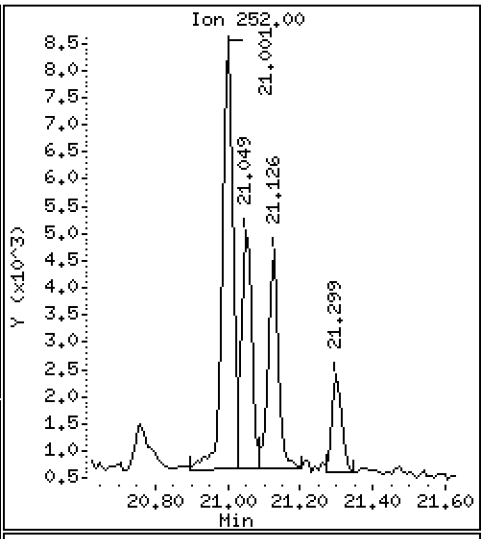
Column phase: Rxi-17Sil MS

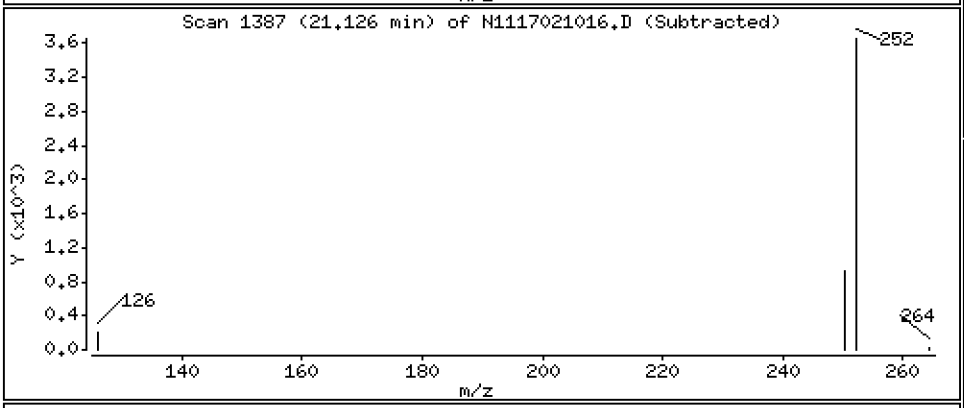
Column diameter: 0.25

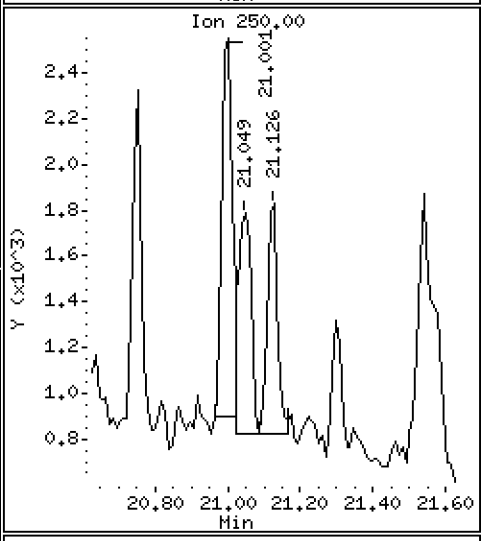
32 Benzo(j)fluoranthene

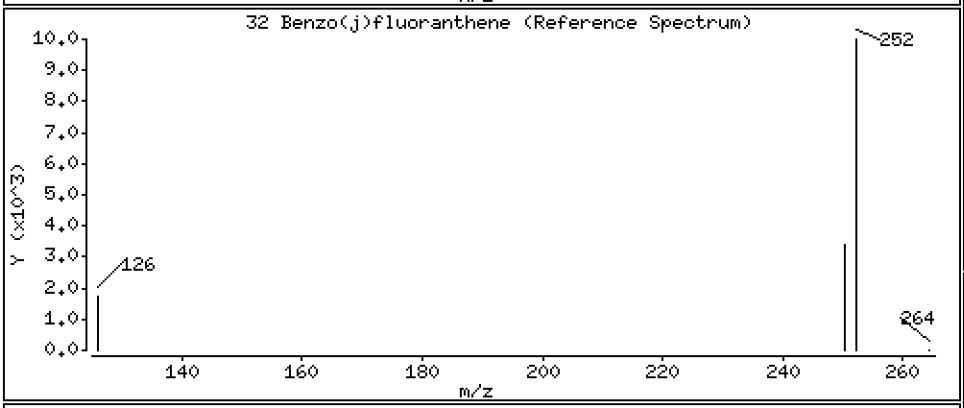
Concentration: 7.13 ng/mL

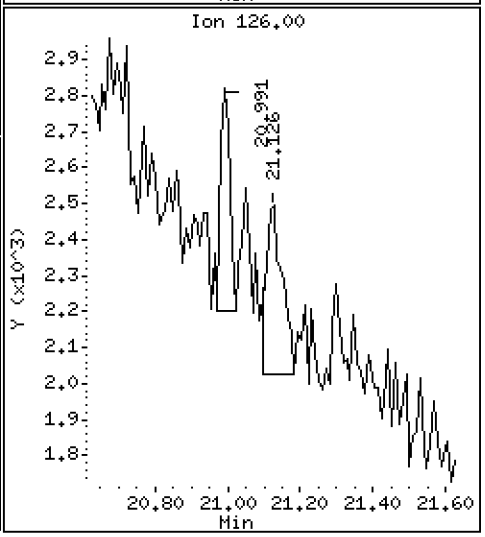


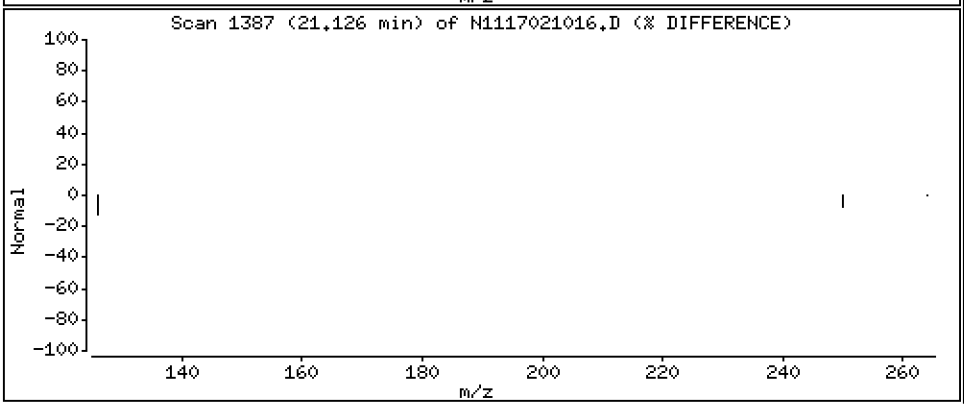












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Date : 10-FEB-2017 20:01

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-09

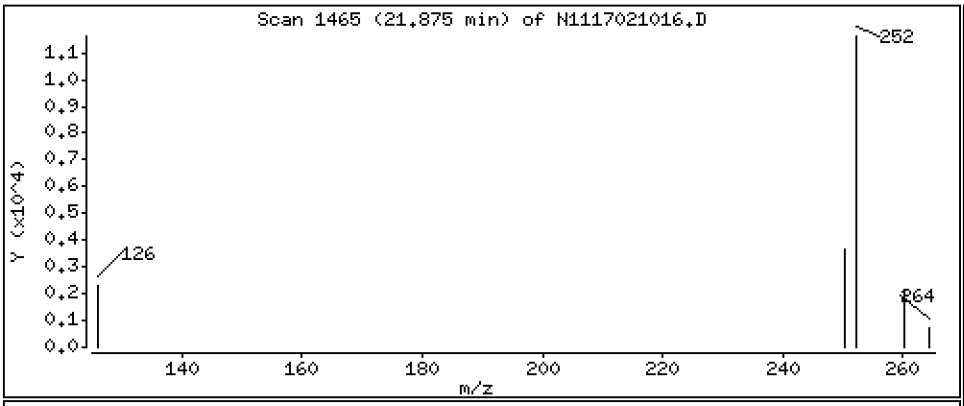
Operator: VTS

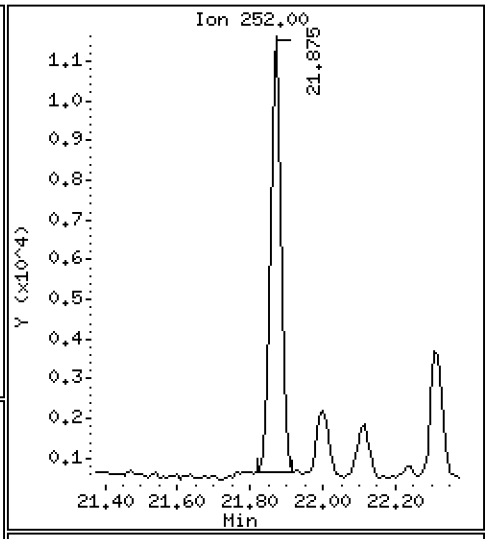
Column phase: Rxi-17Sil MS

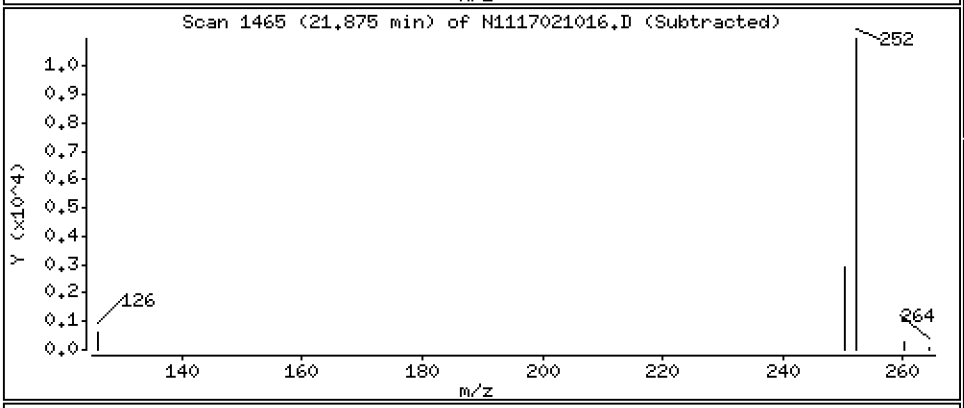
Column diameter: 0.25

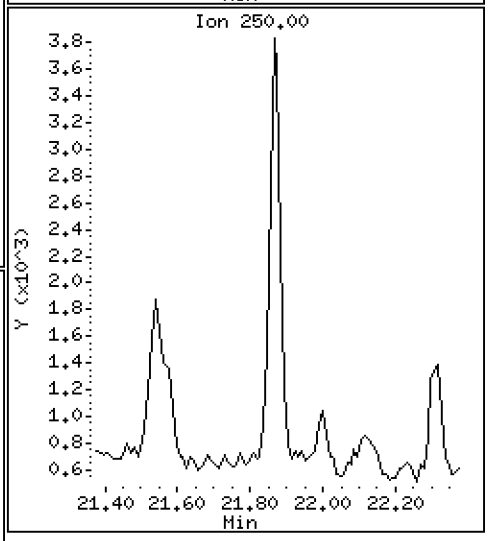
34 Benzo(e)pyrene

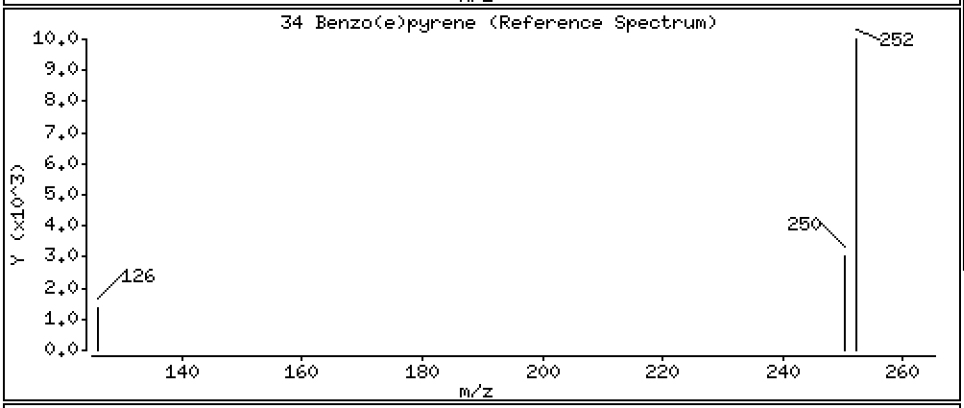
Concentration: 19.3 ng/mL

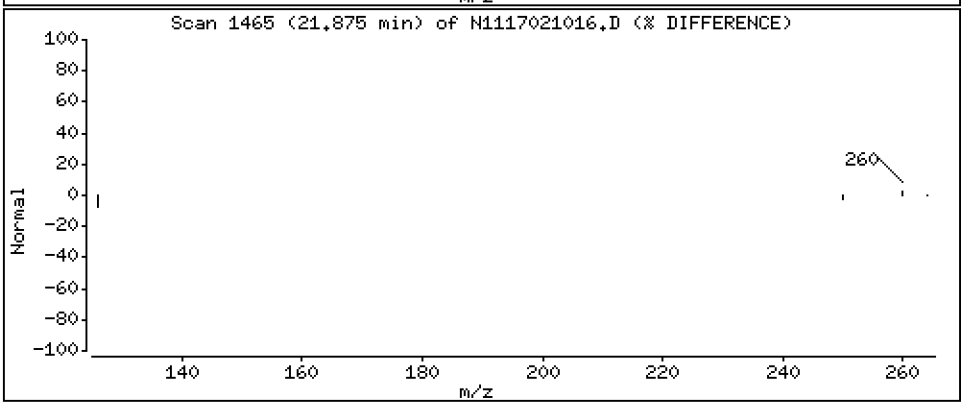












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021016.D

Date : 10-FEB-2017 20:01

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-09

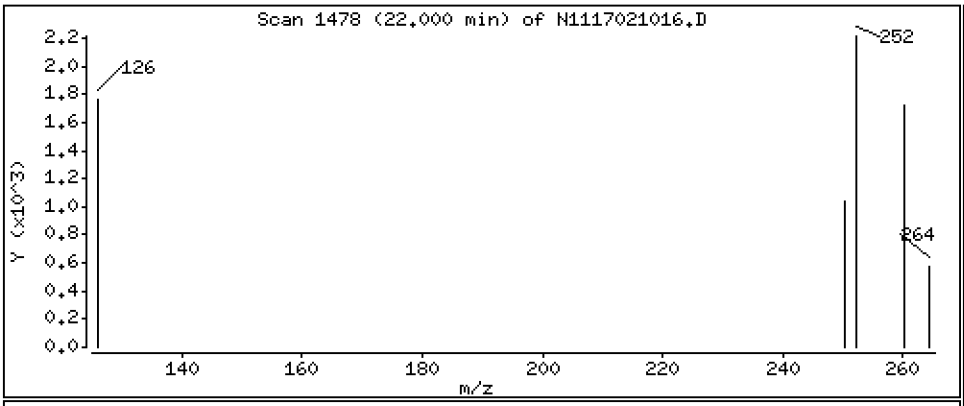
Operator: VTS

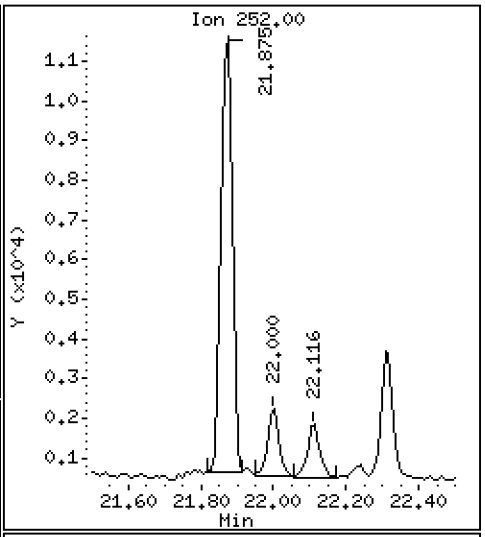
Column phase: Rxi-17Sil MS

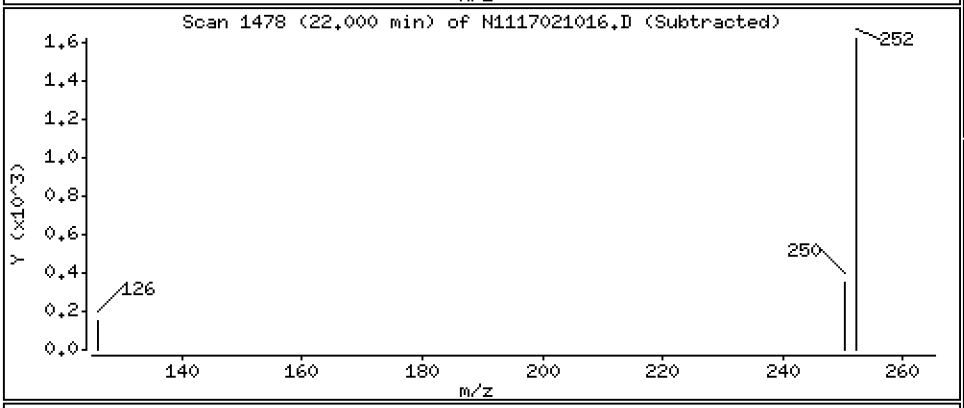
Column diameter: 0.25

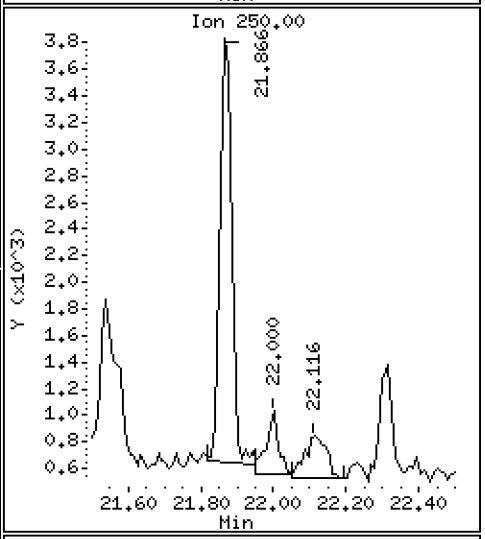
35 Benzo(a)pyrene

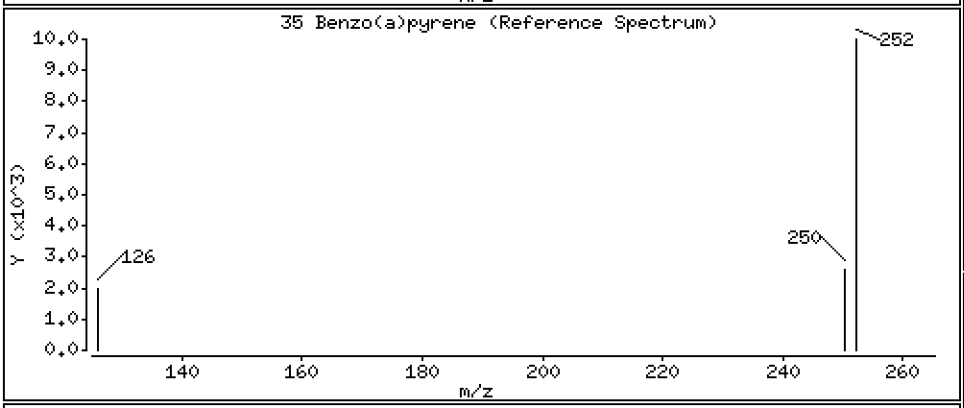
Concentration: 3.51 ng/mL

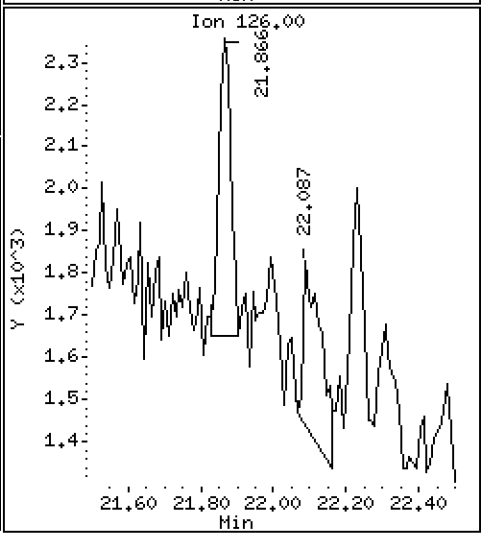


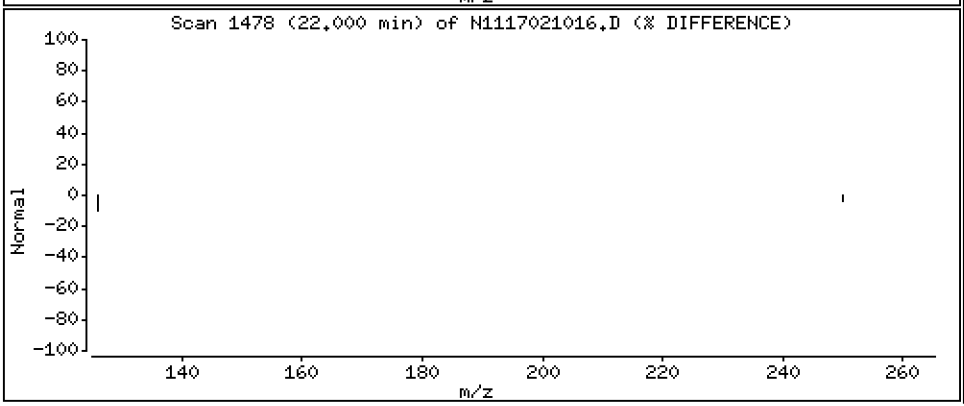












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Date : 10-FEB-2017 20:01

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-09

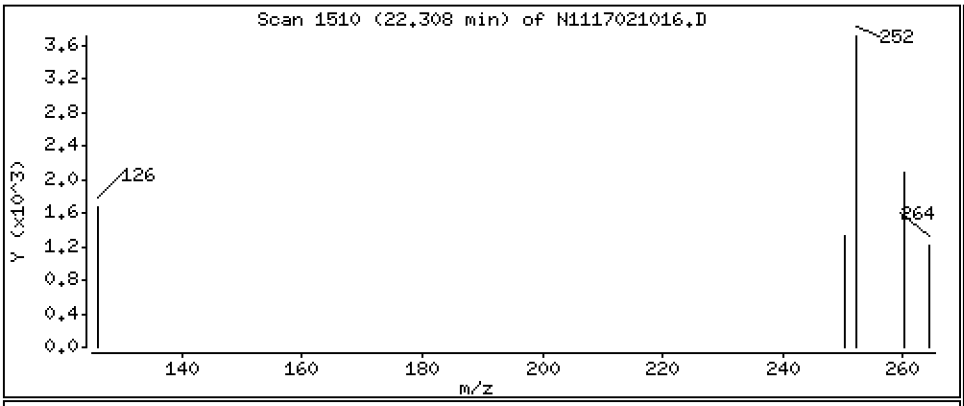
Operator: VTS

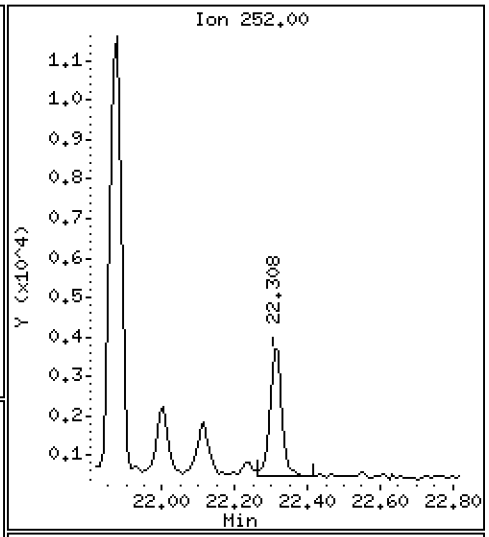
Column phase: Rxi-17Sil MS

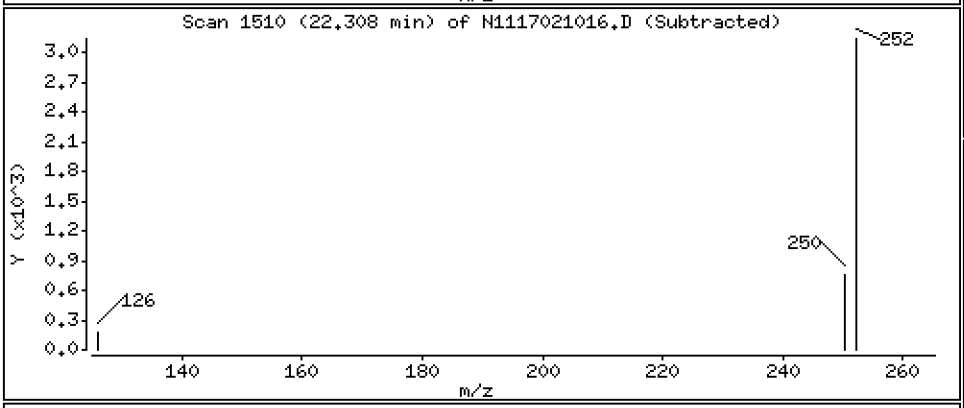
Column diameter: 0.25

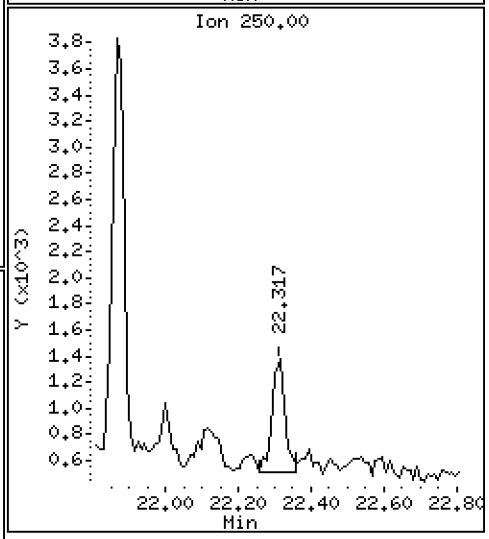
37 Perylene

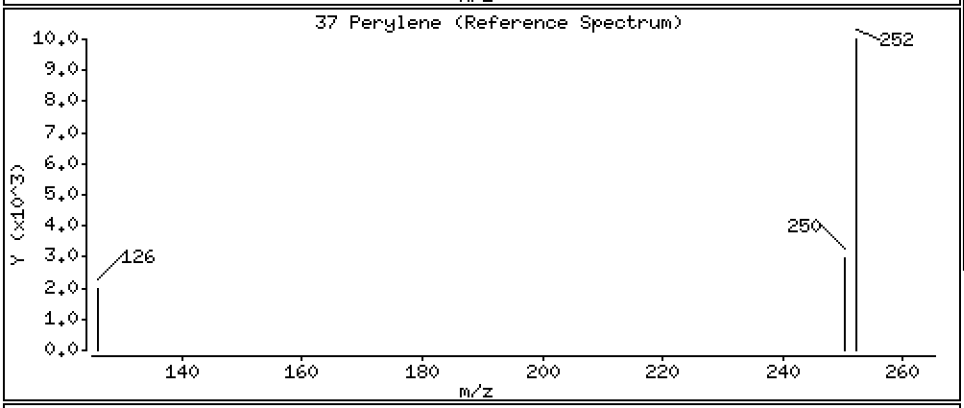
Concentration: 6.57 ng/mL

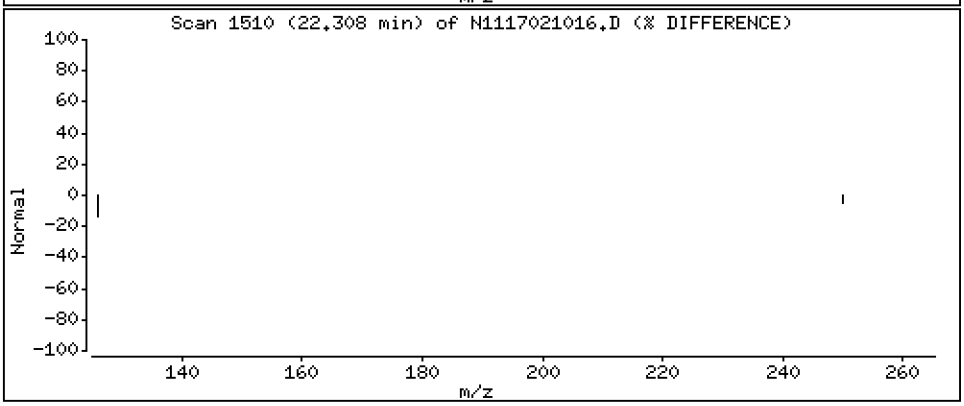












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Date : 10-FEB-2017 20:01

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-09

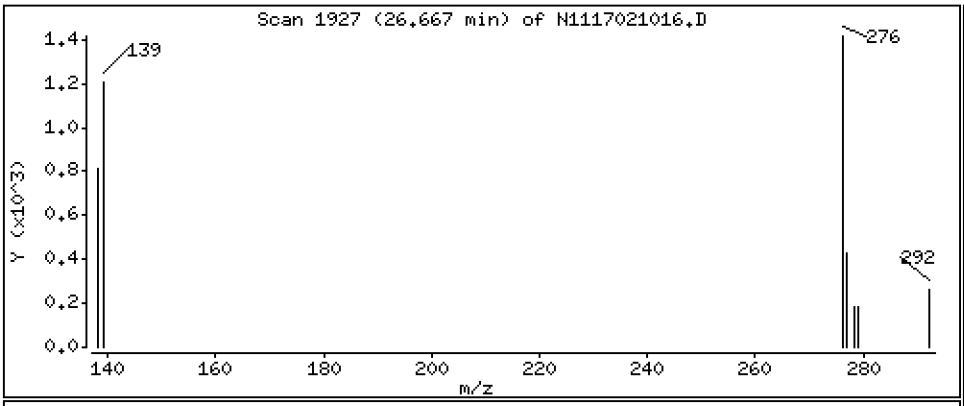
Operator: VTS

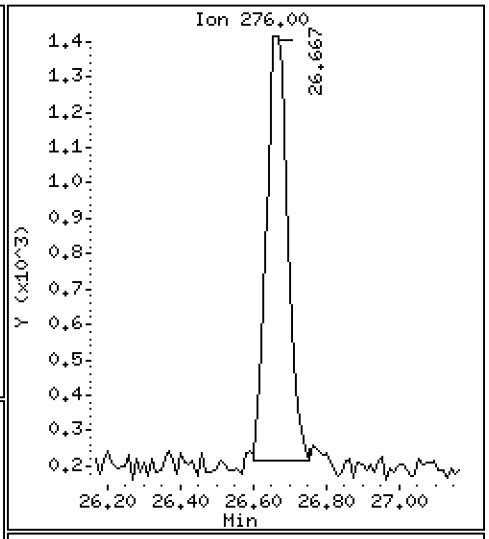
Column phase: Rxi-17Sil MS

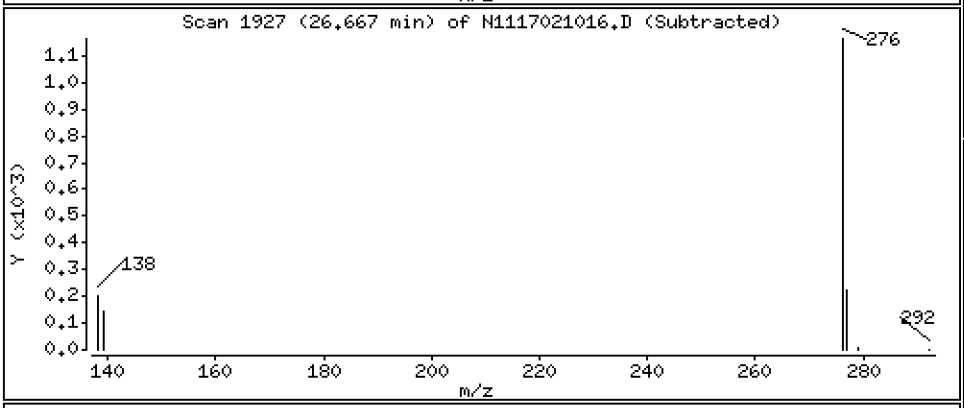
Column diameter: 0.25

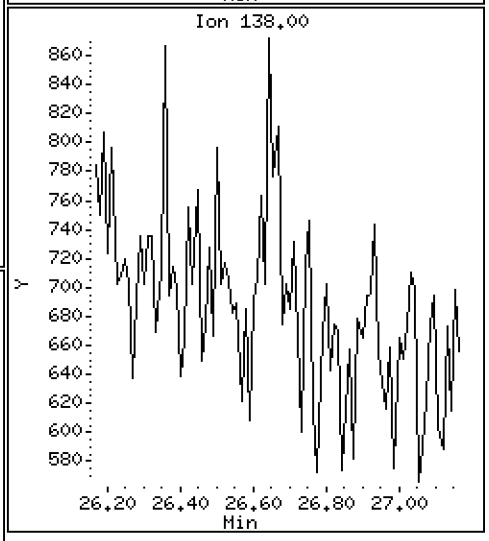
41 Benzo(g,h,i)perylene

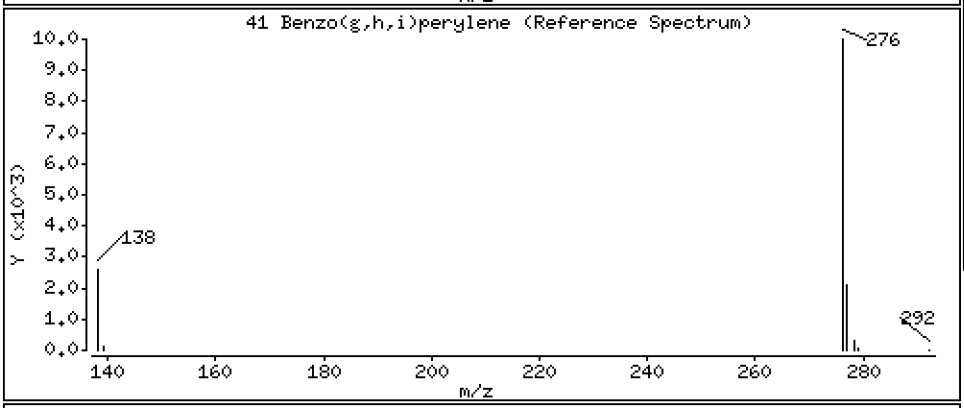
Concentration: 4.36 ng/mL

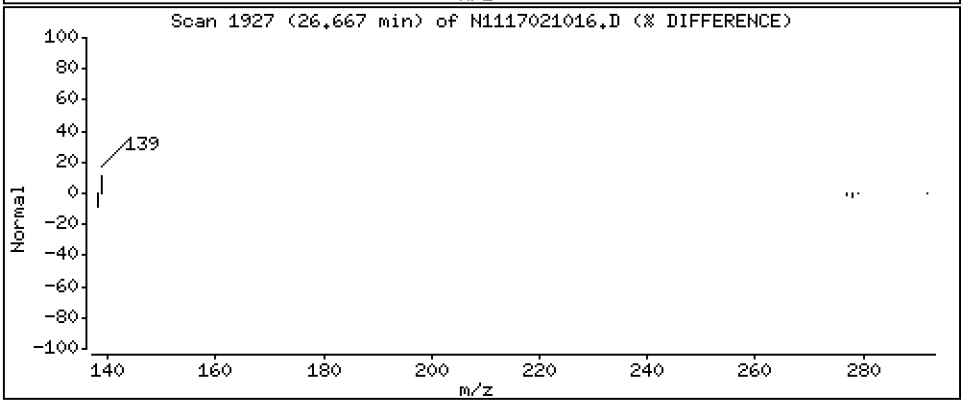












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20170210.b\N1117021016.D
Lab Smp Id: 17A0053-09
Inj Date : 10-FEB-2017 20:01 MS Autotune Date: 15-JAN-2015 15:59
Operator : VTS Inst ID: nt11.i
Smp Info : 17A0053-09
Misc Info :
Comment   :
Method   : \\target\share\chem3\nt11.i\20170210.b\LOWSIM.m
Meth Date : 11-Feb-2017 08:35 nt11.i Quant Type: ISTD
Cal Date : 31-DEC-2016 09:30 Cal File: N1116123104.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.508	8.526	(1.000)	219004	200.000	
	2 Naphthalene	128	8.545	8.554	(1.004)	8143	7.45055	7.45
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.498	9.508	(1.116)	169585	180.302	180
	5 2-Methylnaphthalene	142	9.550	9.561	(1.122)	5834	5.41598	5.42
	6 1-Methylnaphthalene	142	9.813	9.823	(1.153)	3872	3.57395	3.57
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	Compound Not Detected.					
*	11 Acenaphthene-d10	164	11.555	11.564	(1.000)	151898	200.000	
	12 Acenaphthene	153	11.618	11.627	(1.005)	3770	4.19526	4.20(M)
	13 Dibenzofuran	168	11.822	11.822	(1.023)	8705	6.51638	6.52
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.454	12.454	(1.078)	7999	7.52162	7.52
	17 Dibenzothiophene	184	Compound Not Detected.					
*	18 Phenanthrene-d10	188	14.251	14.262	(1.000)	243924	200.000	
	19 Phenanthrene	178	14.293	14.293	(1.003)	52231	37.4531	37.5
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.346	14.356	(1.007)	11761	8.45795	8.46
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	15.298	15.307	(1.073)	4138	2.89339	2.89(M)
$	24 Fluoranthene-d10	212	16.367	16.367	(1.148)	241237	186.205	186
	25 Fluoranthene	202	16.405	16.405	(1.151)	80459	50.8623	50.9
	26 Pyrene	202	16.905	16.915	(0.889)	75761	55.8700	55.9
	27 Benzo(a)anthracene	228	18.925	18.933	(0.995)	14035	11.1813	11.2
*	28 Chrysene-d12	240	19.024	19.024	(1.000)	208748	200.000	
	29 Chrysene	228	19.058	19.074	(1.002)	41041	31.8639	31.9
	30 Benzo(b)fluoranthene	252	21.001	21.001	(0.944)	15708	13.1767	13.2
	31 Benzo(k)fluoranthene	252	21.049	21.049	(0.946)	8680	6.76014	6.76
	32 Benzo(j)fluoranthene	252	21.126	21.125	(0.950)	8156	7.12603	7.13
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	34 Benzo(e)pyrene	252	21.875	21.875	(0.984)	22948	19.2982	19.3
	35 Benzo(a)pyrene	252	22.000	22.000	(0.989)	3903	3.51199	3.51
*	36 Perylene-d12	264	22.240	22.240	(1.000)	221150	200.000	
	37 Perylene	252	22.307	22.317	(1.003)	7620	6.56706	6.57
$	38 Dibenzo(a,h)anthracene-d14	292	25.105	25.116	(1.129)	153591	217.477	217
	39 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	40 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	41 Benzo(g,h,i)perylene	276	26.666	26.666	(1.199)	4745	4.35596	4.36

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: N1117021016.D
Lab Smp Id: 17A0053-09
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20170210.b\LOWSIM.m
Misc Info:

Calibration Date: 10-FEB-2017
Calibration Time: 13:29
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	219654	109827	439308	219004	-0.30
11 Acenaphthene-d10	135248	67624	270496	151898	12.31
18 Phenanthrene-d10	257021	128511	514042	243924	-5.10
28 Chrysene-d12	259511	129756	519022	208748	-19.56
36 Perylene-d12	257535	128768	515070	221150	-14.13

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.53	8.03	9.03	8.51	-0.21
11 Acenaphthene-d10	11.56	11.06	12.06	11.56	-0.08
18 Phenanthrene-d10	14.26	13.76	14.76	14.25	-0.07
28 Chrysene-d12	19.02	18.52	19.52	19.02	0.00
36 Perylene-d12	22.24	21.74	22.74	22.24	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1117021016.D

Lab ID: 17A0053-09
nt11.i, 20170210.b\LOWSIM.m,   10-FEB-2017 20:01

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

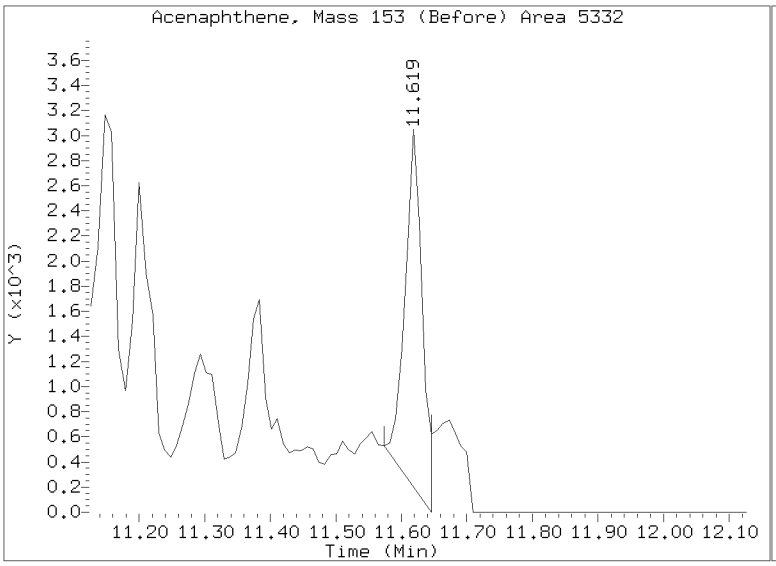
NONE

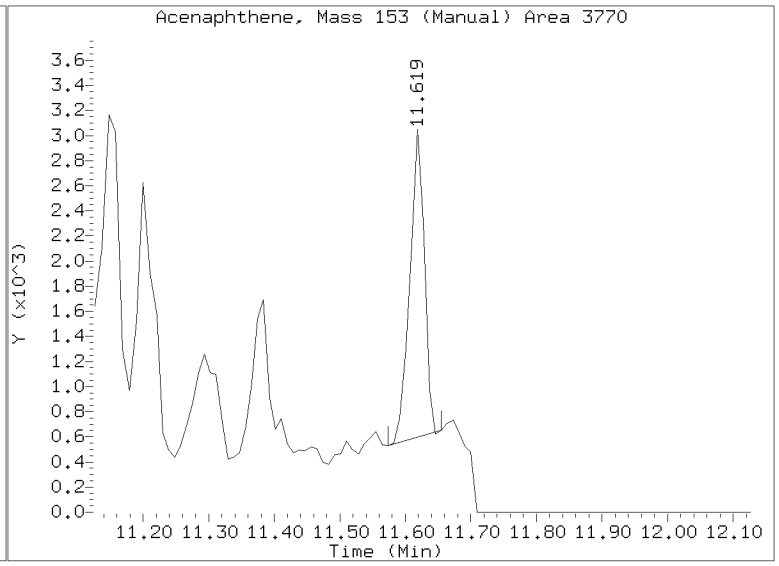
On Column LOD for nt11.i, 20170210.b\LOWSIM.m, allpna.sub = 3.0000

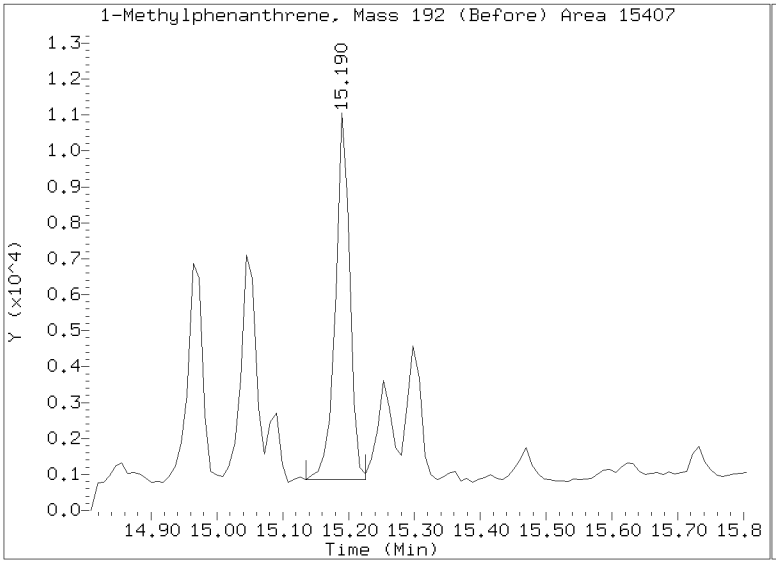
Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

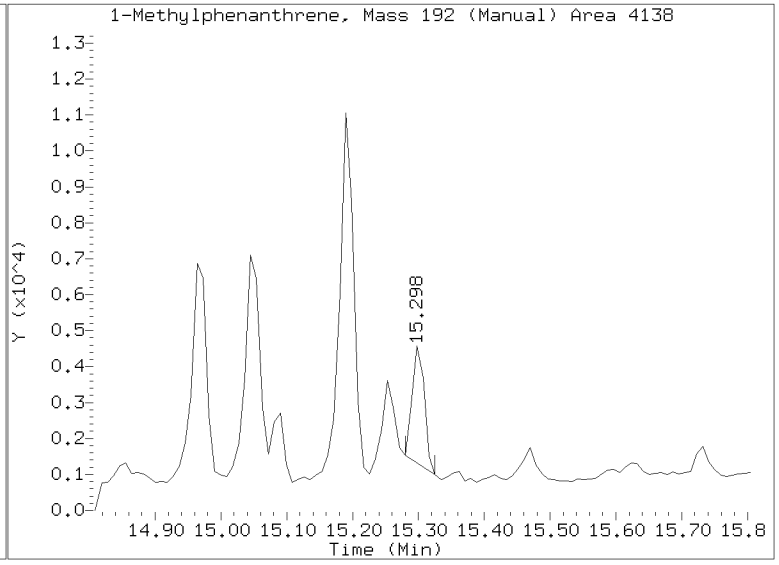
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt11.i/20170210.b/N1117021016.D
Injection Date: 10-FEB-2017 20:01
Lab ID:17A0053-09 Client ID:
Report Date: 02/11/2017 08:35









PG-GP-1-MUS-170105

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D-SIM
Polycyclic Aromatic Hydrocarbons (PAH) low level

Laboratory:	Analytical Resources, Inc.			SDG:	17A0053
Client:	Anchor QEA, LLC			Project:	Port Gamble Shellfish Monitoring
Matrix:	Tissue	Laboratory ID:	17A0053-10	File ID:	N1117021103.D
Sampled:	01/05/17 14:43	Prepared:	01/31/17 13:45	Analyzed:	02/11/17 11:12
Solids:		Preparation:	EPA 3550C-Mod (Ultrasonic	Initial/Final:	10.19 g / 0.5 mL
Batch:	BFA0647	Sequence:	SFB0152	Calibration:	ZL00083
Instrument:	NT11	Column:	RXi-17Sil-MS		

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg)	Q	DL	RL
91-20-3	Naphthalene	1	0.59	U	0.49	0.59
91-57-6	2-Methylnaphthalene	1	0.49	U	0.49	0.49
208-96-8	Acenaphthylene	1	0.49	U	0.49	0.49
83-32-9	Acenaphthene	1	0.49	U	0.49	0.49
86-73-7	Fluorene	1	0.49	U	0.49	0.49
85-01-8	Phenanthrene	1	1.73		0.49	0.49
120-12-7	Anthracene	1	0.49	U	0.49	0.49
206-44-0	Fluoranthene	1	1.99		0.49	0.49
129-00-0	Pyrene	1	1.66		0.49	0.49
56-55-3	Benzo(a)anthracene	1	0.49	U	0.49	0.49
218-01-9	Chrysene	1	1.65		0.49	0.49
205-99-2	Benzo(b)fluoranthene	1	0.49	U	0.49	0.49
207-08-9	Benzo(k)fluoranthene	1	0.49	U	0.49	0.49
50-32-8	Benzo(a)pyrene	1	0.49	U	0.49	0.49
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.49	U	0.49	0.49
53-70-3	Dibenzo(a,h)anthracene	1	0.49	U	0.49	0.49
191-24-2	Benzo(g,h,i)perylene	1	0.49	U	0.49	0.49
1985-5-0	Perylene	1	0.49	U	0.49	0.49
197-97-2	Benzo(e)pyrene	1	0.68		0.49	0.49

SURROGATES	ADDED (ug/kg)	CONC (ug/kg)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	14.720	7.94	54.0	30 - 160	
Dibenzo[a,h]anthracene-d14	14.720	10.7	72.6	30 - 160	
Fluoranthene-d10	14.720	9.08	61.7	30 - 160	

Data File: \\target\share\chem3\nt11.i\20170211.b\N1117021103.D

Date : 11-FEB-2017 11:12

Client ID:

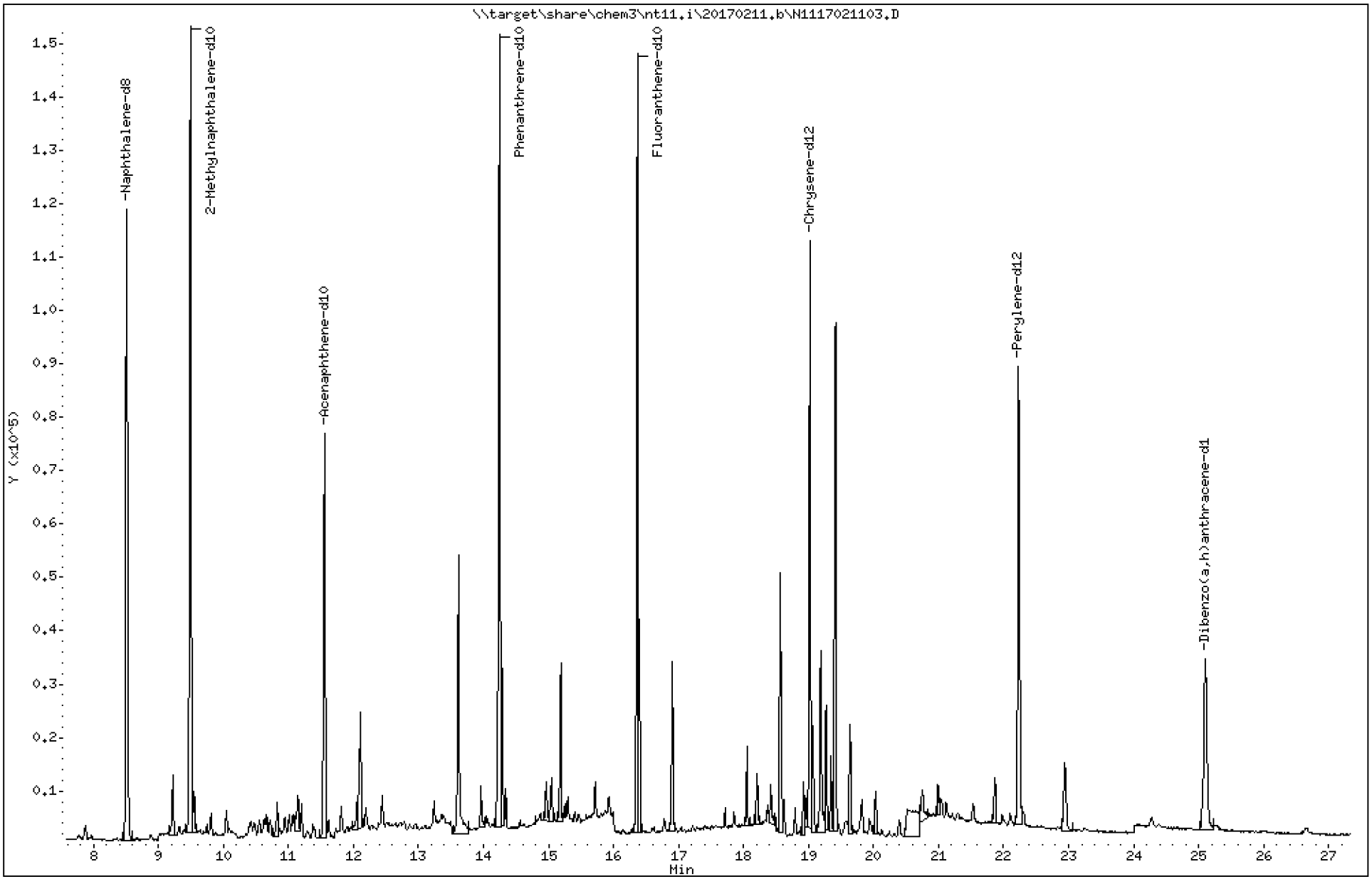
Sample Info: 17A0053-10

Instrument: nt11.i

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 11-FEB-2017 11:12

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-10

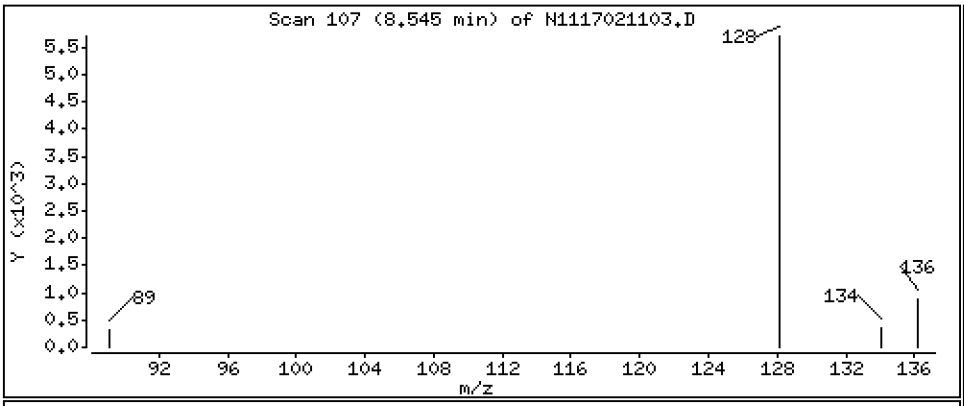
Operator: VTS

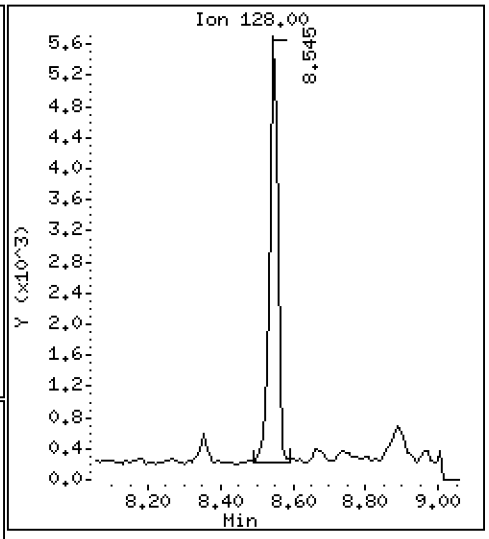
Column phase: Rxi-17Sil MS

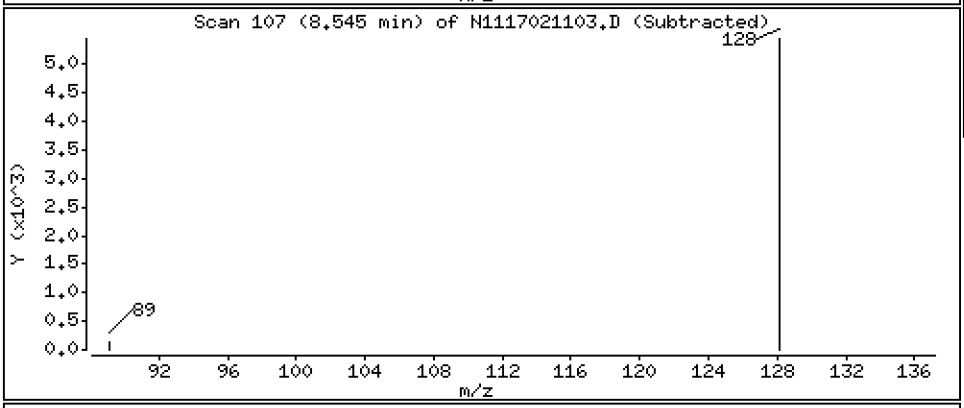
Column diameter: 0.25

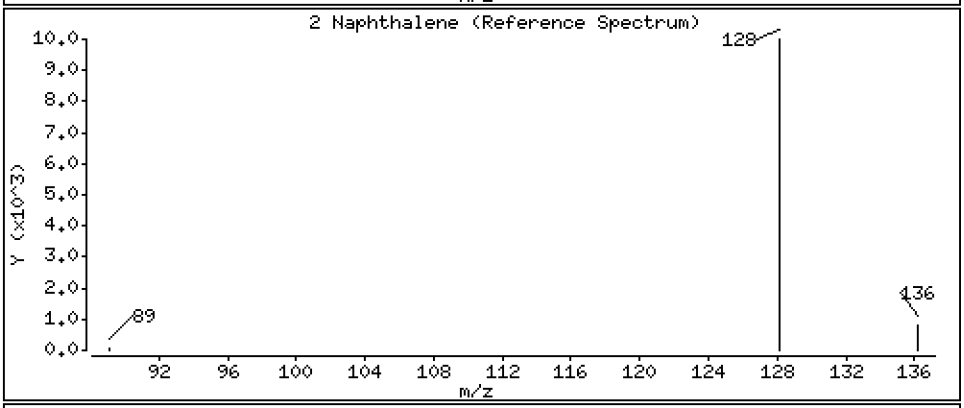
2 Naphthalene

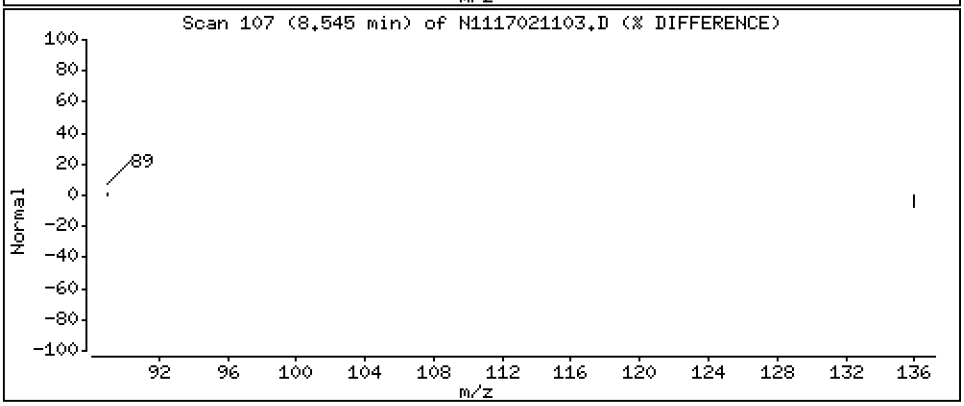
Concentration: 9.50 ng/mL











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Date : 11-FEB-2017 11:12

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-10

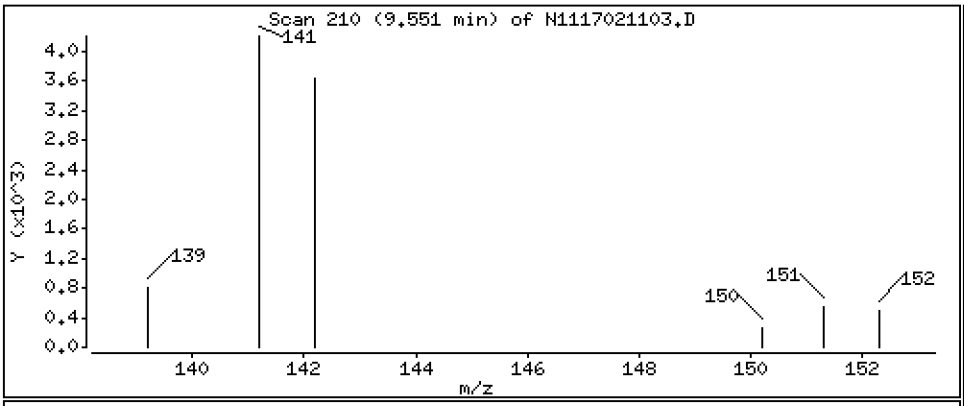
Operator: VTS

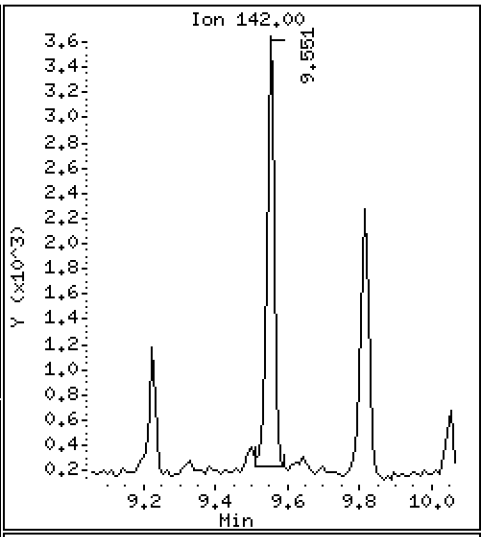
Column phase: Rxi-17Sil MS

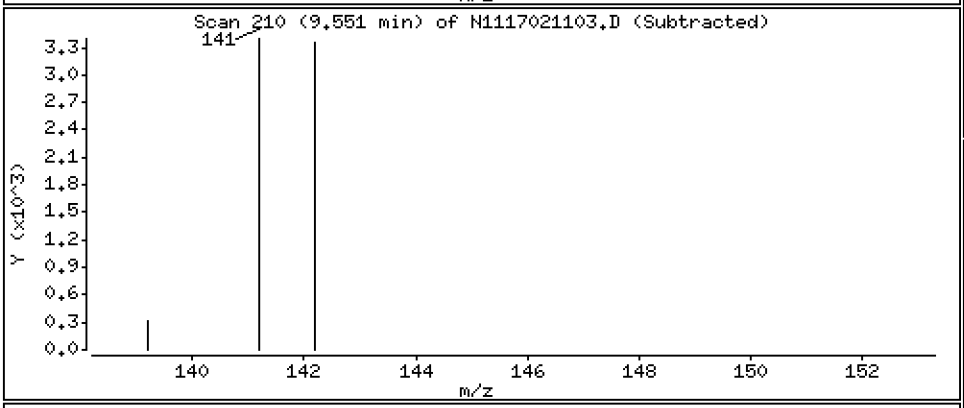
Column diameter: 0.25

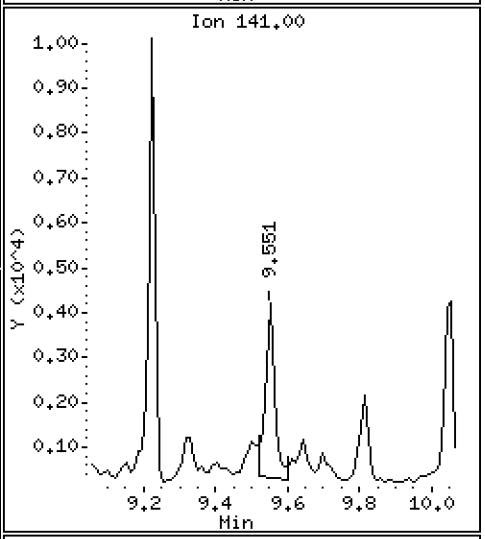
5 2-Methylnaphthalene

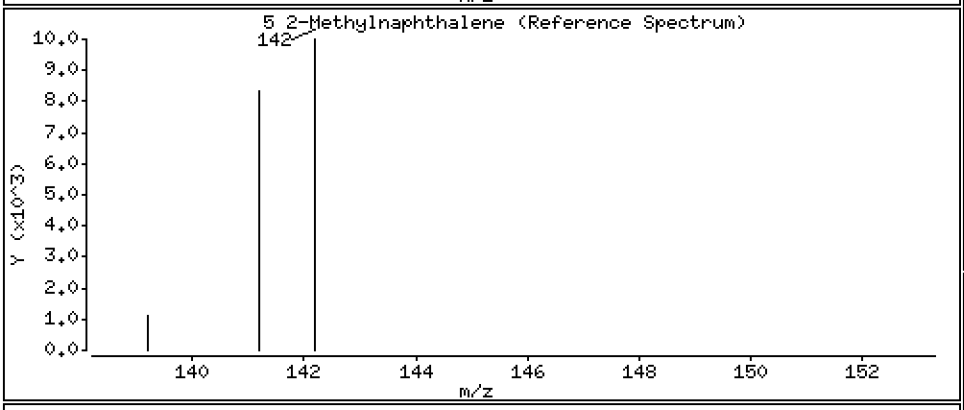
Concentration: 6.32 ng/mL

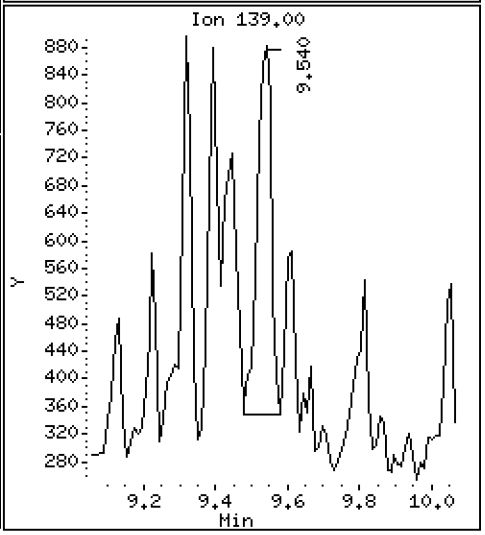


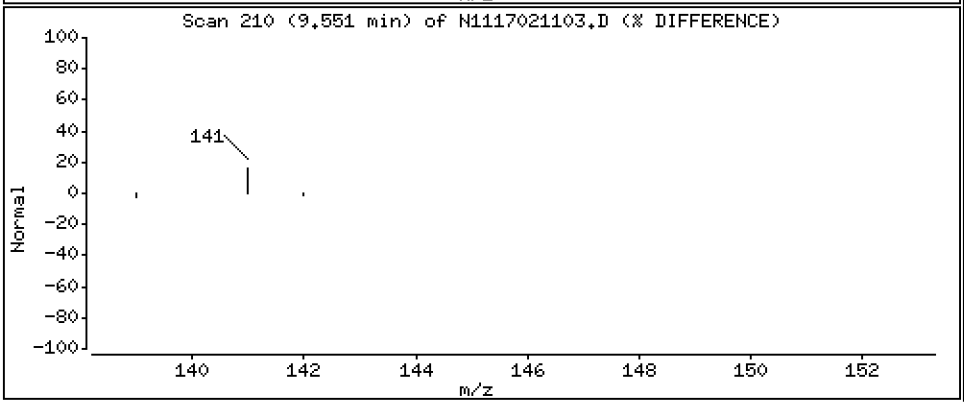












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Date : 11-FEB-2017 11:12

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-10

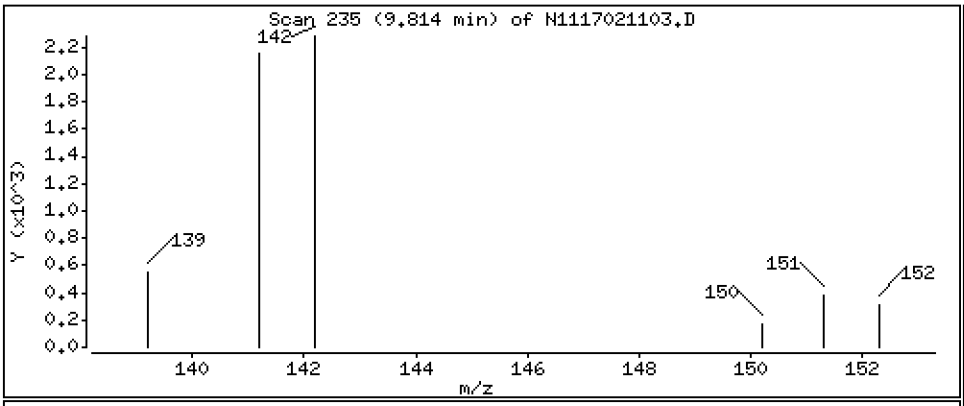
Operator: VTS

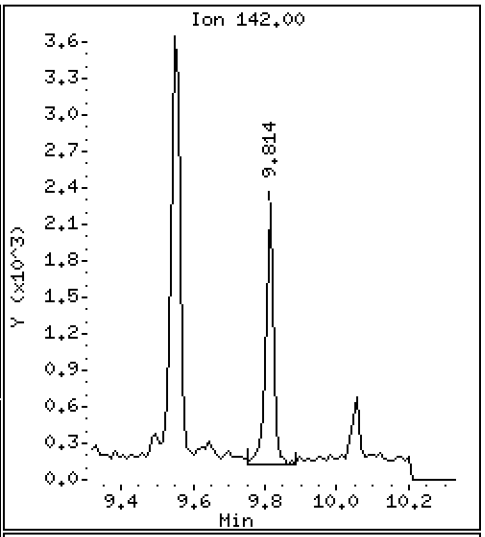
Column phase: Rxi-17Sil MS

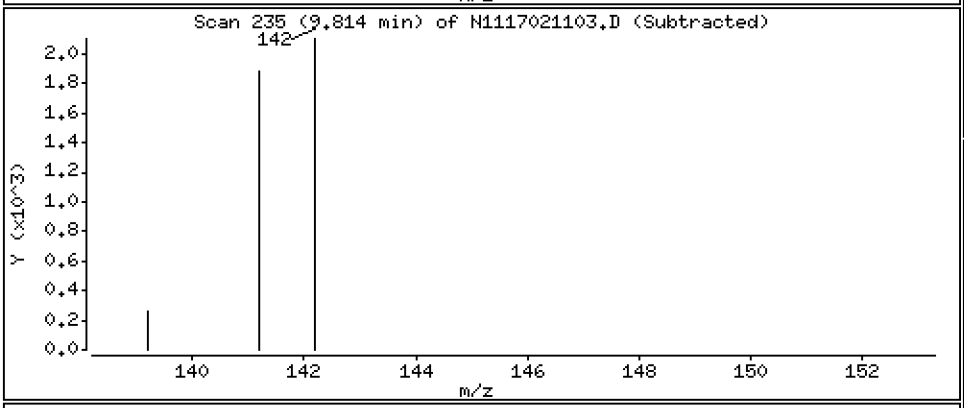
Column diameter: 0.25

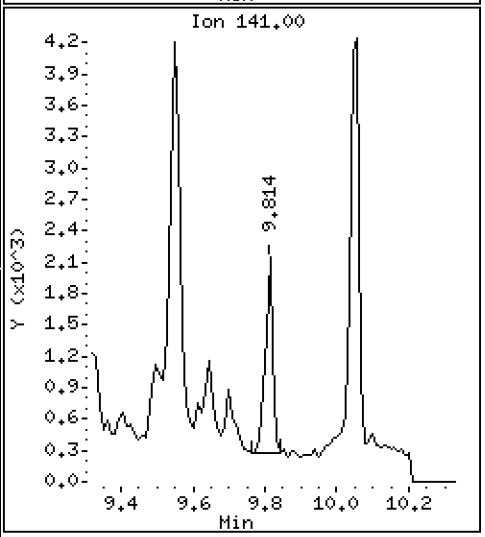
6 1-Methylnaphthalene

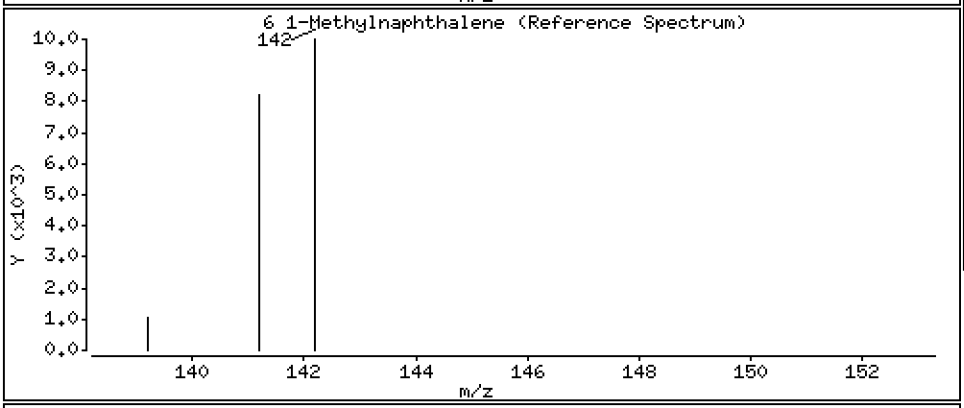
Concentration: 4.03 ng/mL

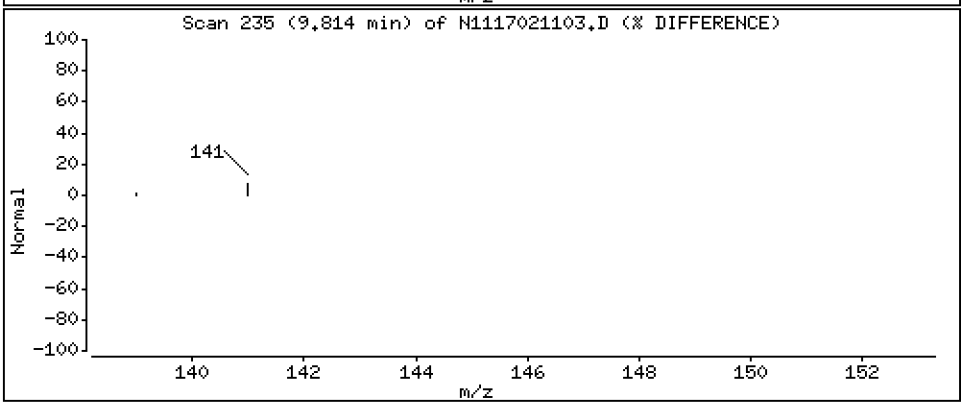












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Date : 11-FEB-2017 11:12

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-10

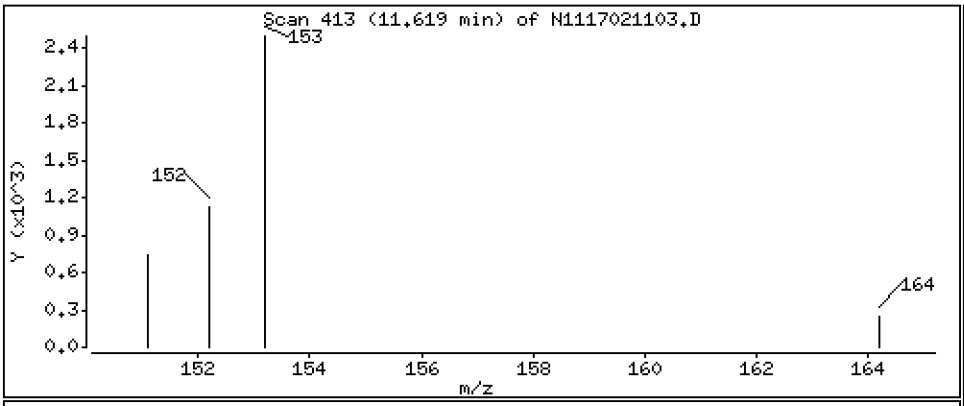
Operator: VTS

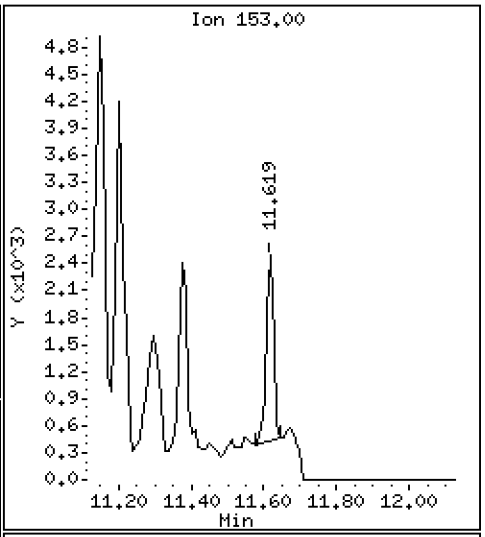
Column phase: Rxi-17Sil MS

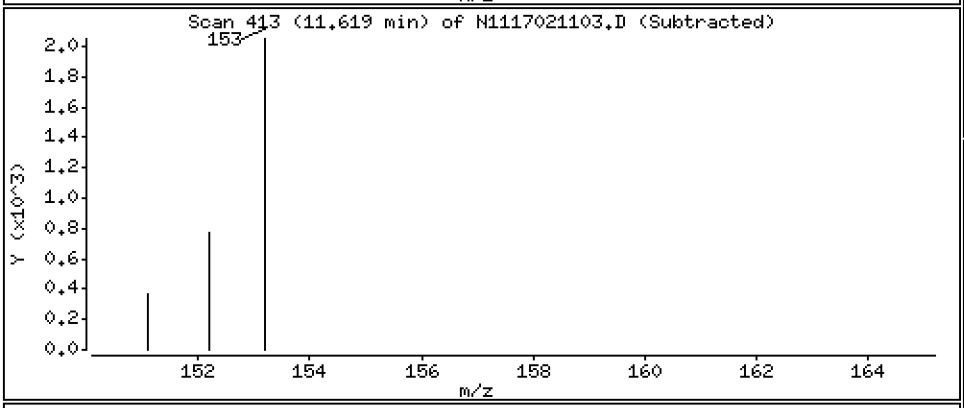
Column diameter: 0.25

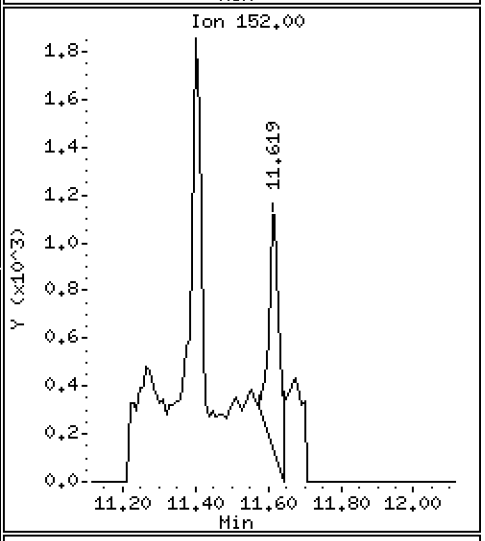
12 Acenaphthene

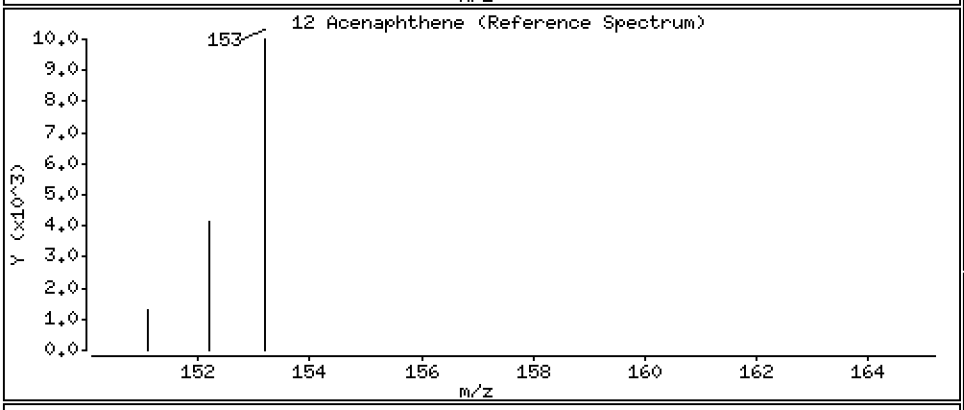
Concentration: 4.30 ng/mL

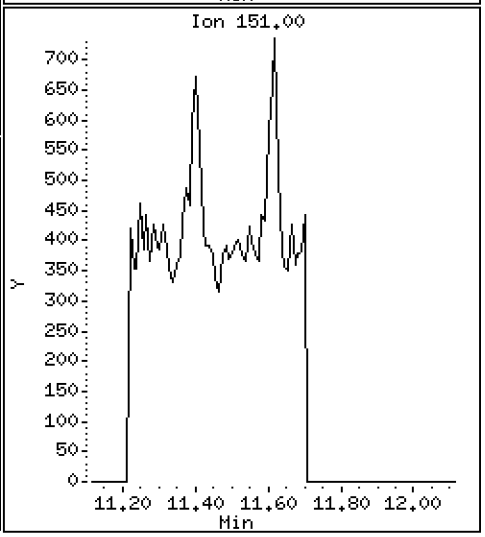


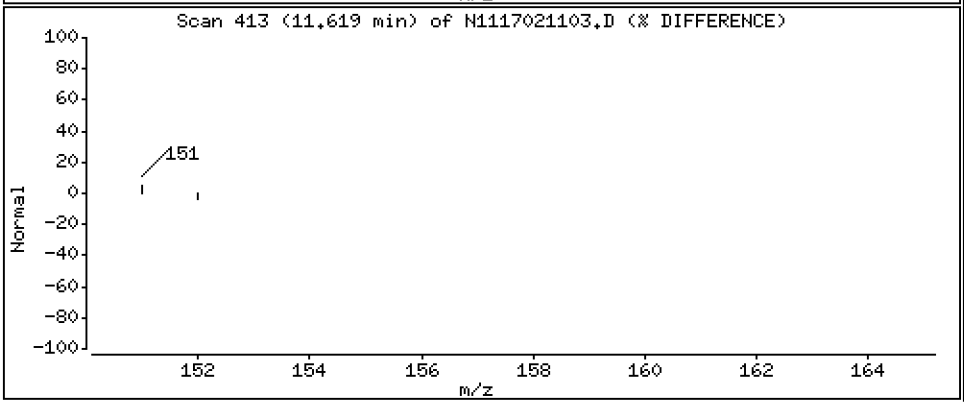












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Date : 11-FEB-2017 11:12

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-10

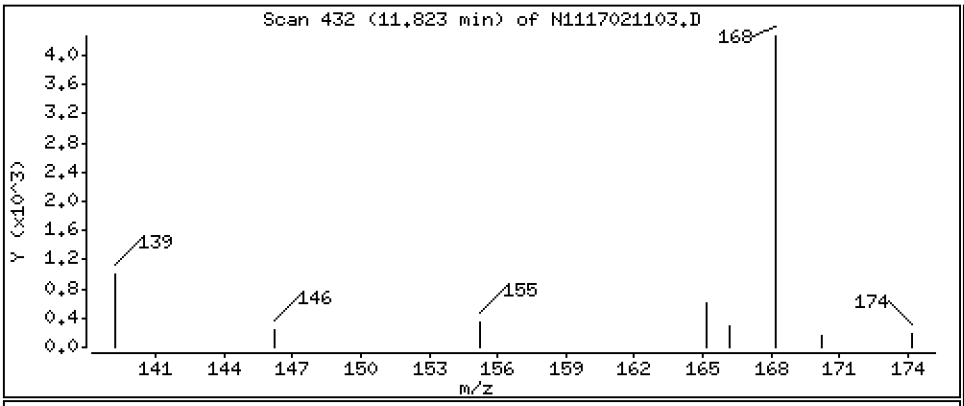
Operator: VTS

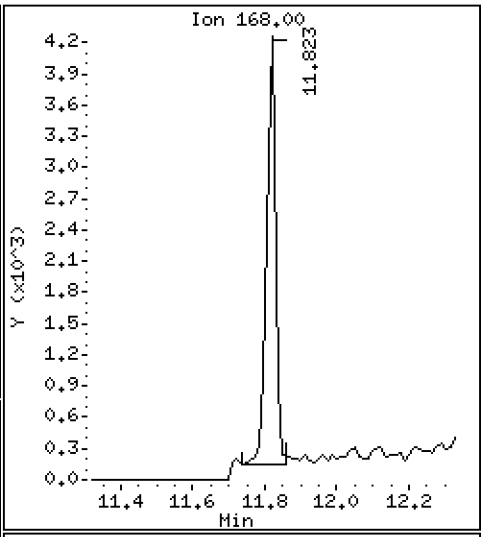
Column phase: Rxi-17Sil MS

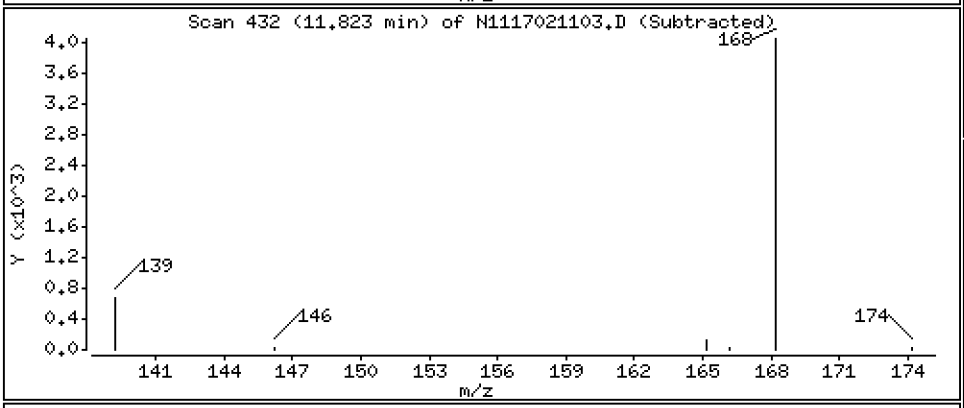
Column diameter: 0.25

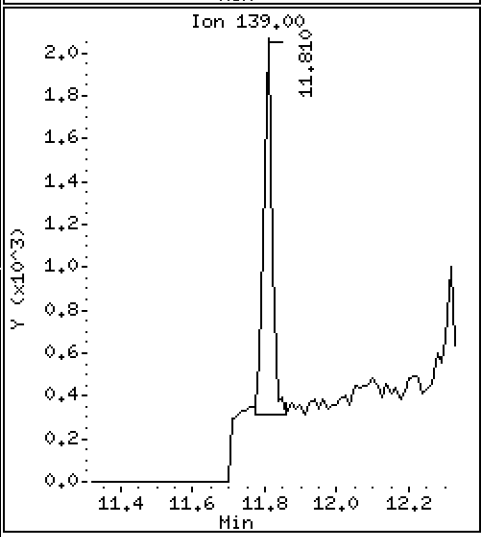
13 Dibenzofuran

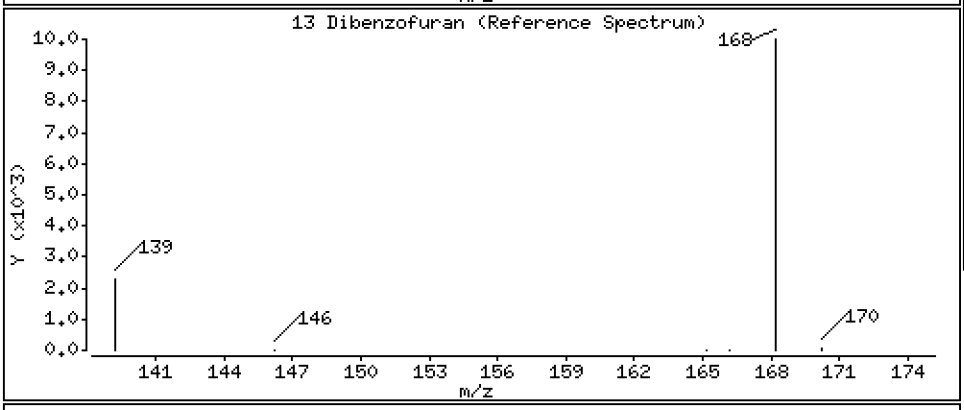
Concentration: 6.80 ng/mL

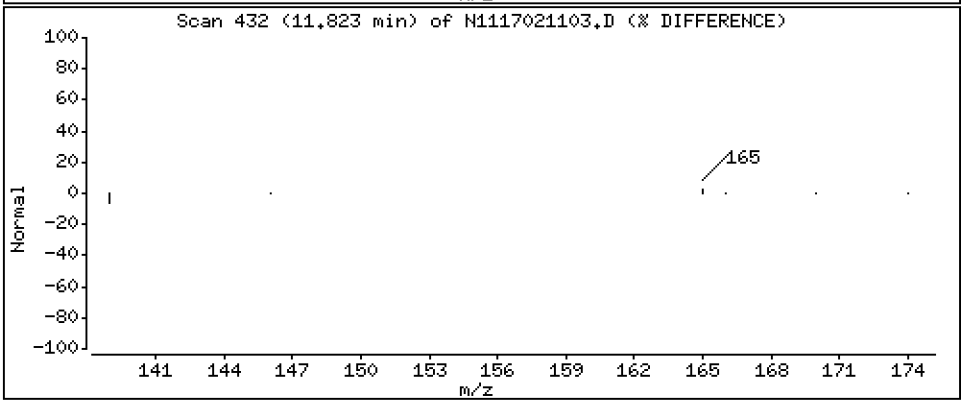












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Date : 11-FEB-2017 11:12

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-10

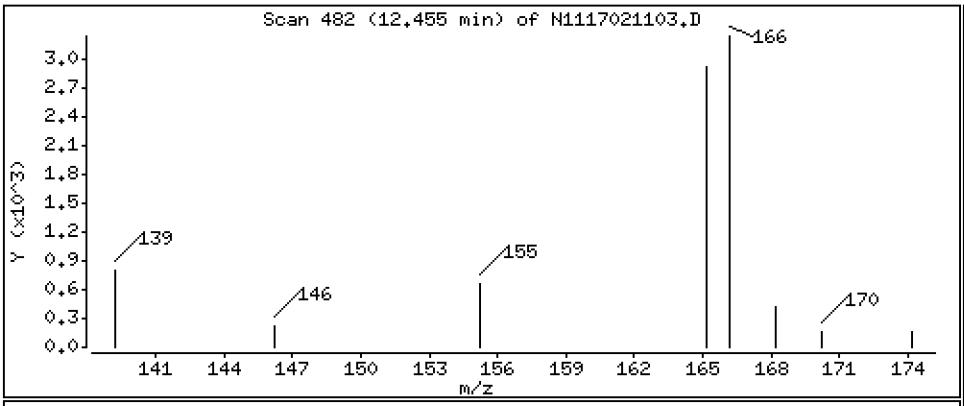
Operator: VTS

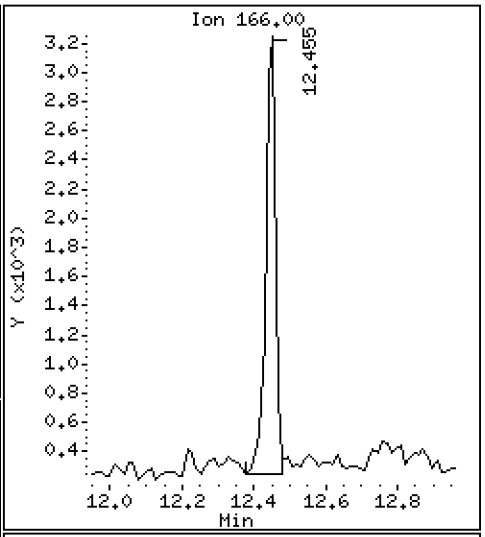
Column phase: Rxi-17Sil MS

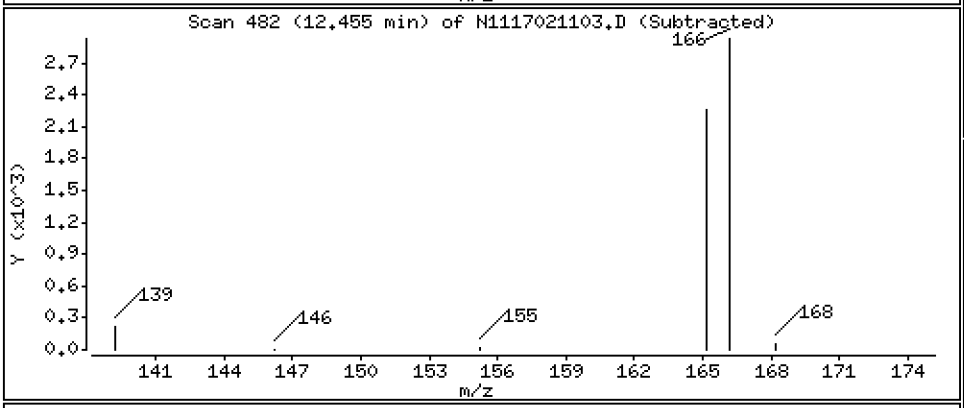
Column diameter: 0.25

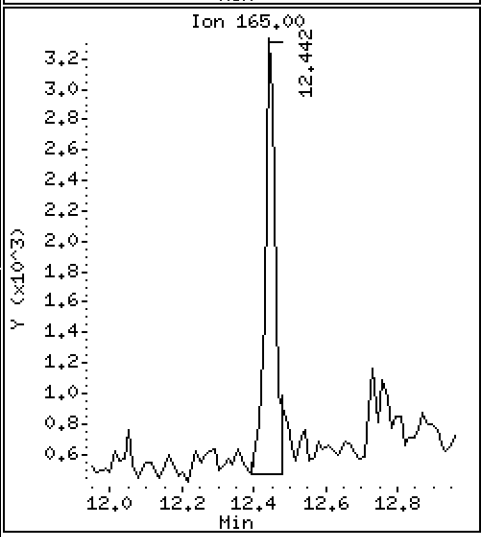
16 Fluorene

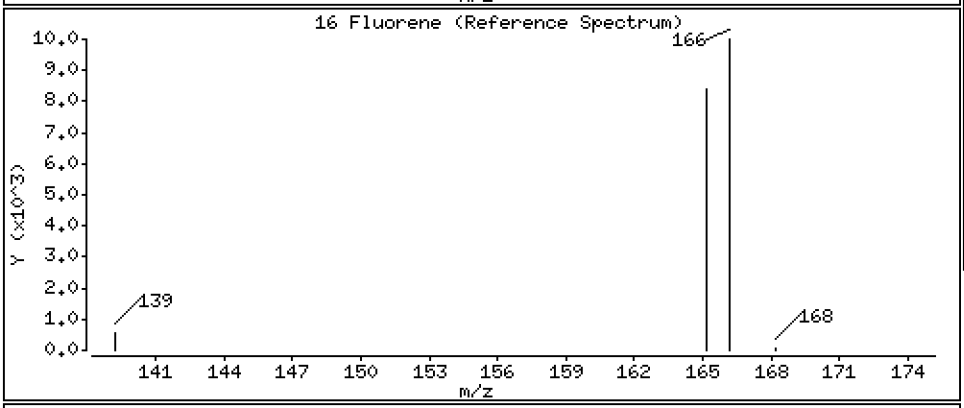
Concentration: 7.26 ng/mL

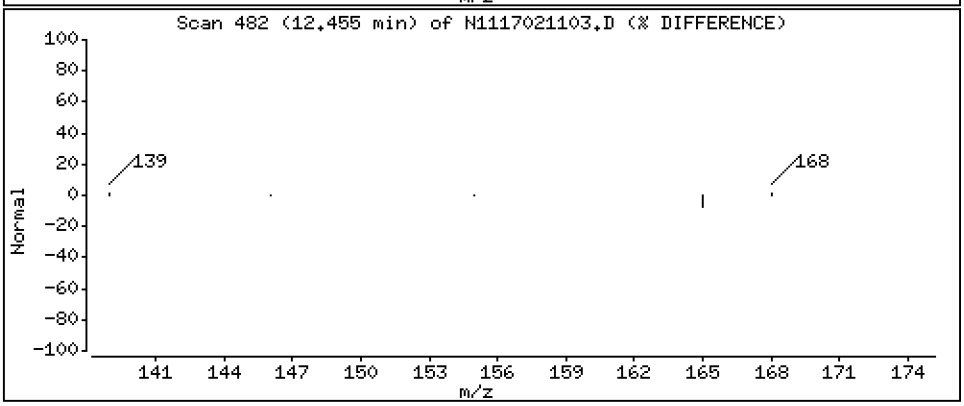












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Date : 11-FEB-2017 11:12

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-10

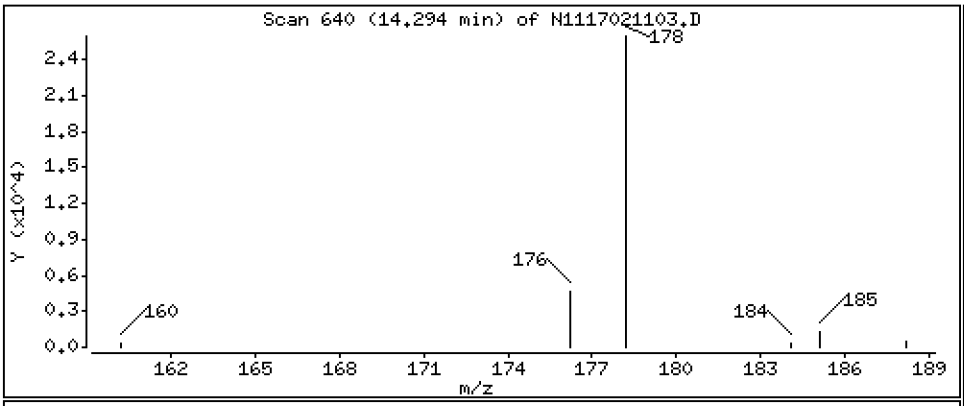
Operator: VTS

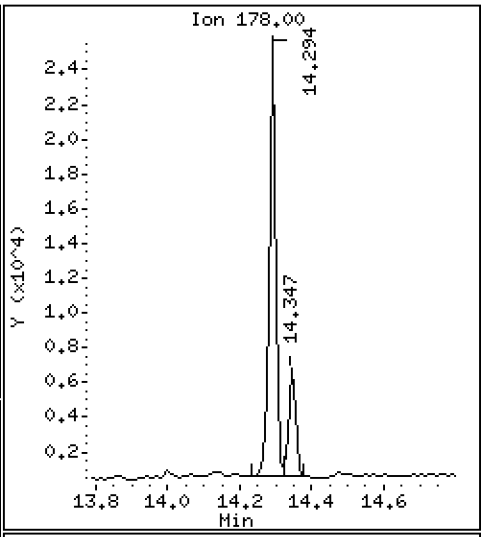
Column phase: Rxi-17Sil MS

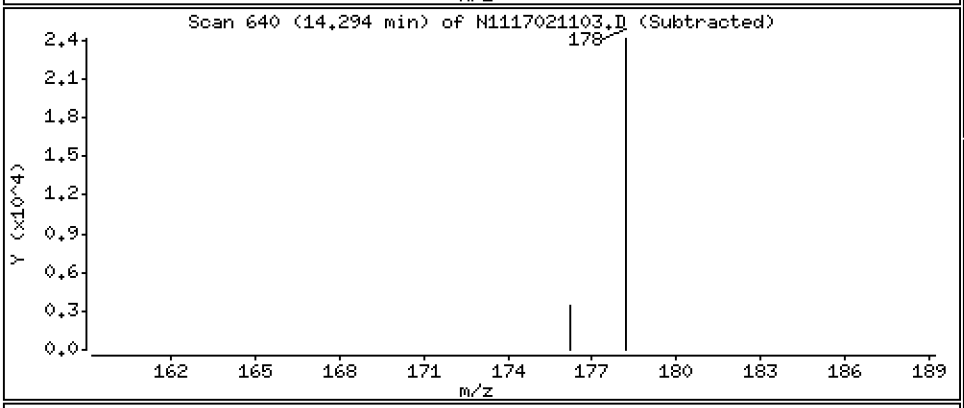
Column diameter: 0.25

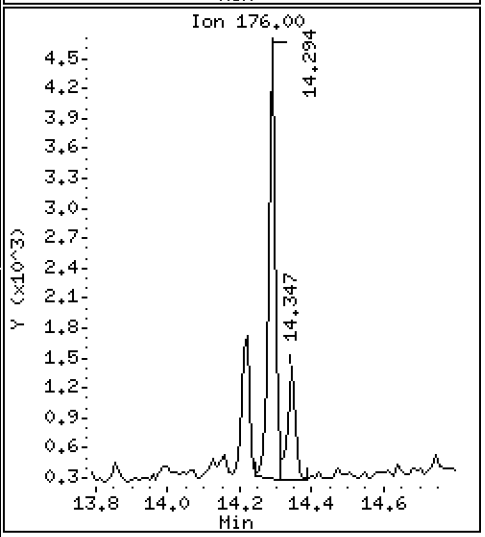
19 Phenanthrene

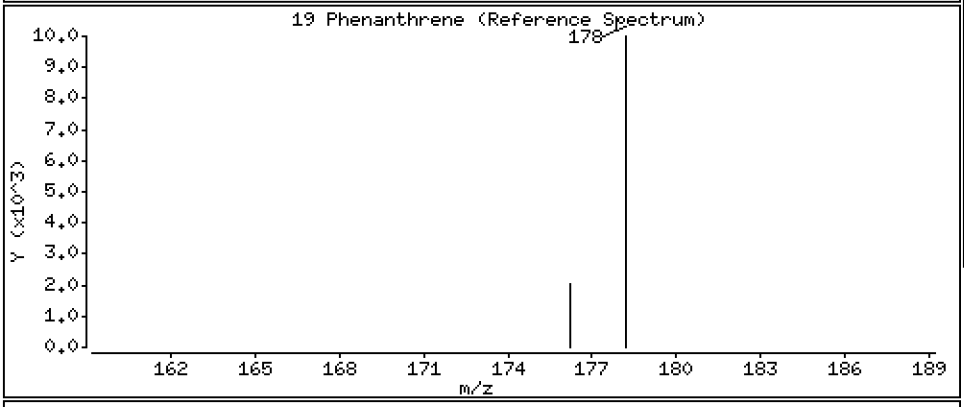
Concentration: 35.3 ng/mL

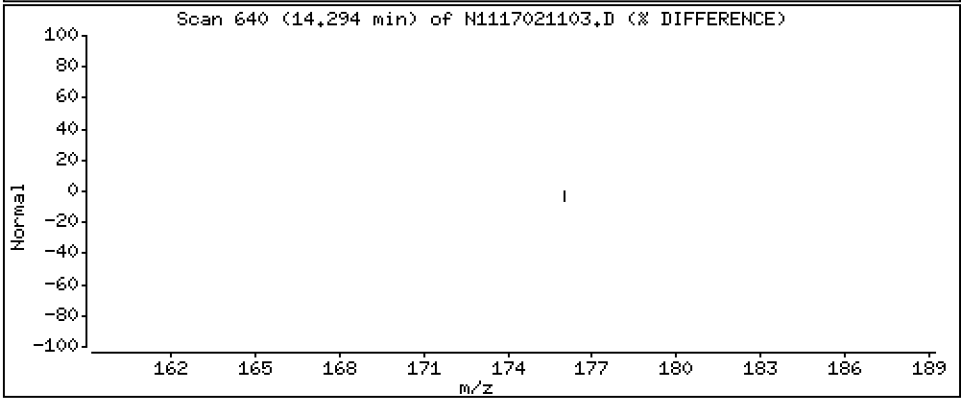












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Date : 11-FEB-2017 11:12

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-10

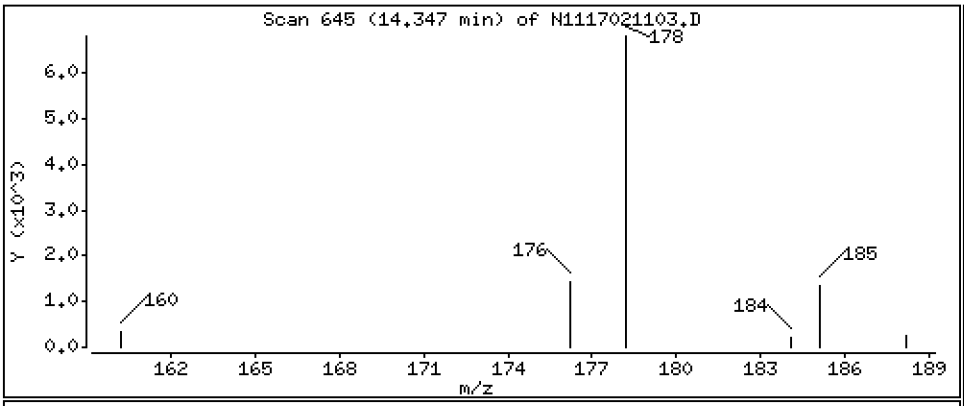
Operator: VTS

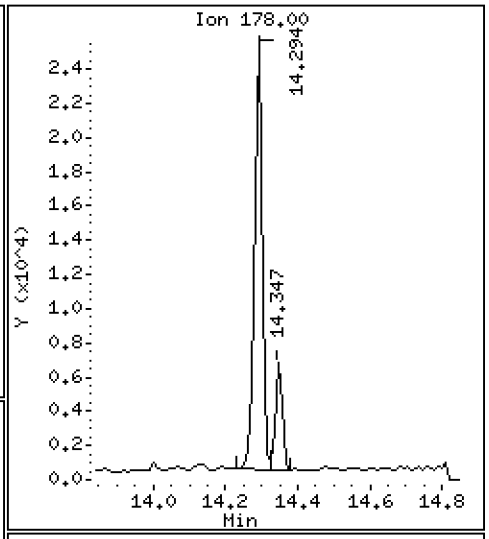
Column phase: Rxi-17Sil MS

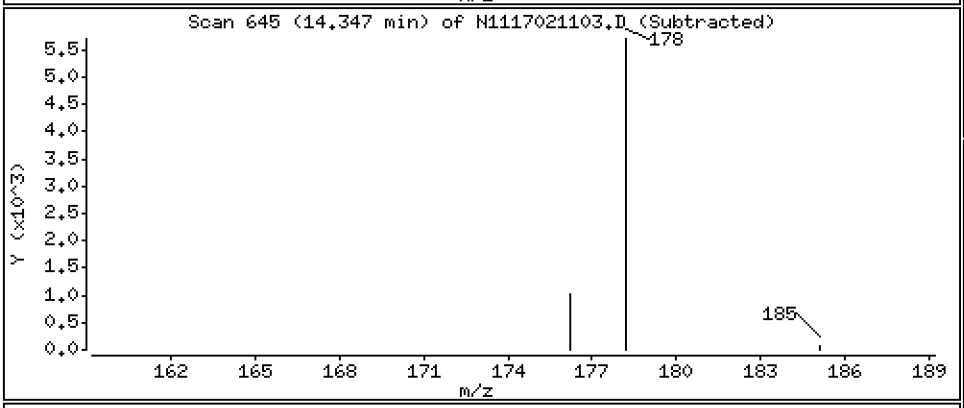
Column diameter: 0.25

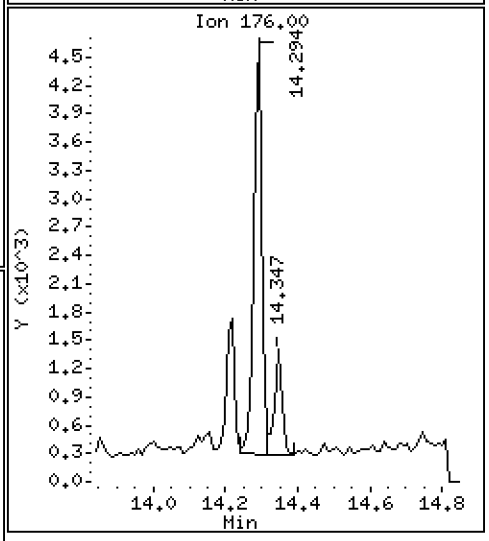
21 Anthracene

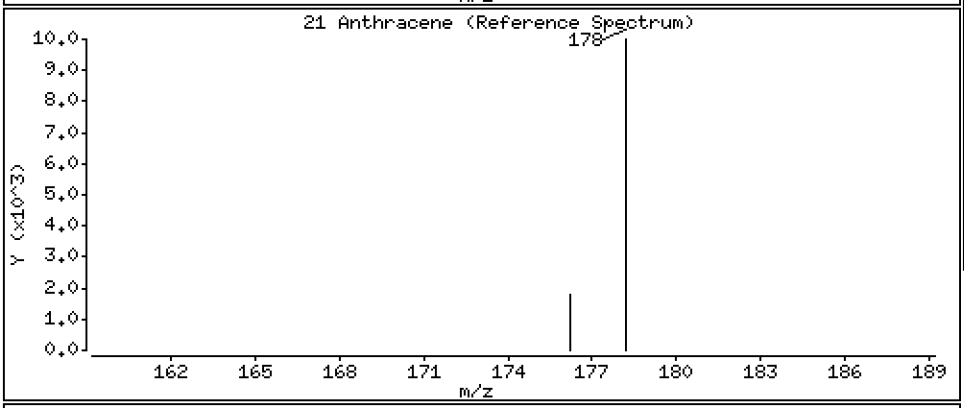
Concentration: 7.97 ng/mL

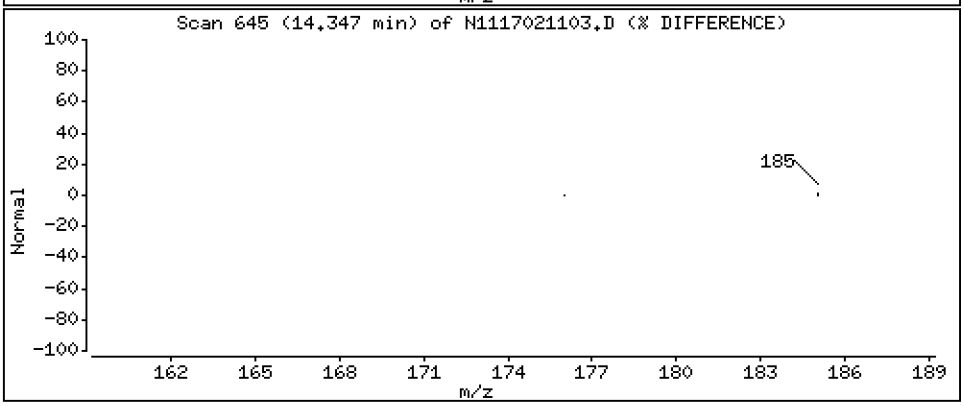












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Date : 11-FEB-2017 11:12

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-10

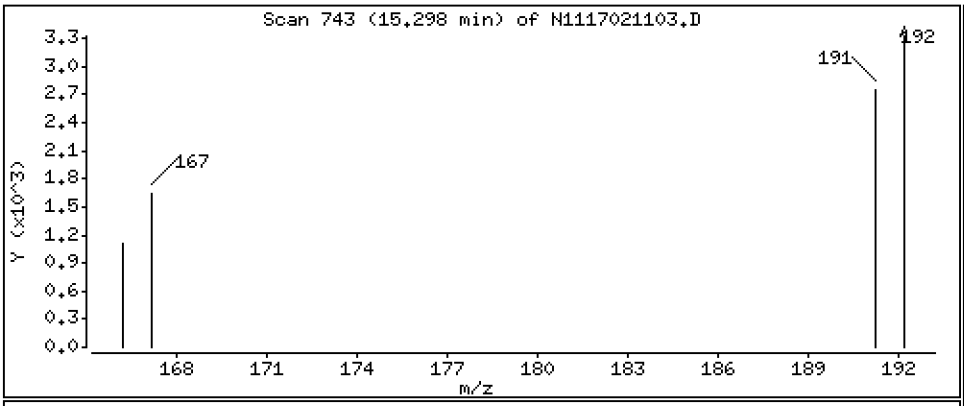
Operator: VTS

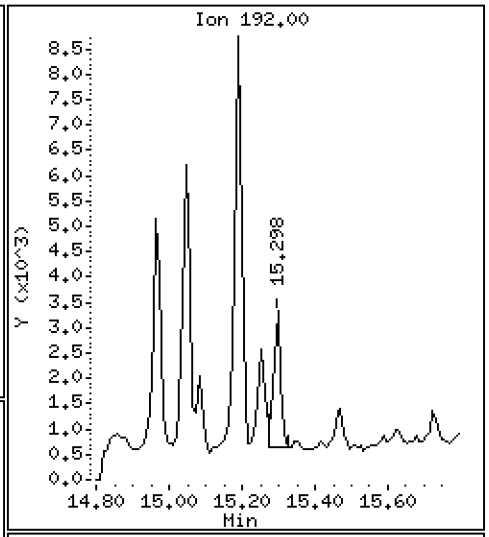
Column phase: Rxi-17Sil MS

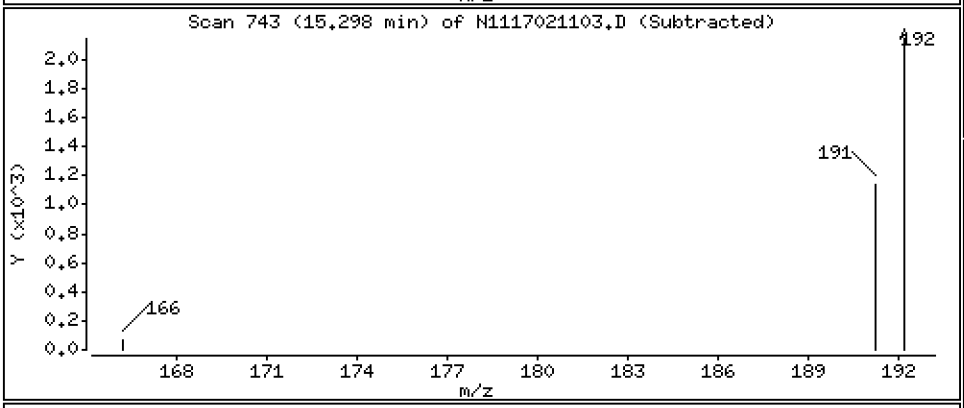
Column diameter: 0.25

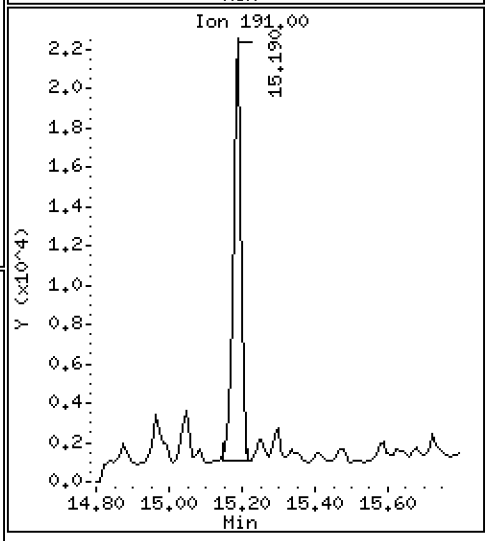
23 1-Methylphenanthrene

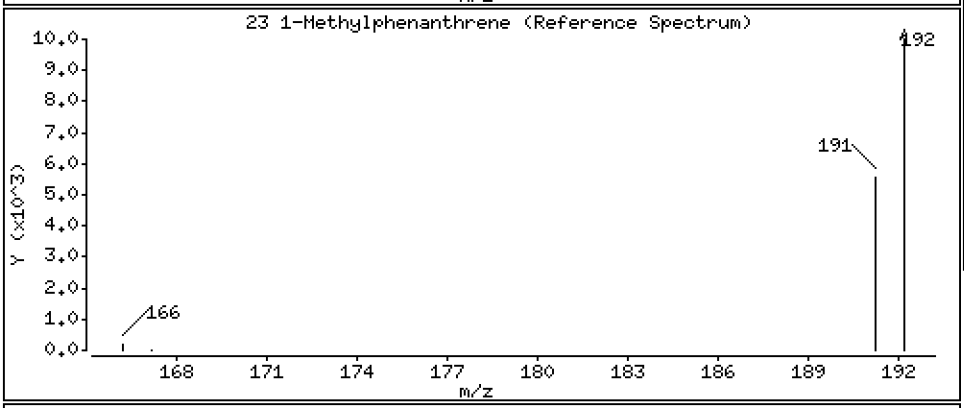
Concentration: 3.61 ng/mL

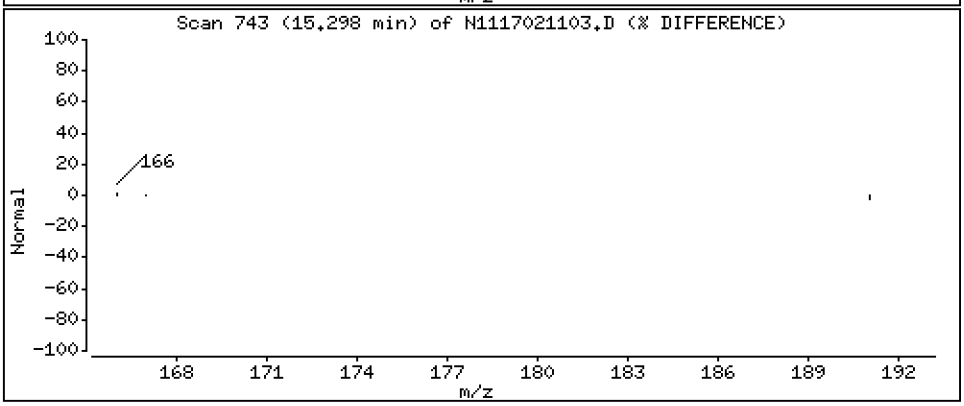












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Date : 11-FEB-2017 11:12

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-10

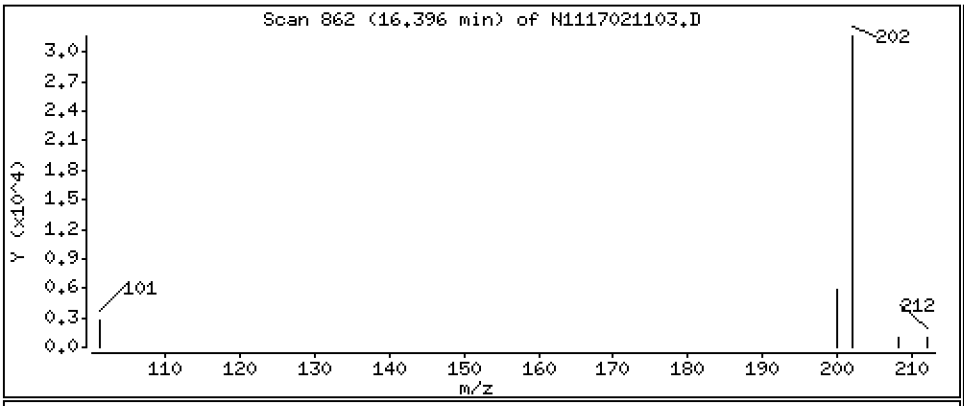
Operator: VTS

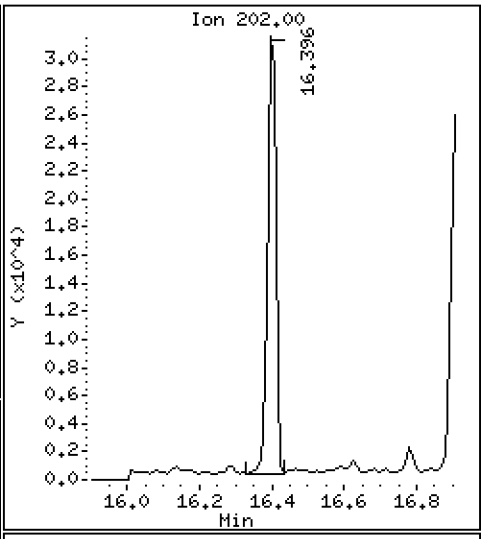
Column phase: Rxi-17Sil MS

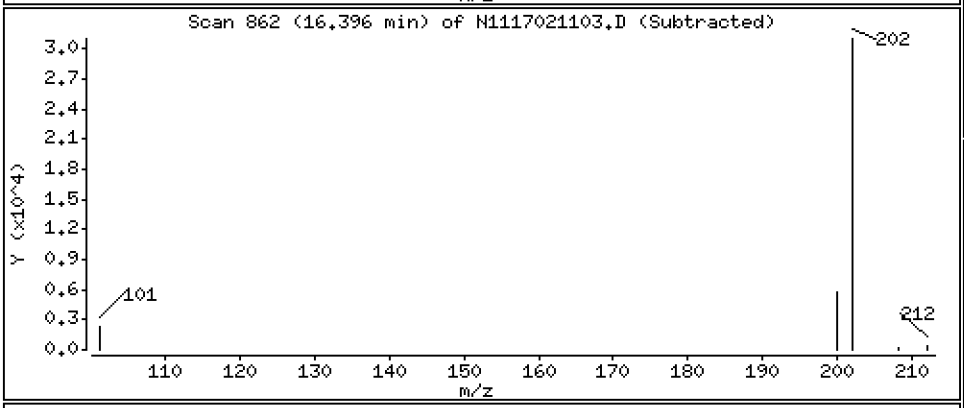
Column diameter: 0.25

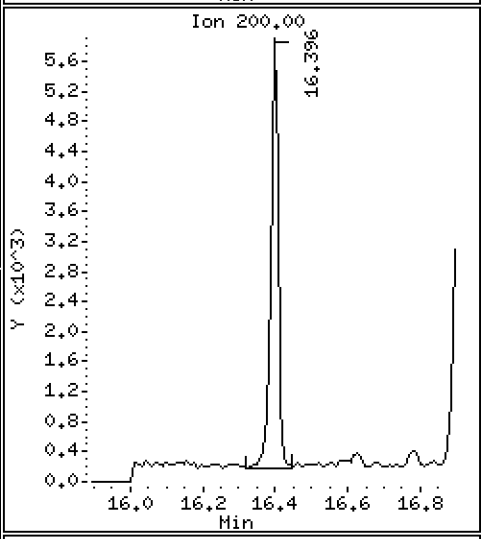
25 Fluoranthene

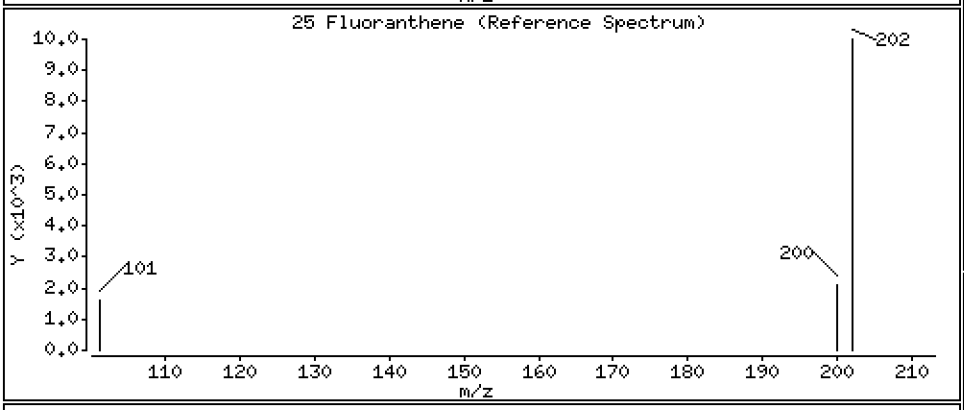
Concentration: 40.6 ng/mL

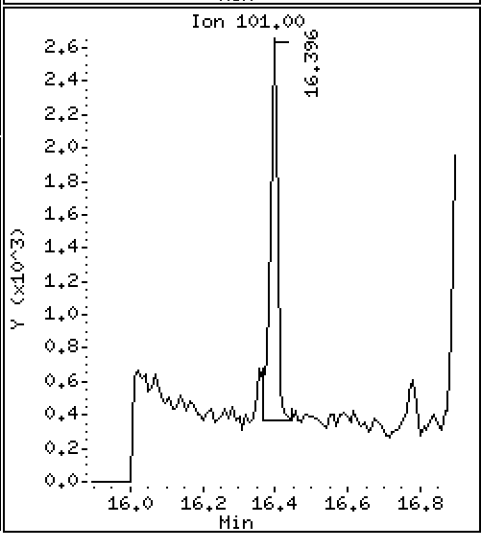


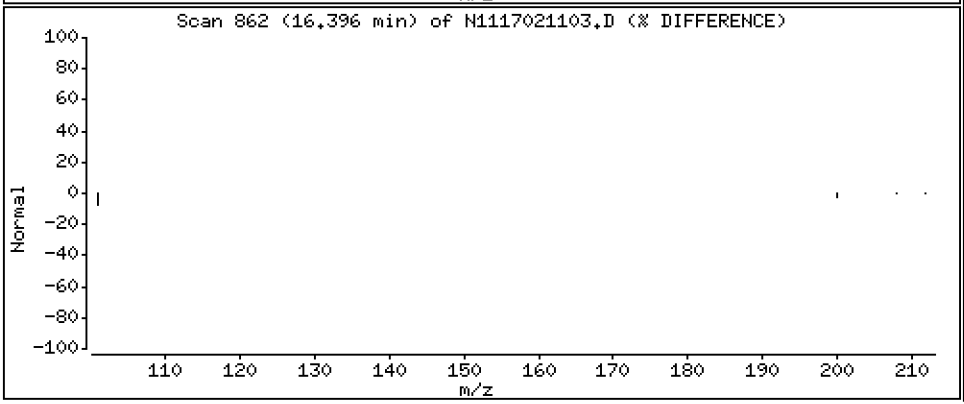












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Client ID:

Instrument: nt11.i

Sample Info: 17A0053-10

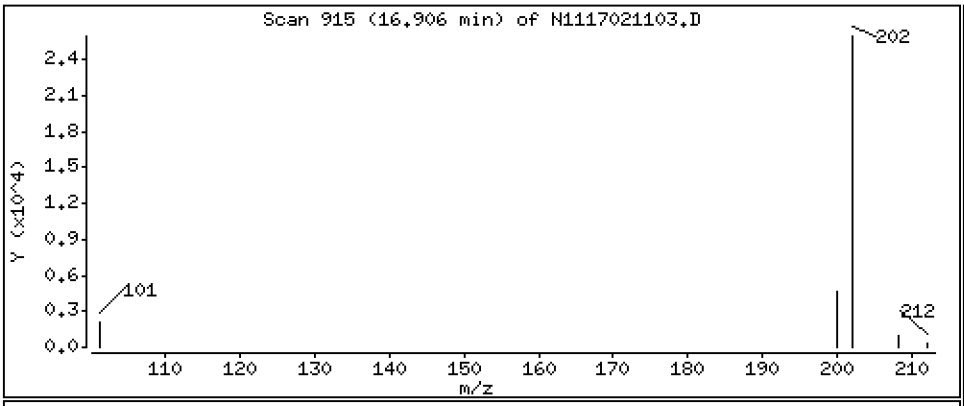
Operator: VTS

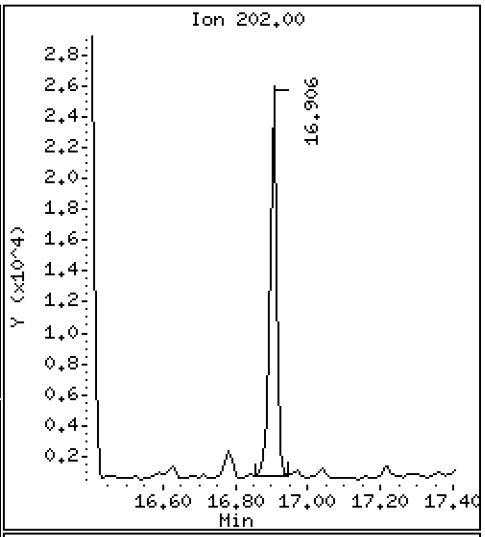
Column phase: Rxi-17Sil MS

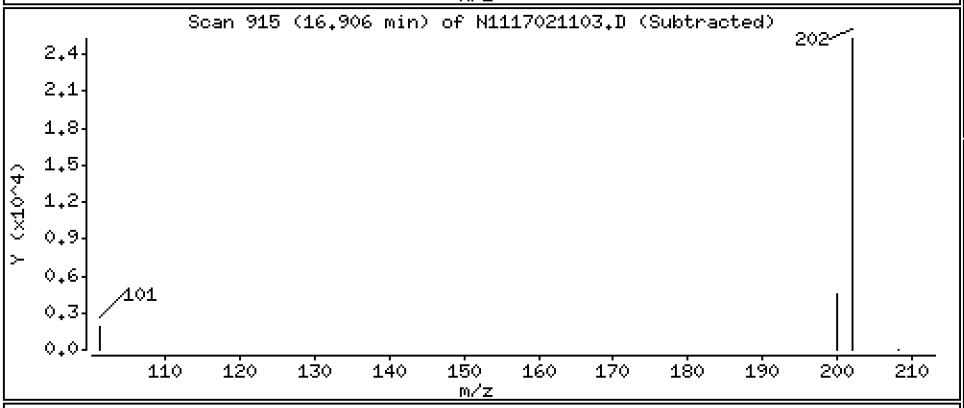
Column diameter: 0.25

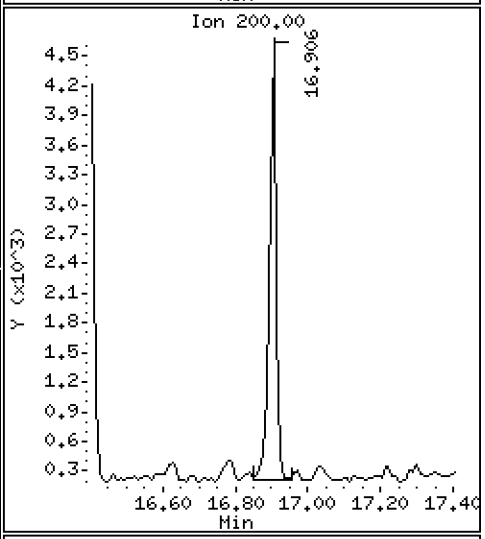
26 Pyrene

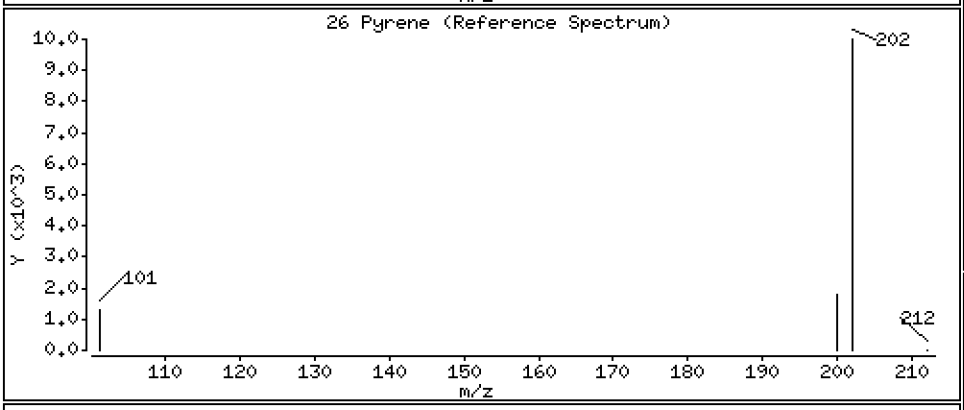
Concentration: 33.9 ng/mL

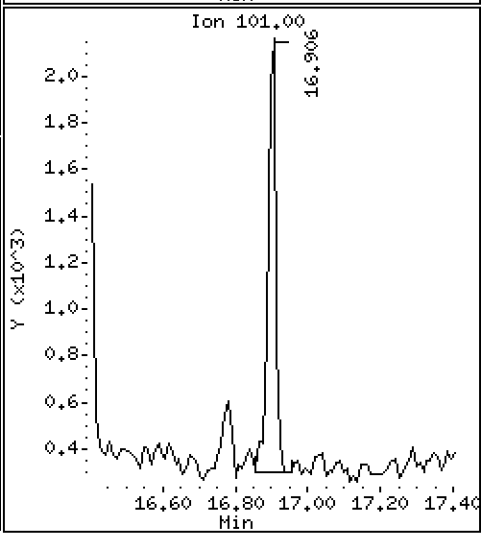


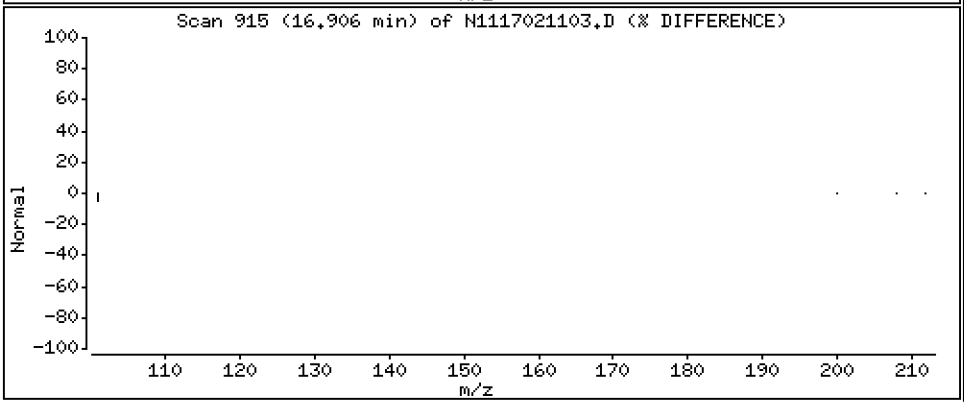












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Client ID:

