









**Worklist: 6065**

<u>LAB CASE</u>	<u>ITEM</u>	<u>ITEM TYPE</u>	<u>DESCRIPTION</u>	
M2022-2996	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
M2022-3075	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-2008	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-2025	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-2094	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-2095	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-2096	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-2097	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-2115	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-2123	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-2166	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-2171	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-2203	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-2207	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-2218	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-2236	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-2238	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-2248	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-2251	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-2336	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-2351	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	

**Worklist: 6065**

TS

<u>LAB CASE</u>	<u>ITEM</u>	<u>ITEM TYPE</u>	<u>DESCRIPTION</u>	
P2022-2354	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-2357	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-2383	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-2385	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-2388	2	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-2407	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-2409	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-2426	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	

**Request for Departure from an Analytical Method or Quality Standard**

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Deviation Number (assigned by QM): TOX-22-01

Date of Request: 2/3/2022

Requestor/Discipline: Celena Shrum/Toxicology

Analytical Method/Quality Standard, Revision #: AM #25, AM #28, AM #29, Revision 13

Temporary or Permanent Deviation: Permanent

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**Scope of Deviation** (record specific information, e.g. affected programs, evidence types, expected end date; etc): Deviation will remain in place until the change is made in the next method revision.

**Deviation Request** (Describe detailed instructions of the changes being made; include reference to specific section number(s) in the method manual): 4.1.4 (Place plate on shaking incubator at approximately 900 rpm for approximately 15 minutes) of AM #25, AM # 28, and AM #29 is being removed. The removal of this step was tested in the validation "Addition of Compounds/Modifications for the MDS" (approved on 2/2/2022) and it was determined that that step is not necessary and can be removed.

**Technical Justification for Analytical Method Deviations:** Refer to validation "Addition of Compounds/Modifications for the MDS" (approved on 2/2/2022)

**Technical Review**

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Departure approved  
Comments:

Departure Not Approved  
Comments:

Approver: Rachel Cutler  
Title: Laboratory Manager



Date: 2/10/2022

**Quality Review**

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Quality Approver: Jason Crowe  
Title: Quality Manager  
Date: 2/10/2022



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

Extraction Date: 08/15/2022  
Plate lot#: 211015  
Mobile phase A: 10mM Amm Form  
Blank Blood Lot: Lampire 22B52015-1  
LCMS-QQQ ID: 069901

Analyst: Tamara Salzar  
Plate Retest Date: 04/15/2022—ok with external control  
Mobile phase B: 0.1% Formic Acid in MeOH  
Blank Urine Lot: N/A  
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: Click here to enter text. 08/23/2022 TS
- 4. ~~Place on shaking incubator at ambient temp., 900rpm for 15 minutes. -Skipped per deviation~~
- 5. Pipette **250µL 0.5 M ammonium hydroxide** in wells of analytical plate.
- 6. Place on shaking incubator at ambient temp., 900rpm for 15 minutes.
- 7. Transfer **200-450µL of blood+base and urine+base (if applicable)** mixture to corresponding wells of SLE+ plate.  
Amount transferred: 300uL
- 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 **900uL ethyl acetate.**
- 11. Wait 5 minutes.
- 12. Apply positive pressure for approx. 15 seconds. **(10-15 PSI- Selector to the left).**
- 13. Add **900uL ethyl acetate.**
- 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. 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.
- 18. Reconstitute in **100µL 20% LC MeOH** and heat seal plate with foil. Place in autosampler and run worklist.

08/23/2022 TS

### 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:

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	1	2	3	4	5	6	7	8	9	10	11	12
A	IS + Cal. 1	P2022-2094-1	P2022-2203-1	P2022-2354-1	P2022-2236-1	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample
B	IS + Cal. 1	P2022-2095-1	P2022-2207-1	P2022-2357-1	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample
C	Neg Blood	P2022-2096-1	P2022-2218-1	P2022-2383-1	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample
D	Ext Ctrl	P2022-2097-1	P2022-2238-1	P2022-2385-1	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample
E	M2022-2996-1	P2022-2115-1	P2022-2248-1	P2022-2388-2	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample
F	M2022-3075-1	P2022-2123-1	P2022-2251-1	P2022-2407-1	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample
G	P2022-2008-1	P2022-2166-1	P2022-2336-1	P2022-2409-1	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Cal. 1
H	P2022-2025-1	P2022-2171-1	P2022-2351-1	P2022-2426-1	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Cal. 1

All wells to contain 60 µl of residual DMSO



# Idaho State Police Forensic Services

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**AM #25 Blood Multi-Drug Screen by LCMS-QQQ  
And  
AM #28 Blood Multi-Drug Confirmatory Analysis by  
LCMS-QQQ---Panel 1**

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**Methanol External Control Solution (Lot: 042222)**

*100  $\mu$ L of 1mg/mL stock was added to each drug to 9600  $\mu$ L of LC MeOH.*

<i>Component</i>	<i>Source</i>	<i>Source Lot Number</i>	<i>Expiration Date</i>
Methanol (LCMS)	Fisher	215245	N/A
Tramadol	Cerilliant	FE10051901	12/31/2024
Hydrocodone	Cerilliant	FE04241902	09/30/2024
Alprazolam	Cerilliant	FE06102008	06/30/2025
Buprenorphine	Cerilliant	FE03191903	06/31/2024
Prepared:	04/22/2022		
Expires:	04/22/2023		
Prepared By:	Celena Shrum		

**Blood External Control Solution (Lot: WS042222)**

*200  $\mu$ L of methanol external control solution was added to 9800  $\mu$ L of blood.*

*Approximately 200 ng/mL of each compound.*

<i>Component</i>	<i>Source</i>	<i>Source Lot Number</i>
Negative Blood	Lampire	22B52016-2
Methanol External Control Solution		042222
Prepared:	04/22/2022	
Expires:	04/22/2023	
Prepared by:	Celena Shrum	

TS

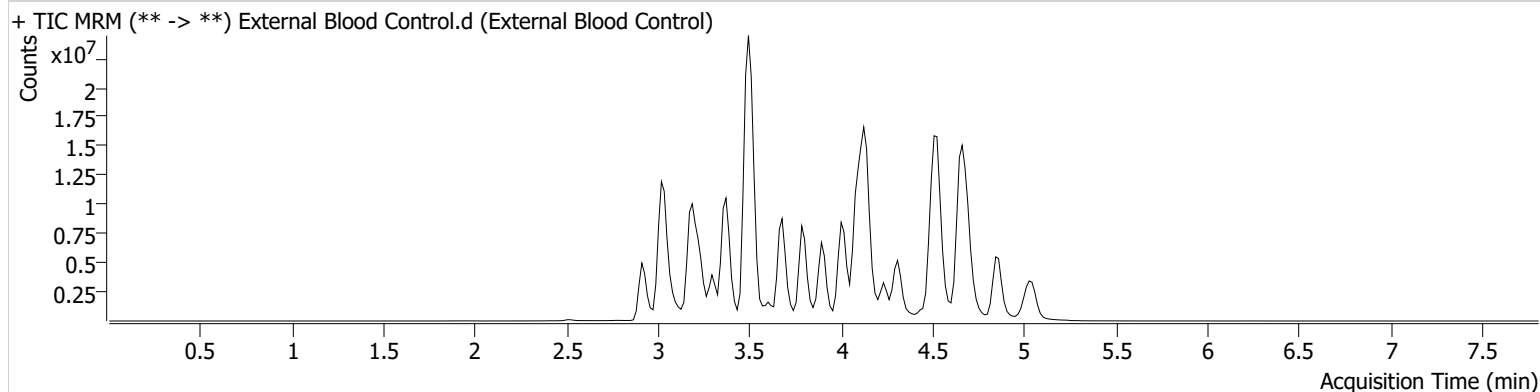


# AM #25 Multi-Drug Screen Results

**Batch results** G:\TOX\Pocatello\Falco\2022\AM 25-26\081522 AM 25 26 TS\QuantResults\AM 25.batch.bin  
**Calibration Last Update** 8/16/2022 8:40:46 AM

