

TBI-FORENSIC SERVICES DIVISION PERFORMANCE VERIFICATION FORM

Instrument/Method to Verify:

Peabody CN16483008/US1646M032

Check the appropriate box: New Validation ☐ Modification ☐ Performance Check ☒

Laboratory: NCL ☐ KCL ☐ JCL ☒ Unit: Forensic Chemistry

Based on training and competency, the following analyst(s) are authorized by the Technical Leader to participate in this study:

Name Kamryn Couvertier Title SAFS Initials KC

Completed: *Kamryn Couvertier*

Name Ben Hubert Title SAFS Initials BH

Completed: *ben Hubert*

Name _____ Title _____ Initials _____

Completed:

Verification of final review:

Unit Supervisor: *Bethany P. McBride*
Bethany McBride (Jul 7, 2023 08:17 CDT)

Section Manager: *Mark Dunlap*
Mark Dunlap (Jul 7, 2023 10:02 CDT)

Unit Supervisor:

Section Manager:

Unit Supervisor:

Section Manager:

Regional Administrator: *Donna C. Nelson*
Donna Nelson (Jul 12, 2023 08:15 CDT)

IT Manager: *Matthew Buck*

Regional Administrator:

Regional Administrator:

Quality Assurance Manager: *Chad Johnson*
Chad Johnson (Jul 7, 2023 10:46 CDT)

By signing below, I have verified this study meets all requirements and I deem this procedure/instrument fit for the intended use:

Technical Leader: *Brett Trotter*

All information must be submitted to the Quality Assurance Manager prior to the implementation of the procedure/instrument. If applicable, include training plan and competency testing schedule.

Validation Study for updating Peabody to Windows 10

Tennessee Bureau of Investigation Nashville Crime Lab

7-3-23

1. Purpose of validation

The purpose of this validation study is to verify the performance of Peabody. This study will verify the methods, performance, and accuracy of identifications by comparative analysis. This is required as Peabody received firmware updates, and a new computer, requiring a limited revalidation to demonstrate that it still produces acceptable data for casework.

2. Objectives

- a. Demonstrate the accurate operation of the gas chromatograph mass spectrometer and gas chromatograph flame ionization detector after receiving firmware updates to the instrument and the computer being updated.
- b. Demonstrate the ability of the Masshunter and Chemstation software to function as intended software to continue to function with the updated system software.

3. Setup and Procedures

Forensic chemistry MS and GC identification methods were created with the same parameters as a previously validated methods on this instrument before being updated. The hand injection methods were developed from the autosample methods.

Appropriate standards were run on 6 different autosample method to demonstrate performance and consistency. Instrument repeatability was demonstrated by running the same standard mix three times on the ASMSDRUGS100 and ASGC100.

For the hand injection methods, appropriate standards were run on MS DRUGS100 to demonstrate performance for the hand injection methods. Because these methods are based off the autosample methods, additional testing was not conducted.

Three separate standard mixes were used depending on the method; one containing tramadol, 4-anilino-N-phenethylpiperidine, heroin, acetyl fentanyl, and fentanyl; one containing testosterone Acetate, testosterone Benzoate, testosterone Isocaproate, testosterone Undecanoate; and the other containing methamphetamine, amphetamine, and phentermine. A buprenorphine standard was also run on the appropriate methods.

The spectra obtained from these standards were compared to spectra to library spectra and the chromatographs were compared to chromatographic data obtained before the update.

4. Results and Conclusion

Analysis of the standards run on Peabody have consistently shown compliance with standard operating procedures in chapter 21. All methods have been utilized in the analysis of known drug standards. The data obtained from these standards is consistent with previously verified standards in the Nashville forensic chemistry standard library. The instrument response was

compared to older data taken from before the period of maintenance. The chromatography, peak shape, and separation all appear to be consistent to the data that the instrument was generating prior to the update.

5. Training and Competency

The instrument used for the question methods is configured the same as the other existing instruments in the laboratory. There are no significant changes in instrumentation that would warrant an initial demonstration of proficiency for these methods.

6. Conclusions

After monitoring parameters specified in Forensic Chemistry Standard Operating Procedure chapter 21 and verifying the functionality of the methods with known drug standards, it has been demonstrated that Peabody produced comparable results to previous instrument response and GCMS libraries. This confirms the correct operation of the updated firmware and software.

Materials

Computer:

Device: Peabody
Processor: 12th Gen Intel(R) Core (TM) i5-12500 @ 3.00GHz
Installed RAM: 16.0 GB (15.7 GB usable)
Device ID: 755AE42D-C552-4B9C-BB2B-145BC367BB41
Product ID: 00355-63303-88739-AAOEM
System type: 64-bit operating system, x64-based processor
Pen and touch: No pen or touch input is available for this display
Windows Edition: Windows 10 Pro
Version: 22H2
Installed Date: 06/13/2023
OS build: 19045.3086
Experience: Windows Feature Experience Pack 1000.19041.1000.0

Productivity tools:

Agilent MassHunter Workstation: Version 10.0.368
Enhanced Chemstation: F.01.03.2357

GC:

Agilent 7890B GC system
Serial: CN16483008

MS:

Agilent 5977B
Serial: US1646M032

GC Column: Agilent J&W GC - HP-1MS 15-meter, 0.320 mm, and 0.25 µm film thickness

MS Column: Agilent J&W GC - HP-1MS 12.5-meter, 0.200 mm, and 0.33 µm film thickness

GCMS Standard Mix: in Methanol [Fisher 197710]

Pethidine (Meperidine) [Lipomed 699.1B0.3] 1.88 mg

Cocaine [Sigma 90K1947] 1.96 mg

Hydrocodone [Sigma 047F0128] 1.22 mg

{~1.5mg/ml-2mg/ml}

EXP: 06/16/2024

THF4A Standard Mix: in Methanol [Fisher 197710]

Tramadol [Grace 474] 0.36 mg

Heroin [Cayman 0559235-15] 0.23 mg

Fentanyl [Cerilliant FE06151802] 200 µL

4-ANPP [Cayman 0532667-20] 0.40 mg

Acetyl Fentanyl [Cayman 0497037-38] 0.55 mg

{~1 mg/mL}

EXP: 06/16/2024

GCIR Standard Mix: in 0.5N NaOH → CHCl₃ [0.5NaOH (VWR) 21K0856252; CHCl₃ (Macron Fine Chemicals) 0000177733]

Methamphetamine [Sigma 057K0666] 1.84 mg

Amphetamine [Alltech 1039] 2.38 mg

Phentermine [Alltech 14005] 1.50 mg

{~2mL}

EXP: 06/16/2024

Buprenorphine Standard: in Methanol [Fisher 193023]

[Sigma SLCD2519] 1.78 mg/mL

EXP: 06/15/2024

Testosterone Standard Mix: in Methanol [Fisher 193023]

Acetate [Sigma 74H1129] 2.74 mg

Benzoate [Steraloids 130496] 3.67 mg

Isocaproate [Cayman 0507646] 1.27 mg

Undecanoate [Steraloids 130167] 2.32 mg

{~ 1 mL}

EXP: 06/20/2024

**GC and GC/MS
methods****Gas Chromatography /Mass Spectrometry methods**

Manual Injection	
MSDRUGS100	100-280°C for 10 minutes
MSDRUGS200	200-280°C for 10 minutes
MSDRUGS60	60-280°C for 10 minutes
MSDRUGSTI	100-280°C for 30 minutes

Auto-sample Injection	
ASMSDRUGS100	100-280°C for 10 minutes
ASMSDRUGS200	200-280°C for 10 minutes
ASMSDRUGS60	60-280°C for 10 minutes
ASMSDRUGSTI	100-280°C for 30 minutes
THC-MS (Quant)	230-280°C for 5 minutes (Select instruments only)

Gas Chromatography Methods

Manual Injection	
GC100	100-280°C for 10 minutes
GC200	200-280°C for 10 minutes
GC280ISOTI	280°C isothermal for 30 minutes

Auto-sample Injection	
ASGC100	100-280°C for 10 minutes
ASGC200	200-280°C for 10 minutes
ASGC280ISOTI	280°C isothermal for 30 minutes

Method Information for: C:\MassHunter\GCMS\1\methods\MSDRUGS100.M

Method Sections To Run:

() Save Copy of Method With Data
() Instrument Control Pre-Run Cmd/Macro =
() Data Analysis Pre-Run Cmd/Macro =
(X) Data Acquisition
(X) Data Analysis
() Instrument Control Post-Run Cmd/Macro =
() Data Analysis Post-Run Cmd/Macro =

Method Comments:

This is the default method

END OF METHOD CONTROL PARAMETERS

Single Quadrupole Acquisition Method - MS Parameters Report

Method file	C:\MassHunter\GCMS\1\methods\MSDRUGS100.M
Tune file	atune.u
Ion source	EI
Source temperature (°C)	230
Quad temperature (°C)	150
Fixed Electron energy (eV)	70.0
Acquisition Type	Scan
Stop time (min)	10.00
Solvent delay (min)	1.00
Trace Ion Detection	False
Delta EMV	0
EM Saver	False
EM Saver Limit	N/A

Scan Time Segments

Time	Start Mass	End Mass	Threshold	Scan Speed
1.00	40	500	150	1,562 [N=2]

Timed Events

Time	Type of Event	Parameter
------	---------------	-----------

Real-Time Plots

Type of Plot	Label	Low Mass	High Mass
Total Ion	N/A	N/A	N/A
Spectrum	N/A	N/A	N/A
Extracted Ion	Scan 1-1	50	550
Extracted Ion	Scan 1-2	40	440

Self-Cleaning Ion Source Parameters

Mode	No Cleaning
------	-------------

C:\MassHunter\GCMS\1\methods\MSDRUGS100.M
Tue Jun 20 19:56:59 2023

Control Information

Sample Inlet : GC
Injection Source : Manual
Mass Spectrometer : Enabled

No Sample Prep method has been assigned to this method.

GC
GC Summary
Run Time 10.001 min
Post Run Time 0 min

Oven
Temperature
Setpoint On
(Initial) 100 °C
Hold Time 1 min
Post Run 100 °C
Program
#1 Rate 70 °C/min
#1 Value 280 °C
#1 Hold Time 6.43 min

Equilibration Time 0.25 min
Max Temperature 325 °C
Maximum Temperature Override Disabled
Slow Fan Disabled

ALS
Front Injector
Syringe Size 10 µL
Injection Volume 1 µL
Solvent A Washes (PreInj) 5
Solvent A Washes (PostInj) 0
Solvent A Volume 3 µL
Solvent B Washes (PreInj) 0
Solvent B Washes (PostInj) 5
Solvent B Volume 3 µL
Sample Washes 3
Sample Wash Volume 3 µL
Sample Pumps 6
Dwell Time (PreInj) 0 min
Dwell Time (PostInj) 0 min
Solvent Wash Draw Speed 300 µL/min
Solvent Wash Dispense Speed 6000 µL/min
Sample Wash Draw Speed 300 µL/min
Sample Wash Dispense Speed 6000 µL/min
Injection Dispense Speed 6000 µL/min
Viscosity Delay 0 sec
Sample Depth Disabled
Injection Type Standard
L1 Airgap 0.2 µL
Solvent Wash Mode A, B

Back Injector		9
Syringe Size	10 µL	
Injection Volume	1 µL	BH 7-3-23
Solvent A Washes (PreInj)	3	
Solvent A Washes (PostInj)	3	
Solvent A Volume	8 µL	
Solvent B Washes (PreInj)	3	
Solvent B Washes (PostInj)	3	
Solvent B Volume	8 µL	
Sample Washes	2	
Sample Wash Volume	8 µL	
Sample Pumps	4	
Dwell Time (PreInj)	0 min	
Dwell Time (PostInj)	0 min	
Solvent Wash Draw Speed	300 µL/min	
Solvent Wash Dispense Speed	3000 µL/min	
Sample Wash Draw Speed	300 µL/min	
Sample Wash Dispense Speed	3000 µL/min	
Injection Dispense Speed	6000 µL/min	
Viscosity Delay	0 sec	
Sample Depth	Disabled	
Injection Type	Standard	
L1 Airgap	0.2 µL	
Solvent Wash Mode	A, B	

Sample Overlap	
Mode	Sample overlap is not enabled

ALS Errors	Pause for user interaction
------------	----------------------------

Front SS Inlet He	
Excluded from Readiness	***Excluded from Affecting GC's Readiness State***
Mode	Split
Heater	On 250 °C
Pressure	On 10.806 psi
Total Flow	On 104 mL/min
Septum Purge Flow	On 3 mL/min
Gas Saver	On 20 After 2 min mL/min
Split Ratio	100 :1
Split Flow	100 mL/min
Liner	A Liner has not been selected.

Back SS Inlet He	
Mode	Splitless
Heater	Off
Pressure	On 6.5756 psi
Total Flow	On 41 mL/min
Septum Purge Flow	Off
Septum Purge Flow Mode	Standard
Gas Saver	Off
Purge Flow to Split Vent	40 mL/min at 0.75 min
Liner	A Liner has not been selected.

Thermal Aux 2 (MSD Transfer Line)	
Temperature	
Setpoint	On
(Initial)	280 °C

Column	
Column #1	
Flow	
Setpoint	On

(Initial)	1 mL/min	10
Post Run	1.5 mL/min	BH 7-3-23
Column Information	Agilent 19091A-102	
Ultra 1 Methyl Siloxane		
Temperature Range	-60 °C-325 °C (325 °C)	
Dimensions	12.5 m x 200 µm x 0.33 µm	
In	Front SS Inlet He	
Out	MSD	
(Initial)	100 °C	
Pressure	10.806 psi	
Flow	1 mL/min	
Average Velocity	57.774 cm/sec	
Holdup Time	0.3606 min	
Control Mode	Constant Flow	
Column #2		
Pressure		
Setpoint	On	
(Initial)	6.5756 psi	
Post Run	10 psi	
Column Information	Agilent 19091S-913: 2	
HP-1ms		
Temperature Range	-60 °C-325 °C (350 °C)	
Dimensions	30 m x 320 µm x 0.25 µm	
Column lock	Unlocked	
In	Back SS Inlet He	
Out	Back Detector FID	
(Initial)	100 °C	
Pressure	6.5756 psi	
Flow	1 mL/min	
Average Velocity	21.027 cm/sec	
Holdup Time	2.3779 min	
Control Mode	Constant Pressure	
Column Outlet Pressure	0 psi	
Back Detector FID		
Makeup	N2	
Column Compensation	Signal is modified by Column Compensation Curve #2	
Heater	Off	
H2 Flow	Off	
Air Flow	Off	
Makeup Flow	Off	
Carrier Gas Flow Correction	Constant Makeup and Fuel Flow	
Flame	Off	
Aux EPC 1,2,3		
Aux EPC 1 N2		
Pressure		
Setpoint	Off	
(Initial)	10 psi	
Post Run	0 psi	
Excluded from Readiness	***Excluded from Affecting GC's Readiness State***	
Aux EPC 2 N2		
Pressure		
Setpoint	Off	
(Initial)	10 psi	
Post Run	0 psi	
Excluded from Readiness	***Excluded from Affecting GC's Readiness State***	

Aux EPC 3 N2
Pressure
Setpoint Off
(Initial) 10 psi
Post Run 0 psi

11
BH 7-3-23

Excluded from Readiness ***Excluded from Affecting GC's Readiness State***

Signals
Signal #1: Test Plot
Description Test Plot
Save Off
Data Rate 50 Hz
Dual Injection Assignment Front Sample

Signal #2: Back Signal
Description Back Signal
Details Back Signal (FID)
Save On
Data Rate 50 Hz
Dual Injection Assignment Back Sample

Signal #3: Test Plot
Description Test Plot
Save Off
Data Rate 50 Hz
Dual Injection Assignment Back Sample

Signal #4: Test Plot
Description Test Plot
Save Off
Data Rate 50 Hz
Dual Injection Assignment Back Sample

TUNE PARAMETERS for SN: US1646M032

Trace Ion Detection is OFF.

34.593	:	EMISSION	
70.007	:	ENERGY	
29.919	:	REPELLER	
90.331	:	IONFOCUS	
20.181	:	ENTRANCE_LENS	
1289.141	:	EMVOLTS	
		1200	: Actual EMV
		0.47	: GAIN FACTOR
2390.000	:	AMUGAIN	
127.313	:	AMUOFFSET	
1.000	:	FILAMENT	
0.000	:	DCPOLARITY	
12.194	:	ENTLENSOFFSET	
0.000	:	Ion_Body	
0.000	:	EXTLENS	
145.000	:	MASSGAIN	
-27.000	:	MASSOFFSET	

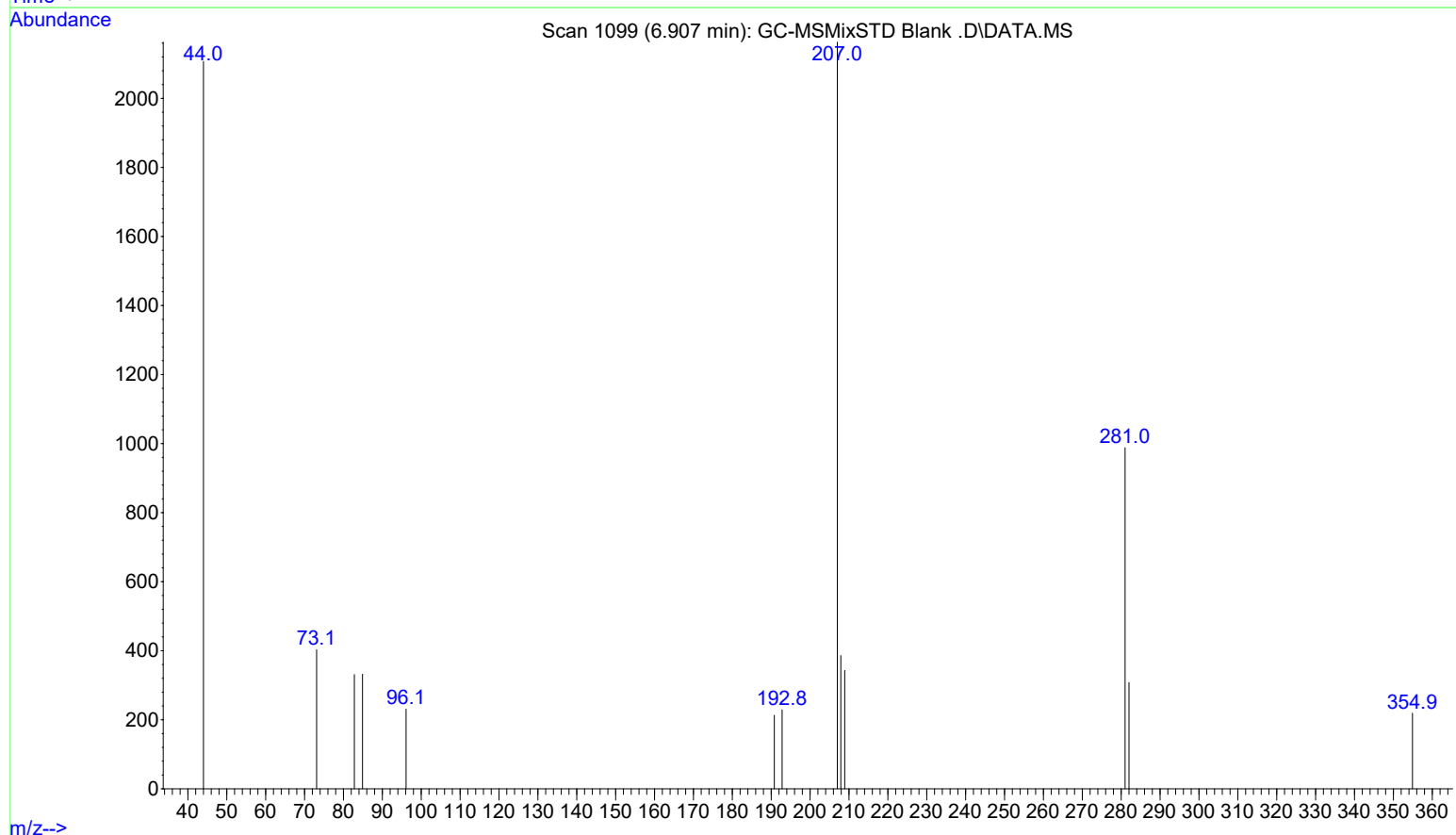
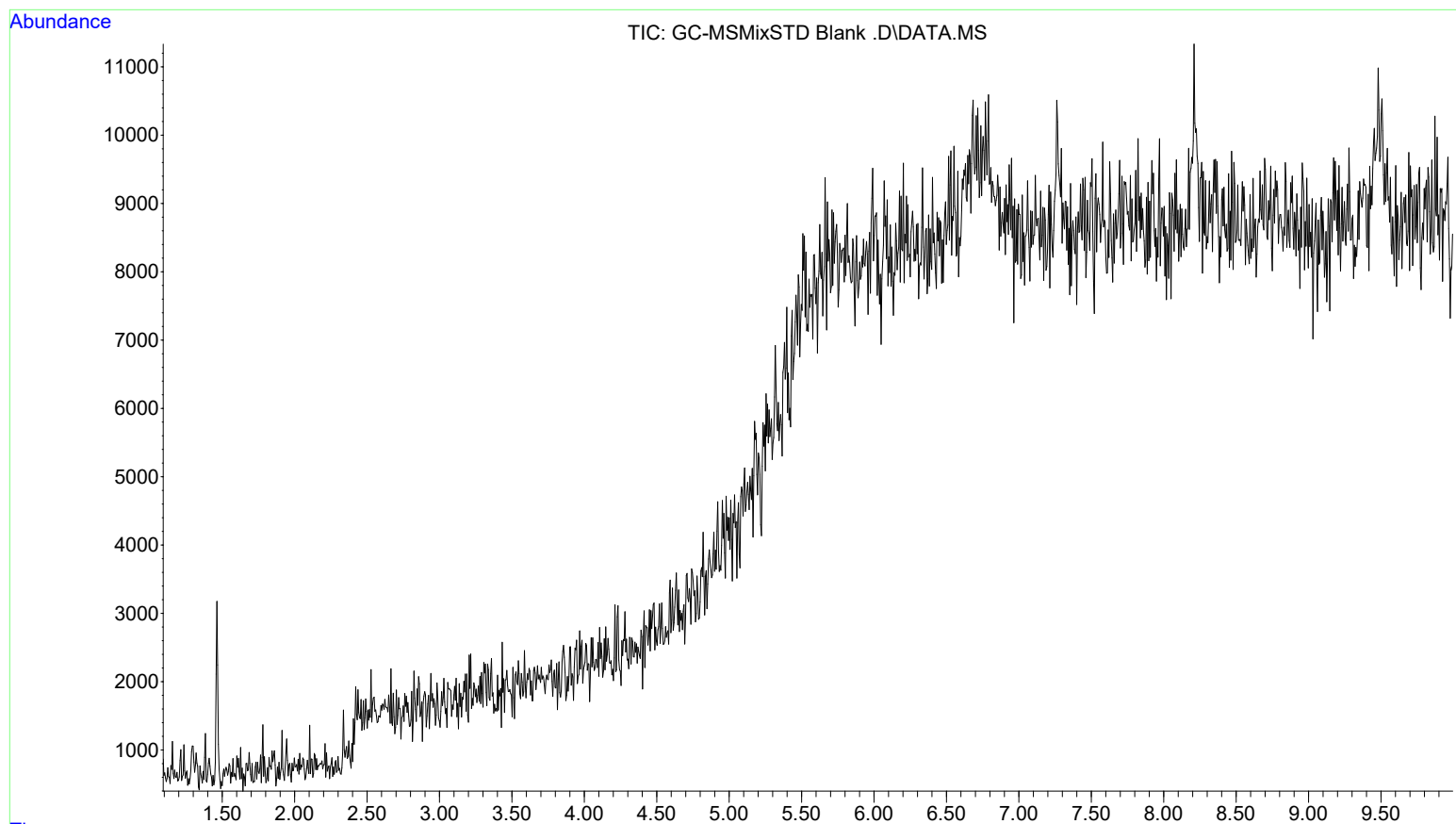
END OF TUNE PARAMETERS

12
BH 7-3-23

END OF INSTRUMENT CONTROL PARAMETERS

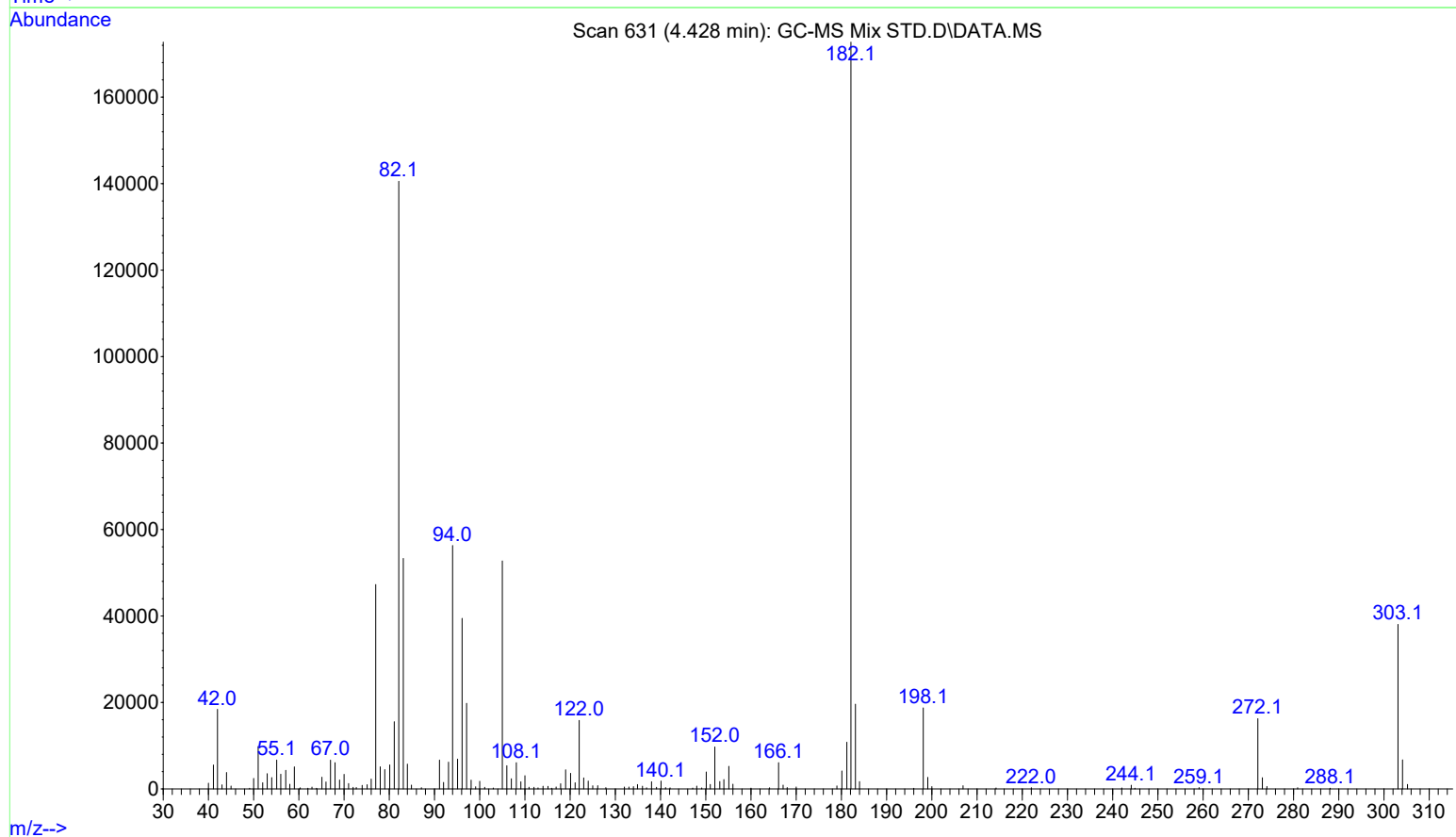
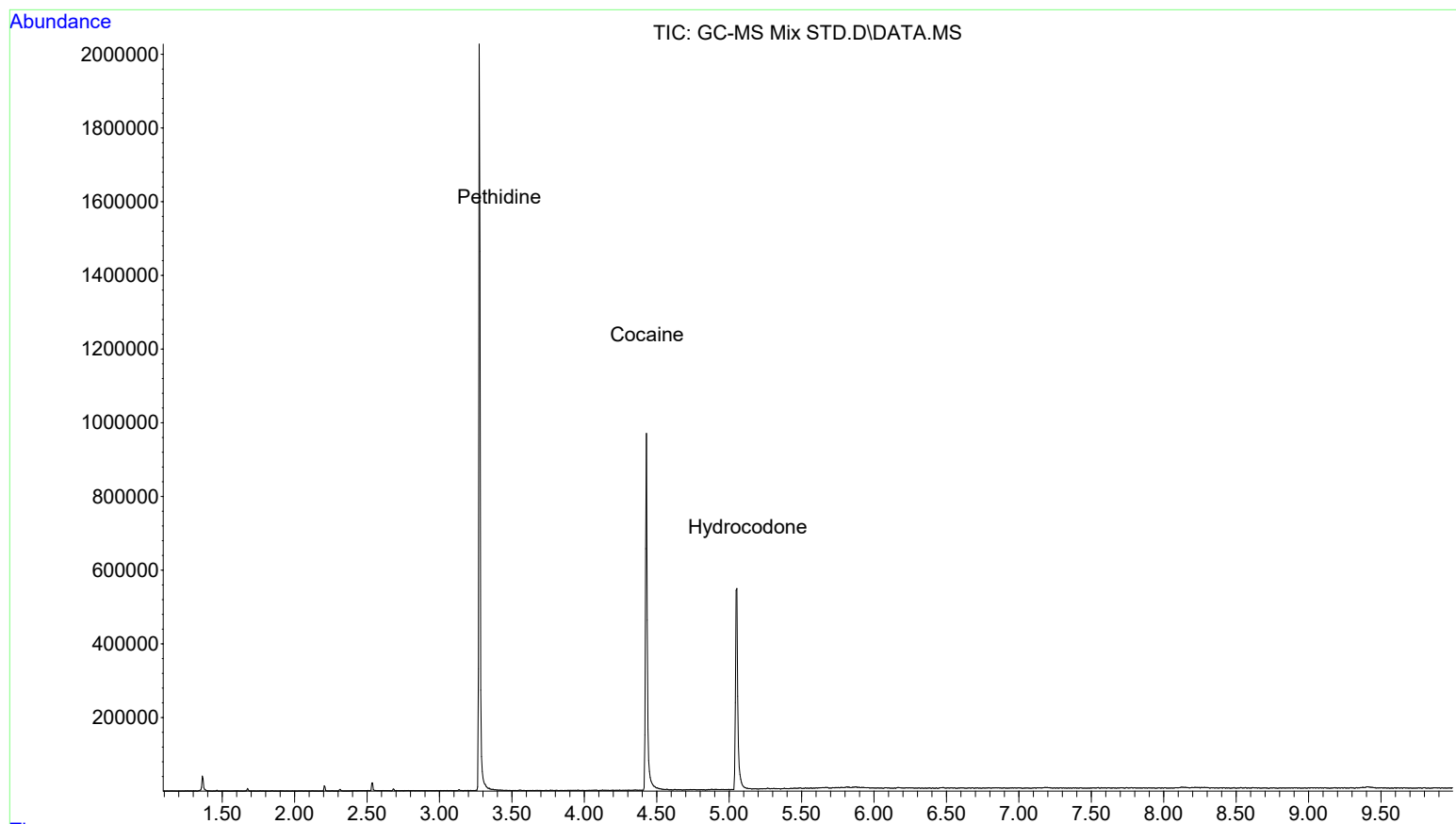
File : C:\MassHunter\GCMS\1\data\Kamryn\6-28-23\GC-MSMixSTD Blank .D
Operator : Kamryn Couvertier
Acquired : 28 Jun 2023 08:08 using AcqMethod MSDRUGS100.M
Instrument : Peabody
Sample Name: Blank 6-28-23 GC-MS Mix STD
Misc Info : Methanol
Vial Number: 2

13
BH 7-3-23



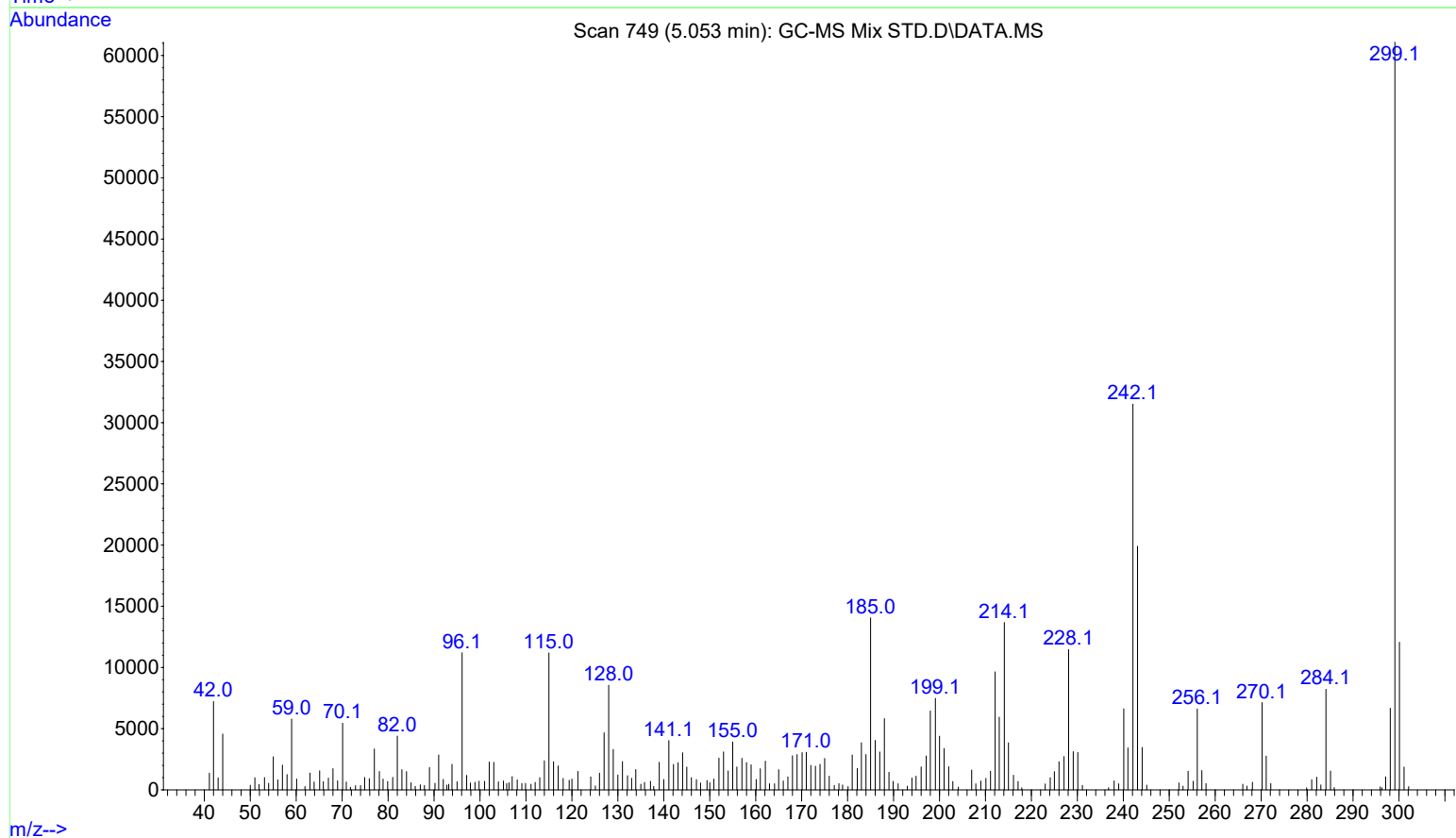
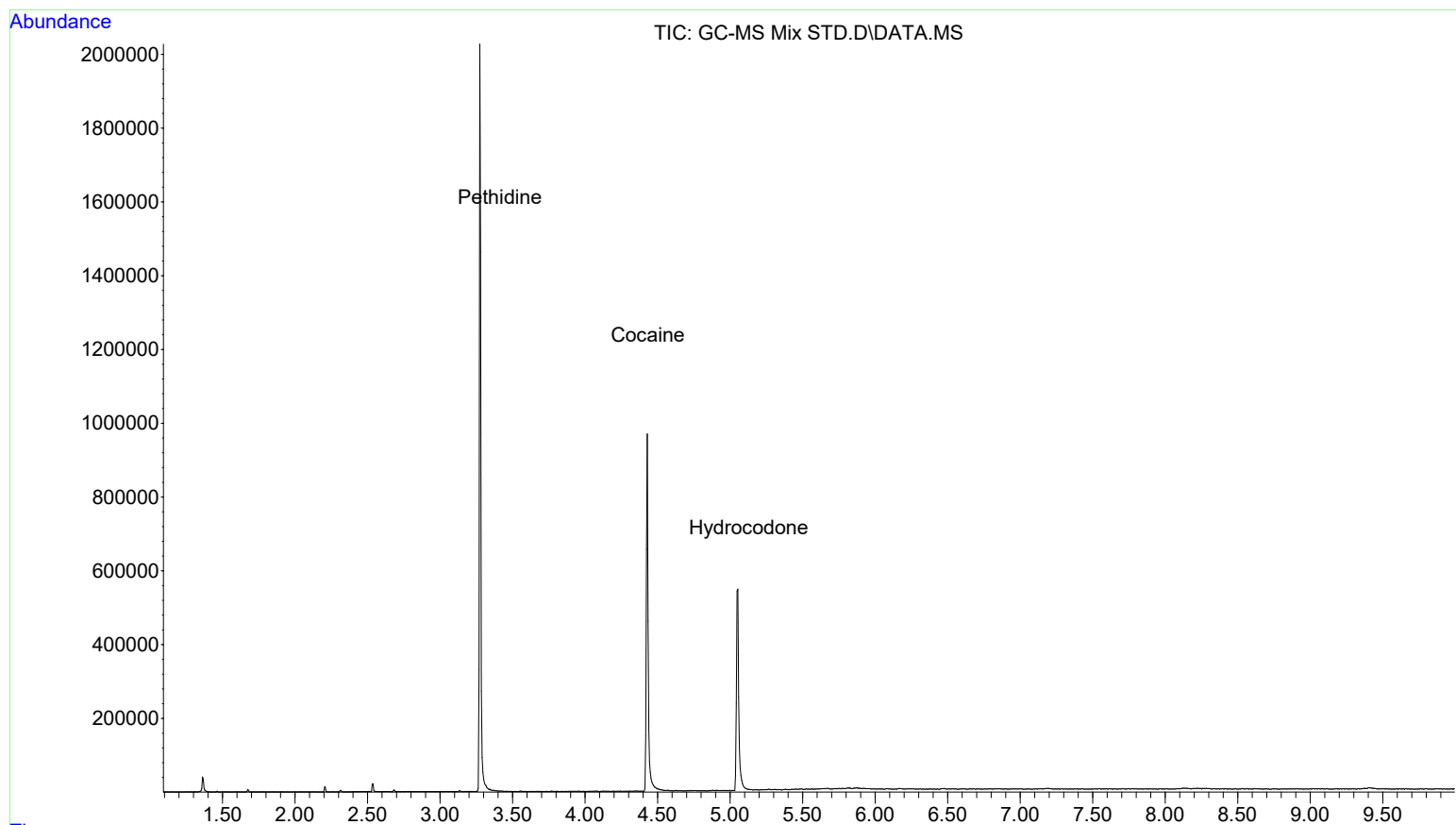
File : C:\MassHunter\GCMS\1\data\Kamryn\6-28-23\GC-MS Mix STD.D
Operator : Kamryn Couvertier
Acquired : 28 Jun 2023 08:21 using AcqMethod MSDRUGS100.M
Instrument : Peabody
Sample Name: GC-MS Mix STD
Misc Info : Methanol (See log book for lot numbers) Exp:06-16-24
Vial Number: 3

14
BH 7-3-23



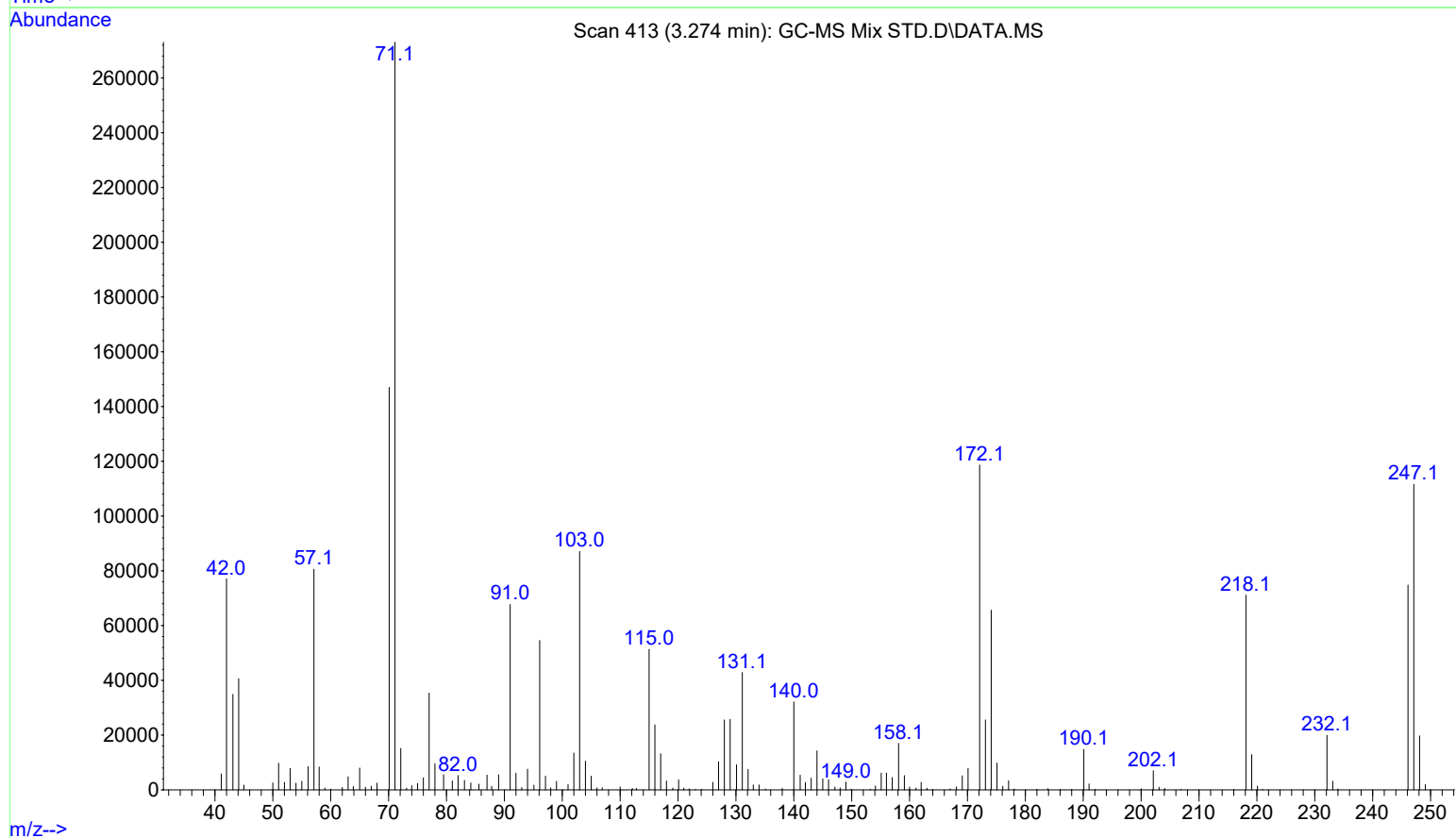
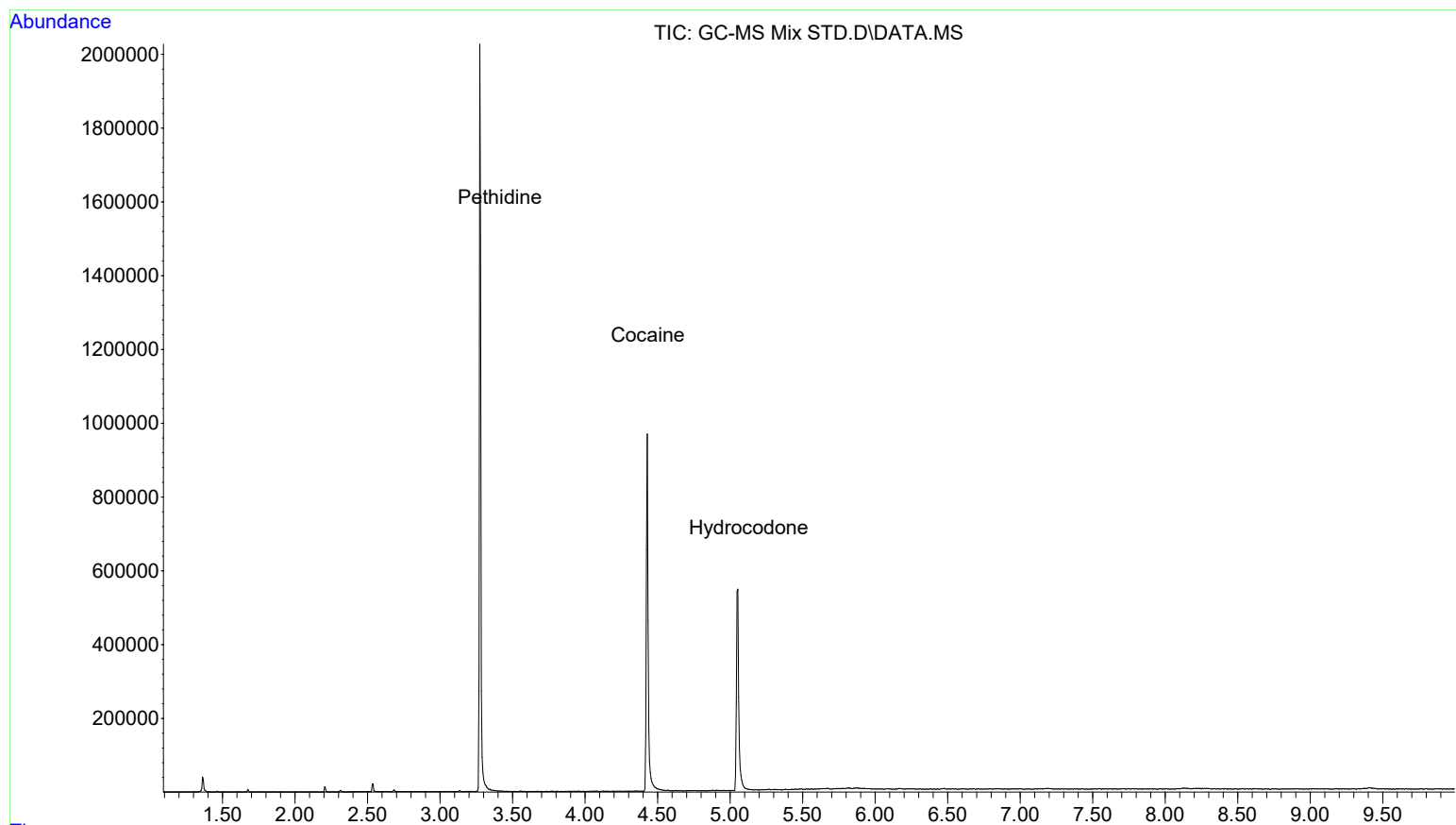
File : C:\MassHunter\GCMS\1\data\Kamryn\6-28-23\GC-MS Mix STD.D
Operator : Kamryn Couvertier
Acquired : 28 Jun 2023 08:21 using AcqMethod MSDRUGS100.M
Instrument : Peabody
Sample Name: GC-MS Mix STD
Misc Info : Methanol (See log book for lot numbers) Exp:06-16-24
Vial Number: 3

15
BH 7-3-23



File : C:\MassHunter\GCMS\1\data\Kamryn\6-28-23\GC-MS Mix STD.D
Operator : Kamryn Couvertier
Acquired : 28 Jun 2023 08:21 using AcqMethod MSDRUGS100.M
Instrument : Peabody
Sample Name: GC-MS Mix STD
Misc Info : Methanol (See log book for lot numbers) Exp:06-16-24
Vial Number: 3

16
BH 7-3-23



Method Information for: C:\MassHunter\GCMS\1\methods\ASMSDRUGS60.M

Method Sections To Run:

() Save Copy of Method With Data
() Instrument Control Pre-Run Cmd/Macro =
() Data Analysis Pre-Run Cmd/Macro =
(X) Data Acquisition
(X) Data Analysis
() Instrument Control Post-Run Cmd/Macro =
() Data Analysis Post-Run Cmd/Macro =

Method Comments:

This is the default method

END OF METHOD CONTROL PARAMETERS

Single Quadrupole Acquisition Method - MS Parameters Report

Method file	C:\MassHunter\GCMS\1\methods\ASMSDRUGS60.M
Tune file	atune.u
Ion source	EI
Source temperature (°C)	230
Quad temperature (°C)	150
Fixed Electron energy (eV)	70.0
Acquisition Type	Scan
Stop time (min)	10.00
Solvent delay (min)	1.00
Trace Ion Detection	False
Delta EMV	0
EM Saver	False
EM Saver Limit	N/A

Scan Time Segments

Time	Start Mass	End Mass	Threshold	Scan Speed
1.00	40	500	150	1,562 [N=2]

Timed Events

Time	Type of Event	Parameter
------	---------------	-----------

Real-Time Plots

Type of Plot	Label	Low Mass	High Mass
Total Ion	N/A	N/A	N/A
Spectrum	N/A	N/A	N/A
Extracted Ion	Scan 1-1	50	550
Extracted Ion	Scan 1-2	40	440

Self-Cleaning Ion Source Parameters

Mode	No Cleaning
------	-------------

C:\MassHunter\GCMS\1\methods\ASMSDRUGS60.M
Tue Jun 20 19:43:23 2023

Control Information

Sample Inlet : GC
Injection Source : GC ALS
Injection Location: Front
Mass Spectrometer : Enabled

No Sample Prep method has been assigned to this method.

