



Urine Drug Analysis Test No. 17-5671 Summary Report

A sample set contained three cases with individual scenarios, each comprised of one specimen bottle of human urine. Participants were requested to examine these items and report their findings. Data were returned from 93 participants and are compiled into the following tables:

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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 urine samples from three cases, each with an individual case scenario. Each case sample consisted of one specimen bottle containing 50mL of human urine. Participants were requested to analyze the urine samples and report the presence of any drugs/metabolites, any quantitative data obtained (including uncertainty), and the methods used.

SAMPLE PREPARATION: The urine used in this test was from the same lot, which tested negative for a variety of common drugs and controlled substances. A stock solution of each drug was used to spike each item. Items were prepared at separate times with different glassware using the following procedure.

ITEMS 1, 2, and 3 (PREPARATION): Sample preparation consisted of adding a predetermined amount of drug stock solution to a beaker containing human urine, where the equivalent of 2% w/v sodium fluoride was added and then stirred. A 50mL aliquot of the mixture was then transferred into each of the pre-labeled specimen bottles. All bottles were stored in a refrigerator immediately after production and remained there until the sample sets were prepared.

SAMPLE SET ASSEMBLY: A sample set was created by packing Items 1, 2, and 3 together. Each sample set was placed into a Department of Transportation regulated shipping container and returned to the refrigerator until shipment.

VERIFICATION: All three of the laboratories that conducted predistribution analysis of the samples indicated the presence of the expected drugs and/or a minimum of one expected metabolite per drug.

Item 1 Drug (Concentration)

Morphine (2500 ng/mL)
Hydromorphone (75 ng/mL)
7-aminoclonazepam (95 ng/mL)

Item 2 Drug (Concentration)

Methamphetamine (3000 ng/mL)
Amphetamine (390 ng/mL)

Item 3 Drug (Concentration)

Ketamine (250 ng/mL)
Norketamine (625 ng/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.

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 urine. Each participant was supplied with one specimen bottle containing 50mL of human urine 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), and methods used. (Refer to the Manufacturer's Information for preparation details.)

Of the 88 participants who reported screening results for Item 1, 86 (97.7%) reported the presence of opiates, morphine, and/or hydromorphone. Seven participants reported the presence of benzodiazepines and/or 7-aminoclonazepam. All 82 of the participants who reported confirmatory results for Item 1 reported the presence of morphine. The presence of hydromorphone was reported by 44 (53.7%) participants and the presence of 7-aminoclonazepam was reported by 11 (13.4%) participants.

Of the 90 participants who reported screening results for Item 2, 86 (95.6%) reported the presence of methamphetamine and/or amphetamine. All 87 participants who reported confirmatory results for Item 2 reported the presence of methamphetamine. The presence of amphetamine was also reported by 83 (95.4%) participants.

Of the 87 participants who reported screening results for Item 3, 50 (57.5%) reported "no drugs/metabolites detected" and 35 (40.2%) participants reported the presence of ketamine and/or norketamine. Of the 75 participants who reported confirmatory results for Item 3, 73 (97.3%) reported the presence of Ketamine. The presence of norketamine was also reported by 35 (46.7%) participants. Since immunoassays for ketamine are typically not used as often, this may explain the large number of participants who reported that they did not detect any drugs/metabolites as a result of screening testing. A majority of the participants that moved forward with further testing confirmed the presence of ketamine. Some laboratory protocols require further testing after negative screening results, depending on the type of case. The scenario for this item, a suspected drug facilitated sexual assault, may explain the large number of participants who moved forward with further testing and were ultimately able to identify ketamine.

For all three Items, immunoassay was the most common screening method and GC/MS was the most common confirmatory method utilized to analyze the samples.

If a participant indicated that the confirmatory quantitative result was a single determination and it was reported in ng/mL, the conclusive quantitative result was included in the raw data table. Due to the small number of participants who reported quantitative information, no grand mean statistics were calculated or determinations regarding "extreme" data made for any of the analytes in the three items.

Screening Results - Item 1

TABLE 1A Item 1

Item Scenario:

Case 1: A 76-year-old female has agreed to submit to regular monitoring of her pain management for severe chronic pain due to rheumatoid arthritis. A urine sample has been submitted for analysis.

Item Contents and Preparation Concentration: Morphine (2500 ng/mL)
Hydromorphone (75 ng/mL)
7-aminoclonazepam (95 ng/mL)

| Webcode | Screening Results |
|---------|--|
| 2CRT9C | Common opioids class |
| 2JL3EZ | Morphine (MOP) |
| 2LBAYX | Opiates |
| 2NGRZE | morphine, hydromorphone |
| 39JZRH | MORPHINE, HYDROMORPHONE, 7-AMINOCLONAZEPAM |
| 3DRM4Y | Opiates (Morphine) |
| 3XL4NV | Opiates - morphine, hydromorphone |
| 3ZPWLZ | Morphine, 7-amino-clonazepam |
| 4RRLQV | Morphine |
| 4T4HWZ | Opiates |
| 6MFV4F | Drug Class - Opiates |
| 6TKW2N | opioids |
| 7322NE | Opiates |
| 7G77WR | Morphine, Hydromorphone |
| 7HF4AA | Common Opioids |
| 87GTCL | opioids |
| 8LAPCW | Opiates |
| 8Q79EU | [Participant reported that drugs were detected, but did not report the drug class or name] |
| 9HPTN7 | Opiates |
| AJFKRM | Opiates |
| AXFE6H | Opiates |
| AYTUWX | OPIATE |
| B8Y9W6 | Opioids |
| BH2CJM | Morphine |
| BL2PZK | Opiates |
| C2AXKL | OPIATES / OPIOIDS |
| C4FJ8L | Morphine |
| CTC78K | Opiates |

TABLE 1A Item 1

| Webcode | Screening Results |
|---------|--|
| D4VYZT | Opiates |
| DBX9A8 | Opiates |
| DKFQZT | Opiates |
| DNLBRY | opiates, morphine, hydromorphone |
| DZC3C3 | Opiates (morphine, hydromorphone) |
| EHNDDR | Opiates |
| EKDKXP | In the screening done to the urine sample the presence of opiates was detected. |
| F3QJKX | Opiates/Morphine |
| F6JCFG | Opiates |
| F9D7DH | opiates |
| FKUY2R | EMIT Screen: positive for opiate; GC/MS possible: Flucanazole, 7-Aminoclonazepam, Morphine |
| FQW3RQ | opiate |
| G6X2EM | Opiates |
| G84JF4 | Opiates |
| GME3AP | opiates |
| H8WUNC | Opiates |
| HDZXFV | Opiates |
| J23EEV | opioids |
| JEB3PD | Opiates and Opiods |
| JHWPJL | Opiates |
| JM4DY9 | opiates (class) |
| JQ6GPB | Opiate-drug class |
| KPPG6L | Opiates |
| KVEXGB | opiates |
| L2EVL | common opioids |
| MJFWYR | Opioid EIA was indicative |
| MLG3CC | Morphine |
| MXMXU | opioids |
| MZMUHQ | Morphine, Hydromorphone |
| NQDW68 | Hydromorphone and Morphine |
| P3ZHTD | MORPHINE |
| P87BH3 | Opiates |
| PAEJRM | opioids |
| PEWJAN | Opiate drug class, 7-amino-clonazepam |

TABLE 1A Item 1

| Webcode | Screening Results |
|---------|--|
| PUMNDB | Opiates |
| Q944V2 | benzodiazepines and opiates, Morphine and Hydromorphone |
| QGRW6C | opiate |
| QJJVF6 | The specimen screened positive for Opiates. |
| RJXHTC | opiates |
| RNBF3K | opiates |
| UFQ7L2 | Opiates |
| UJDHQY | Opiates |
| UYMCE3 | Opiates |
| V7JL37 | Opiates |
| VJLAWL | opioids |
| VQ839K | opioids |
| VQM73C | Opiates;Morphine |
| VTW9TG | opioids |
| VX6W7J | Common opioids |
| WNTZW7 | [Participant reported that drugs were detected, but did not report the drug class or name] |
| WUHG9W | Opiate |
| XGR3QE | OPIOIDS |
| XNTGAV | Opiates |
| XWH8U2 | Opiates class positive |
| Y9WMDU | opiate class |
| YEGMT8 | Opiates, Steroids, Fluconazole, 7-Aminoclonazepam |
| YEHFQF | Opiates (morphine and hydromorphone) |
| YG9JJM | Drug Class - Opiates |
| YV7VQ6 | Morphine, Hydromorphone, 7-Aminoclonazepam |
| ZBE47Y | morphine, hydromorphone |

| Response Summary for Item 1 | Participants: 88 |
|--|------------------|
| Opiates, morphine and/or hydromorphone: | 86 |
| Benzodiazepines and/or 7-aminoclonazepam: | 7 |
| Other: | 3 |
| <p>Totals may add up to more than the total number of participants because participants can report multiple classes/drug names.</p> | |

Confirmatory Results - Item 1

What drugs/metabolites were detected in Item 1?

TABLE 1B Item 1

Item Scenario:

Case 1: A 76-year-old female has agreed to submit to regular monitoring of her pain management for severe chronic pain due to rheumatoid arthritis. A urine sample has been submitted for analysis.

Item Contents and Preparation Concentration: Morphine (2500 ng/mL)
Hydromorphone (75 ng/mL)
7-aminoclonazepam (95 ng/mL)

| Webcode | Analyte Reported | Qualitative Only | Reported Concentration | Uncertainty | Units |
|---------|--------------------|------------------|------------------------|-------------|-------|
| 2CRT9C | morphine | ✓ | | | |
| | hydromorphone | ✓ | | | |
| 2JL3EZ | Morphine | ✓ | | | |
| 2LBAYX | Morphine | | 2.4 | | ug/mL |
| 2NGRZE | morphine | ✓ | | | |
| | hydromorphone | ✓ | | | |
| 39JZRH | MORPHINE | | 2000 | 20% | ug/L |
| | HYDROMORPHONE | ✓ | | | |
| | 7-AMINOCLONAZEPAM | | 55 | 20% | ug/L |
| 3XL4NV | Morphine | ✓ | | | |
| | Hydromorphone | ✓ | | | |
| 3ZPWLZ | Morphine | ✓ | | | |
| | 7- aminoclonazepam | ✓ | | | |
| 4RRLQV | Morphine | ✓ | | | |
| 4T4HWZ | Morphine | ✓ | | | |
| 6TKW2N | morphine | ✓ | | | |
| | hydromorphone | ✓ | | | |
| 7G77WR | Morphine | ✓ | | | |
| | Hydromorphone | ✓ | | | |
| 7HF4AA | Morphine | ✓ | | | |
| | Hydromorphone | ✓ | | | |
| 87GTCL | morphine | ✓ | | | |
| | hydromorphone | ✓ | | | |
| 8LAPCW | Morphine | ✓ | | | |
| 8Q79EU | Morphin | | | | |
| 9EREYV | Morphine | ✓ | | | |
| 9HPTN7 | Morphine | | 2.32 | ± 0.40 | µg/mL |
| AXFE6H | Morphine | ✓ | | | |

TABLE 1B Item 1

| Webcode | Analyte Reported | Qualitative Only | Reported Concentration | Uncertainty | Units |
|---------|-------------------|------------------|------------------------|-------------|-------|
| AYTUWX | MORPHINE | ✓ | | | |
| | 7-AMINOCLONAZEPAM | ✓ | | | |
| B8Y9W6 | Morphine | ✓ | | | |
| | Hydromorphone | ✓ | | | |
| BFC6YQ | Morphine | | 1989.6 | | ng/ml |
| | Hydromorphone | | 94.5 | | ng/ml |
| | 7-aminoclonazepam | | 34.4 | | ng/ml |
| BH2CJM | Morphine | ✓ | | | |
| BL2PZK | morphine | ✓ | | | |
| | hydromorphone | ✓ | | | |
| C2AXKL | MORPHINE | ✓ | | | |
| | HIDROMORPHONE | ✓ | | | |
| C4FJ8L | Morphine | ✓ | | | |
| CTC78K | Morphine | ✓ | | | |
| DKFQZT | Morphine | ✓ | | | |
| | Hydromorphone | ✓ | | | |
| DNLBRY | morphine | ✓ | | | |
| | hydromorphone | | | | |
| DZC3C3 | Morphine | ✓ | | | |
| | Hydromorphone | ✓ | | | |
| EHNDDR | Morphine | ✓ | | | |
| | Hydromorphone | ✓ | | | |
| EKDKXP | Morphine | ✓ | | | |
| F3QJKX | Morphine | | 2.22 µg/mL | ± 0.39 | µg/mL |
| F6JCFG | Morphine | ✓ | | | |
| F9D7DH | morphine | ✓ | | | |
| FKUY2R | Morphine | ✓ | | | |
| | 7-Aminoclonazepam | ✓ | | | |
| FQW3RQ | morphine | ✓ | | | |
| G6X2EM | Morphine | | 2202 | | ng/ml |
| | 7-aminoclonazepam | ✓ | | | |
| GME3AP | morphine | ✓ | | | |
| H8WUNC | Morphine | ✓ | | | |
| | Hydromorphone | ✓ | | | |
| HDZXFV | Morphine | ✓ | | | |

