Collaborative Testing Services, Inc.

Fasteners & Metals Interlaboratory Testing Program

Summary Report Cycle 145, 1st Qtr 2024

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ABOUT THE FASTENERS & METALS PROGRAM

Collaborative Testing Services operates and maintains the program for Fasteners and Metals as part of a series of Proficiency and Interlaboratory Testing Programs offered by CTS in cooperation with various associations for a wide range of industries. Personnel from the National Institute of Standards and Technology (formerly the National Bureau of Standards), Industrial Fasteners Institute (IFI), and the Naval Shipyard Laboratories provide technical guidance and advice to this program.

The purpose of the program is to give participating laboratories a means to compare periodically the level and uniformity of their testing with that of other laboratories in the industry. It also provides a realistic assessment of the state of fasteners and metals testing proficiency.

In each report, there is a summary of the statistics for the analysis and a graphical representation of the data for each test. Also shown are notes concerning specific laboratory results, as well as significant findings related to instrument types or other testing variations. Refer to the KEY TO TABLES AND GRAPHS for an explanation of terms and guidelines to interpreting the results.

ABOUT CTS

Founded in 1971, CTS is a privately-owned company that specializes in interlaboratory tests for a wide variety of industries including rubber, plastics, fasteners and metals, containerboard, paper, color, hemp, and wine as well as proficiency tests for forensic laboratories. All of the tests are designed to assist organizations in achieving and maintaining quality control objectives. Labs from the U.S., as well as more than 100 countries, currently participate in the CTS programs.
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Key for Fasteners & Metals Program Web Summary Report

WebCode - Assigned laboratory identification number(temporary)used to ensure lab confidentiality while permitting a lab to locate its data in the report published on the CTS website.

Lab Mean - The average of the test results obtained by the participant.

Grand Mean - The average of the LAB MEANS for all included participants. Laboratories flagged with an X or an M (see DATA FLAG column) are excluded from the GRAND MEAN.

Between-Lab Standard Deviation - An indication of the precision of measurement between the laboratories. The greater the spread of the LAB MEANS about the GRAND MEAN, the larger the BETWEEN-LAB STANDARD DEVIATION (and vice versa).

Comparative Performance Value (CPV) - An indication of how well a laboratory's results agree with the other participants. The CPV is a ratio indicating the number of standard deviations from the GRAND MEAN. CPV = (LAB MEAN - GRAND MEAN)/ BETWEEN-LAB STANDARD DEVIATION. The closer a laboratory's COMPARATIVE PERFORMANCE VALUE is to zero, the more consistent its results are with the other participants' data (and vice versa).

Instr. Code - A code indicating the manufacturer of the instrument used to perform the test (see separate INSTRUMENT CODE LIST for each test section).

Data Flag - DATA FLAGS are assigned based on the simultaneous analysis of both samples tested. Refer to the following chart for an explanation of each symbol:

Data Flags

Data Flag Type	Statistically Included/Excluded	ACTION REQUIRED
*	INCLUDED	CAUTION - review testing procedure and monitor future results. Results fall outside the drawn 95% ellipse but within a 99% ellipse that is calculated but not drawn. Labs flagged with an * do not typically receive a specific note regarding the flag. If this error is repeated in future rounds, however, a lab may need to stop and review its testing procedures. The initial data flag is not cause for alarm.
X	EXCLUDED	STOP - immediate review of data and/or testing procedure is required (all tests exept Chemical Analyses). Results fall outside the 99% ellipse. See the specific note following the data for more information on why the data are excluded. For Chemical Analyses see an additional Memo.
M	EXCLUDED	PROCEED - lab was unable to report data for at least one sample. However, a lab receiving two or more M flags for a test may need to stop and review its testing procedures.

Graph - For each laboratory, the Lab Mean for the second sample (y-axis) is plotted against the Lab Mean for the first sample (x-axis) with each point representing a laboratory. The horizontal and vertical cross-hairs are the Grand Means for each sample. When 20 or more laboratories are included in the statistics, an ellipse is also drawn so that 95% of the time a randomly selected laboratory will be included inside the ellipse. Plotted data flags are explained above. Labs not receiving a data flag appear as points on the plot.

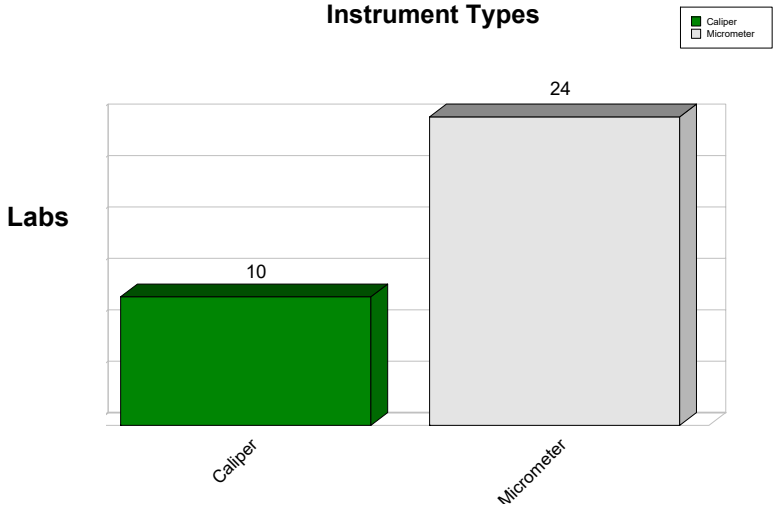
Fasteners and Metals Interlaboratory Testing Program

Analysis 1001

Dimensional: Outside Diameter of Plain Plug Gage
ISO GUM

Cycle 145
1st Qtr 2024

During Cycle 145, CTS conducted the Analysis #1001 - Round Dimensional. For this test all participants received two samples I97 and I98 with nominal diameters; 0.2496 in. and 0.2500 in. Each sample is an English Class X gage pin with 0.00002 in roundness limit made from 52100 bearing steel, hardened to 60-62 Rockwell C. Laboratories were asked to determine the outside diameter of the pins. 34 laboratories that subscribed for this test reported testing results. The graph below shows a breakdown of the types of instruments used.



Analysis of the Results

The most convenient and common method of judging the quality of measurement results is by calculating the performance statistic, En, calculated as:

$$E_n = \frac{\left(X_{lab} - X_{ref}\right)}{\sqrt{U_{lab}^2 + U_{ref}^2}}$$

Where the assigned value, Xref, is determined in a reference laboratory, Uref is the expanded uncertainty of Xref, and Ulab is the **Expanded Uncertainty** of a participant's result, Xlab. En is not calculated for Labs who did not report their Expanded Uncertainty.

Absolute values of En less than **1.00** should be obtained for the measurements to be acceptable.

The following graph and the table represent the results reported by participants. All tests were conducted at room temperature (20-23C or 68-77F).

Xref and Uref were determined by the gage pin manufacturer. The manufacturer is ISO 9001 Certified and an ISO 17025 Accredited company. All master gages used in checking the plug gages are calibrated with standards traceable to NIST.

$$E_n = \frac{\left(X_{lab} - X_{ref}\right)}{\sqrt{U_{lab}^2 + U_{ref}^2}}$$

Xref1 = 0.2496 in.

Xref2 = 0.2500 in.

WebCode	Data Flag (if assigned)	Reference Uncertainty (Uref)	Expanded Uncertainty (Ulab)	Sample I97 Lab Mean (Xlab)	Sample I97 Performance Statistic (En1)	Sample I98 Lab Mean (Xlab)	Sample I98 Performance Statistic (En2)	Instrument
36JYEX		0.00004	0.00079	0.24961	0.01	0.25000	0.00	Caliper
3H84NF		0.00004	0.00015	0.24950	-0.64	0.24990	-0.64	Micrometer
4QVDCF		0.00004	0.00040	0.24981	0.52	0.24994	-0.15	Micrometer
6C9FUR		0.00004	Not Reported	0.24930		0.24970		Micrometer
7NYGZR		0.00004	0.00260	0.24950	-0.04	0.25000	0.00	Caliper
8LRLUT		0.00004	Not Reported	0.24930		0.24964		Micrometer
9HKR4M		0.00004	0.00300	0.24950	-0.03	0.25000	0.00	Caliper
9P97EN		0.00004	0.00050	0.24960	0.00	0.25000	0.00	Micrometer
BXV7KB		0.00004	0.00005	0.24960	0.00	0.25000	0.00	Micrometer
CJ7FDT		0.00004	0.00050	0.25000	0.80	0.25000	0.00	Caliper
CYG846		0.00004	0.00116	0.24950	-0.09	0.25000	0.00	Caliper
DHRD2D	X	0.00004	0.00010	0.24946	-1.31	0.25008	0.75	Micrometer
DV2YF6	X	0.00004	0.00110	2.02690	1,614.66	2.03290	1,619.75	Caliper
DVGA4C		0.00004	0.00030	0.24950	-0.33	0.24990	-0.33	Micrometer
E9XK8T		0.00004	Not Reported	0.24960		0.25002		Micrometer
F6D63J		0.00004	0.00011	0.24956	-0.34	0.24995	-0.39	Micrometer
FV3VKR		0.00004	0.00001	0.24958	-0.42	0.24998	-0.58	Micrometer
GT3RM4		0.00004	0.00050	0.24955	-0.10	0.24990	-0.20	Micrometer
H3338X		0.00004	0.00012	0.24956	-0.32	0.24998	-0.16	Micrometer
JLAUM6		0.00004	0.00018	0.24950	-0.54	0.24990	-0.54	Micrometer
JYBE2N		0.00004	0.00011	0.24958	-0.15	0.24997	-0.26	Micrometer
L4E3PA		0.00004	0.00008	0.24968	0.88	0.25004	0.45	Micrometer
LQTMLA		0.00004	Not Reported	0.24930		0.24980		Caliper
MLVLXZ		0.00004	0.00040	0.24950	-0.25	0.24990	-0.25	Micrometer
PCPCVT		0.00004	0.00110	0.24951	-0.08	0.24985	-0.14	Micrometer
PP8BDF		0.00004	Not Reported	0.24952		0.24992		Micrometer
PT8CNB		0.00004	0.00100	0.24948	-0.12	0.24988	-0.12	Caliper
RZYGKH	X	0.00004	0.00010	0.24952	-0.74	0.24986	-1.30	Micrometer
TZ2G74		0.00004	0.00019	0.24950	-0.52	0.24986	-0.72	Micrometer
UC3LLV		0.00004	0.20000	0.24954	0.00	0.24993	0.00	Micrometer
UTWYBP		0.00004	0.00130	0.24950	-0.08	0.25000	0.00	Caliper
VFK3FK		0.00004	0.00290	0.25080	0.41	0.25160	0.55	Caliper
XUR43L		0.00004	0.00004	0.24957	-0.50	0.24996	-0.67	Micrometer

$$E_n = \frac{\left(X_{lab} - X_{ref}\right)}{\sqrt{U_{lab}^2 + U_{ref}^2}}$$

Xref1 = 0.2496 in.

Xref2 = 0.2500 in.

WebCode	Data Flag (if assigned)	Reference Uncertainty (Uref)	Expanded Uncertainty (Ulab)	Sample I97 Lab Mean (Xlab)	Sample I97 Performance Statistic (En1)	Sample I98 Lab Mean (Xlab)	Sample I98 Performance Statistic (En2)	Instrument
ZJNDPG		0.00004	0.00024	0.24959	-0.04	0.24998	-0.06	Micrometer

Summary Statistics

	Sample I97		Sample I98	
Grand Means	0.2495	inch	0.2499	inch
Stnd Dev Btwn Labs	0.0001	inch	0.0001	inch

Samples I97, I98 : 52100 Steel, 52100 Steel

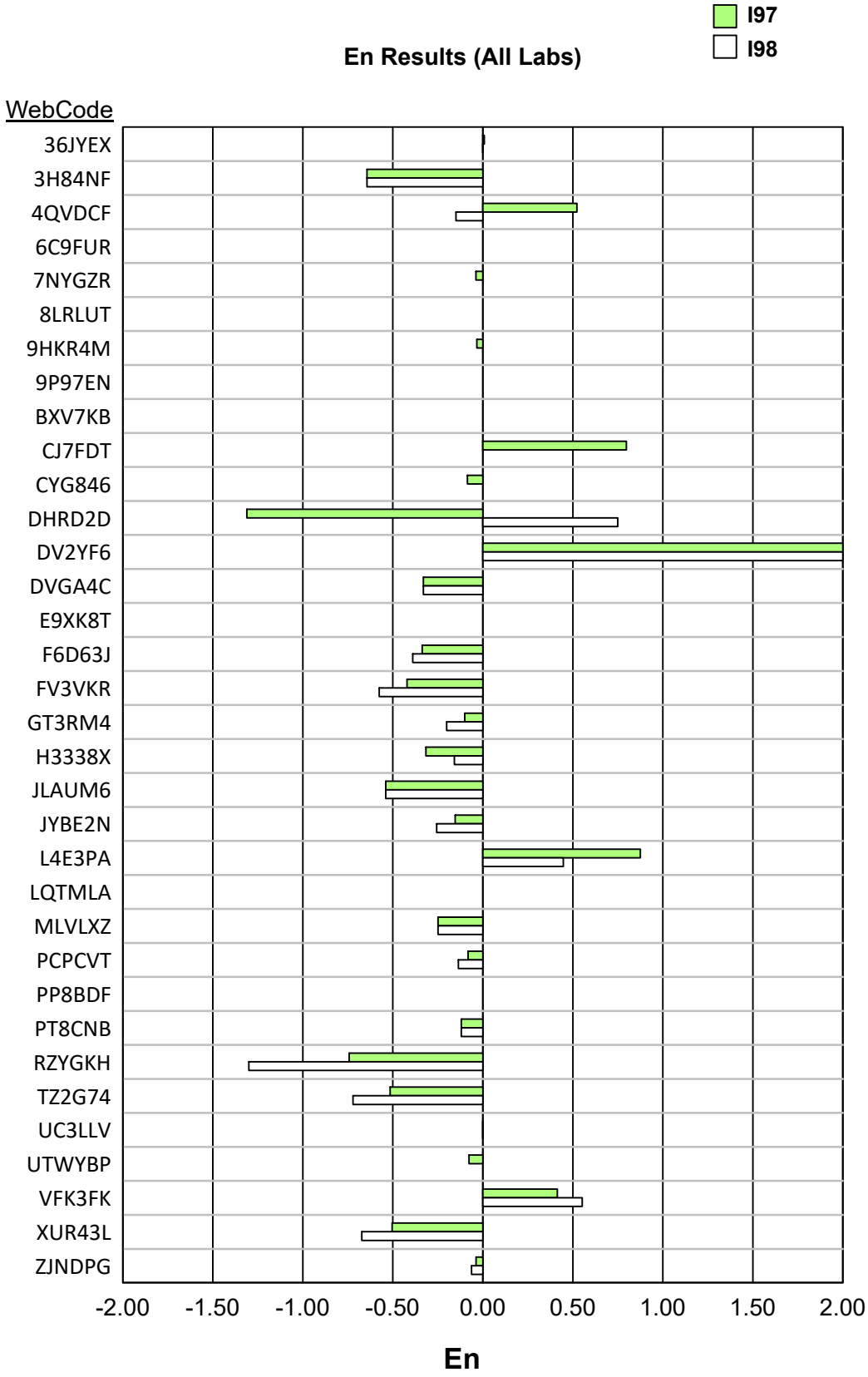
Statistics based on 30 of 34 reporting participants

Comments on Assigned Data Flags for Test #1001

DHRD2D (X) - En value for sample I97 was low.

DV2YF6 (X) - Extreme data.

RZYGKH (X) - En value for sample I98 was low.



		Sample R97			Sample R98		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
28LQH6	X	39.90	-7.76	-13.78	46.50	-3.15	-5.59
2HRB9R		47.60	-0.06	-0.10	49.20	-0.45	-0.80
2XZKRR		48.01	0.35	0.63	49.64	-0.01	-0.02
3422YR		48.80	1.14	2.03	50.30	0.65	1.15
3B444R		47.00	-0.66	-1.17	50.20	0.55	0.97
3CGQMR		47.30	-0.36	-0.63	48.50	-1.15	-2.04
3E4EYR		48.05	0.39	0.70	49.79	0.14	0.24
3UWZNT		47.94	0.28	0.50	50.41	0.75	1.34
3WJNZT		46.90	-0.76	-1.34	50.20	0.55	0.97
49VBLY	X	52.30	4.64	8.25	54.60	4.95	8.77
4T4FCT		48.10	0.44	0.79	49.90	0.25	0.44
4Y6UTN		47.47	-0.18	-0.33	49.49	-0.17	-0.29
62CCRJ		47.90	0.24	0.43	49.40	-0.25	-0.45
7EA3N9		47.88	0.22	0.40	49.56	-0.09	-0.16
7XTPKH		47.40	-0.26	-0.46	49.40	-0.25	-0.45
8LP67U		47.00	-0.66	-1.17	50.20	0.55	0.97
8P6DUU		48.50	0.84	1.50	50.80	1.15	2.03
AFTWFT	X	51.30	3.64	6.47	53.20	3.55	6.29
AKB4PE		48.60	0.94	1.68	50.50	0.85	1.50
BWGGGY	X	45.59	-2.07	-3.67	50.11	0.46	0.82
CPDXWE		47.70	0.04	0.08	49.60	-0.05	-0.09
DDERVR		46.70	-0.96	-1.70	49.40	-0.25	-0.45
DKDEK8		47.30	-0.36	-0.63	49.10	-0.55	-0.98
DXGKWQ	*	47.40	-0.26	-0.46	51.10	1.45	2.57
E44QAR		48.70	1.04	1.85	50.10	0.45	0.79
GQBWXA		47.30	-0.36	-0.63	48.90	-0.75	-1.33
GR37GP		47.54	-0.11	-0.20	49.26	-0.40	-0.70
GXTBFL	X	45.20	-2.46	-4.36	47.50	-2.15	-3.82
H4VV3G	X	40.50	-7.16	-12.71	48.60	-1.05	-1.87
H6M42K	X	39.80	-7.86	-13.96	44.40	-5.25	-9.31
HNHCLB		48.88	1.22	2.17	50.29	0.63	1.12
HYVWJC		47.80	0.14	0.26	49.60	-0.05	-0.09
J9Z4XC		47.60	-0.06	-0.10	49.60	-0.05	-0.09
JM2GDN		47.80	0.14	0.25	49.85	0.19	0.34
LQP3WL		48.16	0.50	0.89	49.66	0.00	0.01
M4X7XA		49.00	1.34	2.39	50.20	0.55	0.97
N7FMQE		47.20	-0.46	-0.81	48.90	-0.75	-1.33
N8TCTR		48.20	0.54	0.97	49.50	-0.15	-0.27
PB8CQH		47.50	-0.16	-0.28	49.30	-0.35	-0.63
PDT4N8		47.60	-0.06	-0.10	49.10	-0.55	-0.98
PQKKQL		47.60	-0.06	-0.10	49.60	-0.05	-0.09
R4HNU4		48.00	0.34	0.61	49.80	0.15	0.26
RLKBB6		47.10	-0.56	-0.99	50.50	0.85	1.50
RZYGKH		46.80	-0.86	-1.52	48.90	-0.75	-1.33
TDHL86		46.90	-0.76	-1.34	50.00	0.35	0.62
TM97BH		47.20	-0.46	-0.81	49.00	-0.65	-1.16
UNW3BW		47.51	-0.15	-0.26	49.93	0.28	0.49

Fasteners and Metals Interlaboratory Testing Program

Analysis 1101

Tensile Strength: Lab-Machined Flat Aluminum
ASTM B557

WebCode	Data Flag	Sample R97 Lab Mean	Sample R97 Diff. from Grand Mean	Sample R97 CPV	Sample R98 Lab Mean	Sample R98 Diff. from Grand Mean	Sample R98 CPV
UYG9AL		47.33	-0.33	-0.59	49.37	-0.28	-0.50
VB8HAY		47.10	-0.56	-0.99	50.30	0.65	1.15
VU4N3Z		47.20	-0.46	-0.81	48.70	-0.95	-1.69
W4ZDW7		48.20	0.54	0.97	50.20	0.55	0.97
W7RALZ		47.70	0.04	0.08	49.80	0.15	0.26
XVPBB6		46.90	-0.76	-1.34	48.80	-0.85	-1.51
XWG8ZY		47.90	0.24	0.43	49.40	-0.25	-0.45
Y76HMY		47.30	-0.36	-0.63	48.90	-0.75	-1.33
YJ839X		47.41	-0.24	-0.43	49.27	-0.38	-0.68
YKQLFP		48.50	0.84	1.50	50.10	0.45	0.79
YYKMJA		47.30	-0.36	-0.63	49.30	-0.35	-0.63
Z2PEA3		47.80	0.14	0.26	49.60	-0.05	-0.09
Z4T3TY		47.20	-0.46	-0.81	49.20	-0.45	-0.80

Summary Statistics

	Sample R97		Sample R98	
Grand Means	47.66	ksi	49.65	ksi
Stnd Dev Btwn Labs	0.56	ksi	0.56	ksi

Samples R97, R98 : 16G 6061-T6 (A), 14G 6061-T6 (B)

Statistics based on 53 of 60 reporting participants

Comments on Assigned Data Flags for Test #1101

28LQH6 (X) - Data for both samples are low.

49VBLY (X) - Data for both samples are high.

AFTWFT (X) - Data for both samples are high.

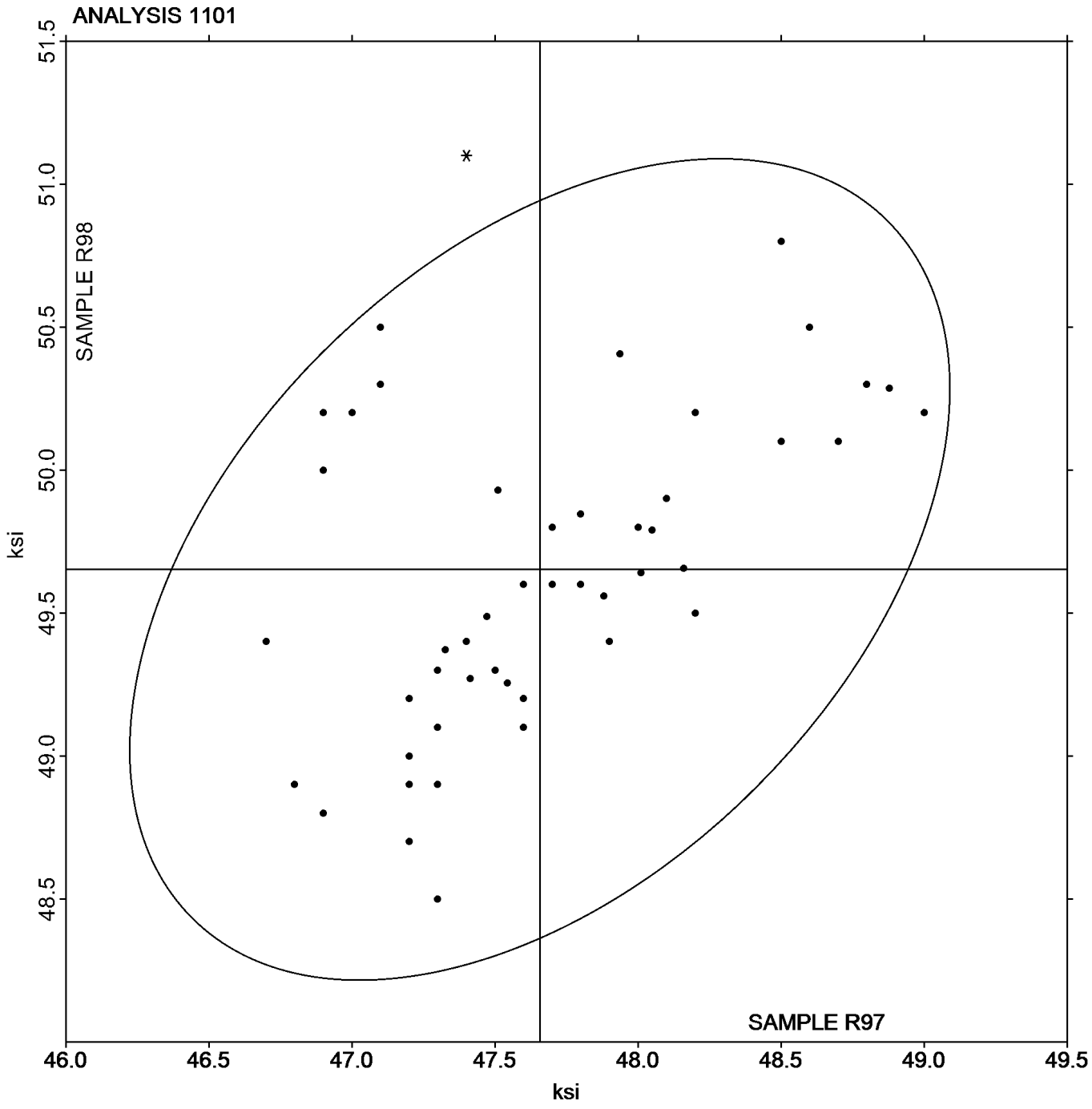
BWGGGY (X) - Data for sample R97 are low.

GXTBFL (X) - Data for both samples are low.

H4VV3G (X) - Data for sample R97 are low.

H6M42K (X) - Data for both samples are low.

SAMPLE R97	SAMPLE R98
47.66 ksi	49.65 ksi



		Sample R97			Sample R98		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
28LQH6	X	31.90	-8.54	-14.33	41.80	-1.60	-2.53
2HRB9R		40.40	-0.04	-0.06	43.10	-0.30	-0.47
2XZKRR		41.11	0.67	1.13	43.75	0.35	0.56
3422YR		41.60	1.16	1.96	44.10	0.70	1.12
3B444R		39.90	-0.54	-0.90	43.90	0.50	0.80
3CGQMR		40.10	-0.34	-0.56	42.70	-0.70	-1.10
3E4EYR		40.85	0.41	0.70	43.85	0.45	0.72
3UWZNT		40.80	0.36	0.61	44.04	0.65	1.02
3WJNZT		39.70	-0.74	-1.23	43.80	0.40	0.64
49VBLY	X	44.10	3.66	6.15	47.70	4.30	6.82
4T4FCT		40.80	0.36	0.61	43.60	0.20	0.32
4Y6UTN		40.41	-0.03	-0.05	43.32	-0.07	-0.12
62CCRJ		40.80	0.36	0.61	43.20	-0.20	-0.31
7EA3N9		40.80	0.36	0.61	43.30	-0.10	-0.15
7XTPKH		40.50	0.06	0.11	43.40	0.00	0.01
8LP67U		39.90	-0.54	-0.90	44.00	0.60	0.96
8P6DUU	*	41.70	1.26	2.12	44.90	1.50	2.38
AFTWFT	X	50.30	9.86	16.56	51.30	7.90	12.53
AKB4PE		41.20	0.76	1.28	43.70	0.30	0.48
BWGGGY	X	35.46	-4.98	-8.36	45.09	1.69	2.68
CPDXWE		40.30	-0.14	-0.23	43.10	-0.30	-0.47
DDERVR		39.50	-0.94	-1.57	43.20	-0.20	-0.31
DKDEK8		40.00	-0.44	-0.73	43.10	-0.30	-0.47
DXGKWQ	*	40.20	-0.24	-0.40	44.70	1.30	2.07
E44QAR	*	40.50	0.06	0.11	42.00	-1.40	-2.21
GQBWXA		40.10	-0.34	-0.56	42.60	-0.80	-1.26
GR37GP		40.67	0.23	0.39	43.42	0.03	0.04
GXTBFL	X	38.10	-2.34	-3.92	41.40	-2.00	-3.17
H4VV3G	X	33.50	-6.94	-11.65	42.00	-1.40	-2.21
H6M42K	X	33.10	-7.34	-12.32	38.40	-5.00	-7.92
HNHCLB		41.74	1.31	2.19	44.27	0.87	1.38
HYVWJC		40.70	0.26	0.44	43.40	0.00	0.01
J9Z4XC		40.10	-0.34	-0.56	43.00	-0.40	-0.63
JM2GDN	X	37.76	-2.68	-4.49	40.42	-2.97	-4.72
LQP3WL		41.20	0.77	1.29	43.67	0.27	0.44
M4X7XA		40.90	0.46	0.78	43.90	0.50	0.80
N7FMQE		40.10	-0.34	-0.56	42.80	-0.60	-0.95
N8TCTR		39.70	-0.74	-1.23	42.50	-0.90	-1.42
PB8CQH		40.40	-0.04	-0.06	43.20	-0.20	-0.31
PDT4N8		40.30	-0.14	-0.23	42.60	-0.80	-1.26
PQKKQL		40.80	0.36	0.61	43.60	0.20	0.32
R4HNU4	X	42.70	2.26	3.80	44.90	1.50	2.38
RLKBB6		40.10	-0.34	-0.56	44.30	0.90	1.43
RZYGKH		39.60	-0.84	-1.40	42.70	-0.70	-1.10
TDHL86		39.80	-0.64	-1.07	43.70	0.30	0.48
TM97BH		39.70	-0.74	-1.23	42.40	-1.00	-1.58
UNW3BW		40.46	0.02	0.04	43.89	0.49	0.78

Fasteners and Metals Interlaboratory Testing Program

Analysis 1102

Yield Strength: Lab-Machined Flat Aluminum
ASTM B557

		Sample R97			Sample R98		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
UYG9AL	X	40.22	-0.22	-0.36	47.33	3.93	6.23
VB8HAY		40.00	-0.44	-0.73	44.00	0.60	0.96
VU4N3Z		40.10	-0.34	-0.56	42.70	-0.70	-1.10
W4ZDW7		41.40	0.96	1.62	43.90	0.50	0.80
W7RALZ		40.50	0.06	0.11	43.60	0.20	0.32
XVPBB6		39.20	-1.24	-2.07	42.10	-1.30	-2.06
XWG8ZY		40.70	0.26	0.44	43.20	-0.20	-0.31
Y76HMY		40.20	-0.24	-0.40	42.80	-0.60	-0.95
YJ839X		39.83	-0.61	-1.02	43.11	-0.29	-0.46
YKQLFP		41.60	1.16	1.96	44.20	0.80	1.27
YYKMJA		40.20	-0.24	-0.40	43.00	-0.40	-0.63
Z2PEA3		40.60	0.16	0.28	43.40	0.00	0.01
Z4T3TY		40.00	-0.44	-0.73	43.10	-0.30	-0.47

Summary Statistics

	Sample R97		Sample R98	
Grand Means	40.44	ksi	43.40	ksi
Stnd Dev Btwn Labs	0.60	ksi	0.63	ksi

Samples R97, R98 : 16G 6061-T6 (A), 14G 6061-T6 (B)

Statistics based on 50 of 60 reporting participants

Comments on Assigned Data Flags for Test #1102

28LQH6 (X) - Data for sample R97 are low.

49VBLY (X) - Data for both samples are high.

AFTWFT (X) - Data for both samples are high.

BWGGGY (X) - Data for sample R97 are low.

GXTBFL (X) - Data for both samples are low.

H4VV3G (X) - Data for sample R97 are low.

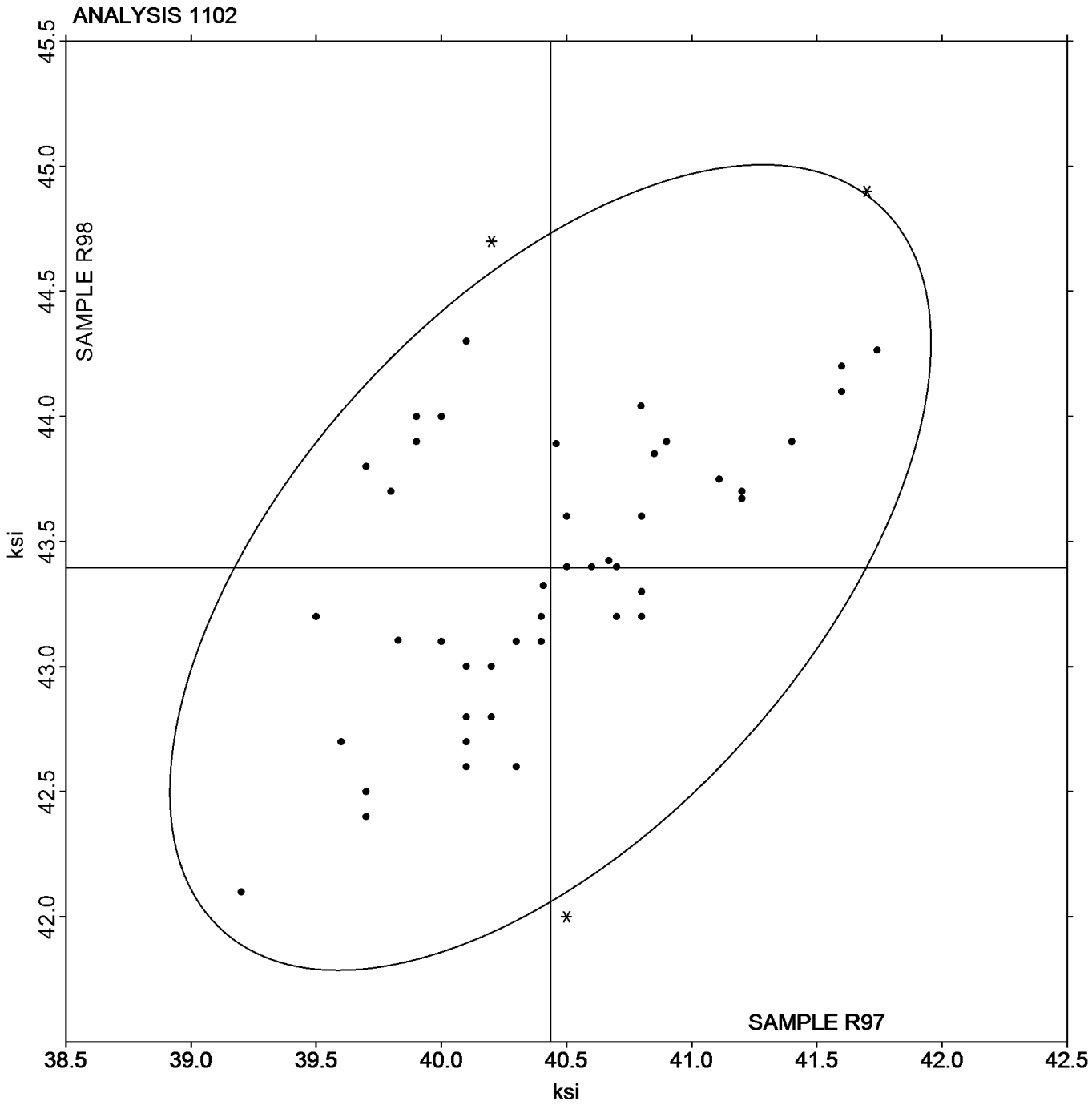
H6M42K (X) - Data for both samples are low.

JM2GDN (X) - Data for both samples are low.

R4HNU4 (X) - Data for sample R97 are high.

UYG9AL (X) - Data for sample R98 are high.

