

AM 25 plate map extracted 9/24/20

AM #25 Multi-Drug Screen Results

Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Doxepin	4.347	456163	65.3	6.1	8048467	10.000
Doxylamine	3.595	6476260	313.1	651.3	3487071	10.000
EDDP	4.039	2563604	199.7	421412.2	1367232	10.000
Estazolam	4.361	2938045	424.5	721.3	10342930	10.000
Etizolam	4.478	122604	32219.6	192047.2	10342930	10.000
Fentanyl	4.555	72027	14.9	7142.5	3916635	10.000
Flualprazolam	4.310	527980	3329.0	144854.6	10342930	10.000
Flunitrazepam	4.404	1500324	2662.8	572.3	10342930	10.000
Fluoxetine	4.343	501204	52.6	335.9	1828451	10.000
Flurazepam	4.553	1114473	207091.4	49132.4	10342930	10.000
Hydrocodone	3.317	1066093	235.4	90.2	7744776	10.000
Hydromorphone	2.621	1174339	253.0	5288.2	315591	10.000
Imipramine	4.608	1343545	63.0	355.0	1970883	10.000
Ketamine	3.982	3073676	1570.4	118.4	10841804	10.000
Lamotrigine	3.428	223522	192.5	244166.8	21313123	10.000
Levamisole	3.173	1939608	97.3	73.4	26427265	10.000
Levetireacetam	2.295	528667	429.7	271.7	21313123	10.000
Lorazepam	4.249	90433	258.9	156.9	10342930	10.000
Maprotiline	4.471	118276	19.1	10.3	1970883	10.000
MDA	2.868	1814897	437.8	347.5	5545077	10.000
MDEA	3.142	2568822	398.7	119.5	5545077	10.000
MDMA	2.989	3415989	842.4	478.1	5545077	10.000
Meperidine	3.705	1601275	199.7	90.9	3487071	10.000
Meprobamate	3.402	230780	607.6	68.5	4272106	10.000
Methadone	4.404	1821982	208.5	97.4	1367232	10.000
Methamphetamine	2.841	1820264	120.0	52.8	5545077	10.000
Methocarbamol	3.307	209485	486.4	199.6	1367232	10.000
Methylphenidate	3.492	5630912	802.5	391.3	8845051	10.000
Metoprolol	3.321	505739	264.7	294.9	3487071	10.000
Midazolam	4.648	439449	98448.8	86820.1	10342930	10.000
Mirtazapine	4.519	1432663	2495.7	2035.0	3487071	10.000
Mitragynine	4.567	67956	19606.2	87900.8	3487071	10.000
Morphine	2.380	276926	753.4	684.3	315591	10.000
Norbuprenorphine	3.939	16385	109.8	3789.9	596823	10.000
Nordiazepam	4.549	951239	1753.2	643.1	10342930	10.000
Norfentanyl	3.171	4448014	887.4	1216.9	22363050	10.000
Norhydrocodone	2.863	65223	314.3	866.5	7744776	10.000
norketamine	3.937	526652	548.1	907.9	10841804	10.000
Normeperidine	3.523	1066168	334.7	230.8	21313123	10.000
Noroxycodone	2.754	1136822	71.6	158.0	10841804	10.000
Nortriptyline	4.519	430799	180.6	25.2	1970883	10.000
O-desmethyl-tramadol	2.729	5951743	18751.2	767.0	21313123	10.000
Olanzapine	4.189	72907	10.2	10.2	103782	10.000
Oxazepam	4.346	512937	145.9	27.3	3008362	10.000
Oxycodone	2.965	2715278	401.6	208.7	10841804	10.000
Oxymorphone	2.284	1055598	3054.9	852.1	7744776	10.000
Paroxetine	4.510	62879	41.8	3252.5	1828451	10.000
Phenazepam	4.477	1296071	1734.7	1701.2	10342930	10.000
Phencyclidine	3.905	2009930	747.9	229.8	3487071	10.000
Phentermine	2.977	22966	10.4	16.2	8845051	10.000
Phenytoin	3.935	183598	∞	50.5	103782	10.000
Promethazine	4.715	1563038	283.8	83.2	21313123	10.000
Pseudoephedrine	2.498	64653695	1785.6	1289.2	5545077	10.000
Quetiapine	4.721	2014886	312316.9	367582.5	37751399	10.000
Sertraline	4.743	342905	641.0	16.1	1828451	10.000
Sufentanil	4.948	59799	12314.4	60.5	22363050	10.000
Tapentadol	3.325	3465686	1567.5	321.0	10841804	10.000
Temazepam	4.514	1823404	248.4	102.6	10342930	10.000
Tramadol	3.336	6192812	1425.5	47.5	21313123	10.000
Trazodone	4.904	1696830	5145.0	432920.8	8048467	10.000

AM #25 Multi-Drug Screen Results

Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Venlafaxine	3.748	3920450	3412.9	96.3	1828451	10.000
Zaleplon	4.175	1107161	2671.3	4122.2	37751399	10.000
Zolpidem	4.390	7616726	1834507.0	5452.7	37751399	10.000
Zopiclone	4.399	613109	119098.9	63701.5	2917291	10.000

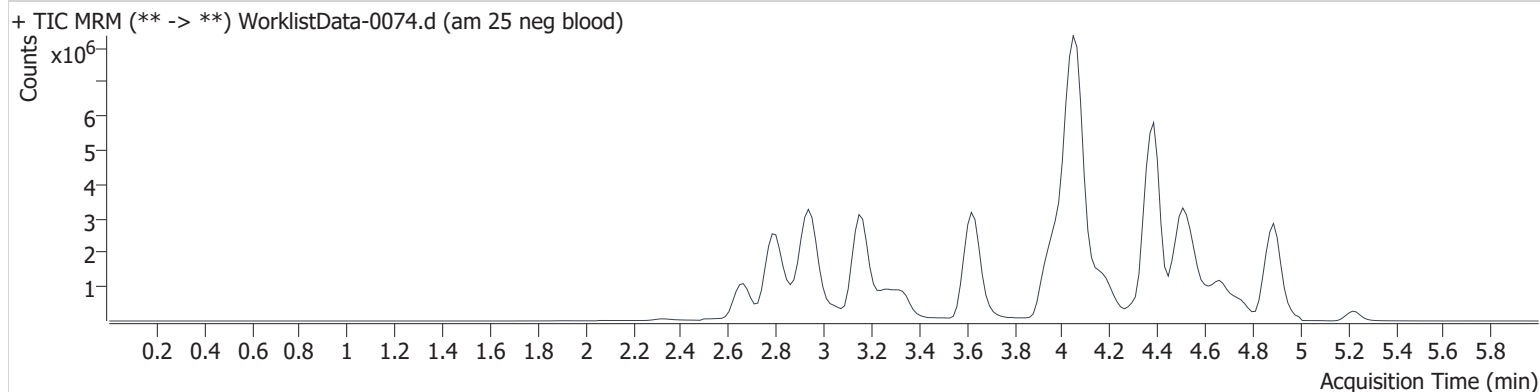
GA

AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\am 25-26 092420\QuantResults\mds.batch.bin
Calibration Last Update 9/26/2020 9:47:35 AM

Instrument	69679	Data File	WorklistData-0074.d
Type	Sample	Sample	am 25 neg blood
Acq. Method	mds 826.m	Operator	Anne Nord
Sample Position	P1-A5	Comment	
Injection Volume	2.5		
Acq. Date-Time	9/24/2020 1:07:55 PM		
Sample Info.			

