











4/25/2024

Worklist: 6791**REVIEWED**

By Brittany Wylie at 9:19 am, Apr 26, 2024

<u>LAB_CASE</u>	<u>ITEM</u>	<u>ITEM_TYPE</u>	<u>DESCRIPTION</u>	
C2024-0641	1	BCK	AM 27 Blood THC Quant by LC-QQQ	
C2024-0691	2	BCK	AM 27 Blood THC Quant by LC-QQQ	
C2024-0717	1	BCK	AM 27 Blood THC Quant by LC-QQQ	
C2024-0719	1	BCK	AM 27 Blood THC Quant by LC-QQQ	
C2024-0728	1	BCK	AM 27 Blood THC Quant by LC-QQQ	
C2024-0744	1	UCK	AM 27 Urine Cannabinoids Confirmation by LC-QQQ	
C2024-0759	1	BCK	AM 27 Blood THC Quant by LC-QQQ	
C2024-0766	1	BCK	AM 27 Blood THC Quant by LC-QQQ	

	1	2	3	4	5	6
a	cal 1	Internal control urine	0766-1			
b	cal 2	negative blood	negative urine			
c	cal 3	0641-1	0744-1			
d	cal 4	0691-2				
e	cal 5	0717-1				
f	cal 6	0719-1				
g	cal 7	0728-1				
h	Internal control (blood)	0759-1				

Plate position 3

c2024-____-__



AM# 27: Quantitation of THC and Metabolites in Blood and Urine by LC-MS/MS

Extraction Date: 04/24/24

Plate lot#: 231212

Mobile phase A: 0.1% Formic Acid in LCMS Water

Blank Blood Lot: 24C52042

Column: UCT Selectra DA 100 x 2.1mm 3um

Analyst: Anne Nord

Plate Retest Date: 6/12/24

Mobile phase B: 0.1% Formic acid in Acetonitrile

Blank Urine Lot: 1324

LCMS-QQQ ID: 69679

Pre-Analytic:

- 1. Check levels of mobile phases and needle wash refill as needed. Ensure waste is not full.
- 2. Ensure correct column is installed and begin mobile phase flow allow to equilibrate ~ 30 minutes.

Analytic:

- 1. Remove standards, plate, controls, and samples from cold storage. Allow to reach room temperature.
- 2. **Urine hydrolysis: add 1.5mL urine to blank plate, add 250µl 1N KOH. Shake and incubate at 40 degrees for 15 minutes.** Using a calibrated pipette, add **1000µl blood and urine (if applicable) (calibrated pipette)** into the appropriate wells of analytical (standards) plate. **Pipette ID: I41142J**
- 3. Place on shaking incubator at ambient temp., 900rpm for 15 minutes.
- 4. Add **500µL of 0.1% formic acid in water to blood samples,** and **500µL of saturated phosphate buffer to urine samples** in the wells of the analytical plate.
- 5. Place on shaking incubator at ambient temp., 900rpm for 15 minutes.
- 6. Transfer **700-800µL of blood+acid or urine+acid** mixture to corresponding wells of SLE+ plate. Amount transferred: **800 µL**
- 7. Apply positive pressure for approx. 10-15 seconds (or until no liquid remains on top of sorbent). **(Load at 85-100 PSI- Selector to the right)**
- 8. Wait 5 minutes.
- 9. Add **2.25mL MTBE. (Add in 3 increments of 750uL)**
- 10. Wait 5 minutes.
- 11. Apply positive pressure for approx. 15 seconds. **(10-15 PSI- Selector to the left).**
- 12. Add **2.25mL Hexane. (Add in 3 increments of 750uL)**
- 13. Wait 5 minutes.
- 14. Apply positive pressure for approx. 15 seconds. **(10-15 PSI- Selector to the left).**
- 15. Remove plate containing eluate. Place on SPE Dry and evaporate to dryness at approx. 35°C.
- 16. Reconstitute in **100µL 100% MeOH** and heat seal plate with foil. Place in autosampler and run worklist.

Post-Analytic

- 1. Create batch and process data.
- 2. Make any necessary integration changes, Curve weighting of Linear 1/x with r^2 values ≥ 0.98 for each analyte
- 3. RT +/- 3% or 0.100 min, whichever is greater, +/- 20% Accuracy for greater than (+/- 30% for 10ng/ml or less). Ion ratios must be within +/- 20% of the averaged calibrators
- 4. Did all QCs pass for each analyte? (if not, describe in comments section)
- 5. Enter QCs into control charting.
- 6. Central File Packet to include: LIMS Worklist, Method Checklist, Calibration and Control Reports

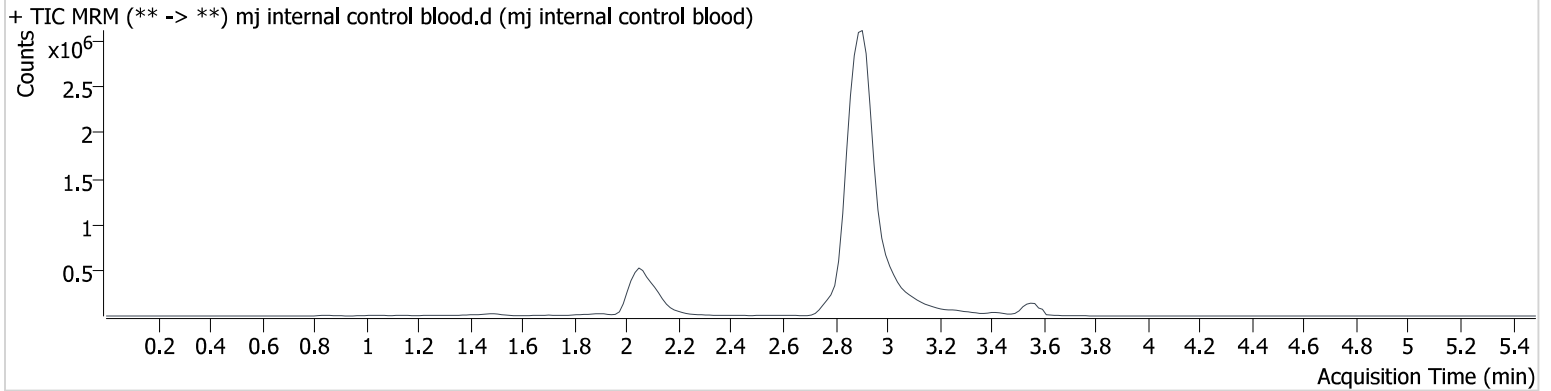
COMMENTS: *Urine internal control, and C2024-0766-1 did not inject on 4/24/24, the samples were reconstituted and injected 4/25/24 along with the blood internal control.*

AM #27 Cannabinoids

Batch results D:\MassHunter\Data\2024\am 27-28\042424\QuantResults\am 27.batch.bin
Calibration Last Update 4/25/2024 12:03:48 PM

Instrument	69679	Data File	mj internal control blood.d
Type	QC	Sample	mj internal control blood
Acq. Method	thc quant 50 50.m	Operator	Anne Nord
Sample Position	P3-H1	Comment	Only drugs and concentrations listed on the laboratory report itself are appropriate to be used for interpretation purposes. Any drugs or values included in the notes but not included on the report are used by laboratory personnel to make determinations/reach conclusions within the confines of the methods
Injection Volume	10		
Acq. Date-Time	4/24/2024 7:53:56 PM		
Sample Info.			

