Collaborative Testing Services, Inc
FORENSIC TESTING PROGRAM

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Blood Drug Analysis
Test No. 24-5661 Summary Report

Each sample set contained blood samples from four individual cases with unique case scenarios. Participants were asked to analyze the blood samples and report the presence of any drugs/metabolites, any quantitative data obtained (including uncertainty), and the methods used. Data were returned from 140 participants and are compiled into the following tables:

This report contains the data received from the participants in this test. Since these participants are located in many countries around the world, and it is their option how the samples are to be used (e.g., training exercise, known or blind proficiency testing, research and development of new techniques, etc.), the results compiled in the Summary Report are not intended to be an overview of the quality of work performed in the profession and cannot be interpreted as such. The Summary Comments are included for the benefit of participants to assist with maintaining or enhancing the quality of their results. These comments are not intended to reflect the general state of the art within the profession.

Participant results are reported using a randomly assigned "WebCode". This code maintains participant's anonymity, provides linking of the various report sections, and will change with every report.

Manufacturer's Information

Each sample set contained blood samples from four cases, each with an individual case scenario. Each item consisted of two grey-top glass vials. Participants were asked to analyze the blood samples and report the presence of any drugs/metabolites and quantitative data obtained, including uncertainty and the methods used.

SAMPLE PREPARATION: A stock solution of each drug was used to spike specific items. These solutions were obtained in sealed ampoules and were not opened until needed for production. Items were prepared at separate times using the following procedure.

ITEMS 1, 2, 3, and 4 (PREPARATION): Item preparation consisted of adding a predetermined amount of drug stock solution to whole blood and mixing thoroughly. This mixture was then pipetted into each of the pre-labeled vials, which contained potassium oxalate and sodium fluoride. The vials were sealed and inverted multiple times to mix the preservatives in the vials with the blood solution. All vials were placed in a refrigerator immediately after production and stored there until the sample sets were prepared.

VERIFICATION: Predistribution results were consistent with each other and the manufacturer's preparation information. Verification laboratories reported benzoylecgonine as an artifact for Item 4; this analyte was not added to the sample during production by CTS, but was present in the original blood matrix. Participants were asked to disregard benzoylecgonine on the data entry form.

SAMPLE SET ASSEMBLY: Each sample set containing four items was placed into a Department of Transportation regulated shipping container. The sample sets were then returned to the refrigerator until shipment.

Item 1 Drug(s) [Human Blood]	Item 2 Drug(s) [Sheep Blood]	Item 3 Drug(s) [Sheep Blood]	Item 4 Drug(s) [Human Blood]
Morphine (300 ng/mL)	Doxepin (50 ng/mL)	Ketamine (2200 ng/mL)	d-Methamphetamine (300 ng/mL)
Lorazepam (240 ng/mL)	Codeine (1000 ng/mL)	Delta-9-THC (90 ng/mL)	
	Quetiapine (500 ng/mL)		

Please note that the preparation concentration is the value used for calculations during the test preparation phase and may not necessarily represent the final concentration of the samples. It is advised to view the Grand Mean statistics available in this Summary Report as well as wait for the Individual Reports before evaluating performance.

Summary Comments

This test was designed to allow participants to assess their proficiency in the examination for the presence and concentration of drugs and/or metabolites in blood. Participants were supplied with four blood samples; each item was composed of two vials containing 10 mL blood. Item 1 contained morphine and lorazepam, Item 2 contained doxepin, codeine, and quetiapine, Item 3 contained ketamine and delta-9-THC, and Item 4 contained d-Methamphetamine. Refer to the Manufacturer's Information for preparation details.

Of the 132 participants who reported screening results for Item 1, 58 reported the presence of morphine, and 58 reported lorazepam. Seventy-three participants screened positive for benzodiazepines, and 72 reported opiates/opioids. There were fifty-nine instances where participants reported another drug from screening analysis. Of the 123 participants who reported confirmatory results for Item 1, 116 reported the presence of morphine, 117 reported lorazepam, and other drugs or metabolites were reported 47 times.

Of the 131 participants who reported screening results for Item 2, 50 reported the presence of doxepin, 62 reported codeine, and 47 reported quetiapine. Sixty-eight participants screened positive for opiates/opioids, and 14 reported tricyclic antidepressants. There were twenty-nine instances where participants reported another drug from screening analysis. Of the 116 participants who provided confirmatory responses for Item 2, 79 reported the presence of doxepin, 115 reported codeine, and 74 reported quetiapine, and other drugs or metabolites were reported 12 times.

Of the 131 participants who reported screening results for Item 3, 77 reported the presence of ketamine, 50 reported delta-9-THC, and 52 participants screened positive for cannabinoids. There were twenty-one instances where participants reported another drug from screening analysis. Of the 120 participants who reported confirmatory results for Item 3, 101 reported the presence of ketamine and 84 reported THC, and other drugs or metabolites were reported 10 times.

Of the 132 participants who reported screening results for Item 4, the most commonly reported was the presence of d-methamphetamine by 111 participants. Twenty-four reported amphetamines or SMA's, and 40 instances of other drugs were reported. Of the 123 participants who provided confirmatory responses for Item 4, 122 reported the presence of d-methamphetamine, and other drugs or metabolites were reported 16 times.

For all four items, immunoassay was the most commonly reported screening method. Both GC/MS and LC/MS/MS were employed by a majority of participants to confirm the drugs/metabolites for Items 1, 2 and 3. GC/MS was the most common method used for confirmatory analysis for Item 4. LC/MS/MS was the most commonly reported quantitation method used to analyze the samples.

The most common confirmatory quantitative results reporting procedure for all items was a single determination. If a participant did not provide raw data, but indicated that their result was a single determination and reported in ng/mL, the conclusive quantitative result was included in the raw data table. The raw data was used to calculate the grand mean and standard deviation for each item and are supplied to assist the participants and accrediting bodies in determining the acceptability of results. Participants with extreme data have been marked with an "X" and their results were excluded from the calculations of the grand mean and standard deviation. Extreme data has been determined using the Critical Value of h defined within ASTM E 691-19, and calculated for each analyte as ± (CrH * STD) from the grand mean.

Thirteen participants' data were marked as extreme in statistical analysis of the raw data. The breakdown of extreme data is as follows: seven reported extreme data for Item 1 (two for morphine, four for lorazepam, and one for both morphine and lorazepam), three reported extreme data for Item 2 (one for codeine, one for doxepin, and one for quetiapine), seven reported extreme data for Item 3 (six for ketamine and one for delta-9-THC), and two for d-methamphetamine in Item 4.

Screening Results - Item 1

TABLE 1A

Item Scenario:

A 26 year-old male died in his home after receiving medications for a severe disease administered by his palliative care physician. A blood sample was collected at the scene for toxicological testing.

Item Contents and Preparation Concentration: Morphine (300 ng/mL)
Lorazepam (240 ng/mL)

WebCode	Screening Results
22LTAL	Morphine, Lorazepam and Codeine
23XFTK	Opiate, Benzodiazepine
2E9T9Z	opiates benzodiazepines
2F7B2P	Benzodiazepine, Opiate
2H6J9K	Cetirizine, Lorazepam, Morphine
2M7KGU	Benzodiazepines, Opiates, Opioids
3KXR2L	Benzodiazepines, Opiates, Opioids
3M2KUZ	Lorazepam, Methamphetamine, Morphine
3QJRAL	BENZODIAZEPINES 1, BENZODIAZEPINES 2, OPIATES, OPIOIDS
3VVTEQ	General Opiates, Synthetic Opiates
3W6KLL	opiates, benzodiazepines
3XLRTN	Benzodiazepines, Opiates
3ZQKMM	Benzodiazepine and opiate positive screens
4AVR3M	Lorazepam, Morphine
4HN3CH	Benzodiazepine, Opiate
4Q2WPY	Lorazepam, Morphine
4T4UZR	Lorazepam, Morphine (Free), Caffeine, Cetirizine, Lidocaine, Ephedrine/ Pseudoephedrine
4THFAU	Lorazepam, morphine
4Z746Y	Benzodiazepines, Opiates
62PLGG	Benzodiazepines, Opiates
6BZN3H	Benzodiazepines, Opiates.
6PGUXG	Opiates, Benzodiazepines
6Y8F2U	lorazepam, morphine
73LC9G	Morphine, Lignocaine, Lorazepam

TABLE 1A: Screening Results - Item 1

WebCode	Screening Results
77KN6G	Benzoylecgonine/cocaine, benzodiazepines, and opiates
7NZX6H	Benzodiazepinesi, Opiate/Opiods
7YMWWM	Benzodiazepine, Opiate
826FGH	Opiates, Benzodiazepines
8637EG	Benzodiazepine Class, Opiate Class
866NKR	Morphine (opioids) Lorazepam (benzodiazepines)
88VPNU	Lorazepam, Morphine
8HTTTN	Lorazepam, Morphine
8KKPGH	Lorazepam, Morphine, Pseudoephedrine/Ephedrine
8NZ7QM	Lorazepam, Morphine
8RFRJU	Codeine, Hydromorphone, Morphine, Lorazepam
93QQKF	Benzodiazepines, Opiates
93TCGV	Opiates and benzodiazepines
9AE6UF	Benzodiazepines, Opiates
9F4L77	Morphine, Lorazepam, Meloxicam, Lignocaine
9VWC4N	Benzodiazepines and Opiates
AB3ZUU	Benzodiazepines
B44TQE	Lorazepam, Morphine, Pseudoephedrine/Ephedrine
BA4A2K	benzodiazepines, opiates
BCV9FH	lorazepam
BFVJBH	General opiates - narcotics
BL2C3T	immunoassay - Benzodiazepines, LC-QTOF-MS - Morphine
C2TB8A	opiates, benzodiazepines
C3HKVG	Opioids, Benzodiazepines
CAMFXP	Lorazepam, Morphine
CQ87XN	Lorazepam, Morphine
CTVM6B	Benzodiazepines (class), Opiates (class)
CTY3LH	Benzodiazepine, Opiates

TABLE 1A: Screening Results - Item 1

WebCode	Screening Results
DAGMJE	Benzodiazepines, Opiates
DLB2JB	Benzodiazepines, Opiate/Opioids
DLCYPZ	Benzodiazepines class, Opiates class, Lorazepam, Morphine, Pseudoephedrine, Ibuprofen
DUMZBZ	Morphine, lorazepam, lignocaine
EC2W7K	Opiates/opioids, Benzodiazepines
EL74LK	morphine, acetaminophen, codeine, pseudo/ephedrine, lidocaine, doxylamine, lorazepam, fluoxetine
FE2MQ6	opiates, benzodiazepines
FHZXL6	Opiates, Benzodiazepines
FL3LE9	Benzodiazepines, Opiates
FN7GYC	lorazepam, morphine
FP6FGK	morphine; lorazepam
FUYC7B	Benzodiazepines, Opiates
G7MXPB	Lorazepam, Morphine
GGQXEC	Benzodiazepines, Opiates, Opioids
GHK2RJ	Lorazepam (Benzodiazepines), Morphine (Opiates)
GKQ9BC	Opiates, Benzodiazepines
HLCAT6	Morphine, Lorazepam, Cetirizine
HNKPZB	Caffeine
HVKZEG	Opioids, Opiates, Benzodiazepines
HXCV4B	Opiates, Benzodiazepines
HZEUCH	morphine, lorazepam
J7Z7QB	Morphine, Lorazepam, Lidocaine, Cetirizine
K3EQR3	Benzodiazepines, Opiates, Opioids
K3WV9F	Lorazepam, Morphine
KCLLV9	Opioids: Codeine and morphine, Benzodiazepines: Lorazepam, Other: Lidocaine, ibuprofen
KNBHW7	morphine, lorazepam
KQ3GB6	Benzodiazepines, Opiates, Opioids
KW33R7	Ephedrine/Pseudoephedrine, Lorazepam, Morphine

TABLE 1A: Screening Results - Item 1

WebCode	Screening Results
L8LUZG	Lorazepam, Morphine
LBJD4Z	Opiates, Benzodiazepines
LFXVD6	Morphine and benzodiazepines
M39BHY	Opiate and Benzodiazepine
MTJKV8	Lorazepam
MZJ6VG	Opiates, Benzodiazepines
N9RYQA	morphine, lorazepam
NEGBRX	Lorazepam, Morphine, lidocaine
NPX6WY	Lorazepam, Morphine, Cetirizine
NTY4F6	Benzodiazepines, Opiates
NZFLP7	Lorazepam, Morphine
P2LQFY	Benzodiazepines & Opiates
P9PNAX	Opioids and Benzodiazepines
PC6WXW	Benzodiazepines, Opiates
PMQZ3B	Acetaminophen, codeine, doxylamine, fluoxetine, 3,4-Methylenedioxyamphetamine, morphine, pseudoephedrine, lorazepam, lidocaine, caffeine
PP9GX2	Cetirizine, Lorazepam, Meloxicam, Morphine
Q6YL2N	morphine, lidocaine, lorazepam
QT78VZ	Opiates
T2A24X	Lorazepam, Morphine, Codeine
T4YKT3	Benzodiazepines, Opiates, Opioids
T6C24U	Benzodiazepine class, Opiate class
TD4HRY	Morphine, Lorazepam
TGNKJ6	morphine, lorazepam
TH2UWB	Opiates, Benzodiazepines
TMBA7Z	benzodiazepines, general opiates, synthetic opiates
TXVJUT	opiate, benzodiazepine
TZLKVB	Benzodiazepines, Opiates
U8G6DW	Benzodiazepines/Opiates

TABLE 1A: Screening Results - Item 1

WebCode	Screening Results
U9MEE2	Opioids, Benzodiazepines
UCMPB2	Lorazepam, Morphine
UHV3HZ	Morphine and Lorazepam
UZRPJJ	Lorazepam, Morphine
VAWW24	lorazepam, morphine
VAXXHV	Lorazepam, Morphine, Pseudoephedrine/ephedrine
VBANRZ	Opiates, Benzodiazepines
VCMX68	opiates, benzodiazepines
VD2KGU	Benzodiazepines, Opiates
VRFPP8	Opioids, Benzodiazepines
W9KG6H	morphine, pseudoephedrine, cetirizine, lorazepam, lidocaine
XK898X	Morphine, Lorazepam
XPP7YU	benzodiazepines and opiates
XQYFP7	Positive opiate ELISA, Positive benzo ELISA
XVQPRR	morphine, lorazepam
Y9T9B4	No drugs detected utilizing screening methods.
YDQRD3	Lorazepam, Morphine
YDRMXU	Lorazepam, Morphine
YLKX9P	Benzodiazepines and Opiates
YPW6AT	Benzodiazepines, Opiates (General), Opiates (Synthetic)
YYKWVL	Opiates, Benzodiazepines
Z3NREN	morphine, lorazepam
ZMBHCZ	Lorazepam, Morphine
ZYK6GQ	Benzodiazepines, Opiates, Opioids

Screening Response Summary for Item 1	Participants: 132
Morphine:	58
Lorazepam:	58
Benzodiazepines:	73
Opiates/Opioids:	72
Other Drugs Detected:	59
No Drugs Detected Utilizing Screening Methods:	1

Total number of screening responses provided may be more than the number of participants due to multiple drugs/metabolites being reported.

Confirmatory Results - Item 1

TABLE 1B

Item Scenario:

A 26 year-old male died in his home after receiving medications for a severe disease administered by his palliative care physician. A blood sample was collected at the scene for toxicological testing.

Item Contents and Preparation Concentration: Morphine (300 ng/mL)
Lorazepam (240 ng/mL)

What drugs/metabolites were detected in Item 1?

WebCode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
22LTAL	Morphine		305		ng/ml
	Lorazepam		59		ng/ml
	Additional Analyte(s) Reported				
	Codeine		1.7		ng/ml
23XFTK	Morphine		301	41	ng/mL
	Lorazepam		204	44	ng/mL
2E9T9Z	morphine		292		ng/mL
	lorazepam		224		ng/mL
2F7B2P	Morphine	✓			
	Lorazepam	✓			
2H6J9K	Morphine	✓			
	Lorazepam	✓			
3M2KUZ	Morphine		291		ng/mL
	Lorazepam		212		ng/mL
3QJRAL	Morphine	✓			
	Lorazepam	✓			
3VVTEQ	Morphine	✓	n/a	n/a	n/a
	Lorazepam	✓	n/a	n/a	n/a
3W6KLL	Morphine	✓			
	Lorazepam	✓			
3XLRTN	Morphine		360	60	ng/mL
	Lorazepam		230	70	ng/mL
3ZQKMM	Morphine	✓			
	Lorazepam	✓			
4AVR3M	Morphine		241.46	26.56	ng/mL
	Lorazepam		207.81	27.01	ng/mL

TABLE 1B: Confirmatory Results - Item 1

What drugs/metabolites were detected in Item 1?					
WebCode	**Analyte Reported**	**Qualitative Only**	**Reported Concentration**	**Uncertainty**	**Units**
4HN3CH	Morphine		329	13.48%	ng/mL
	Lorazepam		230	21.54%	ng/mL
4Q2WPY	Morphine		291		ng/mL
	Lorazepam		223		ng/mL
4T4UZR	Morphine (Free)		0.242	0.026	mg/L
	Lorazepam		0.189	0.017	mg/L
4THFAU	Morphine		0.24	0.06	mg/L
	Lorazepam		0.18	0.05	mg/L
4Z746Y	Morphine		0.26	0.05	µg/mL
	Lorazepam		0.22	0.04	µg/mL
62PLGG	Morphine		0.33	+/-16%	ug/ml
	Lorazepam		0.18	+/-22%	ug/ml
	Additional Analyte(s) Reported				
	Lidocaine	✓			
6BZN3H	Morphine	✓			
	Lorazepam	✓			
6PGUXG	Morphine		328	44	ng/mL
	Lorazepam		174	37	ng/mL
6Y8F2U	morphine		0.32	0.08	mg/L
	lorazepam		0.19	0.06	mg/L
7NZX6H	Morphine		440	66	ng/ml
	Lorazepam	✓			
	Additional Analyte(s) Reported				
	Caffeine	✓			
	Ephedreine/Pseudoephedrine		6.1	.85	ng/ml
7YMWWM	Morphine	✓			
	Lorazepam	✓			
826FGH	Morphine		0.34	0.07	mg/L
	Lorazepam		0.20	0.04	mg/L
8637EG	Morphine	✓			
	Lorazepam	✓			

TABLE 1B: Confirmatory Results - Item 1

What drugs/metabolites were detected in Item 1?					
WebCode	**Analyte Reported**	**Qualitative Only**	**Reported Concentration**	**Uncertainty**	**Units**
866NKR	Morphine		0.32	0.08	mg/L
	Lorazepam		0.19	0.06	mg/L
8HTTTN	Morphine		292	93	ng/mL
	Lorazepam		158	43	ng/mL
8KKPGH	Morphine		322.51	41.92	ng/mL
	Lorazepam		116.64	24.49	ng/mL
	Additional Analyte(s) Reported				
	Pseudoephedrine/Ephedrine		6.06	0.42	ng/mL
8NZ7QM	Morphine		300		ng/mL
	Lorazepam		230		ng/mL
8RFRJU	Morphine		292.05	40.89	ng/mL
	Lorazepam		216.94	41.22	ng/mL
93QQKF	Morphine	✓			
	Lorazepam	✓			
93TCGV	Morphine		0.26	0.05	µg/mL
	Lorazepam		0.20	0.04	µg/mL
9AE6UF	Morphine	✓			
	Lorazepam	✓			
	Additional Analyte(s) Reported				
	Lidocaine	✓			
9F4L77	Morphine		270	20.5%	ng/mL
	Lorazepam		190	13.7%	ng/mL
	Additional Analyte(s) Reported				
	Lignocaine	✓			
	Meloxicam	✓			
9VWC4N	Lorazepam	✓	Detected		
AB3ZUU	Morphine		330		ng/mL
	Lorazepam		240		ng/mL
B44TQE	Morphine		265.89	34.56	ng/ml
	Lorazepam		141.91	29.80	ng/ml
	Additional Analyte(s) Reported				
	Pseudoephedrine/Ephedrine		5.66	0.39	ng/ml

TABLE 1B: Confirmatory Results - Item 1

What drugs/metabolites were detected in Item 1?					
WebCode	**Analyte Reported**	**Qualitative Only**	**Reported Concentration**	**Uncertainty**	**Units**
BA4A2K	lorazepam		199	27	ng/ml
BCV9FH	lorazepam	✓			
BFVJBH	Morphine	✓			
BL2C3T	Morphine	✓			
	Lorazepam	✓			
C2TB8A	Morphine		300	+/-40	ng/mL
	Lorazepam		243	+/- 52	ng/mL
C3HKVG	Morphine	✓			
	Lorazepam	✓			
	Additional Analyte(s) Reported				
	Codeine	✓			
	Lidocaine	✓			
CAMFXP	morphine		283		ng/mL
	Lorazepam		205		ng/mL
CQ87XN	Morphine		265		ng/mL
	Lorazepam		235		ng/mL
CTVM6B	Morphine	✓			
	Lorazepam	✓			
DAGMJE	Morphine	✓			
	Lorazepam	✓			
	Additional Analyte(s) Reported				
	Lidocaine	✓			
DLB2JB	Morphine		440	66	ng/mL
	Lorazepam	✓			
	Additional Analyte(s) Reported				
	Caffeine	✓			
	Ephedrine/Pseudoephedrine		6.3	.88	ng/mL
DLCYPZ	Morphine		310	60	ng/mL
	Lorazepam		230	34	ng/mL
	Additional Analyte(s) Reported				
	Codeine-6-Glucuronide		<10	<2	ng/mL
	Ibuprofen	✓			
	Pseudoephedrine		<10		ng/mL

TABLE 1B: Confirmatory Results - Item 1

What drugs/metabolites were detected in Item 1?					
WebCode	**Analyte Reported**	**Qualitative Only**	**Reported Concentration**	**Uncertainty**	**Units**
DUMZBZ	Morphine		310	80	ng/mL
	Lorazepam		210	50	ng/mL
EC2W7K	Morphine		273		ng/mL
	Lorazepam		217		ng/mL
EGYDJE	Morphine	✓			
	Lorazepam	✓			
EL74LK	morphine		0.32	0.08	mg/L
	lorazepam		0.18	0.05	mg/L
FE2MQ6	Morphine		339	45	ng/ml
	Lorazepam		229	49	ng/ml
FHZXL6	Morphine		323	44	ng/mL
	Lorazepam		240	52	ng/mL
FL3LE9	Morphine	✓			
	Lorazepam	✓			
FN7GYC	morphine		290.19	+/- 63.84	ng/ml
	lorazepam	✓			
FP6FGK	morphine		0.31	0.08	mg/L
	lorazepam		0.20	0.06	mg/L
FUYC7B	Morphine	✓			
	Lorazepam	✓			
G7MXPB	Morphine	✓			
	Lorazepam	✓			
G9DYTE	Morphine	✓			
	Lorazepam	✓			
	Additional Analyte(s) Reported				
	Lidocaine	✓			
GGQXEC	Morphine	✓			
	Additional Analyte(s) Reported				
	Lidocaine	✓			
	Meloxicam	✓			
	Pseudoephedrine	✓			

TABLE 1B: Confirmatory Results - Item 1

What drugs/metabolites were detected in Item 1?					
WebCode	**Analyte Reported**	**Qualitative Only**	**Reported Concentration**	**Uncertainty**	**Units**
GHK2RJ	Morphine		280		ng/mL
	Lorazepam		210		ng/mL
HLCAT6	Morphine	✓			
	Lorazepam	✓			
	Additional Analyte(s) Reported				
	Cetirizine	✓			
HNKPZB	**Additional Analyte(s) Reported**				
	Caffeine				
HVKZEG	Morphine		274		ng/mL
	Lorazepam		203		ng/mL
HXCV4B	Morphine	✓			
	Lorazepam	✓			
HZEUCH	morphine		0.30	0.08	mg/L
	lorazepam		0.18	0.05	mg/L
J7Z7QB	Morphine	✓			
	Lorazepam	✓			
	Additional Analyte(s) Reported				
	Cetirizine	✓			
	Lidocaine	✓			
K3EQR3	Morphine		3053		ng/ml
	Lorazepam		67		ng/ml
K3WV9F	Morphine		275		ng/mL
	Lorazepam		240		ng/mL
KCLLV9	Morphine	✓			
	Lorazepam	✓			
	Additional Analyte(s) Reported				
	Codeine	✓			
	ibuprofen	✓			
	lidocaine	✓			
KNBHW7	morphine		282	10%	ng/mL

TABLE 1B: Confirmatory Results - Item 1

What drugs/metabolites were detected in Item 1?					
WebCode	**Analyte Reported**	**Qualitative Only**	**Reported Concentration**	**Uncertainty**	**Units**
KW33R7	Morphine		306.65	22%	ng/mL
	Lorazepam	✓			
	Additional Analyte(s) Reported				
	Ephedrine/Pseudoephedrine	✓			
L8LUZG	Morphine		287	26	ng/mL
	Lorazepam		241	25	ng/mL
LBJD4Z	Morphine		306	13.48%	ng/mL
	Lorazepam		229	21.54%	ng/mL
LFXVD6	Morphine	✓			
	Lorazepam	✓			
LPLM8A	**Additional Analyte(s) Reported**				
	Lidocaine	✓			
M39BHY	morphine		334	13.48%	ng/ml
	lorazepam		236	21.54%	ng/ml
MTJKV8	Lorazepam		176	18%	ng/mL
MZJ6VG	Morphine		0.225	0.040	mg/L
	Lorazepam		0.190	0.049	mg/L
N9RYQA	morphine		0.32	0.08	mg/L
	lorazepam		0.25	0.08	mg/L
NEGBRX	Morphine		280	60	ng/mL
	Lorazepam		210	40	ng/mL
	Additional Analyte(s) Reported				
	lidocaine	✓			
NPX6WY	Morphine	✓			
	Lorazepam	✓			
	Additional Analyte(s) Reported				
	Cetirizine	✓			
NTY4F6	Morphine	✓			
	Lorazepam	✓			
NZFLP7	Morphine		310		ng/mL
	Lorazepam		230		ng/mL

TABLE 1B: Confirmatory Results - Item 1

What drugs/metabolites were detected in Item 1?					
WebCode	**Analyte Reported**	**Qualitative Only**	**Reported Concentration**	**Uncertainty**	**Units**
P9PNAX	Morphine		356	48	ng/mL
	Lorazepam		171	37	ng/mL
PC6WXW	Morphine		0.28	15%	mg/L
	Lorazepam		0.18	14%	mg/L
PMQZ3B	morphine		0.32	0.08	mg/L
	lorazepam		0.17	0.05	mg/L
PP9GX2	Morphine		313		ng/mL
	Lorazepam		172		ng/mL
	Additional Analyte(s) Reported				
	Cetirizine		13		ng/mL
	Meloxicam		101		ng/mL
Q6YL2N	morphine		321		ng/mL
	lorazepam		216		ng/mL
	Additional Analyte(s) Reported				
	lidocaine	✓			
QT78VZ	Morphine		283	49	ng/mL
	Additional Analyte(s) Reported				
	6-MAM		None Detected	N/A	ng/mL
	Codeine		None Detected	N/A	ng/mL
	Hydrocodone		None Detected	N/A	ng/mL
	Hydromorphone		None Detected	N/A	ng/mL
	Oxycodone		None Detected	N/A	ng/mL
	Oxymorphone		None Detected	N/A	ng/mL
T2A24X	Morphine		258	20%	ng/mL
	Lorazepam		219	16%	ng/mL
T6C24U	Morphine	✓			
	Lorazepam	✓			
TD4HRY	Morphine	✓			
	Lorazepam	✓			
TGNKJ6	morphine		310	80	ng/mL
	lorazepam		220	70	ng/mL
TH2UWB	Morphine		294	254-333	ng/mL
	Lorazepam		249	195-302	ng/mL

TABLE 1B: Confirmatory Results - Item 1

What drugs/metabolites were detected in Item 1?					
WebCode	**Analyte Reported**	**Qualitative Only**	**Reported Concentration**	**Uncertainty**	**Units**
TMBA7Z	Morphine	✓			
	Lorazepam	✓			
	Additional Analyte(s) Reported				
	Codeine	✓			
TXVJUT	morphine		336	45	ng/mL
	lorazepam		224	48	ng/mL
TZLKVB	Morphine		280		ng/mL
	Lorazepam		230		ng/mL
U8G6DW	Morphine	✓			
	Lorazepam	✓			
U9MEE2	Morphine		311		ng/mL
	Lorazepam		228		ng/mL
UCMPB2	Morphine		257	67	ng/mL
	Lorazepam		210	33	ng/mL
UHV3HZ	Morphine	✓			
	Lorazepam	✓			
UZRPJJ	Morphine		0.29	15%	mg/L
	Lorazepam		Approx. 0.22	15%	mg/L
VAWW24	morphine		0.30	0.08	mg/L
	lorazepam		0.18	0.05	mg/L
VAXXHV	Morphine		321.70	+/-22%	ng/mL
	Lorazepam	✓			
	Additional Analyte(s) Reported				
	Pseudoephedrine/ephedrine	✓			
VBANRZ	Morphine		287	40	ng/mL
	Lorazepam	✓			
VCMX68	morphine		286		ng/mL
	lorazepam		197		ng/mL
VD2KGU	Lorazepam		271	66	ng/mL
VRFPP8	Morphine		281	34	ng/mL
	Lorazepam		>200		ng/mL

TABLE 1B: Confirmatory Results - Item 1

What drugs/metabolites were detected in Item 1?					
WebCode	**Analyte Reported**	**Qualitative Only**	**Reported Concentration**	**Uncertainty**	**Units**
W9KG6H	morphine		304	39	ng/mL
	lorazepam		220	20	ng/mL
	Additional Analyte(s) Reported				
	cetirizine	✓			
	lidocaine	✓			
	pseudoephedrine	✓	<12.5		ng/mL
XEHN2W	Morphine	✓			
	Lorazepam	✓			
XK898X	Morphine		265.5	42.5	ng/mL
	Lorazepam		200.3	30.0	ng/mL
XPP7YU	morphine	✓			
	lorazepam	✓			
XQYFP7	Morphine		317	13.48%	ng/mL
	Lorazepam		238	21.54%	ng/mL
XVQPRR	morphine		303	41	ng/mL
	lorazepam		207	31	ng/mL
YDQRD3	Morphine		283		ng/mL
	Lorazepam		217		ng/mL
YDRMXU	Morphine	✓			
	Lorazepam	✓			
YPW6AT	morphine	✓			
	lorazepam	✓			
	Additional Analyte(s) Reported				
	codeine	✓			
YYKWVL	Morphine		329	44	ng/mL
	Lorazepam		232	50	ng/mL
Z3NREN	morphine		294	30%	ng/mL
	lorazepam		167	50%	ng/mL
ZMBHCZ	Morphine		0.23	+/- 0.06	mg/L
	Lorazepam		0.19	+/- 0.06	mg/L

Confirmatory Response Summary for Item 1	Participants: 123
Morphine:	116 (94.3%)
Lorazepam:	117 (95.1%)
Other Identified Drugs/Metabolites:	47 (38.2%)
No Drugs/Metabolites Detected Utilizing Confirmatory Methods:	0 (0.0%)

Total number of confirmatory responses above may be more than the number of participants due to multiple drugs/ metabolites being reported.

