Worklist: 1398

12/15/2016

LAB CASE	ITEM	TASK ID	DESCRIPTION	
C2016-1351	1	70486	AM 25/AM 26 Blood MultiDrug/	
C2016-1378	1	70487	AM 25/AM 26 Blood MultiDrug/	
C2016-1754	1	70488	AM 25/AM 26 Blood MultiDrug/	
C2016-1781	1	70489	AM 25/AM 26 Blood MultiDrug/	
C2016-1949	1	70490	AM 25/AM 26 Blood MultiDrug/	
C2016-2080	1	70538	AM 25/AM 26 Blood MultiDrug/	
C2016-2132	1	70539	AM 25/AM 26 Blood MultiDrug/	
C2016-2151	1	70540	AM 25/AM 26 Blood MultiDrug/	
C2016-2214	1	70541	AM 25/AM 26 Blood MultiDrug/	
C2016-2228	2	70542	AM 25/AM 26 Blood MultiDrug/	
M2016-2650	1	70491	AM 25/AM 26 Blood MultiDrug/	
M2016-2650	2	70492	AM 25/AM 26 Blood MultiDrug/	
M2016-2783	1	70493	AM 25/AM 26 Blood MultiDrug/	
M2016-2783	2	70494	AM 25/AM 26 Blood MultiDrug/	
M2016-2899	1	70495	AM 25/AM 26 Blood MultiDrug/	
M2016-3017	1	70496	AM 25/AM 26 Blood MultiDrug/	
M2016-3056	1	70497	AM 25/AM 26 Blood MultiDrug/	
M2016-3220	1	70498	AM 25/AM 26 Blood MultiDrug/	
M2016-3223	1	70499	AM 25/AM 26 Blood MultiDrug/	
M2016-3278	1	70500	AM 25/AM 26 Blood MultiDrug/	
M2016-3278	2	70501	AM 25/AM 26 Blood MultiDrug/	
M2016-3306	1	70502	AM 25/AM 26 Blood MultiDrug/	
M2016-3383	1	70503	AM 25/AM 26 Blood MultiDrug/	

1

Worklist: 1398

LAB_CASE	ITEM	TASK_ID	DESCRIPTION	
M2016-3601	1	70504	AM 25/AM 26 Blood MultiDrug/	
M2016-3602	1	70505	AM 25/AM 26 Blood MultiDrug/	
M2016-3637	2	70506	AM 25/AM 26 Blood MultiDrug/	
M2016-3805	1	70507	AM 25/AM 26 Blood MultiDrug/	
M2016-3832	2	70508	AM 25/AM 26 Blood MultiDrug/	
M2016-3956	1	70509	AM 25/AM 26 Blood MultiDrug/	
M2016-4125	1	70510	AM 25/AM 26 Blood MultiDrug/	
M2016-4158	1	70511	AM 25/AM 26 Blood MultiDrug/	
M2016-4557	2	70512	AM 25/AM 26 Blood MultiDrug/	
M2016-4622	1	70513	AM 25/AM 26 Blood MultiDrug/	
P2016-1674	2	70514	AM 25/AM 26 Blood MultiDrug/	
P2016-1778	1	70515	AM 25/AM 26 Blood MultiDrug/	
P2016-1831	1	70516	AM 25/AM 26 Blood MultiDrug/	
P2016-1832	1	70517	AM 25/AM 26 Blood MultiDrug/	
P2016-1880	1	70518	AM 25/AM 26 Blood MultiDrug/	
P2016-1889	1	70519	AM 25/AM 26 Blood MultiDrug/	
P2016-1979	1	70520	AM 25/AM 26 Blood MultiDrug/	
P2016-2019	1	71701	AM 25/AM 26 Blood MultiDrug/	
P2016-2118	1	70521	AM 25/AM 26 Blood MultiDrug/	
P2016-2119	1	71702	AM 25/AM 26 Blood MultiDrug/	
P2016-2143	1	71703	AM 25/AM 26 Blood MultiDrug/	
P2016-2161	1	70522	AM 25/AM 26 Blood MultiDrug/	
P2016-2171	3	70523	AM 25/AM 26 Blood MultiDrug/	

Worklist: 1398

LAB CASE	ITEM	TASK ID	DESCRIPTION	
P2016-2189	1	70524	AM 25/AM 26 Blood MultiDrug/	
P2016-2222	1	70525	AM 25/AM 26 Blood MultiDrug/	
P2016-2246	1	70534	AM 25/AM 26 Blood MultiDrug/	
P2016-2250	1	70526	AM 25/AM 26 Blood MultiDrug/	
P2016-2326	1	70527	AM 25/AM 26 Blood MultiDrug/	
P2016-2351	1	70528	AM 25/AM 26 Blood MultiDrug/	
P2016-2356	1	70535	AM 25/AM 26 Blood MultiDrug/	
P2016-2442	1	70529	AM 25/AM 26 Blood MultiDrug/	
P2016-2489	1	70530	AM 25/AM 26 Blood MultiDrug/	
P2016-2490	1	70531	AM 25/AM 26 Blood MultiDrug/	
P2016-2592	1	70532	AM 25/AM 26 Blood MultiDrug/	
P2016-2631	1	70533	AM 25/AM 26 Blood MultiDrug/	
P2016-2634	1	70536	AM 25/AM 26 Blood MultiDrug/	
P2016-2653	1	70537	AM 25/AM 26 Blood MultiDrug/	

ISP Forensic Services: Toxicology Discipline

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

Extraction Date: 12-8-16   **Analyst:** Anne Ward

PRE-ANALYTIC

Plate Lot# O490 364   Plate. Exp. 9-21-2017

✓ 1. Ensure all solutions are within expiration date.

Mobile Phase A: 10mM Amm Formate		0.1% Formic Acid in water	
Mobile Phase B: *0.1% FA in MeOH*		MTBE	
Blank/Negative Blood	Lot #: 32/632-2	Hexane	
Column: Phenomenex Phenyl Hexyl (4.6 x 50mm; 2.6um)			

✓ 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. Is pressure stable? (Y) / N

___ 4. Create worklist. Data path name: 2016 Data \ 12-8-16 cannabinoid screen

ANALYTIC

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

✓ 2. Add **1000 µL blood** to wells of analytical (standards) plate. Mix via aspirate and dispense.
   - 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

✓ 14. 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: 12-8-16 cann screen

✓ 2. Make any necessary integration changes.

✓ 3. For unknown samples, calculated concentration > 3ng THC, THC-OH > 5ng Carboxy-THC +/- 2% 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:\2016 Data\12-8-16 cannabinoid screen\QuantResults\12-8-16 cann screen.batch.bin

Analysis Time	12/9/2016 3:03 PM	**Analyst Name**	ISP Tox
Report Time	12/12/2016 11:05 AM	**Reporter Name**	ISP Tox
Last Calib Update	12/9/2016 3:03 PM	**Batch State**	Processed

Analysis Info

Acq Time	2016-12-08 15:24	**Data File**	Cal 1.d
Sample Type	Calibration	**Sample Name**	Cal 1
Dilution	1	**Acq Method**	Screen THC 11102016.m
Position	P1-A1	**Sample Info**	
Inj Vol	-1	**Comment**	AM 26 Cannabionid screen

Sample Chromatogram

Results

Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC-OH	3.474	9591	308230	0.0311	3.6778
THC-COOH	3.508	2906	70414	0.0413	3.5748
THC	3.781	422	11463	0.0368	3.8186

ISP FORENSICS - Cd'A
Cannabionoid Screen Report

Batch Data Path	D:\2016 Data\12-8-16 cannabinoid screen\QuantResults\12-8-16 cann screen.batch.bin
Analysis Time	12/9/2016 3:03 PM
Report Time	12/12/2016 11:05 AM
Last Calib Update	12/9/2016 3:03 PM

		Analyst Name	ISP Tox
		Reporter Name	ISP Tox
		Batch State	Processed

Analysis Info

Acq Time	2016-12-08 15:31	**Data File**	cal 2.d
Sample Type	Calibration	**Sample Name**	cal 2
Dilution	1	**Acq Method**	Screen THC 11102016.m
Position	P1-B1	**Sample Info**	
Inj Vol	-1	**Comment**	AM 26 Cannabionid screen

Sample Chromatogram

+ TIC MRM (** -> **) cal 2.d

Results

Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC-OH	3.474	16761	332382	0.0504	4.8194
THC-COOH	3.508	6738	74204	0.0908	5.0905
THC	3.781	645	14783	0.0437	4.2097

ISP FORENSICS - Cd'A
Cannabionoid Screen Report

Batch Data Path	D:\2016 Data\12-8-16 cannabinoid screen\QuantResults\12-8-16 cann screen.batch.bin

Analysis Time	12/9/2016 3:03 PM	**Analyst Name**	ISP Tox
Report Time	12/12/2016 11:05 AM	**Reporter Name**	ISP Tox
Last Calib Update	12/9/2016 3:03 PM	**Batch State**	Processed

Analysis Info

Acq Time	2016-12-08 15:38	**Data File**	cal 3.d
Sample Type	Calibration	**Sample Name**	cal 3
Dilution	1	**Acq Method**	Screen THC 11102016.m
Position	P1-C1	**Sample Info**	
Inj Vol	-1	**Comment**	AM 26 Cannabionid screen

Sample Chromatogram

+ TIC MRM (** -> **) cal 3.d

Results

Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC-OH	3.454	32289	359473	0.0898	7.1483
THC-COOH	3.508	14925	79916	0.1868	8.0305
THC	3.761	1999	16292	0.1227	8.7317

ISP FORENSICS - Cd'A
Cannabionoid Screen Report

Batch Data Path	D:\2016 Data\12-8-16 cannabinoid screen\QuantResults\12-8-16 cann screen.batch.bin		
Analysis Time	12/9/2016 3:03 PM	**Analyst Name**	ISP Tox
Report Time	12/12/2016 11:05 AM	**Reporter Name**	ISP Tox
Last Calib Update	12/9/2016 3:03 PM	**Batch State**	Processed

Analysis Info

Acq Time	2016-12-08 15:44	**Data File**	cal 4.d
Sample Type	Calibration	**Sample Name**	cal 4
Dilution	1	**Acq Method**	Screen THC 11102016.m
Position	P1-D1	**Sample Info**	
Inj Vol	-1	**Comment**	AM 26 Cannabionid screen

Sample Chromatogram

+ TIC MRM (** -> **) cal 4.d

Results

Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC-OH	3.474	137569	589875	0.2332	15.6247
THC-COOH	3.508	52010	125354	0.4149	15.0407
THC	3.761	4297	19087	0.2251	14.5933

ISP FORENSICS - Cd'A
Cannabionoid Screen Report

Batch Data Path   D:\2016 Data\12-8-16 cannabinoid screen\QuantResults\12-8-16 cann screen.batch.bin

Analysis Time	12/9/2016 3:03 PM	**Analyst Name**	ISP Tox
Report Time	12/12/2016 11:05 AM	**Reporter Name**	ISP Tox
Last Calib Update	12/9/2016 3:03 PM	**Batch State**	Processed

Analysis Info

Acq Time	2016-12-08 15:51	**Data File**	cal 5.d
Sample Type	Calibration	**Sample Name**	cal 5
Dilution	1	**Acq Method**	Screen THC 11102016.m
Position	P1-E1	**Sample Info**	
Inj Vol	-1	**Comment**	AM 26 Cannabionid screen

Sample Chromatogram

+ TIC MRM (** -> **) cal 5.d

Results

Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC-OH	3.494	576061	665900	0.8651	52.9768
THC-COOH	3.508	352514	249527	1.4127	46.0401
THC	3.781	17787	21324	0.8341	49.4372

ISP FORENSICS - Cd'A
Cannabionoid Screen Report

Batch Data Path	D:\2016 Data\12-8-16 cannabinoid screen\QuantResults\12-8-16 cann screen.batch.bin

Analysis Time	12/9/2016 3:03 PM	**Analyst Name**	ISP Tox
Report Time	12/12/2016 11:05 AM	**Reporter Name**	ISP Tox
Last Calib Update	12/9/2016 3:03 PM	**Batch State**	Processed

Analysis Info

Acq Time	2016-12-08 15:57	**Data File**	cal 6.d
Sample Type	Calibration	**Sample Name**	cal 6
Dilution	1	**Acq Method**	Screen THC 11102016.m
Position	P1-F1	**Sample Info**	
Inj Vol	-1	**Comment**	AM 26 Cannabionid screen

Sample Chromatogram

+ TIC MRM (** -> **) cal 6.d

Results

Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC-OH	3.494	816268	461551	1.7685	106.3827
THC-COOH	3.528	1117169	334301	3.3418	107.6307
THC	3.781	37242	21105	1.7647	102.6774

ISP FORENSICS - Cd'A
Cannabionoid Screen Report

Batch Data Path	D:\2016 Data\12-8-16 cannabinoid screen\QuantResults\12-8-16 cann screen.batch.bin
Analysis Time	12/9/2016 3:03 PM **Analyst Name** ISP Tox
Report Time	12/12/2016 11:05 AM **Reporter Name** ISP Tox
Last Calib Update	12/9/2016 3:03 PM **Batch State** Processed

Analysis Info

Acq Time	2016-12-08 16:04	**Data File**	cal 7.d
Sample Type	Calibration	**Sample Name**	cal 7
Dilution	1	**Acq Method**	Screen THC 11102016.m
Position	P1-G1	**Sample Info**	
Inj Vol	-1	**Comment**	AM 26 Cannabionid screen

Sample Chromatogram

+ TIC MRM (** -> **) cal 7.d

Results

Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC-OH	3.494	2375737	582353	4.0796	242.9950
THC-COOH	3.528	2138144	286526	7.4623	247.6318
THC	3.802	94884	21942	4.3243	249.1254

ISP FORENSICS - Cd'A
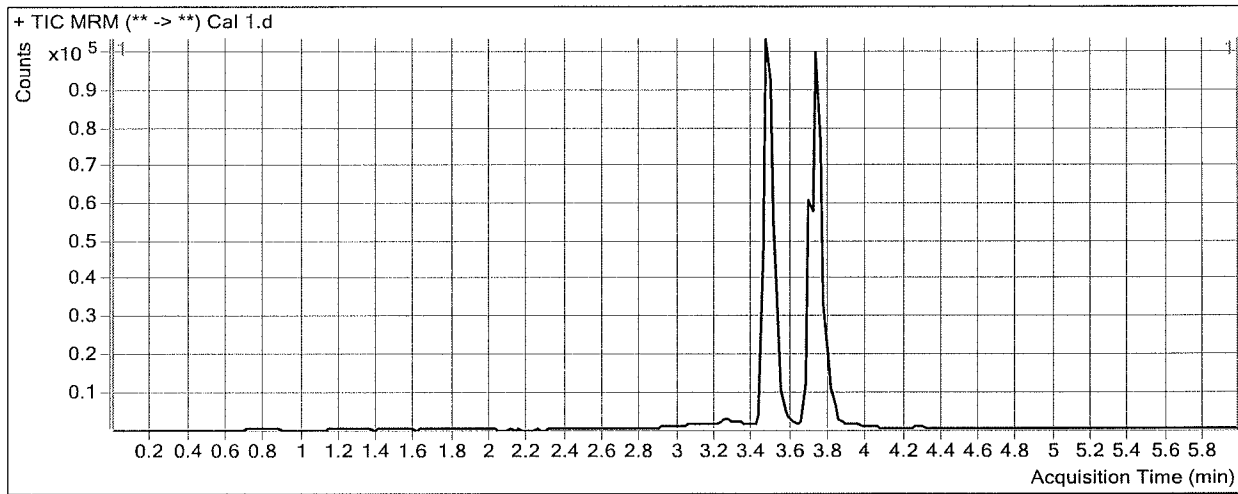# Cannabionoid Screen Report

