


























AM 7 central file available upon request.

Worklist: 3649

<u>LAB_CASE</u>	<u>ITEM</u>	<u>TASK_ID</u>	<u>DESCRIPTION</u>	
M2019-3274	1	157724	AM 25 Blood Multi-Drug Screen by LC-QQQ	
M2019-3274	2	157728	AM 25 Blood Multi-Drug Screen by LC-QQQ	
M2019-3276	1	157734	AM 25 Blood Multi-Drug Screen by LC-QQQ	
M2019-3277	1	157738	AM 25 Blood Multi-Drug Screen by LC-QQQ	
M2019-3277	2	157742	AM 25 Blood Multi-Drug Screen by LC-QQQ	
M2019-3279	1	157747	AM 25 Blood Multi-Drug Screen by LC-QQQ	
M2019-3280	1	157751	AM 25 Blood Multi-Drug Screen by LC-QQQ	
M2019-3300	1	157905	AM 25 Blood Multi-Drug Screen by LC-QQQ	
M2019-3318	1	157954	AM 25 Blood Multi-Drug Screen by LC-QQQ	
M2019-3358	1	162278	AM 25 Blood Multi-Drug Screen by LC-QQQ	
M2019-3530	2	159225	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-2441	1	159738	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-2444	1	159752	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-2445	1	159755	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-2450	1	159765	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-2464	1	159961	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-2473	1	160015	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-2476	1	160126	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-2477	1	160129	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-2478	1	160291	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-2479	1	160294	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-2480	1	160297	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-2488	1	160321	AM 25 Blood Multi-Drug Screen by LC-QQQ	

Worklist: 3649



<u>LAB CASE</u>	<u>ITEM</u>	<u>TASK ID</u>	<u>DESCRIPTION</u>
P2019-2545	1	160611	AM 25 Blood Multi-Drug Screen by LC-QQQ
P2019-2556	1	160906	AM 25 Blood Multi-Drug Screen by LC-QQQ



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

Extraction Date: 9/6/19
 Plate lot#: 0543908

Analyst: Sarah Pickle
 Plate Expiration: 11/28/19

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
LCMS-QQQ ID: 069901

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: #3**
- 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: MDS Worklist path: D:\MassHunter\Data\2019\AM 25\090619 MDS 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:



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	

AM #25 Multi-Drug Screen Results



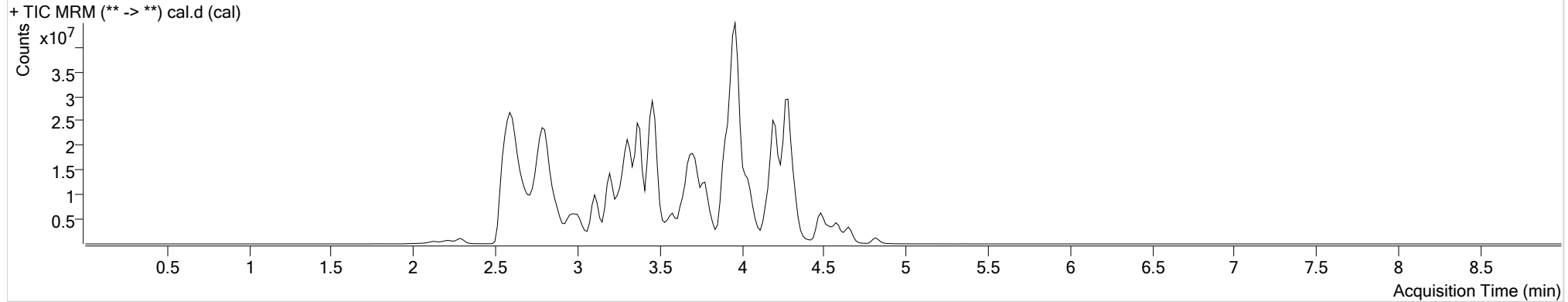
Batch results
Calibration Last Update

D:\MassHunter\Data\2019\AM 25\090619 MDS SP\QuantResults\MDS.batch.bin
9/9/2019 10:35:11 AM

Instrument Falco
Type Cal
Acq. Method am 25 all.m
Sample Position P1-A1
Injection Volume 5
Acq. Date-Time 9/6/2019 11:46:49 AM
Sample Info.