<b>Instrument</b>	Falco (069901)	<b>Data File</b>	External Blood Control.d
<b>Type</b>	Sample	<b>Sample</b>	External Blood Control
<b>Acq. Method</b>	AM 25 MDS.m	<b>Operator</b>	Tamara Salazar
<b>Sample Position</b>	P2-D1	<b>Comment</b>	
<b>Injection Volume</b>	5		
<b>Acq. Date-Time</b>	8/15/2022 9:49:51 PM		
<b>Sample Info.</b>			

## Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Alprazolam	4.651	21374131	1826.52	736.75	22796303	56.4041
Buprenorphine	5.040	9040444	1741765.42	471666.20	4734465	83.5934
Hydrocodone	3.220	10918758	3791.91	8637.79	10111663	63.5187
Tramadol	3.499	87912767	∞	179.42	45857281	47.3565

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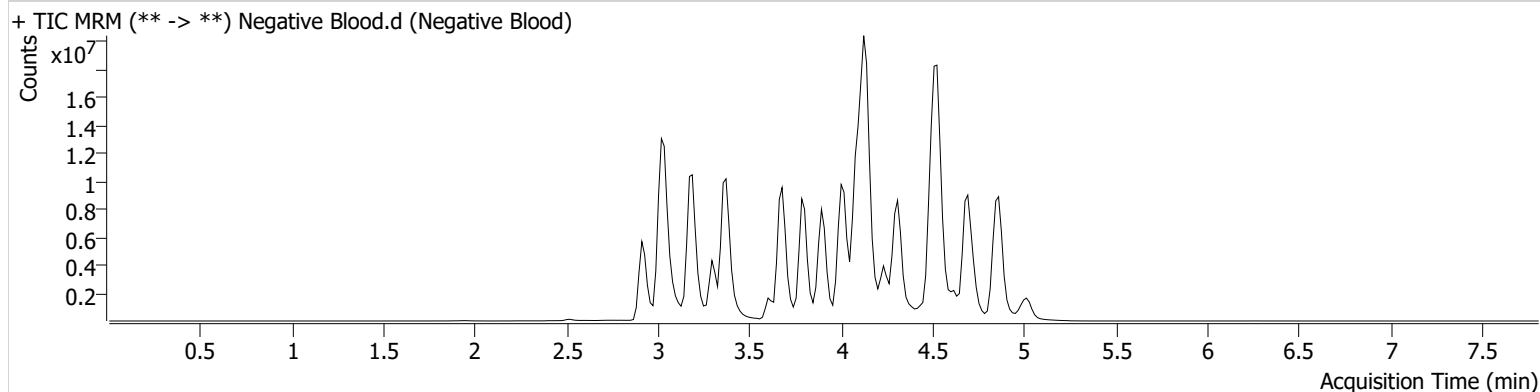


# AM #25 Multi-Drug Screen Results

**Batch results** G:\TOX\Pocatello\Falco\2022\AM 25-26\081522 AM 25 26 TS\QuantResults\AM 25.batch.bin  
**Calibration Last Update** 8/16/2022 8:40:46 AM

<b>Instrument</b>	Falco (069901)	<b>Data File</b>	Negative Blood.d
<b>Type</b>	Sample	<b>Sample</b>	Negative Blood
<b>Acq. Method</b>	AM 25 MDS.m	<b>Operator</b>	Tamara Salazar
<b>Sample Position</b>	P2-C1	<b>Comment</b>	
<b>Injection Volume</b>	5		
<b>Acq. Date-Time</b>	8/15/2022 9:41:27 PM		
<b>Sample Info.</b>			

## Sample Chromatogram





# AM #25 Multi-Drug Screen Results

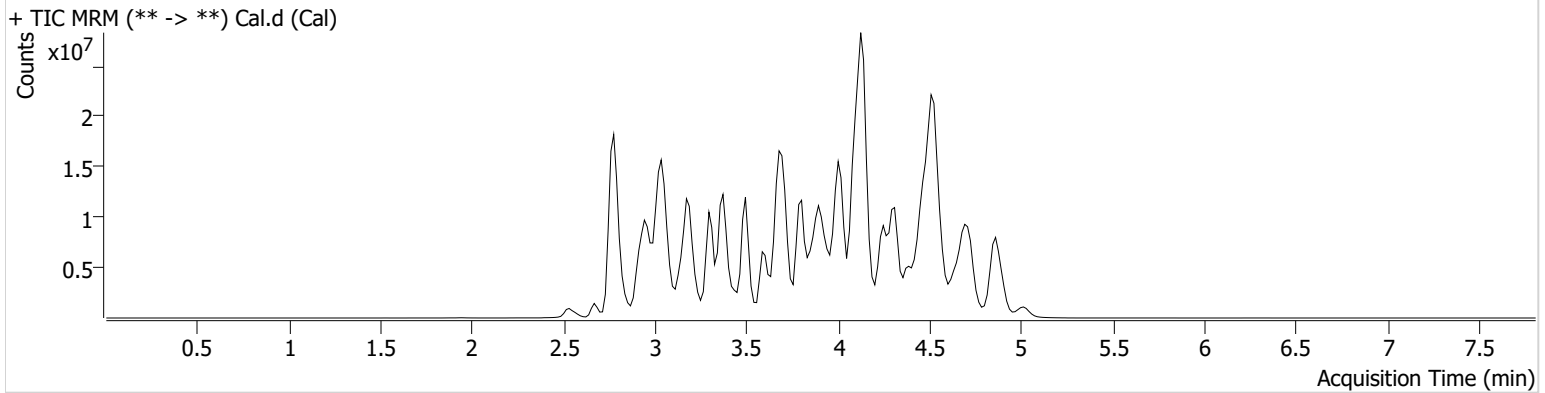
TS



**Batch results** G:\TOX\Pocatello\Falco\2022\AM 25-26\081522 AM 25 26 TS\QuantResults\AM 25.batch.bin  
**Calibration Last Update** 8/16/2022 8:40:46 AM

<b>Instrument</b>	Falco (069901)	<b>Data File</b>	Cal.d
<b>Type</b>	Cal	<b>Sample</b>	Cal
<b>Acq. Method</b>	AM 25 MDS.m	<b>Operator</b>	Tamara Salazar
<b>Sample Position</b>	P2-B1	<b>Comment</b>	
<b>Injection Volume</b>	5		
<b>Acq. Date-Time</b>	8/15/2022 9:32:53 PM		

**Sample Chromatogram**



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
10-OH-Carbamazepine	3.793	3936952	156.59	520.65	24192840	10.0000
6-MAM	3.094	66212	31839.22	15545.11	1747284	10.0000
7-aminoclonazepam	3.621	1021187	203.65	261.00	4298460	10.0000
7-aminoflunitrazepam	3.820	1999473	365.77	2237.10	4298460	10.0000
9-Hydroxyrisperidone	4.028	7741675	2073293.09	122083.88	32656667	10.0000
Acetyl Fentanyl	4.095	384420	301.53	110027.43	31847549	10.0000
Acetyl Norfentanyl	2.965	450696	5099.06	400.46	31847549	10.0000
a-hydroxyalprazolam	4.556	166740	53.52	1021.80	4298460	10.0000
alpha-hydroxymidazolam	4.631	1872317	621.17	409.47	4298460	10.0000
Alpha-PHP	3.963	4021361	12102.57	4270.38	31847549	10.0000
alpha-PVP	3.687	5562467	1555.53	561.82	15443941	10.0000
Alprazolam	4.651	2132092	549.77	265.44	12826029	10.0000
Amitriptyline	4.532	1313133	165.44	409.14	5755429	10.0000
Amphetamine	2.954	5210423	332.06	3656.74	15443941	10.0000
Benzoyllecgonine	3.421	217632	173771.03	59.38	417044	10.0000
Brompheniramine	4.111	114833	168.74	1424.78	47446540	10.0000
Buprenorphine	5.040	751652	207867.09	27145.15	3290561	10.0000
Bupropion	3.933	5570304	1464.50	4264.38	21859941	10.0000
Carbamazepine	4.257	8936996	1196.44	1200.11	340538	10.0000
Carisoprodol	4.256	1192118	6467657.01	84.35	7121479	10.0000
Chlordiazepoxide	4.760	491498	244.92	872.13	12826029	10.0000
Chlorpheniramine	4.022	7330063	56412.09	16.89	47446540	10.0000
Chlorpromazine	4.726	1603800	3024.16	1266620.53	7101708	10.0000
Citalopram	4.125	3261113	281.27	587657.23	47446540	10.0000
Clomipramine	4.727	2279355	15207.70	5783.88	47446540	10.0000
Clonazepam	4.465	416376	1163.81	3195.83	12826029	10.0000
Clonazepam	4.400	1042839	652367.95	199116.67	12826029	10.0000
Clozapine	4.540	4034654	508.78	14844.86	15607136	10.0000
Cocaeethylene	3.879	5095688	3304485.78	1376.71	29099611	10.0000
Cocaine	3.681	5105209	45652.85	363.50	29099611	10.0000
Codeine	3.052	394463	1578684.51	143.64	9967814	10.0000
Cyclobenzaprine	4.440	2610941	2943.13	153.57	5755429	10.0000
Desipramine	4.425	4707926	2272.67	467.50	5755429	10.0000
Dextromethorphan	4.147	2080918	14355.48	3140.24	11996462	10.0000

