

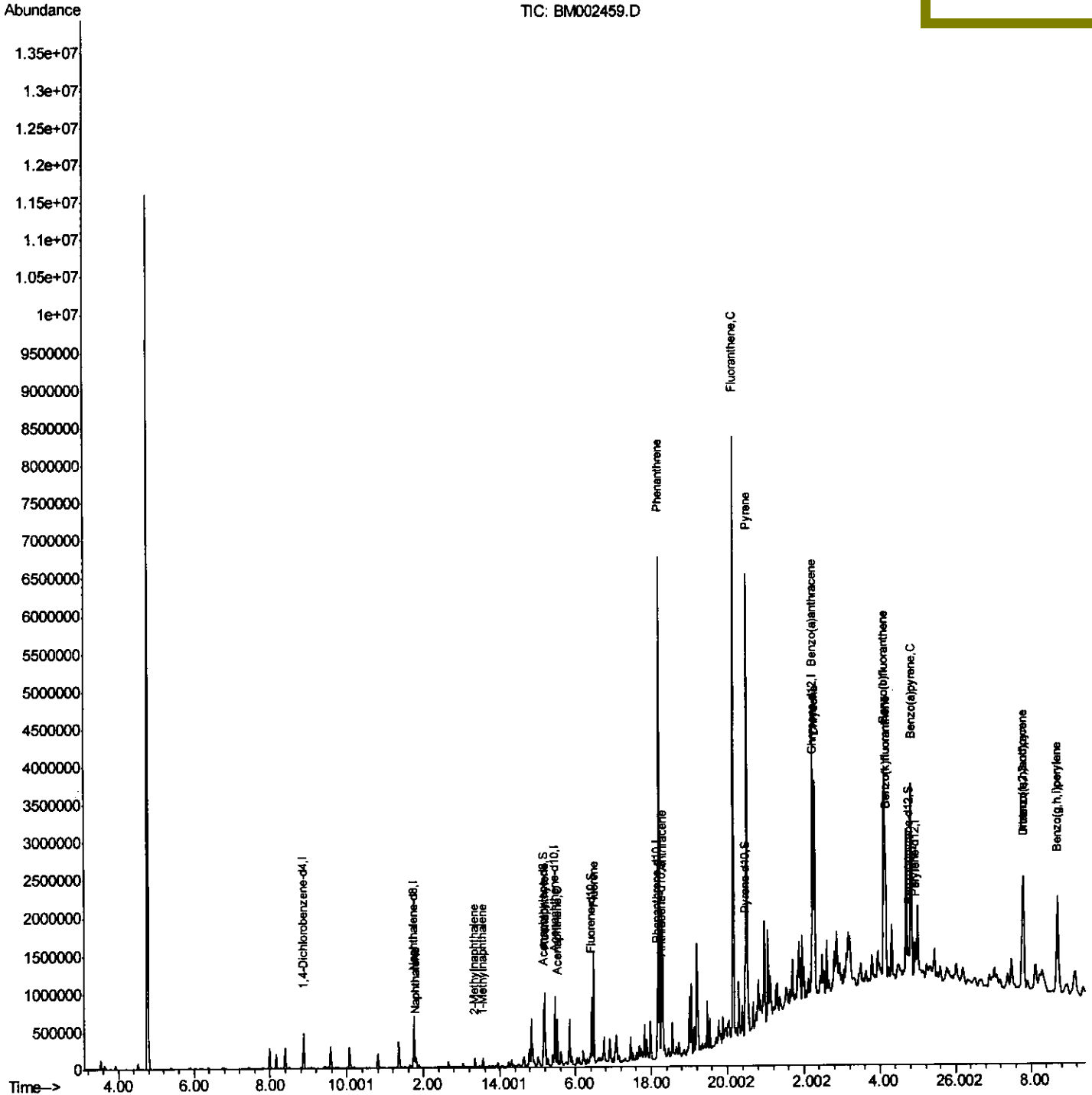
Data Path : Z:\HPCHEM1\BNA M\DATA\BM081715\
Data File : BM002459.D
Acq On : 17 Aug 2015 19:55
Operator : UM/IZ
Sample : G3227-10
Misc :
ALS Vial : 17 Sample Multiplier: 1

Instrument :
BNA_M
ClientSampleId :
D9DC9

Quant Time: Aug 18 02:53:01 2015
Quant Method : Z:\HPCHEM1\BNA M\METHODS\SOM02.2-EPA-BM081415MA.M
Quant Title : SVOA CALIBRATION
QLast Update : Tue Aug 18 01:54:16 2015
Response via : Initial Calibration

Manual Integrations
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Quantitation Report (Qedit)

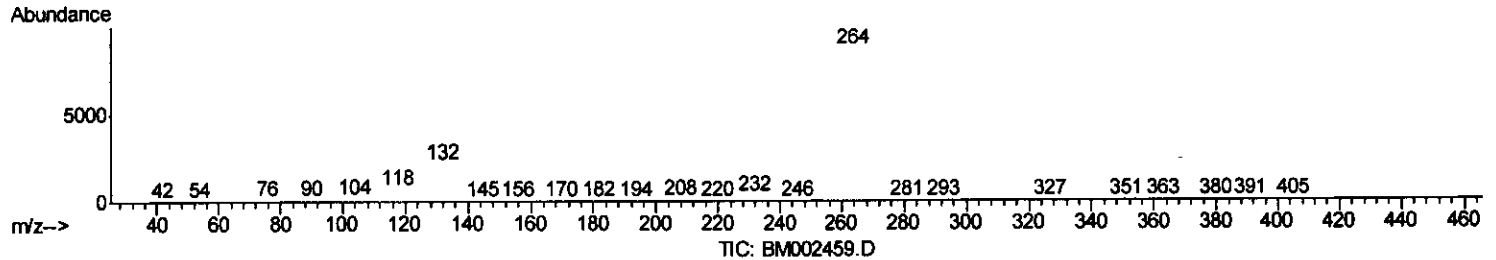
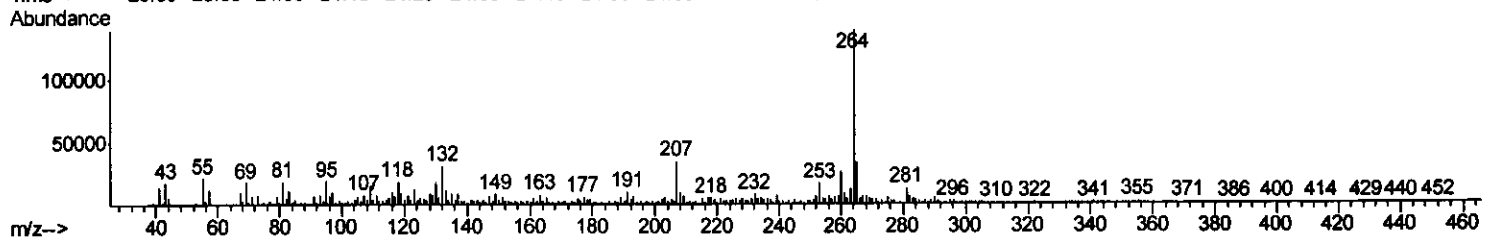
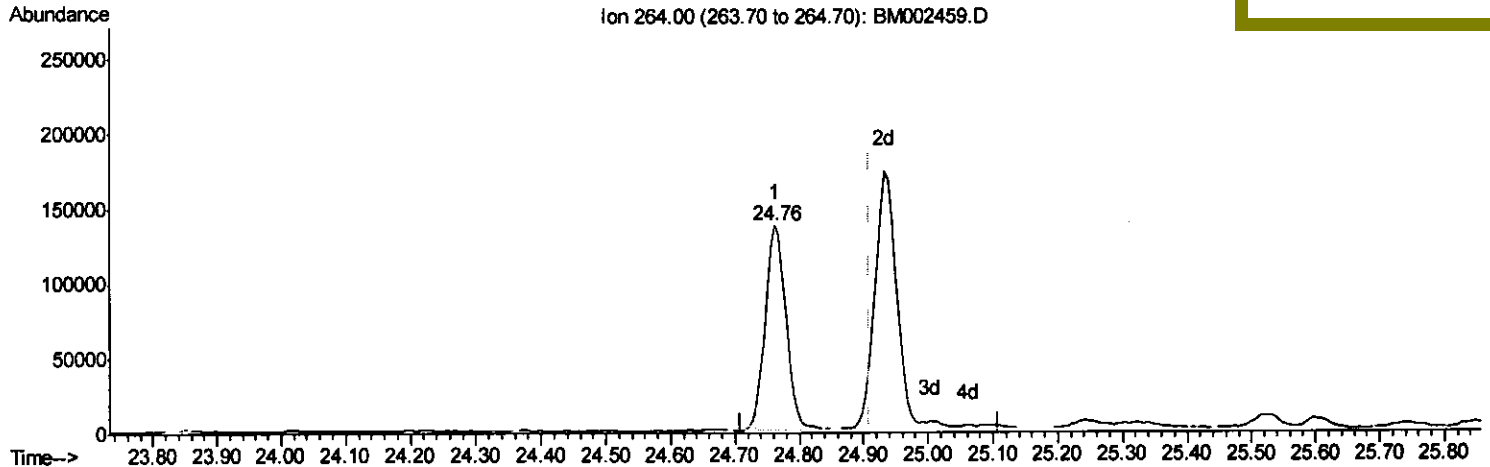
Data Path : Z:\HPCHEM1\BNA M\DATA\BM081715\
 Data File : BM002459.D
 Acq On : 17 Aug 2015 19:55
 Operator : UM/IZ
 Sample : G3227-10
 Misc :
 ALS Vial : 17 Sample Multiplier: 1

Instrument :
 BNA_M
 ClientSampleId :
 D9DC9

Quant Time: Aug 18 02:03:04 2015
 Quant Method : Z:\HPCHEM1\BNA M\METHODS\SOM02.2-EPA-BM081415MA.M
 Quant Title : SVOA CALIBRATION
 QLast Update : Tue Aug 18 01:54:16 2015
 Response via : Initial Calibration

Manual Integrations
 APPROVED

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 8/18/2015 5:16:20 PM



(22) Perylene-d12 (I)

24.762min (-0.147) 20.00ng/ul

response 299663

Ion	Exp%	Act%
264.00	100	100
260.00	23.60	19.66
265.00	21.40	24.30
0.00	0.00	0.00

Quantitation Report (Qedit)

