










**Worklist: 3858**

<u>LAB CASE</u>	<u>ITEM</u>	<u>ITEM TYPE</u>	<u>DESCRIPTION</u>	
M2019-4936	4	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
M2019-4974	2	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
M2019-5016	3	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
M2019-5018	5	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
M2019-5032	2	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
M2019-5169	5	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
M2019-5170	3	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
M2019-5269	3	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2019-3407	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2019-3510	2	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2019-3511	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2019-3535	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2019-3540	3	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2019-3606	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2019-3607	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2019-3608	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2019-3609	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2019-3676	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	

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

Extraction Date: 12/04/2019  
 Plate lot#: 190725

Analyst: Celena Shrum  
 Plate Expiration: 1/25/2020

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

**Blank Blood Lot:** 445283-3  
**LCMS-QQQ ID:** 069901

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

**Column:** Phenomenex Phenyl Hexyl (4.6x50mm, 2.6um)

### Pre-Analytic:

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

### Analytic:

- 1. Remove standards, plate, controls, and samples from cold storage. Allow to reach room temperature.
- 2. Urine Hydrolysis: In blank well, add 250µL urine, 40µL BG Turbo, and 100µL 500mM sodium phosphate buffer. Place on plate shaker for 5 minutes.
- 3. Using a calibrated pipette, pipette **250µL blood and urine** (if applicable) into wells of analytical (standards) plate. **Pipette ID: #16**
- 4. Place on shaking incubator at ambient temp., 900rpm for 15 minutes. *Shaker ID: 067105*
- 5. Pipette **250µL 0.5M ammonium hydroxide** in wells of analytical plate.
- 6. Place on shaking incubator at ambient temp., 900rpm for 15 minutes.
- 7. Transfer **300µL of blood+base** mixture to corresponding wells of SLE+ plate.
- 8. Apply positive pressure for approx. 10-15 seconds (or until no liquid remains on top of sorbent). **(Load at 85-100 PSI- Selector to the right).** *Manifold ID: 067104*
- 9. Wait 5 minutes.
- 10. Add **900uL ethyl acetate.**
- 11. Wait 5 minutes.
- 12. Apply positive pressure for approx. 15 seconds. **(10-15 PSI- Selector to the left).**
- 13. Add **900uL ethyl acetate.**
- 14. Wait 5 minutes.
- 15. Apply positive pressure for approx. 15 seconds. **(10-15 PSI- Selector to the left).**
- 16. Remove plate containing eluate. Place on SPE Dry and evaporate to dryness at approx. 35°C. If run contains urine, add 50µL 1% HCl in MeOH to wells and place plate cover on plate before drying. *SPE Dry ID: 067103*
- 17. Reconstitute in **100µL 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 of 5 or greater or 2-5 for discretionary range.
- 4. Did all QCs pass for each analyte? If no, describe issue in comments (below).
- 5. Central File Packet to include: LIMS Worklist, Method Checklist, Calibration and Control Reports

COMMENTS: Zopiclone not evaluated due to poor ISTD response. M2019-5169-5 and P2019-3606-1 were reinjected due to poor ISTD response for some compounds.

P2019-5169-5 was not evaluated for 6-MAM or noroxycodone due to low ISTD response.

P2019-3607-1 was not evaluated for 6-MAM due to low ISTD response.

P2019-3540-3 was not evaluated for 6-MAM due to low ISTD response.

M2019-5269-3 was not evaluated for 6-MAM due to low ISTD response.



# Idaho State Police Forensic Services

## AM #25 Blood Multi-Drug Screen by LCMS-QQQ

### Methanol External Control Solution (Lot: 042719)

100 ul of 1mg/mL stock was added to each drug to 9600 ul of LC MeOH.

<i>Component</i>	<i>Source</i>	<i>Source Lot Number</i>	<i>Expiration Date</i>
Methanol (LCMS)	Fisher	184782	
Morphine	Cerilliant	FE08141515	November 2020
Metoprolol	Cerilliant	FN06091510	July 2020
Flunitrazepam	Cerilliant	FE08051602	August 2021
Trazodone	Cerilliant	FN12151403	January 2020
Prepared:	04/27/19		
Prepared By:	Tamara Salazar		
Expires:	01/31/2020		

### Blood External Control Solution (Lot: WS042719)

100 ul of methanol external control solution was added to 9900 ul of blood.

Approximately 50ng/mL of each compound.

<i>Component</i>	<i>Source</i>	<i>Source Lot Number</i>
Negative Blood	Hemostat	445283-1
Methanol External Control Solution		042719
Prepared:	04/27/19	
Prepared by:	Tamara Salazar	
Expires:	01/31/2020	



# Idaho State Police Forensic Services

## AM #25 Blood and Urine Multi-Drug Screen by LCMS-QQQ

### Methanol External Control Solution (Lot: 042719)

100 ul of 1mg/mL stock was added to each drug to 9600 ul of LC MeOH.

<i>Component</i>	<i>Source</i>	<i>Source Lot Number</i>	<i>Expiration Date</i>
Methanol (LCMS)	Fisher	184782	
Morphine	Cerilliant	FE08141515	November 2020
Metoprolol	Cerilliant	FN06091510	July 2020
Flunitrazepam	Cerilliant	FE08051602	August 2021
Trazodone	Cerilliant	FN12151403	January 2020
Prepared:	04/27/19		
Prepared By:	Tamara Salazar		
Expires:	01/31/2020		

### Urine External Control Solution (Lot: WS111519)

200 ul of methanol external control solution was added to 9800 ul of urine.

Approximately 100ng/mL of each compound.

<i>Component</i>	<i>Source</i>	<i>Source Lot Number</i>
Negative Urine	Pocatello Lab	POC031319
Methanol External Control Solution		042719
Prepared:	11/15/19	
Prepared by:	Celena Shrum	
Expires:	01/31/2020	



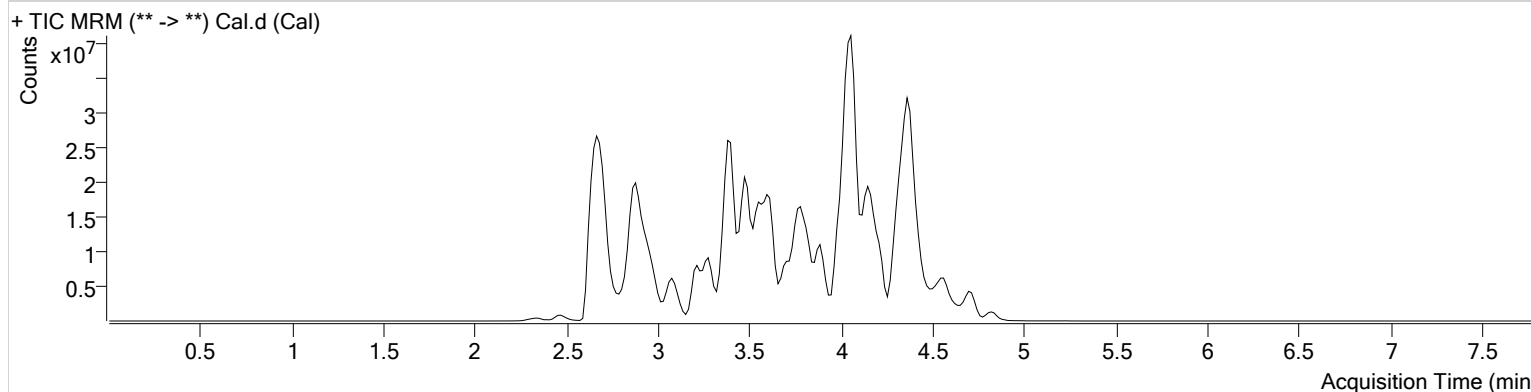
# AM #25 Multi-Drug Screen Results



**Batch results** D:\MassHunter\Data\2019\AM 25-26\120319 Urine Run CS\QuantResults\MDS.batch.bin  
**Calibration Last Update** 12/4/2019 12:27:05 PM

<b>Instrument</b>	Falco	<b>Data File</b>	Cal.d
<b>Type</b>	Cal	<b>Sample</b>	Cal
<b>Acq. Method</b>	am 25 all.m	<b>Operator</b>	Celena Shrum
<b>Sample Position</b>	P1-B1	<b>Comment</b>	
<b>Injection Volume</b>	5		
<b>Acq. Date-Time</b>	12/3/2019 5:09:28 PM		

## Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
6-MAM	2.890	23588	106.41	16.39	570456	10.0000
7-aminoclonazepam	3.567	186552	75.74	∞	850821	10.0000
7-aminoflunitrazepam	3.780	1006896	247.60	123.94	7230876	10.0000
Acetyl Fentanyl	3.823	372905	∞	1274.02	28850451	10.0000
Acetyl Norfentanyl	2.854	224672	1140.94	59.33	10055921	10.0000
a-hydroxyalprazolam	4.499	15656	∞	9.90	146425	10.0000
alpha-hydroxymidazolam	4.574	825755	445.41	∞	5089051	10.0000
alpha-PVP	3.497	5129018	1529.12	809.46	23531757	10.0000
Alprazolam	4.594	706916	83.12	10492.20	1956960	10.0000
Amitriptyline	4.414	3721732	426.56	145.10	9662262	10.0000
Amphetamine	2.858	2236708	3013.64	778.26	5538269	10.0000
Benzoyllecgonine	3.351	623293	247.13	55.62	3319135	10.0000
Buprenorphine	4.372	306249	∞	2359.84	1318633	10.0000
Bupropion	3.710	6205838	4709.28	1352.75	19676113	10.0000
Carbamazepine	4.218	3813823	2544.62	888.08	25661700	10.0000
Carisoprodol	4.201	261226	152.25	37.11	1407085	10.0000
Chlordiazepoxide	4.717	243601	348.50	1915.17	8448950	10.0000
Chlorpheniramine	3.921	27147	34.98	4903.55	50676147	10.0000
Citalopram	4.054	2205201	1646.84	50165.11	10474976	10.0000
Clonazepam	4.439	76466	49.75	406.24	132224	10.0000
Cocaine	3.549	5313321	755.74	458.37	25416682	10.0000
Codeine	2.788	324592	13935.41	1243.56	1530228	10.0000
Cyclobenzaprine	4.338	2520347	186420.65	∞	8695470	10.0000
Desipramine	4.370	3697465	8544.29	639.85	22298628	10.0000
Dextromethorphan	4.077	1829917	732.18	∞	8583698	10.0000
Dextrorphan	3.370	2316982	208.65	455.72	15955378	10.0000
Diazepam	4.826	680798	∞	420.32	3268962	10.0000
Dihydrocodeine	2.726	999318	∞	121.70	4924801	10.0000
Diphenhydramine	4.000	8388626	720.34	2562.69	50676147	10.0000
Doxepin	4.152	2140432	∞	∞	14519368	10.0000
Doxylamine	3.614	11494041	14666.20	1127709.18	44211559	10.0000
EDDP	4.058	4039982	6681.45	957911.31	28256334	10.0000
Estazolam	4.519	1700607	210.92	423.81	5292126	10.0000
Etizolam	4.619	184490	84.80	826.38	5292126	10.0000

Cal

# AM #25 Multi-Drug Screen Results



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Fentanyl	4.037	151014	13.10	48785.43	11409284	10.0000
Flunitrazepam	4.562	462597	266.34	7856.13	102900	10.0000
Fluoxetine	4.302	2638851	136276.90	25410.95	12574055	10.0000
Flurazepam	4.128	2425282	731345.67	305866.62	102900	10.0000
Hydrocodone	2.985	880335	42.94	199.91	5892885	10.0000
Hydromorphone	2.473	585835	216.23	2186.74	2273538	10.0000
Imipramine	4.382	4602649	∞	351.63	17538247	10.0000
Ketamine	3.419	3414108	∞	∞	15713187	10.0000
Lamotrigine	3.539	205808	91.46	171.29	13119830	10.0000
Levamisole	2.931	4562083	369077.37	5404.61	25416682	10.0000
Lorazepam	4.408	7123	∞	12.21	132224	10.0000
Maprotiline	4.414	3721732	426.56	3149.92	9662262	10.0000
MDA	2.992	914544	1413.53	478.95	4177753	10.0000
MDEA	3.221	4657826	2783.33	859.56	22048792	10.0000
MDMA	3.069	5054892	340138.37	804.58	3699577	10.0000
Meperidine	3.571	2615887	∞	11543.55	13119830	10.0000
Meprobamate	3.636	44056	∞	∞	204335	10.0000
Methadone	4.364	6158075	6109.04	∞	27847241	10.0000
Methamphetamine	2.963	4644741	∞	1379.21	22049172	10.0000
Methocarbamol	3.541	117149	72.66	∞	13119830	10.0000
Methylphenidate	3.481	8578406	∞	∞	39774677	10.0000
Metoprolol	3.416	584485	673.39	320.33	13119830	10.0000
Midazolam	4.728	561911	∞	∞	6512078	10.0000
Mirtazapine	3.829	3745223	∞	11735.81	13119830	10.0000
Mitragynine	4.173	75478	277.24	185.69	14519368	10.0000
Morphine	2.308	156781	2149.22	482.08	88627	10.0000
Norbuprenorphine	3.820	17570	7628.03	5856.96	81956	10.0000
Nordiazepam	4.676	110346	∞	88.26	389197	10.0000
Norfentanyl	3.296	5272504	4846.32	75.53	23246450	10.0000
Norhydrocodone	2.927	19218	21.68	32.19	795374	10.0000
Normeperidine	3.573	1469556	348.46	32.03	5194075	10.0000
Noroxycodone	2.879	497310	∞	∞	1720295	10.0000
Nortriptyline	4.417	1782276	289097.02	459.45	4247552	10.0000
O-desmethyl-tramadol	2.882	9044951	∞	308.64	42952351	10.0000
Olanzapine	3.870	172193	∞	1023.05	47866	10.0000
Oxazepam	4.489	46856	31.79	10.76	339428	10.0000
Oxycodone	2.891	1651053	725.70	121.38	7388669	10.0000
Oxymorphone	2.348	283425	∞	103.25	1035825	10.0000
Paroxetine	4.360	168866	34.40	22.59	9459663	10.0000
Phenazepam	4.634	159116	11163.87	152.07	811828	10.0000
Phencyclidine	3.893	5343178	∞	398.09	25189605	10.0000
Phentermine	3.116	1037095	∞	14.35	12928706	10.0000
Phenytoin	4.109	10165	457.84	∞	47866	10.0000
Promethazine	4.321	5582839	3376.17	89.59	23688710	10.0000
Pseudoephedrine	2.673	41955608	∞	6882.07	113876750	10.0000
Quetiapine	4.358	2971764	201447.58	834461.83	4553045	10.0000
Sertraline	4.548	1917628	1574.98	2061.93	9459663	10.0000
Sufentanil	4.343	218620	4659.67	∞	16025025	10.0000
Tapentadol	3.405	3962919	3016.26	∞	20178566	10.0000
Temazepam	4.656	477929	58.82	10.55	2809431	10.0000
Tramadol	3.401	9571171	2099.74	199.57	41025152	10.0000
Trazodone	4.450	4387826	∞	∞	16105382	10.0000
Venlafaxine	3.766	7218713	5009.70	2021.16	38310562	10.0000
Zaleplon	4.349	444687	285.22	138.48	973275	10.0000
Zolpidem	4.164	8743491	596.20	626.89	43737946	10.0000
Zopiclone	4.020	32988	163.32	∞	152477	10.0000

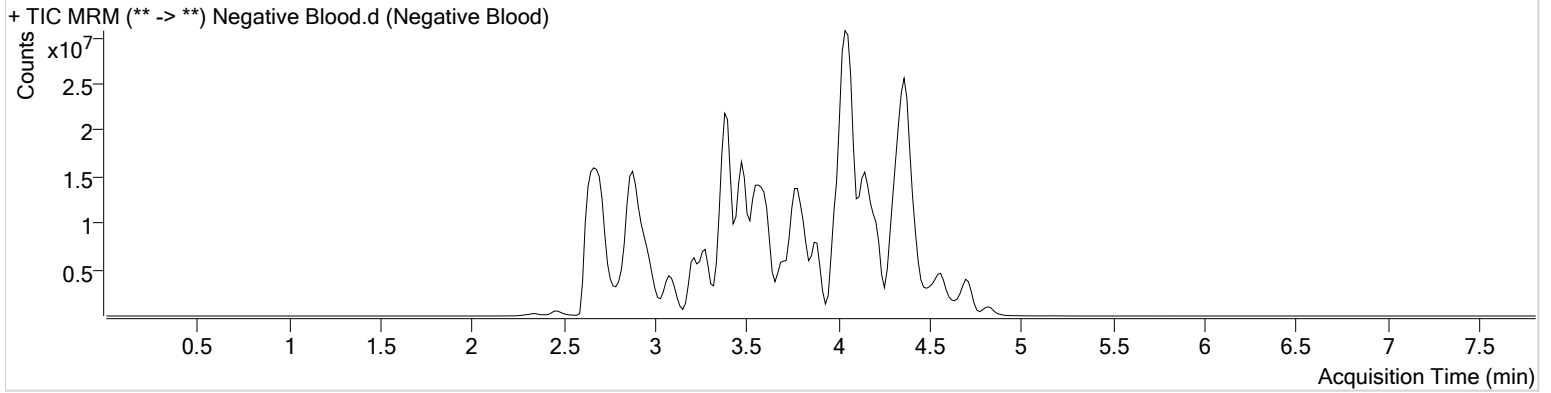
# AM #25 Multi-Drug Screen Results



**Batch results** D:\MassHunter\Data\2019\AM 25-26\120319 Urine Run CS\QuantResults\MDS.batch.bin  
**Calibration Last Update** 12/4/2019 12:27:05 PM

<b>Instrument</b>	Falco	<b>Data File</b>	Negative Blood.d
<b>Type</b>	Sample	<b>Sample</b>	Negative Blood
<b>Acq. Method</b>	am 25 all.m	<b>Operator</b>	Celena Shrum
<b>Sample Position</b>	P1-F2	<b>Comment</b>	
<b>Injection Volume</b>	5		
<b>Acq. Date-Time</b>	12/3/2019 5:17:57 PM		
<b>Sample Info.</b>			

