reviewed 9/27/17 9/22/2017

Worklist: 1905

LAB CASE	ITEM	TASK ID	DESCRIPTION
C2017-1832	1	94617	AM 25/AM 26 Blood MultiDrug/
C2017-1848	1	94757	AM 25/AM 26 Blood MultiDrug/
C2017-1857	1	94847	AM 25/AM 26 Blood MultiDrug/
C2017-1868	1	94872	AM 25/AM 26 Blood MultiDrug/
C2017-1880	1	94965	AM 25/AM 26 Blood MultiDrug/
C2017-1897	1	95282	AM 25/AM 26 Blood MultiDrug/
C2017-1911	1	95441	AM 25/AM 26 Blood MultiDrug/
C2017-1919	1	95520	AM 25/AM 26 Blood MultiDrug/
C2017-1923	1	95595	AM 25/AM 26 Blood MultiDrug/
C2017-1933	1	95746	AM 25/AM 26 Blood MultiDrug/
C2017-1934	1	95749	AM 25/AM 26 Blood MultiDrug/
M2017-2498	1	95082	AM 25/AM 26 Blood MultiDrug/
M2017-2498	2	95388	AM 25/AM 26 Blood MultiDrug/
M2017-3628	1	95085	AM 25/AM 26 Blood MultiDrug/
M2017-3720	1	94729	AM 25/AM 26 Blood MultiDrug/
M2017-3773	1	94731	AM 25/AM 26 Blood MultiDrug/
M2017-4036	1	94735	AM 25/AM 26 Blood MultiDrug/
M2017-4083	1	95449	AM 25/AM 26 Blood MultiDrug/
M2017-4102	1	95450	AM 25/AM 26 Blood MultiDrug/
M2017-4117	1	95451	AM 25/AM 26 Blood MultiDrug/
M2017-4120	21	95452	AM 25/AM 26 Blood MultiDrug/
M2017-4135	2	94971	AM 25/AM 26 Blood MultiDrug/

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

Extraction Date: 9-25-17 Analyst: Anne Nord

Plate lot#:0495940 Plate Expiration:12/12/2017

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: 2609543** in wells of analytical (standards) plate.
- ☑ 3. Place on shaking incubator at ambient temp., 900rpm for 15 minutes. *Shaker ID 66759*
- ☑ 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: 92517 blood screen AM 25-26 Batch Name: 92517 mds P1 92517 mds P2
- ☒ 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
- ☒ 4. Central File Packet to include: LIMS Worklist, Method Checklist, Calibration and Control Reports

COMMENTS:

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.	MI	S/N	Transition	MI	S/N	Name	Transition	RT	Resp.
6-MAM	328.2 -> 165...	9/25/2017 3:13 P...	5.321	1336	☐	17.08	328.2 -> 211...	☐	4.38	6-MAM-D6	334.2 -> 165...	5.300	31628
7-aminoclonazepam	286.1 -> 121...	9/25/2017 3:13 P...	5.613	25440	☐	263.22	286.1 -> 222...	☐	81.80	7-Aminoclonazepam-D4	290.1 -> 121...	5.591	102720
Acetyl Fentanyl	323.2 -> 105...	9/25/2017 3:13 P...	6.238	20319	☐	Infinity	323.2 -> 188...	☐	1775.33	Acetyl Fentanyl-D5	328.2 -> 105...	6.216	10414...
Acetyl Norfentanyl	219.1 -> 84.2	9/25/2017 3:13 P...	5.051	7034	☐	18.28	219.1 -> 56.3	☐	11.76	Acetyl Norfentanyl-D5	224.2 -> 84.2	5.010	349178
a-hydroxyalprazolam	325.1 -> 297...	9/25/2017 3:13 P...	6.420	5103	☐	49.76	325.1 -> 215...	☐	71.85	a-hydroxyalprazolam-D5	330.1 -> 302...	6.398	22426
alpha-PVP	232.2 -> 91.0	9/25/2017 3:13 P...	5.845	98404	☐	Infinity	232.2 -> 77.1	☐	21.05	alpha-PVP-d8	240.2 -> 91.1	5.802	425868
Alprazolam	309.1 -> 281...	9/25/2017 3:13 P...	6.505	42375	☐	188.20	309.1 -> 205...	☐	11237....	Alprazolam-D5	314.1 -> 286...	6.484	139642
Amphetamine	136.1 -> 91.1	9/25/2017 3:13 P...	4.972	136669	☐	Infinity	136.1 -> 119...	☐	30.61	Amphetamine-D11	147.2 -> 130...	4.931	136452
Bupropion	240.1 -> 184...	9/25/2017 3:13 P...	6.067	116253	☐	245.08	240.1 -> 131...	☐	42.38	Bupropion-D9	249.2 -> 185...	6.026	482199
Carisoprodol	261.2 -> 176...	9/25/2017 3:13 P...	6.147	50818	☐	2667.98	261.2 -> 55.3	☐	49.17	Carisoprodol-D7	268.2 -> 183...	6.146	295440
Citalopram	325.2 -> 109...	9/25/2017 3:13 P...	6.216	155726	☐	139.38	325.2 -> 262...	☐	49.65	Citalopram-D6	331.2 -> 109...	6.215	660366
Clonazepam	316.1 -> 269...	9/25/2017 3:13 P...	6.361	17302	☐	82.25	316.1 -> 213...	☐	25.95	Clonazepam-D4	320.1 -> 217...	6.340	24841
Codeine	300.2 -> 215...	9/25/2017 3:13 P...	5.265	5860	☐	48.30	300.2 -> 165...	☐	37.10	Codeine-D6	306.2 -> 218...	5.222	23467
Cyclobenzaprine	276.2 -> 214...	9/25/2017 3:13 P...	6.552	92700	☐	673.72	276.2 -> 231...	☐	21.69	Cyclobenzaprine-D3	279.2 -> 215...	6.551	377698
Dextromethorphan	272.2 -> 171...	9/25/2017 3:13 P...	6.289	42116	☐	186.44	272.2 -> 147...	☐	22.51	Dextromethorphan-D3	275.2 -> 171...	6.289	186599
Dextrorphan	258.2 -> 157...	9/25/2017 3:13 P...	5.617	33156	☐	113.38	258.2 -> 133...	☐	104.39	Dextrorphan-D3	261.2 -> 157...	5.596	158839
Diazepam	285.1 -> 193...	9/25/2017 3:13 P...	6.711	34275	☐	44.36	285.1 -> 153...	☐	39.65	Diazepam-D5	290.1 -> 198...	6.710	131297
Dihydrocodeine	302.2 -> 198...	9/25/2017 3:13 P...	5.060	18616	☐	36.50	302.2 -> 128...	☐	3768.49	Dihydrocodeine-D6	308.2 -> 202...	5.018	85487
Diphenhydramine	256.2 -> 167...	9/25/2017 3:13 P...	6.209	220196	☐	53.76	256.2 -> 152...	☐	14.46	Diphenhydramine-D3	259.2 -> 167...	6.189	10939...
Doxylamine	271.2 -> 182...	9/25/2017 3:13 P...	5.860	185658	☐	51.47	271.2 -> 167...	☐	72.54	Doxylamine-D5	276.2 -> 187...	5.838	906469
EDDP	279.2 -> 235...	9/25/2017 3:13 P...	6.205	150661	☐	2270.18	279.2 -> 250...	☐	353.13	EDDP-D3	282.2 -> 235...	6.205	63038
Fentanyl	337.2 -> 105...	9/25/2017 3:13 P...	6.438	23059	☐	36.89	337.2 -> 188...	☐	98.58	Fentanyl-D5	342.3 -> 105...	6.418	10706...
Fluoxetine	310.1 -> 44.3	9/25/2017 3:13 P...	6.424	247303	☐	1211.92	310.1 -> 148...	☐	340.01	Oxycodone-D6	322.2 -> 304...	5.200	184287
Hydrocodone	300.2 -> 198...	9/25/2017 3:13 P...	5.489	19466	☐	319.25	300.2 -> 128...	☐	153.68	Hydrocodone-D6	306.2 -> 202...	5.446	142626
Hydromorphone	286.2 -> 184...	9/25/2017 3:13 P...	4.820	15746	☐	79.88	286.2 -> 157...	☐	37.07	Hydromorphone-D6	292.2 -> 185...	4.758	44513
Ketamine	238.1 -> 125...	9/25/2017 3:13 P...	6.007	76473	☐	295.99	238.1 -> 220...	☐	105.65	Ketamine-D4	242.1 -> 129...	5.986	263277
Meprobamate	219.1 -> 158...	9/25/2017 3:13 P...	5.682	10269	☐	92.49	219.1 -> 97.1	☐	10.18	Meprobamate-D7	226.2 -> 165...	5.661	55762
Methadone	310.2 -> 265...	9/25/2017 3:13 P...	6.525	175913	☐	180.56	310.2 -> 105...	☐	213.28	Methadone-D9	319.3 -> 268...	6.523	903294
Methamphetamine	150.1 -> 91.1	9/25/2017 3:13 P...	5.153	171141	☑	Infinity	150.1 -> 119...	☐	6.39	Methamphetamine-D11	161.2 -> 97.1	5.133	385782
Morphine	286.2 -> 201...	9/25/2017 3:13 P...	4.518	3541	☐	8.53	286.2 -> 165...	☐	17.44	Morphine-D6	292.2 -> 152...	4.477	1776
~~Naloxone~~	~~328.2 -> 309...~~	~~9/25/2017 3:13 P...~~	~~5.525~~	~~369~~	☐	1.87	328.2 -> 211...	☐	~~45.33~~	~~Naloxone-D5~~	~~333.2 -> 315...~~	5.381	~~343~~
Naltrexol	344.2 -> 326...	9/25/2017 3:13 P...	5.157	60185	☐	366.11	344.2 -> 308...	☐	2280.08	Naltrexol-D3	347.2 -> 329...	5.136	228959
Naltrexone	342.2 -> 324...	9/25/2017 3:13 P...	5.360	38925	☐	Infinity	342.2 -> 55.3	☐	92.36	Naltrexone-D3	345.2 -> 327...	5.318	157647
Norbuprenorphine	414.3 -> 101...	9/25/2017 3:13 P...	6.029	6265	☐	836.37	414.3 -> 57.3	☐	557.96	Norbuprenorphine-D3	417.3 -> 101...	6.009	22843
Nordiazepam	271.1 -> 140...	9/25/2017 3:13 P...	6.574	20961	☐	37.87	271.1 -> 208...	☐	5022.50	Nordiazepam-D5	276.1 -> 140...	6.573	56863
Norfentanyl	233.2 -> 84.2	9/25/2017 3:13 P...	5.517	115799	☐	5354.15	233.2 -> 55.3	☐	66.61	Norfentanyl-D5	238.2 -> 84.2	5.496	474321
Norhydrocodone	286.2 -> 199...	9/25/2017 3:13 P...	5.185	1207	☐	5.77	286.2 -> 171...	☑	3.23	Norhydrocodone-D3	289.2 -> 202...	5.123	39272
Noroxycodone	302.1 -> 284...	9/25/2017 3:13 P...	5.060	12491	☐	5.75	302.1 -> 186...	☐	17.45	Noroxycodone-D3	305.2 -> 287...	5.039	85577
O-desmethyl-trama...	250.2 -> 58.3	9/25/2017 3:13 P...	5.088	156334	☐	82.78	250.2 -> 42.3	☐	40.04	O-desmethyl-tramadol-...	256.2 -> 64.3	5.067	617891
Oxazepam	287.1 -> 240...	9/25/2017 3:13 P...	6.406	18127	☐	42.02	287.1 -> 268...	☐	92.96	Oxazepam-D5	292.1 -> 246...	6.386	84955
Oxycodone	316.2 -> 298...	9/25/2017 3:13 P...	5.241	40011	☐	30.53	316.2 -> 241...	☐	11.79	Oxycodone-D6	322.2 -> 304...	5.200	184287
Oxymorphone	302.1 -> 284...	9/25/2017 3:13 P...	4.495	32544	☐	44.23	302.1 -> 227...	☐	96.73	Oxymorphone-D3	305.2 -> 287...	4.453	152909
Phentermine	150.1 -> 65.2	9/25/2017 3:13 P...	5.296	34406	☑	Infinity	150.1 -> 133...	☑	3.03	Phentermine-D5	155.2 -> 96.2	5.275	358280
Promethazine	285.1 -> 86.2	9/25/2017 3:13 P...	6.631	271929	☐	925.03	285.1 -> 71.3	☐	94.45	Promethazine-D3	288.2 -> 89.2	6.610	14626...
Quetiapine	384.2 -> 253...	9/25/2017 3:13 P...	6.680	231259	☐	649.71	384.2 -> 221...	☐	514.77	Quetiapine-D8	392.2 -> 226...	6.659	266502
Sertraline	306.1 -> 158...	9/25/2017 3:13 P...	6.769	53118	☐	174.17	306.1 -> 275...	☐	148.93	Sertraline-D3	309.1 -> 275...	6.748	248173

