



# **Quantitative Drug Analysis - Methamphetamine HCl**

## **Test No. 21-5051 Summary Report**

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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 91 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 lactose. Participants were requested to analyze each item and report the quantitative determination of methamphetamine HCl present in the samples.

### SAMPLE PREPARATION-

The appropriate amount of methamphetamine HCl and lactose 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, GC/FID, UV.

<u>Item</u>	<u>Preparation methamphetamine HCl</u>
1	68%
2	77%

## 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 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 most common reporting procedure amongst participants was using the mean of duplicate/several determinations.

The raw data was used to calculate the grand mean and the standard deviation for each item. Participants with "extreme" data ( $\pm 3$  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 91 responding participants, one participant reported "extreme" data for Item 1 and one participant reported "extreme" data for Item 2. An additional participant reported "extreme" data for both Items 1 and 2. Two participants did not report raw data determinations for either item. The calculated grand mean of Item 1 was 67.00% with a standard deviation of 1.629, and the grand mean of Item 2 was 76.05% with a standard deviation of 1.755. These calculations are supplied to assist the participants and accrediting bodies in determining the acceptability of the results.

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

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. Six participants whose results fell outside of the 95% ellipse but within the 99% control limit have been marked with a "\*\*". An additional five 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. Two 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.

# 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)
<b>Preparation concentration:</b>	<b>68%</b>	<b>77%</b>	
2HFJLW	67.52 (%)	78.77 (%)	
2UUE3G	65 ± 8 (%)	75 ± 10 (%)	3
3BB6EL	68.4 ± 2.3 (%)	78.2 ± 2.6 (%)	2
3EDWRT	66.9 ± 2.9 (%w/w)	76.4 ± 3.3 (%w/w)	2
3Q4UBH	66.8 ± 1.5 (% weight)	76.15 ± 1.5 (% weight)	1.5
3ZEWWJ	67.8 ± 1 (% by weight)	76.7 ± 1 (% by weight)	2
4J33GE	65 ± 8 (%)	75 ± 10 (%)	3
4QKB4Q	68.6 ± 3.9 (%)	77.2 ± 4.4 (%)	2
4TD63F	0.29 ± 0.03 (g)	0.35 ± 0.04 (g)	3
64M2KN	67.5 ± 4.2 (%)	75.9 ± 4.7 (%)	2
6DCPHC	68.7 ± 4.6 (%)	77.5 ± 4.6 (%)	2
6FWWFE	66.0 ± 4.6 (Percent)	73.4 ± 4.6 (Percent)	2
6H3CUW	69 ± 6 (%)	78 ± 6 (%)	2
6UXBZH	65.4 ± 1.3 (%)	73.1 ± 1.0 (%)	2
72WHUB	67.7 ± 0.8 (%)	76.6 ± 0.8 (%)	t=2.306
76WQYK	67.8 ± 2.8 (%)	77.8 ± 2.8 (%)	2
7R9JAW	65 ± 7 (%)	75 ± 7 (%)	2
7VRJL	67.2 ± 6.7 (%)	76.3 ± 7.6 (%)	3
8BFBJC	68.46 ± 0.92 (%)	77.72 ± 0.71 (%)	

TABLE 1

WebCode	Item 1 Reported Concentration (units)	Item 2 Reported Concentration (units)	Uncertainty (k)
Preparation concentration:	68%	77%	
8G6L2M	67.2 ± 1.6 (%)	75.8 ± 1.8 (%)	2
92RG8F	68.32 ± 1.91 (%)	77.28 ± 1.91 (%)	2.04
934A7N	65.88 ± 6 (percent)	75.57 ± 6 (percent)	2
94TMLL	68.9 ± 3.9 (Percentage)	79.5 ± 4.5 (Percentage)	2
9GYQVM	68.6 ± 2.5 (%)	77.3 ± 2.8 (%)	3.6%
A3VWTC	65.0 ± 1.1 (%)	74.1 ± 0.6 (%)	2
A6363W	62 ± 5 (%)	72 ± 6 (%)	2
AYGYLP	68 ± 5 (%)	83 ± 5 (%)	5
AZUJEY	67.4 ± 5.3 (%)	75.3 ± 10.6 (%)	2.65
BVBVBE	70.0 ± 2.3 (%)	78.2 ± 2.6 (%)	2
C2DJ47	66 ± 9 (%)	76 ± 10 (%)	3
C44JNV	63.7 ± 9.4 (%)	74.5 ± 6.0 (%)	2.65
CEZUQB	66.6 ± 2.2 (%)	75.7 ± 2.5 (%)	2
CXWDNJ	65.53 ± 4.59 (%)	73.52 ± 5.15 (%)	2
D4298J	67 ± 6 (%)	75 ± 6 (%)	2
DN39CA	67.7 ± 3.5 (%)	76.6 ± 4.0 (%)	2
EWXNHT	65.9 ± 6.9 (%)	75.0 ± 6.6 (%)	2.65
EYZQ23	67.6 ± 4.1 (%)	77.4 ± 4.3 (%)	2
F67PB8	67.1 ± 3.5 (%)	77.2 ± 4.0 (%)	2
FJZCEE	65.7 ± 2.1 (%)	74.1 ± 2.4 (%)	3