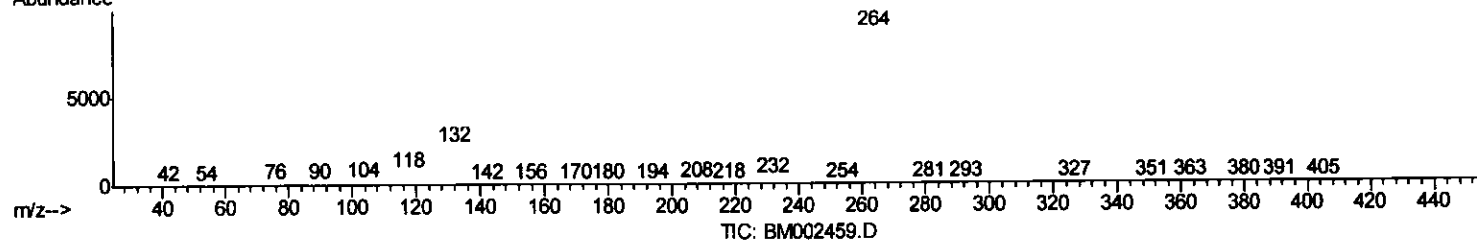
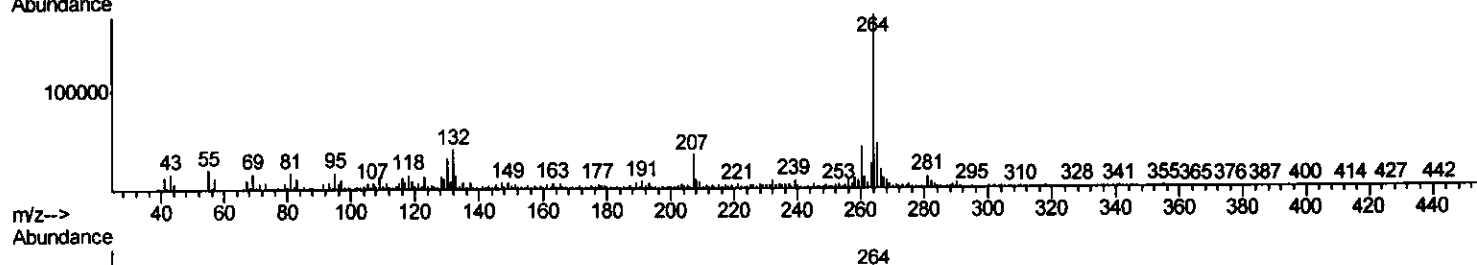
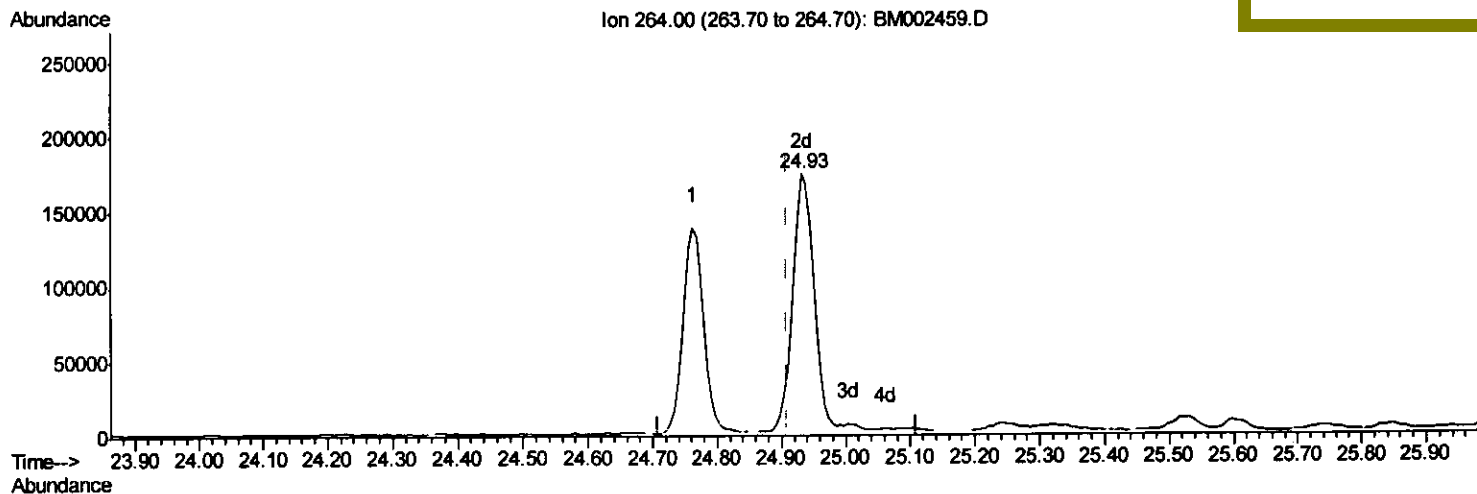
Data Path : Z:\HPCHEM1\BNA M\DATA\BM081715\
 Data File : BM002459.D
 Acq On : 17 Aug 2015 19:55
 Operator : UM/IZ
 Sample : G3227-10
 Misc :
 ALS Vial : 17 Sample Multiplier: 1

Instrument :
 BNA_M
 ClientSampleId :
 D9DC9

Quant Time: Aug 18 02:03:04 2015
 Quant Method : Z:\HPCHEM1\BNA M\METHODS\SOM02.2-EPA-BM081415MA.M
 Quant Title : SVOA CALIBRATION
 QLast Update : Tue Aug 18 01:54:16 2015
 Response via : Initial Calibration

Manual Integrations
 APPROVED

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(22) Perylene-d12 (I)

24.933min (+0.024) 20.00ng/ul m

response 413052

ion	Exp%	Act%
264.00	100	100
260.00	23.60	23.87
265.00	21.40	26.06#
0.00	0.00	0.00

UM
 8/19/15

Quantitation Report (Qedit)

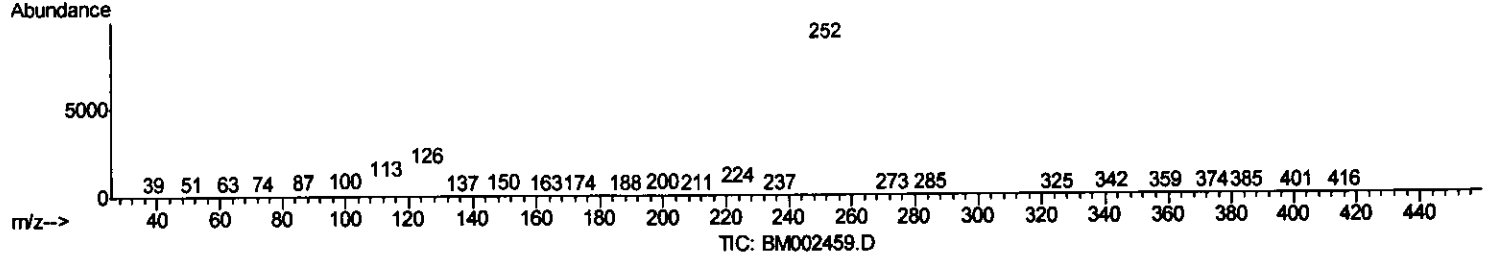
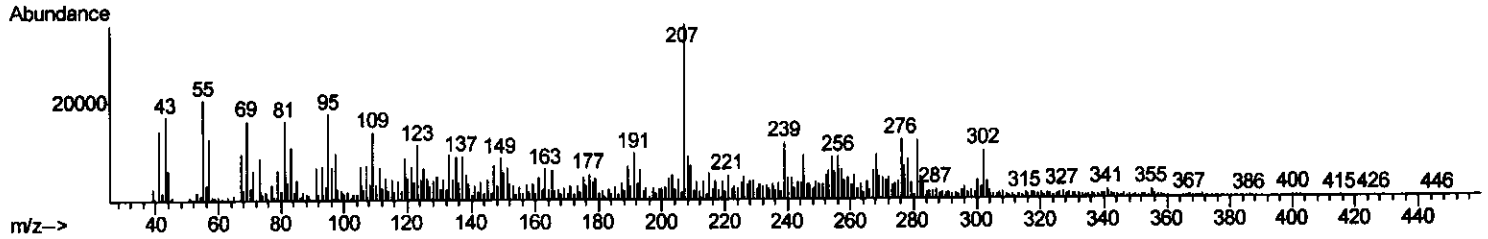
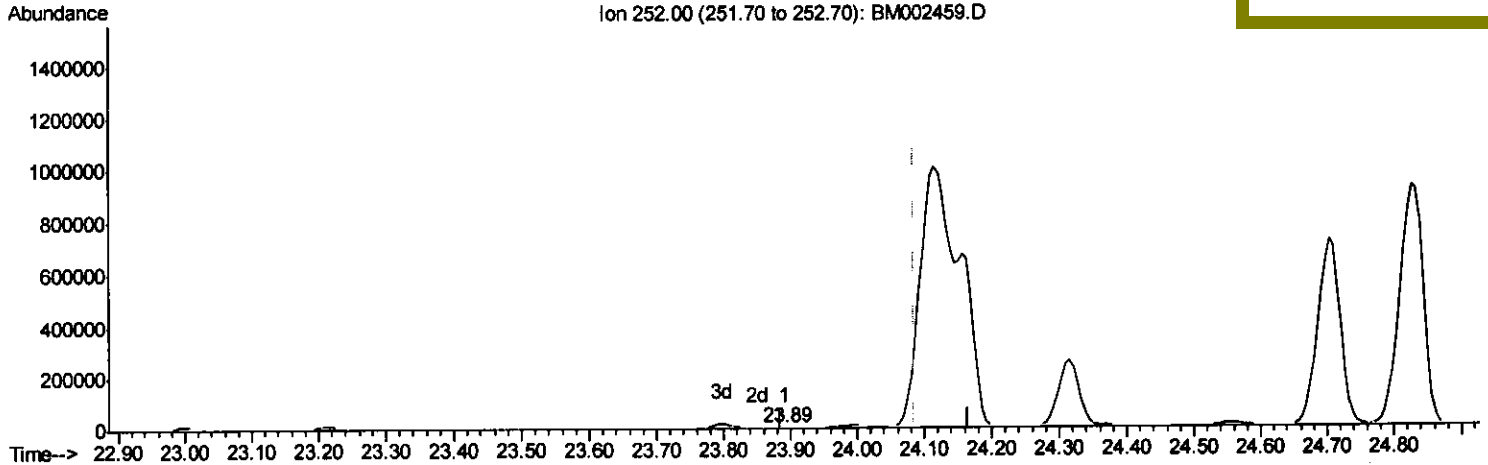
Data Path : Z:\HPCHEM1\BNA M\DATA\BM081715\
 Data File : BM002459.D
 Acq On : 17 Aug 2015 19:55
 Operator : UM/IZ
 Sample : G3227-10
 Misc :
 ALS Vial : 17 Sample Multiplier: 1

Instrument :
 BNA_M
 ClientSampled :
 D9DC9

Quant Time: Aug 18 02:46:50 2015
 Quant Method : Z:\HPCHEM1\BNA M\METHODS\SOM02.2-EPA-BM081415MA.M
 Quant Title : SVOA CALIBRATION
 QLast Update : Tue Aug 18 01:54:16 2015
 Response via : Initial Calibration

Manual Integrations
 APPROVED

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 8/18/2015 5:16:20 PM



(23) Benzo(b)fluoranthene

23.891min (-0.194) 0.10ng/ul

response 2390

Ion	Exp%	Act%
252.00	100	100
253.00	21.70	118.47#
125.00	12.50	130.35#
0.00	0.00	0.00

Quantitation Report (Qedit)