Sample Chromatogram

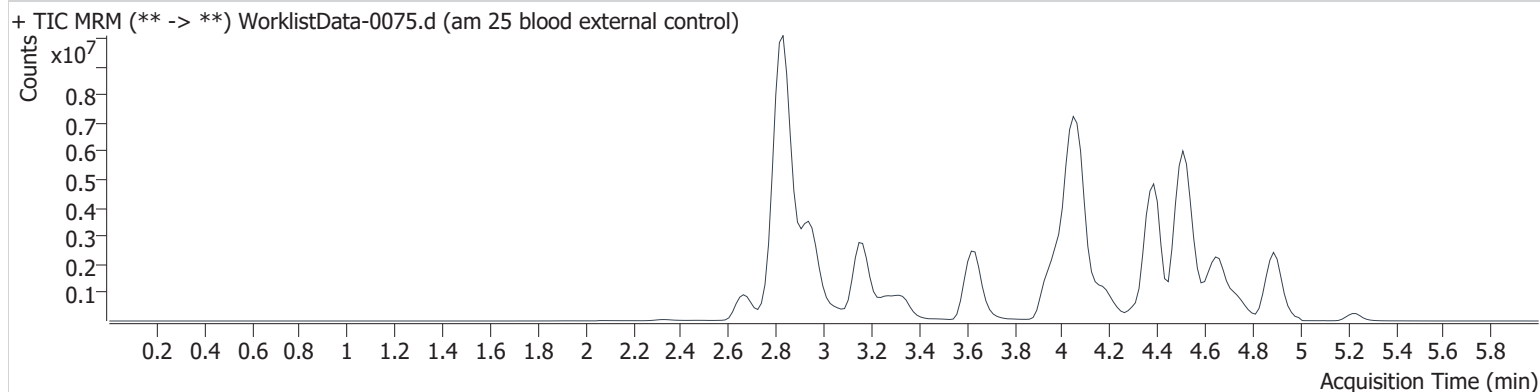


AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\am 25-26 092420\QuantResults\mds.batch.bin
Calibration Last Update 9/26/2020 9:47:35 AM

Instrument	69679	Data File	WorklistData-0075.d
Type	Sample	Sample	am 25 blood external control
Acq. Method	mds 826.m	Operator	Anne Nord
Sample Position	P1-B5	Comment	
Injection Volume	2.5		
Acq. Date-Time	9/24/2020 1:14:36 PM		
Sample Info.			

Sample Chromatogram



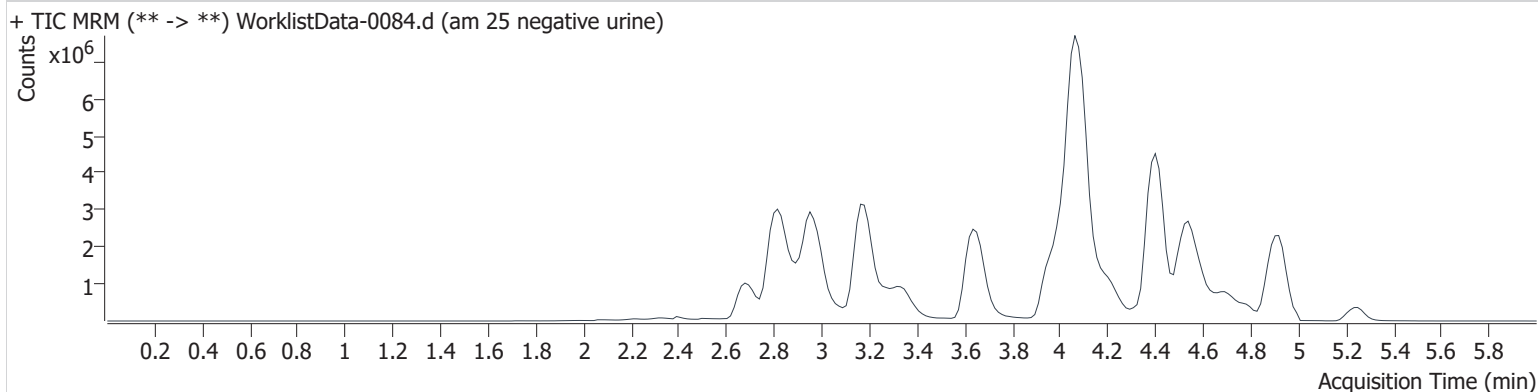
Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Methamphetamine	2.841	20526682	8875.2	474.8	9566146	65.366
Midazolam	4.648	2887929	572272.2	872613.3	7577744	89.698
Temazepam	4.514	12043139	1578.0	284.1	7577744	90.149

AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\am 25-26 092420\QuantResults\mds.batch.bin
Calibration Last Update 9/26/2020 9:47:35 AM

Instrument	69679	Data File	WorklistData-0084.d
Type	Sample	Sample	am 25 negative urine
Acq. Method	mds 826.m	Operator	Anne Nord
Sample Position	P1-C6	Comment	
Injection Volume	2.5		
Acq. Date-Time	9/24/2020 2:15:07 PM		
Sample Info.			

Sample Chromatogram



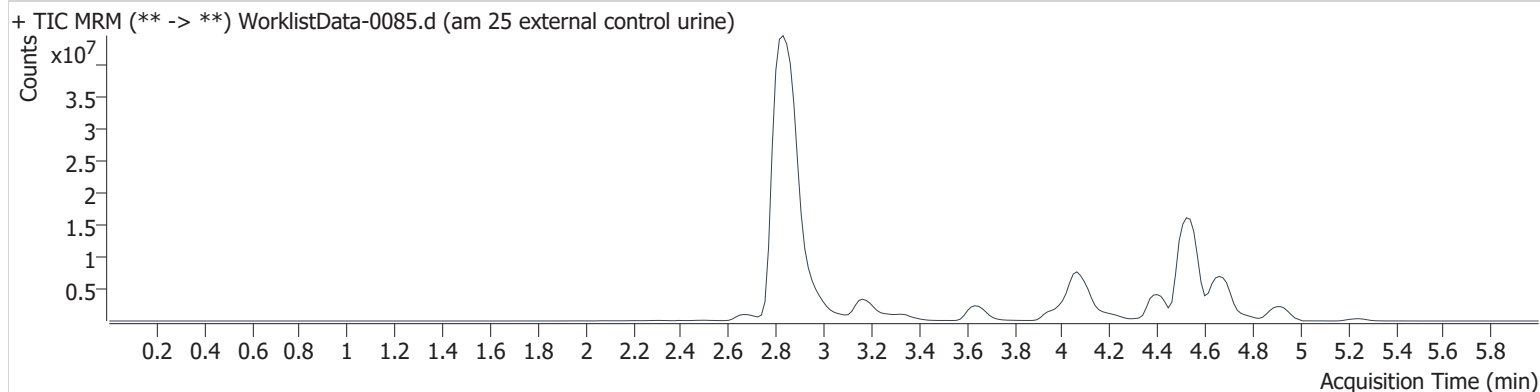
Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Methamphetamine	2.856	1443749	33.7	86.4	14042290	3.132 < 32

AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\am 25-26 092420\QuantResults\mds.batch.bin
Calibration Last Update 9/26/2020 9:47:35 AM

Instrument	69679	Data File	WorklistData-0085.d
Type	Sample	Sample	am 25 external control urine
Acq. Method	mds 826.m	Operator	Anne Nord
Sample Position	P1-D6	Comment	
Injection Volume	2.5		
Acq. Date-Time	9/24/2020 2:21:51 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Methamphetamine	2.841	108157649	∞	1249.7	11995704	274.666
Midazolam	4.672	17094489	2925.3	11992.7	6109567	658.537
Temazepam	4.538	61582749	18613.8	899.2	6109567	571.754

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

Extraction Date: 9/25/20 Analyst: Anne Nord

Plate lot#: 200723 Plate Expiration: 1/23/2021

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: 20G20792 **Urine Blank:** 73020 **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: Extracts run on both am 26 and am 30

Dropped 10 ng calibrator from THC curve top of internal standard peak cut off.

Toxicology AM method 27/26 external prep information

working solution 1 ug/ml in meoh C-THC, THC-OH, 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 8/26/20 Exp: 7/1/21 lot 82620 by AMN

Drug	lot	expiration
C-THC	FE01061702	3/1/2022
THC-OH	FE07221601	7/1/2021
THC	FE01041701	3/1/2022

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	
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AM 27/26 urine control 400 ul working solution lot (82620) in 9600 ul urine lot (73020)

out of use

ppd 8/26/20 Exp 7/1/21	lot u82620	Concentration 30 ng/ml THC, and 60 ng/ml C-THC, THC-OH	by amn	

AM 26 and AM 30 plate map extracted 9/24/20

	1	2	3	4	5	6
a	cal 100 ng	neg blood	1871-1			QC 1
b	cal 50 ng	1828-1	neg urine			cal 100 ng
c	cal 25 ng	1837-1	urine control			cal 50 ng
d	cal 10ng	1838-1	1803-1			cal 25 ng
e	cal 5 ng	1851-1	1805-1			cal 10ng
f	cal 3 ng	1860-1	1823-2			cal 5 ng
g	cal 1ng	1863-1	1830-1			cal 3 ng
h	QC 1	1840-1	1883-1			cal 1ng

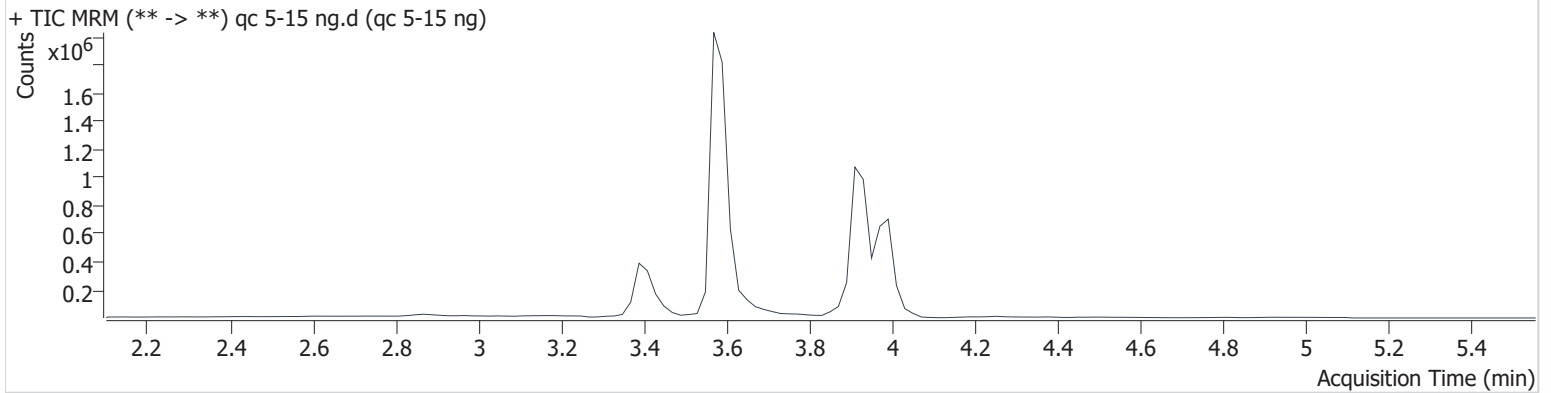
c2020-

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\am 25-26 092420\QuantResults\cann.batch.bin
Calibration Last Update 9/28/2020 11:59:04 AM

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	9/24/2020 6:05:49 PM		
Sample Info.			

Sample Chromatogram



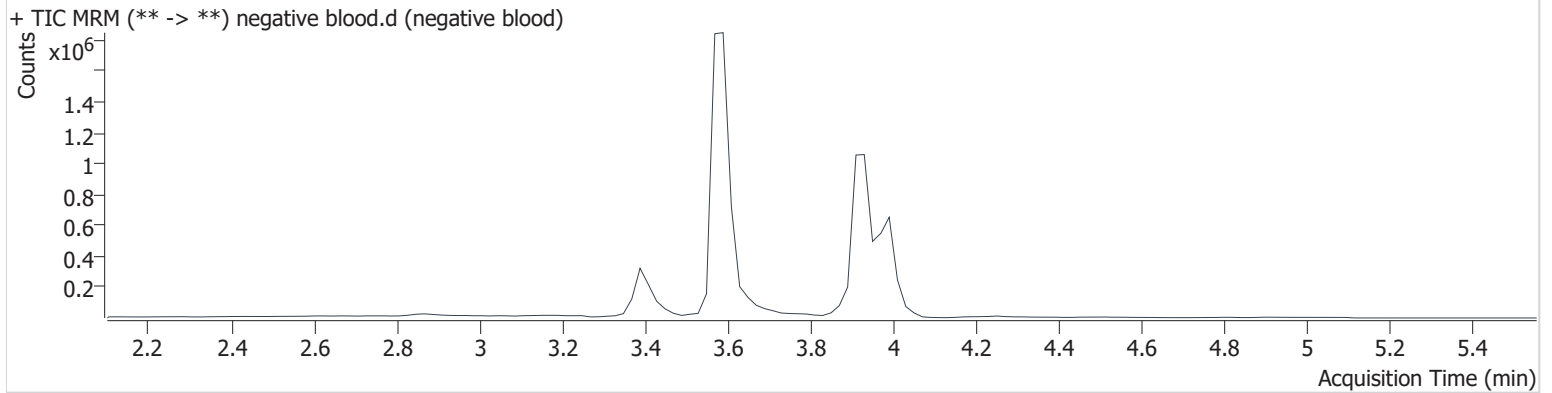
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.004	54236	1463820	5.637 ng/ml
THC-COOH	3.411	188122	821113	14.768 ng/ml
THC-OH	3.598	49359	5652929	4.334 ng/ml

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\am 25-26 092420\QuantResults\cann.batch.bin
Calibration Last Update 9/28/2020 11:59:04 AM

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	9/24/2020 6:12:26 PM		
Sample Info.			