Not Evaluated

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.	MI	S/N	Transition	MI	S/N	Name	Transition	RT	Resp.
Temazepam	301.1 -> 255...	9/25/2017 3:13 P...	6.548	59168		70.43	301.1 -> 283...		12.07	Temazepam-D5	306.1 -> 260...	6.527	269308
Tramadol	264.2 -> 58.3	9/25/2017 3:13 P...	5.616	192650		48.94	264.2 -> 43.3		11.74	Tramadol-13C-D3	268.2 -> 58.3	5.616	822567
Trazodone	372.2 -> 176...	9/25/2017 3:13 P...	6.843	223845		227.51	372.2 -> 148...		181.98	Trazodone-D6	378.2 -> 182...	6.822	838257
Venlafaxine	278.2 -> 58.3	9/25/2017 3:13 P...	5.961	197410		166.02	278.2 -> 260...		23.82	Venlafaxine-D6	284.2 -> 64.3	5.960	783587
Zolpidem	308.2 -> 235...	9/25/2017 3:13 P...	6.425	184131		Infinity	308.2 -> 263...		125.97	Zolpidem-D6	314.2 -> 235...	6.402	830882

Compound Method		p1 negative	p1 negative Results				Qualifier 1 M...	Qualifier...		ISTD Method		ISTD Results	
Name	Transition	Acq. Date-Time	RT	Resp.	MI	S/N	Transition	MI	S/N	Name	Transition	RT	Resp.
6-MAM	328.2 -> 165...	9/25/2017 3:32 PM					328.2 -> 211...			6-MAM-D6	334.2 -> 165...	5.279	34957
7-aminoclonazepam	286.1 -> 121...	9/25/2017 3:32 PM					286.1 -> 222...			7-Aminoclonazepam-D4	290.1 -> 121...	5.591	98897
Acetyl Fentanyl	323.2 -> 105...	9/25/2017 3:32 PM					323.2 -> 188...			Acetyl Fentanyl-D5	328.2 -> 105...	6.216	10463...
Acetyl Norfentanyl	219.1 -> 84.2	9/25/2017 3:32 PM					219.1 -> 56.3			Acetyl Norfentanyl-D5	224.2 -> 84.2	5.010	328711
a-hydroxyalprazolam	325.1 -> 297...	9/25/2017 3:32 PM					325.1 -> 215...			a-hydroxyalprazolam-D5	330.1 -> 302...	6.398	28947
alpha-PVP	232.2 -> 91.0	9/25/2017 3:32 PM					232.2 -> 77.1			alpha-PVP-d8	240.2 -> 91.1	5.802	393417
Alprazolam	309.1 -> 281...	9/25/2017 3:32 PM	6.342	3615		6.36	309.1 -> 205...			Alprazolam-D5	314.1 -> 286...	6.484	153673
Amphetamine	136.1 -> 91.1	9/25/2017 3:32 PM	4.972	10623		4.51	136.1 -> 119...			Amphetamine-D11	147.2 -> 130...	4.911	111061
Bupropion	240.1 -> 184...	9/25/2017 3:32 PM					240.1 -> 131...			Bupropion-D9	249.2 -> 185...	6.026	446400
Carisoprodol	261.2 -> 176...	9/25/2017 3:32 PM					261.2 -> 55.3			Carisoprodol-D7	268.2 -> 183...	6.126	266312
Citalopram	325.2 -> 109...	9/25/2017 3:32 PM					325.2 -> 262...			Citalopram-D6	331.2 -> 109...	6.195	660798
Clonazepam	316.1 -> 269...	9/25/2017 3:32 PM	6.361	49		0.40	316.1 -> 213...		0.45	Clonazepam-D4	320.1 -> 217...	6.340	24343
Codeine	300.2 -> 215...	9/25/2017 3:32 PM	4.697	74		0.37	300.2 -> 165...		0.42	Codeine-D6	306.2 -> 218...	5.222	21743
Cyclobenzaprine	276.2 -> 214...	9/25/2017 3:32 PM	6.613	15		0.55	276.2 -> 231...		2.76	Cyclobenzaprine-D3	279.2 -> 215...	6.551	380671
Dextromethorphan	272.2 -> 171...	9/25/2017 3:32 PM	6.613	39		0.55	272.2 -> 147...		0.25	Dextromethorphan-D3	275.2 -> 171...	6.289	181396
Dextrorphan	258.2 -> 157...	9/25/2017 3:32 PM	5.576	78		0.84	258.2 -> 133...			Dextrorphan-D3	261.2 -> 157...	5.596	152045
Diazepam	285.1 -> 193...	9/25/2017 3:32 PM					285.1 -> 153...			Diazepam-D5	290.1 -> 198...	6.690	128654
Dihydrocodeine	302.2 -> 198...	9/25/2017 3:32 PM					302.2 -> 128...			Dihydrocodeine-D6	308.2 -> 202...	5.018	79101
Diphenhydramine	256.2 -> 167...	9/25/2017 3:32 PM					256.2 -> 152...			Diphenhydramine-D3	259.2 -> 167...	6.189	10450...
Doxylamine	271.2 -> 182...	9/25/2017 3:32 PM	5.697	342		0.69	271.2 -> 167...		0.44	Doxylamine-D5	276.2 -> 187...	5.838	820305
EDDP	279.2 -> 235...	9/25/2017 3:32 PM	6.266	60		0.34	279.2 -> 250...		1.10	EDDP-D3	282.2 -> 235...	6.205	61194
Fentanyl	337.2 -> 105...	9/25/2017 3:32 PM	6.235	84		0.29	337.2 -> 188...			Fentanyl-D5	342.3 -> 105...	6.418	10719...
Fluoxetine	310.1 -> 44.3	9/25/2017 3:32 PM	6.444	504		0.91	310.1 -> 148...		0.41	Oxycodone-D6	322.2 -> 304...	5.200	177194
Hydrocodone	300.2 -> 198...	9/25/2017 3:32 PM					300.2 -> 128...			Hydrocodone-D6	306.2 -> 202...	5.425	129980
Hydromorphone	286.2 -> 184...	9/25/2017 3:32 PM	5.185	241		0.98	286.2 -> 157...			Hydromorphone-D6	292.2 -> 185...	4.758	43068
Ketamine	238.1 -> 125...	9/25/2017 3:32 PM	5.844	173		2.87	238.1 -> 220...		74.87	Ketamine-D4	242.1 -> 129...	5.986	257143
Meprobamate	219.1 -> 158...	9/25/2017 3:32 PM	5.723	51		0.32	219.1 -> 97.1			Meprobamate-D7	226.2 -> 165...	5.661	56786
Methadone	310.2 -> 265...	9/25/2017 3:32 PM	6.504	825		1.13	310.2 -> 105...		1.01	Methadone-D9	319.3 -> 268...	6.523	860929
Methamphetamine	150.1 -> 91.1	9/25/2017 3:32 PM	5.194	39007		2.10	150.1 -> 119...			Methamphetamine-D11	161.2 -> 97.1	5.112	263820
Morphine	286.2 -> 201...	9/25/2017 3:32 PM	4.860	392		0.96	286.2 -> 165...		10.26	Morphine-D6	292.2 -> 152...	4.457	1779
Naloxone	328.2 -> 309...	9/25/2017 3:32 PM	5.117	683		0.51	328.2 -> 211...		85.70	Naloxone-D5	333.2 -> 315...	5.239	53
Naltrexol	344.2 -> 326...	9/25/2017 3:32 PM	5.319	3379		10.52	344.2 -> 308...			Naltrexol-D3	347.2 -> 329...	5.136	217918
Naltrexone	342.2 -> 324...	9/25/2017 3:32 PM	5.319	78		2.17	342.2 -> 55.3		0.64	Naltrexone-D3	345.2 -> 327...	5.298	161500
Norbuprenorphine	414.3 -> 101...	9/25/2017 3:32 PM	6.009	197		2.13	414.3 -> 57.3		0.78	Norbuprenorphine-D3	417.3 -> 101...	5.989	25190
Nordiazepam	271.1 -> 140...	9/25/2017 3:32 PM	6.493	96		0.67	271.1 -> 208...			Nordiazepam-D5	276.1 -> 140...	6.573	61954
Norfentanyl	233.2 -> 84.2	9/25/2017 3:32 PM					233.2 -> 55.3			Norfentanyl-D5	238.2 -> 84.2	5.476	470056
Norhydrocodone	286.2 -> 199...	9/25/2017 3:32 PM	5.205	229		4.97	286.2 -> 171...			Norhydrocodone-D3	289.2 -> 202...	5.123	34989
Noroxycodone	302.1 -> 284...	9/25/2017 3:32 PM					302.1 -> 186...			Noroxycodone-D3	305.2 -> 287...	5.019	84384
O-desmethyl-trama...	250.2 -> 58.3	9/25/2017 3:32 PM	5.067	713		1.26	250.2 -> 42.3		0.29	O-desmethyl-tramadol-...	256.2 -> 64.3	5.067	588349
Oxazepam	287.1 -> 240...	9/25/2017 3:32 PM	6.427	75		1.34	287.1 -> 268...		2.33	Oxazepam-D5	292.1 -> 246...	6.386	91872
Oxycodone	316.2 -> 298...	9/25/2017 3:32 PM	5.200	792		1.36	316.2 -> 241...		0.24	Oxycodone-D6	322.2 -> 304...	5.200	177194
Oxymorphone	302.1 -> 284...	9/25/2017 3:32 PM					302.1 -> 227...			Oxymorphone-D3	305.2 -> 287...	4.453	142771
Phentermine	150.1 -> 65.2	9/25/2017 3:32 PM					150.1 -> 133...			Phentermine-D5	155.2 -> 96.2	5.275	315576
Promethazine	285.1 -> 86.2	9/25/2017 3:32 PM	6.611	534		2.20	285.1 -> 71.3		0.43	Promethazine-D3	288.2 -> 89.2	6.610	14356...
Quetiapine	384.2 -> 253...	9/25/2017 3:32 PM	6.720	150		1.17	384.2 -> 221...		0.83	Quetiapine-D8	392.2 -> 226...	6.659	254059
Sertraline	306.1 -> 158...	9/25/2017 3:32 PM	6.425	23		0.44	306.1 -> 275...		3.83	Sertraline-D3	309.1 -> 275...	6.748	246894

