Blood Drug Analysis Test No. 14-5661
Summary Report

This test was sent to 54 participants. The sample sets contained blood samples from three cases, each with an individual case scenario. Each case sample consisted of two grey-topped vials containing human blood. Participants were requested to examine these items and report their findings. Data were returned from 31 participants (57% response rate) 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

The sample sets contained blood samples from three cases, each with an individual case scenario. Each case sample consisted of two grey-topped vials containing 10mL of human blood. Participants were asked to analyze the blood samples and report the presence of any drugs/metabolites, any quantitative data obtained (including uncertainty), methods used, and any additional comments.

SAMPLE PREPARATION-
The human blood used in this test was from the same lot, which tested negative for a variety of common controlled substances prior to being obtained from a commercial supplier.

A stock solution of 1.0mg/mL of each drug in methanol or acetonitrile was used to spike each item. 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, and different glassware was used for each item.

ITEMS 1, 2, and 3 (PREPARATION): Sample preparation consisted of adding a predetermined amount of drug stock solution to a 500mL graduated cylinder containing human whole blood. The blood was then transferred to a beaker and stirred with a magnetic stirrer for 10 minutes before pipetting 10mL of the mixture into each of the pre-labeled vials, which contained 20mg Potassium Oxalate and 100mg Sodium Fluoride. The vials were sealed and inverted 8-10 times to mix the chemicals in the vials with the blood solution. All vials were placed in a refrigerator immediately after production until the sample sets were prepared.

SAMPLE SET ASSEMBLY: Each sample set contained two vials of each of Items 1, 2, and 3 and was placed into a Department of Transportation regulated shipping container. Each sample pack was labeled and returned to the refrigerator until shipment.

VERIFICATION-
Laboratories that conducted predistribution analysis of the samples reported consistent results that were comparable to the preparation drug concentrations.

Item 1 Drug (Concentration)	Item 2 Drug (Concentration)	Item 3 Drug (Concentration)
Methadone (900ng/mL)	Methamphetamine (600ng/mL)	Codeine (400ng/mL)
EDDP Perchlorate (350ng/mL)	Amphetamine (220ng/mL)	Morphine (200ng/mL)
Diazepam (200ng/mL)	11-Nor-9-carboxy-delta-9-THC (150ng/mL)	

Please note that the Preparation Value 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 wait for the Grand Mean statistics available in the Summary and Individual Reports before evaluating performance.

Release Date of Manufacturer's Information: 15-December-2014

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. Each participant was supplied with two vials containing 10mL of human blood spiked with differing drugs and/or metabolites for each of three case scenarios. Participants were asked to report the presence of any drugs/metabolites, any quantitative data obtained (including uncertainty), methods used, and any additional comments. (Refer to the Manufacturer's Information for preparation details.)

Of the 31 participants who reported results for Item 1, 29 (93.5%) reported the presence of Diazepam and Methadone. Eleven participants (35.5%) also reported the presence of EDDP Perchlorate. One participant reported Benzodiazepines (Oxazepam) and one reported Codeine and Morphine. Of the 31 participants who reported results for Item 2, 28 (90.3%) reported the presence of Amphetamine and Methamphetamine. Twenty-five (80.6%) participants reported the presence of THC. Of the 31 participants who reported results for Item 3, 28 (90.3%) reported the presence of Codeine and 27 (87.1%) reported the presence of Morphine. One participant reported the presence of Diazepam, EDDP, and Methadone.

If a laboratory indicated that the "reported" quantitative result was a single determination, 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. No participants were determined to have "extreme" data (±5 STD from grand mean). The grand mean and standard deviation are supplied to assist the participants and accrediting bodies in determining the acceptability of results.

Release Date of Summary Report: 28-January-2015

Reported Results - Item 1

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

TABLE 1A Item 1 Results

Item 1 Scenario:

A 40-year-old female who had recently begun a pain management program for moderate pain was found dead in her home Sunday morning. Her husband stated that for the entire day prior to her death she had been extremely drowsy and had complained of dizziness and an upset stomach. The victim appeared to have succumbed to cardiac/respiratory depression. Femoral blood was collected at autopsy.

Item Contents and Preparation Concentration: Diazepam (200ng/mL)
Methadone (900ng/mL)
EDDP Perchlorate (350ng/mL)

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
3N8VKE	Diazepam		0.15	±0.05	mg/L
	Methadone		0.77	±0.23	mg/L
	EDDP		0.35	±0.11	mg/L
3ZUAF2	Diazepam		150		ng/mL
	Methadone		730		ng/mL
4N9KJ7	Diazepam		138	23	ng/mL
	Methadone		570	110	ng/mL
7DF9X4	Diazepam		190		ng/mL
	Methadone		790		ng/mL
	EDDP		290		ng/mL
7KCGLE	diazepam		192		ng/mL
	methadone		800		ng/mL
8Y7K3B	Diazepam		0.20	8.5%	mg/L
	Methadone		0.76	in progress	mg/L
8YTQMB	Diazepam		190	10	ng/mL
	Methadone		900	190	ng/mL
	EDDP		280		ng/mL
A2U742	Diazepam		170.0		ng/mL
	Methadone	✓			

TABLE 1A Item 1 Results

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
AZHCN2	Diazepam		190	15	ng/mL
	Methadone		760	77	ng/mL
CKA4WY	Diazepam	✓			
	Methadone	✓			
CN242Z	Diazepam	✓			
	Methadone	✓			
EMUKBP	Diazepam		168	27	ng/mL
	Methadone	✓			
	EDDP (Methadone Metabolite)	✓			
HH7Z9T	Diazepam	✓			
	Methadone	✓			
J243QJ	Diazepam	✓			
	Methadone	✓			
JQE2TK	diazepam		204		ng/mL
	methadone		803		ng/mL
	methadone metabolite (EDDP)	✓			
KBEQCR	Diazepam	✓			
	Methadone	✓			
	EDDP (Methadone metabolite)	✓			
KUGW8H	Diazepam				
	Methadone	✓			
	Methadone metabolites (EDAP, EMDP, DDP)	✓			
MQCQ6G	Diazepam		257		ng/mL
	methadone		813		ng/mL
	EDDP		203		ng/mL

TABLE 1A Item 1 Results

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
N4RUMK	Diazepam		220	17	
	Methadone		730	190	
NM7K4F	Diazepam		0,217		µg/ml
	Methadone		0,855		µg/ml
	EDDP		0,278		µg/ml
P2DQCF	Diazepam		*see p 8 of 9 [Table 4- Additional Comments]	23.1%	ng/mL
	Methadone	✓			
	EDDP	✓			
QV6VLD	Diazepam		203	+/-20%	
	Methadone		820	+/-20%	
RTWTKE	Diazepam		162		ng/mL
	Methadone		854		ng/mL
TZ7PTD	Benzodiazepines (oxazepam)	✓			
UEBRX9	DIAZEPAM		0.12		mg/L
	METHADONE		0.83		mg/L
UFZN6D	Diazepam		178		ng/mL
	Methadone	✓			
V79HZE	Diazepam	✓			
	Methadone	✓			
XJLPPB	Diazepam	✓			
	Methadone	✓			
	EDDP	✓			
	Caffeine	✓			
ZH6CZ4	diazepam		205	51	ng/ml
	methadone		950	235	ng/ml

TABLE 1A Item 1 Results

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
ZJVFTB	Diazepam	✓			
	Methadone	✓			
ZPMND6	Codeine	✓			
	Morphine	✓			

Response Summary for Item 1	Participants: 31
Diazepam:	29 (93.5%)
Methadone:	29 (93.5%)
EDDP Perchlorate:	11 (35.5%)
Other:	4 (12.9%)

Raw Data - Item 1

List of raw data determinations in ng/mL.