Sample Chromatogram



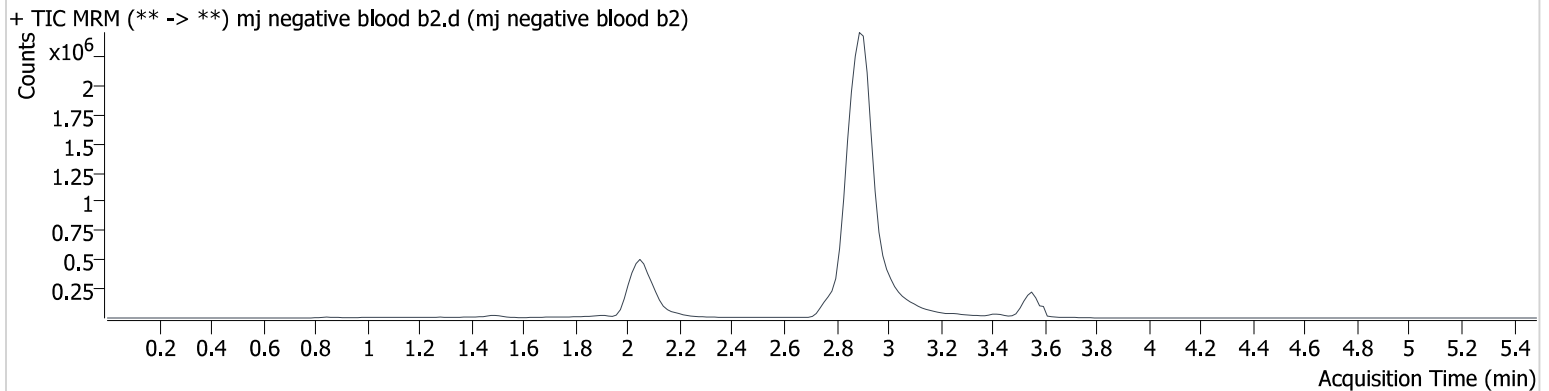
Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC-OH	2.051	31294	545.2	857.97	∞	2033617	5.051 ng/ml
THC-COOH	2.122	54880	520.4	289.28	190523	787324	14.036 ng/ml
THC	3.573	53129	1449.6	27.64	192.6	407807	4.493 ng/ml

AM #27 Cannabinoids

Batch results D:\MassHunter\Data\2024\am 27-28\042424\QuantResults\am 27.batch.bin
Calibration Last Update 4/25/2024 12:03:48 PM

Instrument	69679	Data File	mj negative blood b2.d
Type	Sample	Sample	mj negative blood b2
Acq. Method	thc quant 50 50.m	Operator	Anne Nord
Sample Position	P3-B2	Comment	Only drugs and concentrations listed on the laboratory report itself are appropriate to be used for interpretation purposes. Any drugs or values included in the notes but not included on the report are used by laboratory personnel to make determinations/reach conclusions within the confines of the methods
Injection Volume	10		
Acq. Date-Time	4/24/2024 8:00:30 PM		
Sample Info.			

Sample Chromatogram

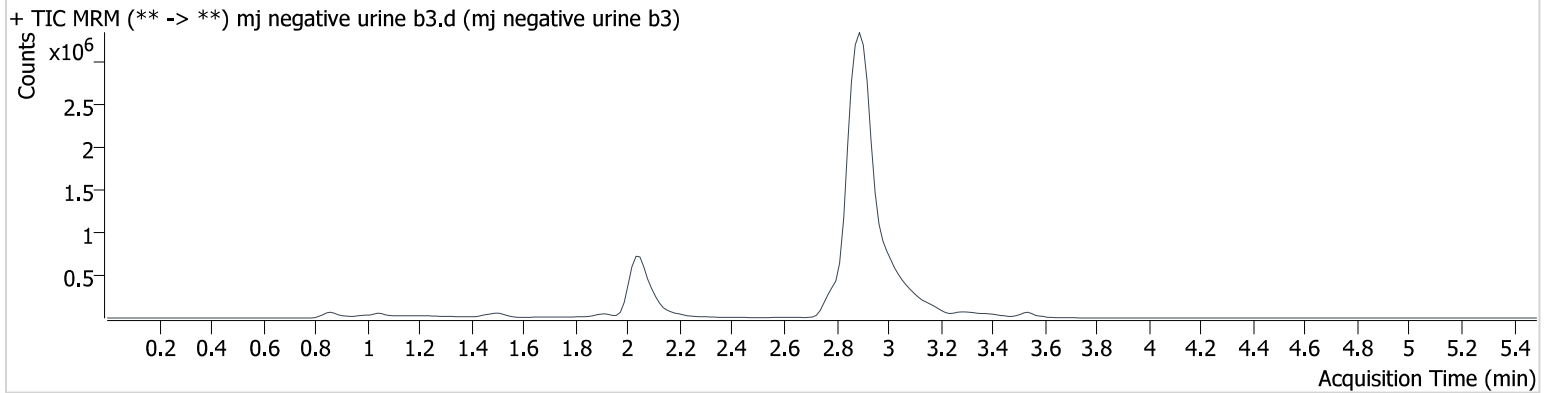


AM #27 Cannabinoids

Batch results D:\MassHunter\Data\2024\am 27-28\042424\QuantResults\am 27.batch.bin
Calibration Last Update 4/25/2024 12:03:48 PM

Instrument	69679	Data File	mj negative urine b3.d
Type	Sample	Sample	mj negative urine b3
Acq. Method	thc quant 50 50.m	Operator	Anne Nord
Sample Position	P3-B3	Comment	Only drugs and concentrations listed on the laboratory report itself are appropriate to be used for interpretation purposes. Any drugs or values included in the notes but not included on the report are used by laboratory personnel to make determinations/reach conclusions within the confines of the methods
Injection Volume	10		
Acq. Date-Time	4/24/2024 9:39:22 PM		
Sample Info.			

Sample Chromatogram

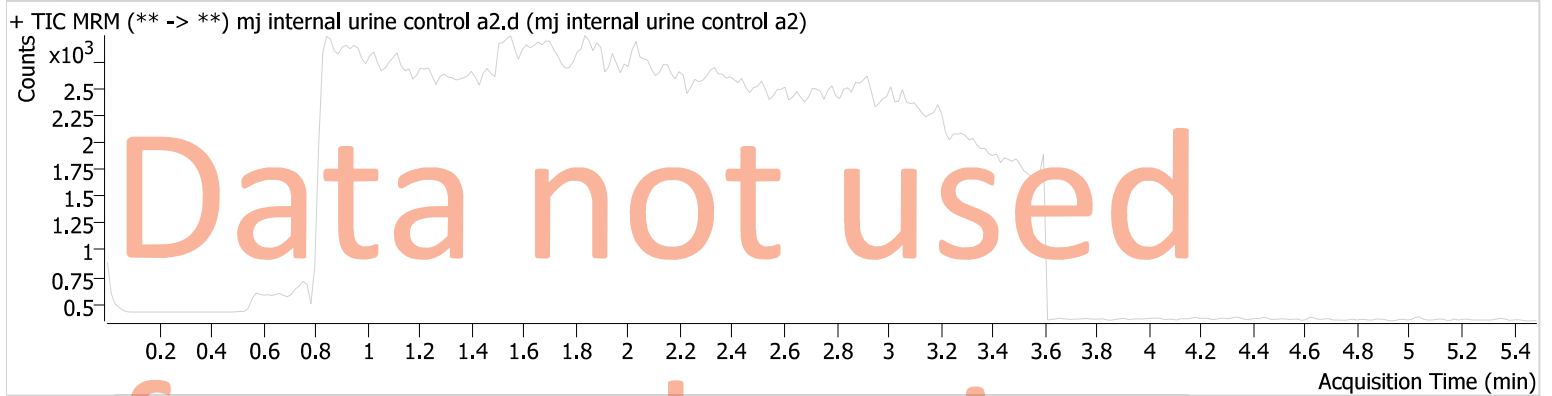


AM #27 Cannabinoids

Batch results D:\MassHunter\Data\2024\am 27-28\042424\QuantResults\am 27.batch.bin
Calibration Last Update 4/25/2024 12:03:48 PM