Instrument: nt11.i

Sample Info: 17A0053-10

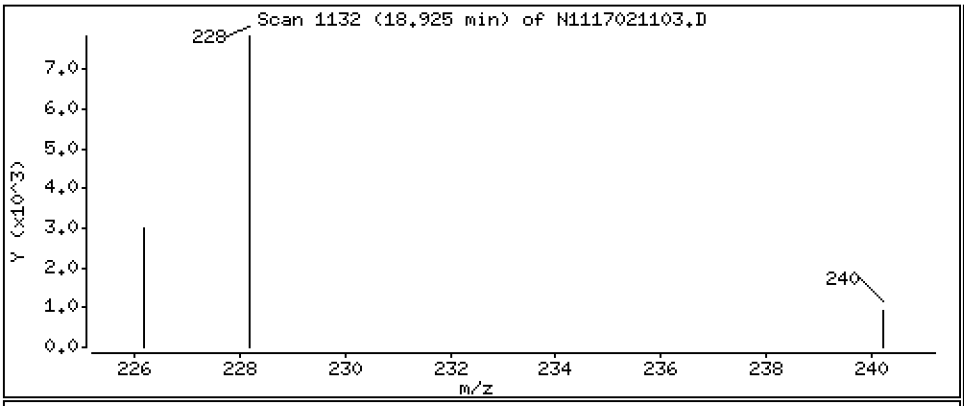
Operator: VTS

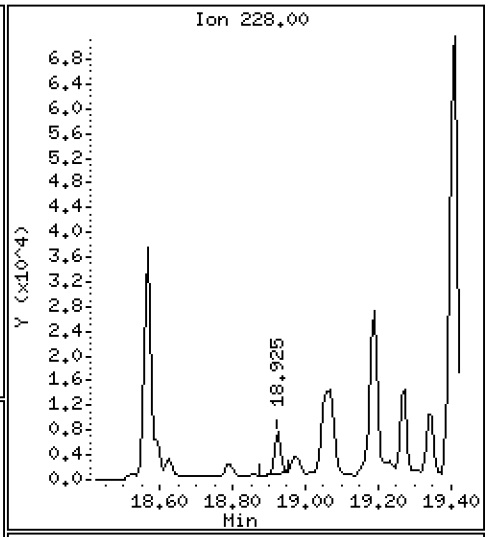
Column phase: Rxi-17Sil MS

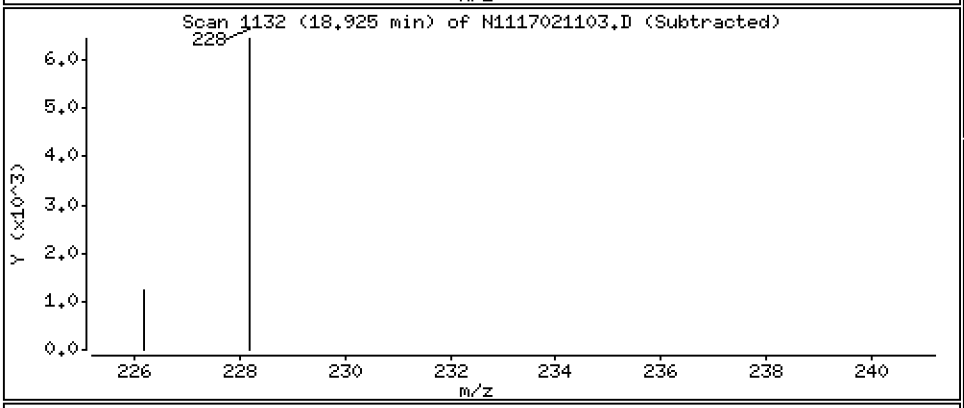
Column diameter: 0.25

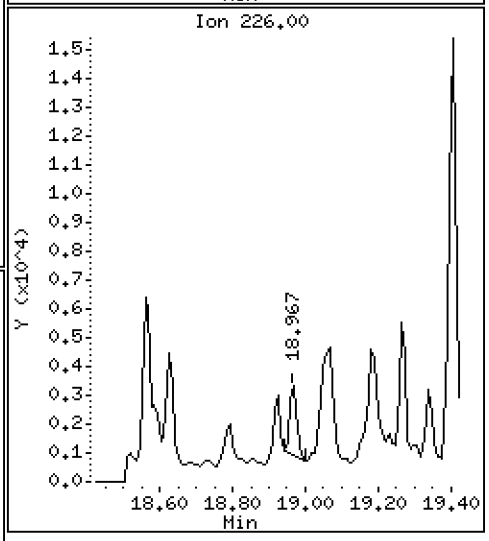
27 Benzo(a)anthracene

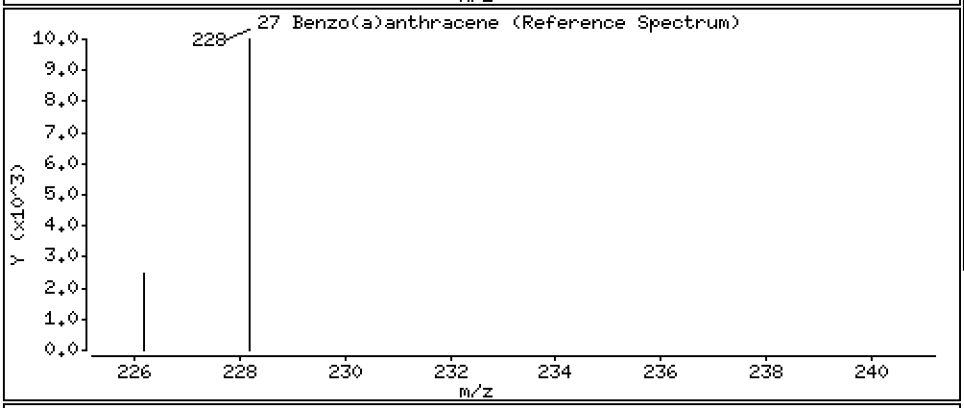
Concentration: 8.36 ng/mL

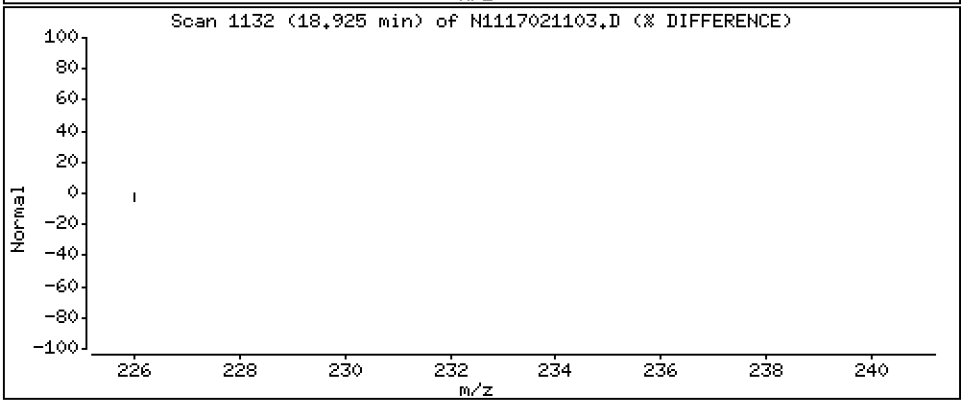












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Date : 11-FEB-2017 11:12

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-10

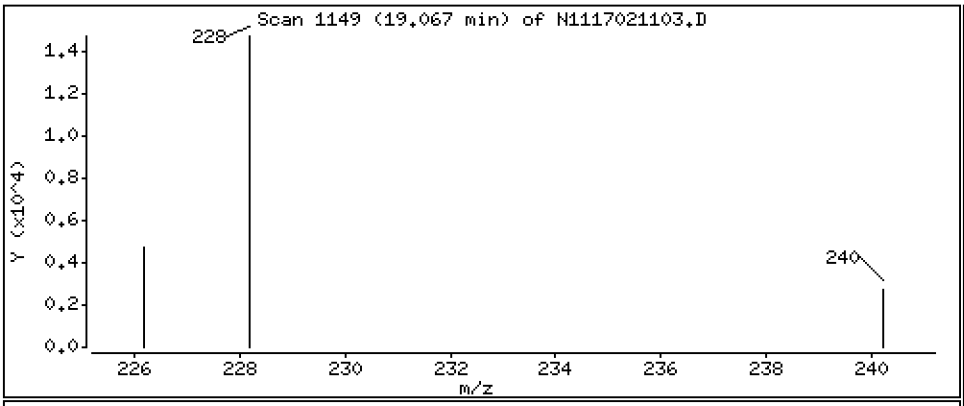
Operator: VTS

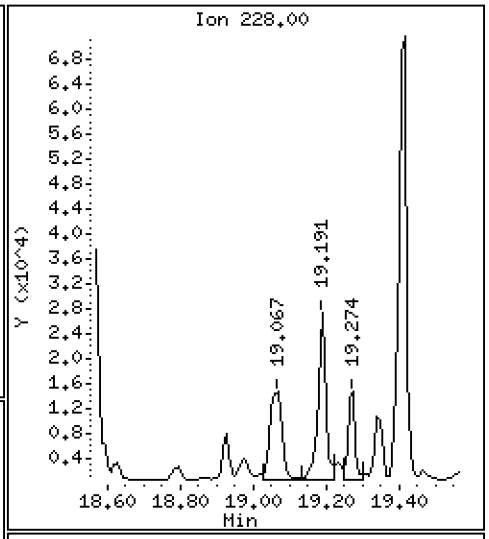
Column phase: Rxi-17Sil MS

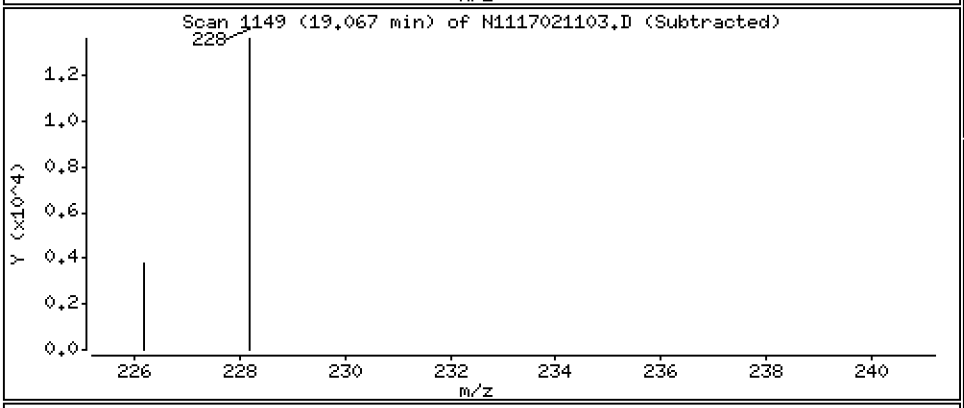
Column diameter: 0.25

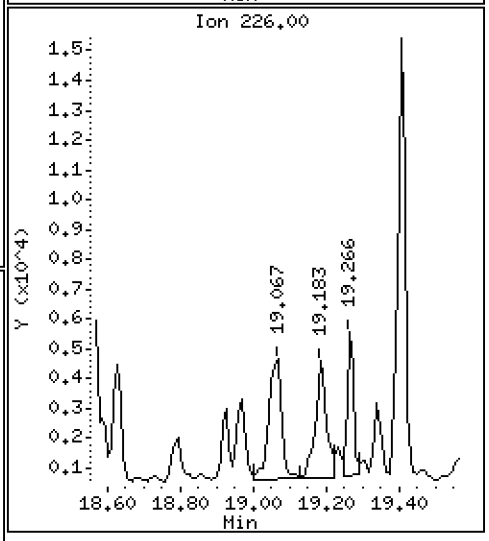
29 Chrysene

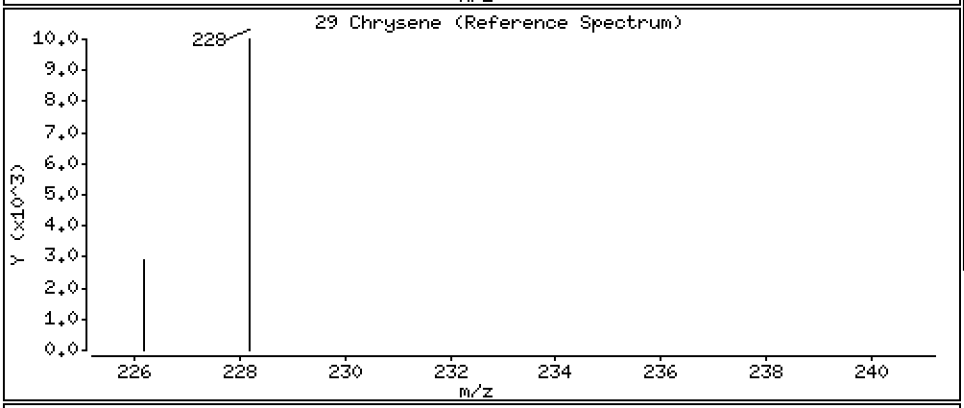
Concentration: 33.6 ng/mL

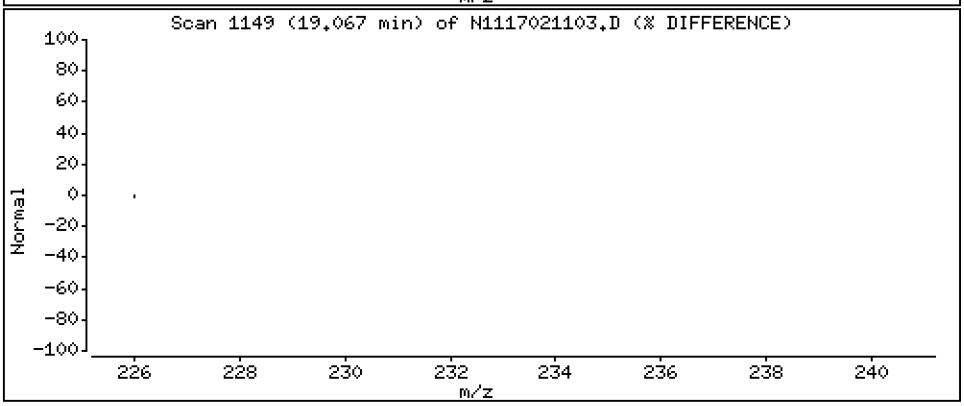












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Date : 11-FEB-2017 11:12

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-10

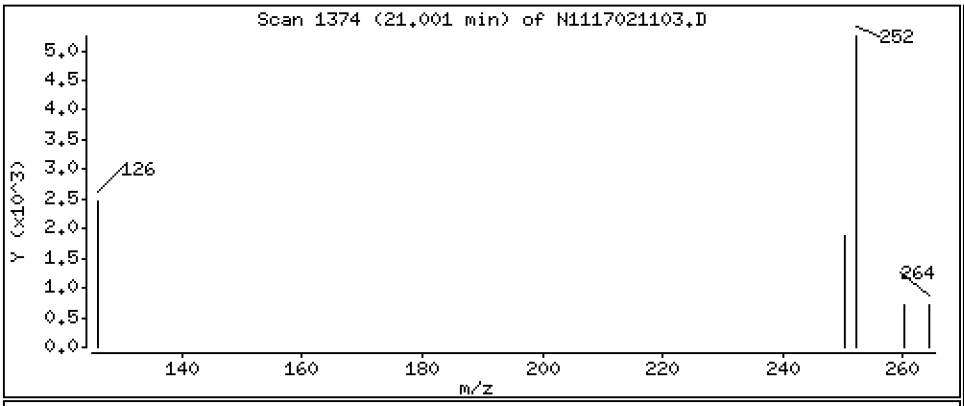
Operator: VTS

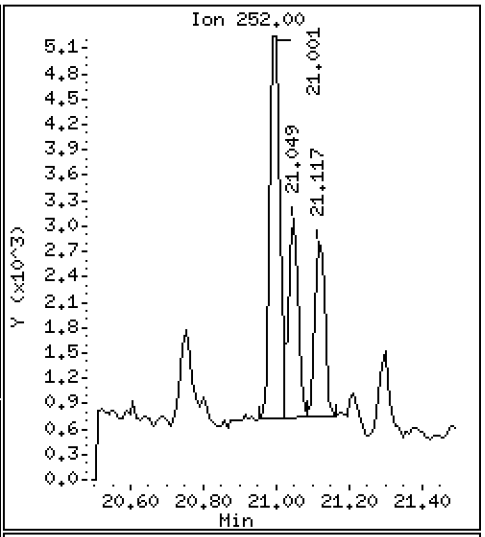
Column phase: Rxi-17Sil MS

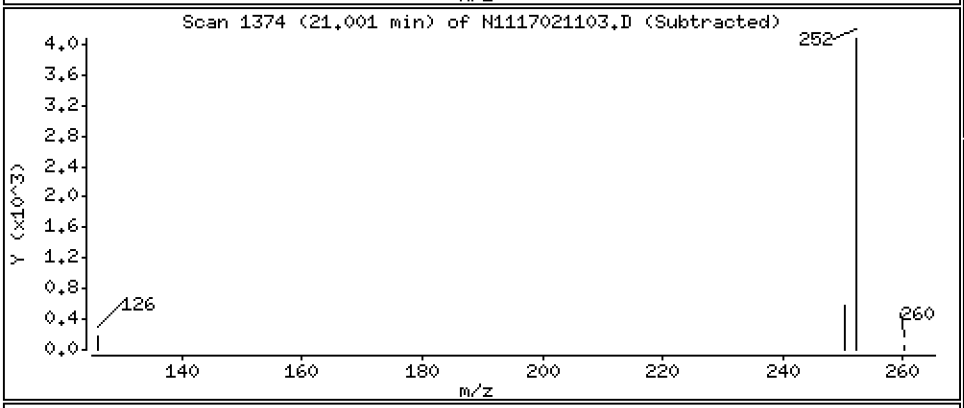
Column diameter: 0.25

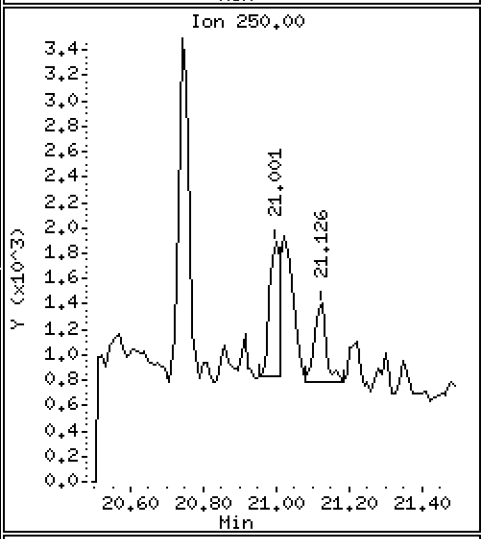
30 Benzo(b)fluoranthene

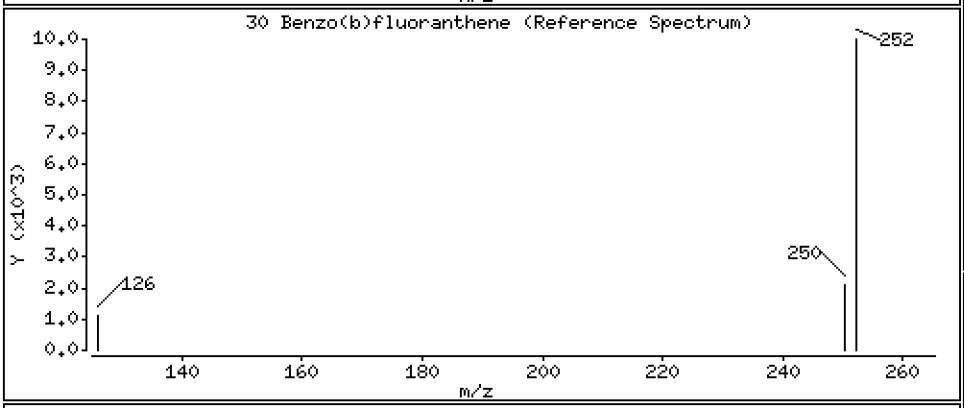
Concentration: 9.65 ng/mL

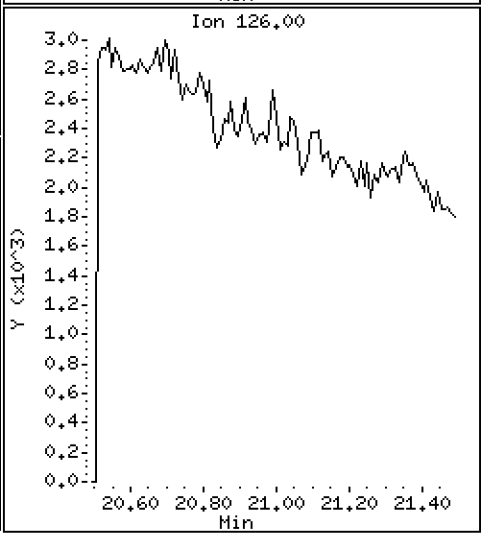


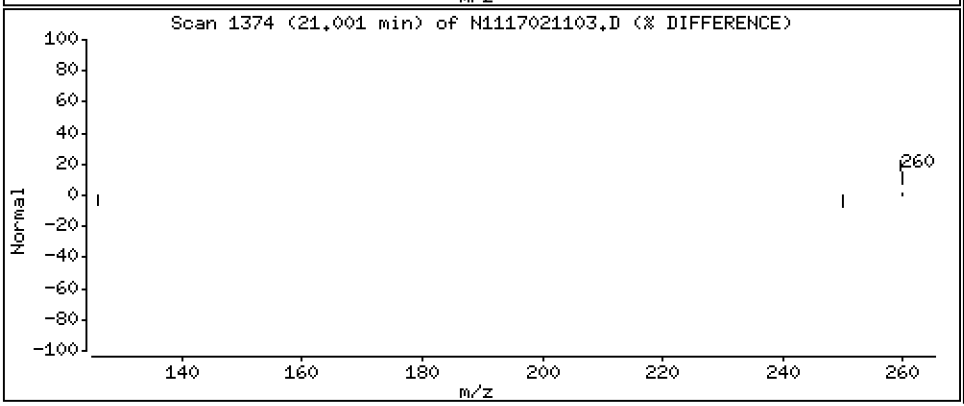












Data File: \\target\share\chem3\nt11.i\20170211.b\N1117021103.D

Date : 11-FEB-2017 11:12

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-10

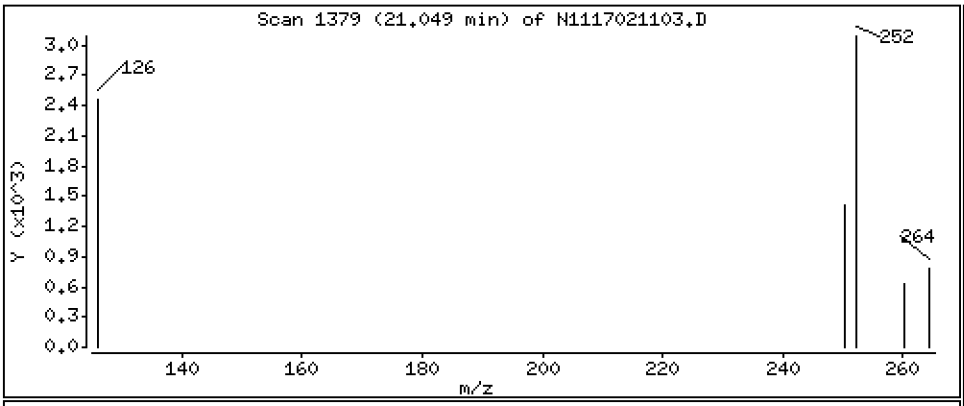
Operator: VTS

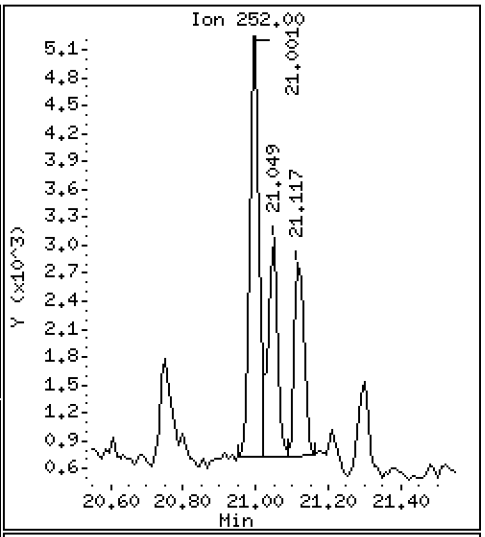
Column phase: Rxi-17Sil MS

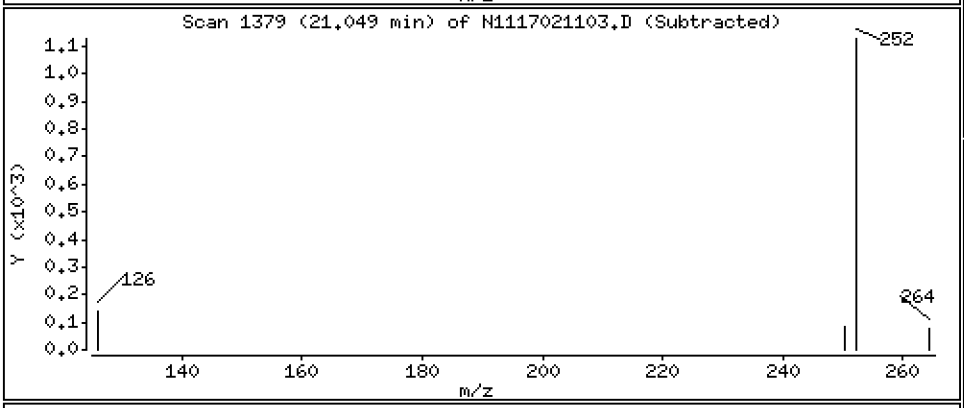
Column diameter: 0.25

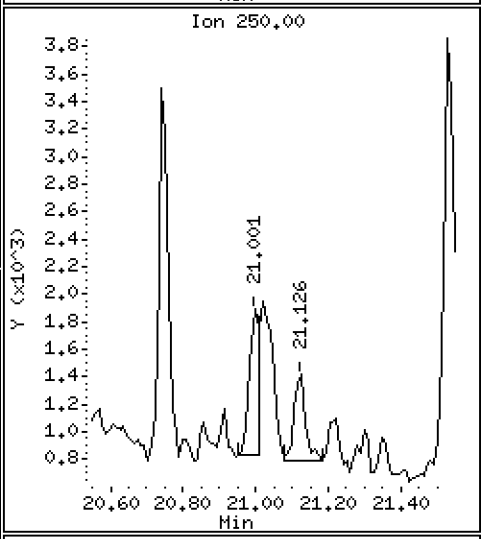
31 Benzo(k)fluoranthene

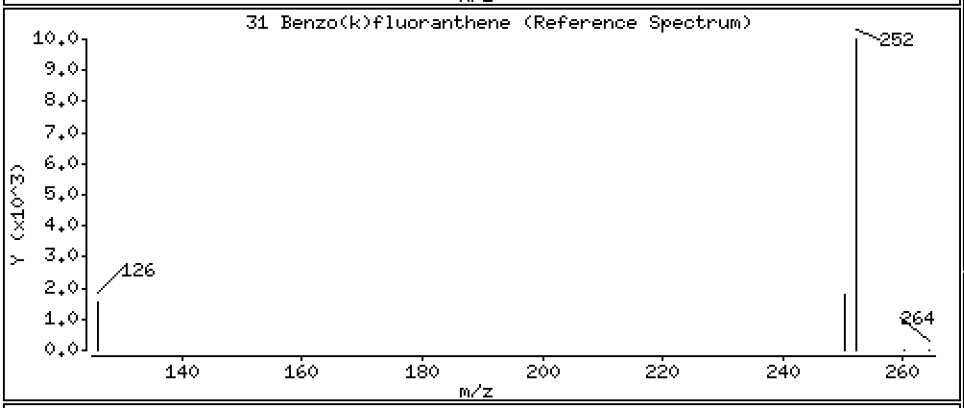
Concentration: 4.99 ng/mL

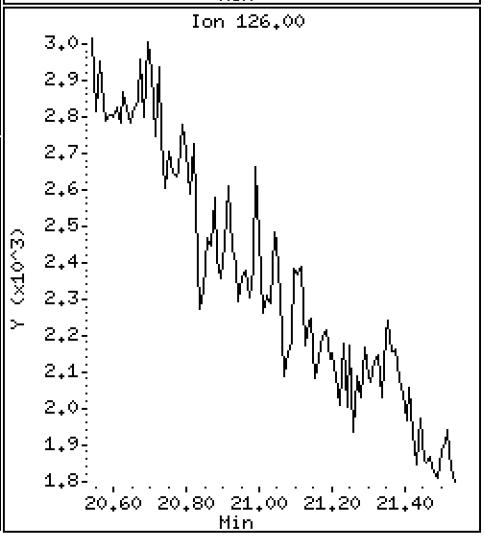


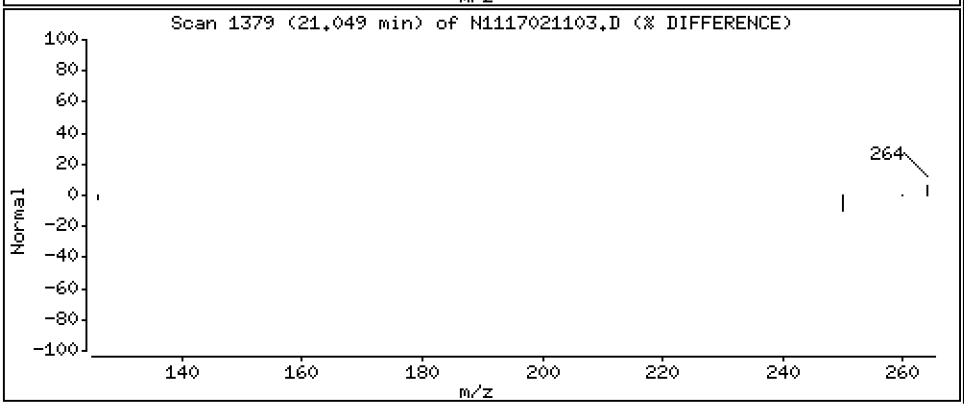












Data File: \\target\share\chem3\nt11.i\20170211.b\N1117021103.D

Date : 11-FEB-2017 11:12

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-10

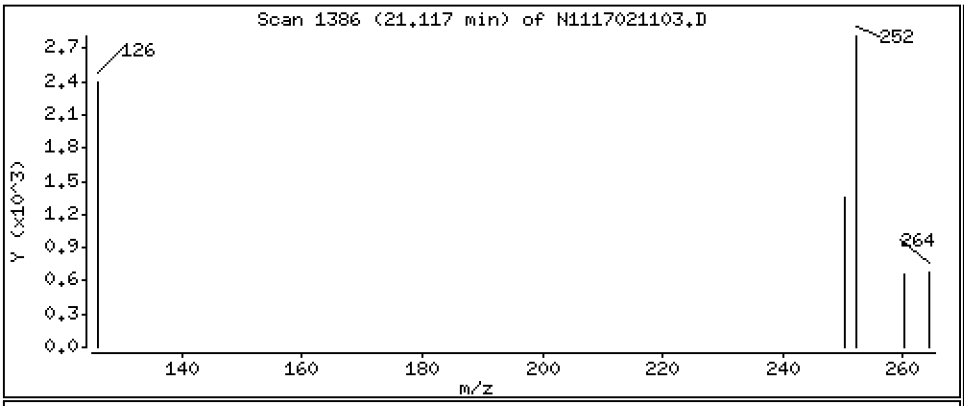
Operator: VTS

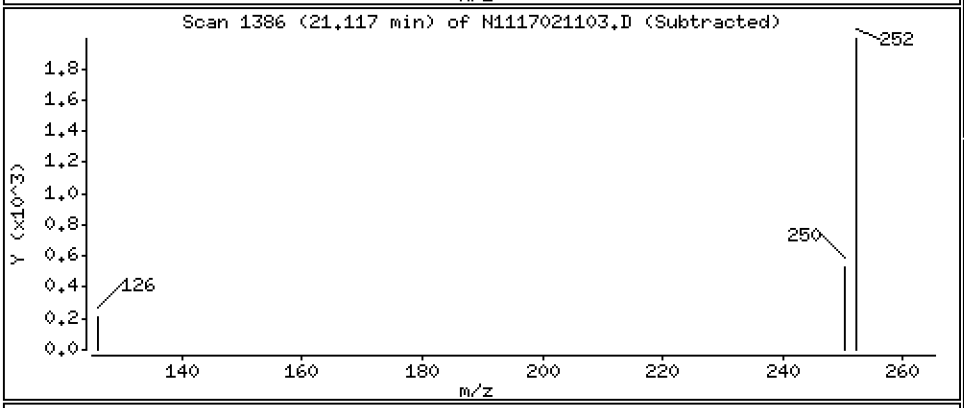
Column phase: Rxi-17Sil MS

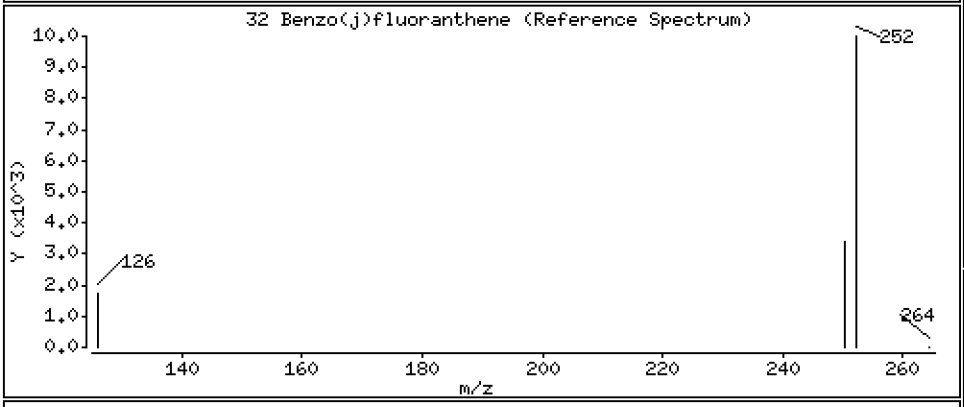
Column diameter: 0.25

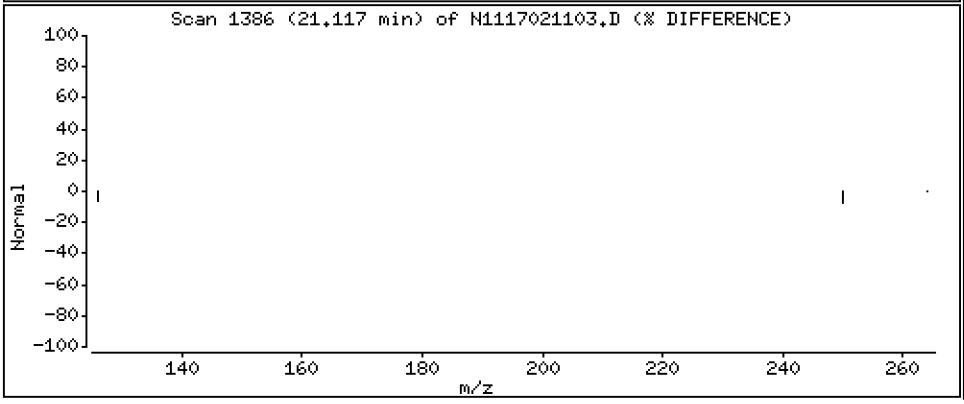
32 Benzo(j)fluoranthene

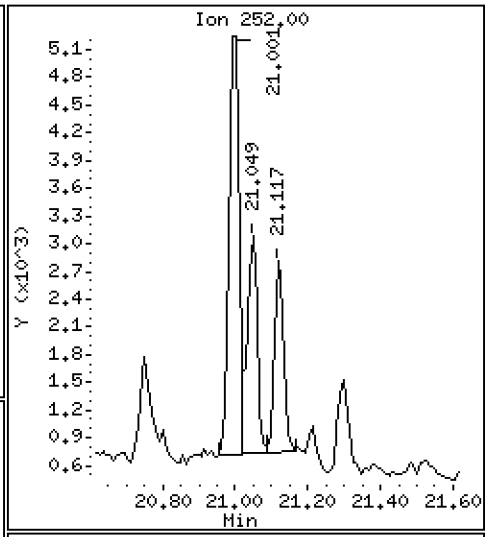
Concentration: 4.53 ng/mL

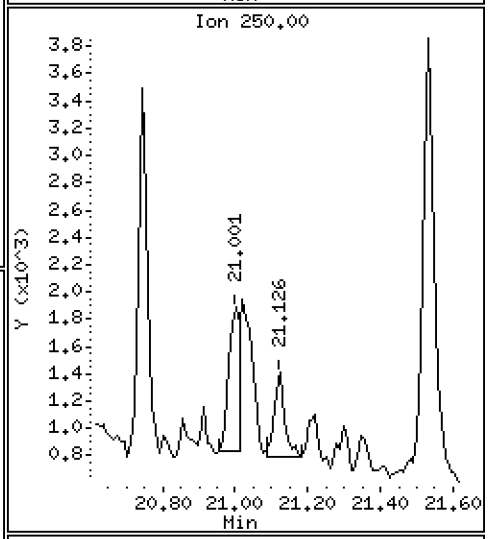


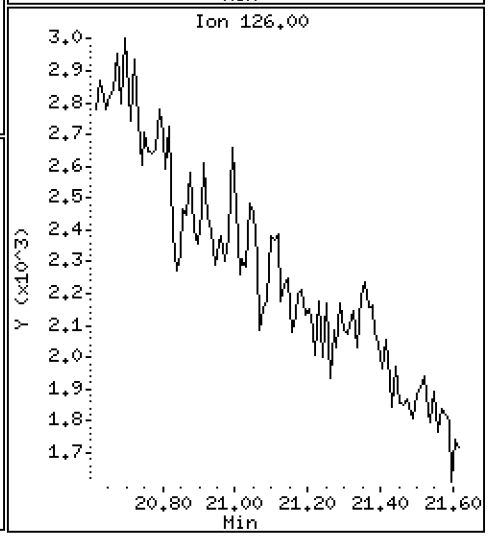












Data File: \\target\share\chem3\nt11.i\20170211.b\N1117021103.D

Date : 11-FEB-2017 11:12

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-10

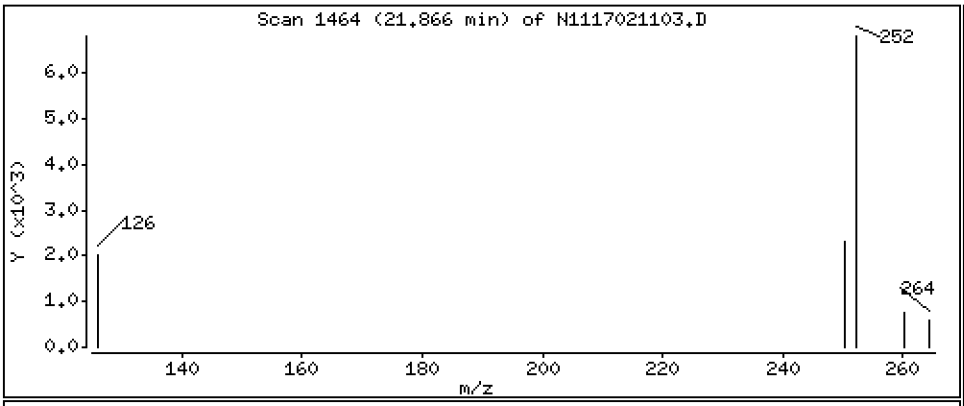
Operator: VTS

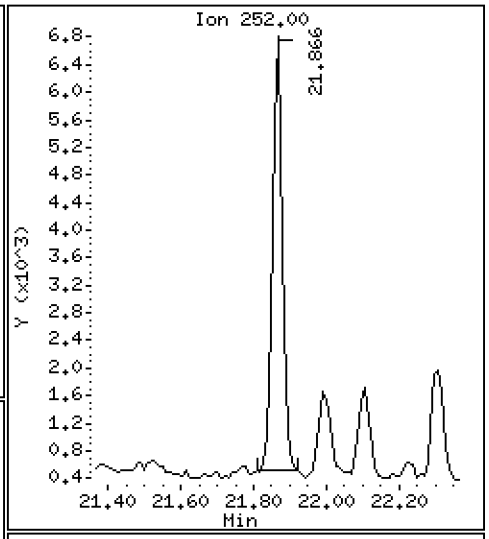
Column phase: Rxi-17Sil MS

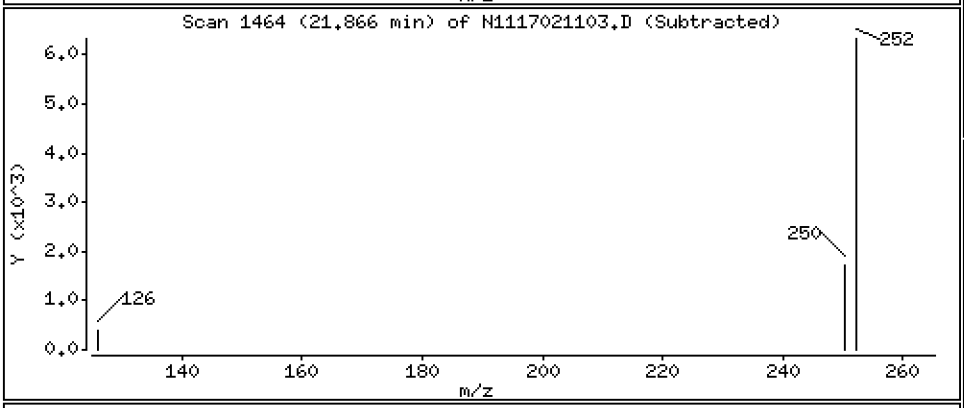
Column diameter: 0.25

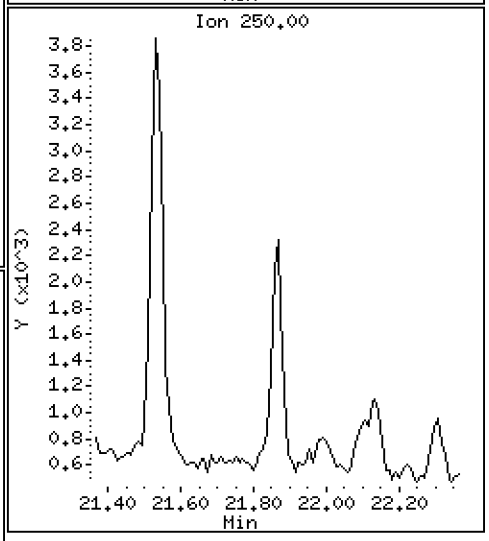
34 Benzo(e)pyrene

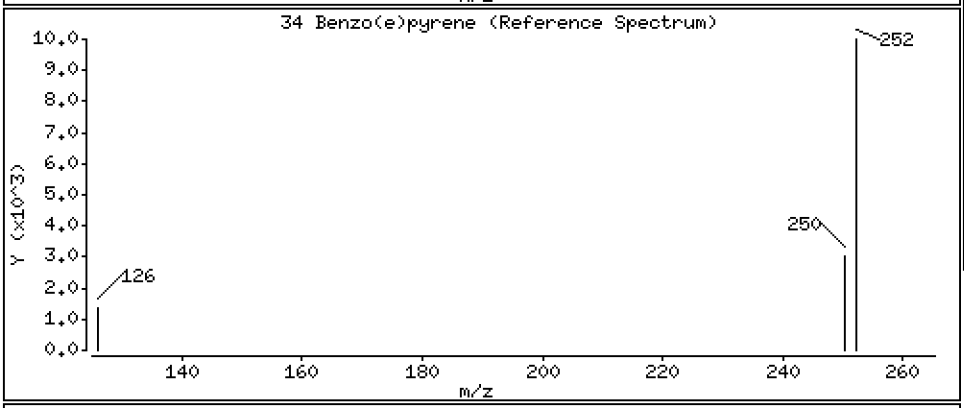
Concentration: 13.9 ng/mL

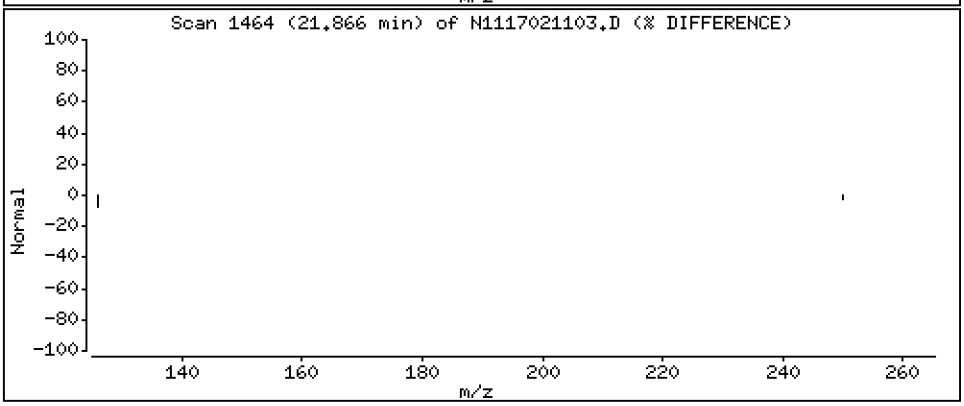












Data File: \\target\share\chem3\nt11.i\20170211.b\N1117021103.D

Date : 11-FEB-2017 11:12

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-10

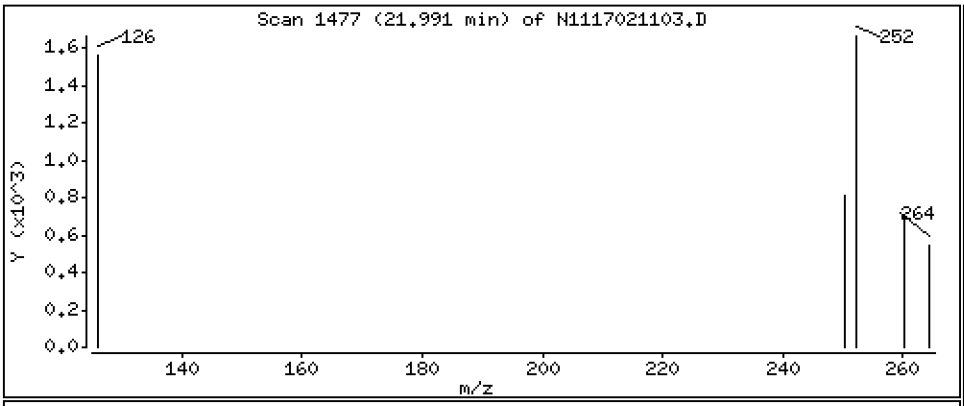
Operator: VTS

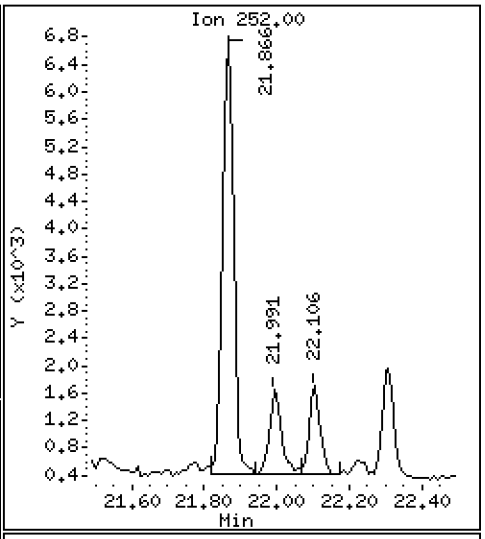
Column phase: Rxi-17Sil MS

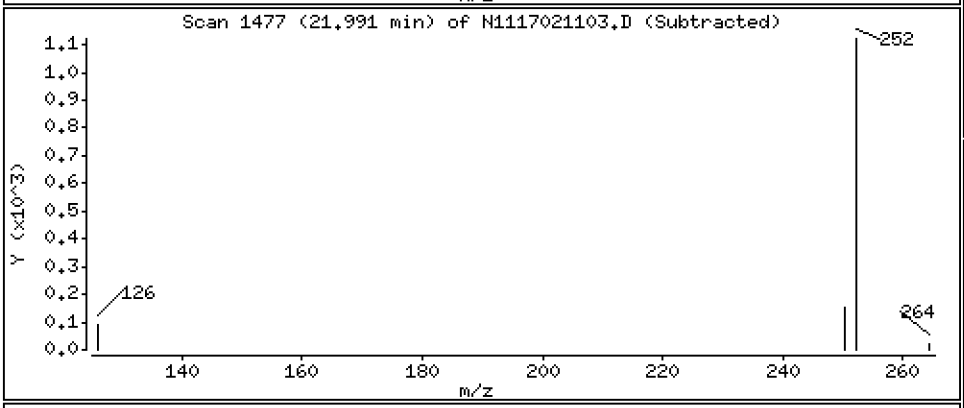
Column diameter: 0.25

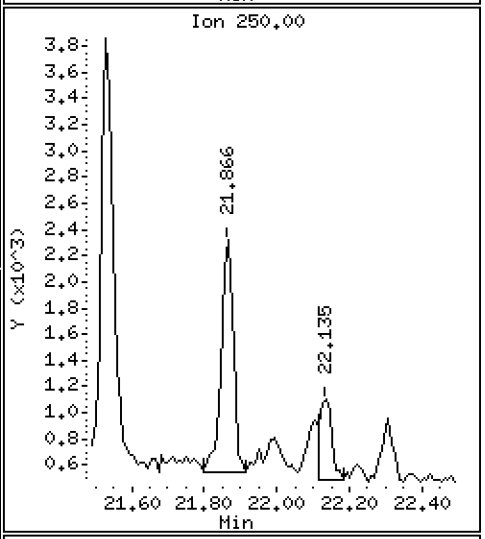
35 Benzo(a)pyrene

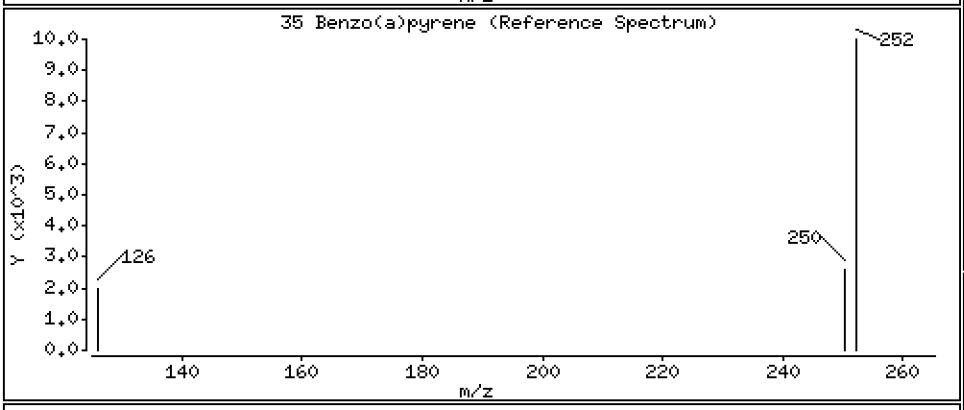
Concentration: 3.59 ng/mL

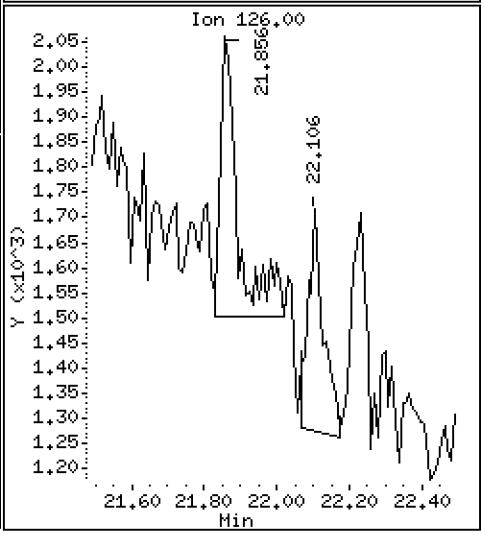


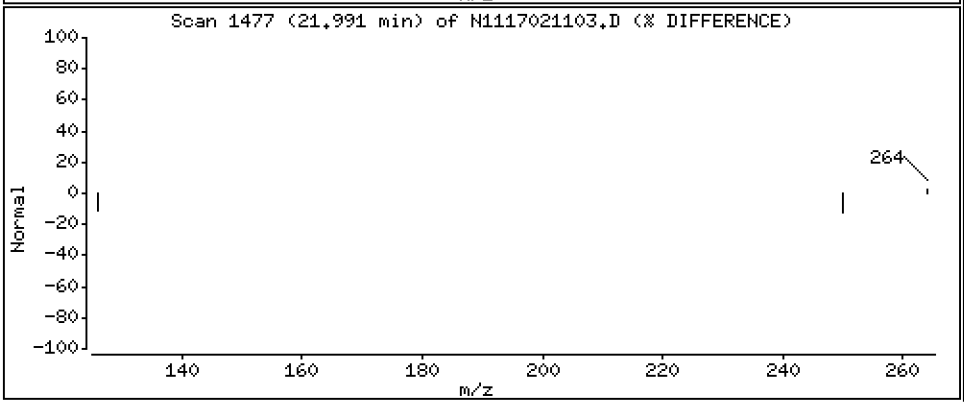












Data File: \\target\share\chem3\nt11.i\20170211.b\N1117021103.D

Date : 11-FEB-2017 11:12

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-10

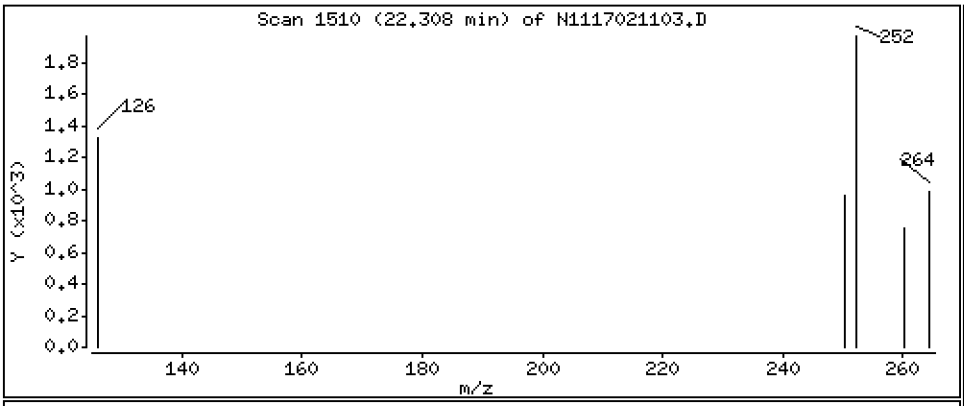
Operator: VTS

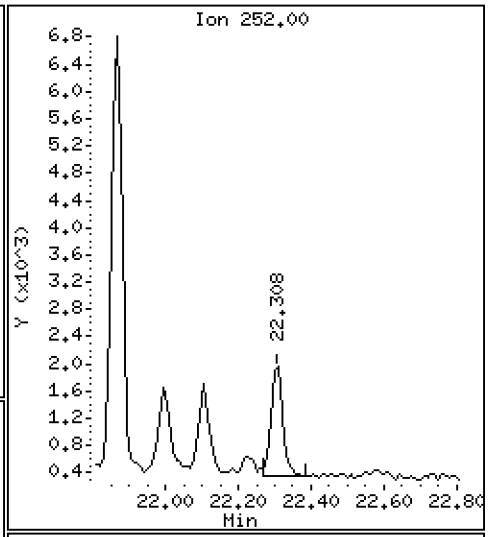
Column phase: Rxi-17Sil MS

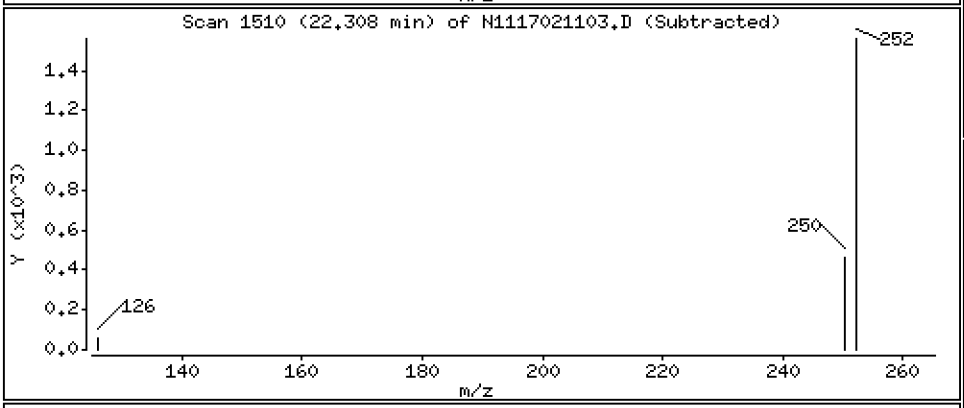
Column diameter: 0.25

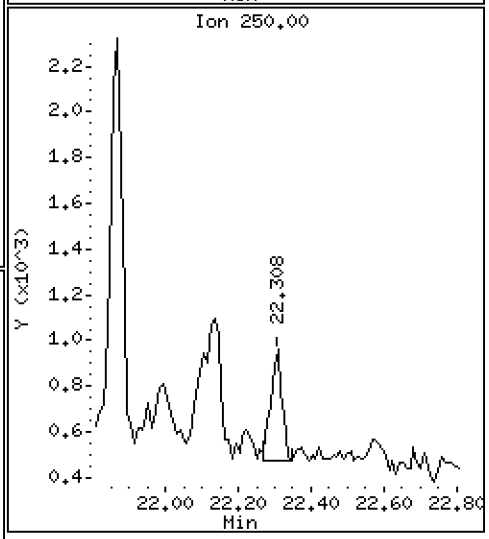
37 Perylene

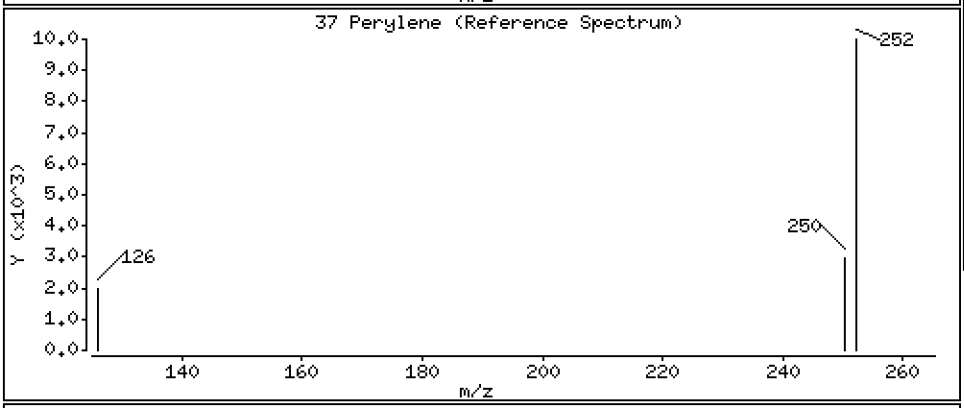
Concentration: 4.32 ng/mL

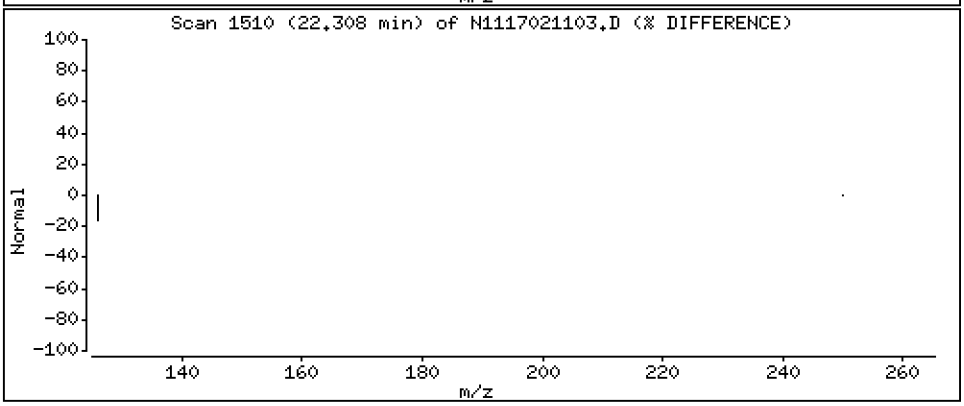












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Date : 11-FEB-2017 11:12

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-10

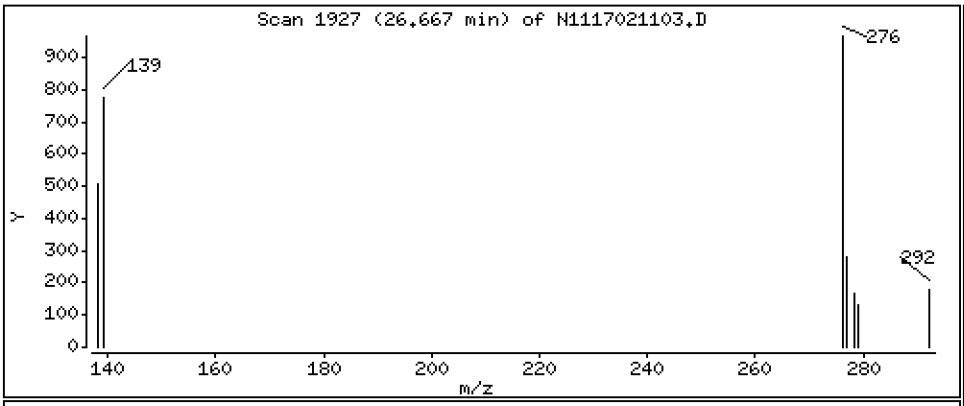
Operator: VTS

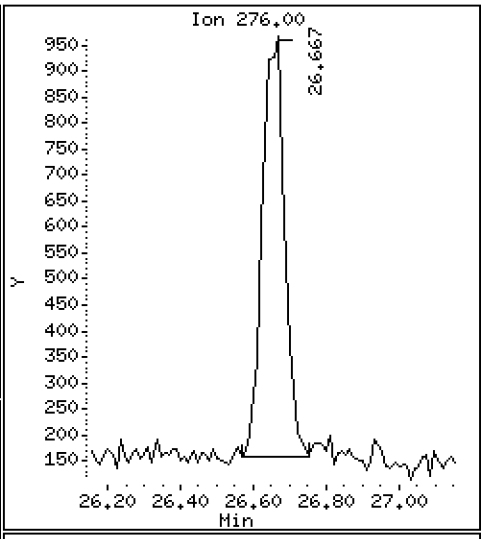
Column phase: Rxi-17Sil MS

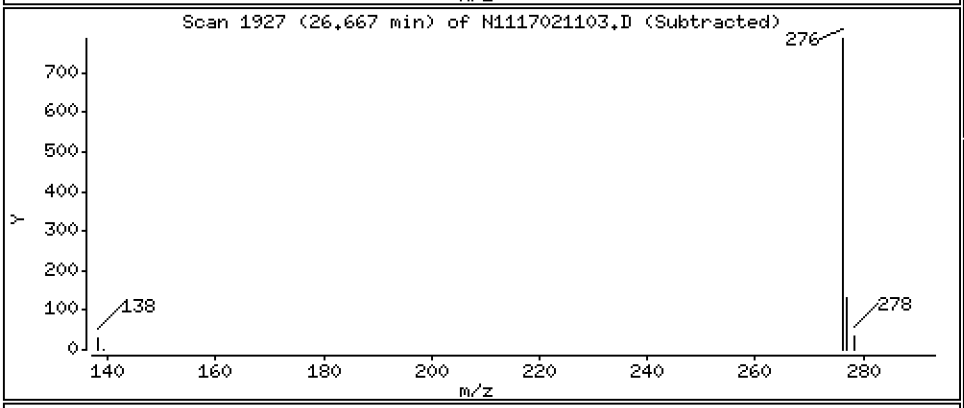
Column diameter: 0.25

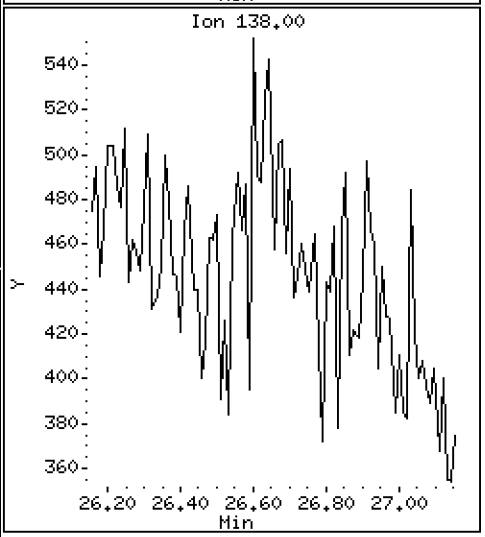
41 Benzo(g,h,i)perylene

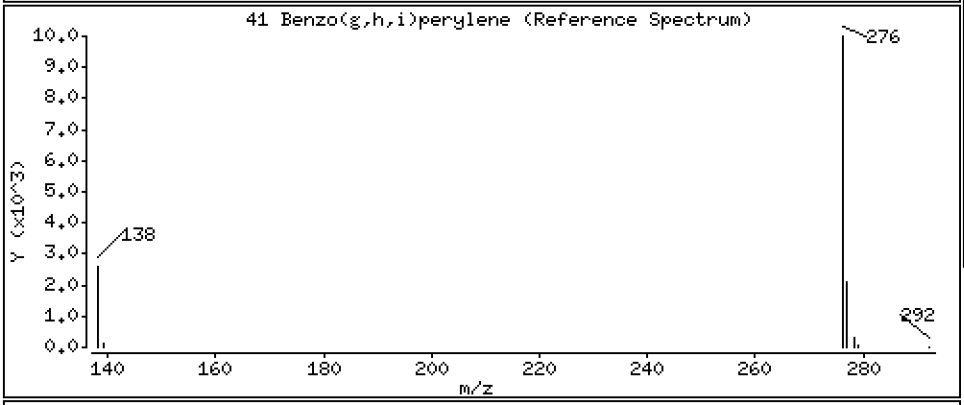
Concentration: 4.16 ng/mL

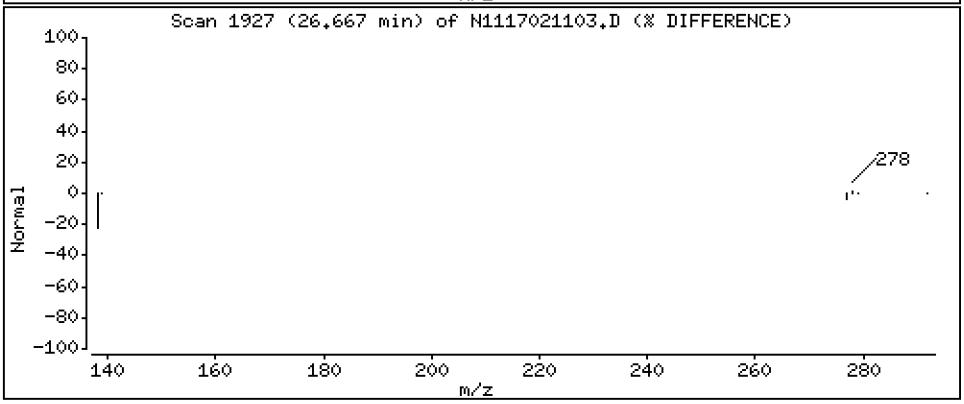












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20170211.b\N1117021103.D
Lab Smp Id: 17A0053-10
Inj Date : 11-FEB-2017 11:12 MS Autotune Date: 15-JAN-2015 15:59
Operator : VTS Inst ID: nt11.i
Smp Info : 17A0053-10
Misc Info :
Comment   :
Method   : \\target\share\chem3\nt11.i\20170211.b\LOWSIM.m
Meth Date : 11-Feb-2017 13:29 nt11.i Quant Type: ISTD
Cal Date : 31-DEC-2016 09:30 Cal File: N1116123104.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.509	8.527	(1.000)	185577	200.000	
	2 Naphthalene	128	8.545	8.554	(1.004)	8802	9.50414	9.50
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.498	9.508	(1.116)	128997	161.853	162
	5 2-Methylnaphthalene	142	9.550	9.561	(1.122)	5770	6.32142	6.32
	6 1-Methylnaphthalene	142	9.813	9.824	(1.153)	3702	4.03252	4.03
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	Compound Not Detected.					
*	11 Acenaphthene-d10	164	11.555	11.564	(1.000)	115607	200.000	
	12 Acenaphthene	153	11.618	11.627	(1.005)	2942	4.30158	4.30(M)
	13 Dibenzofuran	168	11.822	11.822	(1.023)	6913	6.79943	6.80
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.454	12.454	(1.078)	5873	7.25611	7.26
	17 Dibenzothiophene	184	Compound Not Detected.					
*	18 Phenanthrene-d10	188	14.252	14.251	(1.000)	182847	200.000	
	19 Phenanthrene	178	14.294	14.293	(1.003)	36880	35.2791	35.3
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.346	14.346	(1.007)	8303	7.96567	7.97
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	15.298	15.298	(1.073)	3870	3.60989	3.61(M)
$	24 Fluoranthene-d10	212	16.367	16.367	(1.148)	179643	184.980	185
	25 Fluoranthene	202	16.396	16.406	(1.150)	48154	40.6089	40.6
	26 Pyrene	202	16.905	16.905	(0.889)	34771	33.8699	33.9
	27 Benzo(a)anthracene	228	18.925	18.925	(0.995)	7949	8.36482	8.36(M)
*	28 Chrysene-d12	240	19.016	19.016	(1.000)	158037	200.000	
	29 Chrysene	228	19.066	19.066	(1.003)	32760	33.5961	33.6
	30 Benzo(b)fluoranthene	252	21.001	20.991	(0.945)	8613	9.65084	9.65
	31 Benzo(k)fluoranthene	252	21.049	21.049	(0.947)	4800	4.99345	4.99
	32 Benzo(j)fluoranthene	252	21.116	21.116	(0.950)	3880	4.52820	4.53
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
34	Benzo(e)pyrene	252	21.866	21.865	(0.984)	12382	13.9087	13.9
35	Benzo(a)pyrene	252	21.990	21.990	(0.989)	2989	3.59256	3.59
* 36	Perylene-d12	264	22.231	22.231	(1.000)	165563	200.000	
37	Perylene	252	22.308	22.307	(1.003)	3755	4.32265	4.32
$ 38	Dibenzo(a,h)anthracene-d14	292	25.105	25.105	(1.129)	115090	217.676	218
39	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
40	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
41	Benzo(g,h,i)perylene	276	26.666	26.655	(1.200)	3391	4.15814	4.16

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: N1117021103.D
Lab Smp Id: 17A0053-10
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20170211.b\LOWSIM.m
Misc Info:

Calibration Date: 11-FEB-2017
Calibration Time: 10:36
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	219654	109827	439308	185577	-15.51
11 Acenaphthene-d10	135248	67624	270496	115607	-14.52
18 Phenanthrene-d10	257021	128511	514042	182847	-28.86
28 Chrysene-d12	259511	129756	519022	158037	-39.10
36 Perylene-d12	257535	128768	515070	165563	-35.71

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.53	8.03	9.03	8.51	-0.21
11 Acenaphthene-d10	11.56	11.06	12.06	11.56	-0.08
18 Phenanthrene-d10	14.25	13.75	14.75	14.25	0.00
28 Chrysene-d12	19.02	18.52	19.52	19.02	0.00
36 Perylene-d12	22.23	21.73	22.73	22.23	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1117021103.D

Lab ID: 17A0053-10
nt11.i, 20170211.b\LOWSIM.m,   11-FEB-2017 11:12

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

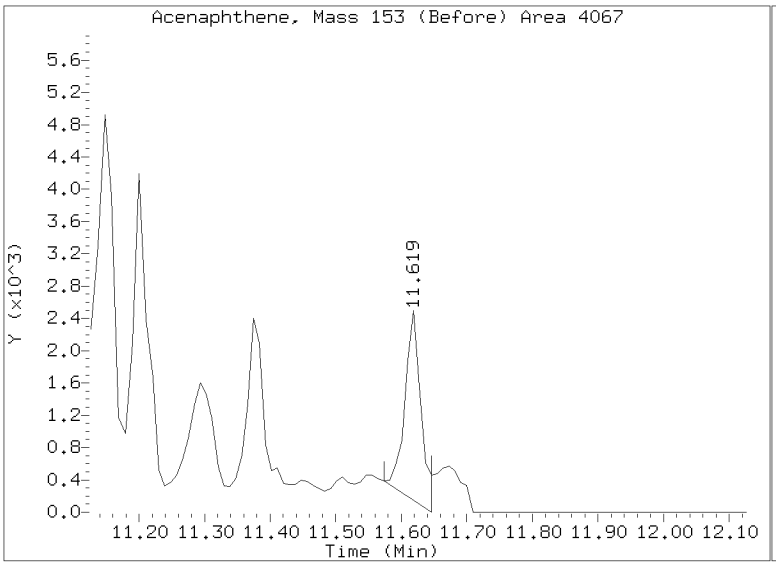
NONE

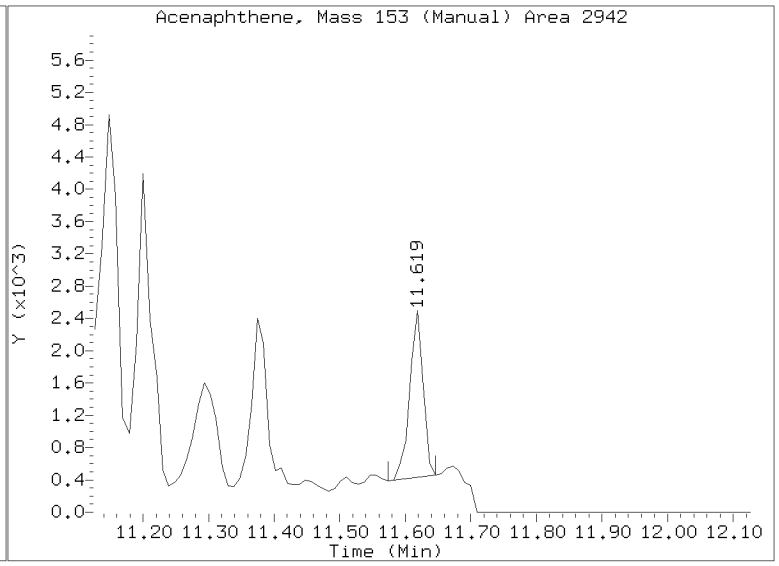
On Column LOD for nt11.i, 20170211.b\LOWSIM.m, allpna.sub = 3.0000

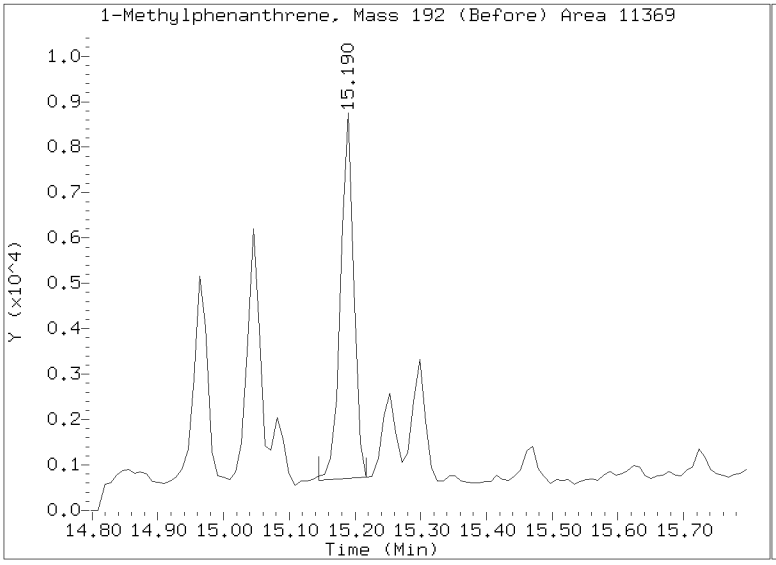
Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

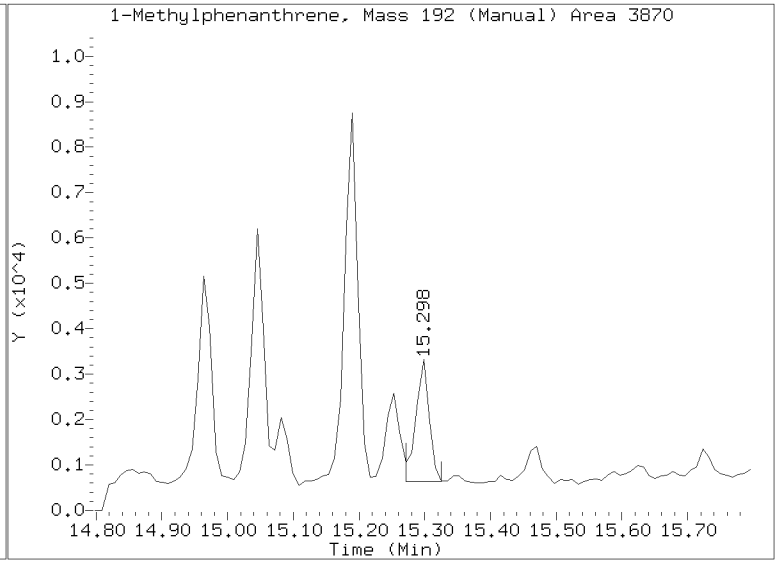
Quant Ion Manual Peak Adjustment Report

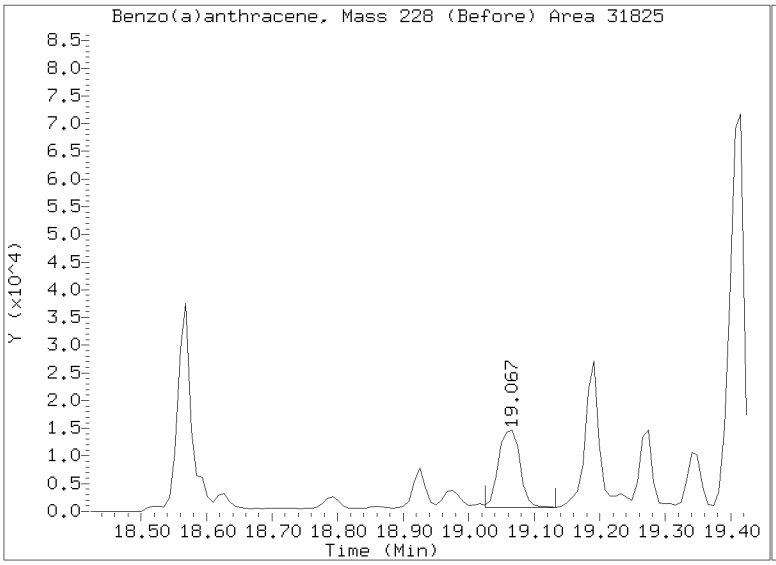
Datafile: //target/share/chem3/nt11.i/20170211.b/N1117021103.D
Injection Date: 11-FEB-2017 11:12
Lab ID:17A0053-10 Client ID:
Report Date: 02/11/2017 13:29

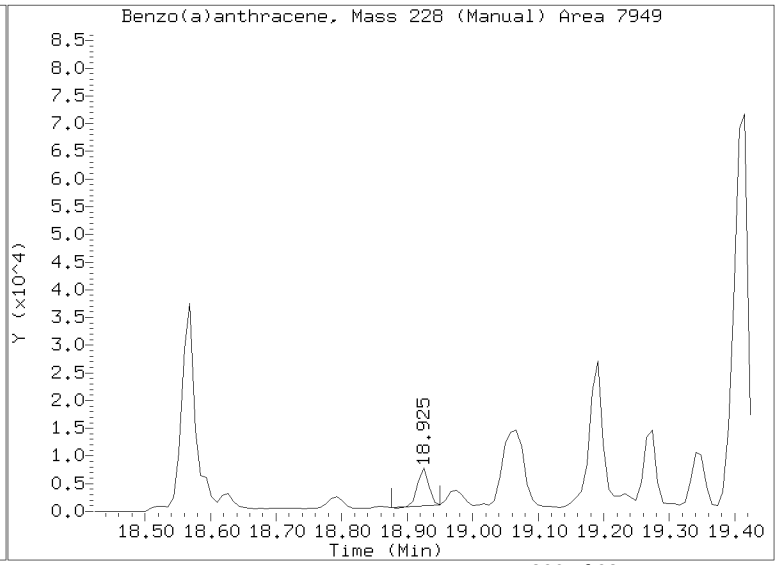












PG-WS-1-MUS-170105

Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270D-SIM

Polycyclic Aromatic Hydrocarbons (PAH) low level

Laboratory:	Analytical Resources, Inc.			SDG:	17A0053
Client:	Anchor QEA, LLC			Project:	Port Gamble Shellfish Monitoring
Matrix:	Tissue	Laboratory ID:	17A0053-11	File ID:	N1117021018.D
Sampled:	01/05/17 14:35	Prepared:	01/31/17 13:45	Analyzed:	02/10/17 21:12
Solids:		Preparation:	EPA 3550C-Mod (Ultrasonic	Initial/Final:	10.2 g / 0.5 mL
Batch:	BFA0647	Sequence:	SFB0130	Calibration:	ZL00083
Instrument:	NT11	Column:	RXi-17Sil-MS		

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg)	Q	DL	RL
91-20-3	Naphthalene	1	0.50	J	0.49	0.59
91-57-6	2-Methylnaphthalene	1	0.49	U	0.49	0.49
208-96-8	Acenaphthylene	1	0.49	U	0.49	0.49
83-32-9	Acenaphthene	1	0.49	U	0.49	0.49
86-73-7	Fluorene	1	0.57		0.49	0.49
85-01-8	Phenanthrene	1	3.07		0.49	0.49
120-12-7	Anthracene	1	0.81		0.49	0.49
206-44-0	Fluoranthene	1	6.26		0.49	0.49
129-00-0	Pyrene	1	5.69		0.49	0.49
56-55-3	Benzo(a)anthracene	1	1.14		0.49	0.49
218-01-9	Chrysene	1	3.36		0.49	0.49
205-99-2	Benzo(b)fluoranthene	1	1.18		0.49	0.49
207-08-9	Benzo(k)fluoranthene	1	0.55		0.49	0.49
50-32-8	Benzo(a)pyrene	1	0.49	U	0.49	0.49
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.49	U	0.49	0.49
53-70-3	Dibenzo(a,h)anthracene	1	0.49	U	0.49	0.49
191-24-2	Benzo(g,h,i)perylene	1	0.49	U	0.49	0.49
1985-5-0	Perylene	1	0.58		0.49	0.49
197-97-2	Benzo(e)pyrene	1	2.62		0.49	0.49

SURROGATES	ADDED (ug/kg)	CONC (ug/kg)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	14.706	8.68	59.0	30 - 160	
Dibenzo[a,h]anthracene-d14	14.706	10.3	70.1	30 - 160	
Fluoranthene-d10	14.706	9.39	63.9	30 - 160	

Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021018.D

Date : 10-FEB-2017 21:12

Client ID:

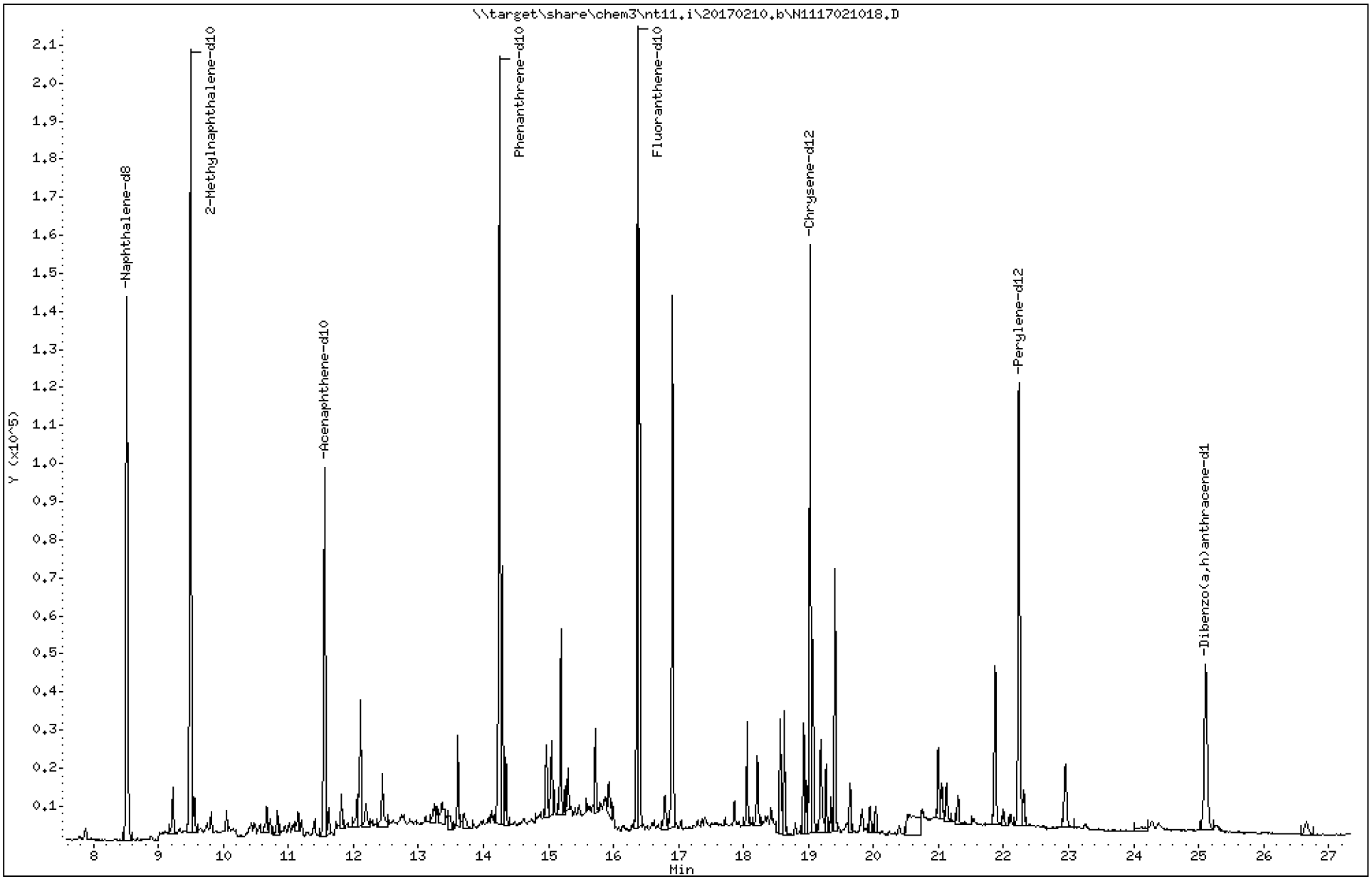
Sample Info: 17A0053-11

Instrument: nt11.i

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 10-FEB-2017 21:12

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-11

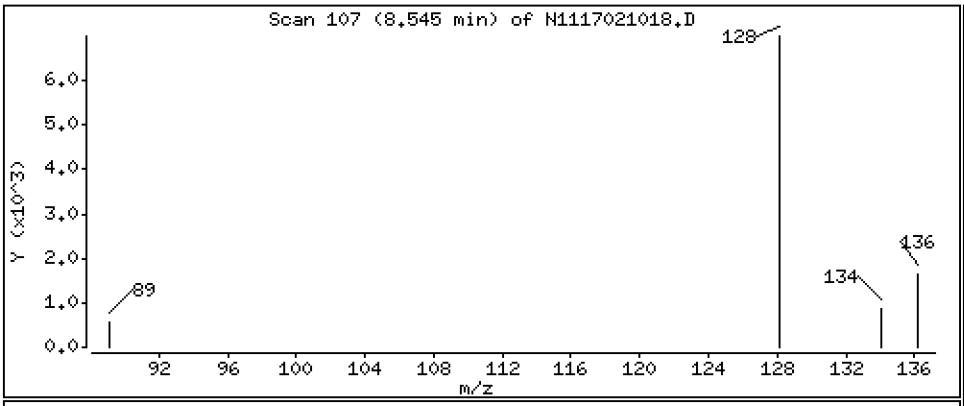
Operator: VTS

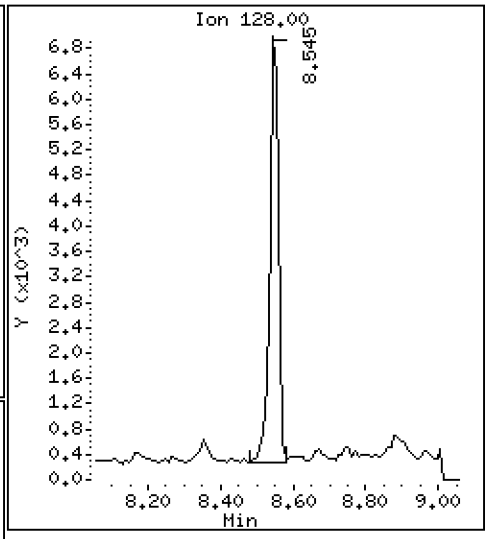
Column phase: Rxi-17Sil MS

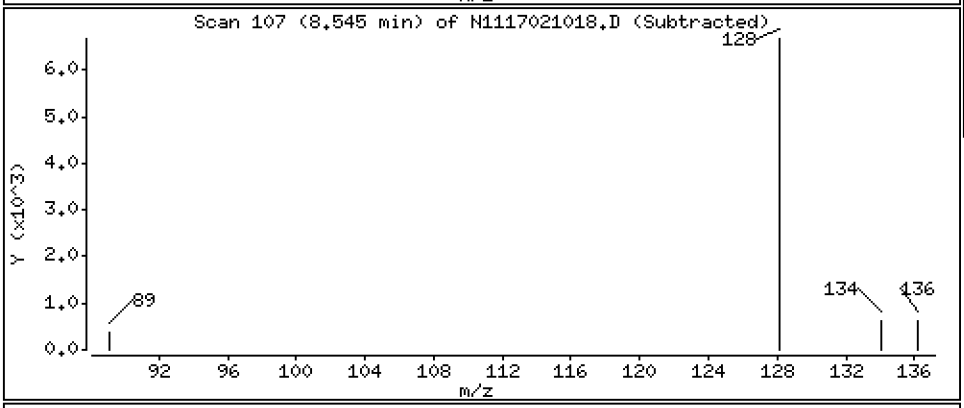
Column diameter: 0.25

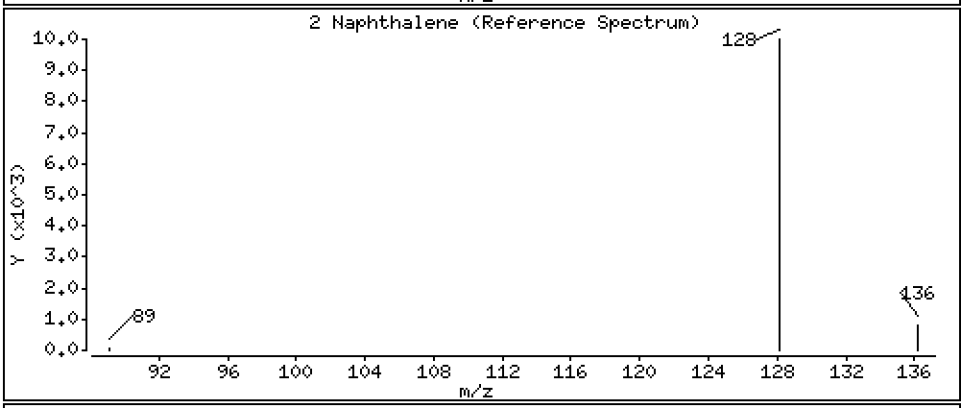
2 Naphthalene

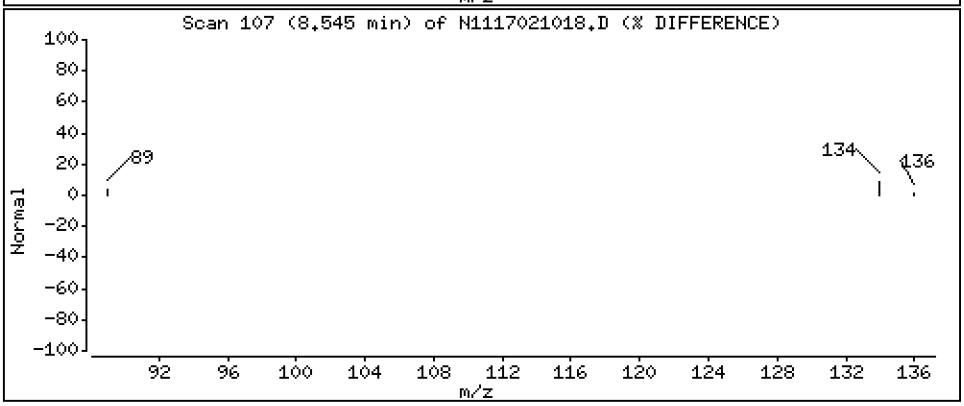
Concentration: 10.1 ng/mL











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Date : 10-FEB-2017 21:12

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-11

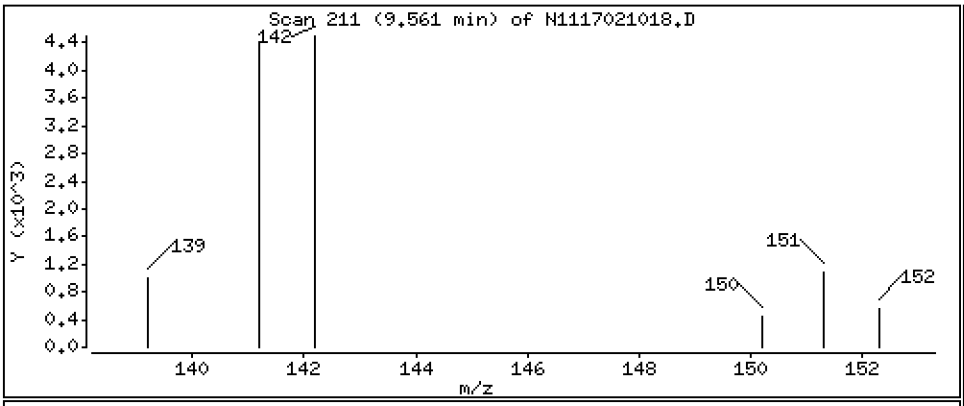
Operator: VTS

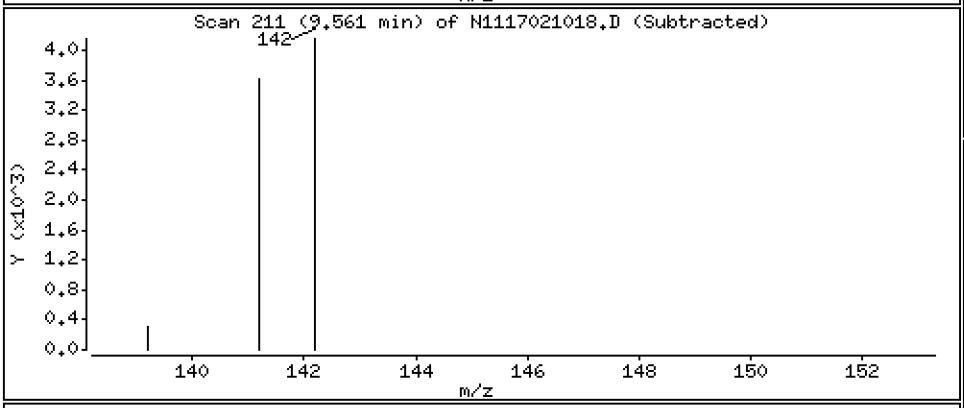
Column phase: Rxi-17Sil MS

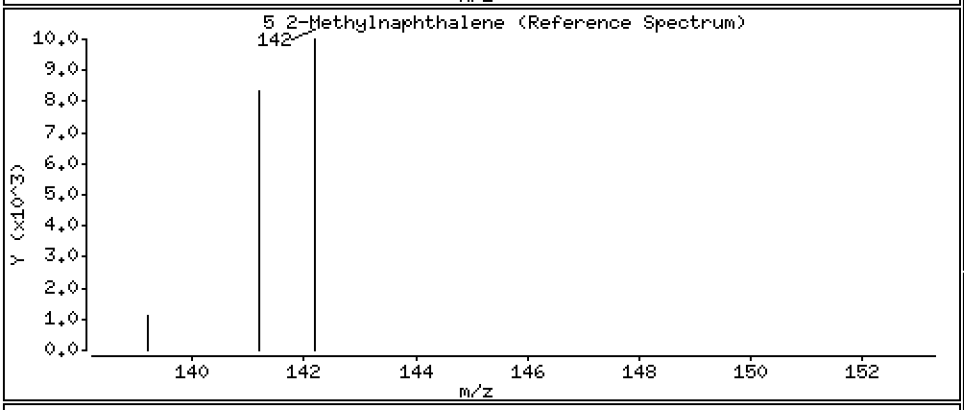
Column diameter: 0.25

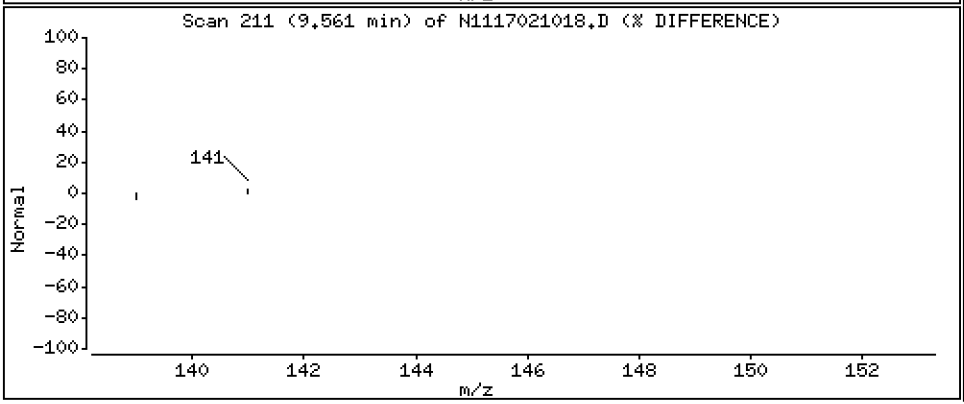
5 2-Methylnaphthalene

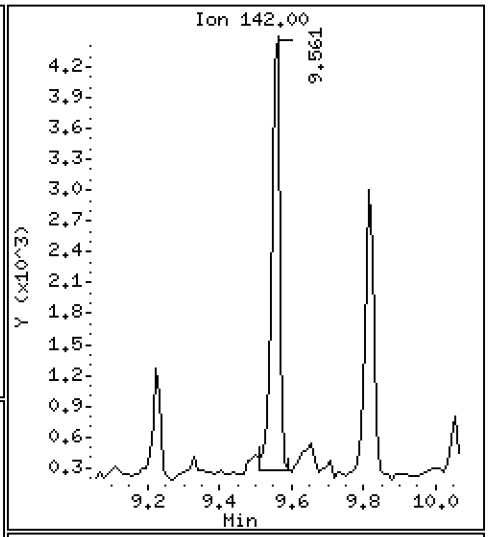
Concentration: 6.73 ng/mL

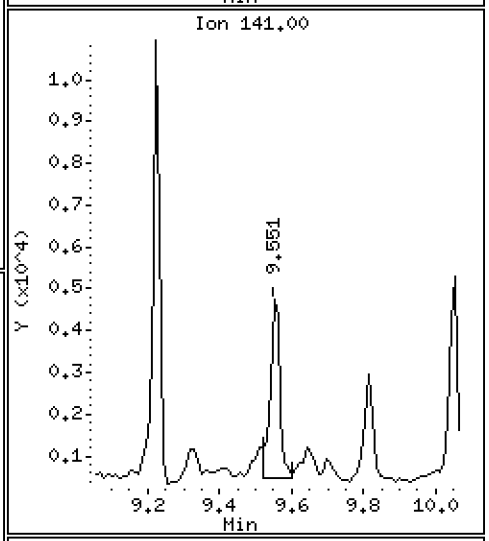


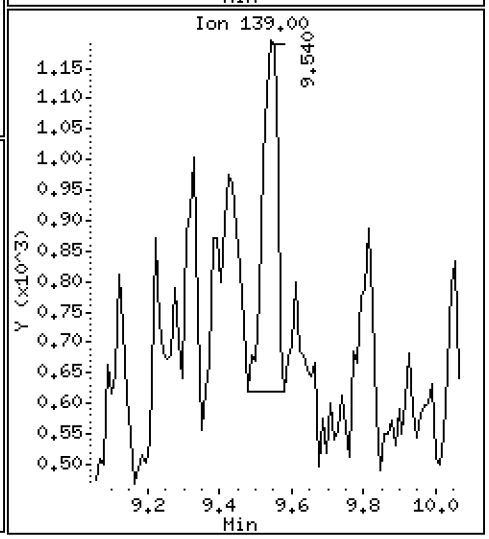












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Date : 10-FEB-2017 21:12

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-11

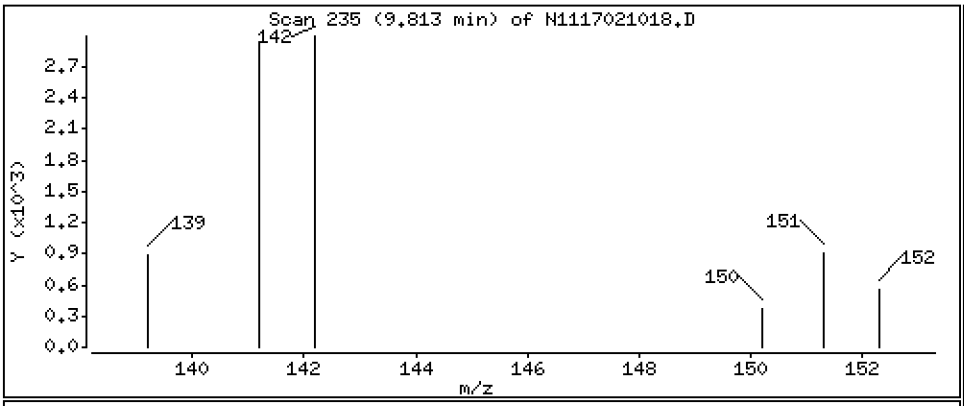
Operator: VTS

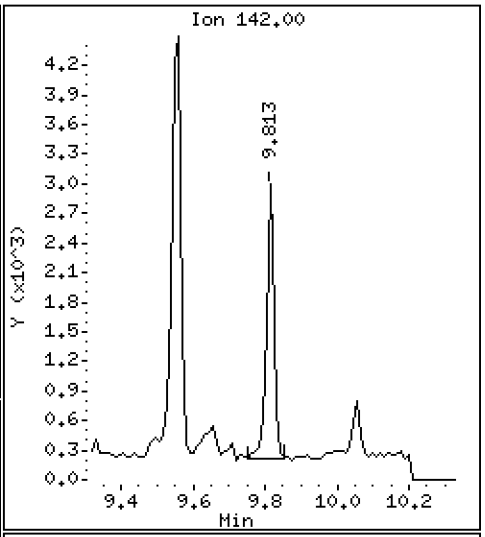
Column phase: Rxi-17Sil MS

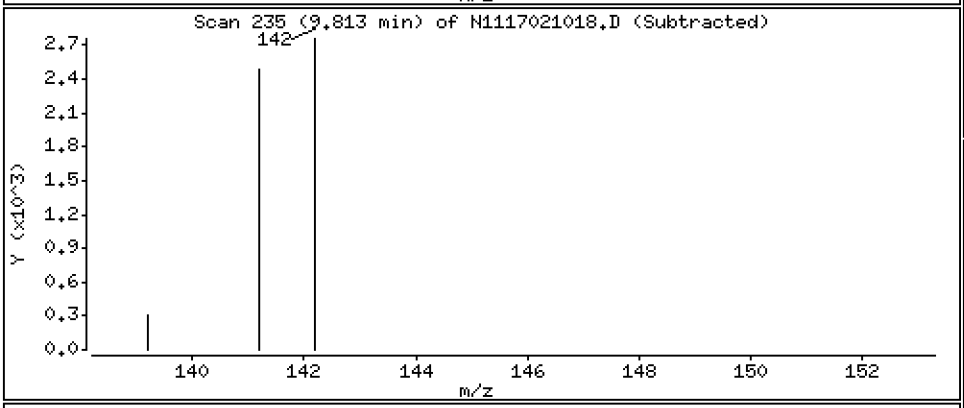
Column diameter: 0.25

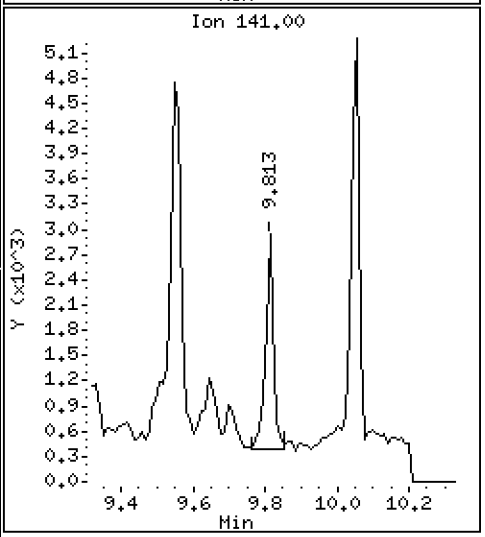
6 1-Methylnaphthalene

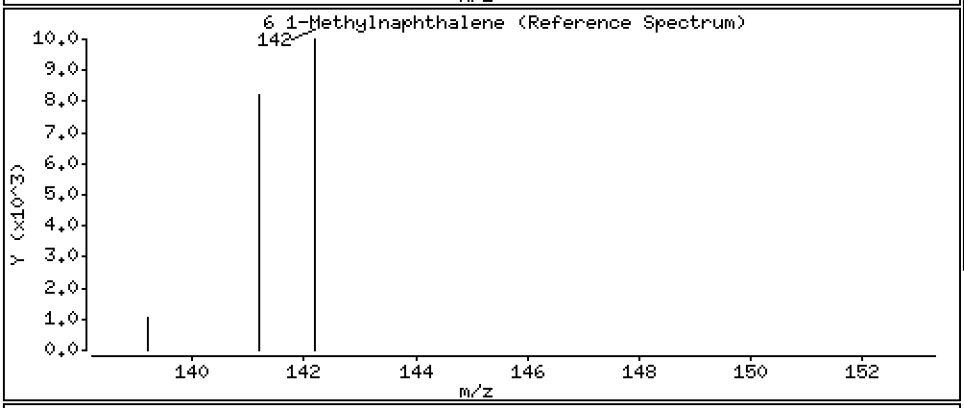
Concentration: 4.23 ng/mL

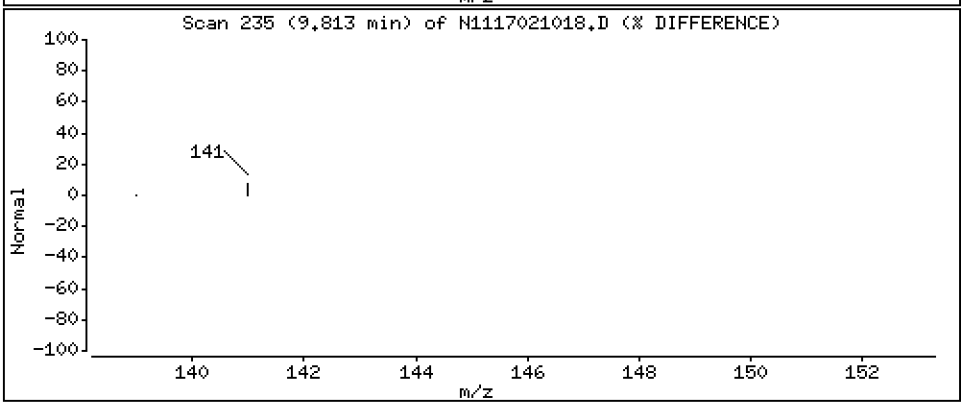












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Date : 10-FEB-2017 21:12

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-11

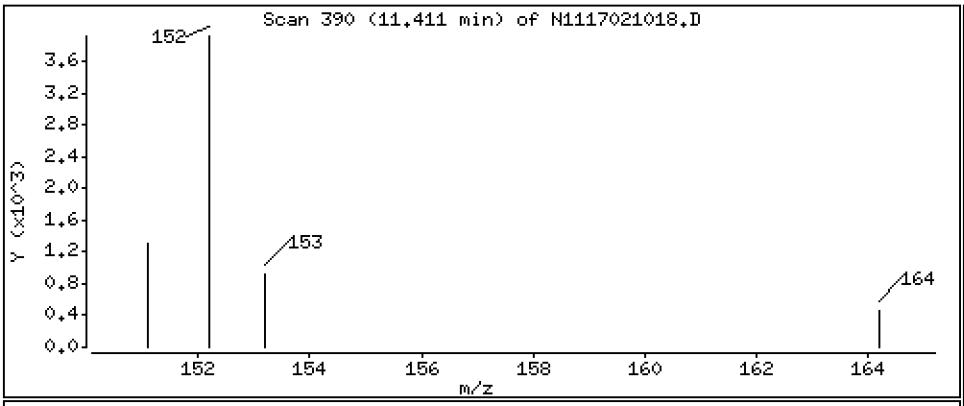
Operator: VTS

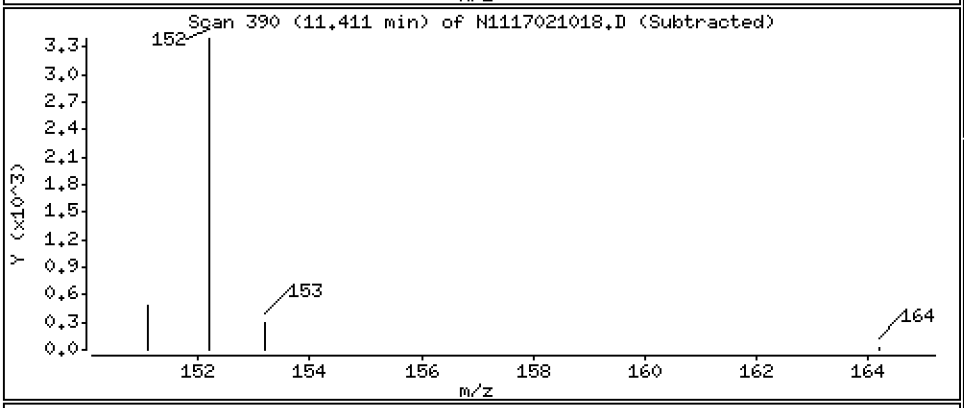
Column phase: Rxi-17Sil MS

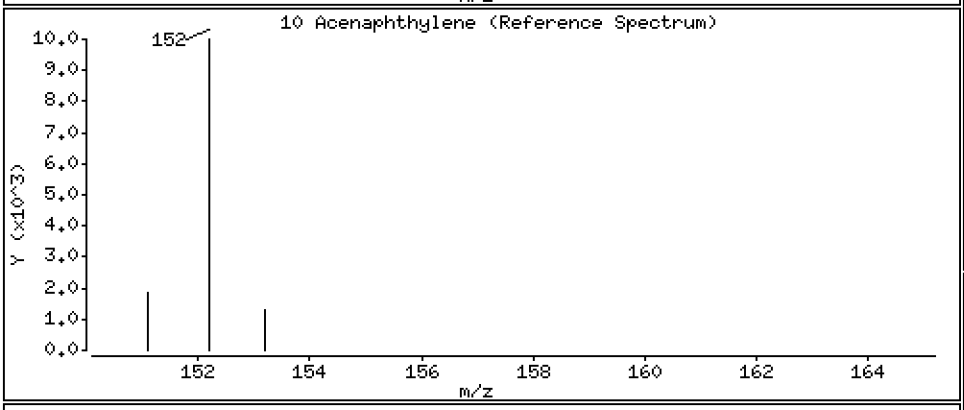
Column diameter: 0.25

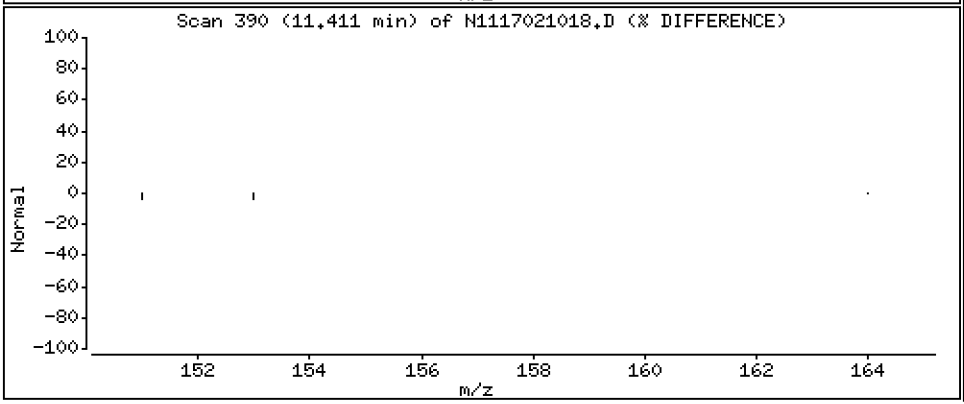
10 Acenaphthylene

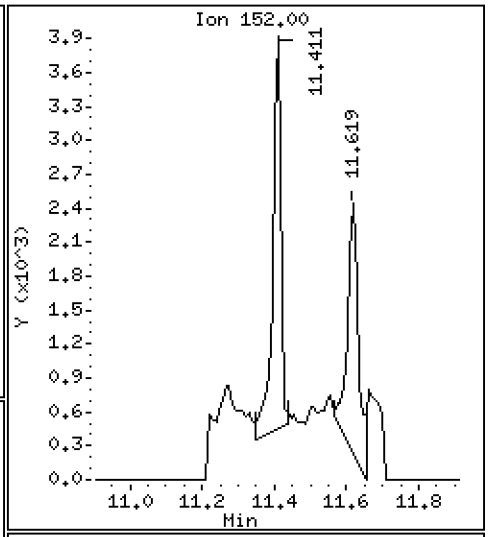
Concentration: 4.04 ng/mL

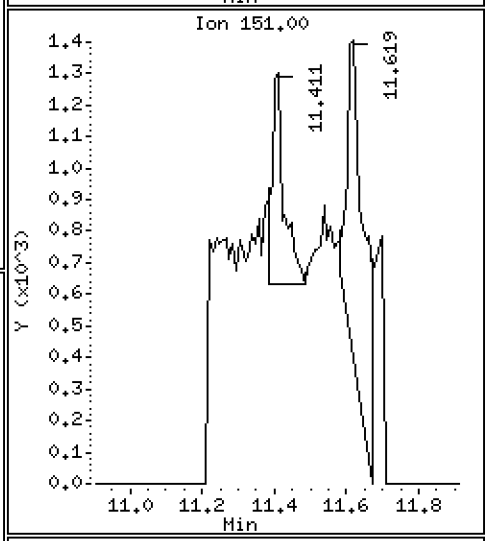


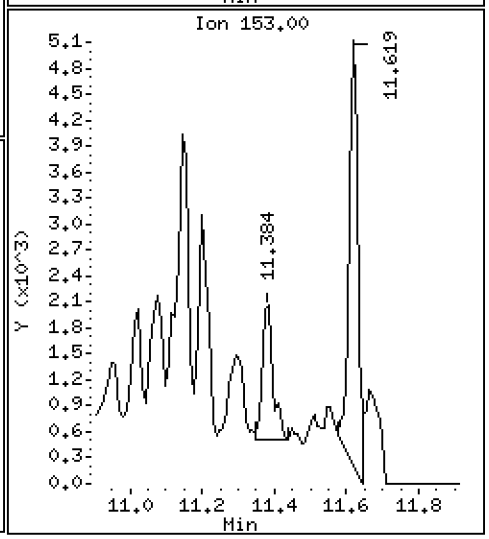












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Date : 10-FEB-2017 21:12

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-11

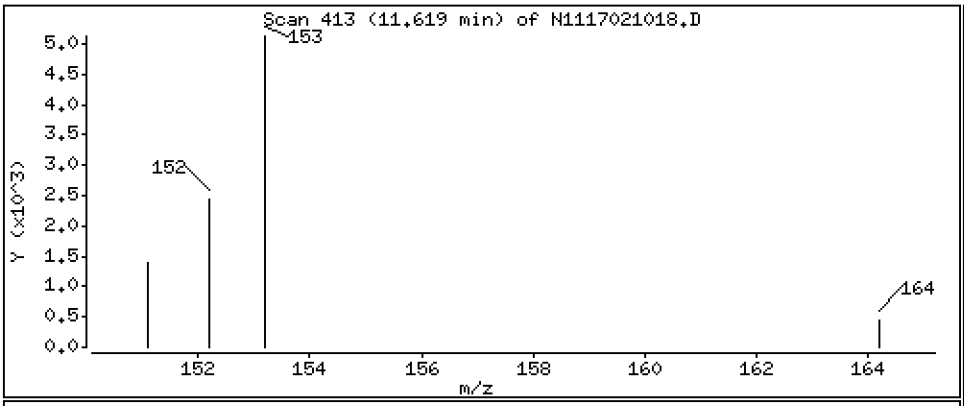
Operator: VTS

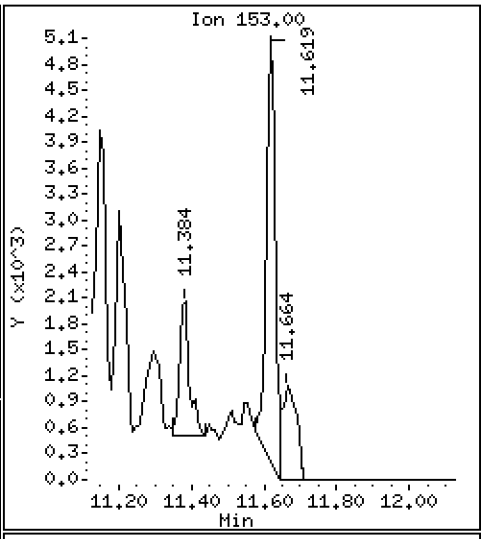
Column phase: Rxi-17Sil MS

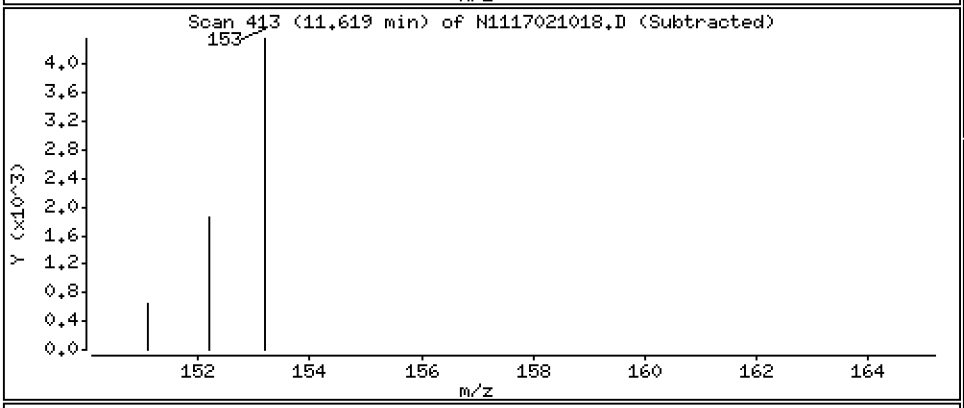
Column diameter: 0.25

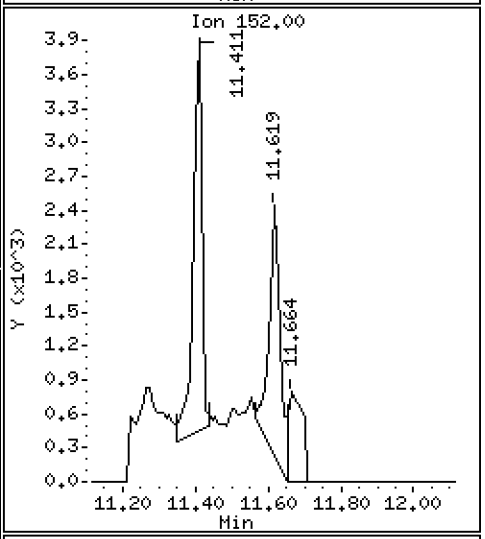
12 Acenaphthene

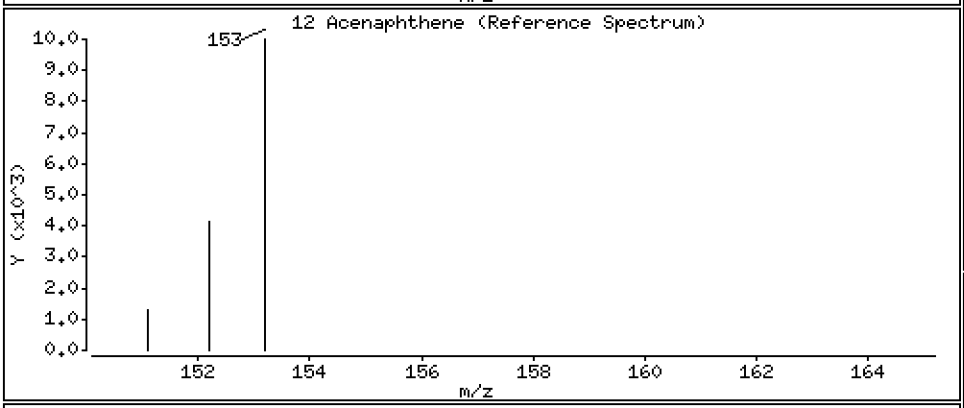
Concentration: 9.75 ng/mL

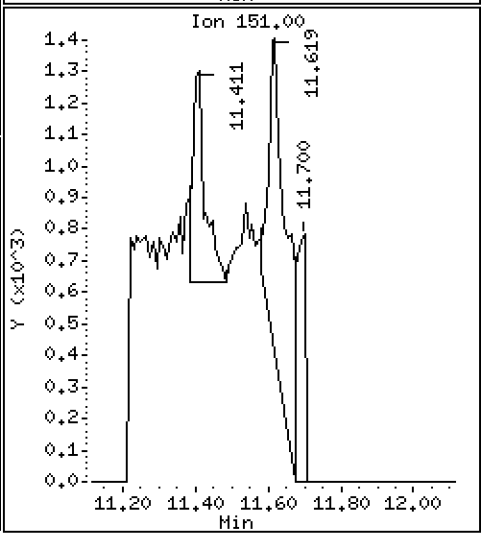


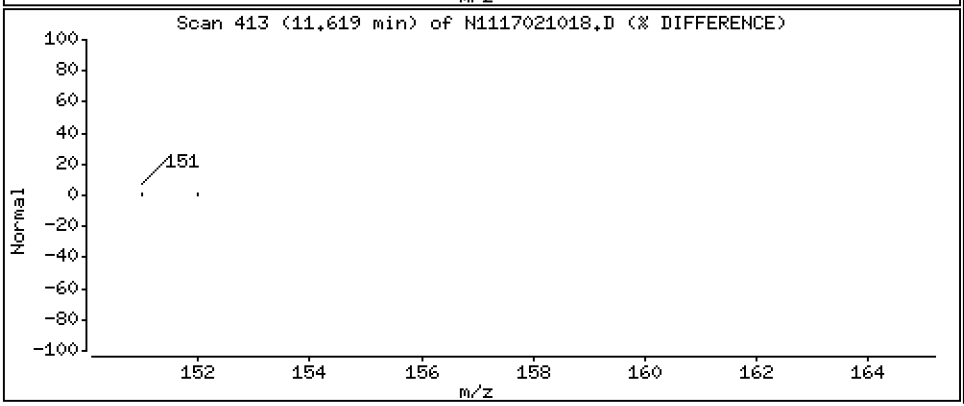












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Date : 10-FEB-2017 21:12

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-11

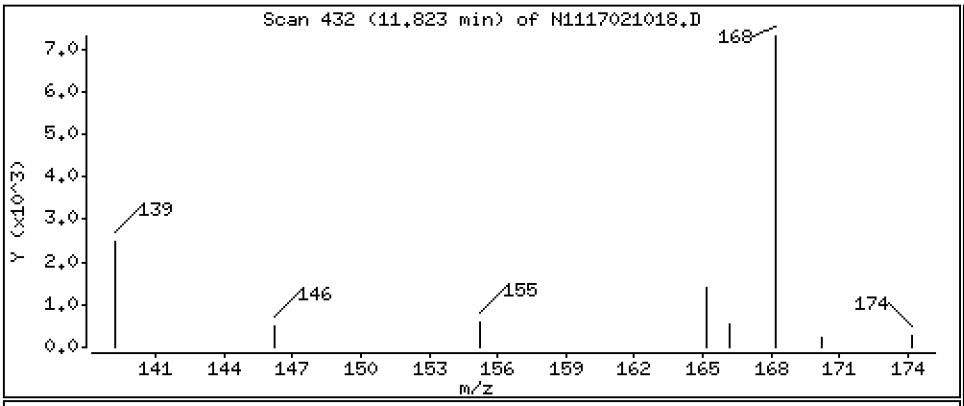
Operator: VTS

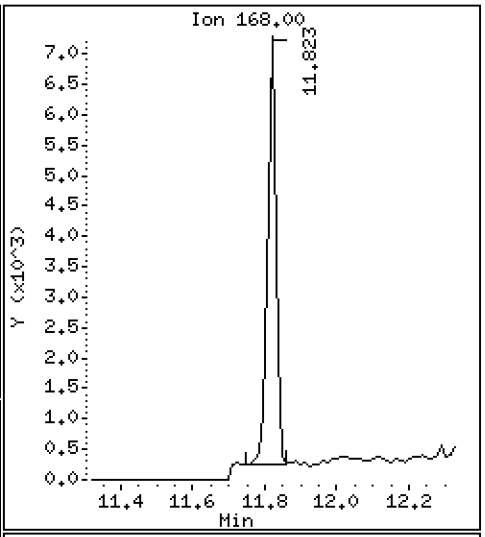
Column phase: Rxi-17Sil MS

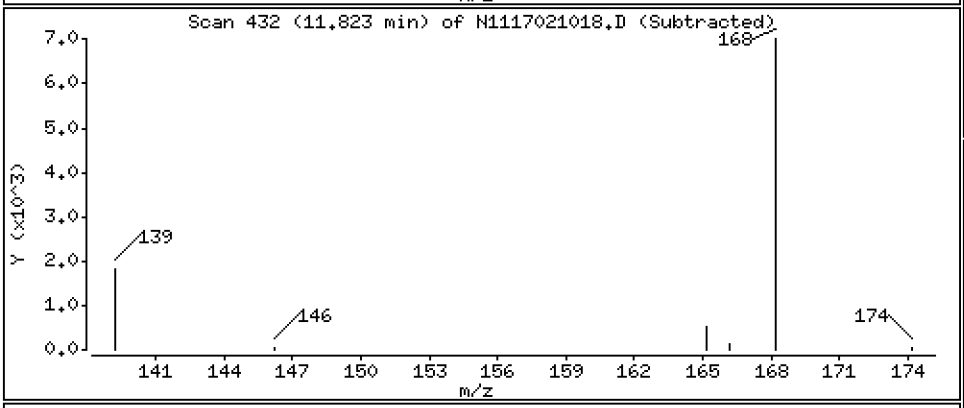
Column diameter: 0.25

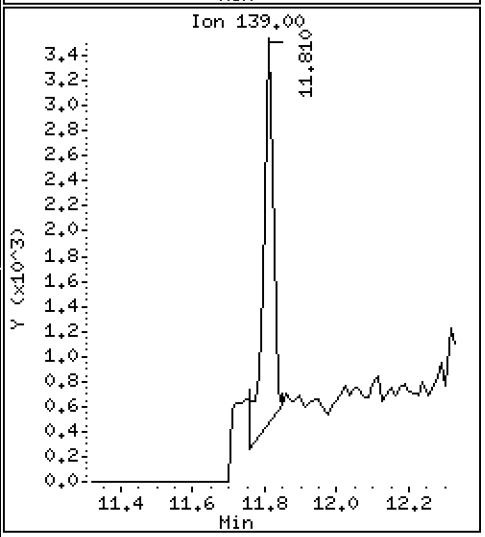
13 Dibenzofuran

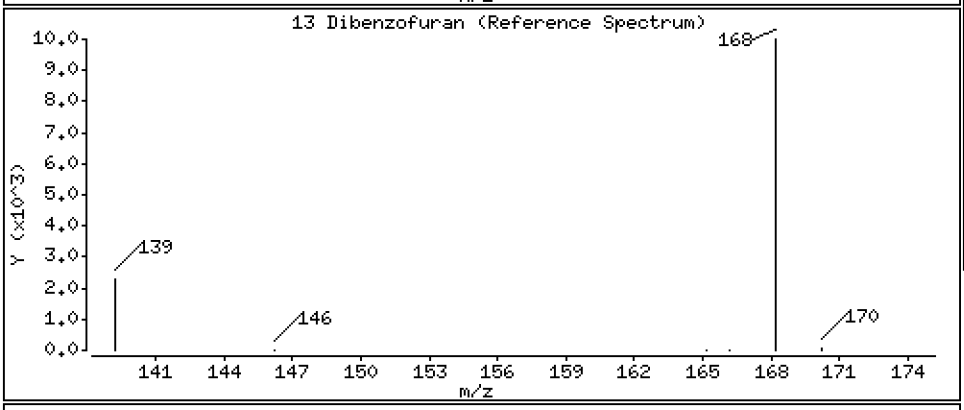
Concentration: 8.32 ng/mL

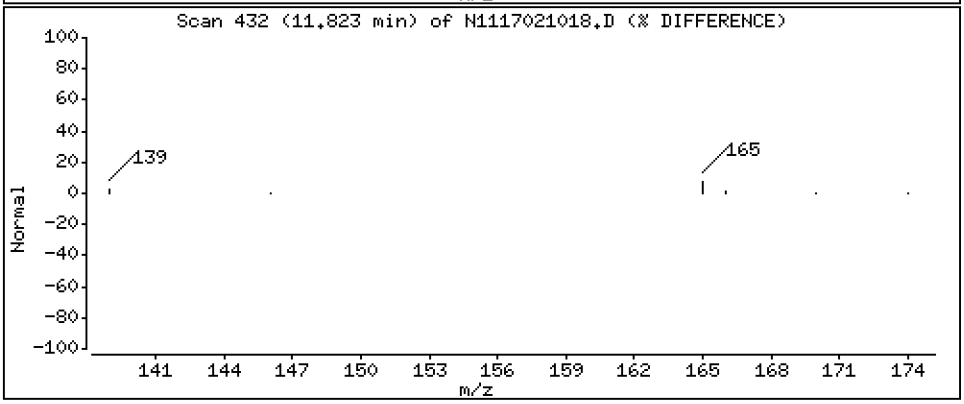












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021018.D

Date : 10-FEB-2017 21:12

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-11

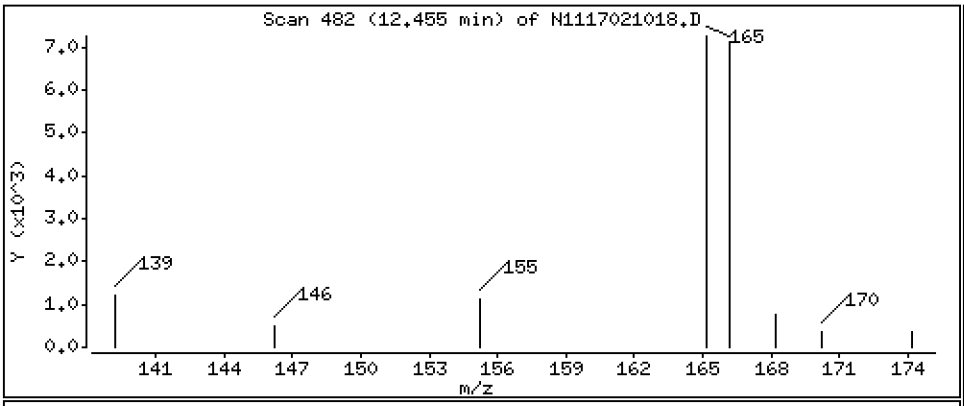
Operator: VTS

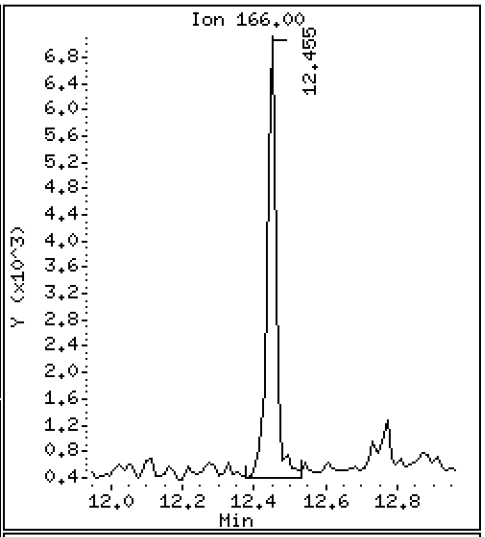
Column phase: Rxi-17Sil MS

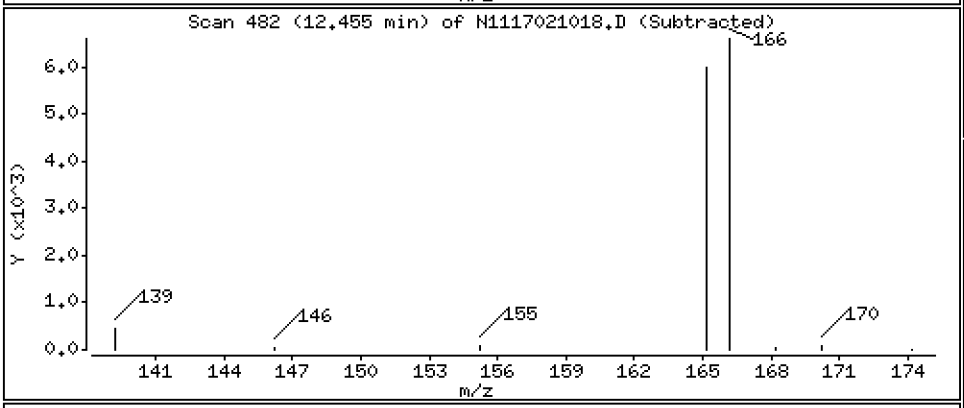
Column diameter: 0.25

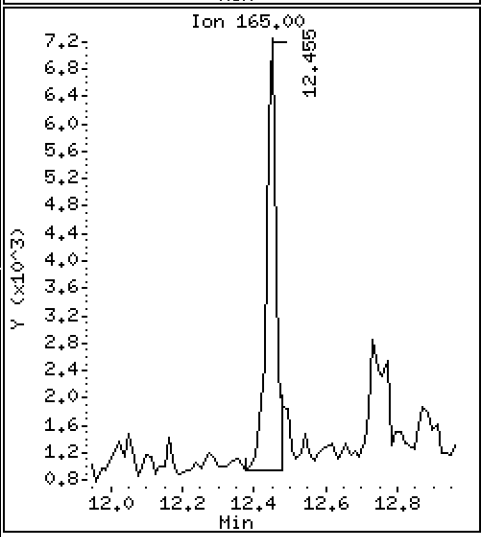
16 Fluorene

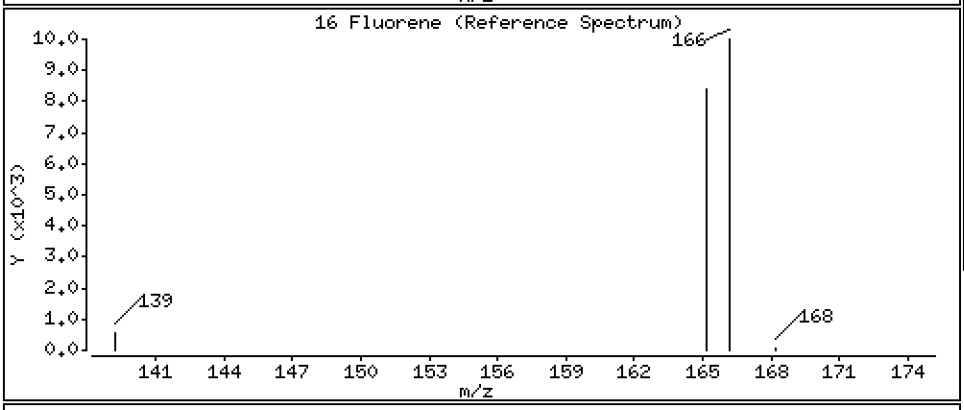
Concentration: 11.6 ng/mL

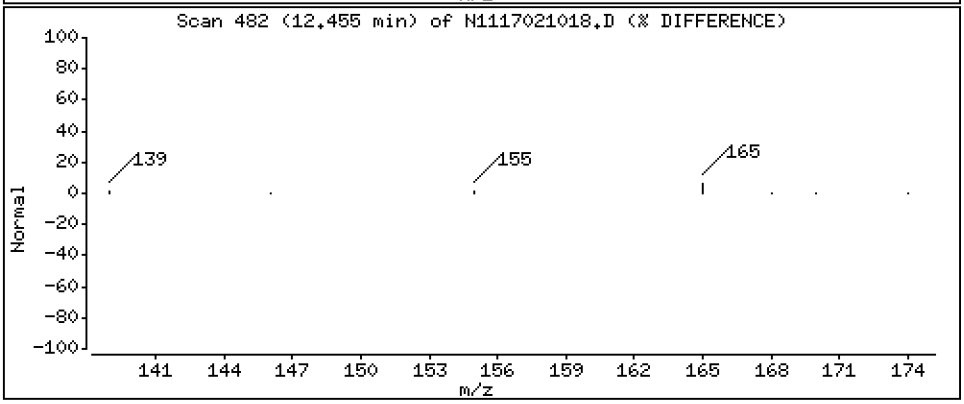












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Date : 10-FEB-2017 21:12

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-11

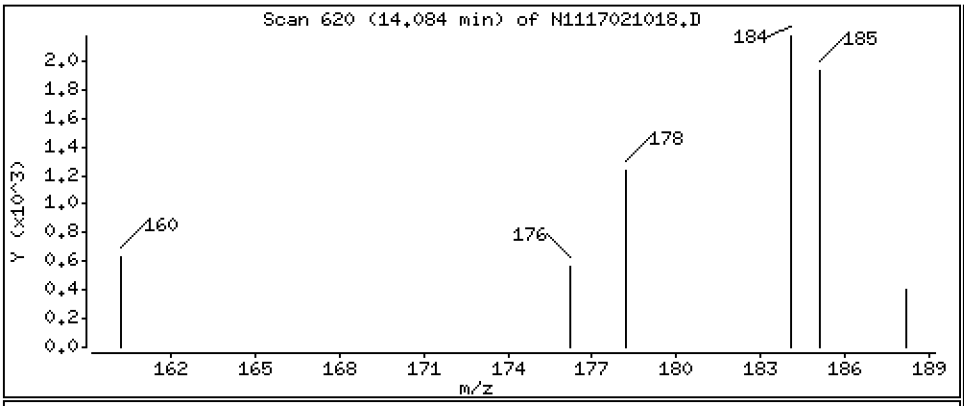
Operator: VTS

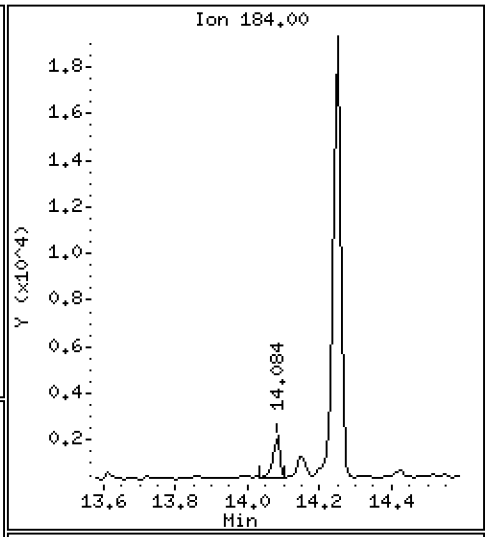
Column phase: Rxi-17Sil MS

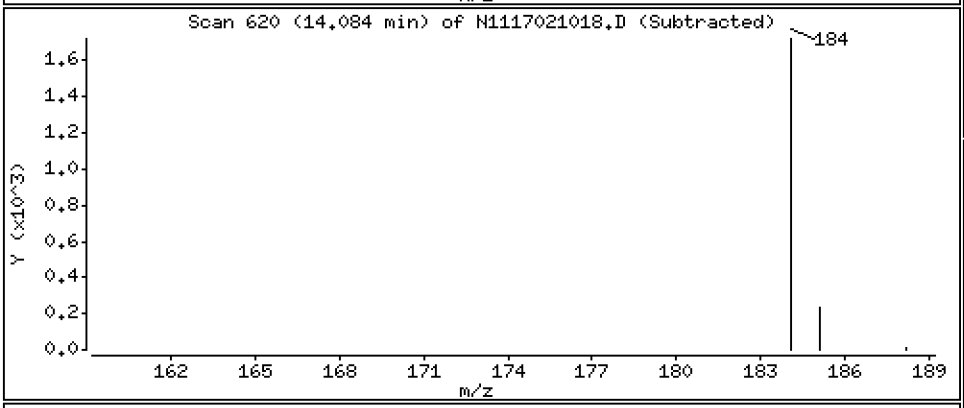
Column diameter: 0.25

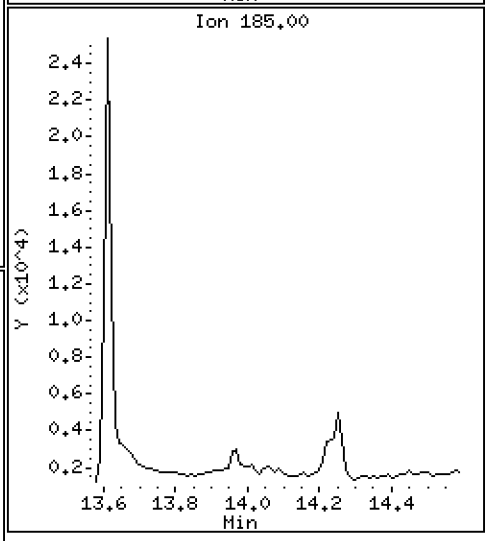
17 Dibenzothiophene

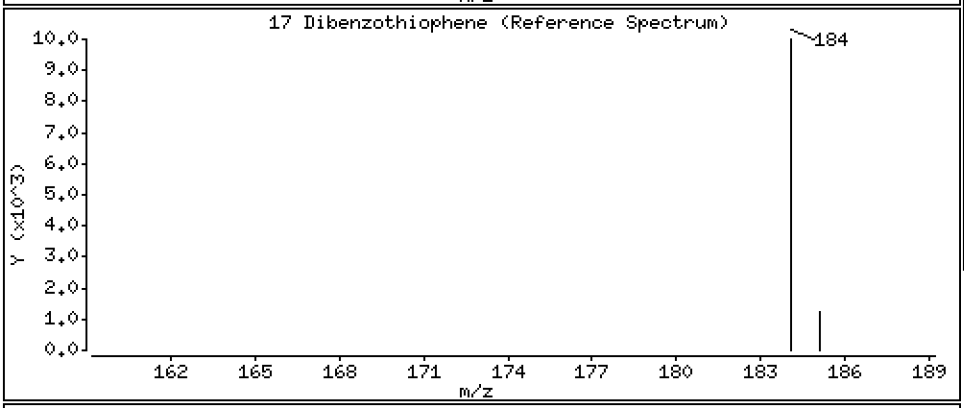
Concentration: 2.49 ng/mL

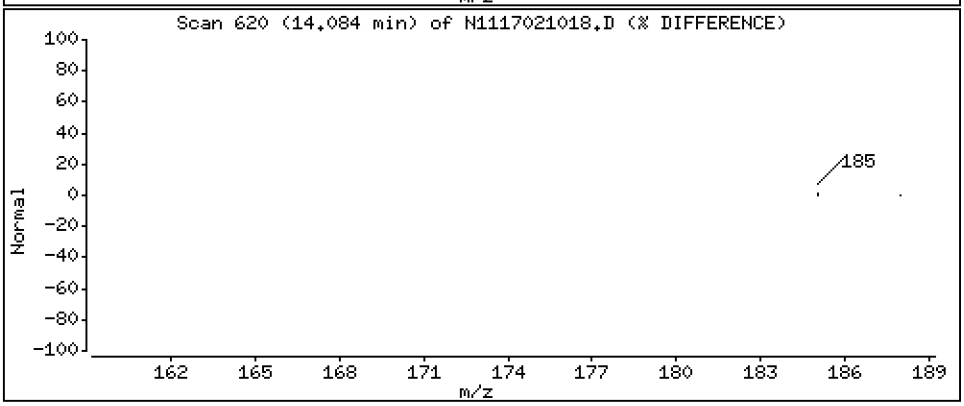












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Date : 10-FEB-2017 21:12

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-11

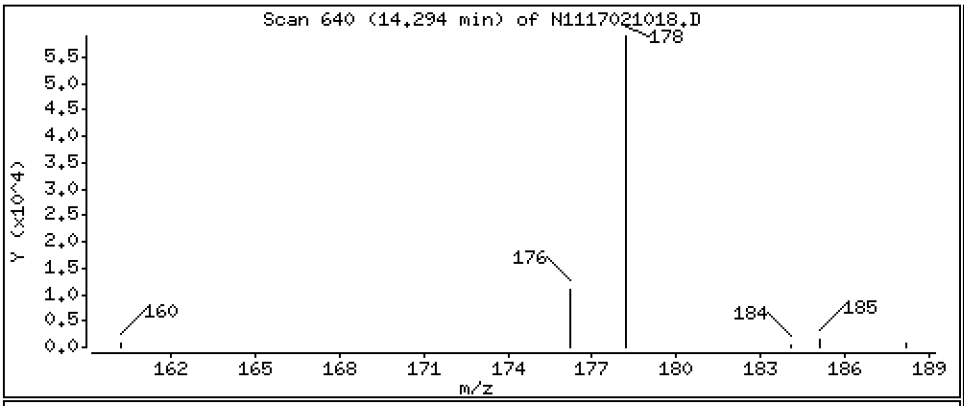
Operator: VTS

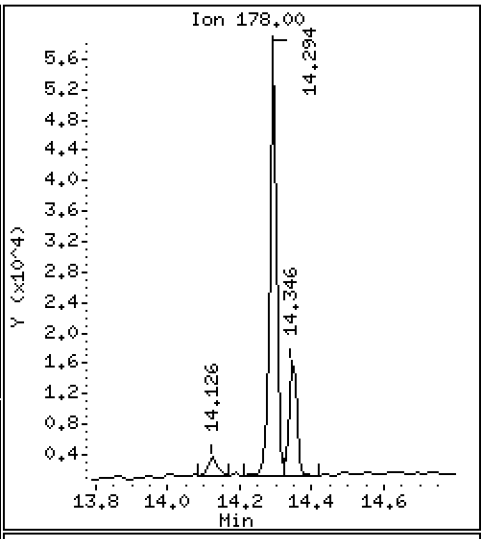
Column phase: Rxi-17Sil MS

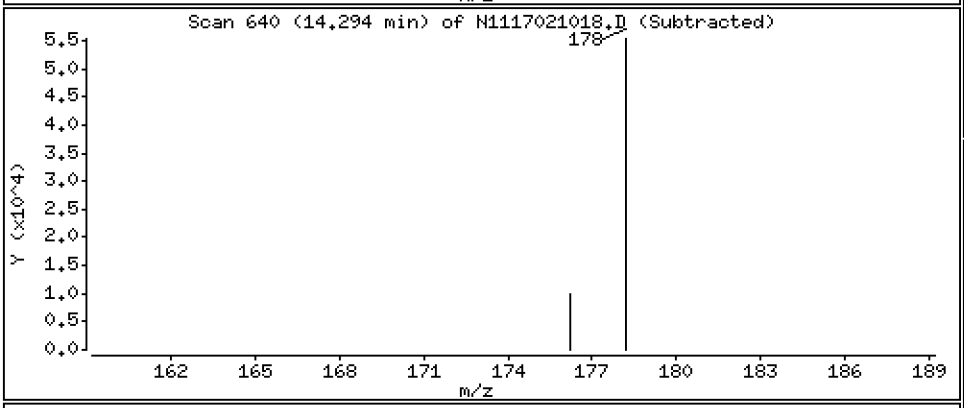
Column diameter: 0.25

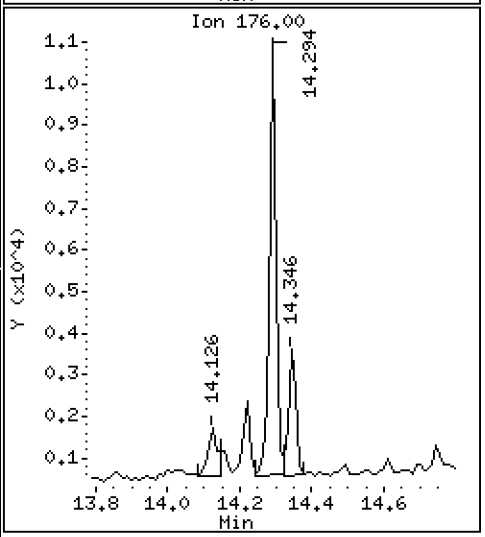
19 Phenanthrene

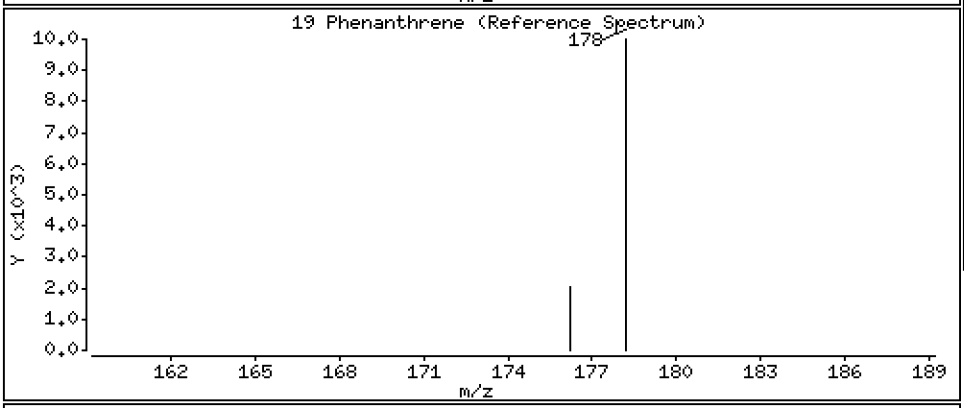
Concentration: 62.5 ng/mL

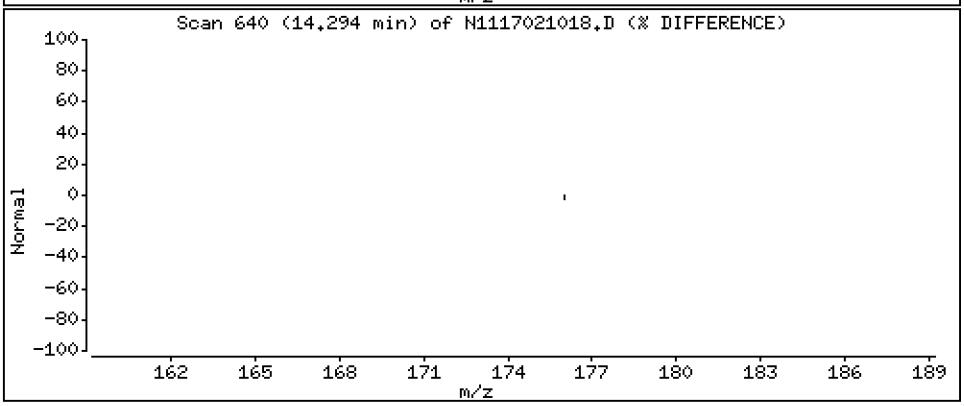












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Date : 10-FEB-2017 21:12

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-11

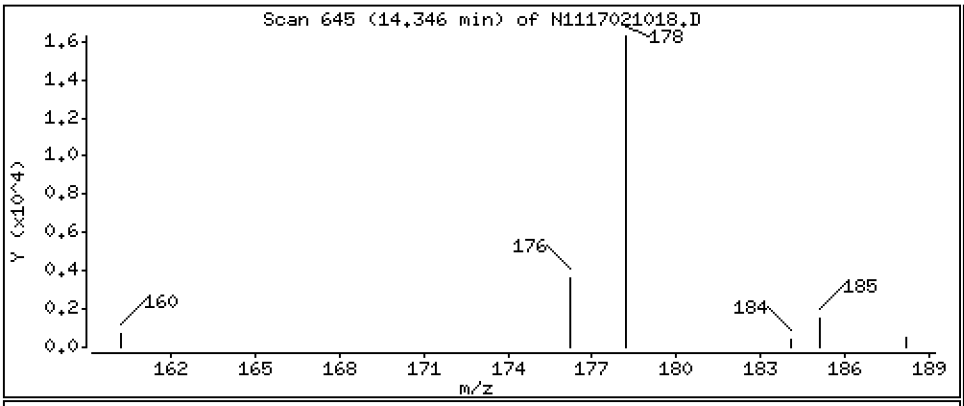
Operator: VTS

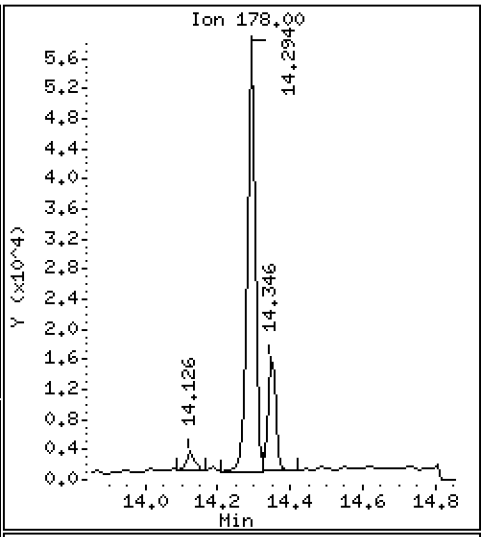
Column phase: Rxi-17Sil MS

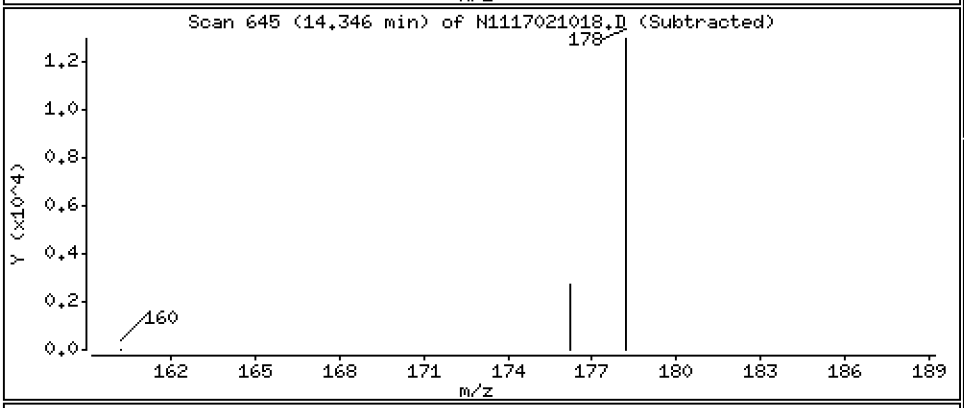
Column diameter: 0.25

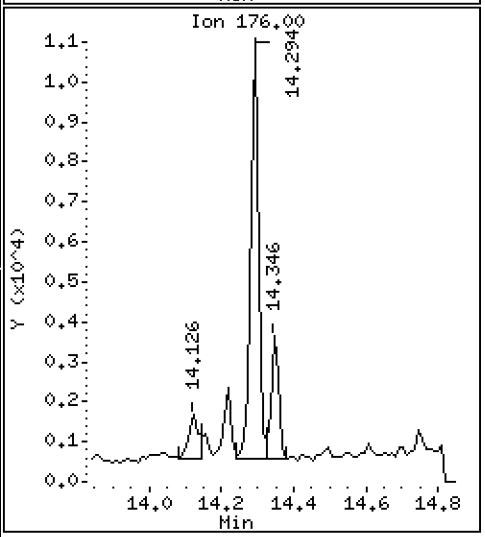
21 Anthracene

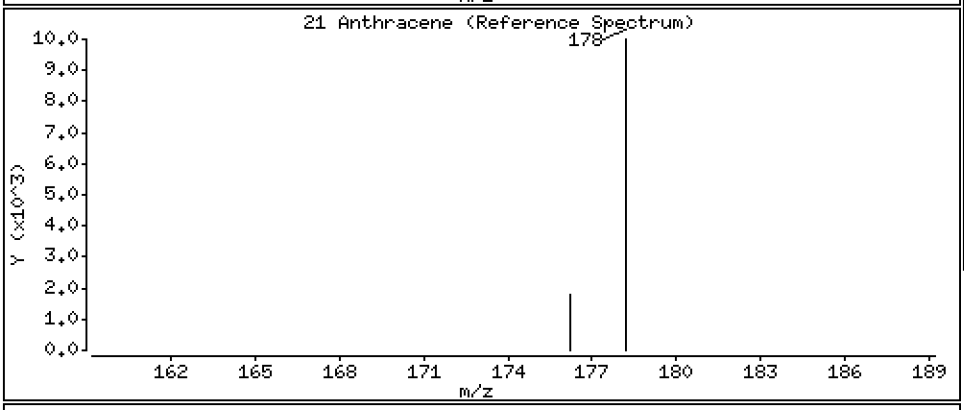
Concentration: 16.6 ng/mL

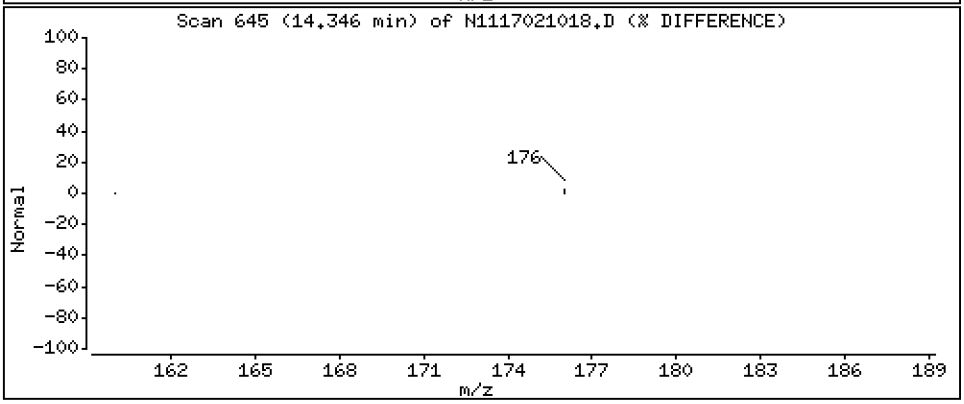












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Date : 10-FEB-2017 21:12

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-11

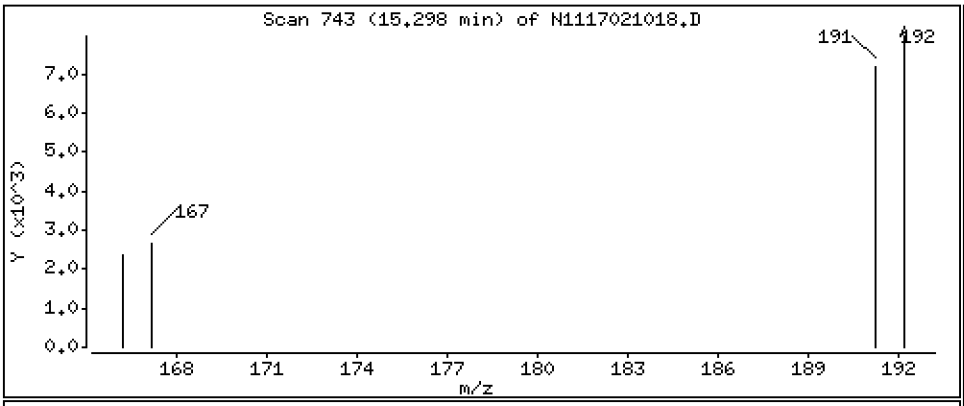
Operator: VTS

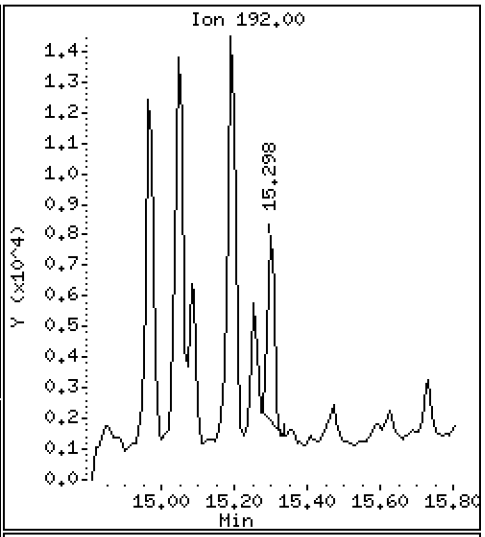
Column phase: Rxi-17Sil MS

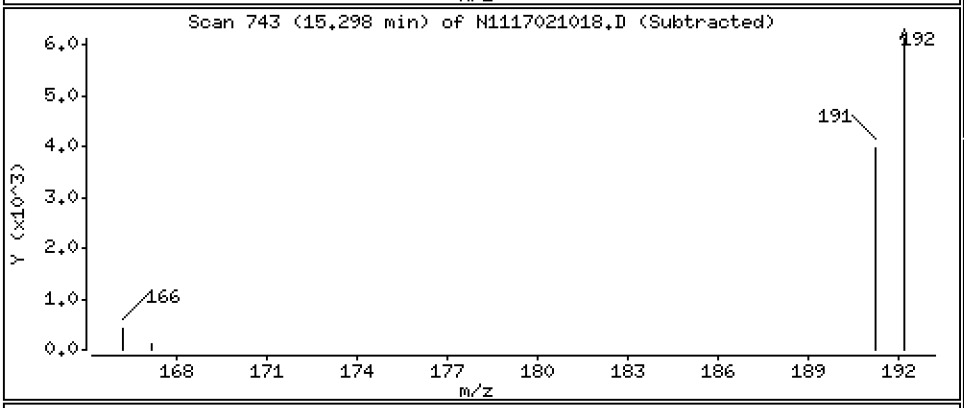
Column diameter: 0.25

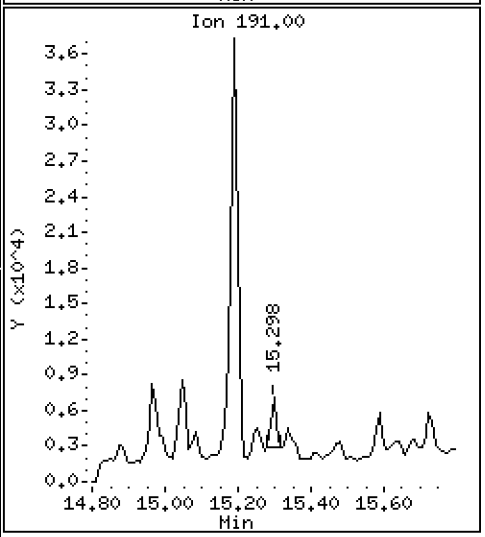
23 1-Methylphenanthrene

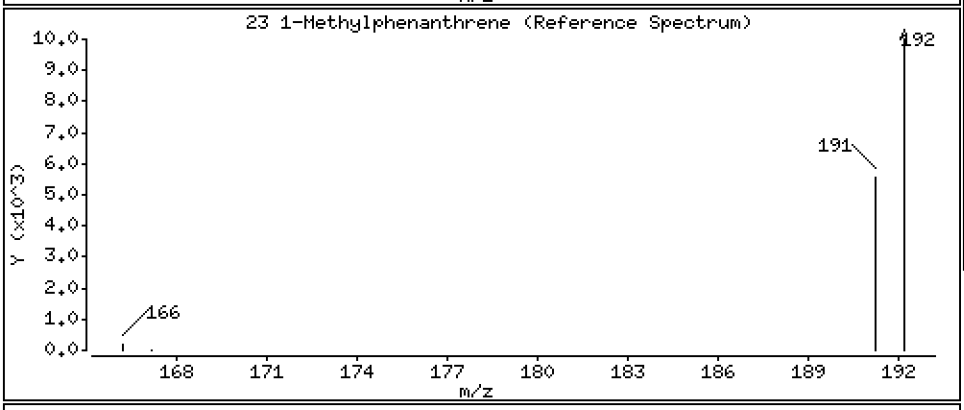
Concentration: 5.31 ng/mL

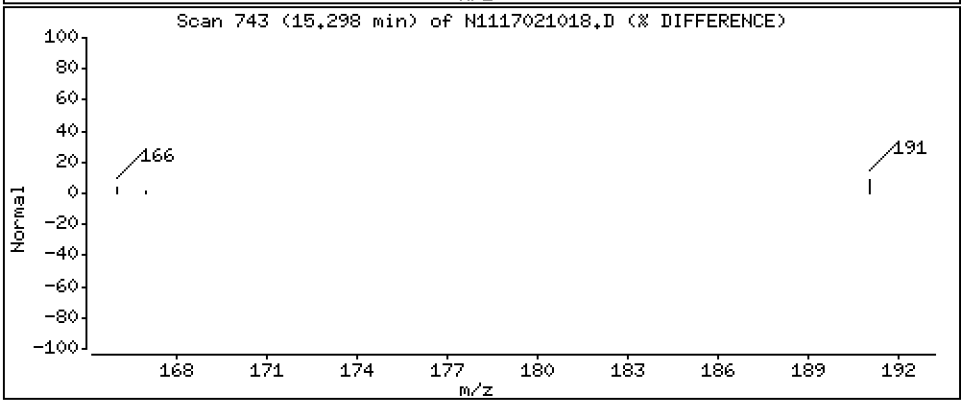












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Instrument: nt11.i

Sample Info: 17A0053-11

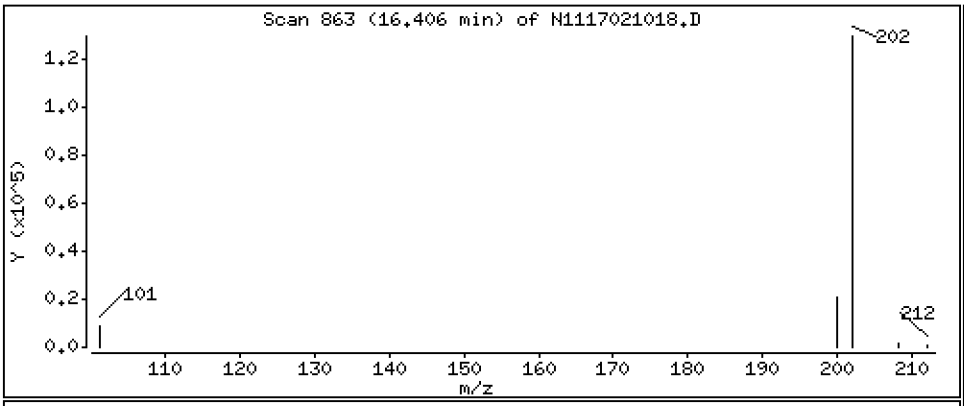
Operator: VTS

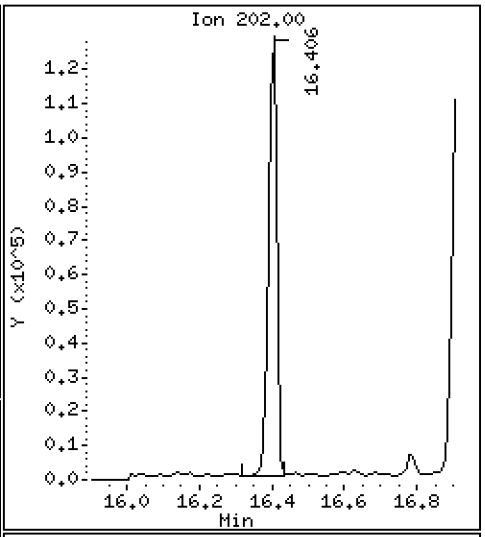
Column phase: Rxi-17Sil MS

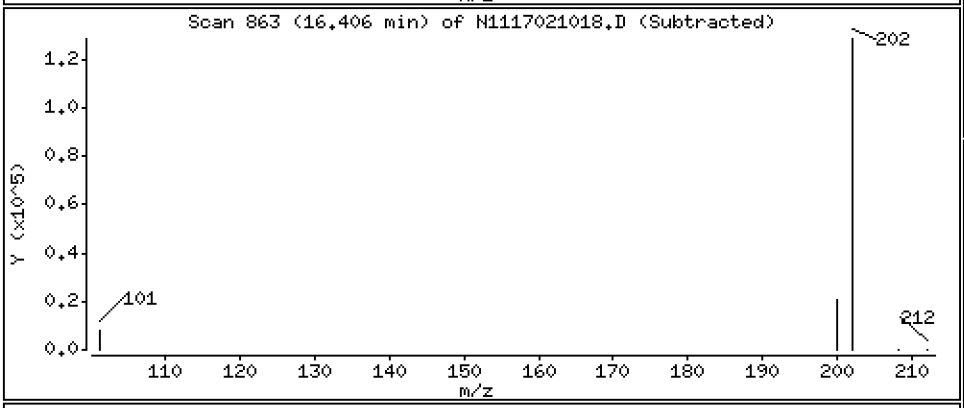
Column diameter: 0.25

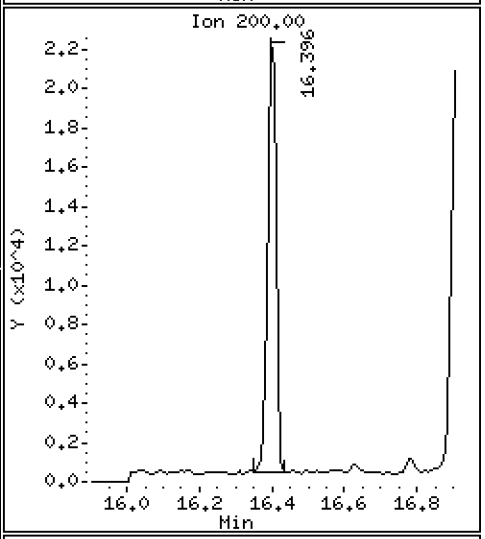
25 Fluoranthene

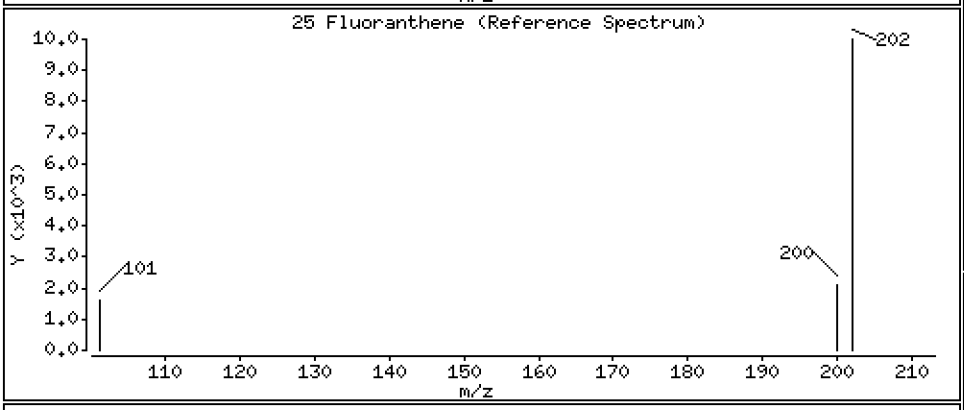
Concentration: 128 ng/mL

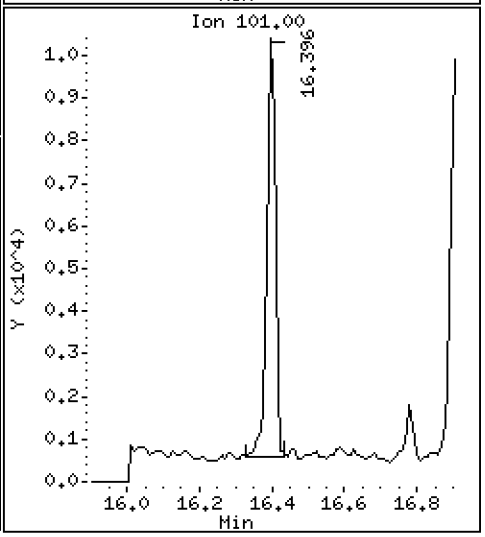


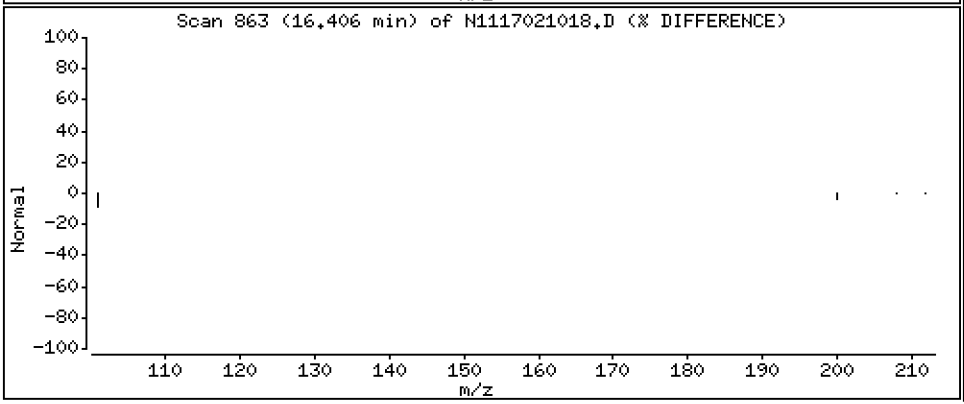












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Client ID:

Instrument: nt11.i

Sample Info: 17A0053-11

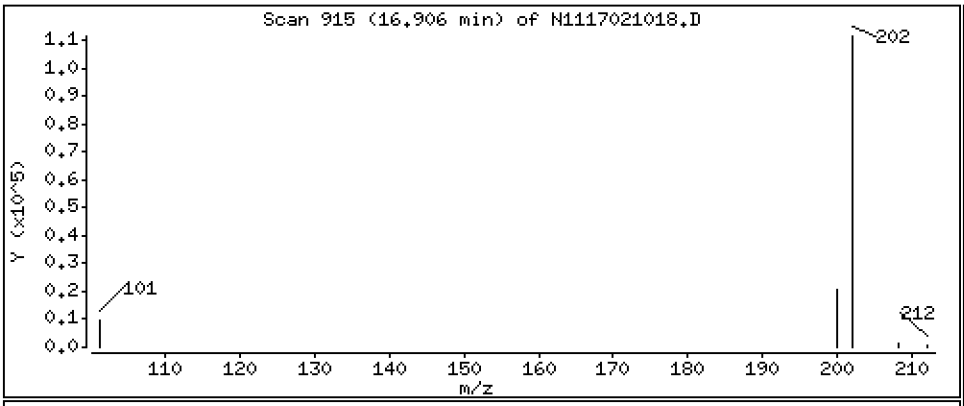
Operator: VTS

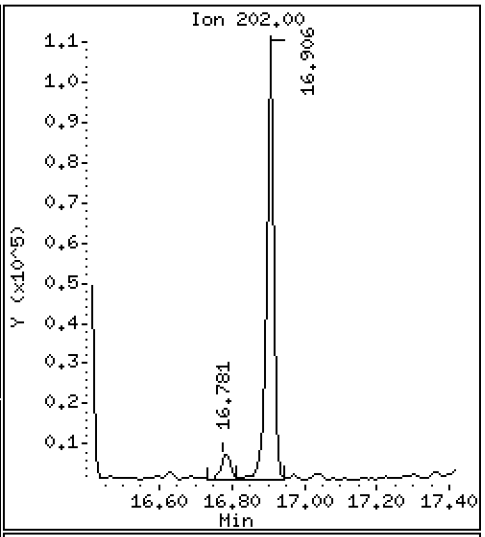
Column phase: Rxi-17Sil MS

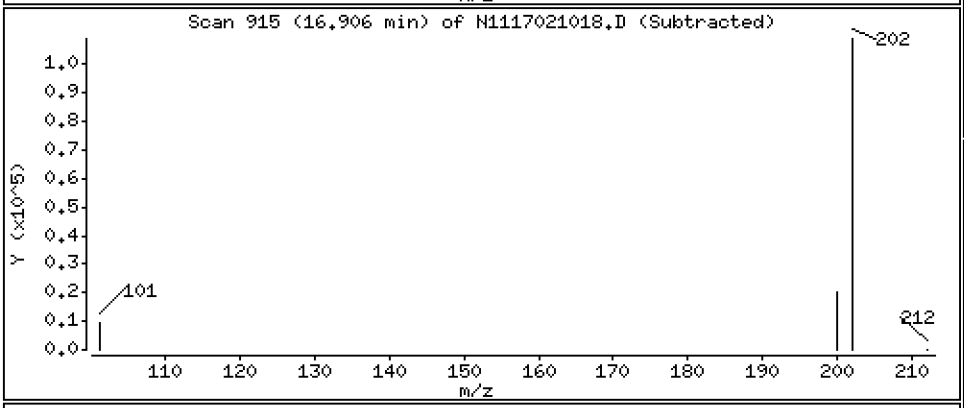
Column diameter: 0.25

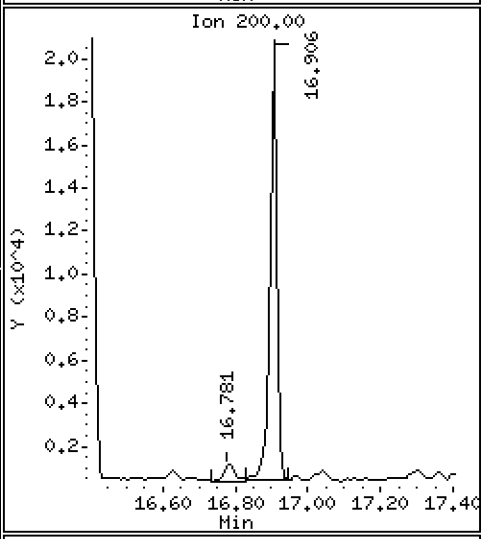
26 Pyrene

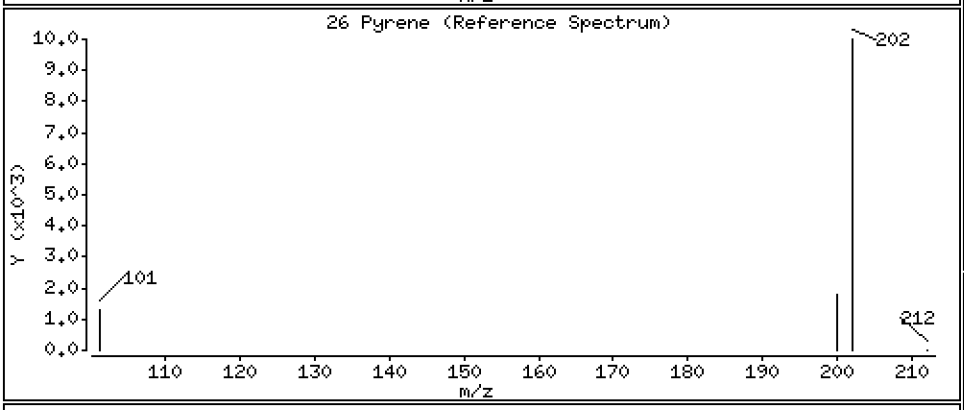
Concentration: 116 ng/mL

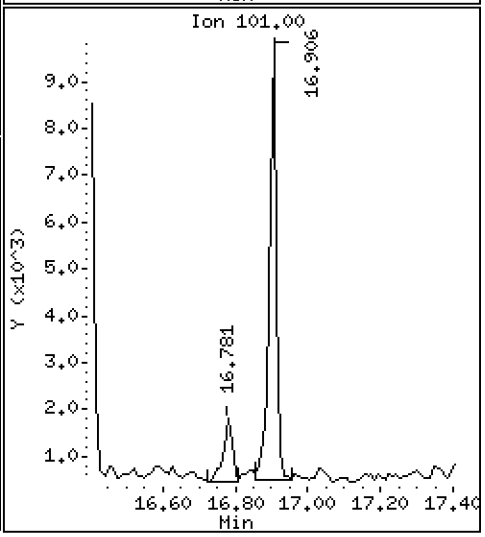


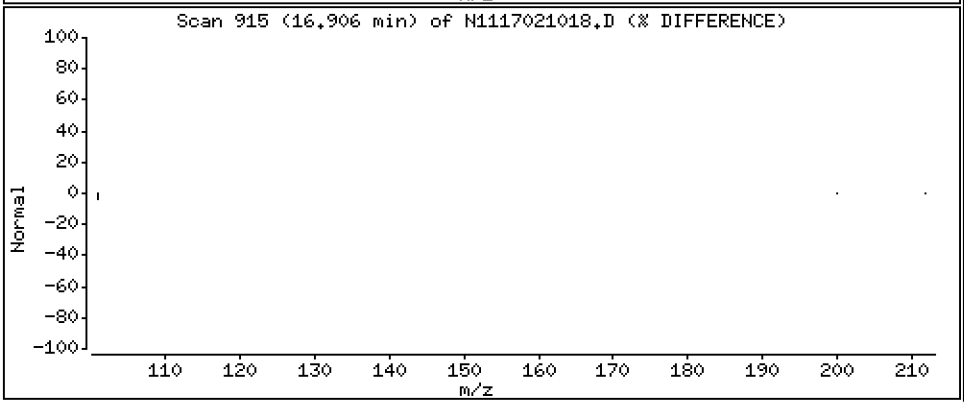












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Client ID:

Instrument: nt11.i

Sample Info: 17A0053-11

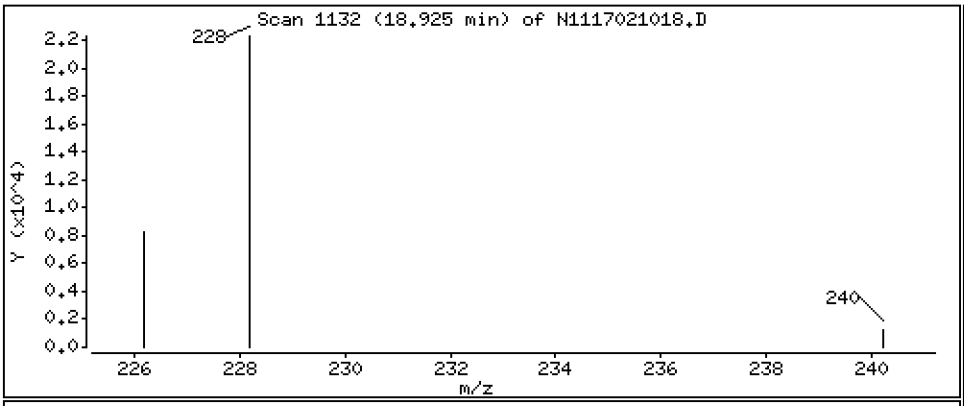
Operator: VTS

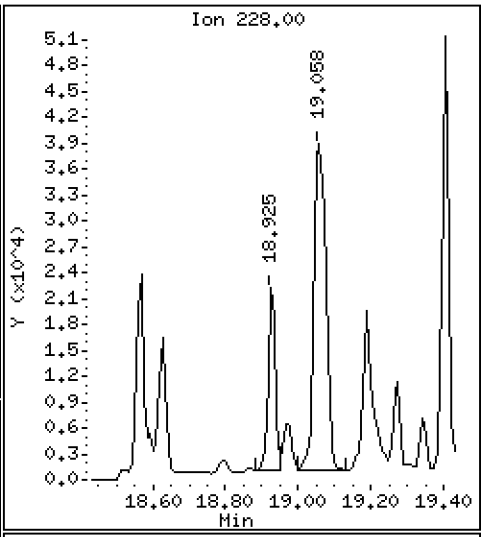
Column phase: Rxi-17Sil MS

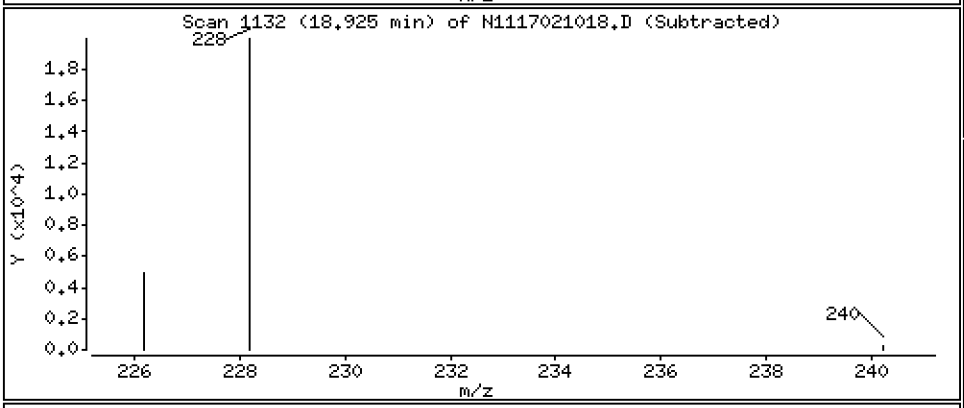
Column diameter: 0.25

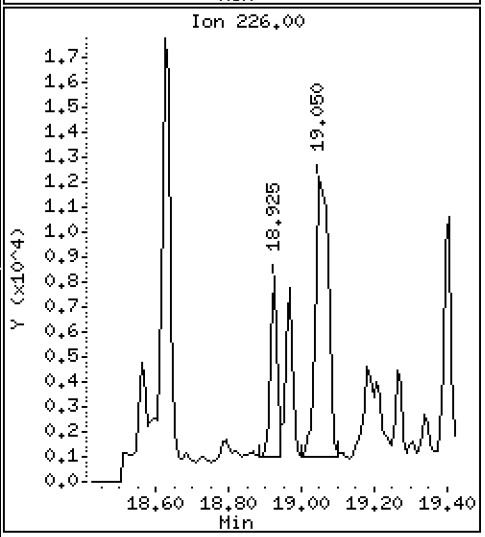
27 Benzo(a)anthracene

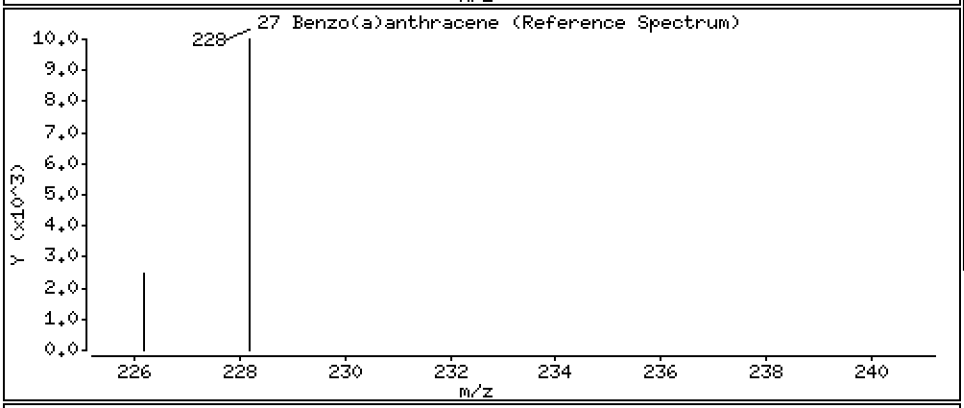
Concentration: 23.2 ng/mL

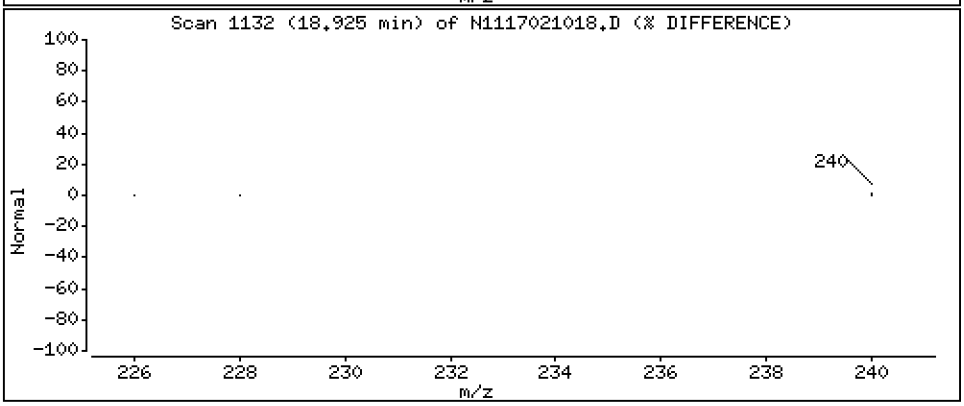












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021018.D

Date : 10-FEB-2017 21:12

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-11

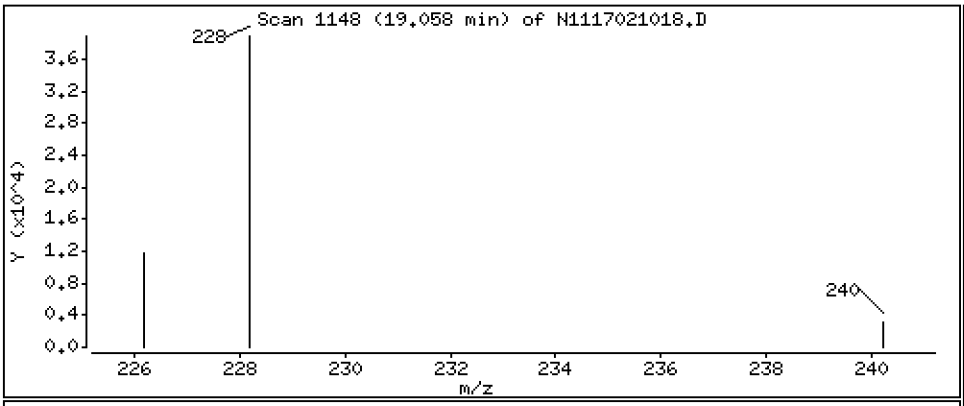
Operator: VTS

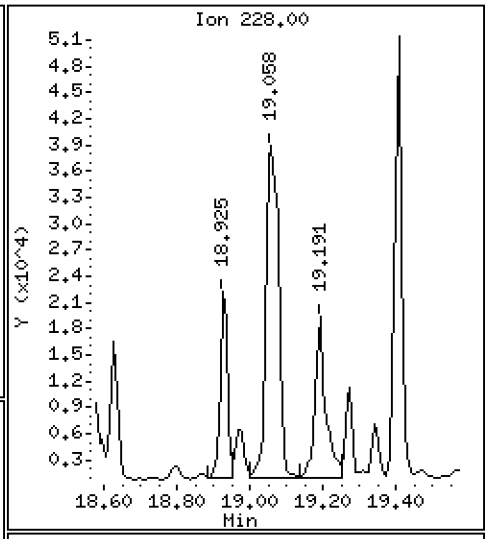
Column phase: Rxi-17Sil MS

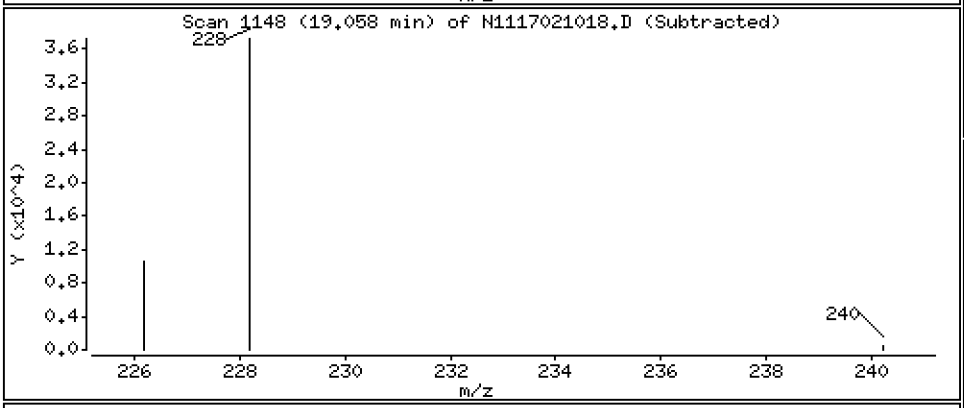
Column diameter: 0.25

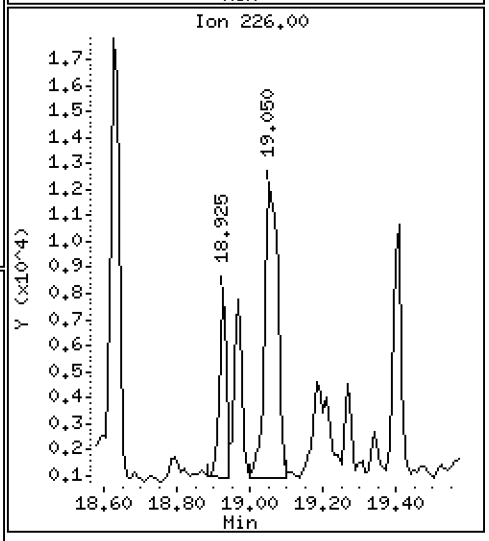
29 Chrysene

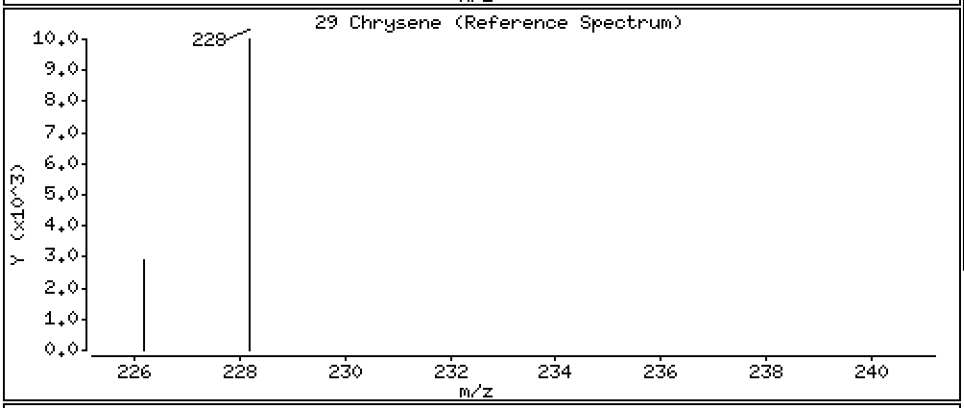
Concentration: 68.6 ng/mL

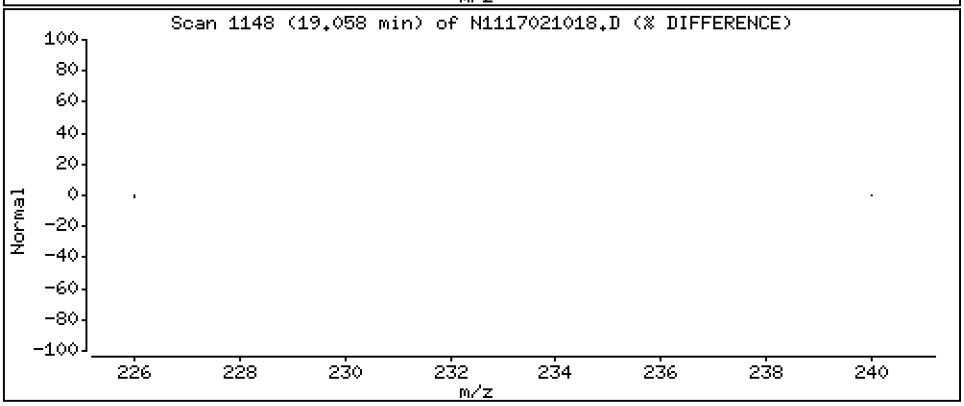












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Date : 10-FEB-2017 21:12

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-11

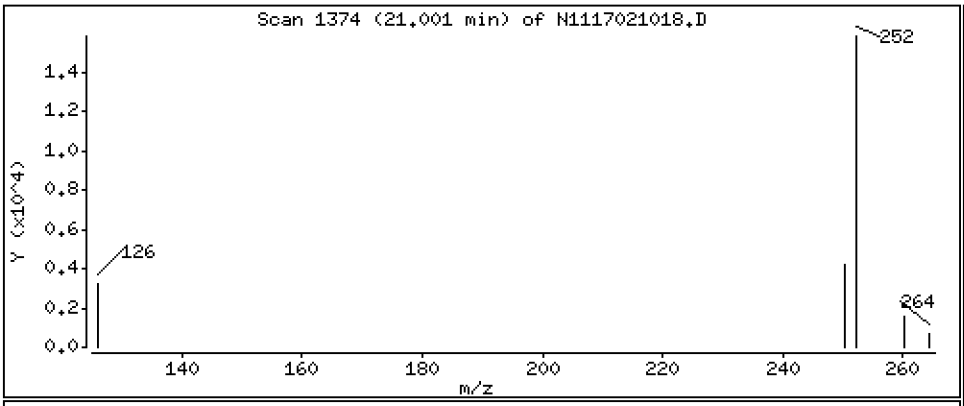
Operator: VTS

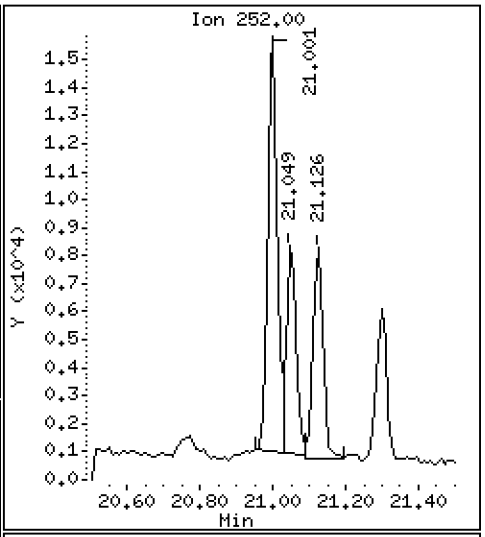
Column phase: Rxi-17Sil MS

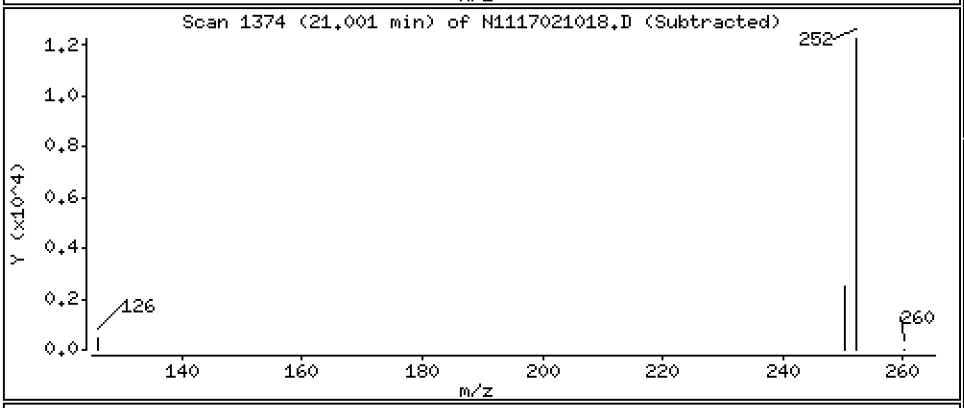
Column diameter: 0.25

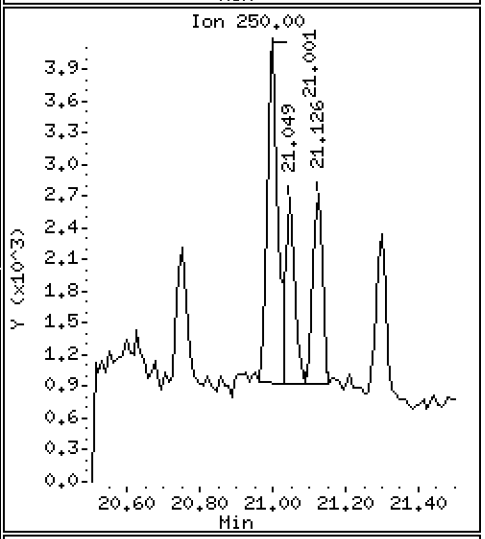
30 Benzo(b)fluoranthene

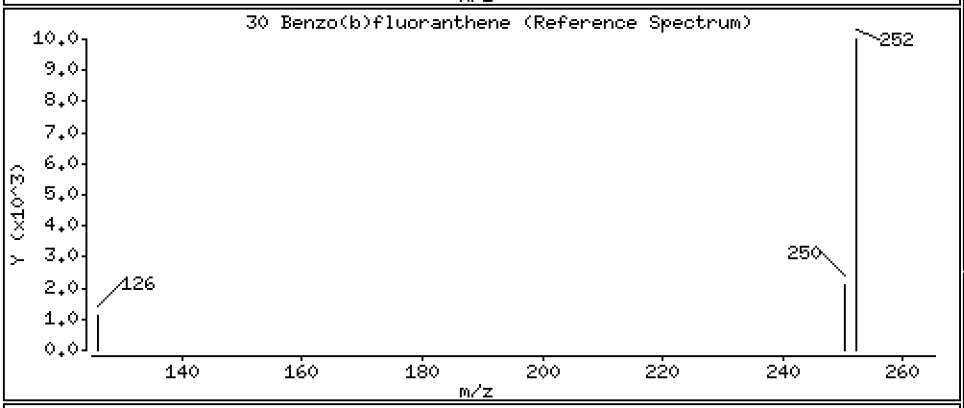
Concentration: 24.1 ng/mL

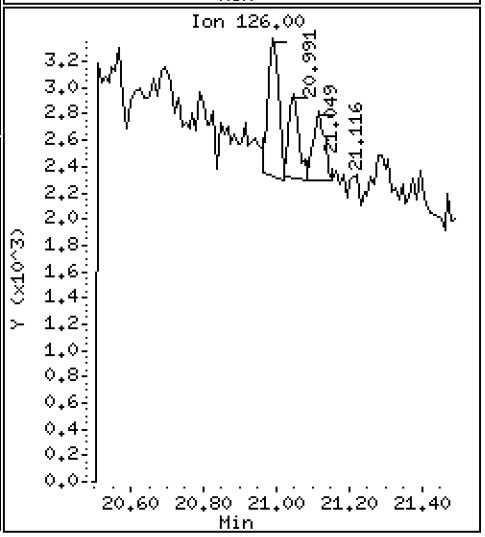


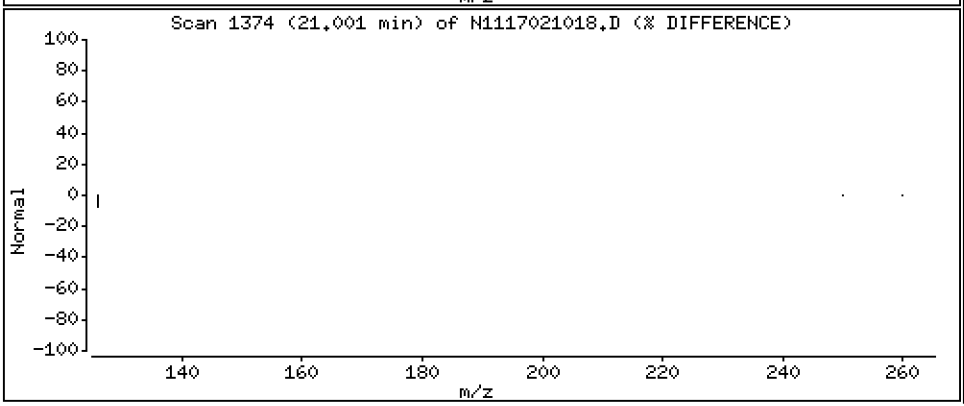












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021018.D

Date : 10-FEB-2017 21:12

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-11

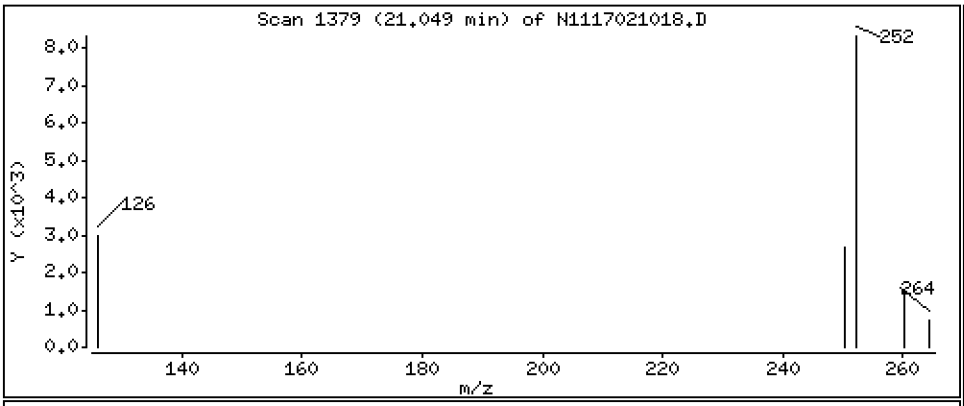
Operator: VTS

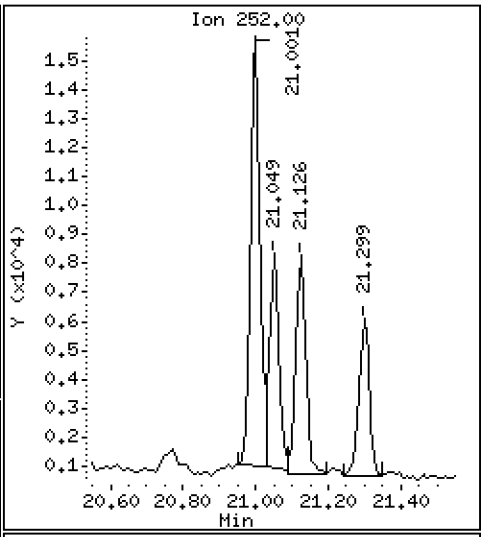
Column phase: Rxi-17Sil MS

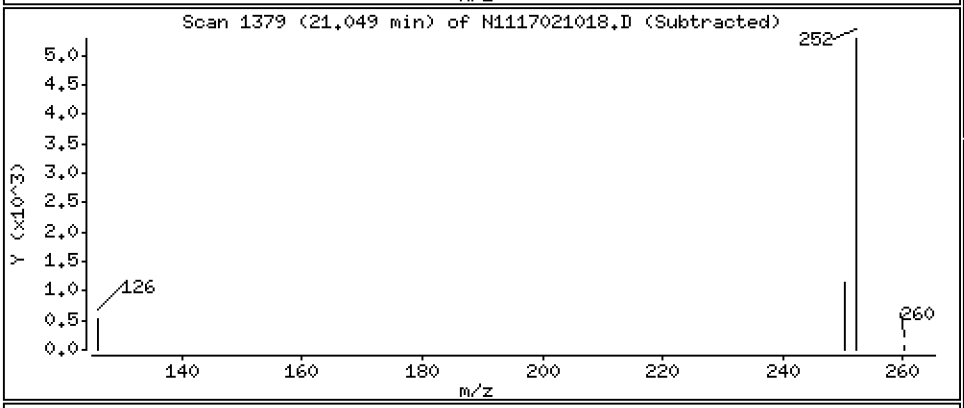
Column diameter: 0.25

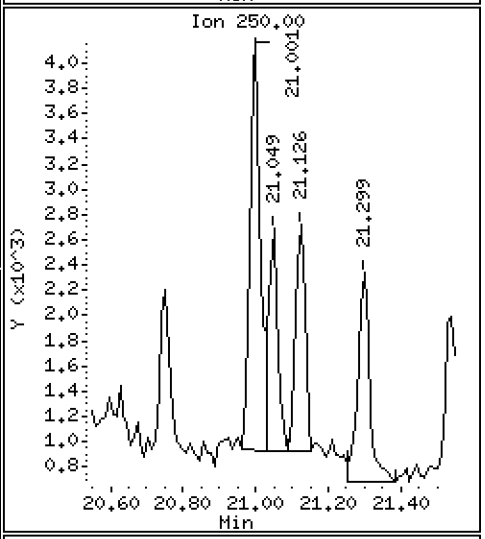
31 Benzo(k)fluoranthene

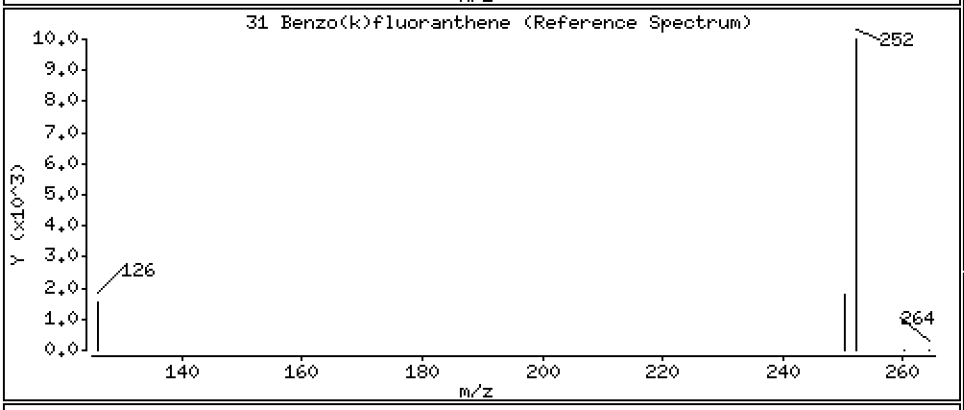
Concentration: 11.2 ng/mL

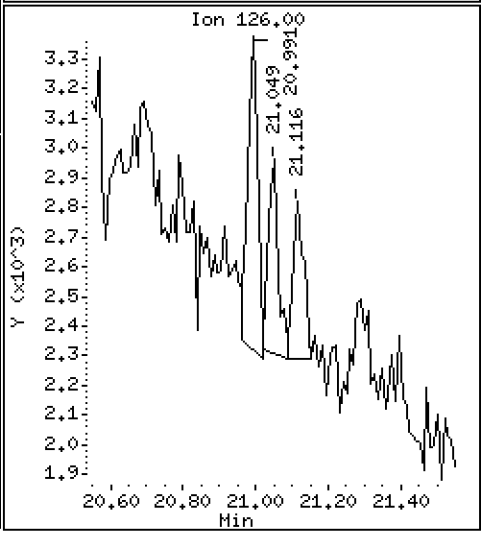


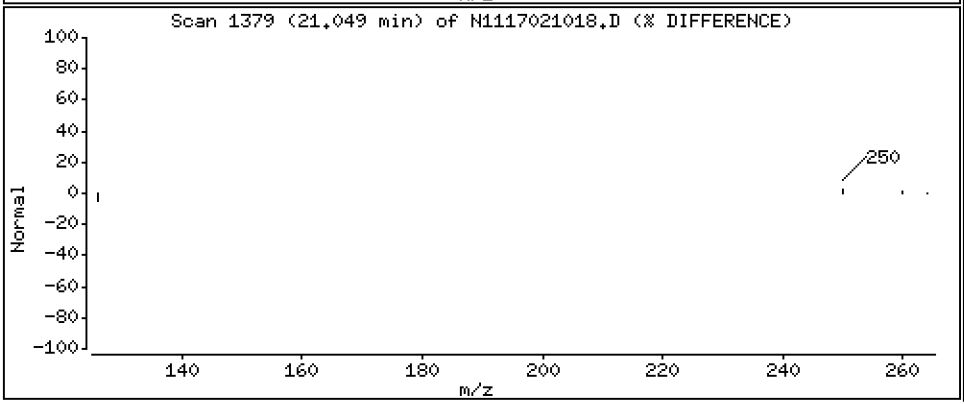












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021018.D

Date : 10-FEB-2017 21:12

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-11

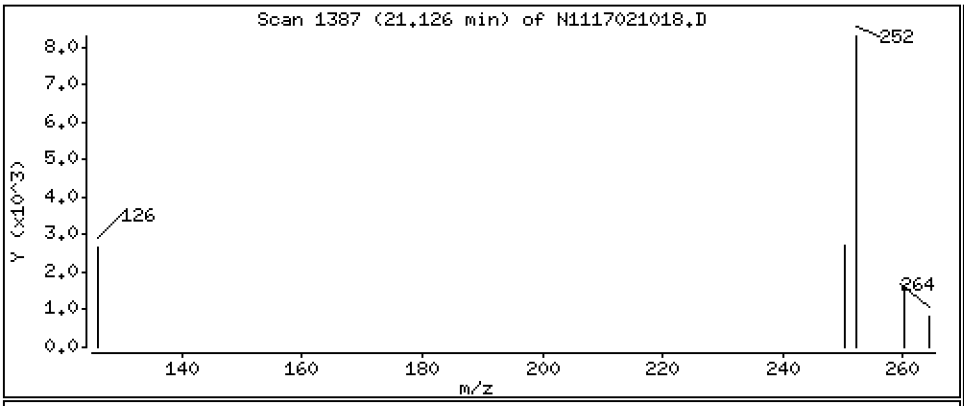
Operator: VTS

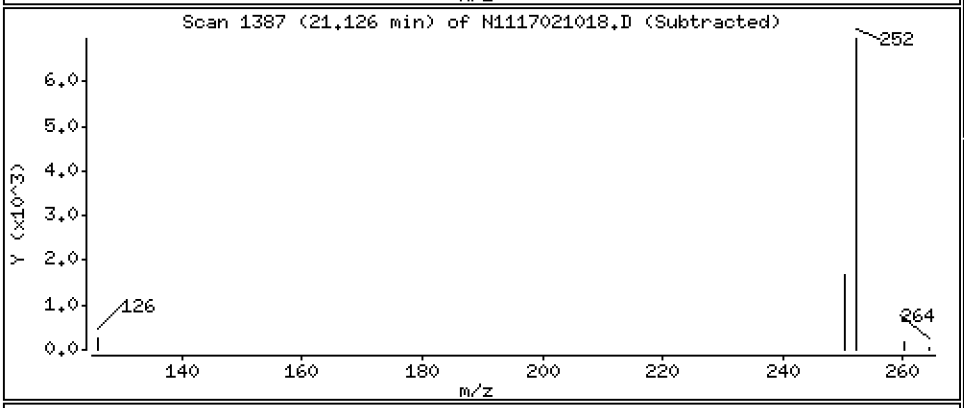
Column phase: Rxi-17Sil MS

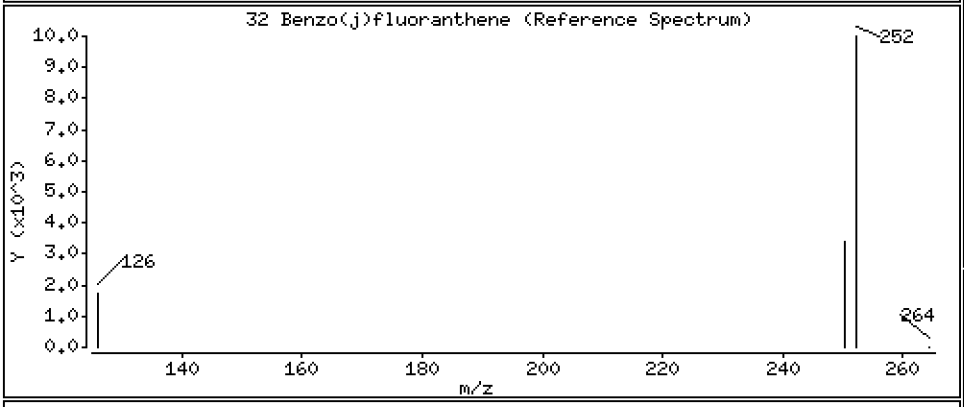
Column diameter: 0.25

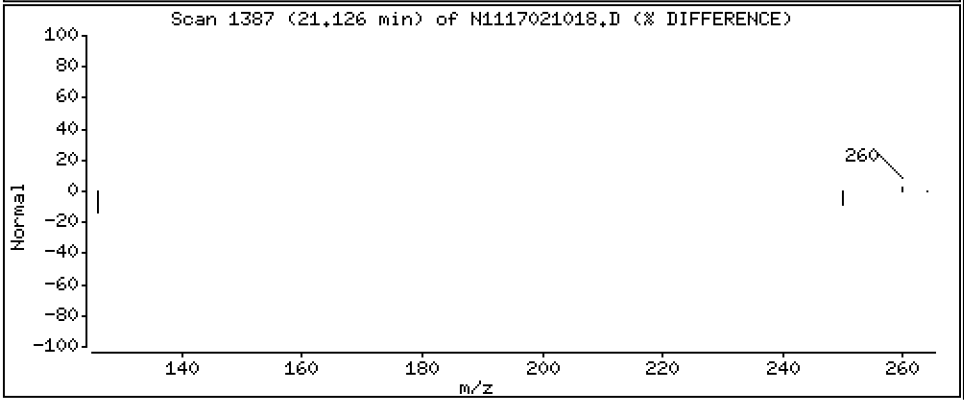
32 Benzo(j)fluoranthene

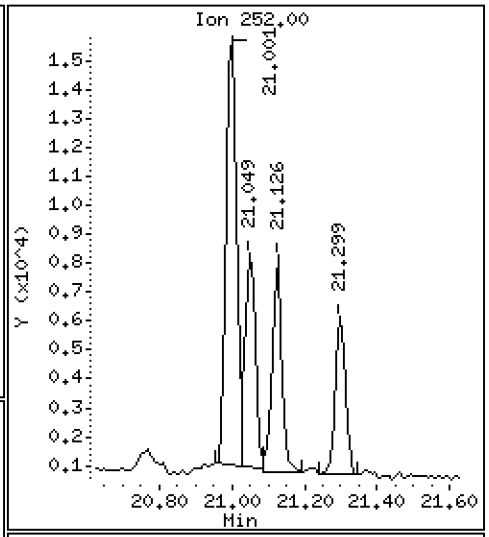
Concentration: 12.3 ng/mL

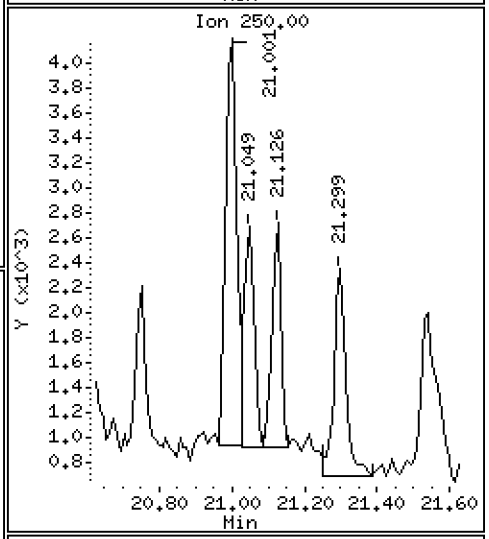


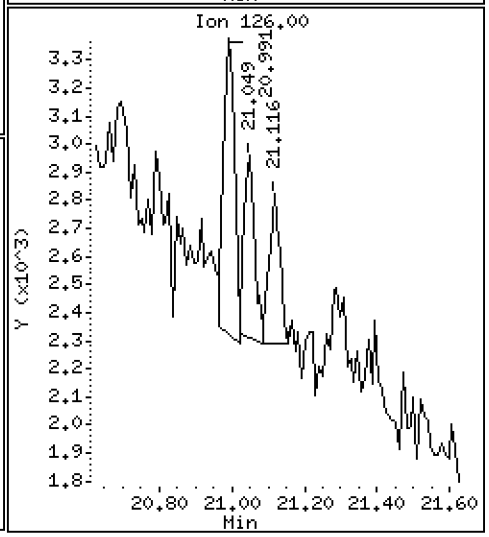












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Date : 10-FEB-2017 21:12

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-11

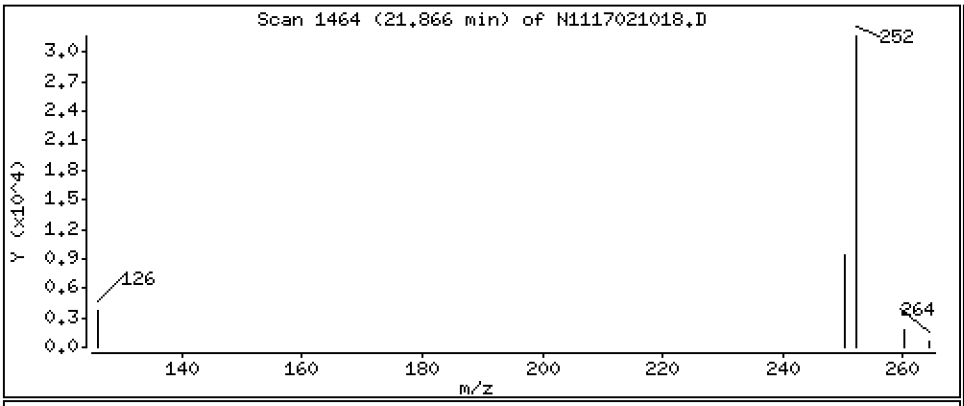
Operator: VTS

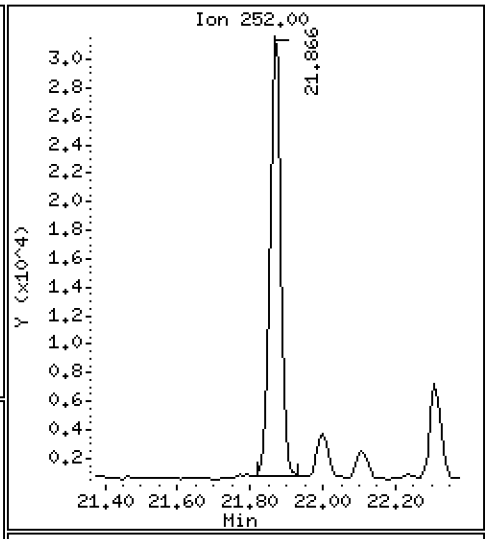
Column phase: Rxi-17Sil MS

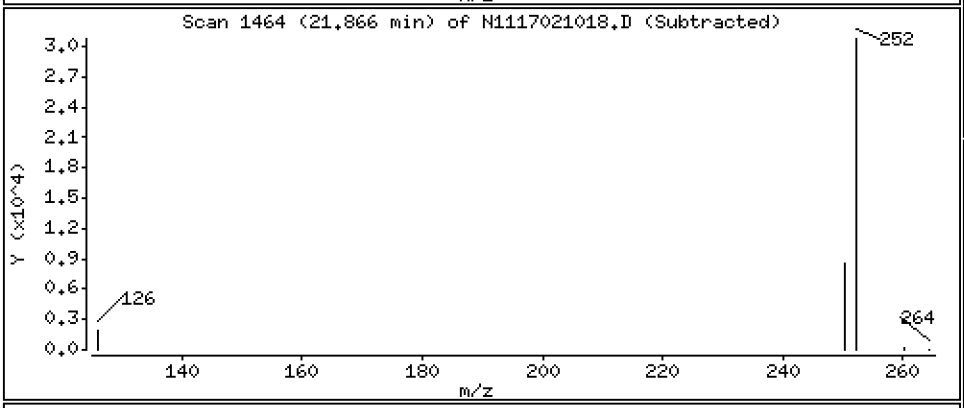
Column diameter: 0.25

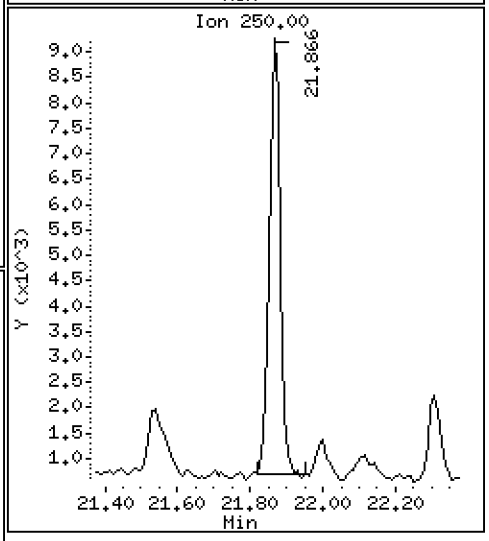
34 Benzo(e)pyrene

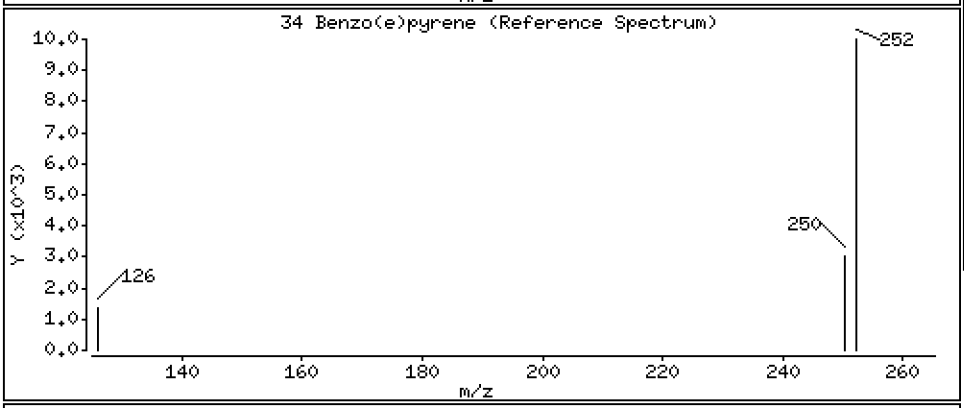
Concentration: 53.4 ng/mL

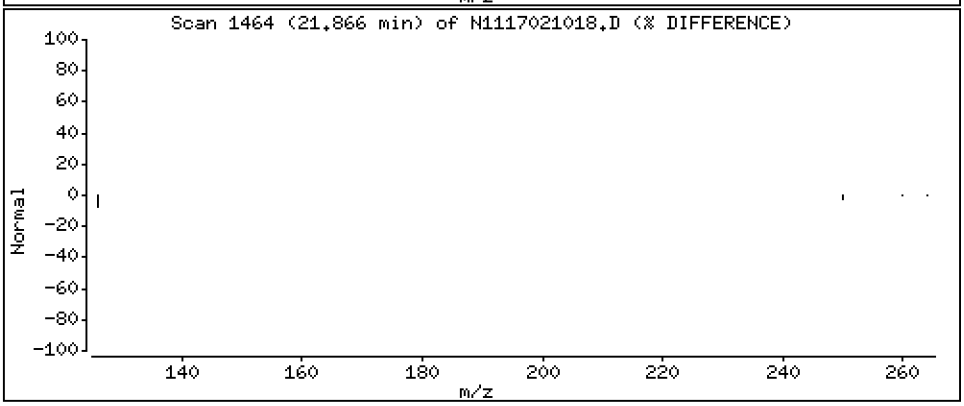












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Date : 10-FEB-2017 21:12

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-11

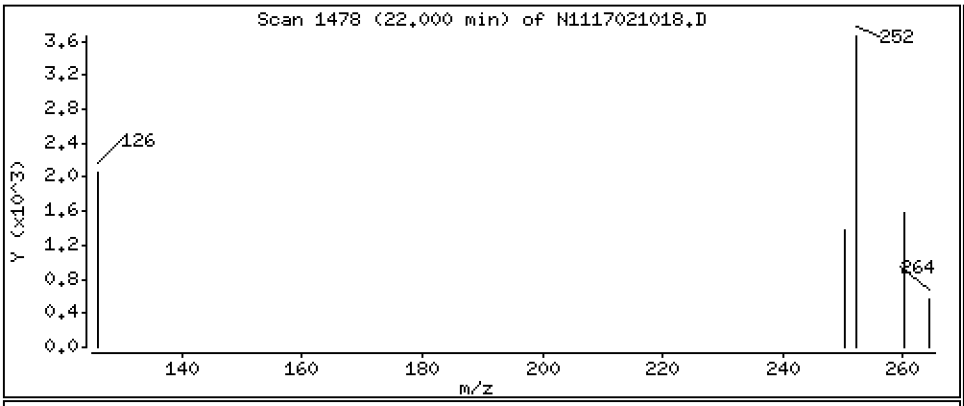
Operator: VTS

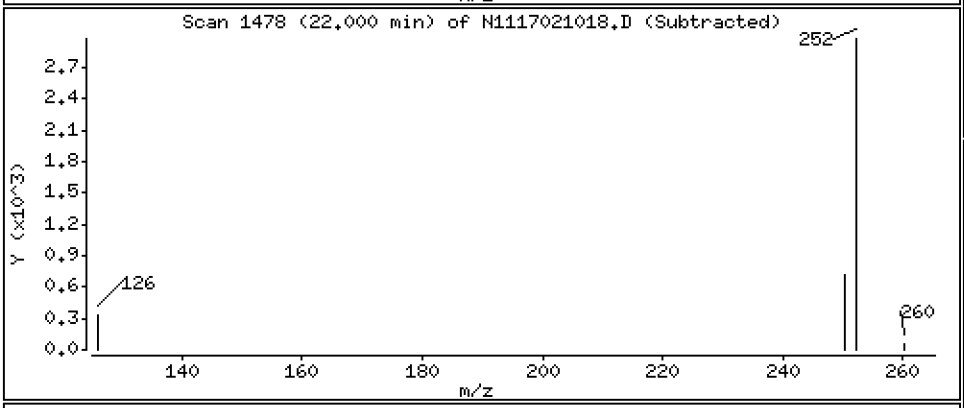
Column phase: Rxi-17Sil MS

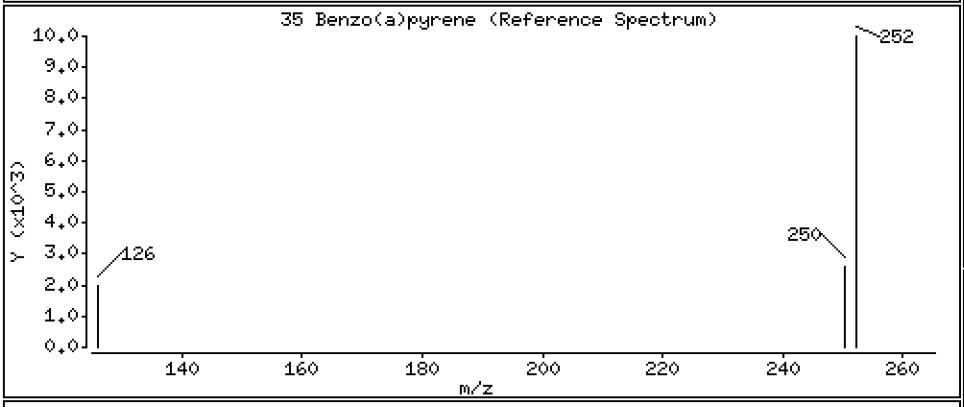
Column diameter: 0.25

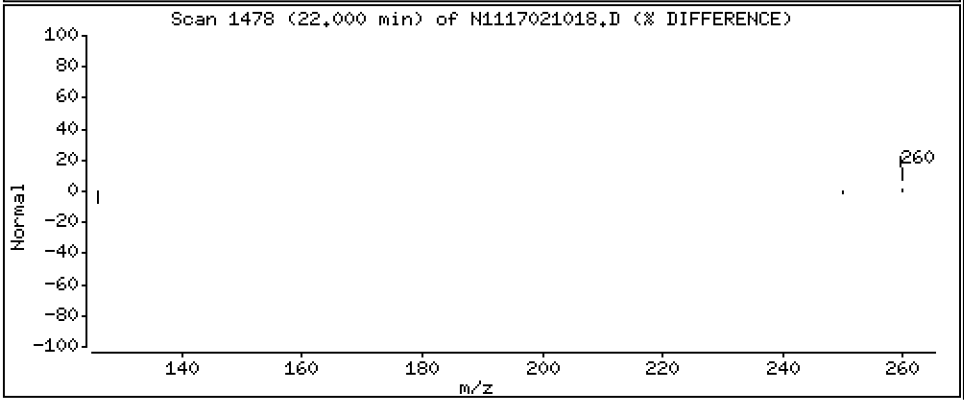
35 Benzo(a)pyrene

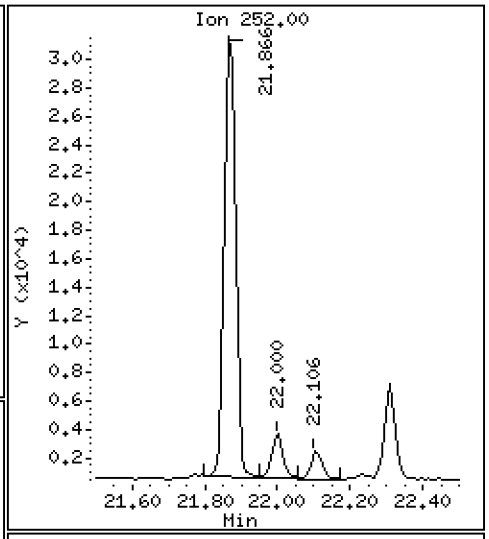
Concentration: 6.28 ng/mL

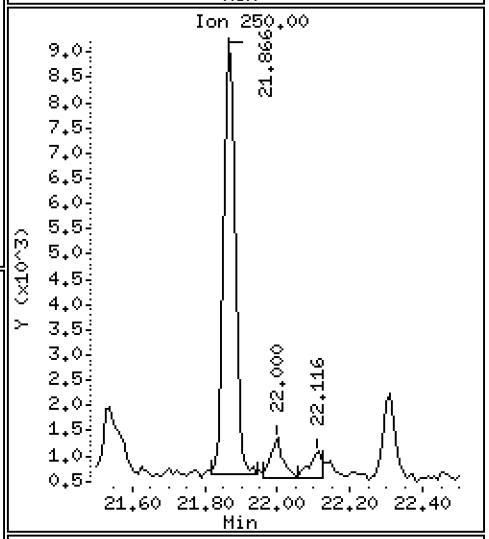


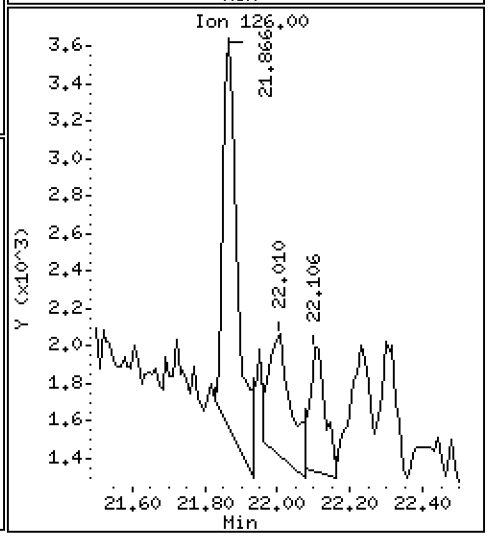












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Date : 10-FEB-2017 21:12

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-11

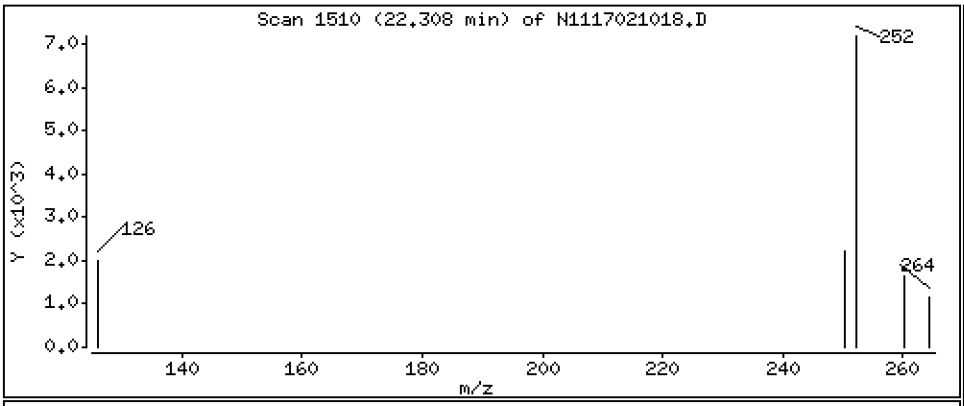
Operator: VTS

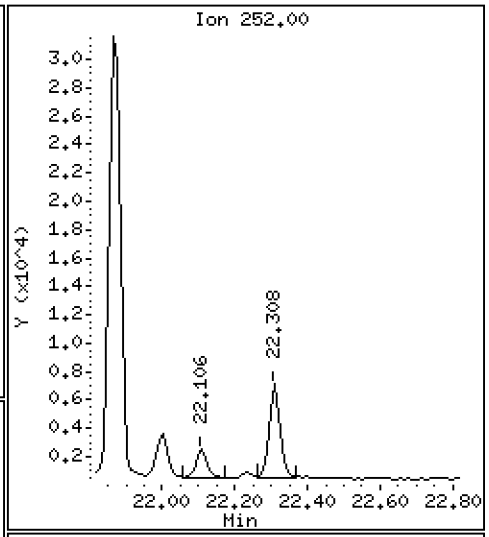
Column phase: Rxi-17Sil MS

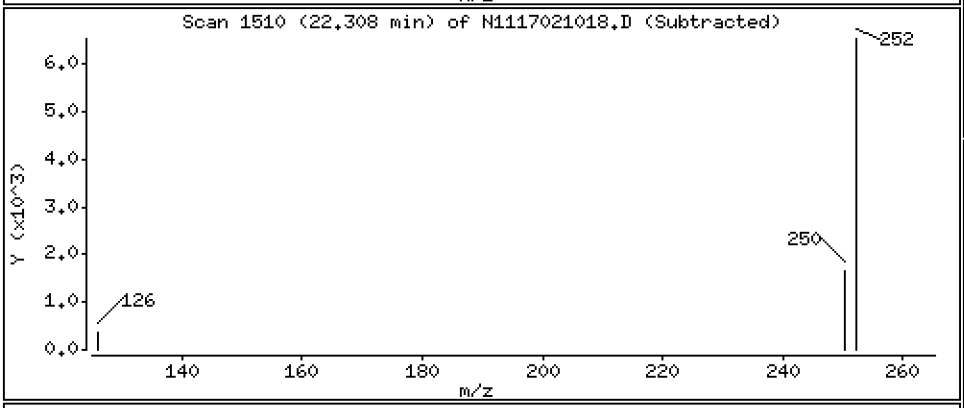
Column diameter: 0.25

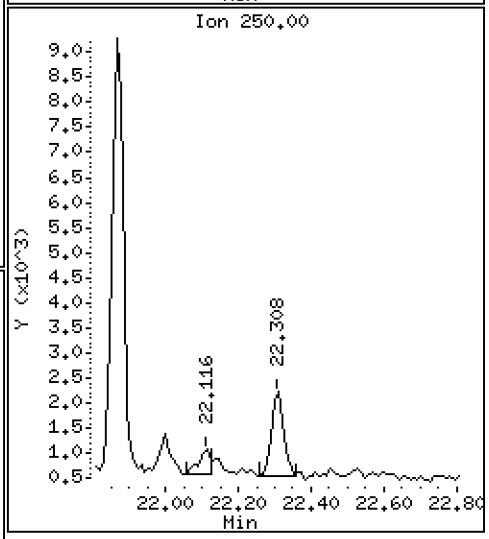
37 Perylene

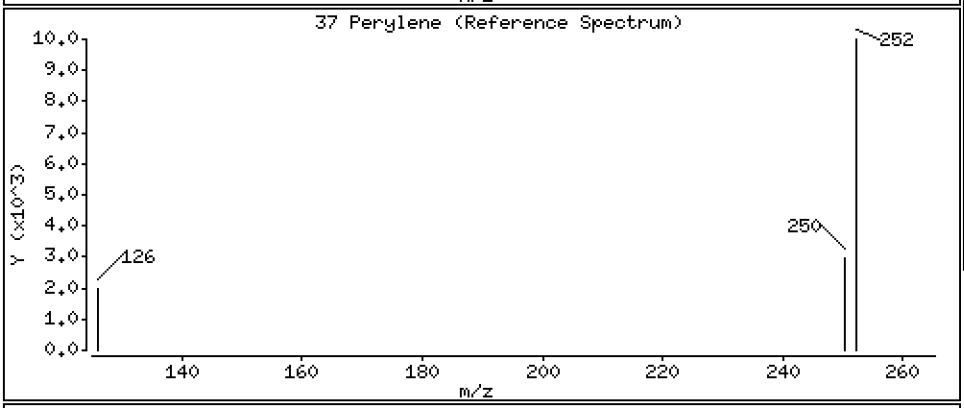
Concentration: 11.9 ng/mL

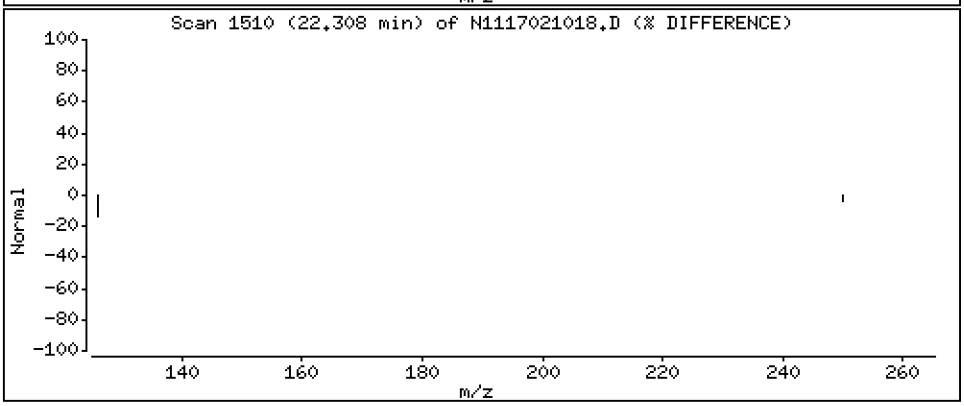












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Date : 10-FEB-2017 21:12

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-11

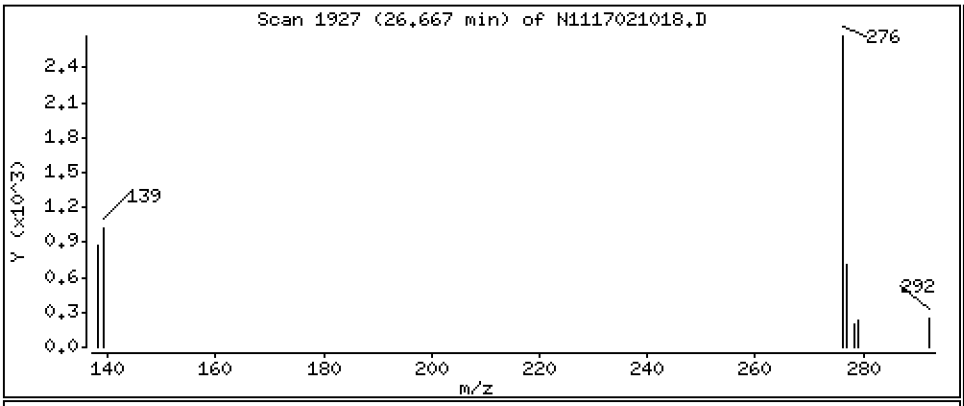
Operator: VTS

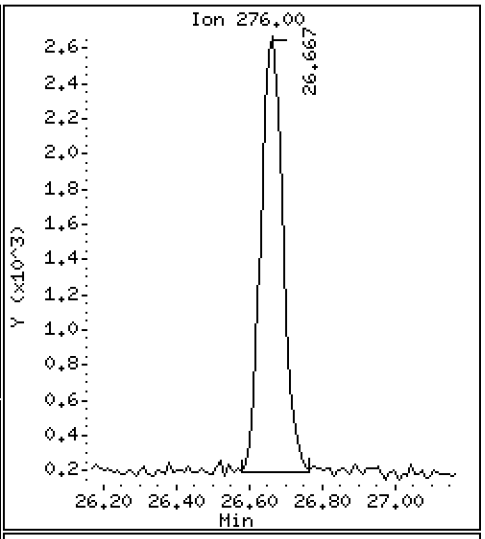
Column phase: Rxi-17Sil MS

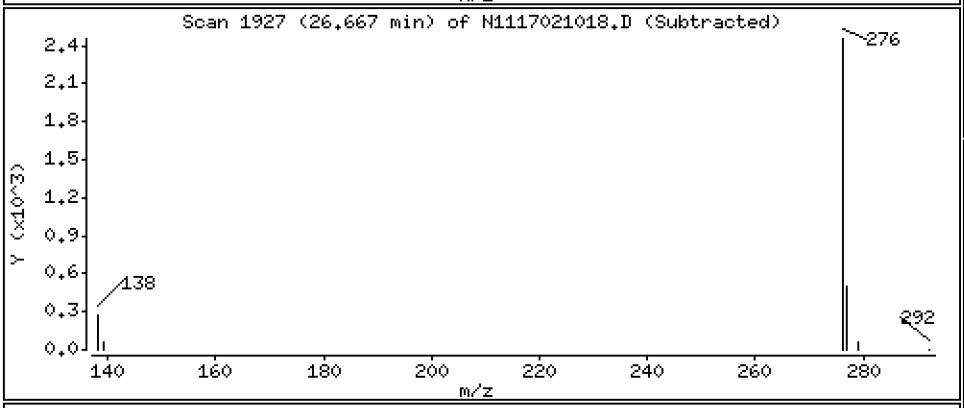
Column diameter: 0.25

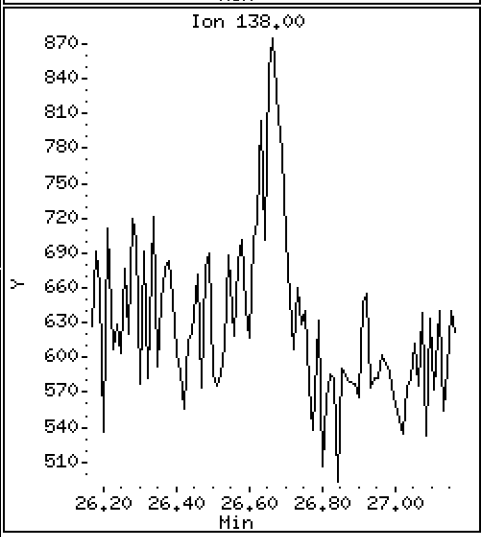
41 Benzo(g,h,i)perylene

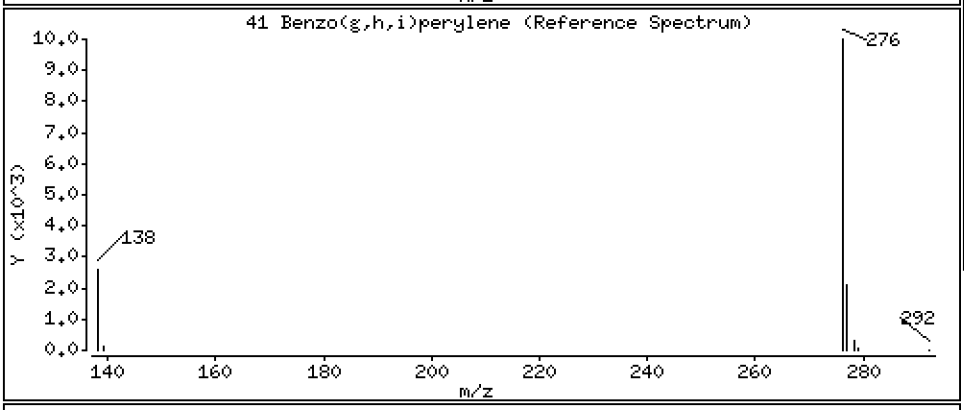
Concentration: 9.32 ng/mL

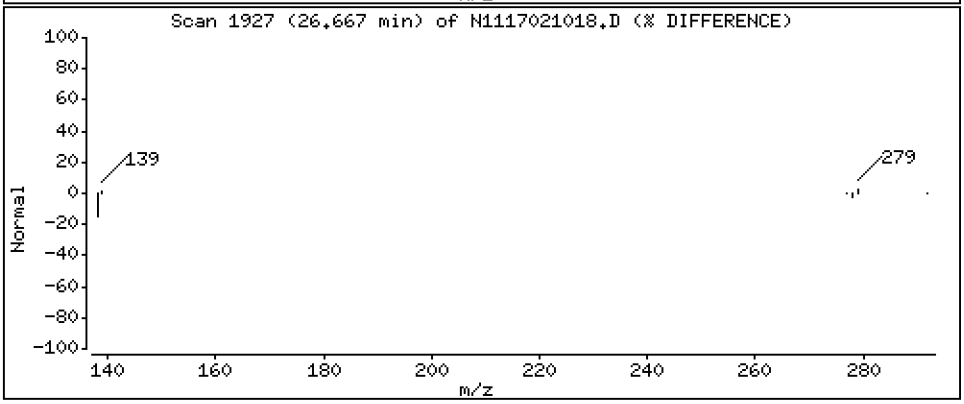












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20170210.b\N1117021018.D
Lab Smp Id: 17A0053-11
Inj Date : 10-FEB-2017 21:12 MS Autotune Date: 15-JAN-2015 15:59
Operator : VTS Inst ID: nt11.i
Smp Info : 17A0053-11
Misc Info :
Comment   :
Method   : \\target\share\chem3\nt11.i\20170210.b\LOWSIM.m
Meth Date : 11-Feb-2017 08:35 nt11.i Quant Type: ISTD
Cal Date : 31-DEC-2016 09:30 Cal File: N1116123104.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.517	8.526	(1.000)	224155	200.000	
	2 Naphthalene	128	8.545	8.554	(1.003)	11312	10.1122	10.1
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.498	9.508	(1.115)	170432	177.039	177
	5 2-Methylnaphthalene	142	9.561	9.561	(1.122)	7423	6.73277	6.73
	6 1-Methylnaphthalene	142	9.813	9.823	(1.152)	4694	4.23311	4.23
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	11.410	11.410	(0.987)	5471	4.04165	4.04
*	11 Acenaphthene-d10	164	11.555	11.564	(1.000)	150650	200.000	
	12 Acenaphthene	153	11.618	11.627	(1.005)	8688	9.74811	9.75
	13 Dibenzofuran	168	11.822	11.822	(1.023)	11021	8.31844	8.32
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.454	12.454	(1.078)	12231	11.5963	11.6
	17 Dibenzothiophene	184	14.083	14.083	(1.000)	2768	2.48900	2.49(MH)
*	18 Phenanthrene-d10	188	14.251	14.262	(1.000)	240836	200.000	
	19 Phenanthrene	178	14.293	14.293	(1.003)	86112	62.5398	62.5
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.346	14.356	(1.007)	22734	16.5588	16.6
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	15.298	15.307	(1.073)	7498	5.31000	5.31(M)
$	24 Fluoranthene-d10	212	16.367	16.367	(1.148)	245092	191.606	192
	25 Fluoranthene	202	16.405	16.405	(1.151)	199377	127.653	128
	26 Pyrene	202	16.905	16.915	(0.889)	161615	116.097	116
	27 Benzo(a)anthracene	228	18.925	18.933	(0.995)	29884	23.1913	23.2
*	28 Chrysene-d12	240	19.024	19.024	(1.000)	214297	200.000	
	29 Chrysene	228	19.058	19.074	(1.002)	90699	68.5946	68.6
	30 Benzo(b)fluoranthene	252	21.001	21.001	(0.944)	29135	24.0997	24.1
	31 Benzo(k)fluoranthene	252	21.049	21.049	(0.946)	14588	11.2032	11.2
	32 Benzo(j)fluoranthene	252	21.125	21.125	(0.950)	14265	12.2900	12.3
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	34 Benzo(e)pyrene	252	21.865	21.875	(0.983)	64401	53.4042	53.4
	35 Benzo(a)pyrene	252	22.000	22.000	(0.989)	7078	6.28023	6.28
*	36 Perylene-d12	264	22.240	22.240	(1.000)	224273	200.000	
	37 Perylene	252	22.307	22.317	(1.003)	13949	11.8541	11.9
$	38 Dibenzo(a,h)anthracene-d14	292	25.105	25.116	(1.129)	150519	210.160	210
	39 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	40 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	41 Benzo(g,h,i)perylene	276	26.666	26.666	(1.199)	10295	9.31932	9.32

QC Flag Legend

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

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: N1117021018.D
Lab Smp Id: 17A0053-11
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20170210.b\LOWSIM.m
Misc Info:

Calibration Date: 10-FEB-2017
Calibration Time: 13:29
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	219654	109827	439308	224155	2.05
11 Acenaphthene-d10	135248	67624	270496	150650	11.39
18 Phenanthrene-d10	257021	128511	514042	240836	-6.30
28 Chrysene-d12	259511	129756	519022	214297	-17.42
36 Perylene-d12	257535	128768	515070	224273	-12.92

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.53	8.03	9.03	8.52	-0.11
11 Acenaphthene-d10	11.56	11.06	12.06	11.56	-0.08
18 Phenanthrene-d10	14.26	13.76	14.76	14.25	-0.07
28 Chrysene-d12	19.02	18.52	19.52	19.02	-0.00
36 Perylene-d12	22.24	21.74	22.74	22.24	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1117021018.D

Lab ID: 17A0053-11
nt11.i, 20170210.b\LOWSIM.m,   10-FEB-2017 21:12

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

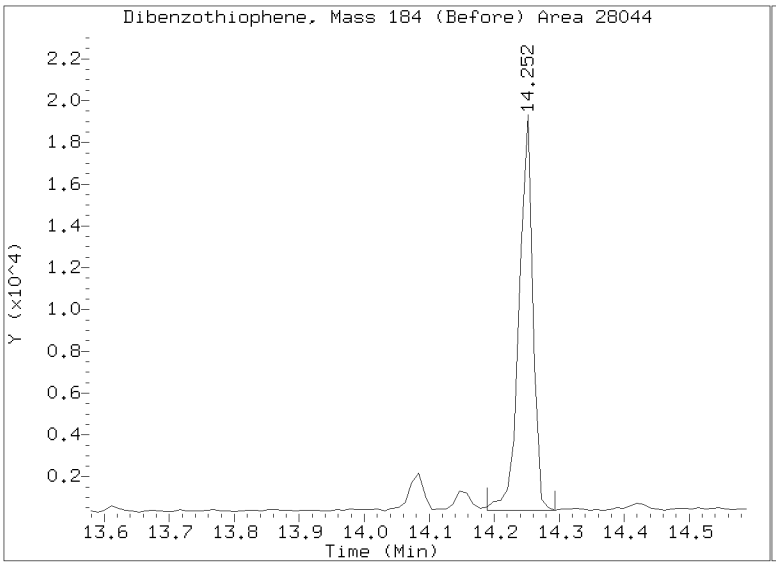
NONE

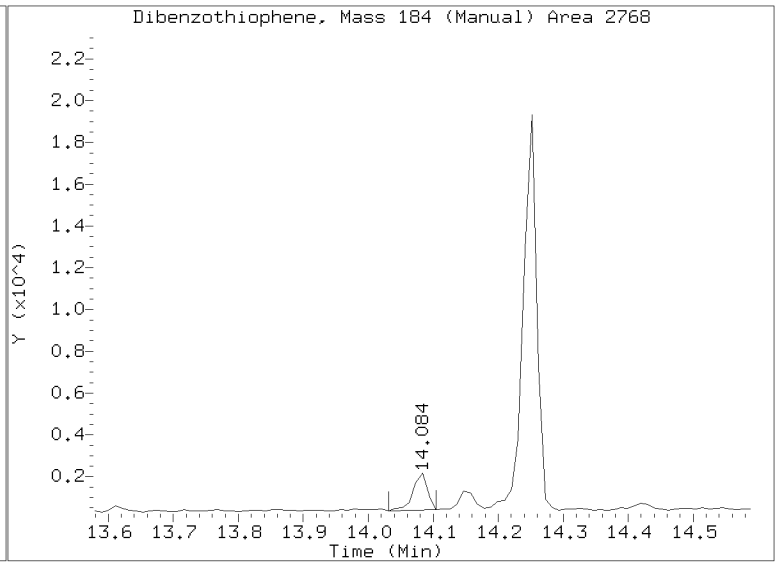
On Column LOD for nt11.i, 20170210.b\LOWSIM.m, allpna.sub = 3.0000

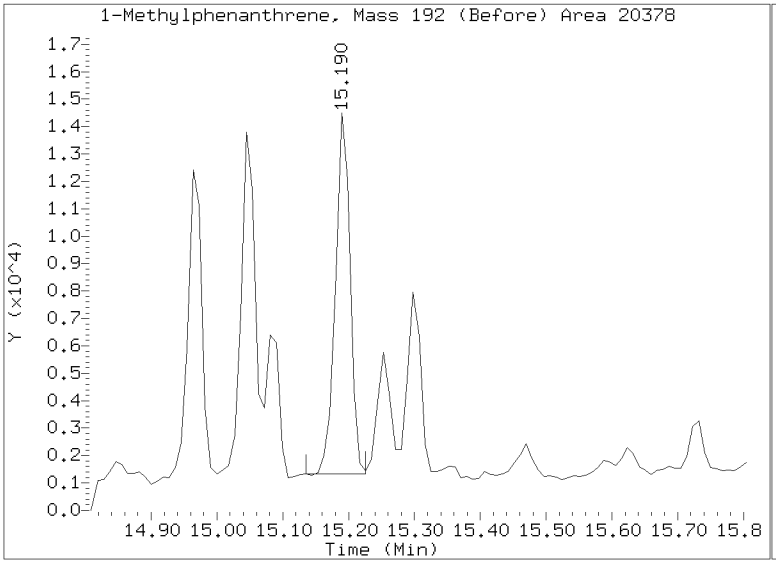
Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

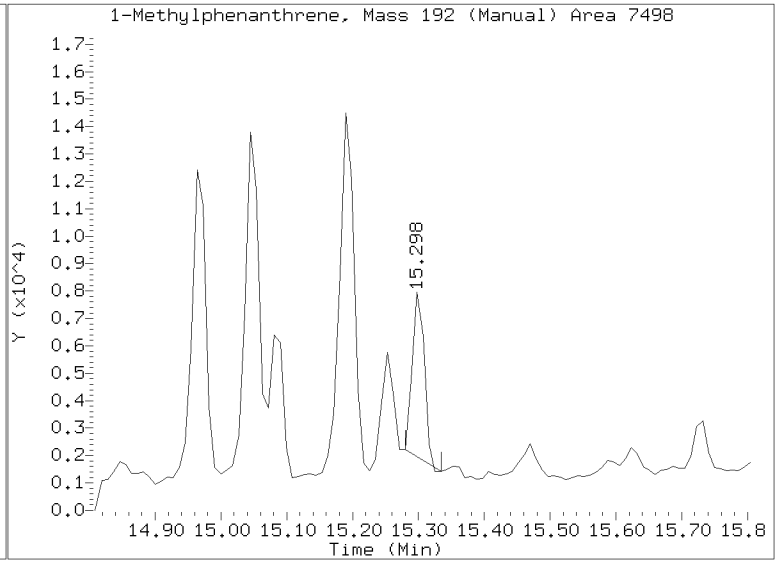
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt11.i/20170210.b/N1117021018.D
Injection Date: 10-FEB-2017 21:12
Lab ID:17A0053-11 Client ID:
Report Date: 02/11/2017 08:35









PG-SMA1-2-3-MUS-170105

Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270D-SIM

Polycyclic Aromatic Hydrocarbons (PAH) low level

Laboratory:	Analytical Resources, Inc.			SDG:	17A0053
Client:	Anchor QEA, LLC			Project:	Port Gamble Shellfish Monitoring
Matrix:	Tissue	Laboratory ID:	17A0053-12	File ID:	N1117021019.D
Sampled:	01/05/17 00:00	Prepared:	01/31/17 13:45	Analyzed:	02/10/17 21:48
Solids:		Preparation:	EPA 3550C-Mod (Ultrasonic	Initial/Final:	10.1 g / 0.5 mL
Batch:	BFA0647	Sequence:	SFB0130	Calibration:	ZL00083
Instrument:	NT11	Column:	RXi-17Sil-MS		

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg)	Q	DL	RL
91-20-3	Naphthalene	1	0.59	U	0.50	0.59
91-57-6	2-Methylnaphthalene	1	0.50	U	0.50	0.50
208-96-8	Acenaphthylene	1	0.50	U	0.50	0.50
83-32-9	Acenaphthene	1	0.62		0.50	0.50
86-73-7	Fluorene	1	1.28		0.50	0.50
85-01-8	Phenanthrene	1	7.45		0.50	0.50
120-12-7	Anthracene	1	1.81		0.50	0.50
206-44-0	Fluoranthene	1	9.05		0.50	0.50
129-00-0	Pyrene	1	10.0		0.50	0.50
56-55-3	Benzo(a)anthracene	1	2.35		0.50	0.50
218-01-9	Chrysene	1	3.80		0.50	0.50
205-99-2	Benzo(b)fluoranthene	1	1.98		0.50	0.50
207-08-9	Benzo(k)fluoranthene	1	0.90		0.50	0.50
50-32-8	Benzo(a)pyrene	1	0.55		0.50	0.50
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.50	U	0.50	0.50
53-70-3	Dibenzo(a,h)anthracene	1	0.50	U	0.50	0.50
191-24-2	Benzo(g,h,i)perylene	1	0.50	U	0.50	0.50
1985-5-0	Perylene	1	0.75		0.50	0.50
197-97-2	Benzo(e)pyrene	1	2.81		0.50	0.50

SURROGATES	ADDED (ug/kg)	CONC (ug/kg)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	14.851	5.55	37.4	30 - 160	
Dibenzo[a,h]anthracene-d14	14.851	6.89	46.4	30 - 160	
Fluoranthene-d10	14.851	6.19	41.6	30 - 160	

Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021019.D

Date : 10-FEB-2017 21:48

Client ID:

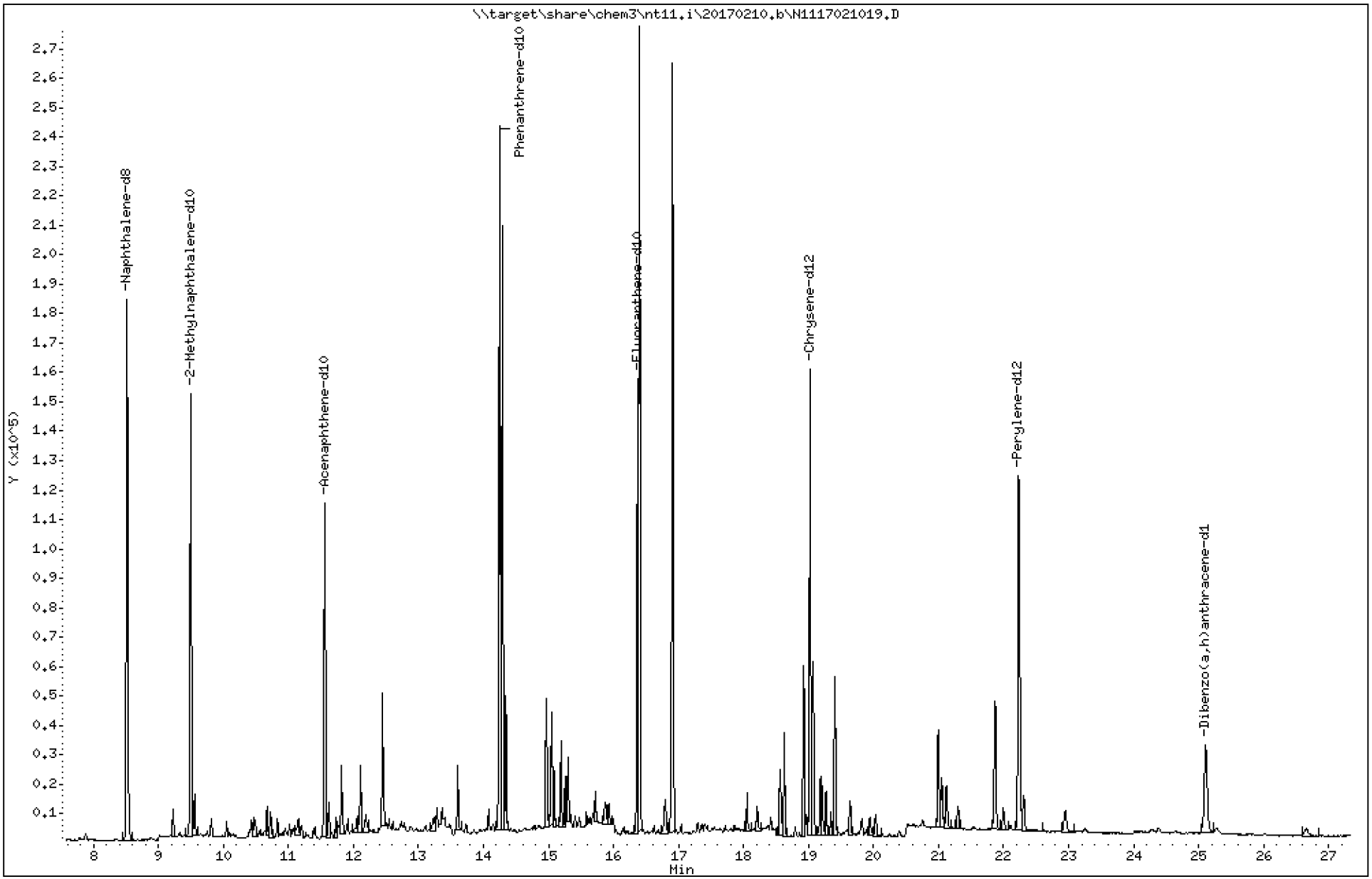
Sample Info: 17A0053-12

Instrument: nt11.i

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 10-FEB-2017 21:48

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-12

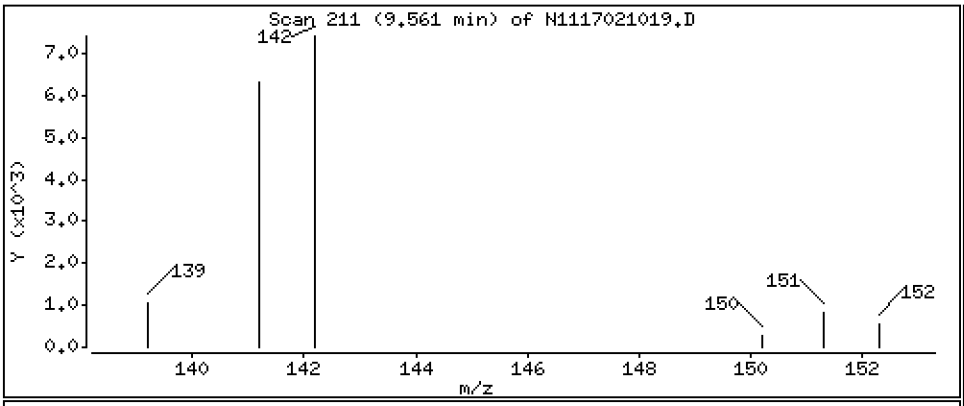
Operator: VTS

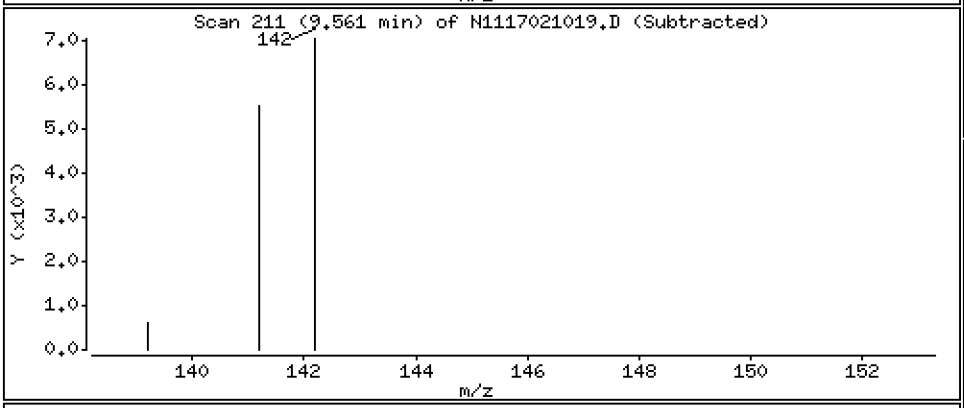
Column phase: Rxi-17Sil MS

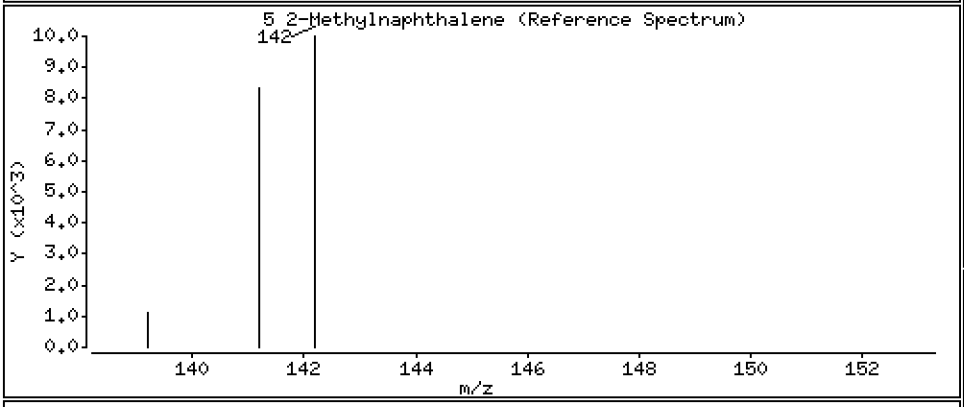
Column diameter: 0.25

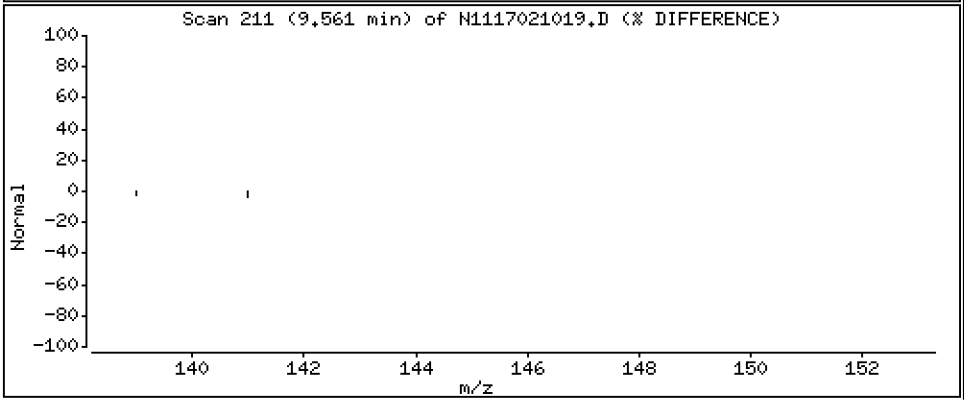
5 2-Methylnaphthalene

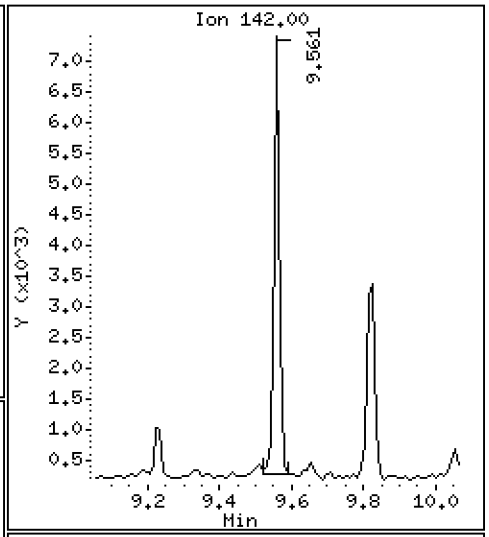
Concentration: 7.92 ng/mL

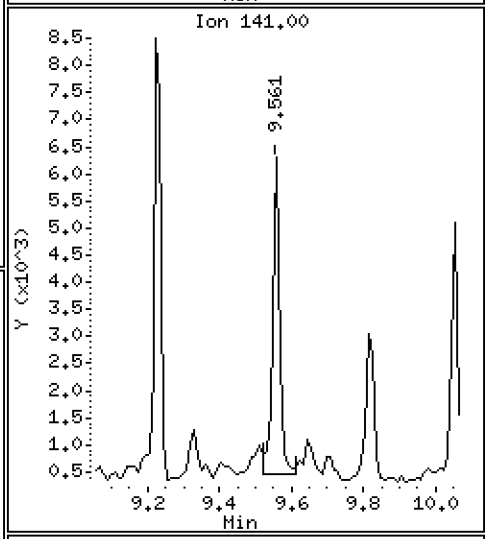


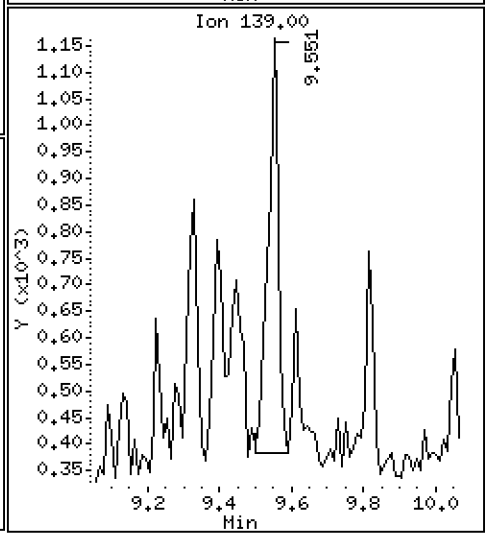












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Date : 10-FEB-2017 21:48

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-12

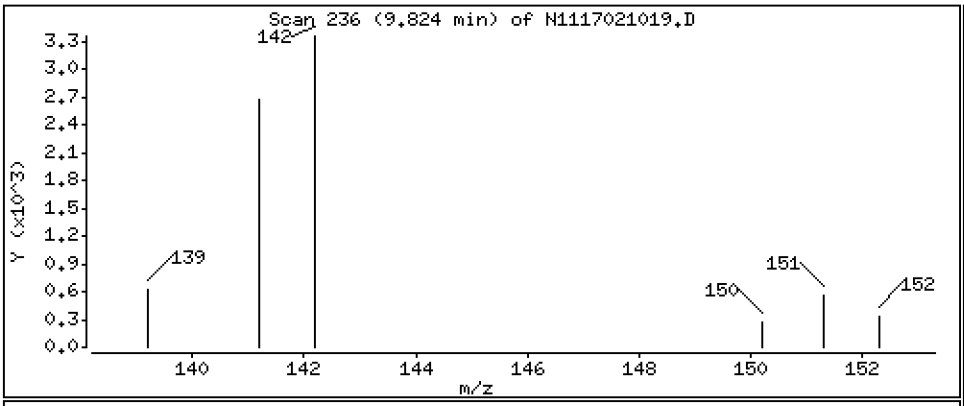
Operator: VTS

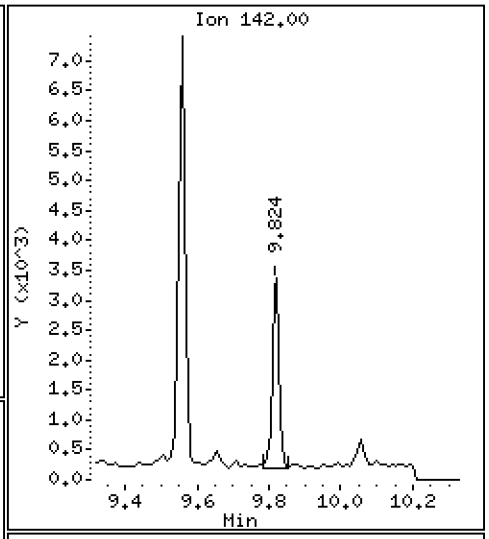
Column phase: Rxi-17Sil MS

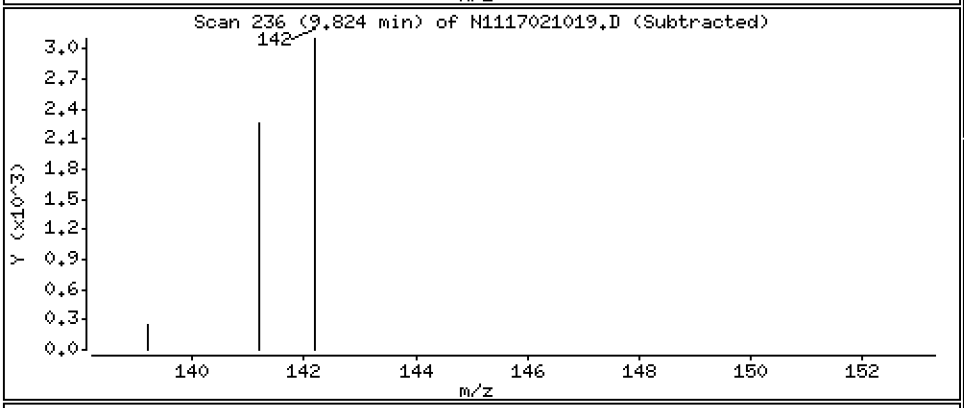
Column diameter: 0.25

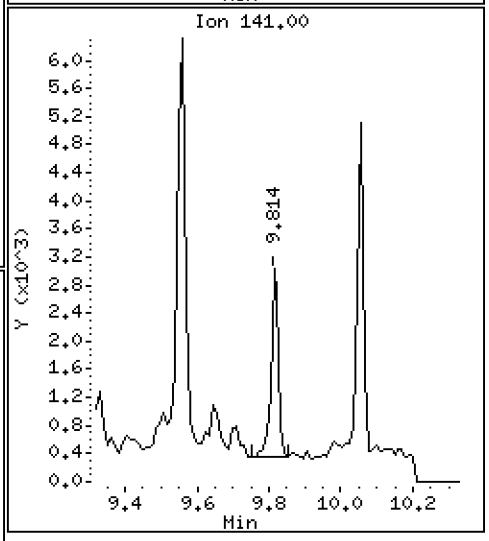
6 1-Methylnaphthalene

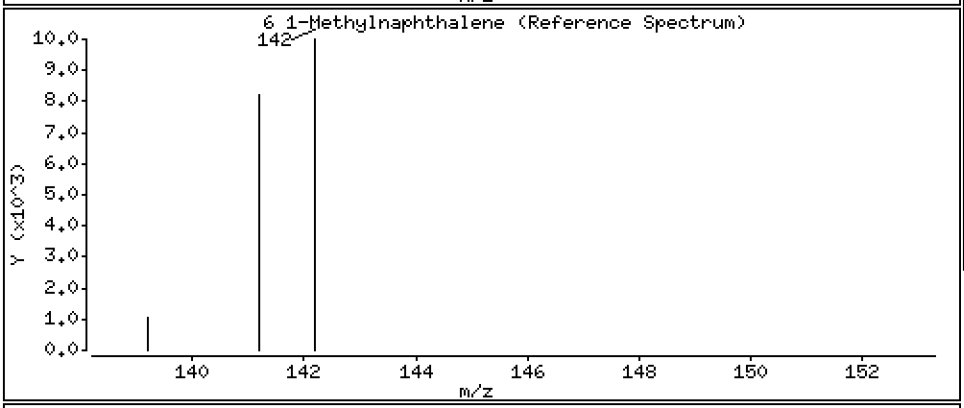
Concentration: 4.40 ng/mL

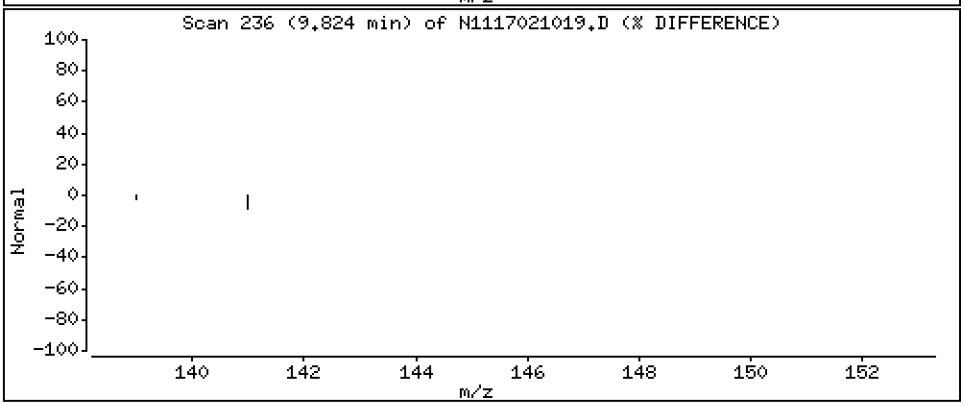












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Date : 10-FEB-2017 21:48

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-12

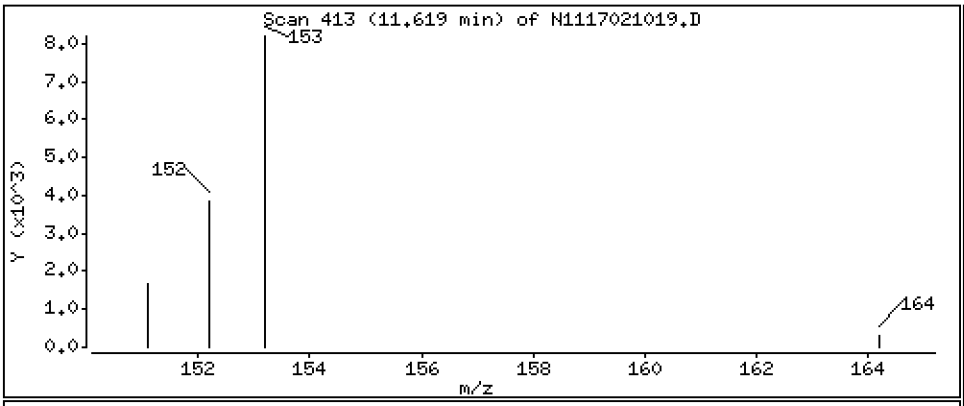
Operator: VTS

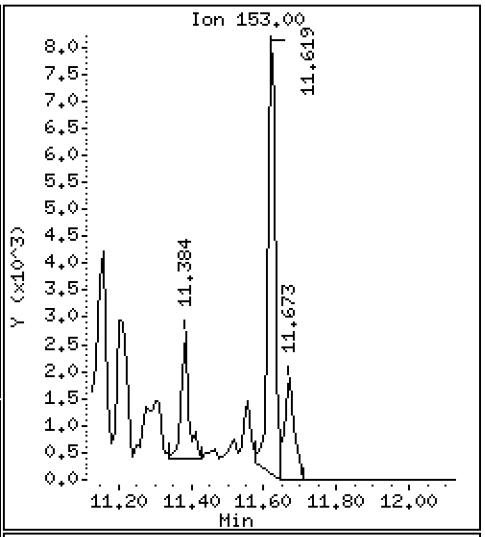
Column phase: Rxi-17Sil MS

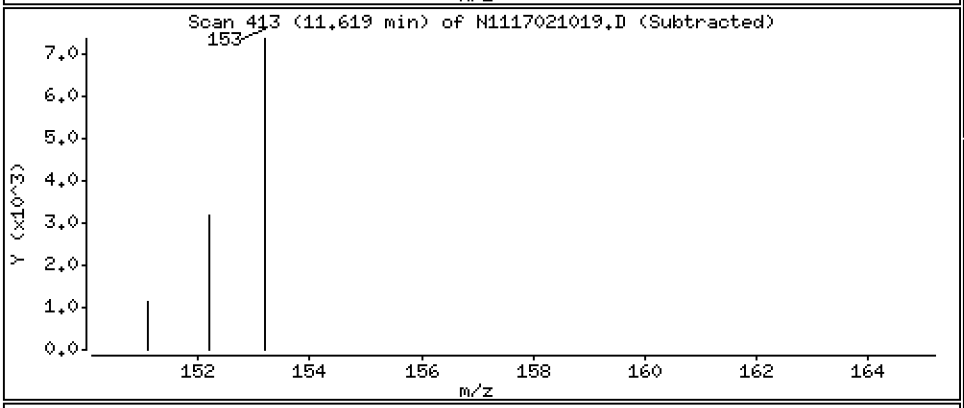
Column diameter: 0.25

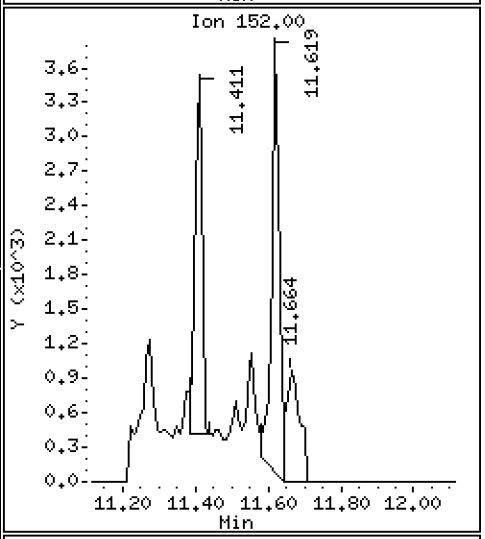
12 Acenaphthene

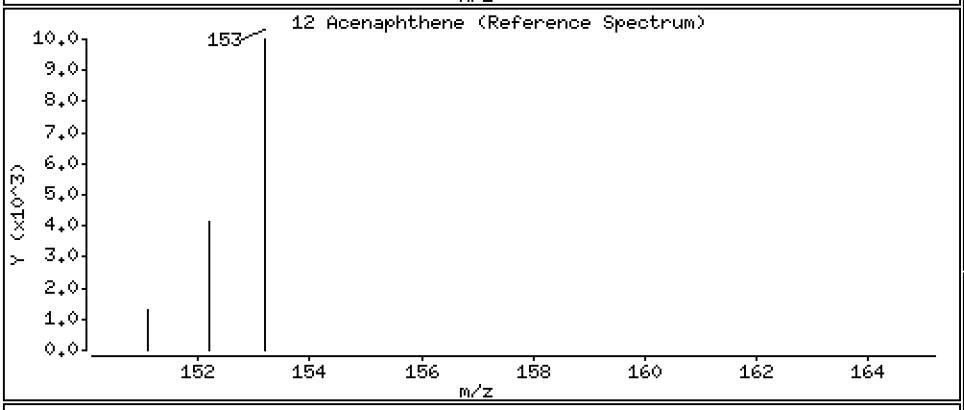
Concentration: 12.6 ng/mL

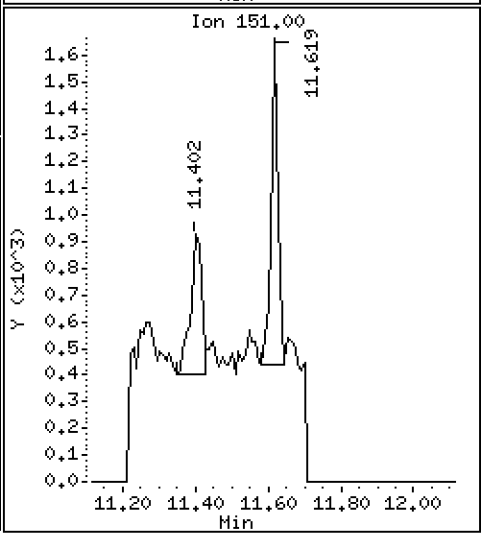


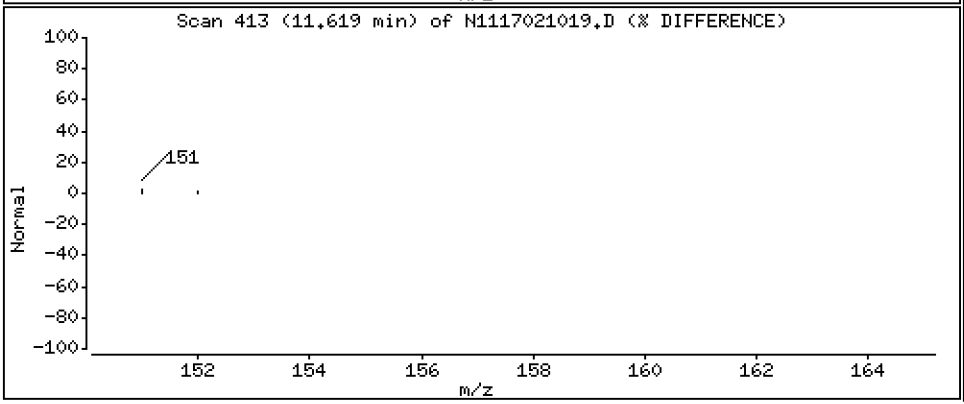












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Date : 10-FEB-2017 21:48

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-12

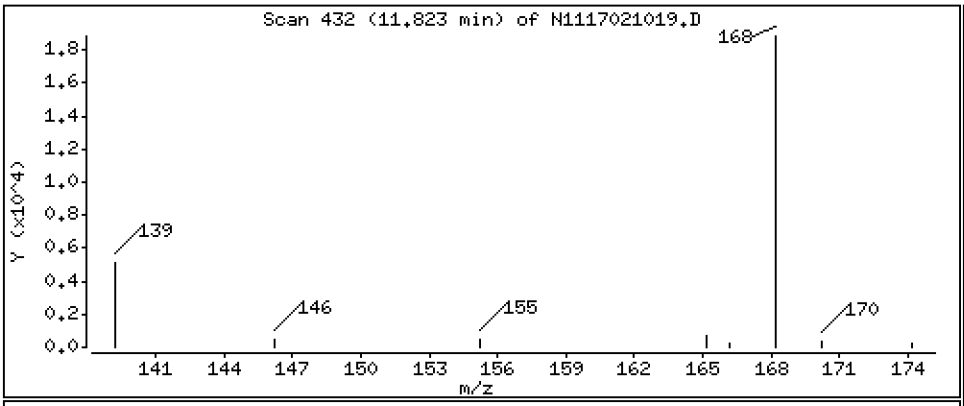
Operator: VTS

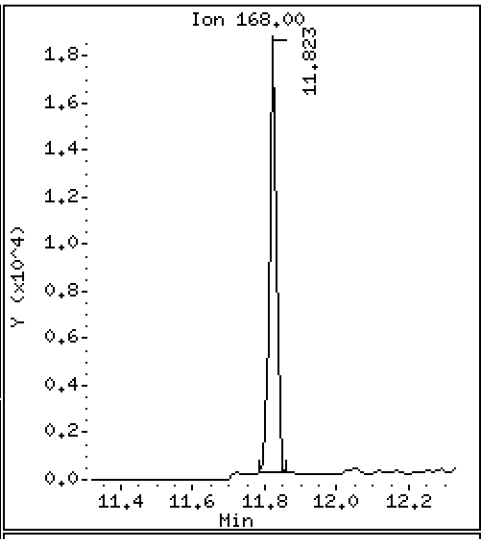
Column phase: Rxi-17Sil MS

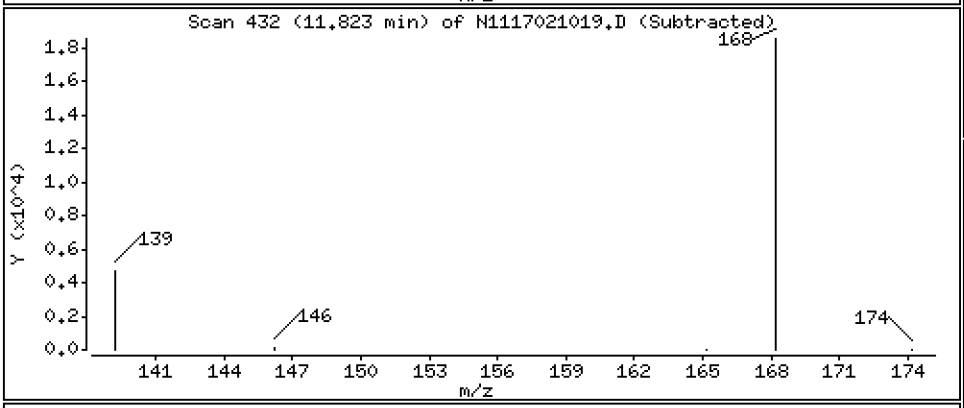
Column diameter: 0.25

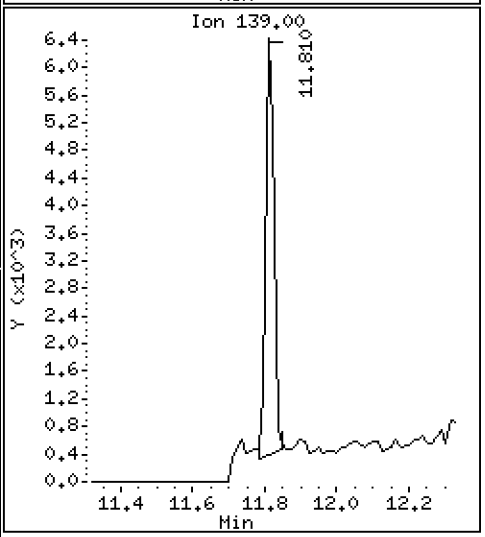
13 Dibenzofuran

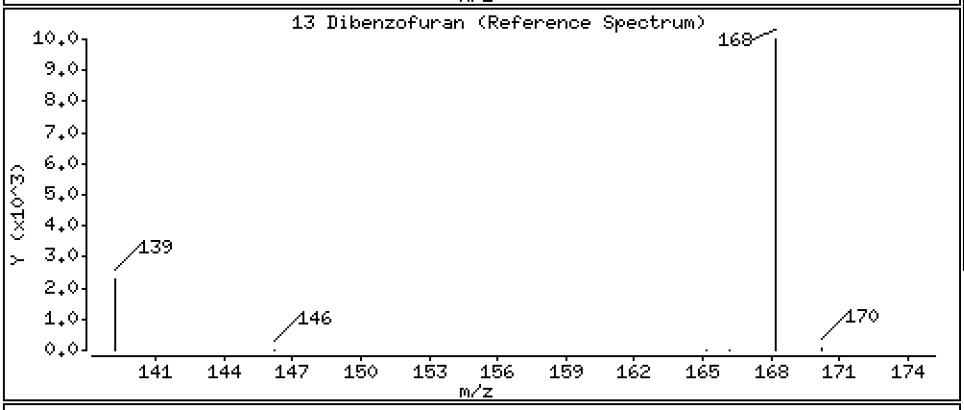
Concentration: 16.4 ng/mL

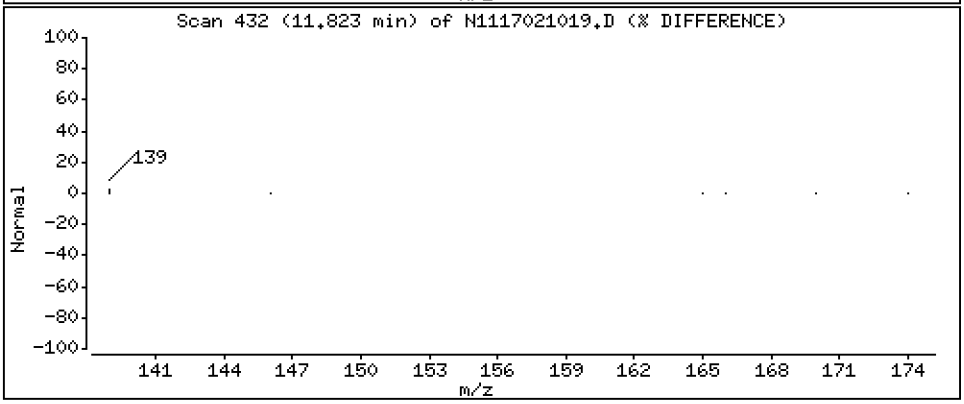












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021019.D

Date : 10-FEB-2017 21:48

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-12

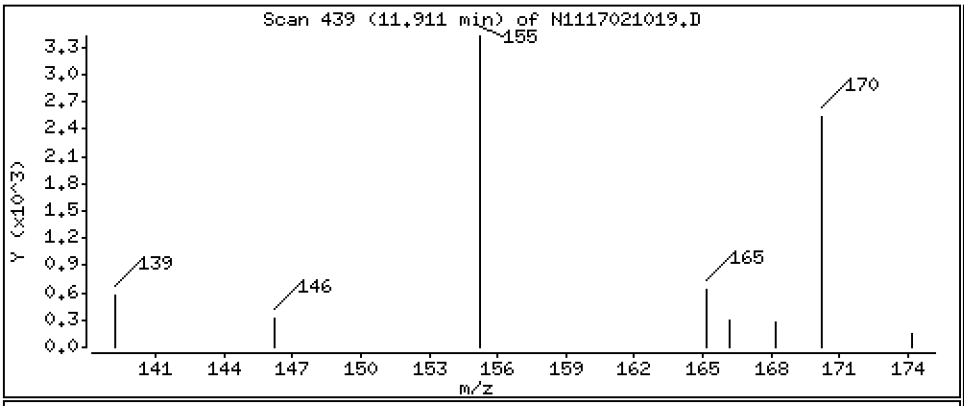
Operator: VTS

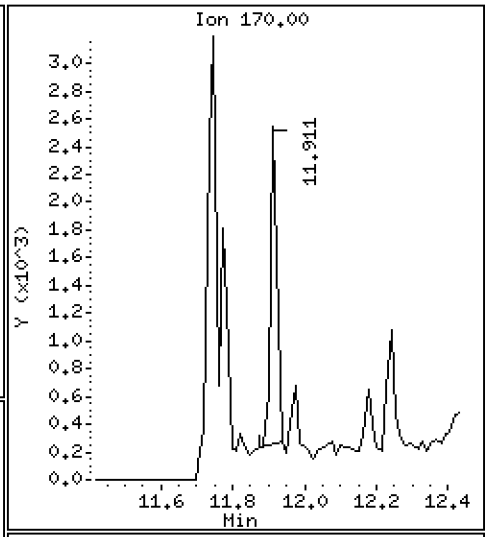
Column phase: Rxi-17Sil MS

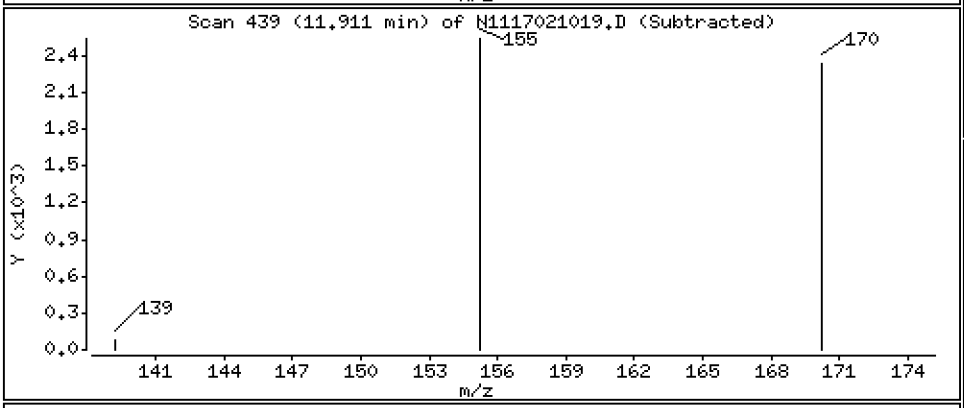
Column diameter: 0.25

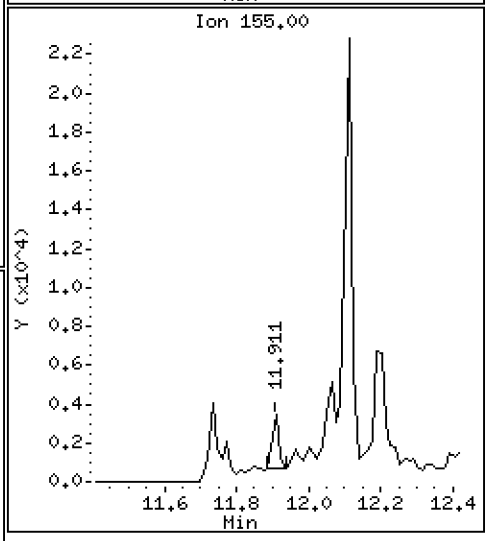
14 2,3,5-Trimethylnaphthalene

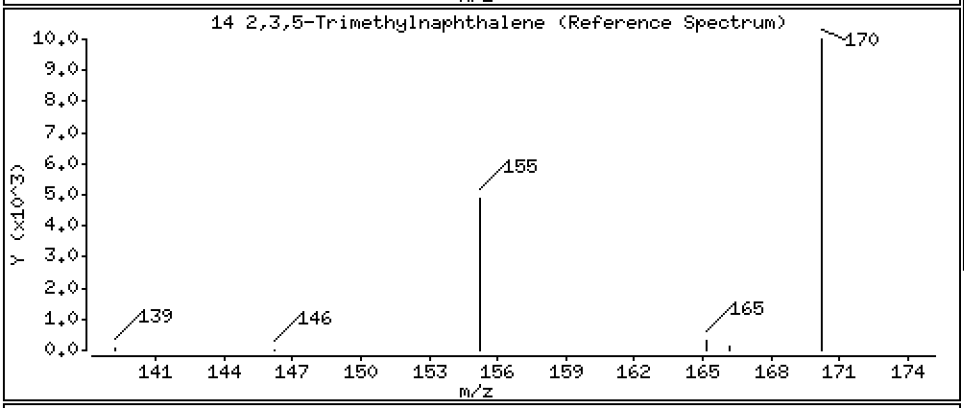
Concentration: 3.39 ng/mL

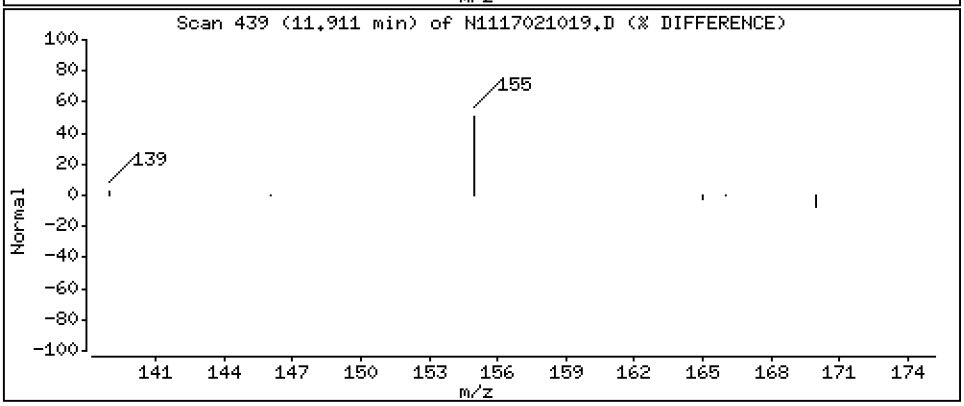












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Date : 10-FEB-2017 21:48

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-12

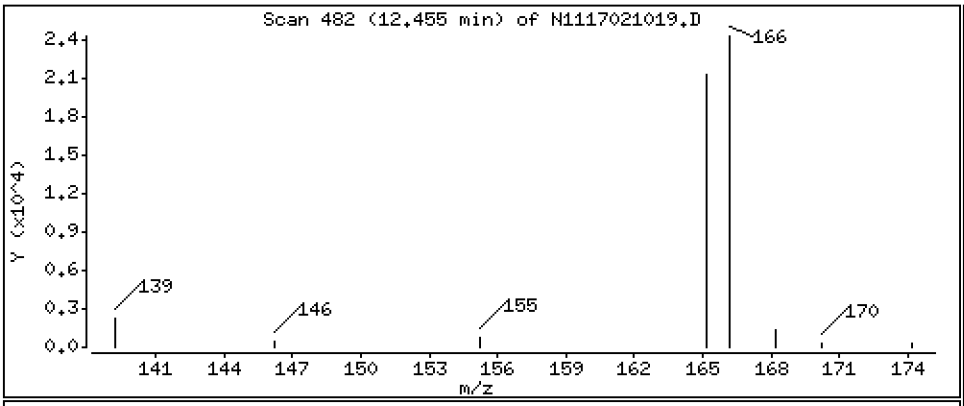
Operator: VTS

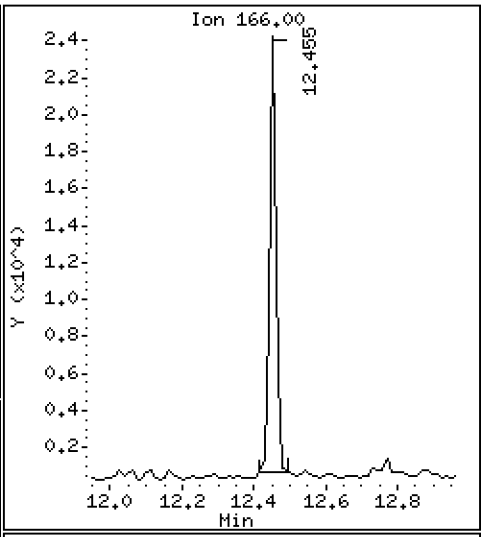
Column phase: Rxi-17Sil MS

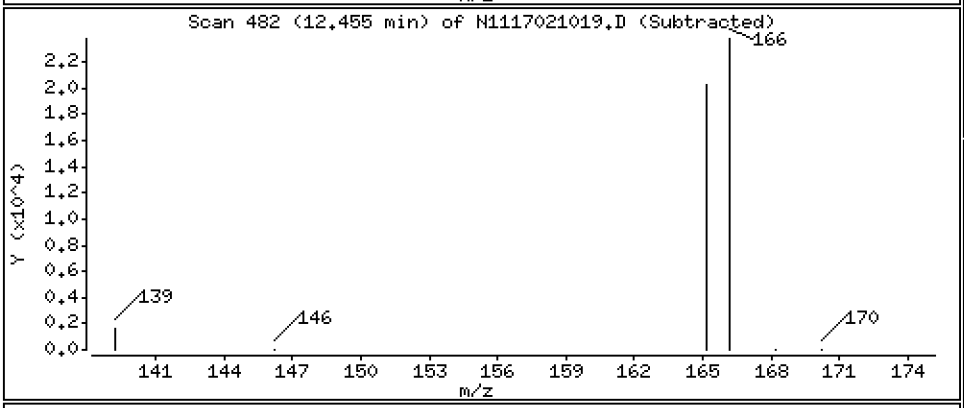
Column diameter: 0.25

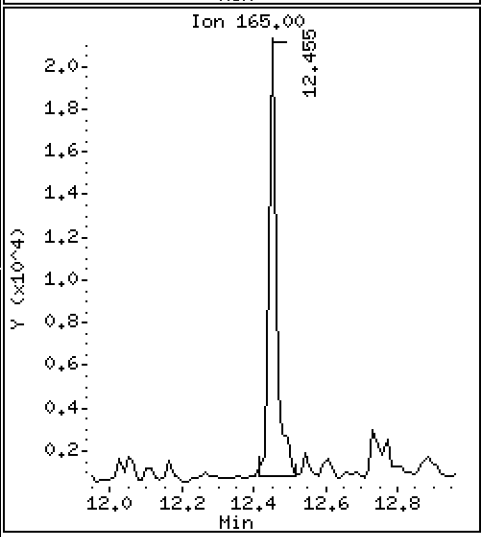
16 Fluorene

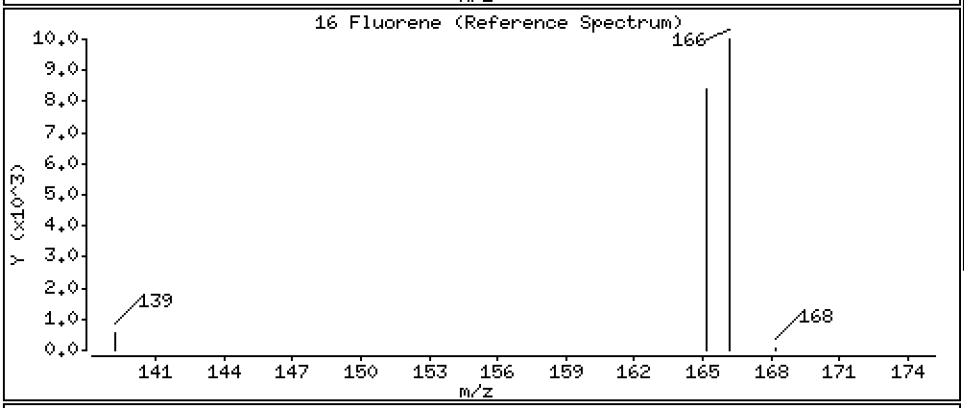
Concentration: 25.9 ng/mL

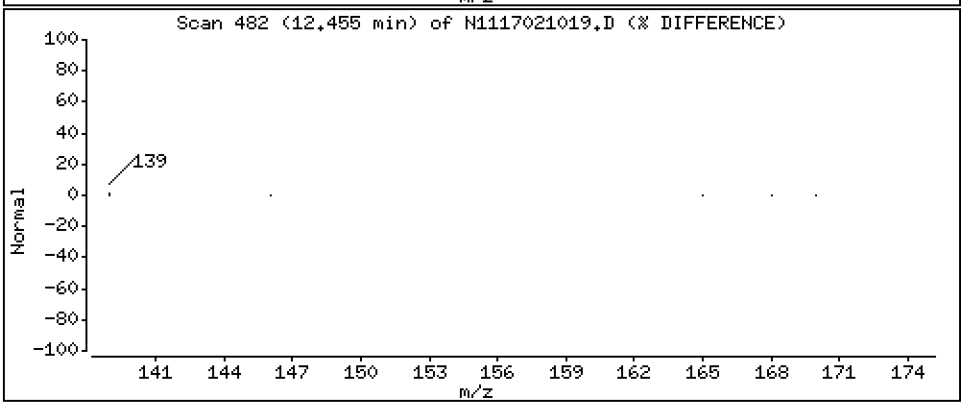












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Date : 10-FEB-2017 21:48

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-12

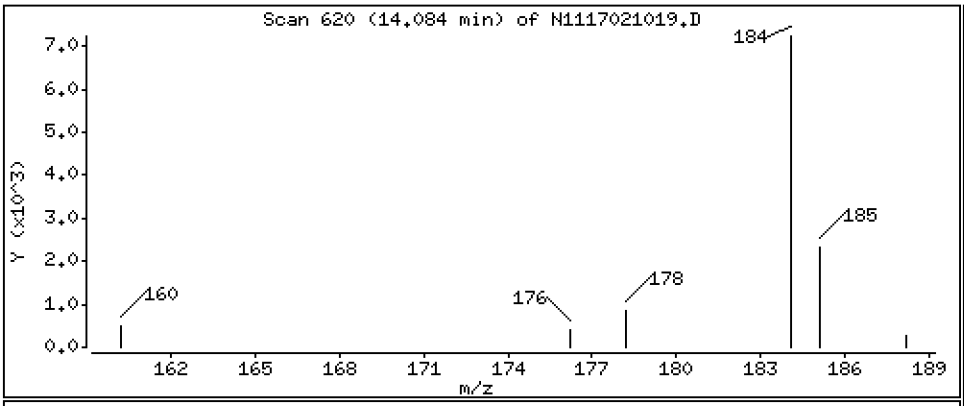
Operator: VTS

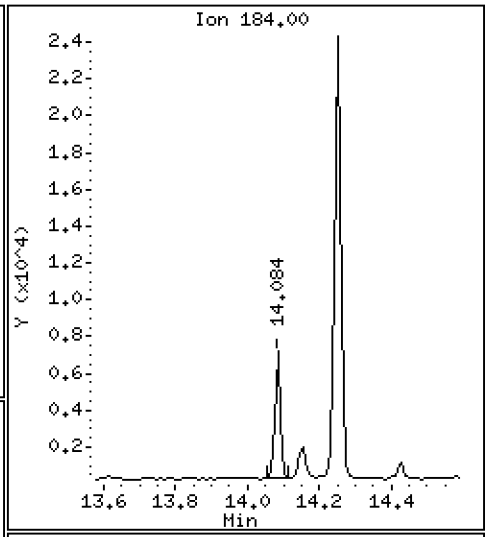
Column phase: Rxi-17Sil MS

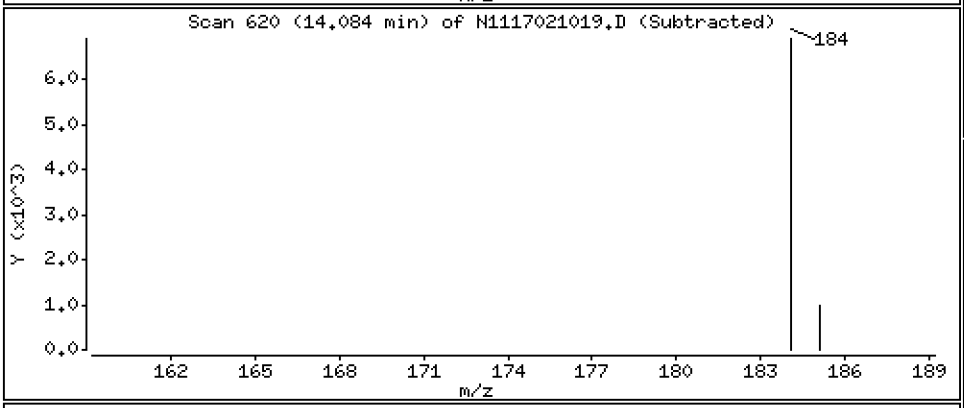
Column diameter: 0.25

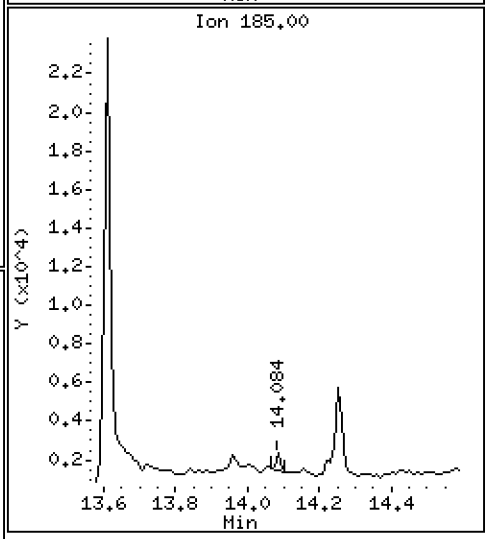
17 Dibenzothiophene

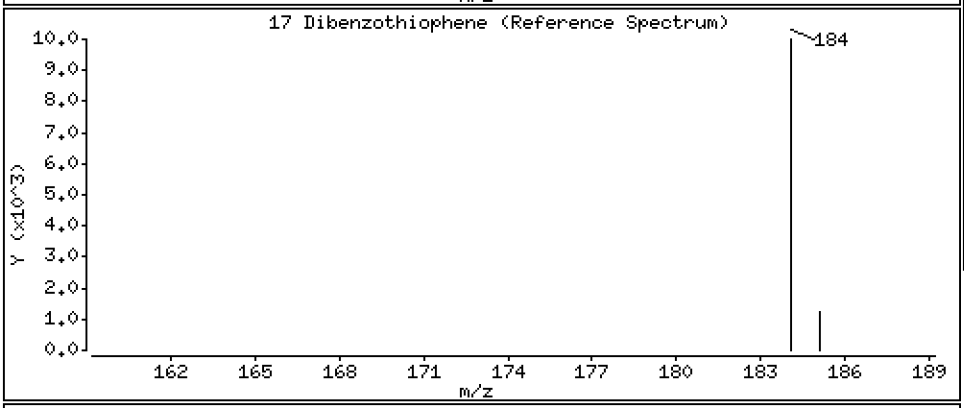
Concentration: 7.33 ng/mL

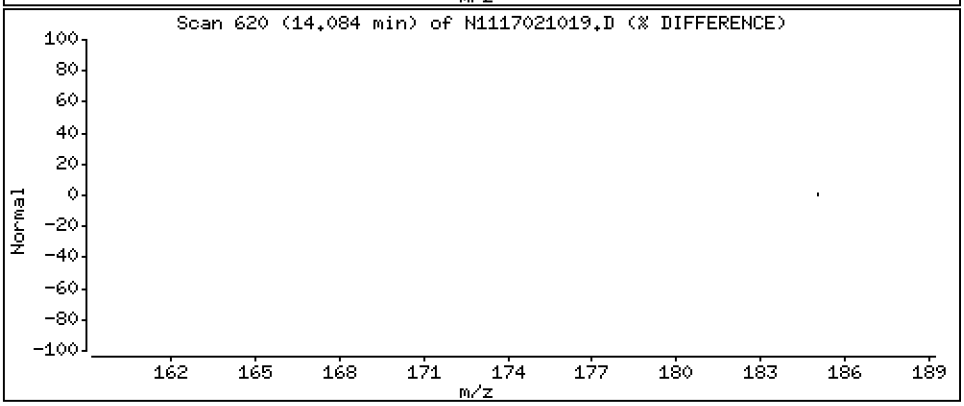












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Date : 10-FEB-2017 21:48

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-12

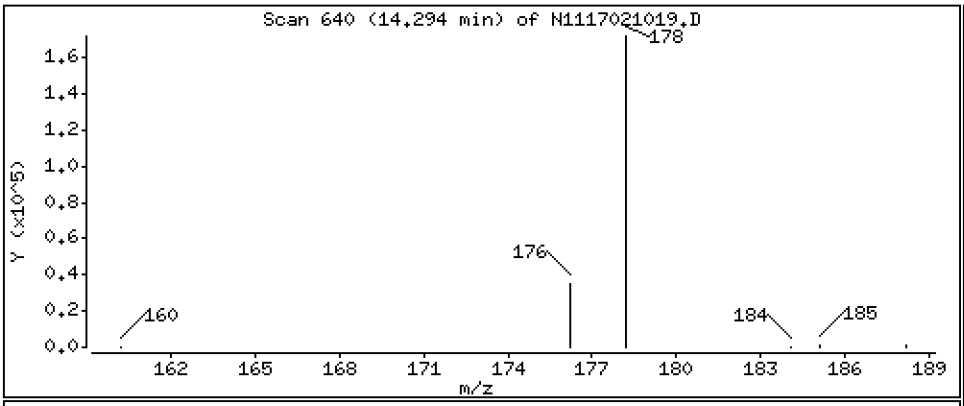
Operator: VTS

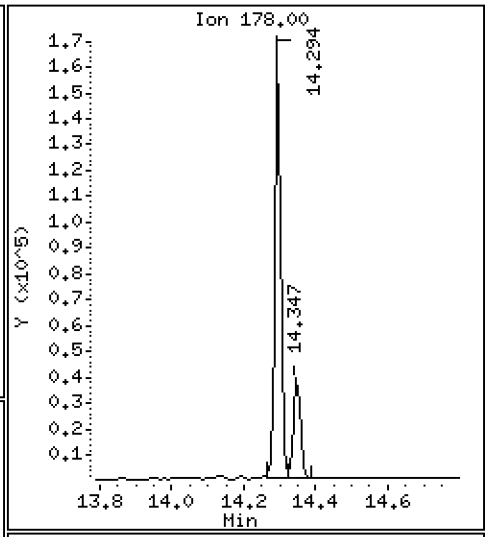
Column phase: Rxi-17Sil MS

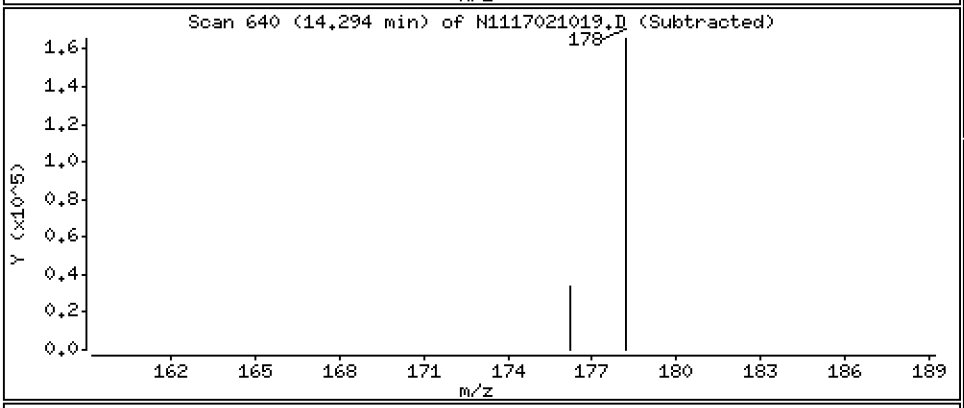
Column diameter: 0.25

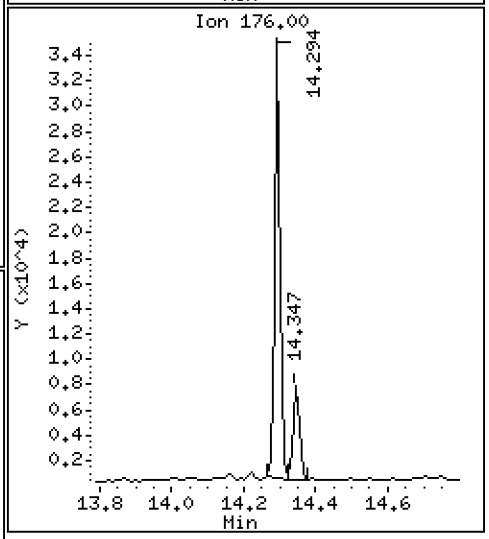
19 Phenanthrene

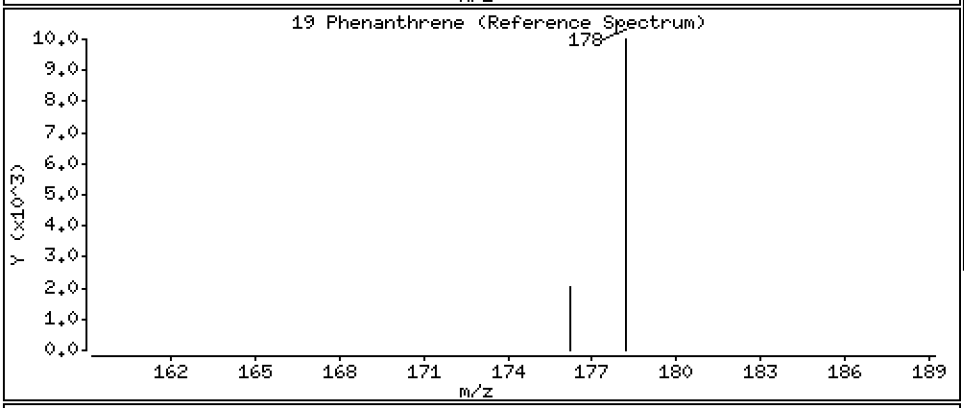
Concentration: 151 ng/mL

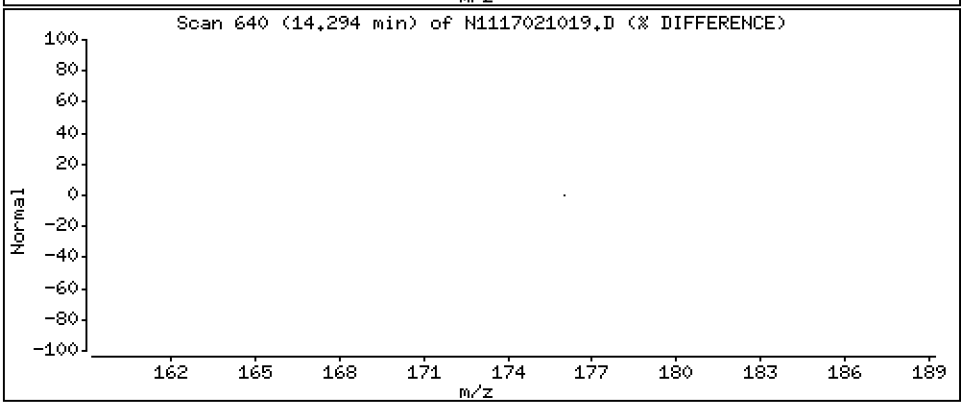












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Date : 10-FEB-2017 21:48

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-12

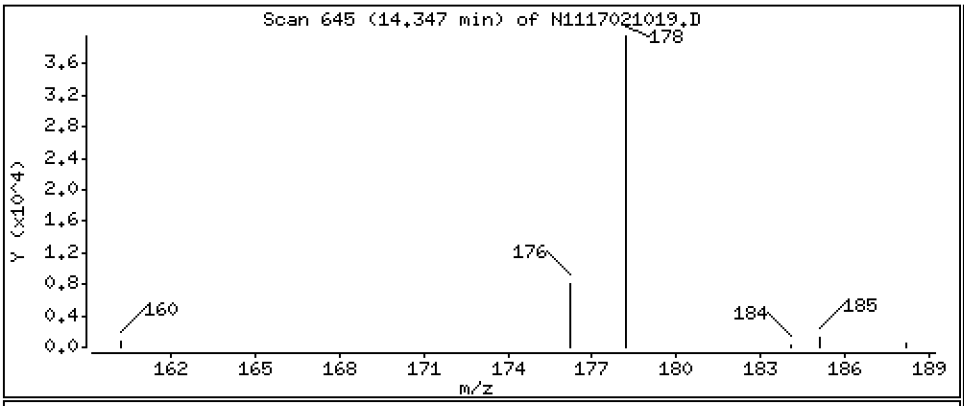
Operator: VTS

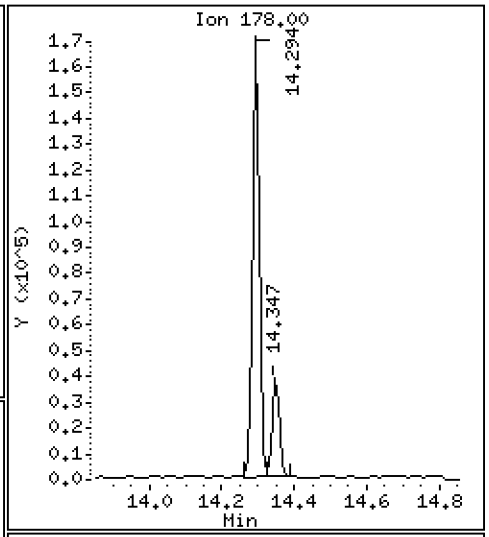
Column phase: Rxi-17Sil MS

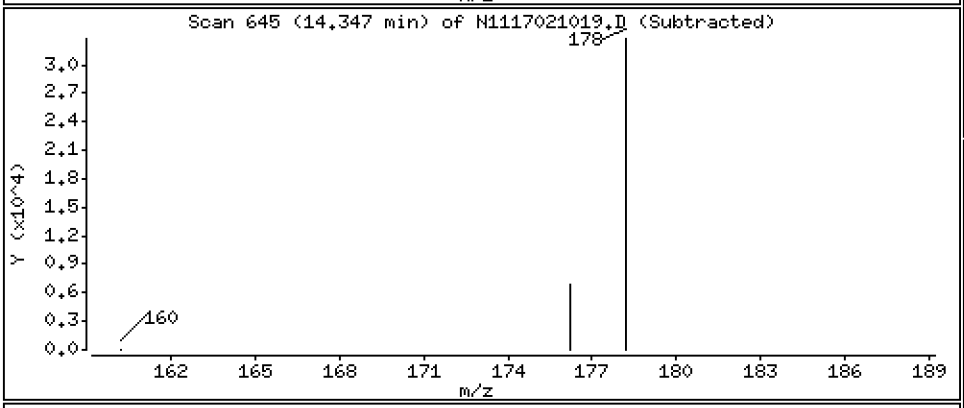
Column diameter: 0.25

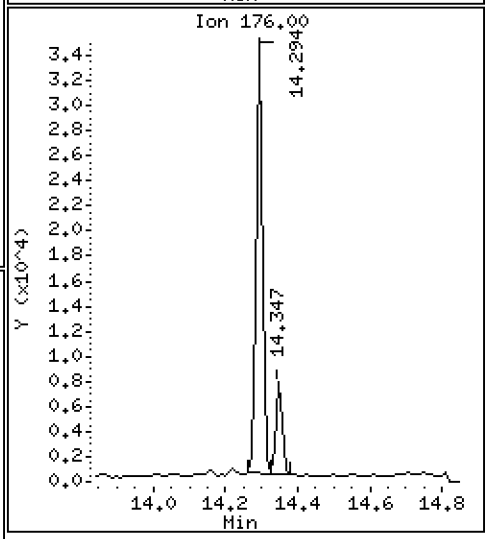
21 Anthracene

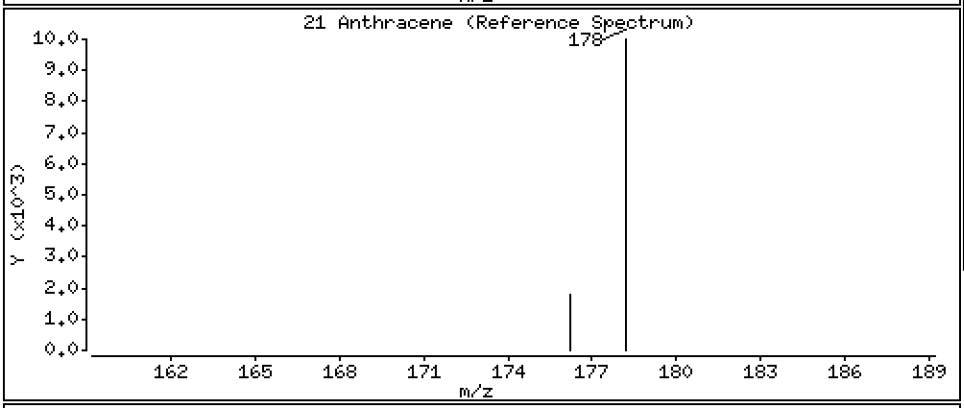
Concentration: 36.5 ng/mL

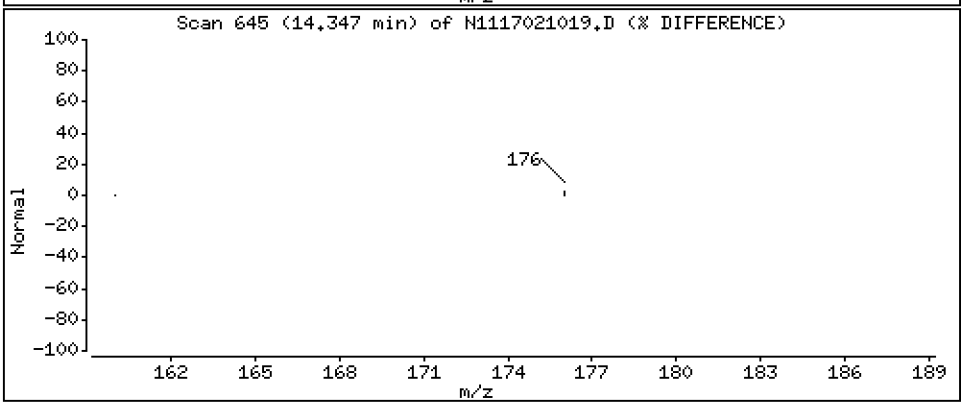












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Client ID:

Instrument: nt11.i

Sample Info: 17A0053-12

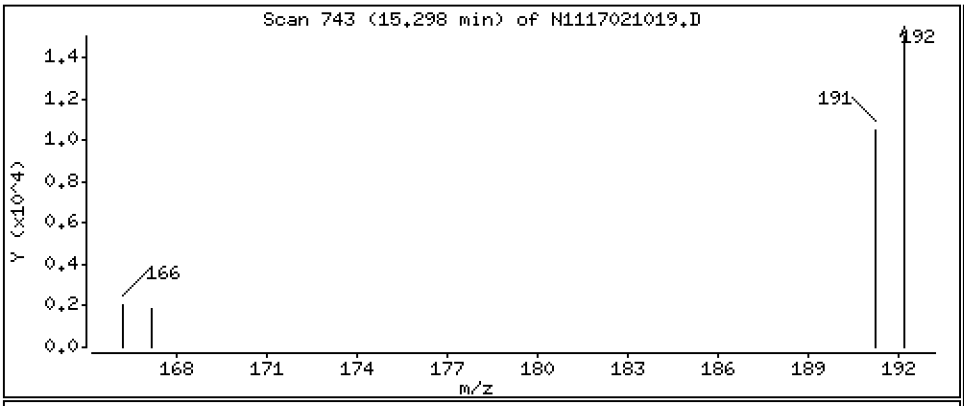
Operator: VTS

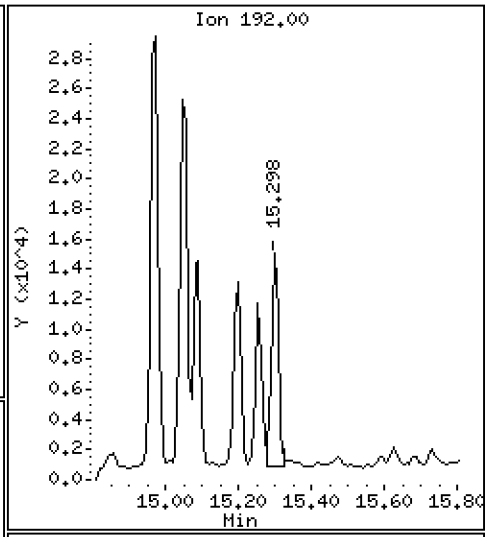
Column phase: Rxi-17Sil MS

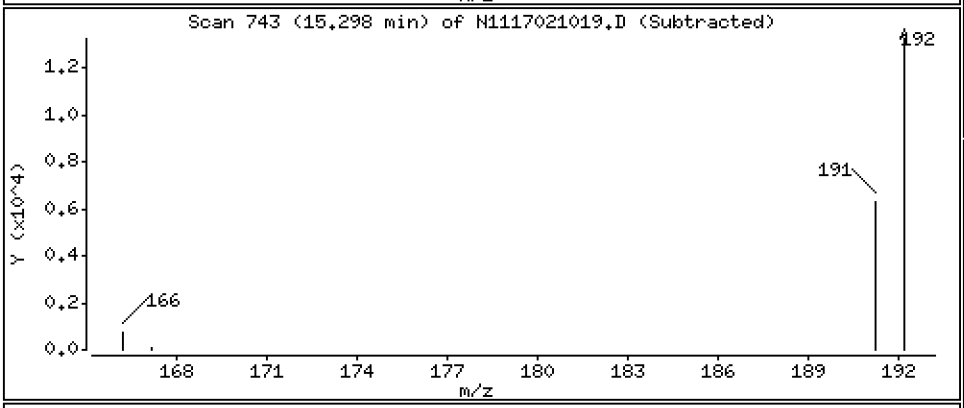
Column diameter: 0.25

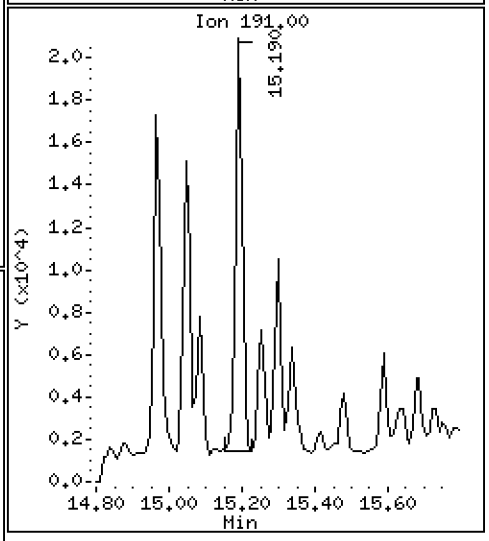
23 1-Methylphenanthrene

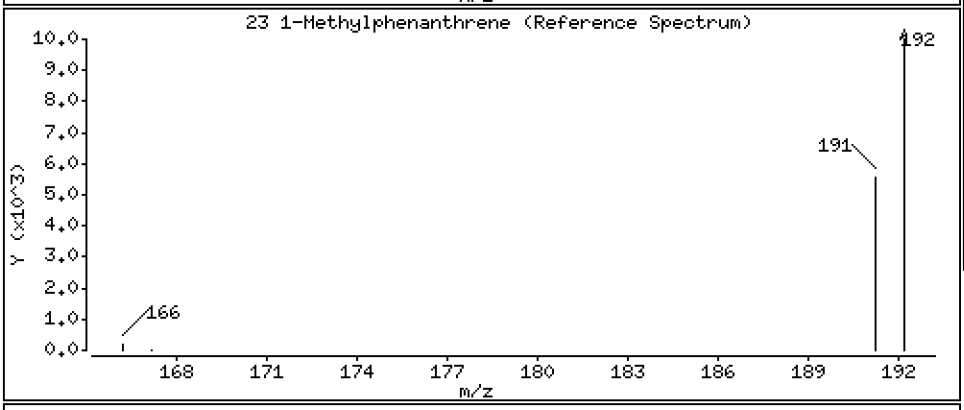
Concentration: 12.4 ng/mL

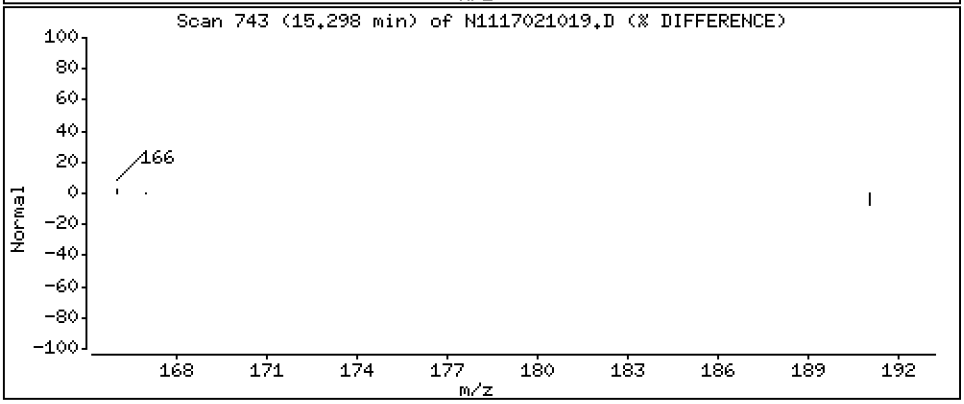












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Instrument: nt11.i

Sample Info: 17A0053-12

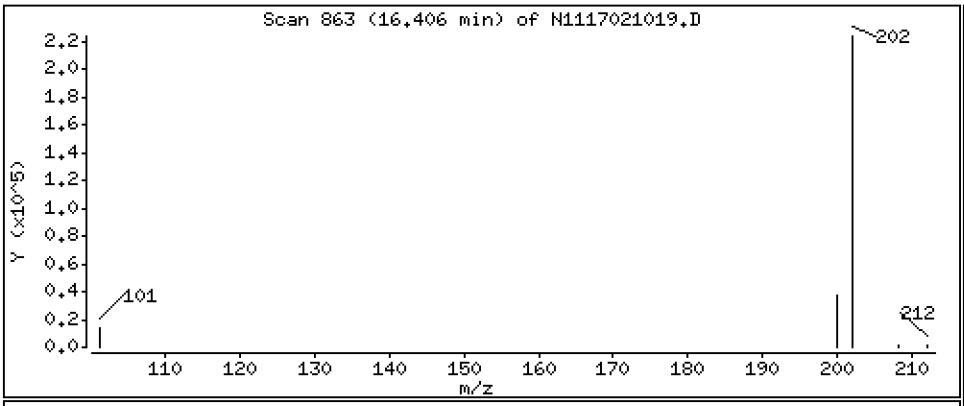
Operator: VTS

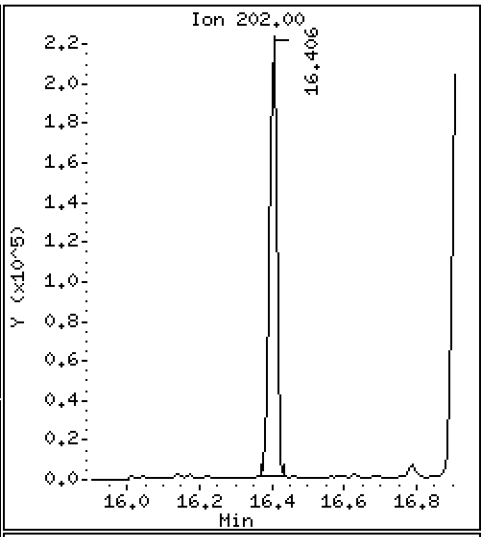
Column phase: Rxi-17Sil MS

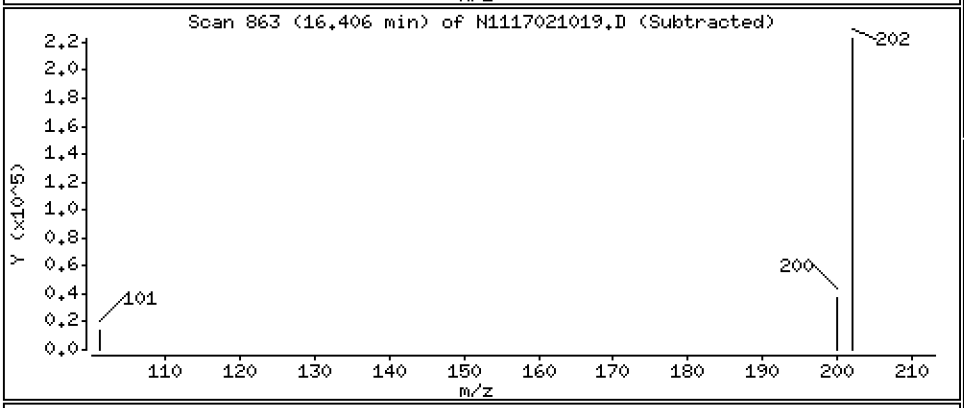
Column diameter: 0.25

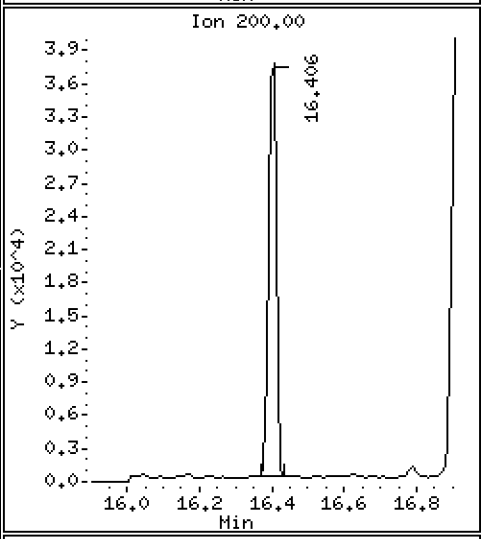
25 Fluoranthene

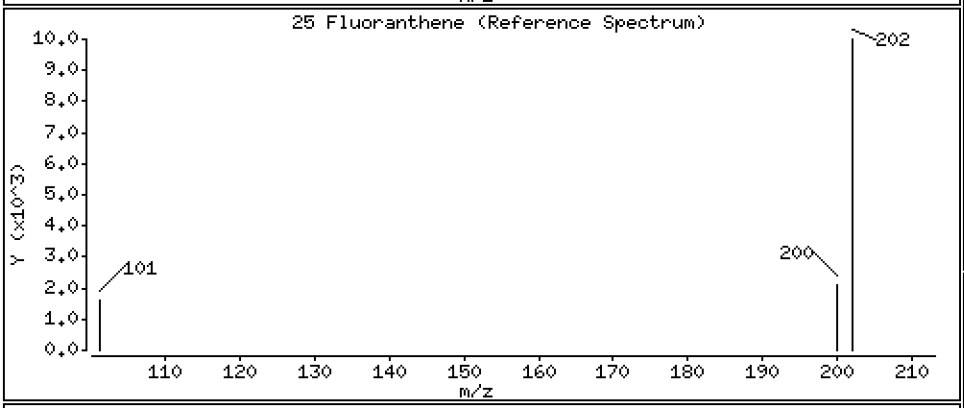
Concentration: 183 ng/mL

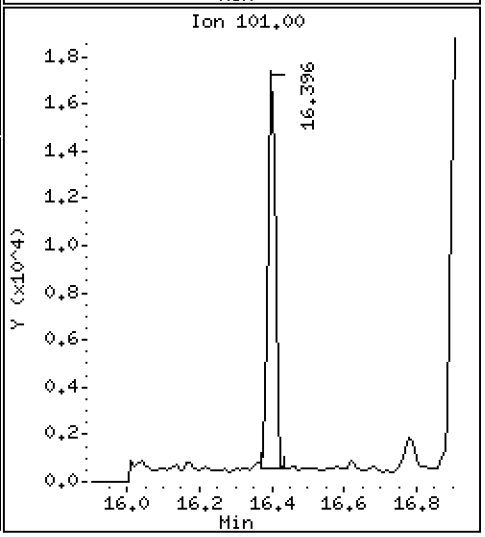


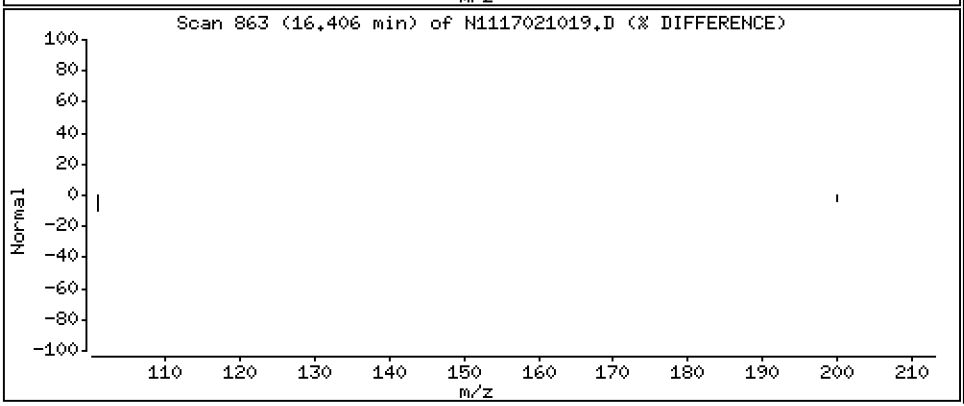












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Client ID:

Instrument: nt11.i

Sample Info: 17A0053-12

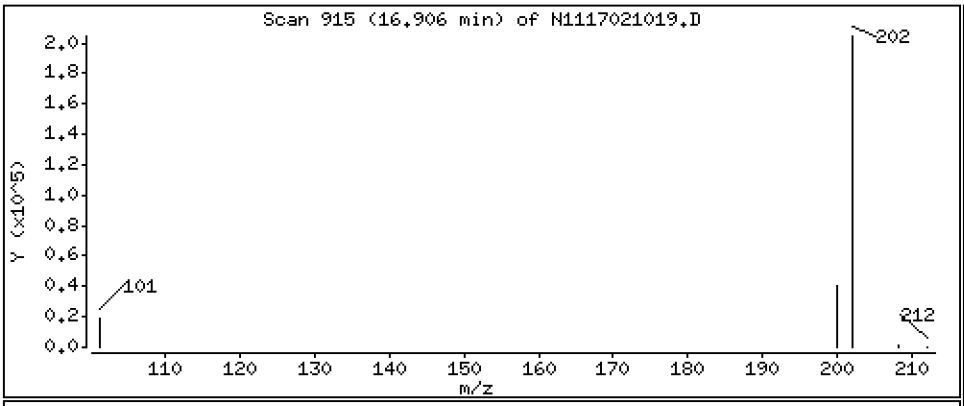
Operator: VTS

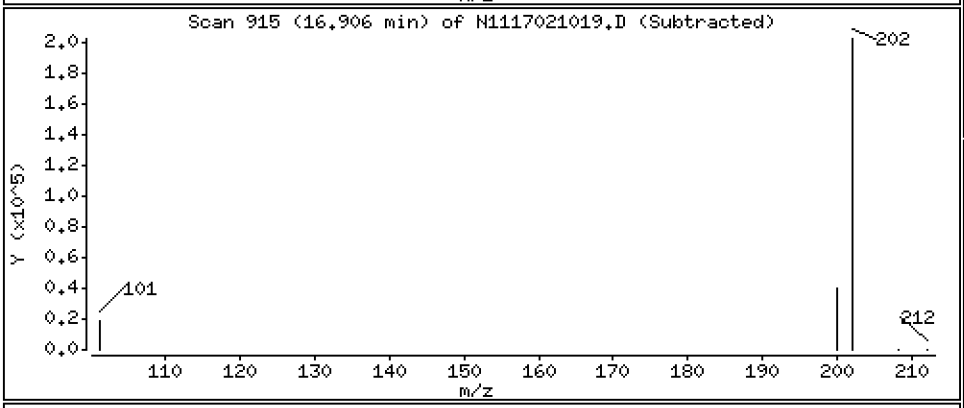
Column phase: Rxi-17Sil MS

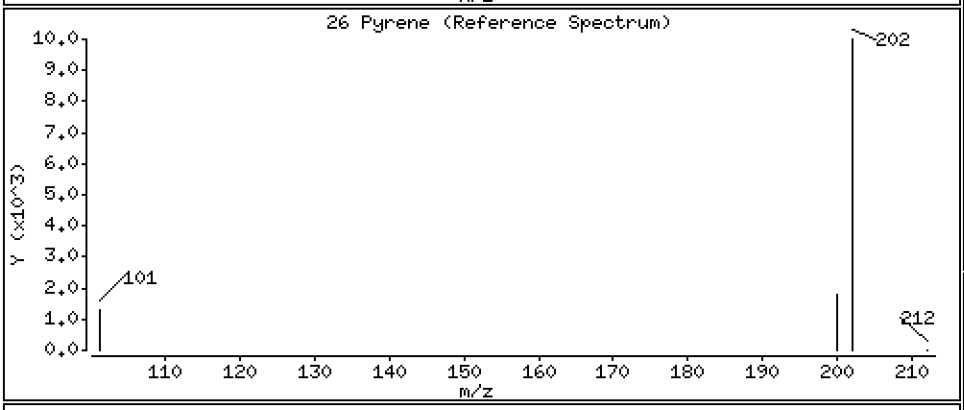
Column diameter: 0.25

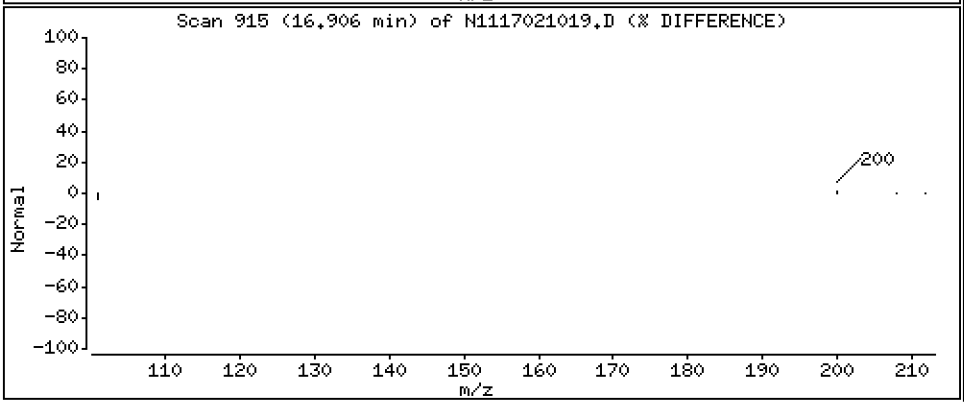
26 Pyrene

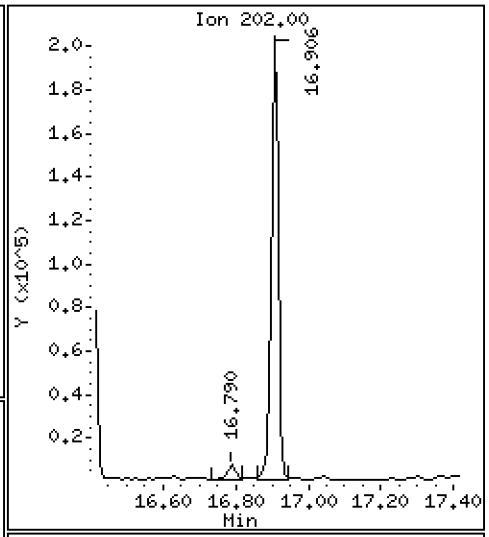
Concentration: 202 ng/mL

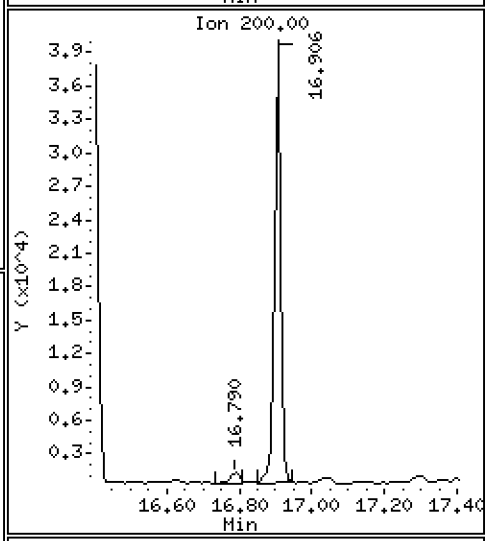


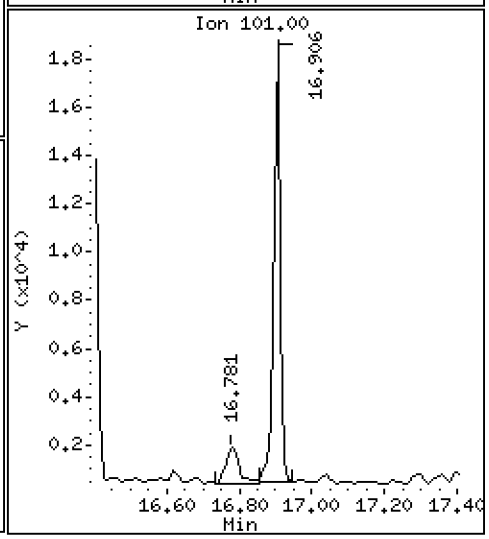












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Client ID:

Instrument: nt11.i

Sample Info: 17A0053-12

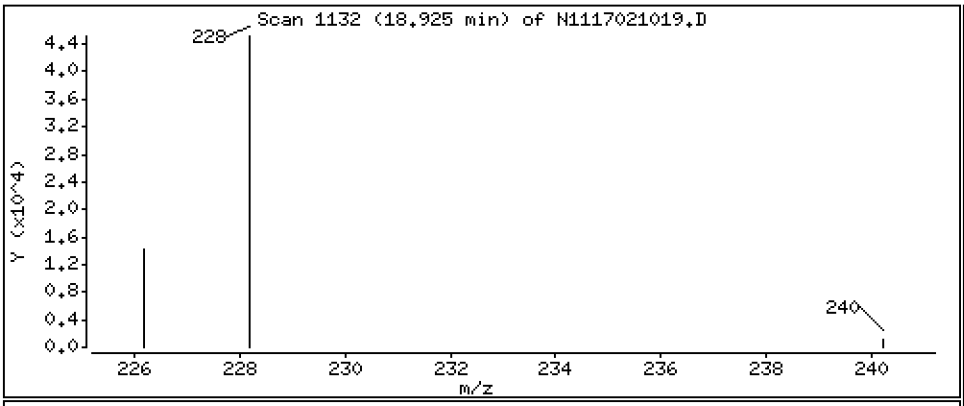
Operator: VTS

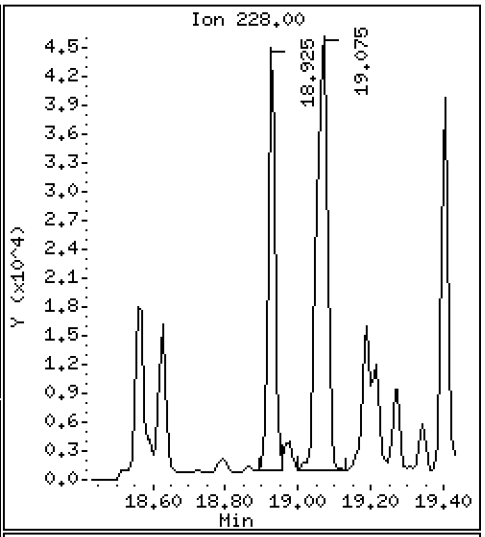
Column phase: Rxi-17Sil MS

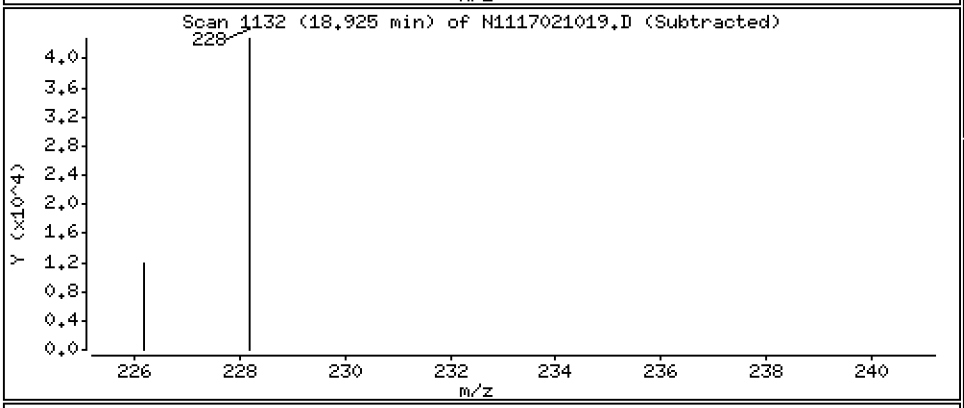
Column diameter: 0.25

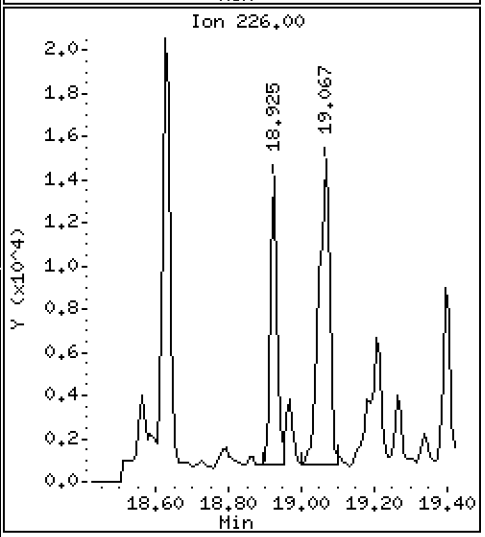
27 Benzo(a)anthracene

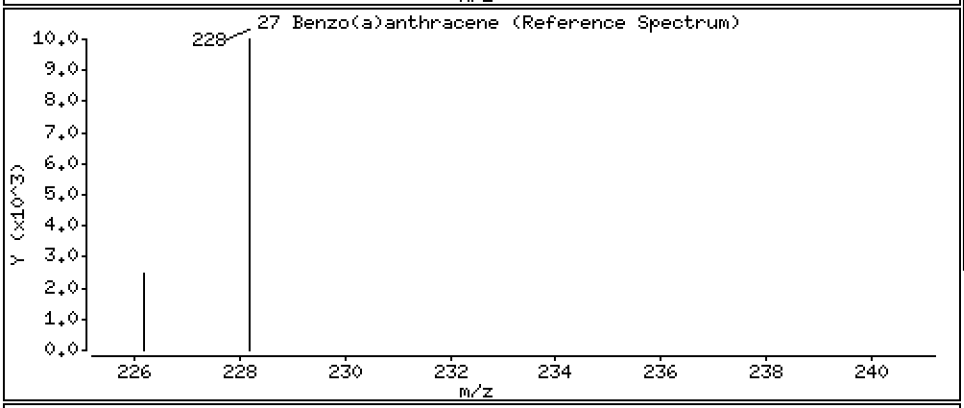
Concentration: 47.6 ng/mL

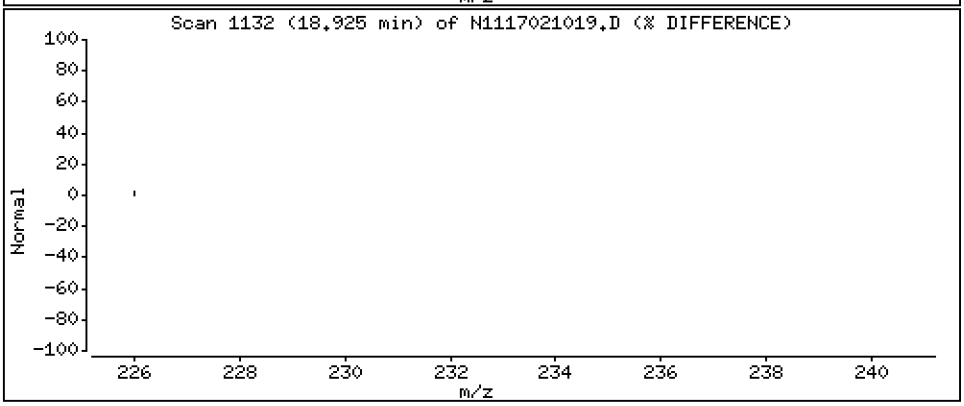












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021019.D

Date : 10-FEB-2017 21:48

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-12

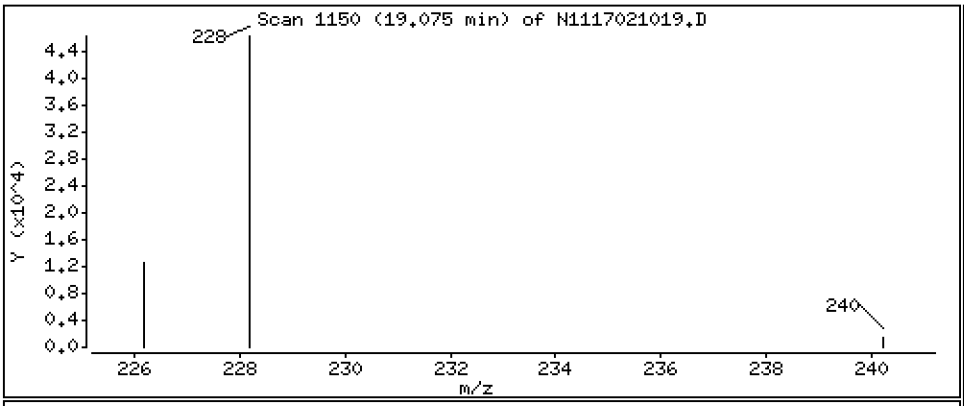
Operator: VTS

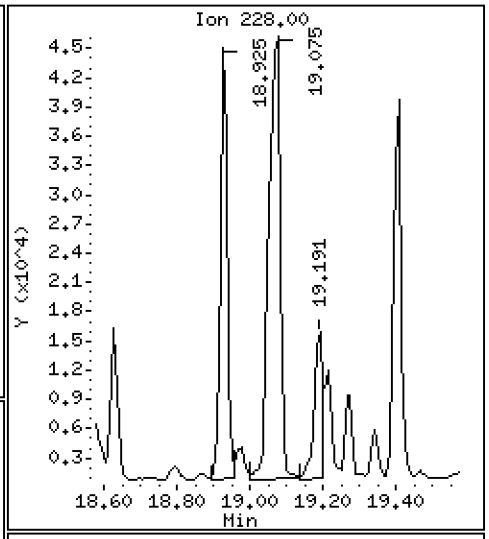
Column phase: Rxi-17Sil MS

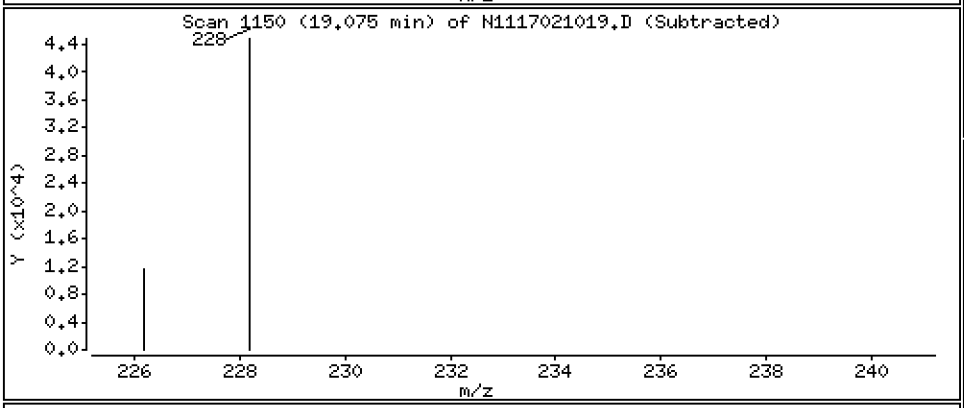
Column diameter: 0.25

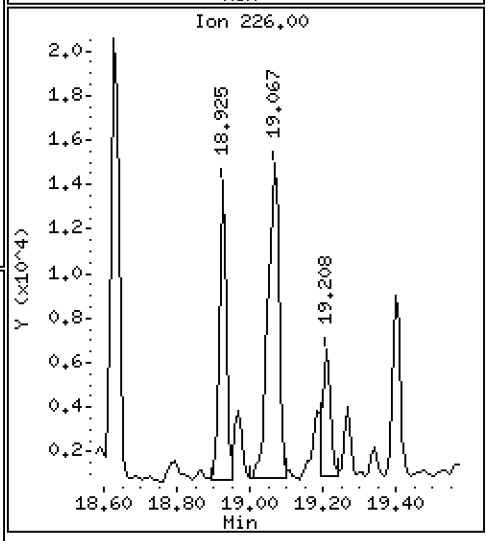
29 Chrysene

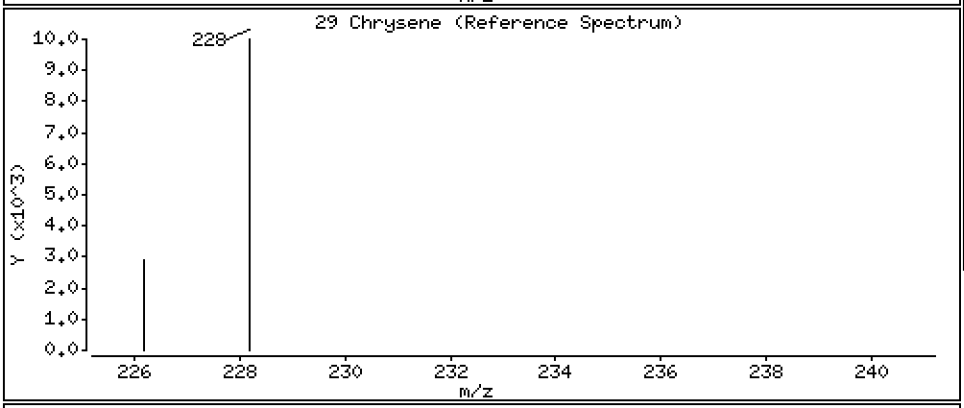
Concentration: 76.8 ng/mL

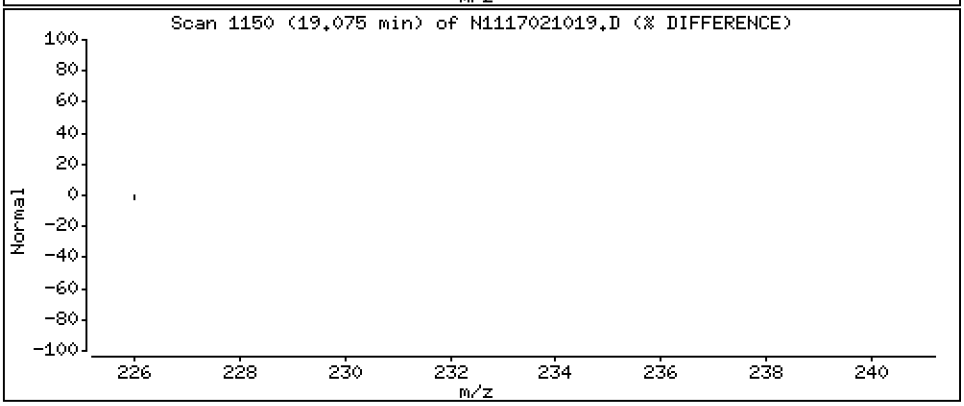












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Date : 10-FEB-2017 21:48

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-12

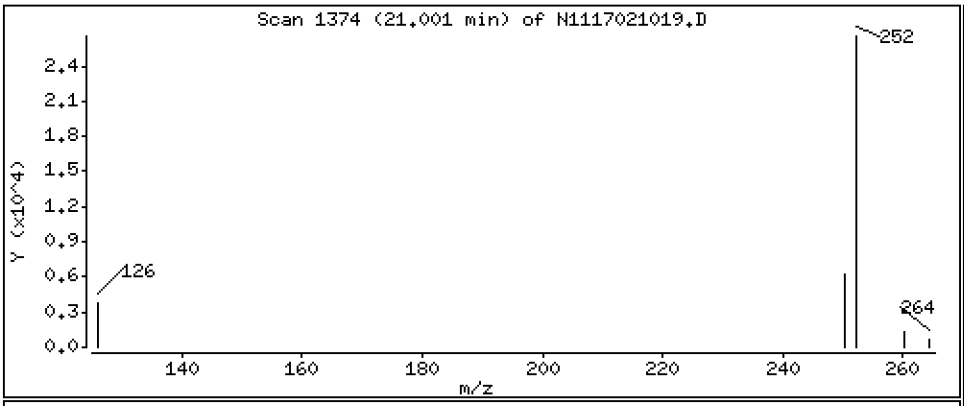
Operator: VTS

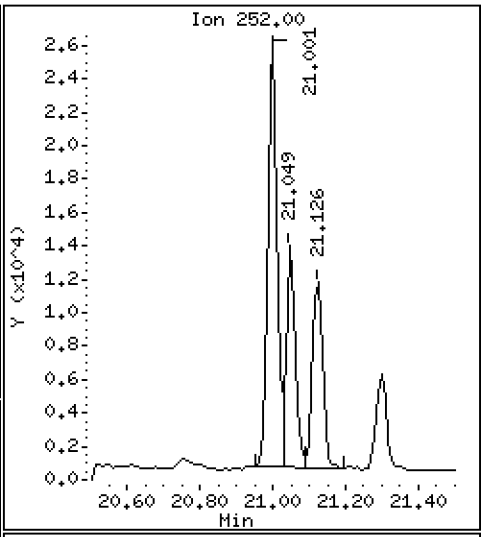
Column phase: Rxi-17Sil MS

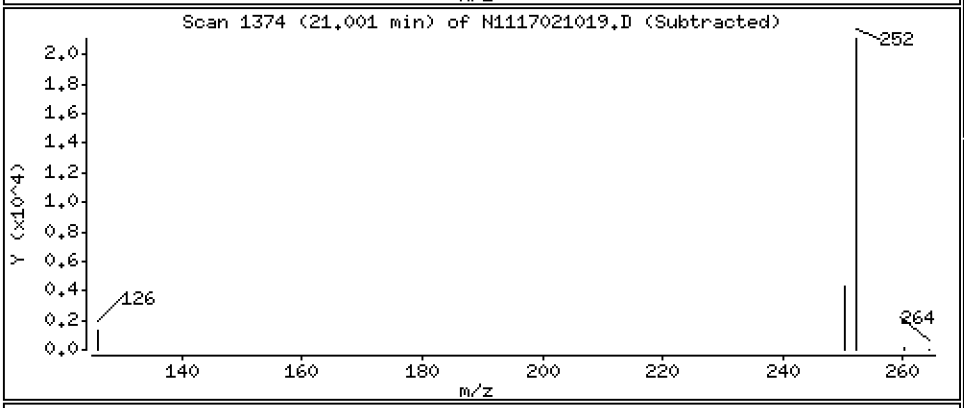
Column diameter: 0.25

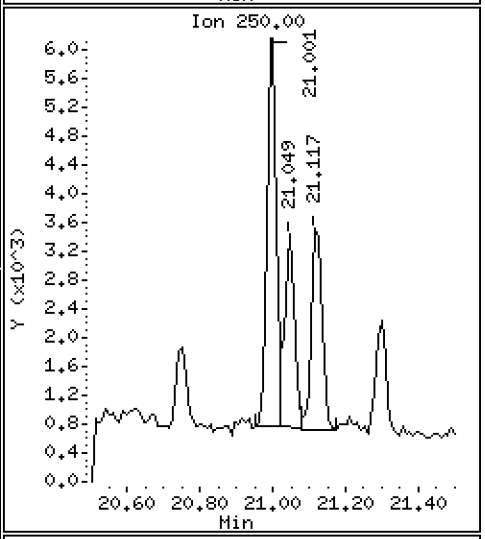
30 Benzo(b)fluoranthene

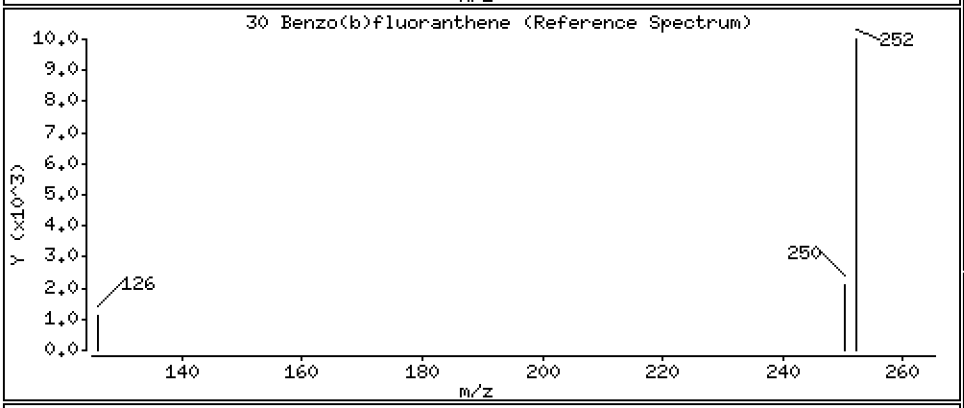
Concentration: 39.9 ng/mL

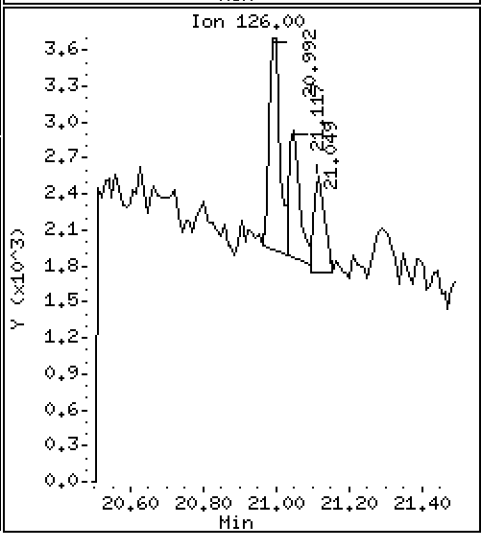


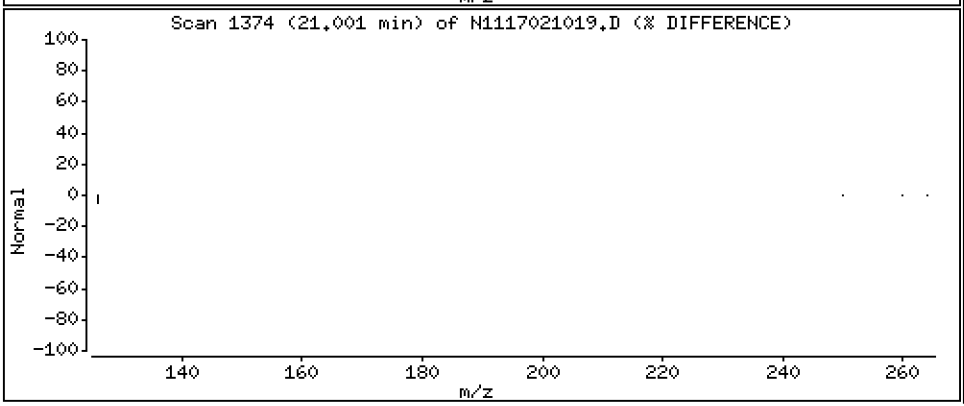












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Date : 10-FEB-2017 21:48

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-12

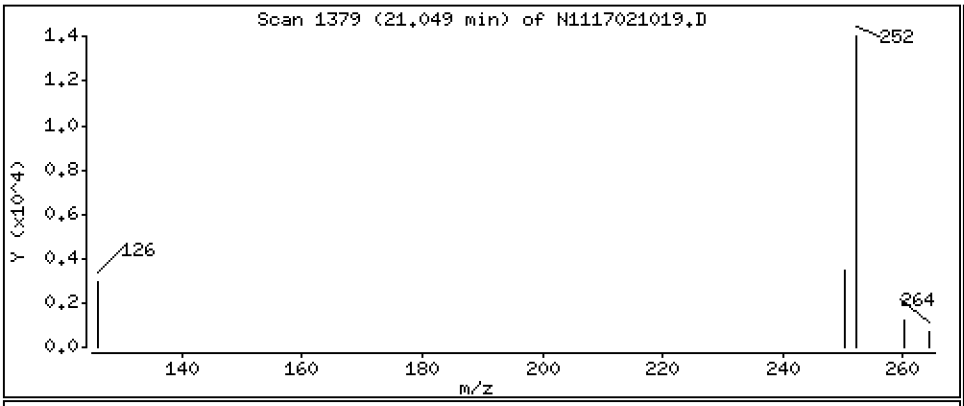
Operator: VTS

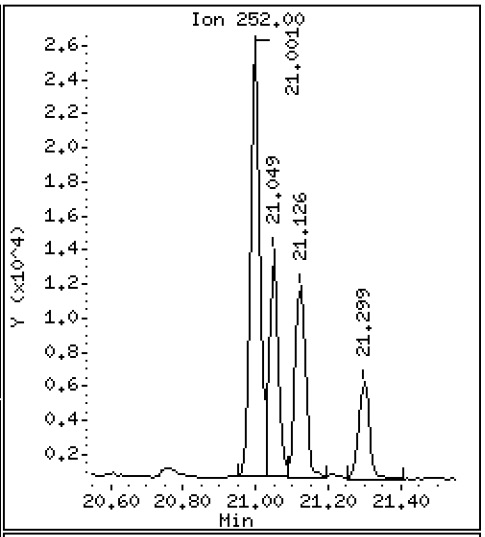
Column phase: Rxi-17Sil MS

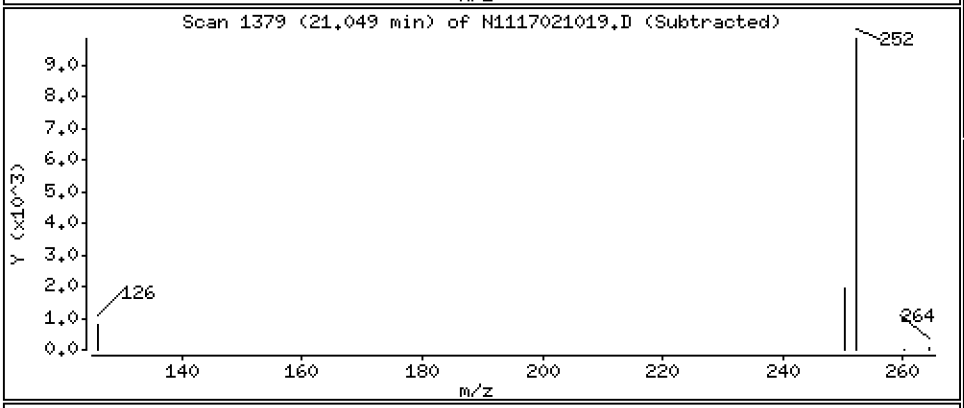
Column diameter: 0.25

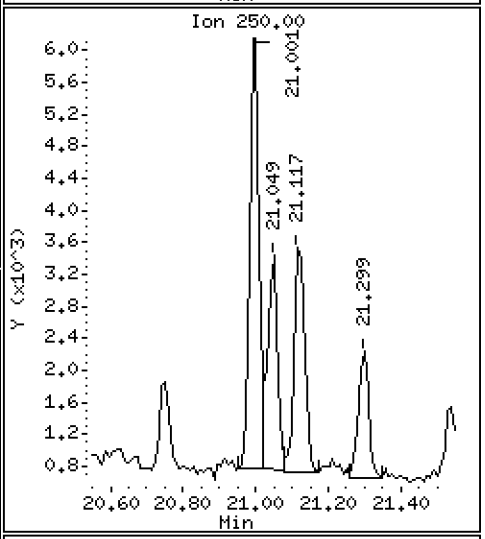
31 Benzo(k)fluoranthene

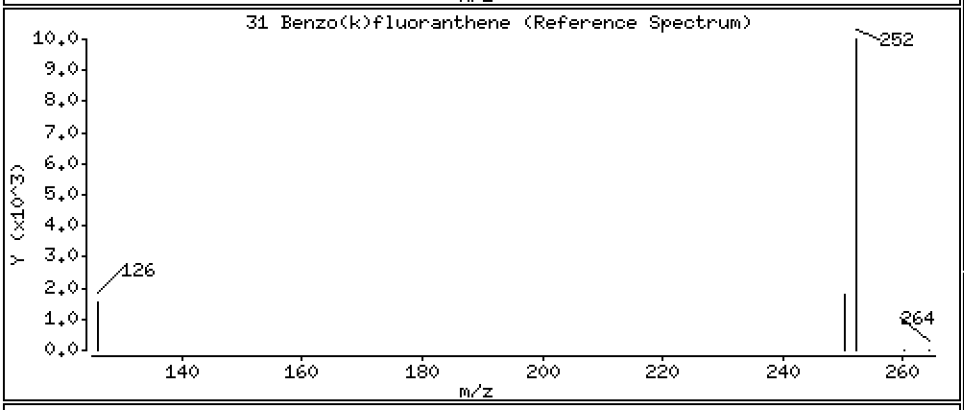
Concentration: 18.2 ng/mL

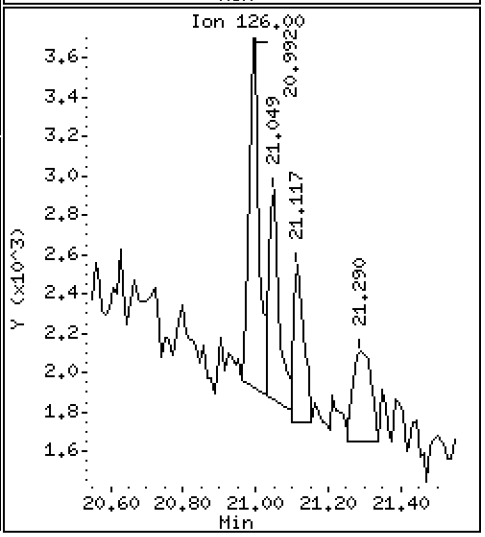


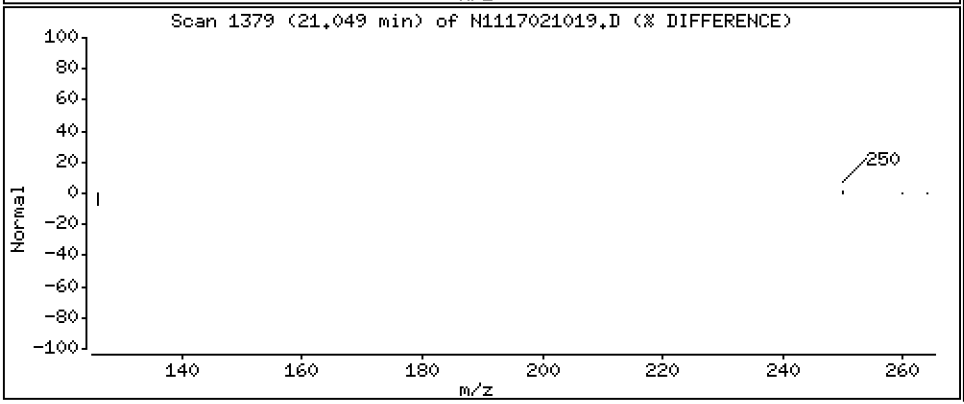












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021019.D

Date : 10-FEB-2017 21:48

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-12

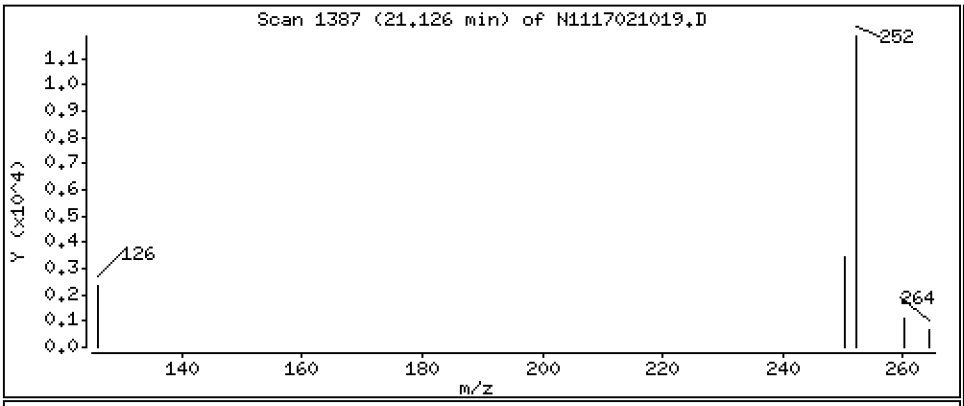
Operator: VTS

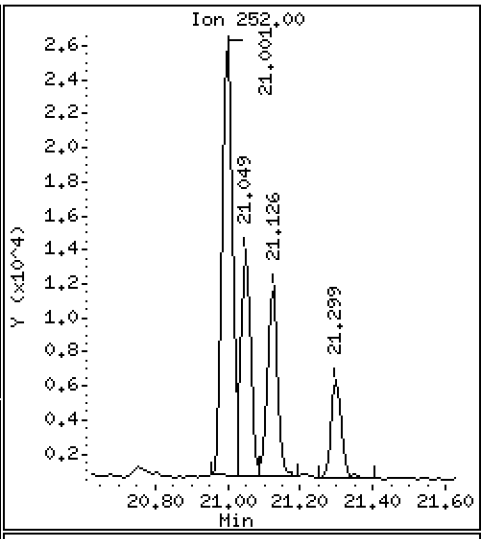
Column phase: Rxi-17Sil MS

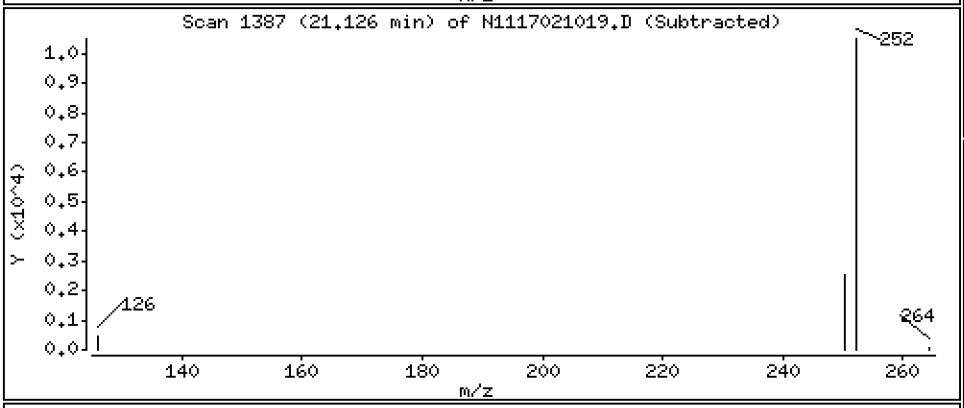
Column diameter: 0.25

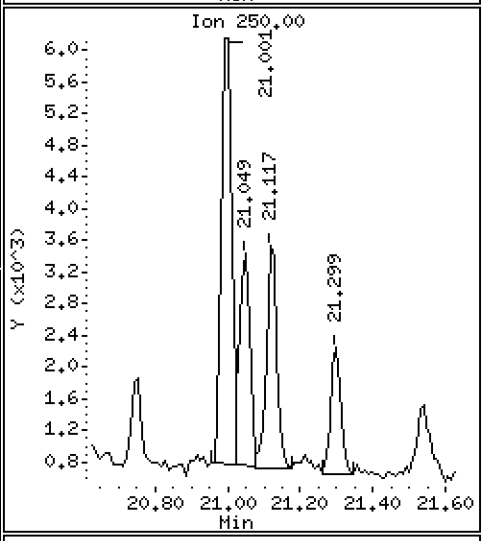
32 Benzo(j)fluoranthene

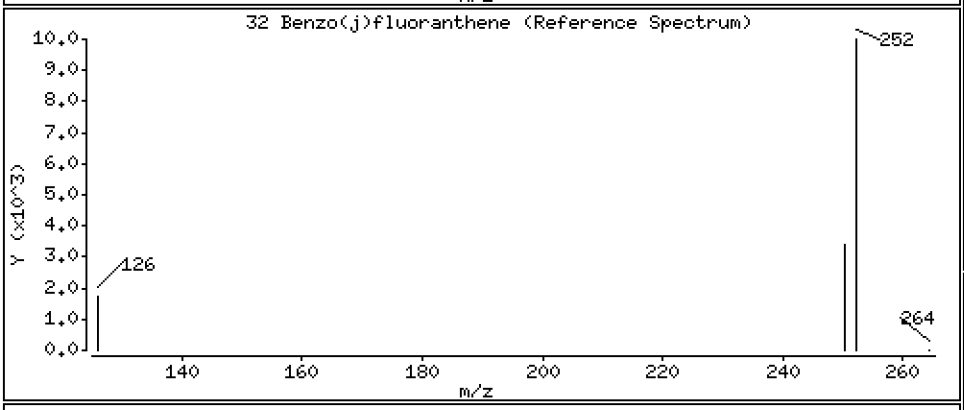
Concentration: 19.0 ng/mL

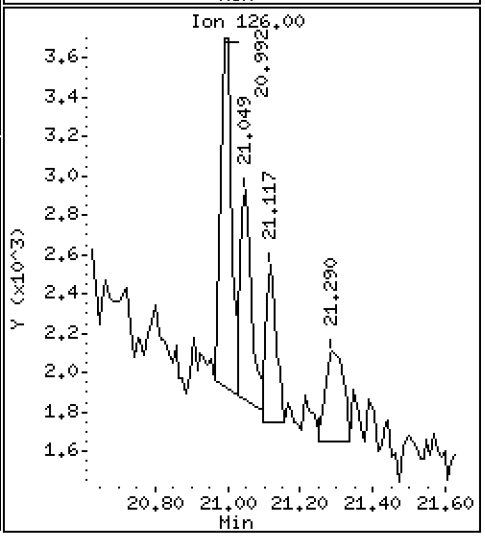


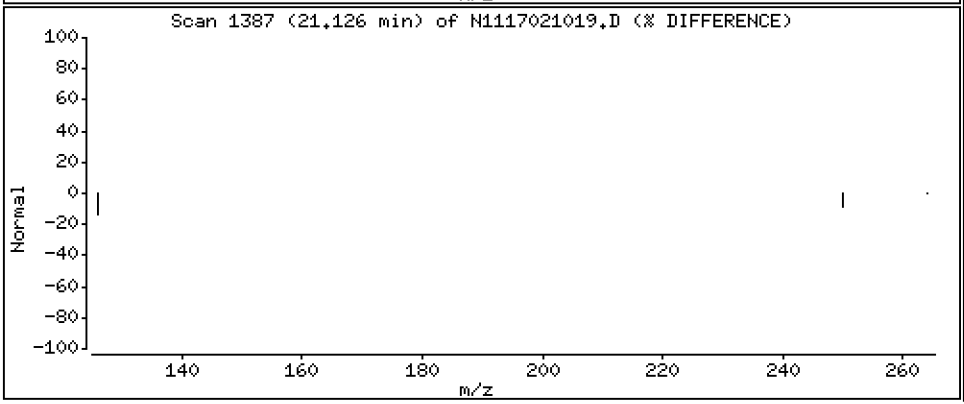












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Date : 10-FEB-2017 21:48

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-12

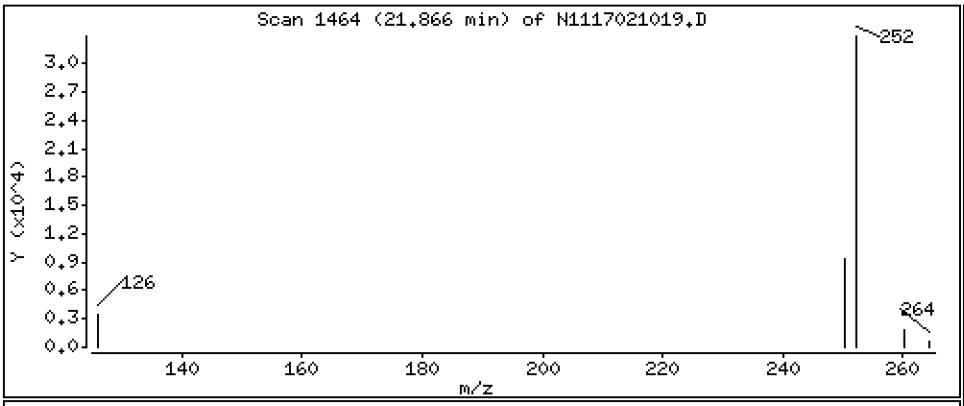
Operator: VTS

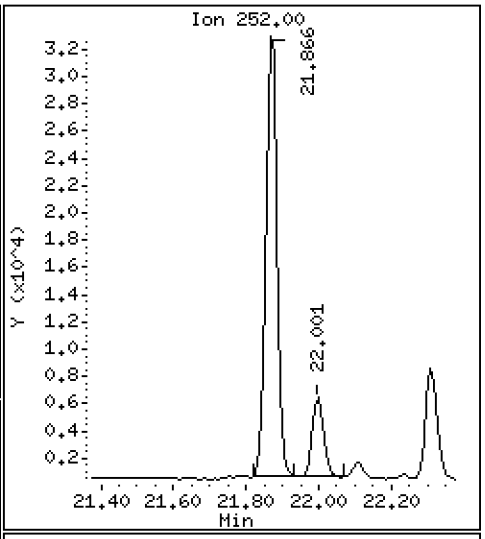
Column phase: Rxi-17Sil MS

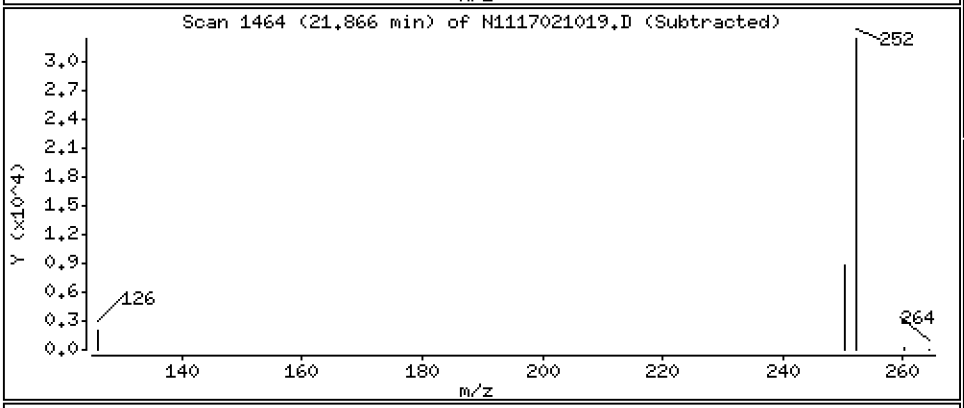
Column diameter: 0.25

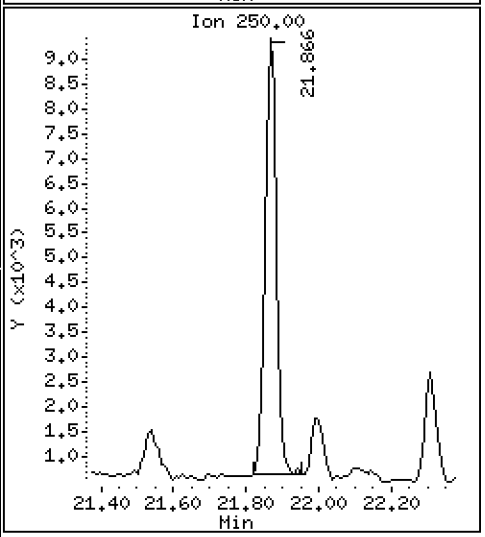
34 Benzo(e)pyrene

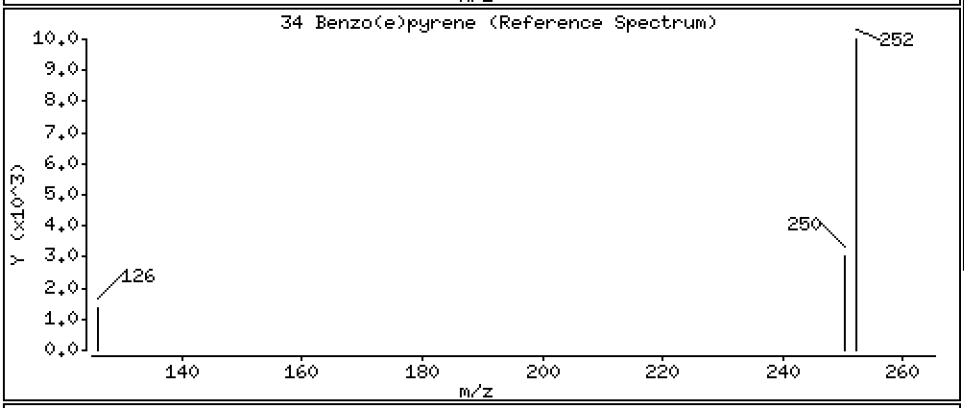
Concentration: 56.7 ng/mL

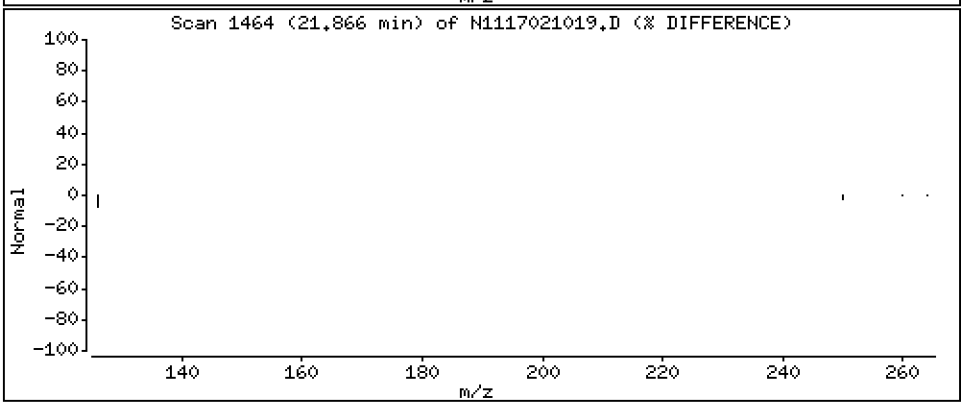












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Date : 10-FEB-2017 21:48

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-12

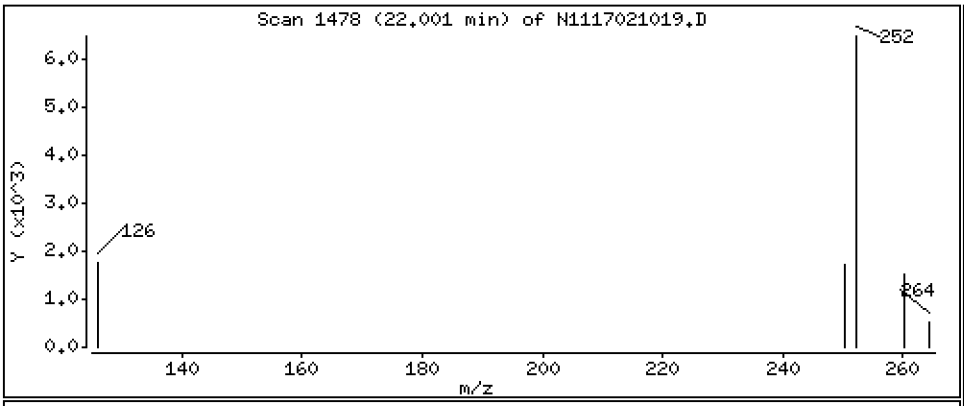
Operator: VTS

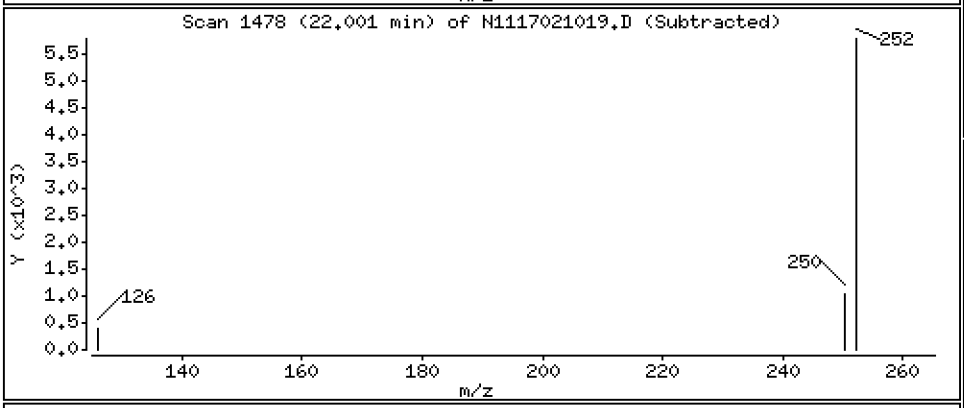
Column phase: Rxi-17Sil MS

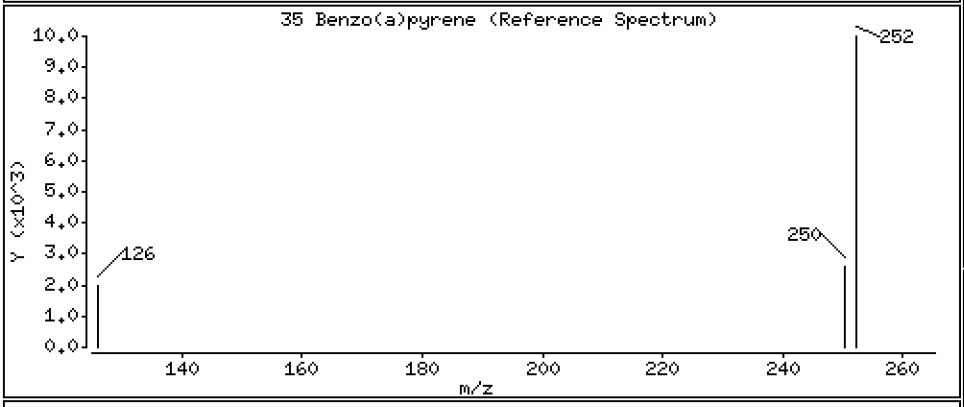
Column diameter: 0.25

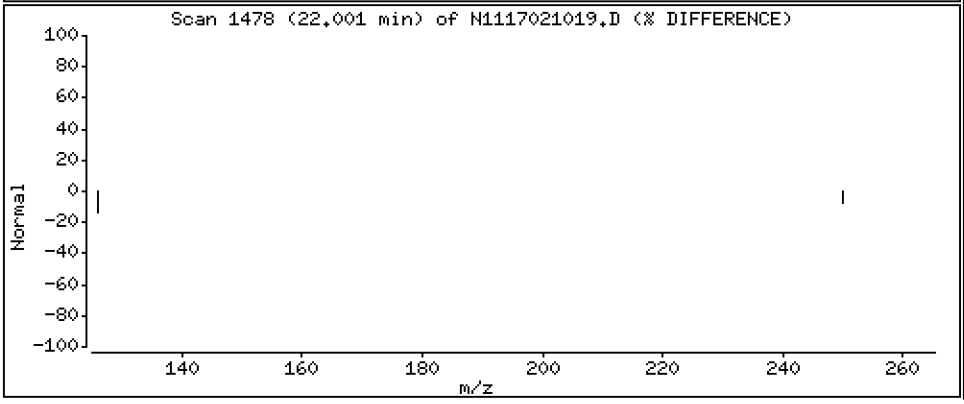
35 Benzo(a)pyrene

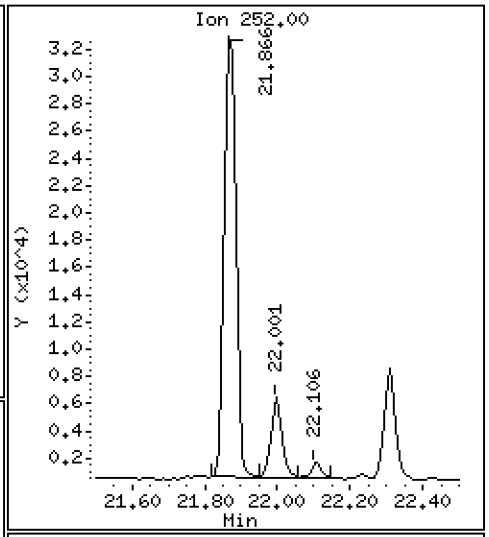
Concentration: 11.1 ng/mL

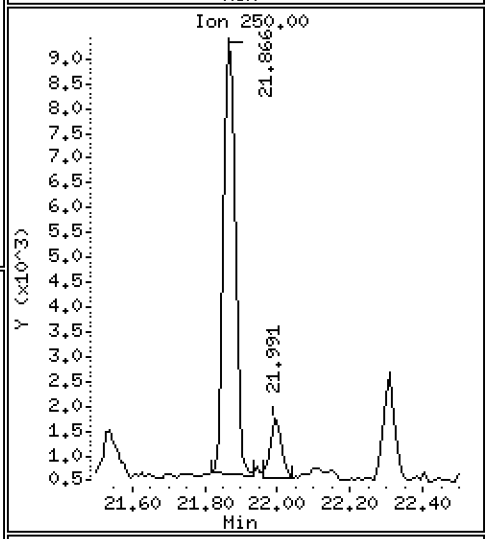


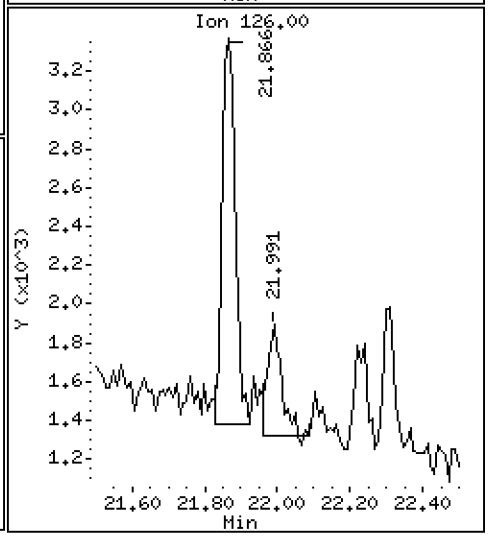












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Date : 10-FEB-2017 21:48

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-12

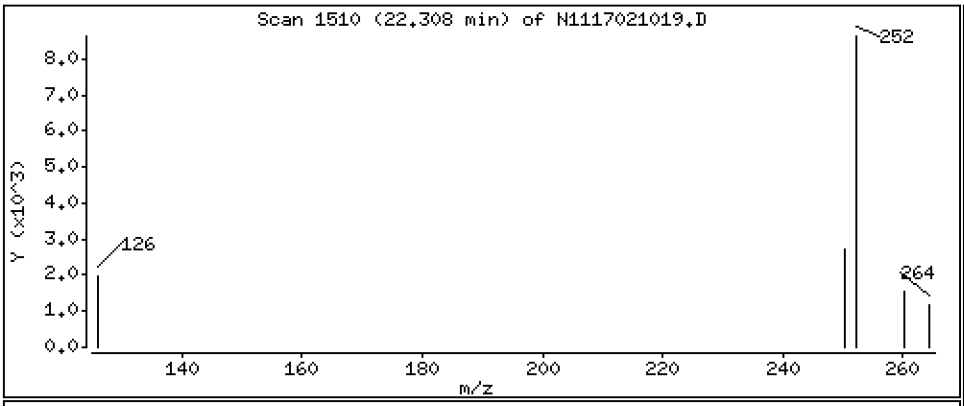
Operator: VTS

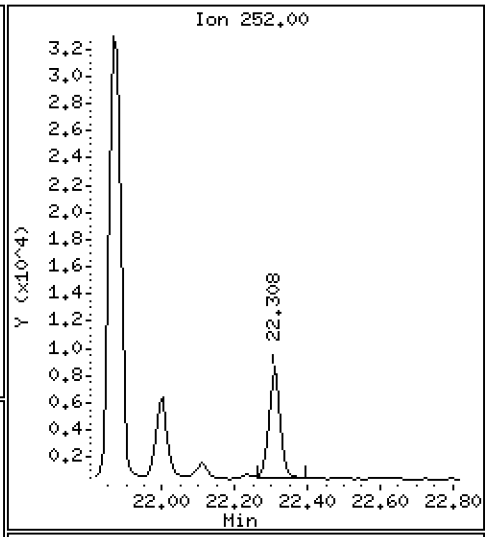
Column phase: Rxi-17Sil MS

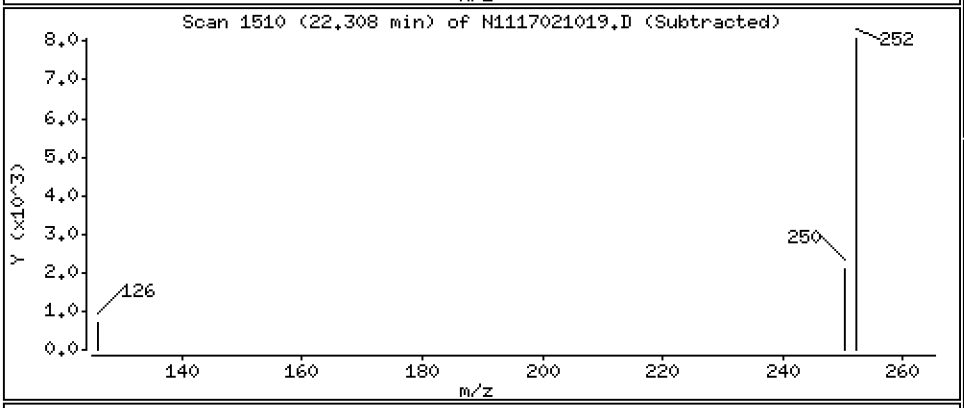
Column diameter: 0.25

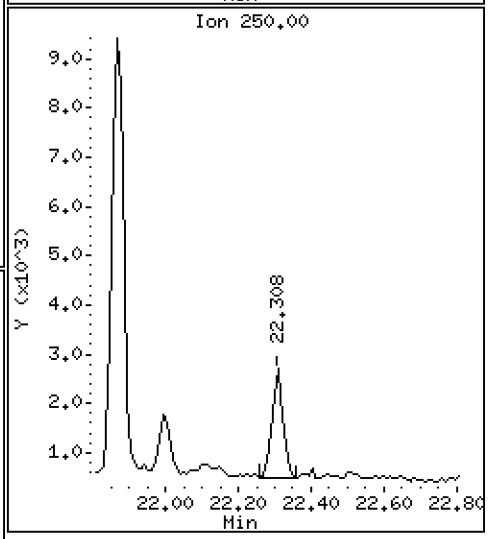
37 Perylene

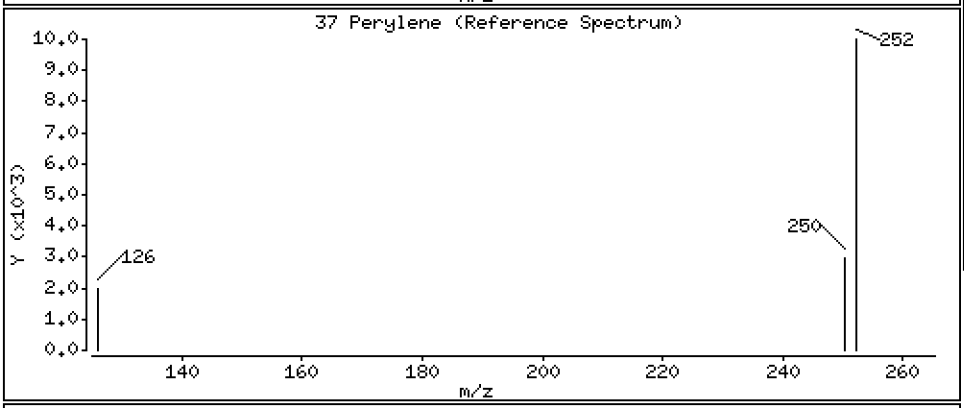
Concentration: 15.1 ng/mL

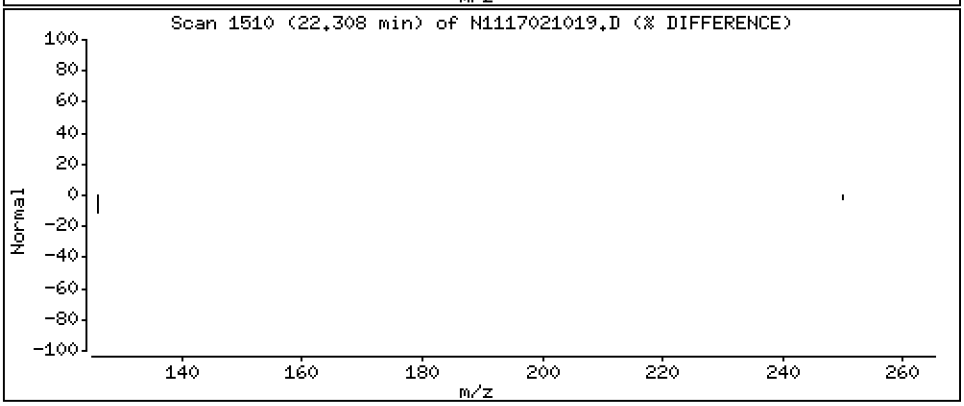












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021019.D

Date : 10-FEB-2017 21:48

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-12

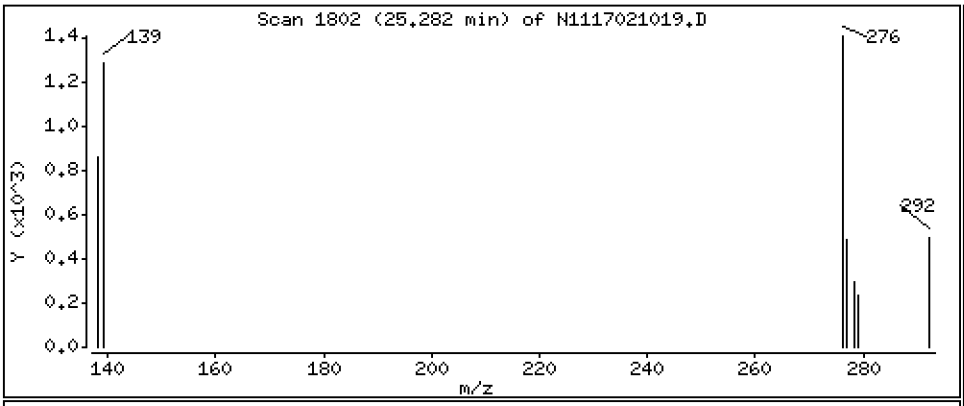
Operator: VTS

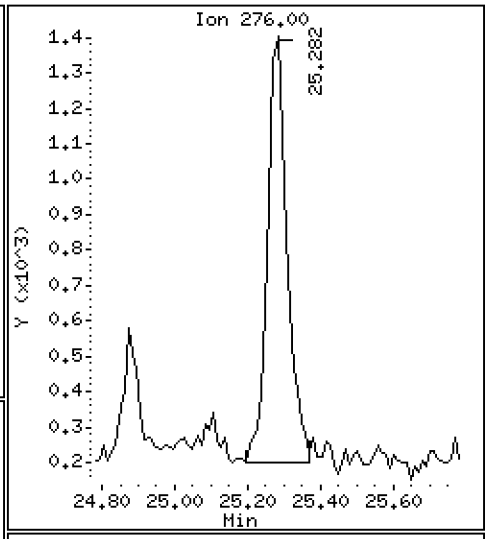
Column phase: Rxi-17Sil MS

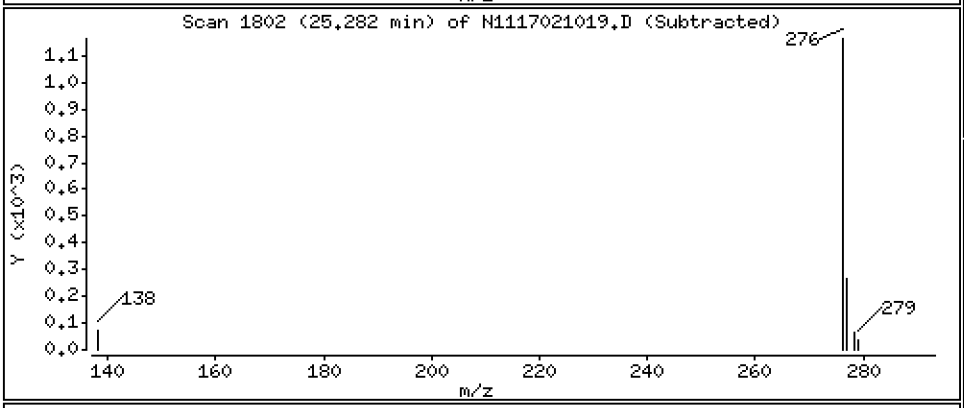
Column diameter: 0.25

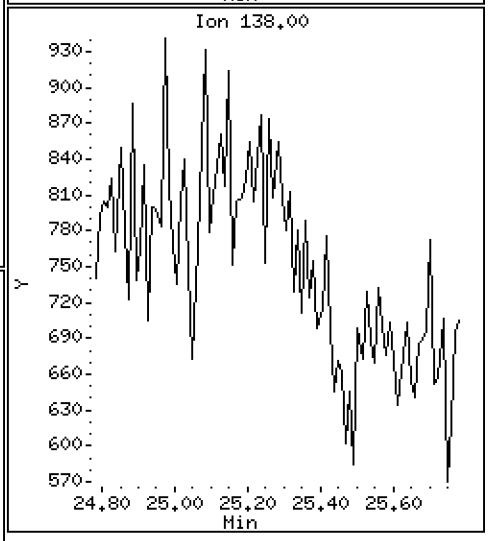
40 Indeno(1,2,3-cd)pyrene

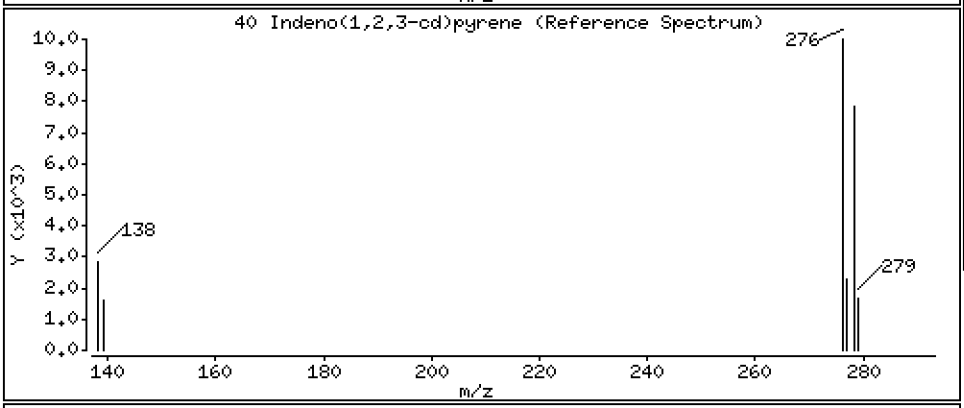
Concentration: 3.50 ng/mL

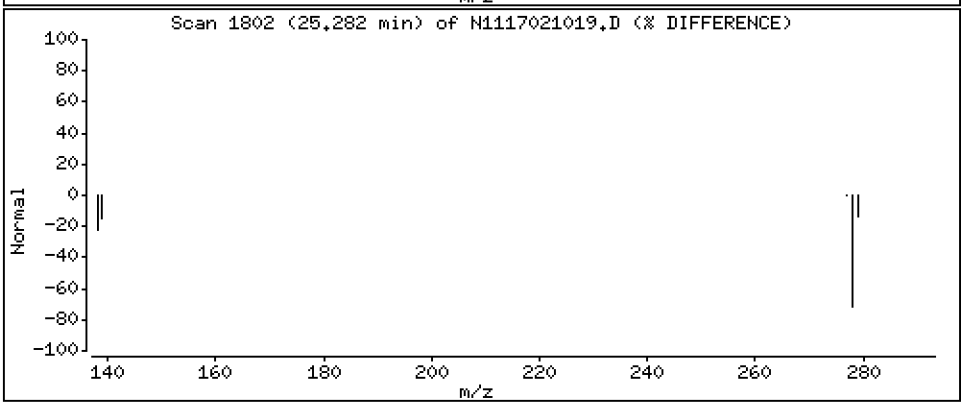












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021019.D

Date : 10-FEB-2017 21:48

Client ID:

Instrument: nt11.i

Sample Info: 17A0053-12

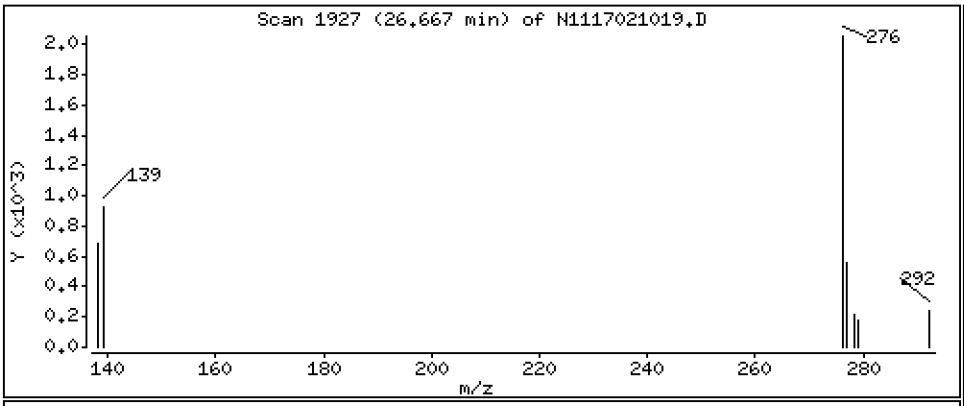
Operator: VTS

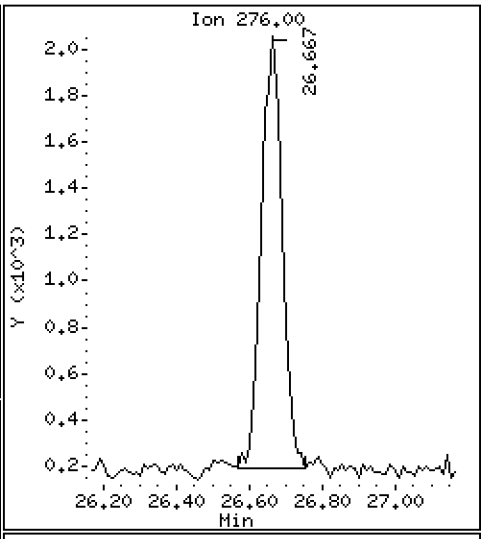
Column phase: Rxi-17Sil MS

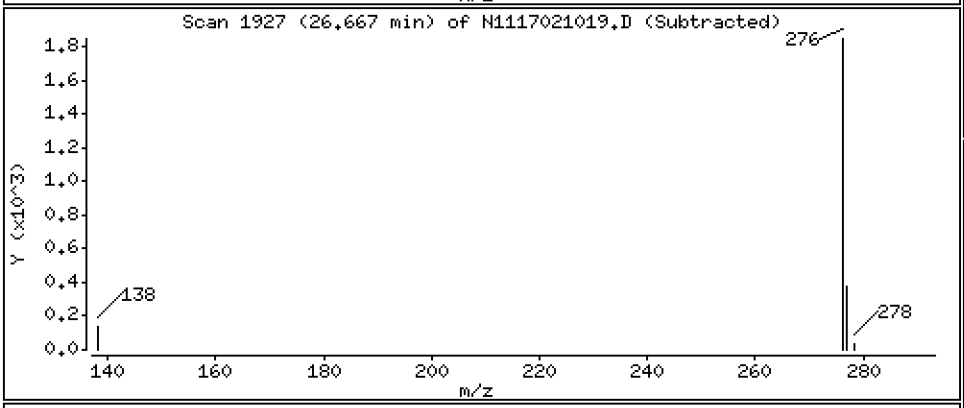
Column diameter: 0.25

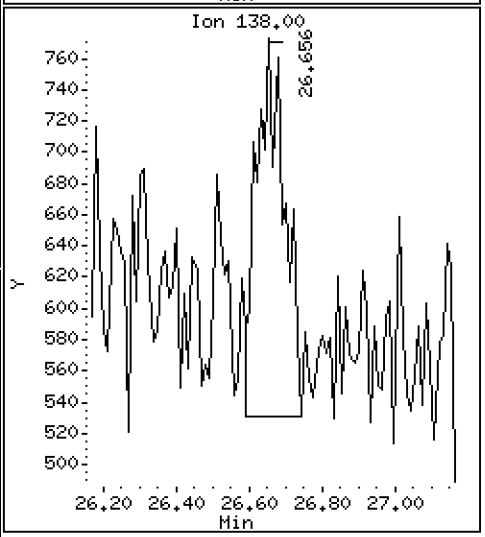
41 Benzo(g,h,i)perylene

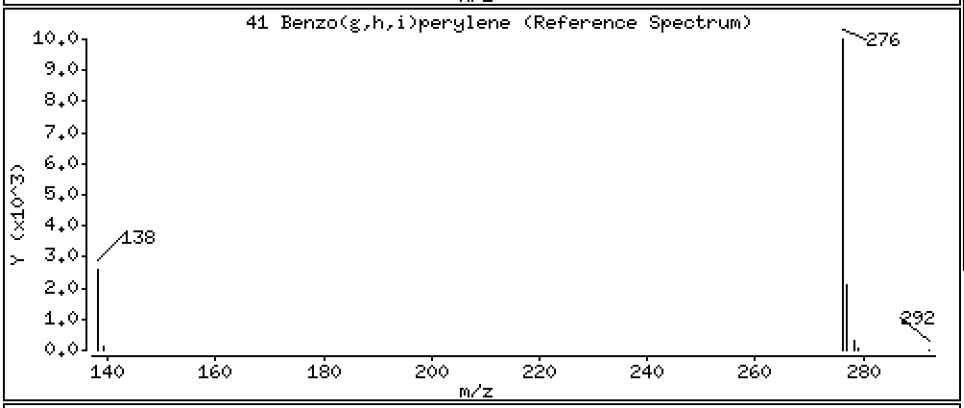
Concentration: 6.49 ng/mL

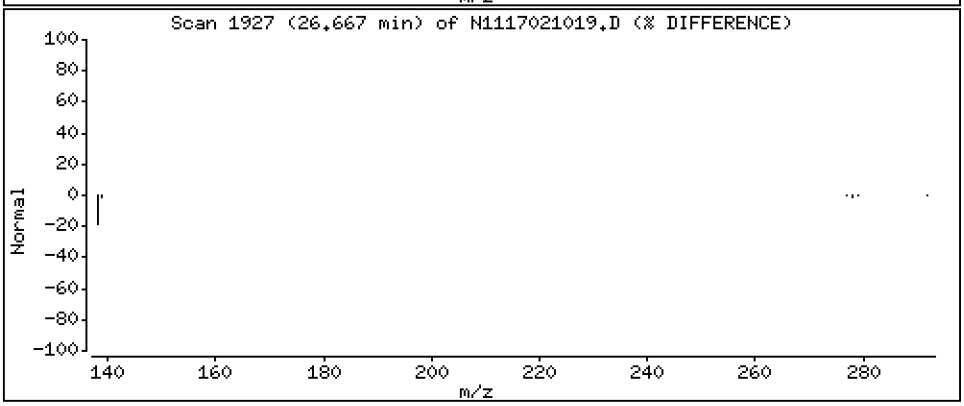












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20170210.b\N1117021019.D
Lab Smp Id: 17A0053-12
Inj Date : 10-FEB-2017 21:48 MS Autotune Date: 15-JAN-2015 15:59
Operator : VTS Inst ID: nt11.i
Smp Info : 17A0053-12
Misc Info :
Comment   :
Method   : \\target\share\chem3\nt11.i\20170210.b\LOWSIM.m
Meth Date : 11-Feb-2017 08:35 nt11.i Quant Type: ISTD
Cal Date : 31-DEC-2016 09:30 Cal File: N1116123104.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.518	8.526	(1.000)	227725	200.000	
	2 Naphthalene	128	Compound Not Detected.					
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.498	9.508	(1.115)	109633	112.098	112
	5 2-Methylnaphthalene	142	9.561	9.561	(1.122)	8874	7.92267	7.92
	6 1-Methylnaphthalene	142	9.824	9.823	(1.153)	4956	4.39932	4.40
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	Compound Not Detected.					
*	11 Acenaphthene-d10	164	11.555	11.564	(1.000)	158745	200.000	
	12 Acenaphthene	153	11.618	11.627	(1.005)	11790	12.5540	12.6
	13 Dibenzofuran	168	11.822	11.822	(1.023)	22909	16.4095	16.4
	14 2,3,5-Trimethylnaphthalene	170	11.911	11.923	(1.031)	3031	3.39287	3.39(M)
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.454	12.454	(1.078)	28825	25.9356	25.9
	17 Dibenzothiophene	184	14.083	14.083	(0.988)	8535	7.33484	7.33(M)
*	18 Phenanthrene-d10	188	14.252	14.262	(1.000)	251996	200.000	
	19 Phenanthrene	178	14.294	14.293	(1.003)	216910	150.557	151
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.346	14.356	(1.007)	52428	36.4960	36.5
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	15.298	15.307	(1.073)	18348	12.4184	12.4(M)
$	24 Fluoranthene-d10	212	16.367	16.367	(1.148)	167220	124.938	125
	25 Fluoranthene	202	16.406	16.405	(1.151)	298768	182.817	183
	26 Pyrene	202	16.905	16.915	(0.889)	272455	202.102	202
	27 Benzo(a)anthracene	228	18.925	18.933	(0.995)	59345	47.5563	47.6
*	28 Chrysene-d12	240	19.024	19.024	(1.000)	207529	200.000	
	29 Chrysene	228	19.074	19.074	(1.003)	98328	76.7895	76.8
	30 Benzo(b)fluoranthene	252	21.001	21.001	(0.945)	49217	39.9003	39.9
	31 Benzo(k)fluoranthene	252	21.049	21.049	(0.947)	24174	18.1953	18.2
	32 Benzo(j)fluoranthene	252	21.126	21.125	(0.950)	22556	19.0461	19.0
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	34 Benzo(e)pyrene	252	21.866	21.875	(0.984)	69802	56.7302	56.7
	35 Benzo(a)pyrene	252	22.000	22.000	(0.990)	12795	11.1268	11.1
*	36 Perylene-d12	264	22.231	22.240	(1.000)	228830	200.000	
	37 Perylene	252	22.308	22.317	(1.003)	18100	15.0754	15.1
$	38 Dibenzo(a,h)anthracene-d14	292	25.105	25.116	(1.129)	101650	139.101	139
	39 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	40 Indeno(1,2,3-cd)pyrene	276	25.282	25.282	(1.137)	4391	3.49754	3.50
	41 Benzo(g,h,i)perylene	276	26.666	26.666	(1.200)	7315	6.48987	6.49

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: N1117021019.D
Lab Smp Id: 17A0053-12
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20170210.b\LOWSIM.m
Misc Info:

Calibration Date: 10-FEB-2017
Calibration Time: 13:29
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	219654	109827	439308	227725	3.67
11 Acenaphthene-d10	135248	67624	270496	158745	17.37
18 Phenanthrene-d10	257021	128511	514042	251996	-1.96
28 Chrysene-d12	259511	129756	519022	207529	-20.03
36 Perylene-d12	257535	128768	515070	228830	-11.15

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.53	8.03	9.03	8.52	-0.10
11 Acenaphthene-d10	11.56	11.06	12.06	11.56	-0.08
18 Phenanthrene-d10	14.26	13.76	14.76	14.25	-0.07
28 Chrysene-d12	19.02	18.52	19.52	19.02	0.00
36 Perylene-d12	22.24	21.74	22.74	22.23	-0.04

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1117021019.D

Lab ID: 17A0053-12
nt11.i, 20170210.b\LOWSIM.m,   10-FEB-2017 21:48

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

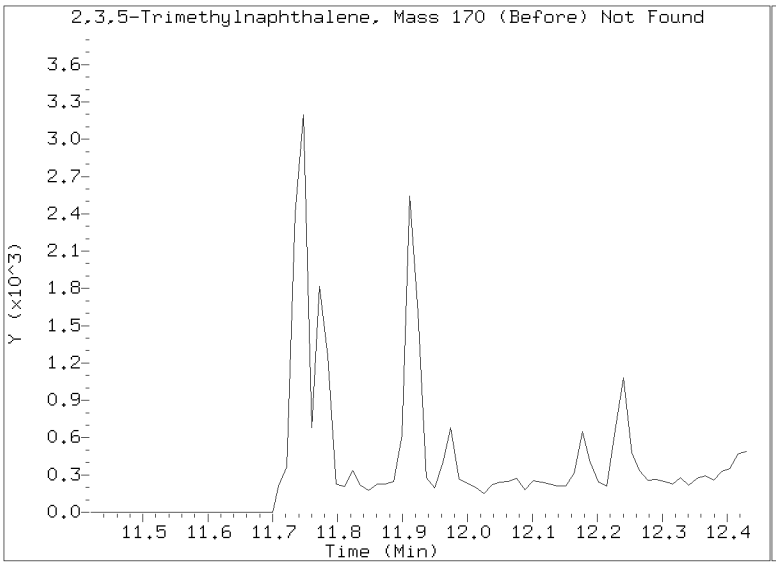
NONE

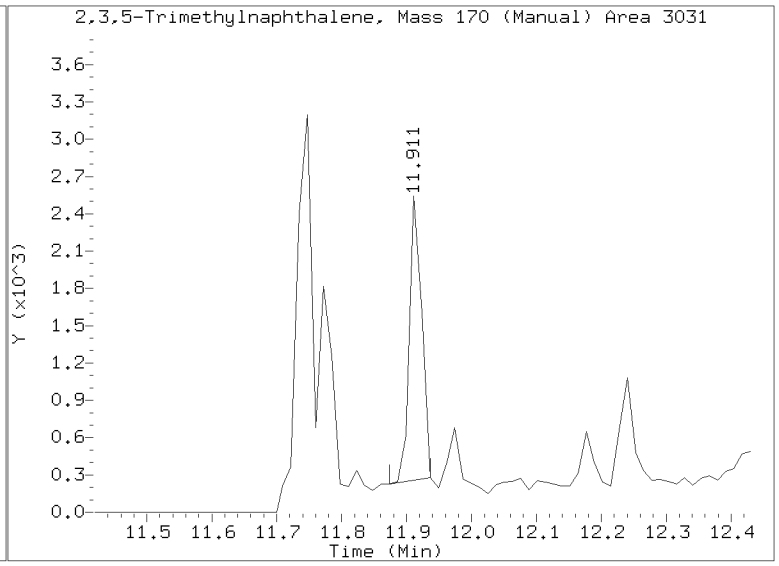
On Column LOD for nt11.i, 20170210.b\LOWSIM.m, allpna.sub = 3.0000

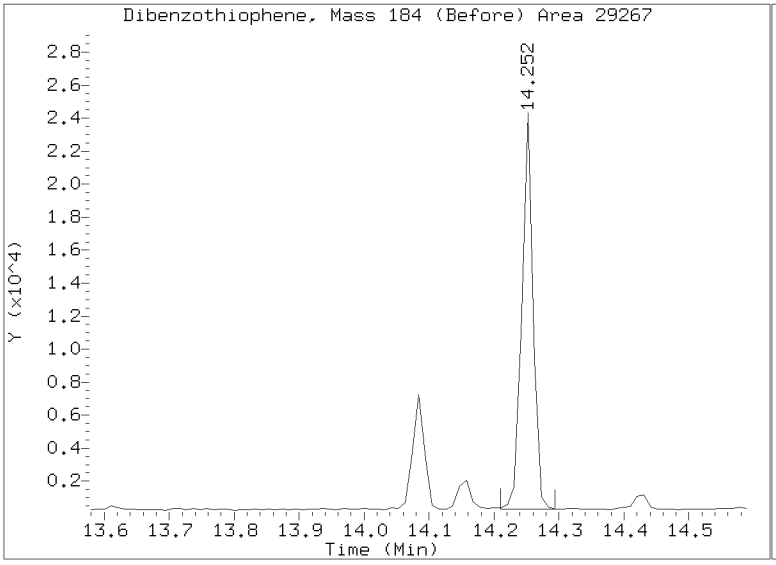
Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

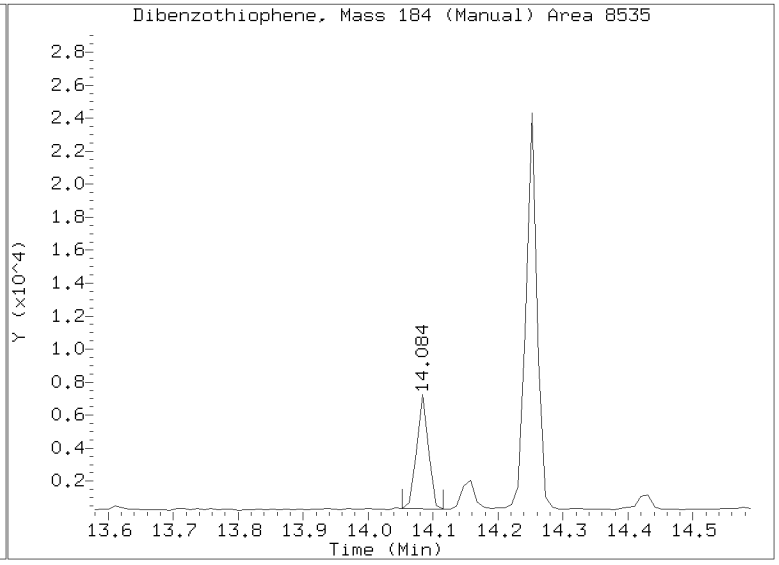
Quant Ion Manual Peak Adjustment Report

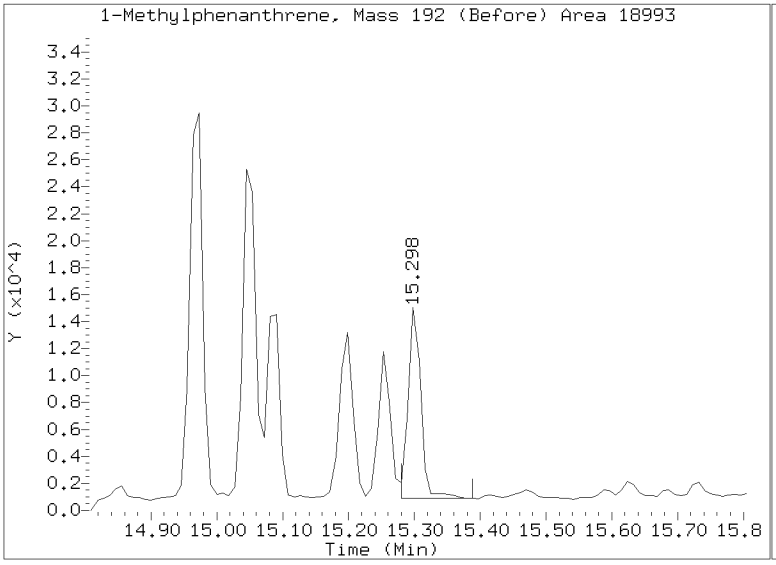
Datafile: //target/share/chem3/nt11.i/20170210.b/N1117021019.D
Injection Date: 10-FEB-2017 21:48
Lab ID:17A0053-12 Client ID:
Report Date: 02/11/2017 08:35

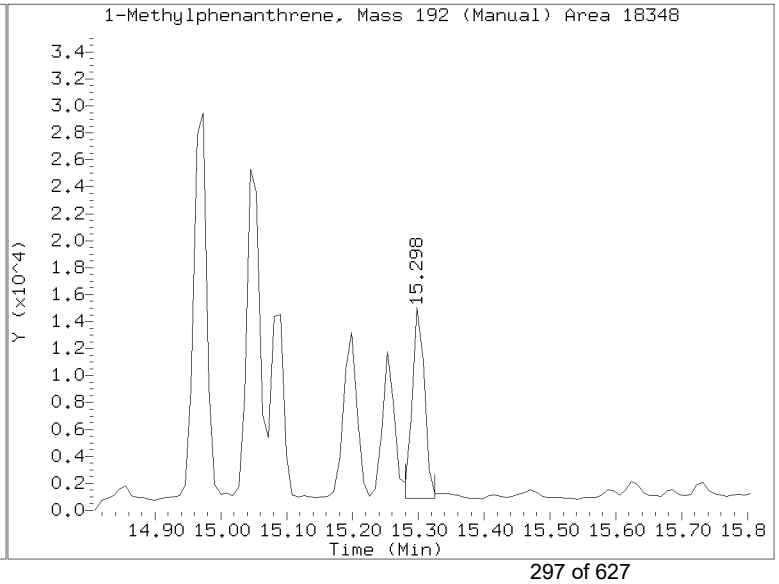












Analytical Resources, Incorporated

CLEANUP BATCH SUMMARY

Laboratory:	Analytical Resources, Inc.	SDG:	17A0053
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Cleanup Batch:	CFB0054	Cleanup Type:	GPC
Cleanup Method:	EPA 3640A GPC Cleanup	Analysis:	EPA 8270D-SIM

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARE	OBSERVATIONS
PG-SMA1-1-MUS-170105	17A0053-01	N1117021010.D	02/01/2017	
PG-WS-1-MUS-170105	17A0053-11	N1117021018.D	02/01/2017	
PG-SMA2-5-MUS-170105	17A0053-08	N1117021015.D	02/01/2017	
PG-SMA2-4-MUS-170105	17A0053-07	N1117021014.D	02/01/2017	
PG-SMA2-3-MUS-170105	17A0053-06	N1117021013.D	02/01/2017	
PG-SMA2-2-MUS-170105	17A0053-05	N1117021012.D	02/01/2017	
PG-SMA1-2-3-MUS-170105	17A0053-12	N1117021019.D	02/01/2017	
PG-PJ-1-MUS-170105	17A0053-09	N1117021016.D	02/01/2017	
PG-GP-1-MUS-170105	17A0053-10	N1117021103.D	02/01/2017	
PG-SMA2-1-MUS-170105	17A0053-04	N1117021011.D	02/01/2017	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

CLEANUP BENCH SHEET

CFB0054

Matrix: Tissue **Cleanup using: Organics - EPA 3640A GPC Cleanup** **Printed: 2/9/2017 3:22:46PM**

Lab Number	Sample Container	Sample Name	Extract Container	Initial (mL)	Final (mL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
17A0053-12	A	PG-SMA1-2-3-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/1/2017	WPW	
17A0053-11	A	PG-WS-1-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/1/2017	WPW	
17A0053-10	A	PG-GP-1-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/1/2017	WPW	
17A0053-09	A	PG-PJ-1-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/1/2017	WPW	
17A0053-08	A	PG-SMA2-5-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/1/2017	WPW	
17A0053-07	A	PG-SMA2-4-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/1/2017	WPW	
17A0053-06	A	PG-SMA2-3-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/1/2017	WPW	
17A0053-05	A	PG-SMA2-2-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/1/2017	WPW	
17A0053-04	A	PG-SMA2-1-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/1/2017	WPW	
17A0053-01	A	PG-SMA1-1-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/1/2017	WPW	
16K0124-01	A	PG-T0-MUS-COC-161109	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/1/2017	WPW	
BFA0647-MSD1	-	Matrix Spike Dup	-	0.5	0.5	-	2/1/2017	WPW	
BFA0647-MS1	-	Matrix Spike	-	0.5	0.5	-	2/1/2017	WPW	
BFA0647-BS1	-	LCS	-	0.5	0.5	-	2/1/2017	WPW	
BFA0647-BLK1	-	Blank	-	0.5	0.5	-	2/1/2017	WPW	

Cleanup Reviewed By Date

PREPARATION BATCH SUMMARY

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc. SDG: 17A0053

Client: Anchor QEA, LLC Project: Port Gamble Shellfish Monitoring

Batch: BFA0647 Batch Matrix: Tissue Preparation: EPA 3550C-Mod (Ultrasonic)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
PG-SMA1-1-MUS-170105	17A0053-01	N1117021010.D	01/31/17 13:45	
PG-SMA2-1-MUS-170105	17A0053-04	N1117021011.D	01/31/17 13:45	
PG-SMA2-2-MUS-170105	17A0053-05	N1117021012.D	01/31/17 13:45	
PG-SMA2-3-MUS-170105	17A0053-06	N1117021013.D	01/31/17 13:45	
PG-SMA2-4-MUS-170105	17A0053-07	N1117021014.D	01/31/17 13:45	
PG-SMA2-5-MUS-170105	17A0053-08	N1117021015.D	01/31/17 13:45	
PG-PJ-1-MUS-170105	17A0053-09	N1117021016.D	01/31/17 13:45	
PG-GP-1-MUS-170105	17A0053-10	N1117021103.D	01/31/17 13:45	LIMITED VOLUME, only take minimum amount needed
PG-WS-1-MUS-170105	17A0053-11	N1117021018.D	01/31/17 13:45	
PG-SMA1-2-3-MUS-170105	17A0053-12	N1117021019.D	01/31/17 13:45	LIMITED VOLUME, only take minimum amount needed
Blank	BFA0647-BLK1	N1117021007.D	01/31/17 13:45	
LCS	BFA0647-BS1	N1117021008.D	01/31/17 13:45	
PG-SMA2-2-MUS-170105	BFA0647-MS1	N1117021020.D	01/31/17 13:45	
PG-SMA2-2-MUS-170105	BFA0647-MSD1	N1117021021.D	01/31/17 13:45	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

Miscellaneous
~~Water/Soil/Sed/Tissue/Other~~
Separatory Funnel (3510C)/Liq-Liq (3520C)
~~Sonication (3550C)/Microwave (3546)~~
TissueMize (Modified 3550C)

Analysis SIM PNA LL

Preparation Test Misc # 1
Lab Number(s) 16K0124/17A0053 Page 1 of 1 Batch set up by: JW
Batch ID BFA0647

Bottle or JAR ID	Extraction Requirements	Weight ~~Or Volume~~ Extracted	Sonic Horn ID + Chk	(REQ/ ~~Opt~~) GPC Y/N	(REQ/ Opt) Acid Clean Y/N	(REQ/ Opt) Sulfur Clean Y/N	(REQ/ Opt) ~~SPE~~ Clean (EPH Aromatic) Y/N Silica Gel	Final Effective Volume mL	Vol to Lab mL	Comments
	BFA0647 - BLK1	10.00		1:1				0.5	0.5	
	BS1	10.00						0.5	0.5	
	~~BS Dup~~									
	~~MRL Check~~									
A	16K0124-01	10.18						0.5	0.5	
A	~~16K0~~ 17A0053-01	10.21						0.5	0.5	
A	17A0053-04	10.04						0.5	0.5	
A	-05	10.18						0.5	0.5	
A	-06	10.23						0.5	0.5	
A	-07	10.10						0.5	0.5	
A	-08	10.03						0.5	0.5	
A	-09	10.07						0.5	0.5	
A	-10	10.19						0.5	0.5	
A	-11	10.10						0.5	0.5	
A	-12	10.19						0.5	0.5	
A	BFA0647-MS1	10.20						0.5	0.5	17A0053-05
A	BFA0647-MSD1	10.10						0.5	0.5	17A0053-05
Analyst/Date				2/1/17			2/9/17	2/9/17	2/9/17	Reviewed by/Date 2/9/17

Verify Client ID 1/31/17 Analyst/Date

Pre-GPC KD 1 2 3 4 5 6 100 °C 2/10/17 Exchange to Hex? Analyst/Date

TurboVap Pre-GPC (1) 2 3 4 5 2/1/17 Analyst/Date

2/2/17 Post GPC KD 1 2 3 4 5 6 80 °C Exchange to Hex? (x2) 20mL Analyst/Date

TurboVap Post-GPC (1) 2 3 4 5 SP 2/9/17 Analyst/Date

TurboVap Pre-Cleanups (1) 2 3 4 5 SP 2/9/17 Analyst/Date

TurboVap Post-Cleanups (1) 2 3 4 5 2/9/17 Analyst/Date

Standard	Standard ID	Concentration	Volume	Expiration Date	Analyst	Witness
Surrogate	I (E006470)	1.5/7.5 ug/mL	100 µL	11/09/17		
Spike	18 (E006479)	1.5/7.5 ug/mL	100 µL	11/09/17		
Spike	( )		µL			
Spike	( )		µL			
MRL Spike	( )		µL			
Extraction Time: 14:28	Liq/Liq Start:	Liq/Liq Stop:		Balance ID: B139298402		

SPECIAL INSTRUCTIONS: (2x) 1:1 DCM:ACE
(1x) DCM only LL

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

Extraction Parameter: SIMPNA LL

Element Batch: BFA0647 Work Order(s): 17A0053/16K0424

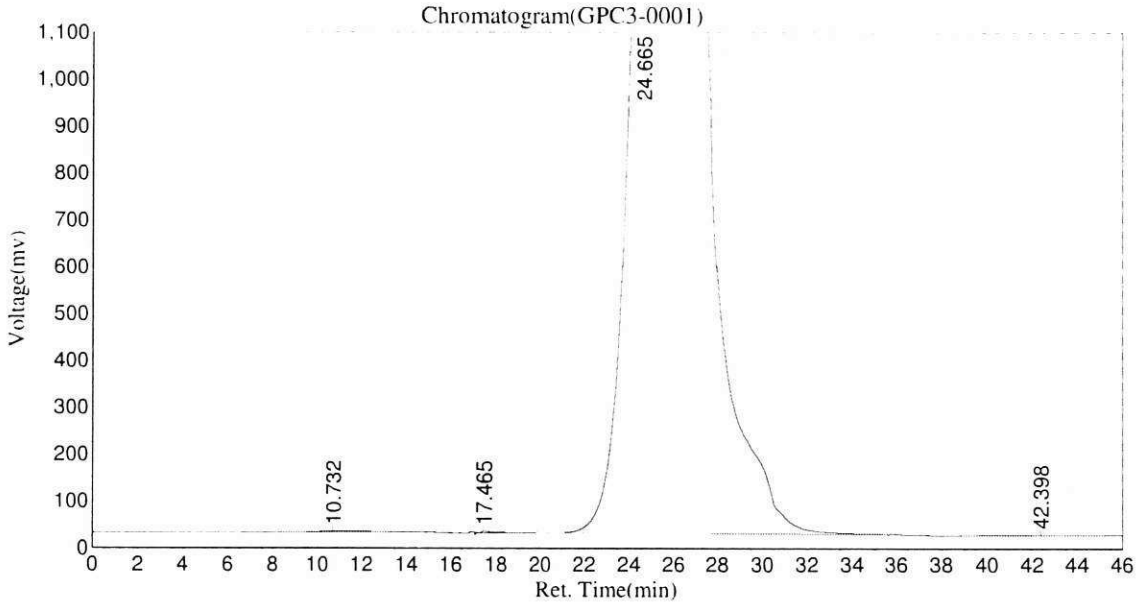
Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	
☐ Standing Water Decanted (Not shared)=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Received in 32oz jar(s)=Homogenized in Pyrex dish=	
☐ Other (Details)=	
Aqueous:	
☐ No Anomalies	
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
☐ Received in 1.0L Bottle(s)=No Bottle Rinse=	
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	
☐ Share Samples Y / N	
☐ Multiple Jars Y / N	
☐ Sample Pre-Screens indicate analyte activity=	
☐ Sample weights/volumes reduced based on Pre-Screen=	

BFA0647 16K0124 / 17A0053

Date:2017-02-01,8:18:08 PM
Data File:c:\n2000\data1\020117\GPC3-0001
Method File:C:\N2000\LL-Tiss.mtd

BLK

Analyst£ºWW
Date/Time2017-02-01,8:18:08 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		10.732	1892.776	251303.406	0.0673
2		17.465	4878.688	284772.813	0.0763
3		24.665	1349233.375	372737216.000	99.8163
4		42.398	855.021	150069.203	0.0402
Total			1356859.860	373423361.422	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	BAN Collect	17.000	0.100	0.00E+000	0.00E+000	0.0000
2	Pest Collect	21.000	0.100	0.00E+000	0.00E+000	0.0000
3	Pest Dump	35.000	0.100	0.00E+000	0.00E+000	0.0000
4	BAN Dump	36.000	0.100	0.00E+000	0.00E+000	0.0000

BFA0647 16K0124 / 17A0053

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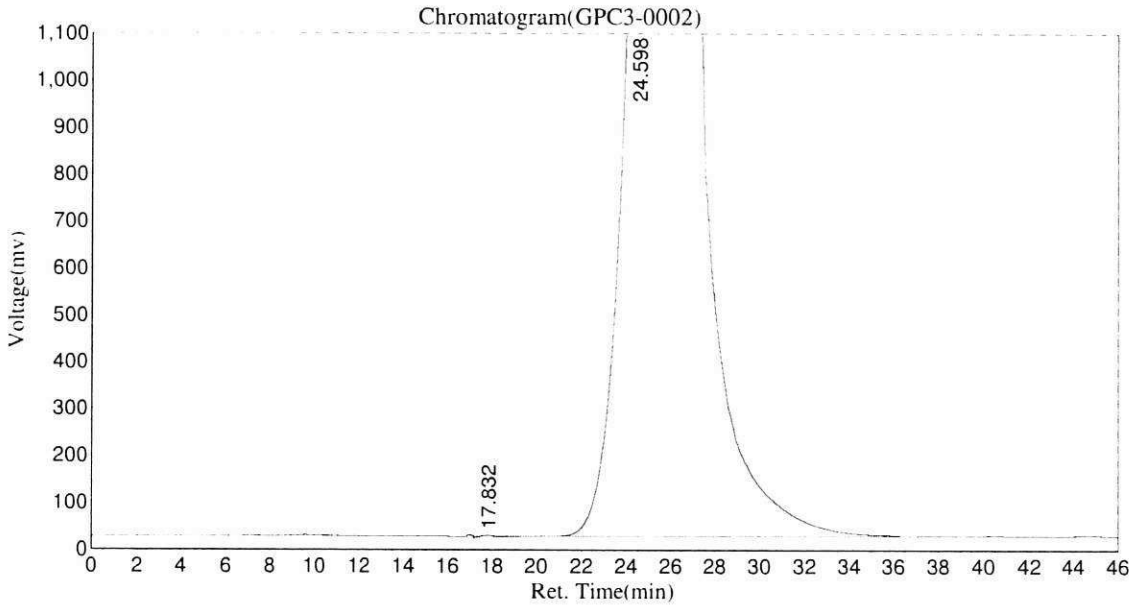
BS

Analyst£°WW
Date/Time2017-02-01,9:05:50 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.832	4186.750	363548.000	0.0970
2		24.598	1351818.375	374386080.000	99.9030
Total			1356005.125	374749628.000	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	BAN Collect	17.000	0.100	0.00E+000	0.00E+000	0.0000
2	Pest Collect	21.000	0.100	0.00E+000	0.00E+000	0.0000
3	Pest Dump	35.000	0.100	0.00E+000	0.00E+000	0.0000
4	BAN Dump	36.000	0.100	0.00E+000	0.00E+000	0.0000

BFA0647 16K0124 / 17A0053

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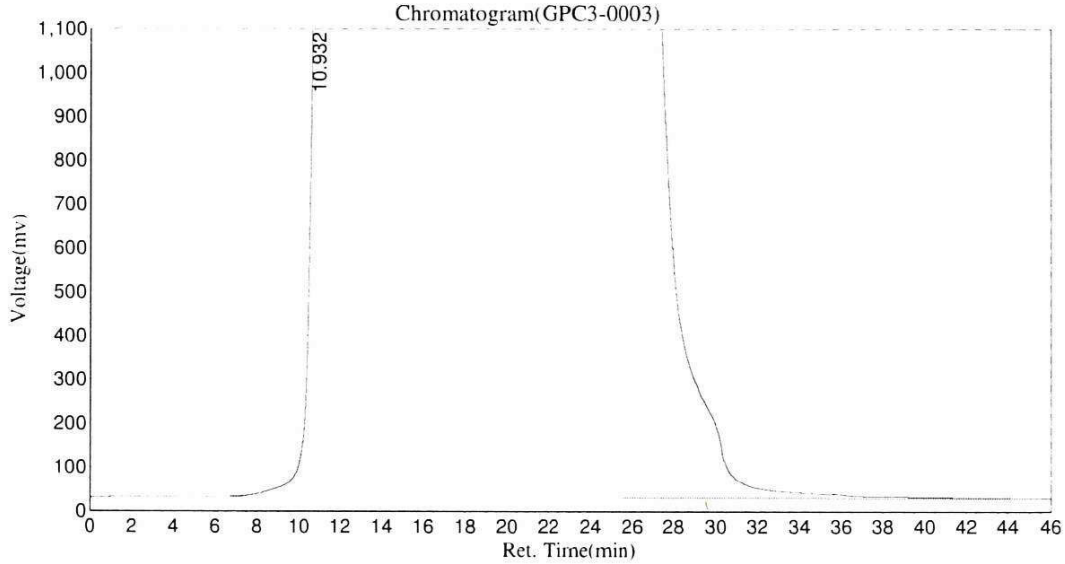
Date/Time2017-02-01,9:53:35 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		10.932	1347803.750	1447435264.000	100.0000
Total			1347803.750	1447435264.000	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	BAN Collect	17.000	0.100	0.00E+000	0.00E+000	0.0000
2	Pest Collect	21.000	0.100	0.00E+000	0.00E+000	0.0000
3	Pest Dump	35.000	0.100	0.00E+000	0.00E+000	0.0000
4	BAN Dump	36.000	0.100	0.00E+000	0.00E+000	0.0000

BFA0647 ~~16K0124~~ / 17A0053

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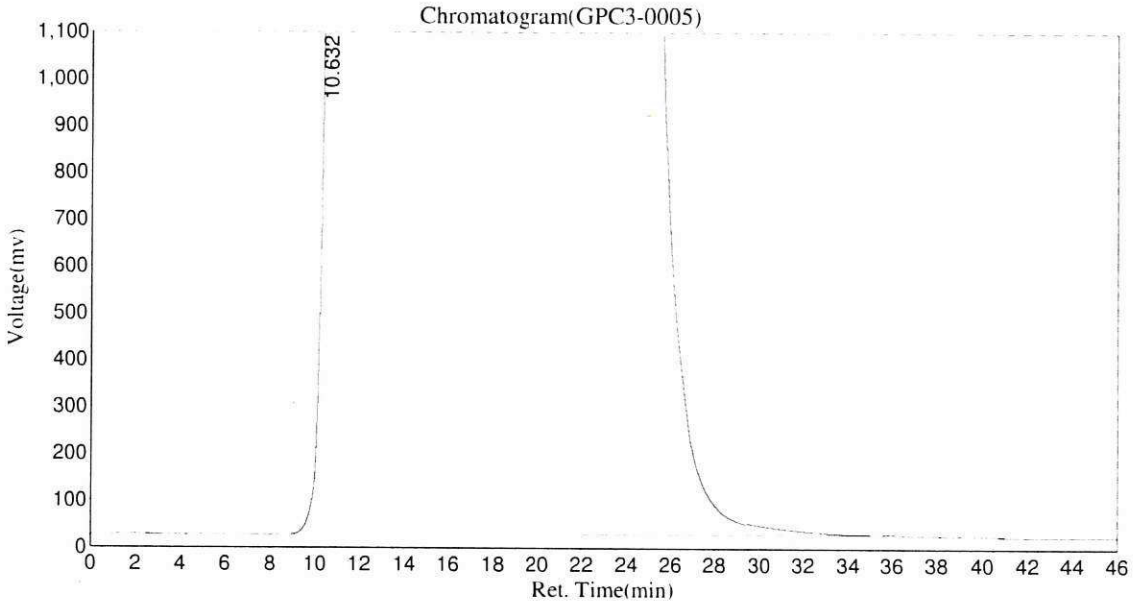

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		10.632	1352818.500	1263109376.000	100.0000
Total			1352818.500	1263109376.000	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	BAN Collect	17.000	0.100	0.00E+000	0.00E+000	0.0000
2	Pest Collect	21.000	0.100	0.00E+000	0.00E+000	0.0000
3	Pest Dump	35.000	0.100	0.00E+000	0.00E+000	0.0000
4	BAN Dump	36.000	0.100	0.00E+000	0.00E+000	0.0000

BFA0647 16K0124 / 17A0053

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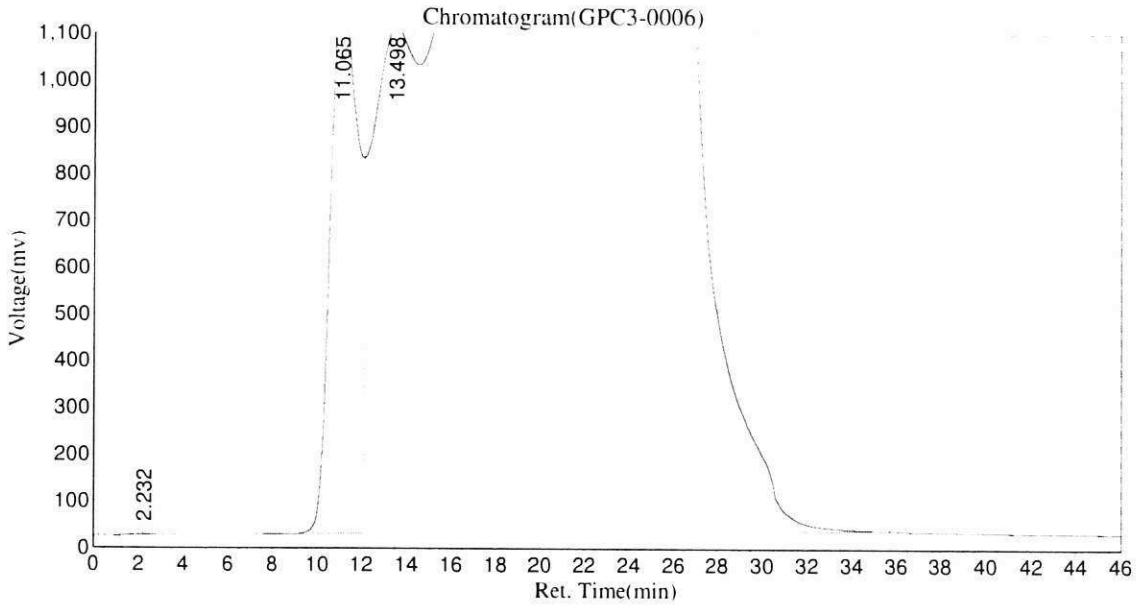

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		2.232	2017.805	221809.406	0.0170
2		11.065	1186788.000	102335560.000	7.8587
3		13.498	1080047.750	1199636864.000	92.1243
Total			2268853.555	1302194233.406	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	BAN Collect	17.000	0.100	0.00E+000	0.00E+000	0.0000
2	Pest Collect	21.000	0.100	0.00E+000	0.00E+000	0.0000
3	Pest Dump	35.000	0.100	0.00E+000	0.00E+000	0.0000
4	BAN Dump	36.000	0.100	0.00E+000	0.00E+000	0.0000

BFA0647 16K0124 / 17A0053

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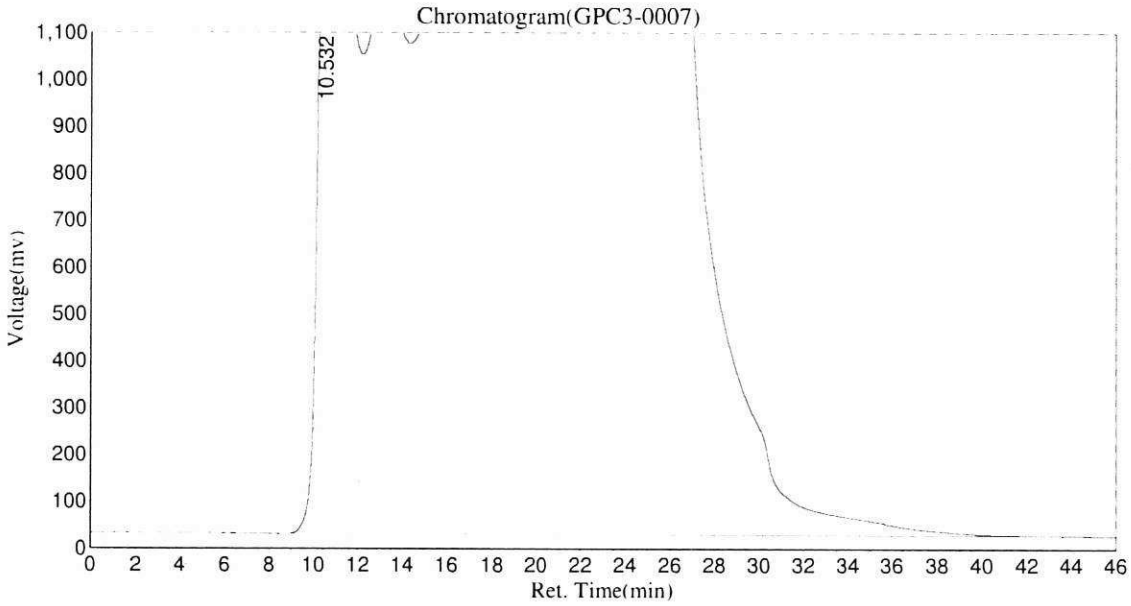

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		10.532	1349657.125	1422353920.000	100.0000
Total			1349657.125	1422353920.000	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	BAN Collect	17.000	0.100	0.00E+000	0.00E+000	0.0000
2	Pest Collect	21.000	0.100	0.00E+000	0.00E+000	0.0000
3	Pest Dump	35.000	0.100	0.00E+000	0.00E+000	0.0000
4	BAN Dump	36.000	0.100	0.00E+000	0.00E+000	0.0000

BFA0647 16K0124 / 17A0053

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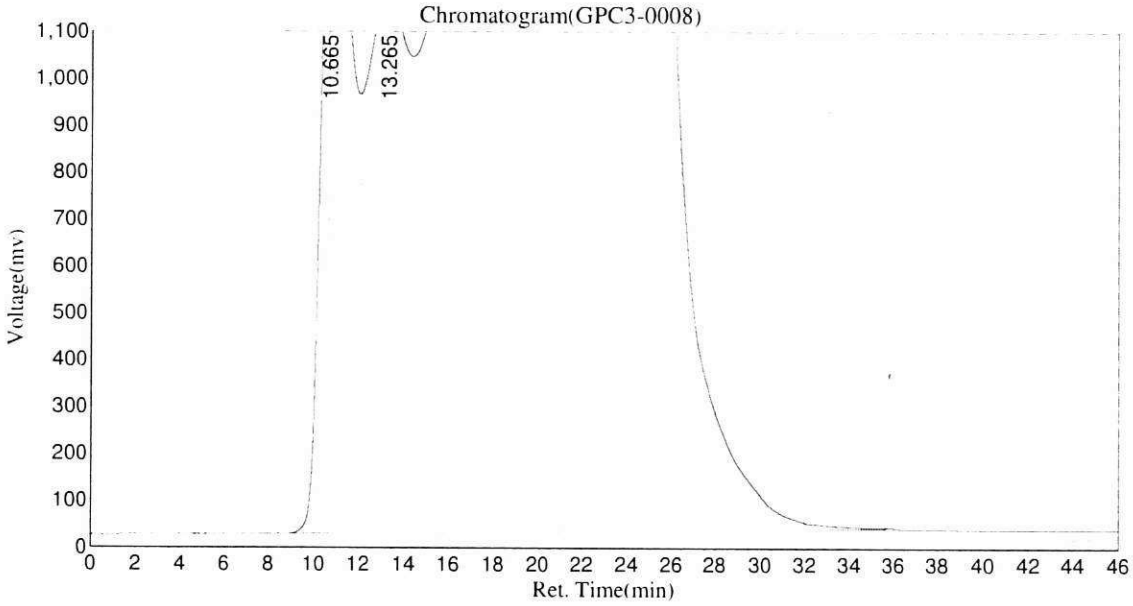

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		10.665	1350788.250	40699824.000	3.4401
2		13.265	1153888.250	1142399232.000	96.5599
Total			2504676.500	1183099056.000	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	BAN Collect	17.000	0.100	0.00E+000	0.00E+000	0.0000
2	Pest Collect	21.000	0.100	0.00E+000	0.00E+000	0.0000
3	Pest Dump	35.000	0.100	0.00E+000	0.00E+000	0.0000
4	BAN Dump	36.000	0.100	0.00E+000	0.00E+000	0.0000

BFA0647 ~~16K0124~~ / 17A0053

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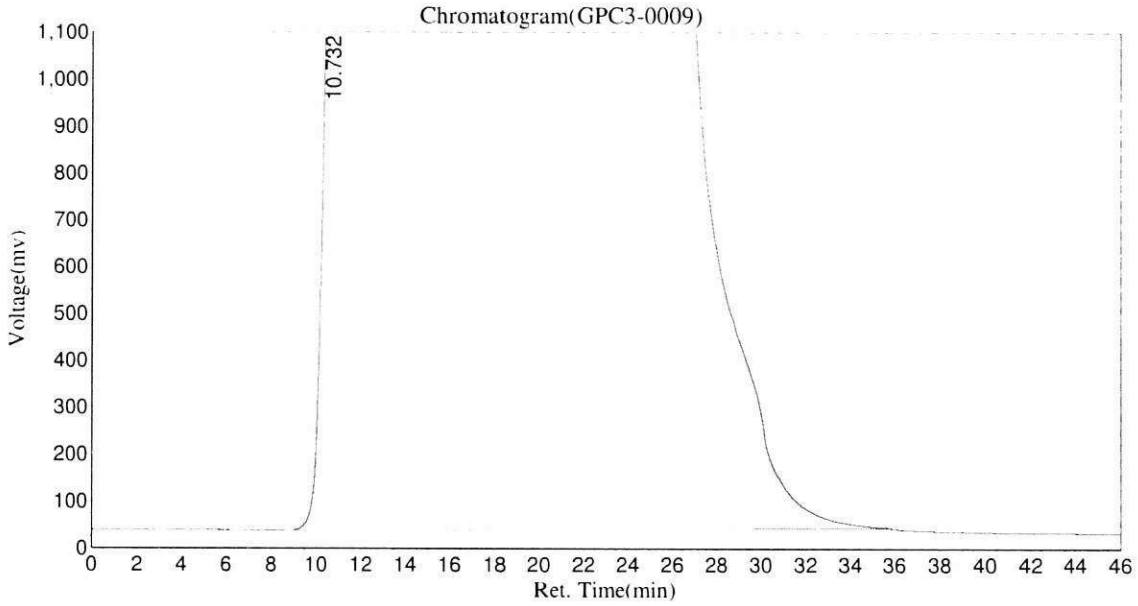

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		10.732	1341333.375	1459236096.000	100.0000
Total			1341333.375	1459236096.000	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	BAN Collect	17.000	0.100	0.00E+000	0.00E+000	0.0000
2	Pest Collect	21.000	0.100	0.00E+000	0.00E+000	0.0000
3	Pest Dump	35.000	0.100	0.00E+000	0.00E+000	0.0000
4	BAN Dump	36.000	0.100	0.00E+000	0.00E+000	0.0000

BFA0647 16K0124 / 17A0053

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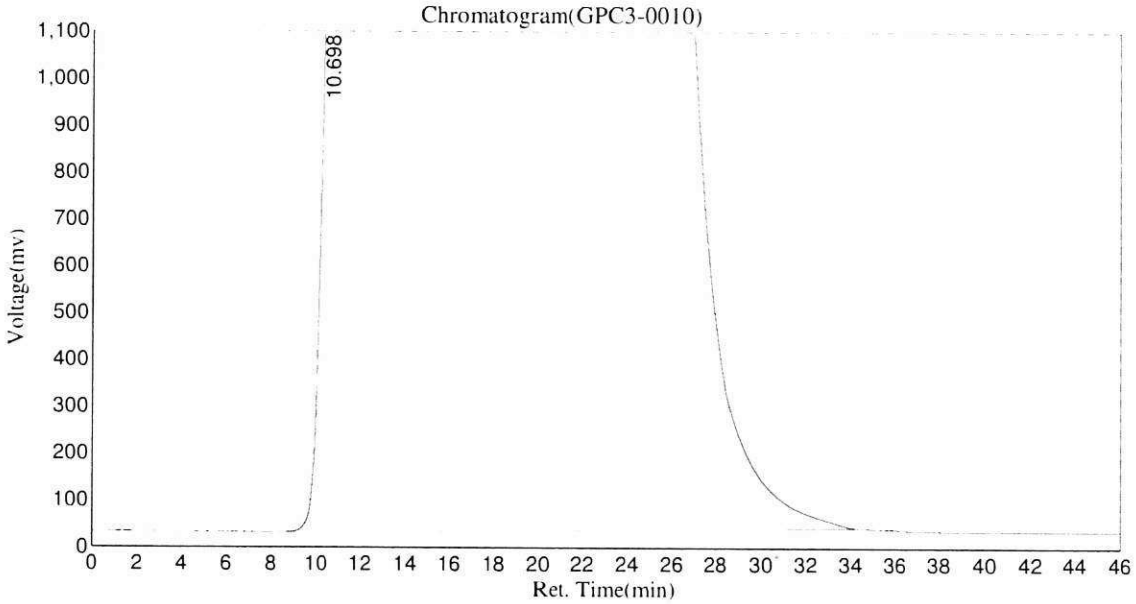

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		10.698	1347706.500	1419859456.000	100.0000
Total			1347706.500	1419859456.000	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	BAN Collect	17.000	0.100	0.00E+000	0.00E+000	0.0000
2	Pest Collect	21.000	0.100	0.00E+000	0.00E+000	0.0000
3	Pest Dump	35.000	0.100	0.00E+000	0.00E+000	0.0000
4	BAN Dump	36.000	0.100	0.00E+000	0.00E+000	0.0000

BFA0647 16K0124 / 17A0053

Date:2017-02-02,4:15:20 AM
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-98

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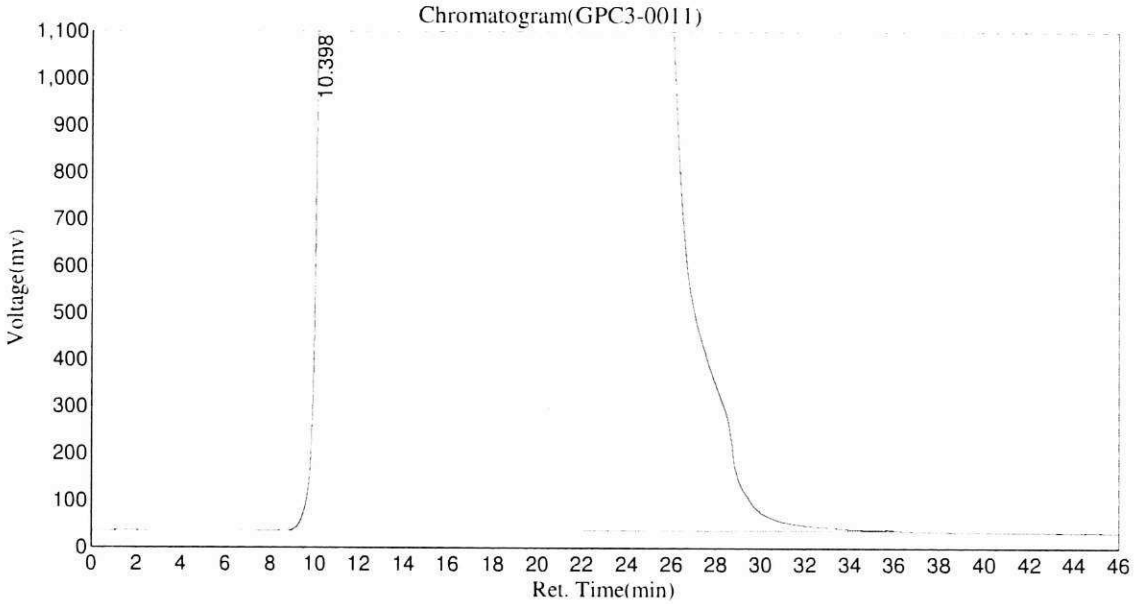

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		10.398	1344636.500	1376889088.000	100.0000
Total			1344636.500	1376889088.000	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	BAN Collect	17.000	0.100	0.00E+000	0.00E+000	0.0000
2	Pest Collect	21.000	0.100	0.00E+000	0.00E+000	0.0000
3	Pest Dump	35.000	0.100	0.00E+000	0.00E+000	0.0000
4	BAN Dump	36.000	0.100	0.00E+000	0.00E+000	0.0000

BFA0647 16K0124 / 17A0053

Date:2017-02-02,5:03:02 AM
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Method File:C:\N2000\LL-Tiss.mtd

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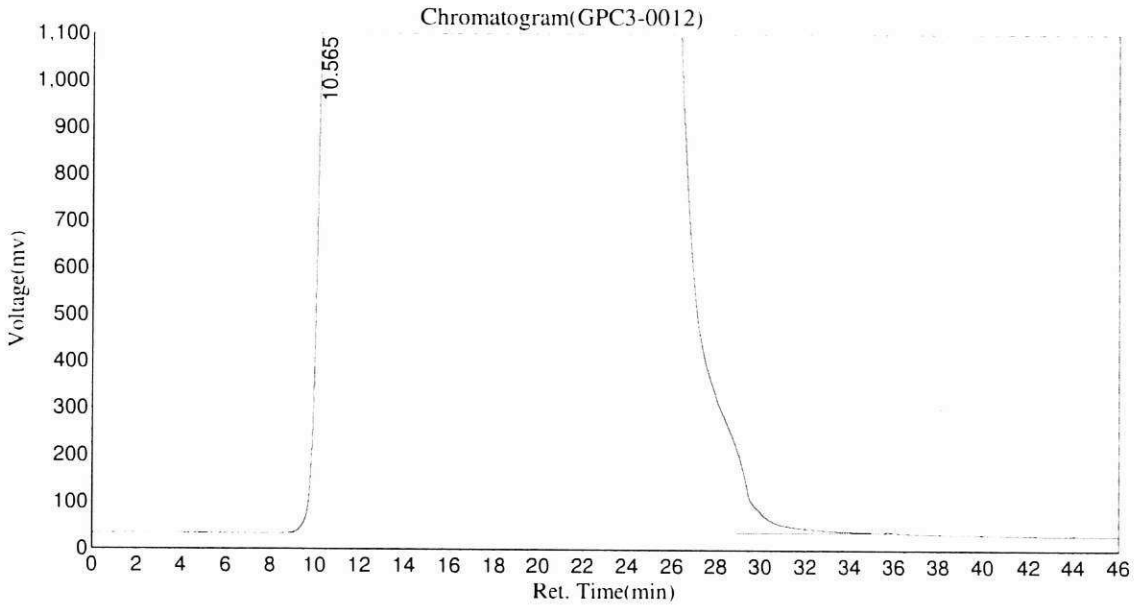

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		10.565	1346876.000	1386889088.000	100.0000
Total			1346876.000	1386889088.000	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	BAN Collect	17.000	0.100	0.00E+000	0.00E+000	0.0000
2	Pest Collect	21.000	0.100	0.00E+000	0.00E+000	0.0000
3	Pest Dump	35.000	0.100	0.00E+000	0.00E+000	0.0000
4	BAN Dump	36.000	0.100	0.00E+000	0.00E+000	0.0000

BFA0647 16K0124 / 17A0053

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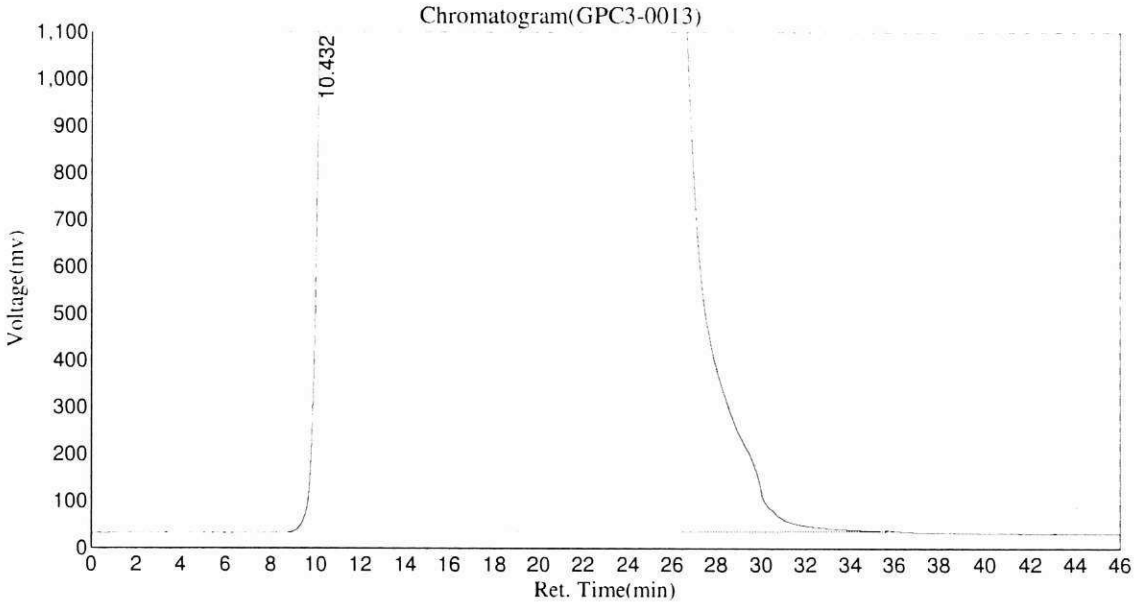

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		10.432	1346963.000	1422436992.000	100.0000
Total			1346963.000	1422436992.000	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	BAN Collect	17.000	0.100	0.00E+000	0.00E+000	0.0000
2	Pest Collect	21.000	0.100	0.00E+000	0.00E+000	0.0000
3	Pest Dump	35.000	0.100	0.00E+000	0.00E+000	0.0000
4	BAN Dump	36.000	0.100	0.00E+000	0.00E+000	0.0000

BFA0647 16K0124 / 17A0053

Date:2017-02-02,6:38:28 AM
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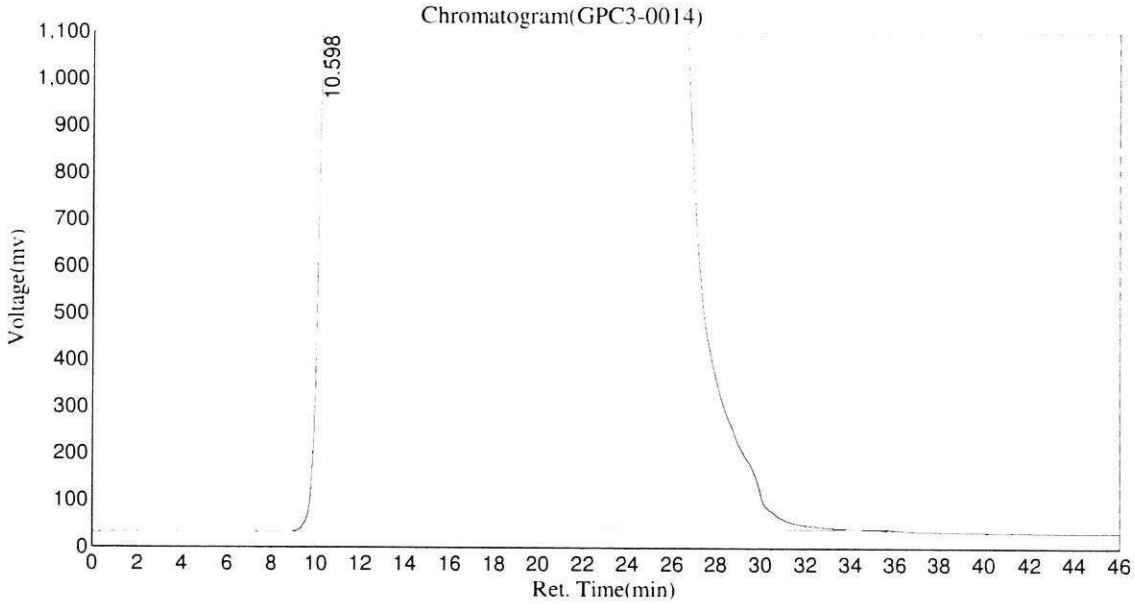

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		10.598	1347302.625	1410607872.000	100.0000
Total			1347302.625	1410607872.000	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	BAN Collect	17.000	0.100	0.00E+000	0.00E+000	0.0000
2	Pest Collect	21.000	0.100	0.00E+000	0.00E+000	0.0000
3	Pest Dump	35.000	0.100	0.00E+000	0.00E+000	0.0000
4	BAN Dump	36.000	0.100	0.00E+000	0.00E+000	0.0000

BFA0647 16K0124 / 17A0053

Date:2017-02-02,7:26:11 AM
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Date/Time2017-02-02,7:26:11 AM

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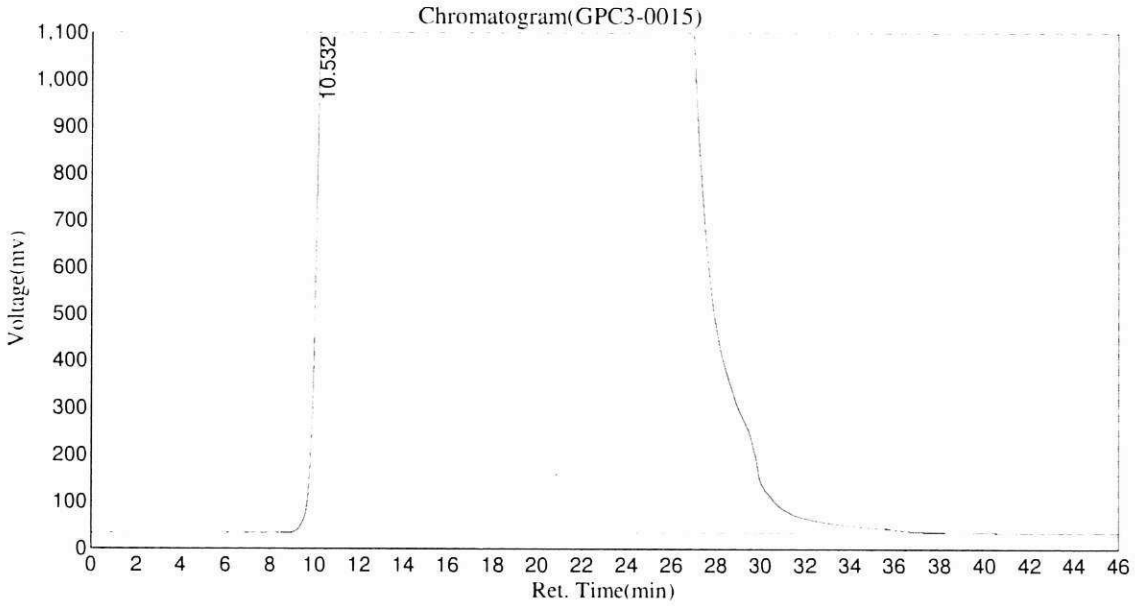


Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		10.532	1347159.500	1451331328.000	100.0000
Total			1347159.500	1451331328.000	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	BAN Collect	17.000	0.100	0.00E+000	0.00E+000	0.0000
2	Pest Collect	21.000	0.100	0.00E+000	0.00E+000	0.0000
3	Pest Dump	35.000	0.100	0.00E+000	0.00E+000	0.0000
4	BAN Dump	36.000	0.100	0.00E+000	0.00E+000	0.0000

Analytical Resources, Incorporated

CLEANUP BATCH SUMMARY

Laboratory:	Analytical Resources, Inc.	SDG:	17A0053
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Cleanup Batch:	CFB0053	Cleanup Type:	Silica Gel
Cleanup Method:	EPA 3630C Silica Gel Cleanup	Analysis:	EPA 8270D-SIM

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARE	OBSERVATIONS
PG-GP-1-MUS-170105	17A0053-10	N1117021103.D	02/09/2017	
PG-WS-1-MUS-170105	17A0053-11	N1117021018.D	02/09/2017	
PG-SMA2-5-MUS-170105	17A0053-08	N1117021015.D	02/09/2017	
PG-SMA2-4-MUS-170105	17A0053-07	N1117021014.D	02/09/2017	
PG-SMA2-3-MUS-170105	17A0053-06	N1117021013.D	02/09/2017	
PG-SMA2-2-MUS-170105	17A0053-05	N1117021012.D	02/09/2017	
PG-SMA2-1-MUS-170105	17A0053-04	N1117021011.D	02/09/2017	
PG-SMA1-2-3-MUS-170105	17A0053-12	N1117021019.D	02/09/2017	
PG-SMA1-1-MUS-170105	17A0053-01	N1117021010.D	02/09/2017	
PG-PJ-1-MUS-170105	17A0053-09	N1117021016.D	02/09/2017	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

CLEANUP BENCH SHEET

CFB0053

Matrix: Tissue **Cleanup using: Organics - EPA 3630C Silica Gel Cleanup** **Printed: 2/9/2017 3:20:28PM**

Lab Number	Sample Container	Sample Name	Extract Container	Initial (mL)	Final (mL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
17A0053-12	A	PG-SMA1-2-3-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/9/2017	SDP	
17A0053-11	A	PG-WS-1-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/9/2017	SDP	
17A0053-10	A	PG-GP-1-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/9/2017	SDP	
17A0053-09	A	PG-PJ-1-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/9/2017	SDP	
17A0053-08	A	PG-SMA2-5-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/9/2017	SDP	
17A0053-07	A	PG-SMA2-4-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/9/2017	SDP	
17A0053-06	A	PG-SMA2-3-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/9/2017	SDP	
17A0053-05	A	PG-SMA2-2-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/9/2017	SDP	
17A0053-04	A	PG-SMA2-1-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/9/2017	SDP	
17A0053-01	A	PG-SMA1-1-MUS-170105	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/9/2017	SDP	
16K0124-01	A	PG-T0-MUS-COC-161109	A 02	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	2/9/2017	SDP	
BFA0647-MSD1	-	Matrix Spike Dup	-	0.5	0.5	-	2/9/2017	SDP	
BFA0647-MS1	-	Matrix Spike	-	0.5	0.5	-	2/9/2017	SDP	
BFA0647-BS1	-	LCS	-	0.5	0.5	-	2/9/2017	SDP	
BFA0647-BLK1	-	Blank	-	0.5	0.5	-	2/9/2017	SDP	

Cleanup Reviewed By Date

Analytical Resources, Incorporated

Form I
METHOD BLANK DATA SHEET
EPA 8270D-SIM

Blank

Laboratory:	Analytical Resources, Inc.			SDG:	17A0053
Client:	Anchor QEA, LLC			Project:	Port Gamble Shellfish Monitoring
Matrix:	Tissue	Laboratory ID:	BFA0647-BLK1	File ID:	N1117021007.D
Sampled:	N/A	Prepared:	01/31/17 13:45	Analyzed:	02/10/17 14:40
Solids:		Preparation:	EPA 3550C-Mod (Ultrasonic	Initial/Final:	10 g / 0.5 mL
Batch:	BFA0647	Sequence:	SFB0130	Calibration:	ZL00083
Instrument:	NT11	Column:	RXi-17Sil-MS		

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg)	Q	DL	RL
91-20-3	Naphthalene	1	0.60	U	0.50	0.60
91-57-6	2-Methylnaphthalene	1	0.50	U	0.50	0.50
208-96-8	Acenaphthylene	1	0.50	U	0.50	0.50
83-32-9	Acenaphthene	1	0.50	U	0.50	0.50
86-73-7	Fluorene	1	0.50	U	0.50	0.50
85-01-8	Phenanthrene	1	0.50	U	0.50	0.50
120-12-7	Anthracene	1	0.50	U	0.50	0.50
206-44-0	Fluoranthene	1	0.50	U	0.50	0.50
129-00-0	Pyrene	1	0.50	U	0.50	0.50
56-55-3	Benzo(a)anthracene	1	0.50	U	0.50	0.50
218-01-9	Chrysene	1	0.50	U	0.50	0.50
205-99-2	Benzo(b)fluoranthene	1	0.50	U	0.50	0.50
207-08-9	Benzo(k)fluoranthene	1	0.50	U	0.50	0.50
50-32-8	Benzo(a)pyrene	1	0.50	U	0.50	0.50
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.50	U	0.50	0.50
53-70-3	Dibenzo(a,h)anthracene	1	0.50	U	0.50	0.50
191-24-2	Benzo(g,h,i)perylene	1	0.50	U	0.50	0.50
1985-5-0	Perylene	1	0.50	U	0.50	0.50
197-97-2	Benzo(e)pyrene	1	0.50	U	0.50	0.50

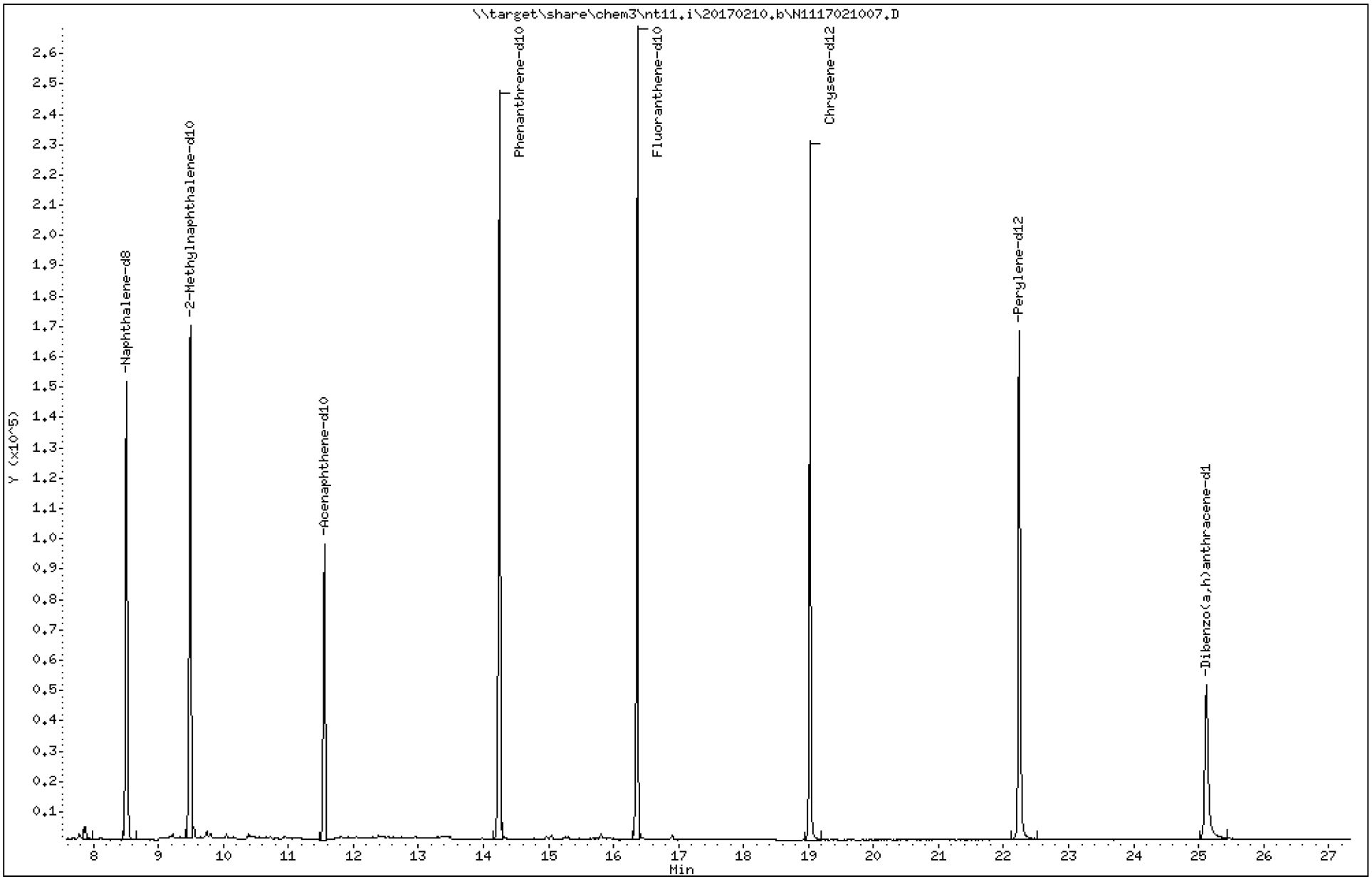
SURROGATES	ADDED (ug/kg)	CONC (ug/kg)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	15.000	7.88	52.5	30 - 160	
Dibenzo[a,h]anthracene-d14	15.000	9.75	65.0	30 - 160	
Fluoranthene-d10	15.000	9.63	64.2	30 - 160	

Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021007.D
Date : 10-FEB-2017 14:40
Client ID:
Sample Info: BFA0647-BLK1

Column phase: Rxi-17Sil MS

Instrument: nt11.i

Operator: VTS
Column diameter: 0.25



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20170210.b\N1117021007.D
Lab Smp Id: BFA0647-BLK1
Inj Date : 10-FEB-2017 14:40 MS Autotune Date: 15-JAN-2015 15:59
Operator : VTS Inst ID: nt11.i
Smp Info : BFA0647-BLK1
Misc Info :
Comment   :
Method   : \\target\share\chem3\nt11.i\20170210.b\LOWSIM.m
Meth Date : 11-Feb-2017 08:35 nt11.i Quant Type: ISTD
Cal Date : 31-DEC-2016 09:30 Cal File: N1116123104.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14
Processing Host: VANS

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
*	1	Naphthalene-d8	136	8.509	8.526	(1.000)	263642	200.000	
	2	Naphthalene	128	Compound Not Detected.					
	3	Benzo(b)thiophene	134	Compound Not Detected.					
$	4	2-Methylnaphthalene-d10	152	9.498	9.508	(1.116)	178402	157.562	158
	5	2-Methylnaphthalene	142	Compound Not Detected.					
	6	1-Methylnaphthalene	142	Compound Not Detected.					
	7	2-Chloronaphthalene	162	Compound Not Detected.					
	8	Biphenyl	154	Compound Not Detected.					
	9	2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10	Acenaphthylene	152	Compound Not Detected.					
*	11	Acenaphthene-d10	164	11.555	11.564	(1.000)	181252	200.000	
	12	Acenaphthene	153	Compound Not Detected.					
	13	Dibenzofuran	168	Compound Not Detected.					
	14	2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15	Fluorene-d10	174	Compound Not Detected.					
	16	Fluorene	166	Compound Not Detected.					
	17	Dibenzothiophene	184	Compound Not Detected.					
*	18	Phenanthrene-d10	188	14.252	14.262	(1.000)	354769	200.000	
	19	Phenanthrene	178	Compound Not Detected.					
$	20	Anthracene-d10	188	Compound Not Detected.					
	21	Anthracene	178	Compound Not Detected.					
	22	Carbazole	167	Compound Not Detected.					
	23	1-Methylphenanthrene	192	Compound Not Detected.					
$	24	Fluoranthene-d10	212	16.367	16.367	(1.148)	363062	192.680	193
	25	Fluoranthene	202	Compound Not Detected.					
	26	Pyrene	202	Compound Not Detected.					
	27	Benzo(a)anthracene	228	Compound Not Detected.					
*	28	Chrysene-d12	240	19.024	19.024	(1.000)	344497	200.000	
	29	Chrysene	228	Compound Not Detected.					
	30	Benzo(b)fluoranthene	252	Compound Not Detected.					
	31	Benzo(k)fluoranthene	252	Compound Not Detected.					
	32	Benzo(j)fluoranthene	252	Compound Not Detected.					
$	33	Benzo(e)pyrene-d12	264	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
34	Benzo(e)pyrene	252	Compound Not Detected.					
35	Benzo(a)pyrene	252	Compound Not Detected.					
* 36	Perylene-d12	264	22.240	22.240	(1.000)	338290	200.000	
37	Perylene	252	Compound Not Detected.					
$ 38	Dibenzo(a,h)anthracene-d14	292	25.116	25.116	(1.129)	210633	194.972	195
39	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
40	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
41	Benzo(g,h,i)perylene	276	Compound Not Detected.					

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: N1117021007.D
Lab Smp Id: BFA0647-BLK1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20170210.b\LOWSIM.m
Misc Info:

Calibration Date: 10-FEB-2017
Calibration Time: 13:29
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	219654	109827	439308	263642	20.03
11 Acenaphthene-d10	135248	67624	270496	181252	34.01
18 Phenanthrene-d10	257021	128511	514042	354769	38.03
28 Chrysene-d12	259511	129756	519022	344497	32.75
36 Perylene-d12	257535	128768	515070	338290	31.36

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.53	8.03	9.03	8.51	-0.21
11 Acenaphthene-d10	11.56	11.06	12.06	11.56	-0.08
18 Phenanthrene-d10	14.26	13.76	14.76	14.25	-0.07
28 Chrysene-d12	19.02	18.52	19.52	19.02	0.00
36 Perylene-d12	22.24	21.74	22.74	22.24	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1117021007.D

Lab ID: BFA0647-BLK1
nt11.i, 20170210.b\LOWSIM.m,   10-FEB-2017 14:40

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20170210.b\LOWSIM.m, allpna.sub = 3.0000

Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

LCS / LCS DUPLICATE RECOVERY

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	17A0053
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Matrix:	Tissue	Analyzed:	02/10/17 15:16
Batch:	BFA0647	Laboratory ID:	BFA0647-BS1
Preparation:	EPA 3550C-Mod (Ultrasonic)	Sequence Name:	LCS
Initial/Final:	10 g / 0.5 mL		

COMPOUND	SPIKE ADDED (ug/kg)	LCS CONCENTRATION (ug/kg)	LCS % REC. #	QC LIMITS REC.
Naphthalene	15.0	7.80	52.0	30 - 160
2-Methylnaphthalene	15.0	8.30	55.3	30 - 160
Acenaphthylene	15.0	6.66	44.4	30 - 160
Acenaphthene	15.0	7.66	51.1	30 - 160
Fluorene	15.0	8.86	59.1	30 - 160
Phenanthrene	15.0	9.32	62.2	30 - 160
Anthracene	15.0	7.56	50.4	30 - 160
Fluoranthene	15.0	9.36	62.4	30 - 160
Pyrene	15.0	9.70	64.7	30 - 160
Benzo(a)anthracene	15.0	9.47	63.1	30 - 160
Chrysene	15.0	9.91	66.1	30 - 160
Benzo(b)fluoranthene	15.0	10.9	72.4	30 - 160
Benzo(k)fluoranthene	15.0	9.90	66.0	30 - 160
Benzo(a)pyrene	15.0	8.07	53.8	30 - 160
Indeno(1,2,3-cd)pyrene	15.0	10.2	67.8	30 - 160
Dibenzo(a,h)anthracene	15.0	10.6	70.8	30 - 160
Benzo(g,h,i)perylene	15.0	9.81	65.4	30 - 160
Perylene	15.0	7.75	51.7	30 - 160
Benzo(e)pyrene	15.0	9.98	66.5	30 - 160

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021008.D

Date : 10-FEB-2017 15:16

Client ID:

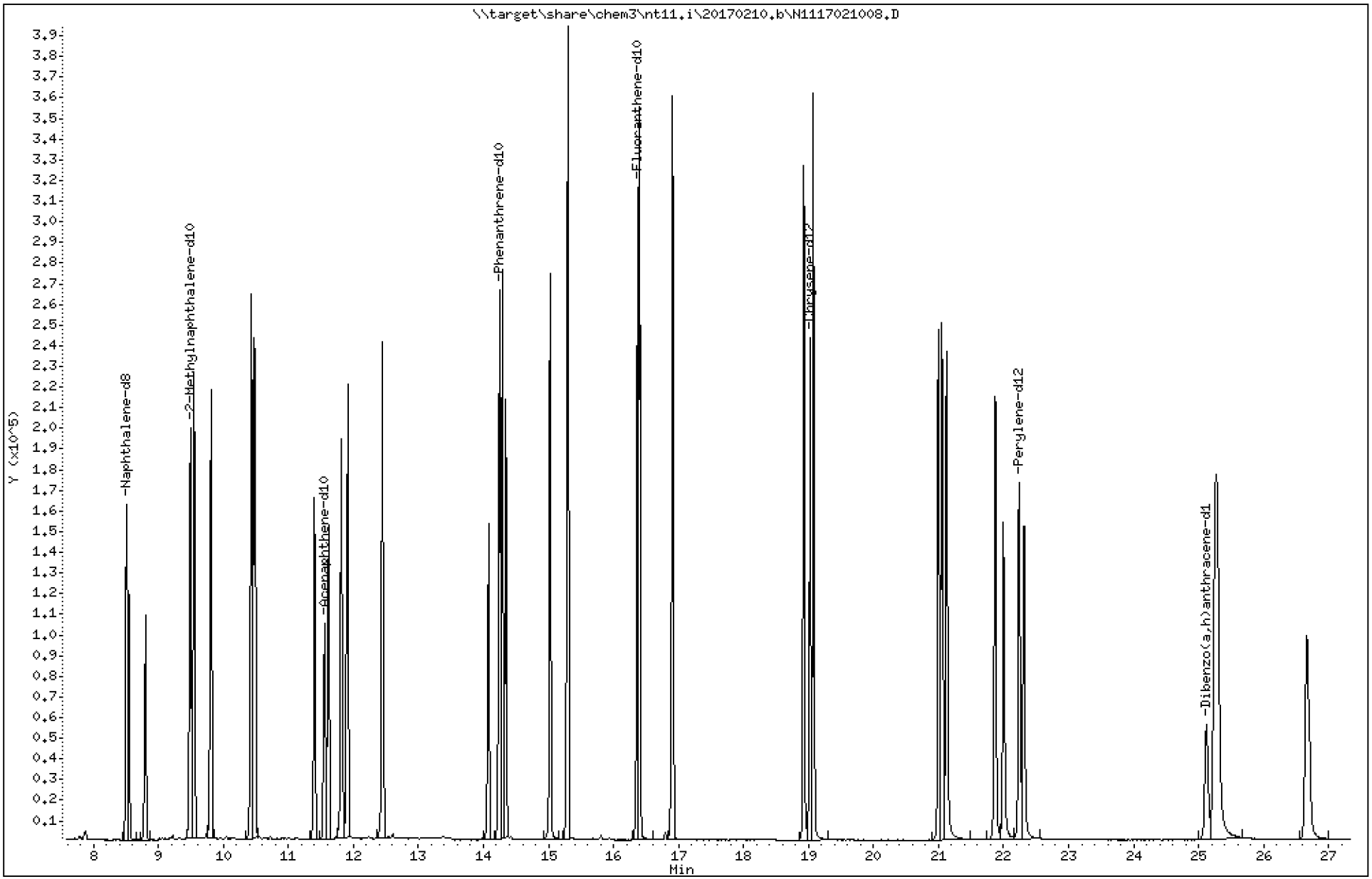
Sample Info: BFA0647-BS1

Instrument: nt11.i

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

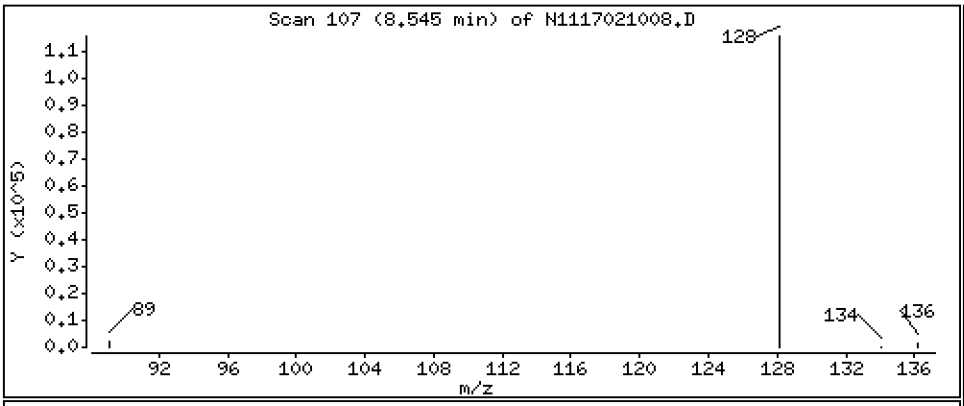
Operator: VTS

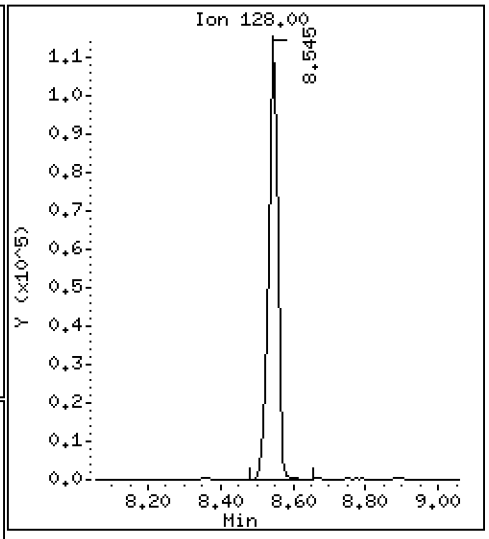
Column phase: Rxi-17Sil MS

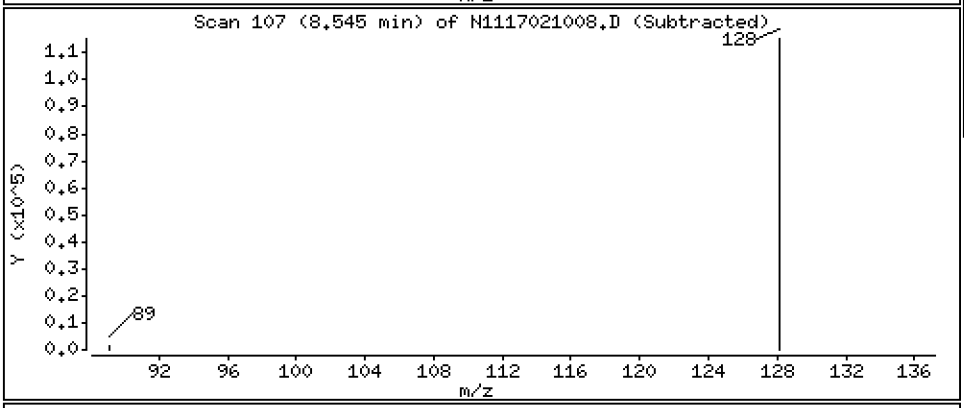
Column diameter: 0.25

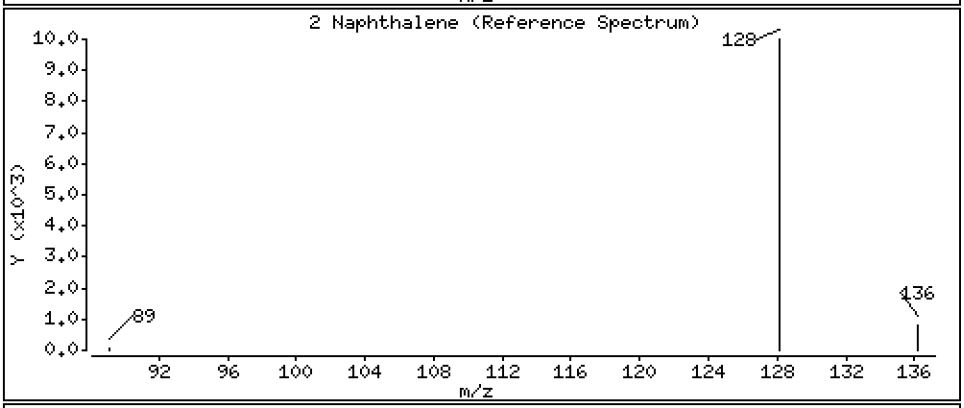
2 Naphthalene

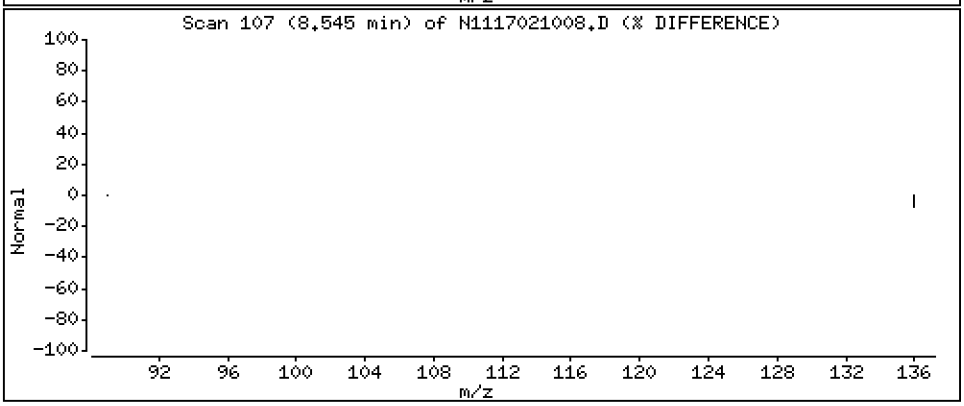
Concentration: 156 ng/mL











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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