Batch Data Path   D:\2016 Data\12-8-16 cannabinoid screen\QuantResults\12-8-16 cann screen.batch.bin

Analysis Time	12/9/2016 3:03 PM	**Analyst Name**	ISP Tox
Report Time	12/12/2016 11:05 AM	**Reporter Name**	ISP Tox
Last Calib Update	12/9/2016 3:03 PM	**Batch State**	Processed

Analysis Info

Acq Time	2016-12-08 16:11	**Data File**	Negative.d
Sample Type	Sample	**Sample Name**	Neg Control
Dilution	1	**Acq Method**	Screen THC 11102016.m
Position	P1-a2	**Sample Info**	
Inj Vol	-1	**Comment**	AM 26 Cannabionid screen

Sample Chromatogram

+ TIC MRM (** -> **) Negative.d

Results

Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc	
THC-COOH	3.508	27246	385890	0.0706	4.4724	< 5 ng

ISP FORENSICS - Cd'A
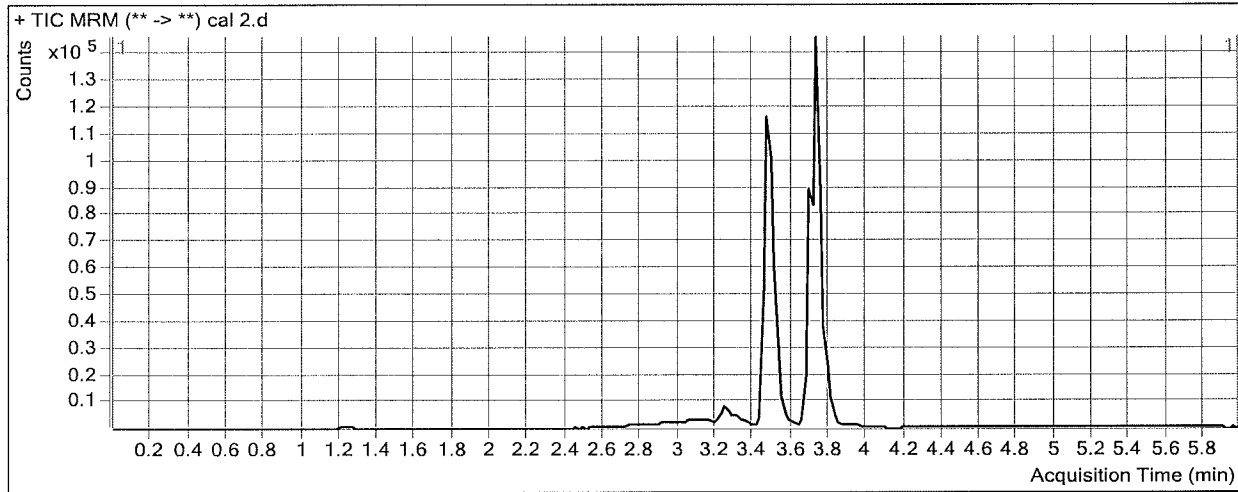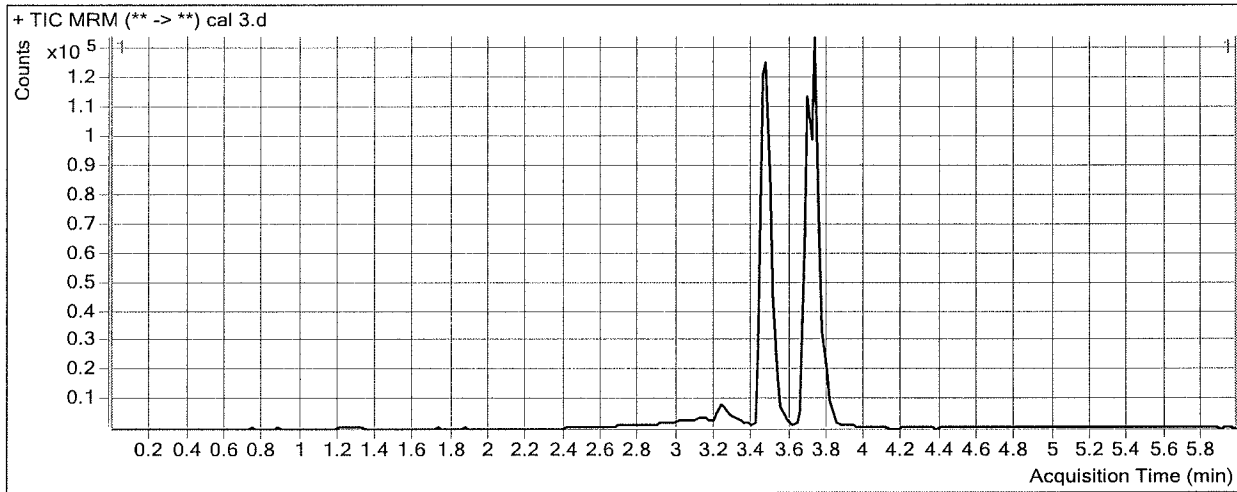## Cannabionoid Screen Report

Batch Data Path   D:\2016 Data\12-8-16 cannabinoid screen\QuantResults\12-8-16 cann screen.batch.bin

Analysis Time	12/9/2016 3:03 PM	**Analyst Name**	ISP Tox
Report Time	12/12/2016 11:05 AM	**Reporter Name**	ISP Tox
Last Calib Update	12/9/2016 3:03 PM	**Batch State**	Processed

Analysis Info

Acq Time	2016-12-08 16:17	**Data File**	QC.d
Sample Type	QC	**Sample Name**	QC 10
Dilution	1	**Acq Method**	Screen THC 11102016.m
Position	P1-H1	**Sample Info**	
Inj Vol	-1	**Comment**	AM 26 Cannabionid screen

Sample Chromatogram

+ TIC MRM (** -> **) QC.d
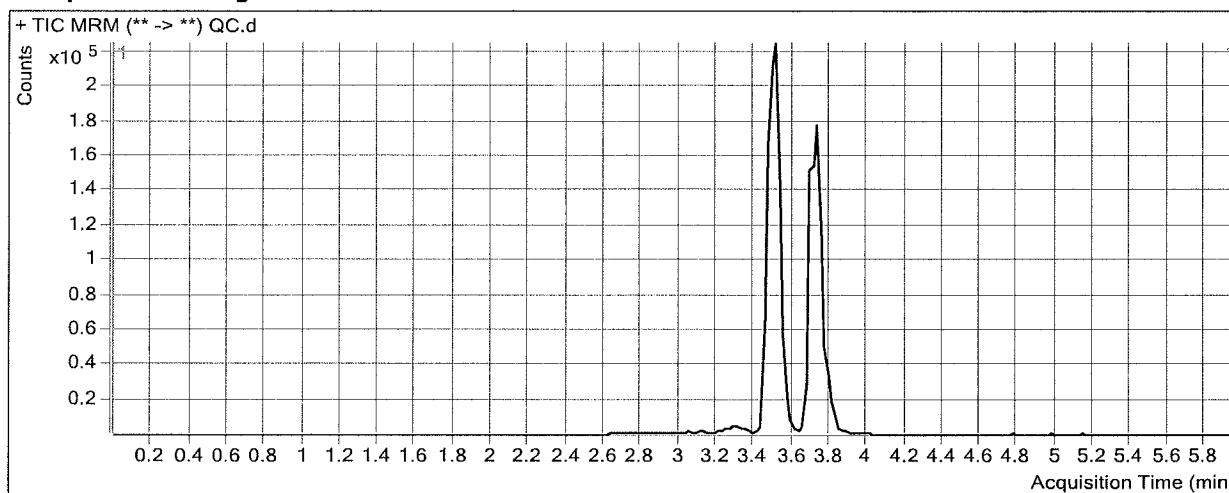
Results

Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC-OH	3.474	53570	505445	0.1060	8.1037
THC-COOH	3.508	75617	376881	0.2006	8.4563
THC	3.781	2545	19930	0.1277	9.0170

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

Extraction Date: _12-9-16_ **Analyst:** _Anne Nord_

PRE-ANALYTIC

Plate Lot# _0483844_ Plate. Exp. _June 15- 2017_

√ 1. Ensure all solutions are within expiration date.

Mobile Phase A: 10mM Amm Formate		0.1% Formic Acid in water	
Mobile Phase B: 0.1% FA in MeOH		MTBE	
Blank/Negative Blood	Lot #: 3 21632-2	Hexane	
Column: Phenomenex Phenyl Hexyl (4.6 x 50mm; 2.6um)			

√ 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. Is pressure stable? Y / N

√ 4. Create worklist. Data path name: _2016 Data\ 12-9-16 cannabinoid screen_

ANALYTIC

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

√ 2. Add **1000 μL blood** to wells of analytical (standards) plate. Mix via aspirate and dispense.
- 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

√ 14. 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: _12-9-16 Cann screen_

√ 2. Make any necessary integration changes.

√ 3. For unknown samples, calculated concentration > 3ng THC, THC-OH > 5ng Carboxy-THC +/- 2% 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
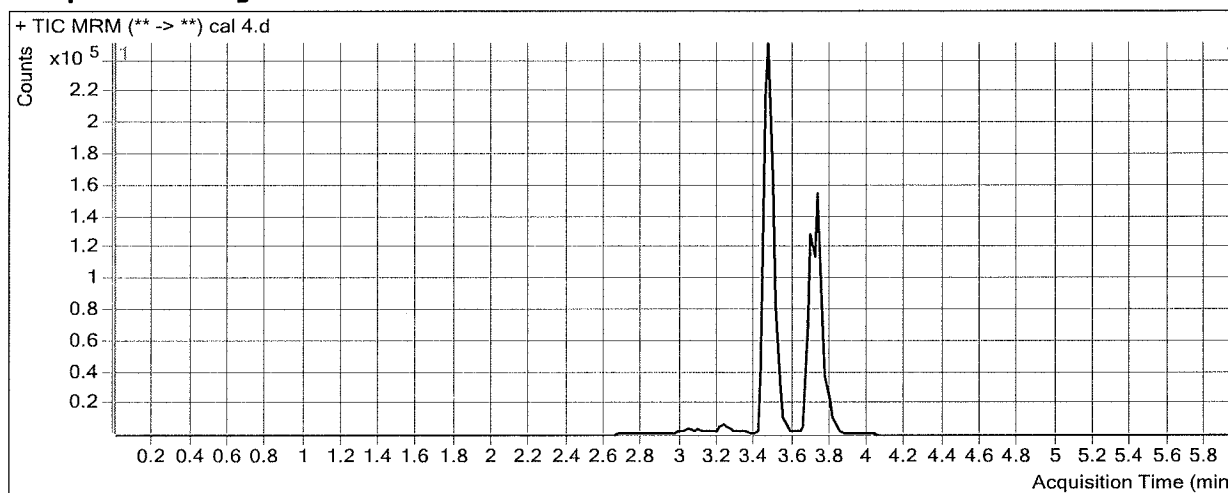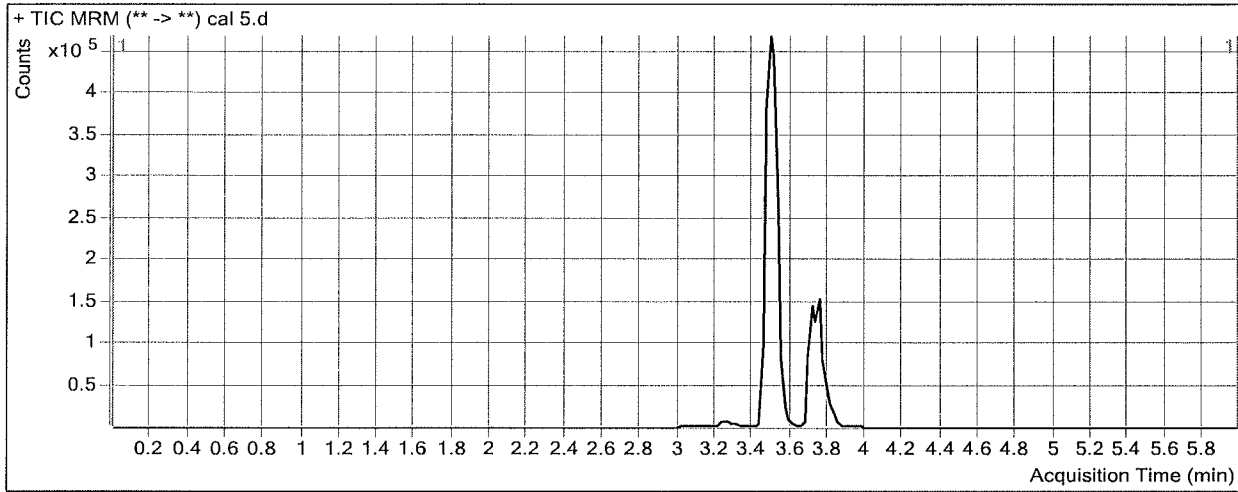
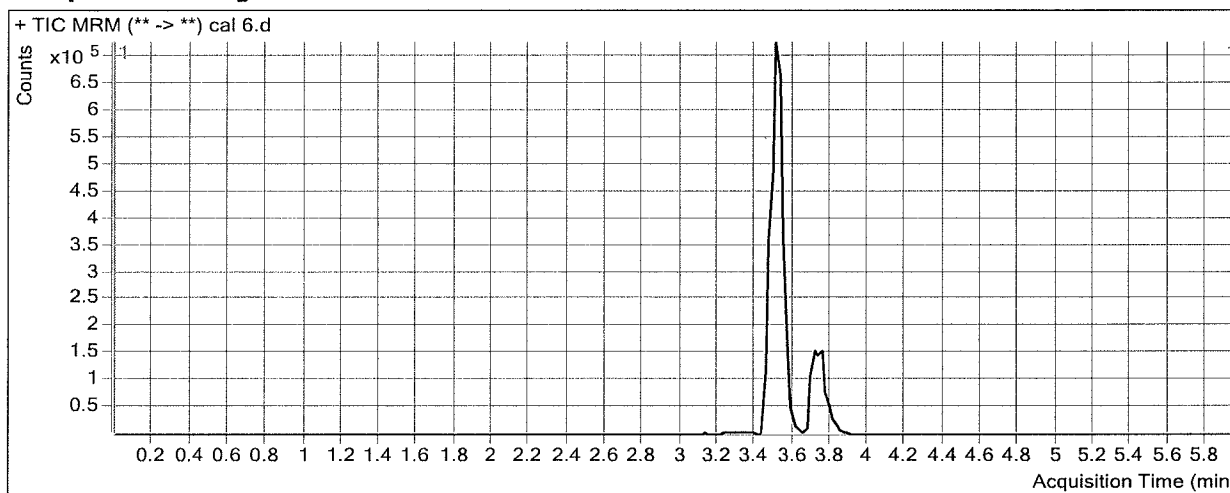Comments:

ISP FORENSICS - Cd'A
Cannabionoid Screen Report

Batch Data Path   D:\2016 Data\12-9-16 cannabinoid screen\QuantResults\12-9-16 cann screen.batch.bin
Analysis Time   12/12/2016 8:32 AM   **Analyst Name**   ISP Tox
Report Time   12/12/2016 11:00 AM   **Reporter Name** ISP Tox
Last Calib Update   12/12/2016 8:32 AM   **Batch State**   Processed