Raw Data - Item 1

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TABLE 1C

Item 1 Raw Data - Morphine
Preparation concentration: 300 ng/mL

WebCode	List of Raw Data determinations (ng/mL)						Participant Mean	
22LTAL	303.49	308.40	322.80	328.60	284.57	285.72	305.60	
23XFTK	301.00						301.00	
2E9T9Z	292.30						292.30	
3M2KUZ	291.62						291.60	
3XLRTN	367.00						367.00	
4AVR3M	241.46						241.50	
4HN3CH	329.24						329.20	
4Q2WPY	291.38						291.40	
4T4UZR	210.27	273.90					242.10	
4THFAU	239.40						239.40	
4Z746Y	267.42						267.40	
62PLGG	331.94	318.40					325.20	
6PGUXG	328.00						328.00	
6Y8F2U	320.67						320.70	
7NZX6H	445.40						445.40	X
826FGH	337.10						337.10	
866NKR	321.17						321.20	
8HTTTN	292.00						292.00	
8KKPGH	322.51						322.50	
8NZ7QM	300.57						300.60	
8RFRJU	292.06						292.10	
93TCGV	268.43						268.40	
9F4L77	272.00						272.00	
AB3ZUU	316.77	340.90					328.80	
B44TQE	265.89						265.90	
C2TB8A	300.06						300.10	
CAMFXP	283.41						283.40	
CQ87XN	265.40						265.40	
DLB2JB	440.92						440.90	X
DLCYPZ	313.00	314.00					313.50	
DUMZBZ	324.00	302.00					313.00	

TABLE 1C: Raw Data - Item 1

Item 1 Raw Data - Morphine
Preparation concentration: 300 ng/mL

WebCode	List of Raw Data determinations (ng/mL)			Participant Mean
EC2W7K	273.10			273.10
EL74LK	318.60			318.60
FE2MQ6	339.40			339.40
FHZXL6	323.91			323.90
FN7GYC	290.19			290.20
FP6FGK	311.42			311.40
GHK2RJ	280.95			281.00
HVKZEG	274.90			274.90
HZEUCH	303.62			303.60
K3EQR3	3,053.0			3,053.0 X
K3WV9F	275.64			275.60
KNBHW7	282.00			282.00
KW33R7	306.66			306.70
L8LUZG	287.06			287.10
LBJD4Z	306.86			306.90
M39BHY	334.59			334.60
MZJ6VG	225.80			225.80
N9RYQA	319.83	319.30		319.60
NEGBRX	280.00			280.00
NZFLP7	309.05			309.10
P9PNAX	356.50			356.50
PC6WXW	286.40	301.90	290.00	292.80
PMQZ3B	322.78			322.80
PP9GX2	313.00			313.00
Q6YL2N	325.42	317.40		321.40
QT78VZ	283.52			283.50
T2A24X	253.74	262.80		258.30
TGNKJ6	319.99	298.80		309.40
TH2UWB	294.42			294.40
TXVJUT	336.44			336.40
TZLKVB	289.90	274.40		282.10
U9MEE2	311.00			311.00
UCMPB2	257.00			257.00

TABLE 1C: Raw Data - Item 1

Item 1 Raw Data - Morphine
Preparation concentration: 300 ng/mL

WebCode	List of Raw Data determinations (ng/mL)		Participant Mean
UZRPJJ	282.90	290.40	286.70
VAWW24	305.40	301.20	303.30
VAXXHV	321.71		321.70
VBANRZ	287.02		287.00
VCMX68	286.30		286.30
VRFPP8	281.20		281.20
W9KG6H	303.64	305.20	304.40
XK898X	289.00	265.50	277.30
XQYFP7	317.35		317.40
XVQPRR	303.00		303.00
YDQRD3	283.12		283.10
YYKWVL	329.07		329.10
Z3NREN	294.00		294.00
ZMBHCZ	227.43		227.40

Statistical Analysis for Item 1 - Morphine

Grand Mean	297.36	Number of Participants Included	75
Standard Deviation	28.10	Number of Participants Excluded	3
		by Critical H value of	2.742

TABLE 1C: Raw Data - Item 1

Item 1 Raw Data - Lorazepam
Preparation concentration: 240 ng/mL

WebCode	List of Raw Data determinations (ng/mL)						Participant Mean	
22LTAL	60.760	60.700	57.510	57.910	57.780	60.060	59.120	X
23XFTK	204.00						204.00	
2E9T9Z	224.70						224.70	
3M2KUZ	212.92						212.90	
3XLRTN	231.00						231.00	
4AVR3M	207.81						207.80	
4HN3CH	230.82						230.80	
4Q2WPY	223.98						224.00	
4T4UZR	190.47	188.20					189.40	
4THFAU	181.29						181.30	
4Z746Y	220.78						220.80	
62PLGG	189.29	175.40					182.40	
6PGUXG	174.00						174.00	
6Y8F2U	189.11						189.10	
826FGH	198.60						198.60	
866NKR	186.00	186.40					186.20	
8HTTTN	158.00						158.00	
8KKPGH	116.64						116.60	X
8NZ7QM	225.23						225.20	
8RFRJU	216.94						216.90	
93TCGV	204.34						204.30	
9F4L77	197.00	189.00					193.00	
AB3ZUU	254.16	234.80					244.50	
B44TQE	141.91						141.90	X
BA4A2K	199.16						199.20	
C2TB8A	243.09						243.10	
CAMFXP	205.48						205.50	
CQ87XN	235.05						235.10	
DLCYPZ	232.00						232.00	
DUMZBZ	216.00	204.00					210.00	
EC2W7K	217.20						217.20	
EL74LK	182.10						182.10	
FE2MQ6	229.95						230.00	

TABLE 1C: Raw Data - Item 1

Item 1 Raw Data - Lorazepam
Preparation concentration: 240 ng/mL

WebCode	List of Raw Data determinations (ng/mL)		Participant Mean	
FHZXL6	240.80		240.80	
FP6FGK	201.89		201.90	
GHK2RJ	210.61		210.60	
HVKZEG	203.50		203.50	
HZEUCH	184.19	170.10	177.20	
K3EQR3	67.000		67.000	X
K3WV9F	240.90		240.90	
KW33R7	228.84		228.80	
L8LUZG	241.83		241.80	
LBJD4Z	229.01		229.00	
M39BHY	236.05		236.10	
MTJKV8	176.42		176.40	
MZJ6VG	190.40		190.40	
N9RYQA	249.23		249.20	
NEGBRX	210.00		210.00	
NZFLP7	229.00		229.00	
P9PNAX	171.00		171.00	
PC6WXW	189.50	201.70	195.60	
PMQZ3B	174.46		174.50	
PP9GX2	172.00		172.00	
Q6YL2N	227.89	203.60	215.70	
T2A24X	218.74	219.50	219.10	
TGNKJ6	219.69		219.70	
TH2UWB	249.12		249.10	
TXVJUT	224.92		224.90	
TZLKVB	245.95	217.50	231.70	
U9MEE2	228.00		228.00	
UCMPB2	210.00		210.00	
UZRPJJ	221.70	210.00	215.90	
VAWW24	180.45		180.50	
VCMX68	197.50		197.50	
VD2KGU	271.23	291.30	281.30	X
W9KG6H	221.40	219.50	220.50	

TABLE 1C: Raw Data - Item 1

Item 1 Raw Data - Lorazepam
Preparation concentration: 240 ng/mL

WebCode	List of Raw Data determinations (ng/mL)		Participant Mean
XK898X	247.80	200.30	224.10
XQYFP7	238.35		238.40
XVQPRR	207.00		207.00
YDQRD3	217.01		217.00
YYKWVL	232.99		233.00
Z3NREN	167.00		167.00
ZMBHCZ	149.54	223.80	186.70

Statistical Analysis for Item 1 - Lorazepam

Grand Mean	210.55	Number of Participants Included	68
Standard Deviation	22.92	Number of Participants Excluded	5
		by Critical H value of	2.736

Reporting Procedures - Item 1

TABLE 1D - Item 1

WebCode	Quantitative Reporting Procedures
22LTAL	The mean of duplicate/several determinations.
23XFTK	A single determination.
2E9T9Z	A single determination.
3M2KUZ	A single determination.
3XLRTN	A single determination.
4AVR3M	A single determination.
4HN3CH	A single determination.
4Q2WPY	A single determination.
4T4UZR	The mean of duplicate/several determinations.
4THFAU	A single determination.
4Z746Y	A single determination.
62PLGG	The mean of duplicate/several determinations.
6PGUXG	A single determination.
6Y8F2U	A single determination.
7NZX6H	A single determination.
826FGH	A single determination.
866NKR	A single determination.
8HTTTN	A single determination.
8KKPGH	A single determination.
8NZ7QM	A single determination.
8RFRJU	A single determination.
93TCGV	A single determination.
9F4L77	The mean of duplicate/several determinations.
AB3ZUU	The mean of duplicate/several determinations.
B44TQE	A single determination.
BA4A2K	A single determination.
C2TB8A	A single determination.
CAMFXP	A single determination.
CQ87XN	A single determination.
DLB2JB	A single determination.

TABLE 1D: Reporting Procedures - Item 1

WebCode	Quantitative Reporting Procedures
DLCYPZ	The mean of duplicate/several determinations.
DUMZBZ	The mean of duplicate/several determinations.
EC2W7K	A single determination.
EL74LK	A single determination.
FE2MQ6	A single determination.
FHZXL6	A single determination.
FN7GYC	A single determination.
FP6FGK	A single determination.
GHK2RJ	A single determination.
HVKZEG	A single determination.
HZEUCH	single for morphine; mean of two values for lorazepam
K3EQR3	The mean of duplicate/several determinations.
K3WV9F	A single determination.
KNBHW7	A single determination.
KW33R7	A single determination.
L8LUZG	A single determination.
LBJD4Z	A single determination.
M39BHY	A single determination.
MTJKV8	A single determination.
MZJ6VG	A single determination.
N9RYQA	Morphine was reported using the mean of two determinations, Lorazepam was reported using a single determination.
NEGBRX	A single determination.
NZFLP7	A single determination.
P9PNAX	A single determination.
PC6WXW	the lowest of multiple determinations in agreement within 20%
PMQZ3B	A single determination.
PP9GX2	A single determination.
Q6YL2N	The mean of duplicate/several determinations.
QT78VZ	A single determination.
T2A24X	The mean of duplicate/several determinations.
TGNKJ6	Morphine quantitation reported as average; lorazepam reported concentration is a single determination

TABLE 1D: Reporting Procedures - Item 1

WebCode	Quantitative Reporting Procedures
TH2UWB	A single determination.
TXVJUT	A single determination.
TZLKVB	The mean of duplicate/several determinations.
U9MEE2	A single determination.
UCMPB2	A single determination.
UZRPJJ	The mean of duplicate/several determinations.
VAWW24	morphine is an average of multiple results, lorazepam is a single determination.
VAXXHV	A single determination.
VBANRZ	A single determination.
VCMX68	A single determination.
VD2KGU	The lowest of the duplicates
VRFPP8	A single determination.
W9KG6H	The mean of duplicate/several determinations.
XK898X	Duplicate quantitative analysis performed. Both values must be within +/-20% of their mean to be reported. The lowest value is reported.
XQYFP7	A single determination.
XVQPRR	The mean of duplicate/several determinations.
YDQRD3	A single determination.
YYKWVL	A single determination.
Z3NREN	A single determination.
ZMBHCZ	The mean of duplicate/several determinations.

Response Summary for Item 1	Participants: 81
A single determination:	59 (72.8%)
The mean of duplicate/several determinations:	15 (18.52%)
Other:	7 (8.6%)

Methods of Analysis - Item 1

TABLE 1E - Item 1

WebCode	Method	Screening	Confirmatory	Quantitation
22LTAL	LC/MS/MS	✓	✓	✓
23XFTK	Immunoassay	✓		
	LC/MS/MS		✓	✓
2E9T9Z	Immunoassay	✓		
	LC/MS/MS		✓	✓
2F7B2P	Immunoassay	✓		
	GC/MS		✓	
	LC/MS/MS		✓	
2H6J9K	Immunoassay	✓		
	LC-QTOF-MS	✓		
	LC/MS/MS		✓	
	GC/MS	✓	✓	
2M7KGU	Immunoassay	✓		
3KXR2L	Immunoassay	✓		
3M2KUZ	Immunoassay	✓		
	LC/MS/MS	✓		
	GC/MS		✓	✓
3QJRAL	Immunoassay	✓		
	LC-QTOF		✓	
3VVTEQ	Immunoassay	✓		
	GC/MS		✓	
3W6KLL	Immunoassay	✓		
	GC/MS	✓	✓	
3XLRTN	Immunoassay	✓		
	GC/MS		✓	✓
	LC/MS/MS		✓	✓
3ZQKMM	Immunoassay	✓		
	GC/MS	✓	✓	
4AVR3M	LC/MS/MS	✓	✓	✓
4HN3CH	Immunoassay	✓		
	LC/MS/MS		✓	✓
4Q2WPY	LC/MS/MS	✓		
	GC/MS		✓	✓
4T4UZR	Immunoassay	✓		
	LC-QTOF	✓		
	LC/MS/MS		✓	✓
	GC/MS	✓		

TABLE 1E: Methods of Analysis - Item 1

WebCode	Method	Screening	Confirmatory	Quantitation
4THFAU	LC-HRMS/MS	✓		
	LC/MS/MS		✓	✓
	GC/MS		✓	✓
4Z746Y	Immunoassay	✓		
	LC/MS/MS		✓	✓
62PLGG	Immunoassay	✓		
	GC/MS		✓	
	LC/MS/MS		✓	✓
6BZN3H	Immunoassay	✓		
	GC/MS	✓	✓	
6PGUXG	Immunoassay	✓		
	GC/MS		✓	✓
	LC/MS/MS		✓	✓
6Y8F2U	LC-HRMS/MS	✓		
	GC/MS		✓	✓
	LC/MS		✓	✓
73LC9G	LC/MS/MS	✓		
77KN6G	Immunoassay	✓		
7NZX6H	Immunoassay	✓		
	GC/MS		✓	
	LC/MS/MS	✓	✓	✓
7YMWWM	Immunoassay	✓		
	GC/MS	✓	✓	
826FGH	Immunoassay	✓		
	LC/MS/MS		✓	✓
8637EG	Immunoassay	✓		
	GC/MS	✓	✓	
866NKR	LC-HRMS/MS	✓		
	LC/MS/MS		✓	✓
	GC/MS		✓	✓
88VPNU	Immunoassay	✓		
	LC/MS/MS	✓		
8HTTTN	LC/HRAM-MS	✓		
	LC/MS/MS		✓	✓
8KKPGH	LC/MS/MS	✓	✓	✓
8NZ7QM	Immunoassay	✓		
	LC/MS/MS		✓	✓
8RFRJU	LC/MS/MS	✓	✓	✓

TABLE 1E: Methods of Analysis - Item 1

WebCode	Method	Screening	Confirmatory	Quantitation
93QQKF	Immunoassay	✓		
	GC/MS	✓	✓	
93TCGV	Immunoassay	✓		
	LC/MS/MS		✓	✓
9AE6UF	Immunoassay	✓		
	GC/MS		✓	
	LC/MS/MS		✓	
9F4L77	LC-QTOF	✓	✓	✓
9VWC4N	Immunoassay	✓		
	GC/MS		✓	
AB3ZUU	Immunoassay	✓		
	LC-QTOF	✓		
	LC/MS/MS			✓
B44TQE	LC/MS/MS	✓	✓	✓
BA4A2K	Immunoassay	✓		
	LC/MS/MS		✓	✓
BCV9FH	LC/MS/MS	✓		
	LC/MS/MS		✓	
BFVJBH	Immunoassay	✓		
	GC/MS	✓	✓	
BL2C3T	Immunoassay	✓		
	LC-QTOF-MS	✓	✓	
	GC/MS		✓	
C2TB8A	Immunoassay	✓		
	LC/MS/MS		✓	✓
C3HKVG	Immunoassay	✓		
	GC/MS		✓	
CAMFXP	LC/MS/MS	✓		
	GC/MS		✓	✓
CQ87XN	Immunoassay	✓		
	LC/MS/MS	✓		
	GC/MS		✓	✓
CTVM6B	Immunoassay	✓		
	GC/MS	✓	✓	
CTY3LH	Immunoassay	✓		
DAGMJE	Immunoassay	✓		
	GC/MS		✓	
	LC/MS/MS		✓	

TABLE 1E: Methods of Analysis - Item 1

WebCode	Method	Screening	Confirmatory	Quantitation
DLB2JB	Immunoassay	✓		
	GC/MS	✓	✓	
	LC/MS/MS	✓	✓	✓
DLCYPZ	Immunoassay	✓		
	LC-QTOF-MS	✓	✓	
	LC/MS/MS		✓	✓
DUMZBZ	Immunoassay	✓		
	LC/MS/MS		✓	✓
	LC-QTOF-MS	✓	✓	
EC2W7K	Immunoassay	✓		
	LC/MS/MS		✓	✓
EGYDJE	GC/MS		✓	
EL74LK	LC/MS/MS		✓	✓
	LCMS-orbitrap	✓		
	GC/MS		✓	✓
FE2MQ6	Immunoassay	✓		
	LC/MS/MS		✓	✓
FHZXL6	Immunoassay	✓		
	LC/MS/MS		✓	✓
FL3LE9	Immunoassay	✓		
	GC/MS	✓	✓	
FN7GYC	LC/MS/MS	✓	✓	
FP6FGK	GC/MS		✓	✓
	LC/MS/MS		✓	✓
	LC-HRMS/MS	✓		
FUYC7B	Immunoassay	✓		
	GC/MS	✓	✓	
G7MXPB	Immunoassay	✓		
	GC/MS	✓	✓	
G9DYTE	GC/MS		✓	
GGQXEC	Immunoassay	✓		
	GC/MS		✓	
	LC-QTOF-MS		✓	
GHK2RJ	LC/MS/MS	✓		
	GC/MS		✓	✓
GKQ9BC	Immunoassay	✓		

TABLE 1E: Methods of Analysis - Item 1

WebCode	Method	Screening	Confirmatory	Quantitation
HLCAT6	GC/MS	✓		
	LC/MS/MS	✓	✓	
	LC-Orbitrap	✓		
HNKPZB	GC/MS	✓		
HVKZEG	Immunoassay	✓		
	LC/MS/MS		✓	✓
HXCV4B	Immunoassay	✓		
	GC/MS	✓	✓	
HZEUCH	LC-HR/MS/MS	✓		
	GC/MS		✓	✓
	LC/MS/MS		✓	✓
J7Z7QB	GC/MS	✓	✓	
	LC-QTOF	✓		
	LC-QTOF-MS		✓	
K3EQR3	GC/MS	✓	✓	✓
	LC/MS/MS	✓	✓	✓
K3WV9F	Immunoassay	✓		
	LC/MS/MS	✓		
	GC/MS		✓	✓
KCLLV9	GC/MS	✓	✓	
	LC-QTOF-MS	✓	✓	
KNBHW7	LC/MS/MS	✓		
	LC/MS		✓	✓
KQ3GB6	Immunoassay	✓		
KW33R7	LC/MS/MS	✓	✓	✓
L8LUZG	Immunoassay	✓		
	LC/MS/MS	✓		
	GC/MS		✓	✓
LBJD4Z	Immunoassay	✓		
	GC/MS	✓	✓	
	LC/MS/MS		✓	✓
LFXVD6	Immunoassay	✓		
	GC/MS		✓	
	LC/MS/MS		✓	
LPLM8A	GC/MS		✓	
M39BHY	LC/MS/MS		✓	✓
	Immunoassay	✓		

TABLE 1E: Methods of Analysis - Item 1

WebCode	Method	Screening	Confirmatory	Quantitation
MTJKV8	Immunoassay	✓		
	LC/MS/MS		✓	✓
MZJ6VG	Immunoassay	✓		
	GC/MS		✓	✓
	LC/MS/MS		✓	✓
N9RYQA	LC-HRMSMS	✓		
	GC/MS			✓
	LC/MS/MS			✓
NEGBRX	Immunoassay	✓		
	LC/MS/MS		✓	✓
	GC/MS	✓	✓	
NPX6WY	Immunoassay	✓		
	LC-QTOF-MS	✓		
	LC/MS/MS		✓	
	GC/MS		✓	
NTY4F6	Immunoassay	✓		
	GC/MS	✓	✓	
NZFLP7	Immunoassay	✓		
	GC/MS	✓	✓	
	LC/MS/MS		✓	✓
P2LQFY	Immunoassay	✓		
P9PNAX	Immunoassay	✓		
	GC/MS		✓	✓
	LC/MS/MS		✓	✓
PC6WXW	Immunoassay	✓		
	LC/MS	✓	✓	✓
PMQZ3B	GC/MS		✓	✓
	LC/MS/MS		✓	✓
	High resolution Orbitrap LC/MS/MS	✓		
PP9GX2	HPLC	✓		
	LC/MS/MS		✓	✓
Q6YL2N	Immunoassay	✓		
	LC-QTOF	✓		
	GC/MS		✓	
	LC/MS/MS	✓	✓	
QT78VZ	Immunoassay	✓		
	LC/MS/MS		✓	✓
T2A24X	Immunoassay	✓		
	High resolution accurate mass LC/MS	✓		
	GC/MS	✓		
	LC/MS/MS			✓

TABLE 1E: Methods of Analysis - Item 1

WebCode	Method	Screening	Confirmatory	Quantitation
T4YKT3	Immunoassay	✓		
T6C24U	Immunoassay	✓		
	GC/MS	✓	✓	
TD4HRY	LC/MS	✓	✓	
TGNKJ6	High resolution accurate mass	✓		
	GC/MS		✓	✓
	LC/MS/MS		✓	✓
TH2UWB	Immunoassay	✓		
	LC/MS/MS		✓	✓
	GC/MS	✓		
TMBA7Z	Immunoassay	✓		
	GC/MS		✓	
TXVJUT	Immunoassay	✓		
	LC/MS/MS		✓	✓
	GC/MS		✓	✓
TZLKVB	Immunoassay	✓		
	LC-QTOF-MS	✓	✓	
	LC/MS/MS		✓	✓
U8G6DW	Immunoassay	✓		
	GC/MS	✓	✓	
U9MEE2	Immunoassay	✓		
	LC/MS/MS		✓	✓
UCMPB2	LC-TOF	✓		
	LC/MS/MS		✓	✓
UHV3HZ	LC/MS/MS	✓	✓	
UZRPJJ	Immunoassay	✓		
	LC-QTOF-MS	✓		
	LC/MS/MS	✓	✓	✓
	HPLC-UV	✓		
VAWW24	GC/MS		✓	✓
	LC/MS/MS		✓	✓
	LC-HRAMS	✓	✓	
VAXXHV	LC/MS/MS	✓	✓	✓
VBANRZ	Immunoassay	✓		
	LC/MS/MS		✓	✓
	GC/MS		✓	
VCMX68	LC/MS/MS		✓	✓
	Immunoassay	✓		

TABLE 1E: Methods of Analysis - Item 1

WebCode	Method	Screening	Confirmatory	Quantitation
VD2KGU	Immunoassay	✓		
	LC/MS/MS		✓	✓
VRFPP8	Immunoassay	✓		
	LC/MS/MS		✓	✓
W9KG6H	LC-QTOF-MS	✓	✓	
	LC/MS/MS		✓	✓
XEHN2W	GC/MS		✓	
XK898X	LC/MS/MS	✓	✓	✓
XPP7YU	Immunoassay	✓		
	GC/MS	✓	✓	
XQYFP7	Immunoassay	✓		
	LC/MS/MS		✓	✓
XVQPRR	Immunoassay	✓		
	GC/MS		✓	
	LC/MS/MS			✓
	LC-QTOF-MS	✓		
Y9T9B4	Immunoassay	✓		
YDQRD3	LC/MS/MS	✓		
	GC/MS		✓	✓
YDRMXU	Immunoassay	✓		
	GC/MS	✓	✓	
YLKX9P	Immunoassay	✓		
YPW6AT	Immunoassay	✓		
	GC/MS		✓	
YYKWVL	Immunoassay	✓		
	LC/MS/MS		✓	✓
Z3NREN	LC/MS/MS	✓		✓
	GC/MS	✓		✓
ZMBHCZ	LC-High Resolution Tandem Mass Spectrometry	✓		
	LC/MS/MS		✓	✓
	GC/MS		✓	✓
ZYK6GQ	Immunoassay	✓		

Response Summary for Item 1 - Methods of Analysis			Participants: 136
	Screening	**Confirmatory**	**Quantitation**
Immunoassay:	92	0	0
GC/MS:	31	69	26
LC/MS:	2	4	3
LC/MS/MS:	29	73	67
LC-QTOF:	5	2	1
LC-QTOF-MS:	10	8	0
Other:	17	1	0

Additional Comments for Item 1

TABLE 1F

WebCode	Item Comments
22LTAL	Caffeine, Lidocaine and Meloxicam were also found in Item 1.
2F7B2P	The internal standard was used is codeine D3.
2M7KGU	Immunoassay: Benzodiazepines I (Oxazepam), Benzodiazepines II (Lorazepam), Opiates (Morphine), Generic Opioids (Oxycodone) cutoff 10 ng/mL.
3KXR2L	Analysis by immunoassay screening in whole blood for: Assay Cutoff* (ng/mL):Meth /Amphetamines 20. Barbiturates 50. Benzodiazepines 10. Buprenorphine 1. Cannabinoids 10. Benzoylecgonine 50. Dextromethorphan 5. Fentanyl 1. Meprobamate 100. Methadone 10. Opiates 10. Opioids 10. Phencyclidine 5. TCA 25. Tramadol 5. Zolpidem 10. * Results within 20% of these concentrations are also reported as preliminarily positive.
3M2KUZ	Methamphetamine was not identified in confirmation test.
3VVTEQ	Possible Codeine, Possible Ibuprofen. Used Phenyltoloxamine and Heptabarbital as internal standards. BSTFA with TMCS used to derivatize.
3XLRTN	Morphine: GC/MS method for confirmation and quantitation. Internal Standard: Morphine-D6 Limit of Detection: 10 ng/mL Lorazepam: LC/MS/MS method for confirmation and quantitation Internal Standard: Diazepam-D5 Limit of Detection: 5 ng/mL
4T4UZR	Ephedrine/ Pseudoephedrine not detected on LCMSMS quantitation confirmation method with LOQ of 50 for both drugs. Morphine (Free) references internal standard Morphine-d3 on LCMSMS for quantitative testing. Lorazepam references internal standard Oxazepam-d5 on LCMSMS for quantitative testing.
4THFAU	IS for lorazepam is mepivacaine and for morphine is nalorphine
4Z746Y	ELISA screening panel includes: amphetamine, benzodiazepines, buprenorphine, cannabinoids, carisoprodol, cocaine and metabolites, fentanyl, methadone, methamphetamine, opiates, oxycodone/oxymorphone, phencyclidine, and zolpidem. The laboratory does not routinely analyze postmortem samples (outside scope of testing). Benzodiazepine confirmation/quantitation panel includes: alprazolam, diazepam, 7-aminoclonazepam, clonazepam, lorazepam, nordiazepam, oxazepam, and temazepam. The following internal standards are used: 7-aminoclonazepam D-4, alprazolam D-5, diazepam D-5, clonazepam D-4, nordiazepam D-5, oxazepam D-5, and temazepam D-5. LOD for all benzodiazepines quantitated is 5 ng/mL. LOQ for all benzodiazepines quantitated is 10 ng/mL. Opiate confirmation/quantitation panel includes 6-monoacetylmorphine, codeine, hydrocodone, hydromorphone, morphine. The following internal standards are used: 6-monoacetylmorphine D-3, codeine D-6, hydrocodone D-6, hydromorphone D-3, morphine D-3. 6-MAM has an LOD of 0.5 ng/mL and an LOQ of 1 ng/mL. The remaining analytes have an LOD of 5 ng/mL and an LOQ of 10 ng/mL.
62PLGG	Caffeine noted in GCMS data, not confirmed (outside lab scope). Codeine noted below 5ng/ml (Not confirmed, below LLOQ)
6BZN3H	Internal standards used: Promazine (Screen); Prazepam (Benzodiazepines); Nalorphine (Opiates). ***Possible Codeine TMS ions identified.
6Y8F2U	Internal Stnd: mepivacaine (HR-LCMS/MS), nalorphine (GC/MS), diazepam-d5 (LC/MS/MS)
77KN6G	This screened presumptive positive for benzoylecgonine/cocaine, benzodiazepines, and opiates. However, I am not qualified to confirm the presence of benzodiazepines. Additionally, the [Laboratory] does not have the capabilities to confirm the presence of benzoylecgonine/cocaine and opiates. The immunoassay tests for the following drugs: amphetamine, barbiturates, benzodiazepines, buprenorphine, benzoylecgonine/cocaine, cannabinoids, carisoprodol, fentanyl, methadone, methamphetamine, opiates, oxycodone/oxymorphone, phencyclidine (PCP), tramadol, and zolpidem.
7YMWWM	Benzodiazepine - Prazepam ISTD. Opiate - Nalorphine ISTD. Screen - Promazine ISTD

TABLE 1F: Additional Comments for Item 1

WebCode	Item Comments
8637EG	Internal Standards: Promazine (Drug Screen). Nalorphine (Opiate Extraction). Prazepam (Benzodiazepine Extraction).
866NKR	Internal standards used include: Mepivacaine and Nalorphine
8KKPGH	Lorazepam 20% average ion ratio used for data analysis. Standards 5 and 6 were used. 20% range is 37.5-56.3. Lorazepam LOQ 5ng/mL; ISTD Oxazepam-d5. Morphine LOQ 5ng/mL; ISTD Morphine-d6 Pseudoephedrine/Ephedrine LOQ 5ng/mL; ISTD Pseudoephedrine-d3.
8RFRJU	Internal standards used for confirmed compounds: Morphine-D3, and Lorazepam-D4. Limit of detection for morphine is 5ng/mL, LOD for Lorazepam is 4ng/mL
93QQKF	Promazine used as internal standard for GC/MS screening. Prazepam used as internal standard for GC/MS confirmation of benzodiazepines. Nalorphine used as internal standard for GC/MS confirmation of opiates.
93TCGV	Post-mortem testing is outside the laboratory's scope of analysis. ELISA screening panel includes: amphetamine, benzodiazepines, buprenorphine, cannabinoids, carisoprodol, cocaine and metabolites, fentanyl, methadone, methamphetamine, opiates, oxycodone/oxymorphone, phencyclidine, and zolpidem. Opiates confirmation/quantitation panel includes 6-monoacetylmorphine (6-MAM), codeine (COD), hydrocodone (HDC), hydromorphone (HDM), and morphine (MOR) using 6-MAM-D3, COD-D6, HDC-D6, HDM-D3, and MOR-D3 as internal standards, respectively. LOD for 6-MAM is 0.5 ng/mL; LOQ is 1 ng/mL. LOD for the remaining target drugs is 5 ng/mL; LOQ is 10 ng/mL. Benzodiazepines confirmation/quantitation panel includes 7-aminoclonazepam (7-AMINO), alprazolam (ALP), clonazepam (CLON), diazepam (DIAZ), nordiazepam (NORD), temazepam (TEM), oxazepam (OXAZ), and lorazepam (LOR) using 7-AMINO-D4, ALP-D5, CLON-D4, DIAZ-D5, NORD-D5, TEM-D5, and OXAZ-D5 as internal standards, respectively. OXAZ-D is used as the internal standard for both OXAZ and LOR confirmation/quantitation. LOD and LOQ for all benzodiazepine targets is 5 ng/mL and 10 ng/mL, respectively.
9AE6UF	Confirmatory ISTD GC/MS: NPA and SKF. ISTD for Benzos by LC/MS/MS: Prazepam-d5 ISTD for Opiates by LC/MS/MS: Morphine-d6, Codeine-d6, Hydrocodone-d6 Codeine and BE appeared present, but did not meet reporting criteria.
9VWC4N	The Toxicology laboratory uses an immunoassay which screens for the following six drugs/drug classes: Amphetamines, Benzodiazepines, Cannabinoids, Cocaine, Opiates, and PCP. The laboratory's opiates confirmation testing is off-line and unavailable for confirmation testing.
B44TQE	Lorazepam LOQ 5ng/ml; Oxazepam-d5 ISTD. Lorazepam 20% average ion ratio used for data analysis. Standards 5 and 6 were used. 20% range is 39.8-59.6. Morphine LOQ 5ng/ml; Morphine -d6 ISTD. Pseudoephedrine/Ephedrine LOQ 5ng/ml; Pseudoephedrine-d3 ISTD.

