

















**REVIEWED**

By Britany Wylie at 8:05 am, Nov 14, 2019

Worklist: 3823

<u>LAB CASE</u>	<u>ITEM</u>	<u>ITEM TYPE</u>	<u>DESCRIPTION</u>	
C2019-2054	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2019-2064	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2019-2065	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2019-2072	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2019-2074	1	UCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2019-2095	1	UCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2019-2113	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2019-2114	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2019-2119	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2019-2120	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2019-2121	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2019-2125	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2019-2126	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2019-2135	1	UCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2019-2147	1	UCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
M2018-2893	3	UCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	



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

Extraction Date: 11/7/19

Analyst: Anne Nord

Plate lot#: 0543908


Plate Expiration: November 28 2019

Mobile phase A: 10mM Amm Form
0.5M Ammonium Hydroxide

Mobile phase B: 0.1% Formic Acid in MeOH
Ethyl Acetate LC Methanol

~~Blank Blood Lot: 445283-2~~ **Blank Urine lot:** 11719 **Column:** Phenomenex Phenyl Hexyl (4.6x50mm, 2.6um)

LCMS-QQQ ID: 69679

blank blood lot 19H52275  11/15/19

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. *Shaker ID: 66759*
- 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. Place on SPE Dry and evaporate to dryness at approx. 35°C.
SPE Dry ID: 66819
- 16. Reconstitute in **100 µL 100% LC MeOH** and heat seal plate with foil. Place in autosampler and run worklist.

Post-Analytic

- 1. Open quantitation software and create a new quantitation batch.
- 2. Make necessary changes to integration limits
- 3. Evaluate samples, S/N of primary transition >5 and S/N of secondary transition >3 or evaluation of peak symmetry and resolution. Within +/- 2% or 0.1 min RT of administrative control. Calculated concentration 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: A calibrator was injected at the front of the run without allowing the mobile phases to equilibrate. That calibrator was not evaluated; one was injected at the end of the run and used in the evaluation.



Toxicology AM method 25 external prep information

working solution 10000 ng/ml in meoh Hydromorphone, Hydrocodone, Nortriptyline, Sertraline

Stock solution 1mg/ml 100 ul each in 9600ul meOH

ppd 5/20/19: Exp: 5/20/20 lot 52020

by baw

Drug	lot	expiration
Hydromorphone	FE04101502	6/1/2020
Hydrocodone	FE09091505	9/1/2020
nortriptyline	FN06191503	8/1/2020
sertraline	FN01081501	3/1/2020

AM 25 control 100 ul working solution (52020) in 9900 ul neg blood

ppd 5/20/19, exp 3/1/20 lot 52019

neg blood lot 19A207P3

by BAW

Concentration 100ng/ml hydrocodone, nortriptyline, sertraline, hydromorphone



Toxicology AM method 25 urine external control prep
working solution 10000 ng/ml in meoh Hydromorphone, Hydrocodone, Nortriptyline, Sertraline
Stock solution 1mg/ml 100 ul each in 9600ul meOH

ppd 5/20/19: Exp: 5/20/20 lot 52020 by baw

Drug	lot	expiration
Hydromorphone	FE04101502	6/1/2020
Hydrocodone	FE09091505	9/1/2020
nortriptyline	FN06191503	8/1/2020
sertraline	FN01081501	3/1/2020

AM 25 control 30 ul working solution (52020) in 270 ul negative urine

ppd 10/7/19, exp 3/1/20 lot 10719 negative urine lot 8919 by AMN

Concentration 100ng/ml hydrocodone, nortriptyline, sertraline, hydromorphone

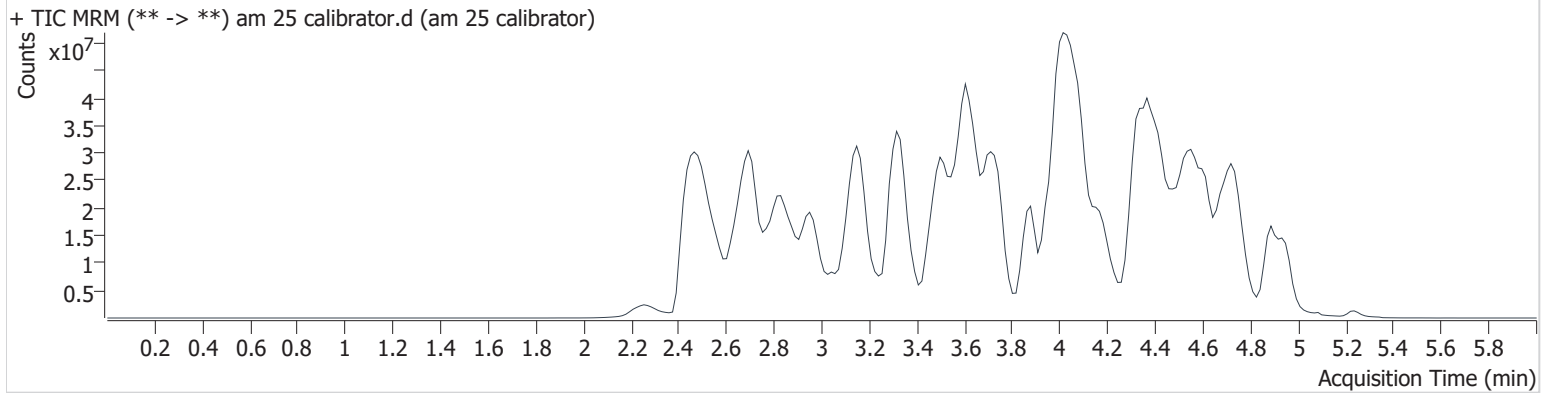
AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\2019\am 25-26\110719\QuantResults\mds.batch.bin
Calibration Last Update 11/8/2019 3:20:36 PM

Instrument 69679
Type Cal
Acq. Method am 25 short.m
Sample Position P2-B1
Injection Volume 2.5
Acq. Date-Time 11/8/2019 9:04:22 AM
Sample Info.

Data File am 25 calibrator.d
Sample am 25 calibrator
Operator Anne Nord
Comment

Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
6-MAM	3.085	193824	34.0	614.1	5058958	10.000
7-aminoclonazepam	3.289	383610	287.2	460.2	1598433	10.000
7-aminoflunitrazepam	3.532	4502324	4764.0	2280.6	23193719	10.000
Acetyl Fentanyl	4.322	1071388	210.0	733.1	52852315	10.000
Acetyl Norfentanyl	2.670	510074	398.6	333.9	34048507	10.000
a-hydroxyalprazolam	4.322	145904	76.5	16.5	895419	10.000
alpha-hydroxymidazolam	4.412	1260798	321.7	314.0	8419899	10.000
alpha-PVP	3.706	12890632	1932.8	786.7	44800733	10.000
Alprazolam	4.432	1727117	142.9	271.2	5686793	10.000
Amitriptyline	4.699	3888037	170.4	1124.5	19287455	10.000
Amphetamine	2.705	4925782	591.0	2526.7	14173022	10.000
Benzoylcegonine	3.074	2112771	817.2	703.1	10954263	10.000
Buprenorphine	5.250	792835	1728.4	84219.2	3400908	10.000
Bupropion	4.041	2082551	959.5	330.9	26622182	10.000
Carbamazepine	4.027	1847733	130.1	374.7	9267809	10.000
Carisoprodol	3.991	404982	831.3	33.0	3031728	10.000
Chlordiazepoxide	4.572	446857	131.5	46.5	10033979	10.000
Chlorpheniramine	4.052	18516	36.3	3307.6	66165120	10.000
Citalopram	4.121	6797501	374.3	1252.6	28373034	10.000
Clonazepam	4.261	546607	2119.4	550362.6	877227	10.000
Cocaine	3.650	17581312	7524.5	1389.6	59222835	10.000
Codeine	3.027	1260600	1418.2	688.7	5014604	10.000
Cyclobenzaprine	4.560	8716246	633.0	1127.2	35208645	10.000
Desipramine	4.469	10015998	482.1	329.0	46821082	10.000
Dextromethorphan	4.191	7954330	822.2	1101.2	38606477	10.000
Dextrorphan	3.352	6552025	1236.3	∞	33689579	10.000
Diazepam	4.697	753616	382.4	546.8	3633889	10.000
Dihydrocodeine	2.738	2870011	1439.0	575.3	13388077	10.000
Diphenhydramine	4.084	24110926	2325.0	1371.7	66165120	10.000
Doxepin	4.358	3734865	5098.1	13.9	22229536	10.000
Doxylamine	3.594	34478603	58114.7	100857.0	80786623	10.000
EDDP	4.020	12640265	413.8	214.3	57644428	10.000
Estazolam	4.341	2410825	691.9	717.9	6808093	10.000
Etizolam	4.443	268347	74716.5	996110.7	6808093	10.000