GC
GC Summary
Run Time 10.043 min
Post Run Time 0 min

Oven
Temperature
Setpoint On
(Initial) 60 °C
Hold Time 1 min
Post Run 100 °C
Program
#1 Rate 70 °C/min
#1 Value 280 °C
#1 Hold Time 5.9 min

Equilibration Time 0.25 min
Max Temperature 325 °C
Maximum Temperature Override Disabled
Slow Fan Disabled

ALS
Front Injector
Syringe Size 10 µL
Injection Volume 1 µL
Solvent A Washes (PreInj) 5
Solvent A Washes (PostInj) 0
Solvent A Volume 3 µL
Solvent B Washes (PreInj) 0
Solvent B Washes (PostInj) 5
Solvent B Volume 3 µL
Sample Washes 3
Sample Wash Volume 3 µL
Sample Pumps 6
Dwell Time (PreInj) 0 min
Dwell Time (PostInj) 0 min
Solvent Wash Draw Speed 300 µL/min
Solvent Wash Dispense Speed 6000 µL/min
Sample Wash Draw Speed 300 µL/min
Sample Wash Dispense Speed 6000 µL/min
Injection Dispense Speed 6000 µL/min
Viscosity Delay 0 sec
Sample Depth Disabled
Injection Type Standard
L1 Airgap 0.2 µL

Solvent Wash Mode

A, B

20
BH 7-3-23

Back Injector
Syringe Size 10 µL
Injection Volume 1 µL
Solvent A Washes (PreInj) 3
Solvent A Washes (PostInj) 3
Solvent A Volume 8 µL
Solvent B Washes (PreInj) 3
Solvent B Washes (PostInj) 3
Solvent B Volume 8 µL
Sample Washes 2
Sample Wash Volume 8 µL
Sample Pumps 4
Dwell Time (PreInj) 0 min
Dwell Time (PostInj) 0 min
Solvent Wash Draw Speed 300 µL/min
Solvent Wash Dispense Speed 3000 µL/min
Sample Wash Draw Speed 300 µL/min
Sample Wash Dispense Speed 3000 µL/min
Injection Dispense Speed 6000 µL/min
Viscosity Delay 0 sec
Sample Depth Disabled
Injection Type Standard
I1 Airgap 0.2 µL
Solvent Wash Mode A, B

Sample Overlap
Mode Sample overlap is not enabled

ALS Errors Pause for user interaction

Front SS Inlet He
Excluded from Readiness Mode ***Excluded from Affecting GC's Readiness State***
Split
Heater On 250 °C
Pressure On 8.4891 psi
Total Flow On 104 mL/min
Septum Purge Flow On 3 mL/min
Gas Saver On 20 After 2 min mL/min
Split Ratio 100 :1
Split Flow 100 mL/min
Liner A Liner has not been selected.

Back SS Inlet He
Excluded from Readiness Mode ***Excluded from Affecting GC's Readiness State***
Splitless
Heater Off
Pressure On 5.5885 psi
Total Flow On 41 mL/min
Septum Purge Flow Off
Septum Purge Flow Mode Standard
Gas Saver Off
Purge Flow to Split Vent 40 mL/min at 0.75 min
Liner A Liner has not been selected.

Thermal Aux 2 (MSD Transfer Line)
Temperature
Setpoint On
(Initial) 280 °C

Column
Column #1

Flow	Off	
Setpoint	1 mL/min	21
(Initial)	1.5 mL/min	BH 7-3-23
Post Run		

Column Information	Agilent 19091A-102
Ultra 1 Methyl Siloxane	
Temperature Range	-60 °C-325 °C (325 °C)
Dimensions	12.5 m x 200 µm x 0.33 µm
Column lock	Unlocked
In	Front SS Inlet He
Out	MSD
(Initial)	60 °C
Pressure	8.4891 psi
Flow	1 mL/min
Average Velocity	56.736 cm/sec
Holdup Time	0.3672 min
Control Mode	Constant Flow

Column #2	
Pressure	
Setpoint	On
(Initial)	5.5885 psi
Post Run	10 psi

Column Information	Agilent 19091S-913: 2
HP-1ms	
Temperature Range	-60 °C-325 °C (350 °C)
Dimensions	30 m x 320 µm x 0.25 µm
Column lock	Unlocked
In	Back SS Inlet He
Out	Back Detector FID
(Initial)	60 °C
Pressure	5.5885 psi
Flow	1 mL/min
Average Velocity	19.353 cm/sec
Holdup Time	2.5836 min
Control Mode	Constant Pressure

Column Outlet Pressure	0 psi
------------------------	-------

Back Detector FID	
Excluded from Readiness	***Excluded from Affecting GC's Readiness State***
Makeup	N2
Column Compensation	Signal is modified by Column Compensation Curve #2
Heater	Off
H2 Flow	Off
Air Flow	Off
Makeup Flow	Off
Carrier Gas Flow Correction	Constant Makeup and Fuel Flow
Flame	Off

Aux EPC 1,2,3	
Aux EPC 1 N2	
Pressure	
Setpoint	Off
(Initial)	10 psi
Post Run	0 psi

Excluded from Readiness	***Excluded from Affecting GC's Readiness State***
-------------------------	--

Aux EPC 2 N2	
Pressure	
Setpoint	Off

```

(Initial)          10 psi
Post Run           0 psi
Excluded from Readiness ***Excluded from Affecting GC's Readiness State***
Aux EPC 3 N2
Pressure
Setpoint           Off
(Initial)          10 psi
Post Run           0 psi
Excluded from Readiness ***Excluded from Affecting GC's Readiness State***

Signals
Signal #1: Test Plot
Description         Test Plot
Save                Off
Data Rate           50 Hz
Dual Injection Assignment Front Sample

Signal #2:
Description         None

Signal #3: Test Plot
Description         Test Plot
Save                Off
Data Rate           50 Hz
Dual Injection Assignment Back Sample

Signal #4: Test Plot
Description         Test Plot
Save                Off
Data Rate           50 Hz
Dual Injection Assignment Back Sample

```

TUNE PARAMETERS for SN: US1646M032

Trace Ion Detection is OFF.

```

34.593 : EMISSION
70.007 : ENERGY
29.919 : REPELLER
90.331 : IONFOCUS
20.181 : ENTRANCE_LENS
1289.141 : EMVOLTS

```

```

1200 : Actual EMV
0.47 : GAIN FACTOR

```

```

2390.000 : AMUGAIN
127.313 : AMUOFFSET
1.000 : FILAMENT
0.000 : DCPOLARITY
12.194 : ENTLENSOFFSET
0.000 : Ion_Body
0.000 : EXTLENS
145.000 : MASSGAIN
-27.000 : MASSOFFSET

```

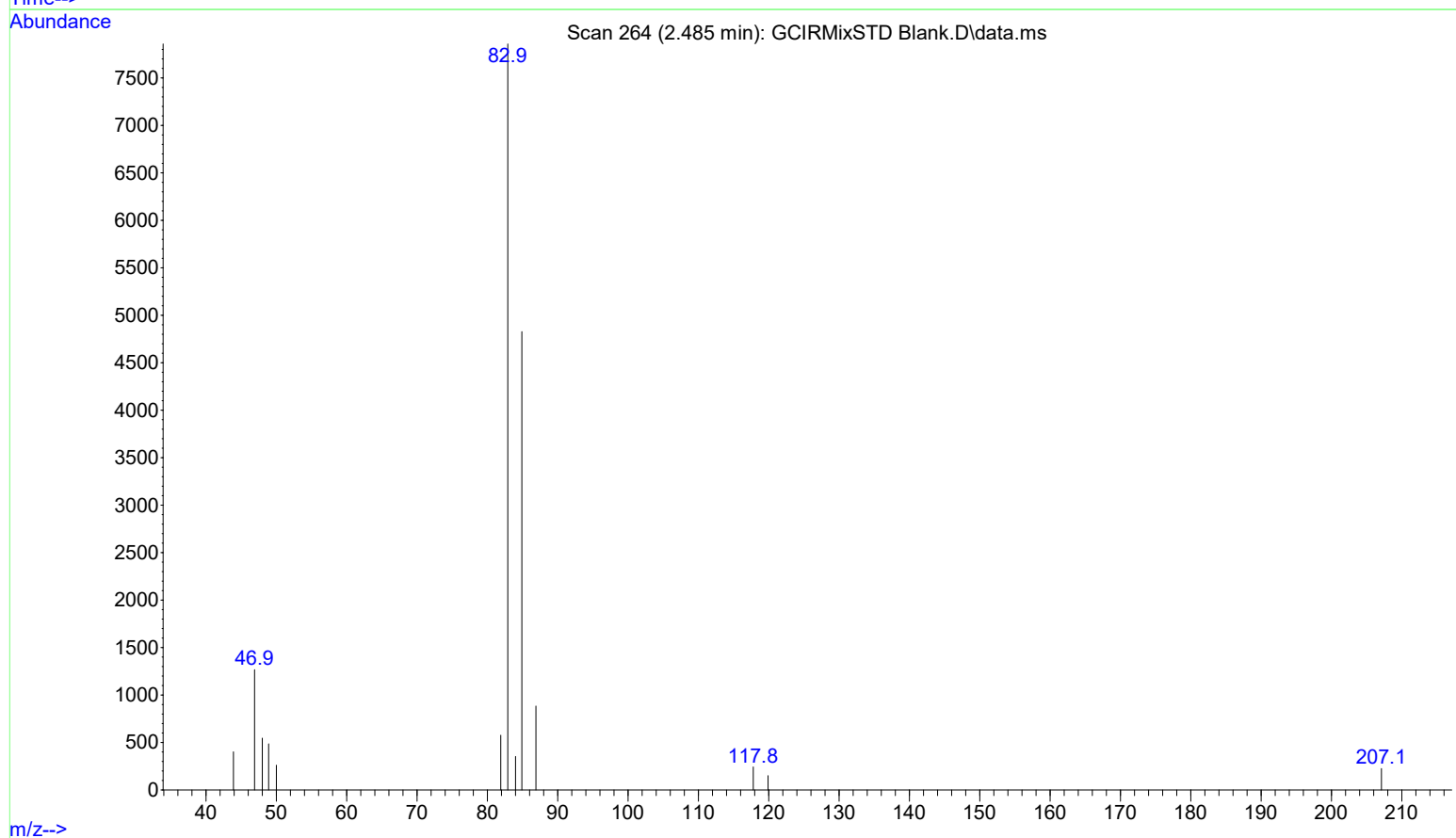
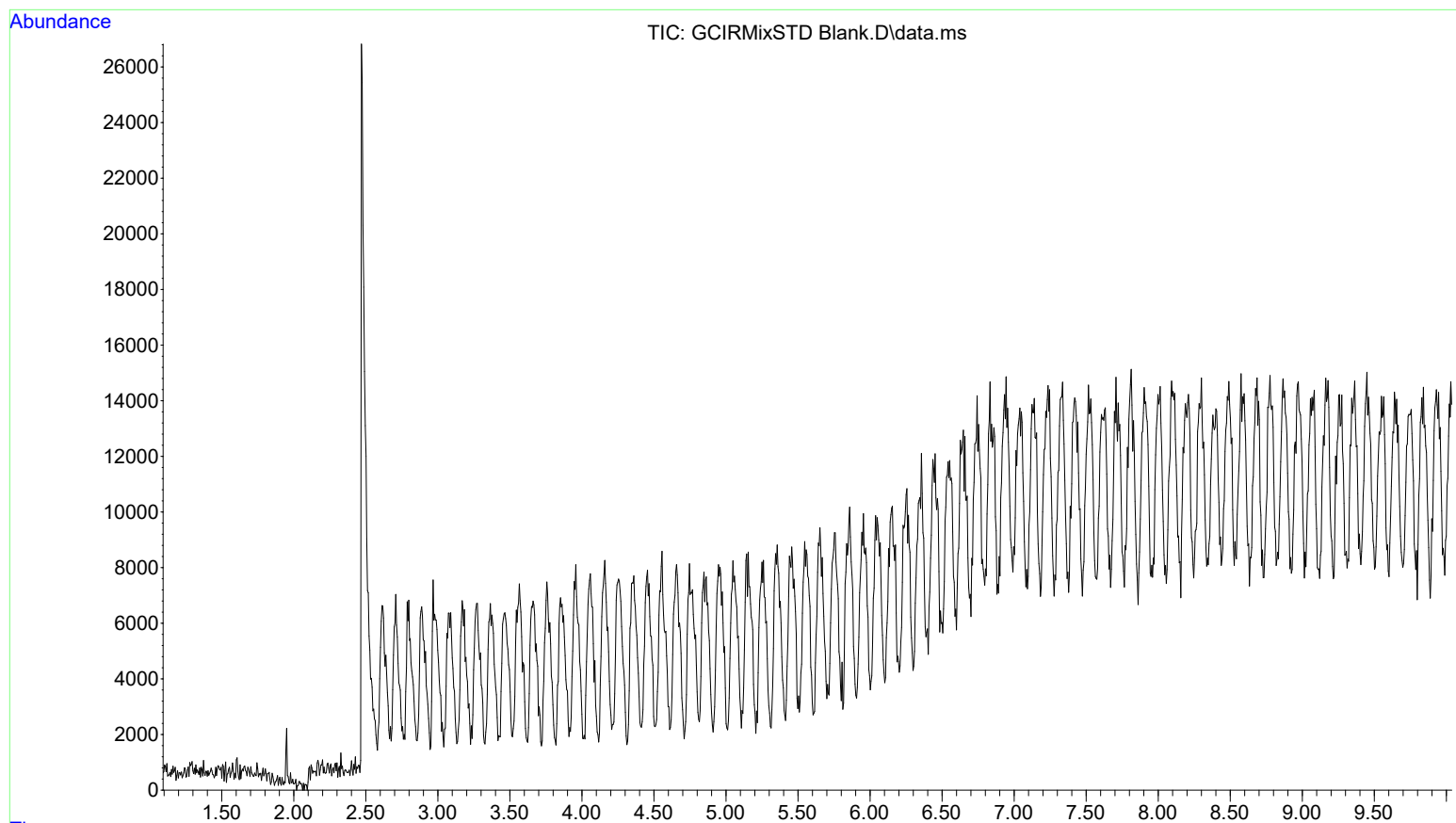
END OF TUNE PARAMETERS

23
BH 7-3-23

END OF INSTRUMENT CONTROL PARAMETERS

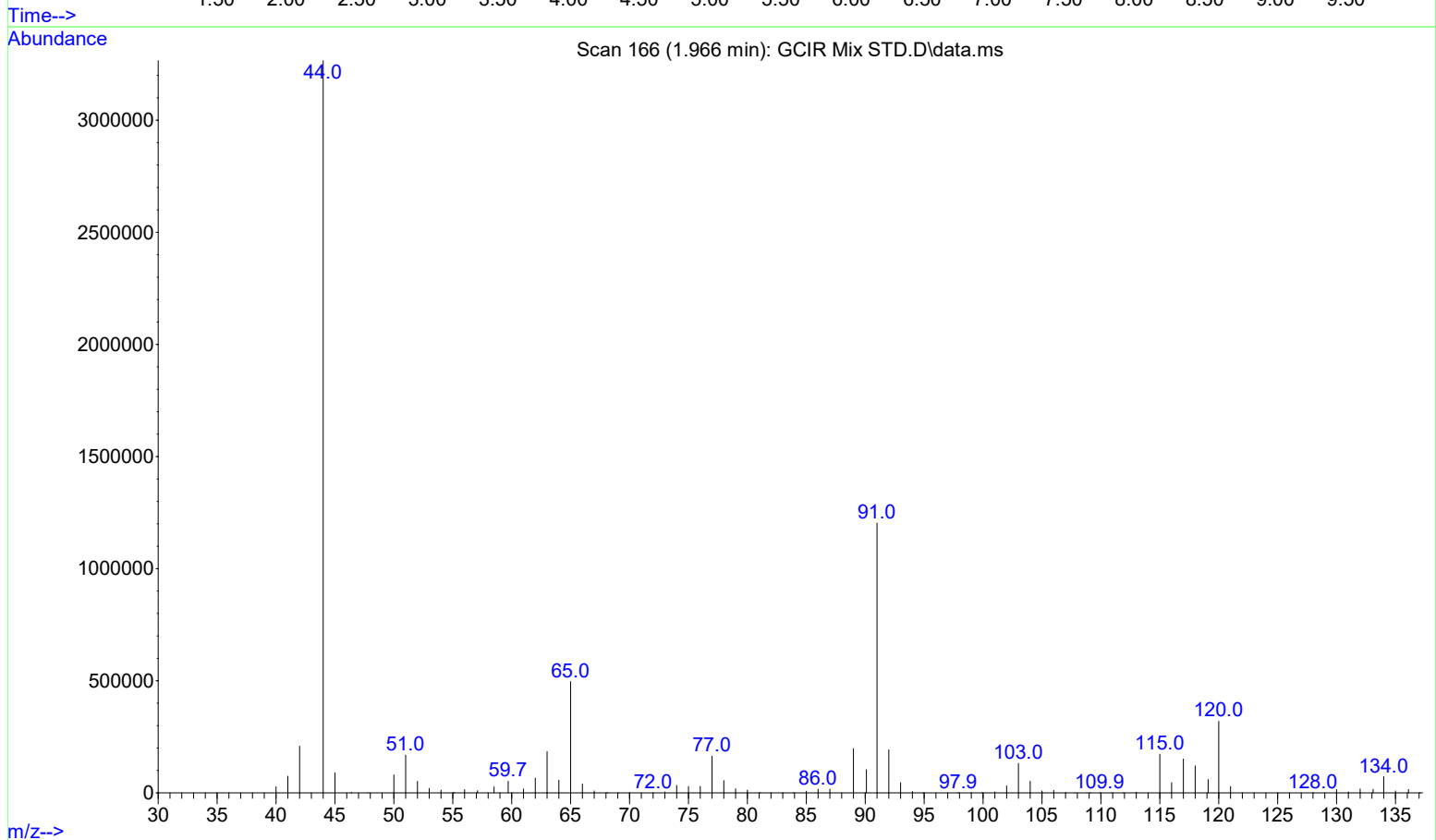
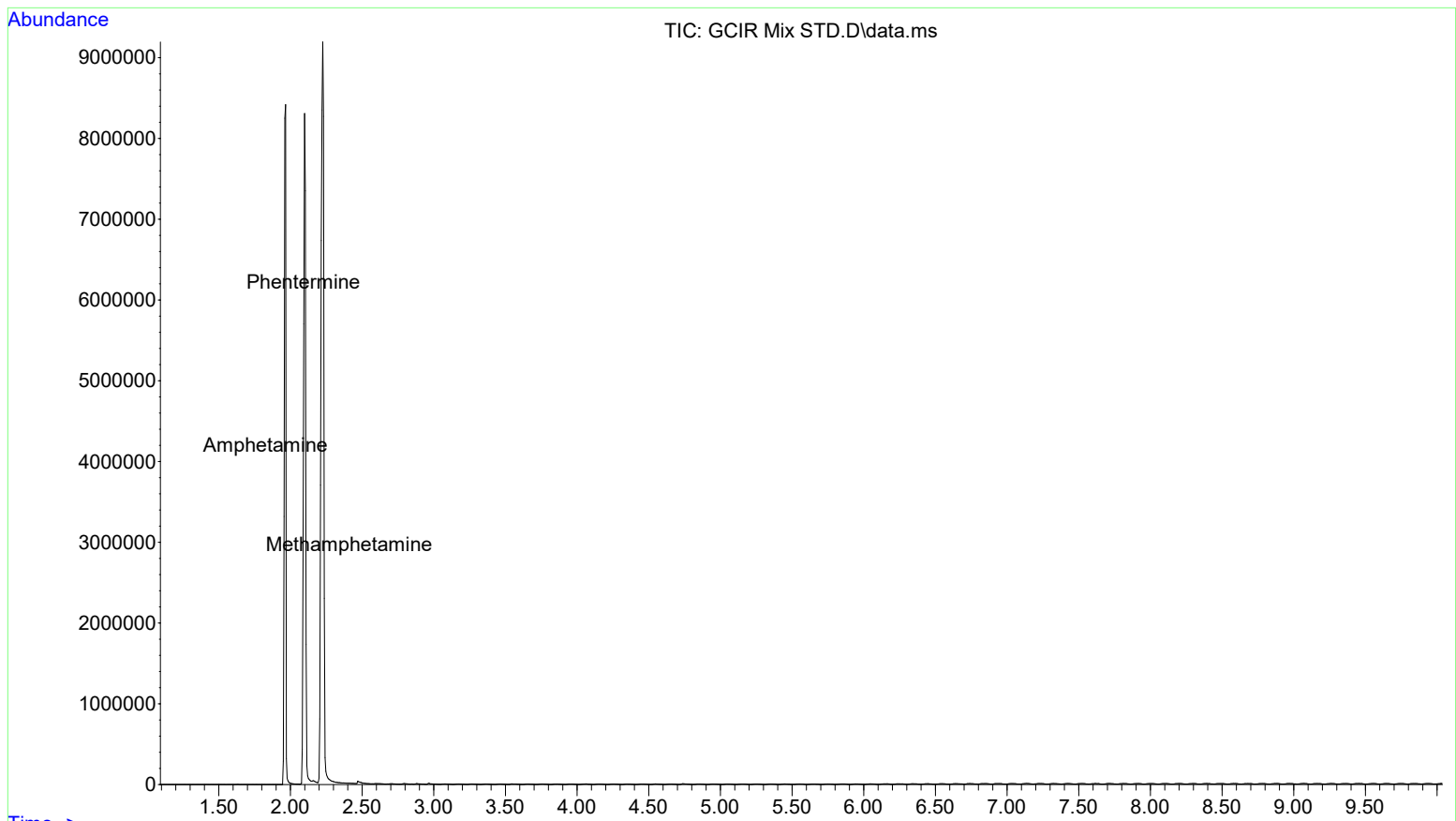
File :Y:\Instruments\GCMS\Peabody\KC\2023\June\6-16-23\GCIRMixSTD
... Blank.D
Operator : Kamryn Couvertier
Instrument : Peabody
Acquired : 16 Jun 2023 13:08 using AcqMethod ASMSDRUGS60.M
Sample Name: Blank 6-16-23 GCIR Mix STD
Misc Info : Methanol

24
BH 7-3-23



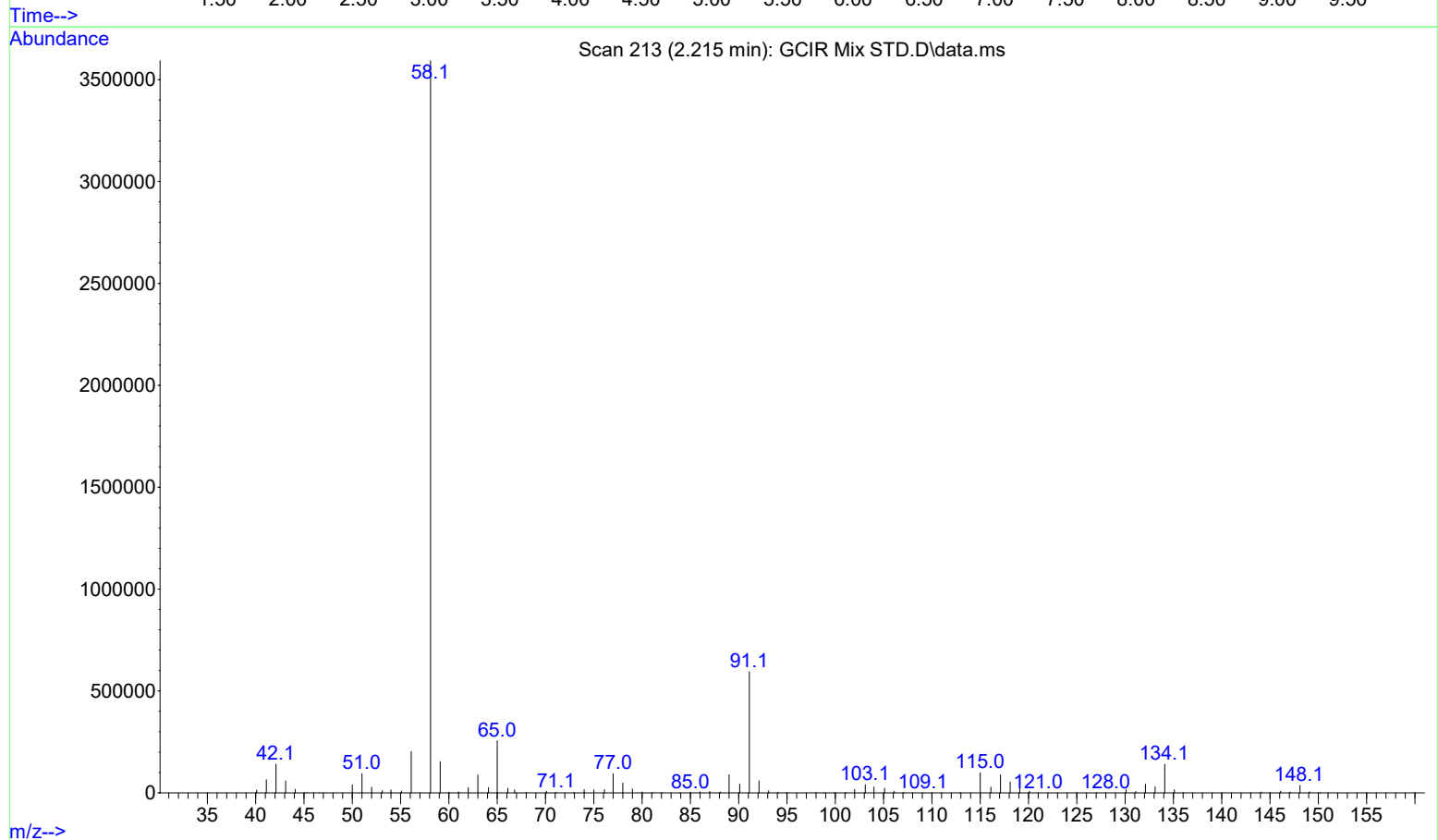
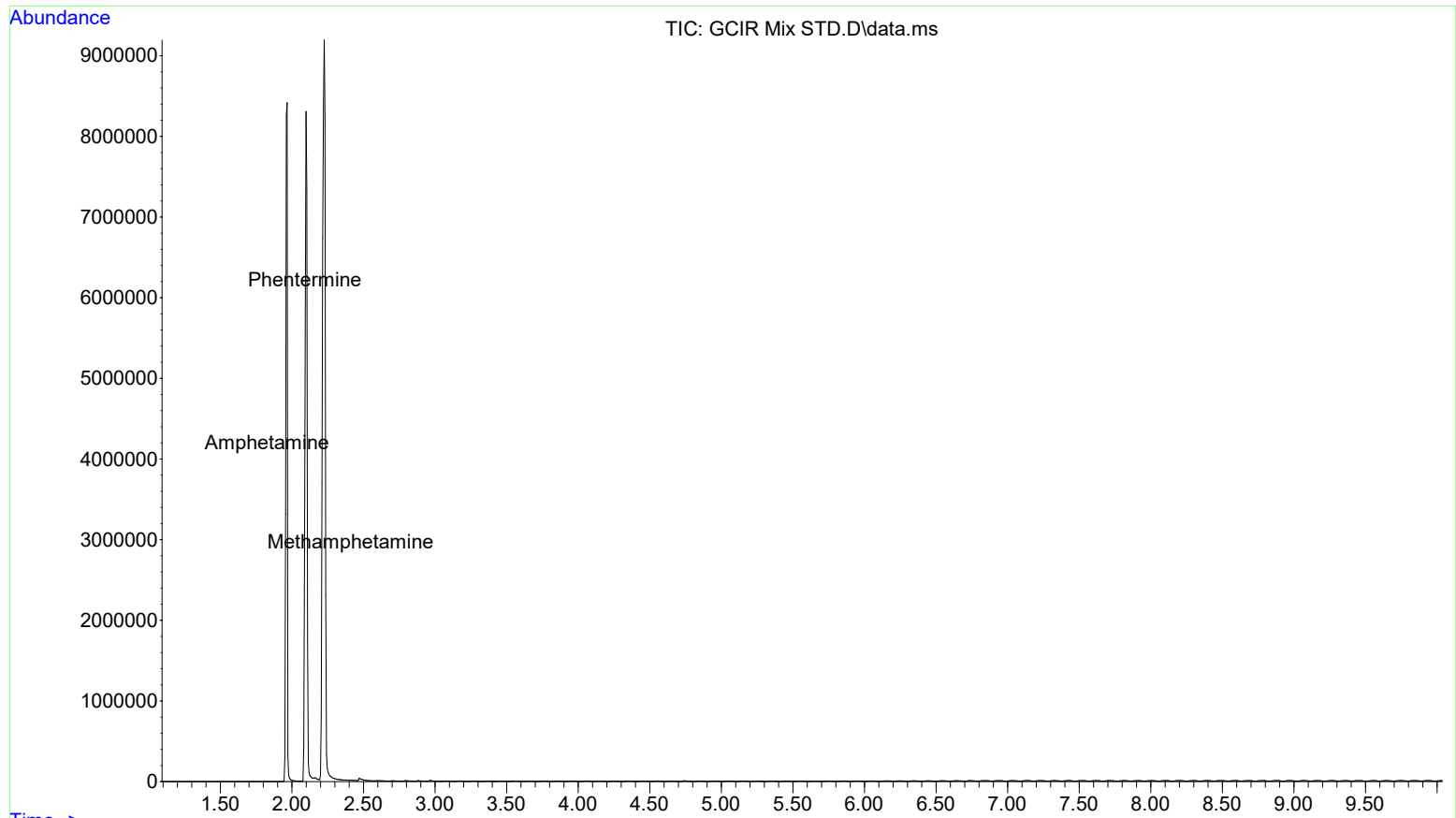
File :Y:\Instruments\GCMS\Peabody\KC\2023\June\6-16-23\GCIR Mix ST
... D.D
Operator : Kamryn Couvertier
Instrument : Peabody
Acquired : 16 Jun 2023 13:24 using AcqMethod ASMSDRUGS60.M
Sample Name: GCIR Mix STD
Misc Info : 0.5N NaOH --> CHCl3 Exp: 12-9-23 (See log sheet for lot numbers)

25
BH 7-3-23



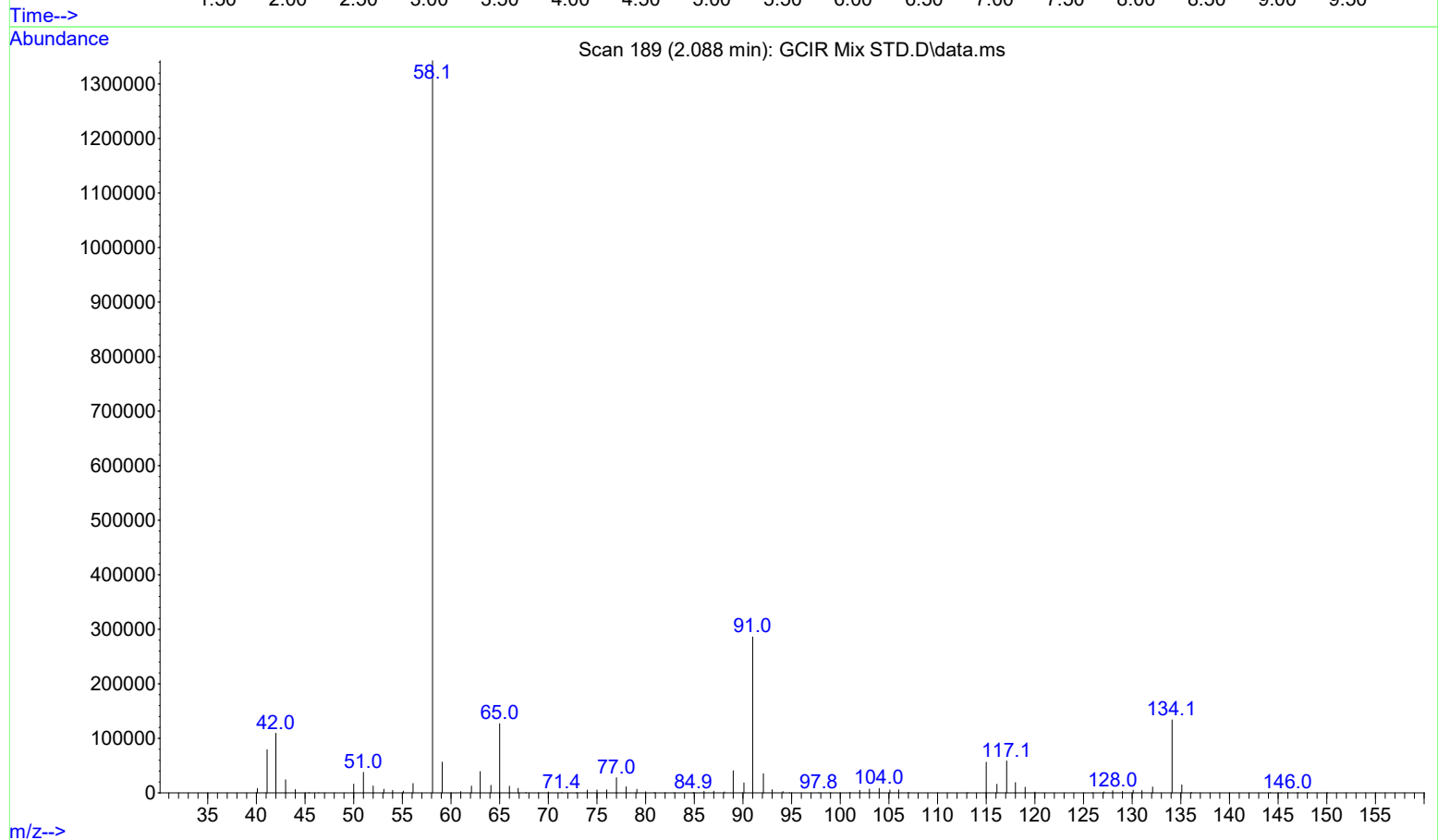
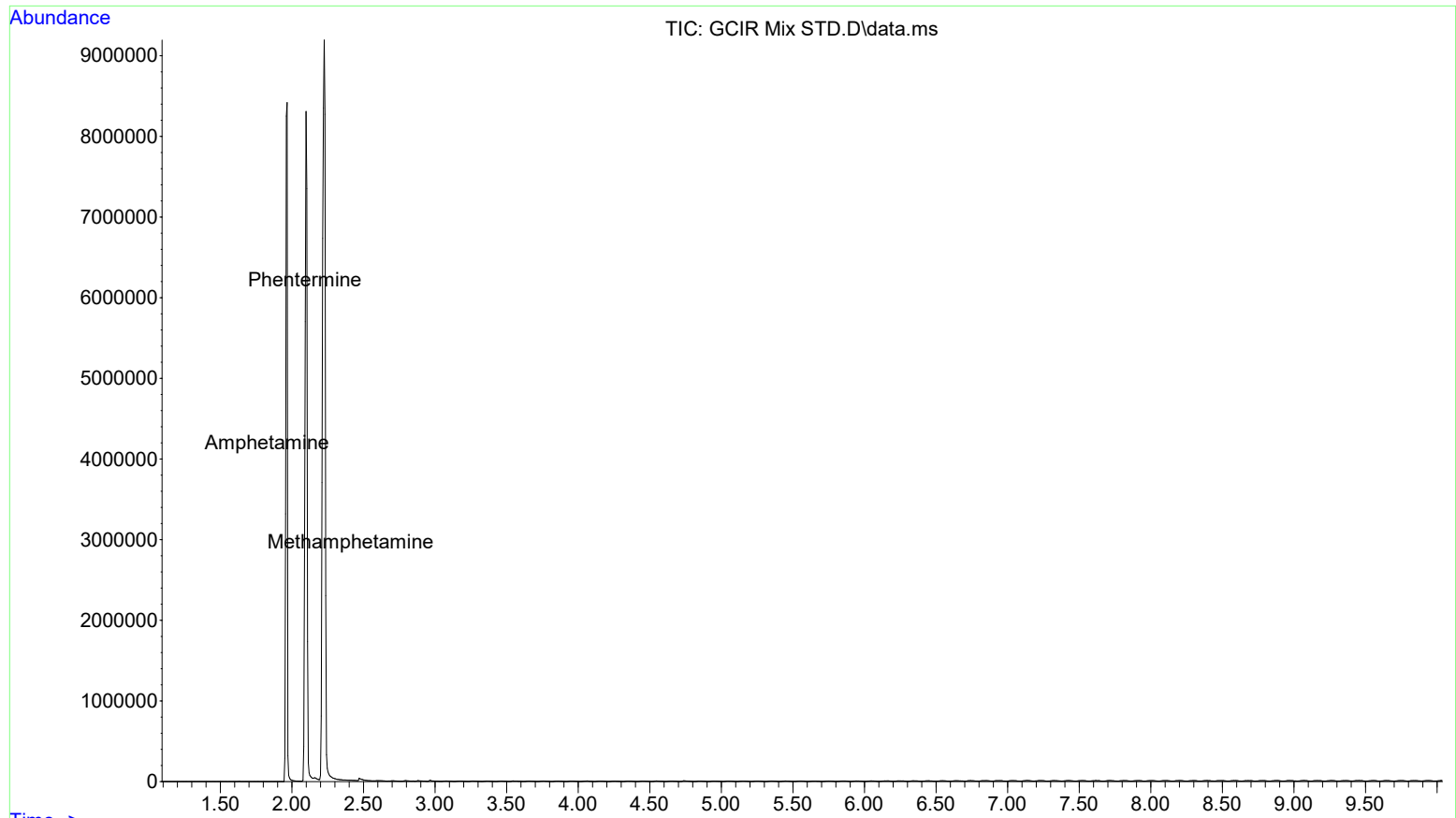
File :Y:\Instruments\GCMS\Peabody\KC\2023\June\6-16-23\GCIR Mix ST
... D.D
Operator : Kamryn Couvertier
Instrument : Peabody
Acquired : 16 Jun 2023 13:24 using AcqMethod ASMSDRUGS60.M
Sample Name: GCIR Mix STD
Misc Info : 0.5N NaOH --> CHCl3 Exp: 12-9-23 (See log sheet for lot numbers)

26
BH 7-3-23



File :Y:\Instruments\GCMS\Peabody\KC\2023\June\6-16-23\GCIR Mix ST
... D.D
Operator : Kamryn Couvertier
Instrument : Peabody
Acquired : 16 Jun 2023 13:24 using AcqMethod ASMSDRUGS60.M
Sample Name: GCIR Mix STD
Misc Info : 0.5N NaOH --> CHCl3 Exp: 12-9-23 (See log sheet for lot numbers)

27
BH 7-3-23



Method Information for: C:\MassHunter\GCMS\1\methods\ASMSDRUGS100.M

Method Sections To Run:

() Save Copy of Method With Data
() Instrument Control Pre-Run Cmd/Macro =
() Data Analysis Pre-Run Cmd/Macro =
(X) Data Acquisition
(X) Data Analysis
() Instrument Control Post-Run Cmd/Macro =
() Data Analysis Post-Run Cmd/Macro =

Method Comments:

ASMSDRUGS100

END OF METHOD CONTROL PARAMETERS

Single Quadrupole Acquisition Method - MS Parameters Report

Method file	C:\MassHunter\GCMS\1\methods\ASMSDRUGS100.M
Tune file	atune.u
Ion source	EI
Source temperature (°C)	230
Quad temperature (°C)	150
Fixed Electron energy (eV)	70.0
Acquisition Type	Scan
Stop time (min)	10.00
Solvent delay (min)	1.00
Trace Ion Detection	False
Delta EMV	0
EM Saver	False
EM Saver Limit	N/A

Scan Time Segments

Time	Start Mass	End Mass	Threshold	Scan Speed
1.00	40	500	150	1,562 [N=2]

Timed Events

Time	Type of Event	Parameter
------	---------------	-----------

Real-Time Plots

Type of Plot	Label	Low Mass	High Mass
Total Ion	N/A	N/A	N/A
Spectrum	N/A	N/A	N/A
Extracted Ion	Scan 1-1	50	550
Extracted Ion	Scan 1-2	40	440

Self-Cleaning Ion Source Parameters

Mode	No Cleaning
------	-------------

C:\MassHunter\GCMS\1\methods\ASMSDRUGS100.M
Tue Jun 20 19:46:46 2023

Control Information

Sample Inlet : GC
Injection Source : GC ALS
Injection Location: Front
Mass Spectrometer : Enabled

No Sample Prep method has been assigned to this method.

GC
GC Summary
Run Time 10.001 min
Post Run Time 0 min

Oven
Temperature
Setpoint On
(Initial) 100 °C
Hold Time 1 min
Post Run 100 °C
Program
#1 Rate 70 °C/min
#1 Value 280 °C
#1 Hold Time 6.43 min

Equilibration Time 0.25 min
Max Temperature 325 °C
Maximum Temperature Override Disabled
Slow Fan Disabled

ALS
Front Injector
Syringe Size 10 µL
Injection Volume 1 µL
Solvent A Washes (PreInj) 5
Solvent A Washes (PostInj) 0
Solvent A Volume 3 µL
Solvent B Washes (PreInj) 0
Solvent B Washes (PostInj) 5
Solvent B Volume 3 µL
Sample Washes 3
Sample Wash Volume 3 µL
Sample Pumps 6
Dwell Time (PreInj) 0 min
Dwell Time (PostInj) 0 min
Solvent Wash Draw Speed 300 µL/min
Solvent Wash Dispense Speed 6000 µL/min
Sample Wash Draw Speed 300 µL/min
Sample Wash Dispense Speed 6000 µL/min
Injection Dispense Speed 6000 µL/min
Viscosity Delay 0 sec
Sample Depth Disabled
Injection Type Standard
L1 Airgap 0.2 µL

Solvent Wash Mode

A, B

31
BH 7-3-23

Back Injector
Syringe Size 10 µL
Injection Volume 1 µL
Solvent A Washes (PreInj) 3
Solvent A Washes (PostInj) 3
Solvent A Volume 8 µL
Solvent B Washes (PreInj) 3
Solvent B Washes (PostInj) 3
Solvent B Volume 8 µL
Sample Washes 2
Sample Wash Volume 8 µL
Sample Pumps 4
Dwell Time (PreInj) 0 min
Dwell Time (PostInj) 0 min
Solvent Wash Draw Speed 300 µL/min
Solvent Wash Dispense Speed 3000 µL/min
Sample Wash Draw Speed 300 µL/min
Sample Wash Dispense Speed 3000 µL/min
Injection Dispense Speed 6000 µL/min
Viscosity Delay 0 sec
Sample Depth Disabled
Injection Type Standard
I1 Airgap 0.2 µL
Solvent Wash Mode A, B

Sample Overlap
Mode Sample overlap is not enabled

ALS Errors Pause for user interaction

Front SS Inlet He
Excluded from Readiness Mode ***Excluded from Affecting GC's Readiness State***
Split
Heater On 250 °C
Pressure On 10.806 psi
Total Flow On 104 mL/min
Septum Purge Flow On 3 mL/min
Gas Saver On 20 After 2 min mL/min
Split Ratio 100 :1
Split Flow 100 mL/min
Liner A Liner has not been selected.

Back SS Inlet He
Excluded from Readiness Mode ***Excluded from Affecting GC's Readiness State***
Splitless
Heater Off
Pressure On 6.5756 psi
Total Flow On 41 mL/min
Septum Purge Flow Off
Septum Purge Flow Mode Standard
Gas Saver Off
Purge Flow to Split Vent 40 mL/min at 0.75 min
Liner A Liner has not been selected.

Thermal Aux 2 (MSD Transfer Line)
Temperature
Setpoint On
(Initial) 280 °C

Column
Column #1

Flow	On	32
Setpoint	1 mL/min	BH 7-3-23
(Initial)		
Post Run	1.5 mL/min	

Column Information	Agilent 19091A-102
Ultra 1 Methyl Siloxane	
Temperature Range	-60 °C-325 °C (325 °C)
Dimensions	12.5 m x 200 µm x 0.33 µm
In	Front SS Inlet He
Out	MSD
(Initial)	100 °C
Pressure	10.806 psi
Flow	1 mL/min
Average Velocity	57.774 cm/sec
Holdup Time	0.3606 min
Control Mode	Constant Flow

Column #2	
Pressure	
Setpoint	On
(Initial)	6.5756 psi
Post Run	10 psi

Column Information	Agilent 19091S-913: 2
HP-1ms	
Temperature Range	-60 °C-325 °C (350 °C)
Dimensions	30 m x 320 µm x 0.25 µm
Column lock	Unlocked
In	Back SS Inlet He
Out	Back Detector FID
(Initial)	100 °C
Pressure	6.5756 psi
Flow	1 mL/min
Average Velocity	21.027 cm/sec
Holdup Time	2.3779 min
Control Mode	Constant Pressure

Column Outlet Pressure	0 psi
------------------------	-------

Back Detector FID	
Excluded from Readiness	***Excluded from Affecting GC's Readiness State***
Makeup	N2
Column Compensation	Signal is modified by Column Compensation Curve #2
Heater	Off
H2 Flow	Off
Air Flow	Off
Makeup Flow	Off
Carrier Gas Flow Correction	Constant Makeup and Fuel Flow
Flame	Off

Aux EPC 1,2,3	
Aux EPC 1 N2	
Pressure	
Setpoint	Off
(Initial)	10 psi
Post Run	0 psi

Excluded from Readiness	***Excluded from Affecting GC's Readiness State***
-------------------------	--

Aux EPC 2 N2	
Pressure	
Setpoint	Off
(Initial)	10 psi

Post Run 0 psi
Excluded from Readiness ***Excluded from Affecting GC's Readiness State***33
BH 7-3-23
Aux EPC 3 N2
Pressure
Setpoint Off
(Initial) 10 psi
Post Run 0 psi

Excluded from Readiness ***Excluded from Affecting GC's Readiness State***

Signals
Signal #1: Test Plot
Description Test Plot
Save Off
Data Rate 50 Hz
Dual Injection Assignment Front Sample

Signal #2:
Description None

Signal #3: Test Plot
Description Test Plot
Save Off
Data Rate 50 Hz
Dual Injection Assignment Back Sample

Signal #4: Test Plot
Description Test Plot
Save Off
Data Rate 50 Hz
Dual Injection Assignment Back Sample

TUNE PARAMETERS for SN: US1646M032

Trace Ion Detection is OFF.