TABLE 1B Item 1

| Webcode | Analyte Reported | Qualitative Only | Reported Concentration | Uncertainty | Units |
|---------|----------------------|------------------|------------------------|-------------|-------|
| J23EEV | morphine | ✓ | | | |
| | hydromorphone | ✓ | | | |
| JEB3PD | morphine | ✓ | | | |
| JHWPJL | Morphine | ✓ | | | |
| JM4DY9 | morphine | ✓ | | | |
| JQ6GPB | Morphine | ✓ | | | |
| | Hydromorphone | ✓ | | | |
| KPPG6L | Morphine | ✓ | | | |
| | Hydromorphone | ✓ | | | |
| | 6-Monoacetylmorphine | ✓ | | | |
| KVEXGB | morphine | ✓ | | | |
| | hydromorphone | ✓ | | | |
| L2EVL | morphine | ✓ | | | |
| | hydromorphone | ✓ | | | |
| MJFWYR | morphine | ✓ | | | |
| | hydromorphone | ✓ | | | |
| MLG3CC | Morphine | ✓ | | | |
| MR8HZJ | Morphine | ✓ | | | |
| | Hydromorphone | ✓ | | | |
| MXXMXU | morphine | ✓ | | | |
| | hydromorphone | ✓ | | | |
| MZMUHQ | Morphine | ✓ | | | |
| | Hydromorphone | ✓ | | | |
| NQDW68 | Morphine | | 2334 | 467 | ng/mL |
| | Hydromorphone | | 72 | 14 | ng/mL |
| P3ZHTD | MORPHINE | ✓ | | | |
| P87BH3 | Morphine, Free | ✓ | | | |
| | Hydromorphone, Free | ✓ | | | |
| PAEJRM | morphine | ✓ | | | |
| | hydromorphone | ✓ | | | |
| PEWJAN | Morphine | ✓ | | | |
| | Hydromorphone | ✓ | | | |
| | 7-amino-clonazepam | ✓ | | | |
| PUMNDB | Morphine | ✓ | | | |

TABLE 1B Item 1

| Webcode | Analyte Reported | Qualitative Only | Reported Concentration | Uncertainty | Units |
|---------|-------------------|------------------|------------------------|-------------|-------|
| Q944V2 | morphine | ✓ | | | |
| | hydromorphone | ✓ | | | |
| | 7-aminoclonazepam | ✓ | | | |
| | codeine | ✓ | | | |
| QGRW6C | morphine | ✓ | | | |
| RJXHTC | morphine | ✓ | | | |
| | hydromorphone | ✓ | | | |
| RNBF3K | morphine | ✓ | | | |
| | hydromorphone | ✓ | | | |
| UFQ7L2 | Morphine | ✓ | | | |
| UJDHQY | morphine | ✓ | | | |
| UYMCE3 | Morphine | ✓ | | | |
| | Hydromorphone | ✓ | | | |
| V7JL37 | Morphine | ✓ | | | |
| VJLAWL | morphine | ✓ | | | |
| | hydromorphone | ✓ | | | |
| VQ839K | morphine | ✓ | | | |
| | hydromorphone | ✓ | | | |
| VQM73C | Morphine | ✓ | | | |
| | Hydromorphone | ✓ | | | |
| VTW9TG | morphine | ✓ | | | |
| | hydromorphone | ✓ | | | |
| VX6W7J | morphine | ✓ | | | |
| | hydromorphone | ✓ | | | |
| WNTZW7 | Morphine | ✓ | | | |
| WUHG9W | Morphine | ✓ | | | |
| XGR3QE | MORPHINE | ✓ | | | |
| | HYDROMORPHONE | ✓ | | | |
| XNTGAV | Morphine | ✓ | | | |
| XWH8U2 | Morphine | ✓ | | | |
| | Hydromorphone | ✓ | | | |
| | 7-aminoclonazepam | ✓ | | | |
| Y9WMDU | morphine | ✓ | | | |
| YEGMT8 | Morphine | ✓ | | | |
| | 7-Aminoclonazepam | ✓ | | | |
| YEHFQF | morphine | ✓ | | | |
| | hydromorphone | ✓ | | | |

TABLE 1B Item 1

| Webcode | Analyte Reported | Qualitative Only | Reported Concentration | Uncertainty | Units |
|---------|-------------------|------------------|------------------------|-------------|-------|
| YV7VQ6 | Morphine | ✓ | | | |
| | Hydromorphone | ✓ | | | |
| | 7-Aminoclonazepam | ✓ | | | |
| ZBE47Y | morphine | ✓ | | | |
| | hydromorphone | ✓ | | | |

| Response Summary for Item 1 | Participants: 82 |
|---|------------------|
| Morphine: | 82 |
| Hydromorphone: | 44 |
| 7-aminoclonazepam: | 11 |
| Other: | 2 |
| Totals may add up to more than the total number of participants because participants can report multiple drugs/metabolites. | |

Raw Data - Item 1

List of raw data determinations in ng/mL.

TABLE 1C Item 1

Item 1 Raw Data - Morphine
Preparation concentration: (2500 ng/mL)

| Webcode | Raw Data (ng/mL) | |
|----------------|-------------------------|---------|
| 2LBAYX | 2,457.1 | 2,459.7 |
| 39JZRH | 2,075.0 | 1,962.0 |
| BFC6YQ | 1,989.6 | |
| F3QJKX | 2,223.0 | |
| F6JCFG | 2,550.0 | |
| G6X2EM | 2,252.1 | 2,152.4 |
| H8WUNC | 2,137.0 | |
| NQDW68 | 2,334.0 | |

Statistical Analysis for Item 1 - Morphine

Please note statistical analysis has not been provided due to the low number of raw data responses.

TABLE 1C Item 1
Item 1 Raw Data - Hydromorphone
Preparation concentration: (75 ng/mL)

| Webcode | Raw Data (ng/mL) |
|----------------|-------------------------|
| BFC6YQ | 94.50 |
| H8WUNC | 79.00 |
| NQDW68 | 72.00 |

Statistical Analysis for Item 1 - Hydromorphone

Please note statistical analysis has not been provided due to the low number of raw data responses.

TABLE 1C Item 1
Item 1 Raw Data - 7-aminoclonazepam
Preparation concentration: (95 ng/mL)

| Webcode | Raw Data (ng/mL) | |
|---------|------------------|-------|
| 39JZRH | 55.38 | 54.67 |
| BFC6YQ | 34.40 | |

Statistical Analysis for Item 1 - 7-aminoclonazepam

Please note statistical analysis has not been provided due to the low number of raw data responses.

Reporting Procedures - Item 1

If quantitative analysis was performed, the reported concentrations are:

TABLE 1D Item 1

| Webcode | Quantitative Reporting Procedures |
|---------|---|
| 2LBAYX | A single determination. |
| 39JZRH | The mean of duplicate/several determinations. |
| 8Q79EU | A single determination. |
| 9HPTN7 | A single determination. |
| BFC6YQ | A single determination. |
| F3QJKX | A single determination. |
| F6JCFG | A single determination. |
| G6X2EM | The mean of duplicate/several determinations. |
| NQDW68 | A single determination. |

| Response Summary for Item 1 | Participants: 9 |
|---|-----------------|
| A single determination: | 7 (77.8%) |
| The mean of duplicate/several determinations: | 2 (22.2%) |

Methods of Analysis - Item 1

TABLE 1E Item 1

| Webcode | Method | Screening | Confirmatory | Quantitation |
|---------|---|-------------|--------------|--------------|
| 2CRT9C | Immunoassay GC/MS | ✓ | ✓ | |
| 2JL3EZ | Immunoassay GC/MS | ✓ | ✓ | |
| 2LBAYX | Immunoassay GC/MS | ✓ | ✓ | |
| 2NGRZE | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| 39JZRH | Immunoassay GC/MS LC/MS/MS LCMS-QTOF | ✓ ✓ ✓ | ✓ | ✓ |
| 3DRM4Y | Immunoassay | ✓ | | |
| 3XL4NV | Immunoassay GC/MS LC/MS/MS | ✓ ✓ ✓ | ✓ | |
| 3ZPWLZ | GC/MS LC/MS/MS | ✓ ✓ | ✓ ✓ | |
| 4RRLQV | Immunoassay LC/MS/MS | ✓ | ✓ | |
| 4T4HWZ | Immunoassay GC/MS | ✓ | ✓ | |
| 6MFV4F | Immunoassay | ✓ | | |
| 6TKW2N | Immunoassay GC/MS | ✓ | ✓ | |
| 7322NE | Immunoassay | ✓ | | |
| 7G77WR | Immunoassay GC/MS LC/MS/MS | ✓ ✓ ✓ | ✓ | |
| 7HF4AA | Immunoassay GC/MS | ✓ | ✓ | |
| 87GTCL | Immunoassay GC/MS | ✓ | ✓ | |
| 8LAPCW | LC/MS LC/MS/MS | ✓ | ✓ | |
| 8Q79EU | GC/MS GC/MS/MS Kit | | ✓ | |
| 9EREYV | GC/MS | | ✓ | |
| 9HPTN7 | Immunoassay GC/MS | ✓ | ✓ | ✓ |
| AJFKRM | Immunoassay | ✓ | | |
| AXFE6H | Immunoassay GC/MS | ✓ | ✓ | |

TABLE 1E Item 1

| Webcode | Method | Screening | Confirmatory | Quantitation |
|---------|----------------------------------|-------------|--------------|--------------|
| AYTUWX | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| B8Y9W6 | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| BFC6YQ | Immunoassay GC/MS LC/MS | ✓ ✓ ✓ | ✓ ✓ | ✓ |
| BH2CJM | Immunoassay LC/MS/MS | ✓ | ✓ | |
| BL2PZK | Immunoassay GC/MS | ✓ | ✓ | |
| C2AXKL | Immunoassay GC/MS LC/MS/MS | ✓ | ✓ ✓ | |
| C4FJ8L | Immunoassay GC/MS | ✓ | ✓ | |
| CTC78K | Immunoassay GC/MS | ✓ | ✓ | |
| D4VYZT | Immunoassay | ✓ | | |
| DBX9A8 | Immunoassay | ✓ | | |
| DKFQZT | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| DNLBRY | Immunoassay GC/MS | ✓ | ✓ | |
| DZC3C3 | Immunoassay GC/MS | ✓ | ✓ | |
| EHNDDR | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| EKDKXP | GC/MS Multidrug test | ✓ | ✓ | |
| F3QJKX | Immunoassay GC/MS | ✓ | ✓ | |
| F6JCFG | Immunoassay GC/MS | ✓ | ✓ | ✓ |
| F9D7DH | Immunoassay GC/MS | ✓ | ✓ | |
| FKUY2R | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| FQW3RQ | Immunoassay GC/MS | ✓ | ✓ | |
| G6X2EM | Immunoassay GC/MS LC/MS/MS | ✓ | ✓ ✓ | ✓ |
| G84JF4 | Immunoassay | ✓ | | |

TABLE 1E Item 1

| Webcode | Method | Screening | Confirmatory | Quantitation |
|---------|-------------------------|-----------|--------------|--------------|
| GME3AP | Immunoassay GC/MS | ✓ | ✓ | |
| H8WUNC | Immunoassay LC/MS/MS | ✓ | ✓ | |
| HDZXFV | Immunoassay GC/MS | ✓ | ✓ | |
| J23EEV | Immunoassay GC/MS | ✓ | ✓ | |
| JEB3PD | Immunoassay GC/MS | ✓ | ✓ | |
| JHWPJL | Immunoassay GC/MS | ✓ | ✓ | |
| JM4DY9 | Immunoassay GC/MS | ✓ | ✓ | |
| JQ6GPB | Immunoassay GC/MS | ✓ | ✓ | |
| KPPG6L | Immunoassay GC/MS | ✓ | ✓ | |
| KVEXGB | Immunoassay GC/MS | ✓ | ✓ | |
| L2EVLТ | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| MJFWYR | Immunoassay GC/MS | ✓ | ✓ | |
| MLG3CC | Immunoassay LC/MS/MS | ✓ | ✓ | |
| MR8HZJ | GC/MS | | ✓ | |
| MXXMXU | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| MZMUHQ | Immunoassay GC/MS | ✓ | ✓ | |
| NQDW68 | Immunoassay LC/MS/MS | ✓ | ✓ | ✓ |
| P3ZHTD | LC/MS LC/MS/MS | ✓ | ✓ | |
| P87BH3 | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| PAEJRM | Immunoassay GC/MS | ✓ | ✓ | |
| PEWJAN | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| PUMNDB | Immunoassay GC/MS | ✓ ✓ | ✓ | |

TABLE 1E Item 1

| Webcode | Method | Screening | Confirmatory | Quantitation |
|---------|-------------|-----------|--------------|--------------|
| Q944V2 | Immunoassay | ✓ | | |
| | GC/MS | ✓ | ✓ | |
| | LC/MS/MS | | ✓ | |
| QGRW6C | Immunoassay | ✓ | | |
| | GC/MS | | ✓ | |
| RJXHTC | Immunoassay | ✓ | | |
| | GC/MS | | ✓ | |
| RNBF3K | Immunoassay | ✓ | | |
| | GC/MS | | ✓ | |
| UFQ7L2 | Immunoassay | ✓ | | |
| | GC/MS | | ✓ | |
| UJDHQY | Immunoassay | ✓ | | |
| | GC/MS | | ✓ | |
| UYMCE3 | Immunoassay | ✓ | | |
| | GC/MS | | ✓ | |
| V7JL37 | Immunoassay | ✓ | | |
| | GC/MS | | ✓ | |
| | LC/MS/MS | | ✓ | |
| VJLAWL | Immunoassay | ✓ | | |
| | GC/MS | ✓ | ✓ | |
| VQ839K | Immunoassay | ✓ | | |
| | GC/MS | | ✓ | |
| VQM73C | Immunoassay | ✓ | | |
| | GC/MS | ✓ | ✓ | |
| VTW9TG | Immunoassay | ✓ | | |
| | GC/MS | | ✓ | |
| VX6W7J | Immunoassay | ✓ | | |
| | GC/MS | ✓ | ✓ | |
| WNTZW7 | Immunoassay | ✓ | | |
| | GC/MS | | ✓ | |
| WUHG9W | Immunoassay | ✓ | | |
| | GC/MS | | ✓ | |
| XGR3QE | Immunoassay | ✓ | | |
| | GC/MS | | ✓ | |
| XNTGAV | Immunoassay | ✓ | | |
| | GC/MS | | ✓ | |
| XWH8U2 | Immunoassay | ✓ | | |
| | GC/MS | ✓ | ✓ | |
| Y9WMDU | Immunoassay | ✓ | | |
| | GC/MS | | ✓ | |
| YEGMT8 | Immunoassay | ✓ | | |
| | GC/MS | ✓ | ✓ | |
| YEHFQF | Immunoassay | ✓ | | |
| | GC/MS | | ✓ | |
| YG9JJM | Immunoassay | ✓ | | |

