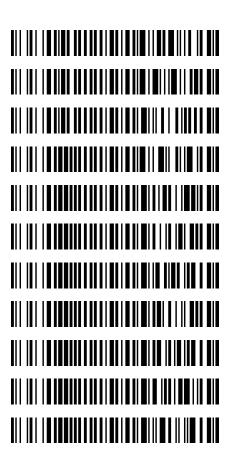


3/15/2023

Worklist: 6468

LAB CASE ITE	<u>EM</u>	ITEM TYPE	DESCRIPTION
M2023-1304	3	UCK	AM 27 Urine Cannabinoids Confirmation by LC-QQQ
M2023-2661	3	UCK	AM 27 Urine Cannabinoids Confirmation by LC-QQQ
M2023-2879	1	UCK	AM 27 Urine Cannabinoids Confirmation by LC-QQQ
P2023-1899	1	UCK	AM 27 Urine Cannabinoids Confirmation by LC-QQQ
P2023-2027	1	UCK	AM 27 Urine Cannabinoids Confirmation by LC-QQQ
P2023-2146	1	ВСК	AM 27 Blood THC Quant by LC-QQQ
P2023-2189	1	ВСК	AM 27 Blood THC Quant by LC-QQQ
P2023-2225	1	вск	AM 27 Blood THC Quant by LC-QQQ
P2023-2231	1	ВСК	AM 27 Blood THC Quant by LC-QQQ
P2023-2261	1	UCK	AM 27 Urine Cannabinoids Confirmation by LC-QQQ
P2023-2407	1	UCK	AM 27 Urine Cannabinoids Confirmation by LC-QQQ





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

Extraction Date: 08/14/2023

Plate lot#: 230627

Mobile phase A: 0.1% Formic Acid in LCMS Water

Blank Blood Lot: Lampire 23A52594 Column: UCT Selectra DA 100 x 2.1mm 3um Analyst: <u>Tamara Salazar</u> Plate Retest Date: 12/27/2023

Mobile phase B: 0.1% Formic acid in Acetonitrile

Blank Urine Lot: POC021022 LCMS-QQQ ID: 069901

Pre-Analytic:

☑ 1. Check levels of mobile phases and needle wash refill as needed. Ensure waste is not full.

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: 42
- ☑ 4. Place on shaking incubator at ambient temp., 900rpm for 15 minutes.
- 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.
- Σ 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)
- \boxtimes 9. Wait 5 minutes.
- ≥ 10. Add 2.25mL MTBE. (Add in 3 increments of 750uL)
- \boxtimes 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)
- \boxtimes 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

- \boxtimes 2. Make any necessary integration changes, Curve weighting of Linear 1/x with r² values \ge 0.98 for each analyte
- ✓ 4. Did all QCs pass for each analyte? (if not, describe in comments section)
- ☑ 6. Central File Packet to include: LIMS Worklist, Method Checklist, Calibration and Control Reports

COMMENTS:

Instrument ran out of mobile phase B before running sample P2023-2407 and the final QC. The mobile phase was remade and the affected samples were re-run, as well as a negative control.

	1	2	3	4	5	6
Α	IS + Cal. 1	IS + QC_1	M2023-2661-3			IS + QC_1
В	IS + Cal. 2	Neg Blood	M2023-2879-1			IS + Cal. 7
С	IS + Cal. 3	P2023-2146-1	P2023-1899-1			IS + Cal. 6
D	IS + Cal. 4	P2023-2189-1	P2023-2027-1			IS + Cal. 5
E	IS + Cal. 5	P2023-2225-1	P2023-2261-1			IS + Cal. 4
F	IS + Cal. 6	P2023-2231-1	P2023-2407-1			IS + Cal. 3
G	IS + Cal. 7	Urine Neg				IS + Cal. 2
Н	IS + QC_1	M2023-1304-1			IS + QC_1	IS + Cal. 1

All wells to contain 100 μl of residual DMSO

D:\MassHunter\Data\2023\AM 27 28\081423 AM 27 TS\QuantResults\AM 27.batch.bin **Batch results**

Calibration Last Update 8/16/2023 9:44:46 AM

Instrument **Type** Acq. Method **Sample Position Injection Volume** Falco (069901) Sample

P5-B2 10

Acq. Date-Time Sample Info.

