Worklist: 5201

LAB_CASE	ITEM	ITEM_TYPE	DESCRIPTION
C2021-1739	2	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ
C2021-1744	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ
C2021-1755	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ
C2021-1783	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ
C2021-1797	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ
C2021-1803	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ
C2021-1804	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ
C2021-1816	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ
C2021-1822	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ
C2021-1844	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ
C2021-1849	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ
C2021-1864	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ
C2021-1865	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ
C2021-1868	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ
C2021-1884	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ
C2021-1889	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ
C2021-1906	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ
C2021-1917	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ

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

Extraction Date: 8/26/21 Analyst: Anne Nord
Plate lot#: 210611 Plate retest date: 12/11/21

Mobile phase A: 10mM Ammonium Formate **Mobile phase B:** 0.1% Formic Acid in MeOH
0.5M Ammonium Hydroxide Ethyl Acetate LC Methanol
Blank Blood Lot: 21D52496 **Blank Urine lot:** **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. Place on shaking incubator at ambient temp., 900 rpm for 15 minutes.
☒ 4. Pipette **250 µL of 0.5 M ammonium hydroxide** in wells of analytical plate.
☒ 5. Place on shaking incubator at ambient temp., 900 rpm for 15 minutes.
☒ 6. Transfer **300 µL of blood or urine+base** 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 **900 µL ethyl acetate.**
☒ 10. Wait 5 minutes.
☒ 11. Apply positive pressure for approx. 10-15 seconds. ***(12-15 PSI- Selector to the left).***
☒ 12. Add **900 µL ethyl acetate.**
☒ 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. add 50 ul 1% HCl in MeOH Place on SPE Dry and evaporate to dryness at approx. 35°C.
SPE Dry ID: 66819
☒ 16. 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: *Urine samples could not be evaluated in the 8/26/21 extraction due to contamination. The urine samples were re-extracted on 8/27/21 and that run was evaluated.*

	1	2	3	4	5	6	7	8	9	10	11	12
A				1822-1	1906-1			urine positive	negative urine			
B	cal 1			1844.1	negative blood				1917-1			
C				1849-1					1816-1			
D				1864-1					1797-1			
E			1744-1	1865-1					1755-1			
F			1783-1	1868-1					1739-2			
G			1803-1	1884-1								
H			1804-1	1889-1								

lab number format
C2021-____-_

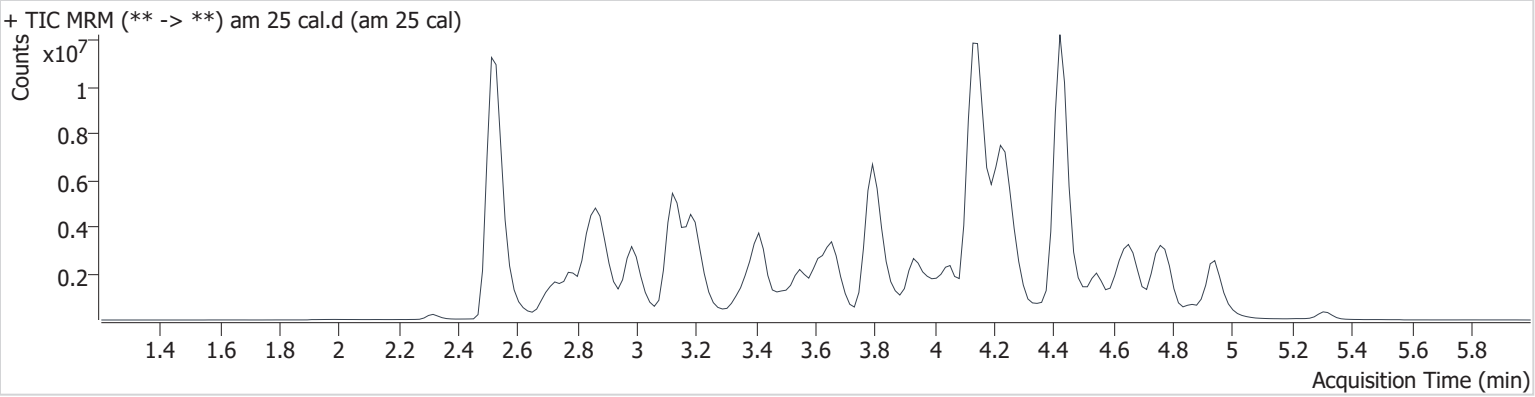
AM 25 8/26/21 extraction

AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\2021\am 25-26\082621\QuantResults\mds.batch.bin
Calibration Last Update 8/27/2021 1:40:35 PM

Instrument	69679	**Data File**	am 25 cal.d
Type	Cal	**Sample**	am 25 cal
Acq. Method	mds713.m	**Operator**	Anne Nord
Sample Position	P2-B1	**Comment**	
Injection Volume	2.5		
Acq. Date-Time	8/26/2021 1:29:55 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
6-MAM	3.348	16611	16297.6	5142.4	619990	10.000
7-aminoclonazepam	3.354	172081	330.3	163.4	1165577	10.000
7-aminoflunitrazepam	3.583	619721	1922.7	547.6	1165577	10.000
Acetyl Fentanyl	4.470	142493	117.9	27489.3	9827089	10.000
Acetyl Norfentanyl	2.733	106151	1149.1	35.8	9827089	10.000
a-hydroxyalprazolam	4.377	25406	79.1	17872.7	1165577	10.000
alpha-hydroxymidazolam	4.484	367042	138.0	56753.6	1165577	10.000
alpha-PHP	4.217	1833788	1278.7	147798.0	2766870	10.000
alpha-PVP	3.957	2722254	433.5	638.4	2766870	10.000
Alprazolam	4.503	875632	161.7	205451.0	1886291	10.000
Amitriptyline	4.691	238881	90.3	61.4	1253803	10.000
Amphetamine	2.753	1124585	154.3	707.6	2766870	10.000
Benzoylecgonine	3.122	73826	69347.2	52.2	140710	10.000
Brompheniramine	4.178	35924	17.8	3097.8	31882790	10.000
Buprenorphine	5.318	198681	106.3	17418.2	923778	10.000
Bupropion	4.218	2192796	853.9	710.0	8765572	10.000
Carbamazepine	4.079	1614227	18821.9	370.9	28059	10.000
Carisoprodol	4.062	215338	130797.7	20.2	1272111	10.000
Chlordiazepoxide	4.642	110035	6190.6	42.8	1886291	10.000
Chlorpheniramine	4.060	2863110	∞	777.9	31882790	10.000
Citalopram	4.131	1214196	1109.3	128097.7	31882790	10.000
Clomimpramine	4.960	287790	400.0	46.4	5816193	10.000
Clonazepam	4.317	61520	45.2	4761.0	1886291	10.000
Clonazolam	4.221	163724	79938.4	41008.9	1886291	10.000
Cocaethylene	3.978	2742616	710532.7	526172.3	31882790	10.000
Cocaine	3.826	3617133	526.1	188931.8	18552175	10.000
Codeine	3.366	140070	51894.7	36399.7	85413	10.000
Cyclobenzaprine	4.568	613850	224.9	38.2	1253803	10.000
Desipramine	4.400	496467	171305.8	275.6	1253803	10.000
Dextromethorphan	4.230	787220	143051.4	92209.6	4402590	10.000
Dextrorphan	3.387	1455584	3758.9	121.6	4402590	10.000
Diazepam	4.766	228529	190.4	44113.1	1886291	10.000
Dihydrocodeine	3.014	463476	1909.6	177.1	1991355	10.000
Diphenhydramine	4.154	4124151	315.3	907.6	31882790	10.000

AM #25 Multi-Drug Screen Results

Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Doxepin	4.398	514024	121.3	31.5	6022230	10.000
Doxylamine	3.661	5845354	2481283.7	10211.3	4402590	10.000
EDDP	4.029	842672	299497.9	169018.2	1991355	10.000
Estazolam	4.397	676050	2865.5	92229.2	1886291	10.000
Etizolam	4.514	90224	44750.6	7649.1	1886291	10.000
Fentanyl	4.668	61438	154.6	23231.4	4602925	10.000
Flualprazolam	4.346	402614	196163.0	183628.6	1886291	10.000
Flunitrazepam	4.441	261695	321.5	82545.1	1886291	10.000
Fluoxetine	4.333	176341	147064.0	3310.5	280697	10.000
Flurazepam	4.665	1443739	329606.6	159865.1	1886291	10.000
Hydrocodone	3.596	471718	77.6	126.6	3089995	10.000
Hydromorphone	2.926	360524	196.1	113.2	85413	10.000
Imipramine	4.614	1086992	1590.3	∞	1253803	10.000
Ketamine	4.172	1851952	1161.8	80.6	5830669	10.000
Lamotrigine	3.449	129219	239.6	88928.3	31882790	10.000
Levamisole	3.499	1703077	63.6	722.6	4402590	10.000
Levetireacetam	2.325	270744	151.1	423.5	5816193	10.000
Lorazepam	4.300	8496	27.4	10.9	1886291	10.000
Maprotiline	4.691	131955	27.2	127.9	1253803	10.000
MDA	2.856	678831	229.3	160.4	11427735	10.000
MDEA	3.130	2124824	1892.4	2399.7	11427735	10.000
MDMA	2.978	1996339	2170.1	2826.2	11427735	10.000
Meperidine	3.878	1486695	414.8	117.6	4402590	10.000
Meprobamate	3.452	71931	2415.6	36.5	1272111	10.000
Methadone	4.426	2056504	579802.8	94.3	1991355	10.000
Methamphetamine	2.888	6888234	1472.7	∞	11427735	10.000
Methocarbamol	3.358	81956	882.1	146.8	1991355	10.000
Methylphenidate	3.619	5631856	1334.7	601.9	5830669	10.000
Metoprolol	3.341	311658	306.0	73427.2	4402590	10.000
Midazolam	4.684	229678	94838.6	6139.8	1886291	10.000
Mirtazapine	4.631	1490927	11472.7	1039.8	4402590	10.000
Mitragynine	4.649	178736	57685.9	124105.7	4402590	10.000
Morphine	2.713	85761	∞	394.0	85413	10.000
Norbuprenorphine	3.881	11651	5412.2	75.4	85413	10.000
Nordiazepam	4.600	64601	12549.5	28604.6	1886291	10.000
Norfentanyl	3.206	2004758	361.0	2167.9	9827089	10.000
Norhydrocodone	2.865	22519	36.0	2191.7	3089995	10.000
norketamine	4.049	159629	150.2	612.2	5830669	10.000
Normeperidine	3.543	649806	120.5	94.4	31882790	10.000
Noroxycodone	2.740	306162	75.4	1009.1	5008027	10.000
Nortriptyline	4.462	148696	65118.2	28.8	1253803	10.000
O-desmethyl-tramadol	2.792	4845023	1064.5	110.5	31882790	10.000
Olanzapine	4.270	585194	307.1	94.7	28059	10.000
Oxazepam	4.382	43570	33.0	12.2	210313	10.000
Oxycodone	3.227	1096363	245.7	26.2	5008027	10.000
Oxymorphone	2.558	411447	137.9	1448.8	85413	10.000
Paroxetine	4.392	18338	10.0	5.5	280697	10.000
Phenazepam	4.529	121626	31738.3	23769.9	1886291	10.000
Phencyclidine	3.940	2660197	98.5	205.5	4402590	10.000
Phentermine	3.010	14679	63.6	∞	5830669	10.000
Phenytoin	3.970	52930	10186.8	11.5	28059	10.000
Promethazine	4.750	1326966	306.4	415.1	31882790	10.000
Pseudoephedrine	2.522	37433955	1126.7	34845.8	11427735	10.000
Quetiapine	4.788	1816657	493353.9	745705.7	27692415	10.000
Sertraline	4.703	53980	282.8	166.6	280697	10.000
Sufentanil	5.016	52838	21816.3	96.4	9827089	10.000
Tapentadol	3.390	2777204	1010.9	817.4	1991355	10.000
Temazepam	4.566	348372	228.7	45.2	1886291	10.000
Tramadol	3.418	5020871	363.0	51.4	31882790	10.000
Trazodone	4.941	1321263	8453.8	7709.7	6022230	10.000

