



Quantitative Drug Analysis - Methamphetamine HCl

Test No. 20-5051 Summary Report

Each sample set consisted of two items containing different concentrations of methamphetamine HCl. Participants were asked to determine the concentration of methamphetamine HCl in each item. Data were returned from 89 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

Each sample pack consisted of two items containing different concentrations of methamphetamine HCl and diluents including lactose, caffeine, and dimethyl sulfone. Participants were requested to analyze each item and report the quantitative determination of methamphetamine HCl present in the samples.

SAMPLE PREPARATION-

The mixtures of methamphetamine HCl and diluents for each item were thoroughly mixed to ensure homogeneity.

ITEMS 1 and 2 (PREPARATION): For each Item, approximately 500 mg of the powder was weighed out and deposited into a glassine bag, which was folded and secured with a label. The folded glassine bag was placed into a small zip top bag and heat sealed closed. The heat sealed bag was then placed into a pre-labeled envelope.

SAMPLE PACK ASSEMBLY: One of each of the Item 1 and Item 2 envelopes was placed into a larger pre-labeled sample pack envelope.

VERIFICATION: Laboratories that conducted predistribution analysis of the samples reported consistent results that were comparable to the preparation concentrations of methamphetamine HCl. The following methods were used to examine the items: GC/MS (SIM Mode), LC/MS, GC/FID.

<u>Item</u>	<u>Preparation methamphetamine HCl</u>
1	46.01%
2	39.69%

Summary Comments

This test was designed to allow participants to assess their proficiency in the determination of powdered methamphetamine HCl concentrations. Each participant was supplied with a sample set consisting of two items containing lactose, caffeine, dimethyl sulfone, and different concentrations of methamphetamine HCl. Participants were requested to determine the methamphetamine HCl concentration for both items (Refer to the Manufacturer's Information for preparation details).

The results are separated into two tables: reported results (Table 1) and raw analytical data (Table 3). The table of reported results shows the concentration that each participant would report according to their normal reporting procedures (e.g. mean, lowest result, truncated results). The table of raw data shows the results from each determination made by the laboratory to produce their reported results.

The raw data was used to calculate the grand mean and the standard deviation for each item. Participants with "extreme" data (± 3 STD from grand mean) have been marked with an "X", and their results were excluded from the calculations of the grand mean and standard deviation. Of the 89 responding participants, two participants reported "extreme" data for Item 1, and one additional participant reported "extreme" data for both Items 1 and 2. Nine participants did not report raw data determinations for either item, six of which mentioned in their Additional Comments section that the concentration values of the samples were below their laboratory's reporting limit. The calculated grand mean of Item 1 was 46.74% with a standard deviation of 3.791 and the grand mean of Item 2 was 40.25% with a standard deviation of 3.493. These calculations are supplied to assist the participants and accrediting bodies in determining the acceptability of the results.

As a supplemental examination of the raw data, Bivariate Control Analysis was also performed to analyze the measurement of both samples simultaneously. In this analysis, a comparative performance value (CPV) is provided for each participant, which is a (unitless) ratio indicating the number of standard deviations a participant's results are from the Grand Mean. The closer a participant's CPV is to zero, the more consistent their results are with the other participants' data. For the graphical portion, an ellipse was drawn so that 95% of the time, a randomly selected participant was inside of it. Four participants, whose results fell outside of the 95% ellipse, but within the 99% control limit, have been marked with a "**". An additional six participants with results that fell outside the 99% control limit have been marked with an "X", and their results were excluded from the calculations for this supplemental examination. Nine participants that did not report raw data for either item were marked with an "M" and also excluded from the calculations. For more information regarding Bivariate Control Analysis, please see the supplemental section at the end of this report.

Participants used a variety of methods to examine the samples. The most common method of analysis utilized was GC/FID.

Reported Results

What is the concentration of methamphetamine HCl in each of the samples?

TABLE 1

WebCode	Item 1 Reported Concentration (units)	Item 2 Reported Concentration (units)	Uncertainty (k)
Preparation concentration:	46.01%	39.69%	
28TP9L	48.7 ± 1.2	40.8 ± 0.8	2
2CNFFH	47.2 ± 5.3 (% pure)	40.8 ± 4.2 (% pure)	2.65
32KNN3	49.1 ± 7.2 (percent)	43.1 ± 9.9 (percent)	2.65
3BA9U2	42 ± 3 (%)	38 ± 3 (%)	3
3J6EN3	42 ± 4.2 (percent)	39 ± 3.9 (percent)	2
3PVNXZ	45.82 ± 3.21 (% wt/wt)	41.31 ± 2.89 (% wt/wt)	2
3RFDHD	44.8 ± 2.7 (%)	34.9 ± 2.1 (%)	3
3WQQZC	44.0 (%)	40.8 (%)	
44NFGF	48.1 ± 7.5 (%)	44.5 ± 7.5 (%)	2
4KFGA2	50.05 ± 1.6 (mg/mL)	40.91 ± 1.4 (mg/mL)	
4L98FF	Refer to additional comments.	Refer to additional comments.	
4NFPEB	45 ± 2.25 (w/w%)	36 ± 1.8 (w/w%)	2
6ADFA2	45.8 ± 11.7 (%)	38.3 ± 4.6 (%)	2.65
6UZ8AX	52 ± 7 (%)	41 ± 7 (%)	2
7BEZB8	59.66 ± 1.35 (%)	49.29 ± 0.47 (%)	
7XTMYX	45 ± 3 (%)	39 ± 3 (%)	3
8DLFJX	0.23 ± 0.01 (grams)	0.20 ± 0.01 (grams)	2
8KL2AD	47.4 ± 10.2 (%)	45.5 ± 10.5 (%)	2.65