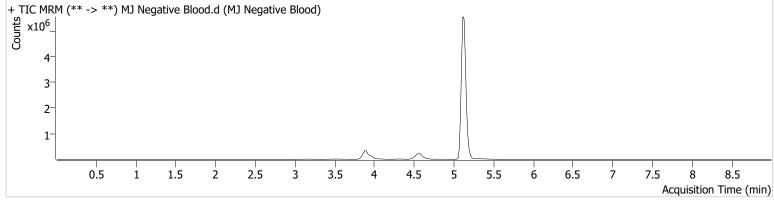
AM 27 Agilent Method.m

8/14/2023 6:35:44 PM

Data File Sample Operator Comment

MJ Negative Blood.d MJ Negative Blood Tamara Salazar

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.



D:\MassHunter\Data\2023\AM 27 28\081423 AM 27 TS\QuantResults\AM 27.batch.bin **Batch results**

Calibration Last Update 8/16/2023 9:44:46 AM

Instrument **Type** Acq. Method Falco (069901)

QC

8/14/2023 6:09:33 PM

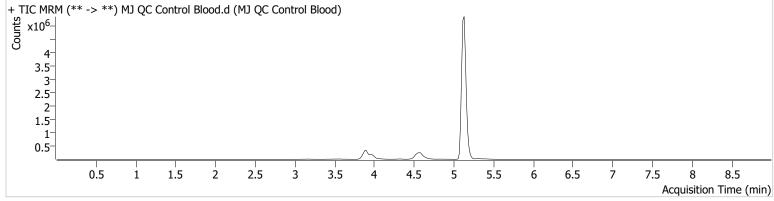
Sample Position Injection Volume P5-H1 10

Acq. Date-Time Sample Info.

AM 27 Agilent Method.m

Data File Sample Operator Comment MJ QC Control Blood.d MJ QC Control Blood Tamara Salazar

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.



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.135	750555	3563.70	25.7	∞	20032783	4.3934 ng/ml
THC-COOH	3.985	42594	620.28	253.4	∞	385506	14.2151 ng/ml
THC-OH	3.896	85456	296.01	13.9	œ	1414215	4.8823 ng/ml

Batch results D:\MassHunter\Data\2023\AM 27 28\081423 AM 27 TS\QuantResults\AM 27.batch.bin

Data File

Operator

Comment

Sample

Calibration Last Update 8/16/2023 9:44:46 AM

Instrument
Type
Acq. Method
Sample Position
Injection Volume

Falco (069901) QC AM 27 Agilent Method.m

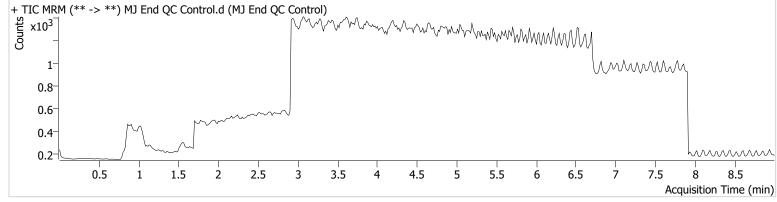
P5-H1 10

Acq. Date-Time 8/15/2023 12:42:35 AM **Sample Info.**

Instrument ran out of mobile phase. Mobile phase was remade and sample was re-injected.

MJ End QC Control.d MJ End QC Control Tamara Salazar

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.



D:\MassHunter\Data\2023\AM 27 28\081423 AM 27 TS\QuantResults\AM 27.batch.bin **Batch results**

Calibration Last Update 8/16/2023 9:44:46 AM

Falco (069901)

QC

Type Acq. Method

Sample Position Injection Volume 10

Acq. Date-Time Sample Info.

Instrument

AM 27 Agilent Method.m P5-H1

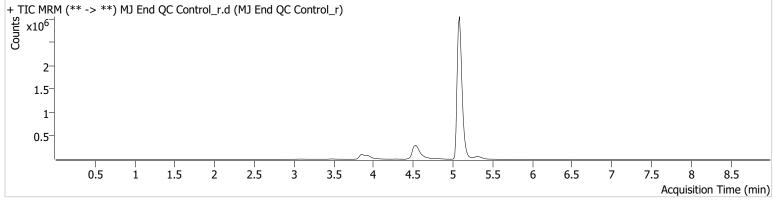
8/15/2023 9:59:54 AM

Used to bracket reinjects.

