



Worklist: 4088




<u>LAB CASE</u>	<u>ITEM</u>	<u>ITEM TYPE</u>	<u>DESCRIPTION</u>	
M2020-0494	2	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
M2020-0752	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
M2020-0973	2	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0100	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0668	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0731	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0734	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0740	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0740	2	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0765	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0768	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0782	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0789	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0792	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0794	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0802	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0826	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0844	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0845	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0847	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0848	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	

Worklist: 4088

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<u>LAB CASE</u>	<u>ITEM</u>	<u>ITEM TYPE</u>	<u>DESCRIPTION</u>	
P2020-0852	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0864	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	

Worklist: 4089

<u>LAB CASE</u>	<u>ITEM</u>	<u>ITEM TYPE</u>	<u>DESCRIPTION</u>	
M2020-0854	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
M2020-0879	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
M2020-1014	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	

**Idaho State Police
Forensic Services
Toxicology Discipline**

Request for Departure from an Analytical Method

Date of Request

01/13/2020

Forensic Scientist

Celena Shrum

Analytical Methods

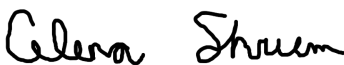
Toxicology AM #25, Toxicology AM #26/27, and AM #28

Deviation

The expiration dates listed for the current batch of PinPoint ToxBox extraction plates are as follows:

- *MDS (batch IDP-107-190725)- Expiration is 1/25/2020
- *THC (batch IDP-108-190716)- Expiration is 1/16/2020
- *MDQ P1 (batch IDP-111-190729)- Expiration is 1/29/2020
- *MDQ P2 (batch IDP-112-190730)- Expiration is 1/30/2020

I am issuing a deviation to allow for the use of the remaining plates of these batches. The controls will be used to evaluate if the plate is working as intended. In addition, at least one external control must be included for each run.



Date: 01/13/2020

Celena Shrum

Toxicology Discipline Lead

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

Extraction Date: 03/18/20
 Plate lot#: IDP-107-190725

Analyst: Sarah Pickle
 Plate Expiration: 01/25/2020

Mobile phase A: 10mM Amm Form
 0.5M Ammonium Hydroxide
Blank Blood Lot: Hemostat 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. Pipette **250 µL blood (calibrated pipette)** in wells of analytical (standards) plate. **Pipette ID: #16**
- 3. Place on shaking incubator at ambient temp., 900 rpm for 15 minutes. *Shaker ID: 067105*
- 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+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: 067104
- 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: 067103
- 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.
 Batch Name: AM 25 Worklist path: D:\MassHunter\Data\2020\AM 25-26\031820 AM 25 26 SP
- 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? Y / N _____
- 5. Central File Packet to include: LIMS Worklist, Method Checklist, Calibration and Control Reports

COMMENTS: *Did not evaluate olanzapine due to poor peak shape and flurazepam due to peak cutting off*



Idaho State Police Forensic Services

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AM #25 Blood Multi-Drug Screen by LCMS-QQQ And AM #28 Blood Multi-Drug Confirmatory Analysis by LCMS-QQQ---Panel 1

Methanol External Control Solution (Lot: 031820)

100 µL of 1mg/mL stock was added to each drug to 9700 µL of LC MeOH.

<i>Component</i>	<i>Source</i>	<i>Source Lot Number</i>	<i>Expiration Date</i>
Methanol (LCMS)	Fisher	193068	
O-desmethyl Tramadol	Cerilliant	FN01241702	04/30/2022
Amphetamine	Cerilliant	FE04061701	06/30/2022
Alprazolam	Cerilliant	FE07061604	07/31/2021
Prepared:	03/18/20		
Prepared By:	Sarah Pickle		
Expires:	03/18/21		

Blood External Control Solution (Lot: WS031820)

*100 µL of methanol external control solution was added to 9900 µL of blood.
Approximately 100 ng/mL of each compound.*

<i>Component</i>	<i>Source</i>	<i>Source Lot Number</i>
Negative Blood	Hemostat	445283-3
Methanol External Control Solution		031820
Prepared:	03/18/20	
Prepared by:	Sarah Pickle	
Expires:	03/18/21	

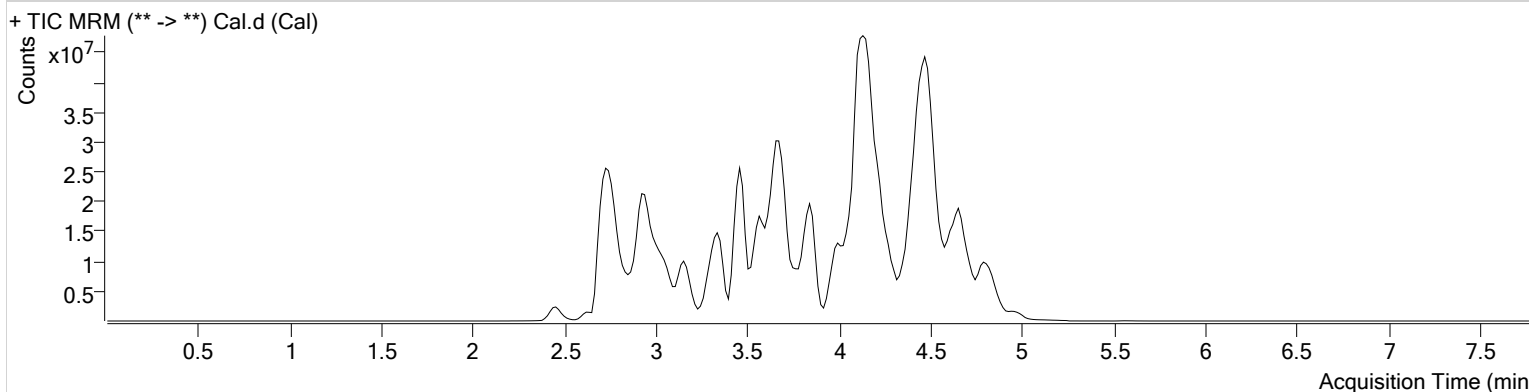
AM #25 Multi-Drug Screen Results



Batch results D:\MassHunter\Data\2020\AM 25-26\031820 AM 25 26 SP\QuantResults\AM 25.batch.bin
Calibration Last Update 3/20/2020 10:17:58 AM

Instrument	Falco	Data File	Cal.d
Type	Cal	Sample	Cal
Acq. Method	am 25 all.m	Operator	Sarah Pickle
Sample Position	P1-A1	Comment	
Injection Volume	5		
Acq. Date-Time	3/18/2020 12:30:10 PM		

Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
6-MAM	3.043	57308	254.84	34131.10	1469781	10.0000
7-aminoclonazepam	3.567	1199450	2286.86	433387.05	4902484	10.0000
7-aminoflunitrazepam	3.782	2819700	524.02	444.79	20564127	10.0000
Acetyl Fentanyl	4.040	468416	82.30	69.17	35191774	10.0000
Acetyl Norfentanyl	2.930	336129	261773.64	176.33	16425998	10.0000
a-hydroxyalprazolam	4.500	142227	∞	70.78	875649	10.0000
alpha-hydroxymidazolam	4.591	1226092	11326.30	95328.23	7823602	10.0000
alpha-PVP	3.636	5146549	∞	3331.06	22927101	10.0000
Alprazolam	4.610	1648081	∞	∞	4424431	10.0000
Amitriptyline	4.553	4513875	82.99	∞	11665477	10.0000
Amphetamine	2.934	3181577	∞	∞	7834480	10.0000
Benzoyllecgonine	3.352	1071381	6738.05	564.05	5041345	10.0000
Buprenorphine	4.877	981675	2241.09	200898.45	3841344	10.0000
Bupropion	3.864	5933420	169.46	2375.10	18461892	10.0000
Carbamazepine	4.219	7754561	348.56	1034.82	46039632	10.0000
Carisprodol	4.202	1022339	788.78	88.12	4919525	10.0000
Chlordiazepoxide	4.719	845715	66.92	∞	21272291	10.0000
Chlorpheniramine	4.045	23260	1405.23	204466.83	55323992	10.0000
Citalopram	4.162	2491527	584.70	∞	11044148	10.0000
Clonazepam	4.424	1238662	∞	124.90	2428512	10.0000
Cocaine	3.657	6074724	374.64	616.56	30446346	10.0000
Codeine	2.955	380867	19.48	∞	1702808	10.0000
Cyclobenzaprine	4.477	3377944	80.44	88.95	11609498	10.0000
Desipramine	4.493	5220163	∞	∞	33201396	10.0000
Dextromethorphan	4.185	2343498	122882.51	191449.75	10668860	10.0000
Dextrorphan	3.463	2468403	8161.31	1223450.56	16657619	10.0000
Diazepam	4.844	1385023	193.12	∞	6657811	10.0000
Dihydrocodeine	2.848	1107231	735.81	63.62	5891061	10.0000
Diphenhydramine	4.094	7537737	28659.52	∞	55323992	10.0000
Doxepin	4.276	2757581	3348.10	∞	18494953	10.0000
Doxylamine	3.706	12532766	21301.61	9171671.94	49433146	10.0000
EDDP	4.137	7192207	∞	∞	45960902	10.0000
Estazolam	4.520	3587097	331.07	200.67	10657526	10.0000
Etizolam	4.636	273595	374.30	436.47	10657526	10.0000

Cal

AM #25 Multi-Drug Screen Results



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Fentanyl	4.269	379404	67.26	197.51	25329540	10.0000
Flunitrazepam	4.548	1714904	315.56	485.70	383129	10.0000
Fluoxetine	4.392	4654572	1236.18	90.49	20846662	10.0000
Hydrocodone	3.183	1471586	∞	76.34	9171673	10.0000
Hydromorphone	2.638	1037078	∞	∞	4335293	10.0000
Imipramine	4.522	6637715	∞	∞	25531775	10.0000
Ketamine	3.696	4137689	∞	412.23	19053215	10.0000
Lamotrigine	3.632	291789	78.18	61.30	13985062	10.0000
Levamisole	3.084	4047928	∞	∞	30446346	10.0000
Lorazepam	4.408	582317	43464.67	342.95	2428512	10.0000
Maprotiline	4.553	4601536	188.31	1020.30	11665477	10.0000
MDA	3.069	2379610	576.54	550.31	10788424	10.0000
MDEA	3.314	5023589	∞	262.02	23830939	10.0000
MDMA	3.161	5530472	23776.50	1229.66	3841140	10.0000
Meperidine	3.679	2942551	∞	∞	13985062	10.0000
Meprobamate	3.636	406860	322.89	72.71	1686688	10.0000
Methadone	4.471	7039134	224.01	129.53	32906199	10.0000
Methamphetamine	3.040	3366297	∞	50.89	18491870	10.0000
Methocarbamol	3.526	509665	∞	126.87	13985062	10.0000
Methylphenidate	3.573	9289735	∞	∞	43583476	10.0000
Metoprolol	3.492	663635	184.43	181.25	13985062	10.0000
Midazolam	4.760	744410	∞	∞	8646995	10.0000
Mirtazapine	4.217	3385698	321690.00	25045.15	13985062	10.0000
Mitragynine	4.358	416089	126.30	215021.71	18494953	10.0000
Morphine	2.473	140147	1110.65	59749.75	122334	10.0000
Norbuprenorphine	3.944	87438	34271.45	33752.77	461150	10.0000
Nordiazepam	4.693	1462265	319.00	38.09	4754107	10.0000
Norfentanyl	3.358	7857707	8048798.07	133.24	33563684	10.0000
Norhydrocodone	3.018	36960	117.08	5.86	1165419	10.0000
Normeperidine	3.650	2333451	∞	1324.75	8328541	10.0000
Noroxycodone	2.955	1190447	98.57	190.74	3536274	10.0000
Nortriptyline	4.525	2167843	1168.35	464.08	4885585	10.0000
O-desmethyl-tramadol	2.944	9018929	8997.16	444.18	44435936	10.0000
* Olanzapine	4.103	329561	∞	5.75	673614	10.0000
Oxazepam	4.490	1829620	326.11	155.48	12288602	10.0000
Oxycodone	2.998	2806423	210.85	∞	12428659	10.0000
Oxymorphone	2.454	2073183	946.70	99.33	7518022	10.0000
Paroxetine	4.499	404356	141.74	52.02	11656323	10.0000
Phenazepam	4.636	1527349	437.27	528.47	7775816	10.0000
Phencyclidine	4.002	6304840	393.31	3905.17	28509691	10.0000
Phentermine	3.178	1456478	∞	10.16	17165146	10.0000
Phenytoin	4.095	71321	1977.80	3973.85	673614	10.0000
Promethazine	4.490	10822132	∞	470.60	42216301	10.0000
Pseudoephedrine	2.734	47835517	∞	∞	138547182	10.0000
Quetiapine	4.635	3471558	140423.04	1189938.47	5071740	10.0000
Sertraline	4.688	2379552	16024.11	7176.78	11656323	10.0000
Sufentanil	4.650	365372	150.20	177.92	25372173	10.0000
Tapentadol	3.482	4166263	860.53	400.62	22836111	10.0000
Temazepam	4.658	3419347	∞	∞	17568800	10.0000
Tramadol	3.477	11021903	10222.98	81.06	48450201	10.0000
Trazodone	4.850	6913568	51769.64	∞	32030441	10.0000
Venlafaxine	3.844	8310460	7309.24	2157.25	48627049	10.0000
Zaleplon	4.350	3446798	451.17	2033.86	7748592	10.0000
Zolpidem	4.442	9796206	∞	316.20	50337115	10.0000
Zopiclone	4.374	453376	104266.16	1081.50	2578042	10.0000

*Did not evaluate

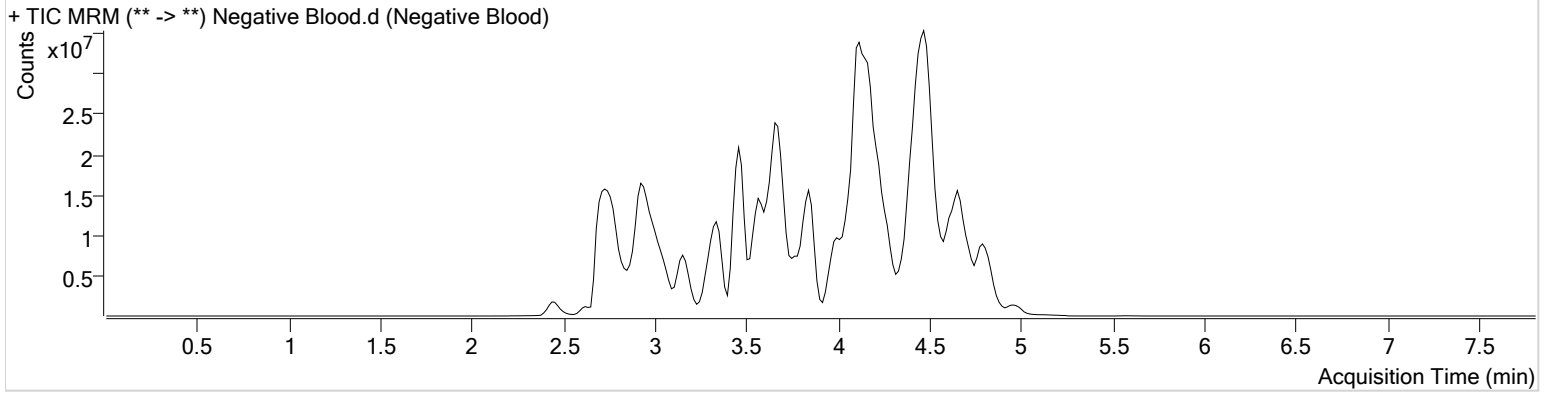
AM #25 Multi-Drug Screen Results



Batch results D:\MassHunter\Data\2020\AM 25-26\031820 AM 25 26 SP\QuantResults\AM 25.batch.bin
Calibration Last Update 3/20/2020 10:17:58 AM

Instrument	Falco	Data File	Negative Blood.d
Type	Sample	Sample	Negative Blood
Acq. Method	am 25 all.m	Operator	Sarah Pickle
Sample Position	P1-C1	Comment	
Injection Volume	5		
Acq. Date-Time	3/18/2020 12:38:40 PM		
Sample Info.			

