

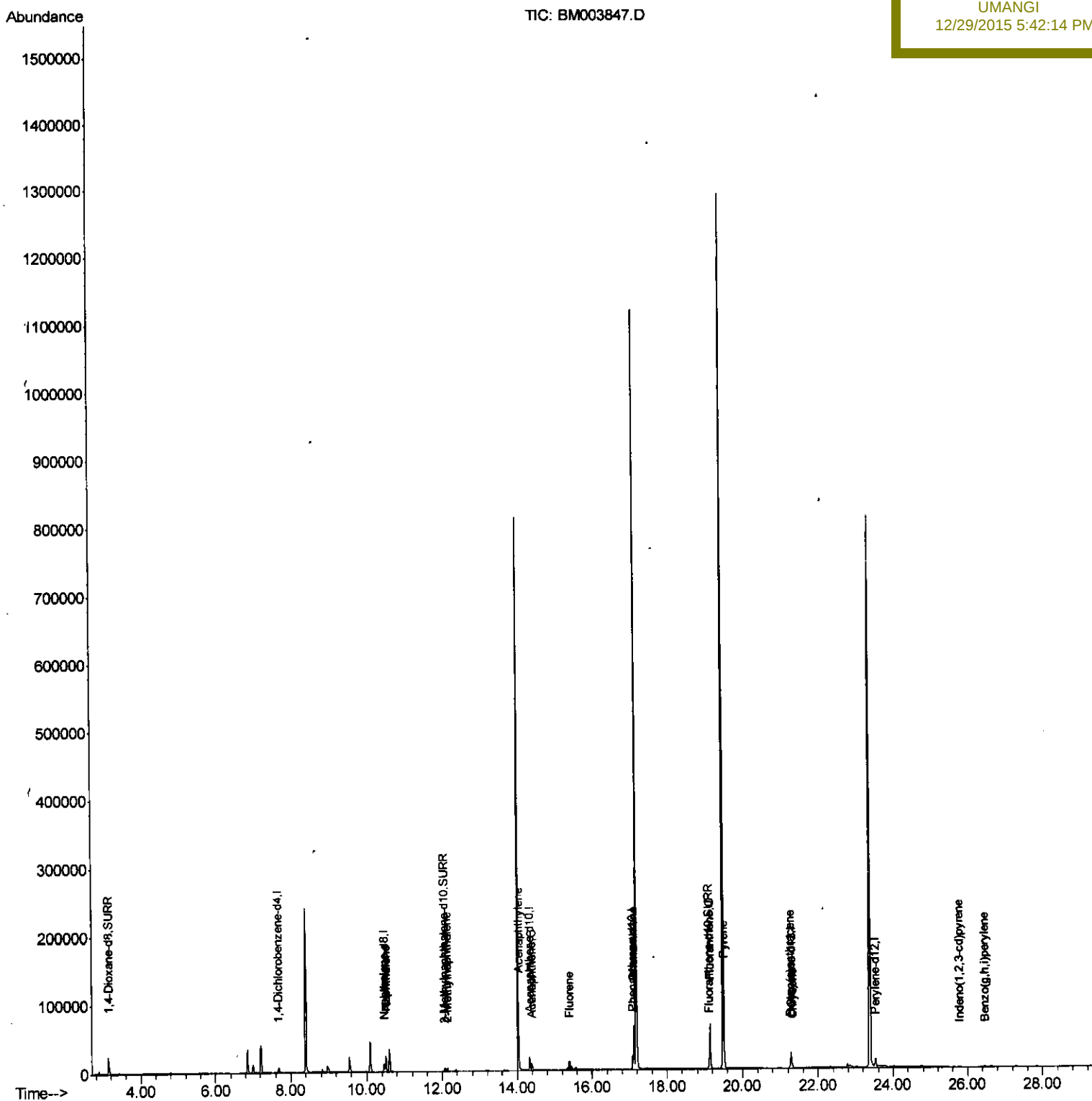
Data Path : Z:\HPCHEM1\BNA_M\DATA\BM123015\
Data File : BM003847.D
Acq On : 29 Dec 2015 02:55
Operator : SJ/UM
Sample : G4848-12
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 29 08:32:34 2015
Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-SIM-BM121515.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Tue Dec 29 08:19:02 2015
Response via : Initial Calibration

Instrument :
BNA_M
ClientSampleId :
D9N58

Manual Integrations
APPROVED

UMANGI
12/29/2015 5:42:14 PM



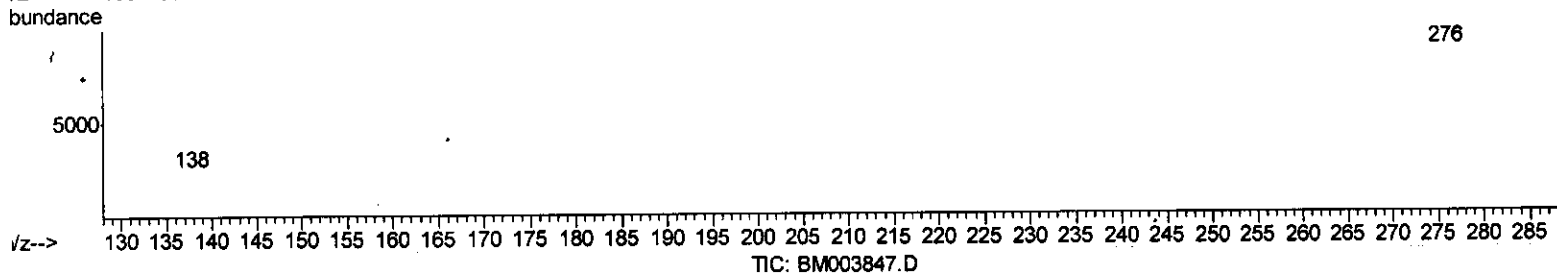
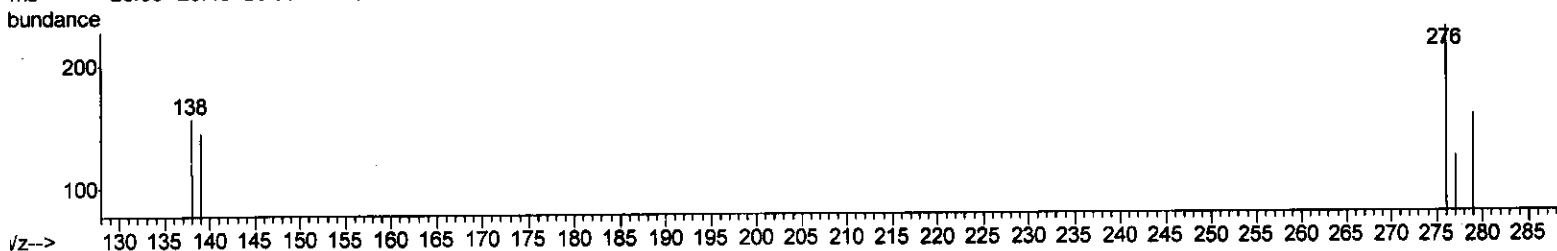
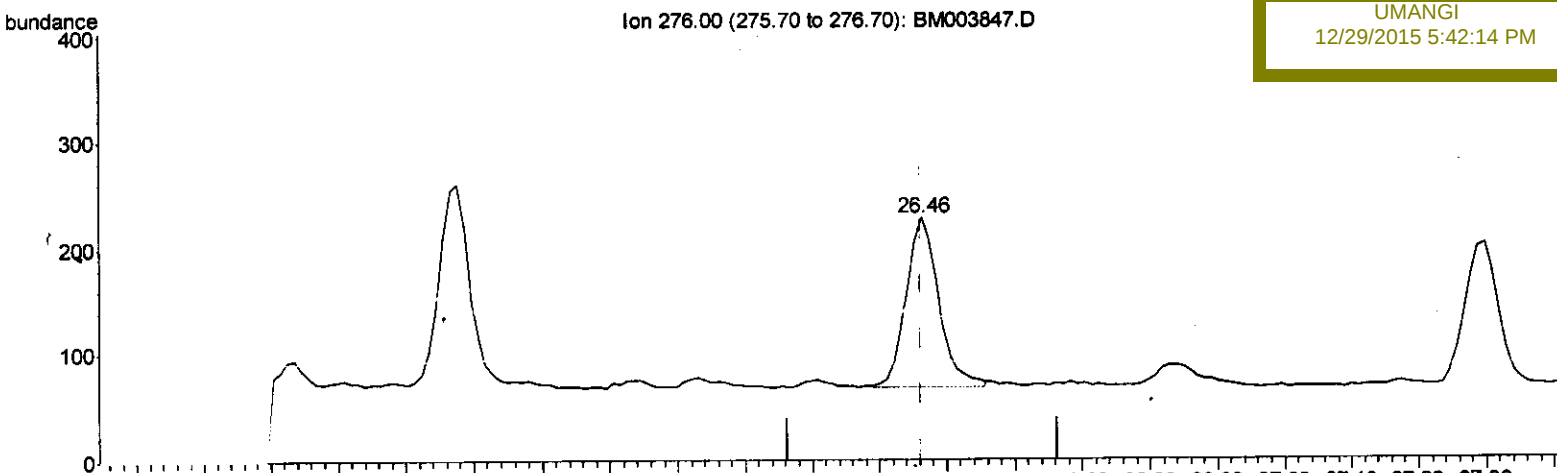
Data Path : Z:\HPCHEM1\BNA_M\DATA\BM123015\
 Data File : BM003847.D
 Acq On : 29 Dec 2015 02:55
 Operator : SJ/UM
 Sample : G4848-12
 Misc :
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 29 08:31:32 2015
 Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-SIM-BM121515.M
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 QLast Update : Tue Dec 29 08:19:02 2015
 Response via : Initial Calibration