Analysis Info

Acq Time   2016-12-09 14:15   **Data File**   Negative.d
Sample Type   Sample   **Sample Name**   Neg Control
Dilution   1   **Acq Method**   Screen THC 11102016.m
Position   P1-a2   **Sample Info**
Inj Vol   -1   **Comment**   AM 26 Cannabionid screen

Sample Chromatogram

Results

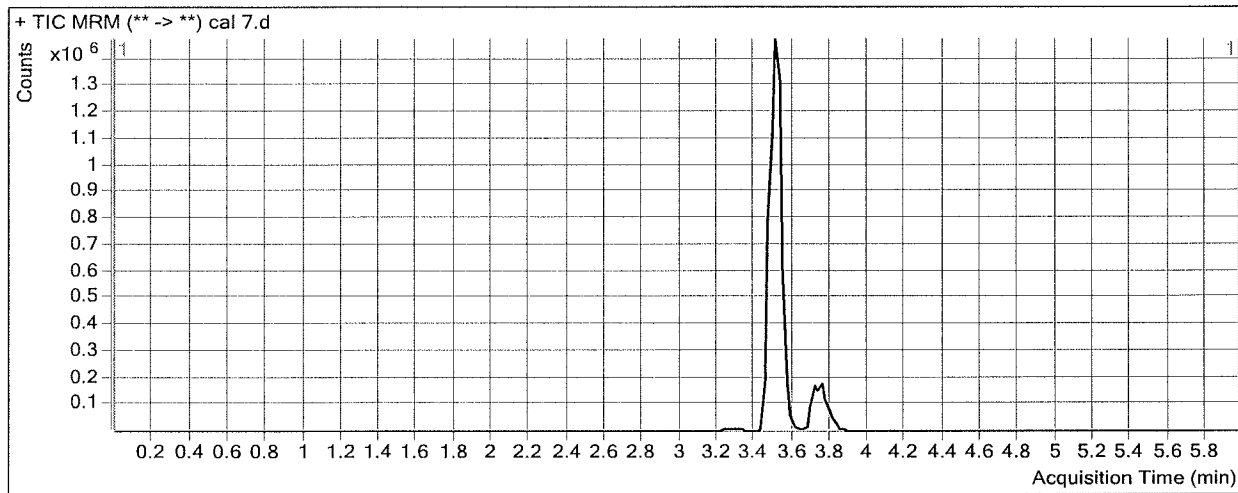| Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC-OH	3.494	3000	253756	0.0118	0.6526
THC	3.641	19	13503	0.0014	1.2804

ISP FORENSICS - Cd'A
Cannabionoid Screen Report

Batch Data Path   D:\2016 Data\12-9-16 cannabinoid screen\QuantResults\12-9-16 cann screen.batch.bin

Analysis Time	12/12/2016 8:32 AM	**Analyst Name**	ISP Tox
Report Time	12/12/2016 11:00 AM	**Reporter Name**	ISP Tox
Last Calib Update	12/12/2016 8:32 AM	**Batch State**	Processed

Analysis Info

Acq Time	2016-12-09 14:28	**Data File**	QC.d
Sample Type	QC	**Sample Name**	QC 10
Dilution	1	**Acq Method**	Screen THC 11102016.m
Position	P1-A3	**Sample Info**	
Inj Vol	-1	**Comment**	AM 26 Cannabionid screen

Sample Chromatogram

+ TIC MRM (** -> **) QC.d
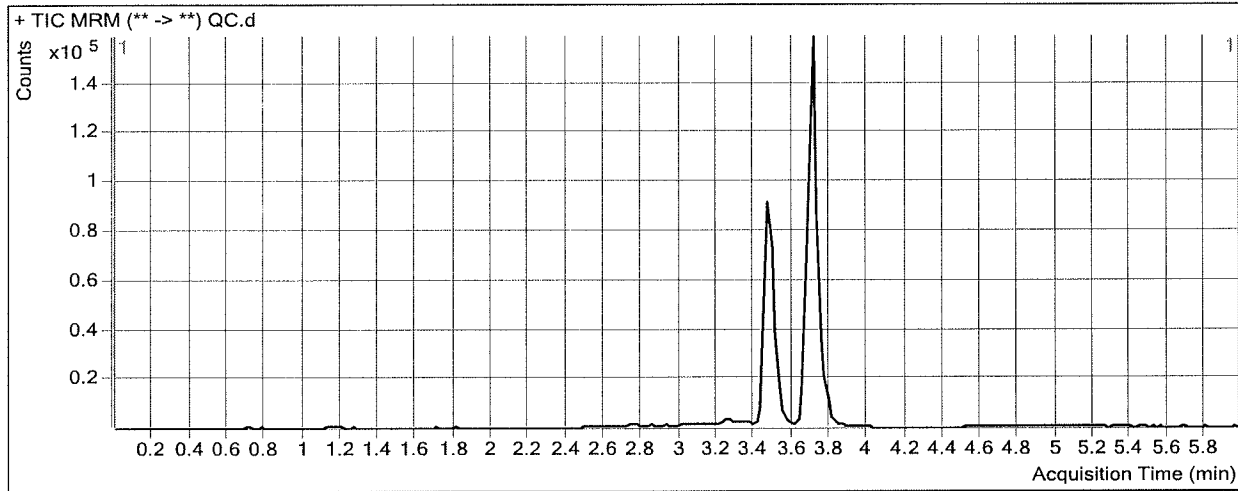
Results

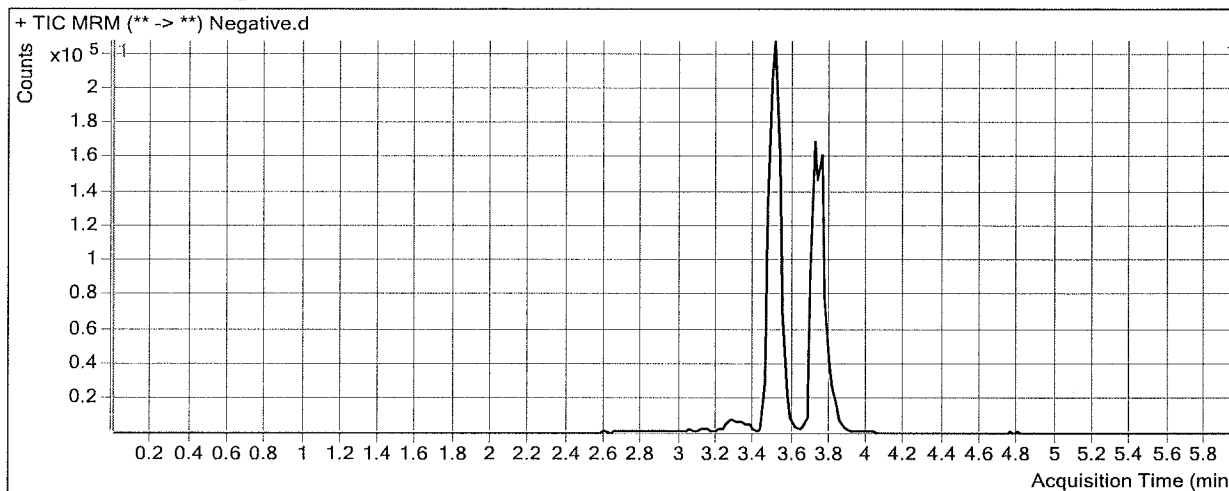| Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC-OH	3.474	23825	243557	0.0978	9.3414
THC-COOH	3.508	10657	50279	0.2120	11.2505
THC	3.761	1223	12813	0.0954	10.1527

ISP FORENSICS - Cd'A
Cannabionoid Screen Report

Batch Data Path   D:\2016 Data\12-9-16 cannabinoid screen\QuantResults\12-9-16 cann screen.batch.bin

Analysis Time	12/12/2016 8:32 AM	**Analyst Name**	ISP Tox
Report Time	12/12/2016 11:00 AM	**Reporter Name**	ISP Tox
Last Calib Update	12/12/2016 8:32 AM	**Batch State**	Processed

Analysis Info

Acq Time	2016-12-09 13:42	**Data File**	cal 2.d
Sample Type	Calibration	**Sample Name**	cal 2
Dilution	1	**Acq Method**	Screen THC 11102016.m
Position	P1-B1	**Sample Info**	
Inj Vol	-1	**Comment**	AM 26 Cannabionid screen

Sample Chromatogram

+ TIC MRM (** -> **) cal 2.d
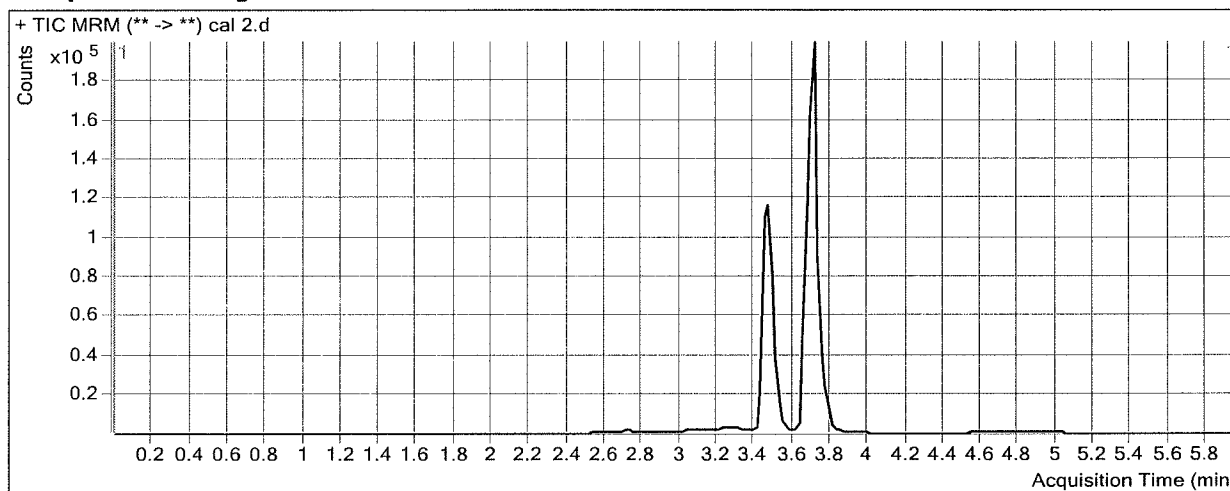
Results

Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC-OH	3.474	19976	336619	0.0593	5.4538
THC-COOH	3.488	10182	74909	0.1359	5.0043
THC	3.761	655	14466	0.0452	5.4185

ISP FORENSICS - Cd'A
Cannabinoid Screen Report

Batch Data Path   D:\2016 Data\12-9-16 cannabinoid screen\QuantResults\12-9-16 cann screen.batch.bin

Analysis Time	12/12/2016 8:32 AM	**Analyst Name**	ISP Tox
Report Time	12/12/2016 11:00 AM	**Reporter Name**	ISP Tox
Last Calib Update	12/12/2016 8:32 AM	**Batch State**	Processed

Analysis Info

Acq Time	2016-12-09 13:48	**Data File**	cal 3.d
Sample Type	Calibration	**Sample Name**	cal 3
Dilution	1	**Acq Method**	Screen THC 11102016.m
Position	P1-C1	**Sample Info**	
Inj Vol	-1	**Comment**	AM 26 Cannabionid screen

Sample Chromatogram

+ TIC MRM (** -> **) cal 3.d
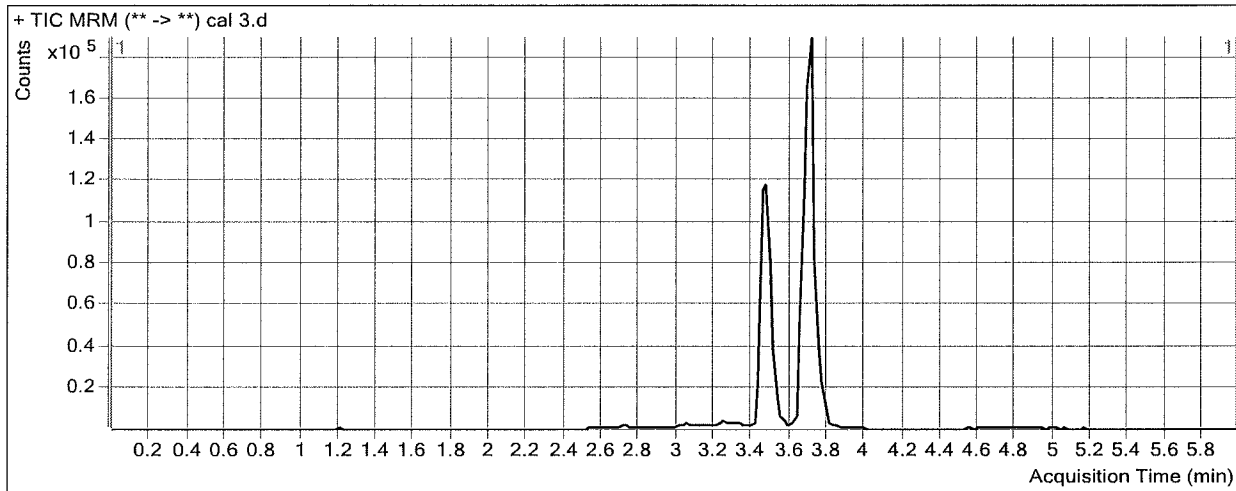
Results

Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC-OH	3.454	32538	322885	0.1008	9.6397
THC-COOH	3.488	14328	69322	0.2067	10.8219
THC	3.761	1382	14428	0.0958	10.1871

# ISP FORENSICS - Cd'A
Cannabionoid Screen Report

Batch Data Path   D:\2016 Data\12-9-16 cannabinoid screen\QuantResults\12-9-16 cann screen.batch.bin
Analysis Time   12/12/2016 8:32 AM   **Analyst Name**   ISP Tox
Report Time   12/12/2016 11:00 AM   **Reporter Name**   ISP Tox
Last Calib Update   12/12/2016 8:32 AM   **Batch State**   Processed

Analysis Info

Acq Time	2016-12-09 13:55	**Data File**	cal 4.d
Sample Type	Calibration	**Sample Name**	cal 4
Dilution	1	**Acq Method**	Screen THC 11102016.m
Position	P1-D1	**Sample Info**	
Inj Vol	-1	**Comment**	AM 26 Cannabionid screen

Sample Chromatogram
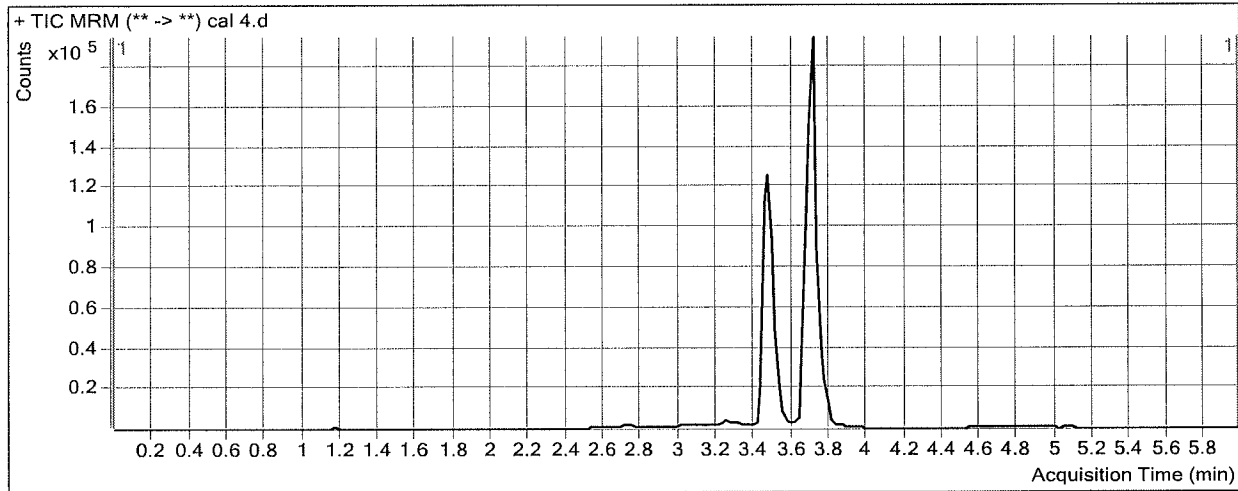
Results

Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC-OH	3.474	73037	298775	0.2445	24.1566
THC-COOH	3.508	22942	63250	0.3627	23.2388
THC	3.761	4044	16240	0.2490	24.6371

