

Byylee

Worklist: 5830

<u>LAB CASE</u>	<u>ITEM</u>	<u>ITEM TYPE</u>	<u>DESCRIPTION</u>	
C2022-0610	1	URINE	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
C2022-0610	2	URINE	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
C2022-0610	3	URINE	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
C2022-0625	2	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
C2022-0637	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
C2022-0710	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
C2022-0732	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
C2022-0734	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
C2022-0738	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
C2022-0777	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
C2022-0830	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
C2022-0831	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
C2022-0850	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	

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Worklist: 5833

<u>LAB CASE</u>	<u>ITEM</u>	<u>ITEM TYPE</u>	<u>DESCRIPTION</u>
C2022-0645	1	CBUK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ



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

B. Wylie

Extraction Date: 4/26/22 Analyst: Britany Wylie
Plate lot#: 211015 Plate retest date: 04/15/22

Mobile phase A: 10mM Ammonium Formate **Mobile phase B:** 0.1% Formic Acid in MeOH
0.5M Ammonium Hydroxide Ethyl Acetate LC 20% Methanol
Blank Blood Lot: 22B52020 **Blank Urine lot:** 21522 **Column:** Phenomenex Phenyl Hexyl (4.6x50mm, 2.6um)
LCMS-QQQ ID: 69679

Pre-Analytic:

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

Analytic:

- 1. Remove standards, plate, controls, and samples from cold storage. Allow to reach room temperature.
- 2. Urine hydrolysis pipette: 250 ul urine in blank well, add 40 ul BG Turbo, add 100 ul 500 mm sodium phosphate buffer mix for at least five minutes ambient temperature.
Pipette **250 µL blood (calibrated pipette)** or 250 ul urine in wells of analytical (standards) plate. **Pipette ID: 1926134**
- 3. Pipette **250 µL of 0.5 M ammonium hydroxide** in wells of analytical plate.
- 4. Place on shaking incubator at ambient temp., 900 rpm for 15 minutes.
- 5. Transfer **300 µL of blood or urine+base** mixture to corresponding wells of SLE+ plate.
- 6. 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) Manifold ID: 66792
- 7. Wait 5 minutes.
- 8. Add **900 µL ethyl acetate**.
- 9. Wait 5 minutes.
- 10. Apply positive pressure for approx. 10-15 seconds. *(12-15 PSI- Selector to the left).*
- 11. Add **900 µL ethyl acetate**.
- 12. Wait 5 minutes.
- 13. Apply positive pressure for approx. 10-15 seconds. *(12-15 PSI- Selector to the left).*
- 14. Remove plate containing eluate. add 50 ul 1% HCl in MeOH Place on SPE Dry and evaporate to dryness at approx. 35°C. *SPE Dry ID: 66819*
- 15. Reconstitute in **100 µL 20% LC MeOH** in LC Water 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 5 or greater or 2-5 for discretionary range.
- 4. Did all QCs pass for each analyte? (If no is it described in comments?)
- 5. Central File Packet to include: LIMS Worklist, Method Checklist, Calibration and Control Reports

COMMENTS:

Request for Departure from an Analytical Method or Quality Standard

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

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

Departure approved
Comments:

Departure Not Approved
Comments:

Approver: Rachel Cutler
Title: Laboratory Manager

Rachel Cutler

Date: 2/10/2022

Quality Review

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

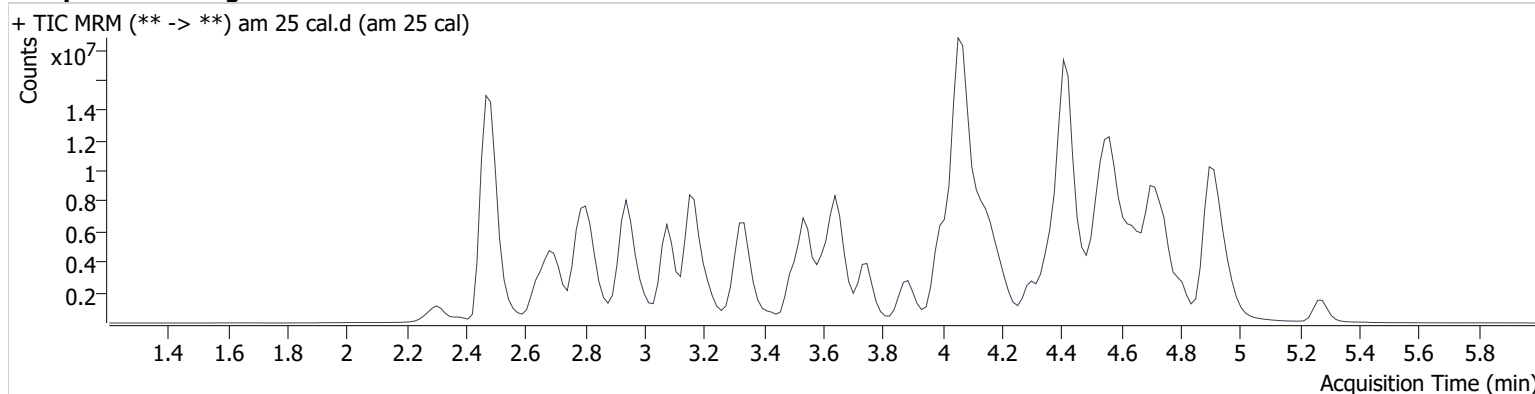
J. Crowe

AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\2022\am 25-26\042622\QuantResults\mds 42622.batch.bin
Calibration Last Update 4/29/2022 12:29:55 PM

Instrument	69679	Data File	am 25 cal.d
Type	Cal	Sample	am 25 cal
Acq. Method	mds713.m	Operator	Britany Wylie
Sample Position	P2-A1	Comment	
Injection Volume	2.5		
Acq. Date-Time	4/26/2022 2:51:48 PM		

Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
6-MAM	3.120	40051	115.8	181.7	1288986	10.000
7-aminoclonazepam	3.355	754070	2208.0	52576.5	2883928	10.000
7-aminoflunitrazepam	3.584	1237354	341.6	361.3	2883928	10.000
Acetyl Fentanyl	4.347	333766	149.9	86439.9	22766848	10.000
Acetyl Norfentanyl	2.687	251603	2002.7	184.3	17551209	10.000
a-hydroxyalprazolam	4.378	289439	196.5	121.1	2883928	10.000
alpha-hydroxymidazolam	4.469	2176681	607.6	760.8	2883928	10.000
alpha-PHP	4.064	2170138	854.2	11568.8	7157528	10.000
alpha-PVP	3.758	3045558	695.1	227.0	7157528	10.000
Alprazolam	4.489	1415790	1045.6	831.0	13665747	10.000
Amitriptyline	4.646	1373547	256.3	263.1	7138025	10.000
Amphetamine	2.692	3131966	753.7	580.8	7157528	10.000
Benzoylcegonine	3.123	135312	494.2	305.4	296345	10.000
Brompheniramine	4.117	82508	60.1	8.0	41588258	10.000
Buprenorphine	5.273	160143	393085.7	1609.8	3916638	10.000
Bupropion	4.064	2858066	403.7	764.6	12169970	10.000
Carbamazepine	4.064	4346649	1289.7	546.8	154944	10.000
Carisoprodol	4.047	839834	256030.6	122.9	4463730	10.000
Chlordiazepoxide	4.613	622576	370.7	152.5	13665747	10.000
Chlorpheniramine	3.999	4687986	37722.7	84.3	41588258	10.000
Citalopram	4.069	2223525	1250.5	3787.7	41588258	10.000
Clomipramine	4.915	2869150	456.6	494.6	6139669	10.000
Clonazepam	4.286	858578	302.2	315.2	13665747	10.000
Clonazolam	4.206	964140	1278.5	92767.2	13665747	10.000
Cocaethylene	3.871	3053429	742.3	667.8	41588258	10.000
Cocaine	3.673	3666225	2267.8	223.0	21495764	10.000
Codeine	3.091	401058	34.6	401.2	263898	10.000
Cyclobenzaprine	4.508	2777196	746.8	253.7	7138025	10.000
Desipramine	4.385	4181825	4256.8	2598.9	7138025	10.000
Dextromethorphan	4.169	1651550	3403.6	782.6	8933959	10.000
Dextrorphan	3.327	1711239	910.1	148.4	8933959	10.000
Diazepam	4.736	831480	360.5	582.0	13665747	10.000
Dihydrocodeine	2.801	897249	302.5	236.6	2725573	10.000
Diphenhydramine	4.093	6143698	991.3	735.8	41588258	10.000

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AM #25 Multi-Drug Screen Results

Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Doxepin	4.306	1708513	193.0	92.5	19794239	10.000
Doxylamine	3.616	6555854	2458.9	∞	2080282	10.000
EDDP	4.030	1211117	206.6	1551.2	2725573	10.000
Estazolam	4.398	3545828	1786.7	1634.9	13665747	10.000
Etizolam	4.515	170473	77861.7	857.9	13665747	10.000
Fentanyl	4.577	259426	70.0	26840.3	17551209	10.000
Flualprazolam	4.347	516961	211112.5	454.6	13665747	10.000
Flunitrazepam	4.426	1496853	320.4	355.8	13665747	10.000
Fluoxetine	4.303	2838581	1645.0	1270.8	6268630	10.000
Flurazepam	4.590	2358820	1095.7	120621.5	13665747	10.000
Hydrocodone	3.382	777074	98.5	114.2	6063509	10.000
Hydromorphone	2.637	1015774	285.8	270.7	263898	10.000
Imipramine	4.553	4684998	3446.9	496.1	7138025	10.000
Ketamine	4.049	2172724	932.7	165.4	15182982	10.000
Lamotrigine	3.434	193262	760.6	662.8	41588258	10.000
Levamisole	3.223	1698551	573.0	257.8	8933959	10.000
Levetireacetam	2.310	752133	251.3	2685.1	6139669	10.000
Lorazepam	4.285	283354	1522.7	180.8	13665747	10.000
Maprotiline	4.645	749142	676.8	344.5	7138025	10.000
MDA	2.811	1979566	576.3	39.2	19739459	10.000
MDEA	3.100	2763560	581.3	3468.9	19739459	10.000
MDMA	2.933	3335133	403.9	853.6	19739459	10.000
Meperidine	3.740	1925803	180.6	376.9	8933959	10.000
Meprobamate	3.437	462626	397.2	41.6	4463730	10.000
Methadone	4.411	4071522	1315.5	366.7	2725573	10.000
Methamphetamine	2.828	5288901	∞	9134981171573 56.0	19739459	10.000
Methocarbamol	3.343	197896	2170.7	260.1	2725573	10.000
Methylphenidate	3.513	6089072	12434.9	943.6	15182982	10.000
Metoprolol	3.311	505152	2177.6	3473.3	8933959	10.000
Midazolam	4.670	509044	5622.9	217574.0	13665747	10.000
Mirtazapine	4.586	2719305	860.1	1977.4	8933959	10.000
Mitragynine	4.574	383108	176532.7	343866.7	8933959	10.000
Morphine	2.380	262607	66.6	138.9	263898	10.000
Norbuprenorphine	3.836	68035	25693.2	23961.4	263898	10.000
Nordiazepam	4.570	802180	4294.7	495.6	13665747	10.000
Norfentanyl	3.175	4311772	21811.1	1544.3	22766848	10.000
Norhydrocodone	2.789	56158	26.8	6771.5	6063509	10.000
norketamine	3.988	459229	160.2	2284.9	15182982	10.000
Normeperidine	3.498	1838347	535.2	248.1	41588258	10.000
Noroxycodone	2.695	1349716	179.7	447.9	10049574	10.000
Nortriptyline	4.432	1786020	1223.8	385.7	7138025	10.000
O-desmethyl-tramadol	2.716	5025095	1078.9	509.7	41588258	10.000
Olanzapine	4.149	1675768	965.2	832.0	154944	10.000
Oxazepam	4.367	1346234	203.8	156.2	5394271	10.000
Oxycodone	2.998	2211350	235.3	232.5	10049574	10.000
Oxymorphone	2.286	1189879	161.8	1405.3	263898	10.000
Paroxetine	4.362	441676	813.8	3035.3	6268630	10.000
Phenazepam	4.515	1316618	1021910.9	420669.6	13665747	10.000
Phencyclidine	3.895	3386437	222.8	169.7	8933959	10.000
Phentermine	2.964	40659	3074.9	∞	15182982	10.000
Phenytoin	3.955	237926	109.6	144.1	154944	10.000
Promethazine	4.675	6202901	579.6	278.9	41588258	10.000
Pseudoephedrine	2.477	50842755	12336.2	1541.3	19739459	10.000
Quetiapine	4.743	4227534	3911.9	10088.1	30826140	10.000
Sertraline	4.658	1220391	443601.2	995.8	6268630	10.000
Sufentanil	4.971	267241	105771.2	486.4	22766848	10.000
Tapentadol	3.330	3116118	1092.9	709.3	2725573	10.000
Temazepam	4.536	2485909	1088.8	214.4	13665747	10.000
Tramadol	3.342	4736810	832.3	71.2	41588258	10.000

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AM #25 Multi-Drug Screen Results

Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Trazodone	4.911	4075693	1173.4	741.2	19794239	10.000
Venlafaxine	3.752	4083465	4908.8	176.8	6268630	10.000
Zaleplon	4.196	1423855	672006.9	465.5	30826140	10.000
Zolpidem	4.427	5892074	2284.4	1678.6	30826140	10.000
Zopiclone	4.436	394268	∞	183.0	2080282	10.000

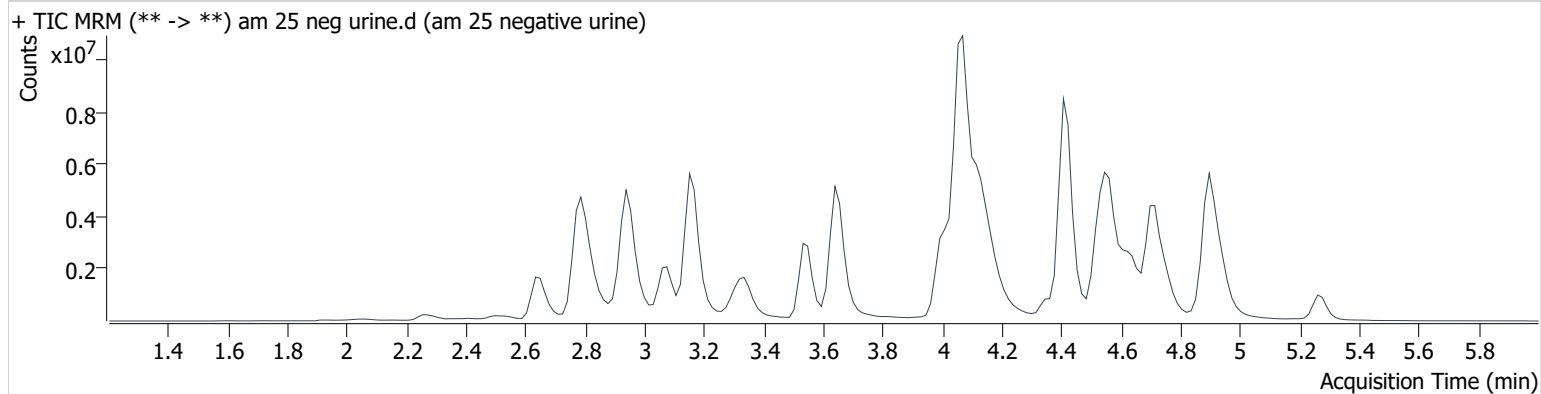
AM #25 Multi-Drug Screen Results

B. Wylie

Batch results D:\MassHunter\Data\2022\am 25-26\042622\QuantResults\mds 42622.batch.bin
Calibration Last Update 4/29/2022 12:29:55 PM

Instrument	69679	Data File	am 25 neg urine.d
Type	Sample	Sample	am 25 negative urine
Acq. Method	mds713.m	Operator	Britany Wylie
Sample Position	P2-C1	Comment	
Injection Volume	2.5		
Acq. Date-Time	4/26/2022 2:58:34 PM		
Sample Info.			

Sample Chromatogram



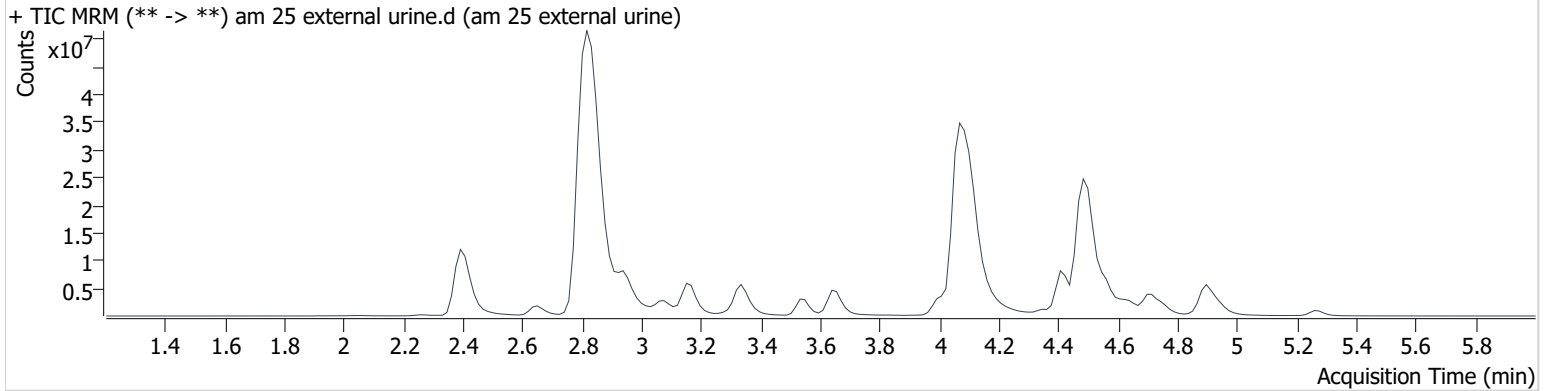
AM #25 Multi-Drug Screen Results

B. Wylie

Batch results D:\MassHunter\Data\2022\am 25-26\042622\QuantResults\mds 42622.batch.bin
Calibration Last Update 4/29/2022 12:29:55 PM

Instrument	69679	Data File	am 25 external urine.d
Type	Sample	Sample	am 25 external urine
Acq. Method	mds713.m	Operator	Britany Wylie
Sample Position	P2-D1	Comment	
Injection Volume	2.5		
Acq. Date-Time	4/26/2022 3:05:19 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Alprazolam	4.489	47799603	29232.2	∞	8629042	534.683
Diphenhydramine	4.093	88335032	27361.8	1208.1	28649920	208.713
Methamphetamine	2.828	88849826	∞	∞	13686411	242.291
Methocarbamol	3.343	7064167	33087.7	866.3	2519828	386.110
Morphine	2.395	14621622	∞	10245.1	254241	577.936