TABLE 1

WebCode	Item 1 Reported Concentration (units)	Item 2 Reported Concentration (units)	Uncertainty (k)
Preparation concentration:	68%	77%	
FM37GP	68.2 ± 5.8 (%)	77.3 ± 6.1 (%)	2.65
FMMMWR	65.1 ± 5.2 (%)	73.4 ± 5.9 (%)	2.65
FTBEZE	65 ± 3 (%)	74 ± 3 (%)	2
G6ZU67	67.7 ± 3.0 (%)	78.0 ± 3.0 (%)	2
GB7JQK	67.7 ± 3.5 (%)	75.0 ± 3.5 (%)	3.5
GCZAQ8	67.74 ± 1.91 (%)	76.63 ± 1.91 (%)	2.04
GJFVYC	68.9 ± 2.8 (%)	77.7 ± 2.8 (%)	2
GKGLCL	67.6 ± 3.5 (%)	76.4 ± 3.5 (%)	3
GQG3MR	67.0 ± 8.2 (%)	77.1 ± 6.9 (%)	2.65
H4KVKG	66.3 ± 4.1 (%)	75.3 ± 4.7 (%)	
HMUT6D	66 ± 3 (%)	75 ± 3 (%)	2
J7KL62	65.7 ± 0.4 (%)	74.4 ± 1.7 (%)	2
JQUEFG	67.9 ± 5.7 (%)	77.4 ± 6.5 (%)	2
K2BHZK	68.1 ± 5.3 (%)	77.2 ± 5.9 (%)	2.65
KCPJD7	67.7 ± 6.2 (%)	74.8 ± 6.8 (%)	3
KPHWWB	69 ± 6.9 (percent)	77 ± 7.7 (percent)	2
KWAJGF	69.2	78.9	
KWVUHA	67.8 ± 3.9 (%)	77.7 ± 4.4 (%)	2
LCJP86	67 ± 5.51 (%)	76 ± 6.25 (%)	2
LF829W	69.0 ± 2.3 (%)	77.6 ± 2.6 (%)	2
LXN8H8	68.8 ± 2.8 (%)	77.2 ± 2.8 (%)	2

TABLE 1

WebCode	Item 1 Reported Concentration (units)	Item 2 Reported Concentration (units)	Uncertainty (k)
<b>Preparation concentration:</b>	<b>68%</b>	<b>77%</b>	
MVQEX8	66 ± 3 (%)	75 ± 3 (%)	2
MYWRNM	67.3 ± 5.2 (%)	76.2 ± 5.9 (%)	2.65
NGBNH7	66.55 (%)	75.68 (%)	
NXFVX9	0.32 ± 0.02 (g)	0.38 ± 0.03 (g)	2
Q8G3PD	68 ± 6 (%)	77 ± 6 (%)	2
QCA93U	68 ± 9 (%)	76 ± 10 (%)	3
QG2DVX	67.4 ± 2.2 (%)	76.1 ± 2.5 (%)	2
RKEH8X	68.19 ± 1.91 (percentage)	76.98 ± 1.91 (percentage)	2.04
RMNJC6	69 ± 6 (%)	79 ± 6 (%)	
RWPBAX	66 ± 6 (%)	75 ± 6 (%)	2.65
T2HMRF	69.5 ± 5.3 (percent)	78.7 ± 6.1 (percent)	2.65
T44DU7	61.9 ± 2.6 (%)	74.5 ± 2.6 (%)	2
T7RPVW	65.0 ± 0.2 (%)	74.6 ± 0.7 (%)	2
TCHZ7V	67.3 ± 3.0 (% by weight)	76.0 ± 3.0 (% by weight)	2
TVWEMP	53.4 ± 3.4 (%)	61.4 ± 3.8 (%)	2
TZ9FQ9	67.7 ± 5.7 (%)	76.4 ± 6.4 (%)	2
U4YG2L	66.7 ± 4.6 (Percent)	76.3 ± 4.6 (Percent)	2
UFE4GE	67.6 ± 5.8 (percent)	76.0 ± 7.4 (percent)	2.65
VTXDAW	68.2 ± 4.3 (%)	76.8 ± 4.8 (%)	2
WAJXR3	63 (%)	74 (%)	

TABLE 1

WebCode	Item 1 Reported Concentration (units)	Item 2 Reported Concentration (units)	Uncertainty (k)
<b>Preparation concentration:</b>	<b>68%</b>	<b>77%</b>	
WTDPW9	70.7 ± 5.7 (percent Meth HCl)	79.2 ± 6.2 (percent Meth HCl)	2.65
WYF39X	65 ± 3 (%)	74 ± 3 (%)	2
XECKYV	66.9 ± 11.4 (%)	71.0 ± 12.1 (%)	2
XJ3U9U	60.7 (%)	70.6 (%)	
XJKZ8J	67.6 ± 0.8 (%)	77.8 ± 0.8 (%)	t=2.306
XRV3TK	66.9 ± 4.4 (wt%)	76.0 ± 5.0 (wt%)	3
YT99C8	62 ± 5 (%)	72 ± 6 (%)	2
ZEYXDJ	65.6 ± 4.6 (percentage)	73.9 ± 4.6 (percentage)	2
ZUFVGY	65.8 ± 4.0 (%)	75.2 ± 4.6 (%)	
ZW48HP	67.5 ± 0.7 (%)	75.3 ± 0.3 (%)	2



## Reporting Procedures

TABLE 2

WebCode	Reporting Procedures
2HFJLW	The mean of duplicate/several determinations.
2UUE3G	The mean of duplicate/several determinations.
3BB6EL	The mean of duplicate/several determinations.
3EDWRT	The mean of duplicate/several determinations.
3Q4UBH	The mean of duplicate/several determinations.
3ZEWWJ	The percent purity for each peak integrated was calculated for each replicate. Then the average peak percent purity was calculated. The lowest average peak purity calculated was reported.
4J33GE	The mean of duplicate/several determinations.
4QKB4Q	Single determination
4TD63F	The mean of duplicate/several determinations.
64M2KN	The mean of duplicate/several determinations.
6DCPHC	The mean of duplicate/several determinations.
6FWWFE	The mean of duplicate/several determinations.
6H3CUW	The mean of duplicate/several determinations.
6UXBZH	The mean of duplicate/several determinations.
72WHUB	The mean of duplicate/several determinations.
76WQYK	The mean of duplicate/several determinations.
7R9JAW	The mean of duplicate/several determinations.
7VRJLL	The mean of duplicate/several determinations.
8BFBJC	The mean of duplicate/several determinations.
8G6L2M	The mean of duplicate/several determinations.
92RG8F	The mean of duplicate/several determinations.
934A7N	The mean of duplicate/several determinations.
94TMLL	Single determination
9GYQVM	The mean of duplicate/several determinations.