## Sample Chromatogram



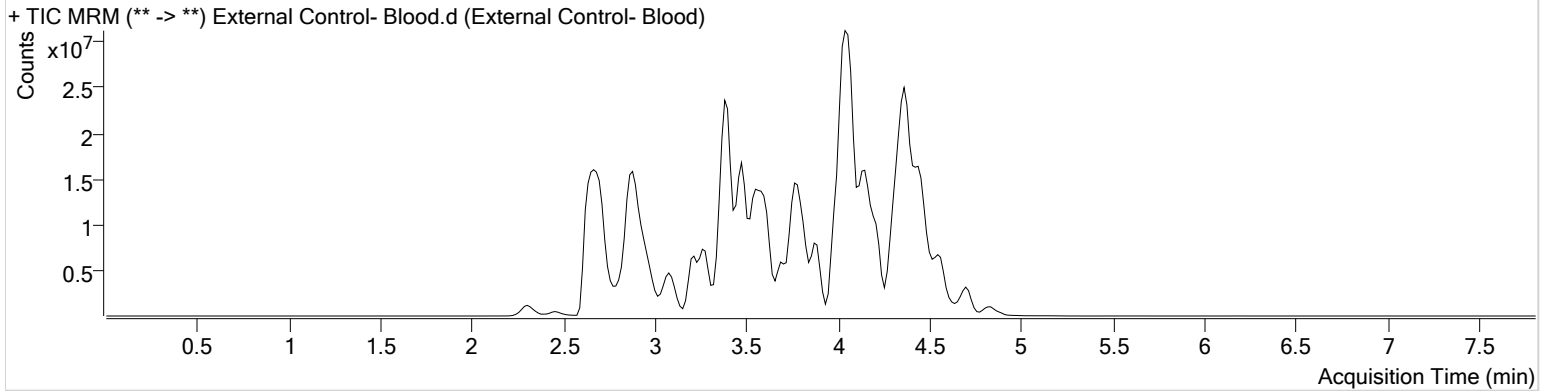
# AM #25 Multi-Drug Screen Results



**Batch results** D:\MassHunter\Data\2019\AM 25-26\120319 Urine Run CS\QuantResults\MDS.batch.bin  
**Calibration Last Update** 12/4/2019 12:27:05 PM

<b>Instrument</b>	Falco	<b>Data File</b>	External Control- Blood.d
<b>Type</b>	Sample	<b>Sample</b>	External Control- Blood
<b>Acq. Method</b>	am 25 all.m	<b>Operator</b>	Celena Shrum
<b>Sample Position</b>	P1-G2	<b>Comment</b>	
<b>Injection Volume</b>	5		
<b>Acq. Date-Time</b>	12/3/2019 5:26:14 PM		

## Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Flunitrazepam	4.562	4298305	740.06	29502.31	102597	93.1912
Metoprolol	3.416	4959694	953.29	2129137.94	13861017	80.3183
Morphine	2.308	1530581	65550.36	11838.43	104490	82.8049
Trazodone	4.450	32933708	∞	∞	16289470	74.2088

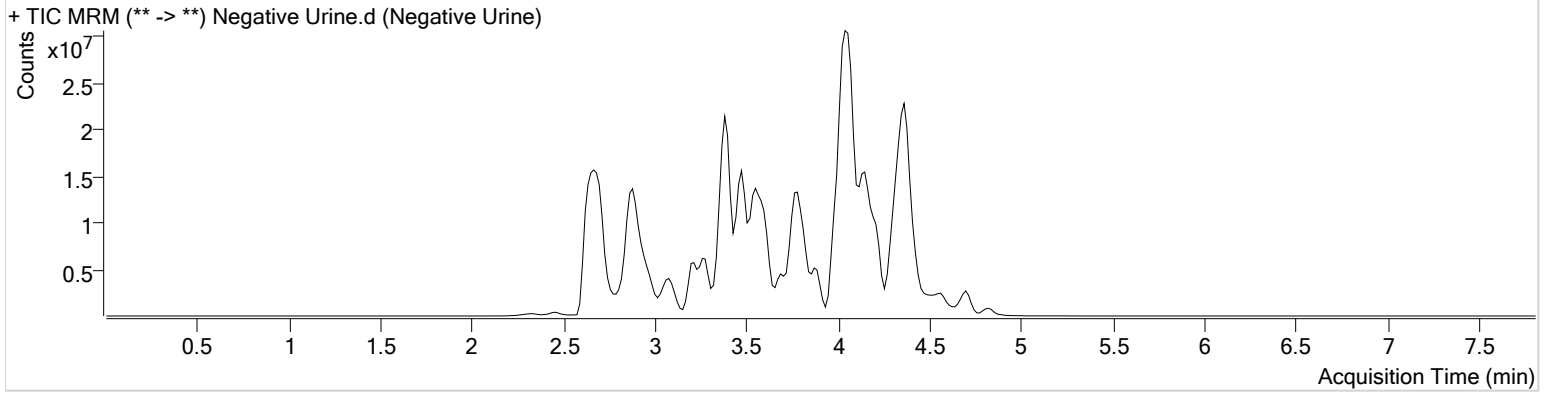
# AM #25 Multi-Drug Screen Results



**Batch results** D:\MassHunter\Data\2019\AM 25-26\120319 Urine Run CS\QuantResults\MDS.batch.bin  
**Calibration Last Update** 12/4/2019 12:27:05 PM

<b>Instrument</b>	Falco	<b>Data File</b>	Negative Urine.d
<b>Type</b>	Sample	<b>Sample</b>	Negative Urine
<b>Acq. Method</b>	am 25 all.m	<b>Operator</b>	Celena Shrum
<b>Sample Position</b>	P1-H2	<b>Comment</b>	
<b>Injection Volume</b>	5		
<b>Acq. Date-Time</b>	12/3/2019 5:34:33 PM		
<b>Sample Info.</b>			

## Sample Chromatogram



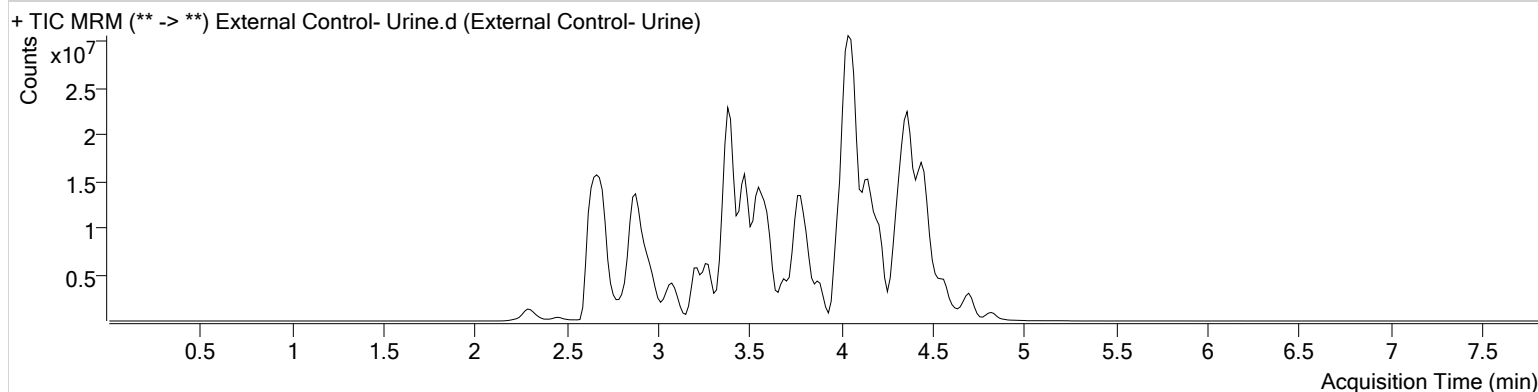
# AM #25 Multi-Drug Screen Results



**Batch results** D:\MassHunter\Data\2019\AM 25-26\120319 Urine Run CS\QuantResults\MDS.batch.bin  
**Calibration Last Update** 12/5/2019 2:50:24 PM

<b>Instrument</b>	Falco	<b>Data File</b>	External Control- Urine.d
<b>Type</b>	Sample	<b>Sample</b>	External Control- Urine
<b>Acq. Method</b>	am 25 all.m	<b>Operator</b>	Celena Shrum
<b>Sample Position</b>	P1-A3	<b>Comment</b>	
<b>Injection Volume</b>	5		
<b>Acq. Date-Time</b>	12/3/2019 5:42:53 PM		

## Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
6-MAM	2.905	4789	6.81	0.20 <b>Low</b>	285670	4.0542
7-aminoflunitrazepam	3.780	506113	557.03	336.06	9802927	3.7076 <5
Flunitrazepam	4.562	3440160	3017.29	615.68	59721	128.1324
Metoprolol	3.416	5907108	86.24	1033.48	12096993	109.6105
Morphine	2.293	1766899	∞	9741.61	66352	150.5330
Trazodone	4.450	35614715	14773.12	∞	12912424	101.2379

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

Extraction Date: 12/04/2019  
Plate lot#: 190716

Analyst: Celena Shrum  
Plate Expiration: 01/16/2020

**Mobile phase A:** 0.1% Formic Acid in LCMS Water  
**Blank Blood Lot:** 445283-3  
**LCMS-QQQ ID:** 069901

**Mobile phase B:** 0.1% Formic acid in Acetonitrile  
**Column:** UCT Selectra DA 100 x 2.1mm 3um  
**Blank Urine Lot:** POC031319

## 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 1.5mL urine to blank plate, add 250µl 1N KOH. Shake and incubate at 40 degrees for 15 minutes.  
Using a calibrated pipette, add **1000µl blood and urine (if applicable) (calibrated pipette)** into the appropriate wells of analytical (standards) plate. **Pipette ID: #16**
- 3. Place on shaking incubator at ambient temp., 900rpm for 15 minutes. *Shaker ID: 067105*
- 4. Pipette **500µL 0.1% formic acid in water blood sample, 500 µL saturated phosphate buffer in urine** in wells of analytical plate.
- 5. Place on shaking incubator at ambient temp., 900rpm for 15 minutes.
- 6. Transfer **800µL 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: 067104
- 8. Wait 5 minutes.
- 9. Add **2.25mL MTBE. (Add in 3 increments of 750uL)**
- 10. Wait 5 minutes.
- 11. Apply positive pressure for approx. 15 seconds. **(10-15 PSI- Selector to the left).**
- 12. Add **2.25mL Hexane. (Add in 3 increments of 750uL)**
- 13. Wait 5 minutes.
- 14. Apply positive pressure for approx. 15 seconds. **(10-15 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: 067103*
- 16. Reconstitute in **100µL 100% MeOH** and heat seal plate with foil. Place in autosampler and run worklist.