AM #25 Multi-Drug Screen Results

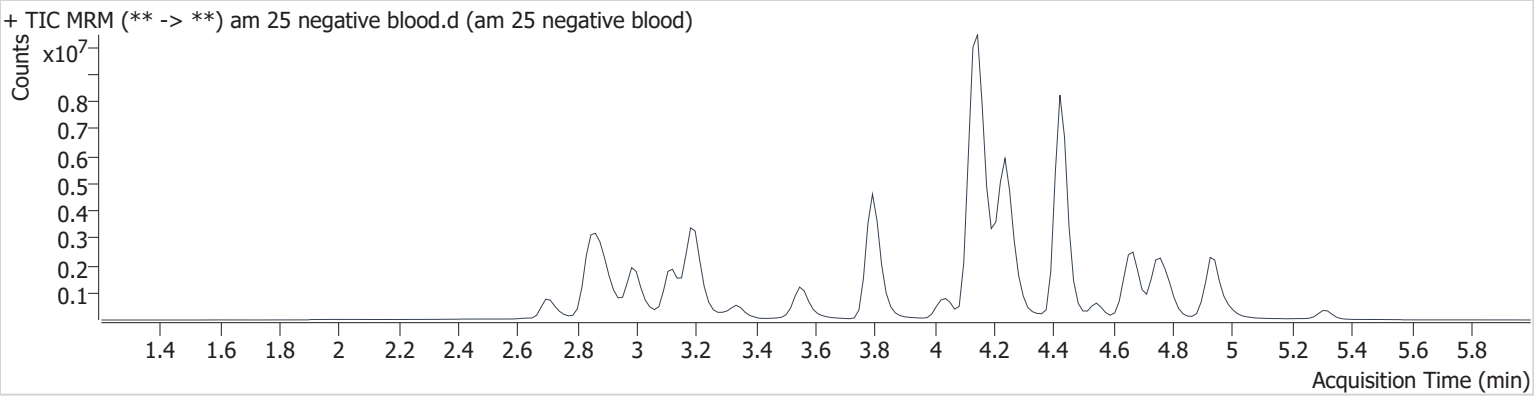
Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Venlafaxine	3.813	3657753	12707.5	∞	280697	10.000
Zaleplon	4.196	307492	16030.4	68386.4	27692415	10.000
Zolpidem	4.442	5485980	1957246.4	1942.5	27692415	10.000
Zopiclone	4.451	146604	1811.0	33142.7	804701	10.000

AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\2021\am 25-26\082621\QuantResults\mds.batch.bin
Calibration Last Update 8/27/2021 1:40:35 PM

Instrument	69679	**Data File**	am 25 negative blood.d
Type	Sample	**Sample**	am 25 negative blood
Acq. Method	mds713.m	**Operator**	Anne Nord
Sample Position	P2-B5	**Comment**	
Injection Volume	2.5		
Acq. Date-Time	8/26/2021 3:03:31 PM		
Sample Info.			

Sample Chromatogram



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

Extraction Date: 8/27/21 Analyst: Anne Nord
Plate lot#: 210611 Plate retest date: 12/11/21

Mobile phase A: 10mM Ammonium Formate **Mobile phase B:** 0.1% Formic Acid in MeOH
0.5M Ammonium Hydroxide Ethyl Acetate LC Methanol
Blank Blood Lot: 21D52496 **Blank Urine lot:** **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. Place on shaking incubator at ambient temp., 900 rpm for 15 minutes.
☒ 4. Pipette **250 µL of 0.5 M ammonium hydroxide** in wells of analytical plate.
☒ 5. Place on shaking incubator at ambient temp., 900 rpm for 15 minutes.
☒ 6. Transfer **300 µL of blood or urine+base** 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 **900 µL ethyl acetate.**
☒ 10. Wait 5 minutes.
☒ 11. Apply positive pressure for approx. 10-15 seconds. ***(12-15 PSI- Selector to the left).***
☒ 12. Add **900 µL ethyl acetate.**
☒ 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. add 50 ul 1% HCl in MeOH Place on SPE Dry and evaporate to dryness at approx. 35°C.
SPE Dry ID: 66819
☒ 16. 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: *re-extraction of urine samples.*

	1	2	3	4	5	6	7	8	9	10	11	12
A						negative blood	Urine positive					
B	cal 1						negative urine					
C							1917-1					
D							1816-1					
E							1797-1					
F												
G							1755-1					
H							1739-2					

lab number format
C2021-____-_

AM 25 8-27-21 re-extraction urine cases.

Toxicology AM method 25/28 urine external control prep

working solution 10000 ng/ml in meoh diphendydramine, methamphetamine, alprazolam, methocarbamol, ~~methylphenidate~~, morphine

11/18/21

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
Diphendydramine	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

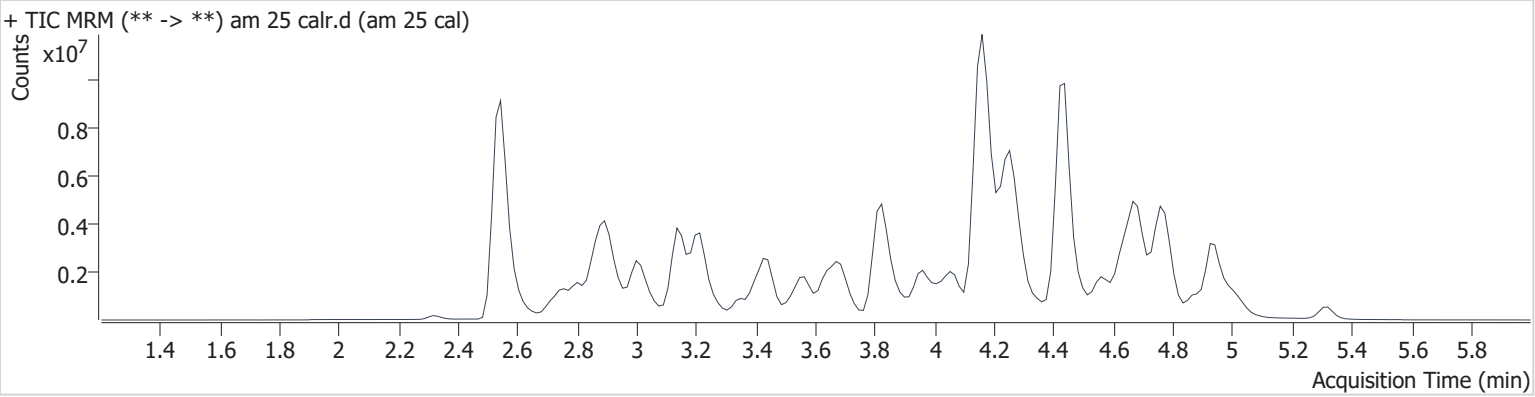
AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\2021\am 25\082721\QuantResults\mds.batch.bin
Calibration Last Update 8/27/2021 1:30:06 PM

Instrument	69679	**Data File**	am 25 calr.d
Type	Cal	**Sample**	am 25 cal
Acq. Method	mds713.m	**Operator**	Anne Nord
Sample Position	P2-B1	**Comment**	
Injection Volume	2.5		
Acq. Date-Time	8/27/2021 12:08:50 PM		
Sample Info.			