Data File Sample Operator Comment

MJ End QC Control_r.d MJ End QC Control_r Tamara Salazar

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.



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.090	419756	3610.68	26.3	727.37	12108540	4.0770 ng/ml
THC-COOH	3.939	17311	120.28	233.0	319.22	173114	12.8829 ng/ml
THC-OH	3.865	29625	∞	16.4	∞	465319	5.1397 ng/ml

D:\MassHunter\Data\2023\AM 27 28\081423 AM 27 TS\QuantResults\AM 27.batch.bin **Batch results** Calibration Last Update 8/16/2023 9:44:46 AM

Instrument **Type**

Falco (069901)

QC

Acq. Method

Sample Position Injection Volume 10

Acq. Date-Time Sample Info.

AM 27 Agilent Method.m P5-H1

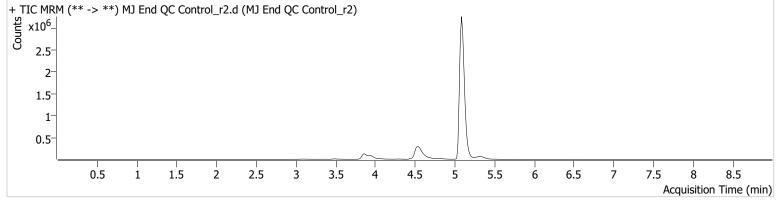
8/15/2023 11:21:06 AM

Used to bracket reinjects.

Data File Sample Operator Comment

MJ End QC Control_r2.d MJ End QC Control_r2 Tamara Salazar

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.



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.090	470317	3906.04	25.5	∞	12755744	4.3261 ng/ml
THC-COOH	3.954	20084	∞	228.9	106.34	190193	13.5941 ng/ml
THC-OH	3.865	33822	∞	12.3	∞	530801	5.1439 ng/ml

D:\MassHunter\Data\2023\AM 27 28\081423 AM 27 TS\QuantResults\AM 27.batch.bin **Batch results**

Calibration Last Update 8/16/2023 9:44:46 AM

10

Instrument **Type** Acq. Method **Sample Position** Falco (069901) Sample

P5-G2

Injection Volume Acq. Date-Time Sample Info.

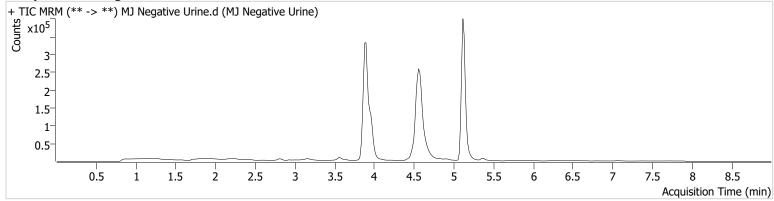
AM 27 Agilent Method.m

8/14/2023 9:13:02 PM

Data File Sample Operator Comment

MJ Negative Urine.d MJ Negative Urine Tamara Salazar

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.



D:\MassHunter\Data\2023\AM 27 28\081423 AM 27 TS\QuantResults\AM 27.batch.bin **Batch results**

Data File

Operator

Comment

Sample

Calibration Last Update 8/16/2023 9:44:46 AM

Instrument **Type** Acq. Method **Sample Position** Falco (069901) Sample

P5-G2

Injection Volume 10

Acq. Date-Time Sample Info.

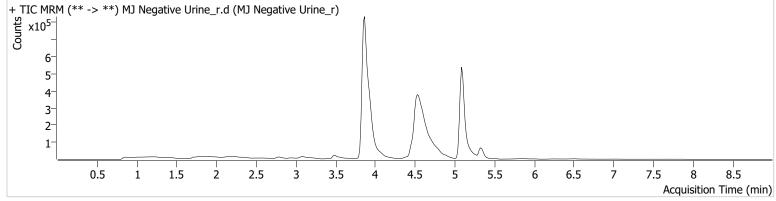
AM 27 Agilent Method.m

8/15/2023 10:26:16 AM

Ran with new mobile phase and re-injected samples.

