


Worklist: 6467

<u>LAB CASE</u>	<u>ITEM</u>	<u>ITEM TYPE</u>	<u>DESCRIPTION</u>	
M2023-1304	3	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
M2023-2532	2	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
M2023-2661	3	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
M2023-2879	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
M2023-3359	3	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
M2023-3392	4	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2023-1899	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2023-2027	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2023-2143	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2023-2146	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2023-2189	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2023-2223	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2023-2225	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2023-2226	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2023-2231	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2023-2232	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2023-2261	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2023-2407	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2023-2416	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	

TS

AM# 25: Multi-Drug Screen in Blood and Urine by LC-MS/MS

Extraction Date: 08/10/2023

Plate lot#: 230119

Mobile phase A: 10mM Amm Form in LCMS Water

Blank Blood Lot: Lampire 23A52594

LCMS-QQQ ID: 069901

Analyst: Tamara Salazar

Plate Retest Date: 07-19-23-**external control included**

Mobile phase B: 0.1% Formic Acid in MeOH

Blank Urine Lot: POC021022

Column: Phenomenex Phenyl Hexyl (4.6x50mm, 2.6um)

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: In blank well, add 250µL urine, 40µL BG Turbo, and 100µL Instant Buffer I. Place on plate shaker for 5 minutes.**
- 3. Using a calibrated pipette, pipette 250µL blood or 250µL hydrolyzed urine in wells of analytical (standards) plate. Pipette ID: 42
- 4. Pipette **250µL 0.5 M ammonium hydroxide** in wells of analytical plate.
- 5. Place on shaking incubator at ambient temp., 900rpm for 15 minutes.
- 6. Transfer **200-450µL of blood+base and urine+base (if applicable)** mixture to corresponding wells of SLE+ plate. Amount transferred: 250uL
- 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 **900uL ethyl acetate.**
- 10. Wait 5 minutes.
- 11. Apply positive pressure for approx. 15 seconds. **(10-15 PSI- Selector to the left).**
- 12. Add **900uL ethyl acetate.**
- 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. Add 50µL 1% HCl in MeOH to wells and place plate cover on plate before drying. This step is required for urine samples, but optional for blood samples.
- 17. Reconstitute in **100µL 20% LC MeOH** and heat seal plate with foil. Place in autosampler and run worklist.

Post-Analytic

- 1. Open quantitation software and create a new quantitation batch.
- 2. Make necessary changes to integration limits
- 3. Evaluate samples, S/N of primary transition >5 and S/N of secondary transition >3 or evaluation of peak symmetry and resolution. Within +/- 2% or 0.1 min RT of administrative control. Calculated concentration of 5 or greater or 2-5 for discretionary range.
- 4. Did all QCs pass for each analyte? If no, describe issue in comments (below).
- 5. Central File Packet to include: LIMS Worklist, Method Checklist, Calibration and Control Reports

COMMENTS:

	1	2	3	4	5	6	7	8	9	10	11	12
A		P2023-2225-1	M2023-2661-3	P2023-2416-1								
B	IS + Cal. 1	P2023-2226-1	M2023-2879-1									
C	Neg Blood	P2023-2231-1	M2023-3359-3									
D	Blood Ext.	P2023-2232-1	M2023-3392-4									
E	P2023-2143-1	Urine Neg	P2023-1899-1									
F	P2023-2146-1	Urine Ext	P2023-2027-1									
G	P2023-2189-1	M2023-1304-3	P2023-2261-1									
H	P2023-2223-1	M2023-2532-2	P2023-2407-1									

All wells to contain 60 µl of residual DMSO

TS

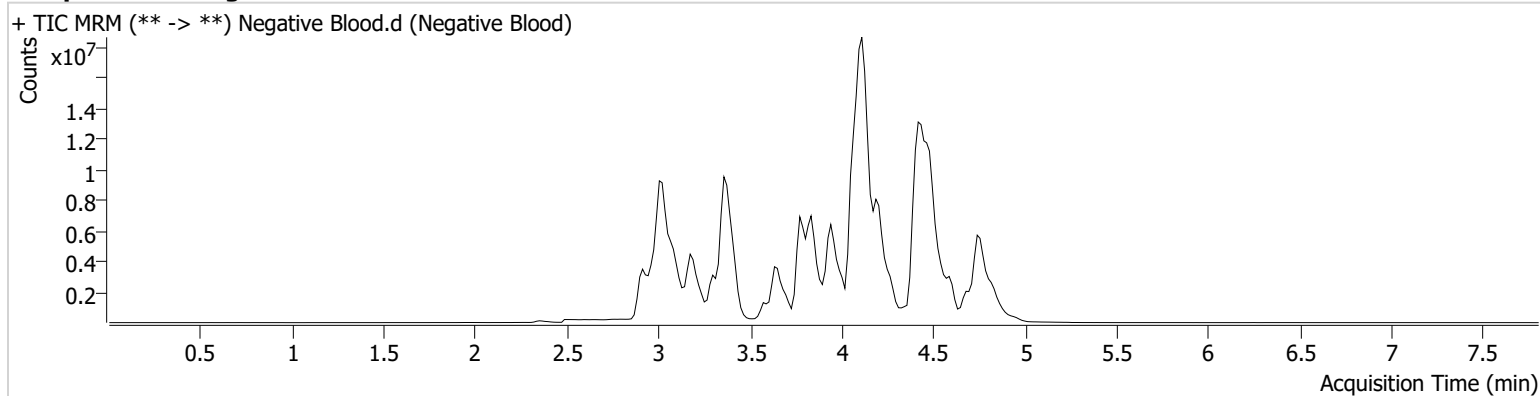


AM #25 Multi-Drug Screen. Results

Batch results G:\TOX\Pocatello\Falco\2023\AM 25 26\081213 AM 25 26 TS_Combo and Validation\QuantResults\AM 25.batch.bin
Calibration Last Update 8/14/2023 9:20:22 AM

Instrument	Falco (069901)	Data File	Negative Blood.d
Type	Sample	Sample	Negative Blood
Acq. Method	AM 25 MDS.m	Operator	Tamara Salazar
Sample Position	P2-C1	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	5		
Acq. Date-Time	8/10/2023 5:01:40 PM		
Sample Info.			

Sample Chromatogram



TS



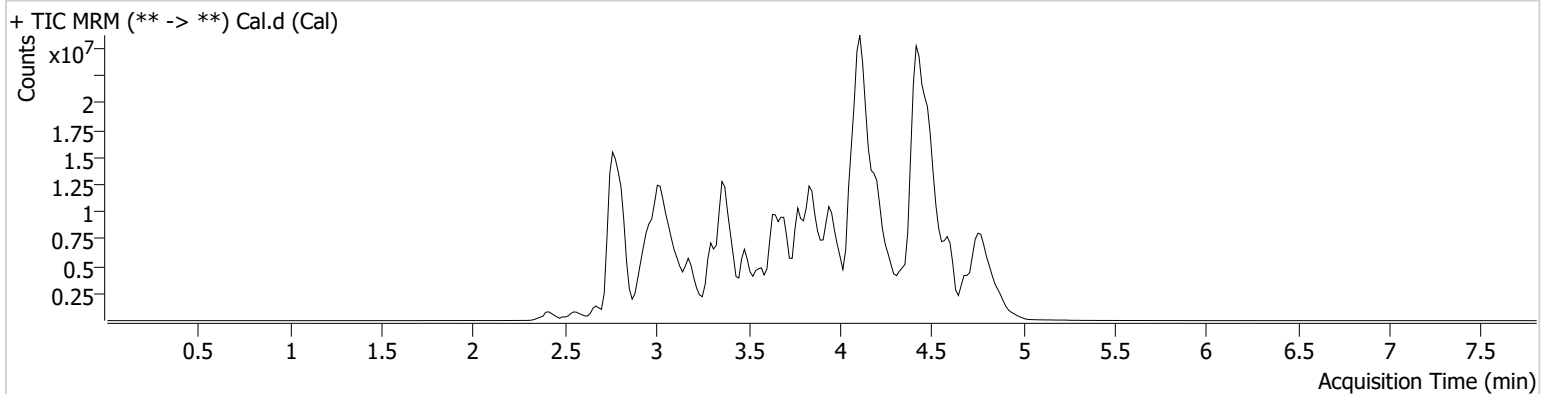
AM #25 Multi-Drug Screen. Results

Batch results G:\TOX\Pocatello\Falco\2023\AM 25 26\081213 AM 25 26 TS_Combo and Validation\QuantResults\AM 25.batch.bin
Calibration Last Update 8/14/2023 9:20:22 AM

Instrument Falco (069901) **Data File** Cal.d
Type Cal **Sample** Cal
Acq. Method AM 25 MDS.m **Operator** Tamara Salazar
Sample Position P2-B1 **Comment**
Injection Volume 5
Acq. Date-Time 8/10/2023 4:53:04 PM
Sample Info.