8/27/21 extraction

Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
6-MAM	3.378	12482	3985.6	8295.0	460908	10.000
7-aminoclonazepam	3.354	174823	240.4	537.3	1178149	10.000
7-aminoflunitrazepam	3.583	573566	774.5	576.8	1178149	10.000
Acetyl Fentanyl	4.485	185530	105.8	35167.6	7274117	10.000
Acetyl Norfentanyl	2.748	83445	184.3	62.2	7274117	10.000
a-hydroxyalprazolam	4.377	24244	93.0	12934.3	1178149	10.000
alpha-hydroxymidazolam	4.484	254360	157902.3	245.5	1178149	10.000
alpha-PHP	4.248	1479906	20703.6	5019.7	2100506	10.000
alpha-PVP	3.972	2051719	6435.7	261.2	2100506	10.000
Alprazolam	4.503	574607	454937.3	316.5	1357530	10.000
Amitriptyline	4.721	605236	130.7	360.2	3060000	10.000
Amphetamine	2.768	912940	573.0	591.3	2100506	10.000
Benzoylecgonine	3.137	53979	83307.9	154.9	95666	10.000
Brompheniramine	4.193	45636	14019.9	26.6	31375823	10.000
Buprenorphine	5.318	314389	486.8	16886.4	1432315	10.000
Bupropion	4.233	1896009	257037.5	1488.9	7185592	10.000
Carbamazepine	4.079	1139476	∞	340.7	20873	10.000
Carisoprodol	4.062	172362	234.0	32.4	894279	10.000
Chlordiazepoxide	4.642	88141	69.0	67.4	1357530	10.000
Chlorpheniramine	4.091	3013446	5124956.1	∞	31375823	10.000
Citalopram	4.146	1176537	921.5	59541.9	31375823	10.000
Clomimpramine	4.975	825211	199.8	185.9	4390314	10.000
Clonazepam	4.317	37142	44.3	3966.3	1357530	10.000
Clonazolam	4.221	117776	40313.5	14837.8	1357530	10.000
Cocaethylene	4.009	1980815	4254.5	717.6	31375823	10.000
Cocaine	3.857	2661944	414.9	142.1	13551141	10.000
Codeine	3.397	118198	341.8	60622.6	83129	10.000
Cyclobenzaprine	4.584	1363418	644.3	46.3	3060000	10.000
Desipramine	4.431	1197622	327803.3	577.3	3060000	10.000
Dextromethorphan	4.245	996603	169227.0	145933.2	5313401	10.000
Dextrorphan	3.403	1085957	698813.3	1039.5	5313401	10.000
Diazepam	4.766	156526	5002.8	191.2	1357530	10.000
Dihydrocodeine	3.044	368468	1609.9	197.1	1430369	10.000
Diphenhydramine	4.186	4018646	35854.3	364878.5	31375823	10.000

AM #25 Multi-Drug Screen Results

Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Doxepin	4.429	867224	174.5	10.0	7902428	10.000
Doxylamine	3.691	4099895	3696.5	8289.6	5313401	10.000
EDDP	4.044	627793	395.8	122.4	1430369	10.000
Estazolam	4.412	489222	446.7	147857.3	1357530	10.000
Etizolam	4.514	64466	59507.4	127471.2	1357530	10.000
Fentanyl	4.683	127780	19126.6	38493.2	8881151	10.000
Flualprazolam	4.346	278647	85437.0	90351.1	1357530	10.000
Flunitrazepam	4.441	177126	65008.6	24444.7	1357530	10.000
Fluoxetine	4.349	491631	220606.2	12364.1	749637	10.000
Flurazepam	4.681	1540694	433336.1	82852.0	1357530	10.000
Hydrocodone	3.643	342838	1167.8	38.2	2321446	10.000
Hydromorphone	2.971	278079	110.4	98.5	83129	10.000
Imipramine	4.629	2295123	989.4	339.3	3060000	10.000
Ketamine	4.202	1396109	1059.3	83.0	4547347	10.000
Lamotrigine	3.449	89611	915.2	58359.6	31375823	10.000
Levamisole	3.529	1316528	1112270.6	724.3	5313401	10.000
Levetireacetam	2.325	189113	553.7	166.9	4390314	10.000
Lorazepam	4.300	5023	7.3	5.6	1357530	10.000
Maprotiline	4.721	352176	87.9	197503.1	3060000	10.000
MDA	2.887	543043	425.1	59.4	8549762	10.000
MDEA	3.161	1620858	∞	275.2	8549762	10.000
MDMA	3.009	1476695	128.1	102.7	8549762	10.000
Meperidine	3.909	1187160	173.0	1412.8	5313401	10.000
Meprobamate	3.452	51488	19805.8	20.1	894279	10.000
Methadone	4.441	2625096	125844.1	217.8	1430369	10.000
Methamphetamine	2.919	6550195	4206.8	1447.9	8549762	10.000
Methocarbamol	3.358	66508	275.9	256.2	1430369	10.000
Methylphenidate	3.650	4318817	1819.2	1274.2	4547347	10.000
Metoprolol	3.356	234250	7868.9	63581.8	5313401	10.000
Midazolam	4.684	206742	64251.3	102232.9	1357530	10.000
Mirtazapine	4.646	1417753	743.3	825.2	5313401	10.000
Mitragynine	4.680	256579	30514.1	225861.3	5313401	10.000
Morphine	2.759	81457	324.8	924.7	83129	10.000
Norbuprenorphine	3.912	12685	3553.5	22.5	83129	10.000
Nordiazepam	4.600	52657	30134.1	7421.8	1357530	10.000
Norfentanyl	3.236	1527771	3270554.8	466.1	7274117	10.000
Norhydrocodone	2.895	17761	9416.2	46.3	2321446	10.000
norketamine	4.065	109662	70.8	311.5	4547347	10.000
Normeperidine	3.558	543630	72.0	91.7	31375823	10.000
Noroxycodone	2.756	222319	∞	96.0	3857068	10.000
Nortriptyline	4.478	433299	147258.6	87.0	3060000	10.000
O-desmethyl-tramadol	2.807	3489166	596.7	160.4	31375823	10.000
Olanzapine	4.290	775153	104.3	93.7	20873	10.000
Oxazepam	4.397	31207	18.6	8.1	153984	10.000
Oxycodone	3.273	837304	285.3	260.5	3857068	10.000
Oxymorphone	2.604	350338	184.6	361.4	83129	10.000
Paroxetine	4.407	47746	8.5	65.8	749637	10.000
Phenazepam	4.529	82823	50206.9	24119.1	1357530	10.000
Phencyclidine	3.955	2255891	5428.7	830.7	5313401	10.000
Phentermine	3.040	11830	∞	∞	4547347	10.000
Phenytoin	3.970	35431	47.0	16.7	20873	10.000
Promethazine	4.781	2947902	226.6	277.8	31375823	10.000
Pseudoephedrine	2.553	29543774	1158.9	409.8	8549762	10.000
Quetiapine	4.788	1906570	997367.0	2169083.2	20680921	10.000
Sertraline	4.718	148186	109191.1	156.7	749637	10.000
Sufentanil	5.032	130935	43594.0	179.6	7274117	10.000
Tapentadol	3.405	2038833	988.7	1194.5	1430369	10.000
Temazepam	4.566	236424	405.1	44.9	1357530	10.000
Tramadol	3.448	3505325	1224.8	47.8	31375823	10.000

AM #25 Multi-Drug Screen Results

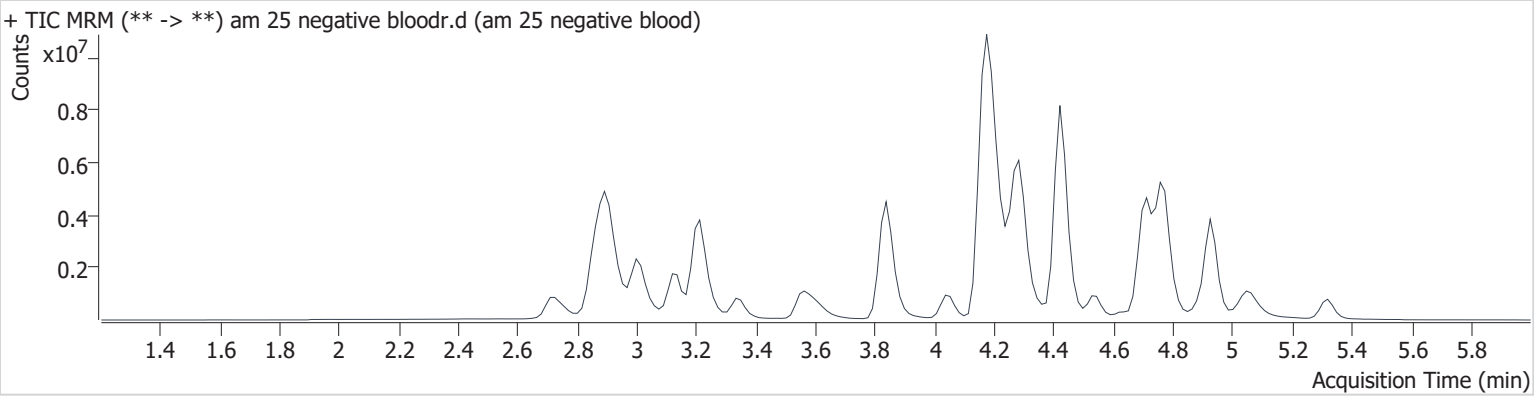
Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Trazodone	4.941	1647609	2842774.1	4609.4	7902428	10.000
Venlafaxine	3.828	2709543	799.4	243.9	749637	10.000
Zaleplon	4.211	234449	67128.5	232.2	20680921	10.000
Zolpidem	4.442	3911571	4376.1	3589.3	20680921	10.000
Zopiclone	4.451	145412	1629.8	93.0	783303	10.000

AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\2021\am 25\082721\QuantResults\mds.batch.bin
Calibration Last Update 8/27/2021 1:30:06 PM

Instrument	69679	**Data File**	am 25 negative bloodr.d
Type	Sample	**Sample**	am 25 negative blood
Acq. Method	mds713.m	**Operator**	Anne Nord
Sample Position	P2-A6	**Comment**	
Injection Volume	2.5		
Acq. Date-Time	8/27/2021 12:15:32 PM		
Sample Info.			

