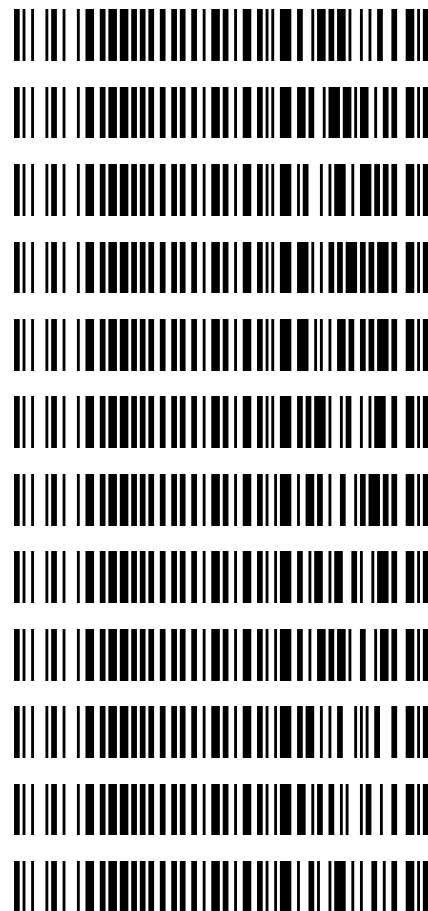


Worklist: 6278

| <u>LAB CASE</u> | <u>ITEM</u> | <u>ITEM TYPE</u> | <u>DESCRIPTION</u> |
|-----------------|-------------|------------------|---------------------------------|
| P2023-0181 | 1 | BCK | AM 27 Blood THC Quant by LC-QQQ |
| P2023-0255 | 1 | CBUK | AM 27 Blood THC Quant by LC-QQQ |
| P2023-0311 | 1 | BCK | AM 27 Blood THC Quant by LC-QQQ |
| P2023-0444 | 1 | BCK | AM 27 Blood THC Quant by LC-QQQ |
| P2023-0445 | 1 | BCK | AM 27 Blood THC Quant by LC-QQQ |
| P2023-0458 | 1 | BCK | AM 27 Blood THC Quant by LC-QQQ |
| P2023-0463 | 1 | BCK | AM 27 Blood THC Quant by LC-QQQ |
| P2023-0475 | 1 | BCK | AM 27 Blood THC Quant by LC-QQQ |
| P2023-0482 | 1 | BCK | AM 27 Blood THC Quant by LC-QQQ |
| P2023-0504 | 1 | BCK | AM 27 Blood THC Quant by LC-QQQ |
| P2023-0552 | 1 | BCK | AM 27 Blood THC Quant by LC-QQQ |
| P2023-0581 | 1 | BCK | AM 27 Blood THC Quant by LC-QQQ |



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

Extraction Date: 03/08/2023

Analyst: Tamara Salazar

Plate lot#: 230113

Plate Retest Date: 07/13/2023

Mobile phase A: 0.1% Formic Acid in LCMS Water

Mobile phase B: 0.1% Formic acid in Acetonitrile

Blank Blood Lot: Lampire 23A52593

Blank Urine Lot: N/A

Column: UCT Selectra DA 100 x 2.1mm 3um

LCMS-QQQ ID: 069901

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.
- 3. Using a calibrated pipette, add **1000µl blood and urine (if applicable) (calibrated pipette)** into the appropriate wells of analytical (standards) plate. **Pipette ID: 42**
- 4. Place on shaking incubator at ambient temp., 900rpm for 15 minutes.
- 5. 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.
- 6. Place on shaking incubator at ambient temp., 900rpm for 15 minutes.
- 7. Transfer **700-800µL of blood+acid or urine+acid** mixture to corresponding wells of SLE+ plate.
Amount transferred: 750µL
- 8. 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)
- 9. Wait 5 minutes.
- 10. Add **2.25mL MTBE. (Add in 3 increments of 750uL)**
- 11. Wait 5 minutes.
- 12. Apply positive pressure for approx. 15 seconds. *(10-15 PSI- Selector to the left).*
- 13. Add **2.25mL Hexane. (Add in 3 increments of 750uL)**
- 14. Wait 5 minutes.
- 15. Apply positive pressure for approx. 15 seconds. *(10-15 PSI- Selector to the left).*
- 16. Remove plate containing eluate. Place on SPE Dry and evaporate to dryness at approx. 35°C.
- 17. 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:

Analytical Plate Map

TS

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---|-------------|-------------|-------------|--------------|--------------|-------------|
| A | IS + Cal. 1 | IS + QC_1 | IS + Sample | IS + Sample | P2023-0458-1 | IS + QC_1 |
| B | IS + Cal. 2 | IS + Sample | IS + Sample | IS + Sample | P2023-0445-1 | IS + Cal. 7 |
| C | IS + Cal. 3 | IS + Sample | IS + Sample | P2023-0581-1 | P2023-0444-1 | IS + Cal. 6 |
| D | IS + Cal. 4 | IS + Sample | IS + Sample | P2023-0552-1 | P2023-0311-1 | IS + Cal. 5 |
| E | IS + Cal. 5 | IS + Sample | IS + Sample | P2023-0504-1 | P2023-0255-1 | IS + Cal. 4 |
| F | IS + Cal. 6 | IS + Sample | IS + Sample | P2023-0482-1 | P2023-0181-1 | IS + Cal. 3 |
| G | IS + Cal. 7 | IS + Sample | IS + Sample | P2023-0475-1 | Neg Blood | IS + Cal. 2 |
| H | IS + QC_1 | IS + Sample | IS + Sample | P2023-0463-1 | IS + QC_1 | IS + Cal. 1 |

All wells to contain 100 μ l of residual DMSO

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---------------|--------------|-------------|
| A | | | | | P2023-0458-1 | IS + QC_1 |
| B | | | | P2023-0552-1* | P2023-0445-1 | IS + Cal. 7 |
| C | | | | P2023-0581-1 | P2023-0444-1 | IS + Cal. 6 |
| D | | | | P2023-0552-1* | P2023-0311-1 | IS + Cal. 5 |
| E | | | | P2023-0504-1 | P2023-0255-1 | IS + Cal. 4 |
| F | | | | P2023-0482-1 | P2023-0181-1 | IS + Cal. 3 |
| G | | | | P2023-0475-1 | Neg Blood | IS + Cal. 2 |
| H | | | | P2023-0463-1 | IS + QC_1 | IS + Cal. 1 |