TABLE 1B

Item 1 Raw Data - Diazepam

Webcode	Raw Data (ng/mL)			Participant Mean
3N8VKE	154.01			154.0
3ZUAF2	150.00			150.0
4N9KJ7	138.00			138.0
7DF9X4	187.88			187.9
7KCGLE	200.00	190.00		195.0
8Y7K3B	199.00	204.00		201.5
8YTQMB	187.00	183.00	203.00	191.0
A2U742	169.91			169.9
AZHCN2	193.00	193.00		193.0
EMUKBP	168.00			168.0
JQE2TK	204.00			204.0
MQCQ6G	257.00			257.0
N4RUMK	214.00	218.00		216.0
P2DQCF	209.32	204.68		207.0
QV6VLD	205.00	202.00		203.5
RTWTKE	162.00			162.0
UFZN6D	178.00			178.0
ZH6CZ4	205.00			205.0

Statistical Analysis for Item 1- Diazepam

Grand Mean	187.8	Number of Participants Included	18	Number of Participants without Raw Data or Data that was not reported in ng/mL	11
Standard Deviation	28.2	Number of Participants Excluded	0		

TABLE 1B

Item 1 Raw Data - Methadone

Webcode	Raw Data (ng/mL)			Participant Mean
3N8VKE	770.50	602.00	939.00	770.5
3ZUAF2	730.00			730.0
4N9KJ7	570.00			570.0
7DF9X4	789.08			789.1
7KCGLE	800.00	790.00		795.0
8Y7K3B	766.00	764.00		765.0
8YTQMB	840.00	950.00	920.00	903.3
AZHCN2	756.00			756.0
JQE2TK	803.00			803.0
MQCQ6G	813.00			813.0
N4RUMK	692.00	774.00		733.0
QV6VLD	822.00	818.00		820.0
RTWTKE	854.00			854.0
ZH6CZ4	950.00			950.0

Statistical Analysis for Item 1- Methadone

Grand Mean	789.4	Number of Participants Included	14	Number of Participants without Raw Data or Data that was not reported in ng/mL	15
Standard Deviation	88.4	Number of Participants Excluded	0		

TABLE 1B

Item 1 Raw Data - EDDP Perchlorate

Webcode	Raw Data (ng/mL)			Participant Mean
3N8VKE	348.00	300.00	396.00	348.0
7DF9X4	294.32			294.3
8YTQMB	252.00	274.00	280.00	268.7
MQCQ6G	203.00			203.0

Statistical Analysis for Item 1- EDDP Perchlorate

Grand Mean	278.5	Number of Participants Included	4	Number of Participants without Raw Data or Data that was not reported in ng/mL	7
Standard Deviation	60.2	Number of Participants Excluded	0		

Reporting Procedures - Item 1

If quantitative analysis was performed, the reported concentrations are:

TABLE 1C - Item 1

Webcode	Quantitative Reporting Procedures
3N8VKE	A single determination; The mean of duplicate/several determinations
3ZUAF2	A single determination
4N9KJ7	A single determination
7DF9X4	A single determination
7KCGLE	The mean of duplicate/several determinations
8Y7K3B	The mean of duplicate/several determinations.
8YTQMB	The mean of duplicate/several determinations
A2U742	A single determination
AZHCN2	The lower of duplicate results
EMUKBP	A single determination
JQE2TK	A single determination
MQCQ6G	A single determination
N4RUMK	The mean of duplicate/several determinations
NM7K4F	LC-TOF(qual) + LC-MS-MS quant
P2DQCF	*see p. 8 of 9 [Table 4- Additional Comments]
QV6VLD	The mean of duplicate/several determinations
RTWTKE	A single determination
UEBRX9	The mean of duplicate/several determinations
UFZN6D	A single determination
ZH6CZ4	A single determination

Response Summary for Item 1		Participants: 20
A single determination:	10 (50.0%)	
The mean of duplicate/several determinations:	6 (30.0%)	
Other:	4 (20.0%)	

Method of Analysis - Item 1

TABLE 1D
Method of Analysis

Webcode	Method	Screening	Confirmatory	Quantitation
3N8VKE	Immunoassay	✓		
	GC/MS		✓	✓
	LC/MS/MS	✓	✓	✓
3ZUAF2	Immunoassay	✓		
	GC/MS		✓	
	LC/MS/MS		✓	
4N9KJ7	Immunoassay	✓		
	GC/MS	✓		
	LC/MS/MS		✓	✓
7DF9X4	Immunoassay	✓		
	GC/MS	✓	✓	✓
7KCGLE	GC/MS	✓	✓	✓
	LC/MS/MS	✓		
8Y7K3B	Immunoassay	✓		
	LC/MS/MS	✓	✓	✓
	LC/UV	✓		
8YTQMB	Immunoassay	✓		
	GC/MS			✓
	LC/MS/MS			✓
	LC-TOFMS	✓		
A2U742	Immunoassay	✓		
	GC/MS		✓	✓
AZHCN2	Immunoassay	✓		
	GC/MS	✓		
	LC/MS/MS		✓	✓
CKA4WY	Immunoassay	✓		
	GC/MS	✓	✓	
CN242Z	LC/MS/MS	✓		
EMUKBP	Immunoassay	✓		
	GC/MS		✓	
	LC/MS/MS		✓	✓
HH7Z9T	Immunoassay	✓		
	GC/MS		✓	
J243QJ	Immunoassay	✓		
	LC/MS/MS		✓	
	GC/MS		✓	

