





CS





13

Worklist: 4036

<u>LAB CASE</u>	<u>ITEM</u>	<u>ITEM TYPE</u>	<u>DESCRIPTION</u>	
M2020-0462	2	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
M2020-0553	3	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
M2020-0641	2	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2019-1843	3	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0062	2	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0203	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0234	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0272	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0297	2	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0338	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0499	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0510	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0515	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0515	2	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0515	3	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0523	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0524	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0525	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0526	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0536	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0537	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	

Worklist: 4036

15

<u>LAB_CASE</u>	<u>ITEM</u>	<u>ITEM_TYPE</u>	<u>DESCRIPTION</u>	
P2020-0539	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0562	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0577	2	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0578	2	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	

B

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.

Celena Shrum

Date: 01/13/2020
Celena Shrum
Toxicology Discipline Lead

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

Extraction Date: 03/02/2020
 Plate Item #: IDP-107 Plate Lot#: 190725

Analyst: Tamara Salazar
 Plate Expiration: 01/25/2020—Ok, deviation in place

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 **250µL blood (calibrated pipette) Pipette ID: 16** in wells of analytical (standards) plate.
- 3. Place on shaking incubator at ambient temp., 900rpm for 15 minutes. *Shaker ID: 067105*
- 4. Pipette **250µL 0.5M ammonium hydroxide** in wells of analytical plate.
- 5. Place on shaking incubator at ambient temp., 900rpm for 15 minutes.
- 6. Transfer **300µL 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 **900uL ethyl acetate.**
- 10. Wait 5 minutes.
- 11. Apply positive pressure for approx. 15 seconds. *(10-15 PSI- Selector to the left).*
- 12. Add **900uL ethyl acetate.**
- 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% 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: *MDS TS*
 Worklist path: *D:\MassHunter\Data\2020\AM 25-26\030220 AM 25_26 wklst 4036 TS*
- 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:



Idaho State Police Forensic Services

TS

**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: 031319)
100 ul of 1mg/mL stock was added to each drug to 9700 ul of LC MeOH.
**Made for the AM 28 urine validation*

<i>Component</i>	<i>Source</i>	<i>Source Lot Number</i>	<i>Expiration Date</i>
Methanol (LCMS)	Fisher	184782	
O-desmethyl Tramadol	Cerilliant	FN01241702	04/30/2022
Amphetamine	Cerilliant	FE04061701	06/30/2022
Alprazolam	Cerilliant	FE07061604	07/31/2021
Prepared:	03/13/19		
Prepared By:	Tamara Salazar		
Expires:	03/13/2020		

Blood External Control Solution (Lot: WS010820)
100 ul of methanol external control solution was added to 9900 ul of blood.
Approximately 100ng/mL of each compound.

<i>Component</i>	<i>Source</i>	<i>Source Lot Number</i>
Negative Blood	Hemostat	445283-3
Methanol External Control Solution		031319
Prepared:	01/08/2020	
Prepared by:	Tamara Salazar	
Expires:	03/13/2020	

TS

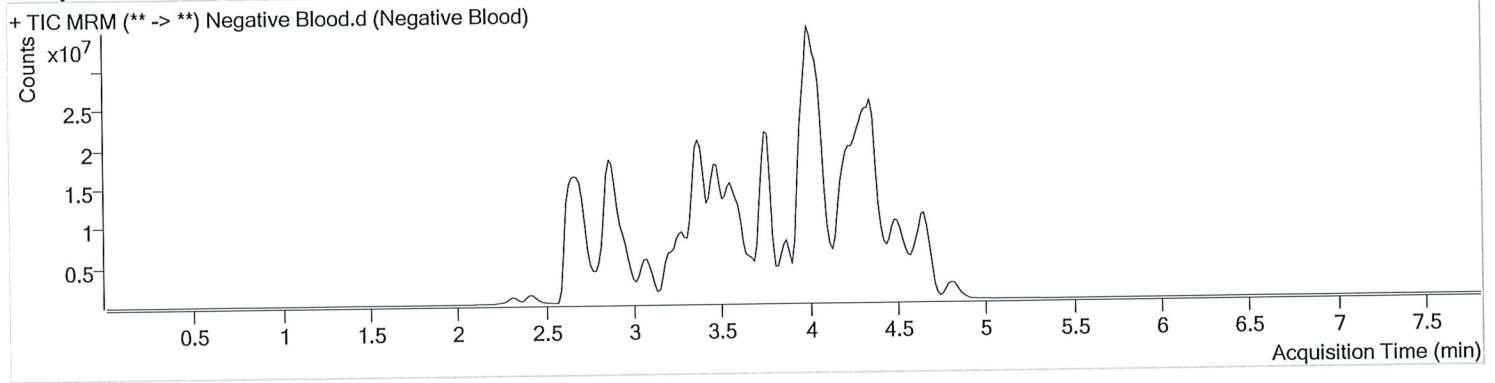


AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\2020\AM 25-26\030220 AM 25_26 wk1st 4036 TS\QuantResults\MDS TS.batch.bin
Calibration Last Update 3/3/2020 1:27:27 PM

Instrument	Falco	Data File	Negative Blood.d
Type	Sample	Sample	Negative Blood
Acq. Method	am 25 all.m	Operator	Tamara Salazar
Sample Position	P1-F12	Comment	
Injection Volume	5		
Acq. Date-Time	3/2/2020 4:35:47 PM		
Sample Info.			

Sample Chromatogram



TS



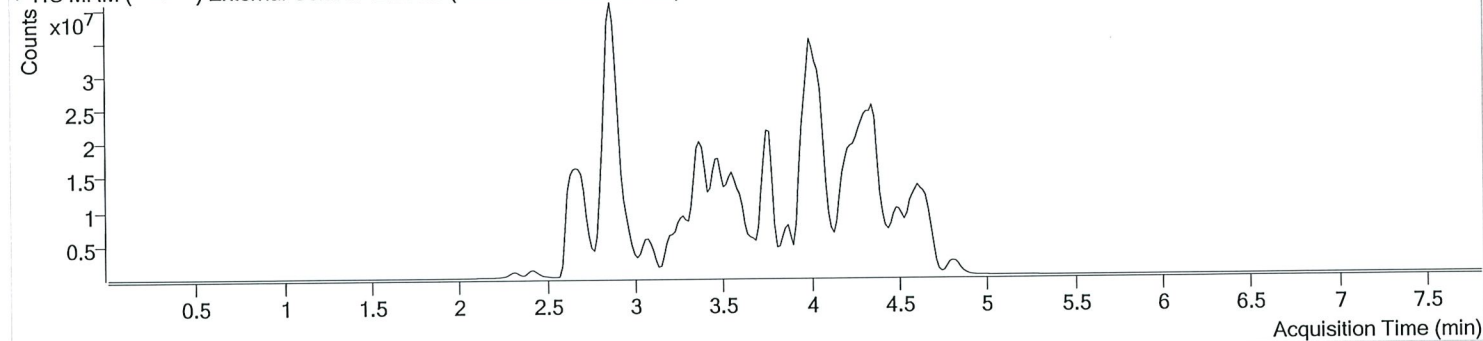
AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\2020\AM 25-26\030220 AM 25_26 wk1st 4036 TS\QuantResults\MDS TS.batch.bin
Calibration Last Update 3/3/2020 1:27:27 PM

