


















* AM 7 central data available upon request. TS

4/8/2019

Worklist: 3202

LAB CASE	ITEM	TASK ID	DESCRIPTION	
M2019-1171	1	143887	AM 25 Blood Multi-Drug Screen by LC-QQQ	
M2019-1171	2	143891	AM 25 Blood Multi-Drug Screen by LC-QQQ	
M2019-1176	1	143916	AM 25 Blood Multi-Drug Screen by LC-QQQ	
M2019-1297	1	145182	AM 25 Blood Multi-Drug Screen by LC-QQQ	
M2019-1311	1	145285	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-0785	2	144396	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-0788	1	144408	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-0873	3	145209	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-0891	1	145430	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-0895	1	145439	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-0959	1	146231	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-0960	1	146234	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-0961	1	146278	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-0980	1	146321	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-0986	1	146337	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-0987	1	146340	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-0998	1	146432	AM 25 Blood Multi-Drug Screen by LC-QQQ	

TS

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

Extraction Date: 04/05/19
Plate lot#: 0543908

Analyst: Tamara Salazar
Plate Expiration: 11/28/~~201~~2019 TS

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: Hemostat 445283-1
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.
- 3. Create worklist

Analytic:

- 1. Remove standards, plate, controls, and samples from cold storage. Allow to reach room temperature.
- 2. Pipette **250µL blood (calibrated pipette) Pipette ID: 3** 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 wklst 3202 re_extract TS
Worklist path: D:\MassHunter\Data\2019\AM 25\040519 MDS wklst 3202 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. > 1/3 the response of administrative control.
- 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: Worklist was originally ran on 04/04/19 but the data was unusable due to methamphetamine contamination in the controls. The worklist samples were re-extracted on 04/05/19.



Idaho State Police Forensic Services

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

Methanol External Control Solution (Lot: 042618)

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	177145	
Oxycodone	Cerilliant	FE01181701	March 2022
Diazepam	Cerilliant	FE05201602	June 2021
Metoprolol	Cerilliant	FN06091510	July 2020
Meperidine	Cerilliant	FE01271602	June 2021
Prepared:	04/26/18		
Prepared By:	Tamara Salazar		
Expires:	04/26/19		

Blood External Control Solution (Lot: WS122618)

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		042618
Prepared:	12/26/18	
Prepared by:	Tamara Salazar	
Expires:	04/26/19	

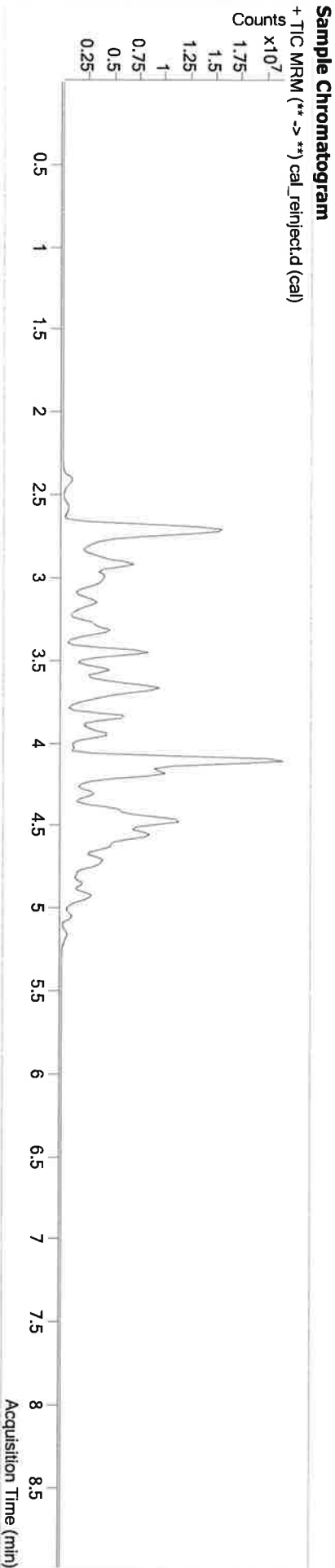


AM #25 Multi-Drug Screen Results

Batch results
Calibration Last Update D:\MassHunter\Data\2019\AM 25\040519 MDS wk1st 3202 TS\QuantResults\MDS wk1st 3202 re_extract TS.batch.bin
 4/10/2019 8:03:56 AM

