





























*Bylee*

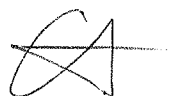
**Worklist: 2000**

<u>LAB CASE</u>	<u>ITEM</u>	<u>TASK ID</u>	<u>DESCRIPTION</u>	
C2017-2148	1	97961	AM 25/AM 26 Blood MultiDrug/	
C2017-2170	1	98399	AM 25/AM 26 Blood MultiDrug/	
C2017-2171	1	98438	AM 25/AM 26 Blood MultiDrug/	
C2017-2172	1	98440	AM 25/AM 26 Blood MultiDrug/	
C2017-2174	1	98446	AM 25/AM 26 Blood MultiDrug/	
C2017-2197	1	98652	AM 25/AM 26 Blood MultiDrug/	
C2017-2218	1	99003	AM 25/AM 26 Blood MultiDrug/	
C2017-2237	1	99170	AM 25/AM 26 Blood MultiDrug/	
C2017-2238	1	99177	AM 25/AM 26 Blood MultiDrug/	
C2017-2239	1	99179	AM 25/AM 26 Blood MultiDrug/	
C2017-2242	1	99254	AM 25/AM 26 Blood MultiDrug/	
C2017-2243	1	99256	AM 25/AM 26 Blood MultiDrug/	
C2017-2255	1	99335	AM 25/AM 26 Blood MultiDrug/	
M2017-3024	1	98436	AM 25/AM 26 Blood MultiDrug/	
M2017-4268	6	95457	AM 25/AM 26 Blood MultiDrug/	
M2017-4559	1	98450	AM 25/AM 26 Blood MultiDrug/	
M2017-4560	1	98452	AM 25/AM 26 Blood MultiDrug/	
M2017-4586	1	98453	AM 25/AM 26 Blood MultiDrug/	
M2017-4587	1	98454	AM 25/AM 26 Blood MultiDrug/	
M2017-4588	1	98455	AM 25/AM 26 Blood MultiDrug/	
M2017-4595	1	98456	AM 25/AM 26 Blood MultiDrug/	
M2017-4620	1	99136	AM 25/AM 26 Blood MultiDrug/	
M2017-4679	1	99137	AM 25/AM 26 Blood MultiDrug/	

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**Worklist: 2000**

<u>LAB CASE</u>	<u>ITEM</u>	<u>TASK ID</u>	<u>DESCRIPTION</u>	
M2017-4757	1	99134	AM 25/AM 26 Blood MultiDrug/	
M2017-4811	1	99135	AM 25/AM 26 Blood MultiDrug/	
M2017-4853	1	99131	AM 25/AM 26 Blood MultiDrug/	
M2017-4853	2	99132	AM 25/AM 26 Blood MultiDrug/	
M2017-5030	2	99181	AM 25/AM 26 Blood MultiDrug/	



# Multi-Drug Screen in Blood by LC-MS/MS

Extraction Date: 11-7-17

Analyst: Anne Nord

Plate lot#: 0515207

Plate Expiration: 10/18/2018

Mobile phase A: 10mM Ammonium Formate  
0.5M Ammonium Hydroxide

Mobile phase B 0.1% Formic acid in MeOH  
Ethyl Acetate

Blank Blood Lot: 17J20718

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

LCMS-QQQ ID: 62340

## 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: 1926134** in wells of analytical (standards) plate.
- 3. Place on shaking incubator at ambient temp., 900rpm for 15 minutes. *Shaker ID66759*
- 4. Pipette **250µL 0.5M ammonium hydroxide** buffer 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. 4 seconds (or until no liquid remains on top of sorbent).  
**(Load at 85-100 PSI- Selector to the right)** Manifold ID: 66729  
Wait 5 minutes
- 8. Add **900µL ethyl acetate** and allow to flow for 5 minutes under gravity.
- 9. Apply positive pressure for approx. 15 seconds. **(10-15 PSI- Selector to the left)**
- 10. Add **900µL ethyl acetate** and allow to flow for 5 minutes under gravity.
- 11. Apply positive pressure for approx. 15 seconds. **(10-15 PSI- Selector to the left)**
- 12. Remove plate containing eluate. Place on SPE Dry and evaporate to dryness at approx. 35°C.  
*SPE Dry ID66819*
- 13. 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: 11/6/17 blood screen Am 25-26 r Batch Name: 11617 mds p2  
11617 mds p1
- 2. 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. > 1/5 the response of administrative control.
- 3. Did all QCs pass for each analyte? Y/N see comments
- 4. Central File Packet to include: LIMS Worklist, Method Checklist, Calibration and Control Reports

## COMMENTS:

Extracted on 11-6-17 - ran calibrator and controls they failed contamination.  
~~Samples and controls~~ Did not run samples from this extraction.

Re-extracted on 11-7-17 and ran.

Toxicology AM method 25 external prep information  
 working solution 10000 ng/ml in meoh mirtazapine, amitriptyline, codeine, diphenhydramine, 20000 ng/ml meoh morphine  
 Stock solution 1mg/ml 100 ul each for all except morphine 200 ul in 9400 ul meoh  
 Ppd 3/31/17 Exp: 3/31/18 lot 92117 by Amn

Drug	lot	expiration
Morphine	fe08141515	11/1/2020
mirtazapine	fe04201503	4/1/2020
amitriptyline	fn07081401	9/1/2019
codeine	fe10271401	11/1/2019
diphenhydramine	fn09161502	9/1/2020

AM 25 control 100 ul working solution (92117) in 9900 ul neg blood  
 ppd 3/21/17 Exp 6/21/17 lot 62117 neg blood lot 321632-1 by Amn  
 Ppd 6-26-17 Exp 9-26-17 lot 92617 (may be listed as 92117) neg blood lot 321632-1 by Amn  
 ppd 9-22-17 Exp 12-22-17 Lot 12-22-17 neg blood lot 17J20718 by Amn

Concentration 100ng/ml amitriptyline, codeine, diphenhydramine, mirtazapine  
 200/ng/ml morphine

Compound Method		p1 cal 1-1a			p1 cal 1-1a Results			Qualifier 1 M...			Qualifier 1 R...			ISTD Method		ISTD Results	
Name	Transition	Acq. Date-Time	RT	Resp.	S/N	MI	Transition	MI	S/N	Name	RT	Resp.					
6-MAM	328.2 -> 165...	11/7/2017 4:54 PM	4.914	842	6.11	328.2 -> 211...	44.64	6-MAM-D6	4.894	28813							
7-Aminoclonazepam	286.1 -> 121...	11/7/2017 4:54 PM	5.531	21670	103.98	286.1 -> 222...	119.66	7-Aminoclonazepam-D4	5.510	93665							
Acetyl Fentanyl	323.2 -> 105...	11/7/2017 4:54 PM	5.771	12467	352.33	323.2 -> 188...	Infinity	Acetyl Fentanyl-D5	5.770	627993							
Acetyl Norfentanyl	219.1 -> 84.2	11/7/2017 4:54 PM	4.889	5804	313.24	219.1 -> 56.3	26.95	Acetyl Norfentanyl-D5	4.868	279660							
a-hydroxylprazolam	325.1 -> 297...	11/7/2017 4:54 PM	6.401	4758	168.64	325.1 -> 215...	32.07	a-hydroxylprazolam-D5	6.380	21510							
alpha-PVP	232.2 -> 91.0	11/7/2017 4:54 PM	5.538	73492	102.86	232.2 -> 77.1	39.38	alpha-PVP-d8	5.537	311339							
Alprazolam	309.1 -> 281...	11/7/2017 4:54 PM	6.487	40608	319.40	309.1 -> 205...	394.48	Alprazolam-D5	6.486	147068							
Amphetamine	136.1 -> 91.1	11/7/2017 4:54 PM	4.851	57867	41.74	136.1 -> 119...	49.80	Amphetamine-D11	4.810	70442							
Bupropion	240.1 -> 184...	11/7/2017 4:54 PM	5.742	62344	8253.55	240.1 -> 131...	87.47	Bupropion-D9	5.721	292233							
Carisoprodol	261.2 -> 176...	11/7/2017 4:54 PM	6.148	39065	138.87	261.2 -> 55.3	78.74	Carisoprodol-D7	6.127	212447							
Citalopram	325.2 -> 109...	11/7/2017 4:54 PM	6.054	119157	271.94	325.2 -> 262...	221.23	Citalopram-D6	6.054	493746							
Clonazepam	316.1 -> 289...	11/7/2017 4:54 PM	6.342	13152	173.25	316.1 -> 213...	58.19	Clonazepam-D4	6.342	21210							
Codeine	300.2 -> 215...	11/7/2017 4:54 PM	4.799	4613	1662.08	300.2 -> 165...	20.34	Codeine-D6	4.776	19675							
Cyclobenzaprine	276.2 -> 214...	11/7/2017 4:54 PM	6.329	69818	274.27	276.2 -> 231...	74.15	Cyclobenzaprine-D3	6.328	320404							
Dextromethorphan	272.2 -> 171...	11/7/2017 4:54 PM	6.085	33829	5533.11	272.2 -> 147...	52.03	Dextromethorphan-D3	6.084	152557							
Dextrophan	258.2 -> 157...	11/7/2017 4:54 PM	5.413	30191	351.18	258.2 -> 133...	33.55	Dextrophan-D3	5.412	153551							
Diazepam	285.1 -> 193...	11/7/2017 4:54 PM	6.713	34057	75.05	285.1 -> 153...	179.87	Diazepam-D5	6.712	128233							
Dihydrocodeine	302.2 -> 198...	11/7/2017 4:54 PM	4.736	13776	99.61	302.2 -> 128...	48.85	Dihydrocodeine-D6	4.735	66677							
Diphenhydramine	256.2 -> 167...	11/7/2017 4:54 PM	6.026	157368	254.71	256.2 -> 152...	578.85	Diphenhydramine-D3	6.026	884386							
Doxylamine	271.2 -> 182...	11/7/2017 4:54 PM	5.739	143108	37.12	271.2 -> 167...	271.41	Doxylamine-D5	5.738	707227							
EDDP	279.2 -> 235...	11/7/2017 4:54 PM	6.062	88683	701.07	279.2 -> 250...	69.21	EDDP-D3	6.062	42304							
Fentanyl	337.2 -> 105...	11/7/2017 4:54 PM	5.992	13343	55.12	337.2 -> 188...	201.48	Fentanyl-D5	5.972	651982							
Fluoxetine	310.1 -> 44.3	11/7/2017 4:54 PM	6.303	168547	865.85	310.1 -> 148...	Infinity	Oxycodone-D6	4.895	121219							
Hydrocodone	300.2 -> 198...	11/7/2017 4:54 PM	5.020	20222	23.58	300.2 -> 128...	16.15	Hydrocodone-D6	4.998	102720							
Hydromorphone	286.2 -> 184...	11/7/2017 4:54 PM	4.440	11051	17.94	286.2 -> 157...	11.82	Hydromorphone-D6	4.418	40540							
Ketamine	238.1 -> 125...	11/7/2017 4:54 PM	5.395	44049	56.01	238.1 -> 220...	18.82	Ketamine-D4	5.374	165906							
Meproamate	219.1 -> 158...	11/7/2017 4:54 PM	5.621	11277	11.17	219.1 -> 97.1	18.14	Meproamate-D7	5.621	54343							
Methadone	310.2 -> 265...	11/7/2017 4:54 PM	6.363	123718	91.03	310.2 -> 105...	161.88	Methadone-D9	6.362	649738							
Methamphetamine	150.1 -> 91.1	11/7/2017 4:54 PM	4.991	35430	Infinity	150.1 -> 119...	Infinity	Methamphetamine-D11	4.971	127229							
Morphine	286.2 -> 201...	11/7/2017 4:54 PM	4.198	3380	79.43	286.2 -> 165...	24.14	Morphine-D6	4.178	1813							
Naloxone	328.2 -> 309...	11/7/2017 4:54 PM	4.773	15961	94.39	328.2 -> 211...	47.04	Naloxone-D5	4.753	105310							
Naltrexol	344.2 -> 326...	11/7/2017 4:54 PM	4.893	46839	112.32	344.2 -> 308...	79.66	Naltrexol-D3	4.892	150435							
Naltrexone	342.2 -> 324...	11/7/2017 4:54 PM	4.853	23373	473.84	342.2 -> 55.3	129.80	Naltrexone-D3	4.832	121029							
Norbuprenorphine	414.3 -> 101...	11/7/2017 4:54 PM	5.827	3819	756.12	414.3 -> 57.3	56.52	Norbuprenorphine-D3	5.827	16998							
Nordiazepam	271.1 -> 140...	11/7/2017 4:54 PM	6.575	23566	389.37	271.1 -> 208...	5398.00	Nordiazepam-D5	6.574	61157							
Norfentanyl	233.2 -> 84.2	11/7/2017 4:54 PM	5.355	89941	241.04	233.2 -> 55.3	46.49	Norfentanyl-D5	5.333	411782							
Norhydrocodone	286.2 -> 199...	11/7/2017 4:54 PM	4.941	1715	10.65	286.2 -> 171...	12.50	Norhydrocodone-D3	4.921	33483							
Noroxycodone	302.1 -> 284...	11/7/2017 4:54 PM	4.878	13520	27.37	302.1 -> 186...	27.83	Noroxycodone-D3	4.877	60950							
O-desmethyl-tramadol	250.2 -> 58.3	11/7/2017 4:54 PM	4.926	120647	242.73	250.2 -> 42.3	18.37	O-desmethyl-tramadol...	4.905	500007							
Oxazepam	287.1 -> 240...	11/7/2017 4:54 PM	6.408	17314	2981.55	287.1 -> 268...	14.19	Oxazepam-D5	6.407	83584							
Oxycodone	316.2 -> 298...	11/7/2017 4:54 PM	4.916	27320	1137.19	316.2 -> 241...	55.67	Oxycodone-D6	4.895	121219							
Oxymorphone	302.1 -> 284...	11/7/2017 4:54 PM	4.255	28042	586.84	302.1 -> 227...	1572.37	Oxymorphone-D3	4.253	114880							