TABLE 1D
Method of Analysis

Webcode	Method	Screening	Confirmatory	Quantitation
JQE2TK	Immunoassay	✓		
	GC/MS		✓	✓
KBEQCR	LC/MS/MS	✓		
	GC/MS		✓	
KUGW8H	GC/MS	✓	✓	
MQCQ6G	LC/MS/MS	✓		✓
N4RUMK	Immunoassay	✓		
	LC/MS/MS		✓	✓
	LC QTOF MS	✓	✓	✓
NM7K4F	LC-TOF	✓		
	LC/MS/MS			✓
P2DQCF	Immunoassay	✓		
	GC/MS	✓	✓	✓
QV6VLD	Immunoassay	✓		
	GC/MS	✓	✓	✓
	LC/TOF	✓		
	LC/MS/MS		✓	✓
RTWTKE	Immunoassay	✓		
	GC/MS		✓	✓
	LC/MS		✓	✓
TZ7PTD	Immunoassay	✓		
UEBRX9	LC/MS/MS		✓	✓
UFZN6D	Immunoassay	✓		
	GC/MS	✓	✓	
	LC/MS/MS		✓	✓
V79HZE	Immunoassay	✓		
	GC/MS		✓	
XJLPPB	GC/MS	✓		
	LC/MS/MS	✓	✓	
ZH6CZ4	Immunoassay	✓		
	GC/MS		✓	✓
ZJVFTB	Immunoassay	✓		
	GC/MS		✓	
ZPMND6	GC/MS	✓		
	LC/MS/MS	✓		

Additional Comments for Item 1

TABLE 1E

Webcode	Item 1 - Comments
3N8VKE	Internal standards used include: diazepam-d5 and mepivacaine.
4N9KJ7	Methadone metabolite (EDDP) was also detected. EDDP was not confirmed or reported because it is not reported in routine casework.
7KCGLE	nordiazepam-d5 used as internal standard in GC/MS method, not used for drug quantitation. Contemporaneous spiked blood samples at three known drug concentrations analysed simultaneously with samples for drug quantitation. Limits of reporting (GC/MS) - diazepam 50 ng/mL, methadone 98 ng/mL. Drug concentrations are usually reported in mg/L units (except for THC which is ug/L), and to one significant figure. For example drug concentrations 0.1 - 5.0 mg/L are reported to one decimal place, concentrations > 5.0 mg/L are reported as whole numbers only. Concentrations less than 0.1 mg/L are reported to two decimal places.
8Y7K3B	Methadone: Tripelenamine[sic] ISTD, LOD = 0.001 mg/L. Diazepam: DS-diazepam ISTD, LOD = 0.001 mg/L
8YTQMB	The EDDP level would be reported as approximate as the uncertainity[sic] has not been determined. Deuterated internal standards were used for quantitations.
AZHCN2	Methadone LOD 12.5 ng/mL, ISTD Methadone-D9. Diazepam LOD 25 ng/mL, ISTD Diazepam - D5.
CKA4WY	SPE-CSDAU (UCT)
CN242Z	Method only screens of 43 compounds.
EMUKBP	Internal Standards: 7-aminoclonazepam-D4, Diazepam-D5, Nordiazepam-D5, Oxazepam-D5, Temazepam-D5. Limit of Detection: 5ng/mL
KUGW8H	Relatively low level of citalopram detected in sample. Due to level, citalopram was not reported.
P2DQCF	Diazepam: I.S. = diazepam-D5, LOD = 25 ng/mL. Methadone: I.S.= mepivacaine, LOD = 40 ng/mL. EDDP: I.S. = mepivacaine, LOD = 40 ng/mL.
QV6VLD	Methadone quant GC/MS, Diazepam quant LC/MS/MS
TZ7PTD	Analysed using Randox Evidence Investigator.
V79HZE	ISTD: Phenyltoloxamine and Hexobarbital
XJLPPB	Internal standard used: Cocaine-d3, methaqualone
ZJVFTB	Phenyltoloxamine (internal reference material)

Reported Results - Item 2

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

TABLE 2A Item 2 Results

Item 2 Scenario:

A 29-year-old male was pulled over due to observed tailgating and erratic lane changes. A 0.00 percent alcohol breath test result was obtained. A Drug Recognition Expert was called to examine the suspect and reported that the individual had bloodshot eyes, rapid and fragmented speech and a flushed face with largely dilated pupils. His eyes had no reaction to direct light and his pulse was elevated. Blood was drawn approximately 60 minutes after driving.

Item Contents and Preparation Concentration: Amphetamine (220 ng/mL)
Methamphetamine (600 ng/mL)
11-Nor-9-carboxy-delta-9-THC (150 ng/mL)

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
3N8VKE	Amphetamine		0.24	±0.05	mg/L
	Methamphetamine		0.65	±0.14	mg/L
	THC-COOH		140	± 18	ng/mL
3ZUAF2	Amphetamine		320		ng/mL
	Methamphetamine		700		ng/mL
	THC-COOH		130		ng/mL
4N9KJ7	Amphetamine		208	52	ng/mL
	Methamphetamine		560	96	ng/mL
	Delta-9-Carboxy THC		140	30	ng/mL
7DF9X4	Amphetamine		230		ng/mL
	Methamphetamine		580		ng/mL
	9-Carboxy-11-nor-delta-9-THC		130		ng/mL
7KCGLE	amphetamine		320		ng/mL
	methylamphetamine		660		ng/mL
	THC-COOH		150		ng/mL
8Y7K3B	Amphetamine		0.23	in progress	mg/L
	Methylamphetamine		0.61	in progress	mg/L
	11-nor-9-carboxy-delta-9-THC		160	in progress	µg/L
8YTQMB	Amphetamine		210	60	ng/mL
	Methamphetamine		520	120	ng/mL

TABLE 2A Item 2 Results

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
A2U742	Amphetamine		233.0		ng/mL
	Methamphetamine		>500.0		ng/mL
	Delta-9-THC-COOH [Carboxy-THC]		>50.0		ng/mL
AZHCN2	Amphetamine		250	17	ng/mL
	Methamphetamine		680	102	ng/mL
	Carboxytetrahydro cannabinol	✓			
CKA4WY	Amphetamine	✓			
	Methamphetamine	✓			
	THCC	✓			
CN242Z	THC-COOH	✓			
EMUKBP	11-nor-9-carboxy-delta-9 -tetrahydrocannabinol	✓			
HH7Z9T	Amphetamine	✓			
	Methamphetamine	✓			
	THCC	✓			
J243QJ	Amphetamine	✓			
	Methamphetamine	✓			
	Carboxy-Delta-9-THC	✓			
JQE2TK	amphetamine	✓			
	methamphetamine	✓			
	Carboxy-THC		>100		ng/mL
KBEQCR	Amphetamine	✓			
	Methamphetamine	✓			
KUGW8H	Amphetamine	✓			
	Methamphetamine	✓			
	Cannabinoids (THCA)	✓			
MQCQ6G	Amphetamin		199	12%	ng/mL
	metamphetamin		501	17%	ng/mL
	THCCOOH		120*		ng/mL