Sample Chromatogram



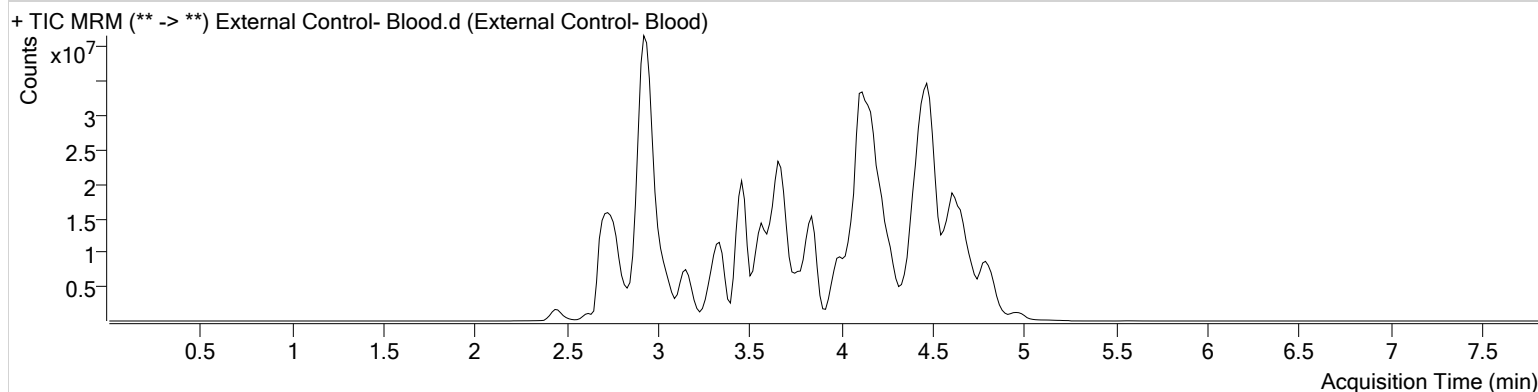
AM #25 Multi-Drug Screen Results



Batch results D:\MassHunter\Data\2020\AM 25-26\031820 AM 25 26 SP\QuantResults\AM 25.batch.bin
Calibration Last Update 3/20/2020 10:17:58 AM

Instrument	Falco	Data File	External Control- Blood.d
Type	Sample	Sample	External Control- Blood
Acq. Method	am 25 all.m	Operator	Sarah Pickle
Sample Position	P1-D1	Comment	
Injection Volume	5		
Acq. Date-Time	3/18/2020 12:47:00 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Alprazolam	4.603	17151146	∞	79088.28	4295430	107.1928
Amphetamine	2.919	29486096	23483.50	11069.75	7346569	98.8327
O-desmethyl-tramadol	2.944	60415774	97259.32	4112.06	41532166	71.6713

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

Extraction Date: 03/18/20Analyst: Sarah Pickle

Plate lot#: IDP-108-190716

Plate Expiration: 01/16/20

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: Hemostat 445283-3

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

LCMS-QQ ID: 069901

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. Pipette **1000 µL blood (calibrated pipette)** in wells of analytical (standards) plate. **Pipette ID: 3382167**
- 3. Place on shaking incubator at ambient temp., 900 rpm for 15 minutes. *Shaker ID: 067105*
- 4. Pipette **500 µL 0.1% formic acid** in wells of analytical plate.
- 5. Place on shaking incubator at ambient temp., 900 rpm for 15 minutes.
- 6. Transfer **800 µL of blood+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: 067104
- 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: 067103
- 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.

Worklist path: D:\MassHunter\Data\2020\AM 25-26\031820 AM 25 26 SPBatch Name: AM 26

- 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? Y / N
- 5. Central File Packet to include: LIMS Worklist, Method Checklist, Calibration and Control Reports

COMMENTS:



Idaho State Police Forensic Services

AM #26 Blood THC and Metabolites Screen by LCMS-QQQ and AM #27 Quantitative Analysis of THC and Metabolites in Blood by LCMS-QQQ

Methanol External Control Solution (Lot: WS011620)

10 μL of 1mg/mL THC, 100 μL of 100 $\mu\text{g}/\text{mL}$ THC-OH, C-THC in 9790 μL MeOH
Approximate concentration 1 $\mu\text{g}/\text{mL}$.

Component	Source	Source Lot Number	Expiration Date
Methanol (LCMS)	Fisher	193941	
THC	Cerilliant	FE09101501	11/30/2020
C-THC	Cerilliant	FE07171501	09/30/2020
THC-OH	Cerilliant	FE07221601	07/31/2021
Prepared:	01/16/2020		
Prepared By:	Tamara Salazar		
Expires:	09/30/2020		

Blood External Control Solution (Lot: 031820)

200 μL of methanol external control solution was added to 9800 μL of blood.
Approximately 20 ng/mL of each compound.

Component	Source	Source Lot Number
Negative Blood	Hemostat	445283-3
Methanol External Control Solution	-	WS011620
Prepared:	03/18/20	
Prepared by:	Sarah Pickle	
Expires:	09/30/2020	

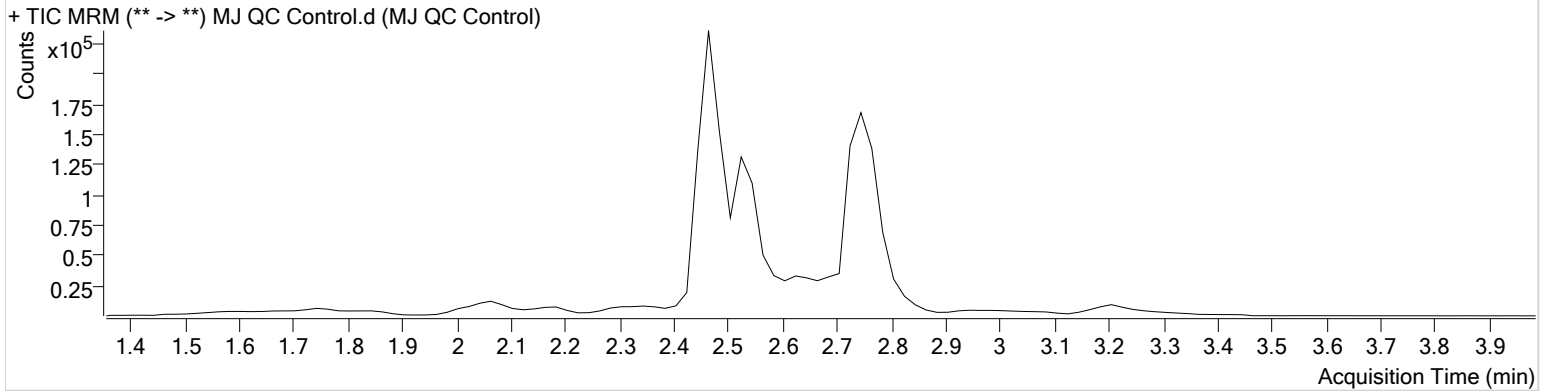
AM #26 Cannabinoids Screen Results



Batch results D:\MassHunter\Data\2020\AM 25-26\031820 AM 25 26 SP\QuantResults\AM 26.batch.bin
Calibration Last Update 3/20/2020 10:19:52 AM