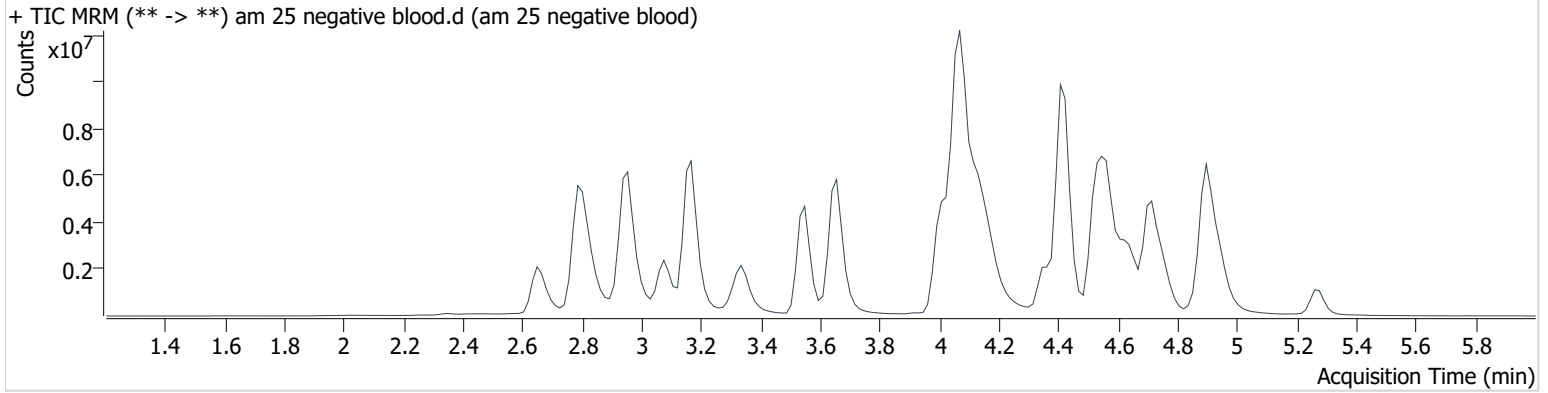
AM #25 Multi-Drug Screen Results

B. Wylie

Batch results D:\MassHunter\Data\2022\am 25-26\042622\QuantResults\mds 42622.batch.bin
Calibration Last Update 4/29/2022 12:29:55 PM

Instrument	69679	Data File	am 25 negative blood.d
Type	Sample	Sample	am 25 negative blood
Acq. Method	mds713.m	Operator	Britany Wylie
Sample Position	P2-C2	Comment	
Injection Volume	2.5		
Acq. Date-Time	4/26/2022 3:52:31 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Methamphetamine	2.828	2133927	∞		19240809	4.139 <10

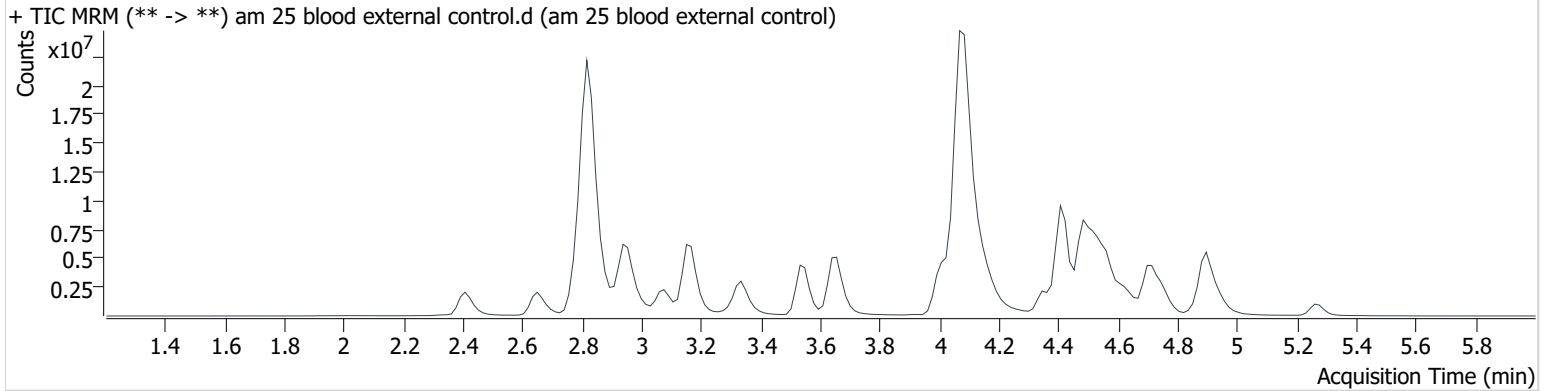
AM #25 Multi-Drug Screen Results

B. Wylie

Batch results D:\MassHunter\Data\2022\am 25-26\042622\QuantResults\mds 42622.batch.bin
Calibration Last Update 4/29/2022 12:29:55 PM

Instrument	69679	Data File	am 25 blood external control.d
Type	Sample	Sample	am 25 blood external control
Acq. Method	mds713.m	Operator	Britany Wylie
Sample Position	P2-D2	Comment	
Injection Volume	2.5		
Acq. Date-Time	4/26/2022 3:59:18 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Alprazolam	4.489	12087808	1360.3	2184.0	14697850	79.383
Diphenhydramine	4.093	40833320	1287.0	1276.4	37702303	73.314
Methamphetamine	2.828	34256250	∞	∞	17326337	73.791
Methocarbamol	3.343	1798921	5418.3	2856.6	2645471	93.655
Morphine	2.410	2185345	8302.0	16768.8	246137	89.222

BWylee

Toxicology AM method 25/28 urine external control prep

working solution 10000 ng/ml in meoh diphendyramine, methamphetamine, alprazolam, methocarbamol, morphine

Stock solution 1mg/ml 50 ul each in 4750 ul MeOH (Honeywell EA078-US)

ppd 6/25/21: Exp: 6/25/2022 lot 62522 by AMN

Drug	lot	expiration
Methamphetamine	FE03132001	7/1/2025
methocarbamol	FN01212005	1/1/2023
alprazolam	FE06102008	6/1/2025
Diphendyramine	FN02212011	3/1/2025
Morphine	FE03232010	4/1/2025

AM 25/28 control 500 ul working solution (62522) in 4500 ul negative urine (1000ng/mL Expected concentration)

ppd 6/25/21, exp 6/25/22 lot u62522 negative urine 5621 by AMN

ppd 4/26/22, exp 6/25/22 lot u42622 negative urine 21522 by baw

AM 25/28 Blood Control: 50ul working solution (41422) in 4950 ul neg blood (100ng/mL Expected concentration)

ppp 6/25/21, exp 6/25/22 lot b62522 neg blood 21D52496 by AMN

AM# 26: THC and Metabolites Screen in Blood by LC-MS/MS

BWylie

Extraction Date: 4/26/22
Plate lot#: 211018

Analyst: Britany Wylie
Plate retest date: 4/18/22

Mobile phase A: 10mM Ammonium Formate
0.1% Formic Acid in Water

Mobile phase B: 0.1% Formic acid in MeOH
MTBE Hexane

Blank Blood Lot: 22B52020 **Urine Blank:** 21522 **Column:** Phenomenex Phenyl Hexyl (4.6x50mm: 2.6 um)
LCMS-QQQ ID: 69679

Pre-Analytic:

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

Analytic:

- 1. Remove standards, plate, controls, and samples from cold storage. Allow to reach room temperature.
- 2. Urine hydrolysis: add 1.5 ml urine to blank plate, add 250 ul 1N KOH mix and incubate at 40 degrees for 15 minutes.
Pipette **1000 µL blood (calibrated pipette)** in wells of analytical (standards) plate. **Pipette ID: K52558g**
Pipette 1000 ul urine to analytical (standards) plate.
- 3. Place on shaking incubator at ambient temp., 900 rpm for 15 minutes.
- 4. Pipette **500 µL 0.1% formic acid in blood** wells **500 ul saturated phosphate buffer in urine** wells of analytical plate.
- 5. Place on shaking incubator at ambient temp., 900 rpm for 15 minutes.
- 6. Transfer **800 µL of blood acid or urine acid** mixture to corresponding wells of SLE+ plate.
- 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*) Manifold ID: 66792
- 8. Wait 5 minutes.
- 9. Add **2.25 mL MTBE** (add in 3 increments of 750 µL).
- 10. Wait 5 minutes.
- 11. Apply positive pressure for approx. 10-15 seconds. (*12-15 PSI- Selector to the left*).
- 12. Add **2.25 mL hexane** (add in 3 increments of 750 µL).
- 13. Wait 5 minutes.
- 14. Apply positive pressure for approx. 10-15 seconds. (*12-15 PSI- Selector to the left*).
- 15. Remove plate containing eluate. Place on SPE Dry and evaporate to dryness at approx. 35°C.
SPE Dry ID: 66819
- 16. Reconstitute in **100 µL 100% LCMS MeOH** and heat seal plate with foil. Place in autosampler and run worklist.