SAMPLE R97	SAMPLE R98
40.44 ksi	43.40 ksi



		Sample R97			Sample R98		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
28LQH6	X	7.000	-7.26	-8.14	5.000	-9.26	-10.79
2HRB9R		14.50	0.24	0.27	14.10	-0.16	-0.18
2XZKRR		13.30	-0.96	-1.08	14.42	0.16	0.19
3422YR		13.90	-0.36	-0.41	15.10	0.84	0.99
3B444R		14.50	0.24	0.27	14.00	-0.26	-0.30
3CGQMR		16.00	1.74	1.95	16.00	1.74	2.03
3E4EYR		14.40	0.14	0.15	14.10	-0.16	-0.18
3UWZNT		16.20	1.94	2.17	15.40	1.14	1.34
3WJNZT		14.00	-0.26	-0.29	14.00	-0.26	-0.30
49VBLY		13.80	-0.46	-0.52	13.90	-0.36	-0.41
4T4FCT		13.50	-0.76	-0.85	13.50	-0.76	-0.88
4Y6UTN		14.30	0.04	0.04	14.70	0.44	0.52
62CCRJ		13.00	-1.26	-1.41	13.10	-1.16	-1.35
7EA3N9		13.70	-0.56	-0.63	13.60	-0.66	-0.76
7XTPKH		13.60	-0.66	-0.74	13.60	-0.66	-0.76
8LP67U		14.00	-0.26	-0.29	13.00	-1.26	-1.46
8P6DUU		13.71	-0.55	-0.62	13.99	-0.27	-0.31
AFTWFT		13.70	-0.56	-0.63	14.60	0.34	0.40
AKB4PE		15.00	0.74	0.83	15.00	0.74	0.87
BWGGGY	X	4.770	-9.49	-10.64	4.800	-9.46	-11.03
CPDXWE		14.00	-0.26	-0.29	15.00	0.74	0.87
DDERVR		14.70	0.44	0.49	15.80	1.54	1.80
DKDEK8		13.50	-0.76	-0.85	13.10	-1.16	-1.35
DXGKWQ		14.50	0.24	0.27	14.00	-0.26	-0.30
E44QAR		14.20	-0.06	-0.07	15.50	1.24	1.45
GQBWXA	*	16.50	2.24	2.51	16.20	1.94	2.27
GR37GP		14.80	0.54	0.60	15.00	0.74	0.87
GXTBFL		13.60	-0.66	-0.74	13.80	-0.46	-0.53
H4VV3G		14.00	-0.26	-0.29	13.00	-1.26	-1.46
H6M42K		12.10	-2.16	-2.42	12.50	-1.76	-2.05
HNHCLB		13.50	-0.76	-0.85	13.60	-0.66	-0.76
HYVWJC		14.50	0.24	0.27	14.50	0.24	0.29
J9Z4XC	*	15.50	1.24	1.39	14.00	-0.26	-0.30
JM2GDN		16.23	1.97	2.21	15.42	1.16	1.36
LQP3WL		13.10	-1.16	-1.30	13.40	-0.86	-1.00
M4X7XA		15.00	0.74	0.83	14.00	-0.26	-0.30
N7FMQE		15.00	0.74	0.83	14.00	-0.26	-0.30
N8TCTR		13.70	-0.56	-0.63	13.70	-0.56	-0.65
PB8CQH		14.70	0.44	0.49	14.10	-0.16	-0.18
PDT4N8		13.40	-0.86	-0.97	13.40	-0.86	-1.00
PQKKQL		13.50	-0.76	-0.85	13.50	-0.76	-0.88
R4HNU4	X	17.50	3.24	3.63	15.80	1.54	1.80
RLKBB6		14.50	0.24	0.27	14.00	-0.26	-0.30
RZYGKH		13.90	-0.36	-0.41	14.20	-0.06	-0.06
TDHL86		14.00	-0.26	-0.29	14.00	-0.26	-0.30
TM97BH		13.80	-0.46	-0.52	14.10	-0.16	-0.18
UNW3BW		12.58	-1.68	-1.88	12.51	-1.75	-2.03

Fasteners and Metals Interlaboratory Testing Program

Analysis 1103

Elongation: Lab-Machined Flat Aluminum
ASTM B557

WebCode	Data Flag	Sample R97 Lab Mean	Sample R97 Diff. from Grand Mean	Sample R97 CPV	Sample R98 Lab Mean	Sample R98 Diff. from Grand Mean	Sample R98 CPV
UYG9AL		15.10	0.84	0.94	15.30	1.04	1.22
VB8HAY		13.00	-1.26	-1.41	13.50	-0.76	-0.88
VU4N3Z		14.50	0.24	0.27	14.50	0.24	0.29
W4ZDW7		13.70	-0.56	-0.63	13.60	-0.66	-0.76
W7RALZ		14.00	-0.26	-0.29	14.00	-0.26	-0.30
XVPBB6		15.10	0.84	0.94	14.80	0.54	0.64
XWG8ZY		14.50	0.24	0.27	15.50	1.24	1.45
Y76HMY		14.50	0.24	0.27	14.00	-0.26	-0.30
YJ839X		15.40	1.14	1.28	15.80	1.54	1.80
YKQLFP		15.50	1.24	1.39	15.00	0.74	0.87
YYKMJA		14.70	0.44	0.49	14.60	0.34	0.40
Z2PEA3		15.00	0.74	0.83	15.00	0.74	0.87
Z4T3TY		14.00	-0.26	-0.29	14.50	0.24	0.29

Summary Statistics

	Sample R97		Sample R98	
Grand Means	14.26	Percent	14.26	Percent
Stnd Dev Btwn Labs	0.89	Percent	0.86	Percent

Samples R97, R98 : 16G 6061-T6 (A), 14G 6061-T6 (B)

Statistics based on 57 of 60 reporting participants

Comments on Assigned Data Flags for Test #1103

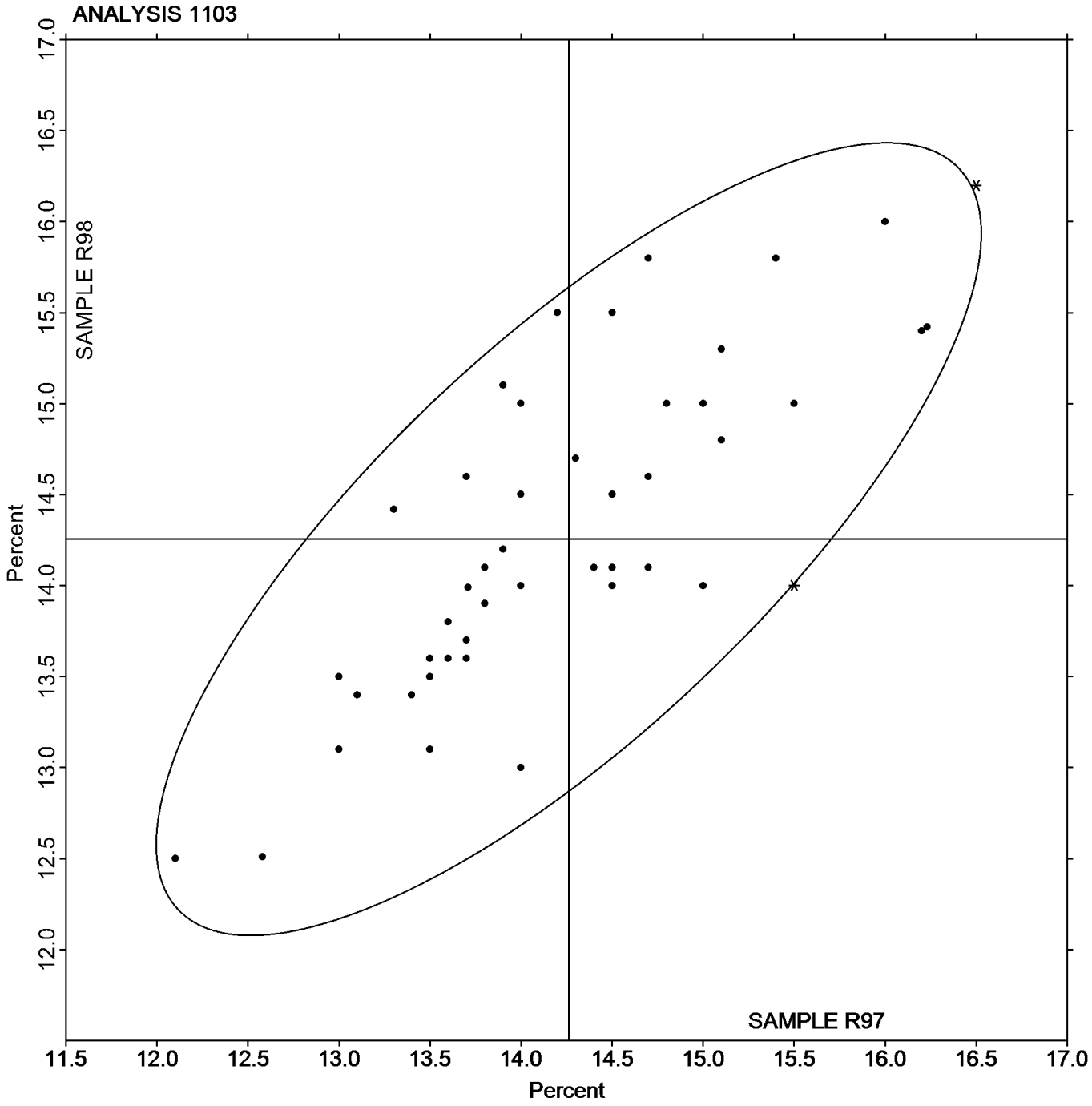
28LQH6 (X) - Data for both samples are low. Possible Systematic Error.

BWGGGY (X) - Data for both samples are low. Possible Systematic Error.

R4HNU4 (X) - Data for sample R97 are high.

SAMPLE R97
14.26 Percent

SAMPLE R98
14.26 Percent



		Sample A97			Sample A98		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2ZT64R		64.50	-0.04	-0.07	69.70	0.11	0.16
36JYEX		64.10	-0.44	-0.70	70.16	0.56	0.83
3M2XLG		63.47	-1.07	-1.68	68.20	-1.40	-2.06
4GPMHR		65.30	0.76	1.19	69.90	0.31	0.45
6CQJCQ		64.88	0.33	0.52	70.04	0.45	0.66
7964BX	*	65.99	1.45	2.28	70.11	0.51	0.76
844HYK		65.91	1.37	2.15	71.09	1.49	2.21
8HUZ4C		64.77	0.23	0.36	69.72	0.13	0.19
9HKR4M		65.39	0.85	1.33	69.94	0.35	0.52
AKB4PE		64.50	-0.04	-0.07	69.50	-0.09	-0.14
AWKQRJ		64.90	0.36	0.56	69.78	0.19	0.28
CX2YMP		63.80	-0.74	-1.17	68.70	-0.89	-1.32
D3TNL8		64.80	0.26	0.41	69.20	-0.39	-0.58
E2KLLU		65.10	0.56	0.88	70.30	0.71	1.04
EAU6UR	*	64.10	-0.44	-0.69	68.10	-1.49	-2.20
ECGRGD		64.50	-0.04	-0.07	70.00	0.41	0.60
FKKDRK		63.70	-0.84	-1.32	68.80	-0.79	-1.17
G2QW63		64.80	0.26	0.41	69.94	0.35	0.52
GA4T9N	X	57.86	-6.68	-10.50	67.87	-1.72	-2.54
GAMLB8		65.50	0.96	1.50	70.90	1.31	1.93
GLVFDJ		63.90	-0.64	-1.01	68.70	-0.89	-1.32
HZDMRW		64.70	0.16	0.25	70.10	0.51	0.75
JFK2MY		63.90	-0.64	-1.01	68.90	-0.69	-1.02
JPTLX9		65.00	0.46	0.72	70.20	0.61	0.90
K7BY2X		63.90	-0.64	-1.01	69.30	-0.29	-0.43
KRQP3Z		64.20	-0.34	-0.54	69.40	-0.19	-0.28
LV6JGC		65.00	0.46	0.72	70.00	0.41	0.60
MBWVEE		63.80	-0.74	-1.17	68.50	-1.09	-1.61
MCCZ34		64.50	-0.04	-0.07	70.00	0.41	0.60
MD4WRX		65.26	0.72	1.12	69.88	0.29	0.42
NFPZYV		65.20	0.66	1.03	70.30	0.71	1.04
PFLZCZ		64.54	0.00	0.00	69.76	0.17	0.25
PT8CNB	X	77.32	12.78	20.06	79.96	10.36	15.30
Q2W8DR		63.70	-0.84	-1.32	68.80	-0.79	-1.17
Q834YD	M	58.00	-6.54	-10.27	No Data Reported		
QJXGU4		64.60	0.06	0.09	69.80	0.21	0.31
RU8ECC		63.60	-0.94	-1.48	68.70	-0.89	-1.32
RZYGKH	M	65.20	0.66	1.03	No Data Reported		
T2BQWF		64.12	-0.42	-0.67	69.84	0.25	0.37
TG48ZT		64.40	-0.14	-0.22	69.30	-0.29	-0.43
TG4APX	X	62.80	-1.74	-2.73	69.79	0.20	0.30
TVJ9WJ	X	70.59	6.05	9.50	68.34	-1.25	-1.85
UQNXYQ		64.50	-0.04	-0.07	69.43	-0.16	-0.24
UWW8EY		63.60	-0.94	-1.48	69.60	0.01	0.01
V46DDA		63.95	-0.59	-0.92	68.45	-1.15	-1.69
VB6UTL		65.12	0.58	0.91	69.91	0.32	0.47
VLAFH9	M	60.90	-3.64	-5.72	No Data Reported		

WebCode	Data Flag	Sample A97 Lab Mean	Sample A97 Diff. from Grand Mean	Sample A97 CPV	Sample A98 Lab Mean	Sample A98 Diff. from Grand Mean	Sample A98 CPV
WYARCY		64.50	-0.04	-0.07	69.80	0.21	0.31
XP67MB		63.50	-1.04	-1.64	68.57	-1.02	-1.50
XQD7VY		65.10	0.56	0.88	69.90	0.31	0.45
YKQLFP		64.50	-0.04	-0.07	70.00	0.41	0.60
ZTTFYG		64.63	0.09	0.14	69.73	0.14	0.20
ZWRQVG		65.20	0.66	1.03	70.30	0.71	1.04

Summary Statistics

	Sample A97		Sample A98	
Grand Means	64.54	ksi	69.59	ksi
Stnd Dev Btwn Labs	0.64	ksi	0.68	ksi

Samples A97, A98 : AISI 1018 (S), AISI 1018 (L)

Statistics based on 46 of 53 reporting participants

Comments on Assigned Data Flags for Test #1111

GA4T9N (X) - Data for sample A97 are low.

PT8CNB (X) - Data for both samples are high. Possible Systematic Error.

Q834YD (M) - Participant did not submit data for sample A98. Data for sample A97 are low.

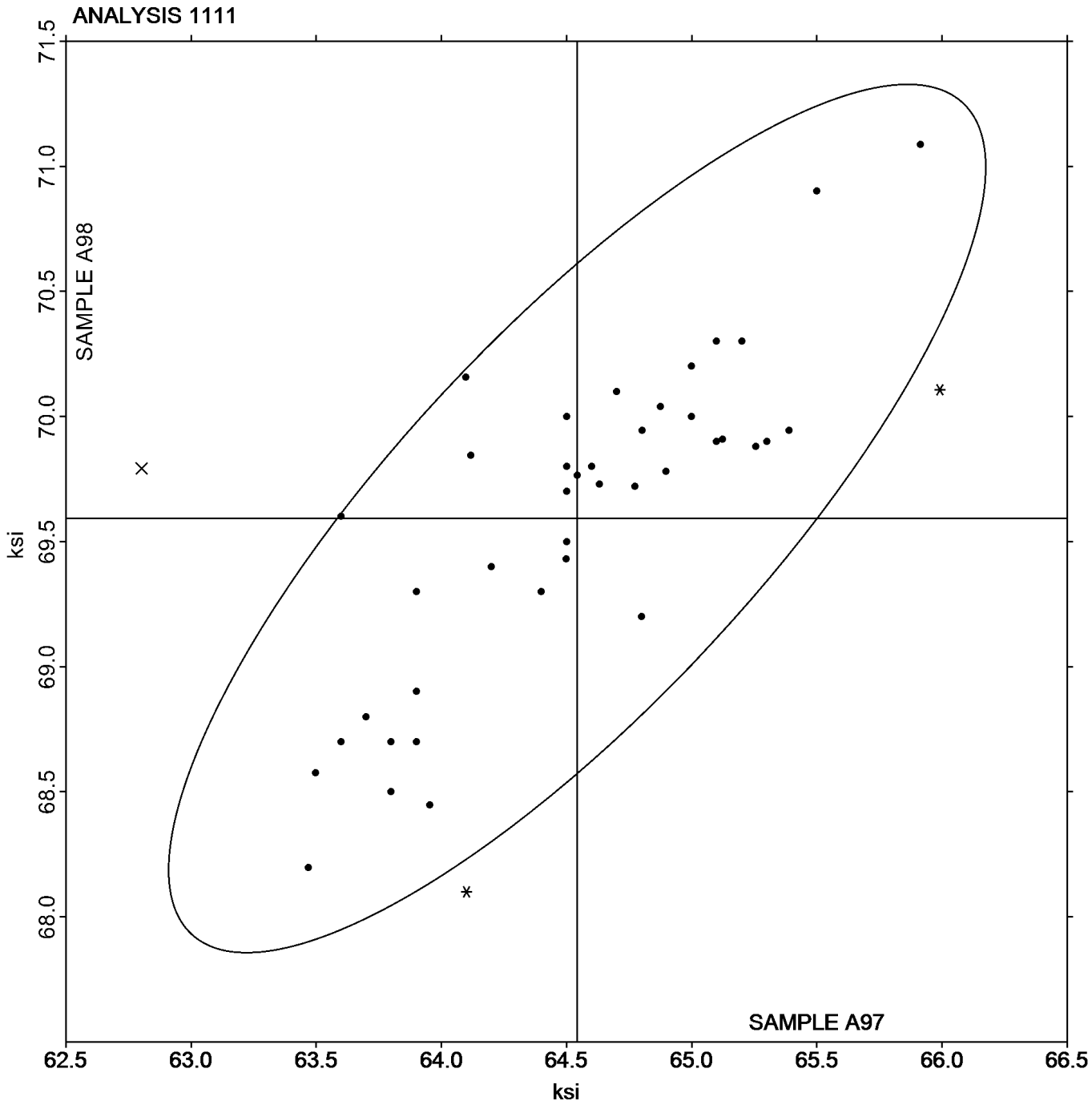
RZYGKH (M) - Participant did not submit data for sample A98.

TG4APX (X) - Data for sample A97 are low.

TVJ9WJ (X) - Data for sample A97 are high.

VLAFH9 (M) - Participant did not submit data for sample A98. Data for sample A97 are low.

SAMPLE A97	SAMPLE A98
64.54 ksi	69.59 ksi



		Sample A97			Sample A98		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2ZT64R		49.70	3.38	0.65	55.00	5.00	1.16
36JYEX		45.37	-0.95	-0.18	50.39	0.39	0.09
3M2XLG		46.78	0.45	0.09	46.76	-3.24	-0.75
4GPMHR		44.20	-2.12	-0.41	50.90	0.90	0.21
6CQJCQ		45.34	-0.98	-0.19	49.23	-0.77	-0.18
7964BX		45.09	-1.23	-0.24	53.27	3.27	0.76
844HYK		56.55	10.22	1.98	59.02	9.02	2.09
8HUZ4C		42.03	-4.30	-0.83	46.16	-3.84	-0.89
9HKR4M		45.03	-1.29	-0.25	47.06	-2.94	-0.68
AKB4PE		53.50	7.18	1.39	54.00	4.00	0.93
AWKQRJ		41.63	-4.69	-0.91	47.03	-2.97	-0.69
CX2YMP		41.50	-4.82	-0.93	49.90	-0.10	-0.02
D3TNL8		41.30	-5.02	-0.97	47.80	-2.20	-0.51
E2KLLU		46.90	0.58	0.11	49.90	-0.10	-0.02
EAU6UR		42.80	-3.52	-0.68	46.70	-3.30	-0.77
ECGRGD		47.40	1.08	0.21	48.00	-2.00	-0.46
FKKDRK		49.80	3.48	0.67	53.70	3.70	0.86
G2QW63		46.54	0.21	0.04	48.71	-1.29	-0.30
GA4T9N		39.51	-6.81	-1.32	47.39	-2.61	-0.61
GAMLB8		50.70	4.38	0.85	57.40	7.40	1.72
GLVFDJ		47.50	1.18	0.23	47.20	-2.80	-0.65
HZDMRW	*	53.90	7.58	1.47	48.40	-1.60	-0.37
JFK2MY		42.40	-3.92	-0.76	46.00	-4.00	-0.93
JPTLX9		44.70	-1.62	-0.31	51.06	1.06	0.25
K7BY2X		41.00	-5.32	-1.03	45.80	-4.20	-0.97
KRQP3Z		45.50	-0.82	-0.16	52.40	2.40	0.56
LV6JGC		42.50	-3.82	-0.74	47.20	-2.80	-0.65
MBWVEE		41.00	-5.32	-1.03	49.50	-0.50	-0.12
MCCZ34		45.30	-1.02	-0.20	47.60	-2.40	-0.56
MD4WRX		44.41	-1.92	-0.37	49.00	-1.00	-0.23
NFPZYV		41.80	-4.52	-0.88	47.60	-2.40	-0.56
PFLZCZ		42.93	-3.39	-0.66	48.01	-1.99	-0.46
PT8CNB		51.42	5.09	0.99	59.16	9.17	2.13
Q2W8DR		41.00	-5.32	-1.03	45.60	-4.40	-1.02
Q834YD	M	36.70	-9.62	-1.86	No Data Reported		
QJXGU4		48.90	2.58	0.50	53.40	3.40	0.79
RU8ECC		43.70	-2.62	-0.51	46.10	-3.90	-0.91
RZYGKH	M	46.90	0.58	0.11	No Data Reported		
T2BQWF		41.55	-4.78	-0.92	46.41	-3.59	-0.83
TG48ZT		46.71	0.39	0.08	46.83	-3.17	-0.74
TG4APX	X	44.53	-1.80	-0.35	60.34	10.34	2.40
TVJ9WJ		46.67	0.35	0.07	45.23	-4.77	-1.11
UQNXYQ		58.14	11.82	2.29	57.18	7.18	1.67
UWW8EY		33.80	-12.52	-2.42	39.90	-10.10	-2.34
V46DDA	*	54.84	8.51	1.65	50.17	0.17	0.04
VB6UTL		52.79	6.47	1.25	58.60	8.60	2.00
VLAFH9	M	41.30	-5.02	-0.97	No Data Reported		

WebCode	Data Flag	Sample A97 Lab Mean	Sample A97 Diff. from Grand Mean	Sample A97 CPV	Sample A98 Lab Mean	Sample A98 Diff. from Grand Mean	Sample A98 CPV
WYARCY		43.20	-3.12	-0.60	47.00	-3.00	-0.70
XP67MB		56.80	10.48	2.03	59.67	9.67	2.25
XQD7VY		54.40	8.08	1.56	52.80	2.80	0.65
YKQLFP		52.00	5.68	1.10	54.50	4.50	1.05
ZTTFYG		42.08	-4.25	-0.82	47.83	-2.17	-0.50
ZWRQVG		47.20	0.88	0.17	51.50	1.50	0.35

Summary Statistics

	Sample A97		Sample A98	
Grand Means	46.32	ksi	50.00	ksi
Stnd Dev Btwn Labs	5.17	ksi	4.31	ksi

Samples A97, A98 : AISI 1018 (S), AISI 1018 (L)

Statistics based on 49 of 53 reporting participants

Comments on Assigned Data Flags for Test #1112

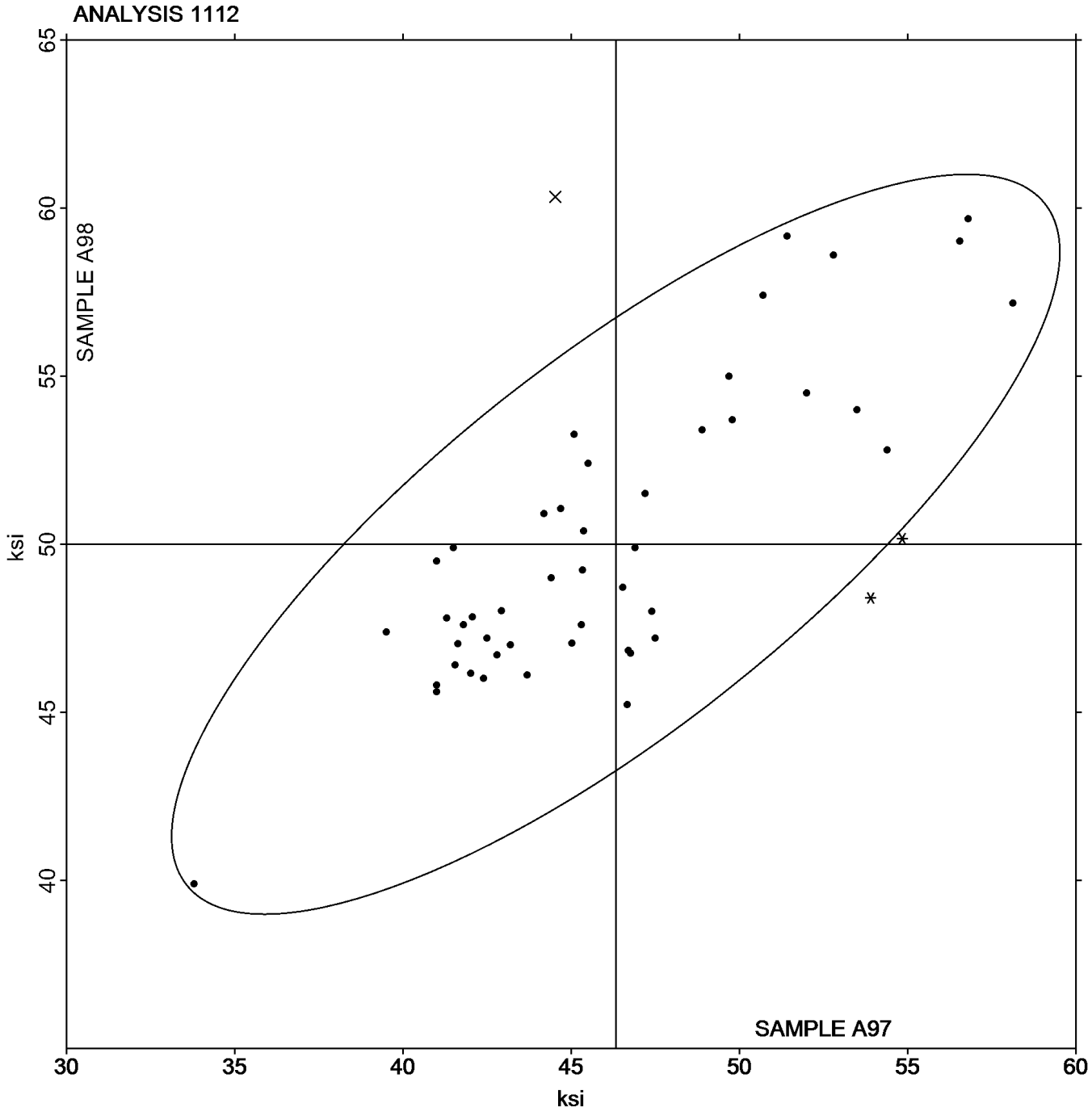
Q834YD (M) - Participant did not submit data for sample A98.

RZYGKH (M) - Participant did not submit data for sample A98.

TG4APX (X) - Inconsistent in testing between samples.

VLAFH9 (M) - Participant did not submit data for sample A98.

SAMPLE A97	SAMPLE A98
46.32 ksi	50.00 ksi



		Sample A97			Sample A98		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2ZT64R		37.20	-0.18	-0.12	34.30	-0.05	-0.04
36JYEX		37.52	0.14	0.10	34.26	-0.09	-0.07
3M2XLG		40.10	2.72	1.83	34.70	0.35	0.29
4GPMHR		37.20	-0.18	-0.12	32.40	-1.95	-1.62
6CQJCQ		35.70	-1.68	-1.13	33.10	-1.25	-1.04
7964BX		37.62	0.24	0.16	34.59	0.24	0.20
844HYK		36.40	-0.98	-0.66	33.20	-1.15	-0.96
8HUZ4C		37.00	-0.38	-0.25	34.00	-0.35	-0.29
9HKR4M		35.99	-1.39	-0.93	33.12	-1.23	-1.02
AKB4PE		38.00	0.62	0.42	36.00	1.65	1.37
AWKQRJ		37.20	-0.18	-0.12	34.40	0.05	0.04
CX2YMP		37.10	-0.28	-0.19	35.90	1.55	1.29
D3TNL8		36.00	-1.38	-0.93	34.00	-0.35	-0.29
E2KLLU		37.00	-0.38	-0.25	32.50	-1.85	-1.54
EAU6UR		37.00	-0.38	-0.25	33.90	-0.45	-0.37
ECGRGD		38.00	0.62	0.42	33.00	-1.35	-1.12
FKKDRK		37.50	0.12	0.08	35.50	1.15	0.96
G2QW63		37.55	0.17	0.12	34.05	-0.30	-0.25
GA4T9N		38.12	0.74	0.50	35.66	1.31	1.09
GAMLB8		37.20	-0.18	-0.12	34.50	0.15	0.13
GLVFDJ		35.90	-1.48	-0.99	35.00	0.65	0.54
HZDMRW		35.50	-1.88	-1.26	33.30	-1.05	-0.87
JFK2MY		38.50	1.12	0.76	36.40	2.05	1.70
JPTLX9		37.60	0.22	0.15	33.10	-1.25	-1.04
K7BY2X		39.50	2.12	1.43	36.00	1.65	1.37
KRQP3Z		38.80	1.42	0.96	34.70	0.35	0.29
LV6JGC		36.80	-0.58	-0.39	34.00	-0.35	-0.29
MBWVEE		38.60	1.22	0.82	36.10	1.75	1.46
MCCZ34		35.50	-1.88	-1.26	32.50	-1.85	-1.54
MD4WRX		39.33	1.95	1.31	36.35	2.00	1.66
NFPZYV		36.80	-0.58	-0.39	35.20	0.85	0.71
PFLZCZ	*	33.40	-3.98	-2.68	32.10	-2.25	-1.87
PT8CNB		39.00	1.62	1.09	36.00	1.65	1.37
Q2W8DR	*	41.60	4.22	2.84	36.20	1.85	1.54
Q834YD	M	38.10	0.72	0.49	No Data Reported		
QJXGU4		38.60	1.22	0.82	33.60	-0.75	-0.62
RU8ECC		36.00	-1.38	-0.93	35.40	1.05	0.87
RZYGKH	M	36.00	-1.38	-0.93	No Data Reported		
T2BQWF		36.80	-0.58	-0.39	32.24	-2.11	-1.75
TG48ZT		37.40	0.02	0.02	33.80	-0.55	-0.46
TG4APX		40.50	3.12	2.10	34.80	0.45	0.37
TVJ9WJ		35.30	-2.08	-1.40	34.72	0.37	0.31
UQNXYQ		36.95	-0.43	-0.29	33.47	-0.88	-0.73
UWW8EY		34.90	-2.48	-1.67	33.90	-0.45	-0.37
V46DDA		38.99	1.61	1.08	35.61	1.26	1.05
VB6UTL		37.00	-0.38	-0.25	33.10	-1.25	-1.04
VLAFH9	M	38.30	0.92	0.62	No Data Reported		

WebCode	Data Flag	Sample A97 Lab Mean	Sample A97 Diff. from Grand Mean	Sample A97 CPV	Sample A98 Lab Mean	Sample A98 Diff. from Grand Mean	Sample A98 CPV
WYARCY		38.00	0.62	0.42	35.00	0.65	0.54
XP67MB		38.20	0.82	0.55	35.90	1.55	1.29
XQD7VY		37.20	-0.18	-0.12	33.30	-1.05	-0.87
YKQLFP		36.00	-1.38	-0.93	35.00	0.65	0.54
ZTTFYG		38.40	1.02	0.69	33.70	-0.65	-0.54
ZWRQVG		36.40	-0.98	-0.66	33.90	-0.45	-0.37

Summary Statistics

	Sample A97		Sample A98	
Grand Means	37.38	Percent	34.35	Percent
Stnd Dev Btwn Labs	1.49	Percent	1.20	Percent

Samples A97, A98 : AISI 1018 (S), AISI 1018 (L)

Statistics based on 50 of 53 reporting participants

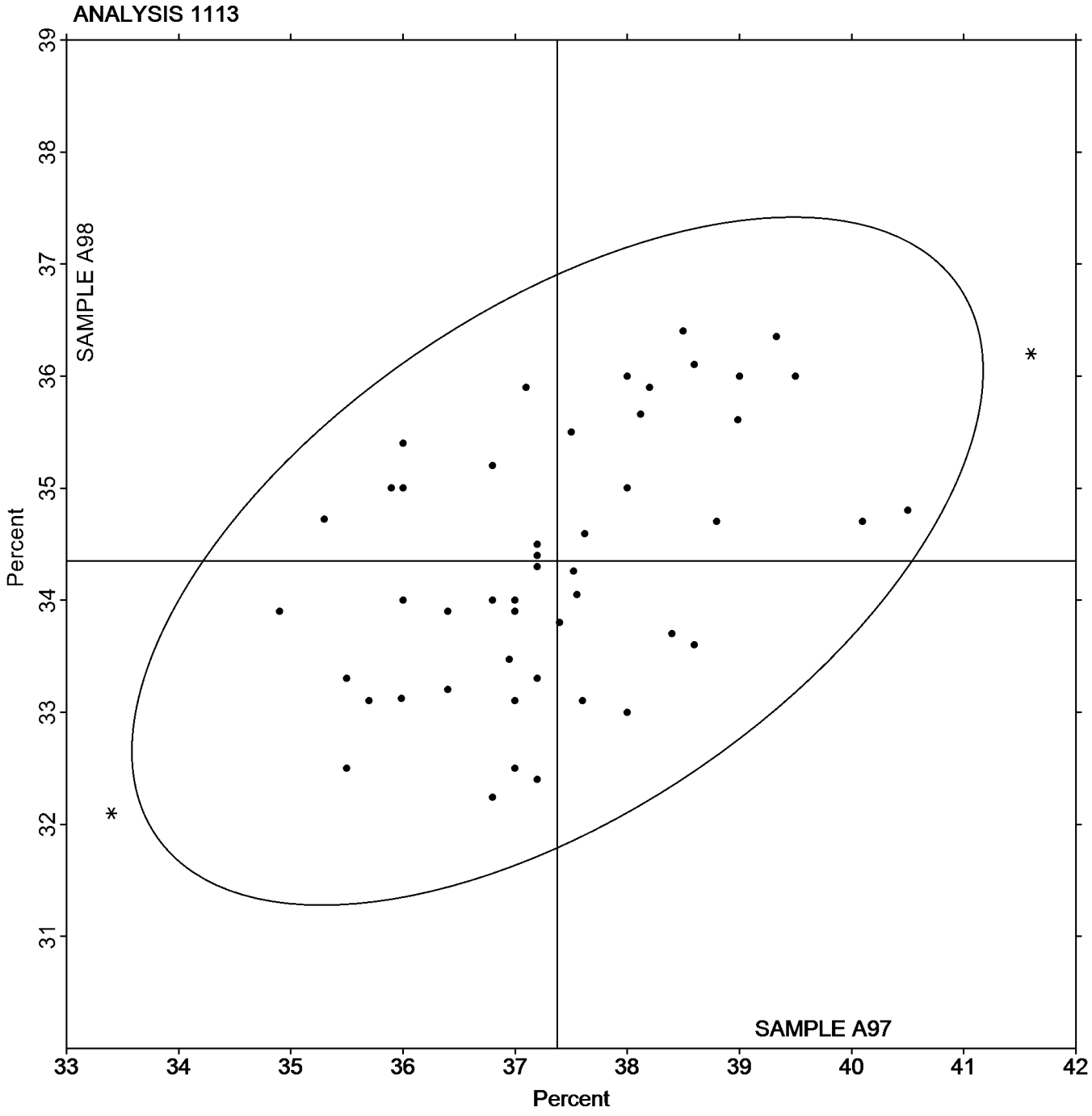
Comments on Assigned Data Flags for Test #1113

Q834YD (M) - Participant did not submit data for sample A98.

RZYGKH (M) - Participant did not submit data for sample A98.

VLAFH9 (M) - Participant did not submit data for sample A98.