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.
10-OH-Carbamazepine	3.779	4148328	104.06	105.2	2536.23	26424543	10.0000 ng/ml
6-MAM	2.989	50032	33.60	84.8	213.27	800736	10.0000 ng/ml
7-aminoclonazepam	3.591	890688	197.36	94.0	169.63	3636035	10.0000 ng/ml
7-aminoflunitrazepam	3.791	1923271	227.35	16.7	356.97	3636035	10.0000 ng/ml
9-Hydroxyrisperidone	3.953	8280613	767.46	2.7	98486.32	24325244	10.0000 ng/ml
Acetyl Fentanyl	3.988	375891	30.22	73.4	118560.85	39202730	10.0000 ng/ml
Acetyl Norfentanyl	2.951	454345	3481.21	38.7	293.68	39202730	10.0000 ng/ml
a-hydroxyalprazolam	4.496	188687	64.29	46.7	15.99	3636035	10.0000 ng/ml
alpha-hydroxymidazolam	4.571	2001283	1396.80	53.6	202.34	3636035	10.0000 ng/ml
Alpha-PHP	3.903	4563820	2553.31	31.9	544.65	39202730	10.0000 ng/ml
alpha-PVP	3.642	6025431	2959.99	47.6	212.86	13579447	10.0000 ng/ml
Alprazolam	4.591	1303730	200.06	94.6	182.33	1731257	10.0000 ng/ml
Amitriptyline	4.487	3080405	230.67	60.3	703.53	7612211	10.0000 ng/ml
Amphetamine	2.955	3882348	596.55	239.1	457.00	13579447	10.0000 ng/ml
Benzoylecgonine	3.406	299013	1727.95	20.8	102.25	353166	10.0000 ng/ml
Brompheniramine	4.081	45528	36.82	946.3	89.50	73378914	10.0000 ng/ml
Buprenorphine	4.889	1291615	151.22	12.9	2951.16	3414072	10.0000 ng/ml
Bupropion	3.873	5661005	529.65	63.0	31643.63	19366629	10.0000 ng/ml
Carbamazepine	4.228	10314098	∞	91.0	∞	825354	10.0000 ng/ml
Carisoprodol	4.211	890149	3672.81	59.0	36.08	3944122	10.0000 ng/ml
Chlordiazepoxide	4.777	1182811	102.75	57.3	327.26	1731257	10.0000 ng/ml
Chlorpheniramine	3.993	4982298	2264.35	0.2	5494.47	11901406	10.0000 ng/ml
Chlorpromazine	4.697	2507460	6921.65	123.7	104.44	9251343	10.0000 ng/ml
Citalopram	4.096	3377088	1152.92	34.3	435364.15	73378914	10.0000 ng/ml
Clomipramine	4.698	1287696	5160.27	83.1	3305.03	73378914	10.0000 ng/ml
Clonazepam	4.436	1917445	351.56	24.3	256.79	825354	10.0000 ng/ml
Clonazolam	4.356	1342185	680657.56	20.8	158602.57	1731257	10.0000 ng/ml
Clozapine	4.449	5337993	676.42	70.6	768.74	18369187	10.0000 ng/ml
Cocaethylene	3.850	5904426	2205000.25	38.9	1282013.23	15922670	10.0000 ng/ml
Cocaine	3.651	4177303	9464.82	19.2	573.54	15922670	10.0000 ng/ml

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AM #25 Multi-Drug Screen. Results

Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Codeine	2.916	417595	5967.04	75.4	573.68	8540681	10.0000 ng/ml
Cyclobenzaprine	4.395	3328716	856.48	8.3	62.03	7612211	10.0000 ng/ml
Desipramine	4.411	6800581	4466699.04	40.2	259.42	7612211	10.0000 ng/ml
Dextromethorphan	4.118	2687542	218.77	72.8	1884.73	11901406	10.0000 ng/ml
Dextrophan	3.425	2666071	578.56	41.3	4223.56	11901406	10.0000 ng/ml
Diazepam	4.824	1547001	511.65	84.4	1094.84	1731257	10.0000 ng/ml
Dihydrocodeine	2.824	1457182	3249.01	47.4	430.36	8540681	10.0000 ng/ml
Diphenhydramine	4.088	11125203	211209.91	23.5	600.69	73378914	10.0000 ng/ml
DMT	3.029	72831	291.14	545.9	306.52	11901406	10.0000 ng/ml
Doxepin	4.209	2527765	1246.62	37.0	67.72	24097117	10.0000 ng/ml
Doxylamine	3.700	8975692	4531.04	87.1	184205.29	11901406	10.0000 ng/ml
Duloxetine	4.362	164343	5512.69	917.4	11596.25	2013528	10.0000 ng/ml
EDDP	4.116	1825309	550.07	62.8	754.92	4281278	10.0000 ng/ml
Estazolam	4.516	7268152	689.82	45.2	475.09	1731257	10.0000 ng/ml
Etizolam	4.602	177504	107636.56	335.1	1953.97	1731257	10.0000 ng/ml
Fentanyl	4.218	266160	193.45	69.9	734.65	21108651	10.0000 ng/ml
Flualprazolam	4.465	336528	101752.41	257.7	155233.92	1731257	10.0000 ng/ml
Flunitrazepam	4.544	1832849	940.90	35.5	296.26	1731257	10.0000 ng/ml
Fluorofentanyl	4.247	826805	106744.58	79.3	295.96	21108651	10.0000 ng/ml
Fluoxetine	4.360	4113490	1349.42	6.5	125.03	5091730	10.0000 ng/ml
Flurazepam	4.293	2624123	1120424.15	29.9	207485.31	1731257	10.0000 ng/ml
Hydrocodone	3.129	1671308	1532.65	32.0	315.76	8540681	10.0000 ng/ml
Hydromorphone	2.552	1310104	1154.57	78.9	870.28	436020	10.0000 ng/ml
Hydroxyzine	4.585	1746283	516.20	82.2	1168.52	18369187	10.0000 ng/ml
Imipramine	4.440	5902187	544.62	63.6	374.21	7612211	10.0000 ng/ml
Ketamine	3.704	4256612	975.92	42.8	21.70	10003632	10.0000 ng/ml
Lamotrigine	3.655	366209	650.67	71.2	1953.32	73378914	10.0000 ng/ml
Levamisole	3.074	355538	4411.82	78.0	695.73	15922670	10.0000 ng/ml
Levetiracetam	2.679	1638417	471.98	187.6	700.85	73378914	10.0000 ng/ml
Lorazepam	4.420	582356	154.23	241.8	826.17	1731257	10.0000 ng/ml
Maprotiline	4.487	1960906	556.29	64.9	240.84	7612211	10.0000 ng/ml
MDA	3.060	1654622	147.79	52.3	3.04	36203338	10.0000 ng/ml
MDEA	3.289	3668965	1223.29	50.6	161.80	36203338	10.0000 ng/ml
MDMA	3.136	4181411	425.74	51.1	386.94	36203338	10.0000 ng/ml
Meperidine	3.671	3223422	474.61	43.9	408.66	11901406	10.0000 ng/ml
Meprobamate	3.689	424016	163.02	20.5	311.01	3944122	10.0000 ng/ml
Methadone	4.421	7624321	333990.13	38.1	3744.94	4281278	10.0000 ng/ml
Methamphetamine	3.062	4651643	1591.58	46.1	1197.02	36203338	10.0000 ng/ml
Methocarbamol	3.595	730302	301.22	83.3	779.65	4281278	10.0000 ng/ml
Methylphenidate	3.565	10906583	855.38	25.2	221.74	16270639	10.0000 ng/ml
Metoprolol	3.485	642752	1759.83	120.8	416.06	11901406	10.0000 ng/ml
Midazolam	4.757	504586	237.66	80.9	3040.58	1731257	10.0000 ng/ml
Mirtazapine	4.164	3761061	243579.61	224.6	14557.41	11901406	10.0000 ng/ml
Mitragynine	4.292	487703	161736.16	209.3	199960.48	11901406	10.0000 ng/ml
Morphine	2.385	297731	440.13	83.7	908.92	436020	10.0000 ng/ml
Norbuprenorphine	3.876	50254	23242.05	192.2	88006.04	3414072	10.0000 ng/ml
Nordiazepam	4.748	376168	70.21	69.5	213.50	1731257	10.0000 ng/ml
Norfentanyl	3.381	7688853	23713.73	38.2	292.66	39202730	10.0000 ng/ml
Norhydrocodone	2.979	148022	46.78	36.8	42.93	436020	10.0000 ng/ml
Norketamine	3.812	705544	188.86	535.6	1656.55	10003632	10.0000 ng/ml
Normeperidine	3.658	7317648	6769.70	54.1	370.47	73378914	10.0000 ng/ml
Noroxycodone	2.931	1506190	40.59	29.6	46.01	10003632	10.0000 ng/ml
Nortriptyline	4.442	2366406	427.58	66.0	581.99	7612211	10.0000 ng/ml
O-desmethyl-tramadol	2.965	7973887	11102.89	5.6	307.91	73378914	10.0000 ng/ml
O-desmethylvenlafaxine	3.301	1760707	591.95	663.8	∞	11380924	10.0000 ng/ml
Olanzapine	3.943	1680251	433593.73	59.1	591.26	825354	10.0000 ng/ml
Oxazepam	4.500	2431409	287.44	78.4	674.13	12852352	10.0000 ng/ml
Oxycodone	2.990	3138995	594.96	25.2	424.73	10003632	10.0000 ng/ml
Oxymorphone	2.412	2176601	∞	14.7	3793.27	436020	10.0000 ng/ml

Cal

Generated at 9:41 AM on 8/16/2023

TS



AM #25 Multi-Drug Screen. Results

Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Paroxetine	4.372	584439	170.07	73.1	190974.68	5091730	10.0000 ng/ml
Phenazepam	4.617	445270	119.02	68.8	118992.07	1731257	10.0000 ng/ml
Phencyclidine	3.965	6238270	1276432.85	56.0	1094.85	11901406	10.0000 ng/ml
Phentermine	3.215	1443694	187.10	8.2	42.48	16270639	10.0000 ng/ml
Phenytoin	4.119	1604903	318.75	75.6	216.68	825354	10.0000 ng/ml
Primidone	3.505	1482327	464778.14	100.9	137.87	825354	10.0000 ng/ml
Promethazine	4.409	9205117	328318.64	34.1	795.54	73378914	10.0000 ng/ml
Pseudoephedrine	2.771	72054526	9191.84	21.6	31279.83	36203338	10.0000 ng/ml
Quetiapine	4.615	3034570	65529.13	57.3	∞	48533406	10.0000 ng/ml
Risperidone	4.154	5322917	755700.70	9.9	338.49	24325244	10.0000 ng/ml
Sertraline	4.592	1156487	3546.56	103.2	1356.87	5091730	10.0000 ng/ml
Sufentanil	4.615	269156	65760.22	74.7	202.31	39202730	10.0000 ng/ml
Tapentadol	3.505	3918914	541414.60	45.9	1128.25	10003632	10.0000 ng/ml
Temazepam	4.731	647244	25.99	72.3	54.09	1731257	10.0000 ng/ml
Topiramate	3.864	43885	29594.62	12.9	1772.90	73439	10.0000 ng/ml
Tramadol	3.485	15486456	∞	1.8	50.29	73378914	10.0000 ng/ml
Trazodone	4.784	8587191	2612688.01	62.9	1861031.62	24097117	10.0000 ng/ml
Venlafaxine	3.854	7175470	6777.27	33.5	251.89	11380924	10.0000 ng/ml
Zaleplon	4.330	4107559	745.84	77.1	520363.87	48533406	10.0000 ng/ml
Zolpidem	4.422	10034573	2343596.46	31.2	898907.37	48533406	10.0000 ng/ml
Zopiclone	4.338	511891	123363.39	60.0	121699.37	2093514	10.0000 ng/ml

TS



Idaho State Police Forensic Services

AM #25 Blood Multi-Drug Screen by LCMS-QQQ

And

**AM #28 Blood Multi-Drug Confirmatory Analysis by
LCMS-QQQ---Panel 1**

Methanol External Control Solution (Lot: 072123)

100 µL of 1mg/mL stock of each drug was added to 9800 µL of LC MeOH.