TABLE 2A Item 2 Results

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
N4RUMK	Amphetamine		220	39	
	Methylamphetamine		560	88	
	Delta-9-THC Acid		140	27	
NM7K4F	Amphetamine		0,250		µg/ml
	Methamphetamine		0,640		µg/ml
	Tetrahydrocannabinol acid		0,121		µg/ml
P2DQCF	Amphetamine		*see p. 8 of 9 [Table 4-Additional Comments]	16.1%	ng/mL
	Methamphetamine		*see p. 8 of 9 [Table 4-Additional Comments]	16.6%	ng/mL
	11-nor-9-carboxy-delta9-tetrahydrocannabinol (THCA)		*see p. 8 of 9 [Table 4-Additional Comments]	16.4%	ng/mL
QV6VLD	Amphetamine		267	+/-20%	
	Methamphetamine		692	+/-20%	
	Carboxy-THC		137	+/-20%	
RTWTKE	Amphetamines	✓			
	Delta-9-Carboxy-THC		155		ng/mL
TZ7PTD	Methyl Amphetamine	✓			
	Cannabis	✓			
UEBRX9	AMPHETAMINE		0.28		mg/L
	METHAMPHETAMINE		0.64		mg/L
UFZN6D	Amphetamine		254		ng/mL
	Methamphetamine		574		ng/mL
	THCCOOH		153		ng/mL
V79HZE	Amphetamine	✓			
	Methamphetamine	✓			
XJLPPB	Amphetamine	✓			
	Methamphetamine	✓			
	Caffeine	✓			

TABLE 2A Item 2 Results

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
ZH6CZ4	amphetamine		216	54	ng/ml
	methamphetamine		950	235	ng/ml
	11-nor-9-Carboxy-delta 9-THC		160	40	ng/ml
ZJVFTB	Amphetamine	✓			
	Methamphetamine	✓			
	THC-COOH	✓			
ZPMND6	Amphetamine	✓			
	Methamphetamine	✓			

Response Summary for Item 2		Participants: 31
Amphetamine:	28	(90.3%)
Methamphetamine:	28	(90.3%)
11-Nor-9-carboxy-delta-9-THC:	25	(80.6%)
Other:	1	(3.2%)

Raw Data - Item 2

List of raw data determinations in ng/mL.

TABLE 2B

Item 2 Raw Data - Amphetamine

Webcode	Raw Data (ng/mL)			Participant Mean
3N8VKE	242.20	267.48	216.92	242.2
3ZUAF2	320.00			320.0
4N9KJ7	208.00			208.0
7DF9X4	226.31			226.3
7KCGLE	330.00	300.00		315.0
8Y7K3B	236.00	230.00		233.0
8YTQMB	222.00	210.00	212.00	214.7
A2U742	233.14			233.1
AZHCN2	251.00	254.00		252.5
MQCQ6G	199.00			199.0
N4RUMK	214.00	217.00		215.5
P2DQCF	222.62	212.34		217.5
QV6VLD	267.00	268.00		267.5
UFZN6D	254.00			254.0
ZH6CZ4	216.00			216.0

Statistical Analysis for Item 2 - Amphetamine

Grand Mean	241.0	Number of Participants Included	15	Number of Participants without Raw Data or Data that was not reported in ng/mL	13
Standard Deviation	36.3	Number of Participants Excluded	0		

TABLE 2B

Item 2 Raw Data - Methamphetamine

Webcode	Raw Data (ng/mL)			Participant Mean
3N8VKE	651.59	664.66	638.58	651.6
3ZUAF2	700.00			700.0
4N9KJ7	560.00			560.0
7DF9X4	581.28			581.3
7KCGLE	660.00			660.0
8Y7K3B	604.00	608.00		606.0
8YTQMB	518.00	513.00	540.00	523.7
A2U742	648.41			648.4
AZHCN2	677.00			677.0
MQCQ6G	501.00			501.0
N4RUMK	561.00	558.00		559.5
P2DQCF	590.46	561.73		576.1
QV6VLD	692.00	693.00		692.5
UFZN6D	574.00			574.0
ZH6CZ4	950.00			950.0

Statistical Analysis for Item 2 - Methamphetamine

Grand Mean	630.7	Number of Participants Included	15	Number of Participants without Raw Data or Data that was not reported in ng/mL	13
Standard Deviation	107.5	Number of Participants Excluded	0		

TABLE 2B

Item 2 Raw Data - 11-Nor-9-carboxy-delta-9-THC

Webcode	Raw Data (ng/mL)		Participant Mean
3N8VKE	141.71		141.7
3ZUAF2	130.00		130.0
4N9KJ7	140.00		140.0
7DF9X4	133.20		133.2
7KCGLE	160.00	140.00	150.0
8Y7K3B	171.00	157.00	164.0
A2U742	93.56		93.6
N4RUMK	141.00	134.00	137.5
P2DQCF	145.72	146.85	146.3
QV6VLD	137.00	137.00	137.0
RTWTKE	155.00		155.0
UFZN6D	153.00		153.0
ZH6CZ4	160.00		160.0

Statistical Analysis for Item 2 - 11-Nor-9-carboxy-delta-9-THC

Grand Mean	141.6	Number of Participants Included	13	Number of Participants without Raw Data or Data that was not reported in ng/mL	12
Standard Deviation	17.8	Number of Participants Excluded	0		

Reporting Procedures - Item 2

If quantitative analysis was performed, the reported concentrations are:

TABLE 2C - Item 2

Webcode	Quantitative Reporting Procedures
3N8VKE	A single determination; The mean of duplicate/several determinations
3ZUAF2	A single determination
4N9KJ7	A single determination
7DF9X4	A single determination
7KCGLE	The mean of duplicate/several determinations
8Y7K3B	The mean of duplicate/several determinations.
8YTQMB	The mean of duplicate/several determinations
A2U742	A single determination
AZHCN2	The lowest of duplicate results
EMUKBP	A single determination
JQE2TK	A single determination
MQCQ6G	A single determination
N4RUMK	The mean of duplicate/several determinations
NM7K4F	A single determination
P2DQCF	*see p. 8 of 9 [Table 4- Additional Comments]
QV6VLD	The mean of duplicate/several determinations
RTWTKE	A single determination
UEBRX9	The mean of duplicate/several determinations
UFZN6D	A single determination
ZH6CZ4	A single determination

Response Summary for Item 2	Participants: 20
A single determination:	11 (55.0%)
The mean of duplicate/several determinations:	6 (30.0%)
Other:	3 (15.0%)

Method of Analysis - Item 2

TABLE 2D

Method of Analysis

Webcode	Method	Screening	Confirmatory	Quantitation
3N8VKE	Immunoassay	✓		
	GC/MS		✓	✓
	LC/MS/MS	✓	✓	✓
3ZUAF2	Immunoassay	✓		
	LC/MS/MS		✓	
4N9KJ7	Immunoassay	✓		
	GC/MS	✓	✓	✓
7DF9X4	Immunoassay	✓		
	GC/MS	✓	✓	✓
	LC/MS/MS		✓	✓
7KCGLE	LC/MS/MS	✓	✓	✓
	GC/MS	✓	✓	✓
8Y7K3B	Immunoassay	✓		
	LC/MS/MS		✓	✓
	LC/UV	✓		
8YTQMB	Immunoassay	✓		
	LC/MS/MS			✓
	LC-TOFMS	✓		
A2U742	Immunoassay	✓		
	GC/MS		✓	✓
AZHCN2	Immunoassay	✓		
	GC/MS	✓		
	LC/MS/MS		✓	✓
CKA4WY	Immunoassay	✓		
	GC/MS	✓	✓	
CN242Z	LC/MS/MS	✓		
EMUKBP	Immunoassay	✓		
	GC/MS		✓	
HH7Z9T	Immunoassay	✓		
	GC/MS		✓	
J243QJ	Immunoassay	✓		
	GC/MS		✓	