TABLE 1E Item 1

| Webcode | Method | Screening | Confirmatory | Quantitation |
|---------|-----------------------------------|-----------|--------------|--------------|
| YV7VQ6 | GC/MS | | ✓ | |
| | LC/MS/MS | ✓ | ✓ | |
| | Rapid Chromatographic Immunoassay | ✓ | | |
| ZBE47Y | LC/MS/MS | ✓ | ✓ | |

| Response Summary for Item 1 | | | Participants: 90 | | |
|-----------------------------|-----------|--------------|------------------|--|--|
| | Screening | Confirmatory | Quantitation | | |
| Immunoassay: | 81 | 0 | 0 | | |
| GC/MS: | 22 | 73 | 3 | | |
| LC/MS: | 3 | 1 | 1 | | |
| LC/MS/MS: | 5 | 15 | 2 | | |
| Other: | 3 | 0 | 0 | | |

Additional Comments for Item 1

TABLE 1F Item 1

| Webcode | Item 1 - Comments |
|---------|---|
| 2CRT9C | Internal Standard-Nalorphine |
| 2LBAYX | The drugs we look for in our Opiates confirmation testing are Morphine, Dihydrocodeine (DHC), Codeine and 6-Monoacetylmorphine (6-MAM). The internal standards used are Morphine-D3, DHC-D6, Codeine-D3 and 6-MAM-D3. |
| 39JZRH | All analytes confirmed using deuterated internal standards (D3 morphine, D3 hydromorphone, D4 7-aminoclonazepam). Limits of detection - 7-aminoclonazepam 30ug/L, morphine 30ug/L, hydromorphone 5ug/L |
| 3XL4NV | D3-morphine - 100 ng/mL; D3-hydromorphone - 100 ng/mL |
| 3ZPWLZ | A low instrumental response for hydromorphone was observed in Item 1, which may be consistent with morphine metabolism to hydromorphone in a long-term treatment or due to an incomplete derivatization during the analysis process. |
| 4T4HWZ | Internal standard - SKF-525A. |
| 6MFV4F | No confirmation completed. I have yet to be deemed competent for drug confirmations. |
| 6TKW2N | Internal standards used: mepivacaine, nalorphine |
| 7322NE | No confirmatory analysis completed for Item 1. Our laboratory currently does not perform urine opiate confirmations. |
| 7G77WR | Internal standards: D3-hydromorphone, D3-morphine; Derivatized with BSTFA at 81C for two hours |
| 7HF4AA | Internal standards used - mepivacaine & nalorphine |
| 87GTCL | mepivacaine and nalorphine - internal standards |
| AXFE6H | ISTD: SKF-525A |
| AYTUWX | Note: due to our labs protocols for qualitative analysis and drug confirmation our results may reflect drugs that are not to be reported as per CTS – Forensic Testing Program directions. As per CTS analysis instructions: "Please do not report the presence/concentration of drugs in concentrations less than 10ng/mL". Our systems protocol: "Qualitative analysis will be performed for drug content." "The protocol is designed to identify drugs that can impair driving." Criteria to report out a positive drug: "GC/MS positive identification:", "The signal to noise ratio of the peak must be at least 3:1." "There must be at least six (6) significant m/z ions in the spectrum and encompass all significant ions. Two (2) ions (not including the base ion) must have a minimum abundance of 20% relative to the base ion (ion normalized to 100) and three other ions must have a minimum abundance of 10% relative to the base ion." |
| B8Y9W6 | Internal standard is mepivacaine. Caffeine detected but not reported per page 1 of instructions. |
| C2AXKL | screening method: cut off 2000 ng/mL; confirmatory method: LOD 50 ng/mL; Internal standars: morphine D3, codeine D3 |
| D4VYZT | Opiates screening cut-off is 300 ng/mL. Creatinine normal and greater than 20 mg/dL. |
| DBX9A8 | No confirmation assay available for urine analysis at this laboratory. No sendout testing authorized for PTs. |
| DNLBRY | Internal Standards: mepivacaine and nalorphine |
| DZC3C3 | internal standards: Mepivacaine and Nalorphine |

TABLE 1F Item 1

| Webcode | Item 1 - Comments |
|---------|--|
| EHNDDR | Nalorphine used as internal standard for opiate confirmation testing. |
| EKDKXP | The Internal Standard (STI) used is tetracosan, the limit of detection is 300 ng/mL (by GC-MS); It is evidenced that the use of an Opiate pain reliever such as morphine is used as stated in the case summary. |
| F3QJKX | Immunoassay cutoffs - Methamphetamine: 500 ng/mL, Amphetamine: 500 ng/mL, Morphine: 300 ng/mL, Benzoylcegonine: 300 ng/mL, C-THC: 50 ng/mL, Oxazepam: 300 ng/mL. IS for confirmation = Morphine - D3. LOQ for confirmation = 200 ng/mL. |
| F6JCFG | We perform quantitation to see if the analyte is above a cutoff. The cutoff is dictated by [State Legislation], which states Morphine has a 500 ng/mL cutoff. If the analyte is quantitated above the cutoff, the analyte is considered present and a qualitative identification may be reported. Morphine was reported as identified since it was above the 500 ng/mL cutoff. |
| FKUY2R | Note: due to our labs protocols for qualitative analysis and drug confirmation our results may reflect drugs that are not to be reported as per CTS – Forensic Testing Program directions |
| FQW3RQ | phenyltoloxamine (IRM), heptabarbital (IRM) |
| G84JF4 | No confirmation was performed. Laboratory currently doesn't have a confirmation method for opiates in urine. |
| GME3AP | Internal standard - phenyltoloxamine |
| HDZXFV | Zolpidem was indicated by IA but not confirmed by GC/MS. 7-aminoclonazepam was indicated by GC/MS but not confirmed. |
| J23EEV | GC/MS Confirmatory Internal Standards: mepivacaine and nalorphine |
| JHWPJL | Internal standard - Phenyltoloxamine |
| JQ6GPB | Prazepam internal standard used during one of the confirmation analyses. |
| KPPG6L | Mepivacaine and Nalorphine-diTMS were the internal standards used. Codeine was indicated but not confirmed due to small peak and weak mass spectra. 7-aminoclonazepam was seen but not reported due to negative immunoassay screen. Hydromorphone related peak was seen but not reported due to no standard for comparison being available. |
| L2EVL | mepivacaine and/or nalorphine-internal standard |
| MJFWYR | ISTD: mepivacaine, nalorphine. caffeine was not reported. |
| MR8HZJ | Internal Standard was flurazepam |
| MXXMXU | internal standard - mepivacaine |
| MZMUHQ | Internal standard=mepivacaine |
| NQDW68 | Internal Standards: d6-Morphine (for Morphine) and d6-Oxycodone (for Hydromorphone). LOD/LOQ for both analytes is 10 ng/mL. |
| P3ZHTD | INTERNAL STANDARD=ESTAZOLAM |
| PAEJRM | mepivacaine and nalorphine used as internal standards |
| RNBF3K | Internal standard: mepivacaine |
| VJLAWL | Internal Standards: mepivacaine and nalorphine |
| VQ839K | mepivacaine and nalorphine were used as internal standards for GC/MS |

TABLE 1F Item 1

| Webcode | Item 1 - Comments |
|---------|---|
| VQM73C | Nalorphine -Internal Standard |
| VTW9TG | Internal standards used were mepivacaine and nalorphine. Analytes were butylated for analysis. |
| XGR3QE | INTERNAL STANDARDS: MEPIVACAINE, NALORPHINE |
| YEGMT8 | Phenyltoloxamine used as internal reference material in base fraction. Hexobarbital used as internal reference material in acid fraction. Screening tests indicate the presence of other drugs not confirmed in this item. Note: due to our labs protocols for qualitative analysis and drug confirmation our results may reflect drugs that are not to be reported as per CTS – Forensic Testing Program directions. |
| YEHFQF | internal standards: mepivacaine, nalorphine |
| YG9JJM | The [Laboratory] does not currently perform confirmation analysis for the drug class of opiates for urine analysis. |
| YV7VQ6 | Alere iCassette (THC) test device was used to screen for THC, referred to in 1-4 [Table 1E Item 1 - Methods of Analysis] as rapid chromatographic immunoassy. The cutoff for the assay is 50 ng/mL. |

Screening Results - Item 2

TABLE 2A Item 2

Item Scenario:

Case 2: A 18-year-old male was pulled over for speeding and erratic driving. A Drug Recognition Expert was brought in and reported dilated pupils, rapid speech, agitation, and lack of coordination. She also reported no horizontal or vertical nystagmus. A urine sample was collected for analysis a few hours after the incident had occurred.

Item Contents and Preparation Concentration: Methamphetamine (3000 ng/mL)
Amphetamine (390 ng/mL)

| Webcode | Screening Results |
|---------|--|
| 2CRT9C | amphetamines class |
| 2JL3EZ | Methamphetamine (MAmP) |
| 2LBAYX | Amphetamines |
| 2NGRZE | l-amphetamine, d-amphetamine, l-methamphetamine, d-methamphetamine |
| 39JZRH | METHYLAMPHETAMINE, AMPHETAMINE |
| 3DRM4Y | Methylamphetamine |
| 3XL4NV | Methamphetamine |
| 3ZPWLZ | Amphetamine, Methamphetamine |
| 4RRLQV | Amphetamine and Methamphetamine |
| 4T4HWZ | Methamphetamine |
| 6MFV4F | Drug Class - Amphetamines |
| 6TKW2N | amphetamines |
| 7322NE | Amphetamines |
| 7G77WR | Methamphetamine |
| 7HF4AA | Amphetamines |
| 7JQ9JR | Amphetamine/MDA, Methamphetamine/MDMA |
| 87GTCL | amphetamines |
| 8LAPCW | Amphetamines. |
| 8Q79EU | [Participant reported that drugs were detected, but did not report the drug class or name] |
| 9HPTN7 | methamphetamine |
| AJFKRM | Methamphetamine |
| AJVZ2H | Amphetamine/MDA, Methamphetamine/MDMA |
| AXFE6H | Methamphetamine |
| AYTUWX | AMPHETAMINE |
| B8Y9W6 | amphetamines |

TABLE 2A Item 2

| Webcode | Screening Results |
|---------|---|
| BH2CJM | Amphetamine and Methamphetamine |
| BL2PZK | sympathomimetic amines |
| C2AXKL | METAMPHETAMINE |
| C4FJ8L | Amphetamine, Methamphetamine |
| CTC78K | Amphetamines |
| D4VYZT | Amphetamines |
| DBX9A8 | Methamphetamine |
| DKFQZT | Amphetamines |
| DNLBRY | amphetamines, l and d-amphetamine, l and d-methamphetamine |
| DZC3C3 | Amphetamines (d,l amphetamine & d,l methamphetamine) |
| EHNDDR | Amphetamines |
| EKDKXP | In the screening done to the urine sample the presence of Methamphetamine (METH). |
| F3QJKX | Methamphetamine |
| F6JCFG | Amphetamine/ Methamphetamine |
| F9D7DH | amphetamines |
| FKUY2R | EMIT Screen: positive Amphetamines; GC/MS: possible Flucanazole |
| FQW3RQ | amphetamine |
| G6X2EM | Amphetamines |
| G84JF4 | Amphetamines |
| GME3AP | methamphetamine |
| H8WUNC | Amphetamines |
| HDZXFV | Amphetamines, Methamphetamine/MDMA |
| J23EEV | amphetamine class drugs |
| JEB3PD | MAMD |
| JHWPJL | Methamphetamine/MDMA |
| JM4DY9 | methamphetamine/XTC (class) |
| JQ6GPB | Methamphetamine |
| KPPG6L | Amphetamne/MDA and Methamphetamine/MDMA |
| KVEXGB | amphetamine, methamphetamine |
| L2EVL | amphetamines |
| MJFWYR | amphetamine class EIA was indicative |

TABLE 2A Item 2

| Webcode | Screening Results |
|---------|--|
| MLG3CC | Amphetamine, Methamphetamine |
| MXXMXU | amphetamines |
| MZMUHQ | d-amphetamine, d-methamphetamine, l-amphetamine, l-methamphetamine |
| NQDW68 | Amphetamine and Methamphetamine |
| P3ZHTD | AMPHETAMINE, METHANPHETAMINE |
| P87BH3 | Amphetamine Class |
| PAEJRM | amphetamines |
| PEWJAN | Methamphetamines drug class, Amphetamine |
| PUMNDB | Amphetamines |
| Q944V2 | amphetamine and methamphetamine |
| QGRW6C | amphetamine, methamphetamine |
| QJJVF6 | The specimen screened positive for Amphetamines. |
| RJXHTC | amphetamine class |
| RNBF3K | amphetamines |
| UFQ7L2 | Amphetamines |
| UJDHQY | methamphetamine |
| UYMCE3 | Methamphetamine |
| V7JL37 | Amphetamine, metamphetamine |
| VJLAWL | amphetamines |
| VQ839K | amphetamines |
| VQM73C | Amphetamine Class |
| VTW9TG | amphetamines |
| VX6W7J | Amphetamines |
| WNTZW7 | [Participant reported that drugs were detected, but did not report the drug class or name] |
| WUHG9W | Amphetamine |
| XGR3QE | AMPHETAMINES |
| XNTGAV | Methamphetamine |
| XWH8U2 | Methamphetamine class |
| Y9WMDU | Amphetamine Class |
| YEGMT8 | Amphetamines, Steroids |
| YEHFQF | amphetamines (l,d-amphetamine and l,d-methamphetamine) |

TABLE 2A Item 2

| Webcode | Screening Results |
|---------|------------------------------|
| YG9JJM | Drug Class - Amphetamines |
| YV7VQ6 | Amphetamine, Methamphetamine |
| ZBE47Y | amphetamine, methamphetamine |

| Response Summary for Item 2 | Participants: 90 |
|--|------------------|
| Methamphetamine and/or amphetamine: | 86 |
| Other: | 4 |
| Totals may add up to more than the total number of participants because participants can report multiple drugs/analytes. | |

Confirmatory Results - Item 2

What drugs/metabolites were detected in Item 2?