*Sample moved during step 7 of extraction procedure due to blood clot

TS

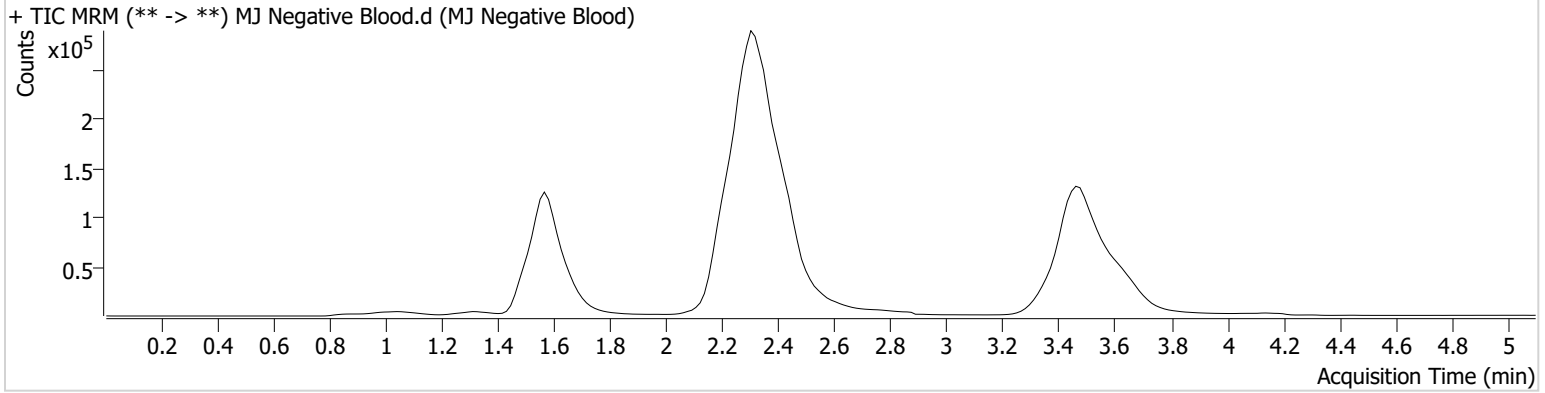


AM #27 Cannabinoid Quant. Results

Batch results D:\MassHunter\Data\2023\AM 27 28\030823 AM 27 28 TS\QuantResults\AM 27.batch.bin
Calibration Last Update 3/16/2023 8:24:59 AM

| | | | |
|-------------------------|---------------------|------------------|---------------------|
| Instrument | Falco (069901) | Data File | MJ Negative Blood.d |
| Type | Sample | Sample | MJ Negative Blood |
| Acq. Method | AM 27 THCQ.m | Operator | Tamara Salazar |
| Sample Position | P1-G5 | Comment | |
| Injection Volume | 10 | | |
| Acq. Date-Time | 3/8/2023 3:35:35 PM | | |
| Sample Info. | | | |

Sample Chromatogram



TS



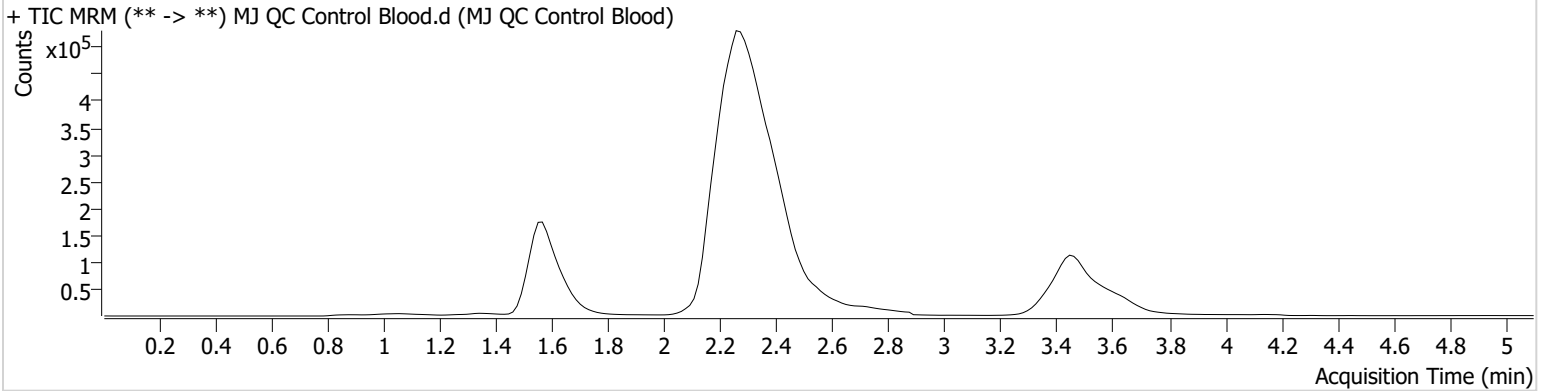
AM #27 Cannabinoid Quant. Results

Batch results D:\MassHunter\Data\2023\AM 27 28\030823 AM 27 28 TS\QuantResults\AM 27.batch.bin
Calibration Last Update 3/16/2023 8:24:59 AM

| | | | |
|-------------------------|---------------------|------------------|-----------------------|
| Instrument | Falco (069901) | Data File | MJ QC Control Blood.d |
| Type | QC | Sample | MJ QC Control Blood |
| Acq. Method | AM 27 THCQ.m | Operator | Tamara Salazar |
| Sample Position | P1-A6 | Comment | |
| Injection Volume | 10 | | |
| Acq. Date-Time | 3/8/2023 3:20:18 PM | | |

Sample Info.

Sample Chromatogram



| Name | RT | Resp. | S/N | Ratio | S/N | ISTD Resp. | Final Conc. |
|----------|-------|-------|---------|-------|---------|------------|---------------|
| THC-OH | 1.558 | 88797 | 1224.14 | 12.1 | 162.75 | 837514 | 4.6085 ng/ml |
| THC-COOH | 1.584 | 24443 | 1075.57 | 175.8 | 2684.05 | 216745 | 15.5268 ng/ml |
| THC | 3.465 | 70796 | 714.06 | 24.3 | 49.02 | 1363713 | 5.4374 ng/ml |