TABLE 2

WebCode	Reporting Procedures
A3VWTC	The mean of duplicate/several determinations.
A6363W	We run two aliquots (A and B) in triplicate, take the average of each (A and B) and then report the lower of the averages, truncated.
AYGYLP	The mean of duplicate/several determinations.
AZUJEY	The mean of duplicate/several determinations.
BVBVBE	The mean of duplicate/several determinations.
C2DJ47	The mean of duplicate/several determinations.
C44JNV	The mean of duplicate/several determinations.
CEZUQB	The mean of duplicate/several determinations.
CXWDNJ	The mean of duplicate/several determinations.
D4298J	The mean of duplicate/several determinations.
DN39CA	The mean of duplicate/several determinations.
EWXNHT	The mean of duplicate/several determinations.
EYZQ23	The mean of duplicate/several determinations.
F67PB8	The mean of duplicate/several determinations.
FJZCEE	The mean of duplicate/several determinations.
FM37GP	The mean of duplicate/several determinations.
FMMMWR	The mean of duplicate/several determinations.
FTBEZE	The mean of duplicate/several determinations.
G6ZU67	The mean of duplicate/several determinations.
GB7JQK	The mean of duplicate/several determinations.
GCZAQ8	The mean of duplicate/several determinations.
GJFVYC	The mean of duplicate/several determinations.
GKGLCL	The mean of duplicate/several determinations.
GQG3MR	The mean of duplicate/several determinations.
H4KVKG	The mean of duplicate/several determinations.
HMUT6D	The mean of duplicate/several determinations.

TABLE 2

WebCode	Reporting Procedures
J7KL62	The mean of duplicate/several determinations.
JQUEFG	The mean of duplicate/several determinations.
K2BHZK	The mean of duplicate/several determinations.
KCPJD7	The mean of duplicate/several determinations.
KPHWWB	The mean of duplicate/several determinations.
KWAJGF	single determination
KWVUHA	single determination
LCJP86	The mean of duplicate/several determinations.
LF829W	The mean of duplicate/several determinations.
LXN8H8	The mean of duplicate/several determinations.
MVQEX8	The mean of duplicate/several determinations.
MYWRNM	The mean of duplicate/several determinations.
NGBNH7	The mean of duplicate/several determinations.
NXFVX9	The mean of duplicate/several determinations.
Q8G3PD	The mean of duplicate/several determinations.
QCA93U	The mean of duplicate/several determinations.
QG2DVX	The mean of duplicate/several determinations.
RKEH8X	The mean of duplicate/several determinations.
RMNJC6	The mean of duplicate/several determinations.
RWPBAX	The mean of duplicate/several determinations.
T2HMRP	The mean of duplicate/several determinations.
T44DU7	The lowest value of duplicate/several determinations.
T7RPWW	The mean of duplicate/several determinations.
TCHZ7V	The mean of duplicate/several determinations.
TVWEMP	The mean of duplicate/several determinations.
TZ9FQ9	The mean of duplicate/several determinations.

TABLE 2

WebCode	Reporting Procedures
U4YG2L	The mean of duplicate/several determinations.
UFE4GE	The mean of duplicate/several determinations.
VTXDAW	The mean of duplicate/several determinations.
WAJXR3	The mean of duplicate/several determinations.
WTDPW9	The mean of duplicate/several determinations.
WYF39X	The mean of duplicate/several determinations.
XECKYV	The mean of duplicate/several determinations.
XJ3U9U	The lowest value of duplicate/several determinations.
XJKZ8J	The mean of duplicate/several determinations.
XRV3TK	The mean of duplicate/several determinations.
YT99C8	The lowest value of duplicate/several determinations.
ZEYXDJ	The mean of duplicate/several determinations.
ZUFVGY	22 mg
ZW48HP	The mean of duplicate/several determinations.

Response Summary		Participants: 90
The mean of duplicate/several determinations:	80	(88.9%)
The lowest value of duplicate/several determinations:	3	(3.3%)
Single determination:	4	(4.44%)
Other:	3	(3.3%)

# Raw Data & Statistical Analysis

List of raw data determinations in percent.

TABLE 3 - Item 1

WebCode	Preparation target concentration : 68%								Mean
2HFJLW	66.47	66.91	66.32	66.72	67.49	67.59	70.30	68.23	67.50
2UUE3G	64.45	65.10							64.78
3BB6EL	68.51	68.24							68.38
3EDWRT	67.10	66.80							66.95
3Q4UBH	66.85	66.80							66.83
3ZEWWJ	67.60	67.80	67.80	67.50					67.68
4J33GE	64.82	65.26							65.04
4QKB4Q	68.60								68.60
4TD63F	63.31								63.31
64M2KN	67.40	67.40	67.50	67.70					67.50
6DCPHC	68.60	68.98	68.55						68.71
6FWWFE	66.45	66.25	65.17						65.96
6H3CUW	69.27	69.70	69.25						69.40
6UXBZH	64.88	64.96	64.98	65.01	65.49	65.62	65.80	66.13	65.36
72WHUB	68.30	67.00							67.65
76WQYK	67.90	67.80	67.70	67.60					67.75
7R9JAW	65.45	64.79	67.43						65.89
7VRJL	67.50	66.90							67.20
8BFBJC	69.72	67.76	67.90	69.11	67.83				68.46
8G6L2M	67.10	67.30							67.20
92RG8F	68.17	68.19	68.60	68.33					68.32
93A47N	65.64	65.78	65.66	66.44					65.88
94TMLL	68.91								68.91
9GYQVM	68.69	68.45							68.57