Compound Method		p1 cal 1-1a			p1 cal 1-1a Results			Qualifier 1 M...		Qualifier 1 R...		ISTD Method	
Name	Transition	Acq. Date-Time	RT	Resp.	S/N	MI	Transition	MI	S/N	Name	RT	Resp.	
Phentermine	150.1 -> 65.2	11/7/2017 4:54 PM	5.154	17521	10.85	150.1 -> 133...	9.38	Phentermine-D5	5.133	183716			
Promethazine	285.1 -> 86.2	11/7/2017 4:54 PM	6.307	203534	129234...	285.1 -> 71.3	247.67	Promethazine-D3	6.306	10035...			
Quetiapine	384.2 -> 253...	11/7/2017 4:54 PM	6.255	131580	1073.42	384.2 -> 221...	351.47	Quetiapine-D8	6.254	167485			
Sertraline	306.1 -> 158...	11/7/2017 4:54 PM	6.528	49365	8943.36	306.1 -> 275...	10839...	Sertraline-D3	6.527	226036			
Sufentanil	387.2 -> 238...	11/7/2017 4:54 PM	6.234	8640	2152.69	387.2 -> 111...	55.29	Sufentanil-D5	6.234	377375			
Temazepam	301.1 -> 255...	11/7/2017 4:54 PM	6.550	51487	93.40	301.1 -> 283...	25.28	Temazepam-D5	6.528	239828			
Tramadol	264.2 -> 58.3	11/7/2017 4:54 PM	5.453	151468	127.56	264.2 -> 43.3	13.54	Tramadol-13C-D3	5.432	681307			
Trazodone	372.2 -> 176...	11/7/2017 4:54 PM	6.175	102864	1233.87	372.2 -> 148...	16524...	Trazodone-D6	6.154	426053			
Venlafaxine	278.2 -> 58.3	11/7/2017 4:54 PM	5.818	140185	155.30	278.2 -> 260...	36.96	Venlafaxine-D6	5.797	652393			
Zolpidem	308.2 -> 235...	11/7/2017 4:54 PM	5.937	106799	20402.31	308.2 -> 263...	579.72	Zolpidem-D6	5.915	511028			

Compound Method		p1 negative		p1 negative Results			Qualifier 1 M...		Qualifier...		ISTD Method		ISTD Results	
Name	Transition	Acq. Date-Time	RT	Resp.	S/N	MI	Transition	MI	S/N	Name	RT	Resp.		
6-MAM	328.2 -> 165...	11/7/2017 5:32 PM					328.2 -> 211...			6-MAM-D6	4.894	29287		
7-Aminoclonazepam	286.1 -> 121...	11/7/2017 5:32 PM					286.1 -> 222...			7-Aminoclonazepam-D4	5.510	86556		
Acetyl Fentanyl	323.2 -> 105...	11/7/2017 5:32 PM					323.2 -> 188...			Acetyl Fentanyl-D5	5.749	723069		
Acetyl Norfentanyl	219.1 -> 84.2	11/7/2017 5:32 PM					219.1 -> 56.3			Acetyl Norfentanyl-D5	4.868	289666		
a-hydroxyalprazolam	325.1 -> 297...	11/7/2017 5:32 PM					325.1 -> 215...			a-hydroxyalprazolam-D5	6.380	22005		
alpha-PVP	232.2 -> 91.0	11/7/2017 5:32 PM					232.2 -> 77.1			alpha-PVP-d8	5.537	327540		
Alprazolam	309.1 -> 281...	11/7/2017 5:32 PM					309.1 -> 205...			Alprazolam-D5	6.486	152713		
Amphetamine	136.1 -> 91.1	11/7/2017 5:32 PM	4.973	12897			136.1 -> 119...			Amphetamine-D11	4.810	63761		
Bupropion	240.1 -> 184...	11/7/2017 5:32 PM					240.1 -> 131...			Bupropion-D9	5.721	280143		
Carisoprodol	261.2 -> 176...	11/7/2017 5:32 PM					261.2 -> 55.3			Carisoprodol-D7	6.127	218682		
Citalopram	325.2 -> 109...	11/7/2017 5:32 PM					325.2 -> 262...			Citalopram-D6	6.054	530845		
Clonazepam	316.1 -> 269...	11/7/2017 5:32 PM					316.1 -> 213...			Clonazepam-D4	6.342	26534		
Codeine	300.2 -> 215...	11/7/2017 5:32 PM					300.2 -> 165...			Codeine-D6	4.776	18950		
Cyclobenzaprine	276.2 -> 214...	11/7/2017 5:32 PM					276.2 -> 231...			Cyclobenzaprine-D3	6.328	340901		
Dextromethorphan	272.2 -> 171...	11/7/2017 5:32 PM					272.2 -> 147...			Dextromethorphan-D3	6.084	151403		
Dextrophan	258.2 -> 157...	11/7/2017 5:32 PM					258.2 -> 133...			Dextrophan-D3	5.412	154686		
Diazepam	285.1 -> 193...	11/7/2017 5:32 PM					285.1 -> 153...			Diazepam-D5	6.712	136886		
Dihydrocodeine	302.2 -> 198...	11/7/2017 5:32 PM					302.2 -> 128...			Dihydrocodeine-D6	4.735	66903		
Diphenhydramine	256.2 -> 167...	11/7/2017 5:32 PM	5.761	363			256.2 -> 152...			Diphenhydramine-D3	6.026	940709		
Doxylamine	271.2 -> 182...	11/7/2017 5:32 PM					271.2 -> 167...			Doxylamine-D5	5.738	699205		
EDDP	279.2 -> 235...	11/7/2017 5:32 PM					279.2 -> 250...			EDDP-D3	6.062	48402		
Fentanyl	337.2 -> 105...	11/7/2017 5:32 PM					337.2 -> 188...			Fentanyl-D5	5.972	653050		
Fluoxetine	310.1 -> 44.3	11/7/2017 5:32 PM					310.1 -> 148...			Oxycodone-D6	4.895	126485		
Hydrocodone	300.2 -> 198...	11/7/2017 5:32 PM					300.2 -> 128...			Hydrocodone-D6	4.998	106945		
Hydromorphone	286.2 -> 184...	11/7/2017 5:32 PM					286.2 -> 157...			Hydromorphone-D6	4.439	41284		
Ketamine	238.1 -> 125...	11/7/2017 5:32 PM					238.1 -> 220...			Ketamine-D4	5.374	175622		
Meprbamate	219.1 -> 158...	11/7/2017 5:32 PM					219.1 -> 97.1			Meprbamate-D7	5.621	61100		
Methadone	310.2 -> 265...	11/7/2017 5:32 PM					310.2 -> 105...			Methadone-D9	6.362	678970		
Methamphetamine	150.1 -> 91.1	11/7/2017 5:32 PM					150.1 -> 119...			Methamphetamine-D11	4.971	111870		
Morphine	286.2 -> 201...	11/7/2017 5:32 PM					286.2 -> 165...			Morphine-D6	4.197	2198		
Naloxone	328.2 -> 309...	11/7/2017 5:32 PM					328.2 -> 211...			Naloxone-D5	4.753	110375		
Naltrexol	344.2 -> 326...	11/7/2017 5:32 PM					344.2 -> 308...			Naltrexol-D3	4.872	161145		
Naltrexone	342.2 -> 324...	11/7/2017 5:32 PM					342.2 -> 55.3			Naltrexone-D3	4.832	116476		
Norbuprenorphine	414.3 -> 101...	11/7/2017 5:32 PM					414.3 -> 57.3			Norbuprenorphine-D3	5.827	19629		
Nordiazepam	271.1 -> 140...	11/7/2017 5:32 PM					271.1 -> 208...			Nordiazepam-D5	6.574	65571		
Norfentanyl	233.2 -> 84.2	11/7/2017 5:32 PM					233.2 -> 55.3			Norfentanyl-D5	5.333	423068		
Norhydrocodone	286.2 -> 199...	11/7/2017 5:32 PM					286.2 -> 171...			Norhydrocodone-D3	4.941	37188		
Noroxycodone	302.1 -> 284...	11/7/2017 5:32 PM					302.1 -> 186...			Noroxycodone-D3	4.857	61072		
O-desmethyl-tramadol	250.2 -> 58.3	11/7/2017 5:32 PM	4.926	1033			250.2 -> 42.3		0.39	O-desmethyl-tramadol...	4.905	519649		
Oxazepam	287.1 -> 240...	11/7/2017 5:32 PM					287.1 -> 268...			Oxazepam-D5	6.407	99142		
Oxycodone	316.2 -> 298...	11/7/2017 5:32 PM					316.2 -> 241...			Oxycodone-D6	4.895	126485		
Oxymorphone	302.1 -> 284...	11/7/2017 5:32 PM					302.1 -> 227...			Oxymorphone-D3	4.253	117117		

