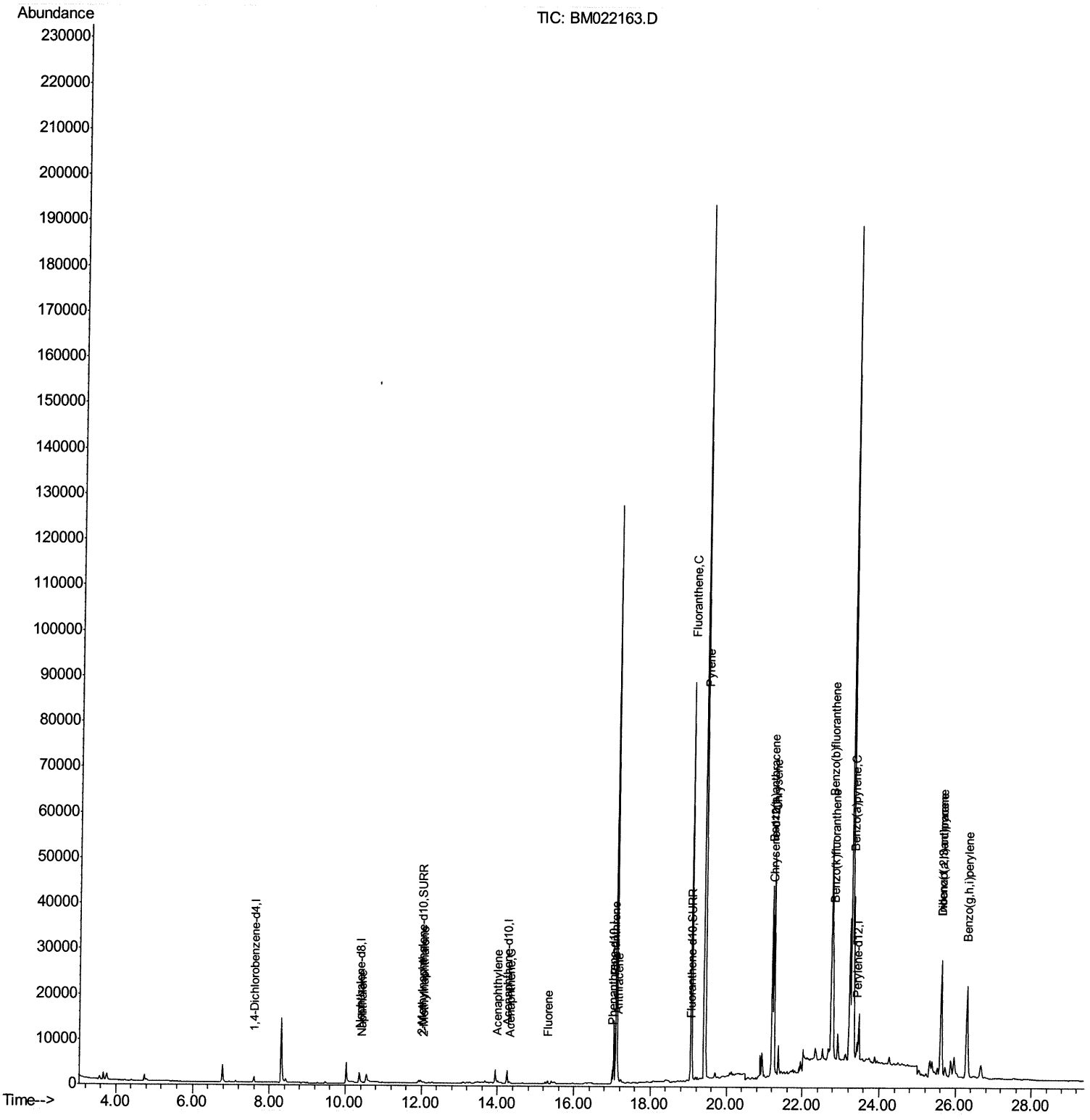
Data Path : Z:\svoasrv\HPCHEM1\BNA M\Data\BM081519\
Data File : BM022163.D
Acq On : 16 Aug 2019 03:06
Operator : HP/JU
Sample : K4183-13
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 16 15:38:12 2019
Quant Method : Z:\SVOASRV\HPCHEM1\BNA M\METHODS\SOM-EPA-SIM-BM080319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Fri Aug 16 14:59:47 2019
Response via : Initial Calibration

Instrument :
BNA_M
ClientSampleId :
C0AF2

Manual Integrations APPROVED
mohammad
8/19/2019 10:46:20 AM

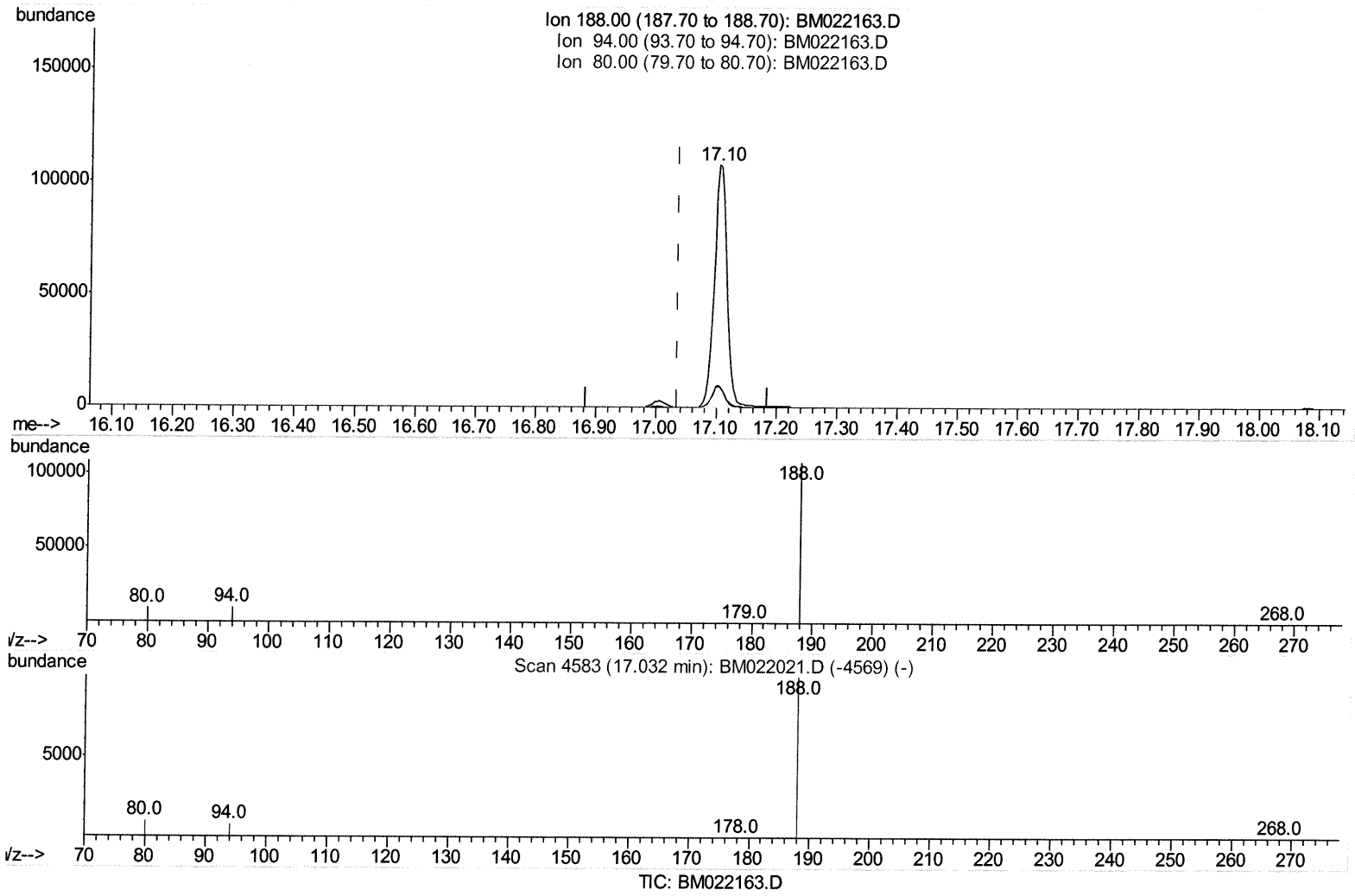


Data Path : Z:\svoasrv\HPCHEM1\BNA M\Data\BM081519\
Data File : BM022163.D
Acq On : 16 Aug 2019 03:06
Operator : HP/JU
Sample : K4183-13
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 16 15:34:08 2019
Quant Method : Z:\SVOASRV\HPCHEM1\BNA M\METHODS\SOM-EPA-SIM-BM080319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Fri Aug 16 14:59:47 2019
Response via : Initial Calibration

Instrument :
BNA_M
ClientSampleId :
C0AF2

Manual Integrations APPROVED
mohammad
8/19/2019 10:46:20 AM



TIC: BM022163.D

(10) Phenanthrene-d10 (I)