TABLE 1F: Additional Comments for Item 1

WebCode	Item Comments
BA4A2K	Analyte DoA Ultra Blood: Cutoff (ng/mL) Amphetamine 20. Barbiturates (Phenobarbital) 50. Benzodiazepines I (Oxazepam) 10. Benzodiazepines II (Lorazepam) 10. Buprenorphine: DoA blood 5. Norbuprenorphine: DoA urine. Cannabinoids (Carboxy-Tetrahydrocannabinol) 10. Cocaine Metabolite (Benzoylecgonine) 50. Dextromethorphan 5 Fentanyl 2. Generic Opioids (Oxycodone) 10. Meprobamate 100. Methadone 10. Methamphetamine 20. Opiates (Morphine) 10. Oxycodone I (Oxycodone) 10. Oxycodone II (Oxycodone) 10. Phencyclidine 5. Tramadol 5. Tricyclic Antidepressants (Nortriptyline) 60. Zolpidem 10. confirmation cutoff: Analyte (cutoff): Aminoclonazepam (5 ng/ml) Aminoflunitrazepam (5 ng/ml). Bromazepam (5 ng/ml). Buspirone (5 ng/ml) Clonazepam (5 ng/ml) Desaklyflurazepam (5 ng/ml) Deschloroetizolam (5 ng/ml) Desmethylflunitrazepam (5 ng/ml) Diclazepam (5 ng/ml) Etizolam (5 ng/ml) Flualprazolam (5 ng/ml) Flunitrazepam (5 ng/ml) Flurazepam (5 ng/ml) Hydroxyetizolam (5 ng/ml) Triazolam (5 ng/ml). Analyte (cutoff): Alprazolam (10 ng/ml) Clonazolam (10 ng/ml) Delorazepam (10 ng/ml) Estazolam (10 ng/ml) Flubromazepam (10 ng/ml) Flubromazolam (10 ng/ml) Hydroxyalprazolam (10 ng/ml) Hydroxymidazolam (10 ng/ml) Hydroxytriazolam (10 ng/ml) Lorazepam (10 ng/ml) Midazolam (10 ng/ml) Zaleplon (10 ng/ml) Zolpidem (10 ng/ml) Zopiclone (10 ng/ml): Analyte (cutoff): Chlordiazepoxide (20 ng/ml) Clobazam (20 ng/ml) Demoxepam (20 ng/ml) Diazepam (20 ng/ml) Diphenhydramine (20 ng/ml) Doxylamine (20 ng/ml) Hydroxyphenazepam (20 ng/ml) Hydroxyzine (20 ng/ml) Nitrazepam (20 ng/ml) Nordiazepam (20 ng/ml) Oxazepam (20 ng/ml) Phenazepam (20 ng/ml) Temazepam (20 ng/ml)
BFVJBH	Due to procedural restrictions, we are unable to process postmortem scenarios, therefore the postmortem scenario was disregarded, and the sample was treated as a DWI. Phenyltoloaxmine was used for the Internal Standard in the Base extract for GC/MS analysis. Hexobarbital was used for the Internal Standard for the Acid extract for GC/MS analysis. No Benzodiazepines were detected on the GC/MS in the Acid and Base extract. Possible Caffeine was detected in the Base and Acid extract that were analyzed on the GC/MS.
BL2C3T	Internal Standards used - Mepivacaine, Nalorphine-diTMS
C3HKVG	Screening cut off (immunoassay). Opioids: 40ng/mL. Benzodiazepines: 100ng/mL
CTVM6B	ISTD. Drug Screen - Promazine. Benzodiazepine Confirm - Prazepam. Opiate Confirm - Nalorphine
CTY3LH	Screening Panel with cutoffs: Fentanyl 1ng/mL, AB-PINACA 2ng/mL, ETG 500ng/mL, Methamphetamine 50ng/mL, Barbiturates 50ng/mL, Benzodiazepines 20 ng/mL, AB-CHMINACA 5ng/mL, Methadone 10ng/mL, Opiates 80ng/mL, Phencyclidine 5ng/mL, BZG/Cocaine 25ng/mL, Oxycodone 10ng/mL, Tramadol 5ng/mL, Cannabinoids (THC) 10ng/mL, TCA 60ng/mL, Amphetamine 50ng/mL, Buprenorphine 2ng/mL, 6-MAM 10ng/mL, alpha-PVP 5ng/mL, Pregabalin 1000ng/mL
DAGMJE	Confirmatory ISTD GC/MS: NPA and SKF. ISTD for Opiates by LC/MS/MS: Morphine-d6, Codeine-d6, Hydrocodone-d6. ISTD for Benzos by LC/MS/MS: Prazepam-d5 Codeine appeared present, but did not meet reporting criteria.
DLB2JB	There is no screen for Ephedrine/Pseudoephedrine. The lower of two analysis was used for quantitation.
DLCYPZ	Screening- Immunoassay - UPLC-QTOF-MS (Waters), Internal Standard: D3-Methadone and Prazepam. Confirmation- Lorazepam: UPLC-TQD (Waters), Internal Standard: D5-Diazepam, LOD: 5 ng/mL- Codeine-6-Glucuronide: UPLC-TQD (Waters), Internal Standard: D3-Morphine-6-glucuronide, LOD: 5 ng/mL- Morphine: UPLC-TQD (Waters), Internal Standard: D3-Morphine, LOD: 2 ng/mL- Pseudoephedrine: LC-MS/MS(Sciex), Internal Standard: D5-Methylamphetamine, D3-Ephedrine and D4-Pethidine, LOD: 0.5 ng/mL
DUMZBZ	Please note we do not have a confirmation method for lignocaine
EC2W7K	Internal Standards: Morphine --> Morphine d6, Lorazepam --> Lorazepam d4. LOD: Morphine: 5 ng/mL, Lorazepam: 5 ng/mL

TABLE 1F: Additional Comments for Item 1

WebCode	Item Comments
EL74LK	internal stds: mepivacaine, diazepam-d5, nalorphine, amphetamine-d11. The initial screen test (LCMS-ORBITRAP) indicates several drugs that were very weak and not confirmed or below Limit a of report. for example fluoxetine and lidocaine have an LOR of 0.025mg/L.
FL3LE9	Promazine used as internal standard for drug screen. Prazepam used as internal standard for Benzodiazepine confirmation. Nalorphine used as internal standard for Opiate confirmation.
FN7GYC	Morphine uncertainty K3 22%. Preliminary testing indicated the presence of ephedrine/pseudoephedrine, confirmatory testing was not pursued due to the presence of other compounds.
FP6FGK	Nalorphine used as internal standard for morphine quantitation. Diazepam-d5 used as internal standard for lorazepam
G9DYTE	Internal standard: Flurazepam
GGQXEC	Caffeine was also detected.
GHK2RJ	Lorazepam was screened using LC/MS/MS and confirmed using GC/MS. LOQ is 20ng/mL; Internal Standard is Lorazepam-D4. Morphine was screened using LC/MS/MS and confirmed using GC/MS. LOQ is 20ng/mL; Internal Standard is Morphine-D3
GKQ9BC	Only screening test was performed.
HLCAT6	Traces of Lidocaine, Ephedrine, Codeine and Paracetamol were detected in the sample.
HNKPZB	Liquid-Liquid basic extraction using Toluene: Hexane: Isoamyl alcohol (78:20:2) solvent mix as extracting solvent followed by derivatization.
J7Z7QB	Estazolam was used as internal standard
K3EQR3	Caffeine was also found in Item 1.
KCLLV9	In the sample a instrumental response was observed for cetirizine and ephedrine; however, the laboratory does not have reference materials to confirm the identity.
KNBHW7	Lorazepam confirmatory method in process of being revalidated, so that was not confirmed. Confirmatory method for morphine is LCMSMS.
KQ3GB6	Analysis by immunoassay screening in whole blood for: Assay Cutoff* (ng/mL):Meth /Amphetamines 20. Barbiturates 50. Benzodiazepines 10. Buprenorphine 1. Cannabinoids 10. Benzoylecgonine 50. Dextromethorphan 5. Fentanyl 1. Meprobamate 100. Methadone 10. Opiates 10. Opioids 10. Phencyclidine 5. TCA 25. Tramadol 5. Zolpidem 10. * Results within 20% of these concentrations are also reported as preliminarily positive.
LFXVD6	The cut-off value of morphine is 30 ng/mL for GC/MS. The cut-off value of Lorazepam is 30ng/mL for LC/MS/MS
PC6WXW	For lorazepam, lorazepam-D4 is the ISTD and LOD/LOQ is 0.01 mg/L. For morphine, morphine-D6 is the ISTD and LOD/LOQ is 0.01 mg/L.
PMQZ3B	Mepivacaine was used as internal standard for LC and GC. Nalorphine was used as an additional internal standard for GC
QT78VZ	Opiate screening cut off is 20ng/mL. The opiate quantification can confirm codeine, hydrocodone, hydromorphone, morphine, oxycodone, oxymorphone and 6-mam. The lower reporting limits are as follows; codeine is 10ng/mL, hydrocodone is 10ng/mL, hydromorphone is 1.0ng/mL, morphine is 10ng/mL, oxycodone is 10ng/mL, oxymorphone is 1.0ng/mL and 6-mam is 1.0ng/mL. Dilutions of the sample was prepared for analysis, but not included in the raw data.
T2A24X	No confirmation for codeine was carried out. Quantitative results obtained using dedicated Section [Identifier] method.

TABLE 1F: Additional Comments for Item 1

WebCode	Item Comments
T4YKT3	Immunoassay: Benzodiazepines I (Oxazepam), Benzodiazepines II (Lorazepam), Morphine, Generic Opioids (Oxycodone) cutoff 10 ng/mL.
T6C24U	The internal standards used were promazine for the full panel drug screen, prazepam for the benzodiazepine confirmation, and nalorphine for the opiate confirmation.
TGNKJ6	internal standards: mepivacaine, nalorphine, diazepam-d5, clonazepam-d4, THC-d3, THC-OH-d3, THC-COOH-d9, amphetmaine-d11, methamphetamine-d11, benzoylecgonine-d8, cocaine-d3
TH2UWB	Item 1 was analyzed on a 1:2 dilution for morphine. The reported value was determined by taking the dilution factor and multiplying the raw data by it. The internal standard used to determine morphine is deuterated morphine. The low limit of detection is 10ng/mL and the high is 350ng/mL. Item 1 was analyzed for benzodiazepines with a low limit of detection being 5ng/mL and a high limit of detection at 250ng/mL. The internal standard for lorazepam is deuterated diazepam. Our policy does a screening GC/MS test that looks for drugs outside of the immunoassay. It uses mepivacaine as the internal standard.
TL332L	Post mortem sample, not tested.
TMBA7Z	Internal reference materials: Phenyltoloxamine (base fraction), Heptabarbital (acid fraction) Morphine 3b-glucuronide: hydrolysis positive control
TZLKVB	Internal standards Morphine-D3, Lorazepam-D4. LOQ Morphine 10 ng/mL. LOQ Lorazepam 5 ng/mL
U9MEE2	Lorazepam LOQ: 5 ng/mL. Morphine LOQ: 5 ng/mL
UZRPJJ	Morphine ISTD = D6 Morphine. 'Free' result. Lorazepam ISTD = D3 Amitriptyline.
VD2KGU	This sample screened presumptive positive for opiates, however our laboratory does not currently have a confirmation method for this class of drugs. Therefore, the opiates presumptive positive was not confirmed. Scope of immunoassay screening: amphetamine, barbiturates, benzodiazepines, buprenorphine, cocaine/benzoylecgonine, cannabinoids, carisoprodol, fentanyl, methadone, methamphetamine, opiates, oxycodone/oxymorphone, phencyclidine (PCP), tramadol, zolpidem. Benzodiazepines Confirmation (Liquid Chromatography/Tandem Mass Spectrometry LC/MS/MS): Quantitatively: 7-aminoclonazepam, alprazolam, chlordiazepoxide, clonazepam, diazepam, flunitrazepam, lorazepam, nordiazepam, oxazepam, temazepam, zolpidem Qualitatively: 7-aminoflunitrazepam, estazolam, etizolam, midazolam, nitrazepam, triazolam, zopiclone
VRFPP8	No raw concentration for Lorazepam, ULOQ for Lorazepam is 200 ng/mL.
W9KG6H	pseudoephedrine detected at concentration below LOQ (<12.5 ng/mL).
XEHN2W	Tetracosane as internal standard
XK898X	ISTD (LLOQ - ULOQ): Morphine-D6 (6.0 - 300.0 ng/mL), Lorazepam-D4 (10.0 - 500.0 ng/mL). [Initials] 05/03/2024
Y9T9B4	Proficient in DSX Immunoassay only (THC, Cocaine)
YLKX9P	Item 1 was received with 2 tubes. These tubes were designated as items 1.1 and 1.2. Item 1.1 screened positive for Benzodiazepines and Opiates. Item 1.2 screened positive for Benzodiazepines and Opiates.
YPW6AT	Due to procedural restrictions, we are unable to process postmortem scenarios; therefore, the postmortem scenario was disregarded, and the sample was treated as a DWI. Phenyltoloxamine internal reference material was used for base fraction extraction as well as for the opiate specific enzyme hydrolyzed extraction, with hexobarbital internal reference material used for acid fraction extraction. Possible unconfirmed 3-acetylmorphine identified in the opiate specific enzyme hydrolyzed extraction.
ZMBHCZ	Internal standards used: Mepivacaine and Nalorphine

TABLE 1F: Additional Comments for Item 1

WebCode	Item Comments
ZYK6GQ	Immunological Screen Cut-off blood: 9-Carboxy-THC 20ng/mL; Benzoylecgonine 25ng/mL; Amphetamines (AMP, MAMP, cross reaction MDMA) 20ng/mL; Opiates 10ng/mL; Generic Opioids & Oxycodone 10ng/mL; Methadone 10ng/mL, Benzodiazepines 10ng/mL; Barbiturates 50ng/mL; PCP 5ng/mL; Meprobamate 100ng/mL; Dextromethorphan 5ng/mL; Zolpidem 10ng/mL; Tricyclic Antidepressants 60ng/mL; Fentanyl 1ng/mL; Norbuprenorphine 1ng/mL, Tramadol 5ng/mL

Screening Results - Item 2

TABLE 2A

Item Scenario:

A middle-aged woman was found deceased lying in the prone position on her bed. She was previously diagnosed with schizophrenia and had a history of chronic pain. Blood was collected an estimated 8 hours postmortem.

Item Contents and Preparation Concentration: Doxepin (50 ng/mL)
Codeine (1000 ng/mL)
Quetiapine (500 ng/mL)

WebCode	Screening Results
22LTAL	Codeine, Doxepin and Hydrocodone
23XFTK	Opiate
2E9T9Z	opiates, tricyclics
2F7B2P	Opiate
2H6J9K	Codeine, Doxepin, Quetiapine, Norquetiapine
2M7KGU	Oxycodone, Opiates, Opioids, Tricyclic Antidepressants
3KXR2L	Oxycodone, Opiates, Tricyclic antidepressants (TCA), Opioids
3M2KUZ	Codeine
3QJRAL	OPIATES, OPIOIDS
3W6KLL	Doxepin, opiates
3XLRTN	Opiates
3ZQKMM	Opiate positive screen. Doxepin detected in full screen.
4AVR3M	Codeine
4HN3CH	Opiate
4Q2WPY	Codeine
4T4UZR	Codeine (Free), Doxepin, Quetiapine
4THFAU	Codeine, quetiapine, doxepin
4Z746Y	Benzodiazepines, Opiates
62PLGG	Opiates indicated
6BZN3H	Opiates, Doxepin, Quetiapine.
6PGUXG	Opiates
6Y8F2U	codeine, doxepin, quetiapine
73LC9G	Codeine
77KN6G	Opiates, tramadol, buprenorphine, and oxycodone/oxymorphone

TABLE 2A: Screening Results - Item 2

WebCode	Screening Results
7NZX6H	Opiate/Opiods
7YMWWM	Doxepin, Opiate
826FGH	Codeine, Fentanyl, Doxepin
8637EG	Opiate Class, Doxepin
866NKR	Codeine (opioids) Quetiapine
88VPNU	Codeine
8HTTTN	Codeine, Doxepin, Quetiapine
8KKPGH	Codeine, Doxepin, Quetiapine
8NZ7QM	Codeine, Doxepin, Quetiapine
8RFRJU	Codeine, Doxepin
93QQKF	Opiates, Doxepin, Quetiapine
93TCGV	Opiates and benzodiazepines
9AE6UF	Opiates
9F4L77	Codeine, Quetiapine, Doxepin
9VWC4N	Opiates
AB3ZUU	No drugs detected utilizing screening methods.
B44TQE	Codeine, Doxepin, Quetiapine
BA4A2K	opiates, tricyclic antidepressants
BCV9FH	codeine, quetiapine
BFVJBH	Due to lack of matrix validation, item #2 was not analyzed.
BL2C3T	immunoassay - none detected, LC-QTOF-MS - Codeine, Doxepin, Quetiapine
C2TB8A	opiates
C3HKVG	Opioids
CAMFXP	codeine
CQ87XN	Codeine
CTVM6B	Opiates (class), Doxepin, Quetiapine
CTY3LH	Opiates, Oxycodone, Trycyclicantidepressants
DAGMJE	Opiates

TABLE 2A: Screening Results - Item 2

WebCode	Screening Results
DLB2JB	Opiate/Opioids
DLCYPZ	Opiates class, Codeine, Doxepin, Quetiapine, Salicylic Acid
DUMZBZ	codeine, doxepin, quetiapine
EC2W7K	Opiates/opioids, Tricyclic antidepressants
EL74LK	acetaminophen, doxepin, codeine, quetiapine
FE2MQ6	opiates
FHZXL6	Opiates
FL3LE9	Opiates, Doxepin, Quetiapine
FN7GYC	codeine, quetiapine, doxepin
FP6FGK	Codeine; quetiapine
FUYC7B	Opiates, Doxepin
G7MXPB	Codeine
GGQXEC	Oxyc 1 and 2, Opiates, Tricyclic Antidepressant, Opioids
GHK2RJ	Codeine (Opiates)
GKQ9BC	Opiates
HLCAT6	Codeine, Quetiapine, Doxepin
HNKPZB	Codeine
HVKZEG	Opioids , Opiates, Tricyclics
HXCV4B	Doxepin, Opiates
HZEUCH	codeine, quetiapine
J7Z7QB	Quetiapine, Doxepin, Codeine
K3EQR3	Oxycodone, Opiates, Opiates TCA
K3WV9F	Amphetamine, Codeine
KCLLV9	Antipsychotics: Quetiapine, Opioids: Codeine
KNBHW7	codeine, doxepin
KQ3GB6	Opiates, Opioids, Tricyclic Antidepressants (TCAs)
KW33R7	Codeine, Doxepin, Quetiapine
L8LUZG	Codeine

TABLE 2A: Screening Results - Item 2

WebCode	Screening Results
LBJD4Z	Opiates
LFXVD6	Morphine
M39BHY	Opiate
MTJKV8	Quetiapine, Codeine
MZJ6VG	Opiates
N9RYQA	codeine, quetiapine
NEGBRX	Codeine, Doxepin
NPX6WY	Codeine, Doxepin, Quetiapine
NTY4F6	Opiates, Doxepin
NZFLP7	Codeine, Doxepin, Quetiapine
P2LQFY	Opiates
P9PNAX	Opioids
PC6WXW	Opiates, Doxepin, Quetiapine
PMQZ3B	acetaminophen, oxycodone, codeine, doxepin, quetiapine
PP9GX2	Codeine, Doxepin, Quetiapine, Norquetiapine,Norcodeine
Q6YL2N	codeine, Doxepin, Quetiapine, oxycodone
QT78VZ	Opiates
T2A24X	Morphine, Codeine, Quetiapine
T4YKT3	Opiates, Oxycodone, Opioids, Tricyclic antidepressants
T6C24U	Opiate class, Doxepin, Quetiapine
TD4HRY	Codeine, Quetiapine
TGNKJ6	codeine, quetaipine
TH2UWB	Opiates
TMBA7Z	[Participant reported that drugs were detected, but did not report the drug class or name]
TV7C8B	Codeine, Doxepin, Quetiapine
TXVJUT	opiate
TZLKVB	Opiates
U8G6DW	Opiates, Doxepin

TABLE 2A: Screening Results - Item 2

WebCode	Screening Results
U9MEE2	Tricyclic Antidepressants, Opioids
UCMPB2	Codeine
UHV3HZ	Codeine, Quetiapine, and Doxepin
UZRPJJ	Codeine, Quetiapine, Doxepin
VAWW24	codeine, quetiapine
VAXXHV	Codeine, Doxepin, Quetiapine
VBANRZ	Opiates
VCMX68	opiates, tricyclics
VD2KGU	Opiates
VRFPP8	Oxycodone, Opioids
W9KG6H	quetiapine, codeine, doxepin
XK898X	Codeine
XPP7YU	opiates, doxepin
XQYFP7	Positive opiate ELISA
XVQPRR	codeine, quetiapine, doxepin
Y9T9B4	No drugs detected utilizing screening methods.
YDQRD3	Codeine
YDRMXU	Doxepin, Codeine
YLKX9P	Amphetamine, Opiates, and Oxycodone/Oxymorphone
YYKWVL	Opiates
Z3NREN	codeine, quetiapine, doxepin
ZMBHCZ	Codeine, Doxepin, Quetiapine
ZYK6GQ	Opiates, Opioids, Tricyclic Antidepressants (TCA)

Screening Response Summary for Item 2	Participants: 131
Doxepin:	50
Codeine:	62
Quetiapine:	47
Opiates/Opioids:	68
Tricyclic Antidepressants:	14
Other Drugs Detected:	29
No Drugs Detected Utilizing Screening Methods:	2

Total number of screening responses provided may be more than the number of participants due to multiple drugs/metabolites being reported.

Confirmatory Results - Item 2

TABLE 2B

Item Scenario:

A middle-aged woman was found deceased lying in the prone position on her bed. She was previously diagnosed with schizophrenia and had a history of chronic pain. Blood was collected an estimated 8 hours postmortem.

Item Contents and Preparation Concentration: Doxepin (50 ng/mL)
Codeine (1000 ng/mL)
Quetiapine (500 ng/mL)

What drugs/metabolites were detected in Item 2?

WebCode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
22LTAL	Doxepin		6		ng/ml
	Codeine		418		ng/ml
23XFTK	Doxepin		0.05	0.005	ug/mL
	Codeine		480	71	ng/mL
2E9T9Z	doxepin	✓			
	codeine		490		ng/mL
	quetiapine	✓			
2F7B2P	Doxepin	✓			
	Codeine	✓			
	Quetiapine	✓			
2H6J9K	Doxepin	✓			
	Codeine	✓			
	Quetiapine	✓			
3M2KUZ	Codeine	✓			
3QJRAL	Codine	✓			
3W6KLL	Doxepin	✓			
	Codeine	✓			
3XLRTN	Codeine		890	130	ng/mL
3ZQKMM	Doxepin	✓			
	Codeine	✓			
4AVR3M	Codeine		795.73	87.53	ng/mL
4HN3CH	Doxepine		0.05	9.12%	ug/mL
	Codeine		581	14.72%	ng/mL
	Quetiapine	✓			
4Q2WPY	Codeine	✓			ng/mL

TABLE 2B: Confirmatory Results - Item 2

What drugs/metabolites were detected in Item 2?					
WebCode	**Analyte Reported**	**Qualitative Only**	**Reported Concentration**	**Uncertainty**	**Units**
4T4UZR	Doxepin	✓			
	Codeine (Free)		0.752	0.070	mg/L
	Quetiapine	✓			
4THFAU	doxepin	✓			
	Codeine		0.88	0.23	mg/L
	quetiapine	✓			
4Z746Y	Codeine		0.6	0.2	µg/mL
62PLGG	Doxepin	✓			
	Codeine		0.75	15%	ug/mL
6BZN3H	Doxepin	✓			
	Codeine	✓			
	Quetiapine	✓			
6PGUXG	Doxepin		0.05	0.01	ug/mL
	Codeine		448	66	ng/mL
6Y8F2U	doxepin	✓			
	codeine		0.83	0.22	mg/L
	quetiapine	✓			
7NZX6H	Doxepin	✓			
	Codeine	✓			
	Quetiapine	✓			
7YMWWM	Doxepin	✓			
	Codeine	✓			
826FGH	Doxepin		0.050	0.007	mg/L
	Codeine		0.90	0.16	mg/L
8637EG	Doxepin	✓			
	Codeine	✓			
866NKR	Codeine		0.88	0.23	mg/L
	Quetiapine		0.64	0.19	mg/L
8HTTTN	Doxepin	✓			
	Codeine		831	266	ng/mL
	Quetiapine	✓			

TABLE 2B: Confirmatory Results - Item 2

What drugs/metabolites were detected in Item 2?					
WebCode	**Analyte Reported**	**Qualitative Only**	**Reported Concentration**	**Uncertainty**	**Units**
8KKPGH	Doxepin		47.12	3.29	ng/mL
	Codeine		1098.27	109.82	ng/mL
	Quetiapine		516.23	41.29	ng/mL
8NZ7QM	Doxepin	✓			
	Codeine		890		ng/mL
	Quetiapine	✓			
8RFRJU	Doxepin	✓			
	Codeine		769.17	123.10	ng/mL
93QQKF	Doxepin	✓			
	Codeine	✓			
	Quetiapine	✓			
93TCGV	Codeine		0.6	0.2	µg/mL
9AE6UF	Doxepin	✓			
	Codeine	✓			
	Quetiapine	✓			
9F4L77	Doxepin		41		ng/mL
	Codeine		700		ng/mL
	Quetiapine		510		ng/mL
AB3ZUU	Codeine		660		ng/mL
	Quetiapine		610		ng/mL
B44TQE	Doxepin		44.23	3.09	ng/ml
	Codeine		716.39	71.63	ng/ml
	Quetiapine		511.89	40.95	ng/ml
BCV9FH	codeine	✓			
	quetiapine	✓			
BL2C3T	Doxepin	✓			
	Codeine	✓			
C2TB8A	Doxepin		0.06	+/-0.01	ug/mL
	Codeine		686	+/- 101	ng/mL
	Quetiapine	✓			

TABLE 2B: Confirmatory Results - Item 2

What drugs/metabolites were detected in Item 2?					
WebCode	**Analyte Reported**	**Qualitative Only**	**Reported Concentration**	**Uncertainty**	**Units**
C3HKVG	Doxepina	✓			
	Codeine	✓			
	Quetiapine	✓			
	Additional Analyte(s) Reported				
	Norcodeine	✓			
CAMFXP	codeine	✓			
CQ87XN	Codeine	✓			
CTVM6B	Doxepin	✓			
	Codeine	✓			
	Quetiapine	✓			
DAGMJE	Doxepin	✓			
	Codeine	✓			
	Quetiapine	✓			
DLB2JB	Doxepin	✓			
	Codeine	✓			
	Quetiapine	✓			
DLCYPZ	Doxepin		<100		ng/mL
	Codeine		820	234	ng/mL
	Quetiapine		510		ng/mL
	Additional Analyte(s) Reported				
	Salicylic Acid		<5000	<797	ng/mL
DUMZBZ	Doxepin		40	10	ng/mL
	Codeine		840	190	ng/mL
	Quetiapine		490	160	ng/mL
EC2W7K	Doxepin	✓	Presence Confirmed		
	Codeine		470		ng/mL
	Quetiapine	✓	Presence Confirmed		
EGYDJE	Doxepin	✓			
	Codeine	✓			
	Quetiapine	✓			
EL74LK	codeine		0.96	0.25	mg/L
	quetiapine		0.57	0.17	mg/L

TABLE 2B: Confirmatory Results - Item 2

What drugs/metabolites were detected in Item 2?					
WebCode	**Analyte Reported**	**Qualitative Only**	**Reported Concentration**	**Uncertainty**	**Units**
FE2MQ6	Doxepin		0.05	0.01	ug/ml
	Codeine		603	88	ng/ml
	Quetiapine	✓			ug/ml
FHZXL6	Doxepin		0.05	0.01	ug/mL
	Codeine		544	80	ng/mL
	Quetiapine	✓			
FL3LE9	Doxepin	✓			
	Codeine	✓			
	Quetiapine	✓			
FN7GYC	doxepin	✓			
	codeine		494.28	+/- 98.86	ng/ml
	quetiapine		472.57	+/- 108.69	ng/ml
FP6FGK	Codeine		0.86	0.22	mg/L
	Quetiapine		0.51	0.15	mg/L
FUYC7B	Doxepin	✓			
	Codeine	✓			
G7MXPB	Codeine	✓			
G9DYTE	Codeine	✓			
	Quetiapine	✓			
GGQXEC	Doxepin	✓			
	Codeine	✓			
	Quetiapine	✓			
GHK2RJ	Codeine	✓			
HLCAT6	Doxepin	✓			
	Codeine	✓			
	Quetiapine	✓			
HVKZEG	Doxepin	✓			
	Codeine		478		ng/mL
	Quetiapine	✓			
HXCV4B	Doxepin	✓			
	Codeine	✓			

TABLE 2B: Confirmatory Results - Item 2

What drugs/metabolites were detected in Item 2?					
WebCode	**Analyte Reported**	**Qualitative Only**	**Reported Concentration**	**Uncertainty**	**Units**
HZEUCH	codeine		0.87	0.23	mg/L
	quetiapine		0.52	0.16	mg/L
J7Z7QB	Doxepin	✓			
	Codeine	✓			
	Quetiapine	✓			
K3EQR3	Doxepin		25		ng/ml
	Codeine		4240		ng/ml
	Additional Analyte(s) Reported				
	Hydrocodone		500		ng/ml
K3WV9F	Codeine	✓			
KCLLV9	Codeine	✓			
	Quetiapine	✓			
KNBHW7	doxepin	✓			
	codeine	✓			
KW33R7	Doxepin	✓			
	Codeine		>500	20%	ng/mL
	Quetiapine		469.93	23%	ng/mL
L8LUZG	Codeine	✓	742	90	ng/mL
LBJD4Z	Doxepin		0.06	9.12%	ug/mL
	Codeine		617	14.72%	ng/mL
	Quetiapine	✓			
LFXVD6	Codeine	✓			
	Quetiapine	✓			
LPLM8A	Doxepin	✓			
	Codeine	✓			
	Quetiapine	✓			
M39BHY	codeine		481	14.72%	ng/ml
	quetiapine	✓			
MTJKV8	Codeine		783	12%	ng/mL
	Quetiapine		0.57	20%	ug/mL
MZJ6VG	Codeine		0.80	0.21	mg/L

TABLE 2B: Confirmatory Results - Item 2

What drugs/metabolites were detected in Item 2?					
WebCode	**Analyte Reported**	**Qualitative Only**	**Reported Concentration**	**Uncertainty**	**Units**
N9RYQA	codeine		0.63	0.16	mg/L
	quetiapine	✓			
NEGBRX	Doxepin	✓			
	Codeine		780	140	ng/mL
NPX6WY	Doxepin	✓			
	Codeine	✓			
	Quetiapine	✓			
NTY4F6	Doxepin	✓			
	Codeine	✓			
NZFLP7	Doxepin	✓			
	Codeine		920		ng/mL
	Quetiapine	✓			
P9PNAX	Doxepin		0.05	0.01	ug/mL
	Codeine		432	63.6	ng/mL
	Quetiapine	✓			
PC6WXW	Doxepin	✓			
	Codeine		>0.40	9.8%	mg/L
	Quetiapine	✓			
PMQZ3B	doxepin	✓			
	codeine		0.83	0.22	mg/L
	quetiapine		0.61	0.18	mg/L
PP9GX2	Doxepin		40		ng/mL
	Codeine		755		ng/mL
	Quetiapine		400		ng/mL
	Additional Analyte(s) Reported				
	Norcodeine	✓			
	Norquetiapine	✓			
Q6YL2N	Doxepin	✓			
	Codeine		803		ng/mL
	Quetiapine		512		ng/mL

TABLE 2B: Confirmatory Results - Item 2

What drugs/metabolites were detected in Item 2?					
WebCode	**Analyte Reported**	**Qualitative Only**	**Reported Concentration**	**Uncertainty**	**Units**
QT78VZ	Codeine		885	145	ng/mL
	Additional Analyte(s) Reported				
	6-MAM		None Detected	N/A	ng/mL
	Hydrocodone		None Detected	N/A	ng/mL
	Hydromorphone		None Detected	N/A	ng/mL
	Morphine		None Detected	N/A	ng/mL
	Oxycodone		None Detected	N/A	ng/mL
	Oxymorphone		None Detected	N/A	ng/mL
T2A24X	**Additional Analyte(s) Reported**				
	Morphine		< 5.0	20%	ng/mL
T6C24U	Doxepin	✓			
	Codeine	✓			
	Quetiapine	✓			
TD4HRY	Codeine	✓			
	Quetiapine	✓			
TGNKJ6	codeine		720	190	ng/mL
	quetiapine		550	170	ng/mL
TH2UWB	Doxepin		0.06	0.05 - 0.06	ug/mL
	Codeine		501	426 - 573	ng/mL
	Quetiapin	✓			
TV7C8B	Doxepin	✓			
	Codeine	✓			
TXVJUT	codeine		566	83	ng/mL
	quetiapine	✓			
TZLKVB	Codeine		730		ng/mL
	Quetiapine		610		ng/mL
U8G6DW	Doxepin	✓			
	Codeine	✓			
U9MEE2	Doxepin		54		ng/mL
	Codeine		830		ng/mL
UCMPB2	Codeine		>500		ng/mL

TABLE 2B: Confirmatory Results - Item 2

What drugs/metabolites were detected in Item 2?					
WebCode	**Analyte Reported**	**Qualitative Only**	**Reported Concentration**	**Uncertainty**	**Units**
UHV3HZ	Doxepin	✓			
	Codeine	✓			
	Quetiapine	✓			
UZRPJJ	Doxepin		0.04	15 %	mg/L
	Codeine		0.74	15 %	mg/L
	Quetiapine		0.50 mg/L	15 %	mg/L
VAWW24	codeine		0.84	0.22	mg/L
	quetiapine		0.53	0.16	mg/L
VAXXHV	Doxepin	✓			
	Codeine		>500	+/-20%	ng/mL
	Quetiapine		545.92	+/-23%	ng/mL
VBANRZ	Doxepin	✓			
	Codeine		810	113	ng/mL
	Quetiapine		503	50	ng/mL
VCMX68	doxepin	✓			
	codeine		468		ng/mL
	quetiapine	✓			
VRFPP8	Codeine		>500		ng/mL
W9KG6H	doxepin	✓	<0.050		mg/L
	codeine		1.0	0.1	mg/L
	quetiapine		0.59	0.06	mg/L
XEHN2W	Doxepin	✓			
	Codeine	✓			
	Quetiapine	✓			
XK898X	Codeine		>300.0		ng/mL
XPP7YU	doxepin	✓			
	codeine	✓			
XQYFP7	Doxepin		.05	9.12%	ug/mL
	Codeine		723	14.72%	ng/mL
	Quetiapine	✓			

TABLE 2B: Confirmatory Results - Item 2

What drugs/metabolites were detected in Item 2?					
WebCode	**Analyte Reported**	**Qualitative Only**	**Reported Concentration**	**Uncertainty**	**Units**
XVQPRR	doxepin	✓			
	codeine		777	101	ng/mL
	quetiapine		518	72	ng/mL
YDQRD3	Codeine	✓			
YDRMXU	Doxepin	✓			
	Codeine	✓			
YYKWVL	Doxepin		0.05	0.01	ug/mL
	Codeine		456	67	ng/mL
	Quetiapine	✓			
Z3NREN	doxepin		41	35%	ng/mL
	codeine		911	30%	ng/mL
	quetiapine		353	40%	ng/mL
ZMBHCZ	Doxepin	✓			
	Codeine		0.82	+/- 0.21	mg/L
	Quetiapine	✓			

Confirmatory Response Summary for Item 2	Participants: 116
Doxepin:	79 (68.1%)
Codeine:	115 (99.1%)
Quetiapine:	74 (63.8&)
Other Identified Drugs/Metabolites:	12 (10.3%)
No Drugs/Metabolites Detected Utilizing Confirmatory Methods:	0 (0.0%)

Total number of confirmatory responses above may be more than the number of participants due to multiple drugs/ metabolites being reported.