Instrument FALCO-LCMS (Property ID 069901)
Type Cal
Acq. Method am 25 all.m
Sample Position P1-H12
Injection Volume 5
Acq. Date-Time 4/5/2019 2:49:32 PM
Sample Info.

cal_reinject.d
 cal
 Tamara Salazar
 *Not a reinject. Data file name unchanged from previous run. -TS



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
6-MAM	3.072	20919	151.30	388.00	493333	10.0000
7-aminoclonazepam	3.535	375168	196.51	2376.12	1611716	10.0000
7-aminoflunitrazepam	3.749	765841	2505.00	841.44	3566002	10.0000
Acetyl Fentanyl	4.175	138487	32.22	73409.94	7809298	10.0000
Acetyl Norfentanyl	2.899	110532	1238.95	560.52	5300841	10.0000
a-hydroxyalprazolam	4.482	54839	78.09	28.74	284308	10.0000
alpha-hydroxymidazolam	4.573	319630	205.92	∞	2302224	10.0000
alpha-PVP	3.680	1294133	5891.67	1986.25	4895558	10.0000
Alprazolam	4.577	400567	133.08	219.99	1441136	10.0000
Amphetamine	4.613	995138	∞	26.75	2910326	10.0000
Amphetamine	2.934	1029881	607.00	664.32	2547220	10.0000
Benzoyllecgonine	3.336	328462	124.02	603.17	1501031	10.0000
Buprenorphine	5.192	361053	795.20	1209.94	1592231	10.0000
Bupropion	3.970	1339128	6541.85	180.76	5519129	10.0000
Carbamazepine	4.217	2354262	833.50	1987.54	11417337	10.0000
Carisoprodol	4.200	447470	1151.40	96.10	2372525	10.0000
Chlordiazepoxide	4.716	161149	380.73	13.28	3571473	10.0000
Chlorpheniramine	4.042	10165	23.50	2443.97	8289376	10.0000