17.103min (+0.068) 0.40ng/ul

response 156588

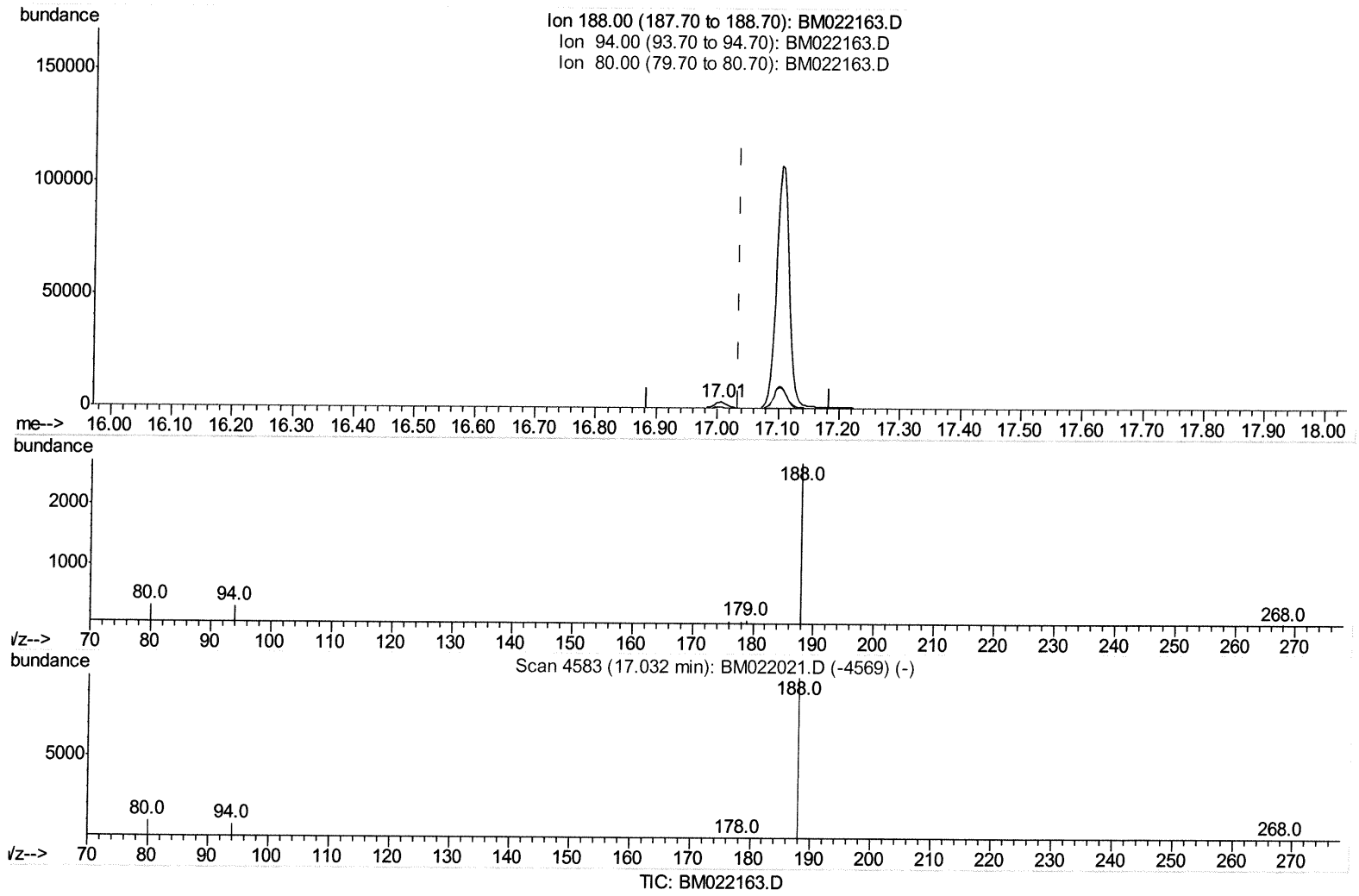
Ion	Exp%	Act%
188.00	100	100
94.00	10.40	9.29
80.00	11.40	8.83#
0.00	0.00	0.00

Data Path : Z:\svoasrv\HPCHEM1\BNA M\Data\BM081519\
Data File : BM022163.D
Acq On : 16 Aug 2019 03:06
Operator : HP/JU
Sample : K4183-13
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 16 15:34:08 2019
Quant Method : Z:\SVOASRV\HPCHEM1\BNA M\METHODS\SOM-EPA-SIM-BM080319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Fri Aug 16 14:59:47 2019
Response via : Initial Calibration

Instrument :
BNA_M
ClientSampleId :
C0AF2

Manual Integrations APPROVED
mohammad
8/19/2019 10:46:20 AM



(10) Phenanthrene-d10 (I)

17.006min (-0.030) 0.40ng/ul m JV 08/20/19

response 3944

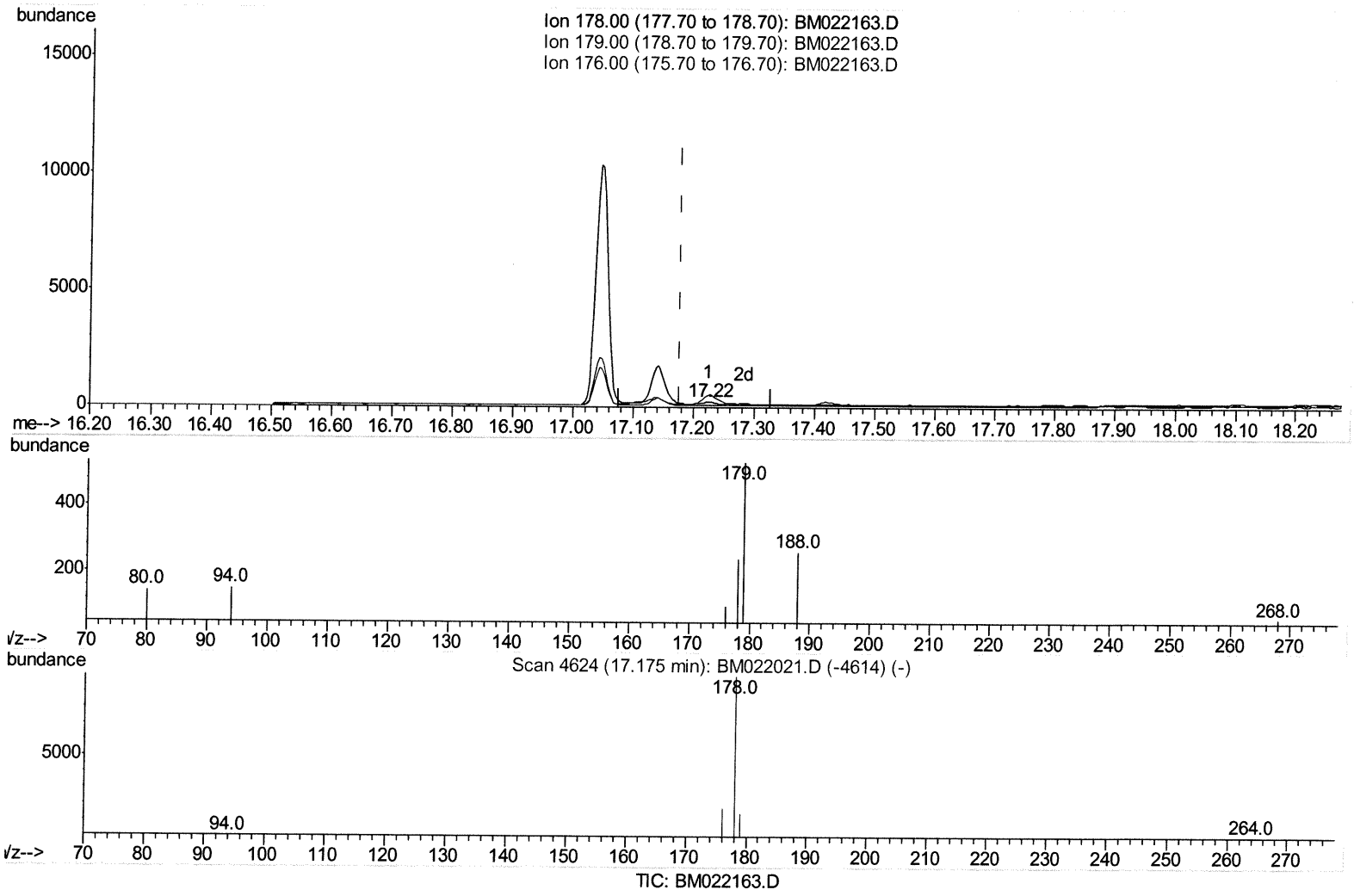
Ion	Exp%	Act%
188.00	100	100
94.00	10.40	11.32
80.00	11.40	12.02
0.00	0.00	0.00

Data Path : Z:\svoasrv\HPCHEM1\BNA M\Data\BM081519\
Data File : BM022163.D
Acq On : 16 Aug 2019 03:06
Operator : HP/JU
Sample : K4183-13
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 16 15:34:39 2019
Quant Method : Z:\SVOASRV\HPCHEM1\BNA M\METHODS\SOM-EPA-SIM-BM080319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Fri Aug 16 14:59:47 2019
Response via : Initial Calibration