Raw Data - Item 2

Sp

TABLE 2C

Item 2 Raw Data - Doxepin
Preparation concentration: 50 ng/mL

WebCode	List of Raw Data determinations (ng/mL)				Participant Mean	
22LTAL	6.9200	5.3500	5.2500	7.1100	6.1580	X
23XFTK	51.000				51.000	
4HN3CH	55.000				55.000	
4THFAU	28.000				28.000	
6PGUXG	55.000				55.000	
6Y8F2U	39.000				39.000	
826FGH	50.000				50.000	
8KKPGH	47.120				47.120	
9F4L77	43.100	39.800			41.450	
B44TQE	44.230				44.230	
C2TB8A	62.000				62.000	
DLCYPZ	17.000				17.000	
DUMZBZ	40.000	39.000	40.000		39.670	
FE2MQ6	51.000				51.000	
FHZXL6	50.000				50.000	
K3EQR3	25.000				25.000	
KW33R7	43.895				43.890	
LBJD4Z	64.000				64.000	
P9PNAX	50.800				50.800	
PMQZ3B	37.000				37.000	
PP9GX2	40.000				40.000	
TH2UWB	65.000				65.000	
U9MEE2	54.000				54.000	
UZRPJJ	36.600	36.800			36.700	
XQYFP7	51.000				51.000	
YYKWVL	56.000				56.000	
Z3NREN	41.000				41.000	

Statistical Analysis for Item 2 - Doxepin

Grand Mean	45.96	Number of Participants Included	26
Standard Deviation	11.58	Number of Participants Excluded	1
		by Critical H value of	2.616

TABLE 2C: Raw Data - Item 2

Item 2 Raw Data - Codeine
Preparation concentration: 1000 ng/mL

WebCode	List of Raw Data determinations (ng/mL)						Participant Mean
22LTAL	418.91	420.90	416.50	423.46	412.98	417.00	418.30
23XFTK	480.00						480.00
2E9T9Z	490.00						490.00
3M2KUZ	802.10						802.10
3XLRTN	894.00						894.00
4AVR3M	795.73						795.70
4HN3CH	581.32						581.30
4Q2WPY	806.28						806.30
4T4UZR	743.69	760.10					751.90
4THFAU	877.59						877.60
4Z746Y	647.11						647.10
62PLGG	752.67	753.30					753.00
6PGUXG	448.00						448.00
6Y8F2U	825.13						825.10
826FGH	900.80						900.80
866NKR	882.14						882.10
8HTTTN	831.00						831.00
8KKPGH	1,098.3						1,098.3
8NZ7QM	890.27						890.30
8RFRJU	769.18						769.20
93TCGV	685.83						685.80
9F4L77	700.00						700.00
AB3ZUU	681.42	630.40					655.90
B44TQE	716.39						716.40
C2TB8A	686.75						686.80
CAMFXP	797.69						797.70
CQ87XN	754.25						754.30
DLCYPZ	774.00	873.00					823.50
DUMZBZ	878.00	797.00					837.50
EC2W7K	470.70						470.70
EL74LK	958.20						958.20
FE2MQ6	603.15						603.20
FHZXL6	544.35						544.40

TABLE 2C: Raw Data - Item 2

Item 2 Raw Data - Codeine
Preparation concentration: 1000 ng/mL

WebCode	List of Raw Data determinations (ng/mL)		Participant Mean
FN7GYC	494.28		494.30
FP6FGK	862.23		862.20
GHK2RJ	816.06		816.10
HVKZEG	478.80		478.80
HZEUCH	865.76		865.80
K3EQR3	4,240.0		4,240.0 X
K3WV9F	734.94		734.90
KW33R7	817.93		817.90
L8LUZG	742.04		742.00
LBJD4Z	617.60		617.60
M39BHY	481.32		481.30
MTJKV8	783.37		783.40
MZJ6VG	802.10		802.10
N9RYQA	634.17		634.20
NEGBRX	780.00		780.00
NZFLP7	923.64		923.60
P9PNAX	432.00		432.00
PMQZ3B	826.61		826.60
PP9GX2	755.00		755.00
Q6YL2N	814.83	792.10	803.50
QT78VZ	885.24		885.20
TGNKJ6	716.22		716.20
TH2UWB	501.00		501.00
TXVJUT	566.20		566.20
TZLKVB	743.46	709.40	726.40
U9MEE2	830.00		830.00
UCMPB2	747.00		747.00
UZRPJJ	749.10	740.80	745.00
VAWW24	746.58	932.10	839.30
VAXXHV	756.62		756.60
VBANRZ	810.38		810.40
VCMX68	468.90		468.90
W9KG6H	1,019.7		1,019.7

TABLE 2C: Raw Data - Item 2

Item 2 Raw Data - Codeine
Preparation concentration: 1000 ng/mL

WebCode	List of Raw Data determinations (ng/mL)	Participant Mean
XQYFP7	723.95	724.00
XVQPRR	777.00	777.00
YDQRD3	752.83	752.80
YYKWVL	456.40	456.40
Z3NREN	911.00	911.00
ZMBHCZ	816.10	816.10

Statistical Analysis for Item 2 - Codeine

Grand Mean	730.66	Number of Participants Included	71
Standard Deviation	153.05	Number of Participants Excluded	1
		by Critical H value of	2.739

TABLE 2C: Raw Data - Item 2

Item 2 Raw Data - Quetiapine
Preparation concentration: 500 ng/mL

WebCode	List of Raw Data determinations (ng/mL)			Participant Mean	
4THFAU	351.00			351.00	
6Y8F2U	476.00			476.00	
866NKR	640.00			640.00	
8KKPGH	516.23			516.20	
9F4L77	504.00	514.00		509.00	
AB3ZUU	626.23	589.70		608.00	
B44TQE	511.89			511.90	
DLCYPZ	505.00			505.00	
DUMZBZ	518.00	499.00	463.00	493.30	
EL74LK	569.00			569.00	
FN7GYC	472.57			472.60	
FP6FGK	512.00			512.00	
HZEUCH	522.00			522.00	
KW33R7	469.94			469.90	
MTJKV8	572.00			572.00	
N9RYQA	0.4820			0.4820	X
PMQZ3B	606.00			606.00	
PP9GX2	400.00			400.00	
Q6YL2N	521.10	502.80		512.00	
TGNKJ6	546.00			546.00	
TZLKVB	604.50	623.10		613.80	
UZRPJJ	501.30	494.50		497.90	
VAWW24	530.00			530.00	
VAXXHV	545.92			545.90	
VBANRZ	503.38			503.40	
W9KG6H	585.77			585.80	
XVQPRR	518.00			518.00	
Z3NREN	353.00			353.00	

Statistical Analysis for Item 2 - Quetiapine

Grand Mean	516.28	Number of Participants Included	27
Standard Deviation	70.28	Number of Participants Excluded	1
		by Critical H value of	2.623

Reporting Procedures - Item 2

TABLE 2D - Item 2

WebCode	Quantitative Reporting Procedures
22LTAL	The mean of duplicate/several determinations.
23XFTK	A single determination.
2E9T9Z	A single determination.
3M2KUZ	A single determination.
3XLRTN	A single determination.
4AVR3M	A single determination.
4HN3CH	A single determination.
4Q2WPY	A single determination.
4T4UZR	The mean of duplicate/several determinations.
4THFAU	A single determination.
4Z746Y	A single determination.
62PLGG	The mean of duplicate/several determinations.
6PGUXG	A single determination.
6Y8F2U	A single determination.
7NZX6H	A single determination.
826FGH	A single determination.
866NKR	A single determination.
8HTTTN	A single determination.
8KKPGH	A single determination.
8NZ7QM	A single determination.
8RFRJU	A single determination.
93TCGV	A single determination.
9F4L77	The mean of duplicate/several determinations.
AB3ZUU	The mean of duplicate/several determinations.
B44TQE	A single determination.
C2TB8A	A single determination.
CAMFXP	A single determination.
CQ87XN	A single determination.
DLB2JB	A single determination.
DLCYPZ	The mean of duplicate/several determinations.

TABLE 2D: Reporting Procedures - Item 2

WebCode	Quantitative Reporting Procedures
DUMZBZ	The mean of duplicate/several determinations.
EC2W7K	A single determination.
EL74LK	A single determination.
FE2MQ6	A single determination.
FHZXL6	A single determination.
FN7GYC	A single determination.
FP6FGK	A single determination.
GHK2RJ	A single determination.
HVKZEG	A single determination.
HZEUCH	A single determination.
K3EQR3	The mean of duplicate/several determinations.
K3WV9F	A single determination.
KW33R7	A single determination.
L8LUZG	A single determination.
LBJD4Z	A single determination.
MTJKV8	A single determination.
MZJ6VG	A single determination.
N9RYQA	Quetiapine was lower than the lowest calibrator of 0.5mg/L. Codeine was reported using a single determination.
NEGBRX	A single determination.
NZFLP7	A single determination.
P9PNAX	A single determination.
PC6WXW	the consistent results of multiple determinations.
PMQZ3B	A single determination.
PP9GX2	A single determination.
Q6YL2N	The mean of duplicate/several determinations.
QT78VZ	A single determination.
T2A24X	The mean of duplicate/several determinations.
TGNKJ6	A single determination.
TH2UWB	A single determination.
TXVJUT	A single determination.
TZLKVB	The mean of duplicate/several determinations.

TABLE 2D: Reporting Procedures - Item 2

WebCode	Quantitative Reporting Procedures
U9MEE2	A single determination.
UCMPB2	A single determination.
UZRPJJ	The mean of duplicate/several determinations.
VAWW24	quetiapine is a single determination, codeine is an average of multiple results
VAXXHV	A single determination.
VBANRZ	A single determination.
VCMX68	A single determination.
VRFPP8	A single determination.
W9KG6H	A single determination.
XK898X	Duplicate quantitative analysis performed. Both values must be within +/-20% of their mean to be reported. The lowest value is reported.
XQYFP7	A single determination.
XVQPRR	The mean of duplicate/several determinations.
YDQRD3	A single determination.
YYKWVL	A single determination.
Z3NREN	A single determination.
ZMBHCZ	A single determination.

Response Summary for Item 2	Participants: 77
A single determination:	60 (77.9%)
The mean of duplicate/several determinations:	13 (16.88%)
Other:	4 (5.2%)

Methods of Analysis - Item 2

TABLE 2E - Item 2

WebCode	Method	Screening	Confirmatory	Quantitation
22LTAL	LC/MS/MS	✓	✓	✓
23XFTK	Immunoassay	✓		
	GC/MS		✓	✓
	LC/MS/MS		✓	✓
2E9T9Z	Immunoassay	✓		
	LC/MS/MS		✓	✓
2F7B2P	Immunoassay	✓		
	GC/MS		✓	
	LC/MS/MS		✓	
2H6J9K	Immunoassay	✓		
	LC-QTOF-MS	✓		
	GC/MS		✓	
	LC/MS/MS		✓	
2M7KGU	Immunoassay	✓		
3KXR2L	Immunoassay	✓		
3M2KUZ	Immunoassay	✓		
	LC/MS/MS	✓		
	GC/MS		✓	
3QJRAL	Immunoassay	✓		
	LC-QTOF		✓	
3W6KLL	Immunoassay	✓		
	GC/MS	✓	✓	
3XLRTN	Immunoassay	✓		
	GC/MS		✓	✓
3ZQKMM	Immunoassay	✓		
	GC/MS	✓	✓	
4AVR3M	LC/MS/MS	✓	✓	✓
4HN3CH	Immunoassay	✓		
	LC/MS/MS		✓	✓
	GC/MS	✓	✓	✓
4Q2WPY	LC/MS/MS	✓		
	GC/MS		✓	✓
4T4UZR	Immunoassay	✓		
	LC-QTOF	✓	✓	
	LC/MS/MS		✓	✓
	GC/MS	✓		

TABLE 2E: Methods of Analysis - Item 2

WebCode	Method	Screening	Confirmatory	Quantitation
4THFAU	LC-HR-MS/MS	✓		
	GC/MS		✓	✓
	LC/MS/MS		✓	
4Z746Y	Immunoassay	✓		
	LC/MS/MS		✓	✓
62PLGG	Immunoassay	✓		
	GC/MS		✓	
	LC/MS/MS		✓	✓
6BZN3H	Immunoassay	✓		
	GC/MS	✓	✓	
6PGUXG	Immunoassay	✓		
	GC/MS		✓	✓
	LC/MS/MS		✓	✓
6Y8F2U	HR-LCMS/MS	✓		
	LC/MS/MS		✓	✓
	GC/MS		✓	✓
73LC9G	LC/MS/MS	✓		
77KN6G	Immunoassay	✓		
7NZX6H	Immunoassay	✓		
	GC/MS	✓	✓	
7YMWWM	Immunoassay	✓		
	GC/MS	✓	✓	
826FGH	Immunoassay	✓		
	GC/MS	✓		
	LC/MS/MS		✓	✓
	GC/NPD		✓	✓
8637EG	Immunoassay	✓		
	GC/MS	✓	✓	
866NKR	LC-HRMSMS	✓		
	LC/MS/MS		✓	✓
	GC/MS		✓	✓
88VPNU	Immunoassay	✓		
	LC/MS/MS	✓		
8HTTTN	LC/HRAM-MS	✓	✓	
	LC/MS/MS		✓	✓
8KKPGH	LC/MS/MS	✓	✓	✓
8NZ7QM	Immunoassay	✓		
	GC/MS	✓	✓	
	LC/MS/MS		✓	✓

TABLE 2E: Methods of Analysis - Item 2

WebCode	Method	Screening	Confirmatory	Quantitation
8RFRJU	LC/MS/MS	✓	✓	✓
93QQKF	Immunoassay	✓		
	GC/MS	✓	✓	
93TCGV	Immunoassay	✓		
	LC/MS/MS		✓	✓
9AE6UF	Immunoassay	✓		
	GC/MS		✓	
	LC/MS/MS		✓	
9F4L77	LC-QTOF	✓	✓	✓
9VWC4N	Immunoassay	✓		
AB3ZUU	Immunoassay	✓		
	LC-QTOF	✓		
	LC/MS/MS			✓
B44TQE	LC/MS/MS	✓	✓	✓
BA4A2K	Immunoassay	✓		
BCV9FH	LC/MS/MS	✓		
	LC/MS/MS		✓	
	LC/MS		✓	
BL2C3T	Immunoassay	✓		
	LC-QTOF-MS	✓		
	GC/MS		✓	
C2TB8A	Immunoassay	✓		
	GC/MS		✓	
	GC/FID			✓
	LC/MS/MS		✓	✓
C3HKVG	Immunoassay	✓		
	GC/MS		✓	
	LC-QTOF		✓	
CAMFXP	LC/MS/MS	✓		
	GC/MS		✓	✓
CQ87XN	Immunoassay	✓		
	LC/MS/MS	✓		
	GC/MS		✓	✓
CTVM6B	Immunoassay	✓		
	GC/MS	✓	✓	
CTY3LH	Immunoassay	✓		

TABLE 2E: Methods of Analysis - Item 2

WebCode	Method	Screening	Confirmatory	Quantitation
DAGMJE	Immunoassay	✓		
	GC/MS		✓	
	LC/MS/MS		✓	
DLB2JB	Immunoassay	✓		
	GC/MS	✓	✓	
DLCYPZ	Immunoassay	✓		
	LC-QTOF-MS	✓	✓	✓
	LC/MS/MS		✓	✓
DUMZBZ	LC/MS/MS		✓	✓
	Immunoassay	✓		
	LC-QTOF-MS	✓	✓	
EC2W7K	Immunoassay	✓		
	LC/MS/MS		✓	✓
EGYDJE	GC/MS		✓	
EL74LK	GC/MS		✓	✓
	LC/MS/MS		✓	✓
	LCMS-ORBITRAP	✓		
FE2MQ6	Immunoassay	✓		
	GC/MS		✓	✓
	LC/MS/MS		✓	✓
FHZXL6	Immunoassay	✓		
	GC/MS	✓		
	GC/FID		✓	✓
	LC/MS/MS		✓	✓
FL3LE9	Immunoassay	✓		
	GC/MS	✓	✓	
FN7GYC	LC/MS/MS	✓	✓	
FP6FGK	GC/MS		✓	✓
	LC/MS/MS		✓	✓
	LC-HRMS/MS	✓		
FUYC7B	Immunoassay	✓		
	GC/MS	✓	✓	
G7MXPB	Immunoassay	✓		
	GC/MS	✓	✓	
G9DYTE	GC/MS		✓	
GGQXEC	Immunoassay	✓		
	GC/MS		✓	
	LC-QTOF-MS		✓	

TABLE 2E: Methods of Analysis - Item 2

WebCode	Method	Screening	Confirmatory	Quantitation
GHK2RJ	LC/MS/MS	✓		
	GC/MS		✓	
GKQ9BC	Immunoassay	✓		
HLCAT6	GC/MS	✓		
	LC/MS/MS	✓	✓	
	LC-Orbitrap	✓		
HNKPZB	GC/MS	✓		
HVKZEG	Immunoassay	✓		
	LC/MS/MS		✓	✓
HXCV4B	Immunoassay	✓		
	GC/MS	✓	✓	
HZEUCH	LC-HR/MS/MS	✓		
	GC/MS		✓	✓
	LC/MS/MS		✓	✓
J7Z7QB	GC/MS	✓	✓	
	LC-QTOF			
	LC-QTOF-MS		✓	
K3EQR3	LC/MS/MS	✓	✓	✓
K3WV9F	Immunoassay	✓		
	LC/MS/MS	✓		
	GC/MS		✓	✓
KCLLV9	GC/MS	✓	✓	
	LC-QTOF-MS	✓	✓	
KNBHW7	LC/MS/MS	✓		
	LC/MS		✓	
	GC/MS		✓	
KQ3GB6	Immunoassay	✓		
KW33R7	LC/MS/MS	✓	✓	✓
L8LUZG	Immunoassay	✓		
	LC/MS/MS	✓		
	GC/MS		✓	✓
LBJD4Z	Immunoassay	✓		
	GC/MS	✓	✓	✓
	LC/MS/MS		✓	✓
LFXVD6	Immunoassay	✓		
	LC/MS/MS		✓	
	GC/MS		✓	
LPLM8A	GC/MS	✓		

TABLE 2E: Methods of Analysis - Item 2

WebCode	Method	Screening	Confirmatory	Quantitation
M39BHY	LC/MS/MS		✓	✓
	GC/MS		✓	
	Immunoassay	✓		
MTJKV8	Immunoassay	✓		
	GC/MS		✓	
	LC/MS/MS		✓	✓
	GC/NPD			✓
MZJ6VG	Immunoassay	✓		
	GC/MS		✓	✓
N9RYQA	LC-HRMSMS	✓		
	GC/MS			✓
	LC/MS/MS			✓
NEGBRX	Immunoassay	✓		
	LC/MS/MS		✓	✓
	GC/MS	✓	✓	
NPX6WY	Immunoassay	✓		
	LC-QTOF-MS	✓		
	LC/MS/MS		✓	
	GC/MS		✓	
NTY4F6	Immunoassay	✓		
	GC/MS	✓	✓	
NZFLP7	Immunoassay	✓		
	GC/MS	✓	✓	
	LC/MS/MS		✓	✓
P2LQFY	Immunoassay	✓		
P9PNAX	Immunoassay	✓		
	GC/MS		✓	✓
	LC/MS/MS		✓	✓
PC6WXW	Immunoassay	✓		
	LC/MS	✓	✓	✓
PMQZ3B	GC/MS		✓	✓
	LC/MS/MS		✓	✓
	High resolution Orbitrap LC/MS/MS	✓		
PP9GX2	HPLC-DAD	✓		✓
	GC/MS		✓	
Q6YL2N	Immunoassay	✓		
	LC-QTOF	✓		
	GC/MS		✓	
	LC/MS/MS	✓	✓	
QT78VZ	Immunoassay	✓		
	LC/MS/MS		✓	✓

TABLE 2E: Methods of Analysis - Item 2

WebCode	Method	Screening	Confirmatory	Quantitation
T2A24X	Immunoassay	✓		
	High resolution accurate mass LC/MS	✓		
	GC/MS	✓		
	LC/MS/MS			✓
T4YKT3	Immunoassay	✓		
T6C24U	Immunoassay	✓		
	GC/MS	✓	✓	
TD4HRY	LC/MS/MS	✓	✓	
TGNKJ6	High resolution accurate mass	✓		
	GC/MS		✓	✓
	LC/MS/MS		✓	✓
TH2UWB	Immunoassay	✓		
	LC/MS/MS		✓	✓
	GC/MS	✓	✓	
	GC/FID		✓	✓
TV7C8B	Immunoassay	✓		
	LC-QTOF-MS	✓		
	GC/MS		✓	
TXVJUT	Immunoassay	✓		
	LC/MS/MS		✓	✓
	GC/MS		✓	✓
TZLKVB	Immunoassay	✓		
	LC-QTOF-MS	✓	✓	
	LC/MS/MS		✓	✓
U8G6DW	Immunoassay	✓		
	GC/MS	✓	✓	
U9MEE2	Immunoassay	✓		
	LC/MS/MS		✓	✓
UCMPB2	LC-TOF	✓		
	LC/MS/MS		✓	✓
UHV3HZ	LC/MS/MS	✓	✓	
UZRPJJ	LC/MS/MS	✓	✓	✓
	LC-QTOF-MS	✓		
	Immunoassay	✓		
	HPLC-UV	✓		
VAWW24	GC/MS		✓	✓
	LC/MS/MS			✓
	LC-HRAMS	✓	✓	
VAXXHV	LC/MS/MS	✓	✓	✓

TABLE 2E: Methods of Analysis - Item 2

WebCode	Method	Screening	Confirmatory	Quantitation
VBANRZ	Immunoassay	✓		
	LC/MS/MS		✓	✓
	GC/MS		✓	
VCMX68	Immunoassay	✓		
	LC/MS/MS		✓	✓
VD2KGU	Immunoassay	✓		
VRFPP8	Immunoassay	✓		
	LC/MS/MS		✓	✓
W9KG6H	LC-QTOF-MS	✓		
	LC/MS/MS		✓	✓
XEHN2W	GC/MS		✓	
XK898X	LC/MS/MS	✓	✓	✓
XPP7YU	Immunoassay	✓		
	GC/MS	✓	✓	
XQYFP7	Immunoassay	✓		
	GC/MS		✓	✓
	LC/MS/MS		✓	✓
XVQPRR	Immunoassay	✓		
	GC/MS		✓	
	LC/MS/MS		✓	✓
	LC-QTOF-MS	✓		
Y9T9B4	Immunoassay	✓		
YDQRD3	LC/MS/MS	✓		
	GC/MS		✓	✓
YDRMXU	Immunoassay	✓		
	GC/MS	✓	✓	
YLKX9P	Immunoassay	✓		
YYKWVL	Immunoassay	✓		
	GC/MS	✓		
	GC/FID		✓	✓
	LC/MS/MS		✓	✓
Z3NREN	GC/MS	✓		✓
ZMBHCZ	LC-High Resolution Tandem Mass Spectrometry	✓		
	LC/MS/MS		✓	✓
	GC/MS		✓	✓
ZYK6GQ	Immunoassay	✓		

Response Summary for Item 2 - Methods of Analysis			Participants: 133
	Screening	**Confirmatory**	**Quantitation**
Immunoassay:	89	0	0
GC/MS:	35	74	28
LC/MS:	1	3	1
LC/MS/MS:	27	68	59
LC-QTOF:	4	4	1
LC-QTOF-MS:	11	6	1
Other:	17	6	7

Additional Comments for Item 2

TABLE 2F

WebCode	Item Comments
22LTAL	Paracetamol and Norcodeine were also found in Item 2.
2F7B2P	The internal standard was used is codeine D3.
2M7KGU	Immunoassay: Oxycodone (Oxycodone), Opiates (Morphine), Generic Opioids (Oxycodone) cutoff 10 ng/mL. Tricyclic Antidepressants (Nortriptyline) cutoff 60 ng/mL.
3KXR2L	Analysis by immunoassay screening in whole blood for: Assay Cutoff* (ng/mL):Meth /Amphetamines 20. Barbiturates 50. Benzodiazepines 10. Buprenorphine 1. Cannabinoids 10. Benzoylecgonine 50. Dextromethorphan 5. Fentanyl 1. Meprobamate 100. Methadone 10. Opiates 10. Opioids 10. Phencyclidine 5. TCA 25. Tramadol 5. Zolpidem 10. * Results within 20% of these concentrations are also reported as preliminarily positive.
3M2KUZ	Codeine is above the reporting range of 20 to 400ng/mL; therefore, it is reported Qualitatively as Presence Only.
3VVTEQ	Due to a lack of matrix validation, the sheep's blood was not analyzed.
3XLRTN	Internal Standard: Codeine-D6. Limit-of-Detection: 20 ng/mL
4Q2WPY	ULOQ for Codeine in our calibration curve is 400 ng/mL. We report qualitatively above this.
4T4UZR	Codeine references internal standard Codeine-d3 on LCMSMS for quantitative testing. Doxepin references internal standard Nortriptyline-d3 on LCQTOF for qualitative testing. Quetiapine references internal standard Nortriptyline-d3 on LCQTOF for qualitative testing. [From Table 2c – Item 2 Raw Data - Codeine: ">640.00"]
4THFAU	Quetiapine reported as lower than the lowest calibrator of 0.50 mg/L; and IS is mepivacaine; doxepin reported as lower than the lowest calibrator of 0.25 mg/L, and IS is mepivacaine; Codeine's IS is nalorphine
4Z746Y	ELISA screening panel includes: amphetamine, benzodiazepines, buprenorphine, cannabinoids, carisoprodol, cocaine and metabolites, fentanyl, methadone, methamphetamine, opiates, oxycodone/oxymorphone, phencyclidine, and zolpidem. The laboratory does not routinely analyze postmortem samples (outside scope of testing). Benzodiazepine confirmation/quantitation panel includes: alprazolam, diazepam, 7-aminoclonazepam, clonazepam, lorazepam, nordiazepam, oxazepam, and temazepam. The following internal standards are used: 7-aminoclonazepam D-4, alprazolam D-5, diazepam D-5, clonazepam D-4, nordiazepam D-5, oxazepam D-5, and temazepam D-5. LOD for all benzodiazepines quantitated is 5 ng/mL. LOQ for all benzodiazepines quantitated is 10 ng/mL. Opiate confirmation/quantitation panel includes 6-monoacetylmorphine, codeine, hydrocodone, hydromorphone, morphine. The following internal standards are used: 6-monoacetylmorphine D-3, codeine D-6, hydrocodone D-6, hydromorphone D-3, morphine D-3. 6-MAM has an LOD of 0.5 ng/mL and an LOQ of 1 ng/mL. The remaining analytes have an LOD of 5 ng/mL and an LOQ of 10 ng/mL.
6BZN3H	Internal standards used: Promazine (Screen); Nalorphine (Opiates).
6Y8F2U	Internal Stnd: mepivacaine (HR-LCMS/MS), nalorphine (GC/MS). doxepin: lowest than the lowest calibrator of 0.25 mg/L (or 250 ng/mL). *(LOR= 0.025 mg/L or 25 ng/mL). quetiapine: lowest than the lowest calibrator of 0.50 mg/L (or 500 ng/mL)
73LC9G	One vial was broken and unusable for analysis on receipt of trial. The second vial broke after one freeze-thaw cycle.

TABLE 2F: Additional Comments for Item 2

WebCode	Item Comments
77KN6G	This screened presumptive positive for opiates, tramadol, buprenorphine, and oxycodone/oxymorphone. However, the [Laboratory] does not have the capabilities to confirm the presence of opiates, tramadol, buprenorphine, and oxycodone/oxymorphone. The immunoassay tests for the following drugs: amphetamine, barbiturates, benzodiazepines, buprenorphine, benzoylecgonine/cocaine, cannabinoids, carisoprodol, fentanyl, methadone, methamphetamine, opiates, oxycodone/oxymorphone, phencyclidine (PCP), tramadol, and zolpidem.
7YMWWM	Screen - Promazine ISTD. Opiate - Nalorphine ISTD
8637EG	Internal Standards: Promazine (Drug Screen). Nalorphine (Opiate Extraction).
866NKR	Internal standards used include: Mepivacaine and Nalorphine
8KKPGH	dilution performed for reported value for codeine and quetiapine based on semi-quantitative screen results and first extraction results for quetiapine. Codeine LOQ 5ng/mL; ISTD Codeine-d6 Doxepin LOQ 5ng/mL; ISTD Doxepin-d3. Quetiapine LOQ 5ng/mL; ISTD Quetiapine-d8.
8RFRJU	Internal standard for codeine: codeine d3. Codeine limit of detection =5ng/mL. Doxepin limit of detection = 10ng/mL
93QQKF	Promazine used as internal standard for GC/MS screening and confirmation of doxepin and quetiapine. Nalorphine used as internal standard for GC/MS confirmation of opiates.
93TCGV	Post-mortem testing is outside the laboratory's scope of analysis. ELISA screening panel includes: amphetamine, benzodiazepines, buprenorphine, cannabinoids, carisoprodol, cocaine and metabolites, fentanyl, methadone, methamphetamine, opiates, oxycodone/oxymorphone, phencyclidine, and zolpidem. Opiates confirmation/quantitation panel includes 6-monoacetylmorphine (6-MAM), codeine (COD), hydrocodone (HDC), hydromorphone (HDM), and morphine (MOR) using 6-MAM-D3, COD-D6, HDC-D6, HDM-D3, and MOR-D3 as internal standards, respectively. LOD for 6-MAM is 0.5 ng/mL; LOQ is 1 ng/mL. LOD for the remaining target drugs is 5 ng/mL; LOQ is 10 ng/mL. The ULOQ for COD is 500 ng/mL. Samples quantitating greater than the ULOQ undergo pre-extract dilution(s) accordingly, and the result is multiplied by the dilution factor and reported. Benzodiazepines confirmation/quantitation panel includes 7-aminoclonazepam (7-AMINO), alprazolam (ALP), clonazepam (CLON), diazepam (DIAZ), nordiazepam (NORD), temazepam (TEM), oxazepam (OXAZ), and lorazepam (LOR) using 7-AMINO-D4, ALP-D5, CLON-D4, DIAZ-D5, NORD-D5, TEM-D5, and OXAZ-D5 as internal standards, respectively. OXAZ-D is used as the internal standard for both OXAZ and LOR confirmation/quantitation. LOD and LOQ for all benzodiazepine targets is 5 ng/mL and 10 ng/mL, respectively. No benzodiazepines were confirmed.
9AE6UF	Confirmatory ISTD GC/MS: NPA and SKF. ISTD for Opiates by LC/MS/MS: Morphine-d6, Codeine-d6, Hydrocodone-d6
9VWC4N	The Toxicology laboratory uses an immunoassay which screens for the following six drugs/drug classes: Amphetamines, Benzodiazepines, Cannabinoids, Cocaine, Opiates, and PCP. The laboratory's opiates confirmation testing is off-line and unavailable for confirmation testing.
B44TQE	Quetiapine >Linear Range 250.00ng/ml on first extraction; dilution was performed. Codeine LOQ 5ng/ml; Codeine-d6 ISTD. Doxepin LOQ 5ng/ml; Doxepin-d3 ISTD. Quetiapine LOQ 5ng/ml; Quetiapine-d8 ISTD.
BA4A2K	opiate screens - oxy1, oxy2, opiates, opioids - Analyte DoA Ultra Blood: Cutoff (ng/mL): Amphetamine 20. Barbiturates (Phenobarbital) 50. Benzodiazepines I (Oxazepam)10. Benzodiazepines II (Lorazepam) 10. Buprenorphine: DoA blood 5. Norbuprenorphine: DoA urine: Cannabinoids (Carboxy-Tetrahydrocannabinol) 10. Cocaine Metabolite (Benzoylecgonine) 50. Dextromethorphan 5. Fentanyl 2. Generic Opioids (Oxycodone) 10. Meprobamate 100. Methadone 10. Methamphetamine 20. Opiates (Morphine) 10. Oxycodone I (Oxycodone) 10. Oxycodone II (Oxycodone) 10. Phencyclidine 5. Tramadol 5. Tricyclic Antidepressants (Nortriptyline) 60. Zolpidem 10.
BFVJBH	Due to lack of matrix validation, item #2 was not analyzed.