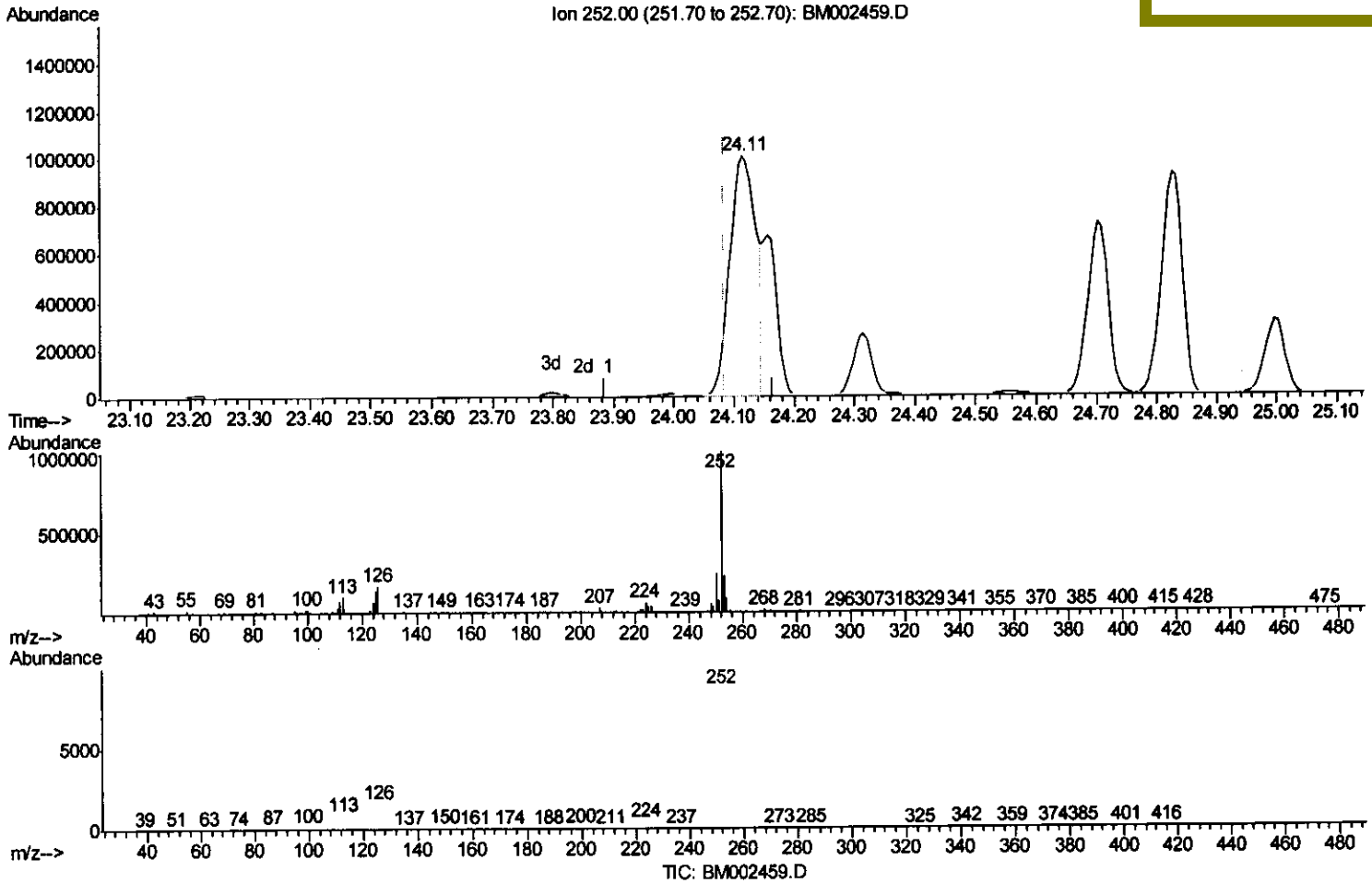
Data Path : Z:\HPCHEM1\BNA M\DATA\BM081715\
 Data File : BM002459.D
 Acq On : 17 Aug 2015 19:55
 Operator : UM/IZ
 Sample : G3227-10
 Misc :
 ALS Vial : 17 Sample Multiplier: 1

Instrument :
 BNA_M
 ClientSampleId :
 D9DC9

Quant Time: Aug 18 02:46:50 2015
 Quant Method : Z:\HPCHEM1\BNA M\METHODS\SOM02.2-EPA-BM081415MA.M
 Quant Title : SVOA CALIBRATION
 QLast Update : Tue Aug 18 01:54:16 2015
 Response via : Initial Calibration

Manual Integrations
 APPROVED

MMDadoda
 8/18/2015 5:16:20 PM



(23) Benzo(b)fluoranthene

24.115min (+0.030) 123.41ng/ul m U.M

response 3081574

Ion	Exp%	Act%
252.00	100	100
253.00	21.70	22.83
125.00	12.50	13.98
0.00	0.00	0.00

Quantitation Report (Qedit)

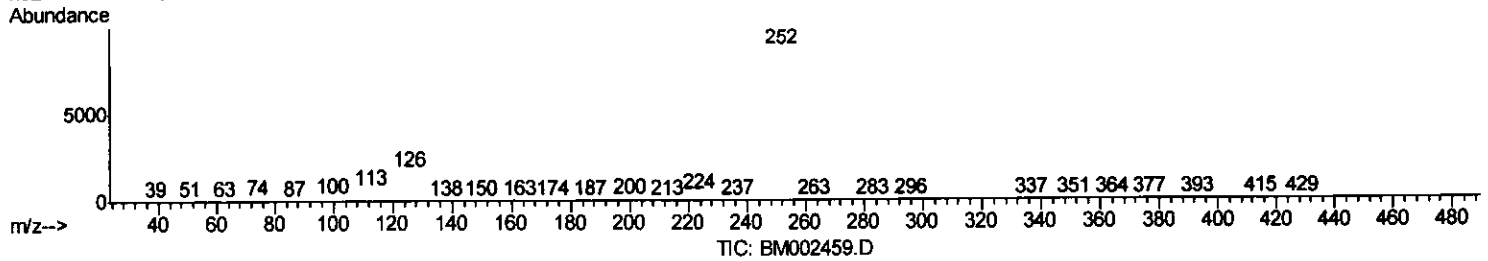
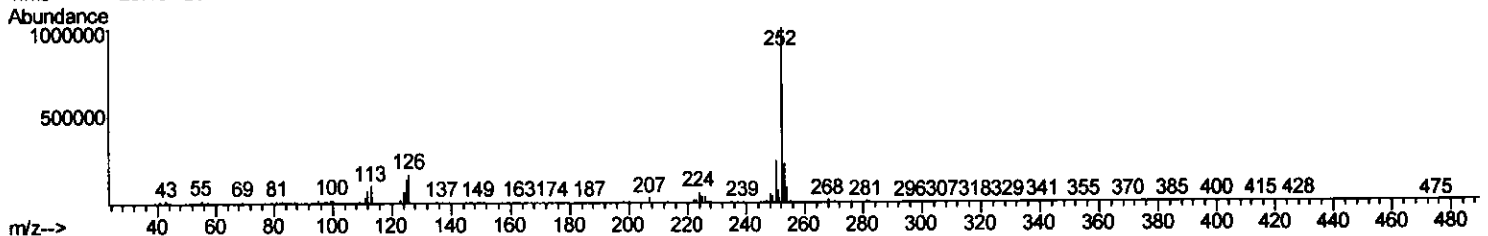
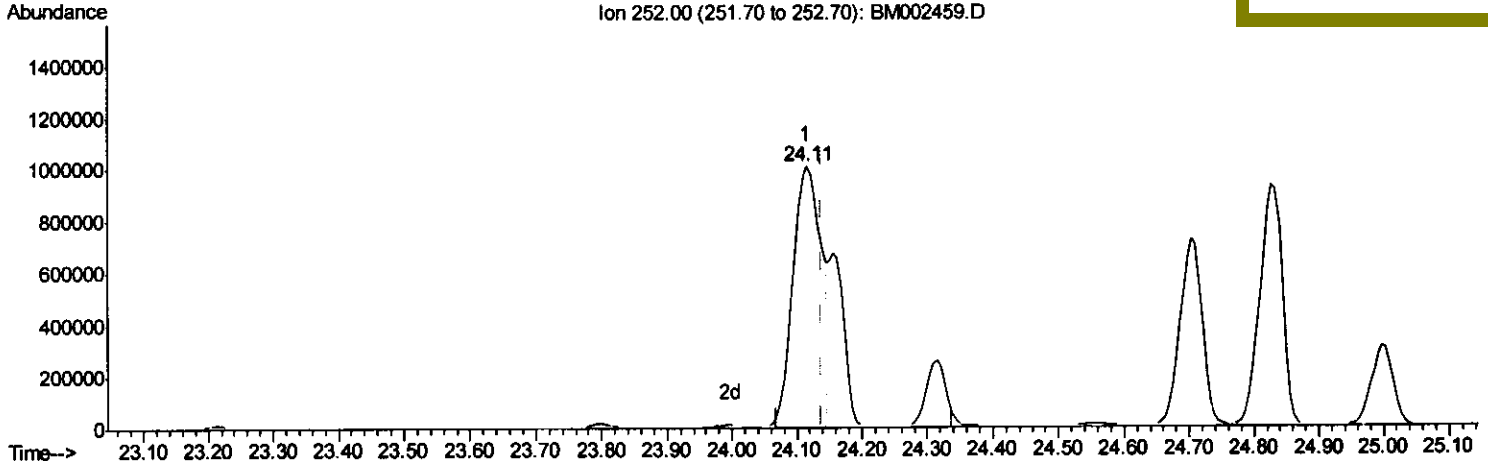
Data Path : Z:\HPCHEM1\BNA M\DATA\BM081715\
 Data File : BM002459.D
 Acq On : 17 Aug 2015 19:55
 Operator : UM/IZ
 Sample : G3227-10
 Misc :
 ALS Vial : 17 Sample Multiplier: 1

Instrument :
 BNA_M
 ClientSampleId :
 D9DC9

Quant Time: Aug 18 02:46:50 2015
 Quant Method : Z:\HPCHEM1\BNA M\METHODS\SOM02.2-EPA-BM081415MA.M
 Quant Title : SVOA CALIBRATION
 QLast Update : Tue Aug 18 01:54:16 2015
 Response via : Initial Calibration

Manual Integrations
 APPROVED

MMDadoda
 8/18/2015 5:16:20 PM



(24) Benzo(k)fluoranthene

24.115min (-0.023) 129.43ng/ul

response 3062847

Ion	Exp%	Act%
252.00	100	100
253.00	22.20	22.83
125.00	12.30	13.98
0.00	0.00	0.00

Quantitation Report (Qedit)

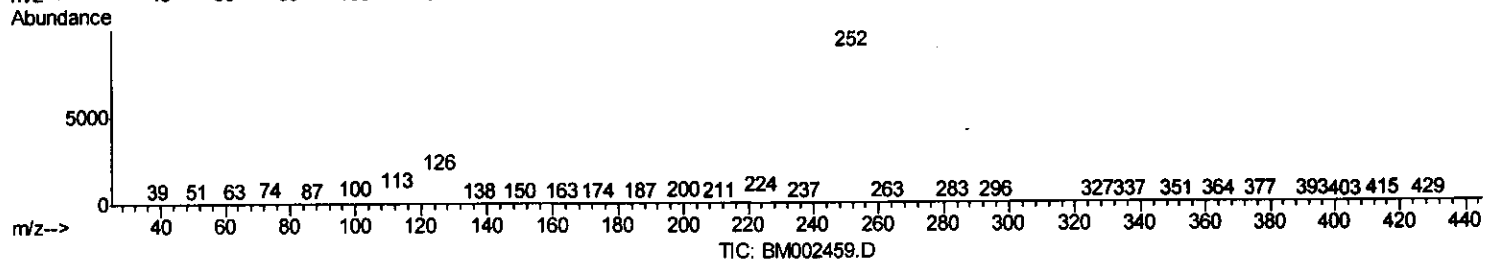
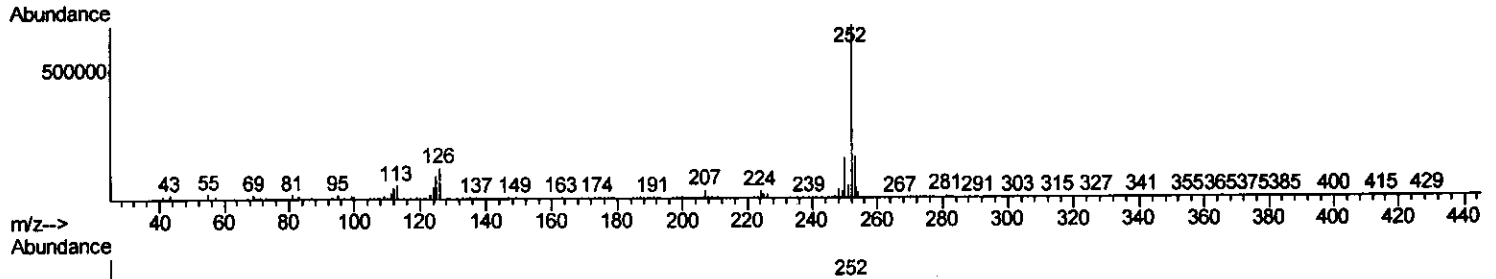
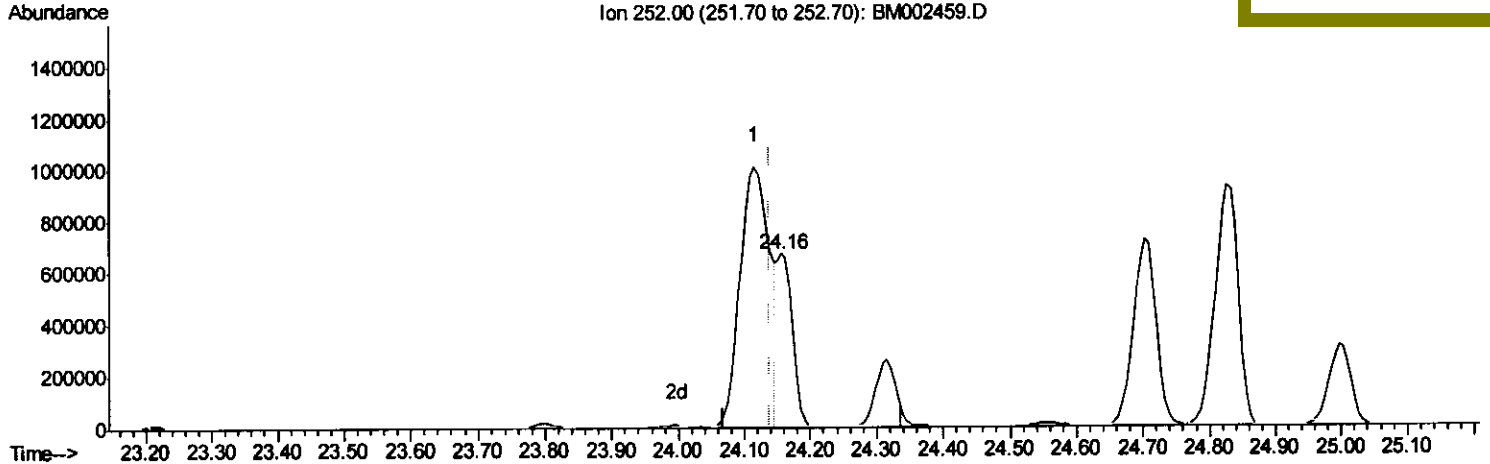
Data Path : Z:\HPCHEM1\BNA M\DATA\BM081715\
 Data File : BM002459.D
 Acq On : 17 Aug 2015 19:55
 Operator : UM/IZ
 Sample : G3227-10
 Misc :
 ALS Vial : 17 Sample Multiplier: 1