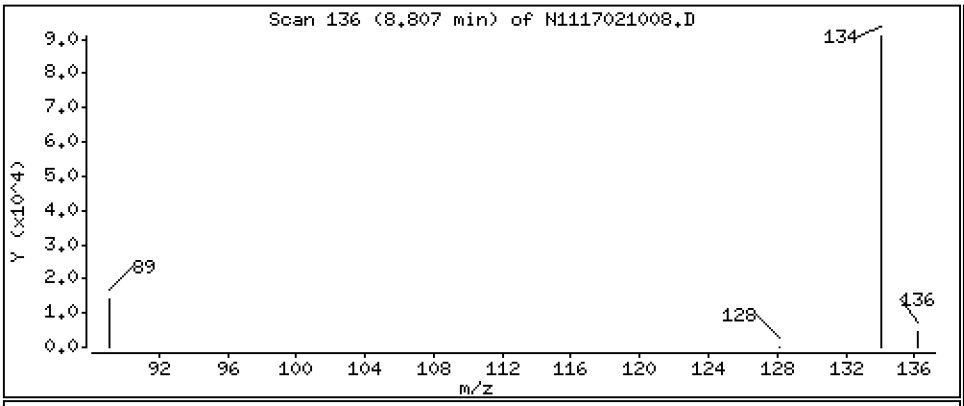
Operator: VTS

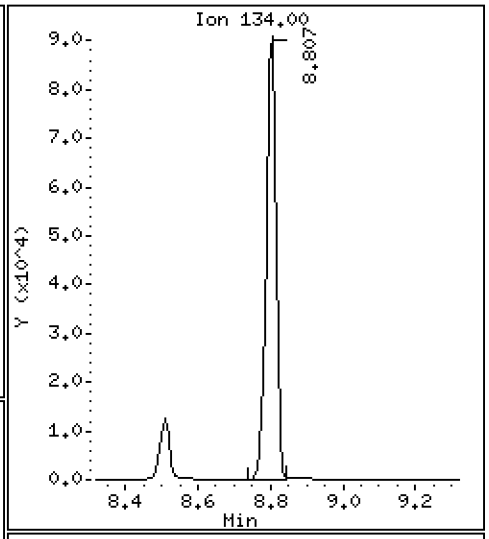
Column phase: Rxi-17Sil MS

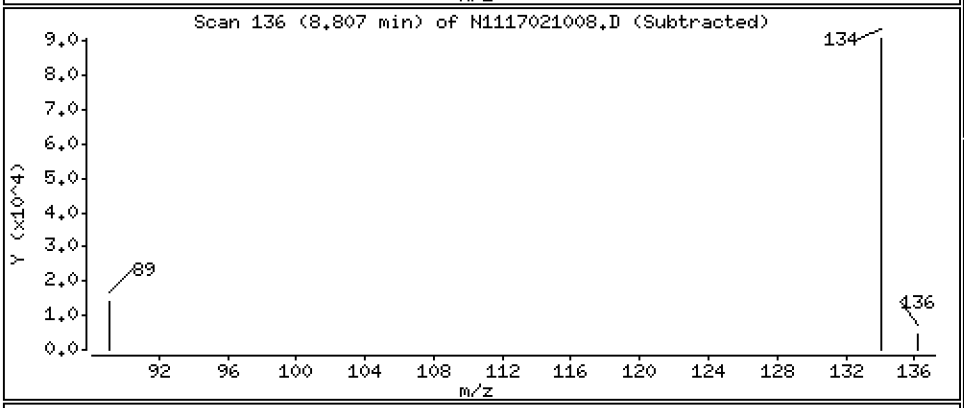
Column diameter: 0.25

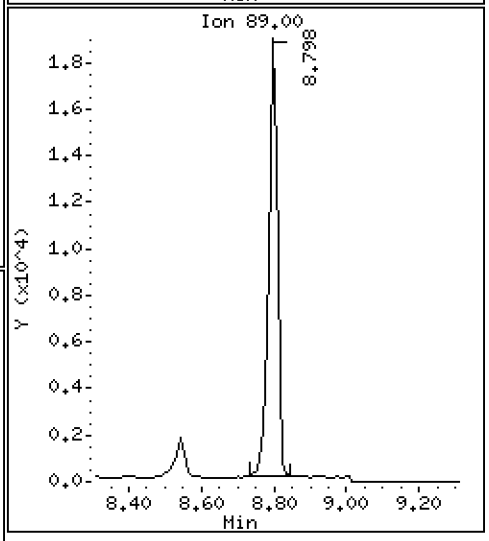
3 Benzo(b)thiophene

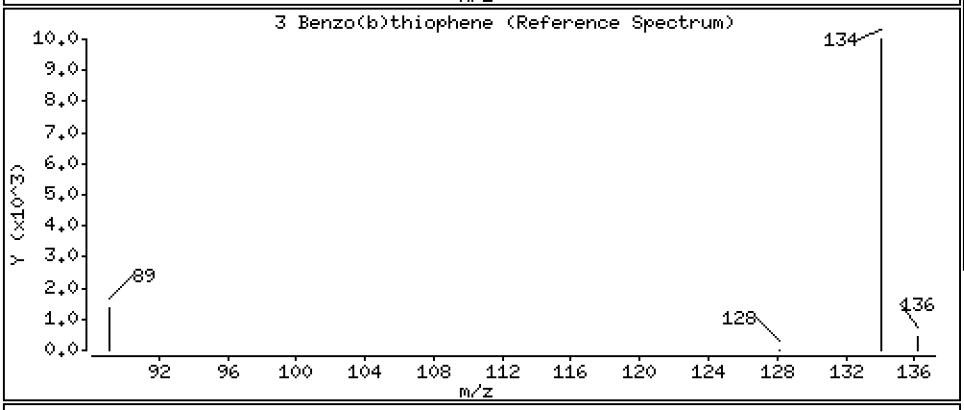
Concentration: 156 ng/mL

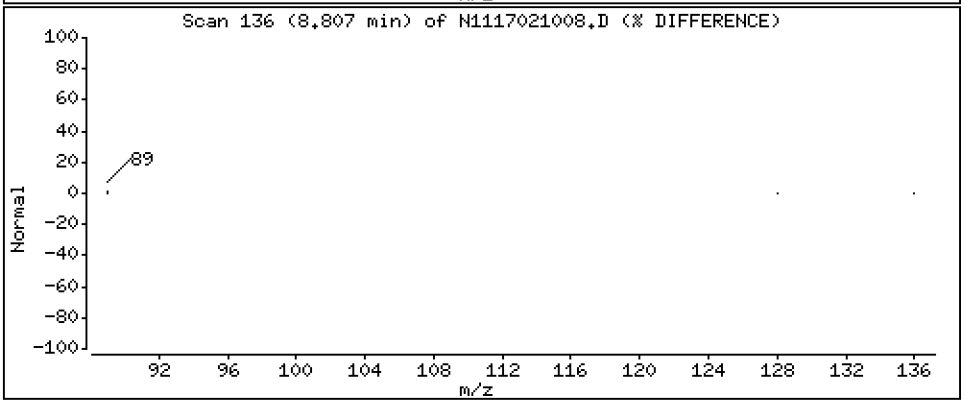












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021008.D

Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

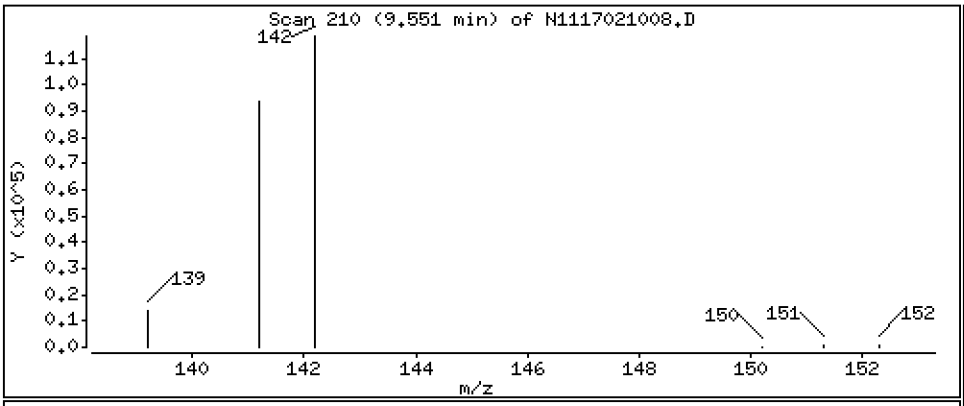
Operator: VTS

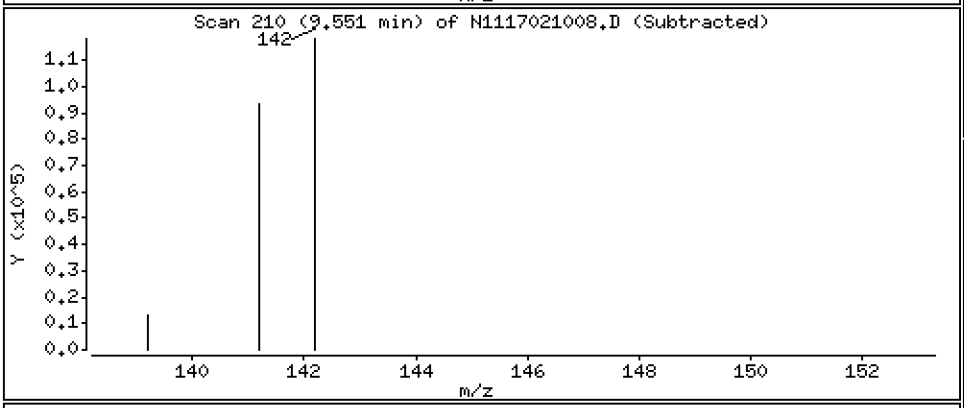
Column phase: Rxi-17Sil MS

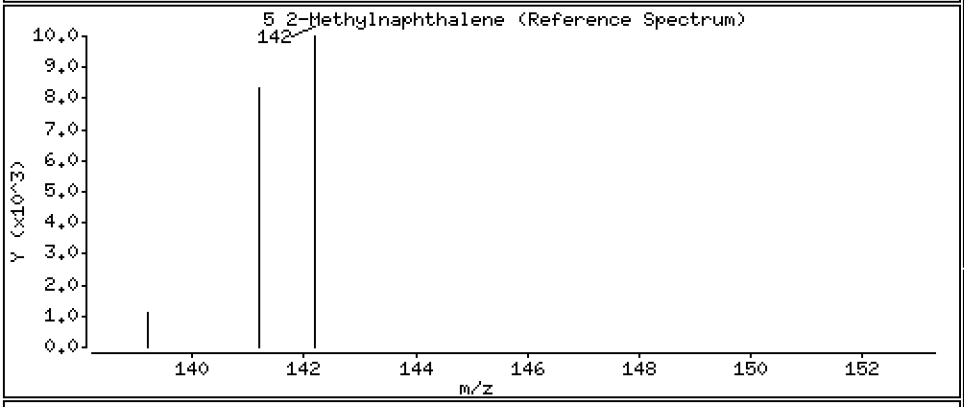
Column diameter: 0.25

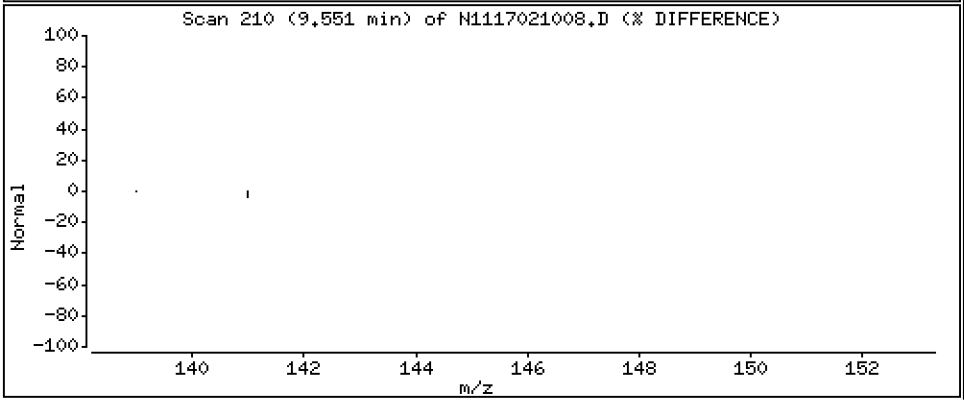
5 2-Methylnaphthalene

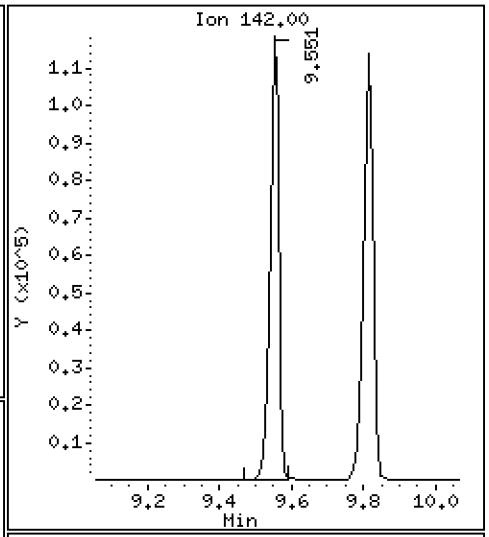
Concentration: 166 ng/mL

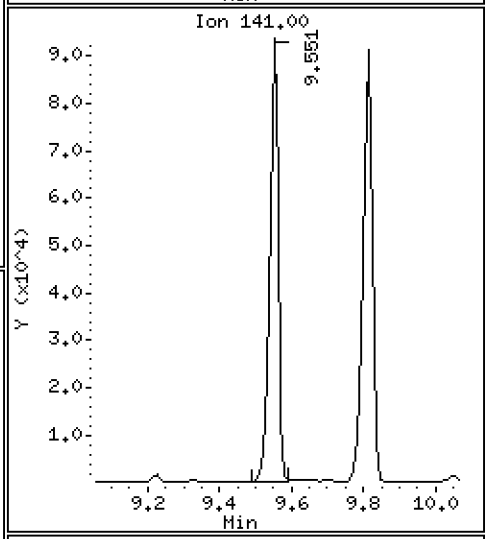


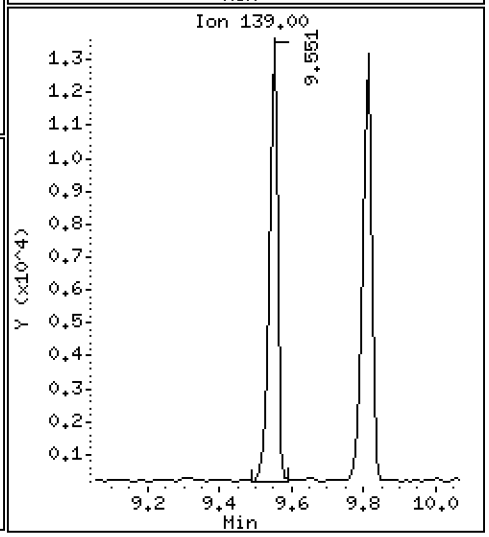












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021008.D

Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

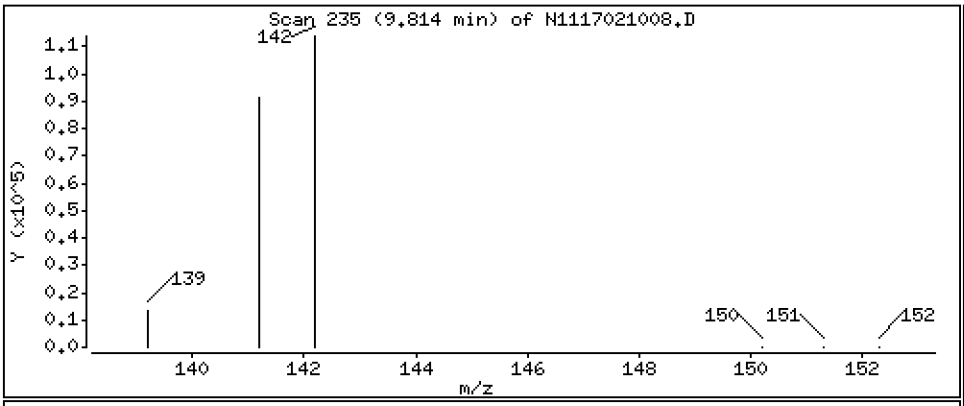
Operator: VTS

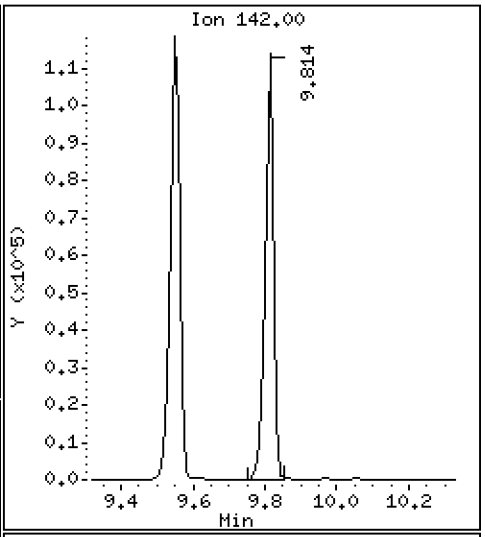
Column phase: Rxi-17Sil MS

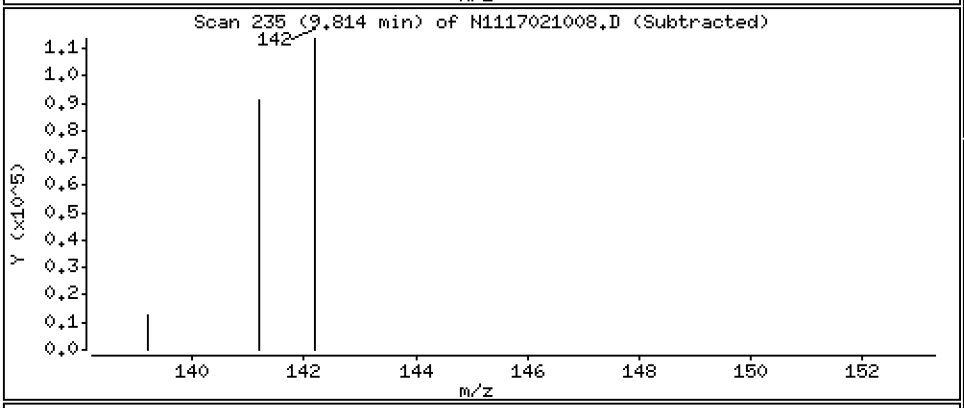
Column diameter: 0.25

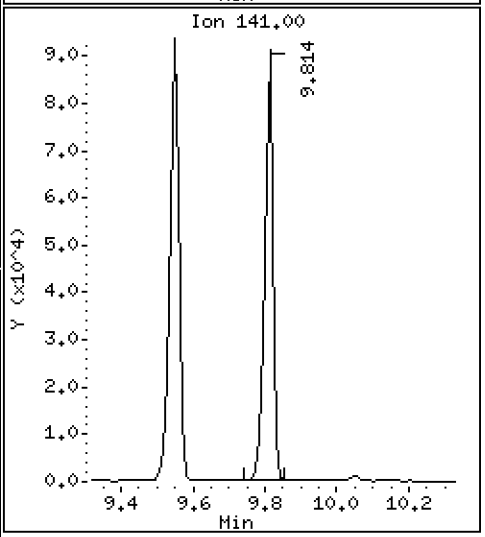
6 1-Methylnaphthalene

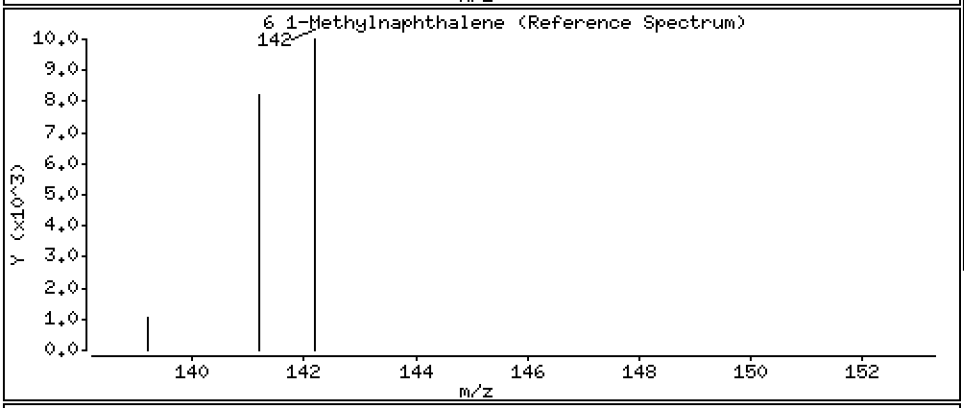
Concentration: 159 ng/mL

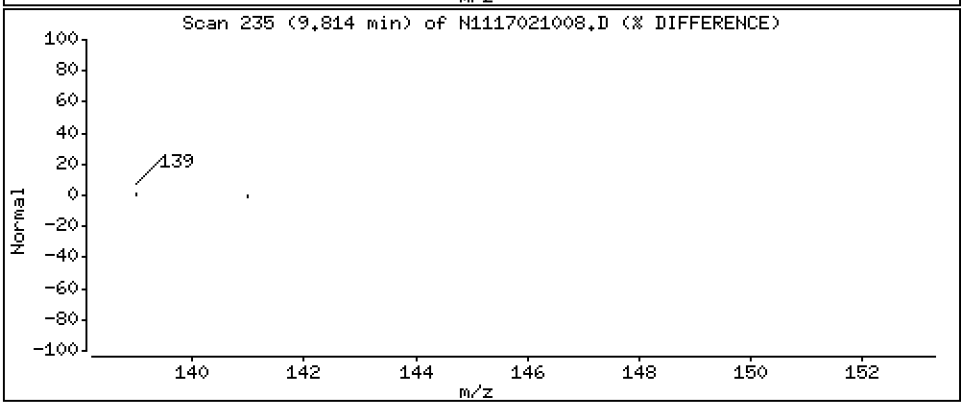












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

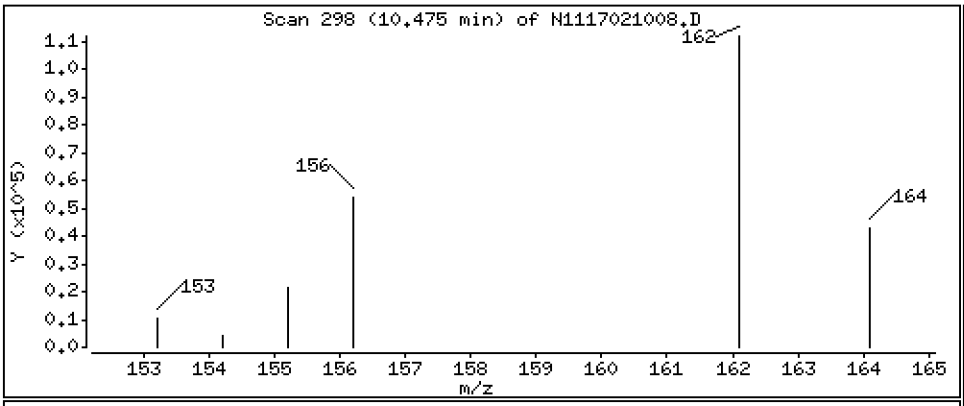
Operator: VTS

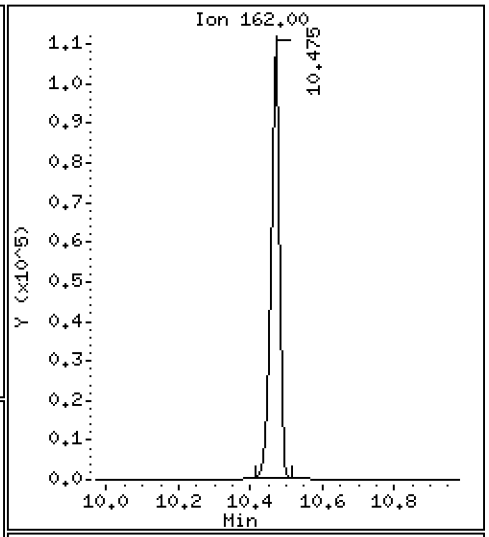
Column phase: Rxi-17Sil MS

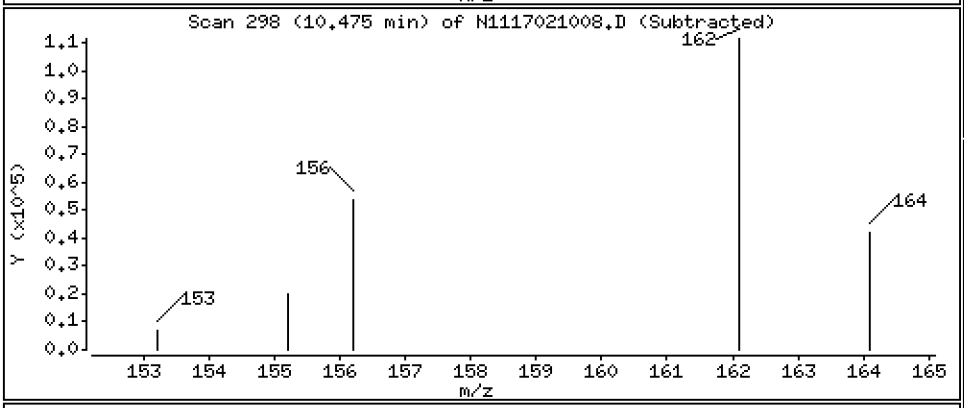
Column diameter: 0.25

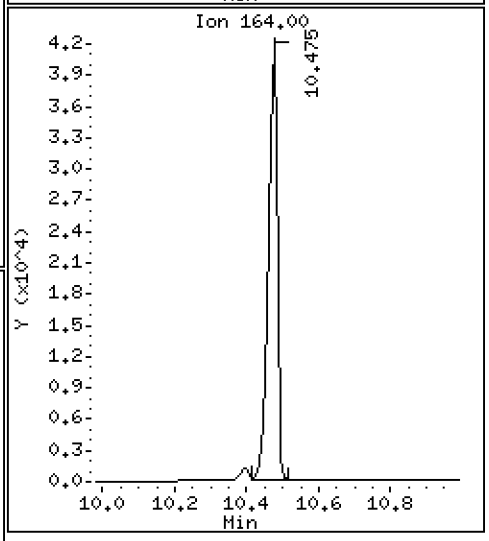
7 2-Chloronaphthalene

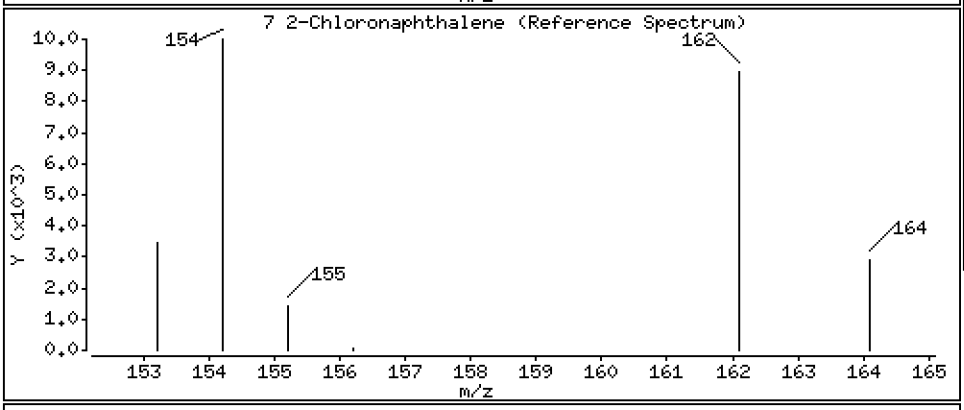
Concentration: 150 ng/mL

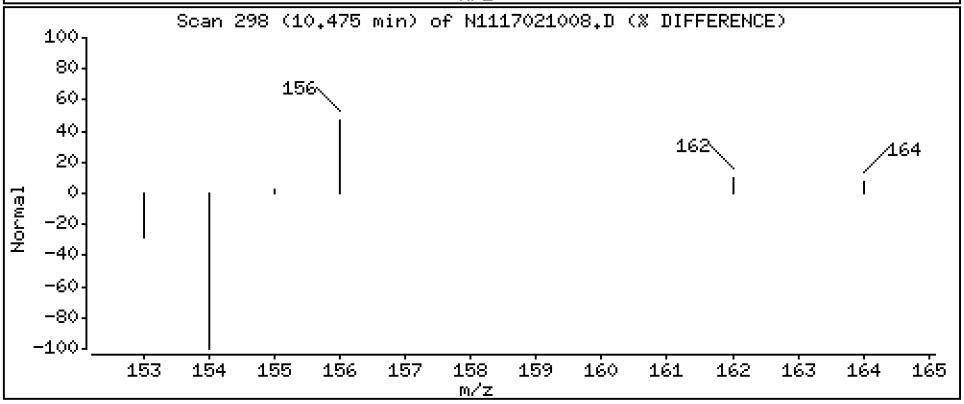












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

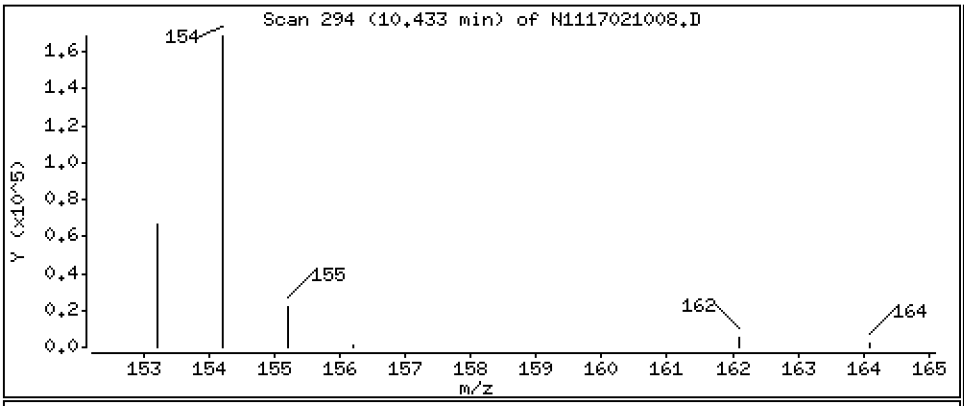
Operator: VTS

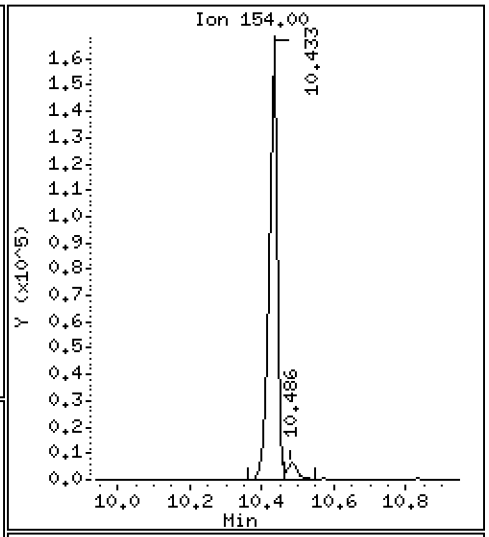
Column phase: Rxi-17Sil MS

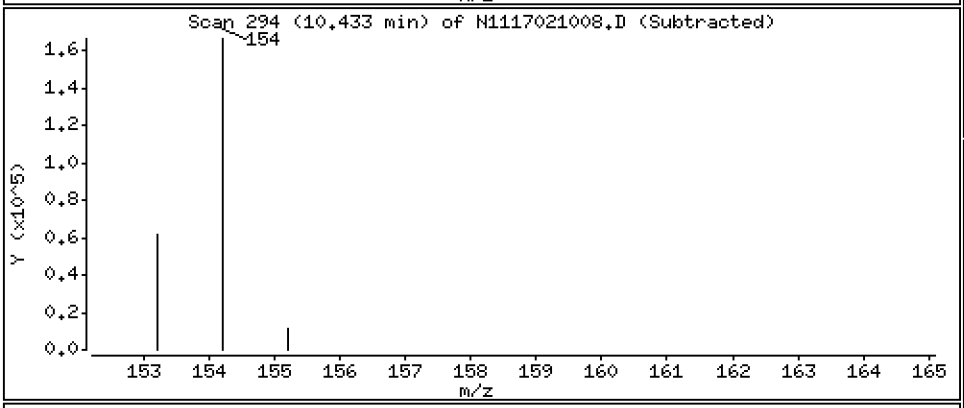
Column diameter: 0.25

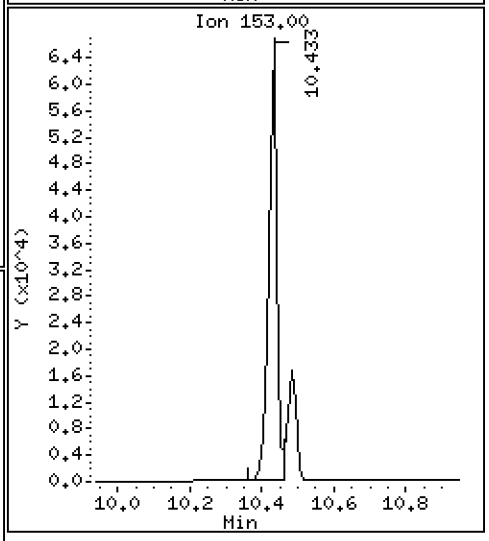
8 Biphenyl

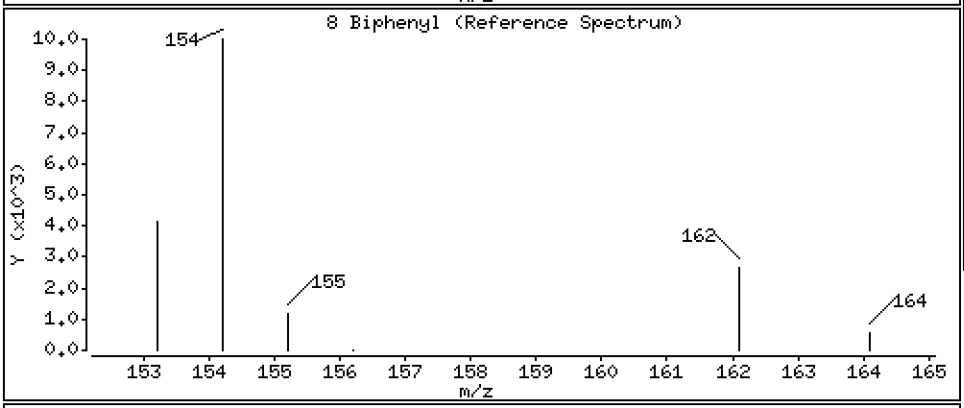
Concentration: 158 ng/mL

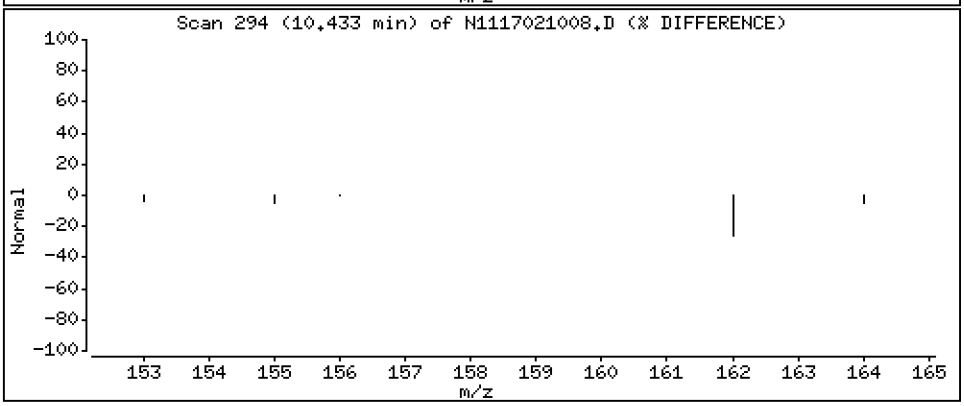












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

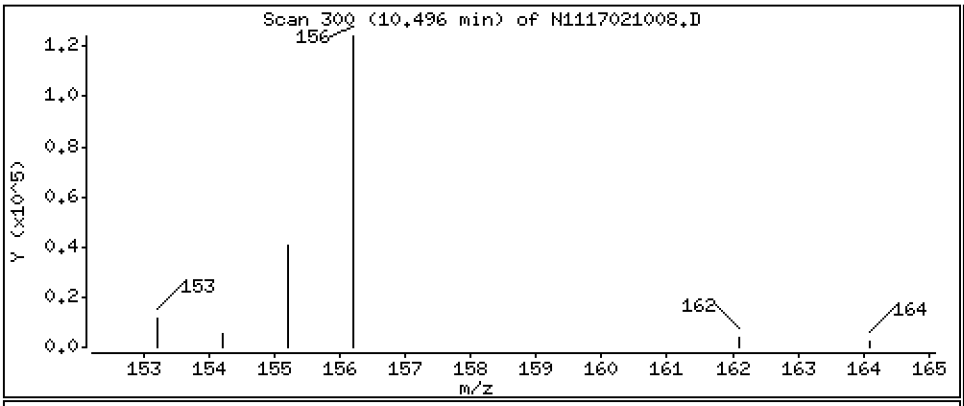
Operator: VTS

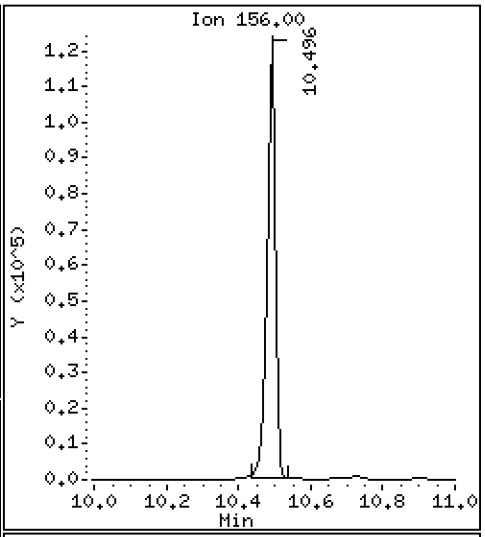
Column phase: Rxi-17Sil MS

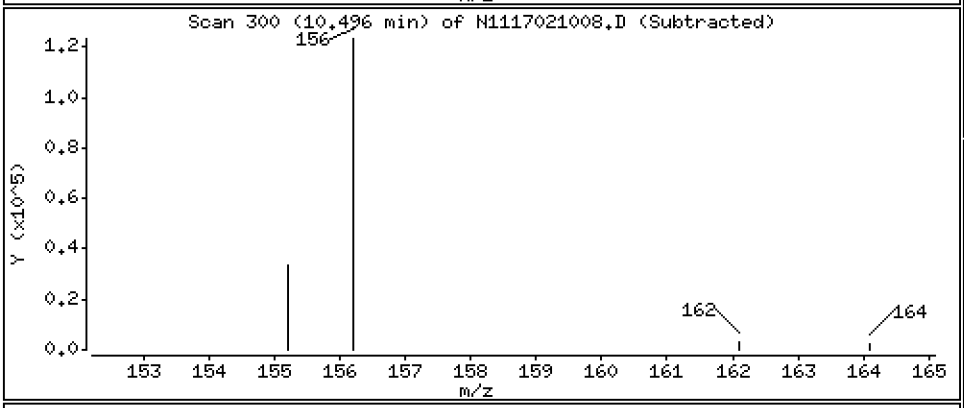
Column diameter: 0.25

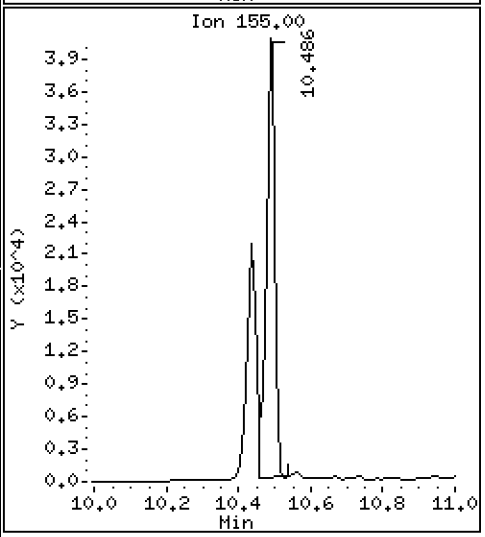
9 2,6-Dimethylnaphthalene

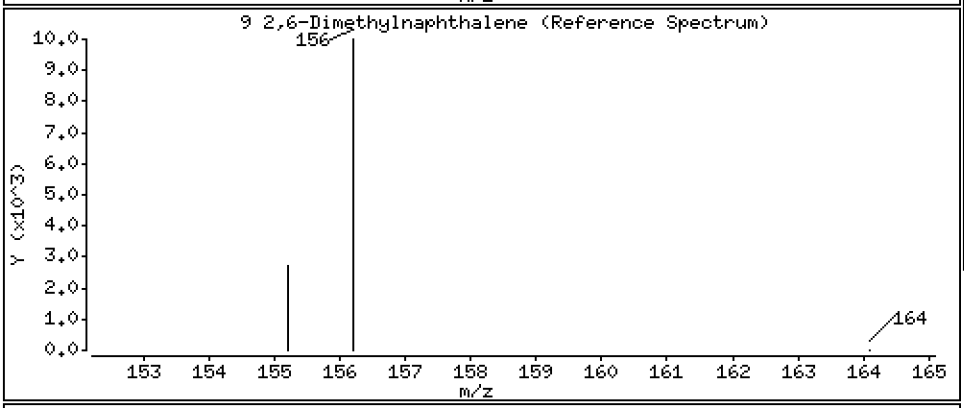
Concentration: 157 ng/mL

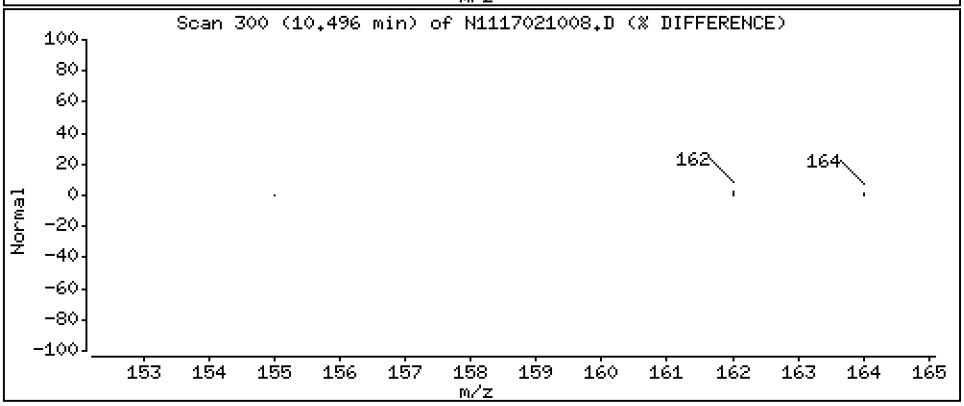












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

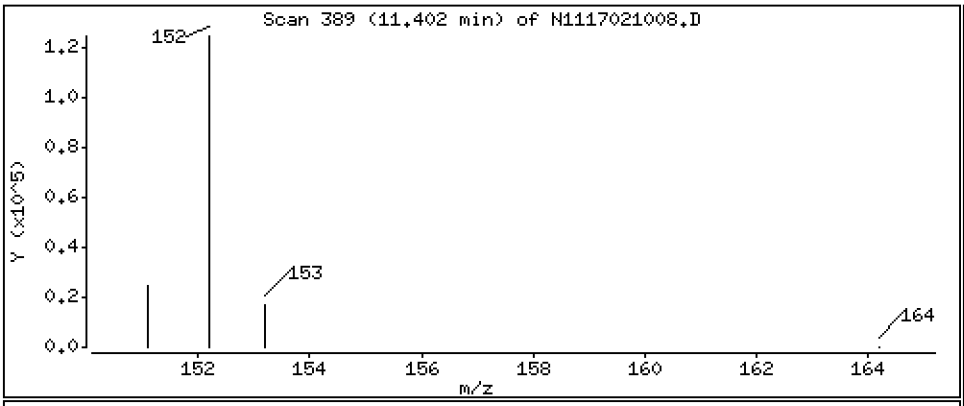
Operator: VTS

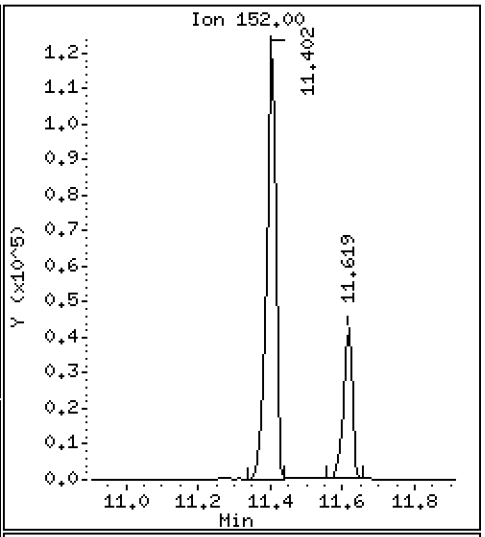
Column phase: Rxi-17Sil MS

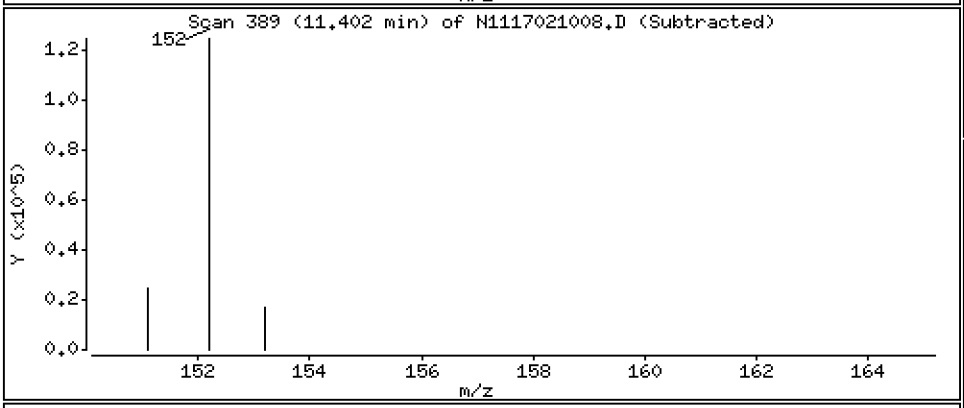
Column diameter: 0.25

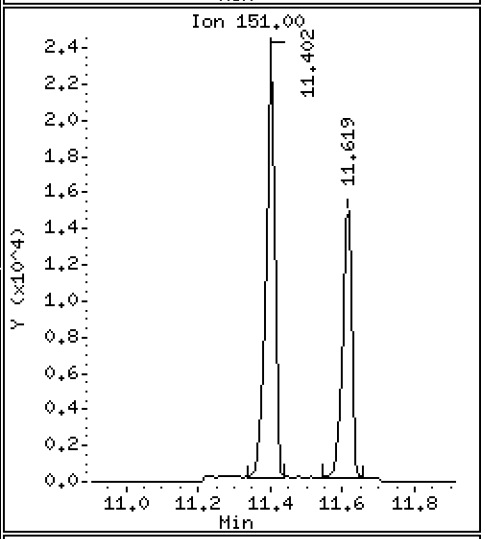
10 Acenaphthylene

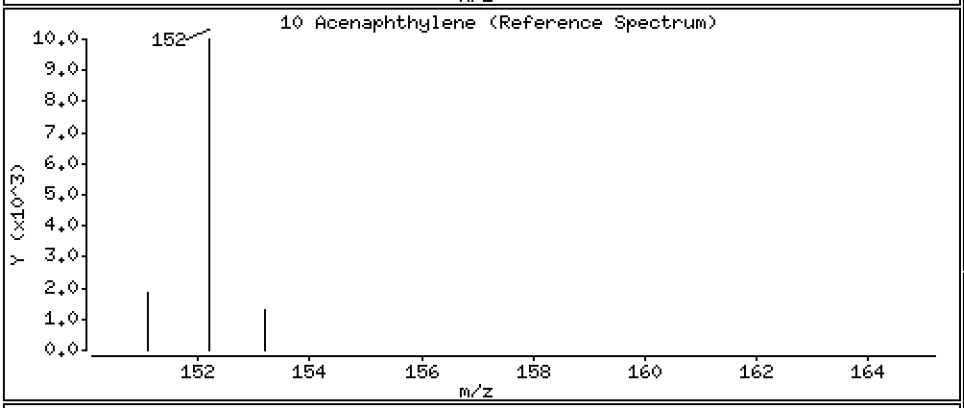
Concentration: 133 ng/mL

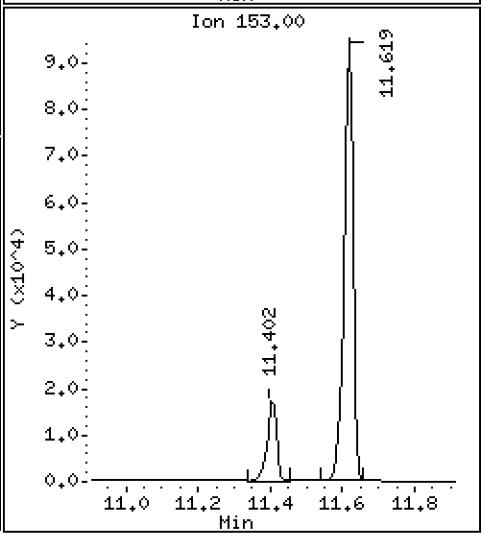


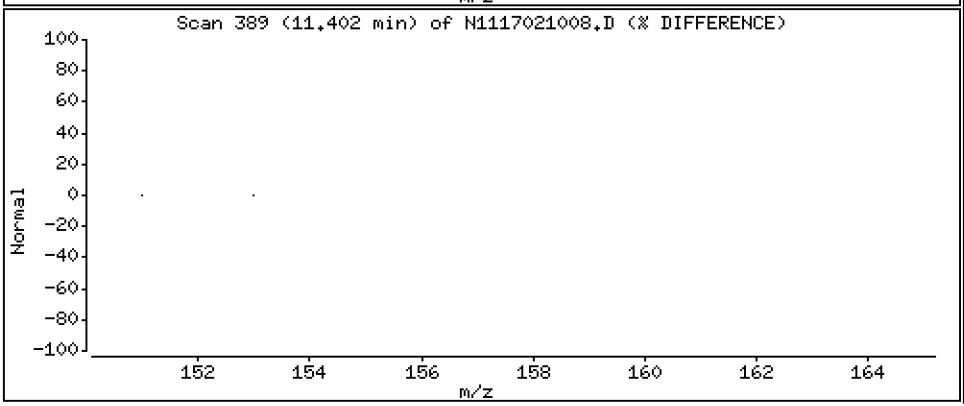












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

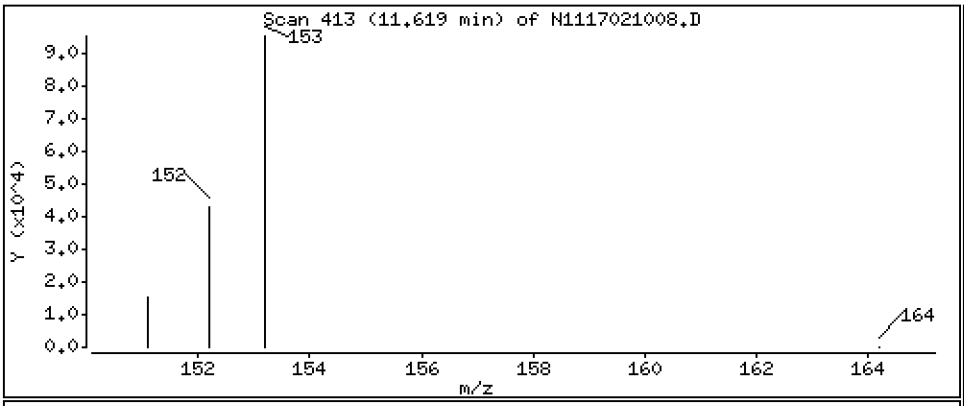
Operator: VTS

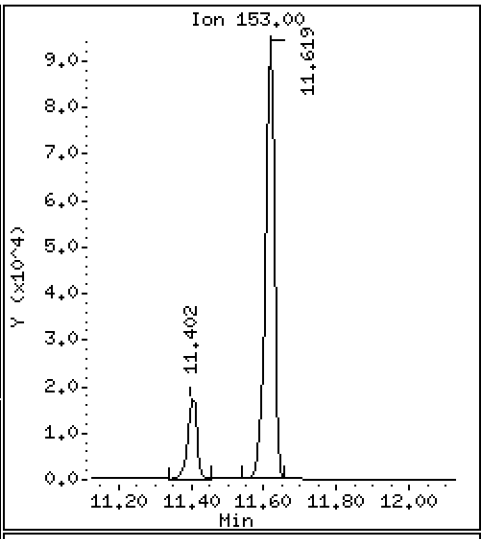
Column phase: Rxi-17Sil MS

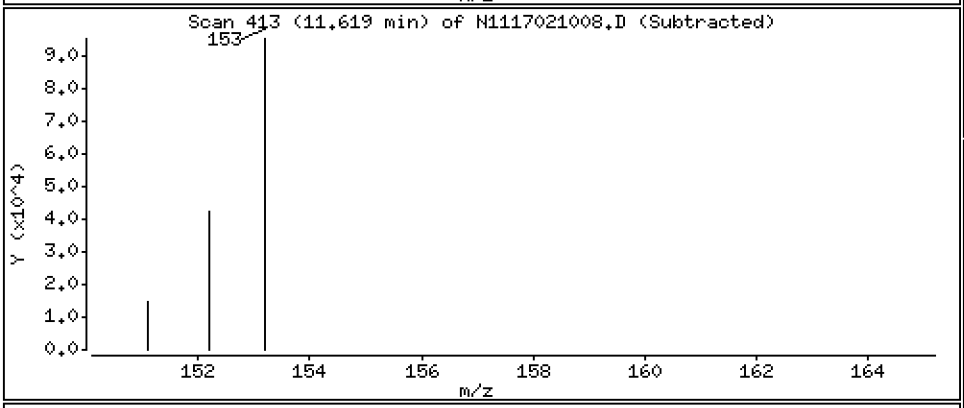
Column diameter: 0.25

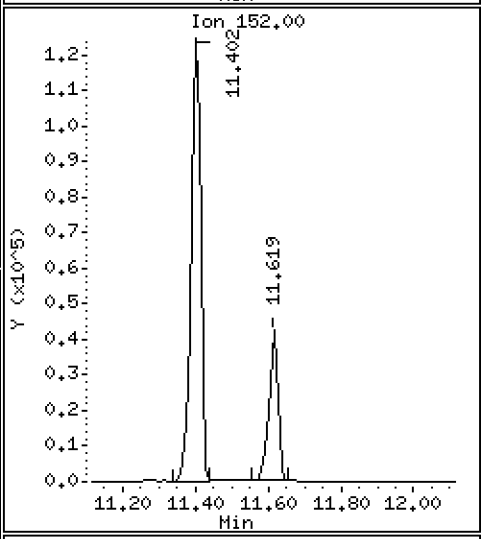
12 Acenaphthene

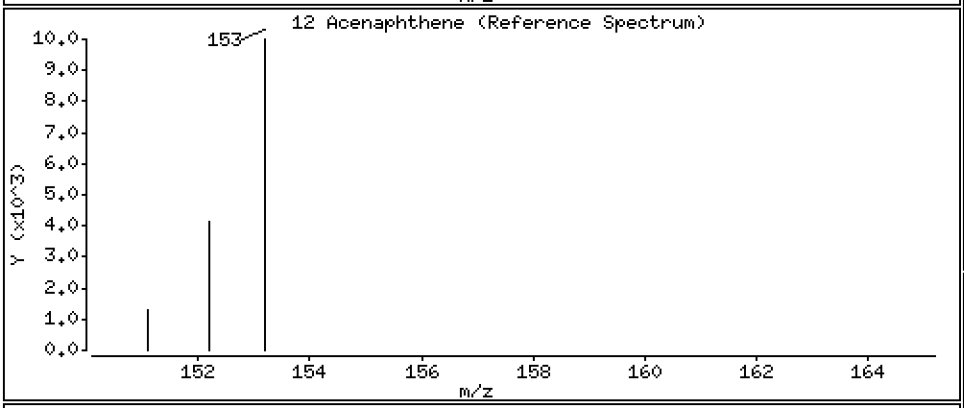
Concentration: 153 ng/mL

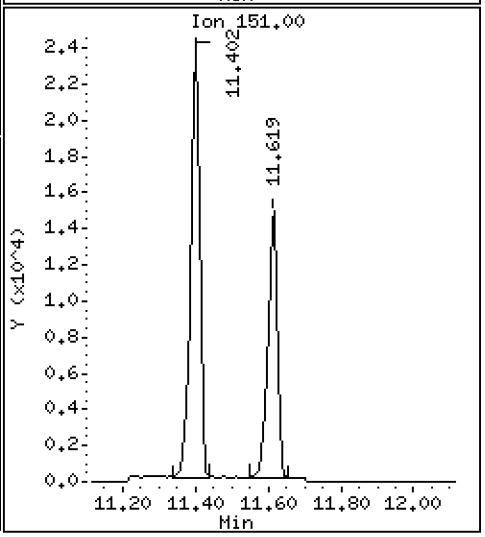


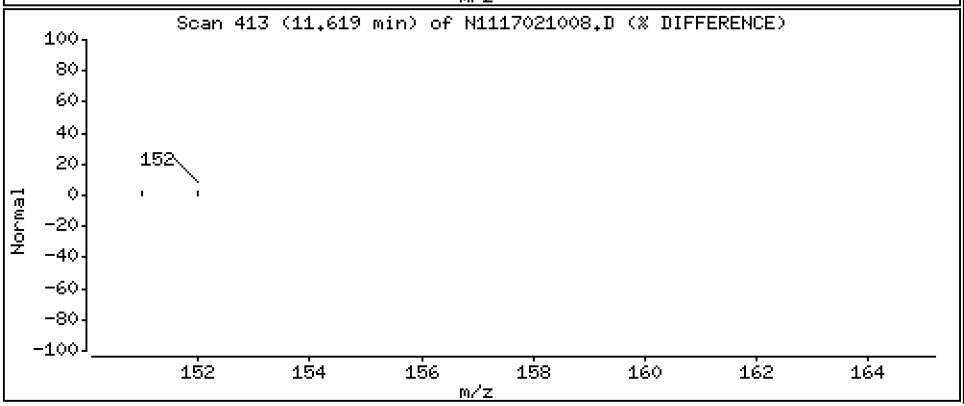












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

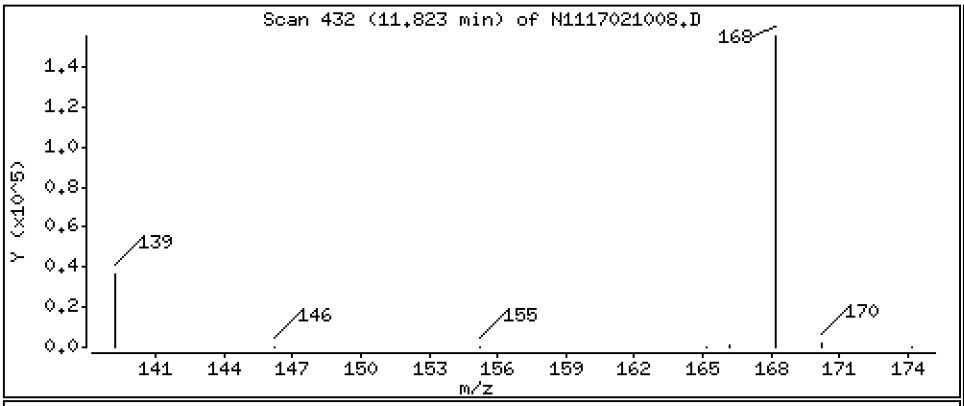
Operator: VTS

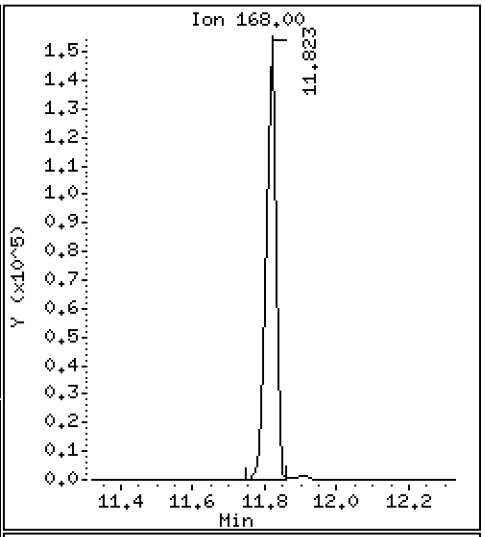
Column phase: Rxi-17Sil MS

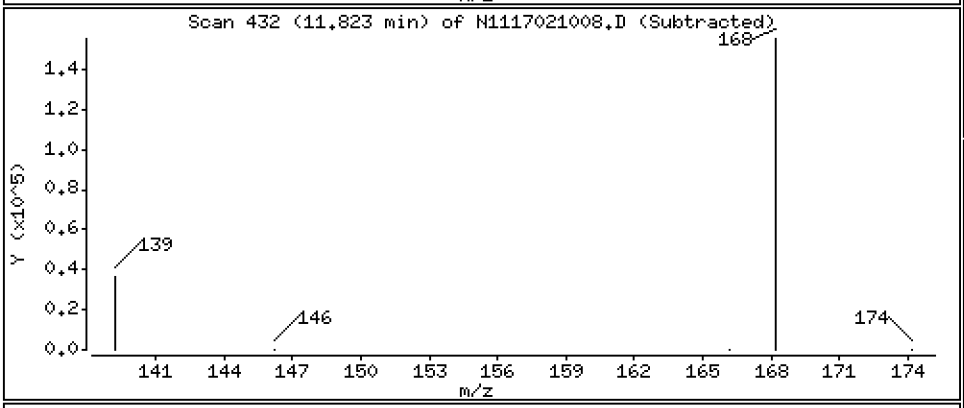
Column diameter: 0.25

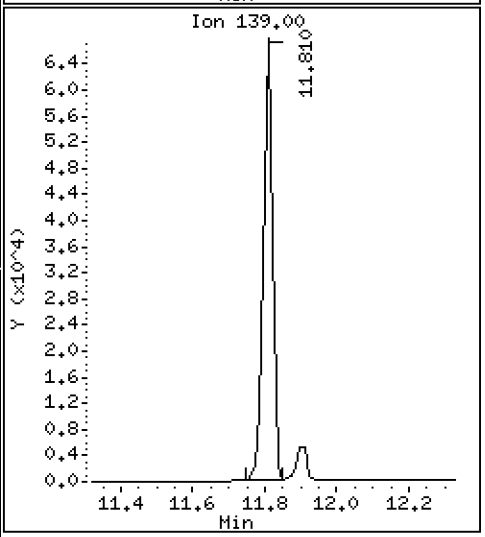
13 Dibenzofuran

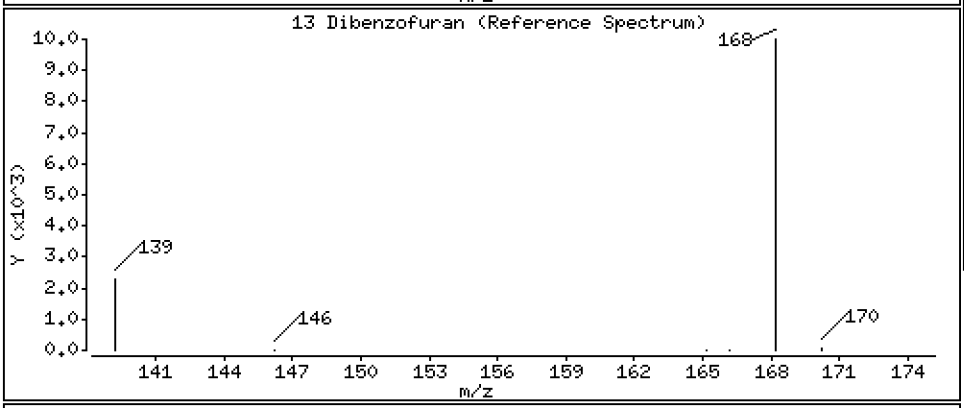
Concentration: 171 ng/mL

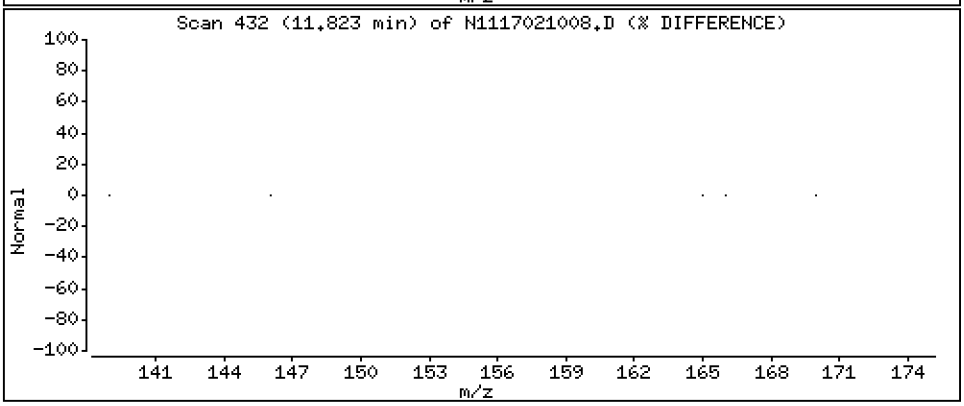












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

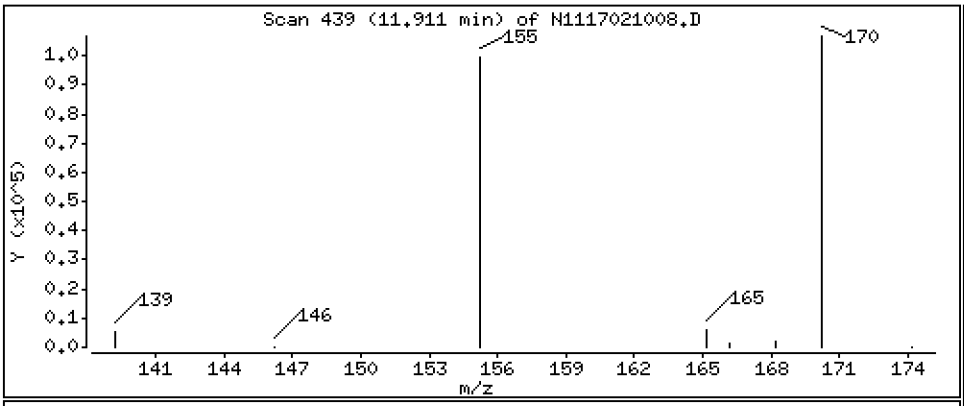
Operator: VTS

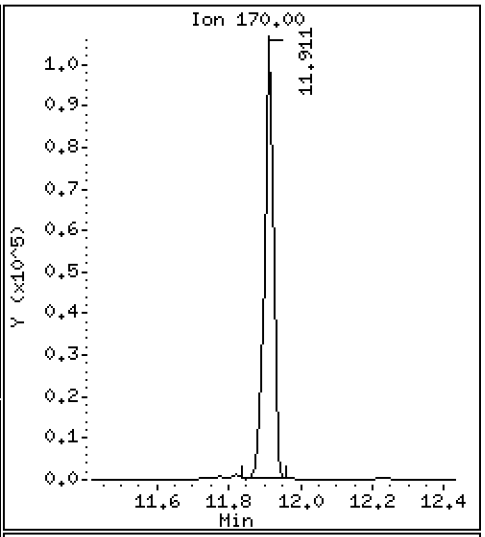
Column phase: Rxi-17Sil MS

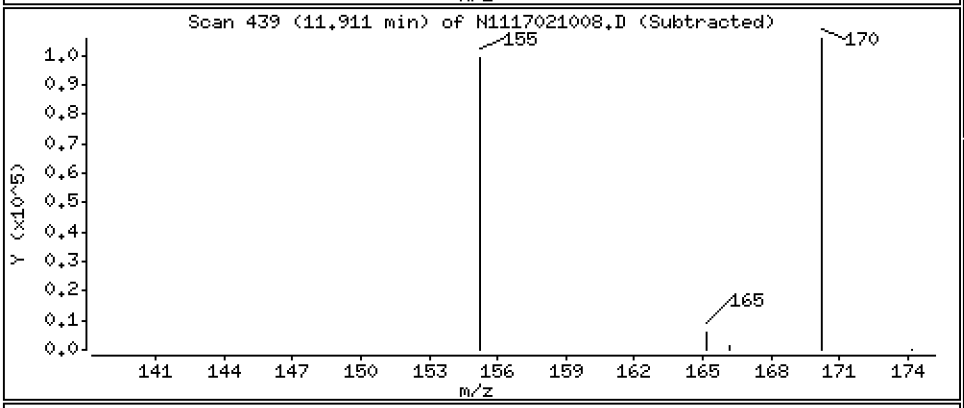
Column diameter: 0.25

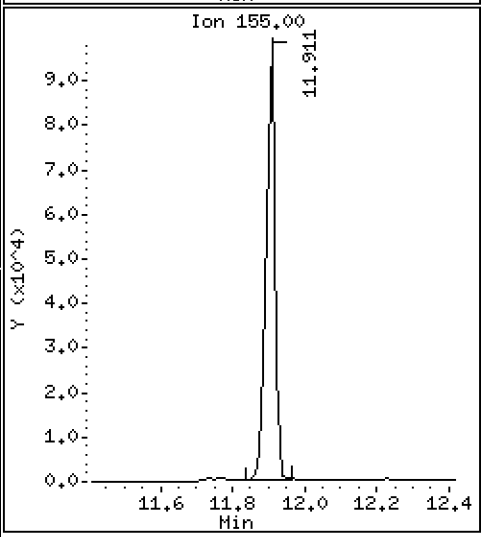
14 2,3,5-Trimethylnaphthalene

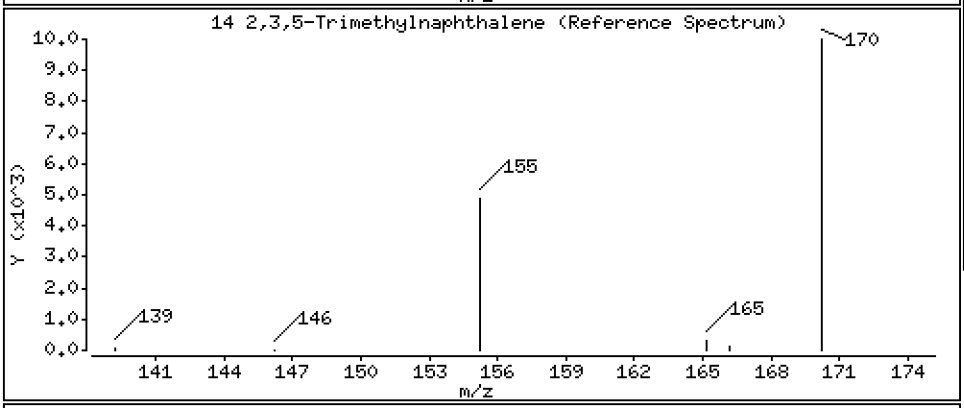
Concentration: 183 ng/mL

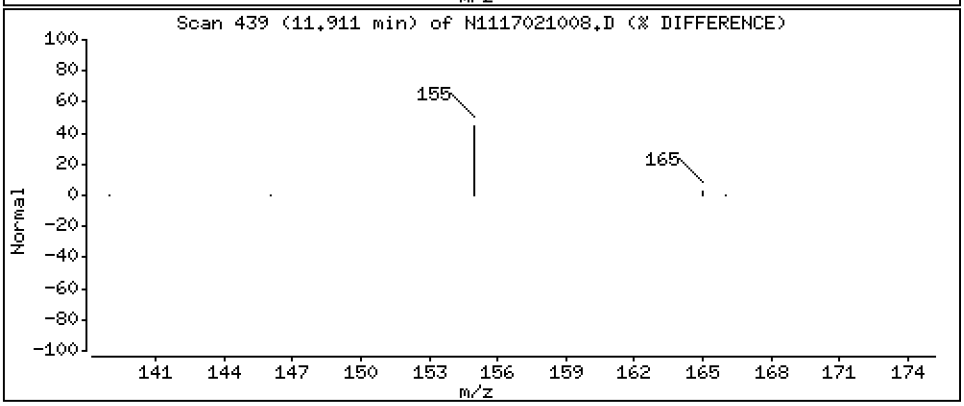












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

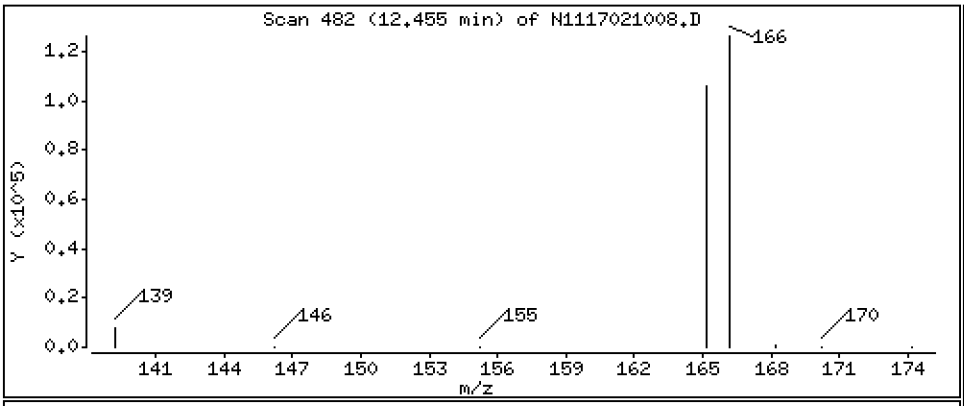
Operator: VTS

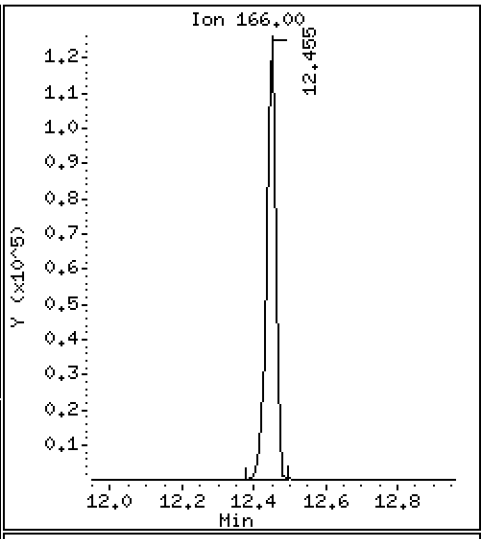
Column phase: Rxi-17Sil MS

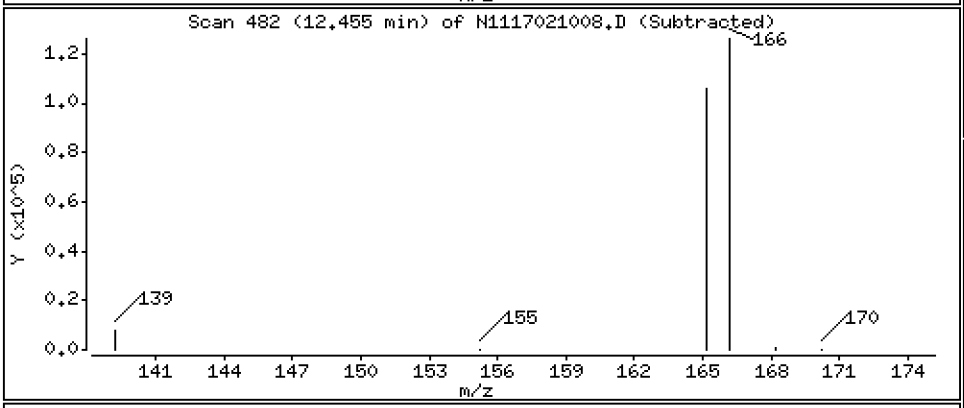
Column diameter: 0.25

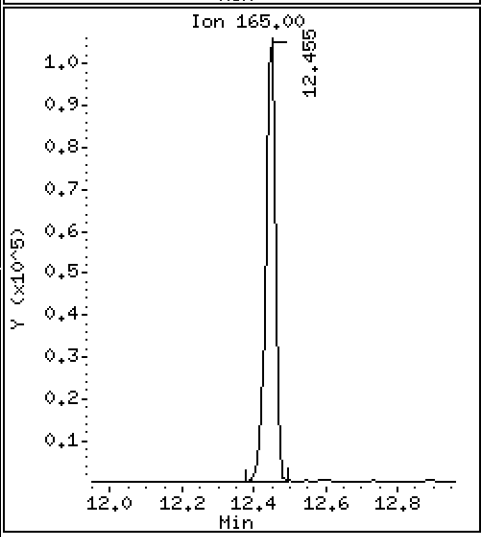
16 Fluorene

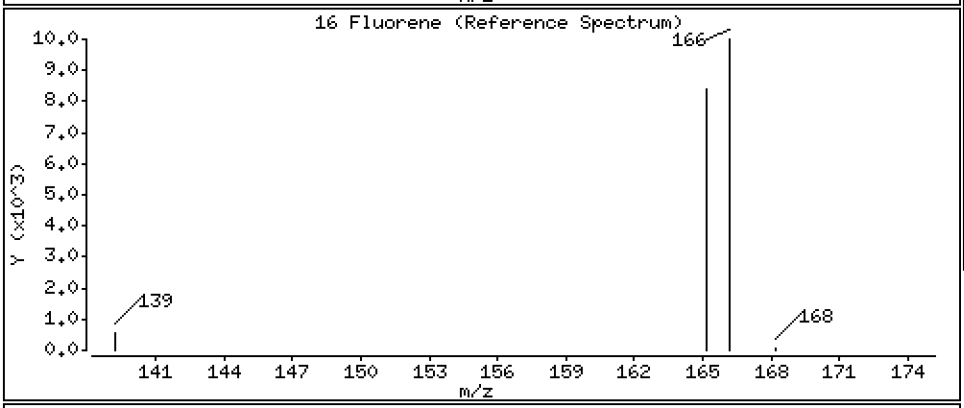
Concentration: 177 ng/mL

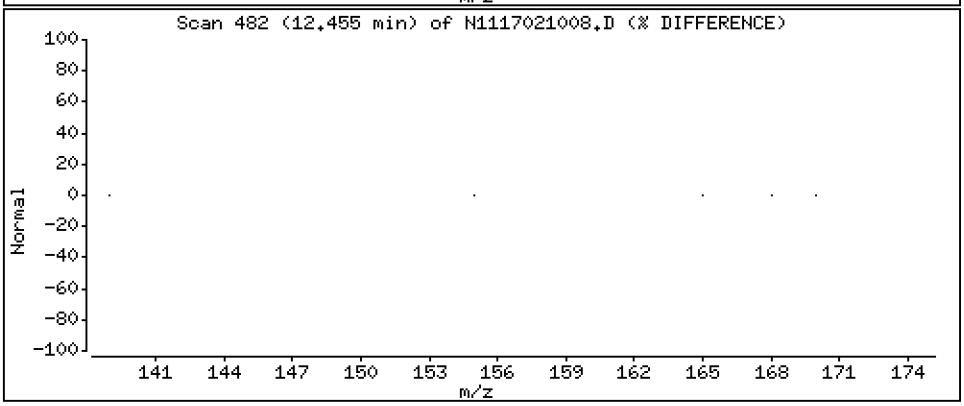












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021008.D

Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

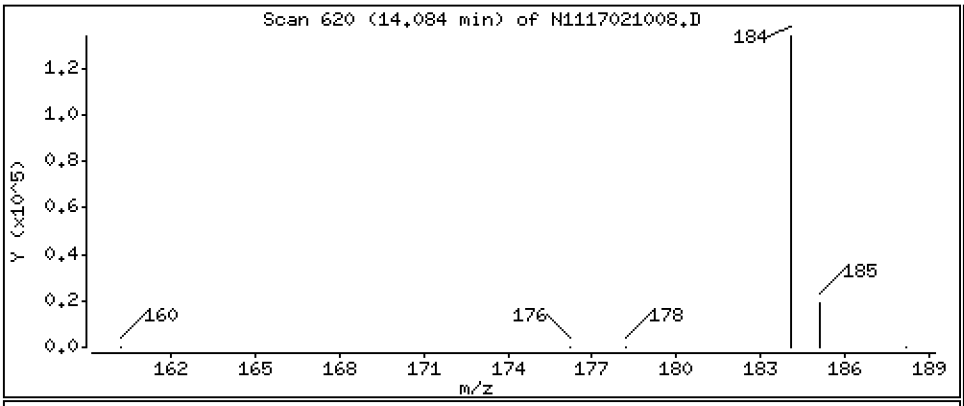
Operator: VTS

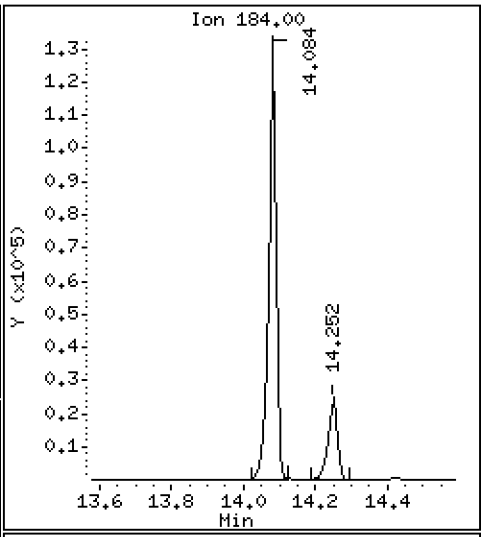
Column phase: Rxi-17Sil MS

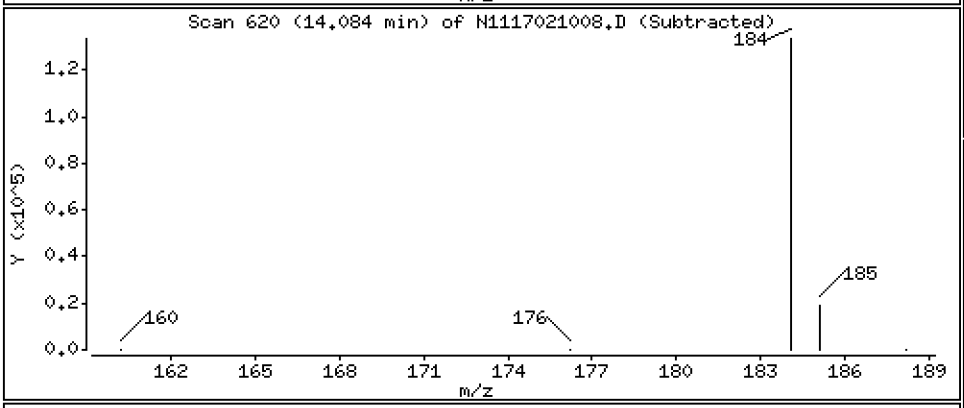
Column diameter: 0.25

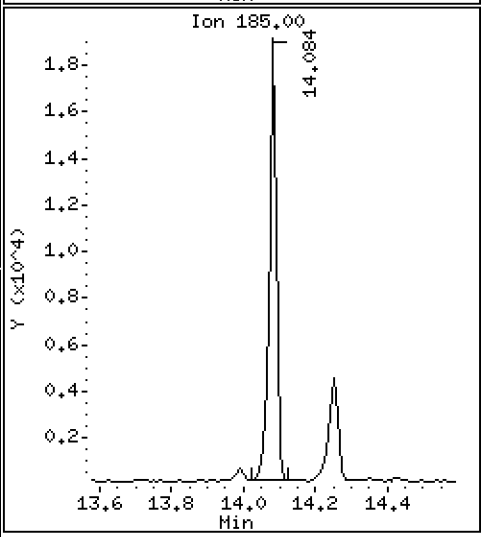
17 Dibenzothiophene

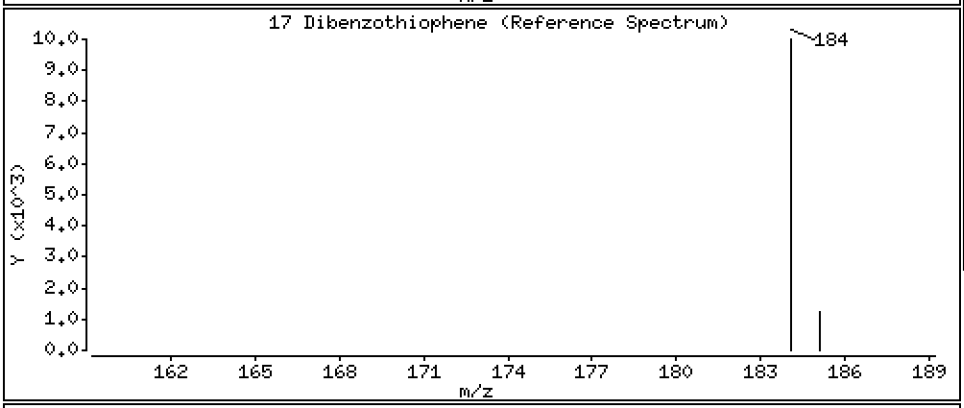
Concentration: 129 ng/mL

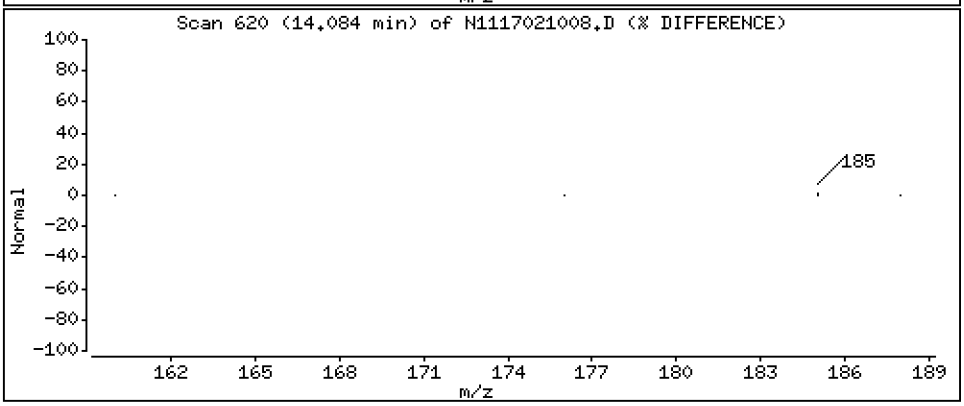












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

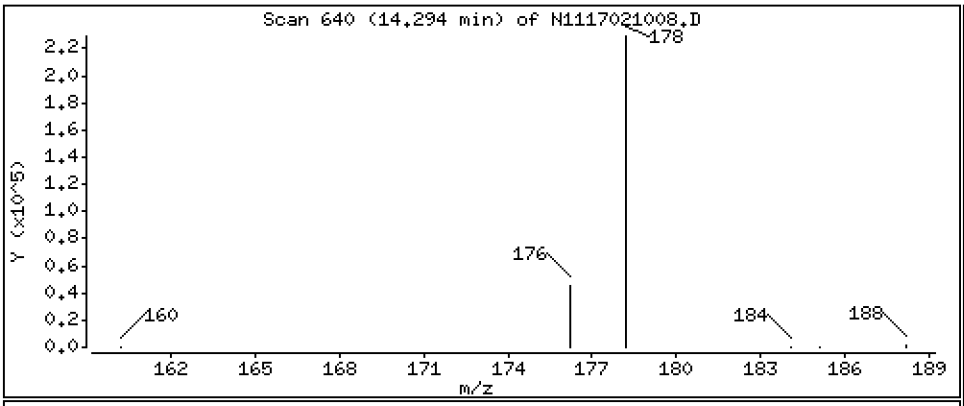
Operator: VTS

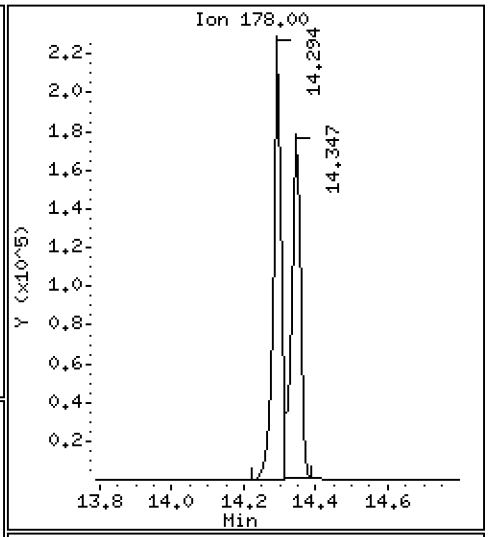
Column phase: Rxi-17Sil MS

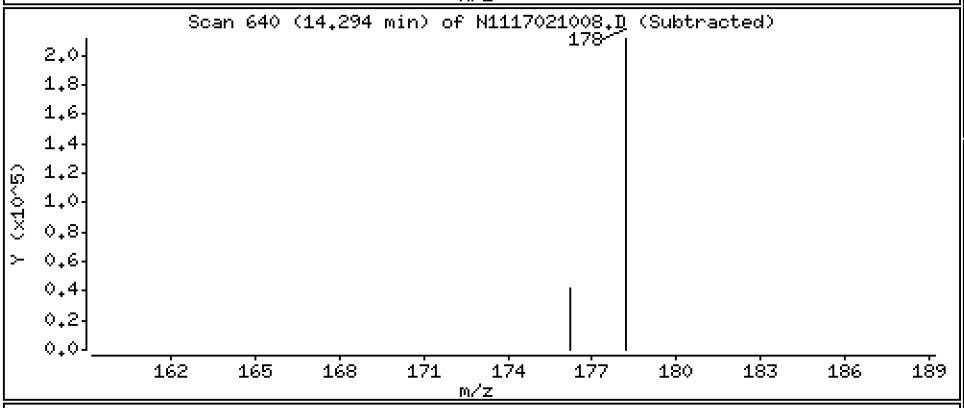
Column diameter: 0.25

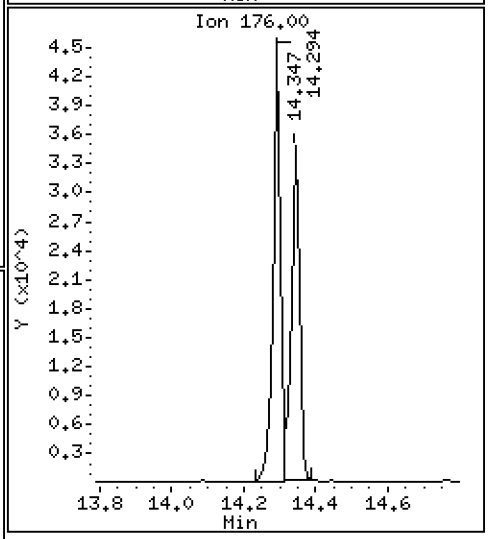
19 Phenanthrene

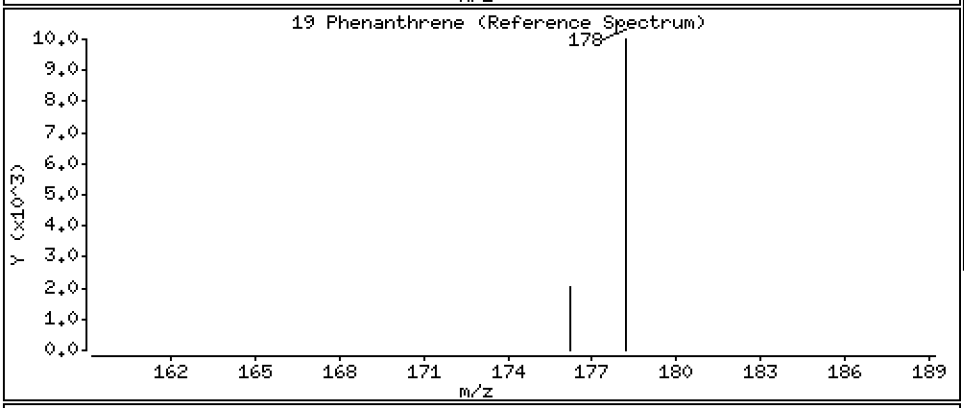
Concentration: 186 ng/mL

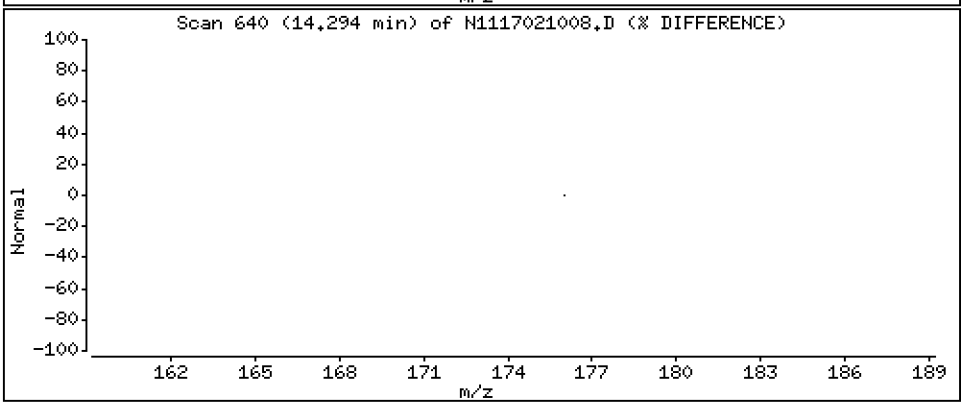












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

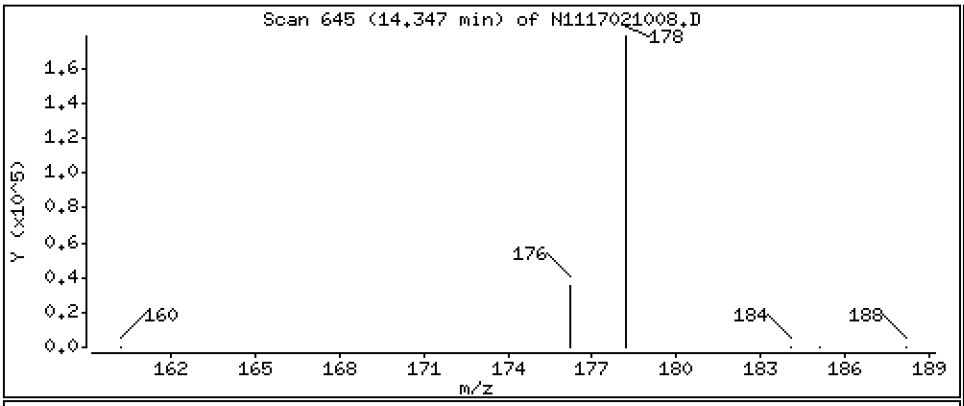
Operator: VTS

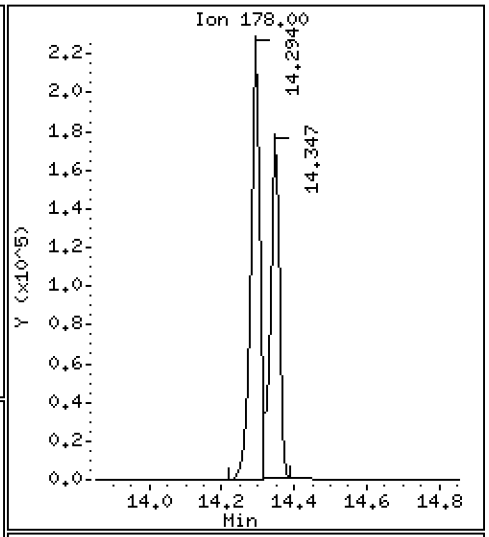
Column phase: Rxi-17Sil MS

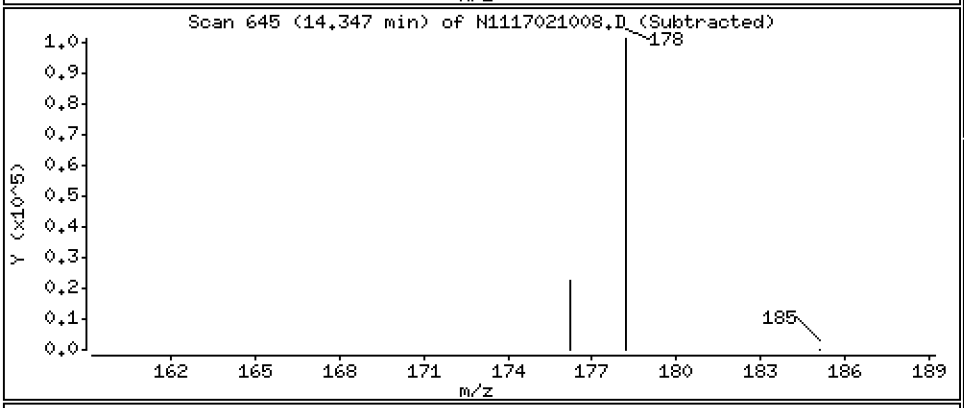
Column diameter: 0.25

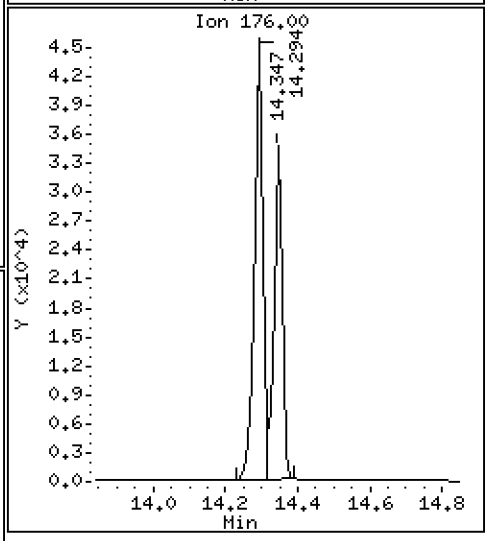
21 Anthracene

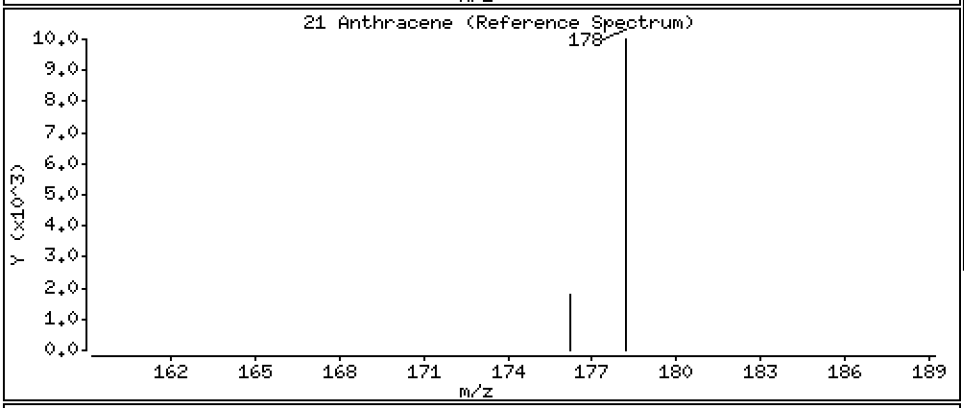
Concentration: 151 ng/mL

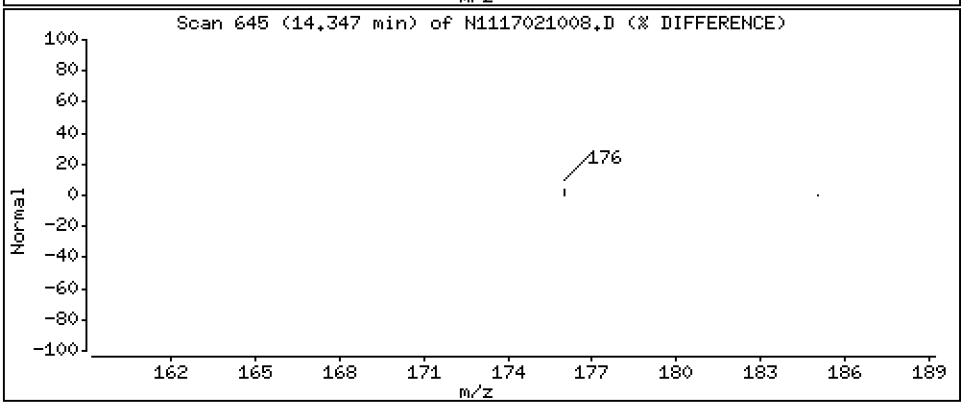












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021008.D

Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

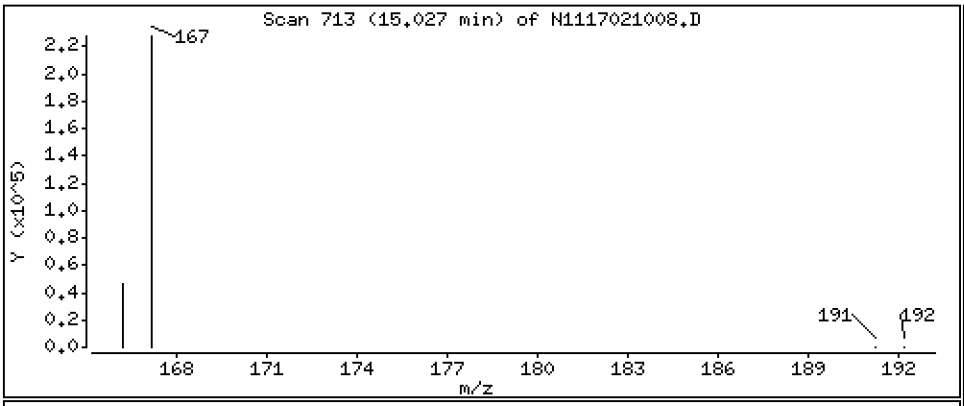
Operator: VTS

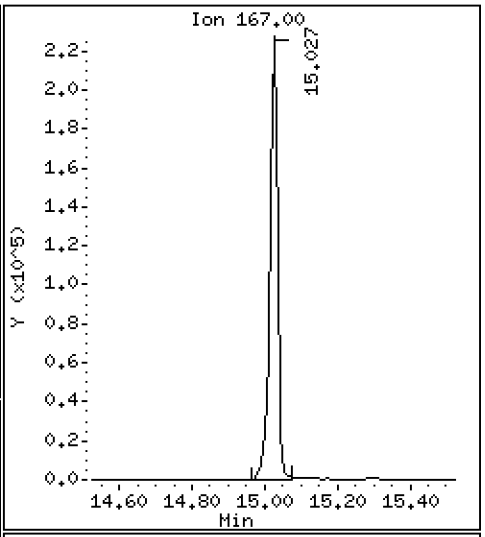
Column phase: Rxi-17Sil MS

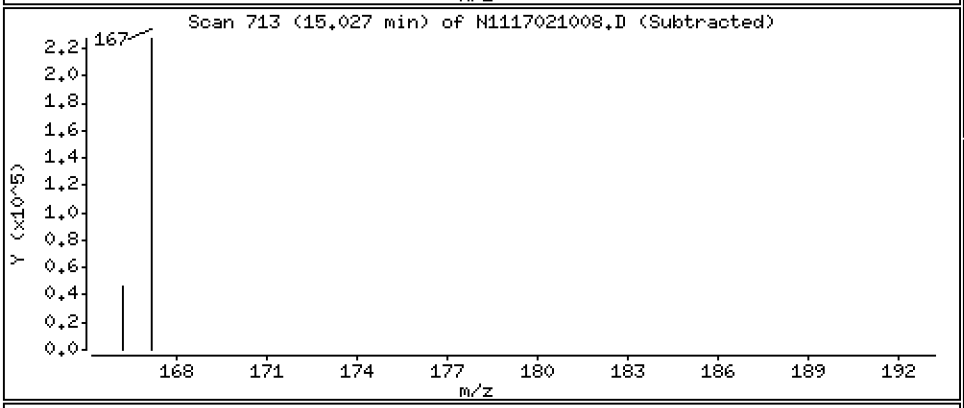
Column diameter: 0.25

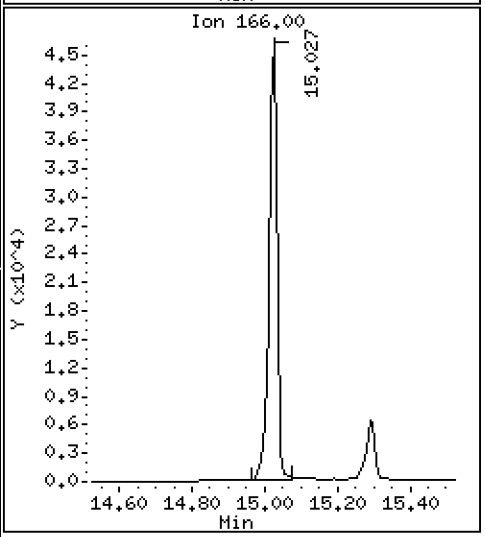
22 Carbazole

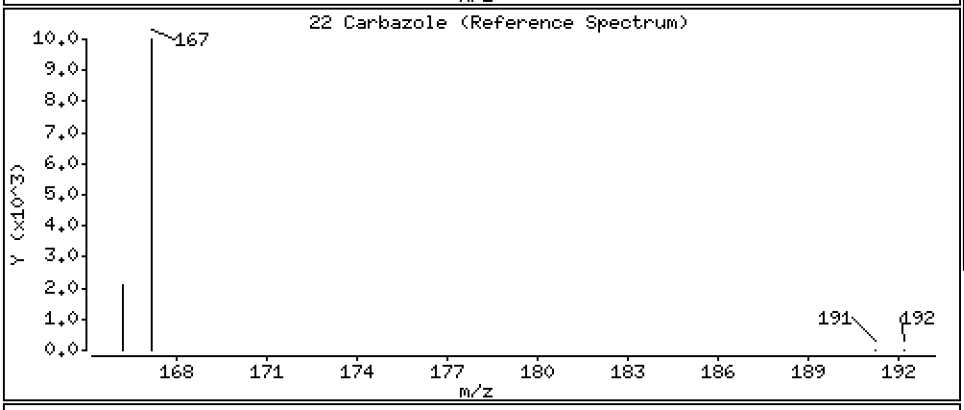
Concentration: 149 ng/mL

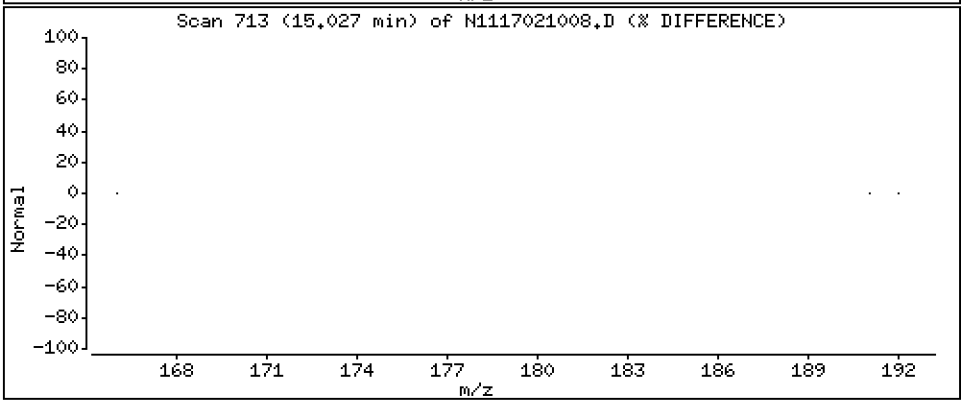












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

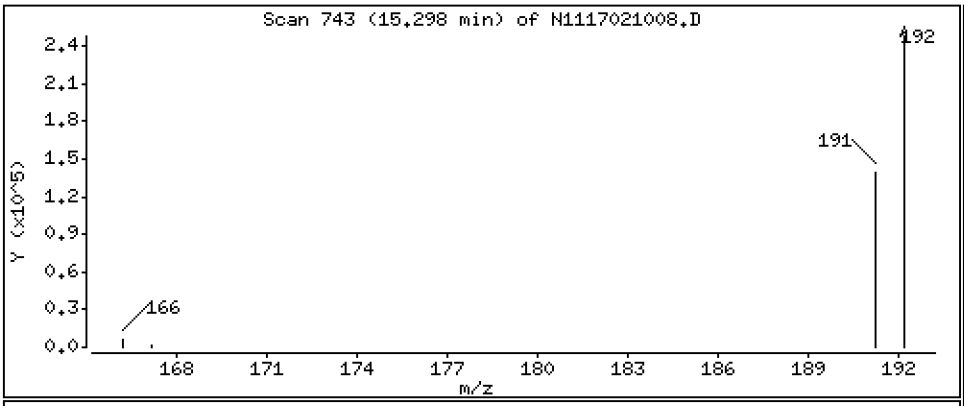
Operator: VTS

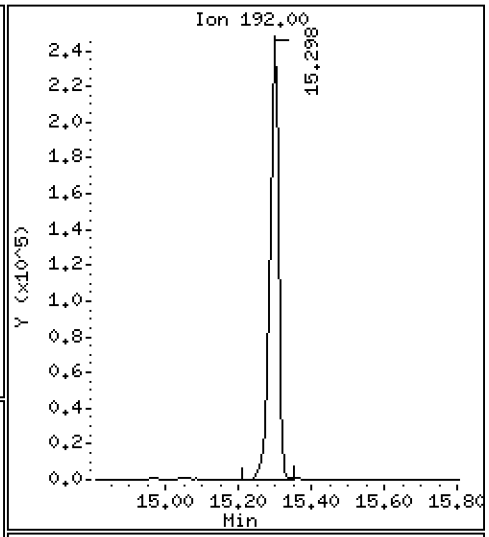
Column phase: Rxi-17Sil MS

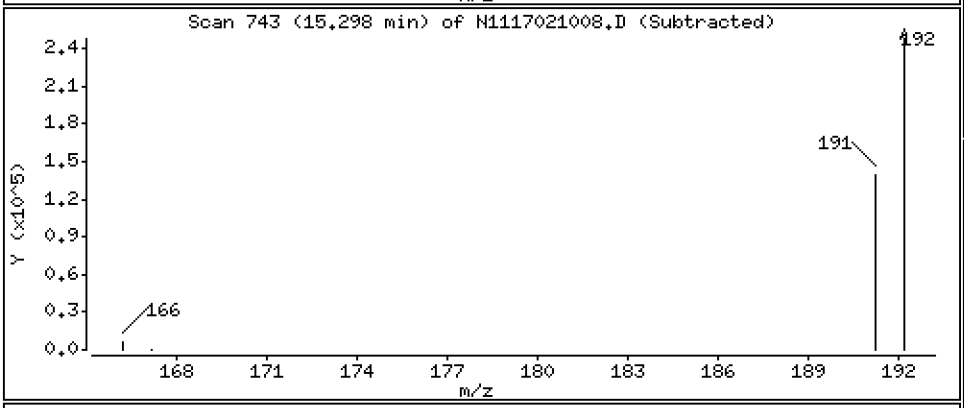
Column diameter: 0.25

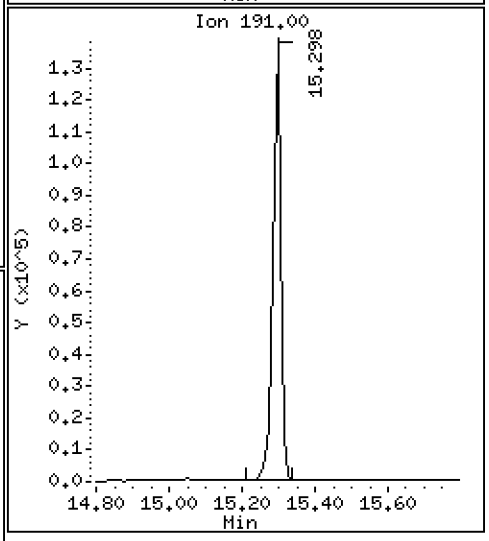
23 1-Methylphenanthrene

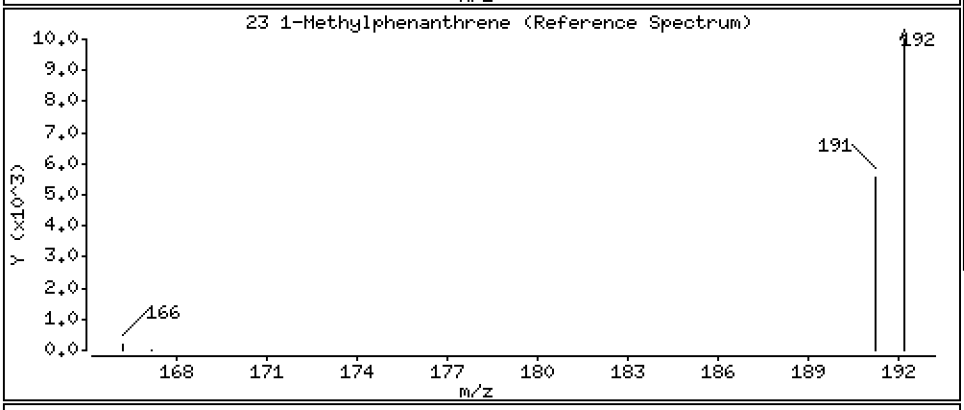
Concentration: 184 ng/mL

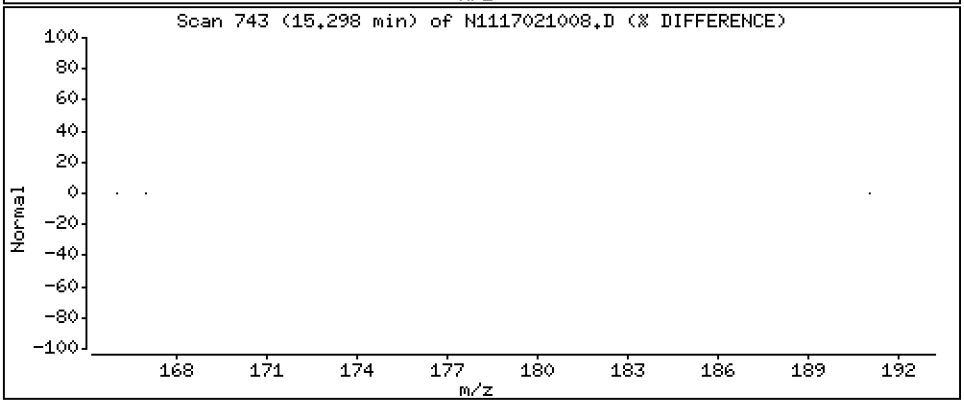












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

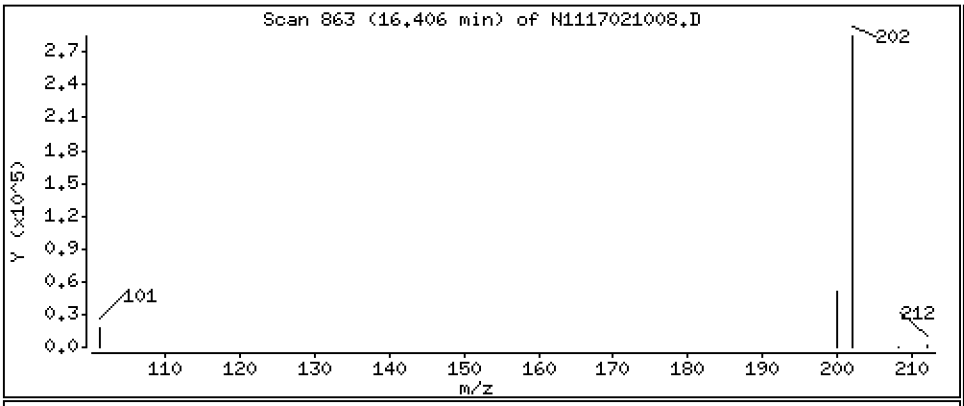
Operator: VTS

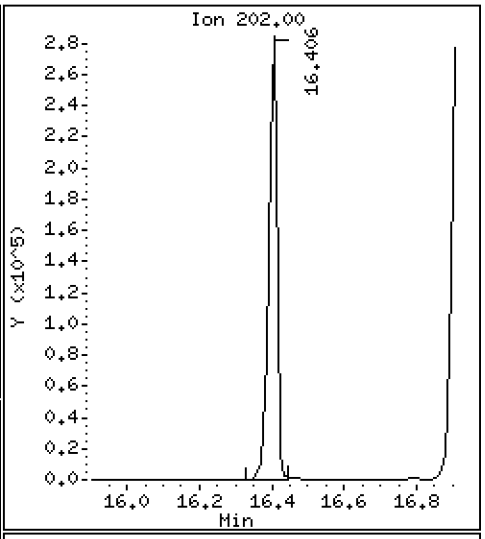
Column phase: Rxi-17Sil MS

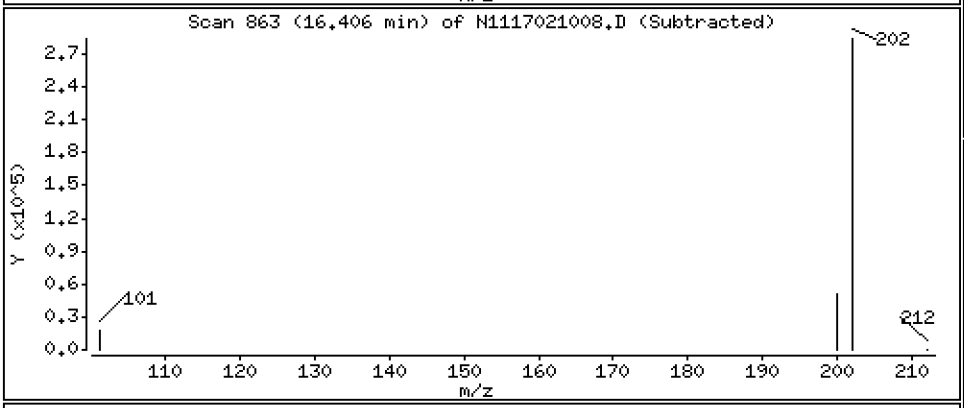
Column diameter: 0.25

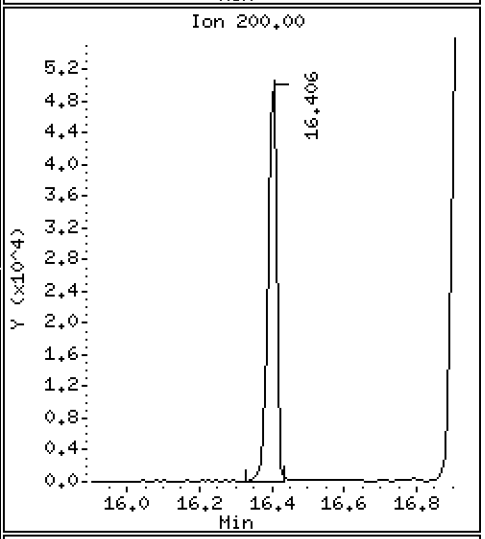
25 Fluoranthene

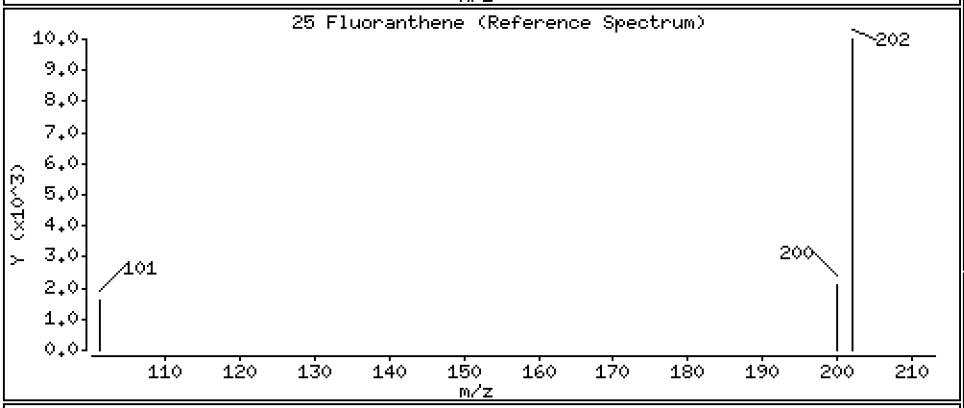
Concentration: 187 ng/mL

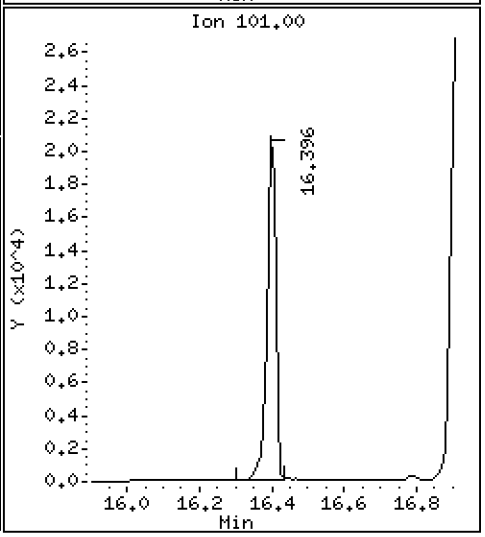


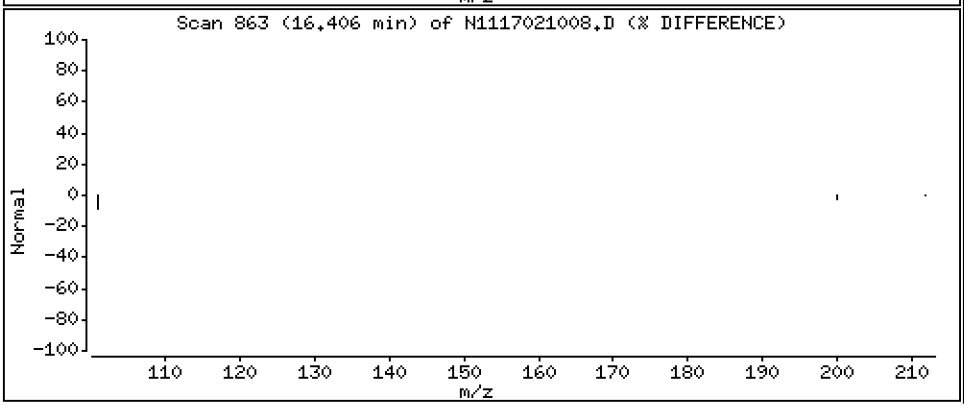












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

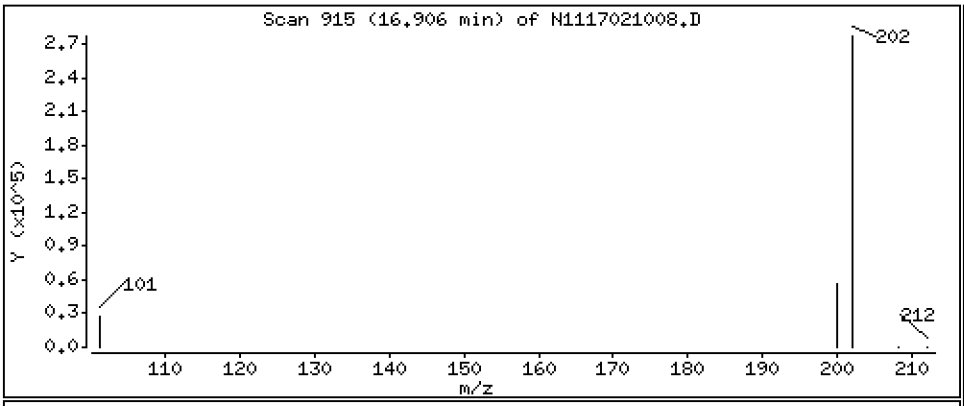
Operator: VTS

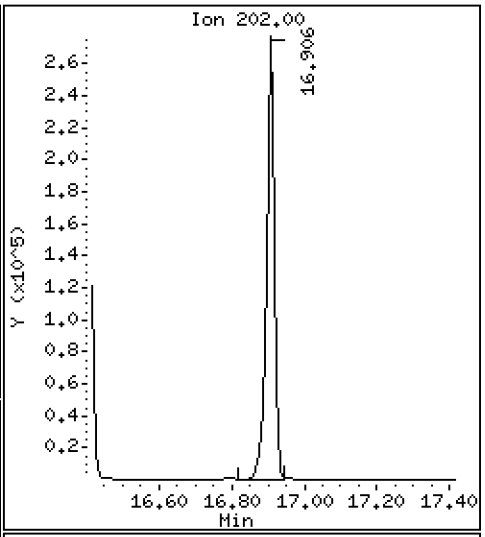
Column phase: Rxi-17Sil MS

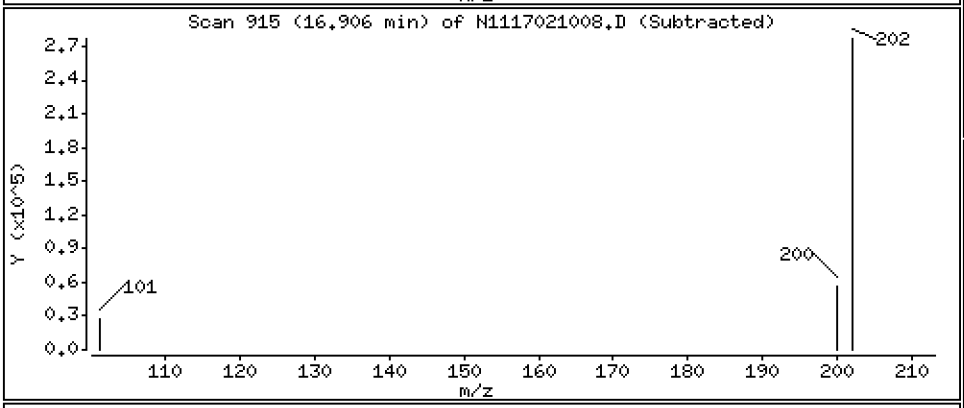
Column diameter: 0.25

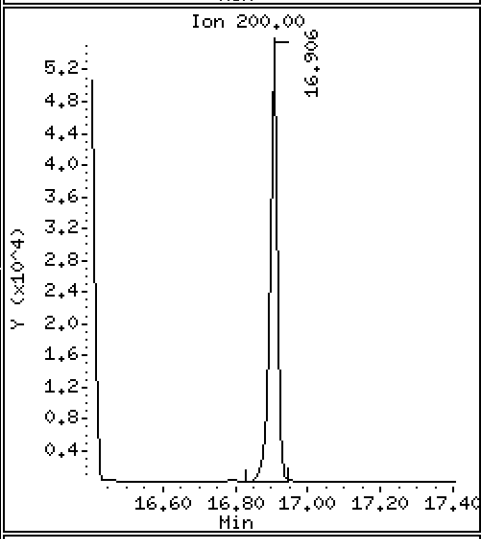
26 Pyrene

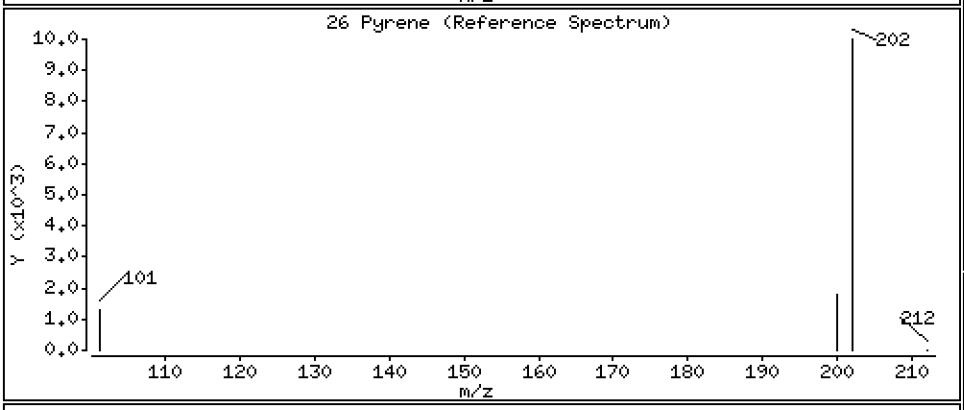
Concentration: 194 ng/mL

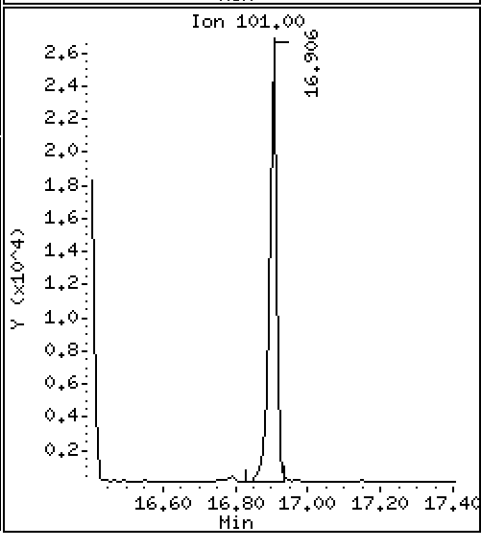


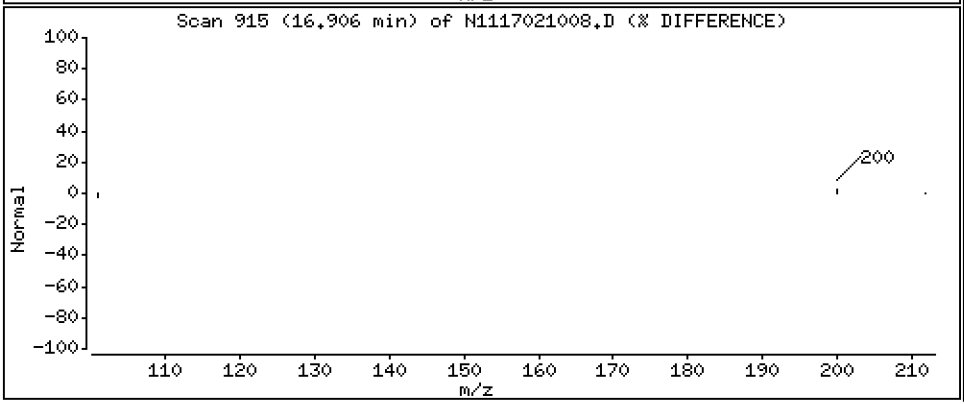












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

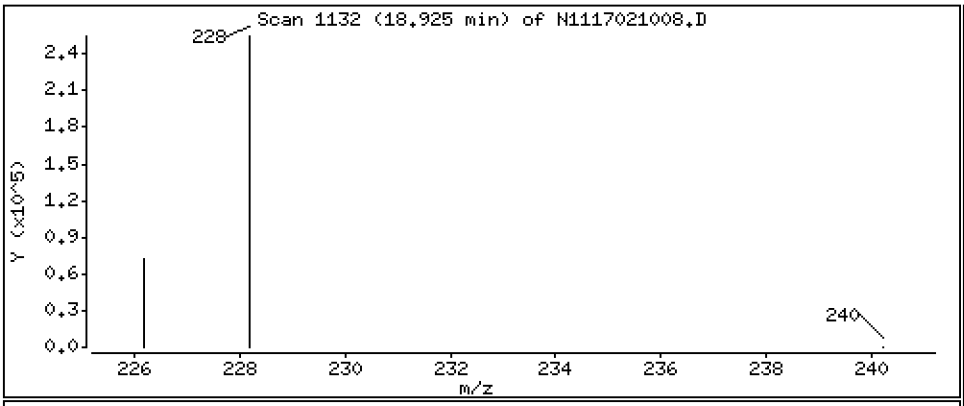
Operator: VTS

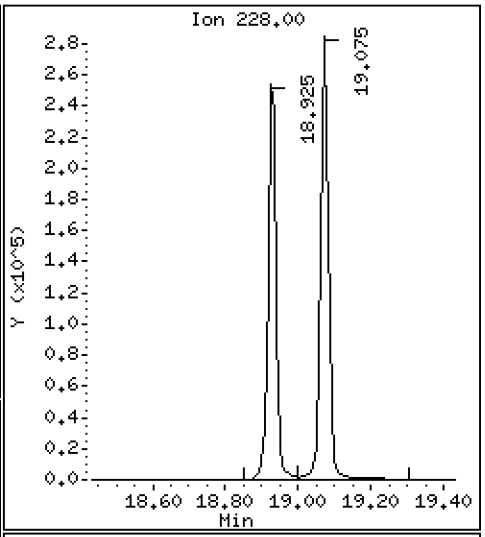
Column phase: Rxi-17Sil MS

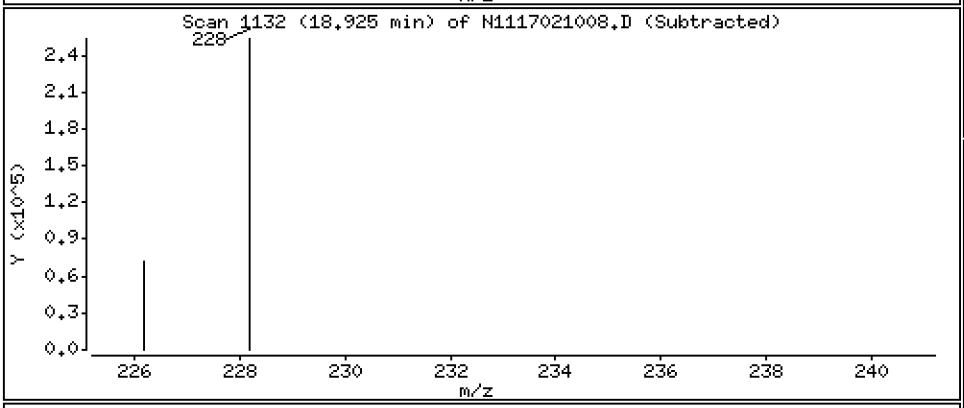
Column diameter: 0.25

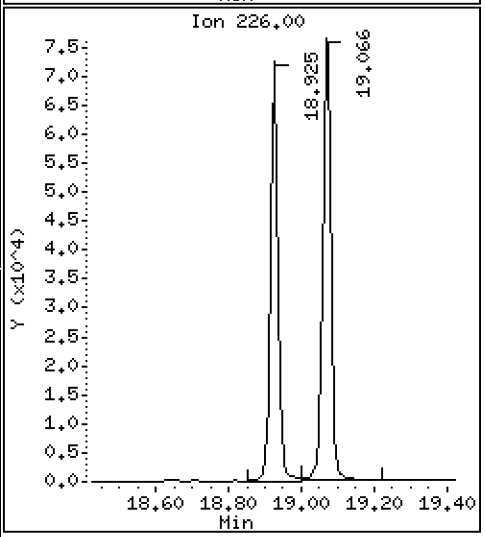
27 Benzo(a)anthracene

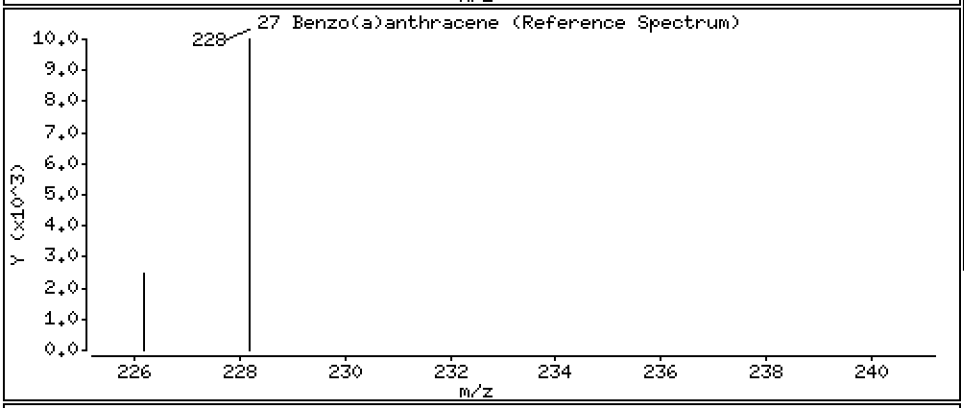
Concentration: 189 ng/mL

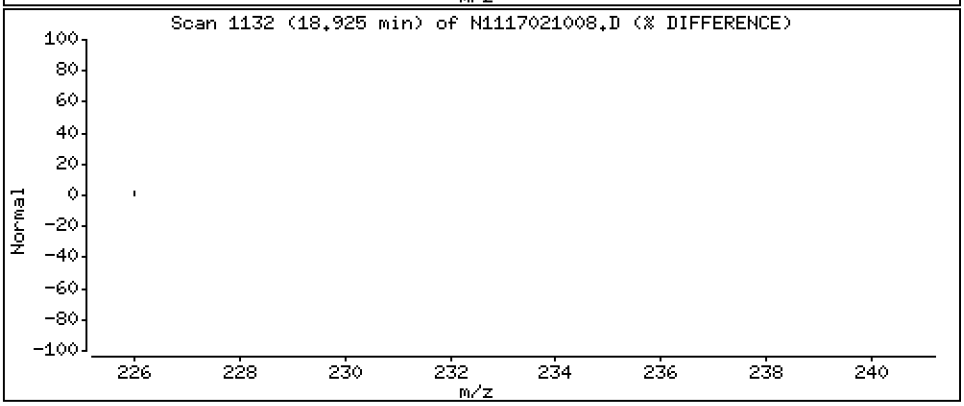












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

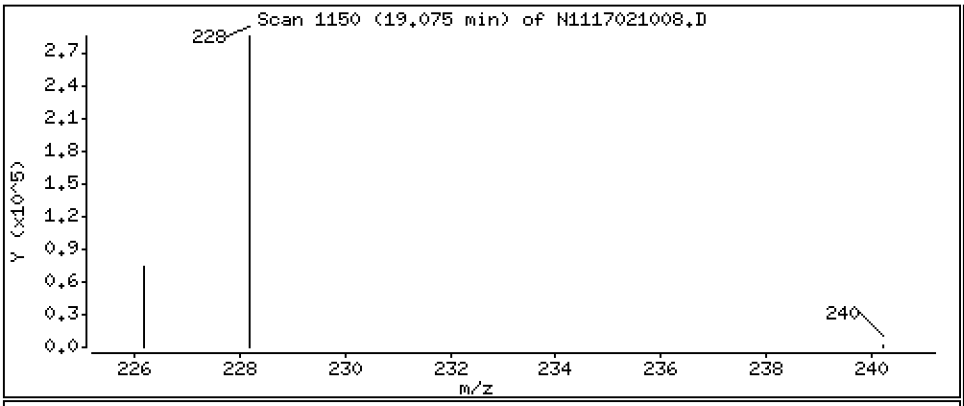
Operator: VTS

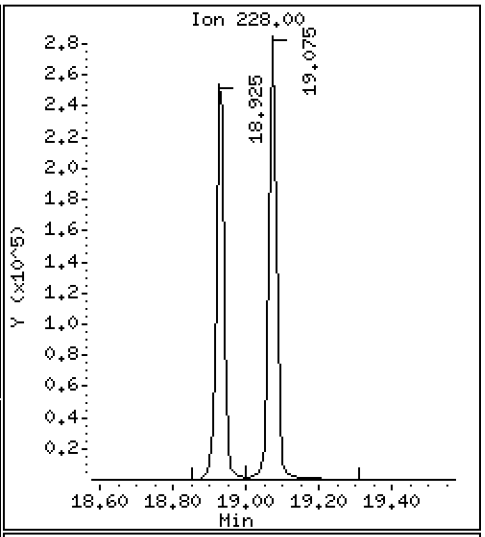
Column phase: Rxi-17Sil MS

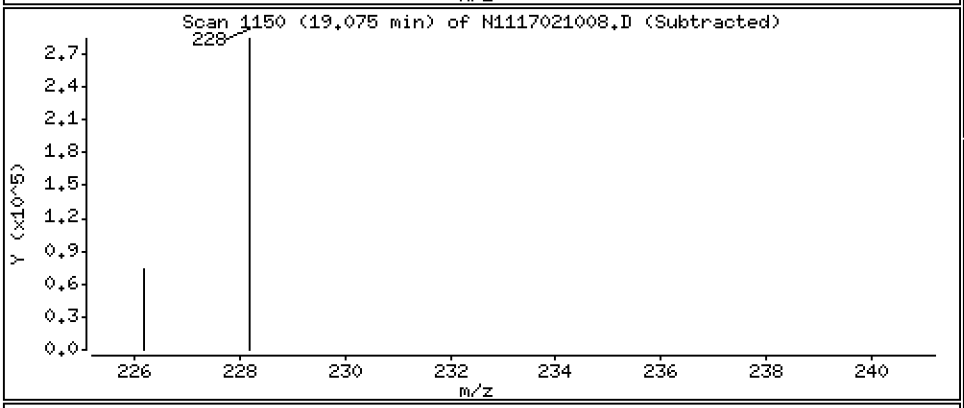
Column diameter: 0.25

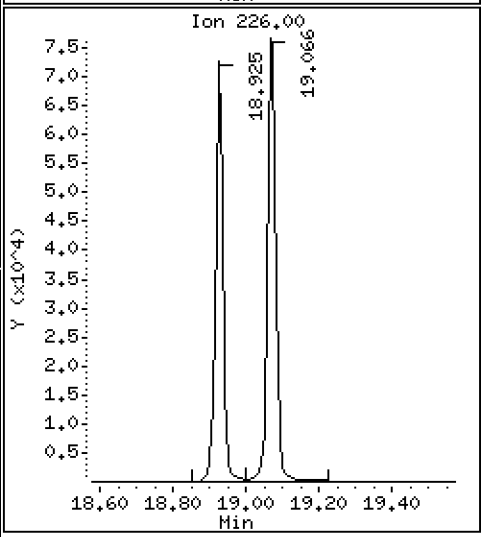
29 Chrysene

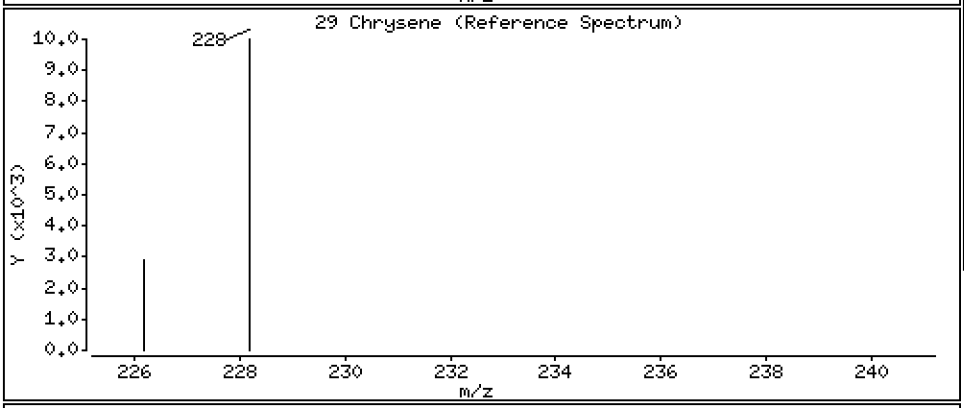
Concentration: 198 ng/mL

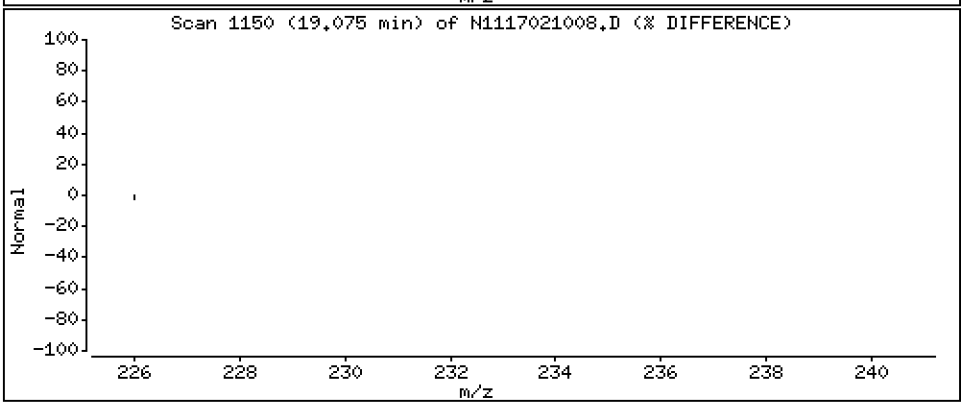












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

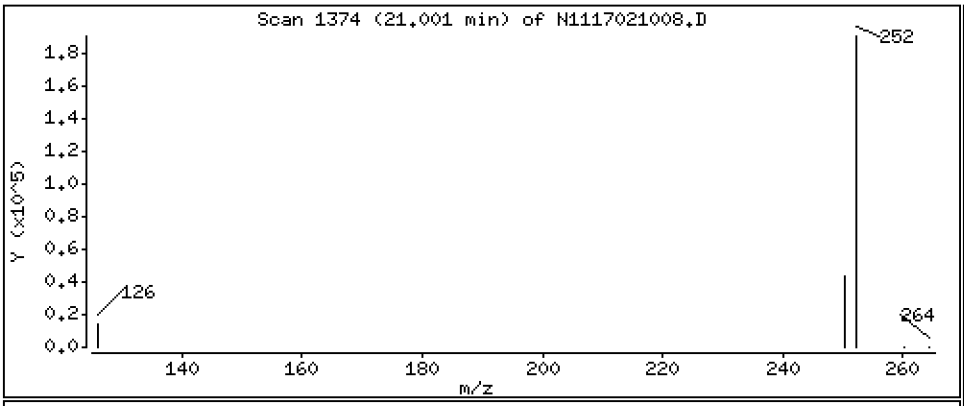
Operator: VTS

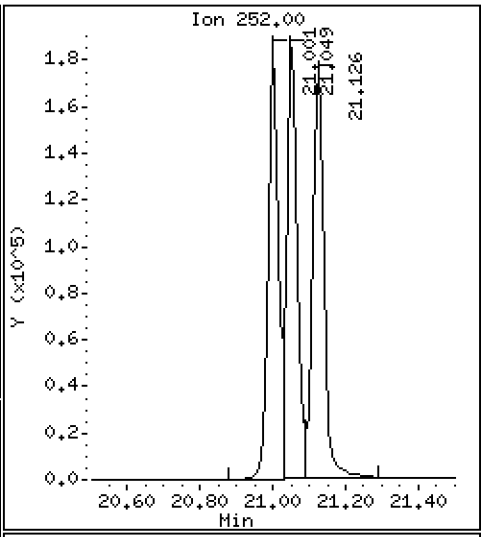
Column phase: Rxi-17Sil MS

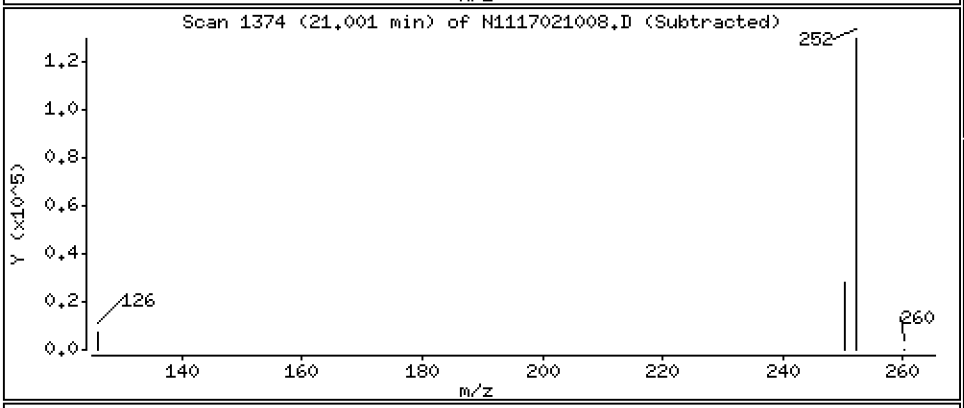
Column diameter: 0.25

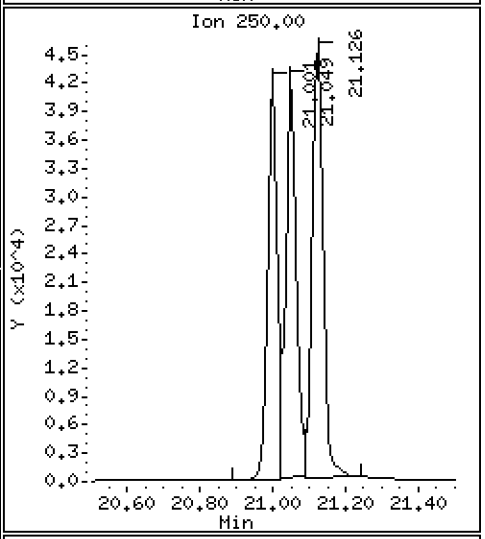
30 Benzo(b)fluoranthene

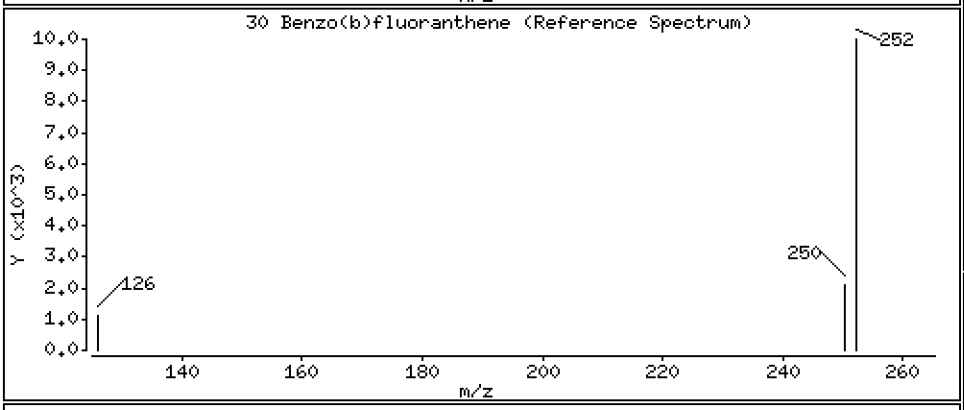
Concentration: 217 ng/mL

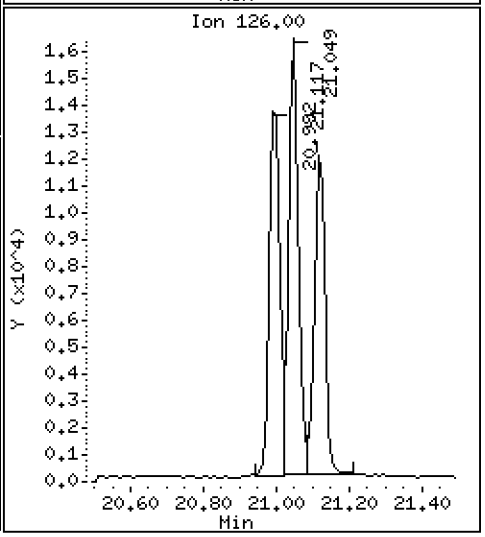


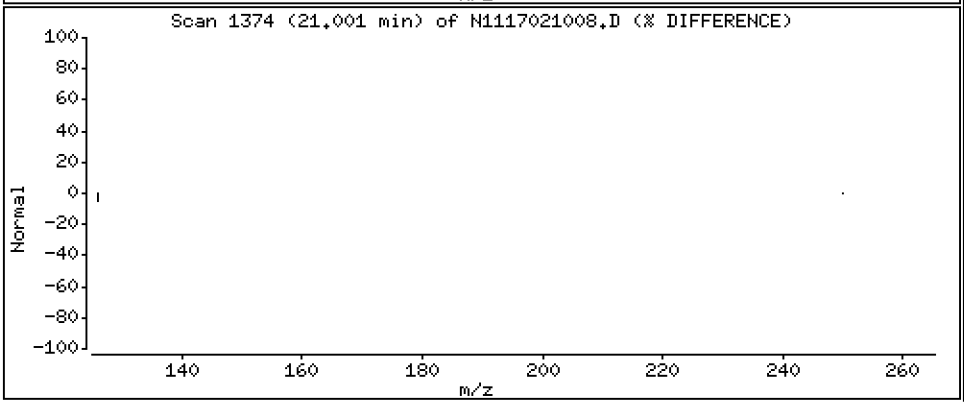












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

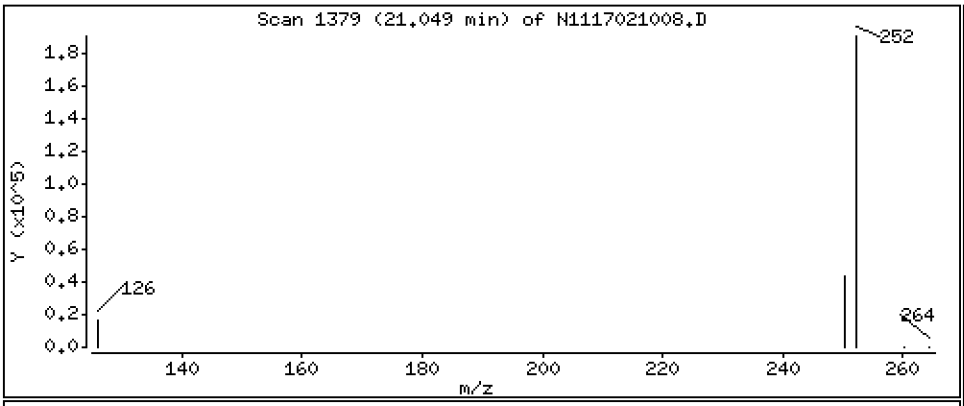
Operator: VTS

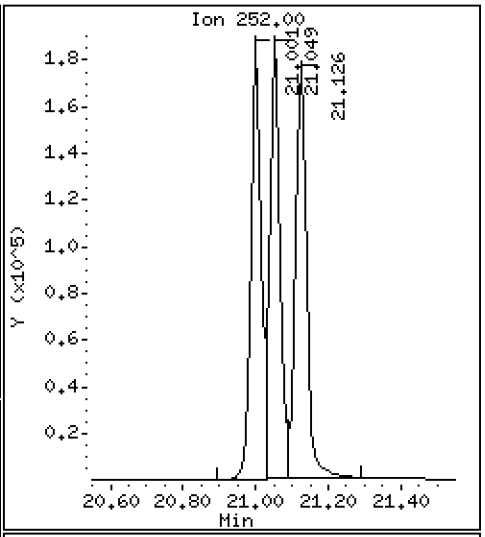
Column phase: Rxi-17Sil MS

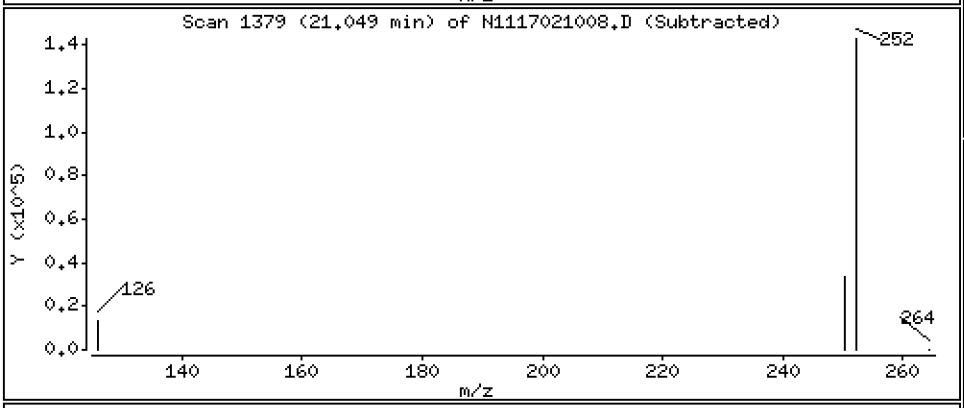
Column diameter: 0.25

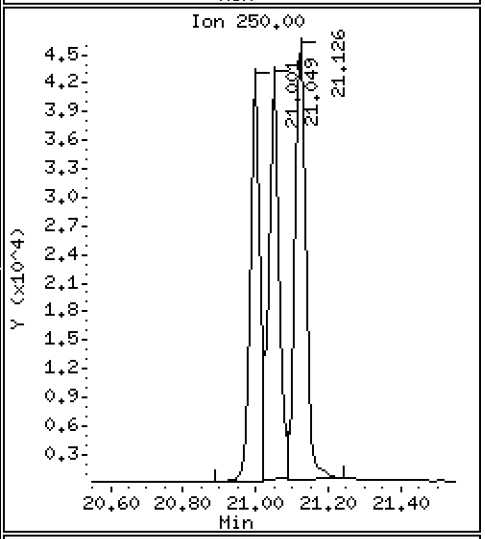
31 Benzo(k)fluoranthene

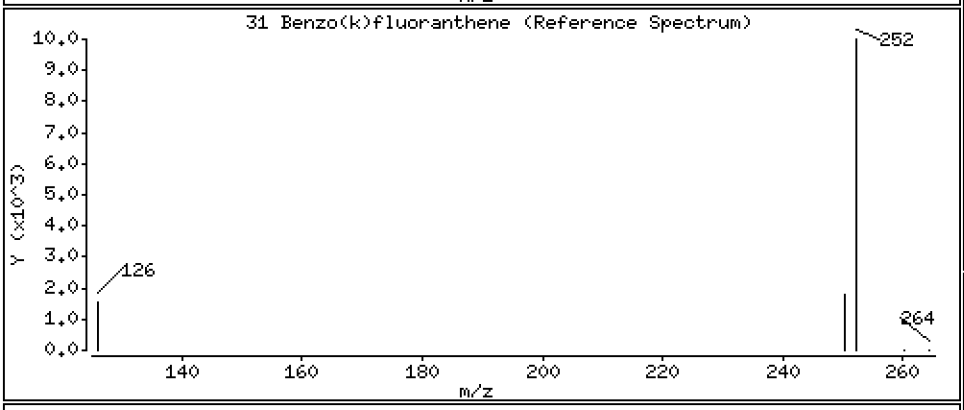
Concentration: 198 ng/mL

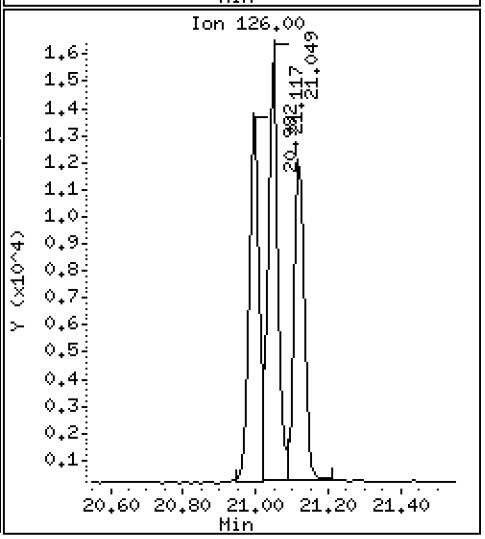


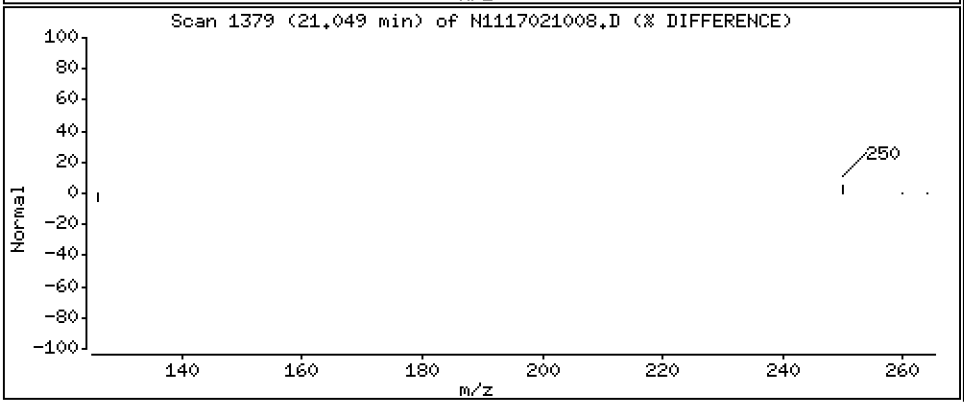












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

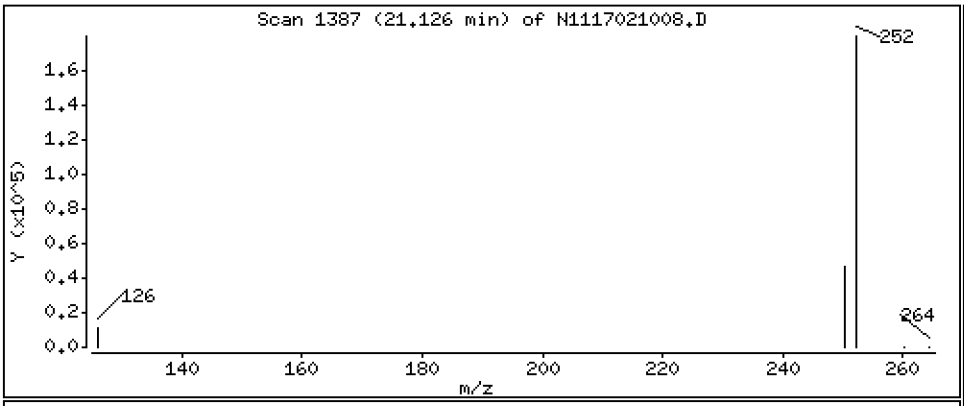
Operator: VTS

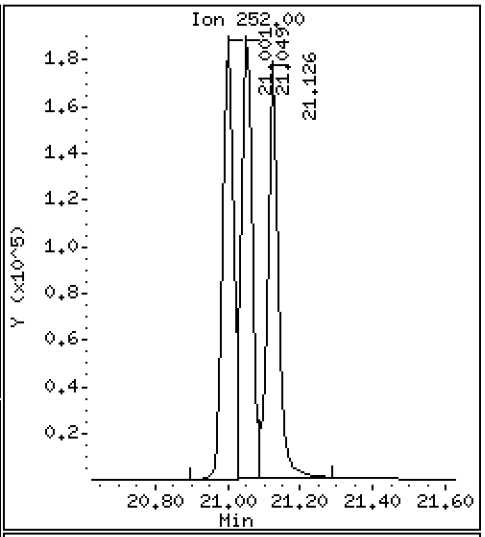
Column phase: Rxi-17Sil MS

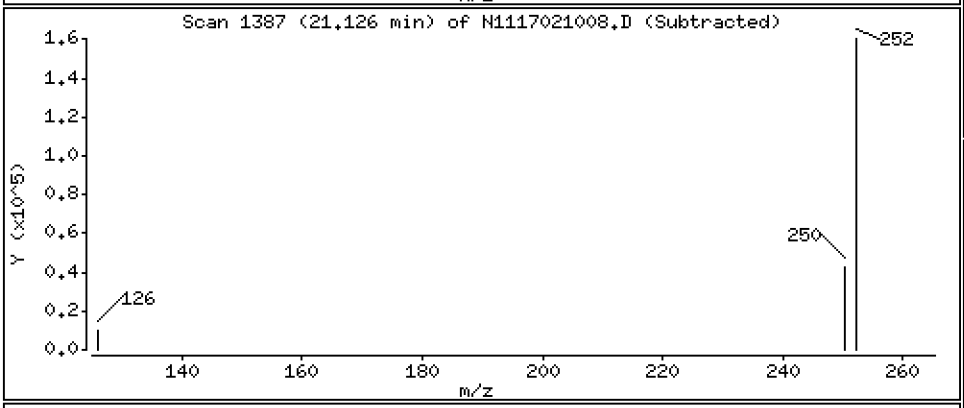
Column diameter: 0.25

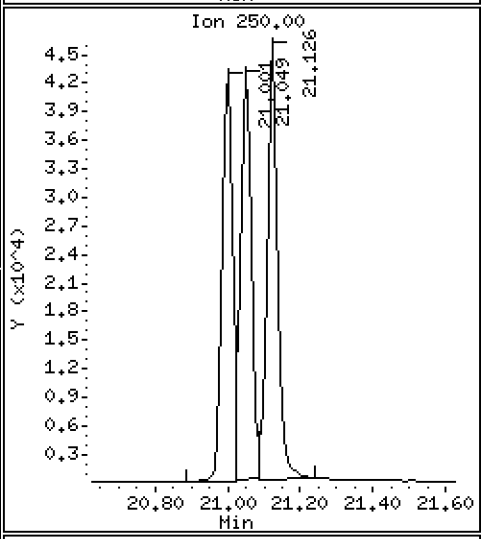
32 Benzo(j)fluoranthene

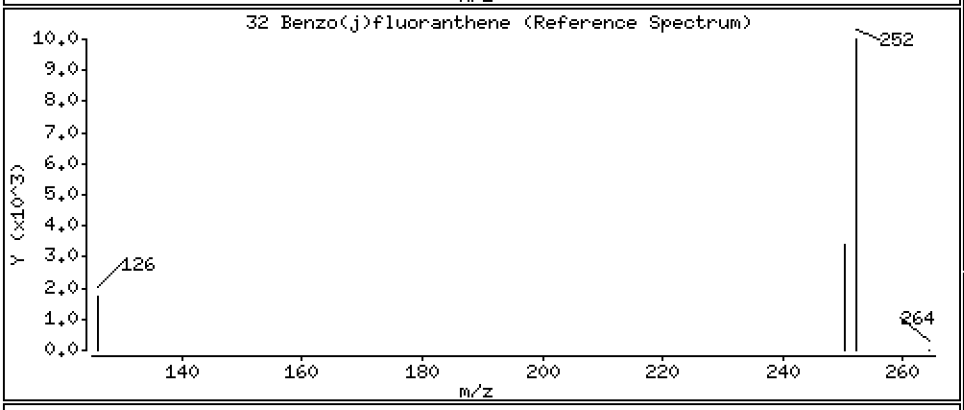
Concentration: 216 ng/mL

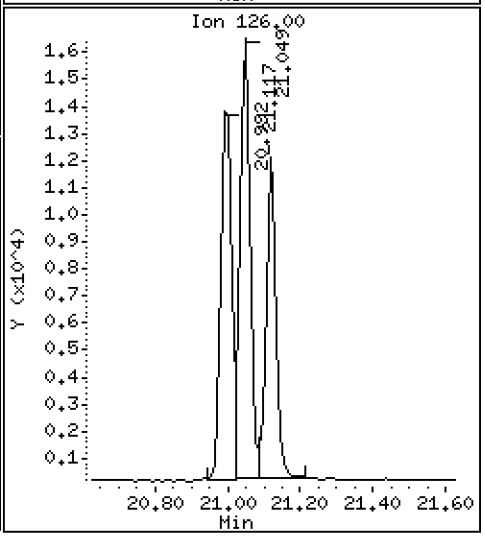


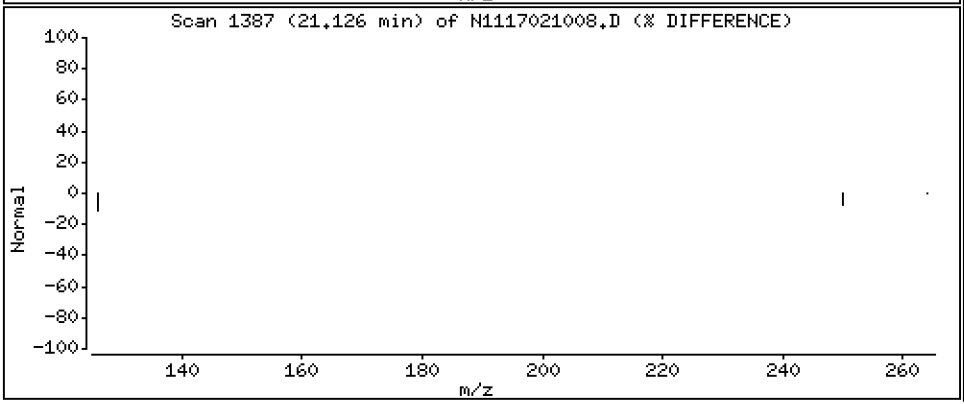












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

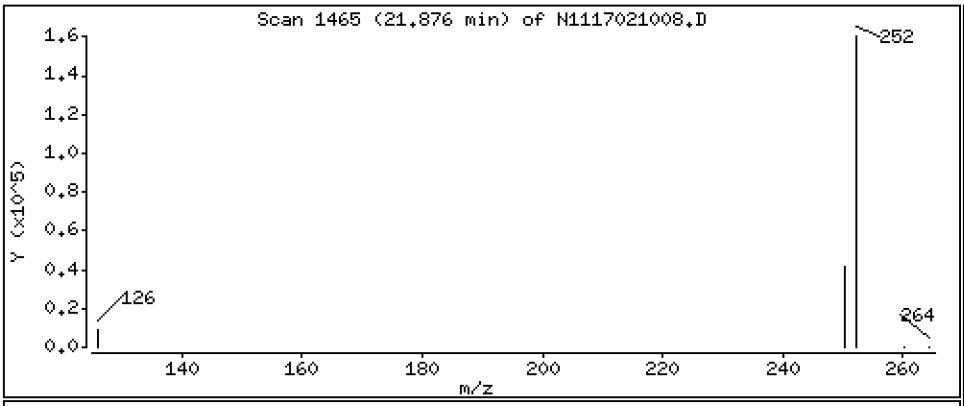
Operator: VTS

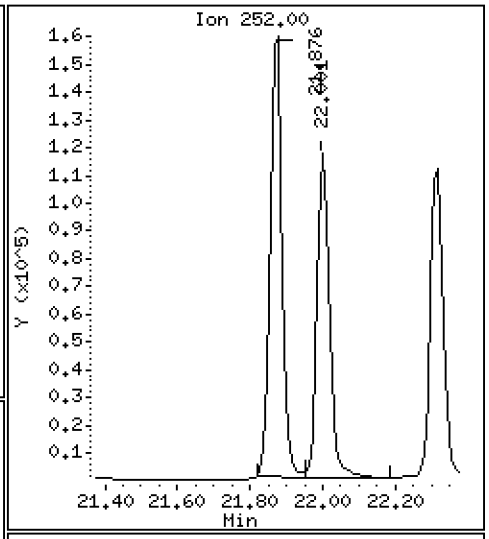
Column phase: Rxi-17Sil MS

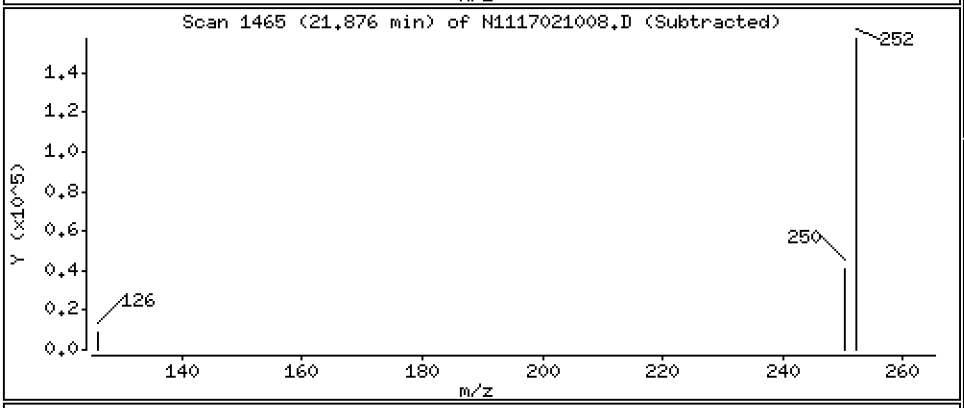
Column diameter: 0.25

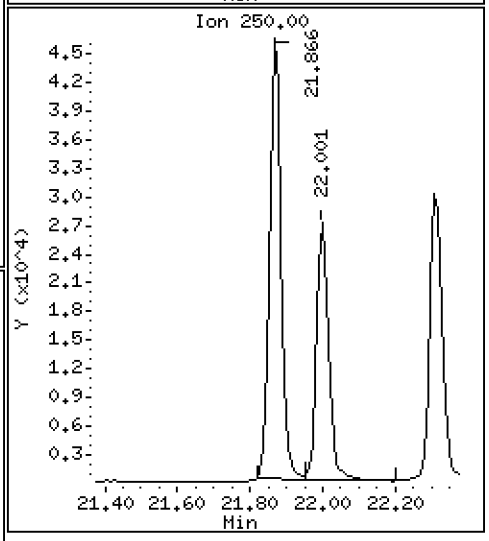
34 Benzo(e)pyrene

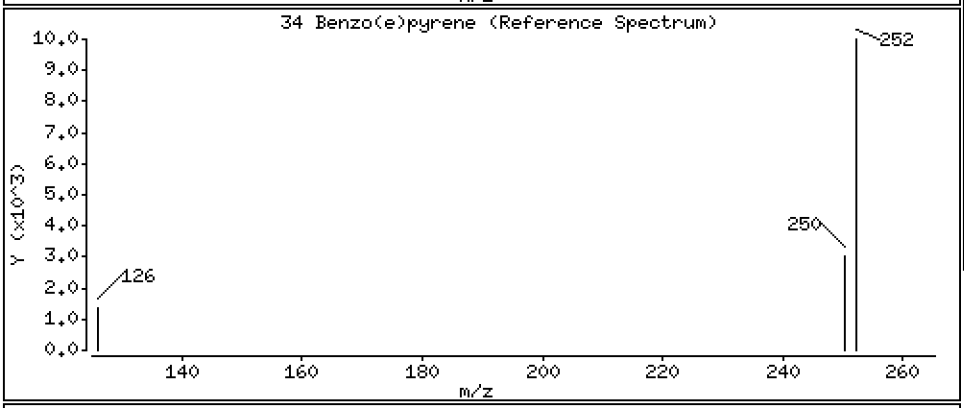
Concentration: 200 ng/mL

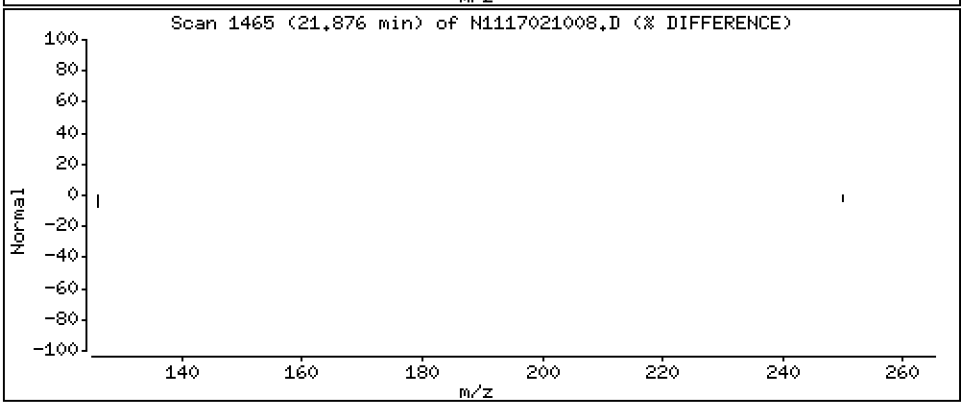












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

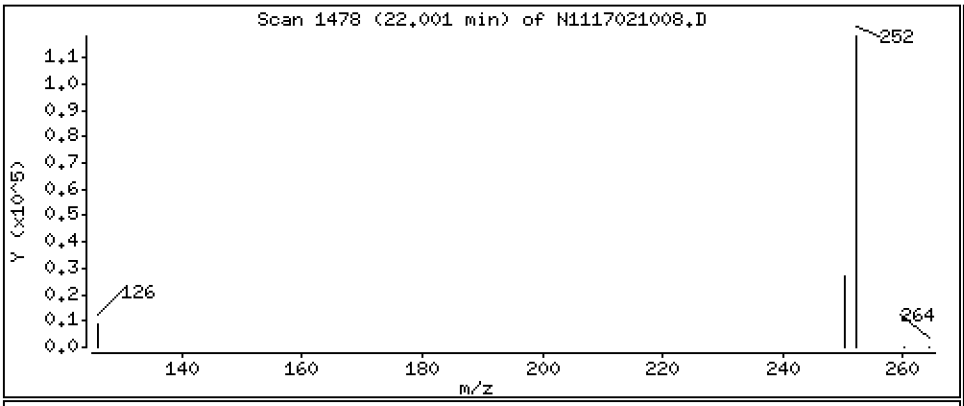
Operator: VTS

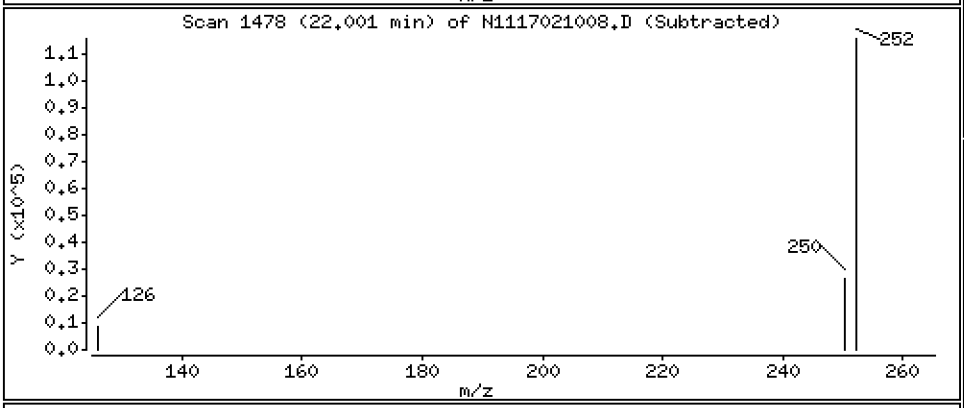
Column phase: Rxi-17Sil MS

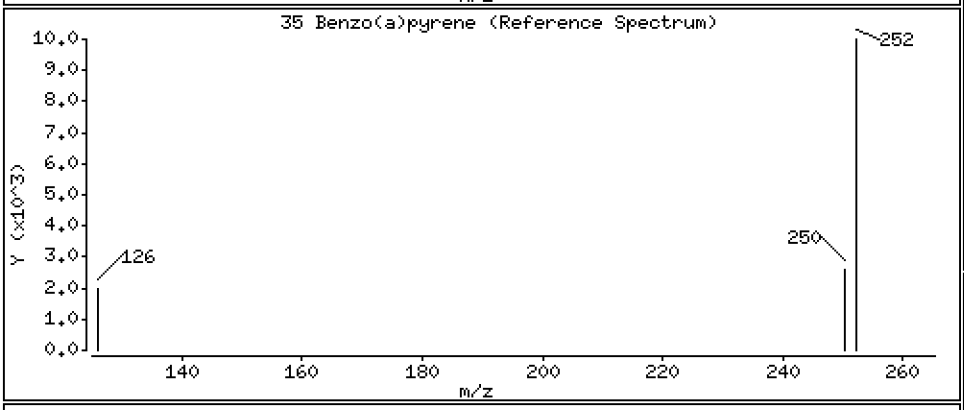
Column diameter: 0.25

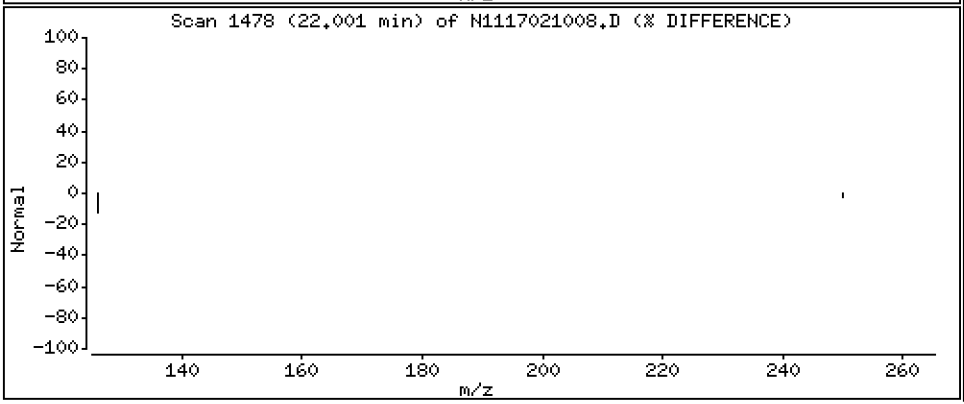
35 Benzo(a)pyrene

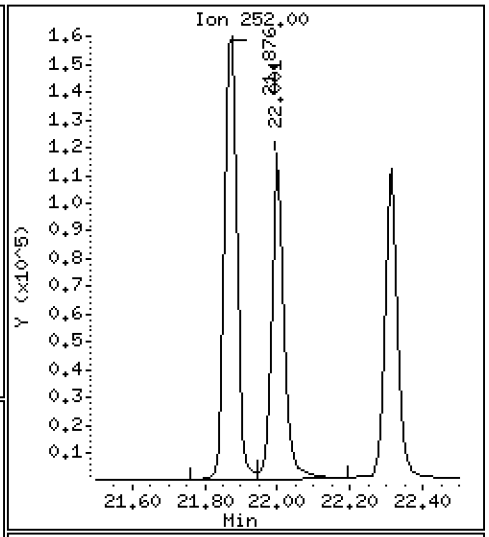
Concentration: 161 ng/mL

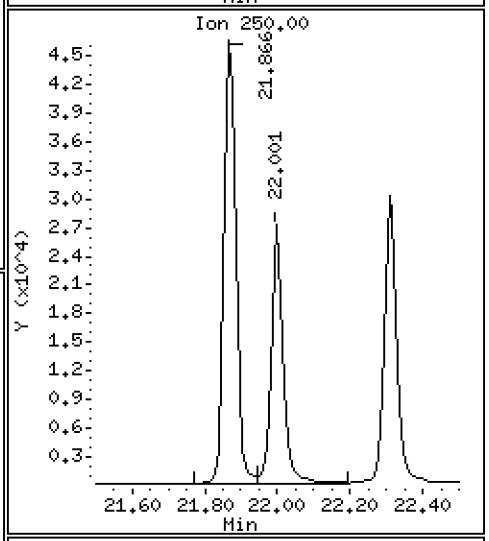


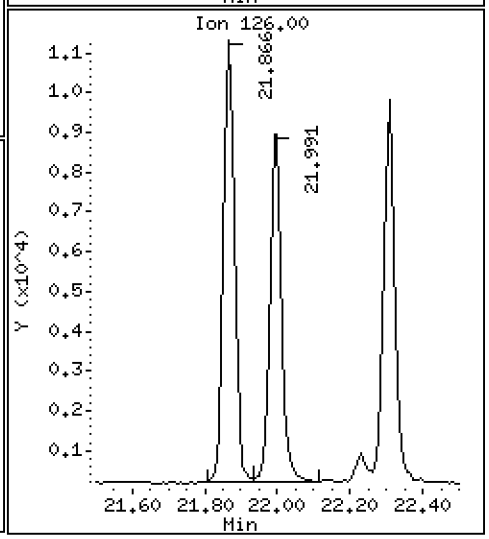












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

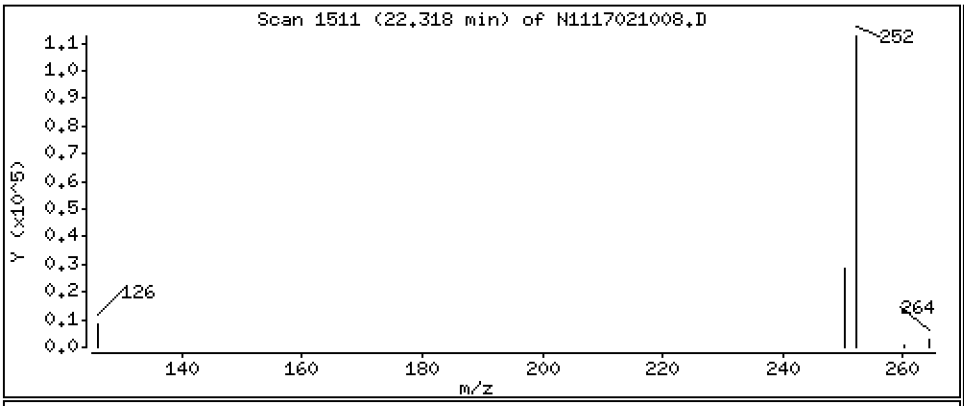
Operator: VTS

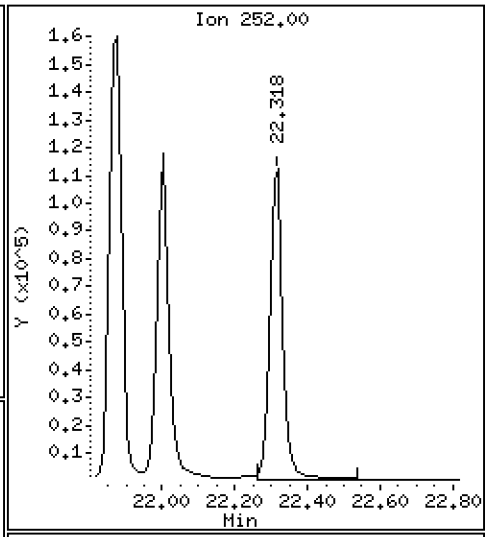
Column phase: Rxi-17Sil MS

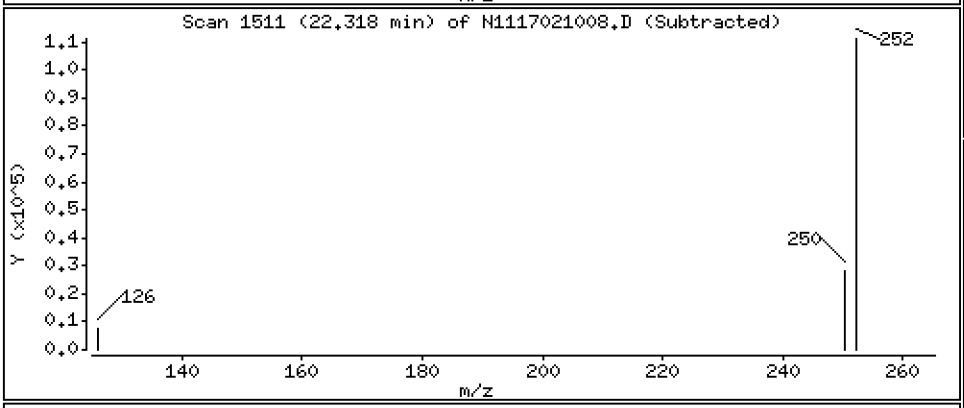
Column diameter: 0.25

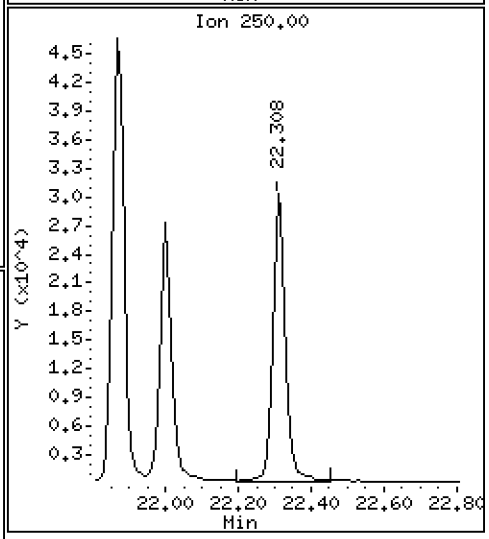
37 Perylene

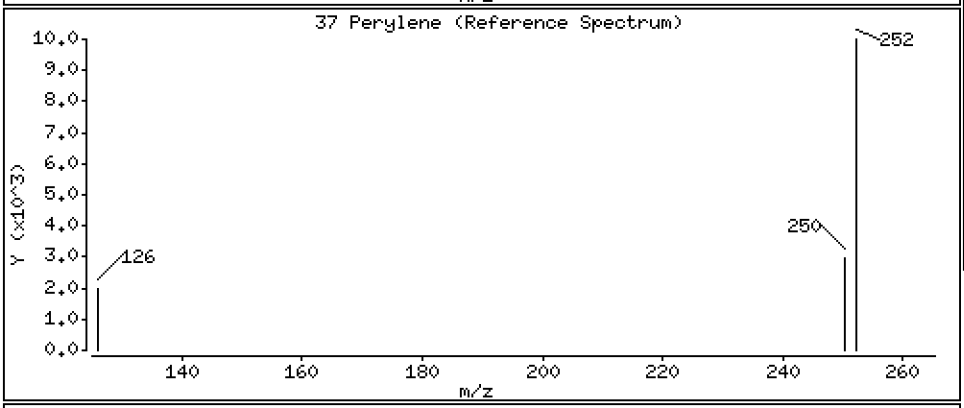
Concentration: 155 ng/mL

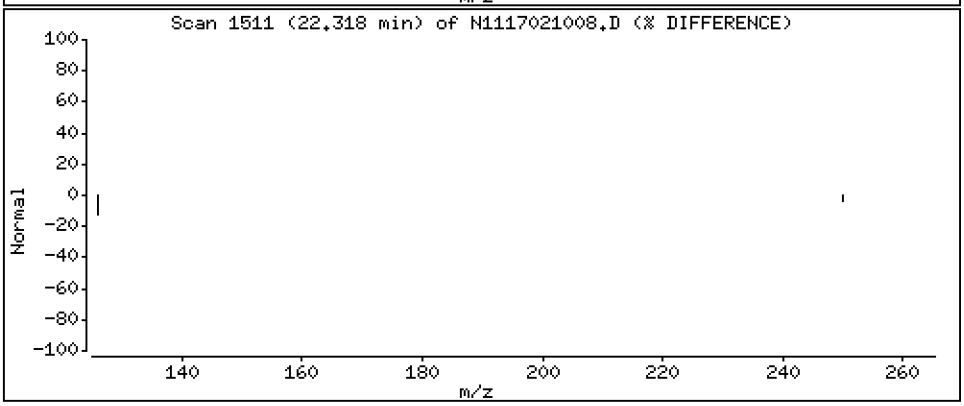












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

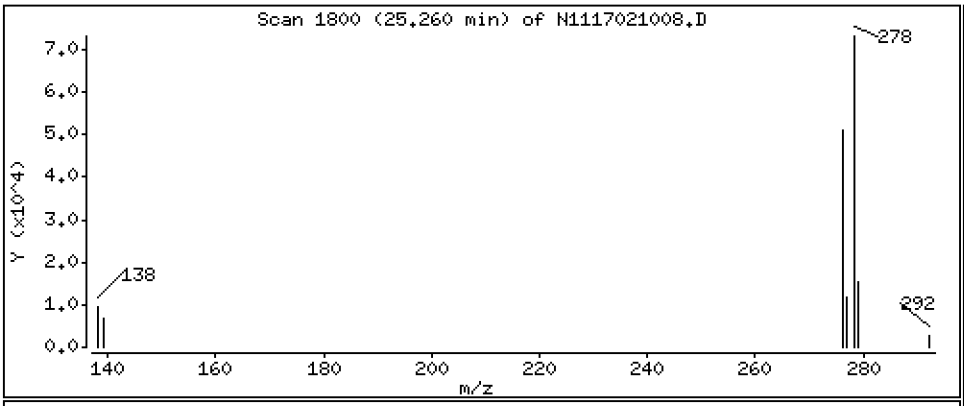
Operator: VTS

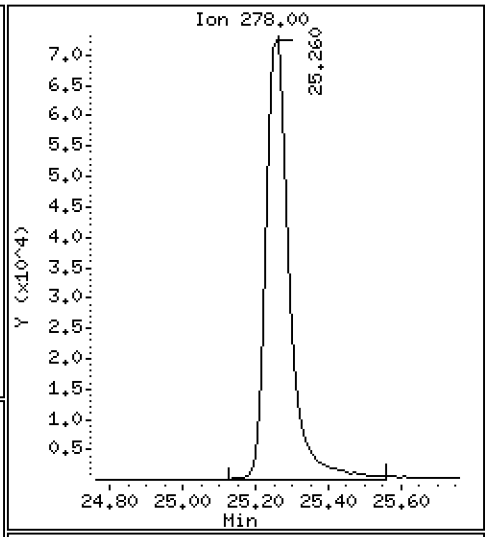
Column phase: Rxi-17Sil MS

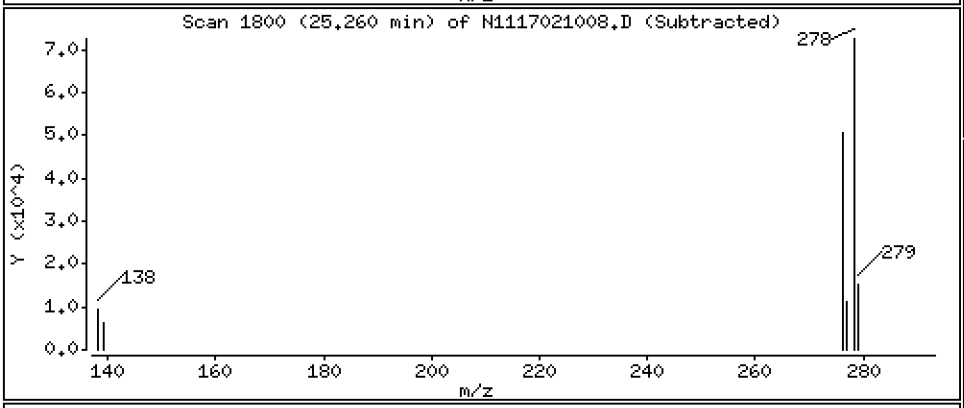
Column diameter: 0.25

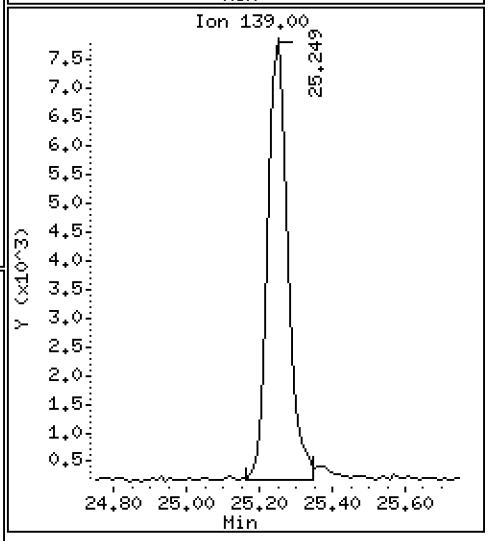
39 Dibenzo(a,h)anthracene

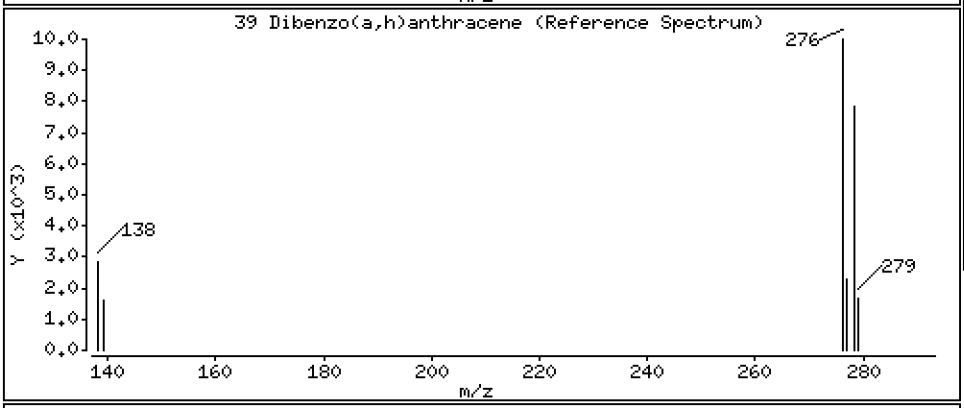
Concentration: 212 ng/mL

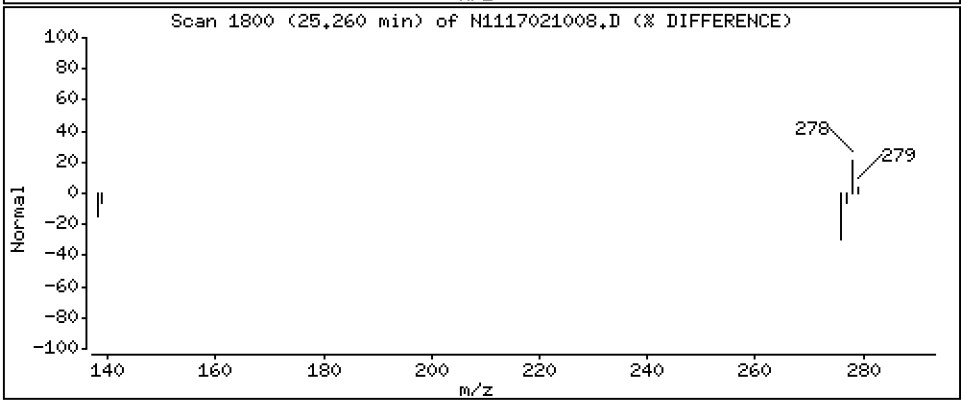












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Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

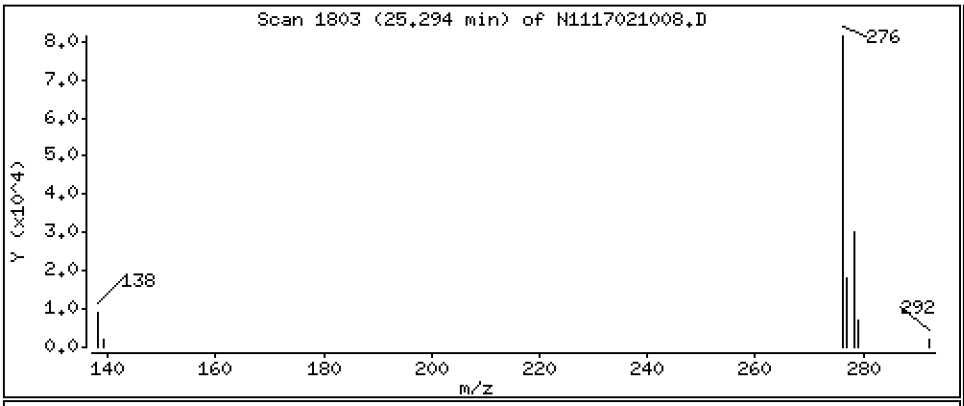
Operator: VTS

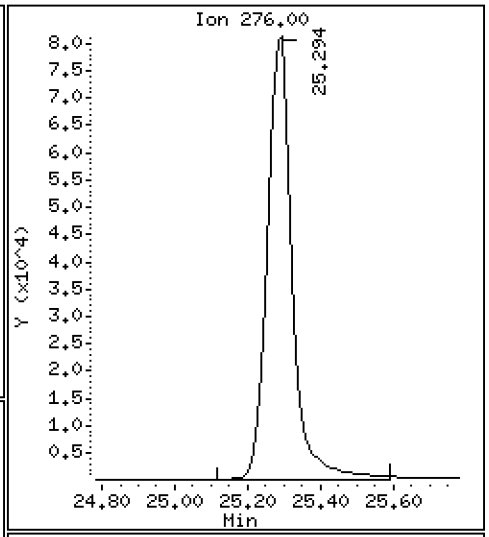
Column phase: Rxi-17Sil MS

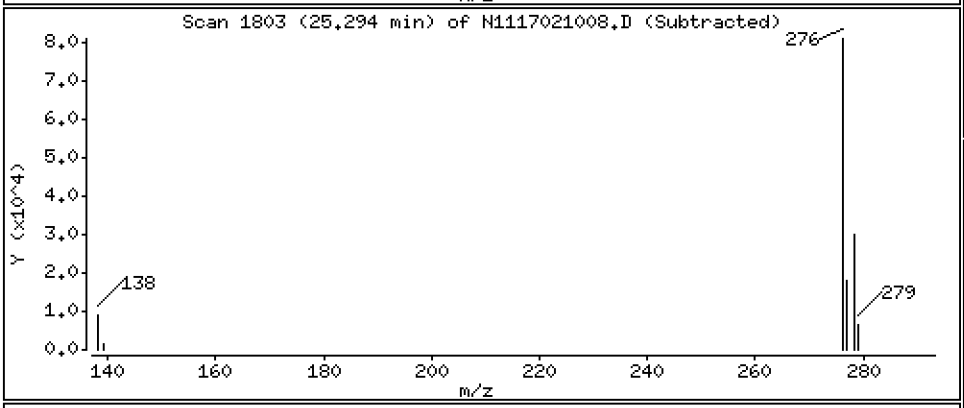
Column diameter: 0.25

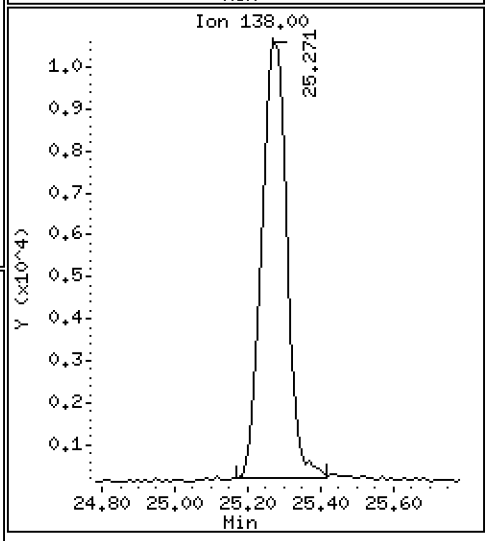
40 Indeno(1,2,3-cd)pyrene

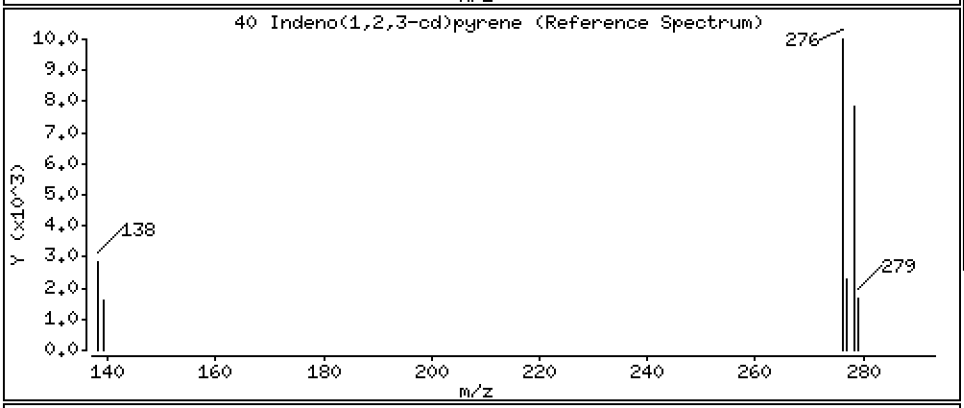
Concentration: 203 ng/mL

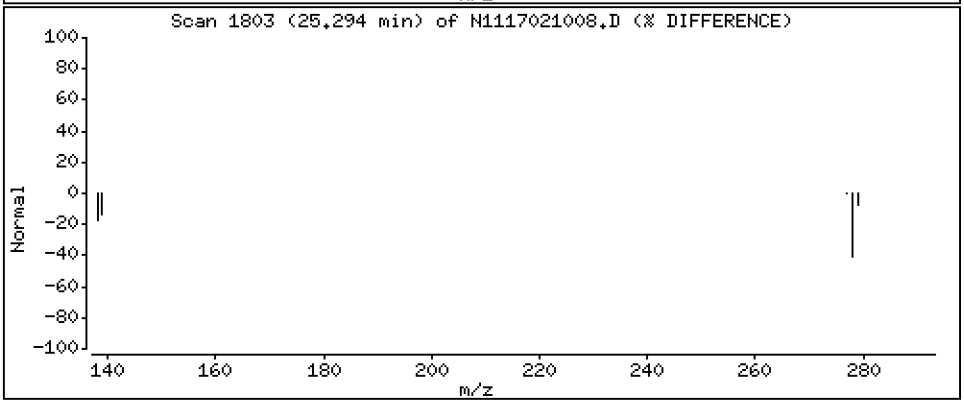












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021008.D

Date : 10-FEB-2017 15:16

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-BS1

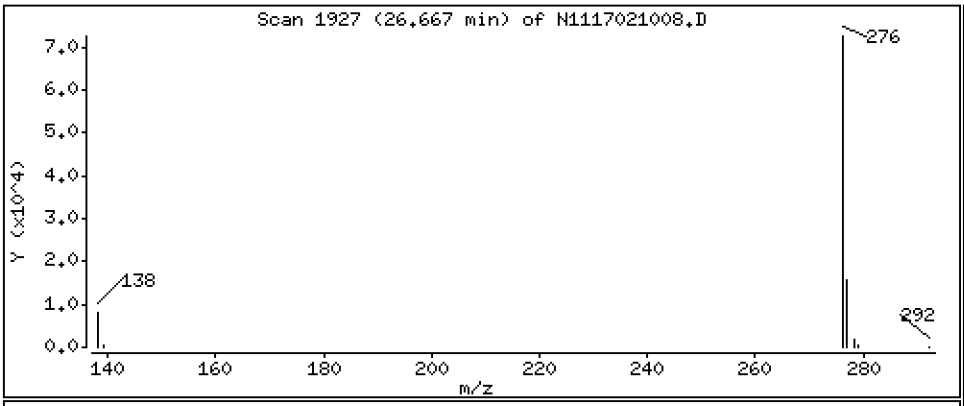
Operator: VTS

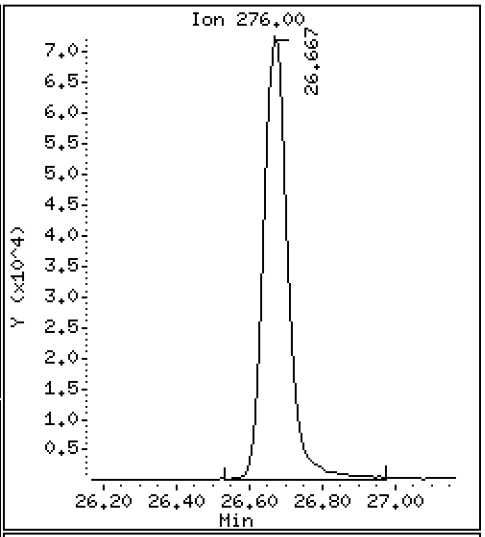
Column phase: Rxi-17Sil MS

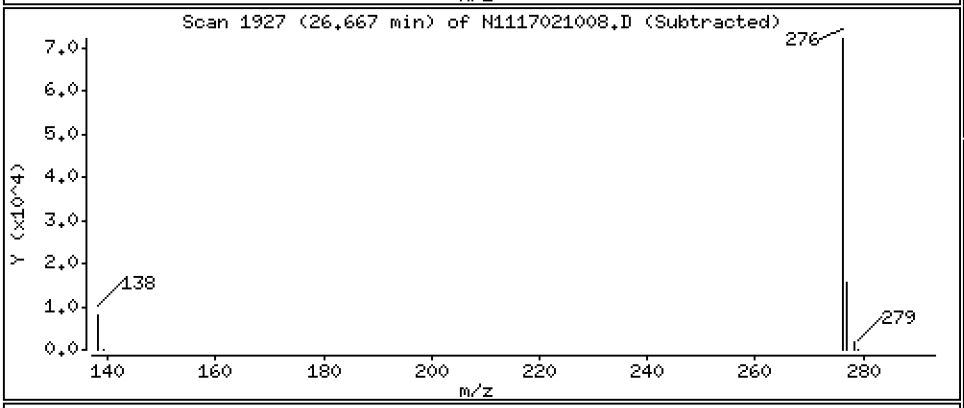
Column diameter: 0.25

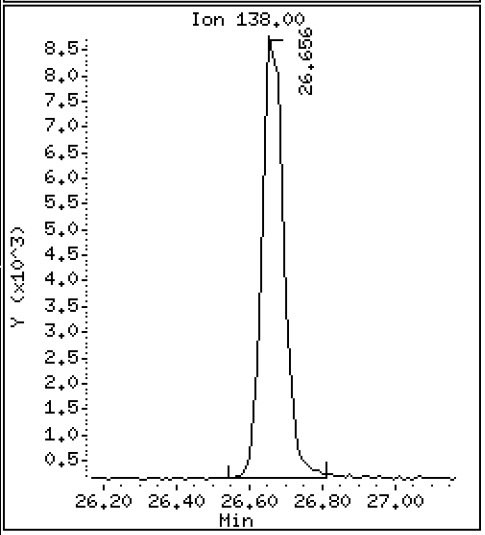
41 Benzo(g,h,i)perylene

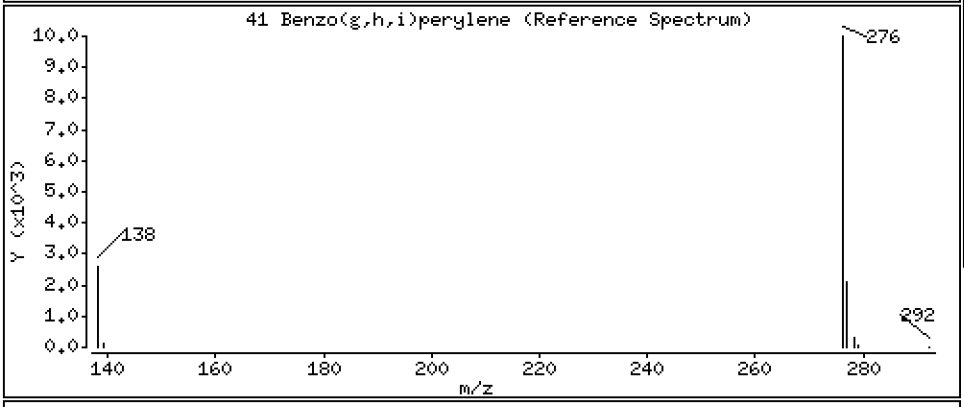
Concentration: 196 ng/mL

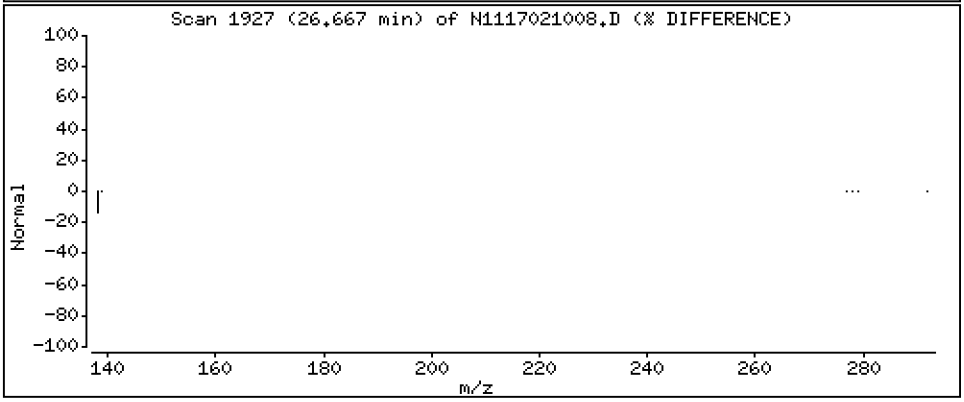












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20170210.b\N1117021008.D
Lab Smp Id: BFA0647-BS1
Inj Date : 10-FEB-2017 15:16 MS Autotune Date: 15-JAN-2015 15:59
Operator : VTS Inst ID: nt11.i
Smp Info : BFA0647-BS1
Misc Info :
Comment   :
Method   : \\target\share\chem3\nt11.i\20170210.b\LOWSIM.m
Meth Date : 11-Feb-2017 08:35 nt11.i Quant Type: ISTD
Cal Date : 31-DEC-2016 09:30 Cal File: N1116123104.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.509	8.526	(1.000)	263463	200.000	
	2 Naphthalene	128	8.545	8.554	(1.004)	205027	155.936	156
	3 Benzo(b)thiophene	134	8.807	8.816	(1.035)	166817	155.856	156
$	4 2-Methylnaphthalene-d10	152	9.498	9.508	(1.116)	190901	168.715	169
	5 2-Methylnaphthalene	142	9.550	9.561	(1.122)	215146	166.026	166
	6 1-Methylnaphthalene	142	9.813	9.823	(1.153)	207291	159.047	159
	7 2-Chloronaphthalene	162	10.475	10.475	(0.907)	209701	150.139	150
	8 Biphenyl	154	10.433	10.443	(0.903)	294029	158.313	158
	9 2,6-Dimethylnaphthalene	156	10.496	10.496	(0.908)	225978	156.905	157
	10 Acenaphthylene	152	11.401	11.410	(0.987)	220254	133.213	133
*	11 Acenaphthene-d10	164	11.555	11.564	(1.000)	184009	200.000	
	12 Acenaphthene	153	11.618	11.627	(1.005)	166751	153.179	153
	13 Dibenzofuran	168	11.822	11.822	(1.023)	276688	170.978	171
	14 2,3,5-Trimethylnaphthalene	170	11.911	11.923	(1.031)	189940	183.425	183
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.454	12.454	(1.078)	228230	177.158	177
	17 Dibenzothiophene	184	14.083	14.083	(0.988)	215863	128.646	129
*	18 Phenanthrene-d10	188	14.252	14.262	(1.000)	363382	200.000	
	19 Phenanthrene	178	14.294	14.293	(1.003)	387370	186.456	186
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.346	14.356	(1.007)	313246	151.216	151
	22 Carbazole	167	15.027	15.027	(1.054)	340230	148.827	149
	23 1-Methylphenanthrene	192	15.298	15.307	(1.073)	392532	184.239	184
$	24 Fluoranthene-d10	212	16.367	16.367	(1.148)	390656	202.410	202
	25 Fluoranthene	202	16.406	16.405	(1.151)	441069	187.163	187
	26 Pyrene	202	16.905	16.915	(0.889)	444642	193.995	194
	27 Benzo(a)anthracene	228	18.925	18.933	(0.995)	401790	189.377	189
*	28 Chrysene-d12	240	19.024	19.024	(1.000)	352838	200.000	
	29 Chrysene	228	19.074	19.074	(1.003)	431479	198.193	198
	30 Benzo(b)fluoranthene	252	21.001	21.001	(0.944)	399310	217.134	217
	31 Benzo(k)fluoranthene	252	21.049	21.049	(0.946)	392190	197.999	198
	32 Benzo(j)fluoranthene	252	21.126	21.125	(0.950)	381273	215.942	216
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	34 Benzo(e)pyrene	252	21.875	21.875	(0.984)	366108	199.578	200
	35 Benzo(a)pyrene	252	22.000	22.000	(0.989)	276600	161.338	161
*	36 Perylene-d12	264	22.240	22.240	(1.000)	341159	200.000	
	37 Perylene	252	22.317	22.317	(1.003)	277541	155.051	155
$	38 Dibenzo(a,h)anthracene-d14	292	25.116	25.116	(1.129)	245050	224.923	225
	39 Dibenzo(a,h)anthracene	278	25.260	25.260	(1.136)	318592	212.404	212
	40 Indeno(1,2,3-cd)pyrene	276	25.293	25.282	(1.137)	380474	203.274	203
	41 Benzo(g,h,i)perylene	276	26.666	26.666	(1.199)	329635	196.160	196

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: N1117021008.D
Lab Smp Id: BFA0647-BS1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20170210.b\LOWSIM.m
Misc Info:

Calibration Date: 10-FEB-2017
Calibration Time: 13:29
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	219654	109827	439308	263463	19.94
11 Acenaphthene-d10	135248	67624	270496	184009	36.05
18 Phenanthrene-d10	257021	128511	514042	363382	41.38
28 Chrysene-d12	259511	129756	519022	352838	35.96
36 Perylene-d12	257535	128768	515070	341159	32.47

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.53	8.03	9.03	8.51	-0.21
11 Acenaphthene-d10	11.56	11.06	12.06	11.56	-0.08
18 Phenanthrene-d10	14.26	13.76	14.76	14.25	-0.07
28 Chrysene-d12	19.02	18.52	19.52	19.02	0.00
36 Perylene-d12	22.24	21.74	22.74	22.24	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1117021008.D

Lab ID: BFA0647-BS1
nt11.i, 20170210.b\LOWSIM.m,   10-FEB-2017 15:16

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20170210.b\LOWSIM.m, allpna.sub = 3.0000

Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

MS / MS DUPLICATE RECOVERY
EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	17A0053
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Matrix:	Tissue	Analyzed:	02/10/17 22:23
Batch:	BFA0647	Laboratory ID:	BFA0647-MS1
Preparation:	EPA 3550C-Mod (Ultrasonic)	Sequence Name::	Matrix Spike
Initial/Final:	10.02 g / 0.5 mL	Source Sample:	PG-SMA2-2-MUS-170105