Instrument :
 BNA_M
 ClientSampleId :
 D9N58

Manual Integrations
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UMANGI
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(28) Benzo(g,h,i)perylene

26.464min (0.000) 0.01ng/ul m

response 545

U.M
12/31/15

Ion	Exp%	Act%
276.00	100	100
277.00	23.60	53.95#
138.00	28.10	68.86#
0.00	0.00	0.00

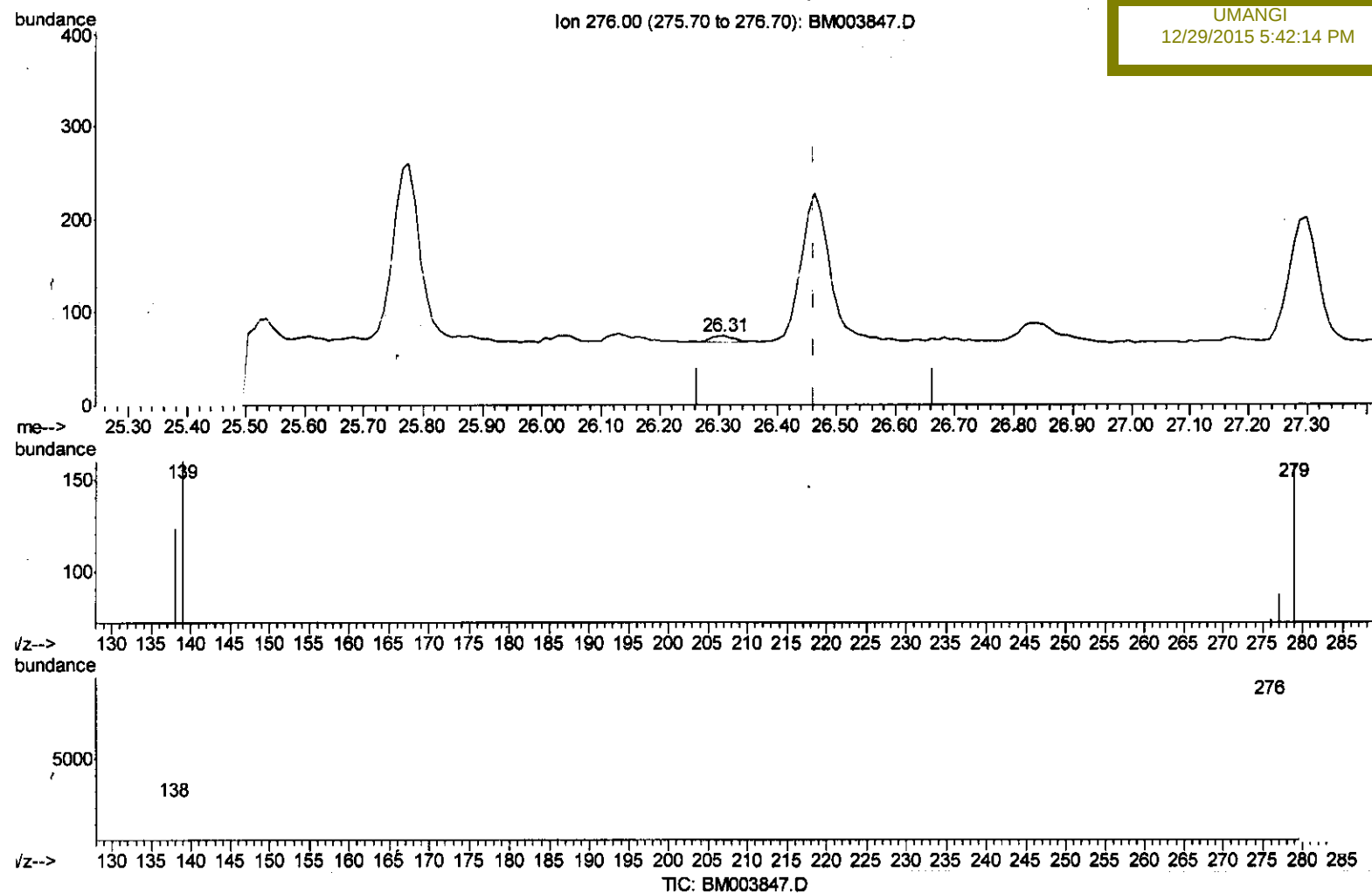
Data Path : Z:\HPCHEM1\BNA_M\DATA\BM123015\
Data File : BM003847.D
Acq On : 29 Dec 2015 02:55
Operator : SJ/UM
Sample : G4848-12
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 29 08:31:32 2015
Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-SIM-BM121515.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Tue Dec 29 08:19:02 2015
Response via : Initial Calibration

Instrument :
BNA_M
ClientSampleId :
D9N58

Manual Integrations
APPROVED

UMANGI
12/29/2015 5:42:14 PM



(28) Benzo(g,h,i)perylene

26.308min (-0.156) 0.00ng/ul

response 21

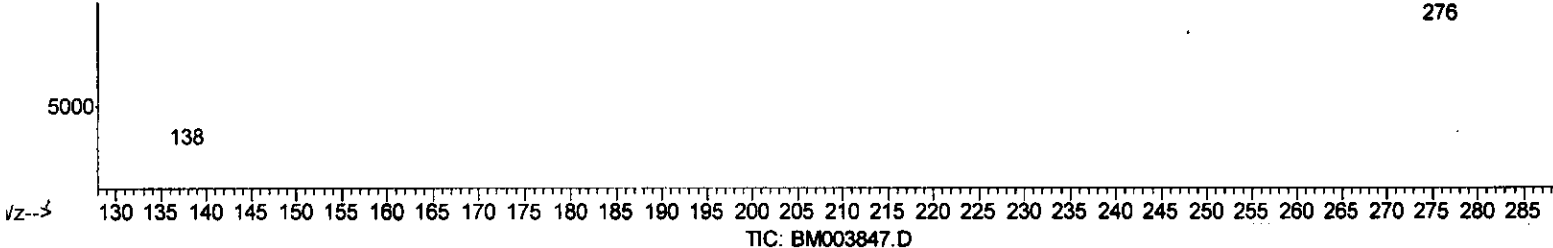
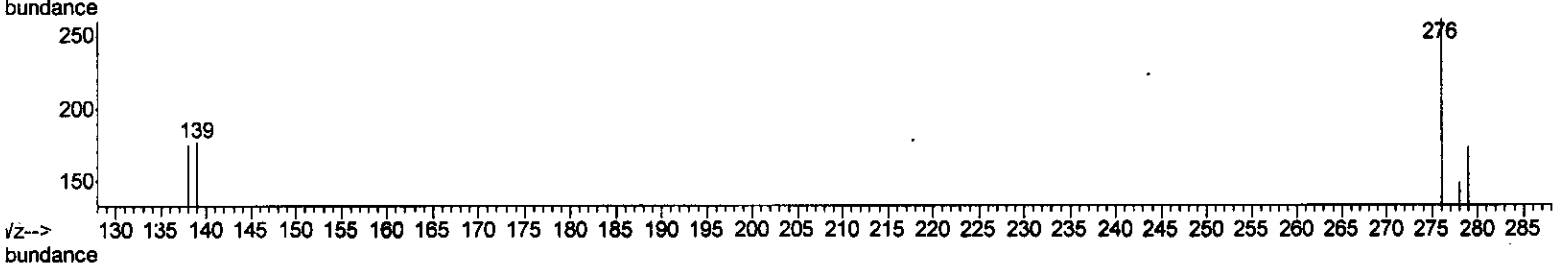
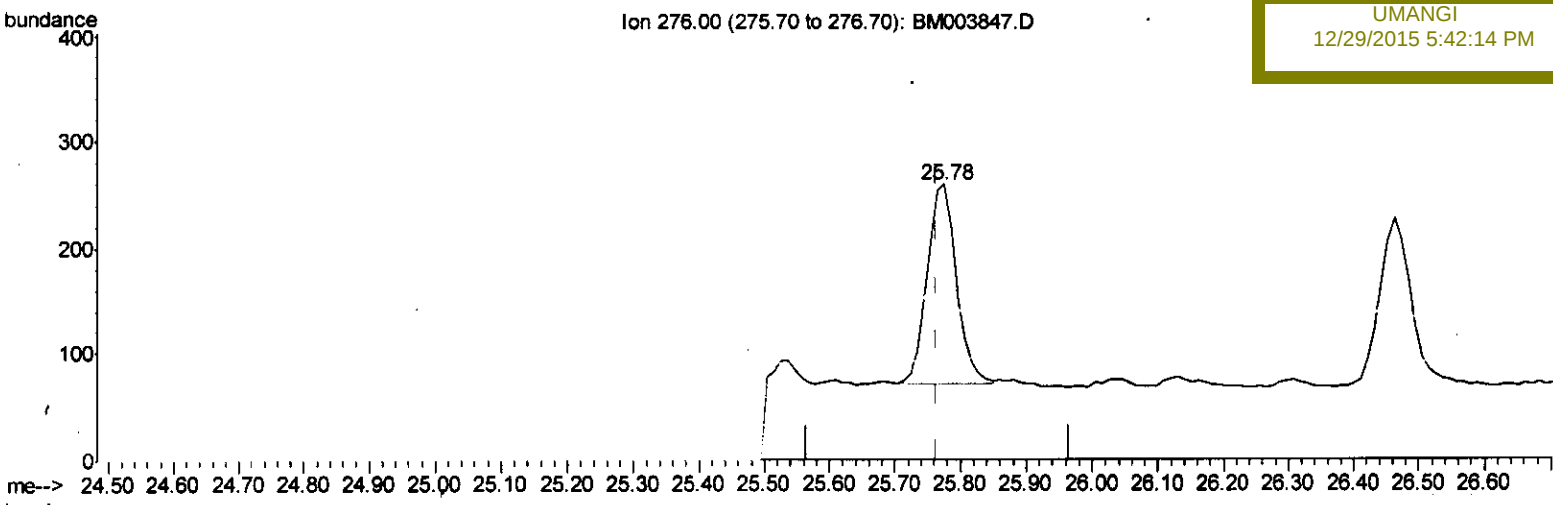
Ion	Exp%	Act%
276.00	100	100
277.00	23.60	117.57#
138.00	28.10	166.22#
0.00	0.00	0.00