Instrument :
BNA_M
ClientSampleId :
C0AF2

Manual Integrations APPROVED
mohammad
8/19/2019 10:46:20 AM



(13) Anthracene

17.225min (+0.047) 0.02ng/ul

response 217

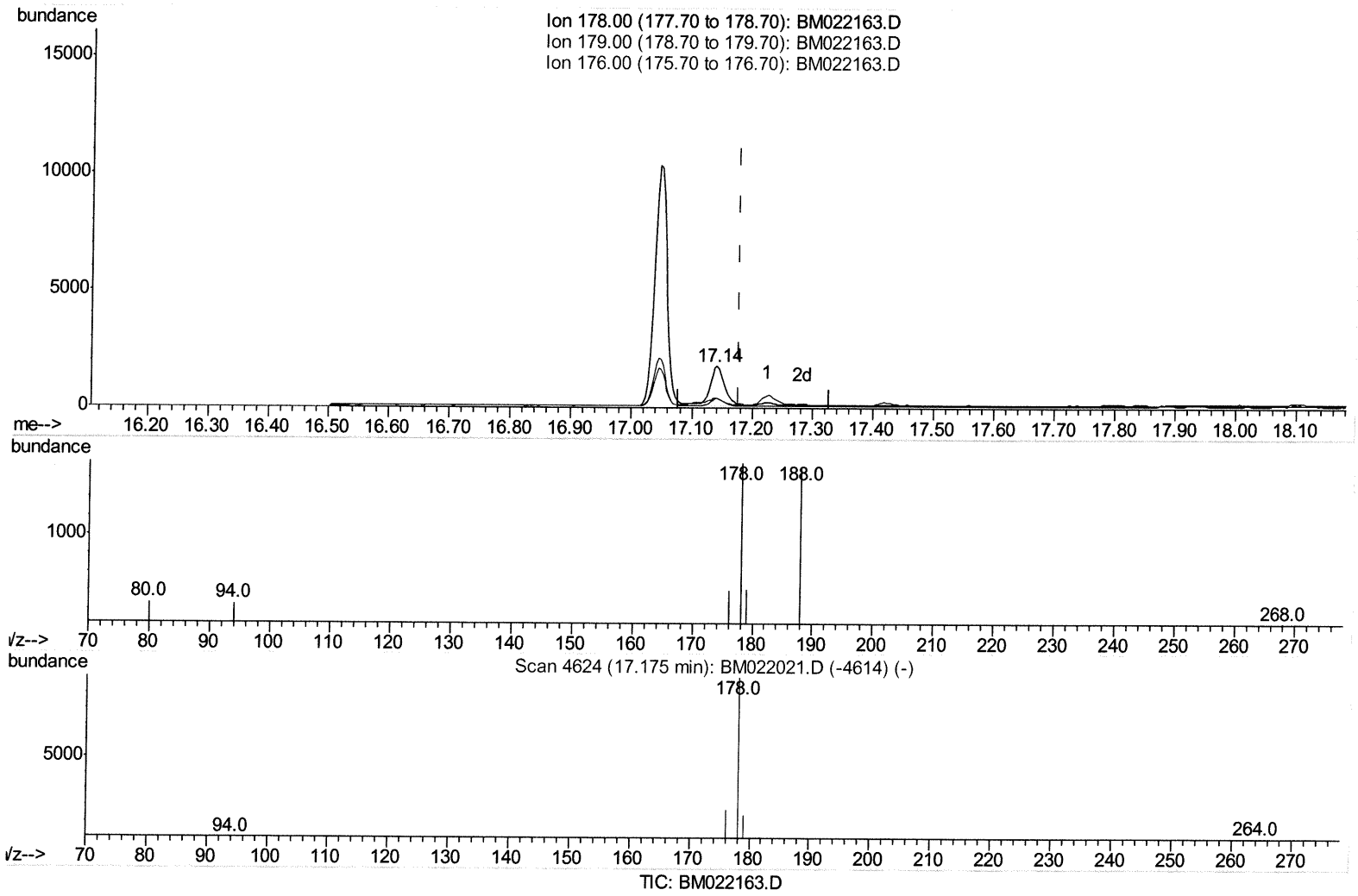
Ion	Exp%	Act%
178.00	100	100
179.00	19.40	222.08#
176.00	20.80	41.67#
0.00	0.00	0.00

Data Path : Z:\svoasrv\HPCHEM1\BNA M\Data\BM081519\
Data File : BM022163.D
Acq On : 16 Aug 2019 03:06
Operator : HP/JU
Sample : K4183-13
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 16 15:34:39 2019
Quant Method : Z:\SVOASRV\HPCHEM1\BNA M\METHODS\SOM-EPA-SIM-BM080319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Fri Aug 16 14:59:47 2019
Response via : Initial Calibration

Instrument :
BNA_M
ClientSampleId :
C0AF2

Manual Integrations APPROVED
mohammad
8/19/2019 10:46:20 AM



(13) Anthracene

17.141min (-0.037) 0.29ng/ul m JU 08/20/19

response 2830

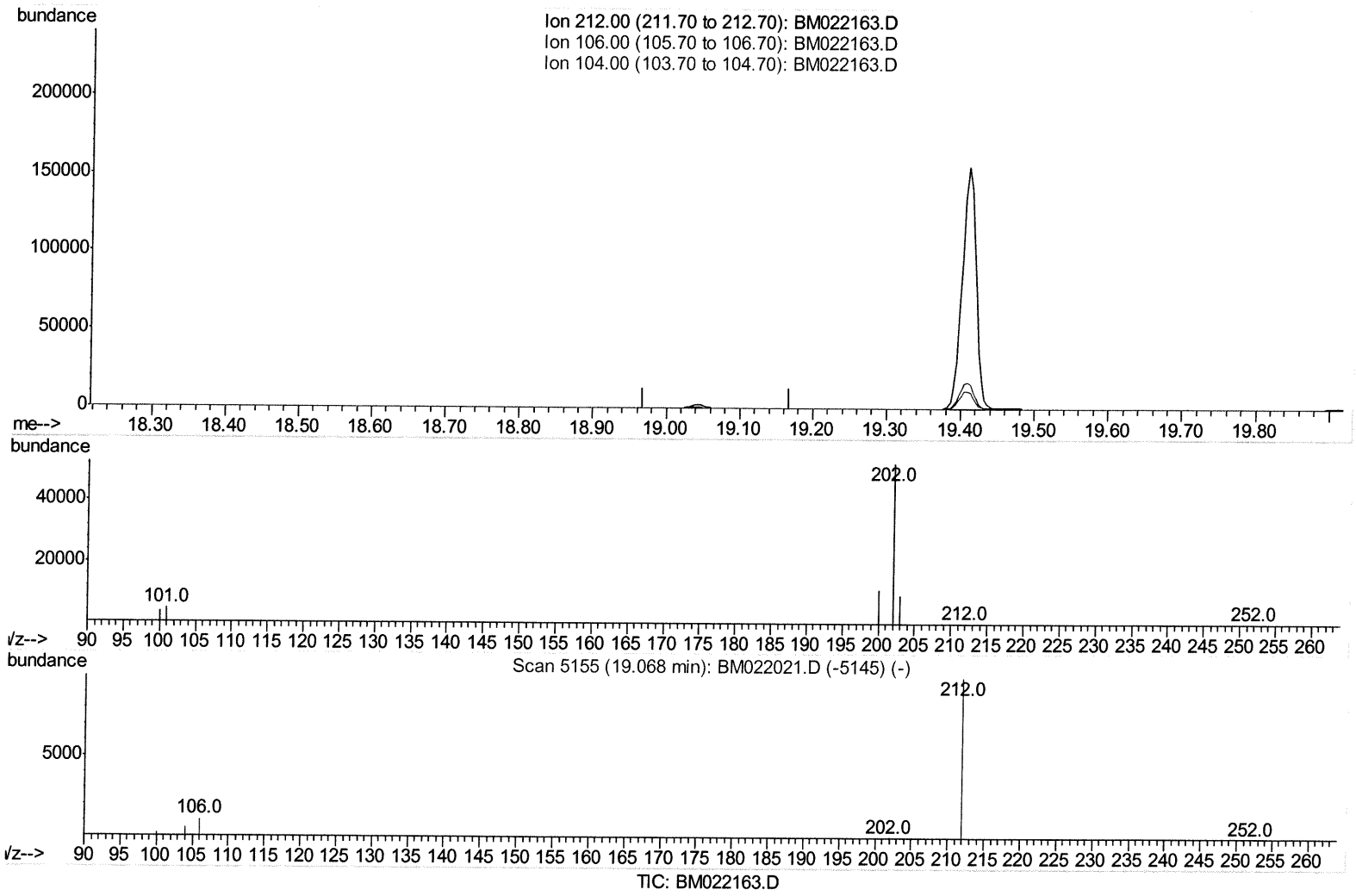
Ion	Exp%	Act%
178.00	100	100
179.00	19.40	23.78#
176.00	20.80	22.82
0.00	0.00	0.00

Data Path : Z:\svoasrv\HPCHEM1\BNA M\Data\BM081519\
Data File : BM022163.D
Acq On : 16 Aug 2019 03:06
Operator : HP/JU
Sample : K4183-13
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 16 15:34:39 2019
Quant Method : Z:\SVOASRV\HPCHEM1\BNA M\METHODS\SOM-EPA-SIM-BM080319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Fri Aug 16 14:59:47 2019
Response via : Initial Calibration

Instrument :
BNA_M
ClientSampleId :
C0AF2

Manual Integrations APPROVED
mohammad
8/19/2019 10:46:20 AM



(14) Fluoranthene-d10 (SURR)