AM #25 Multi-Drug Screen Results

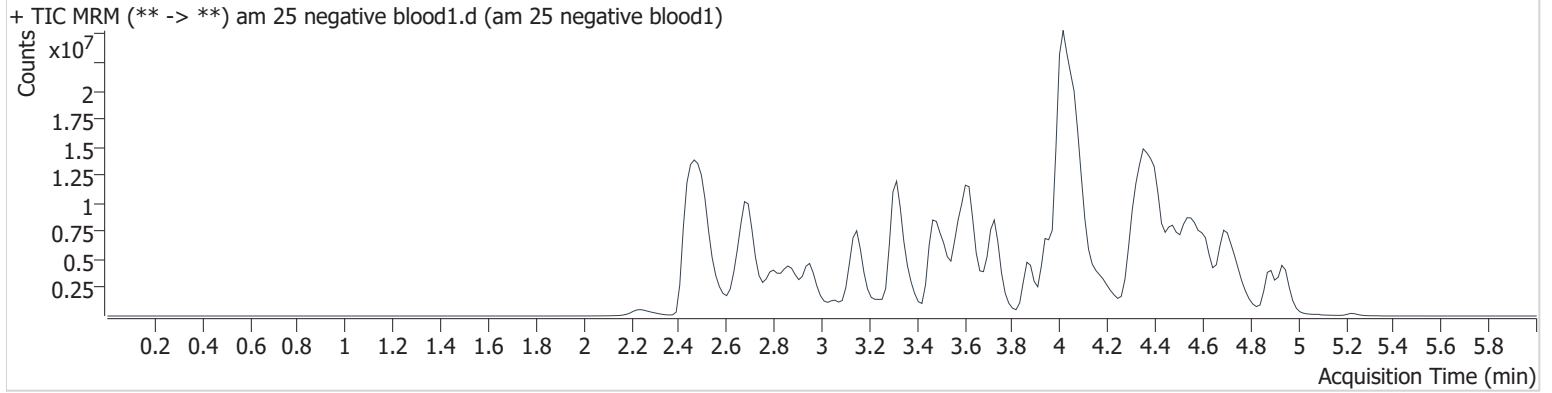
Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Fentanyl	4.551	908270	229.7	1619.5	40934017	10.000
Flunitrazepam	4.385	1222037	886.8	353.6	223594	10.000
Fluoxetine	4.324	5884526	2552.7	640.9	26727095	10.000
Flurazepam	4.549	7546734	26545.0	817.7	223594	10.000
Hydrocodone	3.286	1450220	30.8	∞	16958345	10.000
Hydromorphone	2.577	3602920	495.7	666.0	8139800	10.000
Imipramine	4.621	16157521	∞	1492.0	50788373	10.000
Ketamine	3.966	2463751	1445.7	116.2	25937018	10.000
Lamotrigine	3.413	806157	1203.0	4583.8	31631134	10.000
Levamisole	3.188	12263604	32987.8	654.4	59222835	10.000
Lorazepam	4.229	80398	∞	∞	5686793	10.000
Maprotiline	4.483	887801	15.5	234.0	19287455	10.000
MDA	2.869	6581369	1004.8	623.3	31300143	10.000
MDEA	3.142	15730999	1806.1	912.2	58438098	10.000
MDMA	2.975	17440733	1609.8	1489.1	9286496	10.000
Meperidine	3.703	6870432	307.7	∞	31631134	10.000
Meprobamate	3.402	811853	121380.3	226.2	3321620	10.000
Methadone	4.400	20013893	3678.0	2472.6	56428111	10.000
Methamphetamine	2.825	18566612	∞	5844.2	49267011	10.000
Methocarbamol	3.292	188520	1174.9	739.7	31631134	10.000
Methylphenidate	3.491	27205569	236063.5	6030.6	69960636	10.000
Metoprolol	3.290	1005553	5536.1	806838.9	31631134	10.000
Midazolam	4.629	1375709	2435.7	2616.2	17148090	10.000
Mirtazapine	4.531	4915609	720.3	1046.7	31631134	10.000
Mitragynine	4.579	1581586	491978.9	1001015. 8	22229536	10.000
Morphine	2.349	1036448	∞	1578.9	878051	10.000
Norbuprenorphine	3.906	160066	756.6	266.2	827831	10.000
Nordiazepam	4.530	319303	463.4	11905.5	971359	10.000
Norfentanyl	3.171	14554643	35970.1	2136.7	49338897	10.000
Norhydrocodone	2.833	213374	93.8	49.7	4736584	10.000
Normeperidine	3.522	4764026	746.5	644.4	17652117	10.000
Noroxycodone	2.739	2576102	∞	365.2	9306334	10.000
Nortriptyline	4.500	4190010	2915.2	805.0	10148629	10.000
O-desmethyl-tramadol	2.699	23899784	4204.7	359.1	67552422	10.000
Olanzapine	4.200	2836983	293.4	455.3	141007	10.000
Oxazepam	4.327	245036	73.1	19.2	1394426	10.000
Oxycodone	2.949	6913142	878.9	948.1	33516302	10.000
Oxymorphone	2.270	2883590	114.7	110.5	11014224	10.000
Paroxetine	4.505	631433	347.8	121.9	20303911	10.000
Phenazepam	4.473	534474	487.5	1296.7	2210296	10.000
Phencyclidine	3.887	16334930	1957.8	1123.6	53819386	10.000
Phentermine	2.977	3467045	∞	501.8	29820571	10.000
Phenytoin	3.917	23933	7534.2	4.9 Low	141007	10.000
Promethazine	4.743	21526729	31897.3	600.5	73896852	10.000
Pseudoephedrine	2.475	83377437	∞	3022.3	168917845	10.000
Quetiapine	4.718	8401611	4079.7	1040.3	11521126	10.000
Sertraline	4.755	4442531	6477.1	12622.7	20303911	10.000
Sufentanil	4.948	1115393	1795.2	710.8	46113046	10.000
Tapentadol	3.325	8089872	571.1	437.5	38684952	10.000
Temazepam	4.495	1510630	281.7	72.2	7257110	10.000
Tramadol	3.336	19178057	5433.3	147.9	65430404	10.000
Trazodone	4.888	10519214	6585.4	65189.4	38183724	10.000
Venlafaxine	3.746	21723018	84125.7	1470.7	61934246	10.000
Zaleplon	4.156	2180943	2085.0	2900.3	6880256	10.000
Zolpidem	4.371	19810996	5325.7	6842.8	52232861	10.000
Zopiclone	4.380	495525	340.4	617.7	2484513	10.000

AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\2019\am 25-26\110719\QuantResults\mds.batch.bin
Calibration Last Update 11/8/2019 3:20:36 PM

Instrument	69679	Data File	am 25 negative blood1.d
Type	Sample	Sample	am 25 negative blood1
Acq. Method	am 25 short.m	Operator	Anne Nord
Sample Position	P2-C1	Comment	
Injection Volume	2.5		
Acq. Date-Time	11/7/2019 6:18:03 PM		
Sample Info.			