Compound Method		p1 negative	p1 negative Results				Qualifier 1 M...	Qualifier...		ISTD Method		ISTD Results	
Name	Transition	Acq. Date-Time	RT	Resp.	MI	S/N	Transition	MI	S/N	Name	Transition	RT	Resp.
Temazepam	301.1 -> 255...	9/25/2017 3:32 PM	6.810	334	☐	0.47	301.1 -> 283...	☐	0.45	Temazepam-D5	306.1 -> 260...	6.527	286879
Tramadol	264.2 -> 58.3	9/25/2017 3:32 PM	5.616	5751	☐	1.24	264.2 -> 43.3	☐	0.91	Tramadol-13C-D3	268.2 -> 58.3	5.595	811300
Trazodone	372.2 -> 176...	9/25/2017 3:32 PM	6.863	1299	☐	1.78	372.2 -> 148...	☐	1.39	Trazodone-D6	378.2 -> 182...	6.822	800539
Venlafaxine	278.2 -> 58.3	9/25/2017 3:32 PM	5.940	1251	☐	0.57	278.2 -> 260...	☐	0.45	Venlafaxine-D6	284.2 -> 64.3	5.939	757781
Zolpidem	308.2 -> 235...	9/25/2017 3:32 PM	6.323	196	☐	1.47	308.2 -> 263...	☐		Zolpidem-D6	314.2 -> 235...	6.402	827708

Compound Method		p1 external control	p1 external control Results				Qualifier 1 M...	Qualifier 1...		ISTD Method		ISTD Results	
Name	Transition	Acq. Date-Time	RT	Resp.	MI	S/N	Transition	MI	S/N	Name	Transition	RT	Resp.
6-MAM	328.2 -> 165...	9/25/2017 3:52 PM					328.2 -> 211...			6-MAM-D6	334.2 -> 165...	5.279	31342
7-aminoclonazepam	286.1 -> 121...	9/25/2017 3:52 PM					286.1 -> 222...			7-Aminoclonazepam-D4	290.1 -> 121...	5.571	102377
Acetyl Fentanyl	323.2 -> 105...	9/25/2017 3:52 PM					323.2 -> 188...			Acetyl Fentanyl-D5	328.2 -> 105...	6.216	10001...
Acetyl Norfentanyl	219.1 -> 84.2	9/25/2017 3:52 PM	5.030	117		2.87	219.1 -> 56.3		24.34	Acetyl Norfentanyl-D5	224.2 -> 84.2	5.010	324175
a-hydroxyalprazolam	325.1 -> 297...	9/25/2017 3:52 PM					325.1 -> 215...			a-hydroxyalprazolam-D5	330.1 -> 302...	6.398	26566
alpha-PVP	232.2 -> 91.0	9/25/2017 3:52 PM					232.2 -> 77.1			alpha-PVP-d8	240.2 -> 91.1	5.802	385358
Alprazolam	309.1 -> 281...	9/25/2017 3:52 PM	6.322	2633		4.82	309.1 -> 205...			Alprazolam-D5	314.1 -> 286...	6.484	153989
Amphetamine	136.1 -> 91.1	9/25/2017 3:52 PM					136.1 -> 119...			Amphetamine-D11	147.2 -> 130...	4.911	100992
Bupropion	240.1 -> 184...	9/25/2017 3:52 PM					240.1 -> 131...			Bupropion-D9	249.2 -> 185...	6.026	411924
Carisoprodol	261.2 -> 176...	9/25/2017 3:52 PM					261.2 -> 55.3			Carisoprodol-D7	268.2 -> 183...	6.146	286444
Citalopram	325.2 -> 109...	9/25/2017 3:52 PM					325.2 -> 262...			Citalopram-D6	331.2 -> 109...	6.195	631653
Clonazepam	316.1 -> 269...	9/25/2017 3:52 PM	6.280	144		1.14	316.1 -> 213...			Clonazepam-D4	320.1 -> 217...	6.340	23558
Codeine	300.2 -> 215...	9/25/2017 3:52 PM	5.265	54782		208.35	300.2 -> 165...		310.21	Codeine-D6	306.2 -> 218...	5.202	24098
Cyclobenzaprine	276.2 -> 214...	9/25/2017 3:52 PM	6.552	60		0.29	276.2 -> 231...			Cyclobenzaprine-D3	279.2 -> 215...	6.551	377441
Dextromethorphan	272.2 -> 171...	9/25/2017 3:52 PM					272.2 -> 147...			Dextromethorphan-D3	275.2 -> 171...	6.289	183344
Dextrorphan	258.2 -> 157...	9/25/2017 3:52 PM	5.597	100		0.97	258.2 -> 133...			Dextrorphan-D3	261.2 -> 157...	5.596	162859
Diazepam	285.1 -> 193...	9/25/2017 3:52 PM					285.1 -> 153...			Diazepam-D5	290.1 -> 198...	6.710	124179
Dihydrocodeine	302.2 -> 198...	9/25/2017 3:52 PM	5.305	289		1.65	302.2 -> 128...		1.47	Dihydrocodeine-D6	308.2 -> 202...	5.018	82271
Diphenhydramine	256.2 -> 167...	9/25/2017 3:52 PM	6.189	20573...		363.30	256.2 -> 152...		203.89	Diphenhydramine-D3	259.2 -> 167...	6.189	10283...
Doxylamine	271.2 -> 182...	9/25/2017 3:52 PM	5.840	329		0.64	271.2 -> 167...			Doxylamine-D5	276.2 -> 187...	5.838	824054
EDDP	279.2 -> 235...	9/25/2017 3:52 PM	6.287	70		0.44	279.2 -> 250...			EDDP-D3	282.2 -> 235...	6.205	68414
Fentanyl	337.2 -> 105...	9/25/2017 3:52 PM	6.479	174		1.01	337.2 -> 188...			Fentanyl-D5	342.3 -> 105...	6.418	10247...
Fluoxetine	310.1 -> 44.3	9/25/2017 3:52 PM	6.281	468		1.45	310.1 -> 148...		0.40	Oxycodone-D6	322.2 -> 304...	5.200	171736
Hydrocodone	300.2 -> 198...	9/25/2017 3:52 PM	5.265	32545		212.12	300.2 -> 128...		6421....	Hydrocodone-D6	306.2 -> 202...	5.425	128807
Hydromorphone	286.2 -> 184...	9/25/2017 3:52 PM	4.518	29395		129.48	286.2 -> 157...		121.79	Hydromorphone-D6	292.2 -> 185...	4.758	43267
Ketamine	238.1 -> 125...	9/25/2017 3:52 PM	5.517	294		17.74	238.1 -> 220...		0.32	Ketamine-D4	242.1 -> 129...	5.986	267599
Meprobamate	219.1 -> 158...	9/25/2017 3:52 PM	5.886	201		0.98	219.1 -> 97.1		0.86	Meprobamate-D7	226.2 -> 165...	5.661	58008
Methadone	310.2 -> 265...	9/25/2017 3:52 PM	6.464	534		0.51	310.2 -> 105...			Methadone-D9	319.3 -> 268...	6.523	865469
Methamphetamine	150.1 -> 91.1	9/25/2017 3:52 PM	5.194	33749		2.75	150.1 -> 119...			Methamphetamine-D11	161.2 -> 97.1	5.112	186013
Morphine	286.2 -> 201...	9/25/2017 3:52 PM	4.518	58341		400.84	286.2 -> 165...		635.38	Morphine-D6	292.2 -> 152...	4.457	2020
Naloxone	328.2 -> 309...	9/25/2017 3:52 PM	5.463	391		92.63	328.2 -> 211...		5.85	Naloxone-D5	333.2 -> 315...	5.035	87
Naltrexol	344.2 -> 326...	9/25/2017 3:52 PM	5.319	4351		64.78	344.2 -> 308...			Naltrexol-D3	347.2 -> 329...	5.136	207962
Naltrexone	342.2 -> 324...	9/25/2017 3:52 PM	5.360	109		0.91	342.2 -> 55.3		0.97	Naltrexone-D3	345.2 -> 327...	5.298	156693
Norbuprenorphine	414.3 -> 101...	9/25/2017 3:52 PM					414.3 -> 57.3			Norbuprenorphine-D3	417.3 -> 101...	6.009	26467
Nordiazepam	271.1 -> 140...	9/25/2017 3:52 PM	6.473	100		1.72	271.1 -> 208...		0.56	Nordiazepam-D5	276.1 -> 140...	6.573	58342
Norfentanyl	233.2 -> 84.2	9/25/2017 3:52 PM					233.2 -> 55.3			Norfentanyl-D5	238.2 -> 84.2	5.476	443771
Norhydrocodone	286.2 -> 199...	9/25/2017 3:52 PM					286.2 -> 171...			Norhydrocodone-D3	289.2 -> 202...	5.123	36997
Noroxycodone	302.1 -> 284...	9/25/2017 3:52 PM	5.040	520		1.31	302.1 -> 186...		0.34	Noroxycodone-D3	305.2 -> 287...	5.039	84208
O-desmethyl-trama...	250.2 -> 58.3	9/25/2017 3:52 PM					250.2 -> 42.3			O-desmethyl-tramadol-...	256.2 -> 64.3	5.047	595043
Oxazepam	287.1 -> 240...	9/25/2017 3:52 PM	6.305	44		0.27	287.1 -> 268...			Oxazepam-D5	292.1 -> 246...	6.386	82693
Oxycodone	316.2 -> 298...	9/25/2017 3:52 PM	4.956	221		1.59	316.2 -> 241...		0.65	Oxycodone-D6	322.2 -> 304...	5.200	171736
Oxymorphone	302.1 -> 284...	9/25/2017 3:52 PM	4.555	101		0.47	302.1 -> 227...		0.51	Oxymorphone-D3	305.2 -> 287...	4.453	132256
Phentermine	150.1 -> 65.2	9/25/2017 3:52 PM	5.174	6153		0.70	150.1 -> 133...			Phentermine-D5	155.2 -> 96.2	5.255	288153
Promethazine	285.1 -> 86.2	9/25/2017 3:52 PM	6.590	122		1.03	285.1 -> 71.3		1.06	Promethazine-D3	288.2 -> 89.2	6.610	15210...
Quetiapine	384.2 -> 253...	9/25/2017 3:52 PM	6.498	29		0.26	384.2 -> 221...			Quetiapine-D8	392.2 -> 226...	6.659	241207
Sertraline	306.1 -> 158...	9/25/2017 3:52 PM	6.870	26		0.63	306.1 -> 275...			Sertraline-D3	309.1 -> 275...	6.748	243775

Compound Method		p1 external control	p1 external control Results				Qualifier 1 M...	Qualifier 1...		ISTD Method		ISTD Results	
Name	Transition	Acq. Date-Time	RT	Resp.	MI	S/N	Transition	MI	S/N	Name	Transition	RT	Resp.
Temazepam	301.1 -> 255...	9/25/2017 3:52 PM	6.120	160		0.50	301.1 -> 283...			Temazepam-D5	306.1 -> 260...	6.527	284502
Tramadol	264.2 -> 58.3	9/25/2017 3:52 PM	5.616	4876		1.39	264.2 -> 43.3		1.75	Tramadol-13C-D3	268.2 -> 58.3	5.595	810085
Trazodone	372.2 -> 176...	9/25/2017 3:52 PM	6.863	974		1.42	372.2 -> 148...		1.51	Trazodone-D6	378.2 -> 182...	6.822	820036
Venlafaxine	278.2 -> 58.3	9/25/2017 3:52 PM					278.2 -> 260...			Venlafaxine-D6	284.2 -> 64.3	5.939	783763
Zolpidem	308.2 -> 235...	9/25/2017 3:52 PM	6.607	985		3.59	308.2 -> 263...		2.00	Zolpidem-D6	314.2 -> 235...	6.402	794346