Instrument	69679	Data File	mj internal urine control a2.d
Type	Sample	Sample	mj internal urine control a2
Acq. Method	thc quant 50 50.m	Operator	Anne Nord
Sample Position	P3-A2	Comment	Only drugs and concentrations listed on the laboratory report itself are appropriate to be used for interpretation purposes. Any drugs or values included in the notes but not included on the report are used by laboratory personnel to make determinations/reach conclusions within the confines of the methods
Injection Volume	10		
Acq. Date-Time	4/24/2024 10:05:48 PM		
Sample Info.			

Sample Chromatogram



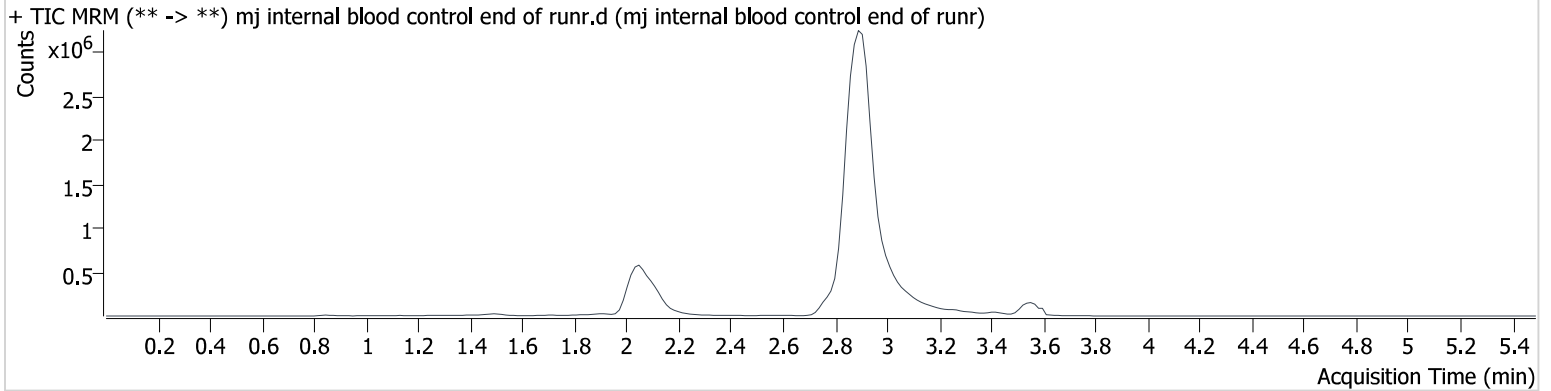
sample did not inject, the sample was reconstituted and run on 4/25/24 that injection will be evaluated.

AM #27 Cannabinoids

Batch results D:\MassHunter\Data\2024\am 27-28\042424\QuantResults\am 27.batch.bin
Calibration Last Update 4/25/2024 12:03:48 PM

Instrument	69679	Data File	mj internal blood control end of runr.d
Type	Sample	Sample	mj internal blood control end of runr
Acq. Method	thc quant 50 50.m	Operator	Anne Nord
Sample Position	P3-H1	Comment	Only drugs and concentrations listed on the laboratory report itself are appropriate to be used for interpretation purposes. Any drugs or values included in the notes but not included on the report are used by laboratory personnel to make determinations/reach conclusions within the confines of the methods
Injection Volume	10		
Acq. Date-Time	4/24/2024 10:12:24 PM		
Sample Info.			

Sample Chromatogram



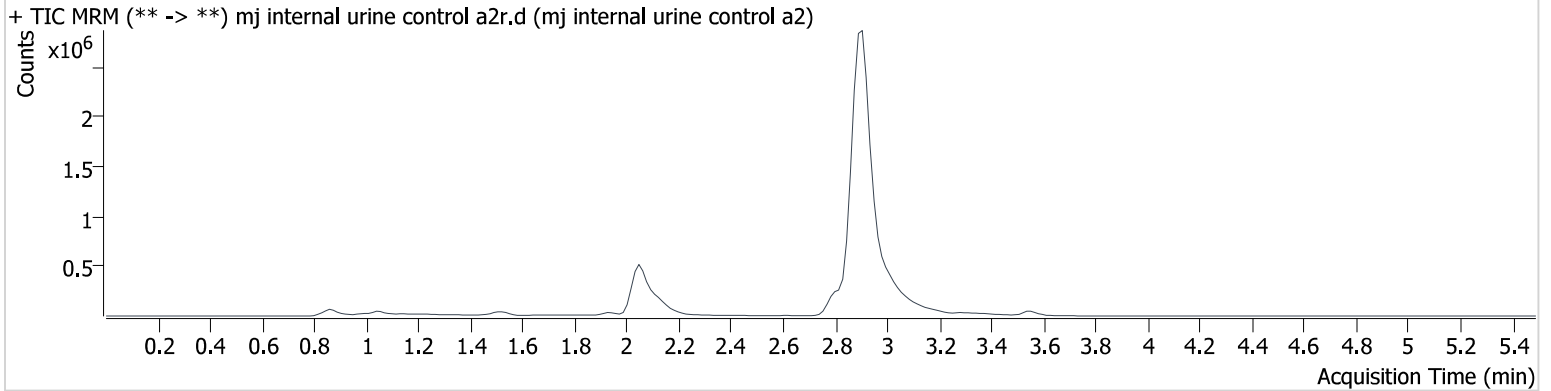
Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC-OH	2.051	33747	∞	869.01	1387.8	2273016	4.888 ng/ml
THC-COOH	2.107	66179	78.6	266.26	328.3	892285	14.852 ng/ml
THC	3.558	63723	1920.2	26.50	670.6	460065	4.754 ng/ml

AM #27 Cannabinoids

Batch results D:\MassHunter\Data\2024\am 27-28\042424\QuantResults\am 27.batch.bin
Calibration Last Update 4/25/2024 12:03:48 PM

Instrument	69679	Data File	mj internal urine control a2r.d
Type	Sample	Sample	mj internal urine control a2
Acq. Method	thc quant 50 50.m	Operator	Anne Nord
Sample Position	P3-A2	Comment	Only drugs and concentrations listed on the laboratory report itself are appropriate to be used for interpretation purposes. Any drugs or values included in the notes but not included on the report are used by laboratory personnel to make determinations/reach conclusions within the confines of the methods
Injection Volume	10		
Acq. Date-Time	4/25/2024 11:50:27 AM		
Sample Info.			