Data Path : Z:\HPCHEM1\BNA_M\DATA\BM123015\
 Data File : BM003847.D
 Acq On : 29 Dec 2015 02:55
 Operator : SJ/UM
 Sample : G4848-12
 Misc :
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 29 08:31:32 2015
 Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-SIM-BM121515.M
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 QLast Update : Tue Dec 29 08:19:02 2015
 Response via : Initial Calibration

Instrument :
 BNA M
 ClientSampleId :
 D9N58

Manual Integrations
 APPROVED
 UMANGI
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(26) Indeno(1,2,3-cd)pyrene

25.776min (+0.010) 0.01ng/ul m *U.M*
12/31/15

response 581

Ion	Exp%	Act%
276.00	100	100
138.00	20.40	107.40#
277.00	24.80	0.00#
0.00	0.00	0.00

Data Path : Z:\HPCHEM1\BNA_M\DATA\BM123015\
 Data File : BM003847.D
 Acq On : 29 Dec 2015 02:55
 Operator : SJ/UM
 Sample : G4848-12
 Misc :
 ALS Vial : 16 Sample Multiplier: 1

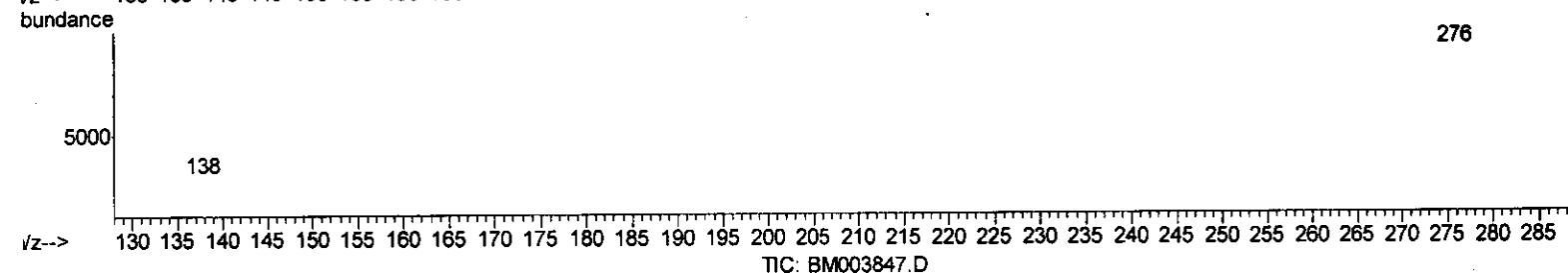
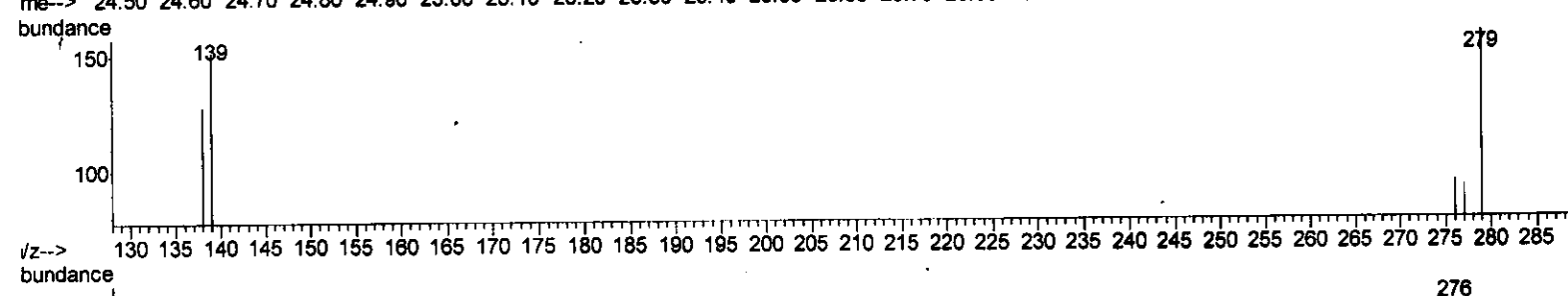
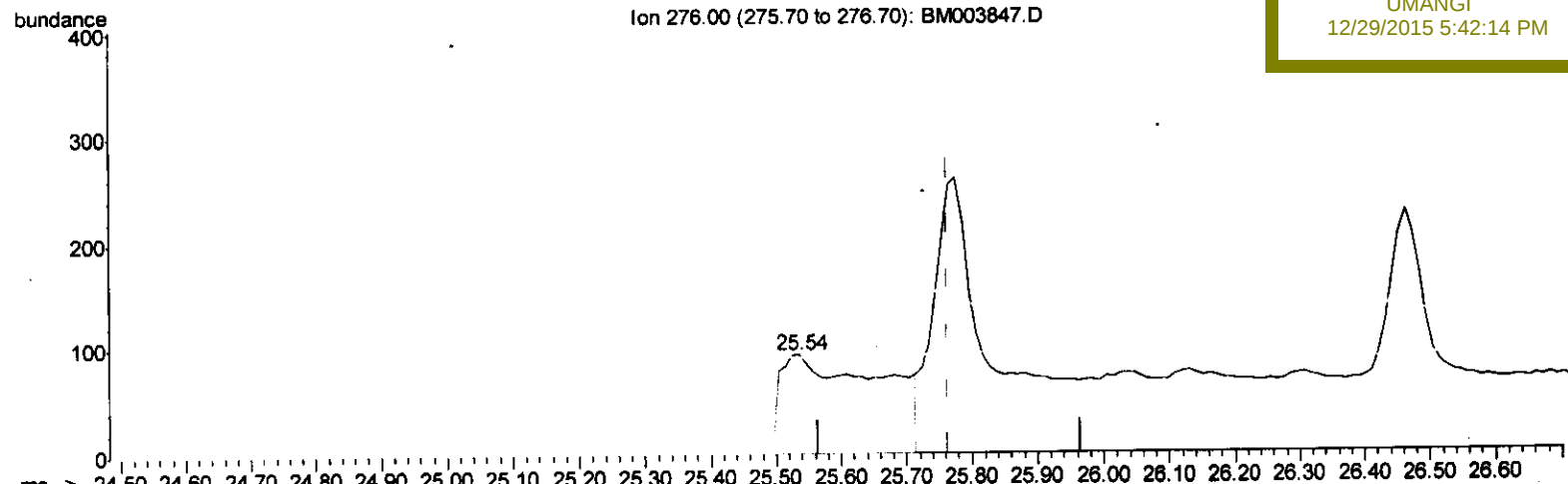
Quant Time: Dec 29 08:31:32 2015
 Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-SIM-BM121515.M
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 QLast Update : Tue Dec 29 08:19:02 2015
 Response via : Initial Calibration

Instrument :
 BNA_M
 ClientSampleId :
 D9N58

Manual Integrations
 APPROVED

UMANGI
 12/29/2015 5:42:14 PM

Ion 276.00 (275.70 to 276.70): BM003847.D



TIC: BM003847.D

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

25.536min (-0.229) 0.02ng/ul

response 991

Ion	Exp%	Act%
276.00	100	100
138.00	20.40	62.97#
277.00	24.80	0.00#
0.00	0.00	0.00

