



REVIEWED

By Brittany Wylie at 2:40 pm, Aug 25, 2023

**Worklist: 6480**

<u>LAB_CASE</u>	<u>ITEM</u>	<u>ITEM_TYPE</u>	<u>DESCRIPTION</u>
C2023-1725	1	UCK	AM 2 Urine Toxi A
C2023-1815	3	UCK	AM 2 Urine Toxi A



## AM 2: De-Tox Tube A Urine Extraction

Extraction Date 8/25/23

Analyst: Anne Nord

Negative Urine Lot: 8423

GC/MS ID: deadlift

### Pre-Analytic:

- 1. *Positive Control Working Solution Preparation Instructions:*  
*Tube A positive control may be commercially obtained or prepared in-house. At a minimum, the control must contain at least one phenethylamine at an approximate concentration between 500 and 3000 ng/mL, and one opiate at an approximate concentration between 300 and 3000 ng/mL.*
- 2. Verify Tune and Tune evaluation completed within the previous 7 days. Tune and Tune evaluation reports initialed and filed.
- 3. Create GCMS sequence to include controls, case blanks and case samples.

### Analytic:

- 1. Remove working solutions, controls, and samples from cold storage.  
  
*(Optional Steps for Enzyme Hydrolysis- completed in addition to General extraction without Hydrolysis)*
  - 2a. In labeled round bottom Extraction tubes: add 4.5mL of case samples, and controls.
  - 2b. Add 150uL of 2M acetate buffer, vortex.
  - 2c. Add 100uL glucuronidase, cap and rock gently.
  - 2d. Heat at 60C for 2 hours. Allow to cool before proceeding to step 3.
- 3. To each labeled De-Tox Tube add 5mL sample, Positive control: spike positive control working solution.
- 4. Place on tube rocker at ambient temp for approx. 10 minutes.
- 5. Centrifuge for approx. 10 min at ~2500-3000rpm.
- 6. Transfer solvent (upper layer) to new tube, and evaporate to ~100-300uL.
- 7. Transfer to labeled ALS vial with insert.
- 8. Place ALS Vials in appropriate location on GCMS rack and run using appropriate GCMS method.

### Post-Analytic

- 1. Complete Data analysis on all samples and corresponding sample blanks
- 2. Did positive and negative control samples provide intended response? Yes
- 3. Sample Criteria for ID: RT +/- 0.2 min. (or 0.1 min. for phenethylamines)
- 4. Central File Packet to include: LIMS Worklist, Method Checklist, Working solution prep sheet(s), Positive control GCMS data printouts,



# Idaho State Police Forensic Services

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## Toxicology AM #2 working solution