Instrument :
 BNA_M
 ClientSampleId :
 D9DC9

Quant Time: Aug 18 02:46:50 2015
 Quant Method : Z:\HPCHEM1\BNA M\METHODS\SOM02.2-EPA-BM081415MA.M
 Quant Title : SVOA CALIBRATION
 QLast Update : Tue Aug 18 01:54:16 2015
 Response via : Initial Calibration

Manual Integrations
 APPROVED

MMDadoda
 8/18/2015 5:16:20 PM



(24) Benzo(k)fluoranthene

24.156min (+0.018) 46.78ng/ul m

response 1107113

Ion Exp% Act%

252.00 100 100

253.00 22.20 24.37

125.00 12.30 13.74

0.00 0.00 0.00

U.M
 8/19/15

Quantitation Report (Qedit)

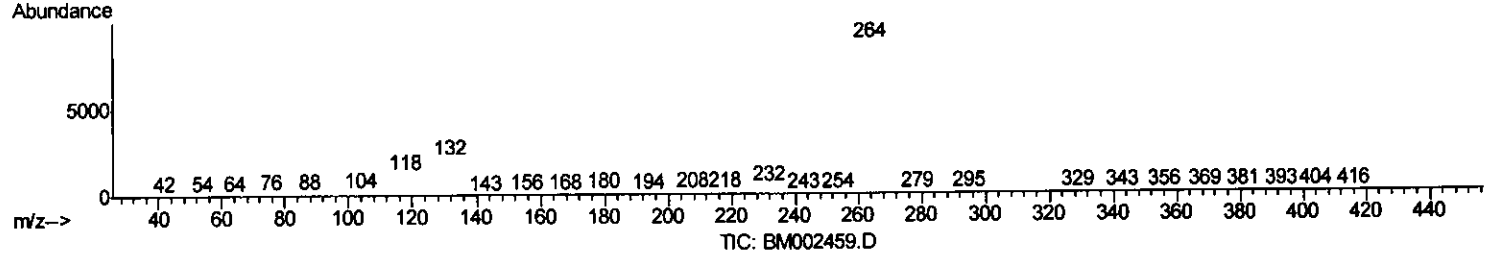
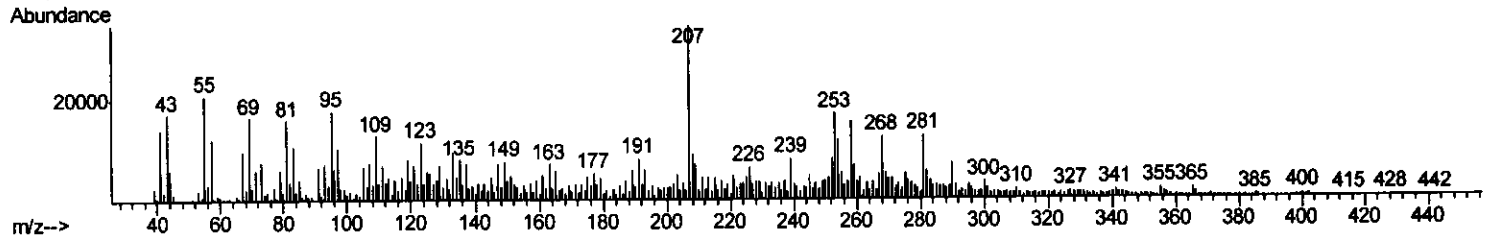
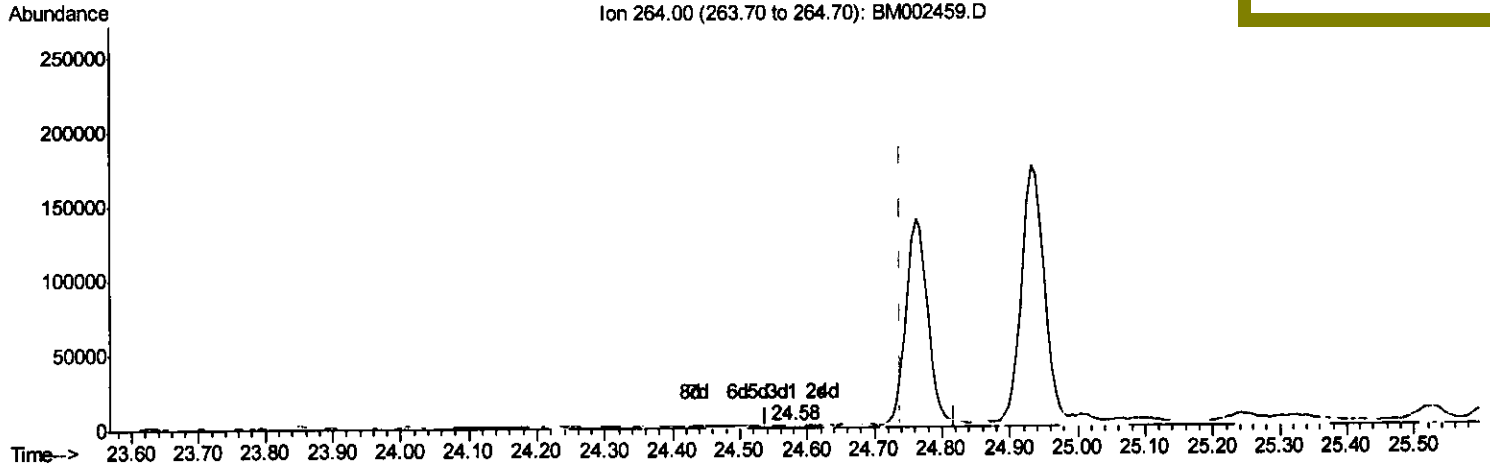
Data Path : Z:\HPCHEM1\BNA M\DATA\BM081715\
 Data File : BM002459.D
 Acq On : 17 Aug 2015 19:55
 Operator : UM/IZ
 Sample : G3227-10
 Misc :
 ALS Vial : 17 Sample Multiplier: 1

Instrument :
 BNA_M
 ClientSampleId :
 D9DC9

Quant Time: Aug 18 02:46:50 2015
 Quant Method : Z:\HPCHEM1\BNA M\METHODS\SOM02.2-EPA-BM081415MA.M
 Quant Title : SVOA CALIBRATION
 QLast Update : Tue Aug 18 01:54:16 2015
 Response via : Initial Calibration

Manual Integrations
 APPROVED

MMDadoda
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(25) Benzo(a)pyrene-d12 (S)

24.580min (-0.159) 0.01ng/ul

response 304

Ion	Exp%	Act%
264.00	100	100
132.00	20.40	113.32#
118.00	11.60	111.92#
0.00	0.00	0.00

Quantitation Report (Qedit)

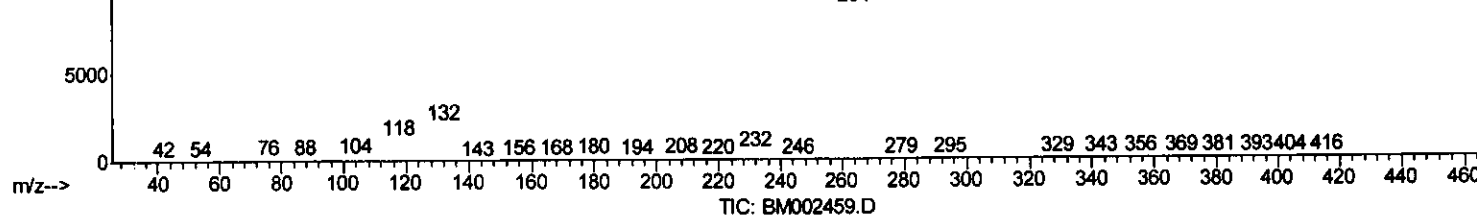
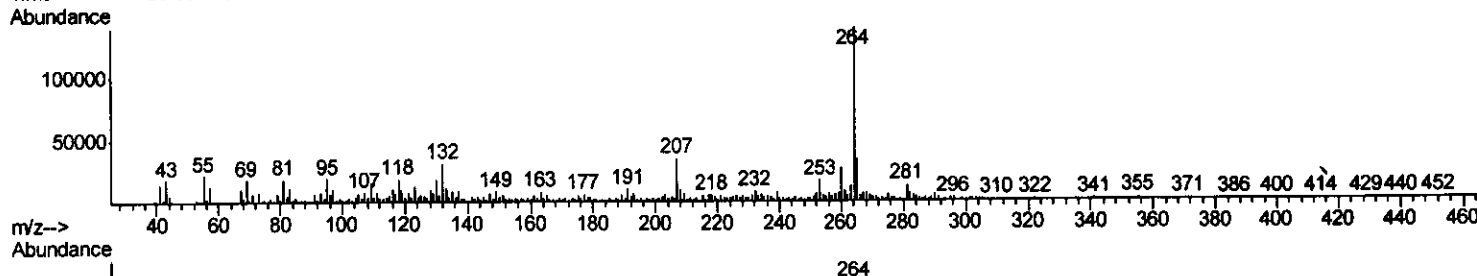
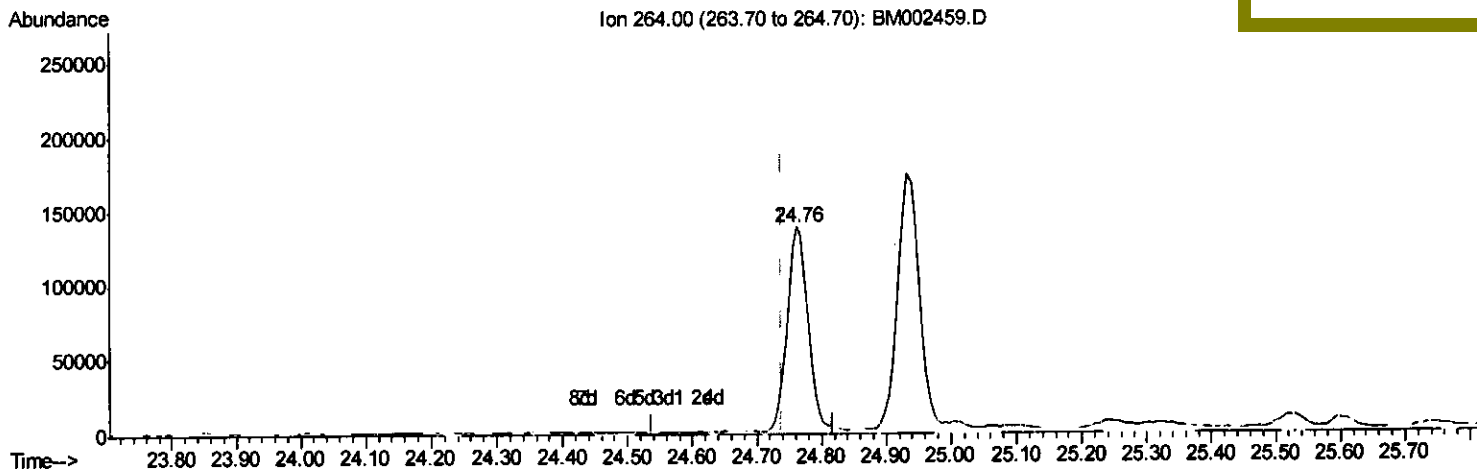
Data Path : Z:\HPCHEM1\BNA M\DATA\BM081715\
 Data File : BM002459.D
 Acq On : 17 Aug 2015 19:55
 Operator : UM/IZ
 Sample : G3227-10
 Misc :
 ALS Vial : 17 Sample Multiplier: 1