15

AM #25 Multi-Drug Screen Results



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Citalopram	4.175	984997	2374.67	97.13	4384014	10.0000
Clonazepam	4.438	211860	483.38	346.96	342269	10.0000
Cocaine	3.671	1637581	18067.39	∞	7679934	10.0000
Codeine	2.970	145260	∞	718.77	657036	10.0000
Cyclobenzaprine	4.505	1262085	5505.96	17.63	4482502	10.0000
Desipramine	4.506	1707321	10016.53	∞	8306382	10.0000
Dextromethorphan	4.198	823553	∞	4759.30	3829813	10.0000
Dextropropion	3.447	821436	2709.83	1517.46	4547897	10.0000
Diazepam	4.825	318856	770.13	1820.78	1762499	10.0000
Dihydrocodeine	2.832	404375	∞	∞	2056690	10.0000
Diphenhydramine	4.138	1809131	5916.58	∞	8289376	10.0000
Doxepin	4.320	866542	719.04	4.57 Low	4694306	10.0000
Doxylamine	3.689	3290024	∞	16692.98	13859886	10.0000
EDDP	4.120	1881774	5997.62	7565.27	10024827	10.0000
Estazolam	4.502	799593	933.74	894.58	2026059	10.0000
Etizolam	4.588	65306	135.91	4799.61	2026059	10.0000
Fentanyl	4.420	121559	129.42	5310.97	5503916	10.0000
Flunitrazepam	4.546	307670	1015.55	1299.51	68535	10.0000
Fluoxetine	4.423	1278764	6507.97	287.34	5093880	10.0000
Flurazepam	4.464	778540	67433.35	961.21	68535	10.0000
Hydrocodone	3.212	516590	∞	676.58	2495107	10.0000
Hydromorphone	2.608	480894	∞	∞	1699627	10.0000
Imipramine	4.566	2139743	119669.59	∞	7193012	10.0000
Ketamine	3.878	1141535	∞	254.12	4980491	10.0000
Lamotrigine	3.631	93917	97.78	51.54	3930852	10.0000
Levamisole	3.129	1059924	24671.95	∞	7679934	10.0000
Lorazepam	4.422	75886	150.38	98.54	1580217	10.0000
Maprotiline	4.520	250210	7.16	347.09	2910326	10.0000
MDA	3.069	876962	656.31	18.72	3961915	10.0000
MDEA	3.298	1679222	∞	2654.31	7133482	10.0000
MDMA	3.145	1844850	72516.87	∞	1082838	10.0000
Meperidine	3.708	885979	3693.15	67.21	3930852	10.0000
Mepradomane	3.620	218167	446.56	∞	1035943	10.0000
Methadone	4.454	2121921	∞	2919.06	9446737	10.0000
Methamphetamine	3.040	1521161	532.89	∞	6165607	10.0000
Methocarbamol	3.540	115879	132.02	44.16	3930852	10.0000
Methylphenidate	3.587	2361621	∞	2636.23	10969470	10.0000
Metoprolol	3.476	211703	2751.16	10945.98	3930852	10.0000
Midazolam	4.743	246633	437.15	∞	2897543	10.0000
Mirtazapine	4.400	959689	20206.46	∞	3930852	10.0000
Mirtagynine	4.463	137172	12976.87	170442.43	4694306	10.0000
Morphine	2.412	124019	2520.59	4407.84	75611	10.0000
Norbuprenorphine	3.957	35752	9032.98	12356.32	168117	10.0000
Nordiazepam	4.675	461875	1084.58	∞	1435934	10.0000



AM #25 Multi-Drug Screen Results

Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Norfentanyl	3.342	2050048	17156.03	521.28	8387800	10.0000
Norhydrocodone	3.002	16168	∞	43.81	449584	10.0000
Normeperidine	3.649	830811	∞	1209.32	3001983	10.0000
Noroxycodone	2.939	382106	∞	∞	1257735	10.0000
Nortriptyline	4.538	680993	3302.86	2019.38	1797455	10.0000
O-desmethyl-tramadol	2.928	2414390	15002.58	804.57	11024201	10.0000
Olanzapine	4.161	139310	∞	119.59	70977	10.0000
Oxazepam	4.503	335118	62.84	29.64	1743533	10.0000
Oxycodone	3.028	760767	269.41	69.50	3281606	10.0000
Oxymorphone	2.423	714395	456.33	151.15	2178814	10.0000
Paroxetine	4.512	150630	73.92	244.03	3188343	10.0000
Phenazepam	4.618	281769	2269.23	466.99	1065956	10.0000
Phencyclidine	3.969	1658723	197.10	96.77	7773522	10.0000
Phentermine	3.177	459845	∞	8.73	4408040	10.0000
Phenylethanol	4.108	7543	48.21	43.89	70977	10.0000
Promethazine	4.596	2843800	5731.70	∞	12399653	10.0000
Pseudoephedrine	2.734	14970819	∞	37946.25	65829986	10.0000
Quetiapine	4.755	1688991	103146.19	12432.75	2130876	10.0000
Seftalaine	4.730	662287	42.59	1412.76	3188343	10.0000
Sufentanil	4.861	118202	46414.17	379.41	5753676	10.0000
Tapentadol	3.481	1366490	∞	∞	6546390	10.0000
Temazepam	4.640	1055023	1031.84	174.47	4290478	10.0000
Tramadol	3.461	2478626	1883.01	74.70	12098912	10.0000
Trazodone	4.955	2147350	50422.31	3022.10	8422900	10.0000
Venlafaxine	3.857	2210934	10057.93	510.86	10707874	10.0000
Zaleplon	4.317	601473	5446.16	1372.38	1746408	10.0000
Zolpidem	4.485	2387310	2042.72	3885.56	11435639	10.0000
Zopiclone	4.448	49264	286.44	54.20	238472	10.0000