Sample Chromatogram

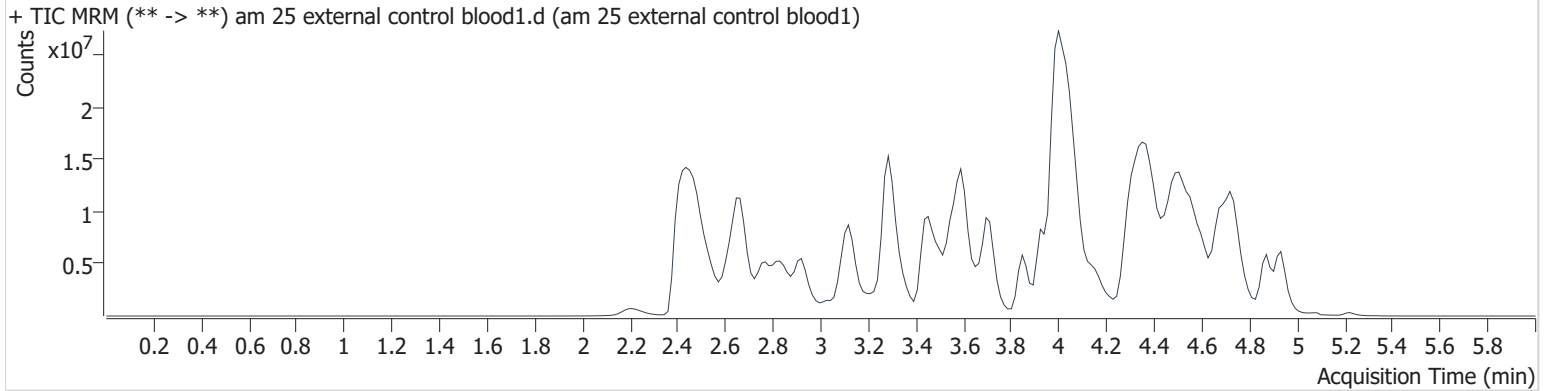


AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\2019\am 25-26\110719\QuantResults\mds.batch.bin
Calibration Last Update 11/8/2019 3:20:36 PM

Instrument	69679	Data File	am 25 external control blood1.d
Type	Sample	Sample	am 25 external control blood1
Acq. Method	am 25 short.m	Operator	Anne Nord
Sample Position	P2-D1	Comment	
Injection Volume	2.5		
Acq. Date-Time	11/7/2019 6:25:11 PM		
Sample Info.			

Sample Chromatogram



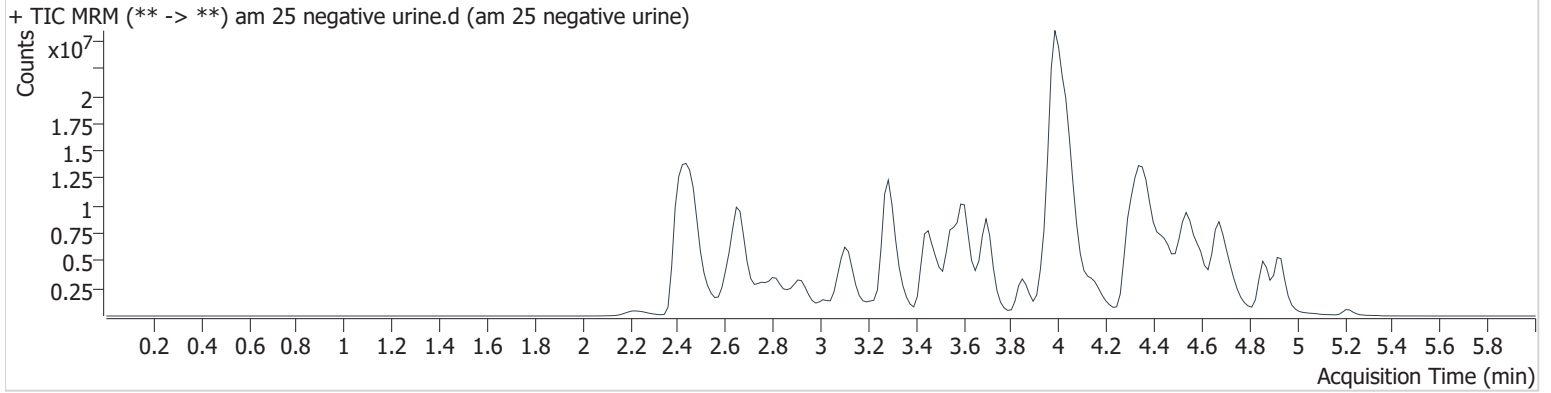
Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Hydrocodone	3.256	7593091	880.6	492.8	5743845	154.584
Hydromorphone	2.531	7417565	848.2	726.8	2842256	58.960
Nortriptyline	4.500	15992970	3003.1	1325.7	4819943	80.367
Sertraline	4.740	14339310	4140263.2	1760.1	8195847	79.962

AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\2019\am 25-26\110719\QuantResults\mds.batch.bin
Calibration Last Update 11/8/2019 3:20:36 PM

Instrument	69679	Data File	am 25 negative urine.d
Type	Sample	Sample	am 25 negative urine
Acq. Method	am 25 short.m	Operator	Anne Nord
Sample Position	P2-H2	Comment	
Injection Volume	2.5		
Acq. Date-Time	11/7/2019 7:50:45 PM		
Sample Info.			

Sample Chromatogram

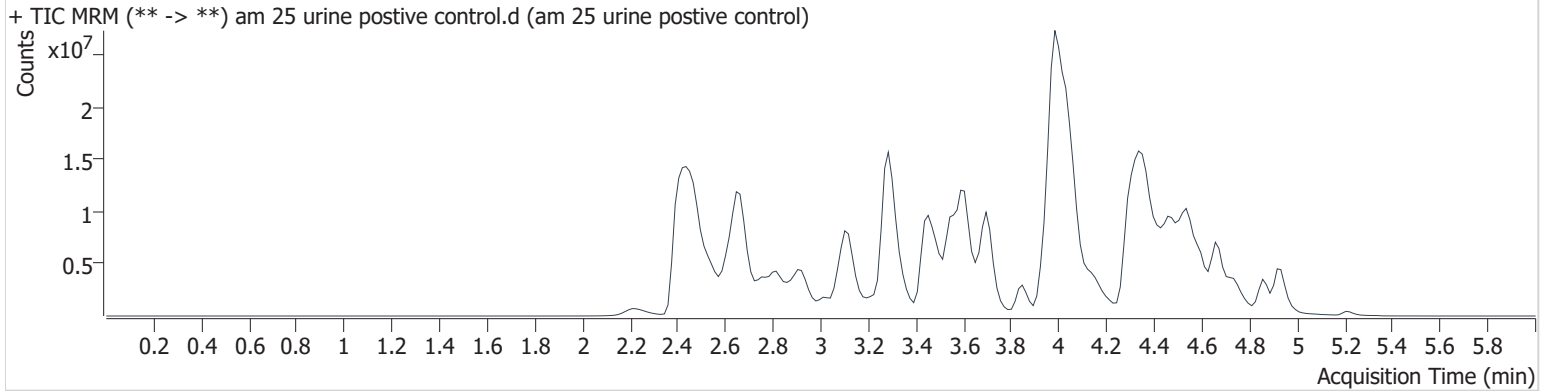


AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\2019\am 25-26\110719\QuantResults\mds.batch.bin
Calibration Last Update 11/8/2019 3:20:36 PM