Sample Chromatogram



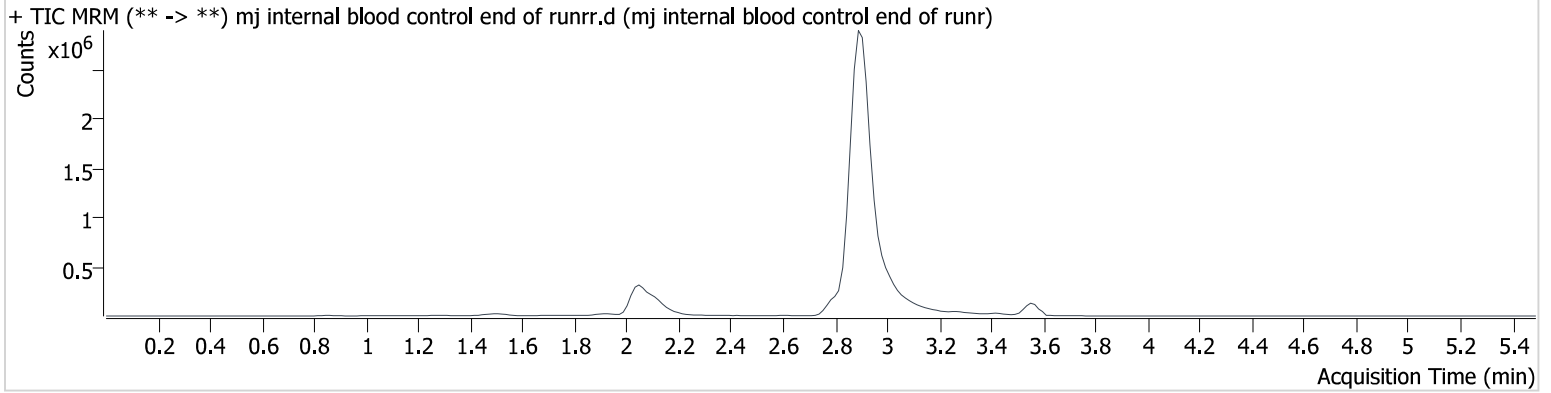
Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC-OH	2.051	26193	∞	904.63	1629.3	1823804	4.742 ng/ml
THC-COOH	2.122	29960	199.6	324.89	∞	428045	14.088 ng/ml
THC	3.558	21077	388.8	30.66	231.8	168794	4.322 ng/ml

AM #27 Cannabinoids

Batch results D:\MassHunter\Data\2024\am 27-28\042424\QuantResults\am 27.batch.bin
Calibration Last Update 4/25/2024 12:03:48 PM

Instrument 69679 **Data File** mj internal blood control end of runrr.d
Type Sample **Sample** mj internal blood control end of runr
Acq. Method thc quant 50 50.m **Operator** Anne Nord
Sample Position P3-H1 **Comment** Only drugs and concentrations listed on the laboratory report itself are appropriate to be used for interpretation purposes. Any drugs or values included in the notes but not included on the report are used by laboratory personnel to make determinations/reach conclusions within the confines of the methods
Injection Volume 10
Acq. Date-Time 4/25/2024 11:57:03 AM
Sample Info.

Sample Chromatogram

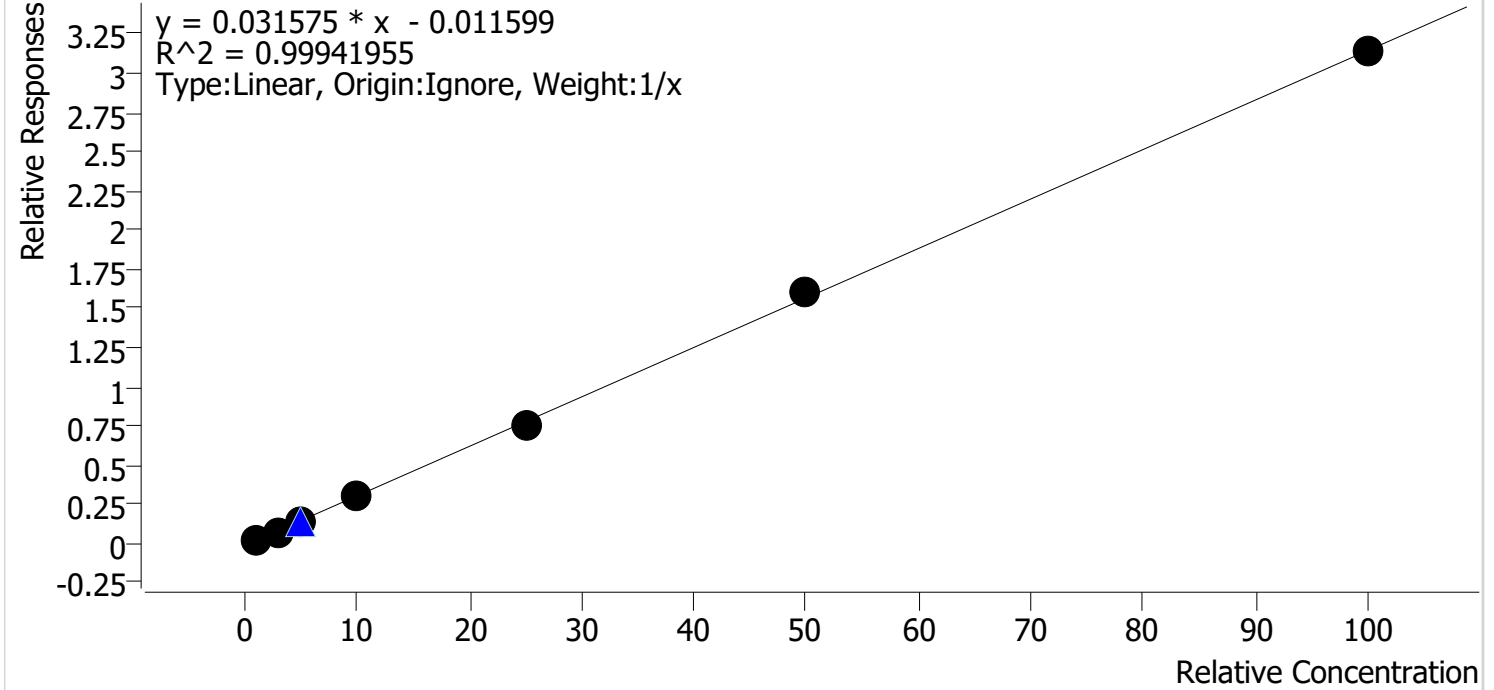


Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC-OH	2.051	17467	836.0	846.43	∞	1126417	5.087 ng/ml
THC-COOH	2.122	33737	75539.5	263.78	292.1	464321	14.576 ng/ml
THC	3.558	38159	2431.0	28.92	695186 338573 21.8	263296	4.957 ng/ml

Compound Calibration Report

Batch results D:\MassHunter\Data\2024\lam 27-28\042424\QuantResults\lam 27.batch.bin
Last Cal. Update 4/25/2024 12:03 PM
Analyst Name ISP\datastor
Analyte THC **Internal Standard** THC-d3