TABLE 2D

Method of Analysis

Webcode	Method	Screening	Confirmatory	Quantitation
JQE2TK	Immunoassay	✓		
	GC/MS		✓	✓
KBEQCR	LC/MS/MS	✓		
	GC/MS		✓	
KUGW8H	GC/MS	✓	✓	
MQCQ6G	GC/MS	✓		✓
	LC/MS/MS	✓		
N4RUMK	Immunoassay	✓		
	GC/MS		✓	✓
	LC QTOF MS	✓		
NM7K4F	LC-TOF	✓		
	Immunoassay	✓		
	LC/MS/MS		✓	✓
	GC/MS		✓	✓
P2DQCF	Immunoassay	✓		
	GC/MS	✓	✓	✓
QV6VLD	Immunoassay	✓		
	LC/TOF	✓		
	GC/MS		✓	✓
	GC/MS/MS		✓	✓
RTWTKE	Immunoassay	✓		
	GC/MS		✓	✓
TZ7PTD	Immunoassay	✓		
UEBRX9	LC/MS/MS		✓	✓
UFZN6D	Immunoassay	✓		
	GC/MS	✓		
	LC/MS/MS		✓	✓
V79HZE	Immunoassay	✓		
	GC/MS		✓	
XJLPPB	GC/MS	✓		
	LC/MS/MS	✓	✓	
ZH6CZ4	Immunoassay	✓		
	GC/MS		✓	✓

TABLE 2D

Method of Analysis

Webcode	Method	Screening	Confirmatory	Quantitation
ZJVFTB	Immunoassay	✓		
	GC/MS		✓	
ZPMND6	GC/MS	✓		
	LC/MS/MS	✓		

Additional Comments for Item 2

TABLE 2E

Webcode	Item 2 - Comments
3N8VKE	Internal standards used include: TCH-COOH-d9, amphetamine-d11, and methamphetamine-d11.
7KCGLE	nordiazepam-d5 used as internal standard in GC/MS method, not used for drug quantitation. Contemporaneous spiked blood samples at three known drug concentrations analysed simultaneously with samples for drug quantitation. Methylamphetamine-d9 used as internal standard in LC/MS/MS method. Limits of reporting (GC/MS) - methylamphetamine 23 ng/mL, amphetamine 44 ng/mL, THC-COOH 5 ng/mL (concentration not normally reported for metabolites, unless requested to do so). Limits of reporting (LC/MS/MS) - methylamphetamine 10 ng/mL, amphetamine 10 ng/mL, THC-COOH 10 ng/mL (concentration not normally reported for metabolites, unless requested to do so). Drug concentrations are usually reported in mg/L units (except for THC which is ug/L), and to one significant figure. For example drug concentrations 0.1 - 5.0 mg/L are reported to one decimal place, concentrations > 5.0 mg/L are reported as whole numbers only. Concentrations less than 0.1 mg/L are reported to two decimal places.
8Y7K3B	Denterated[sic] internal standards used.
8YTQMB	Deuterated internal standards were used for quantitations.
A2U742	Limit of quantification for Amphetamine/Methamphetamine is 500.0 ng/mL. Limit of quantification for Carboxy-THC is 50.0 ng/mL.
AZHCN2	Methamphetamine LOD 6.25 ng/mL, ISTD: Methamphetamine - D5. Amphetamine LOD 6.25 ng/mL, ISTD: Amphetamine - D5. Carboxytetrahydrocannabinol LOD 3.125 ng/mL, ISTD: Carboxytetrahydrocannabinol - D3.
CKA4WY	SPE-CSDAU (UCT). SPE-CSTHC (UCT) -basehyd/deriv. sylon BFT
CN242Z	Indications of the presence of both amphetamine and methamphetamine but below our screening cut-off of 10ng/ml and therefore not included in our above results. Method only screens for 43 compounds.
EMUKBP	Internal Standards: THC-COOH-D9, Limit of Detection: 2ng/mL
KUGW8H	Relatively low level of citalopram and tramadol detected in sample. Due to level, citalopram and tramadol was not reported.
MQCQ6G	* LQs=100ng/mL. The value of 120ng/mL is only an estimation of the concentration.
P2DQCF	THCA: I.S. = THCA-D3, LOD = 4 ng/mL. Methamphetamine: I.S. = Methamphetamine-D14, LOD = 10 ng/mL. Amphetamine: I.S. = Amphetamine-D11, LOD = 10 ng/mL.
QV6VLD	Carboxy-THC quant by GC/MS/MS, Methamp and amphet quant by GC/MS
TZ7PTD	Analysed using Randox Evidence Investigator
V79HZE	ISTD: Phenyltoloxamine, Hexobarbital and 11-hydroxy- THCC
XJLPPB	Internal standard used: cocaine-d3, methaqualone
ZJVFTB	Sylon BFT (derivatizing agent), 11-OH-THC (internal reference material), Phenyltoloxamine (internal reference material)

Reported Results - Item 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.

TABLE 3A Item 3 Results

Item 3 Scenario:

A 60-year-old female has agreed to submit to regular monitoring of her pain management therapy for mild to moderate chronic pain. A blood sample was taken and submitted for analysis.

Item Contents and Preparation Concentration: Codeine (400ng/mL)
Morphine (200 ng/mL)

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
3N8VKE	Codeine		0.33	±0.07	mg/L
	Morphine		0.17	±0.04	mg/L
3ZUAF2	Codeine		350		ng/mL
	Morphine		160		ng/mL
4N9KJ7	Codeine		332	64	ng/mL
	Morphine		193	31	ng/mL
7DF9X4	Codeine		470		ng/mL
	Morphine		310		ng/mL
7KCGLE	codeine		370		ng/mL
	morphine		160		ng/mL
8Y7K3B	Codeine		410	11.2%	ng/mL
	Morphine		220	11.5%	ng/mL
8YTQMB	Codeine		380	100	ng/mL
	Morphine		170	50	ng/mL
A2U742	Codeine		387.0		ng/mL
	Morphine		200.0		ng/mL
AZHCN2	Codeine		400	66	ng/mL
	Morphine		210	30	ng/mL
CKA4WY	Codeine	✓			
	Morphine	✓			
CN242Z	Codeine	✓			
	Morphine	✓			
EMUKBP	Codeine		368	48	ng/mL
	Morphine		186	45	ng/mL