TS



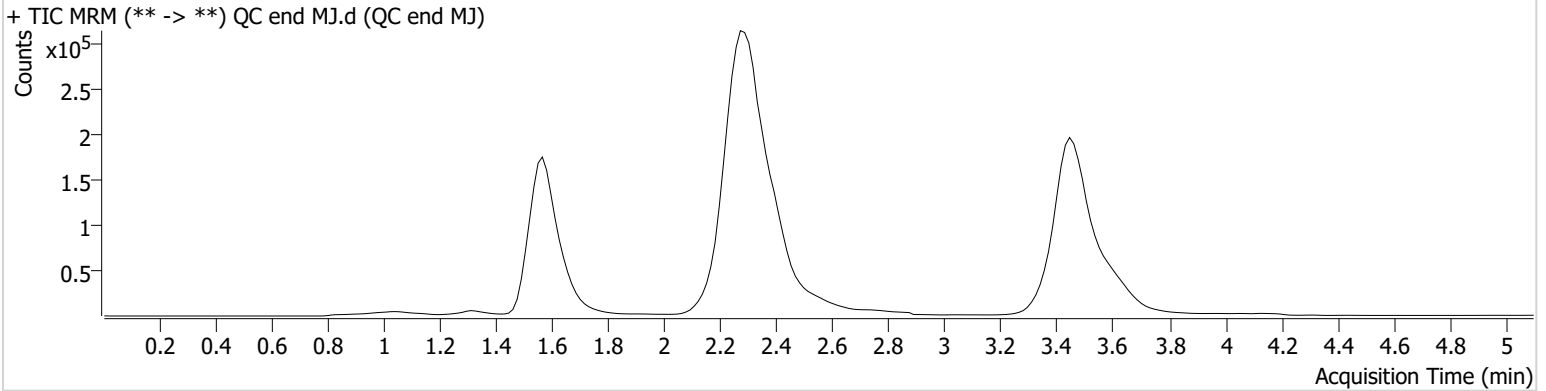
AM #27 Cannabinoid Quant. Results

Batch results D:\MassHunter\Data\2023\AM 27 28\030823 AM 27 28 TS\QuantResults\AM 27.batch.bin
Calibration Last Update 3/16/2023 8:24:59 AM

| | | | |
|-------------------------|---------------------|------------------|----------------|
| Instrument | Falco (069901) | Data File | QC end MJ.d |
| Type | QC | Sample | QC end MJ |
| Acq. Method | AM 27 THCQ.m | Operator | Tamara Salazar |
| Sample Position | P1-H5 | Comment | |
| Injection Volume | 10 | | |
| Acq. Date-Time | 3/8/2023 6:53:47 PM | | |

Sample Info.

Sample Chromatogram



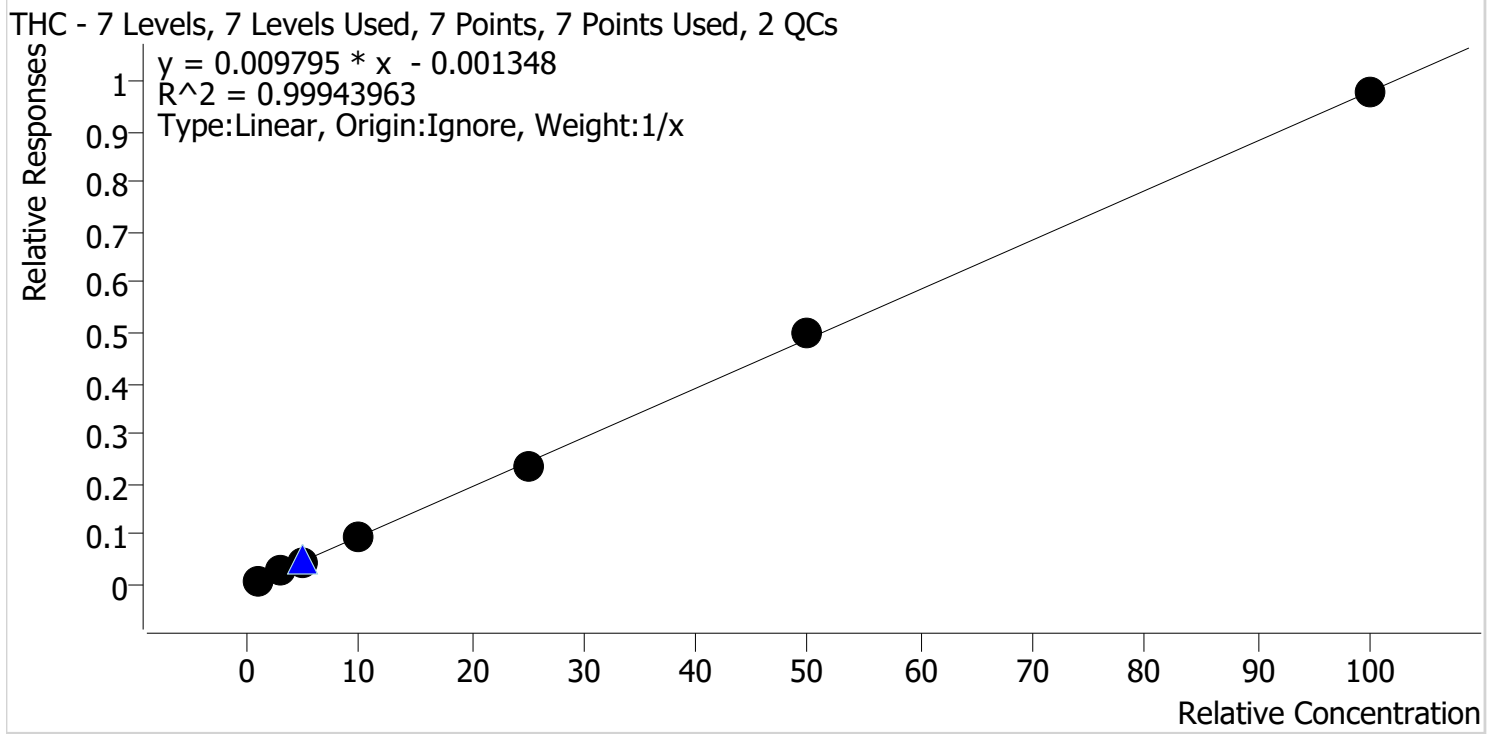
| Name | RT | Resp. | S/N | Ratio | S/N | ISTD Resp. | Final Conc. |
|----------|-------|-------|--------|-------|-------|------------|---------------|
| THC-OH | 1.573 | 85329 | ∞ | 12.2 | 53.79 | 802521 | 4.6216 ng/ml |
| THC-COOH | 1.584 | 23834 | 295.46 | 180.2 | ∞ | 223184 | 14.7600 ng/ml |
| THC | 3.465 | 94175 | 514.96 | 24.3 | 81.74 | 1899132 | 5.2000 ng/ml |

TS



AM #27 Cannabinoids Quant. Calibration Curve Report

Batch results D:\MassHunter\Data\2023\AM 27 28\030823 AM 27 28 TS\QuantResults\AM 27.batch.bin
Last Cal. Update 3/16/2023 8:24 AM
Analyst Name ISP\Datastor
Analyte THC **Internal Standard** THC-D3