19.068min (-19.068) 0.00ng/ul

response 0

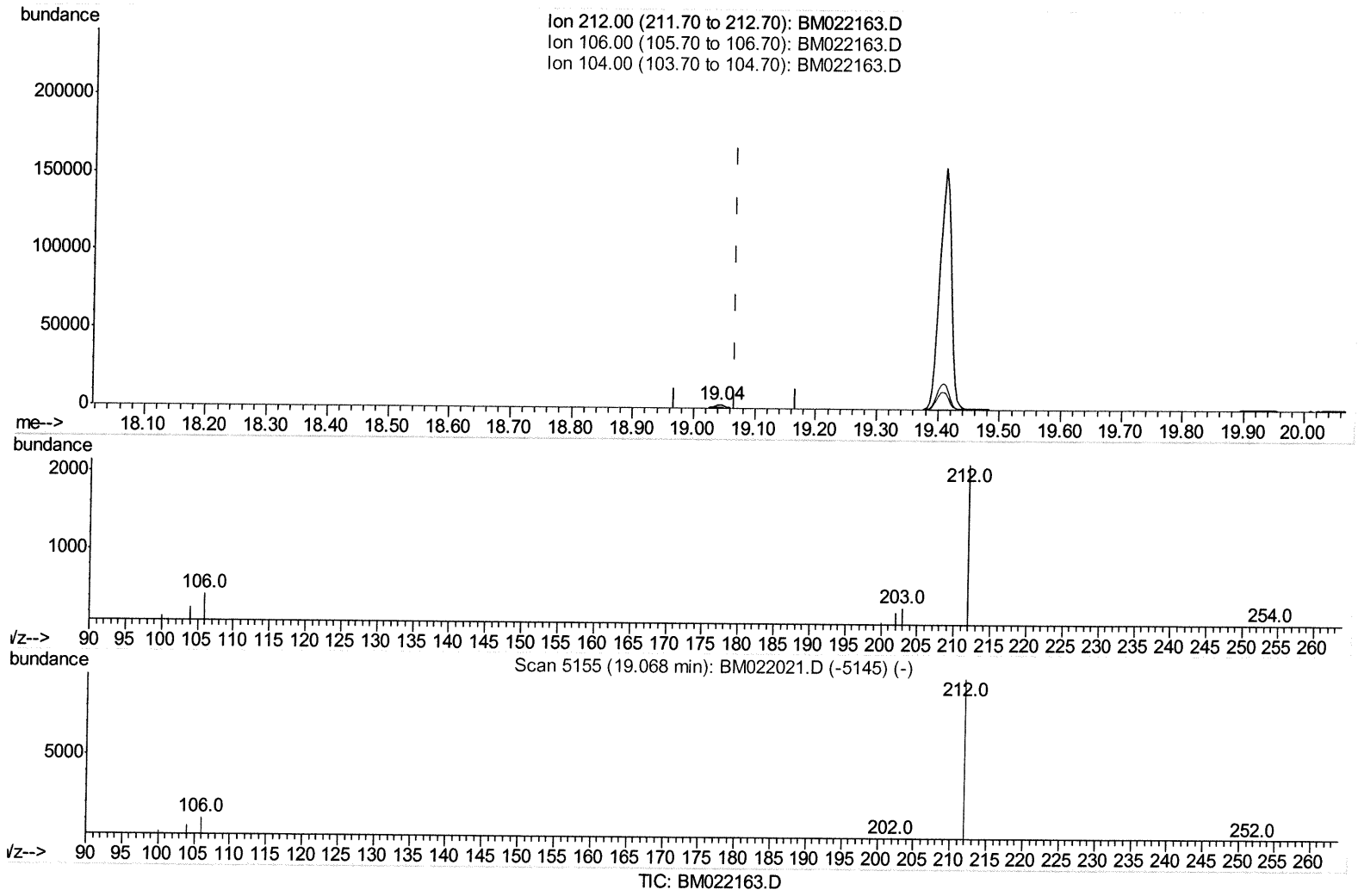
Ion	Exp%	Act%
212.00	100	0.00
106.00	9.90	0.00#
104.00	6.00	0.00#
0.00	0.00	0.00

Data Path : Z:\svoasrv\HPCHEM1\BNA M\Data\BM081519\
Data File : BM022163.D
Acq On : 16 Aug 2019 03:06
Operator : HP/JU
Sample : K4183-13
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 16 15:34:39 2019
Quant Method : Z:\SVOASRV\HPCHEM1\BNA M\METHODS\SOM-EPA-SIM-BM080319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Fri Aug 16 14:59:47 2019
Response via : Initial Calibration

Instrument :
BNA_M
ClientSampleId :
C0AF2

Manual Integrations APPROVED
mohammad
8/19/2019 10:46:20 AM



(14) Fluoranthene-d10 (SURR)

19.043min (-0.025) 0.22ng/ul m JU 08/20/19

response 2917

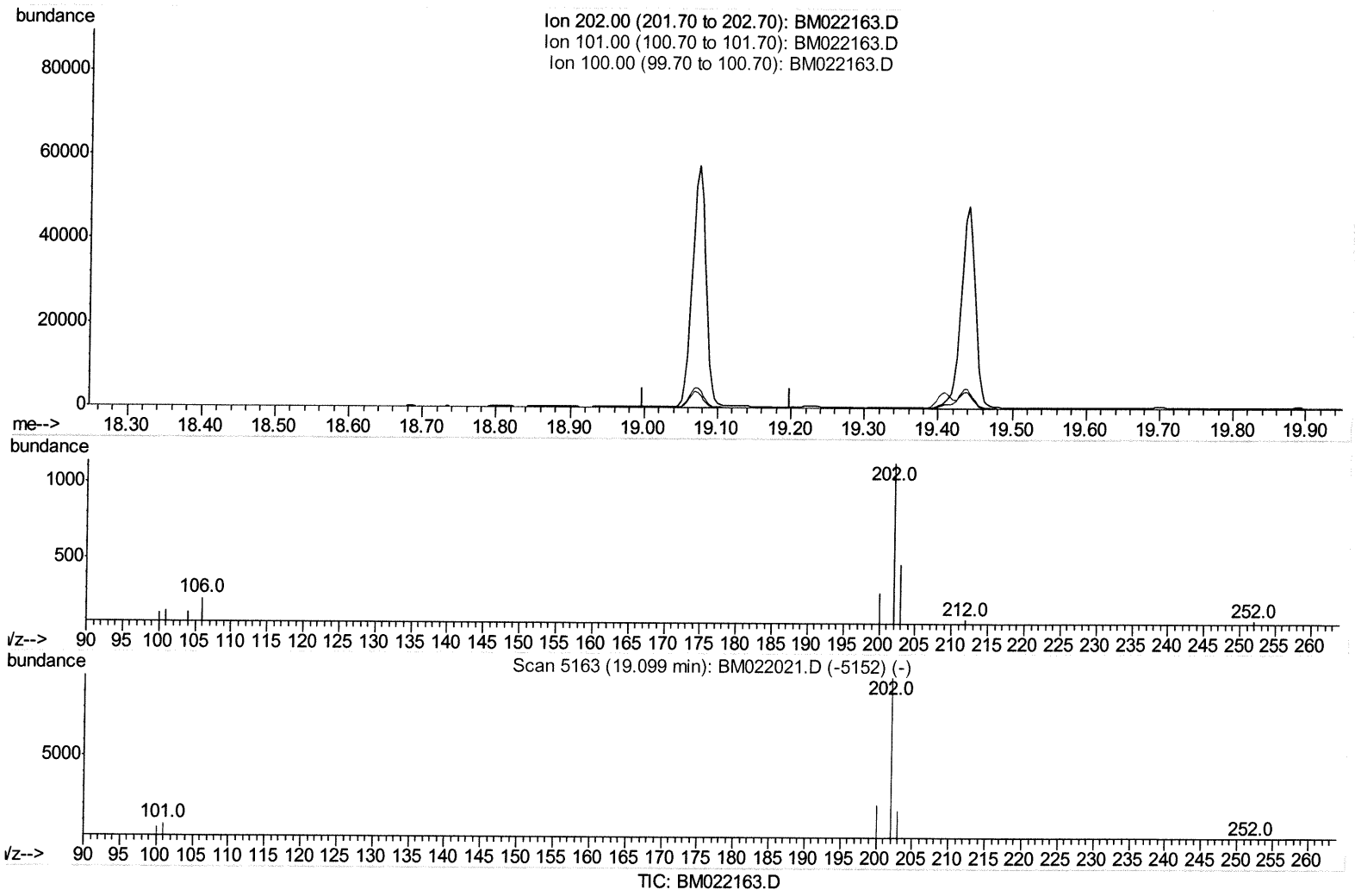
Ion	Exp%	Act%
212.00	100	100
106.00	9.90	0.00#
104.00	6.00	0.00#
0.00	0.00	0.00

Data Path : Z:\svoasrv\HPCHEM1\BNA M\Data\BM081519\
Data File : BM022163.D
Acq On : 16 Aug 2019 03:06
Operator : HP/JU
Sample : K4183-13
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 16 15:34:39 2019
Quant Method : Z:\SVOASRV\HPCHEM1\BNA M\METHODS\SOM-EPA-SIM-BM080319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Fri Aug 16 14:59:47 2019
Response via : Initial Calibration

Instrument :
BNA_M
ClientSampleId :
C0AF2

Manual Integrations APPROVED
mohammad
8/19/2019 10:46:20 AM



TIC: BM022163.D

(15) Fluoranthene (C)