Data File cal.d
Sample cal
Operator
Comment

Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
6-MAM	2.753	34530	130.58	284.82	888457	10.0000
7-aminoclonazepam	3.536	435932	269.14	515.91	1813550	10.0000
7-aminoflunitrazepam	3.750	1654751	209.59	94938.66	8403171	10.0000
Acetyl Fentanyl	3.639	327709	288.12	158.50	20974869	10.0000
Acetyl Norfentanyl	2.778	223042	929.37	127.51	9885638	10.0000
a-hydroxyalprazolam	4.483	46777	29.01	15972.62	314371	10.0000
alpha-hydroxymidazolam	4.543	817297	2277.21	28042.03	5321044	10.0000
alpha-PVP	3.389	4903297	662.74	1643.74	18606574	10.0000
Alprazolam	4.593	817106	525.47	866.52	2411182	10.0000
Amitriptyline	4.322	3765475	∞	∞	7419140	10.0000
Amphetamine	2.767	2034625	355.07	62.27	4935162	10.0000
Benzoylcegonine	3.336	656479	105.53	260.36	2840721	10.0000
Buprenorphine	4.049	427829	∞	49666.15	1602204	10.0000
Bupropion	3.603	3260398	708.96	163.97	10051983	10.0000
Carbamazepine	4.218	3970260	∞	∞	20834811	10.0000
Carisoprodol	4.201	339194	148.44	55.60	1937411	10.0000
Chlordiazepoxide	4.672	299837	∞	∞	5863804	10.0000
Chlorpheniramine	3.827	23570	1657.98	427.01	40601166	10.0000

cal

AM #25 Multi-Drug Screen Results



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Citalopram	3.977	1395866	207.08	17164.62	5598208	10.0000
Clonazepam	4.439	119249	∞	4647.60	194871	10.0000
Cocaine	3.442	5352299	3661305.58	437.59	22970730	10.0000
Codeine	2.636	257436	5574.17	436.09	1015397	10.0000
Cyclobenzaprine	4.245	2962670	623036.92	143.78	8656227	10.0000
Desipramine	4.292	3851514	5119.61	214.78	21041947	10.0000
Dextromethorphan	3.937	1024949	1800.26	145.01	5017046	10.0000
Dextrorphan	3.262	3255720	17191.10	1398.10	19241410	10.0000
Diazepam	4.826	447425	325.74	229.59	2246722	10.0000
Dihydrocodeine	2.604	763359	∞	1608.52	4217793	10.0000
Diphenhydramine	3.907	10008271	36068.26	6571.88	40601166	10.0000
Doxepin	4.042	2082870	20123.57	98.07	13263631	10.0000
Doxylamine	3.476	11713710	∞	632090.22	38223315	10.0000
EDDP	3.966	5970300	∞	360.27	31994434	10.0000
Estazolam	4.503	1798203	741.05	311.07	4715518	10.0000
Etizolam	4.604	145863	17372.93	1071839.36	4715518	10.0000
Fentanyl	3.883	311538	226.49	206243.16	16243681	10.0000
Flunitrazepam	4.562	528512	1140.95	624.99	110251	10.0000
Fluoxetine	4.255	2772963	∞	330.01	11113463	10.0000
Flurazepam	4.005	2171322	1478.00	1048459.35	110251	10.0000
Hydrocodone	2.819	928981	650.63	289.88	5103954	10.0000
Hydromorphone	2.293	705695	17.13	4.54 Low	2962690	10.0000
Imipramine	4.289	4990722	∞	257.20	17904274	10.0000
Ketamine	3.219	3731326	∞	317.29	15895253	10.0000
Lamotrigine	3.401	253006	∞	∞	11728644	10.0000
Levamisole	2.778	3237531	∞	∞	22970730	10.0000
Lorazepam	4.407	13103	∞	4.85 Low	194871	10.0000
Maprotiline	4.322	3765475	∞	∞	7419140	10.0000
MDA	2.886	1294158	1525.31	620.78	5788700	10.0000
MDEA	3.114	5044910	∞	∞	21280930	10.0000
MDMA	2.962	6032715	68778.69	4156.08	3435792	10.0000
Meperidine	3.463	2529895	4296.83	632.51	11728644	10.0000
Meprobamate	3.636	104866	81792.34	51.24	430230	10.0000
Methadone	4.286	6510098	21599.02	∞	24588947	10.0000
Methamphetamine	2.872	3961887	96.38	∞	17546606	10.0000
Methocarbamol	3.541	131954	20.68	116.45	11728644	10.0000
Methylphenidate	3.388	10107595	1181.85	∞	38791836	10.0000
Metoprolol	3.323	685201	∞	59628.39	11728644	10.0000
Midazolam	4.590	513102	316043.10	460.43	6211859	10.0000
Mirtazapine	3.553	2787528	∞	318136.25	11728644	10.0000
Mitragynine	4.019	395709	113616.30	495.24	13263631	10.0000
Morphine	2.128	234397	∞	∞	111747	10.0000
Norbuprenorphine	3.713	19339	833.73	30.06	118851	10.0000
Nordiazepam	4.676	130526	336.70	224.67	402335	10.0000