Sample Chromatogram

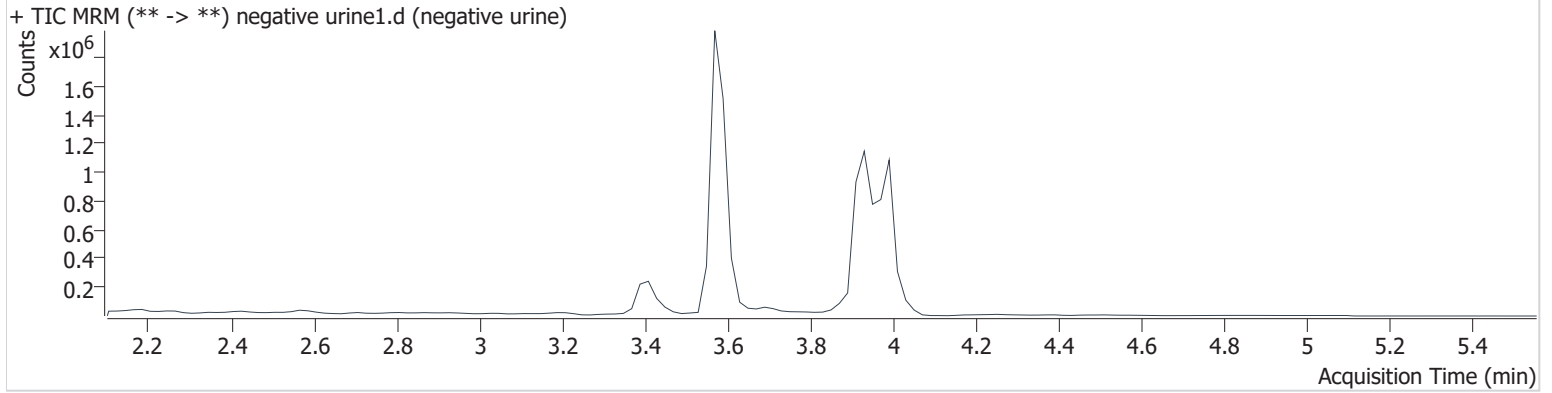


AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\am 25-26 092420\QuantResults\cann.batch.bin
Calibration Last Update 9/28/2020 11:59:04 AM

Instrument	69679	Data File	negative urine1.d
Type	Sample	Sample	negative urine
Acq. Method	am 26 cann scr 5-5-20.m	Operator	Anne Nord
Sample Position	P3-B3	Comment	
Injection Volume	5		
Acq. Date-Time	9/24/2020 7:12:01 PM		
Sample Info.			

Sample Chromatogram

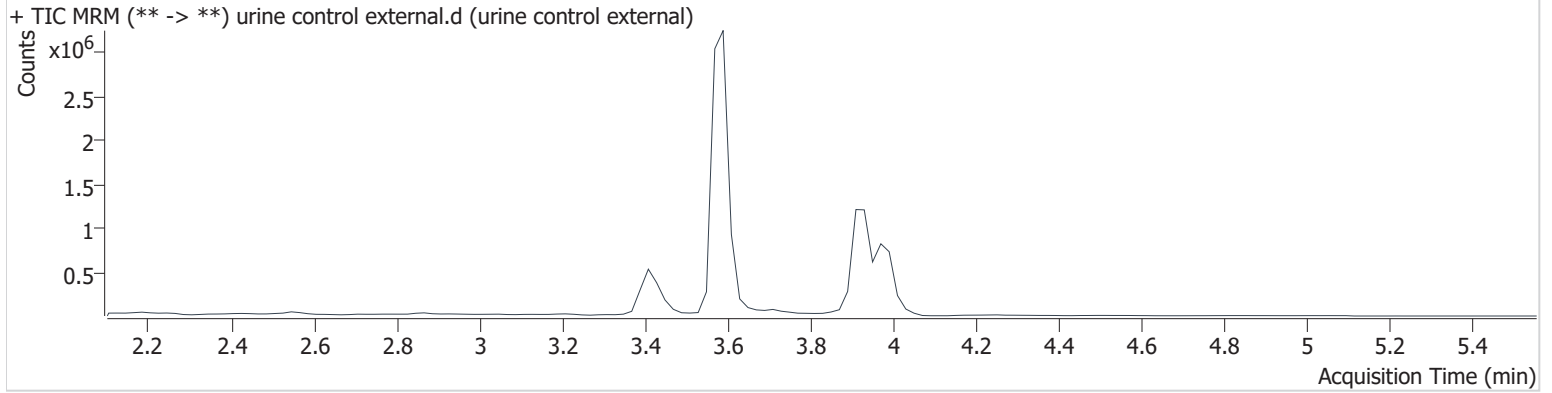


AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\am 25-26 092420\QuantResults\cann.batch.bin
Calibration Last Update 9/28/2020 11:59:04 AM

Instrument	69679	Data File	urine control external.d
Type	Sample	Sample	urine control external
Acq. Method	am 26 cann scr 5-5-20.m	Operator	Anne Nord
Sample Position	P3-C3	Comment	
Injection Volume	5		
Acq. Date-Time	9/24/2020 7:18:40 PM		
Sample Info.			