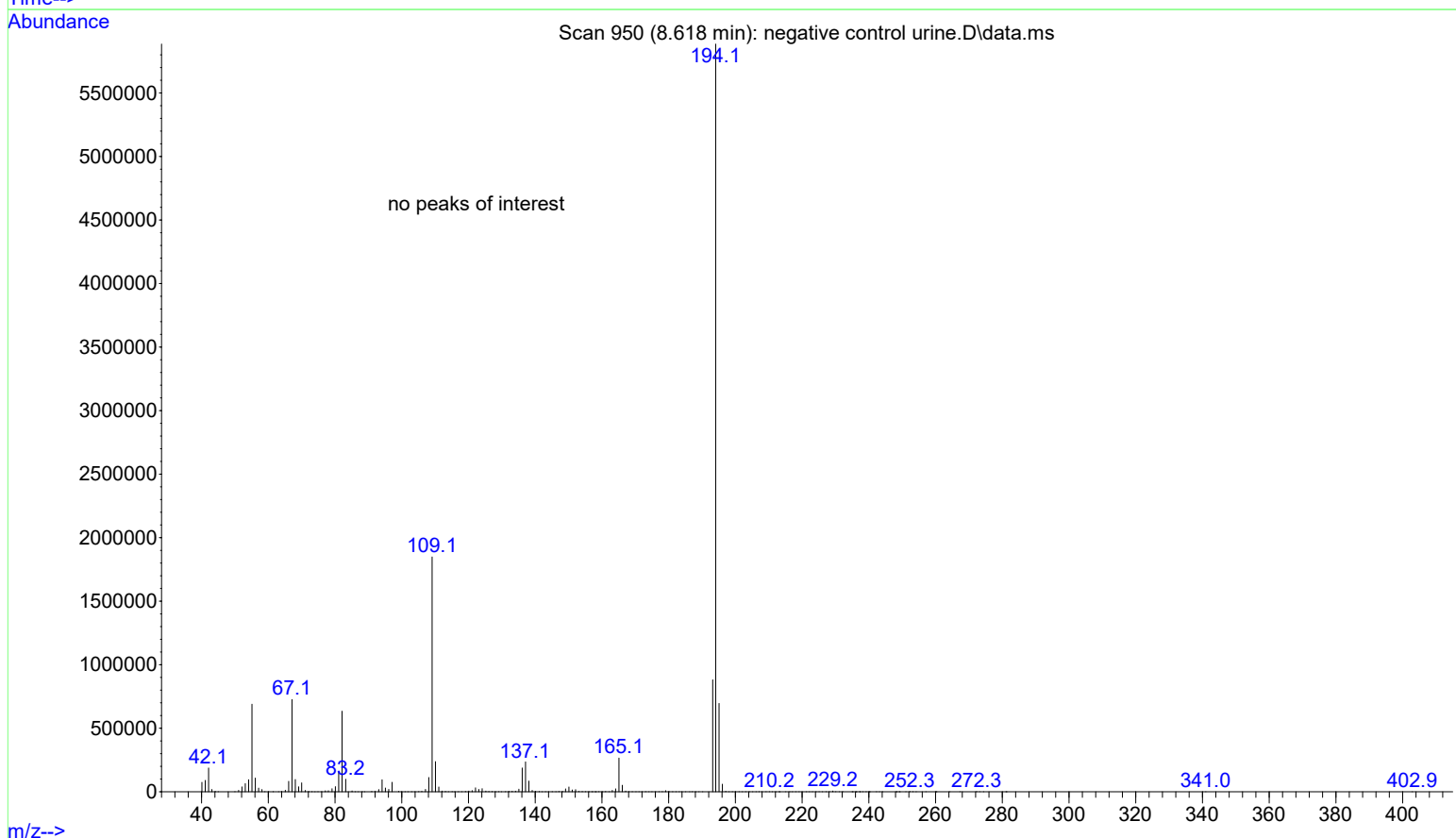
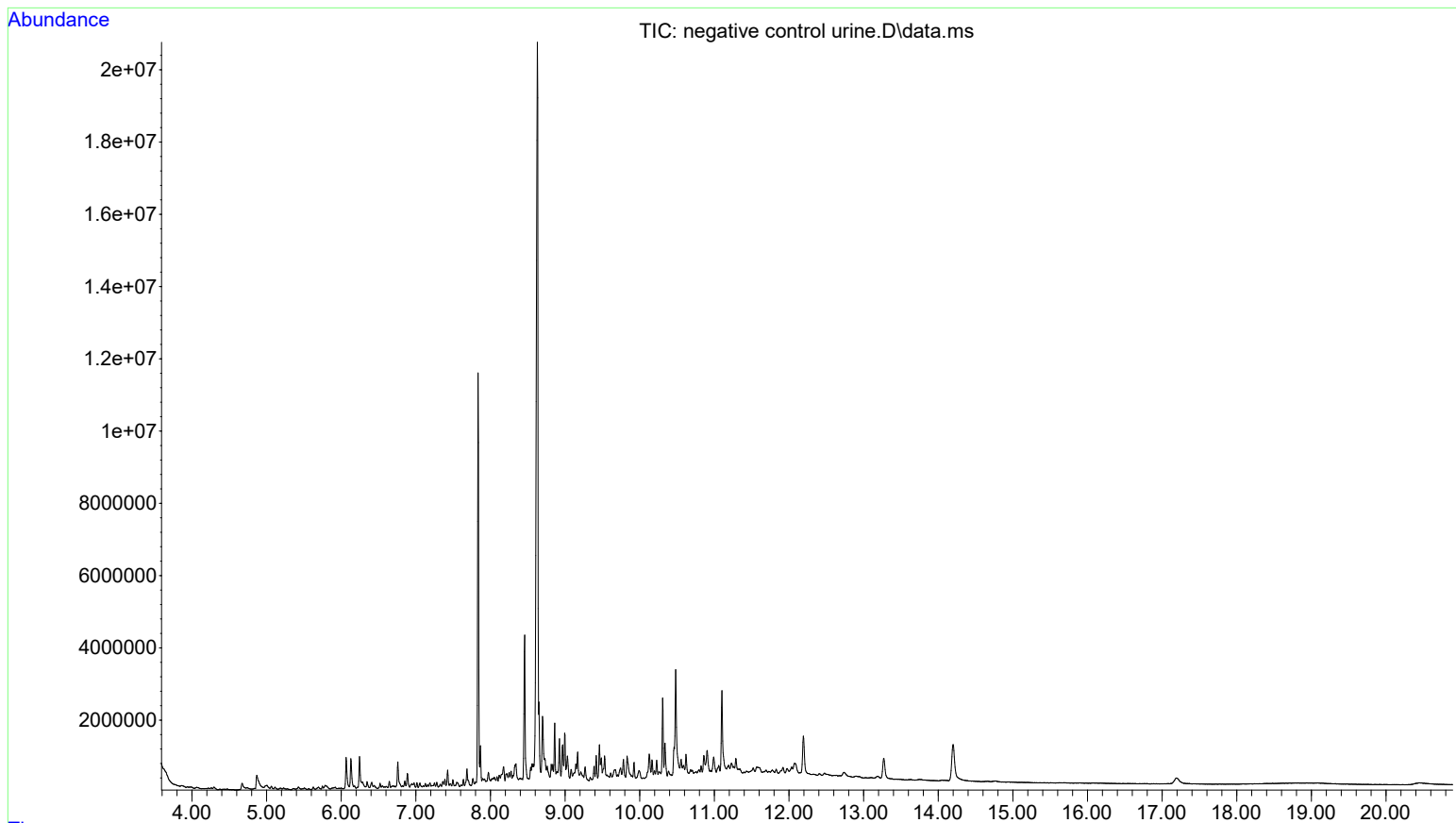
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*150  $\mu$ L of 1mg/mL stock was added of each drug to 9700  $\mu$ L of LC MeOH. ~15000ng/ml*