Compound Method		p1 negative		p1 negative Results			Qualifier 1 M...		Qualifier...		ISTD Method		ISTD Results	
Name	Transition	Acq. Date-Time	RT	Resp.	S/N	MI	Transition	MI	S/N	Name	RT	Resp.		
Phentermine	150.1 -> 65.2	11/7/2017 5:32 PM					150.1 -> 133...			Phentermine-D5	5.133	177012		
Promethazine	285.1 -> 86.2	11/7/2017 5:32 PM					285.1 -> 71.3			Promethazine-D3	6.306	12412..		
Quetiapine	384.2 -> 253..	11/7/2017 5:32 PM					384.2 -> 221...			Quetiapine-D8	6.254	174133		
Sertraline	306.1 -> 158..	11/7/2017 5:32 PM					306.1 -> 275...			Sertraline-D3	6.527	244423		
Sufentanil	387.2 -> 238..	11/7/2017 5:32 PM					387.2 -> 111...			Sufentanil-D5	6.234	382587		
Temazepam	301.1 -> 255..	11/7/2017 5:32 PM					301.1 -> 283...			Temazepam-D5	6.528	280930		
Tramadol	264.2 -> 58.3	11/7/2017 5:32 PM					264.2 -> 43.3			Tramadol-13C-D3	5.432	694690		
Trazodone	372.2 -> 176..	11/7/2017 5:32 PM					372.2 -> 148...			Trazodone-D6	6.154	444457		
Venlafaxine	278.2 -> 58.3	11/7/2017 5:32 PM					278.2 -> 260...			Venlafaxine-D6	5.797	648697		
Zolpidem	308.2 -> 235..	11/7/2017 5:32 PM					308.2 -> 263...			Zolpidem-D6	5.935	509250		



Compound Method	p1 external control	p1 external control Results	Qualifier 1 M...	Qualifier 1 R...	ISTD Method	ISTD Results						
Name	Transition	Acq. Date-Time	RT	Resp.	S/N	MI	Transition	MI	S/N	Name	RT	Resp.
6-MAM	328.2 -> 165...	11/7/2017 5:52 PM					328.2 -> 211...			6-MAM-D6	4.914	25693
7-Aminoclonazepam	286.1 -> 121...	11/7/2017 5:52 PM					286.1 -> 222...			7-Aminoclonazepam-D4	5.510	86476
Acetyl Fentanyl	323.2 -> 105...	11/7/2017 5:52 PM					323.2 -> 188...			Acetyl Fentanyl-D5	5.749	651722
Acetyl Norfentanyl	219.1 -> 84.2	11/7/2017 5:52 PM					219.1 -> 56.3			Acetyl Norfentanyl-D5	4.868	278248
a-hydroxylprazolam	325.1 -> 297...	11/7/2017 5:52 PM					325.1 -> 215...			a-hydroxylprazolam-D5	6.380	19863
alpha-PVP	232.2 -> 91.0	11/7/2017 5:52 PM					232.2 -> 77.1			alpha-PVP-d8	5.537	310445
Alprazolam	309.1 -> 281...	11/7/2017 5:52 PM					309.1 -> 205...			Alprazolam-D5	6.486	141271
Amphetamine	136.1 -> 91.1	11/7/2017 5:52 PM	4.973	17084	4.74		136.1 -> 119...			Amphetamine-D11	4.810	62040
Bupropion	240.1 -> 184...	11/7/2017 5:52 PM					240.1 -> 131...			Bupropion-D9	5.721	262027
Carisoprodol	261.2 -> 176...	11/7/2017 5:52 PM					261.2 -> 55.3			Carisoprodol-D7	6.127	217083
Citalopram	325.2 -> 109...	11/7/2017 5:52 PM					325.2 -> 262...			Citalopram-D6	6.054	502613
Clonazepam	316.1 -> 269...	11/7/2017 5:52 PM					316.1 -> 213...			Clonazepam-D4	6.342	22884
Codeine	300.2 -> 215...	11/7/2017 5:52 PM	4.778	36632	16328.25		300.2 -> 165...		10085...	Codeine-D6	4.776	19700
Cyclobenzaprine	276.2 -> 214...	11/7/2017 5:52 PM					276.2 -> 231...			Cyclobenzaprine-D3	6.328	328089
Dextromethorphan	272.2 -> 171...	11/7/2017 5:52 PM					272.2 -> 147...			Dextromethorphan-D3	6.084	158597
Dextrophan	258.2 -> 157...	11/7/2017 5:52 PM					258.2 -> 133...			Dextrophan-D3	5.412	149181
Diazepam	285.1 -> 193...	11/7/2017 5:52 PM					285.1 -> 153...			Diazepam-D5	6.712	129674
Dihydrocodeine	302.2 -> 198...	11/7/2017 5:52 PM					302.2 -> 128...			Dihydrocodeine-D6	4.735	67218
Diphenhydramine	256.2 -> 167...	11/7/2017 5:52 PM	6.026	18759..	643.99		256.2 -> 152...		Infinity	Diphenhydramine-D3	6.026	840215
Doxylamine	271.2 -> 182...	11/7/2017 5:52 PM					271.2 -> 167...			Doxylamine-D5	5.738	668379
EDDP	279.2 -> 235...	11/7/2017 5:52 PM					279.2 -> 250...			EDDP-D3	6.062	48761
Fentanyl	337.2 -> 105...	11/7/2017 5:52 PM					337.2 -> 188...			Fentanyl-D5	5.972	627189
Fluoxetine	310.1 -> 44.3	11/7/2017 5:52 PM					310.1 -> 148...			Oxycodone-D6	4.895	124718
Hydrocodone	300.2 -> 198...	11/7/2017 5:52 PM	4.778	19969	20.83		300.2 -> 128...		742.20	Hydrocodone-D6	4.998	94539
Hydromorphone	286.2 -> 184...	11/7/2017 5:52 PM					286.2 -> 157...			Hydromorphone-D6	4.439	40077
Ketamine	238.1 -> 125...	11/7/2017 5:52 PM					238.1 -> 220...			Ketamine-D4	5.374	173062
Meprobramate	219.1 -> 158...	11/7/2017 5:52 PM					219.1 -> 97.1			Meprobramate-D7	5.621	56145
Methadone	310.2 -> 265...	11/7/2017 5:52 PM					310.2 -> 105...			Methadone-D9	6.362	659183
Methamphetamine	150.1 -> 91.1	11/7/2017 5:52 PM					150.1 -> 119...			Methamphetamine-D11	4.971	130544
Morphine	286.2 -> 201...	11/7/2017 5:52 PM	4.198	59289	226.66		286.2 -> 165...		1470.10	Morphine-D6	4.178	2046
Naloxone	328.2 -> 309...	11/7/2017 5:52 PM					328.2 -> 211...			Naloxone-D5	4.753	100753
Naltrexol	344.2 -> 326...	11/7/2017 5:52 PM					344.2 -> 308...			Naltrexol-D3	4.872	154334
Naltrexone	342.2 -> 324...	11/7/2017 5:52 PM					342.2 -> 55.3			Naltrexone-D3	4.832	116225
Norbuprenorphine	414.3 -> 101...	11/7/2017 5:52 PM					414.3 -> 57.3			Norbuprenorphine-D3	5.827	18468
Nordiazepam	271.1 -> 140...	11/7/2017 5:52 PM					271.1 -> 208...			Nordiazepam-D5	6.574	62298
Norfentanyl	233.2 -> 84.2	11/7/2017 5:52 PM					233.2 -> 55.3			Norfentanyl-D5	5.333	419077
Norhydrocodone	286.2 -> 199...	11/7/2017 5:52 PM					286.2 -> 171...			Norhydrocodone-D3	4.941	33249
Noroxycodone	302.1 -> 284...	11/7/2017 5:52 PM					302.1 -> 186...			Noroxycodone-D3	4.857	62759
O-desmethyl-tramadol	250.2 -> 58.3	11/7/2017 5:52 PM	4.905	842	1.87		250.2 -> 42.3		2.06	O-desmethyl-tramadol...	4.905	501399
Oxazepam	287.1 -> 240...	11/7/2017 5:52 PM					287.1 -> 268...			Oxazepam-D5	6.387	90726
Oxycodone	316.2 -> 298...	11/7/2017 5:52 PM					316.2 -> 241...			Oxycodone-D6	4.895	124718
Oxymorphone	302.1 -> 284...	11/7/2017 5:52 PM					302.1 -> 227...			Oxymorphone-D3	4.253	110484

Compound Method		p1 external control		p1 external control Results				Qualifier 1 M...		Qualifier 1 R...		ISTD Method		ISTD Results	
Name	Transition	Acq. Date-Time	RT	Resp.	S/N	MI	Transition	MI	S/N	Name	RT	Resp.			
Phentermine	150.1 -> 65.2	11/7/2017 5:52 PM					150.1 -> 133...			Phentermine-D5	5.133	203990			
Promethazine	285.1 -> 86.2	11/7/2017 5:52 PM					285.1 -> 71.3			Promethazine-D3	6.306	11869...			
Quetiapine	384.2 -> 253...	11/7/2017 5:52 PM					384.2 -> 221...			Quetiapine-D8	6.254	172023			
Setraline	306.1 -> 158...	11/7/2017 5:52 PM					306.1 -> 275...			Setraline-D3	6.527	235741			
Sufentanil	387.2 -> 238...	11/7/2017 5:52 PM					387.2 -> 111...			Sufentanil-D5	6.234	355971			
Temazepam	301.1 -> 255...	11/7/2017 5:52 PM					301.1 -> 283...			Temazepam-D5	6.528	258532			
Tramadol	264.2 -> 58.3	11/7/2017 5:52 PM					264.2 -> 43.3			Tramadol-13C-D3	5.432	701400			
Trazodone	372.2 -> 176...	11/7/2017 5:52 PM					372.2 -> 148...			Trazodone-D6	6.154	431356			
Venlafaxine	278.2 -> 58.3	11/7/2017 5:52 PM					278.2 -> 260...			Venlafaxine-D6	5.797	632687			
Zolpidem	308.2 -> 235...	11/7/2017 5:52 PM					308.2 -> 263...			Zolpidem-D6	5.935	506858			