34.593 : EMISSION
70.007 : ENERGY
29.919 : REPELLER
90.331 : IONFOCUS
20.181 : ENTRANCE_LENS
1289.141 : EMVOLTS

1200 : Actual EMV
0.47 : GAIN FACTOR

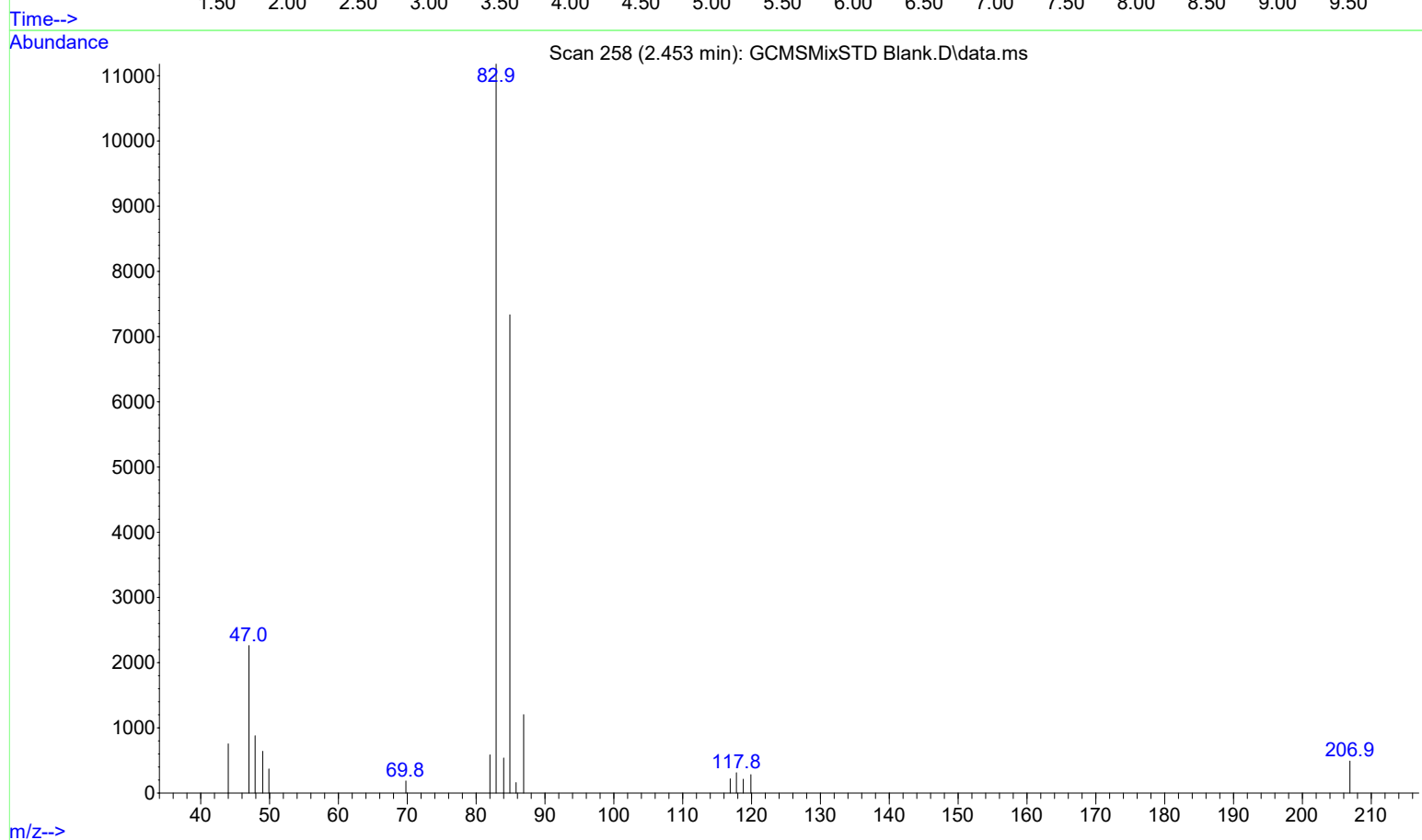
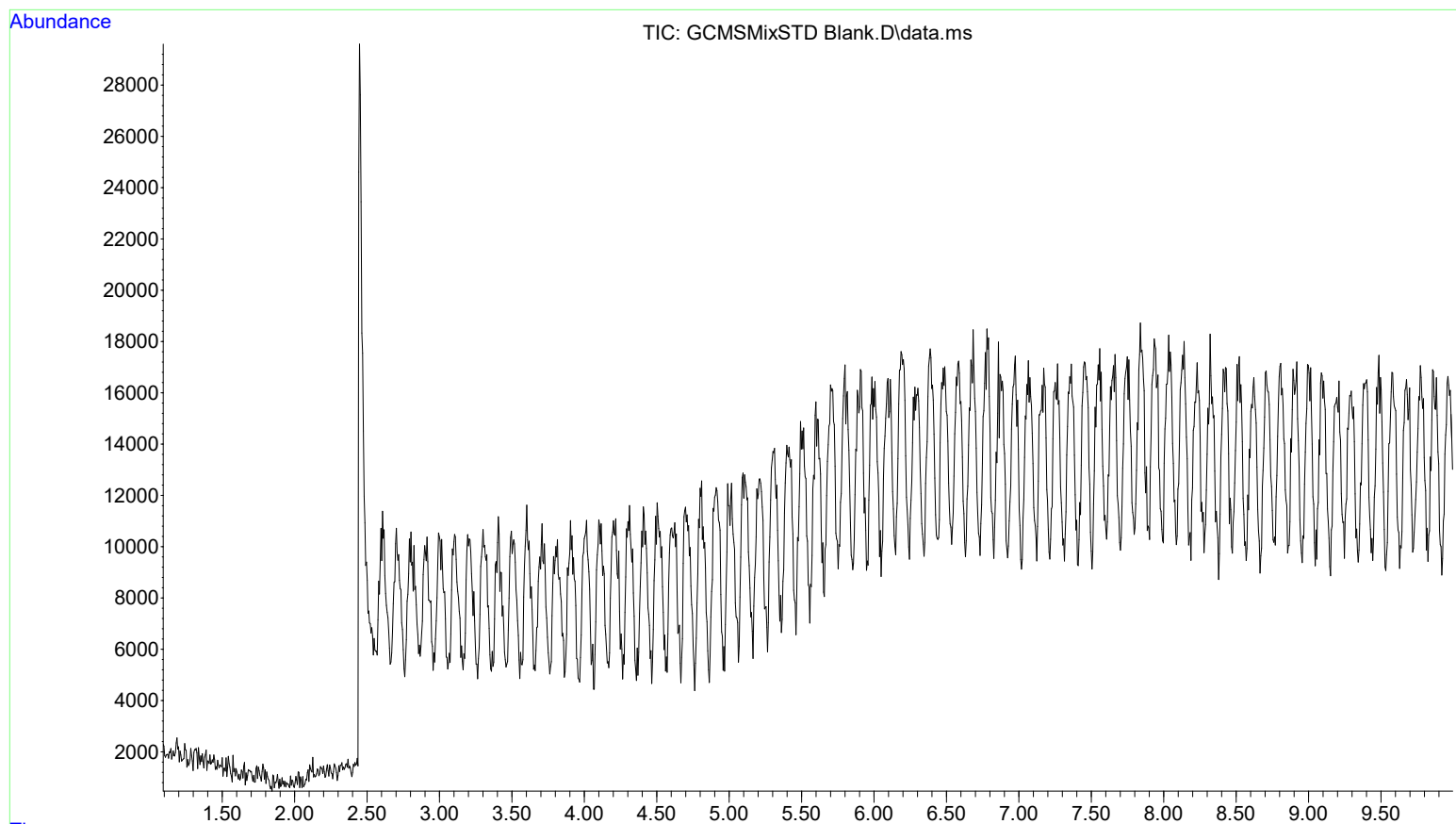
2390.000 : AMUGAIN
127.313 : AMUOFFSET
1.000 : FILAMENT
0.000 : DCPOLARITY
12.194 : ENTLENSOFFSET
0.000 : Ion_Body
0.000 : EXTLENS
145.000 : MASSGAIN
-27.000 : MASSOFFSET

END OF TUNE PARAMETERS

END OF INSTRUMENT CONTROL PARAMETERS

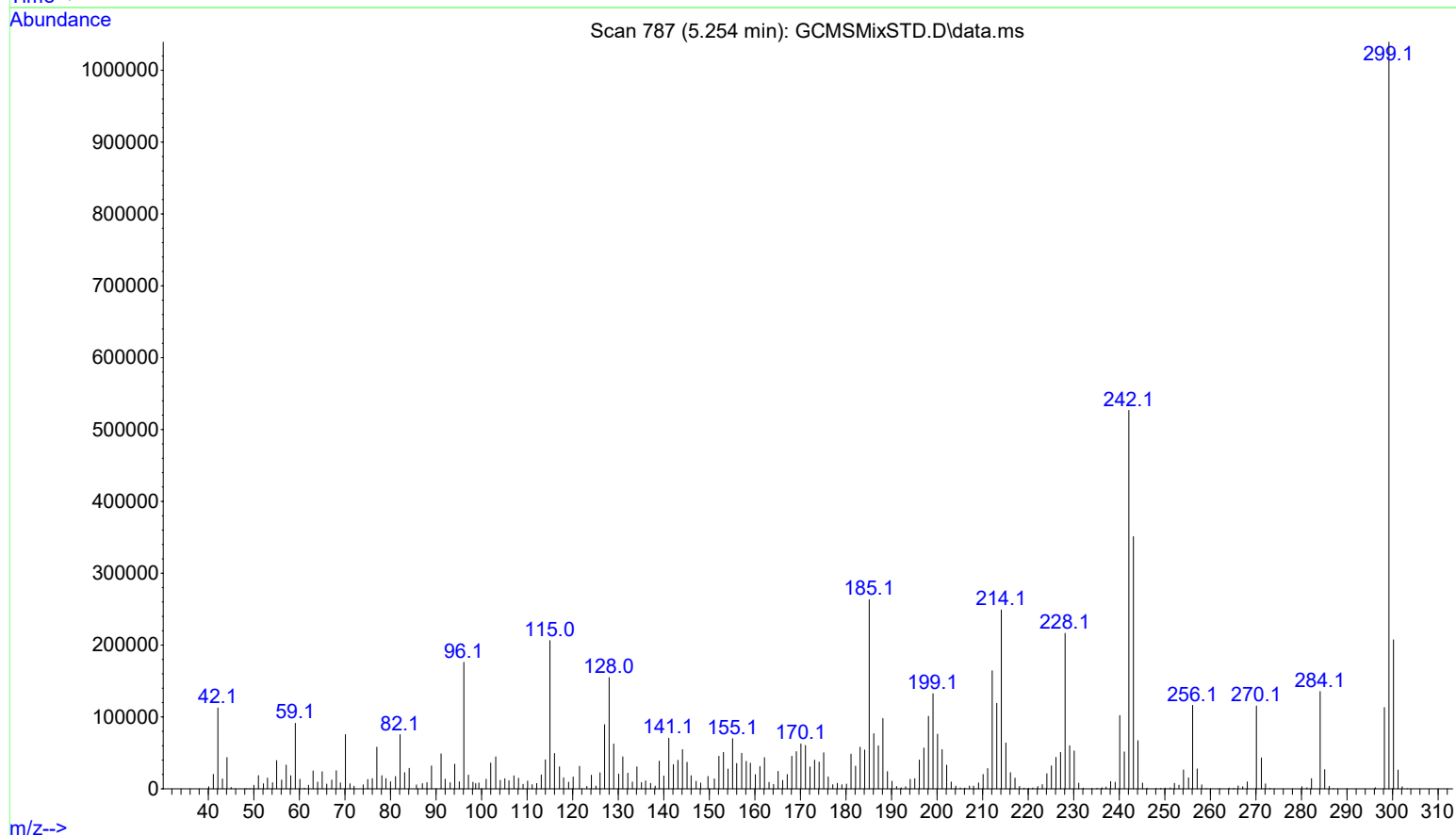
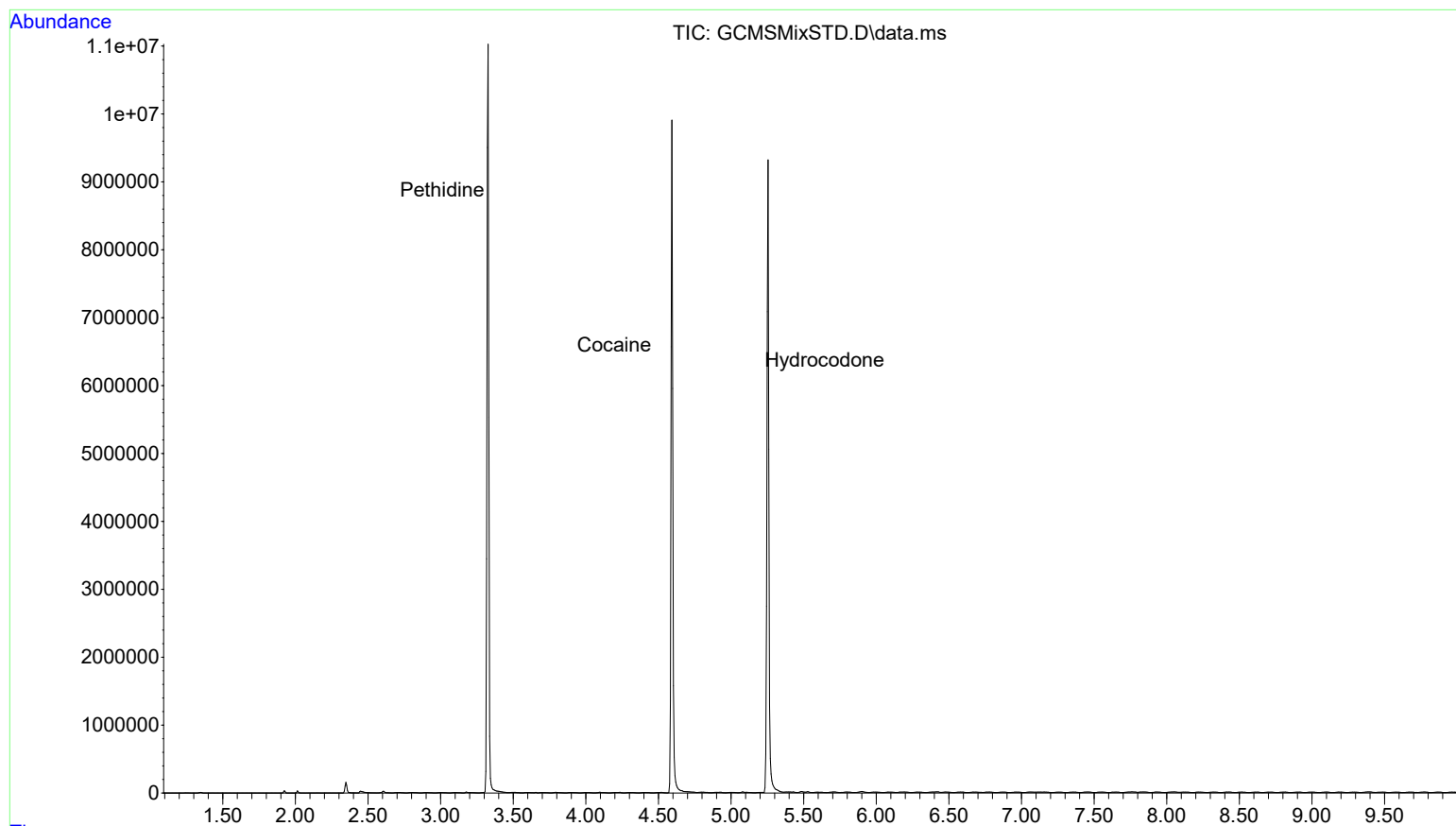
File :Y:\Instruments\GCMS\Peabody\KC\2023\June\6-16-23\GCMSMixSTD
... Blank.D
Operator : Kamryn Couvertier
Instrument : Peabody
Acquired : 16 Jun 2023 09:28 using AcqMethod ASMSDRUGS100.M
Sample Name: Blank 6-16-23 GCMS Mix STD
Misc Info : Methanol

35
BH 7-3-23



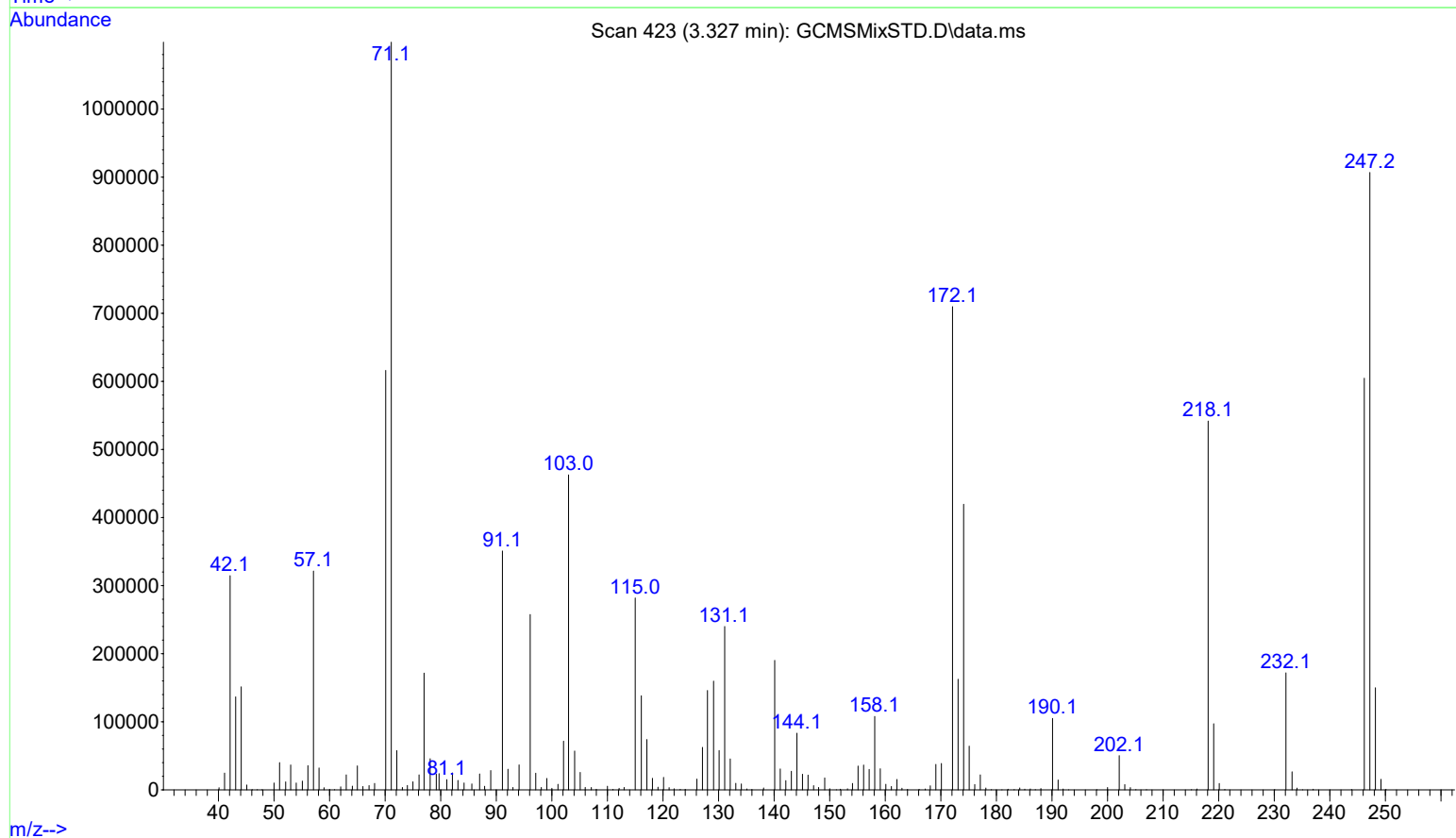
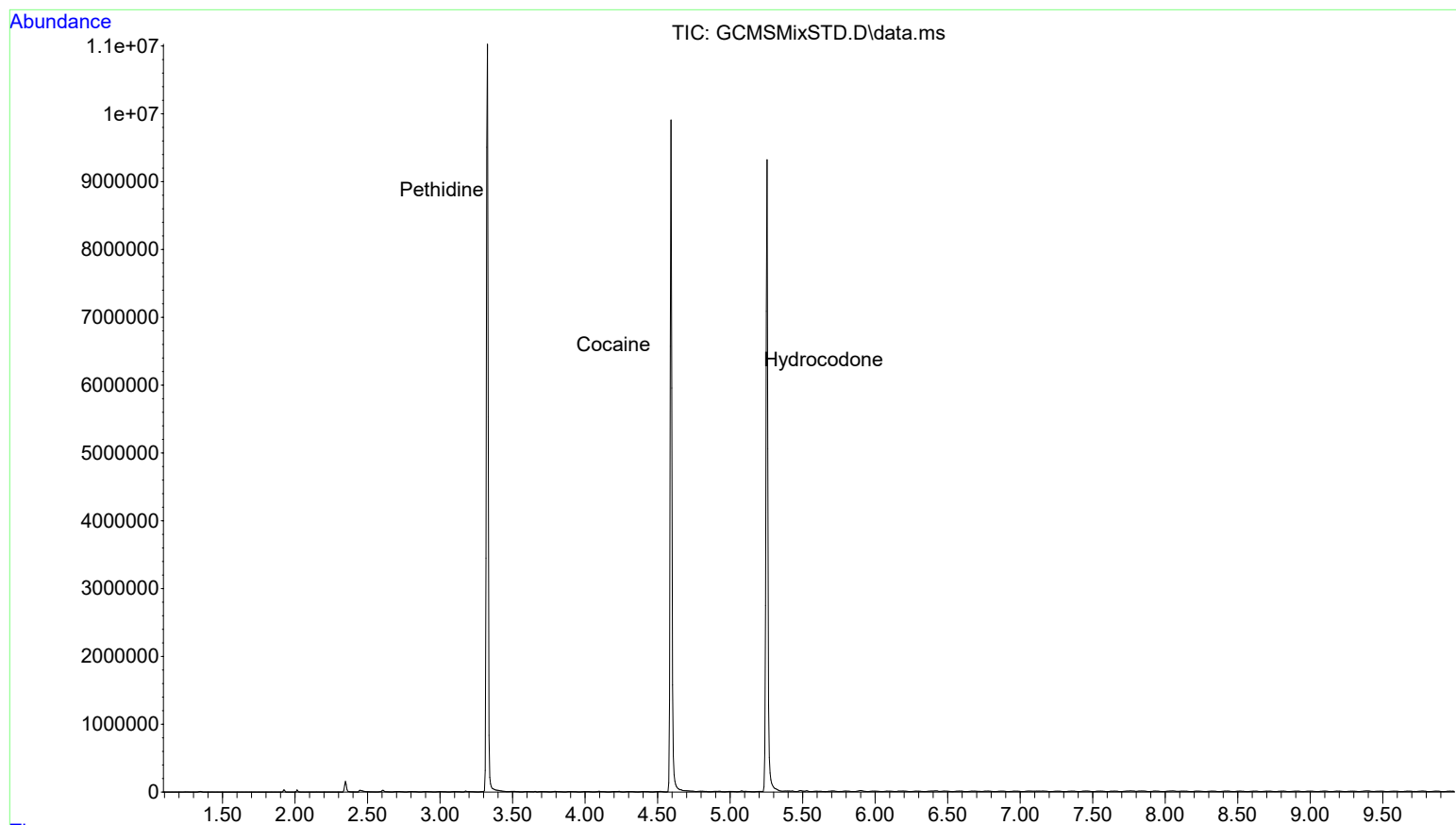
File :Y:\Instruments\GCMS\Peabody\KC\2023\June\6-16-23\GCMSMixSTD.D
Operator : Kamryn Couvertier
Acquired : 16 Jun 2023 09:44 using AcqMethod ASMSDRUGS100.M
Instrument : Peabody
Sample Name: GCMS Mix STD
Misc Info : Methanol Exp:11-4-23 (See log sheet for lot numbers)
Vial Number: 3

36
BH 7-3-23



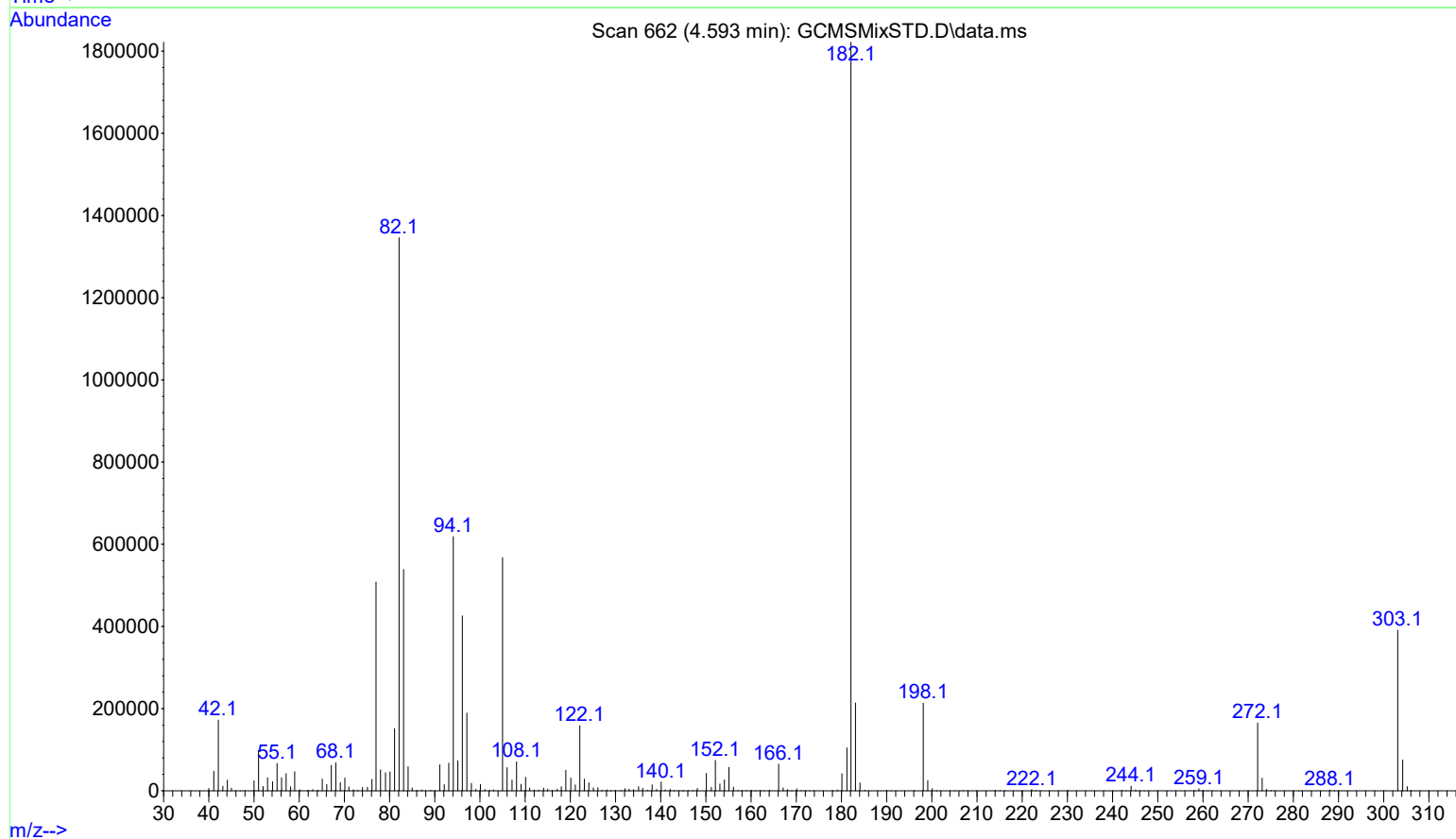
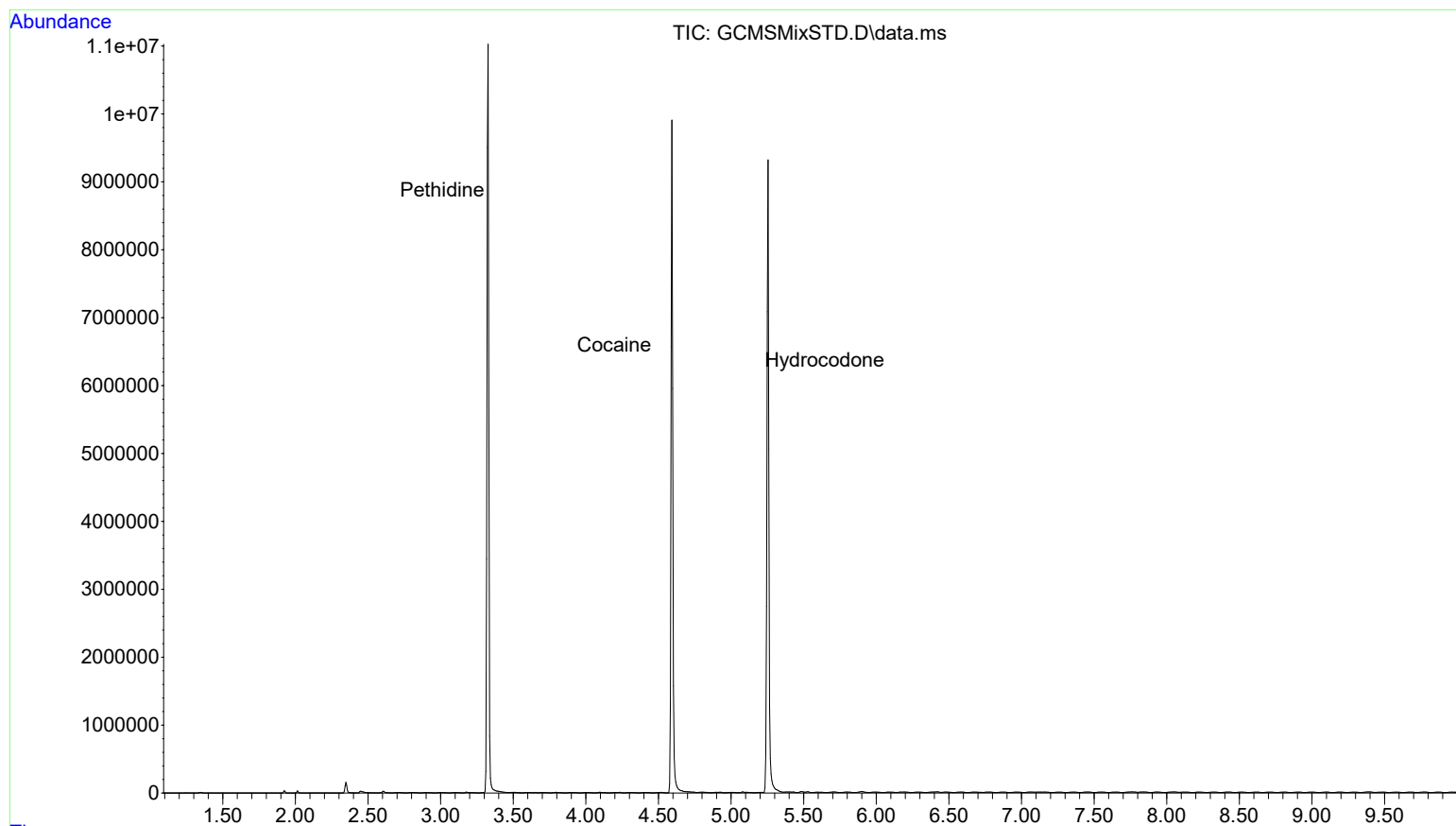
File :Y:\Instruments\GCMS\Peabody\KC\2023\June\6-16-23\GCMSMixSTD.D
Operator : Kamryn Couvertier
Acquired : 16 Jun 2023 09:44 using AcqMethod ASMSDRUGS100.M
Instrument : Peabody
Sample Name: GCMS Mix STD
Misc Info : Methanol Exp:11-4-23 (See log sheet for lot numbers)
Vial Number: 3

37
BH 7-3-23



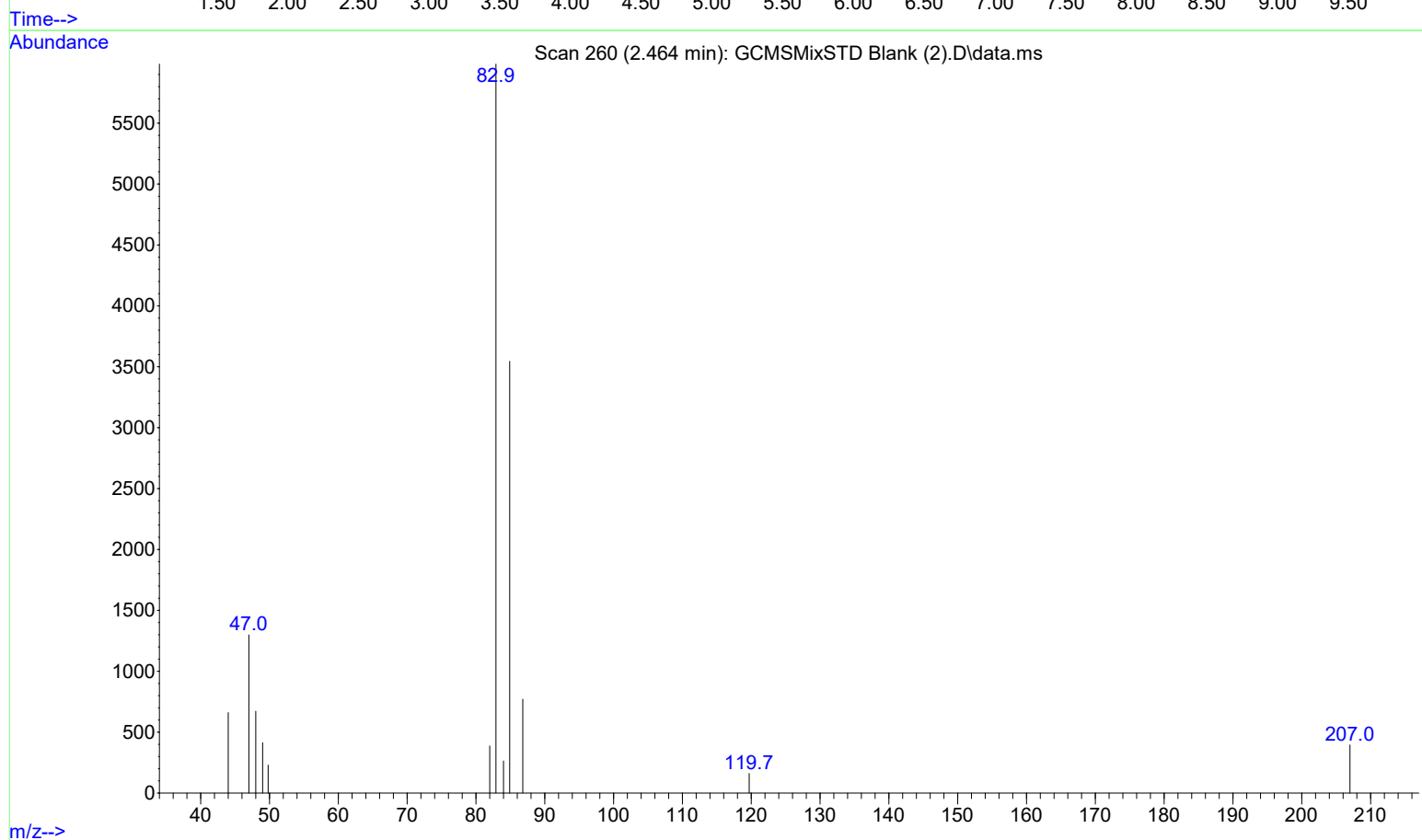
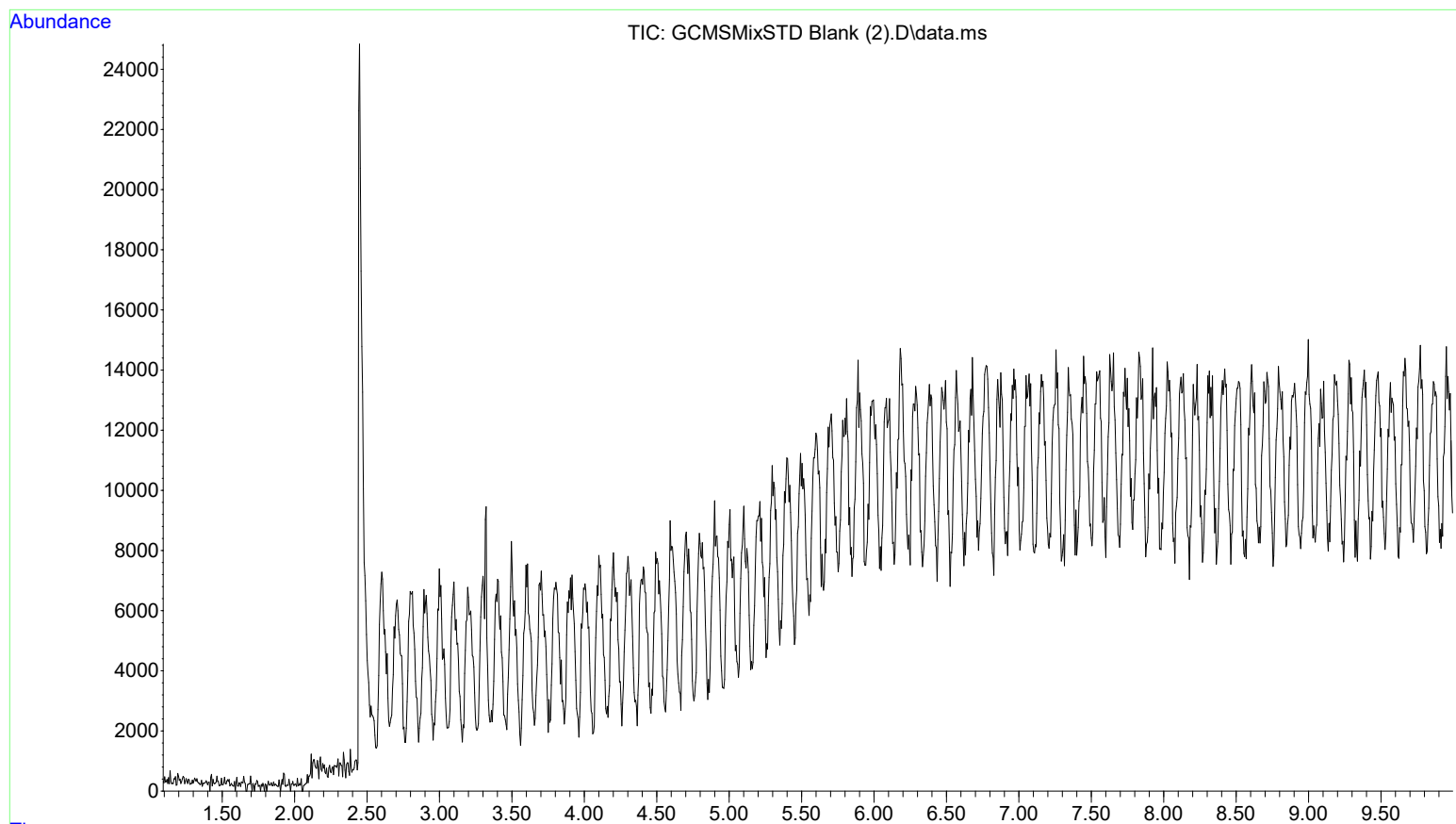
File :Y:\Instruments\GCMS\Peabody\KC\2023\June\6-16-23\GCMSMixSTD.D
Operator : Kamryn Couvertier
Acquired : 16 Jun 2023 09:44 using AcqMethod ASMSDRUGS100.M
Instrument : Peabody
Sample Name: GCMS Mix STD
Misc Info : Methanol Exp:11-4-23 (See log sheet for lot numbers)
Vial Number: 3

38
BH 7-3-23



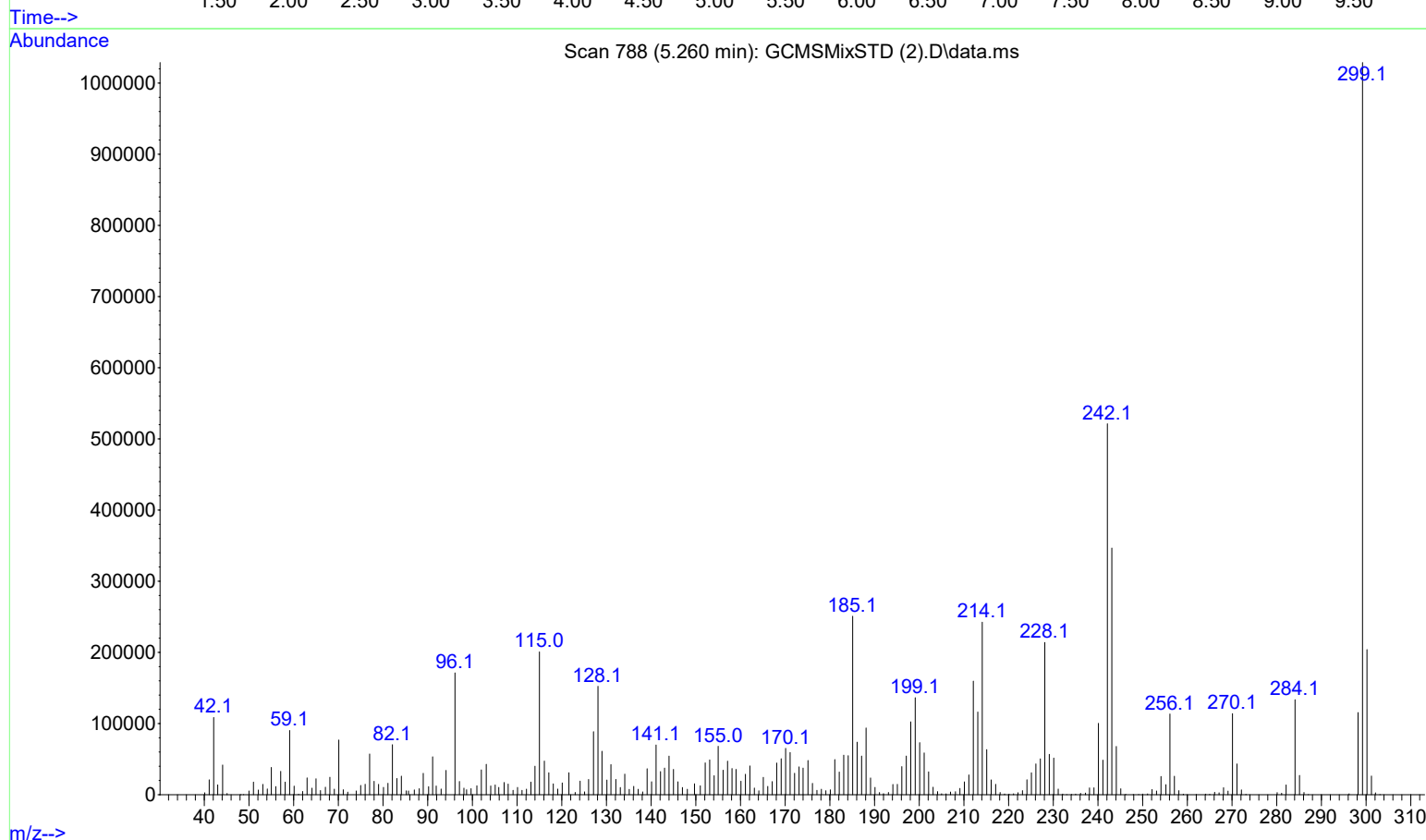
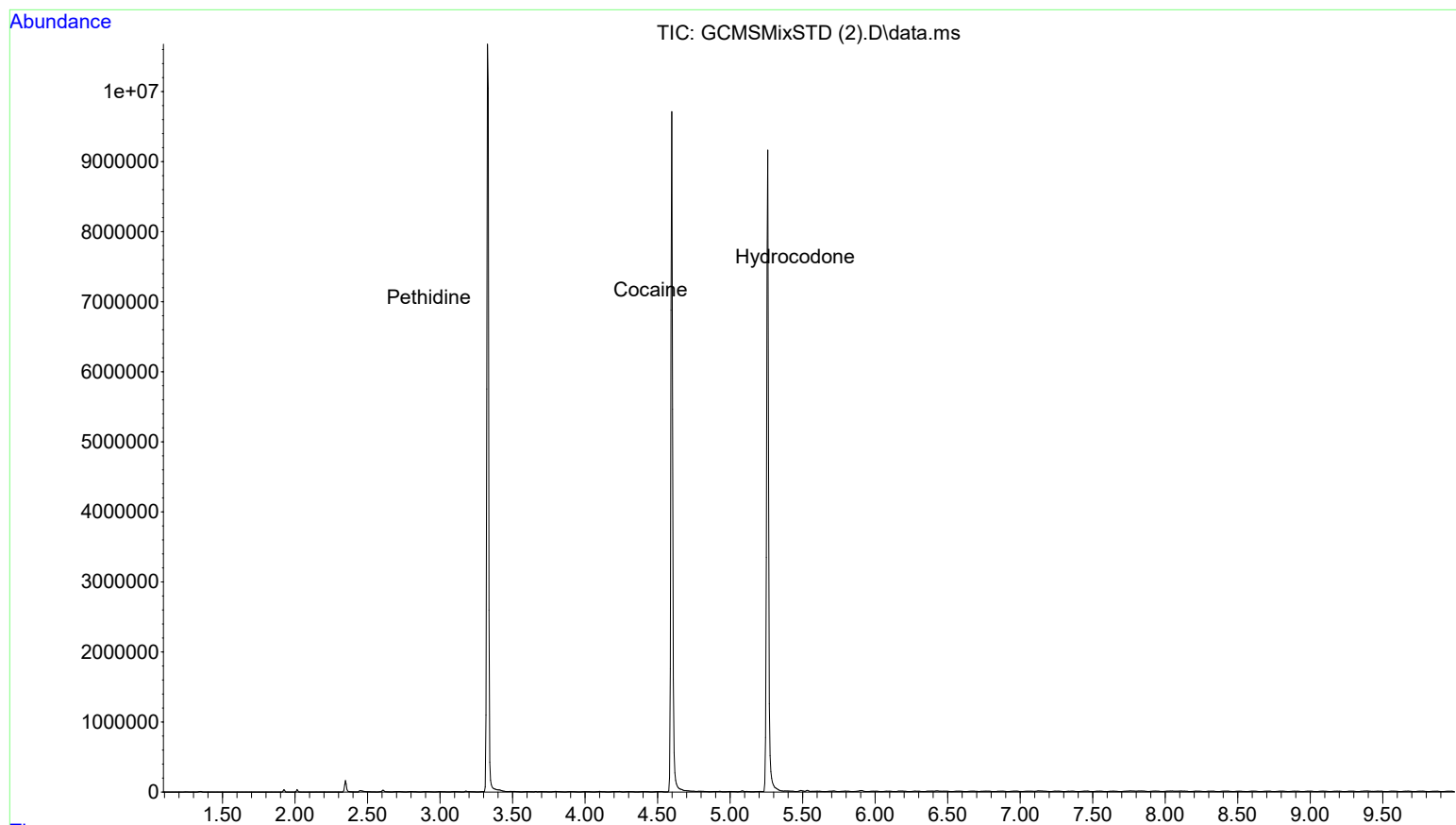
File :Y:\Instruments\GCMS\Peabody\KC\2023\June\6-16-23\GCMSMixSTD
... Blank (2).D
Operator : Kamryn Couvertier
Instrument : Peabody
Acquired : 16 Jun 2023 10:15 using AcqMethod ASMSDRUGS100.M
Sample Name: Blank 6-16-23 GCMS Mix STD
Misc Info : Methanol