Instrument	Falco	Data File	MJ QC Control.d
Type	Sample	Sample	MJ QC Control
Acq. Method	am 26 test.m	Operator	Sarah Pickle
Sample Position	P3-H1	Comment	
Injection Volume	10		
Acq. Date-Time	3/18/2020 5:32:07 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.819	934	20316	5.2154 ng/ml
THC-COOH	2.545	51595	191194	16.7426 ng/ml
THC-OH	2.491	67023	617164	4.6137 ng/ml

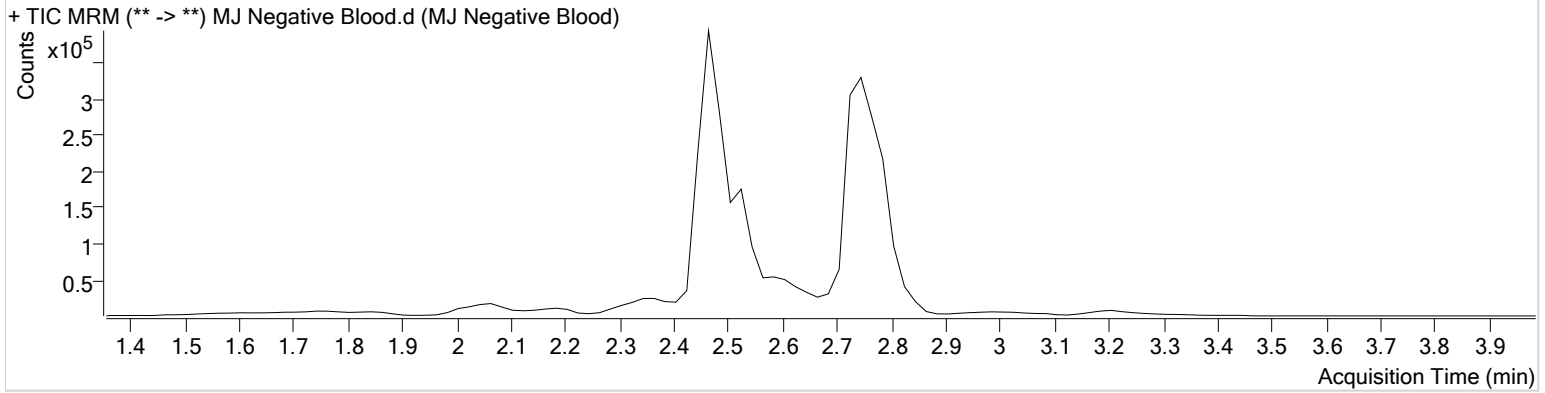
AM #26 Cannabinoids Screen Results



Batch results D:\MassHunter\Data\2020\AM 25-26\031820 AM 25 26 SP\QuantResults\AM 26.batch.bin
Calibration Last Update 3/20/2020 10:19:52 AM

Instrument	Falco	Data File	MJ Negative Blood.d
Type	Sample	Sample	MJ Negative Blood
Acq. Method	am 26 test.m	Operator	Sarah Pickle
Sample Position	P3-A2	Comment	
Injection Volume	10		
Acq. Date-Time	3/19/2020 8:46:22 AM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.	
THC-OH	2.512	85167	1119468	2.0887 ng/ml	Low

AM #26 Cannabinoids Screen Results

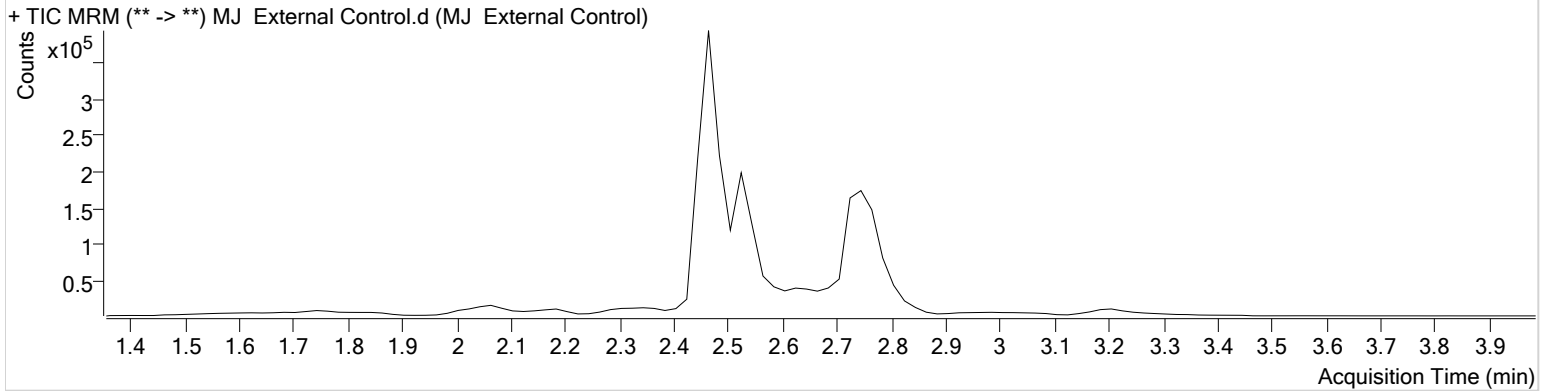


Batch results D:\MassHunter\Data\2020\AM 25-26\031820 AM 25 26 SP\QuantResults\AM 26.batch.bin
Calibration Last Update 3/20/2020 10:19:52 AM

Instrument	Falco	Data File	MJ External Control.d
Type	Sample	Sample	MJ External Control
Acq. Method	am 26 test.m	Operator	Sarah Pickle
Sample Position	P3-B2	Comment	
Injection Volume	10		
Acq. Date-Time	3/19/2020 8:53:03 AM		

Sample Info.