19.098min (-19.098) 0.00ng/ul

response 0

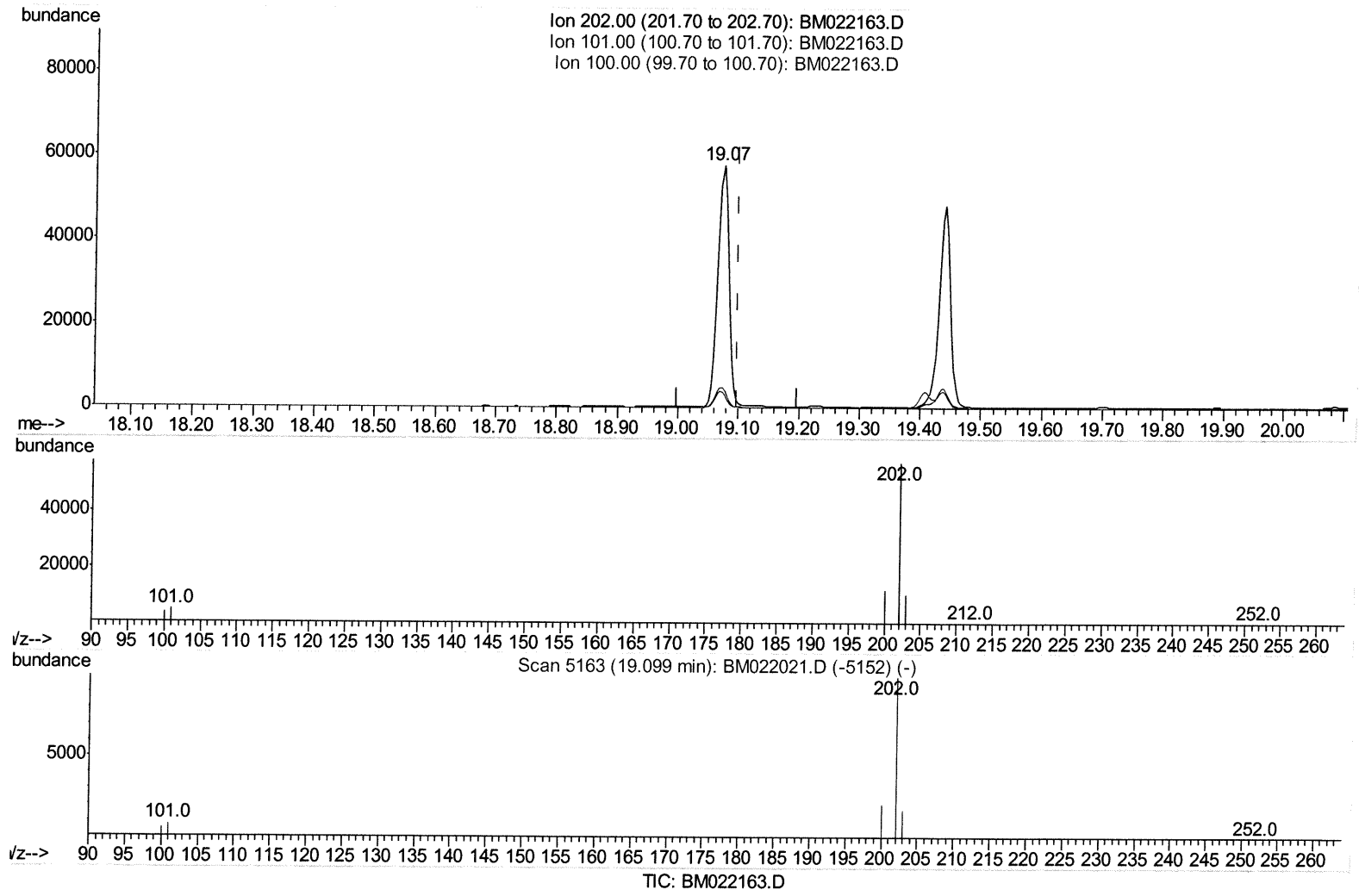
Ion	Exp%	Act%
202.00	100	0.00
101.00	10.20	0.00
100.00	8.10	0.00
0.00	0.00	0.00

Data Path : Z:\svoasrv\HPCHEM1\BNA M\Data\BM081519\
Data File : BM022163.D
Acq On : 16 Aug 2019 03:06
Operator : HP/JU
Sample : K4183-13
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 16 15:34:39 2019
Quant Method : Z:\SVOASRV\HPCHEM1\BNA M\METHODS\SOM-EPA-SIM-BM080319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Fri Aug 16 14:59:47 2019
Response via : Initial Calibration

Instrument :
BNA_M
ClientSampleId :
C0AF2

Manual Integrations APPROVED
mohammad
8/19/2019 10:46:20 AM



(15) Fluoranthene (C)

19.073min (-0.025) 4.79ng/ul m JV 08/20/19

response 73674

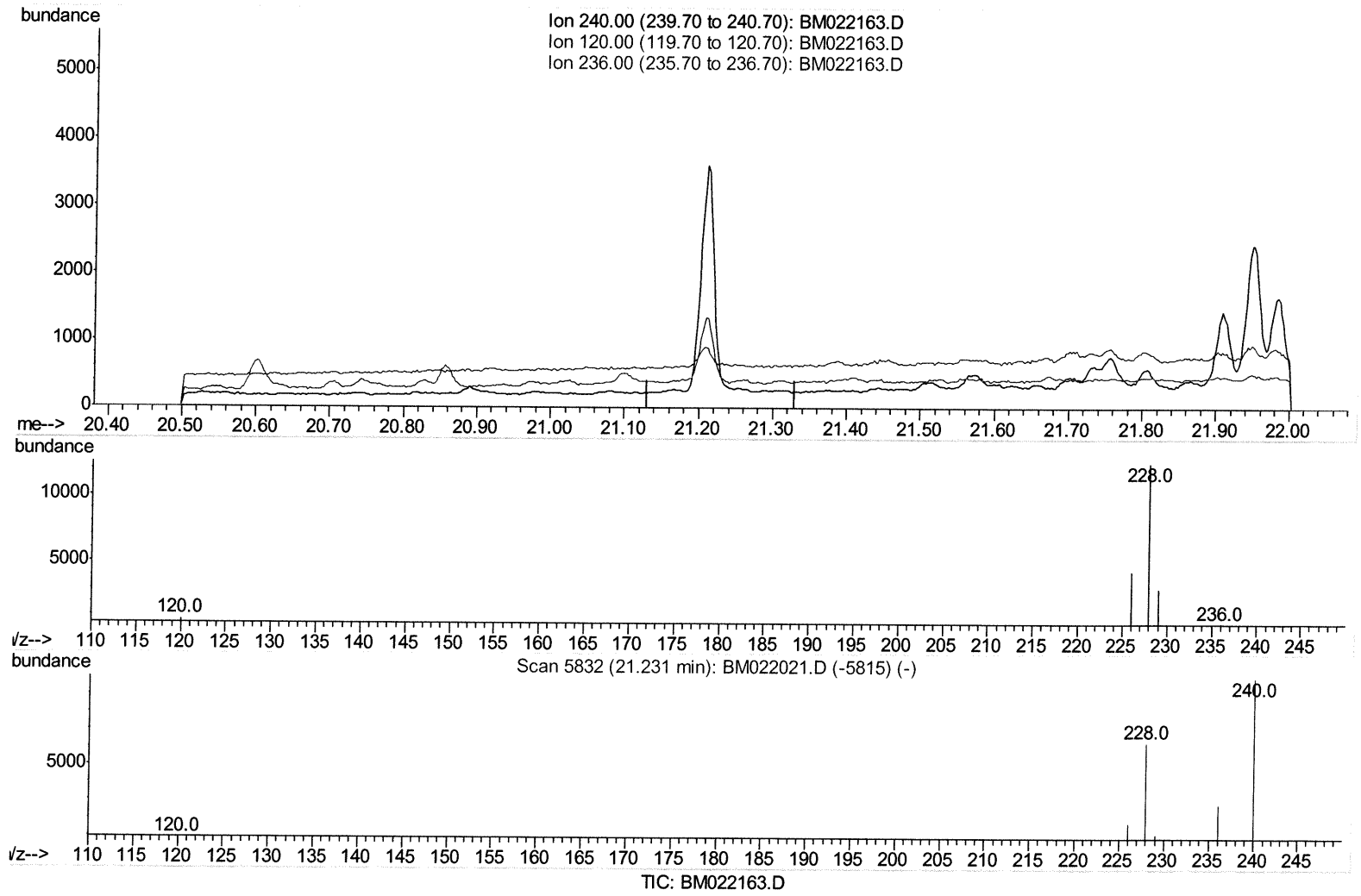
Ion	Exp%	Act%
202.00	100	100
101.00	10.20	8.28
100.00	8.10	6.52
0.00	0.00	0.00

Data Path : Z:\svoasrv\HPCHEM1\BNA M\Data\BM081519\
Data File : BM022163.D
Acq On : 16 Aug 2019 03:06
Operator : HP/JU
Sample : K4183-13
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 16 15:34:39 2019
Quant Method : Z:\SVOASRV\HPCHEM1\BNA M\METHODS\SOM-EPA-SIM-BM080319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Fri Aug 16 14:59:47 2019
Response via : Initial Calibration

Instrument :
BNA_M
ClientSampleId :
C0AF2

Manual Integrations APPROVED
mohammad
8/19/2019 10:46:20 AM



(16) Chrysene-d12 (I)