Compound Method		p2 cal 1-1b			p2 cal 1-1b Results			Qualifier 1 M...		Qualifier 1...		ISTD Method		ISTD Results	
Name	Transition	Acq. Date-Time	RT	Resp.	S/N	MI	Transition	MI	S/N	Name	RT	Resp.			
7-aminoflunitrazepam	284.1 -> 135...	11/7/2017 5:03 PM	5.721	28517	398.93	284.1 -> 93.2	2428...	7-aminoflunitrazepam-D7	5.699	129341					
alpha-hydroxymidazolam	342.1 -> 324...	11/7/2017 5:03 PM	6.448	48638	80.72	342.1 -> 203...	45.33	alpha-hydroxymidazolam-...	6.447	223695					
Amtriptyline	278.2 -> 91.2	11/7/2017 5:03 PM	6.417	155728	Infinity	278.2 -> 105...	112.99	Amtriptyline-D3	6.416	288534					
Amoxapine	314.1 -> 271...	11/7/2017 5:03 PM	6.370	45804	Infinity	314.1 -> 193...	Infinity	Amtriptyline-D3	6.416	288534					
Benzylecgonine	290.1 -> 168...	11/7/2017 5:03 PM	5.332	9368	5170.37	290.1 -> 105...	240.67	Benzylecgonine-D8	5.310	3303					
Carbamazepine	237.1 -> 193...	11/7/2017 5:03 PM	6.157	16456	27.01	237.1 -> 194...	802.03	Carbamazepine-13C6	6.157	722379					
Chlordiazepoxide	300.1 -> 227...	11/7/2017 5:03 PM	6.596	21691	42.30	300.1 -> 282...	Infinity	Chlordiazepoxide-D5	6.575	185545					
Clomipramine	315.2 -> 86.2	11/7/2017 5:03 PM	6.613	199579	995.67	315.2 -> 58.3	Infinity	Clomipramine-D3	6.613	964892					
Cocaine	304.2 -> 182...	11/7/2017 5:03 PM	5.595	87614	150.47	304.2 -> 105...	1605...	Cocaine-D3	5.594	364467					
Desipramine	267.2 -> 72.3	11/7/2017 5:03 PM	6.357	154211	Infinity	267.2 -> 44.3	Infinity	Desipramine-D3	6.357	812242					
Doxepin	280.2 -> 107...	11/7/2017 5:03 PM	6.151	72750	191.42	280.2 -> 77.2	Infinity	Doxepin-D3	6.150	335325					
Estazolam	295.1 -> 267...	11/7/2017 5:03 PM	6.414	35693	306.35	295.1 -> 205...	452.33	Estazolam-D5	6.412	152512					
Flunitrazepam	314.1 -> 268...	11/7/2017 5:03 PM	6.451	34360	10770...	314.1 -> 239...	30.26	Flunitrazepam-D7	6.430	5896					
Flurazepam	388.2 -> 315...	11/7/2017 5:03 PM	6.100	81921	424.85	388.2 -> 317...	3074...	Zopiclone-D4	5.856	125673					
Imipramine	281.2 -> 86.2	11/7/2017 5:03 PM	6.376	237959	60.29	281.2 -> 58.3	Infinity	Imipramine-D3	6.375	661317					
Levamisole	205.1 -> 91.2	11/7/2017 5:03 PM	4.980	30663	Infinity	205.1 -> 178...	Infinity	Cocaine-D3	5.594	364467					
Maprotiline	278.2 -> 91.2	11/7/2017 5:03 PM	6.417	145349	Infinity	278.2 -> 117...	Infinity	Meperidine-D4	5.604	164042					
MDA	180.1 -> 163...	11/7/2017 5:03 PM	5.004	29315	Infinity	180.1 -> 105...	420.49	MDA-D5	4.983	154067					
MDEA	208.1 -> 163...	11/7/2017 5:03 PM	5.262	70027	347.50	208.1 -> 105...	178.26	MDEA-D6	5.242	323439					
Meperidine	248.2 -> 220...	11/7/2017 5:03 PM	5.625	35960	32.73	248.2 -> 174...	838.03	Meperidine-D4	5.604	164042					
Methylphenidate	234.2 -> 84.2	11/7/2017 5:03 PM	5.525	184308	Infinity	234.2 -> 56.3	Infinity	Meperidine-D4	5.604	164042					
Metoprolol	268.2 -> 116...	11/7/2017 5:03 PM	5.459	16768	29.69	268.2 -> 56.3	310.83	Meperidine-D4	5.604	164042					
Midazolam	326.1 -> 223...	11/7/2017 5:03 PM	6.551	16631	4924.05	326.1 -> 249...	98.94	Midazolam-D4	6.530	250827					
Mirtazapine	266.2 -> 195...	11/7/2017 5:03 PM	5.766	85901	Infinity	266.2 -> 72.3	23.07	Midazolam-D4	6.530	250827					
Mirtazapine	399.2 -> 174...	11/7/2017 5:03 PM	6.120	30083	6591.30	399.2 -> 238...	94.04	Carbamazepine-13C6	6.157	722379					
Mirtazapine	234.1 -> 42.3	11/7/2017 5:03 PM	5.628	43905	Infinity	234.1 -> 160...	281.26	Normeperidine-D4	5.606	150692					
Normeperidine	326.2 -> 44.3	11/7/2017 5:03 PM	6.246	27578	Infinity	326.2 -> 252...	434.56	Normeperidine-D4	6.225	115053					
Nortriptyline	264.2 -> 91.2	11/7/2017 5:03 PM	6.318	254748	469.18	264.2 -> 233...	1446...	Nortriptyline-D3	6.398	210181					
Ondansetron	294.2 -> 184...	11/7/2017 5:03 PM	5.781	49880	350.84	294.2 -> 212...	102.47	Pentazocine-13C3	5.679	275263					
Pentazocine	286.2 -> 218...	11/7/2017 5:03 PM	5.679	72909	2165.36	286.2 -> 41.3	112.36	Pentazocine-13C3	5.679	275263					
Phenazepam	349.0 -> 206...	11/7/2017 5:03 PM	6.528	36772	452.80	349.0 -> 183...	325.49	Phenazepam-D4	6.507	12922					
Phencyclidine	244.2 -> 86.2	11/7/2017 5:03 PM	5.912	123169	640.85	244.2 -> 91.1	765.56	Phencyclidine-D5	5.911	568558					
Phenylethanolamine	253.1 -> 104...	11/7/2017 5:03 PM	6.074	1342	13.81	253.1 -> 182...	12.50	Phenylethanolamine-D10	6.033	7220					
Prazepam	325.1 -> 271...	11/7/2017 5:03 PM	6.977	135308	333.04	325.1 -> 140...	265.74	Prazepam-D5	6.955	606279					
Primidone	219.1 -> 91.2	11/7/2017 5:03 PM	5.425	5337	9.41	219.1 -> 162...	19.39	Prazepam-D5	6.955	606279					
Propoxyphene	340.2 -> 58.3	11/7/2017 5:03 PM	6.245	142676	1111.90	340.2 -> 266...	189.18	Propoxyphene-D11	6.243	145083					
Proprylolone	264.2 -> 155...	11/7/2017 5:03 PM	6.318	385609	1433.62	264.2 -> 161...	Infinity	Nortriptyline-D3	6.398	210181					
Pseudoephedrine	166.1 -> 148...	11/7/2017 5:03 PM	4.661	642261	2136.09	166.1 -> 133...	678.84	Pseudoephedrine-D3	4.639	301731					
Tapentadol	222.2 -> 107...	11/7/2017 5:03 PM	5.465	100632	48.49	222.2 -> 121...	Infinity	Tapentadol-D3	5.465	471021					
Trimipramine	295.2 -> 100...	11/7/2017 5:03 PM	6.454	248182	9599.32	295.2 -> 58.3	Infinity	Trimipramine-D3	6.454	11628...					
Verapamil	455.3 -> 165...	11/7/2017 5:03 PM	6.180	103787	25759...	455.3 -> 150...	170.68	Trimipramine-D3	6.454	11628...					
Zaleplon	306.1 -> 236...	11/7/2017 5:03 PM	6.248	30288	6403.18	306.1 -> 264...	3924...	Zaleplon-D4	6.227	108733					
Zopiclone	389.1 -> 244...	11/7/2017 5:03 PM	5.856	9650	54.70	389.1 -> 216...	1364...	Zopiclone-D4	5.856	125673					

Compound Method		p2 negative		p2 negative Results		Qualif. 1 M...		Qualif. ...		ISTD Method		ISTD Results	
Name	Transition	Acq. Date-Time	RT	Resp.	S/N	MI	Transition	MI	S/N	Name	RT	Resp.	
7-aminoflunitrazepam	284.1 -> 135...	11/7/2017 5:42 PM					284.1 -> 93.2			7-aminoflunitrazepam-D7	5.699	119144	
alpha-hydroxymidazolam	342.1 -> 324...	11/7/2017 5:42 PM					342.1 -> 203...			alpha-hydroxymidazolam-...	6.447	225725	
Amtriptyline	278.2 -> 91.2	11/7/2017 5:42 PM					278.2 -> 105...			Amtriptyline-D3	6.416	298103	
Amoxapine	314.1 -> 271...	11/7/2017 5:42 PM					314.1 -> 193...			Amtriptyline-D3	6.416	298103	
Benzoylcegonine	290.1 -> 168...	11/7/2017 5:42 PM					290.1 -> 105...			Benzoylcegonine-D8	5.310	3074	
Carbamazepine	237.1 -> 193...	11/7/2017 5:42 PM					237.1 -> 194...			Carbamazepine-13C6	6.157	737403	
Chlordiazepoxide	300.1 -> 227...	11/7/2017 5:42 PM					300.1 -> 282...			Chlordiazepoxide-D5	6.595	197081	
Clonipramine	315.2 -> 86.2	11/7/2017 5:42 PM					315.2 -> 58.3			Clonipramine-D3	6.613	10194...	
Cocaine	304.2 -> 182...	11/7/2017 5:42 PM					304.2 -> 105...			Cocaine-D3	5.594	356300	
Desipramine	267.2 -> 72.3	11/7/2017 5:42 PM					267.2 -> 44.3			Desipramine-D3	6.357	842634	
Doxepin	280.2 -> 107...	11/7/2017 5:42 PM					280.2 -> 77.2			Doxepin-D3	6.150	338673	
Estazolam	295.1 -> 267...	11/7/2017 5:42 PM					295.1 -> 205...			Estazolam-D5	6.412	159693	
Flunitrazepam	314.1 -> 268...	11/7/2017 5:42 PM					314.1 -> 239...			Flunitrazepam-D7	6.430	7163	
Flurazepam	388.2 -> 315...	11/7/2017 5:42 PM					388.2 -> 317...			Zopiclone-D4	5.856	122310	
Imipramine	281.2 -> 86.2	11/7/2017 5:42 PM					281.2 -> 58.3			Imipramine-D3	6.375	673429	
Levamisole	205.1 -> 91.2	11/7/2017 5:42 PM					205.1 -> 178...			Cocaine-D3	5.594	356300	
Maprotiline	278.2 -> 91.2	11/7/2017 5:42 PM					278.2 -> 117...			Meperidine-D4	5.624	171260	
MDEA	180.1 -> 163...	11/7/2017 5:42 PM					180.1 -> 105...			Meperidine-D4	5.624	171260	
MDEA	208.1 -> 163...	11/7/2017 5:42 PM					208.1 -> 105...			MDEA-D5	4.983	155942	
MDMA	194.1 -> 163...	11/7/2017 5:42 PM					194.1 -> 105...			MDEA-D6	5.242	315240	
Meperidine	248.2 -> 220...	11/7/2017 5:42 PM					248.2 -> 174...			MDMA-D6	5.103	33777	
Methyphenidate	234.2 -> 84.2	11/7/2017 5:42 PM					234.2 -> 56.3			Meperidine-D4	5.624	171260	
Metoprolol	268.2 -> 116...	11/7/2017 5:42 PM					268.2 -> 56.3			Meperidine-D4	5.624	171260	
Midazolam	326.1 -> 223...	11/7/2017 5:42 PM					326.1 -> 249...			Midazolam-D4	6.550	255493	
Mirtazapine	266.2 -> 195...	11/7/2017 5:42 PM					266.2 -> 72.3			Midazolam-D4	6.550	255493	
Mirtazapine	399.2 -> 174...	11/7/2017 5:42 PM					399.2 -> 238...			Midazolam-D4	6.550	255493	
Normeperidine	234.1 -> 42.3	11/7/2017 5:42 PM					234.1 -> 160...			Carbamazepine-13C6	6.157	737403	
Norpropoxyphene	326.2 -> 44.3	11/7/2017 5:42 PM					326.2 -> 252...			Normeperidine-D4	5.626	151682	
Nortriptyline	264.2 -> 91.2	11/7/2017 5:42 PM					264.2 -> 233...			Normeperidine-D4	5.626	151682	
Oransetron	294.2 -> 184...	11/7/2017 5:42 PM					294.2 -> 212...			Nortriptyline-D3	6.398	229581	
Pentazocine	286.2 -> 218...	11/7/2017 5:42 PM					286.2 -> 41.3			Pentazocine-13C3	5.679	288881	
Phenazepam	349.0 -> 206...	11/7/2017 5:42 PM					349.0 -> 183...			Pentazocine-13C3	5.679	288881	
Phencyclidine	244.2 -> 86.2	11/7/2017 5:42 PM					244.2 -> 91.1			Phenazepam-D4	6.507	17873	
Phenytol	253.1 -> 104...	11/7/2017 5:42 PM					253.1 -> 182...			Phenazepam-D4	6.507	17873	
Prazepam	325.1 -> 271...	11/7/2017 5:42 PM					325.1 -> 140...			Phencyclidine-D5	5.911	554062	
Primidone	219.1 -> 91.2	11/7/2017 5:42 PM					219.1 -> 162...			Phenytol-D10	6.033	6800	
Propoxyphene	340.2 -> 58.3	11/7/2017 5:42 PM					340.2 -> 266...			Prazepam-D5	6.955	609810	
Protriptyline	264.2 -> 155...	11/7/2017 5:42 PM					264.2 -> 161...			Prazepam-D5	6.955	609810	
Pseudoephedrine	166.1 -> 148...	11/7/2017 5:42 PM					166.1 -> 133...			Propoxyphene-D11	6.243	150749	
Tapentadol	222.2 -> 107...	11/7/2017 5:42 PM					222.2 -> 121...			Nortriptyline-D3	6.398	229581	
Trimipramine	295.2 -> 100...	11/7/2017 5:42 PM					295.2 -> 58.3			Pseudoephedrine-D3	4.660	277915	
Verapamil	455.3 -> 165...	11/7/2017 5:42 PM					455.3 -> 150...			Tapentadol-D3	5.465	493558	
Zaleplon	306.1 -> 236...	11/7/2017 5:42 PM					306.1 -> 264...			Trimipramine-D3	6.454	11744...	
Zopiclone	389.1 -> 244...	11/7/2017 5:42 PM					389.1 -> 216...			Trimipramine-D3	6.454	11744...	
										Zaleplon-D4	6.227	114485	
										Zopiclone-D4	5.856	122310	