39
BH 7-3-23



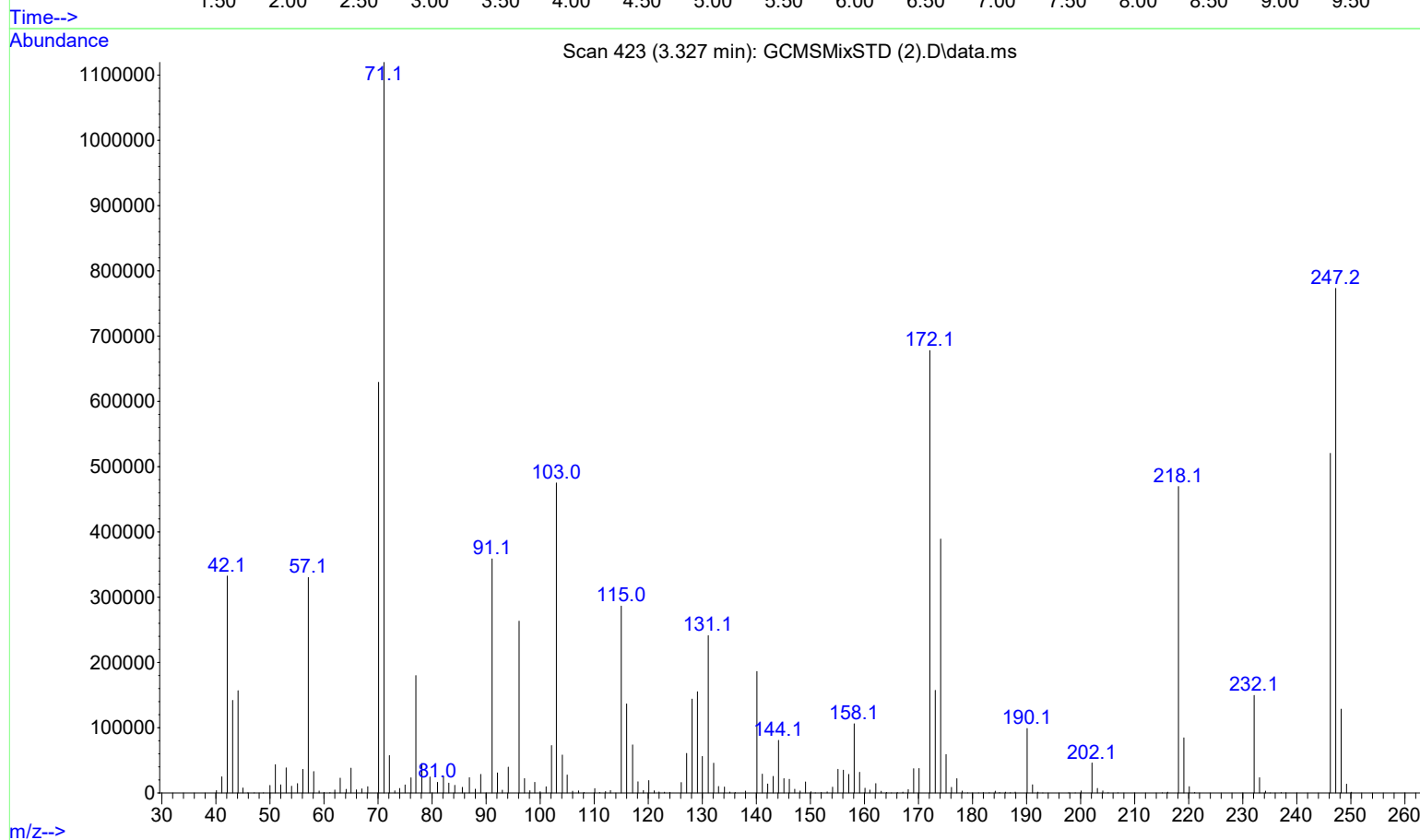
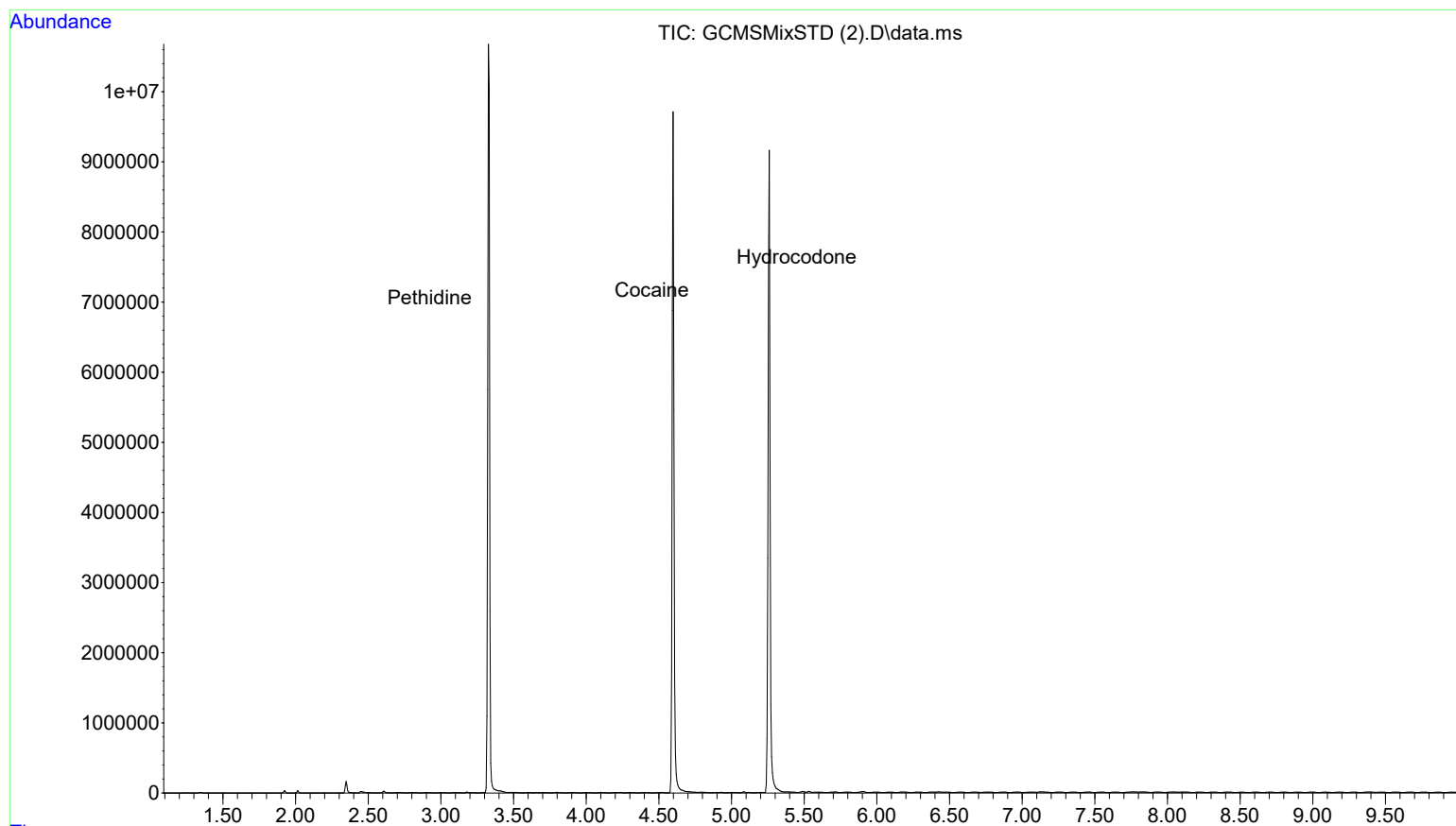
File :Y:\Instruments\GCMS\Peabody\KC\2023\June\6-16-23\GCMSMixSTD
... (2).D
Operator : Kamryn Couvertier
Instrument : Peabody
Acquired : 16 Jun 2023 10:31 using AcqMethod ASMSDRUGS100.M
Sample Name: GCMS Mix STD
Misc Info : Methanol Exp:11-4-23 (See log sheet for lot numbers)

40
BH 7-3-23



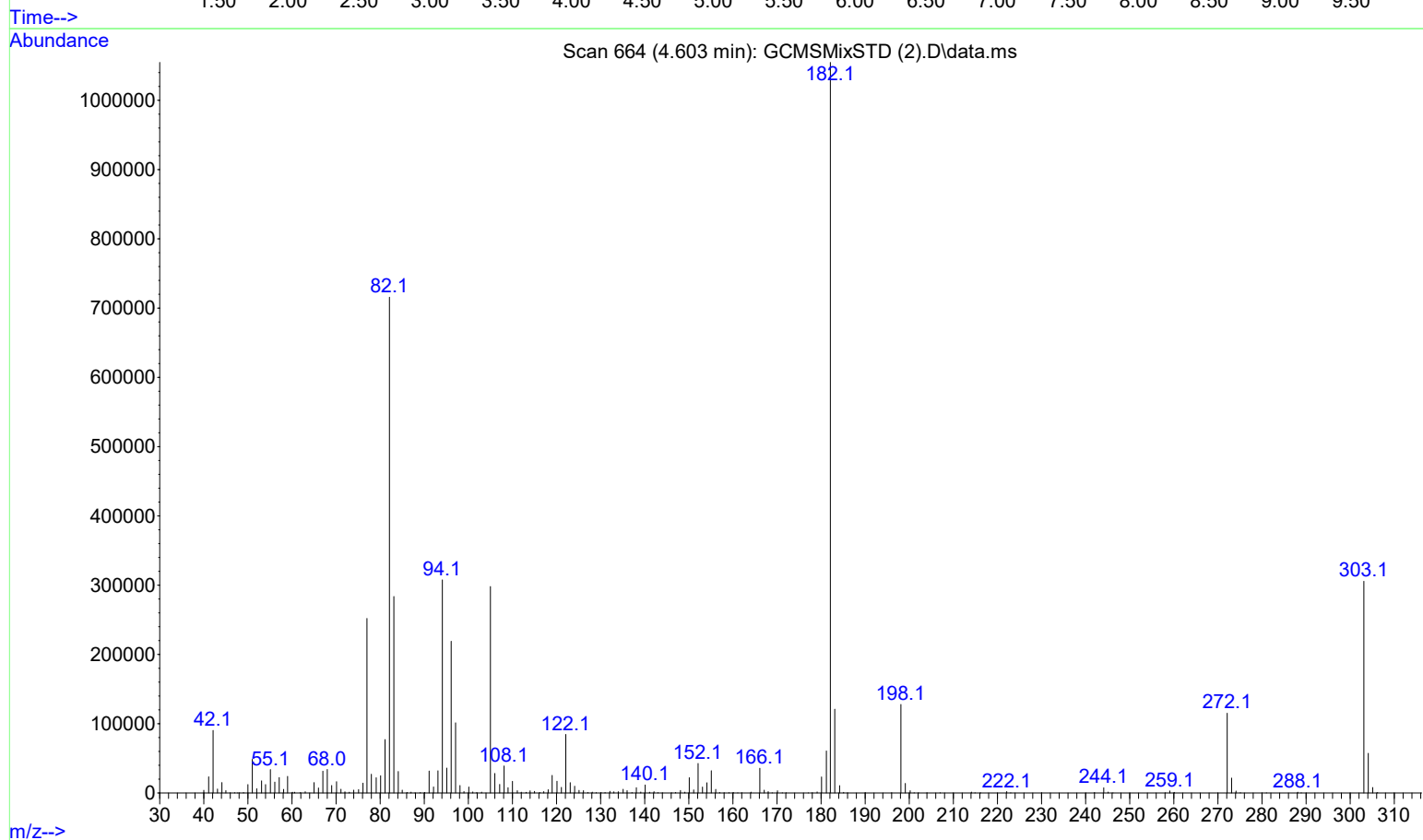
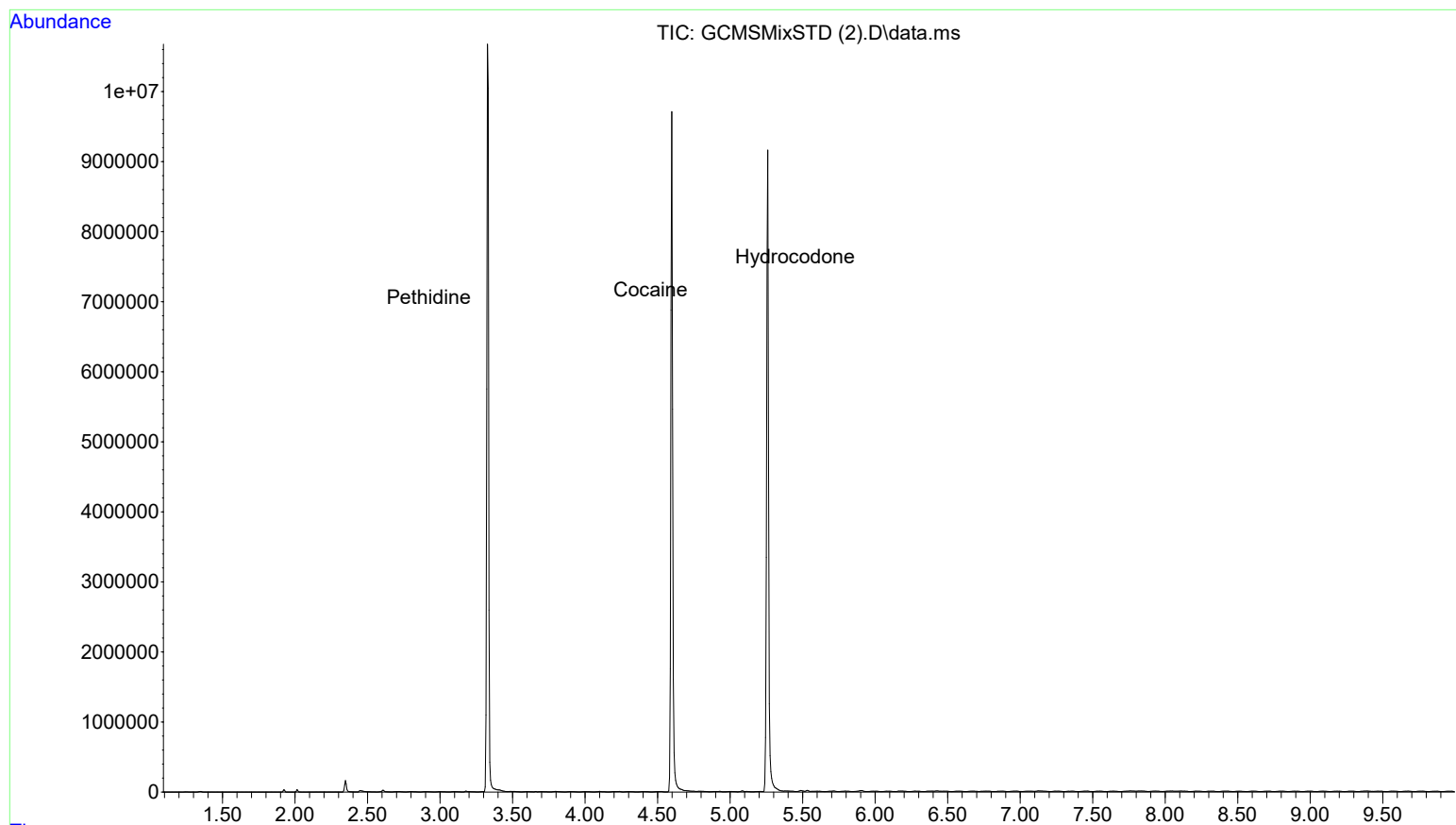
File :Y:\Instruments\GCMS\Peabody\KC\2023\June\6-16-23\GCMSMixSTD
... (2).D
Operator : Kamryn Couvertier
Instrument : Peabody
Acquired : 16 Jun 2023 10:31 using AcqMethod ASMSDRUGS100.M
Sample Name: GCMS Mix STD
Misc Info : Methanol Exp:11-4-23 (See log sheet for lot numbers)

41
BH 7-3-23



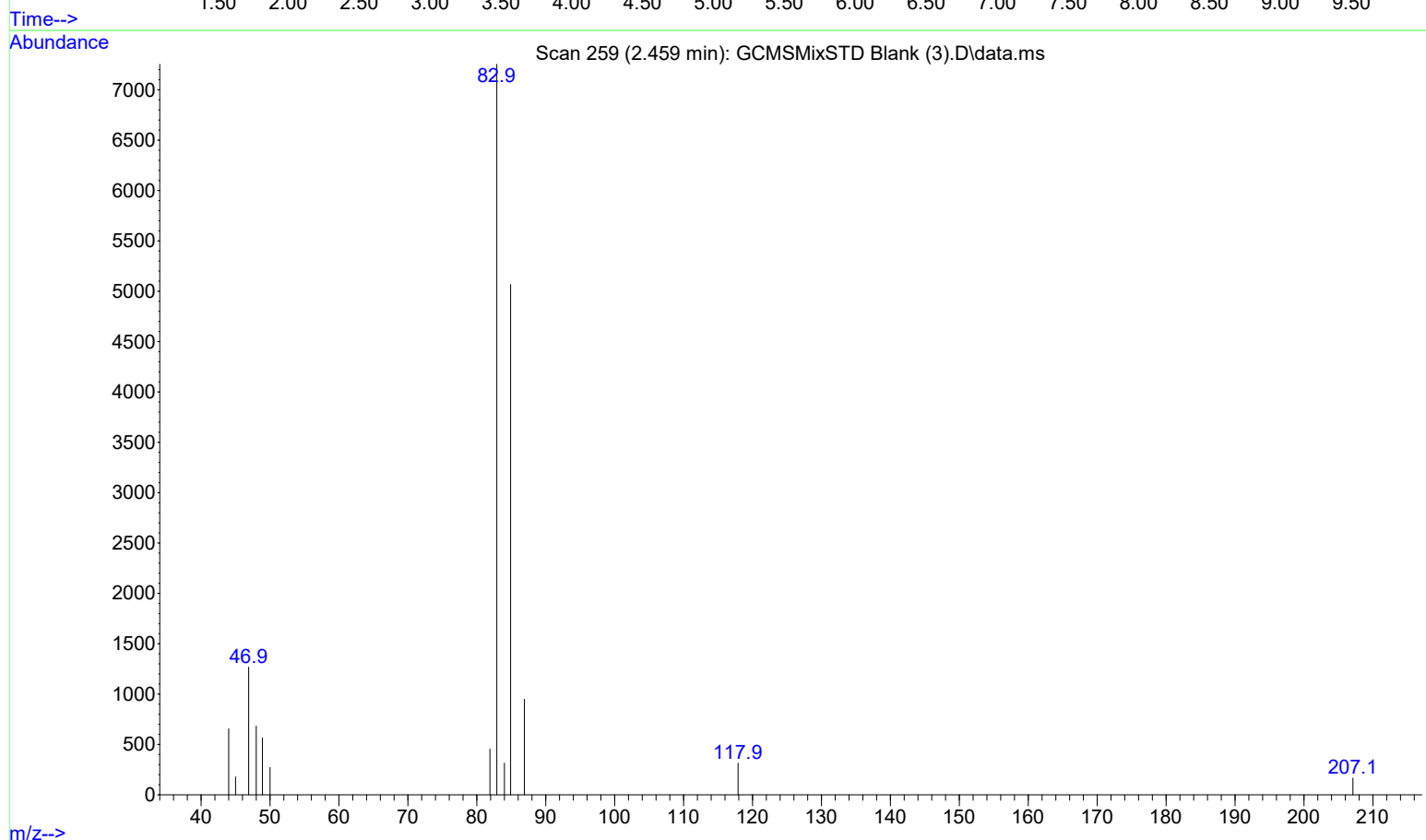
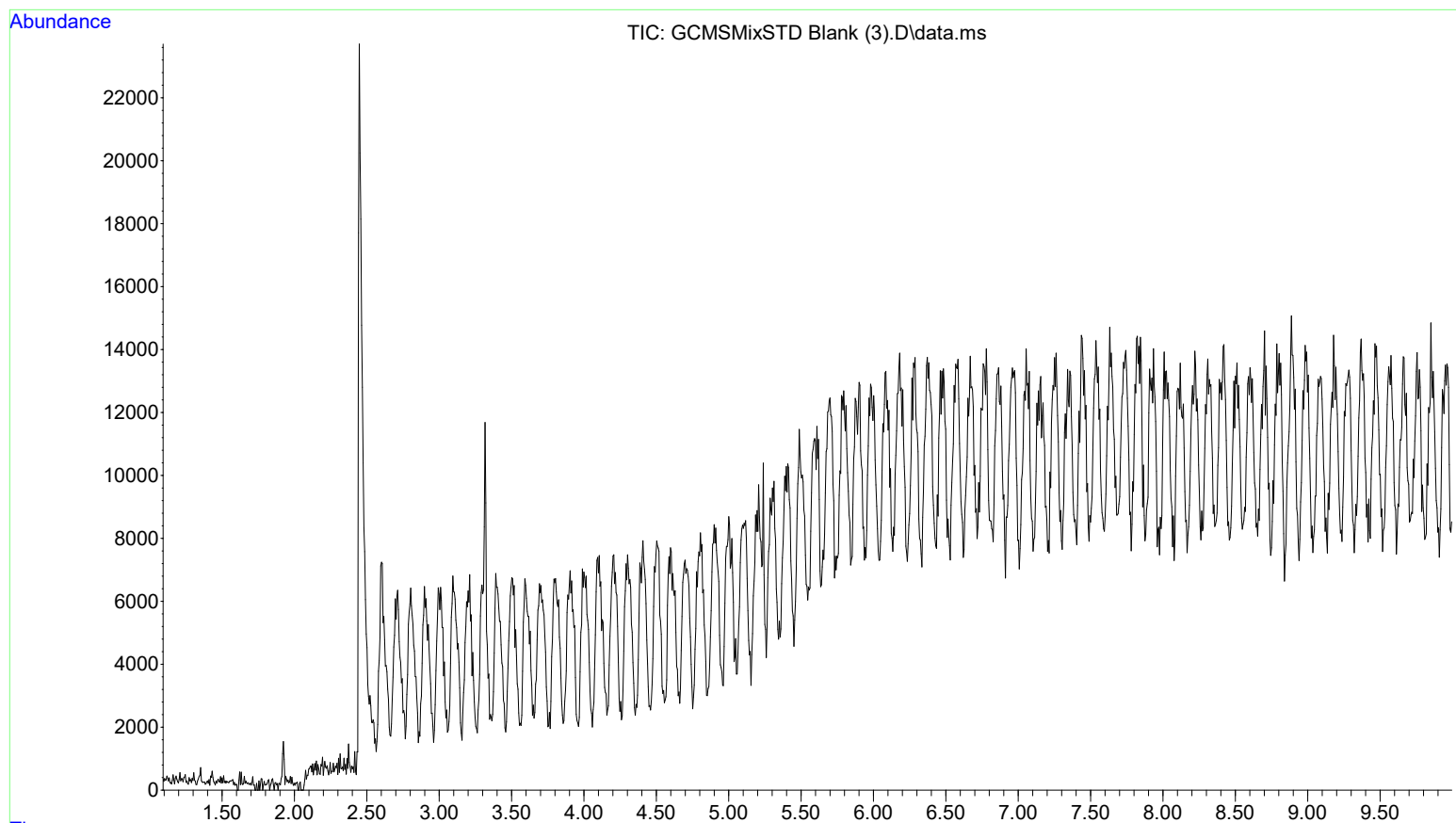
File :Y:\Instruments\GCMS\Peabody\KC\2023\June\6-16-23\GCMSMixSTD
... (2).D
Operator : Kamryn Couvertier
Instrument : Peabody
Acquired : 16 Jun 2023 10:31 using AcqMethod ASMSDRUGS100.M
Sample Name: GCMS Mix STD
Misc Info : Methanol Exp:11-4-23 (See log sheet for lot numbers)

42
BH 7-3-23



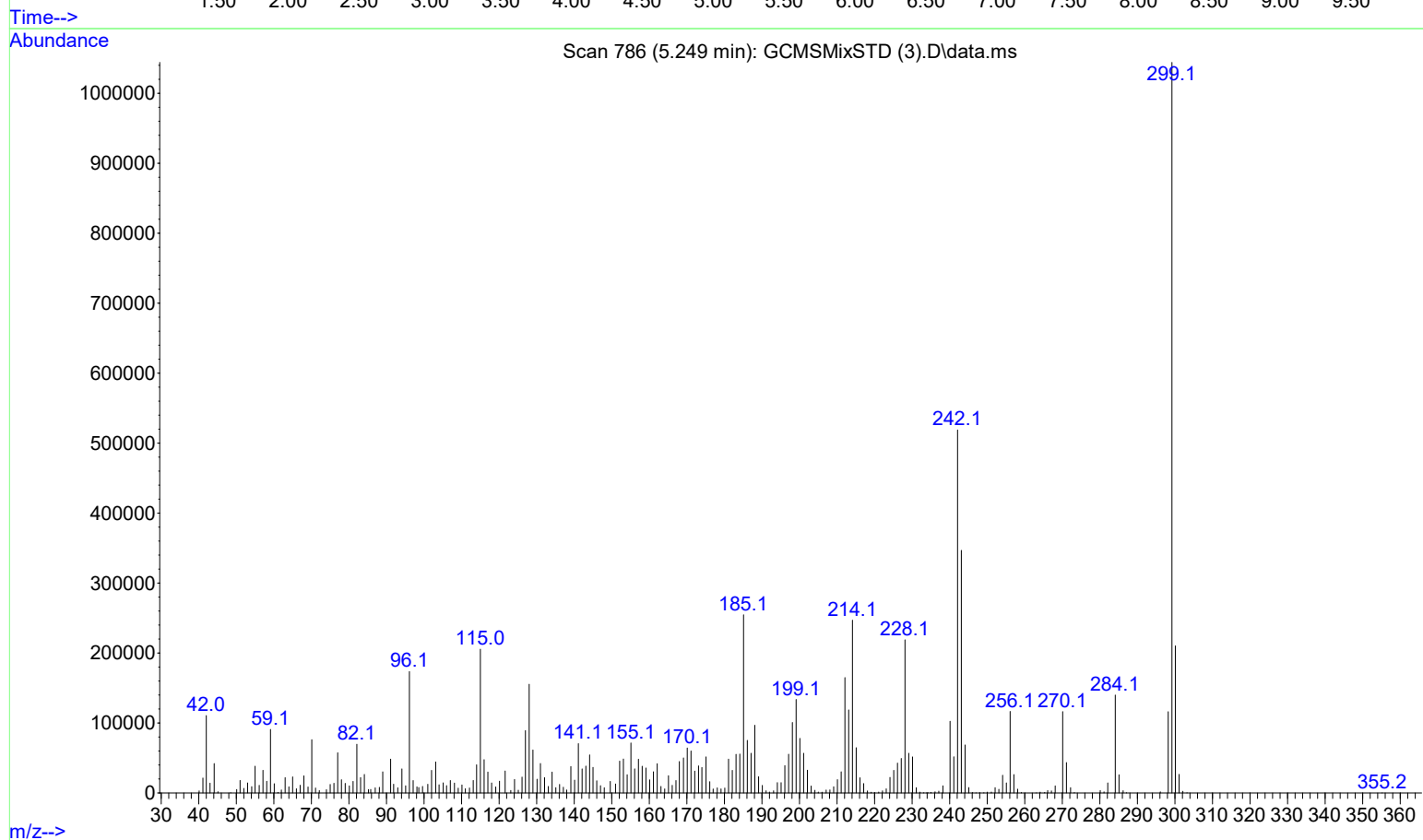
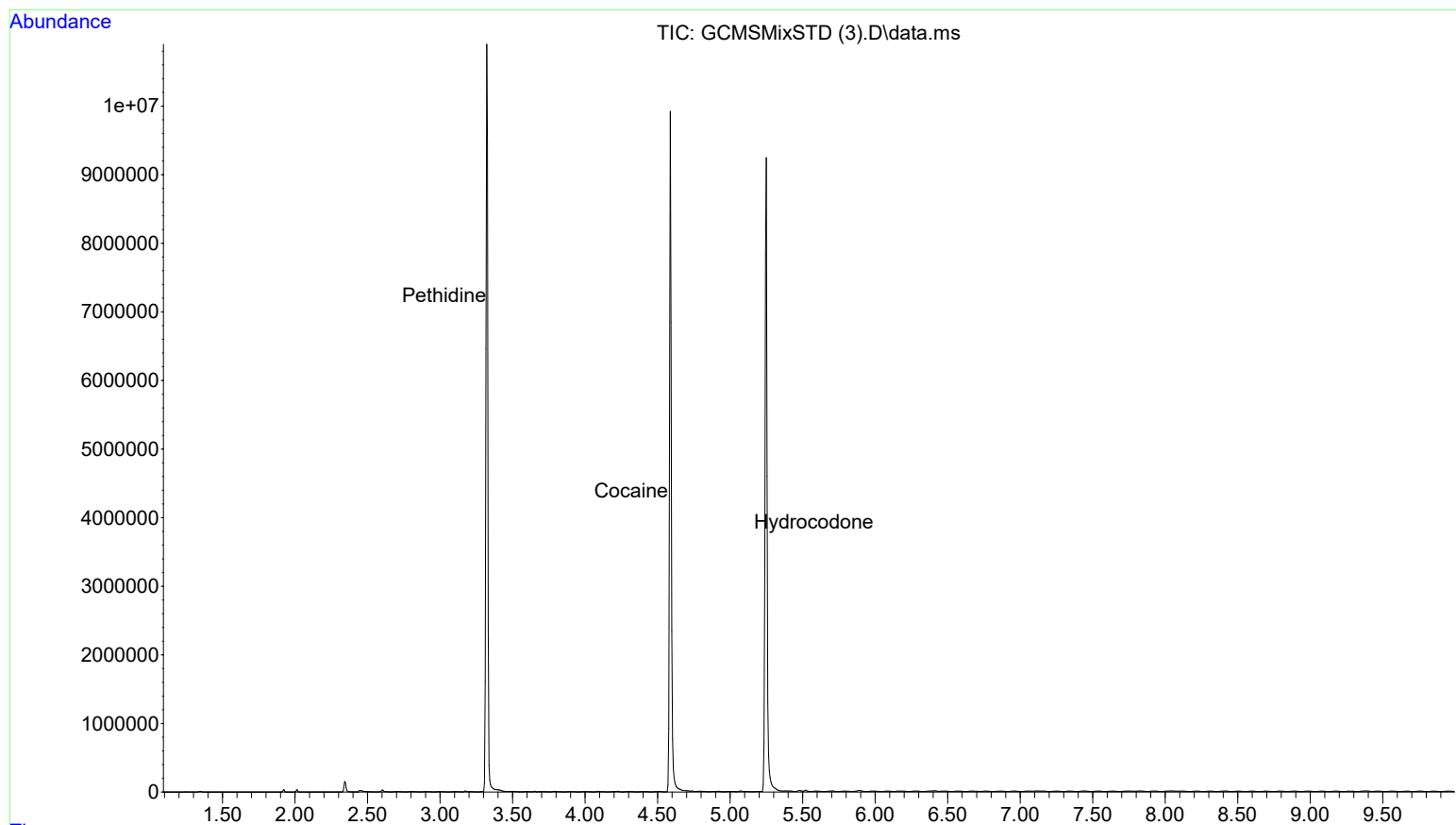
File :Y:\Instruments\GCMS\Peabody\KC\2023\June\6-16-23\GCMSMixSTD
... Blank (3).D
Operator : Kamryn Couvertier
Instrument : Peabody
Acquired : 16 Jun 2023 11:02 using AcqMethod ASMSDRUGS100.M
Sample Name: Blank 6-16-23 GCMS Mix STD
Misc Info : Methanol

43
BH 7-3-23



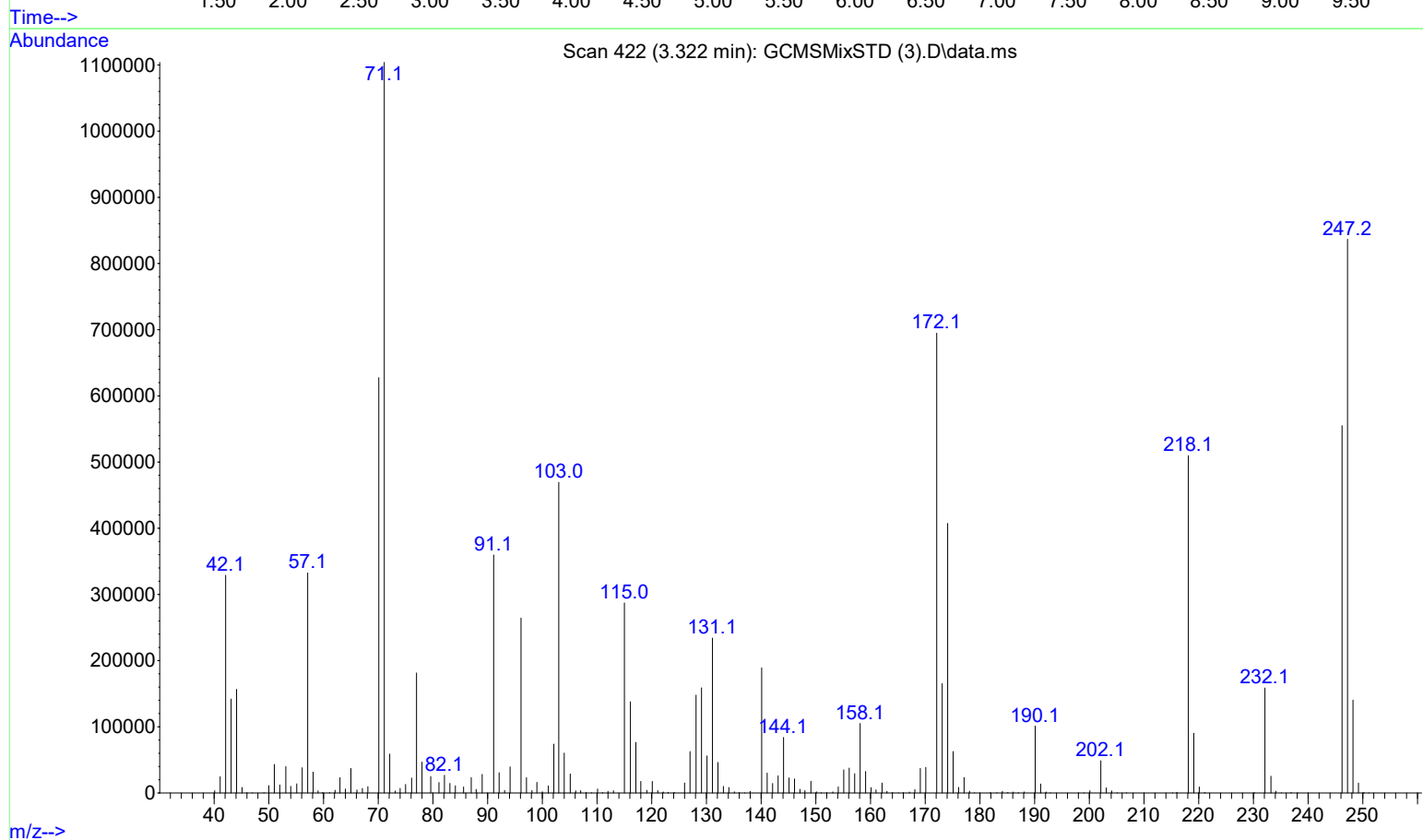
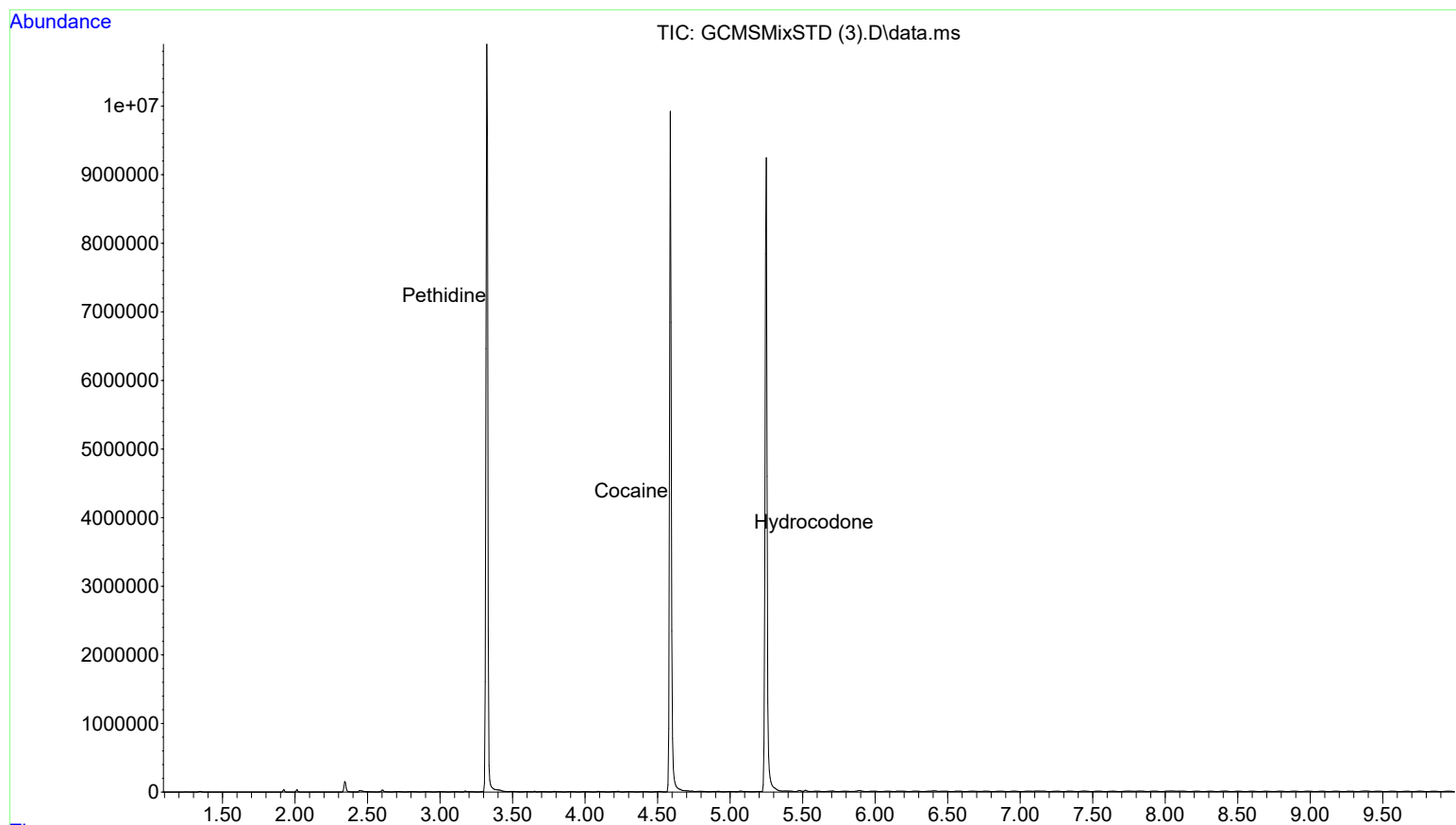
File :Y:\Instruments\GCMS\Peabody\KC\2023\June\6-16-23\GCMSMixSTD
... (3).D
Operator : Kamryn Couvertier
Instrument : Peabody
Acquired : 16 Jun 2023 11:17 using AcqMethod ASMSDRUGS100.M
Sample Name: GCMS Mix STD
Misc Info : Methanol Exp:11-4-23 (See log sheet for lot numbers)

44
BH 7-3-23



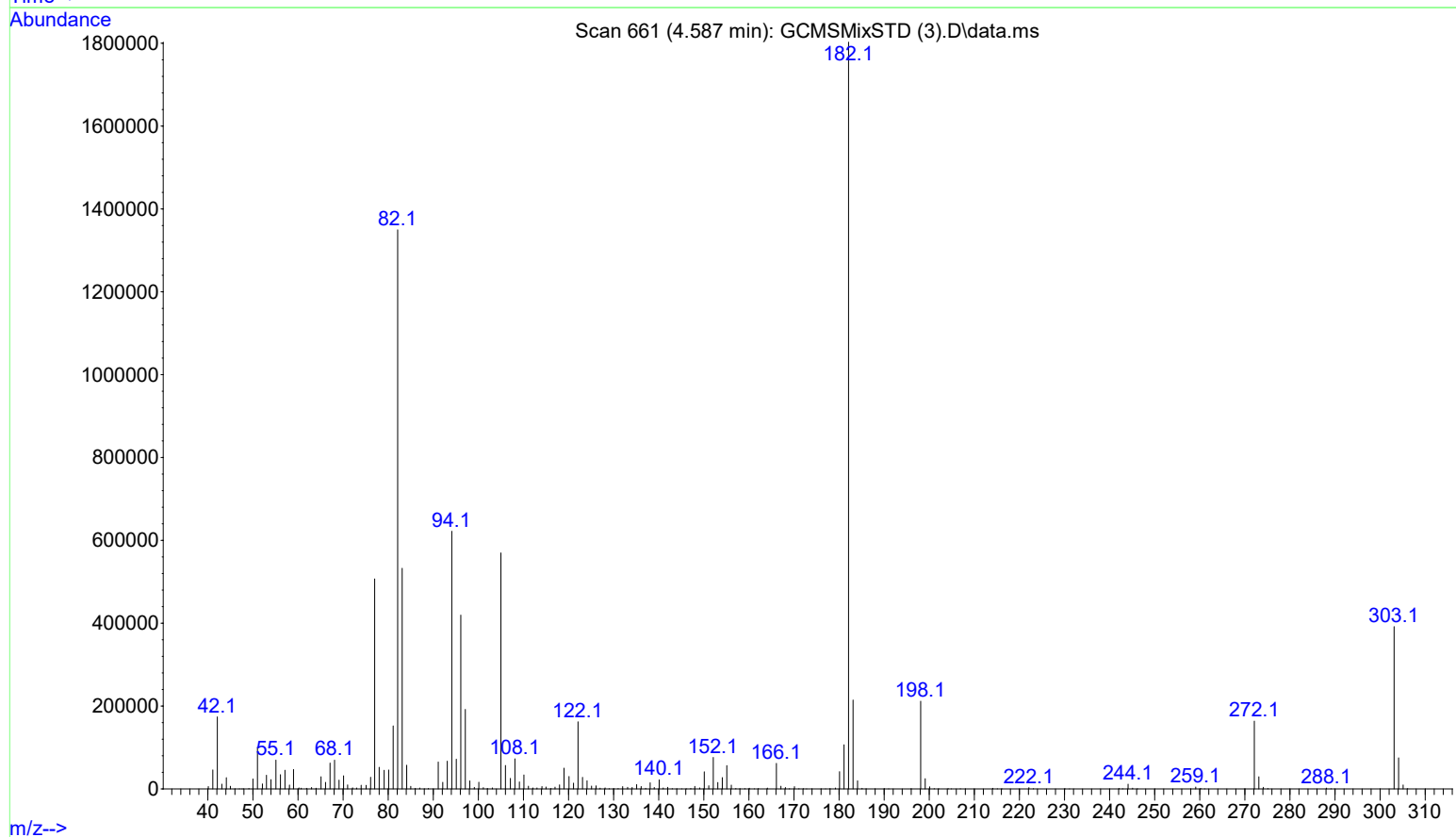
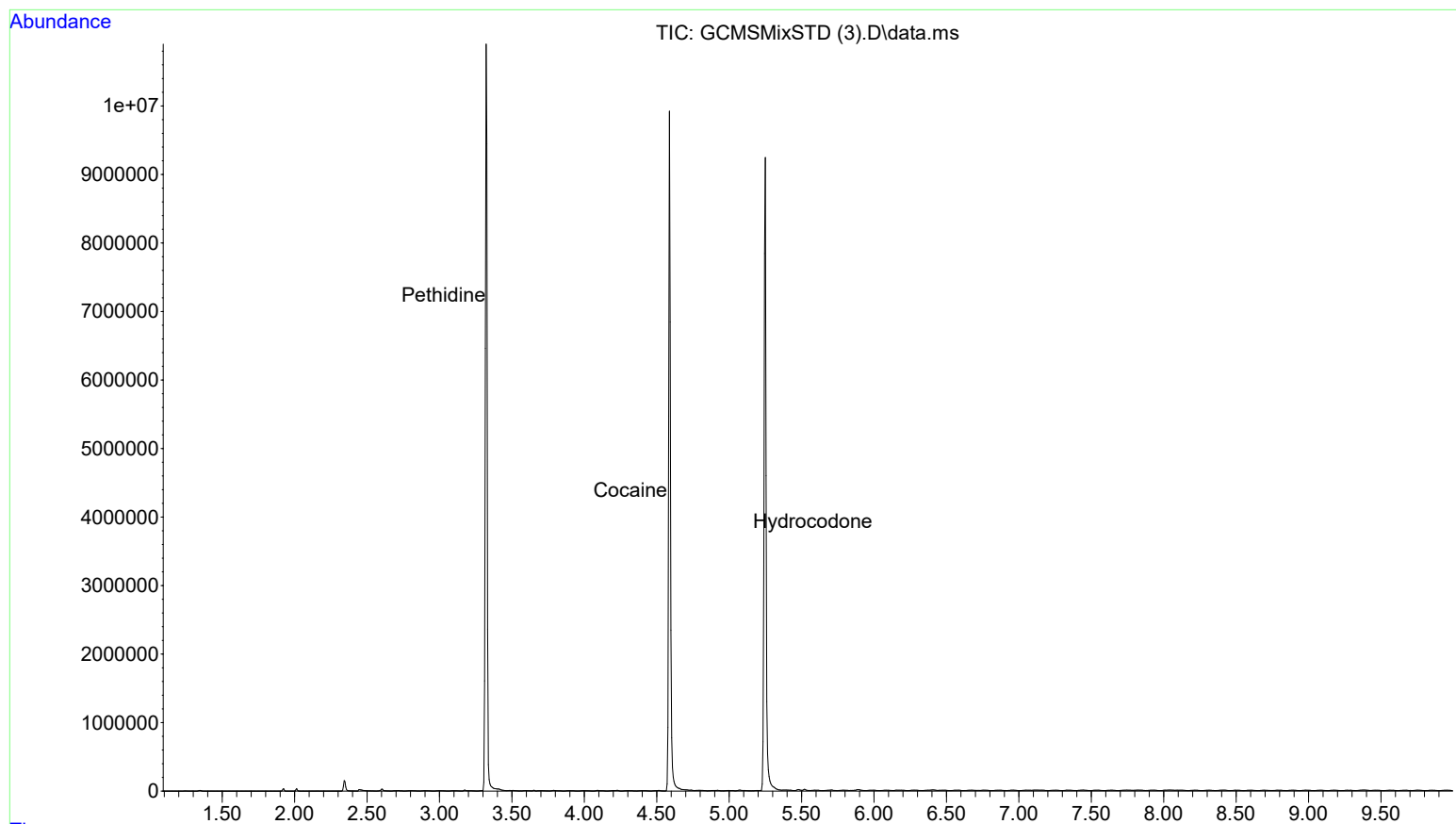
File :Y:\Instruments\GCMS\Peabody\KC\2023\June\6-16-23\GCMSMixSTD
... (3).D
Operator : Kamryn Couvertier
Instrument : Peabody
Acquired : 16 Jun 2023 11:17 using AcqMethod ASMSDRUGS100.M
Sample Name: GCMS Mix STD
Misc Info : Methanol Exp:11-4-23 (See log sheet for lot numbers)