TABLE 2F: Additional Comments for Item 2

WebCode	Item Comments
BL2C3T	Internal Standard used - Mepivacaine
C3HKVG	Screening, cut off: Opiods 40ng/mL
CAMFXP	Above calibration curve therefore reporting presence only
CQ87XN	Codeine was above our ULOQ, report as presence only with statement saying value was above our highest calibrator. Instrument calibrated from 20 to 400ng/mL.
CTVM6B	ISTD. Drug Screen - Promazine. Opiate Confirm - Nalorphine
CTY3LH	Screening Panel with cutoffs: Fentanyl 1ng/mL, AB-PINACA 2ng/mL, ETG 500ng/mL, Methamphetamine 50ng/mL, Barbiturates 50ng/mL, Benzodiazepines 20 ng/mL, AB-CHMINACA 5ng/mL, Methadone 10ng/mL, Opiates 80ng/mL, Phencyclidine 5ng/mL, BZG/Cocaine 25ng/mL, Oxycodone 10ng/mL, Tramadol 5ng/mL, Cannabinoids (THC) 10ng/mL, TCA 60ng/mL, Amphetamine 50ng/mL, Buprenorphine 2ng/mL, 6-MAM 10ng/mL, alpha-PVP 5ng/mL, Pregabalin 1000ng/mL
DAGMJE	Confirmatory ISTD GC/MS: NPA and SKF. ISTD for Opiates by LC/MS/MS: Morphine-d6, Codeine-d6, Hydrocodone-d6
DLCYPZ	Screening- Immunoassay - UPLC-QTOF-MS (Waters), Internal Standard: D3-Methadone, Prazepam and Cyclobarbitone. Confirmation- Codeine: UPLC-TQD (Waters), Internal Standard: D3-Codeine, LOD: 2 ng/mL- Doxepin: UPLC-QTOF-MS (Waters), Internal Standard: D5-Diazepam, LOD: 5 ng/mL- Quetiapine: UPLC-QTOF-MS (Waters), Internal Standard: D5-Diazepam, LOD: 1 ng/mL- Salicylic Acid: UPLC-QTOF-MS (Waters), Internal Standard: Cyclobarbitone, LOD: 100 ng/mL
EC2W7K	Internal Standards: Codeine -->Codeine d6, Quetiapine --> Quetiapine d8, Doxepin --> Amitryptyline d3. LOD: Opiates: 5 ng/mL, Quetiapine: 25 ng/mL, Doxepin: 25 ng/mL
EL74LK	Internal Standards: mepivacaine, nalorphine. doxepin was less than the limit of report of 0.025 mg/L
FL3LE9	Internal standard used for drug screen was promazine. Internal standard used for opiate confirmation was nalorphine.
FN7GYC	uncertainty codeine K3 20%. uncertainty quetiapine K3 23%
FP6FGK	Nalorphine used as internal standard for codeine quantitation. Mepivacaine used as internal standard for quetiapine quantitation
G9DYTE	Internal standard: Flurazepam. Doxepin or Amitriptyline: In the mass spectrometry analysis (low resolution) a chemical substance that could be doxepin or amitriptyline was detected. However, despite having certified reference material (CRM) for both substances, they have similar retention times and structures, and both belong to the same group of tricyclic antidepressants. Therefore, it is not possible to confirm which of the two substances is present using the available validated technique and method. Thus, in this case, we would request an additional analysis with a complementary high-resolution analytical technique (LC-MS-QTOF) and soft ionization. Doxepin has an exact mass of 279.3761 and amitriptyline has an exact mass of 277.1830. In GC-MS electron ionization (EI) fragmentation, it is not possible to observe the molecular ion and the corresponding fragments are similar. The main fragments include M/Z 58, 42, 115, 165 and 202, among others, which coincide in both substances. Quetiapine: A presumptive positive result for quetiapine is reported for item 2, as the certified reference material (CRM) is not available in the laboratory. Therefore, it is preliminarily reported based on fragmentation and ion match correspondence with the NIST 2020 library.
GHK2RJ	Codeine was screened using LC/MS/MS and confirmed using GC/MS. LOQ is 20ng/mL; Internal Standard is Codeine-D6; ULOQ is 400ng/mL - not reporting amount because it is above the calibration curve - reported as Presence Only.
GKQ9BC	Only screening test was performed.
HNKPZB	Liquid-Liquid basic extraction using Toluene: Hexane: Isoamyl alcohol (78:20:2) solvent mix as extracting solvent followed by derivatization.

TABLE 2F: Additional Comments for Item 2

WebCode	Item Comments
J7Z7QB	Estazolam was used as internal standard
K3WV9F	Codeine was found above our highest calibrator - reported as presence only.
KCLLV9	In the sample a instrumental response was observed for doxepine; however, the laboratory does not have reference materials to confirm the identity.
KNBHW7	Codeine was confirmed above our highest calibrator, reported as >300 ng/mL by LCMSMS. Doxepin confirmed by GCMS.
KQ3GB6	Analysis by immunoassay screening in whole blood for: Assay Cutoff* (ng/mL):Meth /Amphetamines 20. Barbiturates 50. Benzodiazepines 10. Buprenorphine 1. Cannabinoids 10. Benzoylecgonine 50. Dextromethorphan 5. Fentanyl 1. Meprobamate 100. Methadone 10. Opiates 10. Opioids 10. Phencyclidine 5. TCA 25. Tramadol 5. Zolpidem 10. * Results within 20% of these concentrations are also reported as preliminarily positive.
L8LUZG	Codeine is above ULOQ, reporting presence only.
LFXVD6	The cut-off value of codeine is 30 ng/mL for GC/MS. The cut-off value of quetiapine is 50 ng/mL for LC/MS/MS. This item was analyzed for the LC/MS/MS method. Doxepin was detected, but in the analysis this drug was below the cut-off value (25 ng/mL), so we did not report it.
NEGBRX	limit of quantitation for doxepin is 50 ng/mL
PC6WXW	For doxepin and quetiapine, mepivacaine is the ISTD. For codeine, codeine-D6 is the ISTD and the LOD/LOQ is 0.01 mg/L.
PMQZ3B	Mepivacaine was used as internal standard for LC and GC. Nalorphine was used as an additional internal standard for GC
QT78VZ	Opiate screening cut off is 20ng/mL. The opiate quantification can confirm codeine, hydrocodone, hydromorphone, morphine, oxycodone, oxymorphone and 6-mam. The lower reporting limits are as follows; codeine is 10ng/mL, hydrocodone is 10ng/mL, hydromorphone is 1.0ng/mL, morphine is 10ng/mL, oxycodone is 10ng/mL, oxymorphone is 1.0ng/mL and 6-mam is 1.0ng/mL. Dilutions of the sample was prepared for analysis, but not included in the raw data. Extraction was repeated to confirm the poor chromatography for morphine. The morphine data did not meet the acceptance criteria to be reported.
T2A24X	Morphine lower limit of quantitation (LLOQ) is 5ng/mL. Both replicate measurements of morphine were less than the LLOQ but were greater than the limit of detection (0.25ng/mL). No confirmations for codeine or quetiapine were carried out. Quantitative results obtained using dedicated Section [Identifier] method.
T4YKT3	Immunoassay: Oxycodone (Oxycodone), Opiates (Morphine), Generic Opioids (Oxycodone) cutoff 10 ng/mL. Tricyclic Antidepressants (Nortriptyline) cutoff 60 ng/mL.
T6C24U	The internal standards used were promazine for the full panel drug screen and nalorphine for the opiate confirmation.
TGNKJ6	internal standards: mepivacaine, nalorphine, diazepam-d5, clonazepam-d4, THC-d3, THC-OH-d3, THC-COOH-d9, amphetmaine-d11, methamphetamine-d11, benzoylecgonine-d8, cocaine-d3
TH2UWB	Item 2 was analyzed on a 1:2 dilution for codeine. The reported value was determined by taking the dilution factor and multiplying the raw data by it. The internal standard used to determine codeine is deuterated oxycodone. The low limit of detection is 10ng/mL and the high limit is 350ng/mL. Our policy does a screening GC/MS test that looks for drugs outside of the immunoassay. It uses mepivacaine as the internal standard. The limits of detection for doxepin are 0.05ug/mL and 1.00ug/mL.
TL332L	Post mortem sample, not tested.
TMBA7Z	Due to lack of matrix validation, the sheep's blood was NOT ANALYZED.

TABLE 2F: Additional Comments for Item 2

WebCode	Item Comments
TV7C8B	Mepivacaine used as Internal Standard in QTOF and GCMS processes. Quetiapine not confirmed via GCMS.
TXVJUT	Quetiapine is reported as qualitative only (positive).
TZLKVB	Internal standards Codeine-D6, Quetiapine-D8 LOQ Codeine 10 ng/ml LOQ Quetiapine 100 ng/mL
U9MEE2	Codeine LOQ: 5 ng/mL. Doxepin LOQ: 25 ng/mL
UCMPB2	500 ng/mL is the upper limit of quantitation therefore, results above that limit are not reported with uncertainty.
UZRPJJ	Codeine ISTD = D3 Codeine. Doxepin ISTD = D8 Quetiapine. Quetiapine ISTD = D8 Quetiapine.
VD2KGU	This sample screened presumptive positive for opiates, however our laboratory does not currently have a confirmation method for this class of drugs. Therefore, the opiates presumptive positive was not confirmed. Scope of immunoassay screening: amphetamine, barbiturates, benzodiazepines, buprenorphine, cocaine/benzoylecgonine, cannabinoids, carisoprodol, fentanyl, methadone, methamphetamine, opiates, oxycodone/oxymorphone, phencyclidine (PCP), tramadol, zolpidem
VRFPP8	No raw concentration available, ULOQ for Codeine is 500 ng/mL.
W9KG6H	doxepin detected at concentration below LOQ (<0.050 mg/L)
XEHN2W	Tetracosane as internal standard
XK898X	ISTD (LLOQ - ULOQ): Codeine-D6 (6.0 - 300.0 ng/mL). Raw data values for codeine were not available due to the large signal for the analyte. The result was reported as above the highest calibrator value. In both analysis, the signal ratio (target signal/ISTD signal) was approximately three times higher than the highest calibrator. [Initials] 05/03/2024. [Participant provided raw data values: 301 ng/mL, 301 ng/mL. These values were removed from Section Raw Data - Item 2, Table 2C, as indicated above these values are outside of their limits of quantitation.]
XQYFP7	Codeine ran at 1:5 dilution. Used dilution factor to get result. Doxepin normally reported in ug/mL converted to enter results. Result truncated.
Y9T9B4	Proficient in DSX Immunoassay only (THC, Cocaine)
YDQRD3	Codeine is reported as presence only due to being above our calibration curve.
YLKX9P	Item 2 was received with 2 tubes. These tubes were designated as items 1.3 and 1.4. Item 1.3 screened presumptive positive for Amphetamine, Opiates, and Oxycodone/Oxymorphone. Item 1.4 screened presumptive positive for Opiates and Oxycodone/Oxymorphone.
YPW6AT	Due to a lack of matrix validation, this sample was not analyzed.
ZMBHCZ	Internal standards used: Mepivacaine and Nalorphine. LOQ for Doxepin = 0.25 mg/L. LOQ for Quetiapine = 0.50 mg/L.
ZYK6GQ	Immunological Screen Cut-off blood: 9-Carboxy-THC 20ng/mL; Benzoylecgonine 25ng/mL; Amphetamines (AMP, MAMP, cross reaction MDMA) 20ng/mL; Opiates 10ng/mL; Generic Opioids & Oxycodone 10ng/mL; Methadone 10ng/mL, Benzodiazepines 10ng/mL; Barbiturates 50ng/mL; PCP 5ng/mL; Meprobamate 100ng/mL; Dextromethorphan 5ng/mL; Zolpidem 10ng/mL; Tricyclic Antidepressants 60ng/mL; Fentanyl 1ng/mL; Norbuprenorphine 1ng/mL, Tramadol 5ng/mL Note: Item 2 was borderline negative for Tricyclic Antidepressants (TCA), concentration was 59.11 ng/mL. Assay cut off is 60ng/mL.

Screening Results - Item 3

TABLE 3A

Item Scenario:

A group of teenagers were stopped for driving above the speed limit on their way home from a party. The driver was observed with dilated pupils, rapid eye movements, and incoherent speech when questioned. A blood sample was collected within 2 hours of the traffic stop.

Item Contents and Preparation Concentration: Ketamine (2200 ng/mL)
Delta-9-THC (90 ng/mL)

WebCode	Screening Results
22LTAL	Ketamine
23XFTK	Cannabinoids
2E9T9Z	marijuana metabolites
2F7B2P	Tetrahydrocannabinol
2H6J9K	Ketamine
2M7KGU	Cannabinoids
3KXR2L	Cannabinoids
3M2KUZ	Ketamine, Cannabinoids
3QJRAL	Tetrahydrocannabinol
3W6KLL	Ketamine
3XLRTN	Cannabinoids
3ZQKMM	Ketamine in full screen
4AVR3M	Delta-9-Tetrahydrocannabinol (THC)
4HN3CH	Cannabinoid
4Q2WPY	THC, Ketamine
4T4UZR	Cannabinoids (THC and/or Related Compounds), Ketamine, Norketamine
4THFAU	ketamine, delta-9-tetrahydrocannabinol (THC)
4Z746Y	Benzodiazepines, Cannabinoids
6BZN3H	Ketamine.
6PGUXG	Cannabinoids
6Y8F2U	ketamine, delta-9-THC
73LC9G	Ketamine, THC
77KN6G	Benzoylecgonine/cocaine, cannabinoids, tramadol, buprenorphine
7NZX6H	Cannabinoids

TABLE 3A: Screening Results - Item 3

WebCode	Screening Results
7YMWWM	Ketamine
826FGH	Cannabinoids
8637EG	Ketamine
866NKR	Ketamine THC (delta-9-tetrahydrocannabinol)
88VPNU	Cannabinoids, Ketamine
8HTTTN	Ketamine, THC
8KKPGH	Ketamine, THC
8NZ7QM	Cannabinoids, Ketamine, Norketamine
8RFRJU	Delta9-THC, and Ketamine
93QQKF	Ketamine
93TCGV	Cannabinoids
96GRNH	Ketamine and Cannabinoids
9AE6UF	Cannabinoids
9F4L77	Ketamine, delta-9-tetrahydrocannabinol
9VWC4N	Cannabinoids
AB3ZUU	Cannabinoids
B44TQE	THC, Ketamine
BA4A2K	cannabinoids
BCV9FH	ketamine, THC
BFVJBH	Due to lack of matrix validation, item #3 was not analyzed.
BL2C3T	immunoassay - Cannabinoids, LC-QTOF-MS - Ketamine
C2TB8A	Cannabinoids
C3HKVG	Dissociatives
CAMFXP	THC, ketamine, methamphetamine
CQ87XN	THC, Ketamine
CTVM6B	Ketamine
CTY3LH	Cannabinoids (THC)
DAGMJE	Cannabinoids

TABLE 3A: Screening Results - Item 3

WebCode	Screening Results
DLB2JB	Cannabinoids
DLCYPZ	Cannabinoids class, Ketamine, Salicylic Acid
DUMZBZ	cannabis, ketamine
EC2W7K	Marijuana metabolites
EL74LK	acetaminophen, ketamine, THC
FE2MQ6	Cannabinoids
FHZXL6	Cannabinoids
FL3LE9	Ketamine
FN7GYC	ketamine, THC
FP6FGK	Ketamine; delta-9-tetrahydrocannabinol
FUYC7B	Ketamine
G7MXPB	Ketamine
GGQXEC	No drugs detected utilizing screening methods.
GHK2RJ	THC, Ketamine (Basic drugs)
GKQ9BC	Cannabinoids
HLCAT6	Ketamine, THC
HNKPZB	Ketamine
HVKZEG	THC
HXCV4B	Ketamine
HZEUCH	ketamine, delta-9-tetrahydrocannabinol
J7Z7QB	Ketamine
K3EQR3	Ketamine
K3WV9F	Cannabinoids, Ketamine
KCLLV9	Cannabinoids: Delta-9-Tetrahydrocannabinol (THC), Dissociatives: Ketamine and norketamine
KNBHW7	ketamine, norketamine (below cutoff)
KQ3GB6	Cannabinoids
KW33R7	Cannabinoid, Ketamine
L8LUZG	Cannabinoids, Ketamine

TABLE 3A: Screening Results - Item 3

WebCode	Screening Results
LBJD4Z	Cannabinoids
LFXVD6	Ketamine
LTLVCJ	Ketamine, Cannabinoids/Tetrahydrocannabinol (THC)
M39BHY	THC
MTJKV8	Delta-9-Tetrahydrocannabinol (THC)
MZJ6VG	THC
N9RYQA	THC, delta-9-tetrahydrocannabinol, ketamine
NEGBRX	ketamine, delta 9 tetrahydrocannabinol
NPX6WY	Ketamine
NTY4F6	Ketamine
NZFLP7	Ketamine, Delta-9-tetrahydrocannabinol
P2LQFY	No drugs detected utilizing screening methods.
P9PNAX	THC
PC6WXW	Cannabinoids, Ketamine
PMQZ3B	acetaminophen, caffeine, ketamine, MDA, 3,4-Methylenedioxyamphetamine, THC, delta-9-tetrahydrocannabinol
PP9GX2	THC, CBN, Ketamine, Norketamine
QT78VZ	THC
T2A24X	Ketamine, Cannabinoids
T4YKT3	Cannabinoids
T6C24U	Ketamine
TD4HRY	Ketamine, delta9-THC
TGNKJ6	ketamine, delta-9-tetrahydrocannabinol
TH2UWB	Cannabinoids
TL332L	Ketamine
TV7C8B	Cannabinoids, Ketamine
TXVJUT	THC
TZLKVB	Cannabinoids
U8G6DW	Ketamine

TABLE 3A: Screening Results - Item 3

WebCode	Screening Results
U9MEE2	THC, Methamphetamine
UCMPB2	No drugs detected utilizing screening methods.
UHV3HZ	Ketamine
UZRPJJ	Ketamine
VAWW24	ketamine, delta-9-tetrahydrocannabinol
VAXXHV	Cannabinoids, Ketamine
VBANRZ	No drugs detected utilizing screening methods.
VCMX68	marijuana metabolites
VD2KGU	Cannabinoids, Amphetamine
VRFPP8	Cannabinoids
W9KG6H	ketamine, tetrahydrocannabinol, cannabinol
XK898X	Ketamine
XPP7YU	ketamine
XQYFP7	Positive THC ELISA
XVQPRR	Ketamine, Tetrahydrocannabinol
Y9T9B4	THC
YDQRD3	THC, Ketamine
YDRMXU	Ketamine
YLKX9P	Amphetamine and Cannabinoids
YYKWVL	Cannabinoids
Z3NREN	ketamine, THC
ZMBHCZ	Ketamine, delta-9-tetrahydrocannabinol
ZYK6GQ	No drugs detected utilizing screening methods.

Screening Response Summary for Item 3	Participants: 131
Ketamine:	77
Delta-9-THC:	50
Cannabinoids:	52
Other Drugs Detected:	21
No Drugs Detected Utilizing Screening Methods:	5

Total number of screening responses provided may be more than the number of participants due to multiple drugs/metabolites being reported.

Confirmatory Results - Item 3

TABLE 3B

Item Scenario:

A group of teenagers were stopped for driving above the speed limit on their way home from a party. The driver was observed with dilated pupils, rapid eye movements, and incoherent speech when questioned. A blood sample was collected within 2 hours of the traffic stop.

Item Contents and Preparation Concentration: Ketamine (2200 ng/mL)
Delta-9-THC (90 ng/mL)

What drugs/metabolites were detected in Item 3?

WebCode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
22LTAL	Ketamine		1134		ng/ml
23XFTK	Ketamine	✓			
	THC	✓			
2E9T9Z	delta-9-tetrahydrocannabinol (THC)		>50		ng/mL
2F7B2P	Delta-9-tetrahydrocannabinol	✓			
2H6J9K	Ketamine	✓			
3M2KUZ	Ketamine	✓			
	Delta-9-THC		66	ng/mL	
3QJRAL	Ketamin	✓			
	Tetrahydrocannabinol	✓			
3W6KLL	Ketamine	✓			
3XLRTN	delta-9-THC		>50		ng/mL
3ZQKMM	Ketamine	✓			
4AVR3M	Delta-9-Tetrahydrocannabinol (THC)		76.08	14.45	ng/mL
4HN3CH	Ketamine	✓			
	THC	✓			
4Q2WPY	Ketamine	✓			
	Delta-9-THC		62		ng/mL
4T4UZR	Ketamine		1950	200	ng/mL
	delta-9-THC		62.9	8.5	ng/mL
	Additional Analyte(s) Reported				
	Norketamine	✓			
4THFAU	ketamine		1.7	0.5	mg/L
	THC		93	17	ng/mL
4Z746Y	(THC) Delta-9 Tetrahydrocannabinol		75	13	ng/mL

TABLE 3B: Confirmatory Results - Item 3

What drugs/metabolites were detected in Item 3?					
WebCode	**Analyte Reported**	**Qualitative Only**	**Reported Concentration**	**Uncertainty**	**Units**
6BZN3H	Ketamine	✓			
6PGUXG	THC	✓			
6Y8F2U	ketamine		1.8	0.5	mg/L
	THC		91	16	ng/mL
77KN6G	Tetrahydrocannabinol		Present greater than 50 ng/mL		ng/mL
7NZX6H	Ketamine		1800	234	ng/ml
	Delta-9-tetrahydrocannabinol		79	9.5	ng/ml
7YMWWM	Ketamine	✓			
826FGH	Delta-9 Tetrahydrocannabinol		0.079	0.017	mg/L
8637EG	Ketamine	✓			
866NKR	Ketamine		2.0	0.6	mg/L
	THC (delta-9-tetrahydocannabinol)		94	17	ng/mL
88VPNU	Delta-9-THC		65	6.5	ng/ml
8HTTTN	Ketamine		1819	528	ng/mL
	Delta-9-THC		94	23	ng/mL
8KKPGH	Ketamine		2218.23	155.27	ng/mL
	THC		94.42	13.21	ng/mL
8NZ7QM	Ketamine	✓			
	Delta-9-tetrahydrocannabinol		74		ng/mL
	Additional Analyte(s) Reported				
	Norketamine	✓			
8RFRJU	Ketamine		2096.47	293.51	ng/mL
	Delta9-THC		81.93	16.39	ng/mL
93QQKF	Ketamine	✓			
93TCGV	Delta-9-tetrahydrocannabinol		76	13	ng/mL
96GRNH	Ketamine		2252		ng/mL
	THC		Greater than 20		ng/mL
9AE6UF	Ketamine	✓			
	Tetrahydrocannabinols (THC)	✓			

TABLE 3B: Confirmatory Results - Item 3

What drugs/metabolites were detected in Item 3?					
WebCode	**Analyte Reported**	**Qualitative Only**	**Reported Concentration**	**Uncertainty**	**Units**
9F4L77	ketamine		1800	9.4%	ng/mL
	delta-9-tetrahydrocannabinol		74	8.1%	ng/mL
9VWC4N	Delta-9-THC	✓	greater than 50 ng/mL		
AB3ZUU	Ketamine		2200		ng/mL
B44TQE	Ketamine		2171.78	152.02	ng/ml
	THC		79.38	11.11	ng/ml
BA4A2K	THC	✓			
BCV9FH	ketamine	✓			
	THC		85,1		ng/mL
BL2C3T	Ketamine	✓			
	Tetrahydrocannabinol (THC)		82	+/- 19	ng/mL
C2TB8A	Ketamine	✓			
	THC	✓			
C3HKVG	ketamine and metabolite	✓			
CAMFXP	ketamine	✓			
	Delta-9 THC		65		ng/mL
CQ87XN	Ketamine	✓			
	Delta-9-THC		64		ng/mL
CTVM6B	Ketamine	✓			
DAGMJE	Ketamine	✓			
	Tetrahydrocannabinols (THC)	✓			
DLB2JB	Ketamine		1900	247	ng/mL
	delta-9-Tetrahydrocannabinol		81	9.7	ng/mL
DLCYPZ	Ketamine		1500		ng/mL
	Delta-9-tetrahydrocannabionol		52	10	ng/mL
	Additional Analyte(s) Reported				
	Salicylic Acid		<5000	<797	ng/mL
DUMZBZ	Ketamine		2200	500	ng/mL
	THC (tetrahydorcannabinol)		49		ng/mL
EC2W7K	delta-9-tetrahydrocannabinol		80		ng/mL

TABLE 3B: Confirmatory Results - Item 3

What drugs/metabolites were detected in Item 3?					
WebCode	**Analyte Reported**	**Qualitative Only**	**Reported Concentration**	**Uncertainty**	**Units**
EGYDJE	Ketamine	✓			
	Additional Analyte(s) Reported				
	Norketamine	✓			
EL74LK	ketamine		2.1	0.6	mg/L
	delta-9 THC		0.10	0.02	mg/L
FE2MQ6	Ketamine	✓			ug/ml
	THC	✓			ng/ml
FHZXL6	Ketamine	✓			
	THC	✓			
FL3LE9	Ketamine	✓			
FN7GYC	ketamine		> 1000		ng/ml
	THC		> 50		ng/ml
FP6FGK	Ketamine		1.9	0.6	mg/L
	delta-9-tetrahydrocannabinol (THC)		97	17	ng/mL
FUYC7B	Ketamine	✓			
G7MXPB	Ketamine	✓			
G9DYTE	Ketamine	✓			
GGQXEC	Ketamine	✓			
GHK2RJ	Ketamine	✓			
	Delta-9-THC		66		ng/mL
HLCAT6	Ketamine	✓			
	THC	✓			
HVKZEG	delta-9-tetrahydrocannabinol		>50		ng/mL
HXCV4B	ketamine	✓			
HZEUCH	ketamine		2.1	0.6	mg/L
	delta-9-tetrahydrocannabinol		92	17	ng/mL
J7Z7QB	Ketamine	✓			
K3EQR3	Ketamine		878		ng/ml
K3WV9F	Ketamine	✓			
	Delta-9-THC		71		ng/mL

TABLE 3B: Confirmatory Results - Item 3

What drugs/metabolites were detected in Item 3?					
WebCode	**Analyte Reported**	**Qualitative Only**	**Reported Concentration**	**Uncertainty**	**Units**
KCLLV9	ketamine	✓			
	Delta-9-Tetrahydrocannabinol (THC)	✓			
	Additional Analyte(s) Reported				
	norketamine	✓			
KNBHW7	ketamine	✓			
	Additional Analyte(s) Reported				
	Norketamine	✓			
KW33R7	Ketamine		>1000	27%	ng/mL
	THC		>50	22%	ng/mL
L8LUZG	Ketamine	✓			
	Delta-9-THC		70	7	ng/mL
LBJD4Z	Ketamine	✓			
	THC	✓			
LFXVD6	Ketamine	✓			
LPLM8A	Ketamine	✓			
LTLVCJ	Ketamine	✓			
	Tetrahydrocannabinol (THC)		83	+/- 19	ng/ml
M39BHY	ketamine	✓			
	thc	✓			
MTJKV8	Delta-9-Tetrahydrocannabinol (THC)		79	34%	ng/mL
MZJ6VG	Ketamine		1.87	0.37	mg/L
	Delta-9-tetrahydrocannabinol (delta-9-THC)		84	24	ng/mL
N9RYQA	ketamine		1.9	0.6	mg/L
	THC, delta-9-tetrahydrocannabinol		85	15	ng/mL
NEGBRX	ketamine		2200	400	ng/mL
	Delta 9 tetrahydrocannabinol		110	20	ng/mL
NPX6WY	Ketamine	✓			
NTY4F6	Ketamine	✓			
NZFLP7	Ketamine	✓			
	Delta-9-tetrahydrocannabinol		67		ng/mL

TABLE 3B: Confirmatory Results - Item 3

What drugs/metabolites were detected in Item 3?					
WebCode	**Analyte Reported**	**Qualitative Only**	**Reported Concentration**	**Uncertainty**	**Units**
P9PNAX	Ketamine	✓			
	THC	✓			
PMQZ3B	Ketamine		1.9	0.6	mg/L
	THC, delta-9-tetrahydrocannabinol		91	16	ng/mL
PP9GX2	Ketamine		1390		ng/mL
	THC		70		ng/mL
	Additional Analyte(s) Reported				
	CBN		1		ng/mL
	Norketamine	✓			
QT78VZ	Delta-9-THC		>50	N/A	ng/mL
	Additional Analyte(s) Reported				
	11-Hydroxy THC		None Detected	N/A	ng/mL
	Delta-9-Carboxy THC		None Detected	N/A	ng/mL
T2A24X	Ketamine		> 200	21%	ng/mL
	delta9-Tetrahydrocannabinol		> 25	22%	ng/mL
T6C24U	Ketamine	✓			
TD4HRY	Ketamine	✓			
	delta9-THC	✓			
TGNKJ6	ketamine		2000	600	ng/mL
	delta-9-tetrahydrocannabinol		82	15	ng/mL
TH2UWB	Ketamine	✓			
	THC	✓			
TL332L	Ketamine	✓			
TV7C8B	Ketamine	✓			
	Tetrahydrocannabinol (THC)		85	20	ng/ml
TXVJUT	ketamine	✓			
	THC	✓			
TZLKVB	Ketamine		2200		ng/mL
U8G6DW	Ketamine	✓			
U9MEE2	Delta9-THC		81		ng/mL
UHV3HZ	Ketamine	✓			

TABLE 3B: Confirmatory Results - Item 3

What drugs/metabolites were detected in Item 3?					
WebCode	**Analyte Reported**	**Qualitative Only**	**Reported Concentration**	**Uncertainty**	**Units**
UZRPJJ	Ketamine		Approx. 2.0	15%	mg/L
VAWW24	ketamine		2.1	0.6	mg/L
	delta-9-tetrahydrocannabinol		91	16	ng/mL
VAXXHV	Ketamine		>500	+/27%	ng/mL
	Tetrahydrocannabinol (THC)		>50	+/-22%	ng/mL
VBANRZ	Ketamine		2197	439	ng/mL
VCMX68	delta-9-tetrahydrocannabinol		>50		ng/mL
VD2KGU	Ketamine		Present greater than 1000 ng/mL		ng/mL
	Tetrahydrocannabinol		Present greater than 50 ng/mL		ng/mL
VRFPP8	delta-9-tetrahydrocannabinol		>50		ng/mL
W9KG6H	ketamine		2.1	0.2	mg/L
	tetrahydrocannabinol		109	12	mg/L
XEHN2W	Ketamine	✓			
XK898X	Ketamine		>1000.0		ng/mL
XPP7YU	ketamine	✓			
XQYFP7	Ketamine	✓			
	THC	✓			
XVQPRR	ketamine		2004	185	ng/mL
	tetrahydrocannabinol	✓			
YDQRD3	Ketamine	✓			
	Delta-9-THC		65		ng
YDRMXU	Ketamine	✓			
YYKWVL	Ketamine	✓			
	Delta-9 THC	✓			
Z3NREN	ketamine		2188	45%	ng/mL
	THC		35	40%	ng/mL
ZMBHCZ	Ketamine		1.3	+/- 0.4	mg/L
	delta-9-tetrahydrocannabinol		0.11	+/- 0.02	mg/L

Confirmatory Response Summary for Item 3	Participants: 120
Ketamine:	101 (84.2%)
Delta-9-THC:	84 (70.0%)
Other Identified Drugs/Metabolites:	10 (8.3%)
No Drugs/Metabolites Detected Utilizing Confirmatory Methods:	0 (0.0%)

Total number of confirmatory responses above may be more than the number of participants due to multiple drugs/ metabolites being reported.

Raw Data - Item 3

Sp

TABLE 3C

Item 3 Raw Data - Ketamine
Preparation concentration: 2200 ng/mL

WebCode	List of Raw Data determinations (ng/mL)				Participant Mean	
22LTAL	1,097.8	1,158.1	1,154.3	1,129.6	1,134.9	X
4T4UZR	1,995.3	1,907.3			1,951.3	
4THFAU	1,715.0				1,715.0	
6Y8F2U	1,836.0				1,836.0	
7NZX6H	1,897.0				1,897.0	
866NKR	2,573.0	1,976.0			2,274.5	
8HTTTN	1,819.0				1,819.0	
8KKPGH	2,218.2				2,218.2	
8RFRJU	2,096.5				2,096.5	
9F4L77	1,840.0	1,740.0			1,790.0	
AB3ZUU	2,208.5	2,248.1			2,228.3	
B44TQE	2,171.8				2,171.8	
DLB2JB	1,979.7				1,979.7	
DLCYPZ	1,492.0				1,492.0	X
DUMZBZ	2,280.0	2,160.0			2,220.0	
EL74LK	2,100.0				2,100.0	
FP6FGK	1,908.0				1,908.0	
HZEUCH	2,130.0				2,130.0	
K3EQR3	878.00				878.00	X
KW33R7	2,018.9				2,018.9	
MZJ6VG	1,871.8				1,871.8	
N9RYQA	1.8910				1.8910	X
NEGBRX	2,200.0				2,200.0	
PMQZ3B	1,886.0				1,886.0	
PP9GX2	1,390.0				1,390.0	X
T2A24X	1,729.4	1,703.4			1,716.4	
TGNKJ6	1,983.0				1,983.0	
TZLKVB	2,206.6	2,164.5			2,185.5	
UZRPJJ	2,053.0	1,998.0			2,025.5	
VAWW24	2,102.0				2,102.0	
VAXXHV	2,092.8				2,092.8	

TABLE 3C: Raw Data - Item 3

Item 3 Raw Data - Ketamine
Preparation concentration: 2200 ng/mL

WebCode	List of Raw Data determinations (ng/mL)		Participant Mean	
VD2KGU	2,121.9	2,098.6	2,110.3	
W9KG6H	2,138.6		2,138.6	
XVQPRR	2,004.0		2,004.0	
Z3NREN	2,188.0		2,188.0	
ZMBHCZ	1,312.0		1,312.0	X

Statistical Analysis for Item 3 - Ketamine

Grand Mean	2,028.60	Number of Participants Included	30
Standard Deviation	160.05	Number of Participants Excluded	6
		by Critical H value of	2.642

TABLE 3C: Raw Data - Item 3

Item 3 Raw Data - Delta-9-THC
Preparation concentration: 90 ng/mL

WebCode	List of Raw Data determinations (ng/mL)			Participant Mean
2E9T9Z	82.700			82.700
3M2KUZ	66.980			66.980
3XLRTN	78.000			78.000
4AVR3M	76.080			76.080
4Q2WPY	62.460			62.460
4T4UZR	60.150	65.590		62.870
4THFAU	92.668			92.670
4Z746Y	75.472			75.470
6Y8F2U	90.940			90.940
77KN6G	79.220	80.800		80.010
7NZX6H	79.930			79.930
826FGH	78.580			78.580
866NKR	98.390	93.700		96.050
88VPNU	65.870			65.870
8HTTTN	94.000			94.000
8KKPGH	96.280	94.420		95.350
8NZ7QM	74.250			74.250
8RFRJU	81.938			81.940
93TCGV	76.408			76.410
96GRNH	75.645	77.800		76.720
9F4L77	74.400	73.500		73.950
B44TQE	79.380			79.380
BCV9FH	85.100			85.100
BL2C3T	79.890	85.550		82.720
CAMFXP	65.920			65.920
CQ87XN	64.870			64.870
DLB2JB	81.310			81.310
DLCYPZ	53.000	51.000		52.000
DUMZBZ	49.600	49.300		49.450
EC2W7K	80.000			80.000
EL74LK	100.00			100.00
FP6FGK	96.480	84.240	109.70	96.810
GHK2RJ	66.720			66.720

TABLE 3C: Raw Data - Item 3

Item 3 Raw Data - Delta-9-THC
Preparation concentration: 90 ng/mL

WebCode	List of Raw Data determinations (ng/mL)		Participant Mean	
HVKZEG	73.800		73.800	
HZEUCH	92.265		92.270	
K3WV9F	71.800		71.800	
KW33R7	72.966		72.970	
L8LUZG	70.100		70.100	
LTLVCJ	80.280	85.960	83.120	
MTJKV8	78.860		78.860	
MZJ6VG	84.479		84.480	
N9RYQA	84.820		84.820	
NEGBRX	110.00		110.00	
NZFLP7	67.170		67.170	
PMQZ3B	91.096		91.100	
PP9GX2	70.000		70.000	
QT78VZ	100.90		100.90	
T2A24X	88.125	88.200	88.160	
TGNKJ6	82.210		82.210	
TH2UWB	93.300		93.300	
TV7C8B	86.450	85.210	85.830	
U9MEE2	81.000		81.000	
VAWW24	90.820		90.820	
VAXXHV	102.04		102.00	
VCMX68	83.100		83.100	
VD2KGU	76.140	79.300	77.720	
W9KG6H	108.39	109.20	108.80	
XQYFP7	82.930		82.930	
YDQRD3	65.740		65.740	
Z3NREN	35.000		35.000	X
ZMBHCZ	105.48		105.50	

Statistical Analysis for Item 3 - Delta-9-THC

Grand Mean	81.07	Number of Participants Included	60
Standard Deviation	12.91	Number of Participants Excluded	1
		by Critical H value of	2.726

Reporting Procedures - Item 3

TABLE 3D - Item 3

WebCode	Quantitative Reporting Procedures
22LTAL	The mean of duplicate/several determinations.
2E9T9Z	A single determination.
3M2KUZ	A single determination.
3XLRTN	A single determination.
4AVR3M	A single determination.
4Q2WPY	A single determination.
4T4UZR	The mean of duplicate/several determinations.
4THFAU	A single determination.
4Z746Y	A single determination.
6Y8F2U	A single determination.
77KN6G	The lowest value of duplicate sampling
7NZX6H	A single determination.
826FGH	A single determination.
866NKR	A single determination.
88VPNU	A single determination.
8HTTTN	A single determination.
8KKPGH	Lowest of two values for THC due to a pending screen result; a single determination for Ketamine
8NZ7QM	A single determination.
8RFRJU	A single determination.
93TCGV	A single determination.
96GRNH	The mean of duplicate/several determinations.
9F4L77	The mean of duplicate/several determinations.
AB3ZUU	The mean of duplicate/several determinations.
B44TQE	A single determination.
BCV9FH	A single determination.
BL2C3T	The mean of duplicate/several determinations.
C2TB8A	A single determination.
CAMFXP	A single determination.
CQ87XN	A single determination.
DLB2JB	A single determination.