TABLE 1

WebCode	Item 1 Reported Concentration (units)	Item 2 Reported Concentration (units)	Uncertainty (k)
Preparation concentration:	46.01%	39.69%	
9CL2AB	Refer to additional comments.	Refer to additional comments.	
AAFVAV	43.2 ± 2.3 (% w/w)	42.0 ± 2.2 (% w/w)	2
AJ3WQ6	42.4 ± 4.2 (%)	36.2 ± 3.6 (%)	3
ALQ9PB	57.4 ± 12.0 (%)	48.6 ± 11.5 (%)	2.65
AP47WX	49.9 ± 4.2 (%)	40.5 ± 3.4 (%)	2
B7UERB	44 ± 3 (%)	38 ± 3 (%)	2
B86FDA	47.3 ± 5.2 (%)	39.6 ± 3.4 (%)	2.65
BAWC33	49.68 (%)	37.31 (%)	
BHPKNU	38.3 ± 0.9 (%)	45.3 ± 1.1 (%)	2
BMHPED	42.4 ± 2.6	39.6 ± 2.6	95
CAPKNR	46.3 ± 3.5 (%)	39.0 ± 3.5 (%)	3
D6TF8T	56.9 ± 15.2 (%)	44.5 ± 11.4 (%)	2.65
DN66LQ	51 ± 4 (% HCl)	38 ± 3 (% HCl)	3
E2LGA6	46.6 ± 5.7 (%)	39.7 ± 3.9 (%)	2.65
EBC668	45.9 ± 3.5 (weight %)	40.2 ± 2.5 (weight %)	2
ELTPP4	Refer to additional comments.	Refer to additional comments.	
F4PCT9	45.1 ± 2.6 (%)	40.3 ± 0.4 (%)	2
F93CQY	43.5 ± 1.5 (percentage)	34.9 ± 1.2 (percentage)	3
FTLGB4	49.9 ± 7.5 (percentage)	46.9 ± 7.5 (percentage)	2
GCFCMQ	49.3 ± 4.1 (Percent)	41.2 ± 3.5 (Percent)	2

TABLE 1

WebCode	Item 1 Reported Concentration (units)	Item 2 Reported Concentration (units)	Uncertainty (k)
Preparation concentration:	46.01%	39.69%	
GDA3T6	49 ± 3 (%w/w)	42 ± 3 (%w/w)	2
GY8UPW	36.35 (%)	31.2 (%)	
H4KULM	41.5 ± 3.5 (%)	37.3 ± 3.4 (%)	2.65
HH2RQN	51.7 ± 9.4 (%)	43.6 ± 8.8 (%)	2.65
HLZ4MN	45.9 ± 4.5 (%)	38.6 ± 4.7 (%)	2.65
HXUJCP	48.9 ± 4.1 (%)	39.1 ± 3.3 (%)	2
J4WTFW	46.2 ± 2.9 (%)	33.6 ± 2.1 (%)	3
J749M3	49 ± 3 (%w/w)	38 ± 2 (%w/w)	2
K4VF9U	44.5 ± 1.4 (%)	39.2 ± 1.3 (%)	3
KCMXM3	45.27 ± 2.47 (%)	37.62 ± 1.89 (%)	2.78
KVEYFK	46.0 ± 3.6 (%)	40.9 ± 3.4 (%)	2.65
KXPLEY	Refer to additional comments.	Refer to additional comments.	
LC68BX	Refer to additional comments.	Refer to additional comments.	
LM6WUJ	48.0 ± 5.9 (%)	41.6 ± 5.2 (%)	2.65
MRCK7Z	45.8 ± 3.0 (wt%)	42.0 ± 2.8 (wt%)	3
MVCW2Z	48.8 ± 4.0 (%)	38.4 ± 4.0 (%)	2
MVT6RF	48 ± 7 (%)	38 ± 7 (%)	2
MZ37CX	42 ± 3 (%)	41 ± 3 (%)	2
NHKNJP	53 ± 5 (%)	44 ± 5 (%)	2
NQB8XX	47 ± 4 (%)	38 ± 4 (%)	2

TABLE 1

WebCode	Item 1 Reported Concentration (units)	Item 2 Reported Concentration (units)	Uncertainty (k)
Preparation concentration:	46.01%	39.69%	
NY6CRY	38.57 ± 3.92 (%)	40.99 ± 5.05 (%)	3.18
P8GQBF	0.23 ± 0.01 (grams)	0.20 ± 0.01 (grams)	2
PDMMVF	44.1 ± 6.2 (percent purity)	38.1 ± 3.7 (percent purity)	2.65
PN72XH	44.81 ± 3.33 (%)	41.07 ± 3.06 (%)	2
PZ FEDX	43.4 ± 1.6 (%)	40.6 ± 1.5 (%)	
QHCJWC	0.22 ± 0.02 (g)	0.24 ± 0.02 (g)	2
QMLKFU	44 ± 4 (%)	34 ± 3 (%)	2
RNFPCE	56.8 ± 10.0 (%)	43.3 ± 9.2 (%)	2.65
UL3W9Q	45 ± 3 (%)	36 ± 3 (%)	2
UNPEQB	40.1 ± 0.4 (%)	32.8 ± 0.4 (%)	3
VCUKT9	49 ± 5 (%)	43 ± 5 (%)	2.07
VKJ9NB	48.8 ± 5.6 (%)	41.4 ± 3.6 (%)	2.65
VPGUDR	48.1 ± 2.8 (%)	40.4 ± 2.5 (%)	3.182
VUMM8N	61.6 ± 7.5 (%)	47.6 ± 7.5 (%)	2
VX96P9	47 ± 3.5 (%)	40 ± 3.0 (%)	2.576
WT9FL7	0.22 ± 0.01 (grams)	0.19 ± 0.01 (grams)	2
WYWZPM	Refer to additional comments.	Refer to additional comments.	
X3DM27	49 ± 3 (percent)	42 ± 3 (percent)	3
X7RK79	47.6 ± 4.6 (%)	37.4 ± 4.0 (%)	2.65
XCJRPG	42.32 ± 5.04 (%)	35.26 ± 4.20 (%)	3

TABLE 1

WebCode	Item 1 Reported Concentration (units)	Item 2 Reported Concentration (units)	Uncertainty (k)
Preparation concentration:	46.01%	39.69%	
XNWRLA	49.1 ± 4.1 (%)	39.2 ± 3.3 (%)	2
XPQHRN	43 ± 7 (%w/w)	36 ± 3 (%w/w)	2
XQ4AJ7	44.2 ± 3.5 (%)	40.0 ± 3.5 (%)	3
XVGT2M	46.1 ± 6.5 (%)	40.8 ± 4.1 (%)	2.65
Y463NM	46 ± 4 (%)	38 ± 4 (%)	2
YD7QFK	50.9 ± 7.5 (%)	43.3 ± 7.5 (%)	2
YMGT2K	47.2 ± 7.5 (Percent)	41.1 ± 7.5 (Percent)	2
YWLZJ7	47.4 ± 1.6 (%)	43.8 ± 1.4 (%)	3.3%
ZJCJBF	46.4 ± 2.8 (%)	35.7 ± 2.8 (%)	2
ZMCV7F	335.3 ± 5 (ug/ml)	178.3 ± 5 (ug/ml)	ug/ml