SAMPLE A97	SAMPLE A98
37.38 Percent	34.35 Percent



		Sample A97			Sample A98		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2ZT64R		71.00	1.39	1.21	67.60	0.72	0.62
36JYEX		69.73	0.12	0.11	64.85	-2.03	-1.73
3M2XLG		71.00	1.39	1.21	66.80	-0.08	-0.06
4GPMHR		70.12	0.51	0.45	67.85	0.97	0.83
6CQJCQ		70.40	0.79	0.69	67.50	0.62	0.53
7964BX		69.55	-0.05	-0.05	67.15	0.27	0.23
844HYK		69.60	-0.01	0.00	67.40	0.52	0.45
8HUZ4C		69.50	-0.11	-0.09	66.60	-0.28	-0.24
9HKR4M		69.09	-0.52	-0.45	65.29	-1.59	-1.35
AKB4PE		70.00	0.39	0.34	69.00	2.12	1.81
AWKQRJ		70.60	0.99	0.86	67.00	0.12	0.11
CX2YMP		69.50	-0.11	-0.09	68.60	1.72	1.47
E2KLLU		68.20	-1.41	-1.22	67.20	0.32	0.28
EAU6UR		70.00	0.39	0.34	66.60	-0.28	-0.24
ECGRGD		69.00	-0.61	-0.53	64.00	-2.88	-2.46
FKKDRK	*	69.90	0.29	0.26	70.40	3.52	3.01
G2QW63		69.83	0.22	0.20	67.25	0.37	0.32
GA4T9N		69.86	0.25	0.22	67.64	0.76	0.65
GAMLB8		69.10	-0.51	-0.44	66.70	-0.18	-0.15
GLVFDJ		71.30	1.69	1.47	68.20	1.32	1.13
HZDMRW		69.20	-0.41	-0.35	66.00	-0.88	-0.75
JFK2MY		70.50	0.89	0.78	68.20	1.32	1.13
JPTLX9		70.40	0.79	0.69	65.90	-0.98	-0.83
K7BY2X		69.10	-0.51	-0.44	66.70	-0.18	-0.15
KRQP3Z		70.20	0.59	0.52	67.40	0.52	0.45
LV6JGC	X	71.60	1.99	1.73	64.10	-2.78	-2.37
MBWVEE		70.80	1.19	1.04	67.30	0.42	0.36
MCCZ34		68.60	-1.01	-0.87	66.40	-0.48	-0.41
MD4WRX		69.99	0.38	0.33	66.49	-0.39	-0.33
NFPZYV		69.20	-0.41	-0.35	64.70	-2.18	-1.86
PFLZCZ	*	66.40	-3.21	-2.79	64.70	-2.18	-1.86
PT8CNB		72.00	2.39	2.08	67.00	0.12	0.11
Q2W8DR		70.60	0.99	0.86	68.60	1.72	1.47
Q834YD	M	69.20	-0.41	-0.35	No Data Reported		
QJXGU4		69.20	-0.41	-0.35	67.20	0.32	0.28
RU8ECC		68.90	-0.71	-0.61	67.00	0.12	0.11
RZYGKH	M	67.10	-2.51	-2.18	No Data Reported		
TG48ZT		69.65	0.04	0.04	65.93	-0.95	-0.81
TG4APX		70.70	1.09	0.95	67.30	0.42	0.36
TVJ9WJ		66.79	-2.82	-2.45	66.18	-0.70	-0.59
UQNXYQ		68.49	-1.12	-0.97	67.27	0.39	0.34
UWW8EY		67.50	-2.11	-1.83	65.20	-1.68	-1.43
V46DDA		70.46	0.85	0.74	67.27	0.39	0.34
VB6UTL		70.50	0.89	0.78	66.20	-0.68	-0.58
VLAFH9	M	65.80	-3.81	-3.31	No Data Reported		
WYARCY		67.70	-1.91	-1.66	67.10	0.22	0.19
XP67MB		70.70	1.09	0.95	67.40	0.52	0.45

WebCode	Data Flag	Sample A97 Lab Mean	Sample A97 Diff. from Grand Mean	Sample A97 CPV	Sample A98 Lab Mean	Sample A98 Diff. from Grand Mean	Sample A98 CPV
XQD7VY		69.10	-0.51	-0.44	66.50	-0.38	-0.32
YKQLFP		69.00	-0.61	-0.53	67.00	0.12	0.11
ZTTFYG		70.70	1.09	0.95	66.10	-0.78	-0.66
ZWRQVG		67.80	-1.81	-1.57	66.50	-0.38	-0.32

Summary Statistics

	Sample A97		Sample A98	
Grand Means	69.61	Percent	66.88	Percent
Stnd Dev Btwn Labs	1.15	Percent	1.17	Percent

Samples A97, A98 : AISI 1018 (S), AISI 1018 (L)

Statistics based on 47 of 51 reporting participants

Comments on Assigned Data Flags for Test #1114

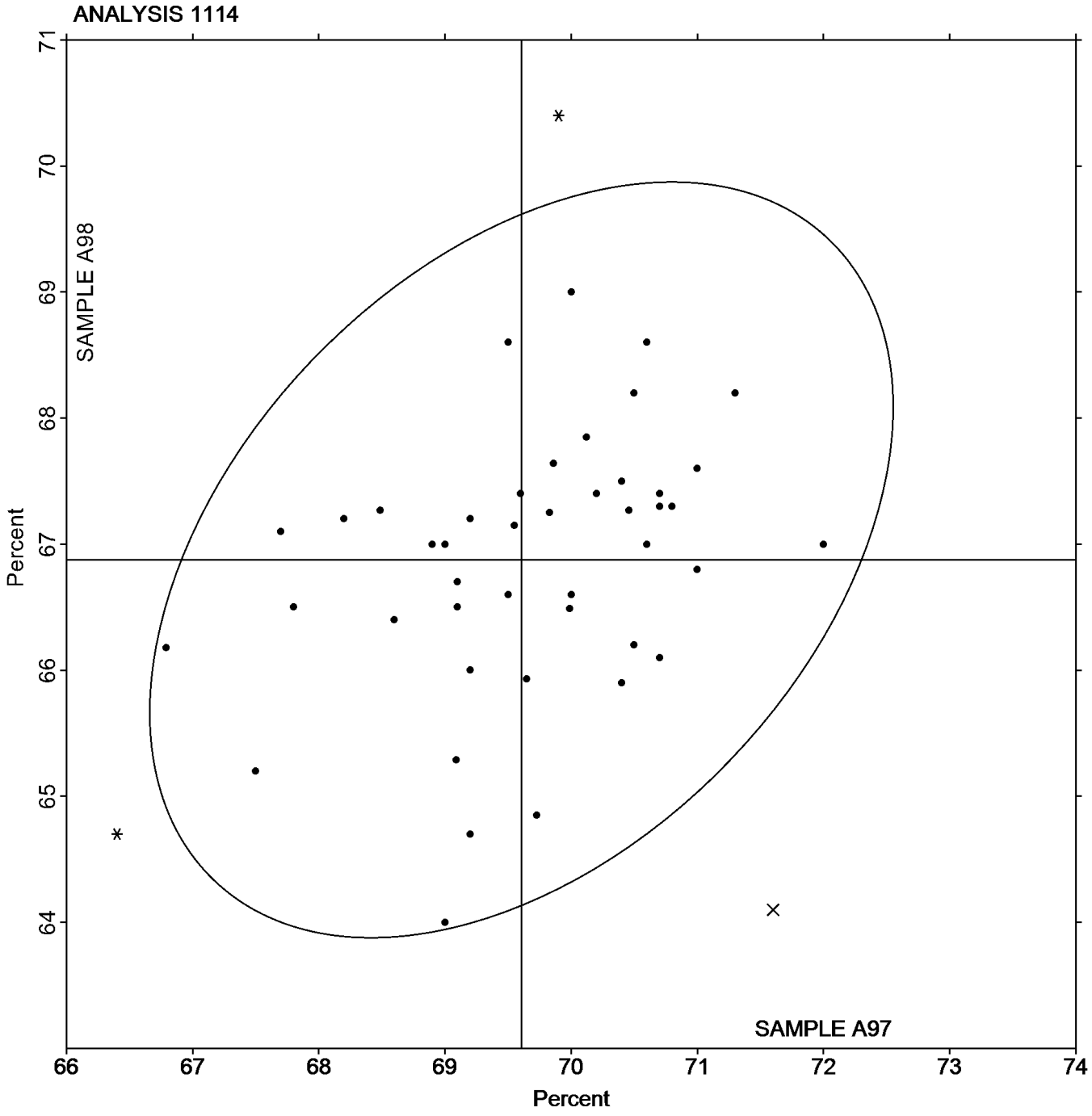
LV6JGC (X) - Inconsistent in testing between samples.

Q834YD (M) - Participant did not submit data for sample A98.

RZYGKH (M) - Participant did not submit data for sample A98.

VLAFH9 (M) - Participant did not submit data for sample A98.

SAMPLE A97	SAMPLE A98
69.61 Percent	66.88 Percent



		Sample P97			Sample P98		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2HRB9R		65.10	0.47	0.55	70.00	0.49	0.58
3UWZNT	*	66.45	1.82	2.14	71.67	2.16	2.59
3VBFVE		64.58	-0.05	-0.06	69.45	-0.06	-0.08
4D6LM7		63.90	-0.73	-0.86	68.90	-0.61	-0.74
4FA29Q		65.36	0.73	0.86	70.63	1.12	1.34
4XEGJH		65.12	0.49	0.58	70.78	1.27	1.52
6XRKFG		64.10	-0.53	-0.63	68.80	-0.71	-0.86
7M8JLT		64.98	0.35	0.41	70.20	0.68	0.82
87VDME	*	64.10	-0.53	-0.63	68.00	-1.51	-1.81
9MXDB9		64.92	0.29	0.34	69.57	0.06	0.07
9YEB4J		65.80	1.17	1.38	70.50	0.99	1.18
ALLXG8		65.01	0.38	0.45	69.41	-0.10	-0.12
AQBNPN	*	65.67	1.04	1.23	69.53	0.02	0.02
AXPJHC		64.20	-0.43	-0.51	68.60	-0.91	-1.10
AY8JP9		64.30	-0.33	-0.39	69.29	-0.23	-0.27
BFBFLC		63.70	-0.93	-1.10	68.90	-0.61	-0.74
CAYXGF		63.26	-1.37	-1.61	68.16	-1.36	-1.63
CCRHTF		64.90	0.27	0.32	69.90	0.39	0.46
CECJN2		64.80	0.17	0.19	69.56	0.04	0.05
CPDXWE	X	64.70	0.07	0.08	67.50	-2.01	-2.41
CRJMVG		63.90	-0.73	-0.86	69.20	-0.31	-0.38
D6JPTG		64.60	-0.03	-0.04	69.57	0.06	0.07
DGAJ24		64.26	-0.37	-0.44	68.69	-0.82	-0.99
E44QAR		64.90	0.27	0.32	69.60	0.09	0.10
EU2JFD		63.00	-1.63	-1.92	68.00	-1.51	-1.81
FJQML7		63.00	-1.63	-1.92	67.50	-2.01	-2.41
G2QW63		64.95	0.32	0.38	69.61	0.10	0.12
GGJRF9		64.54	-0.09	-0.11	69.90	0.38	0.46
GHHNDJ		64.49	-0.14	-0.16	69.86	0.35	0.42
H4VV3G		66.00	1.37	1.61	71.00	1.49	1.78
H6M42K	X	63.80	-0.83	-0.98	66.70	-2.81	-3.37
HDKJY6		64.10	-0.53	-0.63	68.90	-0.61	-0.74
HL7WPN		66.55	1.92	2.26	71.16	1.65	1.97
HLQHHE		65.10	0.47	0.55	69.90	0.39	0.46
K7B67Y	M	No Data Reported			69.60	0.09	0.10
KCUGWL		63.90	-0.73	-0.86	68.80	-0.71	-0.86
KGAPKK	*	66.68	2.05	2.41	70.73	1.22	1.46
L7PZ27		64.99	0.36	0.42	70.19	0.67	0.81
L848MM		64.01	-0.63	-0.74	68.95	-0.56	-0.67
L9AUVK		65.85	1.22	1.43	70.34	0.83	0.99
LQP3WL		65.11	0.48	0.56	69.20	-0.31	-0.37
LQTMLA	X	71.50	6.87	8.09	64.70	-4.81	-5.77
MAMHYX	*	62.50	-2.13	-2.51	68.10	-1.41	-1.69
MMUHVB		63.40	-1.23	-1.45	68.30	-1.21	-1.45
MQQFV2		63.99	-0.64	-0.75	69.05	-0.46	-0.55
MU7MJ2		64.30	-0.33	-0.39	70.00	0.49	0.58
NAJGQ6		64.12	-0.52	-0.61	68.80	-0.72	-0.86

Fasteners and Metals Interlaboratory Testing Program

Analysis 1121

Tensile Strength: Lab-Machined Round Steel

ASTM E8

Cycle 145
1st Qtr 2024

		Sample P97			Sample P98		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
NFPZYV		65.30	0.67	0.79	70.20	0.69	0.82
NHCTLX		63.60	-1.03	-1.21	68.20	-1.31	-1.57
P4P42L		65.54	0.91	1.07	69.75	0.24	0.28
PFLZCZ		63.96	-0.67	-0.79	69.62	0.10	0.13
PL6C3M		63.96	-0.67	-0.79	68.89	-0.62	-0.74
RG8FNF		64.48	-0.15	-0.18	69.27	-0.24	-0.29
RNAFA4		64.33	-0.30	-0.36	69.23	-0.28	-0.34
RU8ECC		64.80	0.17	0.20	69.20	-0.31	-0.38
RZYGKH		64.80	0.17	0.20	70.00	0.49	0.58
T6RT8R		65.00	0.37	0.43	70.40	0.89	1.06
UX8A2X	X	65.00	0.37	0.43	75.00	5.49	6.58
UYG9AL	X	72.56	7.93	9.34	77.09	7.57	9.08
UZ96XF		65.50	0.87	1.02	70.10	0.59	0.70
UZUXCX		64.90	0.27	0.32	70.00	0.49	0.58
VJJG4B		64.00	-0.63	-0.74	69.30	-0.21	-0.26
VMJP7Z		65.30	0.67	0.79	70.00	0.49	0.58
WEPPJK		64.00	-0.63	-0.74	69.80	0.29	0.34
XXCVC3		64.63	0.00	0.00	69.46	-0.05	-0.06
XYPBWW		64.70	0.07	0.08	70.00	0.49	0.58
Y7Z72N		63.30	-1.33	-1.57	68.30	-1.21	-1.45
Y9Q6FM		65.29	0.66	0.78	70.04	0.53	0.64
YJ839X	X	48.14	-16.49	-19.43	52.97	-16.55	-19.83
YMBMBC		66.13	1.50	1.77	71.02	1.51	1.81
YN6LDG		64.19	-0.44	-0.51	69.10	-0.42	-0.50
YQPF8W		64.90	0.27	0.32	69.40	-0.11	-0.14
YZXWVW		65.20	0.57	0.67	70.10	0.59	0.70
ZEUJRF		64.30	-0.33	-0.39	69.56	0.05	0.06
ZRCH8G		64.31	-0.32	-0.38	68.80	-0.72	-0.86
ZTTFYG	X	66.57	1.94	2.29	72.23	2.72	3.25

Summary Statistics

	Sample P97		Sample P98	
Grand Means	64.63	ksi	69.51	ksi
Stnd Dev Btwn Labs	0.85	ksi	0.83	ksi

Samples P97, P98 : AISI 1018 (E), AISI 1018 (F)

Statistics based on 68 of 76 reporting participants

Comments on Assigned Data Flags for Test #1121

CPDXWE (X) - Inconsistent in testing between samples.

H6M42K (X) - Data for sample P98 are low.

K7B67Y (M) - Participant did not submit data for sample P97.

LQTMLA (X) - Data for sample P97 are high and data for sample P98 are low. Inconsistent in testing between samples.

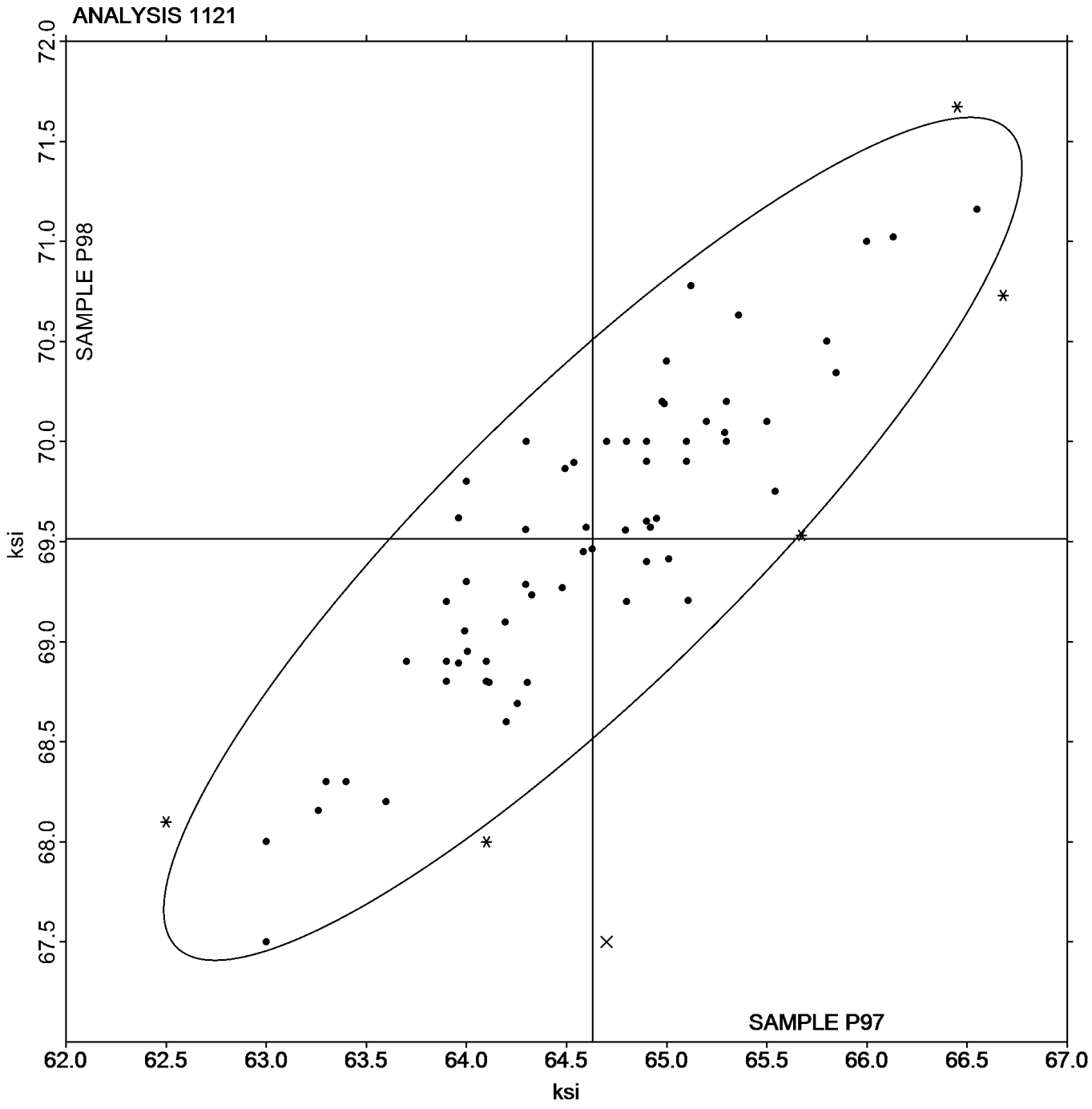
UX8A2X (X) - Data for sample P98 are high.

UYG9AL (X) - Data for both samples are high. Possible Systematic Error.

YJ839X (X) - Data for both samples are low. Possible Systematic Error.

ZTTFYG (X) - Data for sample P98 are high.

SAMPLE P97	SAMPLE P98
64.63 ksi	69.51 ksi



		Sample P97			Sample P98		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2HRB9R		42.50	-1.52	-0.48	48.60	0.31	0.12
3UWZNT		43.79	-0.24	-0.07	49.64	1.34	0.52
3VBFVE		50.33	6.30	1.99	53.58	5.29	2.04
4D6LM7		43.30	-0.72	-0.23	50.60	2.31	0.89
4FA29Q		42.29	-1.73	-0.55	47.55	-0.74	-0.29
4XEGJH		41.19	-2.83	-0.89	47.86	-0.43	-0.17
6XRKFG		40.80	-3.22	-1.02	44.20	-4.09	-1.58
7M8JLT		42.35	-1.67	-0.53	46.41	-1.88	-0.73
87VDME		40.40	-3.62	-1.14	44.90	-3.39	-1.31
9MXDB9		50.18	6.16	1.95	52.31	4.01	1.55
9YEB4J	X	56.20	12.18	3.85	53.10	4.81	1.86
ALLXG8		49.45	5.43	1.72	51.56	3.26	1.26
AQBNPN		48.04	4.02	1.27	50.71	2.41	0.93
AXPJHC		39.80	-4.22	-1.33	45.20	-3.09	-1.20
AY8JP9		46.30	2.28	0.72	50.46	2.16	0.84
BFBFLC		38.50	-5.52	-1.74	42.70	-5.59	-2.16
CAYXGF		42.28	-1.74	-0.55	47.19	-1.10	-0.43
CCRHTF	X	46.00	1.98	0.63	24.00	-24.29	-9.39
CECJN2		49.26	5.24	1.65	54.06	5.77	2.23
CPDXWE		48.70	4.68	1.48	51.40	3.11	1.20
CRJMVG		40.20	-3.82	-1.21	45.80	-2.49	-0.96
D6JPTG		45.22	1.20	0.38	48.06	-0.23	-0.09
DGAJ24		48.90	4.88	1.54	52.80	4.51	1.74
E44QAR		44.90	0.88	0.28	47.90	-0.39	-0.15
EU2JFD		43.00	-1.02	-0.32	49.00	0.71	0.27
FJQML7		40.10	-3.92	-1.24	44.30	-3.99	-1.54
G2QW63		42.91	-1.11	-0.35	50.06	1.77	0.68
GGJRF9		43.17	-0.85	-0.27	47.93	-0.36	-0.14
GHHNDJ		44.29	0.27	0.09	49.35	1.06	0.41
H4VV3G		44.80	0.78	0.25	48.20	-0.09	-0.04
H6M42K		40.70	-3.32	-1.05	44.60	-3.69	-1.43
HDKJY6		40.70	-3.32	-1.05	46.20	-2.09	-0.81
HL7WPN		43.47	-0.55	-0.17	47.13	-1.16	-0.45
HLQHHE		40.70	-3.32	-1.05	45.40	-2.89	-1.12
K7B67Y	M	No Data Reported			50.00	1.71	0.66
KCUGWL		40.70	-3.32	-1.05	45.90	-2.39	-0.93
KGAPKK		48.35	4.33	1.37	50.34	2.05	0.79
L7PZ27		42.83	-1.19	-0.38	48.87	0.57	0.22
L848MM		45.34	1.32	0.42	49.11	0.82	0.32
L9AUVK		41.19	-2.83	-0.89	45.69	-2.61	-1.01
LQP3WL		40.69	-3.33	-1.05	44.50	-3.80	-1.47
LQTMLA	X	46.30	2.28	0.72	39.80	-8.49	-3.28
MAMHYX		44.30	0.28	0.09	48.10	-0.19	-0.08
MMUHVB	X	47.10	3.08	0.97	46.20	-2.09	-0.81
MQQFV2		48.76	4.74	1.50	51.89	3.60	1.39
MU7MJ2		42.10	-1.92	-0.61	48.10	-0.19	-0.08
NAJGQ6		42.63	-1.39	-0.44	46.52	-1.78	-0.69

		Sample P97			Sample P98		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
NFPZYV		42.20	-1.82	-0.58	45.20	-3.09	-1.20
NHCTLX		40.40	-3.62	-1.14	45.50	-2.79	-1.08
P4P42L	X	54.74	10.72	3.39	50.11	1.82	0.70
PFLZCZ		44.96	0.94	0.30	47.14	-1.16	-0.45
PL6C3M		40.32	-3.70	-1.17	46.56	-1.74	-0.67
RG8FNF	X	58.08	14.06	4.44	54.81	6.52	2.52
RNAFA4		43.49	-0.53	-0.17	47.29	-1.00	-0.39
RU8ECC		41.70	-2.32	-0.73	46.90	-1.39	-0.54
RZYGKH	X	53.60	9.58	3.03	50.90	2.61	1.01
T6RT8R		42.60	-1.42	-0.45	47.90	-0.39	-0.15
UX8A2X	*	44.00	-0.02	-0.01	52.00	3.71	1.43
UYG9AL	X	48.99	4.97	1.57	65.91	17.61	6.81
UZ96XF		51.20	7.18	2.27	54.10	5.81	2.24
UZUXCX		42.20	-1.82	-0.58	46.80	-1.49	-0.58
VJJG4B		41.80	-2.22	-0.70	46.30	-1.99	-0.77
VMJP7Z		41.80	-2.22	-0.70	45.80	-2.49	-0.96
WEPPJK		41.70	-2.32	-0.73	46.90	-1.39	-0.54
XXCVC3		44.59	0.57	0.18	47.89	-0.41	-0.16
XYPBWW	X	59.60	15.58	4.92	56.30	8.01	3.09
Y7Z72N		48.90	4.88	1.54	50.70	2.41	0.93
Y9Q6FM		47.81	3.79	1.20	48.72	0.42	0.16
YJ839X		42.96	-1.06	-0.33	48.41	0.12	0.05
YMBMBC		47.70	3.68	1.16	48.48	0.19	0.07
YN6LDG		45.61	1.59	0.50	49.78	1.48	0.57
YQPF8W	*	44.80	0.78	0.25	52.30	4.01	1.55
YZXWVW		42.40	-1.62	-0.51	47.80	-0.49	-0.19
ZEUJRF		46.56	2.54	0.80	49.91	1.61	0.62
ZRCH8G		48.82	4.80	1.51	50.51	2.21	0.86
ZTTFYG		47.43	3.41	1.08	49.89	1.60	0.62

Summary Statistics

	Sample P97		Sample P98	
Grand Means	44.02	ksi	48.29	ksi
Stnd Dev Btwn Labs	3.17	ksi	2.59	ksi

Samples P97, P98 : AISI 1018 (E), AISI 1018 (F)

Statistics based on 66 of 76 reporting participants

Comments on Assigned Data Flags for Test #1122

9YEB4J (X) - Data for sample P97 are high.

CCRHTF (X) - Data for sample P98 are low.

K7B67Y (M) - Participant did not submit data for sample P97.

LQTMLA (X) - Data for sample P98 are low.

MMUHVB (X) - Inconsistent in testing between samples.

P4P42L (X) - Data for sample P97 are high.

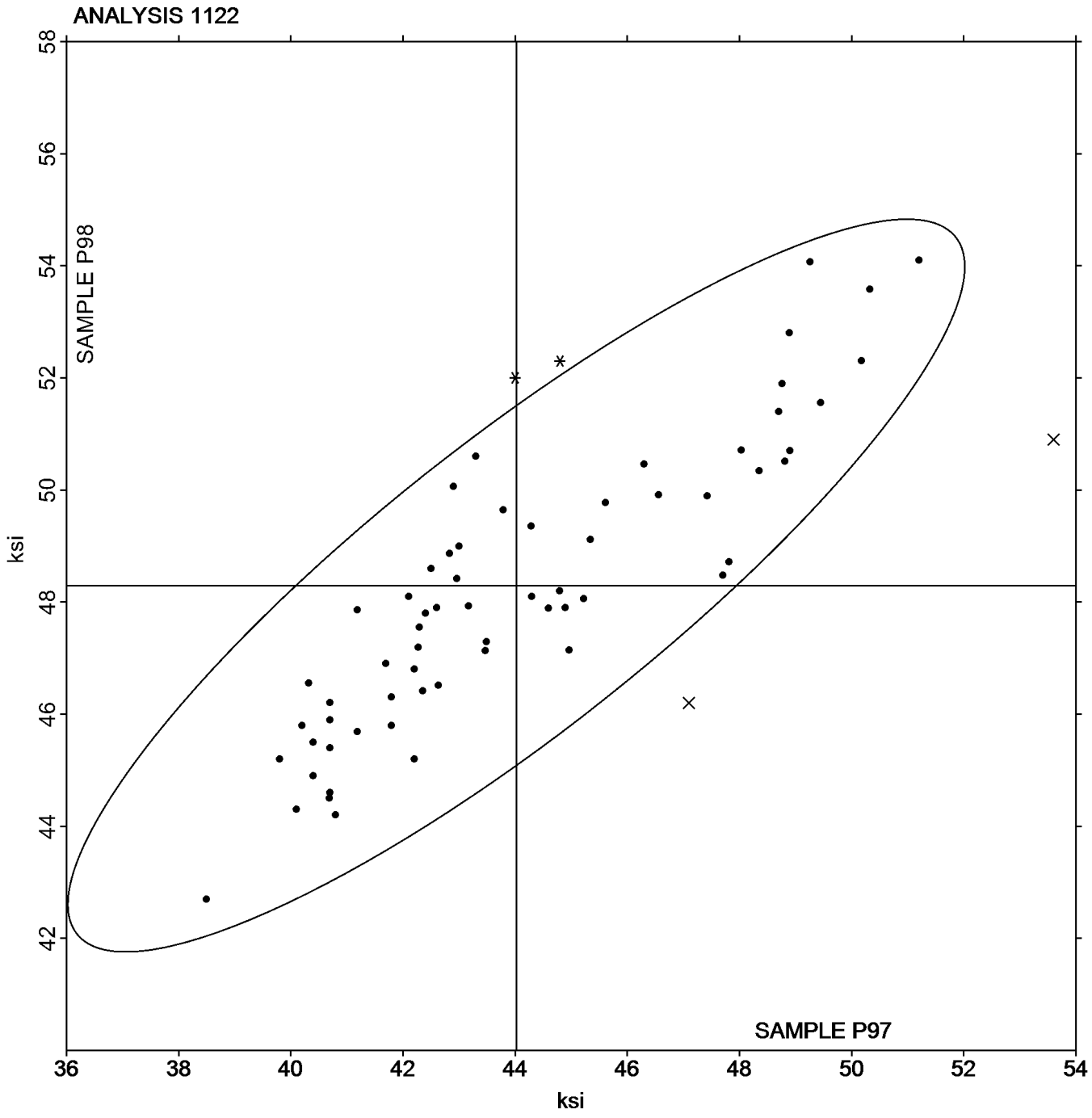
RG8FNF (X) - Data for sample P97 are high.

RZYGKH (X) - Data for sample P97 are high.

UYG9AL (X) - Data for sample P98 are high.

XYPBWW (X) - Data for both samples are high.

SAMPLE P97	SAMPLE P98
44.02 ksi	48.29 ksi



		Sample P97			Sample P98		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2HRB9R		32.60	-4.67	-2.13	32.20	-3.10	-1.57
3UWZNT		35.50	-1.77	-0.81	35.20	-0.10	-0.05
3VBFVE		36.50	-0.77	-0.35	34.00	-1.30	-0.66
4D6LM7		35.70	-1.57	-0.72	32.70	-2.60	-1.32
4FA29Q	X	69.00	31.73	14.48	66.00	30.70	15.60
4XEGJH		34.00	-3.27	-1.49	33.20	-2.10	-1.07
6XRKFG		37.10	-0.17	-0.08	35.70	0.40	0.21
7M8JLT		41.00	3.73	1.70	38.00	2.70	1.37
87VDME		38.60	1.33	0.61	34.30	-1.00	-0.51
9MXDB9		35.50	-1.77	-0.81	33.50	-1.80	-0.91
9YEB4J		38.00	0.73	0.33	35.00	-0.30	-0.15
ALLXG8		35.50	-1.77	-0.81	34.00	-1.30	-0.66
AQBNPN		38.10	0.83	0.38	33.90	-1.40	-0.71
AXPJHC		37.10	-0.17	-0.08	36.40	1.10	0.56
AY8JP9		39.60	2.33	1.06	38.30	3.00	1.53
BFBFLC		37.20	-0.07	-0.03	35.80	0.50	0.26
CAYXGF		42.30	5.03	2.30	38.60	3.30	1.68
CCRHTF	X	38.00	0.73	0.33	40.00	4.70	2.39
CECJN2		36.00	-1.27	-0.58	34.00	-1.30	-0.66
CPDXWE		37.00	-0.27	-0.12	36.00	0.70	0.36
CRJMVG		41.20	3.93	1.79	38.20	2.90	1.48
D6JPTG		38.34	1.07	0.49	36.13	0.83	0.42
DGAJ24		35.50	-1.77	-0.81	34.00	-1.30	-0.66
E44QAR		38.80	1.53	0.70	36.90	1.60	0.81
EU2JFD		37.00	-0.27	-0.12	36.00	0.70	0.36
FJQML7		42.00	4.73	2.16	40.00	4.70	2.39
G2QW63		35.75	-1.52	-0.69	34.60	-0.70	-0.35
GGJRF9		37.60	0.33	0.15	36.00	0.70	0.36
GHHNDJ		36.00	-1.27	-0.58	33.00	-2.30	-1.17
H4VV3G		36.00	-1.27	-0.58	35.00	-0.30	-0.15
H6M42K		34.40	-2.87	-1.31	32.80	-2.50	-1.27
HDKJY6		37.00	-0.27	-0.12	34.50	-0.80	-0.40
HL7WPN		35.90	-1.37	-0.62	34.60	-0.70	-0.35
HLQHHE		39.10	1.83	0.84	34.10	-1.20	-0.61
K7B67Y		38.40	1.13	0.52	35.10	-0.20	-0.10
KCUGWL		37.50	0.23	0.11	35.30	0.00	0.00
KGAPKK	X	69.71	32.44	14.80	67.43	32.13	16.33
L7PZ27		36.76	-0.51	-0.23	36.04	0.74	0.38
L848MM		37.60	0.33	0.15	37.50	2.20	1.12
L9AUVK		36.56	-0.71	-0.32	34.68	-0.62	-0.31
LQP3WL		35.90	-1.37	-0.62	36.90	1.60	0.81
LQTMLA		35.00	-2.27	-1.04	36.00	0.70	0.36
MAMHYX	X	31.80	-5.47	-2.50	38.10	2.80	1.42
MMUHVB		38.50	1.23	0.56	36.40	1.10	0.56
MQQFV2	X	59.40	22.13	10.10	53.20	17.90	9.10
MU7MJ2		39.80	2.53	1.15	37.60	2.30	1.17
NAJGQ6		39.00	1.73	0.79	38.00	2.70	1.37

Fasteners and Metals Interlaboratory Testing Program

Analysis 1123

Elongation: Lab-Machined Round Steel
ASTM E8

Cycle 145
1st Qtr 2024

		Sample P97			Sample P98		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
NFPZYV		35.20	-2.07	-0.94	35.20	-0.10	-0.05
NHCTLX		37.90	0.63	0.29	34.30	-1.00	-0.51
P4P42L		36.52	-0.75	-0.34	35.10	-0.20	-0.10
PFLZCZ		33.80	-3.47	-1.58	31.60	-3.70	-1.88
PL6C3M		40.20	2.93	1.34	38.60	3.30	1.68
RG8FNF		42.00	4.73	2.16	39.10	3.80	1.93
RNAFA4		38.10	0.83	0.38	36.20	0.90	0.46
RU8ECC		34.80	-2.47	-1.13	33.20	-2.10	-1.07
RZYGKH	X	42.70	5.43	2.48	43.30	8.00	4.07
T6RT8R		36.90	-0.37	-0.17	32.60	-2.70	-1.37
UX8A2X		35.00	-2.27	-1.04	34.00	-1.30	-0.66
UYG9AL	*	37.30	0.03	0.01	38.60	3.30	1.68
UZ96XF		37.50	0.23	0.11	36.00	0.70	0.36
UZUXCX		39.60	2.33	1.06	37.00	1.70	0.87
VJJG4B		36.00	-1.27	-0.58	34.00	-1.30	-0.66
VMJP7Z		35.00	-2.27	-1.04	34.00	-1.30	-0.66
WEPPJK	*	42.00	4.73	2.16	36.00	0.70	0.36
XXCVC3		35.25	-2.02	-0.92	34.70	-0.60	-0.30
XYPBWW		35.90	-1.37	-0.62	32.10	-3.20	-1.62
Y7Z72N		39.00	1.73	0.79	35.20	-0.10	-0.05
Y9Q6FM		34.00	-3.27	-1.49	31.00	-4.30	-2.18
YJ839X		38.00	0.73	0.33	35.00	-0.30	-0.15
YMBMBC		35.10	-2.17	-0.99	32.80	-2.50	-1.27
YN6LDG		40.70	3.43	1.57	37.90	2.60	1.32
YQPF8W		38.00	0.73	0.33	36.00	0.70	0.36
YZXWVW		37.60	0.33	0.15	36.30	1.00	0.51
ZEUJRF		40.40	3.13	1.43	37.70	2.40	1.22
ZRCH8G		36.00	-1.27	-0.58	34.00	-1.30	-0.66
ZTTFYG		34.17	-3.10	-1.41	32.38	-2.92	-1.48

Summary Statistics

	Sample P97		Sample P98	
Grand Means	37.27	Percent	35.30	Percent
Stnd Dev Btwn Labs	2.19	Percent	1.97	Percent

Samples P97, P98 : AISI 1018 (E), AISI 1018 (F)

Statistics based on 70 of 76 reporting participants

Comments on Assigned Data Flags for Test #1123

4FA29Q (X) - Data for both samples are high. Possible Systematic Error.

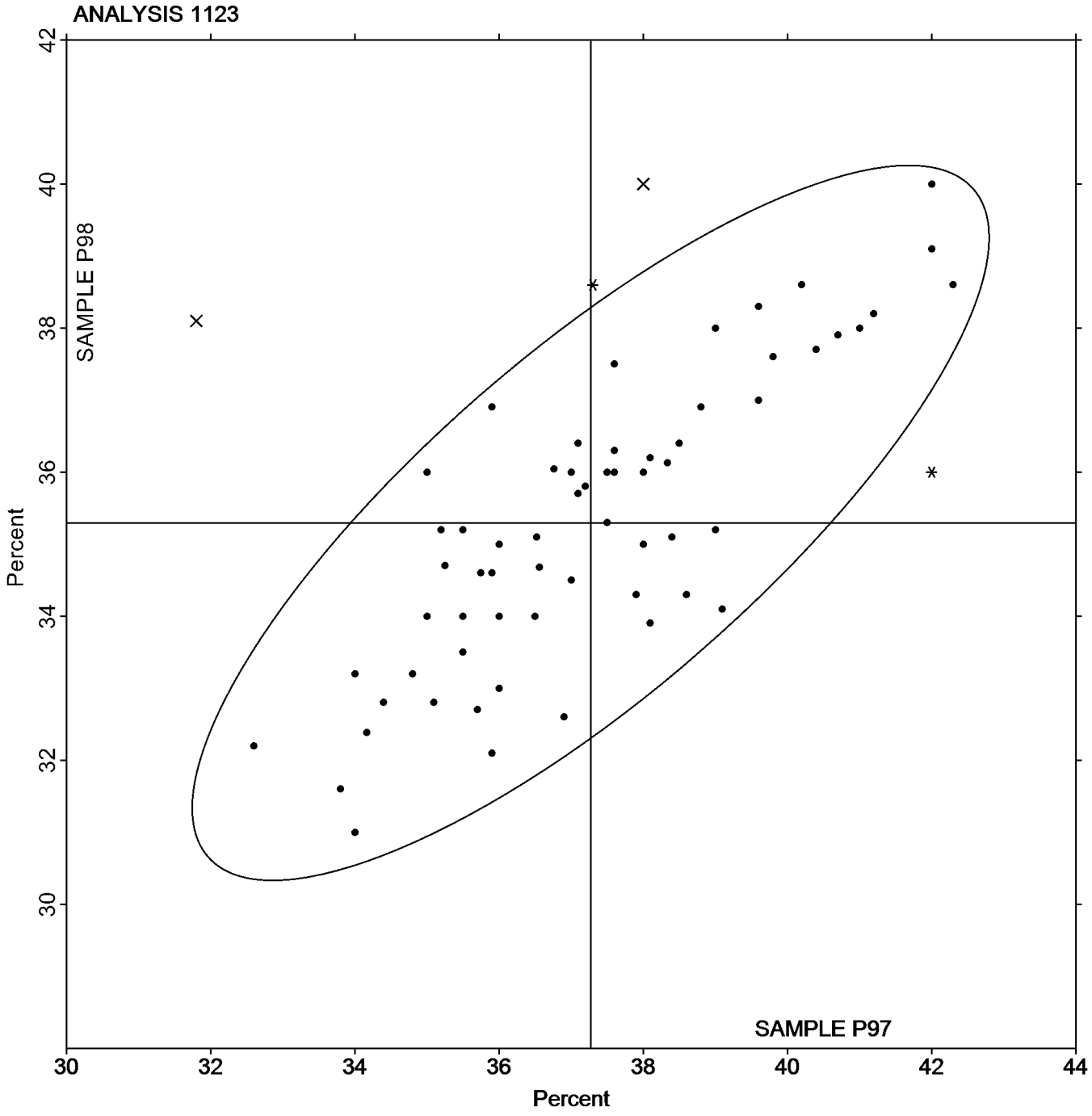
KGAPKK (X) - Data for both samples are high. Possible Systematic Error.