TABLE 3A Item 3 Results

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
HH7Z9T	Codeine	✓			
	Morphine	✓			
J243QJ	Codeine	✓			
	Morphine	✓			
JQE2TK	codeine		478		ng/mL
	morphine		>200		ng/mL
KBEQCR	Codeine	✓			
KUGW8H	Codeine	✓			
	Morphine	✓			
MQCQ6G	codeine		355	7%	ng/mL
	Morphine		175	12%	ng/mL
N4RUMK	Codeine (free)		540	100	
	Morphine (free)		210	51	
NM7K4F	Codeine		0,396		µg/ml
	Morphine		0,204		µg/ml
P2DQCF	Codeine		*see p. 8 of 9 [Table 4-Additional Comments]	13.5%	ng/mL
	Morphine		*see p. 8 of 9 [Table 4-Additional Comments]	13.0%	ng/mL
QV6VLD	Codeine		399	+/-20%	
	Morphine		186	+/-20%	
RTWTKE	Codeine		400		ng/mL
	Morphine		210		ng/mL
TZ7PTD	Opiates (morphine)	✓			
UEBRX9	CODEINE		0.43		mg/L
	MORPHINE		0.22		mg/L
UFZN6D	Codeine		408		ng/mL
	Morphine		182		ng/mL
V79HZE	Codeine	✓			
XJLPPB	Codeine	✓			
	Caffeine	✓			
ZH6CZ4	morphine		190	47	ng/ml

TABLE 3A Item 3 Results

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
ZJVFTB	Codeine	✓			
	Morphine	✓			
ZPMND6	Diazepam	✓			
	EDDP (Methadone metabolite)	✓			
	Methadone	✓			

Response Summary for Item 3		Participants: 31
Codeine:	28 (90.3%)	
Morphine:	27 (87.1%)	
Other:	4 (12.9%)	

Raw Data - Item 3

List of raw data determinations in ng/mL.

TABLE 3B

Item 3 Raw Data - Codeine

Webcode	Raw Data (ng/mL)	Participant Mean
3N8VKE	330.02	330.0
3ZUAF2	350.00	350.0
4N9KJ7	332.00	332.0
7DF9X4	472.76	472.8
7KCGLE	370.00 380.00 360.00 380.00	372.5
8Y7K3B	413.50 398.80	406.2
8YTQMB	380.00 370.00 390.00	380.0
A2U742	387.13	387.1
AZHCN2	397.00 388.00	392.5
EMUKBP	368.00	368.0
JQE2TK	478.00	478.0
MQCQ6G	355.00	355.0
N4RUMK	526.00 544.00	535.0
P2DQCF	372.30 352.64	362.5
QV6VLD	395.00 403.00	399.0
RTWTKE	400.00	400.0
UFZN6D	408.00	408.0

Statistical Analysis for Item 3 - Codeine

Grand Mean	395.8	Number of Participants Included	17	Number of Participants without Raw Data or Data that was not reported in ng/mL	11
Standard Deviation	54.3	Number of Participants Excluded	0		

TABLE 3B

Item 3 Raw Data - Morphine

Webcode	Raw Data (ng/mL)	Participant Mean
3N8VKE	172.05	172.1
3ZUAF2	160.00	160.0
4N9KJ7	193.00	193.0
7DF9X4	306.57	306.6
7KCGLE	160.00	160.0
8Y7K3B	214.80 216.50	215.7
8YTQMB	192.00 168.00 173.00	177.7
A2U742	200.06	200.1
AZHCN2	208.00 213.00	210.5
EMUKBP	186.00	186.0
MQCQ6G	175.00	175.0
N4RUMK	207.00 211.00	209.0
P2DQCF	177.01 172.58	174.8
QV6VLD	184.00 187.00	185.5
RTWTKE	210.00	210.0
UFZN6D	182.00	182.0
ZH6CZ4	190.00	190.0

Statistical Analysis for Item 3 - Morphine

Grand Mean	194.6	Number of Participants Included	17	Number of Participants without Raw Data or Data that was not reported in ng/mL	10
Standard Deviation	33.6	Number of Participants Excluded	0		

Reporting Procedures - Item 3

If quantitative analysis was performed, the reported concentrations are:

TABLE 3C - Item 3

WebCode	Quantitative Reporting Procedures
3N8VKE	A single determination
3ZUAF2	A single determination
4N9KJ7	A single determination
7DF9X4	A single determination
7KCGLE	The mean of duplicate/several determinations
8Y7K3B	The mean of duplicate/several determinations.
8YTQMB	The mean of duplicate/several determinations
A2U742	A single determination
AZHCN2	The lower of the duplicate results.
EMUKBP	A single determination
JQE2TK	A single determination
MQCQ6G	A single determination
N4RUMK	The mean of duplicate/several determinations
NM7K4F	A single determination
P2DQCF	*see p. 8 of 9 [Table 4-Additional Comments]
QV6VLD	The mean of duplicate/several determinations
RTWTKE	A single determination
UEBRX9	The mean of duplicate/several determinations
UFZN6D	A single determination
ZH6CZ4	A single determination

Response Summary for Item 3		Participants: 20
A single determination:	12 (60.0%)	
The mean of duplicate/several determinations:	6 (30.0%)	
Other:	2 (10.0%)	

Method of Analysis - Item 3

TABLE 3D

Method of Analysis

WebCode	Method	Screening	Confirmatory	Quantitation
3N8VKE	Immunoassay	✓		
	GC/MS		✓	✓
3ZUAF2	Immunoassay	✓		
	GC/MS		✓	
4N9KJ7	Immunoassay	✓		
	GC/MS	✓		
	LC/MS/MS		✓	✓
7DF9X4	Immunoassay	✓		
	GC/MS	✓	✓	✓
7KCGLE	GC/MS	✓	✓	✓
	LC/MS/MS	✓	✓	✓
8Y7K3B	Immunoassay	✓		
	LC/MS/MS		✓	✓
8YTQMB	Immunoassay	✓		
	GC/MS	✓		✓
	LC/MS/MS			✓
	LC-TOFMS	✓		
A2U742	Immunoassay	✓		
	GC/MS		✓	✓
AZHCN2	Immunoassay	✓		
	GC/MS	✓		
	LC/MS/MS		✓	✓
CKA4WY	Immunoassay	✓		
	GC/MS	✓	✓	
CN242Z	LC/MS/MS	✓		
EMUKBP	Immunoassay	✓		
	GC/MS		✓	✓
HH7Z9T	Immunoassay	✓		
	GC/MS		✓	