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENTRATION (ug/kg)	MS CONCENTRATION (ug/kg)	MS % REC. #	QC LIMITS REC.
Naphthalene	15.0	ND	4.07	27.2 *	30 - 160
2-Methylnaphthalene	15.0	ND	5.01	33.5	30 - 160
Acenaphthylene	15.0	ND	5.09	34.0	30 - 160
Acenaphthene	15.0	ND	5.24	35.0	30 - 160
Fluorene	15.0	0.50	6.07	40.6	30 - 160
Phenanthrene	15.0	2.80	7.49	31.4	30 - 160
Anthracene	15.0	0.86	6.33	36.6	30 - 160
Fluoranthene	15.0	4.06	7.76	24.7 *	30 - 160
Pyrene	15.0	4.94	9.44	30.0	30 - 160
Benzo(a)anthracene	15.0	1.37	7.10	38.3	30 - 160
Chrysene	15.0	2.60	7.73	34.3	30 - 160
Benzo(b)fluoranthene	15.0	1.53	6.61	33.9	30 - 160
Benzo(k)fluoranthene	15.0	0.77	6.39	37.5	30 - 160
Benzo(a)pyrene	15.0	ND	6.14	41.0	30 - 160
Indeno(1,2,3-cd)pyrene	15.0	ND	6.18	41.3	30 - 160
Dibenzo(a,h)anthracene	15.0	ND	6.26	41.8	30 - 160
Benzo(g,h,i)perylene	15.0	ND	6.00	40.1	30 - 160
Perylene	15.0	0.74	6.29	37.1	30 - 160
Benzo(e)pyrene	15.0	2.75	7.29	30.3	30 - 160

* Values outside of QC limits

MS / MS DUPLICATE RECOVERY
EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	17A0053
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Matrix:	Tissue	Analyzed:	02/10/17 22:59
Batch:	BFA0647	Laboratory ID:	BFA0647-MSD1
Preparation:	EPA 3550C-Mod (Ultrasonic)	Sequence Name::	Matrix Spike Dup
Initial/Final:	10.1 g / 0.5 mL	Source Sample:	PG-SMA2-2-MUS-170105

COMPOUND	SPIKE ADDED (ug/kg)	MSD CONCENTRATION (ug/kg)	MSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Naphthalene	14.9	7.49	50.5	59.1 *	30	30 - 160
2-Methylnaphthalene	14.9	8.79	59.2	54.8 *	30	30 - 160
Acenaphthylene	14.9	8.81	59.3	53.5 *	30	30 - 160
Acenaphthene	14.9	8.95	60.2	52.3 *	30	30 - 160
Fluorene	14.9	9.99	63.9	48.7 *	30	30 - 160
Phenanthrene	14.9	12.5	65.4	50.1 *	30	30 - 160
Anthracene	14.9	10.7	66.5	51.5 *	30	30 - 160
Fluoranthene	14.9	13.2	61.3	51.6 *	30	30 - 160
Pyrene	14.9	16.1	75.5	52.5 *	30	30 - 160
Benzo(a)anthracene	14.9	12.4	74.2	54.3 *	30	30 - 160
Chrysene	14.9	13.4	72.9	53.8 *	30	30 - 160
Benzo(b)fluoranthene	14.9	11.2	64.9	51.4 *	30	30 - 160
Benzo(k)fluoranthene	14.9	10.9	68.2	52.2 *	30	30 - 160
Benzo(a)pyrene	14.9	10.4	69.9	51.4 *	30	30 - 160
Indeno(1,2,3-cd)pyrene	14.9	10.4	70.3	51.2 *	30	30 - 160
Dibenzo(a,h)anthracene	14.9	10.5	70.7	50.6 *	30	30 - 160
Benzo(g,h,i)perylene	14.9	10.2	69.0	52.2 *	30	30 - 160
Perylene	14.9	10.6	66.4	51.1 *	30	30 - 160
Benzo(e)pyrene	14.9	12.3	64.3	51.1 *	30	30 - 160

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021020.D

Date : 10-FEB-2017 22:23

Client ID:

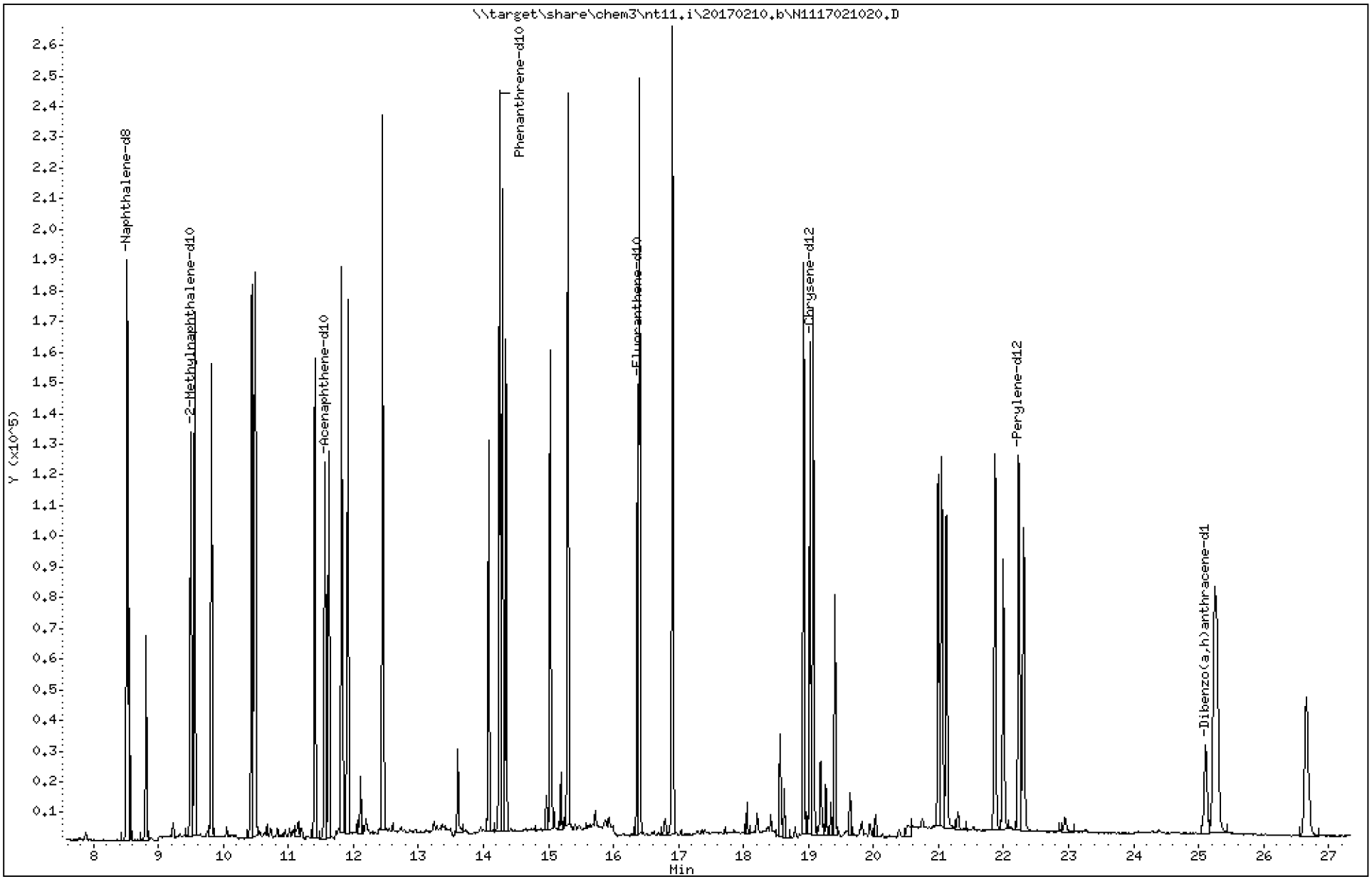
Sample Info: BFA0647-MS1

Instrument: nt11.i

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

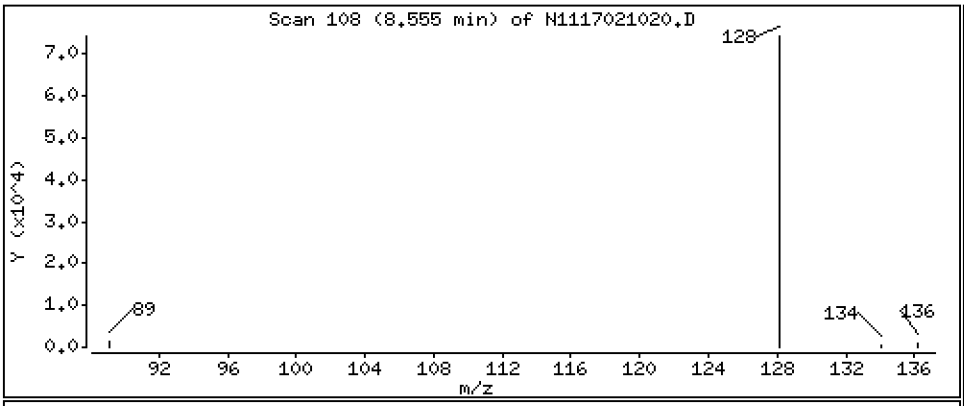
Operator: VTS

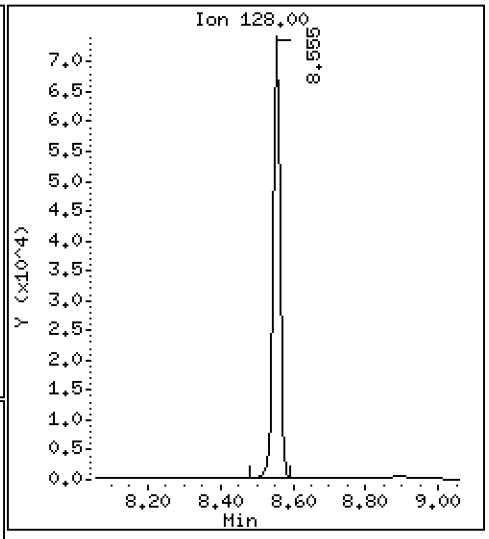
Column phase: Rxi-17Sil MS

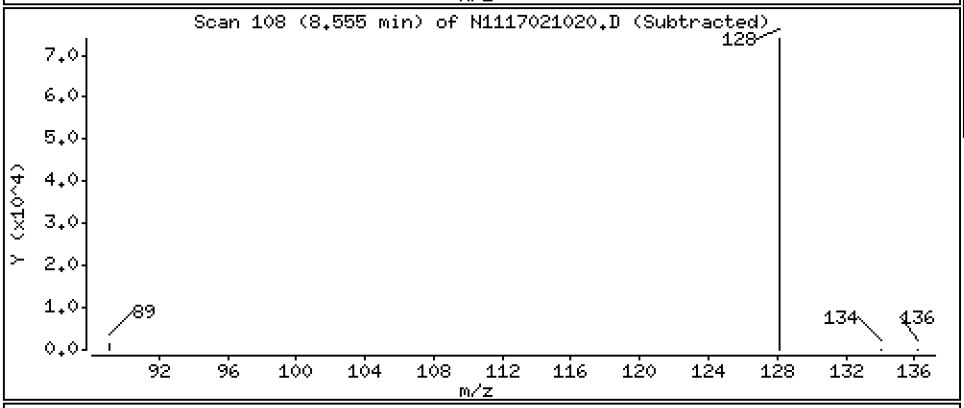
Column diameter: 0.25

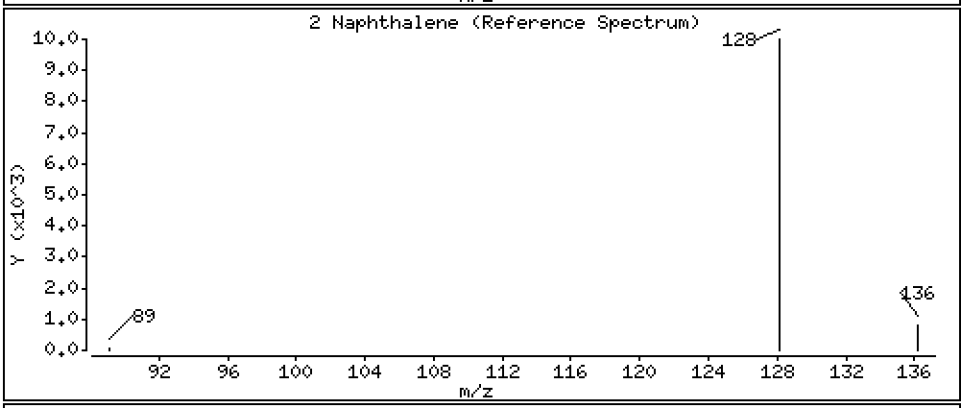
2 Naphthalene

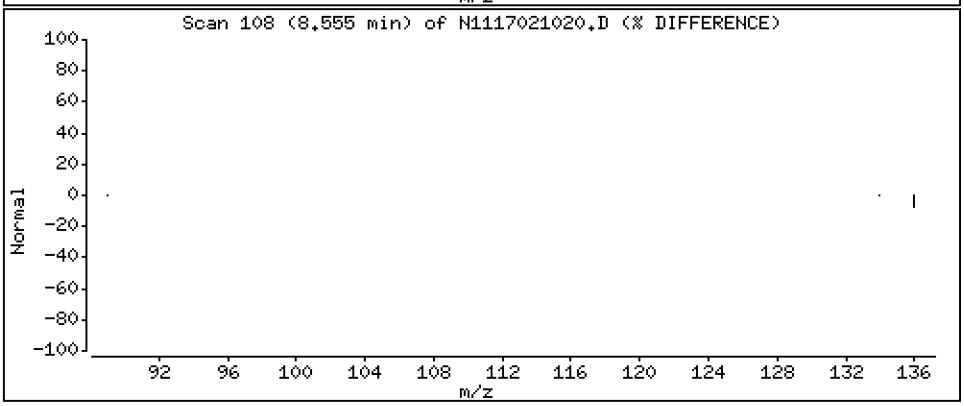
Concentration: 81.6 ng/mL











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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