ISP FORENSICS - Cd'A
Cannabionoid Screen Report

Batch Data Path D:\2016 Data\12-9-16 cannabinoid screen\QuantResults\12-9-16 cann screen.batch.bin

Analysis Time	12/12/2016 8:32 AM	**Analyst Name**	ISP Tox
Report Time	12/12/2016 11:00 AM	**Reporter Name**	ISP Tox
Last Calib Update	12/12/2016 8:32 AM	**Batch State**	Processed

Analysis Info

Acq Time	2016-12-09 14:02	**Data File**	cal 5.d
Sample Type	Calibration	**Sample Name**	cal 5
Dilution	1	**Acq Method**	Screen THC 11102016.m
Position	P1-E1	**Sample Info**	
Inj Vol	-1	**Comment**	AM 26 Cannabionid screen

Sample Chromatogram
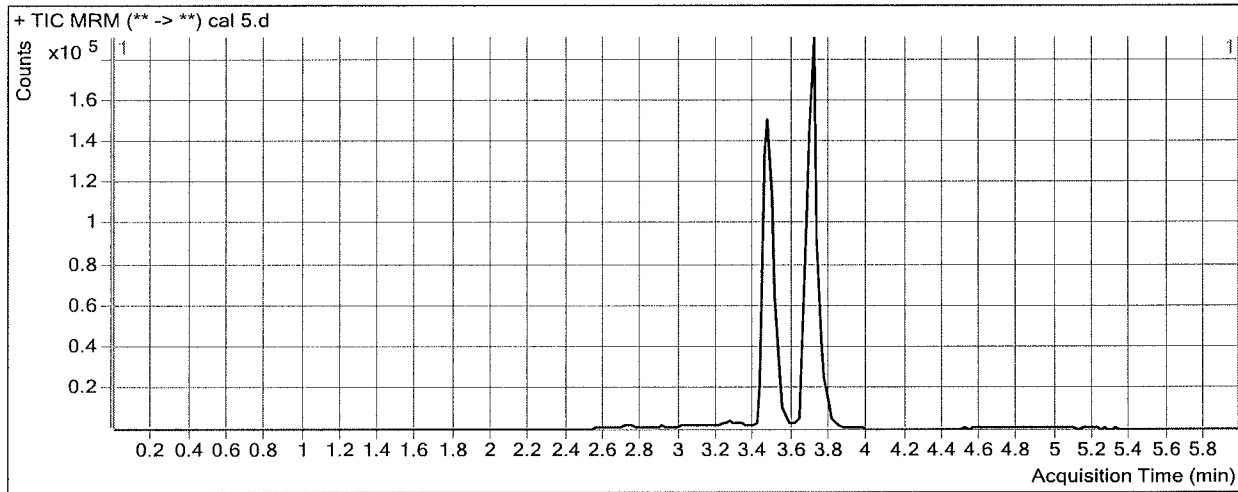
Results

Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC-OH	3.474	146041	295995	0.4934	49.3078
THC-COOH	3.508	41825	60750	0.6885	47.5935
THC	3.761	7237	15004	0.4823	46.6472

ISP FORENSICS - Cd'A
Cannabionoid Screen Report

Batch Data Path D:\2016 Data\12-9-16 cannabinoid screen\QuantResults\12-9-16 cann screen.batch.bin
Analysis Time 12/12/2016 8:32 AM **Analyst Name** ISP Tox
Report Time 12/12/2016 11:00 AM **Reporter Name** ISP Tox
Last Calib Update 12/12/2016 8:32 AM **Batch State** Processed

Analysis Info

Acq Time 2016-12-09 14:08 **Data File** cal 6.d
Sample Type Calibration **Sample Name** cal 6
Dilution 1 **Acq Method** Screen THC 11102016.m
Position P1-F1 **Sample Info**
Inj Vol -1 **Comment** AM 26 Cannabionid screen

Sample Chromatogram
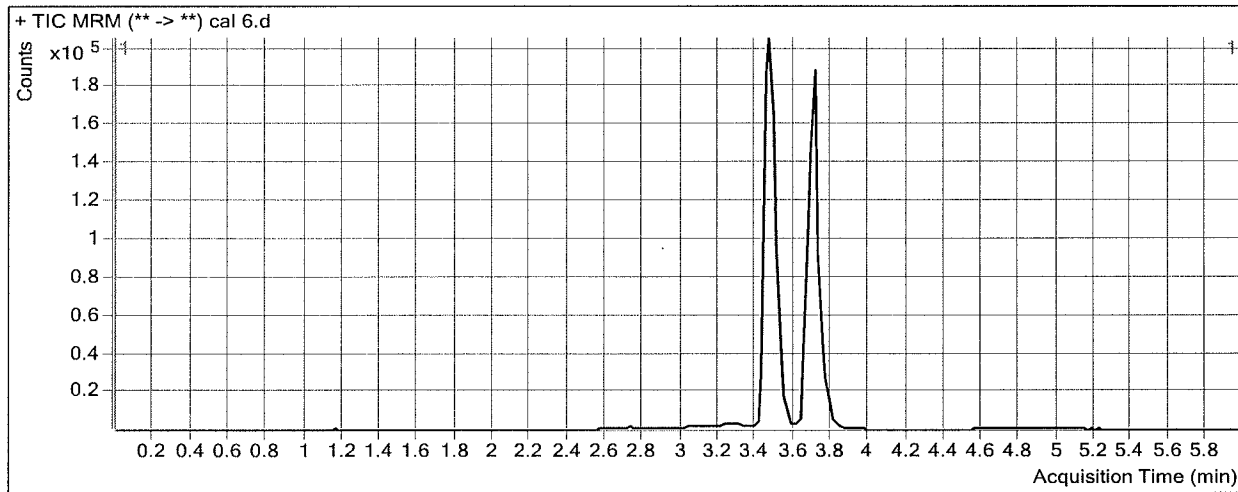
Results

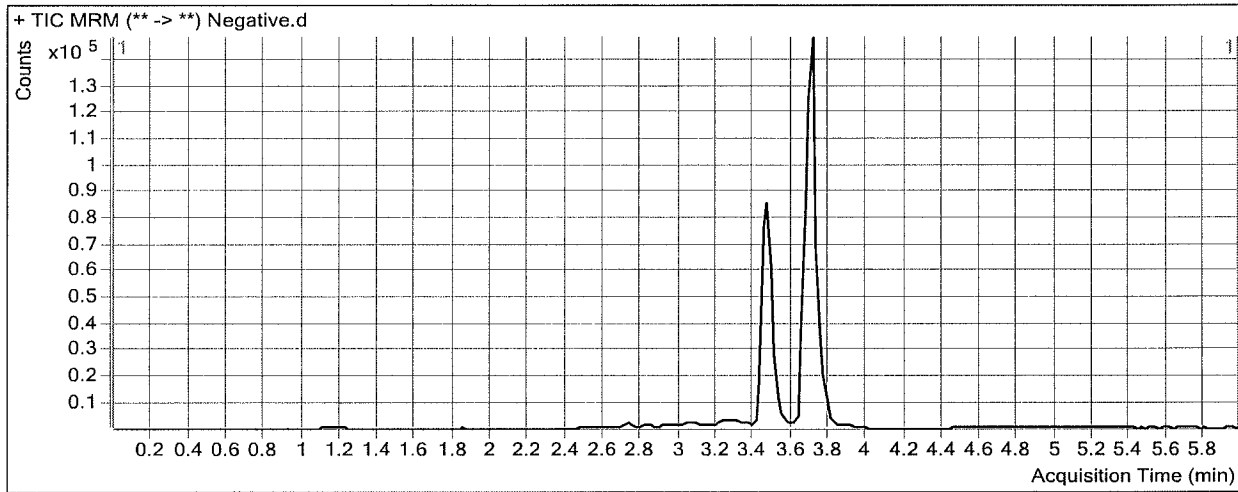| Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC-OH	3.474	297122	305112	0.9738	97.8479
THC-COOH	3.508	96592	62693	1.5407	103.8394
THC	3.761	15073	15238	0.9892	94.4547

ISP FORENSICS - Cd'A
Cannabionoid Screen Report

Batch Data Path   D:\2016 Data\12-9-16 cannabinoid screen\QuantResults\12-9-16 cann screen.batch.bin

Analysis Time	12/12/2016 8:32 AM	**Analyst Name**	ISP Tox
Report Time	12/12/2016 11:00 AM	**Reporter Name**	ISP Tox
Last Calib Update	12/12/2016 8:32 AM	**Batch State**	Processed

Analysis Info

Acq Time	2016-12-09 14:22	**Data File**	cal 7.d
Sample Type	Calibration	**Sample Name**	cal 7
Dilution	1	**Acq Method**	Screen THC 11102016.m
Position	P1-G1	**Sample Info**	
Inj Vol	-1	**Comment**	AM 26 Cannabionid screen

Sample Chromatogram
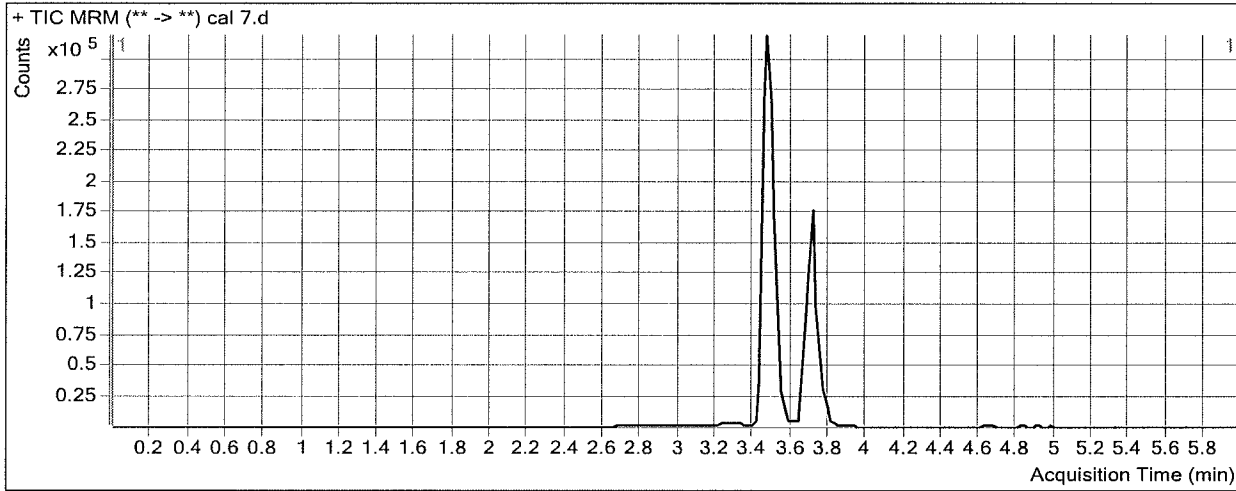
Results

Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC-OH	3.474	644931	256402	2.5153	253.5942
THC-COOH	3.508	215687	49124	4.3907	249.2787
THC	3.761	35237	12908	2.7299	258.6554

Idaho State Police
Forensic Services
Toxicology Discipline

Request for Departure from an Analytical Method

Date of Request
12/14/16

Analytical Method
AM 25 multidrug screen

Deviation

4.3.1.5 Retention time criterion for peak identification is a ±2% retention time window relative to the internal control and/or internal standards around the analytes retention time.

At the analysts discretion when the analyte peak falls outside the retention time window and the internal standard also shifts comparably that sample may be evaluated as positive if the other criteria are met.

4.3.1.6 Case Samples, external controls and negative controls will generally be considered negative if the primary transition response is less than 10 times less that of the internal control.

Samples between 5 and 10 times less response may be evaluated as negative at the analyst's discretion.

If the primary transition response for methamphetamine is less than the internal control it may be evaluated as negative. The administrative threshold is currently 10 ng/ml for methamphetamine.

Discipline Leader Review
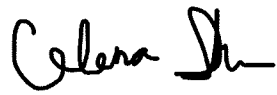
☒ Departure approved
  Comments: These are minor deviations, this deviation approval will be in effect until the method is updated to include these criteria.

☐ Departure Not Approved
  Comments:
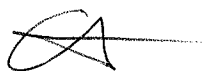
Date: 12/14/16
Celena Shrum
Toxicology Program Discipline Leader

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

Extraction Date: _/2-/2-/6_   **Analyst:** _Anne Nord_

PRE-ANALYTIC

Plate Lot# _0495940_   Plate. Exp. _12-12-17_

1. Ensure all solutions are within expiration date.

Mobile Phase A: **0.5M Ammonium**   Lot #: _11716_
10mM Amm Formate   **Hydroxide**
Mobile Phase B   Column: **Phenomenex Phenyl Hexyl (4.6 x 50mm; 2.6um)**
0.1% FA in MeOH
Blank/Negative Blood   Lot #: _321632-2_

_✓_ 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: _121216 Multidrug screen_

ANALYTIC

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

_✓_ 2. Pipette **250µL blood** in wells of analytical (standards) plate. Mix via aspirate and dispense.
   - 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 **250µL 0.5M ammonium hydroxide** buffer in wells of analytical (standards) 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 min.

_✓_ 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 ID 66819

_✓_ 13. Reconstitute in **100µL 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: _121216 multidrug screen panel a_ _121216 multidrug screen panel b_

_✓_ 2. Make any necessary integration changes.

_✓_ 3. Evaluate samples, S/N of primary transition >5 and S/N of secondary transition >3 or evaluation of peak symmetry and resolution. Within +/- 2% rt of administrative control. > 1/10 the response of administrative control.