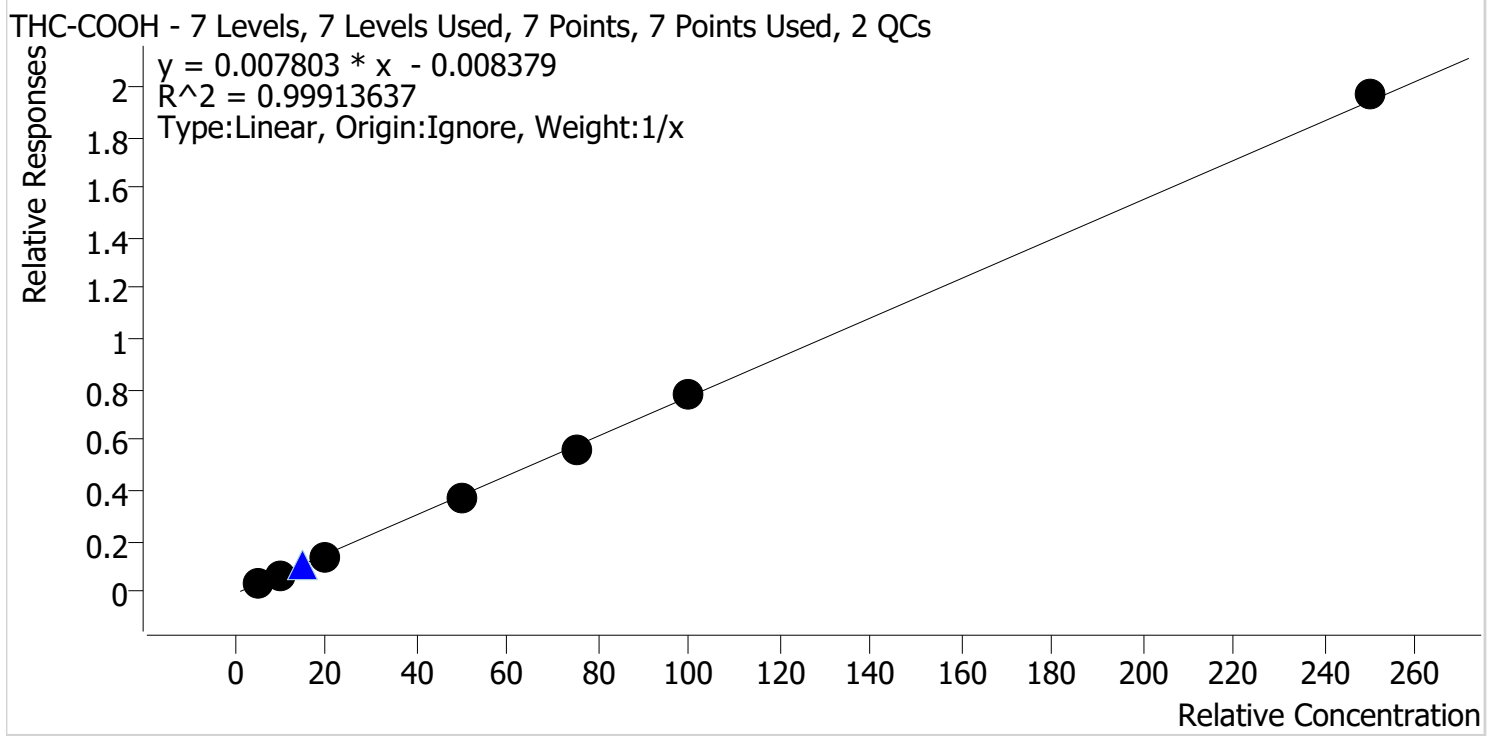
| Sample | Level | Enabled | Expected Concentration | Final Concentration | Accuracy |
|----------|-------|---------|------------------------|---------------------|----------|
| Cal 1 MJ | 1 | ✓ | 1.0 | 1.0 | 104.4 |
| Cal 2 MJ | 2 | ✓ | 3.0 | 2.9 | 98.0 |
| Cal 3 MJ | 3 | ✓ | 5.0 | 5.0 | 99.4 |
| Cal 4 MJ | 4 | ✓ | 10.0 | 10.0 | 100.1 |
| Cal 5 MJ | 5 | ✓ | 25.0 | 23.9 | 95.5 |
| Cal 6 MJ | 6 | ✓ | 50.0 | 51.4 | 102.8 |
| Cal 7 MJ | 7 | ✓ | 100.0 | 99.8 | 99.8 |

TS



AM #27 Cannabinoids Quant. Calibration Curve Report

Batch results D:\MassHunter\Data\2023\AM 27 28\030823 AM 27 28 TS\QuantResults\AM 27.batch.bin
Last Cal. Update 3/16/2023 8:24 AM
Analyst Name ISP\Datastor
Analyte THC-COOH **Internal Standard** THC-COOH-D9



| Sample | Level | Enabled | Expected Concentration | Final Concentration | Accuracy |
|----------|-------|---------|------------------------|---------------------|----------|
| Cal 1 MJ | 1 | ✓ | 5.0 | 5.5 | 110.4 |
| Cal 2 MJ | 2 | ✓ | 10.0 | 9.8 | 97.9 |
| Cal 3 MJ | 3 | ✓ | 20.0 | 19.2 | 95.8 |
| Cal 4 MJ | 4 | ✓ | 50.0 | 48.4 | 96.8 |
| Cal 5 MJ | 5 | ✓ | 75.0 | 72.1 | 96.1 |
| Cal 6 MJ | 6 | ✓ | 100.0 | 101.7 | 101.7 |
| Cal 7 MJ | 7 | ✓ | 250.0 | 253.3 | 101.3 |