TABLE 3 - Item 1

WebCode	Preparation target concentration : 68%								Mean
A3VWTC	65.56	65.49	65.65	65.69	65.59	64.50	64.57	64.33	65.17
A6363W	63.80	64.30	63.90	61.80	62.30	62.70			63.13
AYGYLP	70.10	64.40	69.00						67.83
AZUJEY	67.37	67.23	66.97	67.61	67.10	68.34			67.44
BVBVBE	69.81	70.10							69.96
C2DJ47	65.60	66.32							65.96
C44JNV	65.92	63.83	65.33	57.77	65.37	64.27			63.75
CEZUQB	67.06	66.16							66.61
CXWDNJ	64.91	66.15							65.53
D4298J	66.65	66.26	68.52	68.65					67.52
DN39CA	67.50	67.80							67.65
EWXNHT	64.79	65.71	63.42	66.82	65.78	68.58			65.85
EYZQ23	67.69	67.57							67.63
F67PB8	66.90	67.30							67.10
FJZCEE	65.97	65.57							65.77
FM37GP	66.51	67.92	68.66	68.33	69.44	68.49			68.23
FMMMWR	64.45	64.83	65.18	66.14	64.80	64.92			65.05
FTBEZE	65.49	65.06	66.06						65.54
G6ZU67	66.87	66.49							66.68
GB7JQK	66.80	67.30	67.90	68.00	68.50				67.70
GCZAQ8	67.45	67.68	67.84	67.98					67.74
GJFVYC	69.02	69.01	68.74	68.85					68.91
GQG3MR	69.82	68.07	68.71	66.85	65.65	63.08			67.03
H4KVKG	66.08	66.55							66.32
HMUT6D	66.23	66.12	65.99						66.11
J7KL62	65.89	65.87	65.77	65.85	65.42	65.47	65.55	65.98	65.73

TABLE 3 - Item 1

WebCode	Preparation target concentration : 68%							Mean
JQUEFG	67.51	68.39						67.95
K2BHZK	68.41	67.61	68.12	68.25	67.95	68.12		68.08
KCPJD7	67.80	67.60						67.70
KPHWWB	69.70	67.40						68.55
KWAJGF	69.22							69.22
KWVUHA	67.80							67.80
LCJP86	67.44	66.69						67.06
LF829W	68.45	69.45						68.95
LXN8H8	68.43	68.45	69.02	69.30				68.80
MVQEX8	66.33	66.14	66.11					66.19
MYWRNM	67.29	67.18	67.03	67.31	67.41	67.32		67.26
NGBNH7	66.48	66.74	66.72	66.24				66.55
NXFVX9	67.44	64.77						66.11
Q8G3PD	68.56	68.36	68.92					68.61
QCA93U	68.30	66.91						67.61
QG2DVX	67.91	66.87						67.39
RKEH8X	68.51	68.66	68.09	67.51				68.19
RMNJC6	68.46	68.17	70.64	70.60				69.47
RWPBAX	65.24	67.03	66.84	66.14	65.95	66.00		66.20
T2HMRF	69.34	69.39	69.43	69.60	69.65	69.73		69.52
T44DU7	61.90	63.10						62.50
T7RPVW	65.00	64.90	65.00	65.20	65.10	65.00	64.90 65.10	65.03
TCHZ7V	67.90	66.70						67.30
TVWEMP	53.09	53.51	52.62	53.63	53.88	53.93		53.44 X
TZ9FQ9	67.41	68.02						67.72
U4YG2L	68.17	65.98	65.95					66.70

TABLE 3 - Item 1

WebCode	Preparation target concentration : 68%								Mean
UFE4GE	66.62	67.83	66.73	67.86	67.55	69.26			67.64
VTXDAW	68.00	68.10	68.30	68.40					68.20
WAJXR3	61.70	65.10							63.40
WTDPW9	70.19	70.37	70.37	70.17	71.68	71.46			70.71
WYF39X	64.17	66.27	66.43						65.62
XECKYV	69.13	67.93	65.98	64.70					66.94
XJ3U9U	60.70	62.20							61.45 X
XJKZ8J	67.70	67.56							67.63
XRV3TK	67.50	67.30	66.80	66.00					66.90
YT99C8	63.00	62.90	63.10	62.60	62.60	62.70			62.82
ZEYXDJ	66.10	65.20	65.00	65.20	66.40	66.00			65.65
ZUFVGY	64.95	64.81	67.52	66.31					65.90
ZW48HP	67.86	67.90	67.87	67.76	67.02	67.16	67.10	67.01	67.46

Statistical Analysis for Item 1				Participants: 91
Preparation Target Concentration:	<b>68%</b>	Number of Participants Included:	<b>87</b>	
Grand Mean:	<b>67.00</b>	Number of Participants Excluded:	<b>2</b>	
Standard Deviation:	<b>1.629</b>	Number of Participants without Raw Data:	<b>2</b>	



TABLE 3 - Item 2

WebCode	Preparation target concentration : 77%								Mean
2HFJLW	77.49	77.14	74.09	82.49	78.15	77.82	81.99	81.00	78.77
2UUE3G	75.21	74.61							74.91
3BB6EL	78.11	78.21							78.16
3EDWRT	76.50	76.40							76.45
3Q4UBH	76.08	76.22							76.15
3ZEWWJ	76.60	76.70							76.65
4J33GE	75.13	74.63							74.88
4QKB4Q	77.20								77.20
4TD63F	74.31								74.31
64M2KN	76.10	75.40	76.30	75.70					75.88
6DCPHC	77.38	77.26	77.93						77.52
6FWWFE	74.47	72.73	73.10						73.43
6H3CUW	78.36	78.33	78.38						78.36
6UXBZH	72.62	72.66	72.77	72.84	73.39	73.40	73.54	73.56	73.10
72WHUB	76.90	76.30							76.60
76WQYK	78.60	78.30	77.30	77.20					77.85
7R9JAW	76.13	73.42	75.92						75.16
7VRJL	76.50	76.10							76.30
8BFBJC	78.17	76.52	77.46	78.19	78.24				77.72
8G6L2M	75.60	75.90							75.75
92RG8F	77.37	77.08	77.15	77.51					77.28
934A7N	74.85	75.58	75.72	76.14					75.57
94TMLL	79.50								79.50
9GYQVM	77.09	77.71							77.40
A3VWTC	73.86	73.81	73.72	73.88	74.00	74.20	74.37	74.48	74.04
A6363W	73.40	73.20	73.80	72.30	72.00	72.50			72.87