Instrument :
 BNA_M
 ClientSampleId :
 D9DC9

Quant Time: Aug 18 02:46:50 2015
 Quant Method : Z:\HPCHEM1\BNA M\METHODS\SOM02.2-EPA-BM081415MA.M
 Quant Title : SVOA CALIBRATION
 QLast Update : Tue Aug 18 01:54:16 2015
 Response via : Initial Calibration

Manual Integrations
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(25) Benzo(a)pyrene-d12 (S)

24.762min (+0.024) 14.56ng/ul m

U.M
 8/19/15

response 315810

Ion	Exp%	Act%
264.00	100	100
132.00	20.40	22.11
118.00	11.60	13.21
0.00	0.00	0.00

Quantitation Report (Qedit)

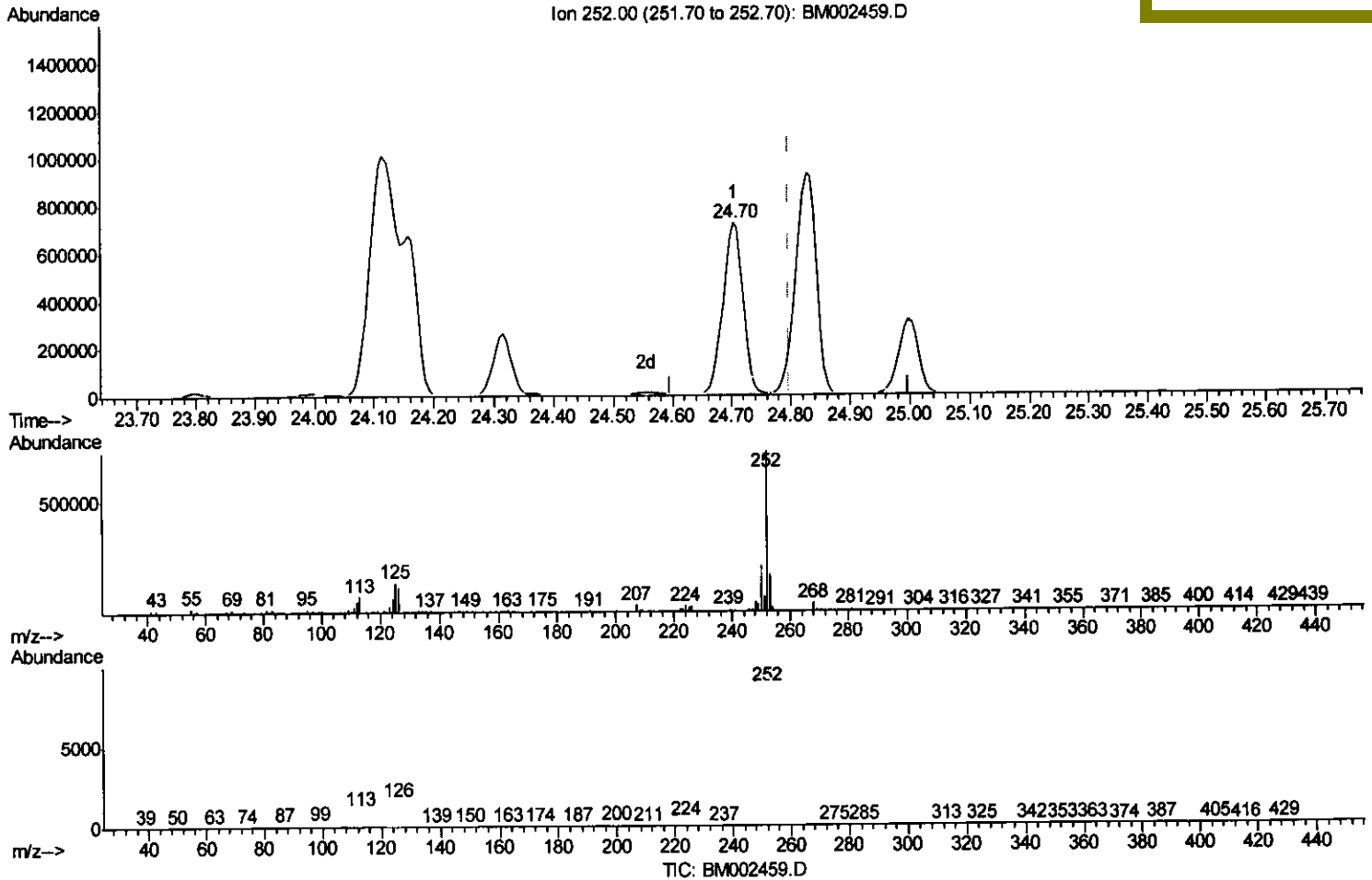
Data Path : Z:\HPCHEM1\BNA M\DATA\BM081715\
 Data File : BM002459.D
 Acq On : 17 Aug 2015 19:55
 Operator : UM/IZ
 Sample : G3227-10
 Misc :
 ALS Vial : 17 Sample Multiplier: 1

Instrument :
 BNA_M
 ClientSampleId :
 D9DC9

Quant Time: Aug 18 02:46:50 2015
 Quant Method : Z:\HPCHEM1\BNA M\METHODS\SOM02.2-EPA-BM081415MA.M
 Quant Title : SVOA CALIBRATION
 QLast Update : Tue Aug 18 01:54:16 2015
 Response via : Initial Calibration

Manual Integrations
 APPROVED

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(26) Benzo(a)pyrene (C)

24.703min (-0.094) 71.48ng/ul

response 1704836

Ion	Exp%	Act%
252.00	100	100
253.00	22.00	23.24
125.00	13.40	18.66#
0.00	0.00	0.00

Quantitation Report (Qedit)

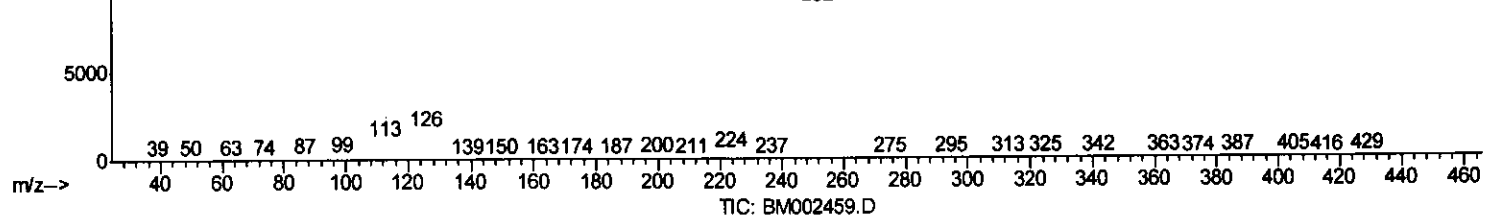
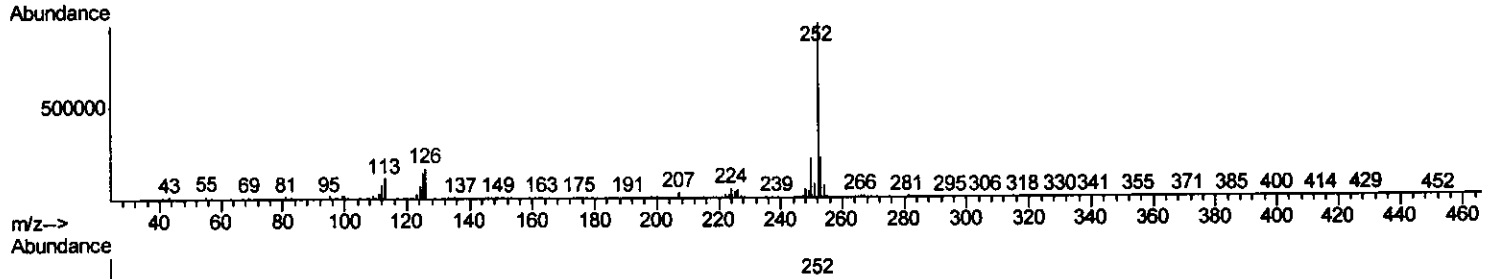
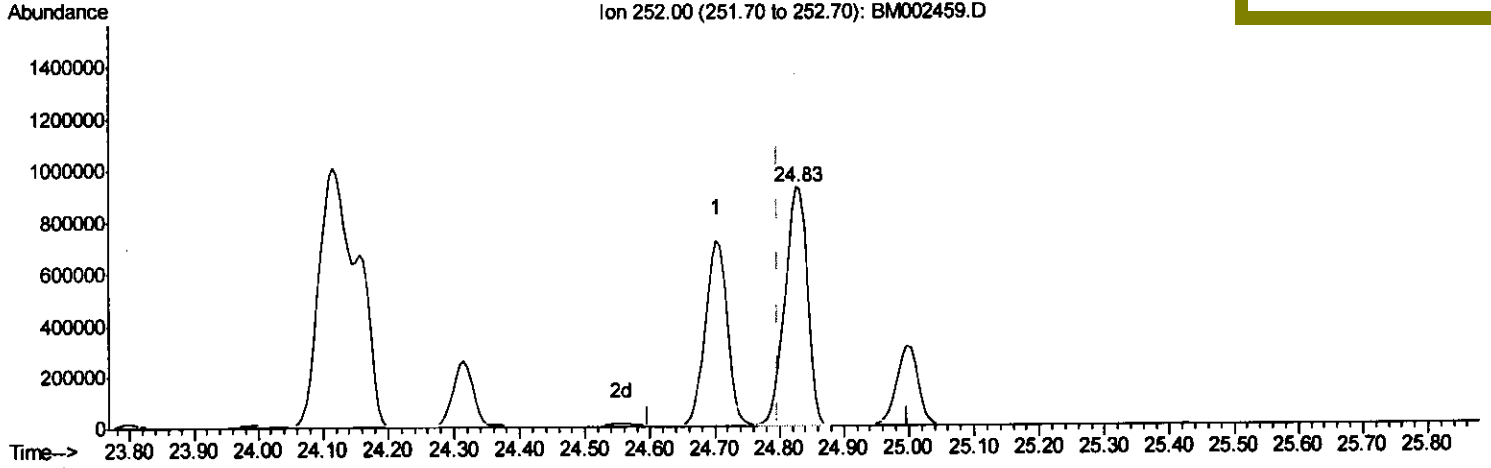
Data Path : Z:\HPCHEM1\BNA M\DATA\BM081715\
 Data File : BM002459.D
 Acq On : 17 Aug 2015 19:55
 Operator : UM/IZ
 Sample : G3227-10
 Misc :
 ALS Vial : 17 Sample Multiplier: 1