Compound Method		p2 cal 1-1b	p2 cal 1-1b Results				Qualifier 1 M...	Qualifier 1 R...		ISTD Method		ISTD Results	
Name	Transition	Acq. Date-Time	RT	Resp.	MI	S/N	Transition	MI	S/N	Name	Transition	RT	Resp.
7-aminoflunitrazepam	284.1 -> 135...	9/25/2017 3:22...	5.783	35404	☐	151.34	284.1 -> 93.2	☐	112.45	7-aminoflunitrazepam-D7	291.2 -> 138...	5.761	171646
alpha-hydroxymidazola...	342.1 -> 324...	9/25/2017 3:22...	6.488	55494	☐	173.79	342.1 -> 203...	☐	128.11	alpha-hydroxymidazolam-...	346.1 -> 328...	6.468	250993
Amitriptyline	278.2 -> 91.2	9/25/2017 3:22...	6.539	49472	☐	Infinity	278.2 -> 105...	☐	Infinity	Amitriptyline-D3	281.2 -> 91.2	6.659	394032
Amoxapine	314.1 -> 271...	9/25/2017 3:22...	6.614	53704	☐	Infinity	314.1 -> 193...	☐	66.73	Amitriptyline-D3	281.2 -> 91.2	6.659	394032
Benzoylecgonine	290.1 -> 168...	9/25/2017 3:22...	5.393	12851	☐	162.01	290.1 -> 105...	☐	Infinity	Benzoylecgonine-D8	298.2 -> 171...	5.371	4359
Carbamazepine	237.1 -> 193...	9/25/2017 3:22...	6.178	22565	☐	5841.64	237.1 -> 194...	☐	2065.81	Carbamazepine-13C6	243.1 -> 200...	6.157	883582
Chlordiazepoxide	300.1 -> 227...	9/25/2017 3:22...	6.616	26349	☐	58.88	300.1 -> 282...	☐	Infinity	Chlordiazepoxide-D5	305.1 -> 286...	6.595	182358
Clomipramine	315.2 -> 86.2	9/25/2017 3:22...	6.958	314171	☐	14.10	315.2 -> 58.3	☐	279.88	Clomipramine-D3	318.2 -> 89.2	6.938	14909...
Cocaine	304.2 -> 182...	9/25/2017 3:22...	5.821	119194	☐	Infinity	304.2 -> 105...	☐	21.87	Cocaine-D3	307.2 -> 185...	5.799	484010
Desipramine	267.2 -> 72.3	9/25/2017 3:22...	6.500	233937	☐	Infinity	267.2 -> 44.3	☐	Infinity	Desipramine-D3	270.2 -> 75.3	6.520	10912...
Doxepin	280.2 -> 107...	9/25/2017 3:22...	6.376	106608	☐	92.66	280.2 -> 77.2	☐	Infinity	Doxepin-D3	283.2 -> 107...	6.355	477898
Estazolam	295.1 -> 267...	9/25/2017 3:22...	6.414	39833	☐	221.45	295.1 -> 205...	☐	135.31	Estazolam-D5	300.1 -> 272...	6.412	186251
Flunitrazepam	314.1 -> 268...	9/25/2017 3:22...	6.451	40395	☐	37.11	314.1 -> 239...	☐	19.90	Flunitrazepam-D7	321.1 -> 245...	6.430	7475
Flurazepam	388.2 -> 315...	9/25/2017 3:22...	6.486	134749	☐	Infinity	388.2 -> 317...	☐	4563.48	Zopiclone-D4	393.1 -> 244...	6.404	104012
Imipramine	281.2 -> 86.2	9/25/2017 3:22...	6.598	316154	☐	Infinity	281.2 -> 58.3	☐	556.69	Imipramine-D3	284.2 -> 61.3	6.597	864821
Levamisole	205.1 -> 91.2	9/25/2017 3:22...	5.386	43048	☐	Infinity	205.1 -> 178...	☐	Infinity	Cocaine-D3	307.2 -> 185...	5.799	484010
Maprotiline	278.2 -> 91.2	9/25/2017 3:22...	6.212	111882	☐	60.45	278.2 -> 117...	☑	Infinity	Meperidine-D4	252.2 -> 224...	5.850	212657
MDA	180.1 -> 163...	9/25/2017 3:22...	5.145	40110	☐	212.94	180.1 -> 105...	☐	272.02	MDA-D5	185.1 -> 168...	5.124	175698
MDEA	208.1 -> 163...	9/25/2017 3:22...	5.426	71023	☐	Infinity	208.1 -> 105...	☐	Infinity	MDEA-D6	214.2 -> 166...	5.426	349260
MDMA	194.1 -> 163...	9/25/2017 3:22...	5.285	70628	☐	29.74	194.1 -> 105...	☐	120.76	MDMA-D6	200.2 -> 166...	5.264	35173
Meperidine	248.2 -> 220...	9/25/2017 3:22...	5.871	45105	☐	32.11	248.2 -> 174...	☐	25.04	Meperidine-D4	252.2 -> 224...	5.850	212657
Methylphenidate	234.2 -> 84.2	9/25/2017 3:22...	5.729	205439	☐	Infinity	234.2 -> 56.3	☐	20117....	Meperidine-D4	252.2 -> 224...	5.850	212657
Metoprolol	268.2 -> 116...	9/25/2017 3:22...	5.601	19033	☐	150.11	268.2 -> 56.3	☐	270.84	Meperidine-D4	252.2 -> 224...	5.850	212657
Midazolam	326.1 -> 223...	9/25/2017 3:22...	6.632	19787	☐	48.60	326.1 -> 249...	☐	42.67	Midazolam-D4	330.1 -> 295...	6.631	293193
Mirtazapine	266.2 -> 195...	9/25/2017 3:22...	6.440	152471	☐	221.18	266.2 -> 72.3	☐	Infinity	Midazolam-D4	330.1 -> 295...	6.631	293193
Mitragynine	399.2 -> 174...	9/25/2017 3:22...	6.465	48240	☐	7514.52	399.2 -> 238...	☐	3402.40	Carbamazepine-13C6	243.1 -> 200...	6.157	883582
Normeperidine	234.1 -> 42.3	9/25/2017 3:22...	5.771	59112	☐	Infinity	234.1 -> 160...	☐	103.09	Normeperidine-D4	238.2 -> 164...	5.770	170643
Norpropoxyphene	326.2 -> 44.3	9/25/2017 3:22...	6.368	31031	☐	45.52	326.2 -> 252...	☐	47.61	Norpropoxyphene-D5	331.2 -> 44.3	6.367	114655
Nortriptyline	264.2 -> 91.2	9/25/2017 3:22...	6.440	315277	☐	616.41	264.2 -> 233...	☐	Infinity	Nortriptyline-D3	267.2 -> 233...	6.560	241232
Ondansetron	294.2 -> 184...	9/25/2017 3:22...	6.108	80124	☐	238.39	294.2 -> 212...	☐	133.98	Pentazocine-13C3	289.2 -> 72.3	5.844	371973
Pentazocine	286.2 -> 218...	9/25/2017 3:22...	5.845	85992	☐	51.41	286.2 -> 41.3	☐	144.84	Pentazocine-13C3	289.2 -> 72.3	5.844	371973
Phenazepam	349.0 -> 206...	9/25/2017 3:22...	6.508	38816	☐	138.97	349.0 -> 183...	☐	405.11	Phenazepam-D4	353.0 -> 183...	6.507	11898
Phencyclidine	244.2 -> 86.2	9/25/2017 3:22...	6.075	158595	☐	115.05	244.2 -> 91.1	☐	23817....	Phencydlidine-D5	249.2 -> 86.2	6.074	694600
Phenytoin	253.1 -> 104...	9/25/2017 3:22...	6.074	3181	☐	19.96	253.1 -> 182...	☐	37.66	Phenytoin-D10	263.2 -> 192...	6.074	10107
Prazepam	325.1 -> 271...	9/25/2017 3:22...	6.977	171367	☐	209.18	325.1 -> 140...	☐	109.56	Prazepam-D5	330.1 -> 276...	6.955	661629
Primidone	219.1 -> 91.2	9/25/2017 3:22...	5.466	6420	☐	12.81	219.1 -> 162...	☐	25.98	Prazepam-D5	330.1 -> 276...	6.955	661629
Propoxyphene	340.2 -> 58.3	9/25/2017 3:22...	6.468	208150	☐	61.69	340.2 -> 266...	☐	6116.55	Propoxyphene-D11	351.3 -> 277...	6.426	208865
Protriptyline	264.2 -> 155...	9/25/2017 3:22...	6.440	495247	☐	Infinity	264.2 -> 161...	☑	Infinity	Nortriptyline-D3	267.2 -> 233...	6.560	241232
Pseudoephedrine	166.1 -> 148...	9/25/2017 3:22...	4.742	10680...	☐	1264.41	166.1 -> 133...	☐	393.46	Pseudoephedrine-D3	169.1 -> 151...	4.742	461337
Tapentadol	222.2 -> 107...	9/25/2017 3:22...	5.608	109066	☐	Infinity	222.2 -> 121...	☐	Infinity	Tapentadol-D3	225.2 -> 107...	5.608	479862
Trimipramine	295.2 -> 100...	9/25/2017 3:22...	6.718	342515	☐	516.49	295.2 -> 58.3	☐	54.90	Trimipramine-D3	298.2 -> 103...	6.698	15975...
Verapamil	455.3 -> 165...	9/25/2017 3:22...	6.464	148542	☐	872.03	455.3 -> 150...	☐	170.17	Trimipramine-D3	298.2 -> 103...	6.698	15975...
Zaleplon	306.1 -> 236...	9/25/2017 3:22...	6.269	44407	☐	1793.50	306.1 -> 264...	☐	56.23	Zaleplon-D4	310.2 -> 240...	6.247	160664
Zopiclone	389.1 -> 244...	9/25/2017 3:22...	6.404	26377	☐	103.95	389.1 -> 216...	☐	75.62	Zopiclone-D4	393.1 -> 244...	6.404	104012