TABLE 3D: Reporting Procedures - Item 3

WebCode	Quantitative Reporting Procedures
DLCYPZ	The mean of duplicate/several determinations.
DUMZBZ	The mean of duplicate/several determinations.
EC2W7K	A single determination.
EL74LK	A single determination.
FE2MQ6	A single determination.
FN7GYC	A single determination.
FP6FGK	ketamine = single; THC = mean
GHK2RJ	A single determination.
HVKZEG	A single determination.
HZEUCH	A single determination.
K3EQR3	The mean of duplicate/several determinations.
K3WV9F	A single determination.
KW33R7	A single determination.
L8LUZG	A single determination.
LBJD4Z	A single determination.
LTLVCJ	The mean of duplicate/several determinations.
M39BHY	A single determination.
MTJKV8	A single determination.
MZJ6VG	A single determination.
N9RYQA	A single determination.
NEGBRX	A single determination.
NZFLP7	A single determination.
P9PNAX	A single determination.
PMQZ3B	A single determination.
PP9GX2	A single determination.
QT78VZ	A single determination.
T2A24X	The mean of duplicate/several determinations.
TGNKJ6	A single determination.
TH2UWB	A single determination.
TV7C8B	The mean of duplicate/several determinations.
TXVJUT	A single determination.

TABLE 3D: Reporting Procedures - Item 3

WebCode	Quantitative Reporting Procedures
TZLKVB	The mean of duplicate/several determinations.
U9MEE2	A single determination.
UZRPJJ	The mean of duplicate/several determinations.
VAWW24	A single determination.
VAXXHV	A single determination.
VBANRZ	A single determination.
VCMX68	A single determination.
VD2KGU	The lowest of the duplicates
VRFPP8	A single determination.
W9KG6H	ketamine -single determa wi semi-q confirma; thc - mean of duplicates
XK898X	Duplicate quantitative analysis performed. Both values must be within +/-20% of their mean to be reported. The lowest value is reported.
XQYFP7	A single determination.
XVQPRR	The mean of duplicate/several determinations.
YDQRD3	A single determination.
YYKWVL	A single determination.
Z3NREN	A single determination.
ZMBHCZ	A single determination.

Response Summary for Item 3	Participants: 78
A single determination:	57 (73.1%)
The mean of duplicate/several determinations:	15 (19.23%)
Other:	6 (7.7%)

Methods of Analysis - Item 3

TABLE 3E - Item 3

WebCode	Method	Screening	Confirmatory	Quantitation
22LTAL	LC/MS/MS	✓	✓	✓
23XFTK	Immunoassay	✓		
	GC/MS		✓	
	LC/MS/MS		✓	
2E9T9Z	Immunoassay	✓		
	LC/MS/MS		✓	✓
2F7B2P	Immunoassay	✓		
	GC/MS		✓	
	LC/MS/MS		✓	
2H6J9K	Immunoassay	✓		
	LC-QTOF-MS	✓		
	LC/MS/MS		✓	
2M7KGU	Immunoassay	✓		
3KXR2L	Immunoassay	✓		
3M2KUZ	Immunoassay	✓		
	LC/MS/MS	✓	✓	✓
	GC/MS		✓	
3QJRAL	Immunoassay	✓		
	LC-QTOF		✓	
	GC/MS		✓	
3W6KLL	Immunoassay	✓		
	GC/MS	✓	✓	
3XLRTN	Immunoassay	✓		
	LC/MS/MS		✓	✓
3ZQKMM	Immunoassay	✓		
	GC/MS	✓	✓	
4AVR3M	LC/MS/MS	✓		
	GC/MS		✓	✓
4HN3CH	Immunoassay	✓		
	GC/MS	✓	✓	
	LC/MS/MS		✓	
4Q2WPY	Immunoassay	✓		
	LC/MS/MS	✓	✓	✓
	GC/MS		✓	
4T4UZR	Immunoassay	✓		
	LC-QTOF	✓	✓	
	LC/MS/MS		✓	✓
	GC/MS	✓		

TABLE 3E: Methods of Analysis - Item 3

WebCode	Method	Screening	Confirmatory	Quantitation
4THFAU	LC-HRMS/MS	✓		
	LC/MS/MS		✓	✓
4Z746Y	Immunoassay	✓		
	LC/MS/MS		✓	✓
6BZN3H	Immunoassay	✓		
	GC/MS	✓	✓	
6PGUXG	Immunoassay	✓		
	GC/MS		✓	✓
	LC/MS/MS		✓	✓
6Y8F2U	HR-LCMS/MS	✓		
	LC/MS/MS		✓	✓
73LC9G	LC/MS/MS	✓		
77KN6G	Immunoassay	✓		
	LC/MS/MS		✓	✓
7NZX6H	Immunoassay	✓		
	LC/MS/MS	✓	✓	✓
7YMWWM	Immunoassay	✓		
	GC/MS	✓	✓	
826FGH	Immunoassay	✓		
	LC/MS/MS		✓	✓
8637EG	Immunoassay	✓		
	GC/MS	✓	✓	
866NKR	LC-HRMSMS	✓		
	LC/MS/MS		✓	✓
88VPNU	Immunoassay	✓		
	LC/MS/MS	✓	✓	
8HTTTN	LC/HRAM-MS	✓		
	LC/MS/MS		✓	✓
8KKPGH	LC/MS/MS	✓	✓	✓
8NZ7QM	Immunoassay	✓		
	GC/MS	✓	✓	
	LC/MS/MS		✓	✓
8RFRJU	LC/MS/MS	✓	✓	✓
93QQKF	Immunoassay	✓		
	GC/MS	✓	✓	
93TCGV	Immunoassay	✓		
	LC/MS/MS		✓	✓

TABLE 3E: Methods of Analysis - Item 3

WebCode	Method	Screening	Confirmatory	Quantitation
96GRNH	Immunoassay	✓		
	LC-QTOF	✓		
	GC/MS	✓		
	LC/MS/MS		✓	✓
9AE6UF	Immunoassay	✓		
	GC/MS		✓	
	LC/MS/MS		✓	
9F4L77	LC-QTOF	✓	✓	✓
	LC/MS/MS	✓	✓	✓
9VWC4N	Immunoassay	✓		
	GC/MS		✓	
AB3ZUU	Immunoassay	✓		
	LC-QTOF	✓		
	LC/MS/MS			✓
B44TQE	LC/MS/MS	✓	✓	✓
BA4A2K	Immunoassay	✓		
	LC/MS/MS		✓	
BCV9FH	LC/MS/MS	✓		
	GC/MS		✓	
	GC/MS/MS		✓	✓
BL2C3T	Immunoassay	✓		
	LC-QTOF-MS	✓		
	GC/MS		✓	
	LC/MS/MS		✓	
C2TB8A	Immunoassay	✓		
	LC/MS/MS		✓	✓
	GC/MS		✓	
	GC/FID		✓	
C3HKVG	Immunoassay	✓		
	GC/MS		✓	
CAMFXP	Immunoassay	✓		
	LC/MS/MS	✓		✓
	GC/MS		✓	
CQ87XN	Immunoassay	✓		
	LC/MS/MS	✓	✓	✓
	GC/MS		✓	
CTVM6B	Immunoassay	✓		
	GC/MS	✓	✓	
CTY3LH	Immunoassay	✓		

TABLE 3E: Methods of Analysis - Item 3

WebCode	Method	Screening	Confirmatory	Quantitation
DAGMJE	Immunoassay	✓		
	GC/MS		✓	
	LC/MS/MS		✓	
DLB2JB	Immunoassay	✓		
	LC/MS/MS	✓	✓	✓
DLCYPZ	Immunoassay	✓		
	LC-QTOF-MS	✓	✓	✓
	LC/MS/MS		✓	✓
DUMZBZ	LC/MS/MS		✓	✓
	Immunoassay	✓		
	LC-QTOF-MS	✓	✓	
EC2W7K	Immunoassay	✓		
	LC/MS/MS		✓	✓
EGYDJE	GC/MS		✓	
EL74LK	LC/MS/MS		✓	✓
	LCMS-ORBITRAP	✓		
FE2MQ6	Immunoassay	✓		
	GC/MS		✓	
	LC/MS/MS		✓	✓
FHZXL6	Immunoassay	✓		
	GC/MS	✓		
	GC/FID		✓	
	LC/MS/MS		✓	✓
FL3LE9	Immunoassay	✓		
	GC/MS	✓	✓	
FN7GYC	LC/MS/MS	✓	✓	
FP6FGK	LC/MS/MS		✓	✓
	LC-HRMS/MS	✓		
FUYC7B	Immunoassay	✓		
	GC/MS	✓	✓	
G7MXPB	Immunoassay	✓		
	GC/MS	✓	✓	
G9DYTE	GC/MS		✓	
GGQXEC	Immunoassay	✓		
	GC/MS		✓	
	LC-QTOF-MS		✓	
GHK2RJ	Immunoassay	✓		
	LC/MS/MS	✓	✓	✓
	GC/MS		✓	✓

TABLE 3E: Methods of Analysis - Item 3

WebCode	Method	Screening	Confirmatory	Quantitation
GKQ9BC	Immunoassay	✓		
HLCAT6	GC/MS	✓		
	LC/MS/MS	✓	✓	
	LC-Orbitrap	✓		
HNKPZB	GC/MS	✓		
HVKZEG	Immunoassay	✓		
	LC/MS/MS		✓	✓
HXCV4B	Immunoassay	✓		
	GC/MS	✓	✓	
HZEUCH	LC-HR/MS/MS	✓		
	LC/MS/MS		✓	✓
J7Z7QB	GC/MS	✓	✓	
	LC-QTOF	✓		
	LC-QTOF-MS		✓	
K3EQR3	GC/MS	✓	✓	✓
	LC/MS/MS	✓	✓	✓
K3WV9F	Immunoassay	✓		
	LC/MS/MS	✓	✓	✓
	GC/MS		✓	✓
KCLLV9	GC/MS	✓	✓	
	LC-QTOF-MS	✓	✓	
KNBHW7	LC/MS/MS	✓		
	GC/MS		✓	
KQ3GB6	Immunoassay	✓		
KW33R7	LC/MS/MS	✓	✓	✓
L8LUZG	Immunoassay	✓		
	LC/MS/MS	✓	✓	✓
	GC/MS		✓	
LBJD4Z	Immunoassay	✓		
	GC/MS	✓	✓	
	LC/MS/MS		✓	
LFXVD6	Immunoassay	✓		
	GC/MS		✓	
	LC/MS/MS		✓	
LPLM8A	GC/MS		✓	

TABLE 3E: Methods of Analysis - Item 3

WebCode	Method	Screening	Confirmatory	Quantitation
LTLVCJ	Immunoassay	✓		
	LC-QTOF-MS	✓		
	GC/MS		✓	
	LC/MS/MS		✓	✓
M39BHY	GC/MS		✓	
	LC/MS/MS		✓	
	Immunoassay	✓		
MTJKV8	Immunoassay	✓		
	LC/MS/MS		✓	✓
MZJ6VG	Immunoassay	✓		
	LC/MS/MS		✓	✓
	GC/MS		✓	✓
N9RYQA	LC-HRMSMS	✓		
	LC/MS/MS			✓
NEGBRX	GC/MS	✓	✓	✓
	Immunoassay	✓		
	LC/MS/MS		✓	✓
NPX6WY	Immunoassay	✓		
	LC-QTOF-MS	✓		
	GC/MS		✓	
NTY4F6	Immunoassay	✓		
	GC/MS	✓	✓	
NZFLP7	Immunoassay	✓		
	GC/MS	✓	✓	
	LC/MS/MS		✓	✓
P2LQFY	Immunoassay	✓		
P9PNAX	Immunoassay	✓		
	GC/MS		✓	✓
	LC/MS/MS		✓	✓
PC6WXW	Immunoassay	✓		
	LC/MS	✓		
PMQZ3B	LC/MS/MS		✓	✓
	High resolution Orbitrap LC/MS/MS	✓		
PP9GX2	GC/MS	✓		✓
	Immunoassay	✓		
	LC/MS/MS		✓	✓
QT78VZ	Immunoassay	✓		
	LC/MS/MS		✓	✓

TABLE 3E: Methods of Analysis - Item 3

WebCode	Method	Screening	Confirmatory	Quantitation
T2A24X	Immunoassay	✓		
	High resolution accurate mass LC/MS	✓		
	GC/MS	✓		
	LC/MS/MS			✓
T4YKT3	Immunoassay	✓		
T6C24U	Immunoassay	✓		
	GC/MS	✓	✓	
TD4HRY	LC/MS/MS	✓	✓	
TGNKJ6	High resolution accurate mass	✓		
	LC/MS/MS		✓	✓
TH2UWB	Immunoassay	✓		
	LC/MS/MS		✓	✓
	GC/MS	✓	✓	
	GC/FID		✓	✓
TL332L	Immunoassay	✓		
	LC/MS/MS	✓	✓	
TV7C8B	Immunoassay	✓		
	LC-QTOF-MS	✓		
	GC/MS		✓	
	LC/MS/MS		✓	
TXVJUT	Immunoassay	✓		
	LC/MS/MS		✓	✓
	GC/MS		✓	✓
TZLKVB	Immunoassay	✓		
	LC-QTOF-MS	✓	✓	
	LC/MS/MS		✓	✓
U8G6DW	Immunoassay	✓		
	GC/MS	✓	✓	
U9MEE2	Immunoassay	✓		
	GC/MS		✓	✓
UCMPB2	LC-TOF	✓		
UHV3HZ	LC/MS/MS	✓	✓	
UZRPJJ	Immunoassay	✓		
	LC/MS/MS	✓	✓	✓
	HPLC-UV	✓		
	LC-QTOF-MS	✓		
	GC/MS	✓		
VAWW24	LC/MS/MS		✓	✓
	LC-HRAMS	✓	✓	

TABLE 3E: Methods of Analysis - Item 3

WebCode	Method	Screening	Confirmatory	Quantitation
VAXXHV	LC/MS/MS	✓	✓	✓
VBANRZ	Immunoassay	✓		
	LC/MS/MS		✓	✓
	GC/MS		✓	
VCMX68	Immunoassay	✓		
	LC/MS/MS		✓	✓
VD2KGU	Immunoassay	✓		
	LC/MS/MS		✓	✓
VRFPP8	Immunoassay	✓		
	LC/MS/MS		✓	✓
W9KG6H	LC/MS/MS	✓	✓	✓
	LC-QTOF-MS	✓		
XEHN2W	GC/MS		✓	
XK898X	LC/MS/MS	✓	✓	✓
XPP7YU	Immunoassay	✓		
	GC/MS	✓	✓	
XQYFP7	Immunoassay	✓		
	GC/MS		✓	
	LC/MS/MS		✓	
XVQPRR	Immunoassay	✓		
	GC/MS		✓	
	LC/MS/MS		✓	✓
	LC-QTOF-MS	✓		
Y9T9B4	Immunoassay	✓		
YDQRD3	Immunoassay	✓		
	LC/MS/MS	✓	✓	✓
	GC/MS		✓	
YDRMXU	Immunoassay	✓		
	GC/MS	✓	✓	
YLKX9P	Immunoassay	✓		
YYKWVL	Immunoassay	✓		
	GC/MS	✓		
	GC/FID		✓	
	LC/MS/MS		✓	✓
Z3NREN	GC/MS	✓		✓
ZMBHCZ	LC-High Resolution Tandem Mass Spectrometry	✓		
	LC/MS/MS		✓	✓

TABLE 3E: Methods of Analysis - Item 3

WebCode	Method	Screening	Confirmatory	Quantitation
ZYK6GQ	Immunoassay	✓		

Response Summary for Item 3 - Methods of Analysis **Participants: 134**

	Screening	Confirmatory	Quantitation
Immunoassay:	95	0	0
GC/MS:	35	64	12
LC/MS:	1	0	0
LC/MS/MS:	31	84	69
LC-QTOF:	5	3	1
LC-QTOF-MS:	12	6	1
Other:	16	6	2

Additional Comments for Item 3

TABLE 3F

WebCode	Item Comments
22LTAL	Norketamine and Paracetamol was also found in Item 3.
2E9T9Z	The reported concentration for this case would be >50ng/mL as the sample was not diluted and highest calibrator is 50ng/mL. We would not report out above our highest calibrator unless the sample was diluted and multiplied by the dilution factor.
2F7B2P	The internal standard was used is carboxy-thc D3.
2M7KGU	Immunoassay: Cannabinoids (Carboxy-Tetrahydrocannabinol) cutoff 10 ng/mL.
3KXR2L	Analysis by immunoassay screening in whole blood for: Assay Cutoff* (ng/mL):Meth /Amphetamines 20. Barbiturates 50. Benzodiazepines 10. Buprenorphine 1. Cannabinoids 10. Benzoylecgonine 50. Dextromethorphan 5. Fentanyl 1. Meprobamate 100. Methadone 10. Opiates 10. Opioids 10. Phencyclidine 5. TCA 25. Tramadol 5. Zolpidem 10. * Results within 20% of these concentrations are also reported as preliminarily positive.
3VVTEQ	Due to a lack of matrix validation, the sheep's blood was not analyzed.
3XLRTN	Internal Standard: delta-9-THC-D3. Limit-of-Detection: 1 ng/mL. Upper-Limit-of-Quantitation: 50 ng/mL
4T4UZR	delta-9-THC references internal standard delta-9-THC-d3 on LCMSMS for quantitative testing. Ketamine references internal standard Ketamine-d4 on LCMSMS for quantitative testing. Norketamine references internal standard PCP-d5 on LCQTOF for qualitative testing. [From Table 3c – Item 3 Raw Data - Ketamine: ">1280"]
4THFAU	IS for ketamine is mepivacaine, and IS for THC is deuterated THC
4Z746Y	ELISA screening panel includes: amphetamine, benzodiazepines, buprenorphine, cannabinoids, carisoprodol, cocaine and metabolites, fentanyl, methadone, methamphetamine, opiates, oxycodone/oxymorphone, phencyclidine, and zolpidem. Benzodiazepine confirmation/quantitation panel includes: alprazolam, diazepam, 7-aminoclonazepam, clonazepam, lorazepam, nordiazepam, oxazepam, and temazepam. The following internal standards are used: 7-aminoclonazepam D-4, alprazolam D-5, diazepam D-5, clonazepam D-4, nordiazepam D-5, oxazepam D-5, and temazepam D-5. LOD for all benzodiazepines quantitated is 5 ng/mL. LOQ for all benzodiazepines quantitated is 10 ng/mL. Cannabinoid confirmation/quantitation panel includes: (THC) -Delta-9 Tetrahydrocannabinol, (Carboxy-THC) 11-nor-9-carboxy-delta-9-tetrahydrocannabinol, and (11-OH-THC) 11-hydroxy-delta-9-tetrahydrocannabinol. The following internal standards are used: THC-D3, Carboxy-THC-D3, and 11-OH-THC-D3. The limit of detection for THC and 11-OH-THC is 0.5 ng/mL. The limit of detection for Carboxy-THC is 2.5 ng/mL. The limit of quantitation for THC and 11-OH-THC is 1 ng/mL. The limit of quantitation for Carboxy-THC is 5 ng/mL.
6BZN3H	Internal standards used: Promazine (Screen).
6Y8F2U	Internal Stnd: mepivacaine and mephobarbital (HR-LCMS/MS) delta-9-THC-d3 (LC/MS/MS)
73LC9G	One vial broken and unusable for analysis on receipt of trial.
77KN6G	This screened presumptive positive for benzoylecgonine/cocaine, cannabinoids, tramadol, and buprenorphine. Confirmation for the presumptive positive cannabinoid result was completed. The upper limit of quantitation for tetrahydrocannabinol is 50 ng/mL. The [Laboratory] does not dilute and reanalyze samples if they exceed the upper limit of quantitation. Therefore, the reported result for tetrahydrocannabinol is "Present greater than 50 ng/mL." However, the [Laboratory] does not have the capabilities to confirm the presence of benzoylecgonine/cocaine, tramadol, and buprenorphine. The immunoassay tests for the following drugs: amphetamine, barbiturates, benzodiazepines, buprenorphine, benzoylecgonine/cocaine, cannabinoids, carisoprodol, fentanyl, methadone, methamphetamine, opiates, oxycodone/oxymorphone, phencyclidine (PCP), tramadol, and zolpidem.

TABLE 3F: Additional Comments for Item 3

WebCode	Item Comments
7YMWWM	Screen- Promazine ISTD
8637EG	Internal Standards: Promazine (Drug Screen)
866NKR	Internal standards used include: Mepivacaine, Mephobarbital, delta-9-THC
8KKPGH	dilution performed for reported value for ketamine based on semi-quantitative screen results. Ketamine LOQ 5ng/mL; ISTD Ketamine-d4. THC LOQ 1ng/mL; ISTD THC-d3.
8RFRJU	Internal standards for confirmed compounds: Delta9-THC-D3 and Ketamine-D4. Limit of detection for Delta9-THC is 1ng/mL, for ketamine is 10ng/mL.
93QQKF	Promazine used as internal standard for GC/MS screening and confirmation of ketamine.
93TCGV	ELISA screening panel includes: amphetamine, benzodiazepines, buprenorphine, cannabinoids, carisoprodol, cocaine and metabolites, fentanyl, methadone, methamphetamine, opiates, oxycodone/oxymorphone, phencyclidine, and zolpidem. Following a positive cannabinoid screen, confirmation/quantitation of delta-9-tetrahydrocannabinol (THC), 11-nor-9-carboxy-delta-9-tetrahydrocannabinol (carboxy-THC), and 11-hydroxy-delta-9-tetrahydrocannabinol (11-OH-THC) is performed using THC-D3, carboxy-THC-D3, and 11-OH-THC-D3 as internal standards, respectively. LOD for THC and 11-OH-THC is 0.5 ng/mL; LOD for carboxy-THC is 2.5 ng/mL. LOQ for THC and 11-OH-THC is 1 ng/mL; LOQ for carboxy-THC is 5 ng/mL.
96GRNH	Ketamine quantitation required a dilution in order to fit on the calibration curve (calibration range for ketamine is 50 to 1600 ng/mL). The raw data is the diluted result. Reported concentration is the average of the diluted results, which is then multiplied by the dilution factor (i.e. average of 1136.03 and 1116.02 = 1126.025. Reported result is 1126.025 x 2 = 2252.05 --> 2252 ng/mL). THC quantitation. Calibration range is 1 to 20 ng/mL. Result was above the highest calibrator and reported as "greater than 20 ng/mL". [Participant provided raw data values for Ketamine: 1136.03 ng/mL, 1116.02 ng/mL. These values were removed from Section Raw Data - Item 3, Table 3C, as indicated above these values are diluted and not representative of the final concentration of ketamine.]
9AE6UF	Confirmatory ISTD GC/MS: NPA and SKF. ISTD for Cannabinoids by LC/MS/MS: THC-OH-d3, Carboxy-THC-d3, THC-d3
9VWC4N	The Toxicology laboratory uses an immunoassay which screens for the following six drugs/drug classes: Amphetamines, Benzodiazepines, Cannabinoids, Cocaine, Opiates, and PCP. Sample 3: The submitted blood sample contained Delta-9-THC at a concentration that was greater than 50 ng/mL. This concentration exceeded the method's upper limit of quantitation.
B44TQE	THC isomer(s) not identified; total THC reported. THC LOQ 1ng/ml; THC-d3 ISTD. Ketamine LOQ 5ng/ml; Ketamine-d4 ISTD. Dilution performed on initial confirmation extraction for Ketamine based on results from semi-quantitative screen.
BA4A2K	screening results within 10% of cutoff: Analyte - DoA Ultra Blood: Cutoff (ng/mL): Amphetamine 20. Barbiturates (Phenobarbital) 50. Benzodiazepines I (Oxazepam) 10 Benzodiazepines II (Lorazepam) 10. Buprenorphine: DoA blood 5. Norbuprenorphine: DoA urine Cannabinoids (Carboxy-Tetrahydrocannabinol) 10. Cocaine Metabolite (Benzoylecgonine) 50. Dextromethorphan 5. Fentanyl 2. Generic Opioids (Oxycodone) 10. Meprobamate 100. Methadone 10. Methamphetamine 20. Opiates (Morphine) 10. Oxycodone I (Oxycodone) 10. Oxycodone II (Oxycodone) 10. Phencyclidine 5. Tramadol 5. Tricyclic Antidepressants (Nortriptyline)
BFVJBH	Due to lack of matrix validation, item #3 was not analyzed.
BL2C3T	Internal Standards used - Mepivacaine, THC-D3, 11-OH-THC-D3, THCA-D3
C2TB8A	reported as positive based on our procedure, as there were no metabolites present. value was determined to be 83 ng/mL +/- 16 ng/mL. Raw data was 83.06 ng/mL.
C3HKVG	Screening, cut off: Ketamine 200 ng/mL

TABLE 3F: Additional Comments for Item 3

WebCode	Item Comments
CAMFXP	Ketamine Screen LC/M/MS confirmed GC/MS, Delta-9 THC Screen Immunoassay confirmed LC/MS/MS
CTVM6B	ISTD. Drug Screen - Promazine
CTY3LH	Screening Panel with cutoffs: Fentanyl 1ng/mL, AB-PINACA 2ng/mL, ETG 500ng/mL, Methamphetamine 50ng/mL, Barbiturates 50ng/mL, Benzodiazepines 20 ng/mL, AB-CHMINACA 5ng/mL, Methadone 10ng/mL, Opiates 80ng/mL, Phencyclidine 5ng/mL, BZG/Cocaine 25ng/mL, Oxycodone 10ng/mL, Tramadol 5ng/mL, Cannabinoids (THC) 10ng/mL, TCA 60ng/mL, Amphetamine 50ng/mL, Buprenorphine 2ng/mL, 6-MAM 10ng/mL, alpha-PVP 5ng/mL, Pregabalin 1000ng/mL
DAGMJE	Confirmatory ISTD GC/MS: NPA and SKF. ISTD for Cannabinoids by LC/MS/MS: THC- d3, carboxy-THC-d3, Hydroxy-THC-d3 Norketamine appeared present, but did not meet reporting criteria.
DLCYPZ	Screening- Immunoassay - UPLC-QTOF-MS (Waters), Internal Standard: D3-Methadone, Prazepam and Cyclobarbitone. Confirmation- Delta-9-tetrahydrocannabionol: LC-MS/MS (Sciex), Internal Standard: D3-THC, LOD: 0.2 ng/mL- Ketamine: UPLC-QTOF-MS (Waters), Internal Standard: D5-Diazepam, LOD: 10 ng/mL- Salicylic Acid: UPLC-QTOF-MS (Waters), Internal Standard: Cyclobarbitone, LOD: 100 ng/mL
DUMZBZ	The THC result would be reported as approximate.
EC2W7K	1:2 dilution performed to get concentration in calibration range. Internal Standard: delta 9-THC --> delta 9-THC d3. LOD:delta 9-THC: 1 ng/mL
EL74LK	ISTD: mepivacaine, mephobarbital, delta-9 THC d3
FHZXL6	THC 69ng/mL +/- 13ng/mL. Per policy we reported THC as positive
FL3LE9	Internal standard used for drug screen was promazine.
FP6FGK	Mepivacaine used as internal standard for ketamine quantitation. Delta-9-tetrahydrocannabinol-d3 used as internal standard for THC quantitation
G9DYTE	Internal standard: Flurazepam
GHK2RJ	Delta-9-THC was screened using immunoassay and confirmed using LC/MS/MS. Internal Standard is Delta-9-THC-D3. LOQ is 1ng/mL. Ketamine was screened using LC/MS/MS and confirmed using GC/MS. Internal Standard is SKF.
GKQ9BC	Only screening test was performed.
HLCAT6	Traces of Norketamine was detected in the sample.
HNKPZB	Liquid-Liquid basic extraction using Toluene: Hexane: Isoamyl alcohol (78:20:2) solvent mix as extracting solvent followed by derivatization.
HVKZEG	Threshold for reporting is 50 ng/mL for blood THC.
J7Z7QB	Estazolam was used as internal standard
KNBHW7	GCMS used to confirm both ketamine and norketamine.
KQ3GB6	Analysis by immunoassay screening in whole blood for: Assay Cutoff* (ng/mL):Meth /Amphetamines 20. Barbiturates 50. Benzodiazepines 10. Buprenorphine 1. Cannabinoids 10. Benzoylecgonine 50. Dextromethorphan 5. Fentanyl 1. Meprobamate 100. Methadone 10. Opiates 10. Opioids 10. Phencyclidine 5. TCA 25. Tramadol 5. Zolpidem 10. * Results within 20% of these concentrations are also reported as preliminarily positive.
LFXVD6	The cut-off value of ketamine is 30 ng/mL for GC/MS and LC/MS/MS.