MAMHYX (X) - Inconsistent in testing between samples.

MQQFV2 (X) - Data for both samples are high. Possible Systematic Error.

RZYGKH (X) - Data for sample P98 are high.

SAMPLE P97	SAMPLE P98
37.27 Percent	35.30 Percent



		Sample P97			Sample P98		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2HRB9R		70.10	0.49	0.53	67.60	0.74	0.96
3UWZNT		69.70	0.09	0.10	66.20	-0.66	-0.86
3VBFVE		69.80	0.19	0.20	66.50	-0.36	-0.47
4D6LM7		70.60	0.99	1.06	67.70	0.84	1.09
4FA29Q	X	39.00	-30.61	-32.81	37.00	-29.86	-38.85
4XEGJH		69.00	-0.61	-0.65	66.00	-0.86	-1.12
7M8JLT	X	73.00	3.39	3.63	71.00	4.14	5.38
9MXDB9		68.90	-0.71	-0.76	66.60	-0.26	-0.34
9YEB4J		69.80	0.19	0.20	66.60	-0.26	-0.34
ALLXG8		68.60	-1.01	-1.08	66.60	-0.26	-0.34
AQBNPN		69.70	0.09	0.10	65.20	-1.66	-2.17
AY8JP9		71.20	1.59	1.70	67.50	0.64	0.83
BFBFLC		70.10	0.49	0.53	68.50	1.64	2.13
CCRHTF		70.60	0.99	1.06	66.70	-0.16	-0.21
CECJN2		69.50	-0.11	-0.12	66.20	-0.66	-0.86
CPDXWE		69.40	-0.21	-0.23	67.60	0.74	0.96
CRJMVG		70.30	0.69	0.74	67.80	0.94	1.22
D6JPTG		70.19	0.58	0.62	68.19	1.33	1.72
DGAJ24		70.20	0.59	0.63	67.50	0.64	0.83
E44QAR		69.70	0.09	0.10	67.40	0.54	0.70
EU2JFD		69.00	-0.61	-0.65	67.00	0.14	0.18
FJQML7	X	73.00	3.39	3.63	67.00	0.14	0.18
G2QW63		69.67	0.06	0.06	66.76	-0.10	-0.14
GGJRF9		70.76	1.15	1.23	67.99	1.13	1.47
GHHNDJ	X	69.00	-0.61	-0.65	63.00	-3.86	-5.03
H4VV3G		69.40	-0.21	-0.23	66.20	-0.66	-0.86
H6M42K		70.80	1.19	1.28	66.40	-0.46	-0.60
HDKJY6	*	72.00	2.39	2.56	67.40	0.54	0.70
HL7WPN		69.10	-0.51	-0.55	68.20	1.34	1.74
HLQHHE		70.10	0.49	0.53	66.70	-0.16	-0.21
K7B67Y		67.80	-1.81	-1.94	66.70	-0.16	-0.21
KCUGWL		70.50	0.89	0.95	67.70	0.84	1.09
KGAPKK		69.20	-0.41	-0.44	66.15	-0.71	-0.93
L7PZ27		69.73	0.12	0.13	68.49	1.63	2.11
L848MM		69.10	-0.51	-0.55	66.70	-0.16	-0.21
L9AUVK	X	73.00	3.39	3.63	69.00	2.14	2.78
LQP3WL	X	64.30	-5.31	-5.69	66.90	0.04	0.05
LQTMLA	X	67.40	-2.21	-2.37	70.50	3.64	4.73
MAMHYX		67.80	-1.81	-1.94	66.20	-0.66	-0.86
MMUHVB		71.30	1.69	1.81	68.50	1.64	2.13
MQQFV2		70.80	1.19	1.28	67.40	0.54	0.70
MU7MJ2		70.00	0.39	0.42	67.10	0.24	0.31
NAJGQ6		70.00	0.39	0.42	67.00	0.14	0.18
NFPZYV		69.30	-0.31	-0.33	67.20	0.34	0.44
P4P42L		68.68	-0.93	-1.00	66.58	-0.28	-0.37
PFLZCZ	*	67.00	-2.61	-2.80	66.20	-0.66	-0.86
PL6C3M		70.40	0.79	0.85	67.60	0.74	0.96

Fasteners and Metals Interlaboratory Testing Program

Analysis 1124

Reduction of Area: Lab-Machined Round Steel
ASTM E8

		Sample P97			Sample P98		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
RG8FNF		69.80	0.19	0.20	67.00	0.14	0.18
RNAFA4		68.30	-1.31	-1.40	66.40	-0.46	-0.60
RU8ECC		69.10	-0.51	-0.55	66.80	-0.06	-0.08
RZYGKH	*	68.10	-1.51	-1.62	67.70	0.84	1.09
T6RT8R		70.30	0.69	0.74	66.50	-0.36	-0.47
UX8A2X		69.00	-0.61	-0.65	67.00	0.14	0.18
UYG9AL	X	70.00	0.39	0.42	69.50	2.64	3.43
UZ96XF		70.20	0.59	0.63	66.40	-0.46	-0.60
VJJG4B		68.00	-1.61	-1.73	66.00	-0.86	-1.12
VMJP7Z		69.40	-0.21	-0.23	66.80	-0.06	-0.08
WEPPJK		70.20	0.59	0.63	65.70	-1.16	-1.51
XXCVC3		69.87	0.26	0.28	67.25	0.39	0.50
XYPBWW		69.30	-0.31	-0.33	66.30	-0.56	-0.73
Y7Z72N		69.40	-0.21	-0.23	66.40	-0.46	-0.60
Y9Q6FM	X	68.00	-1.61	-1.73	63.00	-3.86	-5.03
YJ839X		69.60	-0.01	-0.01	66.10	-0.76	-0.99
YMBMBC		68.79	-0.82	-0.88	65.84	-1.03	-1.34
YN6LDG		70.20	0.59	0.63	66.90	0.04	0.05
YQPF8W		70.00	0.39	0.42	66.00	-0.86	-1.12
YZXWVW		68.00	-1.61	-1.73	66.10	-0.76	-0.99
ZEUJRF		70.10	0.49	0.53	66.80	-0.06	-0.08
ZRCH8G		70.10	0.49	0.53	67.00	0.14	0.18
ZTTFYG		68.62	-0.99	-1.06	65.19	-1.67	-2.18

Summary Statistics

	Sample P97		Sample P98	
Grand Means	69.61	Percent	66.86	Percent
Stnd Dev Btwn Labs	0.93	Percent	0.77	Percent

Samples P97, P98 : AISI 1018 (E), AISI 1018 (F)

Statistics based on 61 of 70 reporting participants

Comments on Assigned Data Flags for Test #1124

4FA29Q (X) - Extreme data.

7M8JLT (X) - Data for both samples are high.

FJQML7 (X) - Data for sample P97 are high.

GHHNDJ (X) - Data for sample P98 are low.

L9AUVK (X) - Data for both samples are high.

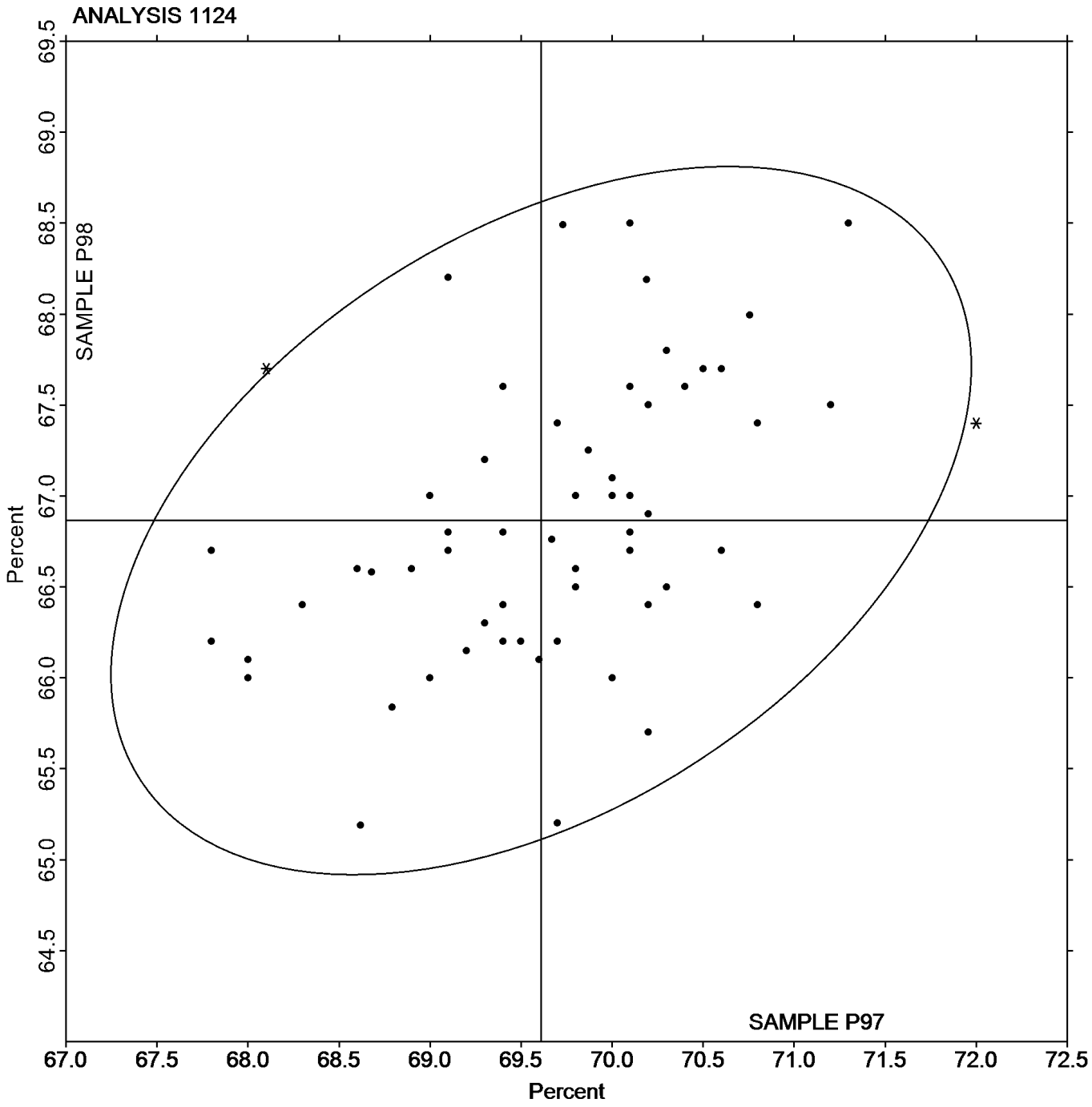
LQP3WL (X) - Data for sample P97 are low.

LQTMLA (X) - Data for sample P98 are high.

UYG9AL (X) - Data for sample P98 are high.

Y9Q6FM (X) - Data for sample P98 are low.

SAMPLE P97	SAMPLE P98
69.61 Percent	66.86 Percent



		Sample N97			Sample N98		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2DXMFR		88.82	0.61	1.17	95.58	0.64	1.26
3422YR		88.88	0.67	1.29	95.52	0.58	1.15
3GWYBR		87.76	-0.45	-0.88	94.14	-0.80	-1.59
3H84NF		87.96	-0.25	-0.49	94.50	-0.44	-0.88
4BWJQ9		88.34	0.13	0.24	95.16	0.22	0.43
4KQE2Q		88.50	0.29	0.55	95.82	0.88	1.74
6C9FUR		87.70	-0.51	-0.99	94.76	-0.18	-0.36
7M8JLT		88.54	0.33	0.63	95.46	0.52	1.03
8ABYFL	*	87.33	-0.88	-1.70	93.58	-1.36	-2.69
8HPUBV		88.50	0.29	0.55	94.96	0.02	0.04
8LRLUT		88.60	0.39	0.75	95.32	0.38	0.75
9VBN4Z		88.86	0.65	1.25	94.94	0.00	0.00
9YQWRY		88.76	0.55	1.06	95.10	0.16	0.31
A79PG4		88.52	0.31	0.59	95.46	0.52	1.03
AEEU4E		88.00	-0.21	-0.41	95.00	0.06	0.12
AFTWFT		87.94	-0.27	-0.53	94.88	-0.06	-0.12
B7LNYK		89.44	1.23	2.37	95.46	0.52	1.03
CVWAM2		88.66	0.45	0.86	95.52	0.58	1.15
DQ3RLU		88.50	0.29	0.55	94.90	-0.04	-0.08
E2KLLU		87.50	-0.71	-1.38	94.70	-0.24	-0.48
ECGRGD		88.00	-0.21	-0.41	95.00	0.06	0.12
FA8Z27		88.45	0.24	0.46	95.42	0.48	0.94
GHHNDJ		88.50	0.29	0.55	95.52	0.58	1.15
GLVFDJ		87.56	-0.65	-1.27	93.78	-1.16	-2.30
HBTMBB		87.62	-0.59	-1.15	94.96	0.02	0.04
HDKJY6		88.20	-0.01	-0.03	94.56	-0.38	-0.76
HL7WPN		88.20	-0.01	-0.03	95.00	0.06	0.12
JPTLX9		88.66	0.45	0.86	94.94	0.00	0.00
L848MM		88.56	0.35	0.67	95.10	0.16	0.31
M4X7XA	*	86.90	-1.31	-2.54	94.18	-0.76	-1.51
M8VMA4		88.34	0.13	0.24	94.90	-0.04	-0.08
MCCZ34	X	86.50	-1.71	-3.32	94.84	-0.10	-0.20
MLVLXZ		88.50	0.29	0.55	95.10	0.16	0.31
MMUHVB		87.72	-0.49	-0.96	94.78	-0.16	-0.32
MPG2W9		87.70	-0.51	-0.99	94.38	-0.56	-1.11
NTD63L		88.46	0.25	0.48	94.56	-0.38	-0.76
NUPYMR		88.10	-0.11	-0.22	94.64	-0.30	-0.60
PGFMP6		88.22	0.01	0.01	95.06	0.12	0.23
Q6C2Q4		88.54	0.33	0.63	95.08	0.14	0.27
QJXGU4		87.76	-0.45	-0.88	94.68	-0.26	-0.52
RGMQ8K		88.90	0.69	1.33	95.38	0.44	0.87
RU8ECC	*	88.41	0.20	0.38	96.08	1.14	2.26
TCQPHC		87.94	-0.27	-0.53	94.46	-0.48	-0.96
TM97BH		88.06	-0.15	-0.30	94.86	-0.08	-0.16
TQTYLK		88.00	-0.21	-0.41	95.04	0.10	0.19
ULY83V		88.22	0.01	0.01	94.88	-0.06	-0.12
UYG7KG		87.56	-0.65	-1.27	94.74	-0.20	-0.40

WebCode	Data Flag	Sample N97 Lab Mean	Sample N97 Diff. from Grand Mean	Sample N97 CPV	Sample N98 Lab Mean	Sample N98 Diff. from Grand Mean	Sample N98 CPV
V8PZEA	*	87.18	-1.03	-2.00	94.96	0.02	0.04
V9KK29		88.52	0.31	0.59	95.30	0.36	0.71
WAAHVK		88.06	-0.15	-0.30	94.18	-0.76	-1.51
WEPPJK		88.02	-0.19	-0.38	94.88	-0.06	-0.12
X38VGQ		87.48	-0.73	-1.42	94.44	-0.50	-0.99
XVA39W	X	85.60	-2.61	-5.06	94.20	-0.74	-1.47
XXCVC3		88.08	-0.13	-0.26	94.18	-0.76	-1.51
Y7MM6X	*	89.36	1.15	2.22	95.08	0.14	0.27
YKGXPV		88.66	0.45	0.86	96.00	1.06	2.10

Summary Statistics

	Sample N97		Sample N98	
Grand Means	88.21	HRB	94.94	HRB
Stnd Dev Btwn Labs	0.52	HRB	0.50	HRB

Samples N97, N98 : Brass, Steel

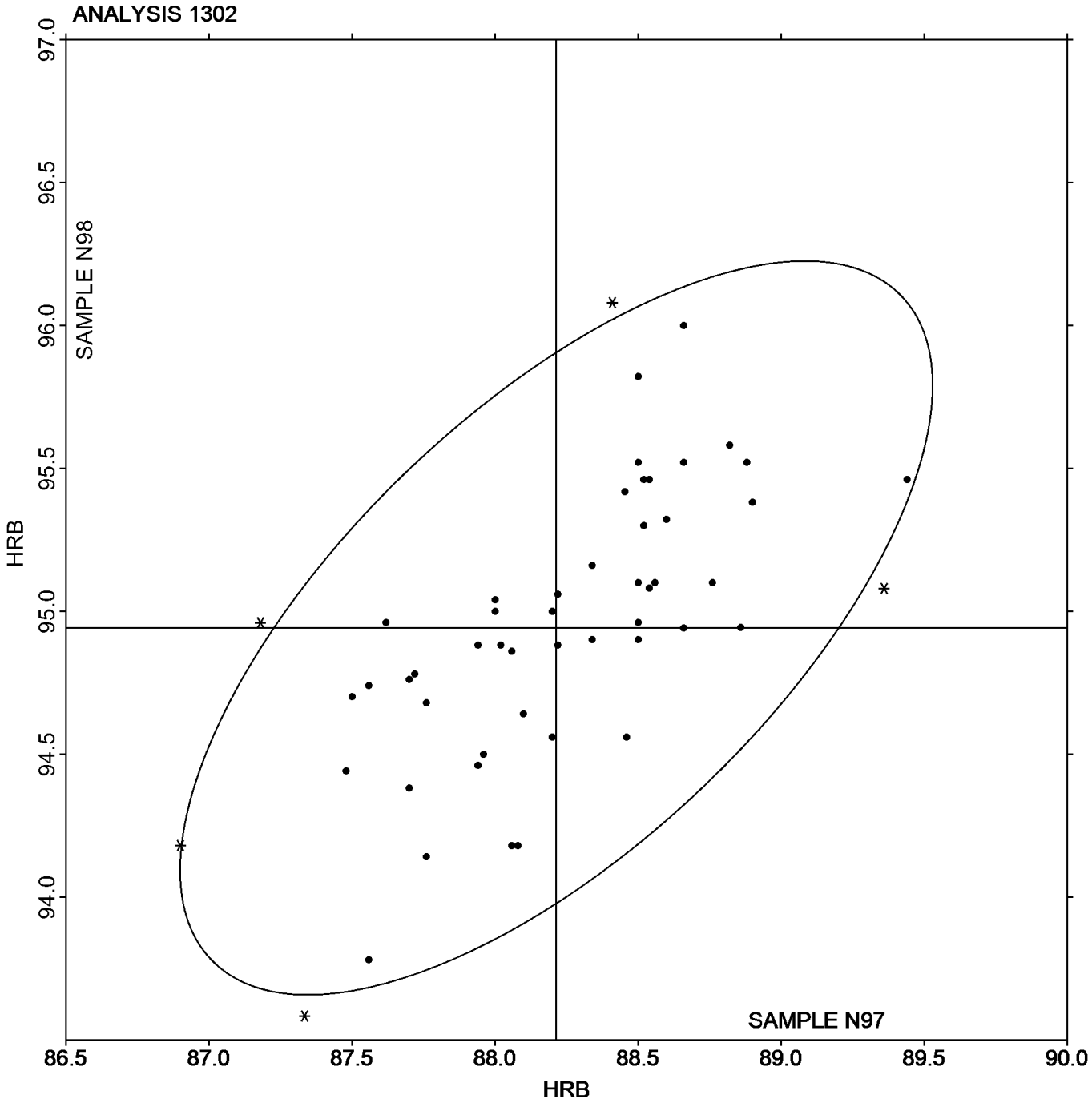
Statistics based on 54 of 56 reporting participants

Comments on Assigned Data Flags for Test #1302

MCCZ34 (X) - Data for sample N97 are low. Inconsistent within the determinations of sample N97.

XVA39W (X) - Data for sample N97 are low. Inconsistent within the determinations of sample N97.

SAMPLE N97	SAMPLE N98
88.21 HRB	94.94 HRB



		Sample S97			Sample S98		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2HRB9R		443.60	-2.71	-0.26	509.60	-8.24	-0.78
3UWZNT		438.60	-7.71	-0.74	524.40	6.56	0.62
4AN7BT		437.30	-9.01	-0.86	511.55	-6.30	-0.59
4JEPP2		460.00	13.69	1.31	540.00	22.16	2.08
6C9FUR		451.40	5.09	0.49	518.80	0.96	0.09
6N4FXH		460.20	13.89	1.33	530.40	12.56	1.18
7BGR4A		440.00	-6.31	-0.60	523.60	5.76	0.54
8HUZ4C		447.60	1.29	0.12	510.00	-7.84	-0.74
8RBVTP		459.80	13.49	1.29	533.00	15.16	1.43
9H77TZ		457.60	11.29	1.08	526.20	8.36	0.79
9PMRPB		445.14	-1.17	-0.11	504.60	-13.24	-1.25
9VBN4Z		448.20	1.89	0.18	519.20	1.36	0.13
A37Q7B		435.00	-11.31	-1.08	524.00	6.16	0.58
AJ7XVX		465.60	19.29	1.85	529.40	11.56	1.09
B2BE9B		442.40	-3.91	-0.37	521.00	3.16	0.30
BKQMAC		444.38	-1.93	-0.18	515.80	-2.04	-0.19
BR4VBD		442.00	-4.31	-0.41	507.20	-10.64	-1.00
C322XJ		443.20	-3.11	-0.30	521.60	3.76	0.35
CAWBZ3		435.40	-10.91	-1.04	505.60	-12.24	-1.15
CRJMVG	X	453.60	7.29	0.70	742.40	224.56	21.13
CYG846		437.20	-9.11	-0.87	525.02	7.18	0.68
DDERVR		446.40	0.09	0.01	513.80	-4.04	-0.38
DHRD2D		447.20	0.89	0.09	514.20	-3.64	-0.34
ECGRGD		447.00	0.69	0.07	514.00	-3.84	-0.36
ERU2GG		442.00	-4.31	-0.41	515.00	-2.84	-0.27
F2ERGE		450.22	3.91	0.37	503.60	-14.24	-1.34
GAMLB8		446.60	0.29	0.03	526.60	8.76	0.82
GLVFDJ		443.20	-3.11	-0.30	516.80	-1.04	-0.10
H26L7U	X	500.60	54.29	5.20	436.80	-81.04	-7.62
HZF9NC		432.80	-13.51	-1.29	508.60	-9.24	-0.87
JFK2MY		431.20	-15.11	-1.45	515.20	-2.64	-0.25
KJGXXC		438.60	-7.71	-0.74	503.40	-14.44	-1.36
KW7XQY		445.06	-1.25	-0.12	510.44	-7.40	-0.70
L848MM		446.20	-0.11	-0.01	532.80	14.96	1.41
LQP3WL		432.84	-13.47	-1.29	509.02	-8.82	-0.83
LQTMLA		436.60	-9.71	-0.93	501.80	-16.04	-1.51
MCCZ34		454.20	7.89	0.76	521.60	3.76	0.35
MQ9E3X		428.00	-18.31	-1.75	512.00	-5.84	-0.55
MQQFV2		438.20	-8.11	-0.78	509.40	-8.44	-0.79
MU7MJ2		431.00	-15.31	-1.46	512.80	-5.04	-0.47
N9R9Q2		458.60	12.29	1.18	512.40	-5.44	-0.51
NTD63L		448.72	2.41	0.23	510.96	-6.88	-0.65
NXMKCA	*	430.00	-16.31	-1.56	530.40	12.56	1.18
PB8CQH		453.60	7.29	0.70	509.60	-8.24	-0.78
PGD3TN	*	459.80	13.49	1.29	503.20	-14.64	-1.38
PH628M		458.18	11.87	1.14	530.42	12.58	1.18
QM3VTV		445.80	-0.51	-0.05	513.60	-4.24	-0.40

Fasteners and Metals Interlaboratory Testing Program

Analysis 1321

Microhardness: Knoop Indenters (500 gf)
ASTM E384

		Sample S97			Sample S98		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
TGHTAU		441.88	-4.43	-0.42	529.48	11.64	1.10
TZ2G74		444.76	-1.55	-0.15	522.96	5.12	0.48
U2NHNX		461.80	15.49	1.48	518.00	0.16	0.01
UQNXYQ		439.20	-7.11	-0.68	510.40	-7.44	-0.70
UUMCKU		439.40	-6.91	-0.66	514.20	-3.64	-0.34
UXP44T	*	436.28	-10.03	-0.96	491.02	-26.82	-2.52
V8PZEA		456.00	9.69	0.93	527.00	9.16	0.86
VGCY6E		470.00	23.69	2.27	535.00	17.16	1.61
VJJG4B	X	498.60	52.29	5.00	576.00	58.16	5.47
WEPPJK		472.60	26.29	2.52	531.20	13.36	1.26
WT4838		460.40	14.09	1.35	531.20	13.36	1.26
WYARCY		444.00	-2.31	-0.22	505.40	-12.44	-1.17
X8Y3YY		437.00	-9.31	-0.89	501.60	-16.24	-1.53
XP67MB	*	453.00	6.69	0.64	547.00	29.16	2.74
XUR43L		433.38	-12.93	-1.24	513.02	-4.82	-0.45
Y4X8QV		440.80	-5.51	-0.53	519.20	1.36	0.13
YJ839X		435.60	-10.71	-1.02	522.40	4.56	0.43
YKQLFP		453.60	7.29	0.70	530.00	12.16	1.14
YMBMBC		444.60	-1.71	-0.16	523.60	5.76	0.54
YVKBNB		469.00	22.69	2.17	523.40	5.56	0.52
YX8VP9		450.00	3.69	0.35	511.00	-6.84	-0.64

Summary Statistics

	Sample S97		Sample S98	
Grand Means	446.31	HK 500 gf	517.84	HK 500 gf
Stnd Dev Btwn Labs	10.45	HK 500 gf	10.63	HK 500 gf

Samples S97, S98 : Steel, Steel

Statistics based on 65 of 68 reporting participants

Comments on Assigned Data Flags for Test #1321

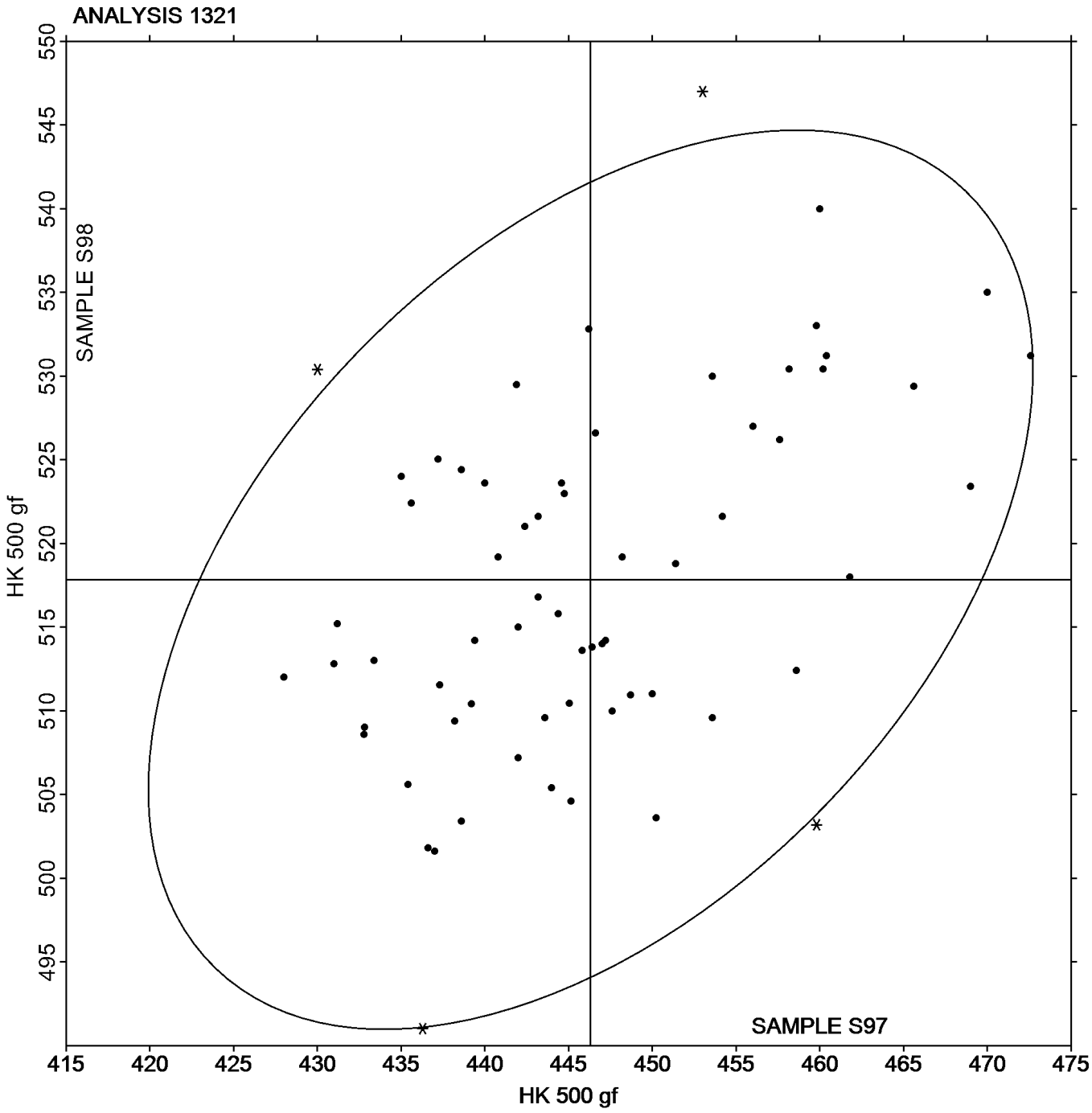
CRJMVG (X) - Data for sample S98 are high. Inconsistent within the determinations of both samples.

H26L7U (X) - Data for sample S97 are high and data for sample S98 are low.

VJJG4B (X) - Data for both samples are high.

SAMPLE S97
446.31 HK 500 gf

SAMPLE S98
517.84 HK 500 gf



		Sample S97			Sample S98		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2HRB9R		456.00	0.40	0.03	519.20	-14.72	-1.12
3UWZNT		441.20	-14.40	-1.25	527.00	-6.92	-0.52
6C9FUR		475.80	20.20	1.75	545.40	11.48	0.87
6N4FXH		473.00	17.40	1.51	551.60	17.68	1.34
9H77TZ		479.34	23.74	2.06	556.72	22.80	1.73
9PMRPB		465.78	10.18	0.88	552.36	18.44	1.40
9VBN4Z		450.00	-5.60	-0.49	533.20	-0.72	-0.05
AJ7XVX	X	510.80	55.20	4.79	616.20	82.28	6.23
AQBNPN		433.80	-21.80	-1.89	535.20	1.28	0.10
BKQMAC		449.88	-5.72	-0.50	538.70	4.78	0.36
BR4VBD		446.00	-9.60	-0.83	513.00	-20.92	-1.59
C322XJ		452.00	-3.60	-0.31	537.20	3.28	0.25
CAWBZ3		443.40	-12.20	-1.06	528.60	-5.32	-0.40
CRJMVG	X	834.00	378.40	32.87	956.80	422.88	32.04
CYG846		454.80	-0.80	-0.07	553.86	19.94	1.51
DDERVR		480.60	25.00	2.17	541.00	7.08	0.54
ECGRGD		459.00	3.40	0.30	532.00	-1.92	-0.15
ERU2GG		458.40	2.80	0.24	536.40	2.48	0.19
F2ERGE		451.74	-3.86	-0.34	522.44	-11.48	-0.87
GAMLB8		452.00	-3.60	-0.31	540.00	6.08	0.46
GLVFDJ		467.60	12.00	1.04	534.00	0.08	0.01
H26L7U	X	522.40	66.80	5.80	456.00	-77.92	-5.90
JFK2MY		458.60	3.00	0.26	537.20	3.28	0.25
KJGXXC		441.80	-13.80	-1.20	516.60	-17.32	-1.31
L848MM		456.40	0.80	0.07	526.20	-7.72	-0.58
LQP3WL		451.34	-4.26	-0.37	530.34	-3.58	-0.27
LQTMLA		450.60	-5.00	-0.43	528.20	-5.72	-0.43
MQQFV2		455.80	0.20	0.02	539.40	5.48	0.42
MU7MJ2		453.40	-2.20	-0.19	531.60	-2.32	-0.18
N9R9Q2		463.00	7.40	0.64	519.60	-14.32	-1.08
PB8CQH		451.80	-3.80	-0.33	519.80	-14.12	-1.07
PH628M		447.24	-8.36	-0.73	548.74	14.82	1.12
QM3VTV		454.40	-1.20	-0.10	521.00	-12.92	-0.98
TZ2G74		450.70	-4.90	-0.43	544.10	10.18	0.77
U2NHNX		466.40	10.80	0.94	535.00	1.08	0.08
UUMCKU		459.20	3.60	0.31	524.00	-9.92	-0.75
UXP44T		440.14	-15.46	-1.34	502.46	-31.46	-2.38
VJJG4B		467.60	12.00	1.04	543.00	9.08	0.69
WYARCY		440.20	-15.40	-1.34	525.20	-8.72	-0.66
X8Y3YY	X	440.00	-15.60	-1.35	449.00	-84.92	-6.43
XP67MB		467.00	11.40	0.99	562.40	28.48	2.16
Y4X8QV		447.20	-8.40	-0.73	540.80	6.88	0.52
YJ839X		434.60	-21.00	-1.82	509.60	-24.32	-1.84
YKQLFP		459.20	3.60	0.31	547.80	13.88	1.05
YVKBNB		472.60	17.00	1.48	539.80	5.88	0.45

Summary Statistics

	Sample S97		Sample S98	
Grand Means	455.60	HK 200 gf	533.92	HK 200 gf
Stnd Dev Btwn Labs	11.51	HK 200 gf	13.20	HK 200 gf

Samples S97, S98 : Steel, Steel

Statistics based on 41 of 45 reporting participants

Comments on Assigned Data Flags for Test #1322

AJ7XVX (X) - Data for both samples are high. Inconsistent within the determinations of sample S97.