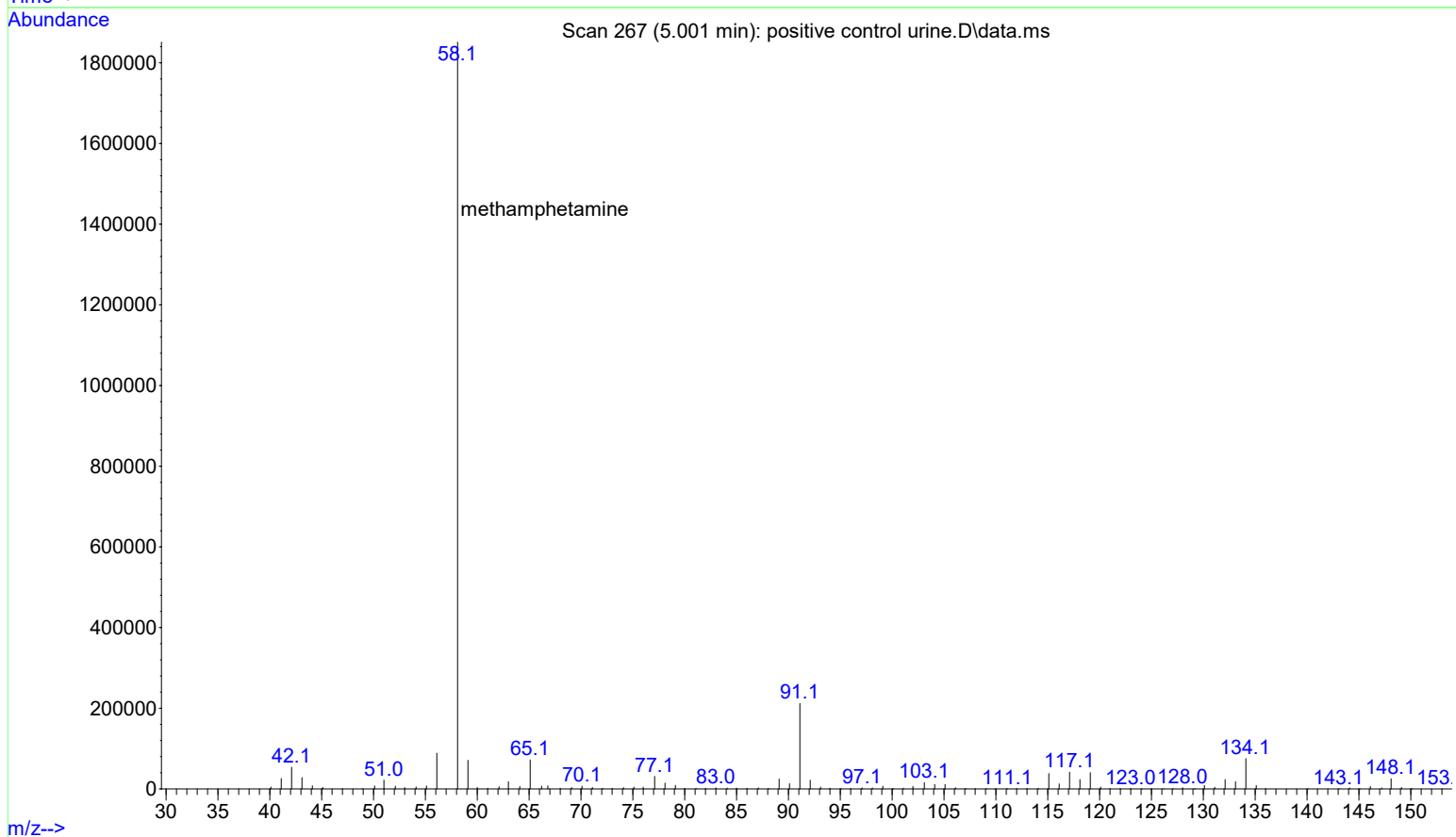
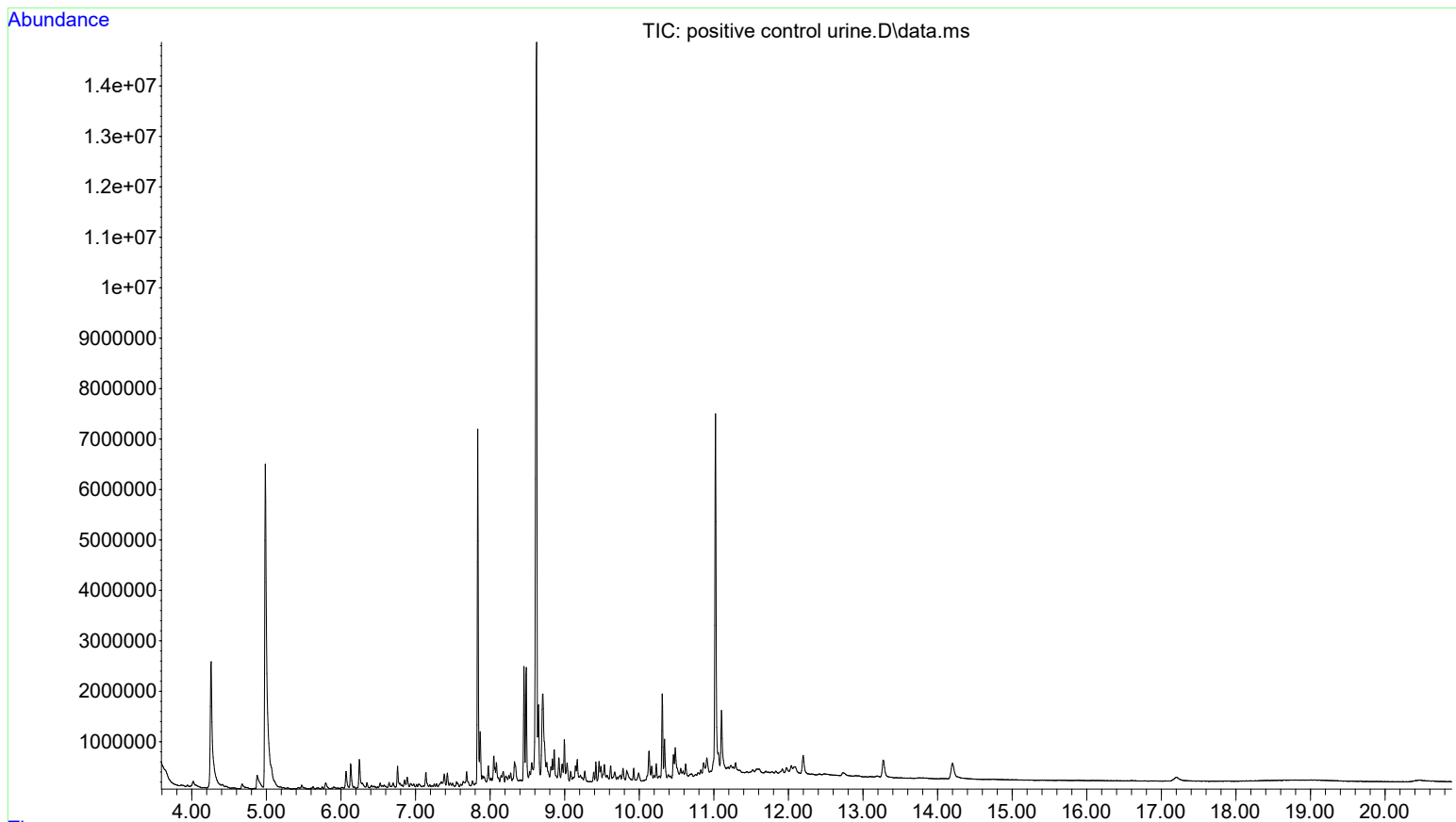
<i>Component</i>	<i>Source</i>	<i>Source Lot Number</i>	<i>Expiration Date</i>
Methamphetamine	Cerilliant	FE03132001	7/1/2025
Morphine	Cerilliant	FE03232010	4/1/2025
Prepared:	06/08/2023 Lot number 060824		
Expires:	06/08/2024		
Prepared By:	Anne Nord		