21.231min (-21.231) 0.00ng/ul

response 0

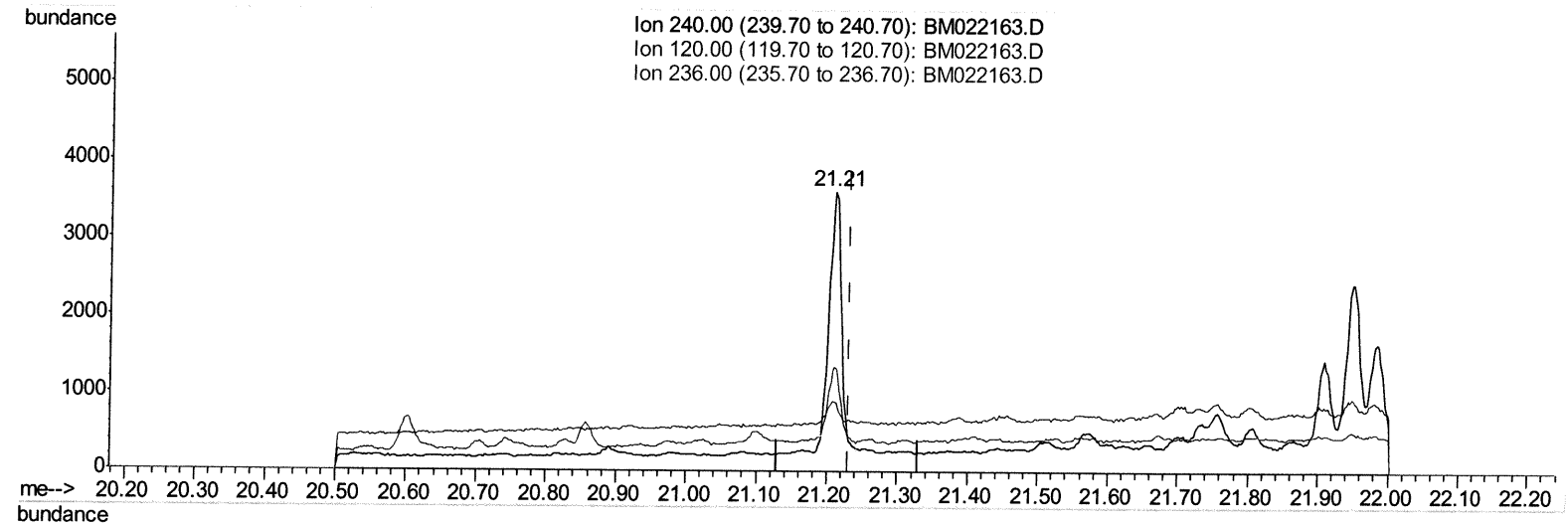
Ion	Exp%	Act%
240.00	100	0.00
120.00	16.20	0.00#
236.00	32.30	0.00#
0.00	0.00	0.00

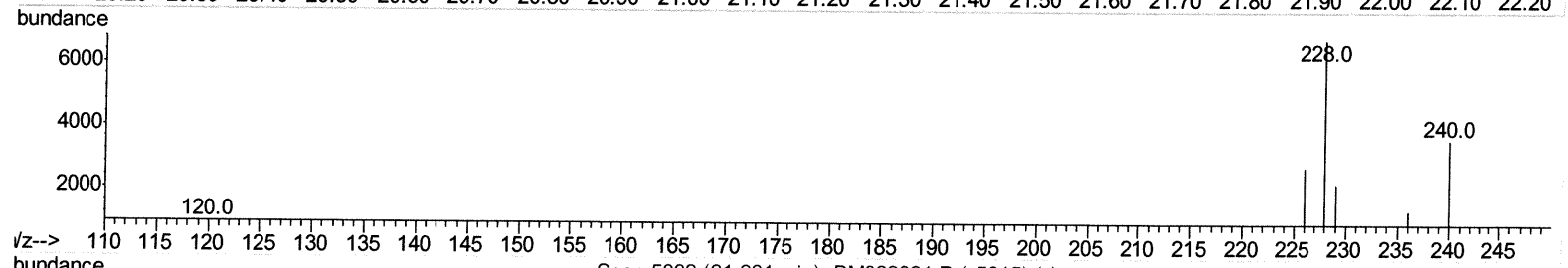
Data Path : Z:\svoasrv\HPCHEM1\BNA M\Data\BM081519\
Data File : BM022163.D
Acq On : 16 Aug 2019 03:06
Operator : HP/JU
Sample : K4183-13
Misc :
ALS Vial : 18 Sample Multiplier: 1

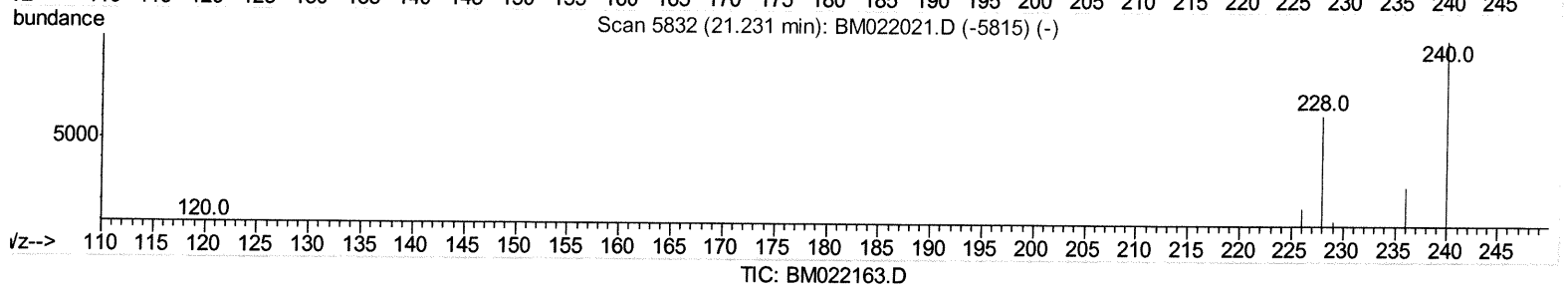
Quant Time: Aug 16 15:34:39 2019
Quant Method : Z:\SVOASRV\HPCHEM1\BNA M\METHODS\SOM-EPA-SIM-BM080319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Fri Aug 16 14:59:47 2019
Response via : Initial Calibration

Instrument :
BNA_M
ClientSampleId :
C0AF2

Manual Integrations APPROVED
mohammad
8/19/2019 10:46:20 AM







TIC: BM022163.D

(16) Chrysene-d12 (I)

21.210min (-0.022) 0.40ng/ul m JU 08/20/19

response 4132

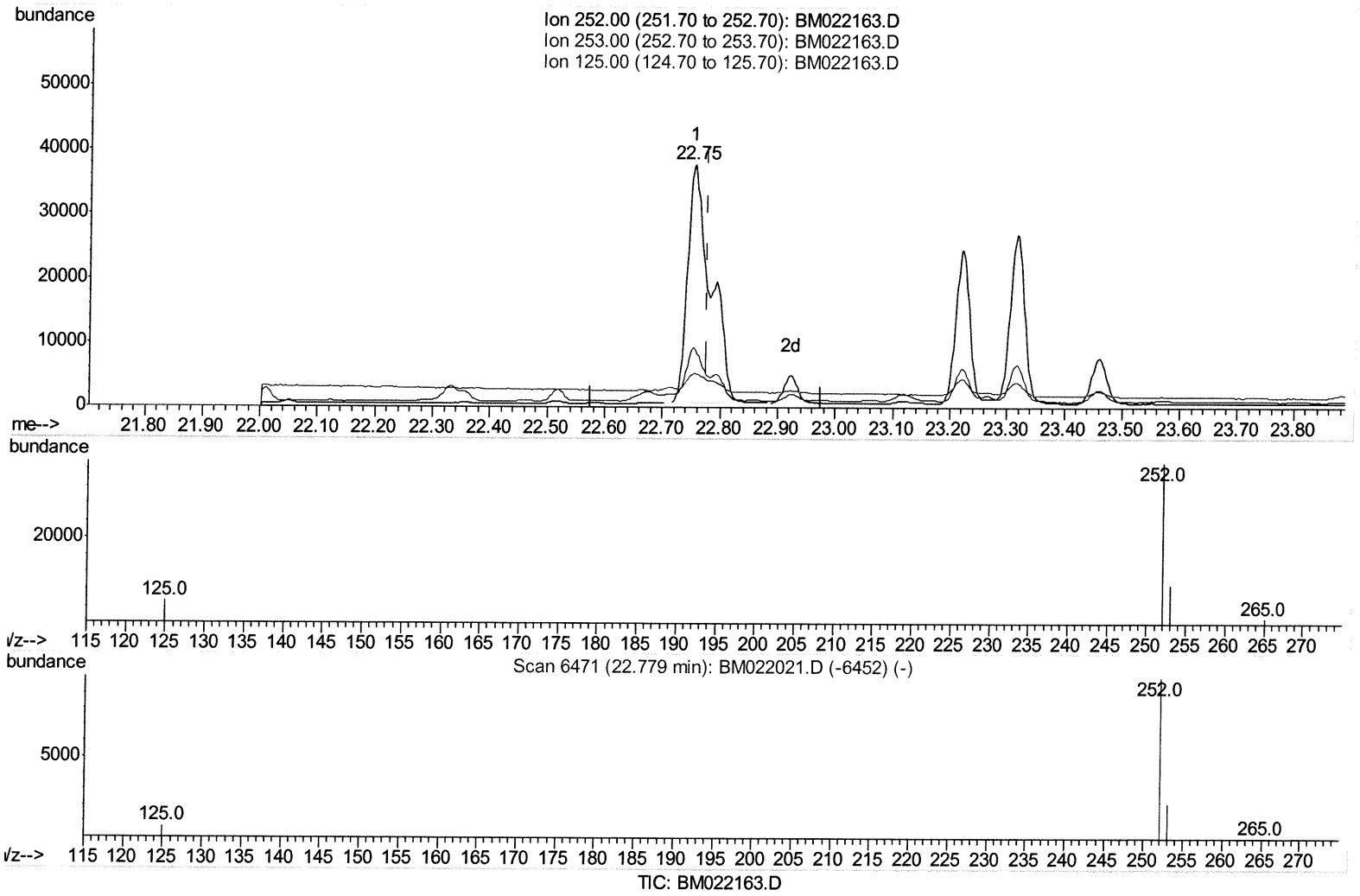
Ion	Exp%	Act%
240.00	100	100
120.00	16.20	25.04#
236.00	32.30	37.24
0.00	0.00	0.00