45
BH 7-3-23



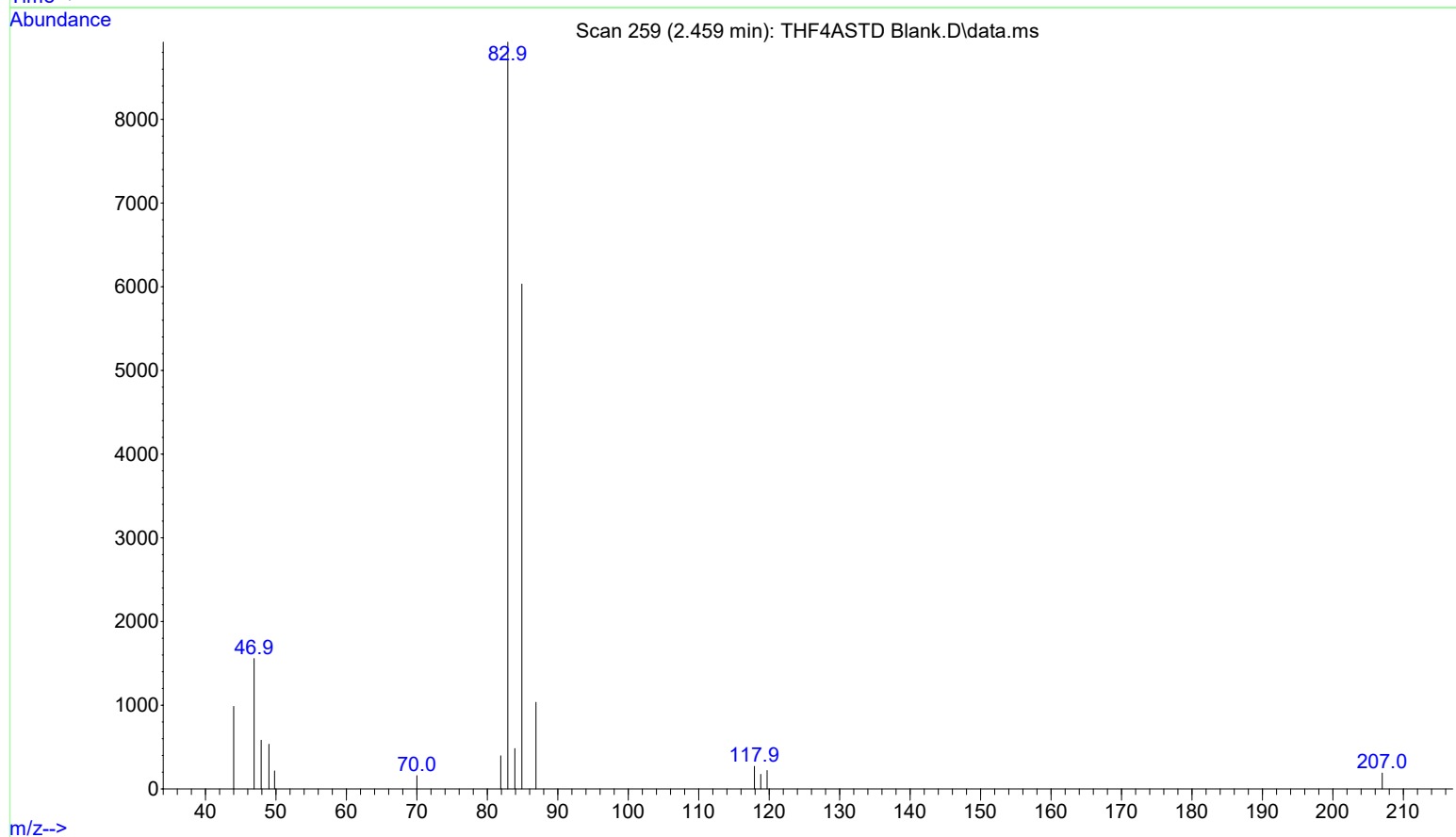
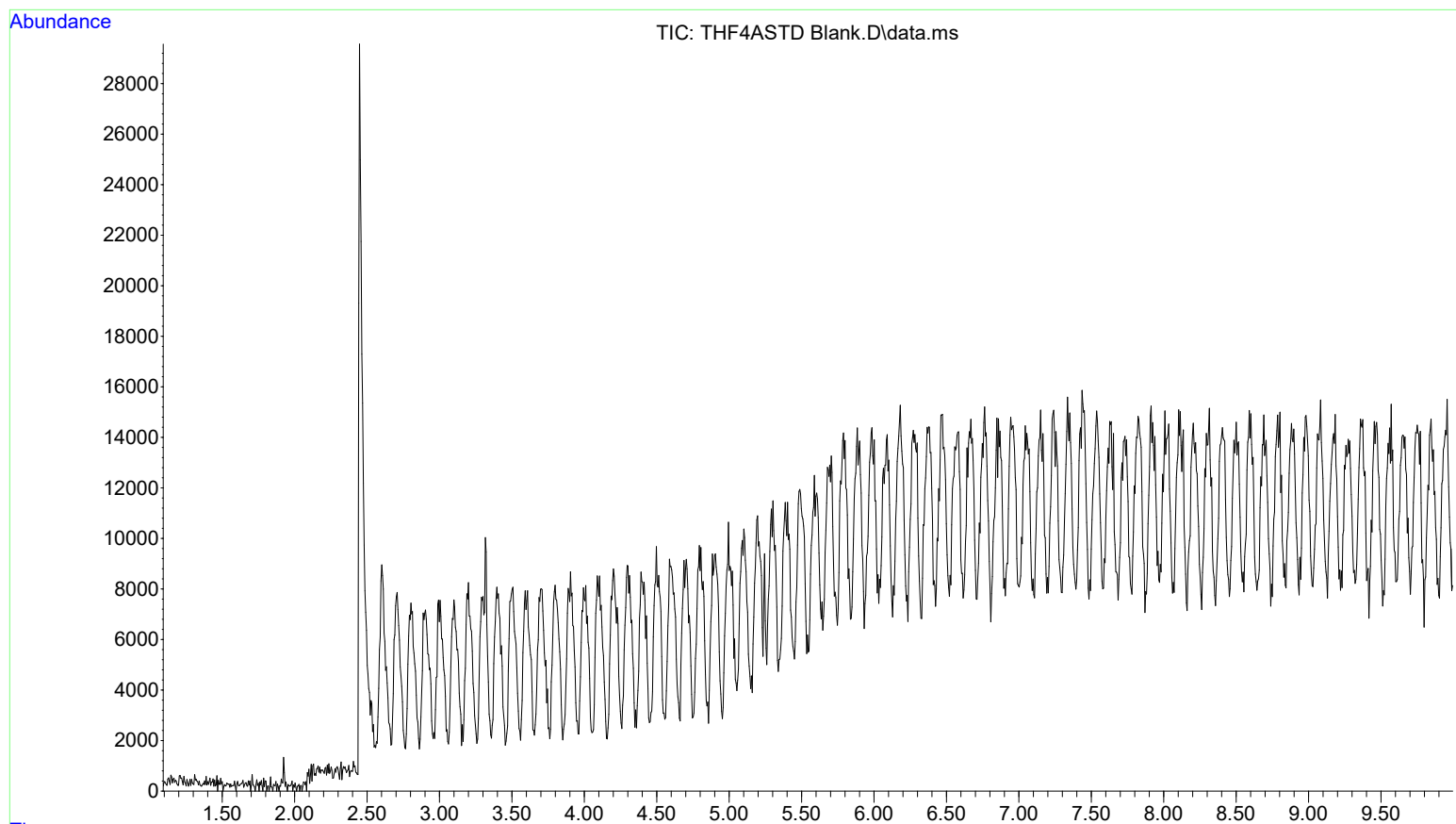
File :Y:\Instruments\GCMS\Peabody\KC\2023\June\6-16-23\GCMSMixSTD
... (3).D
Operator : Kamryn Couvertier
Instrument : Peabody
Acquired : 16 Jun 2023 11:17 using AcqMethod ASMSDRUGS100.M
Sample Name: GCMS Mix STD
Misc Info : Methanol Exp:11-4-23 (See log sheet for lot numbers)

46
BH 7-3-23



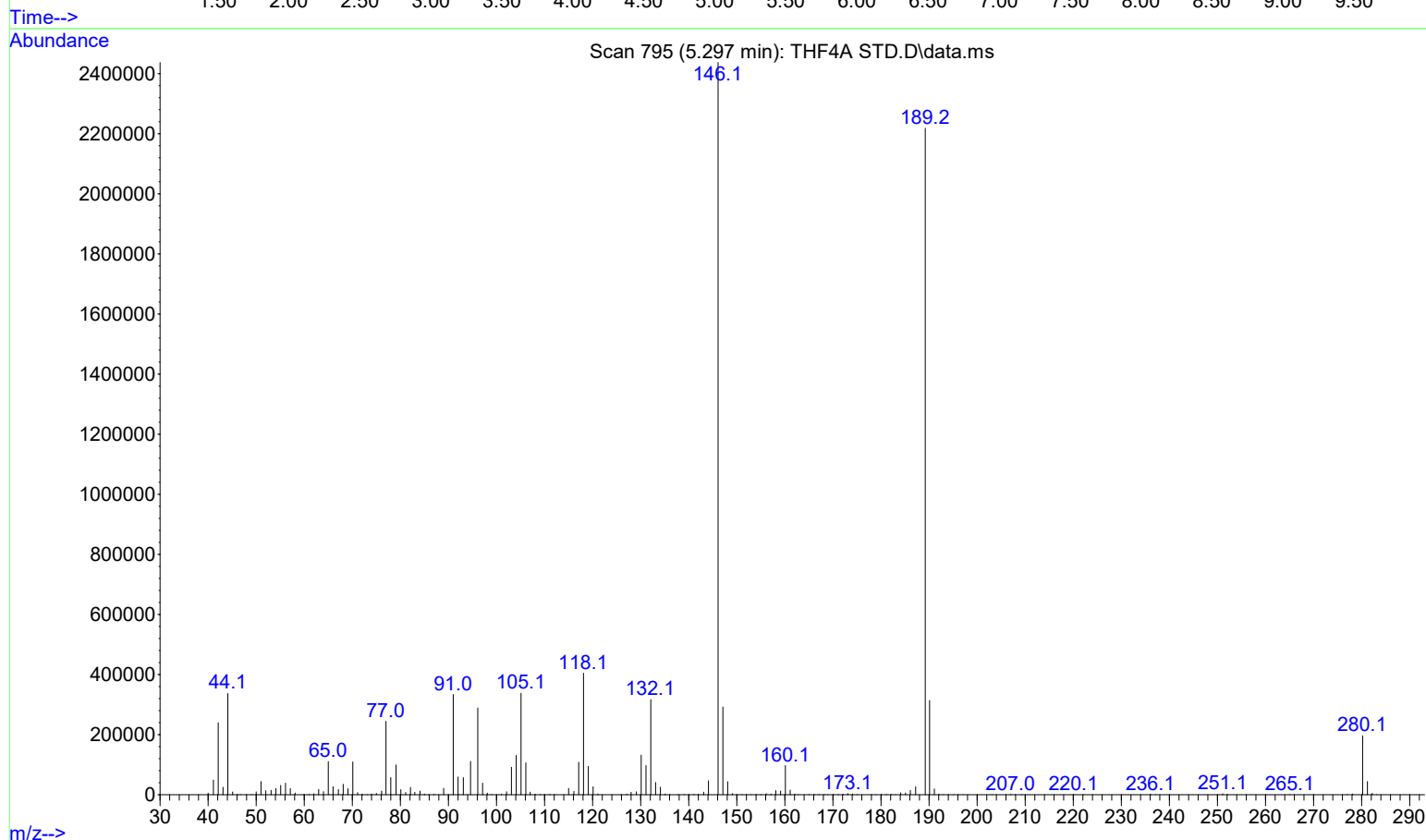
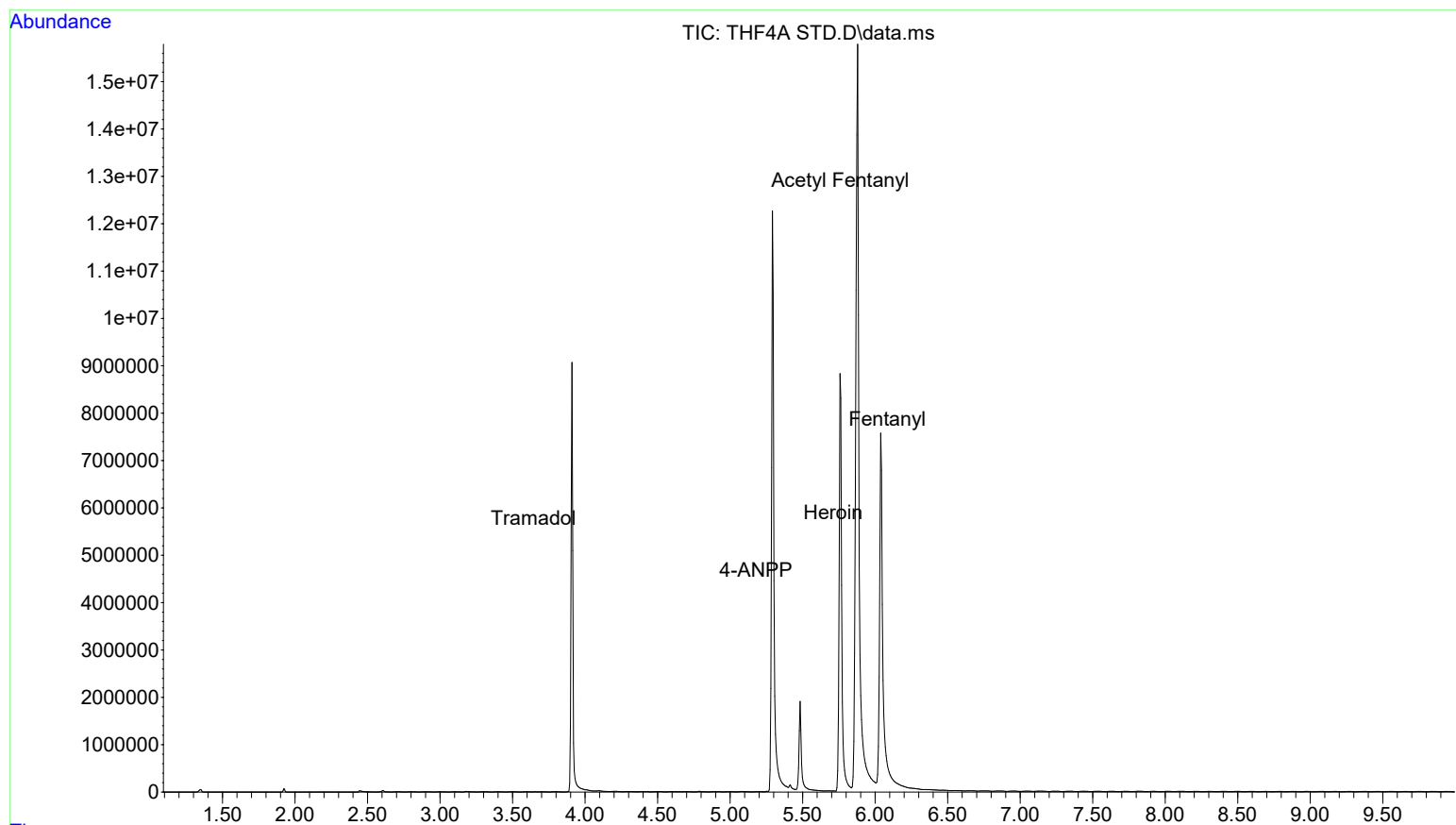
File :Y:\Instruments\GCMS\Peabody\KC\2023\June\6-16-23\THF4ASTD B1
... ank.D
Operator : Kamryn Couvertier
Instrument : Peabody
Acquired : 16 Jun 2023 12:05 using AcqMethod ASMSDRUGS100.M
Sample Name: Blank 6-16-23 THF4A STD
Misc Info : Methanol

47
BH 7-3-23



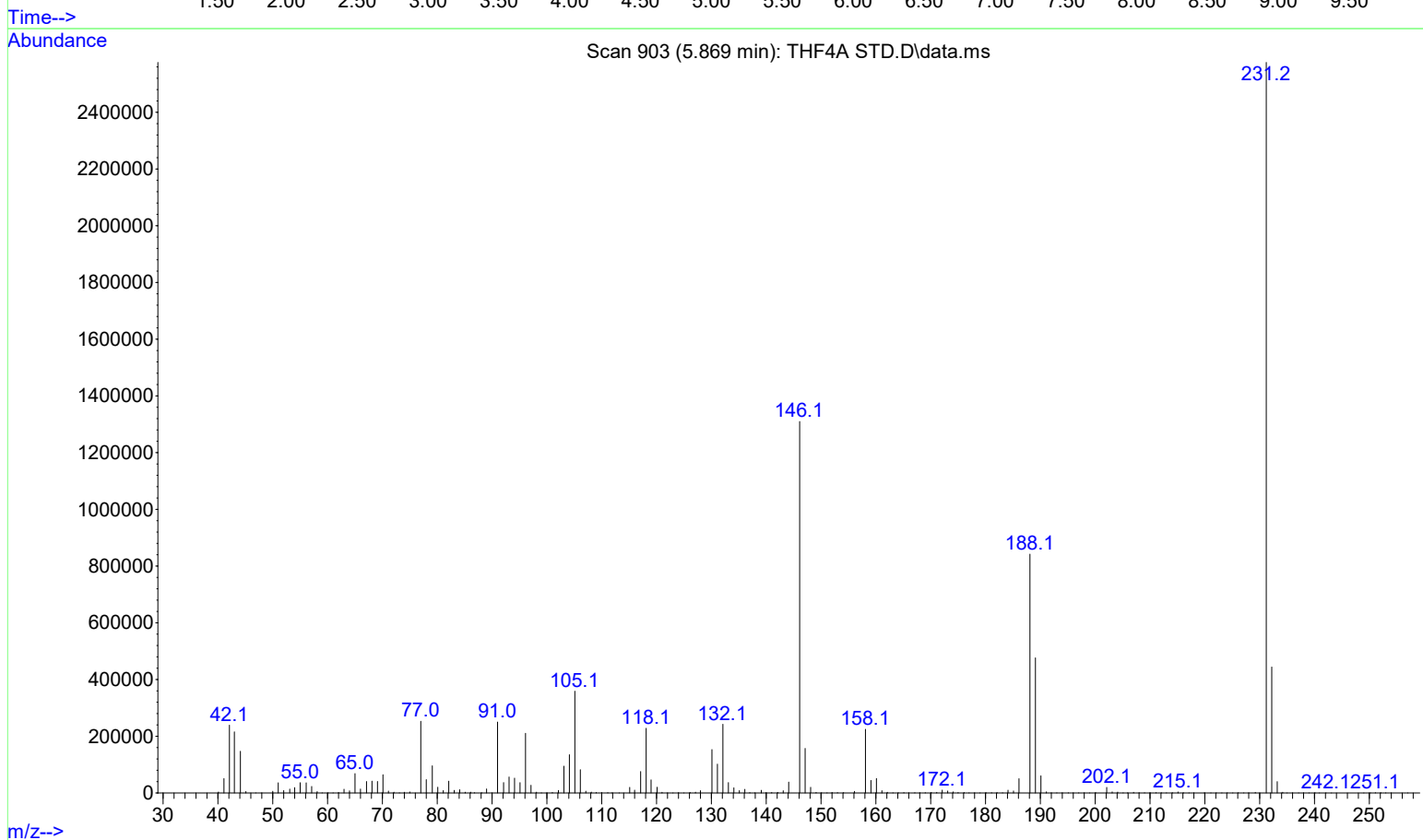
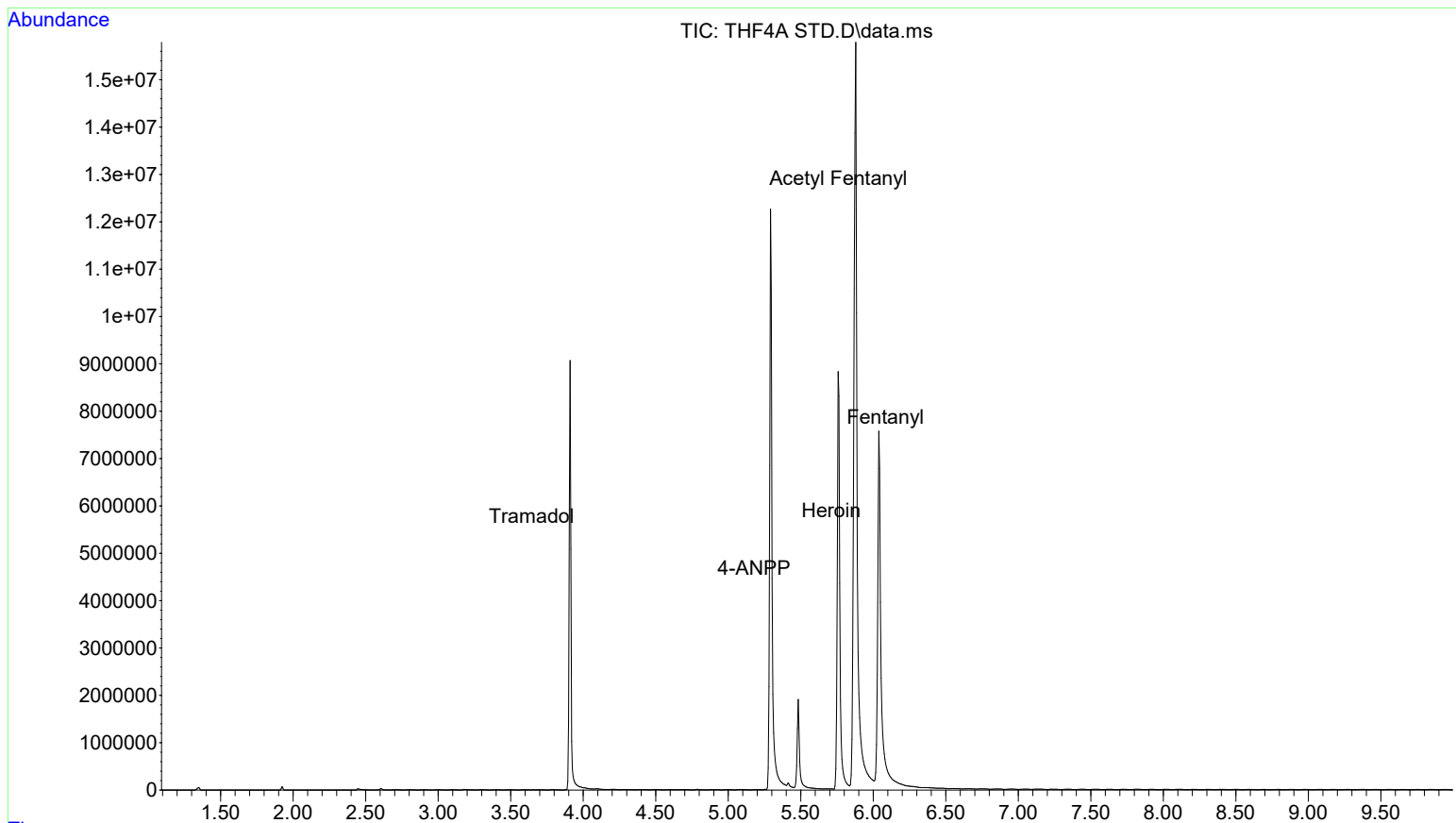
File :Y:\Instruments\GCMS\Peabody\KC\2023\June\6-16-23\THF4A STD.D
Operator : Kamryn Couvertier
Acquired : 16 Jun 2023 12:20 using AcqMethod ASMSDRUGS100.M
Instrument : Peabody
Sample Name: THF4A STD
Misc Info : Methanol Exp:03-24-23 (See log sheet for lot numbers)
Vial Number: 5

48
BH 7-3-23



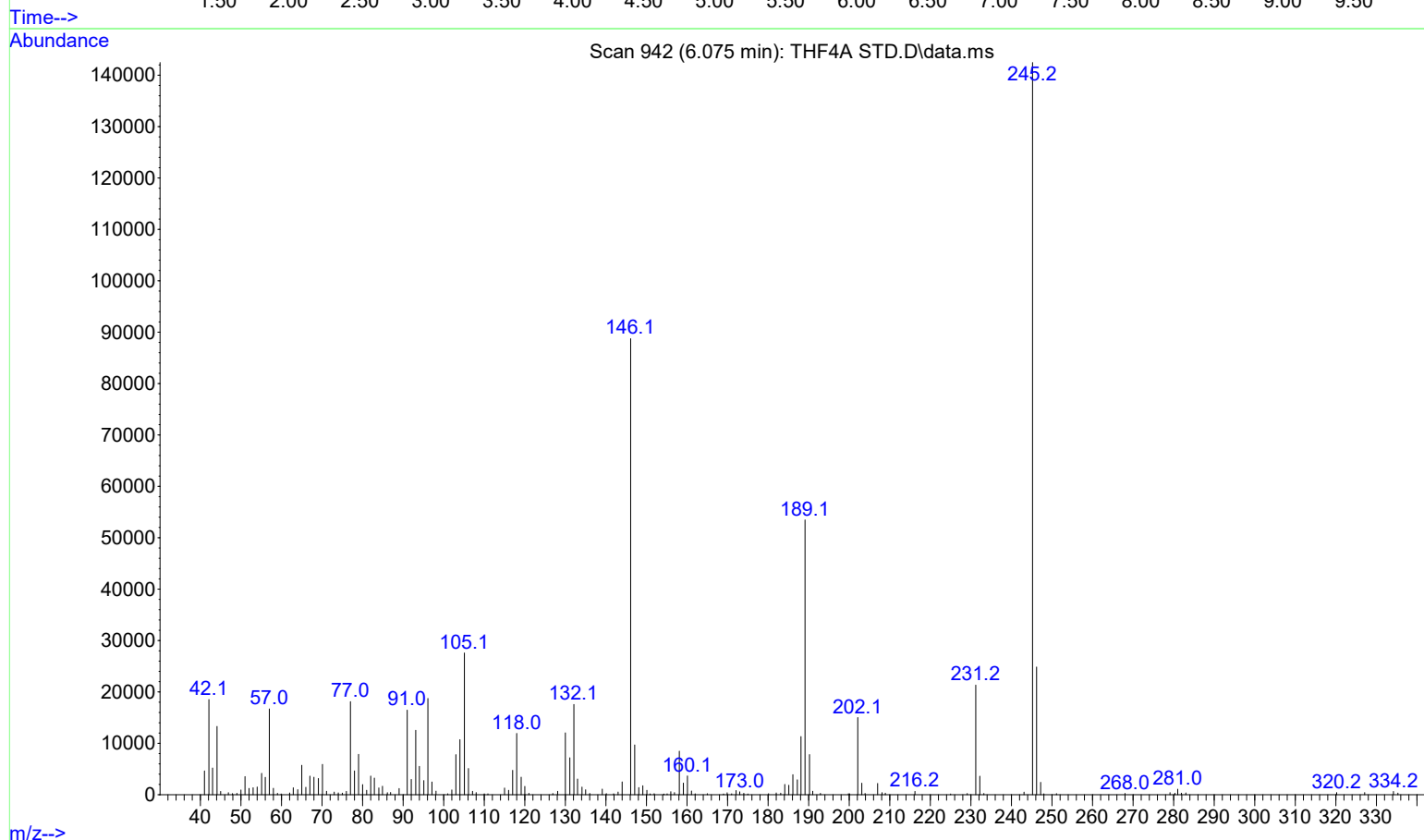
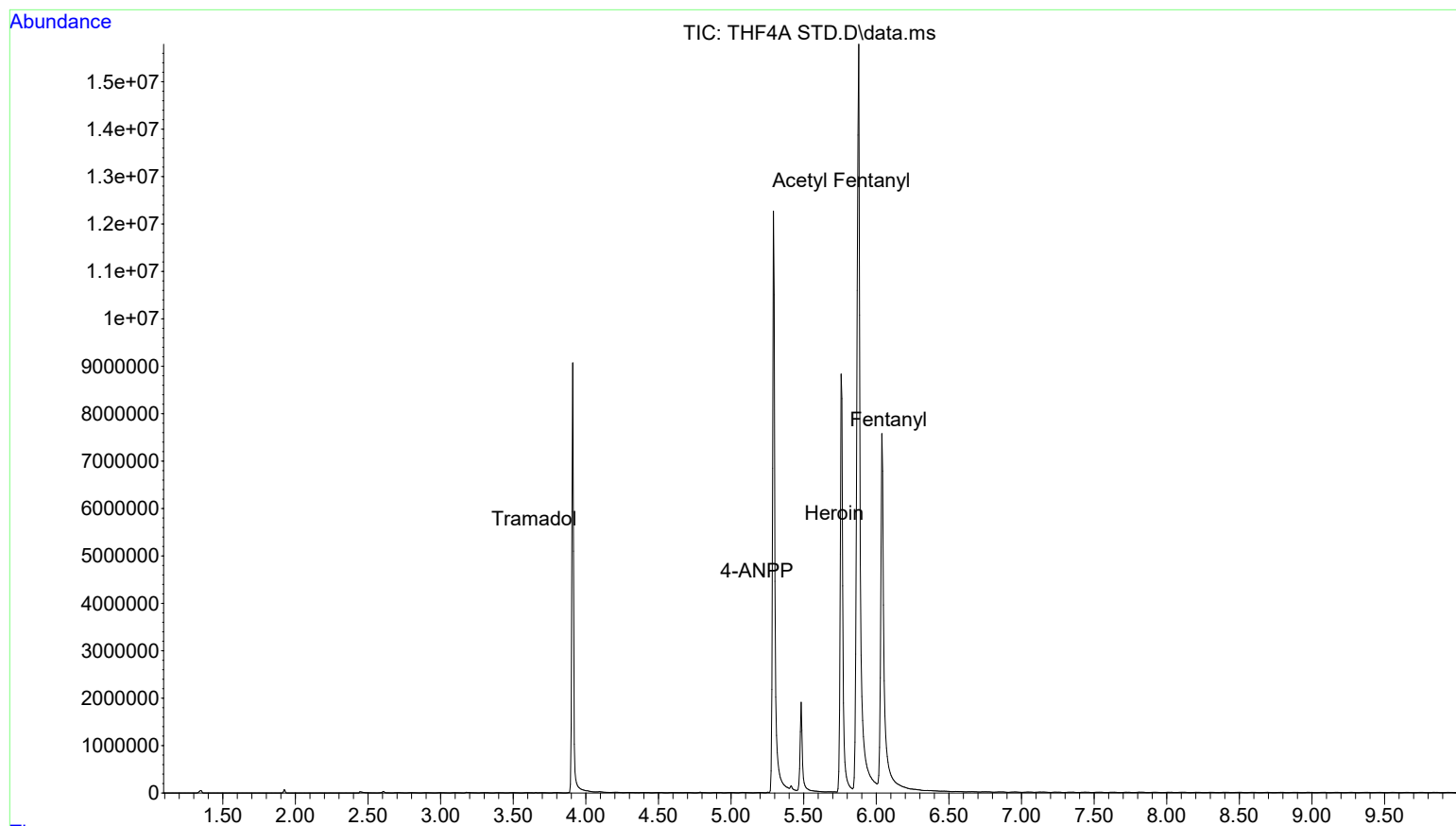
File :Y:\Instruments\GCMS\Peabody\KC\2023\June\6-16-23\THF4A STD.D
Operator : Kamryn Couvertier
Acquired : 16 Jun 2023 12:20 using AcqMethod ASMSDRUGS100.M
Instrument : Peabody
Sample Name: THF4A STD
Misc Info : Methanol Exp:03-24-23 (See log sheet for lot numbers)
Vial Number: 5

49
BH 7-3-23



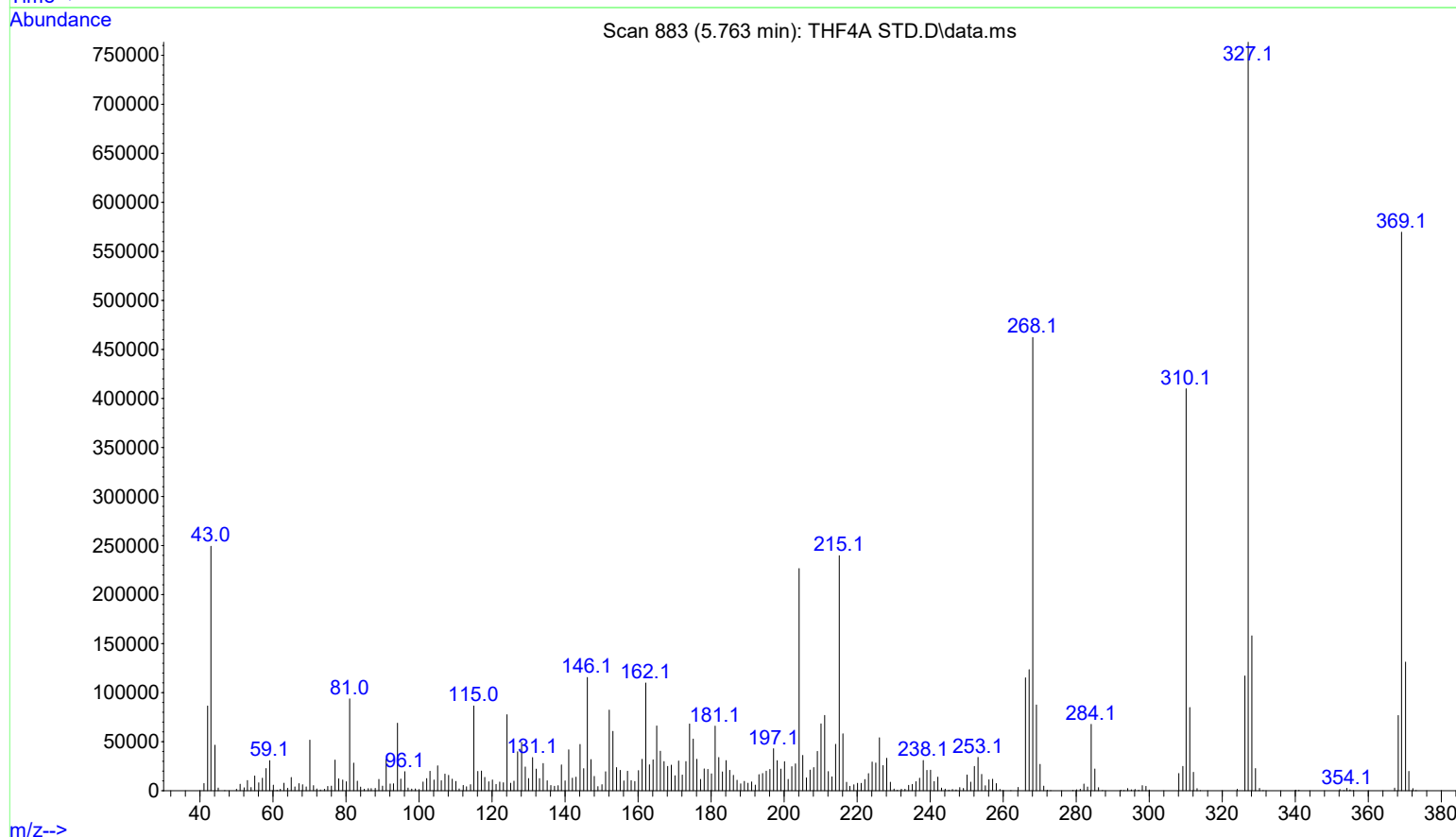
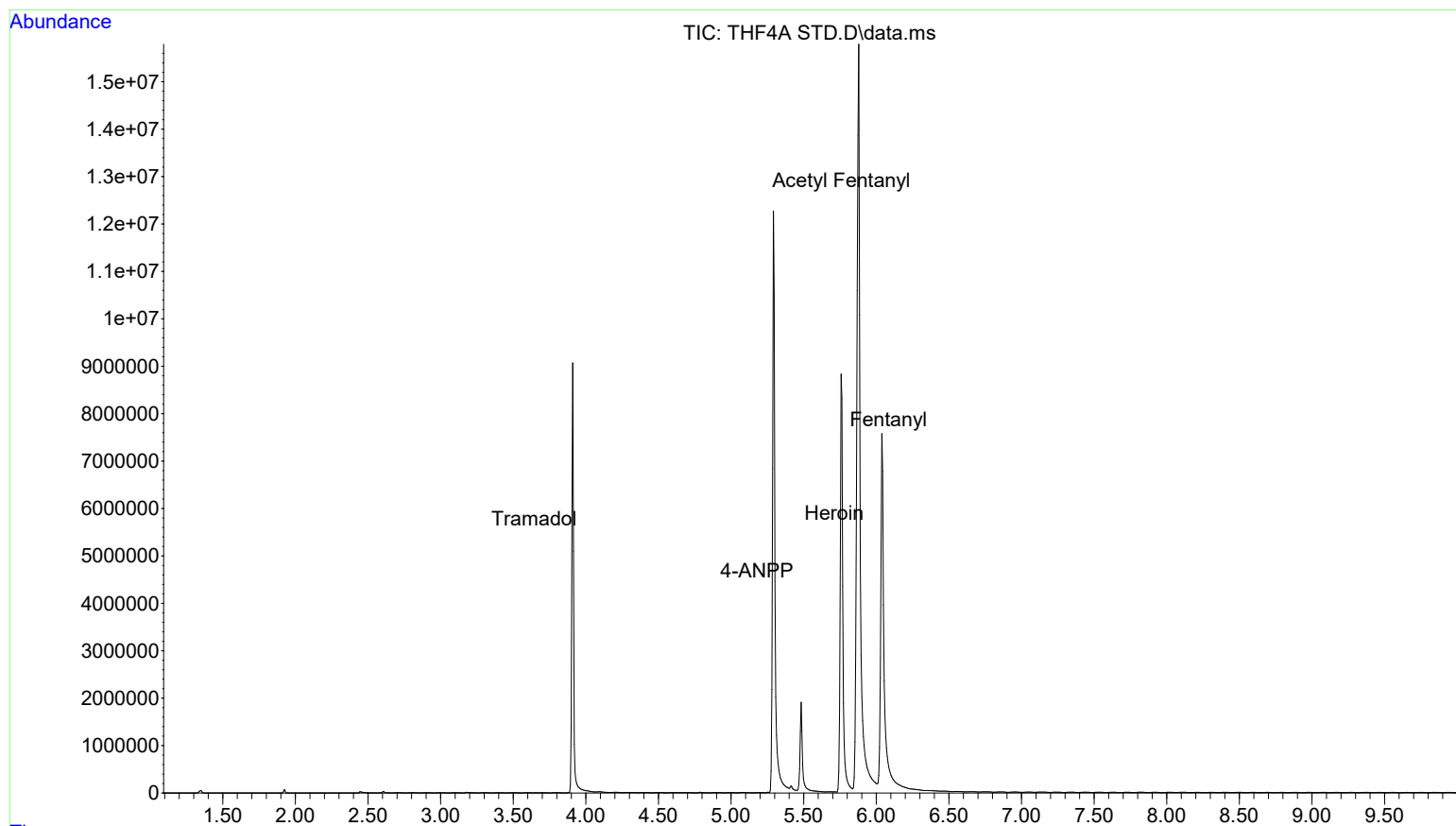
File :Y:\Instruments\GCMS\Peabody\KC\2023\June\6-16-23\THF4A STD.D
Operator : Kamryn Couvertier
Acquired : 16 Jun 2023 12:20 using AcqMethod ASMSDRUGS100.M
Instrument : Peabody
Sample Name: THF4A STD
Misc Info : Methanol Exp:03-24-23 (See log sheet for lot numbers)
Vial Number: 5

50
BH 7-3-23



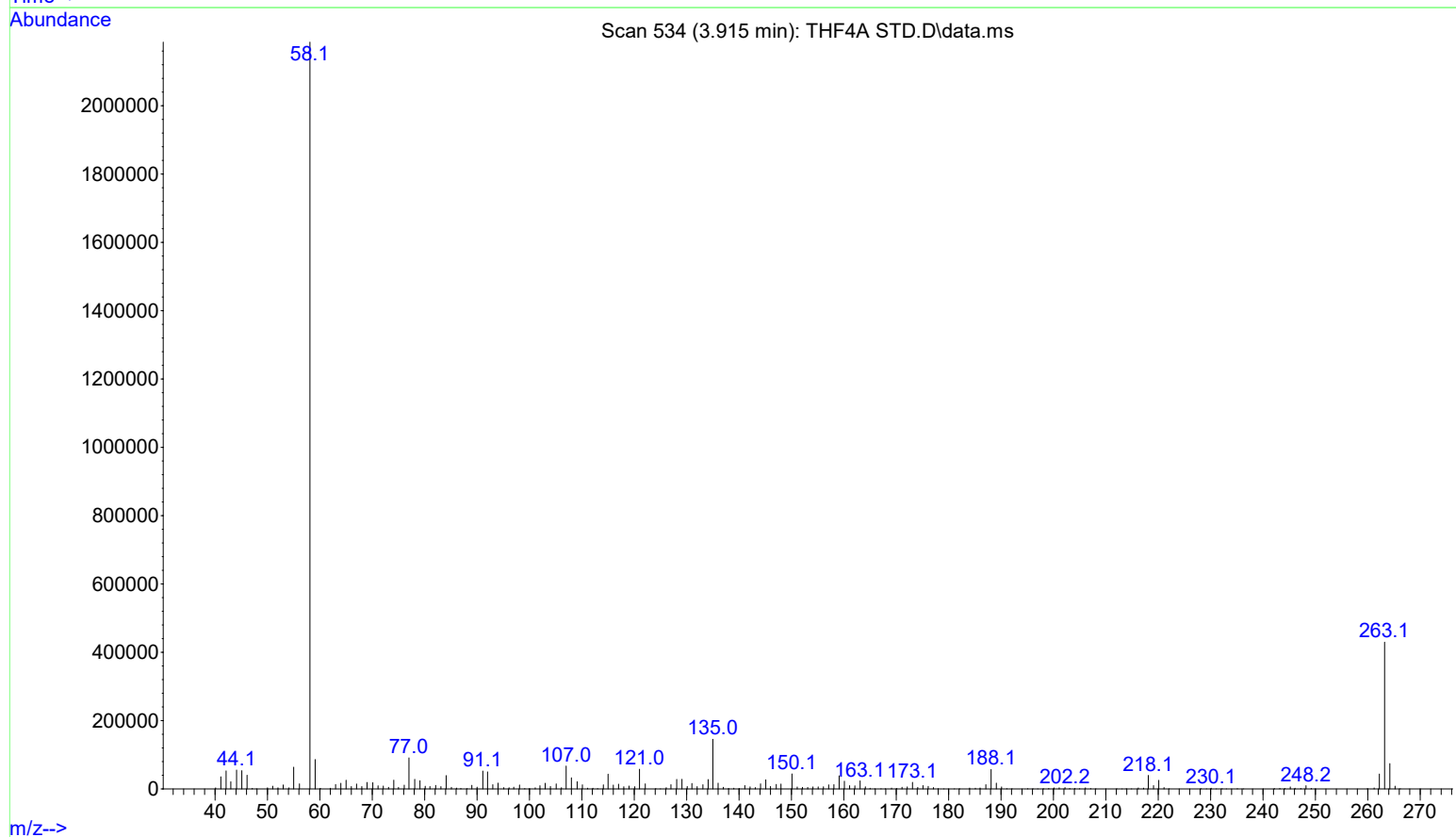
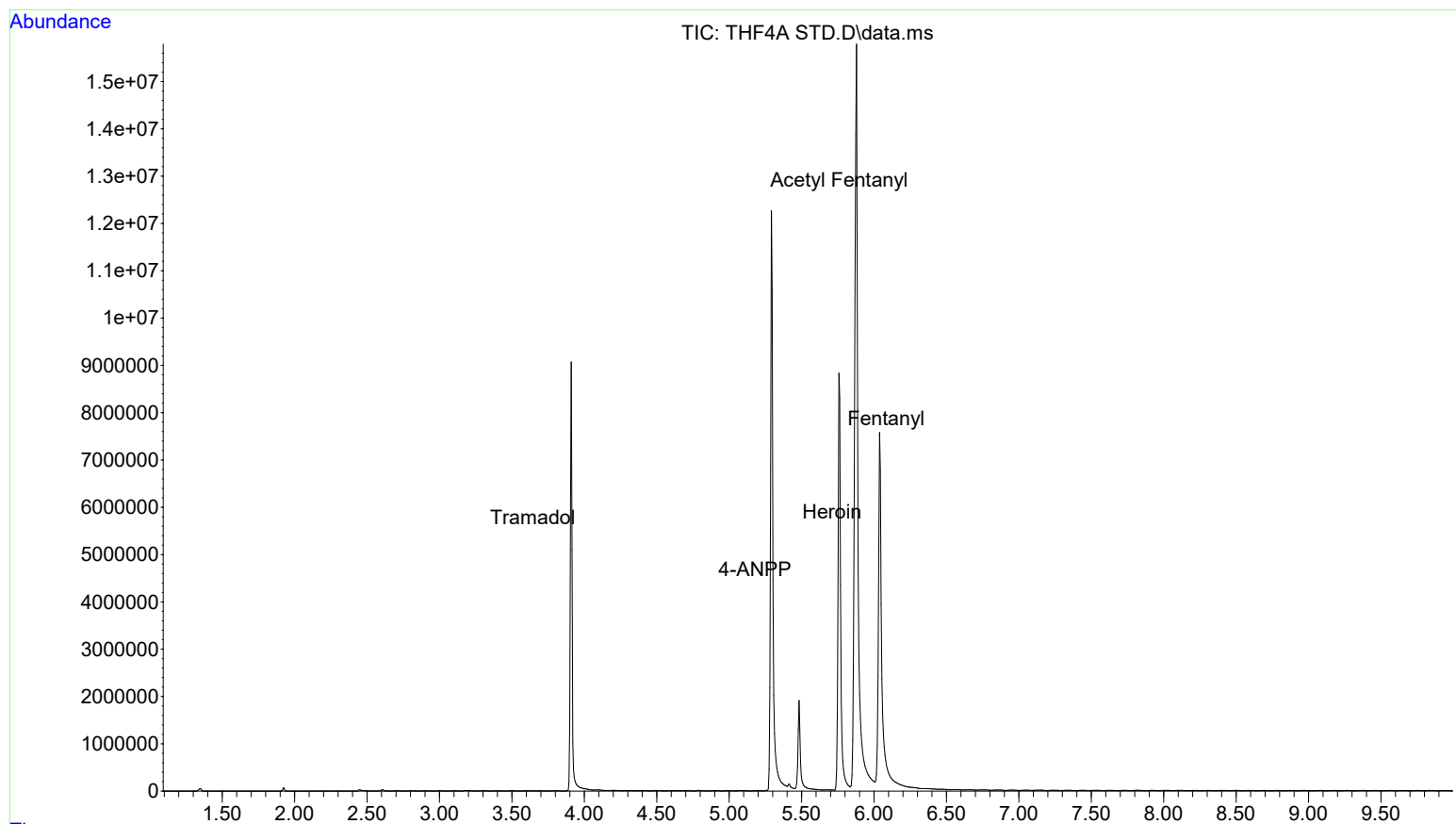
File : Y:\Instruments\GCMS\Peabody\KC\2023\June\6-16-23\THF4A STD.D
Operator : Kamryn Couvertier
Acquired : 16 Jun 2023 12:20 using AcqMethod ASMSDRUGS100.M
Instrument : Peabody
Sample Name: THF4A STD
Misc Info : Methanol Exp:03-24-23 (See log sheet for lot numbers)
Vial Number: 5

51
BH 7-3-23



File :Y:\Instruments\GCMS\Peabody\KC\2023\June\6-16-23\THF4A STD.D
Operator : Kamryn Couvertier
Acquired : 16 Jun 2023 12:20 using AcqMethod ASMSDRUGS100.M
Instrument : Peabody
Sample Name: THF4A STD
Misc Info : Methanol Exp:03-24-23 (See log sheet for lot numbers)
Vial Number: 5

52
BH 7-3-23



Method Information for: C:\MassHunter\GCMS\1\methods\ASMSDRUGS200.M

Method Sections To Run:

() Save Copy of Method With Data
() Instrument Control Pre-Run Cmd/Macro =
() Data Analysis Pre-Run Cmd/Macro =
(X) Data Acquisition
(X) Data Analysis
() Instrument Control Post-Run Cmd/Macro =
() Data Analysis Post-Run Cmd/Macro =

Method Comments:

This is the default method

END OF METHOD CONTROL PARAMETERS

Single Quadrupole Acquisition Method - MS Parameters Report

Method file	C:\MassHunter\GCMS\1\methods\ASMSDRUGS200.M
Tune file	atune.u
Ion source	EI
Source temperature (°C)	230
Quad temperature (°C)	150
Fixed Electron energy (eV)	70.0
Acquisition Type	Scan
Stop time (min)	10.00
Solvent delay (min)	1.00
Trace Ion Detection	False
Delta EMV	0
EM Saver	False
EM Saver Limit	N/A

Scan Time Segments

Time	Start Mass	End Mass	Threshold	Scan Speed
1.00	40	500	150	1,562 [N=2]

Timed Events

Time	Type of Event	Parameter
------	---------------	-----------

Real-Time Plots

Type of Plot	Label	Low Mass	High Mass
Total Ion	N/A	N/A	N/A
Spectrum	N/A	N/A	N/A
Extracted Ion	Scan 1-1	50	550
Extracted Ion	Scan 1-2	40	440

Self-Cleaning Ion Source Parameters

Mode	No Cleaning
------	-------------

C:\MassHunter\GCMS\1\methods\ASMSDRUGS200.M
Tue Jun 20 19:52:13 2023

Control Information

Sample Inlet : GC
Injection Source : GC ALS
Injection Location: Front
Mass Spectrometer : Enabled

No Sample Prep method has been assigned to this method.