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# AM #25 Multi-Drug Screen Results

Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Dextrophan	3.439	2820086	3250.14	10684.38	11996462	10.0000
Diazepam	4.884	762868	952.47	1811.94	12826029	10.0000
Dihydrocodeine	2.898	1067531	7206.15	466.32	9967814	10.0000
Diphenhydramine	4.102	10407269	907.56	2665.71	47446540	10.0000
Doxepin	4.238	2411957	574.58	120.78	24554086	10.0000
Doxylamine	3.714	10894501	5837222.97	10144406.79	11996462	10.0000
Duloxetine	4.391	50645	9867.29	13799.16	870252	10.0000
EDDP	4.146	2014415	1140.87	169.09	4777264	10.0000
Estazolam	4.576	4159752	404.61	1382.91	12826029	10.0000
Etizolam	4.677	286655	138305.99	523241.74	12826029	10.0000
Fentanyl	4.309	338921	212.56	84852.13	25143186	10.0000
Flualprazolam	4.525	542749	312055.43	345743.74	12826029	10.0000
Flunitrazepam	4.589	1113267	560.95	271.10	12826029	10.0000
Fluoxetine	4.374	2154941	2613.25	119.06	2885995	10.0000
Flurazepam	4.383	3192882	22479.91	102110.47	12826029	10.0000
Hydrocodone	3.220	1694528	853.48	265.44	9967814	10.0000
Hydromorphone	2.733	951571	10403.88	12515.94	217690	10.0000
Hydroxyzine	4.660	2707976	3416.75	1236.61	47446540	10.0000
Imipramine	4.469	5694356	1307.18	790.24	5755429	10.0000
Ketamine	3.841	4380061	5955.26	194.59	11920100	10.0000
Lamotrigine	3.669	325691	32108.32	41904.76	47446540	10.0000
Levamisole	3.165	2745332	1347.83	374.95	29099611	10.0000
Levetiracetam	2.677	1360567	467.01	1130.07	47446540	10.0000
Lorazepam	4.464	224930	145.92	74.99	12826029	10.0000
Maprotiline	4.532	772050	72.04	89.94	5755429	10.0000
MDA	3.074	2668963	1525.62	296.26	32201387	10.0000
MDEA	3.304	4696986	17142.46	3241.29	32201387	10.0000
MDMA	3.150	5918268	917.50	1492.86	32201387	10.0000
Meperidine	3.701	2803105	202.44	162.43	11996462	10.0000
Meprobamate	3.688	819848	801.76	316.09	7121479	10.0000
Methadone	4.466	6330789	8250.68	407.33	4777264	10.0000
Methamphetamine	3.060	7052333	2167.94	397.12	32201387	10.0000
Methocarbamol	3.609	567193	72140.48	652.41	4777264	10.0000
Methylphenidate	3.594	12649834	785.63	702.36	22218603	10.0000
Metoprolol	3.499	807453	32370.85	709889.84	11996462	10.0000
Midazolam	4.817	672038	5568.82	215319.38	12826029	10.0000
Mirtazapine	4.318	4033630	95554.17	2721.57	11996462	10.0000
Mitragynine	4.383	649529	186451.10	435219.47	11996462	10.0000
Morphine	2.566	231665	590.58	829.93	217690	10.0000
Norbuprenorphine	3.905	100457	86191.63	45151.27	3290561	10.0000
Nordiazepam	4.732	774573	309.76	228.57	12826029	10.0000
Norfentanyl	3.395	6343665	156.33	77.82	31847549	10.0000
Norhydrocodone	2.992	147500	40.59	13.33	217690	10.0000
Norketamine	3.949	839049	131.75	21041.53	11920100	10.0000
Normeperidine	3.656	3097312	3024.77	4308.27	47446540	10.0000
Noroxycodone	2.944	1829135	338.57	106.06	11920100	10.0000
Nortriptyline	4.471	1185455	22016.08	287.81	5755429	10.0000
O-desmethyl-tramadol	2.979	8991713	46333.07	1681.50	47446540	10.0000
O-desmethylvenlafaxine	3.314	1790075	389.19	∞	10055480	10.0000
Olanzapine	4.003	1136169	864612.41	3364.22	340538	10.0000
Oxazepam	4.546	989425	178.13	115.84	4014814	10.0000
Oxycodone	3.065	2522644	778.95	43.57	11920100	10.0000
Oxymorphone	2.533	2308911	∞	166.72	217690	10.0000
Paroxetine	4.401	274845	2051.28	152789.54	2885995	10.0000
Phenazepam	4.676	922708	4881.08	246295.29	12826029	10.0000
Phencyclidine	3.994	6648831	8718.95	2107.96	11996462	10.0000
Phentermine	3.214	1747045	392.80	8.27	22218603	10.0000
Phenytoin	4.164	569299	444.48	588.66	340538	10.0000
Primidone	3.503	1905229	190097.16	258.03	340538	10.0000
Promethazine	4.469	6717655	22195.18	593.85	47446540	10.0000

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# AM #25 Multi-Drug Screen Results

Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Pseudoephedrine	2.784	52254769	1132.40	5675.05	32201387	10.0000
Quetiapine	4.706	3800003	14930.57	1708955.45	40588790	10.0000
Risperidone	4.244	6718139	29446.29	25248.22	32656667	10.0000
Sertraline	4.621	569482	121173.23	272.05	2885995	10.0000
Sufentanil	4.721	264131	130510.63	353.48	31847549	10.0000
Tapentadol	3.503	5646960	526.52	308.06	11920100	10.0000
Temazepam	4.698	2171875	4185.61	163.19	12826029	10.0000
Topiramate	3.862	54815	65707.97	23.64	291690	10.0000
Tramadol	3.499	19207413	∞	84.66	47446540	10.0000
Trazodone	4.889	5185987	616.66	429.40	24554086	10.0000
Venlafaxine	3.868	7623566	2482.88	171.86	2885995	10.0000
Zaleplon	4.375	1567706	21403.02	356.31	40588790	10.0000
Zolpidem	4.513	8712372	3194928.44	41772.27	40588790	10.0000
Zopiclone	4.444	379889	167192.27	109108.95	1757044	10.0000

TS

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

Extraction Date: 08/15/2022

Plate lot#: 220309

Mobile phase A: 10mM Amm Form in LCMS Water

Blank Blood Lot: Lampire 22B52015-1

LCMS-QQQ ID: 069901

Analyst: Tamara Salazar

Plate Retest Date: 09/09/2022

Mobile phase B: 0.1% Formic acid in MeOH

Blank Urine Lot: POC21022

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. TS  
08/23/2022
- 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

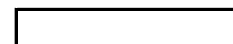
- 1. Create batch and process data.
- 2. Make any necessary integration changes, R<sup>2</sup> values ≥0.98 for each analyte
- 3. RT +/- 2% or 0.100 min, whichever is greater
- 4. Confirmation testing on case samples with a response for THC and OH-THC of 3ng/mL or greater and/or Carboxy-THC at 10ng/mL 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: Run stopped on case sample P2022-2218 due to high pressure. The pressure was resolved, and the run continued without further issue.