Instrument	69679	Data File	am 25 urine positive control.d
Type	Sample	Sample	am 25 urine positive control
Acq. Method	am 25 short.m	Operator	Anne Nord
Sample Position	P2-A3	Comment	
Injection Volume	2.5		
Acq. Date-Time	11/7/2019 7:57:53 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Hydrocodone	3.271	5783159	1171.6	529.4	6136090	110.210
Hydromorphone	2.546	6885305	1589.5	2564.8	3365221	46.224
Nortriptyline	4.485	8748022	5958.6	1233.0	4274164	49.574
Sertraline	4.740	2451684	461.1	107.3	2552246	43.903



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

Extraction Date: 11/7/19

Analyst: Anne Nord

Plate lot#: 190716

Plate Expiration: 01/16/2020

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

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

^{11/15/19} ~~Blank Blood Lot: 445283-2~~ **Urine Blank:** 11719 **Column:** Phenomenex Phenyl Hexyl (4.6x50mm: 2.6 um)
LCMS-QQQ ID: 69679 blank blood lot 19H52275 ^{11/15/19} **A**

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. Shaker ID: 66759
- 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:



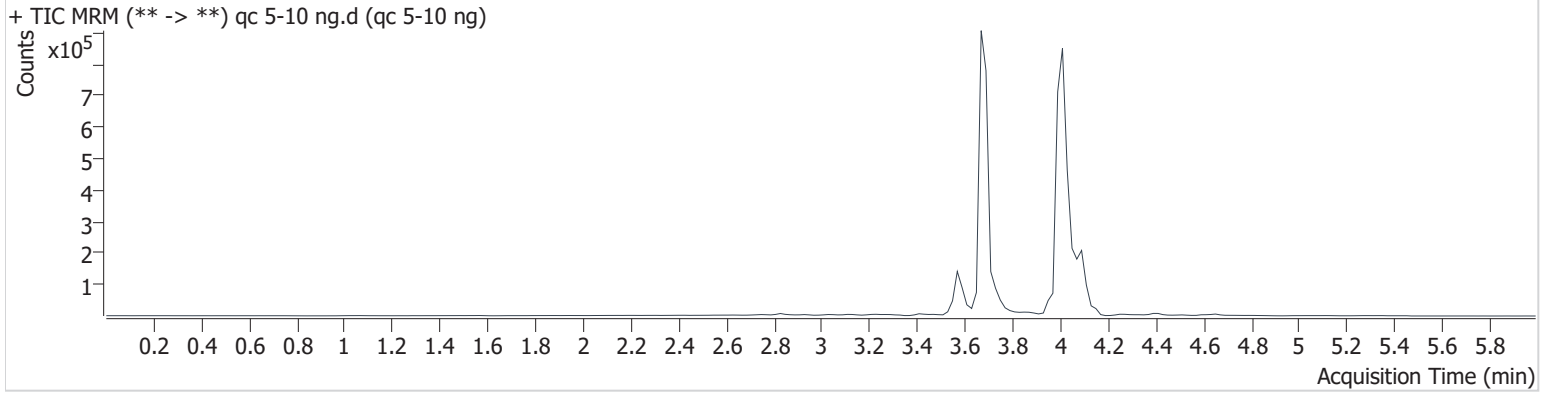
AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2019\am 25-26\110719\QuantResults\cann screen.batch.bin
Calibration Last Update 11/8/2019 8:27:42 AM

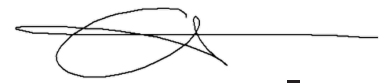
Instrument	69679	Data File	qc 5-10 ng.d
Type	QC	Sample	qc 5-10 ng
Acq. Method	am 26 cann screen.m	Operator	Anne Nord
Sample Position	P3-H1	Comment	
Injection Volume	5		
Acq. Date-Time	11/7/2019 3:36:52 PM		

Sample Info.

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.080	35659	356204	6.751 ng/ml
THC-COOH	3.590	47042	275312	13.966 ng/ml
THC-OH	3.676	17307	2291267	4.529 ng/ml

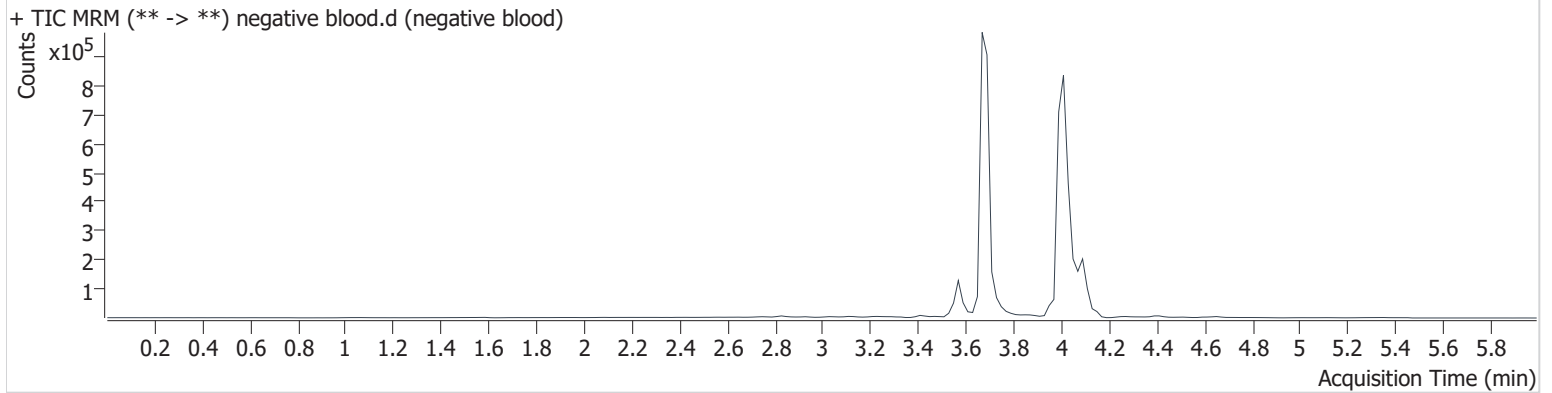


AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2019\am 25-26\110719\QuantResults\cann screen.batch.bin
Calibration Last Update 11/8/2019 8:27:42 AM

Instrument	69679	Data File	negative blood.d
Type	Sample	Sample	negative blood
Acq. Method	am 26 cann screen.m	Operator	Anne Nord
Sample Position	P3-A2	Comment	
Injection Volume	5		
Acq. Date-Time	11/7/2019 3:43:28 PM		
Sample Info.			

Sample Chromatogram

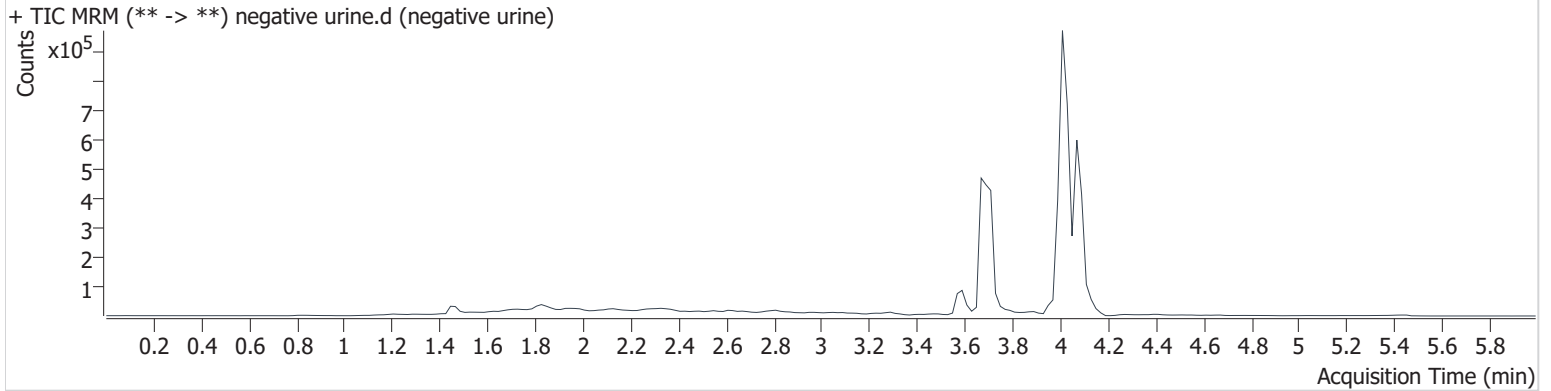


AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2019\am 25-26\110719\QuantResults\cann screen.batch.bin
Calibration Last Update 11/8/2019 8:27:42 AM

Instrument	69679	Data File	negative urine.d
Type	Sample	Sample	negative urine
Acq. Method	am 26 cann screen.m	Operator	Anne Nord
Sample Position	P3-E3	Comment	
Injection Volume	5		
Acq. Date-Time	11/7/2019 4:56:02 PM		
Sample Info.			