THC - 7 Levels, 7 Levels Used, 7 Points, 7 Points Used, 1 QCs

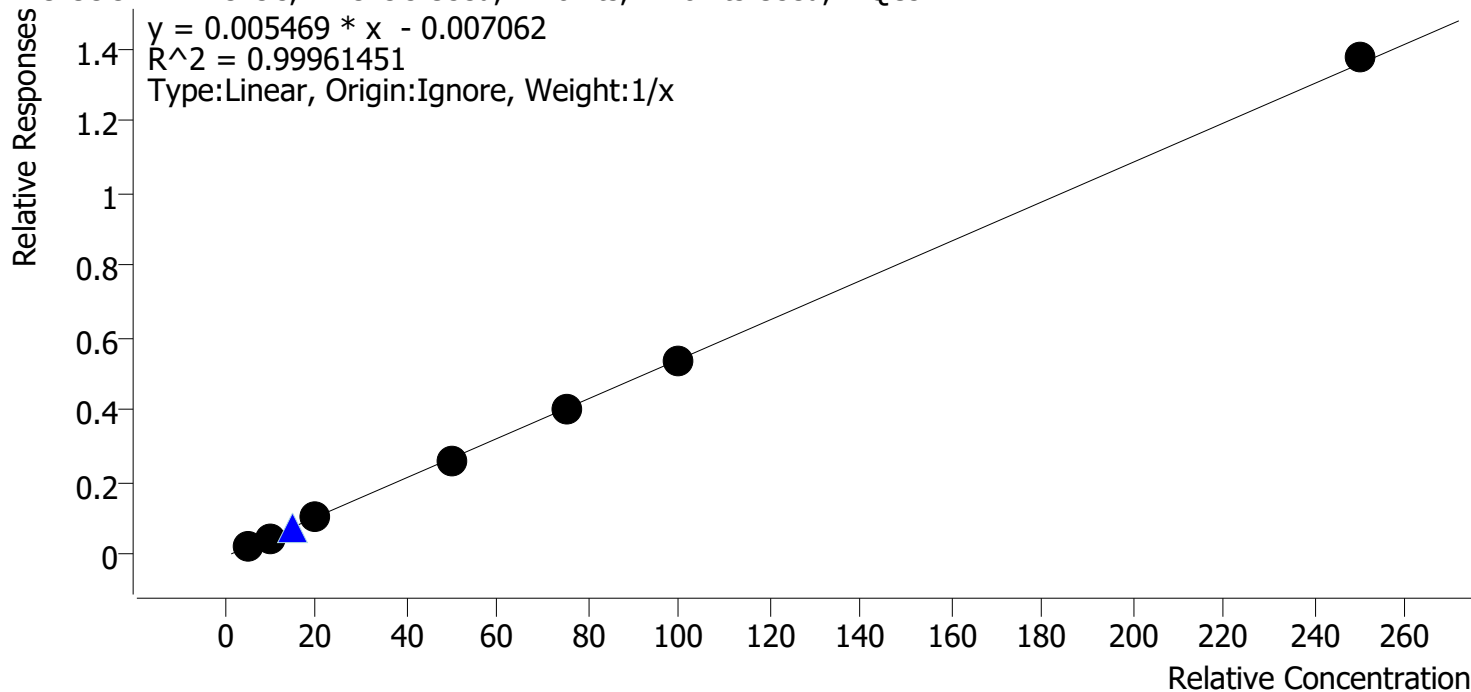


Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
mj cal 1	1	✓	1.0	1.1	113.0
mj cal 2	2	✓	3.0	2.9	95.3
mj cal 3	3	✓	5.0	4.7	94.3
mj cal 4	4	✓	10.0	9.7	96.8
mj cal 5	5	✓	25.0	24.5	98.1
mj cal 6	6	✓	50.0	51.3	102.7
mj cal 7	7	✓	100.0	99.7	99.7

Compound Calibration Report

Batch results D:\MassHunter\Data\2024\lam 27-28\042424\QuantResults\lam 27.batch.bin
Last Cal. Update 4/25/2024 12:03 PM
Analyst Name ISP\datastor
Analyte THC-COOH **Internal Standard** THC-COOH-d9

THC-COOH - 7 Levels, 7 Levels Used, 7 Points, 7 Points Used, 1 QCs

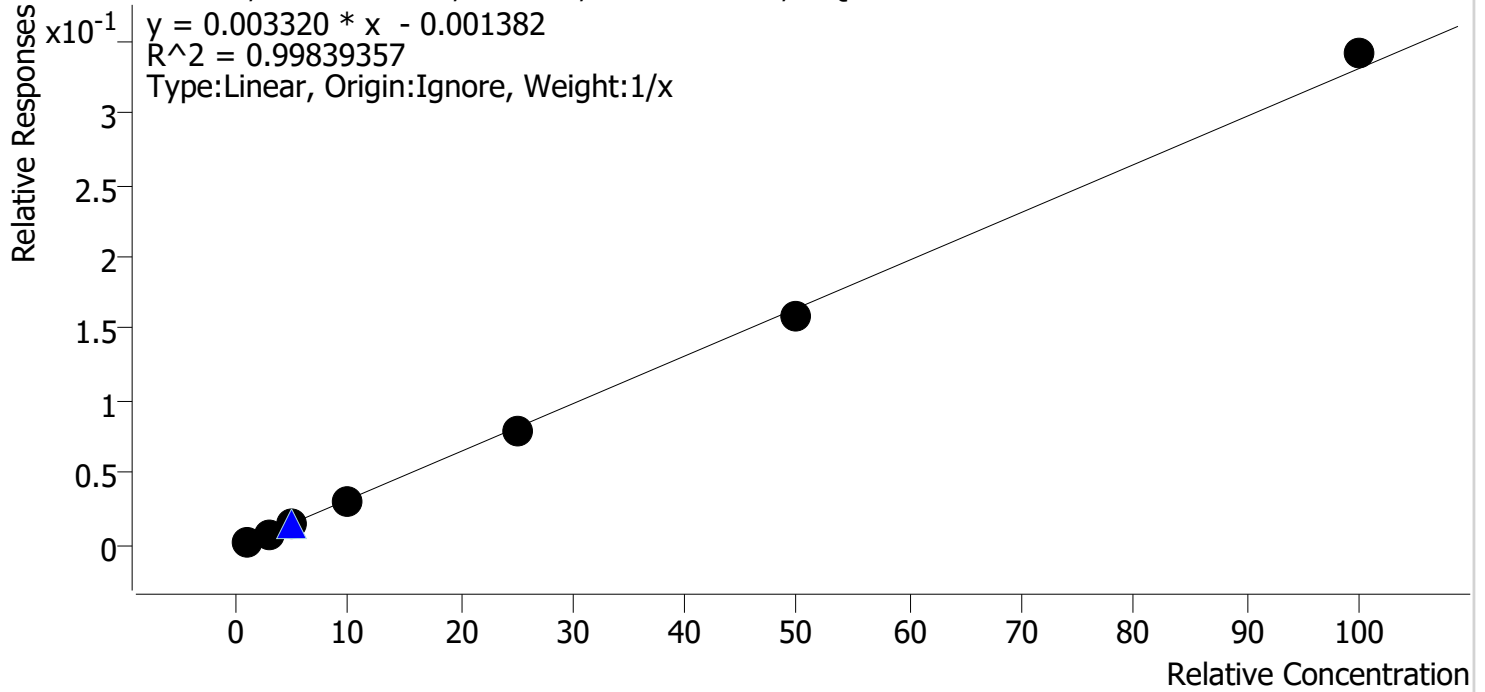


Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
mj cal 1	1	✓	5.0	5.5	109.2
mj cal 2	2	✓	10.0	9.7	96.8
mj cal 3	3	✓	20.0	19.3	96.4
mj cal 4	4	✓	50.0	49.0	98.0
mj cal 5	5	✓	75.0	74.2	98.9
mj cal 6	6	✓	100.0	99.3	99.3
mj cal 7	7	✓	250.0	253.1	101.2