Post-Analytic

- 1. Create batch and process data.
- 2. Calculated sample concentration of 3 ng/mL or greater for THC and THC-OH, a calculated sample concentration of 10 ng/mL or greater for Carboxy-THC.
- 3. Retention time within +/- 2% or +/-0.100 min whichever is greater of the average retention time of the calibrators.
- 4. Did all QCs pass for each analyte? Yes
- 5. Central File Packet to include: LIMS Worklist, Method Checklist, Calibration and Control Reports

COMMENTS: **Urine Batch Only.** Run stopped part of way through due to instrument leak detection (RT and sample response was inconsistent) samples were on the instrument overnight- sufficient reconstitution solvent remaining All calibrators, samples and controls were reinjected on 4272022 and evaluated (ran out of solvent B- refilled using manufacturer created solvent and restarted run- no shift in RT seen for the remaining samples)

BWylee

	1	2	3	4	5	6
A	IS + Cal. 1	IS + QC_1-URINE	c645-1	c850-1		IS + QC_1
B	IS + Cal. 2	Neg	c710-1	NEG BLOOD		IS + Cal. 7
C	IS + Cal. 3	Ext Ctrl- Urine	c732-1	external Blood control		IS + Cal. 6
D	IS + Cal. 4	C610-1	c734-1			IS + Cal. 5
E	IS + Cal. 5	C610-2	c738-1			IS + Cal. 4
F	IS + Cal. 6	C610-3	c777-1			IS + Cal. 3
G	IS + Cal. 7	C625-2	c830-1			IS + Cal. 2
H	IS + QC_1- BLOOD	C637-1	c831-1		IS + QC_1	IS + Cal. 1

All wells to contain 100 µl of residual DMSO

Case Number format C2022-0____-__

Toxicology AM method 27/26 external prep information

BWylee

working solution 15 ug/ml in meoh C-THC, THC-OH, 7.5 ug/ml THC

Stock solution 1mg/ml 7.5 ul each THC, 100 ug/ml 150 ul C-THC, 150 ul THC-OH in 9692.5 ul meOH

Ppd 8/26/21 Exp: 8/26/22 lot 82621 by AMN

Drug	lot	expiration
C-THC	FE04151901	6/1/2024
THC-OH	FE06152002	6/1/2025
THC	FE04222001	5/1/2025

AM 27/26 blood control 100 ul working solution in 9900 ul blood

ppd 12/27/21 exp 8/26/22 blood lot 21D52496	lot b122721	Concentration 7.5 ng/ml THC, 15 ng/ml C-THC, THC-OH	by amn
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AM 27/26 urine control 400 ul working solution in 9600 ul urine

out of use

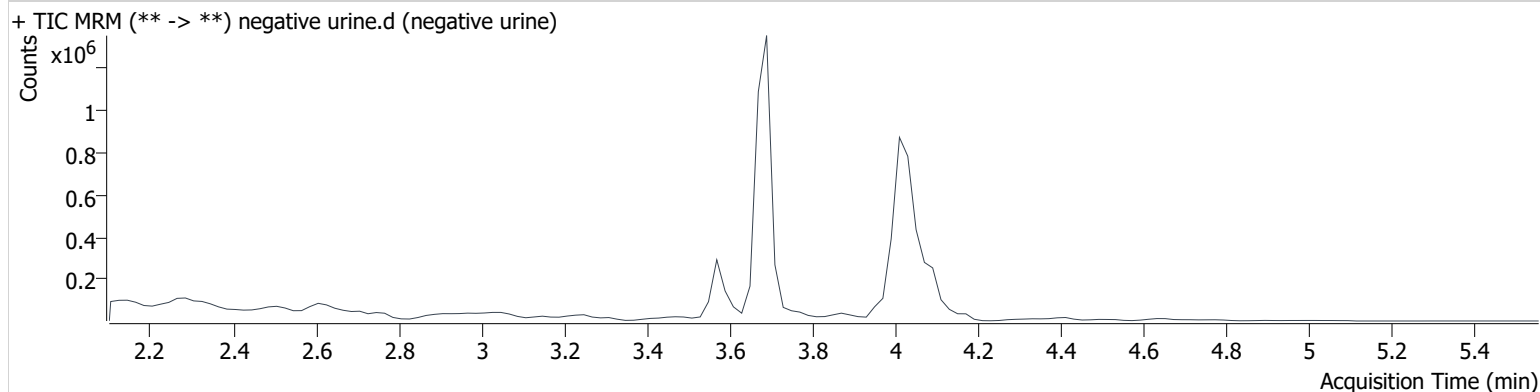
ppd 8/26/21 Exp 8/26/22 neg urine lot 5621	lot u82621	Concentration 30 ng/ml THC, and 60 ng/ml C-THC, THC-OH	by amn	last used 11/1/21
ppd 11/2/21 Exp 8/26/22 neg urine lot 83121	lot u11221	Concentration 30 ng/ml THC, and 60 ng/ml C-THC, THC-OH	by amn	last used prior to 4/26/22
ppd 4/26/2022 exp 8/26/22 neg urine lot 21522	lot u42622	Concentration 30 ng/ml THC, and 60 ng/ml C-THC, THC-OH	by baw	

AM #26 Cannabinoids Screen Results *BWylie*

Batch results D:\MassHunter\Data\2022\am 25-26\042622 cannr\QuantResults\42722 am26 reinject.batch.bin
Calibration Last Update 4/29/2022 12:20:12 PM

Instrument	69679	Data File	negative urine.d
Type	Sample	Sample	negative urine
Acq. Method	am 26 cann scr 5-5-20.m	Operator	Britany Wylie
Sample Position	P3-B2	Comment	
Injection Volume	5		
Acq. Date-Time	4/27/2022 9:29:25 AM		
Sample Info.			

Sample Chromatogram

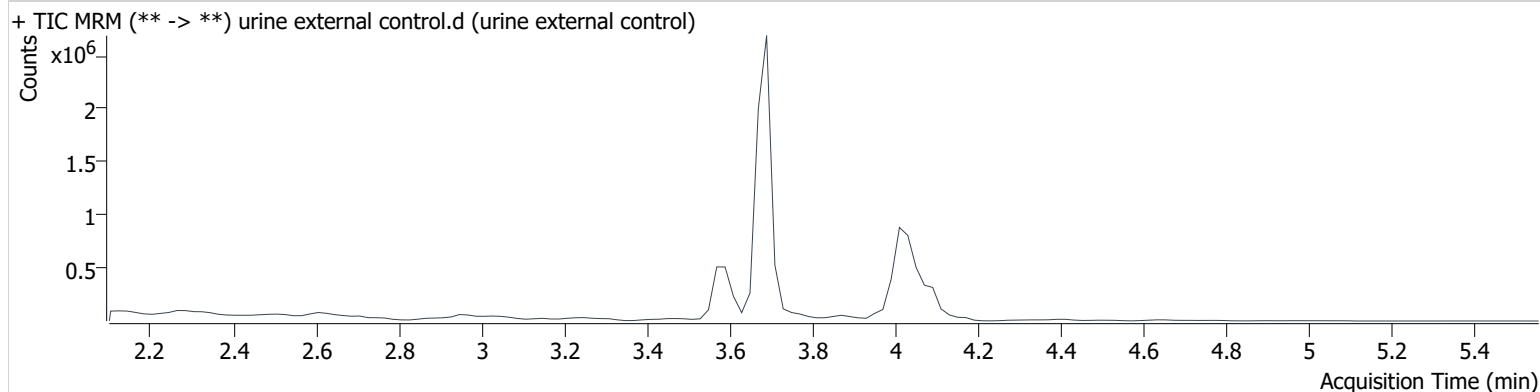


AM #26 Cannabinoids Screen Results *BWylie*

Batch results D:\MassHunter\Data\2022\am 25-26\042622 cannr\QuantResults\42722 am26 reinject.batch.bin
Calibration Last Update 4/29/2022 12:20:12 PM

Instrument	69679	Data File	urine external control.d
Type	Sample	Sample	urine external control
Acq. Method	am 26 cann scr 5-5-20.m	Operator	Britany Wylie
Sample Position	P3-C2	Comment	
Injection Volume	5		
Acq. Date-Time	4/27/2022 9:36:03 AM		
Sample Info.			

Sample Chromatogram



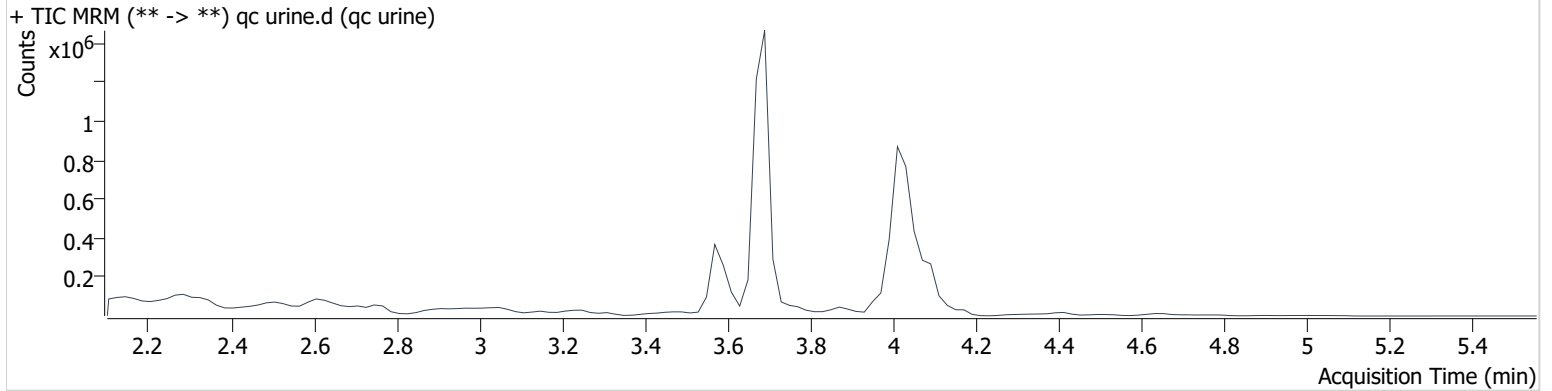
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.104	127480	619183	25.336 ng/ml
THC-COOH	3.589	594798	640582	50.837 ng/ml
THC-OH	3.699	347510	3681034	53.070 ng/ml

AM #26 Cannabinoids Screen Results *BWylie*

Batch results D:\MassHunter\Data\2022\am 25-26\042622 cannr\QuantResults\42722 am26 reinject.batch.bin
Calibration Last Update 4/29/2022 12:20:12 PM

Instrument	69679	Data File	qc urine.d
Type	Sample	Sample	qc urine
Acq. Method	am 26 cann scr 5-5-20.m	Operator	Britany Wylie
Sample Position	P3-A2	Comment	
Injection Volume	5		
Acq. Date-Time	4/27/2022 9:22:47 AM		
Sample Info.			