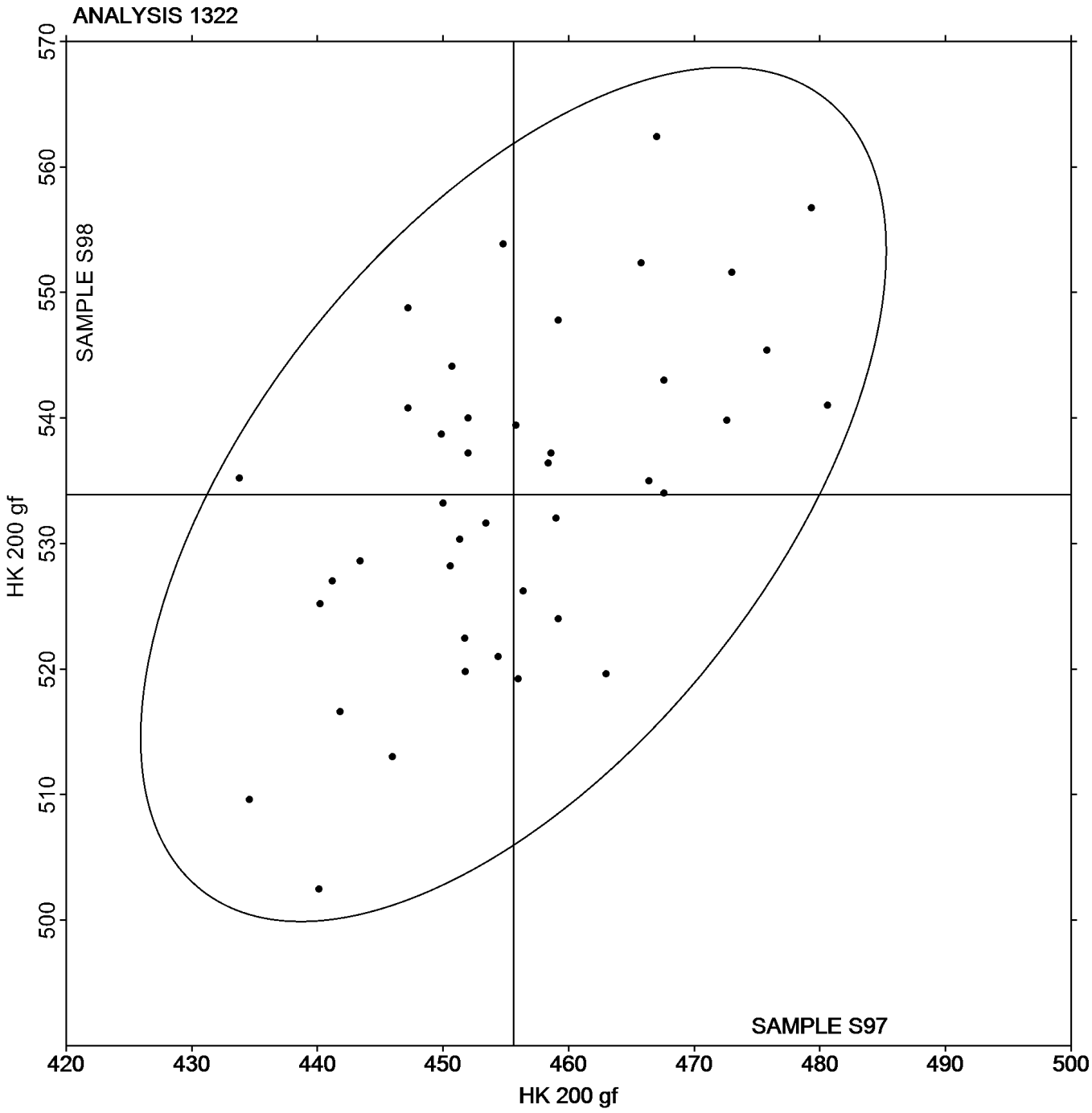
CRJMVG (X) - Extreme data.

H26L7U (X) - Data for sample S97 are high and data for sample S98 are low.

X8Y3YY (X) - Data for sample S98 are low.

SAMPLE S97
455.60 HK 200 gf

SAMPLE S98
533.92 HK 200 gf



		Sample S97			Sample S98		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
23D7YD		410.44	-14.76	-1.56	485.66	-16.15	-1.39
2HRB9R		422.40	-2.80	-0.30	501.40	-0.41	-0.04
2XGJ46		443.00	17.80	1.88	509.20	7.39	0.64
3UWZNT		419.03	-6.17	-0.65	513.00	11.19	0.96
3VTKBR		430.60	5.40	0.57	514.80	12.99	1.12
4AN7BT		421.90	-3.30	-0.35	503.89	2.08	0.18
4DNEF3		442.71	17.51	1.85	525.09	23.28	2.00
62CCRJ		425.82	0.62	0.07	495.14	-6.67	-0.57
6C9FUR		437.80	12.60	1.33	514.60	12.79	1.10
6N4FXH		438.40	13.20	1.39	499.40	-2.41	-0.21
7ECNJN		422.00	-3.20	-0.34	499.60	-2.21	-0.19
7M8JLT		437.80	12.60	1.33	510.00	8.19	0.71
8HUZ4C		431.20	6.00	0.63	499.60	-2.21	-0.19
96VTDK		423.80	-1.40	-0.15	491.20	-10.61	-0.91
9H77TZ		438.48	13.28	1.40	502.84	1.03	0.09
9VBN4Z		427.00	1.80	0.19	501.40	-0.41	-0.04
A82HCM		427.72	2.52	0.27	514.66	12.85	1.11
AJ7XVX		441.40	16.20	1.71	502.20	0.39	0.03
AUVPKB		419.58	-5.62	-0.59	499.64	-2.17	-0.19
BEUAWL		416.14	-9.06	-0.96	512.90	11.09	0.95
BKQMAC		434.78	9.58	1.01	506.00	4.19	0.36
BR4VBD		423.20	-2.00	-0.21	504.60	2.79	0.24
C322XJ		422.80	-2.40	-0.25	504.40	2.59	0.22
CAWBZ3		424.40	-0.80	-0.08	504.40	2.59	0.22
CCRHTF		421.40	-3.80	-0.40	511.80	9.99	0.86
CRJMVG		408.20	-17.00	-1.80	475.20	-26.61	-2.29
DDERVR		425.80	0.60	0.06	492.20	-9.61	-0.83
DHRD2D		428.40	3.20	0.34	493.00	-8.81	-0.76
DTPBMT		432.80	7.60	0.80	521.00	19.19	1.65
DUZD9Q		424.78	-0.42	-0.04	505.80	3.99	0.34
DVGA4C		426.96	1.76	0.19	498.42	-3.39	-0.29
ECGRGD		429.00	3.80	0.40	505.00	3.19	0.27
EGDGXK		431.40	6.20	0.65	505.20	3.39	0.29
ENNPBF		431.80	6.60	0.70	506.20	4.39	0.38
ERU2GG		422.80	-2.40	-0.25	498.60	-3.21	-0.28
F2ERGE		426.00	0.80	0.08	505.80	3.99	0.34
F6D63J		435.60	10.40	1.10	520.40	18.59	1.60
GAMLB8		429.40	4.20	0.44	502.00	0.19	0.02
GLVFDJ		415.60	-9.60	-1.01	487.80	-14.01	-1.21
H26L7U	X	529.00	103.80	10.96	441.80	-60.01	-5.17
H3338X	*	446.22	21.02	2.22	532.30	30.49	2.63
HLQHHE		426.00	0.80	0.08	508.60	6.79	0.58
HZF9NC		418.00	-7.20	-0.76	500.20	-1.61	-0.14
J4BELE	*	403.40	-21.80	-2.30	495.20	-6.61	-0.57
JFK2MY		415.00	-10.20	-1.08	486.80	-15.01	-1.29
JPTLX9		415.80	-9.40	-0.99	504.60	2.79	0.24
KJGXXC		422.40	-2.80	-0.30	490.80	-11.01	-0.95

		Sample S97			Sample S98		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
L848MM		429.20	4.00	0.42	511.00	9.19	0.79
LQP3WL	*	401.50	-23.70	-2.50	492.00	-9.81	-0.84
LQTMLA		421.20	-4.00	-0.42	489.60	-12.21	-1.05
LZLR6B		443.20	18.00	1.90	523.60	21.79	1.88
MA369Y		426.60	1.40	0.15	500.20	-1.61	-0.14
MCCZ34		426.60	1.40	0.15	498.80	-3.01	-0.26
MDYTP8		410.40	-14.80	-1.56	489.40	-12.41	-1.07
MQQFV2		414.20	-11.00	-1.16	495.60	-6.21	-0.53
MU7MJ2		414.60	-10.60	-1.12	494.00	-7.81	-0.67
N9R9Q2		433.60	8.40	0.89	504.80	2.99	0.26
NFKWW4		436.66	11.46	1.21	507.42	5.61	0.48
NXMKCA		424.20	-1.00	-0.11	506.20	4.39	0.38
PB8CQH		418.80	-6.40	-0.68	489.40	-12.41	-1.07
PCPCVT		444.80	19.60	2.07	513.00	11.19	0.96
PFLZCZ		419.72	-5.48	-0.58	492.18	-9.63	-0.83
PGD3TN	X	445.40	20.20	2.13	480.40	-21.41	-1.84
PH628M		426.62	1.42	0.15	510.92	9.11	0.78
QJXGU4		420.40	-4.80	-0.51	498.00	-3.81	-0.33
QM3VTV		430.00	4.80	0.51	496.60	-5.21	-0.45
QMDUM4	X	411.20	-14.00	-1.48	517.60	15.79	1.36
QPLWMG		413.00	-12.20	-1.29	485.80	-16.01	-1.38
R4HFXD		422.20	-3.00	-0.32	487.40	-14.41	-1.24
R7AKJX	*	415.40	-9.80	-1.04	514.40	12.59	1.08
RRKUBE		436.70	11.50	1.21	506.70	4.89	0.42
TG48ZT		417.80	-7.40	-0.78	489.80	-12.01	-1.03
TLFDFY		419.96	-5.24	-0.55	480.64	-21.17	-1.82
TVJ9WJ		435.00	9.80	1.03	502.60	0.79	0.07
U2NHNX		419.40	-5.80	-0.61	479.60	-22.21	-1.91
UC3LLV		416.40	-8.80	-0.93	492.00	-9.81	-0.84
UQNXYQ		414.00	-11.20	-1.18	488.60	-13.21	-1.14
UUMCKU		420.20	-5.00	-0.53	498.20	-3.61	-0.31
UXP44T	*	408.80	-16.40	-1.73	468.52	-33.29	-2.87
VAX73V		423.66	-1.54	-0.16	504.44	2.63	0.23
VJJG4B		428.00	2.80	0.30	506.60	4.79	0.41
VPAQD9		431.18	5.98	0.63	505.56	3.75	0.32
WEPPJK		422.60	-2.60	-0.27	497.80	-4.01	-0.35
WYARCY		426.20	1.00	0.11	515.00	13.19	1.14
X8Y3YY		416.20	-9.00	-0.95	493.20	-8.61	-0.74
XP67MB		431.20	6.00	0.63	518.80	16.99	1.46
XXCVC3		435.60	10.40	1.10	529.20	27.39	2.36
Y4X8QV		429.20	4.00	0.42	508.20	6.39	0.55
YJ839X		411.60	-13.60	-1.44	489.80	-12.01	-1.03
YKQLFP		424.40	-0.80	-0.08	509.20	7.39	0.64
YVKBNB		440.40	15.20	1.60	517.60	15.79	1.36
YX8VP9		422.40	-2.80	-0.30	496.00	-5.81	-0.50
YZXWVW	X	494.80	69.60	7.35	511.00	9.19	0.79
ZTTFYG	X	432.80	7.60	0.80	537.80	35.99	3.10

Summary Statistics

	Sample S97		Sample S98	
Grand Means	425.20	HV 500 gf	501.81	HV 500 gf
Stnd Dev Btwn Labs	9.47	HV 500 gf	11.61	HV 500 gf

Samples S97, S98 : Steel, Steel

Statistics based on 89 of 94 reporting participants

Comments on Assigned Data Flags for Test #1323

H26L7U (X) - Data for sample S97 are high and data for sample S98 are low.

PGD3TN (X) - Inconsistent in testing between samples.

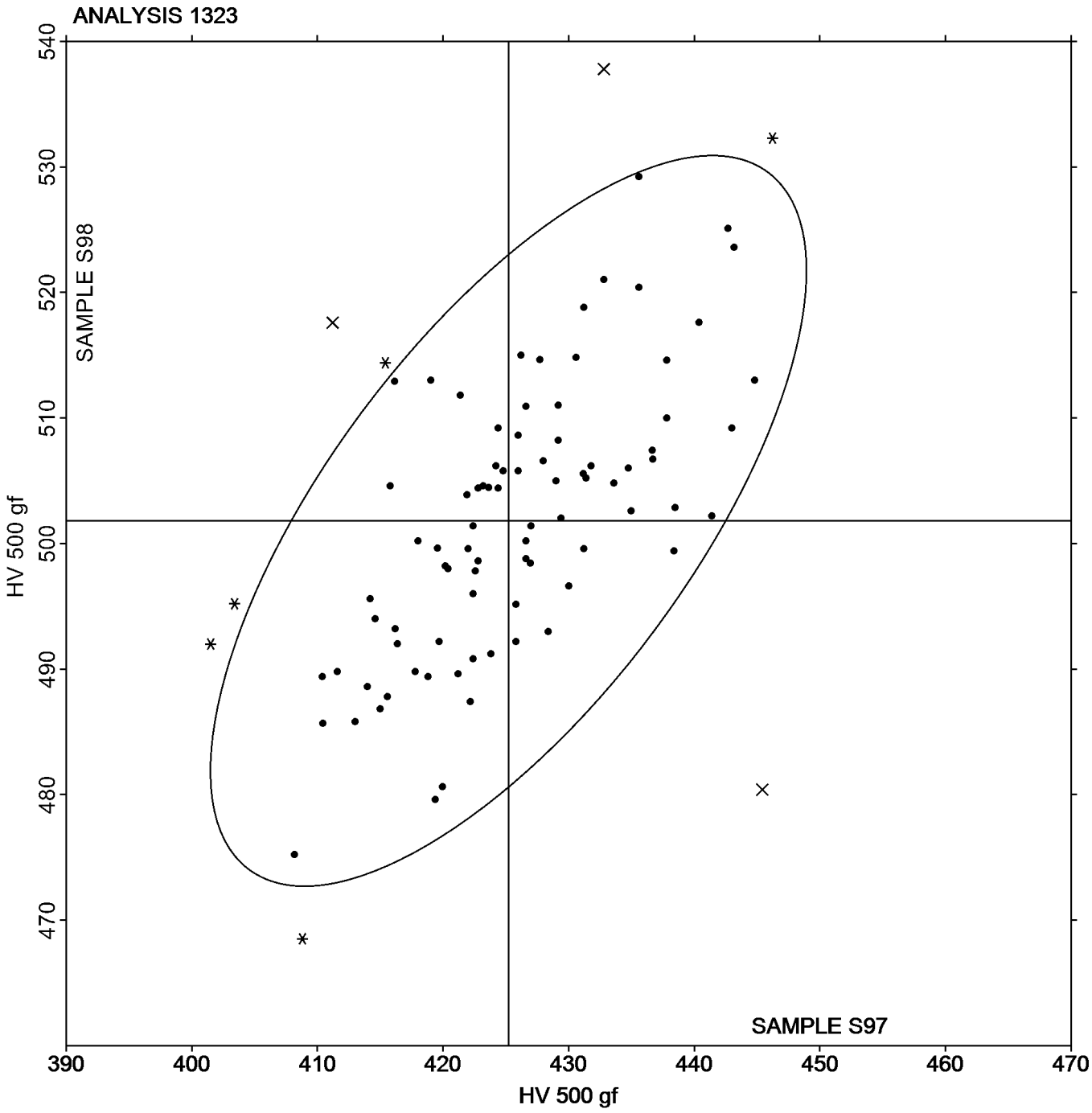
QMDUM4 (X) - Inconsistent in testing between samples.

YZXWVW (X) - Data for sample S97 are high.

ZTTFYG (X) - Data for sample S98 are high. Inconsistent within the determinations of sample S98.

SAMPLE S97
425.20 HV 500 gf

SAMPLE S98
501.81 HV 500 gf



		Sample D97			Sample D98		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2ADPYN		356.80	-8.72	-1.70	402.80	-8.29	-0.92
33A3KT	X	257.80	-107.72	-20.96	286.80	-124.29	-13.85
3UWZNT		363.00	-2.52	-0.49	409.40	-1.69	-0.19
4DNEF3	*	379.80	14.28	2.78	434.40	23.31	2.60
4FA29Q		369.00	3.48	0.68	406.80	-4.29	-0.48
4TY9VJ		361.00	-4.52	-0.88	407.80	-3.29	-0.37
4XEGJH		371.00	5.48	1.07	415.20	4.11	0.46
6XRKFG		361.86	-3.66	-0.71	407.42	-3.67	-0.41
7M8JLT		368.00	2.48	0.48	412.00	0.91	0.10
87VDME		368.34	2.82	0.55	408.16	-2.93	-0.33
8HUZ4C		363.00	-2.52	-0.49	415.00	3.91	0.44
9CD7CJ		363.00	-2.52	-0.49	415.00	3.91	0.44
9FCH8J		358.60	-6.92	-1.35	397.80	-13.29	-1.48
9HKR4M		367.56	2.04	0.40	416.96	5.87	0.65
9VBN4Z		364.80	-0.72	-0.14	410.40	-0.69	-0.08
AJU2RD		360.20	-5.32	-1.04	401.60	-9.49	-1.06
AXPJHC		361.78	-3.74	-0.73	406.58	-4.51	-0.50
BFBFLC		363.00	-2.52	-0.49	415.00	3.91	0.44
BR4VBD		366.00	0.48	0.09	414.80	3.71	0.41
C322XJ	*	368.80	3.28	0.64	395.80	-15.29	-1.70
CAYXGF	*	380.00	14.48	2.82	424.00	12.91	1.44
CMJDKF		363.60	-1.92	-0.37	412.60	1.51	0.17
CPDXWE		363.00	-2.52	-0.49	415.00	3.91	0.44
D6JPTG		362.80	-2.72	-0.53	407.80	-3.29	-0.37
DUZD9Q		363.00	-2.52	-0.49	403.80	-7.29	-0.81
E44QAR		373.96	8.44	1.64	420.22	9.13	1.02
FMXW2H		366.00	0.48	0.09	412.40	1.31	0.15
G2QW63		363.00	-2.52	-0.49	415.00	3.91	0.44
GA4T9N	*	372.00	6.48	1.26	434.80	23.71	2.64
H26L7U	X	403.40	37.88	7.37	365.60	-45.49	-5.07
H49GPX		363.72	-1.80	-0.35	410.66	-0.43	-0.05
HDKJY6		363.00	-2.52	-0.49	415.00	3.91	0.44
HL7WPN		368.60	3.08	0.60	414.00	2.91	0.32
KGAPKK		358.60	-6.92	-1.35	391.20	-19.89	-2.22
L7PZ27		368.24	2.72	0.53	415.90	4.81	0.54
LQTMLA		357.20	-8.32	-1.62	403.20	-7.89	-0.88
LV6JGC		363.40	-2.12	-0.41	416.20	5.11	0.57
MAMHYX		365.40	-0.12	-0.02	406.60	-4.49	-0.50
MCCZ34	*	360.60	-4.92	-0.96	426.80	15.71	1.75
MMUHVB		373.00	7.48	1.45	410.80	-0.29	-0.03
MQQFV2		364.80	-0.72	-0.14	411.40	0.31	0.03
MU7MJ2		375.40	9.88	1.92	424.20	13.11	1.46
N8TCTR		368.00	2.48	0.48	414.20	3.11	0.35
NAJGQ6	X	285.00	-80.52	-15.67	444.00	32.91	3.67
NHCTLX		363.08	-2.44	-0.48	410.12	-0.97	-0.11
Q9BFEU		371.80	6.28	1.22	416.40	5.31	0.59
RU8ECC		370.40	4.88	0.95	415.00	3.91	0.44

		Sample D97			Sample D98		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
UC6939		363.00	-2.52	-0.49	410.80	-0.29	-0.03
UQNXYQ		365.72	0.19	0.04	410.17	-0.92	-0.10
UTWYBP		363.00	-2.52	-0.49	401.00	-10.09	-1.12
UUMCKU		365.40	-0.12	-0.02	412.60	1.51	0.17
UWW8EY	*	363.60	-1.92	-0.37	387.40	-23.69	-2.64
UX8A2X		366.40	0.88	0.17	414.80	3.71	0.41
UYG9AL		364.20	-1.32	-0.26	407.80	-3.29	-0.37
UZ96XF		363.00	-2.52	-0.49	415.00	3.91	0.44
UZUXCX		363.00	-2.52	-0.49	401.00	-10.09	-1.12
VB6UTL		367.88	2.36	0.46	411.48	0.39	0.04
W2UT8K		361.90	-3.62	-0.70	408.83	-2.26	-0.25
WEPPJK	*	378.80	13.28	2.58	426.60	15.51	1.73
XBG7MW		372.82	7.30	1.42	417.40	6.31	0.70
XXCVC3		363.00	-2.52	-0.49	403.60	-7.49	-0.83
Y7Z72N		363.00	-2.52	-0.49	415.00	3.91	0.44
YJ839X		363.00	-2.52	-0.49	391.20	-19.89	-2.22
YKQLFP		363.00	-2.52	-0.49	418.60	7.51	0.84
YMBMBC		357.80	-7.72	-1.50	403.80	-7.29	-0.81
ZTTFYG		361.40	-4.12	-0.80	401.60	-9.49	-1.06

Summary Statistics

	Sample D97		Sample D98	
Grand Means	365.52	HBW	411.09	HBW
Stnd Dev Btwn Labs	5.14	HBW	8.98	HBW

Samples D97, D98 : Steel, Steel

Statistics based on 63 of 66 reporting participants

Samples D97, D98 are hardness test blocks made from steel. The blocks are heat treated to hardness levels specified by CTS.

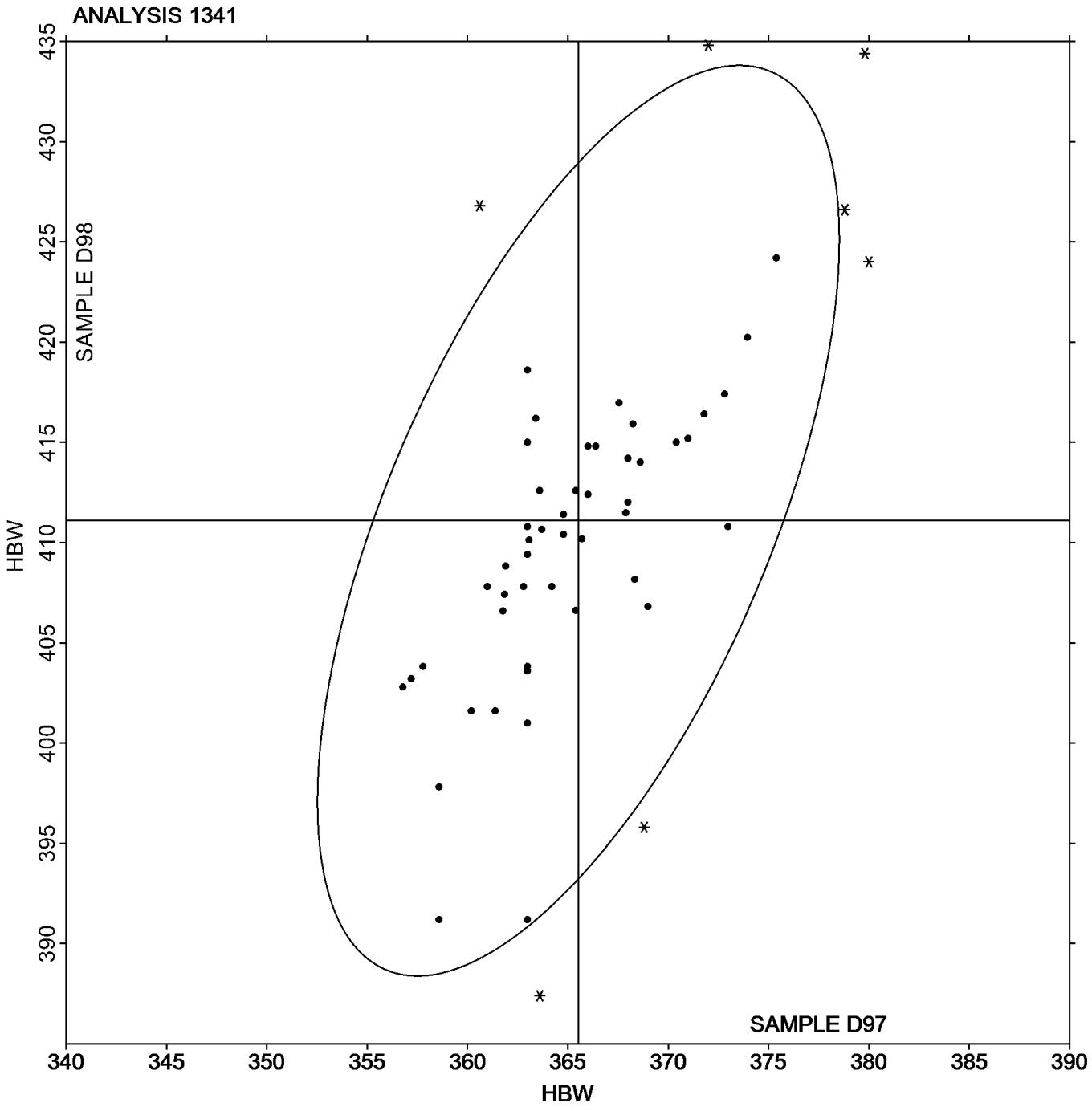
Comments on Assigned Data Flags for Test #1341

33A3KT (X) - Data for both samples are low. Inconsistent within the determinations of both samples.

H26L7U (X) - Data for sample D97 are high and data for sample D98 are low.

NAJGQ6 (X) - Data for sample D97 are low and data for sample D98 are high.

SAMPLE D97	SAMPLE D98
365.52 HBW	411.09 HBW



		Sample L97			Sample L98			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2XLYG6		0.4946	-0.0106	-0.76	0.4963	-0.0069	-0.63	OE
2YC8CR		0.5013	-0.0039	-0.28	0.5007	-0.0025	-0.23	OE
36JYEX	*	0.5418	0.0365	2.63	0.5350	0.0318	2.92	XX
3H2ZLN		0.5010	-0.0042	-0.30	0.5000	-0.0032	-0.29	CI
3H84NF		0.4999	-0.0053	-0.38	0.4981	-0.0051	-0.46	OE
3THK7K		0.5204	0.0152	1.09	0.5147	0.0116	1.06	OE
3UWZNT		0.4957	-0.0095	-0.69	0.4983	-0.0048	-0.44	GD
3VTKBR		0.5053	0.0001	0.01	0.5020	-0.0012	-0.11	OE
4AN7BT		0.5134	0.0082	0.59	0.5001	-0.0031	-0.28	OE
4DNEF3		0.5090	0.0038	0.27	0.5090	0.0058	0.54	OE
4GPMHR		0.5033	-0.0019	-0.13	0.5050	0.0018	0.17	OE
4KQE2Q		0.4960	-0.0092	-0.66	0.5017	-0.0015	-0.14	CI
4QCCMT		0.5047	-0.0005	-0.04	0.5000	-0.0032	-0.29	OE
4TY9VJ		0.5373	0.0321	2.31	0.5263	0.0232	2.13	OE
4XEGJH		0.5077	0.0025	0.18	0.5070	0.0038	0.35	XX
6BC3B7		0.5055	0.0003	0.02	0.4999	-0.0033	-0.30	OE
78VUM7		0.5067	0.0015	0.10	0.5000	-0.0032	-0.29	OE
7NK6A9	X	0.5100	0.0048	0.34	0.4333	-0.0698	-6.41	OE
83TFCL		0.4998	-0.0054	-0.39	0.5007	-0.0024	-0.22	OE
8HUZ4C		0.4993	-0.0059	-0.42	0.5017	-0.0015	-0.14	CI
8QZ33H		0.5027	-0.0025	-0.18	0.5050	0.0018	0.17	CI
9HKR4M		0.5010	-0.0042	-0.30	0.5023	-0.0008	-0.08	CO
9REQ49		0.5110	0.0058	0.42	0.5023	-0.0008	-0.08	CO
9Z6AHH		0.5037	-0.0015	-0.11	0.5099	0.0067	0.61	OE
AJU2RD		0.4828	-0.0224	-1.61	0.4816	-0.0215	-1.98	XX
AY8JP9		0.5080	0.0028	0.20	0.5065	0.0033	0.31	CI
AZJAMQ		0.5020	-0.0032	-0.23	0.4943	-0.0088	-0.81	OE
BUVUPC		0.4968	-0.0084	-0.61	0.5014	-0.0017	-0.16	CI
BXV7KB		0.5207	0.0155	1.11	0.5147	0.0115	1.06	XX
CMJDKF		0.5020	-0.0032	-0.23	0.5030	-0.0002	-0.02	OE
CPDXWE		0.5300	0.0248	1.78	0.5170	0.0138	1.27	GD
CRG2Y2		0.4881	-0.0171	-1.23	0.4896	-0.0136	-1.24	CI
D2NMAB		0.5050	-0.0002	-0.01	0.5036	0.0004	0.04	OE
D4BNT4		0.5153	0.0101	0.73	0.5097	0.0065	0.60	OE
D6JPTG		0.5131	0.0079	0.57	0.5004	-0.0028	-0.26	XX
DQ3RLU		0.4873	-0.0179	-1.28	0.4940	-0.0092	-0.84	CO
E2KLLU		0.4803	-0.0249	-1.79	0.4793	-0.0238	-2.19	OE
ECGRGD		0.4960	-0.0092	-0.66	0.5060	0.0028	0.26	CI
EU2JFD		0.4883	-0.0169	-1.21	0.4877	-0.0155	-1.42	OE
EW7X2X		0.5111	0.0059	0.43	0.5076	0.0044	0.40	OE
F6D63J		0.4957	-0.0095	-0.69	0.4977	-0.0055	-0.50	OE
G2QW63		0.4972	-0.0080	-0.58	0.4949	-0.0082	-0.76	OE
GAMLB8		0.5073	0.0021	0.15	0.5070	0.0038	0.35	OE
GHHNDJ		0.5030	-0.0022	-0.16	0.4990	-0.0042	-0.38	OE
GQBWXA		0.4673	-0.0379	-2.72	0.4770	-0.0262	-2.40	CO
GYL86F		0.5201	0.0149	1.07	0.5056	0.0024	0.22	OE
H7ZDER		0.4947	-0.0105	-0.76	0.4857	-0.0174	-1.60	OE

		Sample L97			Sample L98			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
HPTFQL		0.5109	0.0057	0.41	0.5037	0.0005	0.05	OE
HZDMRW		0.4990	-0.0062	-0.45	0.5013	-0.0018	-0.17	OE
K3DNT6		0.5049	-0.0003	-0.02	0.5051	0.0020	0.18	OE
K7BY2X		0.5007	-0.0045	-0.33	0.5120	0.0088	0.81	CO
KBPMMF		0.4883	-0.0169	-1.21	0.5030	-0.0002	-0.02	CO
KWL8CK		0.5009	-0.0043	-0.31	0.5008	-0.0024	-0.22	XX
LDP2JK	*	0.5393	0.0341	2.45	0.5317	0.0285	2.61	GD
LV6JGC		0.4903	-0.0149	-1.07	0.4907	-0.0125	-1.15	OE
LZLR6B		0.4743	-0.0309	-2.22	0.4770	-0.0262	-2.40	OE
M8VMA4	X	0.5565	0.0513	3.69	0.5386	0.0354	3.25	AE
MCCZ34		0.5230	0.0178	1.28	0.5197	0.0165	1.51	OE
MDYTP8		0.4867	-0.0185	-1.33	0.4962	-0.0070	-0.64	CI
MEHCWY		0.5054	0.0002	0.02	0.5039	0.0007	0.07	OE
MQQFV2		0.5070	0.0018	0.13	0.5020	-0.0012	-0.11	CO
NUPYMR	X	0.5553	0.0501	3.60	0.5370	0.0338	3.10	GD
PGD3TN		0.4920	-0.0132	-0.95	0.4970	-0.0062	-0.57	OE
QJXGU4		0.4990	-0.0062	-0.45	0.4970	-0.0062	-0.57	CI
QPLWMG		0.5057	0.0005	0.03	0.5030	-0.0002	-0.02	IR
R4HFXD		0.5053	0.0001	0.01	0.4987	-0.0045	-0.41	GD
R4HNU4		0.4997	-0.0055	-0.40	0.4987	-0.0045	-0.41	AE
RNAFA4		0.5322	0.0270	1.94	0.5308	0.0276	2.54	OE
RRKUBE		0.5113	0.0061	0.44	0.5023	-0.0008	-0.08	OE
RZYGKH		0.5027	-0.0025	-0.18	0.4927	-0.0105	-0.96	OE
TG48ZT		0.5130	0.0078	0.56	0.5163	0.0132	1.21	OE
THV7DQ		0.4997	-0.0055	-0.40	0.5027	-0.0005	-0.05	XX
U4FEDR		0.5087	0.0035	0.25	0.5010	-0.0022	-0.20	OE
UQN2NU		0.5251	0.0199	1.43	0.5234	0.0202	1.85	OE
UX3K9U	*	0.5207	0.0155	1.11	0.4960	-0.0072	-0.66	XX
UYG7KG		0.5024	-0.0028	-0.20	0.5036	0.0004	0.04	OE
VAX73V		0.5147	0.0095	0.68	0.5057	0.0025	0.23	OE
VB6UTL		0.5040	-0.0012	-0.09	0.5013	-0.0018	-0.17	OE
VJJG4B		0.4683	-0.0369	-2.65	0.4863	-0.0169	-1.55	CO
VMJP7Z		0.5030	-0.0022	-0.16	0.5010	-0.0022	-0.20	CO
VVEPNY		0.5087	0.0035	0.25	0.5037	0.0005	0.05	XX
WRU9UK		0.5033	-0.0019	-0.13	0.5033	0.0002	0.02	CI
WYARCY		0.4990	-0.0062	-0.45	0.4960	-0.0072	-0.66	OE
XLZKND		0.4998	-0.0054	-0.39	0.4994	-0.0037	-0.34	GD
XMRJ3B		0.5113	0.0061	0.44	0.5123	0.0092	0.84	OE
XQD7VY		0.5097	0.0045	0.32	0.5103	0.0072	0.66	OE
XVA39W		0.5273	0.0221	1.59	0.5090	0.0058	0.54	OE
XXCVC3		0.5080	0.0028	0.20	0.4967	-0.0065	-0.60	OE
Y784KZ		0.5003	-0.0049	-0.35	0.5000	-0.0032	-0.29	CO
Y97NZK		0.4923	-0.0129	-0.93	0.4887	-0.0145	-1.33	XX
YKGXPV		0.5173	0.0121	0.87	0.5183	0.0152	1.39	OE
YMBMBC		0.5167	0.0115	0.82	0.5123	0.0092	0.84	OE
Z22746	*	0.5333	0.0281	2.02	0.5340	0.0308	2.83	XX
Z7ERBQ		0.5012	-0.0040	-0.29	0.5043	0.0012	0.11	OE

Fasteners and Metals Interlaboratory Testing Program

Analysis 1600

Carbon & Low Alloy Steel, CARBON (C)
CARBON (C)

WebCode	Data Flag	Sample L97 Lab Mean	Sample L97 Diff. from Grand Mean	Sample L97 CPV	Sample L98 Lab Mean	Sample L98 Diff. from Grand Mean	Sample L98 CPV	Method
ZQ8T7T		0.5353	0.0301	2.16	0.5138	0.0106	0.98	OE
ZTTFYG		0.5086	0.0034	0.24	0.5036	0.0005	0.04	XX
ZWRQVG		0.5213	0.0161	1.16	0.5007	-0.0025	-0.23	OE

Summary Statistics

	Sample L97		Sample L98	
Grand Means	0.5052	Percent	0.5032	Percent
Stnd Dev Btwn Labs	0.0139	Percent	0.0109	Percent

Samples L97, L98 : AISI 6150, AISI 6150

Statistics based on 93 of 97 reporting participants

Key to Method Codes Reported by Participants

AE	Spectrometry - Atomic Emission (AES)	CI	Combustion / IR
CO	Combustion	GD	Spectrometry - Glow Discharge (GDS)
IR	IR (Absorption / Detection)	OE	Spectrometry - Optical Emission (OES)
XX	Please Indicate Method Used for Current Element		

Comments on Assigned Data Flags for Test #1600

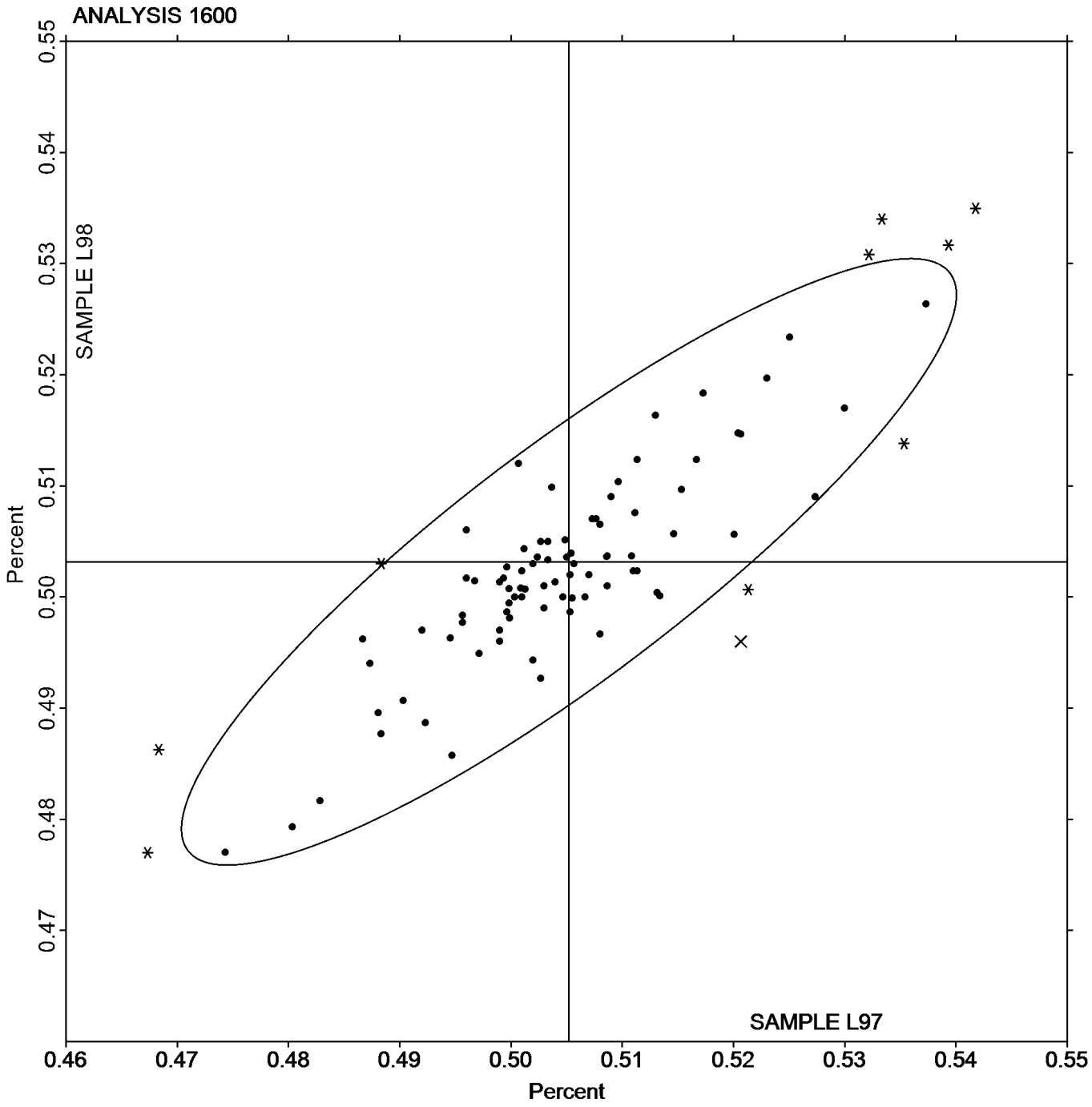
7NK6A9 (X) - Data for sample L98 are low.