TABLE 3F: Additional Comments for Item 3

WebCode	Item Comments
LTLVCJ	Norketamine indicated in LC-QTOF-MS data below cutoff value. Mepivacaine, THC-D3 used as internal standards.
PC6WXW	The immunoassay response for Cannabinoids could not be confirmed as the lab does not currently have a functional confirmation method for this category. Ketamine could also not be reported as the laboratory was unable to run the confirmation test for this drug within the alotted timeframe for the proficiency.
PMQZ3B	Mepivacaine was used as internal standard for LC and GC. Nalorphine was used as an additional internal standard for GC
PP9GX2	GC/MS: Ketamine Screening. Immunoassay: THC Screening. CG/MS: Ketamine confirmatory/quantitation. LC/MS/MS: THC and CBN confirmatory/quantitation.
QT78VZ	THC screening cut off is 10ng/mL. The lower reporting limit for Delta-9-THC is 0.5ng/mL. The lower reporting limit for Delta-9-Carboxy is 5.0ng/mL. The lower reporting limit for 11-Hydroxy THC is 1.0ng/mL. The upper reporting limit for Delta-9-THC is 50ng/mL. Concentrations above the upper reporting limit are reported as >50ng/mL. Dilutions of the sample was prepared for analysis, but not included in the raw data.
T2A24X	Ketamine Upper Limit of Quantitation (ULoQ) is 200 ng/mL. Both replicate measurements of ketamine were greater than the ULoQ. delta9-tetrahydrocannabinol Upper Limit of Quantitation (ULoQ) is 25ng/mL. Both replicate measurements of delta9-tetrahydrocannabinol were greater than the ULoQ. The results reported above DO NOT include a deduction to account for analytical variation, in accordance with the [State Regulation]. Alcohol was detected at a concentration less than the Lower Limit of Quantitation (10mg/100mL) Quantitative results obtained using dedicated Section 5A method.
T4YKT3	Immunoassay: Cannabinoids (Carboxy-Tetrahydrocannabinol) cutoff 10 ng/mL
T6C24U	The internal standard used was promazine for the full panel drug screen.
TGNKJ6	internal standards: mepivacaine, nalorphine, diazepam-d5, clonazepam-d4, THC-d3, THC-OH-d3, THC-COOH-d9, amphetmaine-d11, methamphetamine-d11, benzoylecgonine-d8, cocaine-d3
TH2UWB	Item 3 was analyzed for cannabinoids using an LC/MS/MS. The only found analyte was delta-9 THC. Our policy states that if that is the only analyte found, it will be reported qualitatively. Our methods are unable to differentiate between isomers of delta-9 THC, delta-9 hydroxy THC or delta-9 carboxy THC. The internal standard used is deuterated delta-9 THC. The limits of detection are 1ng/mL to 80ng/mL. Our policy does a screening GC/MS test that looks for drugs outside of the immunoassay. It uses mepivacaine as the internal standard.
TMBA7Z	Due to lack of matrix validation, the sheep's blood was NOT ANALYZED.
TV7C8B	Mepivacaine used as Internal Standard in QTOF and GCMS processes. THC-D3 used as internal standard in LCMSMS process.
TXVJUT	We currently cannot distinguish between delta 8 and delta 10 in our laboratory. Following our standard operating procedure, THC would be reported as positive. Ketamine is reported as qualitative only (positive).
TZLKVB	We report Cannabinoids as indicated only per Medical Examiner's request. Internal standard Ketamine-D4 LOQ Ketamine 50 ng/mL
U9MEE2	Methamphetamine LOQ: 10 ng/mL. Delta9-THC: 2 ng/mL
UZRPJJ	Ketamine ISTD = D4 Ketamine
VBANRZ	Quantitation of Ketamine run on dilution. [Participant provided raw data value for Ketamine: 439.3 ng/mL. This value was removed from Section Raw Data - Item 3, Table 3C, as indicated above this value is diluted and not representative of the final concentration of ketamine.]
VCMX68	high limit is 50 ng/mL

TABLE 3F: Additional Comments for Item 3

WebCode	Item Comments
VD2KGU	The upper limit of quantitation for Tetrahydrocannabinol is 50 ng/mL. The upper limit of quantitation for Ketamine is 1000 ng/mL. According to our laboratory procedures, concentrations above the upper limits of quantitation for these analytes are reported as "Present greater than 50 ng/mL" and "Present greater than 1000 ng/mL", respectively. Cannabinoids Confirmation (Liquid Chromatography/Tandem Mass Spectrometry LC/MS/MS): Quantitatively: THC, 11-nor-9-Carboxy-THC, 11-Hydroxy-THC. Qualitatively: delta-8-THC, 11-nor-9-Carboxy-delta-8-THC. Basic Drug Confirmation (Liquid Chromatography/Tandem Mass Spectrometry LC/MS/MS): Quantitatively: amphetamine, diphenhydramine, ketamine, MDA, MDMA, mescaline, methamphetamine, phentermine, LSD. Qualitatively: ephedrine/pseudoephedrine, psilocin
VRFPP8	No raw concentration available, ULOQ for delta-9-THC is 50 ng/mL.
W9KG6H	Ketamine raw data, 2138.57 mg/L and >1600 mg/L (semi-quantitative confirmation). Tetrahydrocannabinol other raw data, >32 mg/L (confirmation). Cannabinol was not detected on confirmation/repeat analysis (LOD 0.31 ng/mL)
XEHN2W	Tetracosane as internal standard
XK898X	ISTD (LLOQ - ULOQ): Ketamine-D4 (20.0 - 1000.0 ng/mL). Raw data values for ketamine were not available due to the large signal for the analyte. The result was reported as above the highest calibrator value. In both analysis, the signal ratio (target signal/ISTD signal) was approximately three times higher than the highest calibrator. [Initials] 05/03/2024. [Participant provided raw data values: 1001 ng/mL, 1001 ng/mL. These values were removed from Section Raw Data - Item 2, Table 2C, as indicated above these values are outside of their limits of quantitation.]
XQYFP7	THC reported as greater than 80ng/mL. No delta designation listed per policy. Reported positive only per policy as there are not metabolites present. THC OH would be inconclusive as it had low IS 2x.
Y9T9B4	Proficient in DSX Immunoassay only (THC, Cocaine)
YDQRD3	Ketamine- screened using LC/MS/MS and confirmed using GCMS. Delta-9-THC - screened using Immunoassay and confirmed using LC/MS/MS
YLKX9P	Item 3 was received with 2 tubes. These tubes were designated as items 1.5 and 1.6. Item 1.5 screened presumptive positive for Amphetamine and Cannabinoids. item 1.6 screened presumptive positive for Cannabinoids.
YPW6AT	Due to a lack of matrix validation, this sample was not analyzed.
YYKWVL	Delta-9 THC 73 ± 15 ng/mL
ZMBHCZ	Internal standards used: Mepivacaine and delta-9-tetrahydrocannabinol-d9
ZYK6GQ	Immunological Screen Cut-off blood: 9-Carboxy-THC 20ng/mL; Benzoylecgonine 25ng/mL; Amphetamines (AMP, MAMP, cross reaction MDMA) 20ng/mL; Opiates 10ng/mL; Generic Opioids & Oxycodone 10ng/mL; Methadone 10ng/mL, Benzodiazepines 10ng/mL; Barbiturates 50ng/mL; PCP 5ng/mL; Meprobamate 100ng/mL; Dextromethorphan 5ng/mL; Zolpidem 10ng/mL; Tricyclic Antidepressants 60ng/mL; Fentanyl 1ng/mL; Norbuprenorphine 1ng/mL, Tramadol 5ng/mL

Screening Results - Item 4

TABLE 4A

Item Scenario:

A 40 year-old man crashed his pickup truck into a convenience store early in the morning. He was taken immediately to the hospital for treatment of minor injuries and a blood sample was collected upon admittance.

Item Contents and Preparation Concentration: d-Methamphetamine (300 ng/mL)

WebCode	Screening Results
22LTAL	Methamphetamine and Benzoylecgonine
23XFTK	Methamphetamine
2E9T9Z	amphetamines
2F7B2P	Methamphetamine
2H6J9K	Methamphetamine
2M7KGU	Methamphetamine
3KXR2L	Methamphetamine
3M2KUZ	Methamphetamine
3QJRAL	Methamphetamine
3VVTEQ	Methamphetamine/MDMA
3W6KLL	SMAs
3XLRTN	Methamphetamine
3ZQKMM	SMA positive screen
4AVR3M	Methamphetamine, Benzoylecgonine
4HN3CH	Methamphetamine
4Q2WPY	Methamphetamine, Benzoylecgonine, Cocaine class
4T4UZR	Methamphetamine, Caffeine
4THFAU	methamphetamine
4Z746Y	Methamphetamine
6BZN3H	Amphetamines, Cocaine (*elevated).
6PGUXG	Methamphetamine
6Y8F2U	methamphetamine
73LC9G	Methamphetamine
77KN6G	Benzoylecgonine/cocaine, methamphetamine, and buprenorphine
7NZX6H	Methamphetamine

TABLE 4A: Screening Results - Item 4

WebCode	Screening Results
7YMWWM	SMA
826FGH	Methamphetamine
8637EG	SMA Class
866NKR	Methamphetamine
88VPNU	Methamphetamine
8HTTTN	Methamphetamine
8KKPGH	Benzoylecgonine, Methamphetamine
8NZ7QM	Methamphetamine
8RFRJU	Benzoylecgonine, Methamphetamine
93QQKF	SMAs
93TCGV	Methamphetamine
96GRNH	Methamphetamine
9AE6UF	Methamphetamines
9F4L77	methylamphetamine
9VWC4N	Amphetamines
AB3ZUU	Methamphetamine
B44TQE	Methamphetamine
BA4A2K	methamphetamine/MDMA
BCV9FH	methamphetamine, benzoylecgonine
BFVJBH	Methamphetamine - Stimulant
C2TB8A	Methamphetamine
C3HKVG	Stimulants
CAMFXP	Methamphetamine
CQ87XN	Methamphetamine
CTVM6B	SMA (class) & Cocaine (class)
CTY3LH	Methamphetamine
DAGMJE	Methamphetamine
DLB2JB	Methamphetamine

TABLE 4A: Screening Results - Item 4

WebCode	Screening Results
DLCYPZ	Amphetamines class, Benzoylecgonine, Methylamphetamine
DUMZBZ	Methamphetamine
EC2W7K	Methamphetamine
EL74LK	acetaminophen, benzoylecgonine, doxylamine, methamphetamine
FE2MQ6	Methamphetamine
FHZXL6	Methamphetamine
FL3LE9	Amphetamine, Cocaine
FN7GYC	methamphetamine
FP6FGK	methamphetamine
FUYC7B	Amphetamines
G7MXPB	Methamphetamine
GGQXEC	Methamphetamine
GHK2RJ	Methamphetamine
GKQ9BC	Cocaine/Metabolites, Methamphetamine/MDMA
HLCAT6	Methamphetamine
HNKPZB	No drugs detected utilizing screening methods.
HVKZEG	Methamphetamine
HXCV4B	Amphetamines
HZEUCH	methamphetamine
J7Z7QB	Methamphetamine
K3EQR3	Methamphetamine
K3WV9F	Amphetamine, Methamphetamine
KCLLV9	Stimulants: Methamphetamine
KNBHW7	methamphetamine
KQ3GB6	Methamphetamine
KW33R7	Benzoylecgonine/Cocaine breakdown product, Methamphetamine
L8LUZG	Methamphetamine
LBJD4Z	Methamphetamine

TABLE 4A: Screening Results - Item 4

WebCode	Screening Results
LFXVD6	Methamphetamine
LTLVCJ	Methamphetamine/MDMA : ELISA, Methamphetamine : QTOF
M39BHY	methamphetamine
MTJKV8	Methamphetamine
MZJ6VG	Methamphetamine
N9RYQA	methamphetamine
NEGBRX	methamphetamine
NPX6WY	Methamphetamine
NTY4F6	Amphetamines
NZFLP7	Methamphetamine
P2LQFY	Methamphetamine
P9PNAX	Methamphetamine
PC6WXW	Amphetamines
PMQZ3B	acetaminophen, caffeine, benzoylecgonine, doxylamine, methamphetamine
PP9GX2	Methamphetamine, Metformin, Sitagliptin, Apixaban
Q6YL2N	methamphetamine
QT78VZ	Methamphetamine
T2A24X	Methylamphetamine, Amphetamine
T4YKT3	Methamphetamine
T6C24U	SMA class, Cocaine class
TD4HRY	Methamphetamine
TGNKJ6	methamphetamine
TH2UWB	Methamphetamine
TL332L	Methamphetamine
TMBA7Z	Methamphetamine/MDMA, Amphetamine
TXVJUT	methamphetamine
TZLKVB	Methamphetamine
U8G6DW	Amphetamines

TABLE 4A: Screening Results - Item 4

WebCode	Screening Results
U9MEE2	Methamphetamine
UCMPB2	Methamphetamine
UHV3HZ	Methamphetamine
UZRPJJ	Methylamphetamine, Celecoxib
VAWW24	methamphetamine
VAXXHV	Methamphetamine
VBANRZ	Methamphetamine
VCMX68	amphetamines
VD2KGU	Benzoylecgonine, Methamphetamine, Amphetamine
VRFPP8	Methamphetamine
W9KG6H	methamphetamine, sitagliptin
XK898X	Methamphetamine
XPP7YU	SMA
XQYFP7	Positive methamphetamine ELISA
Y9T9B4	No drugs detected utilizing screening methods.
YDQRD3	Methamphetamine
YDRMXU	Methamphetamine
YLKX9P	Amphetamine, Benzoylecgonine/Cocaine, Methamphetamine
YPW6AT	Methamphetamine
YYKWVL	Methamphetamine
Z3NREN	methamphetamine
ZMBHCZ	Methamphetamine
ZYK6GQ	Methamphetamine

Screening Response Summary for Item 4	Participants: 132
d-Methamphetamine:	111
Amphetamines/SMA's:	24
Other Drugs Detected:	40
No Drugs Detected Utilizing Screening Methods:	2

Total number of screening responses provided may be more than the number of participants due to multiple drugs/metabolites being reported.

Confirmatory Results - Item 4

TABLE 4B

Item Scenario:

A 40 year-old man crashed his pickup truck into a convenience store early in the morning. He was taken immediately to the hospital for treatment of minor injuries and a blood sample was collected upon admittance.

Item Contents and Preparation Concentration: d-Methamphetamine (300 ng/mL)

What drugs/metabolites were detected in Item 4?

WebCode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
22LTAL	Methamphetamine		179		ng/ml
	Additional Analyte(s) Reported				
	Benzoylecgonine		10		ng/ml
23XFTK	Methamphetamine		0.34	0.05	ug/mL
2E9T9Z	methamphetamine		247		ng/mL
2F7B2P	Methamphetamine	✓			
2H6J9K	Methamphetamine	✓			
3M2KUZ	Methamphetamine	✓			
3QJRAL	Methamphetamine	✓			
3WTEQ	Methamphetamine	✓	n/a	n/a	n/a
3W6KLL	Methamphetamine	✓			
3XLRTN	Methamphetamine		280	50	ng/mL
3ZQKMM	Methamphetamine	✓			
4AVR3M	Methamphetamine		280.53	47.69	ng/mL
	Additional Analyte(s) Reported				
	Benzoylecgonine		14.64	1.61	ng/mL
4HN3CH	Methamphetamine		0.34	13.43%	ug/mL
4Q2WPY	Methamphetamine	✓			
4T4UZR	Methamphetamine		296	21	ng/mL
4THFAU	Methamphetamine		0.26	0.07	mg/L
4Z746Y	Methamphetamine		0.29	0.05	µg/mL
6BZN3H	Methamphetamine	✓			
6PGUXG	Methamphetamine		0.32	0.04	ug/mL
6Y8F2U	methamphetamine		0.27	0.08	mg/L

TABLE 4B: Confirmatory Results - Item 4

What drugs/metabolites were detected in Item 4?					
WebCode	**Analyte Reported**	**Qualitative Only**	**Reported Concentration**	**Uncertainty**	**Units**
7NZX6H	Methamphetamine		300	51	ng/ml
	Additional Analyte(s) Reported				
	Caffeine	✓			
	Nicotine	✓			
7YMWWM	Methamphetamine	✓			
826FGH	Methamphetamine		0.31	0.05	mg/L
8637EG	Methamphetamine	✓			
866NKR	Methamphetamine		0.30	0.08	mg/L
88VPNU	No drugs/metabolites detected utilizing confirmatory methods.				
8HTTTN	Methamphetamine		251	73	ng/mL
8KKPGH	Methamphetamine		273.14	21.85	ng/mL
8NZ7QM	Methamphetamine		290		ng/mL
8RFRJU	Methamphetamine		264.97	37.10	ng/mL
	Additional Analyte(s) Reported				
	Benzoylecgonine		13.49	2.16	ng/mL
93QQKF	Methamphetamine	✓			
93TCGV	Methamphetamine		0.30	0.05	µg/mL
96GRNH	Methamphetamine		311		ng/mL
9AE6UF	methamphetamine	✓			
9F4L77	methylamphetamine		310		ng/mL
9VWC4N	Methamphetamine		322 ng/mL	+/- 74	ng/mL
AB3ZUU	Methamphetamine		340		ng/mL
B44TQE	Methamphetamine		219.85	17.58	ng/ml
BA4A2K	methamphetamine		0.295	0.046	mcg/ml
BCV9FH	methamphetamine		229		ng/mL
	Additional Analyte(s) Reported				
	benzoylecgonine		17,5		ng/mL
BFVJBH	Methamphetamine	✓			
C2TB8A	Methamphetamine		0.34	+/- 0.05	ng/mL

TABLE 4B: Confirmatory Results - Item 4

What drugs/metabolites were detected in Item 4?					
WebCode	**Analyte Reported**	**Qualitative Only**	**Reported Concentration**	**Uncertainty**	**Units**
C3HKVG	Methamphetamine	✓			
CAMFXP	Methamphetamine	✓			
CQ87XN	Methamphetamine	✓			
CTVM6B	Methamphetamine	✓			
DAGMJE	Methamphetamine	✓			
DLB2JB	Methamphetamine		270	46	ng/mL
	Additional Analyte(s) Reported				
	Caffeine	✓			
	Nicotine	✓			
DLCYPZ	Methylamphetamine		320		ng/mL
	Additional Analyte(s) Reported				
	Benzoylecgonine		10	3	ng/mL
DUMZBZ	Methamphetamine		390	80	ng/mL
EC2W7K	Methamphetamine		241		ng/mL
EGYDJE	Methamphetamine	✓			
EL74LK	methamphetamine		0.32	0.09	mg/L
FE2MQ6	Methamphetamine		0.32	0.04	ug/ml
FHZXL6	Methamphetamine		0.32	0.04	ug/mL
FL3LE9	Methamphetamine	✓			
FN7GYC	methamphetamine		271.54	+/- 51.59	ng/ml
FP6FGK	methamphetamine		0.31	0.09	mg/L
FUYC7B	Methamphetamine	✓			
G7MXPB	Methamphetamine	✓			
G9DYTE	Methamphetamine	✓			
	Additional Analyte(s) Reported				
	Benzoylecgonine	✓			
GGQXEC	Methamphetamine	✓			
	Additional Analyte(s) Reported				
	Darifenacin	✓			
GHK2RJ	Methamphetamine	✓			

TABLE 4B: Confirmatory Results - Item 4

What drugs/metabolites were detected in Item 4?					
WebCode	**Analyte Reported**	**Qualitative Only**	**Reported Concentration**	**Uncertainty**	**Units**
HLCAT6	Methamphetamine	✓			
HVKZEG	Methamphetamine		226		ng/mL
HXCV4B	Methamphetamine	✓			
HZEUCH	methamphetamine		0.31	0.09	mg/L
J7Z7QB	Methamphetamine	✓			
K3EQR3	Methamphetamine		226		ng/ml
K3WV9F	Methamphetamine	✓			
KCLLV9	Methamphetamine	✓			
KNBHW7	methamphetamine		283	11%	ng/mL
KW33R7	Methamphetamine		315.80	19%	ng/mL
	Additional Analyte(s) Reported				
	Benzoylecgonine/Cocaine breakdown product	✓			
L8LUZG	Methamphetamine	✓			
LBJD4Z	Methamphetamine		0.32	13.43%	ug/mL
LFXVD6	Methamphetamine	✓			
LPLM8A	Methamphetamine	✓			
	Additional Analyte(s) Reported				
	Benzoylecgonine	✓			
LTLVCJ	Methamphetamine	✓			
M39BHY	methamphetamine		0.31	13.43%	ug/ml
MTJKV8	Methamphetamine		0.27	22%	ug/mL
MZJ6VG	Methamphetamine		0.324	0.080	mg/L
N9RYQA	methamphetmaine		0.31	0.09	mg/L
NEGBRX	methamphetamine		300	50	ng/mL
NPX6WY	Methamphetamine	✓			
NTY4F6	Methamphetamine	✓			
NZFLP7	Methamphetamine		330		ng/mL
P9PNAX	Methamphetamine		0.30	0.04	ug/mL

TABLE 4B: Confirmatory Results - Item 4

What drugs/metabolites were detected in Item 4?					
WebCode	**Analyte Reported**	**Qualitative Only**	**Reported Concentration**	**Uncertainty**	**Units**
PC6WXW	Methamphetamine		0.33	13	mg/L
PMQZ3B	methamphetamine		0.29	0.08	mg/L
PP9GX2	Methanphetamine		339		ng/mL
	Additional Analyte(s) Reported				
	Metformin		142,3		ng/mL
	Sitagliptin	✓			
Q6YL2N	methamphetamine		316		ng/mL
T2A24X	Methylamphetamine		> 200	17%	ng/mL
T4YKT3	Methamphetamine		0.292	0.046	mcg/ml
T6C24U	Methamphetamine	✓			
TD4HRY	Methamphetamine	✓			
TGNKJ6	methamphetamine		320	90	ng/mL
TH2UWB	Methamphetamine		0.31	0.26 - 0.35	ug/mL
TL332L	Methamphetamine	✓			
TMBA7Z	Methamphetamine	✓			
TXVJUT	methamphetamine		0.340	0.05	ug/mL
TZLKVB	Methamphetamine		300		ng/mL
U8G6DW	Methamphetamine	✓			
U9MEE2	Methamphetamine		319		ng/mL
UCMPB2	Methamphetamine		285	42	ng/mL
UHV3HZ	Methamphetamine	✓			
UZRPJJ	Methylamphetamine		0.30	15%	mg/L
	Additional Analyte(s) Reported				
	Celecoxib	✓	Detected		
VAWW24	methamphetamine		0.31	0.09	mg/L
VAXXHV	Methamphetamine		293.06	+/-19%	ng/mL
VBANRZ	Methamphetamine		293	38	ng/mL
VCMX68	methamphetamine		236		ng/mL
VD2KGU	Methamphetamine		302	88	ng/mL

TABLE 4B: Confirmatory Results - Item 4

What drugs/metabolites were detected in Item 4?					
WebCode	**Analyte Reported**	**Qualitative Only**	**Reported Concentration**	**Uncertainty**	**Units**
VRFPP8	Methamphetamine	✓			
W9KG6H	methamphetamine		0.29	0.04	mg/L
XEHN2W	Methamphetamine	✓			
XK898X	Methamphetamine		360.6	57.7	ng/mL
XPP7YU	methamphetamine	✓			
XQYFP7	Methamphetamine		.34	13.43%	ug/mL
YDQRD3	Methamphetamine	✓			
YDRMXU	Methamphetamine	✓			
YPW6AT	methamphetamine	✓			
YYKWVL	Methamphetamine		0.31	0.04	ug/mL
Z3NREN	methamphetamine		330	40%	ng/mL
ZMBHCZ	Methamphetamine		0.30	+/- 0.08	mg/L

Confirmatory Response Summary for Item 4	**Participants: 123**
d-Methamphetamine:	122 (99.2%)
Other Identified Drugs/Metabolites:	16 (13.0%)
No Drugs/Metabolites Detected Utilizing Confirmatory Methods:	1 (0.8%)

Total number of confirmatory responses above may be more than the number of participants due to multiple drugs/ metabolites being reported.

Raw Data - Item 4

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TABLE 4C

Item 4 Raw Data - d-Methamphetamine
Preparation concentration: 300 ng/mL

WebCode	List of Raw Data determinations (ng/mL)						Participant Mean	
22LTAL	171.80	132.10	168.30	189.58	216.14	196.52	179.10	X
23XFTK	34.000						34.000	X
2E9T9Z	247.90						247.90	
3XLRTN	285.00						285.00	
4AVR3M	280.53						280.50	
4HN3CH	343.00						343.00	
4T4UZR	294.33	297.10					295.70	
4THFAU	257.27						257.30	
4Z746Y	290.98						291.00	
6PGUXG	322.00						322.00	
6Y8F2U	271.62						271.60	
7NZX6H	306.24						306.20	
826FGH	309.70						309.70	
866NKR	302.86						302.90	
8HTTTN	251.00						251.00	
8KKPGH	273.14						273.10	
8NZ7QM	322.99	266.80					294.90	
8RFRJU	264.97						265.00	
93TCGV	303.56						303.60	
96GRNH	311.75	310.70					311.20	
9F4L77	308.00	306.00					307.00	
9VWC4N	322.50						322.50	
AB3ZUU	349.44	335.50					342.50	
B44TQE	219.85						219.90	
BA4A2K	295.00						295.00	
BCV9FH	229.00						229.00	
C2TB8A	340.00						340.00	
DLB2JB	277.27						277.30	
DLCYPZ	314.00	330.00					322.00	
DUMZBZ	386.00	389.00					387.50	
EC2W7K	241.60						241.60	

TABLE 4C: Raw Data - Item 4

Item 4 Raw Data - d-Methamphetamine
Preparation concentration: 300 ng/mL

WebCode	List of Raw Data determinations (ng/mL)		Participant Mean
EL74LK	294.80	341.00	317.90
FE2MQ6	327.00		327.00
FHZXL6	324.00		324.00
FN7GYC	271.54		271.50
FP6FGK	310.79		310.80
HVKZEG	226.10		226.10
HZEUCH	314.01		314.00
K3EQR3	226.00		226.00
KNBHW7	283.00		283.00
KW33R7	315.81		315.80
LBJD4Z	321.00		321.00
M39BHY	312.00		312.00
MTJKV8	271.00		271.00
MZJ6VG	324.00		324.00
N9RYQA	308.71		308.70
NEGBRX	300.00		300.00
NZFLP7	327.98		328.00
P9PNAX	308.00		308.00
PC6WXW	335.30	332.90	334.10
PMQZ3B	293.44		293.40
PP9GX2	339.00		339.00
Q6YL2N	312.03	320.30	316.20
T2A24X	286.19	289.90	288.10
T4YKT3	292.00		292.00
TGNKJ6	320.23		320.20
TH2UWB	311.00		311.00
TXVJUT	340.00		340.00
TZLKVB	285.66	310.10	297.90
U9MEE2	319.00		319.00
UCMPB2	285.00		285.00
UZRPJJ	302.80	303.20	303.00
VAWW24	308.10		308.10
VAXXHV	293.06		293.10

TABLE 4C: Raw Data - Item 4

Item 4 Raw Data - d-Methamphetamine
Preparation concentration: 300 ng/mL

WebCode	List of Raw Data determinations (ng/mL)		Participant Mean
VBANRZ	292.61		292.60
VCMX68	236.40		236.40
VD2KGU	302.01	303.50	302.70
W9KG6H	295.95	287.30	291.60
XK898X	363.70	360.60	362.20
XQYFP7	348.00		348.00
YYKWVL	314.00		314.00
Z3NREN	330.00		330.00
ZMBHCZ	296.14		296.10

Statistical Analysis for Item 4 - d-Methamphetamine

Grand Mean	299.98	Number of Participants Included	71
Standard Deviation	32.78	Number of Participants Excluded	2
		by Critical H value of	2.739

Reporting Procedures - Item 4

TABLE 4D - Item 4

WebCode	Quantitative Reporting Procedures
22LTAL	The mean of duplicate/several determinations.
23XFTK	A single determination.
2E9T9Z	A single determination.
3M2KUZ	A single determination.
3XLRTN	A single determination.
4AVR3M	A single determination.
4HN3CH	A single determination.
4T4UZR	The mean of duplicate/several determinations.
4THFAU	A single determination.
4Z746Y	A single determination.
6PGUXG	A single determination.
6Y8F2U	A single determination.
7NZX6H	A single determination.
826FGH	A single determination.
866NKR	A single determination.
8HTTTN	A single determination.
8KKPGH	A single determination.
8NZ7QM	The mean of duplicate/several determinations.
8RFRJU	A single determination.
93TCGV	A single determination.
96GRNH	The mean of duplicate/several determinations.
9F4L77	The mean of duplicate/several determinations.
9VWC4N	A single determination.
AB3ZUU	The mean of duplicate/several determinations.
B44TQE	A single determination.
BA4A2K	A single determination.
BCV9FH	A single determination.
C2TB8A	A single determination.
CAMFXP	A single determination.
DLB2JB	A single determination.

TABLE 4D: Reporting Procedures - Item 4

WebCode	Quantitative Reporting Procedures
DLCYPZ	The mean of duplicate/several determinations.
DUMZBZ	The mean of duplicate/several determinations.
EC2W7K	A single determination.
EL74LK	The mean of duplicate/several determinations.
FE2MQ6	A single determination.
FHZXL6	A single determination.
FN7GYC	A single determination.
FP6FGK	A single determination.
GHK2RJ	A single determination.
HVKZEG	A single determination.
HZEUCH	A single determination.
K3EQR3	The mean of duplicate/several determinations.
K3WV9F	A single determination.
KNBHW7	A single determination.
KW33R7	A single determination.
L8LUZG	A single determination.
LBJD4Z	A single determination.
M39BHY	A single determination.
MTJKV8	A single determination.
MZJ6VG	A single determination.
N9RYQA	A single determination.
NEGBRX	A single determination.
NZFLP7	A single determination.
P9PNAX	A single determination.
PC6WXW	the lowest of multiple determinations in agreement within 20%
PMQZ3B	A single determination.
PP9GX2	A single determination.
Q6YL2N	The mean of duplicate/several determinations.
T2A24X	The mean of duplicate/several determinations.
T4YKT3	A single determination.
TGNKJ6	A single determination.

TABLE 4D: Reporting Procedures - Item 4

WebCode	Quantitative Reporting Procedures
TH2UWB	A single determination.
TXVJUT	A single determination.
TZLKVB	The mean of duplicate/several determinations.
U9MEE2	A single determination.
UCMPB2	A single determination.
UZRPJJ	The mean of duplicate/several determinations.
VAWW24	A single determination.
VAXXHV	A single determination.
VBANRZ	A single determination.
VCMX68	A single determination.
VD2KGU	The lowest of the duplicates
W9KG6H	The mean of duplicate/several determinations.
XK898X	Duplicate quantitative analysis performed. Both values must be within +/-20% of their mean to be reported. The lowest value is reported.
XQYFP7	A single determination.
YDQRD3	A single determination.
YYKWVL	A single determination.
Z3NREN	A single determination.
ZMBHCZ	A single determination.