Instrument :
 BNA_M
 ClientSampleId :
 D9DC9

Quant Time: Aug 18 02:46:50 2015
 Quant Method : Z:\HPCHEM1\BNA M\METHODS\SOM02.2-EPA-BM081415MA.M
 Quant Title : SVOA CALIBRATION
 QLast Update : Tue Aug 18 01:54:16 2015
 Response via : Initial Calibration

Manual Integrations
 APPROVED

MMDadoda
 8/18/2015 5:16:20 PM



(26) Benzo(a)pyrene (C)

24.827min (+0.030) 95.14ng/ul m U.M

response 2269117

Ion	Exp%	Act%
252.00	100	100
253.00	22.00	23.56
125.00	13.40	14.94
0.00	0.00	0.00

8/18/15

Quantitation Report (Qedit)

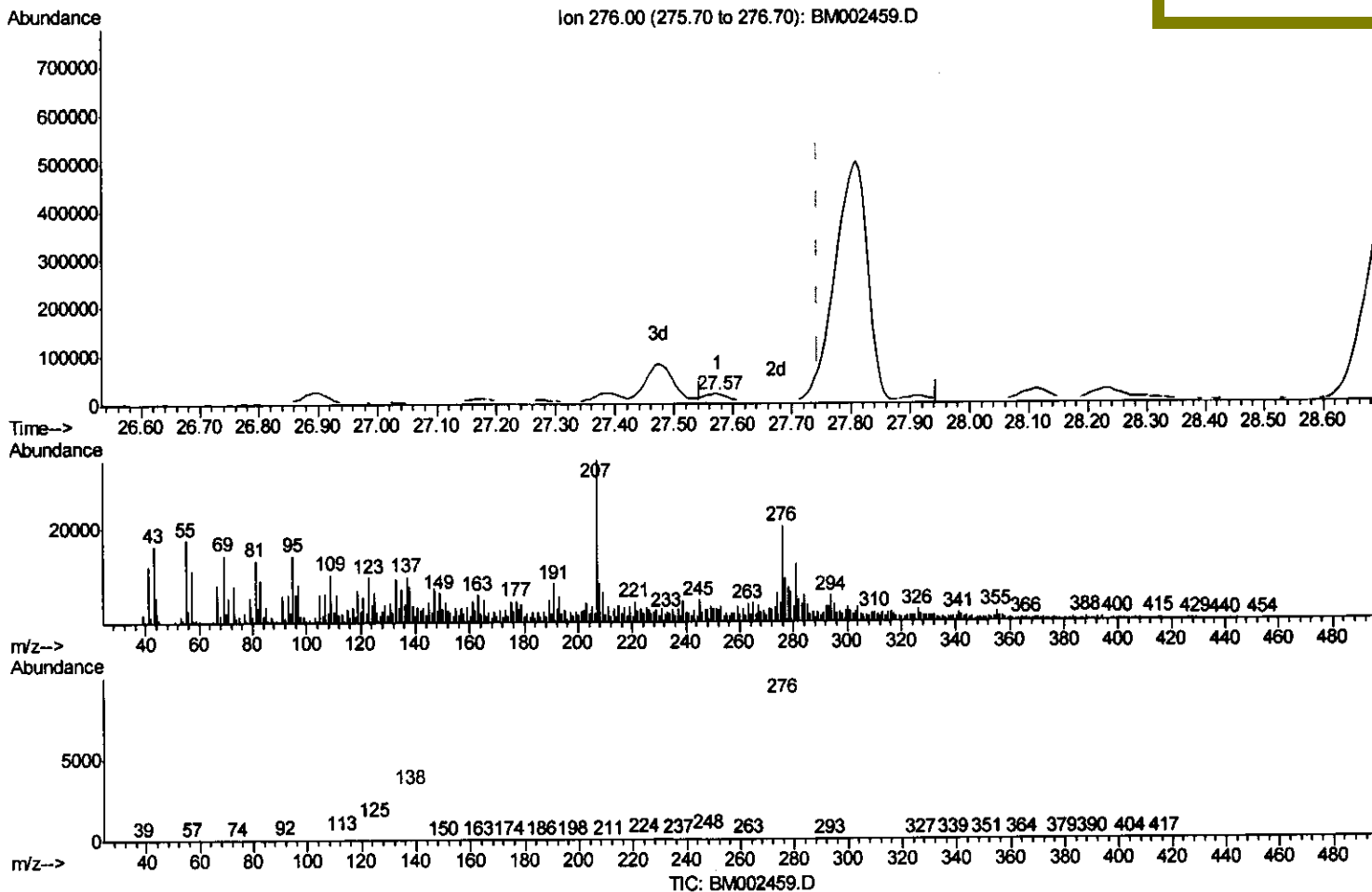
Data Path : Z:\HPCHEM1\BNA M\DATA\BM081715\
 Data File : BM002459.D
 Acq On : 17 Aug 2015 19:55
 Operator : UM/IZ
 Sample : G3227-10
 Misc :
 ALS Vial : 17 Sample Multiplier: 1

Instrument :
 BNA_M
 ClientSampleId :
 D9DC9

Quant Time: Aug 18 02:46:50 2015
 Quant Method : Z:\HPCHEM1\BNA M\METHODS\SOM02.2-EPA-BM081415MA.M
 Quant Title : SVOA CALIBRATION
 QLast Update : Tue Aug 18 01:54:16 2015
 Response via : Initial Calibration

Manual Integrations
 APPROVED

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

27.574min (-0.170) 1.65ng/ul

response 45172

Ion	Exp%	Act%
276.00	100	100
138.00	31.60	39.66#
277.00	25.20	46.24#
0.00	0.00	0.00

Quantitation Report (Qedit)

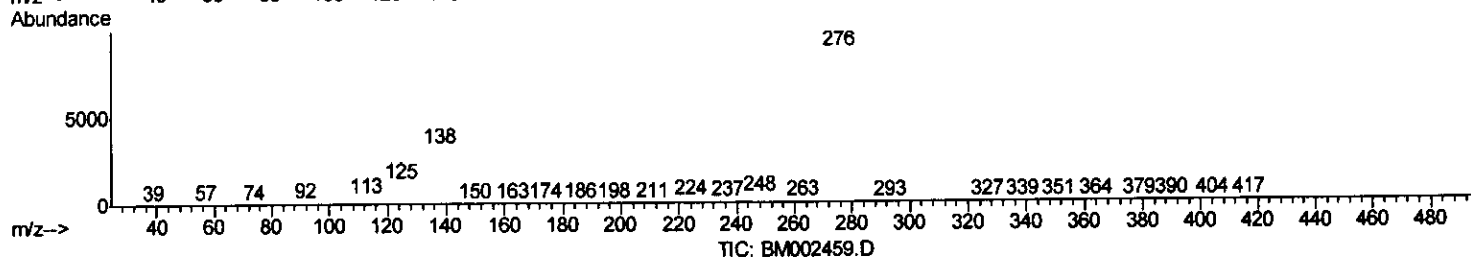
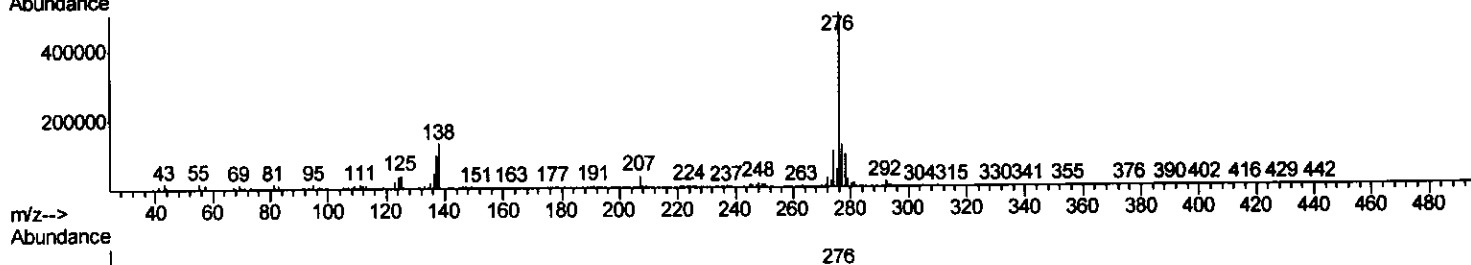
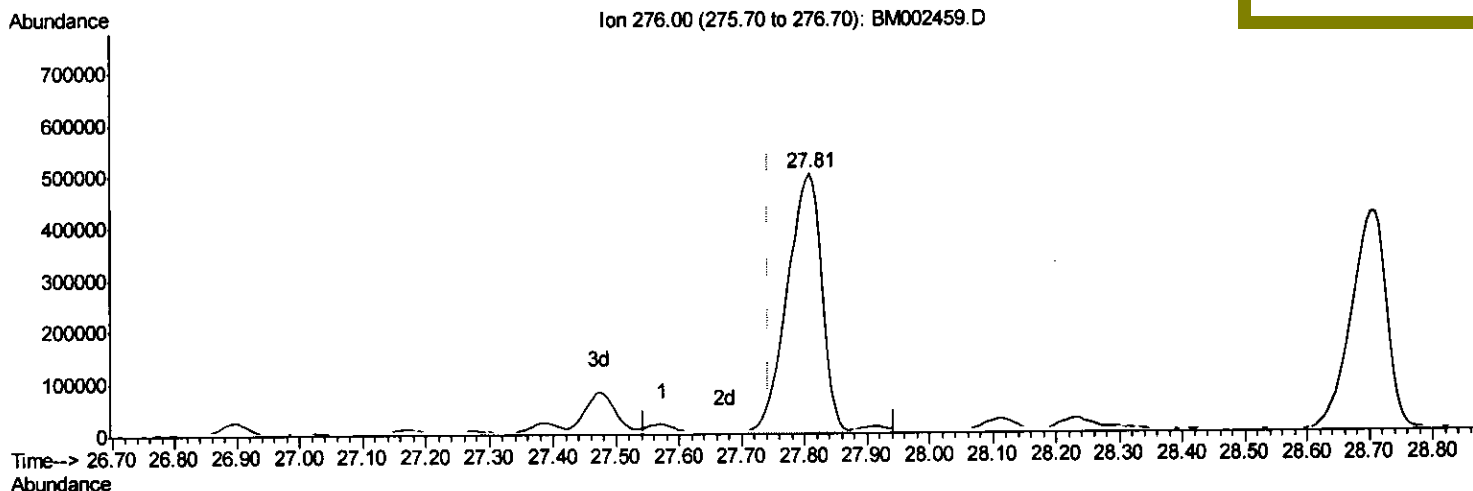
Data Path : Z:\HPCHEM1\BNA M\DATA\BM081715\
Data File : BM002459.D
Acq On : 17 Aug 2015 19:55
Operator : UM/IZ
Sample : G3227-10
Misc :
ALS Vial : 17 Sample Multiplier: 1

Instrument :
BNA M
Client Sampled :
D9DC9

Quant Time: Aug 18 02:46:50 2015
Quant Method : Z:\HPCHEM1\BNA M\METHODS\SOM02.2-EPA-BM081415MA.M
Quant Title : SVOA CALIBRATION
QLast Update : Tue Aug 18 01:54:16 2015
Response via : Initial Calibration

Manual Integrations
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(27) Indeno(1,2,3-cd)pyrene

27.809min (+0.065) 70.61ng/ul m

response 1936667

Ion	Exp%	Act%
276.00	100	100
138.00	31.60	25.93
277.00	25.20	24.88
0.00	0.00	0.00

U.M
8/19/15

Quantitation Report (Qedit)