Compound Method	p2 external control	p2 external control	Results	Qualifier 1 M...	Qualifier...	ISTD Method	ISTD Results					
Name	Transition	Acq. Date-Time	RT	Resp.	S/N	MI	Transition	MI	S/N	Name	RT	Resp.
7-aminoiflutrazepam	284.1 -> 135...	11/7/2017 6:02 PM					284.1 -> 93.2			7-aminoiflutrazepam-D7	5.699	116396
alpha-hydroxymidazolam	342.1 -> 324...	11/7/2017 6:02 PM					342.1 -> 203...			alpha-hydroxymidazolam-...	6.447	213849
Amitriptyline	278.2 -> 91.2	11/7/2017 6:02 PM	6.417	10663.	835.36		278.2 -> 105...		Infni...	Amitriptyline-D3	6.416	289522
Amoxapine	314.1 -> 271...	11/7/2017 6:02 PM					314.1 -> 193...			Amitriptyline-D3	6.416	289522
Benzoyllecgonine	290.1 -> 168...	11/7/2017 6:02 PM					290.1 -> 105...			Benzoyllecgonine-D8	5.310	3599
Carbamazepine	237.1 -> 193...	11/7/2017 6:02 PM					237.1 -> 194...			Carbamazepine-13C6	6.157	728809
Chlordiazepoxide	300.1 -> 227...	11/7/2017 6:02 PM					300.1 -> 282...			Chlordiazepoxide-D5	6.575	185538
Clomipramine	315.2 -> 86.2	11/7/2017 6:02 PM					315.2 -> 58.3			Clomipramine-D3	6.613	931317
Cocaine	304.2 -> 182...	11/7/2017 6:02 PM					304.2 -> 105...			Cocaine-D3	5.594	352525
Desipramine	267.2 -> 72.3	11/7/2017 6:02 PM					267.2 -> 44.3			Desipramine-D3	6.357	811978
Doxepin	280.2 -> 107...	11/7/2017 6:02 PM					280.2 -> 77.2			Doxepin-D3	6.130	331786
Estazolam	295.1 -> 267...	11/7/2017 6:02 PM					295.1 -> 205...			Estazolam-D5	6.392	147262
Flunitrazepam	314.1 -> 268...	11/7/2017 6:02 PM					314.1 -> 239...			Flunitrazepam-D7	6.430	6516
Flurazepam	388.2 -> 315...	11/7/2017 6:02 PM					388.2 -> 317...			Zopiclone-D4	5.856	125179
Imipramine	281.2 -> 86.2	11/7/2017 6:02 PM					281.2 -> 58.3			Imipramine-D3	6.375	654784
Levamisole	205.1 -> 91.2	11/7/2017 6:02 PM					205.1 -> 178...			Cocaine-D3	5.594	352525
Maprotiline	278.2 -> 91.2	11/7/2017 6:02 PM	6.417	995577	835.36		278.2 -> 117...		Infni...	Meperidine-D4	5.604	179057
MDA	180.1 -> 163...	11/7/2017 6:02 PM					180.1 -> 105...			MDA-D5	4.983	150660
MDEA	208.1 -> 163...	11/7/2017 6:02 PM					208.1 -> 105...			MDEA-D6	5.242	291781
MDMA	194.1 -> 163...	11/7/2017 6:02 PM					194.1 -> 105...			MDMA-D6	5.103	32181
Meperidine	248.2 -> 220...	11/7/2017 6:02 PM					248.2 -> 174...			Meperidine-D4	5.604	179057
Methylphenidate	234.2 -> 84.2	11/7/2017 6:02 PM					234.2 -> 56.3			Meperidine-D4	5.604	179057
Metoprolol	268.2 -> 116...	11/7/2017 6:02 PM					268.2 -> 56.3			Meperidine-D4	5.604	179057
Midazolam	326.1 -> 223...	11/7/2017 6:02 PM					326.1 -> 249...			Midazolam-D4	6.530	254260
Mirtazapine	266.2 -> 195...	11/7/2017 6:02 PM	5.766	839837	1950.83		266.2 -> 72.3		Infni...	Midazolam-D4	6.530	254260
Mirtazapine	399.2 -> 174...	11/7/2017 6:02 PM					399.2 -> 238...			Carbamazepine-13C6	6.157	728809
Normeperidine	234.1 -> 42.3	11/7/2017 6:02 PM					234.1 -> 160...			Normeperidine-D4	5.606	143186
Norpropoxyphene	326.2 -> 44.3	11/7/2017 6:02 PM					326.2 -> 252...			Norpropoxyphene-D5	6.225	114377
Nortriptyline	264.2 -> 91.2	11/7/2017 6:02 PM					264.2 -> 233...			Nortriptyline-D3	6.316	59613
Ondansetron	294.2 -> 184...	11/7/2017 6:02 PM					294.2 -> 212...			Pentazocine-13C3	5.679	269350
Pentazocine	286.2 -> 218...	11/7/2017 6:02 PM					286.2 -> 41.3			Pentazocine-13C3	5.679	269350
Phenazepam	349.0 -> 206...	11/7/2017 6:02 PM					349.0 -> 183...			Phenazepam-D4	6.507	15207
Phencyclidine	244.2 -> 86.2	11/7/2017 6:02 PM					244.2 -> 91.1			Phencyclidine-D5	5.911	555356
Phenylethanolamine	253.1 -> 104...	11/7/2017 6:02 PM					253.1 -> 182...			Phenylethanolamine-D5	6.033	7342
Prazepam	325.1 -> 271...	11/7/2017 6:02 PM					325.1 -> 140...			Prazepam-D5	6.955	576917
Primidone	219.1 -> 91.2	11/7/2017 6:02 PM					219.1 -> 162...			Prazepam-D5	6.955	576917
Propoxyphene	340.2 -> 58.3	11/7/2017 6:02 PM					340.2 -> 266...			Propoxyphene-D11	6.243	143336
Protriptyline	264.2 -> 155...	11/7/2017 6:02 PM					264.2 -> 161...			Nortriptyline-D3	6.316	59613
Pseudoephedrine	166.1 -> 148...	11/7/2017 6:02 PM					166.1 -> 133...			Pseudoephedrine-D3	4.660	267910
Tapentadol	222.2 -> 107...	11/7/2017 6:02 PM					222.2 -> 121...			Tapentadol-D3	5.465	447176
Trimipramine	295.2 -> 100...	11/7/2017 6:02 PM					295.2 -> 58.3			Trimipramine-D3	6.454	11045...
Verapamil	455.3 -> 165...	11/7/2017 6:02 PM					455.3 -> 150...			Trimipramine-D3	6.454	11045...
Zaleplon	306.1 -> 236...	11/7/2017 6:02 PM					306.1 -> 264...			Zaleplon-D4	6.227	106984
Zopiclone	389.1 -> 244...	11/7/2017 6:02 PM					389.1 -> 216...			Zopiclone-D4	5.856	125179

reacts with  
Amitriptyline  
OK

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

Extraction Date: 11-6-17

Analyst: Anne Ward

Plate lot#: 0515037

Plate Expiration: 9/28/2018

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

**Mobile phase B:** 0.1% Formic acid in MeOH  
Hexane

**Blank Blood Lot:** 17J20718

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

**LCMS-QQQ ID:** 62340

## 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: 2609543** in wells of analytical (standards) plate.
  - Blank blood for locations containing standards/QCs and internal standards
  - Sample blood for locations containing only internal standards
- 3. Place on shaking incubator at ambient temp., 900rpm for 15 minutes. *Shaker ID: 66759*
- 4. Pipette **500 µL 0.1% formic acid** 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: 66792*
- 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: 66819*
- 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: 11617 blood screen Am<sup>25-26</sup> Batch Name: 11617 Cann Screen
- 2. For unknown samples, calculated concentration > 3ng THC, THC-OH and > 5ng Carboxy-THC and +/- 2% or +/- 0.100 min (whichever is greater) retention time of calibrators?
- 3. Did all QCs pass for each analyte? Y/N
- 4. Central File Packet to include: LIMS Worklist, Method Checklist, Calibration and Control Reports