TABLE 3D
Method of Analysis

WebCode	Method	Screening	Confirmatory	Quantitation
J243QJ	Immunoassay	✓		
	GC/MS		✓	
JQE2TK	Immunoassay	✓		
	GC/MS		✓	✓
KBEQCR	LC/MS/MS	✓		
	GC/MS		✓	
KUGW8H	GC/MS	✓	✓	
MQCQ6G	GC/MS	✓		✓
	LC/MS/MS	✓		
N4RUMK	Immunoassay	✓		
	LC/MS/MS		✓	✓
	LC QTOF MS	✓		
NM7K4F	LC-TOF	✓		
	GC/MS		✓	✓
P2DQCF	Immunoassay	✓		
	GC/MS	✓	✓	✓
QV6VLD	Immunoassay	✓		
	GC/MS	✓		
	LC/TOF	✓		
	LC/MS/MS		✓	✓
RTWTKE	Immunoassay	✓		
	LC/MS		✓	✓
TZ7PTD	Immunoassay	✓		
UEBRX9	LC/MS/MS		✓	✓
UFZN6D	Immunoassay	✓		
	GC/MS	✓		
	LC/MS/MS		✓	✓
V79HZE	Immunoassay	✓		
	GC/MS		✓	
XJLPPB	LC/MS/MS	✓	✓	
	GC/MS	✓		

TABLE 3D

Method of Analysis

WebCode	Method	Screening	Confirmatory	Quantitation
ZH6CZ4	Immunoassay	✓		
	GC/MS		✓	✓
ZJVFTB	Immunoassay	✓		
	GC/MS		✓	
ZPMND6	GC/MS	✓		
	LC/MS/MS	✓		

Additional Comments for Item 3

TABLE 3E

WebCode	Item 3 - Comments
3N8VKE	Internal standard used include - nalorphine
7KCGLE	nordiazepam-d5 used as internal standard in GC/MS method, not used for drug quantitation. Contemporaneous spiked blood samples at three known drug concentrations analysed simultaneously with samples for drug quantitation. Morphine-d3 used as internal standard in LC/MS/MS method. Limits of reporting (GC/MS) - morphine 23 ng/mL, codeine 60 ng/mL. Limits of reporting (LC/MS/MS) - morphine 10 ng/mL, codeine 10 ng/mL. Drug concentrations are usually reported in mg/L units (except for THC which is ug/L), and to one significant figure. For example drug concentrations 0.1 - 5.0 mg/L are reported to one decimal place, concentrations > 5.0 mg/L are reported as whole numbers only. Concentrations less than 0.1 mg/L are reported to two decimal places.
8Y7K3B	Denterated[sic] IS's for codeine & morphine. Results reported to 2 significant figures (full validated method).
8YTQMB	Deuterated internal standards were used for quantitations.
AZHCN2	Morphine LOD 12.5 ng/mL, ISTD: Morphine - D6. Codeine LOD 12.5 ng/mL, ISTD: Codeine - D6.
CKA4WY	SPE - CSDAU(UCT)
CN242Z	Method only screen for 43 compounds
EMUKBP	Internal Standards: Cocaine-D3, Benzoylecgonine-D3, Codeine-D6, Morphine-D6. Limit of Detection: Cocaine=10ng/mL, Benzoylecgonine=10ng/mL, Codeine=20ng/mL, Hydrocodone=10ng/mL, Hydromorphone=10ng/mL, Morphine=20ng/mL, Oxycodone=20ng/mL
P2DQCF	Morphine: IS = Morphine-D3, LOD = 20 ng/mL. Codeine: I.S. = Codeine-D3, LOD = 10 ng/mL.
QV6VLD	Codeine and morphine quant by LC/MS/MS
TZ7PTD	Analysed using Randox Evidence Investigator
V79HZE	ISTD: Phenyltoloxamine and Hexobarbital
XJLPPB	Internal standard used: cocaine-d3, methaqualone
ZJVFTB	Phenyltoloxamine (internal reference material)
ZPMND6	Traces of Tramadol detected

Additional Test Comments

TABLE 4

WebCode	Additional Comments
N4RUMK	All cases screened by Immunoassay and LC QTOF MS. This is the first submission to this program via this laboratory. Some stability study work was done last year.
P2DQCF	*In typical case work when two blood tubes are submitted on one case, we analyze only one tube, reserving the other tube for defense testing. However, the CTS instructions on p.1 of 9 say "to analyze each vial." Therefore, we have two results per case not averaged.

Appendix: Data Sheet

Collaborative Testing Services ~ Forensic Testing Program

Test No. 14-5661: Blood Drug Analysis

DATA MUST BE RECEIVED BY *November 24, 2014* TO BE INCLUDED IN THE REPORT

Participant Code: WebCode:

Accreditation Release Statement

CTS submits external proficiency test data directly to ASCLD/LAB and ANSI-ASQ NAB/FQS. Please select one of the following statements to ensure your data is handled appropriately.

☐ This participant's data is intended for submission to ASCLD/LAB and/or ANSI-ASQ NAB/FQS. (Accreditation Release section on the last page must be completed and submitted.)

☐ This participant's data is NOT intended for submission to ASCLD/LAB or ANSI-ASQ NAB/FQS.

Online Data Entry

Visit www.cts-portal.com to enter your proficiency test results online. If you have any questions please do not hesitate to contact CTS.

Scenario:

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

Case 1: A 40-year-old female who had recently begun a pain management program for moderate pain was found dead in her home Sunday morning. Her husband stated that for the entire day prior to her death she had been extremely drowsy and had complained of dizziness and an upset stomach. The victim appeared to have succumbed to cardiac/respiratory depression. Femoral blood was collected at autopsy.

Case 2: A 29-year-old male was pulled over due to observed tailgating and erratic lane changes. A 0.00 percent alcohol breath test result was obtained. A Drug Recognition Expert was called to examine the suspect and reported that the individual had bloodshot eyes, rapid and fragmented speech and a flushed face with largely dilated pupils. His eyes had no reaction to direct light and his pulse was elevated. Blood was drawn approximately 60 minutes after driving.

Case 3: A 60-year-old female has agreed to submit to regular monitoring of her pain management therapy for mild to moderate chronic pain. A blood sample was taken and submitted for analysis.

Instructions:

-Please do not report the presence/concentration of drugs in concentrations less than 10ng/mL.
-The purpose of this test is the examination of drugs other than alcohol. Please test accordingly. Samples may contain methanol, acetonitrile, and reportable amounts (>10ng/mL) of Tramadol as artifacts from production.

Items Submitted (Sample Pack BDRG):

Items 1: Two vials of femoral blood from Case 1

Items 2: Two vials of blood from Case 2

Items 3: Two vials of blood from Case 3

Please return all pages of this data sheet.

Results for Item 1:

1-1.) Date Samples Received: ____________________

1-2.) What drugs/metabolites were detected in Item 1? If quantitative determinations were performed, please record raw data in the provided spaces in ng/mL.

The number of boxes shown does not indicate the number of analytes present. If additional space is needed, copy this page or attach your own form following this layout.