MJ Negative Urine_r.d MJ Negative Urine_r Tamara Salazar

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.



D:\MassHunter\Data\2023\AM 27 28\081423 AM 27 TS\QuantResults\AM 27.batch.bin **Batch results**

Calibration Last Update 8/16/2023 9:44:46 AM

Instrument **Type** Acq. Method **Sample Position Injection Volume** Falco (069901) Sample

AM 27 Agilent Method.m

P5-A2 10

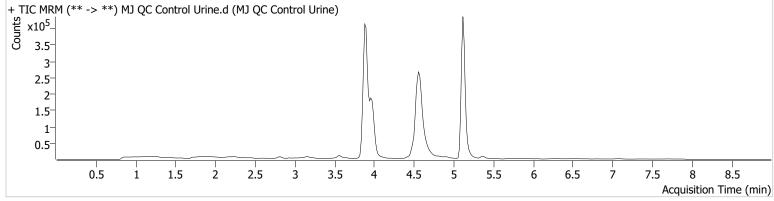
Acq. Date-Time 8/14/2023 8:46:49 PM

Sample Info.

Data File Sample Operator Comment

MJ QC Control Urine.d MJ QC Control Urine Tamara Salazar

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.



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.120	50334	∞	27.0	∞	1439220	4.1117 ng/ml
THC-COOH	3.985	43232	3102.78	2 4 7.2	2346.68	390820	14.2315 ng/ml
THC-OH	3.896	95556	∞	12.2	œ	1563242	4.9379 ng/ml

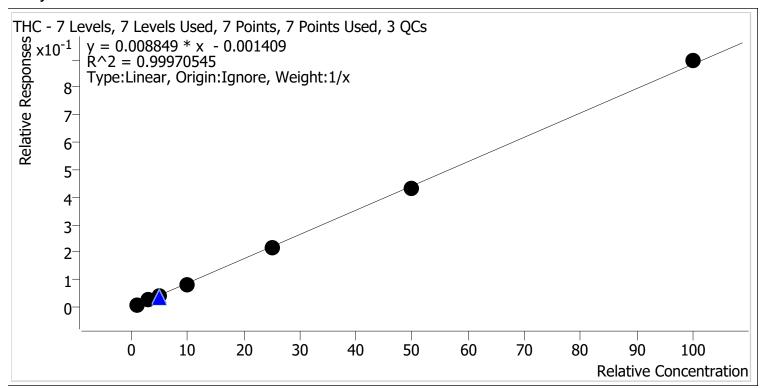


AM #27 Cannabinoids Quant. Calibration Curve Report

Batch results D:\MassHunter\Data\2023\AM 27 28\081423 AM 27 TS\QuantResults\AM 27.batch.bin

Last Cal. Update 8/16/2023 9:44 AM Analyst Name ISP\Datastor

Analyte THC Internal Standard THC-D3



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
Cal 1 MJ	1	V	1.0	1.1	106.0
Cal 2 MJ	2	V	3.0	3.0	99.1
Cal 3 MJ	3	V	5.0	5.0	99.5
Cal 4 MJ	4	V	10.0	9.7	96.9
Cal 5 MJ	5	V	25.0	24.7	98.7
Cal 6 MJ	6	V	50.0	49.2	98.5
Cal 7 MJ	7	V	100.0	101.4	101.4



AM #27 Cannabinoids Quant. Calibration Curve Report

Batch results D:\MassHunter\Data\2023\AM 27 28\081423 AM 27 TS\QuantResults\AM 27.batch.bin