<i>Component</i>	<i>Source</i>	<i>Source Lot Number</i>	<i>Expiration Date</i>
Methanol (LCMS)	Fisher	220776	N/A
Tramadol	Cerilliant	FE10051901	12/31/2024
Alprazolam	Cerilliant	FE06102008	06/30/2025
Prepared:	07/21/2023		
Expires:	07/21/2024		
Prepared By:	Tamara Salazar		

Blood External Control Solution (Lot: WS072123)

100 µL of methanol external control solution was added to 9900 µL of blood.

Approximately 100 ng/mL of each compound.

<i>Component</i>	<i>Source</i>	<i>Source Lot Number</i>
Negative Blood	Lampire	23A52594
Methanol External Control Solution		072123
Prepared:	07/21/2023	
Expires:	07/21/2024	
Prepared by:	Tamara Salazar	

TS

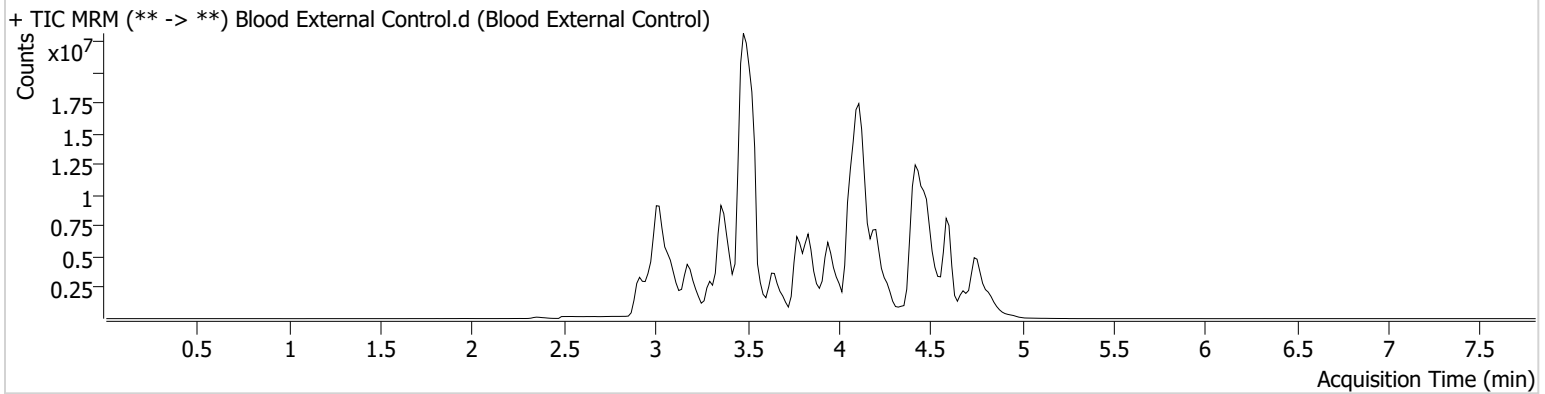


AM #25 Multi-Drug Screen. Results

Batch results G:\TOX\Pocatello\Falco\2023\AM 25 26\081213 AM 25 26 TS_Combo and Validation\QuantResults\AM 25.batch.bin
Calibration Last Update 8/14/2023 9:20:22 AM

Instrument	Falco (069901)	Data File	Blood External Control.d
Type	Sample	Sample	Blood External Control
Acq. Method	AM 25 MDS.m	Operator	Tamara Salazar
Sample Position	P2-D1	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	5		
Acq. Date-Time	8/10/2023 5:10:04 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Alprazolam	4.591	10619696	174.79	93.7	∞	984927	143.1799 ng/ml
Tramadol	3.485	123246754	∞	2.2 High	373.29	74819061	78.0517 ng/ml

TS

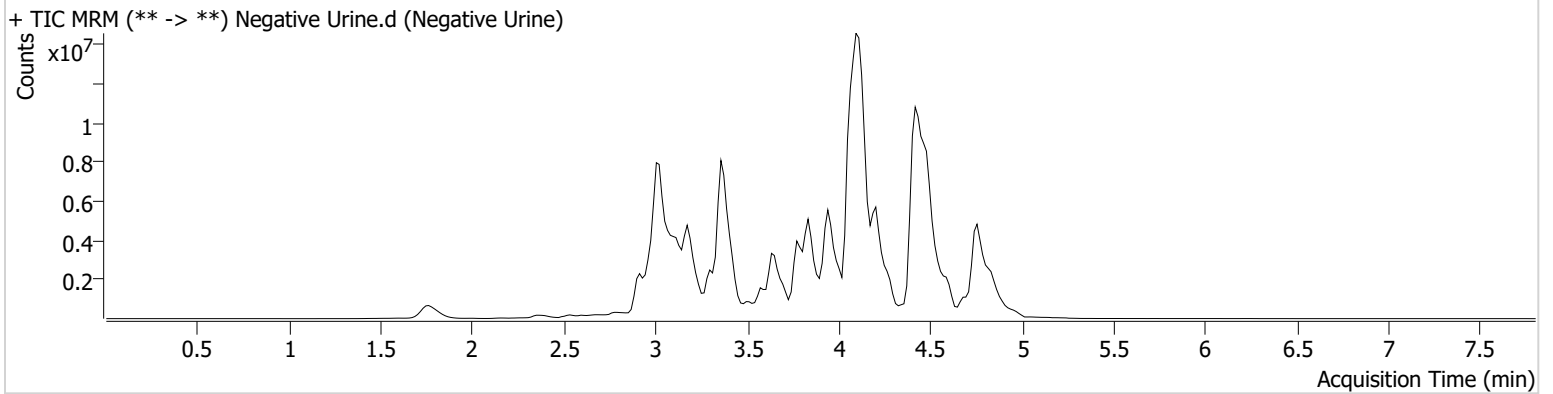


AM #25 Multi-Drug Screen. Results

Batch results G:\TOX\Pocatello\Falco\2023\AM 25 26\081213 AM 25 26 TS_Combo and Validation\QuantResults\AM 25.batch.bin
Calibration Last Update 8/14/2023 9:20:22 AM

Instrument	Falco (069901)	Data File	Negative Urine.d
Type	Sample	Sample	Negative Urine
Acq. Method	AM 25 MDS.m	Operator	Tamara Salazar
Sample Position	P2-E2	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	5		
Acq. Date-Time	8/10/2023 6:25:46 PM		
Sample Info.			

Sample Chromatogram



TS



Idaho State Police Forensic Services

AM #25 Urine Multi-Drug Screen by LCMS-QQQ

And

AM #28 Urine Multi-Drug Confirmatory Analysis by LCMS-QQQ---Panel 1

Methanol External Control Solution (Lot: 120320)

100 µL of 1mg/mL stock was added to each drug to 9700 µL of LC MeOH.

<i>Component</i>	<i>Source</i>	<i>Source Lot Number</i>	<i>Expiration Date</i>
Methanol (LCMS)	Fisher	197468	
O-desmethyl Tramadol	Cerilliant	FN01241702	04/30/2022
Amphetamine	Cerilliant	FE04061701	06/30/2022
Alprazolam	Cerilliant	FE07061604	07/31/2021
Prepared:	12/03/2020		
Prepared By:	Celena Shrum		

Urine External Control Solution (Lot: WS032122)

100 µL of methanol external control solution was added to 9900 µL of urine.

Approximately 100 ng/mL of each compound.

<i>Component</i>	<i>Source</i>	<i>Source Lot Number</i>
Negative Urine	Pocatello Lab	POC021022
Methanol External Control Solution		120320
Prepared:	03/21/22	
Prepared by:	Tamara Salazar	

TS

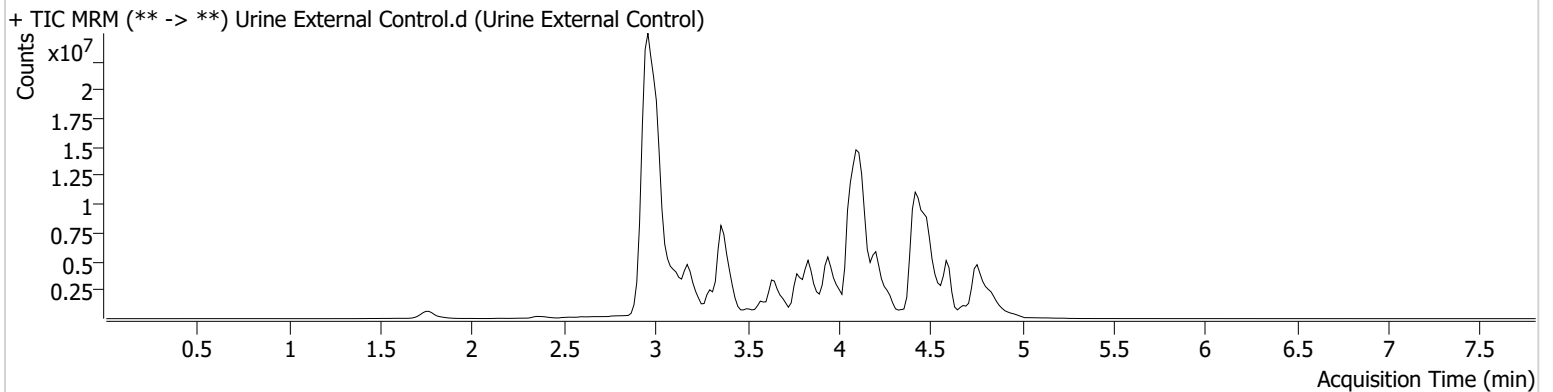


AM #25 Multi-Drug Screen. Results

Batch results G:\TOX\Pocatello\Falco\2023\AM 25 26\081213 AM 25 26 TS_Combo and Validation\QuantResults\AM 25.batch.bin
Calibration Last Update 8/14/2023 9:20:22 AM