COMMENTS: \_



# ISP FORENSICS - Cd'A

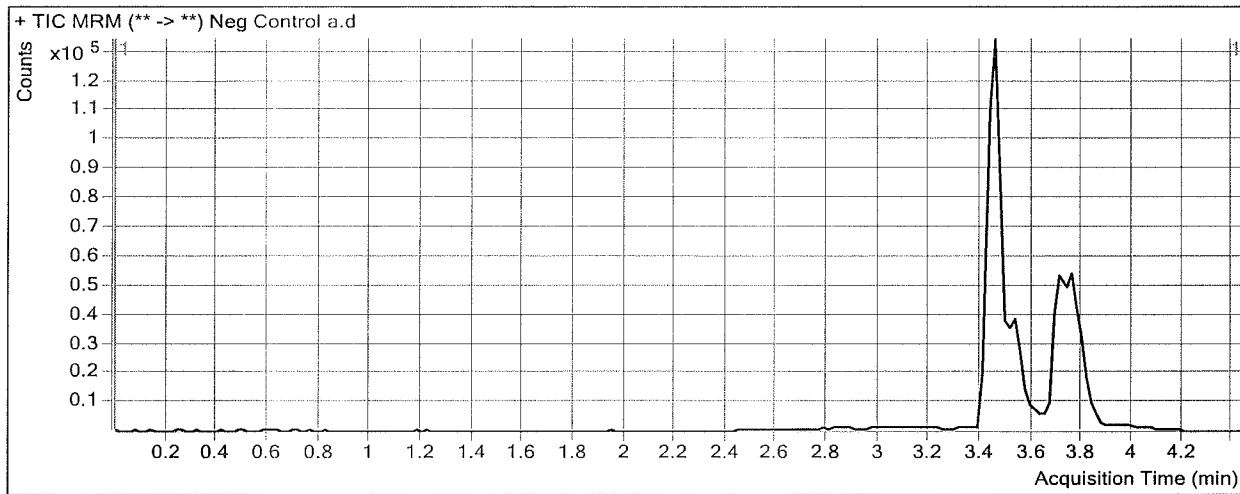
## Cannabionoid Screen Report

**Batch Data Path** C:\MyFiles\anord\Documents\blood data\116 screen\QuantResults\11617 cann screen.batch.bin  
**Analysis Time** 11/7/2017 7:31 AM **Analyst Name** anord  
**Report Time** 11/9/2017 11:06 AM **Reporter Name** ISP Tox  
**Last Calib Update** 11/7/2017 7:31 AM **Batch State** Processed

### Analysis Info

**Acq Time** 2017-11-06 18:26 **Data File** Neg Control a.d  
**Sample Type** Sample **Sample Name** Neg Control a  
**Dilution** 1 **Acq Method** Screen THC 8-2017.m  
**Position** P1-a2 **Sample Info**  
**Inj Vol** -1 **Comment** AM 26 Cannabinoid screen negative blood lot 17J20718

### Sample Chromatogram



# ISP FORENSICS - Cd'A

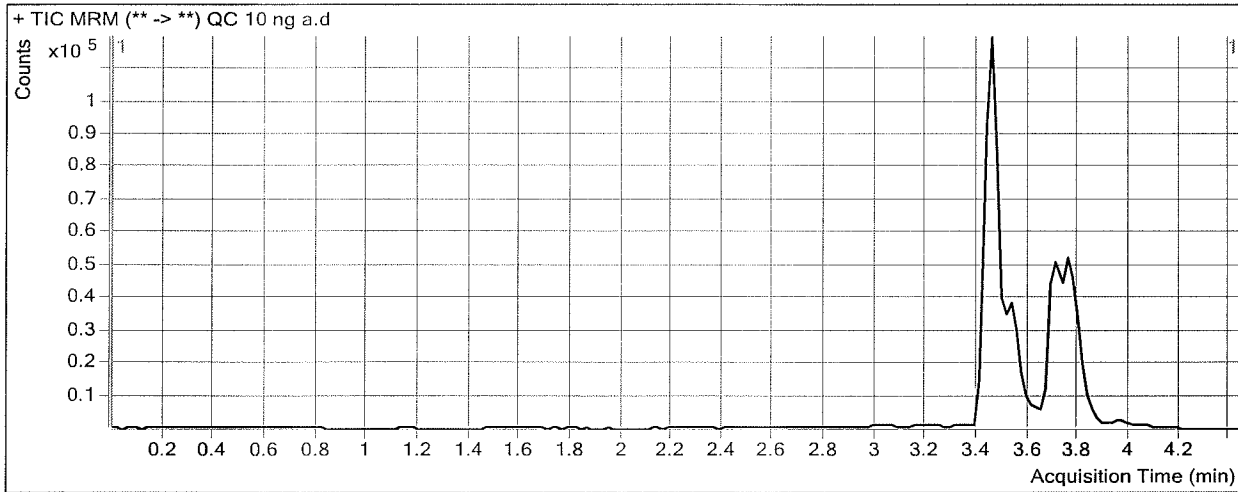
## Cannabinoid Screen Report

**Batch Data Path** C:\MyFiles\anord\Documents\blood data\116 screen\QuantResults\11617 cann screen.batch.bin  
**Analysis Time** 11/7/2017 7:31 AM **Analyst Name** anord  
**Report Time** 11/9/2017 11:06 AM **Reporter Name** ISP Tox  
**Last Calib Update** 11/7/2017 7:31 AM **Batch State** Processed

### Analysis Info

**Acq Time** 2017-11-06 18:46 **Data File** QC 10 ng a.d  
**Sample Type** QC **Sample Name** QC 10 ng a  
**Dilution** 1 **Acq Method** Screen THC 8-2017.m  
**Position** P1-H1 **Sample Info**  
**Inj Vol** -1 **Comment** AM 26 Cannabinoid screen

### Sample Chromatogram



### Results

Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC-OH	3.453	40318	400124	0.1008	10.6118
THC-COOH	3.526	18483	90230	0.2048	12.2029
THC	3.780	4057	42590	0.0953	9.9744

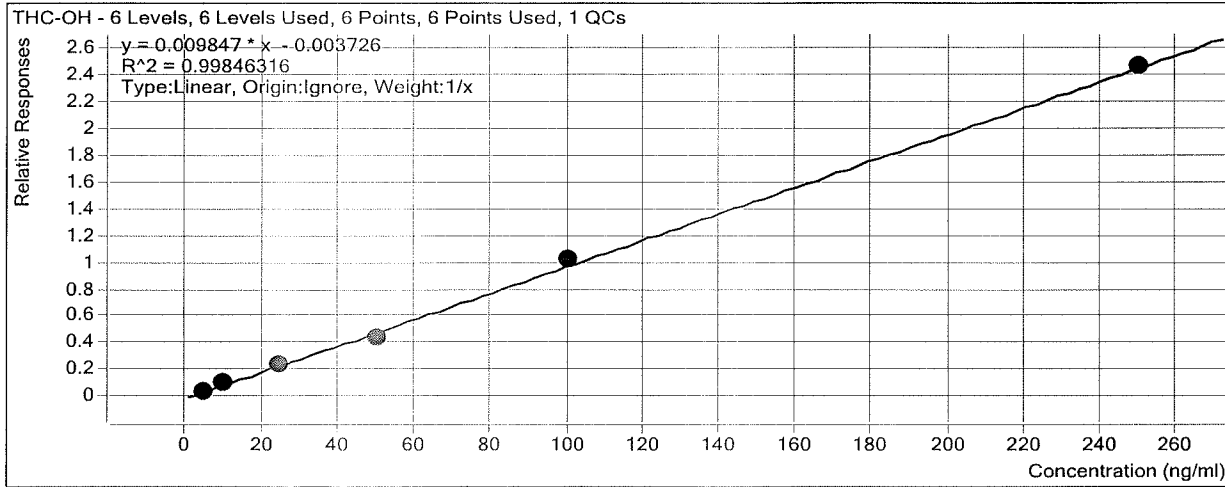


# ISP Forensics Calibration Curve Report

**Batch Data Path** C:\MyFiles\anord\Documents\blood data\116 screen\QuantResults\11617 cann  
screen.batch.bin

**Last Calib Update** 11/7/2017 7:31 AM      **Analyst Name** ISP TOX

**Target Compound** *THC-OH*  
**Internal Standard** *THC-OH-d3*



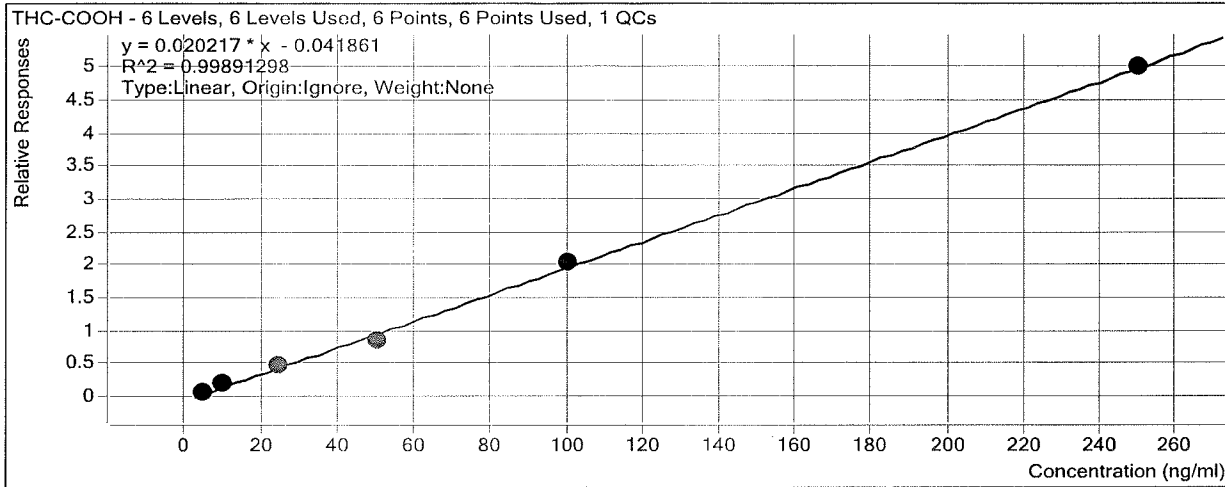
Sample	Level	Enabled	Exp Conc	Final Conc	Accuracy
cal 2 - 5ng a	2	<input checked="" type="checkbox"/>	5	5.0	100.1
cal 3 - 10ng a	3	<input checked="" type="checkbox"/>	10	10.6	105.5
QC 10 ng a	3	<input checked="" type="checkbox"/>	10	10.6	106.1
cal 4 - 25ng a	4	<input checked="" type="checkbox"/>	25	24.7	98.9
cal 5 - 50ng a	5	<input checked="" type="checkbox"/>	50	45.8	91.6
cal 6 - 100ng a	6	<input checked="" type="checkbox"/>	100	103.8	103.8
cal 7 - 250ng a	7	<input checked="" type="checkbox"/>	250	250.1	100.0