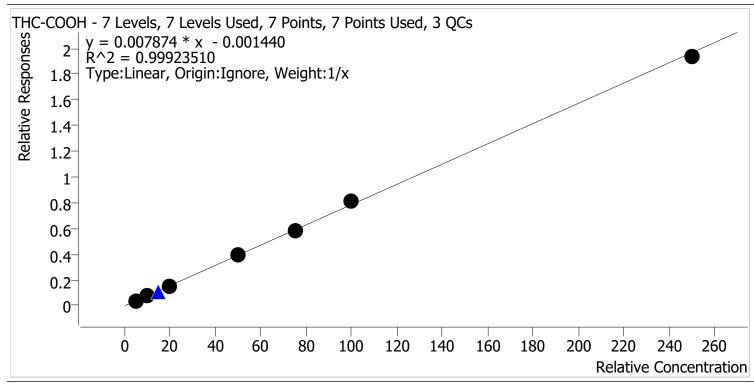
Last Cal. Update

8/16/2023 9:44 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	V	5.0	5.0	99.1
Cal 2 MJ	2	V	10.0	10.1	100.6
Cal 3 MJ	3	<i>v</i>	20.0	19.3	96.4
Cal 4 MJ	4	V	50.0	50.8	101.5
Cal 5 MJ	5	V	75.0	74.8	99.7
Cal 6 MJ	6	V	100.0	104.3	104.3
Cal 7 MJ	7	~	250.0	245.8	98.3

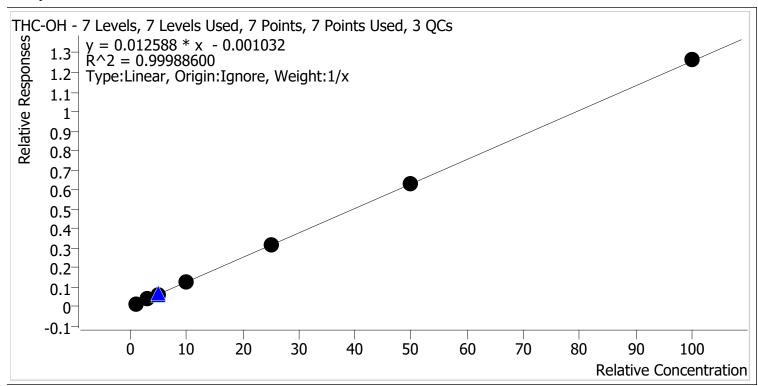


AM #27 Cannabinoids Quant. Calibration Curve Report

Batch results D:\MassHunter\Data\2023\AM 27 28\081423 AM 27 TS\QuantResults\AM 27.batch.bin

Last Cal. Update 8/16/2023 9:44 AM Analyst Name ISP\Datastor

Analyte THC-OH Internal Standard THC-OH-D3



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
Cal 1 MJ	1	>	1.0	1.1	107.6
Cal 2 MJ	2	✓	3.0	2.9	96.1
Cal 3 MJ	3	✓	5.0	4.9	97.8
Cal 4 MJ	4	>	10.0	9.9	98.8
Cal 5 MJ	5	>	25.0	24.9	99.4
Cal 6 MJ	6	>	50.0	49.8	99.7
Cal 7 MJ	7	~	100.0	100.6	100.6

D:\MassHunter\Data\2023\AM 27 28\081423 AM 27 TS\QuantResults\AM 27.batch.bin **Batch results**

Calibration Last Update 8/16/2023 9:44:46 AM

Instrument **Type**

Falco (069901)

Cal

Acq. Method

AM 27 Agilent Method.m

Sample Position Injection Volume P5-A1 10

Acq. Date-Time Sample Info.

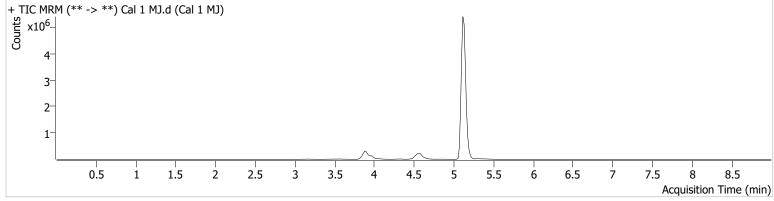
8/14/2023 4:24:37 PM

Data File Sample Operator Comment

Cal 1 MJ.d Cal 1 MJ

Tamara Salazar

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.