Instrument	Falco	Data File	External Control- Blood.d
Type	Sample	Sample	External Control- Blood
Acq. Method	am 25 all.m	Operator	Tamara Salazar
Sample Position	P1-E12	Comment	
Injection Volume	5		
Acq. Date-Time	3/2/2020 4:44:07 PM		

Sample Chromatogram

+ TIC MRM (** -> **) External Control- Blood.d (External Control- Blood)



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Alprazolam	4.595	17628960	∞	∞	4607447	106.7289
Amphetamine	2.843	27034870	∞	∞	6767021	104.5525
O-desmethyl-tramadol	2.883	58801043	112682.23	8876.33	40872262	73.4685

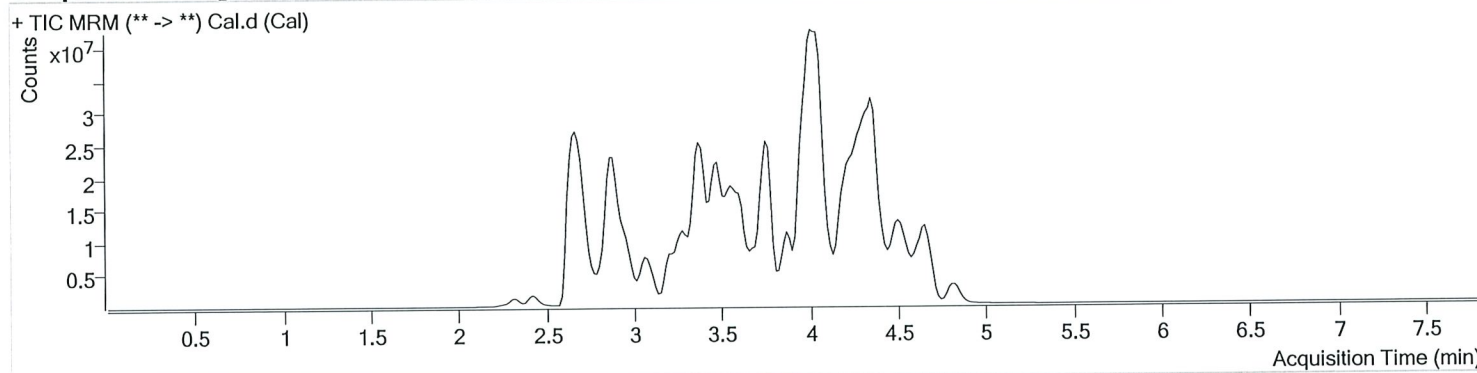


AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\2020\AM 25-26\030220 AM 25_26_wklst 4036 TS\QuantResults\MDS TS.batch.bin
Calibration Last Update 3/3/2020 1:27:27 PM

Instrument	Falco	Data File	Cal.d
Type	Cal	Sample	Cal
Acq. Method	am 25 all.m	Operator	Tamara Salazar
Sample Position	P1-H12	Comment	
Injection Volume	5		
Acq. Date-Time	3/2/2020 4:27:18 PM		

Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
6-MAM	2.875	47910	∞	∞	1197787	10.0000
7-aminoclonazepam	3.567	1142943	201.59	15254.51	4682640	10.0000
7-aminoflunitrazepam	3.782	2497871	19683.72	1146.20	17039849	10.0000
Acetyl Fentanyl	3.763	406504	324.48	83160.42	32559363	10.0000
Acetyl Norfentanyl	2.854	343047	23776.35	130.99	15590194	10.0000
a-hydroxyalprazolam	4.500	221466	282.90	83.57	1187293	10.0000
alpha-hydroxymidazolam	4.545	1246972	2705.94	637075.19	8472861	10.0000
alpha-PVP	3.482	5294936	6002.97	∞	24425331	10.0000
Alprazolam	4.610	1709857	∞	451.27	4769530	10.0000
Amitriptyline	4.400	4364927	∞	131.72	10414392	10.0000
Amphetamine	2.843	2807035	651.74	585.36	7346075	10.0000
Benzoylcegonine	3.352	899810	∞	58.52	4466094	10.0000
Buprenorphine	4.189	820068	93184.38	51888.40	3369503	10.0000
Bupropion	3.680	5831868	50890.42	∞	18758689	10.0000
Carbamazepine	4.219	7868531	833.31	1218.46	47569249	10.0000
Carisoprodol	4.186	1195160	365.93	∞	6116947	10.0000
Chlordiazepoxide	4.689	553773	∞	∞	15787166	10.0000
Chlorpheniramine	3.907	26089	40.20	∞	55695782	10.0000
Citalopram	4.024	2552246	1668.64	∞	12012985	10.0000
Clonazepam	4.440	1344410	1678.08	55175.39	2392258	10.0000
Cocaine	3.534	5676825	3019392.67	5926.94	27585412	10.0000
Codeine	2.758	386592	∞	2858.30	1772168	10.0000
Cyclobenzaprine	4.324	3119413	183788.80	445.69	10704571	10.0000
Desipramine	4.350	5254377	∞	∞	31201897	10.0000
Dextromethorphan	4.045	1704513	∞	1203.14	8110326	10.0000
Dextrophan	3.355	2399242	56527.35	336.76	16171624	10.0000
Diazepam	4.829	1930254	∞	∞	9289107	10.0000
Dihydrocodeine	2.726	901234	300.39	161.71	4388129	10.0000
Diphenhydramine	3.983	8355793	491.30	11873.86	55695782	10.0000
Doxepin	4.122	2422397	∞	∞	15246574	10.0000
Doxylamine	3.615	10504204	459.46	284.73	42704196	10.0000
EDDP	4.044	5110353	111.29	393.12	35944138	10.0000
Estazolam	4.510	5173359	∞	2030.21	15866255	10.0000
Etizolam	4.621	270746	30809.43	434905.64	15866255	10.0000