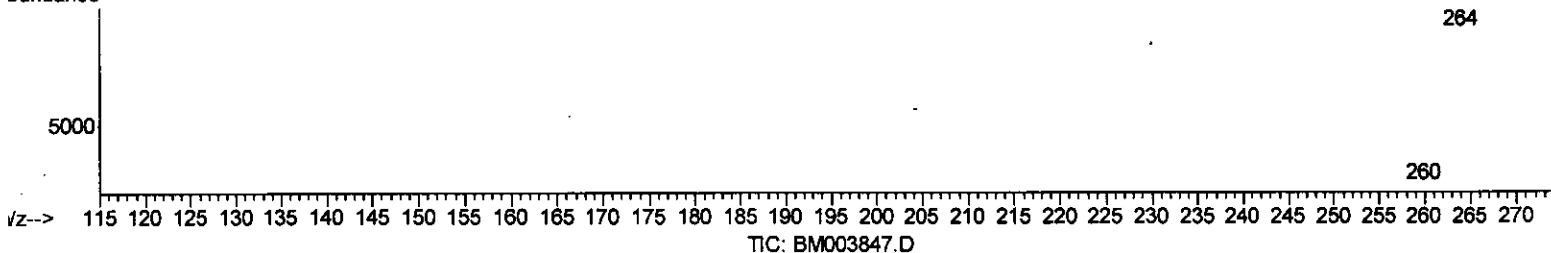
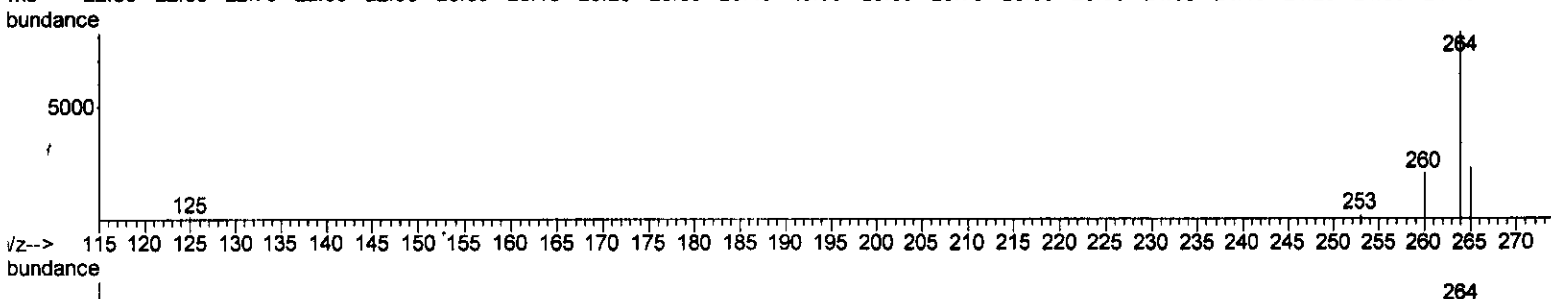
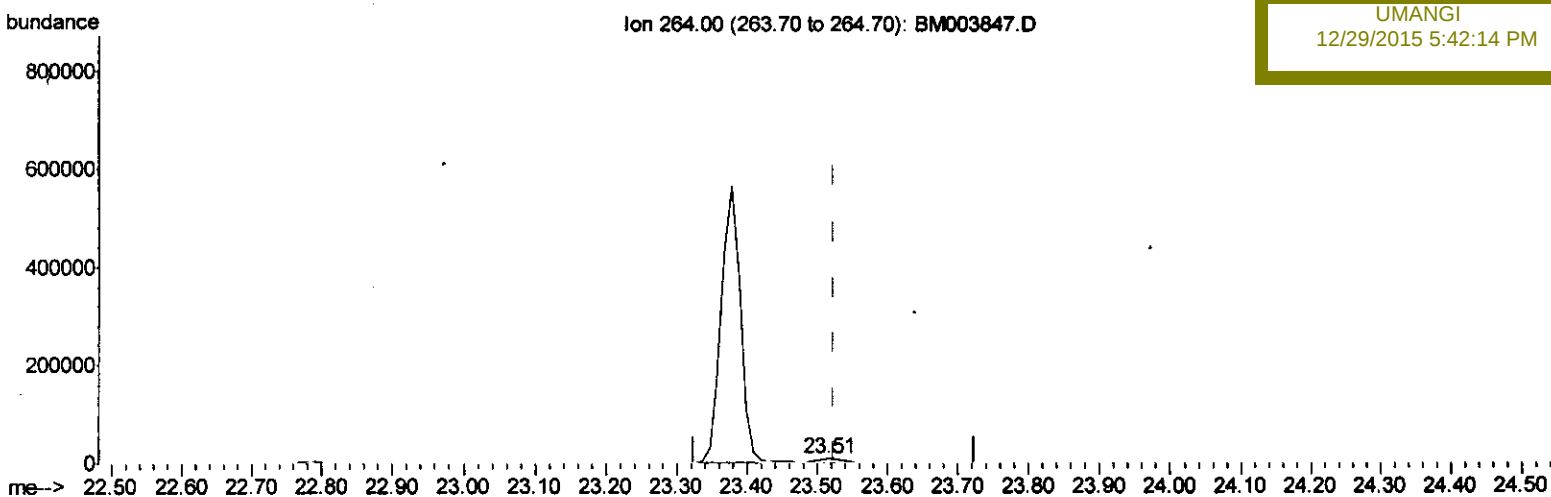
Data Path : Z:\HPCHEM1\BNA_M\DATA\BM123015\
 Data File : BM003847.D
 Acq On : 29 Dec 2015 02:55
 Operator : SJ/UM
 Sample : G4848-12
 Misc :
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 29 08:30:08 2015
 Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-SIM-BM121515.M
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 QLast Update : Tue Dec 29 08:19:02 2015
 Response via : Initial Calibration

Instrument :
 BNA_M
 ClientSampled :
 D9N58

Manual Integrations
 APPROVED

UMANGI
 12/29/2015 5:42:14 PM



(22) Perylene-d12 (I)

23.514min (-0.010) 0.40ng/ul m

response 14379

U. M
12/31/15

Ion	Exp%	Act%
264.00	100	100
260.00	25.60	26.67
265.00	38.20	29.27#
0.00	0.00	0.00

Data Path : Z:\HPCHEM1\BNA_M\DATA\BM123015\
 Data File : BM003847.D
 Acq On : 29 Dec 2015 02:55
 Operator : SJ/UM
 Sample : G4848-12
 Misc :
 ALS Vial : 16 Sample Multiplier: 1

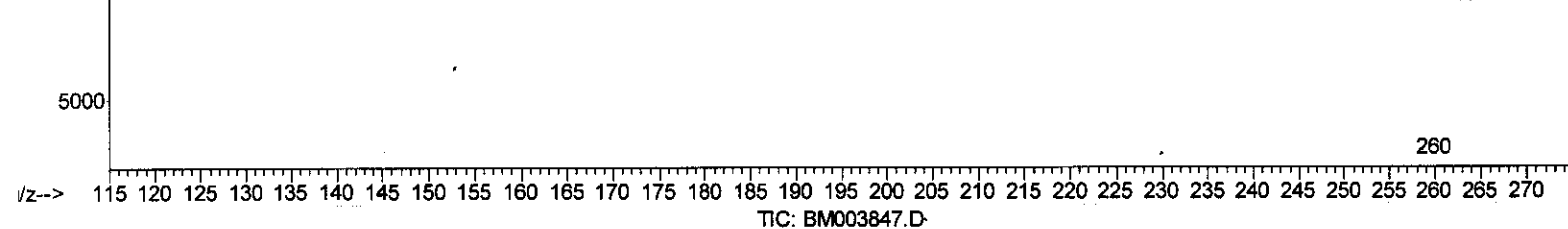
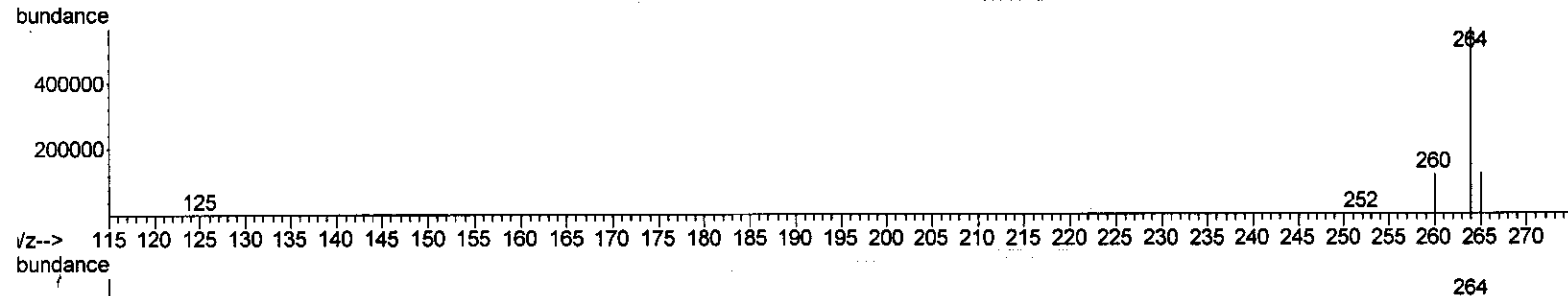
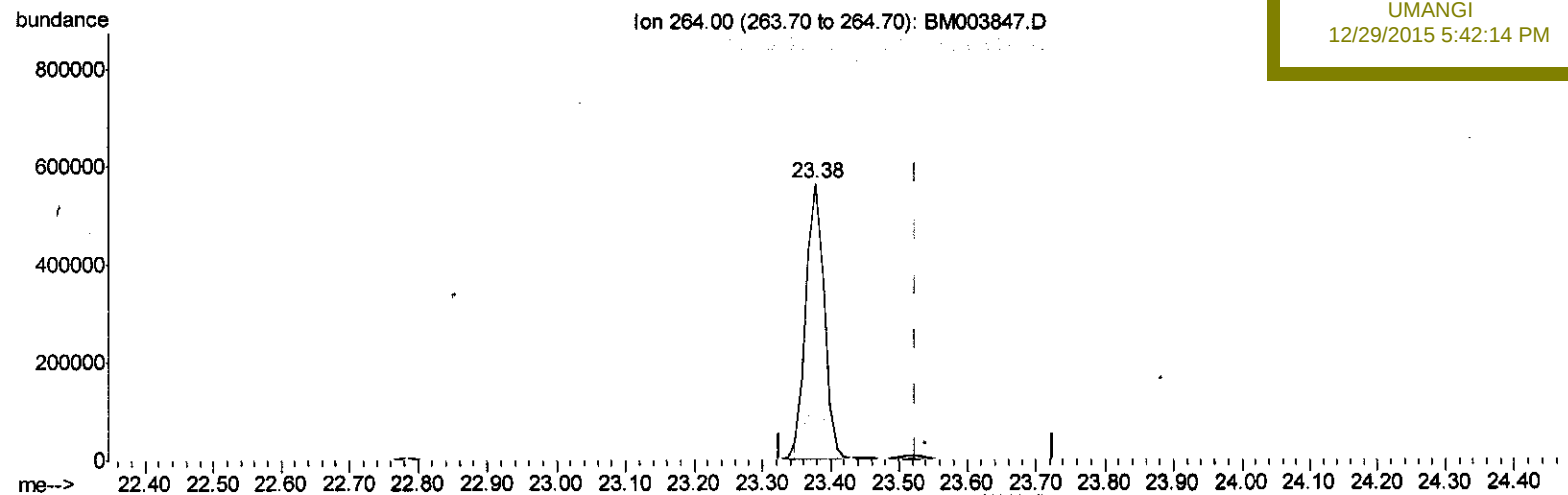
Quant Time: Dec 29 08:30:08 2015
 Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-SIM-BM121515.M
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 QLast Update : Tue Dec 29 08:19:02 2015
 Response via : Initial Calibration