Sample Chromatogram



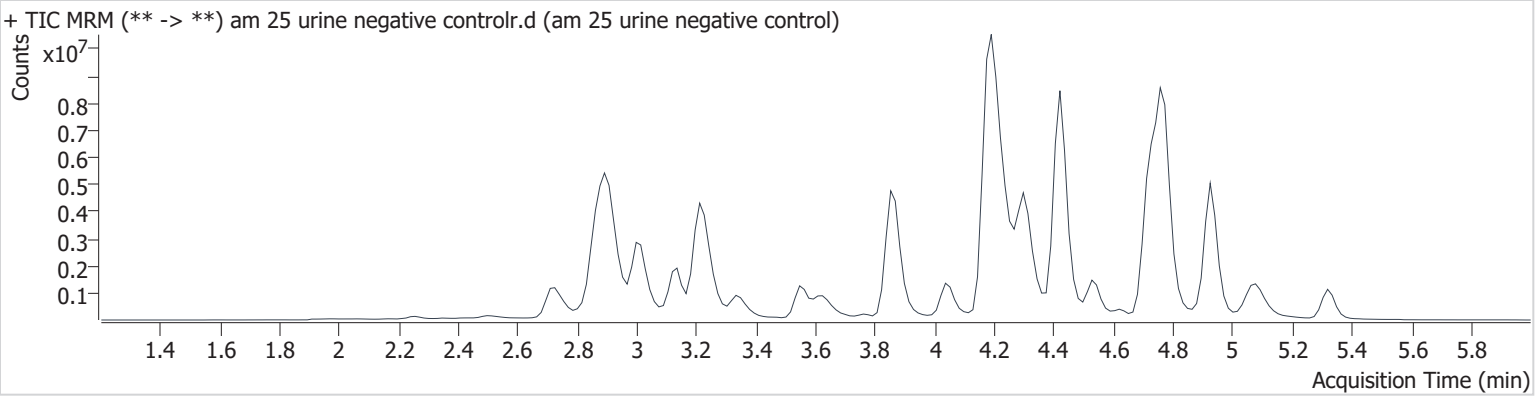
Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Methamphetamine	2.919	7758649	4345.0	42421.7	10655138	9.504 < 10

AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\2021\am 25\082721\QuantResults\mds.batch.bin
Calibration Last Update 8/27/2021 1:30:06 PM

Instrument	69679	**Data File**	am 25 urine negative controlr.d
Type	Sample	**Sample**	am 25 urine negative control
Acq. Method	mds713.m	**Operator**	Anne Nord
Sample Position	P2-B7	**Comment**	
Injection Volume	2.5		
Acq. Date-Time	8/27/2021 12:22:14 PM		
Sample Info.			

Sample Chromatogram



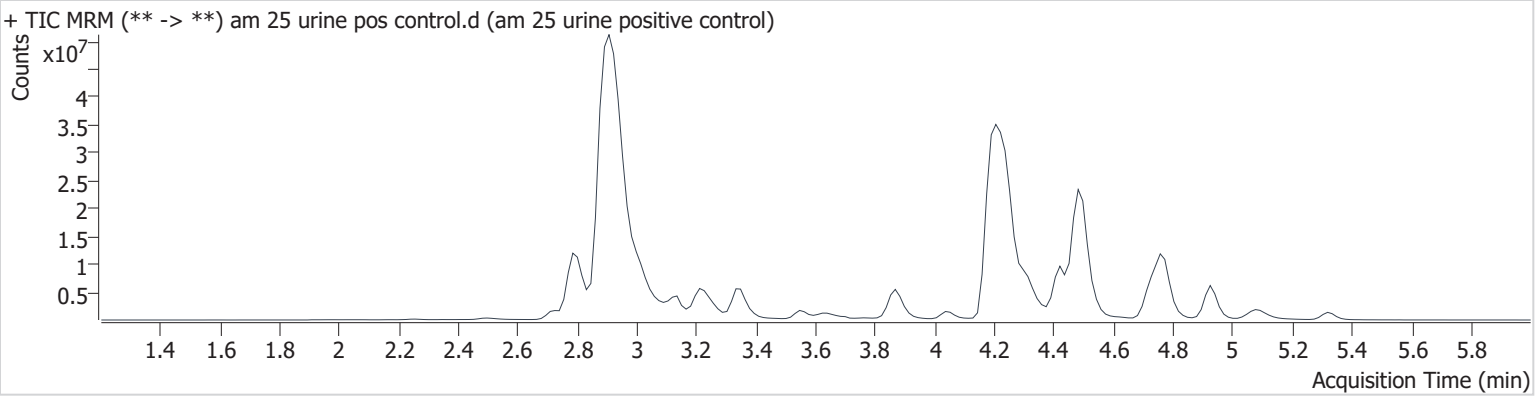
Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Methamphetamine	2.919	7514813	7745.9	39097.2	13571507	7.228 < 32

AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\2021\am 25\082721\QuantResults\mds.batch.bin
Calibration Last Update 8/27/2021 1:30:06 PM

Instrument	69679	**Data File**	am 25 urine pos control.d
Type	Sample	**Sample**	am 25 urine positive control
Acq. Method	mds713.m	**Operator**	Anne Nord
Sample Position	P2-A7	**Comment**	
Injection Volume	2.5		
Acq. Date-Time	8/27/2021 12:42:19 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Alprazolam	4.488	42881169	1667.1	11863.4	4569501	221.706
Diphenhydramine	4.232	99987852	52315.6	78120.1	32818199	237.874
Methamphetamine	2.934	87072809	447612.6	67756.7	12572839	90.396
Methocarbamol	3.358	8175917	1017.2	10163.3	2154916	815.976
Morphine	2.789	13494500	∞	5355.7	250871	548.944

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

Extraction Date: 8/26/21 Analyst: Anne Nord

Plate lot#: 210609 Plate Expiration: 12-9-21

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: 21D52496 **Urine Blank:** 5621
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 8**00 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:

	1	2	3	4	5	6
a	cal 1	neg blood	1865-1	1797-1		QC 1
b	cal 2	1744-1	1868-1	1816-1		cal 100 ng
c	cal 3	1783-1	1884-1	1917-1		cal 50 ng
d	cal 4	1803-1	1889-1	urine positive control		cal 25 ng
e	Cal 5	1804-1	1906-1			cal 10ng
f	cal 6	1822-1	negative urine			cal 5 ng
g	cal 7	1844-1	1739-2			cal 3 ng
h	Internal control	1864-1	1755-1			cal 1ng

C2021-____-_

am 26 extraction 8/26/21

Toxicology AM method 27/26 external prep informati

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 lot () in 9900 ul blood lot ()

		Concentration 7.5 ng/ml THC, 15 ng/ml C-THC, THC-OH	

AM 27/26 urine control 400 ul working solution lot (82620) in 9600 ul urine **out of use**

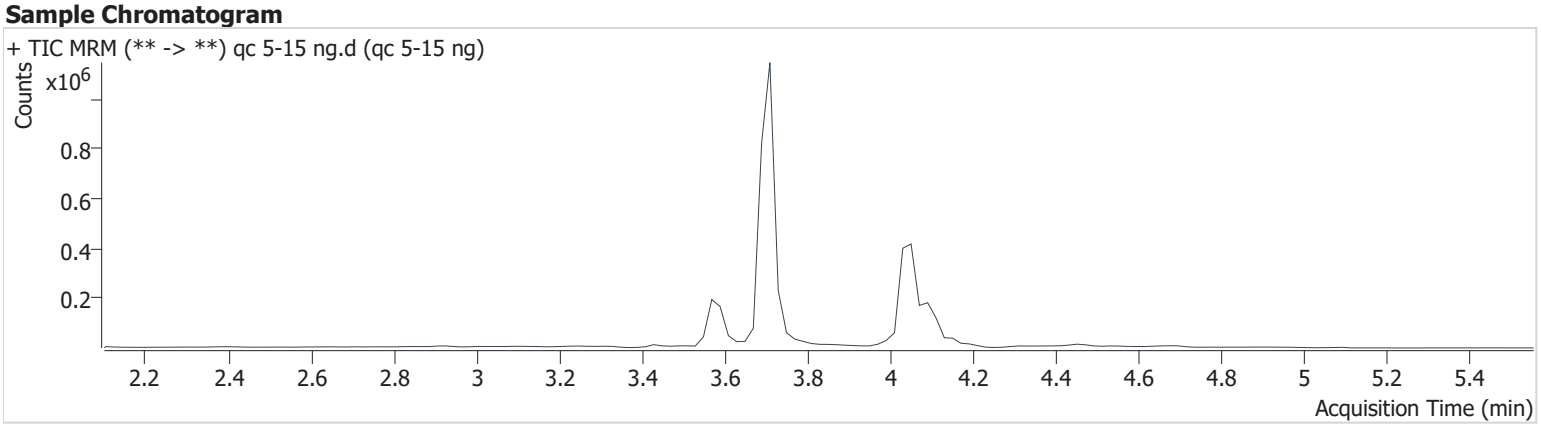
ppd 8/26/21 Exp 8/26/22 neg urine lot 5621	lot u82621	Concentration 30 ng/ml THC, and 60 ng/ml C-THC, THC-OH	by amn	

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2021\am 25-26\082621\QuantResults\cann.batch.bin
Calibration Last Update 8/27/2021 1:54:57 PM

Instrument	69679	**Data File**	qc 5-15 ng.d
Type	QC	**Sample**	qc 5-15 ng
Acq. Method	am 26 cann scr 5-5-20.m	**Operator**	Anne Nord
Sample Position	P3-H1	**Comment**	
Injection Volume	5		
Acq. Date-Time	8/26/2021 5:23:31 PM		
Sample Info.			