Compound Method		p2 negative	p2 negative Results				Qualifier 1 M...	Qualifi...		ISTD Method		ISTD Results	
Name	Transition	Acq. Date-Time	RT	Resp.	MI	S/N	Transition	MI	S/N	Name	Transition	RT	Resp.
7-aminoflunitrazepam	284.1 -> 135...	9/25/2017 3:42 PM					284.1 -> 93.2			7-aminoflunitrazepam-D7	291.2 -> 138...	5.761	163157
alpha-hydroxymidazola...	342.1 -> 324...	9/25/2017 3:42 PM					342.1 -> 203...			alpha-hydroxymidazolam-...	346.1 -> 328...	6.468	266548
Amitriptyline	278.2 -> 91.2	9/25/2017 3:42 PM	6.559	2301		1.51	278.2 -> 105...			Amitriptyline-D3	281.2 -> 91.2	6.659	368622
Amoxapine	314.1 -> 271...	9/25/2017 3:42 PM					314.1 -> 193...			Amitriptyline-D3	281.2 -> 91.2	6.659	368622
Benzoylecgonine	290.1 -> 168...	9/25/2017 3:42 PM					290.1 -> 105...			Benzoylecgonine-D8	298.2 -> 171...	5.371	4533
Carbamazepine	237.1 -> 193...	9/25/2017 3:42 PM					237.1 -> 194...			Carbamazepine-13C6	243.1 -> 200...	6.157	829608
Chlordiazepoxide	300.1 -> 227...	9/25/2017 3:42 PM					300.1 -> 282...			Chlordiazepoxide-D5	305.1 -> 286...	6.595	182345
Clomipramine	315.2 -> 86.2	9/25/2017 3:42 PM					315.2 -> 58.3			Clomipramine-D3	318.2 -> 89.2	6.938	13891...
Cocaine	304.2 -> 182...	9/25/2017 3:42 PM					304.2 -> 105...			Cocaine-D3	307.2 -> 185...	5.799	481666
Desipramine	267.2 -> 72.3	9/25/2017 3:42 PM					267.2 -> 44.3			Desipramine-D3	270.2 -> 75.3	6.520	10806...
Doxepin	280.2 -> 107...	9/25/2017 3:42 PM					280.2 -> 77.2			Doxepin-D3	283.2 -> 107...	6.355	461791
Estazolam	295.1 -> 267...	9/25/2017 3:42 PM					295.1 -> 205...			Estazolam-D5	300.1 -> 272...	6.412	196841
Flunitrazepam	314.1 -> 268...	9/25/2017 3:42 PM					314.1 -> 239...			Flunitrazepam-D7	321.1 -> 245...	6.430	8485
Flurazepam	388.2 -> 315...	9/25/2017 3:42 PM					388.2 -> 317...			Zopiclone-D4	393.1 -> 244...	6.404	135463
Imipramine	281.2 -> 86.2	9/25/2017 3:42 PM	6.619	2997		2.65	281.2 -> 58.3			Imipramine-D3	284.2 -> 61.3	6.597	830954
Levamisole	205.1 -> 91.2	9/25/2017 3:42 PM					205.1 -> 178...			Cocaine-D3	307.2 -> 185...	5.799	481666
Maprotiline	278.2 -> 91.2	9/25/2017 3:42 PM	6.212	2007		0.50	278.2 -> 117...			Meperidine-D4	252.2 -> 224...	5.850	207124
MDA	180.1 -> 163...	9/25/2017 3:42 PM					180.1 -> 105...			MDA-D5	185.1 -> 168...	5.124	182803
MDEA	208.1 -> 163...	9/25/2017 3:42 PM					208.1 -> 105...			MDEA-D6	214.2 -> 166...	5.406	340970
MDMA	194.1 -> 163...	9/25/2017 3:42 PM					194.1 -> 105...			MDMA-D6	200.2 -> 166...	5.264	36128
Meperidine	248.2 -> 220...	9/25/2017 3:42 PM					248.2 -> 174...			Meperidine-D4	252.2 -> 224...	5.850	207124
Methylphenidate	234.2 -> 84.2	9/25/2017 3:42 PM					234.2 -> 56.3			Meperidine-D4	252.2 -> 224...	5.850	207124
Metoprolol	268.2 -> 116...	9/25/2017 3:42 PM					268.2 -> 56.3			Meperidine-D4	252.2 -> 224...	5.850	207124
Midazolam	326.1 -> 223...	9/25/2017 3:42 PM					326.1 -> 249...			Midazolam-D4	330.1 -> 295...	6.631	269507
Mirtazapine	266.2 -> 195...	9/25/2017 3:42 PM					266.2 -> 72.3			Midazolam-D4	330.1 -> 295...	6.631	269507
Mitragynine	399.2 -> 174...	9/25/2017 3:42 PM					399.2 -> 238...			Carbamazepine-13C6	243.1 -> 200...	6.157	829608
Normeperidine	234.1 -> 42.3	9/25/2017 3:42 PM					234.1 -> 160...			Normeperidine-D4	238.2 -> 164...	5.770	162242
Norpropoxyphene	326.2 -> 44.3	9/25/2017 3:42 PM					326.2 -> 252...			Norpropoxyphene-D5	331.2 -> 44.3	6.347	107835
Nortriptyline	264.2 -> 91.2	9/25/2017 3:42 PM					264.2 -> 233...			Nortriptyline-D3	267.2 -> 233...	6.560	245902
Ondansetron	294.2 -> 184...	9/25/2017 3:42 PM					294.2 -> 212...			Pentazocine-13C3	289.2 -> 72.3	5.844	349971
Pentazocine	286.2 -> 218...	9/25/2017 3:42 PM					286.2 -> 41.3			Pentazocine-13C3	289.2 -> 72.3	5.844	349971
Phenazepam	349.0 -> 206...	9/25/2017 3:42 PM					349.0 -> 183...			Phenazepam-D4	353.0 -> 183...	6.507	14449
Phencyclidine	244.2 -> 86.2	9/25/2017 3:42 PM					244.2 -> 91.1			Phencydlidine-D5	249.2 -> 86.2	6.074	710236
Phenytoin	253.1 -> 104...	9/25/2017 3:42 PM					253.1 -> 182...			Phenytoin-D10	263.2 -> 192...	6.053	8992
Prazepam	325.1 -> 271...	9/25/2017 3:42 PM					325.1 -> 140...			Prazepam-D5	330.1 -> 276...	6.955	634568
Primidone	219.1 -> 91.2	9/25/2017 3:42 PM					219.1 -> 162...			Prazepam-D5	330.1 -> 276...	6.955	634568
Propoxyphene	340.2 -> 58.3	9/25/2017 3:42 PM					340.2 -> 266...			Propoxyphene-D11	351.3 -> 277...	6.426	200553
Protriptyline	264.2 -> 155...	9/25/2017 3:42 PM					264.2 -> 161...			Nortriptyline-D3	267.2 -> 233...	6.560	245902
Pseudoephedrine	166.1 -> 148...	9/25/2017 3:42 PM					166.1 -> 133...			Pseudoephedrine-D3	169.1 -> 151...	4.742	422147
Tapentadol	222.2 -> 107...	9/25/2017 3:42 PM					222.2 -> 121...			Tapentadol-D3	225.2 -> 107...	5.608	481170
Trimipramine	295.2 -> 100...	9/25/2017 3:42 PM					295.2 -> 58.3			Trimipramine-D3	298.2 -> 103...	6.698	15111...
Verapamil	455.3 -> 165...	9/25/2017 3:42 PM					455.3 -> 150...			Trimipramine-D3	298.2 -> 103...	6.698	15111...
Zaleplon	306.1 -> 236...	9/25/2017 3:42 PM					306.1 -> 264...			Zaleplon-D4	310.2 -> 240...	6.247	165272
Zopiclone	389.1 -> 244...	9/25/2017 3:42 PM					389.1 -> 216...			Zopiclone-D4	393.1 -> 244...	6.404	135463

Compound Method		p2 external control	p2 external control Results				Qualifier 1 M...	Qualifier 1...		ISTD Method		ISTD Results	
Name	Transition	Acq. Date-Time	RT	Resp.	MI	S/N	Transition	MI	S/N	Name	Transition	RT	Resp.
7-aminoflunitrazepam	284.1 -> 135...	9/25/2017 4:01 PM					284.1 -> 93.2			7-aminoflunitrazepam-D7	291.2 -> 138...	5.761	166026
alpha-hydroxymidazola...	342.1 -> 324...	9/25/2017 4:01 PM					342.1 -> 203...			alpha-hydroxymidazolam-...	346.1 -> 328...	6.468	255358
Amitriptyline	278.2 -> 91.2	9/25/2017 4:01 PM	6.660	12575...		76.90	278.2 -> 105...		316.56	Amitriptyline-D3	281.2 -> 91.2	6.659	378181
Amoxapine	314.1 -> 271...	9/25/2017 4:01 PM					314.1 -> 193...			Amitriptyline-D3	281.2 -> 91.2	6.659	378181
Benzoylecgonine	290.1 -> 168...	9/25/2017 4:01 PM					290.1 -> 105...			Benzoylecgonine-D8	298.2 -> 171...	5.371	3786
Carbamazepine	237.1 -> 193...	9/25/2017 4:01 PM					237.1 -> 194...			Carbamazepine-13C6	243.1 -> 200...	6.157	805448
Chlordiazepoxide	300.1 -> 227...	9/25/2017 4:01 PM					300.1 -> 282...			Chlordiazepoxide-D5	305.1 -> 286...	6.595	172687
Clomipramine	315.2 -> 86.2	9/25/2017 4:01 PM					315.2 -> 58.3			Clomipramine-D3	318.2 -> 89.2	6.938	14008...
Cocaine	304.2 -> 182...	9/25/2017 4:01 PM					304.2 -> 105...			Cocaine-D3	307.2 -> 185...	5.799	433595
Desipramine	267.2 -> 72.3	9/25/2017 4:01 PM					267.2 -> 44.3			Desipramine-D3	270.2 -> 75.3	6.520	10362...
Doxepin	280.2 -> 107...	9/25/2017 4:01 PM					280.2 -> 77.2			Doxepin-D3	283.2 -> 107...	6.355	468122
Estazolam	295.1 -> 267...	9/25/2017 4:01 PM					295.1 -> 205...			Estazolam-D5	300.1 -> 272...	6.412	175167
Flunitrazepam	314.1 -> 268...	9/25/2017 4:01 PM					314.1 -> 239...			Flunitrazepam-D7	321.1 -> 245...	6.430	8576
Flurazepam	388.2 -> 315...	9/25/2017 4:01 PM					388.2 -> 317...			Zopiclone-D4	393.1 -> 244...	6.404	94862
Imipramine	281.2 -> 86.2	9/25/2017 4:01 PM	6.598	2276		6.53	281.2 -> 58.3			Imipramine-D3	284.2 -> 61.3	6.597	821525
Levamisole	205.1 -> 91.2	9/25/2017 4:01 PM					205.1 -> 178...			Cocaine-D3	307.2 -> 185...	5.799	433595
Maprotiline	278.2 -> 91.2	9/25/2017 4:01 PM					278.2 -> 117...			Meperidine-D4	252.2 -> 224...	5.850	205695
MDA	180.1 -> 163...	9/25/2017 4:01 PM					180.1 -> 105...			MDA-D5	185.1 -> 168...	5.124	183683
MDEA	208.1 -> 163...	9/25/2017 4:01 PM					208.1 -> 105...			MDEA-D6	214.2 -> 166...	5.406	324268
MDMA	194.1 -> 163...	9/25/2017 4:01 PM					194.1 -> 105...			MDMA-D6	200.2 -> 166...	5.244	35211
Meperidine	248.2 -> 220...	9/25/2017 4:01 PM					248.2 -> 174...			Meperidine-D4	252.2 -> 224...	5.850	205695
Methylphenidate	234.2 -> 84.2	9/25/2017 4:01 PM					234.2 -> 56.3			Meperidine-D4	252.2 -> 224...	5.850	205695
Metoprolol	268.2 -> 116...	9/25/2017 4:01 PM					268.2 -> 56.3			Meperidine-D4	252.2 -> 224...	5.850	205695
Midazolam	326.1 -> 223...	9/25/2017 4:01 PM					326.1 -> 249...			Midazolam-D4	330.1 -> 295...	6.631	275282
Mirtazapine	266.2 -> 195...	9/25/2017 4:01 PM	6.440	13920...		680.54	266.2 -> 72.3		742.60	Midazolam-D4	330.1 -> 295...	6.631	275282
Mitragynine	399.2 -> 174...	9/25/2017 4:01 PM					399.2 -> 238...			Carbamazepine-13C6	243.1 -> 200...	6.157	805448
Normeperidine	234.1 -> 42.3	9/25/2017 4:01 PM					234.1 -> 160...			Normeperidine-D4	238.2 -> 164...	5.770	170605
Norpropoxyphene	326.2 -> 44.3	9/25/2017 4:01 PM					326.2 -> 252...			Norpropoxyphene-D5	331.2 -> 44.3	6.367	92889
Nortriptyline	264.2 -> 91.2	9/25/2017 4:01 PM	6.562	2839		3.45	264.2 -> 233...			Nortriptyline-D3	267.2 -> 233...	6.560	232637
Ondansetron	294.2 -> 184...	9/25/2017 4:01 PM					294.2 -> 212...			Pentazocine-13C3	289.2 -> 72.3	5.844	348502
Pentazocine	286.2 -> 218...	9/25/2017 4:01 PM					286.2 -> 41.3			Pentazocine-13C3	289.2 -> 72.3	5.844	348502
Phenazepam	349.0 -> 206...	9/25/2017 4:01 PM					349.0 -> 183...			Phenazepam-D4	353.0 -> 183...	6.507	14274
Phencyclidine	244.2 -> 86.2	9/25/2017 4:01 PM					244.2 -> 91.1			Phencydlidine-D5	249.2 -> 86.2	6.074	617562
Phenytoin	253.1 -> 104...	9/25/2017 4:01 PM					253.1 -> 182...			Phenytoin-D10	263.2 -> 192...	6.074	8349
Prazepam	325.1 -> 271...	9/25/2017 4:01 PM					325.1 -> 140...			Prazepam-D5	330.1 -> 276...	6.955	603070
Primidone	219.1 -> 91.2	9/25/2017 4:01 PM					219.1 -> 162...			Prazepam-D5	330.1 -> 276...	6.955	603070
Propoxyphene	340.2 -> 58.3	9/25/2017 4:01 PM					340.2 -> 266...			Propoxyphene-D11	351.3 -> 277...	6.426	200713
Protriptyline	264.2 -> 155...	9/25/2017 4:01 PM					264.2 -> 161...			Nortriptyline-D3	267.2 -> 233...	6.560	232637
Pseudoephedrine	166.1 -> 148...	9/25/2017 4:01 PM					166.1 -> 133...			Pseudoephedrine-D3	169.1 -> 151...	4.742	383122
Tapentadol	222.2 -> 107...	9/25/2017 4:01 PM					222.2 -> 121...			Tapentadol-D3	225.2 -> 107...	5.608	497095
Trimipramine	295.2 -> 100...	9/25/2017 4:01 PM					295.2 -> 58.3			Trimipramine-D3	298.2 -> 103...	6.698	15333...
Verapamil	455.3 -> 165...	9/25/2017 4:01 PM					455.3 -> 150...			Trimipramine-D3	298.2 -> 103...	6.698	15333...
Zaleplon	306.1 -> 236...	9/25/2017 4:01 PM					306.1 -> 264...			Zaleplon-D4	310.2 -> 240...	6.247	164723
Zopiclone	389.1 -> 244...	9/25/2017 4:01 PM					389.1 -> 216...			Zopiclone-D4	393.1 -> 244...	6.404	94862