## Post-Analytic

- 1. Create batch and process data.
- 2. Make any necessary integration changes, Curve weighting of Linear 1/x with r<sup>2</sup> values ≥0.98 for each analyte
- 3. RT +/- 3% or 0.100 min, whichever is greater, +/- 20% Accuracy for greater than (+/- 30% for 10ng/ml or less).
- 4. Case sample response for THC and OH-THC 3ng/mL (quantitative), Carboxy-THC: 10ng/mL (qualitative only) will be reported. Samples with a THC or OH-THC response over 50 ng/mL will be reported out as greater than 50 ng/mL.
- 5. Did all QCs pass for each analyte? (if not, describe in comments section)
- 6. Enter QCs into control charting.
- 7. Central File Packet to include: LIMS Worklist, Method Checklist, Calibration and Control Reports

COMMENTS: THC curve range: 3-100. Carboxy-THC curve range: 5-250, THC-OH curve range: 5-100.



# Idaho State Police Forensic Services

## AM #26 Screening of THC and Metabolites in Blood and Urine by LCMS-QQQ

### Methanol External Control Solution (Lot: WS041619)

10 ul of 1mg/mL THC, 100 ul of 100 ug/mL THC-OH, C-THC in 9790 ul MeOH  
Approximate concentration 1ug/mL.

<i>Component</i>	<i>Source</i>	<i>Source Lot Number</i>	<i>Expiration Date</i>
Methanol (LCMS)	Fisher	184782	
THC	Cerilliant	FE09101501	11/30/2020
C-THC	Cerilliant	FE07171501	09/30/2020
THC-OH	Cerilliant	FE01121503	01/31/2020
Prepared:	04/16/2019		
Prepared By:	Tamara Salazar		
Expires:	01/31/2020		

### Urine External Control Solution (Lot: 111519)

200 ul of methanol external control solution was added to 9900 ul of urine.  
Approximately 20ng/mL of each compound.

<i>Component</i>	<i>Source</i>	<i>Source Lot Number</i>
Negative Urine	Pocatello Lab	POC031319
Methanol External Control Solution	-	WS041619
Prepared:	11/15/19	
Prepared by:	Celena Shrum	
Expires:	01/31/2020	

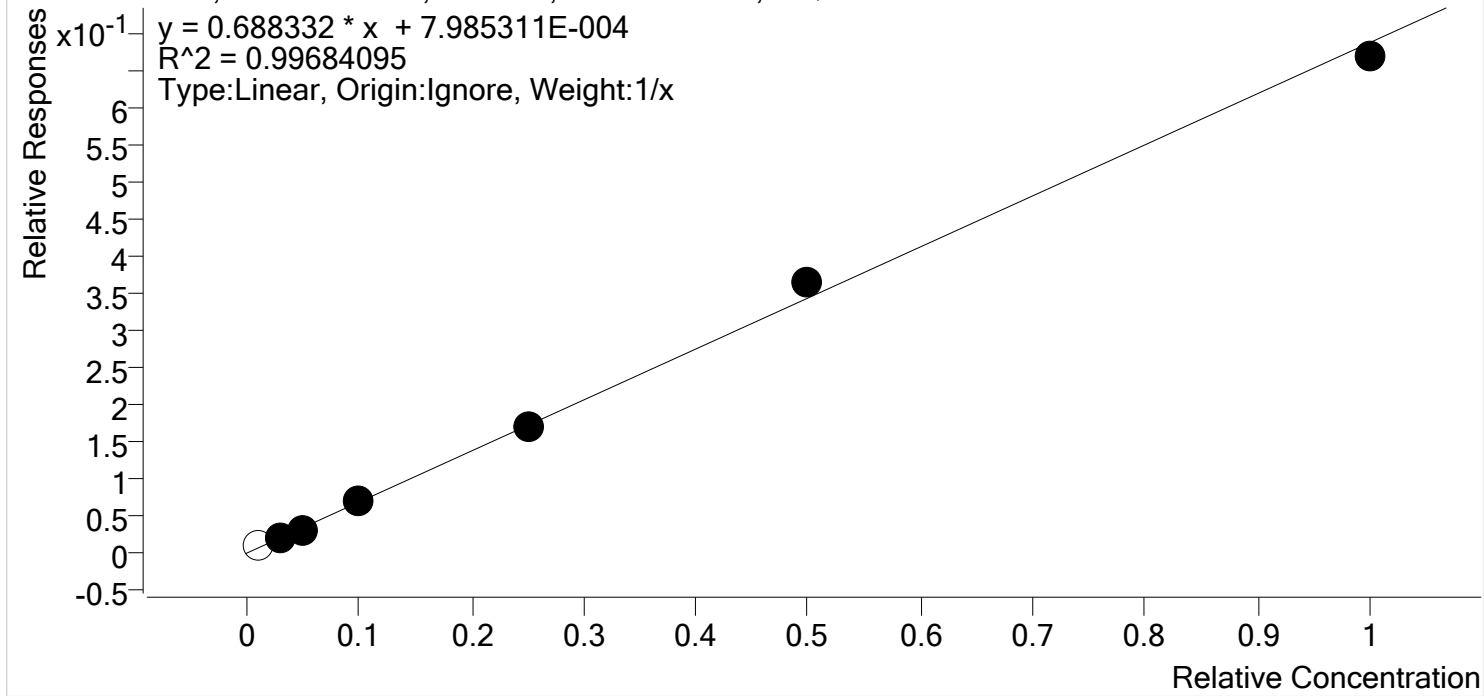




# AM #26 Cannabinoids Screen Calibration Curve Report

**Batch results** D:\MassHunter\Data\2019\AM 25-26\120319 Urine Run CS\QuantResults\THC.batch.bin  
**Last Cal. Update** 12/4/2019 12:29 PM  
**Analyst Name** ISP\Datastor  
**Analyte** THC **Internal Standard** THC-d3

THC - 7 Levels, 6 Levels Used, 7 Points, 6 Points Used, 0 QCs



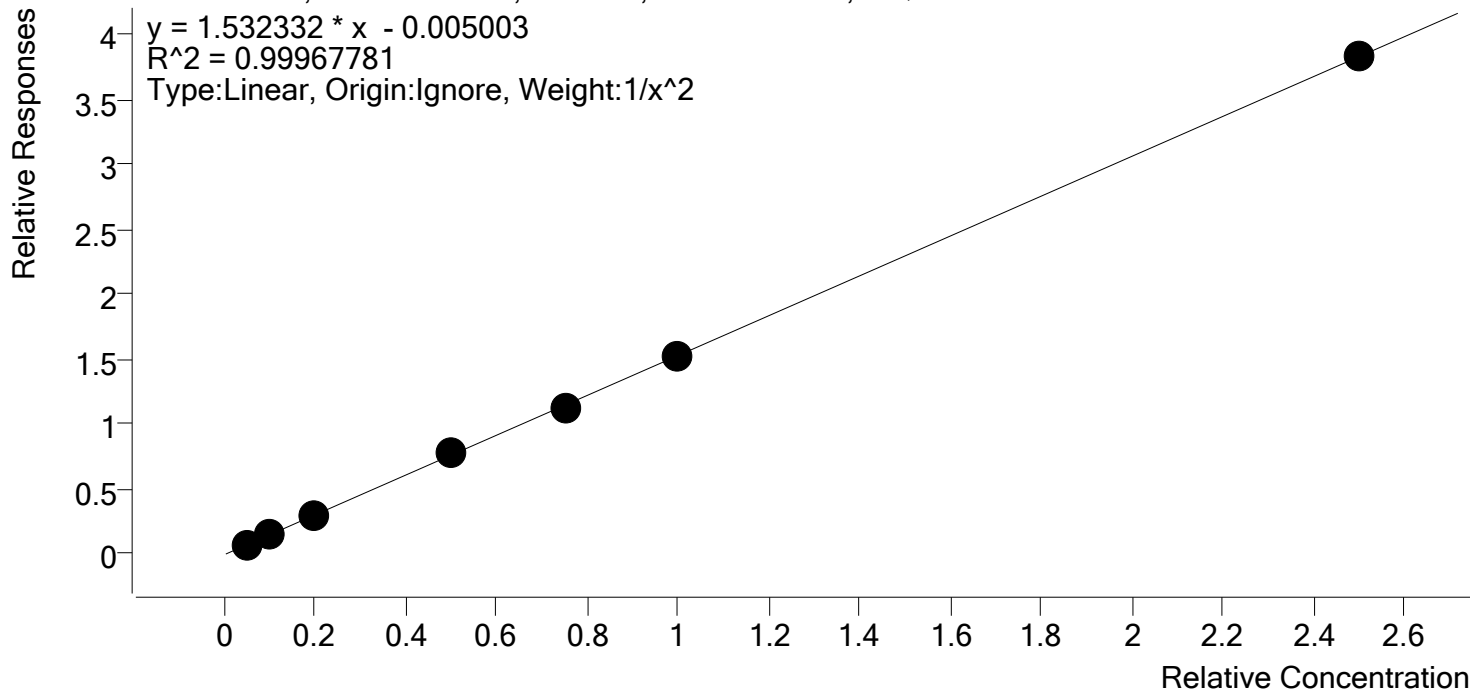
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
MJ Cal 1	1	x	1.0	1.6	164.7
MJ Cal 2	2	✓	3.0	3.3	109.2
MJ Cal 3	3	✓	5.0	4.1	82.0
MJ Cal 4	4	✓	10.0	10.6	105.8
MJ Cal 5	5	✓	25.0	25.1	100.3
MJ Cal 6	6	✓	50.0	52.7	105.5
MJ Cal 7	7	✓	100.0	97.2	97.2