Sample Chromatogram



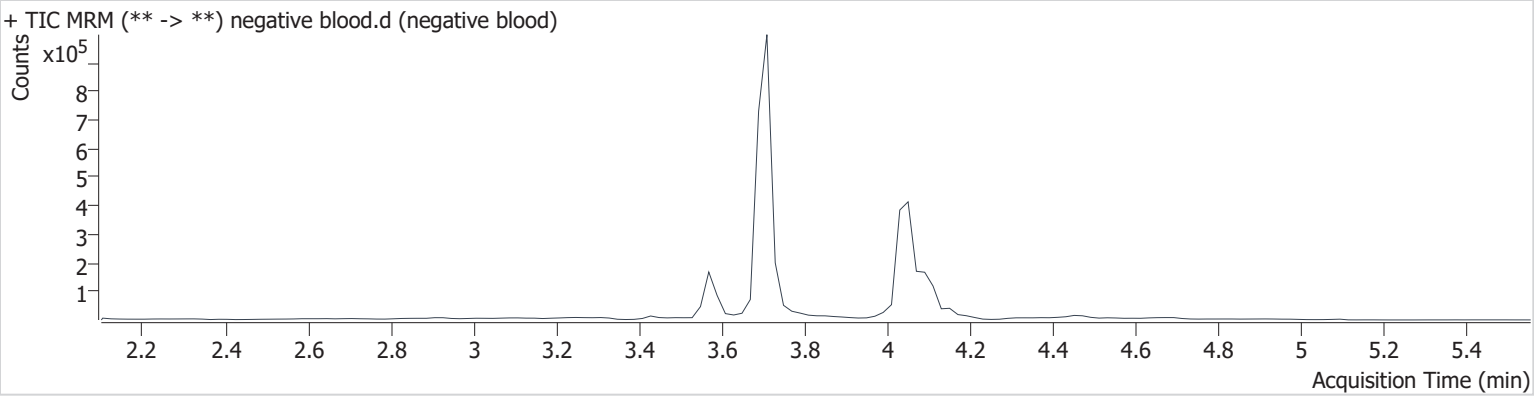
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.104	11135	275919	4.736 ng/ml
THC-COOH	3.592	75399	371105	18.252 ng/ml
THC-OH	3.719	21277	2599905	4.788 ng/ml

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2021\am 25-26\082621\QuantResults\cann.batch.bin
Calibration Last Update 8/27/2021 1:54:57 PM

Instrument	69679	**Data File**	negative blood.d
Type	Sample	**Sample**	negative blood
Acq. Method	am 26 cann scr 5-5-20.m	**Operator**	Anne Nord
Sample Position	P3-A2	**Comment**	
Injection Volume	5		
Acq. Date-Time	8/26/2021 5:30:06 PM		
Sample Info.			

Sample Chromatogram



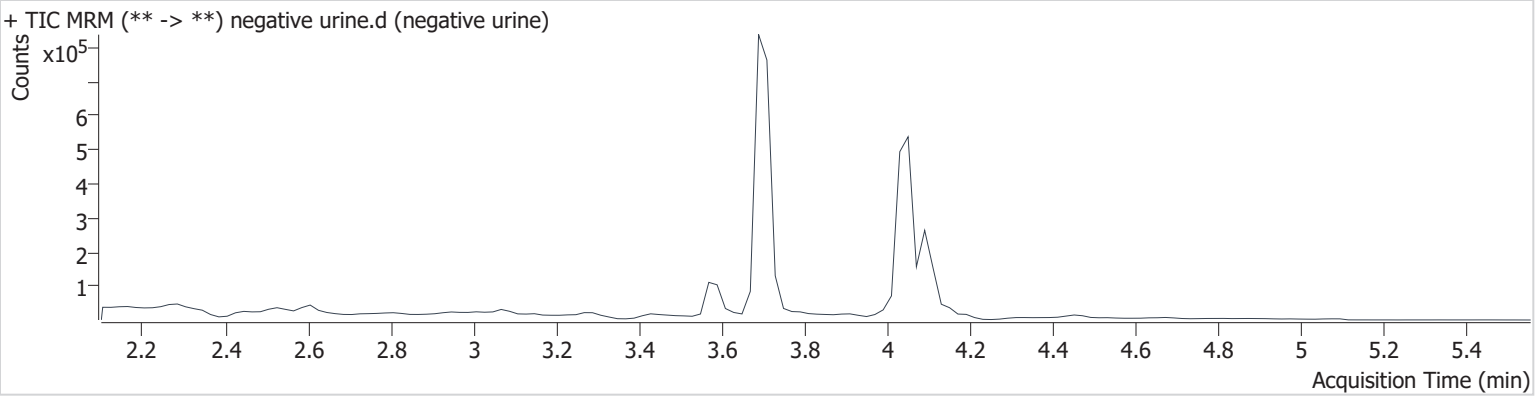
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC-COOH	3.592	9283	352627	2.871 ng/ml **Low**

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2021\am 25-26\082621\QuantResults\cann.batch.bin
Calibration Last Update 8/27/2021 1:54:57 PM

Instrument	69679	**Data File**	negative urine.d
Type	Sample	**Sample**	negative urine
Acq. Method	am 26 cann scr 5-5-20.m	**Operator**	Anne Nord
Sample Position	P3-F3	**Comment**	
Injection Volume	5		
Acq. Date-Time	8/26/2021 6:55:50 PM		
Sample Info.			

Sample Chromatogram



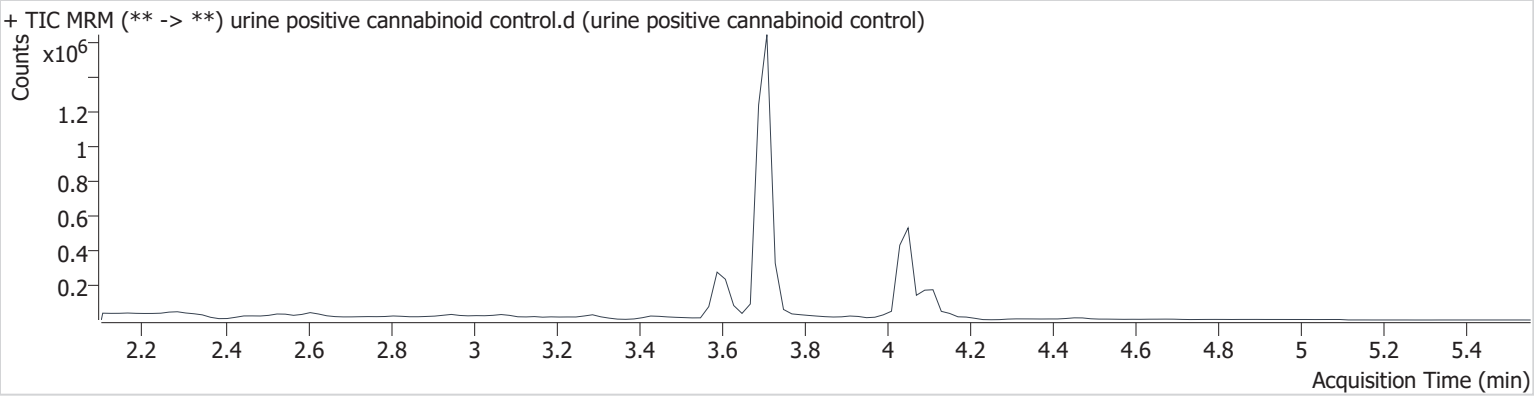
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC-COOH	3.612	9642	307850	3.306 ng/ml **Low**

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2021\am 25-26\082621\QuantResults\cann.batch.bin
Calibration Last Update 8/27/2021 1:54:57 PM

Instrument	69679	**Data File**	urine positive cannabinoid control.d
Type	Sample	**Sample**	urine positive cannabinoid control
Acq. Method	am 26 cann scr 5-5-20.m	**Operator**	Anne Nord
Sample Position	P3-D4	**Comment**	
Injection Volume	5		
Acq. Date-Time	8/26/2021 7:35:25 PM		
Sample Info.			

Sample Chromatogram



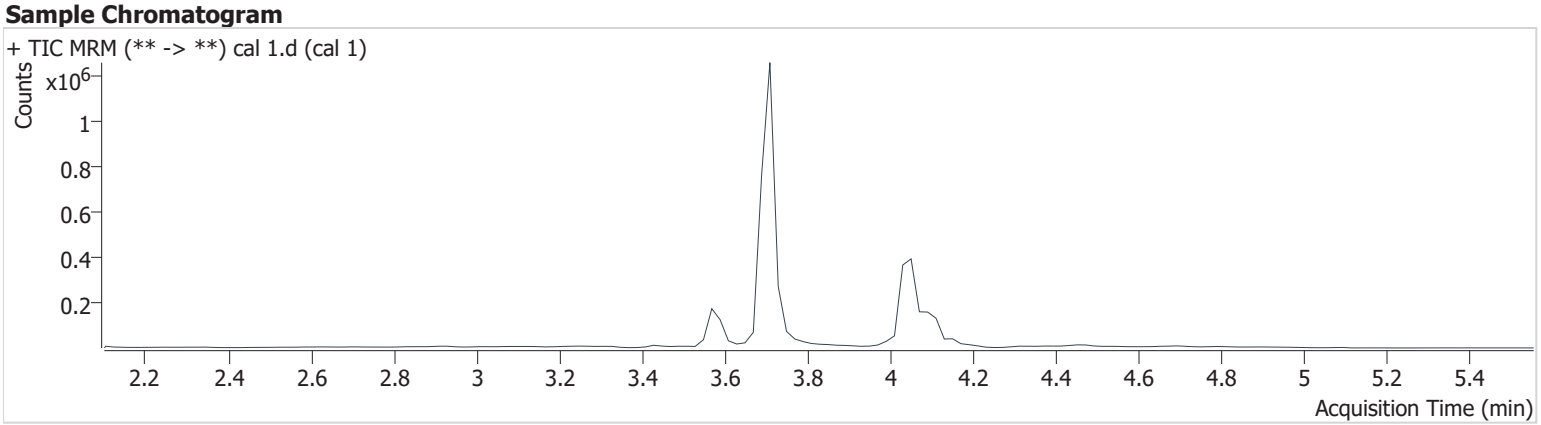
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.124	50492	315956	18.175 ng/ml
THC-COOH	3.612	189904	308336	54.147 ng/ml
THC-OH	3.719	187569	2288839	48.018 ng/ml

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2021\am 25-26\082621\QuantResults\cann.batch.bin
Calibration Last Update 8/27/2021 1:54:57 PM

Instrument	69679	**Data File**	cal 1.d
Type	Cal	**Sample**	cal 1
Acq. Method	am 26 cann scr 5-5-20.m	**Operator**	Anne Nord
Sample Position	P3-A1	**Comment**	
Injection Volume	5		
Acq. Date-Time	8/26/2021 4:37:19 PM		
Sample Info.			