Reporting Procedures

TABLE 2

WebCode	Reporting Procedures
28TP9L	The lowest value of duplicate/several determinations.
2CNFFH	The mean of duplicate/several determinations.
32KNN3	The mean of duplicate/several determinations.
3BA9U2	The mean of duplicate/several determinations.
3J6EN3	The mean of duplicate/several determinations.
3PVNXZ	The mean of duplicate/several determinations.
3RFDHD	The mean of duplicate/several determinations.
44NFGF	The mean of duplicate/several determinations.
4KFGA2	The mean of duplicate/several determinations.
4L98FF	The mean of duplicate/several determinations.
4NFPEB	The mean of duplicate/several determinations.
6ADFA2	The mean of duplicate/several determinations.
6UZ8AX	The mean of duplicate/several determinations.
7BEZB8	The mean of duplicate/several determinations.
7XTMYX	The mean of duplicate/several determinations.
8DLFJX	The mean of duplicate/several determinations.
8KL2AD	The mean of duplicate/several determinations.
9CL2AB	The mean of duplicate/several determinations.
AAFVAV	The mean of duplicate/several determinations.
AJ3WQ6	The mean of duplicate/several determinations.
ALQ9PB	The mean of duplicate/several determinations.
AP47WX	The mean of duplicate/several determinations.
B7UERB	The mean of at least three integrated peaks; the mean is then truncated.
B86FDA	The mean of duplicate/several determinations.
BAWC33	The mean of duplicate/several determinations.

TABLE 2

WebCode	Reporting Procedures
BHPKNU	The mean of duplicate/several determinations.
BMHPED	The mean of duplicate/several determinations.
CAPKNR	The mean of duplicate/several determinations.
D6TF8T	The mean of duplicate/several determinations.
DN66LQ	The mean of duplicate/several determinations.
E2LGA6	The mean of duplicate/several determinations.
EBC668	The mean of duplicate/several determinations.
ELTPP4	The mean of duplicate/several determinations.
F4PCT9	The mean of duplicate/several determinations.
F93CQY	The mean of duplicate/several determinations.
FTLGB4	The mean of duplicate/several determinations.
GCFCMQ	The mean of duplicate/several determinations.
GDA3T6	The mean of duplicate/several determinations.
H4KULM	The mean of duplicate/several determinations.
HH2RQN	The mean of duplicate/several determinations.
HLZ4MN	The mean of duplicate/several determinations.
HXUJCP	The mean of duplicate/several determinations.
J4WTFW	The mean of duplicate/several determinations.
J749M3	The mean of duplicate/several determinations.
K4VF9U	The mean of duplicate/several determinations.
KCMXM3	The mean of duplicate/several determinations.
KVEYFK	The mean of duplicate/several determinations.
KXPLEY	The mean of duplicate/several determinations.
LC68BX	The mean of duplicate/several determinations.
LM6WUJ	The mean of duplicate/several determinations.
MRCK7Z	The mean of duplicate/several determinations.

TABLE 2

WebCode	Reporting Procedures
MVCW2Z	The mean of duplicate/several determinations.
MVT6RF	The mean of duplicate/several determinations.
MZ37CX	The mean of at least 3 out of 6 integrated peaks, the mean is then truncated
NHKNJP	The mean of duplicate/several determinations.
NQB8XX	The mean of duplicate/several determinations.
NY6CRY	The mean of duplicate/several determinations.
P8GQBF	The mean of duplicate/several determinations.
PDMMVF	The mean of duplicate/several determinations.
PN72XH	The mean of duplicate/several determinations.
PZFEDX	The mean of duplicate/several determinations.
QHCJWC	The mean of duplicate/several determinations.
QMLKFU	The lowest mean of triplicate injections of two separate sample, truncated
RNFPCE	The mean of duplicate/several determinations.
UL3W9Q	The mean of at least 3 out of 6 integrated peaks, the mean is then truncated
UNPEQB	The mean of duplicate/several determinations.
VCUKT9	The lowest value of duplicate/several determinations.
VKJ9NB	The mean of duplicate/several determinations.
VPGUDR	The mean of duplicate/several determinations.
VUMM8N	The mean of duplicate/several determinations.
VX96P9	The mean of duplicate/several determinations.
WT9FL7	The mean of duplicate/several determinations.
WYWZPM	The mean of duplicate/several determinations.
X3DM27	The mean of duplicate/several determinations.
X7RK79	The mean of duplicate/several determinations.
XCJRPG	The mean of duplicate/several determinations.
XNWRLA	The mean of duplicate/several determinations.

TABLE 2

WebCode	Reporting Procedures
XPQHRN	The mean of duplicate/several determinations.
XQ4AJ7	The mean of duplicate/several determinations.
XVGT2M	The mean of duplicate/several determinations.
Y463NM	The mean of duplicate/several determinations.
YD7QFK	The mean of duplicate/several determinations.
YMGT2K	The mean of duplicate/several determinations.
YWLZJ7	The mean of duplicate/several determinations.
ZJCJBF	The mean of duplicate/several determinations.
ZMVC7F	The mean of duplicate/several determinations.

Response Summary		Participants: 86
The mean of duplicate/several determinations:	80	(93.0%)
The lowest value of duplicate/several determinations:	2	(2.3%)
Other:	4	(4.7%)

Raw Data

List of raw data determinations in percent.

TABLE 3 - Item 1

WebCode	Preparation target concentration : 46.01%							Mean	
28TP9L	49.60	48.10	49.10	48.10				48.73	
2CNFFH	45.27	47.41	46.53	49.67	46.69	47.76		47.22	
32KNN3	48.12	48.52	49.25	49.14	53.41	46.45		49.15	
3BA9U2	43.05	42.92						42.99	
3J6EN3	43.00	42.00						42.50	
3PVNXZ	46.72	44.91						45.82	
3RFDHD	44.52	45.10						44.81	
3WQQZC	44.00							44.00	
44NFGF	47.90	48.17	48.10					48.06	
4KFGA2	50.13	49.98						50.06	
4NFPEB	45.00	44.91						44.96	
6ADFA2	52.02	48.69	44.71	46.10	43.69	39.80		45.84	
6UZ8AX	52.74	51.25	52.57					52.19	
7BEZB8	58.47	58.56	61.11	60.50				59.66 X	
7XTMYX	44.29	46.51						45.40	
8DLFJX	48.03	47.97	46.92	47.46				47.60	
8KL2AD	51.17	45.09	43.50	49.31	51.33	44.04		47.41	
AAFVAV	43.30	43.10						43.20	
AJ3WQ6	42.56	42.37						42.47	
ALQ9PB	52.72	63.60	60.33	55.31	58.50	53.65		57.35	
AP47WX	49.85	50.09						49.97	
B7UERB	44.73	44.71	44.57	44.42	44.21	44.24		44.48	
B86FDA	47.42	46.52	44.82	48.04	48.32	48.67		47.30	
BAWC33	45.11	50.28	49.33	47.66	51.46	51.86	50.62	51.09	49.68
BHPKNU	37.80	38.70						38.25	
BMHPED	42.00	42.50	42.80	42.20				42.38	
D6TF8T	58.95	54.10	47.95	58.62	64.34	57.64		56.93	
DN66LQ	51.45	51.34						51.40	
E2LGA6	44.33	46.03	46.68	45.75	49.17	47.71		46.61	