**AM 2 control add 500 ul working solution to 4500 ul negative urine and extract approximate concentration 1500 ng/ml.**

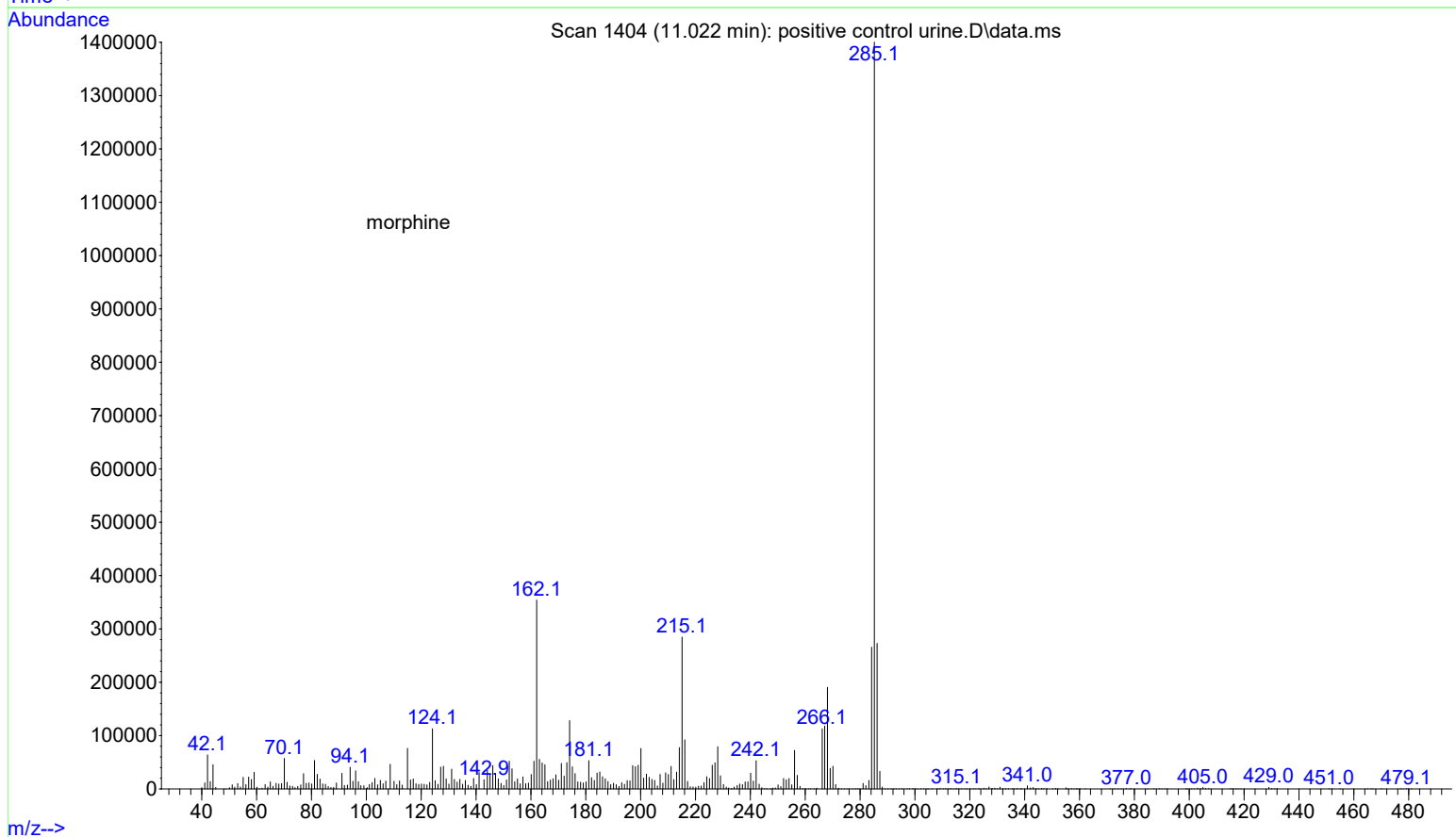
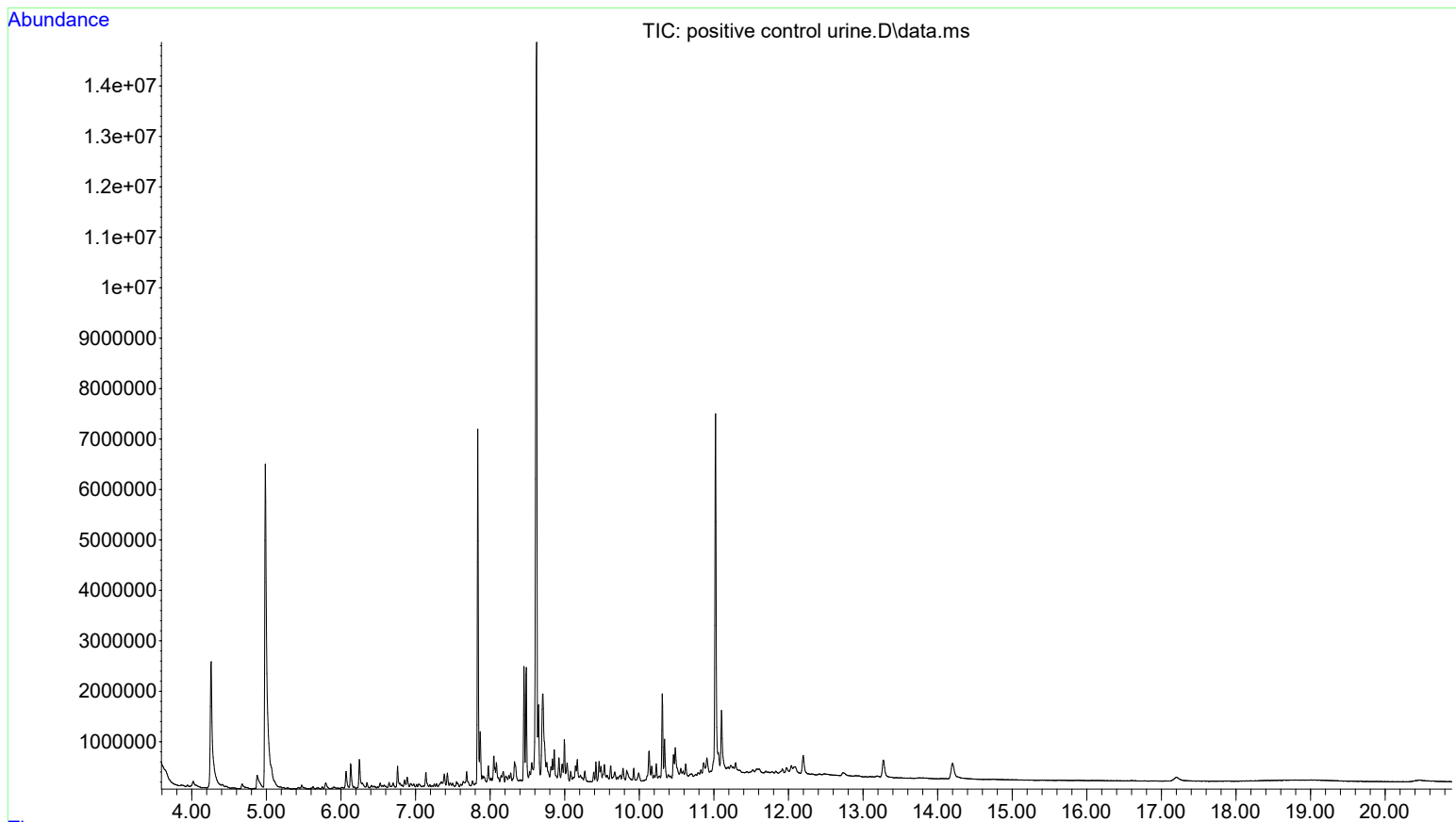
File :D:\MassHunter\GCMS\1\data\2023\082523\negative control urine  
... .D  
Operator :  
Instrument : Deadlift  
Acquired : 25 Aug 2023 10:05 using AcqMethod am2.M  
Sample Name: negative control urine  
Misc Info : am2