Cal



AM #25 Multi-Drug Screen Results

Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Fentanyl	3.992	261977	80.97	100925.79	19113183	10.0000
Flunitrazepam	4.548	2003709	84500.58	1333.75	472121	10.0000
Fluoxetine	4.303	3400015	701.39	∞	14987356	10.0000
Flurazepam	4.098	2385828	232.14	62283.93	472121	10.0000
Hydrocodone	2.955	1359855	52.64	21.01	8836809	10.0000
Hydromorphone	2.427	1061801	∞	∞	4289695	10.0000
Imipramine	4.359	5857293	∞	∞	23210841	10.0000
Ketamine	3.357	4070511	4670.11	∞	19675406	10.0000
Lamotrigine	3.509	295212	140.42	35.41	12087044	10.0000
Levamisole	2.901	3695181	∞	∞	27585412	10.0000
Lorazepam	4.424	514228	511.29	181.49	2392258	10.0000
Maprotiline	4.400	4592071	∞	1524.82	10414392	10.0000
MDA	2.978	2360540	576.03	242.95	10644552	10.0000
MDEA	3.222	4811079	20659.59	307.27	23563064	10.0000
MDMA	3.069	5400947	∞	172.04	3860626	10.0000
Meperidine	3.555	2353862	∞	1456.31	12087044	10.0000
Meprobamate	3.636	487135	37348.74	84.69	1984177	10.0000
Methadone	4.364	6508650	1312.92	464.51	29535992	10.0000
Methamphetamine	2.949	2920189	∞	235.37	17377611	10.0000
Methocarbamol	3.526	404245	∞	∞	12087044	10.0000
Methylphenidate	3.481	10488726	∞	1418.91	47800158	10.0000
Metoprolol	3.416	631407	378.56	1006.58	12087044	10.0000
Midazolam	4.669	650253	98.17	312.33	7477723	10.0000
Mirtazapine	3.722	3511389	∞	428625.94	12087044	10.0000
Mitragynine	4.128	332219	122409.00	78698.55	15246574	10.0000
Morphine	2.262	184349	1187.89	613.23	115033	10.0000
Norbuprenorphine	3.806	77927	2385.81	35398.53	411497	10.0000
Nordiazepam	4.678	1434566	∞	42.70	4684157	10.0000
Norfentanyl	3.281	7526595	6484.97	2082.31	32817871	10.0000
Norhydrocodone	2.912	21365	7.56	55.83	898247	10.0000
Normeperidine	3.574	1773035	308.59	684.17	6501489	10.0000
Noroxycodone	2.879	1012066	126.51	337.68	3140947	10.0000
Nortriptyline	4.402	2301768	942498.53	330.89	5358466	10.0000
O-desmethyl-tramadol	2.883	8371604	∞	341.91	42751732	10.0000
Olanzapine	3.825	842176	43.11	18.48	499868	10.0000
Oxazepam	4.490	2675157	719.76	160.56	17784476	10.0000
Oxycodone	2.876	2339640	653.42	∞	10776479	10.0000
Oxymorphone	2.318	972035	187.07	387.89	3496873	10.0000
Paroxetine	4.346	412825	86.72	49609.73	11503072	10.0000
Phenazepam	4.636	1673095	∞	413.56	8233983	10.0000
Phencyclidine	3.894	5793647	386.01	625.97	27233128	10.0000
Phentermine	3.101	1384126	100.51	12.26	17809014	10.0000
Phenytoin	4.110	92057	3885.51	57.41	499868	10.0000
Promethazine	4.290	9692365	∞	140.70	38834475	10.0000
Pseudoephedrine	2.673	48581084	10729.14	83975.00	109207865	10.0000
Quetiapine	4.267	2647393	5474.57	118.61	4037210	10.0000
Sertraline	4.534	2363966	213289.28	63680.40	11503072	10.0000
Sufentanil	4.267	257809	13345.26	762.28	19676621	10.0000
Tapentadol	3.405	4118413	1704.83	498.93	22405579	10.0000
Temazepam	4.658	3186849	∞	229.06	17054812	10.0000
Tramadol	3.385	10499508	18665.42	141.85	47231774	10.0000
Trazodone	4.252	5025319	∞	∞	25760097	10.0000
Venlafaxine	3.757	7573531	1365220.64	190.66	44644076	10.0000
Zaleplon	4.335	1607163	804509.01	91.09	3556075	10.0000
Zolpidem	3.980	8259195	353.93	∞	43754863	10.0000
Zopiclone	3.837	476717	277.74	∞	2788897	10.0000

TS

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

Extraction Date: 03/02/2020

Analyst: Tamara Salazar

Plate lot# IDP-108, 190716

Plate Expiration: 01/16/20—Ok, Deviation in place

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

MTBE

Mobile phase B: 0.1% Formic acid in MeOH
Hexane

Blank Blood Lot: 445283-3

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

LCMS-QQQ 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.
- 3. Create worklist:

Analytic:

- 1. Remove standards, plate, controls, and samples from cold storage. Allow to reach room temperature.
- 2. Pipette **1000 µL blood (calibrated pipette) Pipette ID: 16** in wells of analytical (standards) plate.
- 3. Place on shaking incubator at ambient temp., 900rpm for 15 minutes. *Shaker ID: 067105*
- 4. Pipette **500 µL 0.1% formic acid** for blood in wells of analytical plate.
- 5. Place on shaking incubator at ambient temp., 900rpm for 15 minutes.
- 6. Transfer **800 µL of blood+base** mixture to corresponding wells of SLE+ plate.
- 7. Apply positive pressure for approx. 4 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 750uL).
- 10. Wait 5 minutes.
- 11. Apply positive pressure for approx. 15 seconds. *(10-15 PSI- Selector to the left).*
- 12. Add **2.25 mL 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.
Worklist path: *D:\MassHunter\Data\2020\AM 25-26\030220 AM 25_26 wklst 4036 TS*
Batch Name: *THCS TS*
- 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 +/- .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: *Curves limited: THC 3-100, THC-COOH 10-250, THC-OH 3-100*



Idaho State Police Forensic Services

TS

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 μ L of 1mg/mL THC, 100 μ L of 100 μ g/mL THC-OH, C-THC in 9790 μ L MeOH
Approximate concentration 1 μ g/mL.*

<i>Component</i>	<i>Source</i>	<i>Source Lot Number</i>	<i>Expiration Date</i>
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: 021320)
*200 μ L of methanol external control solution was added to 9800 μ L of blood.
Approximately 20 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	-	WS011620
Prepared:	02/13/2020	
Prepared by:	Celena Shrum	
Expires:	09/30/2020	

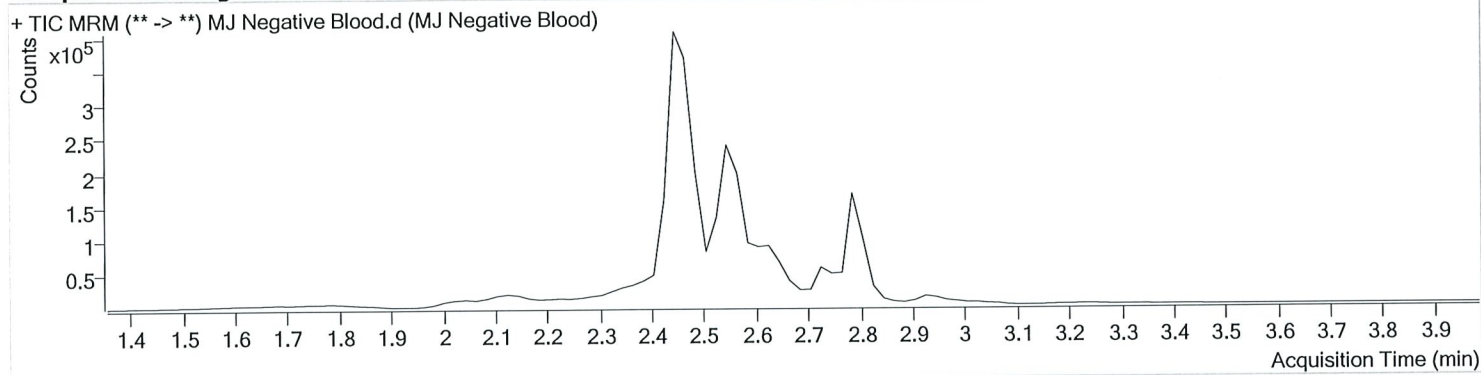


AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2020\AM 25-26\030220 AM 25_26 wk1st 4036 TS\QuantResults\THCS TS.batch.bin
Calibration Last Update 3/3/2020 1:30:18 PM

Instrument	Falco	Data File	MJ Negative Blood.d
Type	Sample	Sample	MJ Negative Blood
Acq. Method	am 26 test.m	Operator	Tamara Salazar
Sample Position	P3-A2	Comment	
Injection Volume	10		
Acq. Date-Time	3/2/2020 12:24:33 PM		
Sample Info.			