Sample Chromatogram



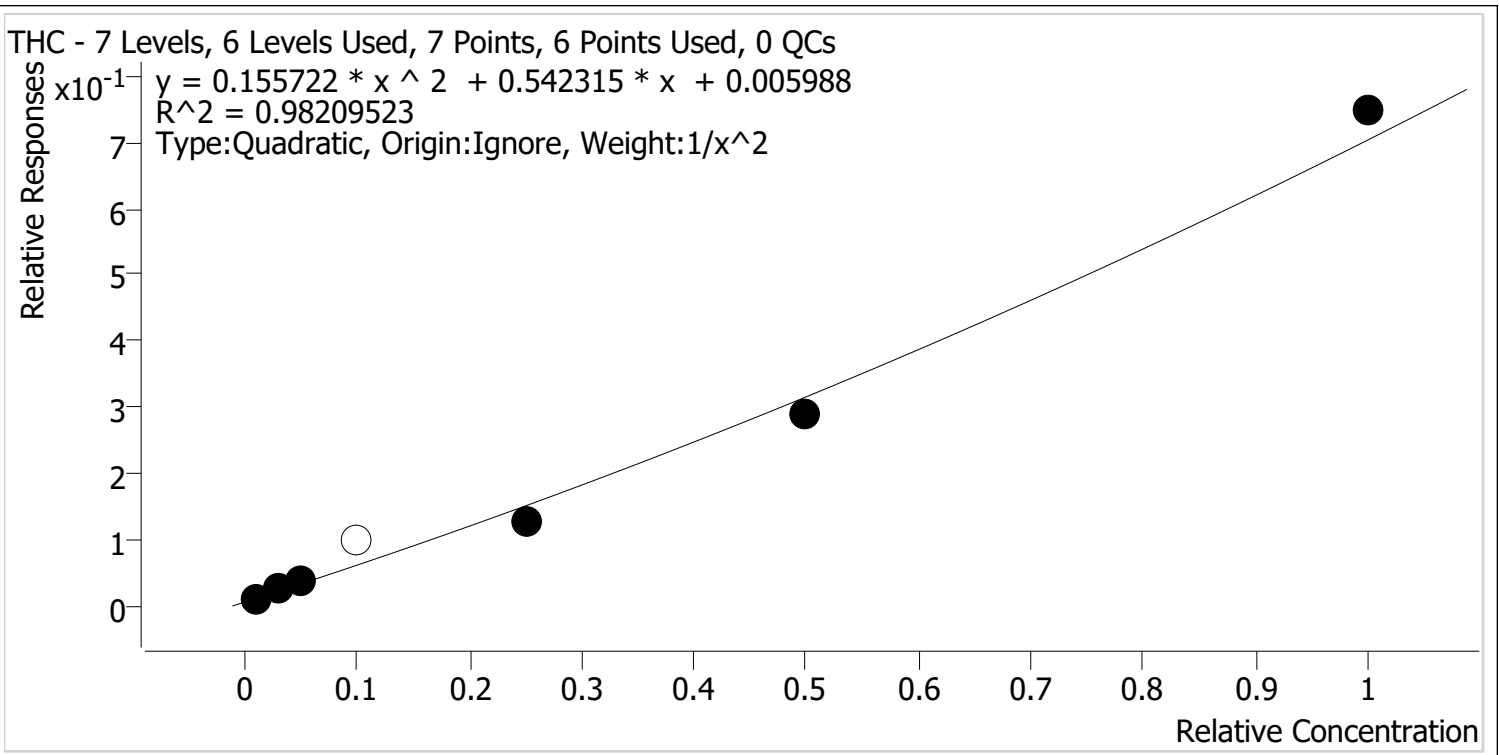
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.004	113323	1507785	12.319 ng/ml
THC-COOH	3.411	442152	775235	39.201 ng/ml
THC-OH	3.598	396672	6012942	33.149 ng/ml

Compound Calibration Report

Batch results D:\MassHunter\Data\am 25-26 092420\QuantResults\cann.batch.bin
Last Cal. Update 9/28/2020 11:59 AM
Analyst Name ISP\datastor
Analyte THC

Internal Standard THC-d3

THC - 7 Levels, 6 Levels Used, 7 Points, 6 Points Used, 0 QCs
 $y = 0.155722 * x^2 + 0.542315 * x + 0.005988$
 $R^2 = 0.98209523$
 Type: Quadratic, Origin: Ignore, Weight: 1/x^2



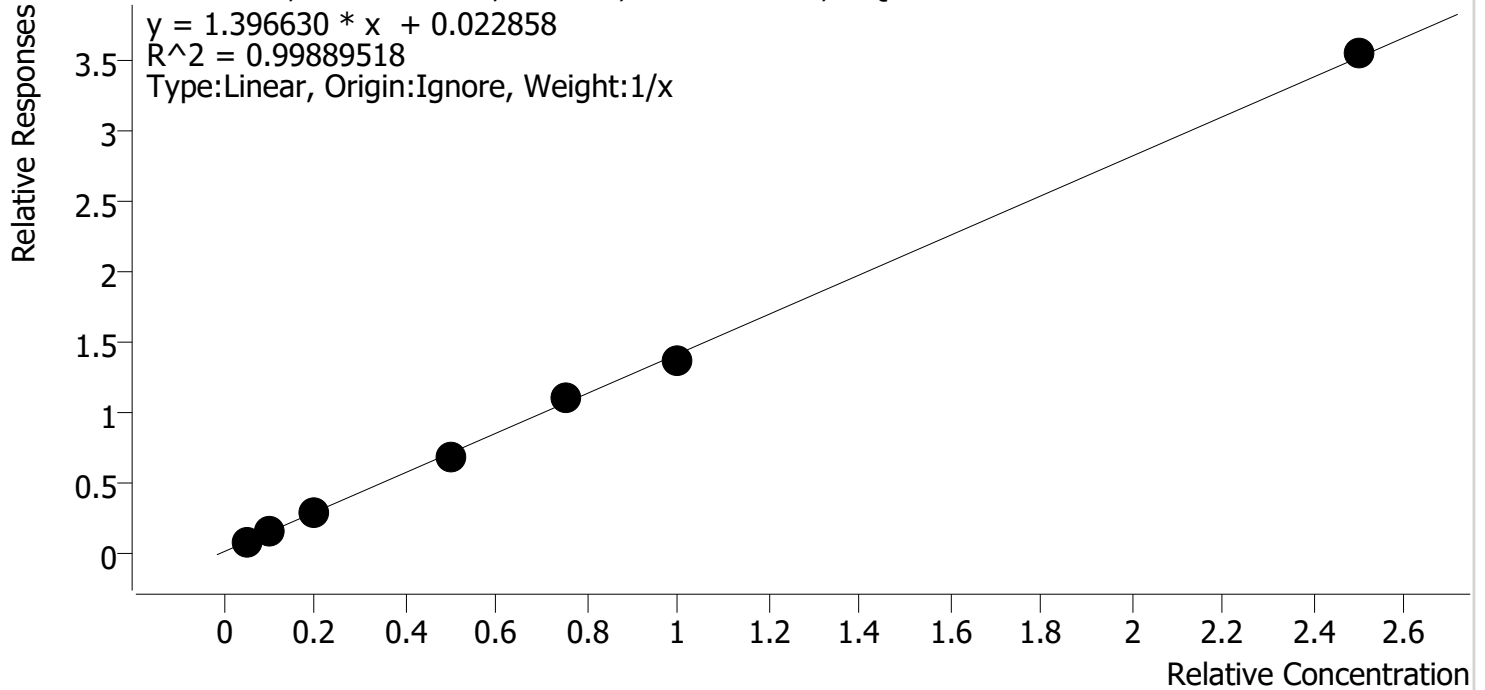
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
check std 1ng	1	✓	1.0	0.9	93.4
cal 2	2	✓	3.0	3.5	117.1
cal 3	3	✓	5.0	5.4	107.9
cal 4	4	x	10.0	16.1	160.7
cal 5	5	✓	25.0	21.0	83.9
cal-6	6	✓	50.0	46.5	93.0
cal-7	7	✓	100.0	105.1	105.1

Compound Calibration Report

Batch results D:\MassHunter\Data\am 25-26 092420\QuantResults\cann.batch.bin
Last Cal. Update 9/28/2020 11:59 AM
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