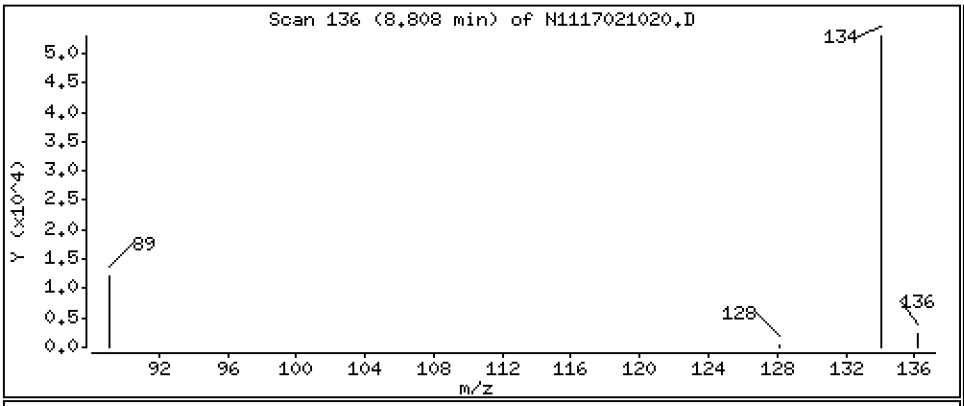
Operator: VTS

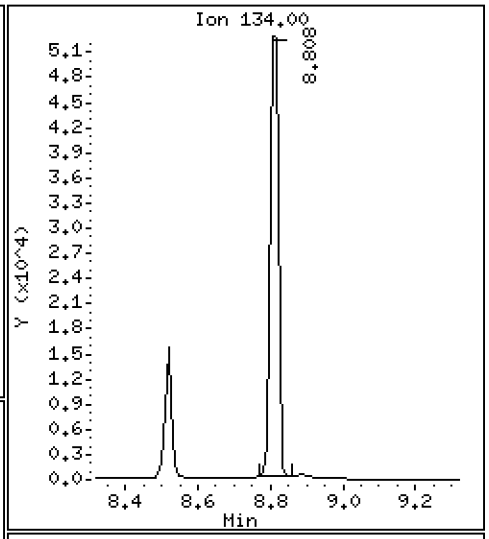
Column phase: Rxi-17Sil MS

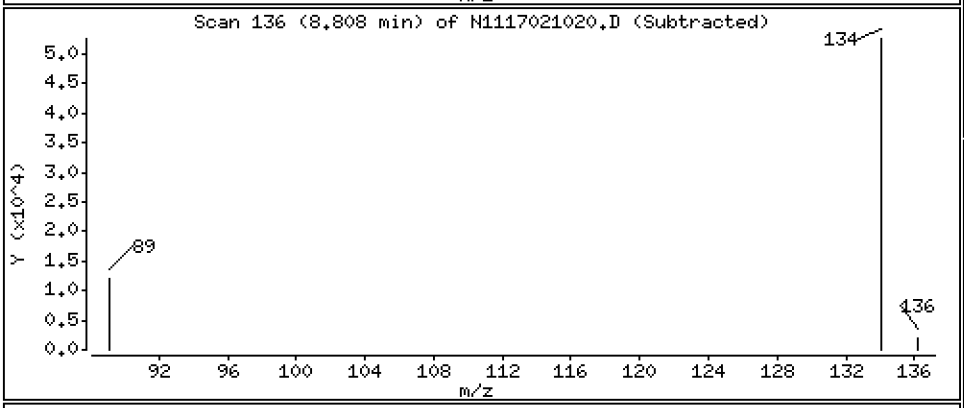
Column diameter: 0.25

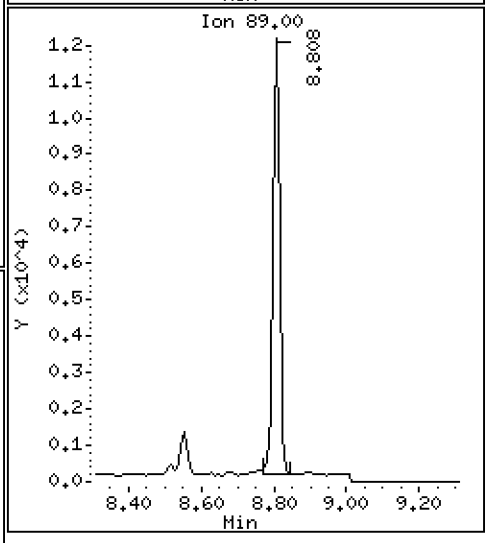
3 Benzo(b)thiophene

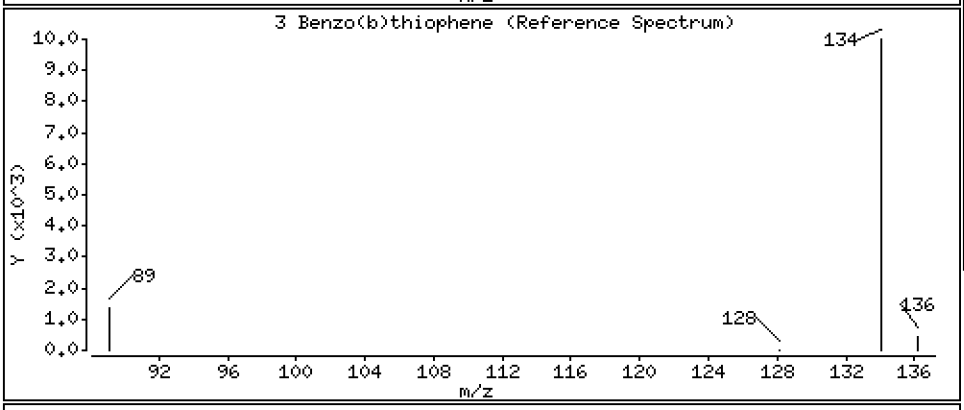
Concentration: 81.0 ng/mL

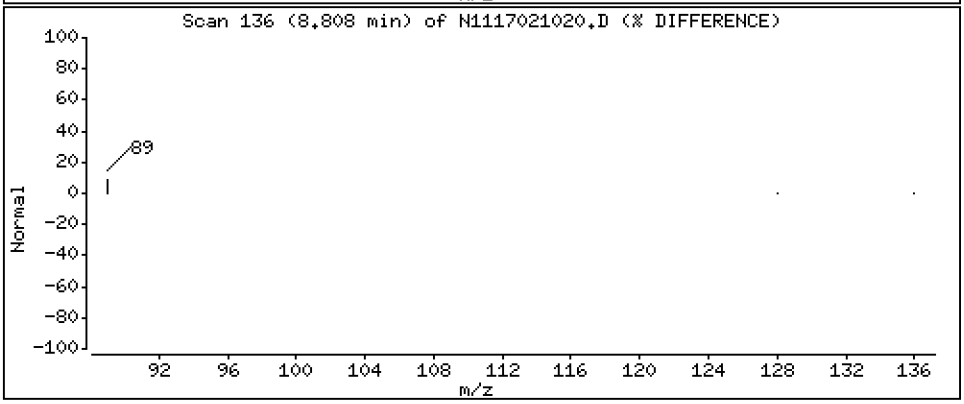












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021020.D

Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

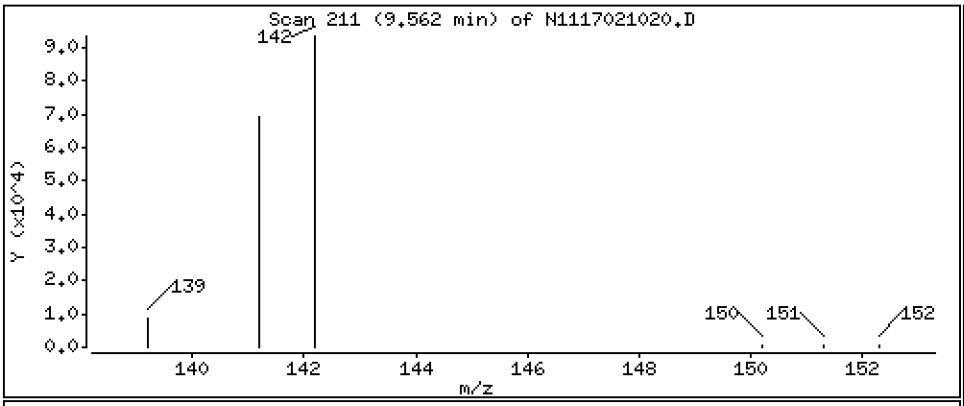
Operator: VTS

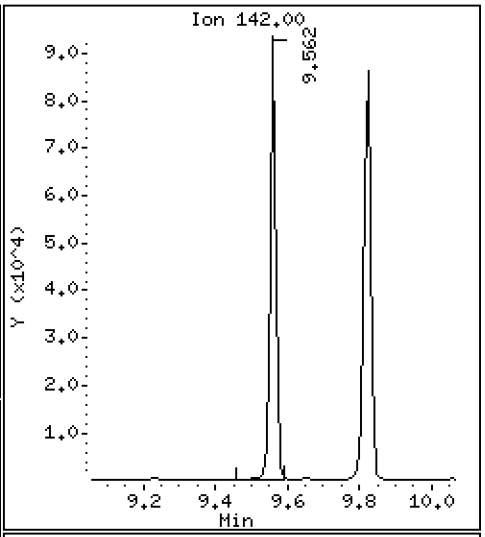
Column phase: Rxi-17Sil MS

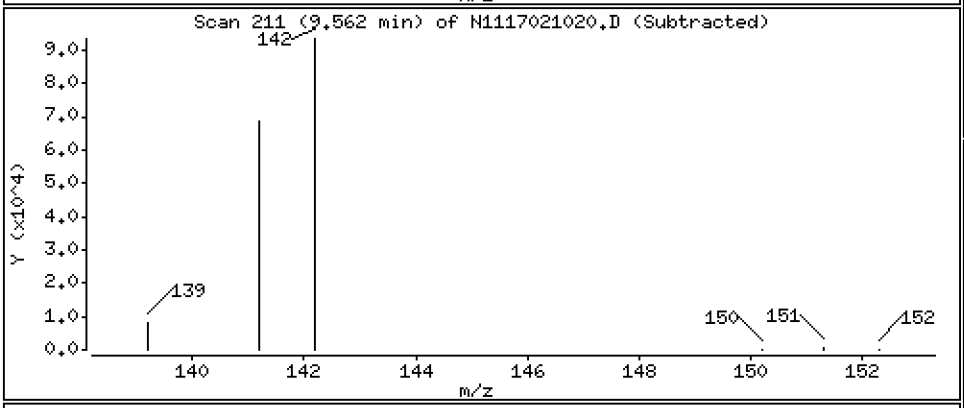
Column diameter: 0.25

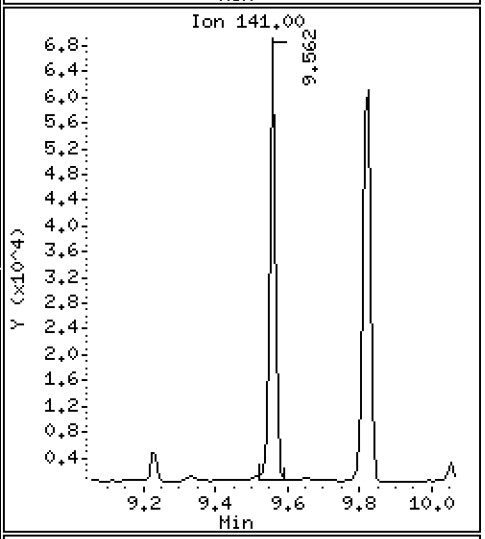
5 2-Methylnaphthalene

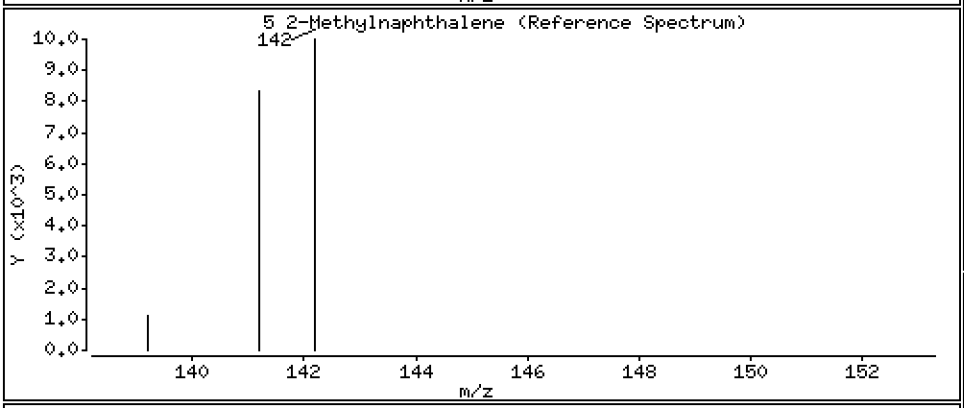
Concentration: 100 ng/mL

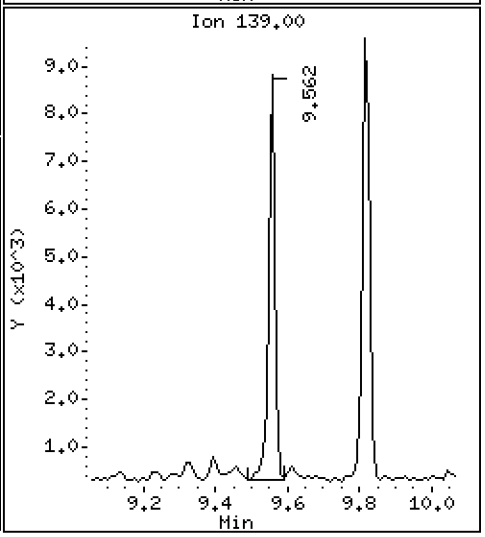


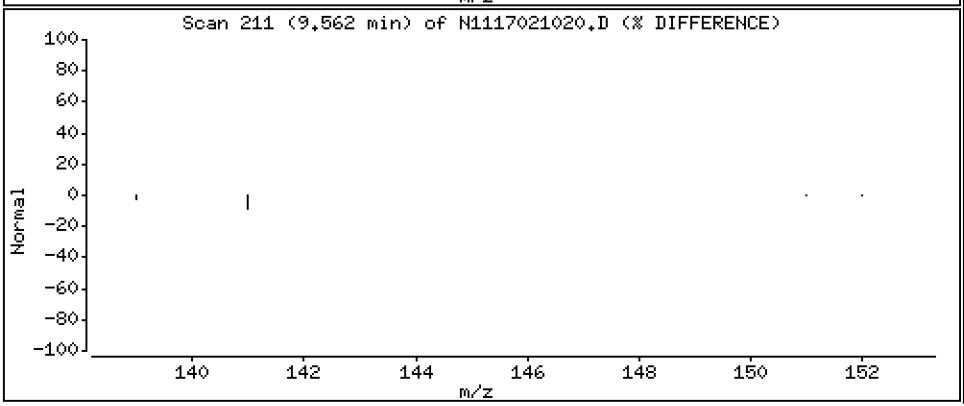












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

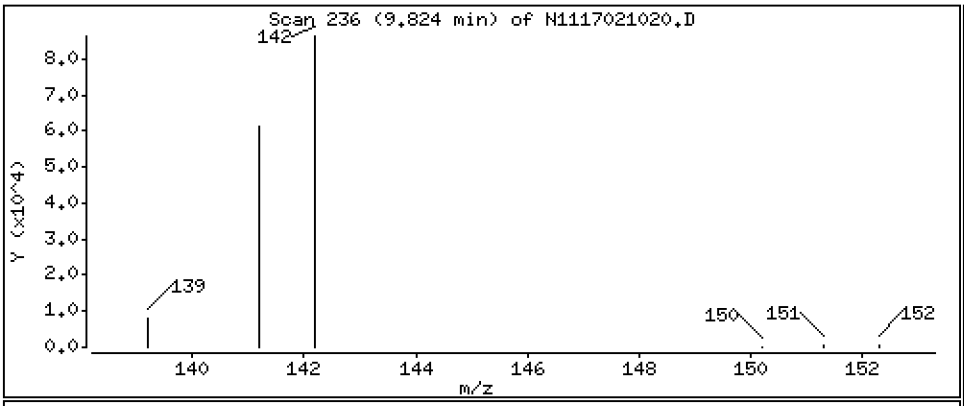
Operator: VTS

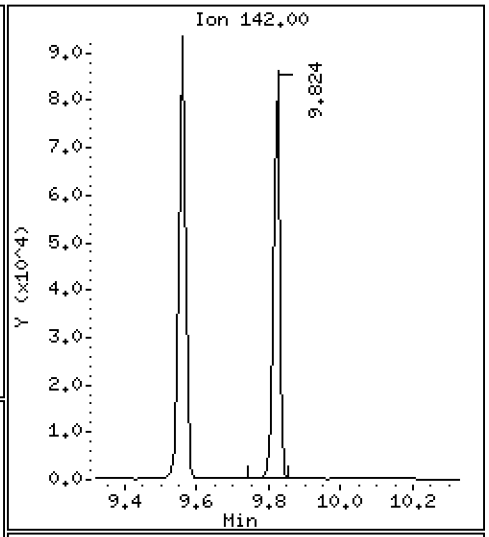
Column phase: Rxi-17Sil MS

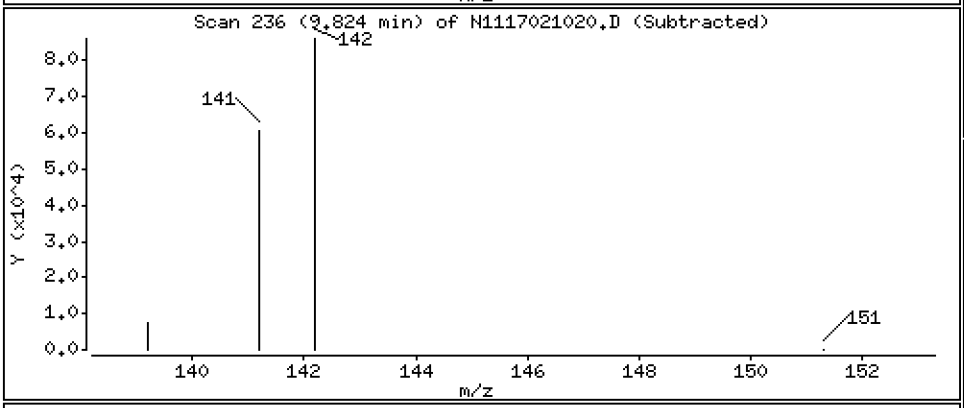
Column diameter: 0.25

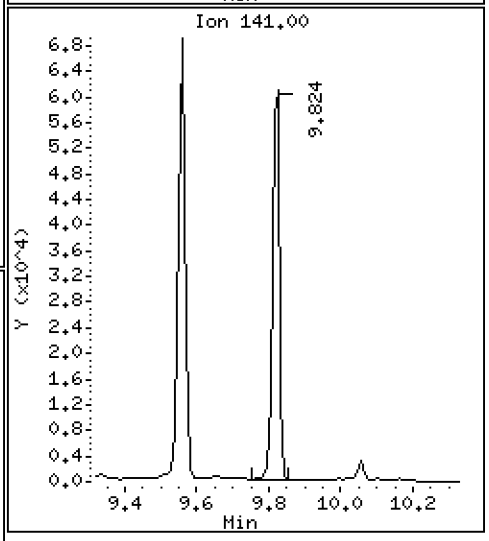
6 1-Methylnaphthalene

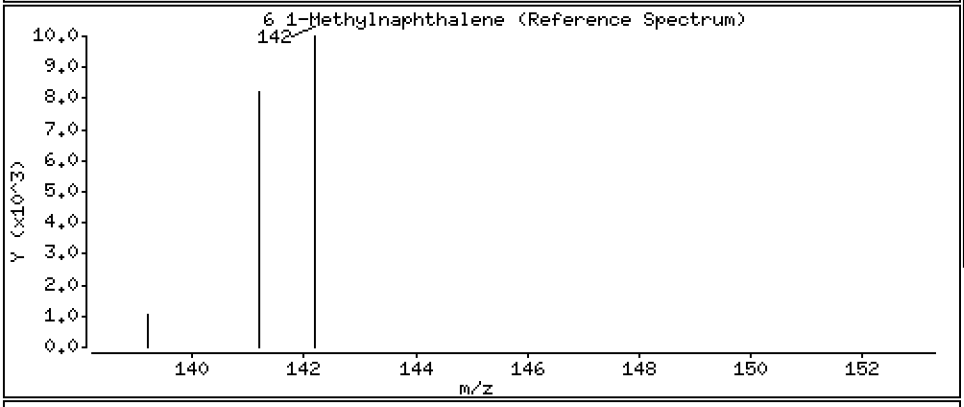
Concentration: 98.6 ng/mL

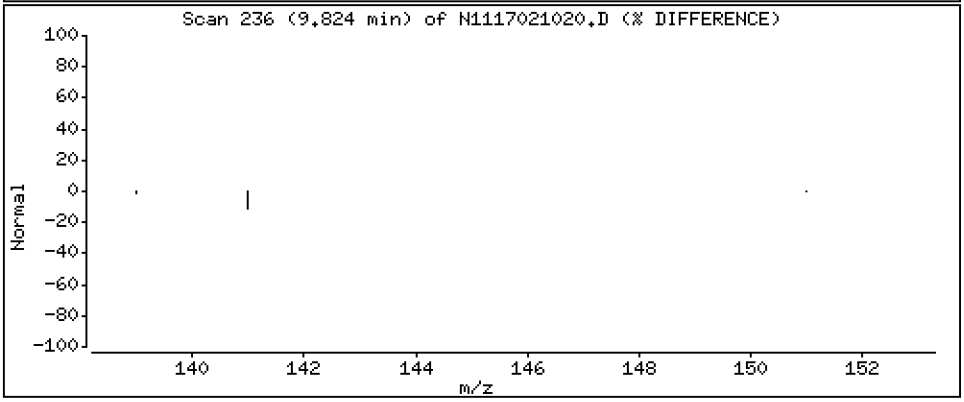












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

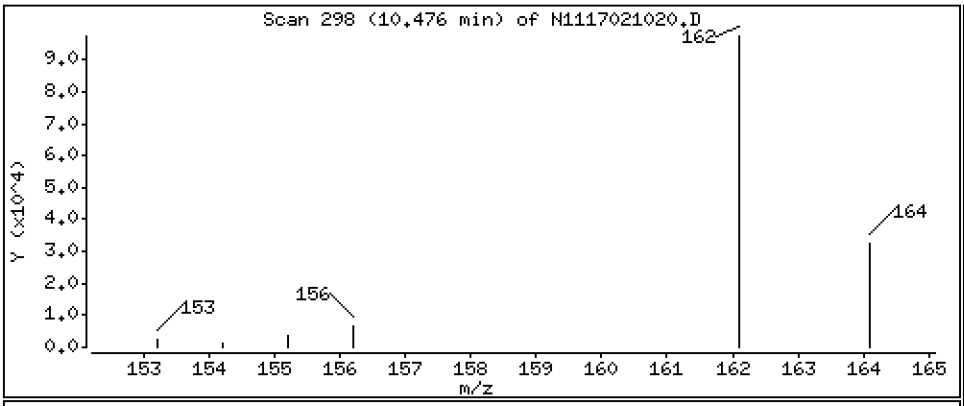
Operator: VTS

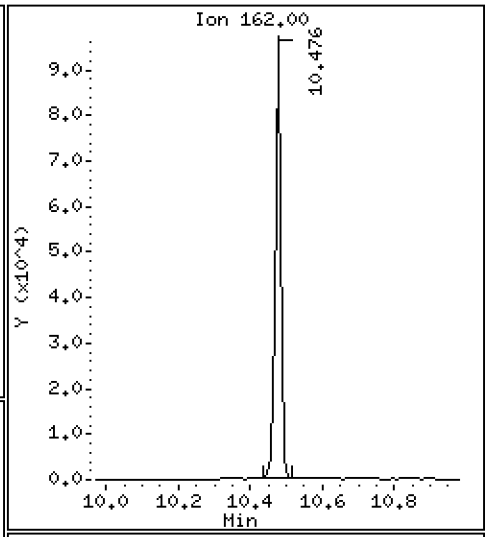
Column phase: Rxi-17Sil MS

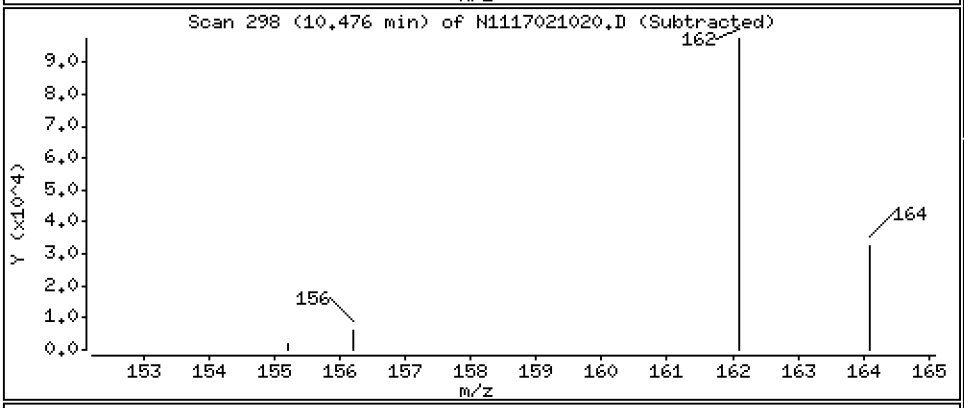
Column diameter: 0.25

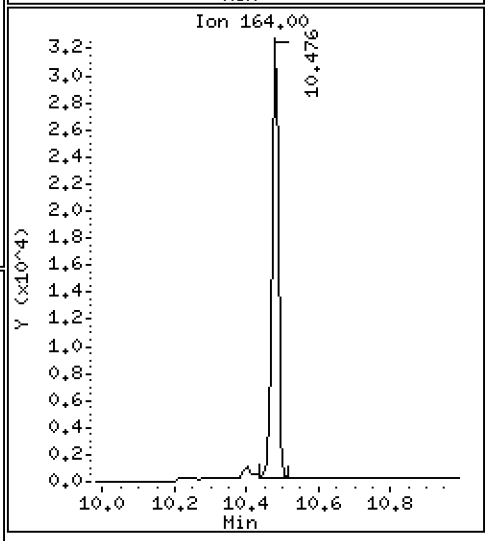
7 2-Chloronaphthalene

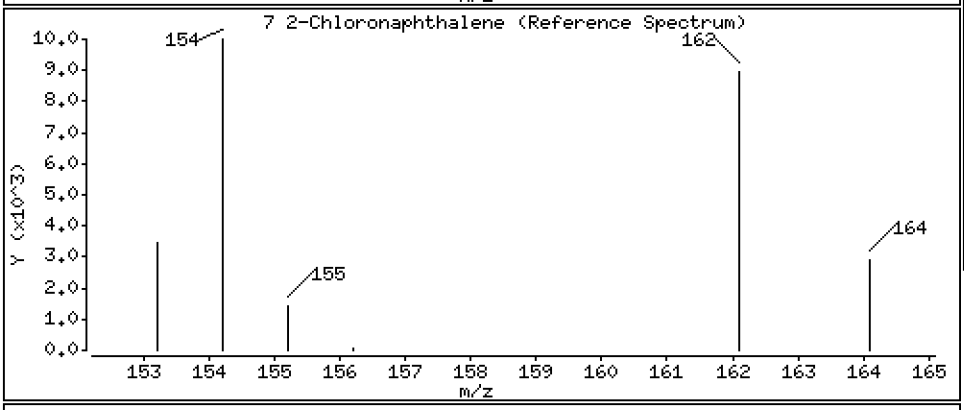
Concentration: 93.9 ng/mL

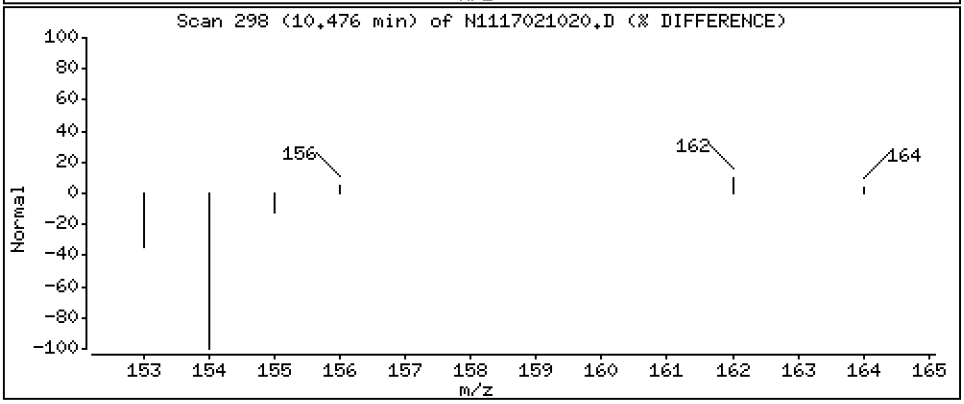












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

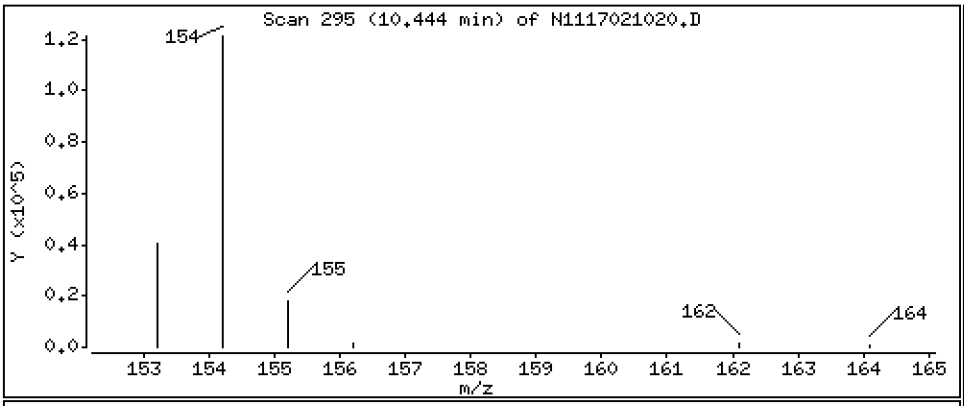
Operator: VTS

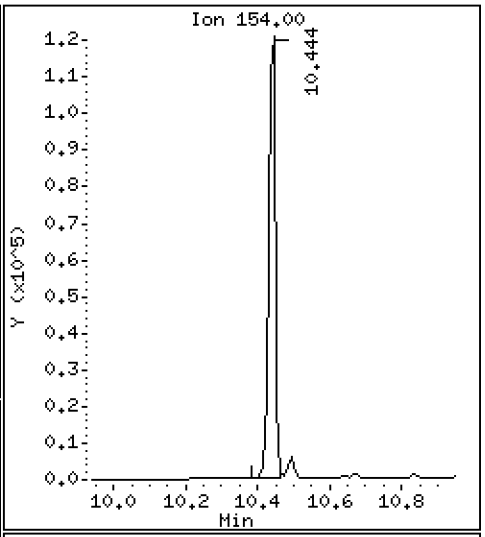
Column phase: Rxi-17Sil MS

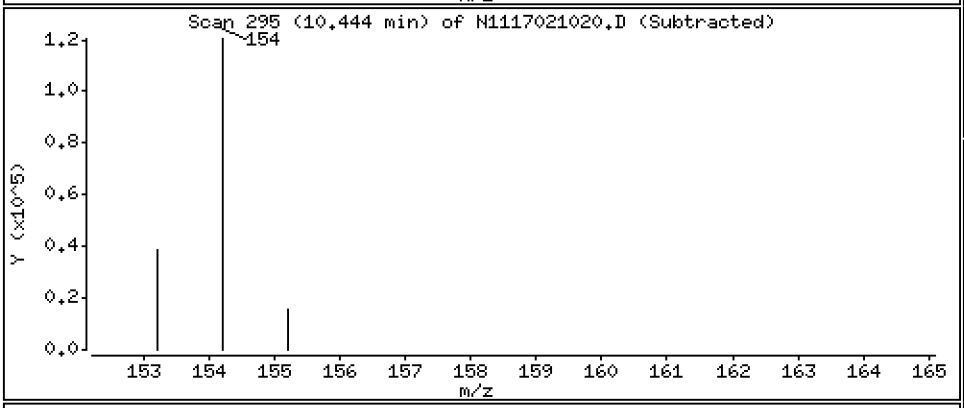
Column diameter: 0.25

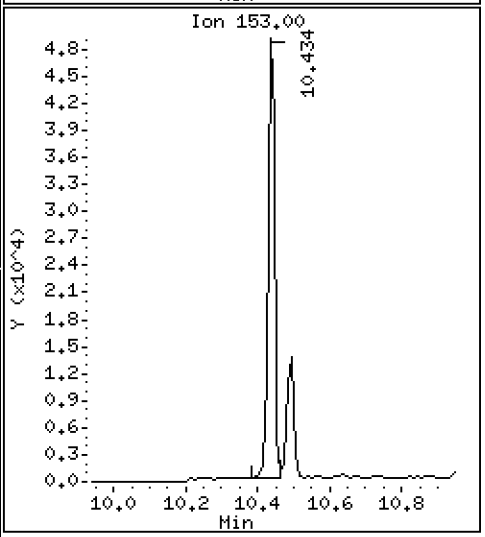
8 Biphenyl

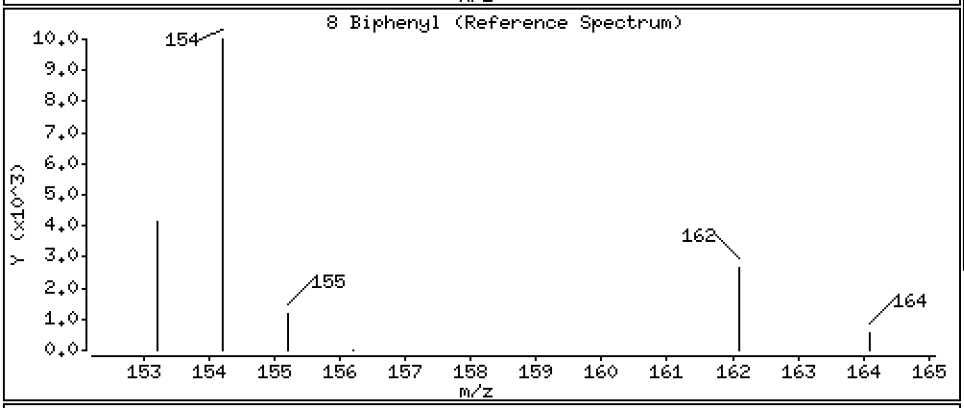
Concentration: 100 ng/mL

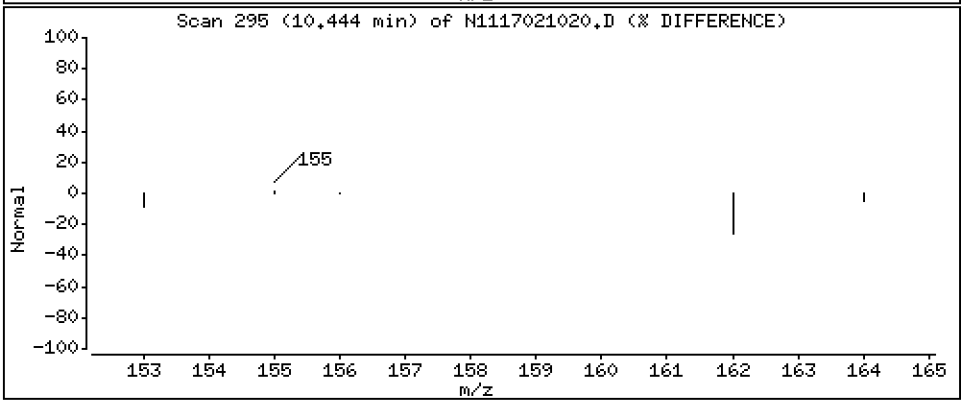












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

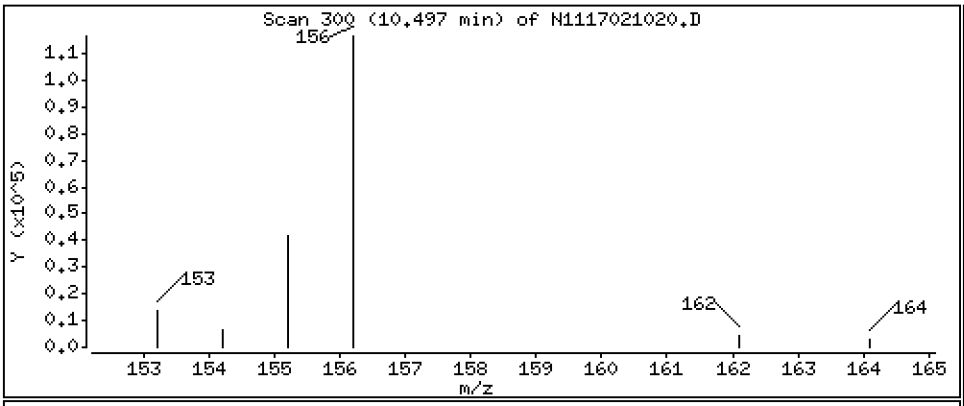
Operator: VTS

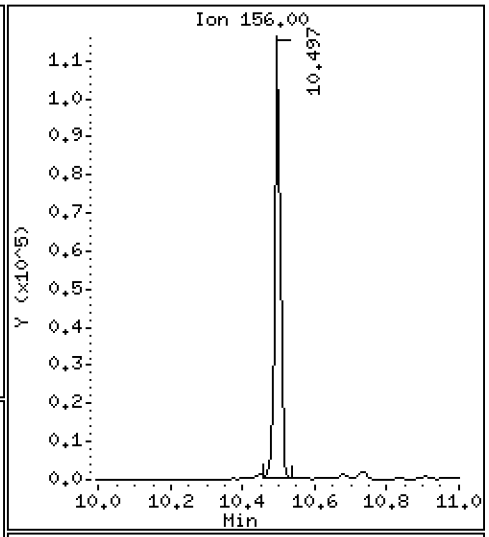
Column phase: Rxi-17Sil MS

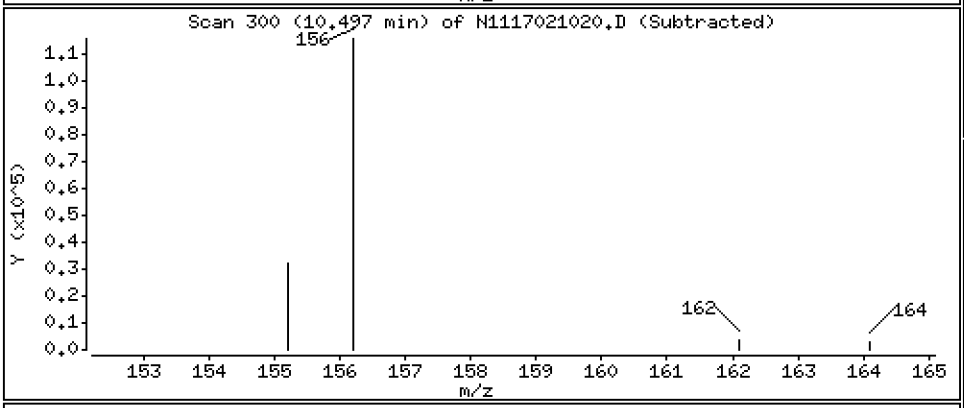
Column diameter: 0.25

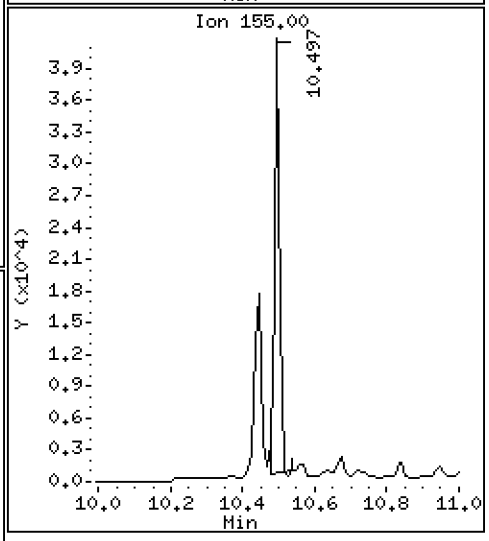
9 2,6-Dimethylnaphthalene

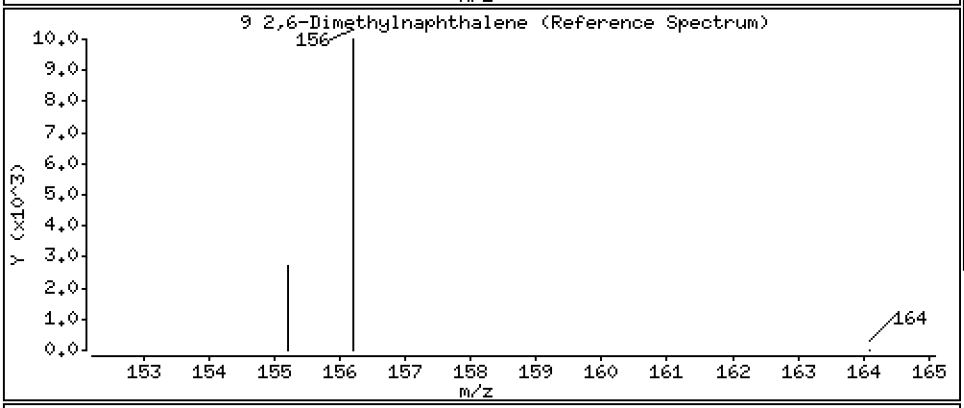
Concentration: 105 ng/mL

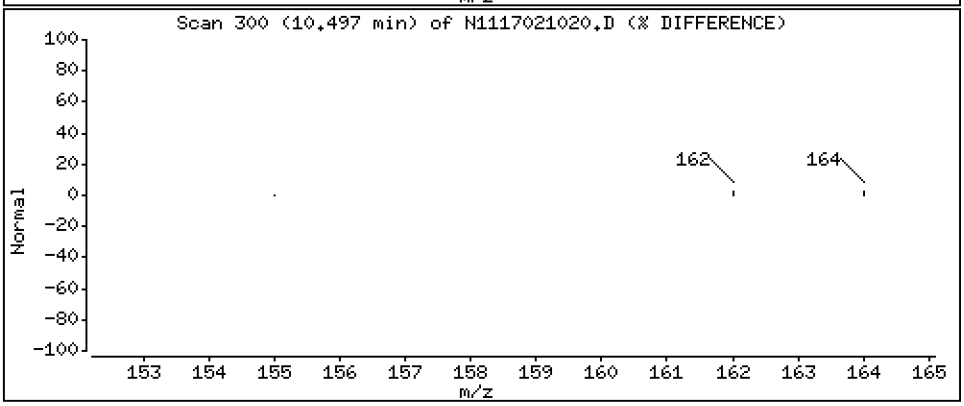












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

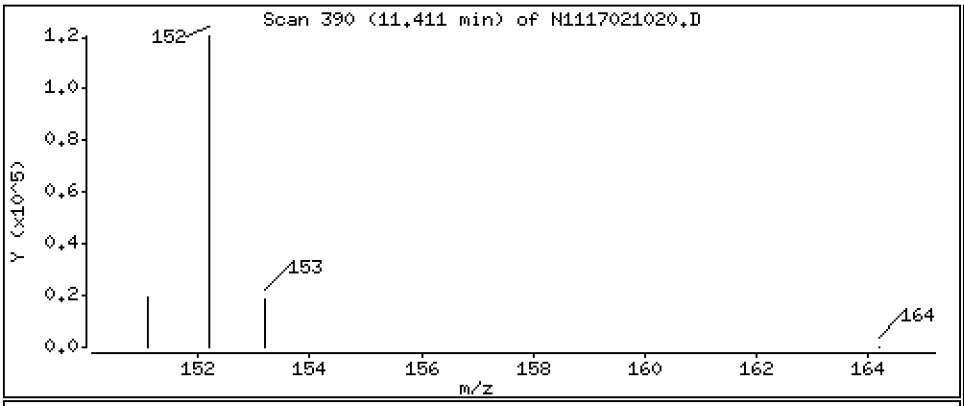
Operator: VTS

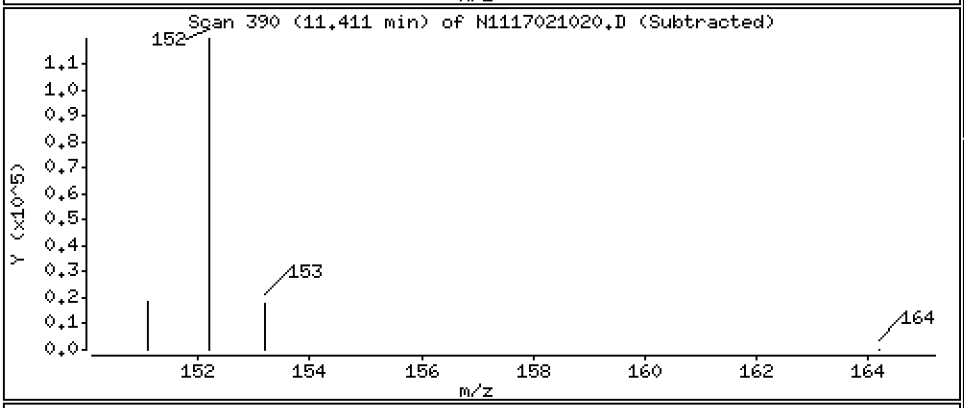
Column phase: Rxi-17Sil MS

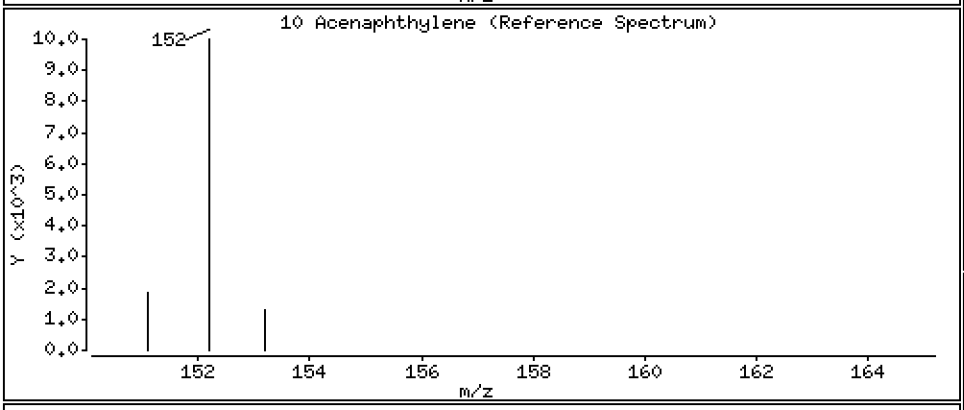
Column diameter: 0.25

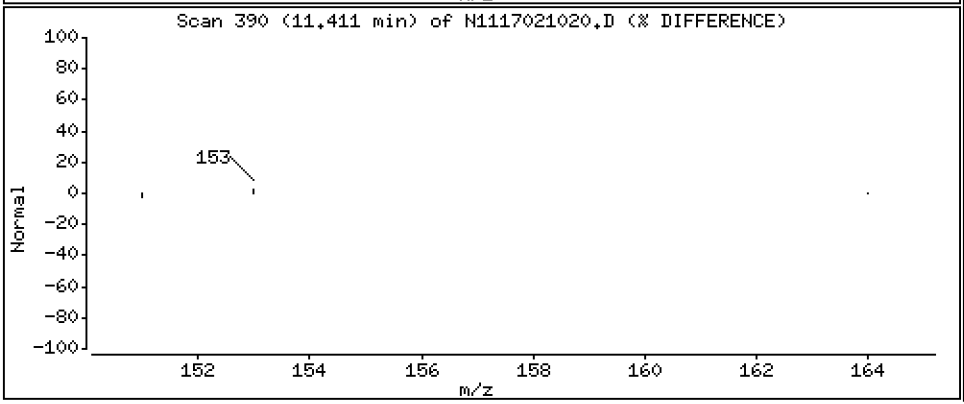
10 Acenaphthylene

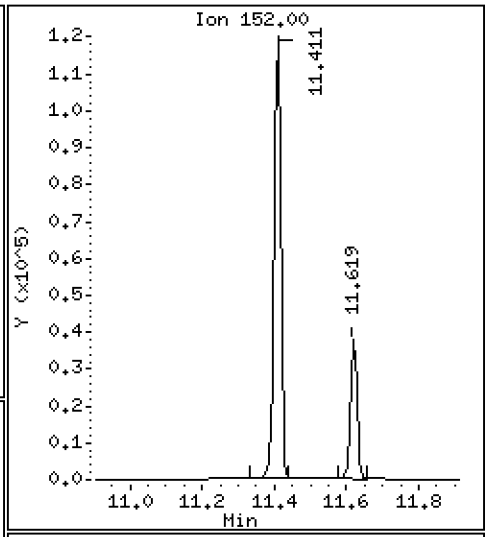
Concentration: 102 ng/mL

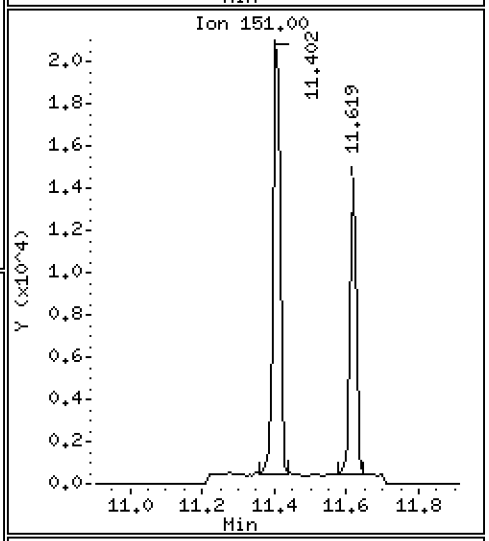


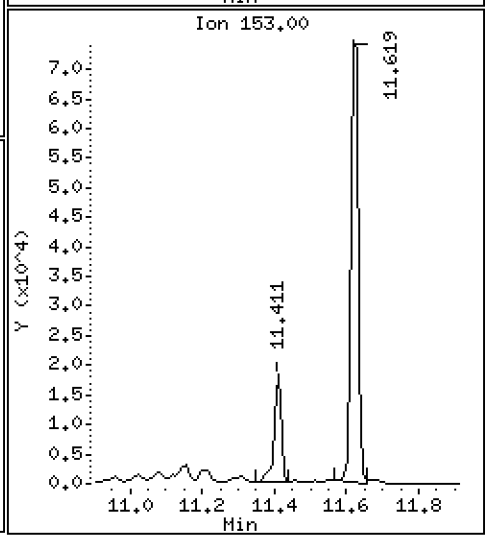












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

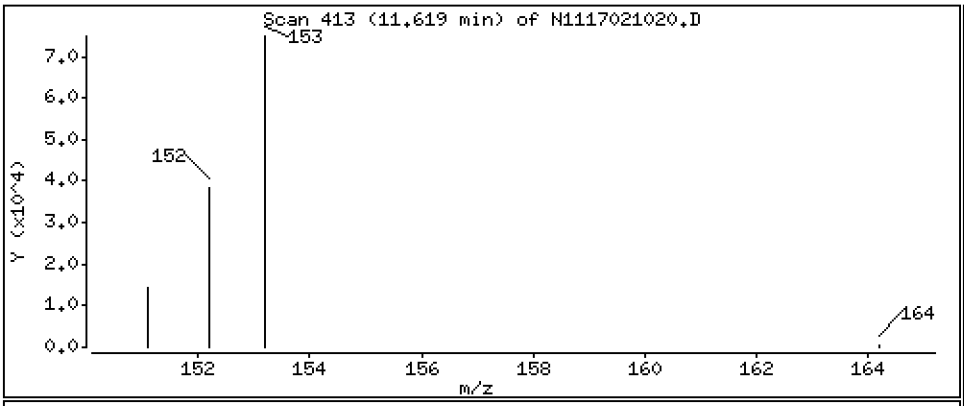
Operator: VTS

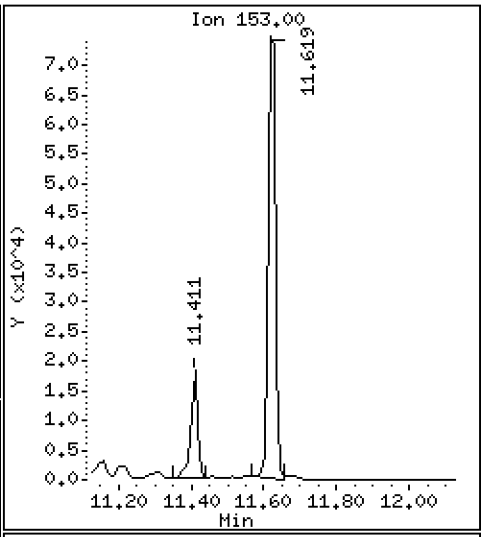
Column phase: Rxi-17Sil MS

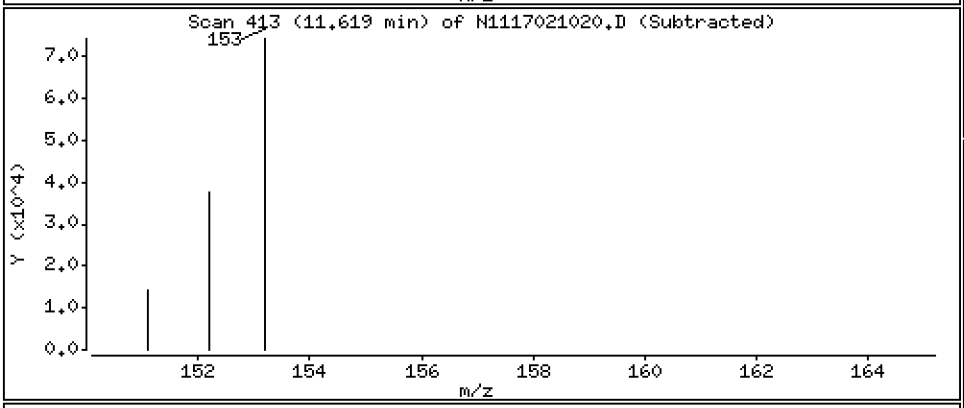
Column diameter: 0.25

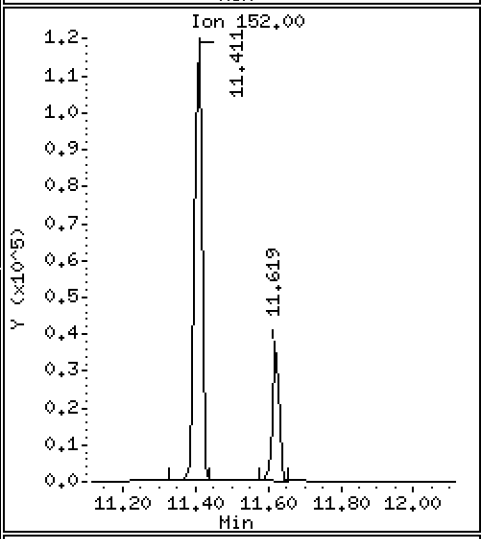
12 Acenaphthene

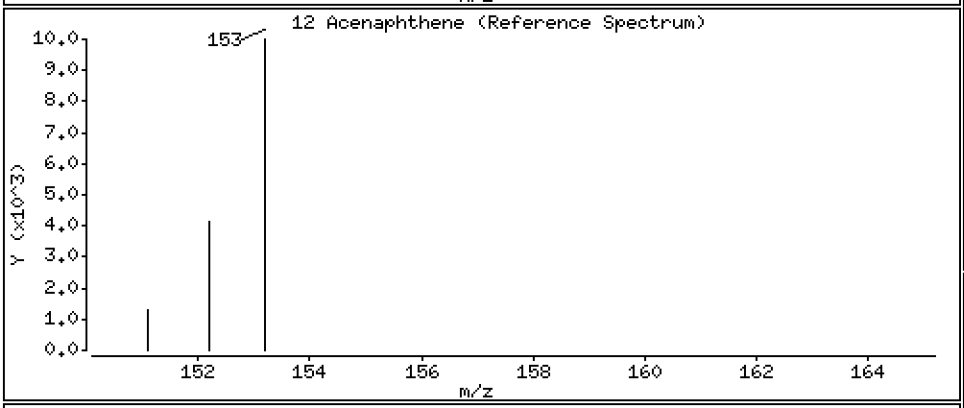
Concentration: 105 ng/mL

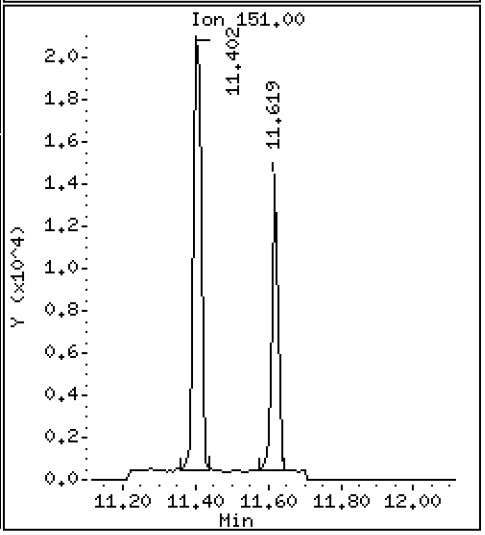


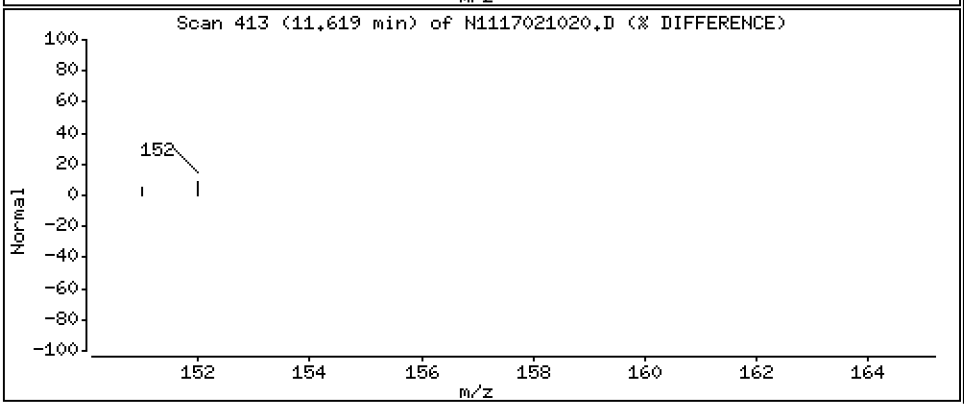












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

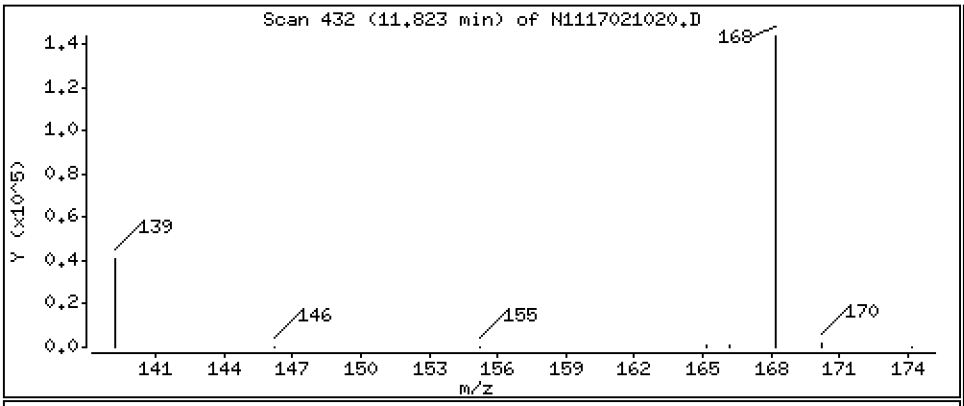
Operator: VTS

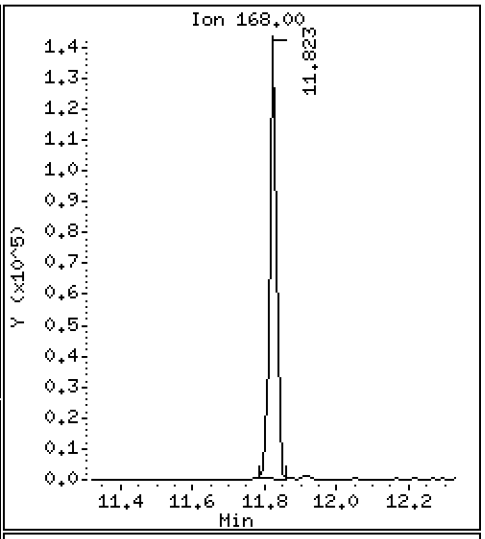
Column phase: Rxi-17Sil MS

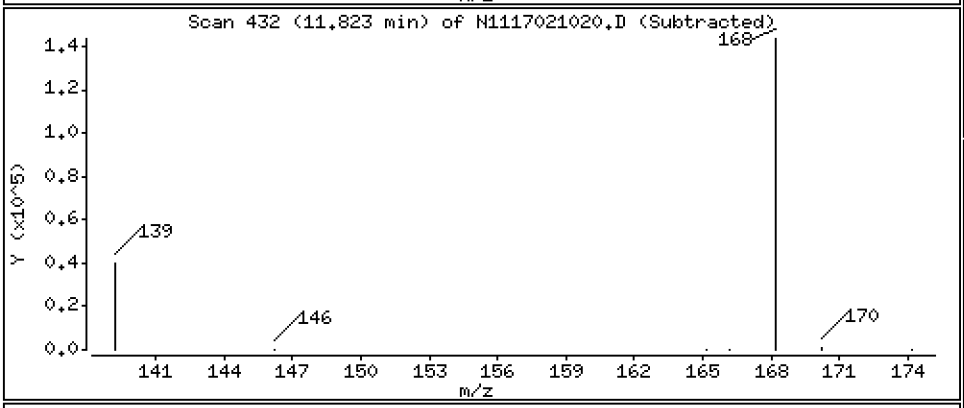
Column diameter: 0.25

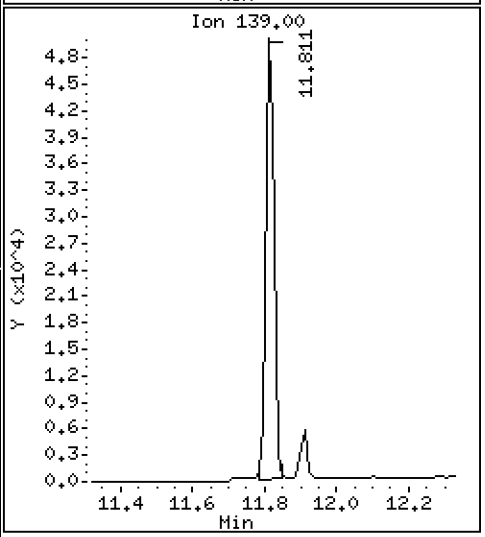
13 Dibenzofuran

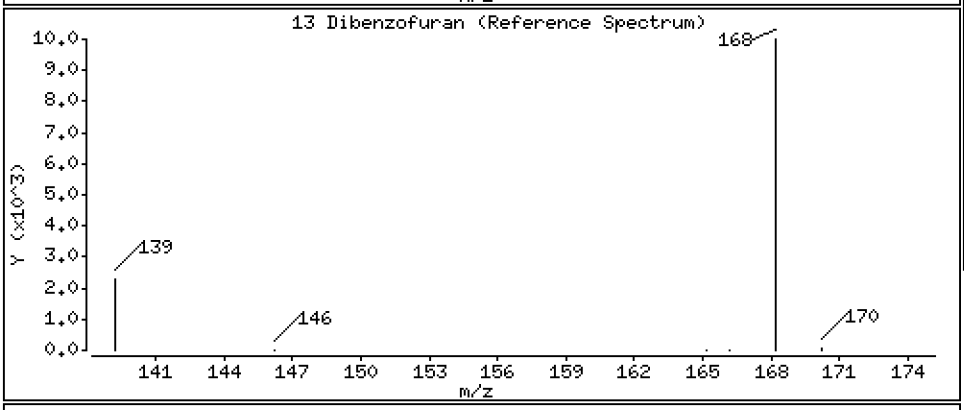
Concentration: 114 ng/mL

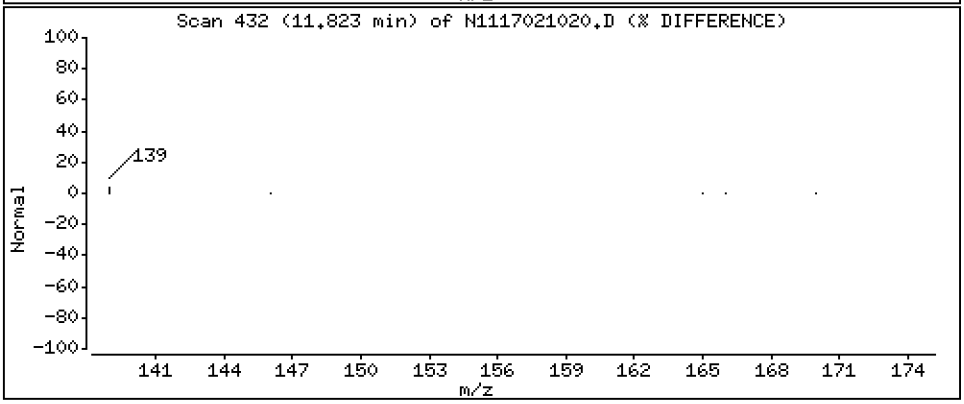












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

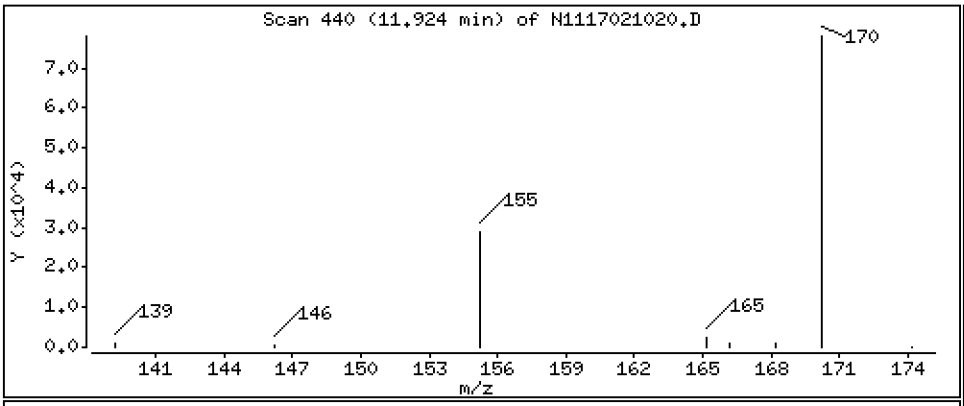
Operator: VTS

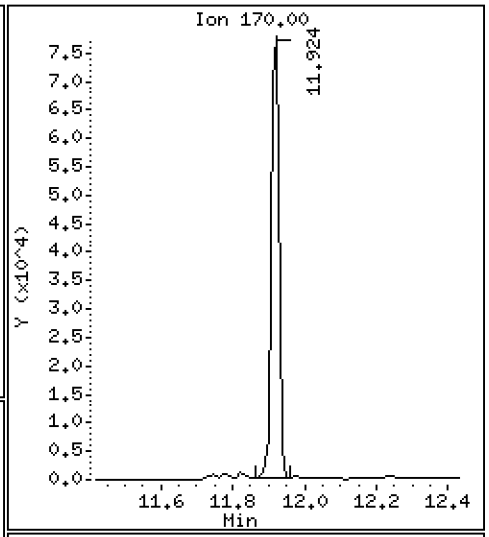
Column phase: Rxi-17Sil MS

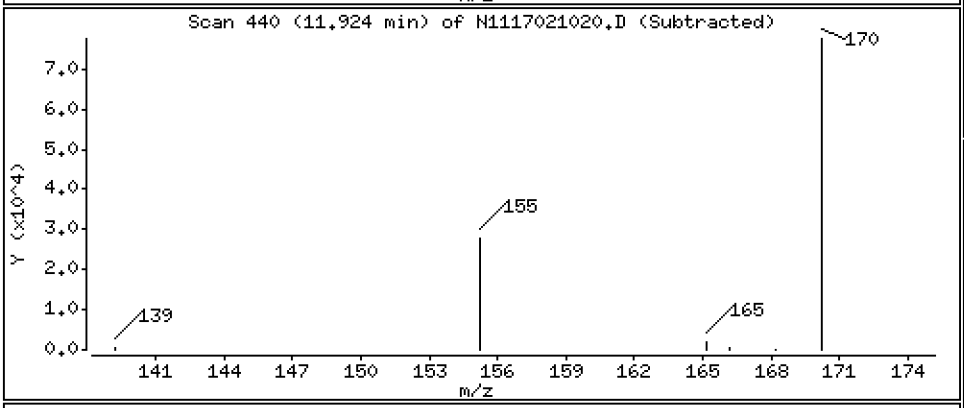
Column diameter: 0.25

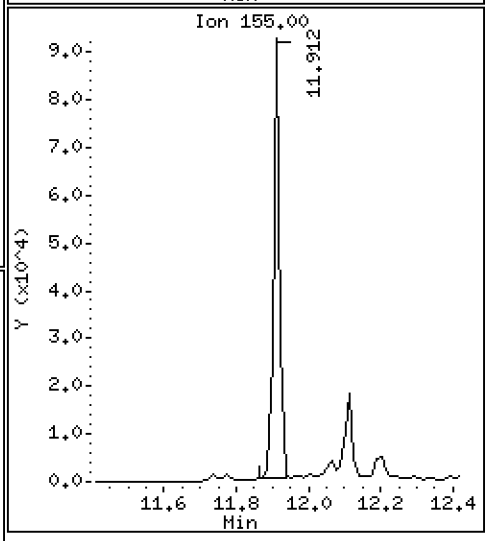
14 2,3,5-Trimethylnaphthalene

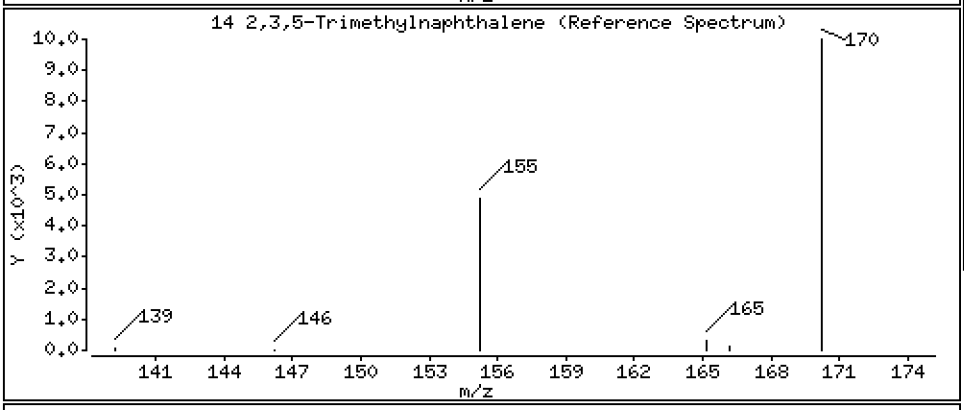
Concentration: 125 ng/mL

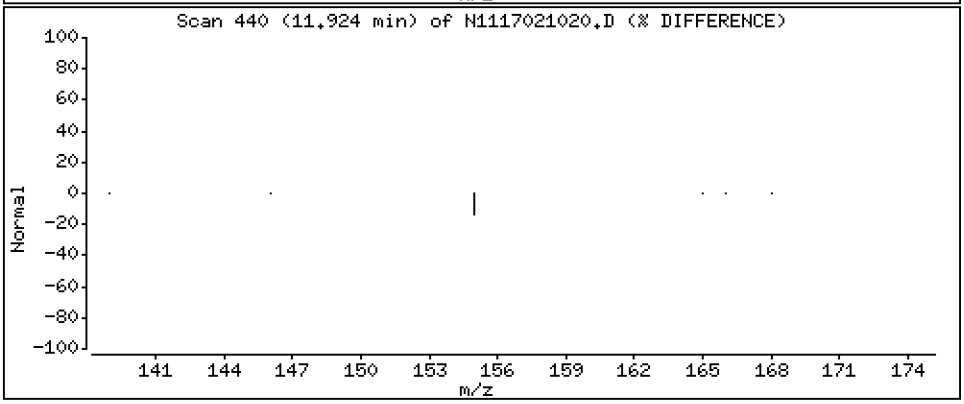












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021020.D

Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

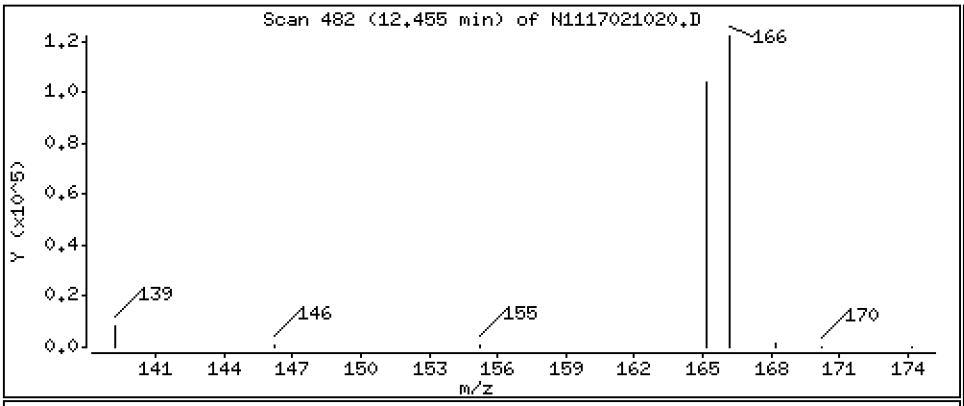
Operator: VTS

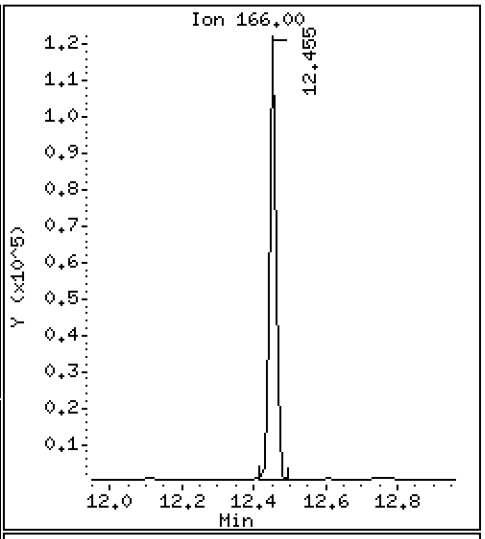
Column phase: Rxi-17Sil MS

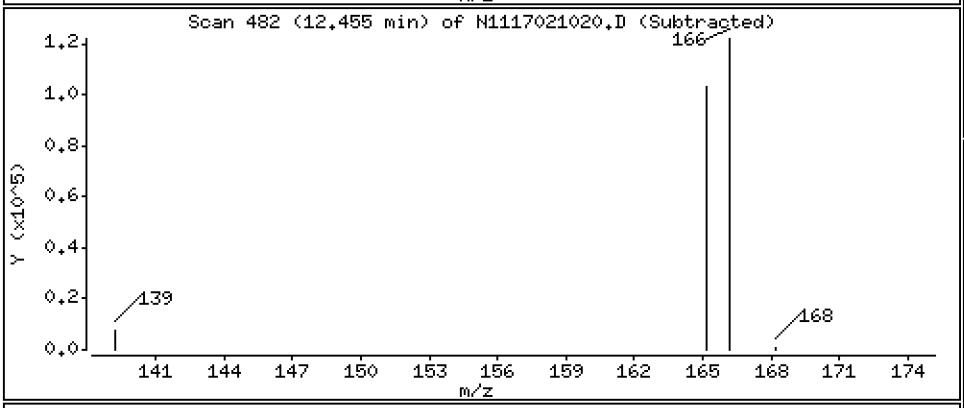
Column diameter: 0.25

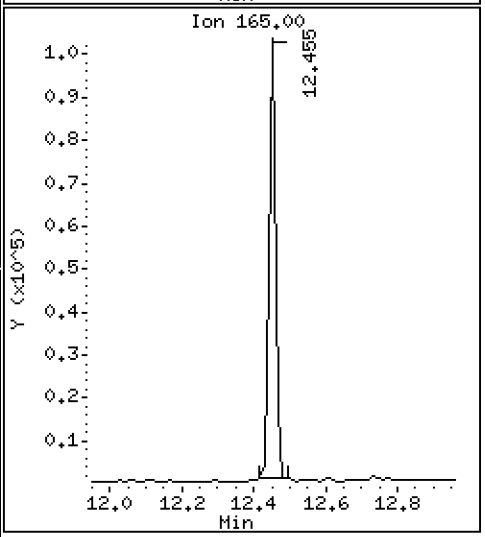
16 Fluorene

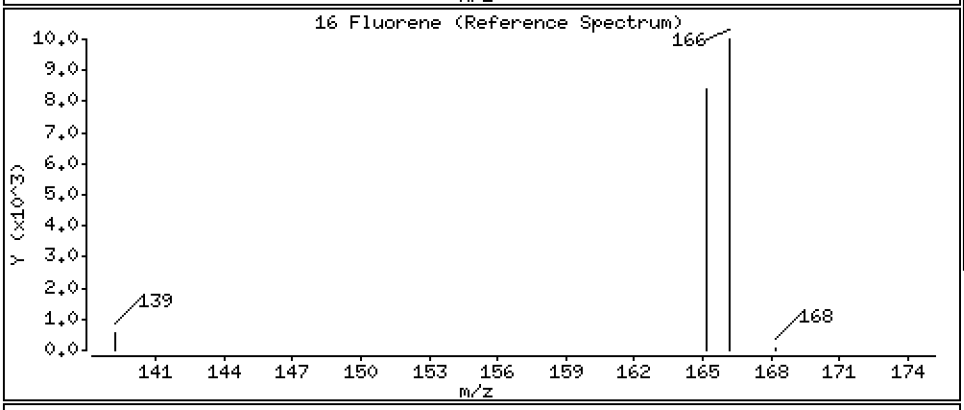
Concentration: 122 ng/mL

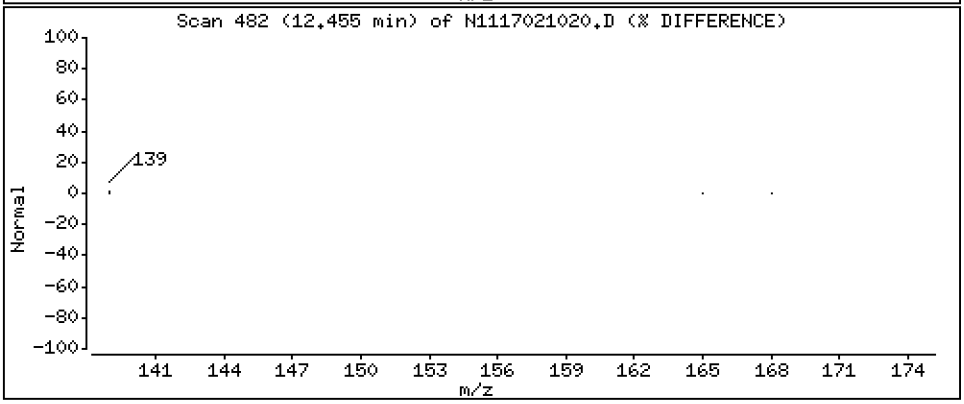












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

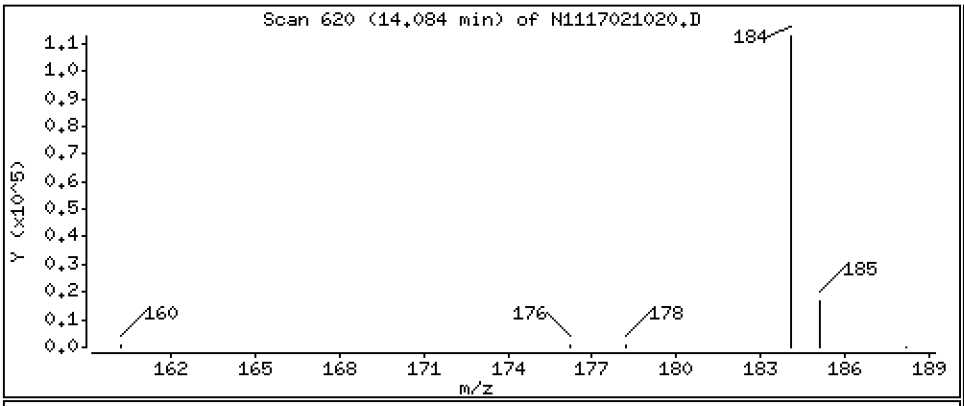
Operator: VTS

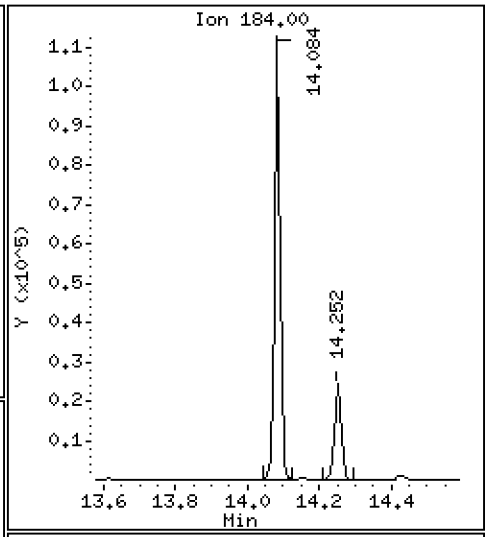
Column phase: Rxi-17Sil MS

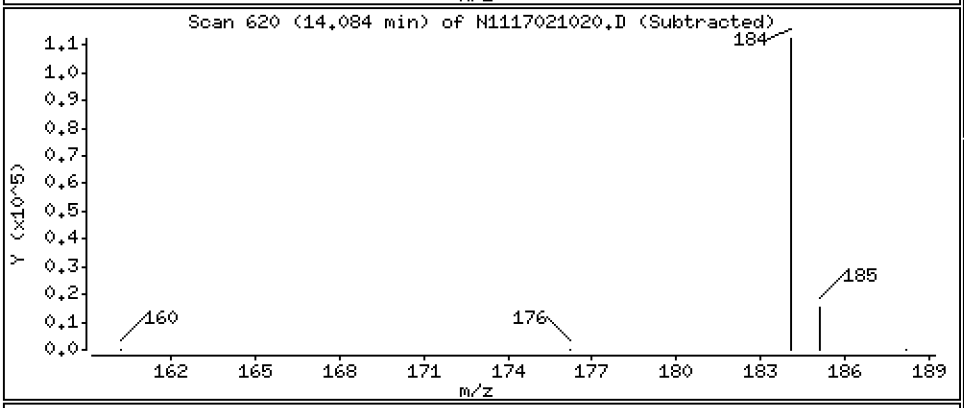
Column diameter: 0.25

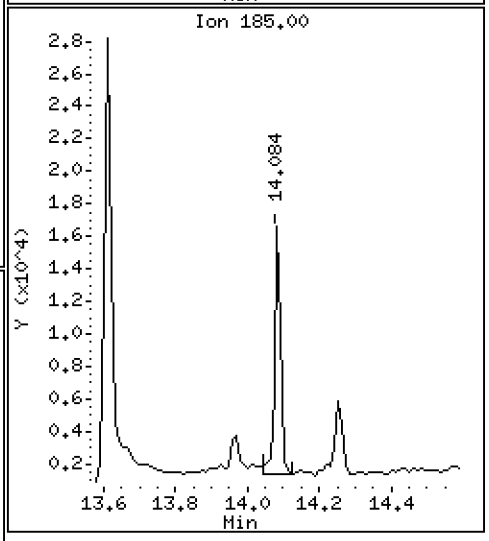
17 Dibenzothiophene

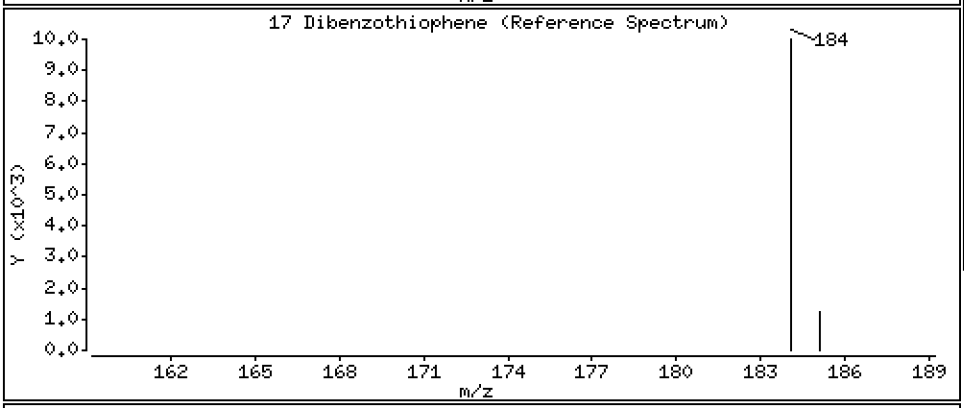
Concentration: 113 ng/mL

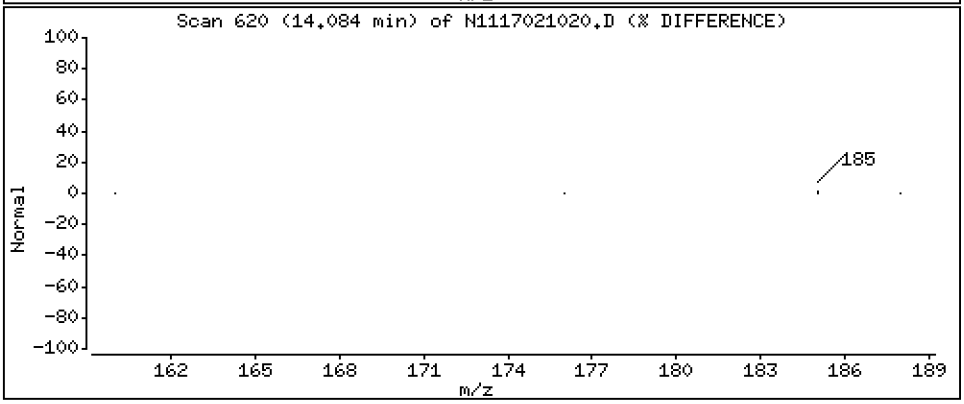












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

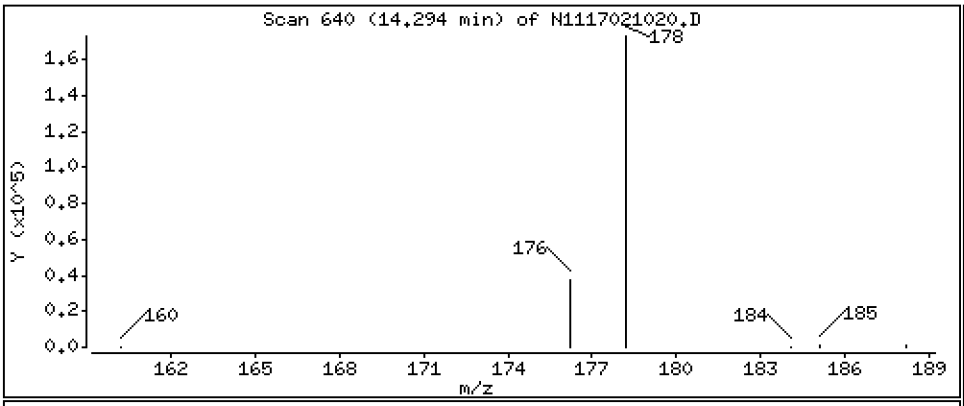
Operator: VTS

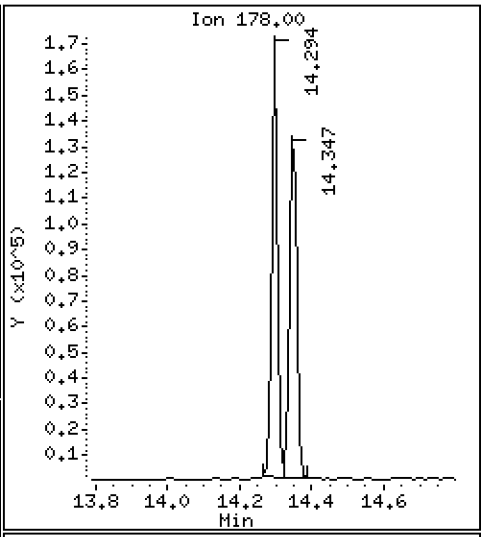
Column phase: Rxi-17Sil MS

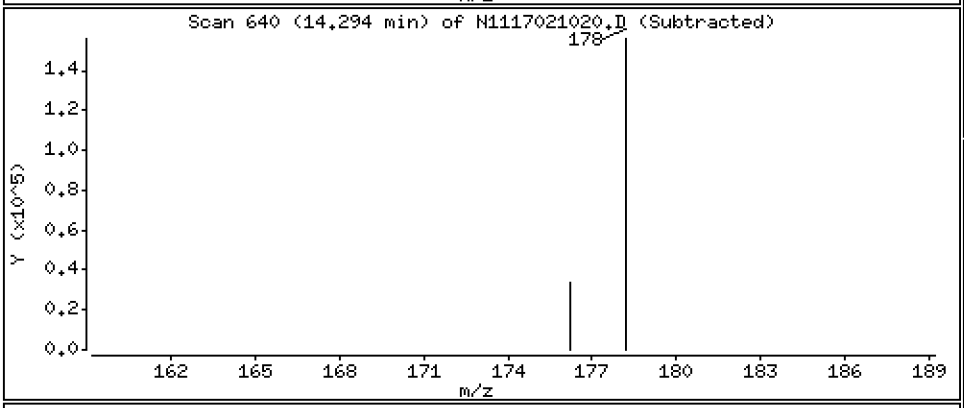
Column diameter: 0.25

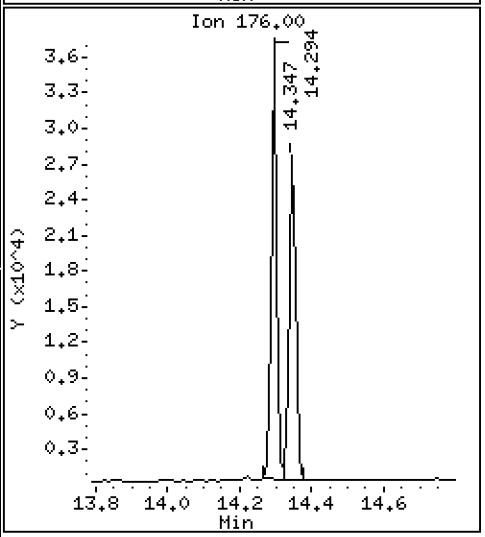
19 Phenanthrene

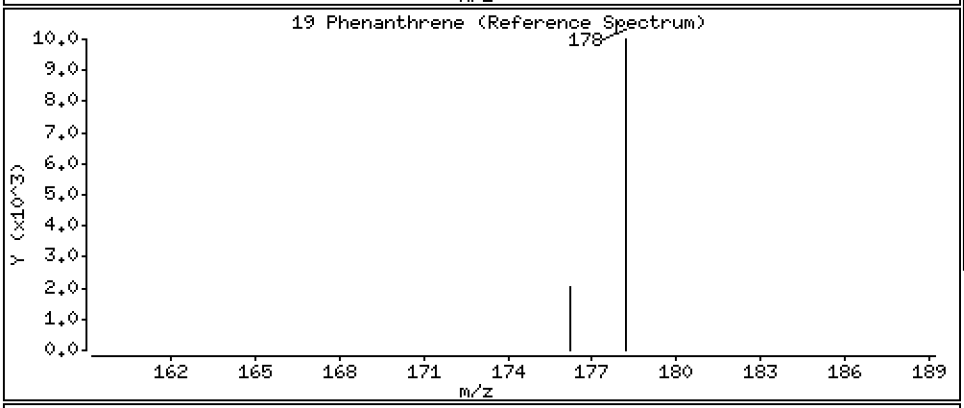
Concentration: 150 ng/mL

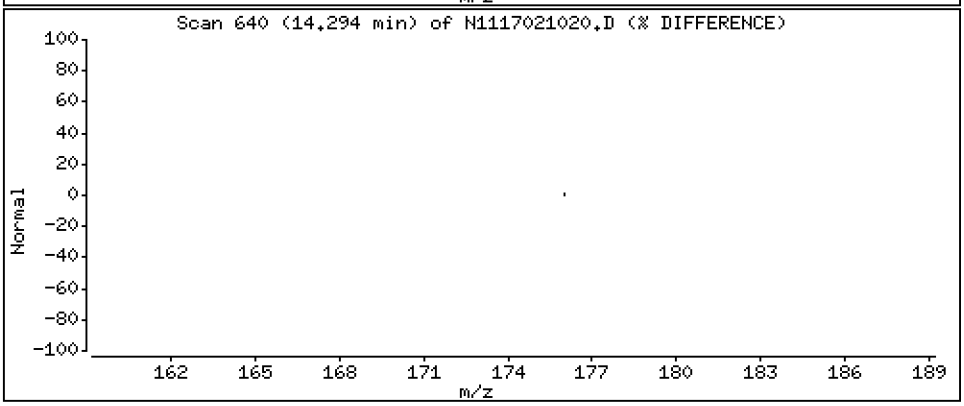












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

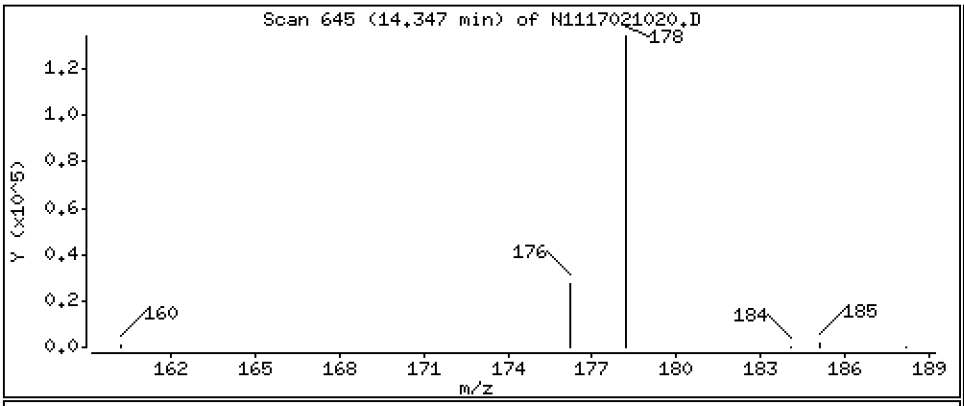
Operator: VTS

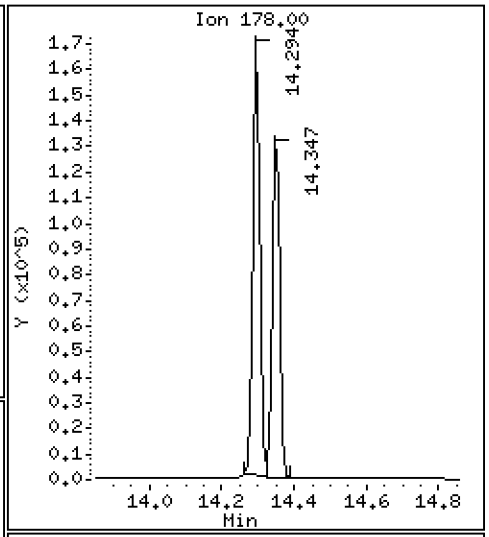
Column phase: Rxi-17Sil MS

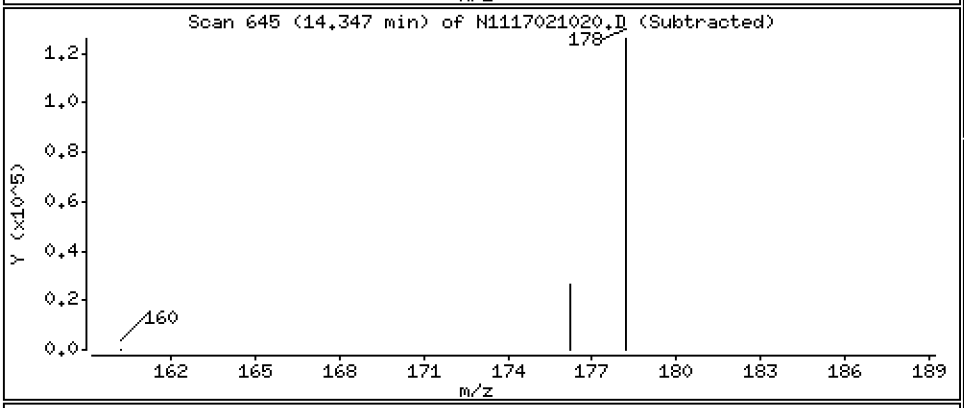
Column diameter: 0.25

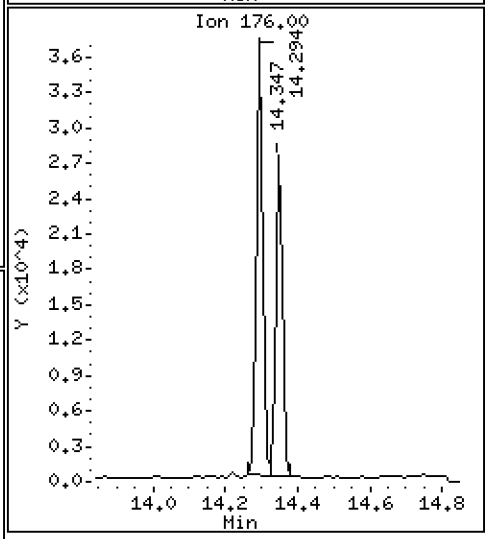
21 Anthracene

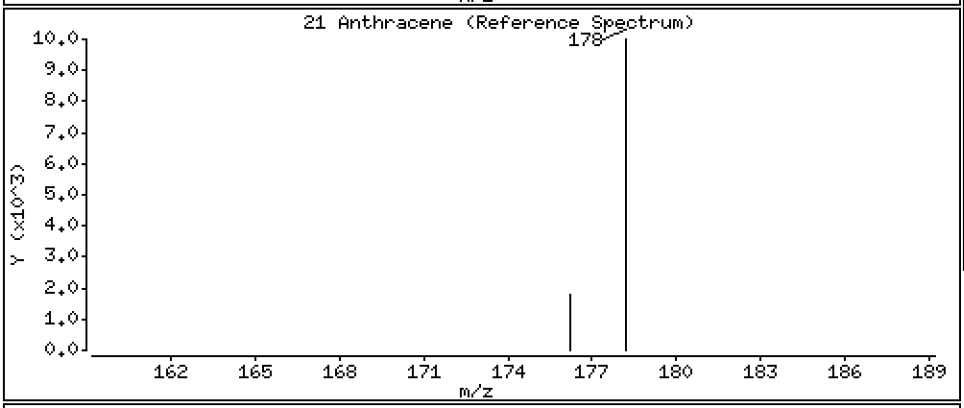
Concentration: 127 ng/mL

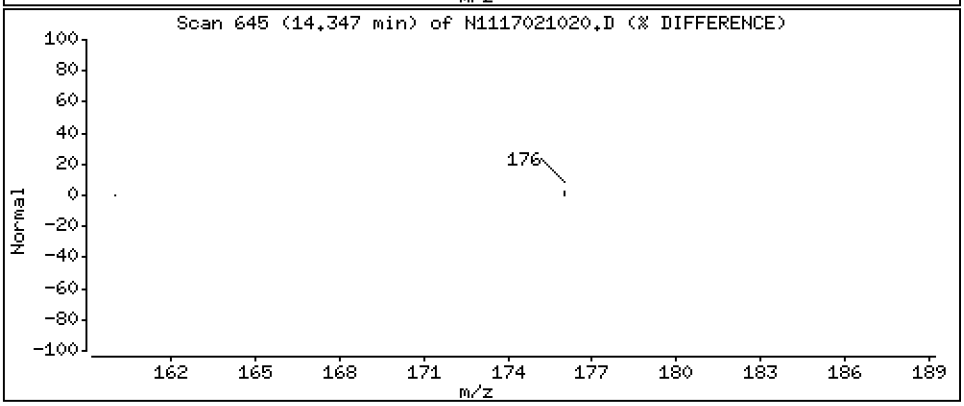












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

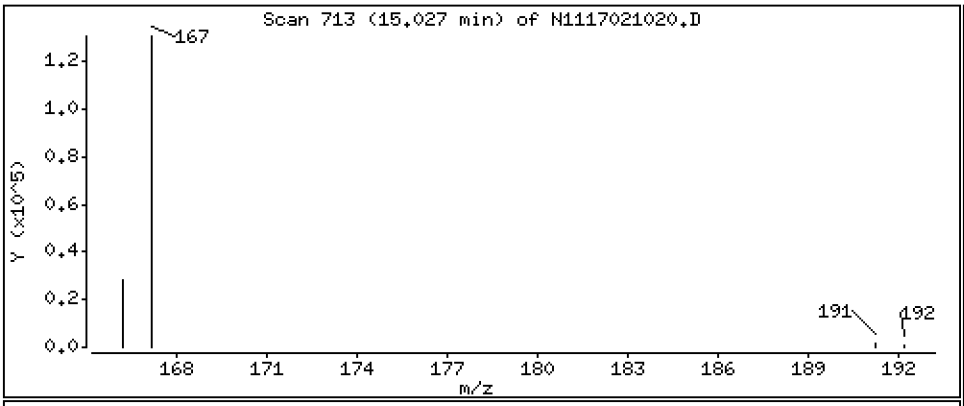
Operator: VTS

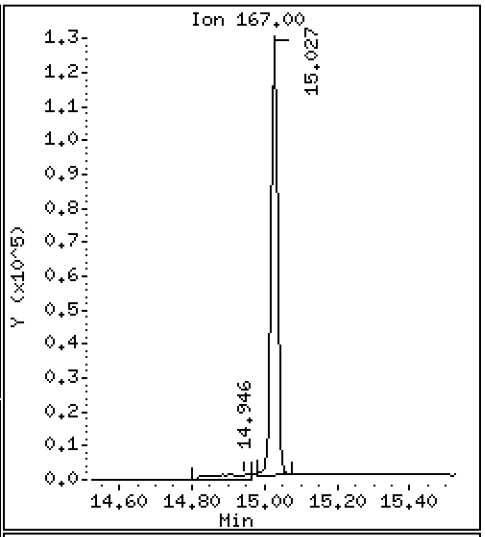
Column phase: Rxi-17Sil MS

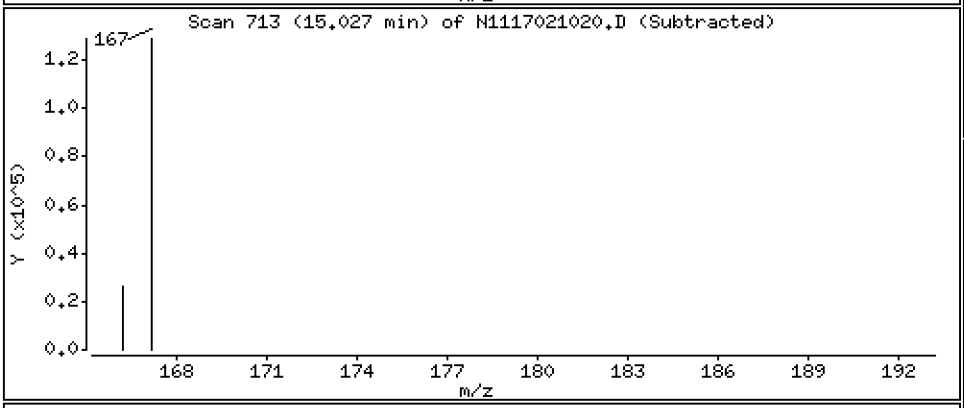
Column diameter: 0.25

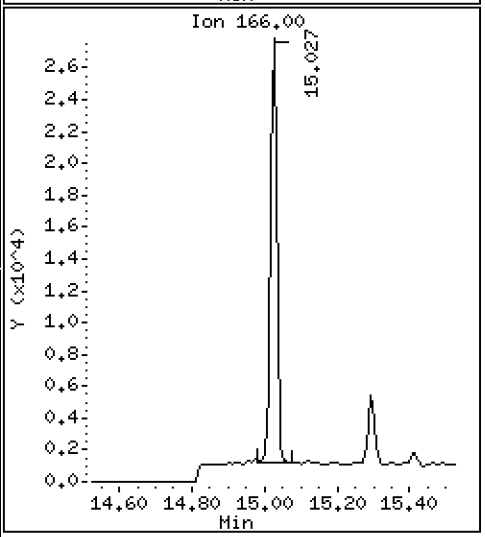
22 Carbazole

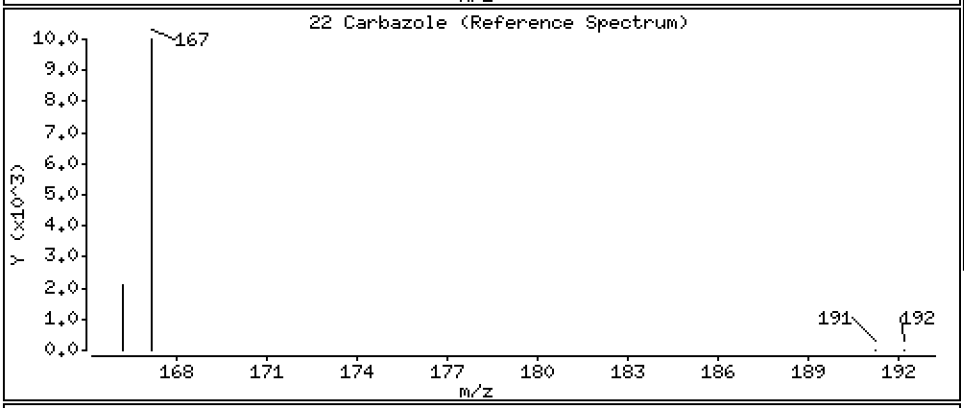
Concentration: 97.0 ng/mL

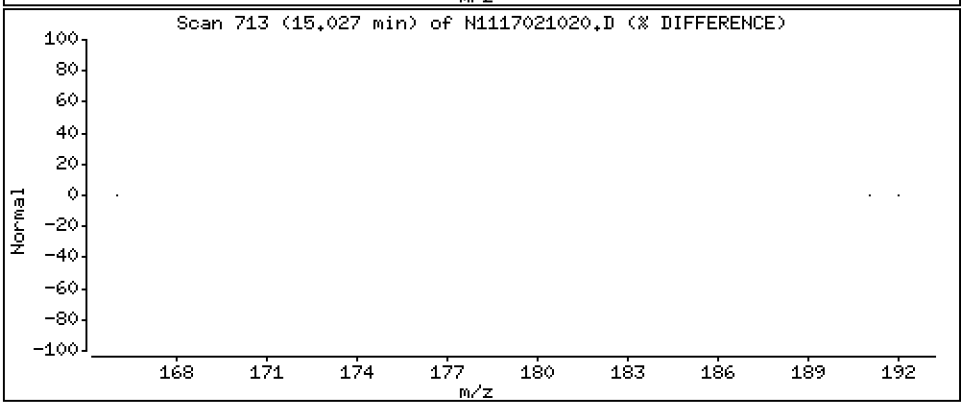












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

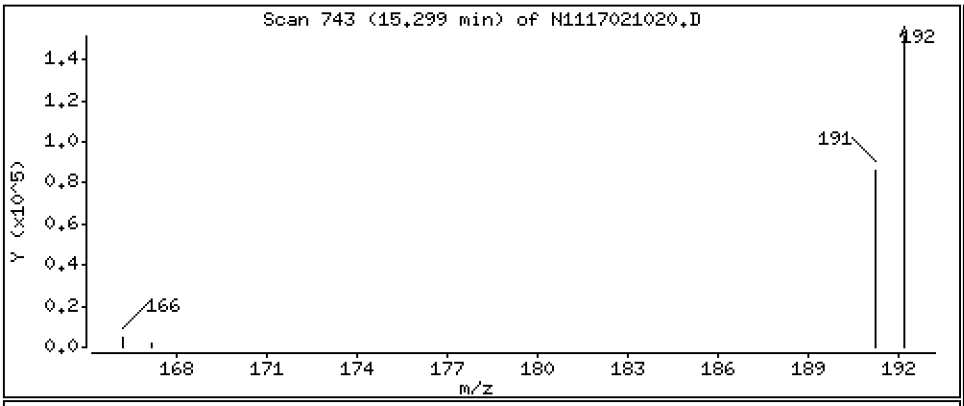
Operator: VTS

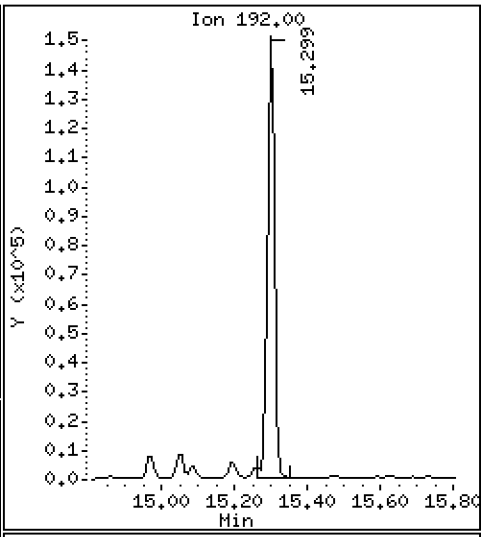
Column phase: Rxi-17Sil MS

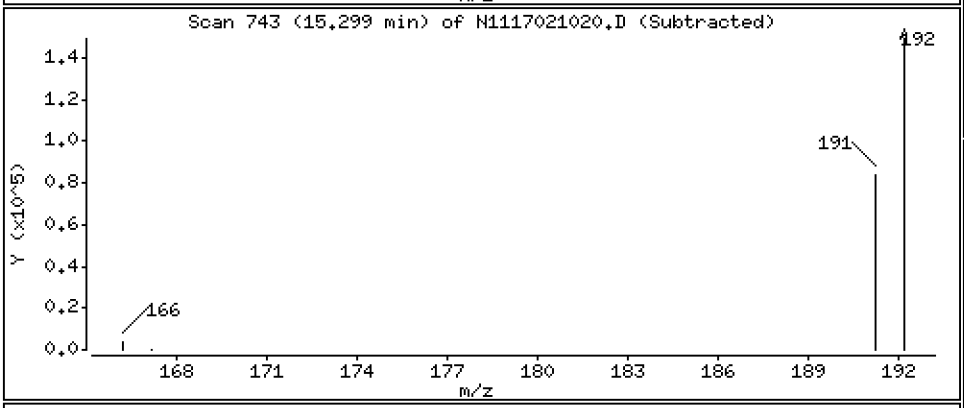
Column diameter: 0.25

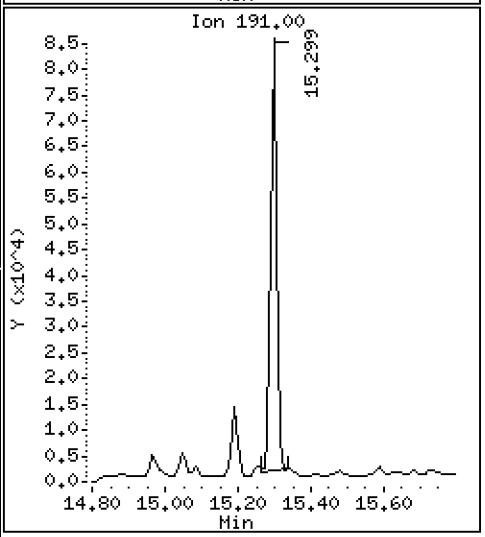
23 1-Methylphenanthrene

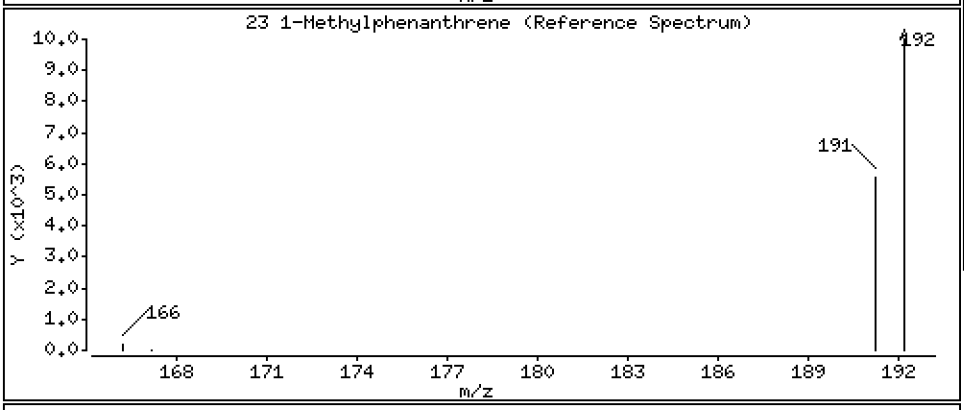
Concentration: 125 ng/mL

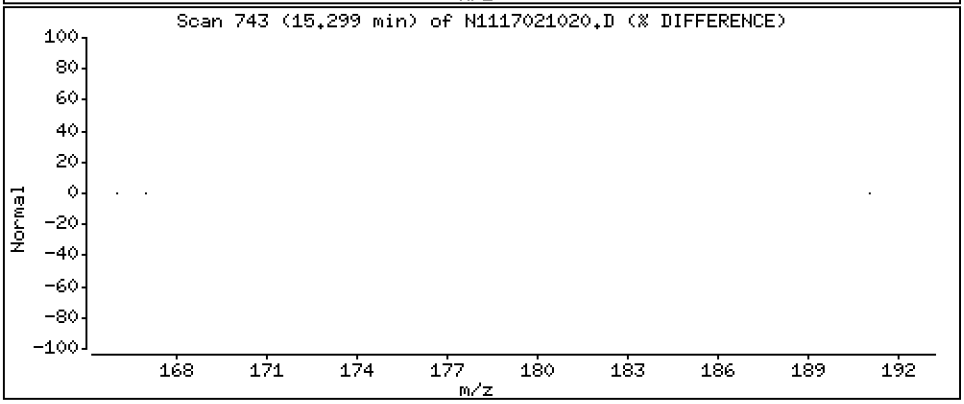












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

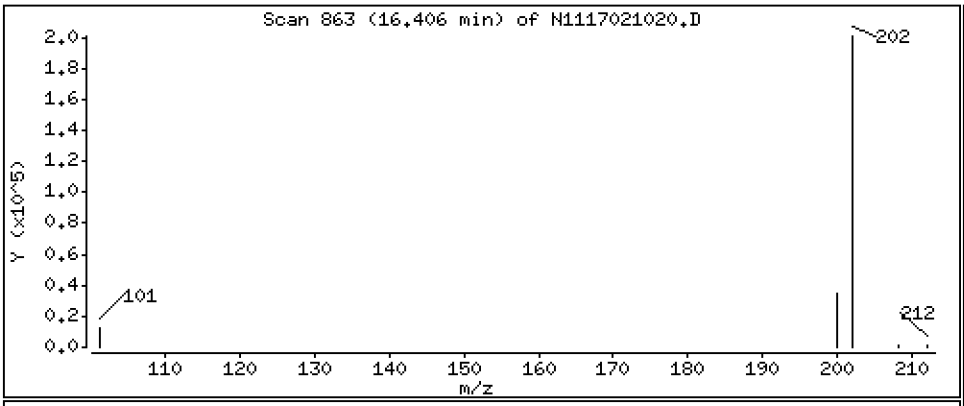
Operator: VTS

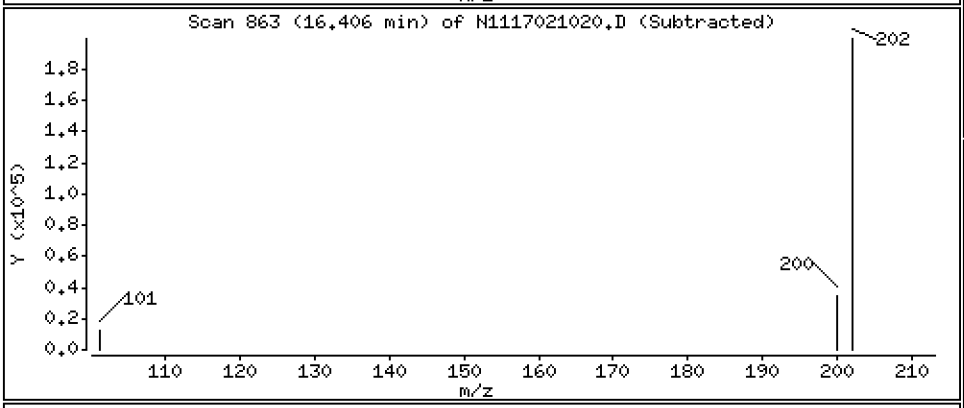
Column phase: Rxi-17Sil MS

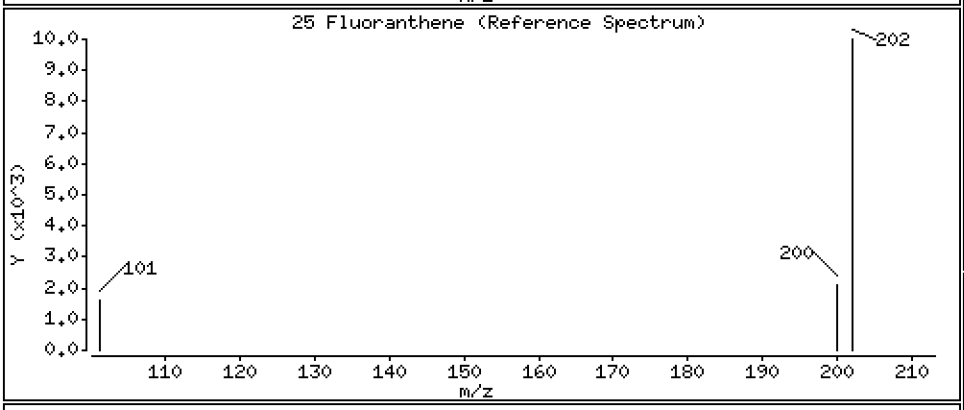
Column diameter: 0.25

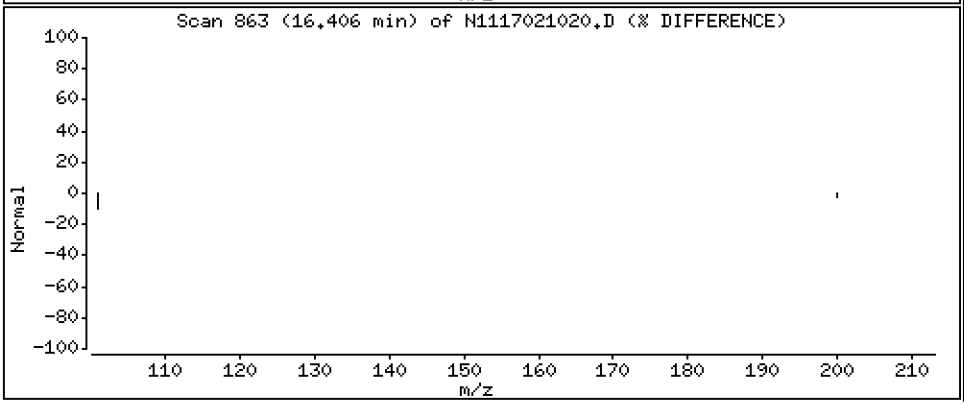
25 Fluoranthene

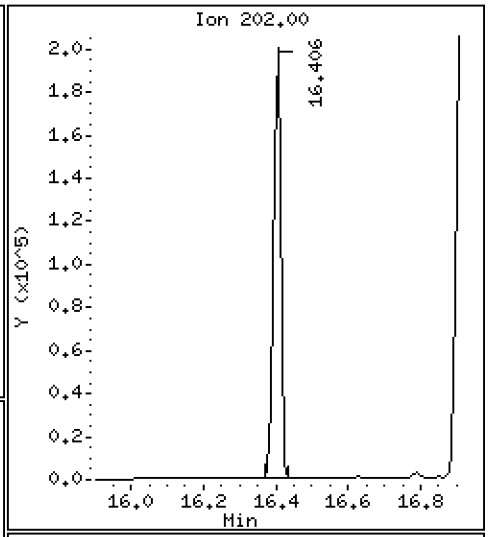
Concentration: 155 ng/mL

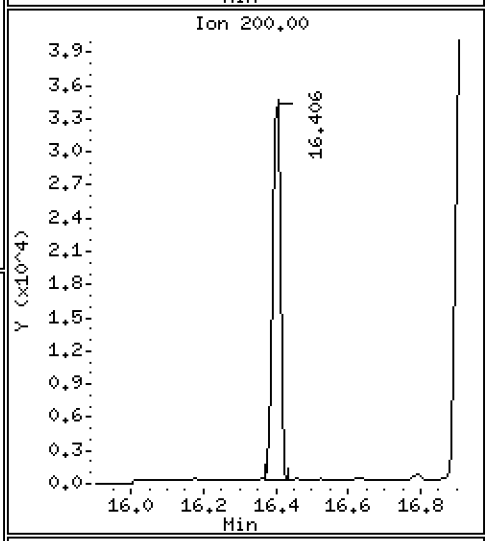


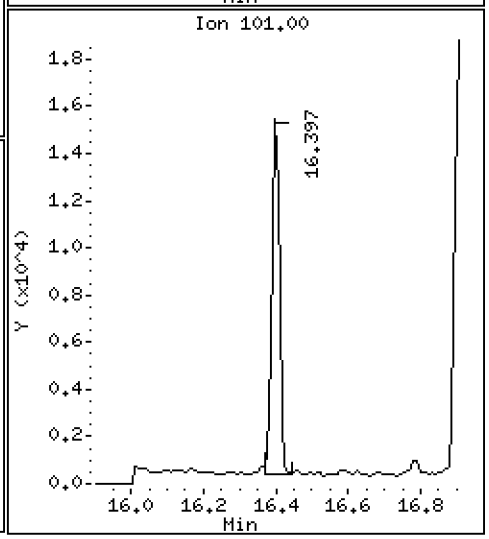












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

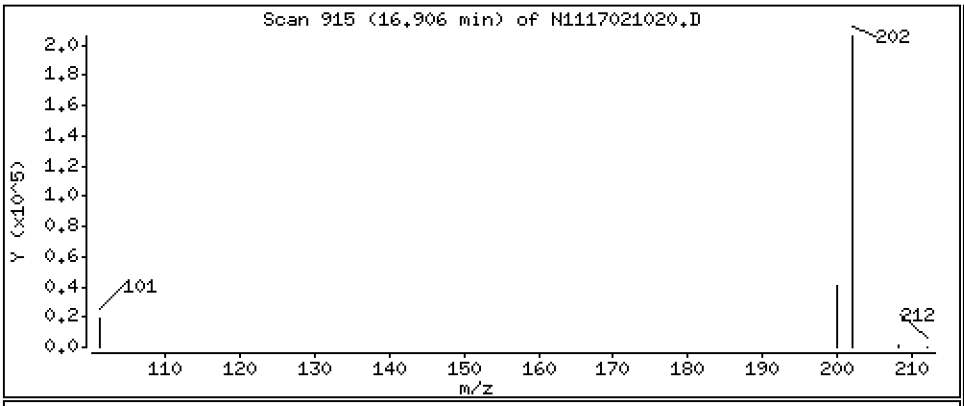
Operator: VTS

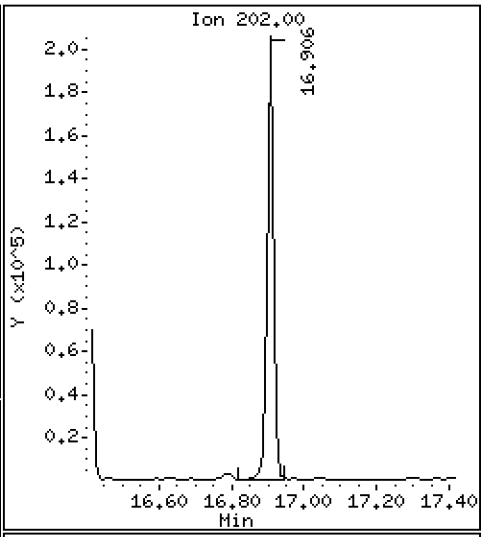
Column phase: Rxi-17Sil MS

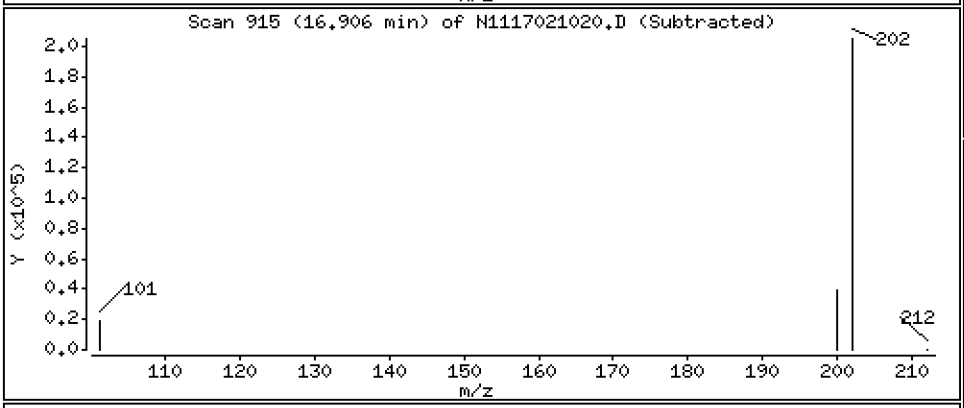
Column diameter: 0.25

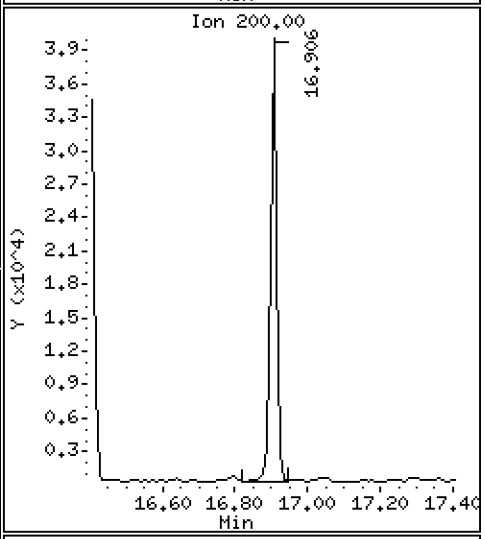
26 Pyrene

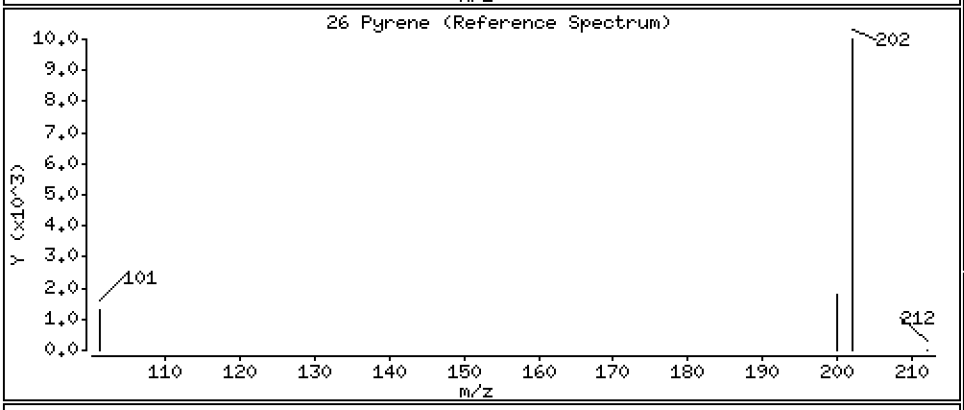
Concentration: 189 ng/mL

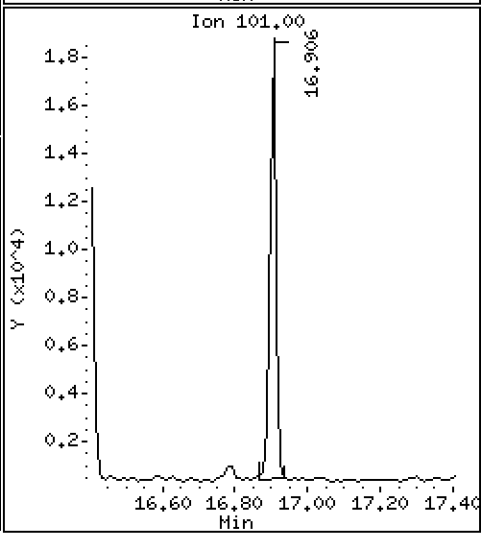


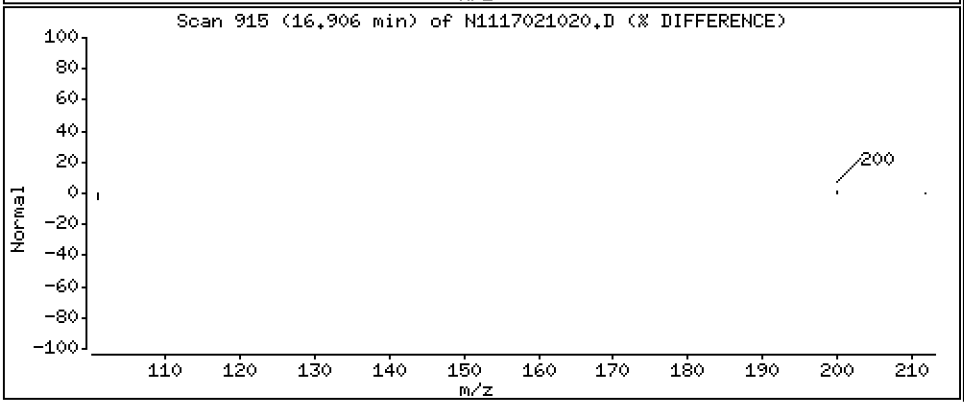












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021020.D

Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

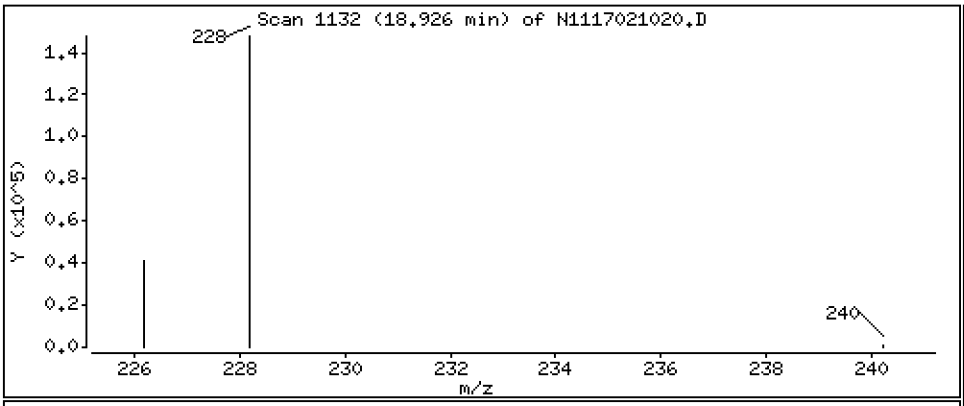
Operator: VTS

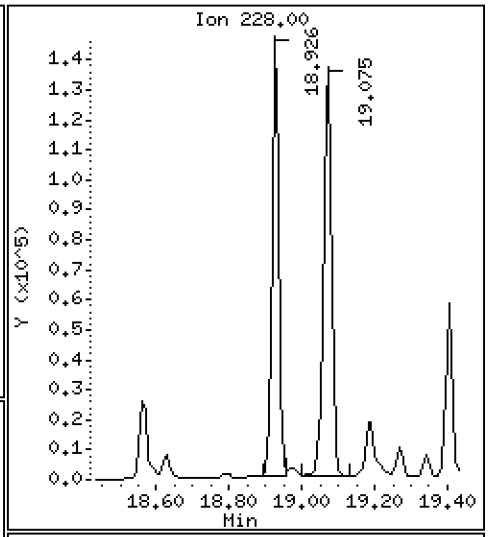
Column phase: Rxi-17Sil MS

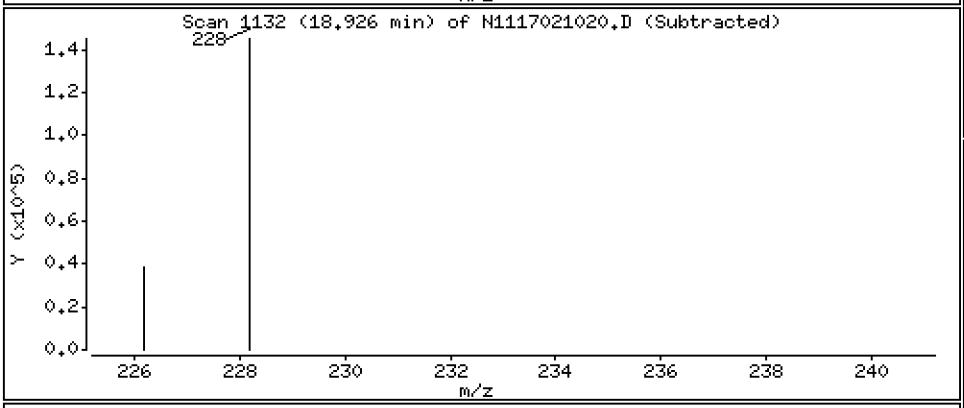
Column diameter: 0.25

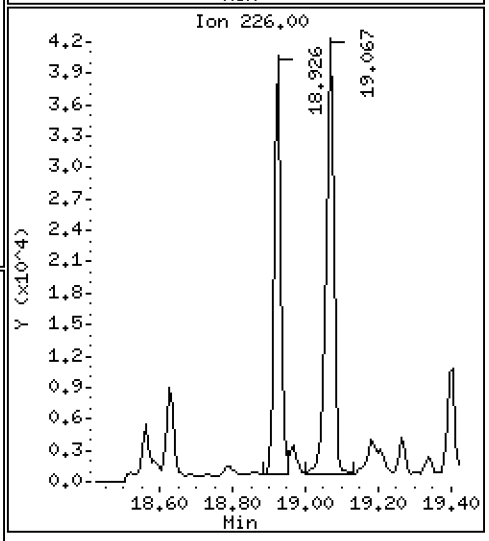
27 Benzo(a)anthracene

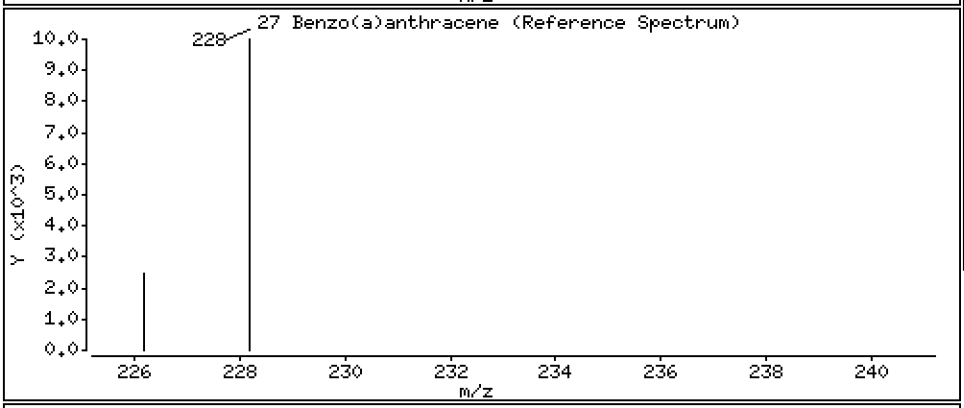
Concentration: 142 ng/mL

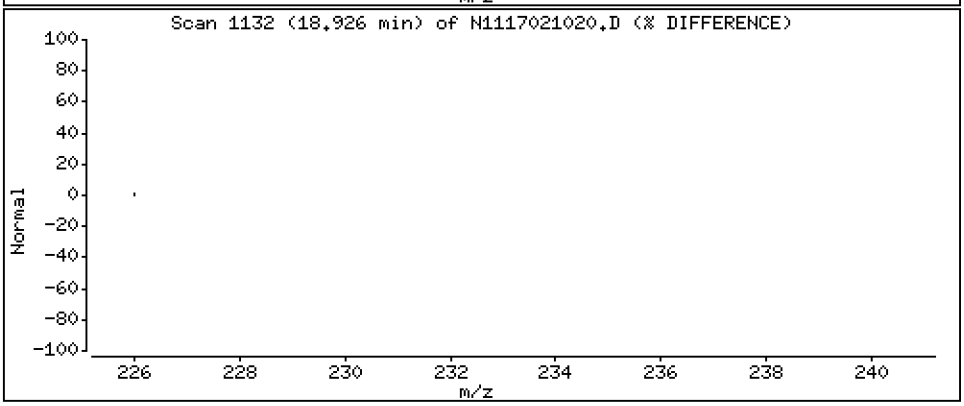












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021020.D

Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

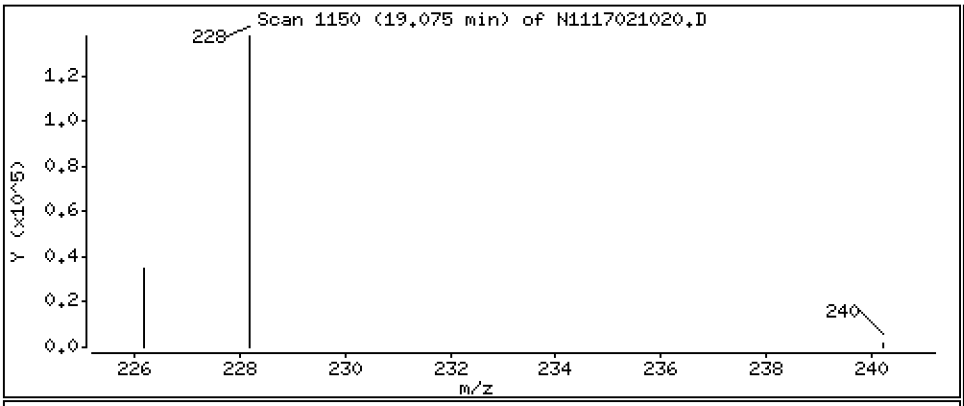
Operator: VTS

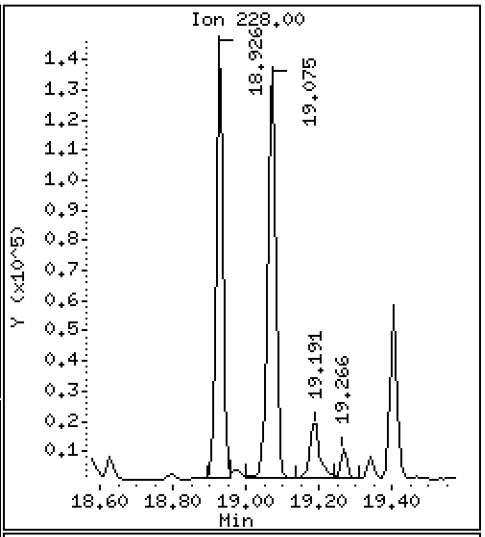
Column phase: Rxi-17Sil MS

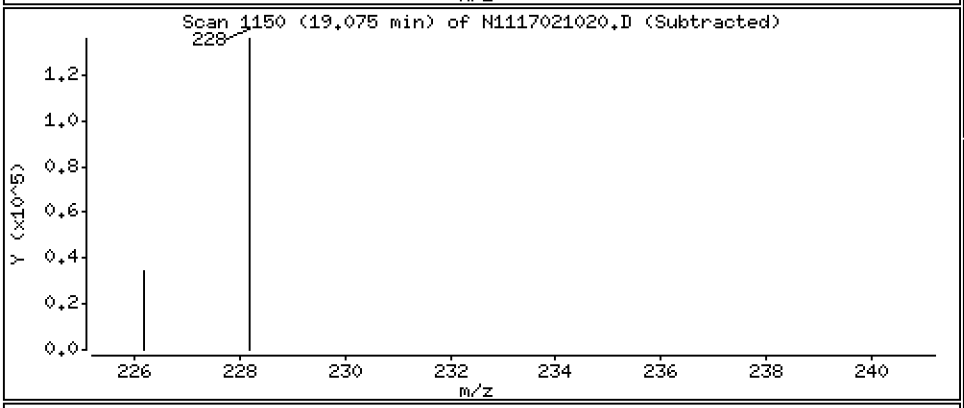
Column diameter: 0.25

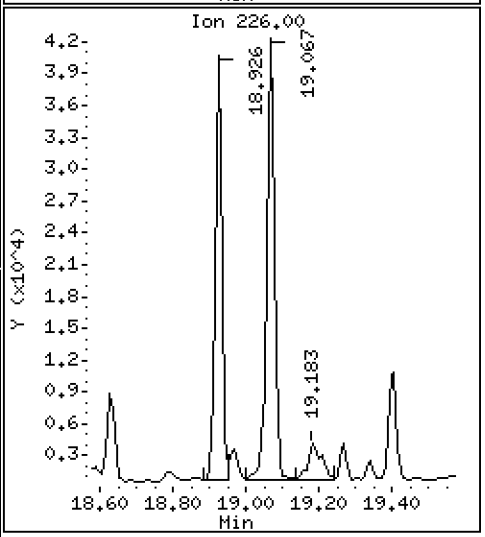
29 Chrysene

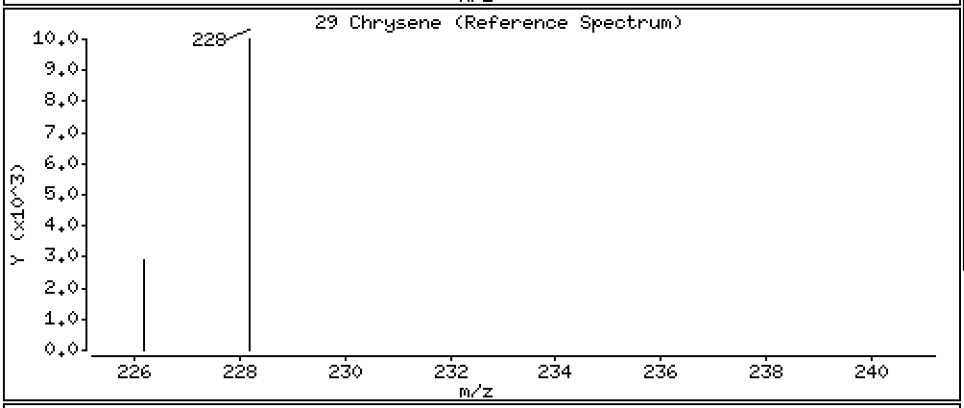
Concentration: 155 ng/mL

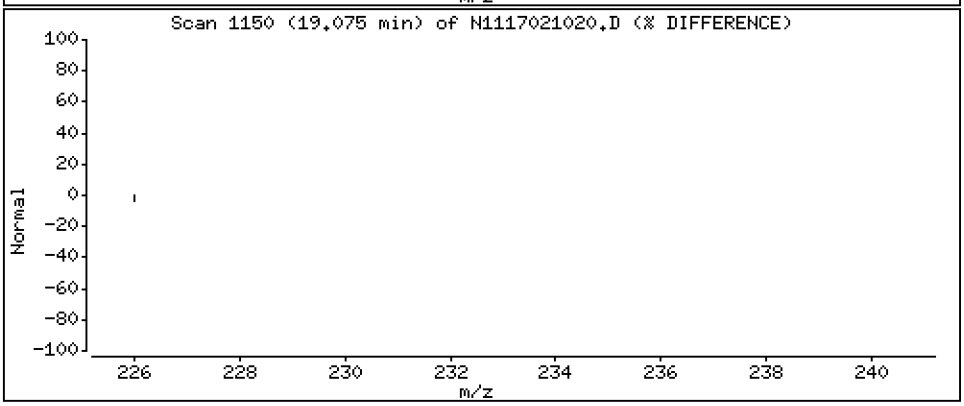












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

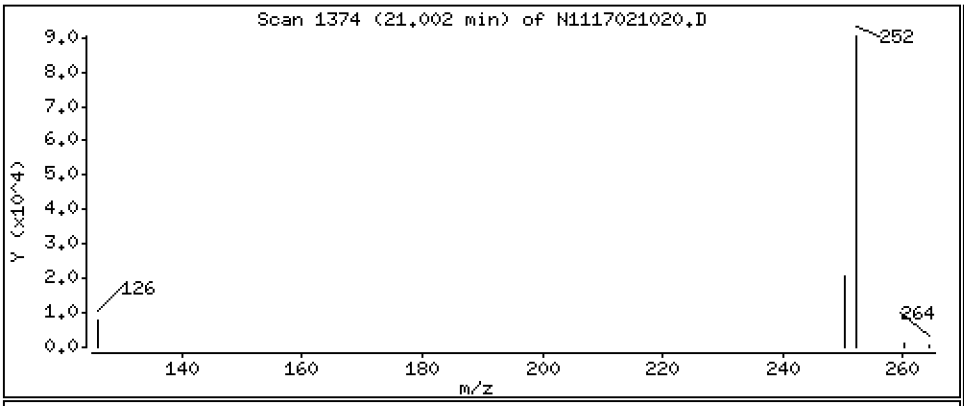
Operator: VTS

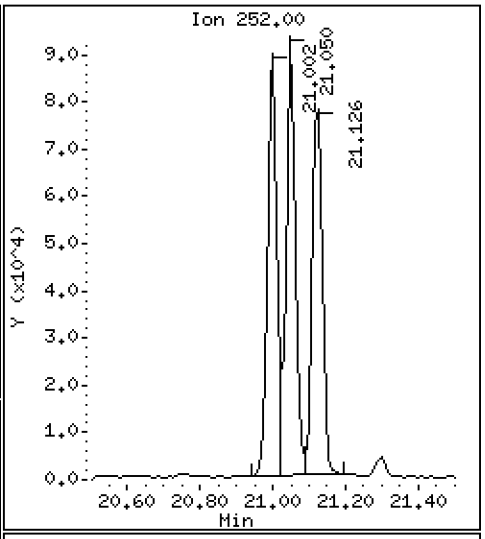
Column phase: Rxi-17Sil MS

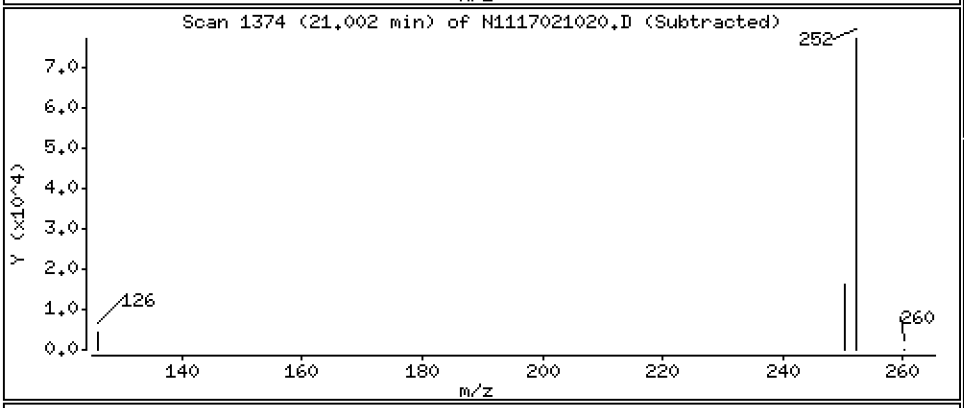
Column diameter: 0.25

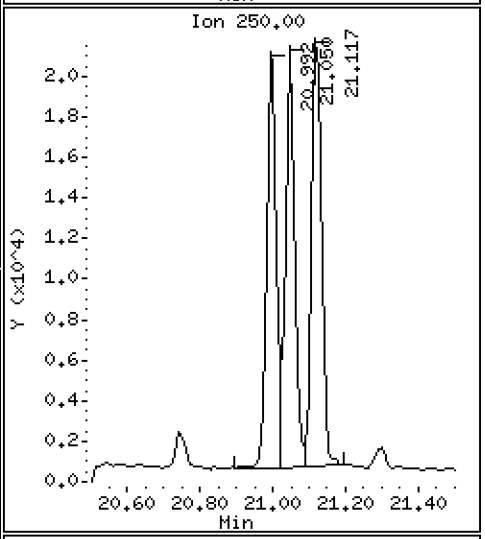
30 Benzo(b)fluoranthene

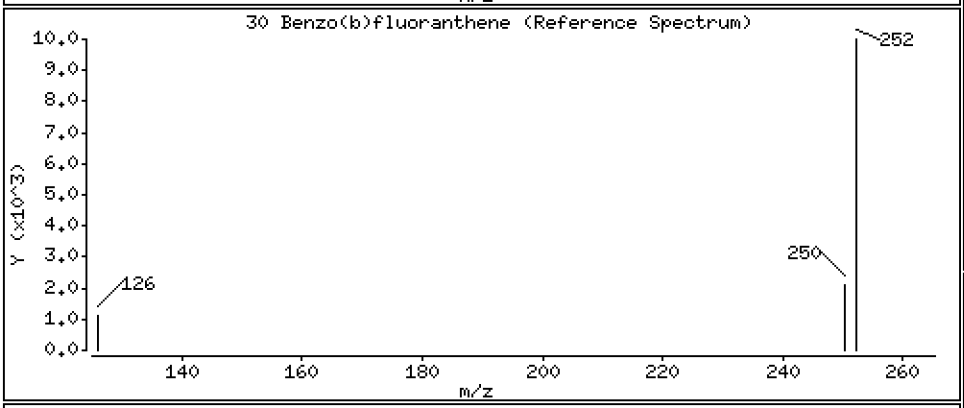
Concentration: 132 ng/mL

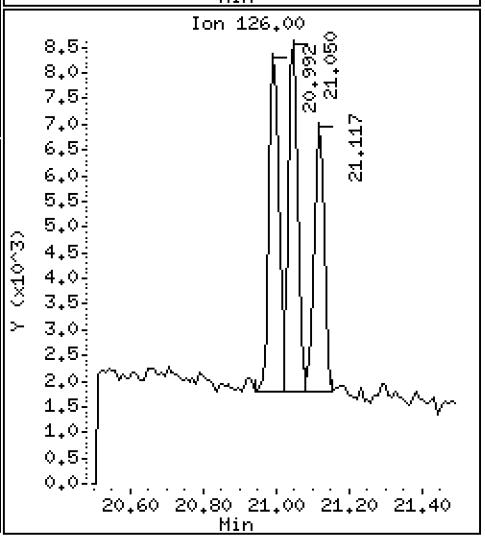


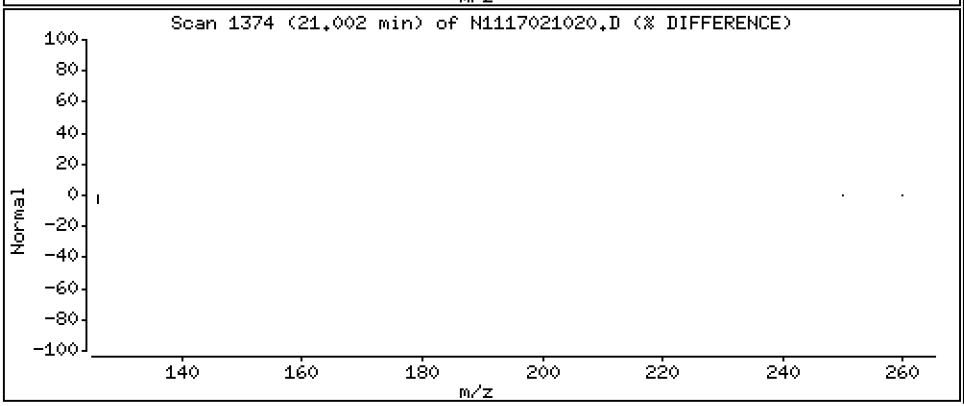












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

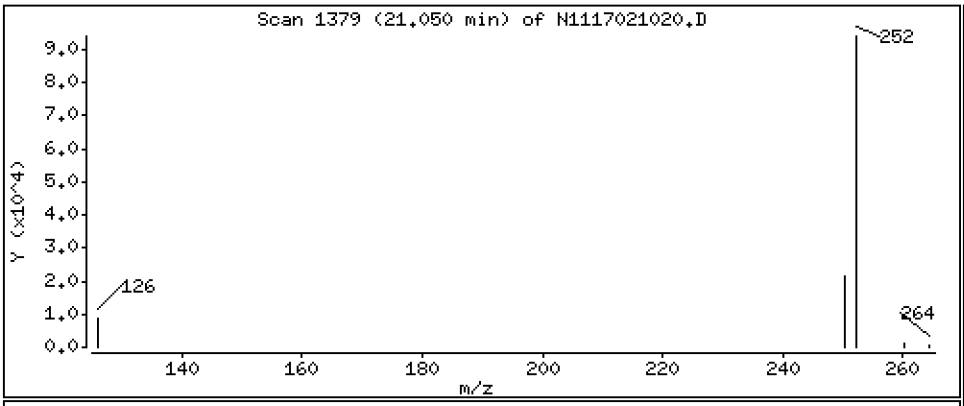
Operator: VTS

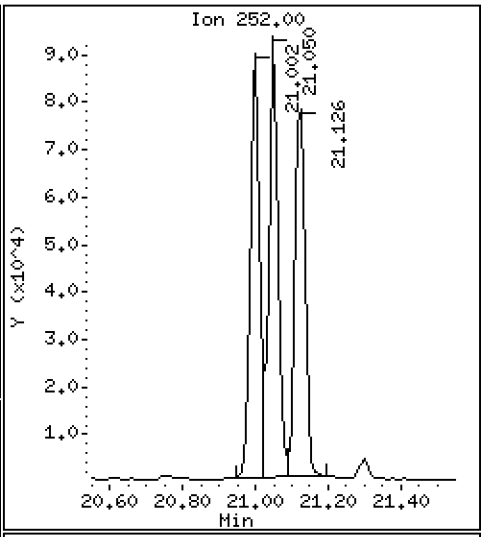
Column phase: Rxi-17Sil MS

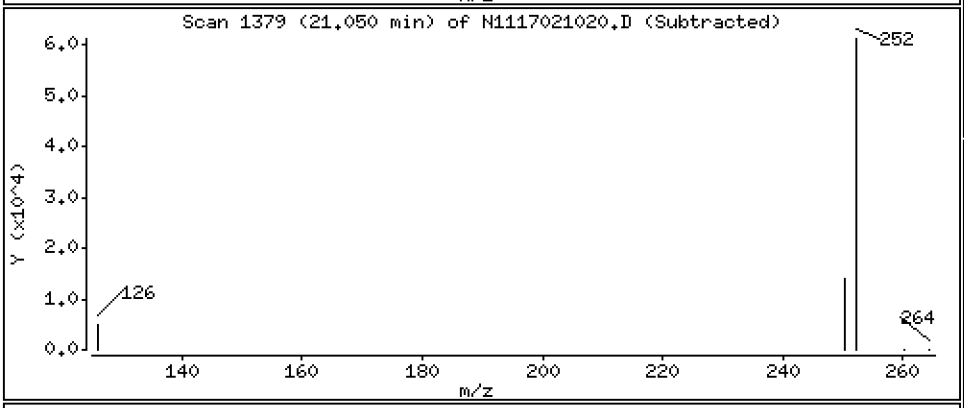
Column diameter: 0.25

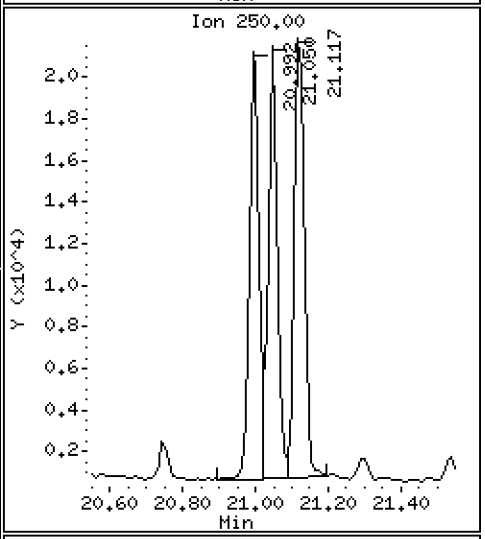
31 Benzo(k)fluoranthene

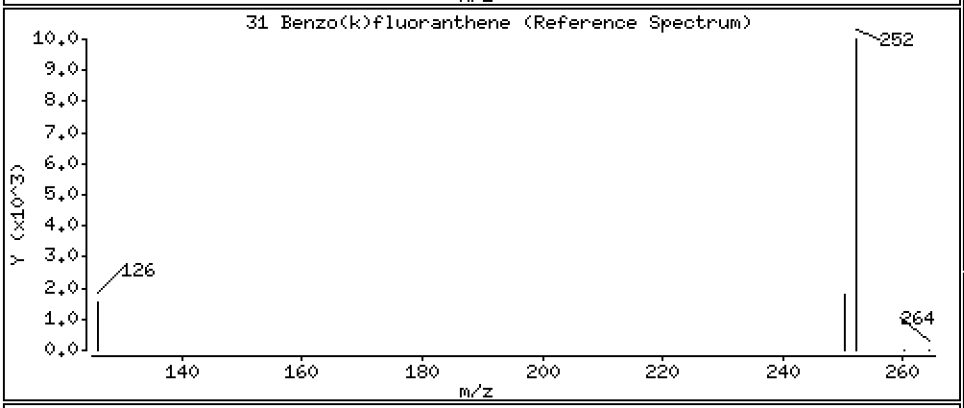
Concentration: 128 ng/mL

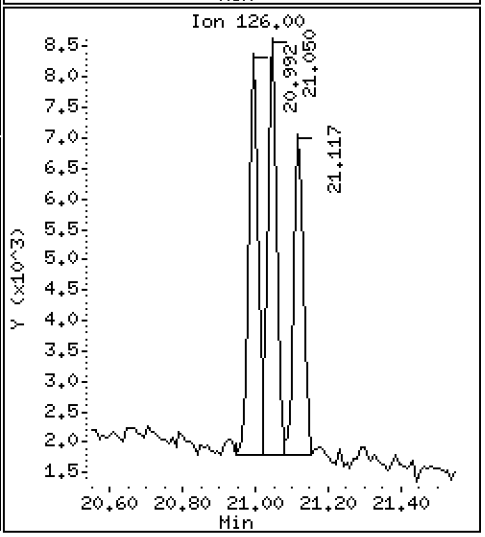


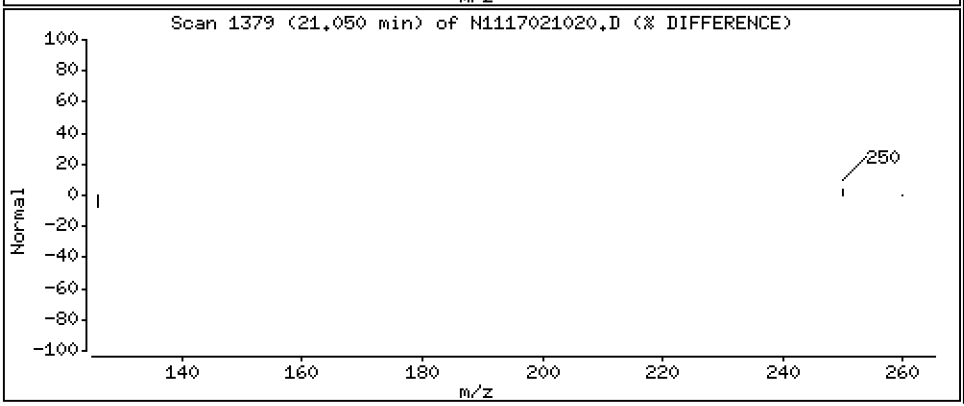












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

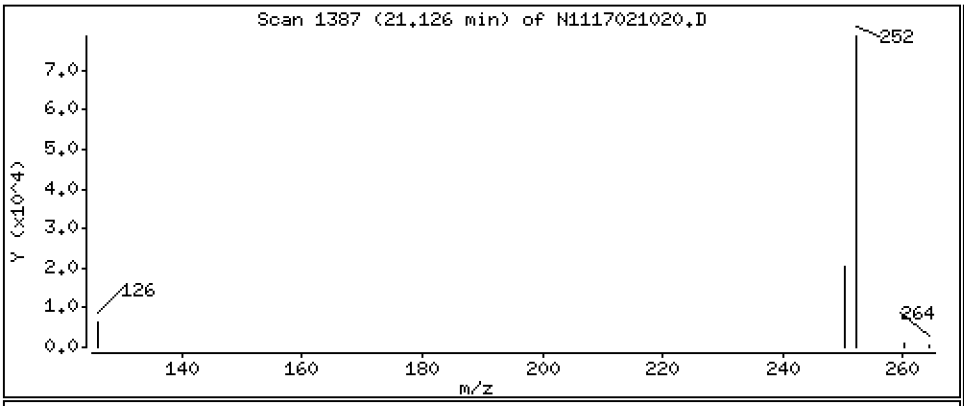
Operator: VTS

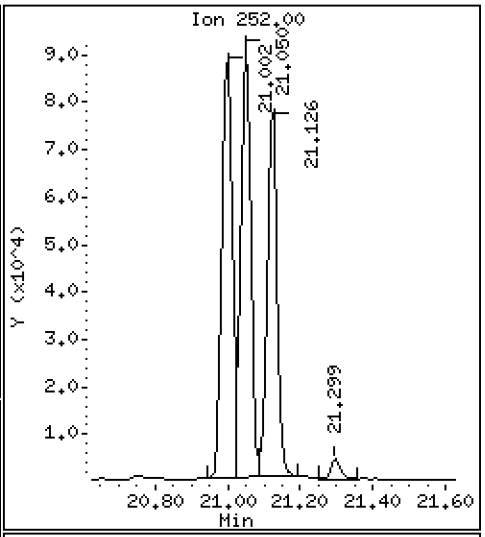
Column phase: Rxi-17Sil MS

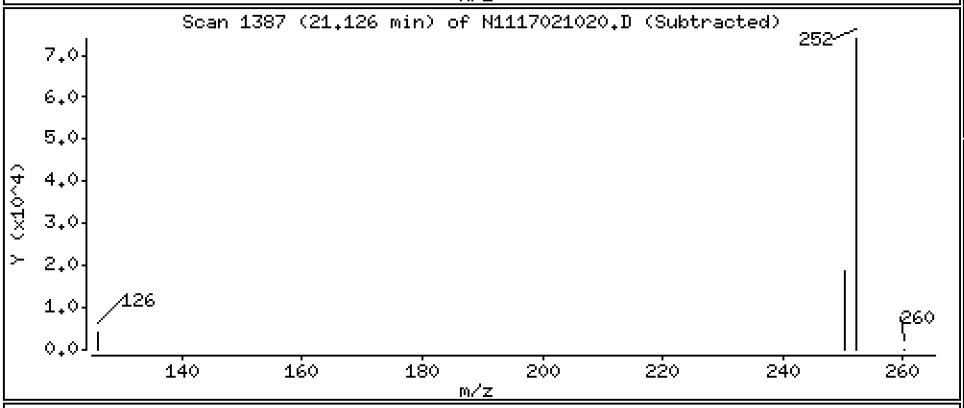
Column diameter: 0.25

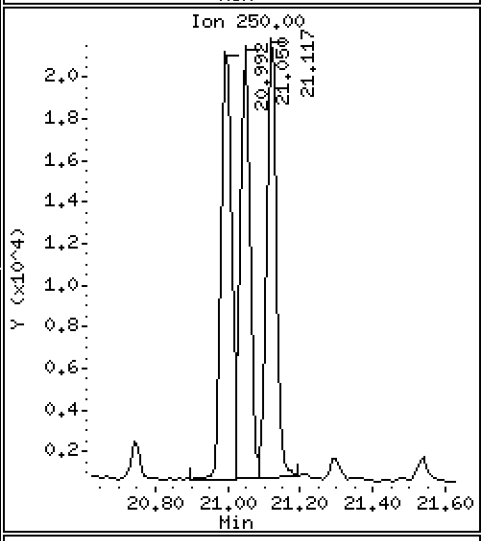
32 Benzo(j)fluoranthene

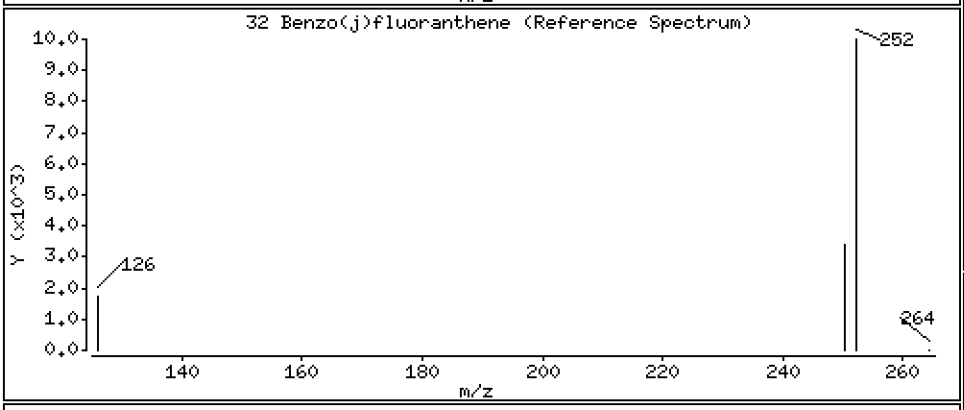
Concentration: 123 ng/mL

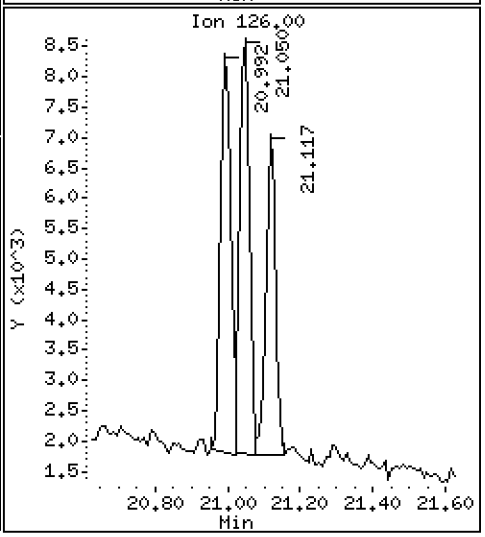


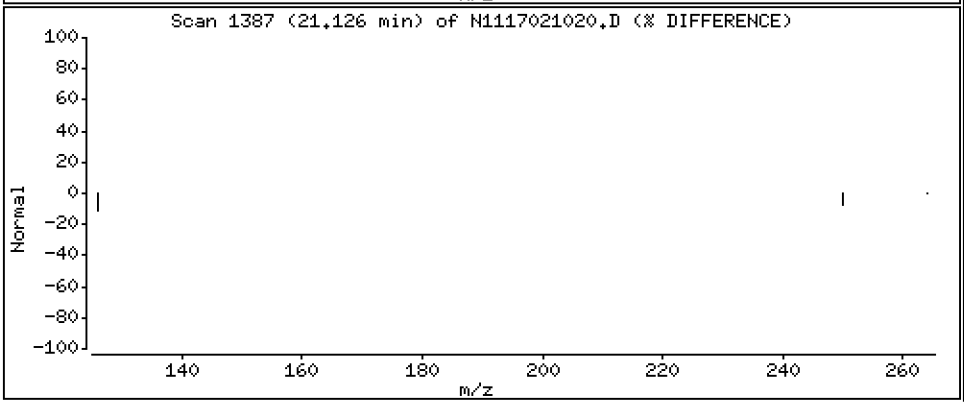












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

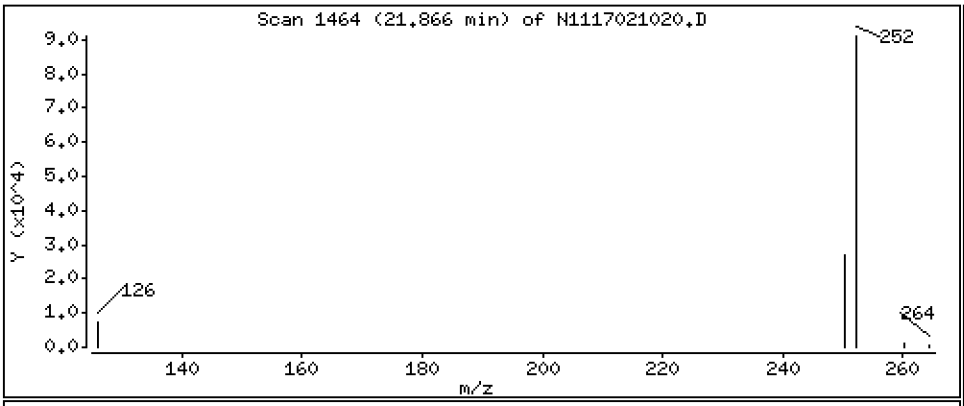
Operator: VTS

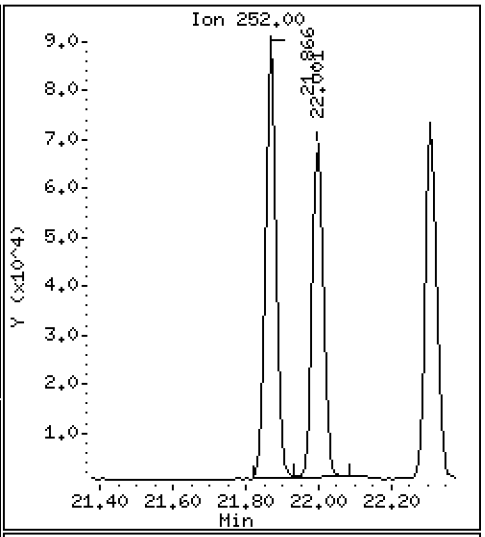
Column phase: Rxi-17Sil MS

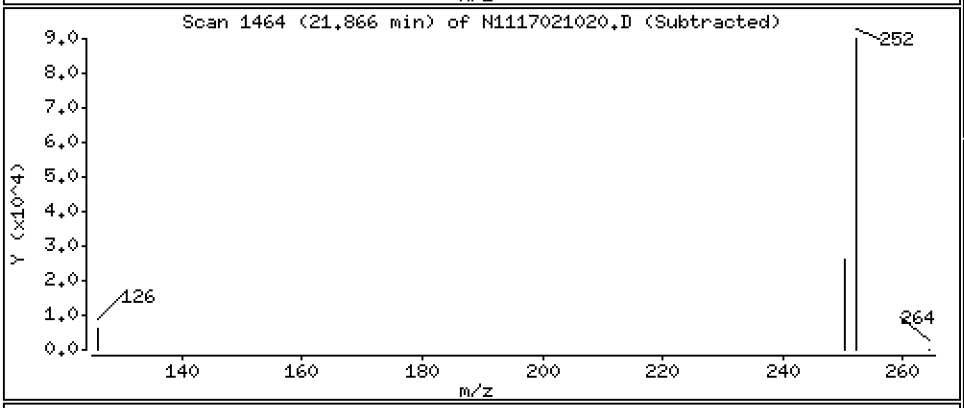
Column diameter: 0.25

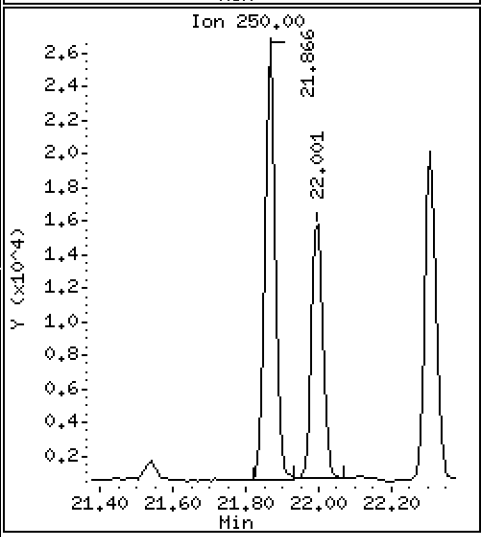
34 Benzo(e)pyrene

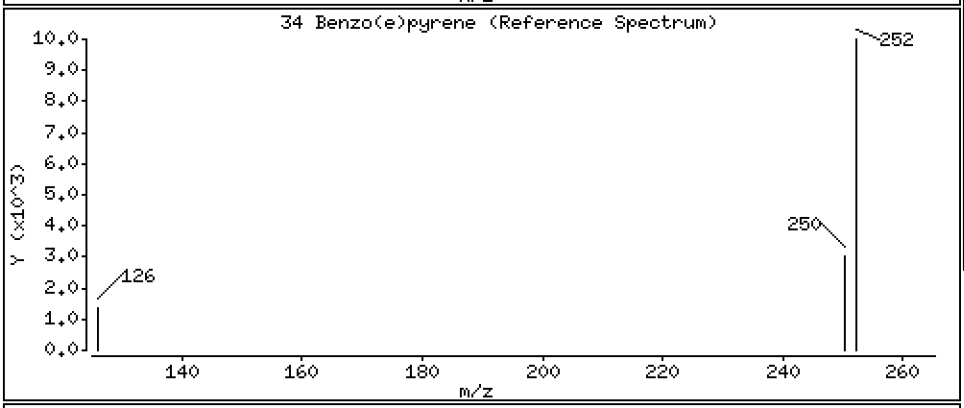
Concentration: 146 ng/mL

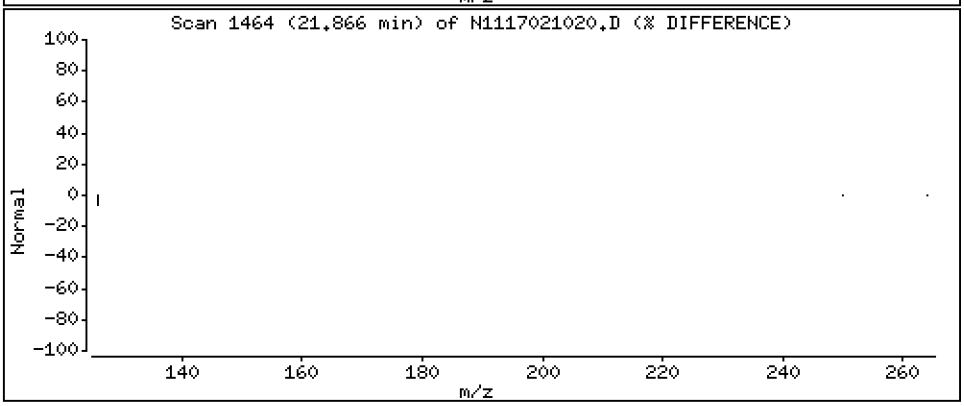












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

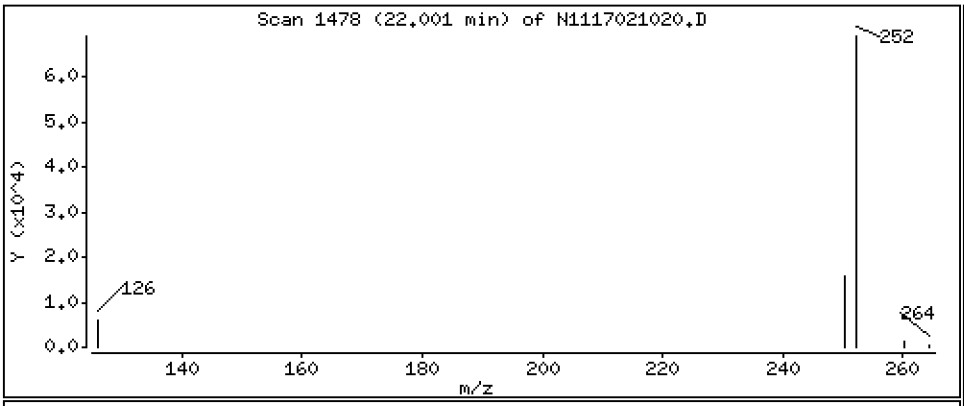
Operator: VTS

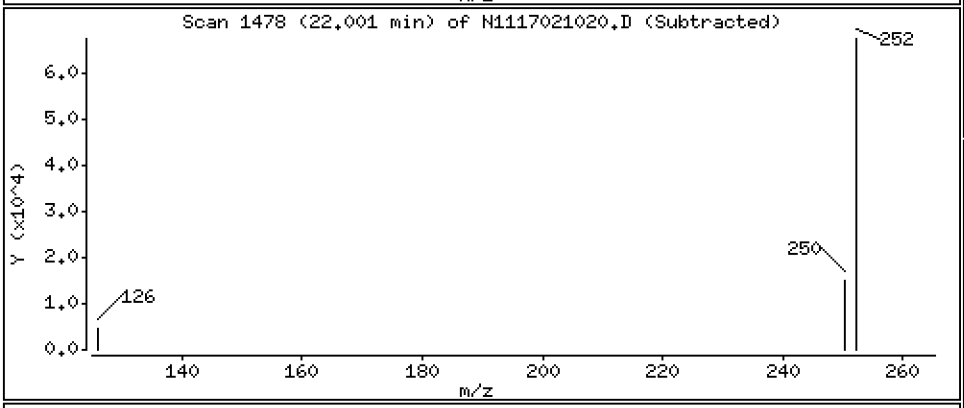
Column phase: Rxi-17Sil MS

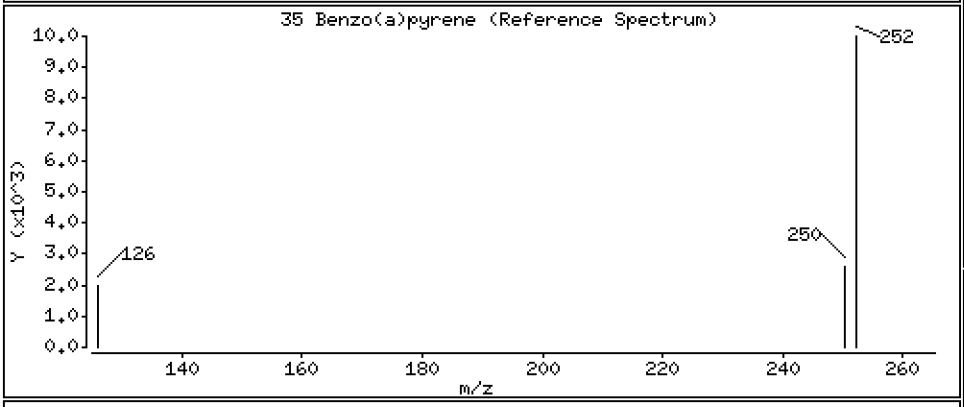
Column diameter: 0.25

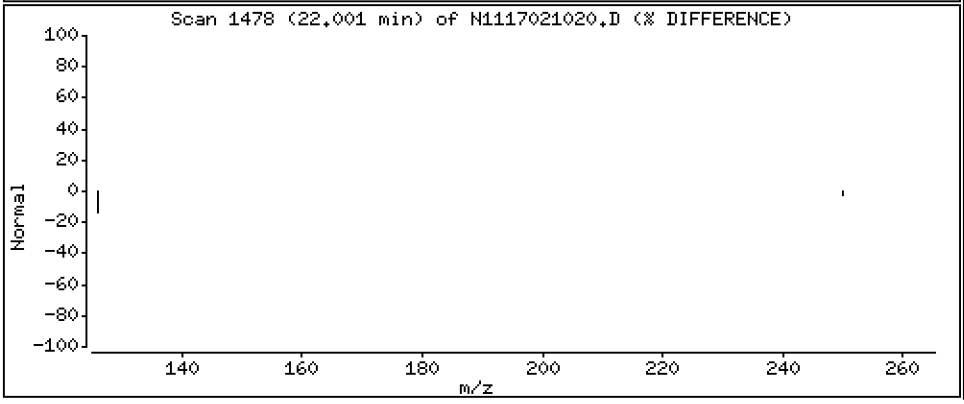
35 Benzo(a)pyrene

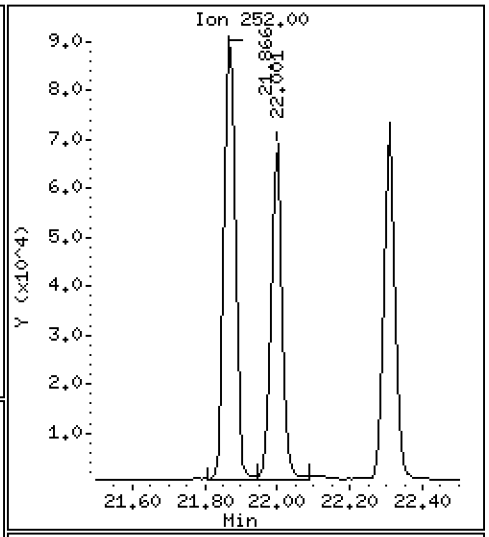
Concentration: 123 ng/mL

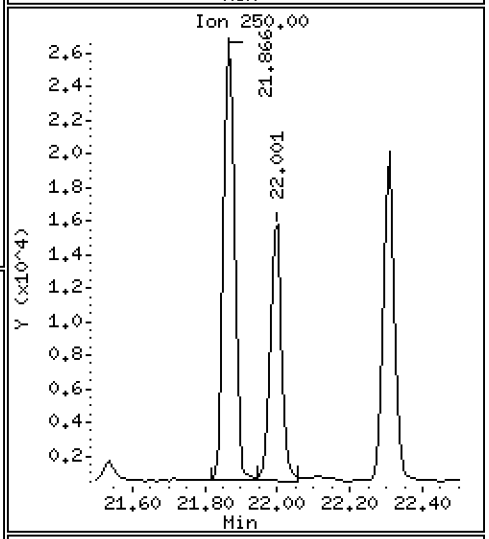


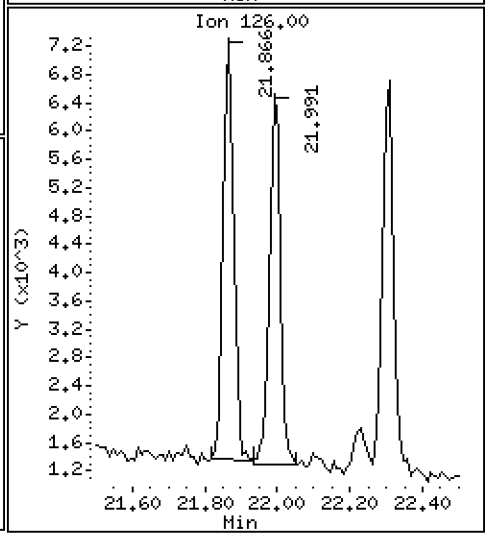












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

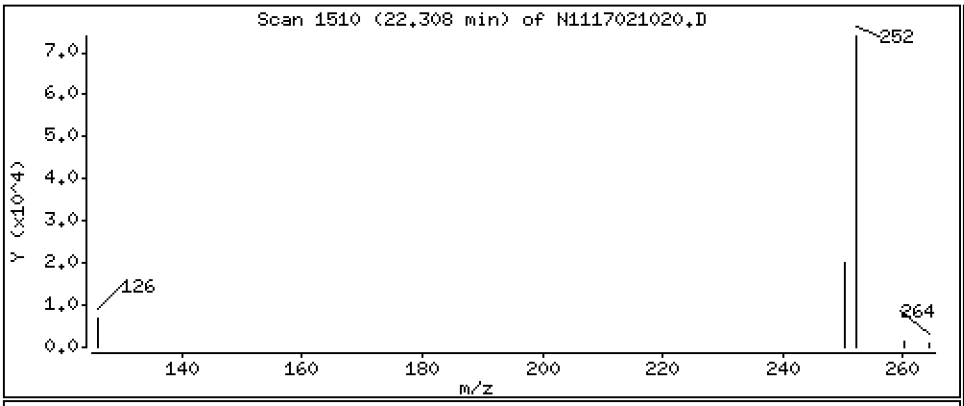
Operator: VTS

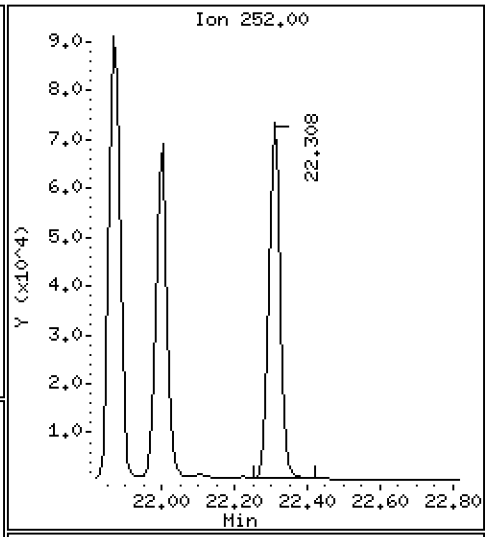
Column phase: Rxi-17Sil MS

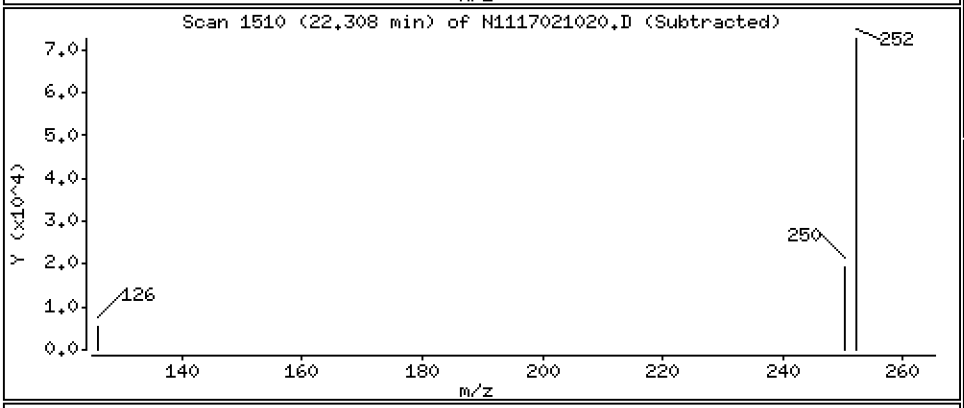
Column diameter: 0.25

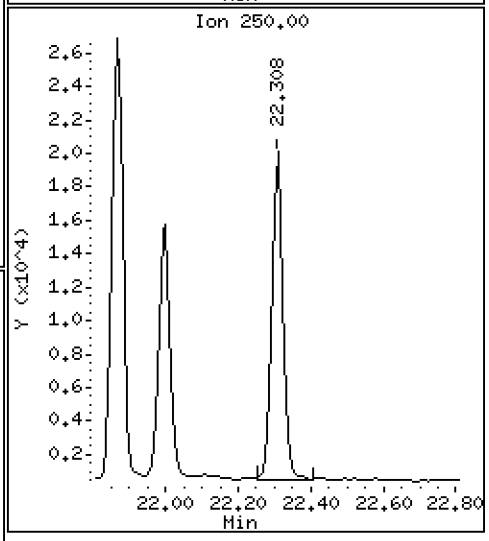
37 Perylene

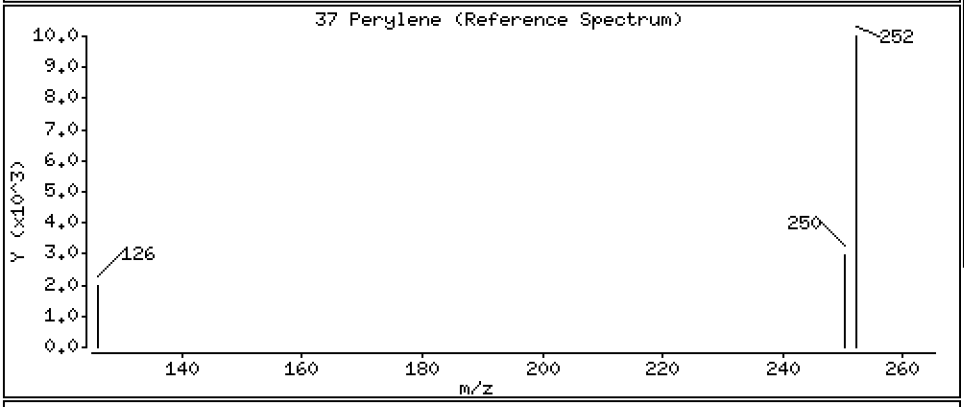
Concentration: 126 ng/mL

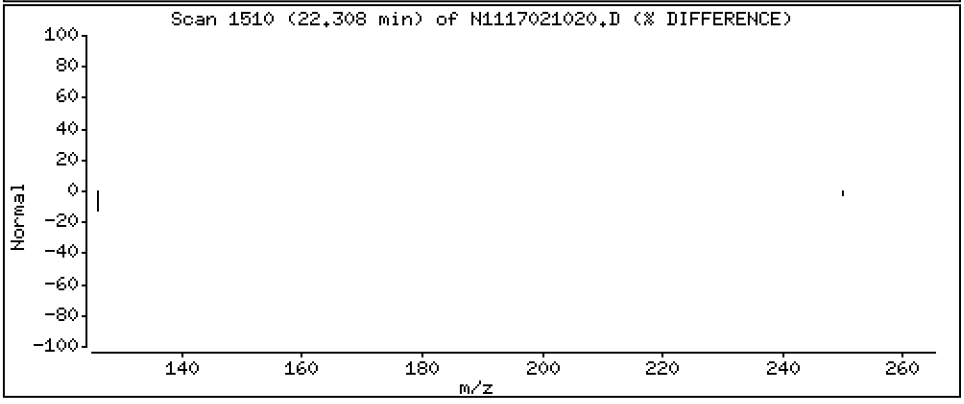












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Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

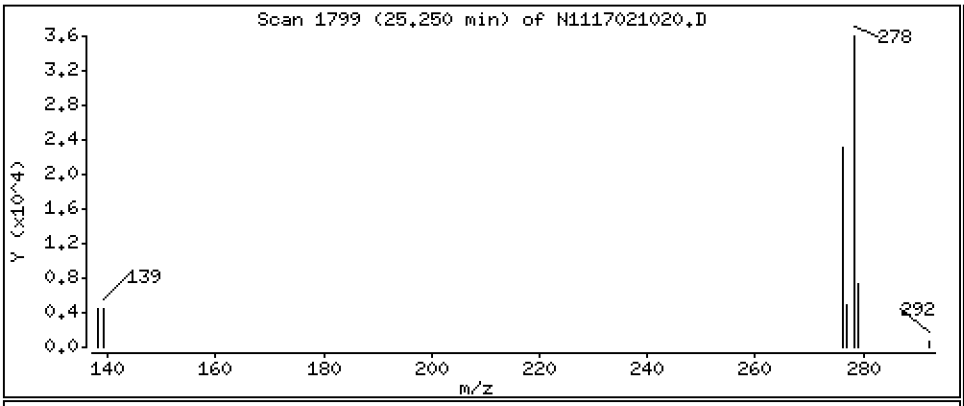
Operator: VTS

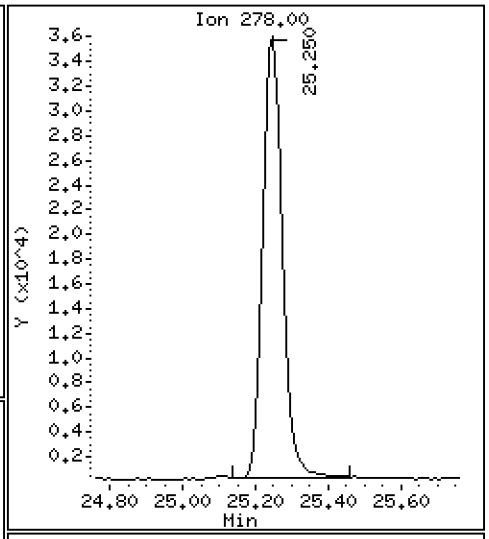
Column phase: Rxi-17Sil MS

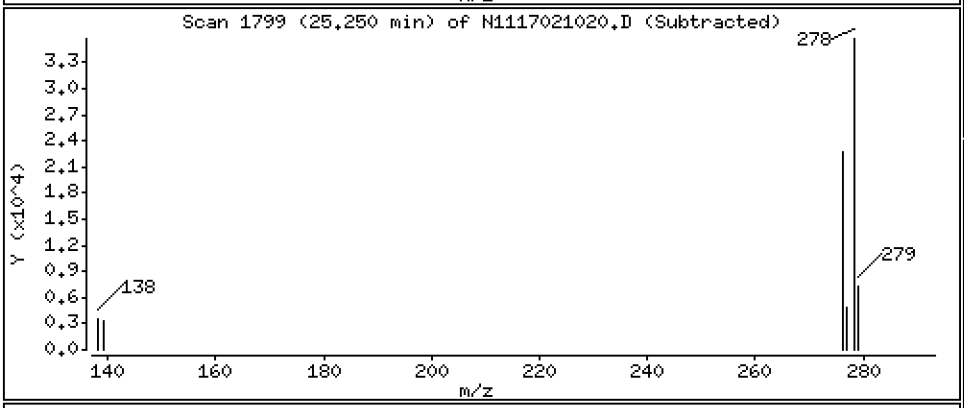
Column diameter: 0.25

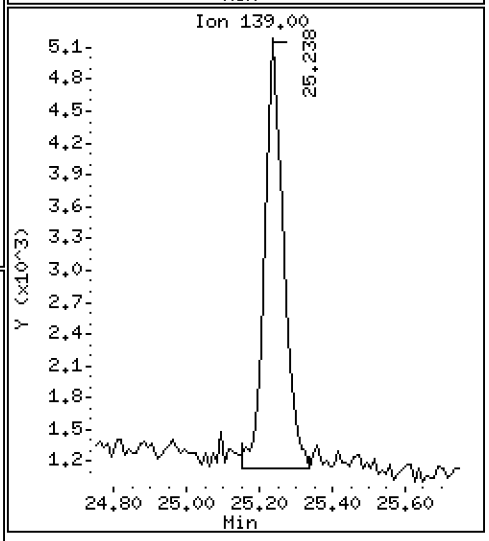
39 Dibenzo(a,h)anthracene

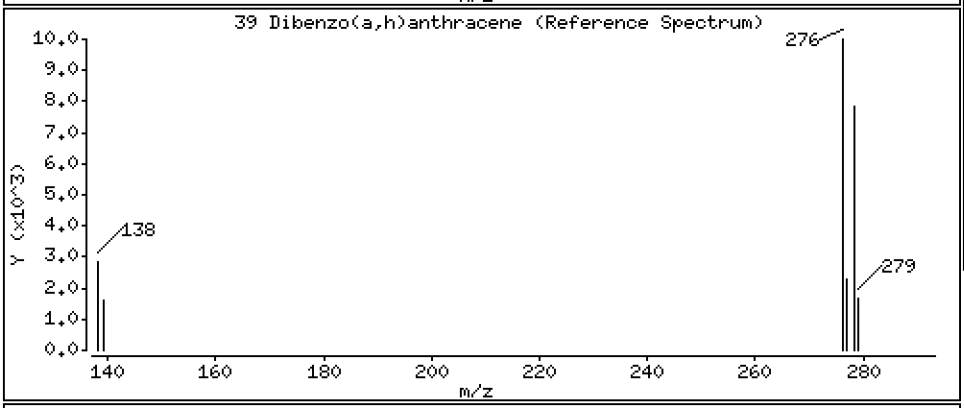
Concentration: 125 ng/mL

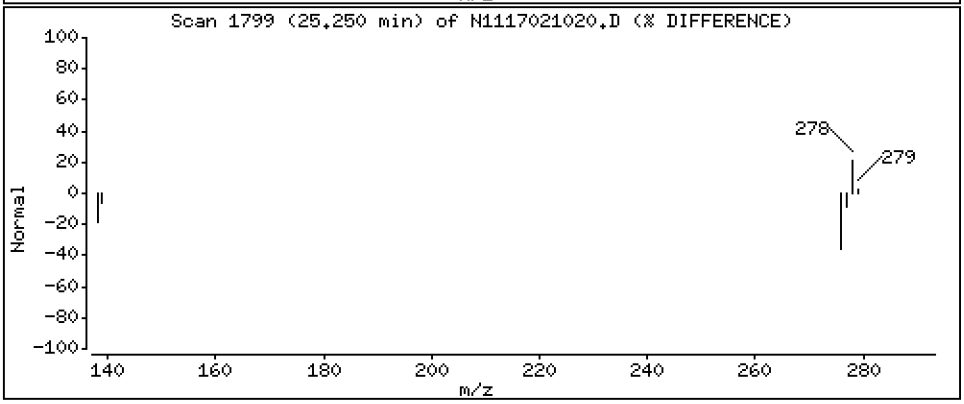












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021020.D

Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

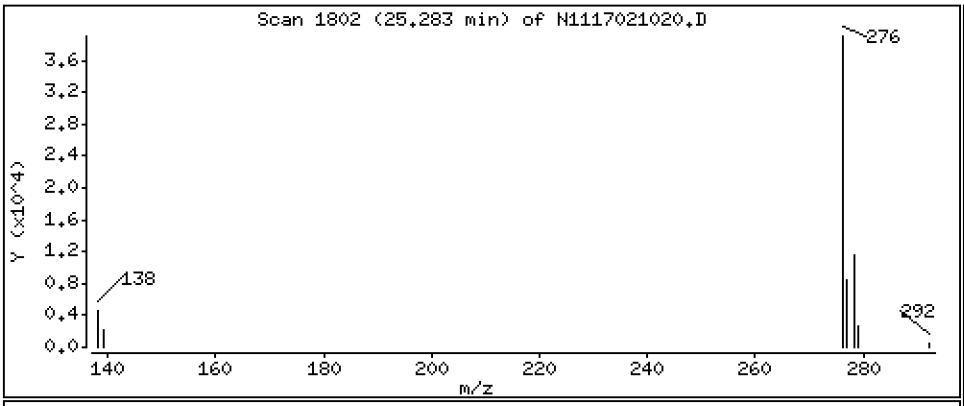
Operator: VTS

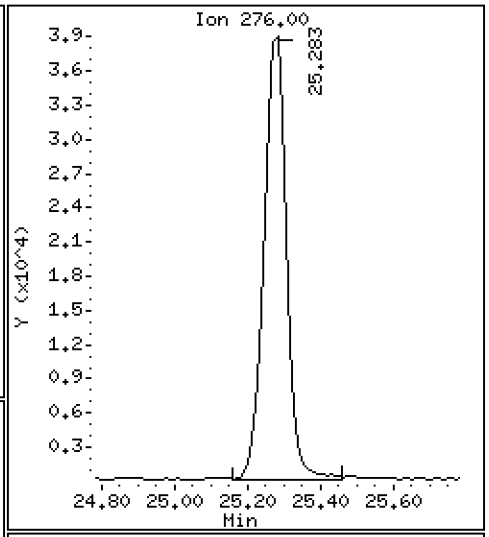
Column phase: Rxi-17Sil MS

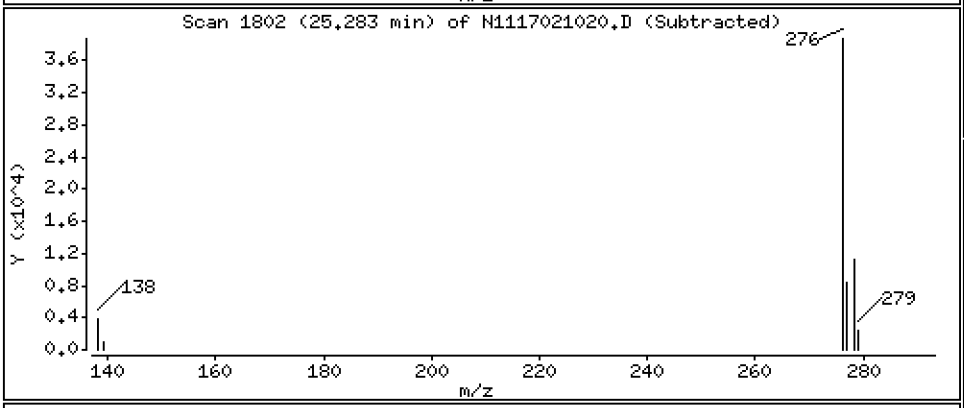
Column diameter: 0.25

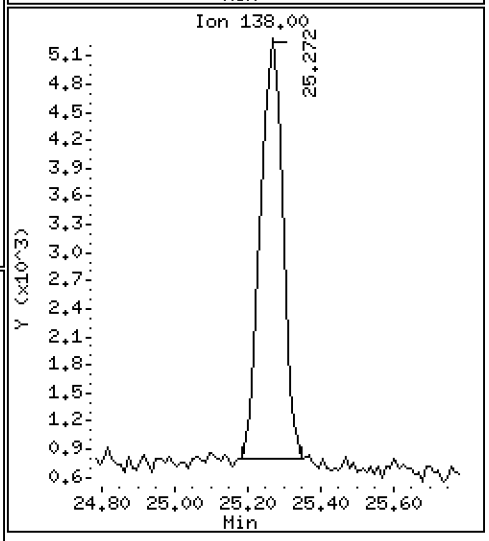
40 Indeno(1,2,3-cd)pyrene

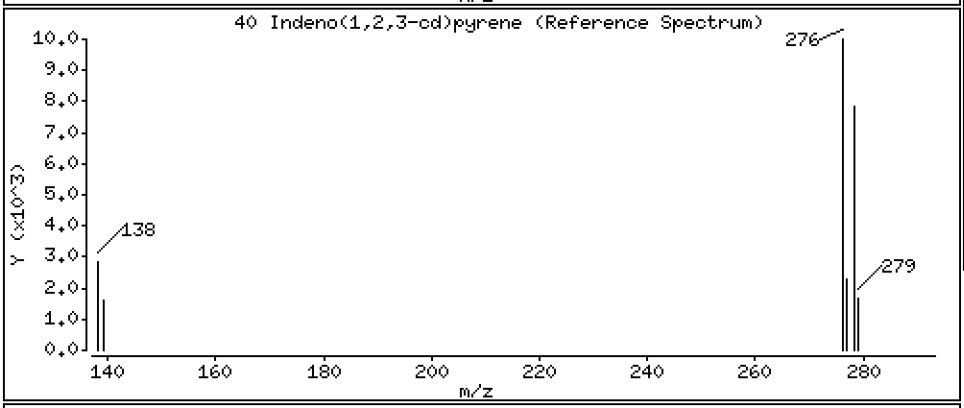
Concentration: 124 ng/mL

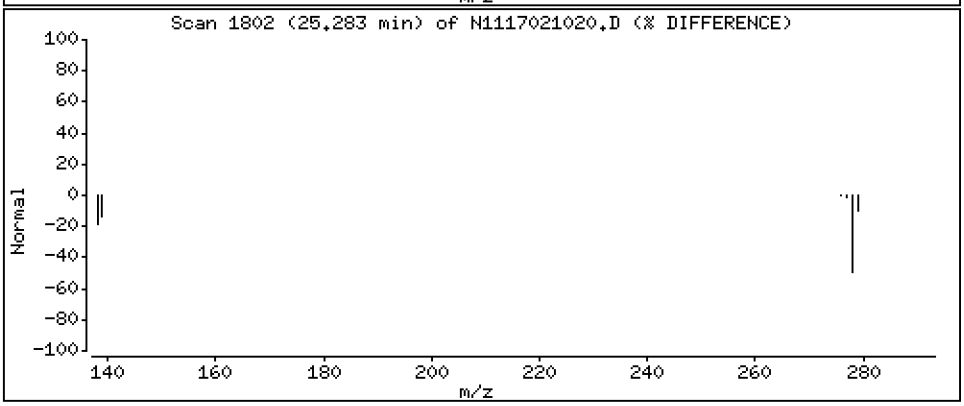












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021020.D

Date : 10-FEB-2017 22:23

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MS1

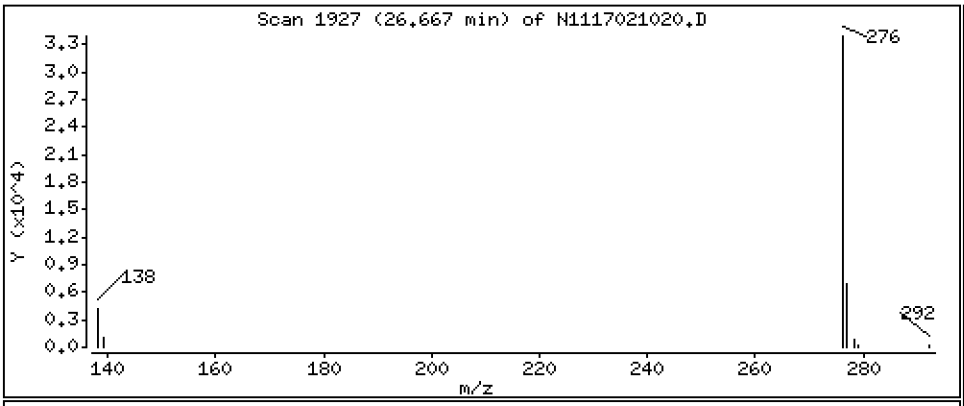
Operator: VTS

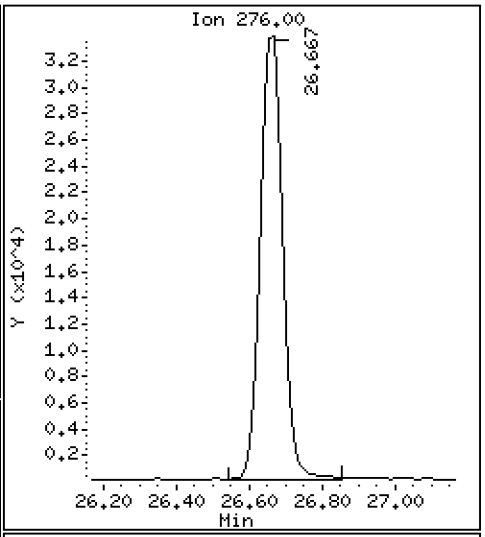
Column phase: Rxi-17Sil MS

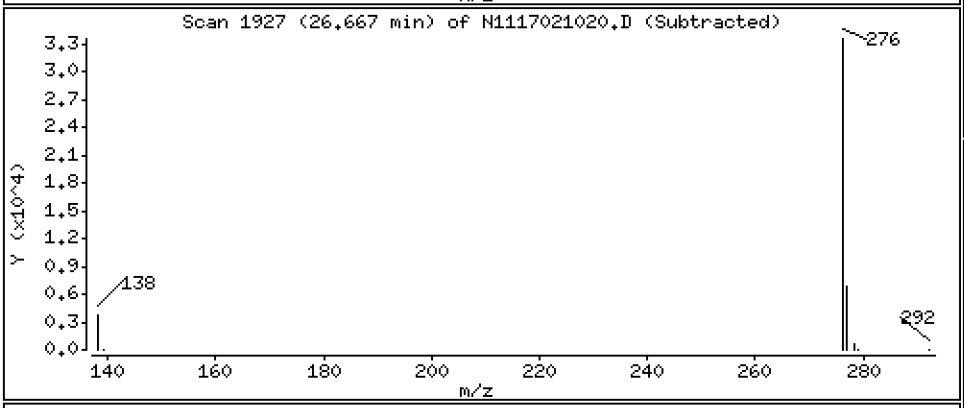
Column diameter: 0.25

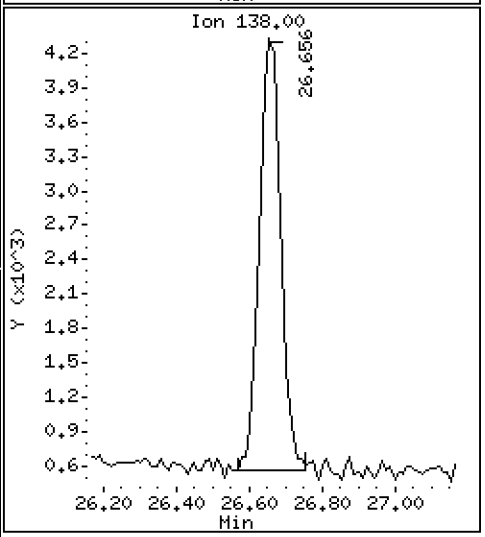
41 Benzo(g,h,i)perylene

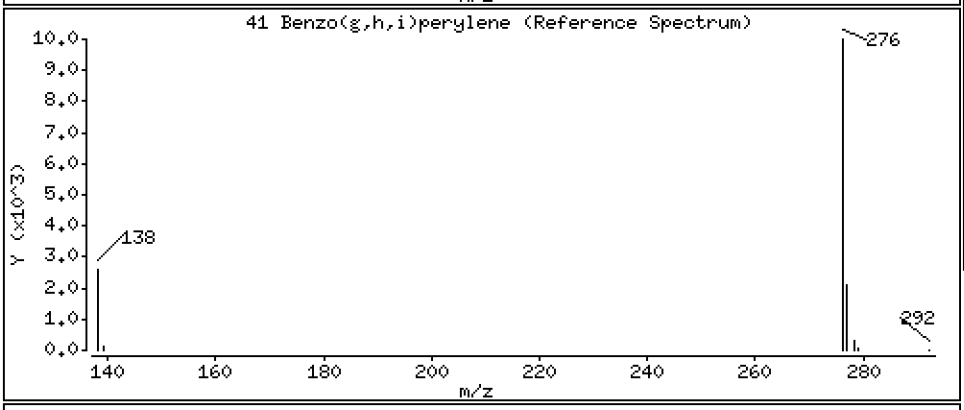
Concentration: 120 ng/mL

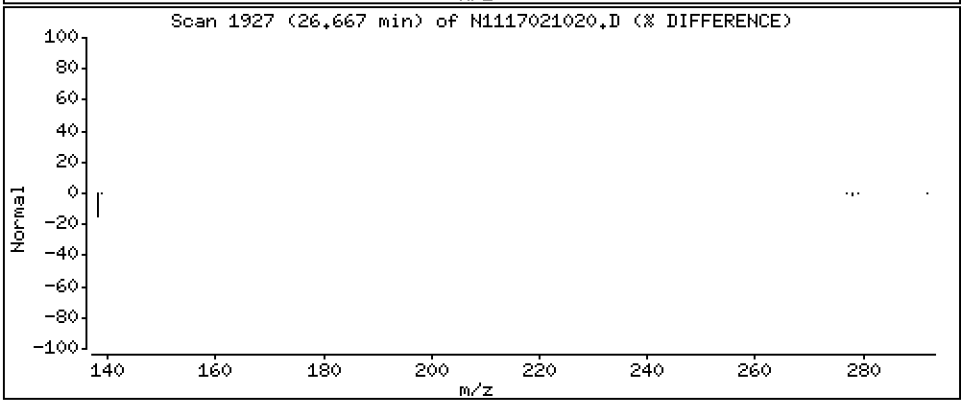












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20170210.b\N1117021020.D
Lab Smp Id: BFA0647-MS1
Inj Date : 10-FEB-2017 22:23 MS Autotune Date: 15-JAN-2015 15:59
Operator : VTS Inst ID: nt11.i
Smp Info : BFA0647-MS1
Misc Info :
Comment   :
Method   : \\target\share\chem3\nt11.i\20170210.b\LOWSIM.m
Meth Date : 11-Feb-2017 08:35 nt11.i Quant Type: ISTD
Cal Date : 31-DEC-2016 09:30 Cal File: N1116123104.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.518	8.526	(1.000)	240715	200.000	
	2 Naphthalene	128	8.554	8.554	(1.004)	98044	81.6157	81.6
	3 Benzo(b)thiophene	134	8.807	8.816	(1.034)	79223	81.0123	81.0
$	4 2-Methylnaphthalene-d10	152	9.509	9.508	(1.116)	101045	97.7411	97.7
	5 2-Methylnaphthalene	142	9.561	9.561	(1.122)	118833	100.368	100
	6 1-Methylnaphthalene	142	9.824	9.823	(1.153)	117365	98.5598	98.6
	7 2-Chloronaphthalene	162	10.475	10.475	(0.906)	123527	93.9180	93.9
	8 Biphenyl	154	10.444	10.443	(0.903)	175067	100.098	100
	9 2,6-Dimethylnaphthalene	156	10.496	10.496	(0.908)	142336	104.949	105
	10 Acenaphthylene	152	11.411	11.410	(0.987)	158885	102.047	102
*	11 Acenaphthene-d10	164	11.564	11.564	(1.000)	173279	200.000	
	12 Acenaphthene	153	11.619	11.627	(1.005)	107652	105.014	105
	13 Dibenzofuran	168	11.823	11.822	(1.022)	174193	114.308	114
	14 2,3,5-Trimethylnaphthalene	170	11.924	11.923	(1.031)	121690	124.793	125
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.455	12.454	(1.077)	147670	121.723	122
	17 Dibenzothiophene	184	14.084	14.083	(0.988)	137139	113.287	113
*	18 Phenanthrene-d10	188	14.252	14.262	(1.000)	262158	200.000	
	19 Phenanthrene	178	14.294	14.293	(1.003)	225079	150.171	150
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.346	14.356	(1.007)	189657	126.906	127
	22 Carbazole	167	15.027	15.027	(1.054)	159914	96.9606	97.0
	23 1-Methylphenanthrene	192	15.298	15.307	(1.073)	192833	125.455	125
$	24 Fluoranthene-d10	212	16.367	16.367	(1.148)	157413	113.052	113
	25 Fluoranthene	202	16.406	16.405	(1.151)	264278	155.444	155
	26 Pyrene	202	16.905	16.915	(0.889)	273204	189.114	189
	27 Benzo(a)anthracene	228	18.925	18.933	(0.995)	190221	142.247	142
*	28 Chrysene-d12	240	19.025	19.024	(1.000)	222392	200.000	
	29 Chrysene	228	19.075	19.074	(1.003)	212596	154.931	155
	30 Benzo(b)fluoranthene	252	21.001	21.001	(0.945)	170287	132.394	132
	31 Benzo(k)fluoranthene	252	21.049	21.049	(0.947)	177389	128.044	128
	32 Benzo(j)fluoranthene	252	21.126	21.125	(0.950)	152198	123.247	123
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	34 Benzo(e)pyrene	252	21.866	21.875	(0.984)	187426	146.083	146
	35 Benzo(a)pyrene	252	22.000	22.000	(0.990)	147460	122.978	123
*	36 Perylene-d12	264	22.231	22.240	(1.000)	238610	200.000	
	37 Perylene	252	22.308	22.317	(1.003)	157788	126.034	126
$	38 Dibenzo(a,h)anthracene-d14	292	25.105	25.116	(1.129)	95136	124.851	125
	39 Dibenzo(a,h)anthracene	278	25.249	25.260	(1.136)	131633	125.476	125
	40 Indeno(1,2,3-cd)pyrene	276	25.282	25.282	(1.137)	162124	123.843	124
	41 Benzo(g,h,i)perylene	276	26.667	26.666	(1.200)	141350	120.266	120

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: N1117021020.D
Lab Smp Id: BFA0647-MS1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20170210.b\LOWSIM.m
Misc Info:

Calibration Date: 10-FEB-2017
Calibration Time: 13:29
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	219654	109827	439308	240715	9.59
11 Acenaphthene-d10	135248	67624	270496	173279	28.12
18 Phenanthrene-d10	257021	128511	514042	262158	2.00
28 Chrysene-d12	259511	129756	519022	222392	-14.30
36 Perylene-d12	257535	128768	515070	238610	-7.35

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.53	8.03	9.03	8.52	-0.10
11 Acenaphthene-d10	11.56	11.06	12.06	11.56	0.00
18 Phenanthrene-d10	14.26	13.76	14.76	14.25	-0.07
28 Chrysene-d12	19.02	18.52	19.52	19.03	0.00
36 Perylene-d12	22.24	21.74	22.74	22.23	-0.04

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1117021020.D

Lab ID: BFA0647-MS1
nt11.i, 20170210.b\LOWSIM.m,   10-FEB-2017 22:23

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20170210.b\LOWSIM.m, allpna.sub = 3.0000

Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021021.D

Date : 10-FEB-2017 22:59

Client ID:

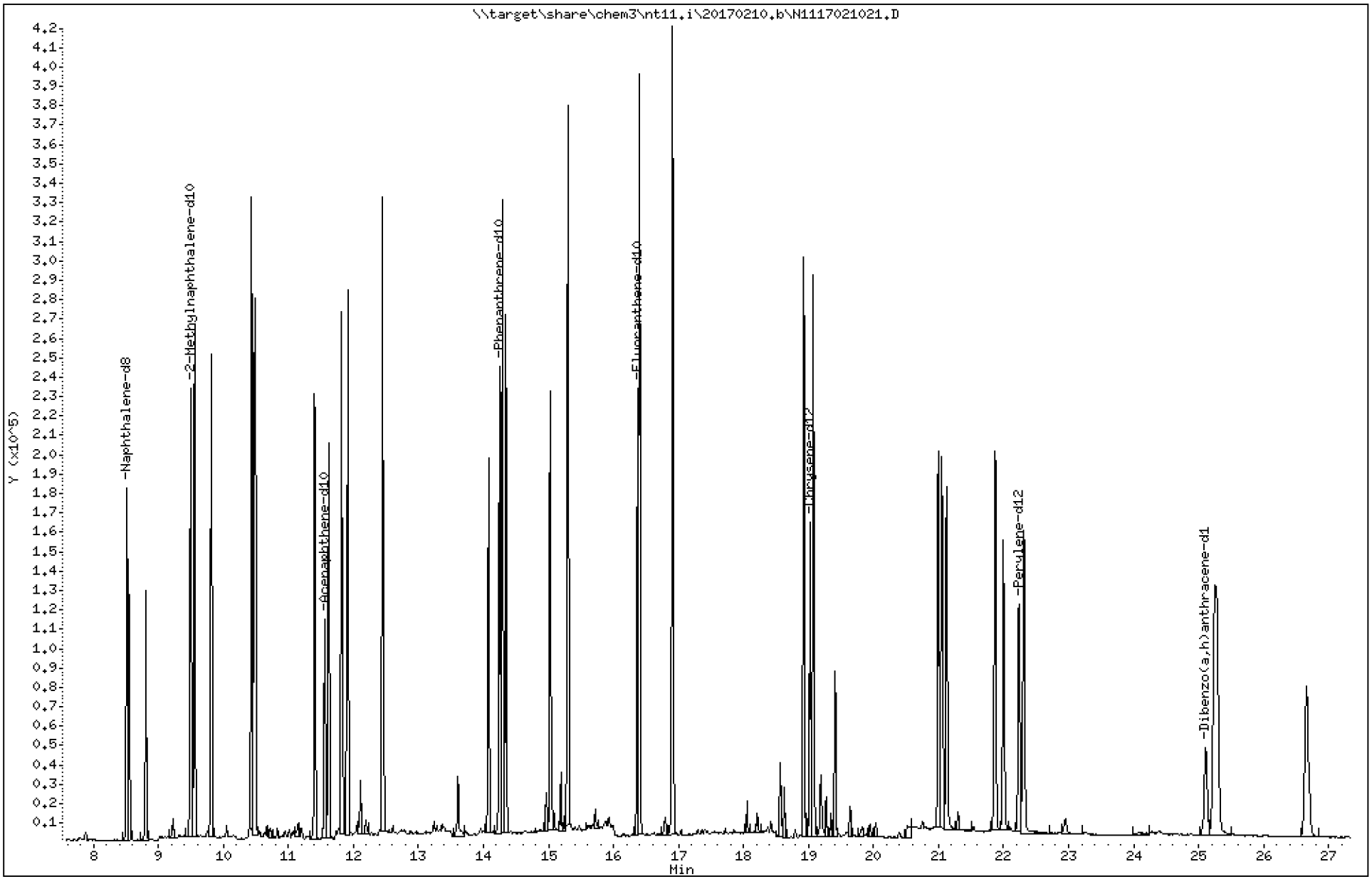
Sample Info: BFA0647-MSD1

Column phase: Rxi-17Sil MS

Instrument: nt11.i

Operator: VTS

Column diameter: 0.25



Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021021.D

Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

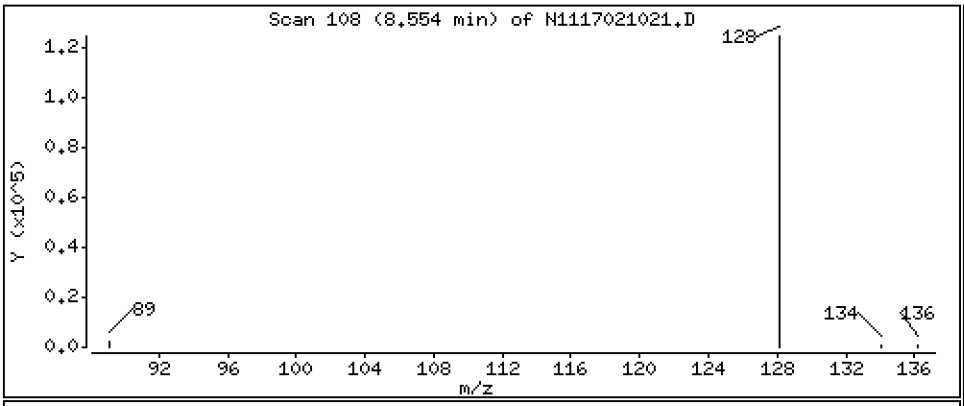
Operator: VTS

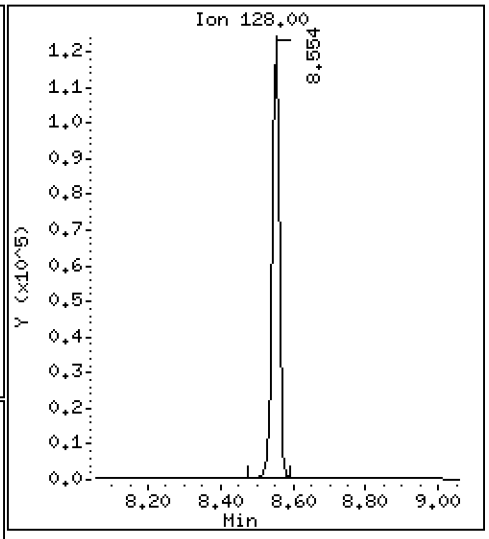
Column phase: Rxi-17Sil MS

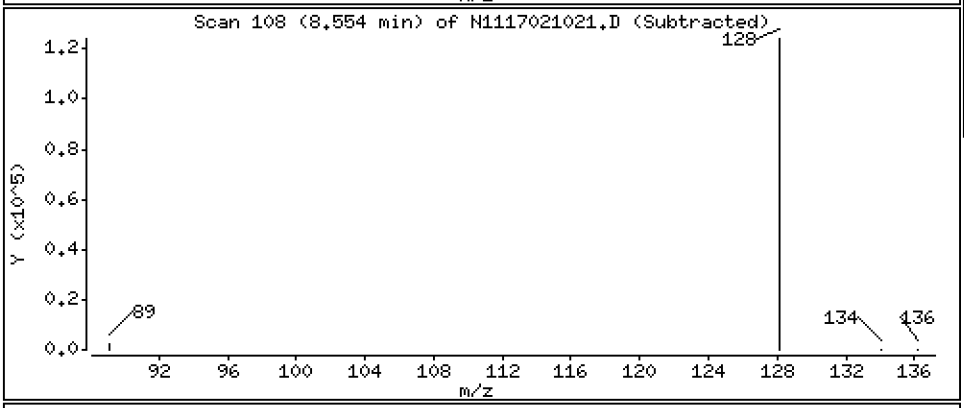
Column diameter: 0.25

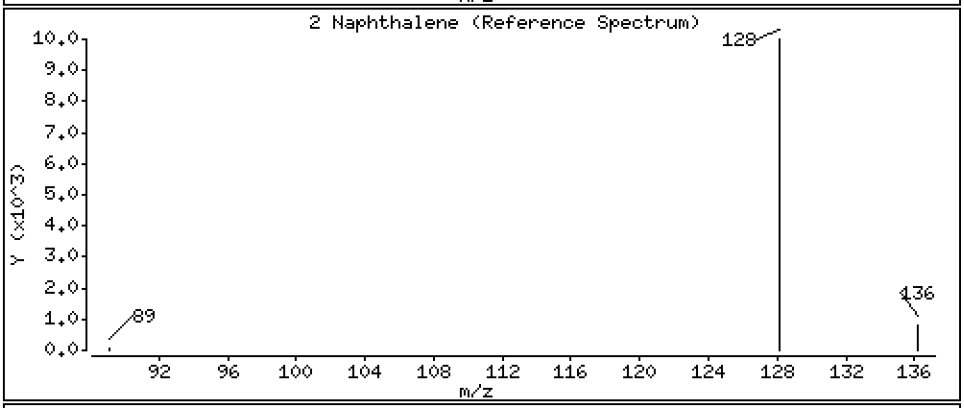
2 Naphthalene

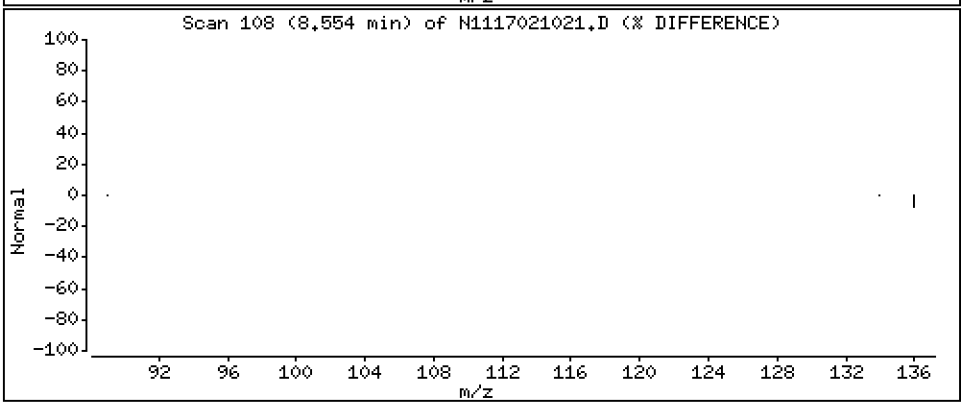
Concentration: 151 ng/mL











Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021021.D

Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

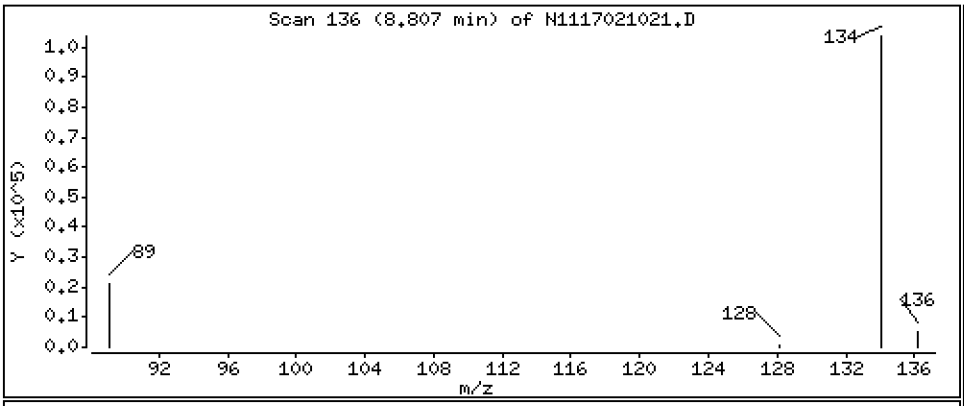
Operator: VTS

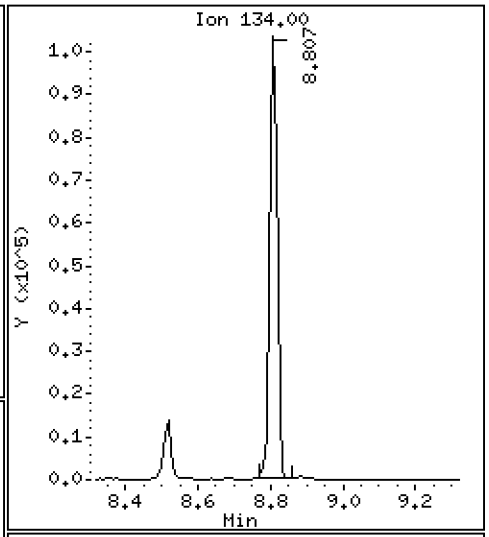
Column phase: Rxi-17Sil MS

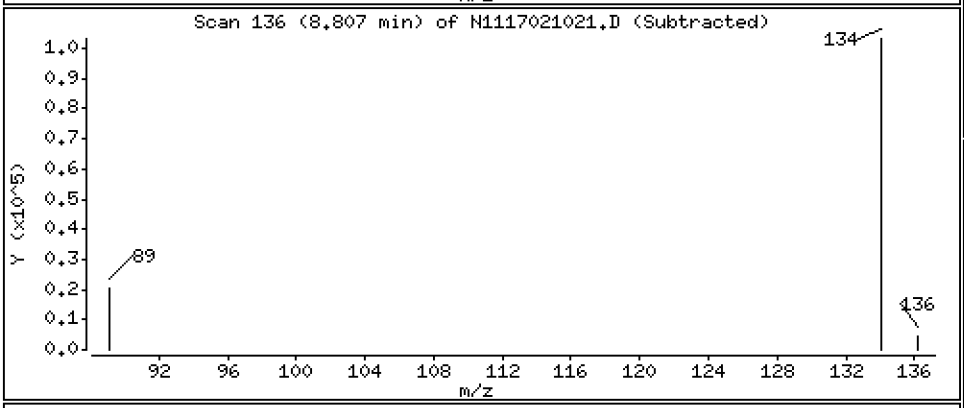
Column diameter: 0.25

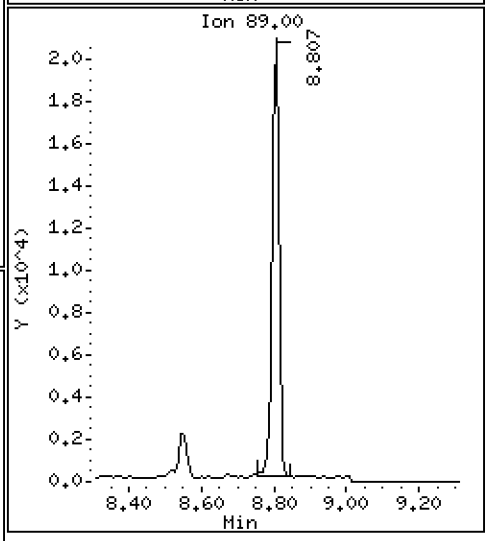
3 Benzo(b)thiophene

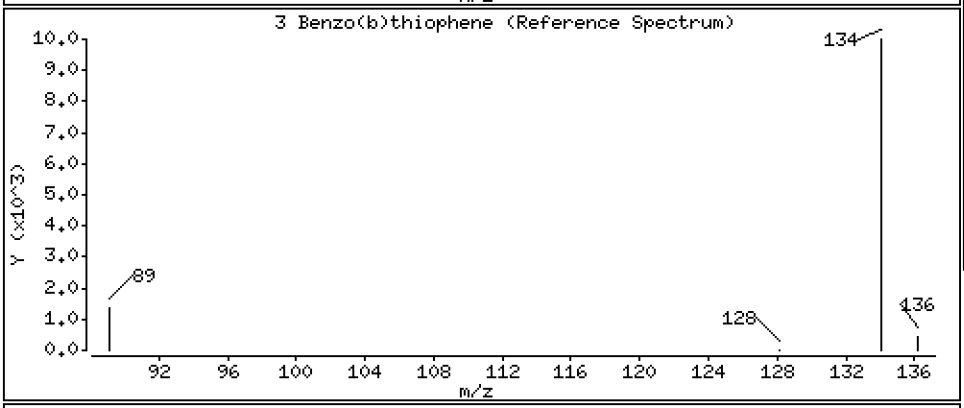
Concentration: 152 ng/mL

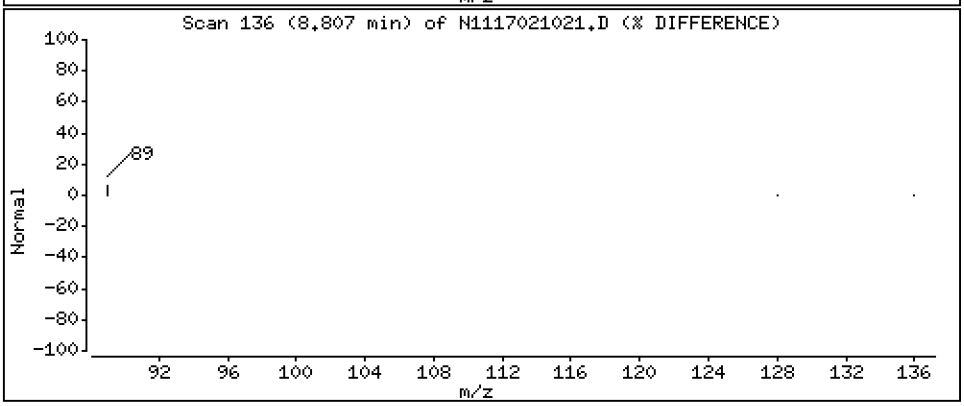












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021021.D

Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

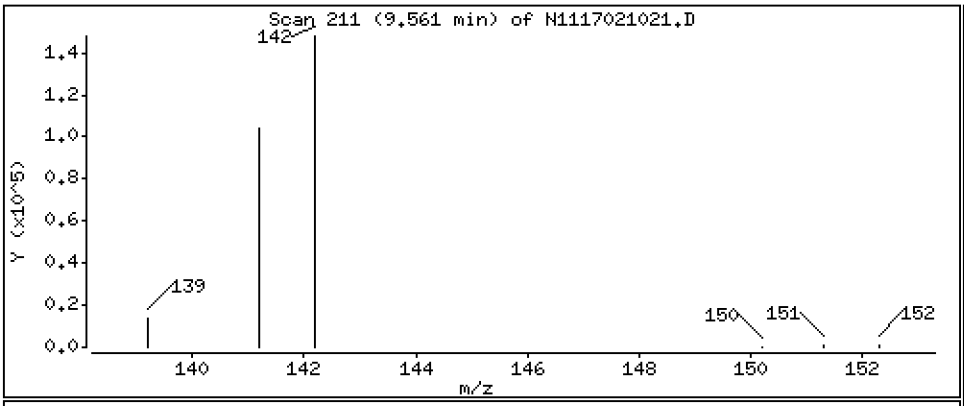
Operator: VTS

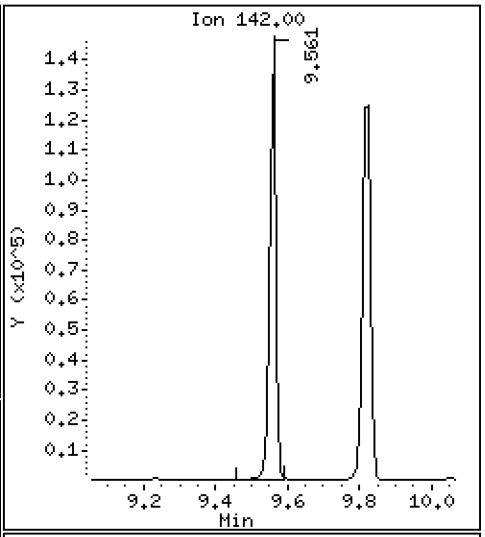
Column phase: Rxi-17Sil MS

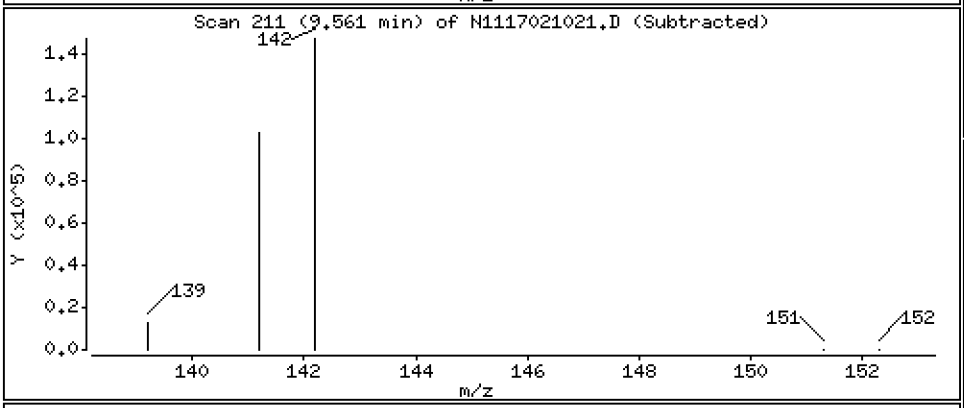
Column diameter: 0.25

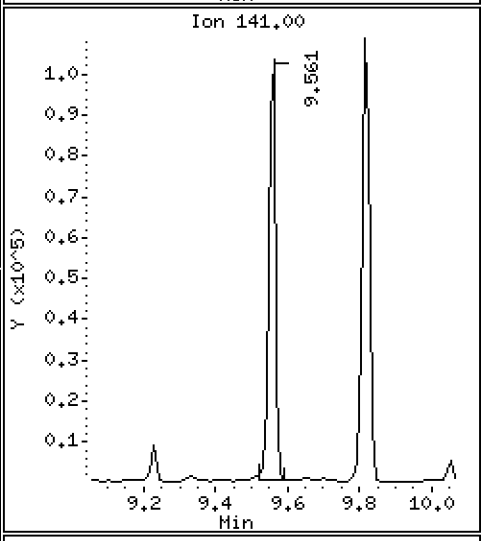
5 2-Methylnaphthalene

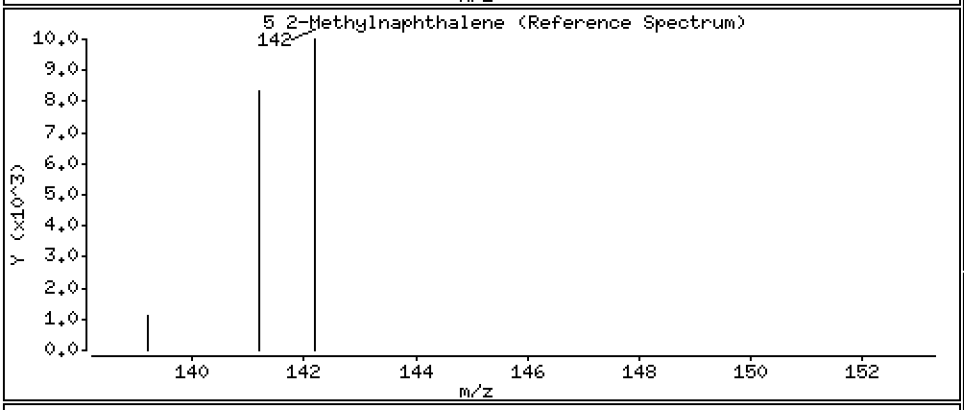
Concentration: 178 ng/mL

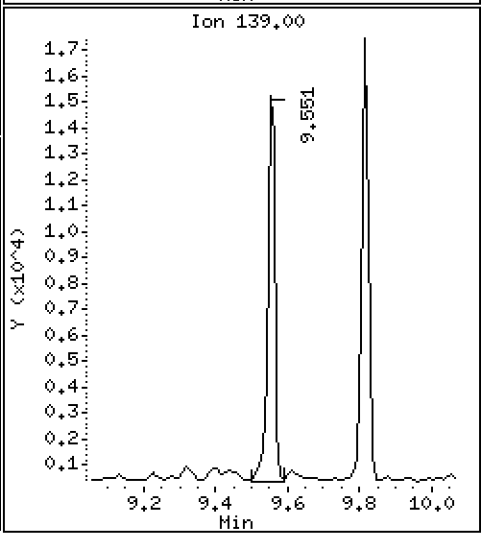


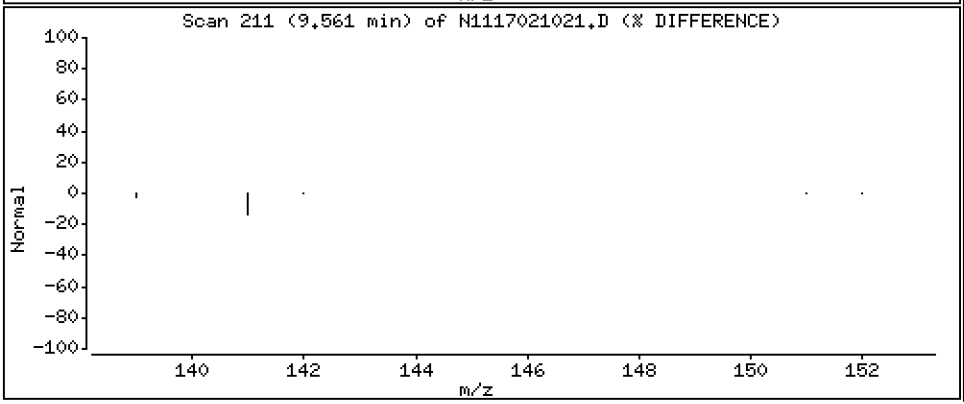












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Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

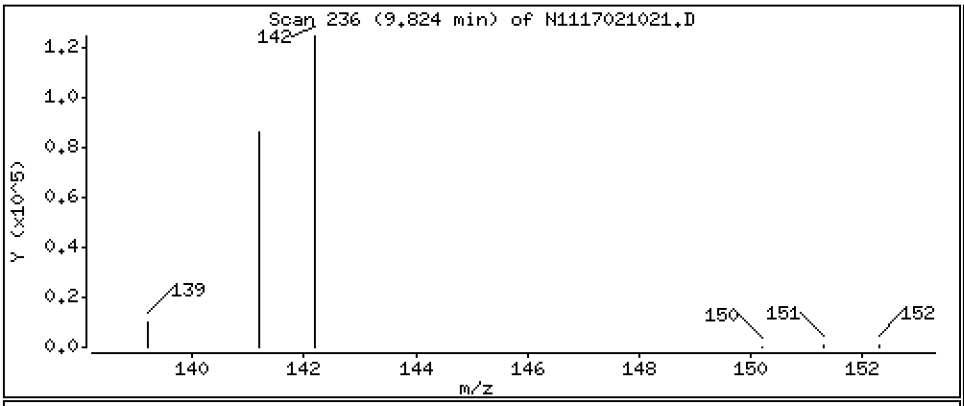
Operator: VTS

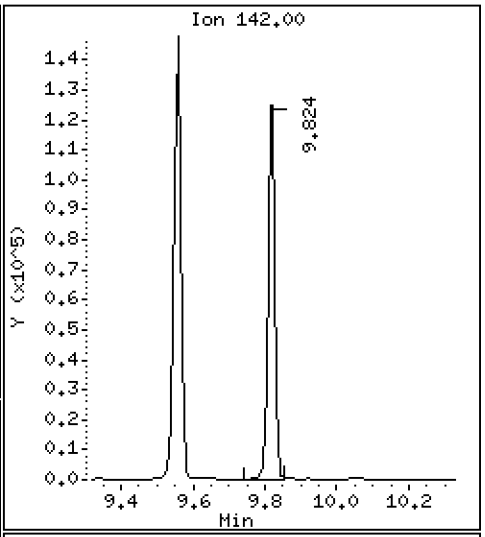
Column phase: Rxi-17Sil MS

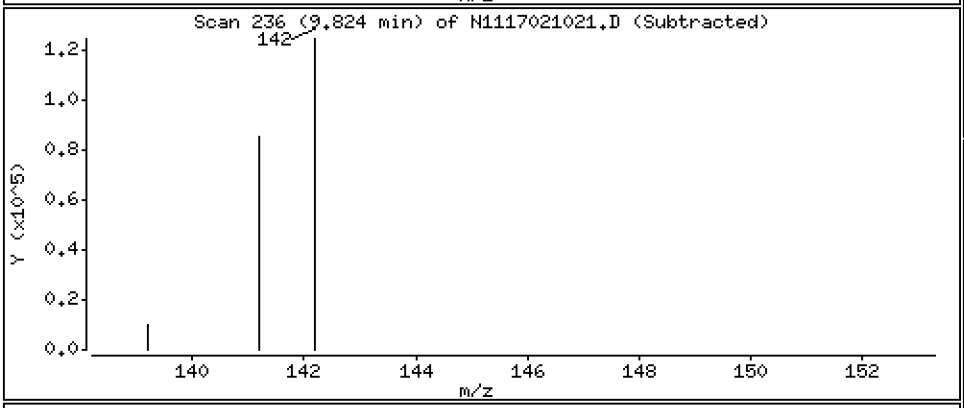
Column diameter: 0.25

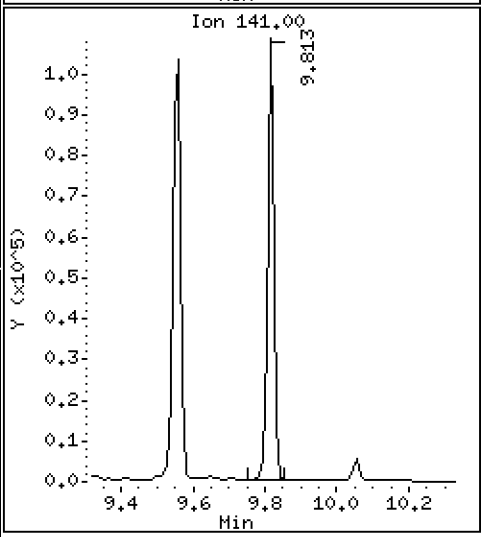
6 1-Methylnaphthalene

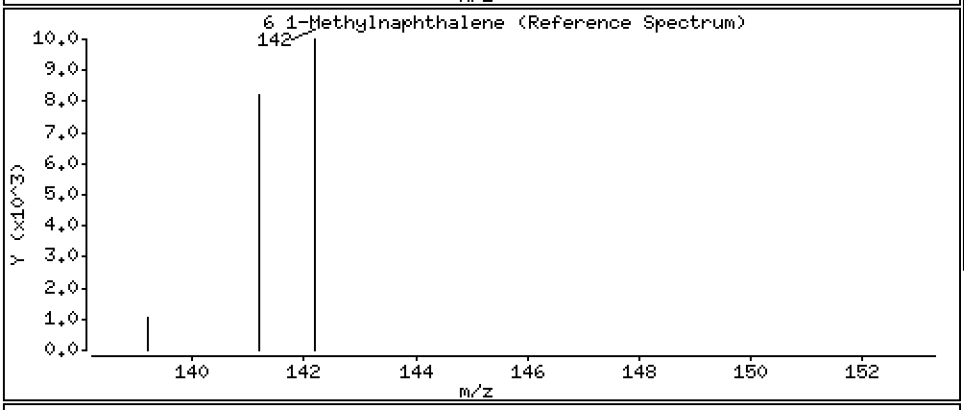
Concentration: 176 ng/mL

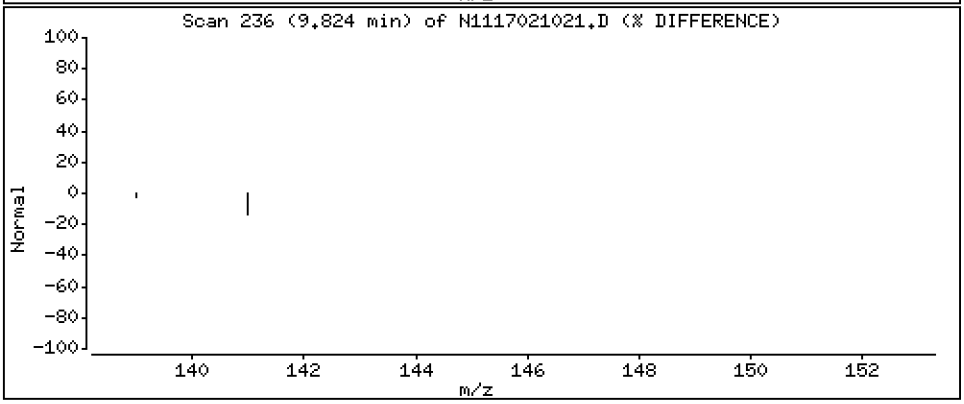












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Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

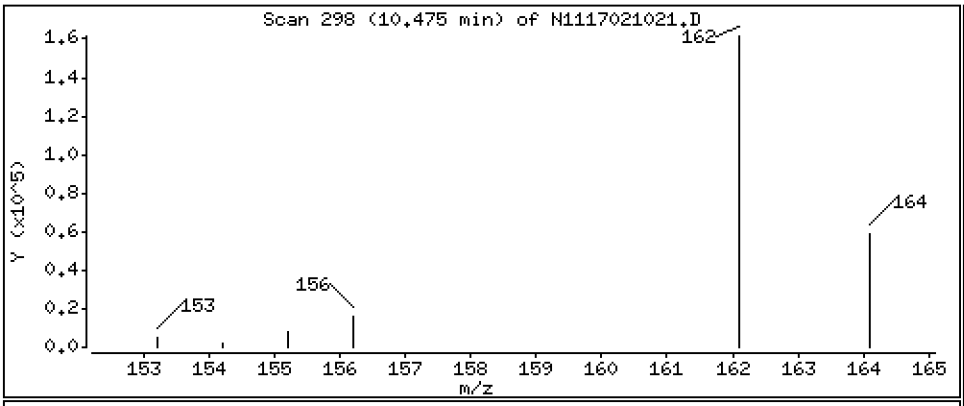
Operator: VTS

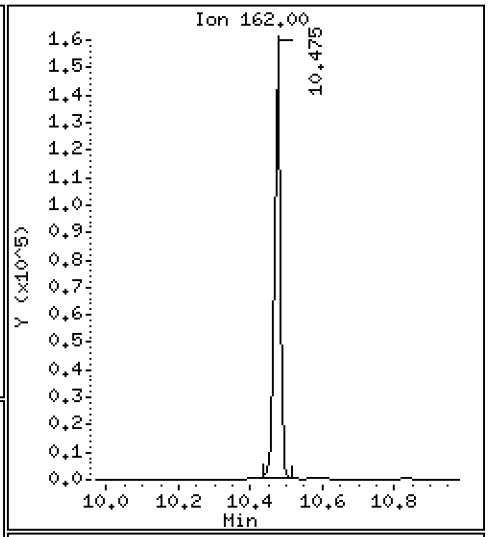
Column phase: Rxi-17Sil MS

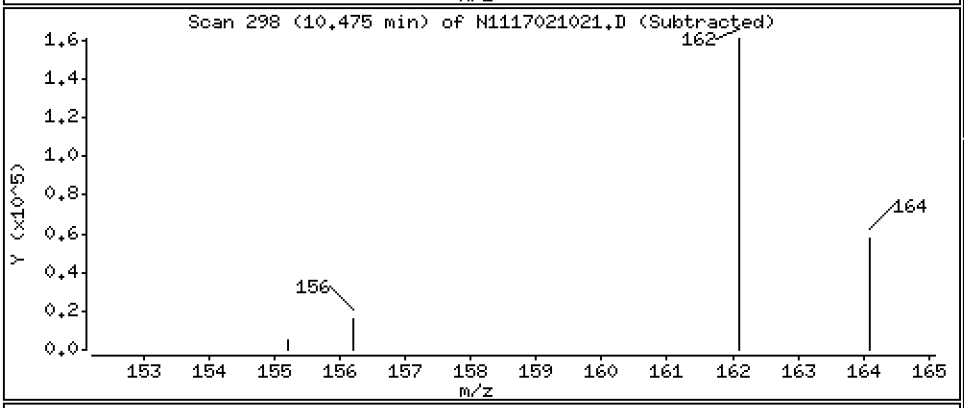
Column diameter: 0.25

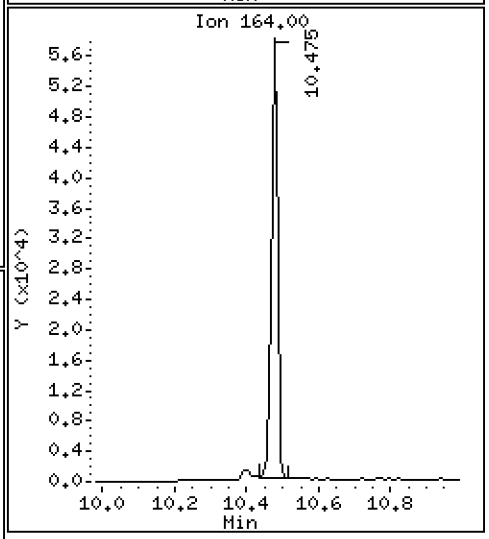
7 2-Chloronaphthalene

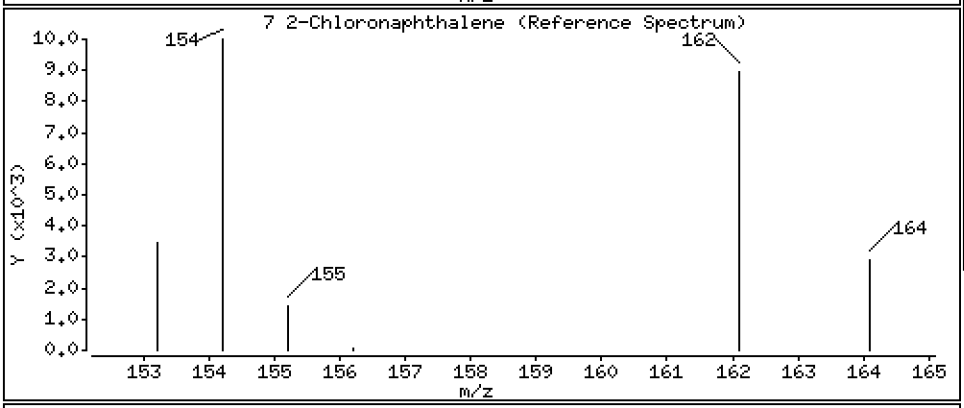
Concentration: 173 ng/mL

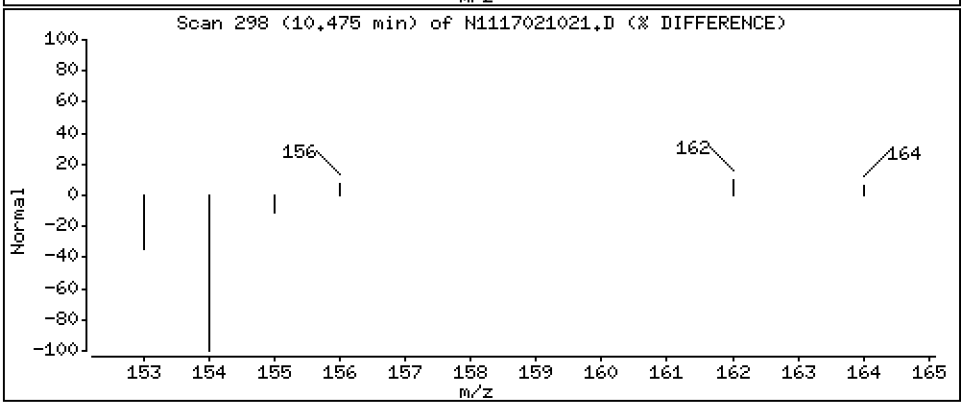












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Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

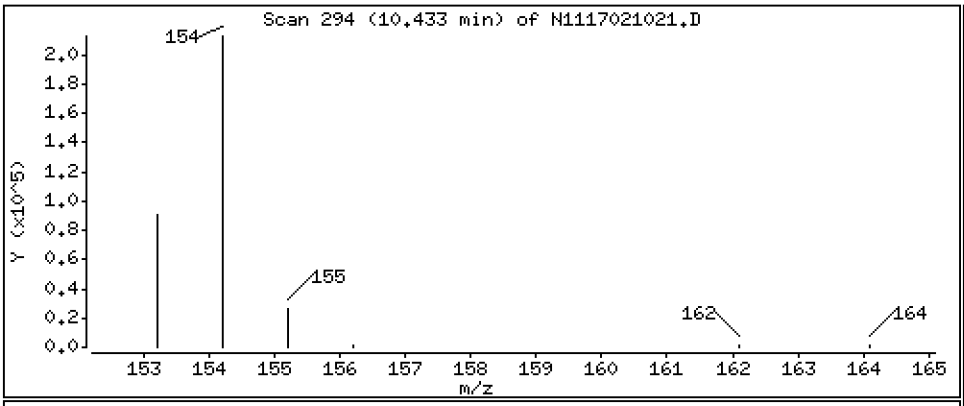
Operator: VTS

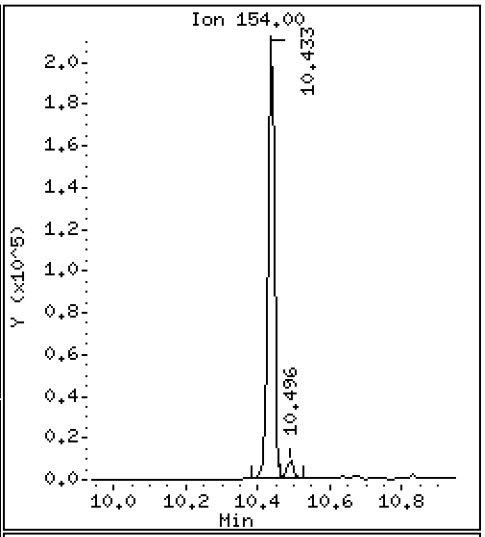
Column phase: Rxi-17Sil MS

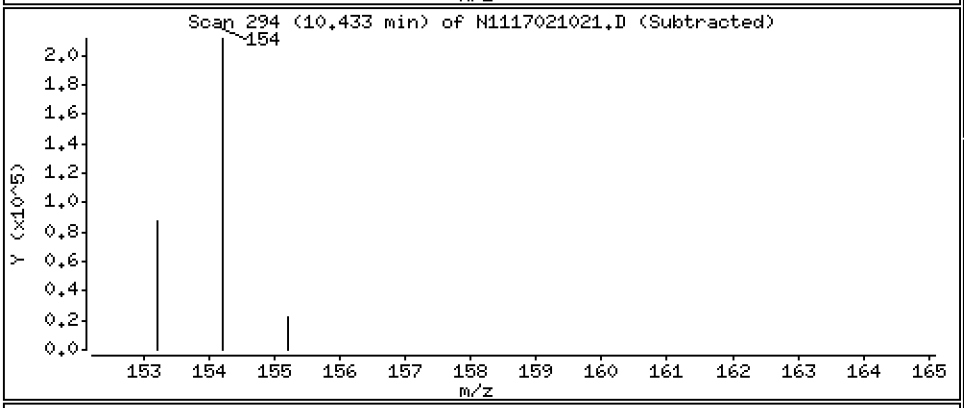
Column diameter: 0.25

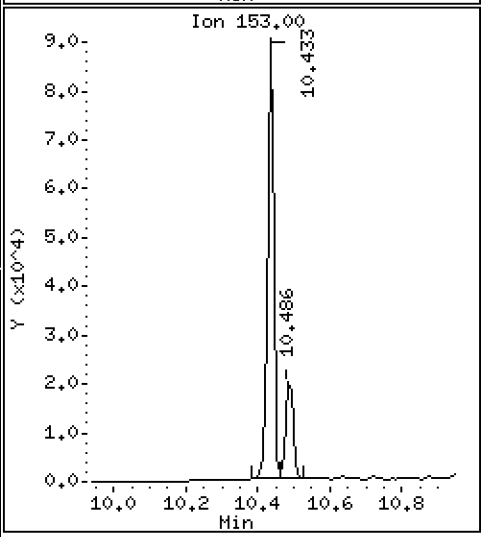
8 Biphenyl

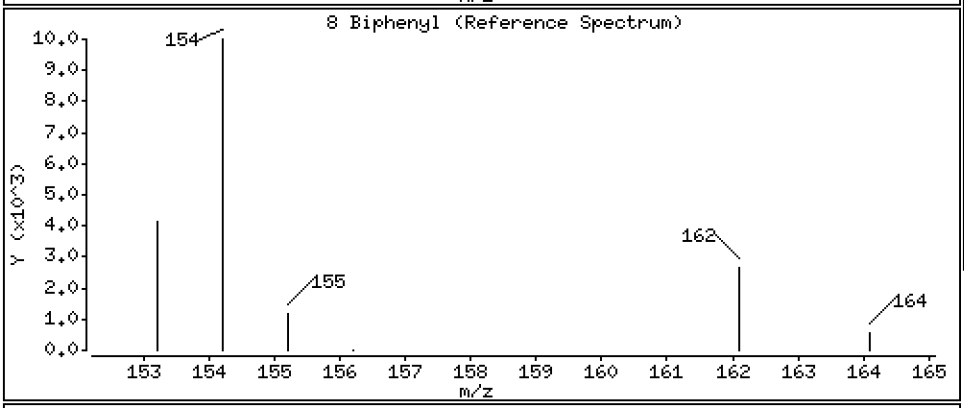
Concentration: 181 ng/mL

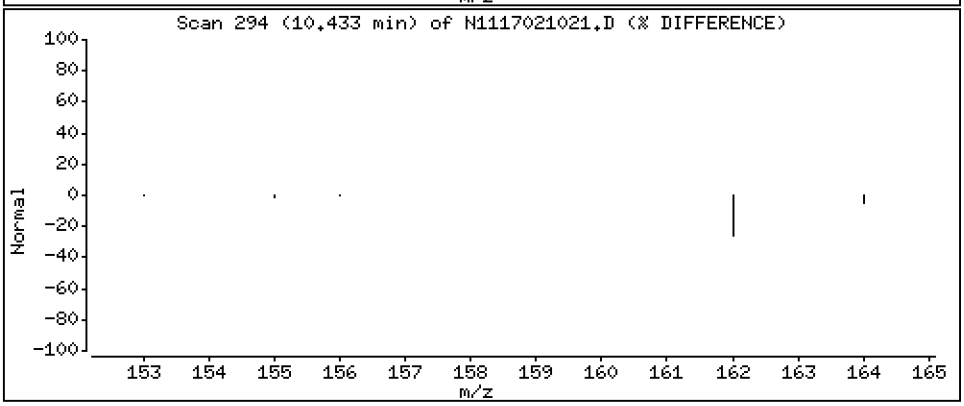












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Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

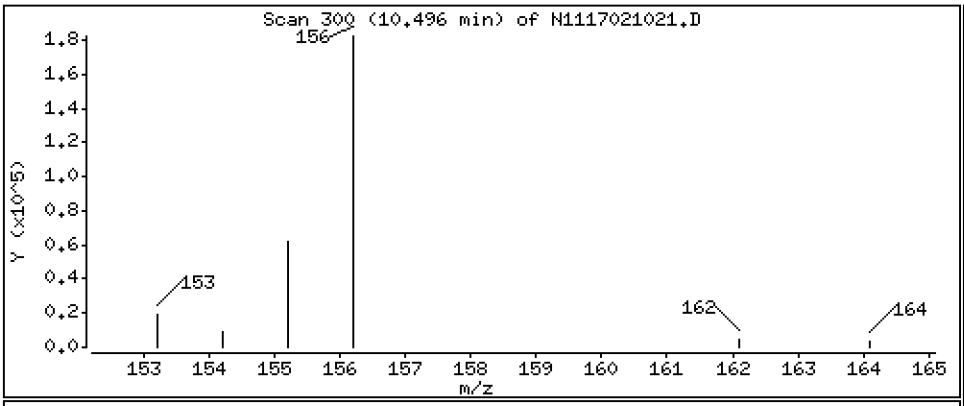
Operator: VTS

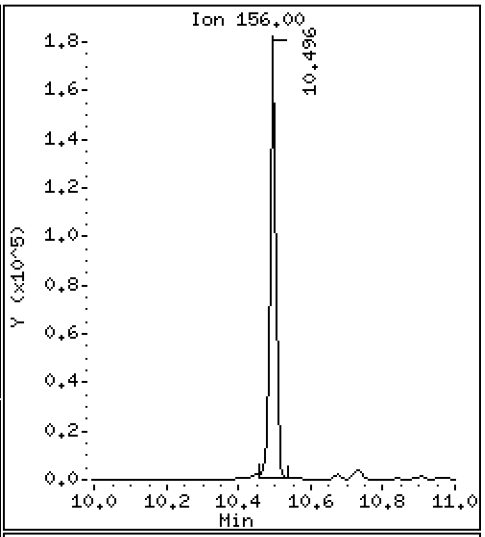
Column phase: Rxi-17Sil MS

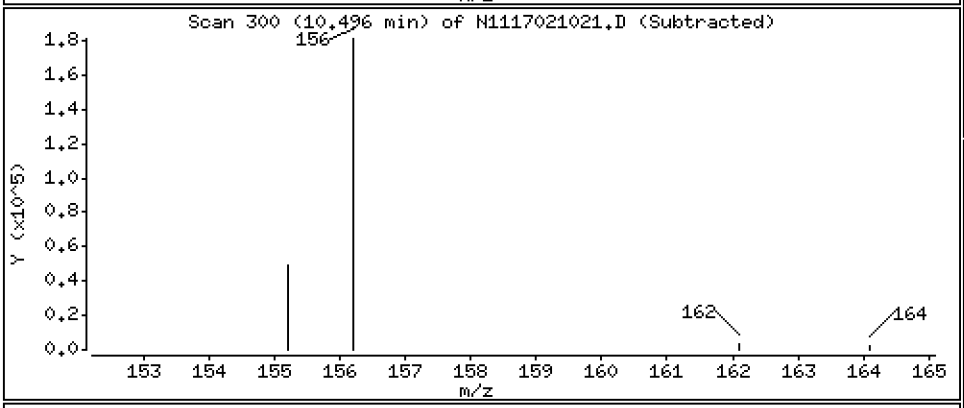
Column diameter: 0.25

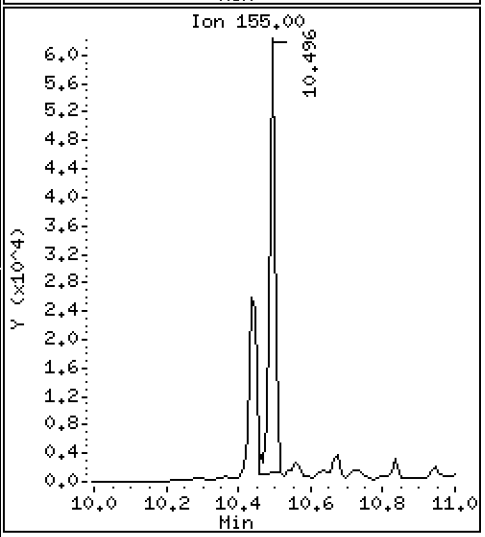
9 2,6-Dimethylnaphthalene

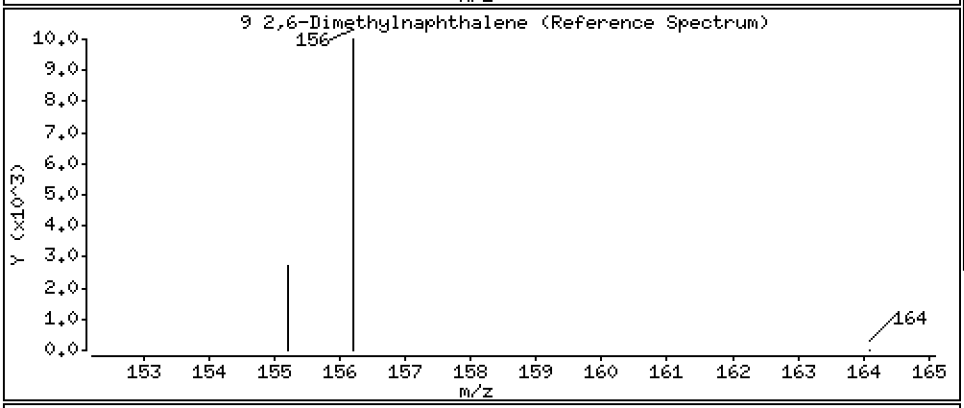
Concentration: 189 ng/mL

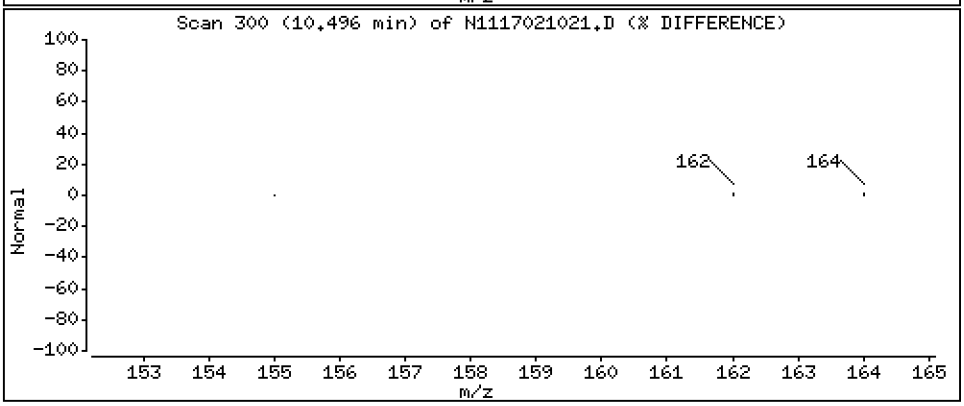












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Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

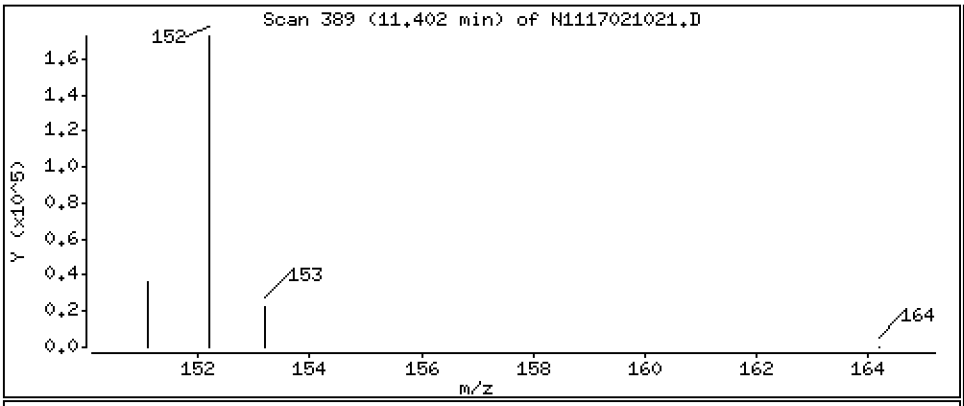
Operator: VTS

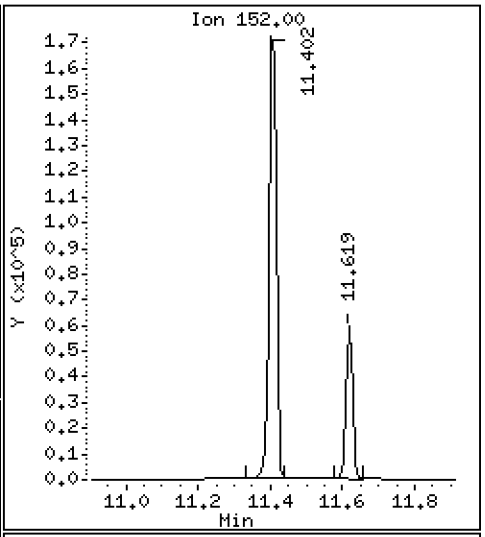
Column phase: Rxi-17Sil MS

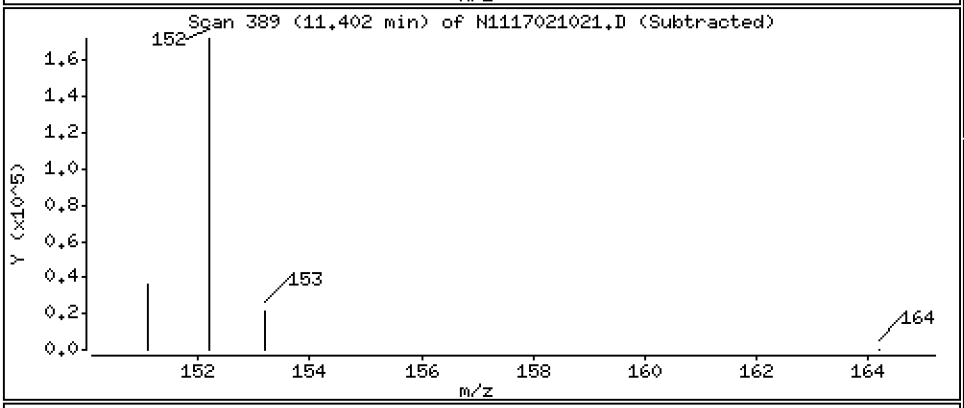
Column diameter: 0.25

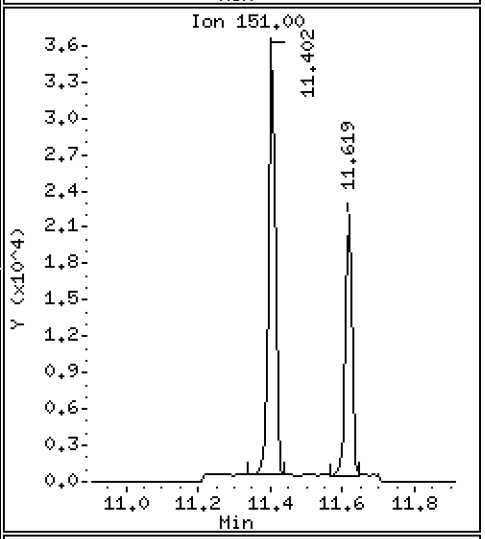
10 Acenaphthylene

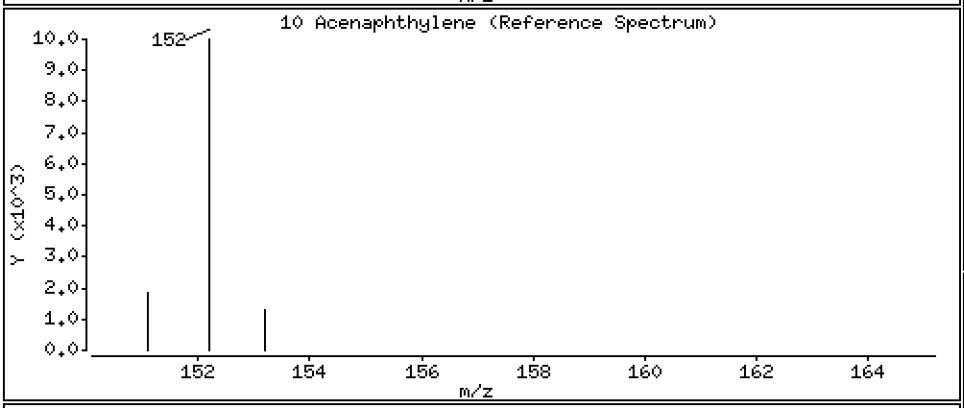
Concentration: 178 ng/mL

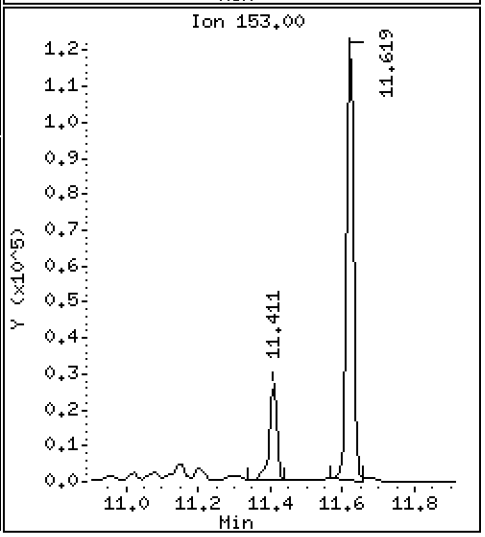


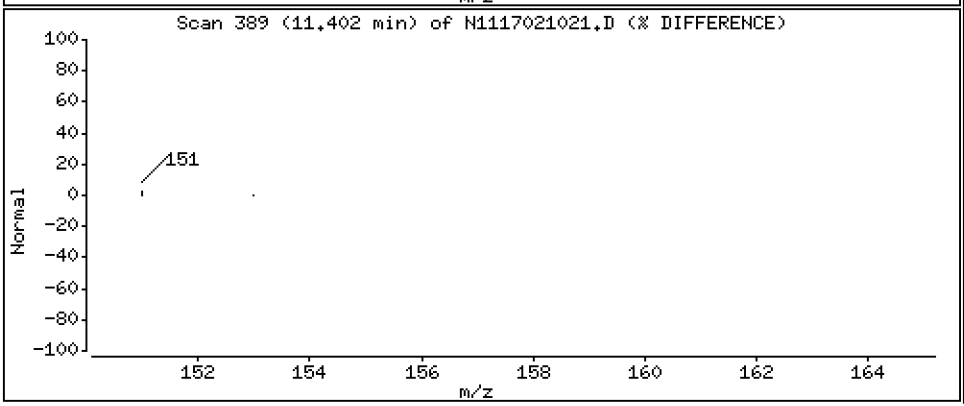












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Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

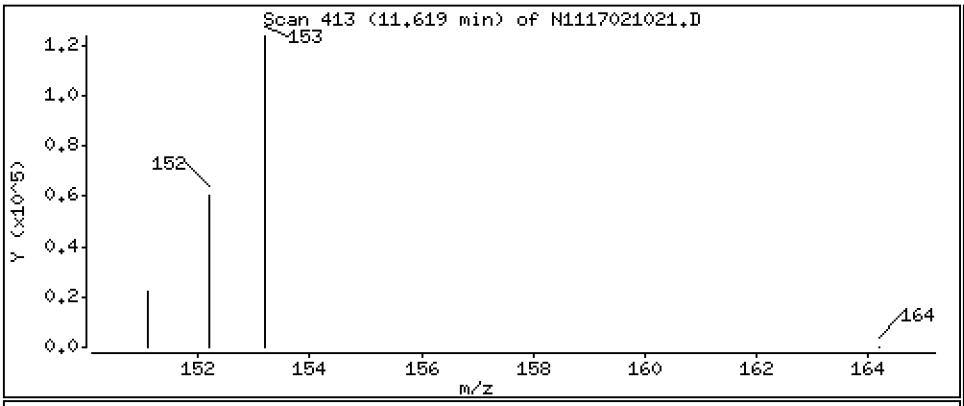
Operator: VTS

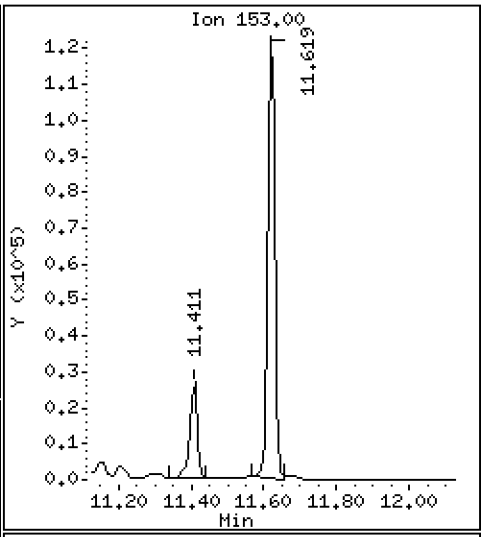
Column phase: Rxi-17Sil MS

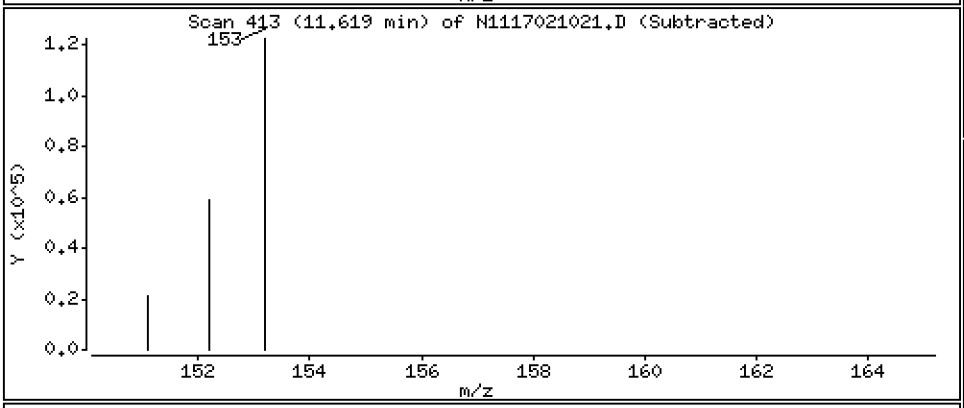
Column diameter: 0.25

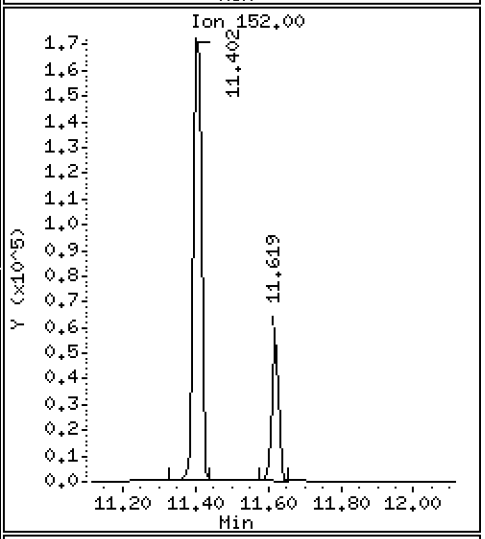
12 Acenaphthene

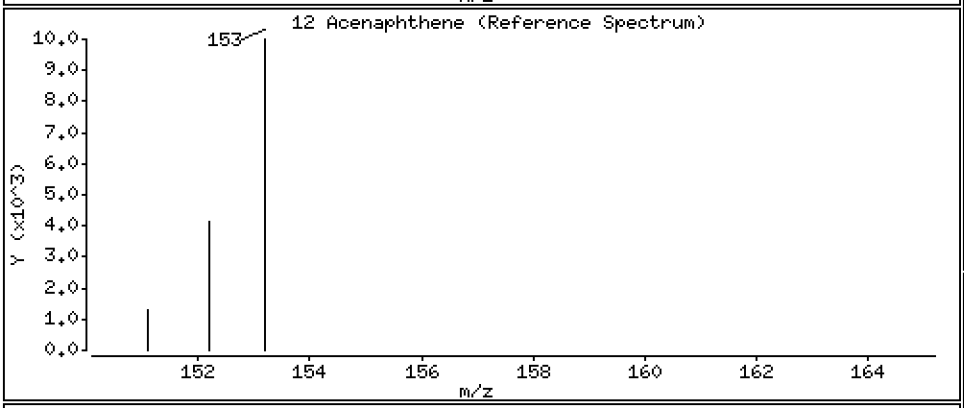
Concentration: 181 ng/mL

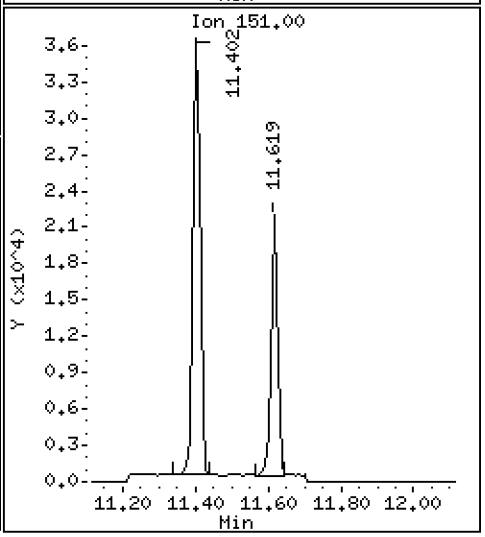


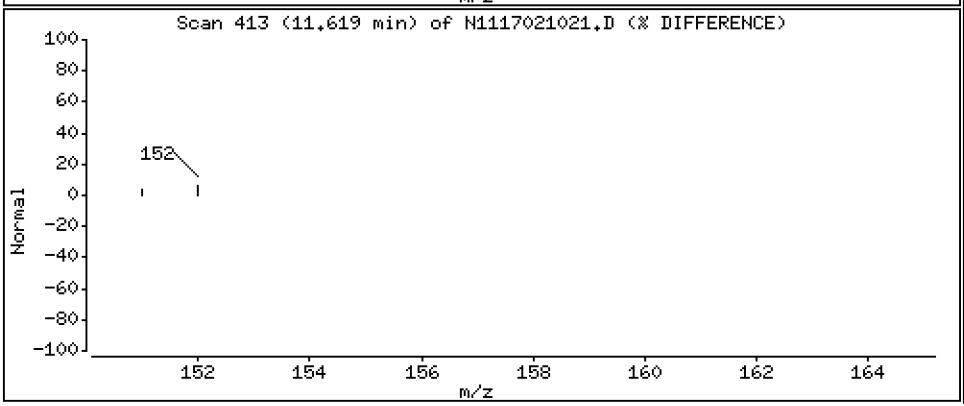












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Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

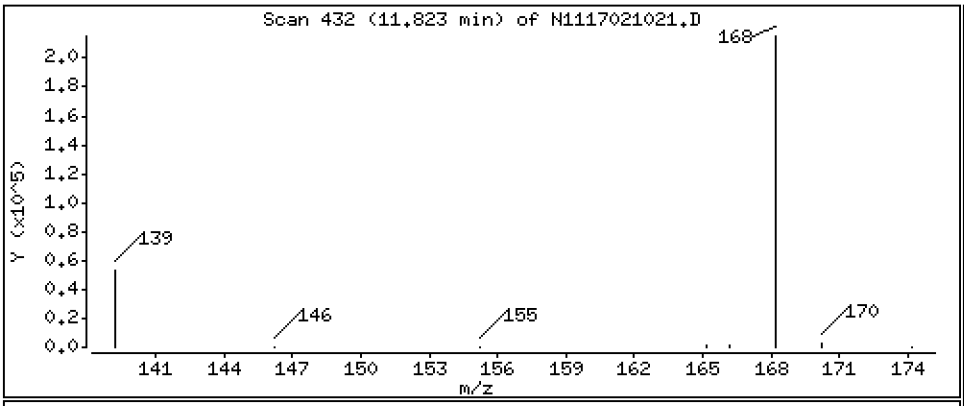
Operator: VTS

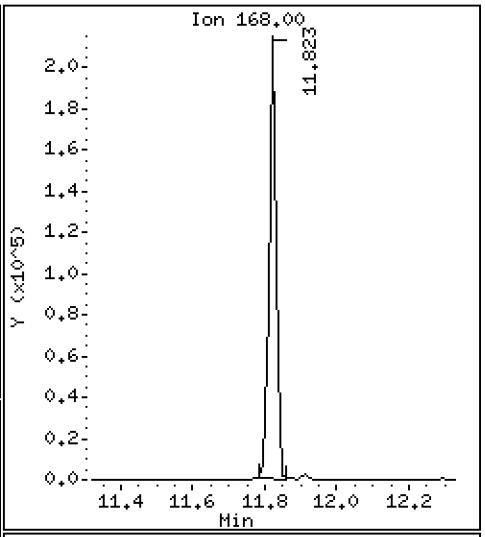
Column phase: Rxi-17Sil MS

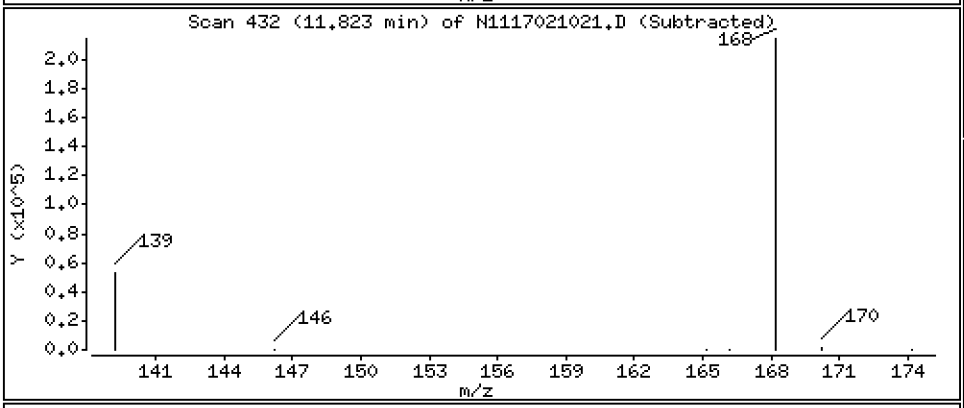
Column diameter: 0.25

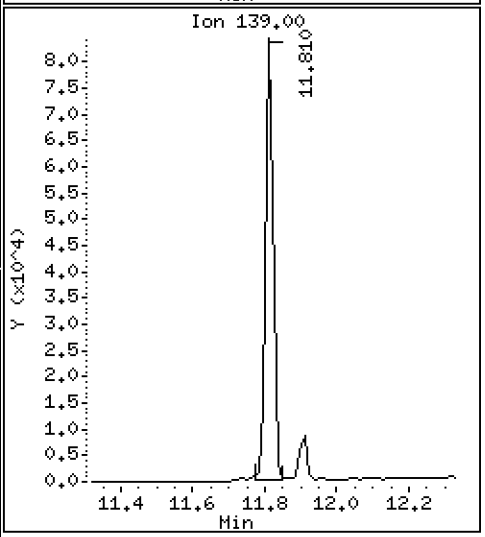
13 Dibenzofuran

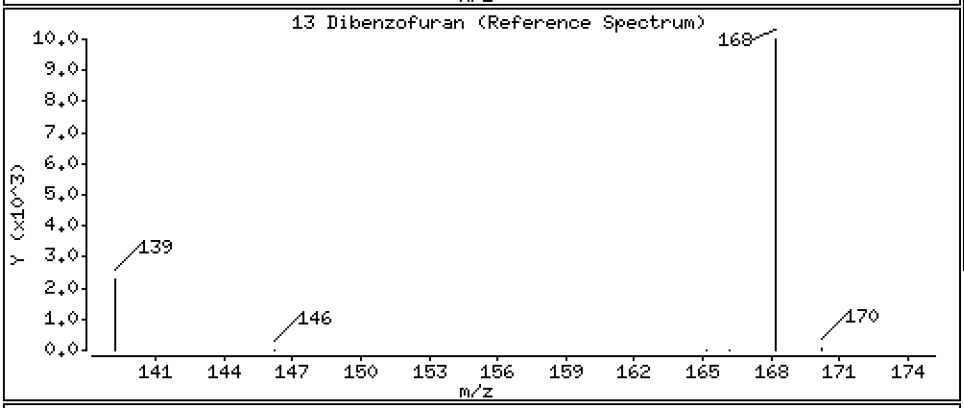
Concentration: 198 ng/mL

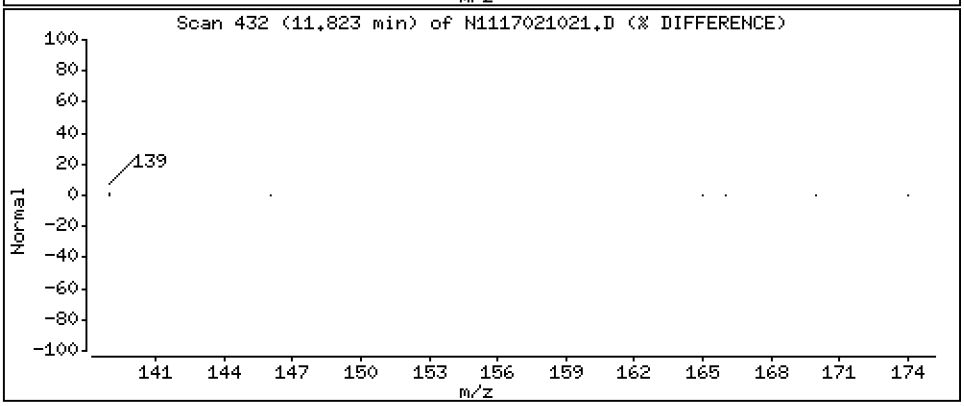












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Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

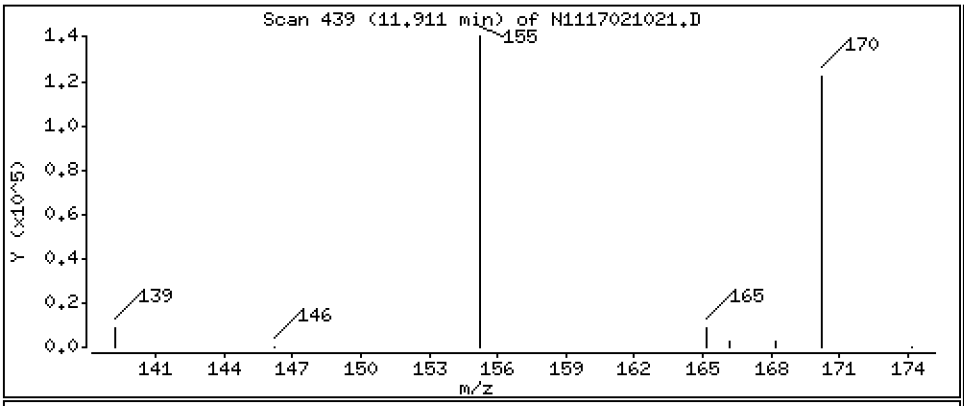
Operator: VTS

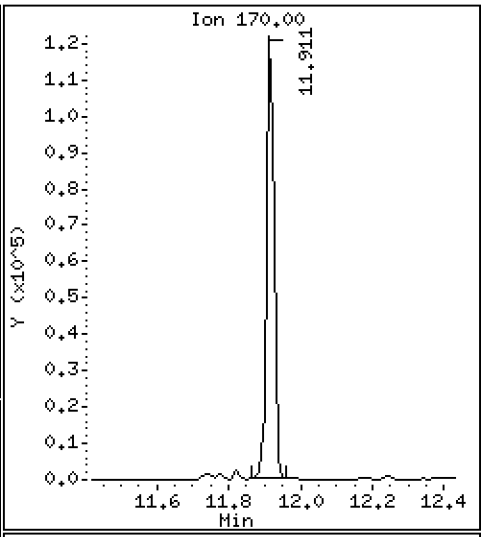
Column phase: Rxi-17Sil MS

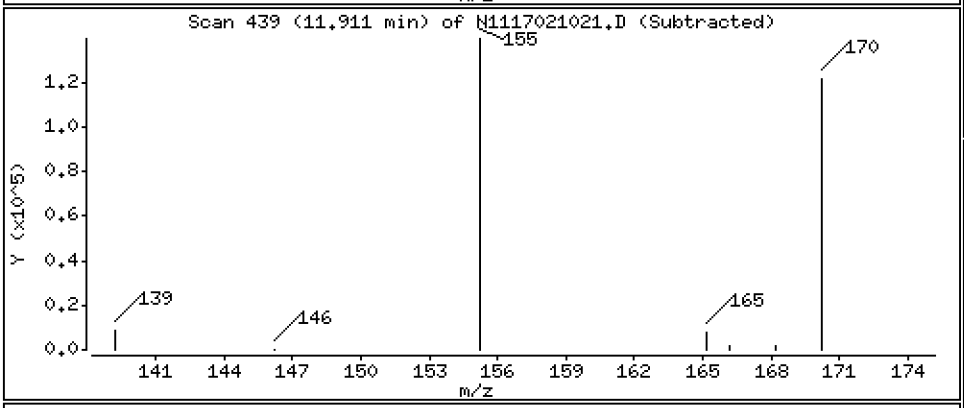
Column diameter: 0.25

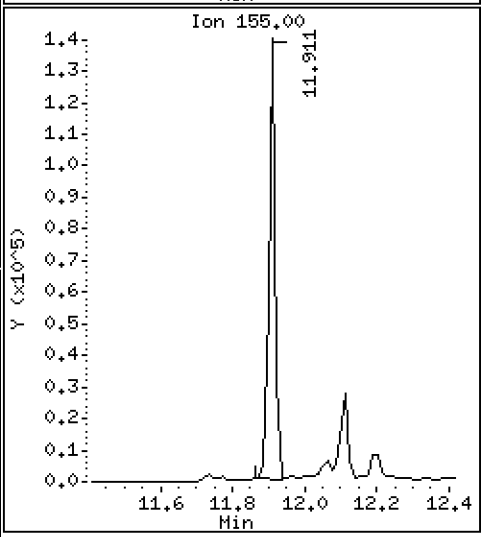
14 2,3,5-Trimethylnaphthalene

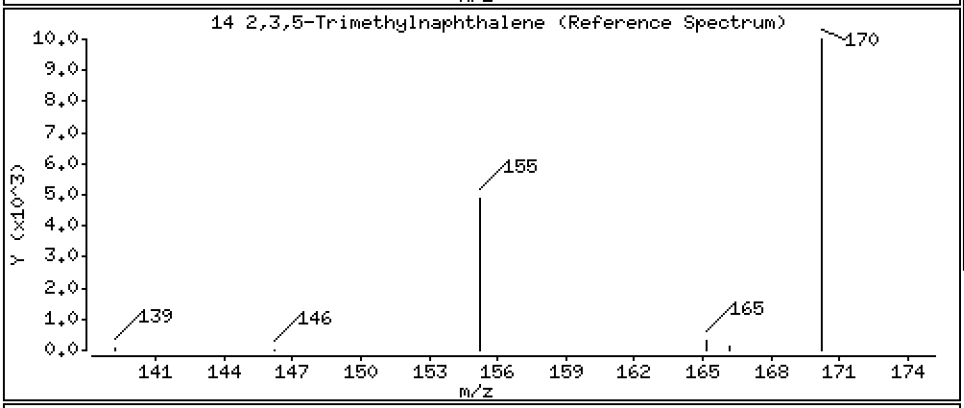
Concentration: 209 ng/mL

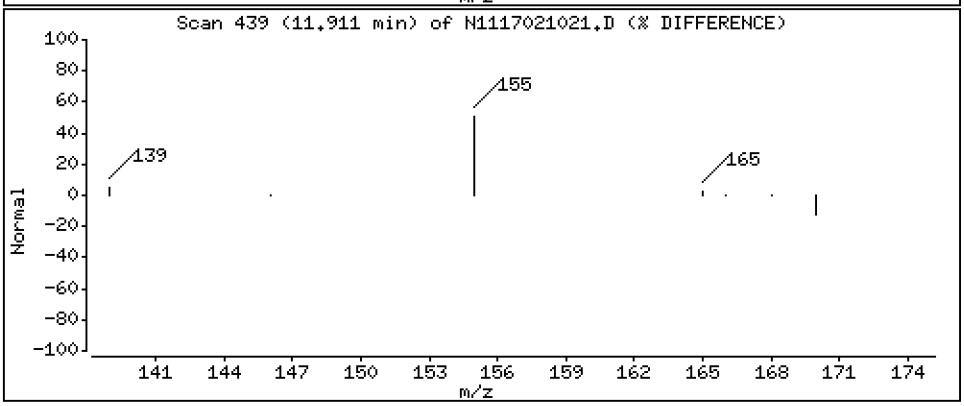












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021021.D

Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

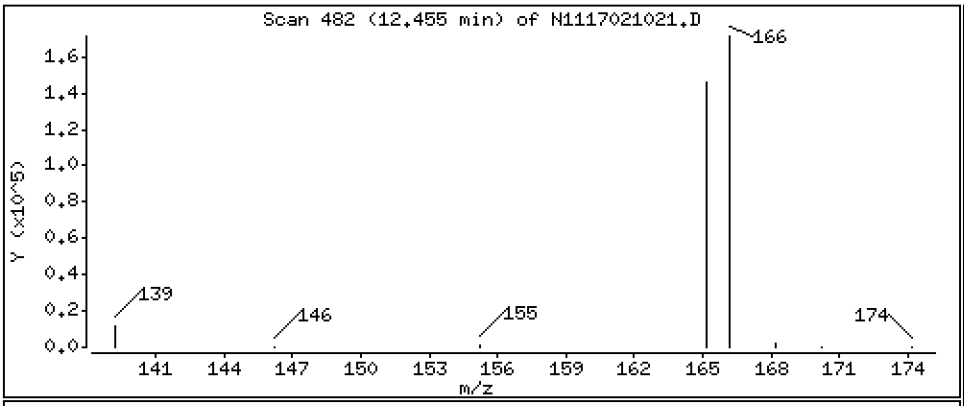
Operator: VTS

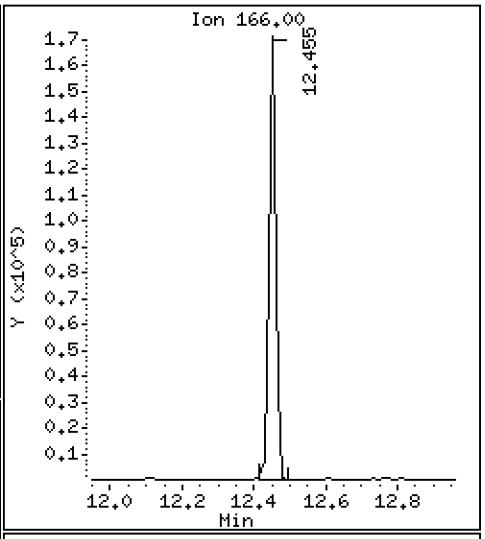
Column phase: Rxi-17Sil MS

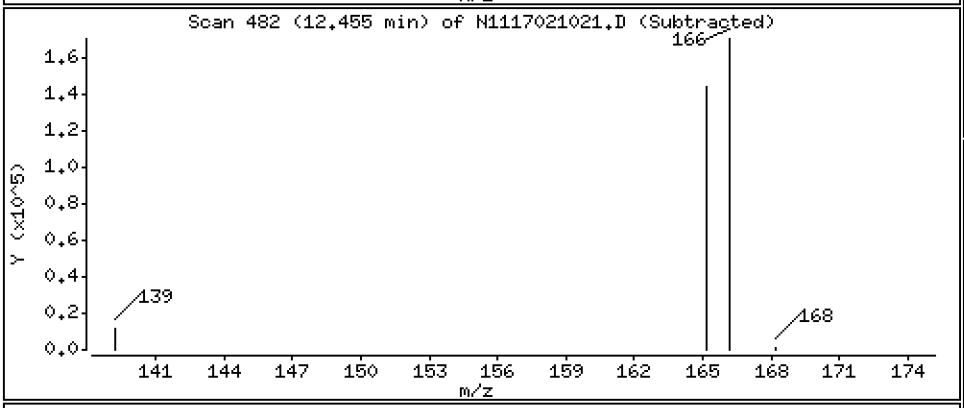
Column diameter: 0.25

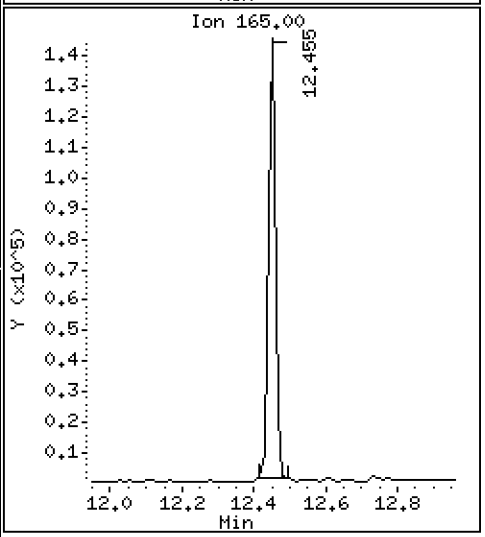
16 Fluorene

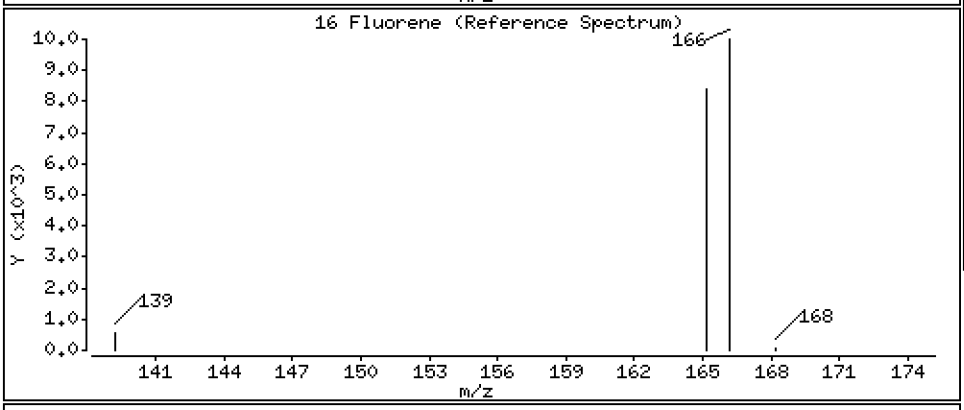
Concentration: 202 ng/mL

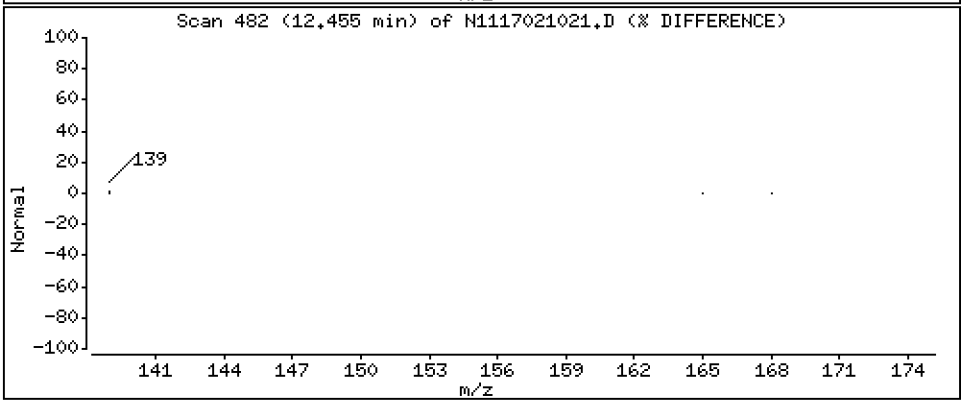












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021021.D

Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

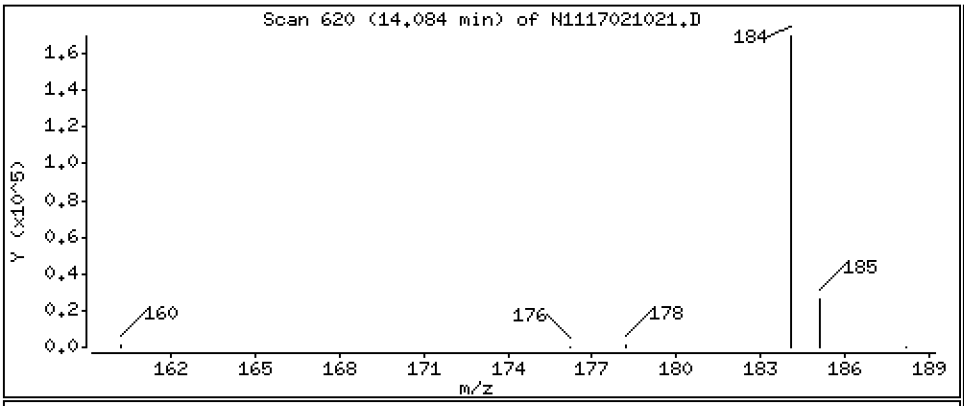
Operator: VTS

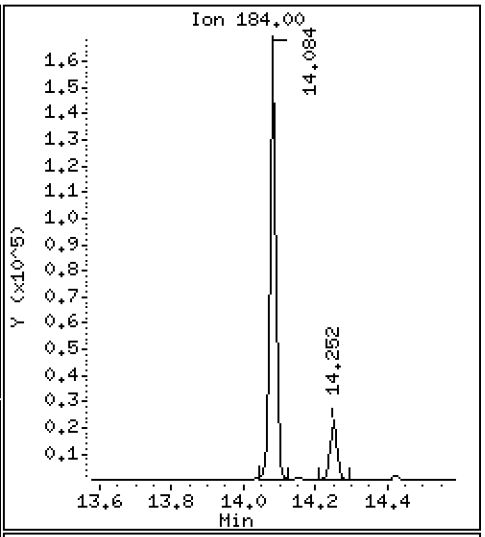
Column phase: Rxi-17Sil MS

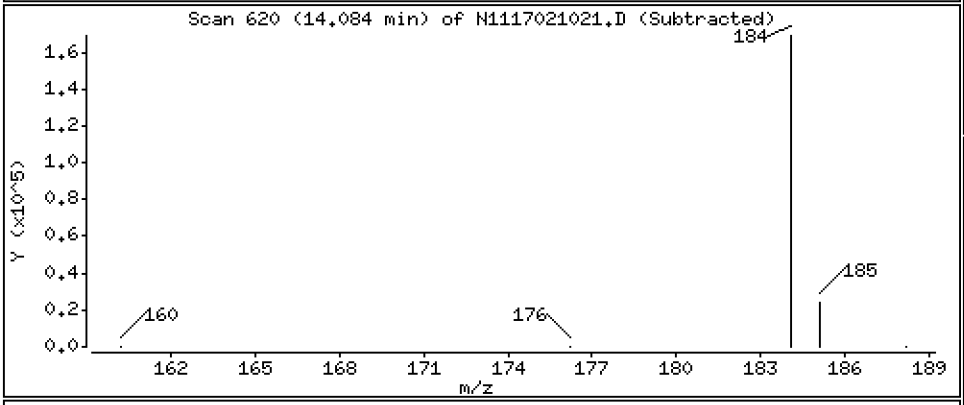
Column diameter: 0.25

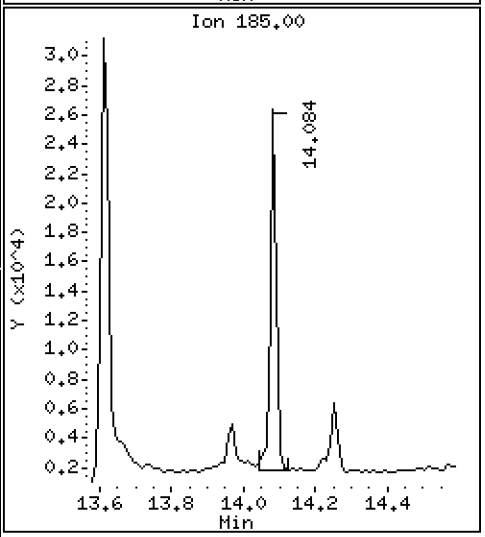
17 Dibenzothiophene

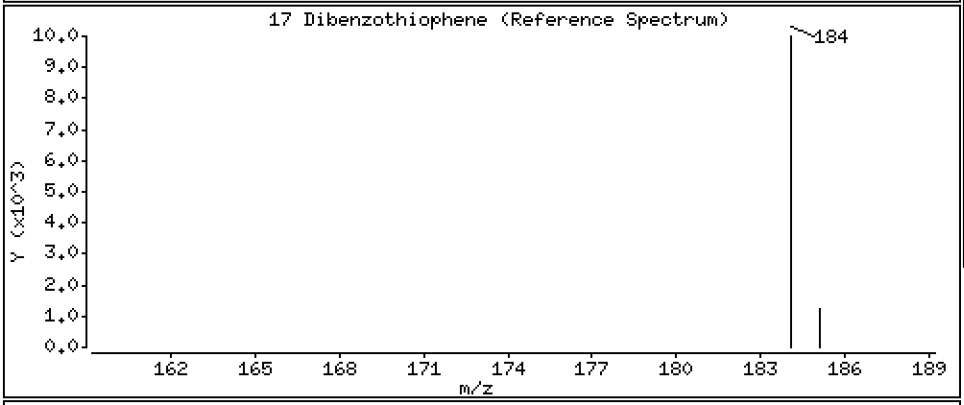
Concentration: 191 ng/mL

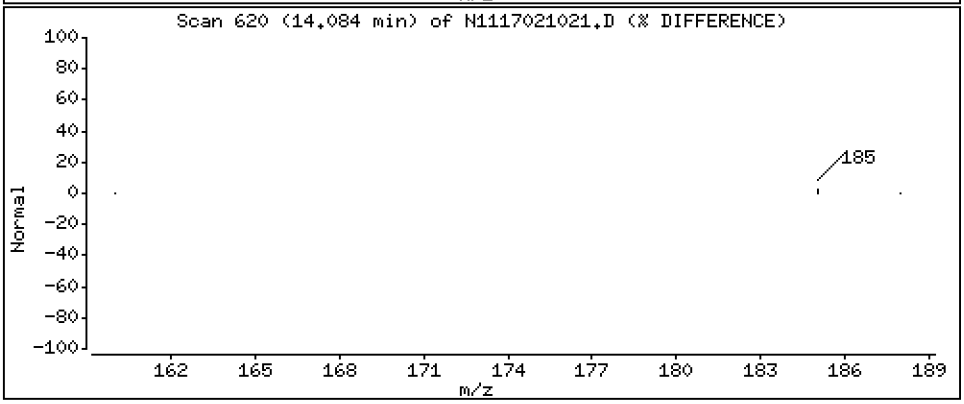












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Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

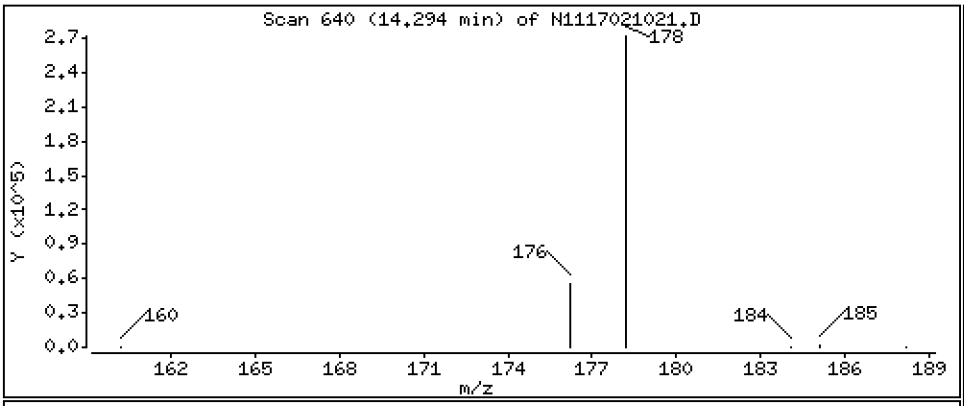
Operator: VTS

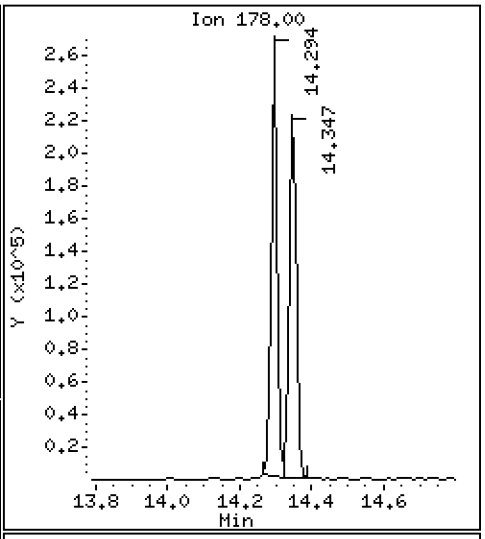
Column phase: Rxi-17Sil MS

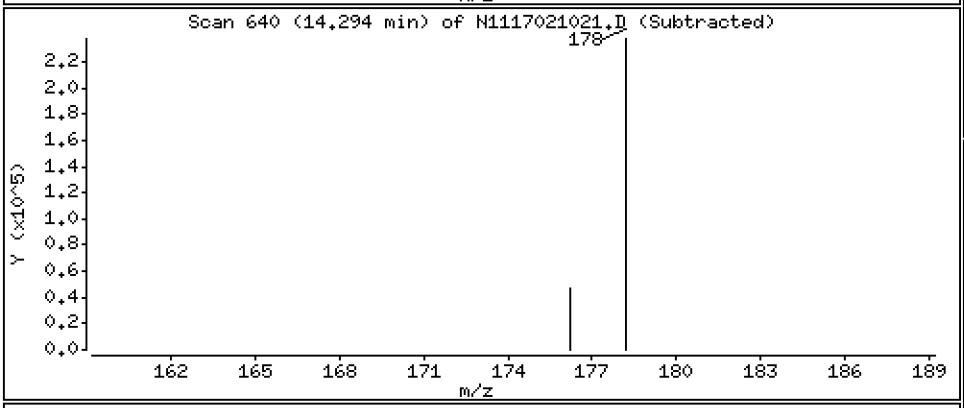
Column diameter: 0.25

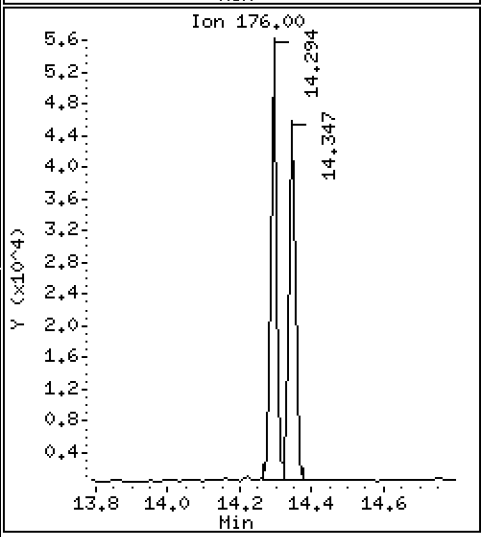
19 Phenanthrene

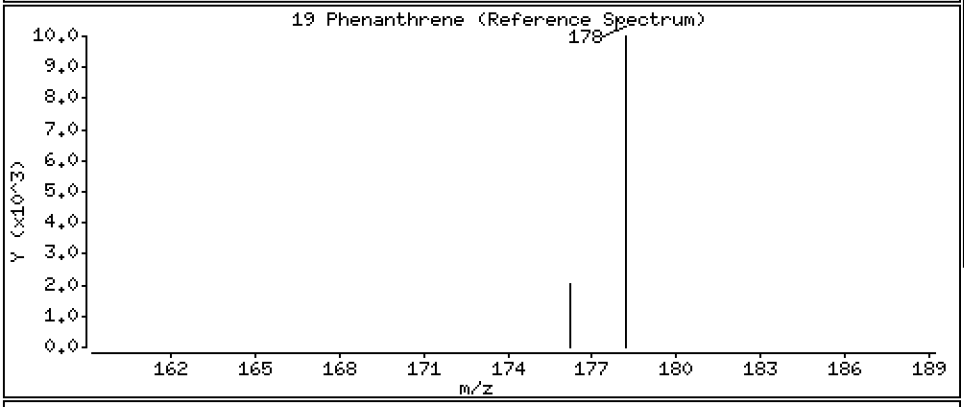
Concentration: 253 ng/mL

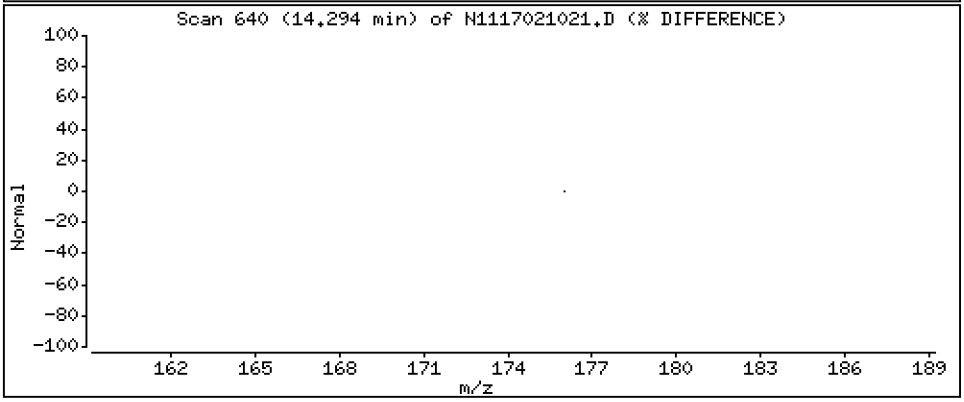












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Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

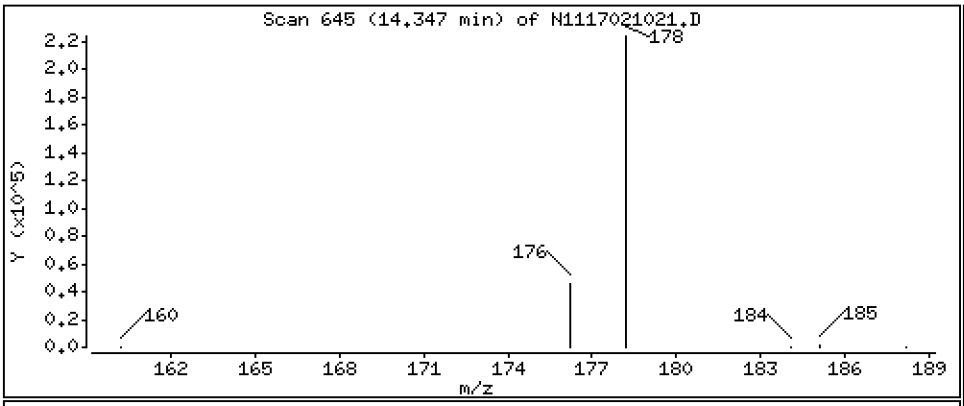
Operator: VTS

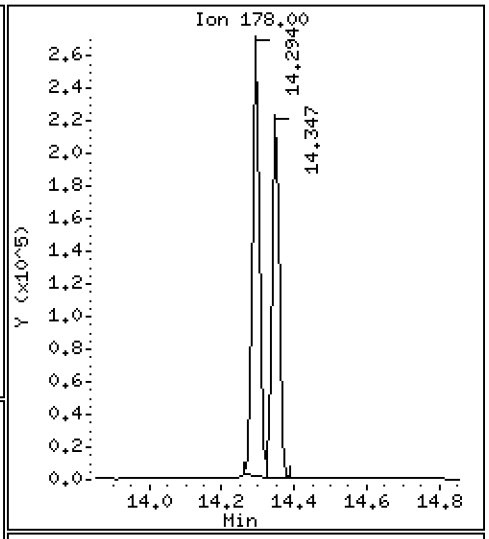
Column phase: Rxi-17Sil MS

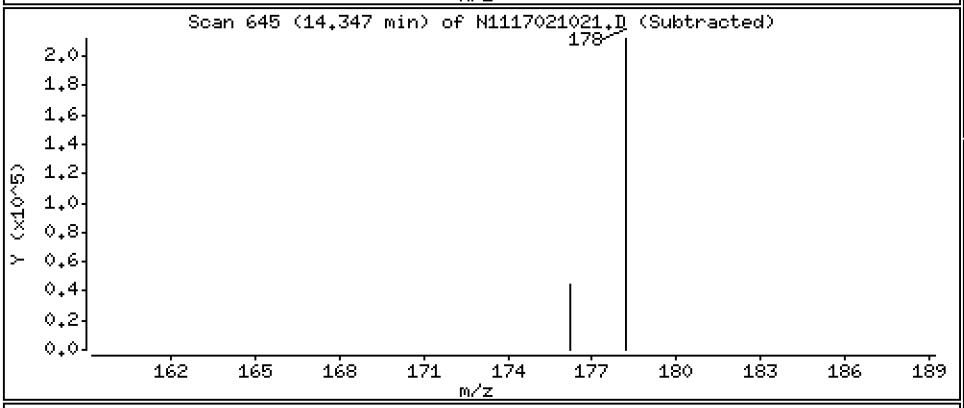
Column diameter: 0.25

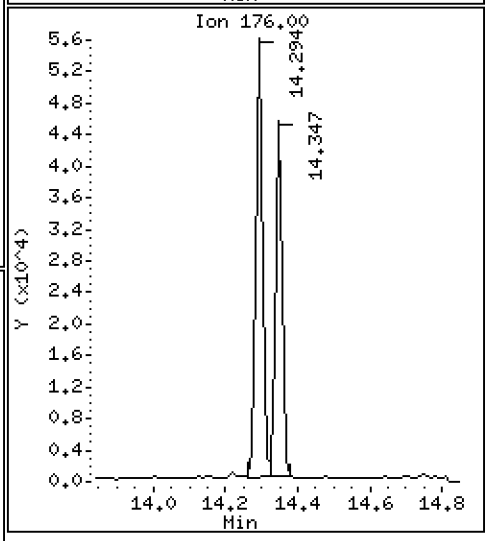
21 Anthracene

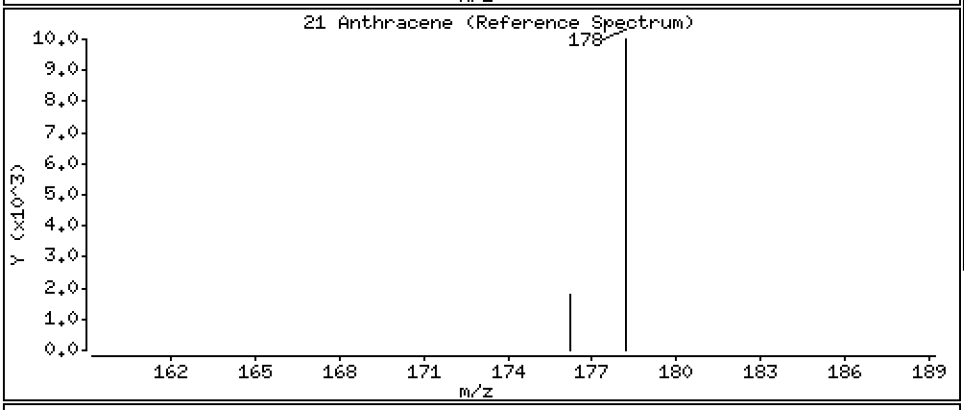
Concentration: 217 ng/mL

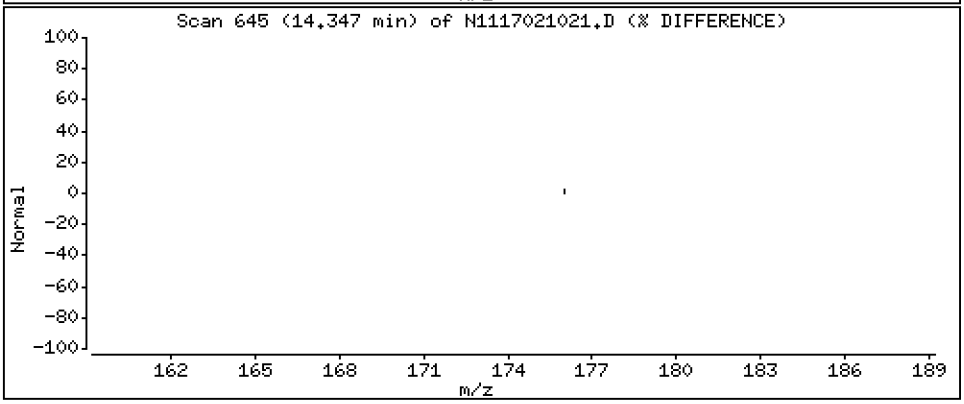












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Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

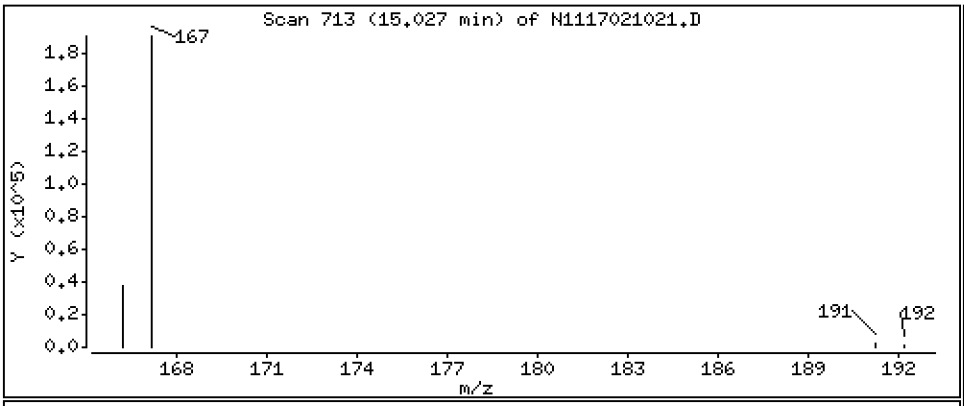
Operator: VTS

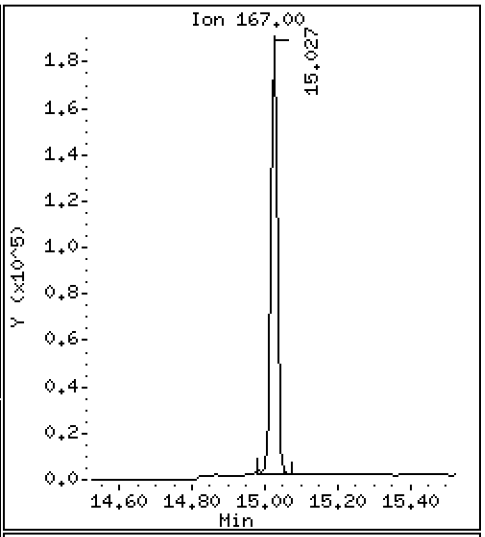
Column phase: Rxi-17Sil MS

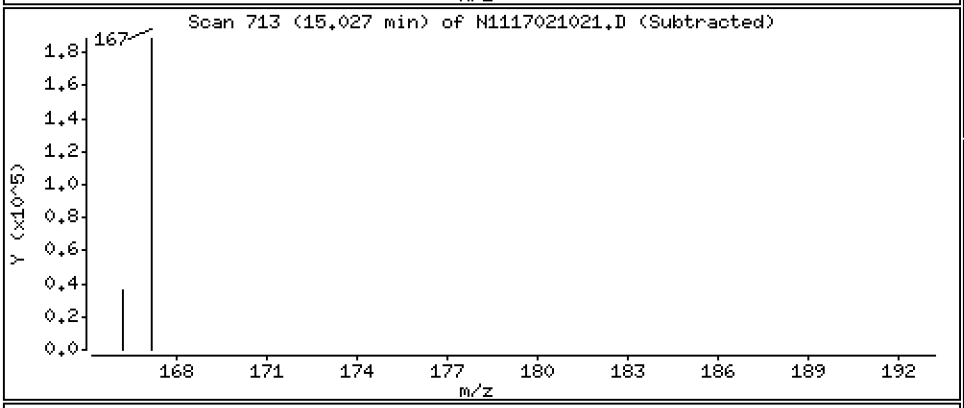
Column diameter: 0.25

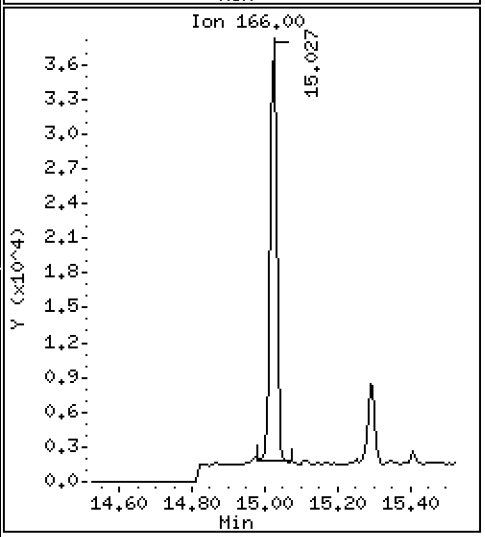
22 Carbazole

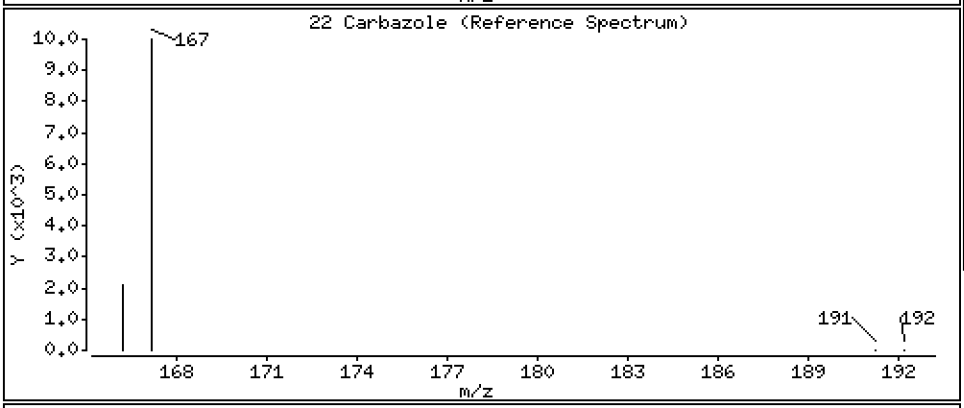
Concentration: 148 ng/mL

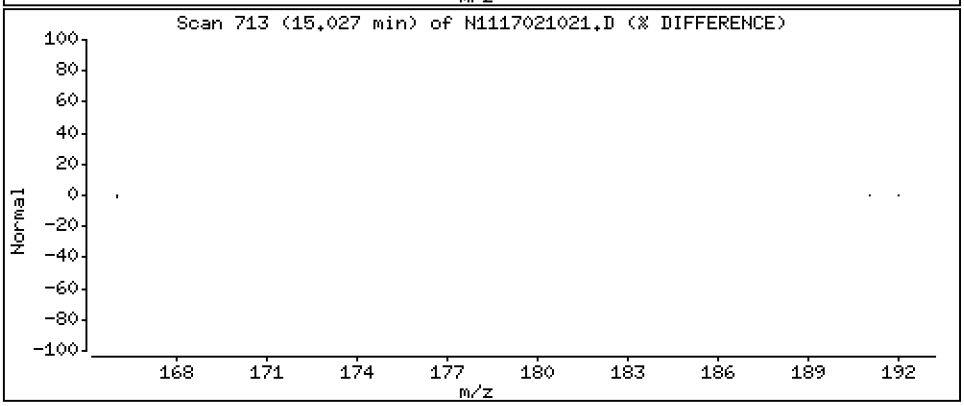












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Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