_✓_ 4. Did all QCs pass for each analyte? Y / N _Buprenorphine, Lorazepam, methylphenidate not part of method yet. no internal std for mytragynine_

____ 5. Central File Packet to include: _____ LIMS Worklist: _✓_ Method Checklist _✓_ Calibration and ¹not
     Control Reports   _evaluated for this batch._

COMMENTS:

Multidrug Screen

Name	Transition	Acq. Date-Time	RT	Resp.	S/N	Qualifier Transition	Qualifier S/N	ISTD Name	ISTD Transition	ISTD RT	ISTD Resp.
6-MAM	328.2 -> 165...	12/12/2016 12:56 PM	5.419	2063	3.96	328.2 -> 211...	13.01	6-MAM-D6	334.2 -> 165...	5.378	70082
7-aminoclonazepam	286.1 -> 121...	12/12/2016 12:56 PM	5.567	43933	215.35	286.1 -> 222...	145.17	7-Aminoclonazepam-D4	290.1 -> 121...	5.566	179076
Acetyl Fentanyl	323.2 -> 105...	12/12/2016 12:56 PM	6.193	27475	17.28	323.2 -> 188...	56.54	Acetyl Fentanyl-D5	328.2 -> 105...	6.192	14898.
Acetyl Norfentanyl	219.1 -> 84.2	12/12/2016 12:56 PM	5.047	9891	33.67	219.1 -> 56.3	13.30	Acetyl Norfentanyl-D5	224.2 -> 84.2	5.027	533747
a-hydroxyalprazolam	325.1 -> 297...	12/12/2016 12:56 PM	6.457	10207	25.33	325.1 -> 215...	2336...	a-hydroxyalprazolam-D5	330.1 -> 302...	6.436	52434
alpha-PVP	232.2 -> 91.0	12/12/2016 12:56 PM	5.861	170763	162.76	232.2 -> 77.1	45.18	alpha-PVP-d8	240.2 -> 91.1	5.819	669376
Alprazolam	309.1 -> 281...	12/12/2016 12:56 PM	6.542	67217	148.53	309.1 -> 205...	455.47	Alprazolam-D5	314.1 -> 286...	6.521	231527
Amphetamine	136.1 -> 91.1	12/12/2016 12:56 PM	5.010	223832	121.53	136.1 -> 119...	46.38	Amphetamine-D11	147.2 -> 130...	4.969	174356
Buprenorphine	468.3 -> 414...	12/12/2016 12:56 PM		358582		472.3 -> 59.3		Buprenorphine-D4	472.3 -> 59.3	7.018	358582
Bupropion	240.1 -> 184...	12/12/2016 12:56 PM	6.064	176829	75.10	240.1 -> 131...	61.61	Ketamine-D4	242.1 -> 129...	6.003	454318
Carisoprodol	261.2 -> 176...	12/12/2016 12:56 PM	6.163	73224	278.43	261.2 -> 55.3	55.06	Carisoprodol-D7	268.2 -> 183...	6.163	420532
Citalopram	325.2 -> 109...	12/12/2016 12:56 PM	6.213	199446	122.13	325.2 -> 262...	414.97	Citalopram-D6	331.2 -> 109...	6.212	908683
Clonazepam	316.1 -> 269...	12/12/2016 12:56 PM	6.398	22949	103.60	316.1 -> 213...	27.21	Clonazepam-D4	320.1 -> 217...	6.378	30595
Codeine	300.2 -> 215...	12/12/2016 12:56 PM	5.423	9603	28.93	300.2 -> 165...	30.87	Codeine-D6	306.2 -> 218...	5.361	46947
Cyclobenzaprine	276.2 -> 214...	12/12/2016 12:56 PM	6.547	139669	Infinity	276.2 -> 231...	119.92	Cyclobenzaprine-D3	279.2 -> 215...	6.546	630501
Dextromethorphan	272.2 -> 171...	12/12/2016 12:56 PM	6.304	63983	7674.28	272.2 -> 147...	207.98	Dextromethorphan-D3	275.2 -> 171...	6.304	299126
Dextrorphan	258.2 -> 157...	12/12/2016 12:56 PM	5.612	49330	129.39	258.2 -> 133...	72.04	Dextrorphan-D3	261.2 -> 157...	5.611	260916
Diazepam	285.1 -> 193...	12/12/2016 12:56 PM	6.749	48243	41.07	285.1 -> 153...	51.79	Diazepam-D5	290.1 -> 198...	6.748	193881
Dihydrocodeine	302.2 -> 198...	12/12/2016 12:56 PM	5.178	28646	33.29	302.2 -> 128...	38.79	Dihydrocodeine-D6	308.2 -> 202...	5.137	142762
Diphenhydramine	256.2 -> 167...	12/12/2016 12:56 PM	6.205	322357	131.89	256.2 -> 152...	92.35	Diphenhydramine-D3	259.2 -> 167...	6.185	16740.
Doxylamine	271.2 -> 182...	12/12/2016 12:56 PM	5.857	309208	60.65	271.2 -> 167...	65.28	Doxylamine-D5	276.2 -> 187...	5.856	14429.
EDDP	279.2 -> 235...	12/12/2016 12:56 PM	6.201	287318	752.64	279.2 -> 250...	201.45	EDDP-D3	282.2 -> 235...	6.200	124622
Fentanyl	337.2 -> 105...	12/12/2016 12:56 PM	6.395	30447	5445.95	337.2 -> 188...	211.41	Fentanyl-D5	342.3 -> 105...	6.374	14205.
Fluoxetine	310.1 -> 44.3	12/12/2016 12:56 PM	6.440	340237	567.97	310.1 -> 148...	2275...	Fluoxetine-D6	316.2 -> 44.3	6.418	14854.
Hydrocodone	300.2 -> 198...	12/12/2016 12:56 PM	5.383	5819	34.96	300.2 -> 128...	1149...	Hydrocodone-D6	306.2 -> 202...	5.361	38298
Hydromorphone	286.2 -> 184...	12/12/2016 12:56 PM	5.041	31936	311.61	286.2 -> 157...	38.49	Hydromorphone-D6	292.2 -> 185...	4.999	101309
Ketamine	238.1 -> 125...	12/12/2016 12:56 PM	6.024	112823	292.03	238.1 -> 220...	9.42	Ketamine-D4	242.1 -> 129...	6.003	454318
Lorazepam	321.0 -> 274...	12/12/2016 12:56 PM	6.478	177117	672.90	321.0 -> 303...	6.42	Alprazolam-D5	314.1 -> 286...	6.521	231527
Meprobamate	219.1 -> 158...	12/12/2016 12:56 PM	5.657	23381	20.93	219.1 -> 97.1	93.17	Meprobamate-D7	226.2 -> 165...	5.656	129881
Methadone	310.2 -> 265...	12/12/2016 12:56 PM	6.521	241993	104.22	310.2 -> 105...	143.38	Methadone-D9	319.3 -> 268...	6.520	1270...
Methamphetamine	150.1 -> 91.1	12/12/2016 12:56 PM	5.191	355234	53.86	150.1 -> 119...	49.86	Methamphetamine-D11	161.2 -> 97.1	5.150	560555
Morphine	286.2 -> 164...	12/12/2016 12:56 PM	4.859	5641	58.67	286.2 -> 152...	21.51	Morphine-D6	292.2 -> 152...	4.777	7784
Naloxone	328.2 -> 309...	12/12/2016 12:56 PM	5.805	58225	68.31	328.2 -> 211...	26.35	Naloxone-D5	333.2 -> 315...	5.723	322636
Naltrexol	344.2 -> 326...	12/12/2016 12:56 PM	5.235	101617	507.74	344.2 -> 308...	45.10	Naltrexol-D3	347.2 -> 329...	5.194	379989
Naltrexone	342.2 -> 324...	12/12/2016 12:56 PM	5.479	64339	71.34	342.2 -> 55.3	33.71	Naltrexone-D3	333.2 -> 315...	5.723	322636
Norbuprenorphine	414.3 -> 101...	12/12/2016 12:56 PM	5.985	11224	92.44	414.3 -> 57.3	46.95	Norbuprenorphine-D3	417.3 -> 101...	5.985	42886
Nordiazepam	271.1 -> 140...	12/12/2016 12:56 PM	6.610	31331	46.21	271.1 -> 208...	32.81	Nordiazepam-D5	276.1 -> 140...	6.609	87210
Norfentanyl	233.2 -> 84.2	12/12/2016 12:56 PM	5.493	173071	1383.34	233.2 -> 55.3	41.60	Norfentanyl-D5	238.2 -> 84.2	5.472	750503
Norhydrocodone	286.2 -> 199...	12/12/2016 12:56 PM	5.161	7413	530.68	286.2 -> 171...	3.45	Norhydrocodone-D3	289.2 -> 202...	5.141	77296
Noroxycodone	302.1 -> 284...	12/12/2016 12:56 PM	5.058	39943	26.45	302.1 -> 186...	21.45	Noroxycodone-D3	305.2 -> 287...	5.057	173642
O-desmethyl-tramadol	250.2 -> 58.3	12/12/2016 12:56 PM	5.086	209796	166.37	250.2 -> 42.3	27.05	O-desmethyl-tramadol-...	256.2 -> 64.3	5.065	892344
Oxazepam	287.1 -> 240...	12/12/2016 12:56 PM	6.464	18186	25.31	287.1 -> 268...	7.75	Oxazepam-D5	292.1 -> 246...	6.443	96046
Oxycodone	316.2 -> 298...	12/12/2016 12:56 PM	5.339	65914	83.65	316.2 -> 241...	44.48	Oxycodone-D6	322.2 -> 304...	5.298	321892
Oxymorphone	302.1 -> 284...	12/12/2016 12:56 PM	4.735	81229	60.24	302.1 -> 227...	20.70	Oxymorphone-D3	305.2 -> 287...	4.673	371294
Phentermine	150.1 -> 65.2	12/12/2016 12:56 PM	5.292	55519	Infinity	150.1 -> 92.1		Phentermine-D5	155.2 -> 96.2	5.272	436511
Promethazine	285.1 -> 86.2	12/12/2016 12:56 PM	6.606	456282	562.06	285.1 -> 71.3	Infinity	Promethazine-D3	288.2 -> 89.2	6.586	23883.
Quetiapine	384.2 -> 253...	12/12/2016 12:56 PM	6.697	360278	1640.85	384.2 -> 221...	354.52	Quetiapine-D8	392.2 -> 226...	6.655	463501
Sertraline	306.1 -> 158...	12/12/2016 12:56 PM	6.726	76327	275.35	306.1 -> 275...	Infinity	Sertraline-D3	309.1 -> 275...	6.725	349186

Handwritten notes: "Not Evaluated" (next to Buprenorphine row); "Not Evaluated" (next to Lorazepam row); "4" markings near Buprenorphine; signature at bottom left.

Multi drug screen

Compound Method			cal 1a		cal 1a Results	Qualifier 1 M...	Qualifi...	ISTD Method			ISTD Results
Name	Transition	Acq. Date-Time	RT	Resp.	S/N	Transition	S/N	Name	Transition	RT	Resp.
Sufentanil	387.2 -> 238...	12/12/2016 12:56 PM	6.757	27890	84.44	387.2 -> 111...	40.27	Sufentanil-D5	392.2 -> 238...	6.736	10416...
Temazepam	301.1 -> 255...	12/12/2016 12:56 PM	6.585	103054	115.54	301.1 -> 283.	20.38	Temazepam-D5	306.1 -> 260...	6.584	482883
Tramadol	264.2 -> 58.3	12/12/2016 12:56 PM	5.611	261526	101.48	264.2 -> 43.3	8.07	Tramadol-13C-D3	268.2 -> 58.3	5.610	11958.
Trazodone	372.2 -> 176...	12/12/2016 12:56 PM	6.859	337098	364.43	372.2 -> 148...	2251...	Sufentanil-D5	392.2 -> 238...	6.736	10416...
Venlafaxine	278.2 -> 58.3	12/12/2016 12:56 PM	5.957	264370	136.78	278.2 -> 260...	30.75	Venlafaxine-D6	284.2 -> 64.3	5.956	10845...
Zolpidem	308.2 -> 235...	12/12/2016 12:56 PM	6.441	266184	359.91	308.2 -> 263...	241.49	Zolpidem-D6	314.2 -> 235...	6.419	13053.