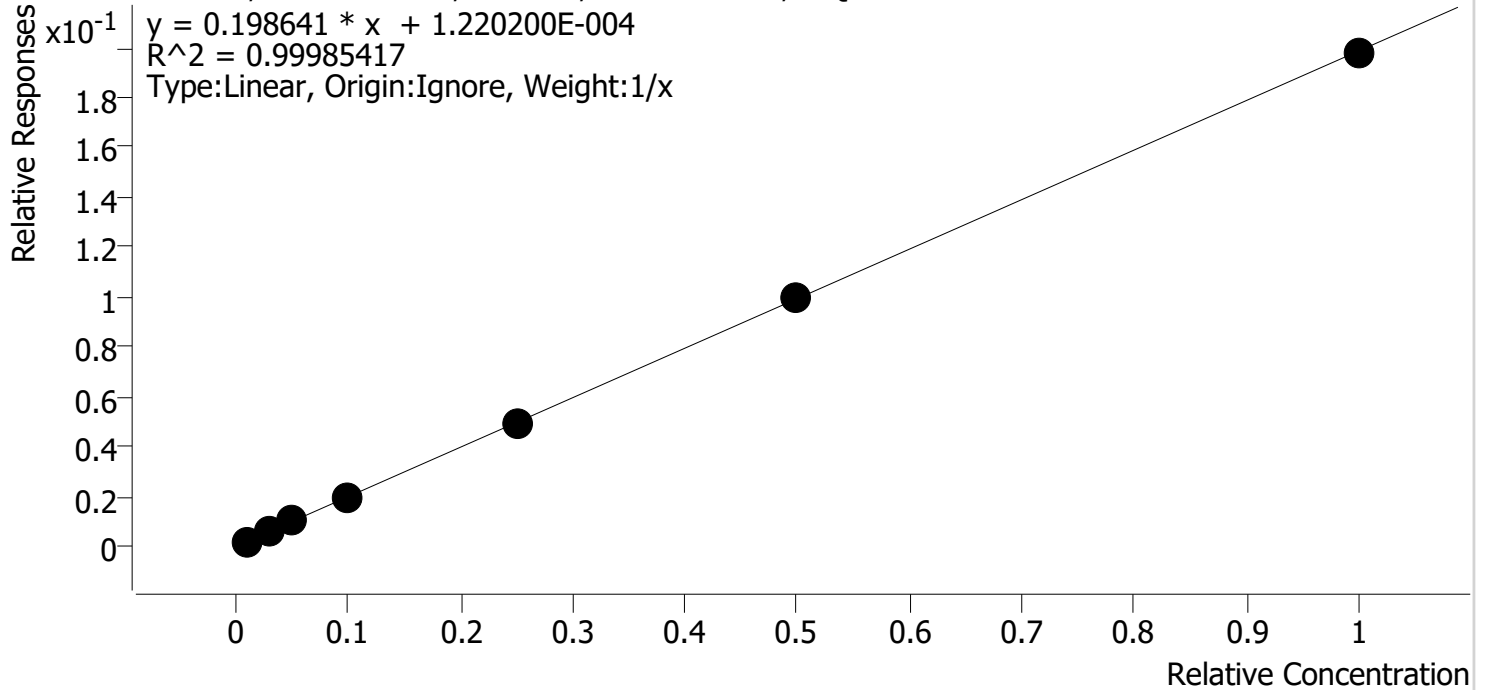
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
check std 1ng	1	✓	5.0	5.0	99.5
cal 2	2	✓	10.0	10.1	100.9
cal 3	3	✓	20.0	20.4	102.2
cal 4	4	✓	50.0	47.9	95.7
cal 5	5	✓	75.0	78.6	104.8
cal-6	6	✓	100.0	96.2	96.2
cal-7	7	✓	250.0	251.8	100.7

Compound Calibration Report

Batch results D:\MassHunter\Data\am 25-26 092420\QuantResults\cann.batch.bin
Last Cal. Update 9/28/2020 11:59 AM
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



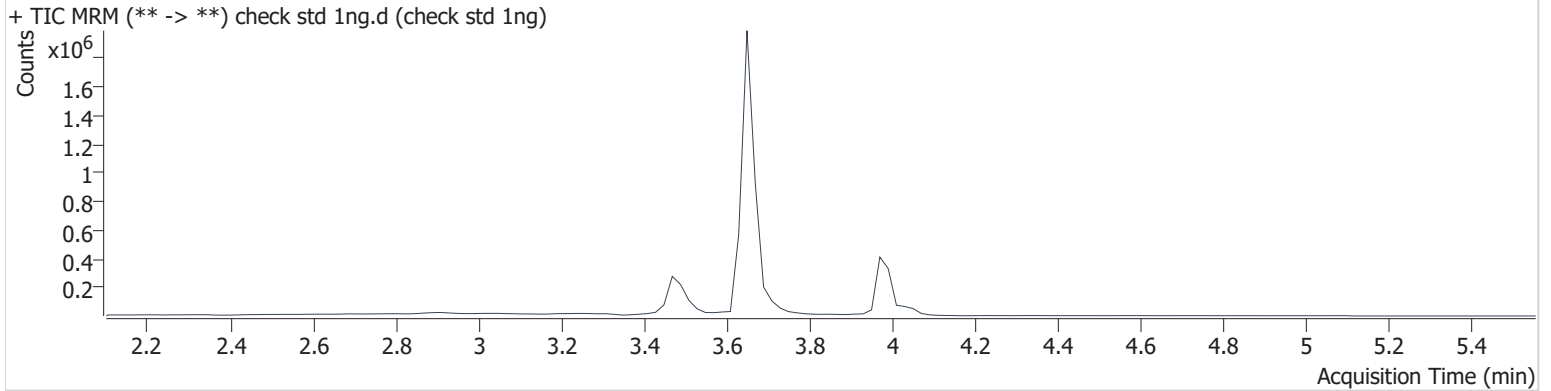
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
check std 1ng	1	✓	1.0	0.9	92.4
cal 2	2	✓	3.0	3.1	102.3
cal 3	3	✓	5.0	5.2	104.4
cal 4	4	✓	10.0	10.1	101.1
cal 5	5	✓	25.0	24.9	99.6
cal-6	6	✓	50.0	50.3	100.7
cal-7	7	✓	100.0	99.4	99.4

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\am 25-26 092420\QuantResults\cann.batch.bin
Calibration Last Update 9/28/2020 11:59:04 AM

Instrument	69679	Data File	check std 1ng.d
Type	Cal	Sample	check std 1ng
Acq. Method	am 26 cann scr 5-5-20.m	Operator	Anne Nord
Sample Position	P3-A1	Comment	
Injection Volume	5		
Acq. Date-Time	9/24/2020 5:12:49 PM		
Sample Info.			