TABLE 2B Item 2

Item Scenario:

Case 2: A 18-year-old male was pulled over for speeding and erratic driving. A Drug Recognition Expert was brought in and reported dilated pupils, rapid speech, agitation, and lack of coordination. She also reported no horizontal or vertical nystagmus. A urine sample was collected for analysis a few hours after the incident had occurred.

Item Contents and Preparation Concentration: Methamphetamine (3000 ng/mL)
Amphetamine (390 ng/mL)

| Webcode | Analyte Reported | Qualitative Only | Reported Concentration | Uncertainty | Units |
|---------|-------------------|------------------|------------------------|-------------|-------|
| 2CRT9C | l-methamphetamine | ✓ | | | |
| | d-methamphetamine | ✓ | | | |
| | l-amphetamine | ✓ | | | |
| | d-amphetamine | ✓ | | | |
| 2JL3EZ | Metamfetamine | ✓ | | | |
| | Amfetamine | ✓ | | | |
| 2LBAYX | Methamphetamine | | 2.3 | | ug/mL |
| | Amphetamine | | 0.27 | | ug/mL |
| 2NGRZE | l-methamphetamine | ✓ | | | |
| | d-methamphetamine | ✓ | | | |
| | l-amphetamine | ✓ | | | |
| | d-amphetamine | ✓ | | | |
| 39JZRH | METHYLAMPHETAMINE | | 2200 | 20% | ug/L |
| | AMPHETAMINE | | 310 | 20% | ug/L |
| 3DRM4Y | Methylamphetamine | | 4430.401 | | ng/ml |
| 3XL4NV | Methamphetamine | ✓ | | | |
| | Amphetamine | ✓ | | | |
| 3ZPWLZ | Methamphetamine | ✓ | | | |
| | Amphetamine | ✓ | | | |
| 4RRLQV | Methamphetamine | | 2203 | | |
| | Amphetamine | | 271 | | |
| 4T4HWZ | Methamphetamine | ✓ | | | |
| | Amphetamine | ✓ | | | |
| 6TKW2N | l-methamphetamine | ✓ | | | |
| | d-methamphetamine | ✓ | | | |
| | l-amphetamine | ✓ | | | |
| | d-amphetamine | ✓ | | | |
| 7322NE | Methamphetamine | ✓ | | | |
| | Amphetamine | ✓ | | | |
| 7G77WR | Methamphetamine | ✓ | | | |
| | Amphetamine | ✓ | | | |

TABLE 2B Item 2

| Webcode | Analyte Reported | Qualitative Only | Reported Concentration | Uncertainty | Units |
|---------|-------------------|------------------|------------------------|-------------|-------|
| 7HF4AA | l-methamphetamine | ✓ | | | |
| | d-methamphetamine | ✓ | | | |
| | l-amphetamine | ✓ | | | |
| | d-amphetamine | ✓ | | | |
| 7JQ9JR | Methamphetamine | ✓ | | | |
| | Amphetamine | ✓ | | | |
| 87GTCL | l-methamphetamine | ✓ | | | |
| | d-methamphetamine | ✓ | | | |
| | l-amphetamine | ✓ | | | |
| | d-amphetamine | ✓ | | | |
| 8LAPCW | Methamphetamine | ✓ | | | |
| | Amphetamine | ✓ | | | |
| 8Q79EU | Methylamphetamine | | | | |
| | Amphetamine | | | | |
| 9EREYV | Methamphetamine | ✓ | | | |
| 9HPTN7 | Methamphetamine | ✓ | | | |
| | Amphetamine | ✓ | | | |
| AJVZ2H | Methamphetamine | ✓ | | | |
| | Amphetamine | ✓ | | | |
| AXFE6H | Methamphetamine | ✓ | | | |
| | Amphetamine | ✓ | | | |
| AYTUWX | Methamphetamine | ✓ | | | |
| | Amphetamine | ✓ | | | |
| B8Y9W6 | l-methamphetamine | ✓ | | | |
| | d-methamphetamine | ✓ | | | |
| | l-amphetamine | ✓ | | | |
| | d-amphetamine | ✓ | | | |
| BFC6YQ | Methamphetamine | | 1175.3 | | ng/ml |
| | Amphetamine | | 273.6 | | ng/ml |
| BH2CJM | Methamphetamine | | 2251 | | ng/ml |
| | Amphetamine | | 281 | | ng/ml |
| BL2PZK | methamphetamine | ✓ | | | |
| | amphetamine | ✓ | | | |
| C2AXKL | METAMPHETAMINE | ✓ | | | |
| | AMPHETAMINE | ✓ | | | |
| C4FJ8L | Methamphetamine | ✓ | | | |
| | Amphetamine | ✓ | | | |
| CTC78K | Methamphetamine | ✓ | | | |
| | Amphetamine | ✓ | | | |

TABLE 2B Item 2

| Webcode | Analyte Reported | Qualitative Only | Reported Concentration | Uncertainty | Units |
|---------|-------------------|------------------|------------------------|-------------|-------|
| DKFQZT | Methamphetamine | ✓ | | | |
| | Amphetamine | ✓ | | | |
| DNLBRY | l-methamphetamine | | | | |
| | d-methamphetamine | | | | |
| | l-amphetamine | | | | |
| | d-amphetamine | | | | |
| DZC3C3 | l-methamphetamine | ✓ | | | |
| | d-methamphetamine | ✓ | | | |
| | l-amphetamine | ✓ | | | |
| | d-amphetamine | ✓ | | | |
| EHNDDR | Methamphetamine | ✓ | | | |
| | Amphetamine | ✓ | | | |
| EKDKXP | Methamphetamine | ✓ | | | |
| | Amphetamine | ✓ | | | |
| F3QJKX | Methamphetamine | ✓ | | | |
| | Amphetamine | ✓ | | | |
| F6JCFG | Methamphetamine | ✓ | | | |
| | Amphetamine | ✓ | | | |
| F9D7DH | methamphetamine | ✓ | | | |
| | amphetamine | ✓ | | | |
| FKUY2R | Methamphetamine | ✓ | | | |
| | Amphetamine | ✓ | | | |
| FQW3RQ | methamphetamine | ✓ | | | |
| | amphetamine | ✓ | | | |
| G6X2EM | Methamphetamine | | 2974 | | ng/ml |
| | Amphetamine | | 380 | | ng/ml |
| G84JF4 | Methamphetamine | ✓ | | | |
| | Amphetamine | ✓ | | | |
| GME3AP | methamphetamine | ✓ | | | |
| | amphetamine | ✓ | | | |
| H8WUNC | Methamphetamine | ✓ | | | |
| | Amphetamine | ✓ | | | |
| HDZXFV | Methamphetamine | ✓ | | | |
| | Amphetamine | ✓ | | | |
| J23EEV | d-methamphetamine | ✓ | | | |
| | l-methamphetamine | ✓ | | | |
| | d-amphetamine | ✓ | | | |
| | l-amphetamine | ✓ | | | |
| JEB3PD | methamphetamine | ✓ | | | |

TABLE 2B Item 2

| Webcode | Analyte Reported | Qualitative Only | Reported Concentration | Uncertainty | Units |
|---------|-------------------|------------------|------------------------|-------------|-------|
| JHWPJL | Methamphetamine | ✓ | | | |
| | Amphetamine | ✓ | | | |
| JM4DY9 | methamphetamine | ✓ | | | |
| JQ6GPB | Methamphetamine | ✓ | | | |
| | Amphetamine | ✓ | | | |
| KPPG6L | Methamphetamine | ✓ | | | |
| | Amphetamine | ✓ | | | |
| KVEXGB | methamphetamine | ✓ | | | |
| | amphetamine | ✓ | | | |
| L2EVL | d-methamphetamine | ✓ | | | |
| | l-methamphetamine | ✓ | | | |
| | d-amphetamine | ✓ | | | |
| | l-amphetamine | ✓ | | | |
| MJFWYR | d-methamphetamine | ✓ | | | |
| | l-methamphetamine | ✓ | | | |
| | d-amphetamine | ✓ | | | |
| | l-amphetamine | ✓ | | | |
| MLG3CC | Methamphetamine | | 2143 | | ng/ml |
| | Amphetamine | | 274 | | ng/ml |
| MR8HZJ | Methamphetamine | ✓ | | | |
| | Amphetamine | ✓ | | | |
| MXXMXU | d-methamphetamine | ✓ | | | |
| | l-methamphetamine | ✓ | | | |
| | d-amphetamine | ✓ | | | |
| | l-amphetamine | ✓ | | | |
| MZMUHQ | d-methamphetamine | ✓ | | | |
| | l-methamphetamine | ✓ | | | |
| | d-amphetamine | ✓ | | | |
| | l-amphetamine | ✓ | | | |
| NQDW68 | Methamphetamine | | 2546 | 509 | ng/mL |
| | Amphetamine | | 332 | 66 | ng/mL |
| P3ZHTD | METHANPHETAMINE | ✓ | | | |
| | AMPHETAMINE | ✓ | | | |
| P87BH3 | Methamphetamine | | >2000 | | ng/mL |
| | Amphetamine | | 282 | 57 | ng/mL |
| PAEJRM | d-methamphetamine | ✓ | | | |
| | l-methamphetamine | ✓ | | | |
| | d-amphetamine | ✓ | | | |
| | l-amphetamine | ✓ | | | |
| PEWJAN | Methamphetamine | ✓ | | | |
| | Amphetamine | ✓ | | | |

TABLE 2B Item 2

| Webcode | Analyte Reported | Qualitative Only | Reported Concentration | Uncertainty | Units |
|---------|-------------------|------------------|------------------------|-------------|-------|
| PUMNDB | Amphetamine | ✓ | | | |
| | Methamphetamine | ✓ | | | |
| Q944V2 | methamphetamine | ✓ | | | |
| | amphetamine | ✓ | | | |
| QGRW6C | methamphetamine | ✓ | | | |
| | amphetamine | ✓ | | | |
| RJXHTC | methamphetamine | ✓ | | | |
| | amphetamine | ✓ | | | |
| RNBF3K | l-methamphetamine | ✓ | | | |
| | d-methamphetamine | ✓ | | | |
| | l-amphetamine | ✓ | | | |
| | d-amphetamine | ✓ | | | |
| UFQ7L2 | Methamphetamine | ✓ | | | |
| | Amphetamine | ✓ | | | |
| UJDHQY | methamphetamine | ✓ | | | |
| | amphetamine | ✓ | | | |
| UYMCE3 | Methamphetamine | ✓ | | | |
| | Amphetamine | ✓ | | | |
| V7JL37 | Methamphetamine | ✓ | | | |
| | Amphetamine | ✓ | | | |
| VJLAWL | d-methamphetamine | ✓ | | | |
| | l-methamphetamine | ✓ | | | |
| | d-amphetamine | ✓ | | | |
| | l-amphetamine | ✓ | | | |
| VQ839K | d-methamphetamine | ✓ | | | |
| | l-methamphetamine | ✓ | | | |
| | d-amphetamine | ✓ | | | |
| | l-amphetamine | ✓ | | | |
| VQM73C | Methamphetamine | ✓ | | | |
| | Amphetamine | ✓ | | | |
| VTW9TG | l-methamphetamine | ✓ | | | |
| | d-methamphetamine | ✓ | | | |
| | l-amphetamine | ✓ | | | |
| | d-amphetamine | ✓ | | | |
| VX6W7J | l-methamphetamine | ✓ | | | |
| | d-methamphetamine | ✓ | | | |
| | l-amphetamine | ✓ | | | |
| | d-amphetamine | ✓ | | | |
| WNTZW7 | Methamphetamine | ✓ | | | |
| | Amphetamine | ✓ | | | |

TABLE 2B Item 2

| Webcode | Analyte Reported | Qualitative Only | Reported Concentration | Uncertainty | Units |
|---------|-------------------|------------------|------------------------|-------------|-------|
| WUHG9W | Methamphetamine | ✓ | | | |
| | Amphetamine | ✓ | | | |
| XGR3QE | L-METHAMPHETAMINE | ✓ | | | |
| | D-METHAMPHETAMINE | ✓ | | | |
| | L-AMPHETAMINE | ✓ | | | |
| | D-AMPHETAMINE | ✓ | | | |
| XNTGAV | Methamphetamine | ✓ | | | |
| | Amphetamine | ✓ | | | |
| XWH8U2 | Methamphetamine | ✓ | | | |
| | Amphetamine | ✓ | | | |
| Y9WMDU | Methamphetamine | ✓ | | | |
| | Amphetamine | ✓ | | | |
| YEGMT8 | Methamphetamine | ✓ | | | |
| | Amphetamine | ✓ | | | |
| YEHFQF | l-methamphetamine | ✓ | | | |
| | d-methamphetamine | ✓ | | | |
| | l-amphetamine | ✓ | | | |
| | d-amphetamine | ✓ | | | |
| YV7VQ6 | Methamphetamine | ✓ | | | |
| | Amphetamine | ✓ | | | |
| ZBE47Y | methamphetamine | ✓ | | | |
| | amphetamine | ✓ | | | |

Response Summary for Item 2**Participants: 87**

Methamphetamine: 87

Amphetamine: 83

Totals may add up to more than the total number of participants
because participants can report multiple drugs/metabolites.

Raw Data - Item 2

List of raw data determinations in ng/mL.

TABLE 2C Item 2

Item 2 Raw Data - Methamphetamine
Preparation concentration: (3000 ng/mL)

| Webcode | Raw Data (ng/mL) | | |
|----------------|-------------------------|---------|---------|
| 2LBAYX | 2,397.1 | 2,389.9 | |
| 39JZRH | 2,299.0 | 2,127.0 | |
| 3DRM4Y | 4,191.0 | 4,458.8 | 4,641.4 |
| 4RRLQV | 2,156.0 | 2,249.0 | |
| BFC6YQ | 1,175.3 | | |
| BH2CJM | 2,295.0 | 2,206.0 | |
| F6JCFG | 3,730.0 | | |
| G6X2EM | 3,081.9 | 2,866.6 | |
| MLG3CC | 2,054.0 | 2,231.0 | |
| NQDW68 | 2,546.0 | | |

Statistical Analysis for Item 2 - Methamphetamine

Please note statistical analysis has not been provided due to the low number of raw data responses.