TS

	1	2	3	4	5	6
A	IS + Cal. 1	IS + QC_1	P2022-2096-1	P2022-2218-1	P2022-2383-1	IS + QC_1
B	IS + Cal. 2	Neg Blood	P2022-2097-1	P2022-2238-1	P2022-2385-1	IS + Cal. 7
C	IS + Cal. 3	M2022-2996-1	P2022-2115-1	P2022-2248-1	P2022-2388-2	IS + Cal. 6
D	IS + Cal. 4	M2022-3075-1	P2022-2123-1	P2022-2251-1	P2022-2407-1	IS + Cal. 5
E	IS + Cal. 5	P2022-2008-1	P2022-2166-1	P2022-2336-1	P2022-2409-1	IS + Cal. 4
F	IS + Cal. 6	P2022-2025-1	P2022-2171-1	P2022-2351-1	P2022-2426-1	IS + Cal. 3
G	IS + Cal. 7	P2022-2094-1	P2022-2203-1	P2022-2354-1	P2022-2236-1	IS + Cal. 2
H	IS + QC_1	P2022-2095-1	P2022-2207-1	P2022-2357-1	IS + QC_1	IS + Cal. 1

All wells to contain 100 µl of residual DMSO



TS

	1	2	3	4	5	6
A	IS + Cal. 1	IS + QC_1	P2022-2096-1	P2022-2218-1	P2022-2383-1*	P2022-2236-1
B	IS + Cal. 2	Neg Blood	P2022-2097-1	P2022-2238-1	P2022-2385-1	
C	IS + Cal. 3	M2022-2996-1	P2022-2115-1	P2022-2248-1	P2022-2388-2	
D	IS + Cal. 4	M2022-3075-1	P2022-2123-1	P2022-2251-1	P2022-2407-1	
E	IS + Cal. 5	P2022-2008-1	P2022-2166-1	P2022-2336-1	P2022-2409-1	
F	IS + Cal. 6	P2022-2025-1	P2022-2171-1	P2022-2351-1	P2022-2426-1	
G	IS + Cal. 7	P2022-2094-1	P2022-2203-1	P2022-2354-1	P2022-2236-1*	
H	IS + QC_1	P2022-2095-1	P2022-2207-1	P2022-2357-1	P2022-2383-1	

\*Moved during step 7  
of extraction due to  
blood clot

TS

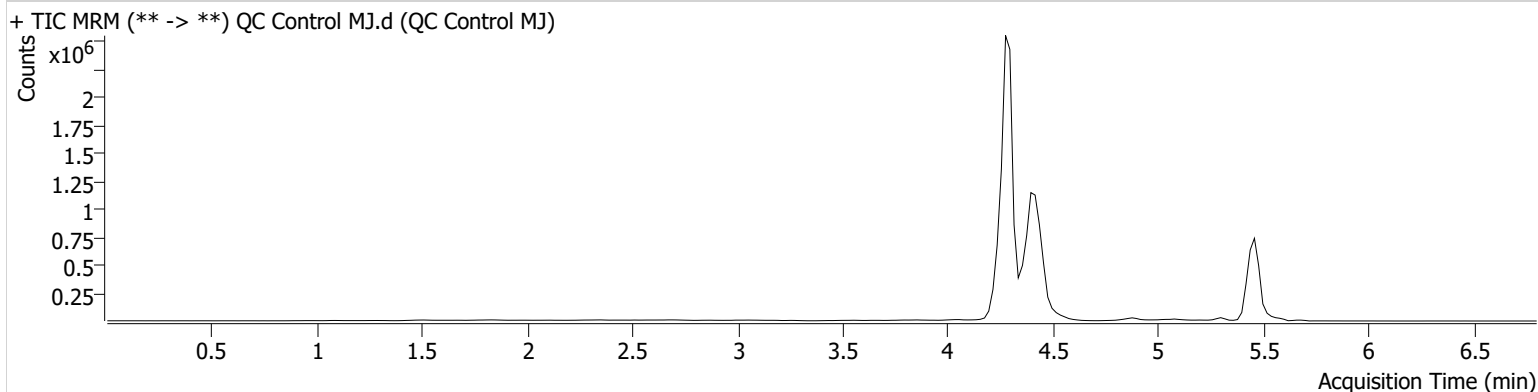


# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2022\AM 25-26\081522 AM 25 26 TS\QuantResults\AM 26.batch.bin  
**Calibration Last Update** 8/22/2022 3:21:27 PM

<b>Instrument</b>	Falco (069901)	<b>Data File</b>	QC Control MJ.d
<b>Type</b>	QC	<b>Sample</b>	QC Control MJ
<b>Acq. Method</b>	AM 26 THC.m	<b>Operator</b>	Tamara Salazar
<b>Sample Position</b>	P1-H1	<b>Comment</b>	
<b>Injection Volume</b>	10		
<b>Acq. Date-Time</b>	8/15/2022 2:57:48 PM		

**Sample Chromatogram**



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	5.449	13584	416691	4.5948 ng/ml
THC-COOH	4.436	771001	3888008	14.4131 ng/ml
THC-OH	4.302	77022	9101870	4.6929 ng/ml

TS

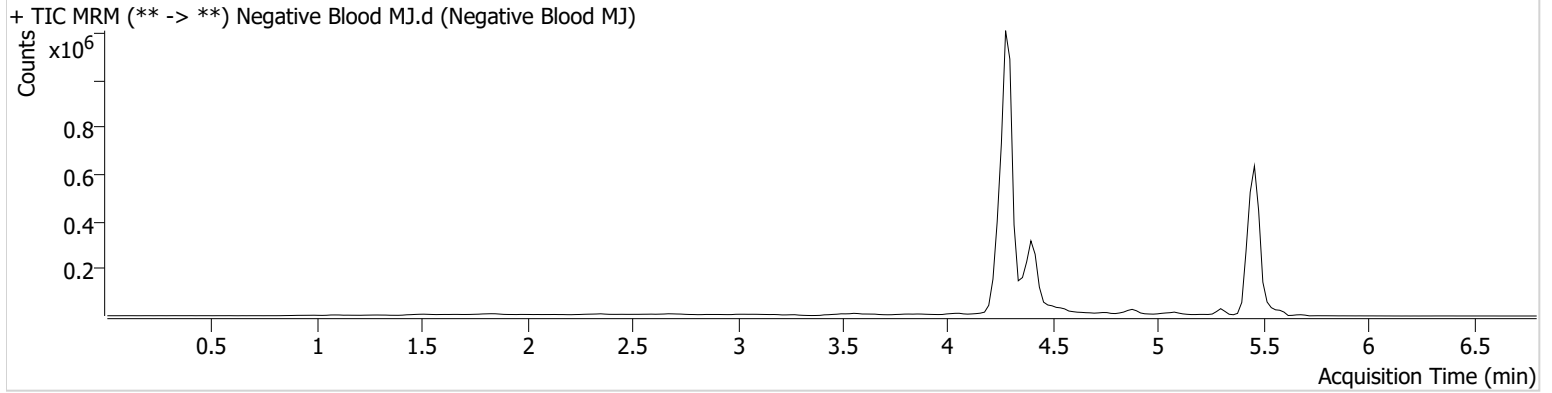


# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2022\AM 25-26\081522 AM 25 26 TS\QuantResults\AM 26.batch.bin  
**Calibration Last Update** 8/22/2022 3:21:27 PM

<b>Instrument</b>	Falco (069901)	<b>Data File</b>	Negative Blood MJ.d
<b>Type</b>	Sample	<b>Sample</b>	Negative Blood MJ
<b>Acq. Method</b>	AM 26 THC.m	<b>Operator</b>	Tamara Salazar
<b>Sample Position</b>	P1-B2	<b>Comment</b>	
<b>Injection Volume</b>	10		
<b>Acq. Date-Time</b>	8/15/2022 3:12:57 PM		
<b>Sample Info.</b>			