Sample Chromatogram



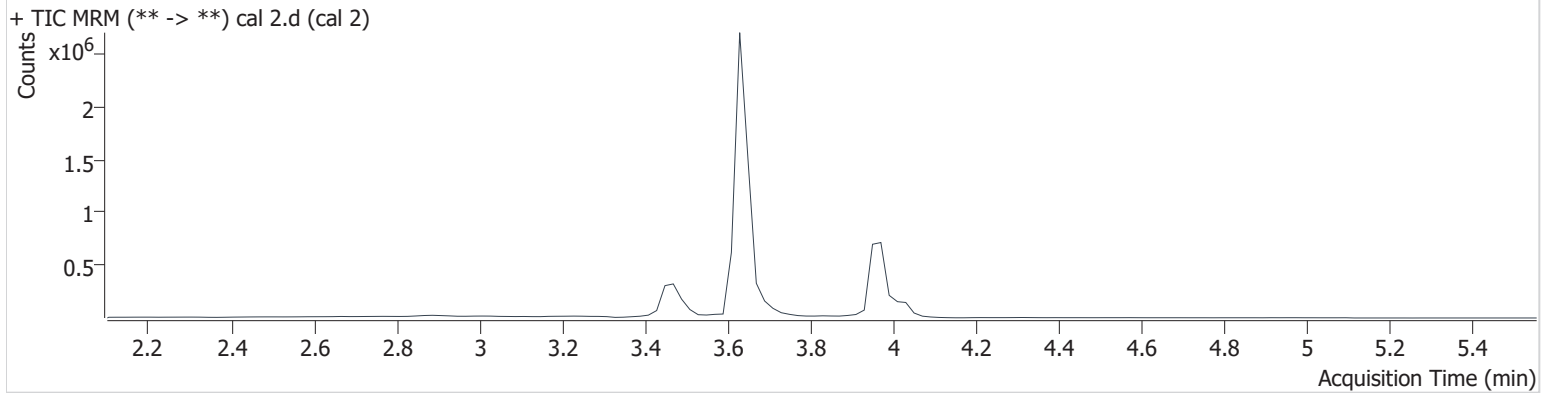
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.064	1411	127494	0.934 ng/ml Low
THC-COOH	3.491	66955	725156	4.974 ng/ml Low
THC-OH	3.658	8765	4476389	0.924 ng/ml Low

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\am 25-26 092420\QuantResults\cann.batch.bin
Calibration Last Update 9/28/2020 11:59:04 AM

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	9/24/2020 5:19:27 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.044	8177	323988	3.514 ng/ml
THC-COOH	3.471	133819	817069	10.090 ng/ml
THC-OH	3.638	38199	6140023	3.070 ng/ml

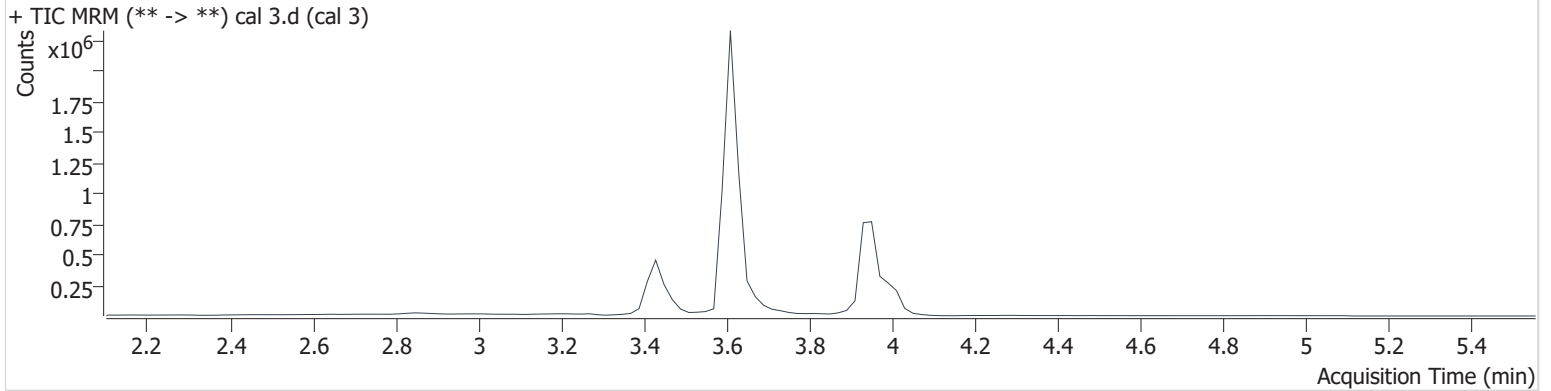
AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\am 25-26 092420\QuantResults\cann.batch.bin
Calibration Last Update 9/28/2020 11:59:04 AM

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	9/24/2020 5:26:05 PM		

Sample Info.

Sample Chromatogram



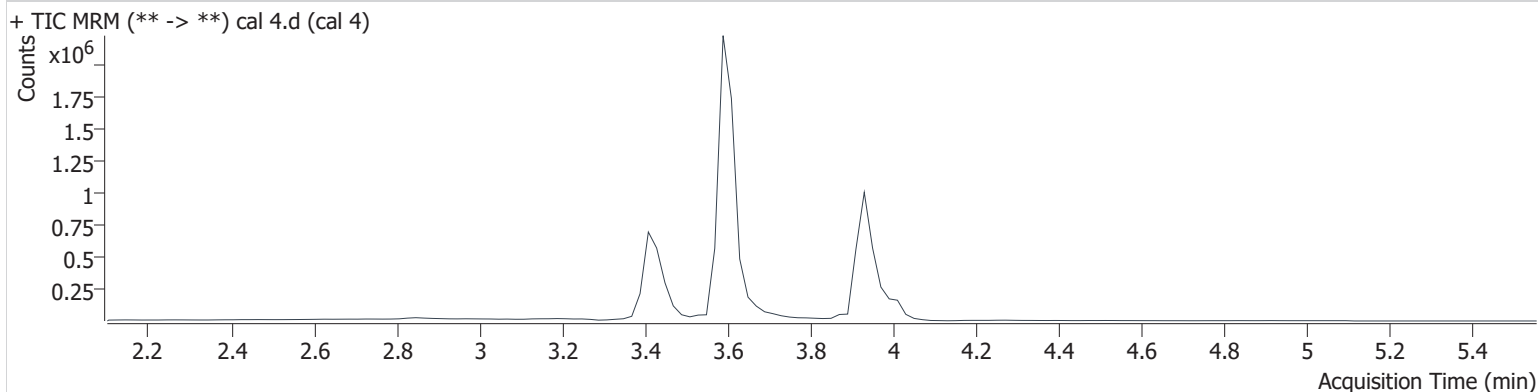
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.024	16616	465514	5.394 ng/ml
THC-COOH	3.431	253608	822757	20.434 ng/ml
THC-OH	3.618	58187	5545467	5.221 ng/ml

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\am 25-26 092420\QuantResults\cann.batch.bin
Calibration Last Update 9/28/2020 11:59:04 AM

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	9/24/2020 5:32:43 PM		
Sample Info.			