Sample Chromatogram



TS

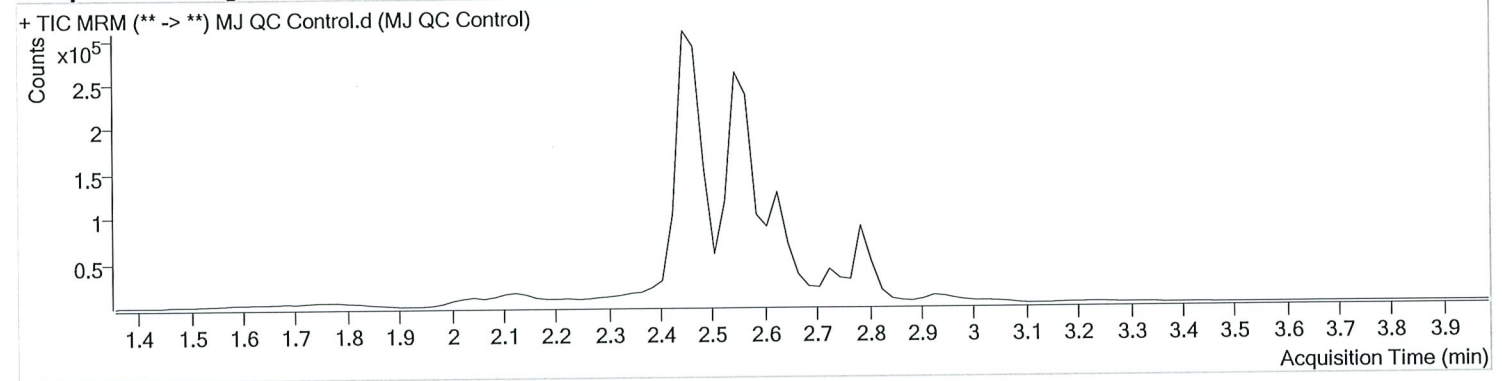


AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2020\AM 25-26\030220 AM 25_26 wk1st 4036 TS\QuantResults\THCS TS.batch.bin
Calibration Last Update 3/3/2020 1:30:18 PM

Instrument	Falco	Data File	MJ QC Control.d
Type	Sample	Sample	MJ QC Control
Acq. Method	am 26 test.m	Operator	Tamara Salazar
Sample Position	P3-H1	Comment	
Injection Volume	10		
Acq. Date-Time	3/2/2020 12:11:31 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.799	4117	155322	4.3155 ng/ml
THC-COOH	2.565	92725	440261	13.8612 ng/ml
THC-OH	2.471	44511	958562	4.1081 ng/ml

TS

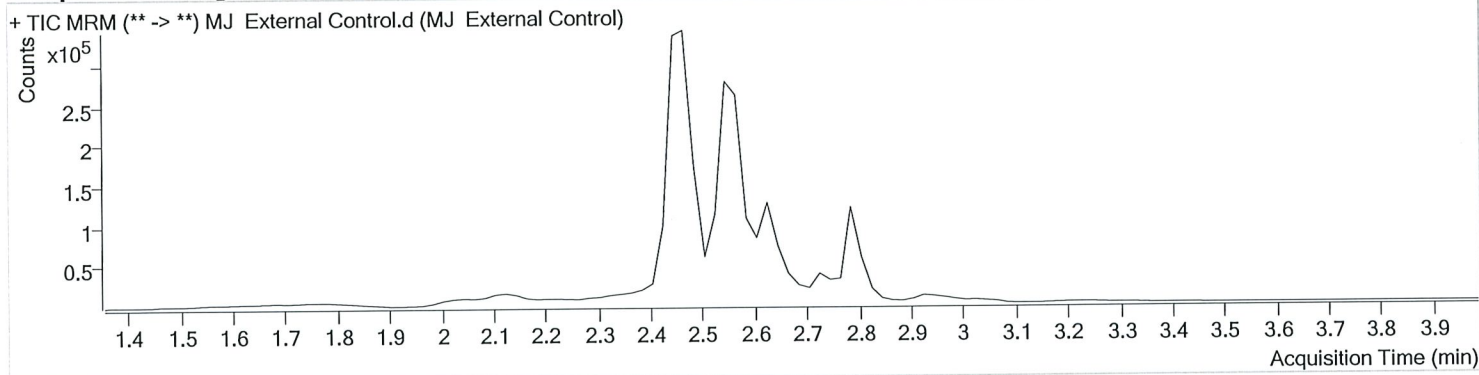


AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2020\AM 25-26\030220 AM 25_26 wk1st 4036 TS\QuantResults\THCS TS.batch.bin
 Calibration Last Update 3/3/2020 1:30:18 PM

Instrument	Falco	Data File	MJ External Control.d
Type	Sample	Sample	MJ External Control
Acq. Method	am 26 test.m	Operator	Tamara Salazar
Sample Position	P3-B2	Comment	
Injection Volume	10		
Acq. Date-Time	3/2/2020 12:31:06 PM		
Sample Info.			