TABLE 3 - Item 2

WebCode	Preparation target concentration : 77%								Mean
AYGYLP	89.20	79.60	80.70						83.17 X
AZUJEY	76.33	68.87	77.00	76.21	74.90	78.38			75.28
BVBVBE	79.33	77.16							78.25
C2DJ47	75.84	76.07							75.96
C44JNV	74.39	74.04	74.79	75.87	73.89	74.02			74.50
CEZUQB	76.16	75.18							75.67
CXWDNJ	74.37	72.66							73.52
D4298J	74.65	74.98	76.07	76.08					75.45
DN39CA	76.70	76.60							76.65
EWXNHT	75.65	73.02	75.02	76.67	74.65	74.70			74.95
EYZQ23	78.15	76.82							77.49
F67PB8	77.00	77.40							77.20
FJZCEE	74.01	74.38							74.20
FM37GP	77.29	77.14	78.32	76.45	77.16	77.42			77.30
FMMMWR	72.79	72.87	73.11	73.52	73.58	74.75			73.44
FTBEZE	74.11	74.64	75.18						74.64
G6ZU67	77.95	78.11							78.03
GB7JQK	75.00	75.30	74.60	75.20	75.20				75.06
GCZAQ8	76.45	76.48	76.86	76.73					76.63
GJFVYC	78.27	77.98	77.55	76.80					77.65
GQG3MR	76.66	77.71	75.92	75.56	79.23	77.28			77.06
H4KVKG	75.22	75.40							75.31
HMUT6D	75.54	75.29	74.72						75.18
J7KL62	76.63	73.31	73.51	73.62	75.09	75.13	75.26	75.23	74.72
JQUEFG	78.00	76.98							77.49
K2BHZK	77.37	77.35	77.28	77.35	76.96	76.86			77.20

TABLE 3 - Item 2

WebCode	Preparation target concentration : 77%							Mean	
KCPJD7	75.40	74.10						74.75	
KPHWWB	77.30	77.10						77.20	
KWAJGF	78.92							78.92	
KWVUHA	77.70							77.70	
LCJP86	75.55	75.55						75.55	
LF829W	77.07	78.06						77.57	
LXN8H8	77.60	77.91	76.54	76.64				77.17	
MVQEX8	74.82	75.28	75.18					75.09	
MYWRNM	76.53	75.95	76.33	75.77	75.94	76.58		76.18	
NGBNH7	75.21	75.16	77.10	75.26				75.68	
NXFVX9	77.97	75.88						76.93	
Q8G3PD	78.34	77.93	77.63					77.97	
QCA93U	76.61	75.85						76.23	
QG2DVX	76.03	76.26						76.15	
RKEH8X	77.54	77.21	76.66	76.53				76.99	
RMNJC6	80.02	80.49	78.59	78.71				79.45	
RWPBAX	75.76	75.25	74.57	75.17	76.36	74.64		75.29	
T2HMRF	78.54	79.01	78.99	78.65	78.51	78.68		78.73	
T44DU7	74.50	75.20						74.85	
T7RPVW	74.90	75.20	74.60	75.10	74.20	74.30	74.40	74.10	74.60
TCHZ7V	75.70	76.30						76.00	
TVWEMP	61.27	61.24	61.32	61.39	61.45	61.96		61.44 X	
TZ9FQ9	76.16	76.70						76.43	
U4YG2L	75.24	76.35	77.18					76.26	
UFE4GE	74.92	78.60	74.14	75.02	77.62	75.76		76.01	
VTXDAW	76.50	76.50	77.10	77.10				76.80	

TABLE 3 - Item 2

WebCode	Preparation target concentration : 77%								Mean
WAJXR3	71.00	77.50							74.25
WTDPW9	79.99	78.84	78.74	79.26	79.33	78.76			79.15
WYF39X	74.70	75.00	74.69						74.80
XECKYV	70.56	70.76	70.81	71.75					70.97
XJ3U9U	71.30	70.60							70.95
XJKZ8J	77.96	77.70							77.83
XRV3TK	76.00	76.40	76.10	75.80					76.08
YT99C8	72.70	72.80	72.20	72.10	72.40	72.10			72.38
ZEYXDJ	73.80	74.10	73.60	73.50	74.50	73.60			73.85
ZUFVGY	75.79	75.71	75.76	73.77					75.26
ZW48HP	75.31	75.35	75.58	75.20	75.21	75.36	75.58	75.29	75.36

Statistical Analysis for Item 2				Participants: 91
Preparation Target Concentration:	77%	Number of Participants Included:	87	
Grand Mean:	76.05	Number of Participants Excluded:	2	
Standard Deviation:	1.755	Number of Participants without Raw Data:	2	

TABLE 3 - Response Summary

<b>Response Summary</b>	<b>Item 1</b>	<b>Item 2</b>
<b>Preparation concentration</b>	<b>68%</b>	<b>77%</b>
Grand Mean	67.00	76.05
Standard Deviation	1.629	1.755