ISP Forensic Services: Toxicology Discipline

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

Extraction Date: 9-25-17 **Analyst:** Anne Nord

PRE-ANALYTIC

Plate Lot# Custom THC plate: 0499102 Plate Exp: 1/29/2018

√ 1. Ensure all solutions are within expiration date.
- Mobile Phase A: **10mM Amm Formate**
- Mobile Phase B: ***0.1% FA in MeOH***
- Blank/Negative Blood**: Lot *321632-1***
- *Column:* ***Phenomenex Phenyl Hexyl (4.6 x 50mm; 2.6um)***
- **0.1% Formic Acid in water**
- **MTBE**
- **Hexane**

√ 2. Check levels of mobile phases and needle wash and refill as necessary. Ensure waste is not full.

√ 3. Begin mobile phase flow and allow system to equilibrate for approx. 30 min.

√ 4. Create worklist. Data path name: 92517 blood screen AM 25-26

ANALYTIC

√ 1. Remove standards plate, blood, and samples from cold storage. Allow to reach room temperature.

√ 2. Add **1000 µL blood** ***(calibrated pipette)*** to 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 **500µL 0.1% formic acid** to all wells of standards plate.

√ 5. Place on shaking incubator at ambient temp., **900rpm for 15 minutes.**

√ 6. Transfer **800µL of blood+acid** 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) Pressure Manifold ID 66729
√ Wait 5 min.

√ 8. Add **2.25mL MTBE** and allow to flow under gravity for 5 minutes. ***(add in 3 increments of 750uL)***

√ 9. Apply positive pressure for approx. 15 seconds. ***(10-15 PSI- Selector to the left)***

√ 10. Add **2.25mL Hexane** and allow to flow under gravity for 5 minutes. ***(add in 3 increments of 750uL)***

√ 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 ID 66819*

√ 13. Reconstitute in **100 µL 100% 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: 92517 Cann screen

√ 2. Make any necessary integration changes.

√ 3. 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?

√ 4. Did QCs pass for each analyte? (Y)/ N

5. Central File Packet to include: √ LIMS Worklist: √ Method Checklist
√ Calibration and Control Reports

Comments:

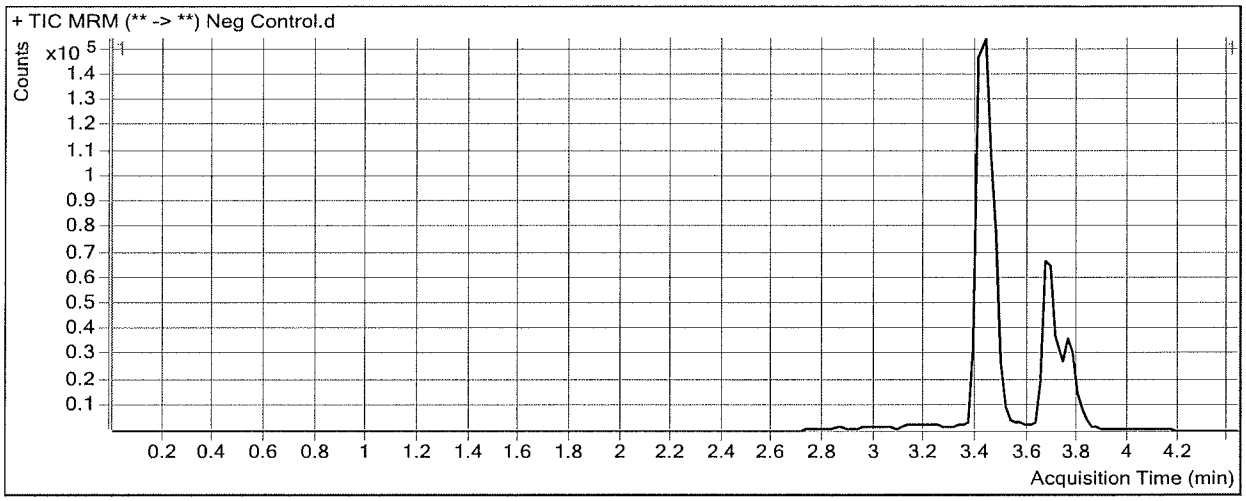
ISP FORENSICS - Cd'A
Cannabionoid Screen Report

Batch Data Path	D:\2017 Data\92517 blood screen AM 25-26\QuantResults\92517 cann screen.batch.bin		
Analysis Time	9/27/2017 10:02 AM	**Analyst Name**	ISP Tox
Report Time	9/27/2017 10:12 AM	**Reporter Name**	ISP Tox
Last Calib Update	9/27/2017 10:02 AM	**Batch State**	Processed

Analysis Info

Acq Time	2017-09-25 11:42	**Data File**	Neg Control.d
Sample Type	Sample	**Sample Name**	Neg Control
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



Results

Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC-OH	3.392	1229	554096	0.0022	0.0000

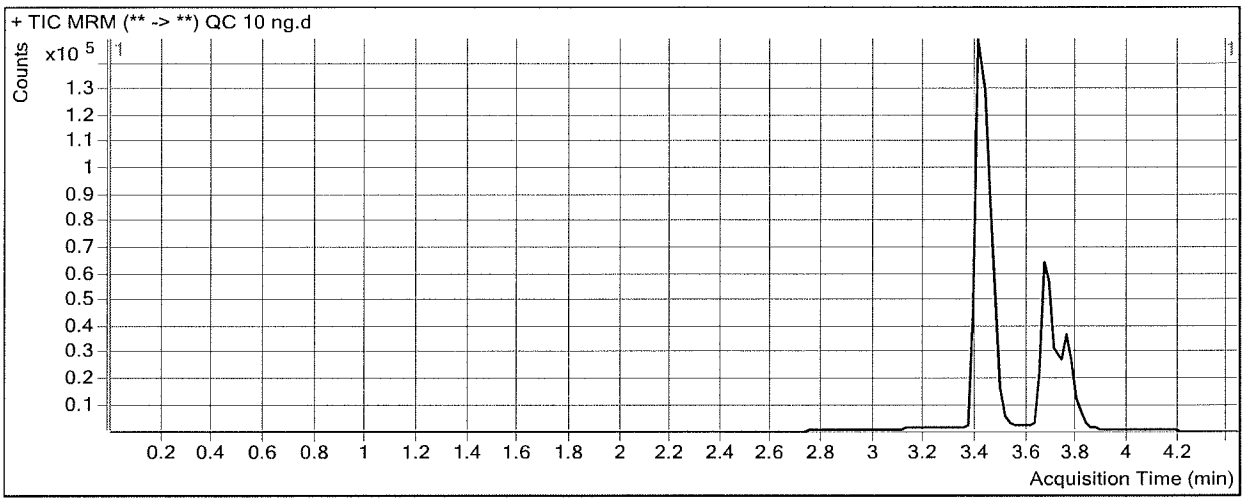
ISP FORENSICS - Cd'A
Cannabionoid Screen Report

Batch Data Path	D:\2017 Data\92517 blood screen AM 25-26\QuantResults\92517 cann screen.batch.bin		
Analysis Time	9/27/2017 10:02 AM	**Analyst Name**	ISP Tox
Report Time	9/27/2017 10:12 AM	**Reporter Name**	ISP Tox
Last Calib Update	9/27/2017 10:02 AM	**Batch State**	Processed

Analysis Info

Acq Time	2017-09-25 12:02	**Data File**	QC 10 ng.d
Sample Type	QC	**Sample Name**	QC 10 ng
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	3.412	37788	413734	0.0913	9.9273
THC-COOH	3.426	18466	91989	0.2007	10.7817
THC	3.760	3881	34862	0.1113	10.5864

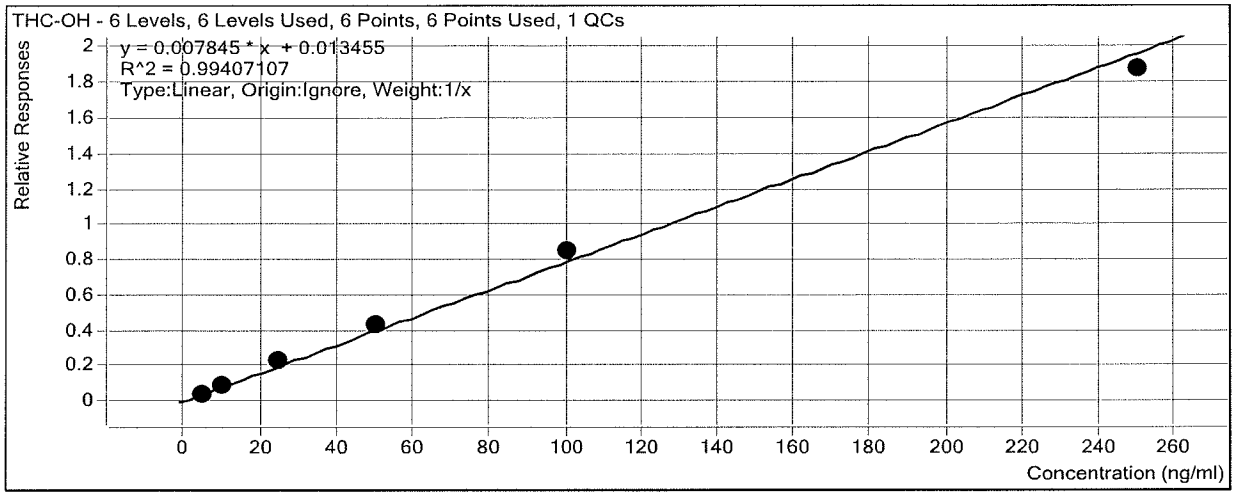
ISP Forensics
Calibration Curve Report

Batch Data Path D:\2017 Data\92517 blood screen AM 25-26\QuantResults\92517 cann screen.batch.bin