Response Summary for Item 4	Participants: 79
A single determination:	61 (77.2%)
The mean of duplicate/several determinations:	15 (18.99%)
Other:	3 (3.8%)

Methods of Analysis - Item 4

TABLE 4E - Item 4

WebCode	Method	Screening	Confirmatory	Quantitation
22LTAL	LC/MS/MS	✓	✓	✓
23XFTK	Immunoassay	✓		
	GC/MS		✓	✓
2E9T9Z	Immunoassay	✓		
	LC/MS/MS		✓	✓
2F7B2P	Immunoassay	✓		
	LC/MS/MS		✓	
	GC/MS		✓	
2H6J9K	Immunoassay	✓		
	LC-QTOF-MS	✓		
	LC/MS/MS		✓	
2M7KGU	Immunoassay	✓		
3KXR2L	Immunoassay	✓		
3M2KUZ	Immunoassay	✓		
	LC/MS/MS	✓		
	GC/MS		✓	
3QJRAL	Immunoassay	✓		
	LC-QTOF		✓	
3VVTEQ	Immunoassay	✓		
	GC/MS		✓	
3W6KLL	Immunoassay	✓		
	GC/MS	✓	✓	
3XLRTN	Immunoassay	✓		
	GC/MS		✓	✓
3ZQKMM	Immunoassay	✓		
	GC/MS	✓	✓	
4AVR3M	LC/MS/MS	✓	✓	✓
4HN3CH	Immunoassay	✓		
	GC/MS		✓	✓
4Q2WPY	LC/MS/MS	✓		
	GC/MS		✓	
	Immunoassay	✓		
4T4UZR	Immunoassay	✓		
	LC-QTOF	✓		
	LC/MS/MS		✓	✓
	GC/MS	✓		

TABLE 4E: Methods of Analysis - Item 4

WebCode	Method	Screening	Confirmatory	Quantitation
4THFAU	LC-HRMS/MS	✓		
	LC/MS/MS		✓	✓
4Z746Y	Immunoassay	✓		
	LC/MS/MS		✓	✓
6BZN3H	Immunoassay	✓		
	GC/MS	✓	✓	
6PGUXG	Immunoassay	✓		
	GC/MS		✓	✓
6Y8F2U	HR-LCMS/MS	✓		
	LC/MS/MS		✓	✓
73LC9G	LC/MS/MS	✓		
77KN6G	Immunoassay	✓		
7NZX6H	Immunoassay	✓		
	GC/MS	✓	✓	
	LC/MS/MS		✓	✓
7YMWWM	Immunoassay	✓		
	GC/MS	✓	✓	
826FGH	Immunoassay	✓		
	LC/MS/MS		✓	✓
8637EG	Immunoassay	✓		
	GC/MS	✓	✓	
866NKR	LC-HRMS/MS	✓		
	LC/MS/MS		✓	✓
88VPNU	Immunoassay	✓		
	LC/MS/MS	✓		
8HTTTN	LC/HRAM-MS	✓		
	LC/MS/MS		✓	✓
8KKPGH	LC/MS/MS	✓	✓	✓
8NZ7QM	Immunoassay	✓		
	GC/MS	✓	✓	
	LC/MS/MS		✓	✓
8RFRJU	LC/MS/MS	✓	✓	✓
93QQKF	Immunoassay	✓		
	GC/MS	✓	✓	
93TCGV	Immunoassay	✓		
	LC/MS/MS		✓	✓

TABLE 4E: Methods of Analysis - Item 4

WebCode	Method	Screening	Confirmatory	Quantitation
96GRNH	Immunoassay	✓		
	LC-QTOF	✓		
	LC/MS/MS		✓	✓
	GC/MS	✓	✓	
9AE6UF	Immunoassay	✓		
	GC/MS		✓	
9F4L77	LC/MS/MS	✓	✓	✓
9VWC4N	Immunoassay	✓		
	GC/MS		✓	✓
AB3ZUU	Immunoassay	✓		
	LC-QTOF	✓		
	LC/MS/MS			✓
B44TQE	LC/MS/MS	✓	✓	✓
BA4A2K	Immunoassay	✓		
	GC/MS		✓	✓
BCV9FH	LC/MS/MS	✓		
	LC/MS		✓	✓
	GC/MS		✓	✓
BFVJBH	Immunoassay	✓		
	GC/MS	✓	✓	
C2TB8A	Immunoassay	✓		
	GC/MS		✓	
	GC/FID			✓
C3HKVG	Immunoassay	✓		
	GC/MS		✓	
CAMFXP	LC/MS/MS	✓		
	GC/MS		✓	
CQ87XN	Immunoassay	✓		
	LC/MS/MS	✓		
	GC/MS		✓	
CTVM6B	Immunoassay	✓		
	GC/MS	✓	✓	
CTY3LH	Immunoassay	✓		
DAGMJE	Immunoassay	✓		
	GC/MS		✓	
DLB2JB	Immunoassay	✓		
	GC/MS	✓	✓	
	LC/MS/MS		✓	✓

TABLE 4E: Methods of Analysis - Item 4

WebCode	Method	Screening	Confirmatory	Quantitation
DLCYPZ	Immunoassay	✓		
	LC-QTOF-MS	✓	✓	
	LC/MS/MS		✓	✓
DUMZBZ	Immunoassay	✓		
	LC-QTOF-MS	✓		
	LC/MS/MS		✓	✓
EC2W7K	Immunoassay	✓		
	LC/MS/MS		✓	✓
EGYDJE	GC/MS		✓	
EL74LK	LC/MS/MS		✓	✓
	LCMS-ORBITRAP	✓		
FE2MQ6	Immunoassay	✓		
	GC/MS		✓	✓
FHZXL6	Immunoassay	✓		
	GC/MS		✓	
	GC/FID			✓
FL3LE9	Immunoassay	✓		
	GC/MS	✓	✓	
FN7GYC	LC/MS/MS	✓	✓	
FP6FGK	LC/MS/MS		✓	✓
	LC-HRMS/MS	✓		
FUYC7B	Immunoassay	✓		
	GC/MS	✓	✓	
G7MXPB	Immunoassay	✓		
	GC/MS	✓	✓	
G9DYTE	GC/MS		✓	
GGQXEC	Immunoassay	✓		
	GC/MS		✓	
	LC-QTOF-MS		✓	
GHK2RJ	LC/MS/MS	✓		
	GC/MS		✓	
GKQ9BC	Immunoassay	✓		
HLCAT6	GC/MS	✓		
	LC/MS/MS	✓	✓	
	LC-Orbitrap	✓		
HNKPZB	GC/MS			
HVKZEG	Immunoassay	✓		
	LC/MS/MS		✓	✓

TABLE 4E: Methods of Analysis - Item 4

WebCode	Method	Screening	Confirmatory	Quantitation
HXCV4B	Immunoassay	✓		
	GC/MS	✓	✓	
HZEUCH	LC-HR/MS/MS	✓		
	LC/MS/MS		✓	✓
J7Z7QB	GC/MS	✓	✓	
	LC-QTOF	✓		
	LC-QTOF-MS		✓	
K3EQR3	LC/MS/MS	✓	✓	✓
K3WV9F	Immunoassay	✓		
	LC/MS/MS	✓		
	GC/MS		✓	
KCLLV9	GC/MS	✓	✓	
	LC-QTOF-MS	✓	✓	
KNBHW7	LC/MS/MS	✓		
	LC/MS		✓	
KQ3GB6	Immunoassay	✓		
KW33R7	LC/MS/MS	✓	✓	✓
L8LUZG	Immunoassay	✓		
	LC/MS/MS	✓		
	GC/MS		✓	
LBJD4Z	Immunoassay	✓		
	GC/MS	✓	✓	✓
LFXVD6	Immunoassay	✓		
	LC/MS/MS		✓	
LPLM8A	GC/MS		✓	
LTLVCJ	Immunoassay	✓		
	LC-QTOF-MS	✓	✓	
	GC/MS		✓	
M39BHY	GC/MS		✓	✓
	Immunoassay	✓		
MTJKV8	Immunoassay	✓		
	GC/MS		✓	✓
MZJ6VG	Immunoassay	✓		
	GC/MS		✓	✓
N9RYQA	LC-HRMSMS	✓		
	LC/MS/MS			✓
NEGBRX	Immunoassay	✓		
	LC/MS/MS		✓	✓

TABLE 4E: Methods of Analysis - Item 4

WebCode	Method	Screening	Confirmatory	Quantitation
NPX6WY	Immunoassay	✓		
	LC-QTOF-MS	✓		
	GC/MS	✓		
	LC/MS/MS		✓	
NTY4F6	Immunoassay	✓		
	GC/MS	✓	✓	
NZFLP7	Immunoassay	✓		
	GC/MS	✓	✓	
	LC/MS/MS		✓	✓
P2LQFY	Immunoassay	✓		
P9PNAX	Immunoassay	✓		
	GC/MS		✓	✓
	LC/MS/MS		✓	✓
PC6WXW	Immunoassay	✓		
	LC/MS	✓	✓	✓
PMQZ3B	LC/MS/MS		✓	✓
	High resolution Orbitrap LC/MS/MS	✓		
PP9GX2	LC/MS/MS	✓	✓	✓
Q6YL2N	Immunoassay	✓		
	LC-QTOF	✓		
	GC/MS	✓	✓	
	LC/MS/MS	✓	✓	
QT78VZ	Immunoassay	✓		
T2A24X	Immunoassay	✓		
	High resolution accurate mass LC/MS	✓		
	GC/MS	✓		
	LC/MS/MS			✓
T4YKT3	Immunoassay	✓		
	GC/MS		✓	✓
T6C24U	Immunoassay	✓		
	GC/MS	✓	✓	
TD4HRY	LC/MS/MS	✓	✓	
TGNKJ6	High resolution accurate mass	✓		
	LC/MS/MS		✓	✓
TH2UWB	Immunoassay	✓		
	GC/MS		✓	
	GC/FID		✓	✓
TL332L	Immunoassay	✓		
	LC/MS/MS	✓	✓	

TABLE 4E: Methods of Analysis - Item 4

WebCode	Method	Screening	Confirmatory	Quantitation
TMBA7Z	Immunoassay	✓		
	GC/MS	✓	✓	
TXVJUT	Immunoassay	✓		
	GC/MS		✓	✓
TZLKVB	Immunoassay	✓		
	LC-QTOF-MS	✓	✓	
	LC/MS/MS		✓	✓
U8G6DW	Immunoassay	✓		
	GC/MS	✓	✓	
U9MEE2	Immunoassay	✓		
	GC/MS		✓	✓
UCMPB2	LC-TOF	✓		
	LC/MS/MS		✓	✓
UHV3HZ	LC/MS/MS	✓	✓	
UZRPJJ	LC-QTOF-MS	✓		
	Immunoassay	✓		
	LC/MS/MS	✓	✓	✓
	HPLC-UV	✓		
VAWW24	LC/MS/MS		✓	✓
	LC-HRAMS	✓	✓	
VAXXHV	LC/MS/MS	✓	✓	✓
VBANRZ	Immunoassay	✓		
	LC/MS/MS		✓	✓
	GC/MS		✓	
VCMX68	Immunoassay	✓		
	LC/MS/MS		✓	✓
VD2KGU	Immunoassay	✓		
	LC/MS/MS		✓	✓
VRFPP8	Immunoassay	✓		
	GC/MS		✓	
W9KG6H	LC-QTOF-MS	✓		
	LC/MS/MS		✓	✓
XEHN2W	GC/MS		✓	
XK898X	LC/MS/MS	✓	✓	✓
XPP7YU	Immunoassay	✓		
	GC/MS	✓	✓	
XQYFP7	Immunoassay	✓		
	GC/MS		✓	✓

TABLE 4E: Methods of Analysis - Item 4

WebCode	Method	Screening	Confirmatory	Quantitation
Y9T9B4	Immunoassay	✓		
YDQRD3	LC/MS/MS	✓		
	GC/MS		✓	
YDRMXU	Immunoassay	✓		
	GC/MS	✓	✓	
YLKX9P	Immunoassay	✓		
YPW6AT	Immunoassay	✓		
	GC/MS		✓	
YYKWVL	Immunoassay	✓		
	GC/MS		✓	
	GC/FID		✓	✓
Z3NREN	LC/MS/MS	✓		✓
ZMBHCZ	LC-High Resolution Tandem Mass Spectrometry	✓		
	LC/MS/MS		✓	✓
ZYK6GQ	Immunoassay	✓		

Response Summary for Item 4 - Methods of Analysis **Participants: 136**

	Screening	Confirmatory	Quantitation
Immunoassay:	93	0	0
GC/MS:	31	69	17
LC/MS:	1	3	2
LC/MS/MS:	31	55	49
LC-QTOF:	5	1	0
LC-QTOF-MS:	9	6	0
Other:	16	3	4

Additional Comments for Item 4

TABLE 4F

WebCode	Item Comments
22LTAL	Caffeine and Paracetamol were also found in Item 4.
2F7B2P	The internal standard was used is codeine D3.
2M7KGU	Immunoassay: Methamphetamine cutoff 20 ng/mL.
3KXR2L	Analysis by immunoassay screening in whole blood for: Assay Cutoff* (ng/mL):Meth /Amphetamines 20. Barbiturates 50. Benzodiazepines 10. Buprenorphine 1. Cannabinoids 10. Benzoylecgonine 50. Dextromethorphan 5. Fentanyl 1. Meprobamate 100. Methadone 10. Opiates 10. Opioids 10. Phencyclidine 5. TCA 25. Tramadol 5. Zolpidem 10. * Results within 20% of these concentrations are also reported as preliminarily positive.
3VVTEQ	Possible Amphetamine, Possible Celecoxib. Used Phenyltoloxamine and heptabarbital as internal standards. MBTFA used to derivatize.
3XLRTN	Internal Standard: Methamphetamine-D14. Limit-of-Detection: 20 ng/mL
4Q2WPY	Benzoylecgonine disregarded per CTS instructions
4T4UZR	Methamphetamine references internal standard Methamphetamine-d5 on LCMSMS for quantitative testing
4THFAU	IS is deuterated methamphetamine
4Z746Y	ELISA screening panel includes: amphetamine, benzodiazepines, buprenorphine, cannabinoids, carisoprodol, cocaine and metabolites, fentanyl, methadone, methamphetamine, opiates, oxycodone/oxymorphone, phencyclidine, and zolpidem. Amphetamine confirmation/quantitation panel includes: amphetamine, (MDA) 3,4-methylenedioxyamphetamine, methamphetamine, and (MDMA) 3,4-methylenedioxymethamphetamine. The following internal standards are used: amphetamine-D5, MDA-D5, methamphetamine-D11, and MDMA-D5. The LOD for all analytes in the panel is 4 ng/mL and the LOQ for all analytes in the panel is 10 ng/mL. Low levels of benzoylecgonine, screening and confirmation, disregarded per instructions.
6BZN3H	*Instrument marked sample as negative for Cocaine - but results were elevated and confirmation was performed. Internal standards used: Promazine (Screen); Methapyrilene (Cocaine); N-Propylamphetamine (Amphetamines). ***Possible Benzoylecgonine TBDMS ions identified.
6Y8F2U	Internal Stnd: mepivacaine (HR-LCMS/MS), methamphetamine-d11 (LC/MS/MS)
77KN6G	This screened presumptive positive for benzoylecgonine/cocaine, methamphetamine, and buprenorphine. However, I am not qualified to confirm the presence of methamphetamine. Additionally, the [Laboratory] does not have the capabilities to confirm the presence of benzoylecgonine/cocaine and buprenorphine. The immunoassay tests for the following drugs: amphetamine, barbiturates, benzodiazepines, buprenorphine, benzoylecgonine/cocaine, cannabinoids, carisoprodol, fentanyl, methadone, methamphetamine, opiates, oxycodone/oxymorphone, phencyclidine (PCP), tramadol, and zolpidem.
7YMWWM	SMA - N-Propylamphetamine ISTD. Screen - Promazine ISTD. Benzoylecgonine - Methapyrilene - ISTD
8637EG	Internal Standards: Promazine (Drug Screen). N-propylamphetamine (SMA extraction)
866NKR	Internal standards used include: Mepivacaine and methamphetamine-d11
8KKPGH	Methamphetamine LOQ 5ng/mL; ISTD Methamphetamine-d11
8RFRJU	Internal standards used for confirmed compounds: Benzoylecgonine-D8, Methamphetamine-D5. Limit of detection for benzoylecgonine and methamphetamine is 10ng/mL.
93QQKF	N-propylamphetamine used as internal standard for GC/MS confirmation of SMAs. Benzoylecgonine detected in screening and confirmed; not reported per provider statement.

TABLE 4F: Additional Comments for Item 4

WebCode	Item Comments
93TCGV	ELISA screening panel includes: amphetamine, benzodiazepines, buprenorphine, cannabinoids, carisoprodol, cocaine and metabolites, fentanyl, methadone, methamphetamine, opiates, oxycodone/oxymorphone, phencyclidine, and zolpidem. Following a positive amphetamine and/or methamphetamine screen, confirmation/quantitation of amphetamine (AMP), 3,4-methylenedioxyamphetamine (MDA), methamphetamine (mAMP), and 3,4-methylenedioxymethamphetamine (MDMA) is performed using AMP-D5, MDA-D5, mAMP-D11, and MDMA-D5 as internal standards, respectively. LOD for each target drug is 4 ng/mL; LOQ for each target drug is 10 ng/mL. The sample screened positive for cocaine metabolite. Following a positive cocaine metabolite screen, confirmation/quantitation of cocaine (COC) and benzoylecgonine (BZE) is performed using COC-D3 and BZE-D3 as internal standards, respectively. LOD/LOQ for COC is 1 ng/mL. LOD/LOQ for BZE is 10 ng/mL. BZE was confirmed/quantitated at raw value 11.026 ng/mL. BZE results were not reported due to CTS instructions to disregard.
9AE6UF	Confirmatory ISTD GC/MS: NPA and SKF
9VWC4N	The Toxicology laboratory uses an immunoassay which screens for the following six drugs/drug classes: Amphetamines, Benzodiazepines, Cannabinoids, Cocaine, Opiates, and PCP.
B44TQE	Methamphetamine LOQ 5ng/ml; methamphetamine-d11 ISTD
BA4A2K	Analyte DoA Ultra Blod. Cutoff (ng/mL): Amphetamine 2. Barbiturates (Phenobarbital) 50. Benzodiazepines I (Oxazepam) 1. Benzodiazepines II (Lorazepam) 1. Buprenorphine: DoA blood . 5Norbuprenorphine: DoA urine: Cannabinoids (Carboxy-Tetrahydrocannabinol) 1. Cocaine. Metabolite (Benzoylecgonine) 5. Dextromethorphan . Fentanyl . Generic Opioids (Oxycodone) 10. Meprobamate 10. Methadone 1. Methamphetamine 2. Opiates (Morphine) 0. Oxycodone I (Oxycodone) 1. Oxycodone II (Oxycodone) 1. Phencyclidine . Trama. Tricyclic Antidepressants (Nortriptyline) 6. Zolpidem confirmation cutoff METH/AMP/MDA/MDMA 20 ng/ml
BFVJBH	Phenyltoloaxmine was used for the Internal Standard in the Base extract for GC/MS analysis. Hexobarbital was used for the Internal Standard for the Acid extract for GC/MS analysis. No Benzodiazepines were detected on the GC/MS in the Acid and Base extract. Possible Caffeine and possible Benzoylecgonine ions were detected in the Base extract that were analyzed on the GC/MS.
C3HKVG	Screening, cut off: Methamphetamine 70ng/mL
CTVM6B	ISTD. Drug Screen - Promazine. Benzoylecgonine confirm - Methapyrilene. SMA confirm - N-Propylamphetamine
CTY3LH	Screening Panel with cutoffs: Fentanyl 1ng/mL, AB-PINACA 2ng/mL, ETG 500ng/mL, Methamphetamine 50ng/mL, Barbiturates 50ng/mL, Benzodiazepines 20 ng/mL, AB-CHMINACA 5ng/mL, Methadone 10ng/mL, Opiates 80ng/mL, Phencyclidine 5ng/mL, BZG/Cocaine 25ng/mL, Oxycodone 10ng/mL, Tramadol 5ng/mL, Cannabinoids (THC) 10ng/mL, TCA 60ng/mL, Amphetamine 50ng/mL, Buprenorphine 2ng/mL, 6-MAM 10ng/mL, alpha-PVP 5ng/mL, Pregabalin 1000ng/mL
DAGMJE	Confirmatory ISTD GC/MS: NPA and SKF
DLCYPZ	Screening- Immunoassay - UPLC-QTOF-MS (Waters), Internal Standard: D3-Methadone and Prazepam.Confirmation- Benzoylecgonine: UPLC-TQD (Waters), Internal Standard: D3-Benzoylecgonine, LOD: 2 ng/mL- Methylamphetamine: LC-MS/MS(Sciex), Internal Standard: D5-Methylamphetamine, D3-Ephedrine and D4-Pethidine, LOD: 0.5 ng/mL
EC2W7K	Internal Standard: Methamphetamine --> Methamphetamine d11 LOD: Methamphetamine: 10 ng/mL
EL74LK	ISTD: methamphetamine-d11, ,mepivacaine benzoylecgonine was below the limit of report of 25 µg/L
FL3LE9	Internal standard used for drug screen was promazine. Internal standard used for SMA confirmation was N-Propylamphetamine. Internal standard used for Benzoylecgonine confirmation was methapyrilene.

TABLE 4F: Additional Comments for Item 4

WebCode	Item Comments
FN7GYC	Uncertainty methamphetamine K3 19%
FP6FGK	Methamphetamine-d11 used as internal standard for methamphetamine quantitation
G9DYTE	Internal standard: Flurazepam
GGQXEC	Caffeine was also detected.
GHK2RJ	Methamphetamine was screened using LC/MS/MS and confirmed using GC/MS. Internal Standard is SKF.
GKQ9BC	Only screening test was performed.
HLCAT6	Traces of Amphetamine was detected in the sample.
HNKPZB	Liquid-Liquid basic extraction using Toluene: Hexane: Isoamyl alcohol (78:20:2) solvent mix as extracting solvent followed by derivatization.
J7Z7QB	Estazolam was used as internal standard
K3EQR3	Caffeine was also found in Item 4.
KNBHW7	LCMSMS used for confirmation.
KQ3GB6	Analysis by immunoassay screening in whole blood for: Assay Cutoff* (ng/mL):Meth /Amphetamines 20. Barbiturates 50. Benzodiazepines 10. Buprenorphine 1. Cannabinoids 10. Benzoylecgonine 50. Dextromethorphan 5. Fentanyl 1. Meprobamate 100. Methadone 10. Opiates 10. Opioids 10. Phencyclidine 5. TCA 25. Tramadol 5. Zolpidem 10. * Results within 20% of these concentrations are also reported as preliminarily positive.
LFXVD6	The cut-off value of Methamphetamine is 50 ng/mL for LC/MS/MS
LTLVCJ	Mepivacaine and Methamphetamine-D11 used as internal standards.
PC6WXW	For methamphetamine, methamphetamine-D14 is the ISTD and LOD/LOQ is 0.02 mg/L.
PMQZ3B	Mepivacaine was used as internal standard for LC and GC. Nalorphine was used as an additional internal standard for GC
QT78VZ	Per the testing instructions, benzoylecgonine was to be disregarded in Item #4. Analysts are not certified to perform confirmation testing on methamphetamine. Cases that are positive for methamphetamines are sent to a reference laboratory.
T2A24X	Methylamphetamine Upper Limit of Quantitation (ULoQ) is 200ng/mL. Both replicate measurements of Methylamphetamine were greater than the ULoQ. Confirmatory analysis for amphetamine was negative. The results reported above DO NOT include a deduction to account for analytical variation, in accordance with the [State Regulation]. Quantitative results obtained using dedicated Section [identifier] method.
T4YKT3	Immunoassay: Methamphetamine cutoff 20 ng/mL. GC/MS: Amphetamine, Methamphetamine, MDA, MDMA LOQ 0.020 mcg/mL and internal standards Amphetamine-D11, Methamphetamine-D11, MDA-D5, and MDMA-D5.
T6C24U	The internal standards used were promazine for the full panel drug screen, methapyrilene for the benzoylecgonine confirmation, and N-propylamphetamine for the SMA confirmation.
TGNKJ6	internal standards: mepivacaine, nalorphine, diazepam-d5, clonazepam-d4, THC-d3, THC-OH-d3, THC-COOH-d9, amphetmaine-d11, methamphetamine-d11, benzoylecgonine-d8, cocaine-d3
TH2UWB	Our policy does a screening GC/MS test that looks for drugs outside of the immunoassay. It uses mepivacaine as the internal standard. The low limit of detection for methamphetamine is 0.05ug/mL and the high limit of detection is 2.00ug/mL.

TABLE 4F: Additional Comments for Item 4

WebCode	Item Comments
TMBA7Z	Internal Reference Materials: Phenyltoloxamine (base fraction), Heptabarbital (acid fraction) MBTFA for derivatization Sigma Aldrich [Lot Number]
TZLKVB	Internal standard Methamphetamine-D5. LOQ Methamphetamine 20 ng/mL
U9MEE2	Methamphetamine LOQ: 10 ng/mL
UZRPJJ	Methylamphetamine ISTD = D5 Methylamphetamine. Celecoxib qualitative only, single point calibration.
VAXXHV	Benzoylecgonine/cocaine breakdown product was also detected but disregarded per CTS request.
VD2KGU	This sample screened presumptive positive for benzoylecgonine, however our laboratory does not currently have a confirmation method for this class of drugs. Therefore, the benzoylecgonine presumptive positive was not confirmed. Basic Drug Confirmation (Liquid Chromatography/Tandem Mass Spectrometry LC/MS/MS): Quantitatively: amphetamine, diphenhydramine, ketamine, MDA, MDMA, mescaline, methamphetamine, phentermine, LSD. Qualitatively: ephedrine/pseudoephedrine, psilocin.
W9KG6H	Confirmatory testing not performed for sitagliptin.
XEHN2W	Tetracosane as internal standard
XK898X	ISTD (LLOQ - ULOQ): Methamphetamine-D14 (20.0 - 1000.0 ng/mL). [Initials] 05/03/2024
XQYFP7	Methamphetamine normally reported in ug/mL. Truncated and converted for CTS.
Y9T9B4	Proficient in DSX Immunoassay only (THC, Cocaine)
YLKX9P	Item 4 was received with 2 tubes. These tubes were designated as items 1.7 and 1.8. Item 1.7 screened presumptive positive for Amphetamine, Methamphetamine, and Benzoylecgonine/Cocaine. Item 1.8 screened presumptive positive for Methamphetamine and Benzoylecgonine/Cocaine.
YPW6AT	Phenyltoloxamine internal reference material was used for base fraction extraction with hexobarbital internal reference material used for acid fraction extraction. Possible unconfirmed amphetamine was identified.
ZMBHCZ	Internal standard used: Methamphetamine-d11
ZYK6GQ	Immunological Screen Cut-off blood: 9-Carboxy-THC 20ng/mL; Benzoylecgonine 25ng/mL; Amphetamines (AMP, MAMP, cross reaction MDMA) 20ng/mL; Opiates 10ng/mL; Generic Opioids & Oxycodone 10ng/mL; Methadone 10ng/mL, Benzodiazepines 10ng/mL; Barbiturates 50ng/mL; PCP 5ng/mL; Meprobamate 100ng/mL; Dextromethorphan 5ng/mL; Zolpidem 10ng/mL; Tricyclic Antidepressants 60ng/mL; Fentanyl 1ng/mL; Norbuprenorphine 1ng/mL, Tramadol 5ng/mL

Additional Test Comments

TABLE 5

WebCode	Additional Comments
3VVTEQ	Due to a lack of matrix validation, the sheep's blood was not analyzed for Item #'s 2 & 3.
4THFAU	Highest calibrator for THC is 20 ng/mL
88VPNU	The samples were initially received at the [Laboratory Division] on 4/25/2024 by the quality control supervisor. The analyst did not receive the samples until 5/7/2024.
93QQKF	Results reported using laboratory drug panel guidelines.
EL74LK	Typically toxicologist expect to see metabolites with delta-9 THC.
FL3LE9	Only reported drugs following the [Laboratory] Toxicology Drug Panel.
FN7GYC	recommend consulting a toxicologist on reasonable levels and common metabolites prior to preparing test. For example 75 ng of THC only that was collected 2 hours after the stop would be cause for concern that there was a problem with the analysis, collection or sample. Carboxy-THC is always evaluated as well. THC at this level in that time frame is unlikely and with no Carboxy-THC unrealistic.
GGQXEC	Benzoylecgonine was detected in Item 4 but ignored as stipulated on instructions.
GKQ9BC	Only screening test was performed.
T4YKT3	Tricyclic antidepressants screened indeterminate
TL332L	[Laboratory] Toxicology Unit is accredited as a Human Performance Testing Toxicology Unit, and as such does not conduct testing and analysis on post mortem samples or specimens.
TMBA7Z	Due to lack of matrix validation, the sheep's blood (ITEMS 2 AND 3) were NOT ANALYZED.
XK898X	I am submitting results from the predistribution samples. All dates and results are representative of the predistribution samples that were received and analyzed earlier this year.
XVQPRR	Item 4 not analyzed
YLKX9P	No confirmatory testing was completed as I am not trained in confirmatory testing at the [Laboratory].
YPW6AT	Due to a lack of matrix validation, the sheep's blood samples (item #2 and item #3) were not analyzed.

-End of Report-
(Appendix may follow)

Collaborative Testing Services ~ Forensic Testing Program

Test No. 24-5661: Blood Drug Analysis

DATA MUST BE SUBMITTED BY **June 24, 2024, 11:59 p.m. EDT** TO BE INCLUDED IN THE REPORT

Participant Code: U1234H WebCode: Q2JEDN

Scenario:

Investigators have submitted two vials of blood from each of four separate cases for your analysis. Using your laboratory's procedures, analyze each item and report the presence of any drug and/or metabolites.

Case 1: A 26 year-old male died in his home after receiving medications for a severe disease administered by his palliative care physician. A blood sample was collected at the scene for toxicological testing.

Case 2: A middle-aged woman was found deceased lying in the prone position on her bed. She was previously diagnosed with schizophrenia and had a history of chronic pain. Blood was collected an estimated 8 hours postmortem.

Case 3: A group of teens were stopped for driving above the speed limit on their way home from a party. The driver was observed with dilated pupils, rapid eye movements, and incoherent speech when questioned. A blood sample was collected within 2 hours of the traffic stop.

Case 4: A 40 year-old man crashed his pickup truck into a convenience store early in the morning. He was taken immediately to the hospital for treatment of minor injuries and a blood sample was collected upon admittance.

-Verification testing showed a low level of benzoylecgonine in Item 4 and doxylamine, bupropion, and fluoxetine in Item 1. Please disregard these as well as artifacts of production: methanol and acetonitrile.

-The purpose of this test is to provide a means of interlaboratory comparison via the examination of drugs, drug metabolites and other chemicals within biological matrices representative of the casework of the laboratory. Samples may contain drugs, or their metabolites thereof, that fall into the following classes: analgesics, anticonvulsants, antidepressants, antihistamines, antipsychotics, barbiturates, benzodiazepines, nonbenzodiazepine hypnotics (z-drugs), cannabinoids, dissociatives, hallucinogens, opioids, and stimulants.

Items Submitted (Sample Pack BDRG):

Item 1: Two vials of human whole blood from Case 1
Item 2: Two vials of sheep blood from Case 2
Item 3: Two vials of sheep blood from Case 3
Item 4: Two vials of human whole blood from Case 4

Screening Results for Item 1:

1-1). Please indicate the screening results for Item 1.

- ○ No drugs detected utilizing screening methods.
- ○ Drug(s) detected (list each class and/or drug name below).

Confirmatory Results for Item 1:

1-2). Was confirmatory analysis performed for this item? ○ Yes ○ No

1-3). What drugs/metabolites were detected in Item 1? If quantitative determinations were performed, please record raw data in the provided spaces in ng/mL.

☐ No drugs/metabolites detected utilizing confirmatory methods.

Analyte	Qualitative Only?	Reported Concentration	Uncertainty	Units
	☐			( )

Date(s) Analysis Performed on Analyte:

Raw Data (ng/mL):

1-4). If quantitative analysis was performed, are the reported concentrations above

- ○ A single determination?
- ○ The mean of duplicate / several determinations?
- ○ Other? (Specify):

1-5). Please select the analysis method(s) performed and check whether it was used for screening, confirmatory testing, and/or quantitation.

Please list each method only once.

Method Used	Screening	Confirmatory	Quantitation
	☐	☐	☐

1-6). Additional Comments for Item 1

Please include any relevant information such as internal standard(s) used, limits of detection, etc.

Please note: *Any additional formatting applied in the free form space below will not transfer to the Summary Report and may cause your information to be illegible. This includes additional spacing and returns that present your responses in lists and tabular formats.*

Screening Results for Item 2:

2-1). Please indicate the screening results for Item 2.

- ○ No drugs detected utilizing screening methods.
- ○ Drug(s) detected (list each class and/or drug name below).

Confirmatory Results for Item 2:

2-2). Was confirmatory analysis performed for this item? ○ Yes ○ No

2-3). What drugs/metabolites were detected in Item 2? If quantitative determinations were performed, please record raw data in the provided spaces in ng/mL.

☐ No drugs/metabolites detected utilizing confirmatory methods.

Analyte	Qualitative Only?	Reported Concentration	Uncertainty	Units
	☐			( )

Date(s) Analysis Performed on Analyte:

Raw Data (ng/mL):

2-4). If quantitative analysis was performed, are the reported concentrations above

- ○ A single determination?
- ○ The mean of duplicate / several determinations?
- ○ Other? (Specify):

2-5). Please select the analysis method(s) performed and check whether it was used for screening, confirmatory testing, and/or quantitation.

Please list each method only once.

Method Used	Screening	Confirmatory	Quantitation
	☐	☐	☐

2-6). Additional Comments for Item 2

Please include any relevant information such as internal standard(s) used, limits of detection, etc.

Please note: *Any additional formatting applied in the free form space below will not transfer to the Summary Report and may cause your information to be illegible. This includes additional spacing and returns that present your responses in lists and tabular formats.*

Screening Results for Item 3:

3-1). Please indicate the screening results for Item 3.

- ○ No drugs detected utilizing screening methods.
- ○ Drug(s) detected (list each class and/or drug name below).

Confirmatory Results for Item 3:

3-2). Was confirmatory analysis performed for this item? ○ Yes ○ No

3-3). What drugs/metabolites were detected in Item 3? If quantitative determinations were performed, please record raw data in the provided spaces in ng/mL.

☐ No drugs/metabolites detected utilizing confirmatory methods.

Analyte	Qualitative Only?	Reported Concentration	Uncertainty	Units
	☐			( )

Date(s) Analysis Performed on Analyte:

Raw Data (ng/mL):

3-4). If quantitative analysis was performed, are the reported concentrations above

- ○ A single determination?
- ○ The mean of duplicate / several determinations?
- ○ Other? (Specify):

3-5). Please select the analysis method(s) performed and check whether it was used for screening, confirmatory testing, and/or quantitation.

Please list each method only once.

Method Used	Screening	Confirmatory	Quantitation
	☐	☐	☐

3-6). Additional Comments for Item 3

Please include any relevant information such as internal standard(s) used, limits of detection, etc.

Please note: *Any additional formatting applied in the free form space below will not transfer to the Summary Report and may cause your information to be illegible. This includes additional spacing and returns that present your responses in lists and tabular formats.*

Screening Results for Item 4:

4-1). Please indicate the screening results for Item 4.

- ○ No drugs detected utilizing screening methods.
- ○ Drug(s) detected (list each class and/or drug name below).

Confirmatory Results for Item 4:

4-2). Was confirmatory analysis performed for this item? ○ Yes ○ No

4-3). What drugs/metabolites were detected in Item 4? If quantitative determinations were performed, please record raw data in the provided spaces in ng/mL.

☐ No drugs/metabolites detected utilizing confirmatory methods.

Analyte	Qualitative Only?	Reported Concentration	Uncertainty	Units
	☐			( )

Date(s) Analysis Performed on Analyte:

Raw Data (ng/mL):

4-4). If quantitative analysis was performed, are the reported concentrations above

- ○ A single determination?
- ○ The mean of duplicate / several determinations?
- ○ Other? (Specify):

4-5). Please select the analysis method(s) performed and check whether it was used for screening, confirmatory testing, and/or quantitation.

Please list each method only once.

Method Used	Screening	Confirmatory	Quantitation
	☐	☐	☐

4-6). Additional Comments for Item 4

Please include any relevant information such as internal standard(s) used, limits of detection, etc.

Please note: *Any additional formatting applied in the free form space below will not transfer to the Summary Report and may cause your information to be illegible. This includes additional spacing and returns that present your responses in lists and tabular formats.*

Date Samples Received:

Additional Comments on Test

Please note: *Any additional formatting applied in the free form space below will not transfer to the Summary Report and may cause your information to be illegible. This includes additional spacing and returns that present your responses in lists and tabular formats.*

Participant Code: U1234H
WebCode: Q2JEDN

RELEASE OF DATA TO ACCREDITATION BODIES

The Accreditation Release is accessed by pressing the "Continue to Final Submission" button online and can be completed at any time prior to submission to CTS.

CTS submits external proficiency test data directly to ANAB and/or A2LA. Please select one of the following statements to ensure your data is handled appropriately.

- ○ This participant's data is intended for submission to ANAB and/or A2LA. (Accreditation Release section below must be completed.)
- ○ This participant's data is **not** intended for submission to ANAB and/or A2LA.

Have the laboratory's designated individual complete the following steps
only if your laboratory is accredited in this testing/calibration discipline
by one or more of the following Accreditation Bodies.

Step 1: Provide the applicable Accreditation Certificate Number(s) for your laboratory

ANAB Certificate No.

A2LA Certificate No.

Step 2: Complete the Laboratory Identifying Information in its entirety

Authorized Contact Person and Title

Laboratory Name

Location (City/State)