GC
GC Summary
Run Time 10.043 min
Post Run Time 0 min

Oven
Temperature
Setpoint On
(Initial) 200 °C
Hold Time 1 min
Post Run 100 °C
Program
#1 Rate 70 °C/min
#1 Value 280 °C
#1 Hold Time 7.9 min

Equilibration Time 0.25 min
Max Temperature 325 °C
Maximum Temperature Override Disabled
Slow Fan Disabled

ALS
Front Injector
Syringe Size 10 µL
Injection Volume 1 µL
Solvent A Washes (PreInj) 5
Solvent A Washes (PostInj) 0
Solvent A Volume 3 µL
Solvent B Washes (PreInj) 0
Solvent B Washes (PostInj) 5
Solvent B Volume 3 µL
Sample Washes 3
Sample Wash Volume 3 µL
Sample Pumps 6
Dwell Time (PreInj) 0 min
Dwell Time (PostInj) 0 min
Solvent Wash Draw Speed 300 µL/min
Solvent Wash Dispense Speed 6000 µL/min
Sample Wash Draw Speed 300 µL/min
Sample Wash Dispense Speed 6000 µL/min
Injection Dispense Speed 6000 µL/min
Viscosity Delay 0 sec
Sample Depth Disabled
Injection Type Standard
L1 Airgap 0.2 µL

Solvent Wash Mode

A, B

56
BH 7-3-23

Back Injector
Syringe Size 10 µL
Injection Volume 1 µL
Solvent A Washes (PreInj) 3
Solvent A Washes (PostInj) 3
Solvent A Volume 8 µL
Solvent B Washes (PreInj) 3
Solvent B Washes (PostInj) 3
Solvent B Volume 8 µL
Sample Washes 2
Sample Wash Volume 8 µL
Sample Pumps 4
Dwell Time (PreInj) 0 min
Dwell Time (PostInj) 0 min
Solvent Wash Draw Speed 300 µL/min
Solvent Wash Dispense Speed 3000 µL/min
Sample Wash Draw Speed 300 µL/min
Sample Wash Dispense Speed 3000 µL/min
Injection Dispense Speed 6000 µL/min
Viscosity Delay 0 sec
Sample Depth Disabled
Injection Type Standard
I1 Airgap 0.2 µL
Solvent Wash Mode A, B

Sample Overlap
Mode Sample overlap is not enabled

ALS Errors Pause for user interaction

Front SS Inlet He
Excluded from Readiness Mode ***Excluded from Affecting GC's Readiness State***
Split
Heater On 250 °C
Pressure On 16 psi
Total Flow On 101.2 mL/min
Septum Purge Flow On 3 mL/min
Gas Saver On 20 After 2 min mL/min
Split Ratio 100 :1
Split Flow 97.227 mL/min
Liner A Liner has not been selected.

Back SS Inlet He
Excluded from Readiness Mode ***Excluded from Affecting GC's Readiness State***
Splitless
Heater Off
Pressure On 9.1454 psi
Total Flow On 41 mL/min
Septum Purge Flow Off
Septum Purge Flow Mode Standard
Gas Saver Off
Purge Flow to Split Vent 40 mL/min at 0.75 min
Liner A Liner has not been selected.

Thermal Aux 2 (MSD Transfer Line)
Temperature
Setpoint On
(Initial) 280 °C

Column
Column #1

Flow	On	57
Setpoint	0.97227 mL/min	BH 7-3-23
(Initial)		
Post Run	1.5 mL/min	

Column Information	Agilent 19091A-102
Ultra 1 Methyl Siloxane	
Temperature Range	-60 °C-325 °C (325 °C)
Dimensions	12.5 m x 200 µm x 0.33 µm
In	Front SS Inlet He
Out	MSD
(Initial)	200 °C
Pressure	16 psi
Flow	0.97227 mL/min
Average Velocity	59.173 cm/sec
Holdup Time	0.35207 min
Control Mode	Constant Flow

Column #2	
Pressure	
Setpoint	On
(Initial)	9.1454 psi
Post Run	10 psi

Column Information	Agilent 19091S-913: 2
HP-1ms	
Temperature Range	-60 °C-325 °C (350 °C)
Dimensions	30 m x 320 µm x 0.25 µm
Column lock	Unlocked
In	Back SS Inlet He
Out	Back Detector FID
(Initial)	200 °C
Pressure	9.1454 psi
Flow	1 mL/min
Average Velocity	24.697 cm/sec
Holdup Time	2.0245 min
Control Mode	Constant Pressure

Column Outlet Pressure	0 psi
------------------------	-------

Back Detector FID	
Excluded from Readiness	***Excluded from Affecting GC's Readiness State***
Makeup	N2
Column Compensation	Signal is modified by Column Compensation Curve #2
Heater	Off
H2 Flow	Off
Air Flow	Off
Makeup Flow	Off
Carrier Gas Flow Correction	Constant Makeup and Fuel Flow
Flame	Off

Aux EPC 1,2,3	
Aux EPC 1 N2	
Pressure	
Setpoint	Off
(Initial)	10 psi
Post Run	0 psi

Excluded from Readiness	***Excluded from Affecting GC's Readiness State***
-------------------------	--

Aux EPC 2 N2	
Pressure	
Setpoint	Off
(Initial)	10 psi

```

Post Run                                0 psi
Excluded from Readiness                ***Excluded from Affecting GC's Readiness State***58
                                          BH 7-3-23

Aux EPC 3 N2
Pressure
Setpoint                               Off
(Initial)                              10 psi
Post Run                               0 psi

Excluded from Readiness                ***Excluded from Affecting GC's Readiness State***

Signals
Signal #1: Test Plot
Description                             Test Plot
Save                                     Off
Data Rate                              50 Hz
Dual Injection Assignment               Front Sample

Signal #2:
Description                             None

Signal #3: Test Plot
Description                             Test Plot
Save                                     Off
Data Rate                              50 Hz
Dual Injection Assignment               Back Sample

Signal #4: Test Plot
Description                             Test Plot
Save                                     Off
Data Rate                              50 Hz
Dual Injection Assignment               Back Sample

```

TUNE PARAMETERS for SN: US1646M032

Trace Ion Detection is OFF.

```

34.593 : EMISSION
70.007 : ENERGY
29.919 : REPELLER
90.331 : IONFOCUS
20.181 : ENTRANCE_LENS
1289.141 : EMVOLTS

1200 : Actual EMV
0.47 : GAIN FACTOR

2390.000 : AMUGAIN
127.313 : AMUOFFSET
1.000 : FILAMENT
0.000 : DCPOLARITY
12.194 : ENTLENSOFFSET
0.000 : Ion_Body
0.000 : EXTLENS
145.000 : MASSGAIN
-27.000 : MASSOFFSET

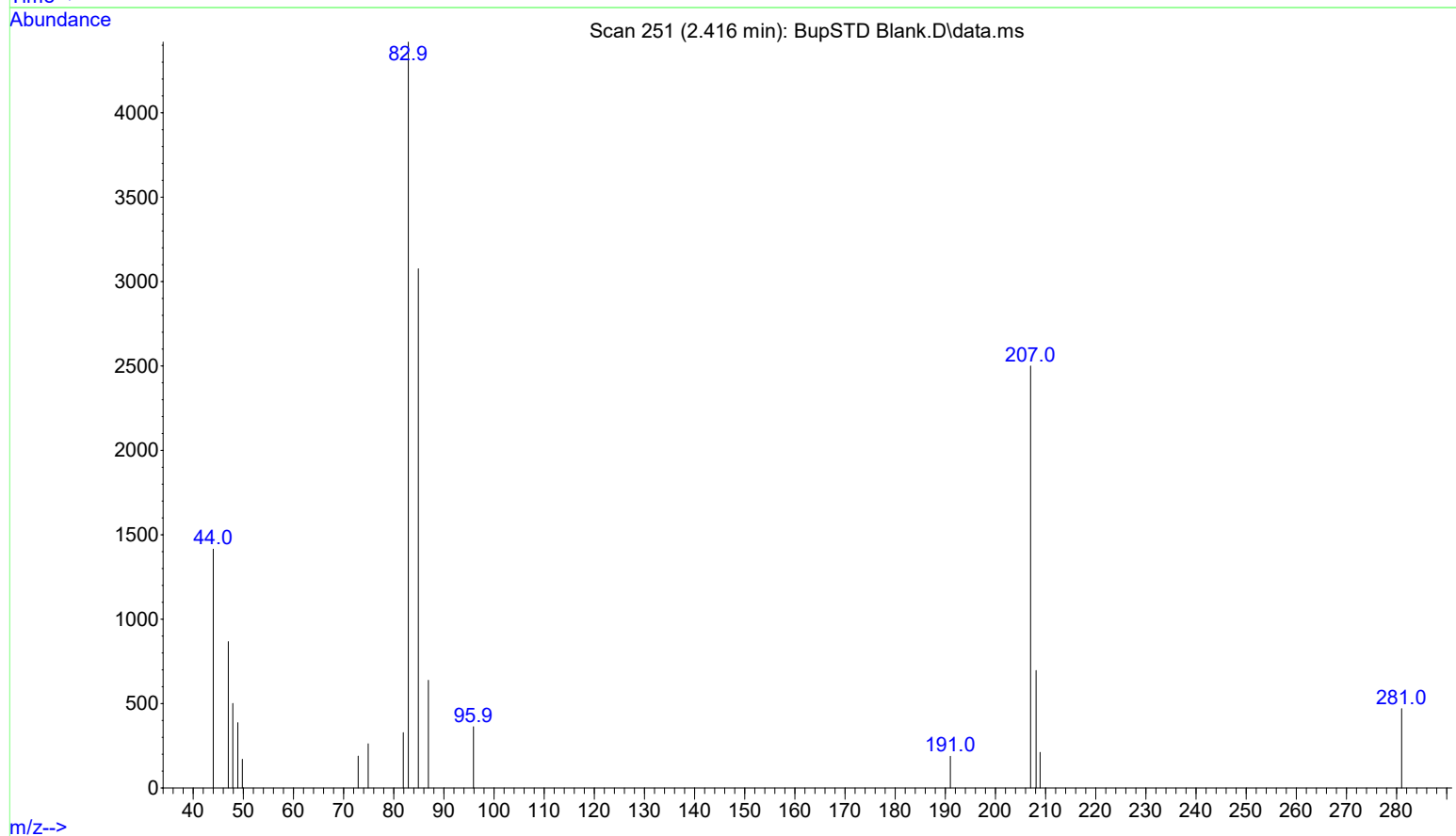
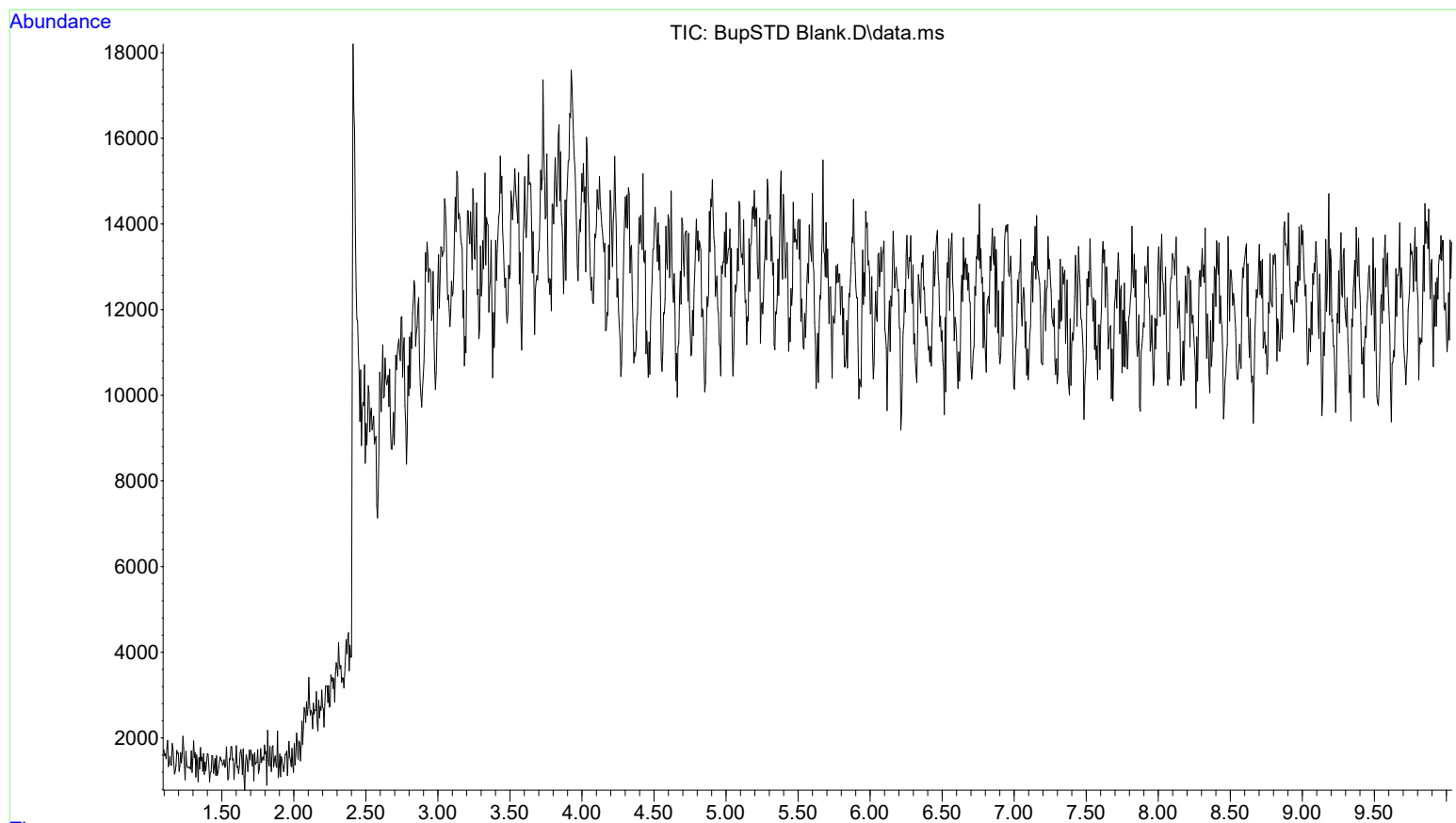
```

END OF TUNE PARAMETERS

END OF INSTRUMENT CONTROL PARAMETERS

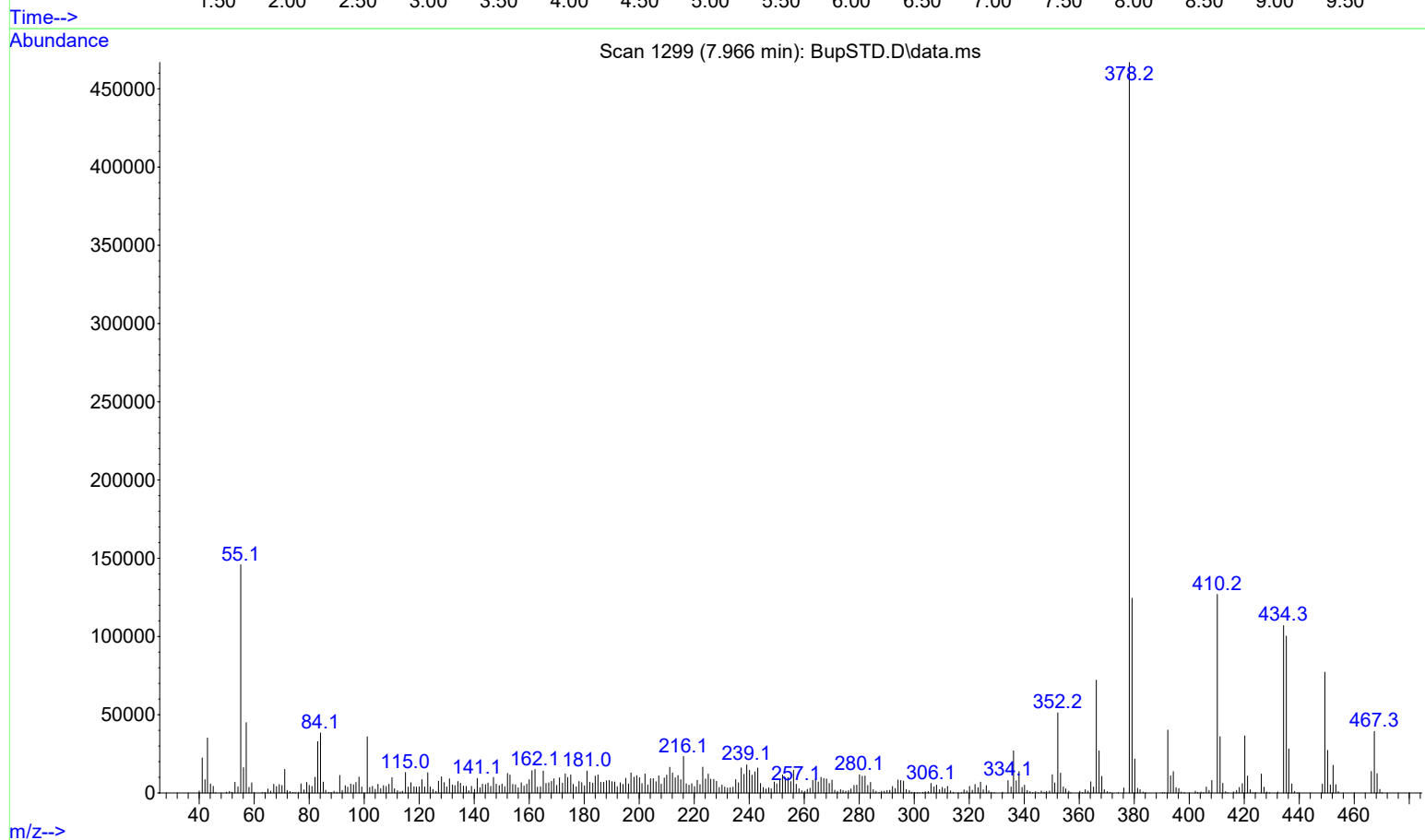
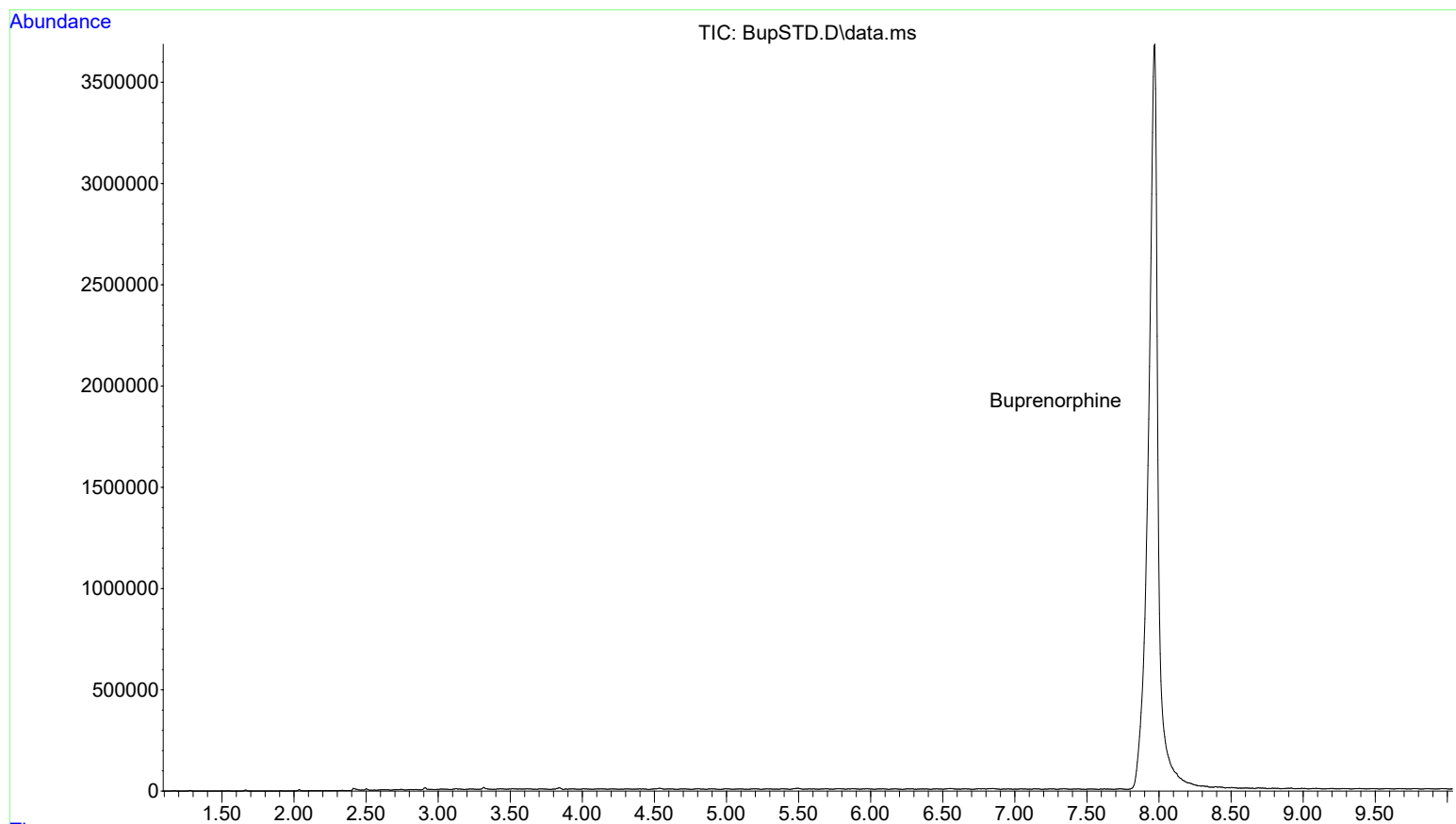
File :Y:\Instruments\GCMS\Peabody\KC\2023\June\6-15-23\BupSTD Blan
... k.D
Operator : Kamryn Couvertier
Instrument : Peabody
Acquired : 15 Jun 2023 14:05 using AcqMethod ASMSDRUGS200.M
Sample Name: Blank 6-15-23 Buprenorphine STD
Misc Info : Methanol

60
BH 7-3-23



File :Y:\Instruments\GCMS\Peabody\KC\2023\June\6-15-23\BupSTD.D
Operator : Kamryn Couvertier
Acquired : 15 Jun 2023 14:21 using AcqMethod ASMSDRUGS200.M
Instrument : Peabody
Sample Name: Buprenorphine STD
Misc Info : Methanol Sigma SLD2519 Exp:6-16-23
Vial Number: 3

61
BH 7-3-23



Method Information for: C:\MassHunter\GCMS\1\methods\ASMSDRUGSTI.M

Method Sections To Run:

() Save Copy of Method With Data
() Instrument Control Pre-Run Cmd/Macro =
() Data Analysis Pre-Run Cmd/Macro =
(X) Data Acquisition
(X) Data Analysis
() Instrument Control Post-Run Cmd/Macro =
() Data Analysis Post-Run Cmd/Macro =

Method Comments:

This is the default method

END OF METHOD CONTROL PARAMETERS

Single Quadrupole Acquisition Method - MS Parameters Report

Method file	C:\MassHunter\GCMS\1\methods\ASMSDRUGSTI.M
Tune file	atune.u
Ion source	EI
Source temperature (°C)	230
Quad temperature (°C)	150
Fixed Electron energy (eV)	70.0
Acquisition Type	Scan
Stop time (min)	10.00
Solvent delay (min)	1.00
Trace Ion Detection	False
Delta EMV	0
EM Saver	False
EM Saver Limit	N/A

Scan Time Segments

Time	Start Mass	End Mass	Threshold	Scan Speed
1.00	40	500	150	1,562 [N=2]

Timed Events

Time	Type of Event	Parameter
------	---------------	-----------

Real-Time Plots

Type of Plot	Label	Low Mass	High Mass
Total Ion	N/A	N/A	N/A
Spectrum	N/A	N/A	N/A
Extracted Ion	Scan 1-1	50	550
Extracted Ion	Scan 1-2	40	440

Self-Cleaning Ion Source Parameters

Mode	No Cleaning
------	-------------

C:\MassHunter\GCMS\1\methods\ASMSDRUGSTI.M
Tue Jun 20 19:54:22 2023

Control Information

Sample Inlet : GC
Injection Source : GC ALS
Injection Location: Front
Mass Spectrometer : Enabled

No Sample Prep method has been assigned to this method.

GC
GC Summary
Run Time 30.071 min
Post Run Time 0 min

Oven
Temperature
Setpoint On
(Initial) 100 °C
Hold Time 1 min
Post Run 100 °C
Program
#1 Rate 70 °C/min
#1 Value 280 °C
#1 Hold Time 26.5 min

Equilibration Time 0.25 min
Max Temperature 325 °C
Maximum Temperature Override Disabled
Slow Fan Disabled

ALS
Front Injector
Syringe Size 10 µL
Injection Volume 1 µL
Solvent A Washes (PreInj) 5
Solvent A Washes (PostInj) 0
Solvent A Volume 3 µL
Solvent B Washes (PreInj) 0
Solvent B Washes (PostInj) 5
Solvent B Volume 3 µL
Sample Washes 3
Sample Wash Volume 3 µL
Sample Pumps 6
Dwell Time (PreInj) 0 min
Dwell Time (PostInj) 0 min
Solvent Wash Draw Speed 300 µL/min
Solvent Wash Dispense Speed 6000 µL/min
Sample Wash Draw Speed 300 µL/min
Sample Wash Dispense Speed 6000 µL/min
Injection Dispense Speed 6000 µL/min
Viscosity Delay 0 sec
Sample Depth Disabled
Injection Type Standard
L1 Airgap 0.2 µL

Solvent Wash Mode

A, B

65
BH 7-3-23

Back Injector

Syringe Size

10 µL

Injection Volume

1 µL

Solvent A Washes (PreInj)

3

Solvent A Washes (PostInj)

3

Solvent A Volume

8 µL

Solvent B Washes (PreInj)

3

Solvent B Washes (PostInj)

3

Solvent B Volume

8 µL

Sample Washes

2

Sample Wash Volume

8 µL

Sample Pumps

4

Dwell Time (PreInj)

0 min

Dwell Time (PostInj)

0 min

Solvent Wash Draw Speed

300 µL/min

Solvent Wash Dispense Speed

3000 µL/min

Sample Wash Draw Speed

300 µL/min

Sample Wash Dispense Speed

3000 µL/min

Injection Dispense Speed

6000 µL/min

Viscosity Delay

0 sec

Sample Depth

Disabled

Injection Type

Standard

L1 Airgap

0.2 µL

Solvent Wash Mode

A, B

Sample Overlap

Mode

Sample overlap is not enabled

ALS Errors

Pause for user interaction

Front SS Inlet He

Excluded from Readiness

Mode

Excluded from Affecting GC's Readiness State

Heater

Split

On 250 °C

Pressure

On 10.806 psi

Total Flow

On 104 mL/min

Septum Purge Flow

On 3 mL/min

Gas Saver

On 20 After 2 min mL/min

Split Ratio

100 :1

Split Flow

100 mL/min

Liner

A Liner has not been selected.

Back SS Inlet He

Mode

Splitless

Heater

Off

Pressure

On 6.5756 psi

Total Flow

On 41 mL/min

Septum Purge Flow

Off

Septum Purge Flow Mode

Standard

Gas Saver

Off

Purge Flow to Split Vent

40 mL/min at 0.75 min

Liner

A Liner has not been selected.

Thermal Aux 2 (MSD Transfer Line)

Temperature

Setpoint

On

(Initial)

280 °C

Column

Column #1

Flow

Setpoint	On	
(Initial)	1 mL/min	
Post Run	1.5 mL/min	66 BH 7-3-23

Column Information	Agilent 19091A-102
Ultra 1 Methyl Siloxane	
Temperature Range	-60 °C-325 °C (325 °C)
Dimensions	12.5 m x 200 µm x 0.33 µm
In	Front SS Inlet He
Out	MSD
(Initial)	100 °C
Pressure	10.806 psi
Flow	1 mL/min
Average Velocity	57.774 cm/sec
Holdup Time	0.3606 min
Control Mode	Constant Flow

Column #2	
Pressure	
Setpoint	On
(Initial)	6.5756 psi
Post Run	10 psi

Column Information	Agilent 19091S-913: 2
HP-1ms	
Temperature Range	-60 °C-325 °C (350 °C)
Dimensions	30 m x 320 µm x 0.25 µm
Column lock	Unlocked
In	Back SS Inlet He
Out	Back Detector FID
(Initial)	100 °C
Pressure	6.5756 psi
Flow	1 mL/min
Average Velocity	21.027 cm/sec
Holdup Time	2.3779 min
Control Mode	Constant Pressure

Column Outlet Pressure	0 psi
------------------------	-------

Back Detector FID	
Makeup	N2
Column Compensation	Signal is modified by Column Compensation Curve #2
Heater	Off
H2 Flow	Off
Air Flow	Off
Makeup Flow	Off
Carrier Gas Flow Correction	Constant Makeup and Fuel Flow
Flame	Off

Aux EPC 1,2,3	
Aux EPC 1 N2	
Pressure	
Setpoint	Off
(Initial)	10 psi
Post Run	0 psi

Excluded from Readiness	***Excluded from Affecting GC's Readiness State***
-------------------------	--

Aux EPC 2 N2	
Pressure	
Setpoint	Off
(Initial)	10 psi
Post Run	0 psi

Excluded from Readiness

Excluded from Affecting GC's Readiness State

Aux EPC 3 N2

67

Pressure

BH 7-3-23

Setpoint

Off

(Initial)

10 psi

Post Run

0 psi

Excluded from Readiness

Excluded from Affecting GC's Readiness State

Signals

Signal #1: Test Plot

Description

Test Plot

Save

Off

Data Rate

50 Hz

Dual Injection Assignment

Front Sample

Signal #2: Back Signal

Description

Back Signal

Details

Back Signal (FID)

Save

On

Data Rate

50 Hz

Dual Injection Assignment

Back Sample

Signal #3: Test Plot

Description

Test Plot

Save

Off

Data Rate

50 Hz

Dual Injection Assignment

Back Sample

Signal #4: Test Plot

Description

Test Plot

Save

Off

Data Rate

50 Hz

Dual Injection Assignment

Back Sample

TUNE PARAMETERS for SN: US1646M032

Trace Ion Detection is OFF.

34.593 : EMISSION
70.007 : ENERGY
29.919 : REPELLER
90.331 : IONFOCUS
20.181 : ENTRANCE_LENS
1289.141 : EMVOLTS

1200 : Actual EMV
0.47 : GAIN FACTOR

2390.000 : AMUGAIN
127.313 : AMUOFFSET
1.000 : FILAMENT
0.000 : DCPOLARITY
12.194 : ENTLENSOFFSET
0.000 : Ion_Body
0.000 : EXTLENS
145.000 : MASSGAIN
-27.000 : MASSOFFSET

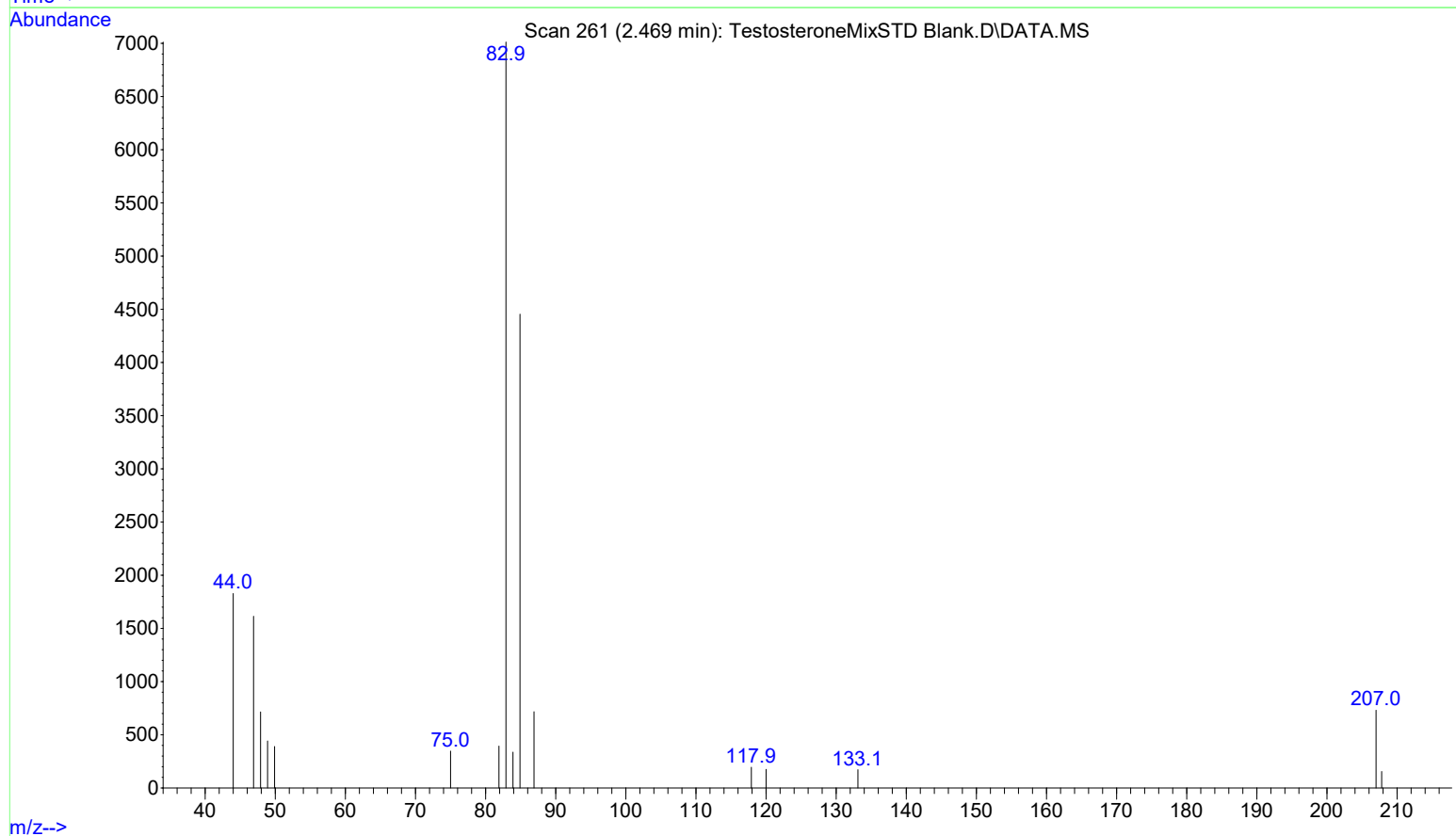
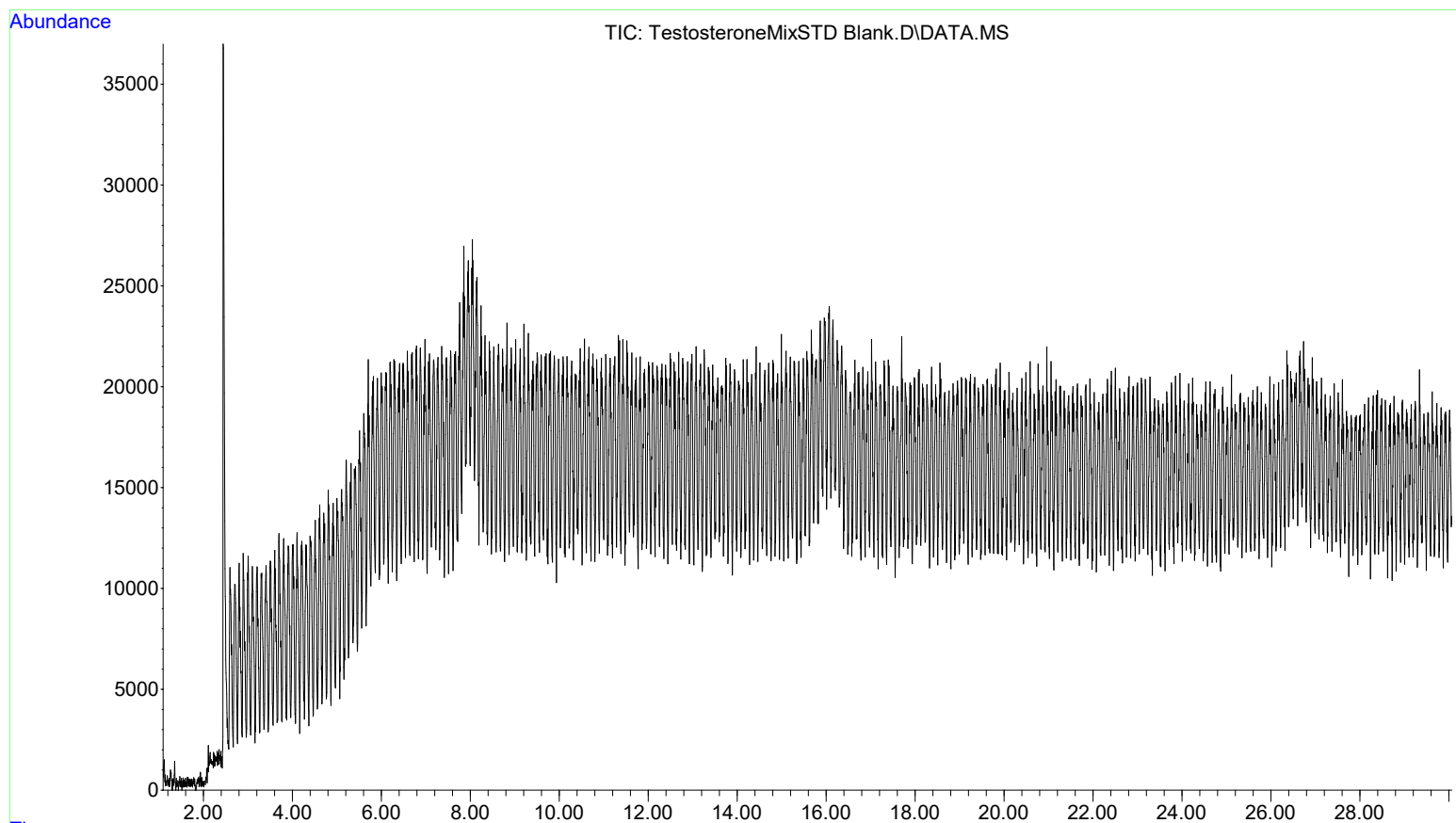
END OF TUNE PARAMETERS

68
BH 7-3-23

END OF INSTRUMENT CONTROL PARAMETERS

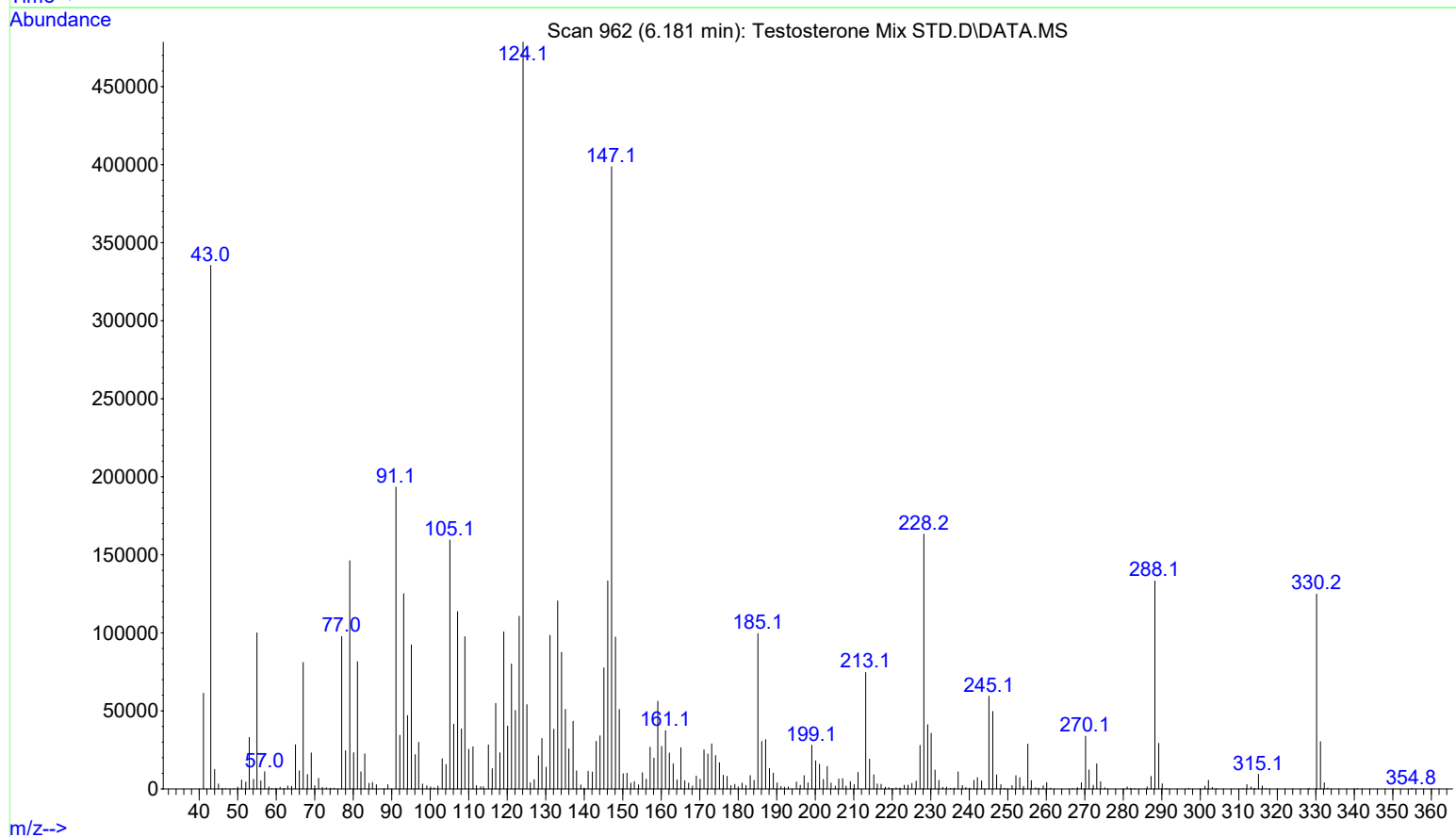
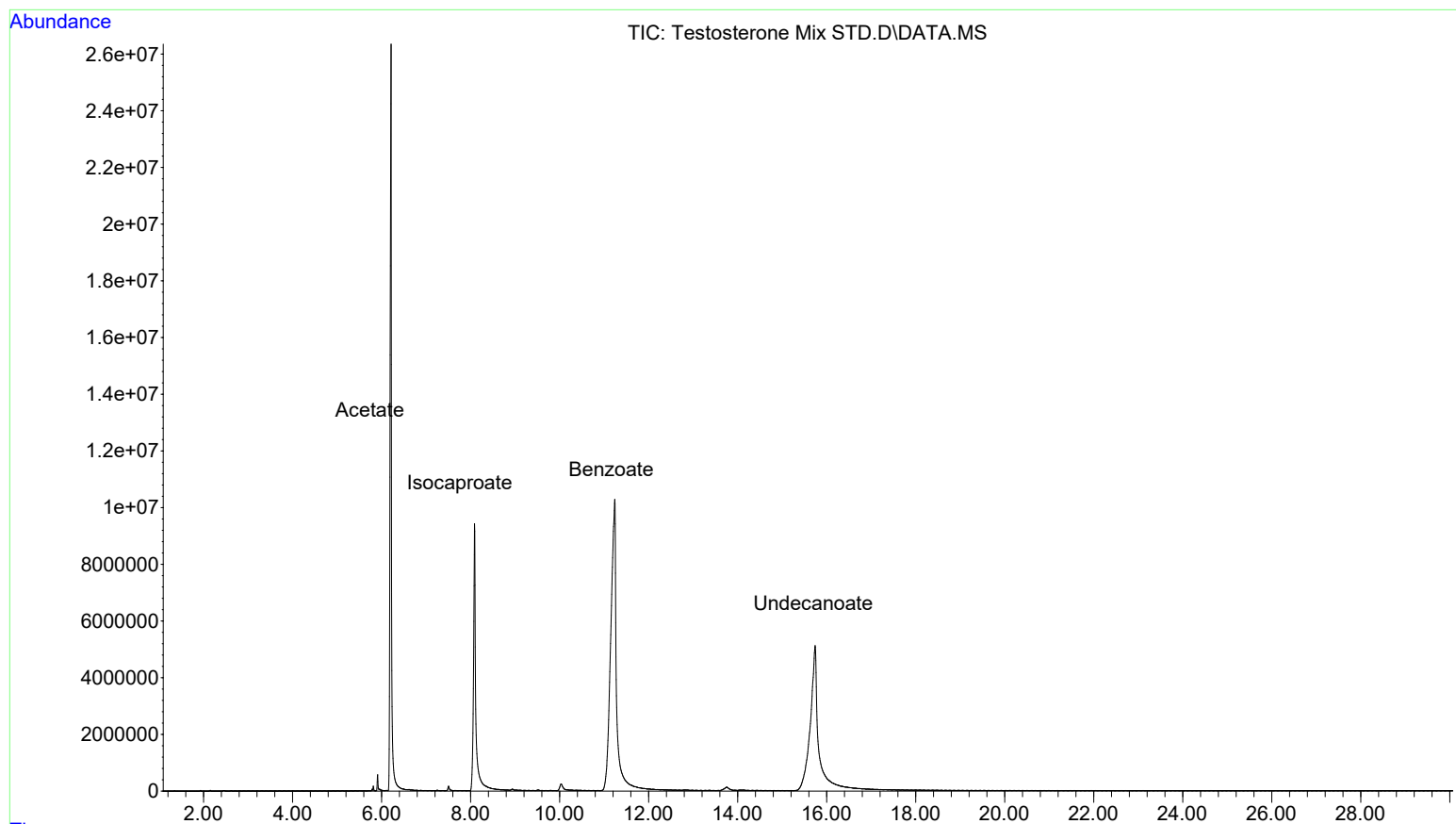
File :Y:\Instruments\GCMS\Peabody\KC\2023\June\6-20-23\Testosteron
... eMixSTD Blank.D
Operator : Kamryn Couvertier
Instrument : Peabody
Acquired : 20 Jun 2023 10:09 using AcqMethod ASMSDRUGSTI.M
Sample Name: Blank 6-16-23 Testosterone Mix STD
Misc Info : Methanol