TABLE 2C Item 2
Item 2 Raw Data - Amphetamine
Preparation concentration: (390 ng/mL)

| Webcode | Raw Data (ng/mL) | |
|---------|------------------|-------|
| 2LBAYX | 278.7 | 273.6 |
| 39JZRH | 324.0 | 287.0 |
| 4RRLQV | 264.0 | 278.0 |
| BFC6YQ | 273.6 | |
| BH2CJM | 277.0 | 286.0 |
| F6JCFG | 448.0 | |
| G6X2EM | 382.7 | 378.0 |
| MLG3CC | 277.0 | 271.0 |
| NQDW68 | 332.0 | |
| P87BH3 | 282.0 | |

Statistical Analysis for Item 2 - Amphetamine

Please note statistical analysis has not been provided due to the low number of raw data responses.

Reporting Procedures - Item 2

If quantitative analysis was performed, the reported concentrations are:

TABLE 2D Item 2

| Webcode | Quantitative Reporting Procedures |
|---------|---|
| 2LBAYX | A single determination. |
| 39JZRH | The mean of duplicate/several determinations. |
| 3DRM4Y | The mean of duplicate/several determinations. |
| 4RRLQV | The mean of duplicate/several determinations. |
| 8Q79EU | A single determination. |
| BFC6YQ | A single determination. |
| BH2CJM | The mean of duplicate/several determinations. |
| F6JCFG | A single determination. |
| G6X2EM | The mean of duplicate/several determinations. |
| G84JF4 | A single determination. |
| MLG3CC | The mean of duplicate/several determinations. |
| NQDW68 | A single determination. |
| P87BH3 | A single determination. |

| Response Summary for Item 2 | Participants: 13 |
|---|------------------|
| A single determination: | 7 (53.8%) |
| The mean of duplicate/several determinations: | 6 (46.2%) |

Methods of Analysis - Item 2

TABLE 2E Item 2

| Webcode | Method | Screening | Confirmatory | Quantitation |
|---------|---|-------------|--------------|--------------|
| 2CRT9C | Immunoassay GC/MS | ✓ | ✓ | |
| 2JL3EZ | Immunoassay GC/MS | ✓ | ✓ | |
| 2LBAYX | Immunoassay GC/MS | ✓ | ✓ | |
| 2NGRZE | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| 39JZRH | Immunoassay GC/MS LC/MS LC/MS/MS | ✓ ✓ ✓ | ✓ | ✓ |
| 3DRM4Y | Immunoassay LC/MS | ✓ | ✓ | |
| 3XL4NV | Immunoassay GC/MS LC/MS/MS | ✓ ✓ ✓ | ✓ | |
| 3ZPWLZ | LC/MS/MS | ✓ | ✓ | |
| 4RRLQV | Immunoassay GC/MS LC/MS/MS | ✓ | ✓ ✓ | ✓ |
| 4T4HWZ | Immunoassay GC/MS | ✓ | ✓ | |
| 6MFV4F | Immunoassay | ✓ | | |
| 6TKW2N | Immunoassay GC/MS | ✓ | ✓ | |
| 7322NE | Immunoassay GC/MS | ✓ | ✓ | |
| 7G77WR | Immunoassay GC/MS LC/MS/MS | ✓ ✓ ✓ | ✓ | |
| 7HF4AA | Immunoassay GC/MS | ✓ | ✓ | |
| 7JQ9JR | Immunoassay GC/MS | ✓ | ✓ | |
| 87GTCL | Immunoassay GC/MS | ✓ | ✓ | |
| 8LAPCW | LC/MS LC/MS/MS | ✓ | ✓ | |
| 8Q79EU | GC/MS GC/MS/MS Kit | | ✓ | |

TABLE 2E Item 2

| Webcode | Method | Screening | Confirmatory | Quantitation |
|---------|----------------|-----------|--------------|--------------|
| 9EREYV | GC/MS | | ✓ | |
| 9HPTN7 | Immunoassay | ✓ | | |
| | GC/MS | | ✓ | |
| AJFKRM | Immunoassay | ✓ | | |
| AJVZ2H | Immunoassay | ✓ | | |
| | GC/MS | | ✓ | |
| AXFE6H | Immunoassay | ✓ | | |
| | GC/MS | | ✓ | |
| AYTUWX | Immunoassay | ✓ | | |
| | GC/MS | ✓ | ✓ | |
| B8Y9W6 | Immunoassay | ✓ | | |
| | GC/MS | ✓ | ✓ | |
| BFC6YQ | Immunoassay | ✓ | | |
| | GC/MS | ✓ | ✓ | |
| | LC/MS/MS | ✓ | ✓ | |
| BH2CJM | Immunoassay | ✓ | | |
| | GC/MS | | ✓ | |
| | LC/MS/MS | | ✓ | ✓ |
| BL2PZK | Immunoassay | ✓ | | |
| | GC/MS | | ✓ | |
| C2AXKL | Immunoassay | ✓ | | |
| | GC/MS | | ✓ | |
| C4FJ8L | Immunoassay | ✓ | | |
| | GC/MS | | ✓ | |
| CTC78K | Immunoassay | ✓ | | |
| | GC/MS | | ✓ | |
| D4VYZT | Immunoassay | ✓ | | |
| DBX9A8 | Immunoassay | ✓ | | |
| DKFQZT | Immunoassay | ✓ | | |
| | GC/MS | ✓ | ✓ | |
| DNLBRY | Immunoassay | ✓ | | |
| | GC/MS | | ✓ | |
| DZC3C3 | Immunoassay | ✓ | | |
| | GC/MS | | ✓ | |
| EHNDDR | Immunoassay | ✓ | | |
| | GC/MS | ✓ | ✓ | |
| EKDKXP | GC/MS | | ✓ | |
| | Multidrug test | ✓ | | |
| F3QJKX | Immunoassay | ✓ | | |
| | GC/MS | | ✓ | |
| F6JCFG | Immunoassay | ✓ | | |
| | GC/MS | | ✓ | ✓ |

TABLE 2E Item 2

| Webcode | Method | Screening | Confirmatory | Quantitation |
|---------|----------------------------------|-----------|--------------|--------------|
| F9D7DH | Immunoassay GC/MS | ✓ | ✓ | |
| FKUY2R | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| FQW3RQ | Immunoassay GC/MS | ✓ | ✓ | |
| G6X2EM | Immunoassay LC/MS/MS | ✓ | ✓ | ✓ |
| G84JF4 | Immunoassay GC/MS | ✓ | ✓ | |
| GME3AP | Immunoassay GC/MS | ✓ | ✓ | |
| H8WUNC | Immunoassay GC/MS | ✓ | ✓ | |
| HDZXFV | Immunoassay GC/MS | ✓ | ✓ | |
| J23EEV | Immunoassay GC/MS | ✓ | ✓ | |
| JEB3PD | Immunoassay GC/MS | ✓ | ✓ | |
| JHWPJL | Immunoassay GC/MS | ✓ | ✓ | |
| JM4DY9 | Immunoassay GC/MS | ✓ | ✓ | |
| JQ6GPB | Immunoassay GC/MS | ✓ | ✓ | |
| KPPG6L | Immunoassay GC/MS | ✓ | ✓ | |
| KVEXGB | Immunoassay GC/MS | ✓ | ✓ | |
| L2EVL | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| MJFWYR | Immunoassay GC/MS | ✓ | ✓ | |
| MLG3CC | Immunoassay GC/MS LC/MS/MS | ✓ | ✓ ✓ | ✓ |
| MR8HZJ | GC/MS | | ✓ | |
| MXXMXU | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| MZMUHQ | Immunoassay GC/MS | ✓ | ✓ | |

TABLE 2E Item 2

| Webcode | Method | Screening | Confirmatory | Quantitation |
|---------|----------------------------------|-----------|--------------|--------------|
| NQDW68 | Immunoassay GC/MS | ✓ | ✓ | ✓ |
| P3ZHTD | LC/MS LC/MS/MS | ✓ | ✓ | |
| P87BH3 | Immunoassay GC/MS LC/MS/MS | ✓ ✓ | ✓ | ✓ |
| PAEJRM | Immunoassay GC/MS | ✓ | ✓ | |
| PEWJAN | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| PUMNDB | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| Q944V2 | Immunoassay GC/MS LC/MS/MS | ✓ ✓ | ✓ | |
| QGRW6C | Immunoassay GC/MS | ✓ | ✓ | |
| RJXHTC | Immunoassay GC/MS | ✓ | ✓ | |
| RNBF3K | Immunoassay GC/MS | ✓ | ✓ | |
| UFQ7L2 | Immunoassay GC/MS | ✓ | ✓ | |
| UJDHQY | Immunoassay GC/MS | ✓ | ✓ | |
| UYMCE3 | Immunoassay GC/MS | ✓ | ✓ | |
| V7JL37 | Immunoassay GC/MS | ✓ | ✓ | |
| VJLAWL | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| VQ839K | Immunoassay GC/MS | ✓ | ✓ | |
| VQM73C | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| VTW9TG | Immunoassay GC/MS | ✓ | ✓ | |
| VX6W7J | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| WNTZW7 | Immunoassay GC/MS | ✓ | ✓ | |

TABLE 2E Item 2

| Webcode | Method | Screening | Confirmatory | Quantitation |
|---------|-----------------------------------|-----------|--------------|--------------|
| WUHG9W | Immunoassay GC/MS | ✓ | ✓ | |
| XGR3QE | Immunoassay GC/MS | ✓ | ✓ | |
| XNTGAV | Immunoassay GC/MS | ✓ | ✓ | |
| XWH8U2 | Immunoassay GC/MS | ✓ | ✓ | |
| Y9WMDU | Immunoassay GC/MS | ✓ | ✓ | |
| YEGMT8 | Immunoassay GC/MS | ✓ | ✓ | |
| YEHFQF | Immunoassay GC/MS | ✓ | ✓ | |
| YG9JJM | Immunoassay | ✓ | | |
| YV7VQ6 | GC/MS | | ✓ | |
| | LC/MS/MS | ✓ | | |
| | Rapid Chromatographic Immunoassay | ✓ | | |
| ZBE47Y | LC/MS/MS | ✓ | ✓ | |

| Response Summary for Item 2 | | Participants: 92 | | |
|-----------------------------|--|------------------|--------------|--------------|
| | | Screening | Confirmatory | Quantitation |
| Immunoassay: | | 83 | 0 | 0 |
| GC/MS: | | 21 | 78 | 2 |
| LC/MS: | | 3 | 1 | 0 |
| LC/MS/MS: | | 6 | 12 | 6 |
| Other: | | 2 | 0 | 0 |

Additional Comments for Item 2

TABLE 2F Item 2

| Webcode | Item 2 - Comments |
|---------|---|
| 2CRT9C | Internal standard- Mepivacaine |
| 2LBAYX | The drugs looked for in our Amphetamines confirmation testing are Amphetamine, Methamphetamine, MDA, MDEA, MDMA and MBDB. The internal standards used are Amphetamine-D11, Methamphetamine-D14, MDA-D5, MDEA-D5, MDMA-D5 and MBDB-D5. |
| 39JZRH | Internal standards for quantitation D5 methylamphetamine and D5 amphetamine |
| 3DRM4Y | The internal Standard used was PAMP at a concentration of 5000 ng/ml |
| 3XL4NV | D8-amphetamine 200 ng/mL; D5-methamphetamine 200 ng/mL |
| 4T4HWZ | Internal Standard - n-Propylamphetamine. Performed TFA derivatization. |
| 6MFV4F | No confirmation completed. I have yet to be deemed competent for drug confirmations. |
| 6TKW2N | Internal standards used: mepivacaine, nalorphine |
| 7322NE | Our amphetamine cutoff is 25 ng/mL and the internal standard used is amphetamine-D11. Our methamphetamine cutoff is 25 ng/mL and the internal standard used is methamphetamine-D14. |
| 7G77WR | Internal standards: D8-amphetamine, D5-methamphetamine; Derivatizing agent: Heptafluorobutyric anhydride (HFBA) |
| 7HF4AA | Internal standards used - mepivacaine & nalorphine |
| 7JQ9JR | Mepivacaine -IS |
| 87GTCL | mepivacaine - internal standard |
| 9HPTN7 | Sample screened negative for Amphetamine based on cutoff of 500 ng/mL. Qualitative GC/MS analysis detected amphetamine (LOD not determined). |
| AXFE6H | ISTD: n-propylamphetamine, TFA |
| B8Y9W6 | Internal standard is mepivacaine. Caffeine detected but not reported per page 1 of instructions. |
| C2AXKL | Screening method: cut off: 300 ng/mL; Internal standars: Anfetamina D5, Propilanfetamina, MDMA-D5; LOD: 200 ng/mL |
| CTC78K | d-Isomer of methamphetamine confirmed on GC/MS by derivatization. |
| D4VYZT | Amphetamines screening cut-off is 500 ng/mL. Creatinine normal and greater than 20 mg/dL. |
| DBX9A8 | No confirmation assay available for urine analysis at this laboratory. No sendout testing authorized for PTs. |
| DNLBRY | Internal Standard: mepivacaine |
| DZC3C3 | Internal standard- mepivacaine |
| EKDIXP | STI used is tetracosan, the limit of detection is 300 ng/mL, in the summary of the case shows that the sample is taken to a person under the effects of a stimulant that we tested positive for Methamphetamine and Amphetamine. |
| F3QJKX | Immunoassay cutoffs - Methamphetamine: 500 ng/mL, Amphetamine: 500 ng/mL, Morphine: 300 ng/mL, Benzoylcgonine: 300 ng/mL, C-THC: 50 ng/mL, Oxazepam: 300 ng/mL. IS for confirmation = Phentermine. |