Instrument	Falco (069901)	Data File	Urine External Control.d
Type	Sample	Sample	Urine External Control
Acq. Method	AM 25 MDS.m	Operator	Tamara Salazar
Sample Position	P2-F2	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	5		
Acq. Date-Time	8/10/2023 6:34:11 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Alprazolam	4.591	5267435	185.64	93.4	94.39	726555	96.2731 ng/ml
Amphetamine	2.955	21566646	2283.93	218.5	4149.14	8172299	92.3052 ng/ml
O-desmethyl-tramadol	2.965	45028971	183205.40	5.9	270.65	68881348	60.1578 ng/ml

TS

AM# 26: Screening of THC and Metabolites in Blood and Urine by LC-MS/MS

Extraction Date: 08/10/2023

Plate lot#: 230113

Mobile phase A: 10mM Amm Form in LCMS Water

Blank Blood Lot: Lampire 23A52594

LCMS-QQQ ID: 069901

Analyst: Tamara Salazar

Plate Retest Date: 07/23/2023-external control included

Mobile phase B: 0.1% Formic acid in MeOH

Blank Urine Lot: POC021022

Column: Phenomenex Phenyl Hexyl (4.6x50mm, 2.6um)

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, pipette 1000µL blood or 1000µL hydrolyzed urine in 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: 750 µL
- 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, R² values ≥0.98 for each analyte
- 3. RT +/- 2% or 0.100 min, whichever is greater
- 4. Confirmation testing on case samples with a response for THC and OH-THC of 3ng/mL or greater and/or Carboxy-THC at 10ng/mL or greater (analyst discretion between 5-10ng/mL) may be pursued.
- 5. 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

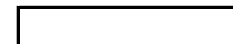
COMMENTS:

Analytical Plate

TS

	1	2	3	4	5	6
A	IS + Cal. 1		P2023-2226-1	M2023-2879	Blood Ext.	IS + QC_1
B	IS + Cal. 2	Neg Blood	P2023-2231-1	M2023-3359-3		IS + Cal. 7
C	IS + Cal. 3		P2023-2232-1	M2023-3392-4		IS + Cal. 6
D	IS + Cal. 4	P2023-2143-1	Urine Neg	P2023-1899-1		IS + Cal. 5
E	IS + Cal. 5	P2023-2146-1	Urine Ext	P2023-2027-1		IS + Cal. 4
F	IS + Cal. 6	P2023-2189-1	M2023-1304-1	P2023-2261-1		IS + Cal. 3
G	IS + Cal. 7	P2023-2223-1	M2023-2532-2	P2023-2407-1		IS + Cal. 2
H	IS + QC_1	P2023-2225-1	M2023-2661-3	P2023-2416-1	IS + QC_1	IS + Cal. 1

All wells to contain 100 µl of residual DMSO



SLE Plate

TS

	1	2	3	4	5	6
A	IS + Cal. 1		P2023-2226-1*	M2023-2879-1	Blood Ext.	
B	IS + Cal. 2	Neg Blood	P2023-2231-1	M2023-3359-3	P2023-2225-1	
C	IS + Cal. 3		P2023-2232-1	M2023-3392-4	P2023-2226-1	
D	IS + Cal. 4	P2023-2143-1	Urine Neg	P2023-1899-1		
E	IS + Cal. 5	P2023-2146-1	Urine Ext	P2023-2027-1		
F	IS + Cal. 6	P2023-2189-1	M2023-1304-3	P2023-2261-1		
G	IS + Cal. 7	P2023-2223-1	M2023-2532-2	P2023-2407-1		
H	IS + QC_1	P2023-2225-1*	M2023-2661-3	P2023-2416-1		

*Moved during step
7 of the analysis
due to a clot

TS



AM #26 Cannabinoids Screen Results

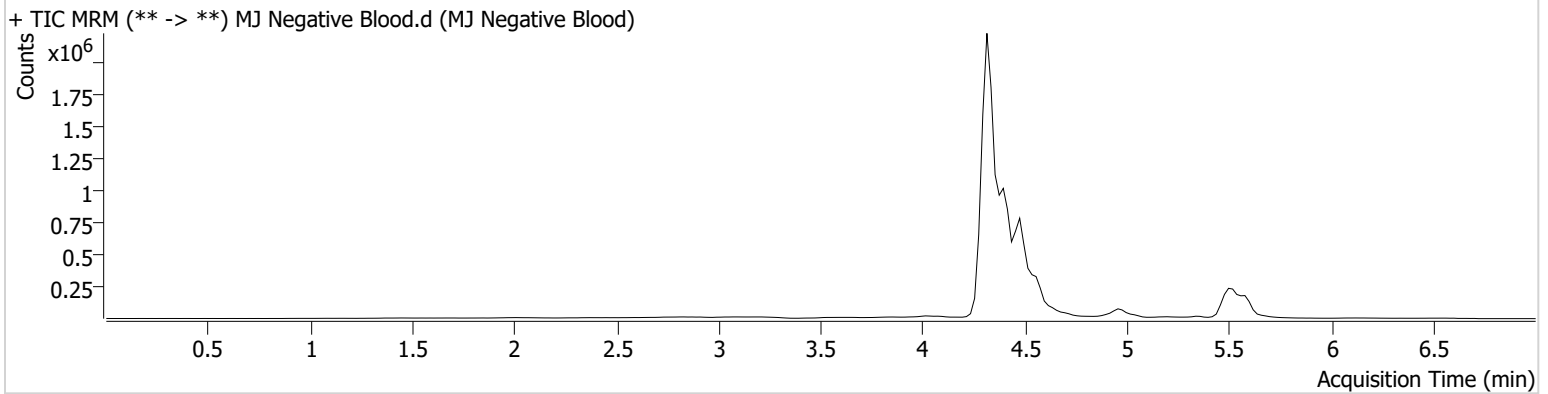
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Calibration Last Update 8/10/2023 4:30:57 PM

Instrument Falco (069901)
Type Sample
Acq. Method AM 26 THC.m
Sample Position P1-B2
Injection Volume 10
Acq. Date-Time 8/10/2023 1:24:16 PM
Sample Info.

Data File MJ Negative Blood.d
Sample MJ Negative Blood
Operator Tamara Salazar
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



TS

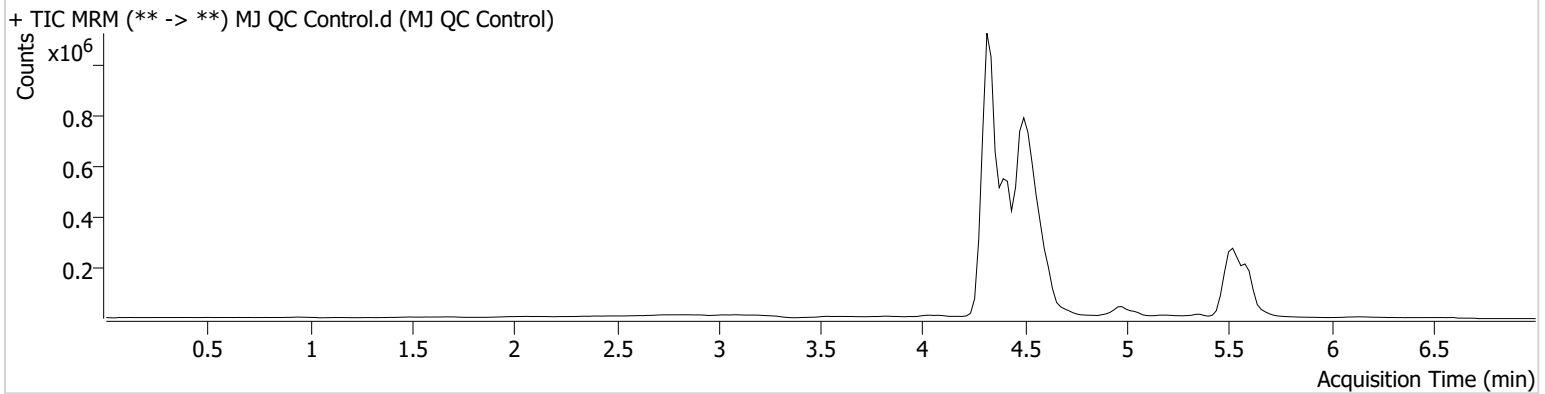


AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2023\AM 25 26\081213 AM 25 26 TS_Combo and Validation\QuantResults\AM 26.batch.bin
Calibration Last Update 8/10/2023 4:30:57 PM

Instrument	Falco (069901)	Data File	MJ QC Control.d
Type	QC	Sample	MJ QC Control
Acq. Method	AM 26 THC.m	Operator	Tamara Salazar
Sample Position	P1-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	8/10/2023 1:00:06 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.489	7281	34.16	271.3 High	∞	200722	5.0774 ng/ml
THC-COOH	4.516	877548	∞	145.3	∞	3307186	13.4171 ng/ml
THC-OH	4.342	48457	∞	723.3	∞	6332204	4.6487 ng/ml

TS



Idaho State Police Forensic Services

AM #26 Screening of THC and Metabolites and AM #27 Confirmation of THC and Metabolites Blood External Control Prep Sheet

Methanol External Control Solution (Lot: WS101322)

100 µL of 100 µg/mL C-THC in 9900 µL MeOH

Approximate concentration 1ug/mL.

<i>Component</i>	<i>Source</i>	<i>Source Lot Number</i>	<i>Expiration Date</i>
Methanol (LCMS)	Fisher	215245	-
C-THC	Cerilliant	FE08011801	08/31/2023
Prepared:	10/13/2022		
Expires:	08/31/2023		
Prepared By:	Celena Shrum		

Blood External Control Solution (Lot: 101322)

100 ul of methanol external control solution was added to 9900 ul of blood.