Sample Chromatogram



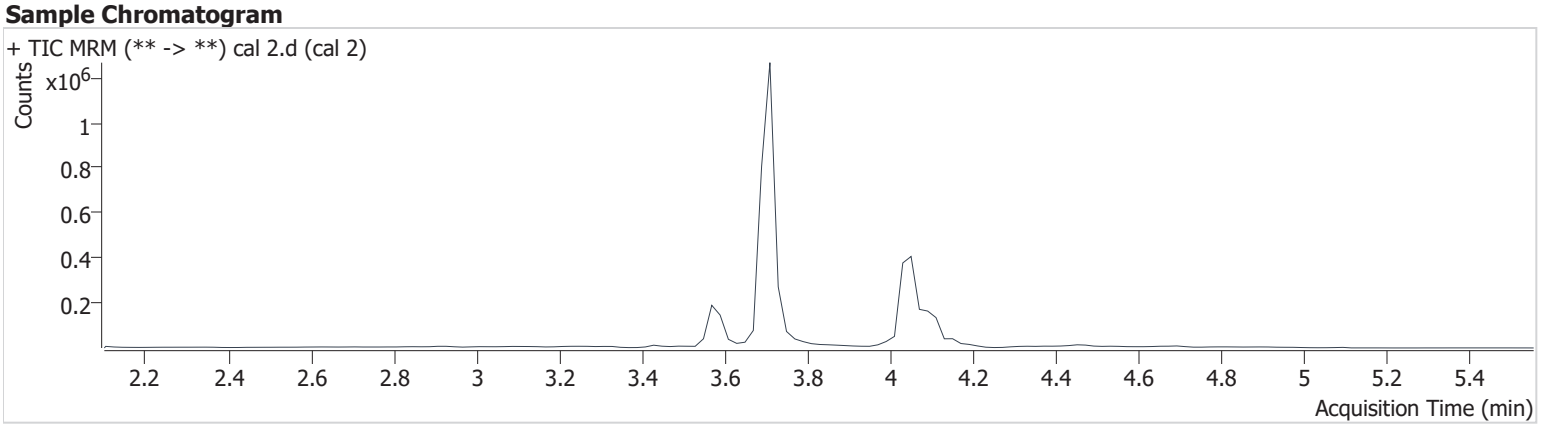
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.104	2301	273078	1.144 ng/ml **Low**
THC-COOH	3.592	22048	378821	5.644 ng/ml **Low**
THC-OH	3.719	5571	2896914	1.119 ng/ml **Low**

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2021\am 25-26\082621\QuantResults\cann.batch.bin
Calibration Last Update 8/27/2021 1:54:57 PM

Instrument	69679	**Data File**	cal 2.d
Type	Cal	**Sample**	cal 2
Acq. Method	am 26 cann scr 5-5-20.m	**Operator**	Anne Nord
Sample Position	P3-B1	**Comment**	
Injection Volume	5		
Acq. Date-Time	8/26/2021 4:43:55 PM		
Sample Info.			

Sample Chromatogram



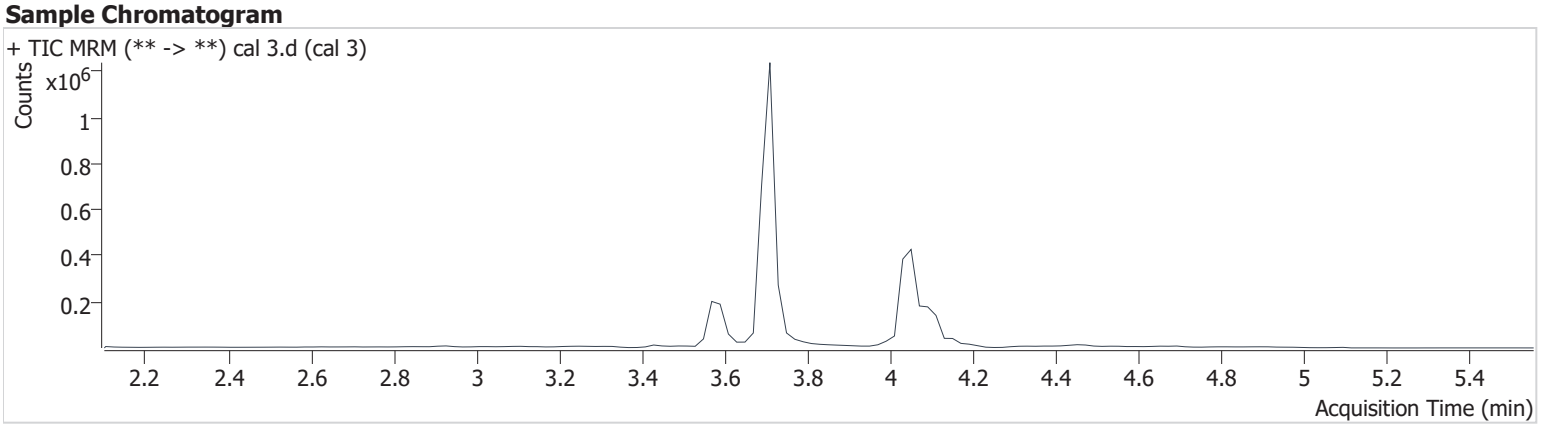
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.124	6819	279503	2.940 ng/ml **Low**
THC-COOH	3.592	43830	390816	10.336 ng/ml
THC-OH	3.719	14284	2879927	2.899 ng/ml **Low**

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2021\am 25-26\082621\QuantResults\cann.batch.bin
Calibration Last Update 8/27/2021 1:54:57 PM

Instrument	69679	**Data File**	cal 3.d
Type	Cal	**Sample**	cal 3
Acq. Method	am 26 cann scr 5-5-20.m	**Operator**	Anne Nord
Sample Position	P3-C1	**Comment**	
Injection Volume	5		
Acq. Date-Time	8/26/2021 4:50:31 PM		
Sample Info.			

Sample Chromatogram



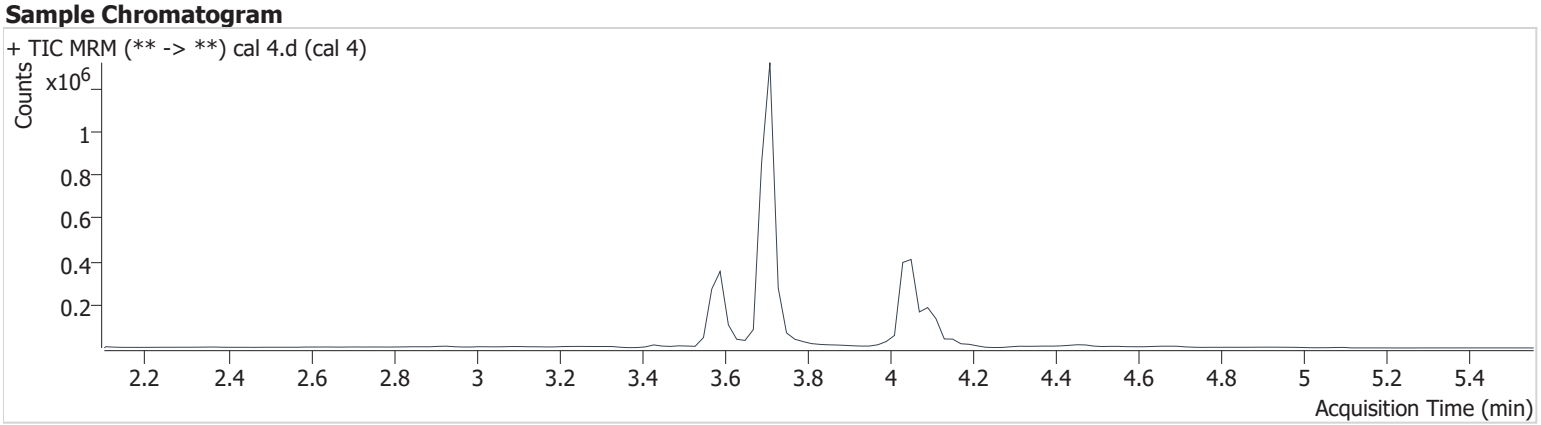
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.104	11623	291682	4.679 ng/ml
THC-COOH	3.592	70208	389650	16.253 ng/ml
THC-OH	3.719	21767	2622818	4.856 ng/ml

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2021\am 25-26\082621\QuantResults\cann.batch.bin
Calibration Last Update 8/27/2021 1:54:57 PM

Instrument	69679	**Data File**	cal 4.d
Type	Cal	**Sample**	cal 4
Acq. Method	am 26 cann scr 5-5-20.m	**Operator**	Anne Nord
Sample Position	P3-D1	**Comment**	
Injection Volume	5		
Acq. Date-Time	8/26/2021 4:57:06 PM		
Sample Info.			

Sample Chromatogram



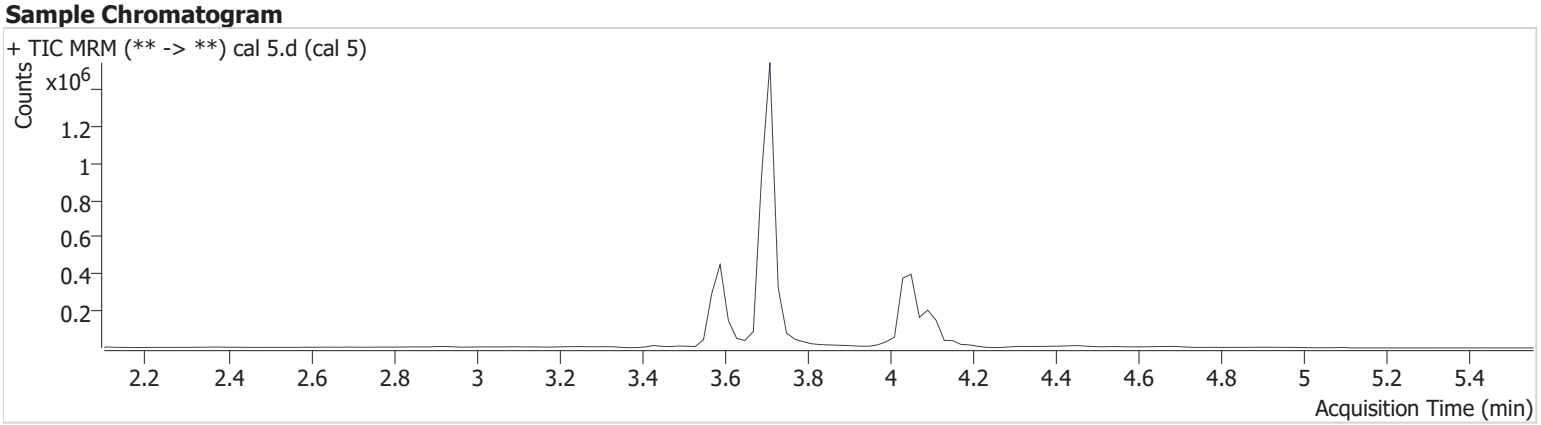
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.104	23461	284179	9.484 ng/ml
THC-COOH	3.592	227015	395938	50.448 ng/ml
THC-OH	3.719	44834	2717250	9.662 ng/ml

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2021\am 25-26\082621\QuantResults\cann.batch.bin
Calibration Last Update 8/27/2021 1:54:57 PM

Instrument	69679	**Data File**	cal 5.d
Type	Cal	**Sample**	cal 5
Acq. Method	am 26 cann scr 5-5-20.m	**Operator**	Anne Nord
Sample Position	P3-E1	**Comment**	
Injection Volume	5		
Acq. Date-Time	8/26/2021 5:03:42 PM		
Sample Info.			