File :D:\MassHunter\GCMS\1\data\2023\082523\positive control urine  
... .D  
Operator :  
Instrument : Deadlift  
Acquired : 25 Aug 2023 09:41 using AcqMethod am2.M  
Sample Name: positive control urine  
Misc Info : am2



File :D:\MassHunter\GCMS\1\data\2023\082523\positive control urine  
... .D  
Operator :  
Instrument : Deadlift  
Acquired : 25 Aug 2023 09:41 using AcqMethod am2.M  
Sample Name: positive control urine  
Misc Info : am2



Instrument Name : Deadlift  
 DC Polarity : Positive  
 Filament 2  
 Current Vacuum status :High Vacuum: 1.89E-05 Torr Turbo:100%

BasePeak should be 69 or 219		OK
Position of mass 69	69.00	OK
Position of mass 219	219.00	OK
Position of mass 502	502.00	OK
Position of isotope mass 70	70.01	OK
Position of isotope mass 220	220.00	OK
Position of isotope mass 503	503.00	OK
Ratio of mass 70 to mass 69(0.5 - 1.6%)	1.09	OK
Ratio of mass 220 to mass 219(3.2 - 5.4%)	4.32	OK
Ratio of mass 503 to mass 502(7.9 - 12.3%)	10.10	OK
Ratio of 219 to 69 should be > 40% and is	127.20	OK
Ratio of 502 to 69 should be > 2.4% and is	15.31	OK
Mass 69 Precursor (<= 3%)	0.33	OK
Mass 219 Precursor (<= 6%)	0.79	OK
Mass 502 Precursor (<= 12%)	0.87	OK

597x Air and Water Check  
 Fri Aug 25 08:55:38 2023 Instrument: Deadlift  
 D:\MassHunter\GCMS\1\5977\ATUNE.U US2238MA23

Testing for a leak in the system		
Ratio of 18 to 69 (<20%)	0.52	OK
Ratio of 28 to 69 (<10%)	2.88	OK
Electron Multiplier Voltage	1010	OK

Tune portion of System Verification passed.