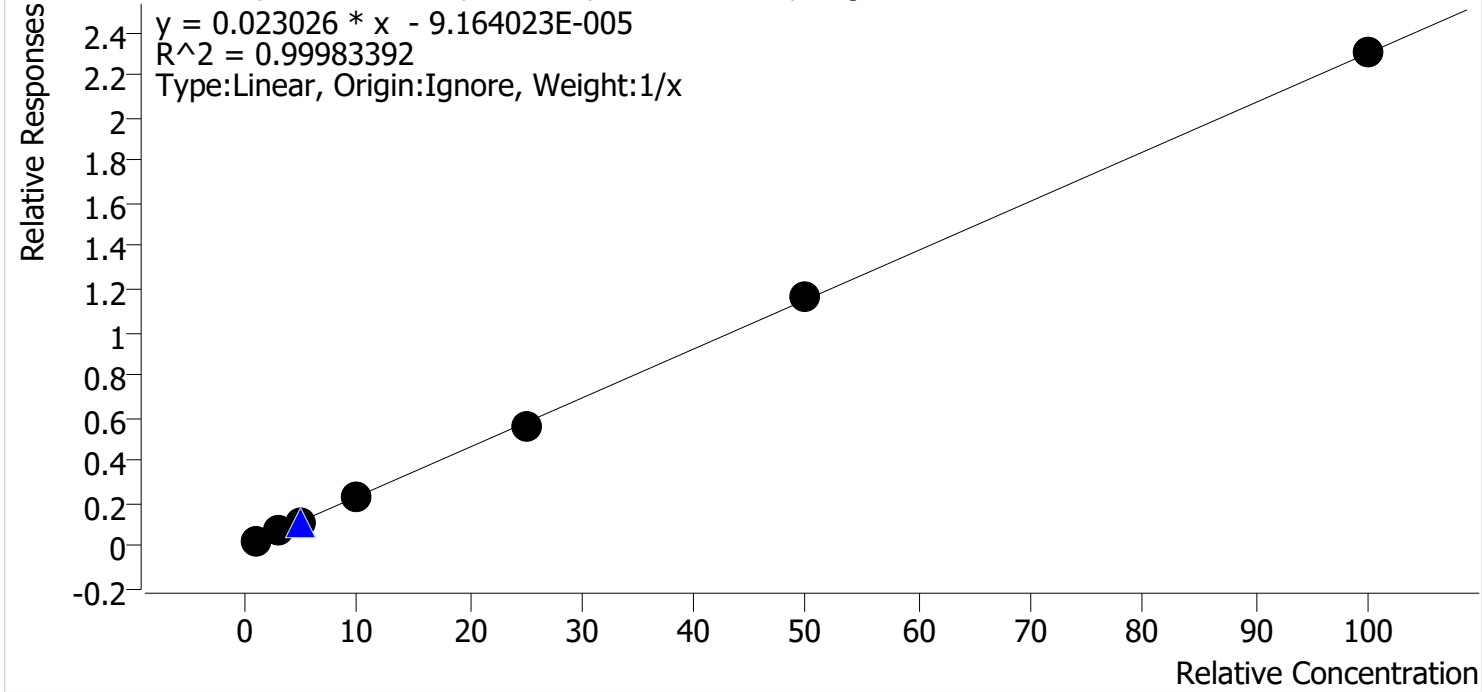
TS



AM #27 Cannabinoids Quant. Calibration Curve Report

Batch results D:\MassHunter\Data\2023\AM 27 28\030823 AM 27 28 TS\QuantResults\AM 27.batch.bin
Last Cal. Update 3/16/2023 8:24 AM
Analyst Name ISP\Datastor
Analyte THC-OH **Internal Standard** THC-OH-D3

THC-OH - 7 Levels, 7 Levels Used, 7 Points, 7 Points Used, 2 QCs



| Sample | Level | Enabled | Expected Concentration | Final Concentration | Accuracy |
|----------|-------|---------|------------------------|---------------------|----------|
| Cal 1 MJ | 1 | ✓ | 1.0 | 1.0 | 104.4 |
| Cal 2 MJ | 2 | ✓ | 3.0 | 3.0 | 100.8 |
| Cal 3 MJ | 3 | ✓ | 5.0 | 4.9 | 97.5 |
| Cal 4 MJ | 4 | ✓ | 10.0 | 9.8 | 97.8 |
| Cal 5 MJ | 5 | ✓ | 25.0 | 24.5 | 98.1 |
| Cal 6 MJ | 6 | ✓ | 50.0 | 50.6 | 101.3 |
| Cal 7 MJ | 7 | ✓ | 100.0 | 100.1 | 100.1 |

TS

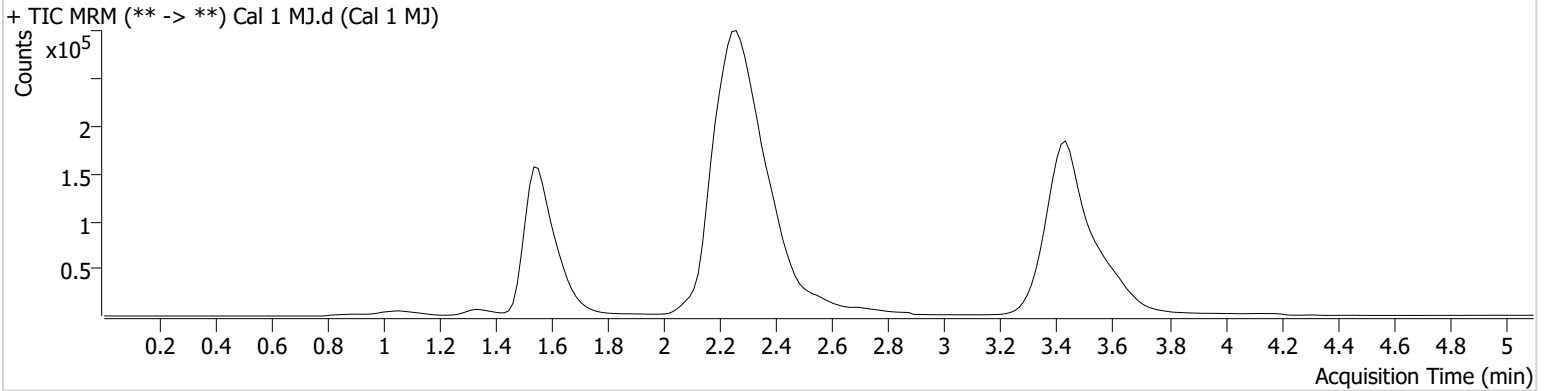


AM #27 Cannabinoid Quant. Results

Batch results D:\MassHunter\Data\2023\AM 27 28\030823 AM 27 28 TS\QuantResults\AM 27.batch.bin
Calibration Last Update 3/16/2023 8:24:59 AM

| | | | |
|-------------------------|---------------------|------------------|----------------|
| Instrument | Falco (069901) | Data File | Cal 1 MJ.d |
| Type | Cal | Sample | Cal 1 MJ |
| Acq. Method | AM 27 THCQ.m | Operator | Tamara Salazar |
| Sample Position | P1-H6 | Comment | |
| Injection Volume | 10 | | |
| Acq. Date-Time | 3/8/2023 2:19:15 PM | | |

Sample Chromatogram



| Name | RT | Resp. | S/N | Ratio | S/N | ISTD Resp. | Final Conc. |
|----------|-------|-------|--------|-------|--------|------------|-------------------------|
| THC-OH | 1.558 | 20725 | ∞ | 12.9 | 20.08 | 865094 | 1.0444 ng/ml Low |
| THC-COOH | 1.569 | 7985 | 152.23 | 184.6 | 214.17 | 230226 | 5.5187 ng/ml |
| THC | 3.435 | 18918 | 122.07 | 25.6 | 10.28 | 2130446 | 1.0441 ng/ml |