Multi drug screen

Compound Method Name	Transition	cal 1b Acq. Date-Time	RT	cal 1b Resp.	cal 1b Results S/N	Qualifier 1 M... Transition	Qualifier 1 M... S/N	ISTD Method Name	Transition	RT	ISTD Results Resp.
7-aminoflunitrazepam	284.1 -> 135.	12/12/2016 1:06 PM	5.761	59565	855.11	284.1 -> 93.2	160.31	7-aminoflunitrazepam-D7	291.2 -> 138...	5.760	267028
alpha-hydroxymidazolam	342.1 -> 324.	12/12/2016 1:06 PM	6.527	89073	175.16	342.1 -> 203.	505.57	alpha-hydroxymidazolam-...	346.1 -> 328...	6.507	453223
Amitriptyline	278.2 -> 91.2	12/12/2016 1:06 PM	6.659	302636	199.25	278.2 -> 105.	70.79	Amitriptyline-D3	281.2 -> 91.2	6.637	582164
Amoxapine	314.1 -> 271.	12/12/2016 1:06 PM	6.612	88898	92.54	314.1 -> 193.	85.10	Amitriptyline-D3	281.2 -> 91.2	6.637	582164
Benzoylecgonine	290.1 -> 168.	12/12/2016 1:06 PM	5.391	18366	226.44	290.1 -> 105.	34.35	Benzoylecgonine-D8	298.2 -> 171...	5.370	5956
Carbamazepine	237.1 -> 193.	12/12/2016 1:06 PM	6.196	26371	58.12	237.1 -> 194.	193.00	Carbamazepine-13C6	243.1 -> 200...	6.176	1208760
Chlordiazepoxide	300.1 -> 227.	12/12/2016 1:06 PM	6.655	42365	222.74	300.1 -> 282.	31.56	Chlordiazepoxide-D5	305.1 -> 286...	6.654	324568
Clomipramine	315.2 -> 86.2	12/12/2016 1:06 PM	6.896	422258	693.87	315.2 -> 58.3	442.45	Clomipramine-D3	318.2 -> 89.2	6.895	2065187
Cocaine	304.2 -> 182.	12/12/2016 1:06 PM	5.839	188541	184.53	304.2 -> 105.	55.94	Cocaine-D3	307.2 -> 185...	5.839	739126
Desipramine	267.2 -> 72.3	12/12/2016 1:06 PM	6.518	336670	935.84	267.2 -> 44.3	1982...	Desipramine-D3	270.2 -> 75.3	6.518	1525631
Doxepin	280.2 -> 107.	12/12/2016 1:06 PM	6.374	144309	241.75	280.2 -> 77.2	27.80	Doxepin-D3	283.2 -> 107...	6.353	668738
Estazolam	295.1 -> 267.	12/12/2016 1:06 PM	6.474	64632	577.52	295.1 -> 205.	432.46	Estazolam-D5	300.1 -> 272...	6.451	288000
Flunitrazepam	314.1 -> 268.	12/12/2016 1:06 PM	6.491	64377	132.11	314.1 -> 239.	39.26	Flunitrazepam-D7	321.1 -> 245...	6.490	12936
Flurazepam	388.2 -> 315.	12/12/2016 1:06 PM	6.465	186508	3429.91	388.2 -> 317.	388.64	Zopiclone-D4	393.1 -> 244...	6.423	300405
Imipramine	281.2 -> 86.2	12/12/2016 1:06 PM	6.617	451882	691.42	281.2 -> 58.3	261.61	Imipramine-D3	284.2 -> 61.3	6.597	1194992
Levamisole	205.1 -> 91.2	12/12/2016 1:06 PM	5.527	62979	65.85	205.1 -> 178...	64.72	Cocaine-D3	307.2 -> 185...	5.839	739126
Maprotiline	278.2 -> 91.2	12/12/2016 1:06 PM	6.659	302636	199.25	278.2 -> 117.	74.65	Meperidine-D4	252.2 -> 224...	5.869	349052
MDA	180.1 -> 163.	12/12/2016 1:06 PM	5.164	56782	142.79	180.1 -> 105.	126.86	MDA-D5	185.1 -> 168...	5.144	297837
MDEA	208.1 -> 163.	12/12/2016 1:06 PM	5.444	120866	490.18	208.1 -> 105.	60.77	MDEA-D6	214.2 -> 166...	5.424	575823
MDMA	194.1 -> 163.	12/12/2016 1:06 PM	5.304	97046	775.44	194.1 -> 105.	185.53	MDMA-D6	200.2 -> 166...	5.284	54189
Meperidine	248.2 -> 220.	12/12/2016 1:06 PM	5.889	64504	22.15	248.2 -> 174...	34.42	Meperidine-D4	252.2 -> 224...	5.869	349052
Methylphenidate	234.2 -> 84.2	12/12/2016 1:06 PM			234.2 -> 56.3		Methylphenidate-D4	238.2 -> 88.1		
Metoprolol	268.2 -> 116.	12/12/2016 1:06 PM	5.599	33366	377.88	268.2 -> 56.3	357.35	Meperidine-D4	252.2 -> 224...	5.869	349052
Midazolam	326.1 -> 223.	12/12/2016 1:06 PM	6.691	29135	90.79	326.1 -> 249.	46.66	Midazolam-D4	330.1 -> 295...	6.670	453661
Mirtazapine	266.2 -> 195.	12/12/2016 1:06 PM	6.417	225670	227.84	266.2 -> 72.3	201.30	Midazolam-D4	330.1 -> 295...	6.670	453661
Mitragynine	399.2 -> 174.	12/12/2016 1:06 PM	6.443	94578	215.80	399.2 -> 238.	98.61	Mitragynine-D3	402.3 -> 177...	6.423	65
Normeperidine	234.1 -> 42.3	12/12/2016 1:06 PM	5.769	94211	112.59	234.1 -> 160.	263.75	Normeperidine-D4	238.2 -> 164...	5.768	326230
Norpropoxyphene	326.2 -> 44.3	12/12/2016 1:06 PM	6.386	57141	153.78	326.2 -> 252.	78.75	Norpropoxyphene-D5	331.2 -> 44.3	6.365	205147
Nortriptyline	264.2 -> 91.2	12/12/2016 1:06 PM	6.458	473898	413.78	264.2 -> 233.	Infinity	Nortriptyline-D3	267.2 -> 233...	6.559	548834
Ondansetron	294.2 -> 184.	12/12/2016 1:06 PM	6.127	108163	448.93	294.2 -> 212...	274.17	Pentazocine-13C3	289.2 -> 72.3	5.821	511918
Pentazocine	286.2 -> 218.	12/12/2016 1:06 PM	5.842	134730	994.25	286.2 -> 41.3	114.47	Pentazocine-13C3	289.2 -> 72.3	5.821	511918
Phenazepam	349.0 -> 206.	12/12/2016 1:06 PM	6.567	61993	476.02	349.0 -> 183.	284.27	Phenazepam-D4	353.0 -> 183...	6.566	20955
Phencyclidine	244.2 -> 86.2	12/12/2016 1:06 PM	6.074	225317	438.49	244.2 -> 91.1	112.25	Phencydlidine-D5	249.2 -> 86.2	6.073	1041275
Phenytoin	253.1 -> 104.	12/12/2016 1:06 PM	6.113	5314	4.96	253.1 -> 182.	55.96	Phenytoin-D10	263.2 -> 192...	6.072	25321
Prazepam	325.1 -> 271.	12/12/2016 1:06 PM	7.016	235636	9556.86	325.1 -> 140.	534.98	Prazepam-D5	330.1 -> 276...	6.994	1026853
Primidone	219.1 -> 91.2	12/12/2016 1:06 PM	5.463	12418	11.69	219.1 -> 162...	124.31	Prazepam-D5	330.1 -> 276...	6.994	1026853
Propoxyphene	340.2 -> 58.3	12/12/2016 1:06 PM	6.467	279828	1899.73	340.2 -> 266.	102.31	Propoxyphene-D11	351.3 -> 277...	6.424	297513
Protriptyline	264.2 -> 155.	12/12/2016 1:06 PM	6.458	756880	515.47	264.2 -> 161...	0.42	Protriptyline-D3	267.2 -> 155...	6.457	438664
Pseudoephedrine	166.1 -> 148.	12/12/2016 1:06 PM	4.803	10834...	463.80	166.1 -> 117.	15.39	Pseudoephedrine-D3	169.1 -> 151...	4.802	505307
Tapentadol	222.2 -> 107.	12/12/2016 1:06 PM	5.626	187700	128.05	222.2 -> 121.	71.05	Tapentadol-D3	225.2 -> 107...	5.626	880055
Trimipramine	295.2 -> 100.	12/12/2016 1:06 PM	6.696	512609	156668...	295.2 -> 58.3	489.10	Trimipramine-D3	298.2 -> 103...	6.696	2317476
Verapamil	455.3 -> 165.	12/12/2016 1:06 PM	6.442	254982	295.12	455.3 -> 150...	1594...	Trimipramine-D3	298.2 -> 103...	6.696	2317476
Zaleplon	306.1 -> 236.	12/12/2016 1:06 PM	6.287	74646	321.06	306.1 -> 264.	328.89	Zaleplon-D4	310.2 -> 240...	6.287	262687
Zopiclone	389.1 -> 244.	12/12/2016 1:06 PM	6.444	63079	188.29	389.1 -> 216.	73.74	Zopiclone-D4	393.1 -> 244...	6.423	300405

Compound Method		negative a	negative a Results			Qualifier 1 M...	Qualif...	ISTD Method		ISTD Results	
Name	Transition	Acq. Date-Time	RT	Resp.	S/N	Transition	S/N	Name	Transition	RT	Resp.
6-MAM	328.2 -> 165...	12/12/2016 1:16 PM	5.419	1396	✓ 0.76	328.2 -> 211...	2.42	6-MAM-D6	334.2 -> 165...	5.378	65189
7-aminoclonazepam	286.1 -> 121...	12/12/2016 1:16 PM	5.567	124	✓ 0.45	286.1 -> 222...	0.19	7-Aminoclonazepam-D4	290.1 -> 121...	5.566	184238
Acetyl Fentanyl	323.2 -> 105...	12/12/2016 1:16 PM	6.275	215	✓ 0.73	323.2 -> 188...	0.43	Acetyl Fentanyl-D5	328.2 -> 105...	6.192	15454...
Acetyl Norfentanyl	219.1 -> 84.2	12/12/2016 1:16 PM	5.047	160	✓ 0.88	219.1 -> 56.3		Acetyl Norfentanyl-D5	224.2 -> 84.2	5.007	520981
a-hydroxyalprazolam	325.1 -> 297...	12/12/2016 1:16 PM	6.680	2061	✓ 0.92	325.1 -> 215...	1.79	a-hydroxyalprazolam-D5	330.1 -> 302...	6.436	50761
alpha-PVP	232.2 -> 91.0	12/12/2016 1:16 PM	5.902	599	✓ 1.14	232.2 -> 77.1		alpha-PVP-d8	240.2 -> 91.1	5.819	634888
Alprazolam	309.1 -> 281...	12/12/2016 1:16 PM	6.359	✓ 3118	Infinity	309.1 -> 205...	✓2.88	Alprazolam-D5	314.1 -> 286...	6.521	230784
Amphetamine	136.1 -> 91.1	12/12/2016 1:16 PM	4.990	57368	16.64	136.1 -> 119...	✓	Amphetamine-D11	147.2 -> 130...	4.949	137503
Buprenorphine	468.3 -> 414...	12/12/2016 1:16 PM						Buprenorphine-D4	472.3 -> 59.3	7.038	368898
Bupropion	240.1 -> 184...	12/12/2016 1:16 PM	6.633	3413	5.95	240.1 -> 131...	✓0.52	Ketamine-D4	242.1 -> 129...	6.003	438886
Carisoprodol	261.2 -> 176...	12/12/2016 1:16 PM	6.102	848	✓ 0.71	261.2 -> 55.3		Carisoprodol-D7	268.2 -> 183...	6.163	444790
Citalopram	325.2 -> 109...	12/12/2016 1:16 PM				325.2 -> 262...		Citalopram-D6	331.2 -> 109...	6.212	940028
Clonazepam	316.1 -> 269...	12/12/2016 1:16 PM	6.419	241	✓ 0.54	316.1 -> 213...		Clonazepam-D4	320.1 -> 217...	6.378	34293
Codeine	300.2 -> 215...	12/12/2016 1:16 PM	5.059	23	✓ 0.66	300.2 -> 165...	0.59	Codeine-D6	306.2 -> 218...	5.340	50318
Cyclobenzaprine	276.2 -> 214...	12/12/2016 1:16 PM	6.589	467	✓ 1.63	276.2 -> 231...	0.85	Cyclobenzaprine-D3	279.2 -> 215...	6.546	639030
Dextromethorphan	272.2 -> 171...	12/12/2016 1:16 PM	6.304	245	✓ 1.20	272.2 -> 147...	1.03	Dextromethorphan-D3	275.2 -> 171...	6.304	295081
Dextrorphan	258.2 -> 157...	12/12/2016 1:16 PM	5.756	236	✓ 4.37	258.2 -> 133...		Dextrorphan-D3	261.2 -> 157...	5.611	267441
Diazepam	285.1 -> 193...	12/12/2016 1:16 PM			✓	285.1 -> 153...		Diazepam-D5	290.1 -> 198...	6.748	208224
Dihydrocodeine	302.2 -> 198...	12/12/2016 1:16 PM	4.875	40	✓ 0.53	302.2 -> 128...	0.62	Dihydrocodeine-D6	308.2 -> 202...	5.117	141149
Diphenhydramine	256.2 -> 167...	12/12/2016 1:16 PM	6.246	3749	✓ 0.57	256.2 -> 152...	0.73	Diphenhydramine-D3	259.2 -> 167...	6.185	16618...
Doxylamine	271.2 -> 182...	12/12/2016 1:16 PM	6.101	873	✓ 0.58	271.2 -> 167...	0.55	Doxylamine-D5	276.2 -> 187...	5.856	14142...
EDDP	279.2 -> 235...	12/12/2016 1:16 PM	5.773	633	✓ 0.48	279.2 -> 250...	0.82	EDDP-D3	282.2 -> 235...	6.200	124039
Fentanyl	337.2 -> 105...	12/12/2016 1:16 PM	6.658	286	✓ 0.37	337.2 -> 188...		Fentanyl-D5	342.3 -> 105...	6.374	14606...
Fluoxetine	310.1 -> 44.3	12/12/2016 1:16 PM	6.297	560	✓ 1.96	310.1 -> 148...		Fluoxetine-D6	316.2 -> 44.3	6.418	14237...
Hydrocodone	300.2 -> 198...	12/12/2016 1:16 PM	5.689	215	✓ 1.69	300.2 -> 128...	0.82	Hydrocodone-D6	306.2 -> 202...	5.340	35619
Hydromorphone	286.2 -> 184...	12/12/2016 1:16 PM	5.061	602	✓ 0.60	286.2 -> 157...	1.05	Hydromorphone-D6	292.2 -> 185...	4.979	109710
Ketamine	238.1 -> 125...	12/12/2016 1:16 PM	6.024	225	✓ 0.70	238.1 -> 220...		Ketamine-D4	242.1 -> 129...	6.003	438886
Lorazepam Not evaluated	321.0 -> 274...	12/12/2016 1:16 PM	6.478	187166	1727.19	321.0 -> 303...	3.12	Alprazolam-D5	314.1 -> 286...	6.521	230784
Meprobamate	219.1 -> 158...	12/12/2016 1:16 PM	5.882	536	✓ 0.33	219.1 -> 97.1		Meprobamate-D7	226.2 -> 165...	5.656	126870
Methadone	310.2 -> 265...	12/12/2016 1:16 PM	6.744	1472	✓ 0.71	310.2 -> 105...		Methadone-D9	319.3 -> 268...	6.520	12584...
Methamphetamine	150.1 -> 91.1	12/12/2016 1:16 PM	5.211	81600	Infinity	150.1 -> 119...	Infini...	Methamphetamine-D11	161.2 -> 97.1	5.150	402215
Morphine	286.2 -> 164...	12/12/2016 1:16 PM	5.101	839	✓ 1.38	286.2 -> 152...		Morphine-D6	292.2 -> 152...	4.757	7163
Naloxone	328.2 -> 309...	12/12/2016 1:16 PM	5.765	103	✓ 0.53	328.2 -> 211...	1.43	Naloxone-D5	333.2 -> 315...	5.703	321785
Naltrexol	344.2 -> 326...	12/12/2016 1:16 PM	5.458	7539	22.35	344.2 -> 308...	✓	Naltrexol-D3	347.2 -> 329...	5.194	394426
Naltrexone	342.2 -> 324...	12/12/2016 1:16 PM	5.520	71	✓ 0.28	342.2 -> 55.3		Naloxone-D5	333.2 -> 315...	5.703	321785
Norbuprenorphine	414.3 -> 101...	12/12/2016 1:16 PM			✓	414.3 -> 57.3		Norbuprenorphine-D3	417.3 -> 101...	5.985	45956
Nordiazepam	271.1 -> 140...	12/12/2016 1:16 PM	6.692	51	✓ 0.30	271.1 -> 208...	1.14	Nordiazepam-D5	276.1 -> 140...	6.609	92603
Norfentanyl	233.2 -> 84.2	12/12/2016 1:16 PM	5.026	11	✓ 0.24	233.2 -> 55.3	2.88	Norfentanyl-D5	238.2 -> 84.2	5.472	723329
Norhydrocodone	286.2 -> 199...	12/12/2016 1:16 PM	5.202	701	✓ 1.12	286.2 -> 171...	0.53	Norhydrocodone-D3	289.2 -> 202...	5.141	80651
Noroxycodone	302.1 -> 284...	12/12/2016 1:16 PM	5.078	1532	5.26	302.1 -> 186...	✓2.12	Noroxycodone-D3	305.2 -> 287...	5.036	175600
O-desmethyl-tramadol	250.2 -> 58.3	12/12/2016 1:16 PM	5.065	1451	✓ 2.25	250.2 -> 42.3	0.50	O-desmethyl-tramadol-...	256.2 -> 64.3	5.065	905522
Oxazepam	287.1 -> 240...	12/12/2016 1:16 PM	6.443	379	✓ 1.90	287.1 -> 268...		Oxazepam-D5	292.1 -> 246...	6.443	106099
Oxycodone	316.2 -> 298...	12/12/2016 1:16 PM	5.299	638	✓ 1.31	316.2 -> 241...	0.38	Oxycodone-D6	322.2 -> 304...	5.298	305564
Oxymorphone	302.1 -> 284...	12/12/2016 1:16 PM	✓ 5.078	789	12.76	302.1 -> 227...	✓0.96	Oxymorphone-D3	305.2 -> 287...	4.673	374529
Phentermine	150.1 -> 65.2	12/12/2016 1:16 PM			✓	150.1 -> 92.1		Phentermine-D5	155.2 -> 96.2	5.272	389925
Promethazine	285.1 -> 86.2	12/12/2016 1:16 PM	6.586	851	✓ 2.43	285.1 -> 71.3	0.75	Promethazine-D3	288.2 -> 89.2	6.586	24034...
Quetiapine	384.2 -> 253...	12/12/2016 1:16 PM	6.717	499	✓ 2.50	384.2 -> 221...	0.75	Quetiapine-D8	392.2 -> 226...	6.655	474248
Sertraline	306.1 -> 158...	12/12/2016 1:16 PM	6.706	1933	✓ 6.76	306.1 -> 275...	50.54	Sertraline-D3	309.1 -> 275...	6.725	368384

Compound Method			negative a			Qualifier 1 M...	Qualif...		ISTD Method		ISTD Results
Name	Transition	Acq. Date-Time	RT	Resp.	S/N	Transition	S/N	Name	Transition	RT	Resp.
Sufentanil	387.2 -> 238...	12/12/2016 1:16 PM	6.757	2351	16.54	387.2 -> 111...	3.86	Sufentanil-D5	392.2 -> 238...	6.756	10515...
Temazepam	301.1 -> 255...	12/12/2016 1:16 PM				301.1 -> 283.		Temazepam-D5	306.1 -> 260...	6.584	511100
Tramadol	264.2 -> 58.3	12/12/2016 1:16 PM	5.611	6960	2.84	264.2 -> 43.3	0.90	Tramadol-13C-D3	268.2 -> 58.3	5.610	11881...
Trazodone	372.2 -> 176...	12/12/2016 1:16 PM	6.879	1431	2.90	372.2 -> 148...	2.86	Sufentanil-D5	392.2 -> 238...	6.756	10515...
Venlafaxine	278.2 -> 58.3	12/12/2016 1:16 PM	5.609	802	0.61	278.2 -> 260...	0.47	Venlafaxine-D6	284.2 -> 64.3	5.936	11346...
Zolpidem	308.2 -> 235...	12/12/2016 1:16 PM	6.644	2517	2.85	308.2 -> 263...	3.91	Zolpidem-D6	314.2 -> 235...	6.419	12874...