Sample Chromatogram



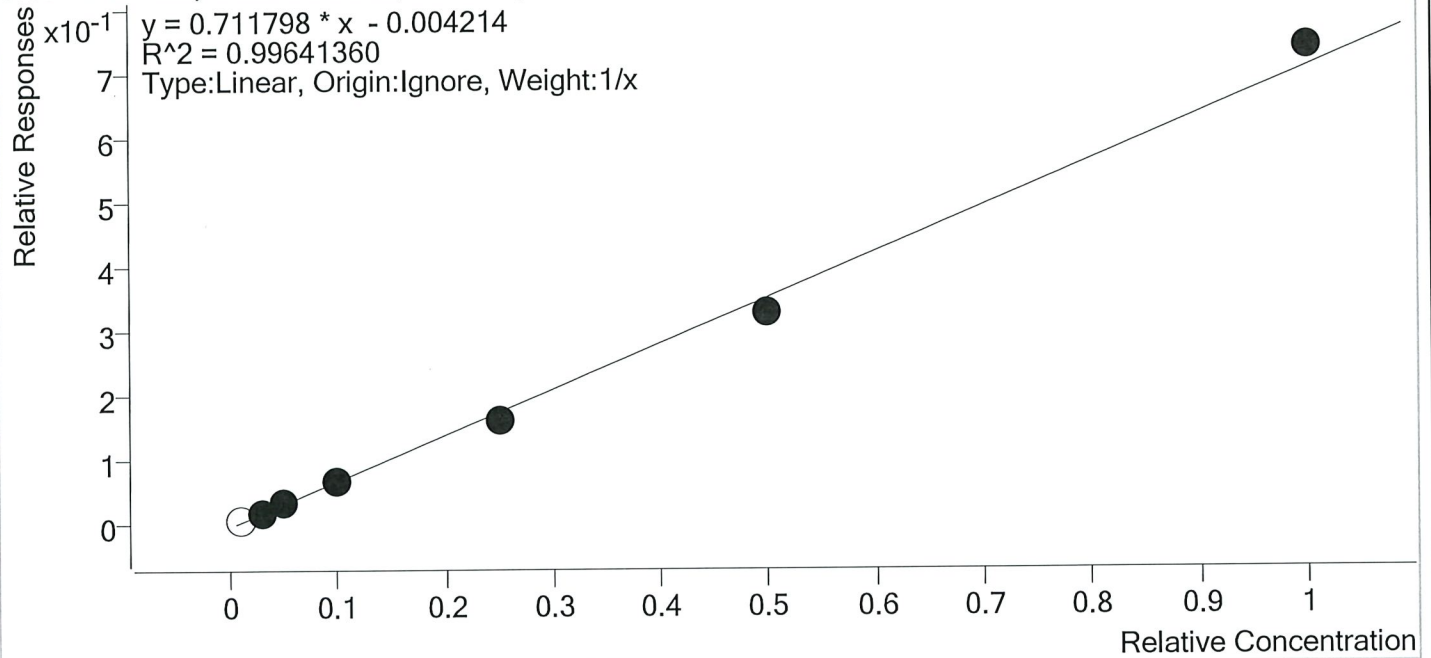
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.799	20371	188348	15.7872 ng/ml
THC-COOH	2.565	114942	394576	19.1388 ng/ml
THC-OH	2.471	201295	839222	19.1709 ng/ml



AM #26 Cannabinoids Screen Calibration Curve Report

Batch results D:\MassHunter\Data\2020\AM 25-26\030220 AM 25_26 wklst 4036 TS\QuantResults\THCS
 TS.batch.bin
Last Cal. Update 3/3/2020 1:30 PM
Analyst Name ISP\datastor
Analyte THC **Internal Standard** THC-d3

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



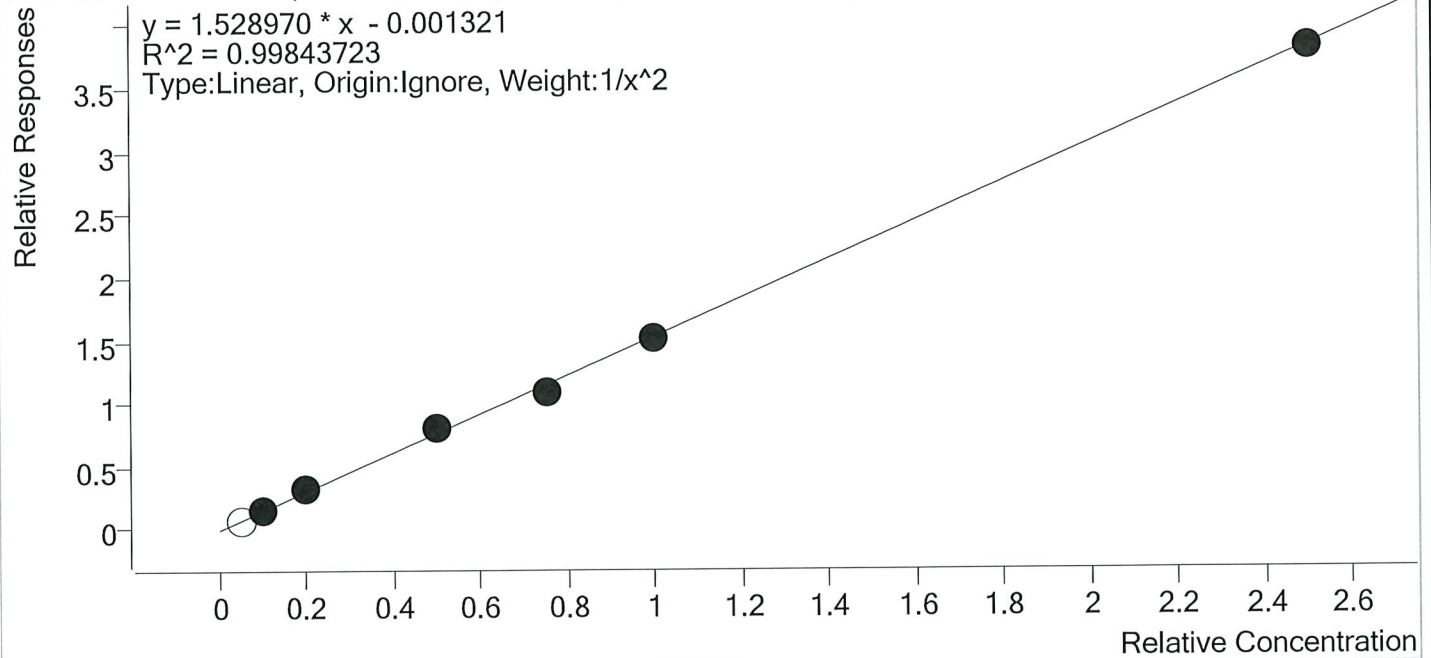
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
MJ Cal 1	1	×	1.0	1.5	154.6
MJ Cal 2	2	✓	3.0	3.3	108.4
MJ Cal 3	3	✓	5.0	5.0	100.5
MJ Cal 4	4	✓	10.0	9.9	99.4
MJ Cal 5	5	✓	25.0	23.3	93.1
MJ Cal 6	6	✓	50.0	47.1	94.1
MJ Cal 7	7	✓	100.0	104.4	104.4



AM #26 Cannabinoids Screen Calibration Curve Report

Batch results D:\MassHunter\Data\2020\AM 25-26\030220 AM 25_26 wklst 4036 TS\QuantResults\THCS
 TS.batch.bin
Last Cal. Update 3/3/2020 1:30 PM
Analyst Name ISP\datastor
Analyte THC-COOH **Internal Standard** THC-COOH-d9