Sample Chromatogram



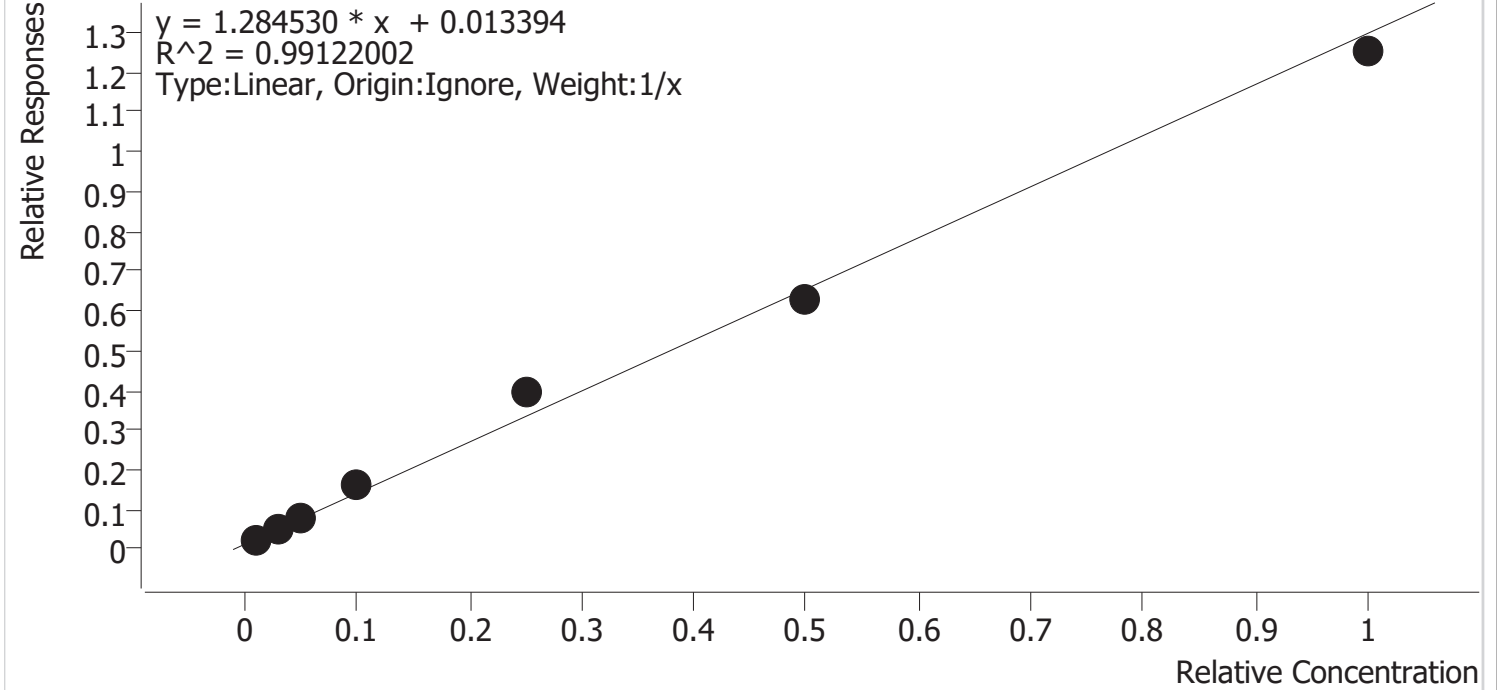
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC-COOH	3.590	15862	261213	4.965 ng/ml Low

Compound Calibration Report



Batch results D:\MassHunter\Data\2019\am 25-26\110719\QuantResults\cann screen.batch.bin
Last Cal. Update 11/8/2019 8:27 AM
Analyst Name ISP\datastor
Analyte THC **Internal Standard** THC-d3

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



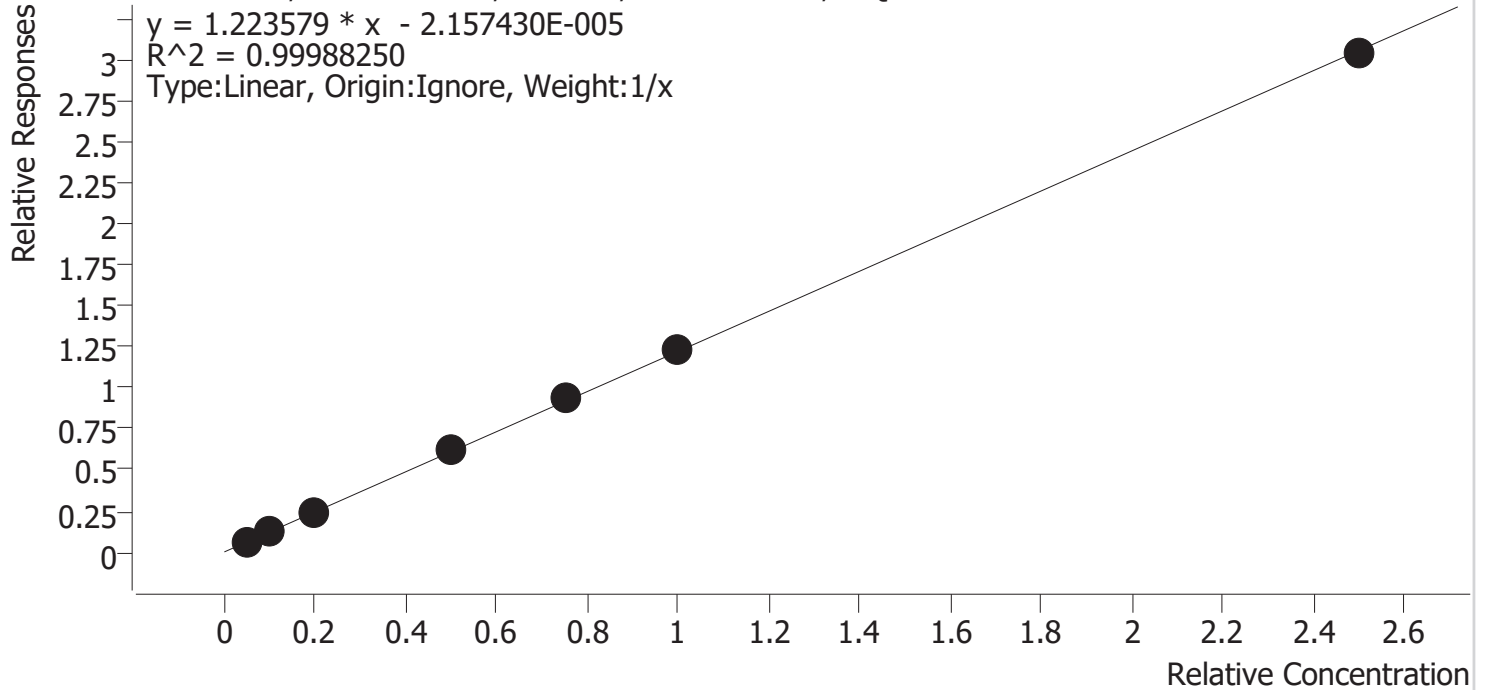
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
check std 1ng	1	✓	1.0	0.9	89.0
cal 2	2	✓	3.0	2.6	86.4
cal 3	3	✓	5.0	4.9	97.9
cal 4	4	✓	10.0	11.5	115.2
cal 5	5	✓	25.0	29.9	119.4
cal-6	6	✓	50.0	47.9	95.7
cal-7	7	✓	100.0	96.4	96.4