Sample Chromatogram



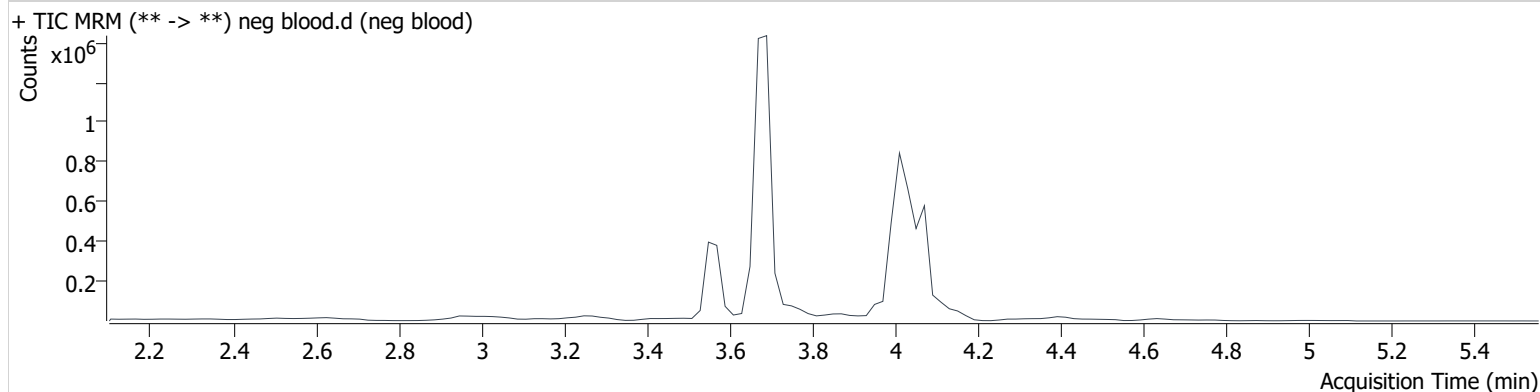
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.104	19758	568807	4.176 ng/ml
THC-COOH	3.589	197014	581024	17.882 ng/ml
THC-OH	3.699	32671	3604454	5.316 ng/ml

AM #26 Cannabinoids Screen Results *BWylie*

Batch results D:\MassHunter\Data\2022\am 25-26\042622 cannr\QuantResults\42722 am26 reinject.batch.bin
Calibration Last Update 4/29/2022 12:20:12 PM

Instrument	69679	Data File	neg blood.d
Type	Sample	Sample	neg blood
Acq. Method	am 26 cann scr 5-5-20.m	Operator	Britany Wylie
Sample Position	P3-B4	Comment	
Injection Volume	5		
Acq. Date-Time	4/27/2022 1:54:28 PM		
Sample Info.			

Sample Chromatogram

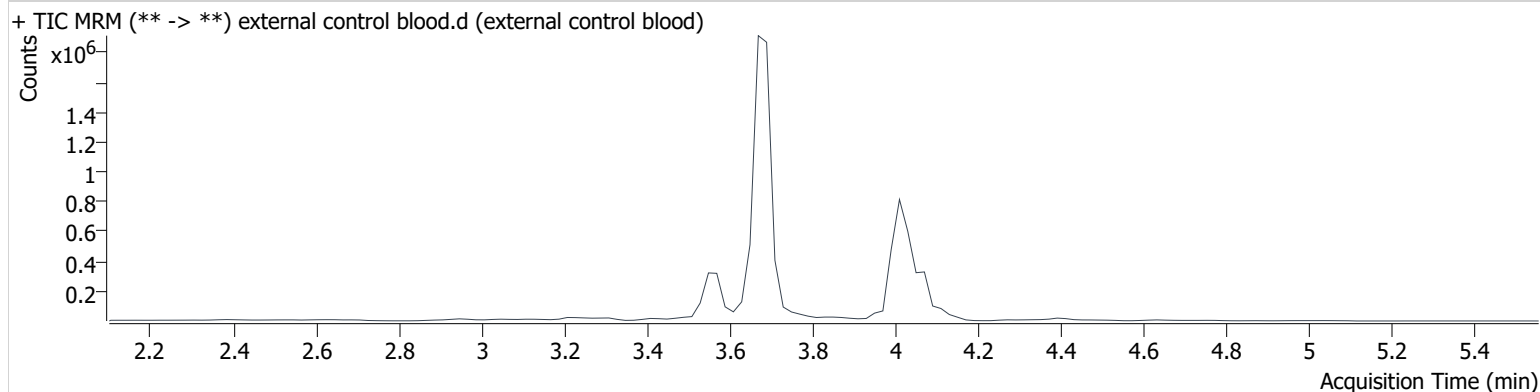


AM #26 Cannabinoids Screen Results *BWylie*

Batch results D:\MassHunter\Data\2022\am 25-26\042622 cannr\QuantResults\42722 am26 reinject.batch.bin
Calibration Last Update 4/29/2022 12:20:12 PM

Instrument	69679	Data File	external control blood.d
Type	Sample	Sample	external control blood
Acq. Method	am 26 cann scr 5-5-20.m	Operator	Britany Wylie
Sample Position	P3-C4	Comment	
Injection Volume	5		
Acq. Date-Time	4/27/2022 2:07:36 PM		
Sample Info.			

Sample Chromatogram



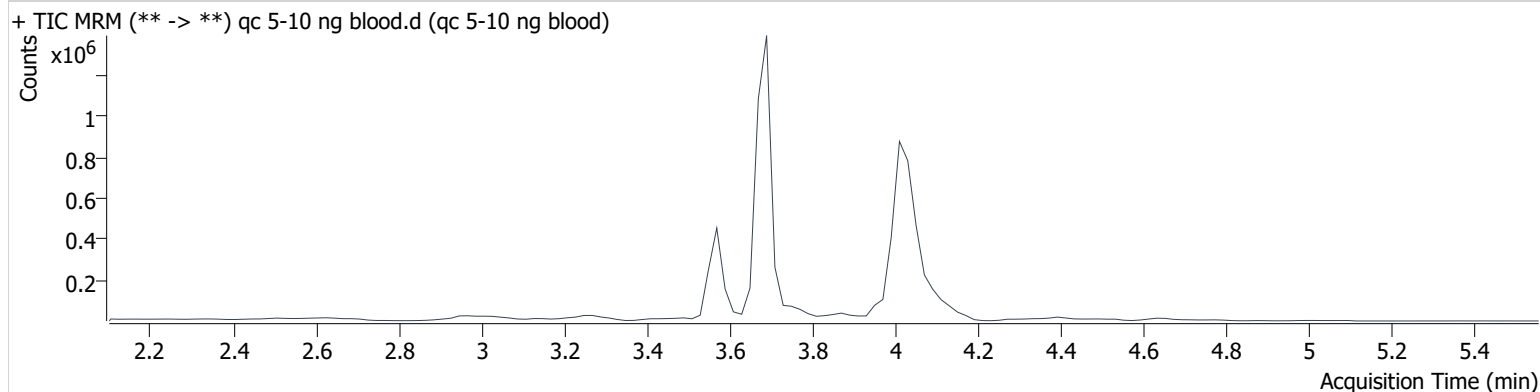
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.084	23581	408729	7.014 ng/ml
THC-COOH	3.569	201963	657811	16.090 ng/ml
THC-OH	3.699	119997	4847180	14.096 ng/ml

AM #26 Cannabinoids Screen Results *BWylie*

Batch results D:\MassHunter\Data\2022\am 25-26\042622 cannr\QuantResults\42722 am26 reinject.batch.bin
Calibration Last Update 4/29/2022 12:20:12 PM

Instrument	69679	Data File	qc 5-10 ng blood.d
Type	QC	Sample	qc 5-10 ng blood
Acq. Method	am 26 cann scr 5-5-20.m	Operator	Britany Wylie
Sample Position	P3-H1	Comment	
Injection Volume	5		
Acq. Date-Time	4/27/2022 9:16:09 AM		
Sample Info.			

Sample Chromatogram



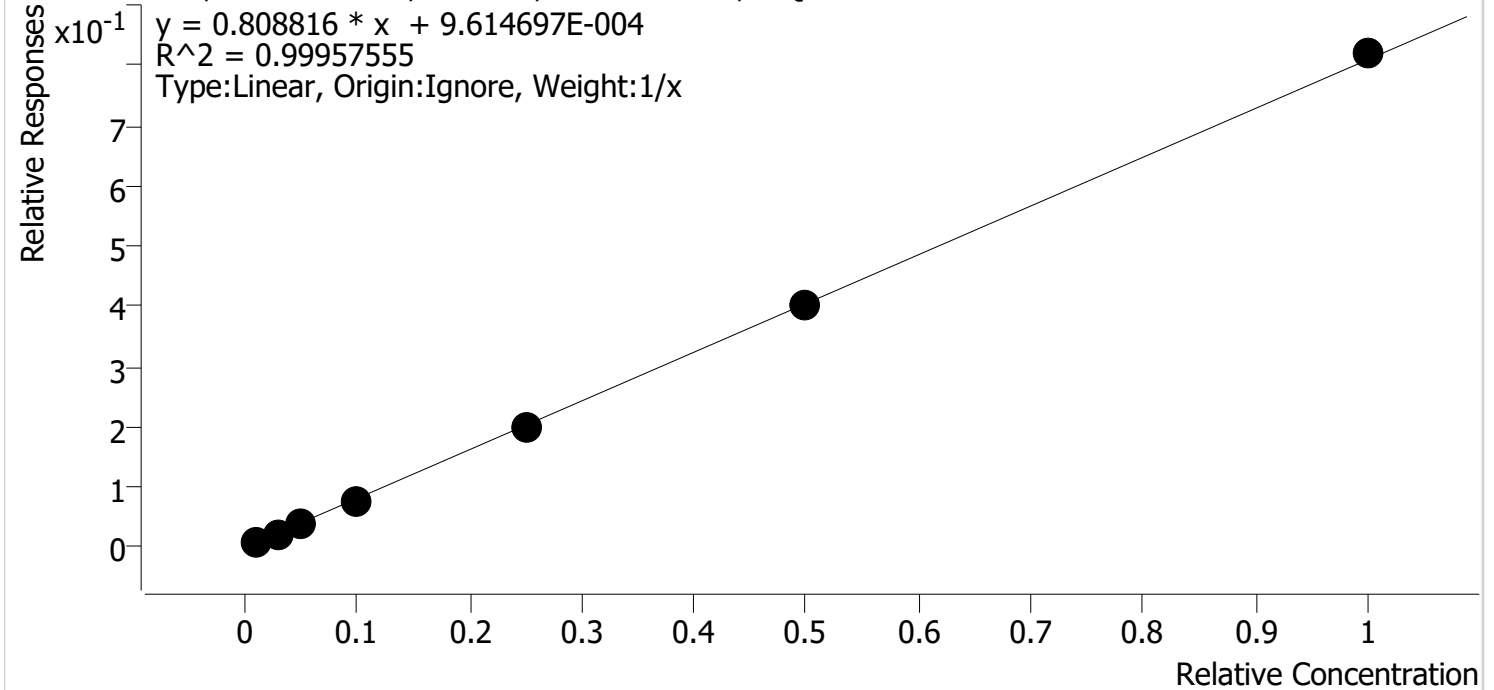
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.064	9790	272294	4.326 ng/ml
THC-COOH	3.569	223965	757687	15.451 ng/ml
THC-OH	3.699	30701	3359320	5.358 ng/ml