Approximately 10ng/mL each

<i>Component</i>	<i>Source</i>	<i>Source Lot Number</i>
Negative Blood	Lampire	22B52015-1
Methanol External Control Solution	-	WS101322
Prepared:	10/13/2022	
Expires:	08/31/2023	
Prepared by:	Celena Shrum	

TS



AM #26 Cannabinoids Screen Results

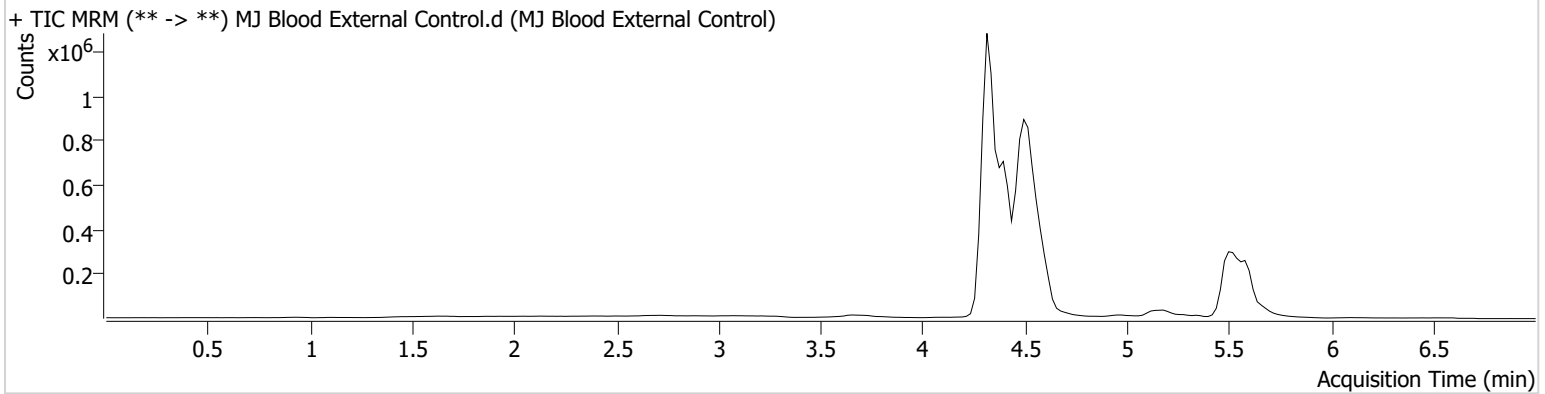
Batch results D:\MassHunter\Data\2023\AM 25 26\081213 AM 25 26 TS_Combo and Validation\QuantResults\AM 26.batch.bin
Calibration Last Update 8/10/2023 4:30:57 PM

Instrument Falco (069901)
Type Sample
Acq. Method AM 26 THC.m
Sample Position P1-A5
Injection Volume 10
Acq. Date-Time 8/10/2023 1:32:00 PM
Sample Info.

Data File MJ Blood External Control.d
Sample MJ Blood External Control
Operator Tamara Salazar
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-COOH	4.516	1124742	∞	151.8	330.49	3368043	17.1064 ng/ml

TS



AM #26 Cannabinoids Screen Results

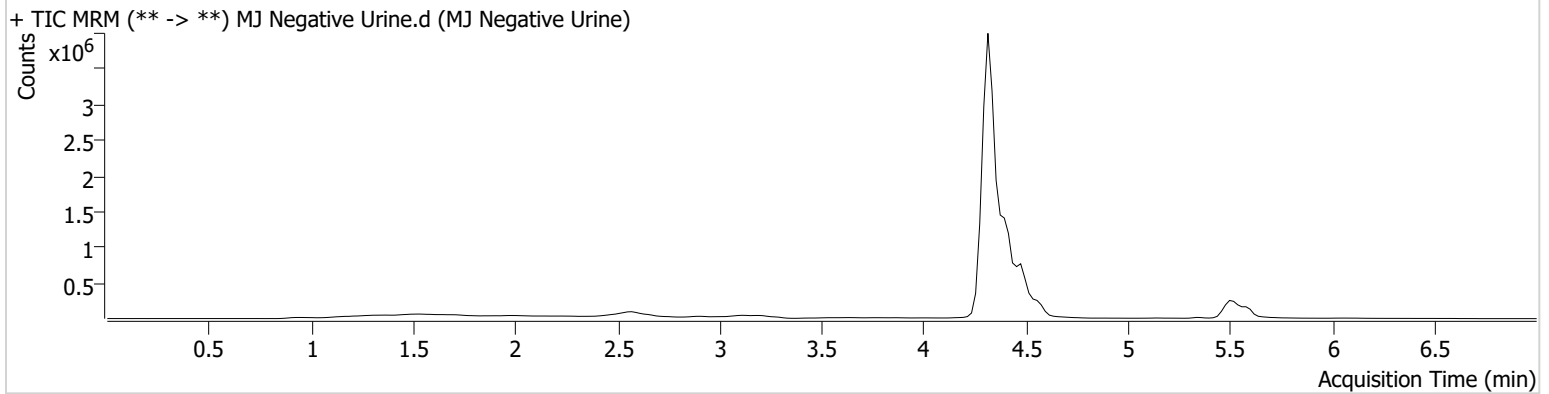
Batch results D:\MassHunter\Data\2023\AM 25 26\081213 AM 25 26 TS_Combo and Validation\QuantResults\AM 26.batch.bin
Calibration Last Update 8/10/2023 4:30:57 PM

Instrument Falco (069901)
Type Sample
Acq. Method AM 26 THC.m
Sample Position P1-D3
Injection Volume 10
Acq. Date-Time 8/10/2023 2:47:46 PM
Sample Info.

Data File MJ Negative Urine.d
Sample MJ Negative Urine
Operator Tamara Salazar
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



TS



Idaho State Police Forensic Services

AM #26 Screening of THC and Metabolites and AM #27 Confirmation of THC and Metabolites Urine External Control Prep Sheet

Methanol External Control Solution (Lot: WS101322)

100 µL of 100 µg/mL C-THC in 9900 µL MeOH

Approximate concentration 1ug/mL.

<i>Component</i>	<i>Source</i>	<i>Source Lot Number</i>	<i>Expiration Date</i>
Methanol (LCMS)	Fisher	215245	-
C-THC	Cerilliant	FE08011801	08/31/2023
Prepared:	10/13/2022		
Expires:	08/31/2023		
Prepared By:	Celena Shrum		

Urine External Control Solution (Lot: 101322)

200 ul of methanol external control solution was added to 9800 ul of urine.

Approximately 20ng/mL each

<i>Component</i>	<i>Source</i>	<i>Source Lot Number</i>
Negative Urine	Pocatello Lab	POC021022
Methanol External Control Solution	-	WS101322
Prepared:	10/13/2022	
Expires:	08/31/2023	
Prepared by:	Celena Shrum	

TS



AM #26 Cannabinoids Screen Results

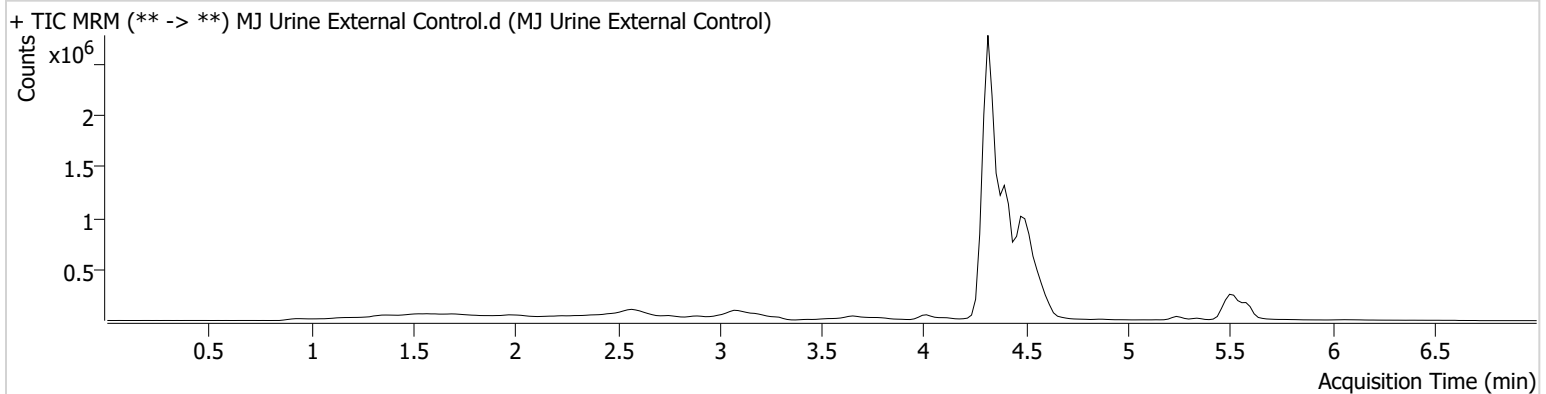
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Calibration Last Update 8/10/2023 4:30:57 PM

Instrument Falco (069901)
Type Sample
Acq. Method AM 26 THC.m
Sample Position P1-E3
Injection Volume 10
Acq. Date-Time 8/10/2023 2:55:20 PM
Sample Info.

Data File MJ Urine External Control.d
Sample MJ Urine External Control
Operator Tamara Salazar