## Sample Chromatogram



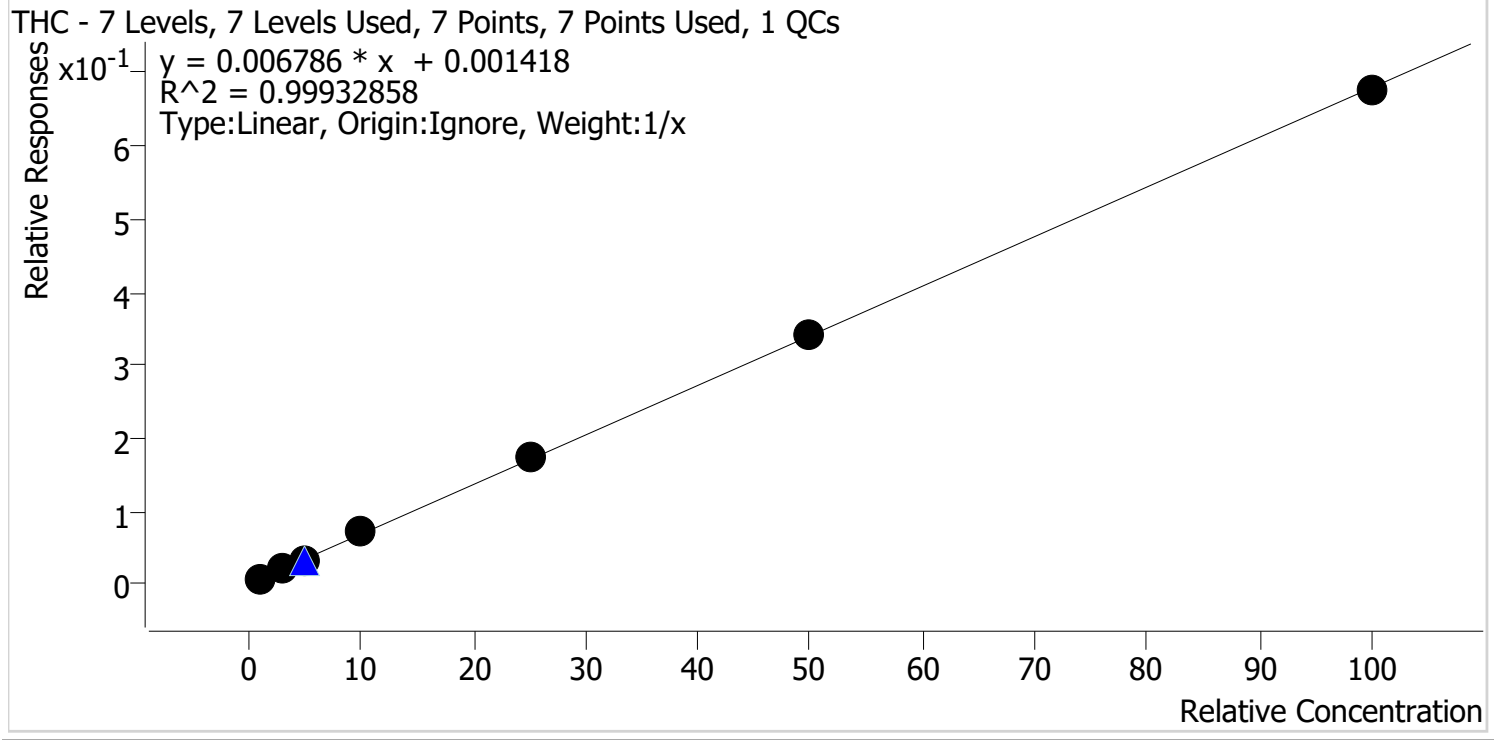


TS



# AM #26 Cannabinoids Screen Calibration Curve Report

Batch results D:\MassHunter\Data\2022\AM 25-26\081522 AM 25 26 TS\QuantResults\AM 26.batch.bin  
 Last Cal. Update 8/22/2022 3:21 PM  
 Analyst Name ISP\datastor  
 Analyte THC Internal Standard THC-D3



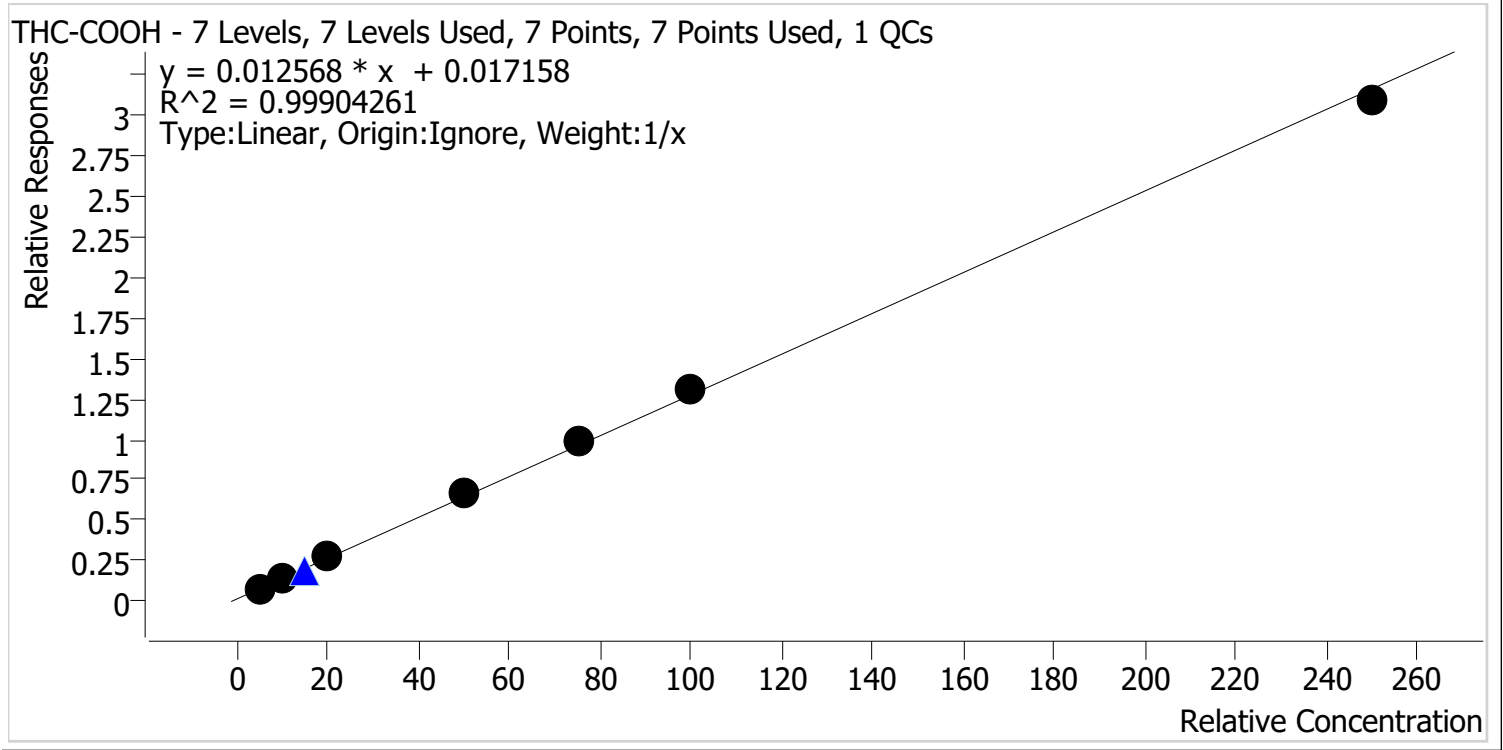
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
Cal 1 MJ	1	✓	1.0	1.0	102.0
Cal 2 MJ	2	✓	3.0	2.9	96.9
Cal 3 MJ	3	✓	5.0	4.6	92.2
Cal 4 MJ	4	✓	10.0	10.8	108.1
Cal 5 MJ	5	✓	25.0	25.4	101.6
Cal 6 MJ	6	✓	50.0	49.9	99.7
Cal 7 MJ	7	✓	100.0	99.4	99.4

TS



# AM #26 Cannabinoids Screen Calibration Curve Report

**Batch results** D:\MassHunter\Data\2022\AM 25-26\081522 AM 25 26 TS\QuantResults\AM 26.batch.bin  
**Last Cal. Update** 8/22/2022 3:21 PM  
**Analyst Name** ISP\datastor  
**Analyte** THC-COOH **Internal Standard** THC-COOH-D9