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



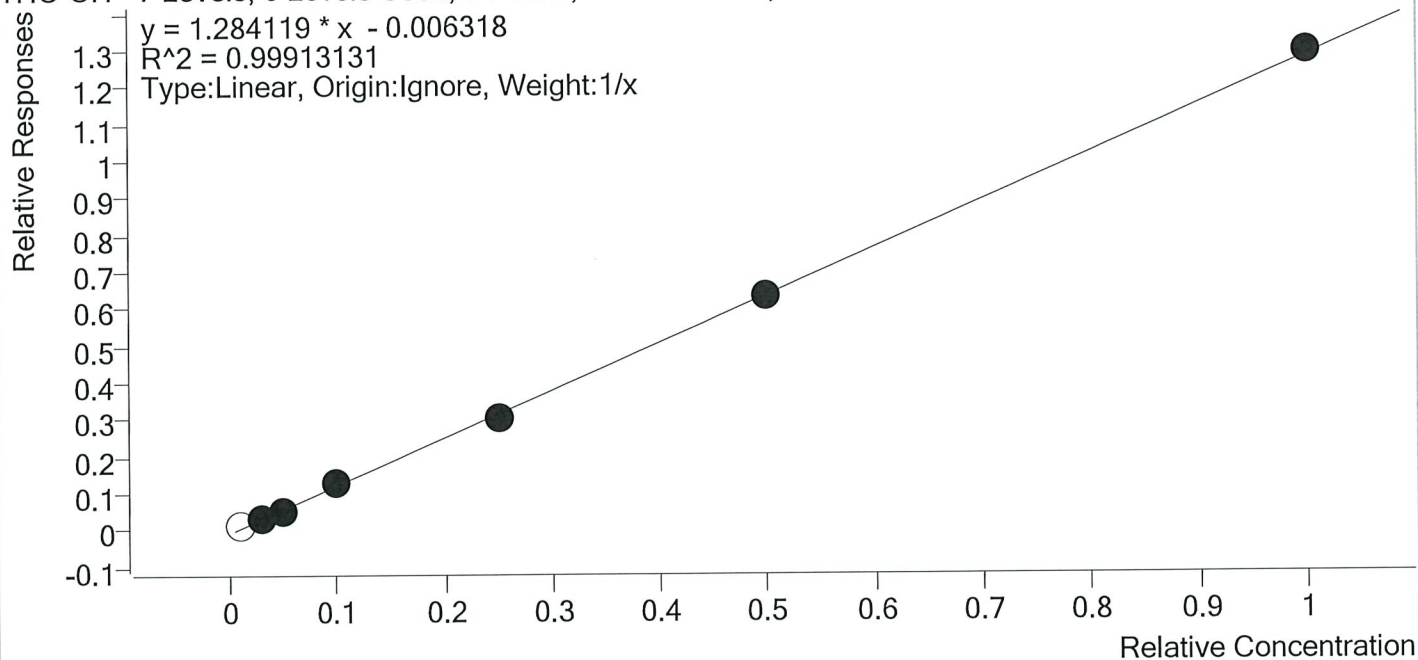
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
MJ Cal 1	1	×	5.0	4.9	98.7
MJ Cal 2	2	✓	10.0	9.9	98.6
MJ Cal 3	3	✓	20.0	20.5	102.3
MJ Cal 4	4	✓	50.0	52.4	104.8
MJ Cal 5	5	✓	75.0	72.1	96.1
MJ Cal 6	6	✓	100.0	98.7	98.7
MJ Cal 7	7	✓	250.0	248.9	99.6



AM #26 Cannabinoids Screen Calibration Curve Report

Batch results D:\MassHunter\Data\2020\AM 25-26\030220 AM 25_26 wklst 4036 TS\QuantResults\THCS
 TS.batch.bin
Last Cal. Update 3/3/2020 1:30 PM
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	×	1.0	1.7	169.5
MJ Cal 2	2	✓	3.0	3.2	106.1
MJ Cal 3	3	✓	5.0	4.6	91.2
MJ Cal 4	4	✓	10.0	10.6	105.9
MJ Cal 5	5	✓	25.0	24.2	96.9
MJ Cal 6	6	✓	50.0	49.5	99.0
MJ Cal 7	7	✓	100.0	100.9	100.9

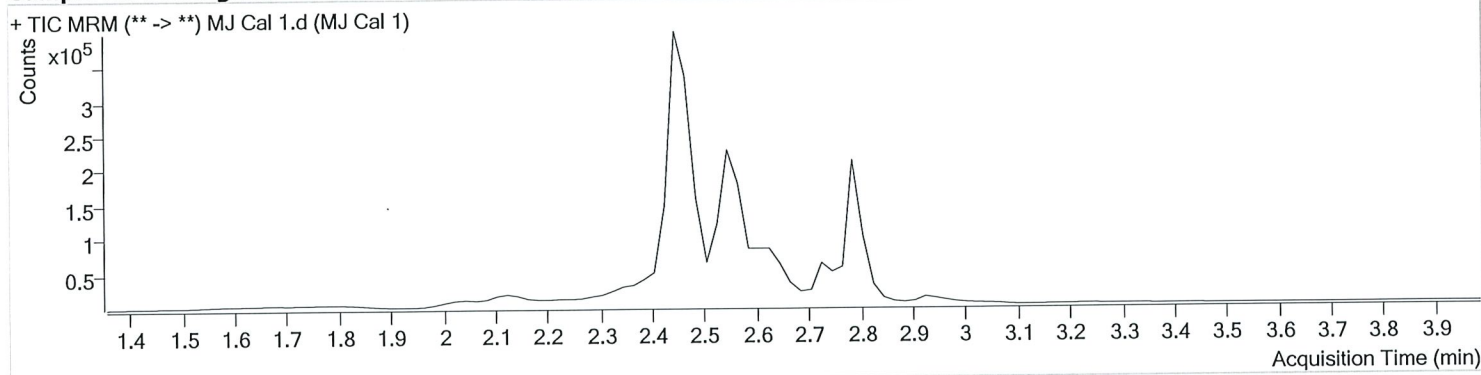


AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2020\AM 25-26\030220 AM 25_26 wklst 4036 TS\QuantResults\THCS TS.batch.bin
 Calibration Last Update 3/3/2020 1:30:18 PM

Instrument	Falco	Data File	MJ Cal 1.d
Type	Cal	Sample	MJ Cal 1
Acq. Method	am 26 test.m	Operator	Tamara Salazar
Sample Position	P3-A1	Comment	
Injection Volume	10		
Acq. Date-Time	3/2/2020 11:25:37 AM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.	
THC	2.799	2543	374645	1.5457 ng/ml	Low
THC-COOH	2.565	27552	371707	4.9343 ng/ml	Low
THC-OH	2.451	16975	1098583	1.6953 ng/ml	Low

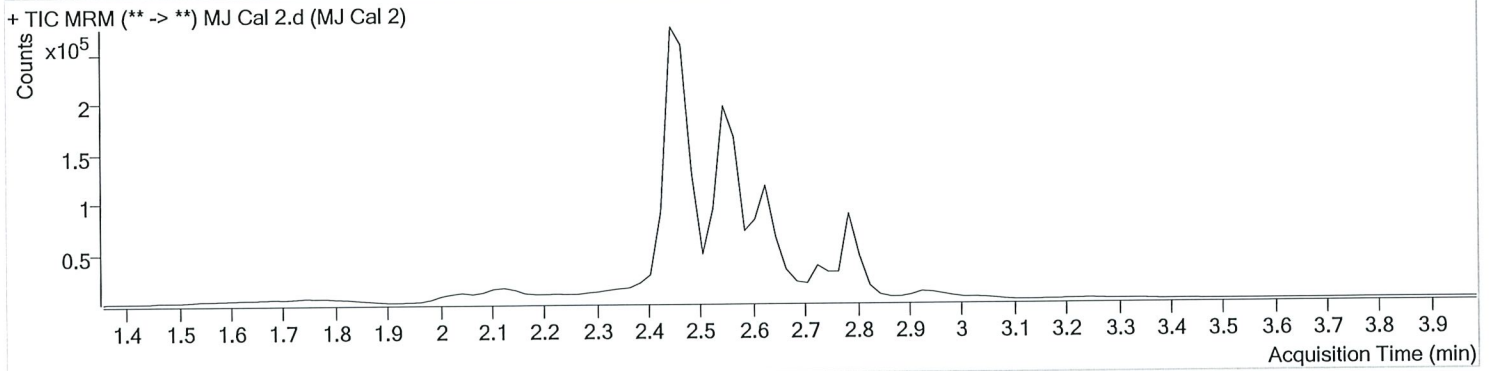


AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2020\AM 25-26\030220 AM 25_26 wk1st 4036 TS\QuantResults\THCS TS.batch.bin
Calibration Last Update 3/3/2020 1:30:18 PM