## Method of Analysis

TABLE 4

WebCode	GC	LC	FTIR	GC/MS	LC/MS	UV	GC/FID	Other
2HFJLW							✓	LC/PDA
2UUE3G							✓	
3BB6EL								NMR
3EDWRT		✓						
3Q4UBH								NMR
3ZEWWJ								NMR
4J33GE							✓	
4QKB4Q						✓		
4TD63F				✓				
64M2KN		✓				✓		
6DCPHC						✓		
6FWWFE						✓		
6H3CUW							✓	
6UXBZH							✓	
72WHUB						✓		
76WQYK							✓	
7R9JAW		✓				✓		
7VRJL				✓			✓	
8BFBJC								HPLC-DAD
8G6L2M		✓	✓					
92RG8F								NMR
934A7N	✓							
94TMLL						✓		
9GYQVM								quantitative proton NMR
A3VWTC							✓	
A6363W	✓						✓	
AYGYLP					✓			
AZUJEY							✓	
BVBVBE								NMR
C2DJ47							✓	
C44JNV							✓	
CEZUQB								NMR

TABLE 4

WebCode	GC	LC	FTIR	GC/MS	LC/MS	UV	GC/FID	Other
CXWDNJ				✓				
D4298J	✓							
DN39CA				✓				LC/UV/MS
EWXNHT							✓	
EYZQ23				✓				
F67PB8								LC/UV/MS
FJZCEE							✓	
FM37GP							✓	
FMMMWR							✓	
FTBEZE								HPLC
G6ZU67						✓		
GB7JQK							✓	
GCZQAQ8								NMR
GJFYC							✓	
GKGLCL	✓							
GQG3MR							✓	
H4KVKG							✓	
HMUT6D								HPLC-DAD
J7KL62			✓	✓			✓	
JQUEFG		✓						
K2BHZK							✓	
KCPJD7							✓	
KPHWWB				✓				UPLC/DAD
KWAJGF								HPLC
KWVUHA						✓		
LCJP86		✓						HPLC
LF829W				✓				NMR
LXN8H8							✓	
MVQEX8								LC-DAD
MYWRNM							✓	
NGBNH7	✓							
NXFVX9				✓				
Q8G3PD							✓	

TABLE 4

WebCode	GC	LC	FTIR	GC/MS	LC/MS	UV	GC/FID	Other
QCA93U							✓	
QG2DVX				✓				
RKEH8X								NMR
RMNJC6							✓	
RWPBAX		✓						
T2HMRP							✓	
T44DU7	✓							
T7RPVW							✓	
TCHZ7V						✓		
TVWEMP		✓						
TZ9FQ9		✓						
U4YG2L						✓		
UFE4GE							✓	
VTXDAW		✓				✓		
WAJXR3				✓				
WTDPW9							✓	
WYF39X		✓						
X4UZGK			✓	✓				
XECKYV					✓			
XJ3U9U		✓		✓		✓		
XJKZ8J						✓		
XRV3TK							✓	
YT99C8	✓							
ZEYXDJ						✓		
ZUFVGY							✓	
ZW48HP	✓			✓				

Response Summary								Participants: 91
Method:	GC	LC	FTIR	GC/MS	LC/MS	UV	GC/FID	
Participants:	8	12	3	14	2	15	34	
Percent:	8.8%	13.2%	3.3%	15.4%	2.2%	16.5%	37.4%	



## Additional Comments

TABLE 5

WebCode	Additional Comments
934A7N	GC/MS was used as part of the identification of the controlled substances. In our laboratory the normal reporting for quantitation of Methamphetamine by GC would be in Methamphetamine actual with the uncertainty in units of grams. Example from this case: Item 1: Methamphetamine actual 0.31 grams +/- 0.02 grams. Item 2: Methamphetamine actual 0.36 grams +/- 0.02 grams.
A6363W	Our procedure is to take 2 samples from each item (A and B), run them in triplicate, take the average of each triplicate, then report the lowest of the two (2) averages (A and B) truncated to the whole number. We then report the minimum grams of meth assuming the meth in the item is meth HCl.
EYZQ23	Our laboratory did calculations to determined methamphetamine HCl purity per PT instructions.
HMUT6D	Color tests, FTIR, and GC/MS were used to qualitatively analyze the item.
RWPBAX	Samples were weighed to ~0.025g each and diluted to 25mL
T44DU7	Reporting results obtained during pre-distribution testing.
TVWEMP	Measured with HPLC/DAD: Item 1 contains $53,4 \pm 3,4$ weight% methamphetamine-base. Item 2 contains $61,4 \pm 3,8$ weight% methamphetamine-base. Measured with not accredited qNMR: Item 1 contains $53,89 \pm 0,46$ weight% methamphetamine-base. Item 2 contains $61,05 \pm 0,50$ weight% methamphetamine-base.
X4UZGK	Methylamphetamine method is currently under development therefore unable to submit test results at this time. Item 1 and 2 found to contain methylamphetamine with lactose.

# 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
2HFJLW	*	67.50	0.459	0.31	78.77	2.590	1.55
2UUE3G		64.78	-2.270	-1.37	74.91	-1.271	-0.65
3BB6EL		68.38	1.330	0.84	78.16	1.979	1.20
3EDWRT		66.95	-0.095	-0.03	76.45	0.269	0.23
3Q4UBH		66.83	-0.220	-0.11	76.15	-0.031	0.06
3ZEWWJ		67.68	0.630	0.41	76.65	0.469	0.34
4J33GE		65.04	-2.005	-1.20	74.88	-1.301	-0.66
4QKB4Q		68.60	1.555	0.98	77.20	1.019	0.66
4TD63F	*	63.31	-3.735	-2.27	74.31	-1.871	-0.99
64M2KN		67.50	0.455	0.31	75.88	-0.306	-0.10
6DCPHC		68.71	1.665	1.05	77.52	1.342	0.84
6FWWFE		65.96	-1.087	-0.64	73.43	-2.747	-1.49
6H3CUW		69.40	2.359	1.48	78.36	2.177	1.32
6UXBZH		65.36	-1.686	-1.01	73.10	-3.084	-1.68
72WHUB		67.65	0.605	0.40	76.60	0.419	0.32
76WQYK		67.75	0.705	0.46	77.85	1.669	1.03
7R9JAW		65.89	-1.155	-0.68	75.16	-1.024	-0.51
7VRJL		67.20	0.155	0.12	76.30	0.119	0.14
8BFBJC		68.46	1.419	0.90	77.72	1.535	0.95
8G6L2M		67.20	0.155	0.12	75.75	-0.431	-0.17
92RG8F		68.32	1.278	0.81	77.28	1.096	0.70
934A7N		65.88	-1.165	-0.69	75.57	-0.609	-0.27
94TMLL		68.91	1.865	1.17	79.50	3.319	1.97
9GYQVM		68.57	1.525	0.96	77.40	1.219	0.77
A3VWTC		65.17	-1.872	-1.12	74.04	-2.141	-1.14