Last Calib Update 9/27/2017 10:02 AM **Analyst Name** ISP TOX

Target Compound *THC-OH*

Internal Standard *THC-OH-d3*



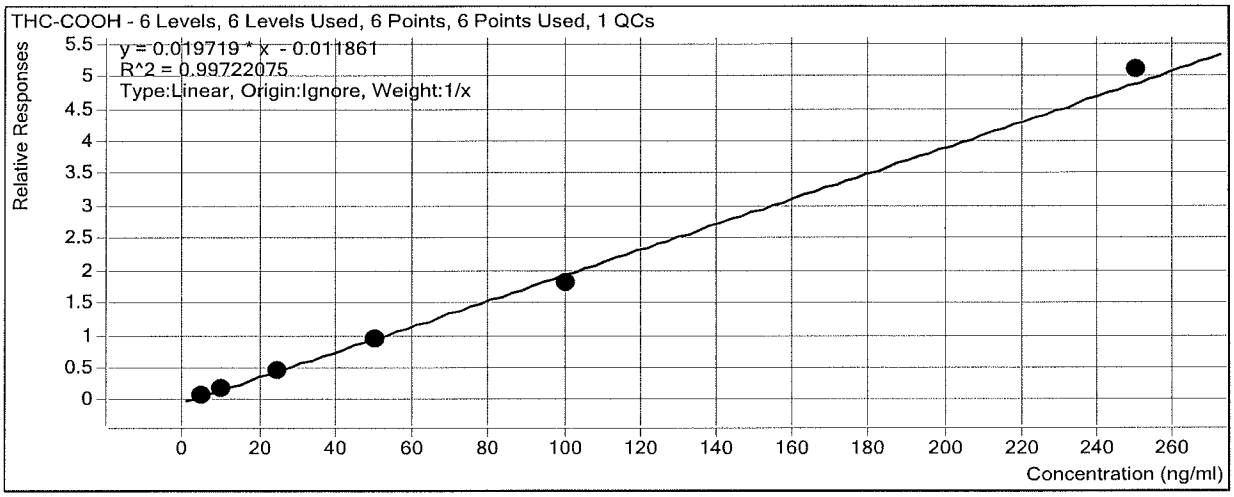
Sample	Level	Enabled	Exp Conc	Final Conc	Accuracy
cal 2 - 5ng	2	☑	5	4.2	83.2
cal 3 - 10ng	3	☑	10	9.5	94.6
QC 10 ng	3	☑	10	9.9	99.3
cal 4 - 25ng	4	☑	25	27.9	111.6
cal 5 - 50ng	5	☑	50	54.4	108.7
cal 6 - 100ng	6	☑	100	107.0	107.0
cal 7 - 250ng	7	☑	250	237.1	94.8

ISP Forensics
Calibration Curve Report

Batch Data Path D:\2017 Data\92517 blood screen AM 25-26\QuantResults\92517 cann screen.batch.bin

Last Calib Update 9/27/2017 10:02 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	2	☑	5	5.4	108.9
cal 3 - 10ng	3	☑	10	10.0	100.2
QC 10 ng	3	☑	10	10.8	107.8
cal 4 - 25ng	4	☑	25	24.6	98.3
cal 5 - 50ng	5	☑	50	48.0	96.0
cal 6 - 100ng	6	☑	100	92.9	92.9
cal 7 - 250ng	7	☑	250	259.0	103.6

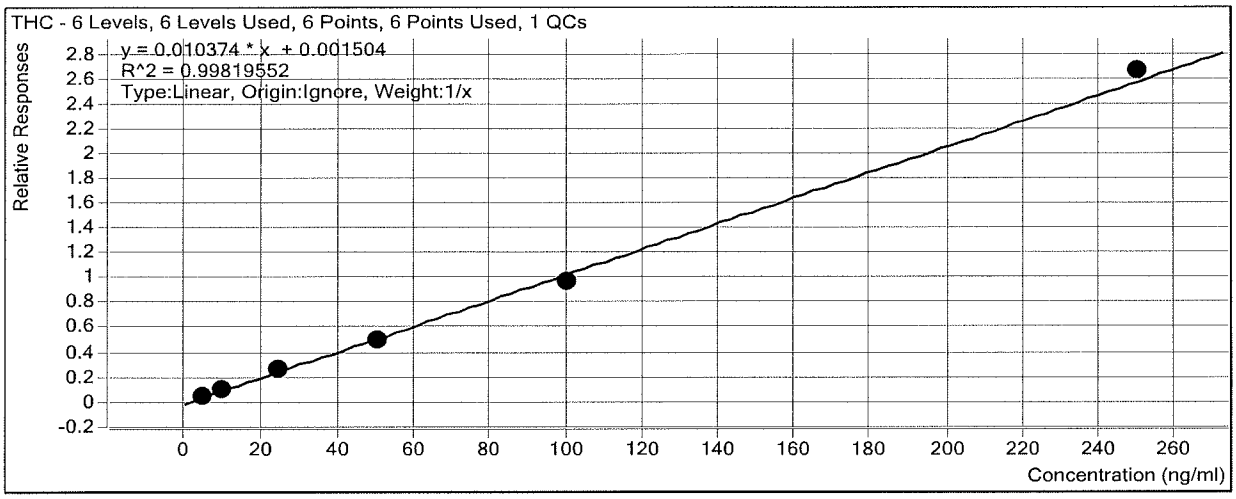
ISP Forensics
Calibration Curve Report

Batch Data Path D:\2017 Data\92517 blood screen AM 25-26\QuantResults\92517 cann screen.batch.bin

Last Calib Update 9/27/2017 10:02 AM **Analyst Name** ISP TOX

Target Compound *THC*

Internal Standard *THC-d3*



Sample	Level	Enabled	Exp Conc	Final Conc	Accuracy
cal 2 - 5ng	2	☑	5	5.1	102.1
cal 3 - 10ng	3	☑	10	10.4	103.7
QC 10 ng	3	☑	10	10.6	105.9
cal 4 - 25ng	4	☑	25	25.0	100.1
cal 5 - 50ng	5	☑	50	48.7	97.4
cal 6 - 100ng	6	☑	100	93.8	93.8
cal 7 - 250ng	7	☑	250	256.9	102.8

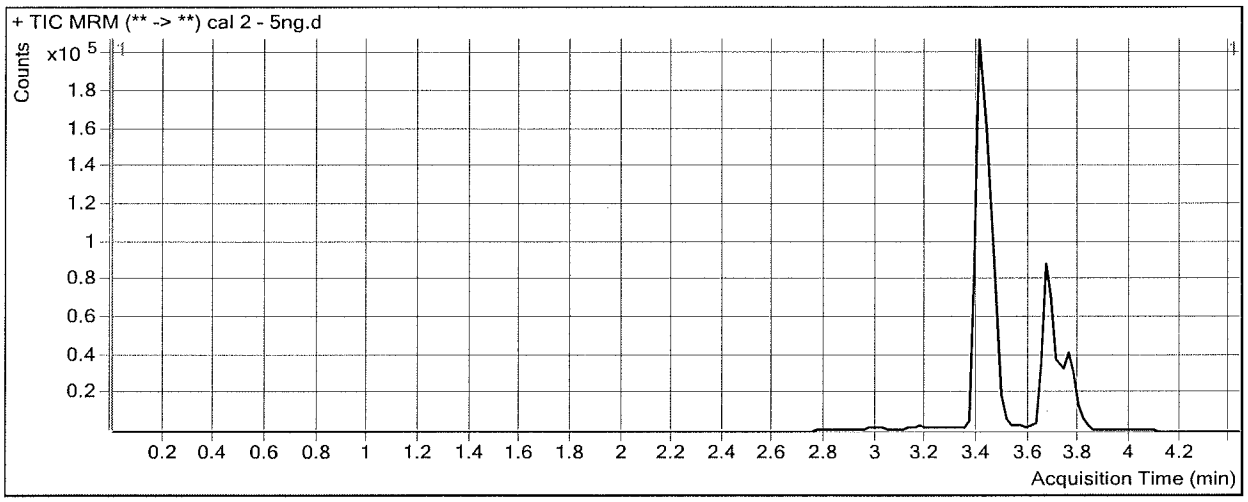
ISP FORENSICS - Cd'A
Cannabionoid Screen Report

Batch Data Path	D:\2017 Data\92517 blood screen AM 25-26\QuantResults\92517 cann screen.batch.bin		
Analysis Time	9/27/2017 10:02 AM	**Analyst Name**	ISP Tox
Report Time	9/27/2017 10:12 AM	**Reporter Name**	ISP Tox
Last Calib Update	9/27/2017 10:02 AM	**Batch State**	Processed

Analysis Info

Acq Time	2017-09-25 11:09	**Data File**	cal 2 - 5ng.d
Sample Type	Calibration	**Sample Name**	cal 2 - 5ng
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	3.412	28485	618045	0.0461	4.1599
THC-COOH	3.426	11574	121146	0.0955	5.4465
THC	3.760	1554	28534	0.0545	5.1049

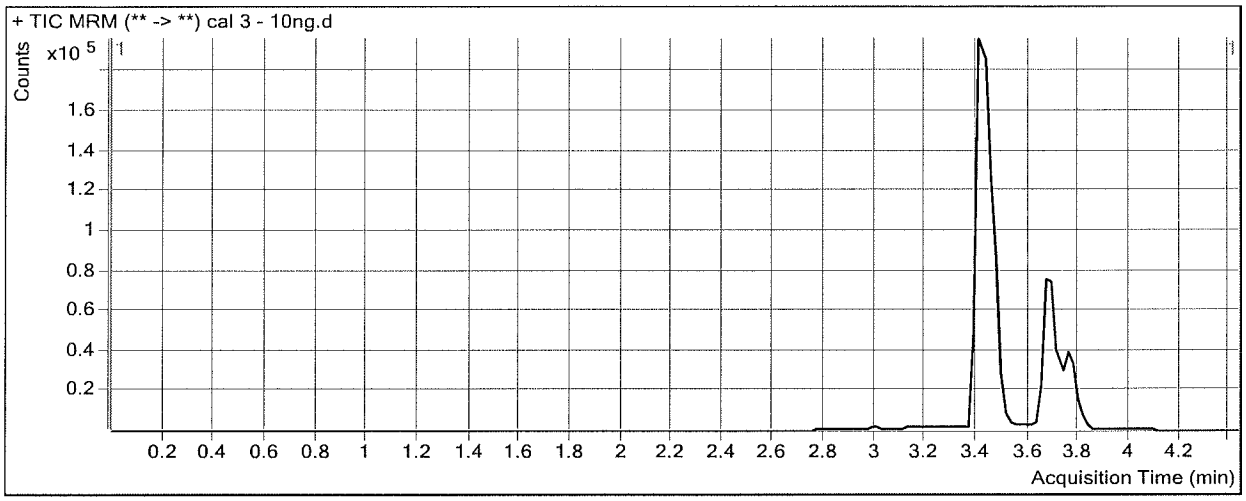
ISP FORENSICS - Cd'A
Cannabionoid Screen Report

Batch Data Path	D:\2017 Data\92517 blood screen AM 25-26\QuantResults\92517 cann screen.batch.bin		
Analysis Time	9/27/2017 10:02 AM	**Analyst Name**	ISP Tox
Report Time	9/27/2017 10:12 AM	**Reporter Name**	ISP Tox
Last Calib Update	9/27/2017 10:02 AM	**Batch State**	Processed