# AM #26 Cannabinoids Screen Calibration Curve Report

**Batch results** D:\MassHunter\Data\2019\AM 25-26\120319 Urine Run CS\QuantResults\THC.batch.bin  
**Last Cal. Update** 12/4/2019 12:29 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

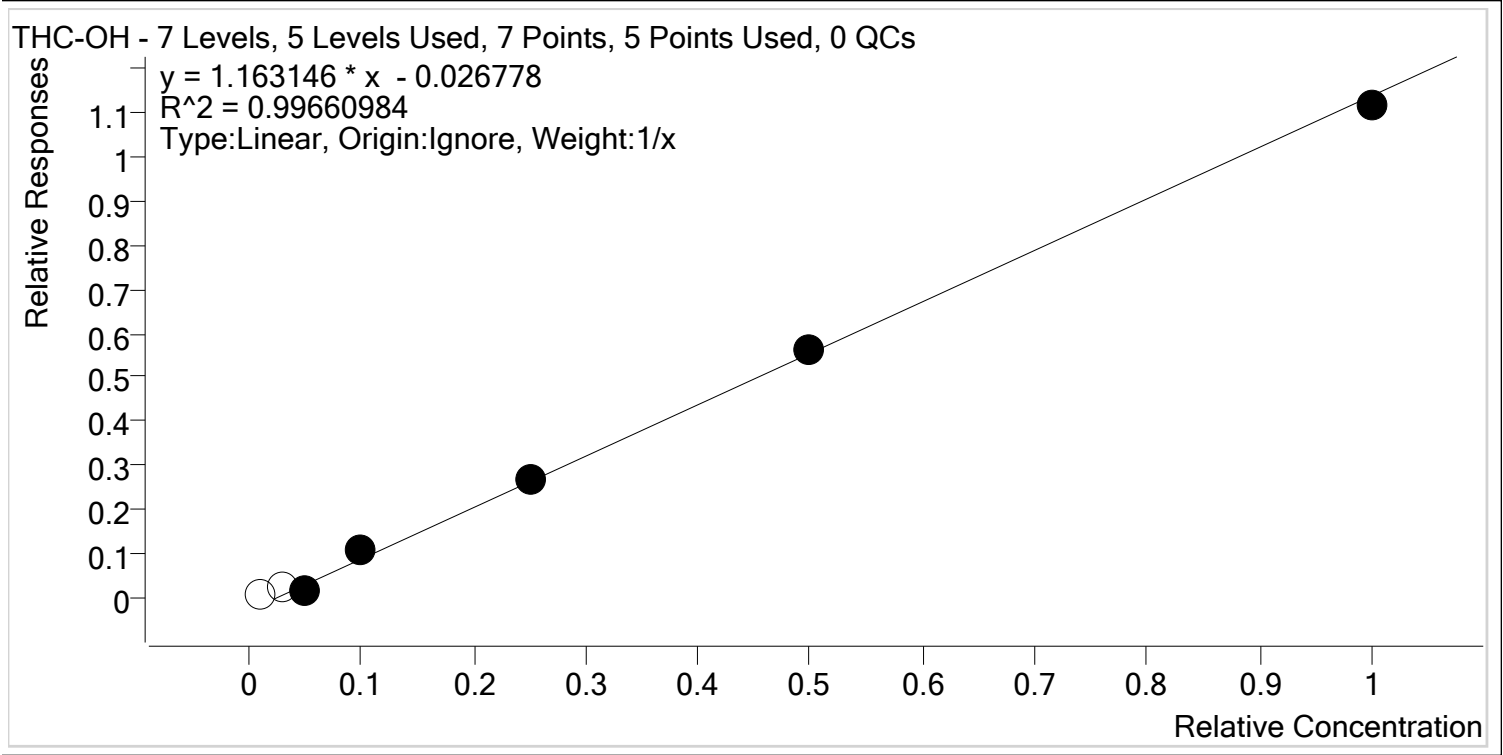


Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
MJ Cal 1	1	✓	5.0	5.0	100.3
MJ Cal 2	2	✓	10.0	9.9	98.7
MJ Cal 3	3	✓	20.0	20.1	100.7
MJ Cal 4	4	✓	50.0	51.3	102.6
MJ Cal 5	5	✓	75.0	73.6	98.1
MJ Cal 6	6	✓	100.0	99.4	99.4
MJ Cal 7	7	✓	250.0	250.0	100.0



# AM #26 Cannabinoids Screen Calibration Curve Report

**Batch results** D:\MassHunter\Data\2019\AM 25-26\120319 Urine Run CS\QuantResults\THC.batch.bin  
**Last Cal. Update** 12/4/2019 12:29 PM  
**Analyst Name** ISP\Datastor  
**Analyte** THC-OH **Internal Standard** THC-OH-d3



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
MJ Cal 1	1	x	1.0	3.3	329.2
MJ Cal 2	2	x	3.0	4.7	157.7
MJ Cal 3	3	✓	5.0	4.2	83.4
MJ Cal 4	4	✓	10.0	11.5	114.7
MJ Cal 5	5	✓	25.0	25.6	102.6
MJ Cal 6	6	✓	50.0	50.6	101.3
MJ Cal 7	7	✓	100.0	98.1	98.1

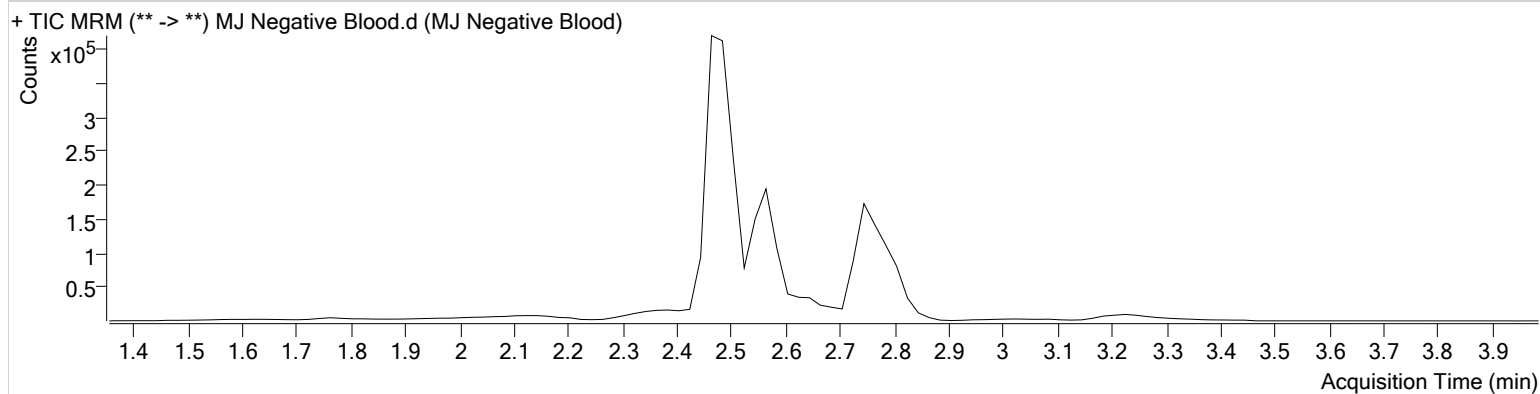
# AM #26 Cannabinoids Screen Results



**Batch results** D:\MassHunter\Data\2019\AM 25-26\120319 Urine Run CS\QuantResults\THC.batch.bin  
**Calibration Last Update** 12/4/2019 12:29:19 PM

<b>Instrument</b>	Falco	<b>Data File</b>	MJ Negative Blood.d
<b>Type</b>	Sample	<b>Sample</b>	MJ Negative Blood
<b>Acq. Method</b>	am 26 test.m	<b>Operator</b>	Celena Shrum
<b>Sample Position</b>	P3-A2	<b>Comment</b>	
<b>Injection Volume</b>	10		
<b>Acq. Date-Time</b>	12/4/2019 12:23:23 AM		
<b>Sample Info.</b>			