Instrument	Falco	Data File	MJ Cal 2.d
Type	Cal	Sample	MJ Cal 2
Acq. Method	am 26 test.m	Operator	Tamara Salazar
Sample Position	P3-B1	Comment	
Injection Volume	10		
Acq. Date-Time	3/2/2020 11:32:19 AM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.799	2917	154121	3.2506 ng/ml
THC-COOH	2.565	47468	317773	9.8562 ng/ml
THC-OH	2.471	29101	842374	3.1823 ng/ml

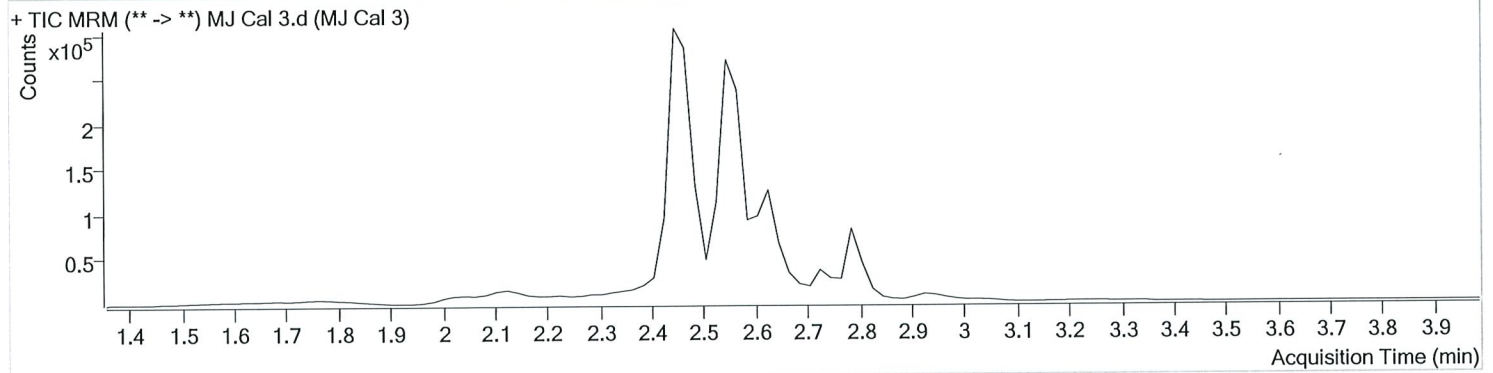


AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2020\AM 25-26\030220 AM 25_26 wklst 4036 TS\QuantResults\THCS TS.batch.bin
Calibration Last Update 3/3/2020 1:30:18 PM

Instrument	Falco	Data File	MJ Cal 3.d
Type	Cal	Sample	MJ Cal 3
Acq. Method	am 26 test.m	Operator	Tamara Salazar
Sample Position	P3-C1	Comment	
Injection Volume	10		
Acq. Date-Time	3/2/2020 11:38:51 AM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.799	4611	146053	5.0274 ng/ml
THC-COOH	2.565	110514	354791	20.4590 ng/ml
THC-OH	2.471	46573	891758	4.5591 ng/ml



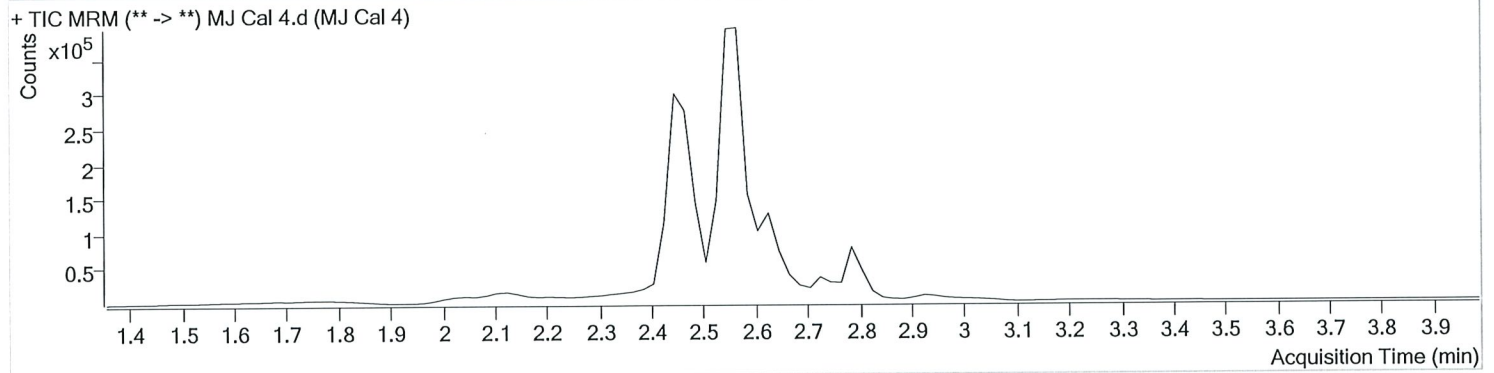
AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2020\AM 25-26\030220 AM 25_26 wk1st 4036 TS\QuantResults\THCS TS.batch.bin
Calibration Last Update 3/3/2020 1:30:18 PM

Instrument	Falco	Data File	MJ Cal 4.d
Type	Cal	Sample	MJ Cal 4
Acq. Method	am 26 test.m	Operator	Tamara Salazar
Sample Position	P3-D1	Comment	
Injection Volume	10		
Acq. Date-Time	3/2/2020 11:45:23 AM		

Sample Info.