Sample Chromatogram

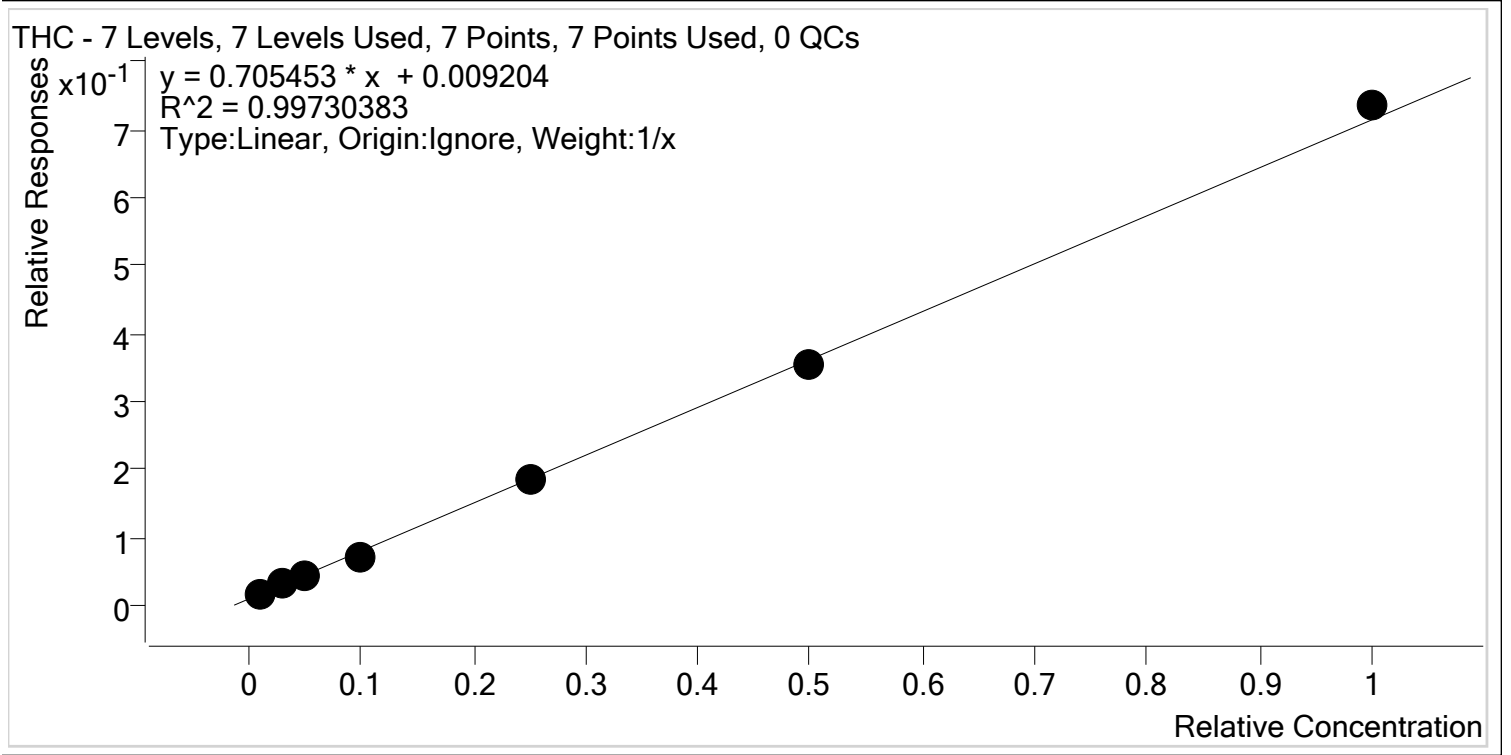


Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.819	4506	35870	16.5018 ng/ml
THC-COOH	2.525	61078	265652	14.2890 ng/ml
THC-OH	2.471	222559	842459	16.6933 ng/ml



AM #26 Cannabinoids Screen Calibration Curve Report

Batch results D:\MassHunter\Data\2020\AM 25-26\031820 AM 25 26 SP\QuantResults\AM 26.batch.bin
Last Cal. Update 3/20/2020 10:19 AM
Analyst Name ISP\datastor
Analyte THC **Internal Standard** THC-d3



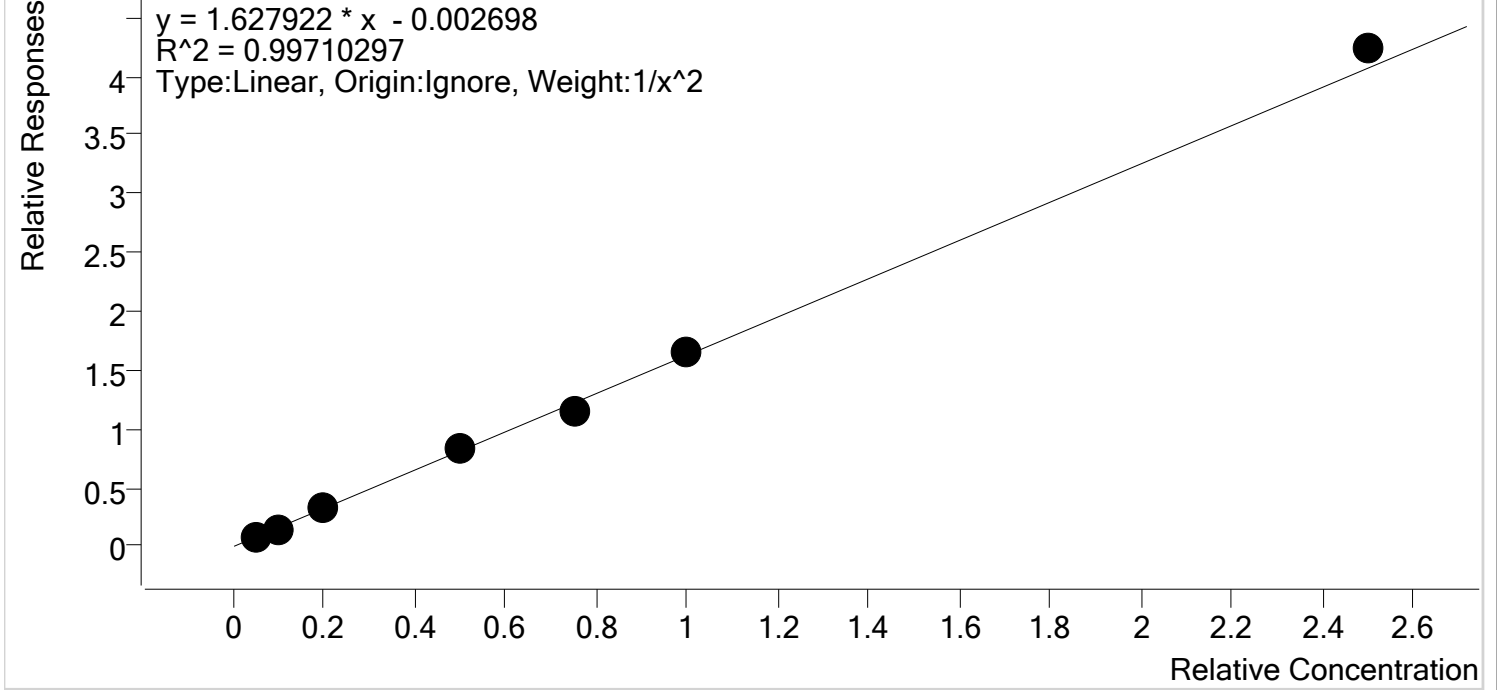
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
MJ Cal 1	1	✓	1.0	1.1	108.9
MJ Cal 2	2	✓	3.0	3.4	114.5
MJ Cal 3	3	✓	5.0	4.6	92.6
MJ Cal 4	4	✓	10.0	8.5	85.0
MJ Cal 5	5	✓	25.0	24.6	98.5
MJ Cal 6	6	✓	50.0	48.8	97.5
MJ Cal 7	7	✓	100.0	103.0	103.0



AM #26 Cannabinoids Screen Calibration Curve Report

Batch results D:\MassHunter\Data\2020\AM 25-26\031820 AM 25 26 SP\QuantResults\AM 26.batch.bin
Last Cal. Update 3/20/2020 10:19 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
MJ Cal 1	1	✓	5.0	5.2	103.3
MJ Cal 2	2	✓	10.0	9.3	93.0
MJ Cal 3	3	✓	20.0	20.1	100.3
MJ Cal 4	4	✓	50.0	51.3	102.6
MJ Cal 5	5	✓	75.0	71.0	94.6
MJ Cal 6	6	✓	100.0	102.1	102.1
MJ Cal 7	7	✓	250.0	260.2	104.1