Analysis Info

Acq Time	2017-09-25 11:16	**Data File**	cal 3 - 10ng.d
Sample Type	Calibration	**Sample Name**	cal 3 - 10ng
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	3.412	53126	605961	0.0877	9.4604
THC-COOH	3.426	20915	112561	0.1858	10.0246
THC	3.760	3293	30173	0.1091	10.3741

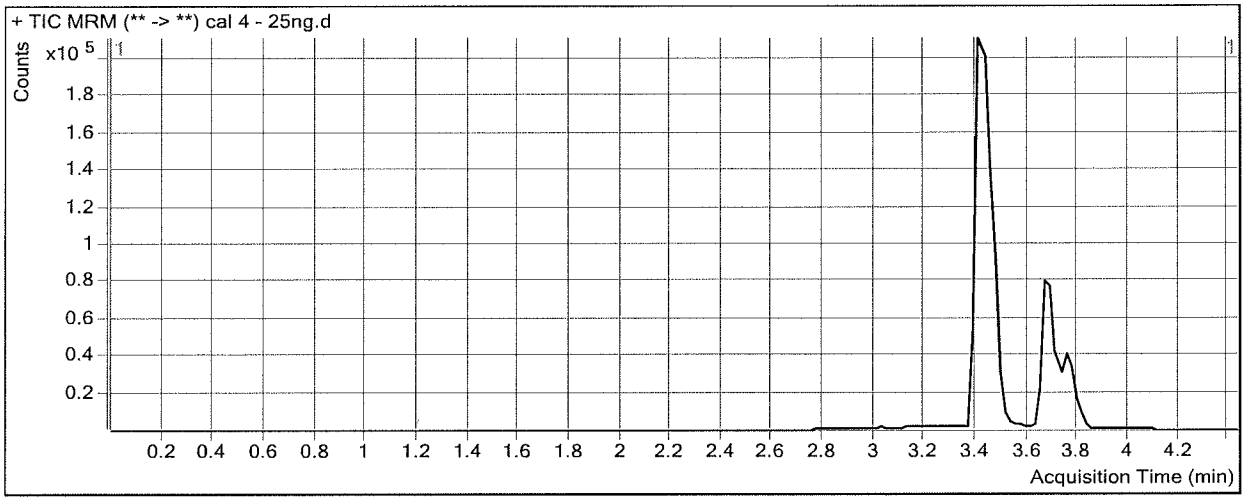
ISP FORENSICS - Cd'A
Cannabionoid Screen Report

Batch Data Path	D:\2017 Data\92517 blood screen AM 25-26\QuantResults\92517 cann screen.batch.bin		
Analysis Time	9/27/2017 10:02 AM	**Analyst Name**	ISP Tox
Report Time	9/27/2017 10:12 AM	**Reporter Name**	ISP Tox
Last Calib Update	9/27/2017 10:02 AM	**Batch State**	Processed

Analysis Info

Acq Time	2017-09-25 11:23	**Data File**	cal 4 - 25ng.d
Sample Type	Calibration	**Sample Name**	cal 4 - 25ng
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	3.412	128854	554513	0.2324	27.9054
THC-COOH	3.426	48233	102056	0.4726	24.5690
THC	3.760	8218	31466	0.2612	25.0316

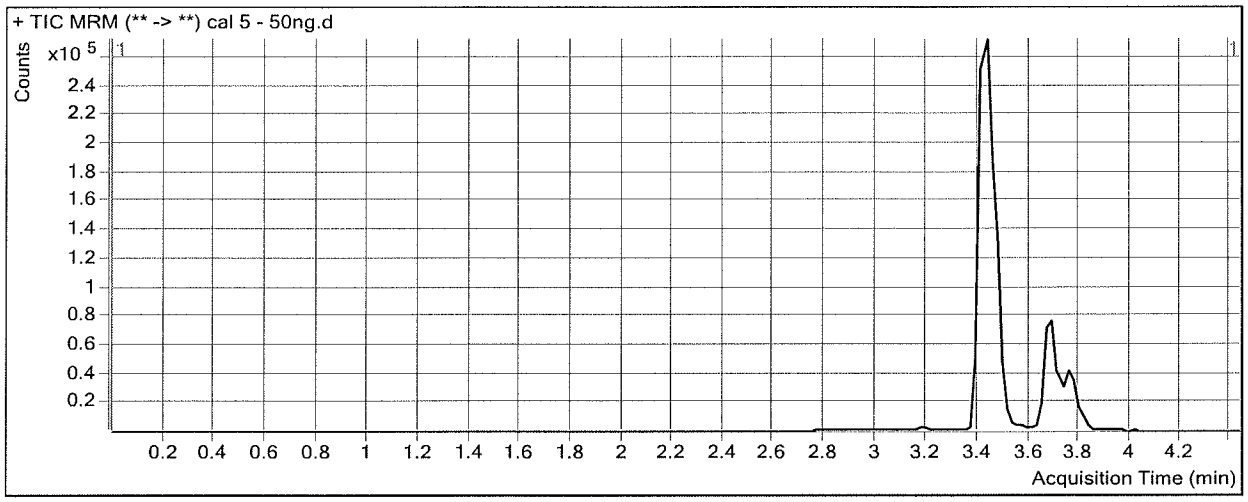
ISP FORENSICS - Cd'A
Cannabionoid Screen Report

Batch Data Path	D:\2017 Data\92517 blood screen AM 25-26\QuantResults\92517 cann screen.batch.bin		
Analysis Time	9/27/2017 10:02 AM	**Analyst Name**	ISP Tox
Report Time	9/27/2017 10:12 AM	**Reporter Name**	ISP Tox
Last Calib Update	9/27/2017 10:02 AM	**Batch State**	Processed

Analysis Info

Acq Time	2017-09-25 11:29	**Data File**	cal 5 - 50ng.d
Sample Type	Calibration	**Sample Name**	cal 5 - 50ng
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	3.433	260038	591208	0.4398	54.3511
THC-COOH	3.426	98810	105682	0.9350	48.0168
THC	3.760	14652	28910	0.5068	48.7090

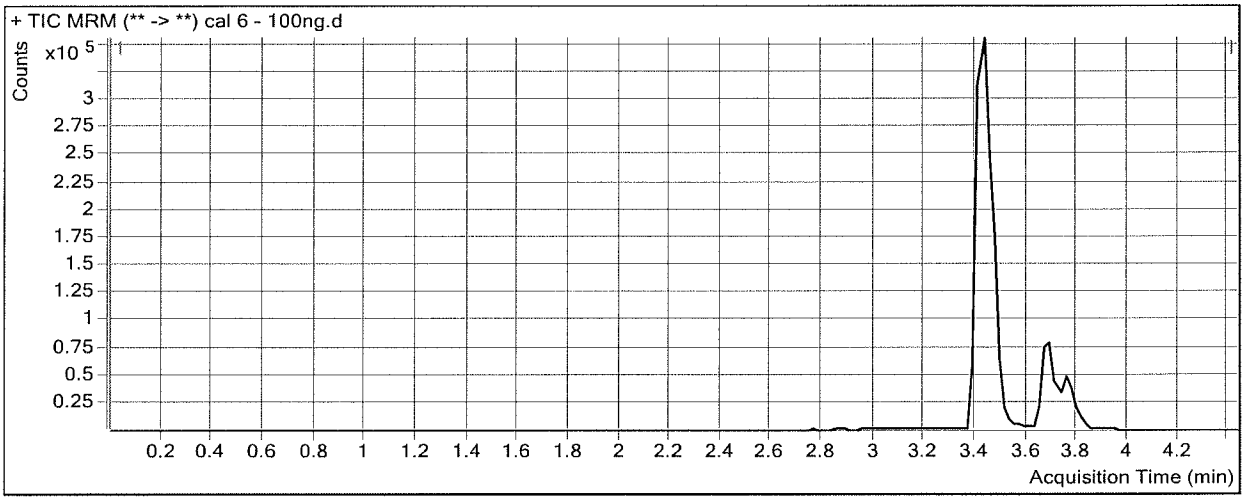
ISP FORENSICS - Cd'A
Cannabionoid Screen Report

Batch Data Path	D:\2017 Data\92517 blood screen AM 25-26\QuantResults\92517 cann screen.batch.bin		
Analysis Time	9/27/2017 10:02 AM	**Analyst Name**	ISP Tox
Report Time	9/27/2017 10:12 AM	**Reporter Name**	ISP Tox
Last Calib Update	9/27/2017 10:02 AM	**Batch State**	Processed

Analysis Info

Acq Time	2017-09-25 11:36	**Data File**	cal 6 - 100ng.d
Sample Type	Calibration	**Sample Name**	cal 6 - 100ng
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	3.433	483571	566768	0.8532	107.0425
THC-COOH	3.426	179954	98879	1.8199	92.8964
THC	3.760	30311	31088	0.9750	93.8417

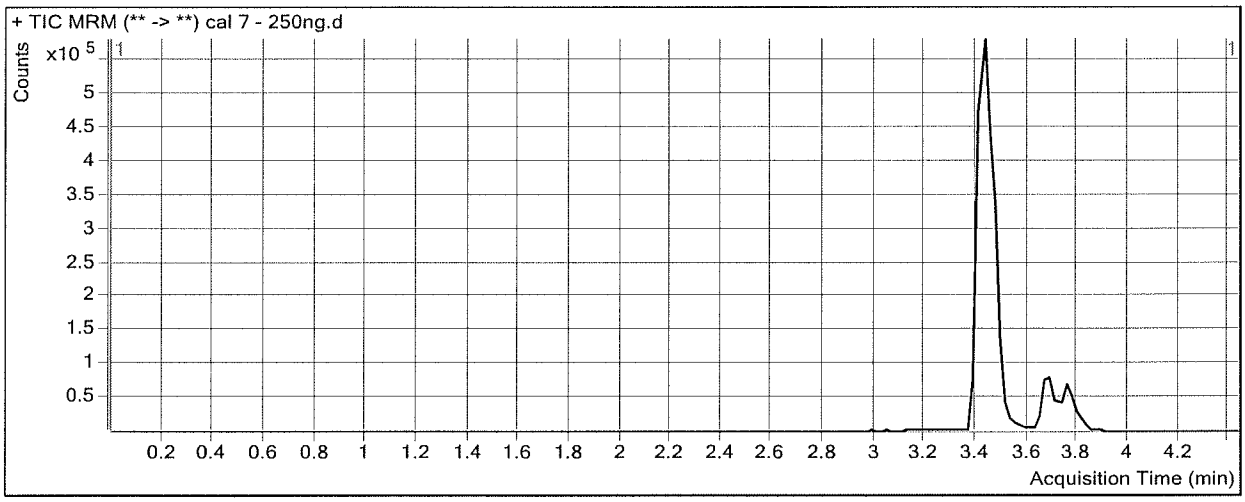
ISP FORENSICS - Cd'A
Cannabionoid Screen Report

Batch Data Path	D:\2017 Data\92517 blood screen AM 25-26\QuantResults\92517 cann screen.batch.bin		
Analysis Time	9/27/2017 10:02 AM	**Analyst Name**	ISP Tox
Report Time	9/27/2017 10:12 AM	**Reporter Name**	ISP Tox
Last Calib Update	9/27/2017 10:02 AM	**Batch State**	Processed

Analysis Info

Acq Time	2017-09-25 11:49	**Data File**	cal 7 - 250ng.d
Sample Type	Calibration	**Sample Name**	cal 7 - 250ng
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	3.433	950583	507420	1.8734	237.0807
THC-COOH	3.426	440067	86351	5.0962	259.0468
THC	3.760	85251	31966	2.6670	256.9388