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.135	168382	1574.72	26.5	∞	21133095	1.0597 ng/ml
THC-COOH	3.985	13853	216.06	237.0	∞	368759	4.9539 ng/ml
THC-OH	3.896	16965	∞	14.3	21.04	1355510	1.0763 ng/ml

Batch results D:\MassHunter\Data\2023\AM 27 28\081423 AM 27 TS\QuantResults\AM 27.batch.bin

Calibration Last Update 8/16/2023 9:44:46 AM

Instrument Type Falco (069901) Cal

AM 27 Agilent Method.m

Sample Position Injection Volume Acq. Date-Time P5-B1 10

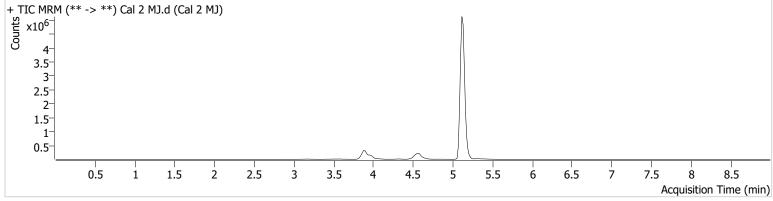
8/14/2023 4:37:53 PM

Sample Info.

Acq. Method

Data File Sample Operator Comment Cal 2 MJ.d Cal 2 MJ Tamara Salazar

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.



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.135	486396	∞	25.7	∞	19545349	2.9716 ng/ml
THC-COOH	3.985	27978	∞	231.7	499.45	359728	10.0603 ng/ml
THC-OH	3.896	48959	154.99	15.7	70.27	1388787	2.8825 ng/ml

D:\MassHunter\Data\2023\AM 27 28\081423 AM 27 TS\QuantResults\AM 27.batch.bin **Batch results**

Calibration Last Update 8/16/2023 9:44:46 AM

Instrument **Type** Acq. Method Falco (069901) Cal

AM 27 Agilent Method.m

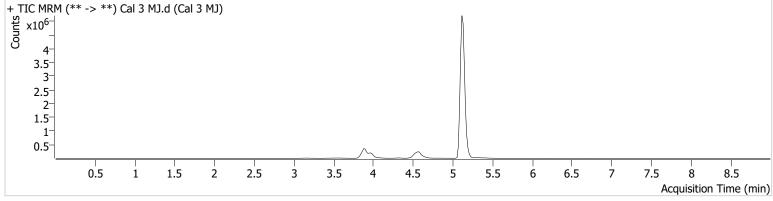
Sample Position Injection Volume P5-C1 10

Acq. Date-Time Sample Info.

Comment 8/14/2023 4:50:58 PM

Data File Cal 3 MJ.d **Sample** Cal 3 MJ Operator Tamara Salazar

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.



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.135	830023	∞	25.9	∞	19477022	4.9753 ng/ml
THC-COOH	3.985	57981	∞	248.6	∞	385528	19.2831 ng/ml
THC-OH	3.896	89587	222.37	15.4	œ	1480377	4.8894 ng/ml

D:\MassHunter\Data\2023\AM 27 28\081423 AM 27 TS\QuantResults\AM 27.batch.bin **Batch results**

Calibration Last Update 8/16/2023 9:44:46 AM

Instrument

Type

Acq. Method

Sample Position Injection Volume Acq. Date-Time

Sample Info.

Falco (069901) Cal

AM 27 Agilent Method.m P5-D1

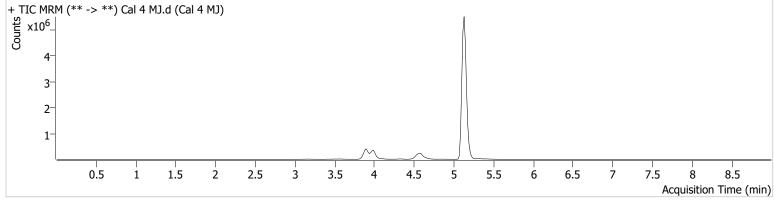
10 8/14/2023 5:04:03 PM

Data File Sample Operator Comment

Cal 4 MJ.d Cal 4 MJ

Tamara Salazar

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.