## Sample Chromatogram



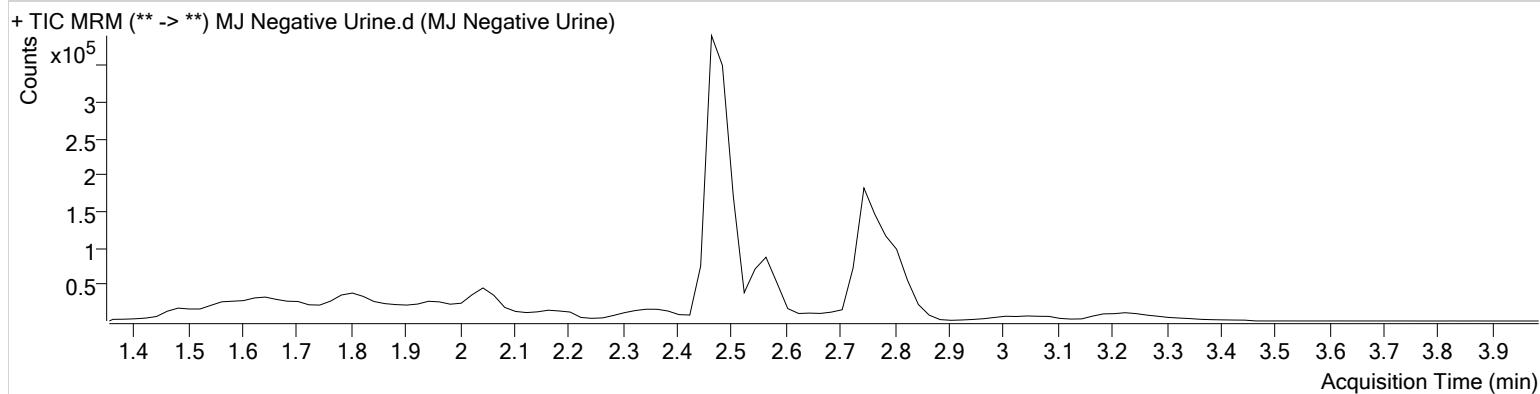
# AM #26 Cannabinoids Screen Results



**Batch results** D:\MassHunter\Data\2019\AM 25-26\120319 Urine Run CS\QuantResults\THC.batch.bin  
**Calibration Last Update** 12/4/2019 12:29:19 PM

<b>Instrument</b>	Falco	<b>Data File</b>	MJ Negative Urine.d
<b>Type</b>	Sample	<b>Sample</b>	MJ Negative Urine
<b>Acq. Method</b>	am 26 test.m	<b>Operator</b>	Celena Shrum
<b>Sample Position</b>	P3-B2	<b>Comment</b>	
<b>Injection Volume</b>	10		
<b>Acq. Date-Time</b>	12/4/2019 12:29:55 AM		
<b>Sample Info.</b>			

## Sample Chromatogram



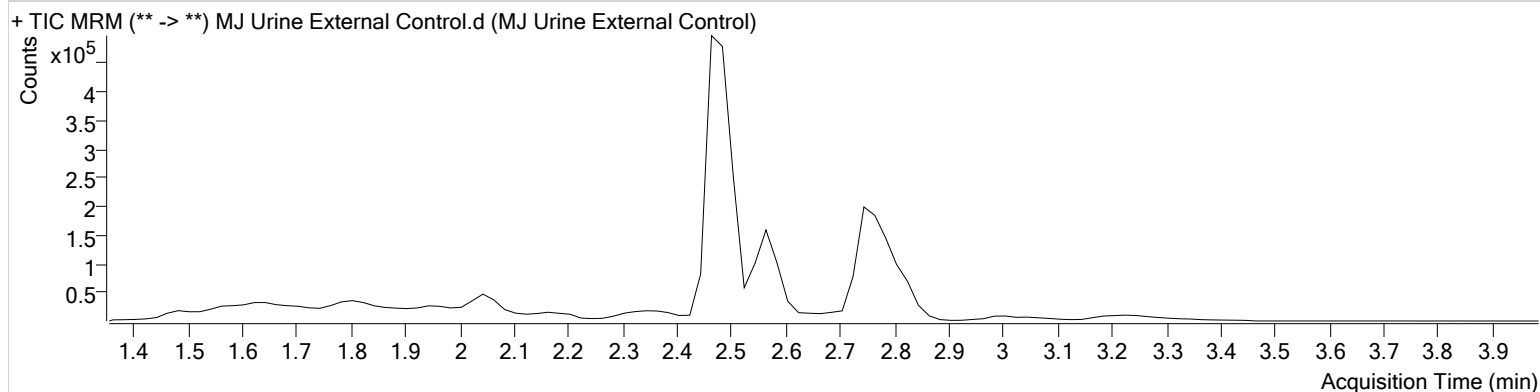
# AM #26 Cannabinoids Screen Results



**Batch results** D:\MassHunter\Data\2019\AM 25-26\120319 Urine Run CS\QuantResults\THC.batch.bin  
**Calibration Last Update** 12/4/2019 12:29:19 PM

<b>Instrument</b>	Falco	<b>Data File</b>	MJ Urine External Control.d
<b>Type</b>	Sample	<b>Sample</b>	MJ Urine External Control
<b>Acq. Method</b>	am 26 test.m	<b>Operator</b>	Celena Shrum
<b>Sample Position</b>	P3-C2	<b>Comment</b>	
<b>Injection Volume</b>	10		
<b>Acq. Date-Time</b>	12/4/2019 12:36:27 AM		
<b>Sample Info.</b>			

## Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.839	9127	120996	10.8424 ng/ml
THC-COOH	2.565	58196	290568	13.3971 ng/ml
THC-OH	2.491	204343	1327849	15.5327 ng/ml

CS

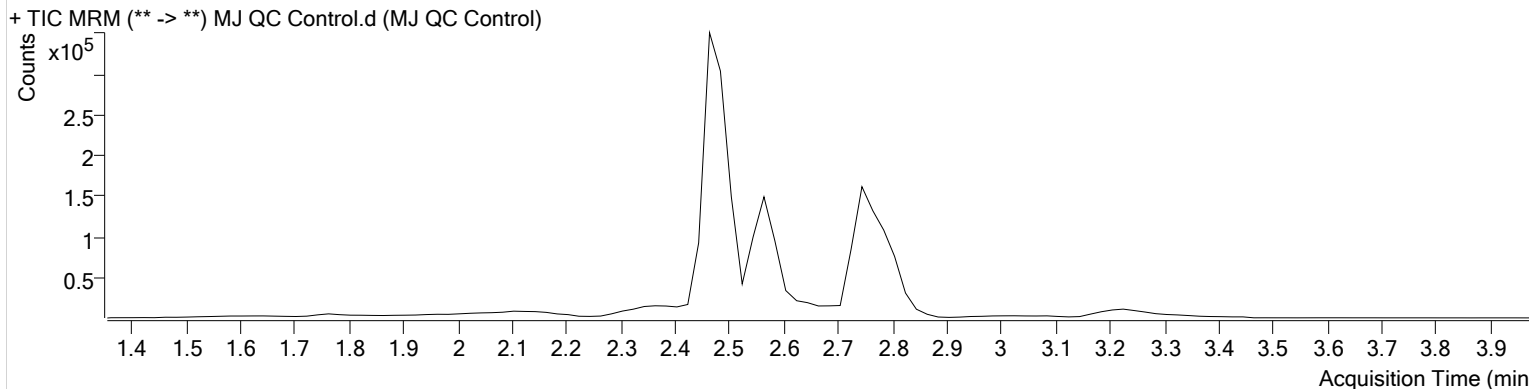


# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2019\AM 25-26\120319 Urine Run CS\QuantResults\THC.batch.bin  
**Calibration Last Update** 12/4/2019 12:29:19 PM

<b>Instrument</b>	Falco	<b>Data File</b>	MJ QC Control.d
<b>Type</b>	Sample	<b>Sample</b>	MJ QC Control
<b>Acq. Method</b>	am 26 test.m	<b>Operator</b>	Celena Shrum
<b>Sample Position</b>	P3-H1	<b>Comment</b>	
<b>Injection Volume</b>	10		
<b>Acq. Date-Time</b>	12/4/2019 12:10:20 AM		
<b>Sample Info.</b>			

**Sample Chromatogram**



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.819	1970	69715	3.9888 ng/ml
THC-COOH	2.565	55551	255655	14.5067 ng/ml
THC-OH	2.471	21930	1021045	4.1487 ng/ml

CS

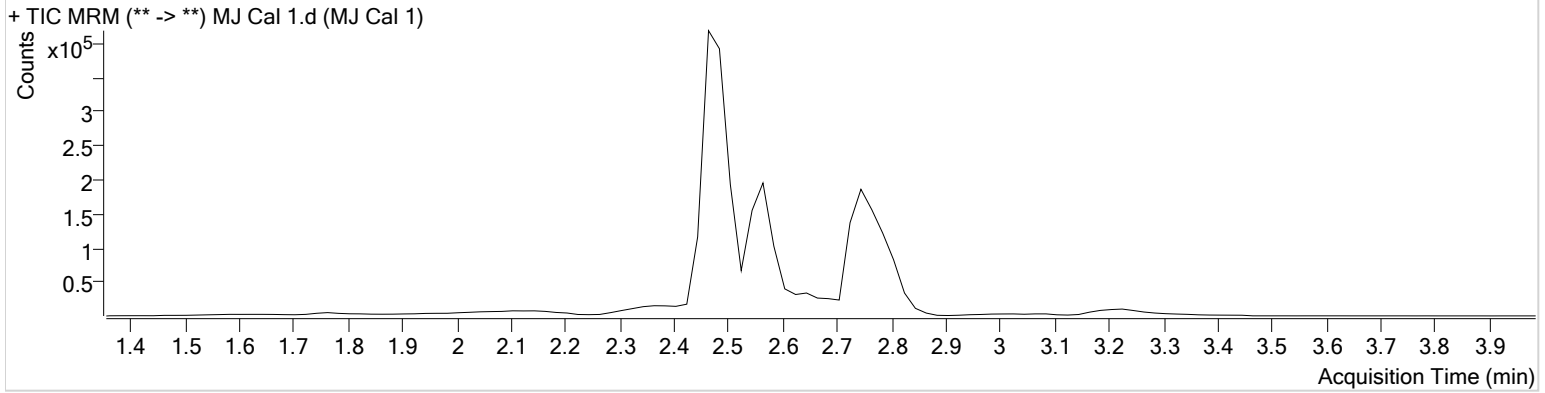


# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2019\AM 25-26\120319 Urine Run CS\QuantResults\THC.batch.bin  
**Calibration Last Update** 12/4/2019 12:29:19 PM