15

AM #25 Multi-Drug Screen Results

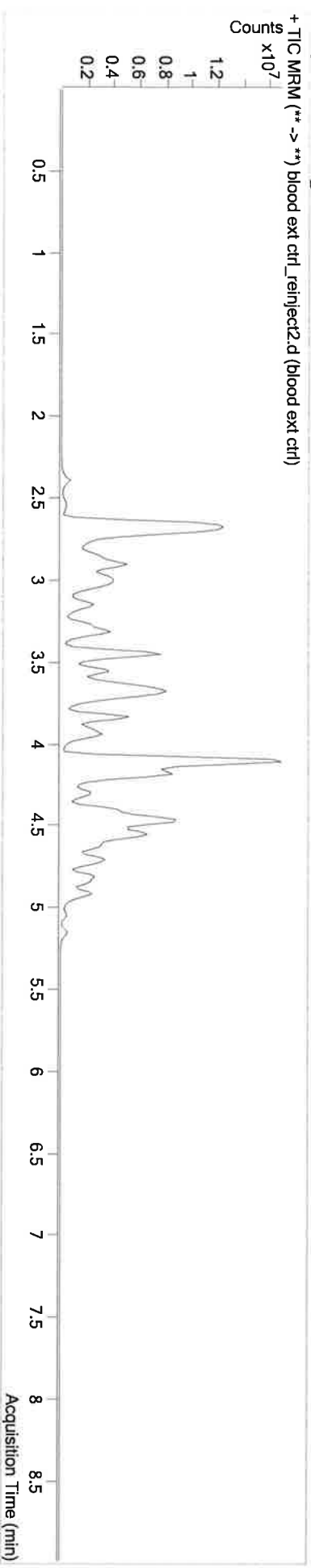


Batch results
D:\MassHunter\Data\2019\AM 25\040519_MDS wk1st 3202 TS\QuantResults\MDS wk1st 3202 re_extract.TS.batch.bin
Calibration Last Update
4/10/2019 8:03:56 AM

Instrument Type
FALCO-LCMS (Property ID 069901)
Acq. Method
am 25 all.m
Sample Position
P1-E12
Injection Volume
5
Acq. Date-Time
4/5/2019 3:09:48 PM
Sample Info.

Data File
blood_ext_ctrl_reinject2.d
Sample Operator
blood_ext_ctrl
Tamara Salazar
Comment
**Not a reinject. Data file name unchanged from previous run. -TS*

Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Diazepam	4.825	2749746	∞	10385.80	1464163	103.8097
Meperidine	3.708	7312484	11641.25	∞	3612778	89.8022
Metoprolol	3.476	1884146	4813.25	14183.91	3612778	96.8350
Oxycodone	3.012	5434437	132.85	145.86	3242914	72.2860

15

AM #25 Multi-Drug Screen Results



Batch results
Calibration Last Update: 4/10/2019 8:03:56 AM
D:\MassHunter\Data\2019\AM 25\040519 MDS wk1st 3202 TS\QuantResults\MDS wk1st 3202 re_extract TS.batch.bin

Instrument FALCO-LCMS (Property ID 069901)
Type Sample
Acq. Method am 25 all.m
Sample Position P1-F12
Injection Volume 5
Acq. Date-Time 4/5/2019 2:59:45 PM
Sample Info.

Data File blood negative_reinject2.d
Sample Operator blood negative
Comment Tamara Salazar

** Not a reinject. Data file name unchanged from previous run. -TS*

Sample Chromatogram