Data Path : Z:\svoasrv\HPCHEM1\BNA M\Data\BM081519\
Data File : BM022163.D
Acq On : 16 Aug 2019 03:06
Operator : HP/JU
Sample : K4183-13
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 16 15:36:46 2019
Quant Method : Z:\SVOASRV\HPCHEM1\BNA M\METHODS\SOM-EPA-SIM-BM080319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Fri Aug 16 14:59:47 2019
Response via : Initial Calibration

Instrument :
BNA_M
ClientSampleId :
C0AF2

Manual Integrations APPROVED
mohammad
8/19/2019 10:46:20 AM



TIC: BM022163.D

(21) Benzo(b)fluoranthene

22.755min (-0.022) 6.67ng/ul

response 104726

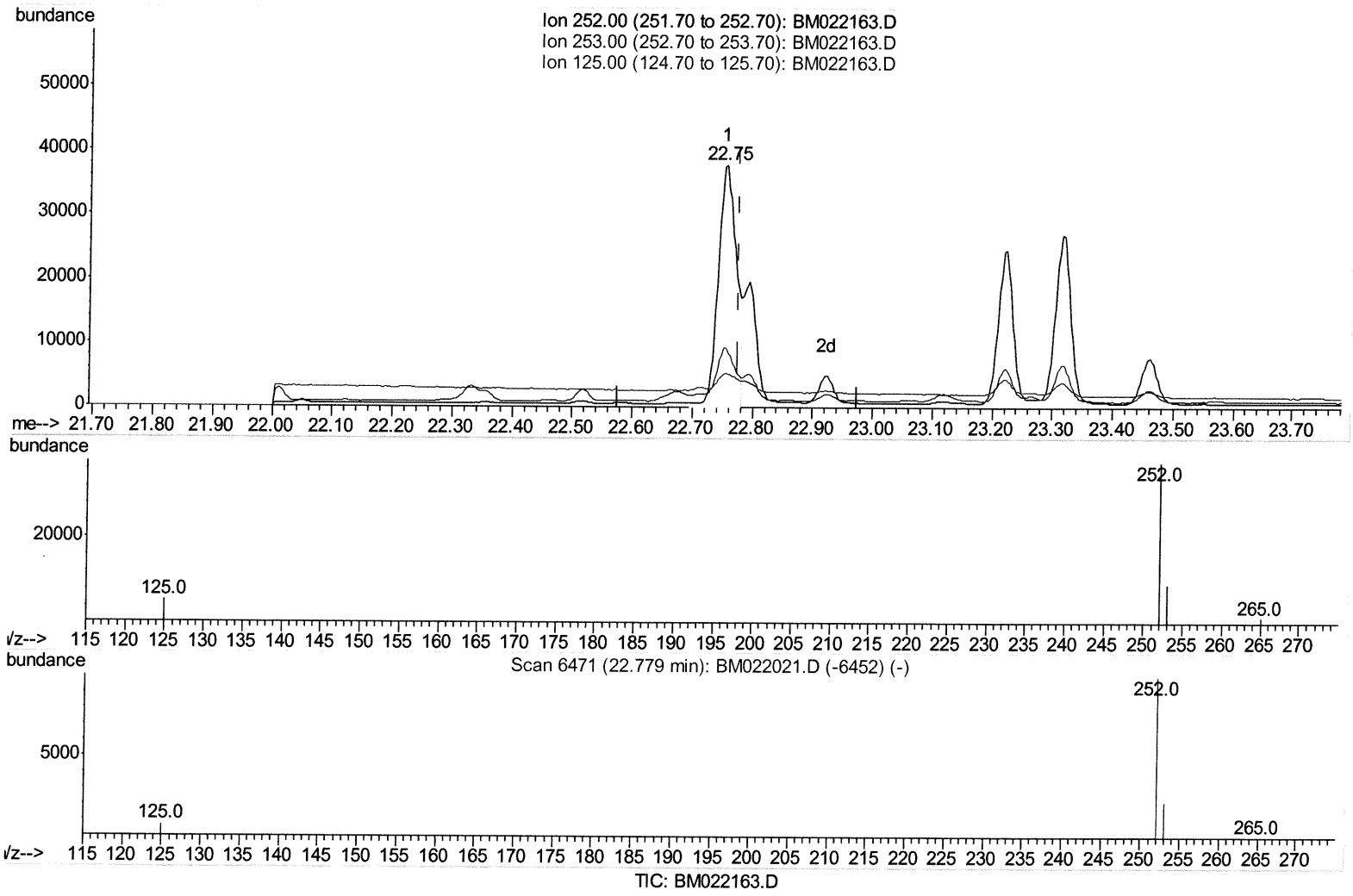
Ion	Exp%	Act%
252.00	100	100
253.00	33.70	24.55
125.00	15.50	14.10
0.00	0.00	0.00

Data Path : Z:\svoasrv\HPCHEM1\BNA M\Data\BM081519\
Data File : BM022163.D
Acq On : 16 Aug 2019 03:06
Operator : HP/JU
Sample : K4183-13
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 16 15:36:46 2019
Quant Method : Z:\SVOASRV\HPCHEM1\BNA M\METHODS\SOM-EPA-SIM-BM080319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Fri Aug 16 14:59:47 2019
Response via : Initial Calibration

Instrument :
BNA_M
ClientSampleId :
C0AF2

Manual Integrations APPROVED
mohammad
8/19/2019 10:46:20 AM



(21) Benzo(b)fluoranthene

22.755min (-0.022) 5.08ng/ul m JU 08/20/19

response 79805

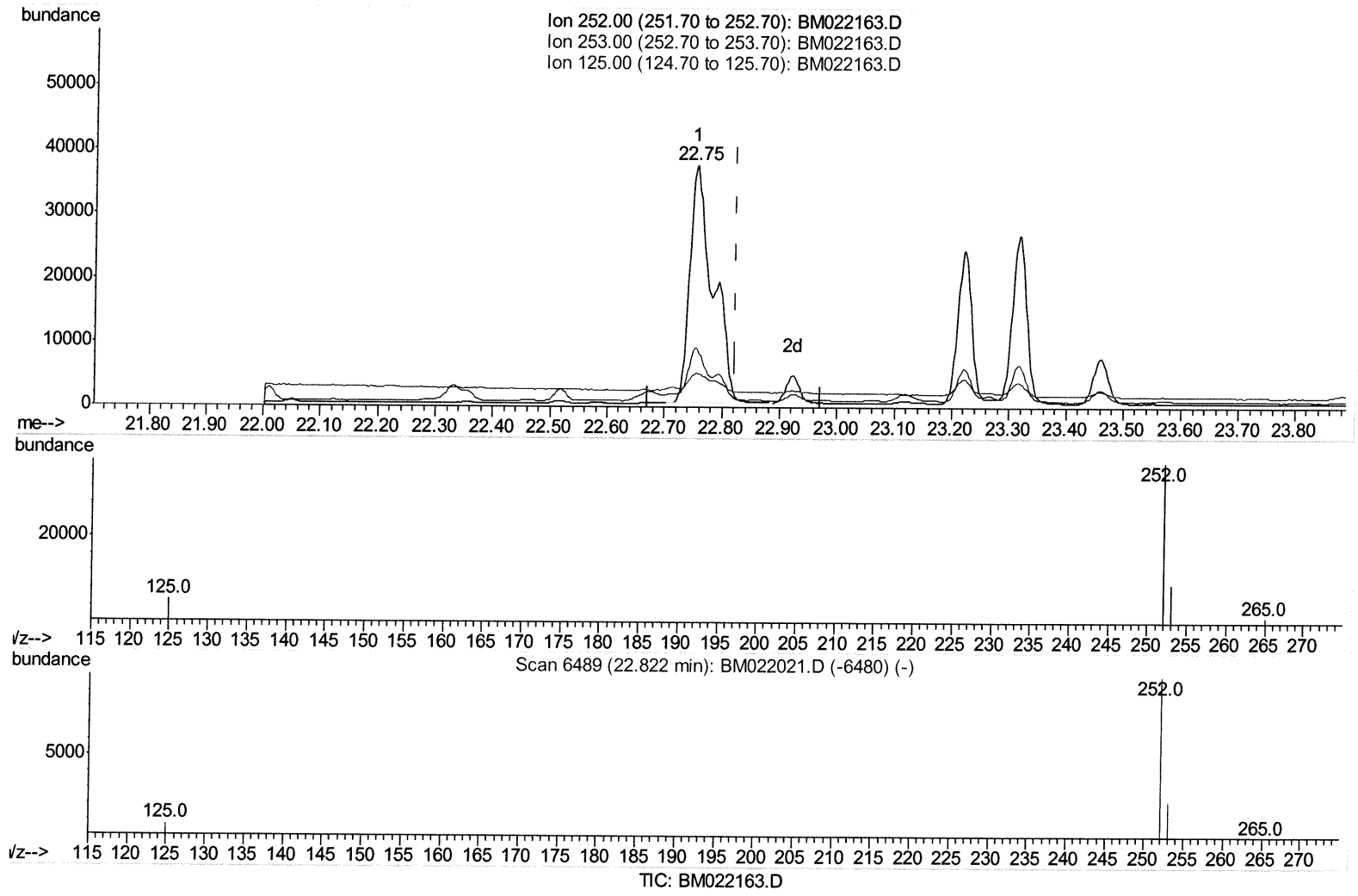
Ion	Exp%	Act%
252.00	100	100
253.00	33.70	24.55
125.00	15.50	14.10
0.00	0.00	0.00