Compound Calibration Report



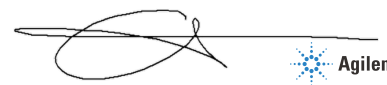
Batch results D:\MassHunter\Data\2019\am 25-26\110719\QuantResults\cann screen.batch.bin
Last Cal. Update 11/8/2019 8:27 AM
Analyst Name ISP\datastor
Analyte THC-COOH **Internal Standard** THC-COOH-d9

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



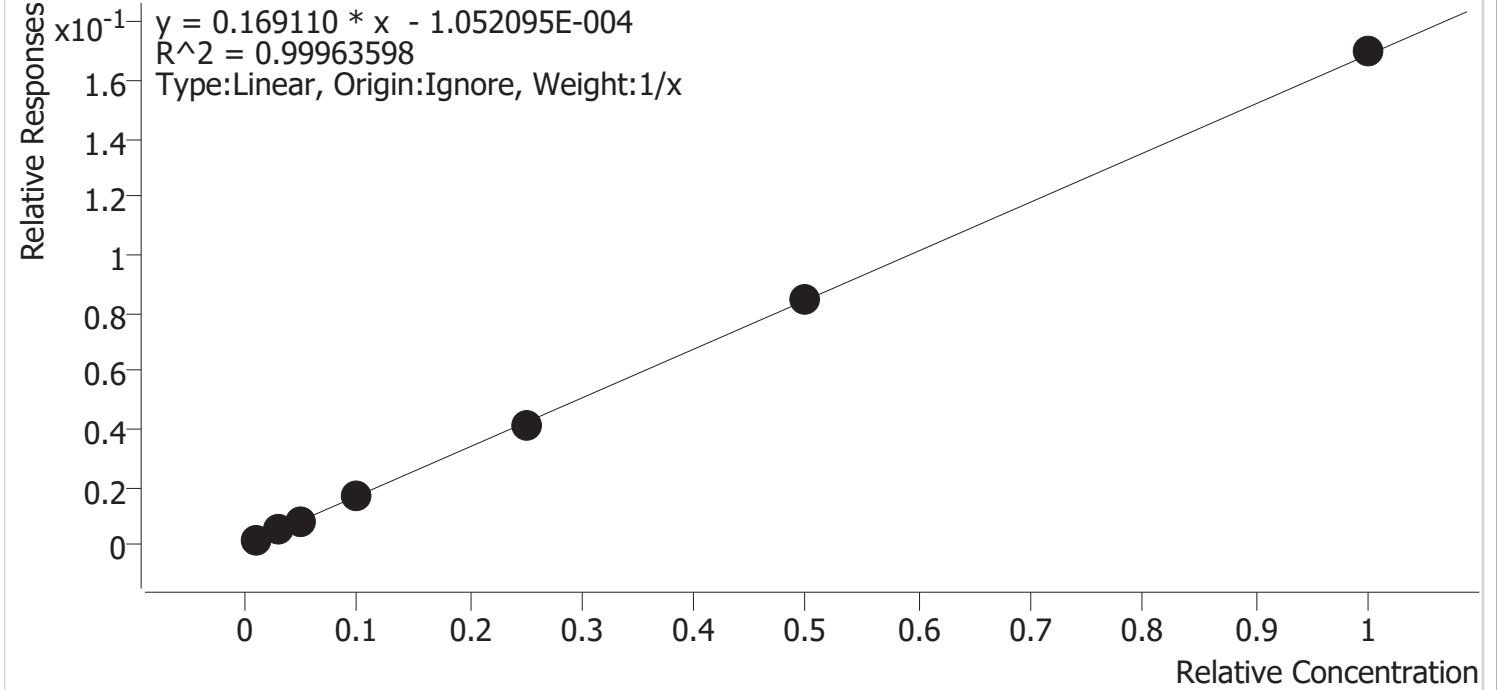
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
check std 1ng	1	✓	5.0	5.1	102.1
cal 2	2	✓	10.0	9.7	97.2
cal 3	3	✓	20.0	19.7	98.5
cal 4	4	✓	50.0	50.5	101.0
cal 5	5	✓	75.0	76.0	101.3
cal-6	6	✓	100.0	100.6	100.6
cal-7	7	✓	250.0	248.4	99.4

Compound Calibration Report

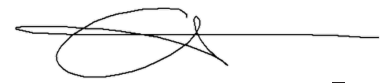


Batch results D:\MassHunter\Data\2019\am 25-26\110719\QuantResults\cann screen.batch.bin
Last Cal. Update 11/8/2019 8:27 AM
Analyst Name ISP\datastor
Analyte THC-OH **Internal Standard** THC-OH-d3

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	1.1	109.2
cal 2	2	✓	3.0	2.9	98.0
cal 3	3	✓	5.0	4.7	94.3
cal 4	4	✓	10.0	10.0	100.2
cal 5	5	✓	25.0	24.2	96.7
cal-6	6	✓	50.0	50.4	100.8
cal-7	7	✓	100.0	100.7	100.7



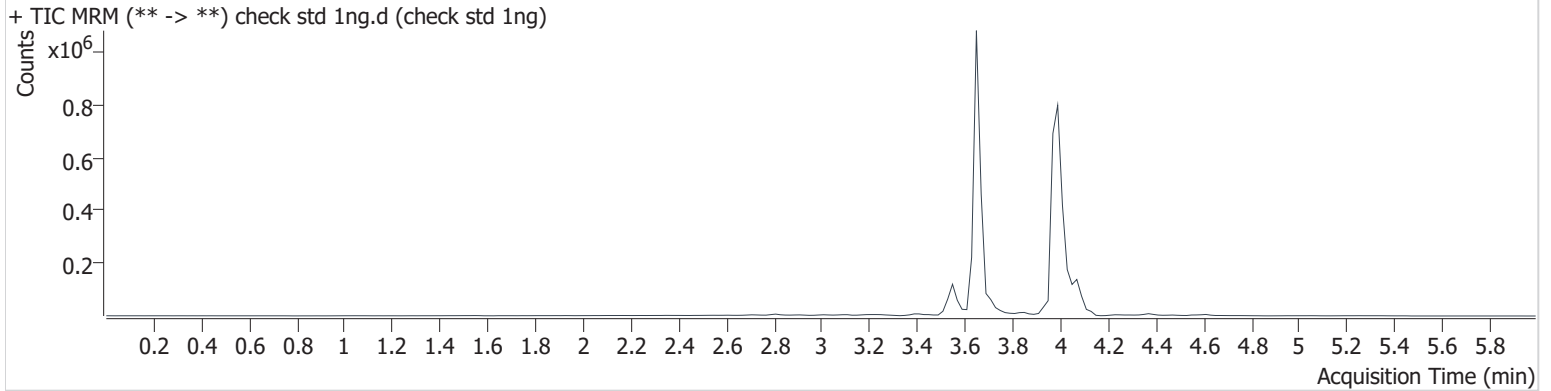
AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2019\am 25-26\110719\QuantResults\cann screen.batch.bin
Calibration Last Update 11/8/2019 8:27:42 AM

Instrument	69679	Data File	check std 1ng.d
Type	Cal	Sample	check std 1ng
Acq. Method	am 26 cann screen.m	Operator	Anne Nord
Sample Position	P3-G1	Comment	
Injection Volume	5		
Acq. Date-Time	11/7/2019 2:44:10 PM		

Sample Info.