M8VMA4 (X) - Data for both samples are high. Inconsistent within the determinations of sample L97.

NUPYMR (X) - Data for both samples are high.

SAMPLE L97
0.5052 Percent

SAMPLE L98
0.5032 Percent



		Sample L97			Sample L98			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2XLYG6		0.8451	-0.0103	-0.85	0.8510	-0.0048	-0.43	OE
2YC8CR		0.8542	-0.0013	-0.10	0.8582	0.0025	0.23	OE
36JYEX		0.8516	-0.0038	-0.31	0.8594	0.0037	0.34	XX
3H2ZLN		0.8510	-0.0044	-0.36	0.8530	-0.0027	-0.25	OE
3H84NF		0.8692	0.0138	1.13	0.8711	0.0154	1.39	OE
3THK7K		0.8644	0.0090	0.74	0.8584	0.0026	0.24	OE
3UWZNT		0.8863	0.0309	2.54	0.8810	0.0253	2.29	GD
3VTKBR		0.8497	-0.0058	-0.47	0.8530	-0.0027	-0.25	OE
4AN7BT		0.8543	-0.0011	-0.09	0.8527	-0.0030	-0.27	OE
4DNEF3		0.8533	-0.0021	-0.17	0.8533	-0.0024	-0.22	OE
4GPMHR		0.8550	-0.0004	-0.03	0.8603	0.0046	0.42	OE
4KQE2Q		0.8645	0.0090	0.74	0.8632	0.0075	0.68	OE
4QCCMT		0.8532	-0.0022	-0.18	0.8508	-0.0049	-0.44	OE
4TY9VJ	X	0.8977	0.0422	3.47	0.8877	0.0319	2.89	OE
4XEGJH		0.8540	-0.0014	-0.12	0.8600	0.0043	0.39	XX
6BC3B7		0.8535	-0.0019	-0.15	0.8604	0.0047	0.43	OE
78VUM7		0.8533	-0.0021	-0.17	0.8500	-0.0057	-0.52	OE
7NK6A9	X	0.8833	0.0279	2.29	0.8100	-0.0457	-4.14	OE
83TFCL		0.8587	0.0033	0.27	0.8600	0.0043	0.39	OE
8HUZ4C		0.8600	0.0046	0.38	0.8557	-0.0001	-0.01	OE
8QZ33H		0.8517	-0.0038	-0.31	0.8530	-0.0027	-0.25	OE
9HKR4M	*	0.8677	0.0122	1.01	0.8403	-0.0154	-1.39	OE
9REQ49		0.8530	-0.0024	-0.20	0.8580	0.0023	0.21	OE
9Z6AHH		0.8559	0.0005	0.04	0.8591	0.0034	0.31	OE
AJU2RD		0.8580	0.0026	0.21	0.8613	0.0056	0.51	XX
AY8JP9		0.8628	0.0073	0.60	0.8582	0.0025	0.22	OE
AZJAMQ		0.8590	0.0036	0.29	0.8500	-0.0057	-0.52	OE
BUVUPC		0.8613	0.0059	0.49	0.8570	0.0013	0.12	WD
BXV7KB		0.8717	0.0162	1.33	0.8703	0.0146	1.32	XX
CK2ZZR		0.8577	0.0022	0.18	0.8527	-0.0031	-0.28	OE
CMJDKF		0.8590	0.0036	0.29	0.8580	0.0023	0.21	OE
CPDXWE		0.8410	-0.0144	-1.18	0.8363	-0.0194	-1.76	GD
CRG2Y2		0.8478	-0.0076	-0.62	0.8468	-0.0089	-0.81	IC
D2NMAB		0.8555	0.0000	0.00	0.8541	-0.0017	-0.15	OE
D4BNT4		0.8590	0.0036	0.29	0.8597	0.0039	0.36	OE
D6JPTG		0.8692	0.0138	1.13	0.8526	-0.0031	-0.28	XX
DQ3RLU	X	0.8900	0.0346	2.84	0.8943	0.0386	3.50	GD
E2KLLU		0.8260	-0.0294	-2.42	0.8260	-0.0297	-2.69	OE
ECGRGD	X	0.8950	0.0396	3.25	0.8570	0.0013	0.12	IC
EU2JFD		0.8457	-0.0098	-0.80	0.8557	-0.0001	-0.01	OE
EW7X2X		0.8605	0.0051	0.42	0.8607	0.0050	0.45	OE
F6D63J		0.8558	0.0004	0.03	0.8566	0.0008	0.08	OE
G2QW63		0.8481	-0.0073	-0.60	0.8506	-0.0052	-0.47	OE
GAMLB8		0.8467	-0.0088	-0.72	0.8557	-0.0001	-0.01	OE
GHHNDJ		0.8710	0.0156	1.28	0.8740	0.0183	1.66	OE
GQBWXA		0.8320	-0.0234	-1.92	0.8467	-0.0091	-0.82	IC
GYL86F		0.8691	0.0136	1.12	0.8671	0.0114	1.03	OE

		Sample L97			Sample L98			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
H7ZDER		0.8811	0.0257	2.11	0.8698	0.0140	1.27	OE
HPTFQL		0.8530	-0.0025	-0.20	0.8562	0.0004	0.04	OE
HZDMRW		0.8560	0.0006	0.05	0.8600	0.0043	0.39	OE
JFK2MY		0.8730	0.0176	1.44	0.8777	0.0219	1.99	OE
K3DNT6		0.8439	-0.0115	-0.94	0.8409	-0.0148	-1.34	OE
KBPMMF	*	0.8743	0.0189	1.55	0.8830	0.0273	2.47	IC
KWL8CK		0.8519	-0.0036	-0.29	0.8507	-0.0050	-0.46	XX
LDP2JK		0.8590	0.0036	0.29	0.8547	-0.0011	-0.10	GD
LV6JGC		0.8487	-0.0068	-0.55	0.8533	-0.0024	-0.22	OE
LZLR6B		0.8457	-0.0098	-0.80	0.8450	-0.0107	-0.97	OE
M8VMA4		0.8342	-0.0213	-1.75	0.8263	-0.0295	-2.67	XX
MCCZ34		0.8627	0.0072	0.60	0.8627	0.0069	0.63	OE
MDYTP8		0.8705	0.0151	1.24	0.8677	0.0120	1.09	IC
MEHCWY		0.8656	0.0102	0.84	0.8541	-0.0016	-0.15	OE
MQQFV2		0.8420	-0.0134	-1.10	0.8480	-0.0077	-0.70	OE
NUPYMR	X	0.8057	-0.0498	-4.09	0.8103	-0.0454	-4.11	GD
PGD3TN		0.8420	-0.0134	-1.10	0.8490	-0.0067	-0.61	OE
QJXGU4		0.8630	0.0076	0.62	0.8610	0.0053	0.48	WD
QPLWMG		0.8647	0.0092	0.76	0.8603	0.0046	0.42	IC
R4HFXD		0.8313	-0.0241	-1.98	0.8277	-0.0281	-2.54	GD
R4HNU4		0.8513	-0.0041	-0.34	0.8480	-0.0077	-0.70	AE
RNAFA4		0.8545	-0.0009	-0.07	0.8529	-0.0028	-0.26	OE
RRKUBE		0.8553	-0.0001	-0.01	0.8507	-0.0051	-0.46	OE
RZYGKH		0.8450	-0.0104	-0.86	0.8477	-0.0081	-0.73	OE
TG48ZT		0.8583	0.0029	0.24	0.8610	0.0053	0.48	OE
THV7DQ		0.8500	-0.0054	-0.45	0.8500	-0.0057	-0.52	XX
U4FEDR		0.8707	0.0152	1.25	0.8710	0.0153	1.38	OE
UQN2NU		0.8449	-0.0105	-0.86	0.8459	-0.0098	-0.89	OE
UX3K9U		0.8673	0.0119	0.98	0.8517	-0.0041	-0.37	XX
UYG7KG		0.8600	0.0045	0.37	0.8643	0.0085	0.77	OE
VAX73V		0.8510	-0.0044	-0.36	0.8480	-0.0077	-0.70	OE
VB6UTL		0.8566	0.0012	0.10	0.8513	-0.0045	-0.40	OE
VJJG4B		0.8673	0.0119	0.98	0.8663	0.0106	0.96	WD
VL7Z69		0.8577	0.0022	0.18	0.8527	-0.0031	-0.28	OE
VMJP7Z		0.8653	0.0099	0.81	0.8640	0.0083	0.75	IC
VVEPNY		0.8687	0.0132	1.09	0.8620	0.0063	0.57	XX
W2UT8K		0.8515	-0.0039	-0.32	0.8517	-0.0040	-0.37	OE
WRU9UK		0.8603	0.0049	0.40	0.8547	-0.0011	-0.10	IC
WYARCY		0.8643	0.0089	0.73	0.8660	0.0103	0.93	OE
XLZKND		0.8433	-0.0122	-1.00	0.8531	-0.0026	-0.24	GD
XMRJ3B		0.8570	0.0016	0.13	0.8590	0.0033	0.30	OE
XQD7VY		0.8413	-0.0141	-1.16	0.8453	-0.0104	-0.94	OE
XVA39W		0.8723	0.0169	1.39	0.8700	0.0143	1.29	OE
XXCVC3		0.8277	-0.0278	-2.28	0.8333	-0.0224	-2.03	OE
Y784KZ		0.8567	0.0012	0.10	0.8627	0.0069	0.63	OE
Y97NZK	*	0.8880	0.0326	2.68	0.8873	0.0316	2.86	XX
YKGXPV		0.8510	-0.0044	-0.36	0.8603	0.0046	0.42	OE

WebCode	Data Flag	Sample L97 Lab Mean	Sample L97 Diff. from Grand Mean	Sample L97 CPV	Sample L98 Lab Mean	Sample L98 Diff. from Grand Mean	Sample L98 CPV	Method
YMBMBC		0.8260	-0.0294	-2.42	0.8290	-0.0267	-2.42	OE
Z22746		0.8547	-0.0008	-0.06	0.8583	0.0026	0.24	XX
Z7ERBQ		0.8632	0.0078	0.64	0.8675	0.0118	1.07	OE
ZECGUF		0.8375	-0.0180	-1.47	0.8519	-0.0039	-0.35	XX
ZM4Y73		0.8577	0.0022	0.18	0.8527	-0.0031	-0.28	OE
ZQ8T7T		0.8260	-0.0294	-2.41	0.8393	-0.0164	-1.49	OE
ZTTFYG		0.8439	-0.0115	-0.95	0.8417	-0.0140	-1.27	XX
ZWRQVG		0.8627	0.0072	0.60	0.8590	0.0033	0.30	OE

Summary Statistics

	Sample L97		Sample L98	
Grand Means	0.8554	Percent	0.8557	Percent
Stnd Dev Btwn Labs	0.0122	Percent	0.0110	Percent

Samples L97, L98 : AISI 6150, AISI 6150

Statistics based on 96 of 102 reporting participants

Key to Method Codes Reported by Participants

AE	Spectrometry - Atomic Emission (AES)	GD	Spectrometry - Glow Discharge (GDS)
IC	Spectrometry - Inductively Coupled Plasma (ICP)	OE	Spectrometry - Optical Emission (OES)
WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)	XX	Please Indicate Method Used for Current Element

Comments on Assigned Data Flags for Test #1601

4TY9VJ (X) - Data for both samples are high. Possible Systematic Error.

7NK6A9 (X) - Data for sample L98 are low. Inconsistent within the determinations of sample L97.

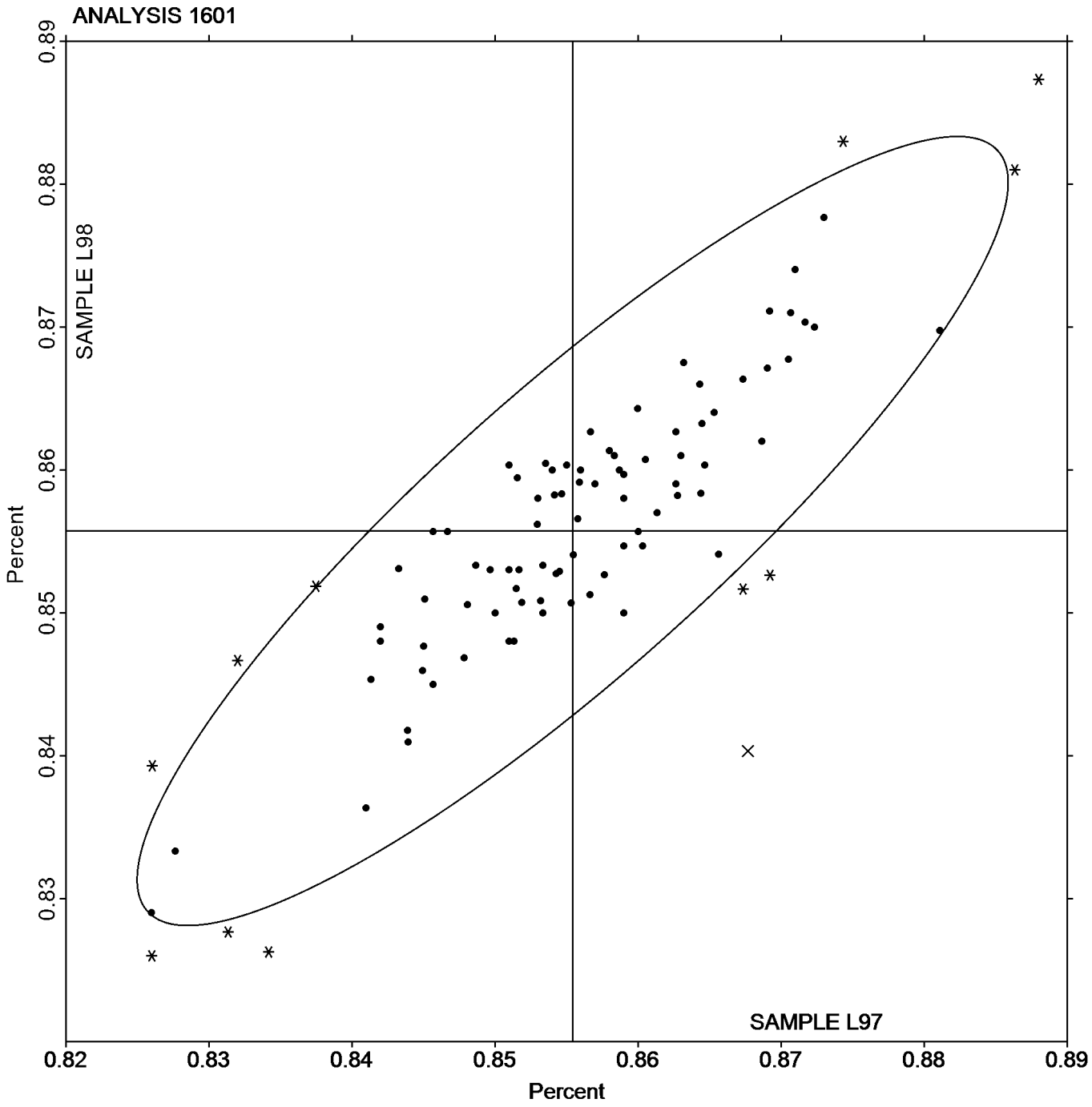
DQ3RLU (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of both samples.

ECGRGD (X) - Data for sample L97 are high.

NUPYMR (X) - Data for both samples are low. Possible Systematic Error.

SAMPLE L97
0.8554 Percent

SAMPLE L98
0.8557 Percent



		Sample L97			Sample L98			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2XLYG6		0.0109	-0.0007	-0.67	0.00670	-0.00093	-0.88	OE
2YC8CR		0.0120	0.0004	0.44	0.00803	0.00040	0.38	OE
36JYEX	X	0.00819	-0.0033	-3.37	0.00588	-0.00175	-1.66	XX
3H2ZLN		0.0118	0.0003	0.31	0.00753	-0.00010	-0.09	OE
3H84NF		0.0108	-0.0007	-0.73	0.00640	-0.00123	-1.17	OE
3THK7K		0.0136	0.0021	2.09	0.00967	0.00204	1.94	OE
3UWZNT	*	0.0134	0.0018	1.85	0.00670	-0.00093	-0.88	GD
3VTKBR		0.0106	-0.0009	-0.94	0.00760	-0.00003	-0.03	OE
4AN7BT	*	0.00973	-0.0018	-1.81	0.00467	-0.00296	-2.81	OE
4DNEF3		0.0102	-0.0013	-1.34	0.00567	-0.00196	-1.86	OE
4GPMHR		0.0117	0.0002	0.17	0.00760	-0.00003	-0.03	OE
4KQE2Q		0.0119	0.0004	0.41	0.00797	0.00034	0.32	OE
4QCCMT		0.0116	0.0001	0.07	0.00683	-0.00080	-0.76	OE
4TY9VJ		0.0127	0.0011	1.15	0.00833	0.00070	0.67	OE
4XEGJH		0.0119	0.0003	0.34	0.00823	0.00060	0.57	XX
6BC3B7		0.0114	-0.0001	-0.13	0.00773	0.00010	0.10	OE
78VUM7	X	0.00657	-0.0050	-5.00	0.00270	-0.00493	-4.68	OE
7NK6A9	X	0.0135	0.0019	1.96	0.00413	-0.00350	-3.32	OE
83TFCL		0.0120	0.0005	0.48	0.00813	0.00050	0.48	OE
8HUZ4C		0.0109	-0.0006	-0.60	0.00687	-0.00076	-0.72	OE
8QZ33H		0.0111	-0.0005	-0.47	0.00720	-0.00043	-0.41	OE
9HKR4M	*	0.00990	-0.0016	-1.64	0.00873	0.00110	1.05	OE
9REQ49		0.0119	0.0004	0.38	0.00793	0.00030	0.29	OE
9Z6AHH		0.0114	-0.0001	-0.13	0.00760	-0.00003	-0.03	OE
AJU2RD		0.0119	0.0004	0.41	0.00757	-0.00006	-0.06	XX
AY8JP9		0.0119	0.0004	0.41	0.00760	-0.00003	-0.03	OE
AZJAMQ		0.0106	-0.0009	-0.90	0.00627	-0.00136	-1.29	OE
BUVUPC		0.0102	-0.0013	-1.34	0.00747	-0.00016	-0.15	WD
BXV7KB		0.0120	0.0004	0.44	0.00773	0.00010	0.10	XX
CMJDKF		0.0115	0.0000	0.01	0.00790	0.00027	0.26	OE
CPDXWE	X	0.0143	0.0028	2.83	0.0118	0.00414	3.93	GD
CRG2Y2		0.0100	-0.0015	-1.51	0.00687	-0.00076	-0.72	IC
D2NMAB		0.0118	0.0002	0.24	0.00757	-0.00006	-0.06	OE
D4BNT4		0.0116	0.0001	0.07	0.00767	0.00004	0.04	OE
D6JPTG		0.0120	0.0005	0.51	0.00763	0.00000	0.00	XX
DQ3RLU		0.0107	-0.0009	-0.87	0.00700	-0.00063	-0.60	GD
E2KLLU		0.0140	0.0025	2.53	0.0104	0.00277	2.63	OE
ECGRGD		0.0100	-0.0015	-1.54	0.00600	-0.00163	-1.55	IC
EU2JFD		0.0130	0.0014	1.45	0.00970	0.00207	1.97	OE
EW7X2X		0.0115	-0.0001	-0.06	0.00733	-0.00030	-0.28	OE
F6D63J		0.0122	0.0007	0.71	0.00851	0.00088	0.83	OE
G2QW63		0.0114	-0.0002	-0.16	0.00760	-0.00003	-0.03	OE
GAMLB8		0.0108	-0.0007	-0.73	0.00770	0.00007	0.07	OE
GHHNDJ		0.0129	0.0014	1.38	0.00847	0.00084	0.80	OE
GQBWXA		0.0133	0.0017	1.75	0.00953	0.00190	1.81	IC
GYL86F		0.0107	-0.0009	-0.87	0.00707	-0.00056	-0.53	OE
H7ZDER	X	0.0135	0.0019	1.96	0.0112	0.00360	3.42	OE

		Sample L97			Sample L98			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
HPTFQL		0.0110	-0.0006	-0.57	0.00717	-0.00046	-0.44	OE
HZDMRW		0.0109	-0.0007	-0.67	0.00720	-0.00043	-0.41	OE
JFK2MY		0.0100	-0.0015	-1.51	0.00643	-0.00120	-1.14	OE
K3DNT6		0.0111	-0.0004	-0.43	0.00720	-0.00043	-0.41	OE
KWL8CK		0.0114	-0.0001	-0.10	0.00697	-0.00066	-0.63	XX
LDP2JK	X	0.0190	0.0075	7.54	0.0153	0.00770	7.32	GD
LV6JGC		0.0119	0.0004	0.38	0.00897	0.00134	1.27	OE
LZLR6B		0.0133	0.0018	1.82	0.0104	0.00277	2.63	OE
M8VMA4		0.0105	-0.0010	-1.04	0.00830	0.00067	0.64	XX
MCCZ34		0.0120	0.0004	0.44	0.00783	0.00020	0.19	OE
MDYTP8		0.0107	-0.0008	-0.84	0.00703	-0.00060	-0.57	IC
MEHCWY		0.0109	-0.0006	-0.64	0.00724	-0.00039	-0.37	OE
MQQFV2		0.0113	-0.0002	-0.23	0.00730	-0.00033	-0.31	OE
NUPYMR		0.0117	0.0001	0.14	0.00800	0.00037	0.35	GD
PGD3TN		0.0135	0.0020	1.99	0.0105	0.00287	2.73	OE
QJXGU4		0.0117	0.0002	0.21	0.00790	0.00027	0.26	WD
QPLWMG		0.0126	0.0011	1.08	0.00860	0.00097	0.92	IC
R4HFXD	*	0.0135	0.0020	1.99	0.00850	0.00087	0.83	GD
R4HNU4		0.0115	0.0000	-0.03	0.00720	-0.00043	-0.41	XX
RNAFA4		0.0104	-0.0011	-1.14	0.00598	-0.00165	-1.57	XX
RRKUBE		0.0120	0.0005	0.51	0.00800	0.00037	0.35	OE
RZYGKH	X	0.0183	0.0068	6.86	0.0130	0.00537	5.10	OE
TG48ZT		0.0115	-0.0001	-0.06	0.00863	0.00100	0.95	OE
THV7DQ		0.0103	-0.0012	-1.20	0.00667	-0.00096	-0.91	XX
U4FEDR		0.0129	0.0014	1.38	0.00803	0.00040	0.38	OE
UQN2NU		0.00967	-0.0019	-1.88	0.00603	-0.00160	-1.52	OE
UX3K9U	X	0.00800	-0.0035	-3.56	0.00433	-0.00330	-3.13	XX
UYG7KG		0.0127	0.0012	1.18	0.00857	0.00094	0.89	OE
VAX73V		0.0120	0.0005	0.48	0.00800	0.00037	0.35	OE
VB6UTL		0.0120	0.0005	0.48	0.00793	0.00030	0.29	OE
VJJG4B		0.0120	0.0005	0.48	0.00800	0.00037	0.35	WD
VMJP7Z	*	0.0109	-0.0006	-0.60	0.00920	0.00157	1.49	IC
VVEPNY		0.0124	0.0008	0.85	0.00740	-0.00023	-0.22	XX
W2UT8K		0.0109	-0.0006	-0.59	0.00707	-0.00056	-0.53	OE
WRU9UK		0.0109	-0.0006	-0.63	0.00677	-0.00086	-0.82	IC
WYARCY		0.0121	0.0006	0.56	0.00765	0.00002	0.02	OE
XLZKND		0.0117	0.0001	0.12	0.00799	0.00036	0.34	GD
XMRJ3B		0.0102	-0.0014	-1.37	0.00617	-0.00146	-1.39	OE
XQD7VY		0.0116	0.0001	0.07	0.00757	-0.00006	-0.06	OE
XVA39W		0.00933	-0.0022	-2.21	0.00500	-0.00263	-2.50	OE
XXCVC3	X	0.0107	-0.0009	-0.87	0.00967	0.00204	1.94	OE
Y784KZ		0.0103	-0.0012	-1.20	0.00700	-0.00063	-0.60	OE
Y97NZK		0.0123	0.0008	0.81	0.00867	0.00104	0.99	XX
YKGXPV		0.0130	0.0015	1.48	0.00800	0.00037	0.35	OE
YMBMBC	*	0.0110	-0.0005	-0.53	0.00867	0.00104	0.99	OE
Z22746		0.0100	-0.0015	-1.54	0.00633	-0.00130	-1.23	XX
Z7ERBQ		0.0119	0.0004	0.41	0.00803	0.00040	0.38	OE

		Sample L97			Sample L98			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
ZECGUF		0.0110	-0.0006	-0.57	0.00763	0.00000	0.00	XX
ZQ8T7T		0.0123	0.0008	0.78	0.00713	-0.00050	-0.47	OE
ZTTFYG		0.0119	0.0004	0.39	0.00852	0.00089	0.84	XX
ZWRQVG	X	0.0145	0.0030	3.00	0.0148	0.00717	6.81	OE

Summary Statistics

	Sample L97		Sample L98	
Grand Means	0.0115	Percent	0.00763	Percent
Stnd Dev Btwn Labs	0.0010	Percent	0.00105	Percent

Samples L97, L98 : AISI 6150, AISI 6150

Statistics based on 85 of 98 reporting participants

Key to Method Codes Reported by Participants

GD Spectrometry - Glow Discharge (GDS)
IC Spectrometry - Inductively Coupled Plasma (ICP)
OE Spectrometry - Optical Emission (OES)
WD X-Ray Fluorescence - Wavelength Dispersive (WDX)
XX Please Indicate Method Used for Current Element

Comments on Assigned Data Flags for Test #1602

36JYEX (X) - Data for sample L97 are low.

78VUM7 (X) - Data for both samples are low. Possible Systematic Error.

7NK6A9 (X) - Data for sample L98 are low. Inconsistent within the determinations of sample L98.

CPDXWE (X) - Data for both samples are high. Possible Systematic Error.

H7ZDER (X) - Data for sample L98 are high. Inconsistent within the determinations of sample L98.

LDP2JK (X) - Data for both samples are high. Possible Systematic Error.

RZYGKH (X) - Data for both samples are high. Possible Systematic Error.

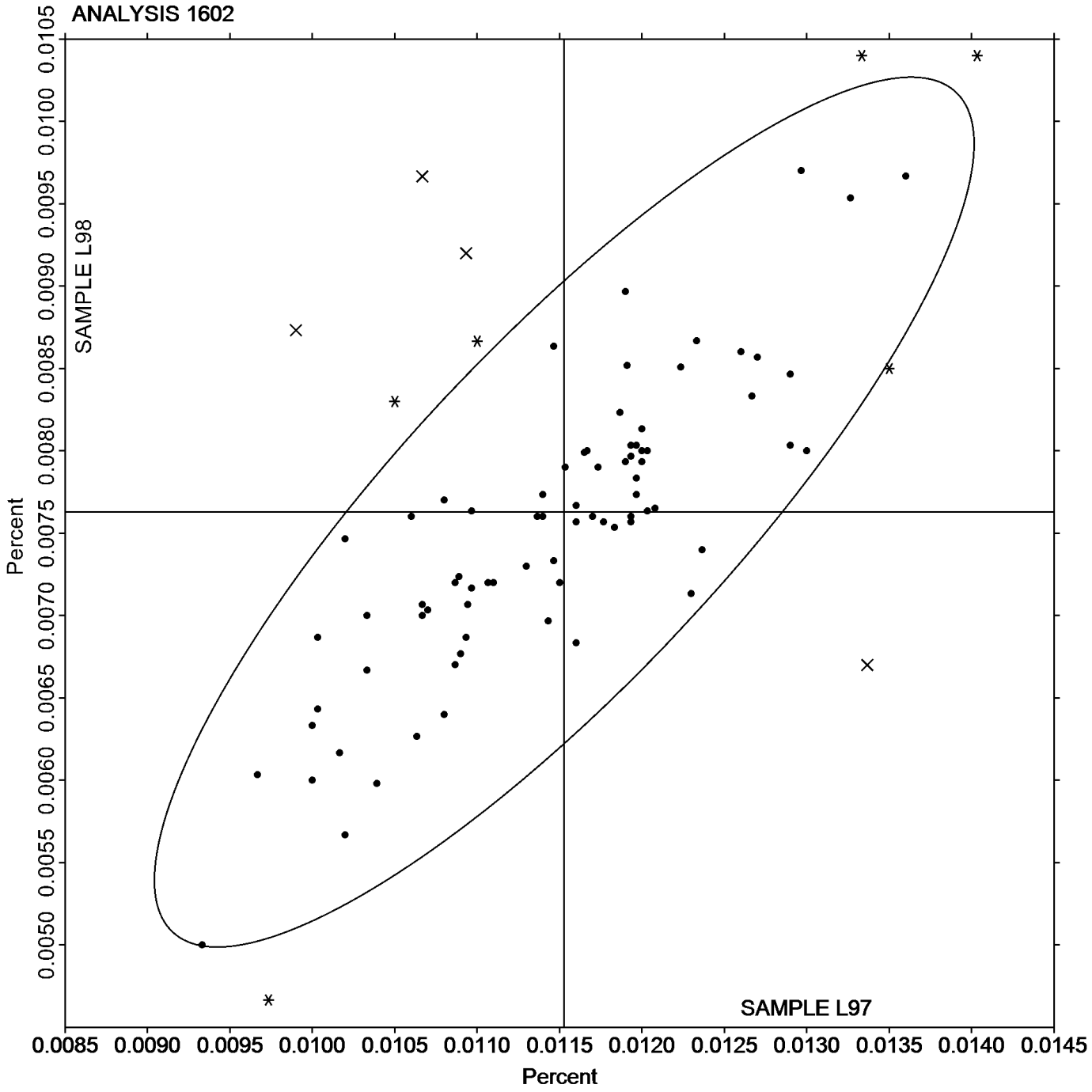
UX3K9U (X) - Data for both samples are low. Possible Systematic Error.

XXCVC3 (X) - Inconsistent in testing between samples. Inconsistent within the determinations of both samples.

ZWRQVG (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample L98.