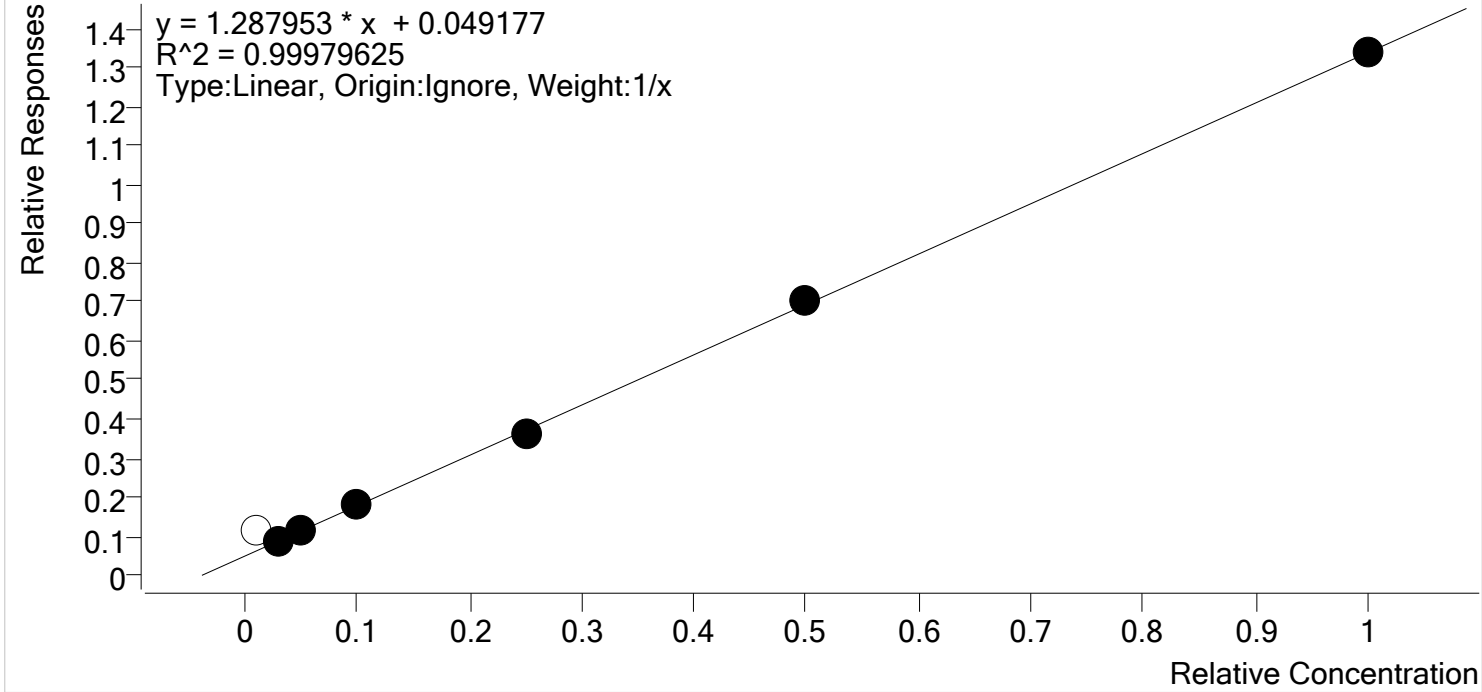


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AM #26 Cannabinoids Screen Calibration Curve Report

Batch results D:\MassHunter\Data\2020\AM 25-26\031820 AM 25 26 SP\QuantResults\AM 26.batch.bin
Last Cal. Update 3/20/2020 10:19 AM
Analyst Name ISP\datastor
Analyte THC-OH **Internal Standard** THC-OH-d3

THC-OH - 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	4.9	492.0
MJ Cal 2	2	✓	3.0	3.1	102.0
MJ Cal 3	3	✓	5.0	4.9	98.9
MJ Cal 4	4	✓	10.0	10.1	100.6
MJ Cal 5	5	✓	25.0	24.3	97.3
MJ Cal 6	6	✓	50.0	50.6	101.3
MJ Cal 7	7	✓	100.0	100.0	100.0

AM #26 Cannabinoids Screen Results

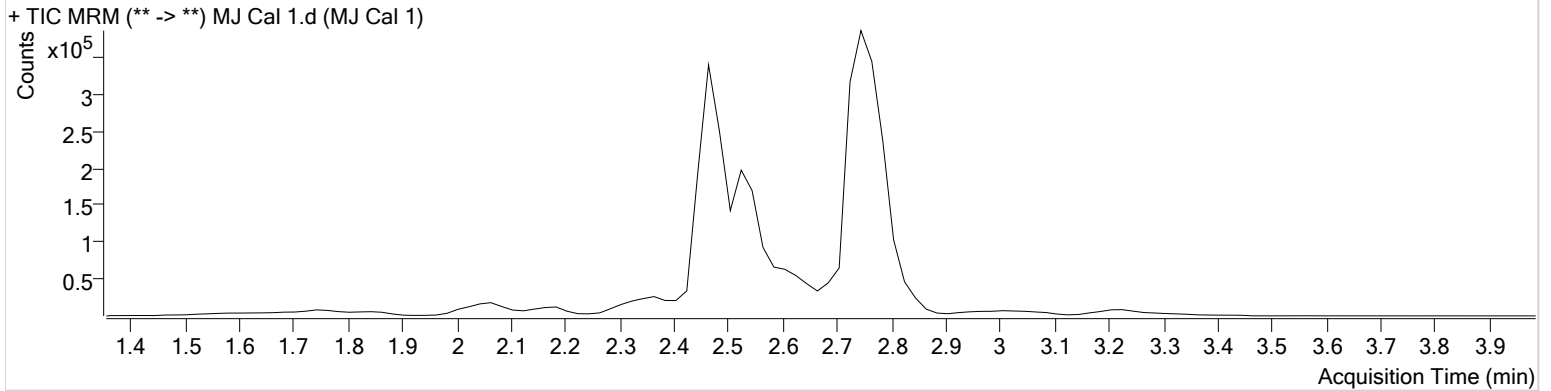


Batch results D:\MassHunter\Data\2020\AM 25-26\031820 AM 25 26 SP\QuantResults\AM 26.batch.bin
Calibration Last Update 3/20/2020 10:19:52 AM

Instrument	Falco	Data File	MJ Cal 1.d
Type	Cal	Sample	MJ Cal 1
Acq. Method	am 26 test.m	Operator	Sarah Pickle
Sample Position	P3-A1	Comment	
Injection Volume	10		
Acq. Date-Time	3/18/2020 4:46:12 PM		

Sample Info.

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.	
THC	2.819	808	47833	1.0887 ng/ml	Low
THC-COOH	2.545	27266	334885	5.1672 ng/ml	
THC-OH	2.532	111191	987965	4.9201 ng/ml	

AM #26 Cannabinoids Screen Results

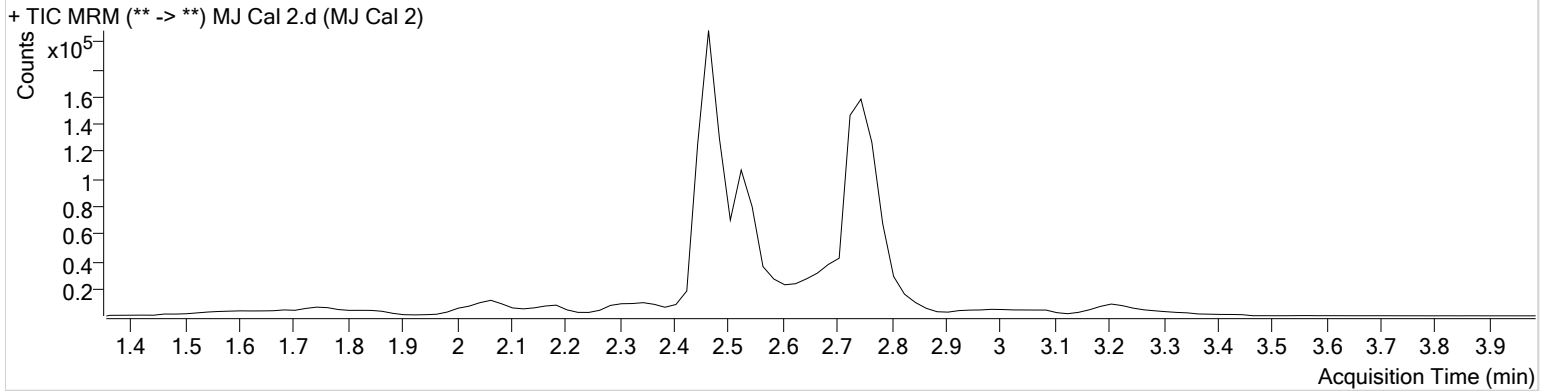


Batch results D:\MassHunter\Data\2020\AM 25-26\031820 AM 25 26 SP\QuantResults\AM 26.batch.bin
Calibration Last Update 3/20/2020 10:19:52 AM