TABLE 2F Item 2

| Webcode | Item 2 - Comments |
|---------|---|
| F6JCFG | We perform quantitation to see if the analyte is above a cutoff. The cutoff is dictated by [State Legislation], which states Amphetamine and Methamphetamine have a 500 ng/mL cutoff each. If the analyte is quantitated above the cutoff, it is considered present and a qualitative identification may be reported. Amphetamine was not reported because it was quantitated below the cutoff; Methamphetamine was reported because it was quantitated above the cutoff. Forensic Toxicologists at my laboratory are not trained as Drug Recognition Experts. It is beyond my scope to evaluate symptoms presented from a DRE Examination and determine which drugs should be confirmed. Nevertheless, I reviewed the information I have from the DRE Student Manual (2015) and determined that either CNS Stimulants or Hallucinogens could cause the symptoms described. Hallucinogens were not detected by methods utilized. Our laboratory is not able to identify LSD by the methods we have available. |
| FQW3RQ | phenyltoloxamine (IRM), heptabarbital (IRM) |
| G84JF4 | Laboratory does not quantify drugs in urine specimens. Used methamphetamine-d14, and amphetamine-d11 for the internal standard. Cutoff level set at 25ng/mL for methamphetamine and amphetamine. |
| GME3AP | Internal standard-phenyltoloxamine |
| HDZXFV | Zolpidem was indicated by IA, but not confirmed by GC/MS. |
| J23EEV | GC/MS Confirmatory Internal Standard: mepivacaine |
| JHWPJL | Internal standard - Phenyltoloxamine |
| KPPG6L | Mepivacaine, Methamphetamine D-11, and Amphetamine D-11 were internal standards. Fluconazole indicated in sample, but not confirmed due to not having a standard for comparison available. Trace peak of codeine seen in sample, but not reported due to negative immunoassay screen and poor mass spectra. |
| L2EVL | mepivacaine-internal standard |
| MJFWYR | ISTD: mepivacaine (& nalorphine). caffeine was not reported. |
| MR8HZJ | Internal Standard was flurazepam. |
| MXXMXU | internal standard - mepivacaine |
| MZMUHQ | Internal standard-mepivacaine |
| NQDW68 | Internal Standards: d11-Amphetamine and d14-Methamphetamine. LOD/LOQ for both analytes is 50 ng/mL. |
| P3ZHTD | INTERNAL STANDARD=ESTAZOLAM |
| PAEJRM | mepivacaine and nalorphine used as internal standards |
| RNBF3K | Internal standard: mepivacaine |
| VJLAWL | Internal Standards: mepivacaine |
| VQ839K | mepivacaine and nalorphine were used as internal standards for GC/MS |
| VTW9TG | Internal standard used was mepivacaine. Samples were derivatized via acetylation and using trifluoroacetyl-propyl chloride for d- and l- determination. |
| XGR3QE | Internal Standard: Mepivacaine |

TABLE 2F Item 2

| Webcode | Item 2 - Comments |
|---------|---|
| YEGMT8 | Phenyltoloxamine used as internal reference material in base fraction. Hexobarbital used as internal reference material in acid fraction. Screening tests indicate the presence of other drugs not confirmed in this item. Note: due to our labs protocols for qualitative analysis and drug confirmation our results may reflect drugs that are not to be reported as per CTS – Forensic Testing Program directions. |
| YEHFQF | internal standards: mepivacaine |
| YG9JJM | I am currently not competent in the analysis of Amphetamines confirmations. |
| YV7VQ6 | Alere iCassette (THC) test device was used to screen for THC, referred to in 2-4 [Table 2E Item 2 - Methods of Analysis] as rapid chromatographic immunoassay. The cutoff for the assay is 50 ng/mL. |

Screening Results - Item 3

TABLE 3A Item 3

Item Scenario:

Case 3: A 24-year-old female arrived at the police station the day after she suspects she was the victim of a drug-facilitated sexual assault. She had dinner with a man she met on an online dating website. She woke up the following morning in an unfamiliar location, undressed, and disoriented. She states that she is not a heavy drinker, yet has no memory of most of the previous night. A urine sample was collected for analysis approximately 24 hours after the suspected incident.

Item Contents and Preparation Concentration: Ketamine (250 ng/mL)
Norketamine (625 ng/mL)

| Webcode | Screening Results |
|---------|--|
| 2CRT9C | No drugs/metabolites detected |
| 2JL3EZ | Ketamine |
| 2LBAYX | No drugs/metabolites detected |
| 2NGRZE | ketamine |
| 39JZRH | KETAMINE, KETAMINE METABOLITE |
| 3DRM4Y | Ketamine |
| 3ZPWLZ | Ketamine, Norketamine |
| 4RRLQV | Ketamine and Norketamine |
| 4T4HWZ | No drugs/metabolites detected |
| 6MFV4F | No drugs/metabolites detected |
| 6TKW2N | No drugs/metabolites detected |
| 7322NE | No drugs/metabolites detected |
| 7G77WR | Ketamine |
| 7HF4AA | No drugs/metabolites detected |
| 7JQ9JR | No drugs/metabolites detected |
| 87GTCL | No drugs/metabolites detected |
| 8LAPCW | [Participant reported that drugs were detected, but did not report the drug class or name] |
| 8Q79EU | No drugs/metabolites detected |
| 9HPTN7 | No drugs/metabolites detected |
| AJFKRM | No drugs/metabolites detected |
| AXFE6H | No drugs/metabolites detected |
| AYTUWX | Ketamine |
| B8Y9W6 | No drugs/metabolites detected |
| BH2CJM | Ketamine and Norketamine |
| BL2PZK | ketamine, norketamine |
| C2AXKL | ketamine |
| C4FJ8L | Norketamine, Ketamine |
| CTC78K | No drugs/metabolites detected |

TABLE 3A Item 3

| Webcode | Screening Results |
|---------|--|
| D4VYZT | No drugs/metabolites detected |
| DBX9A8 | No drugs/metabolites detected |
| DKFQZT | Ketamine, norketamine |
| DNLBRY | No drugs/metabolites detected |
| DZC3C3 | No drugs/metabolites detected |
| EHNDDR | Ketamine, Norketamine |
| EKDKXP | No drugs/metabolites detected; In the screening performed no Detectable presence of drugs. |
| F3QJKX | No drugs/metabolites detected |
| F6JCFG | No drugs/metabolites detected |
| F9D7DH | No drugs/metabolites detected |
| FKUY2R | GC/MS screen: possible Ketamine |
| FQW3RQ | No drugs/metabolites detected |
| G6X2EM | Norketamine and ketamine |
| G84JF4 | No drugs/metabolites detected |
| GME3AP | No drugs/metabolites detected |
| H8WUNC | Ketamine, NorKetamine |
| HDZXFV | No drugs/metabolites detected |
| J23EEV | No drugs/metabolites detected |
| JEB3PD | No drugs/metabolites detected |
| JHWPJL | No drugs/metabolites detected |
| JM4DY9 | No drugs/metabolites detected |
| JQ6GPB | No drugs/metabolites detected |
| KPPG6L | No drugs/metabolites detected |
| KVEXGB | ketamine, norketamine |
| L2EVL | ketamine |
| MJFWYR | No drugs/metabolites detected |
| MLG3CC | Ketamine, Norketamine |
| MXXMXU | ketamine |
| MZMUHQ | Ketamine |
| NQDW68 | No drugs/metabolites detected |
| P3ZHTD | KETAMINE, NORKETAMINE |
| P87BH3 | Ketamine |
| PAEJRM | No drugs/metabolites detected |
| PEWJAN | Ketamine |
| PUMNDB | No drugs/metabolites detected |

TABLE 3A Item 3

| Webcode | Screening Results |
|---------|--|
| Q944V2 | Ketamine and metabolite (Norketamine) |
| QGRW6C | No drugs/metabolites detected |
| QJJVF6 | No drugs/metabolites detected |
| RNBF3K | ketamine |
| UFQ7L2 | Ketamine |
| UJDHQY | No drugs/metabolites detected |
| UYMCE3 | No drugs/metabolites detected |
| V7JL37 | No drugs/metabolites detected |
| VJLAWL | ketamine |
| VQ839K | ketamine |
| VQM73C | Ketamine; Norketamine |
| VTW9TG | No drugs/metabolites detected |
| VX6W7J | Ketamine |
| WNTZW7 | [Participant reported that drugs were detected, but did not report the drug class or name] |
| WUHG9W | No drugs/metabolites detected |
| XGR3QE | No drugs/metabolites detected |
| XNTGAV | No drugs/metabolites detected |
| XWH8U2 | No drugs/metabolites detected |
| Y9WMDU | No drugs/metabolites detected |
| YEGMT8 | Ketamine, Steroids, Norketamine |
| YEHFQF | No drugs/metabolites detected |
| YG9JJM | No drugs/metabolites detected |
| YV7VQ6 | Norketamine, Ketamine |
| ZBE47Y | ketamine, norketamine |

| Response Summary for Item 3 | Participants: 87 |
|---|------------------|
| Ketamine and/or norketamine: | 35 |
| Other: | 1 |
| No drugs/metabolites detected: | 50 |
| Totals may add up to more than the total number of participants because participants can report multiple drugs/analytes. | |

Confirmatory Results - Item 3

What drugs/metabolites were detected in Item 3?

TABLE 3B Item 3

Item Scenario:

Case 3: A 24-year-old female arrived at the police station the day after she suspects she was the victim of a drug-facilitated sexual assault. She had dinner with a man she met on an online dating website. She woke up the following morning in an unfamiliar location, undressed, and disoriented. She states that she is not a heavy drinker, yet has no memory of most of the previous night. A urine sample was collected for analysis approximately 24 hours after the suspected incident.

Item Contents and Preparation Concentration: Ketamine (250 ng/mL)
Norketamine (625 ng/mL)

| Webcode | Analyte Reported | Qualitative Only | Reported Concentration | Uncertainty | Units |
|---------|---|------------------|------------------------|-------------|-------|
| 2CRT9C | Ketamine | ✓ | | | |
| 2JL3EZ | Ketamine Ketamine-M (nor-) | ✓ ✓ | | | |
| 2NGRZE | ketamine | ✓ | | | |
| 39JZRH | KETAMINE KETAMINE METABOLITE | ✓ ✓ | | | |
| 3ZPWLZ | Ketamine Norketamine | ✓ ✓ | | | |
| 4RRLQV | Ketamine Norketamine | ✓ ✓ | | | |
| 4T4HWZ | Ketamine Norketamine | ✓ ✓ | | | |
| 6TKW2N | ketamine | ✓ | | | |
| 7G77WR | Ketamine | ✓ | | | |
| 7HF4AA | Ketamine | ✓ | | | |
| 7JQ9JR | Ketamine | ✓ | | | |
| 87GTCL | ketamine | ✓ | | | |
| 8LAPCW | Ketamine Norketamine | ✓ ✓ | | | |
| 8Q79EU | No drugs/metabolites detected | | | | |
| 9EREYV | Ketamine Norketamine | ✓ ✓ | | | |
| AXFE6H | Ketamine Norketamine | ✓ ✓ | | | |
| AYTUWX | Ketamine Norketamine | ✓ ✓ | | | |

TABLE 3B Item 3

| Webcode | Analyte Reported | Qualitative Only | Reported Concentration | Uncertainty | Units |
|---------|-------------------------------|------------------|------------------------|-------------|----------------|
| B8Y9W6 | ketamine | ✓ | | | |
| BFC6YQ | Ketamine Norketamine | | 197.5 740.8 | | ng/ml ng/ml |
| BH2CJM | Ketamine Norketamine | ✓ ✓ | | | |
| BL2PZK | ketamine norketamine | ✓ ✓ | | | |
| C2AXKL | ketamine nor-Ketamine | ✓ ✓ | | | |
| C4FJ8L | Ketamine Norketamine | ✓ ✓ | | | |
| CTC78K | Ketamine | ✓ | | | |
| DKFQZT | Ketamine Norketamine | ✓ | | | |
| DNLBRY | ketamine | | | | |
| DZC3C3 | Ketamine | ✓ | | | |
| EHNDDR | Ketamine Norketamine | ✓ ✓ | | | |
| EKDKXP | Ketamine Norketamine | ✓ ✓ | | | |
| F6JCFG | Ketamine | ✓ | | | |
| F9D7DH | ketamine norketamine | ✓ ✓ | | | |
| FKUY2R | Ketamine | ✓ | | | |
| FQW3RQ | ketamine | ✓ | | | |
| G6X2EM | Ketamine Norketamine | | 249 601 | | ng/ml ng/ml |
| GME3AP | ketamine norketamine | ✓ ✓ | | | |
| H8WUNC | Ketamine Norketamine | ✓ ✓ | | | |
| HDZXFV | Ketamine Norketamine | ✓ ✓ | | | |
| J23EEV | ketamine | ✓ | | | |
| JEB3PD | No drugs/metabolites detected | | | | |

TABLE 3B Item 3

| Webcode | Analyte Reported | Qualitative Only | Reported Concentration | Uncertainty | Units |
|---------|---------------------|------------------|------------------------|-------------|-------|
| JHWPJL | Ketamine | ✓ | | | |
| | Norketamine | ✓ | | | |
| JM4DY9 | ketamine | ✓ | | | |
| | norketamine | ✓ | | | |
| JQ6GPB | Ketamine | ✓ | | | |
| KPPG6L | Ketamine | ✓ | | | |
| KVEXGB | ketamine | ✓ | | | |
| | norketamine | ✓ | | | |
| L2EVL | ketamine | ✓ | | | |
| MJFWYR | ketamine | ✓ | | | |
| MLG3CC | Ketamine | ✓ | | | |
| | Norketamine | ✓ | | | |
| MR8HZJ | Ketamine | ✓ | | | |
| | Norketamine | ✓ | | | |
| MXXMXU | ketamine | ✓ | | | |
| MZMUHQ | Ketamine | ✓ | | | |
| P3ZHTD | KETAMINE | ✓ | | | |
| | NORKETAMINE | ✓ | | | |
| P87BH3 | Ketamine | ✓ | | | |
| PAEJRM | ketamine | ✓ | | | |
| PEWJAN | Ketamine | ✓ | | | |
| Q944V2 | ketamine | ✓ | | | |
| | Ketamine metabolite | ✓ | | | |
| QGRW6C | ketamine | ✓ | | | |
| RNBF3K | ketamine | ✓ | | | |
| UFQ7L2 | Ketamine | ✓ | | | |
| UJDHQY | ketamine | ✓ | | | |
| | norketamine | ✓ | | | |
| V7JL37 | Ketamine | ✓ | | | |
| | Norketamine | ✓ | | | |
| VJLAWL | ketamine | ✓ | | | |
| VQ839K | ketamine | ✓ | | | |
| VQM73C | Ketamine | ✓ | | | |
| | Norketamine | ✓ | | | |
| VTW9TG | Ketamine | ✓ | | | |