<b>Instrument</b>	Falco	<b>Data File</b>	MJ Cal 1.d
<b>Type</b>	Cal	<b>Sample</b>	MJ Cal 1
<b>Acq. Method</b>	am 26 test.m	<b>Operator</b>	Celena Shrum
<b>Sample Position</b>	P3-A1	<b>Comment</b>	
<b>Injection Volume</b>	10		
<b>Acq. Date-Time</b>	12/3/2019 11:24:34 PM		

**Sample Chromatogram**



Name	RT	Resp.	ISTD Resp.	Final Conc.	
THC	2.819	951	78386	1.6466 ng/ml	<b>Low</b>
THC-COOH	2.565	26990	375510	5.0172 ng/ml	
THC-OH	2.471	15584	1353114	3.2924 ng/ml	



CS

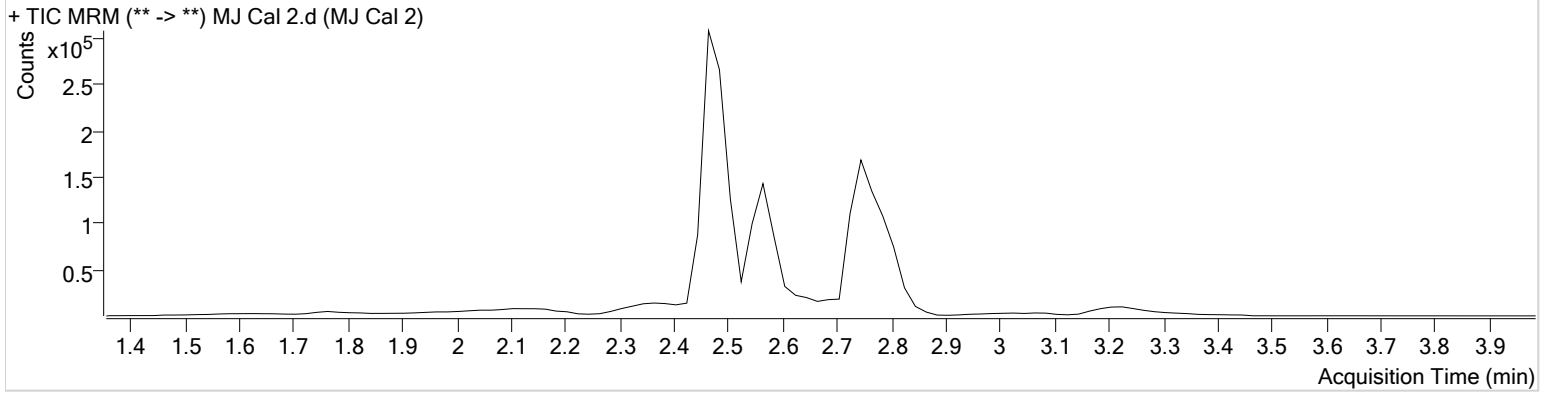


# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2019\AM 25-26\120319 Urine Run CS\QuantResults\THC.batch.bin  
**Calibration Last Update** 12/4/2019 12:29:19 PM

<b>Instrument</b>	Falco	<b>Data File</b>	MJ Cal 2.d
<b>Type</b>	Cal	<b>Sample</b>	MJ Cal 2
<b>Acq. Method</b>	am 26 test.m	<b>Operator</b>	Celena Shrum
<b>Sample Position</b>	P3-B1	<b>Comment</b>	
<b>Injection Volume</b>	10		
<b>Acq. Date-Time</b>	12/3/2019 11:31:15 PM		

**Sample Chromatogram**



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.819	1738	74439	3.2765 ng/ml
THC-COOH	2.565	39913	272817	9.8740 ng/ml
THC-OH	2.471	26107	923759	4.7320 ng/ml

CS

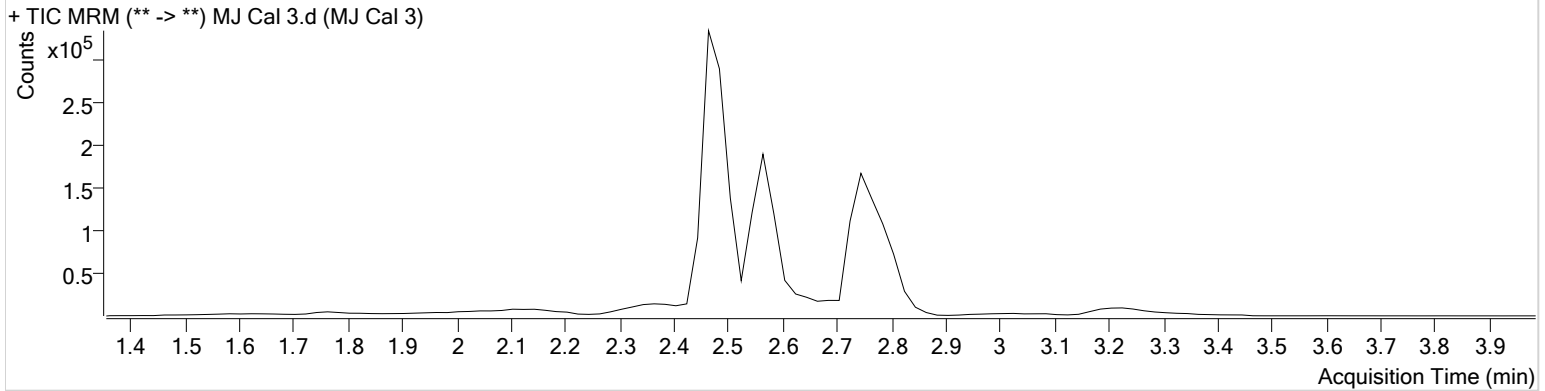


# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2019\AM 25-26\120319 Urine Run CS\QuantResults\THC.batch.bin  
**Calibration Last Update** 12/4/2019 12:29:19 PM

<b>Instrument</b>	Falco	<b>Data File</b>	MJ Cal 3.d
<b>Type</b>	Cal	<b>Sample</b>	MJ Cal 3
<b>Acq. Method</b>	am 26 test.m	<b>Operator</b>	Celena Shrum
<b>Sample Position</b>	P3-C1	<b>Comment</b>	
<b>Injection Volume</b>	10		
<b>Acq. Date-Time</b>	12/3/2019 11:37:47 PM		

**Sample Chromatogram**



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.819	2223	76646	4.0978 ng/ml
THC-COOH	2.565	86011	283302	20.1396 ng/ml
THC-OH	2.471	21207	977084	4.1682 ng/ml

# AM #26 Cannabinoids Screen Results

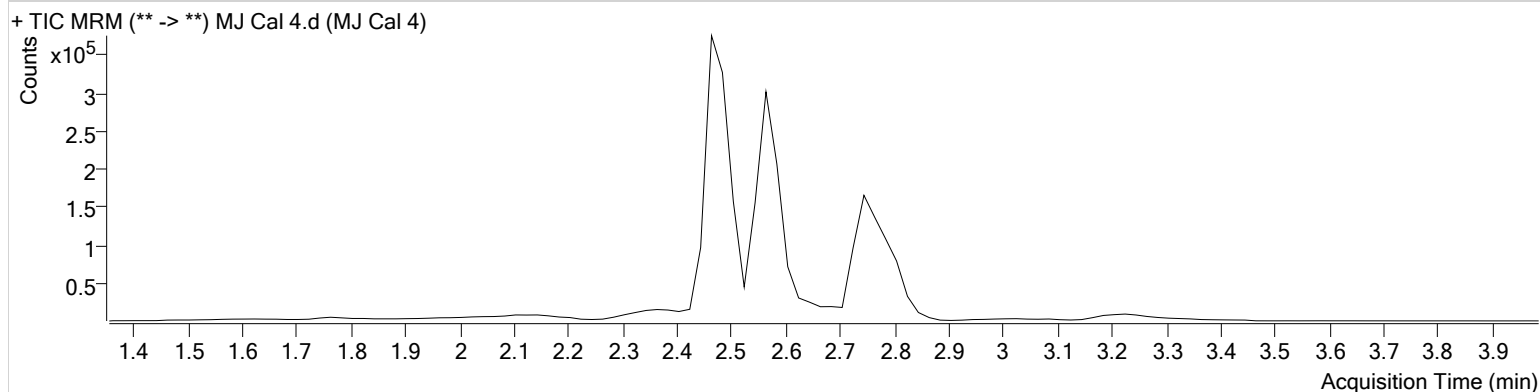


**Batch results** D:\MassHunter\Data\2019\AM 25-26\120319 Urine Run CS\QuantResults\THC.batch.bin  
**Calibration Last Update** 12/4/2019 12:29:19 PM