cal

AM #25 Multi-Drug Screen Results



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Norfentanyl	3.204	4297443	9880.09	∞	16607878	10.0000
Norhydrocodone	2.820	76429	∞	75.20	1066422	10.0000
Normeperidine	3.481	2292695	717.42	783.14	7083921	10.0000
Noroxycodone	2.772	496625	216.68	166.81	2022336	10.0000
Nortriptyline	4.324	2058604	1022398.65	345.30	5012039	10.0000
O-desmethyl-tramadol	2.807	9726934	1264.24	234.68	38383759	10.0000
Olanzapine	3.150	2433143	∞	868.84	45206	10.0000
Oxazepam	4.489	56600	29.50	13.99	316276	10.0000
Oxycodone	2.769	1817638	430.66	894.15	7804801	10.0000
Oxymorphone	2.212	492482	47.18	∞	1491612	10.0000
Paroxetine	4.268	235643	∞	58.21	9163569	10.0000
Phenazepam	4.634	151822	415.37	338.45	699631	10.0000
Phencyclidine	3.786	5586717	1643514.21	1080.78	23522690	10.0000
Phentermine	3.025	1107212	∞	9.88	11515321	10.0000
Phenytoin	4.109	10055	48.56	56.29	45206	10.0000
Promethazine	4.197	8166674	∞	∞	31831234	10.0000
Pseudoephedrine	2.597	49001610	29097.74	∞	138843989	10.0000
Quetiapine	4.174	3971385	907285.21	3052887.81	4965929	10.0000
Sertraline	4.471	1924031	∞	989.94	9163569	10.0000
Sufentanil	4.158	260238	3869.61	245.60	14669416	10.0000
Tapentadol	3.328	5069830	712.60	∞	22811179	10.0000
Temazepam	4.656	480238	∞	53.87	2444139	10.0000
Tramadol	3.308	9663680	740.40	123.86	36692747	10.0000
Trazodone	4.067	4493194	17520.63	11771.05	17009033	10.0000
Venlafaxine	3.689	7147488	4152.53	∞	30352993	10.0000
Zaleplon	4.334	785420	1045.61	156.18	1635807	10.0000
Zolpidem	3.732	7554260	17934.49	453.02	33731055	10.0000
Zopiclone	3.638	296251	216.40	81987.06	1279372	10.0000