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.135	1635346	29113.10	26.8	∞	19386372	9.6925 ng/ml
THC-COOH	3.985	151604	3210.21	233.2	∞	380652	50.7640 ng/ml
THC-OH	3.896	185117	∞	13.9	∞	1500450	9.8828 ng/ml

D:\MassHunter\Data\2023\AM 27 28\081423 AM 27 TS\QuantResults\AM 27.batch.bin **Batch results**

Calibration Last Update 8/16/2023 9:44:46 AM

Instrument **Type** Acq. Method Falco (069901) Cal

AM 27 Agilent Method.m

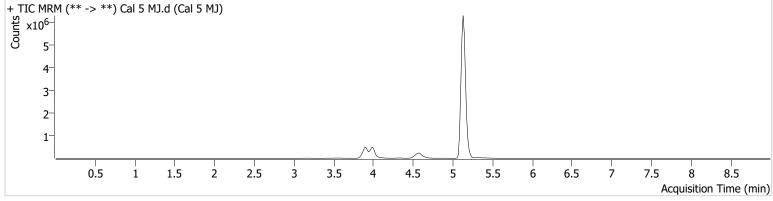
Sample Position Injection Volume P5-E1 10

8/14/2023 5:17:08 PM

Acq. Date-Time Sample Info.

Data File Sample Operator Comment Cal 5 MJ.d Cal 5 MJ Tamara Salazar

> 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.



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.135	4227830	62626.27	26.6	4250.75	19496563	24.6660 ng/ml
THC-COOH	3.985	232971	4587.78	233.6	∞	396580	74.7895 ng/ml
THC-OH	3.911	498912	∞	14.8	4444.04	1599979	24.8531 ng/ml

D:\MassHunter\Data\2023\AM 27 28\081423 AM 27 TS\QuantResults\AM 27.batch.bin **Batch results**

Calibration Last Update 8/16/2023 9:44:46 AM

Instrument **Type** Acq. Method Falco (069901) Cal

Sample Position Injection Volume AM 27 Agilent Method.m P5-F1

10 8/14/2023 5:30:14 PM

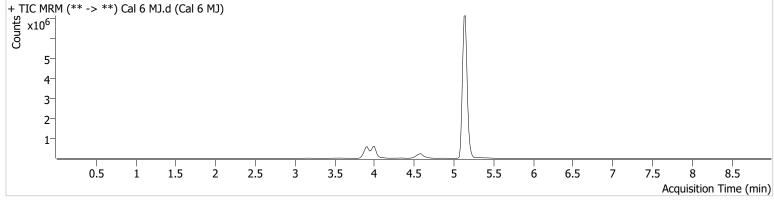
Acq. Date-Time Sample Info.

Sample Operator Comment

Data File

Cal 6 MJ.d Cal 6 MJ Tamara Salazar

> 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.



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.150	8275634	∞	26.9	∞	19054048	49.2434 ng/ml
THC-COOH	4.000	317374	2174.45	228.7	∞	387023	104.3287 ng/ml
THC-OH	3.911	973869	∞	14.6	2192.82	1554633	49.8452 ng/ml

D:\MassHunter\Data\2023\AM 27 28\081423 AM 27 TS\QuantResults\AM 27.batch.bin **Batch results**

Calibration Last Update 8/16/2023 9:44:46 AM

Instrument **Type** Acq. Method Falco (069901)

Cal

10

Sample Position Injection Volume P5-G1

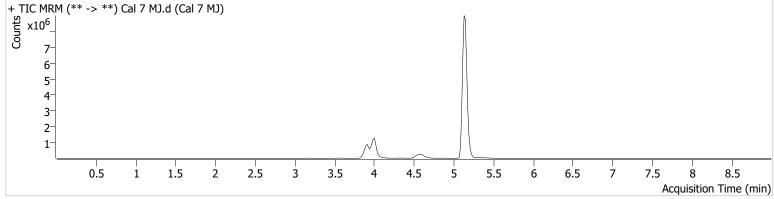
8/14/2023 5:43:21 PM

Acq. Date-Time Sample Info.

AM 27 Agilent Method.m

Data File Sample Operator Comment Cal 7 MJ.d Cal 7 MJ Tamara Salazar

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.



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.150	15112035	139549.34	26.8	6909.24	16870627	101.3914 ng/ml
THC-COOH	4.000	701916	21243.16	249.4	∞	362908	245.8205 ng/ml
THC-OH	3.911	1995029	_∞	14.3	6990.62	1577131	100.5707 ng/ml