Compound Calibration Report

D. Dylee

Batch results	D:\MassHunter\Data\2022\am 25-26\042622 cannr\QuantResults\42722 am26 reinject.b		
Last Cal. Update	4/29/2022 12:20 PM		
Analyst Name	ISP\datastor		
Analyte	THC	Internal Standard	THC-d3

THC - 7 Levels, 7 Levels Used, 7 Points, 7 Points Used, 0 QCs



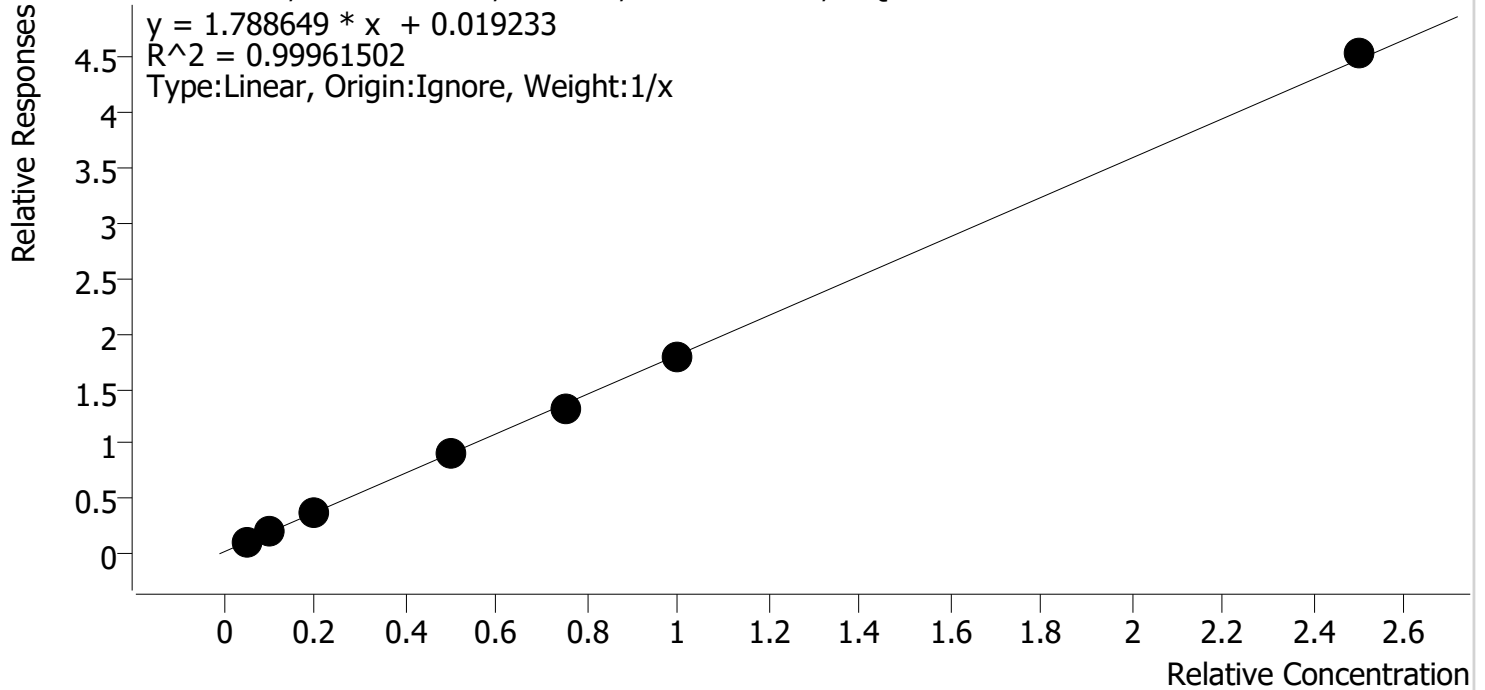
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	1.0	1.1	113.2
cal 2	2	✓	3.0	2.9	96.5
cal 3	3	✓	5.0	4.7	94.3
cal 4	4	✓	10.0	9.7	96.9
cal 5	5	✓	25.0	24.6	98.3
cal-6	6	✓	50.0	49.8	99.6
cal-7	7	✓	100.0	101.2	101.2

Compound Calibration Report

D. Dylee

Batch results	D:\MassHunter\Data\2022\am 25-26\042622 cannr\QuantResults\42722 am26 reinject.b		
Last Cal. Update	4/29/2022 12:20 PM		
Analyst Name	ISP\datastor		
Analyte	THC-COOH	Internal Standard	THC-COOH-d9

THC-COOH - 7 Levels, 7 Levels Used, 7 Points, 7 Points Used, 0 QCs



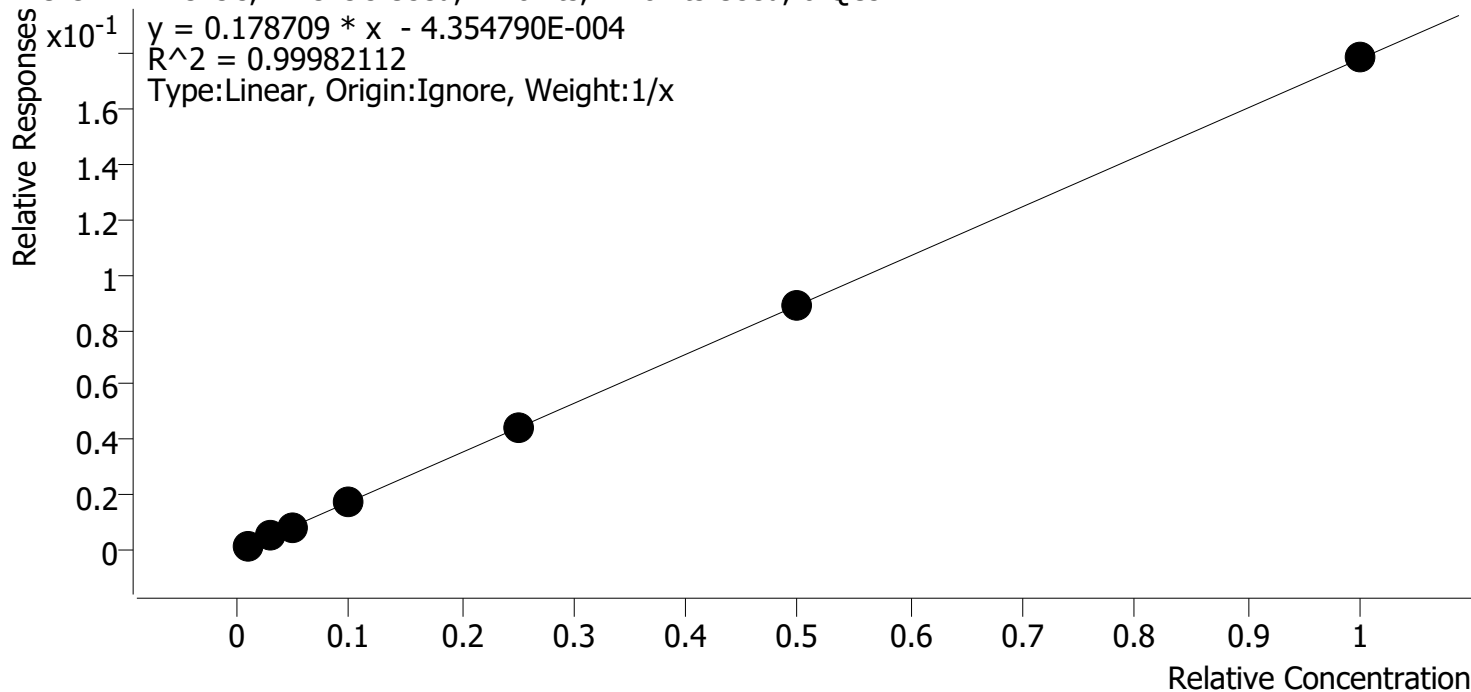
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	5.1	101.4
cal 2	2	✓	10.0	10.4	104.4
cal 3	3	✓	20.0	19.3	96.6
cal 4	4	✓	50.0	49.9	99.8
cal 5	5	✓	75.0	72.7	97.0
cal-6	6	✓	100.0	99.6	99.6
cal-7	7	✓	250.0	252.9	101.2

Compound Calibration Report

D. Dylee

Batch results D:\MassHunter\Data\2022\am 25-26\042622 cannr\QuantResults\42722 am26 reinject.b
Last Cal. Update 4/29/2022 12:20 PM
Analyst Name ISP\datastor
Analyte THC-OH **Internal Standard** THC-OH-d3