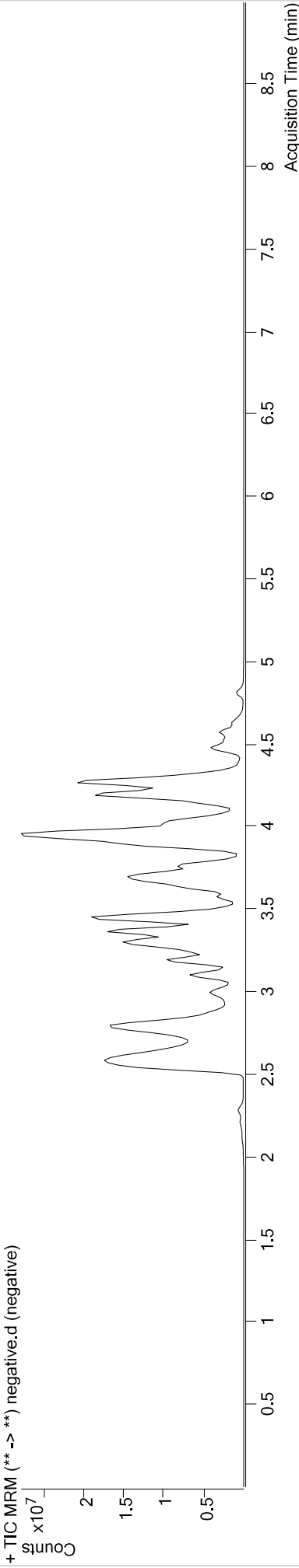


AM #25 Multi-Drug Screen Results

Batch results Calibration Last Update D:\MassHunter\Data\2019\AM 25\090619 MDS SP\QuantResults\MDS.batch.bin 9/9/2019 10:35:11 AM

Instrument Type Falco Sample Type negative.d
Acq. Method am 25 all.m Sample Operator negative
Sample Position P1-E1 Operator Comment
Injection Volume 5
Acq. Date-Time 9/6/2019 11:56:28 AM
Sample Info.

Sample Chromatogram



Name	RT	Resp.	S/N	ISTD Resp.	Calc. Conc.
Methamphetamine	2.872	650995	11.46	14962751	1.9269 <5
			∞		

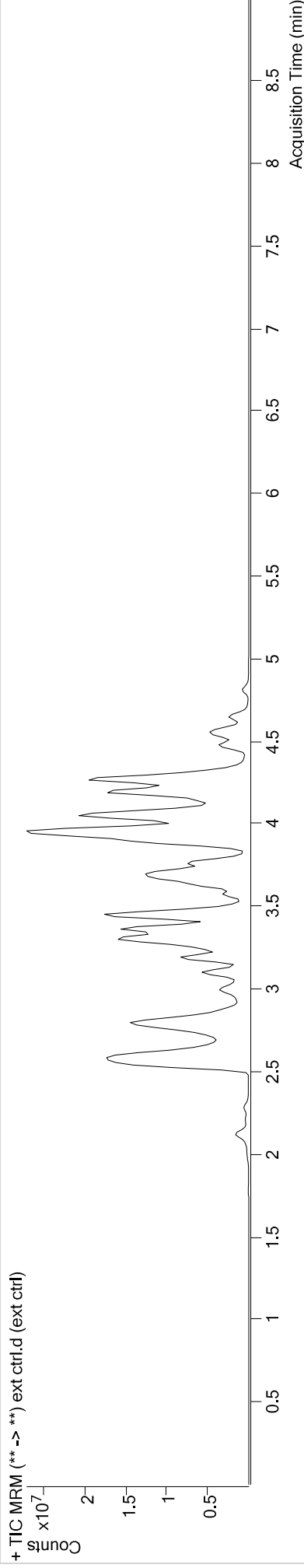


AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\2019\AM 25\090619 MDS SP\QuantResults\MDS.batch.bin
Calibration Last Update 9/9/2019 10:35:11 AM

Instrument Type	Falco	Data File	ext ctrl.d
Acq. Method	Sample	Sample	ext ctrl
Sample Position	am 25 all.m	Operator	
Injection Volume	P1-F1	Comment	
Acq. Date-Time	5		
Sample Info.	9/6/2019 12:05:56 PM		

Sample Chromatogram



Name	RT	Resp.	S/N	ISTD Resp.	Calc. Conc.
Flunitrazepam	4.562	5114390	∞	84370	126.4541
Methamphetamine	2.872	1146410	13.91	16617730	3.0553 <5
Metoprolol	3.323	6153495	287875.35	10053414	104.7703
Morphine	2.128	2079664	171.16	82158	120.6780
Trazodone	4.067	37373613	109677.92	13236231	106.8871