Instrument :
 BNA_M
 ClientSampleId :
 D9N58

Manual Integrations
 APPROVED

UMANGI
 12/29/2015 5:42:14 PM

Ion 264.00 (263.70 to 264.70): BM003847.D



TIC: BM003847.D

(22) Perylene-d12 (I)

23.378min (-0.146) 0.40ng/ul

response 1034426

Ion	Exp%	Act%
264.00	100	100
260.00	25.60	21.39
265.00	38.20	21.92#
0.00	0.00	0.00

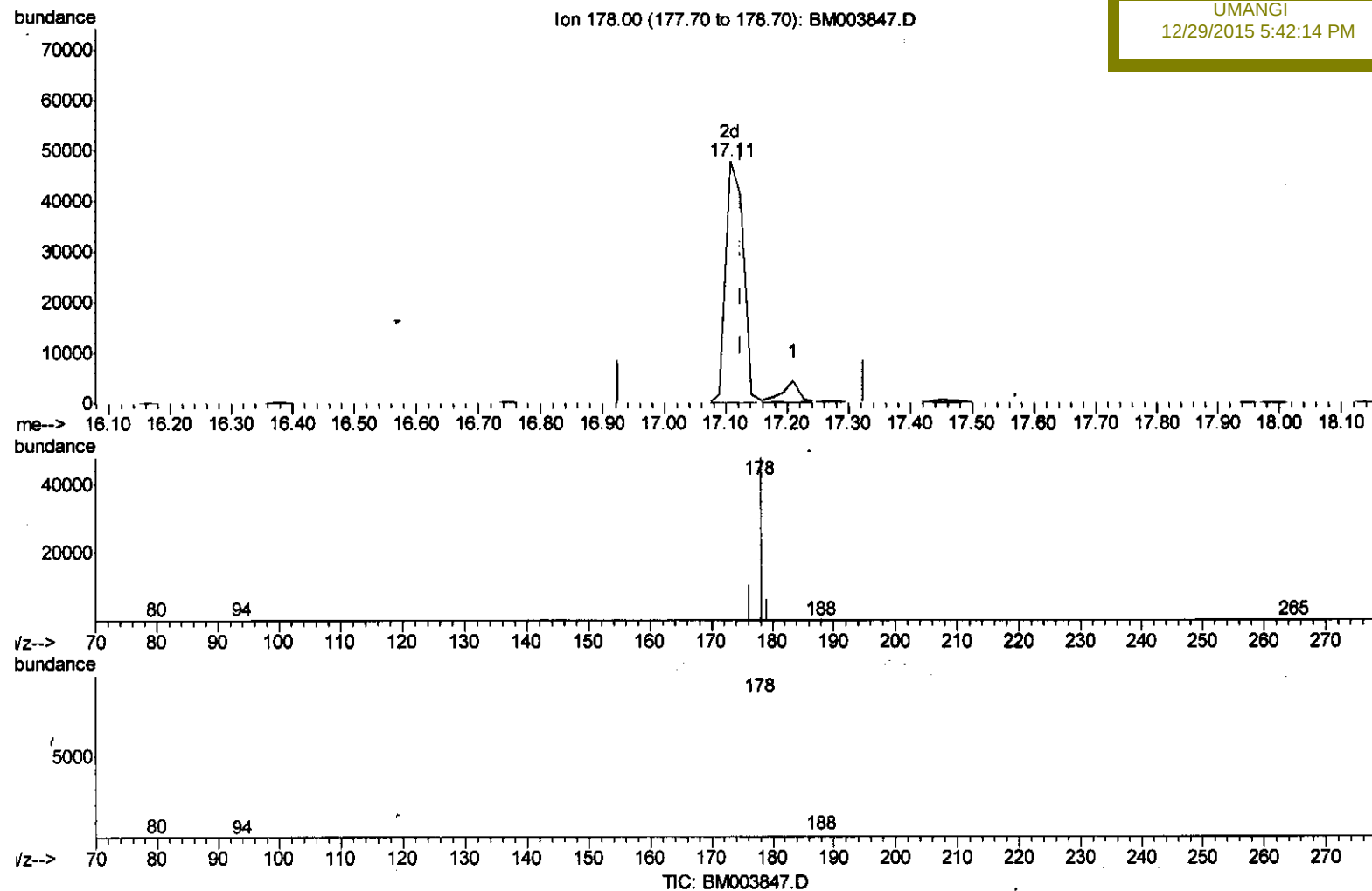
Data Path : Z:\HPCHEM1\BNA_M\DATA\BM123015\
 Data File : BM003847.D
 Acq On : 29 Dec 2015 02:55
 Operator : SJ/UM
 Sample : G4848-12
 Misc :
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 29 08:30:08 2015
 Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-SIM-BM121515.M
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 QLast Update : Tue Dec 29 08:19:02 2015
 Response via : Initial Calibration

Instrument :
 BNA_M
 ClientSampleId :
 D9N58

Manual Integrations
 APPROVED

UMANGI
 12/29/2015 5:42:14 PM



(14) Phenanthrene

17.108min (-0.017) 1.55ng/ul m

response 95166

Ion	Exp%	Act%
178.00	100	100
176.00	16.20	22.10#
179.00	17.70	13.43#
0.00	0.00	0.00

U. M
 12/31/15

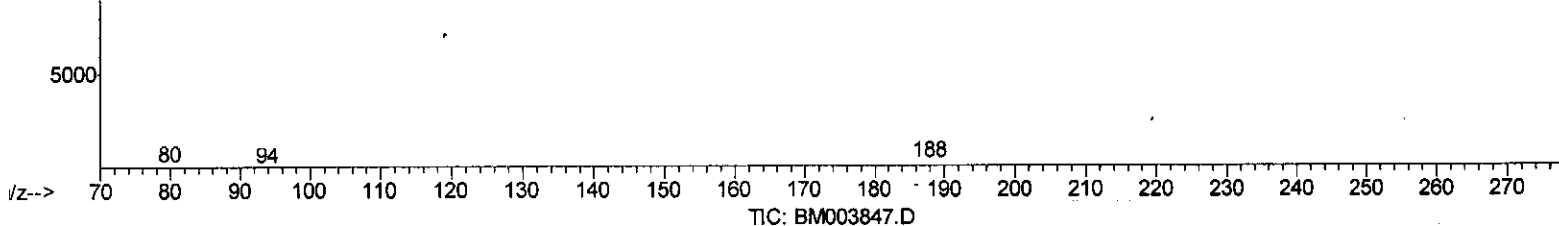
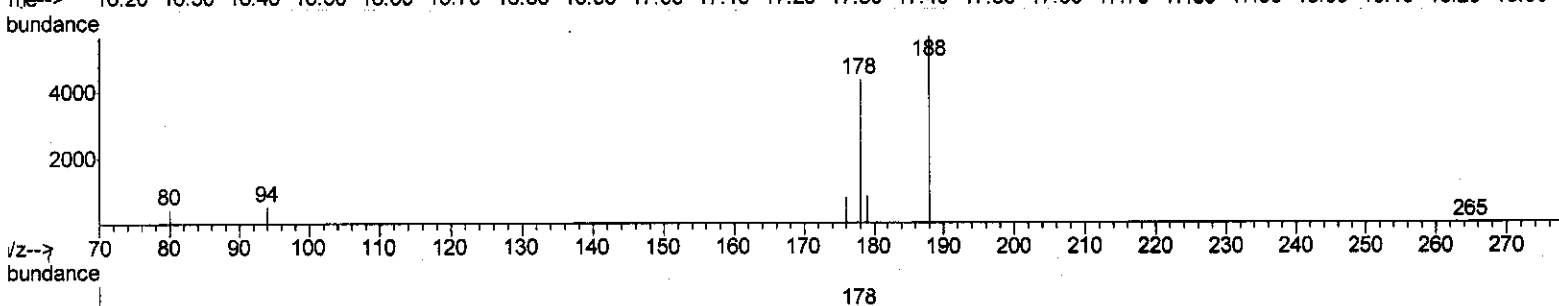
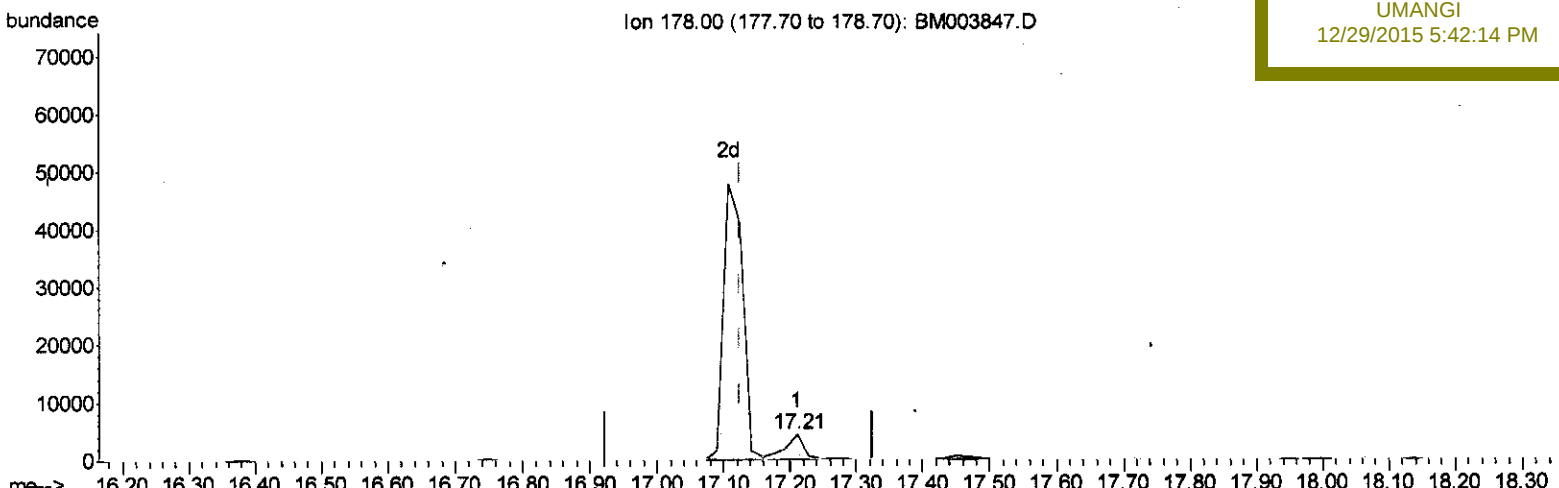
Data Path : Z:\HPCHEM1\BNA_M\DATA\BM123015\
 Data File : BM003847.D
 Acq On : 29 Dec 2015 02:55
 Operator : SJ/UM
 Sample : G4848-12
 Misc :
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 29 08:30:08 2015
 Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-SIM-BM121515.M
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 QLast Update : Tue Dec 29 08:19:02 2015
 Response via : Initial Calibration