TABLE 3B Item 3

| Webcode | Analyte Reported | Qualitative Only | Reported Concentration | Uncertainty | Units |
|---------|-------------------------|------------------|------------------------|-------------|-------|
| VX6W7J | Ketamine | ✓ | | | |
| WNTZW7 | Ketamine Norketamine | ✓ ✓ | | | |
| WUHG9W | Ketamine Norketamine | ✓ ✓ | | | |
| XGR3QE | ketamine | ✓ | | | |
| XNTGAV | ketamine norketamine | ✓ ✓ | | | |
| XWH8U2 | Ketamine | ✓ | | | |
| Y9WMDU | Ketamine | ✓ | | | |
| YEGMT8 | Ketamine | ✓ | | | |
| YEHFQF | ketamine | ✓ | | | |
| YV7VQ6 | Ketamine Norketamine | ✓ ✓ | | | |
| ZBE47Y | ketamine norketamine | ✓ ✓ | | | |

| Response Summary for Item 3 | | Participants: 75 |
|--|--------------------------------|------------------|
| | Ketamine: | 73 |
| | Norketamine: | 35 |
| | No drugs/metabolites detected: | 2 |
| | Other: | 2 |
| <p>Totals may add up to more than the total number of participants because participants can report multiple drugs/metabolites.</p> | | |

Raw Data - Item 3

List of raw data determinations in ng/mL.

TABLE 3C Item 3

Item 3 Raw Data - Ketamine **Preparation concentration: (250 ng/mL)**

| Webcode | Raw Data (ng/mL) | |
|----------------|-------------------------|-------|
| BFC6YQ | 197.5 | |
| G6X2EM | 240.9 | 257.2 |

Statistical Analysis for Item 3 - Ketamine

Please note statistical analysis has not been provided due to the low number of raw data responses.

TABLE 3C Item 3
Item 3 Raw Data - Norketamine
Preparation concentration: (625 ng/mL)

| Webcode | Raw Data (ng/mL) | |
|---------|------------------|-------|
| BFC6YQ | 740.8 | |
| G6X2EM | 583.3 | 618.4 |

Statistical Analysis for Item 3 - Norketamine

Please note statistical analysis has not been provided due to the low number of raw data responses.

Reporting Procedures - Item 3

If quantitative analysis was performed, the reported concentrations are:

TABLE 3D Item 3

| WebCode | Quantitative Reporting Procedures |
|---------|---|
| 8Q79EU | A single determination. |
| BFC6YQ | A single determination. |
| G6X2EM | The mean of duplicate/several determinations. |
| MJFWYR | A single determination. |

| Response Summary for Item 3 | Participants: 4 |
|---|-----------------|
| A single determination: | 3 (75.0%) |
| The mean of duplicate/several determinations: | 1 (25.0%) |

Methods of Analysis - Item 3

TABLE 3E Item 3

| WebCode | Method | Screening | Confirmatory | Quantitation |
|---------|----------------------------------|-------------|--------------|--------------|
| 2CRT9C | Immunoassay GC/MS | ✓ | ✓ | |
| 2JL3EZ | Immunoassay GC/MS | ✓ | ✓ | |
| 2LBAYX | Immunoassay | ✓ | | |
| 2NGRZE | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| 39JZRH | Immunoassay GC/MS LC/MS/MS | ✓ ✓ ✓ | ✓ ✓ | |
| 3DRM4Y | Immunoassay | ✓ | | |
| 3ZPWLZ | LC/MS/MS | ✓ | ✓ | |
| 4RRLQV | Immunoassay GC/MS | ✓ | ✓ | |
| 4T4HWZ | Immunoassay GC/MS | ✓ | ✓ | |
| 6MFV4F | Immunoassay | ✓ | | |
| 6TKW2N | Immunoassay GC/MS | ✓ | ✓ | |
| 7322NE | Immunoassay | ✓ | | |
| 7G77WR | Immunoassay GC/MS LC/MS/MS | ✓ ✓ ✓ | ✓ | |
| 7HF4AA | Immunoassay GC/MS | ✓ | ✓ | |
| 7JQ9JR | Immunoassay GC/MS | ✓ | ✓ | |
| 87GTCL | Immunoassay GC/MS | ✓ | ✓ | |
| 8LAPCW | LC/MS LC/MS/MS | ✓ | ✓ | |
| 8Q79EU | GC/MS GC/MS/MS Kit | | ✓ | |
| 9EREYV | GC/MS | | ✓ | |
| 9HPTN7 | Immunoassay | ✓ | | |
| AJFKRM | Immunoassay | ✓ | | |
| AXFE6H | GC/MS | | ✓ | |
| AYTUWX | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| B8Y9W6 | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| BFC6YQ | Immunoassay LC/MS/MS | ✓ ✓ | ✓ | |

TABLE 3E Item 3

| WebCode | Method | Screening | Confirmatory | Quantitation |
|---------|--------------------------|-----------|--------------|--------------|
| BH2CJM | Immunoassay GC/MS | ✓ | ✓ | |
| BL2PZK | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| C2AXKL | GC/MS LC/MS/MS | ✓ | ✓ | |
| C4FJ8L | Immunoassay GC/MS | ✓ | ✓ | |
| CTC78K | Immunoassay GC/MS | ✓ | ✓ | |
| D4VYZT | Immunoassay | ✓ | | |
| DBX9A8 | Immunoassay | ✓ | | |
| DKFQZT | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| DNLBRY | Immunoassay GC/MS | ✓ | ✓ | |
| DZC3C3 | Immunoassay GC/MS | ✓ | ✓ | |
| EHNDDR | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| EKDKXP | GC/MS Multidrugs test | ✓ | ✓ | |
| F3QJKX | Immunoassay | ✓ | | |
| F6JCFG | Immunoassay GC/MS | ✓ | ✓ | |
| F9D7DH | Immunoassay GC/MS | ✓ | ✓ | |
| FKUY2R | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| FQW3RQ | Immunoassay GC/MS | ✓ | ✓ | |
| G6X2EM | Immunoassay LC/MS/MS | ✓ | ✓ | ✓ |
| G84JF4 | Immunoassay | ✓ | | |
| GME3AP | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| H8WUNC | GC/MS LC/MS/MS | ✓ | ✓ | |
| HDZXFV | Immunoassay GC/MS | ✓ | ✓ | |
| J23EEV | Immunoassay GC/MS | ✓ | ✓ | |
| JEB3PD | Immunoassay GC/MS | ✓ | ✓ | |

TABLE 3E Item 3

| WebCode | Method | Screening | Confirmatory | Quantitation |
|---------|----------------------------------|-----------|--------------|--------------|
| JHWPJL | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| JM4DY9 | Immunoassay GC/MS | ✓ | ✓ | |
| JQ6GPB | Immunoassay GC/MS | ✓ | ✓ | |
| KPPG6L | Immunoassay GC/MS | ✓ | ✓ | |
| KVEXGB | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| L2EVL | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| MJFWYR | Immunoassay GC/MS | ✓ | ✓ | |
| MLG3CC | Immunoassay GC/MS | ✓ | ✓ | |
| MR8HZJ | GC/MS | | ✓ | |
| MXXMXU | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| MZMUHQ | Immunoassay GC/MS | ✓ | ✓ | |
| NQDW68 | Immunoassay | ✓ | | |
| P3ZHTD | LC/MS LC/MS/MS | ✓ | ✓ | |
| P87BH3 | GC/MS | ✓ | ✓ | |
| PAEJRM | Immunoassay GC/MS | ✓ | ✓ | |
| PEWJAN | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| PUMNDB | Immunoassay GC/MS | ✓ ✓ | | |
| Q944V2 | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| QGRW6C | Immunoassay GC/MS | ✓ | ✓ | |
| RNBF3K | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| UFQ7L2 | GC/MS | ✓ | ✓ | |
| UJDHQY | GC/MS | ✓ | ✓ | |
| UYMCE3 | Immunoassay | ✓ | | |
| V7JL37 | Immunoassay GC/MS LC/MS/MS | ✓ | ✓ ✓ | |
| VJLAWL | Immunoassay GC/MS | ✓ ✓ | ✓ | |

TABLE 3E Item 3

| WebCode | Method | Screening | Confirmatory | Quantitation |
|---------|-----------------------------------|-----------|--------------|--------------|
| VQ839K | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| VQM73C | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| VTW9TG | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| VX6W7J | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| WNTZW7 | Immunoassay GC/MS | ✓ | ✓ | |
| WUHG9W | Immunoassay GC/MS | ✓ | ✓ | |
| XGR3QE | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| XNTGAV | GC/MS | ✓ | ✓ | |
| XWH8U2 | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| Y9WMDU | Immunoassay GC/MS | ✓ | ✓ | |
| YEGMT8 | Immunoassay GC/MS | ✓ ✓ | ✓ | |
| YEHFQF | Immunoassay GC/MS | ✓ | ✓ | |
| YG9JJM | Immunoassay | ✓ | | |
| YV7VQ6 | GC/MS LC/MS/MS | ✓ ✓ | ✓ | |
| | Rapid Chromatographic Immunoassay | ✓ | | |
| ZBE47Y | LC/MS/MS | ✓ | ✓ | |

| Response Summary for Item 3 | | | Participants: 89 | |
|-----------------------------|-----------|--------------|------------------|--|
| | Screening | Confirmatory | Quantitation | |
| Immunoassay: | 73 | 0 | 0 | |
| GC/MS: | 30 | 69 | 0 | |
| LC/MS: | 2 | 0 | 0 | |
| LC/MS/MS: | 8 | 8 | 1 | |
| Other: | 2 | 0 | 0 | |

Additional Comments for Item 3

TABLE 3F Item 3

| WebCode | Item 3 - Comments |
|---------|--|
| 2CRT9C | Internal Standard- Mepivacaine |
| 2LBAYX | Using the VIVA-E System, the sample was screened for the following: Amphetamines, Benzodiazepines, Cocaine metabolite, Creatinine, Ecstasy, Ethyl alcohol, Methadone, Opiates and Cannabinoids. Using the ELISA method, the sample was screened for Flunitrazepam. |
| 39JZRH | We do not routinely quantitate drugs in urine - qualitative screening only |
| 3XL4NV | No analyses were performed on this sample. |
| 4T4HWZ | Internal Standard - SKF-525A |
| 6TKW2N | Internal standards used: mepivacaine, nalorphine |
| 7322NE | Urine screened using Enzyme-Linked ImmunoSorbent Assay. |
| 7HF4AA | Internal standards used - mepivacaine & nalorphine |
| 7JQ9JR | Mepivacaine- IS; Norketamine - no standard available for confirmation |
| 87GTCL | mepivacaine - internal standard |
| AXFE6H | ISTD: SKF-525A, barbital |
| B8Y9W6 | Internal standard is mepivacaine. Caffeine detected but not reported per page 1 of instructions. |
| C2AXKL | Screening: cut off 50 ng/mL; Confirmatory: LOD: 30 ng/mL; Internal standars: Benzoilecgonine D3, cocaine D3 |
| CTC78K | Confirmed by analyzing two different extracts on the GC/MS. |
| D4VYZT | Screening was performed for Amphetamines (500 ng/dL cut-off), Opiates (300 ng/dL cut-off), Benzodiazepines (300 ng/dL cut-off), Cocaine (150 ng/dL cut-off), and THC (50 ng/dL cut-off). Creatinine was normal and greater than 20 mg/dL) |
| DBX9A8 | No confirmation assay available for urine analysis at this laboratory. No sendout testing authorized for PTs. |
| DNLBRY | Internal Standard: mepivacaine |
| DZC3C3 | Internal standard- mepivacaine |
| EHNDDR | GHB D6 was used as an internal standard for GHB testing. |
| EKDIXP | STI tetracosan; in the screening performed any drug was detected, but the case summary show the use of a nervous system depressant, by confirmation in GC-MS; the presence of ketamine and norketamine was detected. |
| F3QJKX | Immunoassay cutoffs - Methamphetamine: 500 ng/mL, Amphetamine: 500 ng/mL, Morphine: 300 ng/mL, Benzoilecgonine: 300 ng/mL, C-THC: 50 ng/mL, Oxazepam: 300 ng/mL. |