TS

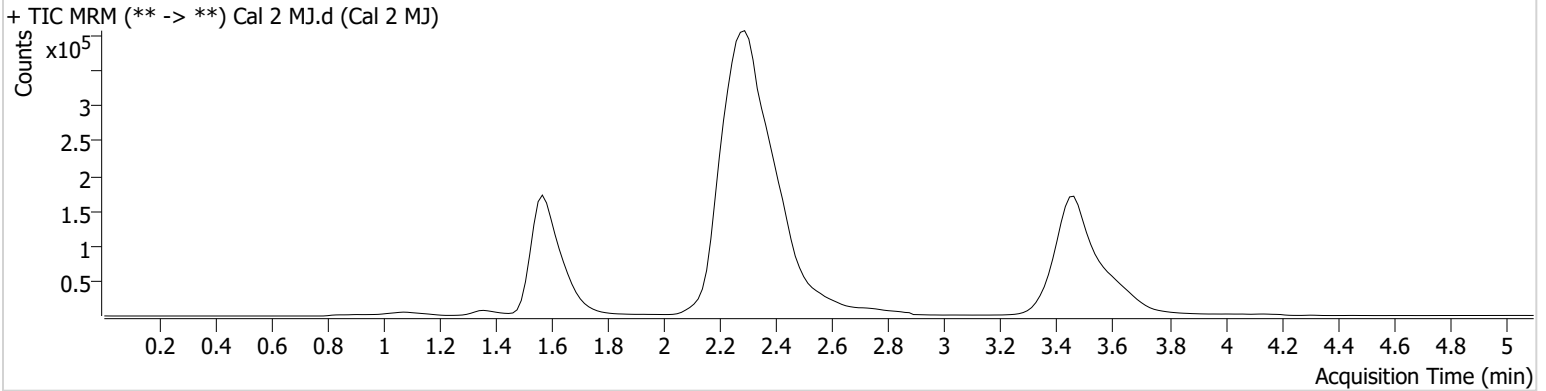


AM #27 Cannabinoid Quant. Results

Batch results D:\MassHunter\Data\2023\AM 27 28\030823 AM 27 28 TS\QuantResults\AM 27.batch.bin
Calibration Last Update 3/16/2023 8:24:59 AM

| | | | |
|-------------------------|---------------------|------------------|----------------|
| Instrument | Falco (069901) | Data File | Cal 2 MJ.d |
| Type | Cal | Sample | Cal 2 MJ |
| Acq. Method | AM 27 THCQ.m | Operator | Tamara Salazar |
| Sample Position | P1-G6 | Comment | |
| Injection Volume | 10 | | |
| Acq. Date-Time | 3/8/2023 2:27:01 PM | | |

Sample Chromatogram



| Name | RT | Resp. | S/N | Ratio | S/N | ISTD Resp. | Final Conc. |
|----------|-------|-------|--------|-------|--------|------------|--------------|
| THC-OH | 1.573 | 59286 | ∞ | 12.2 | 157.03 | 852835 | 3.0230 ng/ml |
| THC-COOH | 1.599 | 15431 | 281.73 | 188.2 | 373.12 | 226883 | 9.7901 ng/ml |
| THC | 3.465 | 51548 | 155.07 | 24.6 | 20.08 | 1877742 | 2.9401 ng/ml |

TS

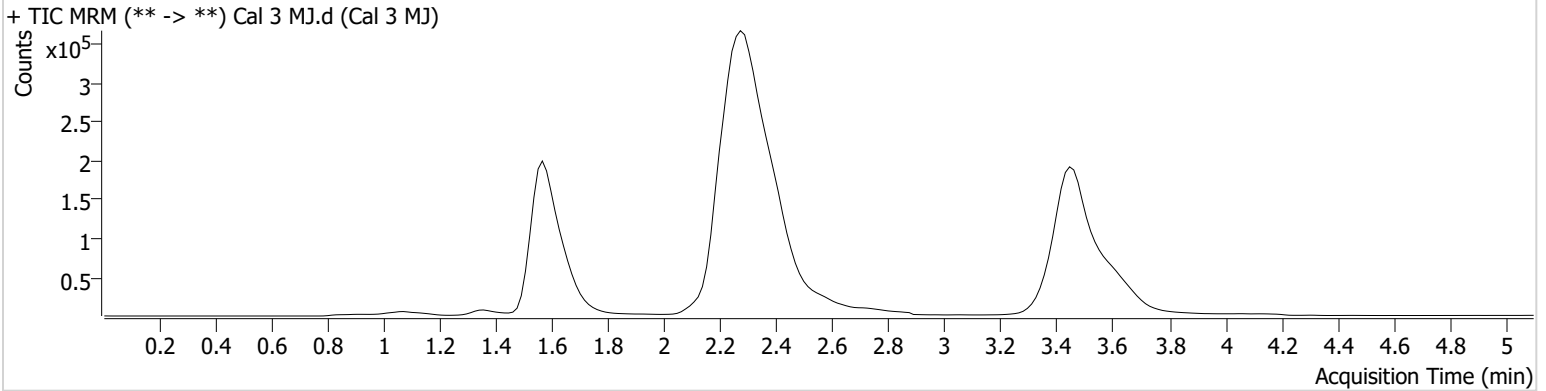


AM #27 Cannabinoid Quant. Results

Batch results D:\MassHunter\Data\2023\AM 27 28\030823 AM 27 28 TS\QuantResults\AM 27.batch.bin
Calibration Last Update 3/16/2023 8:24:59 AM

| | | | |
|-------------------------|---------------------|------------------|----------------|
| Instrument | Falco (069901) | Data File | Cal 3 MJ.d |
| Type | Cal | Sample | Cal 3 MJ |
| Acq. Method | AM 27 THCQ.m | Operator | Tamara Salazar |
| Sample Position | P1-F6 | Comment | |
| Injection Volume | 10 | | |
| Acq. Date-Time | 3/8/2023 2:34:38 PM | | |

Sample Chromatogram



| Name | RT | Resp. | S/N | Ratio | S/N | ISTD Resp. | Final Conc. |
|----------|-------|--------|--------|-------|--------|------------|---------------|
| THC-OH | 1.573 | 100569 | 638.91 | 12.6 | ∞ | 896288 | 4.8769 ng/ml |
| THC-COOH | 1.599 | 33110 | 527.10 | 186.1 | 687.58 | 234664 | 19.1568 ng/ml |
| THC | 3.465 | 94494 | 687.44 | 23.9 | 62.50 | 1995854 | 4.9710 ng/ml |