SAMPLE L97
0.0115 Percent

SAMPLE L98
0.00763 Percent



		Sample L97			Sample L98			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2XLYG6		0.0187	-0.0008	-0.49	0.0191	-0.0008	-0.44	OE
2YC8CR		0.0199	0.0003	0.21	0.0191	-0.0008	-0.46	OE
36JYEX		0.0192	-0.0004	-0.23	0.0202	0.0003	0.17	XX
3H2ZLN		0.0195	-0.0001	-0.04	0.0190	-0.0009	-0.53	CI
3H84NF		0.0228	0.0033	2.04	0.0224	0.0025	1.46	OE
3THK7K		0.0187	-0.0008	-0.49	0.0191	-0.0008	-0.46	OE
3UWZNT		0.0201	0.0005	0.34	0.0199	0.0000	0.03	GD
3VTKBR	X	0.0177	-0.0019	-1.16	0.0143	-0.0056	-3.23	OE
4AN7BT		0.0234	0.0039	2.44	0.0244	0.0045	2.61	OE
4DNEF3		0.0178	-0.0018	-1.10	0.0179	-0.0020	-1.13	OE
4GPMHR		0.0185	-0.0010	-0.62	0.0206	0.0007	0.42	OE
4KQE2Q		0.0177	-0.0018	-1.12	0.0178	-0.0021	-1.19	CI
4QCCMT		0.0205	0.0010	0.61	0.0196	-0.0003	-0.17	OE
4TY9VJ		0.0153	-0.0042	-2.62	0.0153	-0.0046	-2.65	OE
4XEGJH		0.0190	-0.0005	-0.33	0.0187	-0.0012	-0.69	XX
6BC3B7		0.0191	-0.0005	-0.29	0.0195	-0.0004	-0.20	OE
78VUM7		0.0180	-0.0015	-0.95	0.0185	-0.0014	-0.82	OE
7NK6A9	X	0.0286	0.0091	5.69	0.0175	-0.0024	-1.37	OE
83TFCL		0.0198	0.0003	0.19	0.0206	0.0007	0.44	OE
8HUZ4C		0.0208	0.0012	0.77	0.0206	0.0007	0.44	CI
8QZ33H		0.0179	-0.0017	-1.04	0.0188	-0.0011	-0.61	CI
9HKR4M		0.0176	-0.0019	-1.18	0.0176	-0.0023	-1.33	CO
9REQ49		0.0211	0.0015	0.96	0.0206	0.0007	0.42	CO
9Z6AHH		0.0212	0.0016	1.02	0.0218	0.0019	1.09	OE
AJU2RD	X	0.0211	0.0016	1.00	0.0246	0.0047	2.76	XX
AY8JP9		0.0201	0.0006	0.38	0.0204	0.0005	0.27	CI
AZJAMQ		0.0207	0.0012	0.73	0.0204	0.0005	0.30	OE
BUVUPC		0.0202	0.0007	0.42	0.0207	0.0008	0.46	CI
BXV7KB		0.0200	0.0005	0.32	0.0212	0.0013	0.78	XX
CMJDKF		0.0197	0.0002	0.11	0.0208	0.0009	0.51	OE
CPDXWE		0.0206	0.0011	0.69	0.0201	0.0002	0.13	GD
CRG2Y2		0.0191	-0.0004	-0.25	0.0194	-0.0005	-0.30	CI
D2NMAB		0.0193	-0.0002	-0.12	0.0199	0.0000	0.03	OE
D4BNT4		0.0202	0.0007	0.42	0.0203	0.0004	0.26	OE
D6JPTG		0.0203	0.0007	0.46	0.0196	-0.0003	-0.15	XX
DQ3RLU		0.0179	-0.0016	-1.01	0.0184	-0.0015	-0.86	CO
E2KLLU		0.0201	0.0006	0.36	0.0218	0.0019	1.13	OE
ECGRGD		0.0180	-0.0015	-0.95	0.0180	-0.0019	-1.10	CI
EU2JFD	X	0.0216	0.0020	1.27	0.0253	0.0054	3.15	OE
EW7X2X		0.0191	-0.0004	-0.27	0.0202	0.0003	0.16	OE
F6D63J		0.0195	0.0000	-0.03	0.0200	0.0001	0.07	OE
G2QW63		0.0192	-0.0003	-0.18	0.0205	0.0006	0.38	OE
GAMLB8	X	0.0245	0.0050	3.11	0.0284	0.0085	4.95	OE
GHHNDJ		0.0189	-0.0006	-0.39	0.0201	0.0002	0.11	OE
GQBWXA		0.0185	-0.0010	-0.64	0.0185	-0.0014	-0.80	CO
GYL86F		0.0209	0.0013	0.84	0.0211	0.0012	0.73	OE
H7ZDER		0.0170	-0.0025	-1.58	0.0190	-0.0009	-0.49	OE

		Sample L97			Sample L98			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
HPTFQL		0.0222	0.0027	1.67	0.0218	0.0019	1.09	OE
HZDMRW		0.0183	-0.0012	-0.74	0.0194	-0.0005	-0.30	OE
K3DNT6		0.0179	-0.0016	-1.01	0.0186	-0.0013	-0.75	OE
K7BY2X		0.0200	0.0004	0.28	0.0199	0.0000	0.01	CO
KBPMMF	X	0.0242	0.0046	2.90	0.0258	0.0059	3.44	CO
KWL8CK		0.0188	-0.0007	-0.45	0.0194	-0.0005	-0.28	XX
LDP2JK		0.0200	0.0005	0.30	0.0187	-0.0012	-0.71	GD
LV6JGC		0.0189	-0.0006	-0.37	0.0201	0.0002	0.13	OE
LZLR6B		0.0234	0.0039	2.42	0.0237	0.0038	2.20	OE
M8VMA4		0.0214	0.0019	1.19	0.0232	0.0033	1.91	XX
MCCZ34		0.0205	0.0010	0.63	0.0218	0.0019	1.11	OE
MDYTP8		0.0177	-0.0019	-1.16	0.0178	-0.0021	-1.23	CI
MEHCWY		0.0221	0.0026	1.61	0.0220	0.0021	1.25	OE
MQQFV2		0.0181	-0.0014	-0.89	0.0186	-0.0013	-0.75	CO
NUPYMR		0.0180	-0.0015	-0.95	0.0173	-0.0026	-1.48	GD
PGD3TN	*	0.0238	0.0043	2.67	0.0248	0.0049	2.86	OE
QJXGU4		0.0198	0.0002	0.15	0.0192	-0.0007	-0.38	CI
QPLWMG		0.0185	-0.0010	-0.62	0.0189	-0.0010	-0.59	IR
R4HFXD		0.0180	-0.0016	-0.97	0.0177	-0.0022	-1.29	GD
R4HNU4		0.0192	-0.0003	-0.18	0.0190	-0.0009	-0.51	XX
RNAFA4		0.0190	-0.0006	-0.35	0.0204	0.0006	0.33	XX
RRKUBE		0.0208	0.0012	0.77	0.0202	0.0003	0.20	OE
RZYGKH		0.0213	0.0018	1.13	0.0230	0.0031	1.81	OE
TG48ZT		0.0154	-0.0041	-2.55	0.0160	-0.0039	-2.28	OE
THV7DQ		0.0217	0.0021	1.34	0.0213	0.0014	0.84	XX
U4FEDR		0.0197	0.0002	0.11	0.0204	0.0005	0.32	OE
UQN2NU		0.0187	-0.0008	-0.49	0.0204	0.0005	0.32	OE
UX3K9U		0.0183	-0.0012	-0.74	0.0170	-0.0029	-1.68	XX
UYG7KG		0.0213	0.0018	1.11	0.0215	0.0016	0.92	OE
VAX73V		0.0210	0.0015	0.92	0.0207	0.0008	0.46	OE
VB6UTL		0.0187	-0.0008	-0.52	0.0195	-0.0004	-0.24	OE
VJJG4B	X	0.0277	0.0081	5.08	0.0230	0.0031	1.81	WD
VMJP7Z		0.0201	0.0006	0.38	0.0205	0.0006	0.34	CO
VVEPNY		0.0203	0.0007	0.46	0.0191	-0.0008	-0.46	XX
WRU9UK		0.0188	-0.0008	-0.47	0.0194	-0.0005	-0.28	CI
WYARCY		0.0179	-0.0017	-1.04	0.0194	-0.0005	-0.28	OE
XLZKND		0.0209	0.0014	0.88	0.0212	0.0013	0.78	GD
XMRJ3B		0.0175	-0.0020	-1.24	0.0185	-0.0014	-0.79	OE
XQD7VY		0.0195	0.0000	0.00	0.0208	0.0009	0.53	OE
XVA39W	*	0.0151	-0.0044	-2.74	0.0180	-0.0019	-1.08	OE
XXCVC3		0.0173	-0.0022	-1.37	0.0177	-0.0022	-1.29	OE
Y784KZ		0.0183	-0.0012	-0.74	0.0207	0.0008	0.46	OE
Y97NZK		0.0223	0.0028	1.75	0.0233	0.0034	2.01	XX
YMBMBC	*	0.0177	-0.0019	-1.16	0.0220	0.0021	1.23	OE
Z22746		0.0193	-0.0002	-0.12	0.0183	-0.0016	-0.90	XX
Z7ERBQ		0.0195	-0.0001	-0.04	0.0182	-0.0017	-0.96	OE
ZQ8T7T	X	0.0331	0.0136	8.47	0.0191	-0.0008	-0.44	OE

Fasteners and Metals Interlaboratory Testing Program

Analysis 1603

Carbon & Low Alloy Steel, SULFUR (S)

SULFUR (S)

WebCode	Data Flag	Sample L97 Lab Mean	Sample L97 Diff. from Grand Mean	Sample L97 CPV	Sample L98 Lab Mean	Sample L98 Diff. from Grand Mean	Sample L98 CPV	Method
ZTTFYG		0.0202	0.0007	0.41	0.0213	0.0014	0.81	XX
ZWRQVG		0.0187	-0.0009	-0.54	0.0177	-0.0022	-1.25	OE

Summary Statistics

	Sample L97		Sample L98	
Grand Means	0.0195	Percent	0.0199	Percent
Stnd Dev Btwn Labs	0.0016	Percent	0.0017	Percent

Samples L97, L98 : AISI 6150, AISI 6150

Statistics based on 86 of 96 reporting participants

Key to Method Codes Reported by Participants

CI	Combustion / IR	CO	Combustion
GD	Spectrometry - Glow Discharge (GDS)	IR	IR (Absorption / Detection)
OE	Spectrometry - Optical Emission (OES)	WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)
XX	Please Indicate Method Used for Current Element		

Comments on Assigned Data Flags for Test #1603

3VTKBR (X) - Data for sample L98 are low.

7NK6A9 (X) - Data for sample L97 are high. Inconsistent within the determinations of sample L97.

AJU2RD (X) - Data for sample L98 are high.

EU2JFD (X) - Data for sample L98 are high.

GAMLB8 (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample L98.

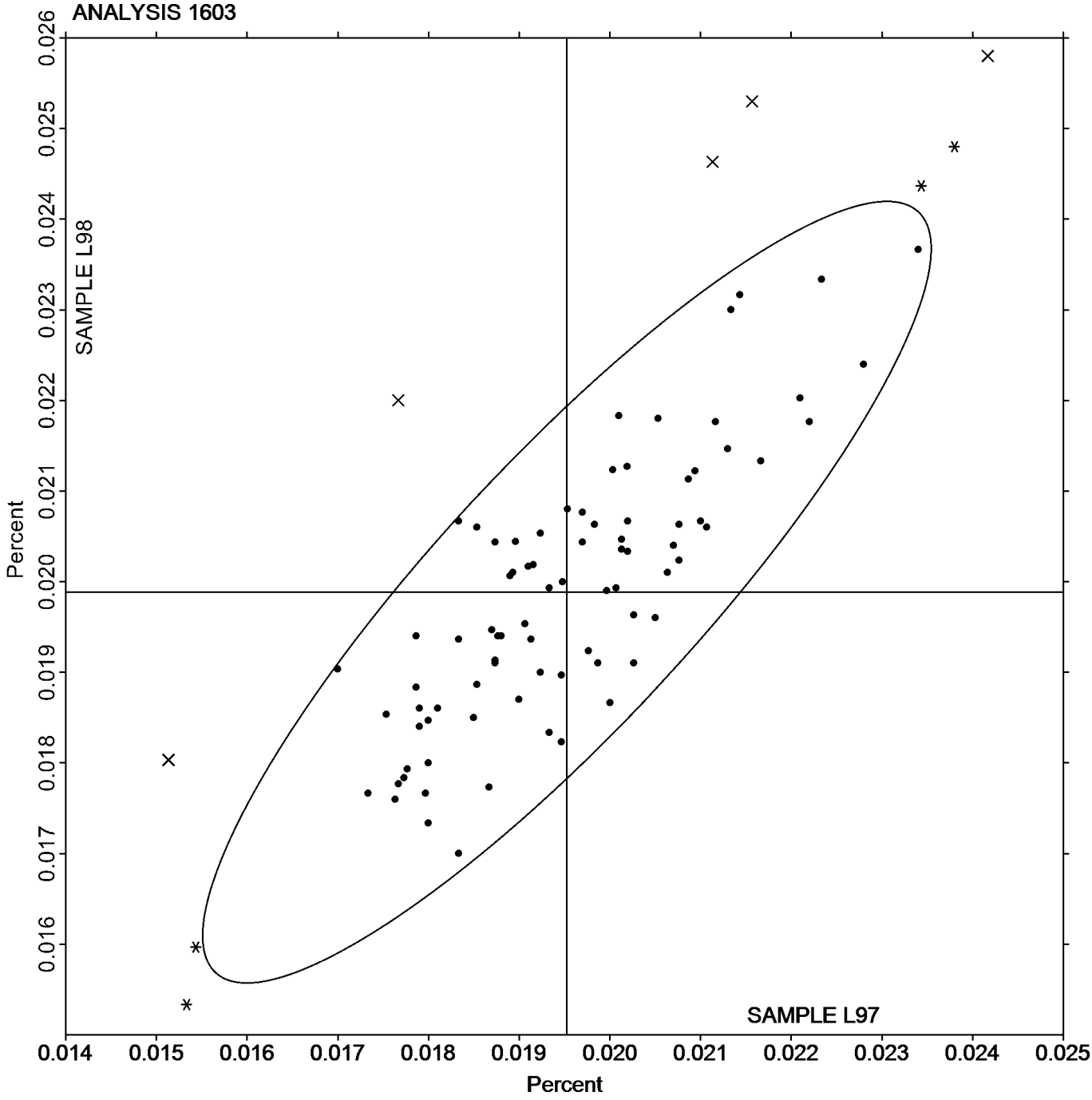
KBPMMF (X) - Data for both samples are high. Possible Systematic Error.

VJJG4B (X) - Data for sample L97 are high.

ZQ8T7T (X) - Data for sample L97 are high.

SAMPLE L97
0.0195 Percent

SAMPLE L98
0.0199 Percent



		Sample L97			Sample L98			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2XLYG6		0.2868	-0.0126	-1.98	0.2478	-0.0071	-1.18	XX
2YC8CR		0.3022	0.0028	0.44	0.2599	0.0050	0.83	OE
36JYEX		0.2933	-0.0061	-0.96	0.2499	-0.0050	-0.83	XX
3H2ZLN		0.2973	-0.0021	-0.33	0.2565	0.0015	0.25	OE
3H84NF		0.3049	0.0055	0.87	0.2633	0.0084	1.39	OE
3THK7K	*	0.2995	0.0001	0.02	0.2453	-0.0097	-1.60	OE
3UWZNT	*	0.2853	-0.0141	-2.21	0.2380	-0.0169	-2.80	GD
3VTKBR		0.2987	-0.0007	-0.11	0.2567	0.0017	0.29	OE
4AN7BT		0.2948	-0.0046	-0.72	0.2480	-0.0070	-1.15	OE
4DNEF3		0.2890	-0.0104	-1.63	0.2490	-0.0059	-0.98	OE
4GPMHR		0.2947	-0.0047	-0.74	0.2533	-0.0016	-0.26	OE
4KQE2Q		0.3026	0.0032	0.50	0.2591	0.0042	0.69	OE
4QCCMT		0.2982	-0.0012	-0.19	0.2554	0.0005	0.08	OE
4TY9VJ		0.2943	-0.0051	-0.79	0.2457	-0.0093	-1.53	OE
4XEGJH		0.2987	-0.0007	-0.11	0.2593	0.0044	0.73	XX
6BC3B7		0.2956	-0.0038	-0.59	0.2565	0.0016	0.27	OE
78VUM7		0.3033	0.0039	0.62	0.2560	0.0011	0.18	OE
7NK6A9	X	0.3167	0.0173	2.71	0.2577	0.0027	0.45	OE
83TFCL		0.3012	0.0018	0.29	0.2564	0.0015	0.24	OE
8HUZ4C		0.2933	-0.0061	-0.95	0.2490	-0.0059	-0.98	OE
8QZ33H		0.2933	-0.0061	-0.95	0.2503	-0.0046	-0.76	OE
9HKR4M		0.3010	0.0016	0.25	0.2543	-0.0006	-0.10	OE
9REQ49		0.2980	-0.0014	-0.22	0.2560	0.0011	0.18	OE
9Z6AHH		0.3005	0.0011	0.18	0.2578	0.0029	0.48	OE
AJU2RD		0.3043	0.0049	0.77	0.2602	0.0052	0.87	XX
AY8JP9		0.3047	0.0053	0.83	0.2566	0.0016	0.27	OE
AZJAMQ		0.2963	-0.0031	-0.48	0.2463	-0.0086	-1.42	OE
BUVUPC		0.2930	-0.0064	-1.00	0.2480	-0.0069	-1.15	WD
BXV7KB		0.2870	-0.0124	-1.95	0.2453	-0.0096	-1.59	XX
CK2ZZR		0.3087	0.0093	1.46	0.2647	0.0097	1.61	OE
CMJDKF		0.3033	0.0039	0.62	0.2573	0.0024	0.40	OE
CPDXWE		0.2937	-0.0057	-0.90	0.2530	-0.0019	-0.32	GD
CRG2Y2		0.2885	-0.0109	-1.71	0.2463	-0.0087	-1.43	IC
D2NMAB		0.2992	-0.0002	-0.03	0.2540	-0.0009	-0.15	OE
D4BNT4		0.2997	0.0003	0.04	0.2557	0.0007	0.12	OE
D6JPTG		0.3022	0.0028	0.44	0.2561	0.0011	0.19	XX
DQ3RLU		0.3020	0.0026	0.41	0.2543	-0.0006	-0.10	GD
E2KLLU	X	0.2750	-0.0244	-3.83	0.2327	-0.0223	-3.69	OE
ECGRGD	X	0.2760	-0.0234	-3.67	0.2230	-0.0319	-5.29	IC
EU2JFD		0.2947	-0.0047	-0.74	0.2503	-0.0046	-0.76	OE
EW7X2X		0.3085	0.0091	1.43	0.2627	0.0077	1.28	OE
F6D63J		0.2911	-0.0082	-1.29	0.2475	-0.0074	-1.23	OE
G2QW63		0.3105	0.0111	1.74	0.2637	0.0088	1.45	OE
GAMLB8	X	0.2790	-0.0204	-3.20	0.2397	-0.0153	-2.53	OE
GHHNDJ		0.3070	0.0076	1.20	0.2607	0.0057	0.95	OE
GQBWXA		0.2853	-0.0141	-2.21	0.2450	-0.0099	-1.64	IC
GYL86F		0.3094	0.0100	1.58	0.2620	0.0070	1.17	OE

		Sample L97			Sample L98			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
H7ZDER	X	0.2855	-0.0139	-2.18	0.2360	-0.0190	-3.14	OE
HPTFQL		0.3010	0.0016	0.25	0.2583	0.0034	0.56	OE
HZDMRW		0.2957	-0.0037	-0.58	0.2523	-0.0026	-0.43	OE
JFK2MY		0.2867	-0.0127	-2.00	0.2437	-0.0113	-1.87	OE
K3DNT6		0.3010	0.0016	0.25	0.2547	-0.0003	-0.04	OE
KBPMMF	X	0.2657	-0.0337	-5.30	0.2433	-0.0116	-1.92	IC
KWL8CK		0.2985	-0.0009	-0.13	0.2528	-0.0022	-0.36	XX
LDP2JK		0.2890	-0.0104	-1.63	0.2457	-0.0093	-1.53	GD
LV6JGC		0.2947	-0.0047	-0.74	0.2520	-0.0029	-0.49	OE
LZLR6B		0.3133	0.0139	2.19	0.2697	0.0147	2.44	OE
M8VMA4	X	0.2668	-0.0326	-5.11	0.2279	-0.0270	-4.47	XX
MCCZ34		0.3053	0.0059	0.93	0.2567	0.0017	0.29	OE
MDYTP8		0.3020	0.0026	0.41	0.2582	0.0032	0.54	IC
MEHCWY		0.3069	0.0075	1.18	0.2632	0.0083	1.37	OE
MQQFV2		0.3090	0.0096	1.51	0.2660	0.0111	1.83	OE
NUPYMR		0.2930	-0.0064	-1.00	0.2503	-0.0046	-0.76	GD
PGD3TN		0.3090	0.0096	1.51	0.2660	0.0111	1.83	OE
QJXGU4		0.2923	-0.0071	-1.11	0.2453	-0.0096	-1.59	WD
QPLWMG		0.3087	0.0093	1.46	0.2640	0.0091	1.50	IC
R4HFXD		0.3083	0.0089	1.40	0.2627	0.0077	1.28	GD
R4HNU4		0.2987	-0.0007	-0.11	0.2510	-0.0039	-0.65	XX
RNAFA4		0.2992	-0.0002	-0.03	0.2541	-0.0009	-0.14	XX
RRKUBE		0.3013	0.0019	0.31	0.2560	0.0011	0.18	OE
RZYGKH		0.2970	-0.0024	-0.38	0.2503	-0.0046	-0.76	OE
TG48ZT		0.3047	0.0053	0.83	0.2570	0.0021	0.34	OE
THV7DQ		0.3017	0.0023	0.36	0.2550	0.0001	0.01	XX
U4FEDR		0.3030	0.0036	0.57	0.2560	0.0011	0.18	OE
UQN2NU		0.3010	0.0016	0.25	0.2541	-0.0008	-0.14	OE
UX3K9U		0.3013	0.0019	0.31	0.2537	-0.0013	-0.21	XX
UYG7KG		0.2938	-0.0056	-0.87	0.2533	-0.0016	-0.27	OE
VAX73V		0.3060	0.0066	1.04	0.2617	0.0067	1.12	OE
VB6UTL		0.2971	-0.0023	-0.36	0.2520	-0.0029	-0.49	OE
VJJG4B		0.2903	-0.0091	-1.42	0.2447	-0.0103	-1.70	WD
VL7Z69		0.3083	0.0089	1.40	0.2647	0.0097	1.61	OE
VMJP7Z		0.3050	0.0056	0.88	0.2597	0.0047	0.78	IC
VVEPNY		0.3030	0.0036	0.57	0.2567	0.0017	0.29	XX
W2UT8K		0.2981	-0.0013	-0.20	0.2529	-0.0021	-0.34	OE
WRU9UK		0.2947	-0.0047	-0.74	0.2503	-0.0046	-0.76	IC
WYARCY		0.3009	0.0015	0.23	0.2564	0.0014	0.24	OE
XLZKND	X	0.2880	-0.0114	-1.78	0.2666	0.0117	1.94	GD
XMRJ3B		0.2973	-0.0021	-0.32	0.2547	-0.0003	-0.04	OE
XQD7VY		0.2950	-0.0044	-0.69	0.2513	-0.0036	-0.60	OE
XVA39W	X	0.3213	0.0219	3.45	0.2697	0.0147	2.44	OE
XXCVC3	X	0.3327	0.0333	5.23	0.2613	0.0064	1.06	OE
Y784KZ		0.3010	0.0016	0.25	0.2590	0.0041	0.67	OE
Y97NZK		0.3013	0.0019	0.31	0.2570	0.0021	0.34	XX
YMBMBC		0.2973	-0.0021	-0.32	0.2527	-0.0023	-0.37	OE

Fasteners and Metals Interlaboratory Testing Program

Analysis 1604

Carbon & Low Alloy Steel, SILICON (Si)

SILICON (Si)

WebCode	Data Flag	Sample L97 Lab Mean	Sample L97 Diff. from Grand Mean	Sample L97 CPV	Sample L98 Lab Mean	Sample L98 Diff. from Grand Mean	Sample L98 CPV	Method
Z22746		0.3057	0.0063	0.99	0.2610	0.0061	1.01	XX
Z7ERBQ		0.3080	0.0086	1.35	0.2610	0.0061	1.01	OE
ZECGUF	X	0.2807	-0.0187	-2.94	0.2481	-0.0068	-1.13	OE
ZM4Y73		0.3080	0.0086	1.35	0.2647	0.0097	1.61	OE
ZQ8T7T		0.2997	0.0003	0.04	0.2507	-0.0042	-0.69	OE
ZTTFYG		0.3005	0.0011	0.17	0.2568	0.0019	0.31	XX
ZWRQVG		0.2963	-0.0031	-0.48	0.2510	-0.0039	-0.65	OE

Summary Statistics

	Sample L97		Sample L98	
Grand Means	0.2994	Percent	0.2549	Percent
Stnd Dev Btwn Labs	0.0064	Percent	0.0060	Percent

Samples L97, L98 : AISI 6150, AISI 6150

Statistics based on 89 of 101 reporting participants

Key to Method Codes Reported by Participants

GD	Spectrometry - Glow Discharge (GDS)	IC	Spectrometry - Inductively Coupled Plasma (ICP)
OE	Spectrometry - Optical Emission (OES)	WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)
XX	Please Indicate Method Used for Current Element		

Comments on Assigned Data Flags for Test #1604

7NK6A9 (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample L97.

E2KLLU (X) - Data for both samples are low. Possible Systematic Error.

ECGRGD (X) - Data for both samples are low. Possible Systematic Error.

GAMLB8 (X) - Data for sample L97 are low.

H7ZDER (X) - Data for sample L98 are low. Inconsistent within the determinations of sample L97.

KBPMMF (X) - Data for sample L97 are low. Inconsistent within the determinations of sample L97.

M8VMA4 (X) - Data for both samples are low. Possible Systematic Error.

XLZKND (X) - Inconsistent in testing between samples. Inconsistent within the determinations of both samples.

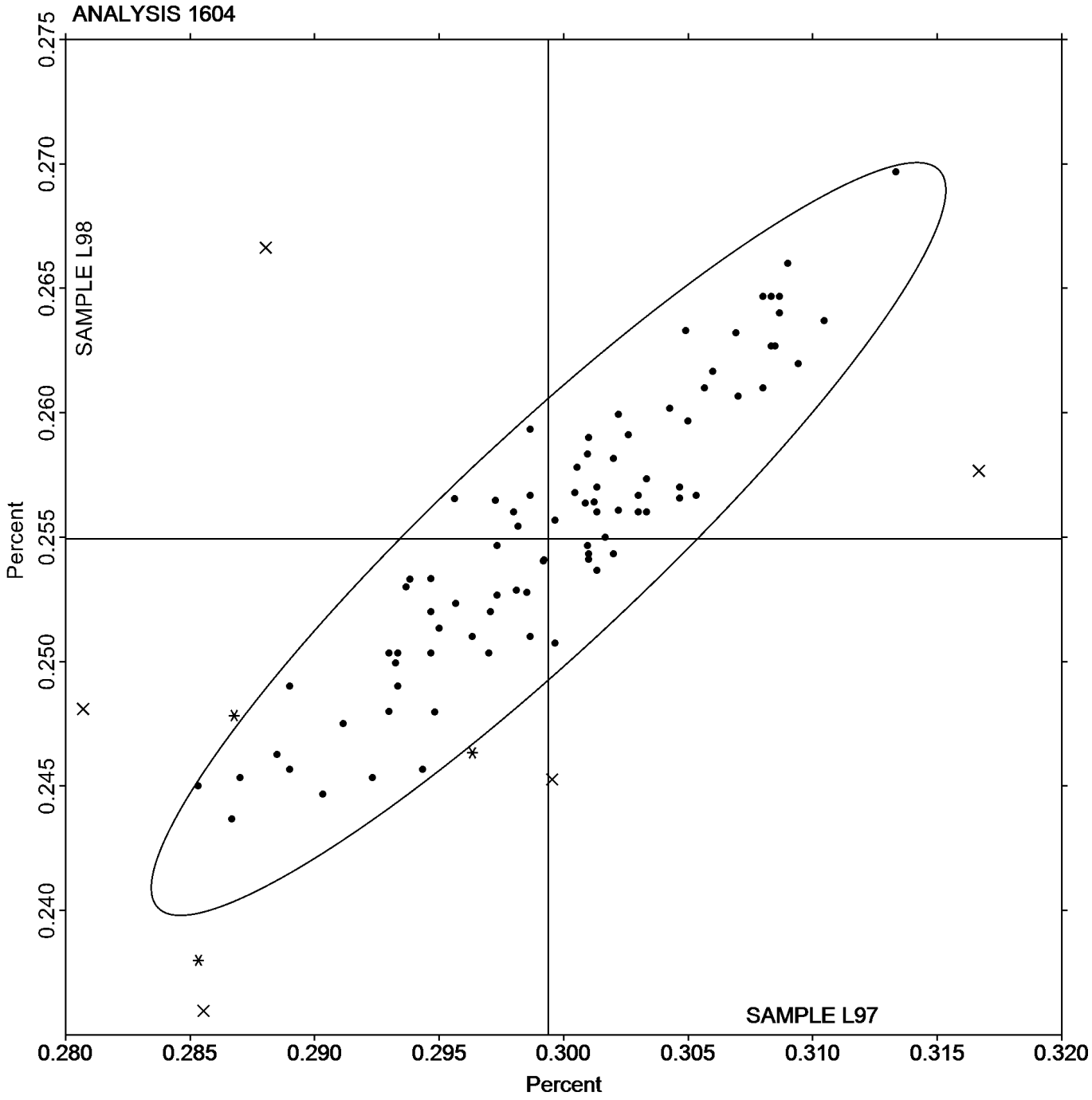
XVA39W (X) - Data for sample L97 are high.

XXCVC3 (X) - Data for sample L97 are high. Inconsistent within the determinations of both samples.

ZECGUF (X) - Data for sample L97 are low.

SAMPLE L97
0.2994 Percent

SAMPLE L98
0.2549 Percent



		Sample L97			Sample L98			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2XLYG6		0.0268	-0.0015	-1.24	0.0431	-0.0022	-1.34	OE
2YC8CR		0.0286	0.0003	0.20	0.0447	-0.0005	-0.31	OE
36JYEX		0.0266	-0.0017	-1.38	0.0431	-0.0021	-1.32	XX
3H2ZLN		0.0287	0.0003	0.26	0.0460	0.0008	0.48	OE
3H84NF		0.0278	-0.0005	-0.44	0.0454	0.0002	0.10	OE
3THK7K		0.0264	-0.0019	-1.57	0.0428	-0.0025	-1.53	OE
3UWZNT		0.0281	-0.0003	-0.23	0.0429	-0.0023	-1.42	GD
3VTKBR		0.0287	0.0003	0.26	0.0443	-0.0009	-0.56	OE
4AN7BT	X	0.0332	0.0049	3.93	0.0470	0.0018	1.12	OE
4DNEF3		0.0287	0.0004	0.28	0.0454	0.0001	0.08	OE
4GPMHR		0.0284	0.0001	0.04	0.0469	0.0017	1.06	OE
4KQE2Q		0.0287	0.0003	0.26	0.0452	0.0000	0.00	OE
4QCCMT		0.0292	0.0009	0.68	0.0459	0.0006	0.39	OE
4XEGJH		0.0290	0.0006	0.50	0.0463	0.0011	0.68	XX
6BC3B7		0.0289	0.0006	0.47	0.0462	0.0010	0.60	OE
78VUM7		0.0303	0.0020	1.60	0.0473	0.0021	1.30	OE
7NK6A9	X	0.0290	0.0007	0.55	0.0363	-0.0089	-5.52	OE
83TFCL		0.0297	0.0014	1.11	0.0456	0.0004	0.25	OE
8HUZ4C		0.0296	0.0012	0.98	0.0452	0.0000	-0.02	OE
8QZ33H		0.0293	0.0009	0.74	0.0461	0.0009	0.56	OE
9HKR4M		0.0293	0.0010	0.79	0.0450	-0.0002	-0.14	OE
9REQ49		0.0284	0.0001	0.07	0.0456	0.0003	0.21	OE
9Z6AHH		0.0290	0.0007	0.55	0.0466	0.0014	0.85	OE
AJU2RD		0.0274	-0.0010	-0.79	0.0435	-0.0017	-1.05	XX
AY8JP9		0.0289	0.0006	0.44	0.0465	0.0012	0.77	OE
AZJAMQ		0.0305	0.0022	1.73	0.0471	0.0019	1.18	OE
BUVUPC		0.0270	-0.0013	-1.08	0.0436	-0.0017	-1.03	OE
BXV7KB		0.0271	-0.0012	-1.00	0.0456	0.0004	0.23	XX
CK2ZZR		0.0291	0.0008	0.63	0.0472	0.0019	1.20	OE
CMJDKF		0.0290	0.0007	0.55	0.0453	0.0001	0.04	OE
CPDXWE		0.0277	-0.0006	-0.49	0.0443	-0.0010	-0.60	GD
CRG2Y2		0.0276	-0.0007	-0.57	0.0444	-0.0008	-0.49	IC
D2NMAB		0.0287	0.0004	0.28	0.0455	0.0002	0.15	OE
D4BNT4		0.0267	-0.0017	-1.35	0.0440	-0.0012	-0.76	OE
D6JPTG		0.0286	0.0003	0.23	0.0453	0.0001	0.06	XX
DQ3RLU		0.0287	0.0003	0.26	0.0450	-0.0002	-0.14	GD
E2KLLU		0.0297	0.0014	1.11	0.0470	0.0018	1.10	OE
ECGRGD		0.0280	-0.0003	-0.28	0.0420	-0.0032	-2.00	IC
EU2JFD		0.0304	0.0020	1.62	0.0488	0.0036	2.21	OE
EW7X2X		0.0290	0.0007	0.55	0.0466	0.0013	0.83	OE
F6D63J		0.0280	-0.0004	-0.32	0.0447	-0.0005	-0.31	OE
G2QW63		0.0280	-0.0003	-0.25	0.0443	-0.0009	-0.56	OE
GAMLB8		0.0313	0.0030	2.40	0.0487	0.0034	2.13	OE
GHHNDJ		0.0290	0.0006	0.50	0.0458	0.0005	0.33	OE
GQBWXA		0.0265	-0.0018	-1.46	0.0440	-0.0012	-0.76	IC
GYL86F		0.0284	0.0000	0.01	0.0442	-0.0010	-0.64	OE
H7ZDER		0.0286	0.0003	0.20	0.0431	-0.0022	-1.34	OE

		Sample L97			Sample L98			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
HPTFQL		0.0266	-0.0017	-1.41	0.0435	-0.0017	-1.05	OE
HZDMRW		0.0279	-0.0005	-0.39	0.0459	0.0007	0.41	OE
JFK2MY	X	0.0220	-0.0063	-5.10	0.0390	-0.0062	-3.86	OE
K3DNT6		0.0281	-0.0003	-0.23	0.0450	-0.0002	-0.14	OE
KBPMMF	*	0.0270	-0.0014	-1.11	0.0467	0.0014	0.89	IC
KWL8CK		0.0290	0.0007	0.55	0.0460	0.0008	0.50	XX
LDP2JK		0.0267	-0.0017	-1.35	0.0433	-0.0019	-1.18	GD
LV6JGC		0.0269	-0.0014	-1.16	0.0430	-0.0023	-1.40	OE
LZLR6B	X	0.0329	0.0045	3.63	0.0510	0.0058	3.60	OE
M8VMA4		0.0281	-0.0002	-0.17	0.0449	-0.0004	-0.23	XX
MCCZ34		0.0279	-0.0005	-0.39	0.0458	0.0006	0.35	OE
MDYTP8		0.0288	0.0005	0.36	0.0464	0.0012	0.72	IC
MQQFV2		0.0286	0.0003	0.20	0.0461	0.0009	0.54	OE
NUPYMR		0.0273	-0.0010	-0.82	0.0433	-0.0019	-1.18	GD
PGD3TN		0.0267	-0.0016	-1.33	0.0420	-0.0032	-2.00	OE
QJXGU4		0.0284	0.0000	0.01	0.0451	-0.0001	-0.06	WD
QPLWMG		0.0284	0.0000	0.01	0.0457	0.0005	0.31	IC
R4HNU4	X	0.0293	0.0010	0.77	0.0531	0.0079	4.88	XX
RNAFA4		0.0292	0.0008	0.66	0.0452	0.0000	0.01	XX
RRKUBE		0.0299	0.0016	1.25	0.0460	0.0008	0.50	OE
RZYGKH	*	0.0247	-0.0037	-2.96	0.0410	-0.0042	-2.62	OE
TG48ZT		0.0266	-0.0017	-1.38	0.0412	-0.0040	-2.50	OE
THV7DQ	X	0.0327	0.0043	3.47	0.0477	0.0024	1.51	XX
U4FEDR		0.0267	-0.0016	-1.33	0.0430	-0.0022	-1.38	OE
UQN2NU		0.0280	-0.0003	-0.25	0.0460	0.0008	0.48	OE
UX3K9U		0.0280	-0.0003	-0.28	0.0433	-0.0019	-1.18	XX
UYG7KG		0.0296	0.0012	0.98	0.0472	0.0020	1.24	OE
VAX73V		0.0290	0.0007	0.52	0.0460	0.0008	0.48	OE
VB6UTL		0.0281	-0.0002	-0.20	0.0453	0.0001	0.04	OE
VJJG4B	*	0.0320	0.0037	2.94	0.0487	0.0034	2.13	WD
VL7Z69		0.0291	0.0008	0.63	0.0472	0.0019	1.20	OE
VMJP7Z		0.0274	-0.0009	-0.74	0.0454	0.0001	0.08	IC
VVEPNY		0.0288	0.0005	0.39	0.0467	0.0014	0.89	XX
W2UT8K		0.0287	0.0004	0.31	0.0462	0.0010	0.62	OE
WRU9UK		0.0299	0.0015	1.22	0.0461	0.0009	0.54	IC
WYARCY		0.0270	-0.0013	-1.06	0.0453	0.0000	0.02	OE
XLZKND		0.0296	0.0012	0.99	0.0491	0.0039	2.40	GD
XMRJ3B		0.0273	-0.0010	-0.82	0.0447	-0.0006	-0.35	OE
XQD7VY		0.0277	-0.0006	-0.52	0.0448	-0.0004	-0.27	OE
XVA39W		0.0280	-0.0003	-0.28	0.0453	0.0001	0.06	OE
XXCVC3	X	0.0473	0.0190	15.26	0.0620	0.0168	10.40	OE
Y784KZ		0.0283	0.0000	-0.01	0.0460	0.0008	0.48	OE
Y97NZK		0.0297	0.0013	1.06	0.0467	0.0014	0.89	XX
YKGXPV		0.0260	-0.0023	-1.89	0.0437	-0.0016	-0.97	OE
YMBMBC	X	0.0387	0.0103	8.30	0.0557	0.0104	6.47	OE
Z22746	X	0.0330	0.0047	3.74	0.0520	0.0068	4.20	XX
Z7ERBQ		0.0279	-0.0005	-0.39	0.0449	-0.0003	-0.18	OE

WebCode	Data Flag	Sample L97 Lab Mean	Sample L97 Diff. from Grand Mean	Sample L97 CPV	Sample L98 Lab Mean	Sample L98 Diff. from Grand Mean	Sample L98 CPV	Method
ZECGUF		0.0265	-0.0018	-1.49	0.0439	-0.0013	-0.83	OE
ZM4Y73		0.0291	0.0008	0.63	0.0472	0.0019	1.20	OE
ZQ8T7T		0.0310	0.0027	2.13	0.0461	0.0008	0.52	OE
ZTTFYG		0.0296	0.0012	0.99	0.0461	0.0009	0.56	XX
ZWRQVG		0.0274	-0.0009	-0.76	0.0436	-0.0016	-1.01	OE

Summary Statistics

	Sample L97		Sample L98	
Grand Means	0.0283	Percent	0.0452	Percent
Stnd Dev Btwn Labs	0.0012	Percent	0.0016	Percent

Samples L97, L98 : AISI 6150, AISI 6150

Statistics based on 90 of 99 reporting participants

Key to Method Codes Reported by Participants

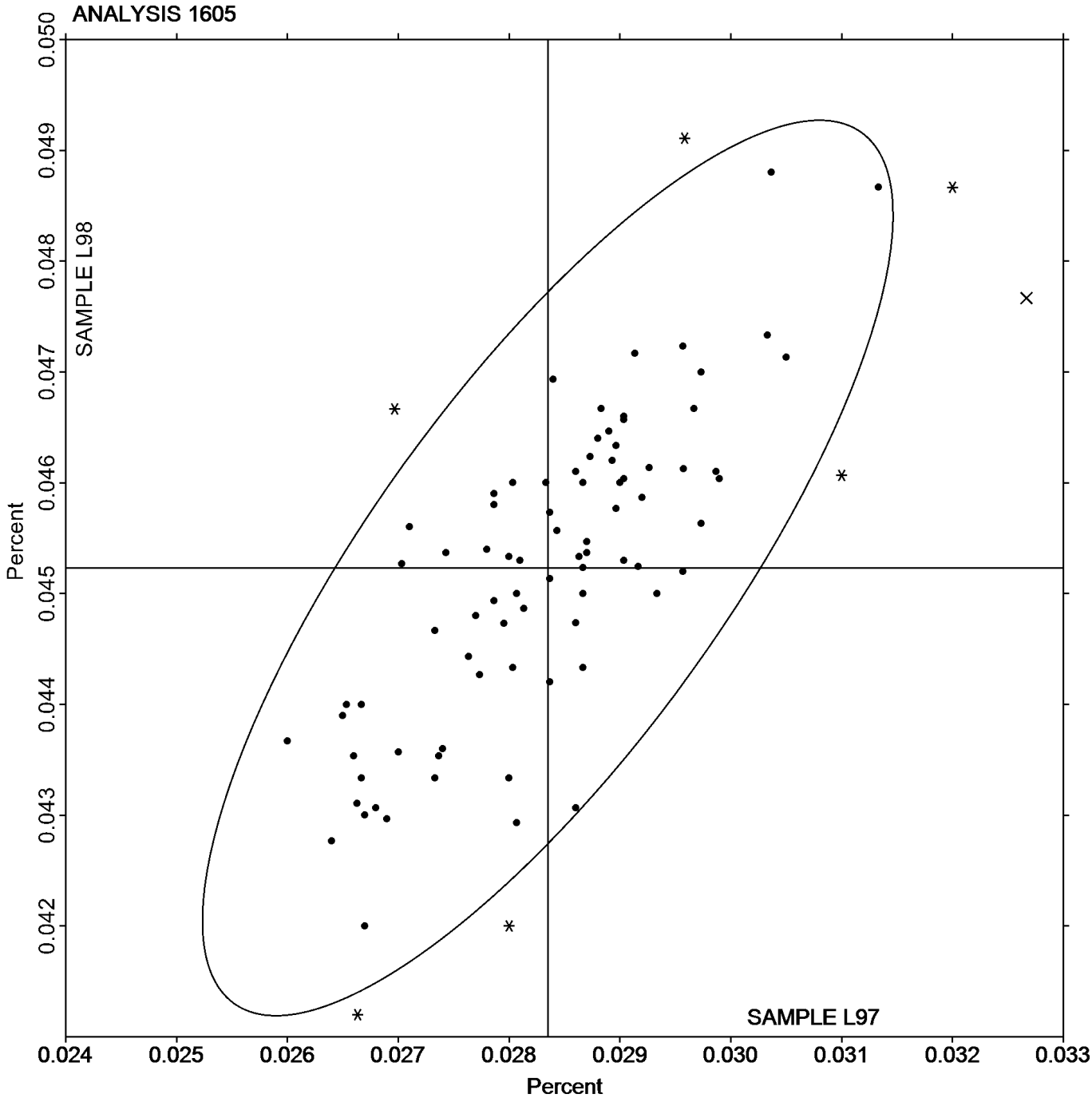
GD Spectrometry - Glow Discharge (GDS)
IC Spectrometry - Inductively Coupled Plasma (ICP)
OE Spectrometry - Optical Emission (OES)
WD X-Ray Fluorescence - Wavelength Dispersive (WDX)
XX Please Indicate Method Used for Current Element

Comments on Assigned Data Flags for Test #1605

4AN7BT (X) - Data for sample L97 are high.
7NK6A9 (X) - Data for sample L98 are low. Inconsistent within the determinations of sample L98.
JFK2MY (X) - Data for both samples are low.
LZLR6B (X) - Data for both samples are high.
R4HNU4 (X) - Data for sample L98 are high.
THV7DQ (X) - Data for sample L97 are high.
XXCVC3 (X) - Data for both samples are high. Inconsistent within the determinations of both samples.
YMBMBC (X) - Data for both samples are high.
Z22746 (X) - Data for both samples are high.