Instrument	Falco	Data File	MJ Cal 2.d
Type	Cal	Sample	MJ Cal 2
Acq. Method	am 26 test.m	Operator	Sarah Pickle
Sample Position	P3-B1	Comment	
Injection Volume	10		
Acq. Date-Time	3/18/2020 4:52:55 PM		

Sample Info.

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.819	624	18675	3.4350 ng/ml
THC-COOH	2.545	26292	176828	9.2991 ng/ml
THC-OH	2.491	49826	562496	3.0594 ng/ml

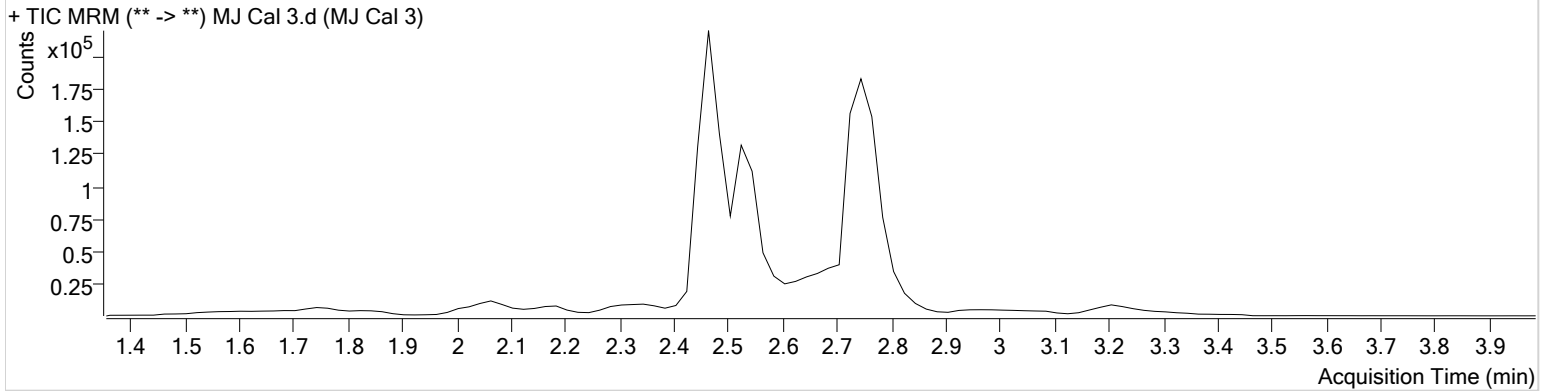
AM #26 Cannabinoids Screen Results



Batch results D:\MassHunter\Data\2020\AM 25-26\031820 AM 25 26 SP\QuantResults\AM 26.batch.bin
Calibration Last Update 3/20/2020 10:19:52 AM

Instrument	Falco	Data File	MJ Cal 3.d
Type	Cal	Sample	MJ Cal 3
Acq. Method	am 26 test.m	Operator	Sarah Pickle
Sample Position	P3-C1	Comment	
Injection Volume	10		
Acq. Date-Time	3/18/2020 4:59:26 PM		

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.819	1045	24957	4.6311 ng/ml
THC-COOH	2.545	59207	182795	20.0621 ng/ml
THC-OH	2.491	65587	580952	4.9473 ng/ml

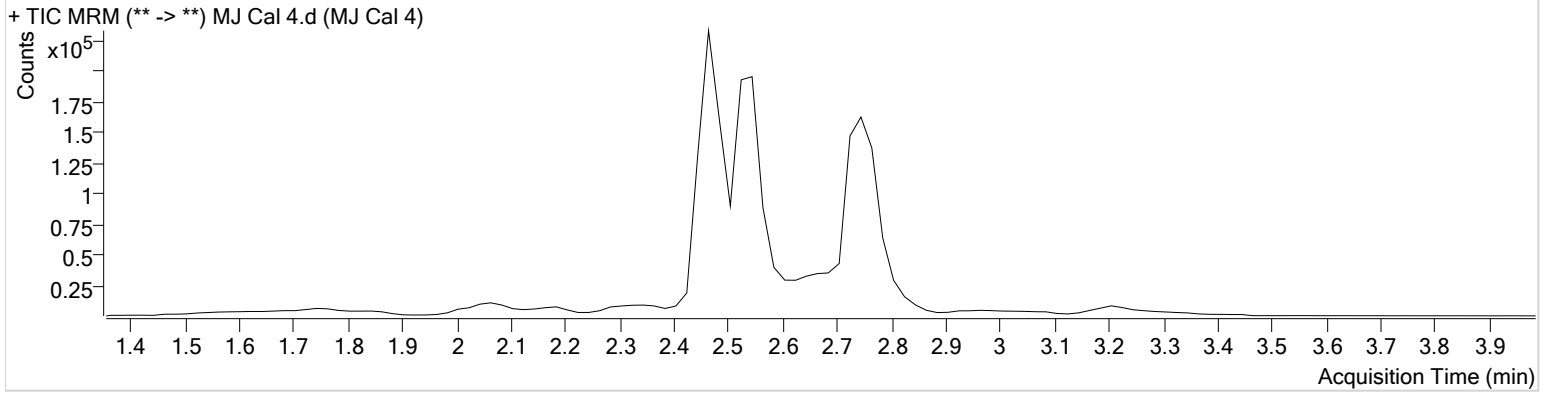
AM #26 Cannabinoids Screen Results



Batch results D:\MassHunter\Data\2020\AM 25-26\031820 AM 25 26 SP\QuantResults\AM 26.batch.bin
Calibration Last Update 3/20/2020 10:19:52 AM

Instrument	Falco	Data File	MJ Cal 4.d
Type	Cal	Sample	MJ Cal 4
Acq. Method	am 26 test.m	Operator	Sarah Pickle
Sample Position	P3-D1	Comment	
Injection Volume	10		
Acq. Date-Time	3/18/2020 5:05:58 PM		

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.819	1509	21812	8.4998 ng/ml
THC-COOH	2.545	151645	182248	51.2789 ng/ml
THC-OH	2.471	102772	575131	10.0559 ng/ml