Instrument :
 BNA_M
 ClientSampleId :
 D9N58

Manual Integrations
 APPROVED

UMANGI
 12/29/2015 5:42:14 PM



(14) Phenanthrene

17.210min (+0.086) 0.14ng/ul

response 8487

Ion	Exp%	Act%
178.00	100	100
176.00	16.20	18.44
179.00	17.70	19.54
0.00	0.00	0.00

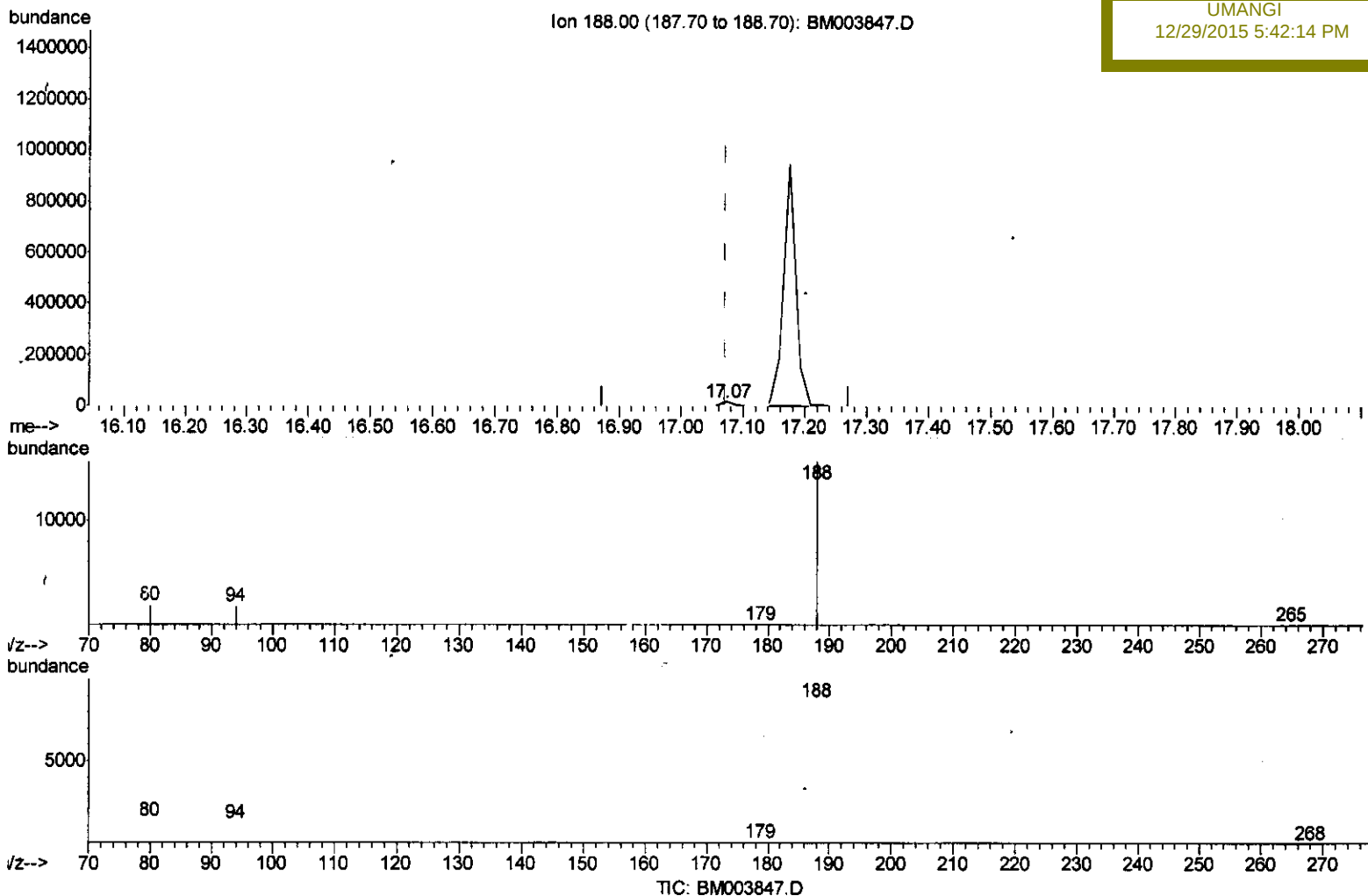
Data Path : Z:\HPCHEM1\BNA_M\DATA\BM123015\
 Data File : BM003847.D
 Acq On : 29 Dec 2015 02:55
 Operator : SJ/UM
 Sample : G4848-12
 Misc :
 ALS Vial : 16 Sample Multiplier: 1

Instrument :
 BNA_M
 ClientSampleId :
 D9N58

Manual Integrations
 APPROVED

UMANGI
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Quant Time: Dec 29 08:21:49 2015
 Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-SIM-BM121515.M
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 QLast Update : Tue Dec 29 08:19:02 2015
 Response via : Initial Calibration



(12) Phenanthrene-d10 (I)