# ISP Forensics Calibration Curve Report

**Batch Data Path** C:\MyFiles\anord\Documents\blood data\116 screen\QuantResults\11617 cann  
screen.batch.bin

**Last Calib Update** 11/7/2017 7:31 AM **Analyst Name** ISP TOX

**Target Compound** *THC-COOH*  
**Internal Standard** *THC-COOH-d9*

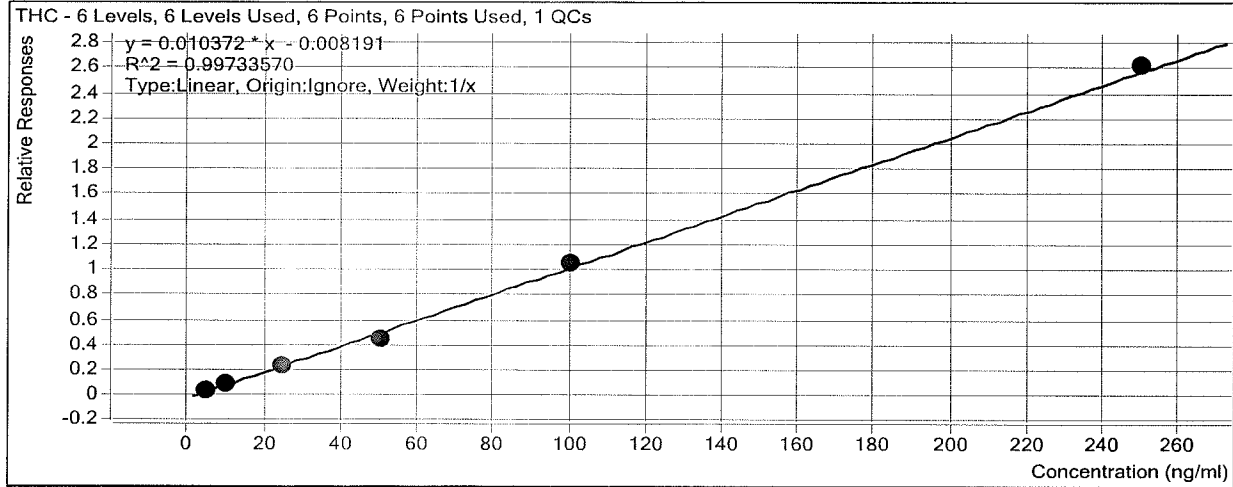


Sample	Level	Enabled	Exp Conc	Final Conc	Accuracy
cal 2 - 5ng a	2	<input checked="" type="checkbox"/>	5	5.9	118.9
cal 3 - 10ng a	3	<input checked="" type="checkbox"/>	10	11.4	113.6
QC 10 ng a	3	<input checked="" type="checkbox"/>	10	12.2	122.0
cal 4 - 25ng a	4	<input checked="" type="checkbox"/>	25	24.7	98.9
cal 5 - 50ng a	5	<input checked="" type="checkbox"/>	50	44.6	89.2
cal 6 - 100ng a	6	<input checked="" type="checkbox"/>	100	103.9	103.9
cal 7 - 250ng a	7	<input checked="" type="checkbox"/>	250	249.5	99.8

# ISP Forensics Calibration Curve Report

**Batch Data Path** C:\MyFiles\anord\Documents\blood data\116 screen\QuantResults\11617 cann screen.batch.bin  
**Last Calib Update** 11/7/2017 7:31 AM **Analyst Name** ISP TOX

**Target Compound** *THC*  
**Internal Standard** *THC-d3*



Sample	Level	Enabled	Exp Conc	Final Conc	Accuracy
cal 2 - 5ng a	2	<input checked="" type="checkbox"/>	5	5.4	107.8
cal 3 - 10ng a	3	<input checked="" type="checkbox"/>	10	10.4	103.8
QC 10 ng a	3	<input checked="" type="checkbox"/>	10	10.0	99.7
cal 4 - 25ng a	4	<input checked="" type="checkbox"/>	25	24.0	96.0
cal 5 - 50ng a	5	<input checked="" type="checkbox"/>	50	44.1	88.2
cal 6 - 100ng a	6	<input checked="" type="checkbox"/>	100	103.1	103.1
cal 7 - 250ng a	7	<input checked="" type="checkbox"/>	250	253.1	101.2

# ISP FORENSICS - Cd'A

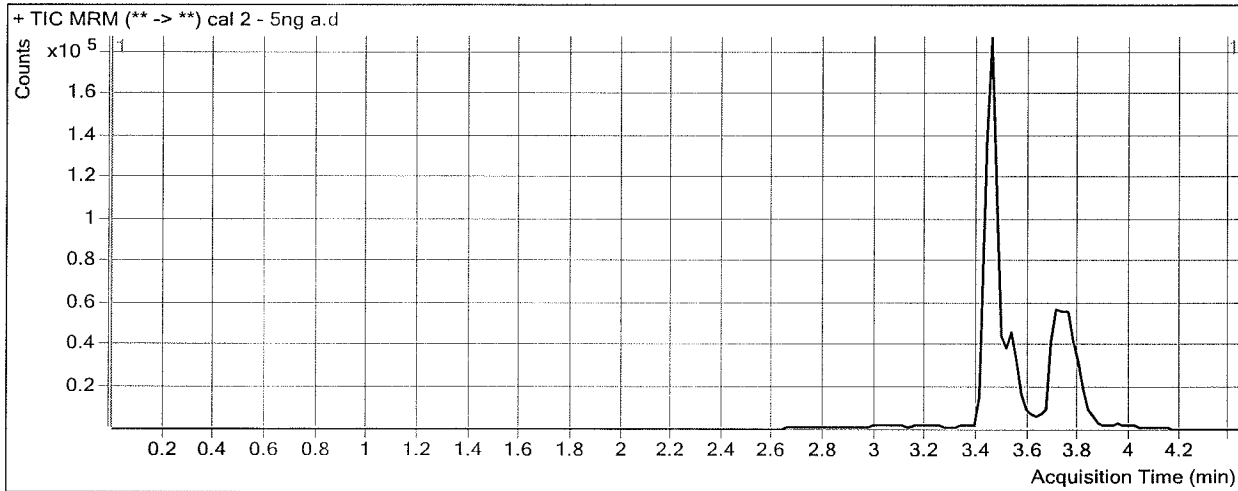
## Cannabinoid Screen Report

**Batch Data Path** C:\MyFiles\anord\Documents\blood data\116 screen\QuantResults\11617 cann screen.batch.bin  
**Analysis Time** 11/7/2017 7:31 AM **Analyst Name** anord  
**Report Time** 11/9/2017 11:06 AM **Reporter Name** ISP Tox  
**Last Calib Update** 11/7/2017 7:31 AM **Batch State** Processed

### Analysis Info

**Acq Time** 2017-11-06 17:53 **Data File** cal 2 - 5ng a.d  
**Sample Type** Calibration **Sample Name** cal 2 - 5ng a  
**Dilution** 1 **Acq Method** Screen THC 8-2017.m  
**Position** P1-B1 **Sample Info**  
**Inj Vol** -1 **Comment** AM 26 Cannabinoid screen

### Sample Chromatogram



### Results

Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC-OH	3.453	26703	586314	0.0455	5.0037
THC-COOH	3.526	9136	116596	0.0784	5.9464
THC	3.800	2275	47687	0.0477	5.3887

# ISP FORENSICS - Cd'A

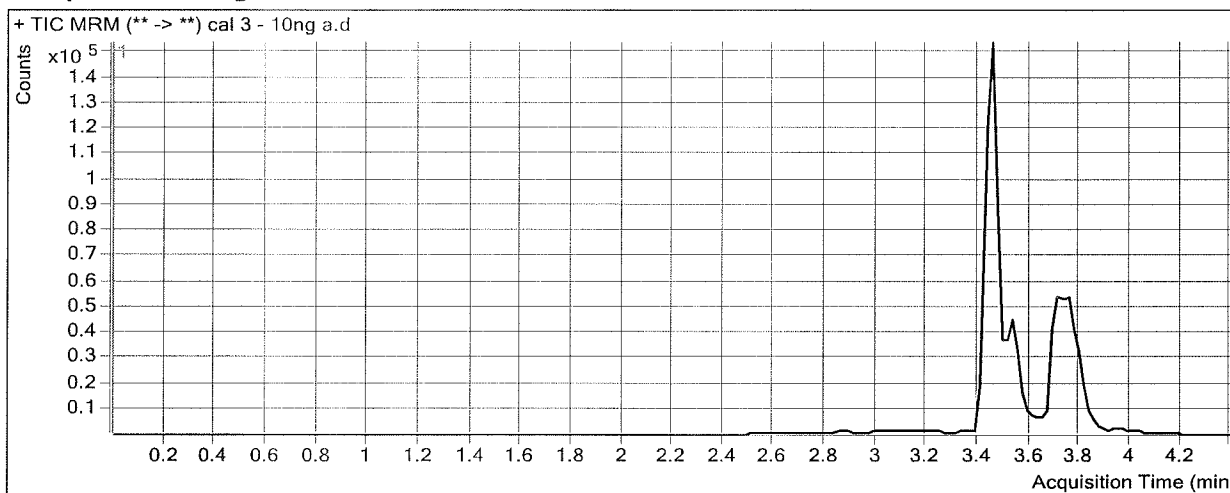
## Cannabinoid Screen Report

**Batch Data Path** C:\MyFiles\anord\Documents\blood data\116 screen\QuantResults\11617 cann screen.batch.bin  
**Analysis Time** 11/7/2017 7:31 AM **Analyst Name** anord  
**Report Time** 11/9/2017 11:06 AM **Reporter Name** ISP Tox  
**Last Calib Update** 11/7/2017 7:31 AM **Batch State** Processed

### Analysis Info

**Acq Time** 2017-11-06 18:00 **Data File** cal 3 - 10ng a.d  
**Sample Type** Calibration **Sample Name** cal 3 - 10ng a  
**Dilution** 1 **Acq Method** Screen THC 8-2017.m  
**Position** P1-C1 **Sample Info**  
**Inj Vol** -1 **Comment** AM 26 Cannabinoid screen

### Sample Chromatogram



### Results

Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC-OH	3.453	47202	471114	0.1002	10.5538
THC-COOH	3.526	20075	106859	0.1879	11.3629
THC	3.800	4538	45629	0.0995	10.3783