<b>Instrument</b>	Falco	<b>Data File</b>	MJ Cal 4.d
<b>Type</b>	Cal	<b>Sample</b>	MJ Cal 4
<b>Acq. Method</b>	am 26 test.m	<b>Operator</b>	Celena Shrum
<b>Sample Position</b>	P3-D1	<b>Comment</b>	
<b>Injection Volume</b>	10		
<b>Acq. Date-Time</b>	12/3/2019 11:44:17 PM		

**Sample Info.**

## Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.819	5426	73666	10.5847 ng/ml
THC-COOH	2.565	222427	284637	51.3235 ng/ml
THC-OH	2.471	109914	1030763	11.4699 ng/ml

CS

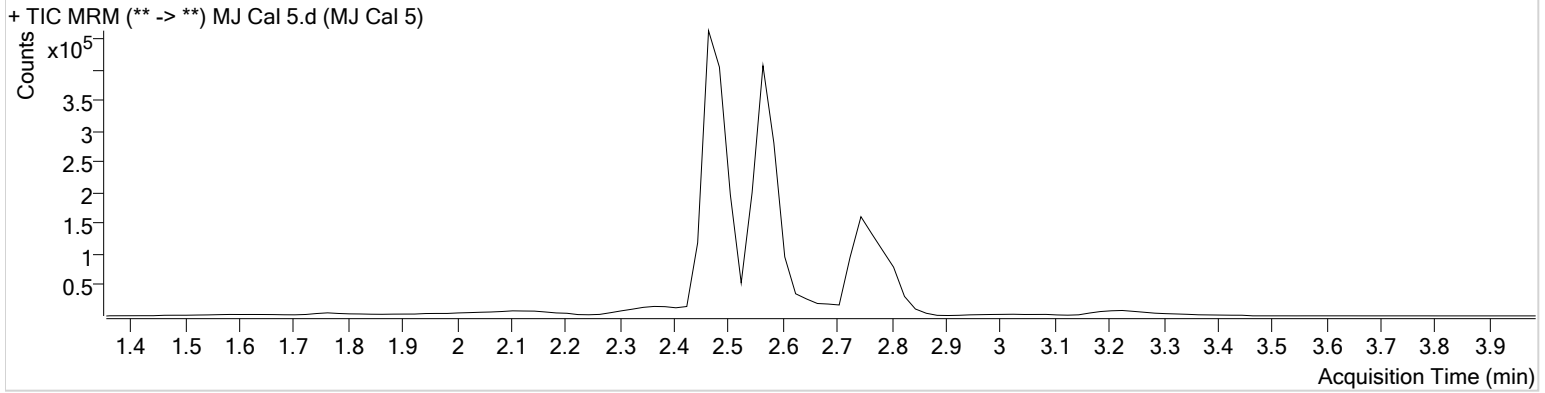


# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2019\AM 25-26\120319 Urine Run CS\QuantResults\THC.batch.bin  
**Calibration Last Update** 12/4/2019 12:29:19 PM

<b>Instrument</b>	Falco	<b>Data File</b>	MJ Cal 5.d
<b>Type</b>	Cal	<b>Sample</b>	MJ Cal 5
<b>Acq. Method</b>	am 26 test.m	<b>Operator</b>	Celena Shrum
<b>Sample Position</b>	P3-E1	<b>Comment</b>	
<b>Injection Volume</b>	10		
<b>Acq. Date-Time</b>	12/3/2019 11:50:49 PM		

**Sample Chromatogram**



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.819	12550	72399	25.0667 ng/ml
THC-COOH	2.565	330294	294175	73.5993 ng/ml
THC-OH	2.471	296838	1093349	25.6435 ng/ml

CS

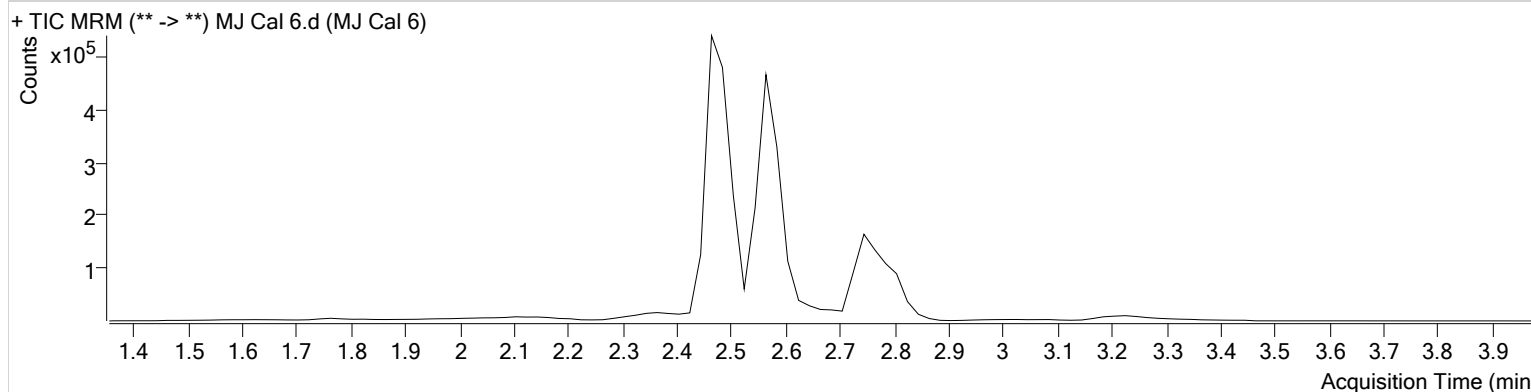


# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2019\AM 25-26\120319 Urine Run CS\QuantResults\THC.batch.bin  
**Calibration Last Update** 12/4/2019 12:29:19 PM

**Instrument** Falco **Data File** MJ Cal 6.d  
**Type** Cal **Sample** MJ Cal 6  
**Acq. Method** am 26 test.m **Operator** Celena Shrum  
**Sample Position** P3-F1 **Comment**  
**Injection Volume** 10  
**Acq. Date-Time** 12/3/2019 11:57:19 PM  
**Sample Info.**

## Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.819	25067	68897	52.7408 ng/ml
THC-COOH	2.565	403243	265499	99.4443 ng/ml
THC-OH	2.471	574981	1022548	50.6454 ng/ml

# AM #26 Cannabinoids Screen Results

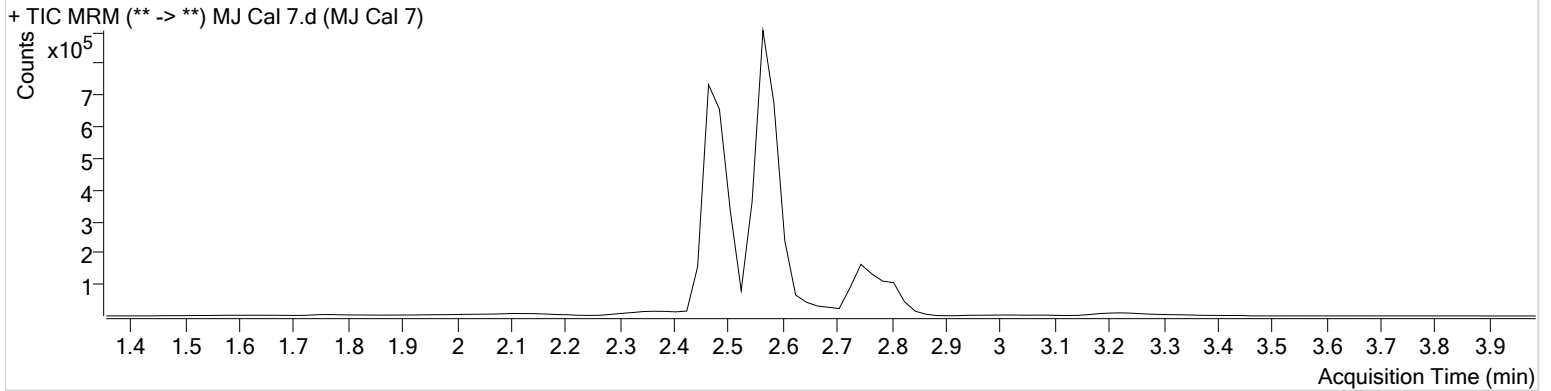


**Batch results** D:\MassHunter\Data\2019\AM 25-26\120319 Urine Run CS\QuantResults\THC.batch.bin  
**Calibration Last Update** 12/4/2019 12:29:19 PM

<b>Instrument</b>	Falco	<b>Data File</b>	MJ Cal 7.d
<b>Type</b>	Cal	<b>Sample</b>	MJ Cal 7
<b>Acq. Method</b>	am 26 test.m	<b>Operator</b>	Celena Shrum
<b>Sample Position</b>	P3-G1	<b>Comment</b>	
<b>Injection Volume</b>	10		
<b>Acq. Date-Time</b>	12/4/2019 12:03:50 AM		

**Sample Info.**

## Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.819	50191	74903	97.2335 ng/ml
THC-COOH	2.565	926605	242209	249.9879 ng/ml
THC-OH	2.471	1117589	1003262	98.0730 ng/ml