TABLE 3 - Item 1

WebCode	Preparation target concentration : 46.01%						Mean		
EBC668	47.33	46.53	46.45	47.41	43.78	43.78	45.88		
F4PCT9	43.77	44.33	44.60	44.72	46.02	46.13	46.19	46.28	45.26
F93CQY	43.19	43.92							43.55
FTLGB4	52.66	50.04	47.05						49.92
GCFMQ	49.25	49.43							49.34
GDA3T6	49.30	48.80	49.40	48.90					49.10
GY8UPW	38.40	34.30							36.35
H4KULM	41.66	41.00	41.23	41.58	41.11	42.56			41.52
HH2RQN	52.47	53.34	51.94	45.37	53.63	53.70			51.74
HLZ4MN	45.23	45.71	45.77	44.59	46.24	47.63			45.86
HXUJCP	49.66	48.21							48.94
J4WTFW	46.50	45.80							46.15
J749M3	49.06	49.08	49.29	49.16					49.15
K4VF9U	44.16	44.94							44.55
KCMXM3	44.68	46.51	46.46	44.13	44.56				45.27
KVEYFK	45.81	46.32	46.23	46.35	45.71	45.83			46.04
LM6WUJ	50.18	49.21	48.95	45.64	47.33	46.62			47.99
MRCK7Z	45.57	45.21	46.76	46.17					45.93
MVCW2Z	48.70	48.93							48.82
MVT6RF	50.00	50.10	46.12						48.74
MZ37CX	42.05	42.18	42.51	42.14	42.24				42.22
NHKNJP	53.00	53.00							53.00
NQB8XX	47.79	47.91	48.27						47.99
NY6CRY	41.19	38.52	38.54	36.03					38.57
P8GQBF	48.24	48.14	48.07	48.18					48.16
PDMMVF	42.91	45.24	47.48	43.18	43.63	42.15			44.10
PN72XH	47.90	42.04	44.48						44.81
PZFDX	43.29	43.55							43.42
QHCJWC	44.84	45.97							45.41
QMLKFU	44.40	44.10	44.40	46.30	46.20	46.70			45.35
RNFPCE	54.30	52.65	60.31	56.32	55.76	61.30			56.77

TABLE 3 - Item 1

WebCode	Preparation target concentration : 46.01%						Mean
UL3W9Q	45.66	45.69	45.69	45.63	45.78		45.69
UNPEQB	40.71	40.50	39.67	39.54			40.10
VCUKT9	50.00	50.00	50.00	49.00	49.00	49.00	49.50
VKJ9NB	48.64	49.77	46.54	49.53	47.48	50.78	48.79
VPGUDR	46.50	49.50	48.00	48.40			48.10
VUMM8N	62.55	58.63	63.66				61.61 X
VX96P9	48.88	45.41	48.01				47.43
WT9FL7	45.49	45.30	47.63	48.64			46.77
X3DM27	49.19	49.34					49.27
X7RK79	46.22	48.01	47.20	46.80	49.32	47.87	47.57
XCJRPG	40.09	44.44	42.44				42.32
XNWRLA	48.19	50.04					49.11
XPQHRN	42.74	43.98	43.64	42.58			43.23
XVGT2M	45.64	42.51	46.36	45.82	48.70	47.30	46.06
Y463NM	45.92	46.10	47.27				46.43
YD7QFK	50.03	51.32	51.40				50.92
YMGT2K	48.40	46.30	46.80				47.17
YWLZJ7	46.84	48.18					47.51
ZJCJBF	45.66	46.79	46.66	46.63			46.44
ZMCV7F	32.36	33.53					32.95 X

Statistical Analysis for Item 1

Participants: 89

Preparation Target Concentration:	46.01%	Number of Participants Included:	77
Grand Mean:	46.74	Number of Participants Excluded:	3
Standard Deviation:	3.791	Number of Participants without Raw Data:	9

TABLE 3 - Item 2

WebCode	Preparation target concentration : 39.69%								Mean
28TP9L	41.10	41.20	40.40	40.40					40.78
2CNFFH	42.26	40.80	39.79	39.95	40.09	41.86			40.79
32KNN3	39.14	41.79	47.87	42.04	47.09	40.83			43.13
3BA9U2	38.78	38.71							38.75
3J6EN3	39.00	38.00							38.50
3PVNXZ	40.55	42.08							41.32
3RFDHD	34.74	35.15							34.95
3WQQZC	40.80								40.80
44NFGF	44.37	44.36	44.84						44.52
4KFGA2	40.26	41.56							40.91
4NFPEB	38.47	33.50							35.99
6ADFA2	39.12	38.32	36.75	36.73	39.88	39.11			38.32
6UZ8AX	41.65	41.69	41.54						41.63
7BEZB8	49.12	49.28	48.83	49.93					49.29
7XTMYX	39.78	39.05							39.42
8DLFJX	41.54	41.25	41.40	41.44					41.41
8KL2AD	42.52	49.98	47.42	45.82	47.54	39.72			45.50
AAFVAV	42.00	42.00							42.00
AJ3WQ6	36.26	36.27							36.27
ALQ9PB	54.76	45.81	50.17	44.59	45.14	51.32			48.63
AP47WX	40.82	40.36							40.59
B7UERB	38.10	37.94	38.07	38.08					38.05
B86FDA	39.59	39.84	40.27	40.02	38.75	39.11			39.60
BAWC33	38.63	38.07	38.67	38.49	35.62	35.90	34.88	38.22	37.31
BHPKNU	45.10	45.60							45.35
BMHPED	39.90	39.50	39.40	39.80					39.65
D6TF8T	46.79	46.87	47.56	36.60	45.52	43.67			44.50
DN66LQ	38.37	38.74							38.56
E2LGA6	38.90	40.55	39.22	38.73	40.71	40.36			39.75
EBC668	40.15	40.31	39.58	40.37	40.08	40.76			40.21
F4PCT9	40.17	40.23	40.24	40.27	40.36	40.37	40.48	40.48	40.33