Sample Chromatogram



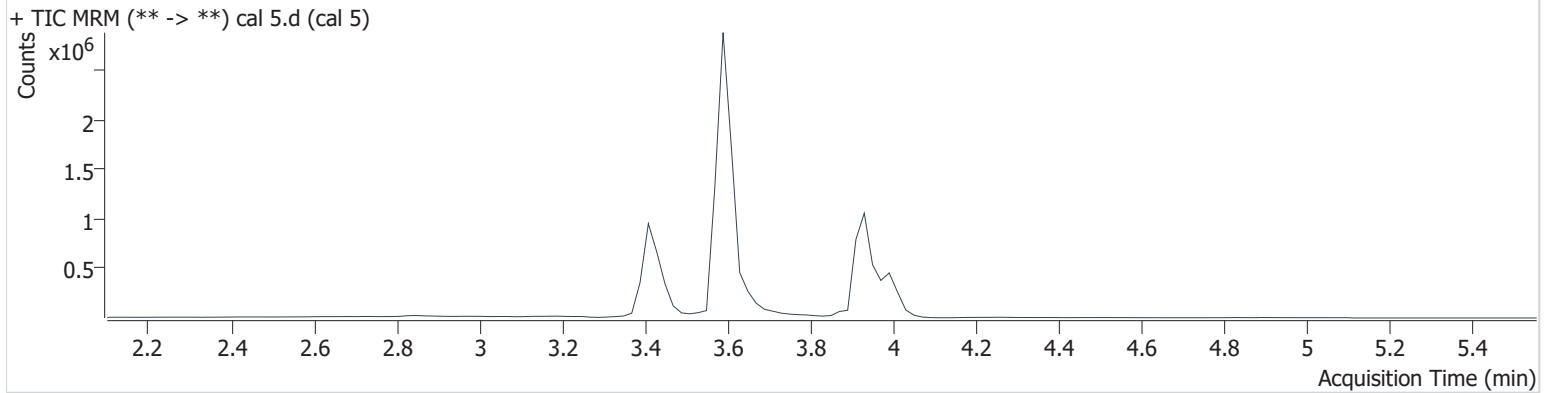
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.004	32182	331270	16.068 ng/ml
THC-COOH	3.411	585153	846638	47.850 ng/ml
THC-OH	3.598	110115	5451894	10.106 ng/ml

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\am 25-26 092420\QuantResults\cann.batch.bin
Calibration Last Update 9/28/2020 11:59:04 AM

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	9/24/2020 5:39:21 PM		
Sample Info.			

Sample Chromatogram



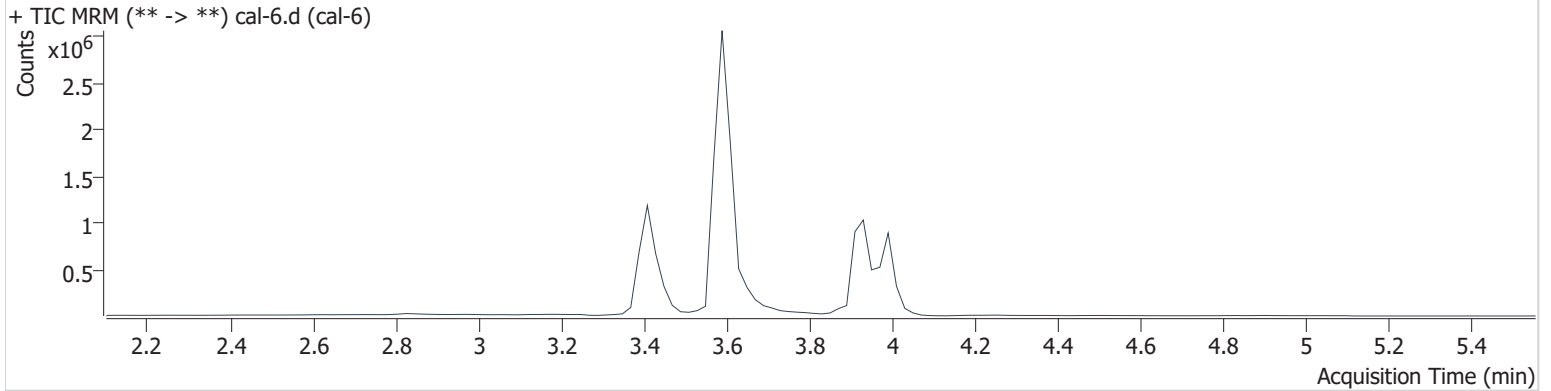
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.004	96552	762425	20.983 ng/ml
THC-COOH	3.411	867984	774810	78.574 ng/ml
THC-OH	3.598	284386	5733753	24.907 ng/ml

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\am 25-26 092420\QuantResults\cann.batch.bin
Calibration Last Update 9/28/2020 11:59:04 AM

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	9/24/2020 5:45:59 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.004	344132	1178849	46.513 ng/ml
THC-COOH	3.411	1133195	828949	96.244 ng/ml
THC-OH	3.598	499200	4986352	50.338 ng/ml

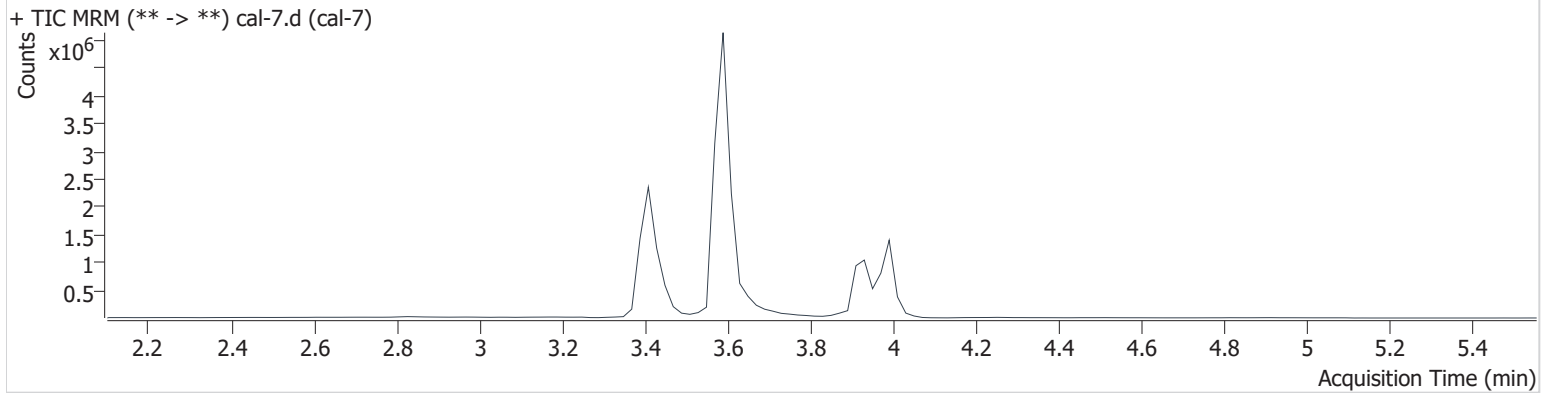
AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\am 25-26 092420\QuantResults\cann.batch.bin
Calibration Last Update 9/28/2020 11:59:04 AM

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	9/24/2020 5:52:38 PM		

Sample Info.

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.004	979997	1309881	105.121 ng/ml
THC-COOH	3.411	2623873	741199	251.833 ng/ml
THC-OH	3.598	1036873	5246347	99.433 ng/ml