TS

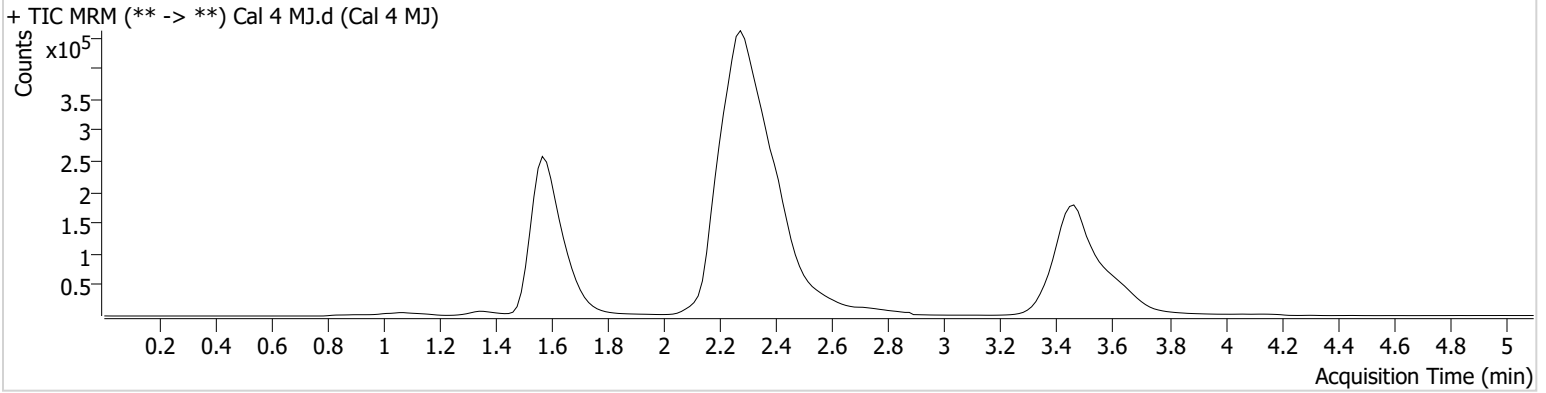


AM #27 Cannabinoid Quant. Results

Batch results D:\MassHunter\Data\2023\AM 27 28\030823 AM 27 28 TS\QuantResults\AM 27.batch.bin
Calibration Last Update 3/16/2023 8:24:59 AM

| | | | |
|-------------------------|---------------------|------------------|----------------|
| Instrument | Falco (069901) | Data File | Cal 4 MJ.d |
| Type | Cal | Sample | Cal 4 MJ |
| Acq. Method | AM 27 THCQ.m | Operator | Tamara Salazar |
| Sample Position | P1-E6 | Comment | |
| Injection Volume | 10 | | |
| Acq. Date-Time | 3/8/2023 2:42:15 PM | | |

Sample Chromatogram



| Name | RT | Resp. | S/N | Ratio | S/N | ISTD Resp. | Final Conc. |
|----------|-------|--------|---------|-------|---------|------------|---------------|
| THC-OH | 1.573 | 214882 | ∞ | 12.0 | 1624.10 | 954822 | 9.7775 ng/ml |
| THC-COOH | 1.584 | 84087 | 200.48 | 192.1 | ∞ | 227820 | 48.3769 ng/ml |
| THC | 3.465 | 179377 | 1734.80 | 24.7 | 119.86 | 1854520 | 10.0120 ng/ml |

TS

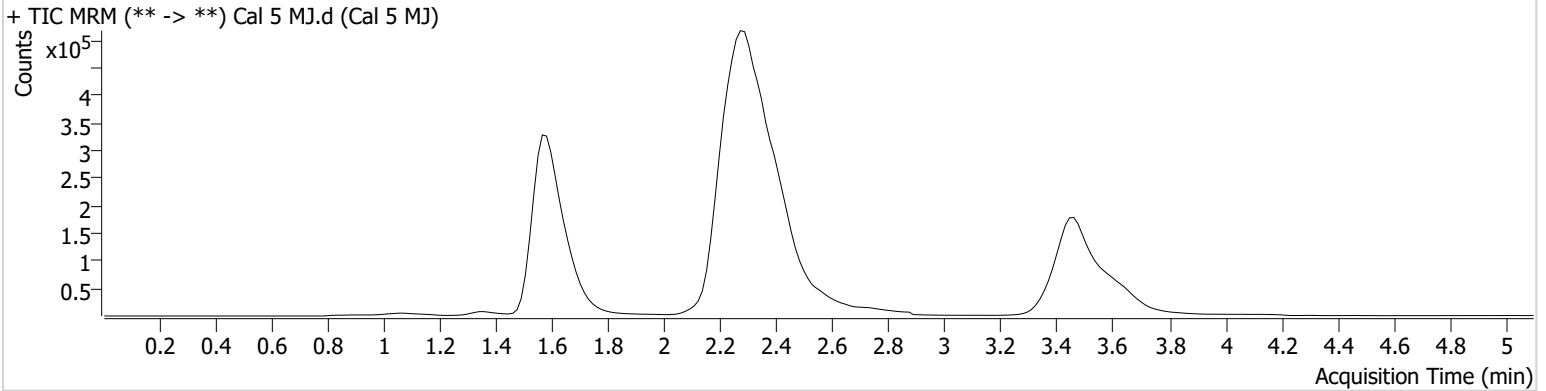


AM #27 Cannabinoid Quant. Results

Batch results D:\MassHunter\Data\2023\AM 27 28\030823 AM 27 28 TS\QuantResults\AM 27.batch.bin
Calibration Last Update 3/16/2023 8:24:59 AM

| | | | |
|-------------------------|---------------------|------------------|----------------|
| Instrument | Falco (069901) | Data File | Cal 5 MJ.d |
| Type | Cal | Sample | Cal 5 MJ |
| Acq. Method | AM 27 THCQ.m | Operator | Tamara Salazar |
| Sample Position | P1-D6 | Comment | |
| Injection Volume | 10 | | |
| Acq. Date-Time | 3/8/2023 2:49:51 PM | | |

Sample Chromatogram



| Name | RT | Resp. | S/N | Ratio | S/N | ISTD Resp. | Final Conc. |
|----------|-------|--------|---------|-------|---------|------------|---------------|
| THC-OH | 1.573 | 522186 | ∞ | 12.1 | 1216.31 | 924893 | 24.5232 ng/ml |
| THC-COOH | 1.599 | 126159 | 674.05 | 185.4 | 2937.67 | 227683 | 72.0869 ng/ml |
| THC | 3.465 | 389751 | 1624.82 | 24.4 | ∞ | 1676123 | 23.8762 ng/ml |