Sample Chromatogram



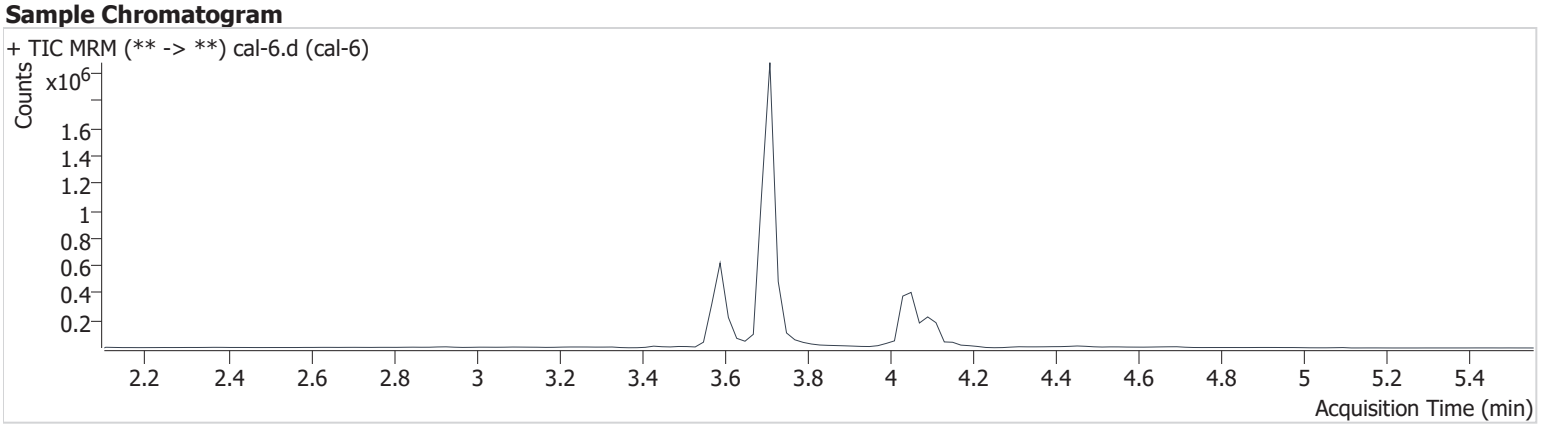
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.104	60716	279996	24.592 ng/ml
THC-COOH	3.592	316961	368445	75.400 ng/ml
THC-OH	3.719	107120	2589647	24.234 ng/ml

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2021\am 25-26\082621\QuantResults\cann.batch.bin
Calibration Last Update 8/27/2021 1:54:57 PM

Instrument	69679	**Data File**	cal-6.d
Type	Cal	**Sample**	cal-6
Acq. Method	am 26 cann scr 5-5-20.m	**Operator**	Anne Nord
Sample Position	P3-F1	**Comment**	
Injection Volume	5		
Acq. Date-Time	8/26/2021 5:10:18 PM		
Sample Info.			

Sample Chromatogram



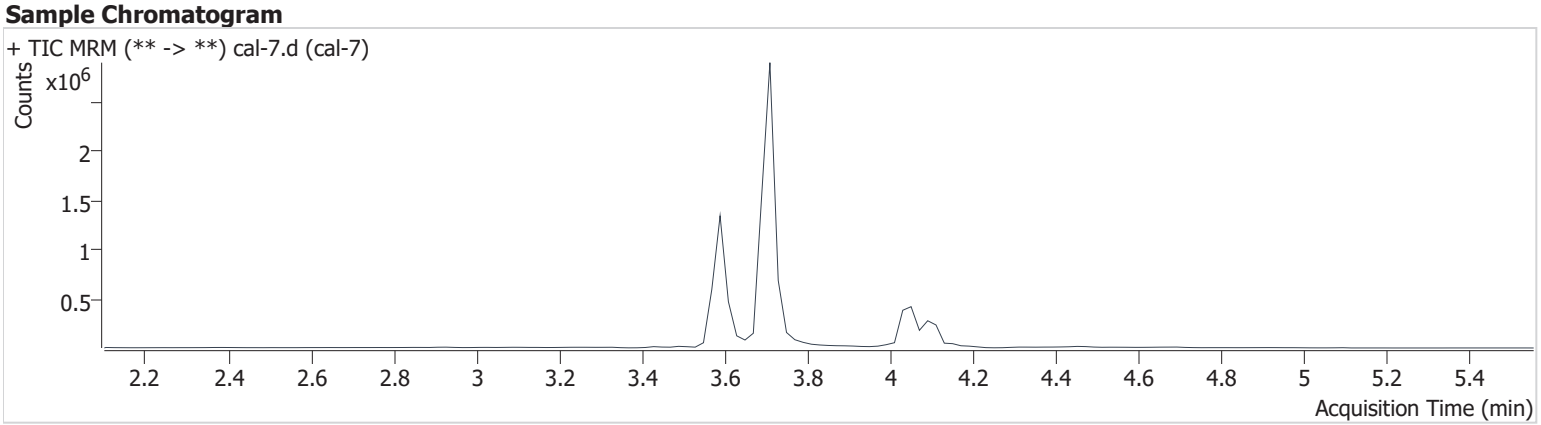
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.104	120446	273748	49.697 ng/ml
THC-COOH	3.592	450065	391688	100.515 ng/ml
THC-OH	3.719	224120	2648763	49.579 ng/ml

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2021\am 25-26\082621\QuantResults\cann.batch.bin
Calibration Last Update 8/27/2021 1:54:57 PM

Instrument	69679	**Data File**	cal-7.d
Type	Cal	**Sample**	cal-7
Acq. Method	am 26 cann scr 5-5-20.m	**Operator**	Anne Nord
Sample Position	P3-G1	**Comment**	
Injection Volume	5		
Acq. Date-Time	8/26/2021 5:16:54 PM		
Sample Info.			

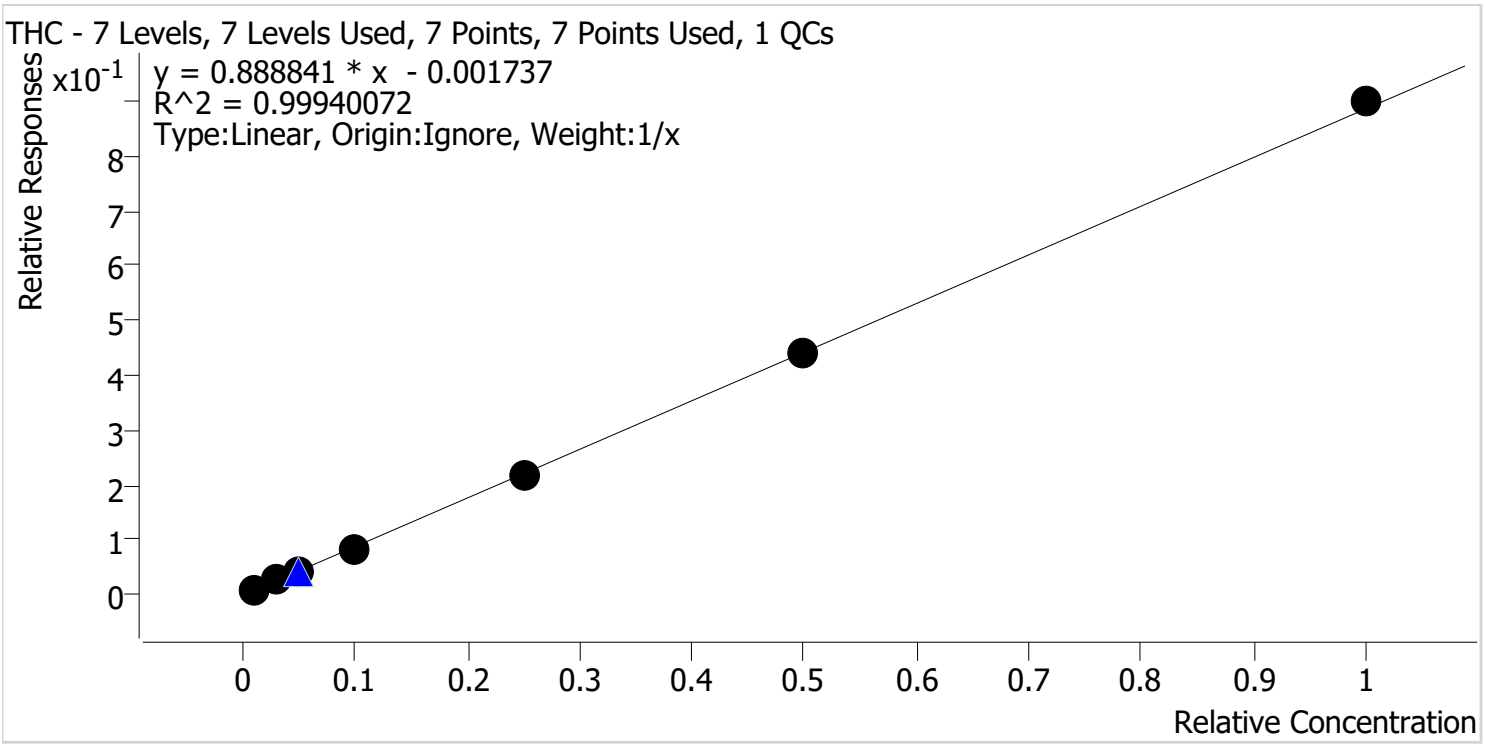
Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.104	236629	262884	101.465 ng/ml
THC-COOH	3.592	1101121	381808	251.405 ng/ml
THC-OH	3.719	436856	2518375	101.652 ng/ml