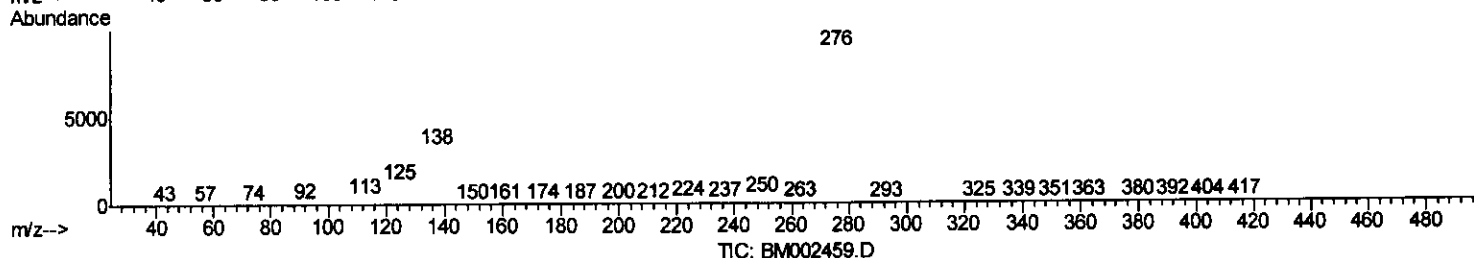
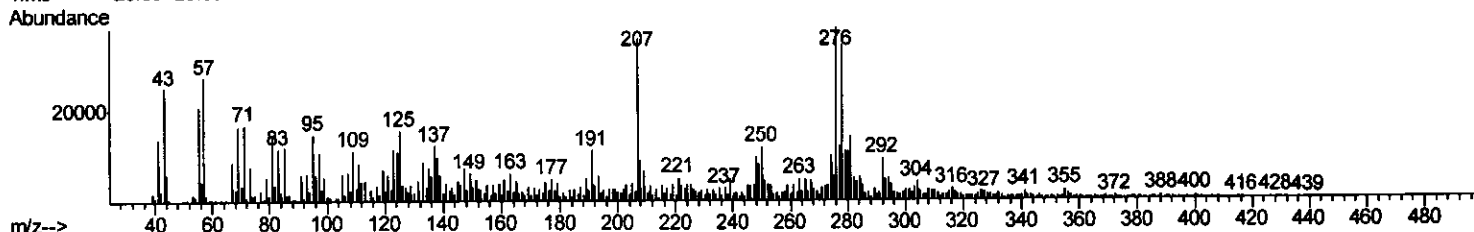
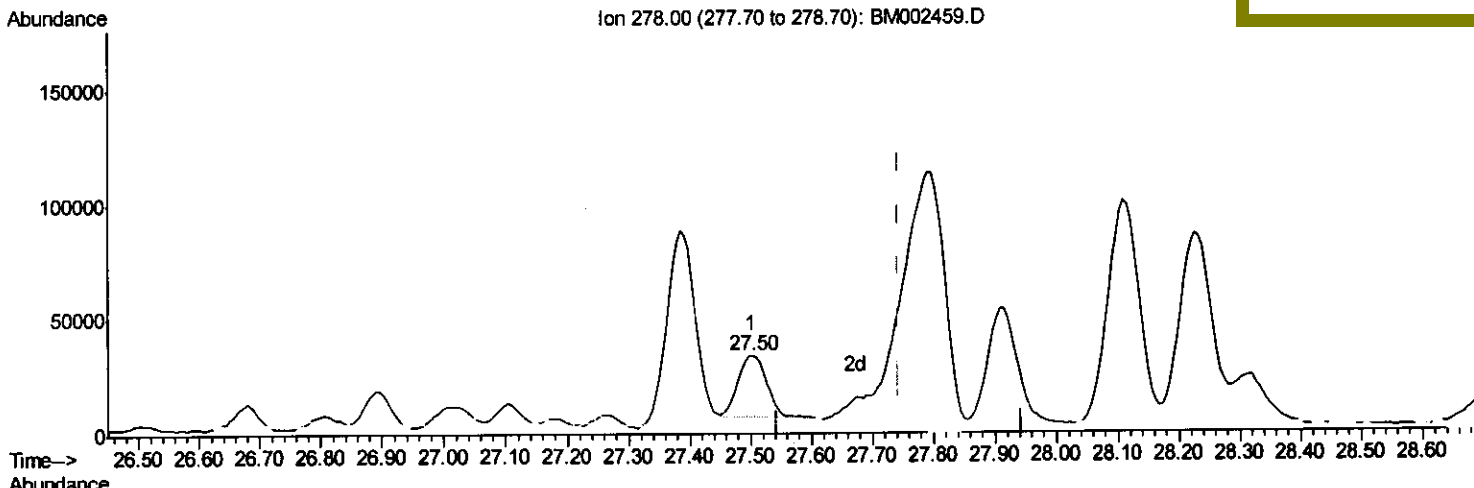
Data Path : Z:\HPCHEM1\BNA M\DATA\BM081715\
 Data File : BM002459.D
 Acq On : 17 Aug 2015 19:55
 Operator : UM/IZ
 Sample : G3227-10
 Misc :
 ALS Vial : 17 Sample Multiplier: 1

Instrument :
 BNA_M
 ClientSampleId :
 D9DC9

Quant Time: Aug 18 02:46:50 2015
 Quant Method : Z:\HPCHEM1\BNA M\METHODS\SOM02.2-EPA-BM081415MA.M
 Quant Title : SVOA CALIBRATION
 QLast Update : Tue Aug 18 01:54:16 2015
 Response via : Initial Calibration

Manual Integrations
 APPROVED

MMDadoda
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(28) Dibenzo(a,h)anthracene

27.503min (-0.241) 3.70ng/ul

response 84885

Ion	Exp%	Act%
278.00	100	100
139.00	20.60	17.41
279.00	23.50	32.35#
0.00	0.00	0.00

Quantitation Report (Qedit)

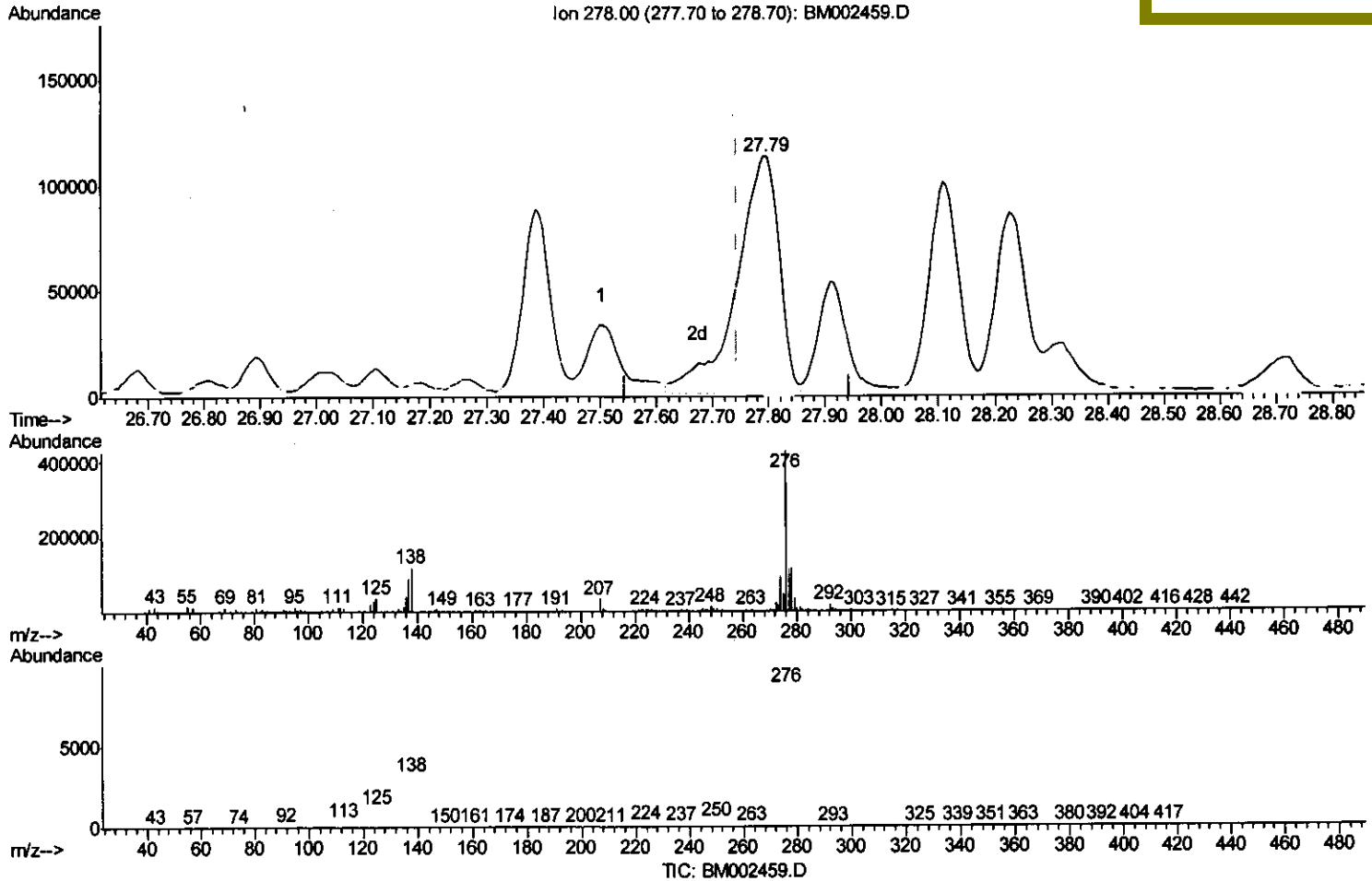
Data Path : Z:\HPCHEM1\BNA M\DATA\BM081715\
 Data File : BM002459.D
 Acq On : 17 Aug 2015 19:55
 Operator : UM/IZ
 Sample : G3227-10
 Misc :
 ALS Vial : 17 Sample Multiplier: 1

Instrument :
 BNA_M
 ClientSampleId :
 D9DC9

Quant Time: Aug 18 02:46:50 2015
 Quant Method : Z:\HPCHEM1\BNA M\METHODS\SOM02.2-EPA-BM081415MA.M
 Quant Title : SVOA CALIBRATION
 QLast Update : Tue Aug 18 01:54:16 2015
 Response via : Initial Calibration

Manual Integrations
 APPROVED

MMDadoda
 8/18/2015 5:16:20 PM



(28) Dibenzo(a,h)anthracene

27.791min (+0.047) 25.94ng/ul m U.M
8/19/15

response 594743

Ion	Exp%	Act%
278.00	100	100
139.00	20.60	0.00#
279.00	23.50	30.17#
0.00	0.00	0.00

Quantitation Report (Qedit)