Compound Calibration Report

Batch results D:\MassHunter\Data\2024\lam 27-28\042424\QuantResults\lam 27.batch.bin
Last Cal. Update 4/25/2024 12:03 PM
Analyst Name ISP\datastor
Analyte THC-OH **Internal Standard** THC-OH-d3

THC-OH - 7 Levels, 7 Levels Used, 7 Points, 7 Points Used, 1 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
mj cal 1	1	✓	1.0	1.2	119.3
mj cal 2	2	✓	3.0	2.9	95.8
mj cal 3	3	✓	5.0	4.7	94.5
mj cal 4	4	✓	10.0	9.3	93.2
mj cal 5	5	✓	25.0	24.2	96.9
mj cal 6	6	✓	50.0	48.6	97.1
mj cal 7	7	✓	100.0	103.1	103.1

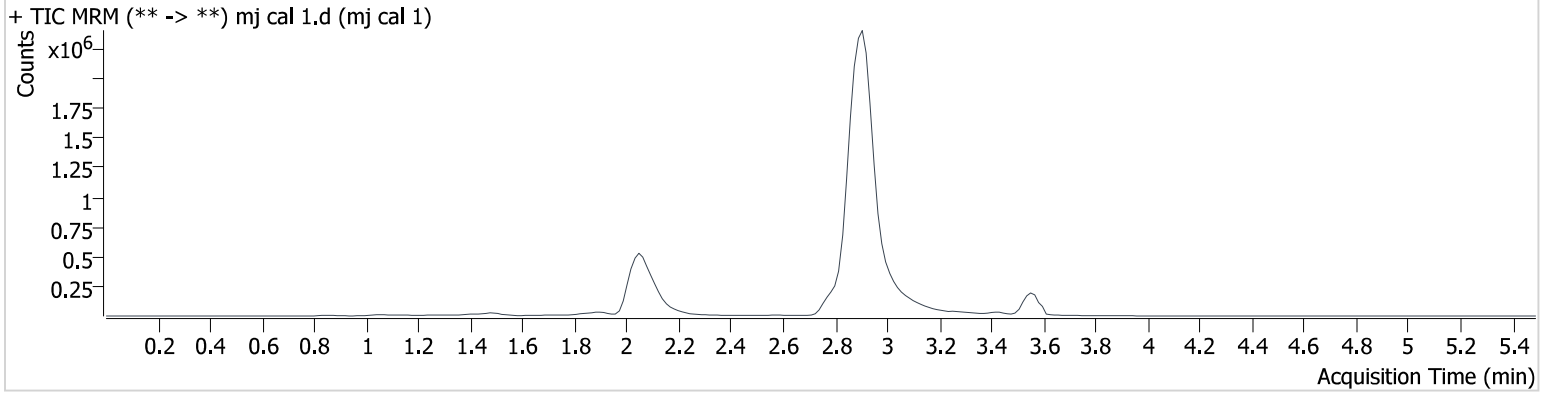
AM #27 Cannabinoids

Batch results D:\MassHunter\Data\2024\am 27-28\042424\QuantResults\am 27.batch.bin
Calibration Last Update 4/25/2024 12:03:48 PM

Instrument 69679
Type Cal
Acq. Method thc quant 50 50.m
Sample Position P3-A1
Injection Volume 10
Acq. Date-Time 4/24/2024 7:07:39 PM
Sample Info.

Data File mj cal 1.d
Sample mj cal 1
Operator Anne Nord
Comment Only drugs and concentrations listed on the laboratory report itself are appropriate to be used for interpretation purposes. Any drugs or values included in the notes but not included on the report are used by laboratory personnel to make determinations/reach conclusions within the confines of the methods

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.	
THC-OH	2.051	6148	289.6	792.32	∞	2383701	1.193 ng/ml	Low
THC-COOH	2.122	19211	106.4	276.78	621.0	842113	5.462 ng/ml	
THC	3.558	13687	392.2	22.89	∞	568215	1.130 ng/ml	

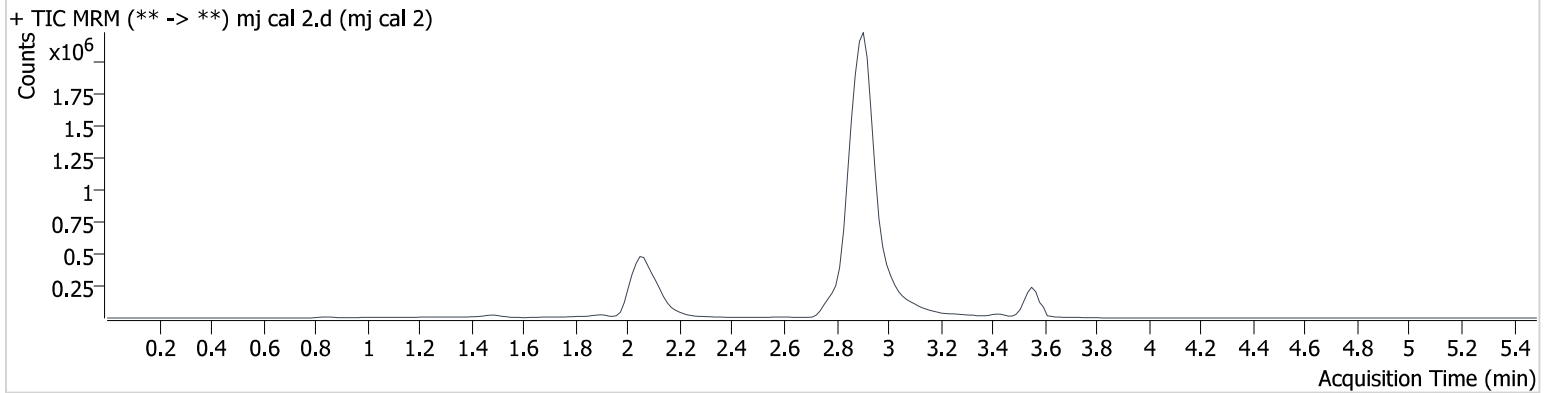
AM #27 Cannabinoids

Batch results D:\MassHunter\Data\2024\am 27-28\042424\QuantResults\am 27.batch.bin
Calibration Last Update 4/25/2024 12:03:48 PM

Instrument 69679
Type Cal
Acq. Method thc quant 50 50.m
Sample Position P3-B1
Injection Volume 10
Acq. Date-Time 4/24/2024 7:14:23 PM
Sample Info.

Data File mj cal 2.d
Sample mj cal 2
Operator Anne Nord
Comment Only drugs and concentrations listed on the laboratory report itself are appropriate to be used for interpretation purposes. Any drugs or values included in the notes but not included on the report are used by laboratory personnel to make determinations/reach conclusions within the confines of the methods

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.	
THC-OH	2.051	16626	204.8	888.39	∞	2036282	2.875 ng/ml	Low
THC-COOH	2.122	36572	566.4	286.88	29188.2	796763	9.684 ng/ml	
THC	3.558	48428	921.1	27.98	∞	615396	2.860 ng/ml	