Compound Method Name	Transition	Acq. Date-Time	RT	Resp.	S/N	Qualifier 1 M... Transition	Quali... S/N	ISTD Method Name	Transition	RT	ISTD Results Resp.
7-aminoflunitrazepam	284.1 -> 135...	12/12/2016 1:26 PM	5.802	97	0.49	284.1 -> 93.2		7-aminoflunitrazepam-D7	291.2 -> 138...	5.740	268014
alpha-hydroxymidazolam	342.1 -> 324...	12/12/2016 1:26 PM	5.897	197	0.76	342.1 -> 203...	1.00	alpha-hydroxymidazolam-...	346.1 -> 328...	5.507	470972
Amitriptyline	278.2 -> 91.2	12/12/2016 1:26 PM	6.740	5167	0.84	278.2 -> 105...	0.79	Amitriptyline-D3	281.2 -> 91.2	6.637	568006
Amoxapine	314.1 -> 271...	12/12/2016 1:26 PM	6.531	570	3.44	314.1 -> 193...	19.24	Amitriptyline-D3	281.2 -> 91.2	6.637	568006
Benzoylecgonine	290.1 -> 168...	12/12/2016 1:26 PM	5.391	29	0.87	290.1 -> 105...	3.85	Benzoylecgonine-D8	298.2 -> 171...	5.349	6967
Carbamazepine	237.1 -> 193...	12/12/2016 1:26 PM	6.523	497	1.17	237.1 -> 194...	0.91	Carbamazepine-13C6	243.1 -> 200...	6.176	13053..
Chlordiazepoxide	300.1 -> 227...	12/12/2016 1:26 PM	6.939	4114	Infinity	300.1 -> 282...	22.57	Chlordiazepoxide-D5	305.1 -> 286...	6.654	317683
Clomipramine	315.2 -> 86.2	12/12/2016 1:26 PM	7.078	42	0.65	315.2 -> 58.3	1.35	Clomipramine-D3	318.2 -> 89.2	6.875	18652..
Cocaine	304.2 -> 182...	12/12/2016 1:26 PM	5.839	608	1.56	304.2 -> 105...	0.85	Cocaine-D3	307.2 -> 185...	5.819	756280
Desipramine	267.2 -> 72.3	12/12/2016 1:26 PM	6.538	1737	3.13	267.2 -> 44.3	18.85	Desipramine-D3	270.2 -> 75.3	6.518	15057...
Doxepin	280.2 -> 107...	12/12/2016 1:26 PM	6.190	117	0.43	280.2 -> 77.2		Doxepin-D3	283.2 -> 107...	6.353	684596
Estazolam	295.1 -> 267...	12/12/2016 1:26 PM	6.474	35	0.40	295.1 -> 205...	1.49	Estazolam-D5	300.1 -> 272...	6.451	326881
Flunitrazepam	314.1 -> 268...	12/12/2016 1:26 PM	6.531	1550	1.18	314.1 -> 239...	0.66	Flunitrazepam-D7	321.1 -> 245...	6.490	13478
Furazepam	388.2 -> 315...	12/12/2016 1:26 PM	6.667	157	0.44	388.2 -> 317...	0.79	Zopiclone-D4	393.1 -> 244...	6.423	322947
Imipramine	281.2 -> 86.2	12/12/2016 1:26 PM	6.617	2528	11.73	281.2 -> 58.3	3.30	Imipramine-D3	284.2 -> 61.3	6.597	11981...
Levamisole	205.1 -> 91.2	12/12/2016 1:26 PM	6.138	882	1.39	205.1 -> 178...	2.34	Cocaine-D3	307.2 -> 185...	5.819	756280
Maprotiline	278.2 -> 91.2	12/12/2016 1:26 PM	6.740	5167	0.84	278.2 -> 117...	0.84	Maprotiline-D4	252.2 -> 224...	5.869	333483
MDA	180.1 -> 163...	12/12/2016 1:26 PM	5.813	26805	62.60	180.1 -> 105...	1.35	MDA-D5	185.1 -> 168...	5.144	294463
MDEA	208.1 -> 163...	12/12/2016 1:26 PM	5.424	63	0.68	208.1 -> 105...	0.66	MDEA-D6	214.2 -> 166...	5.424	584741
MDMA	194.1 -> 163...	12/12/2016 1:26 PM	5.345	114	0.96	194.1 -> 105...	0.40	MDMA-D6	200.2 -> 166...	5.284	52739
Meperidine	248.2 -> 220...	12/12/2016 1:26 PM	5.971	269	1.31	248.2 -> 174...	0.93	Meperidine-D4	252.2 -> 224...	5.869	333483
Methylphenidate	234.2 -> 84.2	12/12/2016 1:26 PM				234.2 -> 56.3		Methylphenidate-D4	238.2 -> 88.1	5.869	333483
Metoprolol	268.2 -> 116...	12/12/2016 1:26 PM	5.681	57	2.80	268.2 -> 56.3	6.10	Meperidine-D4	252.2 -> 224...	5.869	333483
Midazolam	326.1 -> 223...	12/12/2016 1:26 PM	6.651	23	0.36	326.1 -> 249...		Midazolam-D4	330.1 -> 295...	6.670	435264
Mirtazapine	266.2 -> 195...	12/12/2016 1:26 PM	6.479	193	0.48	266.2 -> 72.3	0.47	Midazolam-D4	330.1 -> 295...	6.670	435264
Mitragynine	399.2 -> 174...	12/12/2016 1:26 PM	6.605	24	1.05	399.2 -> 238...		Mitragynine-D3	402.3 -> 177...	6.382	56
Normeperidine	234.1 -> 42.3	12/12/2016 1:26 PM	5.748	219	0.95	234.1 -> 160...	0.30	Normeperidine-D4	238.2 -> 164...	5.768	331500
Norpropoxyphene	326.2 -> 44.3	12/12/2016 1:26 PM	6.853	279	0.57	326.2 -> 252...		Norpropoxyphene-D5	331.2 -> 44.3	6.365	191204
Nortriptyline	264.2 -> 91.2	12/12/2016 1:26 PM	6.601	5640	10.45	264.2 -> 233...	5.64	Nortriptyline-D3	267.2 -> 233...	6.559	432855
Ondansetron	294.2 -> 184...	12/12/2016 1:26 PM	6.351	56	0.51	294.2 -> 212...	0.67	Pentazocine-13C3	289.2 -> 72.3	5.821	517459
Pentazocine	286.2 -> 218...	12/12/2016 1:26 PM	5.291	73	1.09	286.2 -> 41.3	0.64	Pentazocine-13C3	289.2 -> 72.3	5.821	517459
Phenazepam	349.0 -> 206...	12/12/2016 1:26 PM	6.506	2264	10.38	349.0 -> 183...		Phenazepam-D4	353.0 -> 183...	6.566	22019
Phencyclidine	244.2 -> 86.2	12/12/2016 1:26 PM	5.992	1648	0.94	244.2 -> 91.1	5.73	Phencyclidine-D5	249.2 -> 86.2	6.052	10470..
Phenytoin	253.1 -> 104...	12/12/2016 1:26 PM	5.847	2756	3.99	253.1 -> 182...	1.07	Phenytoin-D10	263.2 -> 192...	6.072	21552
Prazepam	325.1 -> 271...	12/12/2016 1:26 PM	6.874	59	1.00	325.1 -> 140...	0.49	Prazepam-D5	330.1 -> 276...	6.994	965748
Primidone	219.1 -> 91.2	12/12/2016 1:26 PM	5.586	825	0.54	219.1 -> 162...	0.42	Prazepam-D5	330.1 -> 276...	6.994	965748
Propoxyphene	340.2 -> 58.3	12/12/2016 1:26 PM	6.446	175	1.15	340.2 -> 266...	1.10	Propoxyphene-D11	351.3 -> 277...	6.424	297041
Protriptyline	264.2 -> 155...	12/12/2016 1:26 PM	6.458	158	1.62	264.2 -> 161...		Protriptyline-D3	267.2 -> 155...	6.457	455218
Pseudoephedrine	166.1 -> 148...	12/12/2016 1:26 PM	4.823	415	0.89	166.1 -> 117...	0.35	Pseudoephedrine-D3	169.1 -> 151...	4.802	414039
Tapentadol	222.2 -> 107...	12/12/2016 1:26 PM	5.606	46	0.37	222.2 -> 121...	0.25	Tapentadol-D3	225.2 -> 107...	5.606	897334
Trimipramine	295.2 -> 100...	12/12/2016 1:26 PM	6.636	372	0.76	295.2 -> 58.3	0.38	Trimipramine-D3	298.2 -> 103...	6.676	23108..
Verapamil	455.3 -> 165...	12/12/2016 1:26 PM	6.361	34	0.25	455.3 -> 150...		Trimipramine-D3	298.2 -> 103...	6.676	23108..
Zaleplon	306.1 -> 236...	12/12/2016 1:26 PM	6.735	43	0.26	306.1 -> 264...	1.67	Zaleplon-D4	310.2 -> 240...	6.287	261680
Zopiclone	389.1 -> 244...	12/12/2016 1:26 PM	6.646	33	0.27	389.1 -> 216...	0.49	Zopiclone-D4	393.1 -> 244...	6.423	322947

Analytical batch report — compound and ISTD results. Acquisition date/time = 12/12/2016 1:35 PM for all rows. Column groups: *external control a* (Compound Method / Acq. Date-Time), *external control a Results* (RT, Resp., S/N), *Qualifier 1 M.*, and *ISTD Method / ISTD Results*.

Name	Compound Transition	Acq. Date-Time	RT	Resp.	S/N	Qualifier 1 M. Transition	Qualifier S/N	ISTD Name	ISTD Transition	ISTD RT	ISTD Resp.
6-MAM	328.2 -> 165...	12/12/2016 1:35 PM	5.439	747	0.96	328.2 -> 211...	0.50	6-MAM-D6	334.2 -> 165...	5.378	71707
7-aminoclonazepam	286.1 -> 121...	12/12/2016 1:35 PM	4.841	50006	170.88	286.1 -> 222...	82.46	7-Aminoclonazepam-D4	290.1 -> 121...	5.566	171020
Acetyl Fentanyl	323.2 -> 105...	12/12/2016 1:35 PM	6.092	256	0.43	323.2 -> 188...		Acetyl Fentanyl-D5	328.2 -> 105...	6.192	16295...
Acetyl Norfentanyl	219.1 -> 84.2	12/12/2016 1:35 PM	5.047	133	0.93	219.1 -> 56.3		Acetyl Norfentanyl-D5	224.2 -> 84.2	5.027	563170
a-hydroxyalprazolam	325.1 -> 297...	12/12/2016 1:35 PM	7.043	1119	121.18	325.1 -> 215...		a-hydroxyalprazolam-D5	330.1 -> 302...	6.436	53222
alpha-PVP	232.2 -> 91.0	12/12/2016 1:35 PM	6.065	210	0.41	232.2 -> 77.1	0.60	alpha-PVP-D5	240.2 -> 91.1	5.819	590591
Alprazolam	309.1 -> 281...	12/12/2016 1:35 PM	6.380	3435	29.12	309.1 -> 205...		Alprazolam-D5	314.1 -> 286...	6.521	249154
Amphetamine	136.1 -> 91.1	12/12/2016 1:35 PM	4.990	56254	14.07	136.1 -> 119...	3.62	Amphetamine-D11	147.2 -> 130...	4.969	144638
Buprenorphine	468.3 -> 414...	12/12/2016 1:35 PM						Buprenorphine-D4	472.3 -> 59.3	7.018	363514
Bupropion	240.1 -> 184...	12/12/2016 1:35 PM	6.633	4087	6.93	240.1 -> 131...	0.35	Ketamine-D4	242.1 -> 129...	6.003	460899
Carisoprodol	261.2 -> 176...	12/12/2016 1:35 PM	6.102	424	0.74	261.2 -> 55.3		Carisoprodol-D7	268.2 -> 183...	6.163	493741
Citalopram	325.2 -> 109...	12/12/2016 1:35 PM	6.699	333	1.29	325.2 -> 262...	0.60	Citalopram-D6	331.2 -> 109...	6.212	933379
Clonazepam	316.1 -> 269...	12/12/2016 1:35 PM	6.419	223	2.67	316.1 -> 213...	0.53	Clonazepam-D4	320.1 -> 217...	6.398	3696
Codeine	300.2 -> 215...	12/12/2016 1:35 PM	5.565	118724	Infinity	300.2 -> 165...	Infinity	Codeine-D6	306.2 -> 218...	5.340	55798
Cyclobenzaprine	276.2 -> 214...	12/12/2016 1:35 PM	6.609	1803	0.52	276.2 -> 231...	1.51	Cyclobenzaprine-D3	279.2 -> 215...	6.546	673978
Dextromethorphan	272.2 -> 171...	12/12/2016 1:35 PM	6.284	5768694	1523965...	272.2 -> 147...	796.37	Dextromethorphan-D3	275.2 -> 171...	6.263	273064
Dextrorphan	258.2 -> 157...	12/12/2016 1:35 PM	5.715	538	6.07	258.2 -> 133...	0.52	Dextrorphan-D3	261.2 -> 157...	5.611	261722
Diazepam	285.1 -> 193...	12/12/2016 1:35 PM	6.606	4152	0.95	285.1 -> 153...	0.89	Diazepam-D5	290.1 -> 198...	6.748	212204
Dihydrocodeine	302.2 -> 198...	12/12/2016 1:35 PM	5.585	15578	14.80	302.2 -> 128...	24.47	Dihydrocodeine-D6	308.2 -> 202...	5.137	146277
Diphenhydramine	256.2 -> 167...	12/12/2016 1:35 PM	5.715	4494	1.06	256.2 -> 152...	0.70	Diphenhydramine-D3	259.2 -> 167...	6.205	17273...
Doxylamine	271.2 -> 182...	12/12/2016 1:35 PM	5.836	271126...	1223.30	271.2 -> 167...	718.07	Doxylamine-D5	276.2 -> 187...	5.835	13239...
EDDP	279.2 -> 235...	12/12/2016 1:35 PM	6.221	375	0.40	279.2 -> 250...	0.51	EDDP-D3	282.2 -> 235...	6.200	136243
Fentanyl	337.2 -> 105...	12/12/2016 1:35 PM	6.395	170	0.74	337.2 -> 188...		Fentanyl-D5	342.3 -> 105...	6.374	15296...
Fluoxetine	310.1 -> 44.3	12/12/2016 1:35 PM	6.460	880	1.05	310.1 -> 148...	0.94	Fluoxetine-D6	316.2 -> 44.3	6.418	16135...
Hydrocodone	300.2 -> 198...	12/12/2016 1:35 PM	5.565	4098841	Infinity	300.2 -> 128...	Infinity	Hydrocodone-D6	306.2 -> 202...	5.361	39337
Hydromorphone	286.2 -> 184...	12/12/2016 1:35 PM	4.839	342306	718.17	286.2 -> 157...	1387	Hydromorphone-D6	292.2 -> 185...	4.979	415249
Ketamine	238.1 -> 125...	12/12/2016 1:35 PM	5.472	1067	1.71	238.1 -> 220...	3.14	Ketamine-D4	242.1 -> 129...	4.777	460899
Lorazepam	321.0 -> 274...	12/12/2016 1:35 PM	6.478	193405	385.82	321.0 -> 303...		Alprazolam-D5	314.1 -> 286...	6.521	249154
Meprobamate	219.1 -> 158...	12/12/2016 1:35 PM	5.271	3830	0.98	219.1 -> 97.1	1.61	Meprobamate-D7	226.2 -> 165...	5.656	120639
Methadone	310.2 -> 265...	12/12/2016 1:35 PM	6.521	2602	0.69	310.2 -> 105...	0.55	Methadone-D9	319.3 -> 268...	6.520	13727...
Methamphetamine	150.1 -> 91.1	12/12/2016 1:35 PM	5.211	80329	Infinity	150.1 -> 119...	2173...	Methamphetamine-D11	161.2 -> 97.1	5.150	415249
Morphine	286.2 -> 164...	12/12/2016 1:35 PM	4.839	532046	3195.16	286.2 -> 152...		Morphine-D6	292.2 -> 152...	4.777	9201
Naloxone	328.2 -> 309...	12/12/2016 1:35 PM	5.948	139	0.95	328.2 -> 211...		Naloxone-D5	333.2 -> 315...	5.723	328874
Naltrexol	344.2 -> 326...	12/12/2016 1:35 PM	5.438	6381	13.94	344.2 -> 308...	4.85	Naltrexol-D3	347.2 -> 329...	5.214	403702
Naltrexone	342.2 -> 324...	12/12/2016 1:35 PM	5.276	32	0.31	342.2 -> 55.3		Naloxone-D5	333.2 -> 315...	5.723	328874
Norbuprenorphine	414.3 -> 101...	12/12/2016 1:35 PM	6.026	80	1.69	414.3 -> 57.3	1.66	Norbuprenorphine-D3	417.3 -> 101...	5.985	48729
Nordiazepam	271.1 -> 140...	12/12/2016 1:35 PM	6.692	153	0.24	271.1 -> 208...	0.27	Nordiazepam-D5	276.1 -> 140...	6.609	100590
Norfentanyl	233.2 -> 84.2	12/12/2016 1:35 PM	5.533	23	0.50	233.2 -> 55.3	1.90	Norfentanyl-D5	238.2 -> 84.2	5.472	784007
Norhydrocodone	286.2 -> 199...	12/12/2016 1:35 PM	4.859	31849	34.57	286.2 -> 171...	56.13	Norhydrocodone-D3	289.2 -> 202...	5.141	85955
Noroxycodone	302.1 -> 284...	12/12/2016 1:35 PM	5.098	1045	1.19	302.1 -> 186...	1.89	Noroxycodone-D3	305.2 -> 287...	5.057	180828
O-desmethyl-tramadol	250.2 -> 58.3	12/12/2016 1:35 PM	5.065	1949	2.71	250.2 -> 42.3	0.59	O-desmethyl-tramadol-...	256.2 -> 64.3	5.065	111769
Oxazepam	287.1 -> 240...	12/12/2016 1:35 PM	6.484	251	0.63	287.1 -> 268...		Oxazepam-D5	292.1 -> 246...	6.443	931884
Oxycodone	316.2 -> 298...	12/12/2016 1:35 PM	5.319	1426	2.31	316.2 -> 241...	3.55	Oxycodone-D6	322.2 -> 304...	5.298	329073
Oxymorphone	302.1 -> 284...	12/12/2016 1:35 PM	5.098	1972	0.87	302.1 -> 227...	1.22	Oxymorphone-D3	305.2 -> 287...	4.673	389477
Phentermine	150.1 -> 65.2	12/12/2016 1:35 PM				150.1 -> 92.1		Phentermine-D5	155.2 -> 96.2	5.272	414254
Promethazine	285.1 -> 86.2	12/12/2016 1:35 PM	6.729	33	0.39	285.1 -> 71.3	0.54	Promethazine-D3	288.2 -> 89.2	6.586	25524...
Quetiapine	384.2 -> 253...	12/12/2016 1:35 PM	6.798	231	0.75	384.2 -> 221...	0.34	Quetiapine-D8	392.2 -> 226...	6.675	487134
Sertraline	306.1 -> 158...	12/12/2016 1:35 PM	6.645	769	0.55	306.1 -> 275...	12.40	Sertraline-D3	309.1 -> 275...	6.725	375120