# ISP FORENSICS - Cd'A

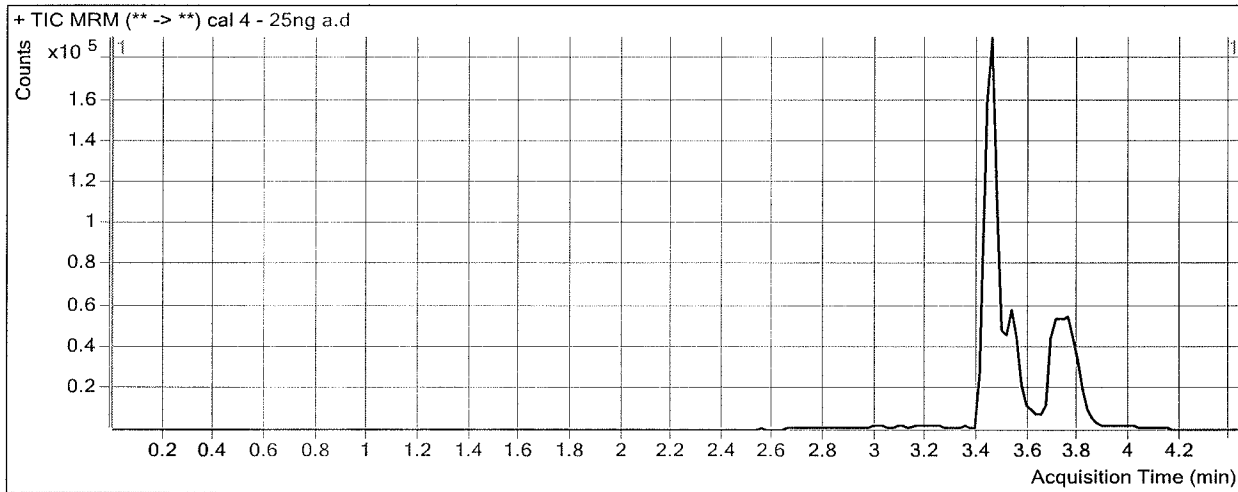
## Cannabinoid Screen Report

**Batch Data Path** C:\MyFiles\anord\Documents\blood data\116 screen\QuantResults\11617 cann screen.batch.bin  
**Analysis Time** 11/7/2017 7:31 AM **Analyst Name** anord  
**Report Time** 11/9/2017 11:06 AM **Reporter Name** ISP Tox  
**Last Calib Update** 11/7/2017 7:31 AM **Batch State** Processed

### Analysis Info

**Acq Time** 2017-11-06 18:06 **Data File** cal 4 - 25ng a.d  
**Sample Type** Calibration **Sample Name** cal 4 - 25ng a  
**Dilution** 1 **Acq Method** Screen THC 8-2017.m  
**Position** P1-D1 **Sample Info**  
**Inj Vol** -1 **Comment** AM 26 Cannabinoid screen

### Sample Chromatogram



### Results

Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC-OH	3.453	126365	527090	0.2397	24.7259
THC-COOH	3.526	48402	105717	0.4578	24.7169
THC	3.780	10836	45021	0.2407	23.9954

# ISP FORENSICS - Cd'A

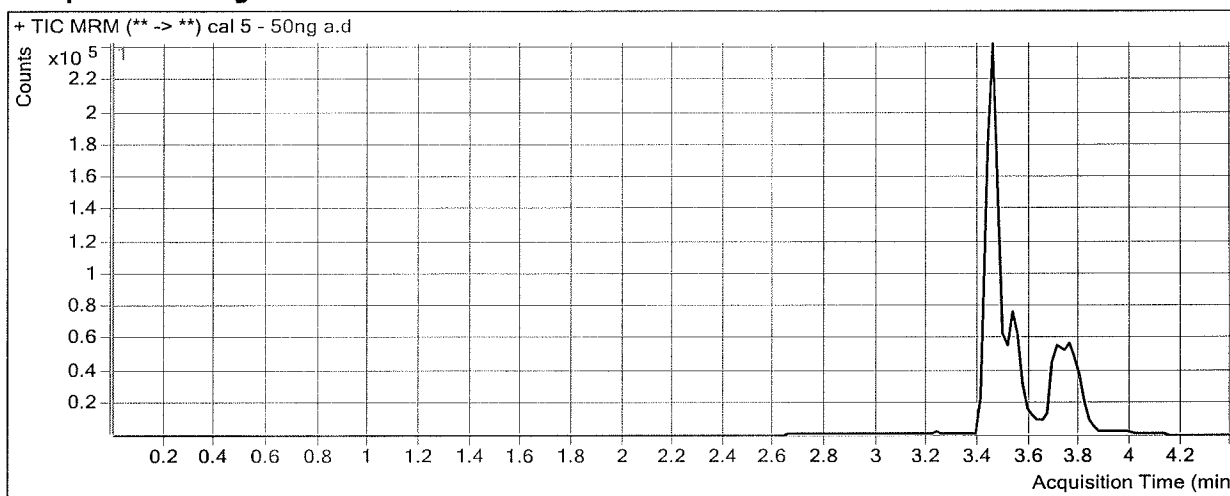
## Cannabinoid Screen Report

**Batch Data Path** C:\MyFiles\anord\Documents\blood data\116 screen\QuantResults\11617 cann screen.batch.bin  
**Analysis Time** 11/7/2017 7:31 AM **Analyst Name** anord  
**Report Time** 11/9/2017 11:06 AM **Reporter Name** ISP Tox  
**Last Calib Update** 11/7/2017 7:31 AM **Batch State** Processed

### Analysis Info

**Acq Time** 2017-11-06 18:13 **Data File** cal 5 - 50ng a.d  
**Sample Type** Calibration **Sample Name** cal 5 - 50ng a  
**Dilution** 1 **Acq Method** Screen THC 8-2017.m  
**Position** P1-E1 **Sample Info**  
**Inj Vol** -1 **Comment** AM 26 Cannabinoid screen

### Sample Chromatogram



### Results

Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC-OH	3.453	248135	554583	0.4474	45.8181
THC-COOH	3.526	91366	106244	0.8600	44.6068
THC	3.780	21229	47283	0.4490	44.0791

# ISP FORENSICS - Cd'A

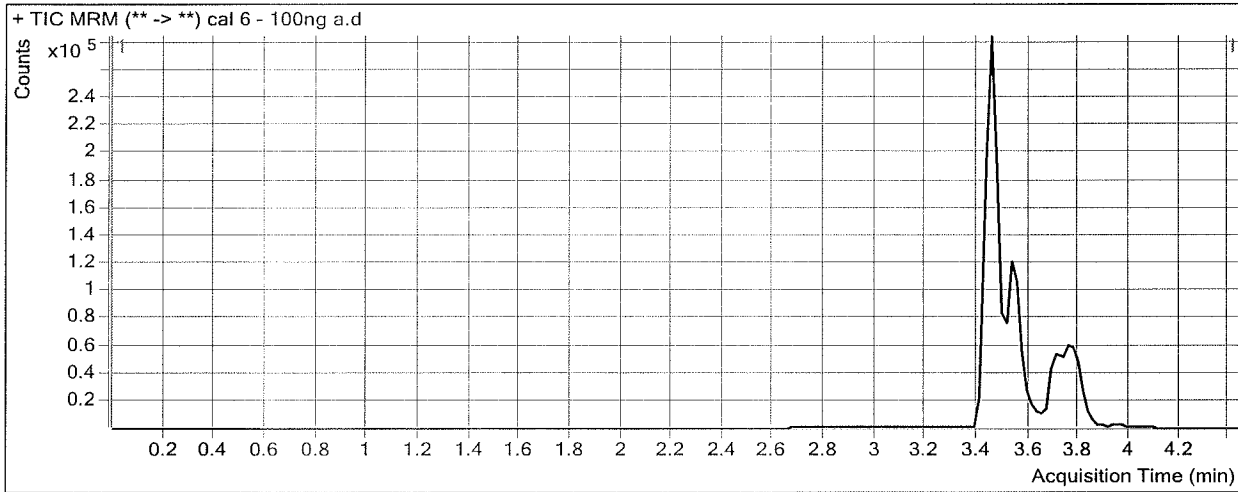
## Cannabinoid Screen Report

**Batch Data Path** C:\MyFiles\anord\Documents\blood data\116 screen\QuantResults\11617 cann screen.batch.bin  
**Analysis Time** 11/7/2017 7:31 AM **Analyst Name** anord  
**Report Time** 11/9/2017 11:06 AM **Reporter Name** ISP Tox  
**Last Calib Update** 11/7/2017 7:31 AM **Batch State** Processed

### Analysis Info

**Acq Time** 2017-11-06 18:19 **Data File** cal 6 - 100ng a.d  
**Sample Type** Calibration **Sample Name** cal 6 - 100ng a  
**Dilution** 1 **Acq Method** Screen THC 8-2017.m  
**Position** P1-F1 **Sample Info**  
**Inj Vol** -1 **Comment** AM 26 Cannabinoid screen

### Sample Chromatogram



### Results

Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC-OH	3.453	468095	459588	1.0185	103.8161
THC-COOH	3.546	203429	98825	2.0585	103.8892
THC	3.780	45356	42757	1.0608	103.0657



# ISP FORENSICS - Cd'A

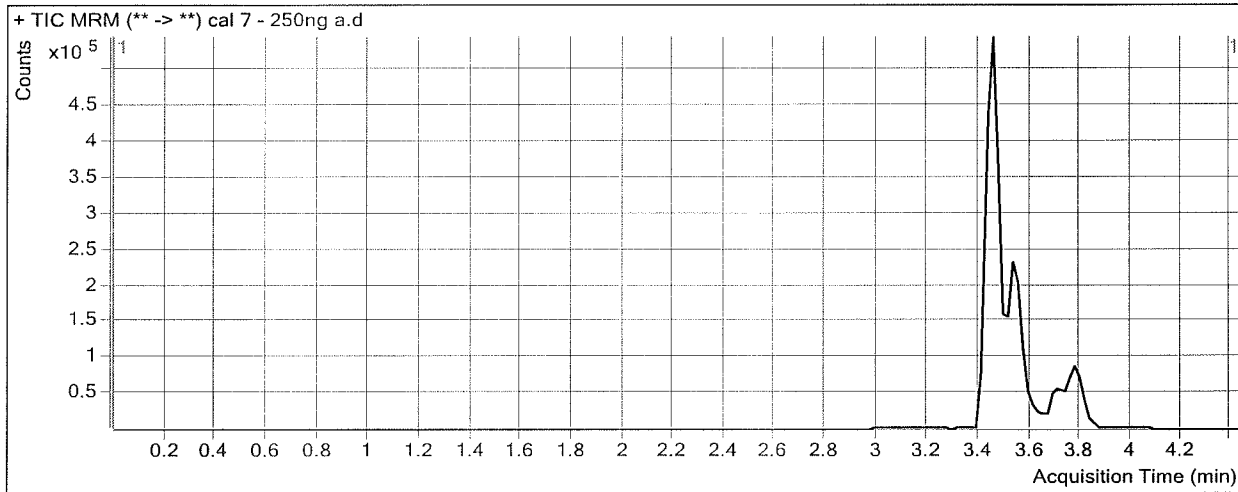
## Cannabinoid Screen Report

**Batch Data Path** C:\MyFiles\anord\Documents\blood data\116 screen\QuantResults\11617 cann screen.batch.bin  
**Analysis Time** 11/7/2017 7:31 AM **Analyst Name** anord  
**Report Time** 11/9/2017 11:06 AM **Reporter Name** ISP Tox  
**Last Calib Update** 11/7/2017 7:31 AM **Batch State** Processed

### Analysis Info

**Acq Time** 2017-11-06 18:33 **Data File** cal 7 - 250ng a.d  
**Sample Type** Calibration **Sample Name** cal 7 - 250ng a  
**Dilution** 1 **Acq Method** Screen THC 8-2017.m  
**Position** P1-G1 **Sample Info**  
**Inj Vol** -1 **Comment** AM 26 Cannabinoid screen

### Sample Chromatogram



### Results

Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC-OH	3.453	1309896	532752	2.4587	250.0824
THC-COOH	3.526	471983	94361	5.0019	249.4778
THC	3.780	112338	42929	2.6168	253.0928