THC-OH - 7 Levels, 7 Levels Used, 7 Points, 7 Points Used, 0 QCs



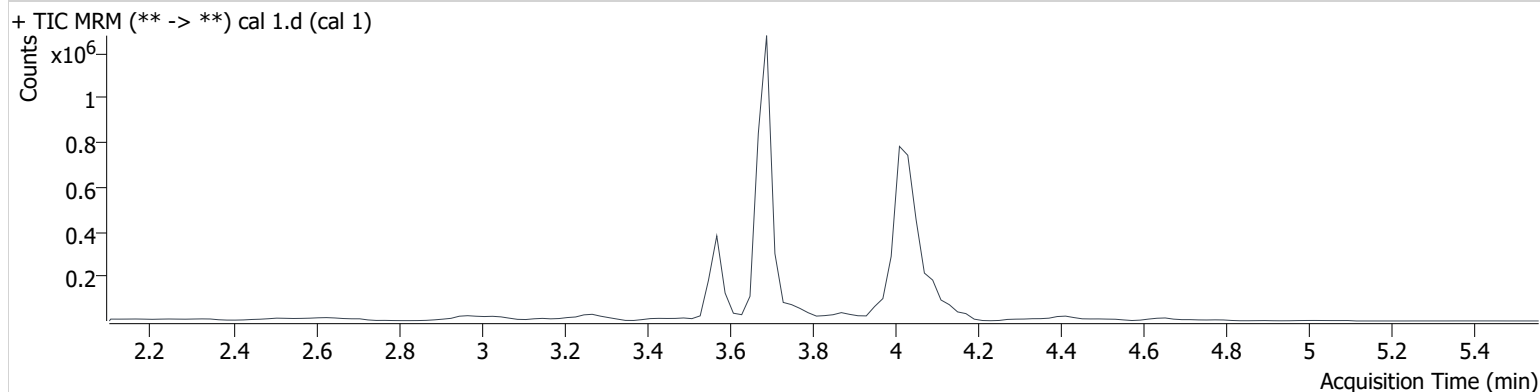
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	1.0	1.1	109.7
cal 2	2	✓	3.0	2.9	96.2
cal 3	3	✓	5.0	4.8	95.7
cal 4	4	✓	10.0	9.8	97.8
cal 5	5	✓	25.0	25.0	99.8
cal-6	6	✓	50.0	50.3	100.5
cal-7	7	✓	100.0	100.2	100.2

AM #26 Cannabinoids Screen Results *BWylie*

Batch results D:\MassHunter\Data\2022\am 25-26\042622 cannr\QuantResults\42722 am26 reinject.batch.bin
Calibration Last Update 4/29/2022 12:20:12 PM

Instrument	69679	Data File	cal 1.d
Type	Cal	Sample	cal 1
Acq. Method	am 26 cann scr 5-5-20.m	Operator	Britany Wylie
Sample Position	P3-A1	Comment	
Injection Volume	5		
Acq. Date-Time	4/27/2022 8:23:23 AM		
Sample Info.			

Sample Chromatogram



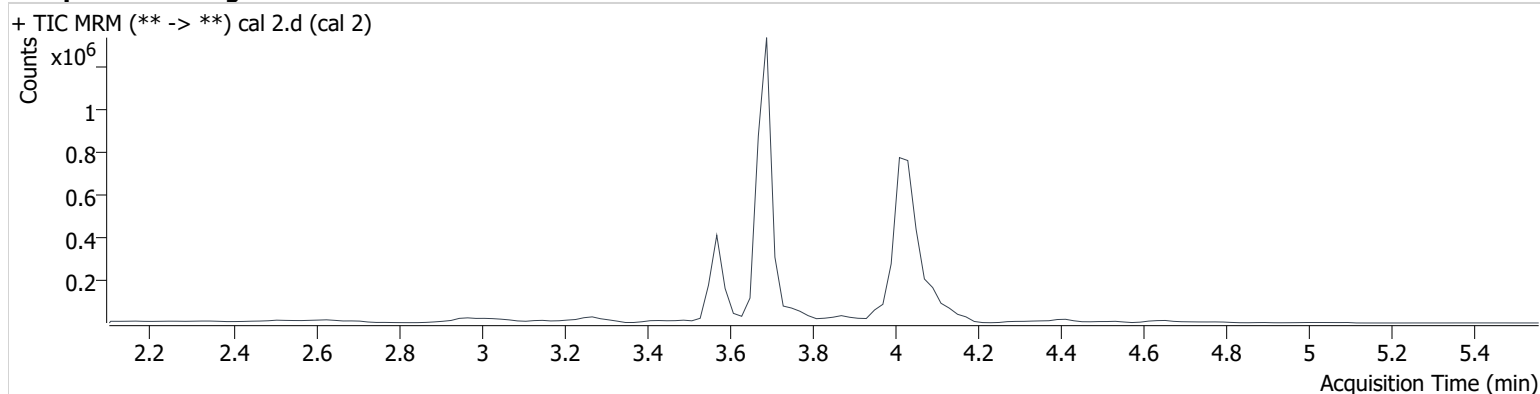
Name	RT	Resp.	ISTD Resp.	Final Conc.	
THC	4.104	3039	300289	1.132 ng/ml	Low
THC-COOH	3.569	82885	753806	5.072 ng/ml	Low
THC-OH	3.699	4860	3188005	1.097 ng/ml	Low

AM #26 Cannabinoids Screen Results *BWylie*

Batch results D:\MassHunter\Data\2022\am 25-26\042622 cannr\QuantResults\42722 am26 reinject.batch.bin
Calibration Last Update 4/29/2022 12:20:12 PM

Instrument	69679	Data File	cal 2.d
Type	Cal	Sample	cal 2
Acq. Method	am 26 cann scr 5-5-20.m	Operator	Britany Wylie
Sample Position	P3-B1	Comment	
Injection Volume	5		
Acq. Date-Time	4/27/2022 8:30:02 AM		
Sample Info.			

Sample Chromatogram



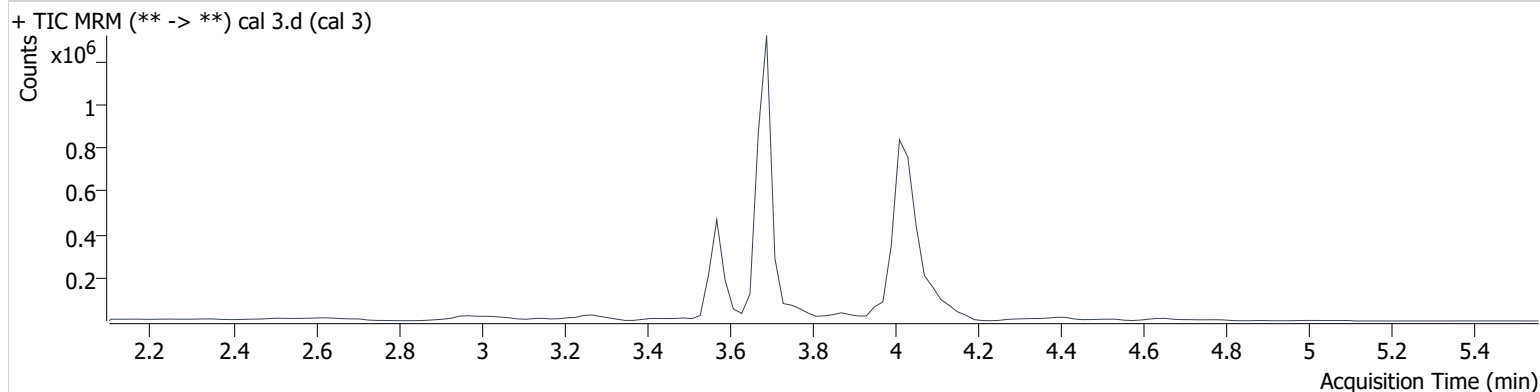
Name	RT	Resp.	ISTD Resp.	Final Conc.	
THC	4.104	7056	289416	2.896 ng/ml	Low
THC-COOH	3.569	151147	733916	10.439 ng/ml	
THC-OH	3.699	15102	3196728	2.887 ng/ml	Low

AM #26 Cannabinoids Screen Results *BWylie*

Batch results D:\MassHunter\Data\2022\am 25-26\042622 cannr\QuantResults\42722 am26 reinject.batch.bin
Calibration Last Update 4/29/2022 12:20:12 PM

Instrument	69679	Data File	cal 3.d
Type	Cal	Sample	cal 3
Acq. Method	am 26 cann scr 5-5-20.m	Operator	Britany Wylie
Sample Position	P3-C1	Comment	
Injection Volume	5		
Acq. Date-Time	4/27/2022 8:36:38 AM		
Sample Info.			