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



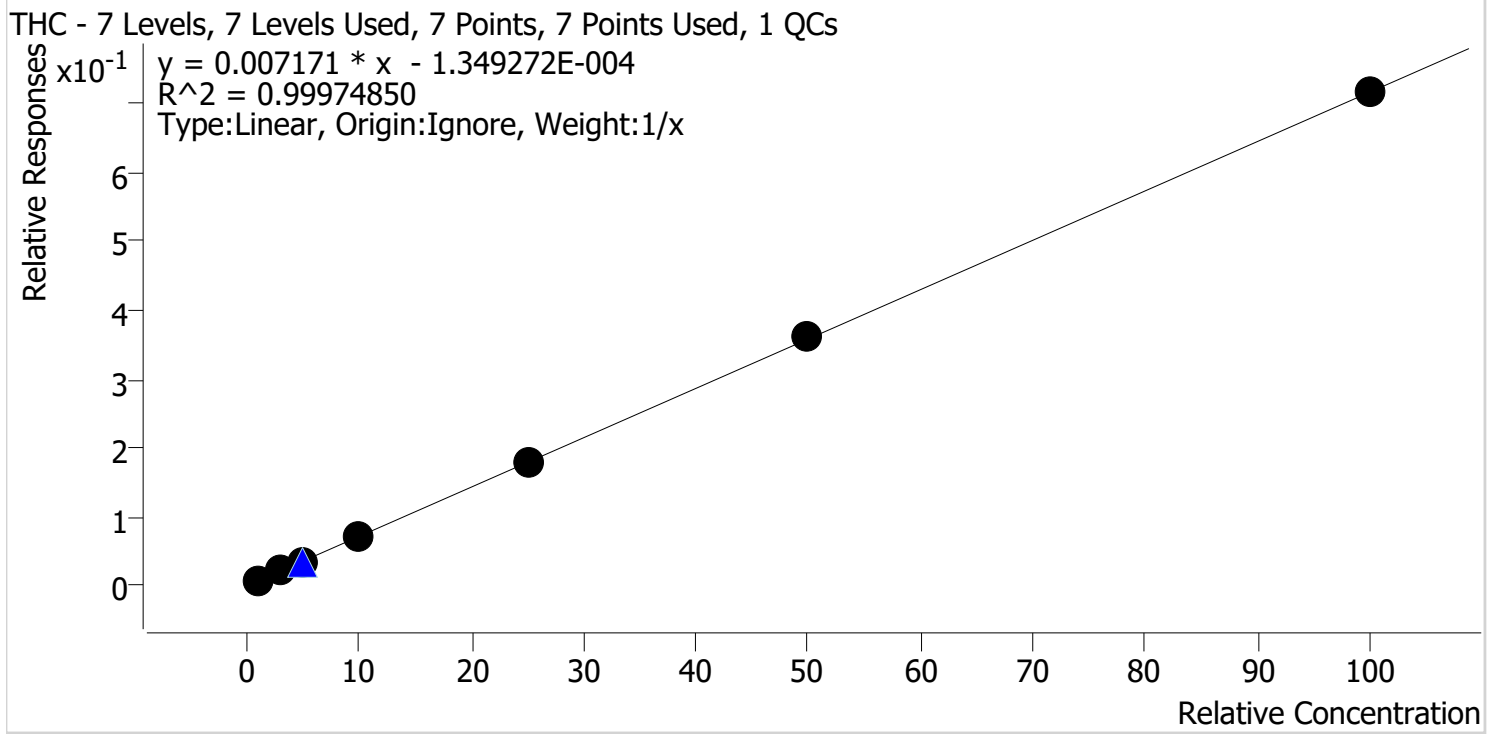
Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC-COOH	4.516	894063	∞	149.7	∞	4056205	11.0009 ng/ml

TS



AM #26 Cannabinoids Screen Calibration Curve Report

Batch results D:\MassHunter\Data\2023\AM 25 26\081213 AM 25 26 TS_Combo and Validation\QuantResults\AM 26.batch.bin
Last Cal. Update 8/10/2023 4:30 PM
Analyst Name ISP\Datastor
Analyte THC **Internal Standard** THC-D3



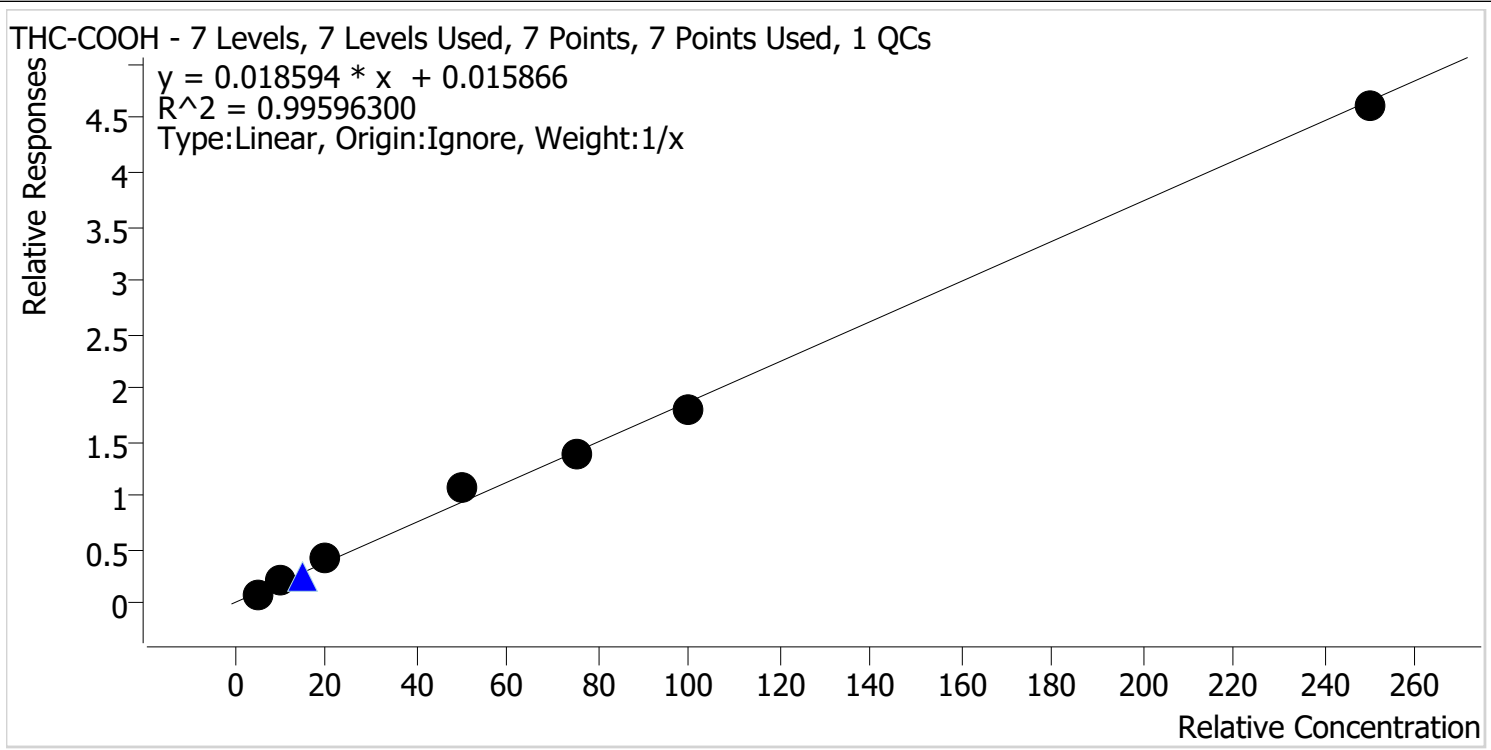
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
MJ Cal 1	1	✓	1.0	1.1	109.9
MJ Cal 2	2	✓	3.0	2.9	97.3
MJ Cal 3	3	✓	5.0	4.7	93.2
MJ Cal 4	4	✓	10.0	9.9	98.5
MJ Cal 5	5	✓	25.0	25.1	100.3
MJ Cal 6	6	✓	50.0	50.4	100.9
MJ Cal 7	7	✓	100.0	99.9	99.9

TS



AM #26 Cannabinoids Screen Calibration Curve Report

Batch results D:\MassHunter\Data\2023\AM 25 26\081213 AM 25 26 TS_Combo and Validation\QuantResults\AM 26.batch.bin
Last Cal. Update 8/10/2023 4:30 PM
Analyst Name ISP\Datator
Analyte THC-COOH **Internal Standard** THC-COOH-D9



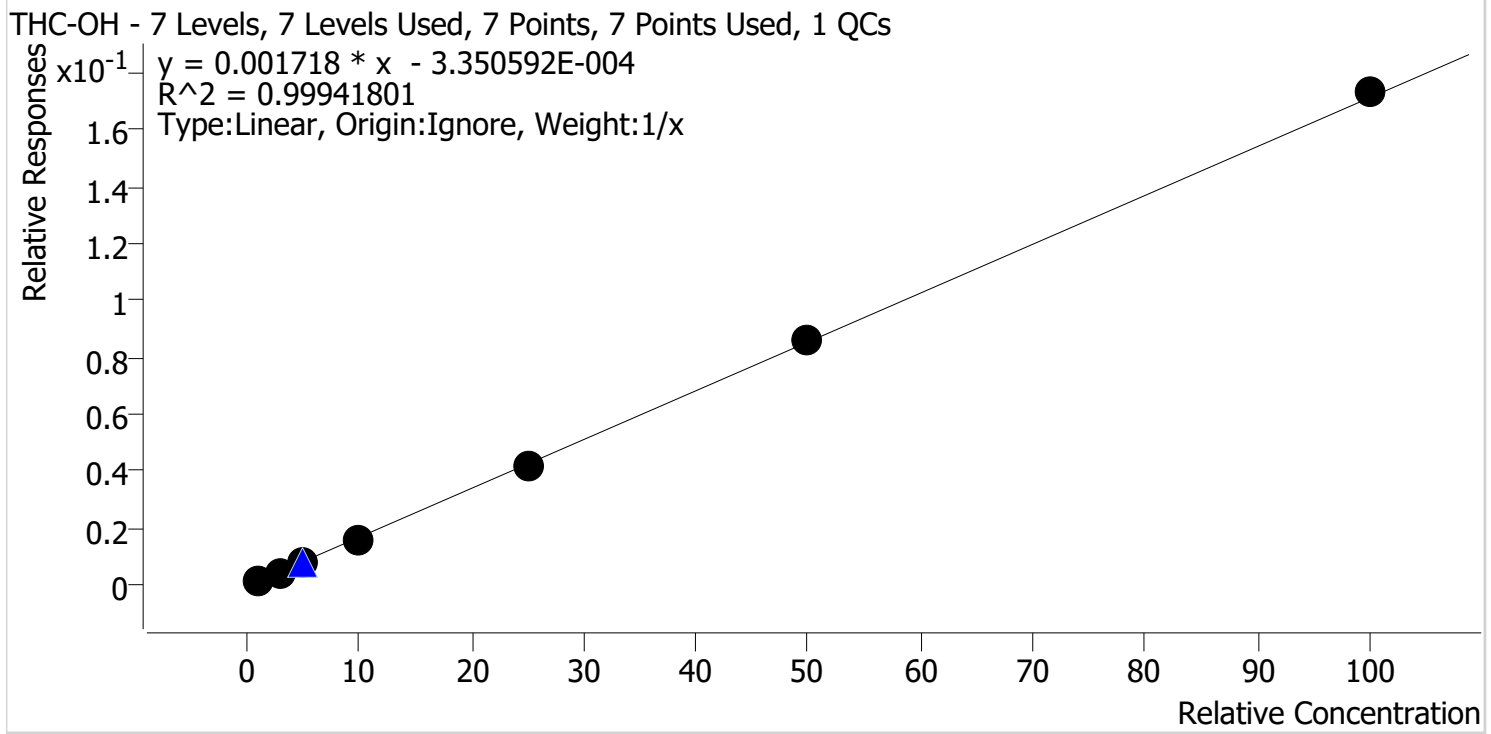
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
MJ Cal 1	1	✓	5.0	4.0	79.4
MJ Cal 2	2	✓	10.0	10.5	104.6
MJ Cal 3	3	✓	20.0	21.8	109.2
MJ Cal 4	4	✓	50.0	56.9	113.8
MJ Cal 5	5	✓	75.0	73.7	98.2
MJ Cal 6	6	✓	100.0	96.0	96.0
MJ Cal 7	7	✓	250.0	247.2	98.9