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.799	9193	138153	9.9407 ng/ml
THC-COOH	2.565	286682	358390	52.4036 ng/ml
THC-OH	2.471	112591	868148	10.5916 ng/ml

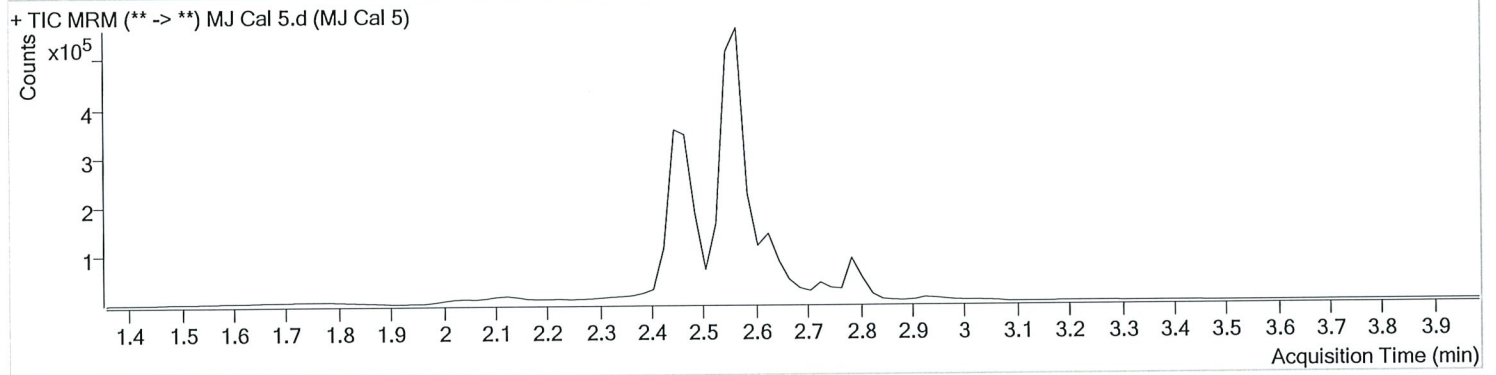


AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2020\AM 25-26\030220 AM 25_26 wk1st 4036 TS\QuantResults\THCS TS.batch.bin
Calibration Last Update 3/3/2020 1:30:18 PM

Instrument	Falco	Data File	MJ Cal 5.d
Type	Cal	Sample	MJ Cal 5
Acq. Method	am 26 test.m	Operator	Tamara Salazar
Sample Position	P3-E1	Comment	
Injection Volume	10		
Acq. Date-Time	3/2/2020 11:51:55 AM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.799	22909	141821	23.2858 ng/ml
THC-COOH	2.565	430979	391645	72.0585 ng/ml
THC-OH	2.471	271573	891227	24.2218 ng/ml

TS

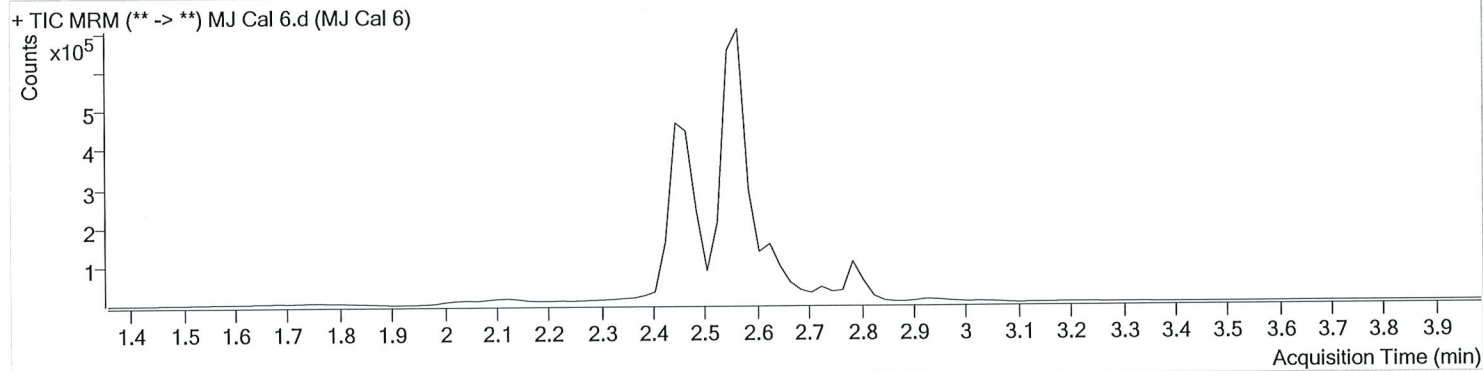


AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2020\AM 25-26\030220 AM 25_26 wk1st 4036 TS\QuantResults\THCS TS.batch.bin
Calibration Last Update 3/3/2020 1:30:18 PM

Instrument	Falco	Data File	MJ Cal 6.d
Type	Cal	Sample	MJ Cal 6
Acq. Method	am 26 test.m	Operator	Tamara Salazar
Sample Position	P3-F1	Comment	
Injection Volume	10		
Acq. Date-Time	3/2/2020 11:58:28 AM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.799	48399	146355	47.0511 ng/ml
THC-COOH	2.565	600568	398331	98.6961 ng/ml
THC-OH	2.471	584722	929220	49.4953 ng/ml



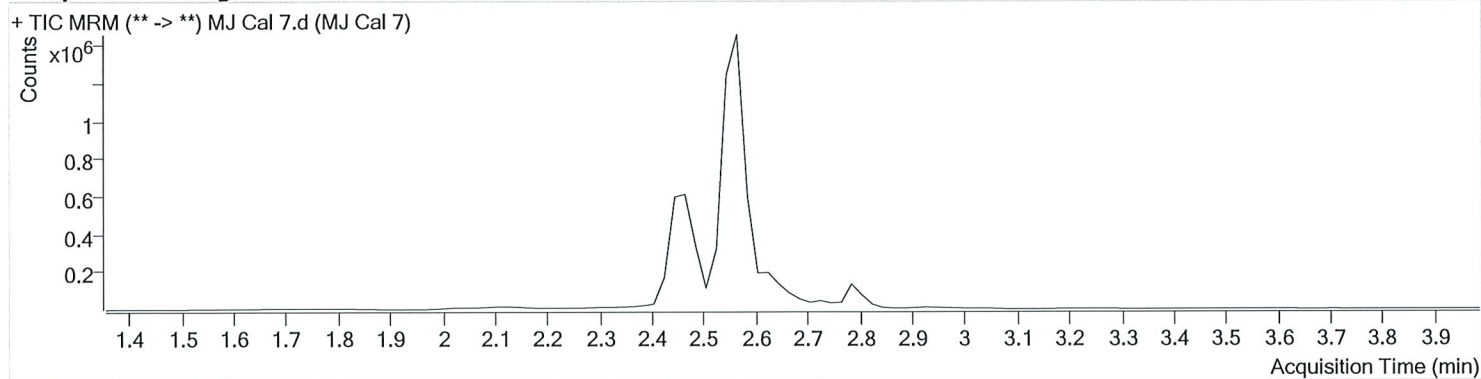
AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2020\AM 25-26\030220 AM 25_26 wklst 4036 TS\QuantResults\THCS TS.batch.bin
Calibration Last Update 3/3/2020 1:30:18 PM

Instrument	Falco	Data File	MJ Cal 7.d
Type	Cal	Sample	MJ Cal 7
Acq. Method	am 26 test.m	Operator	Tamara Salazar
Sample Position	P3-G1	Comment	
Injection Volume	10		
Acq. Date-Time	3/2/2020 12:05:01 PM		

Sample Info.

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.799	97349	131691	104.4444 ng/ml
THC-COOH	2.565	1449083	380901	248.9047 ng/ml
THC-OH	2.471	1127376	873935	100.9500 ng/ml