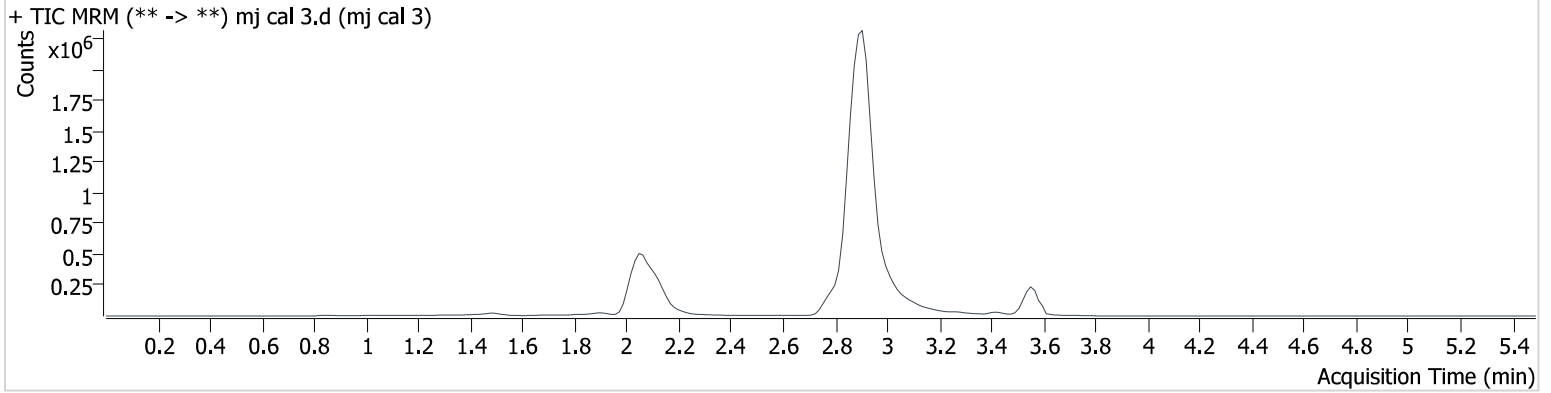
AM #27 Cannabinoids

Batch results D:\MassHunter\Data\2024\am 27-28\042424\QuantResults\am 27.batch.bin
Calibration Last Update 4/25/2024 12:03:48 PM

Instrument 69679
Type Cal
Acq. Method thc quant 50 50.m
Sample Position P3-C1
Injection Volume 10
Acq. Date-Time 4/24/2024 7:20:59 PM
Sample Info.

Data File mj cal 3.d
Sample mj cal 3
Operator Anne Nord
Comment Only drugs and concentrations listed on the laboratory report itself are appropriate to be used for interpretation purposes. Any drugs or values included in the notes but not included on the report are used by laboratory personnel to make determinations/reach conclusions within the confines of the methods

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC-OH	2.051	28160	5426.6	906.81	∞	1967312	4.727 ng/ml
THC-COOH	2.122	75795	1699.4	272.89	579.2	769975	19.289 ng/ml
THC	3.558	80483	4240494509 32451.0	25.66	148.3	586076	4.717 ng/ml

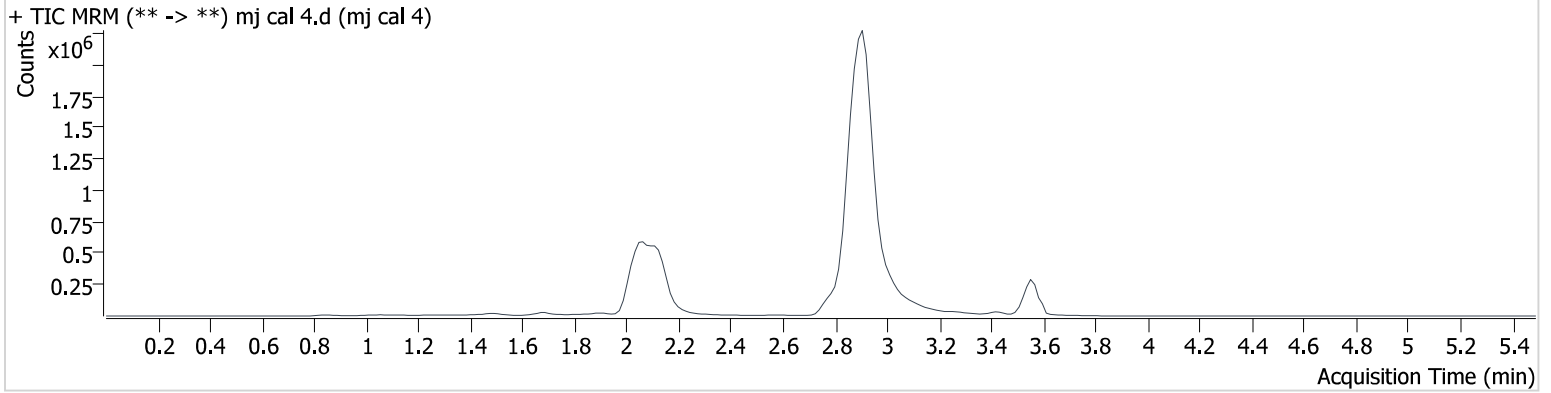
AM #27 Cannabinoids

Batch results D:\MassHunter\Data\2024\am 27-28\042424\QuantResults\am 27.batch.bin
Calibration Last Update 4/25/2024 12:03:48 PM

Instrument 69679
Type Cal
Acq. Method thc quant 50 50.m
Sample Position P3-D1
Injection Volume 10
Acq. Date-Time 4/24/2024 7:27:35 PM
Sample Info.

Data File mj cal 4.d
Sample mj cal 4
Operator Anne Nord
Comment Only drugs and concentrations listed on the laboratory report itself are appropriate to be used for interpretation purposes. Any drugs or values included in the notes but not included on the report are used by laboratory personnel to make determinations/reach conclusions within the confines of the methods

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC-OH	2.051	60642	4306.4	849.15	∞	2051927	9.317 ng/ml
THC-COOH	2.122	209850	659.7	269.50	832564	803868	49.020 ng/ml
THC	3.558	184198	∞	24.38	1277.7	626281	9.682 ng/ml

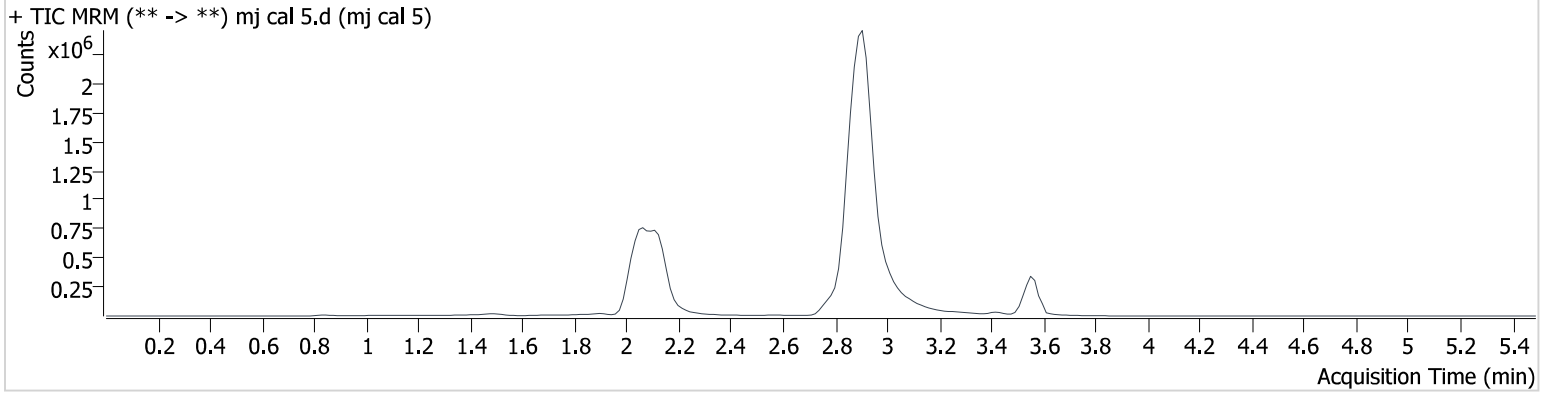
AM #27 Cannabinoids

Batch results D:\MassHunter\Data\2024\am 27-28\042424\QuantResults\am 27.batch.bin
Calibration Last Update 4/25/2024 12:03:48 PM

Instrument 69679
Type Cal
Acq. Method thc quant 50 50.m
Sample Position P3-E1
Injection Volume 10
Acq. Date-Time 4/24/2024 7:34:12 PM
Sample Info.