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.060	5784	232982	0.890 ng/ml Low
THC-COOH	3.570	18056	289279	5.103 ng/ml Low
THC-OH	3.656	3967	2276814	1.092 ng/ml Low

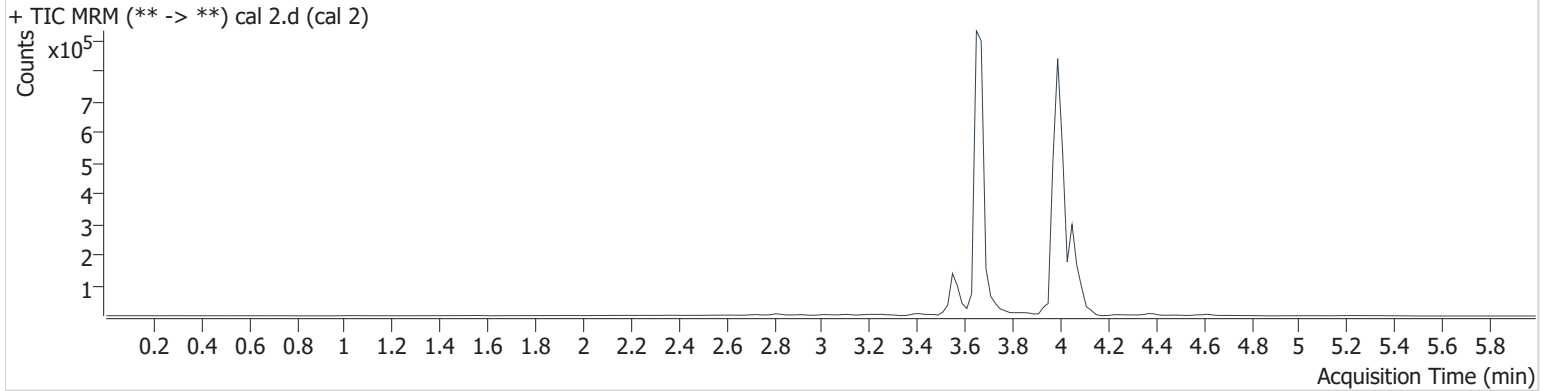


AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2019\am 25-26\110719\QuantResults\cann screen.batch.bin
Calibration Last Update 11/8/2019 8:27:42 AM

Instrument	69679	Data File	cal 2.d
Type	Cal	Sample	cal 2
Acq. Method	am 26 cann screen.m	Operator	Anne Nord
Sample Position	P3-F1	Comment	
Injection Volume	5		
Acq. Date-Time	11/7/2019 2:50:47 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.060	20455	437952	2.593 ng/ml Low
THC-COOH	3.570	36737	308901	9.721 ng/ml Low
THC-OH	3.676	12120	2489280	2.941 ng/ml Low

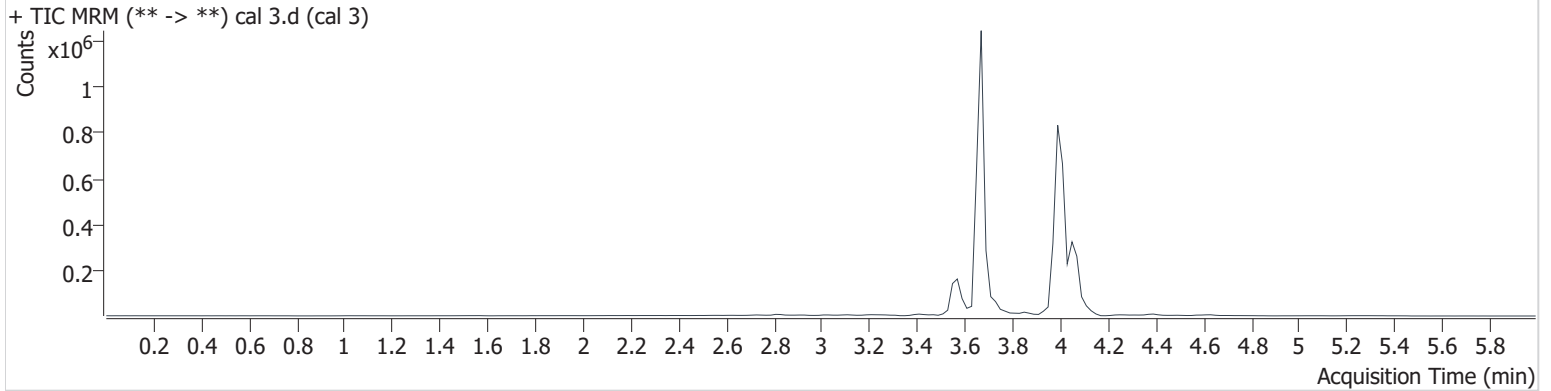
AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2019\am 25-26\110719\QuantResults\cann screen.batch.bin
Calibration Last Update 11/8/2019 8:27:42 AM

Instrument	69679	Data File	cal 3.d
Type	Cal	Sample	cal 3
Acq. Method	am 26 cann screen.m	Operator	Anne Nord
Sample Position	P3-E1	Comment	
Injection Volume	5		
Acq. Date-Time	11/7/2019 2:57:23 PM		

Sample Info.

Sample Chromatogram



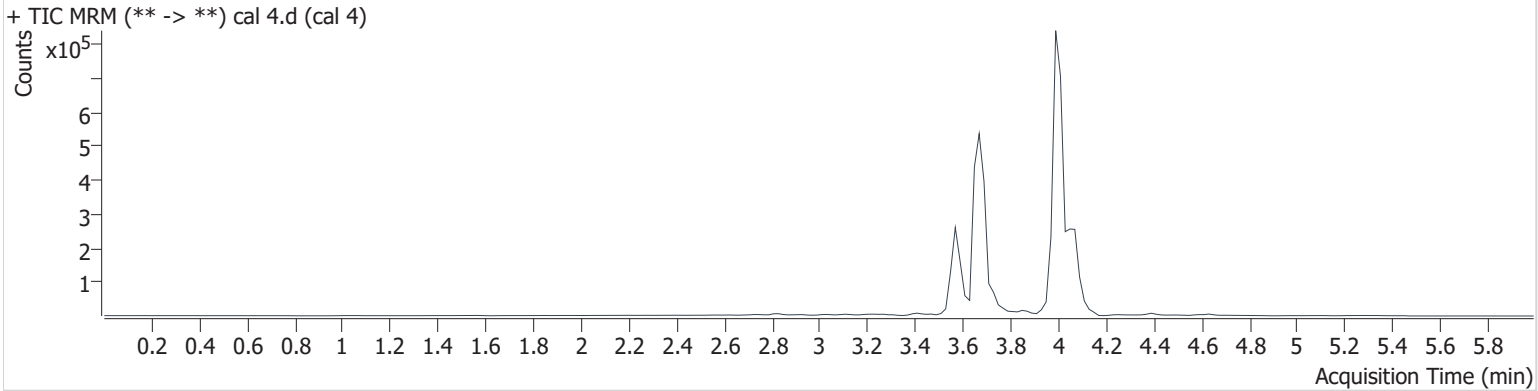
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.060	42315	555010	4.893 ng/ml
THC-COOH	3.570	79817	331246	19.695 ng/ml
THC-OH	3.676	20482	2602228	4.716 ng/ml

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2019\am 25-26\110719\QuantResults\cann screen.batch.bin
Calibration Last Update 11/8/2019 8:27:42 AM

Instrument	69679	Data File	cal 4.d
Type	Cal	Sample	cal 4
Acq. Method	am 26 cann screen.m	Operator	Anne Nord
Sample Position	P3-D1	Comment	
Injection Volume	5		
Acq. Date-Time	11/7/2019 3:03:58 PM		
Sample Info.			