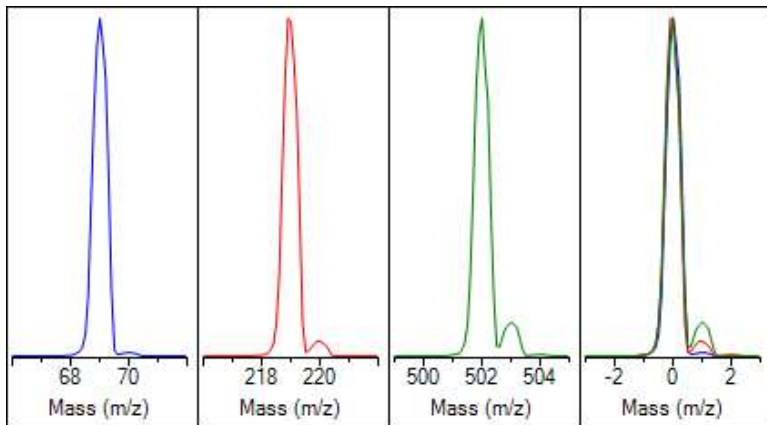
# Autotune - 5977C

Tune timestamp: 8/25/2023 8:17 AM (UTC-07:00)

Deadlift

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

US2238MA23

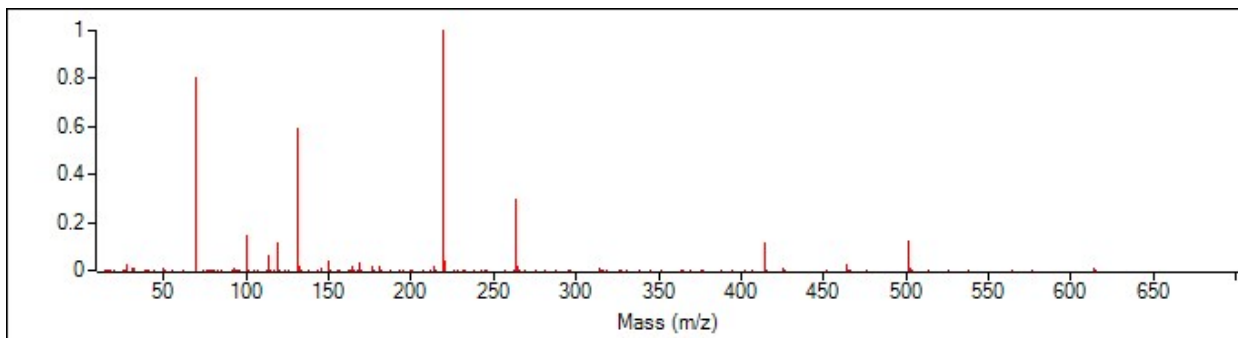


Ion Polarity	Pos	PFTBA	Open
Emission	34.6	Mass Gain	262
Electron Energy	70.0	Mass Offset	-23
Filament	2	Amu Gain	2908
Repeller	25.14	Amu Offset	135.88
Ion Focus	90.3	Width219	-0.043
Entrance Lens	20.2	DC Polarity	Pos
Ent Lens Offset	12.19	HED Enable	On
Ion Body	0.00	EM Volts	1010.1
Post Extractor 1	0	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	365,091	100.0%	0.60
218.90	451,365	123.6%	0.59
502.00	56,124	15.4%	0.59

Temperatures and Pressures			
MS Source	230	Turbo Speed	100.0
MS Quad	150	Hi Vac	2.18e-05

Low	High	Step	Speed	Threshold	Peaks	Base	Abundance	Total Ion
10.00	701.00	0.10	3	100	139	219.00	428,288	1,601,518



Target m/z	Actual m/z	Abund	Rel Abund	Iso m/z	Iso Abund	Iso Ratio
69.00	69.00	344,704	100.0%	70.00	3,953	1.1%
219.00	219.00	428,288	124.2%	220.00	19,216	4.5%
502.00	502.00	53,152	15.4%	503.00	5,251	9.9%

Air/Water Check: H2O ~0.6% N2 ~2.8% O2 ~0.5% CO2 ~0.1% N2/H2O ~477.9%

Column(1) Flow: 2.47 Column(2): 0.00 ml/min Interface Temp: 250

**Ramp Criteria:**

Ion Focus maximum 90 volts using ion 502; Electron Multiplier Gain 78314.842

Repeller maximum 35 volts using ion 219; Gain Factor 0.7831

Mass Gain Values(Scan Speed): 265(3) 272(2) 283(1) 303(0) 355(FS1) 354(FS2)

TARGET MASS:	50	69	131	219	414	502	1091
Amu Offset	135.9	135.9	135.9	135.9	135.9	135.9	135.9
Entrance Lens Offset	12.2	12.2	12.2	12.2	12.2	12.2	12.2