Compound Method						external control a	external control a Results	Qualifier 1 M...	Qualifi...	ISTD Method				ISTD Results
Name	Transition	Acq. Date-Time	RT	Resp.	S/N			Transition	S/N	Name	Transition	RT	Resp.	
Sufentanil	387.2 -> 238...	12/12/2016 1:35 PM	6.777	1941	31.26	✓		387.2 -> 111...	2.67	Sufentanil-D5	392.2 -> 238...	6.756	11146...	
Temazepam	301.1 -> 255...	12/12/2016 1:35 PM	6.666	229	0.35	✓		301.1 -> 283...	1.28	Temazepam-D5	306.1 -> 260...	6.584	552265	
Tramadol	264.2 -> 58.3	12/12/2016 1:35 PM	5.631	7335	2.98	✓		264.2 -> 43.3		Tramadol-13C-D3	268.2 -> 58.3	5.610	12466...	
Trazodone	372.2 -> 176...	12/12/2016 1:35 PM	6.859	261920...	Infinity			372.2 -> 148...	Infinity	Sufentanil-D5	392.2 -> 238...	6.756	11146...	
Venlafaxine	278.2 -> 58.3	12/12/2016 1:35 PM	5.774	124	0.35	✓		278.2 -> 260...	0.54	Venlafaxine-D6	284.2 -> 64.3	5.956	11637...	
Zolpidem	308.2 -> 235...	12/12/2016 1:35 PM	6.665	2534	2.85	✓		308.2 -> 263...	8.13	Zolpidem-D6	314.2 -> 235...	6.439	13602...	

Codeine & hydromorphone are not evaluated as positive - Rt matches up with hydrocodone for codeine and morphine for hydromorphone. keeping the wide Rt window to rule out false negatives if the Rt shifts.

Drugs detected
McPeridine
dextromethorphan
doxylamine
hydrocodone
Morphine
Trazodone

Control prepared at 1000 ng/ml Doxylamine, meperidine, hydrocodone, morphine, trazodone, Dextromethorphan.

Name	Transition	Acq. Date-Time	RT	Resp.	S/N	Transition	S/N	Name	Transition	RT	Resp.
7-aminoflunitrazepam	284.1 -> 135...	12/12/2016 1:45 PM	5.965	1887	16.51	284.1 -> 93.2	3.09	7-aminoflunitrazepam-D7	291.2 -> 138...	5.760	263998
alpha-hydroxymidazolam	342.1 -> 324...	12/12/2016 1:45 PM	6.669	110	0.40	342.1 -> 203...	0.39	alpha-hydroxymidazolam-...	346.1 -> 328...	6.507	490216
Amitriptyline	278.2 -> 91.2	12/12/2016 1:45 PM	6.720	2635	0.43	278.2 -> 105...	1.11	Amitriptyline-D3	281.2 -> 91.2	6.637	598363
Amoxapine	314.1 -> 271...	12/12/2016 1:45 PM	6.531	823	5.57	314.1 -> 193...	32.34	Amitriptyline-D3	281.2 -> 91.2	6.637	598363
Benzoylecgonine	290.1 -> 168...	12/12/2016 1:45 PM	5.431	152	1.47	290.1 -> 105...	4.61	Benzoylecgonine-D8	298.2 -> 171...	5.370	6253
Carbamazepine	237.1 -> 193...	12/12/2016 1:45 PM	5.644	1132	3.87	237.1 -> 194...	1.06	Carbamazepine-13C6	243.1 -> 200...	6.176	13523...
Chlordiazepoxide	300.1 -> 227...	12/12/2016 1:45 PM	6.451	2112	3.99	300.1 -> 282...		Chlordiazepoxide-D5	305.1 -> 286...	6.654	349672
Clomipramine	315.2 -> 86.2	12/12/2016 1:45 PM	6.835	292	1.02	315.2 -> 58.3	0.35	Clomipramine-D3	318.2 -> 89.2	6.895	16391...
Cocaine	304.2 -> 182...	12/12/2016 1:45 PM	5.860	239	0.60	304.2 -> 105...	0.61	Cocaine-D3	307.2 -> 185...	5.819	634680
Desipramine	267.2 -> 72.3	12/12/2016 1:45 PM	6.579	1670	10.14	267.2 -> 44.3	9.87	Desipramine-D3	270.2 -> 75.3	6.518	15879...
Doxepin	280.2 -> 107...	12/12/2016 1:45 PM	6.251	860	0.79	280.2 -> 77.2		Doxepin-D3	283.2 -> 107...	6.353	660483
Estazolam	295.1 -> 267...	12/12/2016 1:45 PM	6.432	129	0.91	295.1 -> 205...	0.32	Estazolam-D5	300.1 -> 272...	6.451	352510
Flunitrazepam	314.1 -> 268...	12/12/2016 1:45 PM	6.531	1553	1.54	314.1 -> 239...	0.37	Flunitrazepam-D7	321.1 -> 245...	6.490	14518
Flurazepam	388.2 -> 315...	12/12/2016 1:45 PM	6.505	192	0.71	388.2 -> 317...		Zopiclone-D4	393.1 -> 244...	6.423	315878
Imipramine	281.2 -> 86.2	12/12/2016 1:45 PM	6.617	2946	5.42	281.2 -> 58.3	1.07	Imipramine-D3	284.2 -> 61.3	6.597	12774...
Levamisole	205.1 -> 91.2	12/12/2016 1:45 PM	5.465	406	0.29	205.1 -> 178...	0.60	Cocaine-D3	307.2 -> 185...	5.819	634680
Maprotiline	278.2 -> 91.2	12/12/2016 1:45 PM	6.720	2635	0.43	278.2 -> 117...	2.00	Meperidine-D4	252.2 -> 224...	5.869	258617
MDA	180.1 -> 163...	12/12/2016 1:45 PM	5.813	26067	44.89	180.1 -> 105...	0.42	MDA-D5	185.1 -> 168...	5.144	307355
MDEA	208.1 -> 163...	12/12/2016 1:45 PM	5.181	72	0.31	208.1 -> 105...		MDEA-D6	214.2 -> 166...	5.424	625860
MDMA	194.1 -> 163...	12/12/2016 1:45 PM	5.243	106	0.59	194.1 -> 105...	0.59	MDMA-D6	200.2 -> 166...	5.284	59191
Meperidine	248.2 -> 220...	12/12/2016 1:45 PM	5.869	58754...	559.80	248.2 -> 174...	520.29	Meperidine-D4	252.2 -> 224...	5.869	258617
Methylphenidate	234.2 -> 84.2	12/12/2016 1:45 PM				234.2 -> 56.3		Methylphenidate-D4	238.2 -> 88.1		
Metoprolol	268.2 -> 116...	12/12/2016 1:45 PM				268.2 -> 56.3	0.76	Meperidine-D4	252.2 -> 224...	5.869	258617
Midazolam	326.1 -> 223...	12/12/2016 1:45 PM	6.671	41	0.71	326.1 -> 249...	0.34	Midazolam-D4	330.1 -> 295...	6.670	463255
Mirtazapine	266.2 -> 195...	12/12/2016 1:45 PM	6.539	177	1.12	266.2 -> 72.3	0.56	Midazolam-D4	330.1 -> 295...	6.670	463255
Mitragynine	399.2 -> 174...	12/12/2016 1:45 PM				399.2 -> 238...	2.26	Mitragynine-D3	402.3 -> 177...	6.544	47
Normeperidine	234.1 -> 42.3	12/12/2016 1:45 PM	5.769	1950	2.13	234.1 -> 160...		Normeperidine-D4	238.2 -> 164...	5.768	318307
Norpropoxyphene	326.2 -> 44.3	12/12/2016 1:45 PM	6.751	168	0.52	326.2 -> 252...	1.94	Norpropoxyphene-D5	331.2 -> 44.3	6.365	196614
Nortriptyline	264.2 -> 91.2	12/12/2016 1:45 PM	6.601	6900	16.53	264.2 -> 233...	4.27	Nortriptyline-D3	267.2 -> 233...	6.559	451835
Ondansetron	294.2 -> 184...	12/12/2016 1:45 PM	5.943	115	0.77	294.2 -> 212...		Pentazocine-13C3	289.2 -> 72.3	5.821	440200
Pentazocine	286.2 -> 218...	12/12/2016 1:45 PM		2174	30.00	286.2 -> 41.3		Pentazocine-13C3	289.2 -> 72.3	5.821	440200
Phenazepam	349.0 -> 206...	12/12/2016 1:45 PM	6.526	79	0.75	349.0 -> 183...	0.76	Phenazepam-D4	353.0 -> 183...	6.566	22178
Phencyclidine	244.2 -> 86.2	12/12/2016 1:45 PM	6.012	980	1.54	244.2 -> 91.1	2.03	Phencyclidine-D5	249.2 -> 86.2	6.052	10883...
Phenytoin	253.1 -> 104...	12/12/2016 1:45 PM	6.073	442	0.89	253.1 -> 182...	0.36	Phenytoin-D10	263.2 -> 192...	6.093	22976
Prazepam	325.1 -> 271...	12/12/2016 1:45 PM	6.996	39	0.93	325.1 -> 140...		Prazepam-D5	330.1 -> 276...	6.994	1009...
Primidone	219.1 -> 91.2	12/12/2016 1:45 PM	5.607	515	0.34	219.1 -> 162...		Prazepam-D5	330.1 -> 276...	6.994	1009...
Propoxyphene	340.2 -> 58.3	12/12/2016 1:45 PM	6.467	79	0.75	340.2 -> 266...		Propoxyphene-D11	351.3 -> 277...	6.424	309902
Protriptyline	264.2 -> 155...	12/12/2016 1:45 PM	6.601	1375	0.88	264.2 -> 161...	0.15	Protriptyline-D3	267.2 -> 155...	6.457	471914
Pseudoephedrine	166.1 -> 148...	12/12/2016 1:45 PM	5.065	402	0.53	166.1 -> 117...	0.67	Pseudoephedrine-D3	169.1 -> 151...	4.802	427193
Tapentadol	222.2 -> 107...	12/12/2016 1:45 PM	5.606	154	0.42	222.2 -> 121...		Tapentadol-D3	225.2 -> 107...	5.626	887715
Trimipramine	295.2 -> 100...	12/12/2016 1:45 PM	6.636	410	1.36	295.2 -> 58.3	0.34	Trimipramine-D3	298.2 -> 103...	6.676	24345...
Verapamil	455.3 -> 165...	12/12/2016 1:45 PM	6.483	44	1.89	455.3 -> 150...		Trimipramine-D3	298.2 -> 103...	6.676	24345...
Zaleplon	306.1 -> 236...	12/12/2016 1:45 PM	6.715	16	0.25	306.1 -> 264...	1.04	Zaleplon-D4	310.2 -> 240...	6.287	197985
Zopiclone	389.1 -> 244...	12/12/2016 1:45 PM	6.444	19	0.47	389.1 -> 216...	1.53	Zopiclone-D4	393.1 -> 244...	6.423	315878