TABLE 3 - Item 2

WebCode	Preparation target concentration : 39.69%						Mean
F93CQY	34.90	34.98					34.94
FTLGB4	48.12	48.54	48.06	42.95			46.92
GCFCMQ	41.54	40.99					41.27
GDA3T6	42.00	42.00	42.60	42.30			42.23
GY8UPW	31.30	31.10					31.20
H4KULM	38.11	37.34	36.18	36.90	37.84	37.55	37.32
HH2RQN	47.35	42.23	39.15	45.69	45.58	41.84	43.64
HLZ4MN	39.24	37.01	37.38	38.59	40.84	38.72	38.63
HXUJCP	39.23	39.03					39.13
J4WTFW	33.90	33.30					33.60
J749M3	37.90	38.17	37.70	37.91			37.92
K4VF9U	38.51	39.96					39.24
KCMXM3	38.18	38.24	38.20	36.66	36.82		37.62
KVEYFK	40.33	41.11	41.16	40.27	41.52	40.72	40.85
LM6WUJ	43.54	40.93	38.98	42.21	41.51	42.50	41.61
MRCK7Z	42.55	43.50	41.16	41.29			42.13
MVCW2Z	38.63	38.27					38.45
MVT6RF	37.99	36.19	39.92				38.03
MZ37CX	41.87	41.57	41.42	41.36	41.41		41.52
NHKNJP	43.00	44.00					43.50
NQB8XX	37.72	37.65	38.80				38.06
NY6CRY	43.87	40.00	39.46	40.63			40.99
P8GQBF	40.55	41.64	40.95	41.30			41.11
PDMMVF	37.86	36.66	38.78	37.61	38.71	38.88	38.08
PN72XH	40.42	41.20	41.59				41.07
PZFEDX	40.12	41.01					40.57
QHCJWC	47.65	48.83					48.24
QMLKFU	38.30	38.30	38.50	34.00	34.10	34.30	36.25
RNFPCE	46.63	45.88	44.55	43.72	40.35	38.37	43.25
UL3W9Q	36.79	36.46	36.46	36.48			36.55
UNPEQB	32.88	32.85	32.87	32.78			32.84

TABLE 3 - Item 2

WebCode	Preparation target concentration : 39.69%						Mean
VCUKT9	43.00	43.00	43.00	43.00	43.00	43.00	43.00
VKJ9NB	41.83	40.65	40.57	41.56	41.89	41.88	41.40
VPGUDR	41.90	40.30	39.20	40.10			40.38
VUMM8N	49.73	44.37	48.57				47.56
VX96P9	40.15	41.95	40.31				40.80
WT9FL7	41.74	42.18	39.41	38.49			40.46
X3DM27	42.25	42.17					42.21
X7RK79	38.01	38.25	35.44	38.09	37.24	37.50	37.42
XCJRPG	35.44	35.70	34.63				35.26
XNWRLA	39.12	39.29					39.21
XPQHRN	36.00	36.00					36.00
XVGT2M	41.37	42.26	41.19	39.39	40.22	40.49	40.82
Y463NM	38.17	37.78	38.34				38.10
YD7QFK	43.55	43.11	43.17				43.28
YMGT2K	41.00	41.40	40.80				41.07
YWLZJ7	43.33	44.36					43.85
ZJCJBF	36.62	36.78	34.64	34.68			35.68
ZMCV7F	16.93	17.83					17.38 X

Statistical Analysis for Item 2		Participants: 89	
Preparation Target Concentration:	39.69%	Number of Participants Included:	79
Grand Mean:	40.25	Number of Participants Excluded:	1
Standard Deviation:	3.493	Number of Participants without Raw Data:	9

TABLE 3 - Response Summary

Response Summary	Item 1	Item 2
Preparation concentration	46.01%	39.69%
Grand Mean	46.74	40.25
Standard Deviation	3.791	3.493

Method of Analysis

TABLE 4

WebCode	GC	LC	FTIR	GC/MS	LC/MS	UV	GC/FID	Other
28TP9L								qNMR
2CNFFH							✓	
32KNN3							✓	
3BA9U2							✓	
3F3DLK				✓				
3J6EN3								UPLC
3PVNXZ				✓				
3RFDHD							✓	
3WQQZC				✓				LC/DAD
44NFGF				✓				
4KFGA2		✓						
4L98FF							✓	
4NFPEB		✓						
6ADFA2							✓	
6UZ8AX		✓	✓					
7BEZB8								HPLC
7XTMYX							✓	
8DLFJX	✓							
8KL2AD							✓	
9CL2AB							✓	
AAFVAV		✓						
AJ3WQ6							✓	
ALQ9PB							✓	
AP47WX		✓						
B7UERB								NMR
B86FDA							✓	
BAWC33		✓					✓	
BHPKNU		✓						
BMHPED				✓				
CAPKNR	✓							
D6TF8T							✓	
DN66LQ							✓	

TABLE 4

WebCode	GC	LC	FTIR	GC/MS	LC/MS	UV	GC/FID	Other
E2LGA6							✓	
EBC668		✓						
ELTPP4							✓	
F4PCT9							✓	
F93CQY							✓	
FTLGB4				✓				
GCFCMQ		✓						
GDA3T6		✓						
GY8UPW				✓				
H4KULM							✓	
HH2RQN							✓	
HLZ4MN							✓	
HXUJCP		✓						
J4WTFW							✓	
J749M3		✓						
K4VF9U							✓	
KCMXM3							✓	
KVEYFK							✓	
KXPLEY							✓	
LC68BX							✓	
LM6WUJ							✓	
MRCK7Z							✓	
MVCW2Z				✓				
MVT6RF		✓				✓		
MZ37CX								NMR
NHKNJP					✓			
NQB8XX								HPLC-DAD
NY6CRY							✓	
P8GQBF							✓	
PDMMVF							✓	
PN72XH				✓				
PZFEDX								NMR
QHCJWC				✓				

TABLE 4

WebCode	GC	LC	FTIR	GC/MS	LC/MS	UV	GC/FID	Other
QMLKFU							✓	
RNFPCE							✓	
UL3W9Q								NMR
UNPEQB		✓						
VCUKT9							✓	
VKJ9NB							✓	
VPGUDR							✓	
VUMM8N				✓				
VX96P9					✓			
WT9FL7	✓							
WYWZPM							✓	
X3DM27							✓	
X7RK79							✓	
XCJRPQ							✓	
XNWRLA		✓						
XPQHRN					✓			NMR
XQ4AJ7							✓	
XVGT2M							✓	
Y463NM		✓						
YD7QFK				✓				
YMGT2K				✓				
YWLZJ7								quantitative proton NMR
ZJCJBF							✓	
ZMCV7F		✓		✓				

Response SummaryParticipants: **89**

Method:	GC	LC	FTIR	GC/MS	LC/MS	UV	GC/FID
Participants:	3	17	1	14	3	1	45
Percent:	3.4%	19.1%	1.1%	15.7%	3.4%	1.1%	50.6%