TS



AM #26 Cannabinoids Screen Calibration Curve Report

Batch results D:\MassHunter\Data\2023\AM 25 26\081213 AM 25 26 TS_Combo and Validation\QuantResults\AM 26.batch.bin
Last Cal. Update 8/10/2023 4:30 PM
Analyst Name ISP\Datastor
Analyte THC-OH **Internal Standard** THC-OH-D3



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
MJ Cal 1	1	✓	1.0	1.2	116.8
MJ Cal 2	2	✓	3.0	2.8	94.5
MJ Cal 3	3	✓	5.0	4.7	93.2
MJ Cal 4	4	✓	10.0	9.6	96.0
MJ Cal 5	5	✓	25.0	24.6	98.3
MJ Cal 6	6	✓	50.0	50.1	100.2
MJ Cal 7	7	✓	100.0	101.1	101.1

TS



AM #26 Cannabinoids Screen Results

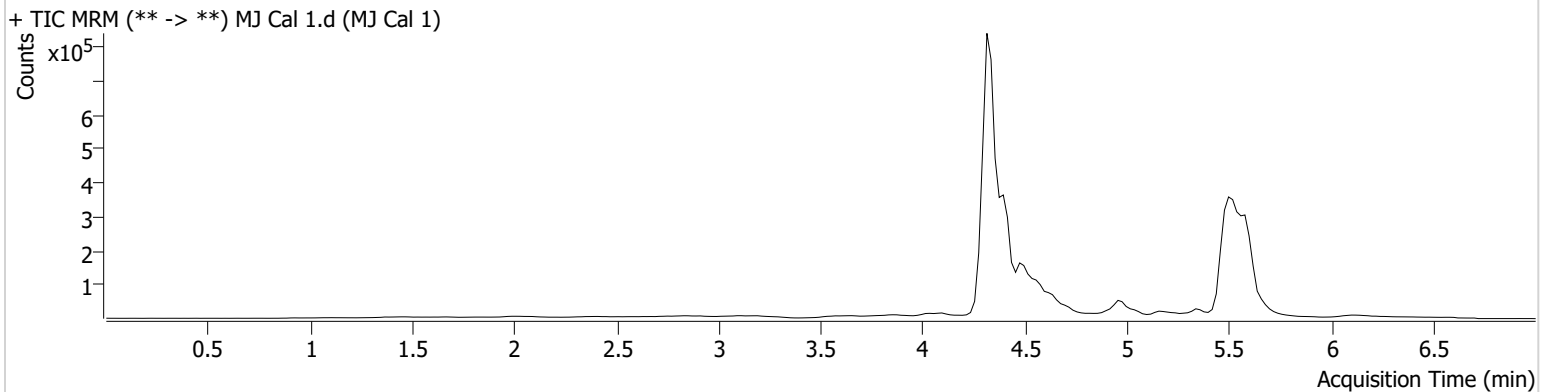
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Calibration Last Update 8/10/2023 4:30:57 PM

Instrument Falco (069901)
Type Cal
Acq. Method AM 26 THC.m
Sample Position P1-A1
Injection Volume 10
Acq. Date-Time 8/10/2023 12:06:55 PM
Sample Info.

Data File MJ Cal 1.d
Sample MJ Cal 1
Operator Tamara Salazar
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	5.590	3422	5.58 Low	830.9 High	∞	441876	1.0986 ng/ml
THC-COOH	4.516	69891	∞	155.0	∞	779440	3.9691 ng/ml
THC-OH	4.342	7594	4.62 Low	1004.0 High	∞	4540658	1.1684 ng/ml

TS



AM #26 Cannabinoids Screen Results

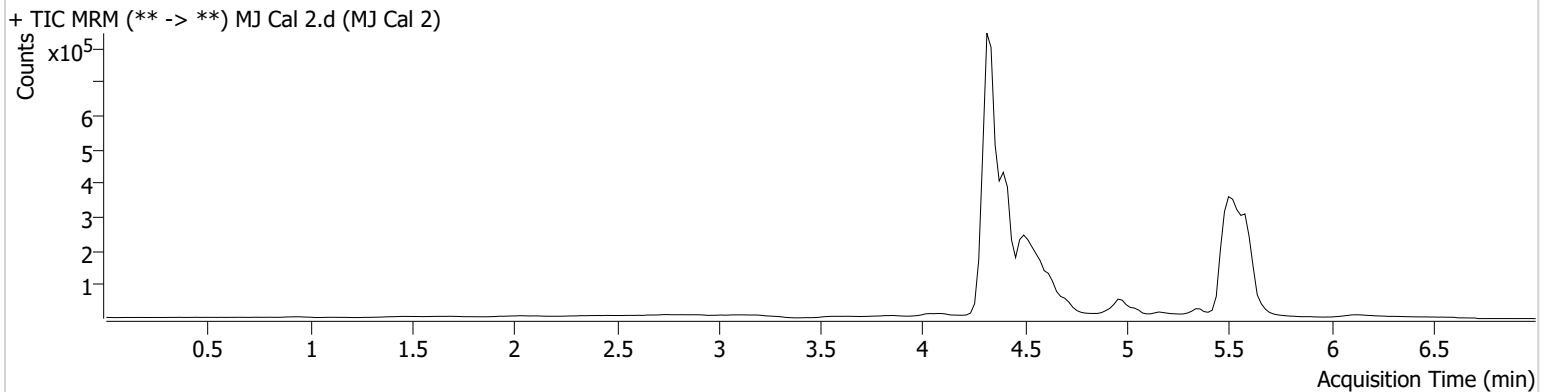
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Calibration Last Update 8/10/2023 4:30:57 PM

Instrument Falco (069901)
Type Cal
Acq. Method AM 26 THC.m
Sample Position P1-B1
Injection Volume 10
Acq. Date-Time 8/10/2023 12:14:40 PM
Sample Info.

Data File MJ Cal 2.d
Sample MJ Cal 2
Operator Tamara Salazar
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	5.590	12450	28.48	247.9	∞	598845	2.9180 ng/ml
THC-COOH	4.516	218685	∞	167.1	62.46	1039716	10.4584 ng/ml
THC-OH	4.342	21495	∞	916.3	∞	4741298	2.8336 ng/ml

TS



AM #26 Cannabinoids Screen Results

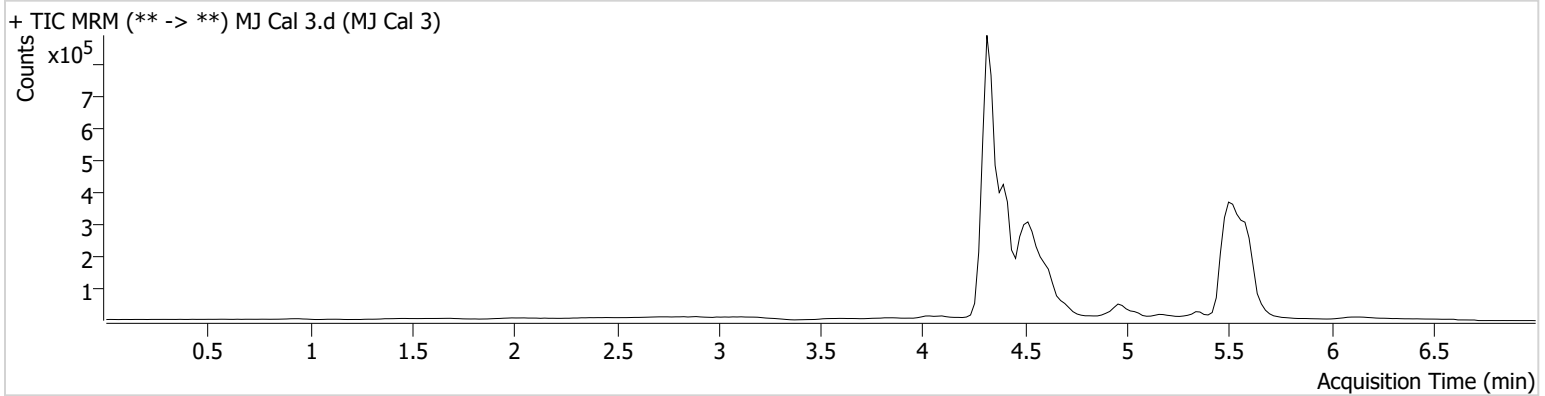
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Calibration Last Update 8/10/2023 4:30:57 PM

Instrument Falco (069901)
Type Cal
Acq. Method AM 26 THC.m
Sample Position P1-C1
Injection Volume 10
Acq. Date-Time 8/10/2023 12:22:14 PM
Sample Info.