Data Path : Z:\svoasrv\HPCHEM1\BNA M\Data\BM081519\
Data File : BM022163.D
Acq On : 16 Aug 2019 03:06
Operator : HP/JU
Sample : K4183-13
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 16 15:36:46 2019
Quant Method : Z:\SVOASRV\HPCHEM1\BNA M\METHODS\SOM-EPA-SIM-BM080319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Fri Aug 16 14:59:47 2019
Response via : Initial Calibration

Instrument :
BNA_M
ClientSampleId :
C0AF2

Manual Integrations APPROVED
mohammad
8/19/2019 10:46:20 AM



TIC: BM022163.D

(22) Benzo(k)fluoranthene

22.755min (-0.068) 5.89ng/ul

response 104726

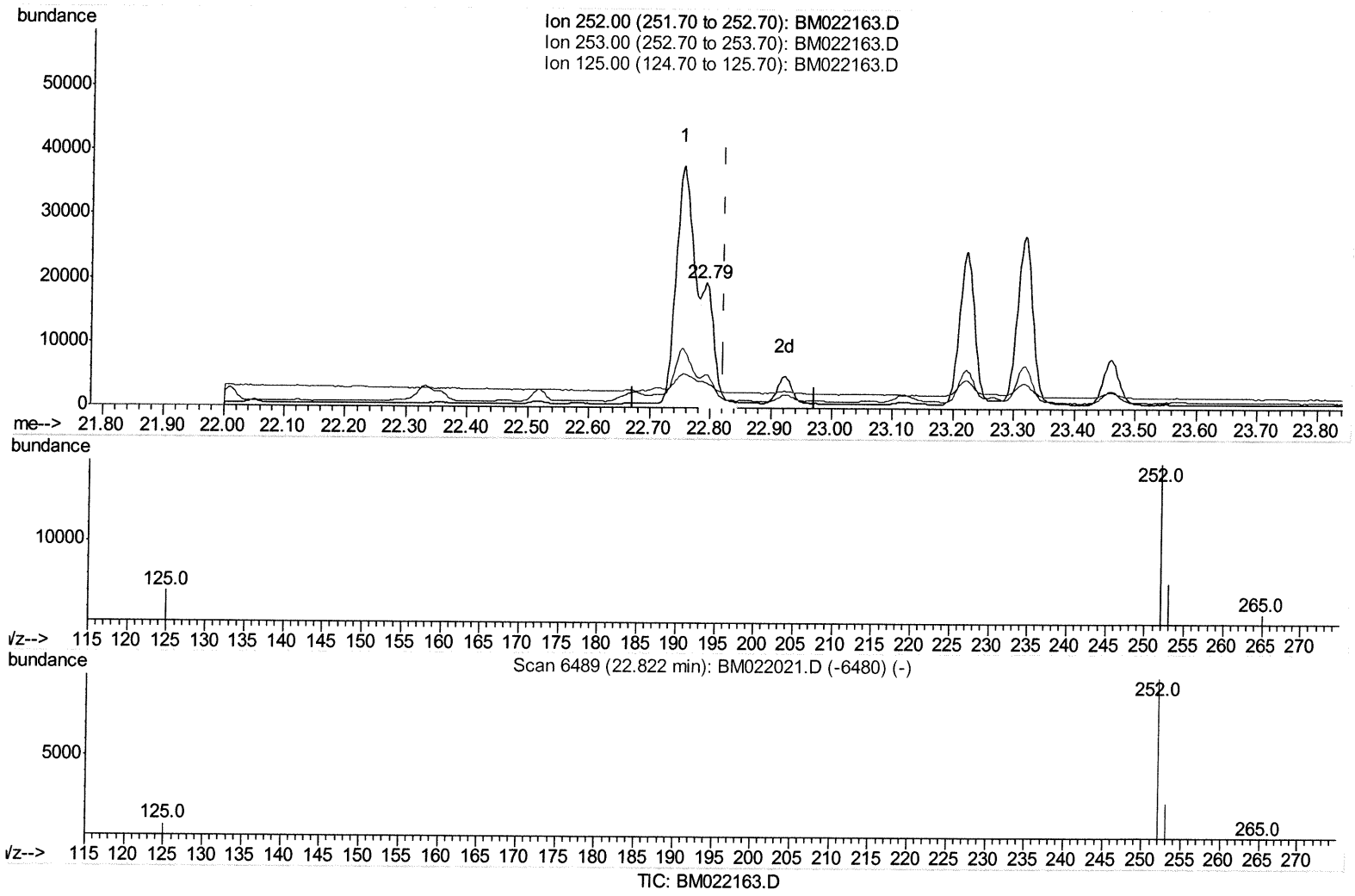
Ion	Exp%	Act%
252.00	100	100
253.00	33.70	24.55#
125.00	15.20	14.10
0.00	0.00	0.00

Data Path : Z:\svoasrv\HPCHEM1\BNA M\Data\BM081519\
Data File : BM022163.D
Acq On : 16 Aug 2019 03:06
Operator : HP/JU
Sample : K4183-13
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 16 15:36:46 2019
Quant Method : Z:\SVOASRV\HPCHEM1\BNA M\METHODS\SOM-EPA-SIM-BM080319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Fri Aug 16 14:59:47 2019
Response via : Initial Calibration

Instrument :
BNA_M
ClientSampleId :
C0AF2

Manual Integrations APPROVED
mohammad
8/19/2019 10:46:20 AM



(22) Benzo(k)fluoranthene

22.793min (-0.029) 1.71ng/ul m JU 08/20/19

response 30374

Ion	Exp%	Act%
252.00	100	100
253.00	33.70	26.72#
125.00	15.20	20.29#
0.00	0.00	0.00

Data Path : Z:\svoasrv\HPCHEM1\BNA M\Data\BM081519\
Data File : BM022163.D
Acq On : 16 Aug 2019 03:06
Operator : HP/JU
Sample : K4183-13
Misc :
ALS Vial : 18 Sample Multiplier: 1

Instrument :
BNA_M
ClientSampleId :
C0AF2

Manual Integrations APPROVED
mohammad
8/19/2019 10:46:20 AM

Quant Time: Aug 16 15:38:12 2019
Quant Method : Z:\SVOASRV\HPCHEM1\BNA M\METHODS\SOM-EPA-SIM-BM080319.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Fri Aug 16 14:59:47 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.59	152	760	0.40	ng/ul	-0.02
2) Naphthalene-d8	10.37	136	3048	0.40	ng/ul	-0.03
6) Acenaphthene-d10	14.25	164	1640	0.40	ng/ul	-0.02
10) Phenanthrene-d10	17.01	188	3944m→	0.40	ng/ul→	-0.03 JU 08/20/19
16) Chrysene-d12	21.21	240	4132m→	0.40	ng/ul→	-0.02
20) Perylene-d12	23.41	264	4658	0.40	ng/ul	-0.03
System Monitoring Compounds						
4) 2-Methylnaphthalene-d10	11.98	152	982	0.20	ng/ul	-0.02
14) Fluoranthene-d10	19.04	212	2917m→	0.22	ng/ul→	-0.03 JU 08/20/19
Target Compounds						Qvalue
3) Naphthalene	10.42	128	227	0.026	ng/ul#	46
5) 2-Methylnaphthalene	12.06	142	160	0.028	ng/ul	96
7) Acenaphthylene	13.97	152	885	0.116	ng/ul#	78
8) Acenaphthene	14.31	153	250	0.040	ng/ul#	91
9) Fluorene	15.31	166	444	0.064	ng/ul#	92
12) Phenanthrene	17.04	178	14614	1.273	ng/ul	98
13) Anthracene	17.14	178	2830m→	0.289	ng/ul→	JU 08/20/19
15) Fluoranthene	19.07	202	73674m→	4.793	ng/ul→	
17) Pyrene	19.44	202	64777	3.815	ng/ul	98
18) Benzo(a)anthracene	21.19	228	35683	2.414	ng/ul	99
19) Chrysene	21.25	228	50244	2.643	ng/ul	99
21) Benzo(b)fluoranthene	22.75	252	79805m→	5.081	ng/ul→	JU 08/20/19
22) Benzo(k)fluoranthene	22.79	252	30374m→	1.709	ng/ul→	
23) Benzo(a)pyrene	23.32	252	46597	2.917	ng/ul#	81
24) Indeno(1,2,3-cd)pyrene	25.62	276	40702	2.134	ng/ul#	93
25) Dibenzo(a,h)anthracene	25.62	278	9772	0.634	ng/ul#	88
26) Benzo(g,h,i)perylene	26.29	276	41202	2.399	ng/ul	97

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