TS

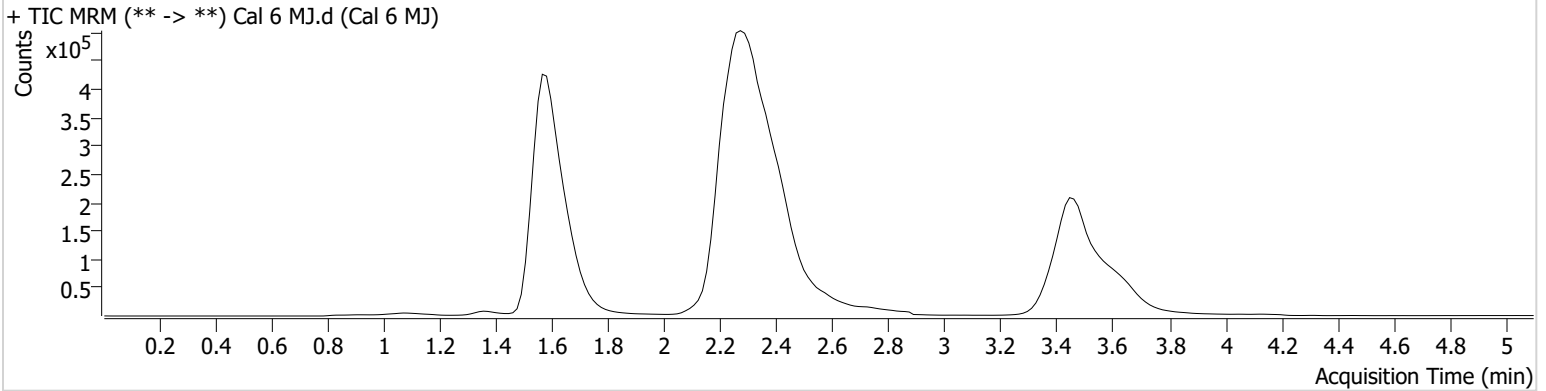


AM #27 Cannabinoid Quant. Results

Batch results D:\MassHunter\Data\2023\AM 27 28\030823 AM 27 28 TS\QuantResults\AM 27.batch.bin
Calibration Last Update 3/16/2023 8:24:59 AM

| | | | |
|-------------------------|---------------------|------------------|----------------|
| Instrument | Falco (069901) | Data File | Cal 6 MJ.d |
| Type | Cal | Sample | Cal 6 MJ |
| Acq. Method | AM 27 THCQ.m | Operator | Tamara Salazar |
| Sample Position | P1-C6 | Comment | |
| Injection Volume | 10 | | |
| Acq. Date-Time | 3/8/2023 2:57:27 PM | | |

Sample Chromatogram



| Name | RT | Resp. | S/N | Ratio | S/N | ISTD Resp. | Final Conc. |
|----------|-------|---------|---------|-------|---------|------------|----------------|
| THC-OH | 1.573 | 1034656 | ∞ | 12.1 | 2207.76 | 887452 | 50.6359 ng/ml |
| THC-COOH | 1.599 | 169002 | 2384.01 | 180.1 | ∞ | 215164 | 101.7374 ng/ml |
| THC | 3.465 | 766931 | ∞ | 23.7 | 4747.17 | 1527814 | 51.3836 ng/ml |

TS

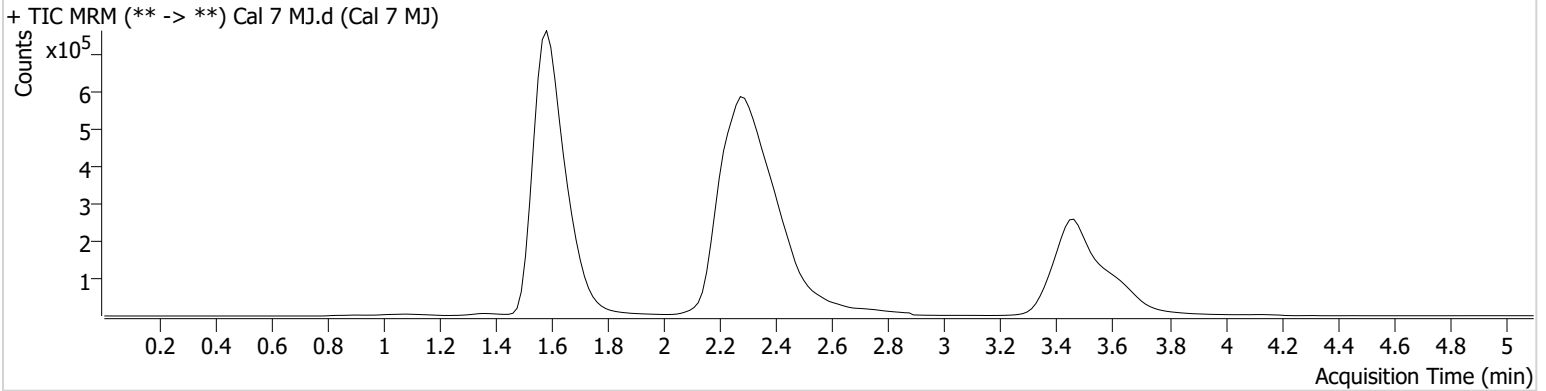


AM #27 Cannabinoid Quant. Results

Batch results D:\MassHunter\Data\2023\AM 27 28\030823 AM 27 28 TS\QuantResults\AM 27.batch.bin
Calibration Last Update 3/16/2023 8:24:59 AM

| | | | |
|-------------------------|---------------------|------------------|----------------|
| Instrument | Falco (069901) | Data File | Cal 7 MJ.d |
| Type | Cal | Sample | Cal 7 MJ |
| Acq. Method | AM 27 THCQ.m | Operator | Tamara Salazar |
| Sample Position | P1-B6 | Comment | |
| Injection Volume | 10 | | |
| Acq. Date-Time | 3/8/2023 3:05:04 PM | | |

Sample Chromatogram



| Name | RT | Resp. | S/N | Ratio | S/N | ISTD Resp. | Final Conc. |
|----------|-------|---------|---------|-------|----------|------------|----------------|
| THC-OH | 1.573 | 2080703 | 3761.58 | 12.8 | 6608.88 | 902577 | 100.1191 ng/ml |
| THC-COOH | 1.599 | 417508 | 8007.91 | 178.1 | 10722.09 | 212113 | 253.3332 ng/ml |
| THC | 3.465 | 1455097 | ∞ | 23.7 | 721.51 | 1490913 | 99.7730 ng/ml |