Data File MJ Cal 3.d
Sample MJ Cal 3
Operator Tamara Salazar
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	5.469	15044	176.31	210.3	∞	451972	4.6604 ng/ml
THC-COOH	4.516	421790	∞	156.2	∞	999997	21.8307 ng/ml
THC-OH	4.342	35556	45.39	872.2	∞	4635760	4.6589 ng/ml

TS



AM #26 Cannabinoids Screen Results

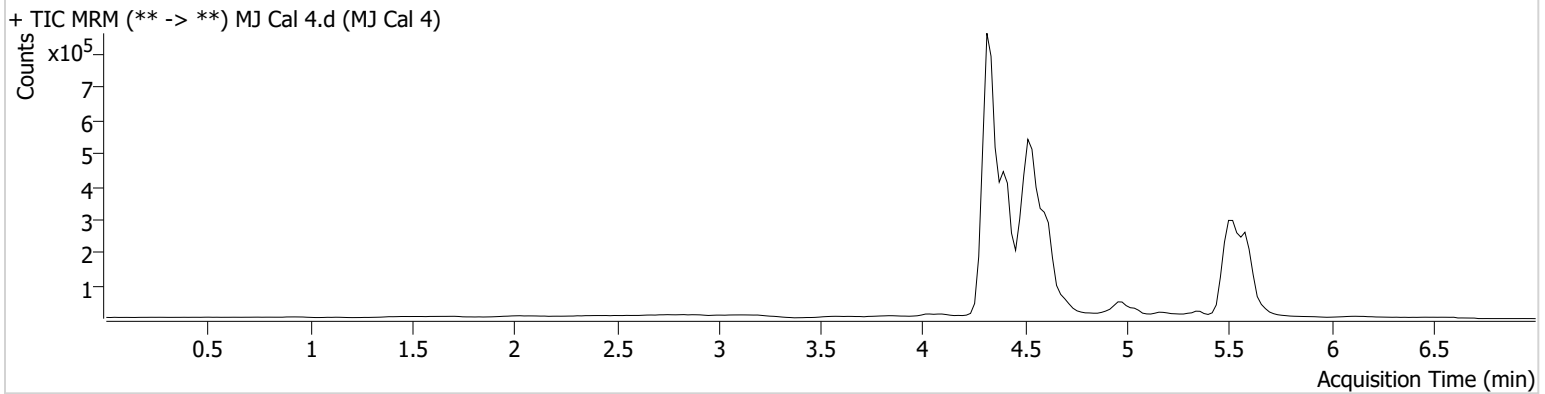
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Calibration Last Update 8/10/2023 4:30:57 PM

Instrument Falco (069901)
Type Cal
Acq. Method AM 26 THC.m
Sample Position P1-D1
Injection Volume 10
Acq. Date-Time 8/10/2023 12:29:48 PM
Sample Info.

Data File MJ Cal 4.d
Sample MJ Cal 4
Operator Tamara Salazar
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	5.489	24376	59.90	120.0 Low	20.38	345720	9.8510 ng/ml
THC-COOH	4.516	1048782	∞	152.7	∞	976718	56.8949 ng/ml
THC-OH	4.342	72302	511.02	723.9	335.90	4474281	9.5997 ng/ml

TS



AM #26 Cannabinoids Screen Results

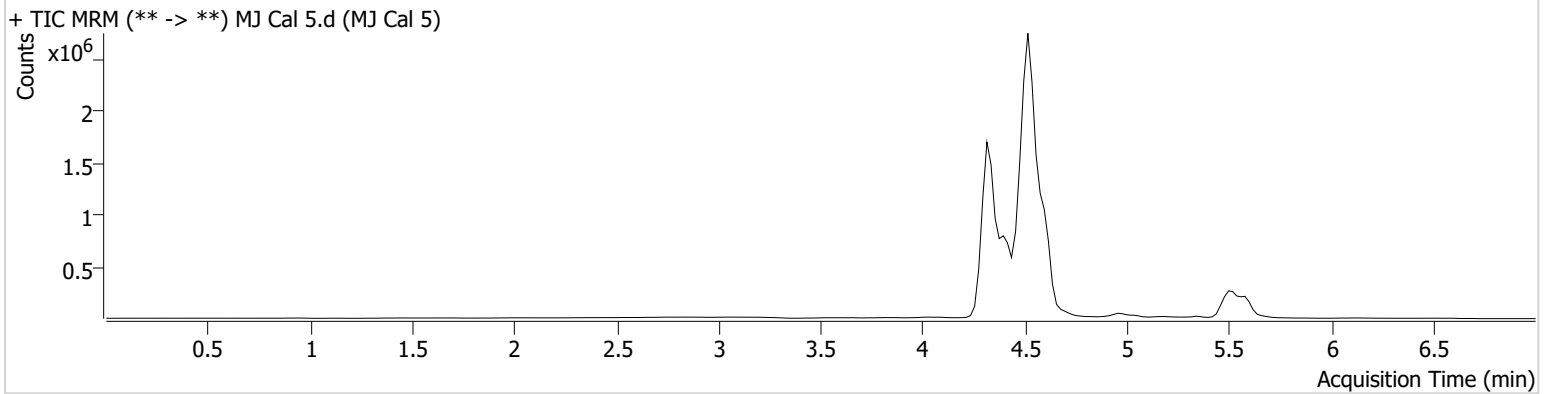
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Calibration Last Update 8/10/2023 4:30:57 PM

Instrument Falco (069901)
Type Cal
Acq. Method AM 26 THC.m
Sample Position P1-E1
Injection Volume 10
Acq. Date-Time 8/10/2023 12:37:22 PM
Sample Info.

Data File MJ Cal 5.d
Sample MJ Cal 5
Operator Tamara Salazar
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	5.489	54587	∞	57.1 Low	∞	303740	25.0796 ng/ml
THC-COOH	4.516	5381484	∞	145.0	∞	3884066	73.6608 ng/ml
THC-OH	4.342	308714	1025.97	706.8	∞	7372286	24.5661 ng/ml

TS



AM #26 Cannabinoids Screen Results

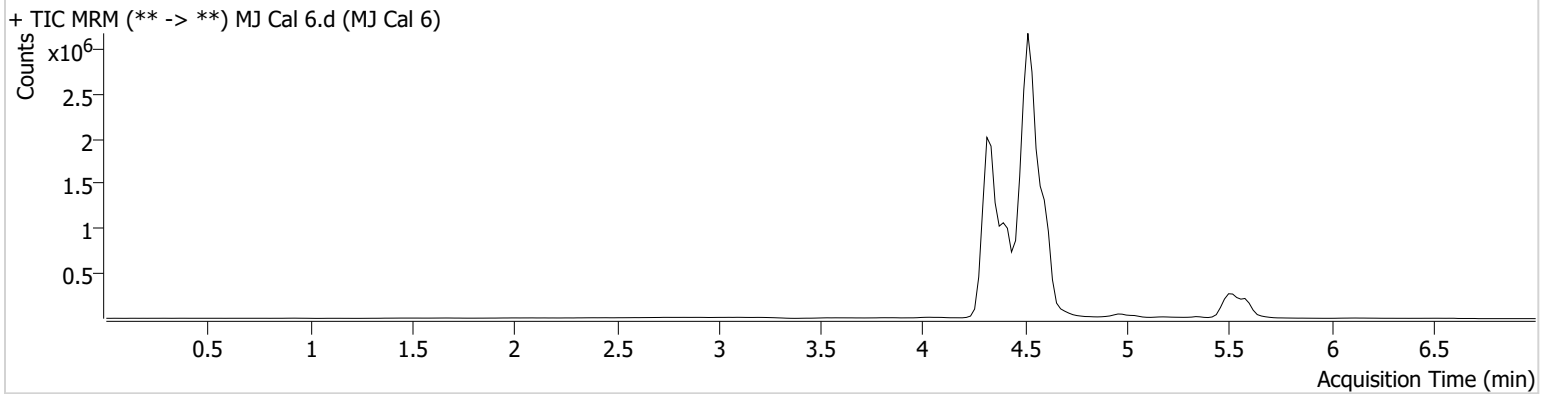
Batch results D:\MassHunter\Data\2023\AM 25 26\081213 AM 25 26 TS_Combo and Validation\QuantResults\AM 26.batch.bin
Calibration Last Update 8/10/2023 4:30:57 PM

Instrument Falco (069901)
Type Cal
Acq. Method AM 26 THC.m
Sample Position P1-F1
Injection Volume 10
Acq. Date-Time 8/10/2023 12:44:57 PM
Sample Info.

Data File MJ Cal 6.d
Sample MJ Cal 6
Operator Tamara Salazar
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	5.469	89331	59.66	47.1 Low	113.82	247017	50.4487 ng/ml
THC-COOH	4.516	6527524	∞	145.5	∞	3624458	96.0031 ng/ml
THC-OH	4.342	628840	2808.90	706.9	∞	7334392	50.0947 ng/ml

TS

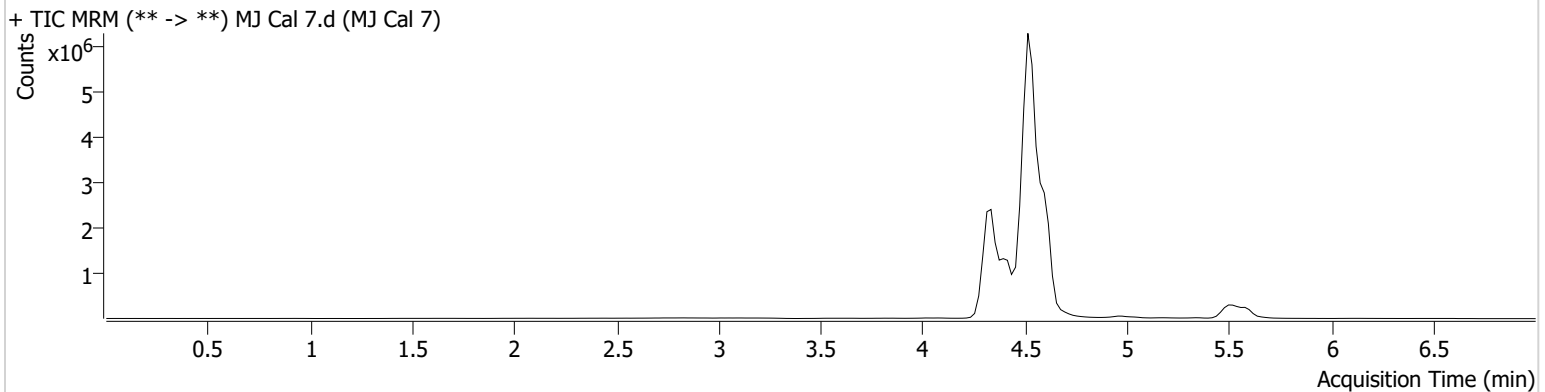


AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2023\AM 25 26\081213 AM 25 26 TS_Combo and Validation\QuantResults\AM 26.batch.bin
Calibration Last Update 8/10/2023 4:30:57 PM

Instrument	Falco (069901)	Data File	MJ Cal 7.d
Type	Cal	Sample	MJ Cal 7
Acq. Method	AM 26 THC.m	Operator	Tamara Salazar
Sample Position	P1-G1	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	8/10/2023 12:52:31 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.469	122262	∞	45.0 Low	36.03	170619	99.9438 ng/ml
THC-COOH	4.516	14103238	∞	147.5	∞	3057921	247.1830 ng/ml
THC-OH	4.342	1090903	8931.02	754.8	∞	6293435	101.0786 ng/ml