Additional Comments

TABLE 5

WebCode	Additional Comments
3F3DLK	We were unable to perform the quantitative element of this test on this occasion due to lack of a developed method. Both samples confirmed as containing methylamphetamine together with caffeine.
3J6EN3	The laboratory does not routinely report the concentration of drugs as the HCl salt, or under take any conversions to HCl salt for calculating averages.
3WQQZC	Item 1 : caffeine : 43.8 % ; dimethylsulfone : 4.5 %. Item 2 : caffeine : 44.0 %
4L98FF	The mean concentration values for items 1 and 2 are below the reporting limit of the laboratory.
4NFPEB	Spot test (marquis) and FTIR used to identify sample as Methylamphetamine Hydrochloride and Caffeine
9CL2AB	The mean concentration values for items 1 and 2 are below the reporting limit of the laboratory.
AAFVAV	Caffeine indicated in each of the items.
B7UERB	For Item 1, six out of a possible six integral values were used to determine the purity. For Item 2, four out of a possible six integral values were used to determine the purity.
BAWC33	Caffeine detected in both Item 1 and Item 2
EBC668	Measured with HPLC/DAD: Item 1 contains 36.9 ± 2.8 weight% methamphetamine-base. Item 2 contains 32.3 ± 2.0 weight% methamphetamine-base. Measured with qNMR: Item 1 contains 38.1 ± 1.3 weight% methamphetamine-base. Item 2 contains 32.7 ± 1.1 weight% methamphetamine-base.
ELTPP4	The mean concentration values for items 1 and 2 are below the reporting limit of the laboratory.
F93CQY	The purity of Methamphetamine in Item 1 is 43.5%. The purity of Methamphetamine in Item 2 is 34.9%
K4VF9U	Both Item 1 and Item 2 also contain caffeine
KXPLEY	The mean concentration values for items 1 and 2 are below the reporting limit of the laboratory.
LC68BX	The mean concentration values for items 1 and 2 are below the reporting limit of the laboratory.
MVCW2Z	Our lab did calculations to determine methamphetamine HCl purity per PT instructions.
MZ37CX	5 integrated values were used for Item 1. 5 integrated values were used for Item 2. Both samples were difficult to dissolve in deuterium oxide.
NQB8XX	Color test, FTIR, and GC-MS used for qualitative analysis.
UL3W9Q	5 integrated values were used for Item 1. 4 integrated values were used for Item 2. Both samples were difficult to dissolve in deuterium oxide.
UNPEQB	Caffeine was also indicated in both items when analyzed by GC/MS.
VKJ9NB	Reported as the salt form.
VPGUDR	The mean of quadruplicate determinations. Four samples for each Item; duplicate injection for each sample. A total of eight injections for each Item. The values above are the average of duplicate injections for each sample prepared.

TABLE 5

WebCode	Additional Comments
WYWZPM	The mean concentration values for items 1 and 2 are below the reporting limit of the laboratory.
YD7QFK	Caffeine was also detected, but not reported.
ZMCV7F	The powder samples are mixed with caffeine. Quantitation of samples was done by using GC/MS and HPLC technique.

Supplemental: Hotelling T-Squared Bivariate Control Analysis

Hotelling T-Squared Bivariate Control Analysis is used in many other industries to examine results. Although not typically used in forensic science, CTS is presenting an introduction to this type of statistical data analysis. A laboratory may choose to delve deeper in a participant's results by studying both sets of statistics available in this report. The statistics presented in Table 3 (Raw Data) of this report examine the results of each item independently of each other. However, because the same materials are chosen for both samples, there should be a correlation of measurement performance between the two samples. A bivariate analysis technique judges measurement performance on both samples simultaneously, represented as an ellipse. For each participant, the mean of Item 1 (x-axis) is plotted against the mean of Item 2 (y-axis). The horizontal and vertical cross-hairs are the grand means for each Item. When 20 or more participants are included in the statistics, an ellipse is drawn so that 95% of the time a randomly selected participant will be included inside.

When considering your participant's position on the plot relative to the ellipse, remember that, generally speaking, if a participant's plotted point falls on the major axis outside of the ellipse, the participant is consistent in its measurements between the two samples but exhibits an offset from the grand mean (systematic difference). If a plotted point falls to the side of the ellipse, it indicates possible differences in the way that the participant tested the two samples or differences in sample behavior (consistency difference). The two-sample plot enables you to see which sample, if either, is "extreme" and to ascertain the nature of the "extreme" data.

Systematic Difference

Bias is illustrated in the control ellipse on the two sample plot. If a particular analysis/sample combination did not show bias, the control ellipse would become a circle. Differences in procedures, conditions, instrumentation and sample preparation all contribute to the bias of a participant. When these differences become too large, a participant may receive a Data Flag. When the test results for both samples are both high or low compared to the group, a participant has a fixed set of factors on which to focus to identify a cause. Furthermore, since additional testing on similar samples should produce similar high or low results, it is possible to determine that a systematic error has been successfully corrected.

Consistency Difference

The participant's results indicate that there are differences in the way the two samples tested (the plotted point falls to the side of the ellipse). This type of error may be attributed to the analyst deviating from the procedure when testing one of the samples or a material interaction occurrence with the instrument or room conditions. The inconsistency is reflected in the Comparative Performance Values (CPV) for the two samples, such as a +1.5 CPV for Item 1 and a -2.2 CPV for Item 2. CPV is the number of standard deviations a value is from the grand mean.

Key for Data Flags

<u>Data Flag</u>	<u>Statistically Included/Excluded</u>	<u>Explanation</u>
*	Included	Results fall outside 95% ellipse, but within a 99% control limit (ellipse) that is calculated.
X	Excluded	Results fall outside of 99% control limit.
M	Excluded	Data is missing for at least one item