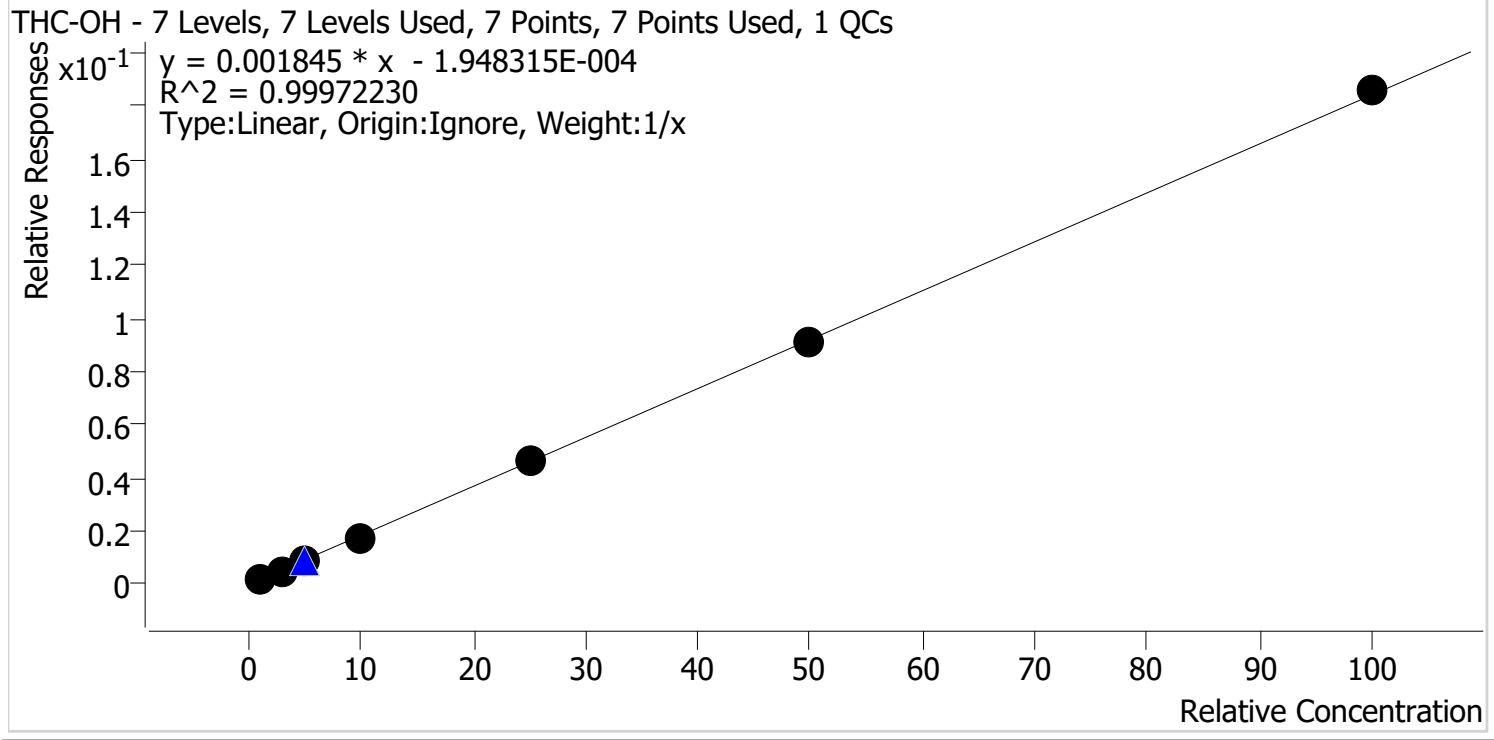
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
Cal 1 MJ	1	✓	5.0	4.9	98.8
Cal 2 MJ	2	✓	10.0	9.3	92.6
Cal 3 MJ	3	✓	20.0	20.5	102.5
Cal 4 MJ	4	✓	50.0	51.5	103.0
Cal 5 MJ	5	✓	75.0	77.5	103.3
Cal 6 MJ	6	✓	100.0	102.1	102.1
Cal 7 MJ	7	✓	250.0	244.2	97.7

TS



# AM #26 Cannabinoids Screen Calibration Curve Report

**Batch results** D:\MassHunter\Data\2022\AM 25-26\081522 AM 25 26 TS\QuantResults\AM 26.batch.bin  
**Last Cal. Update** 8/22/2022 3:21 PM  
**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	111.1
Cal 2 MJ	2	✓	3.0	2.9	95.7
Cal 3 MJ	3	✓	5.0	4.9	97.1
Cal 4 MJ	4	✓	10.0	9.6	96.1
Cal 5 MJ	5	✓	25.0	24.9	99.6
Cal 6 MJ	6	✓	50.0	49.8	99.6
Cal 7 MJ	7	✓	100.0	100.9	100.9

TS

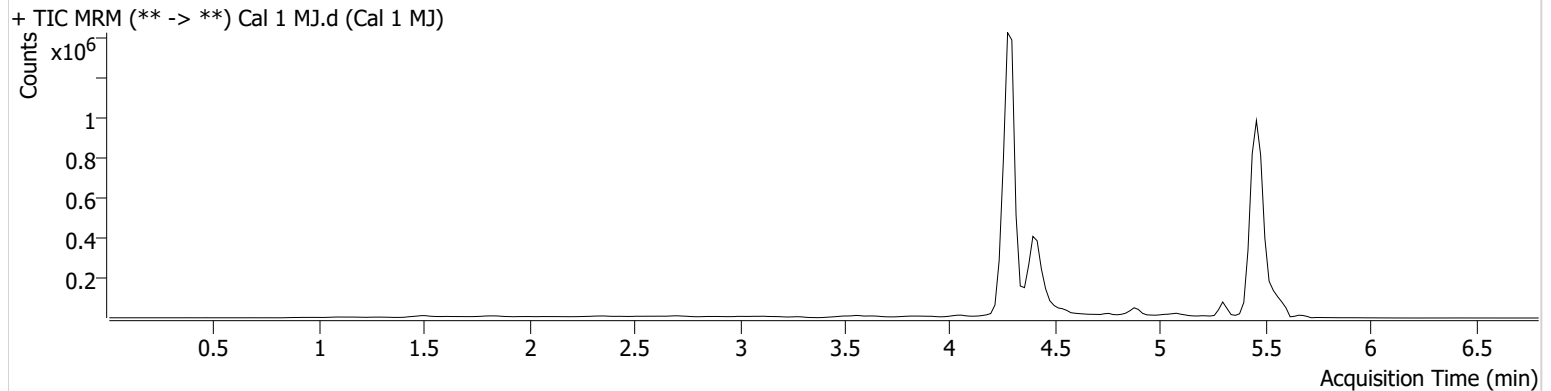


# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2022\AM 25-26\081522 AM 25 26 TS\QuantResults\AM 26.batch.bin  
**Calibration Last Update** 8/22/2022 3:21:27 PM

<b>Instrument</b>	Falco (069901)	<b>Data File</b>	Cal 1 MJ.d
<b>Type</b>	Cal	<b>Sample</b>	Cal 1 MJ
<b>Acq. Method</b>	AM 26 THC.m	<b>Operator</b>	Tamara Salazar
<b>Sample Position</b>	P1-A1	<b>Comment</b>	
<b>Injection Volume</b>	10		
<b>Acq. Date-Time</b>	8/15/2022 2:04:40 PM		

### Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.	
THC	5.489	5645	676702	1.0204 ng/ml	Low
THC-COOH	4.436	106695	1346567	4.9393 ng/ml	Low
THC-OH	4.302	9889	5333364	1.1107 ng/ml	Low