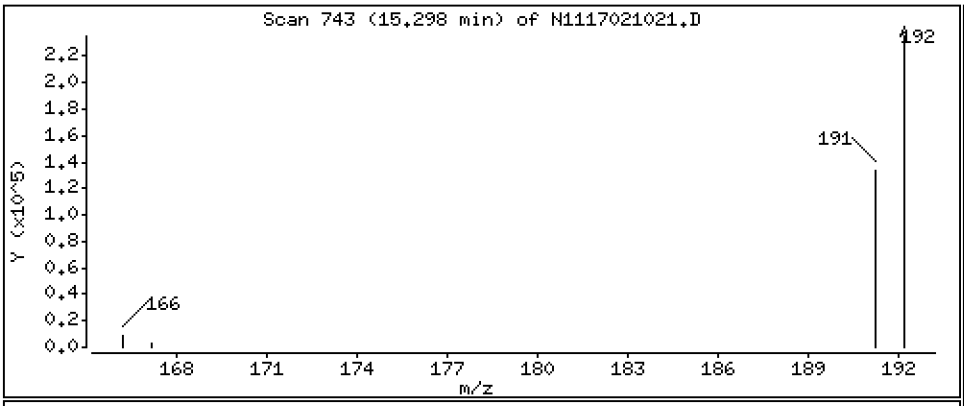
Operator: VTS

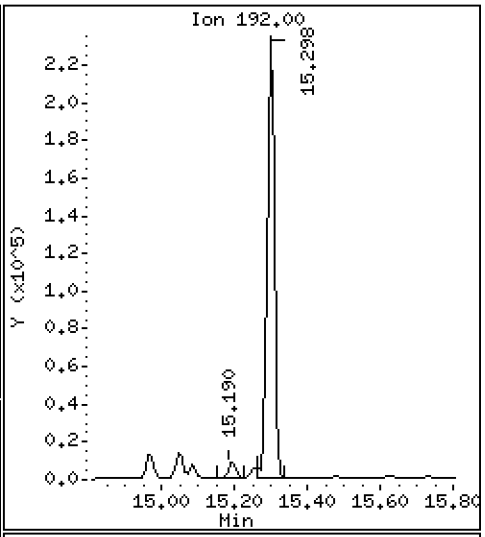
Column phase: Rxi-17Sil MS

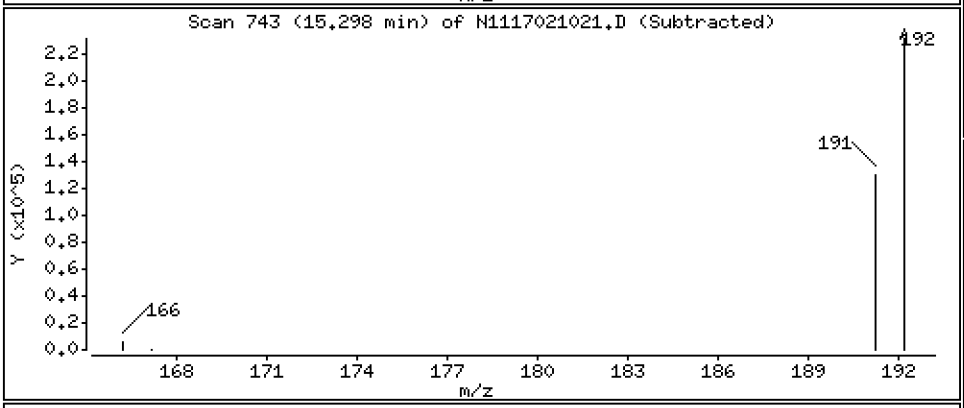
Column diameter: 0.25

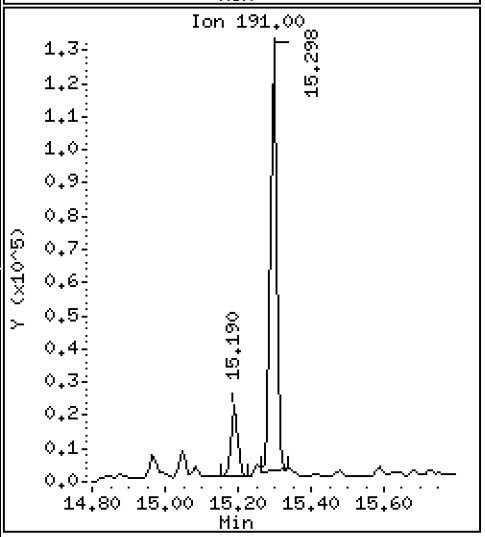
23 1-Methylphenanthrene

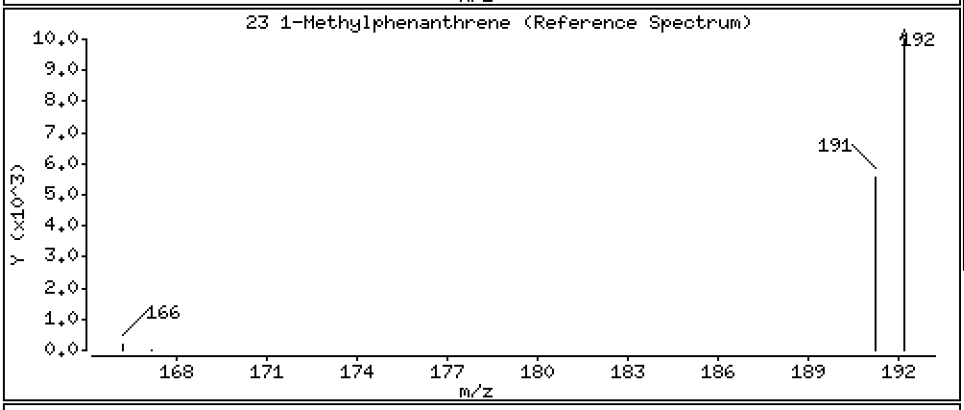
Concentration: 212 ng/mL

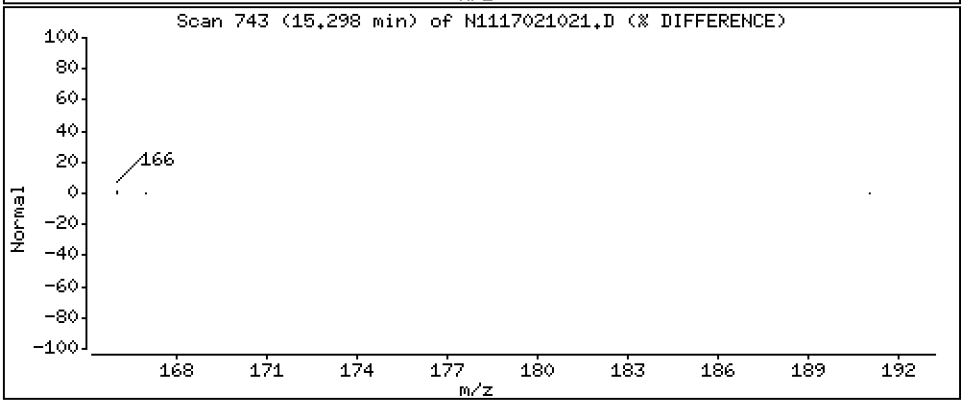












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Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

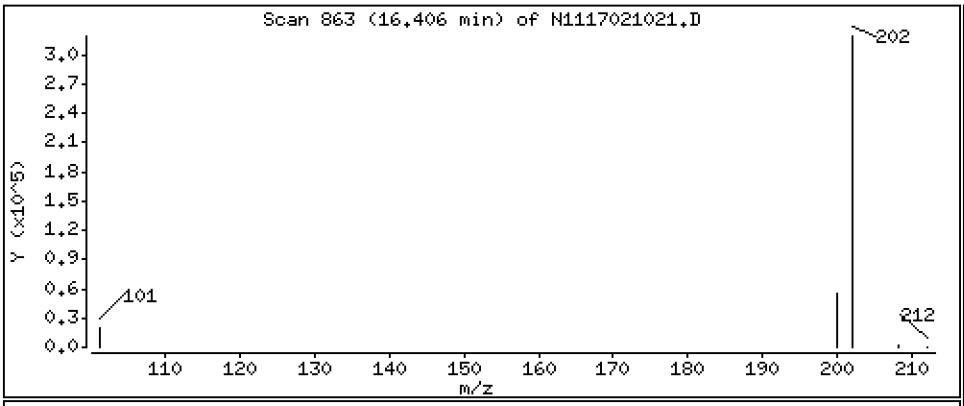
Operator: VTS

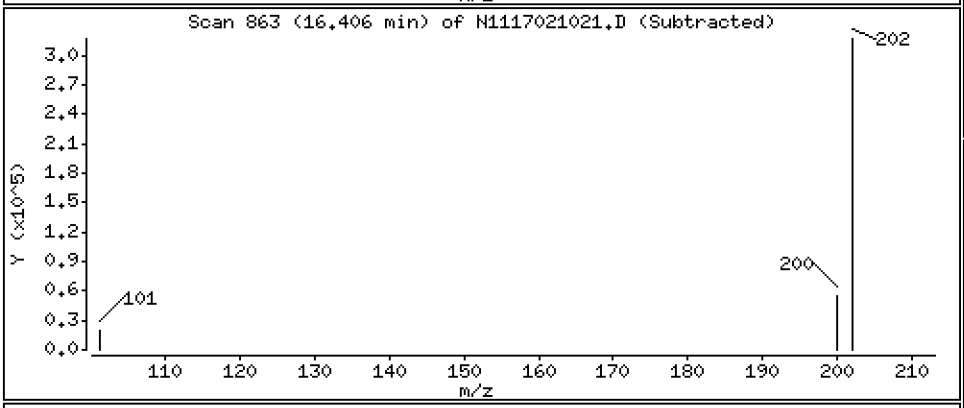
Column phase: Rxi-17Sil MS

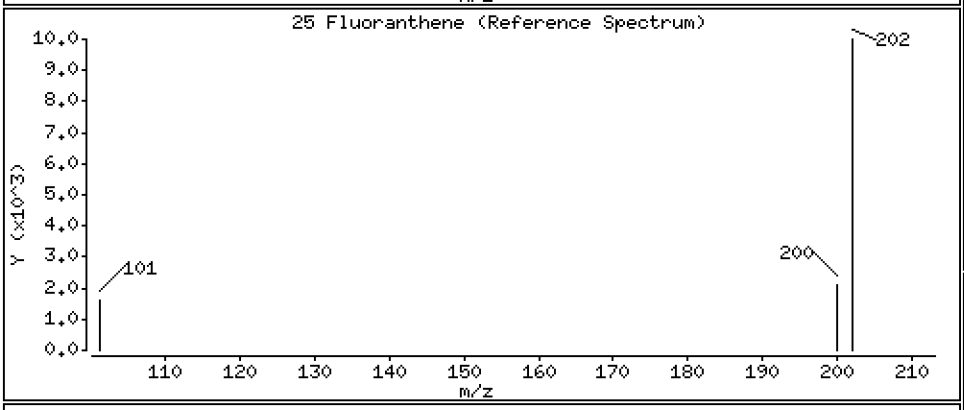
Column diameter: 0.25

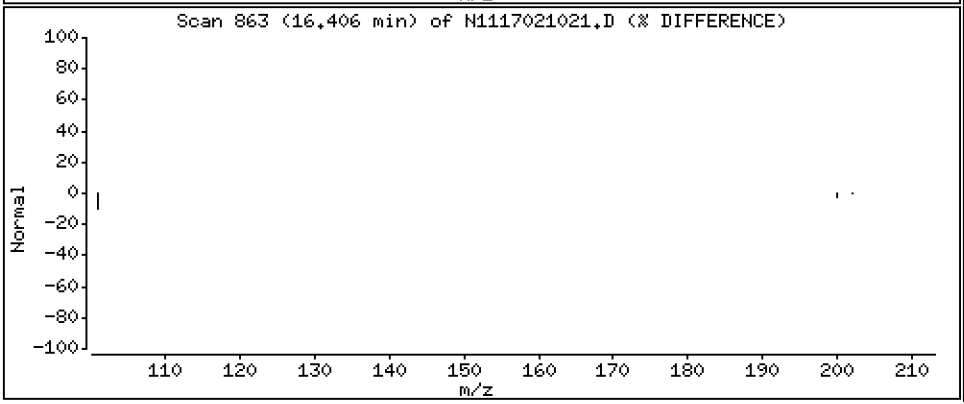
25 Fluoranthene

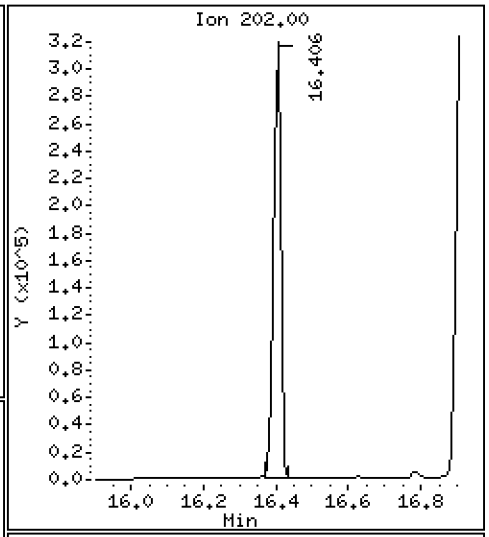
Concentration: 266 ng/mL

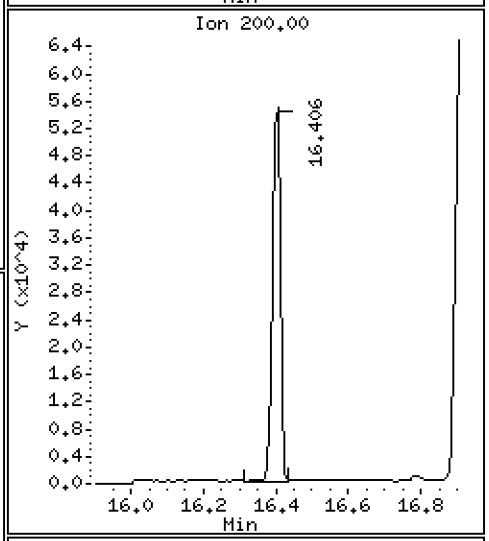


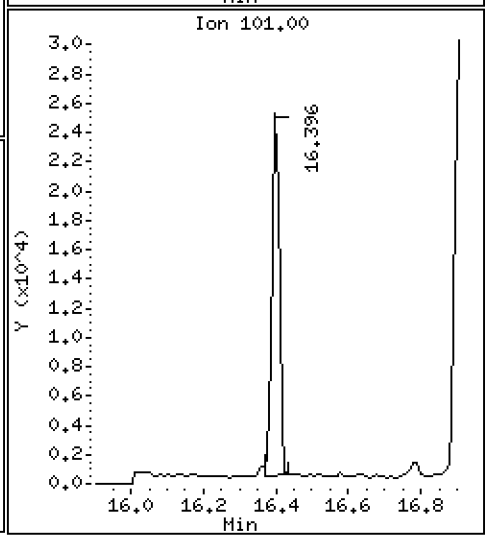












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Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

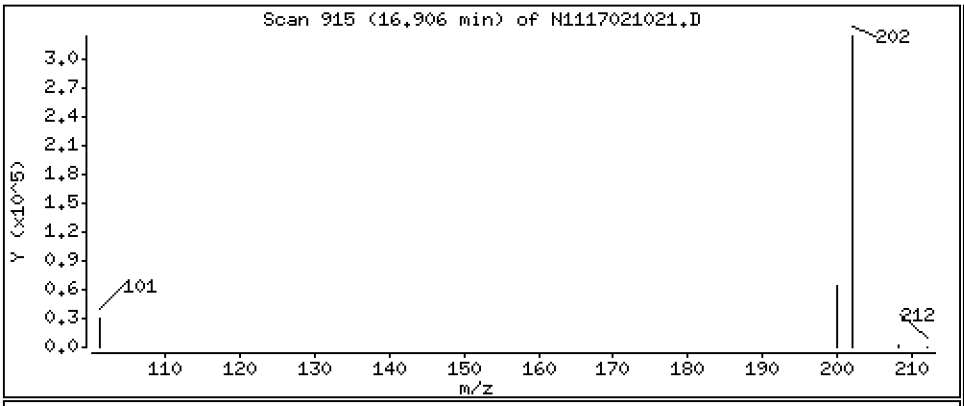
Operator: VTS

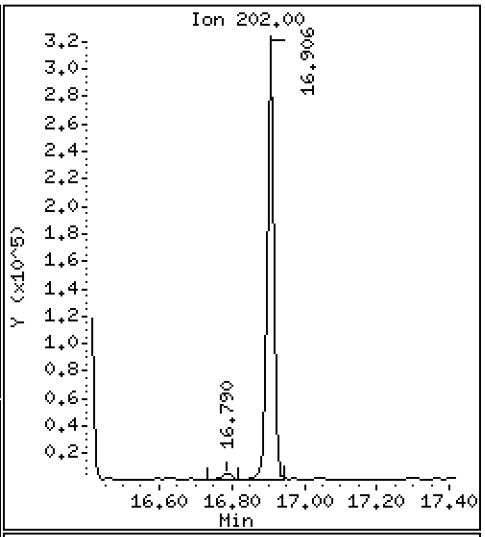
Column phase: Rxi-17Sil MS

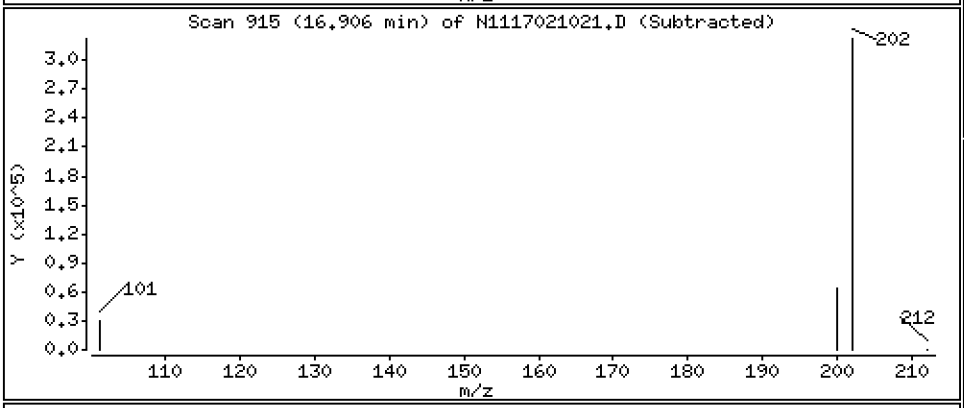
Column diameter: 0.25

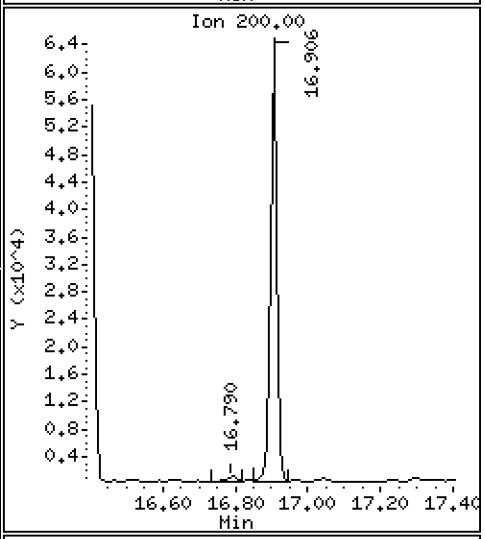
26 Pyrene

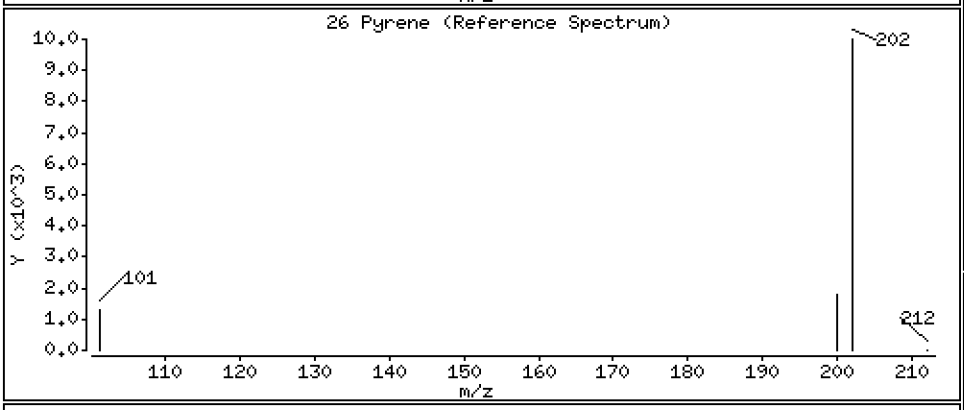
Concentration: 326 ng/mL

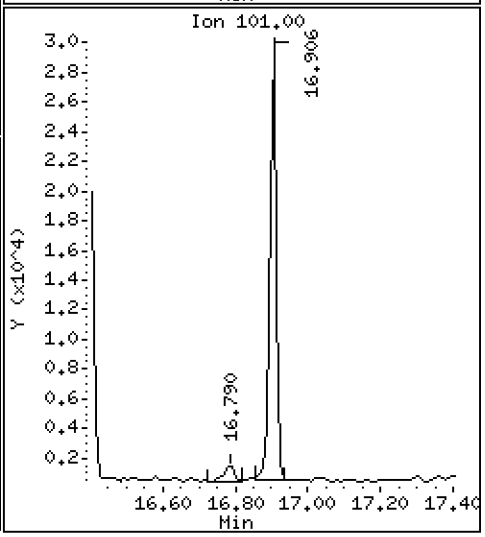


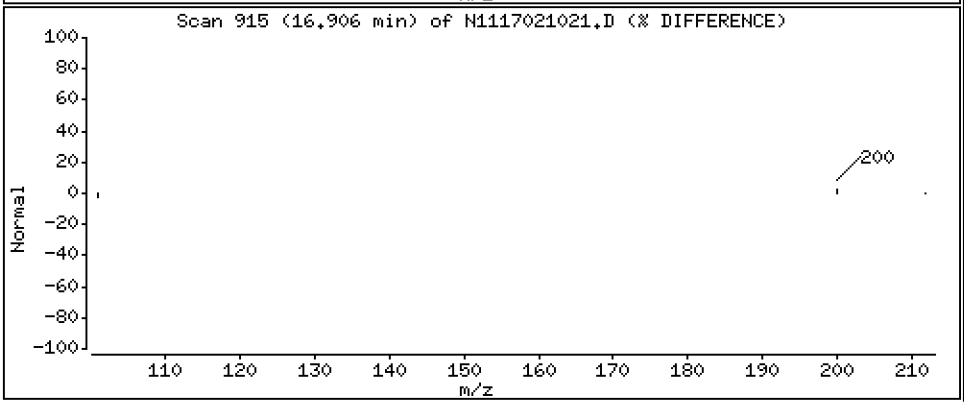












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Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

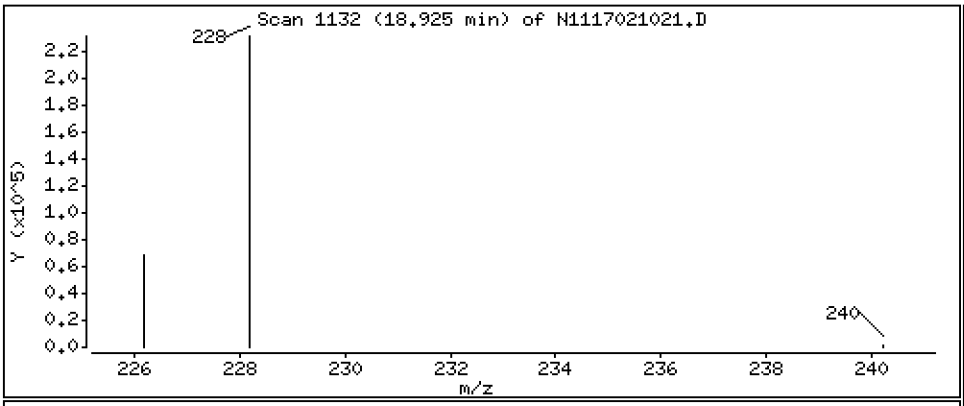
Operator: VTS

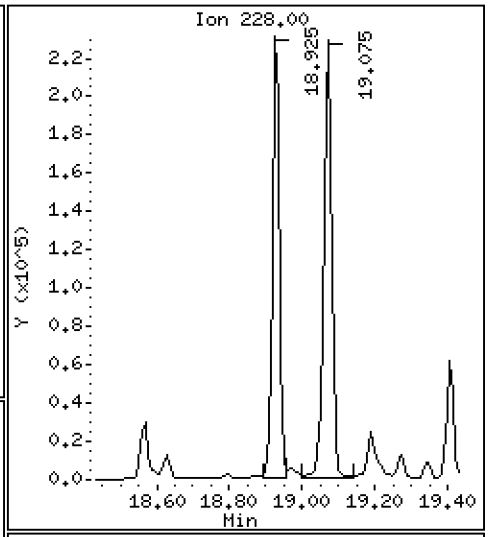
Column phase: Rxi-17Sil MS

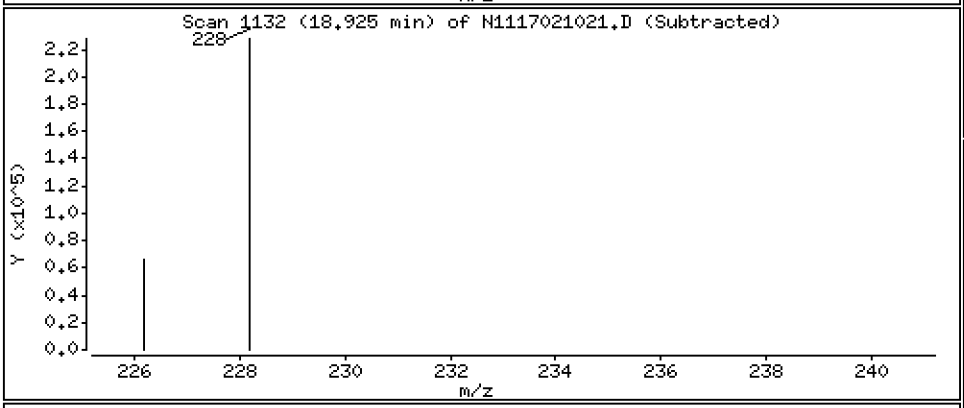
Column diameter: 0.25

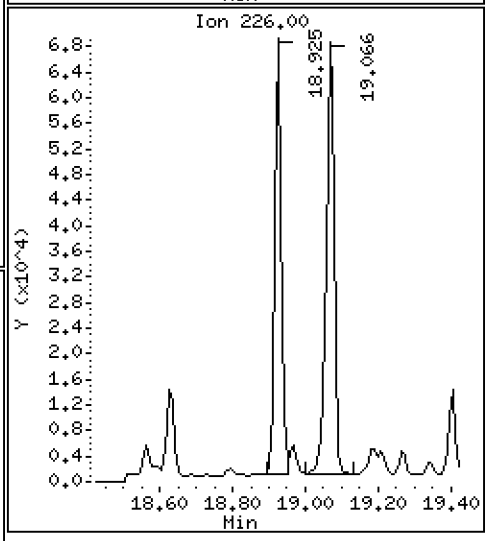
27 Benzo(a)anthracene

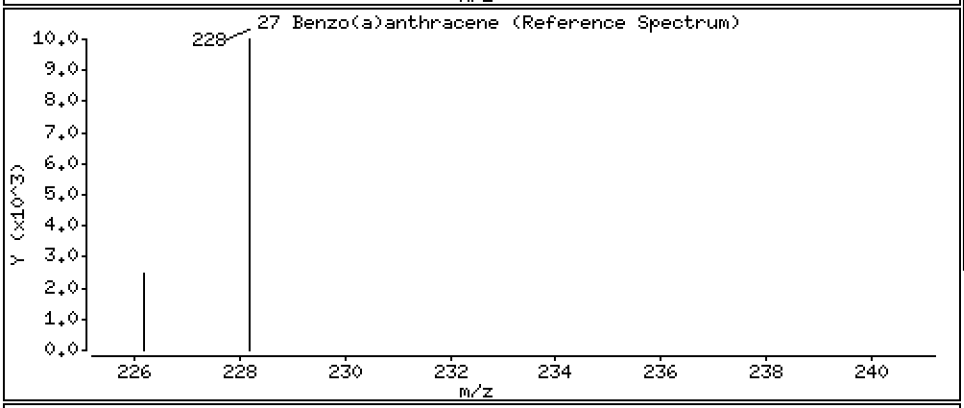
Concentration: 250 ng/mL

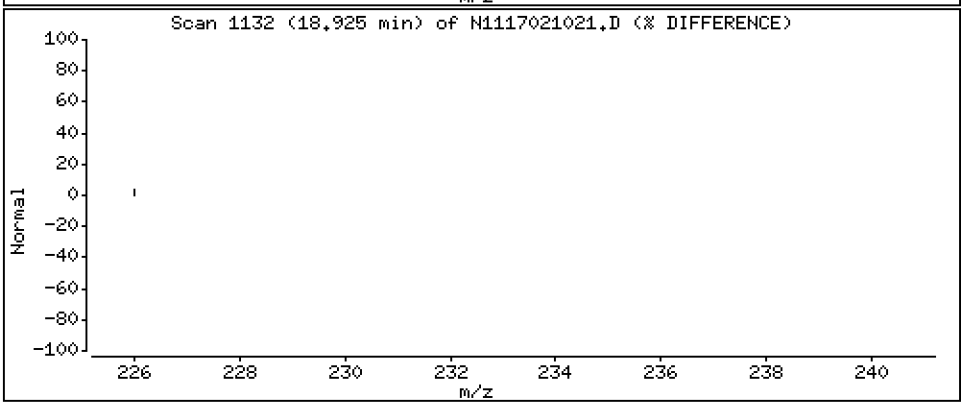












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021021.D

Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

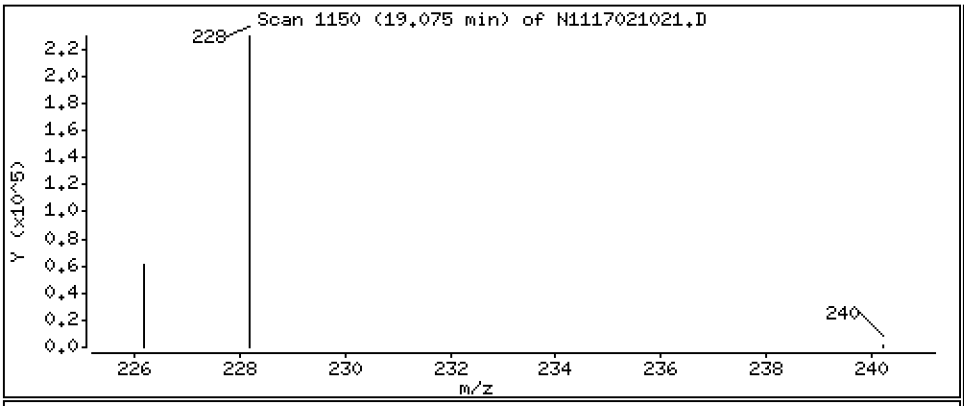
Operator: VTS

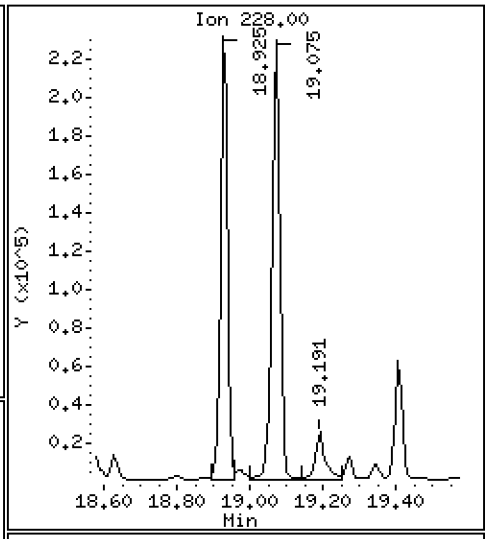
Column phase: Rxi-17Sil MS

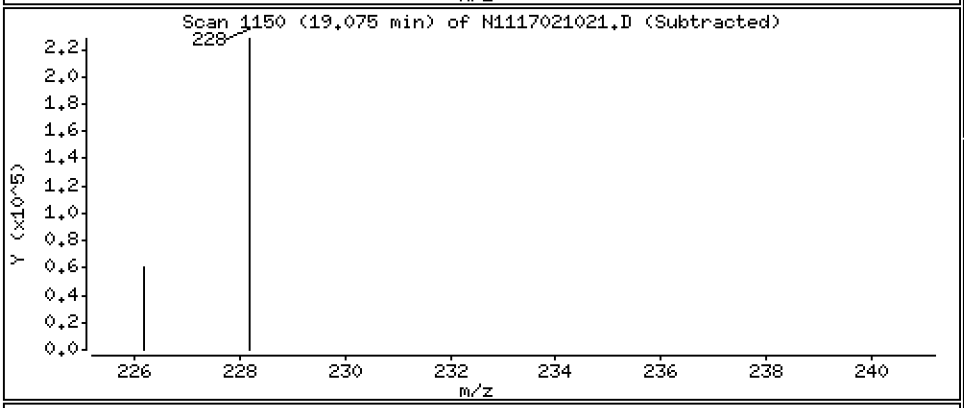
Column diameter: 0.25

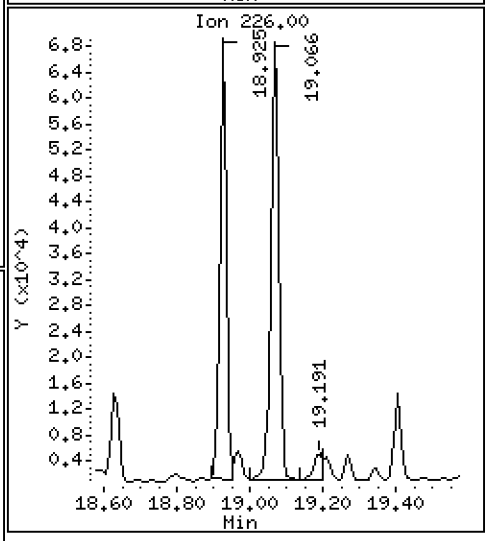
29 Chrysene

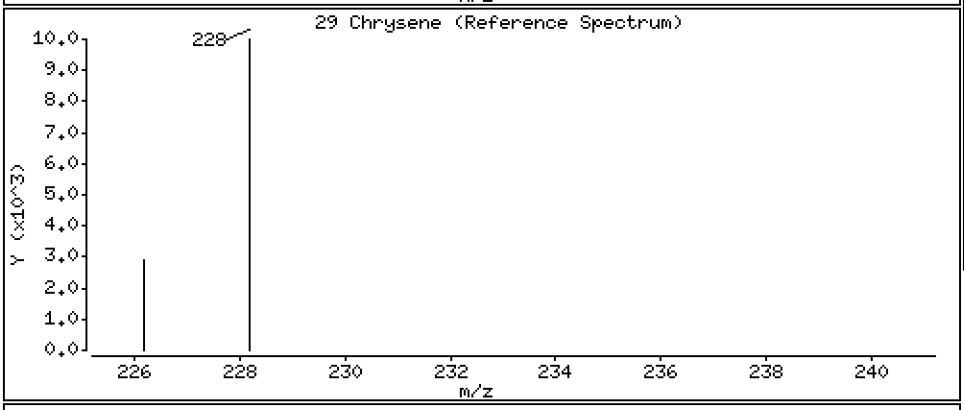
Concentration: 271 ng/mL

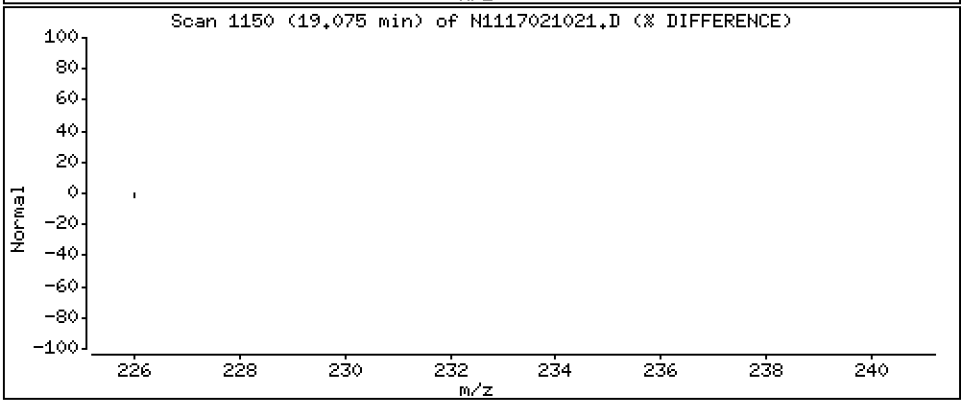












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021021.D

Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

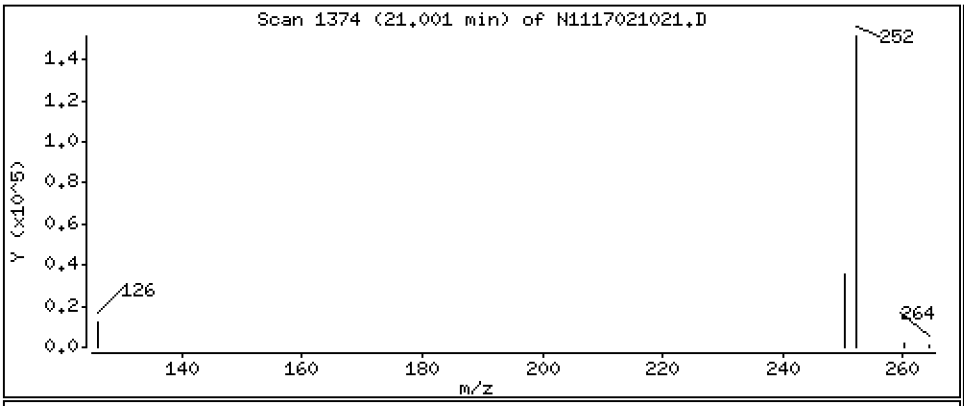
Operator: VTS

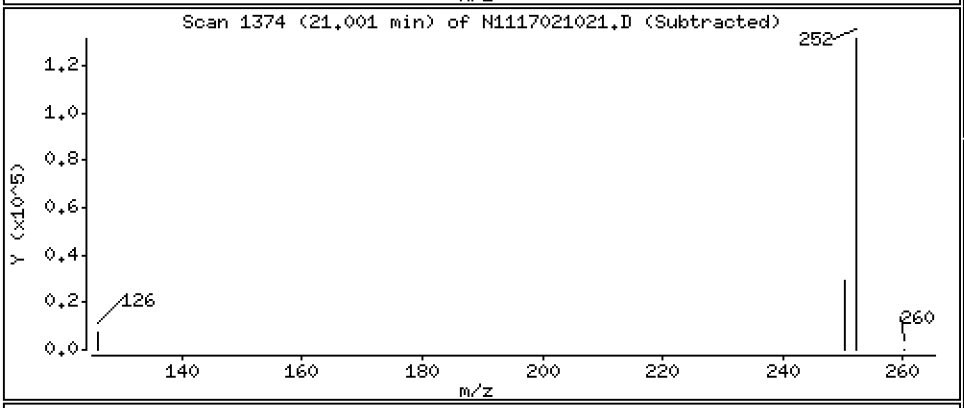
Column phase: Rxi-17Sil MS

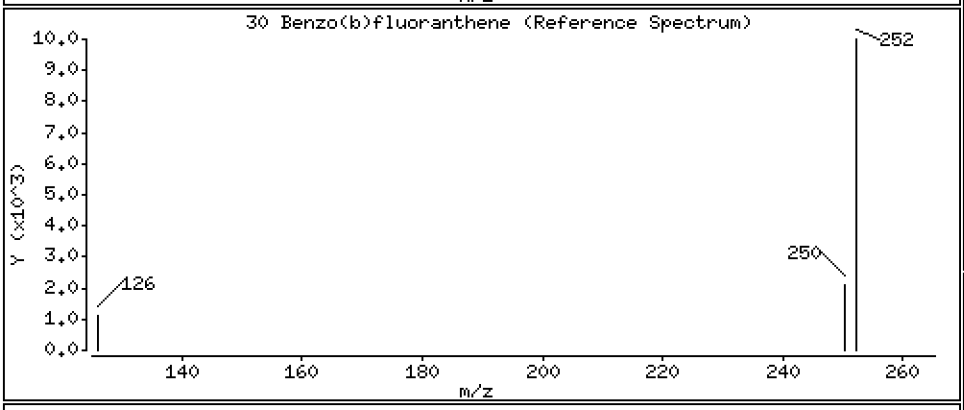
Column diameter: 0.25

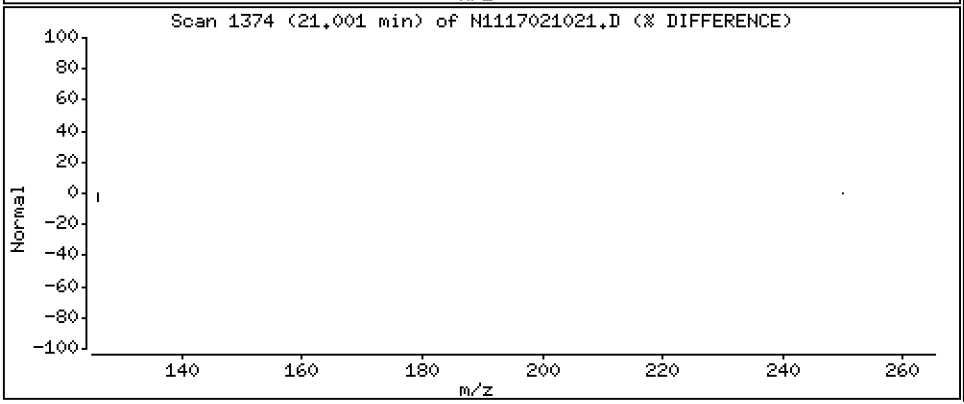
30 Benzo(b)fluoranthene

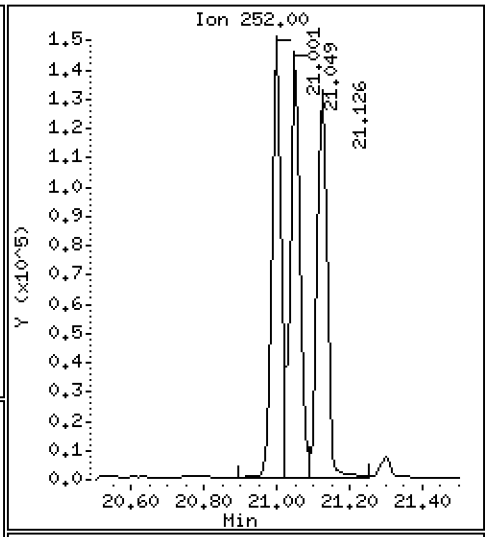
Concentration: 226 ng/mL

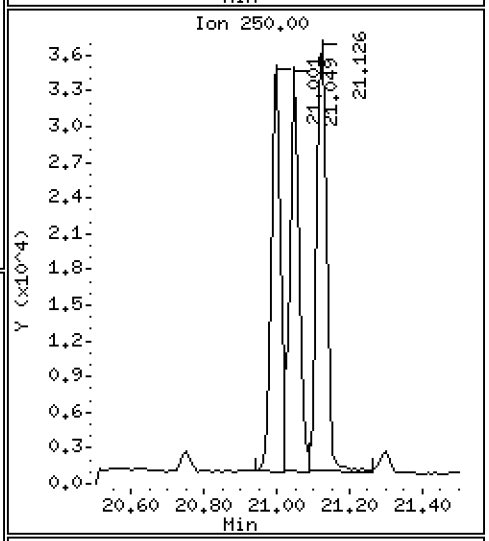


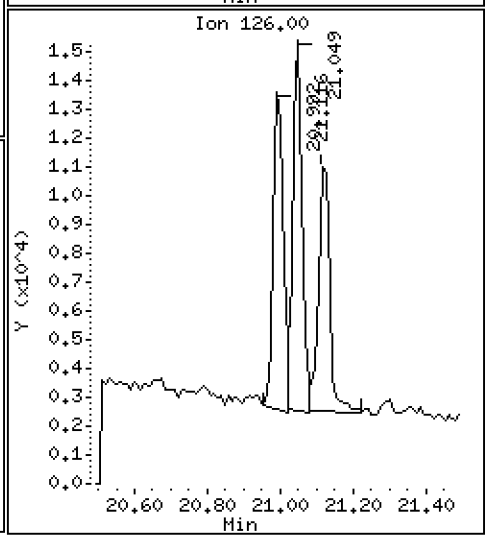












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021021.D

Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

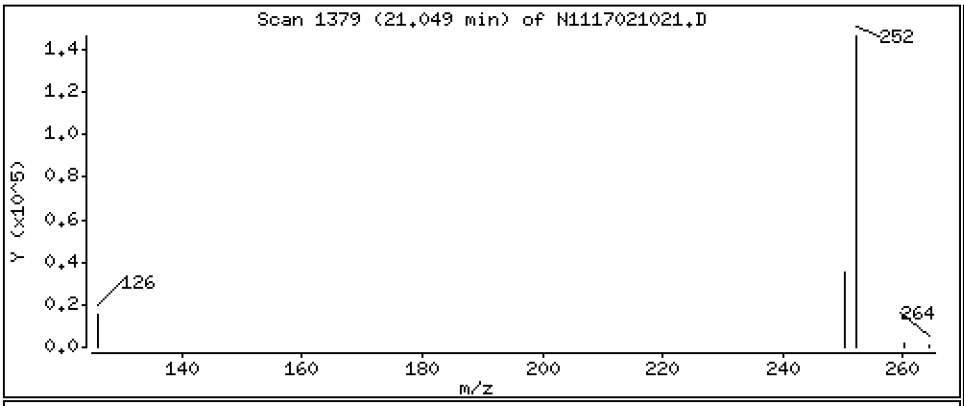
Operator: VTS

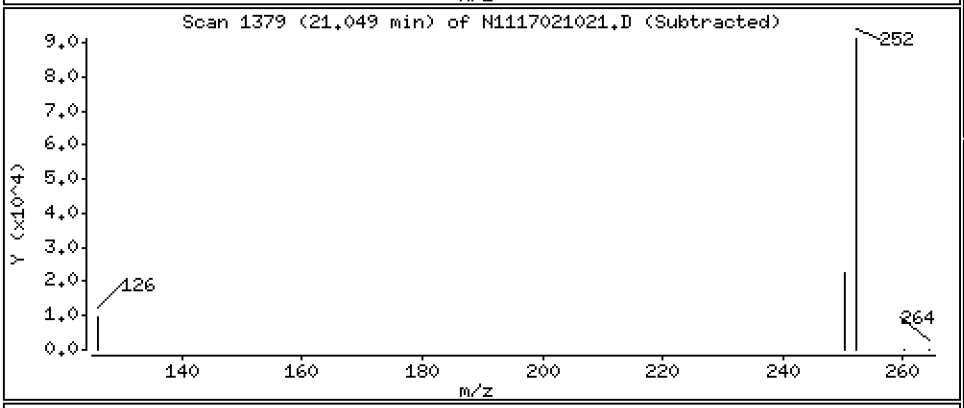
Column phase: Rxi-17Sil MS

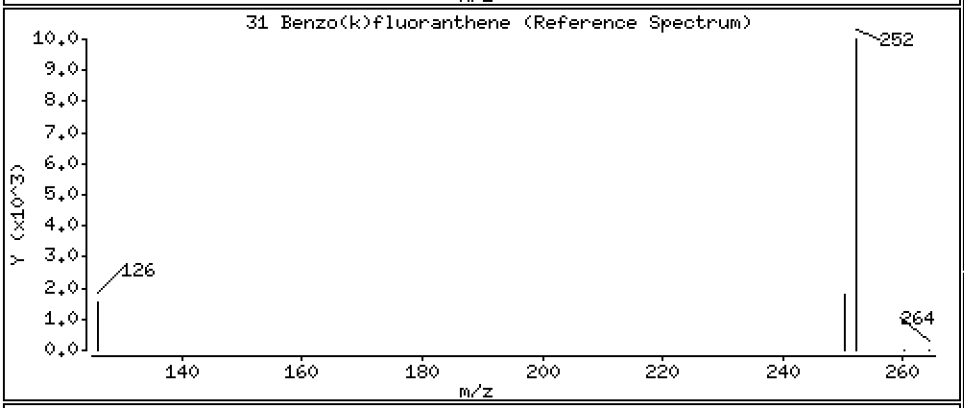
Column diameter: 0.25

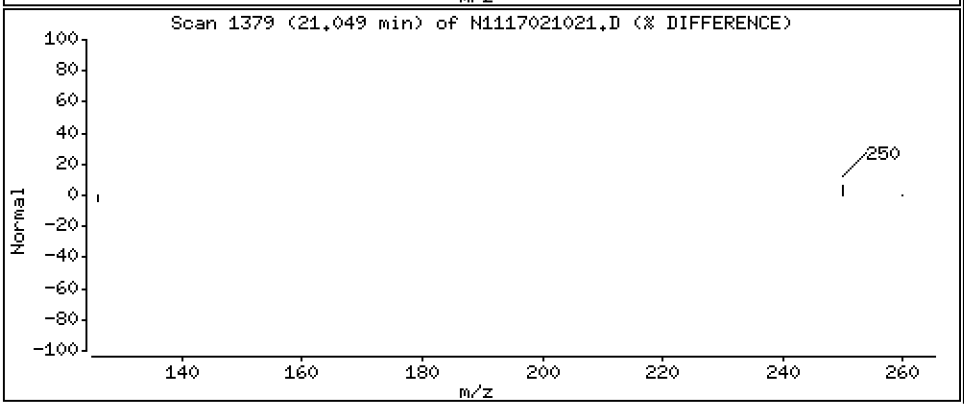
31 Benzo(k)fluoranthene

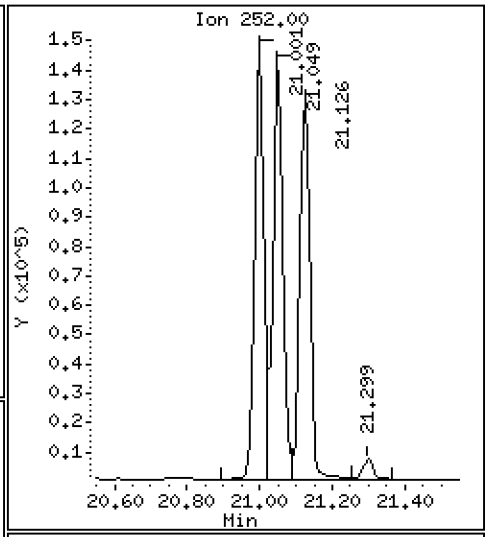
Concentration: 220 ng/mL

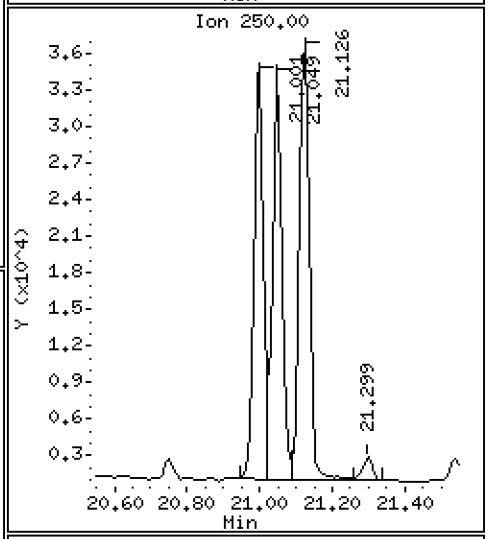


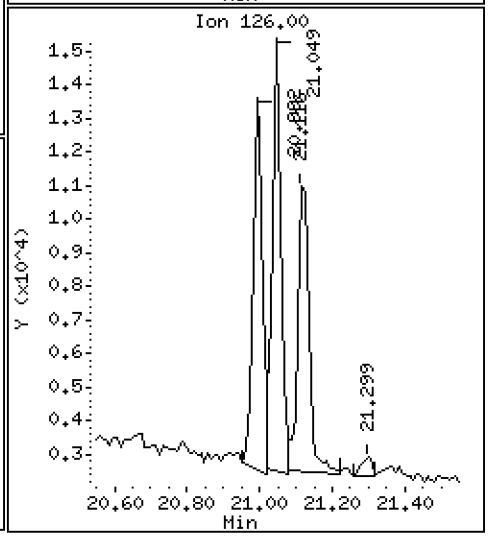












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021021.D

Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

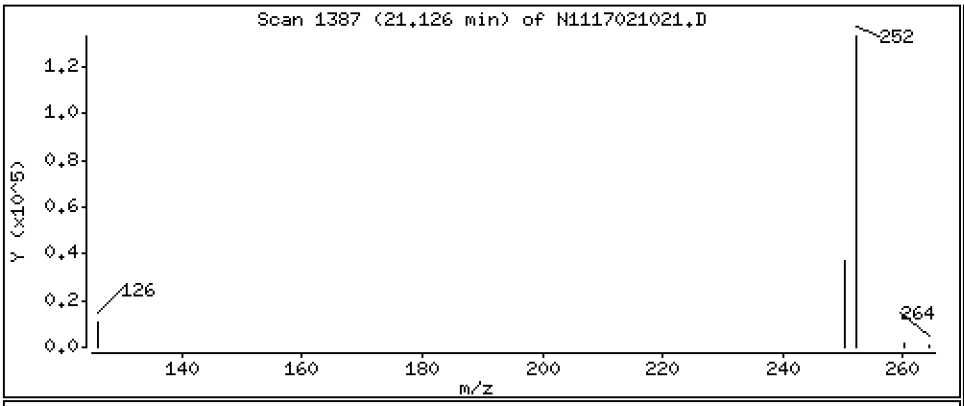
Operator: VTS

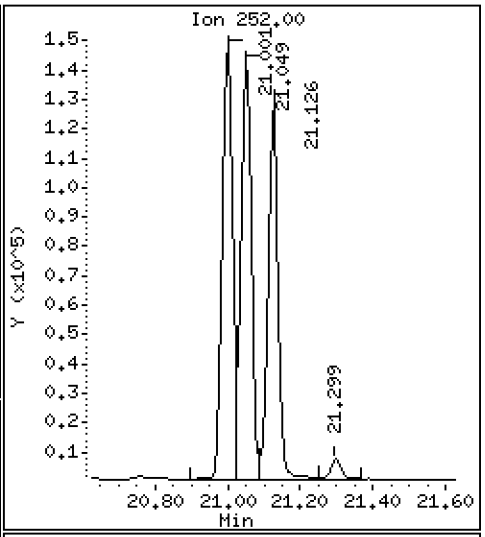
Column phase: Rxi-17Sil MS

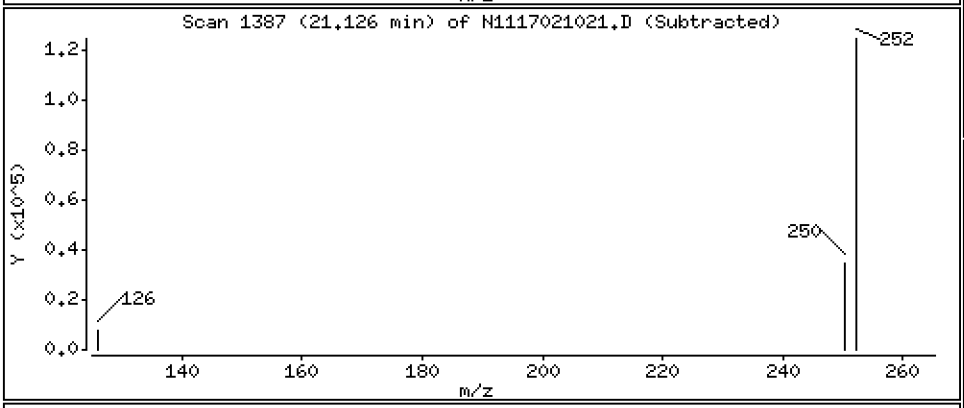
Column diameter: 0.25

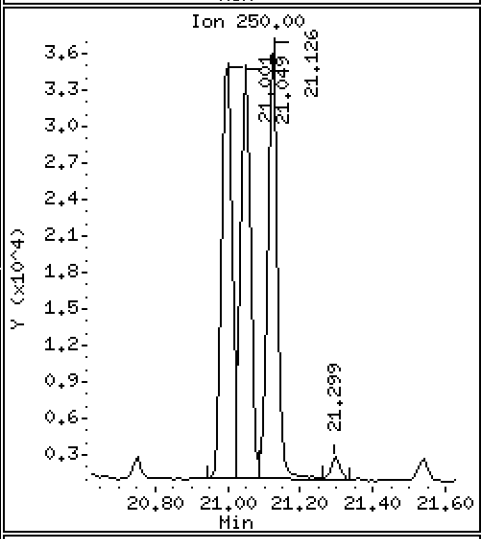
32 Benzo(j)fluoranthene

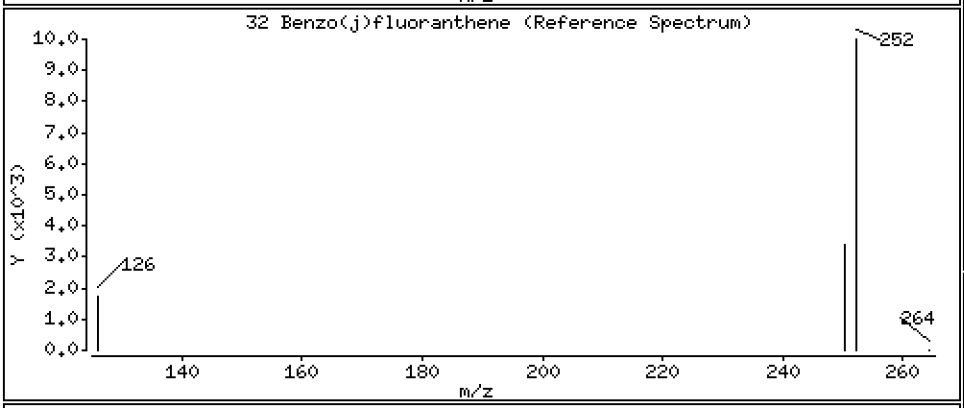
Concentration: 213 ng/mL

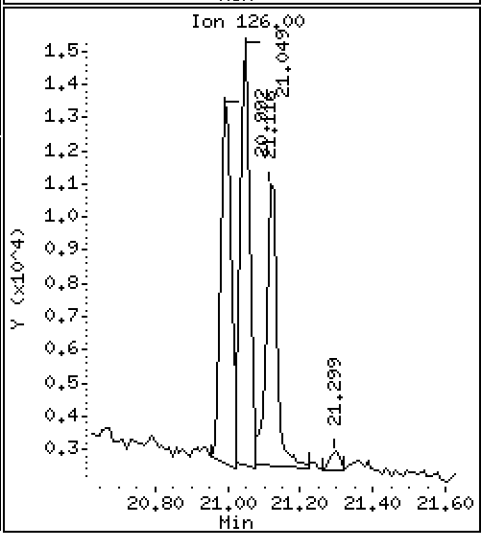


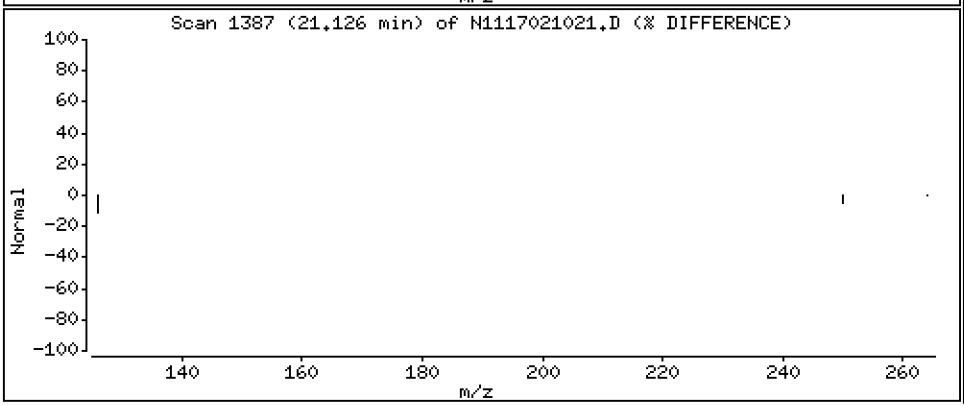












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021021.D

Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

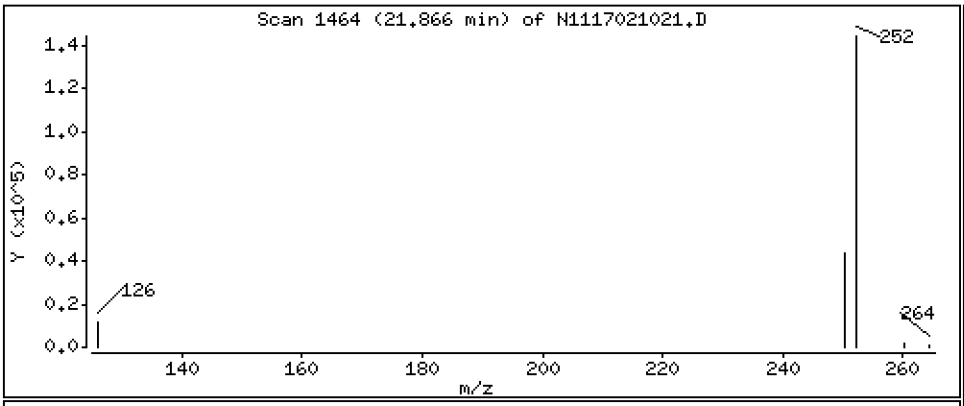
Operator: VTS

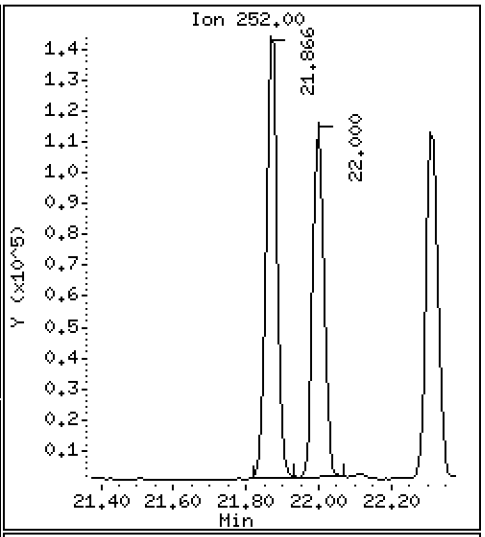
Column phase: Rxi-17Sil MS

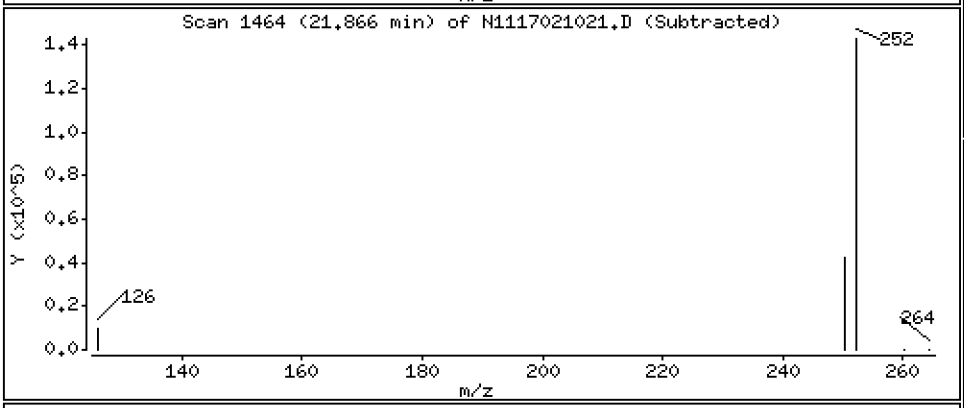
Column diameter: 0.25

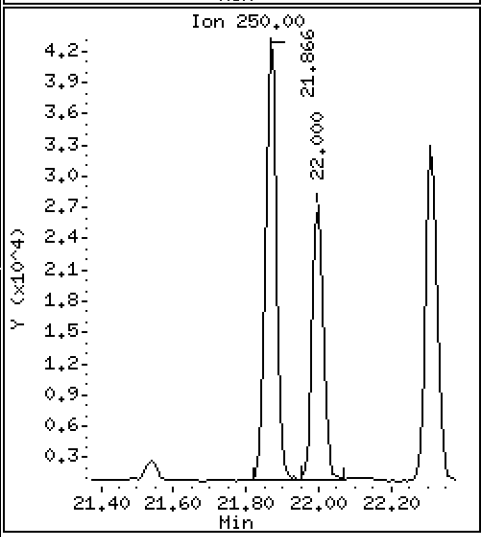
34 Benzo(e)pyrene

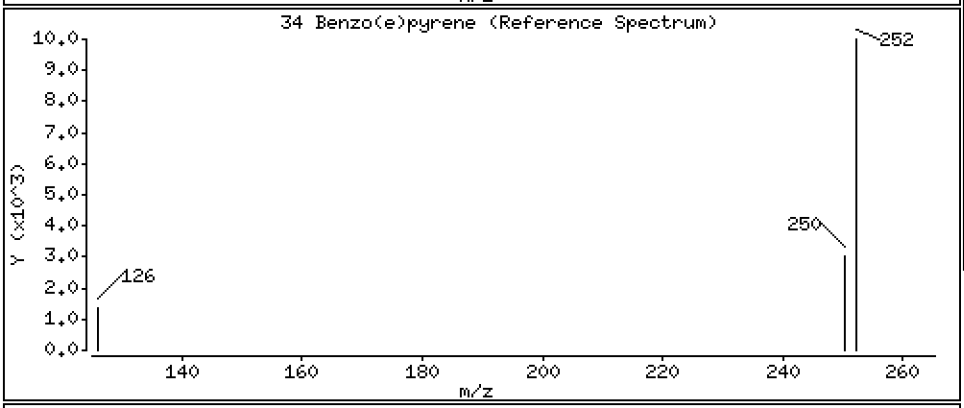
Concentration: 248 ng/mL

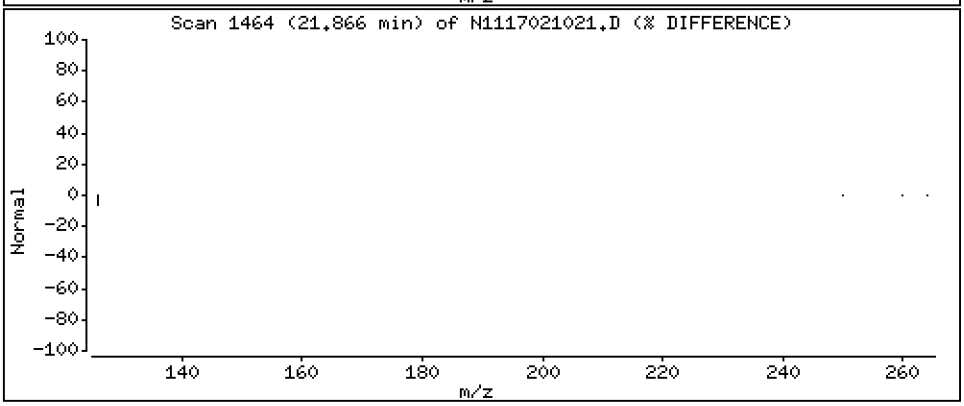












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Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

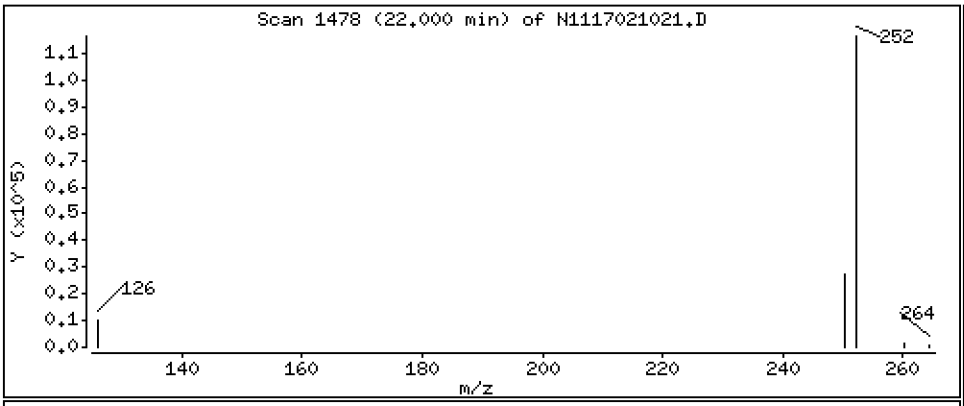
Operator: VTS

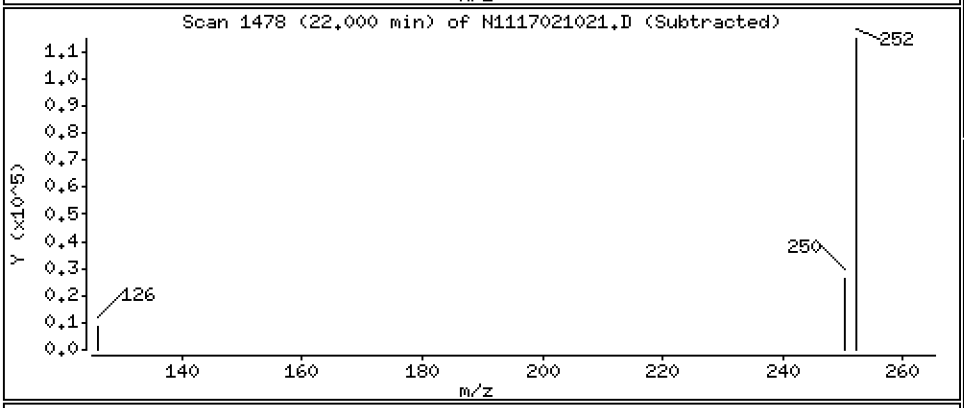
Column phase: Rxi-17Sil MS

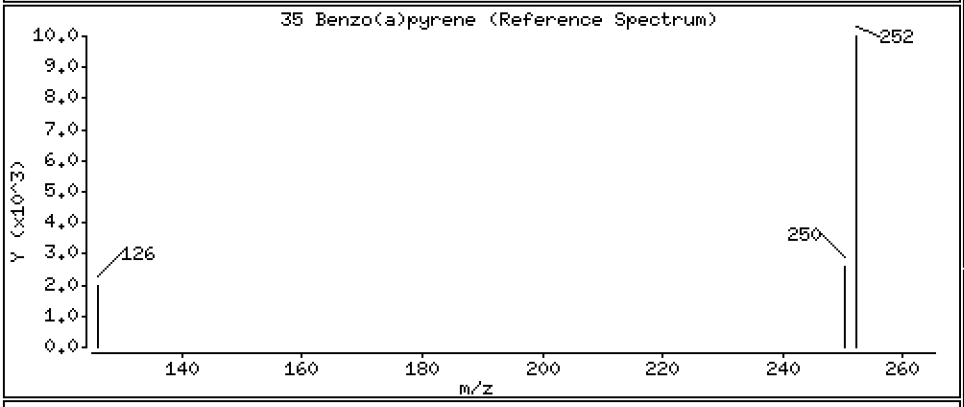
Column diameter: 0.25

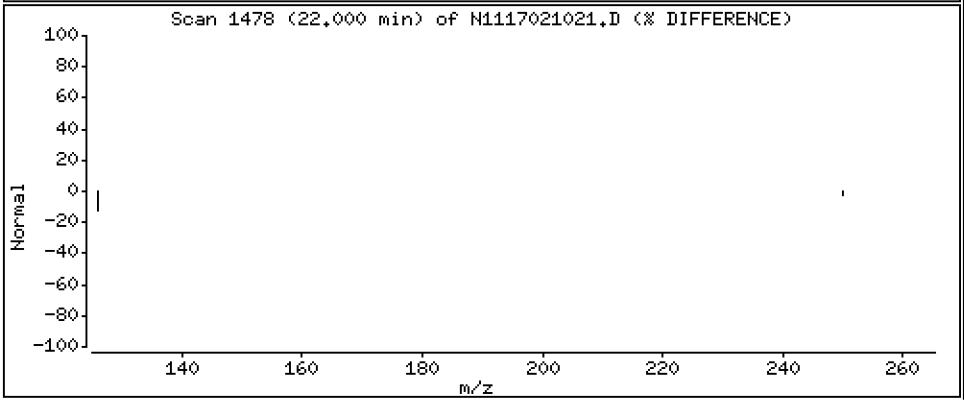
35 Benzo(a)pyrene

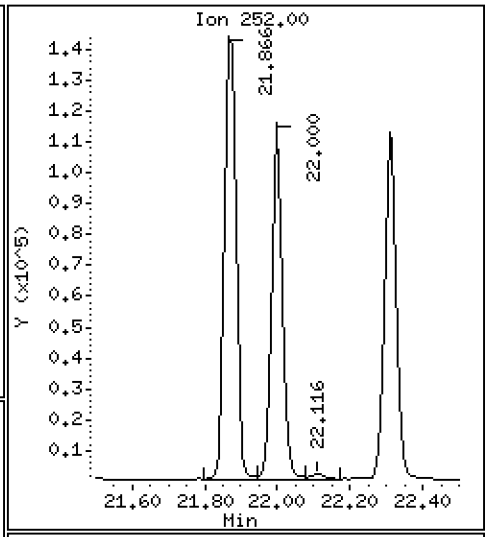
Concentration: 210 ng/mL

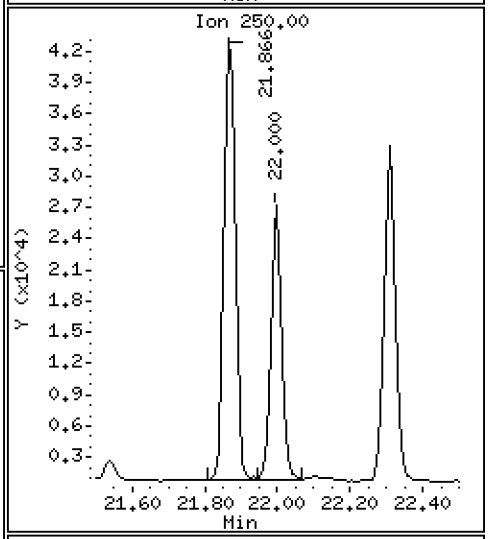


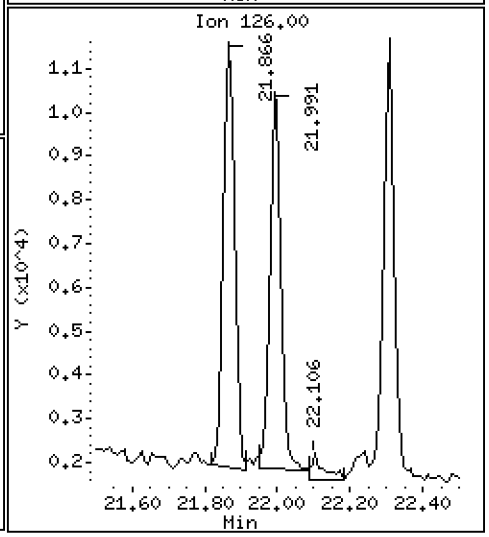












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Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

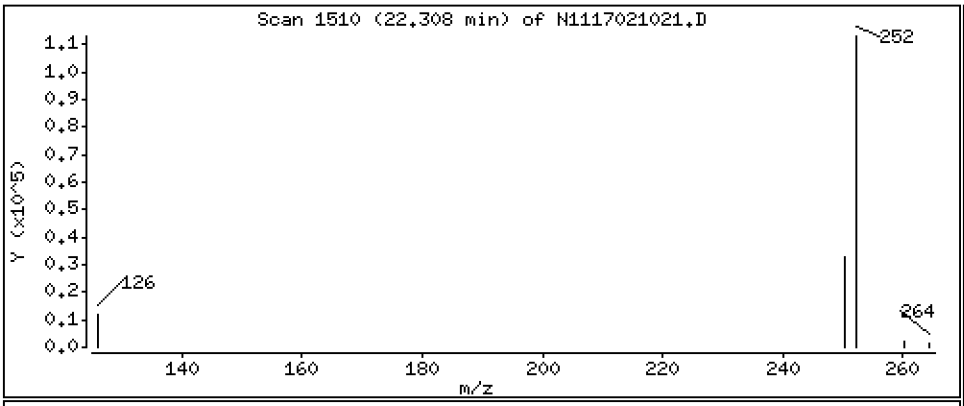
Operator: VTS

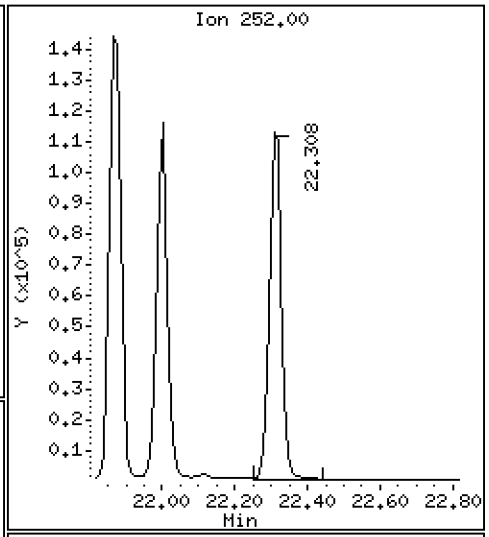
Column phase: Rxi-17Sil MS

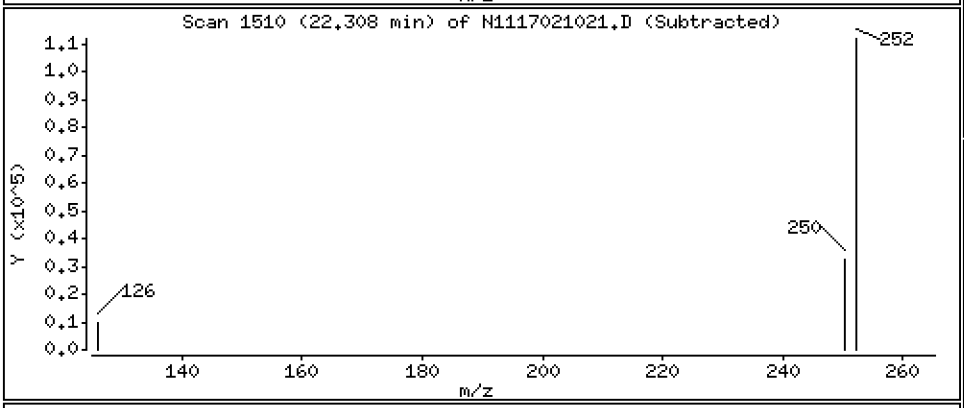
Column diameter: 0.25

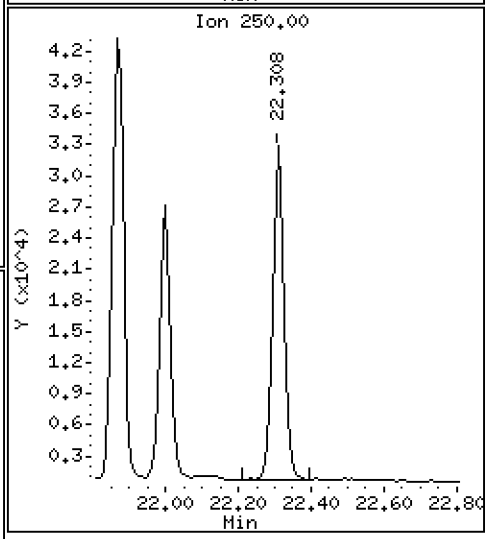
37 Perylene

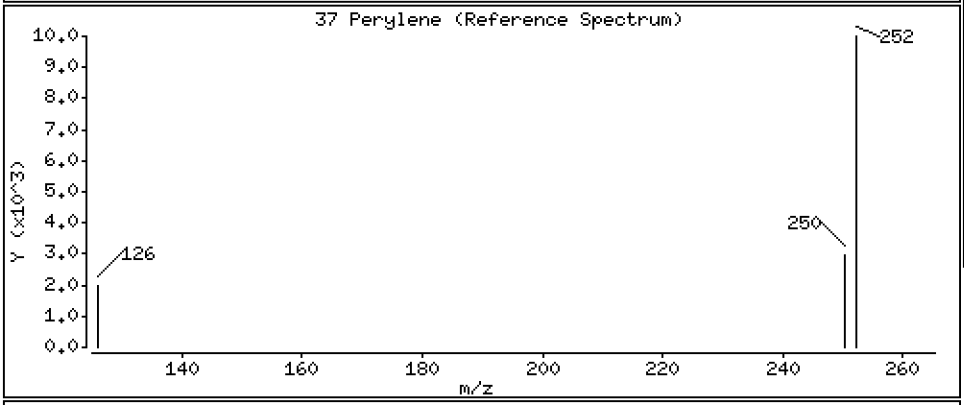
Concentration: 214 ng/mL

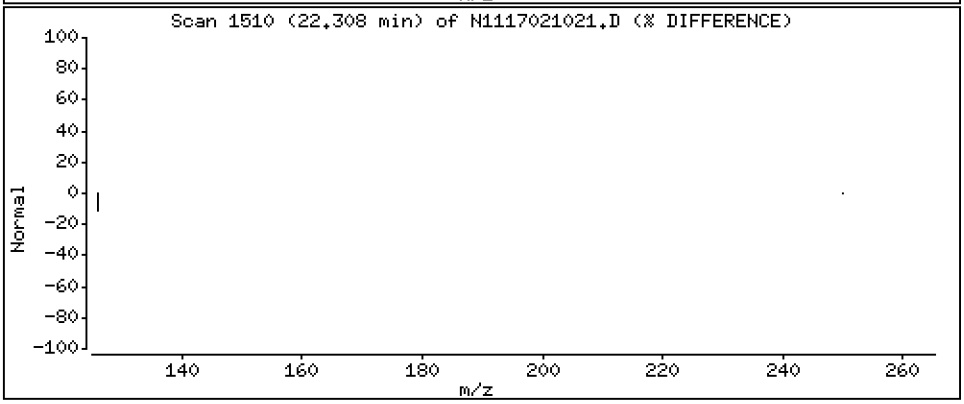












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Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

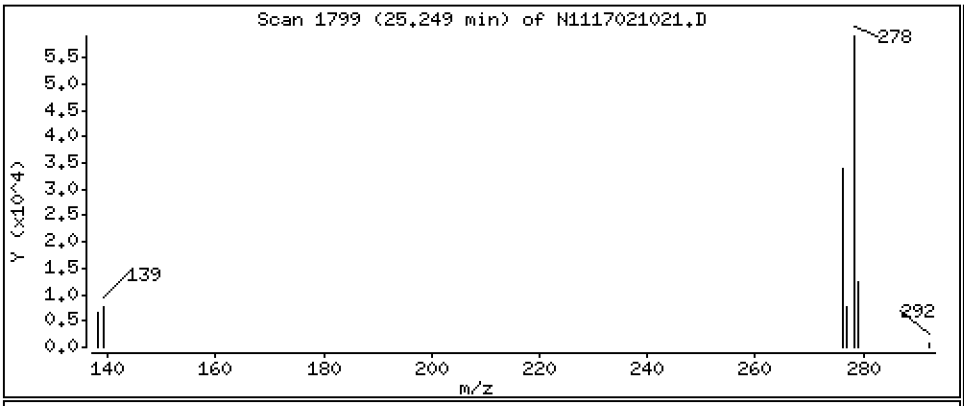
Operator: VTS

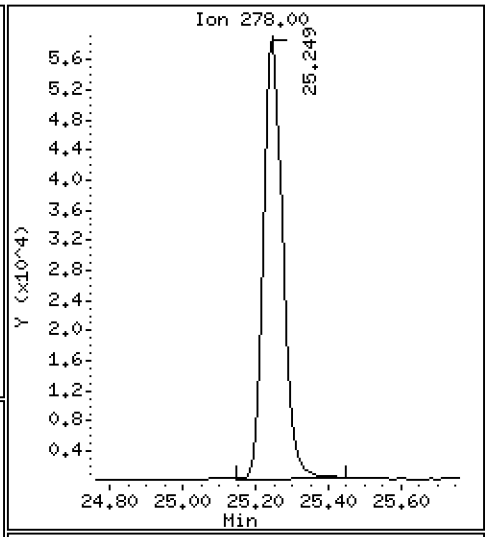
Column phase: Rxi-17Sil MS

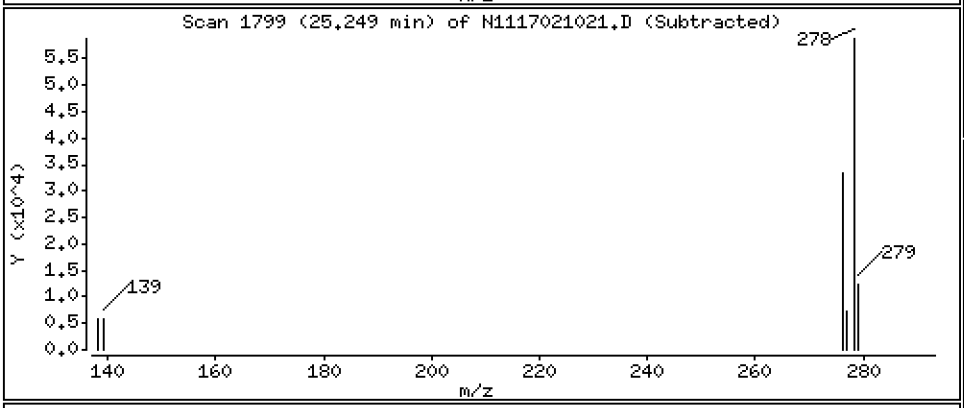
Column diameter: 0.25

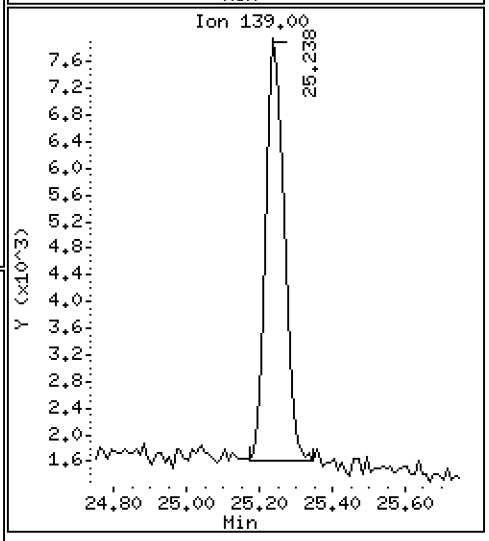
39 Dibenzo(a,h)anthracene

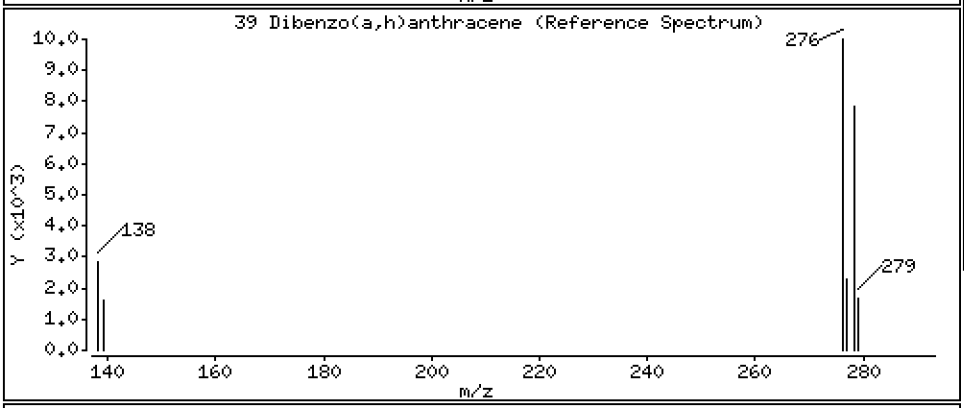
Concentration: 212 ng/mL

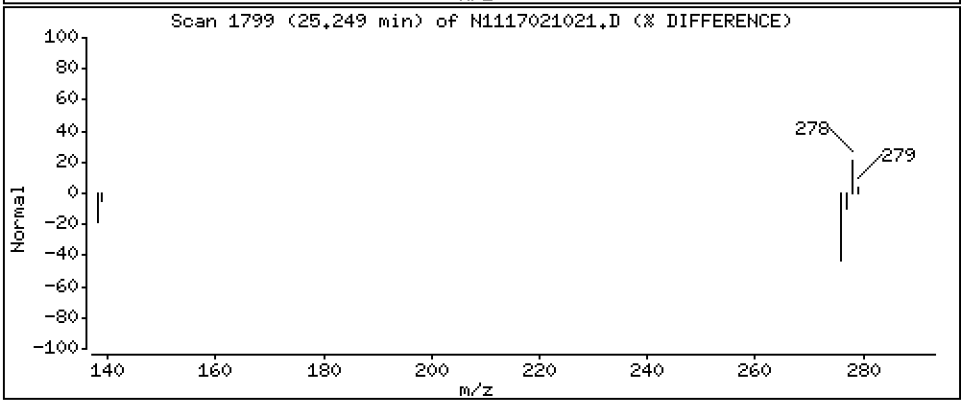












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Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

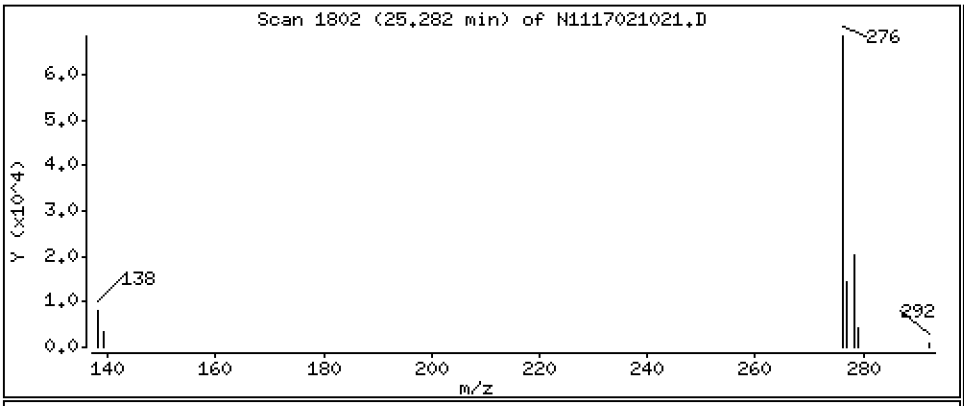
Operator: VTS

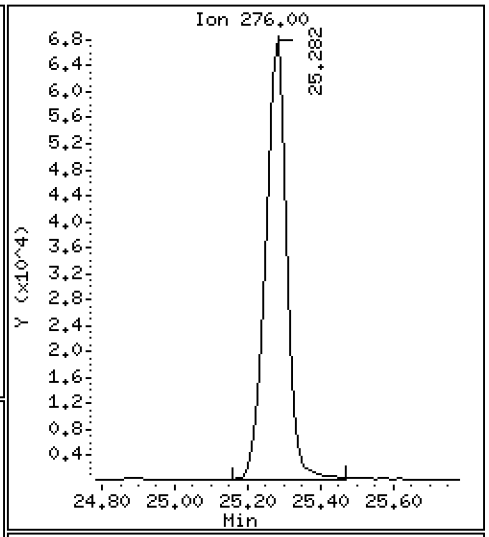
Column phase: Rxi-17Sil MS

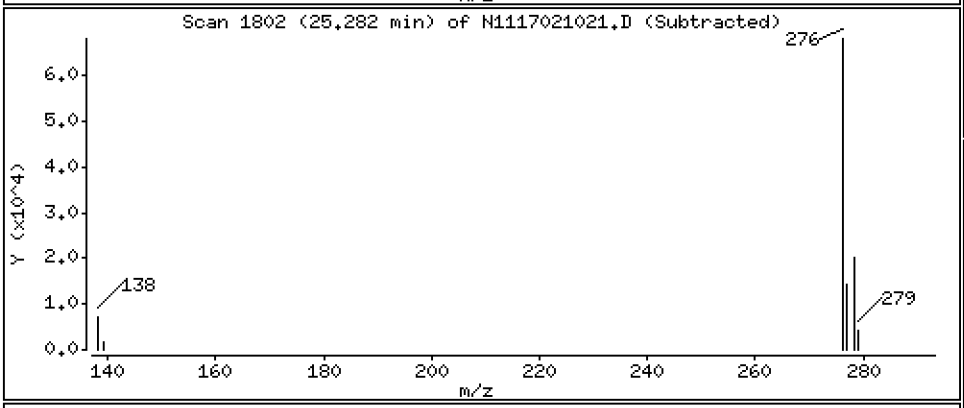
Column diameter: 0.25

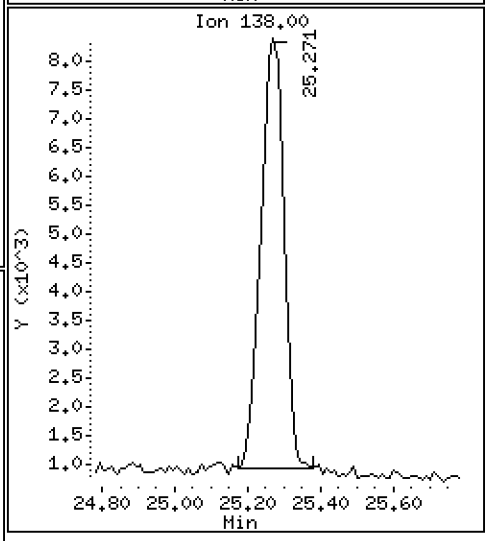
40 Indeno(1,2,3-cd)pyrene

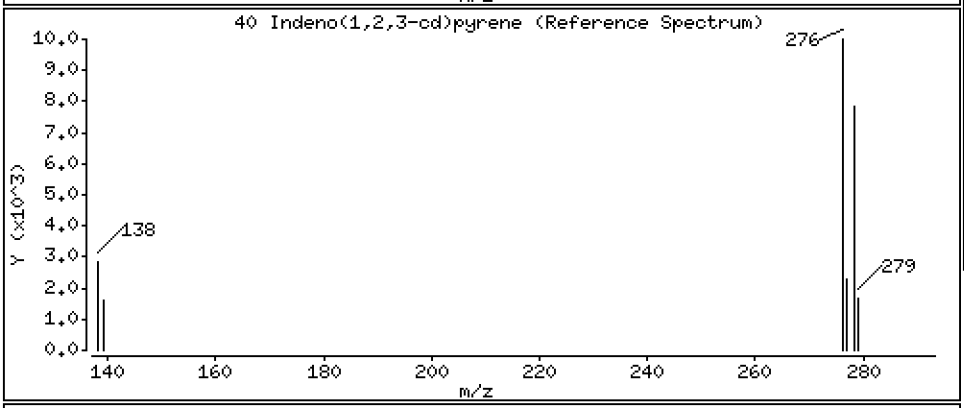
Concentration: 211 ng/mL

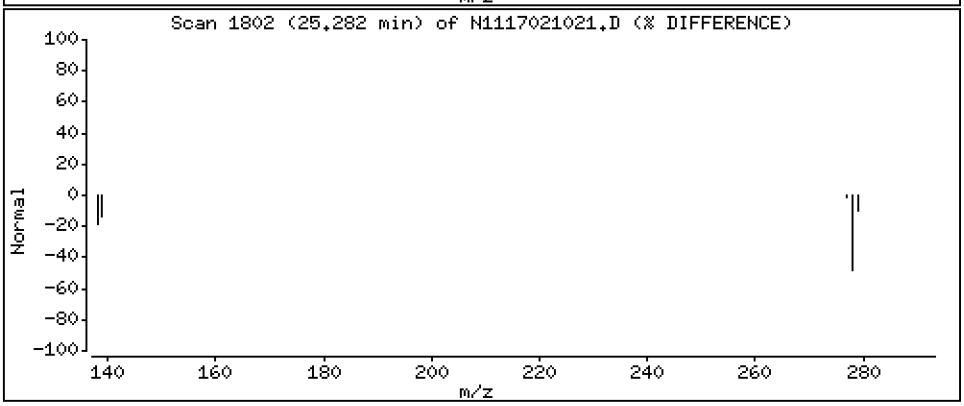












Data File: \\target\share\chem3\nt11.i\20170210.b\N1117021021.D

Date : 10-FEB-2017 22:59

Client ID:

Instrument: nt11.i

Sample Info: BFA0647-MSD1

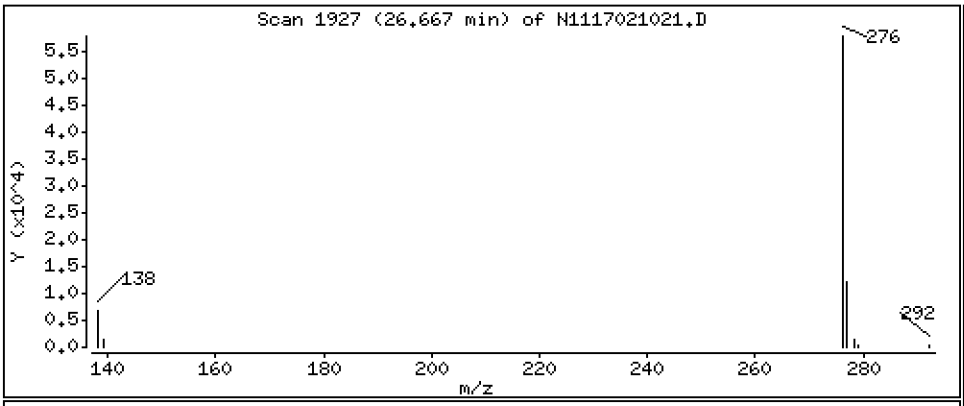
Operator: VTS

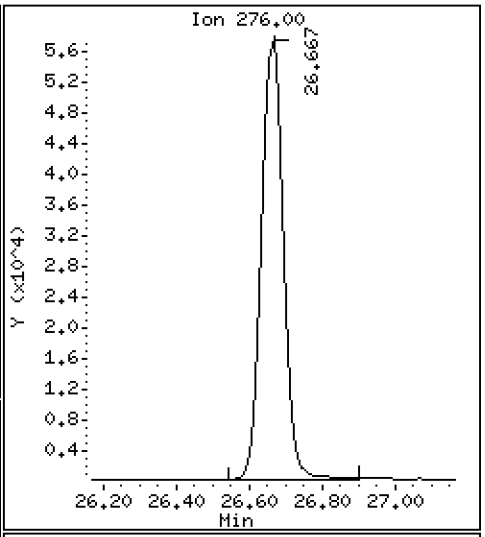
Column phase: Rxi-17Sil MS

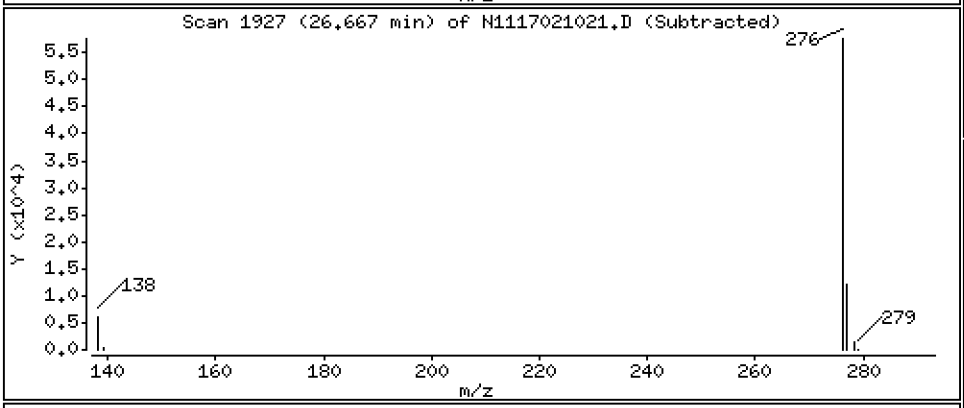
Column diameter: 0.25

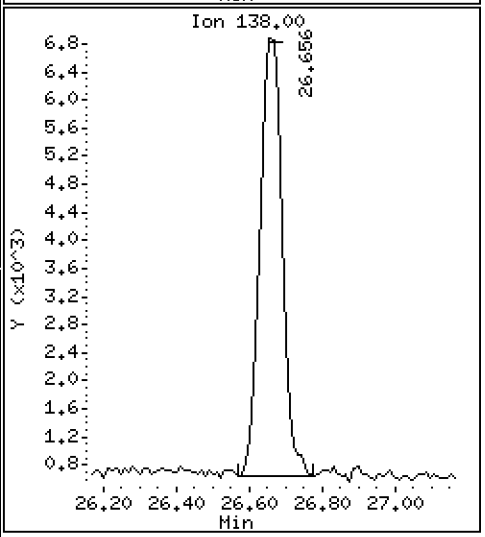
41 Benzo(g,h,i)perylene

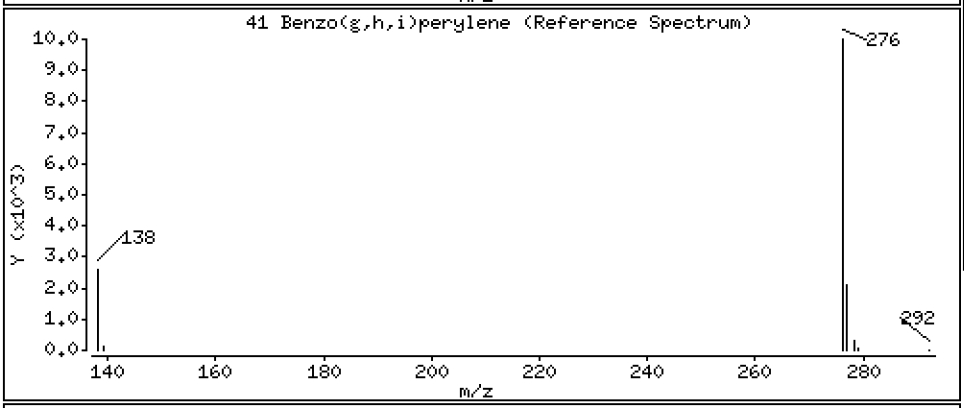
Concentration: 207 ng/mL

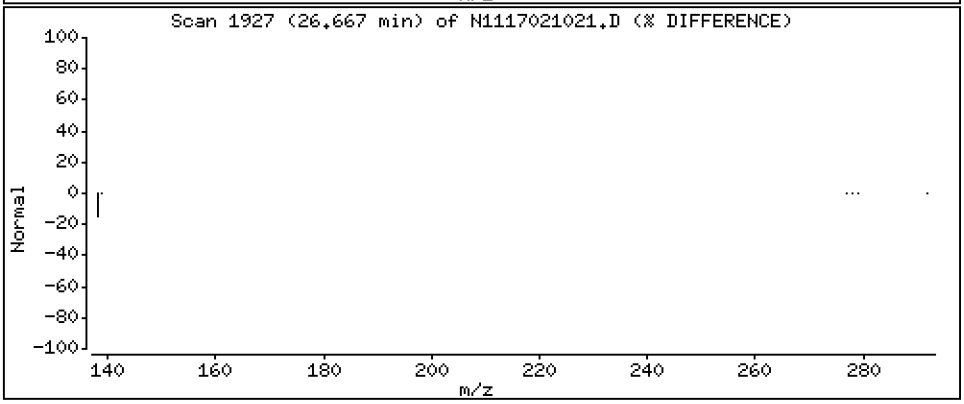












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20170210.b\N1117021021.D
Lab Smp Id: BFA0647-MSD1
Inj Date : 10-FEB-2017 22:59 MS Autotune Date: 15-JAN-2015 15:59
Operator : VTS Inst ID: nt11.i
Smp Info : BFA0647-MSD1
Misc Info :
Comment   :
Method   : \\target\share\chem3\nt11.i\20170210.b\LOWSIM.m
Meth Date : 11-Feb-2017 08:35 nt11.i Quant Type: ISTD
Cal Date : 31-DEC-2016 09:30 Cal File: N1116123104.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.518	8.526	(1.000)	226075	200.000	
	2 Naphthalene	128	8.554	8.554	(1.004)	170770	151.361	151
	3 Benzo(b)thiophene	134	8.807	8.816	(1.034)	139827	152.244	152
$	4 2-Methylnaphthalene-d10	152	9.498	9.508	(1.115)	168627	173.676	174
	5 2-Methylnaphthalene	142	9.561	9.561	(1.122)	197427	177.548	178
	6 1-Methylnaphthalene	142	9.824	9.823	(1.153)	197354	176.465	176
	7 2-Chloronaphthalene	162	10.475	10.475	(0.907)	206574	172.687	173
	8 Biphenyl	154	10.433	10.443	(0.903)	287236	180.575	181
	9 2,6-Dimethylnaphthalene	156	10.496	10.496	(0.908)	232653	188.612	189
	10 Acenaphthylene	152	11.401	11.410	(0.987)	251916	177.897	178
*	11 Acenaphthene-d10	164	11.555	11.564	(1.000)	157597	200.000	
	12 Acenaphthene	153	11.618	11.627	(1.005)	168503	180.730	181
	13 Dibenzofuran	168	11.822	11.822	(1.023)	274054	197.733	198
	14 2,3,5-Trimethylnaphthalene	170	11.911	11.923	(1.031)	185137	208.750	209
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.454	12.454	(1.078)	222608	201.753	202
	17 Dibenzothiophene	184	14.083	14.083	(0.988)	219037	191.296	191
*	18 Phenanthrene-d10	188	14.251	14.262	(1.000)	247966	200.000	
	19 Phenanthrene	178	14.293	14.293	(1.003)	358168	252.644	253
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.346	14.356	(1.007)	306295	216.682	217
	22 Carbazole	167	15.027	15.027	(1.054)	231400	148.335	148
	23 1-Methylphenanthrene	192	15.298	15.307	(1.073)	307710	211.651	212
$	24 Fluoranthene-d10	212	16.367	16.367	(1.148)	252858	191.993	192
	25 Fluoranthene	202	16.406	16.405	(1.151)	427394	265.774	266
	26 Pyrene	202	16.905	16.915	(0.889)	443289	326.223	326
	27 Benzo(a)anthracene	228	18.925	18.933	(0.995)	314855	250.314	250
*	28 Chrysene-d12	240	19.024	19.024	(1.000)	209184	200.000	
	29 Chrysene	228	19.074	19.074	(1.003)	349950	271.132	271
	30 Benzo(b)fluoranthene	252	21.001	21.001	(0.944)	280106	225.778	226
	31 Benzo(k)fluoranthene	252	21.049	21.049	(0.946)	294203	220.168	220
	32 Benzo(j)fluoranthene	252	21.126	21.125	(0.950)	253346	212.695	213
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	34 Benzo(e)pyrene	252	21.865	21.875	(0.983)	307414	248.410	248
	35 Benzo(a)pyrene	252	22.000	22.000	(0.989)	242647	209.798	210
*	36 Perylene-d12	264	22.240	22.240	(1.000)	230152	200.000	
	37 Perylene	252	22.307	22.317	(1.003)	258607	214.155	214
$	38 Dibenzo(a,h)anthracene-d14	292	25.105	25.116	(1.129)	153659	209.064	209
	39 Dibenzo(a,h)anthracene	278	25.249	25.260	(1.135)	214725	212.204	212
	40 Indeno(1,2,3-cd)pyrene	276	25.282	25.282	(1.137)	266156	210.782	211
	41 Benzo(g,h,i)perylene	276	26.666	26.666	(1.199)	234587	206.930	207

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: N1117021021.D
Lab Smp Id: BFA0647-MSD1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20170210.b\LOWSIM.m
Misc Info:

Calibration Date: 10-FEB-2017
Calibration Time: 13:29
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	219654	109827	439308	226075	2.92
11 Acenaphthene-d10	135248	67624	270496	157597	16.52
18 Phenanthrene-d10	257021	128511	514042	247966	-3.52
28 Chrysene-d12	259511	129756	519022	209184	-19.39
36 Perylene-d12	257535	128768	515070	230152	-10.63

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.53	8.03	9.03	8.52	-0.10
11 Acenaphthene-d10	11.56	11.06	12.06	11.56	-0.08
18 Phenanthrene-d10	14.26	13.76	14.76	14.25	-0.07
28 Chrysene-d12	19.02	18.52	19.52	19.02	0.00
36 Perylene-d12	22.24	21.74	22.74	22.24	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1117021021.D

Lab ID: BFA0647-MSD1
nt11.i, 20170210.b\LOWSIM.m,   10-FEB-2017 22:59

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20170210.b\LOWSIM.m, allpna.sub = 3.0000

Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

MASS SPECTROMETER
INSTRUMENT PERFORMANCE CHECK
EPA 8270D-SIM

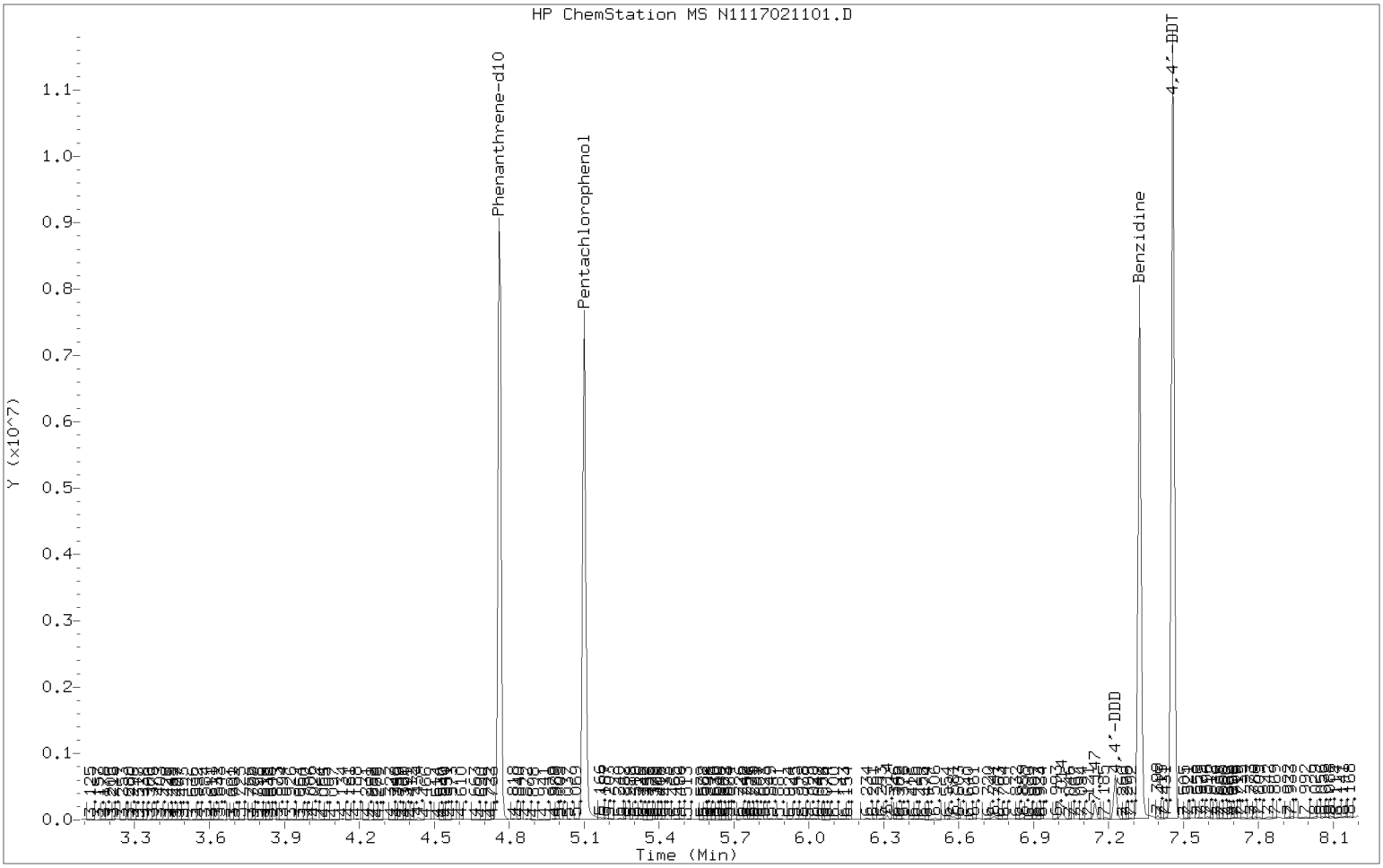
Laboratory:	Analytical Resources, Inc.	SDG:	17A0053
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Lab File ID:	N1117021101.D	Injection Date:	02/11/17
Instrument ID:	NT11	Injection Time:	10:17
Sequence:	SFB0152	Lab Sample ID:	SFB0152-TUN1

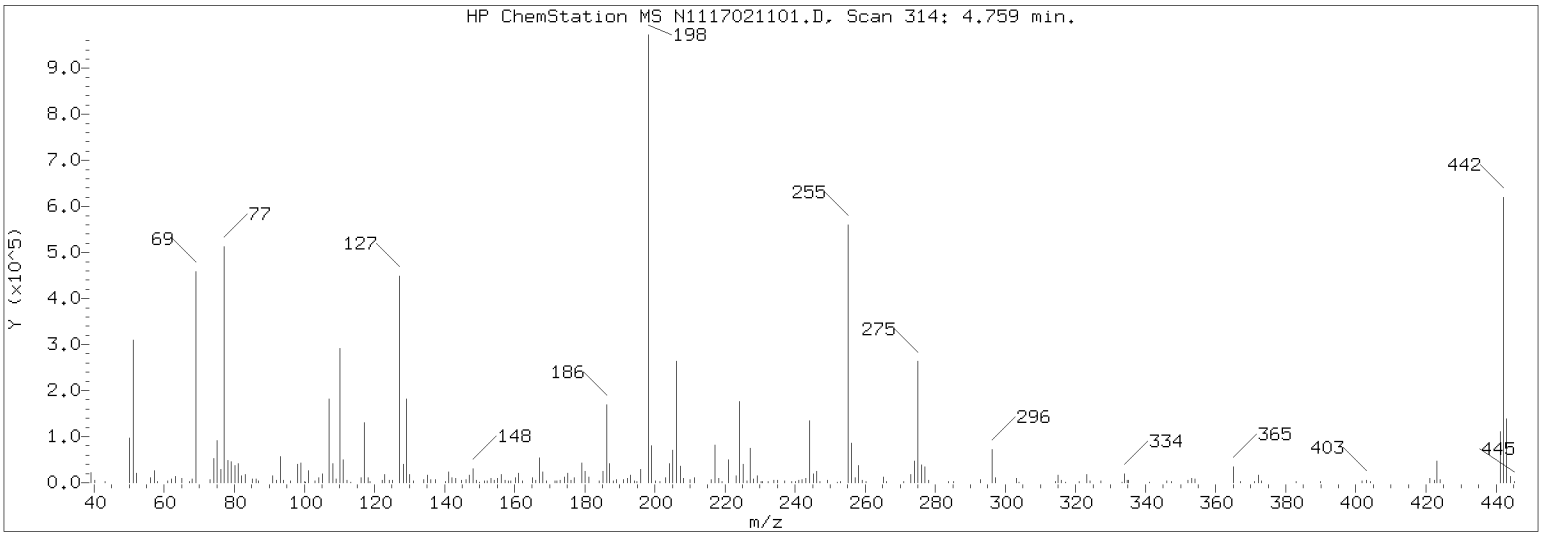
m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10 - 80% of 198	28.8	PASS
68	Less than 2% of 69	1.43	PASS
69	Less than 100% of 198	47.3	PASS
70	Less than 2% of 69	0	PASS
127	10 - 80% of 198	45.3	PASS
197	Less than 2% of 198	0.298	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	8.1	PASS
275	10 - 60% of 198	27.8	PASS
365	1 - 100% of 198	4.17	PASS
441	0.1 - 24% of 442	14.8	PASS
442	50 - 200% of 198	78.1	PASS
443	15 - 24% of 442	21.2	PASS

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
MS Tune	SFB0152-TUN1	N1117021101.D	02/11/2017	10:17
Initial Cal Check	SFB0152-ICV1	N1117021102.D	02/11/2017	10:36
PG-GP-1-MUS-170105	17A0053-10	N1117021103.D	02/11/2017	11:12
Calibration Check	SFB0152-CCV1	N1117021104.D	02/11/2017	11:47

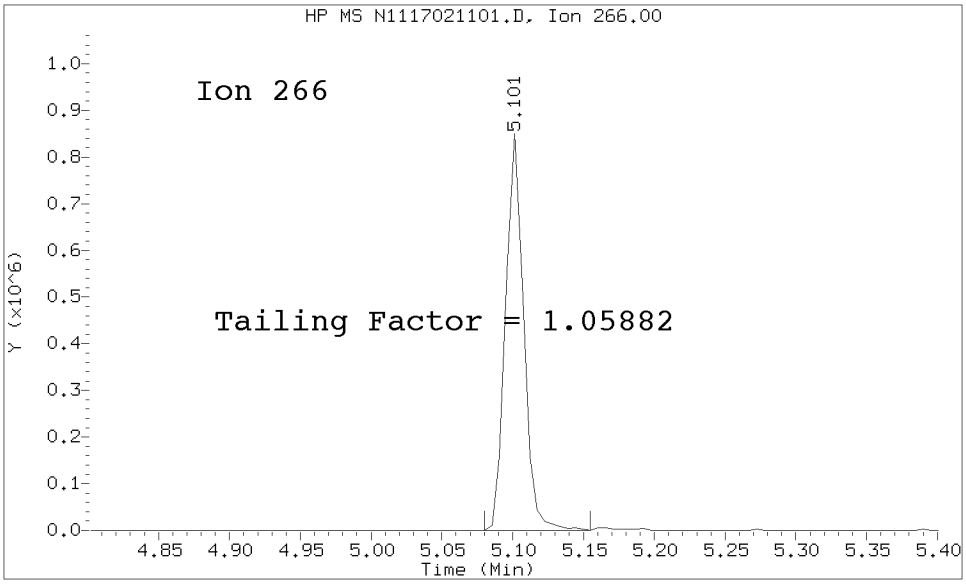
DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20170211.b/N1117021101.D/N1117021101.D
Method Used: \20170211.b\DFTPP.m Inst: nt11
Injection Date: 11-FEB-2017 10:17 Operator: VTS
Sample Info: SFB0152-TUN1 SFB0152-TUN1
Report Date: 02/11/2017 10:25



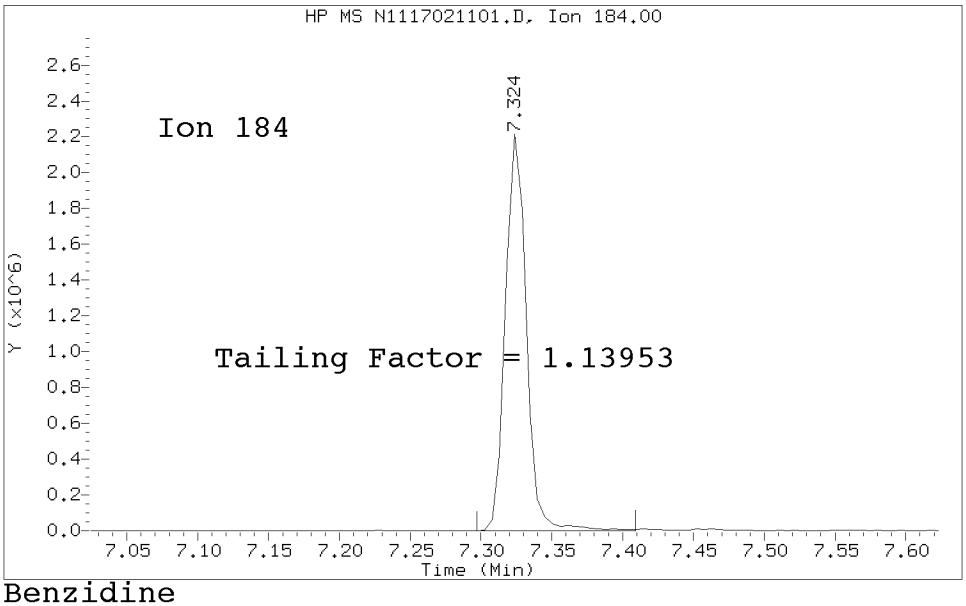


Datafile Analyzed: /20170211.b/N1117021101.D/N1117021101.D
Method Used: \20170211.b\DFTPP.m\sw846ddt.m Inst: nt11
Injection Date: 11-FEB-2017 10:17 Operator: JW
Sample Info: SFB0152-TUN1
Report Date: 02/11/2017 10:25



Pentachlorophenol
==========
 Exp. RT = 5.101
Found RT = 5.101

Tail Factor = 1.059 Maximum Allowed = 2.0



Benzidine
==========
 Exp. RT = 7.324
Found RT = 7.324

Tail Factor = 1.140 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.0588235	2.000	PASS
Benzidine	1.1395349	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	1635816			N/A
4,4-DDE	0	0.0	20.0	PASS
4,4-DDD	115997	6.6	20.0	PASS
4,4-DDD + DDE	115997	6.6	20.0	PASS

Tuning Sample, nt11.i/20170211.b/N1117021101.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	28.82
68	Less than 2.00% of mass 69	0.68 (1.43)
69	Mass 69 relative abundance	47.30
70	Less than 2.00% of mass 69	0.00 (0.00)
127	10.00 - 80.00% of mass 198	45.29
197	Less than 2.00% of mass 198	0.30
199	5.00 - 9.00% of mass 198	8.10
275	10.00 - 60.00% of mass 198	27.85
365	Greater than 1.00% of mass 198	4.17
441	0.01 - 24.00% of mass 442	11.55 (14.79)
442	50.00 - 200.00% of mass 198	78.09
443	15.00 - 24.00% of mass 442	16.57 (21.21)

Data File: N1117021101.D
Spectrum: Avg. Scans 313-315 (4.76), Background Scan 308
Location of Maximum: 198.00
Number of points: 248

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	1157	125.00	4401	196.00	21320	272.00	882
38.00	1579	127.00	336320	197.00	2216	273.00	13438
39.00	13966	128.00	25256	198.00	742528	274.00	40256
40.00	1944	129.00	144640	199.00	60112	275.00	206784
43.00	960	130.00	15159	200.00	4429	276.00	26904
49.00	862	131.00	2736	201.00	931	277.00	21832
50.00	64512	132.00	956	202.00	2731	278.00	5025
51.00	214016	133.00	1028	203.00	8939	279.00	741
52.00	14492	134.00	4856	204.00	32616	283.00	1199
55.00	696	135.00	12227	205.00	58696	284.00	1777
56.00	8469	136.00	5556	206.00	200576	285.00	3493
57.00	21112	137.00	5667	207.00	27616	293.00	7317
58.00	1659	140.00	851	208.00	7711	296.00	57808
61.00	4903	141.00	18208	209.00	2004	297.00	7032
62.00	4717	142.00	8080	210.00	4566	303.00	6587
63.00	11931	143.00	6385	211.00	11147	304.00	1498
64.00	1133	145.00	1746	215.00	1255	314.00	2798
65.00	7076	146.00	3365	216.00	5353	315.00	8421
67.00	1068	147.00	12302	217.00	60536	316.00	2724
68.00	5024	148.00	20008	218.00	6033	317.00	1361
69.00	351232	149.00	5556	219.00	812	321.00	2291
73.00	2116	150.00	670	220.00	1431	323.00	20560
74.00	43720	151.00	2197	221.00	37000	324.00	3725
75.00	70816	152.00	2329	222.00	4385	327.00	4303
76.00	20624	153.00	9291	223.00	15005	332.00	913
77.00	376256	154.00	3921	224.00	130792	333.00	2159
78.00	35536	155.00	10130	225.00	31528	334.00	14074
79.00	31504	156.00	15549	226.00	4002	335.00	7486
80.00	27256	157.00	4166	227.00	58368	341.00	2144
81.00	34136	158.00	3988	228.00	6643	346.00	3534
82.00	10418	159.00	2562	229.00	9534	347.00	2025
83.00	9184	160.00	5804	230.00	1129	352.00	6253
85.00	6919	161.00	13086	231.00	5634	353.00	6751
86.00	8510	162.00	2555	232.00	1878	354.00	6257
87.00	4459	164.00	1667	233.00	715	355.00	755
91.00	9035	165.00	8204	234.00	2706	365.00	30952
92.00	5168	166.00	4432	235.00	4417	366.00	1366
93.00	46472	167.00	40256	236.00	1795	367.00	773
94.00	3343	168.00	15056	237.00	2829	371.00	1839
95.00	956	169.00	3507	238.00	983	372.00	11032
96.00	1431	171.00	2090	239.00	2889	373.00	2022
98.00	31936	172.00	3167	240.00	711	383.00	2183
99.00	28760	173.00	3149	241.00	2890	384.00	703
100.00	1468	174.00	7927	242.00	5601	390.00	1893
101.00	18072	175.00	14678	243.00	8132	402.00	3948
103.00	3725	176.00	4239	244.00	102872	403.00	4871
104.00	8727	177.00	6464	245.00	12169	404.00	3114
105.00	10796	178.00	738	246.00	20440	421.00	7949
106.00	2930	179.00	31424	247.00	3577	422.00	4489

107.00	130144	180.00	20176	249.00	2767	423.00	41104
108.00	24760	181.00	10698	251.00	970	424.00	5946
109.00	3961	184.00	2917	252.00	671	426.00	875
110.00	209024	185.00	16215	253.00	3212	429.00	1454
111.00	35824	186.00	125760	254.00	2643	435.00	835
112.00	4061	187.00	31968	255.00	426368	441.00	85776
113.00	1569	188.00	4221	256.00	76408	442.00	579840
116.00	6968	189.00	5912	257.00	5371	443.00	123000
117.00	98248	190.00	729	258.00	28400	444.00	13198
118.00	8037	191.00	4517	259.00	4409	445.00	718
119.00	788	192.00	10188	260.00	819		
122.00	6089	193.00	12353	265.00	9162		
123.00	13878	194.00	3727	266.00	802		
124.00	4621	195.00	1710	271.00	762		

Analytical Resources, Incorporated
Analytical Chemists and Consultants

MASS SPECTROMETER
INSTRUMENT PERFORMANCE CHECK
EPA 8270D-SIM

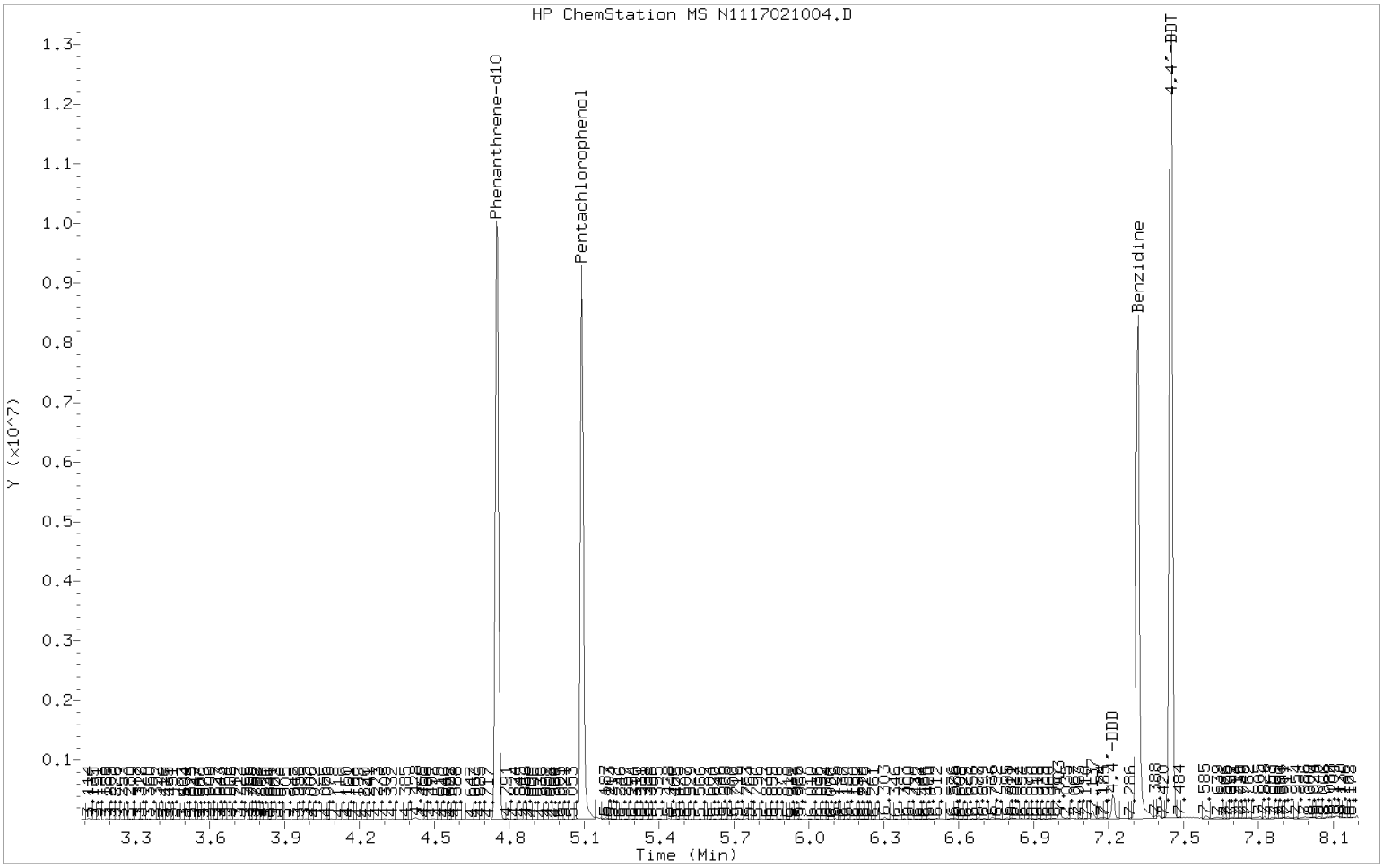
Laboratory:	Analytical Resources, Inc.	SDG:	17A0053
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Lab File ID:	N1117021004.D	Injection Date:	02/10/17
Instrument ID:	NT11	Injection Time:	13:08
Sequence:	SFB0130	Lab Sample ID:	SFB0130-TUN1

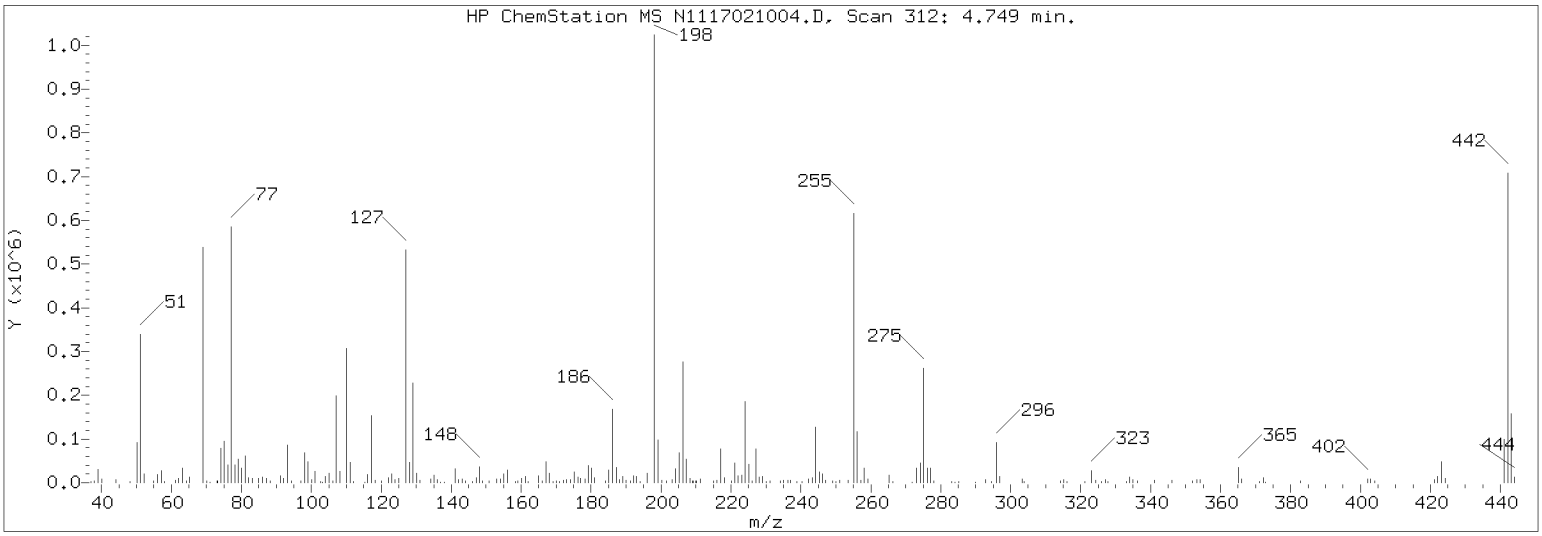
m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10 - 80% of 198	32.2	PASS
68	Less than 2% of 69	1.17	PASS
69	Less than 100% of 198	50.5	PASS
70	Less than 2% of 69	0.59	PASS
127	10 - 80% of 198	49.5	PASS
197	Less than 2% of 198	0	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	8.25	PASS
275	10 - 60% of 198	26.4	PASS
365	1 - 100% of 198	3.86	PASS
441	0.1 - 24% of 442	16	PASS
442	50 - 200% of 198	77.8	PASS
443	15 - 24% of 442	22.8	PASS

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
MS Tune	SFB0130-TUN1	N1117021004.D	02/10/2017	13:08
Initial Cal Check	SFB0130-ICV1	N1117021005.D	02/10/2017	13:29
Blank	BFA0647-BLK1	N1117021007.D	02/10/2017	14:40
LCS	BFA0647-BS1	N1117021008.D	02/10/2017	15:16
ZZZZZ	16K0124-01	N1117021009.D	02/10/2017	15:52
PG-SMA1-1-MUS-170105	17A0053-01	N1117021010.D	02/10/2017	16:27
PG-SMA2-1-MUS-170105	17A0053-04	N1117021011.D	02/10/2017	17:03
PG-SMA2-2-MUS-170105	17A0053-05	N1117021012.D	02/10/2017	17:39
PG-SMA2-3-MUS-170105	17A0053-06	N1117021013.D	02/10/2017	18:14
PG-SMA2-4-MUS-170105	17A0053-07	N1117021014.D	02/10/2017	18:50
PG-SMA2-5-MUS-170105	17A0053-08	N1117021015.D	02/10/2017	19:25
PG-PJ-1-MUS-170105	17A0053-09	N1117021016.D	02/10/2017	20:01
PG-WS-1-MUS-170105	17A0053-11	N1117021018.D	02/10/2017	21:12
PG-SMA1-2-3-MUS-17010	17A0053-12	N1117021019.D	02/10/2017	21:48
Matrix Spike	BFA0647-MS1	N1117021020.D	02/10/2017	22:23
Matrix Spike Dup	BFA0647-MSD1	N1117021021.D	02/10/2017	22:59
Calibration Check	SFB0130-CCV1	N1117021022.D	02/10/2017	23:35

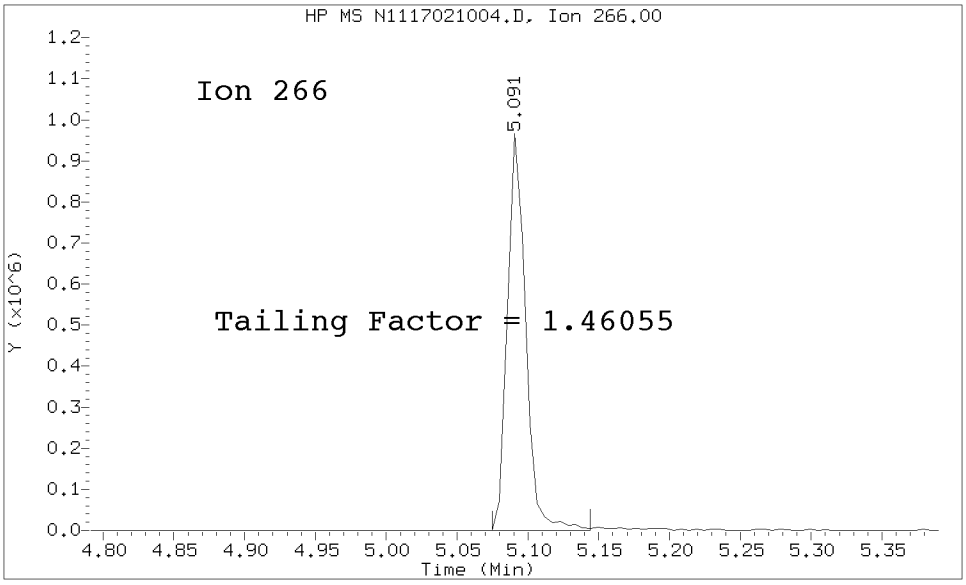
DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20170210.b/N1117021004.D/N1117021004.D
Method Used: \20170210.b\DFTPP.m Inst: nt11
Injection Date: 10-FEB-2017 13:08 Operator: VTS
Sample Info: SFB0130-TUN1 SFB0130-TUN1
Report Date: 02/10/2017 13:22



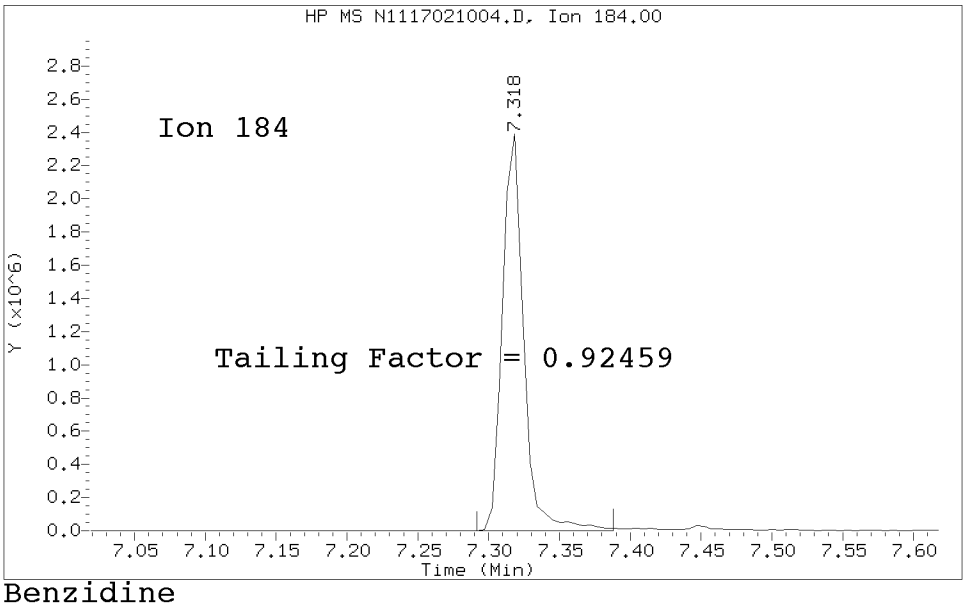


Datafile Analyzed: /20170210.b/N1117021004.D/N1117021004.D
Method Used: \20170210.b\DFTPP.m\sw846ddt.m Inst: nt11
Injection Date: 10-FEB-2017 13:08 Operator: JW
Sample Info: SFB0130-TUN1
Report Date: 02/10/2017 13:22



Pentachlorophenol
==========
 Exp. RT = 5.091
Found RT = 5.091

Tail Factor = 1.461 Maximum Allowed = 2.0



Benzidine
==========
 Exp. RT = 7.318
Found RT = 7.318

Tail Factor = 0.925 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.4605475	2.000	PASS
Benzidine	0.9245902	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	1909959			N/A
4,4-DDE	0	0.0	20.0	PASS
4,4-DDD	65124	3.3	20.0	PASS
4,4-DDD + DDE	65124	3.3	20.0	PASS

Tuning Sample, nt11.i/20170210.b/N1117021004.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	32.25
68	Less than 2.00% of mass 69	0.59 (1.17)
69	Mass 69 relative abundance	50.52
70	Less than 2.00% of mass 69	0.30 (0.59)
127	10.00 - 80.00% of mass 198	49.50
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	8.25
275	10.00 - 60.00% of mass 198	26.43
365	Greater than 1.00% of mass 198	3.86
441	0.01 - 24.00% of mass 442	12.46 (16.01)
442	50.00 - 200.00% of mass 198	77.79
443	15.00 - 24.00% of mass 442	17.76 (22.83)

Data File: N1117021004.D
Spectrum: Avg. Scans 311-313 (4.75), Background Scan 306
Location of Maximum: 198.00
Number of points: 256

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	1112	124.00	5327	199.00	67408	284.00	2629
38.00	3388	125.00	7215	200.00	5534	285.00	2459
39.00	22392	127.00	404480	201.00	2687	290.00	1612
43.00	682	128.00	39192	202.00	1347	292.00	815
44.00	2434	129.00	167040	203.00	7971	293.00	5695
48.00	763	130.00	13635	204.00	37280	294.00	2765
49.00	1388	131.00	4979	205.00	59656	295.00	1716
50.00	64376	134.00	6947	206.00	223168	296.00	68176
51.00	263488	135.00	12693	207.00	34656	297.00	11736
52.00	12367	136.00	7506	208.00	8855	298.00	753
55.00	2222	137.00	5835	209.00	5207	302.00	1190
56.00	12085	138.00	676	210.00	7572	303.00	8742
57.00	21528	140.00	884	211.00	9542	304.00	966
58.00	911	141.00	22016	215.00	3860	306.00	826
61.00	3551	142.00	6307	216.00	6472	314.00	3381
62.00	5999	143.00	4726	217.00	68328	315.00	7285
63.00	20632	144.00	2765	218.00	11061	316.00	3170
64.00	1454	146.00	2286	220.00	2443	317.00	712
65.00	9453	147.00	11927	221.00	41752	321.00	3119
68.00	4816	148.00	24160	222.00	11136	323.00	26048
69.00	412800	149.00	4182	223.00	18824	324.00	4622
70.00	2434	151.00	2506	224.00	149120	326.00	1146
71.00	709	153.00	6030	225.00	33584	327.00	5126
73.00	5947	154.00	5449	226.00	3161	328.00	2330
74.00	53128	155.00	13283	227.00	63456	332.00	2013
75.00	71008	156.00	20208	228.00	10071	333.00	1086
76.00	24624	157.00	1103	229.00	11696	334.00	15143
77.00	450432	158.00	3369	230.00	2508	335.00	4284
78.00	33960	159.00	3623	231.00	2769	336.00	1331
79.00	40216	160.00	6217	234.00	3441	341.00	2797
80.00	24872	161.00	10286	235.00	3920	346.00	4645
81.00	42200	162.00	2602	236.00	3821	352.00	3596
82.00	7059	165.00	9010	237.00	5195	353.00	6698
83.00	8376	166.00	6622	239.00	2496	354.00	6808
85.00	8268	167.00	42568	240.00	2578	355.00	765
86.00	9981	168.00	18328	241.00	3632	360.00	851
87.00	4336	169.00	2247	242.00	8334	365.00	31528
88.00	2738	170.00	2894	243.00	8173	366.00	4277
89.00	731	171.00	1108	244.00	101584	371.00	1592
91.00	10217	172.00	4512	245.00	15899	372.00	11666
92.00	10218	173.00	6041	246.00	19488	373.00	2352
93.00	63136	174.00	7358	247.00	4089	383.00	2427
94.00	2771	175.00	16085	249.00	3981	384.00	696
97.00	2493	176.00	6468	250.00	1761	391.00	1149
98.00	45304	177.00	9300	251.00	2017	392.00	720
99.00	35264	178.00	8422	253.00	2423	402.00	6785
100.00	4052	179.00	32344	254.00	3507	403.00	7205
101.00	18472	180.00	28536	255.00	497536	404.00	3648
103.00	5644	181.00	8094	256.00	92576	405.00	689

104.00	12071	182.00	900	257.00	5471	421.00	5545
105.00	14386	183.00	787	258.00	31272	422.00	9693
106.00	2769	184.00	2518	259.00	4949	423.00	38848
107.00	148608	185.00	20112	260.00	679	424.00	8628
108.00	22056	186.00	147584	261.00	1659	425.00	1546
109.00	836	187.00	35512	264.00	1144	431.00	758
110.00	225792	188.00	6217	265.00	13343	441.00	101776
111.00	37888	189.00	8546	266.00	1434	442.00	635584
112.00	3072	190.00	1791	272.00	3667	443.00	145088
115.00	673	191.00	3108	273.00	19472	444.00	11926
116.00	11843	192.00	13855	274.00	39968	445.00	1110
117.00	113096	193.00	10355	275.00	215936	470.00	1007
118.00	4622	194.00	3590	276.00	29696		
120.00	3147	195.00	1081	277.00	25912		
122.00	7183	196.00	23240	278.00	2282		
123.00	15024	198.00	817088	283.00	2736		

Analytical Resources, Incorporated
Analytical Chemists and Consultants

MASS SPECTROMETER
INSTRUMENT PERFORMANCE CHECK
EPA 8270D-SIM

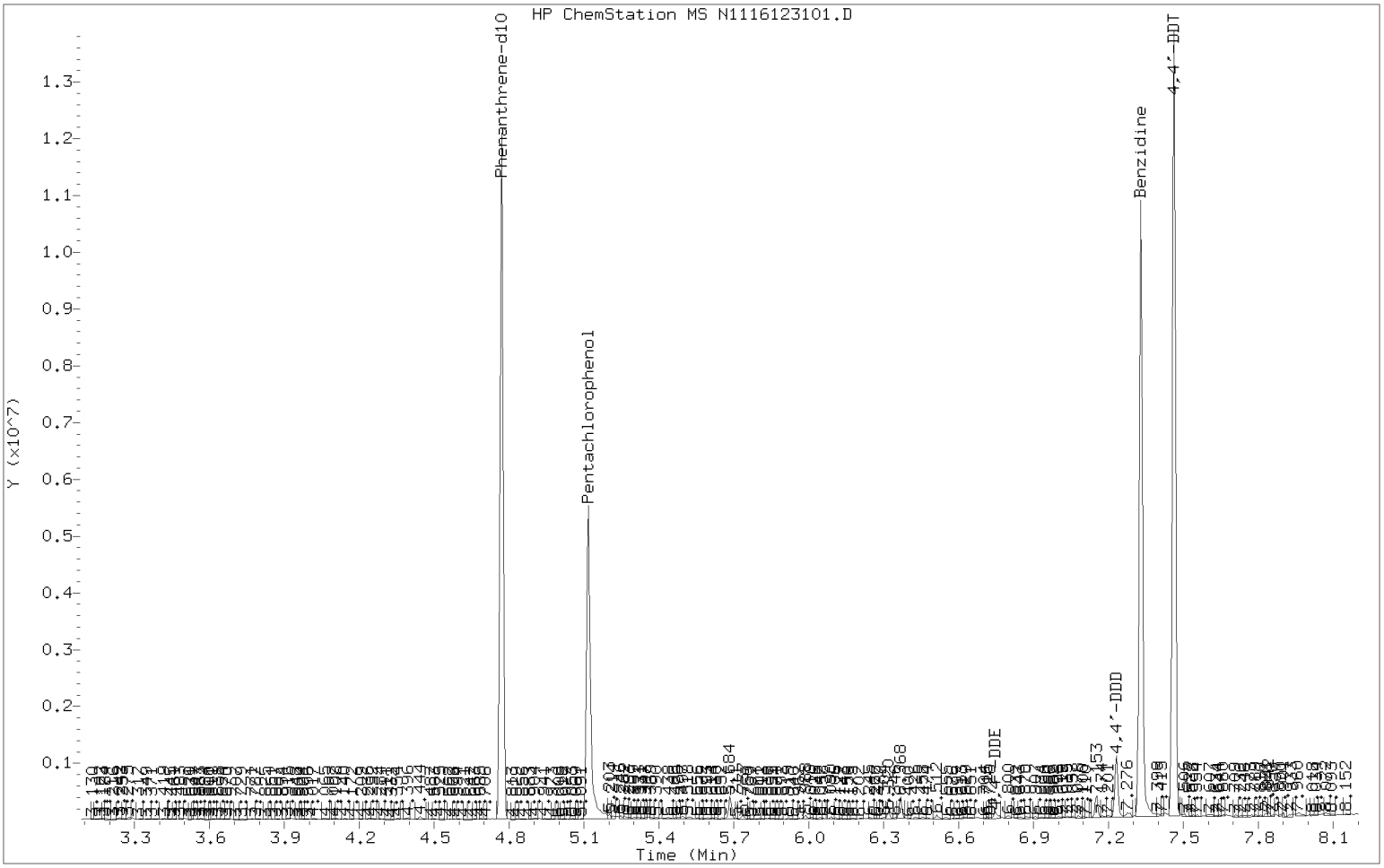
Laboratory:	Analytical Resources, Inc.	SDG:	17A0053
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Lab File ID:	N1116123101.D	Injection Date:	12/31/16
Instrument ID:	NT11	Injection Time:	08:12
Sequence:	SEL0401	Lab Sample ID:	SEL0401-TUN1

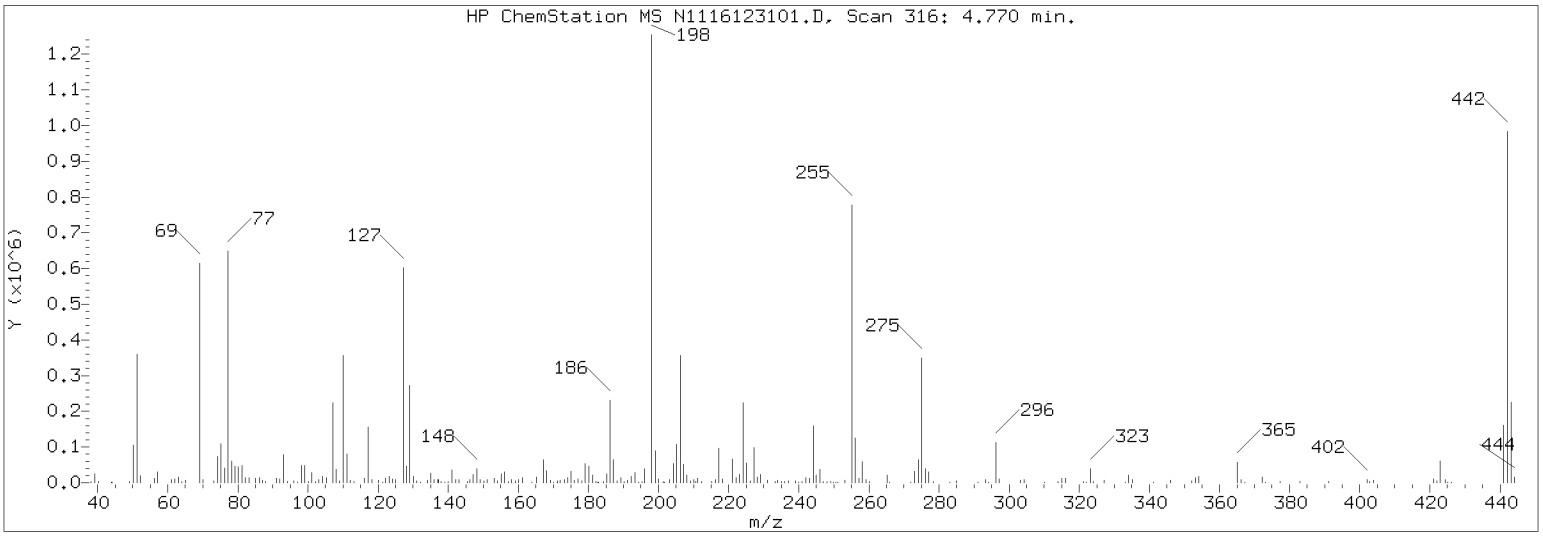
m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10 - 80% of 198	27.4	PASS
68	Less than 2% of 69	0	PASS
69	Less than 100% of 198	50.6	PASS
70	Less than 2% of 69	0.709	PASS
127	10 - 80% of 198	48	PASS
197	Less than 2% of 198	0	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	7.22	PASS
275	10 - 60% of 198	27.5	PASS
365	1 - 100% of 198	3.88	PASS
441	0.1 - 24% of 442	16.4	PASS
442	50 - 200% of 198	80.4	PASS
443	15 - 24% of 442	22.2	PASS

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
MS Tune	SEL0401-TUN1	N1116123101.D	12/31/2016	8:12
Cal Standard	SEL0401-CAL4	N1116123102.D	12/31/2016	8:28
Initial Cal Check	SEL0401-ICV1	N1116123102ICV.D	12/31/2016	8:28
Cal Standard	SEL0401-CAL6	N1116123103.D	12/31/2016	8:59
Cal Standard	SEL0401-CAL1	N1116123104.D	12/31/2016	9:30
Cal Standard	SEL0401-CAL5	N1116123105.D	12/31/2016	10:01
Cal Standard	SEL0401-CAL2	N1116123106.D	12/31/2016	10:32
Cal Standard	SEL0401-CAL3	N1116123107.D	12/31/2016	11:04
Secondary Cal Check	SEL0401-SCV1	N1116123108.D	12/31/2016	11:35
Blank	BEL0603-BLK1	N1116123109.D	12/31/2016	12:06
LCS	BEL0603-BS1	N1116123110.D	12/31/2016	12:37
ZZZZZ	16L0317-01	N1116123111.D	12/31/2016	13:08
ZZZZZ	16L0317-02	N1116123114.D	12/31/2016	14:42
ZZZZZ	16L0317-03	N1116123115.D	12/31/2016	15:13
ZZZZZ	16L0317-04	N1116123116.D	12/31/2016	15:45
ZZZZZ	16L0317-05	N1116123117.D	12/31/2016	16:16
ZZZZZ	16L0317-06	N1116123118.D	12/31/2016	16:47
ZZZZZ	16L0317-07	N1116123119.D	12/31/2016	17:18
ZZZZZ	16L0317-08	N1116123120.D	12/31/2016	17:50
ZZZZZ	16L0317-09	N1116123121.D	12/31/2016	18:21
ZZZZZ	16L0326-01	N1116123122.D	12/31/2016	18:52
Calibration Check	SEL0401-CCV1	N1116123125.D	12/31/2016	20:26

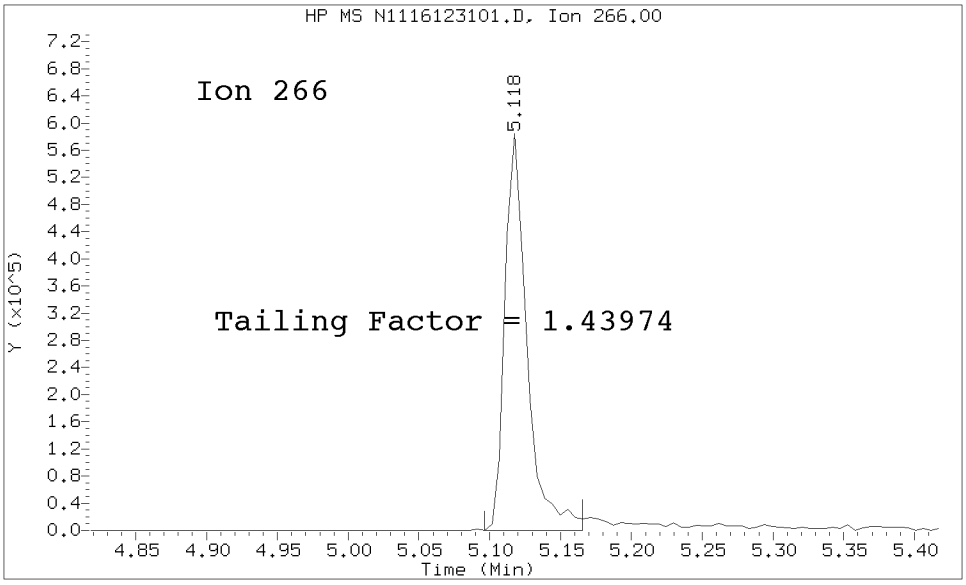
DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20161231.b/N1116123101.D/N1116123101.D
Method Used: \20161231.b\DFTPP.m Inst: nt11
Injection Date: 31-DEC-2016 08:12 Operator: VTS
Sample Info: SEL0401-TUN1 SEL0401-TUN1
Report Date: 12/31/2016 12:45



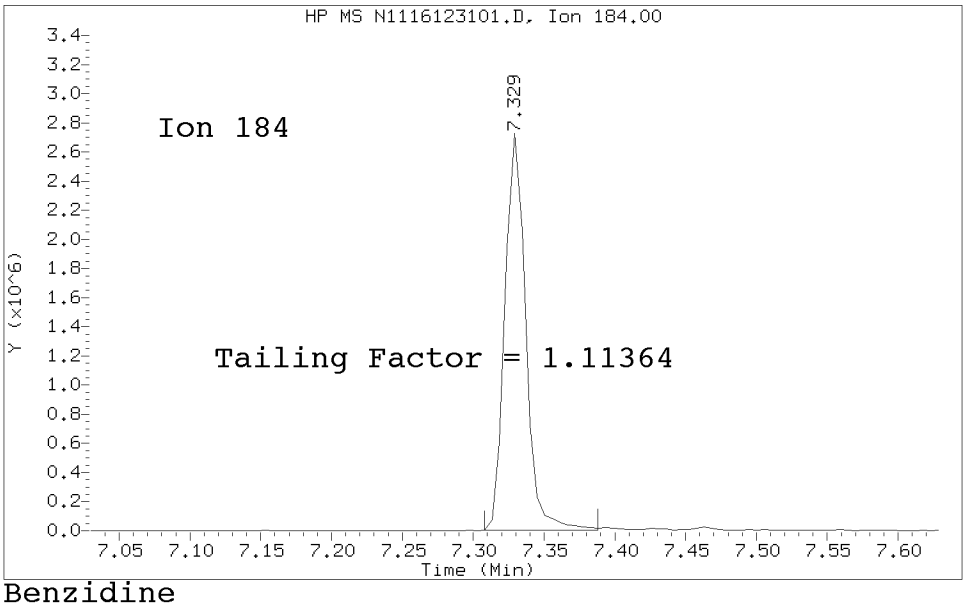


Datafile Analyzed: /20161231.b/N1116123101.D/N1116123101.D
Method Used: \20161231.b\DFTPP.m\sw846ddt.m Inst: nt11
Injection Date: 31-DEC-2016 08:12 Operator: JW
Sample Info: SEL0401-TUN1
Report Date: 12/31/2016 12:45



Pentachlorophenol
==========
 Exp. RT = 5.118
Found RT = 5.118

Tail Factor = 1.440 Maximum Allowed = 2.0



Benzidine
==========
 Exp. RT = 7.329
Found RT = 7.329

Tail Factor = 1.114 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.4397436	2.000	PASS
Benzidine	1.1136364	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	1823078			N/A
4,4-DDE	10805	0.6	20.0	PASS
4,4-DDD	178680	8.9	20.0	PASS
4,4-DDD + DDE	189485	9.4	20.0	PASS

Tuning Sample, nt11.i/20161231.b/N1116123101.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	27.42
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	50.60
70	Less than 2.00% of mass 69	0.36 (0.71)
127	10.00 - 80.00% of mass 198	47.99
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.22
275	10.00 - 60.00% of mass 198	27.50
365	Greater than 1.00% of mass 198	3.88
441	0.01 - 24.00% of mass 442	13.21 (16.44)
442	50.00 - 200.00% of mass 198	80.37
443	15.00 - 24.00% of mass 442	17.83 (22.19)

Data File: N1116123101.D
Spectrum: Avg. Scans 315-317 (4.77), Background Scan 310
Location of Maximum: 198.00
Number of points: 259

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	4112	127.00	472128	195.00	3783	276.00	35832
39.00	21872	128.00	35424	196.00	29136	277.00	24352
40.00	1591	129.00	200960	198.00	983872	278.00	1853
49.00	4352	130.00	17360	199.00	70992	283.00	1906
50.00	74792	131.00	2839	200.00	7543	285.00	4004
51.00	269824	132.00	889	201.00	4410	291.00	689
52.00	13561	134.00	5138	202.00	780	293.00	4172
55.00	789	135.00	14732	203.00	7183	294.00	886
56.00	10365	136.00	5834	204.00	37800	296.00	77968
57.00	26032	137.00	11901	205.00	76208	297.00	13062
61.00	6870	138.00	2543	206.00	284608	298.00	1321
62.00	5796	139.00	1910	207.00	37632	303.00	6888
63.00	15472	140.00	2791	208.00	15406	304.00	5144
64.00	2998	141.00	26608	209.00	3515	308.00	1139
65.00	7777	142.00	9094	210.00	3938	309.00	678
69.00	497792	143.00	6338	211.00	12659	310.00	864
70.00	3530	144.00	1120	212.00	5219	314.00	3485
71.00	1051	145.00	900	214.00	1328	315.00	10152
73.00	1859	146.00	5984	215.00	3055	316.00	8308
74.00	53200	147.00	13024	216.00	4570	317.00	847
75.00	78288	148.00	27952	217.00	75856	321.00	2592
76.00	30672	149.00	5354	218.00	9820	322.00	1406
77.00	512768	150.00	1705	220.00	766	323.00	26928
78.00	44392	151.00	5823	221.00	49304	324.00	5058
79.00	35568	153.00	9711	222.00	11169	327.00	3349
80.00	28552	154.00	5611	223.00	21232	329.00	784
81.00	40432	155.00	17800	224.00	174656	332.00	907
82.00	11373	156.00	25512	225.00	42944	333.00	710
83.00	10164	157.00	5182	226.00	3179	334.00	18216
84.00	2152	158.00	5392	227.00	79240	335.00	4623
85.00	8183	159.00	5750	228.00	11518	341.00	3116
86.00	12389	160.00	8734	229.00	12419	346.00	4062
87.00	4760	161.00	10188	231.00	6545	348.00	734
88.00	946	162.00	679	233.00	923	352.00	7346
91.00	10133	164.00	1681	234.00	3904	353.00	7570
92.00	9964	165.00	9710	235.00	5133	354.00	9753
93.00	62720	166.00	6278	236.00	2580	365.00	38208
94.00	2847	167.00	55048	237.00	2584	366.00	5638
96.00	3701	168.00	21792	239.00	1717	367.00	685
97.00	1665	169.00	3346	240.00	2183	370.00	738
98.00	38336	170.00	860	241.00	4842	371.00	882
99.00	37392	171.00	1565	242.00	9670	372.00	12613
100.00	3115	172.00	5740	243.00	10997	373.00	2840
101.00	21528	173.00	7105	244.00	121632	377.00	2390
102.00	2207	174.00	12440	245.00	15142	378.00	779
103.00	6397	175.00	25664	246.00	24496	383.00	3636
104.00	12228	176.00	6082	247.00	4057	384.00	775
105.00	12690	177.00	11109	248.00	1121	390.00	2090
106.00	1874	178.00	3887	249.00	3581	391.00	1461

107.00	172288	179.00	45320	250.00	2340	402.00	6904
108.00	26136	180.00	31904	251.00	830	403.00	7868
109.00	6103	181.00	17320	252.00	2065	404.00	3612
110.00	277696	182.00	2527	253.00	6217	405.00	854
111.00	55616	183.00	843	255.00	593856	421.00	8805
112.00	6239	184.00	4234	256.00	92000	422.00	6157
113.00	1118	185.00	19384	257.00	9514	423.00	49568
116.00	9080	186.00	165504	258.00	43800	424.00	8122
117.00	113552	187.00	47728	259.00	5413	425.00	1511
118.00	6157	188.00	4565	260.00	2007	426.00	717
120.00	2605	189.00	8903	265.00	13043	441.00	130000
121.00	711	190.00	2087	266.00	1555	442.00	790720
122.00	10998	191.00	4688	272.00	1799	443.00	175424
123.00	16246	192.00	17088	273.00	21744	444.00	14344
124.00	7190	193.00	17808	274.00	52248	445.00	950
125.00	7218	194.00	2470	275.00	270528		

INITIAL CALIBRATION DATA

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	17A0053
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Calibration:	ZL00083	Instrument:	NT11
Calibration Date:	12/31/2016 12:55	Column (1):	RXi-17Sil-MS

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
Naphthalene	10	1.003847	50	1.001275	100	0.9758562	250	1.062602	500	0.9820556	1000	0.9629658
2-Methylnaphthalene	10	0.9103806	50	0.9508846	100	0.95814	250	1.06781	500	1.012215	1000	1.00283
Acenaphthylene	10	1.647427	50	1.741513	100	1.761343	250	1.993984	500	1.833196	1000	1.805041
Acenaphthene	10	1.110055	50	1.156211	100	1.162354	250	1.281373	500	1.199898	1000	1.189345
Dibenzofuran	10	1.587854	50	1.694475	100	1.754052	250	1.936206	500	1.803204	1000	1.777581
Fluorene	10	1.323279	50	1.315215	100	1.354716	250	1.522897	500	1.4583	1000	1.427029
Phenanthrene	10	1.153031	50	1.135725	100	1.151657	250	1.226546	500	1.119446	1000	1.074277
Anthracene	10	1.105241	50	1.136145	100	1.149921	250	1.295038	500	1.085426	1000	1.069013
Fluoranthene	10	1.296262	50	1.263984	100	1.30226	250	1.410658	500	1.284922	1000	1.22416
Pyrene	10	1.338529	50	1.262826	100	1.296106	250	1.41204	500	1.281417	1000	1.204252
Benzo(a)anthracene	10	1.158433	50	1.170683	100	1.19074	250	1.299136	500	1.223838	1000	1.172871
Chrysene	10	1.232407	50	1.221908	100	1.250928	250	1.312616	500	1.223745	1000	1.162586
Benzo(b)fluoranthene	10	1.051834	50	1.022281	100	1.046711	250	1.151126	500	1.10065	1000	1.095952
Benzo(k)fluoranthene	10	1.144731	50	1.107831	100	1.137862	250	1.258147	500	1.165161	1000	1.153472
Carbazole	10	1.265106	50	1.236655	100	1.270232	250	1.329722	500	1.227712	1000	1.219916
Benzo(j)fluoranthene	10	0.9713139	50	0.9921422	100	0.9839014	250	1.152952	500	1.065556	1000	1.044594
Benzo(a)pyrene	10	0.9857074	50	0.95031	100	0.984937	250	1.083087	500	1.009812	1000	1.016452
Indeno(1,2,3-cd)pyrene	10	1.107322	50	0.9780917	100	1.05206	250	1.16699	500	1.118211	1000	1.161003
Dibenzo(a,h)anthracene	10	0.8962873	50	0.7794382	100	0.8340598	250	0.9318345	500	0.8977528	1000	0.9365236
Benzo(g,h,i)perylene	10	1.043281	50	0.9229693	100	0.9477007	250	1.021646	500	0.9711213	1000	1.004083
1-Methylnaphthalene	10	0.930743	50	0.9530673	100	0.9717923	250	1.103208	500	0.9960192	1000	0.981482
Perylene	10	1.033129	50	0.999426	100	1.032398	250	1.120913	500	1.05538	1000	1.054947
Benzo(e)pyrene	10	1.018527	50	1.049682	100	1.053953	250	1.155674	500	1.094205	1000	1.080365
2-Chloronaphthalene	10	1.290662	50	1.525955	100	1.47794	250	1.680675	500	1.565743	1000	1.56756
2-Methylnaphthalene-d10	10	0.7671766	50	0.7958566	100	0.8316088	250	0.9750899	500	0.8888552	1000	0.8950724
Dibenzo[a,h]anthracene-d14	10	0.6167625	50	0.564575	100	0.5815519	250	0.701034	500	0.6665677	1000	0.7016884
Fluoranthene-d10	10	0.9871043	50	1.055741	100	1.048505	250	1.162744	500	1.072323	1000	1.047111

INITIAL CALIBRATION DATA

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	17A0053
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Calibration:	ZL00083	Instrument:	NT11
Calibration Date:	12/31/2016 12:55	Column (1):	RXi-17Sil-MS

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Naphthalene	0.9981003	3.5			RSD (20)	
2-Methylnaphthalene	0.9837101	5.6			RSD (20)	
Acenaphthylene	1.797084	6.4			RSD (20)	
Acenaphthene	1.183206	4.9			RSD (20)	
Dibenzofuran	1.758895	6.6			RSD (20)	
Fluorene	1.400239	5.9			RSD (20)	
Phenanthrene	1.143447	4.4			RSD (20)	
Anthracene	1.140131	7.2			RSD (20)	
Fluoranthene	1.297041	4.8			RSD (20)	
Pyrene	1.299195	5.4			RSD (20)	
Benzo(a)anthracene	1.202617	4.4			RSD (20)	
Chrysene	1.234032	3.9			RSD (20)	
Benzo(b)fluoranthene	1.078092	4.3			RSD (20)	
Benzo(k)fluoranthene	1.161201	4.4			RSD (20)	
Carbazole	1.258224	3.2			RSD (20)	
Benzo(j)fluoranthene	1.035077	6.6			RSD (20)	
Benzo(a)pyrene	1.005051	4.5			RSD (20)	
Indeno(1,2,3-cd)pyrene	1.09728	6.5			RSD (20)	
Dibenzo(a,h)anthracene	0.879316	7.0			RSD (20)	
Benzo(g,h,i)perylene	0.9851335	4.7			RSD (20)	
1-Methylnaphthalene	0.9893853	6.1			RSD (20)	
Perylene	1.049366	3.9			RSD (20)	
Benzo(e)pyrene	1.075401	4.4			RSD (20)	
2-Chloronaphthalene	1.518089	8.6			RSD (20)	
2-Methylnaphthalene-d10	0.8589433	8.8			RSD (20)	
Dibenzo[a,h]anthracene-d14	0.6386966	9.4			RSD (20)	
Fluoranthene-d10	1.062255	5.4			RSD (20)	