Bivariate Control Analysis

WebCode	Data Flag	Item 1			Item 2		
		Participant Mean	Difference from Grand Mean	CPV	Participant Mean	Difference from Grand Mean	CPV
28TP9L		48.73	1.742	0.52	40.78	0.930	0.15
2CNFFH		47.22	0.239	0.13	40.79	0.947	0.15
32KNN3		49.15	2.165	0.64	43.13	3.282	0.82
3BA9U2		42.99	-3.998	-0.99	38.75	-1.100	-0.43
3F3DLK	M						
3J6EN3		42.50	-4.483	-1.12	38.50	-1.345	-0.50
3PVNXZ		45.82	-1.168	-0.24	41.32	1.470	0.30
3RFDHD		44.81	-2.173	-0.51	34.95	-4.900	-1.52
3WQQZC		44.00	-2.983	-0.72	40.80	0.955	0.16
44NFGF		48.06	1.074	0.35	44.52	4.678	1.22
4KFGA2		50.06	3.072	0.87	40.91	1.065	0.19
4L98FF	M						
4NFPEB		44.96	-2.028	-0.47	35.99	-3.860	-1.22
6ADFA2		45.84	-1.148	-0.24	38.32	-1.527	-0.55
6UZ8AX		52.19	5.204	1.44	41.63	1.782	0.39
7BEZB8	X	59.66	12.675	3.41	49.29	9.448	2.59
7XTMYX		45.40	-1.583	-0.35	39.42	-0.430	-0.24
8DLFJX		47.60	0.612	0.23	41.41	1.562	0.33
8KL2AD		47.41	0.424	0.18	45.50	5.655	1.50
9CL2AB	M						
AAFVAV		43.20	-3.783	-0.93	42.00	2.155	0.50
AJ3WQ6		42.47	-4.518	-1.13	36.27	-3.580	-1.14
ALQ9PB	*	57.35	10.369	2.80	48.63	8.787	2.40
AP47WX		49.97	2.983	0.85	40.59	0.742	0.10
B7UERB		44.48	-2.504	-0.60	38.05	-1.798	-0.63

WebCode	Data Flag	Item 1			Item 2		
		Participant Mean	Difference from Grand Mean	CPV	Participant Mean	Difference from Grand Mean	CPV
B86FDA		47.30	0.315	0.15	39.60	-0.248	-0.19
BAWC33		49.68	2.693	0.77	37.31	-2.535	-0.84
BHPKNU	X	38.25	-8.733	-2.24	45.35	5.505	1.46
BMHPED		42.38	-4.608	-1.15	39.65	-0.195	-0.17
CAPKNR	M						
D6TF8T	*	56.93	9.950	2.69	44.50	4.657	1.22
DN66LQ		51.40	4.412	1.23	38.56	-1.290	-0.49
E2LGA6		46.61	-0.371	-0.03	39.75	-0.100	-0.15
EBC668		45.88	-1.103	-0.23	40.21	0.363	-0.01
ELTPP4	M						
F4PCT9		45.26	-1.728	-0.39	40.33	0.480	0.02
F93CQY		43.55	-3.429	-0.84	34.94	-4.905	-1.52
FTLGB4		49.92	2.934	0.84	46.92	7.072	1.91
GCFCMQ		49.34	2.356	0.69	41.27	1.420	0.29
GDA3T6		49.10	2.117	0.62	42.23	2.380	0.56
GY8UPW	*	36.35	-10.633	-2.74	31.20	-8.645	-2.59
H4KULM		41.52	-5.460	-1.38	37.32	-2.525	-0.84
HH2RQN		51.74	4.759	1.32	43.64	3.795	0.97
HLZ4MN		45.86	-1.121	-0.23	38.63	-1.215	-0.46
HXUJCP		48.94	1.954	0.58	39.13	-0.712	-0.32
J4WTFW		46.15	-0.833	-0.16	33.60	-6.245	-1.90
J749M3		49.15	2.163	0.63	37.92	-1.924	-0.67
K4VF9U		44.55	-2.433	-0.58	39.24	-0.610	-0.29
KCMXM3		45.27	-1.715	-0.39	37.62	-2.225	-0.75
KVEYFK		46.04	-0.941	-0.18	40.85	1.007	0.17
KXPLEY	M						
LC68BX	M						

WebCode	Data Flag	Item 1			Item 2		
		Participant Mean	Difference from Grand Mean	CPV	Participant Mean	Difference from Grand Mean	CPV
LM6WUJ		47.99	1.005	0.33	41.61	1.767	0.39
MRCK7Z		45.93	-1.056	-0.21	42.13	2.280	0.54
MVCW2Z		48.82	1.832	0.55	38.45	-1.395	-0.52
MVT6RF		48.74	1.757	0.53	38.03	-1.812	-0.64
MZ37CX		42.22	-4.760	-1.19	41.52	1.679	0.36
NHKNJP		53.00	6.017	1.65	43.50	3.655	0.93
NQB8XX		47.99	1.007	0.33	38.06	-1.788	-0.63
NY6CRY	X	38.57	-8.413	-2.16	40.99	1.145	0.21
P8GQBF		48.16	1.174	0.37	41.11	1.265	0.25
PDMMVF		44.10	-2.885	-0.70	38.08	-1.762	-0.62
PN72XH		44.81	-2.176	-0.51	41.07	1.225	0.23
PZFEDX		43.42	-3.563	-0.88	40.57	0.720	0.09
QHCJWC	X	45.41	-1.578	-0.35	48.24	8.395	2.29
QMLKFU		45.35	-1.633	-0.37	36.25	-3.595	-1.15
RNFPCE	*	56.77	9.790	2.65	43.25	3.405	0.86
UL3W9Q		45.69	-1.294	-0.28	36.55	-3.300	-1.06
UNPEQB		40.10	-6.879	-1.75	32.84	-7.001	-2.12
VCUKT9		49.50	2.517	0.73	43.00	3.155	0.79
VKJ9NB		48.79	1.807	0.54	41.40	1.552	0.33
VPGUDR		48.10	1.117	0.36	40.38	0.530	0.04
VUMM8N	X	61.61	14.630	3.92	47.56	7.712	2.09
VX96P9		47.43	0.450	0.18	40.80	0.958	0.16
WT9FL7		46.77	-0.218	0.01	40.46	0.610	0.06
WYWZPM	M						
X3DM27		49.27	2.282	0.67	42.21	2.365	0.56
X7RK79		47.57	0.587	0.22	37.42	-2.423	-0.81
XCJRPG		42.32	-4.660	-1.17	35.26	-4.588	-1.43