TS

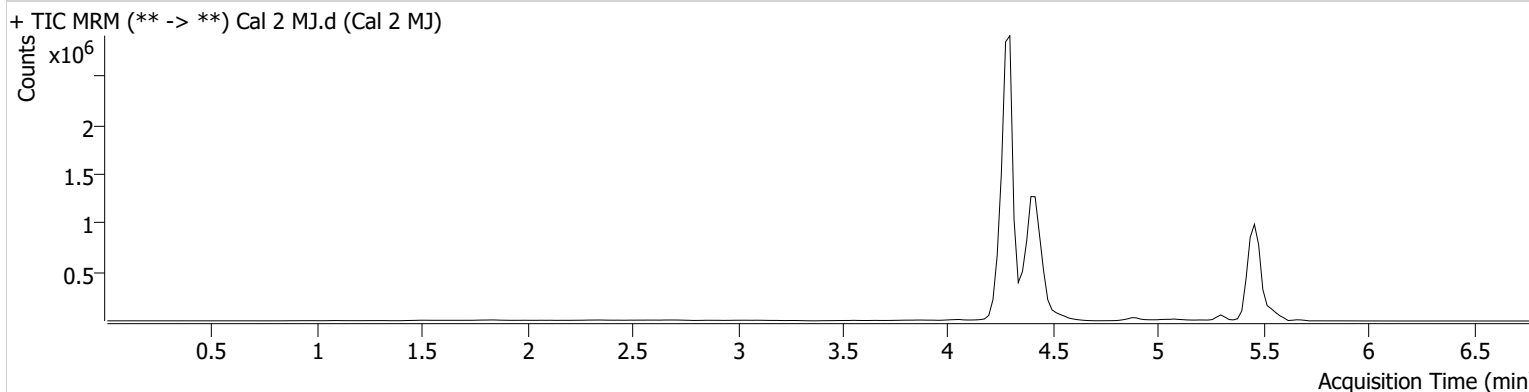


# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2022\AM 25-26\081522 AM 25 26 TS\QuantResults\AM 26.batch.bin  
**Calibration Last Update** 8/22/2022 3:21:27 PM

<b>Instrument</b>	Falco (069901)	<b>Data File</b>	Cal 2 MJ.d
<b>Type</b>	Cal	<b>Sample</b>	Cal 2 MJ
<b>Acq. Method</b>	AM 26 THC.m	<b>Operator</b>	Tamara Salazar
<b>Sample Position</b>	P1-B1	<b>Comment</b>	
<b>Injection Volume</b>	10		
<b>Acq. Date-Time</b>	8/15/2022 2:12:24 PM		

**Sample Chromatogram**



Name	RT	Resp.	ISTD Resp.	Final Conc.	
THC	5.489	13883	656385	2.9077 ng/ml	<b>Low</b>
THC-COOH	4.436	612422	4584626	9.2635 ng/ml	
THC-OH	4.302	54264	10638946	2.8705 ng/ml	<b>Low</b>

TS

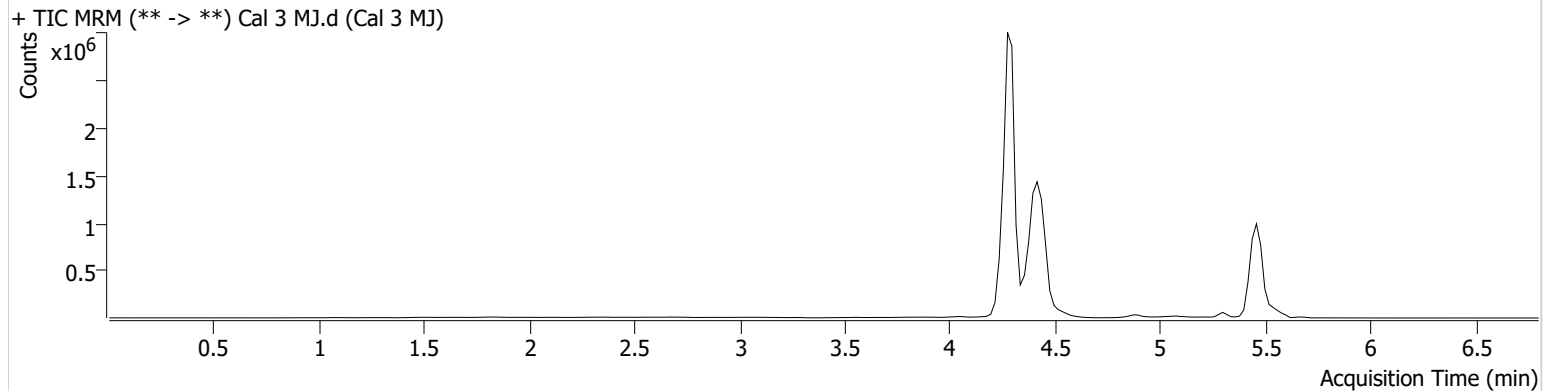


# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2022\AM 25-26\081522 AM 25 26 TS\QuantResults\AM 26.batch.bin  
**Calibration Last Update** 8/22/2022 3:21:27 PM

<b>Instrument</b>	Falco (069901)	<b>Data File</b>	Cal 3 MJ.d
<b>Type</b>	Cal	<b>Sample</b>	Cal 3 MJ
<b>Acq. Method</b>	AM 26 THC.m	<b>Operator</b>	Tamara Salazar
<b>Sample Position</b>	P1-C1	<b>Comment</b>	
<b>Injection Volume</b>	10		
<b>Acq. Date-Time</b>	8/15/2022 2:19:58 PM		

### Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	5.489	20971	641515	4.6083 ng/ml
THC-COOH	4.436	1164740	4239110	20.4966 ng/ml
THC-OH	4.302	90898	10380353	4.8525 ng/ml

TS

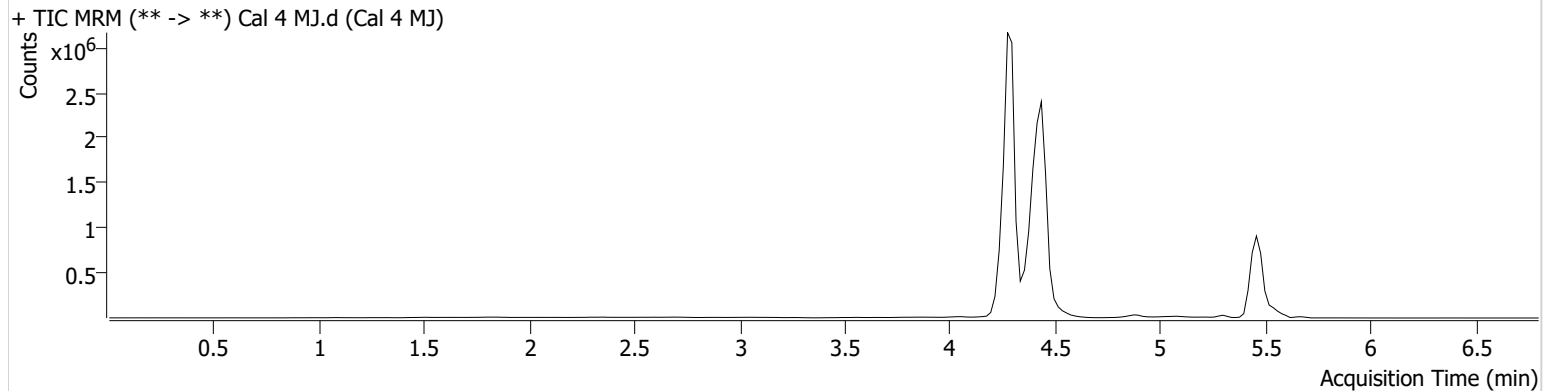


# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2022\AM 25-26\081522 AM 25 26 TS\QuantResults\AM 26.batch.bin  
**Calibration Last Update** 8/22/2022 3:21:27 PM

<b>Instrument</b>	Falco (069901)	<b>Data File</b>	Cal 4 MJ.d
<b>Type</b>	Cal	<b>Sample</b>	Cal 4 MJ
<b>Acq. Method</b>	AM 26 THC.m	<b>Operator</b>	Tamara Salazar
<b>Sample Position</b>	P1-D1	<b>Comment</b>	
<b>Injection Volume</b>	10		
<b>Acq. Date-Time</b>	8/15/2022 2:27:32 PM		

### Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	5.489	37976	507720	10.8130 ng/ml
THC-COOH	4.436	2795693	4206838	51.5115 ng/ml
THC-OH	4.302	183189	10443748	9.6141 ng/ml