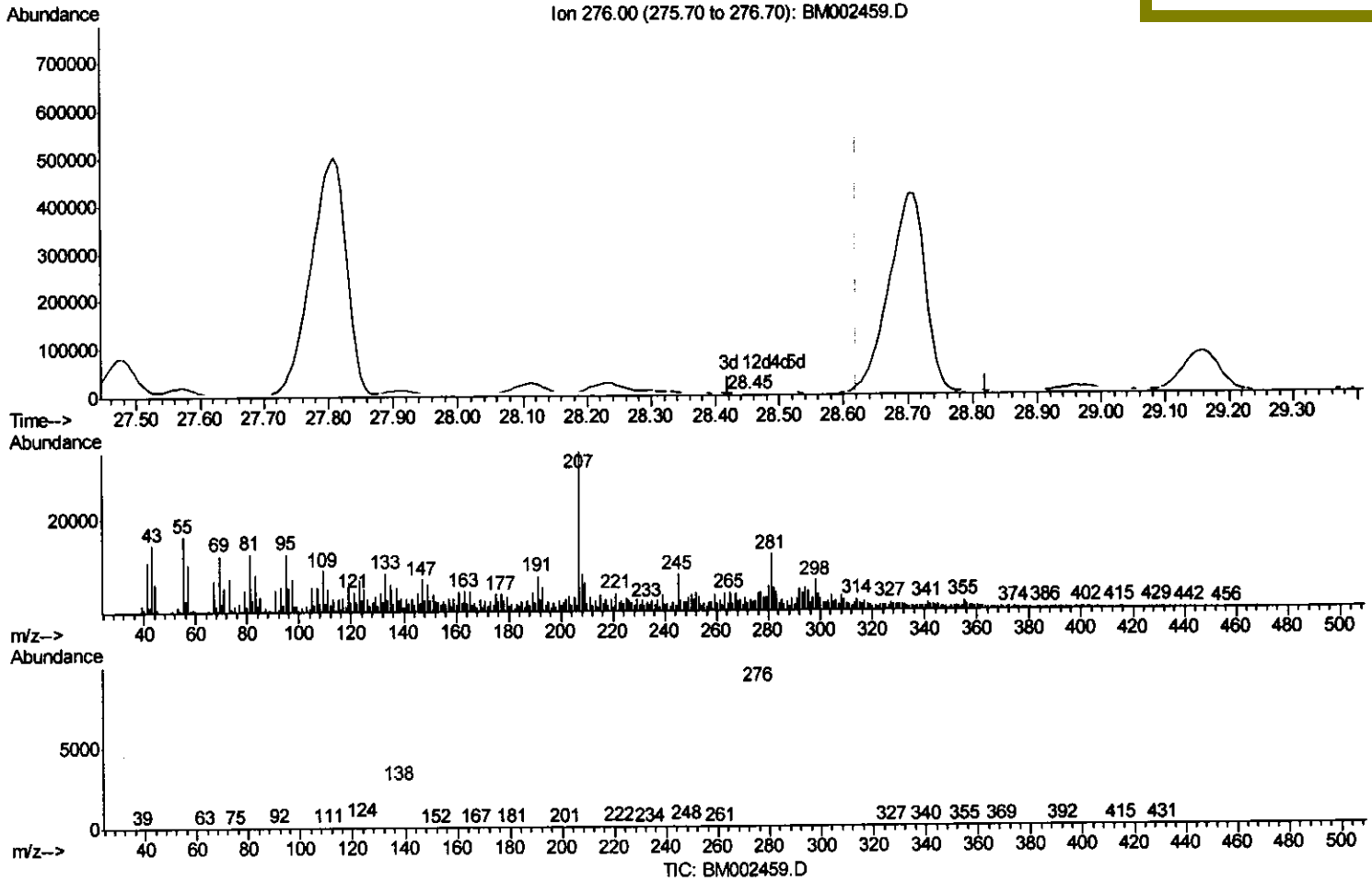
Data Path : Z:\HPCHEM1\BNA M\DATA\BM081715\
 Data File : BM002459.D
 Acq On : 17 Aug 2015 19:55
 Operator : UM/IZ
 Sample : G3227-10
 Misc :
 ALS Vial : 17 Sample Multiplier: 1

Instrument :
 BNA_M
 ClientSampleId :
 D9DC9

Quant Time: Aug 18 02:46:50 2015
 Quant Method : Z:\HPCHEM1\BNA M\METHODS\SOM02.2-EPA-BM081415MA.M
 Quant Title : SVOA CALIBRATION
 QLast Update : Tue Aug 18 01:54:16 2015
 Response via : Initial Calibration

Manual Integrations
 APPROVED

MMDadoda
 8/18/2015 5:16:20 PM



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

28.450min (-0.170) 0.03ng/ul

response 722

Ion	Exp%	Act%
276.00	100	100
138.00	26.30	72.80#
277.00	24.00	109.42#
0.00	0.00	0.00

Quantitation Report (Qedit)

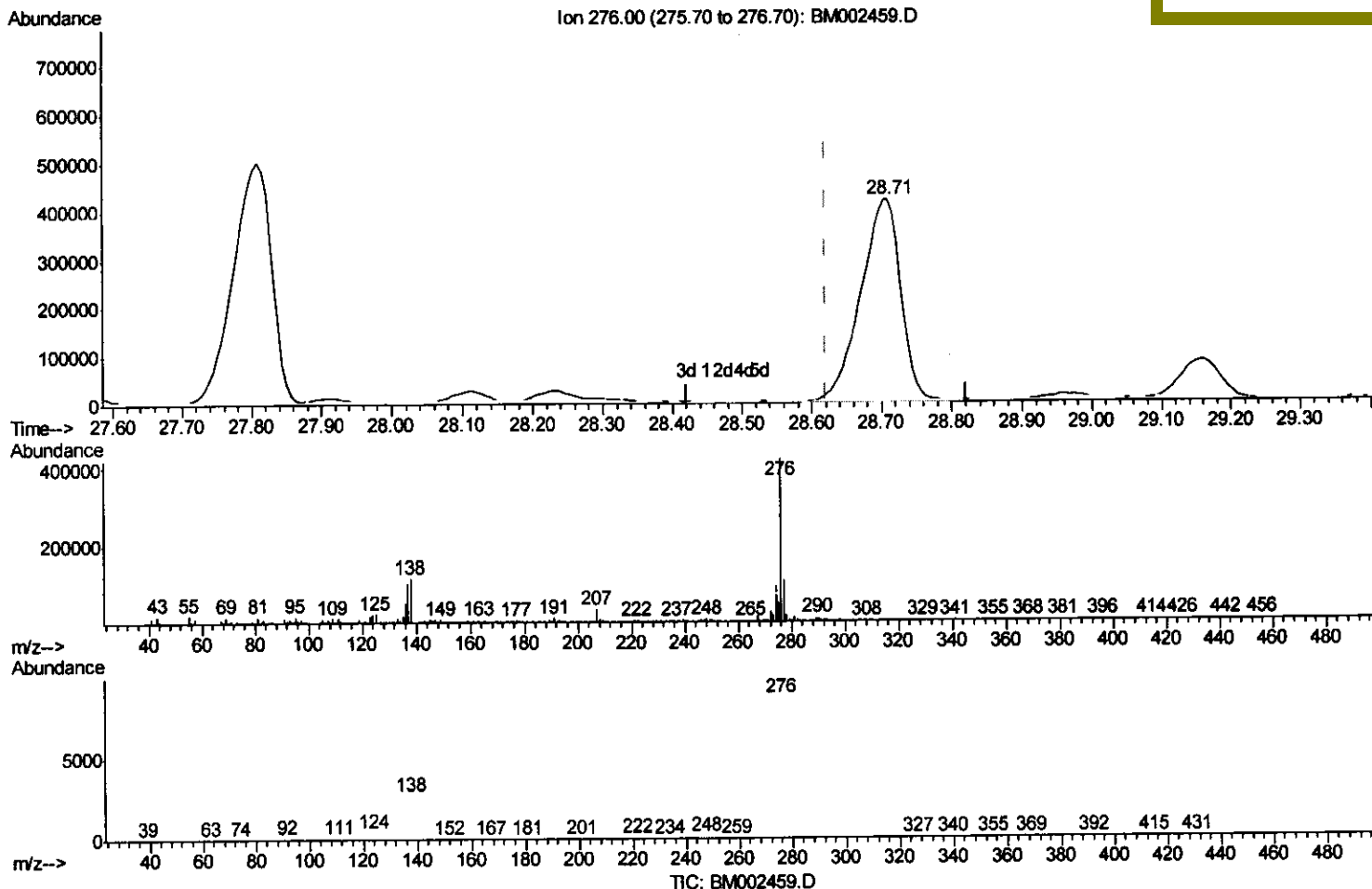
Data Path : Z:\HPCHEM1\BNA M\DATA\BM081715\
 Data File : BM002459.D
 Acq On : 17 Aug 2015 19:55
 Operator : UM/IZ
 Sample : G3227-10
 Misc :
 ALS Vial : 17 Sample Multiplier: 1

Instrument :
 BNA_M
 ClientSampleId :
 D9DC9

Quant Time: Aug 18 02:46:50 2015
 Quant Method : Z:\HPCHEM1\BNA M\METHODS\SOM02.2-EPA-BM081415MA.M
 Quant Title : SVOA CALIBRATION
 QLast Update : Tue Aug 18 01:54:16 2015
 Response via : Initial Calibration

Manual Integrations
 APPROVED

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 8/18/2015 5:16:20 PM



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

28.709min (+0.088) 72.82ng/ul m

response 1662757

Ion	Exp%	Act%
276.00	100	100
138.00	26.30	27.19
277.00	24.00	25.26
0.00	0.00	0.00

U.M
 8/19/15

Data Path : Z:\HPCHEM1\BNA M\DATA\BM081715\
 Data File : BM002459.D
 Acq On : 17 Aug 2015 19:55
 Operator : UM/IZ
 Sample : G3227-10
 Misc :
 ALS Vial : 17 Sample Multiplier: 1

Instrument :
 BNA_M
 ClientSampleId :
 D9DC9

Quant Time: Aug 18 02:53:01 2015
 Quant Method : Z:\HPCHEM1\BNA M\METHODS\SOM02.2-EPA-BM081415MA.M
 Quant Title : SVOA CALIBRATION
 QLast Update : Tue Aug 18 01:54:16 2015
 Response via : Initial Calibration

Manual Integrations
 APPROVED

MMDadoda
 8/18/2015 5:16:20 PM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.87	152	144258	20.00	ng/ul	0.00
2) Naphthalene-d8	11.75	136	642545	20.00	ng/ul	0.00
6) Acenaphthene-d10	15.46	164	322454	20.00	ng/ul	0.00
12) Phenanthrene-d10	18.17	188	586587	20.00	ng/ul	0.00
17) Chrysene-d12	22.25	240	392284	20.00	ng/ul	0.01
22) Perylene-d12	24.93	264	413052m	20.00	ng/ul	0.02

U.M
 8/13/15

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
7) Acenaphthylene-d8	15.16	160	531613	16.13	ng/ul	0.00
10) Fluorene-d10	16.43	176	351895	15.20	ng/ul	0.00
14) Anthracene-d10	18.26	188	456203	16.12	ng/ul	0.00
18) Pvrene-d10	20.49	212	356983	20.53	ng/ul	0.01
25) Benzo(a)pyrene-d12	24.76	264	315810m	14.56	ng/ul	0.02

U.M
 8/19/15

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
3) Naphthalene	11.80	128	124365	3.79	ng/ul	99
4) 2-Methylnaphthalene	13.34	142	59706	2.43	ng/ul	99
5) 1-Methylnaphthalene	13.56	142	59023	2.43	ng/ul	99
8) Acenaphthylene	15.19	152	733538	21.26	ng/ul	100
9) Acenaphthene	15.52	153	254191	11.18	ng/ul	98
11) Fluorene	16.49	166	721823	27.72	ng/ul	100
13) Phenanthrene	18.22	178	4349991	128.42	ng/ul	98
15) Anthracene	18.30	178	1189680	34.66	ng/ul	100
16) Fluoranthene	20.16	202	5267697	137.36	ng/ul	95
19) Pyrene	20.52	202	3938044	171.36	ng/ul	97
20) Benzo(a)anthracene	22.23	228	2034613	86.73	ng/ul	97
21) Chrysene	22.29	228	1767113	80.54	ng/ul	96
23) Benzo(b)fluoranthene	24.11	252	3081574m	123.41	ng/ul	
24) Benzo(k)fluoranthene	24.16	252	1107113m	46.78	ng/ul	
26) Benzo(a)pyrene	24.83	252	2269117m	95.14	ng/ul	
27) Indeno(1,2,3-cd)pyrene	27.81	276	1936667m	70.61	ng/ul	
28) Dibenzo(a,h)anthracene	27.79	278	594743m	25.94	ng/ul	
29) Benzo(a,h,i)perylene	28.71	276	1662757m	72.82	ng/ul	

U.M
 8/19/15

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