☐ No drugs/metabolites detected

Analyte	Qualitative Only?	Reported Concentration	Uncertainty	Units
____________	☐	____________	________	(______)

Date(s) Quantitative Analysis Performed on Analyte: ____________________

Raw Data (ng/mL):

__________ __________ __________ __________

Analyte	Qualitative Only?	Reported Concentration	Uncertainty	Units
____________	☐	____________	________	(______)

Date(s) Quantitative Analysis Performed on Analyte: ____________________

Raw Data (ng/mL):

__________ __________ __________ __________

Analyte	Qualitative Only?	Reported Concentration	Uncertainty	Units
____________	☐	____________	________	(______)

Date(s) Quantitative Analysis Performed on Analyte: ____________________

Raw Data (ng/mL):

__________ __________ __________ __________

Please return all pages of this data sheet.

Results for Item 1 (continued):

1-3) If quantitative analysis was performed, are the reported concentrations for Item 1:

☐ A single determination? ☐ The mean of duplicate / several determinations?

☐ Other? (Specify): _____

1-4.) Please check the methods used to analyze Item 1 by selecting whether each method used was for screening, confirmatory testing and/or quantitation.

Method Used	Screening	Confirmatory	Quantitation
Immunoassay	☐	☐	☐
GC/MS	☐	☐	☐
LC/MS	☐	☐	☐
LC/MS/MS	☐	☐	☐
Other: _____	☐	☐	☐
Other: _____	☐	☐	☐

1-5.) Additional Comments for Item 1

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

_____

_____

_____

_____

_____

_____

Please return all pages of this data sheet.

Results for Item 2:

2-1.) Date Samples Received: ____________________

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

The number of boxes shown does not indicate the number of analytes present. If additional space is needed, copy this page or attach your own form following this layout.

☐ No drugs/metabolites detected

Analyte	Qualitative Only?	Reported Concentration	Uncertainty	Units
____________	☐	____________	________	(______)

Date(s) Quantitative Analysis Performed on Analyte: ____________________

Raw Data (ng/mL):

________ ________ ________ ________

Analyte	Qualitative Only?	Reported Concentration	Uncertainty	Units
____________	☐	____________	________	(______)

Date(s) Quantitative Analysis Performed on Analyte: ____________________

Raw Data (ng/mL):

________ ________ ________ ________

Analyte	Qualitative Only?	Reported Concentration	Uncertainty	Units
____________	☐	____________	________	(______)

Date(s) Quantitative Analysis Performed on Analyte: ____________________

Raw Data (ng/mL):

________ ________ ________ ________

Please return all pages of this data sheet.

Results for Item 2 (continued):

2-3) If quantitative analysis was performed, are the reported concentrations for Item 2:

☐ A single determination? ☐ The mean of duplicate / several determinations?

☐ Other? (Specify): _____

2-4.) Please check the methods used to analyze Item 2 by selecting whether each method used was for screening, confirmatory testing and/or quantitation.

Method Used	Screening	Confirmatory	Quantitation
Immunoassay	☐	☐	☐
GC/MS	☐	☐	☐
LC/MS	☐	☐	☐
LC/MS/MS	☐	☐	☐
Other: _____	☐	☐	☐
Other: _____	☐	☐	☐

2-5.) Additional Comments for Item 2

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

_____

_____

_____

_____

_____

_____

Please return all pages of this data sheet.

Results for Item 3:

3-1.) Date Samples Received: ______________________

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

The number of boxes shown does not indicate the number of analytes present. If additional space is needed, copy this page or attach your own form following this layout.

☐ No drugs/metabolites detected

Analyte	Qualitative Only?	Reported Concentration	Uncertainty	Units
______________	☐	______________	______________	(______)

Date(s) Quantitative Analysis Performed on Analyte: ______________________

Raw Data (ng/mL):

__________ __________ __________ __________

Analyte	Qualitative Only?	Reported Concentration	Uncertainty	Units
______________	☐	______________	______________	(______)

Date(s) Quantitative Analysis Performed on Analyte: ______________________

Raw Data (ng/mL):

__________ __________ __________ __________

Analyte	Qualitative Only?	Reported Concentration	Uncertainty	Units
______________	☐	______________	______________	(______)

Date(s) Quantitative Analysis Performed on Analyte: ______________________

Raw Data (ng/mL):

__________ __________ __________ __________

Please return all pages of this data sheet.

Results for Item 3 (continued):

3-3) If quantitative analysis was performed, are the reported concentrations for Item 3:

☐ A single determination? ☐ The mean of duplicate / several determinations?

☐ Other? (Specify): _____

3-4.) Please check the methods used to analyze Item 3 by selecting whether each method used was for screening, confirmatory testing and/or quantitation.

Method Used	Screening	Confirmatory	Quantitation
Immunoassay	☐	☐	☐
GC/MS	☐	☐	☐
LC/MS	☐	☐	☐
LC/MS/MS	☐	☐	☐
Other: _____	☐	☐	☐
Other: _____	☐	☐	☐

3-5.) Additional Comments for Item 3

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

_____

_____

_____

_____

_____

_____

Please return all pages of this data sheet.

Participant Code:
WebCode:

Additional Comments on Test

Return Instructions: Data must be received via online data entry, fax (please include a cover sheet), or mail by *November 24, 2014* to be included in the report.

QUESTIONS?
TEL: +1-571-434-1925 (8 am - 4:30 pm EST)
EMAIL: forensics@cts-interlab.com
www.ctsforensics.com

Participant Code:

ONLINE DATA ENTRY: www.cts-portal.com

FAX: +1-571-434-1937
or Toll-Free: 1-866-FAX-2CTS (329-2287)

MAIL: Collaborative Testing Services, Inc.
P.O. Box 650820
Sterling, VA 20165-0820 USA

Please return all pages of this data sheet.

RELEASE OF DATA TO ACCREDITATION BODIES

The following Accreditation Releases will apply only to:

Participant Code: WebCode:

for Test No. **14-5661: Blood Drug Analysis**

This release page must be completed and received by ***November 24, 2014*** to have this participant's submitted data included in the reports forwarded to the respective Accreditation Bodies.

ASCLD/LAB RELEASE

If your lab has been accredited by ASCLD/LAB and you are submitting this data as part of their external proficiency test requirements, have the laboratory's designated individual complete the following.
The information below must be completed in its entirety for the results to be submitted to ASCLD/LAB.

ASCLD/LAB Legacy Certificate No. _____ ASCLD/LAB International Certificate No. _____

Signature _____ Date _____

Laboratory Name _____

Location (City/State) _____

ANSI-ASQ NAB/FQS RELEASE

If your laboratory maintains its accreditation through ANSI-ASQ NAB/FQS, please complete the following form in its entirety to have your results forwarded.

ANSI-ASQ NAB/FQS Certificate No. _____

Signature and Title _____ Date _____

Laboratory Name _____

Location (City/State) _____

Accreditation Release

Return Instructions

Please submit the completed Accreditation Release at the same time as your full data sheet. See Data Sheet Return Instructions on the previous page.

Questions? Contact us 8 am-4:30 pm EST
Telephone: +1-571-434-1925
email: forensics@cts-interlab.com

Please return all pages of this data sheet.