Sample Chromatogram



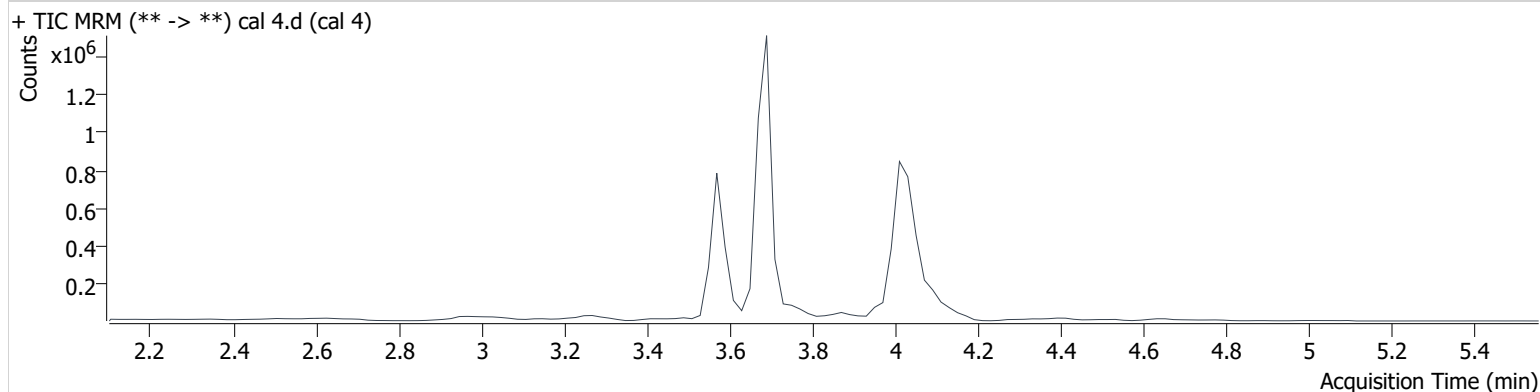
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.104	10971	280726	4.713 ng/ml
THC-COOH	3.569	260733	714381	19.330 ng/ml
THC-OH	3.699	24877	3064316	4.786 ng/ml

AM #26 Cannabinoids Screen Results *BWylie*

Batch results D:\MassHunter\Data\2022\am 25-26\042622 cannr\QuantResults\42722 am26 reinject.batch.bin
Calibration Last Update 4/29/2022 12:20:12 PM

Instrument	69679	Data File	cal 4.d
Type	Cal	Sample	cal 4
Acq. Method	am 26 cann scr 5-5-20.m	Operator	Britany Wylie
Sample Position	P3-D1	Comment	
Injection Volume	5		
Acq. Date-Time	4/27/2022 8:43:14 AM		
Sample Info.			

Sample Chromatogram



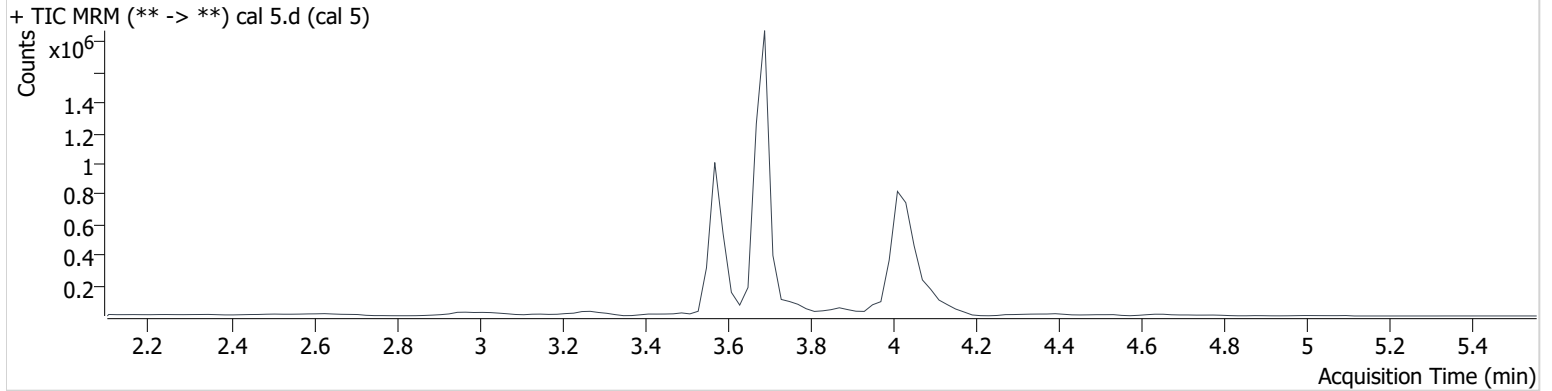
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.104	22483	283347	9.691 ng/ml
THC-COOH	3.569	716344	785790	49.892 ng/ml
THC-OH	3.699	57272	3360503	9.780 ng/ml

AM #26 Cannabinoids Screen Results *BWylie*

Batch results D:\MassHunter\Data\2022\am 25-26\042622 cannr\QuantResults\42722 am26 reinject.batch.bin
Calibration Last Update 4/29/2022 12:20:12 PM

Instrument	69679	Data File	cal 5.d
Type	Cal	Sample	cal 5
Acq. Method	am 26 cann scr 5-5-20.m	Operator	Britany Wylie
Sample Position	P3-E1	Comment	
Injection Volume	5		
Acq. Date-Time	4/27/2022 8:49:50 AM		
Sample Info.			

Sample Chromatogram



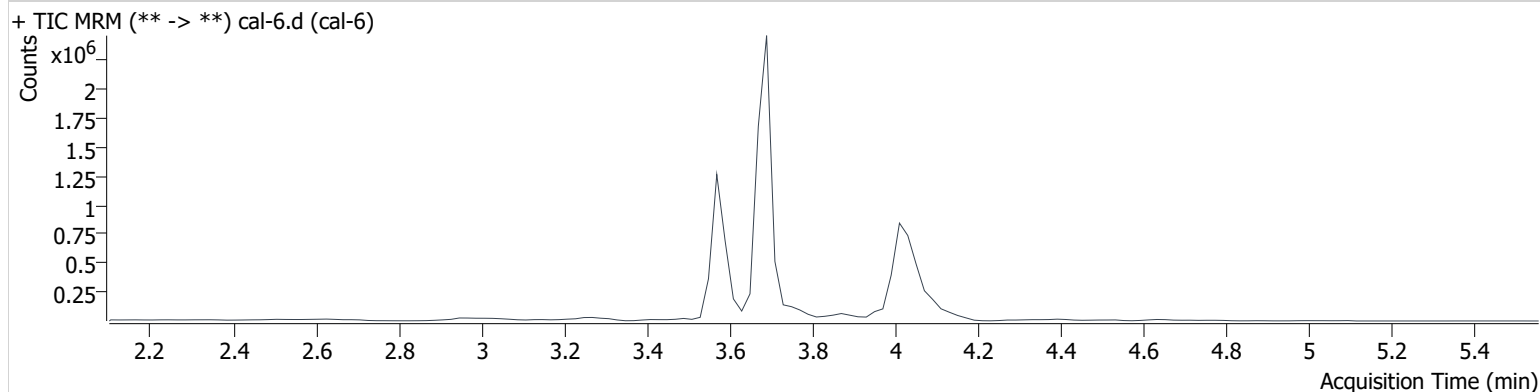
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.064	56648	283678	24.571 ng/ml
THC-COOH	3.569	1038896	787121	72.716 ng/ml
THC-OH	3.699	146541	3318746	24.952 ng/ml

AM #26 Cannabinoids Screen Results *BWylie*

Batch results D:\MassHunter\Data\2022\am 25-26\042622 cannr\QuantResults\42722 am26 reinject.batch.bin
Calibration Last Update 4/29/2022 12:20:12 PM

Instrument	69679	Data File	cal-6.d
Type	Cal	Sample	cal-6
Acq. Method	am 26 cann scr 5-5-20.m	Operator	Britany Wylie
Sample Position	P3-F1	Comment	
Injection Volume	5		
Acq. Date-Time	4/27/2022 8:56:26 AM		
Sample Info.			

Sample Chromatogram



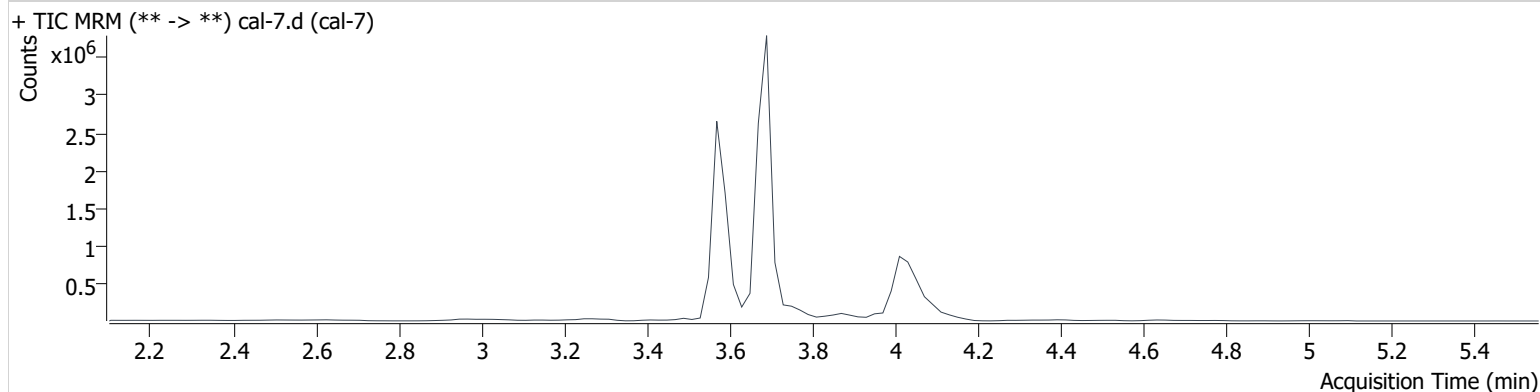
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.064	114311	283201	49.786 ng/ml
THC-COOH	3.569	1406294	780948	99.601 ng/ml
THC-OH	3.699	304071	3401988	50.258 ng/ml

AM #26 Cannabinoids Screen Results *BWylie*

Batch results D:\MassHunter\Data\2022\am 25-26\042622 cannr\QuantResults\42722 am26 reinject.batch.bin
Calibration Last Update 4/29/2022 12:20:12 PM

Instrument	69679	Data File	cal-7.d
Type	Cal	Sample	cal-7
Acq. Method	am 26 cann scr 5-5-20.m	Operator	Britany Wylie
Sample Position	P3-G1	Comment	
Injection Volume	5		
Acq. Date-Time	4/27/2022 9:03:02 AM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.064	242073	295365	101.211 ng/ml
THC-COOH	3.569	3636074	800260	252.950 ng/ml
THC-OH	3.699	643606	3601559	100.240 ng/ml