Sample Chromatogram



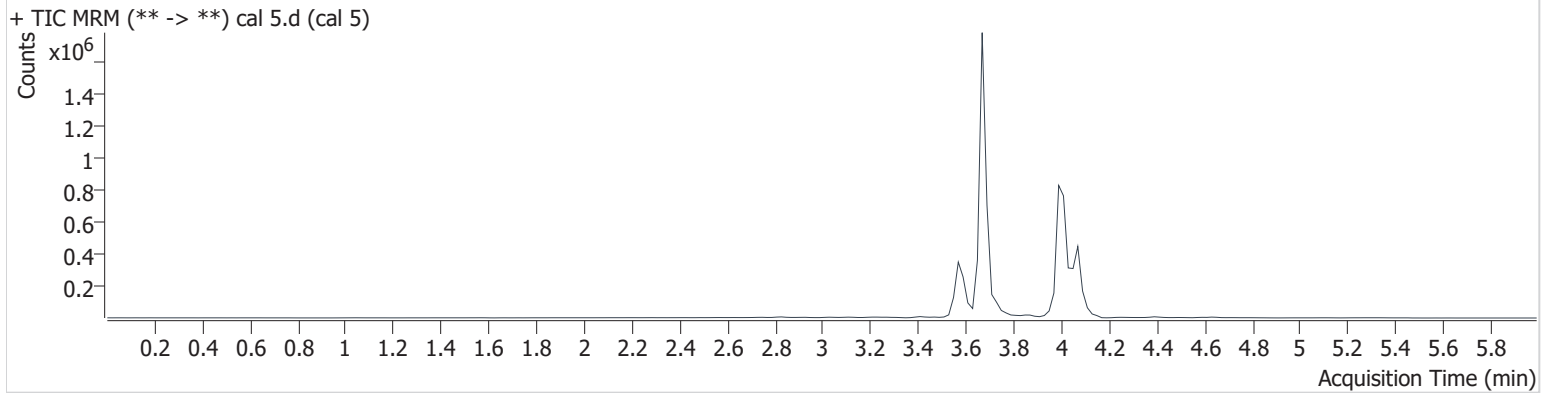
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.080	70268	435546	11.517 ng/ml
THC-COOH	3.570	189772	307116	50.502 ng/ml
THC-OH	3.696	25200	1496092	10.023 ng/ml

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2019\am 25-26\110719\QuantResults\cann screen.batch.bin
Calibration Last Update 11/8/2019 8:27:42 AM

Instrument	69679	Data File	cal 5.d
Type	Cal	Sample	cal 5
Acq. Method	am 26 cann screen.m	Operator	Anne Nord
Sample Position	P3-C1	Comment	
Injection Volume	5		
Acq. Date-Time	11/7/2019 3:10:34 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.080	226118	569757	29.853 ng/ml
THC-COOH	3.570	297003	319550	75.963 ng/ml
THC-OH	3.676	110035	2698009	24.179 ng/ml

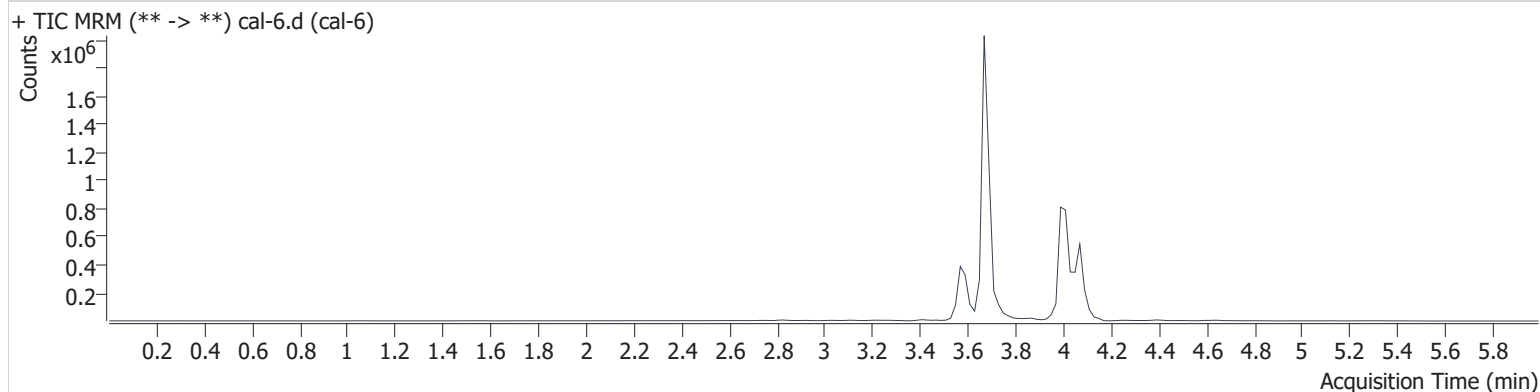
AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2019\am 25-26\110719\QuantResults\cann screen.batch.bin
Calibration Last Update 11/8/2019 8:27:42 AM

Instrument	69679	Data File	cal-6.d
Type	Cal	Sample	cal-6
Acq. Method	am 26 cann screen.m	Operator	Anne Nord
Sample Position	P3-B1	Comment	
Injection Volume	5		
Acq. Date-Time	11/7/2019 3:17:10 PM		

Sample Info.

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.080	370069	589230	47.851 ng/ml
THC-COOH	3.570	371808	302079	100.594 ng/ml
THC-OH	3.676	217027	2550015	50.389 ng/ml

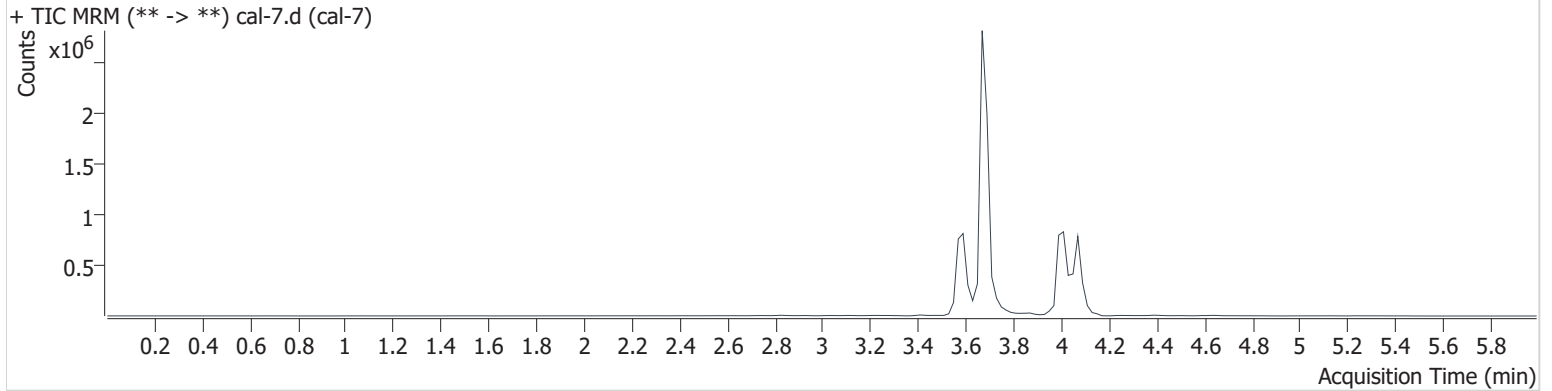
AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2019\am 25-26\110719\QuantResults\cann screen.batch.bin
Calibration Last Update 11/8/2019 8:27:42 AM

Instrument	69679	Data File	cal-7.d
Type	Cal	Sample	cal-7
Acq. Method	am 26 cann screen.m	Operator	Anne Nord
Sample Position	P3-A1	Comment	
Injection Volume	5		
Acq. Date-Time	11/7/2019 3:23:46 PM		

Sample Info.

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.080	740569	591645	96.402 ng/ml
THC-COOH	3.590	911518	299880	248.421 ng/ml
THC-OH	3.676	448995	2639302	100.659 ng/ml