AM #26 Cannabinoids Screen Results

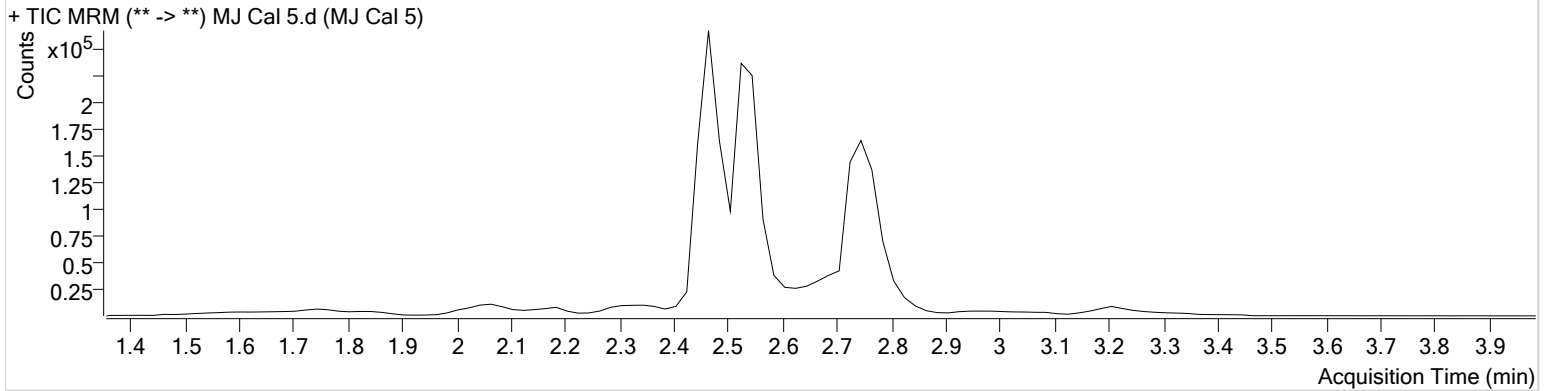


Batch results D:\MassHunter\Data\2020\AM 25-26\031820 AM 25 26 SP\QuantResults\AM 26.batch.bin
Calibration Last Update 3/20/2020 10:19:52 AM

Instrument	Falco	Data File	MJ Cal 5.d
Type	Cal	Sample	MJ Cal 5
Acq. Method	am 26 test.m	Operator	Sarah Pickle
Sample Position	P3-E1	Comment	
Injection Volume	10		
Acq. Date-Time	3/18/2020 5:12:30 PM		

Sample Info.

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.819	4111	22462	24.6356 ng/ml
THC-COOH	2.545	189396	164355	70.9527 ng/ml
THC-OH	2.471	200780	554130	24.3143 ng/ml

AM #26 Cannabinoids Screen Results

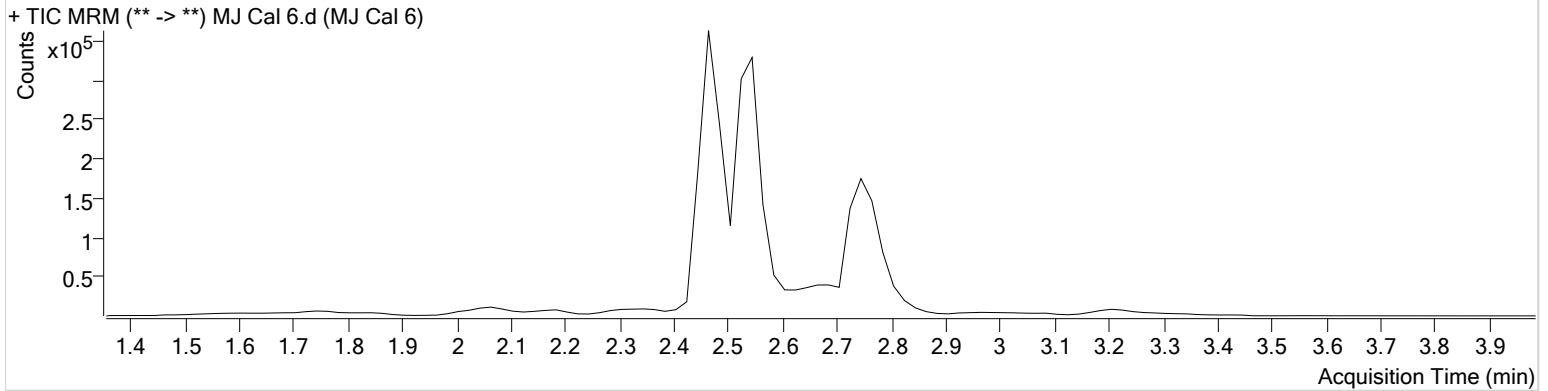


Batch results D:\MassHunter\Data\2020\AM 25-26\031820 AM 25 26 SP\QuantResults\AM 26.batch.bin
Calibration Last Update 3/20/2020 10:19:52 AM

Instrument	Falco	Data File	MJ Cal 6.d
Type	Cal	Sample	MJ Cal 6
Acq. Method	am 26 test.m	Operator	Sarah Pickle
Sample Position	P3-F1	Comment	
Injection Volume	10		
Acq. Date-Time	3/18/2020 5:19:02 PM		

Sample Info.

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.819	8254	23373	48.7562 ng/ml
THC-COOH	2.545	297658	179340	102.1203 ng/ml
THC-OH	2.471	405653	578414	50.6341 ng/ml

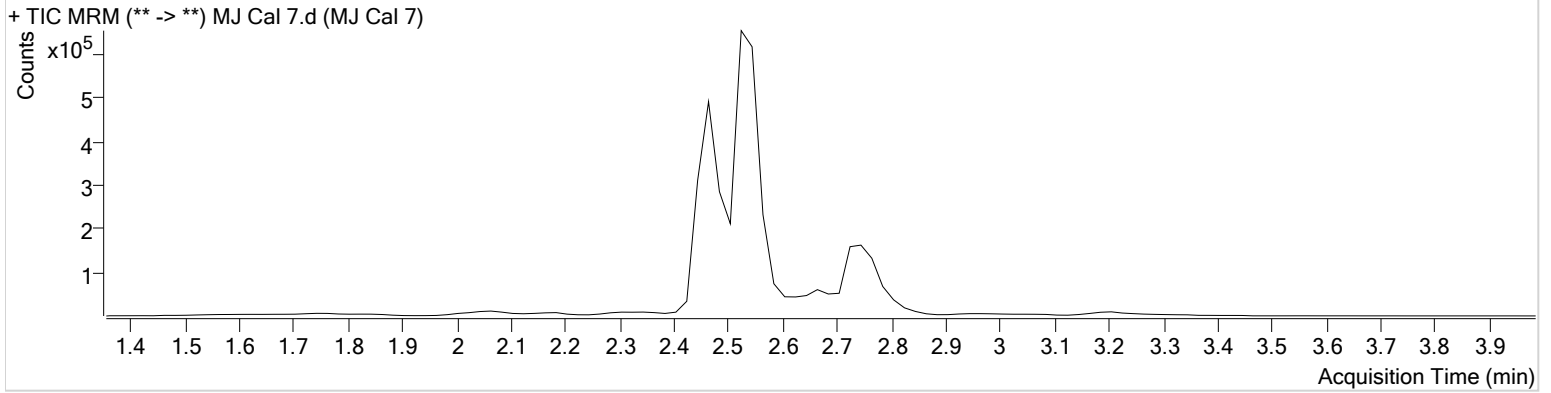
AM #26 Cannabinoids Screen Results



Batch results D:\MassHunter\Data\2020\AM 25-26\031820 AM 25 26 SP\QuantResults\AM 26.batch.bin
Calibration Last Update 3/20/2020 10:19:52 AM

Instrument	Falco	Data File	MJ Cal 7.d
Type	Cal	Sample	MJ Cal 7
Acq. Method	am 26 test.m	Operator	Sarah Pickle
Sample Position	P3-G1	Comment	
Injection Volume	10		
Acq. Date-Time	3/18/2020 5:25:35 PM		

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.819	16443	22356	102.9535 ng/ml
THC-COOH	2.525	710967	167963	260.1831 ng/ml
THC-OH	2.471	760984	569178	99.9890 ng/ml