69
BH 7-3-23



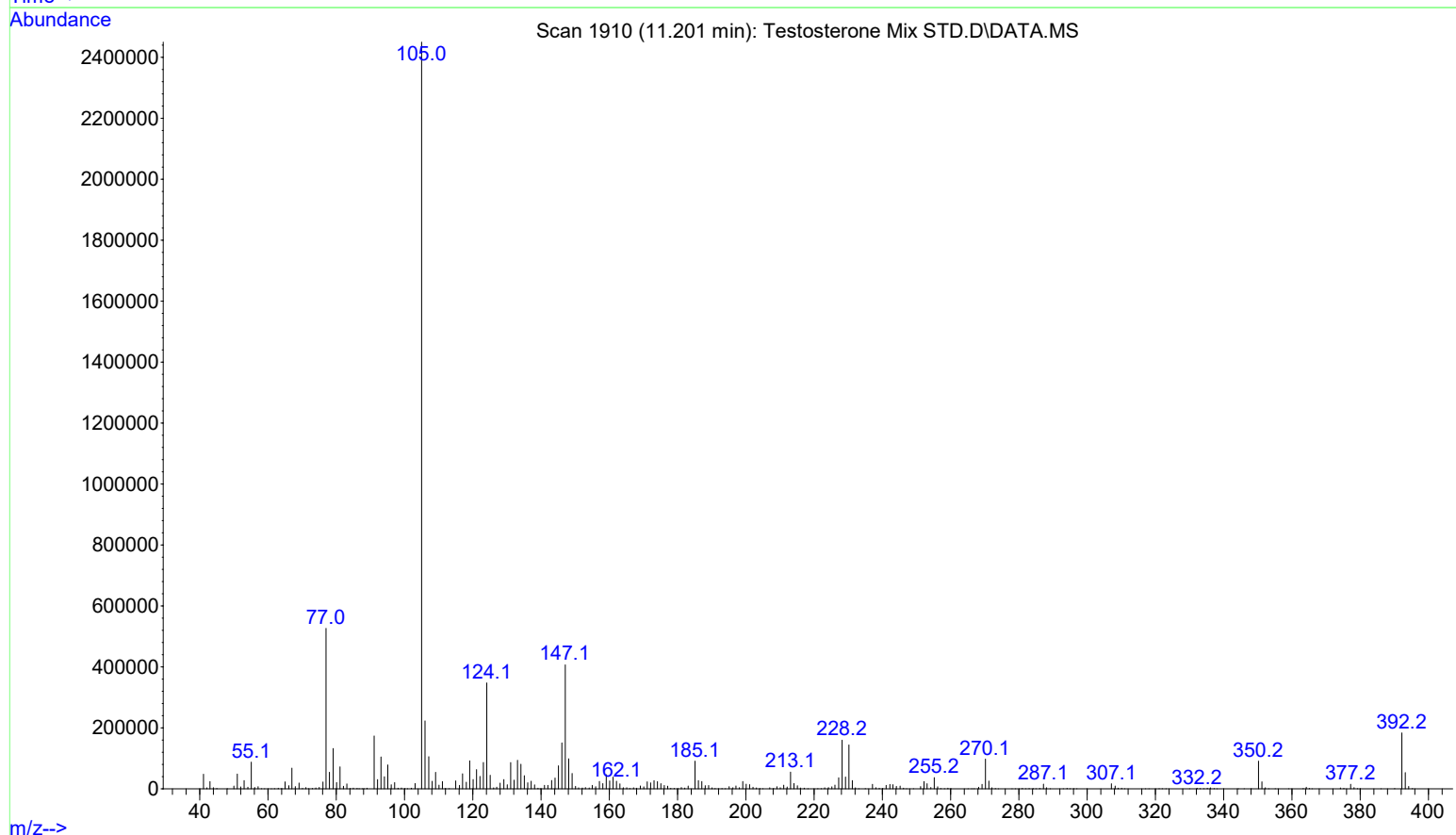
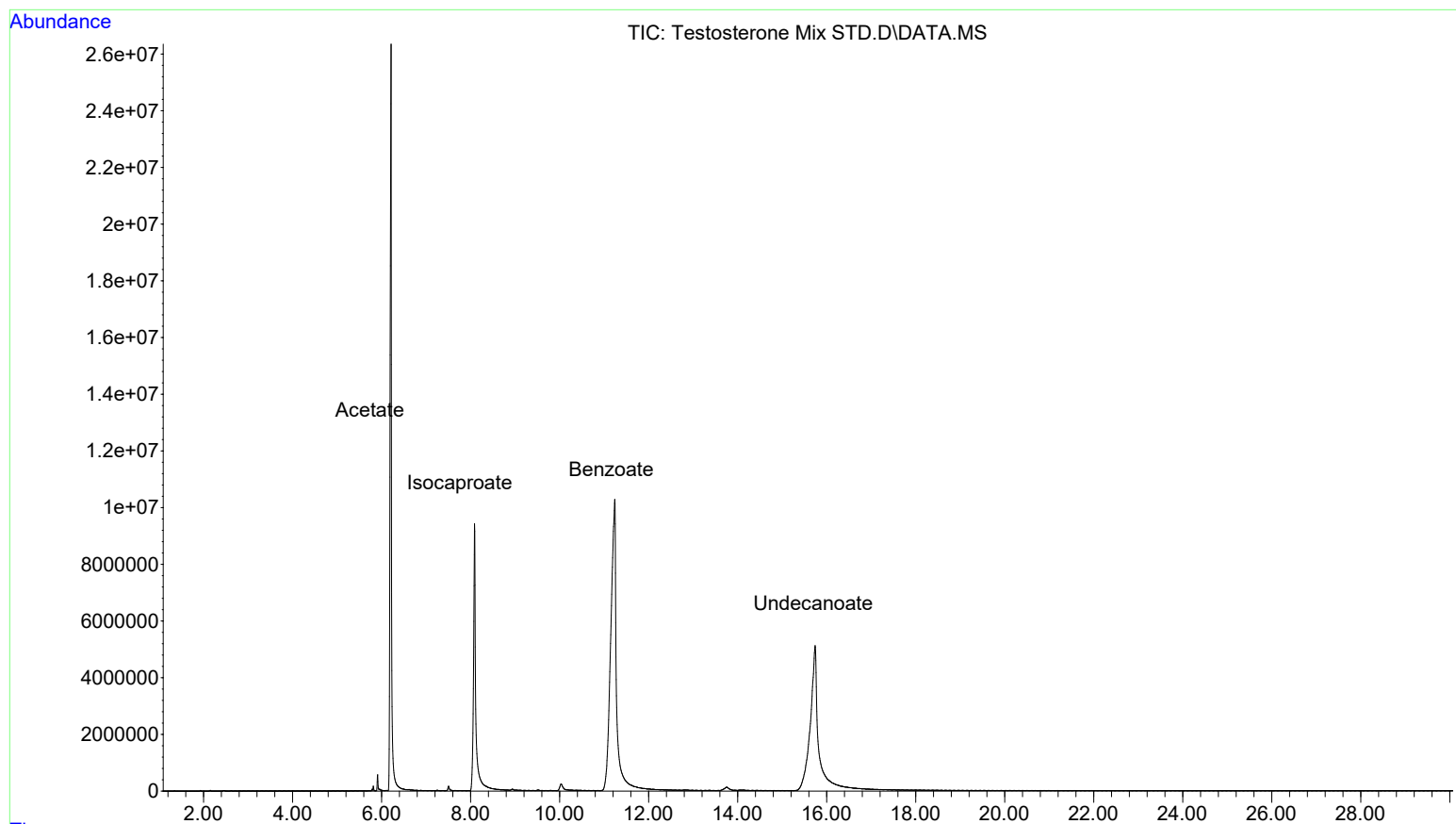
File :Y:\Instruments\GCMS\Peabody\KC\2023\June\6-20-23\Testosterone
... e Mix STD.D
Operator : Kamryn Couvertier
Instrument : Peabody
Acquired : 20 Jun 2023 10:50 using AcqMethod ASMSDRUGSTI.M
Sample Name: Testosterone Mix STD
Misc Info : Methanol Exp: 6-24-23 (See log sheet for lot numbers)

70
BH 7-3-23



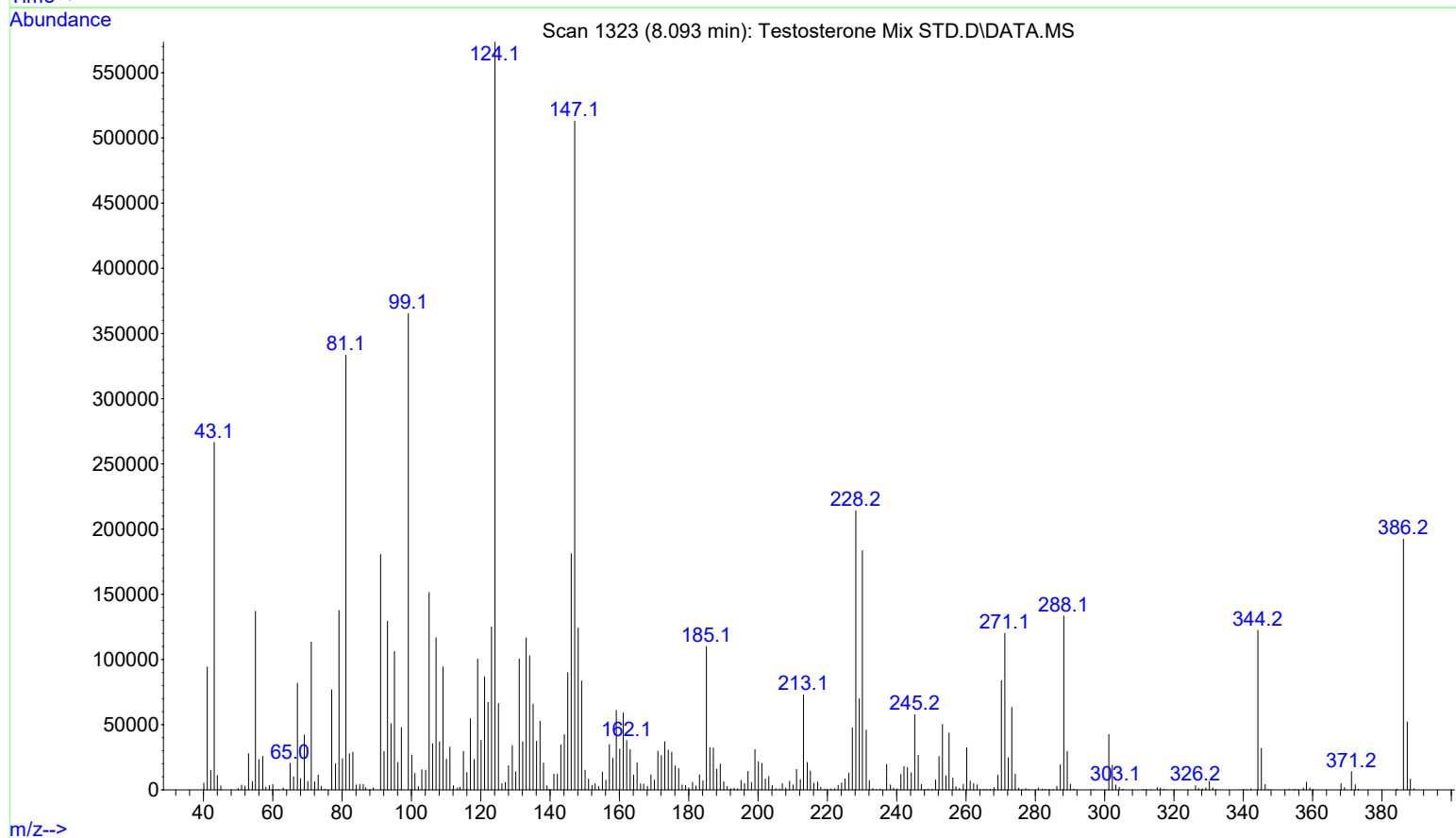
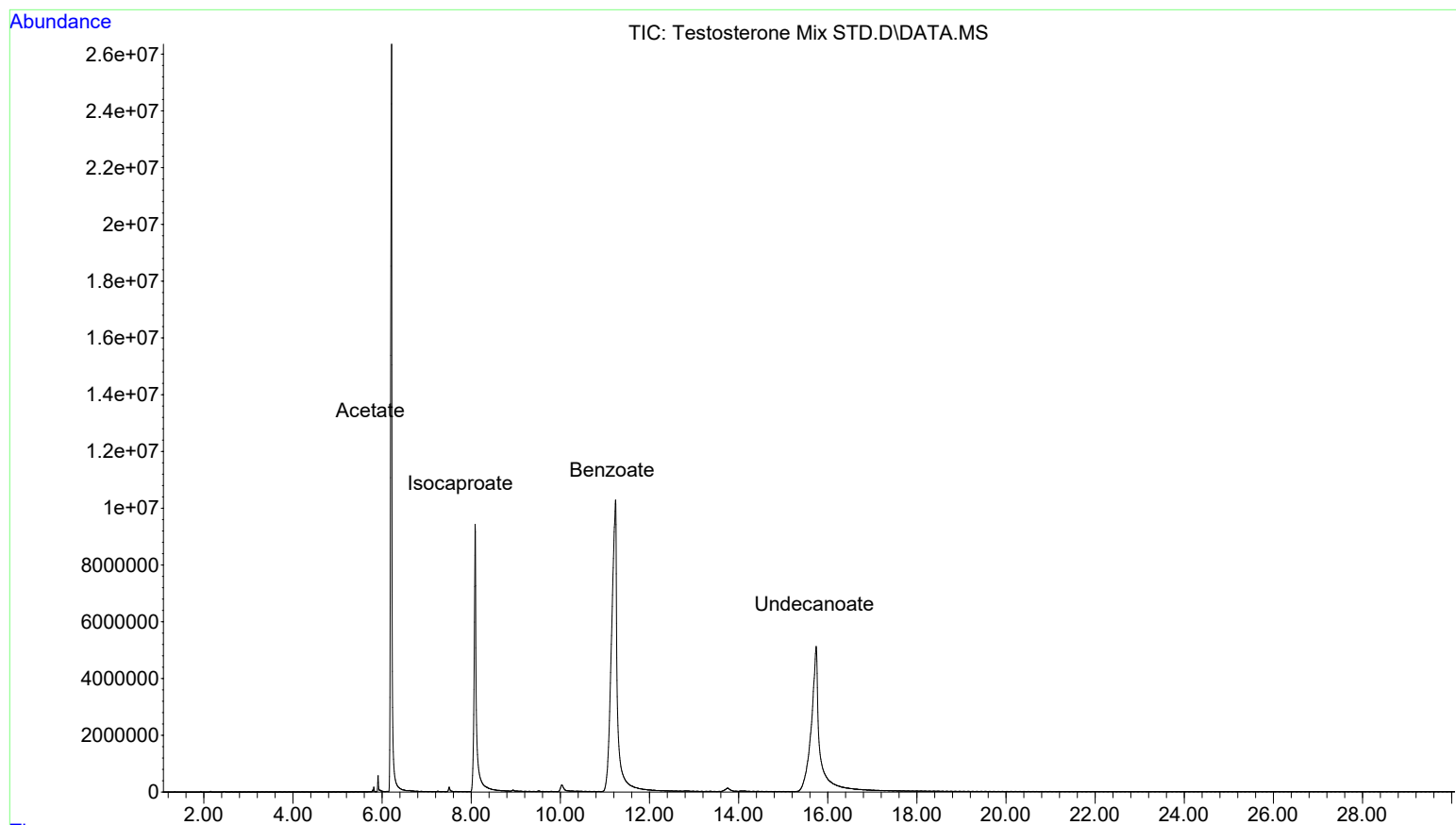
File :Y:\Instruments\GCMS\Peabody\KC\2023\June\6-20-23\Testosterone
... e Mix STD.D
Operator : Kamryn Couvertier
Instrument : Peabody
Acquired : 20 Jun 2023 10:50 using AcqMethod ASMSDRUGSTI.M
Sample Name: Testosterone Mix STD
Misc Info : Methanol Exp: 6-24-23 (See log sheet for lot numbers)

71
BH 7-3-23



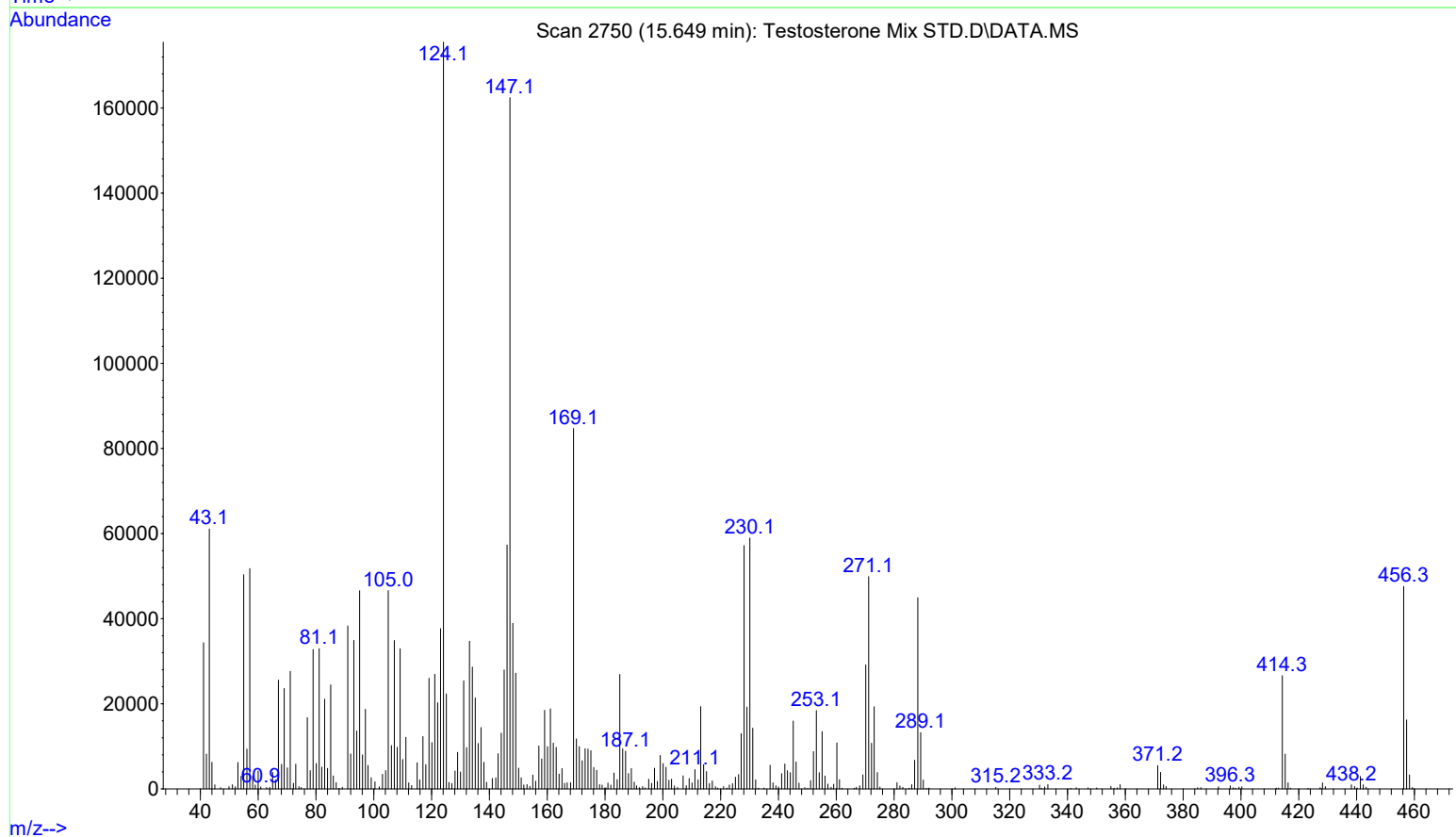
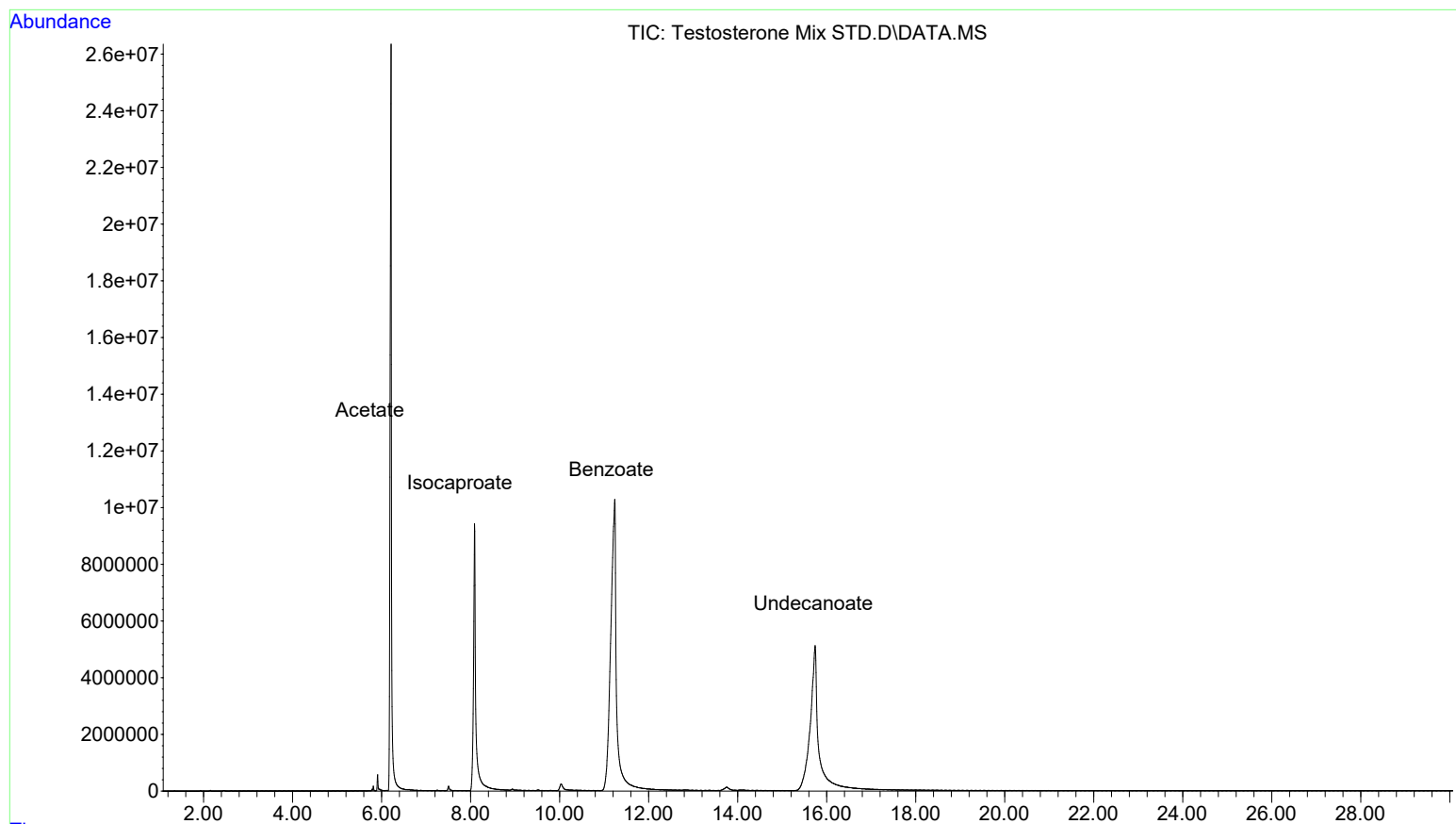
File :Y:\Instruments\GCMS\Peabody\KC\2023\June\6-20-23\Testosterone
... e Mix STD.D
Operator : Kamryn Couvertier
Instrument : Peabody
Acquired : 20 Jun 2023 10:50 using AcqMethod ASMSDRUGSTI.M
Sample Name: Testosterone Mix STD
Misc Info : Methanol Exp: 6-24-23 (See log sheet for lot numbers)

72
BH 7-3-23



File : Y:\Instruments\GCMS\Peabody\KC\2023\June\6-20-23\Testosterone
... e Mix STD.D
Operator : Kamryn Couvertier
Instrument : Peabody
Acquired : 20 Jun 2023 10:50 using AcqMethod ASMSDRUGSTI.M
Sample Name: Testosterone Mix STD
Misc Info : Methanol Exp: 6-24-23 (See log sheet for lot numbers)

73
BH 7-3-23



Method Information for: C:\MassHunter\GCMS\1\methods\ASGC100.M

Method Sections To Run:

() Save Copy of Method With Data
() Instrument Control Pre-Run Cmd/Macro =
() Data Analysis Pre-Run Cmd/Macro =
(X) Data Acquisition
(X) Data Analysis
() Instrument Control Post-Run Cmd/Macro =
() Data Analysis Post-Run Cmd/Macro =

Method Comments:

ASGC100

END OF METHOD CONTROL PARAMETERS

C:\MassHunter\GCMS\1\methods\ASGC100.M
Tue Jun 20 18:19:38 2023

Control Information

Sample Inlet : GC
Injection Source : GC ALS
Injection Location: Rear
Mass Spectrometer : Disabled

No Sample Prep method has been assigned to this method.

GC
GC Summary
Run Time 10.001 min
Post Run Time 0 min

Oven
Temperature
Setpoint On
(Initial) 100 °C
Hold Time 1 min
Post Run 100 °C
Program
#1 Rate 70 °C/min
#1 Value 280 °C
#1 Hold Time 6.43 min

Equilibration Time 1.5 min
Max Temperature 325 °C
Maximum Temperature Override Disabled
Slow Fan Disabled

ALS
Front Injector
Syringe Size 10 µL
Injection Volume 1 µL
Solvent A Washes (PreInj) 5
Solvent A Washes (PostInj) 0
Solvent A Volume 3 µL
Solvent B Washes (PreInj) 0
Solvent B Washes (PostInj) 5
Solvent B Volume 3 µL
Sample Washes 3
Sample Wash Volume 3 µL
Sample Pumps 6
Dwell Time (PreInj) 0 min
Dwell Time (PostInj) 0 min
Solvent Wash Draw Speed 300 µL/min
Solvent Wash Dispense Speed 6000 µL/min
Sample Wash Draw Speed 300 µL/min
Sample Wash Dispense Speed 6000 µL/min
Injection Dispense Speed 6000 µL/min
Viscosity Delay 0 sec
Sample Depth Disabled
Injection Type Standard
L1 Airgap 0.2 µL

Solvent Wash Mode

A, B

76
BH 7-3-23

Back Injector
Syringe Size 10 µL
Injection Volume 1 µL
Solvent A Washes (PreInj) 3
Solvent A Washes (PostInj) 3
Solvent A Volume 8 µL
Solvent B Washes (PreInj) 3
Solvent B Washes (PostInj) 3
Solvent B Volume 8 µL
Sample Washes 2
Sample Wash Volume 8 µL
Sample Pumps 4
Dwell Time (PreInj) 0 min
Dwell Time (PostInj) 0 min
Solvent Wash Draw Speed 300 µL/min
Solvent Wash Dispense Speed 3000 µL/min
Sample Wash Draw Speed 300 µL/min
Sample Wash Dispense Speed 3000 µL/min
Injection Dispense Speed 6000 µL/min
Viscosity Delay 0 sec
Sample Depth Disabled
Injection Type Standard
I1 Airgap 0.2 µL
Solvent Wash Mode A, B

Sample Overlap
Mode Sample overlap is not enabled

ALS Errors Pause for user interaction

Front SS Inlet He
Excluded from Readiness Mode ***Excluded from Affecting GC's Readiness State***
Split
Heater On 250 °C
Pressure On 12.023 psi
Total Flow On 91.916 mL/min
Septum Purge Flow On 3 mL/min
Gas Saver On 30 After 3 min mL/min
Split Ratio 80 :1
Split Flow 87.818 mL/min
Liner A Liner has not been selected.

Back SS Inlet He
Mode Split
Heater On 250 °C
Pressure On 10 psi
Total Flow On 256.16 mL/min
Septum Purge Flow On 3 mL/min
Gas Saver Off
Split Ratio 75 :1
Split Flow 249.83 mL/min
Liner A Liner has not been selected.

Thermal Aux 2 (MSD Transfer Line)
Temperature
Setpoint On
(Initial) 280 °C

Column
Column #1
Flow

Setpoint	On	
(Initial)	1.0977 mL/min	
Post Run	1.5 mL/min	77 BH 7-3-23

Column Information	Agilent 19091A-102
Ultra 1 Methyl Siloxane	
Temperature Range	-60 °C-325 °C (325 °C)
Dimensions	12.5 m x 200 µm x 0.33 µm
In	Front SS Inlet He
Out	MSD
(Initial)	100 °C
Pressure	12.023 psi
Flow	1.0977 mL/min
Average Velocity	60.532 cm/sec
Holdup Time	0.34417 min
Control Mode	Constant Flow

Column #2	
Pressure	On
Setpoint	10 psi
(Initial)	10 psi
Post Run	10 psi

Column Information	Agilent 19091S-913: 2
HP-1ms	
Temperature Range	-60 °C-325 °C (350 °C)
Dimensions	15 m x 320 µm x 0.25 µm (Calibrated)
Column lock	Unlocked
In	Back SS Inlet He
Out	Back Detector FID
(Initial)	100 °C
Pressure	10 psi
Flow	3.3311 mL/min
Average Velocity	63.306 cm/sec
Holdup Time	0.39491 min
Control Mode	Constant Pressure

Column Outlet Pressure	0 psi
------------------------	-------

Back Detector FID	
Makeup	N2
Column Compensation	Signal is modified by Column Compensation Curve #2
Heater	On 300 °C
H2 Flow	On 40 mL/min
Air Flow	On 400 mL/min
Makeup Flow	On 25 mL/min
Carrier Gas Flow Correction	Constant Makeup and Fuel Flow
Flame	On

Aux EPC 1,2,3	
Aux EPC 1 N2	
Pressure	
Setpoint	Off
(Initial)	10 psi
Post Run	0 psi

Excluded from Readiness	***Excluded from Affecting GC's Readiness State***
-------------------------	--

Aux EPC 2 N2	
Pressure	
Setpoint	Off
(Initial)	10 psi
Post Run	0 psi

Excluded from Readiness ***Excluded from Affecting GC's Readiness State***
78
BH 7-3-23
Aux EPC 3 N2
Pressure
Setpoint Off
(Initial) 10 psi
Post Run 0 psi
Excluded from Readiness ***Excluded from Affecting GC's Readiness State***

Signals
Signal #1: Back Signal
Description Back Signal
Details Back Signal (FID)
Save On
Data Rate 50 Hz
Dual Injection Assignment Front Sample
Signal #2:
Description None
Signal #3:
Description None
Signal #4:
Description None

TUNE PARAMETERS for SN: US1646M032

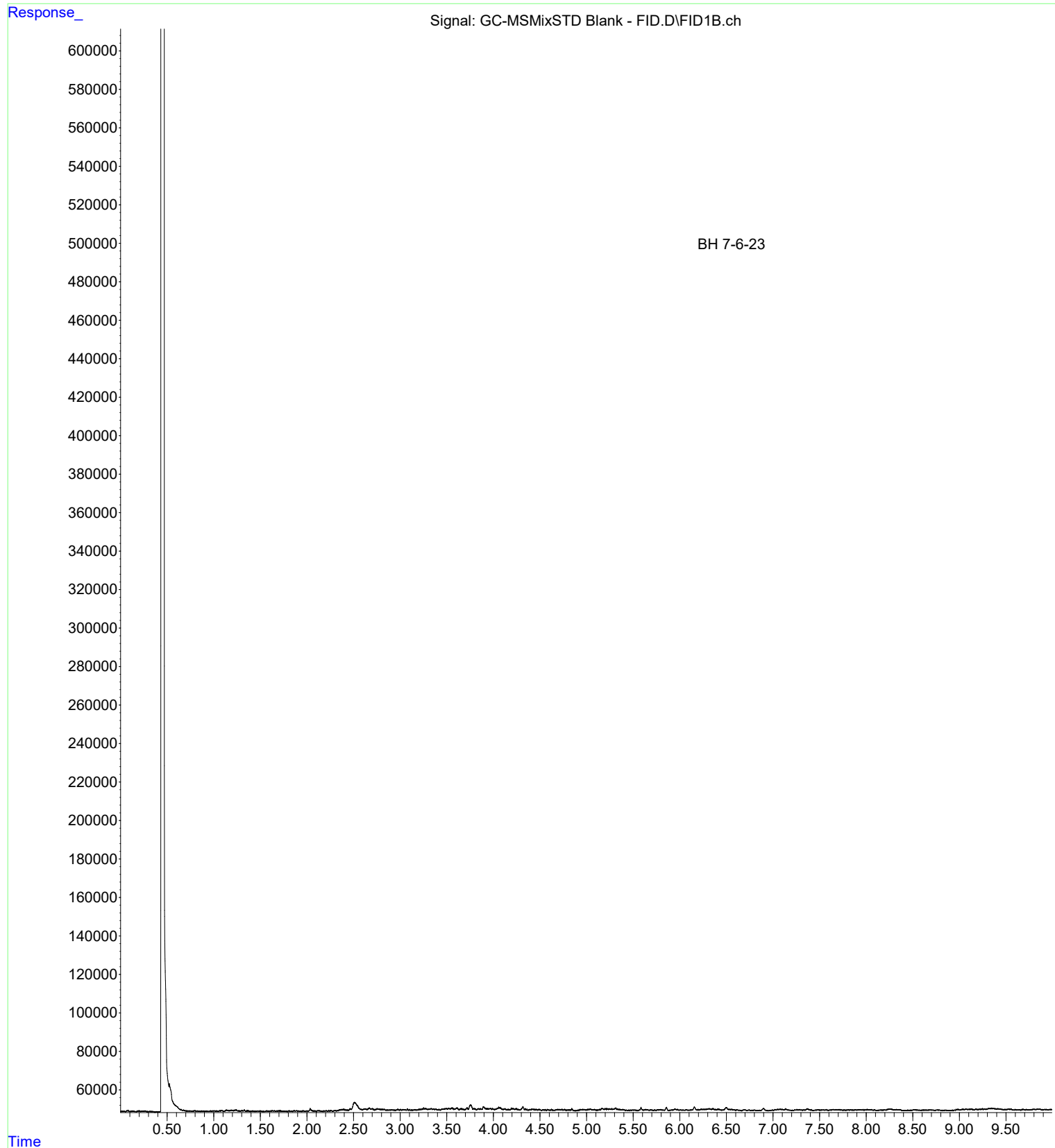
Trace Ion Detection is OFF.

34.593	:	EMISSION	
70.007	:	ENERGY	
29.919	:	REPELLER	
90.331	:	IONFOCUS	
20.181	:	ENTRANCE_LENS	
1289.141	:	EMVOLTS	
		1200	: Actual EMV
		0.47	: GAIN FACTOR
2390.000	:	AMUGAIN	
127.313	:	AMUOFFSET	
1.000	:	FILAMENT	
0.000	:	DCPOLARITY	
12.194	:	ENTLENSOFFSET	
0.000	:	Ion_Body	
0.000	:	EXTLENS	
145.000	:	MASSGAIN	
-27.000	:	MASSOFFSET	

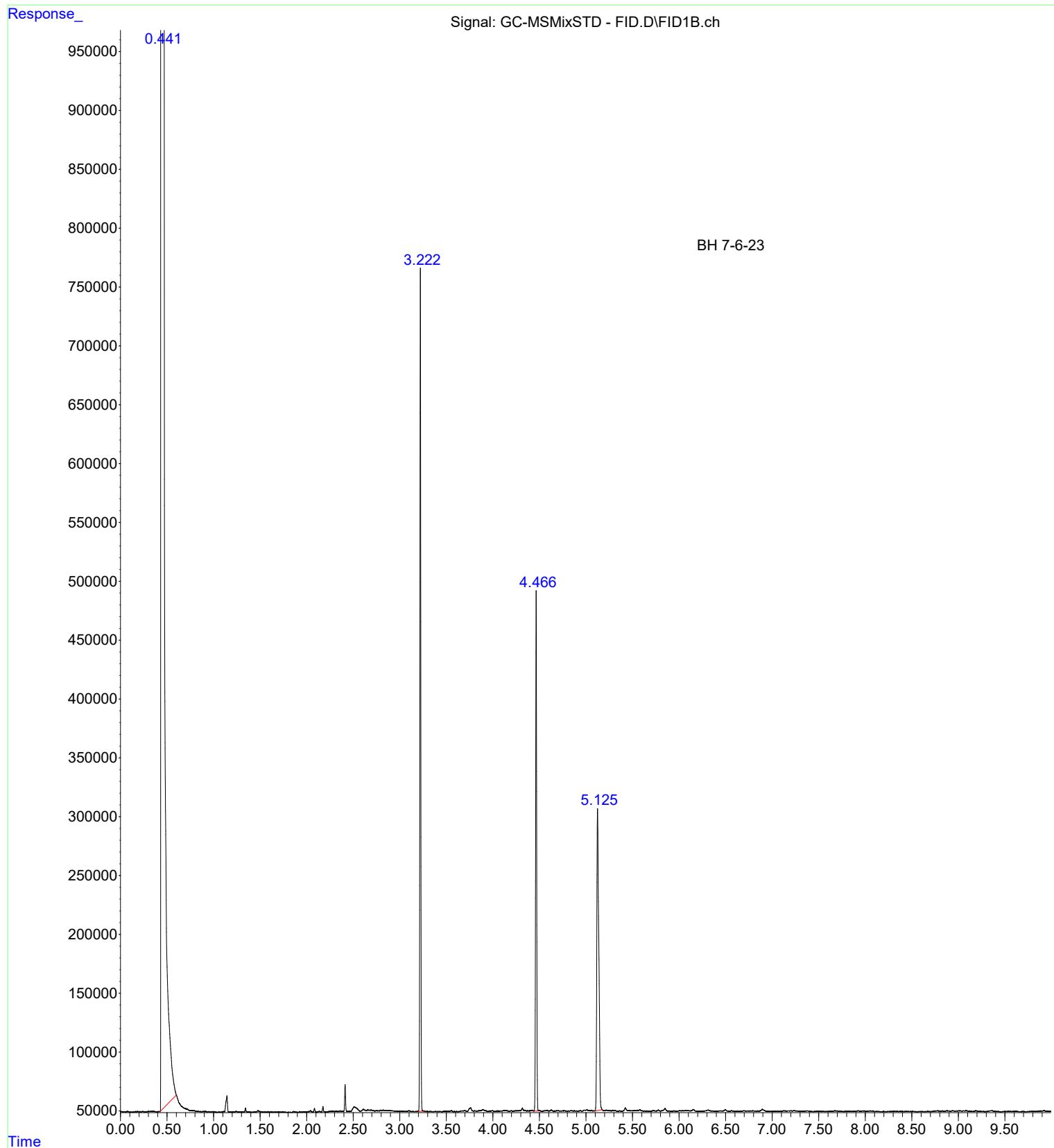
END OF TUNE PARAMETERS

END OF INSTRUMENT CONTROL PARAMETERS

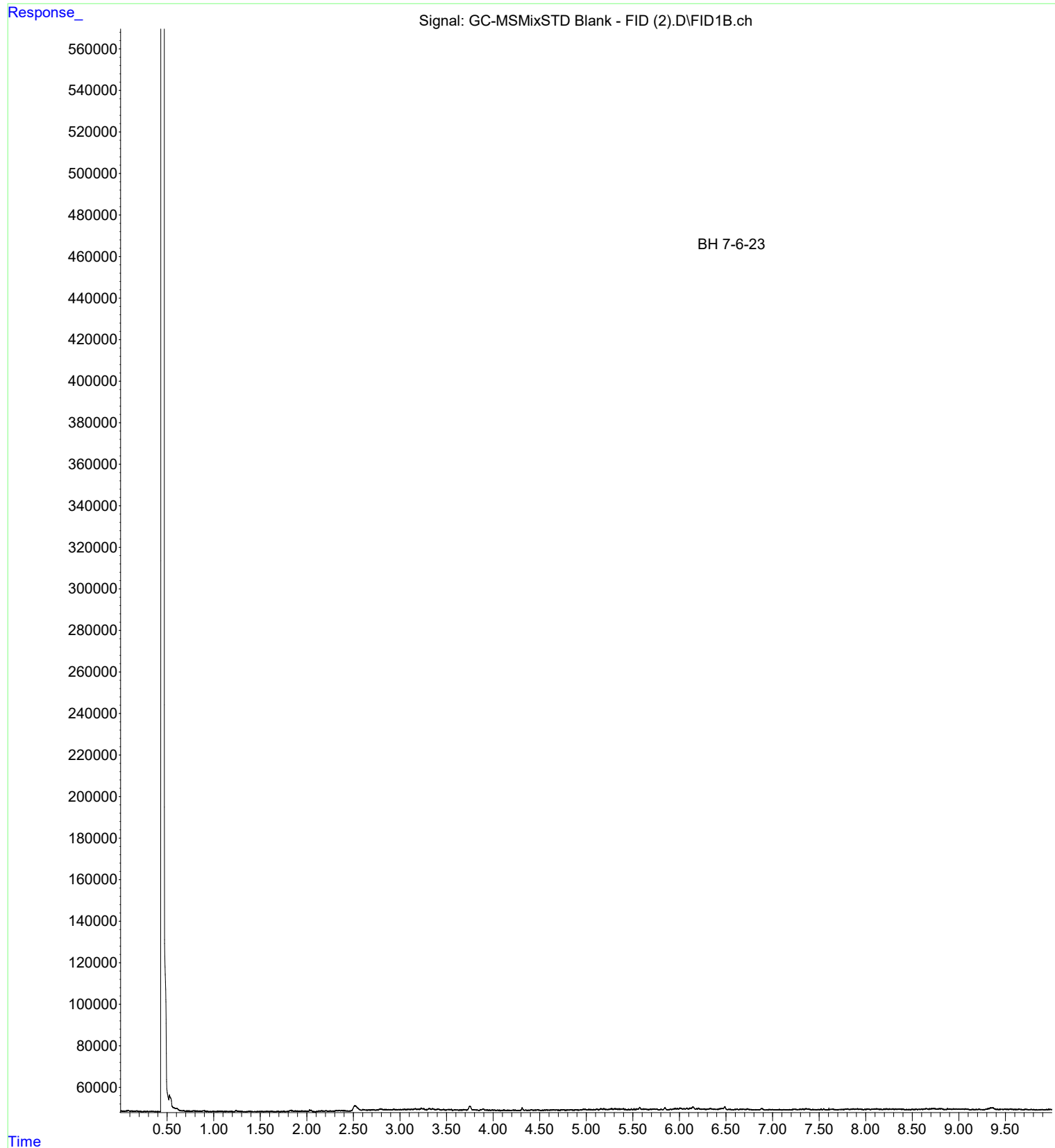
File : C:\MassHunter\GCMS\1\data\Kamryn\6-26-23\GC-MSMixSTD Blank -
... FID.D
Operator : Kamryn Couvertier
Instrument : Peabody
Acquired : 26 Jun 2023 09:11 using AcqMethod ASGC100.M
Sample Name: Blank 6-26-23 GC-MS Mix STD
Misc Info : Methanol



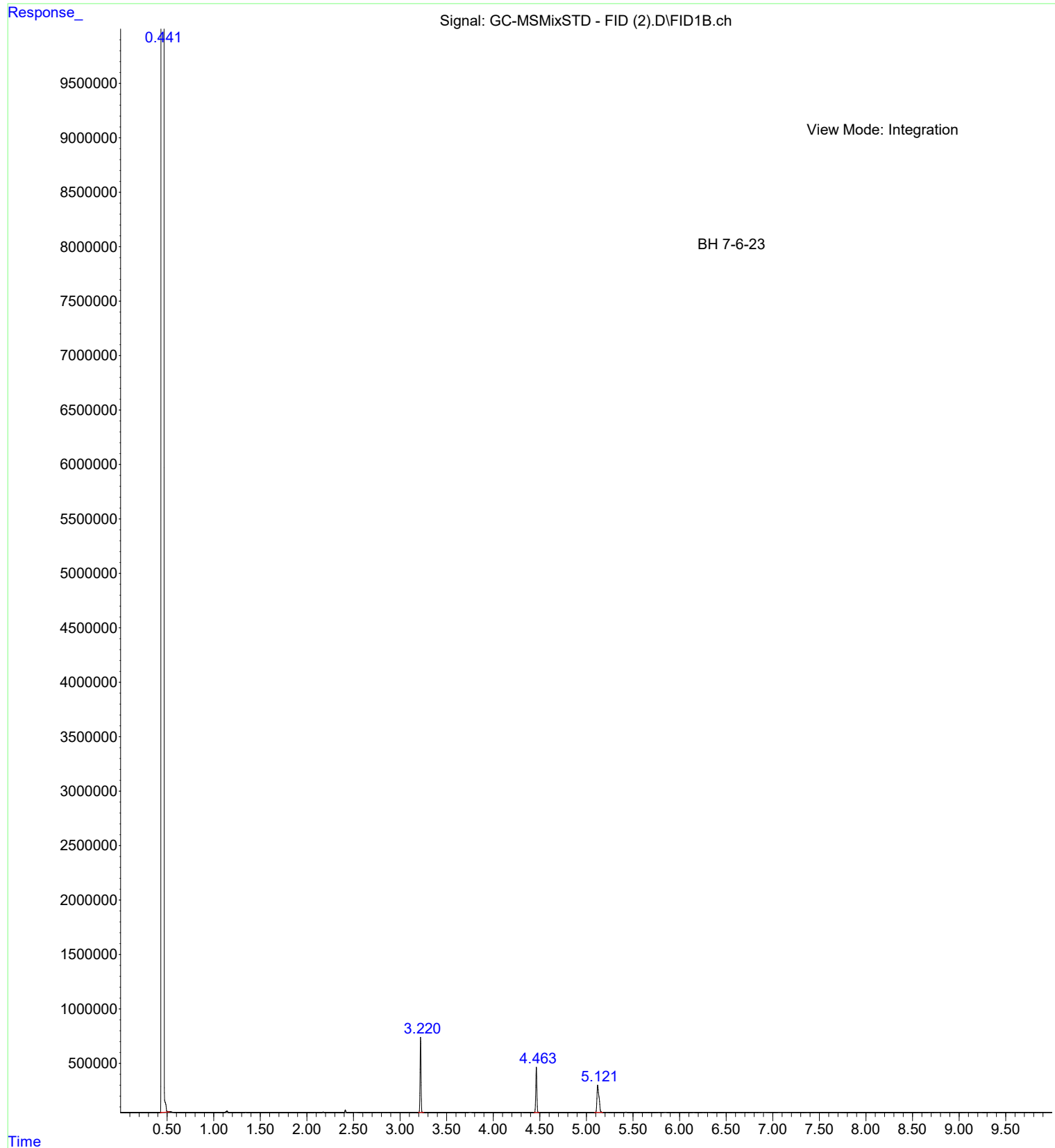
File : C:\MassHunter\GCMS\1\data\Kamryn\6-26-23\GC-MSMixSTD - FID.D
Operator : Kamryn Couvertier
Acquired : 26 Jun 2023 09:26 using AcqMethod ASGC100.M
Instrument : Peabody
Sample Name: GC-MS Mix STD
Misc Info : Methanol (See log book for lot numbers) Exp:06-16-24
Vial Number: 3