Compound Calibration Report

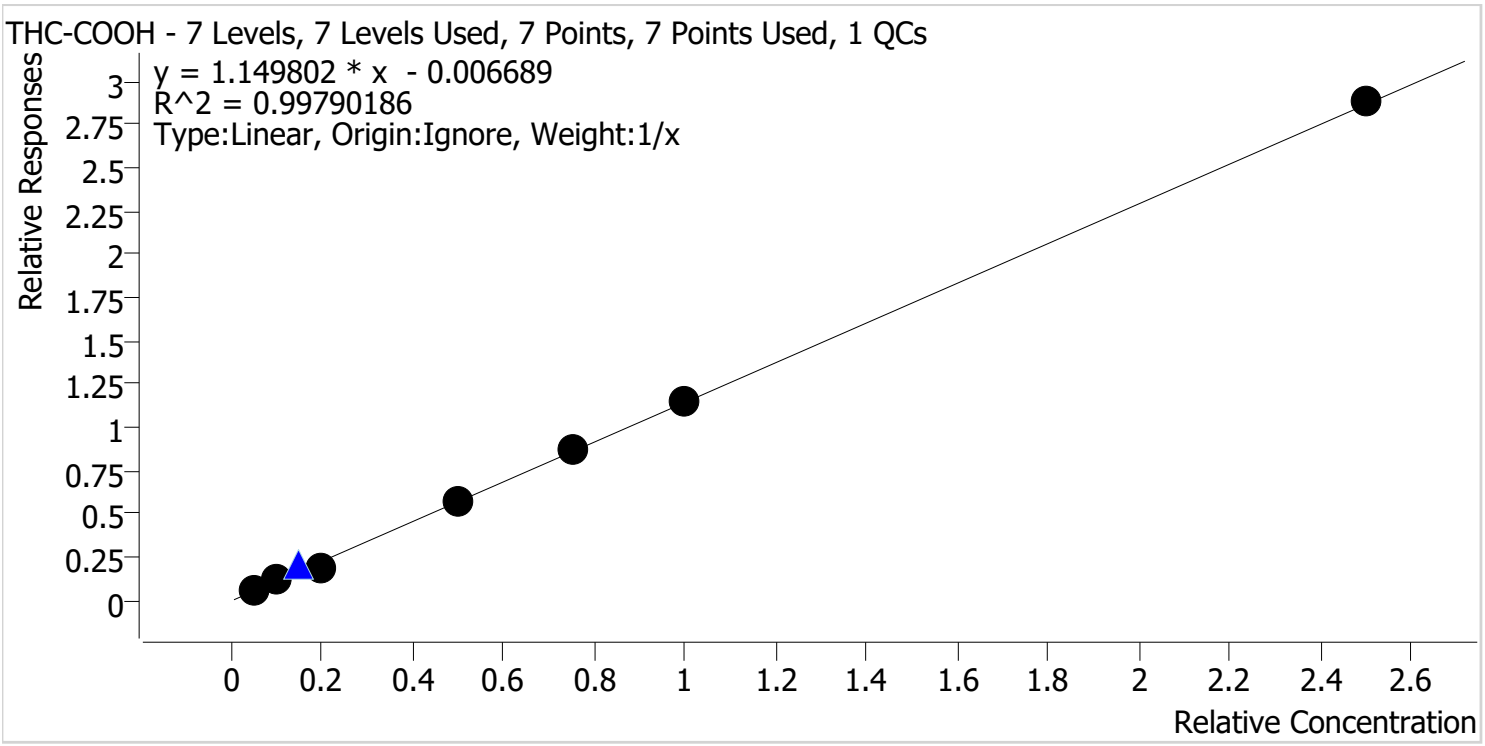
Batch results	D:\MassHunter\Data\2021\am 25-26\082621\QuantResults\cann.batch.bin
Last Cal. Update	8/27/2021 1:54 PM
Analyst Name	ISP\datastor
Analyte	THC
Internal Standard	THC-d3



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✔	1.0	1.1	114.4
cal 2	2	✔	3.0	2.9	98.0
cal 3	3	✔	5.0	4.7	93.6
cal 4	4	✔	10.0	9.5	94.8
cal 5	5	✔	25.0	24.6	98.4
cal-6	6	✔	50.0	49.7	99.4
cal-7	7	✔	100.0	101.5	101.5

Compound Calibration Report

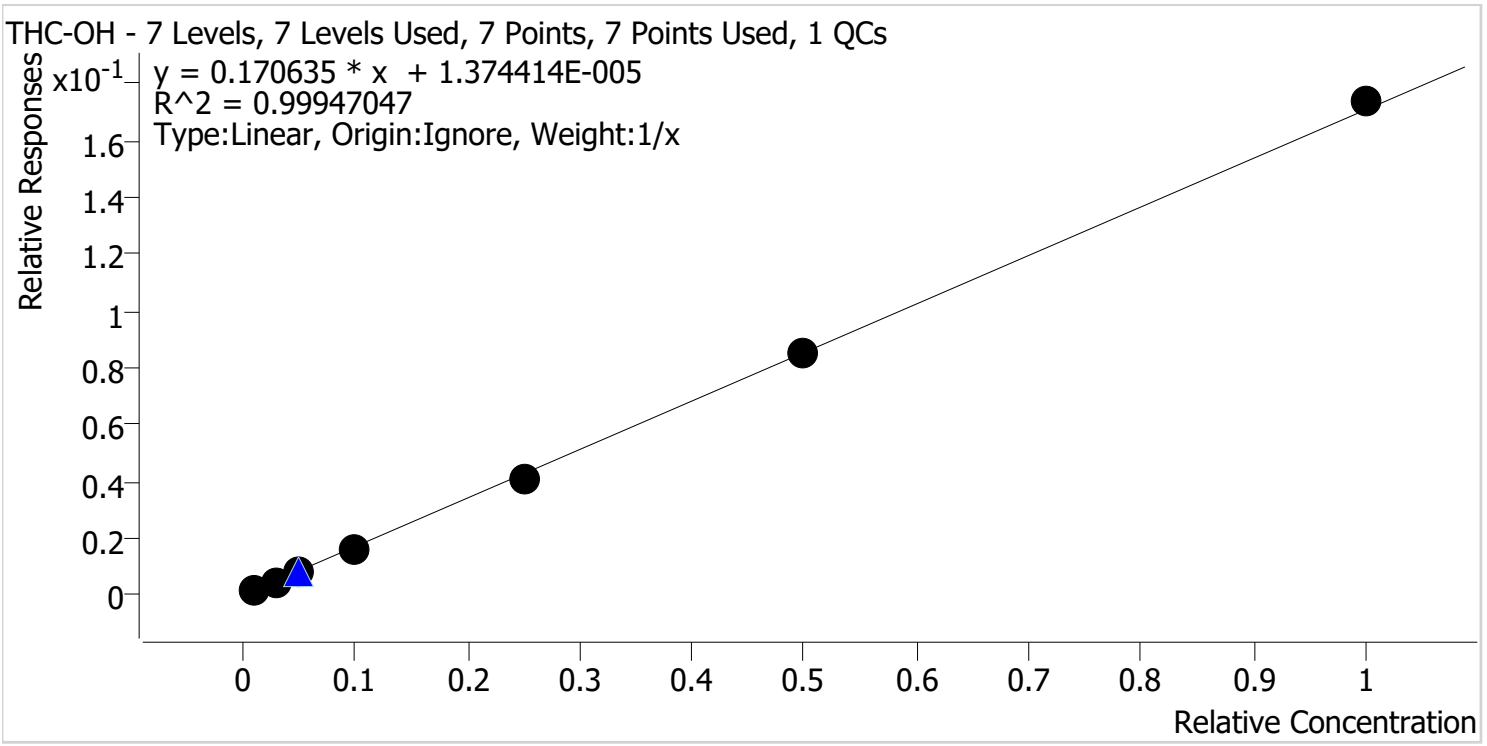
Batch results	D:\MassHunter\Data\2021\am 25-26\082621\QuantResults\cann.batch.bin
Last Cal. Update	8/27/2021 1:54 PM
Analyst Name	ISP\datastor
Analyte	THC-COOH
Internal Standard	THC-COOH-d9



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✔	5.0	5.6	112.9
cal 2	2	✔	10.0	10.3	103.4
cal 3	3	✔	20.0	16.3	81.3
cal 4	4	✔	50.0	50.4	100.9
cal 5	5	✔	75.0	75.4	100.5
cal-6	6	✔	100.0	100.5	100.5
cal-7	7	✔	250.0	251.4	100.6

Compound Calibration Report

Batch results	D:\MassHunter\Data\2021\am 25-26\082621\QuantResults\cann.batch.bin
Last Cal. Update	8/27/2021 1:54 PM
Analyst Name	ISP\datastor
Analyte	THC-OH
Internal Standard	THC-OH-d3



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✔	1.0	1.1	111.9
cal 2	2	✔	3.0	2.9	96.6
cal 3	3	✔	5.0	4.9	97.1
cal 4	4	✔	10.0	9.7	96.6
cal 5	5	✔	25.0	24.2	96.9
cal-6	6	✔	50.0	49.6	99.2
cal-7	7	✔	100.0	101.7	101.7