WebCode	Data Flag	Item 1			Item 2		
		Participant Mean	Difference from Grand Mean	CPV	Participant Mean	Difference from Grand Mean	CPV
A6363W		63.13	-3.912	-2.37	72.87	-3.314	-1.81
AYGYLP	X	67.83	0.788	0.51	83.17	6.986	4.06
AZUJEY		67.44	0.392	0.27	75.28	-0.899	-0.44
BVBVBE		69.96	2.910	1.81	78.25	2.064	1.25
C2DJ47		65.96	-1.085	-0.64	75.96	-0.226	-0.05
C44JNV	*	63.75	-3.297	-2.00	74.50	-1.681	-0.88
CEZUQB		66.61	-0.435	-0.24	75.67	-0.511	-0.21
CXWDNJ		65.53	-1.515	-0.90	73.52	-2.666	-1.44
D4298J		67.52	0.475	0.32	75.45	-0.736	-0.34
DN39CA		67.65	0.605	0.40	76.65	0.469	0.34
EWXNHT		65.85	-1.195	-0.71	74.95	-1.229	-0.62
EYZQ23		67.63	0.585	0.39	77.49	1.304	0.82
F67PB8		67.10	0.055	0.06	77.20	1.019	0.66
FJZCEE		65.77	-1.275	-0.76	74.20	-1.986	-1.05
FM37GP		68.23	1.180	0.75	77.30	1.116	0.71
FMMMWR		65.05	-1.992	-1.20	73.44	-2.744	-1.49
FTBEZE		65.54	-1.508	-0.90	74.64	-1.538	-0.80
G6ZU67	*	66.68	-0.365	-0.20	78.03	1.849	1.13
GB7JQK		67.70	0.655	0.43	75.06	-1.121	-0.56
GCZAQ8		67.74	0.693	0.45	76.63	0.449	0.33
GJFVYC		68.91	1.860	1.17	77.65	1.469	0.91
GKGLCL	M						
GQG3MR		67.03	-0.015	0.02	77.06	0.879	0.58
H4KVKG		66.32	-0.730	-0.42	75.31	-0.871	-0.42
HMUT6D		66.11	-0.932	-0.54	75.18	-0.998	-0.49
J7KL62		65.73	-1.320	-0.78	74.72	-1.459	-0.75
JQUEFG		67.95	0.903	0.58	77.49	1.311	0.82

WebCode	Data Flag	Item 1			Item 2		
		Participant Mean	Difference from Grand Mean	CPV	Participant Mean	Difference from Grand Mean	CPV
K2BHZK		68.08	1.032	0.66	77.20	1.014	0.65
KCPJD7		67.70	0.655	0.43	74.75	-1.431	-0.74
KPHWWB		68.55	1.505	0.95	77.20	1.019	0.66
KWAJGF		69.22	2.172	1.36	78.92	2.743	1.64
KWVUHA		67.80	0.755	0.49	77.70	1.519	0.94
LCJP86		67.06	0.019	0.04	75.55	-0.632	-0.28
LF829W		68.95	1.905	1.20	77.57	1.384	0.87
LXN8H8		68.80	1.755	1.10	77.17	0.991	0.64
MVQEX8		66.19	-0.852	-0.50	75.09	-1.088	-0.54
MYWRNM		67.26	0.212	0.16	76.18	0.002	0.08
NGBNH7		66.55	-0.500	-0.28	75.68	-0.499	-0.21
NXFVX9		66.11	-0.940	-0.55	76.93	0.744	0.50
Q8G3PD		68.61	1.567	0.99	77.97	1.789	1.10
QCA93U		67.61	0.560	0.37	76.23	0.049	0.11
QG2DVX		67.39	0.345	0.24	76.15	-0.036	0.06
RKEH8X		68.19	1.148	0.73	76.99	0.804	0.54
RMNJC6		69.47	2.423	1.51	79.45	3.271	1.94
RWPBAX		66.20	-0.845	-0.49	75.29	-0.889	-0.43
T2HMRF		69.52	2.478	1.55	78.73	2.549	1.53
T44DU7	X	62.50	-4.545	-2.76	74.85	-1.331	-0.68
T7RPVW		65.03	-2.020	-1.21	74.60	-1.581	-0.82
TCHZ7V		67.30	0.255	0.18	76.00	-0.181	-0.03
TVWEMP	X	53.44	-13.602	-8.32	61.44	-14.743	-8.32
TZ9FQ9		67.72	0.671	0.44	76.43	0.248	0.22
U4YG2L		66.70	-0.346	-0.19	76.26	0.078	0.12
UFE4GE		67.64	0.597	0.39	76.01	-0.171	-0.02
VTXDAW		68.20	1.155	0.74	76.80	0.619	0.43