TS

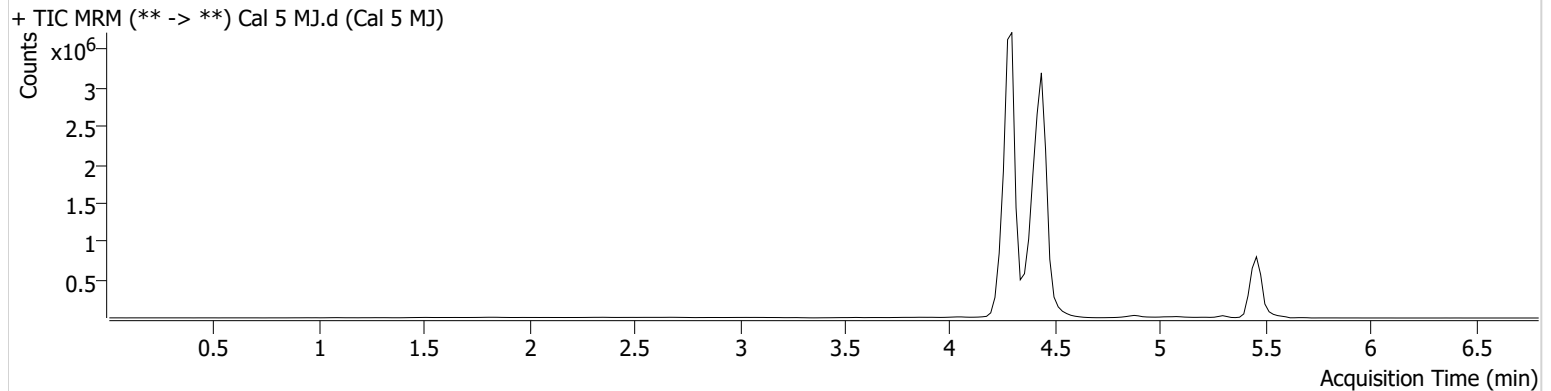


# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2022\AM 25-26\081522 AM 25 26 TS\QuantResults\AM 26.batch.bin  
**Calibration Last Update** 8/22/2022 3:21:27 PM

<b>Instrument</b>	Falco (069901)	<b>Data File</b>	Cal 5 MJ.d
<b>Type</b>	Cal	<b>Sample</b>	Cal 5 MJ
<b>Acq. Method</b>	AM 26 THC.m	<b>Operator</b>	Tamara Salazar
<b>Sample Position</b>	P1-E1	<b>Comment</b>	
<b>Injection Volume</b>	10		
<b>Acq. Date-Time</b>	8/15/2022 2:35:06 PM		

### Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	5.489	75858	436320	25.4106 ng/ml
THC-COOH	4.436	3962466	3998278	77.4888 ng/ml
THC-OH	4.302	468250	10234425	24.9075 ng/ml



TS

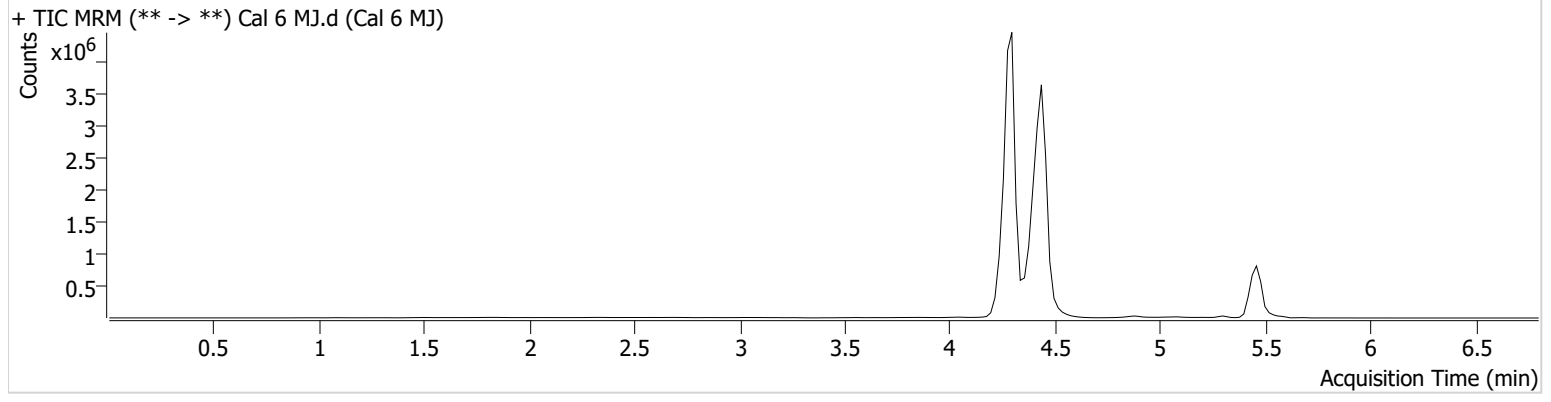


# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2022\AM 25-26\081522 AM 25 26 TS\QuantResults\AM 26.batch.bin  
**Calibration Last Update** 8/22/2022 3:21:27 PM

<b>Instrument</b>	Falco (069901)	<b>Data File</b>	Cal 6 MJ.d
<b>Type</b>	Cal	<b>Sample</b>	Cal 6 MJ
<b>Acq. Method</b>	AM 26 THC.m	<b>Operator</b>	Tamara Salazar
<b>Sample Position</b>	P1-F1	<b>Comment</b>	
<b>Injection Volume</b>	10		
<b>Acq. Date-Time</b>	8/15/2022 2:42:40 PM		

### Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	5.469	139546	410715	49.8585 ng/ml
THC-COOH	4.436	4775007	3673555	102.0581 ng/ml
THC-OH	4.302	853176	9310853	49.7786 ng/ml

TS

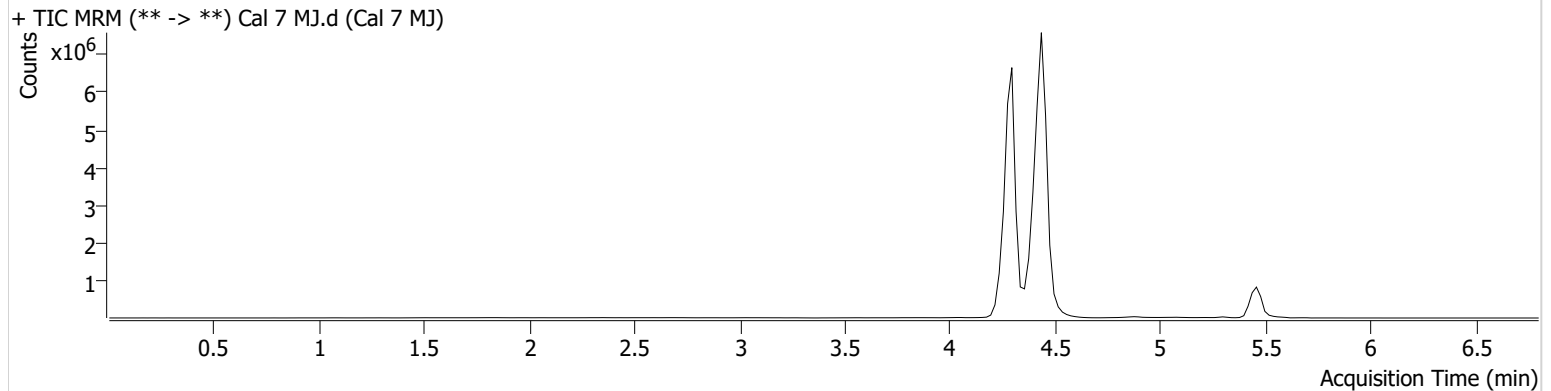


# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2022\AM 25-26\081522 AM 25 26 TS\QuantResults\AM 26.batch.bin  
**Calibration Last Update** 8/22/2022 3:21:27 PM

<b>Instrument</b>	Falco (069901)	<b>Data File</b>	Cal 7 MJ.d
<b>Type</b>	Cal	<b>Sample</b>	Cal 7 MJ
<b>Acq. Method</b>	AM 26 THC.m	<b>Operator</b>	Tamara Salazar
<b>Sample Position</b>	P1-G1	<b>Comment</b>	
<b>Injection Volume</b>	10		
<b>Acq. Date-Time</b>	8/15/2022 2:50:14 PM		

### Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	5.469	291884	431888	99.3815 ng/ml
THC-COOH	4.436	10471381	3392291	244.2423 ng/ml
THC-OH	4.302	1668443	8976212	100.8659 ng/ml