Data File mj cal 5.d
Sample mj cal 5
Operator Anne Nord
Comment Only drugs and concentrations listed on the laboratory report itself are appropriate to be used for interpretation purposes. Any drugs or values included in the notes but not included on the report are used by laboratory personnel to make determinations/reach conclusions within the confines of the methods

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC-OH	2.051	154851	∞	872.46	∞	1958248	24.232 ng/ml
THC-COOH	2.122	307363	202619.8	269.81	4005.7	770703	74.207 ng/ml
THC	3.558	424328	24192.2	25.87	4294.2	556510	24.516 ng/ml

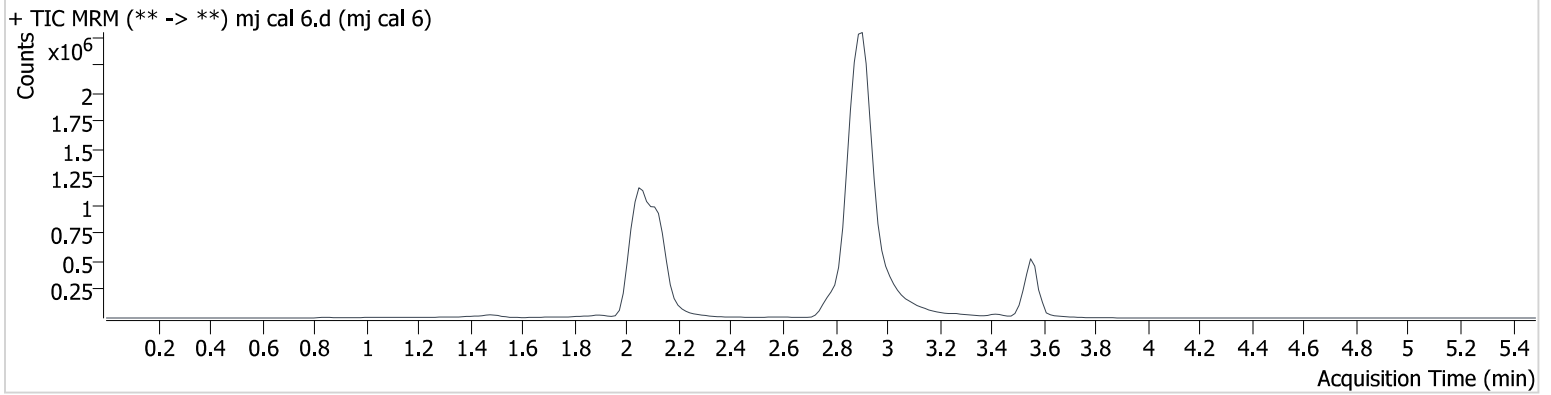
AM #27 Cannabinoids

Batch results D:\MassHunter\Data\2024\am 27-28\042424\QuantResults\am 27.batch.bin
Calibration Last Update 4/25/2024 12:03:48 PM

Instrument 69679
Type Cal
Acq. Method thc quant 50 50.m
Sample Position P3-F1
Injection Volume 10
Acq. Date-Time 4/24/2024 7:40:46 PM
Sample Info.

Data File mj cal 6.d
Sample mj cal 6
Operator Anne Nord
Comment Only drugs and concentrations listed on the laboratory report itself are appropriate to be used for interpretation purposes. Any drugs or values included in the notes but not included on the report are used by laboratory personnel to make determinations/reach conclusions within the confines of the methods

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC-OH	2.051	344302	7000.3	872.33	∞	2154233	48.552 ng/ml
THC-COOH	2.122	421510	10092.4	270.76	886.4	786683	99.255 ng/ml
THC	3.558	933036	24721.2	25.72	1511.2	579646	51.346 ng/ml

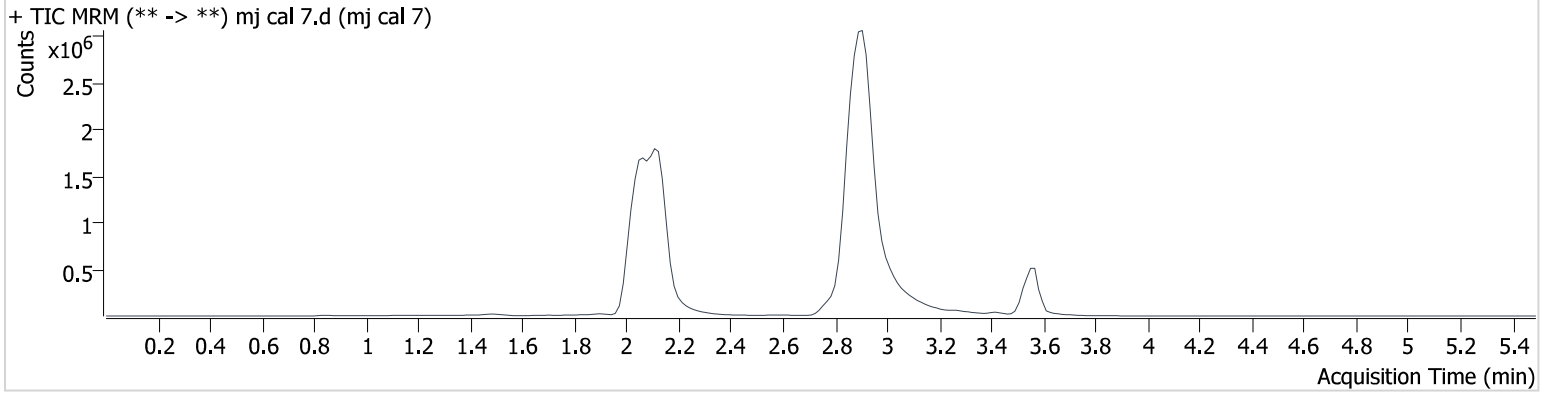
AM #27 Cannabinoids

Batch results D:\MassHunter\Data\2024\am 27-28\042424\QuantResults\am 27.batch.bin
Calibration Last Update 4/25/2024 12:03:48 PM

Instrument 69679
Type Cal
Acq. Method thc quant 50 50.m
Sample Position P3-G1
Injection Volume 10
Acq. Date-Time 4/24/2024 7:47:22 PM
Sample Info.

Data File mj cal 7.d
Sample mj cal 7
Operator Anne Nord
Comment Only drugs and concentrations listed on the laboratory report itself are appropriate to be used for interpretation purposes. Any drugs or values included in the notes but not included on the report are used by laboratory personnel to make determinations/reach conclusions within the confines of the methods

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC-OH	2.051	647766	∞	833.30	∞	1899843	103.104 ng/ml
THC-COOH	2.122	947520	20220.2	267.04	4506.4	688031	253.082 ng/ml
THC	3.573	1291022	∞	26.34	3147.9	411415	99.750 ng/ml