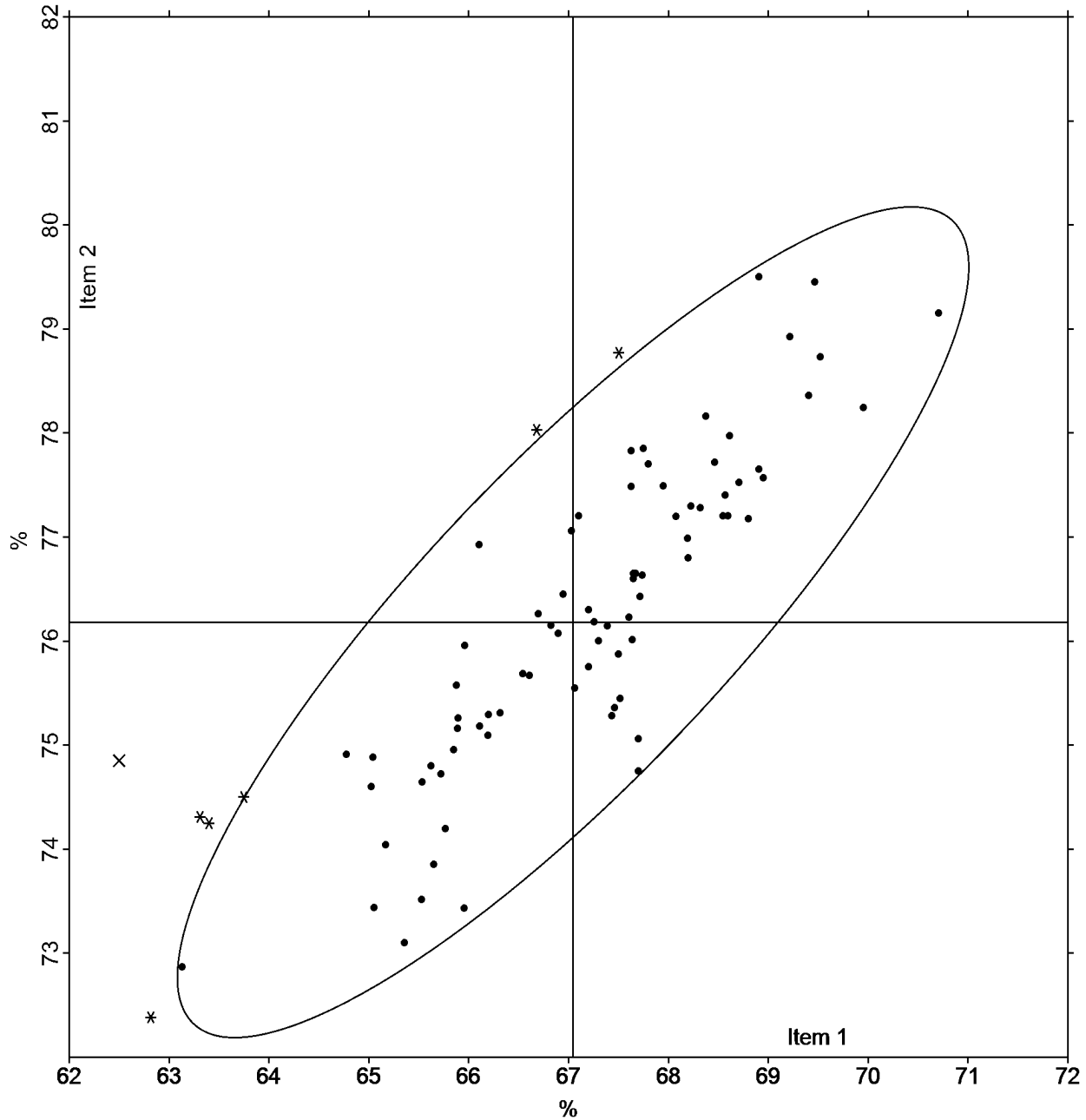
WebCode	Data Flag	Item 1			Item 2		
		Participant Mean	Difference from Grand Mean	CPV	Participant Mean	Difference from Grand Mean	CPV
WAJXR3	*	63.40	-3.645	-2.21	74.25	-1.931	-1.02
WTDPW9		70.71	3.662	2.28	79.15	2.972	1.77
WYF39X		65.62	-1.422	-0.85	74.80	-1.384	-0.71
X4UZGK	M						
XECKYV	X	66.94	-0.110	-0.04	70.97	-5.211	-2.89
XJ3U9U	X	61.45	-5.595	-3.41	70.95	-5.231	-2.90
XJKZ8J		67.63	0.585	0.39	77.83	1.649	1.02
XRV3TK		66.90	-0.145	-0.06	76.08	-0.106	0.02
YT99C8	*	62.82	-4.228	-2.57	72.38	-3.798	-2.09
ZEYXDJ		65.65	-1.395	-0.83	73.85	-2.331	-1.25
ZUFVGY		65.90	-1.147	-0.68	75.26	-0.924	-0.45
ZW48HP		67.46	0.415	0.28	75.36	-0.821	-0.39

Response Summary	Item 1	Item 2	Participants: 91
<b>Preparation Concentration</b>	<b>68%</b>	<b>77%</b>	
Grand Mean	67.04	76.18	
Standard Deviation	1.58	1.59	
Participants Included: 84	Participants Excluded: 5	Participants without Raw Data for both items: 2	

# Bivariate Control Analysis

Item 1 Grand Mean: 67.04

Item 2 Grand Mean: 76.18



\*Four 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. 21-5051: Quantitative Drug Analysis - Methamphetamine HCl

DATA MUST BE SUBMITTED BY **Nov. 1, 2021, 11:59 p.m.** TO BE INCLUDED IN THE REPORT

Participant Code: U1234A

WebCode: GD9FC9

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 type="text"/> )	Units
Item 1: <input type="text"/>	± <input type="text"/>	( <input type="text"/> )
Item 2: <input type="text"/>	± <input type="text"/>	( <input 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"/>

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

- |                                 |  |                               |
|---------------------------------|--|-------------------------------|
| <input type="checkbox"/> GC     | <input type="checkbox"/> LC                                    | <input type="checkbox"/> FTIR |
| <input type="checkbox"/> GC/MS  | <input type="checkbox"/> LC/MS                                 | <input type="checkbox"/> UV   |
| <input type="checkbox"/> GC/FID | <input type="checkbox"/> Other (specify): <input type="text"/> |                               |

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)