File : C:\MassHunter\GCMS\1\data\Kamryn\6-26-23\GC-MSMixSTD Blank -
... FID (2).D
Operator : Kamryn Couvertier
Instrument : Peabody
Acquired : 26 Jun 2023 09:57 using AcqMethod ASGC100.M
Sample Name: Blank 6-26-23 GC-MS Mix STD (2)
Misc Info : Methanol

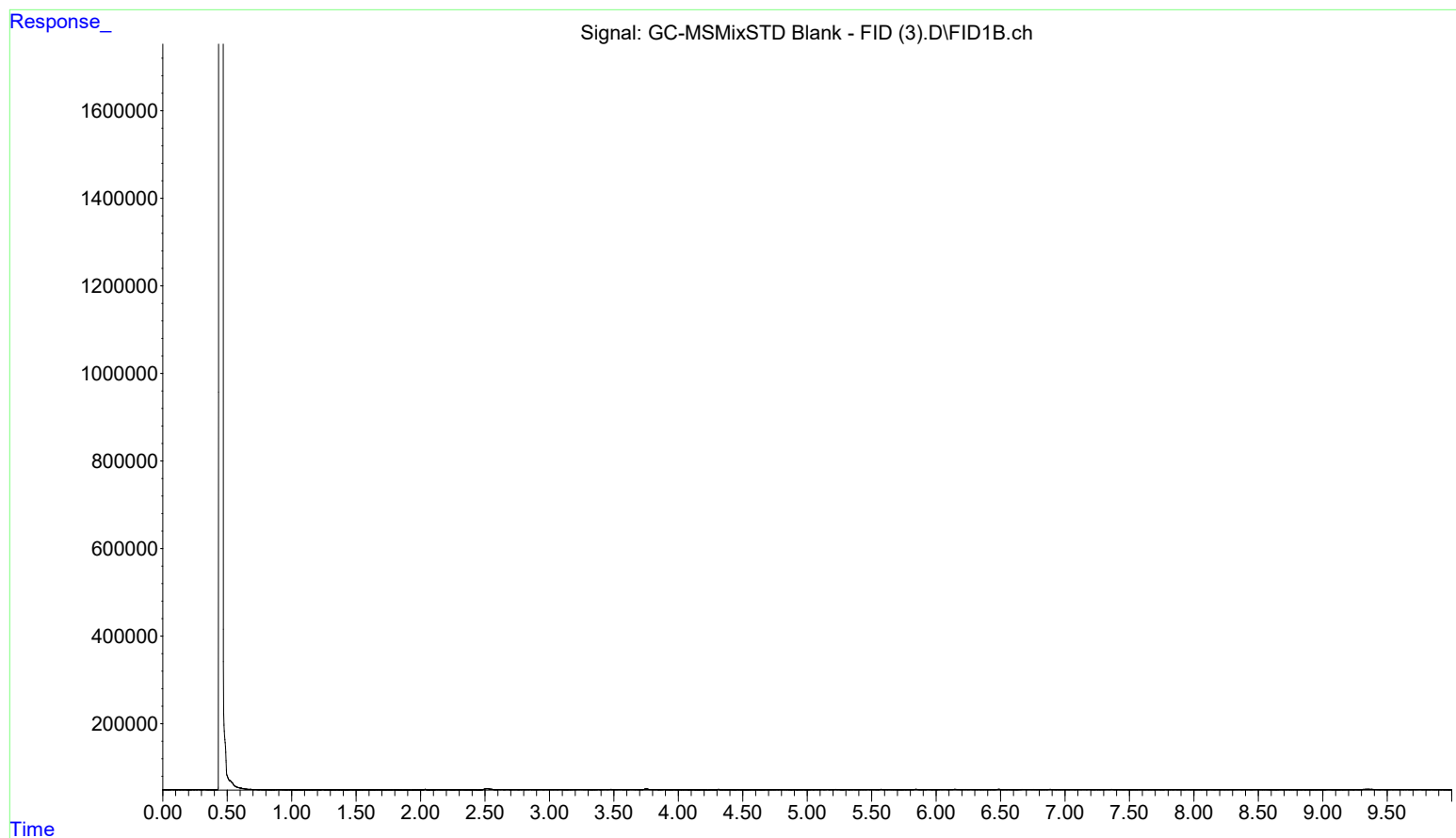


File : C:\MassHunter\GCMS\1\data\Kamryn\6-26-23\GC-MSMixSTD - FID (2).D
Operator : Kamryn Couvertier
Instrument : Peabody
Acquired : 26 Jun 2023 10:12 using AcqMethod ASGC100.M
Sample Name: GC-MS Mix STD (2)
Misc Info : Methanol (See log book for lot numbers) Exp:06-16-24



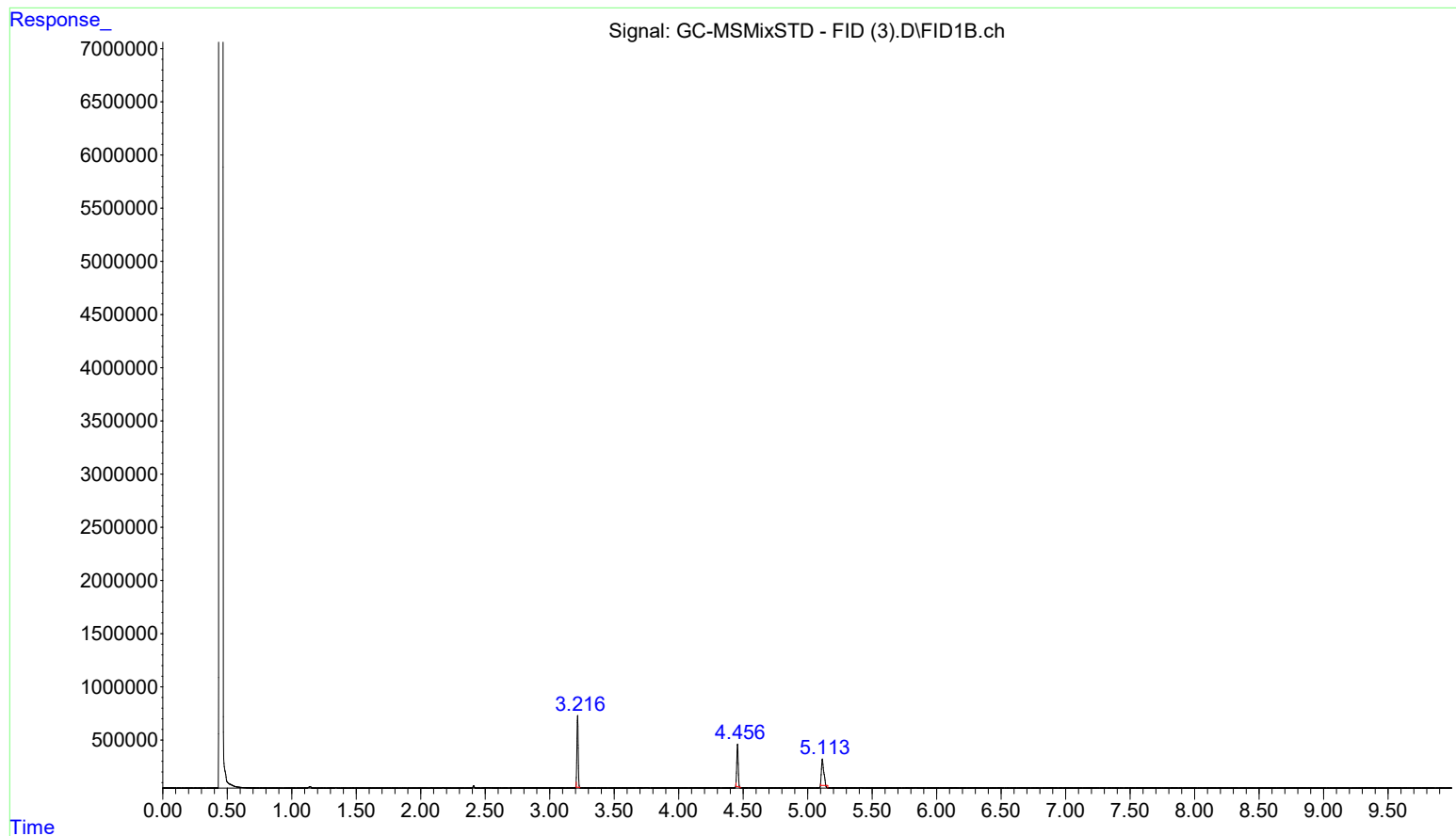
File :C:\MassHunter\GCMS\1\data\Kamryn\6-26-23\GC-MSMixSTD Blank -
... FID (3).D
Operator : Kamryn Couvertier
Instrument : Peabody
Acquired : 26 Jun 2023 10:43 using AcqMethod ASGC100.M
Sample Name: Blank 6-26-23 GC-MS Mix STD (3)
Misc Info : Methanol

83
BH 7-3-23



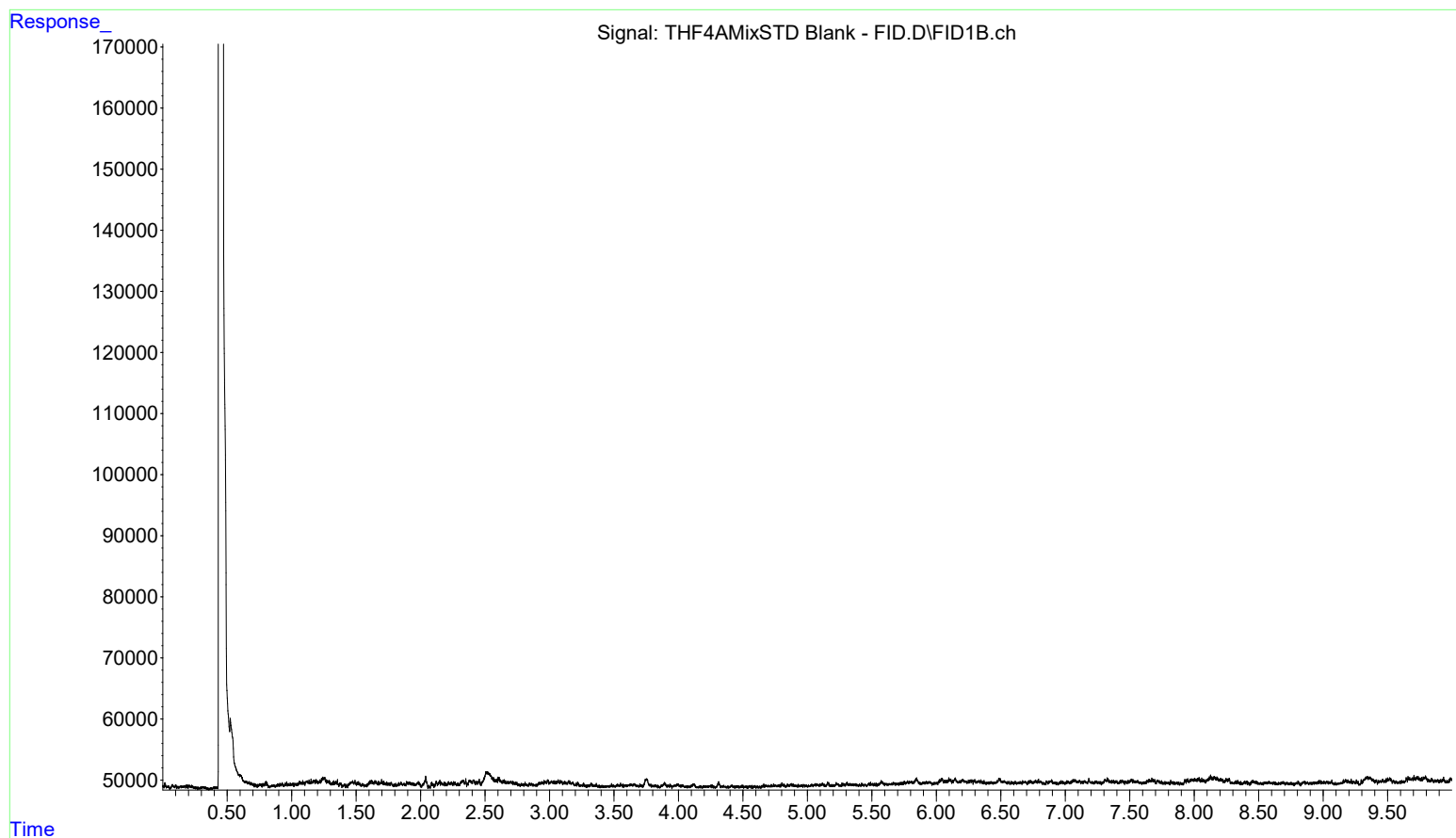
File :C:\MassHunter\GCMS\1\data\Kamryn\6-26-23\GC-MSMixSTD - FID (3).D
Operator : Kamryn Couvertier
Instrument : Peabody
Acquired : 26 Jun 2023 10:58 using AcqMethod ASGC100.M
Sample Name: GC-MS Mix STD (3)
Misc Info : Methanol (See log book for lot numbers) Exp:06-16-24

84
BH 7-3-23



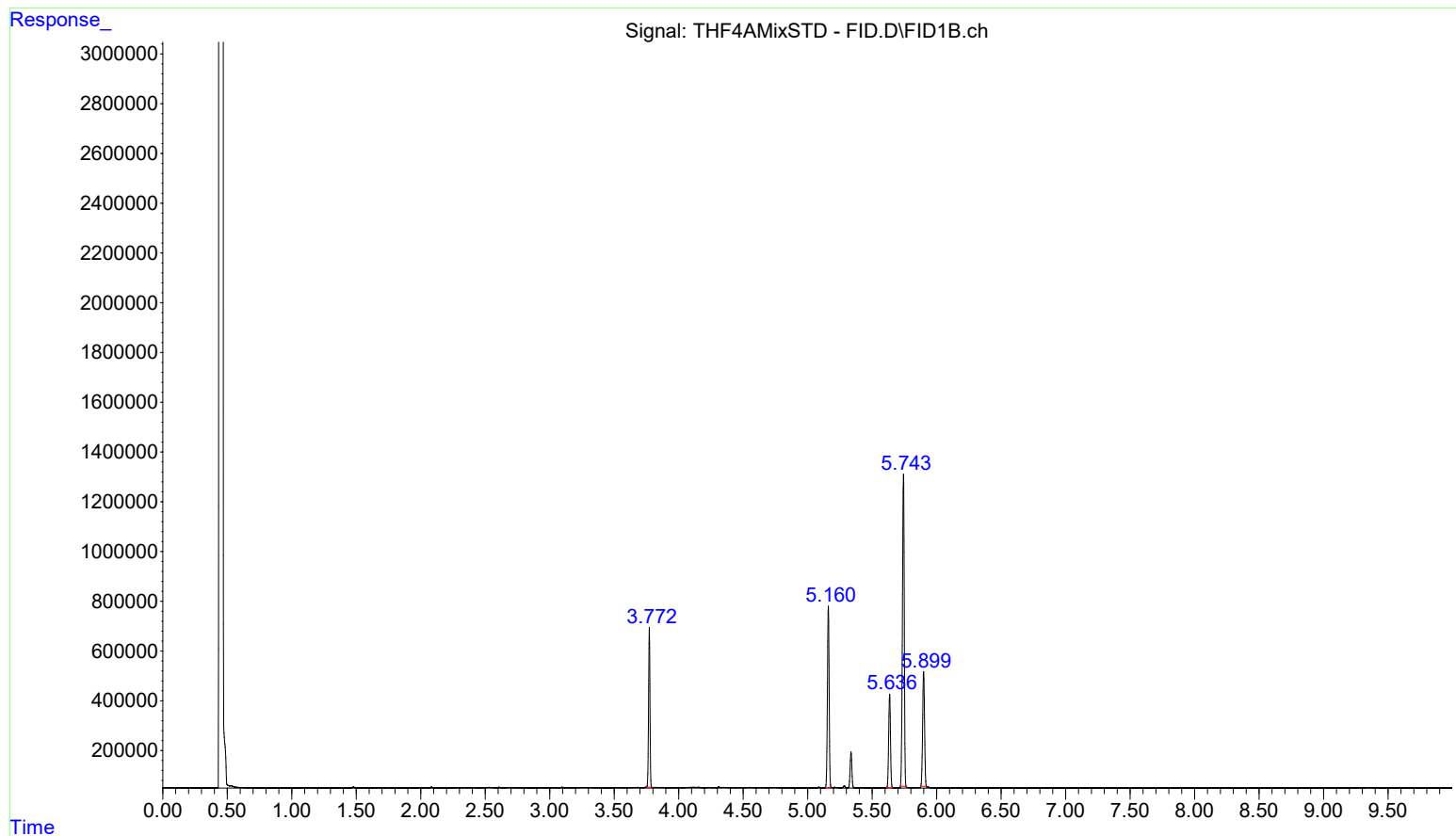
File :C:\MassHunter\GCMS\1\data\Kamryn\6-26-23\THF4AMixSTD Blank -
... FID.D
Operator : Kamryn Couvertier
Instrument : Peabody
Acquired : 26 Jun 2023 11:28 using AcqMethod ASGC100.M
Sample Name: Blank 6-26-23 THF4A Mix STD
Misc Info : Methanol

85
BH 7-3-23



File :C:\MassHunter\GCMS\1\data\Kamryn\6-26-23\THF4AMixSTD - FID.D
Operator : Kamryn Couvertier
Acquired : 26 Jun 2023 11:44 using AcqMethod ASGC100.M
Instrument : Peabody
Sample Name: THF4A Mix STD
Misc Info : Methanol (See log book for lot numbers) Exp:06-16-24
Vial Number: 5

86
BH 7-3-23



Method Information for: C:\MassHunter\GCMS\1\methods\ASGC200.M

Method Sections To Run:

() Save Copy of Method With Data
() Instrument Control Pre-Run Cmd/Macro =
() Data Analysis Pre-Run Cmd/Macro =
(X) Data Acquisition
(X) Data Analysis
() Instrument Control Post-Run Cmd/Macro =
() Data Analysis Post-Run Cmd/Macro =

Method Comments:
ASGC200

END OF METHOD CONTROL PARAMETERS

C:\MassHunter\GCMS\1\methods\ASGC200.M
Tue Jun 20 19:40:55 2023

Control Information

Sample Inlet : GC
Injection Source : GC ALS
Injection Location: Rear
Mass Spectrometer : Disabled

No Sample Prep method has been assigned to this method.

GC
GC Summary
Run Time 10.003 min
Post Run Time 0 min

Oven
Temperature
Setpoint On
(Initial) 200 °C
Hold Time 1 min
Post Run 100 °C
Program
#1 Rate 70 °C/min
#1 Value 280 °C
#1 Hold Time 7.86 min

Equilibration Time 1.5 min
Max Temperature 325 °C
Maximum Temperature Override Disabled
Slow Fan Disabled

ALS
Front Injector
Syringe Size 10 µL
Injection Volume 1 µL
Solvent A Washes (PreInj) 5
Solvent A Washes (PostInj) 0
Solvent A Volume 3 µL
Solvent B Washes (PreInj) 0
Solvent B Washes (PostInj) 5
Solvent B Volume 3 µL
Sample Washes 3
Sample Wash Volume 3 µL
Sample Pumps 6
Dwell Time (PreInj) 0 min
Dwell Time (PostInj) 0 min
Solvent Wash Draw Speed 300 µL/min
Solvent Wash Dispense Speed 6000 µL/min
Sample Wash Draw Speed 300 µL/min
Sample Wash Dispense Speed 6000 µL/min
Injection Dispense Speed 6000 µL/min
Viscosity Delay 0 sec
Sample Depth Disabled
Injection Type Standard
L1 Airgap 0.2 µL

Solvent Wash Mode

A, B

89
BH 7-3-23

Back Injector

Syringe Size

10 µL

Injection Volume

1 µL

Solvent A Washes (PreInj)

3

Solvent A Washes (PostInj)

3

Solvent A Volume

8 µL

Solvent B Washes (PreInj)

3

Solvent B Washes (PostInj)

3

Solvent B Volume

8 µL

Sample Washes

2

Sample Wash Volume

8 µL

Sample Pumps

4

Dwell Time (PreInj)

0 min

Dwell Time (PostInj)

0 min

Solvent Wash Draw Speed

300 µL/min

Solvent Wash Dispense Speed

3000 µL/min

Sample Wash Draw Speed

300 µL/min

Sample Wash Dispense Speed

3000 µL/min

Injection Dispense Speed

6000 µL/min

Viscosity Delay

0 sec

Sample Depth

Disabled

Injection Type

Standard

L1 Airgap

0.2 µL

Solvent Wash Mode

A, B

Sample Overlap

Mode

Sample overlap is not enabled

ALS Errors

Pause for user interaction

Front SS Inlet He

Excluded from Readiness

Mode

Excluded from Affecting GC's Readiness State

Heater

Split

On 250 °C

Pressure

On 16 psi

Total Flow

On 81.754 mL/min

Septum Purge Flow

On 3 mL/min

Gas Saver

On 30 After 3 min mL/min

Split Ratio

80 :1

Split Flow

77.781 mL/min

Liner

A Liner has not been selected.

Back SS Inlet He

Mode

Split

Heater

On 250 °C

Pressure

On 10 psi

Total Flow

On 172.89 mL/min

Septum Purge Flow

On 3 mL/min

Gas Saver

Off

Split Ratio

75 :1

Split Flow

167.65 mL/min

Liner

A Liner has not been selected.

Thermal Aux 2 (MSD Transfer Line)

Temperature

Setpoint

On

(Initial)

280 °C

Column

Column #1

Flow

Setpoint	On	
(Initial)	0.97227 mL/min	
Post Run	1.5 mL/min	90 BH 7-3-23

Column Information	Agilent 19091A-102
Ultra 1 Methyl Siloxane	
Temperature Range	-60 °C-325 °C (325 °C)
Dimensions	12.5 m x 200 µm x 0.33 µm
In	Front SS Inlet He
Out	MSD
(Initial)	200 °C
Pressure	16 psi
Flow	0.97227 mL/min
Average Velocity	59.173 cm/sec
Holdup Time	0.35207 min
Control Mode	Constant Flow

Column #2	
Pressure	
Setpoint	On
(Initial)	10 psi
Post Run	10 psi

Column Information	Agilent 19091S-913: 2
HP-1ms	
Temperature Range	-60 °C-325 °C (350 °C)
Dimensions	15 m x 320 µm x 0.25 µm (Calibrated)
Column lock	Unlocked
In	Back SS Inlet He
Out	Back Detector FID
(Initial)	200 °C
Pressure	10 psi
Flow	2.2354 mL/min
Average Velocity	53.867 cm/sec
Holdup Time	0.4641 min
Control Mode	Constant Pressure

Column Outlet Pressure	0 psi
------------------------	-------

Back Detector FID	
Makeup	N2
Column Compensation	Signal is modified by Column Compensation Curve #2
Heater	On 300 °C
H2 Flow	On 40 mL/min
Air Flow	On 400 mL/min
Makeup Flow	On 25 mL/min
Carrier Gas Flow Correction	Constant Makeup and Fuel Flow
Flame	On

Aux EPC 1,2,3	
Aux EPC 1 N2	
Pressure	
Setpoint	Off
(Initial)	10 psi
Post Run	0 psi

Excluded from Readiness	***Excluded from Affecting GC's Readiness State***
-------------------------	--

Aux EPC 2 N2	
Pressure	
Setpoint	Off
(Initial)	10 psi
Post Run	0 psi

Excluded from Readiness ***Excluded from Affecting GC's Readiness State***
91
BH 7-3-23
Aux EPC 3 N2
Pressure
Setpoint Off
(Initial) 10 psi
Post Run 0 psi
Excluded from Readiness ***Excluded from Affecting GC's Readiness State***

Signals
Signal #1: Test Plot
Description Test Plot
Save Off
Data Rate 50 Hz
Dual Injection Assignment Front Sample
Signal #2: Back Signal
Description Back Signal
Details Back Signal (FID)
Save On
Data Rate 50 Hz
Dual Injection Assignment Back Sample
Signal #3: Test Plot
Description Test Plot
Save Off
Data Rate 50 Hz
Dual Injection Assignment Back Sample
Signal #4: Test Plot
Description Test Plot
Save Off
Data Rate 50 Hz
Dual Injection Assignment Back Sample

TUNE PARAMETERS for SN: US1646M032

Trace Ion Detection is OFF.

34.593 : EMISSION
70.007 : ENERGY
29.919 : REPELLER
90.331 : IONFOCUS
20.181 : ENTRANCE_LENS
1289.141 : EMVOLTS

1200 : Actual EMV
0.47 : GAIN FACTOR

2390.000 : AMUGAIN
127.313 : AMUOFFSET
1.000 : FILAMENT
0.000 : DCPOLARITY
12.194 : ENTLENSOFFSET
0.000 : Ion_Body
0.000 : EXTLENS
145.000 : MASSGAIN
-27.000 : MASSOFFSET

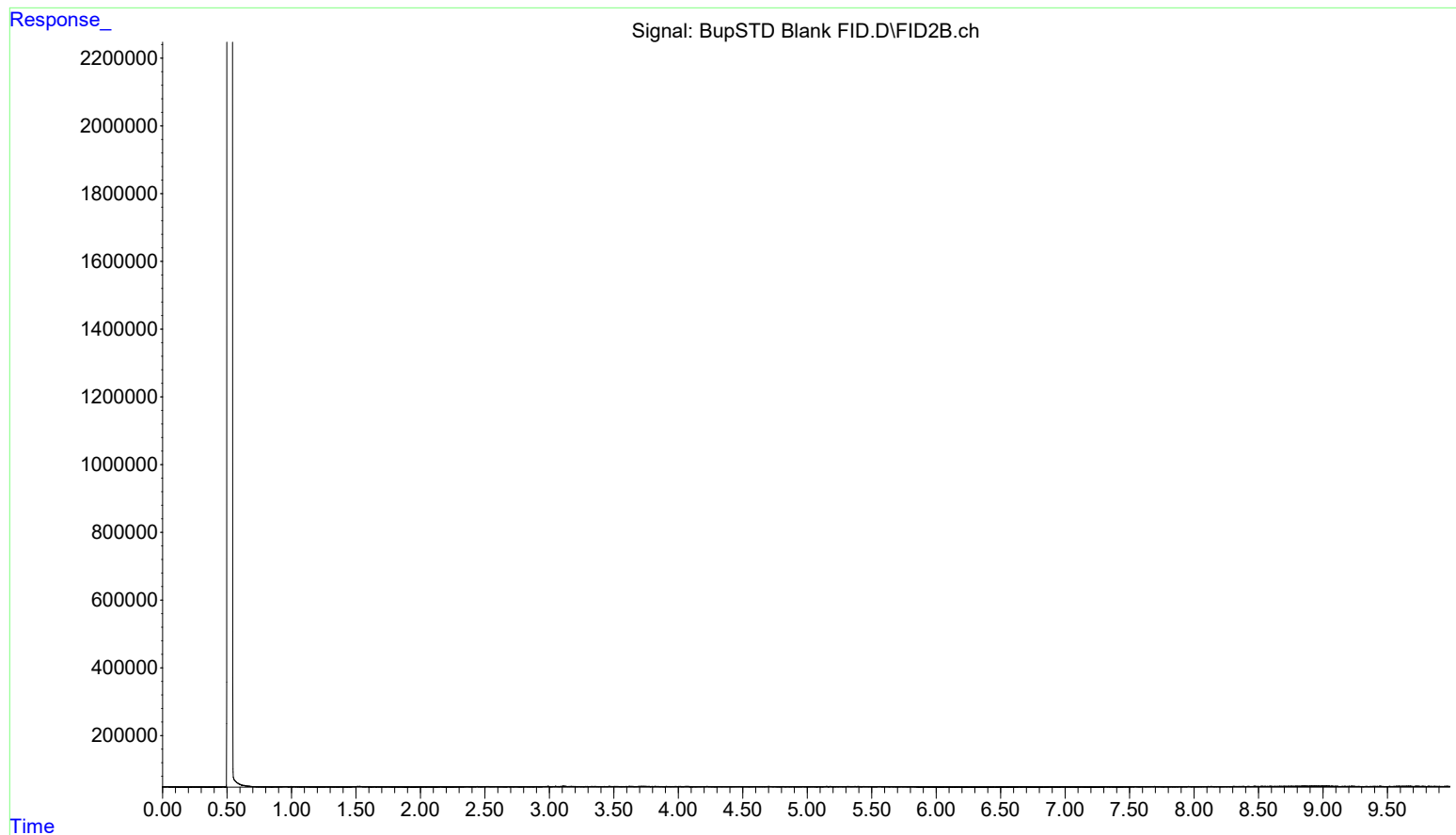
END OF TUNE PARAMETERS

92
BH 7-3-23

END OF INSTRUMENT CONTROL PARAMETERS

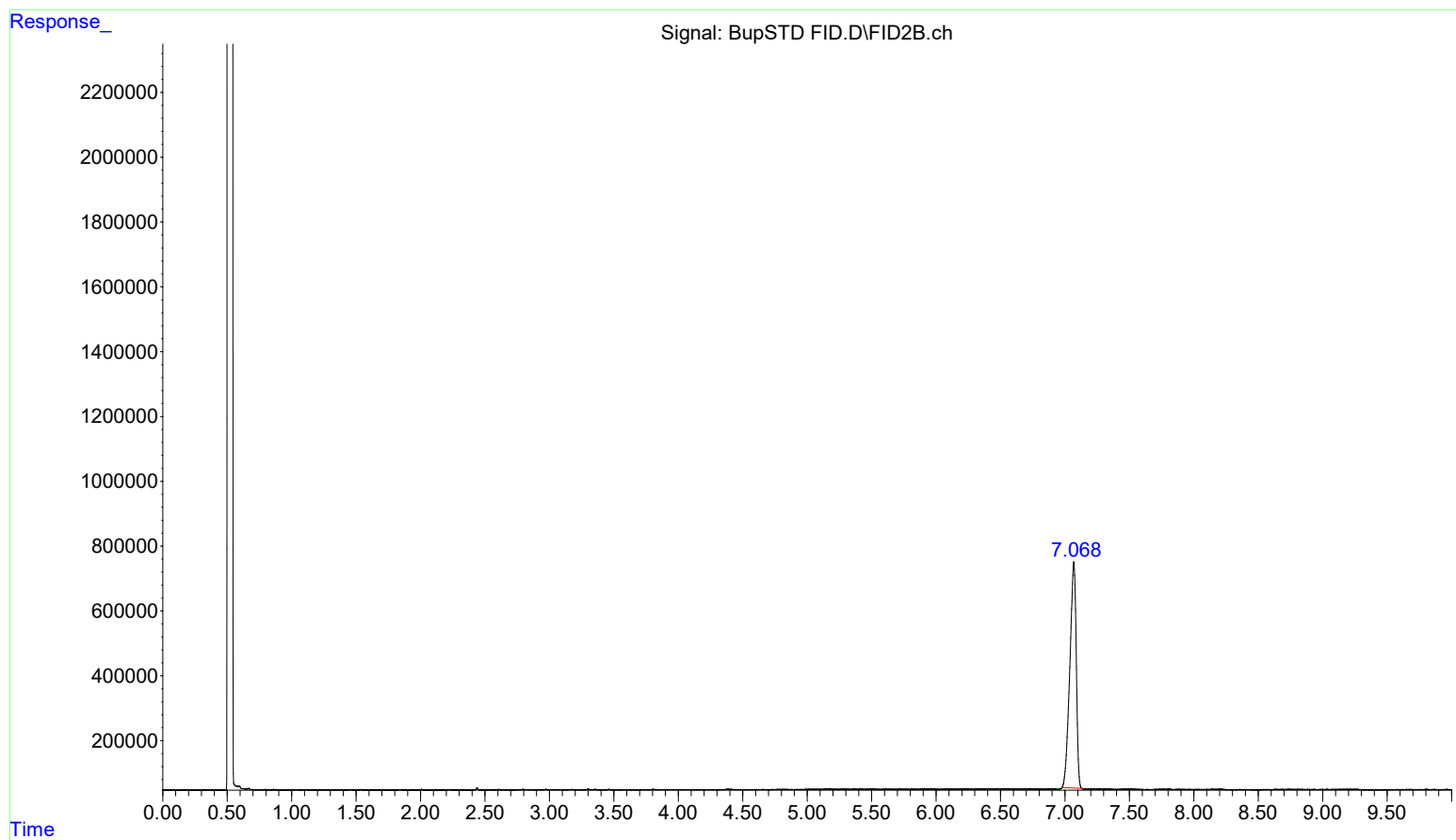
File :Y:\Instruments\GCMS\Peabody\KC\2023\June\6-15-23\BupSTD Blan
... k FID.D
Operator : Kamryn Couvertier
Instrument : Peabody
Acquired : 15 Jun 2023 17:51 using AcqMethod ASGC200.M
Sample Name: Blank 6-15-23 Buprenorphine STD
Misc Info : Methanol

93
BH 7-3-23



File :Y:\Instruments\GCMS\Peabody\KC\2023\June\6-15-23\BupSTD FID.D
Operator : Kamryn Couvertier
Acquired : 15 Jun 2023 18:47 using AcqMethod ASGC200.M
Instrument : Peabody
Sample Name: Buprenorphine STD
Misc Info : Methanol Sigma SLD2519 Exp:6-16-23
Vial Number: 3

94
BH 7-3-23



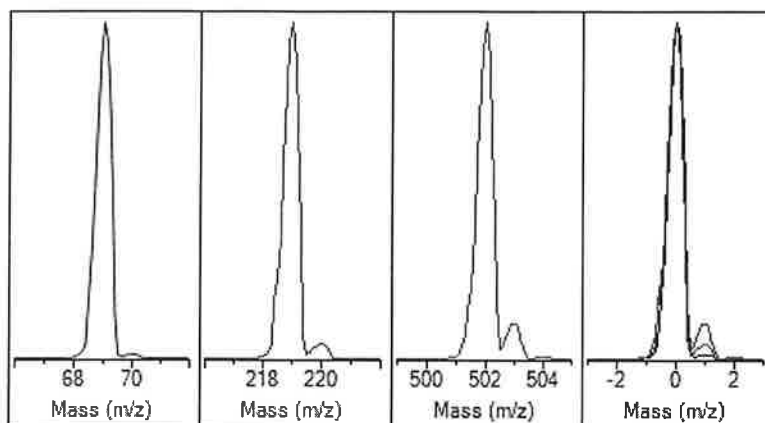
Autotune - 5977

Tune timestamp: 6/14/2023 4:00 PM (UTC-07:00)

Peabody

C:\MASSHUNTER\GCMS\1\5977\atune.u

US1646M032

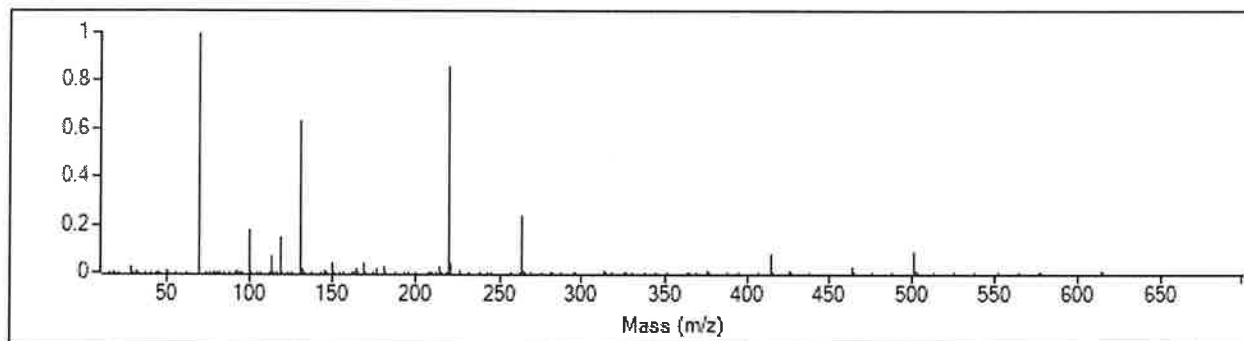


Ion Polarity	Pos	PFTBA	Open
Emission	34.6	Mass Gain	149
Electron Energy	70.0	Mass Offset	-26
Filament	1	Amu Gain	2387
Repeller	29.72	Amu Offset	127.94
Ion Focus	87.4	Width219	-0.018
Entrance Lens	22.7	DC Polarity	Pos
Ent Lens Offset	10.98	HED Enable	On
Ion Body	0.00	EM Volts	1263.3
Post Extractor 1	0	Extractor Lens	0.00
Post Extractor 2	0	Scan Speed	3
JetClean Flow Actual/[Setpoint]	0.00 [0.00]	Averages	3

Actual m/z	Abund	Rel Abund	Pw50
69.00	496,015	100.0%	0.60
219.00	437,878	88.3%	0.60
502.00	43,904	8.9%	0.61

Temperatures and Pressures			
MS Source	230	Turbo Speed	100.0
MS Quad	150	Hi Vac	9.32e-06

Low	High	Step	Speed	Threshold	Peaks	Base	Abundance	Total Ion
10.00	701.00	0.10	3	100	139	69.00	468,800	1,794,358



Target m/z	Actual m/z	Abund	Rel Abund	Iso m/z	Iso Abund	Iso Ratio
69.00	69.00	468,800	100.0%	70.00	4,872	1.0%
219.00	219.00	404,352	86.3%	220.00	17,976	4.4%
502.00	502.00	39,288	8.4%	503.00	4,084	10.4%

Air/Water Check: H2O ~0.6% N2 ~2.6% O2 ~0.3% CO2 ~0.1% N2/H2O ~422.8%

Column(1) Flow: 1.00 Column(2): 1.00 ml/min Interface Temp: 280

Ramp Criteria:

Ion Focus maximum 90 volts using ion 502; Electron Multiplier Gain 95189.307

Repeller maximum 35 volts using ion 219; Gain Factor 0.9519

Mass Gain Values(Scan Speed): 157(3) 160(2) 174(1) 199(0) 251(FS1) 320(FS2)

TARGET MASS:	50	69	131	219	414	502	1050
Amu Offset	127.9	127.9	127.9	127.9	127.9	127.9	127.9
Entrance Lens Offset	11.0	11.0	11.0	11.0	11.0	11.0	11.0

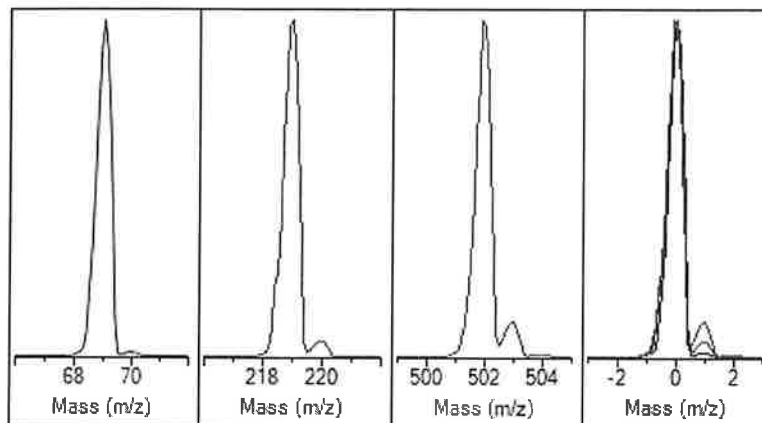
Autotune - 5977

Tune timestamp: 6/20/2023 8:08 AM (UTC-07:00)

Peabody

C:\MASSHUNTER\GCMS\1\5977\atune.u

US1646M032

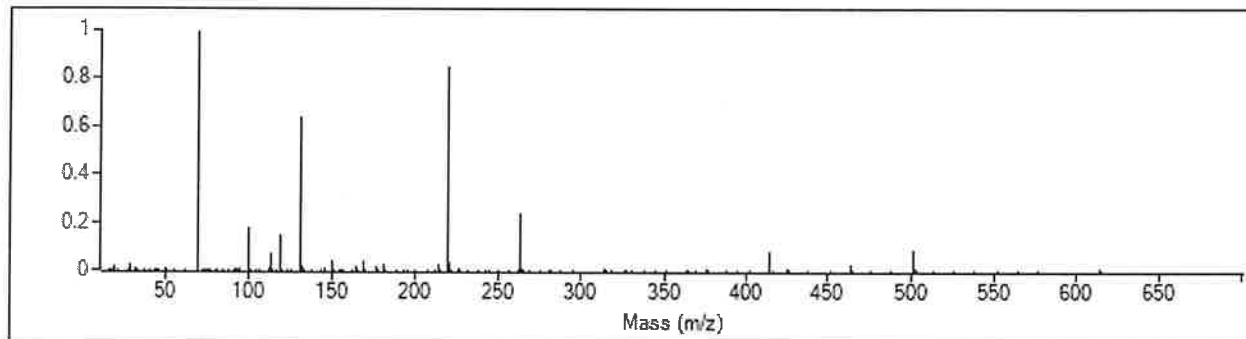


Ion Polarity	Pos	PFTBA	Open
Emission	34.6	Mass Gain	145
Electron Energy	70.0	Mass Offset	-27
Filament	1	Amu Gain	2390
Repeller	29.92	Amu Offset	127.31
Ion Focus	90.3	Width219	-0.010
Entrance Lens	20.2	DC Polarity	Pos
Ent Lens Offset	12.19	HED Enable	On
Ion Body	0.00	EM Volts	1289.1
Post Extractor 1	0	Extractor Lens	0.00
Post Extractor 2	0	Scan Speed	3
JetClean Flow Actual/[Setpoint]	0.00 [0.00]	Averages	3

Actual m/z	Abund	Rel Abund	Pw50
69.00	517,510	100.0%	0.60
219.00	434,996	84.1%	0.61
501.90	46,385	9.0%	0.61

Temperatures and Pressures			
MS Source	230	Turbo Speed	100.0
MS Quad	150	Hi Vac	9.81e-06

Low	High	Step	Speed	Threshold	Peaks	Base	Abundance	Total Ion
10.00	701.00	0.10	3	100	137	69.00	480,512	1,855,168



Target m/z	Actual m/z	Abund	Rel Abund	Iso m/z	Iso Abund	Iso Ratio
69.00	69.00	480,512	100.0%	70.00	5,185	1.1%
219.00	219.00	410,048	85.3%	220.00	17,280	4.2%
502.00	502.00	43,608	9.1%	503.00	4,241	9.7%

Air/Water Check: H2O ~2.2% N2 ~2.9% O2 ~0.3% CO2 ~0.2% N2/H2O ~133.1%

Column(1) Flow: 1.10 Column(2): 3.33 ml/min Interface Temp: 280

Ramp Criteria:

Ion Focus maximum 90 volts using Ion 502; Electron Multiplier Gain 123342.749

Repeller maximum 35 volts using Ion 219; Gain Factor 1.2334

Mass Gain Values(Scan Speed): 154(3) 157(2) 172(1) 196(0) 249(FS1) 274(FS2)

TARGET MASS:	50	69	131	219	414	502	1050
Amu Offset	127.3	127.3	127.3	127.3	127.3	127.3	127.3
Entrance Lens Offset	12.2	12.2	12.2	12.2	12.2	12.2	12.2

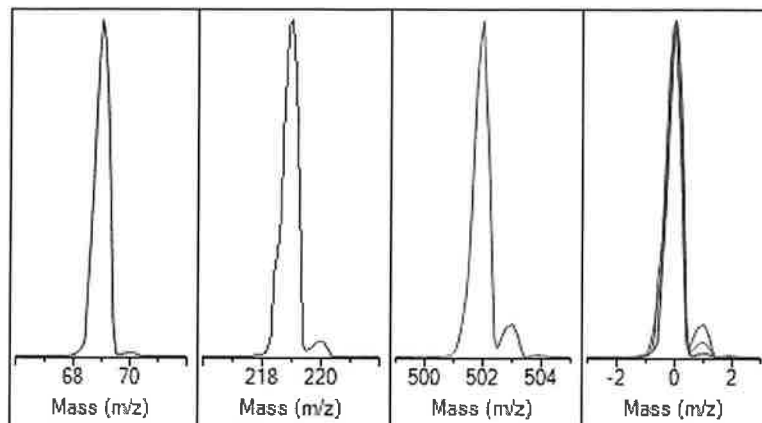
Autotune - 5977

Tune timestamp: 6/21/2023 7:25 AM (UTC-07:00)

Peabody

C:\MASSHUNTER\GCMS\1\5977\atune.u

US1646M032

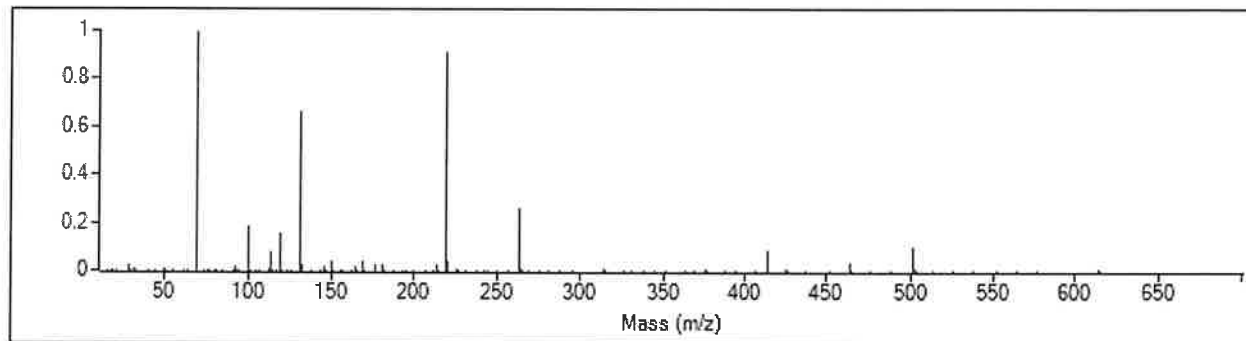


Ion Polarity	Pos	PFTBA	Open
Emission	34.6	Mass Gain	144
Electron Energy	70.0	Mass Offset	-27
Filament	1	Amu Gain	2392
Repeller	32.51	Amu Offset	130.00
Ion Focus	90.3	Width219	-0.004
Entrance Lens	20.2	DC Polarity	Pos
Ent Lens Offset	12.19	HED Enable	On
Ion Body	0.00	EM Volts	1264.8 ✓
Post Extractor 1	0	Extractor Lens	0.00
Post Extractor 2	0	Scan Speed	3
JetClean Flow Actual/[Setpoint]	0.00 [0.00]	Averages	3

Actual m/z	Abund	Rel Abund	Pw50
69.00	436,432	100.0%	0.60 ✓
219.00	390,913	89.6%	0.61 ✓
502.00	43,306	9.9%	0.60 ✓

Temperatures and Pressures			
MS Source	230	Turbo Speed	100.0
MS Quad	150	HI Vac	9.22e-06

Low	High	Step	Speed	Threshold	Peaks	Base	Abundance	Total Ion
10.00	701.00	0.10	3	100	125 ✓	69.00	399,680	1,597,990



Target m/z	Actual m/z	Abund	Rel Abund	Iso m/z	Iso Abund	Iso Ratio
69.00	69.00	399,680	100.0%	70.00	4,435	1.1% ✓
219.00	219.00	363,904	91.0%	220.00	16,115	4.4% ✓
502.00	502.00	40,352	10.1%	503.00	4,094	10.1% ✓

Air/Water Check: H2O ~0.7% N2 ~2.4% O2 ~0.3% CO2 ~0.1% N2/H2O ~355.8%

Column(1) Flow: 1.03 Column(2): 1.00 ml/min Interface Temp: 280

Ramp Criteria:

Ion Focus maximum 90 volts using ion 502; Electron Multiplier Gain 96286.180

Repeller maximum 35 volts using ion 219; Gain Factor 0.9629

Mass Gain Values(Scan Speed): 155(3) 161(2) 173(1) 197(0) 250(FS1) 319(FS2)

TARGET MASS:	50	69	131	219	414	502	1050
Amu Offset	130.0	130.0	130.0	130.0	130.0	130.0	130.0
Entrance Lens Offset	12.2	12.2	12.2	12.2	12.2	12.2	12.2