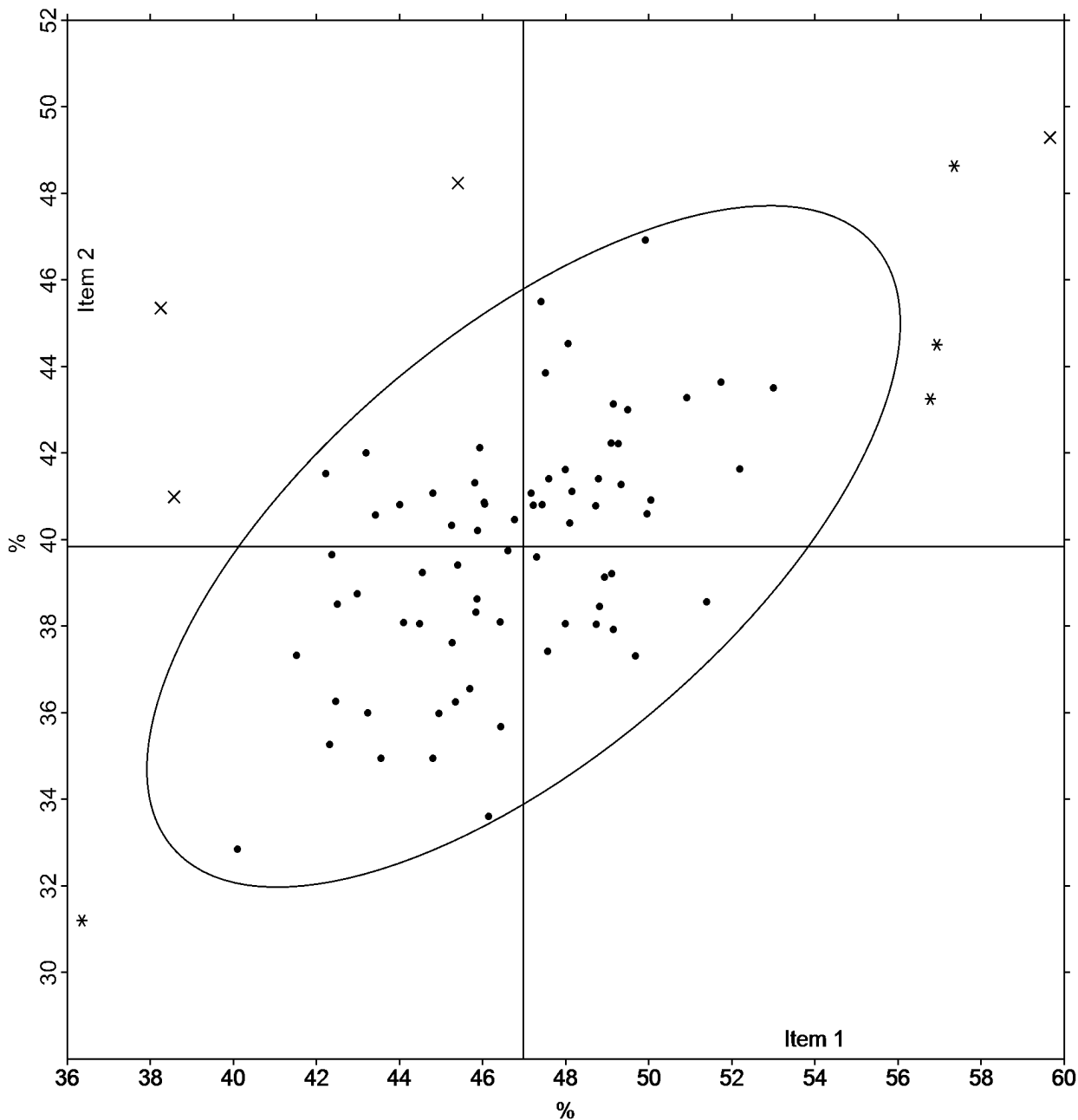
WebCode	Data Flag	Item 1			Item 2		
		Participant Mean	Difference from Grand Mean	CPV	Participant Mean	Difference from Grand Mean	CPV
XNWRLA		49.11	2.129	0.63	39.21	-0.640	-0.30
XPQHRN		43.23	-3.748	-0.92	36.00	-3.845	-1.22
XQ4AJ7	M						
XVGT2M		46.06	-0.928	-0.18	40.82	0.975	0.16
Y463NM		46.43	-0.553	-0.08	38.10	-1.748	-0.62
YD7QFK		50.92	3.934	1.10	43.28	3.432	0.87
YMG2K		47.17	0.184	0.11	41.07	1.222	0.23
YWLZJ7		47.51	0.527	0.20	43.85	4.000	1.03
ZJCJBF		46.44	-0.548	-0.08	35.68	-4.165	-1.31
ZMCV7F	X	32.95	-14.038	-3.64	17.38	-22.465	-6.55

Response Summary	Item 1	Item 2	Participants: 89
Preparation Concentration	46.01%	39.69%	
Grand Mean	46.98	39.85	
Standard Deviation	3.60	3.13	
Participants Included: 74	Participants Excluded: 6	Participants without Raw Data for both items: 9	

Bivariate Control Analysis

Item 1 Grand Mean: 46.98

Item 2 Grand Mean: 39.85



*Two participants marked as outliers (X) are not seen on the graph above due to having mean values that are outside of the x-axis or y-axis percentage ranges.

-End of Report-
(Appendix may follow)

Test No. 20-5051: Quantitative Drug Analysis - Methamphetamine HCl

DATA MUST BE SUBMITTED BY **Feb. 16, 2021, 11:59 p.m.** TO BE INCLUDED IN THE REPORT

Participant Code: U1234A

WebCode: VDLFFG

The Accreditation Release section can be accessed by using the "Continue to Final Submission" button above. This information can be entered at any time prior to submitting to CTS.

Test Description:

Investigators have submitted two powdered methamphetamine HCl samples from separate cases to be quantitatively examined. Using your laboratory's procedures, analyze each sample and report the quantitative determination of methamphetamine HCl present in the samples.

-Please follow your laboratory's policies and procedures for sample homogenization.

-This is not intended as a qualitative test but rather as a quantitative examination of the methamphetamine HCl present in the samples.

Items Submitted (Sample Pack DQ1):

Items 1 & 2: Powdered methamphetamine HCl samples

1a.) What is the concentration of methamphetamine HCl in each of the samples? (Results should be reported using your laboratory reporting criteria for decimal places, uncertainty, and units.)

Reported Concentration	Uncertainty (k= <input style="width: 50px; border: 1px solid black;" type="text" value="1"/> <input style="width: 50px; border: 1px solid black;" type="text" value="1"/>)	Units
Item 1: <input style="width: 150px;" type="text"/>	± <input style="width: 100px;" type="text"/>	(<input style="width: 100px;" type="text"/>)
Item 2: <input style="width: 150px;" type="text"/>	± <input style="width: 100px;" type="text"/>	(<input style="width: 100px;" type="text"/>)

1b.) Are the values listed above:

The mean of duplicate / several determinations?

The lowest value of duplicate / several determinations?

Other? (Specify):

2.) Please list your raw data determinations below in percent of methamphetamine HCl. (Results not reported in % will be excluded from statistical calculations.)

Item 1 (%)	Item 2 (%)
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>

3.) What methods were used to quantitatively examine the items?

- GC
- GC/MS
- GC/FID
- LC
- LC/MS
- Other (specify):
- FTIR
- UV

4.) Additional Comments

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

RELEASE OF DATA TO ACCREDITATION BODIES

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

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

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

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

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

ANAB Certificate No.
(Include ASCLD/LAB Certificate here)

A2LA Certificate No.

Step 2: Complete the Laboratory Identifying Information in its entirety.

Authorized Contact Person and Title

Laboratory Name

Location (City/State)