TABLE 3F Item 3

| WebCode | Item 3 - Comments |
|---------|--|
| F6JCFG | There is no cutoff for Ketamine. Ketamine was reported as identified because it has the same retention time and mass spectrum as a verified reference material of ketamine; the peak height is at least 3x the signal to noise (visually confirmed by extracting a prominent ion and comparing peak height to baseline noise); and a library entry gave greater than 80% match to the library ketamine entry. Finally, Ketamine was not found in a method blank analyzed on the same GC-MS immediately prior to the case sample. Norketamine was detected but not identified because my laboratory does not have a verified reference material for this drug metabolite and we require analyzing a verified reference material on the same GC-MS as the case sample within 24 hours to make a comparison and identification between a reference material and an analyte. |
| FKUY2R | Qualitative analysis will be performed for drug content. The protocol is designed to identify drugs that can impair driving. |
| FQW3RQ | phenyltoloxamine (IRM) and heptabarbital (IRM) |
| G84JF4 | The following assays screened negative: Amphetamines, Benzodiazepines, Cannabinoids, Cocaine/Metabolite, Opiates, and Phencyclidine. |
| GME3AP | Internal standard(s) - phenyltoloxamine, ghb-d6 |
| HDZXFV | Zolpidem was indicated by IA but not confirmed by GC/MS |
| J23EEV | GC/MS Confirmatory Internal Standard: mepivacaine |
| JHWPJL | Internal standard - Phenyltoloxamine |
| JQ6GPB | Norketamine was also detected but not confirmed as we do not have a reference material for it in our laboratory and we are not required to confirm metabolites if the parent drug is present. |
| KPPG6L | Mepivacaine was the internal standard used. A Ketamine related compound was indicated but not reported due to no standard for comparison being available. Codeine was indicated in the sample, but not reported due to negative immunoassay screen. |
| L2EVL | mepivacaine-internal standard |
| MJFWYR | ISTD: mepivacaine (& nalorphine). caffeine was not reported. |
| MR8HZJ | Internal Standard was flurazepam. |
| MXXMXU | internal standard - mepivacaine |
| MZMUHQ | Internal standards=mepivacaine |
| P3ZHTD | INTERNAL STANDARD= ESTAZOLAM |
| P87BH3 | Norketamine detected. |
| PAEJRM | mepivacaine and nalorphine used as internal standards |
| QGRW6C | Ketamine not part of immunoassay screen. Sample also screened by GCMS for GHB, as this is part of our protocol for alleged drug-facilitated sexual assault cases. Results negative for GHB. |
| RNBF3K | Internal standard: mepivacaine |
| UYMCE3 | Confirmation not performed as screening results were negative. |
| V7JL37 | GHB negative |

TABLE 3F Item 3

| WebCode | Item 3 - Comments |
|---------|--|
| VJLAWL | Internal Standard: mepivacaine |
| VQ839K | mepivacaine and nalorphine were used as internal standards for GC/MS |
| VTW9TG | Internal standard used was mepivacaine. |
| XGR3QE | Internal Standard: Mepivacaine |
| Y9WMDU | Norketamine was also indicated, not pursued- no Reference Material available in the lab, as well as, confirmation of Ketamine |
| YEGMT8 | Phenyltoloxamine used as internal reference material in base fraction. Hexobarbital used as internal reference material in acid fraction. Screening tests indicate the presence of other drugs not confirmed in this item. Drug Facilitated Sexual Assault analysis not performed at this laboratory. Norketamine reference material not available due to time constraints. Note: due to our labs protocols for qualitative analysis and drug confirmation our results may reflect drugs that are not to be reported as per CTS – Forensic Testing Program directions. |
| YEHFQF | internal standard: mepivacaine |
| YV7VQ6 | Alere iCassette (THC) test device was used to screen for THC, referred to in 3-4 [Table 3E Item 3 - Methods of Analysis] as rapid chromatographic immunoassay. The cutoff for the assay is 50 ng/mL. |

Additional Test Comments

TABLE 4

| WebCode | Additional Comments |
|---------|---|
| 39JZRH | We do not routinely quantitate drugs in urine - most analytes receive qualitative screening only |
| 3ZPWLZ | Caffeine was detected in all three items. |
| AJFKRM | Items 1 and 2 were screened by analyst [Name], while Item 3 was screened by analyst [Name]. The cutoff concentrations for the presumptive positive assays are as followed; opiates (200 ng/mL) and methamphetamine (200 ng/mL). Confirmatory analysis was not conducted. |
| AJVZ2H | Item 1 and 3- Not analyzed. (Only assigned item 2 in house.) |
| AYTUWX | Note: due to our labs protocols for qualitative analysis and drug confirmation our results may reflect drugs that are not to be reported as per CTS – Forensic Testing Program directions. As per CTS analysis instructions: "Please do not report the presence/concentration of drugs in concentrations less than 10ng/mL". Our systems protocol: "Qualitative analysis will be performed for drug content." "The protocol is designed to identify drugs that can impair driving." Criteria to report out a positive drug: "GC/MS positive identification:", "The signal to noise ratio of the peak must be at least 3:1." "There must be at least six (6) significant m/z ions in the spectrum and encompass all significant ions. Two (2) ions (not including the base ion) must have a minimum abundance of 20% relative to the base ion (ion normalized to 100) and three other ions must have a minimum abundance of 10% relative to the base ion." |
| DBX9A8 | No confirmation assay available for urine analysis at this laboratory. No sendout testing authorized for PTs. |
| EKDKXP | The Multidrugs test detects 10 metabolites. Multidrugs: AMPHET, OPIAT, BENZO; TCA; BARB; METH; COCAINE; THC; PCP and MDMA. |
| FKUY2R | Note: due to our labs protocols for qualitative analysis and drug confirmation our results may reflect drugs that are not to be reported as per CTS – Forensic Testing Program directions |
| FQW3RQ | received in laboratory on 9/26/2017 |
| QJVF6 | The specimens were screened for five drug classes utilizing Siemens EMIT technology only. No confirmatory testing was performed. |
| Y9WMDU | samples were checked into the [Laboratory] on 10/10/2017, and forwarded to [Name]. |
| YEGMT8 | Drug Facilitated Sexual Assault analysis not performed at this laboratory. |

Appendix: Data Sheet

Collaborative Testing Services ~ Forensic Testing Program

Test No. 17-5671: Urine Drug Analysis

DATA MUST BE RECEIVED BY November 27, 2017 TO BE INCLUDED IN THE REPORT

Participant Code:

WebCode:

Accreditation Release Statement

CTS submits external proficiency test data directly to ASCLD/LAB, ANAB, and A2LA. 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, ANAB, and/or A2LA. (Accreditation Release section on the last page must be completed and submitted.)
- This participant's data is NOT intended for submission to ASCLD/LAB, ANAB or A2LA.

Scenario:

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

Case 1: A 76-year-old female has agreed to submit to regular monitoring of her pain management for severe chronic pain due to rheumatoid arthritis. A urine sample has been submitted for analysis.

Case 2: A 18-year-old male was pulled over for speeding and erratic driving. A Drug Recognition Expert was brought in and reported dilated pupils, rapid speech, agitation, and lack of coordination. She also reported no horizontal or vertical nystagmus. A urine sample was collected for analysis a few hours after the incident had occurred.

Case 3: A 24-year-old female arrived at the police station the day after she suspects she was the victim of a drug-facilitated sexual assault. She had dinner with a man she met on an online dating website. She woke up the following morning in an unfamiliar location, undressed, and disoriented. She states that she is not a heavy drinker, yet has no memory of most of the previous night. A urine sample was collected for analysis approximately 24 hours after the suspected incident.

Instructions:

****PLEASE NOTE**** The purpose of this test is the examination of drugs listed in section 1308 of Title 21 Code of Federal Regulations under the United States Controlled Substances Act that fall into the following classes: benzodiazepines, nonbenzodiazepine hypnotics (z-drugs), barbiturates, opioids, illicit hallucinogens, illicit stimulants, illicit depressants, and cannabinoids. Please test accordingly.

-Please do not report the presence/concentration of drugs in concentrations less than 10ng/mL.

-Samples may contain methanol and acetonitrile as artifacts from production.

Items Submitted (Sample Pack UDRG):

Item 1: Urine sample from Case 1

Item 2: Urine sample from Case 2

Item 3: Urine sample from Case 3

Please return all pages of this data sheet.

Page 1 of 9

Participant Code:

WebCode:

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.) 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 utilizing confirmatory methods.

| Analyte | Qualitative Only? | Reported Concentration | Uncertainty | Units |
|--|--------------------------|------------------------|-------------|-----------|
| _____ | <input type="checkbox"/> | _____ | _____ | (_____) |
| Date(s) Analysis Performed on Analyte: _____ | | | | |
| Raw Data (ng/mL): | | | | |
| _____ | _____ | _____ | _____ | _____ |

| Analyte | Qualitative Only? | Reported Concentration | Uncertainty | Units |
|--|--------------------------|------------------------|-------------|-----------|
| _____ | <input type="checkbox"/> | _____ | _____ | (_____) |
| Date(s) Analysis Performed on Analyte: _____ | | | | |
| Raw Data (ng/mL): | | | | |
| _____ | _____ | _____ | _____ | _____ |

| Analyte | Qualitative Only? | Reported Concentration | Uncertainty | Units |
|--|--------------------------|------------------------|-------------|-----------|
| _____ | <input type="checkbox"/> | _____ | _____ | (_____) |
| Date(s) Analysis Performed on Analyte: _____ | | | | |
| Raw Data (ng/mL): | | | | |
| _____ | _____ | _____ | _____ | _____ |

Please return all pages of this data sheet.

Participant Code:

WebCode:

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.

| <u>Method Used</u> | <u>Screening</u> | <u>Confirmatory</u> | <u>Quantitation</u> |
|--------------------|--------------------------|--------------------------|--------------------------|
| Immunoassay | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| GC/MS | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| LC/MS | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| LC/MS/MS | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Other: _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Other: _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

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.

Participant Code:

WebCode:

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.) 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 utilizing confirmatory methods.

| Analyte | Qualitative Only? | Reported Concentration | Uncertainty | Units |
|--|--------------------------|------------------------|-------------|-----------|
| _____ | <input type="checkbox"/> | _____ | _____ | (_____) |
| Date(s) Analysis Performed on Analyte: _____ | | | | |
| Raw Data (ng/mL): | | | | |
| _____ | _____ | _____ | _____ | _____ |

| Analyte | Qualitative Only? | Reported Concentration | Uncertainty | Units |
|--|--------------------------|------------------------|-------------|-----------|
| _____ | <input type="checkbox"/> | _____ | _____ | (_____) |
| Date(s) Analysis Performed on Analyte: _____ | | | | |
| Raw Data (ng/mL): | | | | |
| _____ | _____ | _____ | _____ | _____ |

| Analyte | Qualitative Only? | Reported Concentration | Uncertainty | Units |
|--|--------------------------|------------------------|-------------|-----------|
| _____ | <input type="checkbox"/> | _____ | _____ | (_____) |
| Date(s) Analysis Performed on Analyte: _____ | | | | |
| Raw Data (ng/mL): | | | | |
| _____ | _____ | _____ | _____ | _____ |

Please return all pages of this data sheet.

Participant Code:

WebCode:

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.

| <u>Method Used</u> | <u>Screening</u> | <u>Confirmatory</u> | <u>Quantitation</u> |
|--------------------|--------------------------|--------------------------|--------------------------|
| Immunoassay | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| GC/MS | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| LC/MS | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| LC/MS/MS | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Other: _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Other: _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

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.

Participant Code:

WebCode:

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.) 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 utilizing confirmatory methods.

| Analyte | Qualitative Only? | Reported Concentration | Uncertainty | Units |
|--|--------------------------|------------------------|-------------|-----------|
| _____ | <input type="checkbox"/> | _____ | _____ | (_____) |
| Date(s) Analysis Performed on Analyte: _____ | | | | |
| Raw Data (ng/mL): | | | | |
| _____ | _____ | _____ | _____ | _____ |

| Analyte | Qualitative Only? | Reported Concentration | Uncertainty | Units |
|--|--------------------------|------------------------|-------------|-----------|
| _____ | <input type="checkbox"/> | _____ | _____ | (_____) |
| Date(s) Analysis Performed on Analyte: _____ | | | | |
| Raw Data (ng/mL): | | | | |
| _____ | _____ | _____ | _____ | _____ |

| Analyte | Qualitative Only? | Reported Concentration | Uncertainty | Units |
|--|--------------------------|------------------------|-------------|-----------|
| _____ | <input type="checkbox"/> | _____ | _____ | (_____) |
| Date(s) Analysis Performed on Analyte: _____ | | | | |
| Raw Data (ng/mL): | | | | |
| _____ | _____ | _____ | _____ | _____ |

Please return all pages of this data sheet.

Participant Code:

WebCode:

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.

| <u>Method Used</u> | <u>Screening</u> | <u>Confirmatory</u> | <u>Quantitation</u> |
|--------------------|--------------------------|--------------------------|--------------------------|
| Immunoassay | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| GC/MS | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| LC/MS | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| LC/MS/MS | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Other: _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Other: _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

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:

Date Samples Received: _____

Additional Comments on Test

| | |
|--|---|
| <p><u>Return Instructions:</u> Data must be received via online data entry, fax (please include a cover sheet), or mail by <i>November 27, 2017</i> to be included in the report. Emailed data sheets are not accepted.</p> <p>QUESTION? TEL: +1-571-434-1925 (8 am - 4:30 pm EST) EMAIL: forensics@cts-interlab.com www.ctsforensics.com</p> | <p>Participant Code: ONLINE DATA ENTRY: www.cts-portal.com</p> <p>FAX: +1-571-434-1937</p> <p>MAIL: Collaborative Testing Services, Inc. P.O. Box 650820 Sterling, VA 20165-0820 USA</p> |
|--|---|

Please return all pages of this data sheet.

Collaborative Testing Services ~ Forensic Testing Program

RELEASE OF DATA TO ACCREDITATION BODIES

The following Accreditation Releases will apply only to:

Participant Code:

WebCode:

for Test No. **17-5671: Urine Drug Analysis**

This release page must be completed and received by **November 27, 2017** to have this participant's submitted data included in the reports forwarded to the respective Accreditation Bodies.

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

ASCLD/LAB Certificate No. _____

ANAB Certificate No. _____

A2LA Certificate No. _____

Step 2: Complete the Laboratory Identifying Information in its entirety

Signature and Title _____

Laboratory Name _____

Location (City/State) _____

| | |
|---|--|
| Accreditation Release | |
| Return Instructions | |
| <i>Please submit the completed Accreditation Release at the same time as your full data sheet. See Data Sheet Return Instructions on the previous page.</i> | <i>Questions? Contact us 8 am-4:30 pm EST Telephone: +1-571-434-1925 email: forensics@cts-interlab.com</i> |

Please return all pages of this data sheet.