17.073min (-0.000) 0.40ng/ul m

response 23864

Ion	Exp%	Act%
188.00	100	100
94.00	11.70	11.75
80.00	11.90	12.15
0.00	0.00	0.00

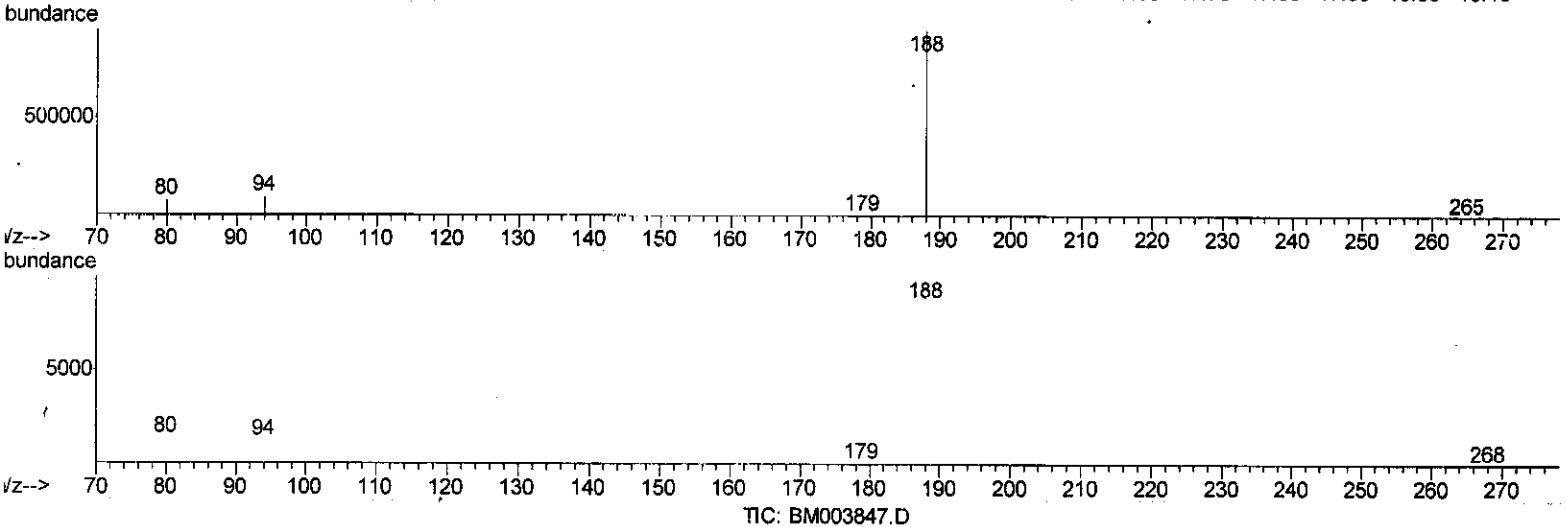
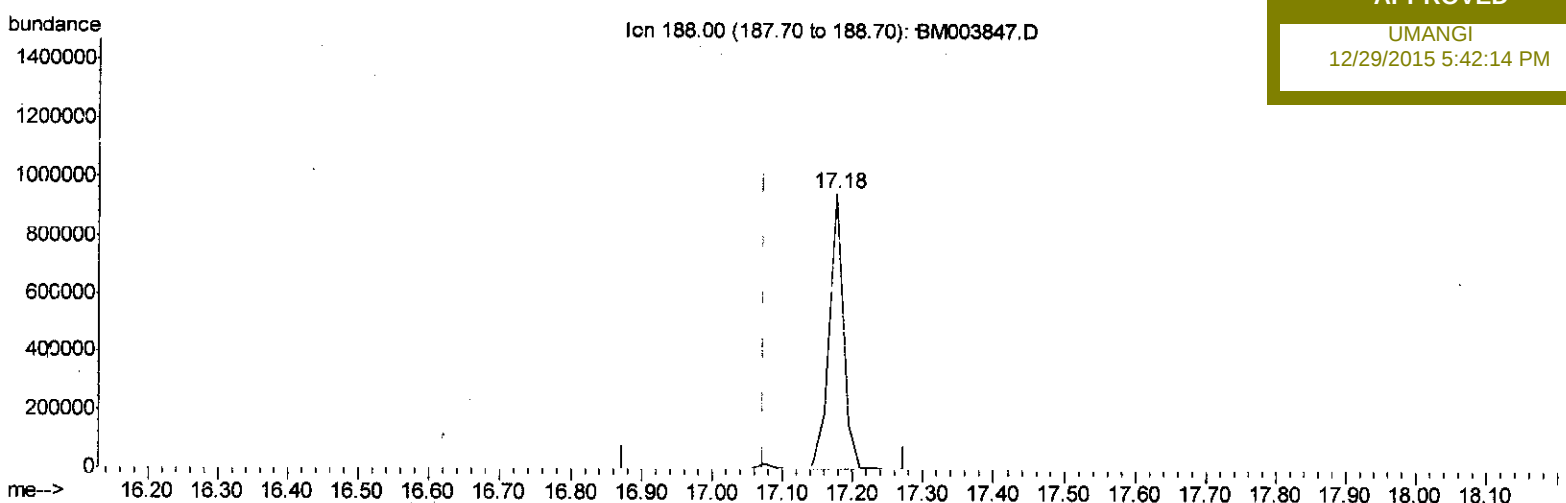
U. m
 12/31/15

Data Path : Z:\HPCHEM1\BNA_M\DATA\BM123015\
 Data File : BM003847.D
 Acq On : 29 Dec 2015 02:55
 Operator : SJ/UM
 Sample : G4848-12
 Misc :
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 29 08:21:49 2015
 Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-SIM-BM121515.M
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 QLast Update : Tue Dec 29 08:19:02 2015
 Response via : Initial Calibration

Instrument :
 BNA_M
 ClientSampleId :
 D9N58

Manual Integrations
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 UMANGI
 12/29/2015 5:42:14 PM



(12) Phenanthrene-d10 (I)
 17.176min (+0.103) 0.40ng/ul
 response 1331669

Ion	Exp%	Act%
188.00	100	100
94.00	11.70	9.87
80.00	11.90	7.73#
0.00	0.00	0.00

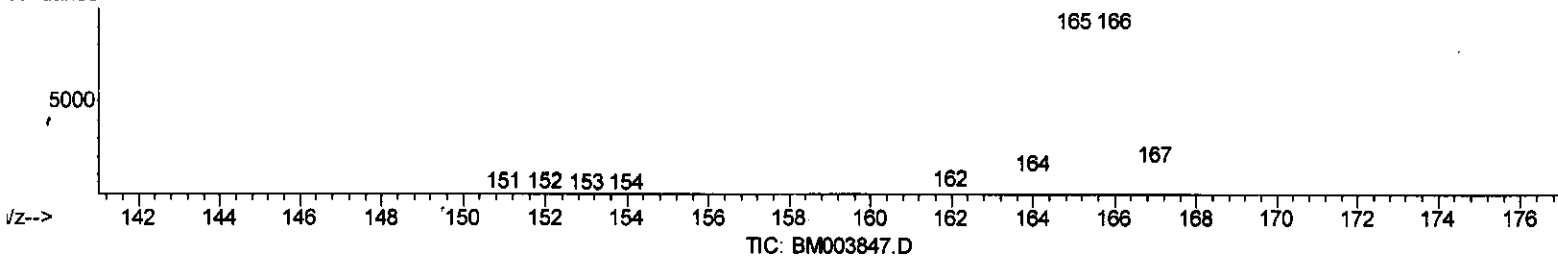
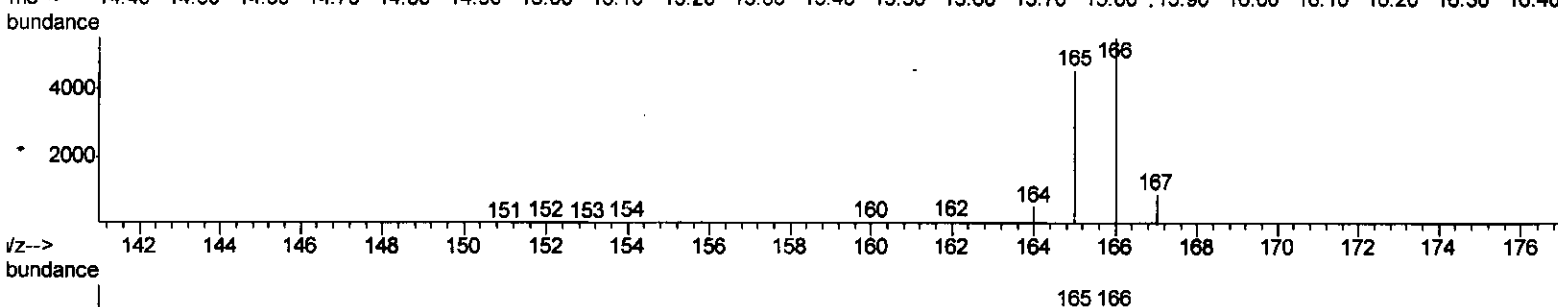
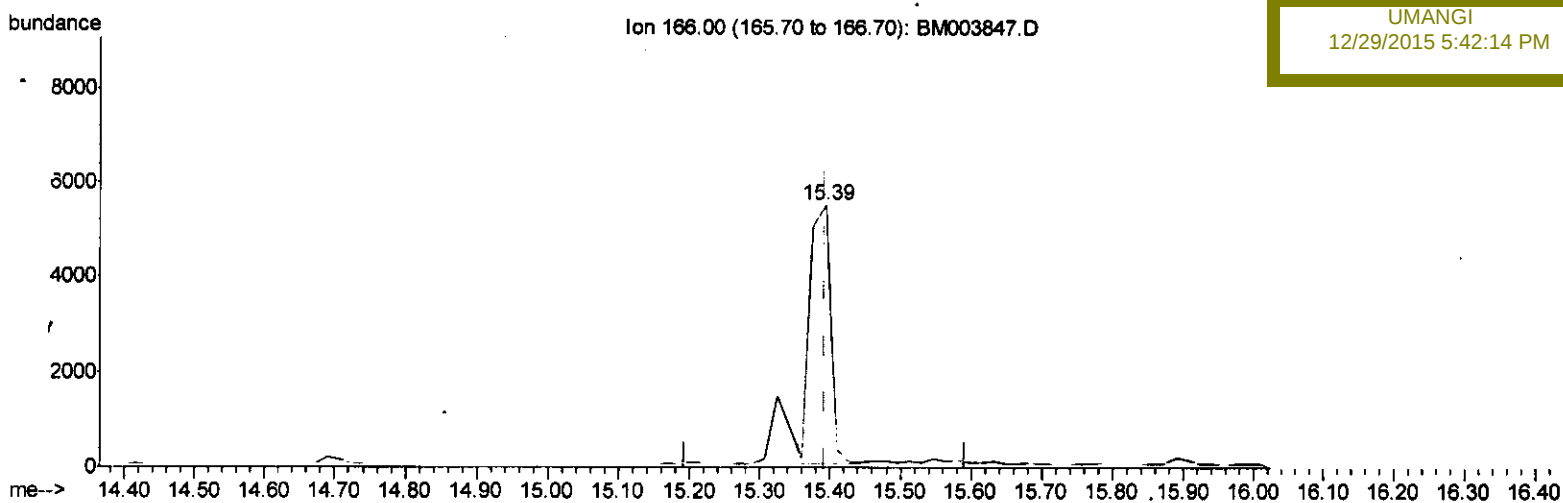
Data Path : Z:\HPCHEM1\BNA_M\DATA\BM123015\
 Data File : BM003847.D
 Acq On : 29 Dec 2015 02:55
 Operator : SJ/UM
 Sample : G4848-12
 Misc :
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 29 08:21:49 2015
 Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-SIM-BM121515.M
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 QLast Update : Tue Dec 29 08:19:02 2015
 Response via : Initial Calibration

Instrument :
 BNA_M
 ClientSampleId :
 D9N58

Manual Integrations
 APPROVED

UMANGI
 12/29/2015 5:42:14 PM



(11) Fluorene

15.393min (+0.000) 0.30ng/ul m

response 11056

Ion	Exp%	Act%
166.00	100	100
165.00	87.00	82.67
167.00	14.90	16.34
0.00	0.00	0.00

U.M
 12/31/15

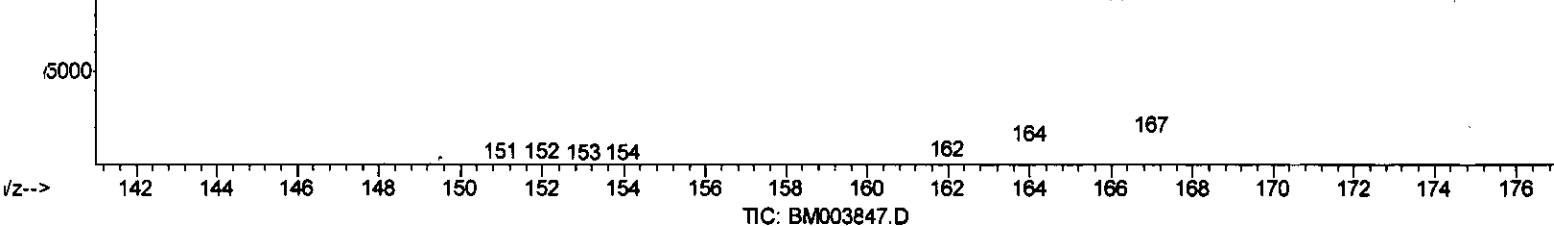
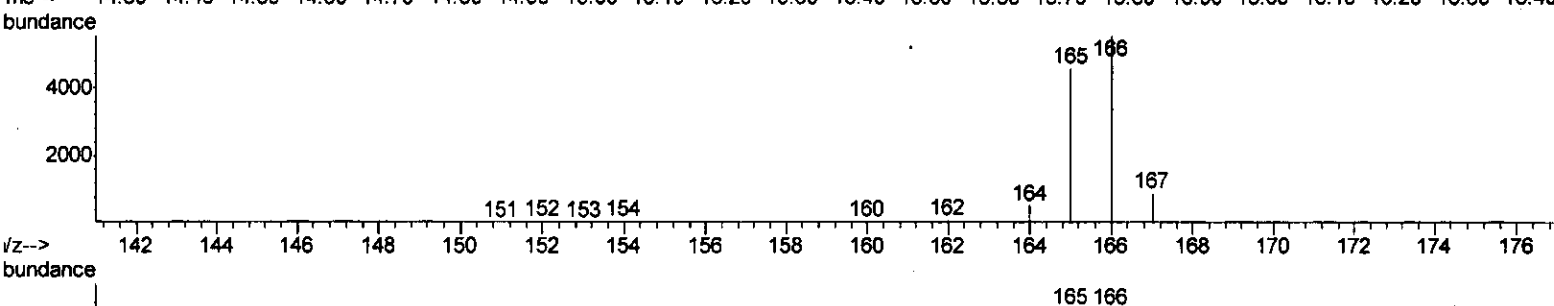
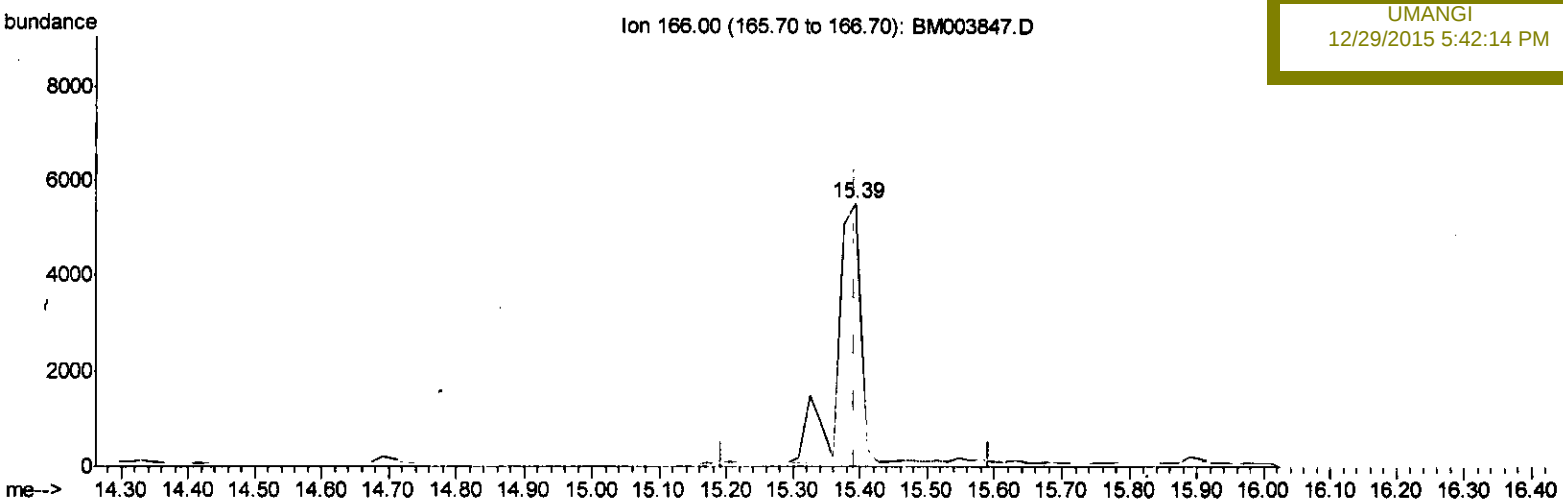
Data Path : Z:\HPCHEM1\BNA_M\DATA\BM123015\
 Data File : BM003847.D
 Acq On : 29 Dec 2015 02:55
 Operator : SJ/UM
 Sample : G4848-12
 Misc :
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 29 08:21:49 2015
 Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-SIM-BM121515.M
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 QIast Update : Tue Dec 29 08:19:02 2015
 Response via : Initial Calibration

Instrument :
 BNA_M
 ClientSampleId :
 D9N58

Manual Integrations
 APPROVED

UMANGI
 12/29/2015 5:42:14 PM



(11) Fluorene

15.393min (+0.000) 0.37ng/ul

response 13633

Ion	Exp%	Act%
166.00	100	100
165.00	87.00	82.67
167.00	14.90	16.34
0.00	0.00	0.00

Data Path : Z:\HPCHEM1\BNA_M\DATA\BM123015\
 Data File : BM003847.D
 Acq On : 29 Dec 2015 02:55
 Operator : SJ/UM
 Sample : G4848-12
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 ALS Vial : 16 Sample Multiplier: 1

Instrument :
 BNA_M
 ClientSampleId :
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Manual Integrations
 APPROVED

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 12/29/2015 5:42:14 PM

Quant Time: Dec 29 08:32:34 2015
 Quant Method : Z:\HPCHEM1\BNA_M\METHODS\SOM02.2-EPA-SIM-BM121515.M
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 QLast Update : Tue Dec 29 08:19:02 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.68	152	4068	0.40	ng/ul	0.00
4) Naphthalene-d8	10.46	136	17830	0.40	ng/ul	-0.01
8) Acenaphthene-d10	14.33	164	10660	0.40	ng/ul	0.00
12) Phenanthrene-d10	17.07	188	23864m→	0.40	ng/ul	0.00
18) Chrysene-d12	21.28	240	20816	0.40	ng/ul	0.00
22) Perylene-d12	23.51	264	14379m→	0.40	ng/ul	-0.01
System Monitoring Compounds						
2) 1,4-Dioxane-d8	3.14	96	18167	10.45	ng/uL	0.00
6) 2-Methylnaphthalene-d10	12.06	152	7013	0.33	ng/ul	-0.01
16) Fluoranthene-d10	19.12	212	18381	0.36	ng/ul	0.00
Target Compounds						Qvalue
5) Naphthalene	10.51	128	31971	0.80	ng/ul	97
7) 2-Methylnaphthalene	12.13	142	4287	0.16	ng/ul	98
9) Acenaphthylene	14.04	152	934	0.02	ng/ul#	80
10) Acenaphthene	14.38	153	7139	0.22	ng/ul#	80
11) Fluorene	15.39	166	11056m→	0.30	ng/ul	
14) Phenanthrene	17.11	178	95166m→	1.55	ng/ul	
17) Fluoranthene	19.14	202	58255	0.87	ng/ul	99
19) Pyrene	19.51	202	43424	0.77	ng/ul	98
20) Benzo(a)anthracene	21.26	228	7367	0.14	ng/ul#	94
21) Chrysene	21.31	228	6527	0.11	ng/ul	93
26) Indeno(1,2,3-cd)pyrene	25.78	276	581m→	0.01	ng/ul	
28) Benzo(g,h,i)perylene	26.46	276	545m→	0.01	ng/ul	

U.M
 12/31/15

(#) = qualifier out of range (m) = manual integration (+) = signals summed