SAMPLE L97
0.0283 Percent

SAMPLE L98
0.0452 Percent



		Sample L97			Sample L98			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2XLYG6		0.1320	-0.0024	-0.70	0.1110	-0.0004	-0.12	OE
2YC8CR		0.1402	0.0058	1.72	0.1171	0.0056	1.49	OE
36JYEX		0.1323	-0.0021	-0.62	0.1097	-0.0018	-0.47	XX
3H2ZLN		0.1327	-0.0017	-0.50	0.1097	-0.0018	-0.47	XX
3H84NF		0.1296	-0.0048	-1.41	0.1074	-0.0040	-1.07	OE
3THK7K		0.1347	0.0004	0.11	0.1121	0.0006	0.17	OE
3UWZNT		0.1313	-0.0030	-0.89	0.1053	-0.0061	-1.62	GD
3VTKBR		0.1357	0.0013	0.39	0.1123	0.0009	0.24	OE
4AN7BT	X	0.1722	0.0379	11.20	0.1320	0.0206	5.44	OE
4DNEF3		0.1370	0.0026	0.78	0.1140	0.0026	0.68	OE
4GPMHR		0.1343	0.0000	-0.01	0.1113	-0.0001	-0.03	OE
4KQE2Q		0.1341	-0.0003	-0.09	0.1114	0.0000	0.00	OE
4QCCMT		0.1341	-0.0003	-0.09	0.1113	-0.0001	-0.04	OE
4XEGJH		0.1343	0.0000	-0.01	0.1117	0.0002	0.06	XX
6BC3B7		0.1339	-0.0005	-0.14	0.1108	-0.0006	-0.17	OE
78VUM7		0.1353	0.0010	0.29	0.1130	0.0016	0.41	OE
7NK6A9	X	0.1543	0.0200	5.91	0.1210	0.0096	2.53	OE
83TFCL		0.1355	0.0012	0.35	0.1129	0.0014	0.38	OE
8HUZ4C		0.1330	-0.0014	-0.40	0.1097	-0.0018	-0.47	OE
8QZ33H		0.1330	-0.0014	-0.40	0.1100	-0.0014	-0.38	OE
9HKR4M	X	0.1170	-0.0174	-5.13	0.1007	-0.0108	-2.85	OE
9REQ49		0.1350	0.0006	0.19	0.1122	0.0008	0.21	OE
9Z6AHH		0.1337	-0.0007	-0.20	0.1109	-0.0006	-0.15	OE
AJU2RD		0.1352	0.0009	0.26	0.1127	0.0013	0.33	XX
AY8JP9		0.1337	-0.0007	-0.20	0.1129	0.0015	0.39	OE
AZJAMQ		0.1360	0.0016	0.49	0.1133	0.0019	0.50	OE
BUVUPC	X	0.1310	-0.0034	-1.00	0.1030	-0.0084	-2.22	OE
BXV7KB		0.1387	0.0043	1.27	0.1140	0.0026	0.68	XX
CK2ZZR		0.1293	-0.0050	-1.49	0.1030	-0.0084	-2.23	OE
CMJDKF		0.1333	-0.0010	-0.30	0.1120	0.0006	0.15	OE
CPDXWE		0.1373	0.0030	0.88	0.1137	0.0022	0.59	GD
CRG2Y2		0.1323	-0.0021	-0.62	0.1109	-0.0005	-0.13	IC
D2NMAB		0.1353	0.0009	0.27	0.1116	0.0002	0.04	OE
D4BNT4		0.1317	-0.0027	-0.80	0.1093	-0.0021	-0.56	OE
D6JPTG		0.1336	-0.0008	-0.22	0.1116	0.0002	0.04	XX
DQ3RLU		0.1260	-0.0084	-2.47	0.1037	-0.0078	-2.06	GD
E2KLLU		0.1273	-0.0070	-2.08	0.1027	-0.0088	-2.32	OE
ECGRGD		0.1350	0.0006	0.19	0.1080	-0.0034	-0.91	IC
EU2JFD		0.1343	0.0000	-0.01	0.1120	0.0006	0.15	OE
EW7X2X		0.1302	-0.0042	-1.24	0.1086	-0.0028	-0.74	OE
F6D63J		0.1378	0.0035	1.03	0.1170	0.0056	1.48	OE
G2QW63		0.1352	0.0008	0.25	0.1119	0.0005	0.12	OE
GAMLB8		0.1373	0.0030	0.88	0.1150	0.0036	0.94	OE
GHHNDJ		0.1287	-0.0057	-1.68	0.1063	-0.0051	-1.35	OE
GQBWXA		0.1337	-0.0007	-0.20	0.1127	0.0012	0.33	IC
H7ZDER		0.1320	-0.0024	-0.70	0.1067	-0.0047	-1.25	OE
HPTFQL		0.1348	0.0004	0.12	0.1117	0.0002	0.06	OE

		Sample L97			Sample L98			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
HZDMRW		0.1340	-0.0004	-0.11	0.1117	0.0002	0.06	OE
JFK2MY		0.1323	-0.0020	-0.60	0.1110	-0.0004	-0.12	OE
K3DNT6		0.1365	0.0021	0.63	0.1130	0.0016	0.42	OE
KBPMMF	X	0.1207	-0.0137	-4.05	0.1140	0.0026	0.68	IC
KWL8CK		0.1323	-0.0020	-0.60	0.1099	-0.0015	-0.40	XX
LDP2JK		0.1433	0.0090	2.65	0.1200	0.0086	2.27	GD
LV6JGC		0.1360	0.0016	0.49	0.1137	0.0022	0.59	OE
LZLR6B		0.1323	-0.0020	-0.60	0.1097	-0.0018	-0.47	OE
M8VMA4		0.1362	0.0018	0.54	0.1130	0.0015	0.41	XX
MCCZ34		0.1423	0.0080	2.36	0.1183	0.0069	1.83	OE
MDYTP8		0.1356	0.0013	0.38	0.1112	-0.0002	-0.06	IC
MQQFV2		0.1380	0.0036	1.08	0.1160	0.0046	1.21	OE
NUPYMR		0.1400	0.0056	1.67	0.1200	0.0086	2.27	GD
PGD3TN	X	0.1170	-0.0174	-5.13	0.0952	-0.0162	-4.30	OE
QJXGU4		0.1350	0.0006	0.19	0.1133	0.0019	0.50	WD
QPLWMG		0.1377	0.0033	0.98	0.1163	0.0049	1.30	IC
R4HNU4		0.1340	-0.0004	-0.11	0.1100	-0.0014	-0.38	XX
RNAFA4		0.1353	0.0009	0.27	0.1123	0.0008	0.22	XX
RRKUBE		0.1337	-0.0007	-0.20	0.1123	0.0009	0.24	OE
RZYGKH	X	0.1067	-0.0277	-8.19	0.0883	-0.0231	-6.12	OE
TG48ZT		0.1317	-0.0027	-0.80	0.1087	-0.0028	-0.73	OE
THV7DQ		0.1380	0.0036	1.08	0.1160	0.0046	1.21	XX
U4FEDR		0.1347	0.0003	0.09	0.1113	-0.0001	-0.03	OE
UQN2NU		0.1366	0.0023	0.67	0.1146	0.0031	0.83	OE
UX3K9U		0.1273	-0.0070	-2.08	0.1060	-0.0054	-1.44	XX
UYG7KG		0.1338	-0.0006	-0.17	0.1115	0.0000	0.01	OE
VAX73V		0.1357	0.0013	0.39	0.1127	0.0012	0.33	OE
VB6UTL		0.1335	-0.0009	-0.25	0.1100	-0.0014	-0.38	OE
VJJG4B		0.1333	-0.0010	-0.30	0.1107	-0.0008	-0.20	WD
VL7Z69		0.1293	-0.0050	-1.49	0.1030	-0.0084	-2.23	OE
VMJP7Z		0.1320	-0.0024	-0.70	0.1113	-0.0001	-0.03	IC
VVEPNY		0.1290	-0.0054	-1.58	0.1070	-0.0044	-1.17	XX
W2UT8K		0.1310	-0.0034	-0.99	0.1108	-0.0007	-0.18	OE
WRU9UK		0.1370	0.0026	0.78	0.1140	0.0026	0.68	IC
WYARCY		0.1337	-0.0007	-0.20	0.1100	-0.0014	-0.38	OE
XLZKND	*	0.1306	-0.0037	-1.10	0.1143	0.0028	0.75	GD
XMRJ3B		0.1390	0.0046	1.37	0.1153	0.0039	1.03	OE
XQD7VY		0.1363	0.0020	0.58	0.1133	0.0019	0.50	OE
XVA39W		0.1340	-0.0004	-0.11	0.1107	-0.0008	-0.20	OE
XXCVC3	*	0.1273	-0.0070	-2.08	0.1013	-0.0101	-2.67	OE
Y784KZ		0.1343	0.0000	-0.01	0.1117	0.0002	0.06	OE
Y97NZK		0.1303	-0.0040	-1.19	0.1073	-0.0041	-1.09	XX
YKGXPV		0.1400	0.0056	1.67	0.1170	0.0056	1.47	OE
YMBMBC	*	0.1437	0.0093	2.75	0.1207	0.0092	2.44	OE
Z22746		0.1370	0.0026	0.78	0.1143	0.0029	0.77	XX
Z7ERBQ		0.1361	0.0017	0.51	0.1139	0.0024	0.64	OE
ZECGUF		0.1375	0.0032	0.94	0.1150	0.0036	0.95	OE

		Sample L97			Sample L98			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
ZM4Y73		0.1293	-0.0050	-1.49	0.1030	-0.0084	-2.23	OE
ZQ8T7T	*	0.1285	-0.0058	-1.72	0.1096	-0.0018	-0.49	OE
ZTTFYG		0.1347	0.0003	0.10	0.1080	-0.0034	-0.90	XX
ZWRQVG		0.1367	0.0023	0.68	0.1120	0.0006	0.15	OE

Summary Statistics

	Sample L97		Sample L98	
Grand Means	0.1344	Percent	0.1114	Percent
Stnd Dev Btwn Labs	0.0034	Percent	0.0038	Percent

Samples L97, L98 : AISI 6150, AISI 6150

Statistics based on 89 of 98 reporting participants

Key to Method Codes Reported by Participants

GD Spectrometry - Glow Discharge (GDS)
IC Spectrometry - Inductively Coupled Plasma (ICP)
OE Spectrometry - Optical Emission (OES)
WD X-Ray Fluorescence - Wavelength Dispersive (WDX)
XX Please Indicate Method Used for Current Element

Comments on Assigned Data Flags for Test #1606

4AN7BT (X) - Data for both samples are high. Possible Systematic Error.

7NK6A9 (X) - Data for sample L97 are high. Inconsistent within the determinations of both samples.

9HKR4M (X) - Data for both samples are low. Possible Systematic Error.

BUVUPC (X) - Inconsistent in testing between samples. Inconsistent within the determinations of both samples.

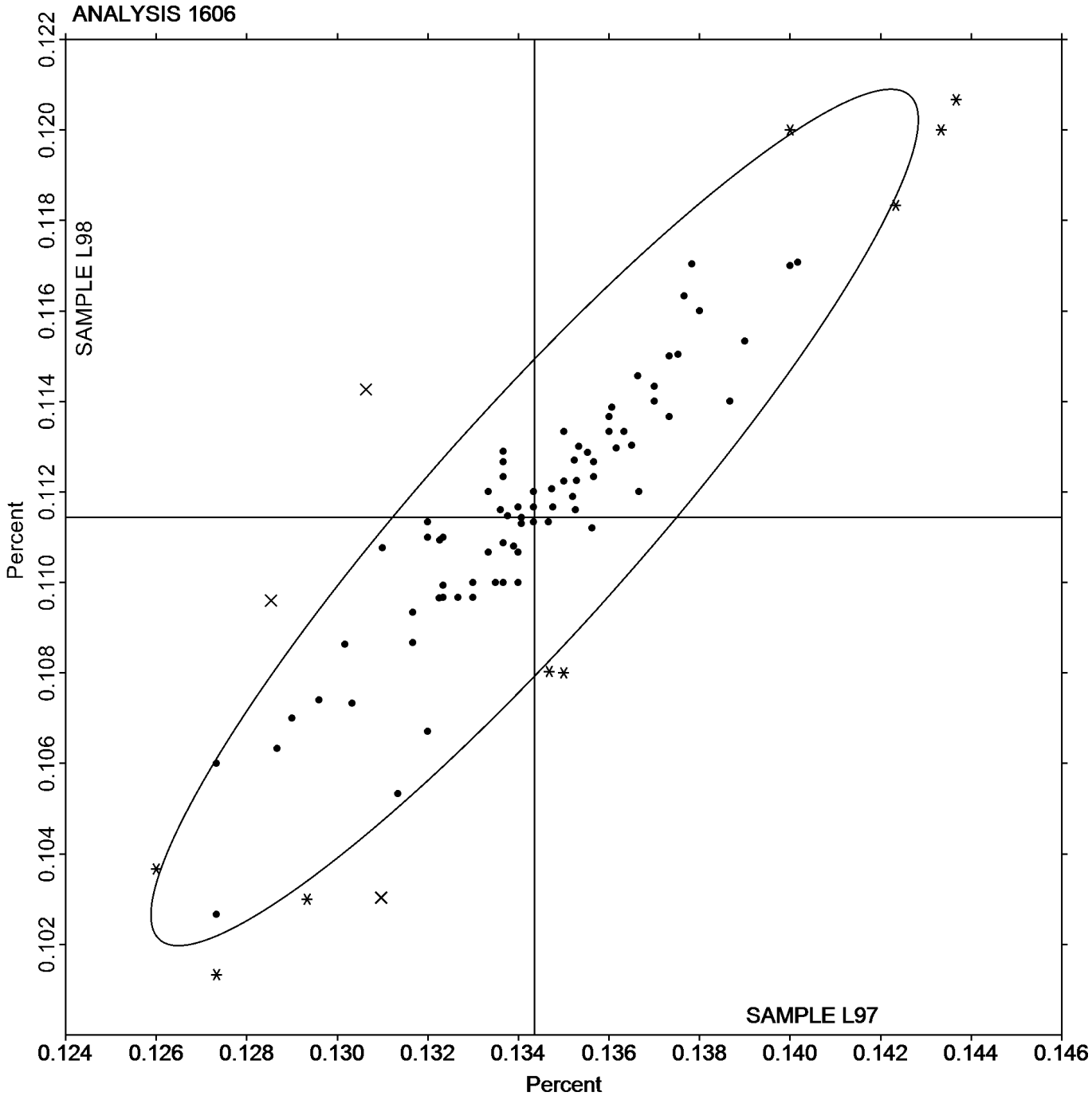
KBPMMF (X) - Data for sample L97 are low. Inconsistent within the determinations of sample L98.

PGD3TN (X) - Data for both samples are low. Possible Systematic Error.

RZYGKH (X) - Data for both samples are low. Possible Systematic Error.

SAMPLE L97
0.1344 Percent

SAMPLE L98
0.1114 Percent



		Sample L97			Sample L98			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2XLYG6		0.8905	-0.0244	-1.60	0.9447	-0.0204	-1.23	OE
2YC8CR		0.9063	-0.0085	-0.56	0.9559	-0.0092	-0.56	OE
36JYEX		0.9194	0.0045	0.30	0.9683	0.0032	0.19	XX
3H2ZLN		0.9113	-0.0035	-0.23	0.9620	-0.0032	-0.19	OE
3H84NF		0.9439	0.0290	1.90	0.9956	0.0304	1.83	OE
3THK7K	X	1.395	0.4800	31.48	1.442	0.4768	28.67	OE
3UWZNT		0.9227	0.0078	0.51	0.9660	0.0008	0.05	GD
3VTKBR		0.9060	-0.0089	-0.58	0.9530	-0.0122	-0.73	OE
4AN7BT		0.9313	0.0165	1.08	0.9690	0.0038	0.23	OE
4DNEF3		0.9250	0.0101	0.66	0.9820	0.0168	1.01	OE
4GPMHR	*	0.9043	-0.0105	-0.69	0.9753	0.0102	0.61	OE
4KQE2Q		0.9301	0.0153	1.00	0.9816	0.0165	0.99	OE
4QCCMT		0.9179	0.0030	0.20	0.9594	-0.0057	-0.35	OE
4TY9VJ		0.9133	-0.0015	-0.10	0.9587	-0.0065	-0.39	OE
4XEGJH		0.9147	-0.0002	-0.01	0.9683	0.0032	0.19	XX
6BC3B7		0.9117	-0.0032	-0.21	0.9648	-0.0003	-0.02	OE
78VUM7		0.8833	-0.0315	-2.07	0.9367	-0.0285	-1.71	XX
7NK6A9	X	0.8900	-0.0249	-1.63	0.8833	-0.0818	-4.92	OE
83TFCL		0.9064	-0.0085	-0.56	0.9598	-0.0054	-0.32	OE
8HUZ4C		0.9243	0.0095	0.62	0.9657	0.0005	0.03	OE
8QZ33H		0.9153	0.0005	0.03	0.9643	-0.0008	-0.05	OE
9HKR4M		0.9150	0.0001	0.01	0.9627	-0.0025	-0.15	OE
9REQ49		0.9173	0.0025	0.16	0.9645	-0.0006	-0.04	OE
9Z6AHH		0.9348	0.0200	1.31	0.9939	0.0287	1.73	OE
AJU2RD		0.9076	-0.0072	-0.48	0.9544	-0.0107	-0.65	XX
AY8JP9		0.9145	-0.0004	-0.02	0.9728	0.0076	0.46	OE
AZJAMQ		0.9240	0.0091	0.60	0.9730	0.0078	0.47	OE
BUVUPC		0.9180	0.0031	0.20	0.9663	0.0012	0.07	WD
BXV7KB		0.9123	-0.0025	-0.17	0.9713	0.0062	0.37	XX
CK2ZZR		0.9130	-0.0019	-0.12	0.9593	-0.0058	-0.35	OE
CMJDKF		0.9100	-0.0049	-0.32	0.9600	-0.0052	-0.31	OE
CPDXWE		0.9450	0.0301	1.98	1.003	0.0382	2.29	GD
CRG2Y2		0.9115	-0.0034	-0.22	0.9549	-0.0103	-0.62	IC
D2NMAB		0.9143	-0.0006	-0.04	0.9648	-0.0003	-0.02	OE
D4BNT4		0.9193	0.0045	0.29	0.9673	0.0022	0.13	OE
D6JPTG		0.9166	0.0017	0.11	0.9658	0.0006	0.04	XX
DQ3RLU	*	0.9543	0.0395	2.59	1.013	0.0482	2.90	GD
E2KLLU		0.9083	-0.0065	-0.43	0.9583	-0.0068	-0.41	OE
ECGRGD	*	0.9190	0.0041	0.27	0.9250	-0.0402	-2.42	IC
EU2JFD		0.9220	0.0071	0.47	0.9850	0.0198	1.19	OE
EW7X2X		0.9012	-0.0136	-0.89	0.9519	-0.0133	-0.80	OE
F6D63J		0.9256	0.0108	0.71	0.9749	0.0097	0.58	OE
G2QW63		0.9018	-0.0131	-0.86	0.9521	-0.0131	-0.79	OE
GAMLB8		0.8827	-0.0322	-2.11	0.9357	-0.0295	-1.77	OE
GHHNDJ		0.9300	0.0151	0.99	0.9827	0.0175	1.05	OE
GQBWXA	*	0.8880	-0.0269	-1.76	0.9550	-0.0102	-0.61	IC
GYL86F		0.9136	-0.0013	-0.08	0.9624	-0.0028	-0.17	OE

		Sample L97			Sample L98			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
H7ZDER	X	0.8571	-0.0578	-3.79	0.8929	-0.0723	-4.35	OE
HPTFQL		0.9052	-0.0096	-0.63	0.9566	-0.0086	-0.52	OE
HZDMRW		0.9063	-0.0085	-0.56	0.9563	-0.0088	-0.53	OE
JFK2MY		0.9197	0.0048	0.31	0.9713	0.0062	0.37	OE
K3DNT6		0.9030	-0.0119	-0.78	0.9488	-0.0163	-0.98	OE
KBPMMF	*	0.9013	-0.0135	-0.89	0.9643	-0.0008	-0.05	IC
KWL8CK		0.9067	-0.0082	-0.54	0.9601	-0.0051	-0.31	XX
LDP2JK		0.8960	-0.0189	-1.24	0.9423	-0.0228	-1.37	GD
LV6JGC		0.9093	-0.0055	-0.36	0.9650	-0.0002	-0.01	OE
LZLR6B	X	0.8637	-0.0512	-3.36	0.9093	-0.0558	-3.36	OE
M8VMA4		0.9184	0.0035	0.23	0.9575	-0.0076	-0.46	XX
MCCZ34	*	0.9523	0.0375	2.46	0.9960	0.0308	1.85	OE
MDYTP8		0.9227	0.0078	0.51	0.9657	0.0005	0.03	IC
MQQFV2		0.8830	-0.0319	-2.09	0.9330	-0.0322	-1.93	OE
NUPYMR		0.8900	-0.0249	-1.63	0.9320	-0.0332	-2.00	GD
PGD3TN		0.9360	0.0211	1.39	0.9920	0.0268	1.61	OE
QJXGU4		0.9260	0.0111	0.73	0.9757	0.0105	0.63	WD
QPLWMG	*	0.9280	0.0131	0.86	0.9927	0.0275	1.65	IC
R4HNU4		0.9167	0.0018	0.12	0.9647	-0.0005	-0.03	XX
RNAFA4		0.9238	0.0089	0.58	0.9647	-0.0004	-0.03	XX
RRKUBE		0.9117	-0.0032	-0.21	0.9620	-0.0032	-0.19	OE
RZYGKH		0.9133	-0.0015	-0.10	0.9627	-0.0025	-0.15	OE
TG48ZT		0.8987	-0.0162	-1.06	0.9490	-0.0162	-0.97	OE
THV7DQ	X	1.050	0.1351	8.86	1.110	0.1448	8.71	XX
U4FEDR		0.9183	0.0035	0.23	0.9670	0.0018	0.11	OE
UQN2NU		0.9048	-0.0101	-0.66	0.9558	-0.0093	-0.56	OE
UX3K9U		0.9407	0.0258	1.69	0.9967	0.0315	1.89	XX
UYG7KG		0.9073	-0.0076	-0.50	0.9629	-0.0022	-0.13	OE
VAX73V		0.8947	-0.0202	-1.33	0.9417	-0.0235	-1.41	OE
VB6UTL		0.9040	-0.0109	-0.71	0.9523	-0.0128	-0.77	OE
VJJG4B		0.9293	0.0145	0.95	0.9763	0.0112	0.67	WD
VL7Z69		0.9140	-0.0009	-0.06	0.9593	-0.0058	-0.35	OE
VMJP7Z		0.9200	0.0051	0.34	0.9740	0.0088	0.53	IC
VVEPNY		0.9117	-0.0032	-0.21	0.9570	-0.0082	-0.49	XX
W2UT8K		0.9389	0.0241	1.58	0.9867	0.0216	1.30	OE
WRU9UK		0.9380	0.0231	1.52	0.9917	0.0265	1.59	IC
WYARCY		0.9067	-0.0082	-0.54	0.9590	-0.0062	-0.37	OE
XLZKND		0.8965	-0.0183	-1.20	0.9564	-0.0088	-0.53	GD
XMRJ3B		0.9233	0.0085	0.55	0.9743	0.0092	0.55	OE
XQD7VY		0.9253	0.0105	0.69	0.9793	0.0142	0.85	OE
XXCVC3		0.8927	-0.0222	-1.46	0.9383	-0.0268	-1.61	OE
Y784KZ		0.9180	0.0031	0.20	0.9623	-0.0028	-0.17	OE
Y97NZK		0.9310	0.0161	1.06	0.9820	0.0168	1.01	XX
YMBMBC	*	0.8733	-0.0415	-2.72	0.9187	-0.0465	-2.80	OE
Z22746		0.8990	-0.0159	-1.04	0.9497	-0.0155	-0.93	XX
Z7ERBQ		0.9117	-0.0032	-0.21	0.9635	-0.0017	-0.10	OE
ZECGUF		0.8970	-0.0179	-1.17	0.9542	-0.0110	-0.66	OE

WebCode	Data Flag	Sample L97 Lab Mean	Sample L97 Diff. from Grand Mean	Sample L97 CPV	Sample L98 Lab Mean	Sample L98 Diff. from Grand Mean	Sample L98 CPV	Method
ZM4Y73		0.9123	-0.0025	-0.17	0.9583	-0.0068	-0.41	OE
ZQ8T7T		0.9103	-0.0046	-0.30	0.9547	-0.0104	-0.63	OE
ZTTFYG		0.9267	0.0118	0.77	0.9827	0.0175	1.05	XX
ZWRQVG		0.9390	0.0241	1.58	0.9917	0.0265	1.59	OE

Summary Statistics

	Sample L97		Sample L98	
Grand Means	0.9149	Percent	0.9652	Percent
Stnd Dev Btwn Labs	0.0152	Percent	0.0166	Percent

Samples L97, L98 : AISI 6150, AISI 6150

Statistics based on 90 of 98 reporting participants

Key to Method Codes Reported by Participants

GD Spectrometry - Glow Discharge (GDS)
IC Spectrometry - Inductively Coupled Plasma (ICP)
OE Spectrometry - Optical Emission (OES)
WD X-Ray Fluorescence - Wavelength Dispersive (WDX)
XX Please Indicate Method Used for Current Element

Comments on Assigned Data Flags for Test #1607

3THK7K (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample L97.

7NK6A9 (X) - Data for sample L98 are low.

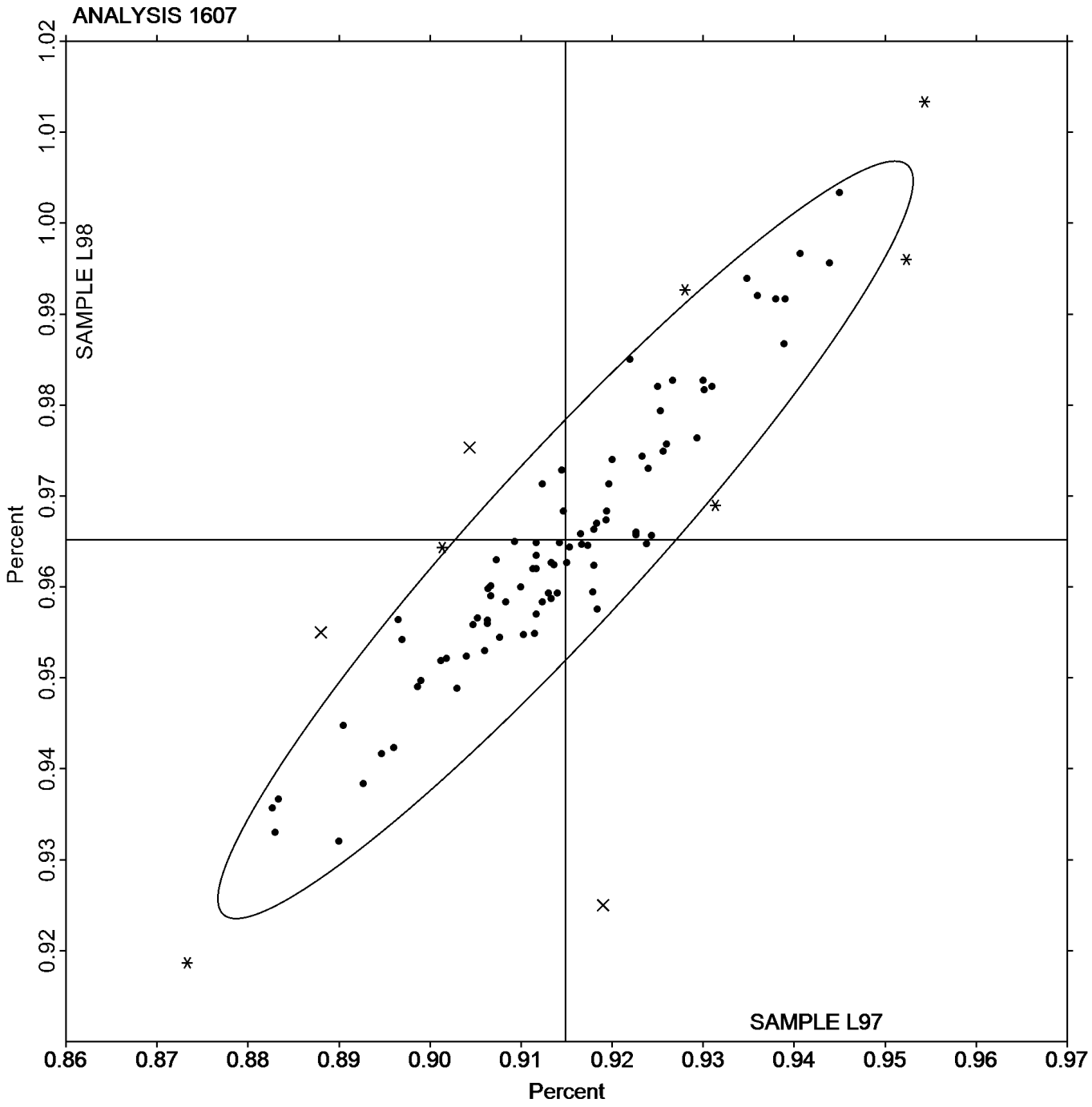
H7ZDER (X) - Data for both samples are low. Possible Systematic Error.

LZLR6B (X) - Data for both samples are low. Possible Systematic Error.

THV7DQ (X) - Data for both samples are high. Possible Systematic Error.

SAMPLE L97
0.9149 Percent

SAMPLE L98
0.9652 Percent



		Sample L97			Sample L98			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2XLYG6		0.1519	0.0000	0.00	0.2118	-0.0031	-0.77	OE
2YC8CR		0.1518	-0.0001	-0.03	0.2185	0.0036	0.89	OE
36JYEX		0.1559	0.0041	1.50	0.2194	0.0045	1.12	XX
3H2ZLN		0.1523	0.0005	0.18	0.2107	-0.0042	-1.05	OE
3H84NF		0.1525	0.0006	0.24	0.2119	-0.0030	-0.74	OE
3THK7K	*	0.1507	-0.0012	-0.44	0.2042	-0.0106	-2.65	OE
3UWZNT		0.1533	0.0015	0.54	0.2153	0.0005	0.11	GD
3VTKBR		0.1513	-0.0005	-0.19	0.2137	-0.0012	-0.30	OE
4AN7BT		0.1519	0.0001	0.03	0.2133	-0.0016	-0.40	OE
4DNEF3		0.1560	0.0041	1.53	0.2197	0.0048	1.19	OE
4GPMHR		0.1507	-0.0012	-0.44	0.2137	-0.0012	-0.30	OE
4KQE2Q		0.1493	-0.0026	-0.94	0.2140	-0.0009	-0.22	OE
4QCCMT		0.1512	-0.0007	-0.24	0.2142	-0.0007	-0.17	OE
4XEGJH		0.1520	0.0001	0.05	0.2200	0.0051	1.28	XX
6BC3B7		0.1501	-0.0018	-0.66	0.2157	0.0008	0.20	OE
78VUM7		0.1533	0.0015	0.54	0.2170	0.0021	0.53	OE
7NK6A9	X	0.1517	-0.0002	-0.07	0.2023	-0.0125	-3.13	OE
83TFCL		0.1537	0.0018	0.68	0.2178	0.0030	0.74	OE
8HUZ4C		0.1490	-0.0029	-1.05	0.2110	-0.0039	-0.97	OE
8QZ33H		0.1547	0.0028	1.04	0.2197	0.0048	1.19	OE
9HKR4M		0.1533	0.0015	0.54	0.2150	0.0001	0.03	OE
9REQ49		0.1520	0.0002	0.06	0.2157	0.0008	0.20	OE
9Z6AHH		0.1550	0.0031	1.15	0.2197	0.0048	1.20	OE
AJU2RD		0.1534	0.0016	0.58	0.2193	0.0044	1.10	XX
AY8JP9		0.1509	-0.0009	-0.34	0.2126	-0.0022	-0.56	OE
AZJAMQ		0.1473	-0.0045	-1.67	0.2100	-0.0049	-1.22	OE
BUVUPC		0.1517	-0.0002	-0.07	0.2097	-0.0052	-1.30	WD
BXV7KB		0.1530	0.0011	0.42	0.2227	0.0078	1.94	XX
CK2ZZR	X	0.1290	-0.0229	-8.43	0.1577	-0.0572	-14.26	OE
CMJDKF		0.1517	-0.0002	-0.07	0.2167	0.0018	0.44	OE
CPDXWE		0.1513	-0.0005	-0.19	0.2177	0.0028	0.69	GD
CRG2Y2		0.1549	0.0030	1.11	0.2140	-0.0008	-0.21	IC
D2NMAB		0.1533	0.0014	0.53	0.2157	0.0009	0.21	OE
D4BNT4		0.1483	-0.0035	-1.30	0.2107	-0.0042	-1.05	OE
D6JPTG		0.1528	0.0009	0.34	0.2132	-0.0016	-0.41	XX
DQ3RLU		0.1530	0.0011	0.42	0.2157	0.0008	0.20	GD
E2KLLU		0.1540	0.0021	0.79	0.2217	0.0068	1.69	OE
ECGRGD		0.1500	-0.0019	-0.69	0.2060	-0.0089	-2.21	IC
EU2JFD		0.1547	0.0028	1.04	0.2170	0.0021	0.53	OE
EW7X2X		0.1567	0.0048	1.79	0.2216	0.0068	1.68	OE
F6D63J		0.1534	0.0015	0.57	0.2176	0.0027	0.68	OE
G2QW63		0.1454	-0.0065	-2.39	0.2042	-0.0107	-2.66	OE
GAMLB8		0.1490	-0.0029	-1.05	0.2083	-0.0065	-1.63	OE
GHHNDJ		0.1483	-0.0035	-1.30	0.2100	-0.0049	-1.22	OE
GQBWXA		0.1527	0.0008	0.30	0.2177	0.0028	0.69	IC
GYL86F		0.1558	0.0039	1.45	0.2163	0.0014	0.35	OE
H7ZDER		0.1489	-0.0030	-1.09	0.2136	-0.0012	-0.31	OE

		Sample L97			Sample L98			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
HPTFQL		0.1515	-0.0004	-0.14	0.2158	0.0009	0.23	OE
HZDMRW		0.1533	0.0015	0.54	0.2167	0.0018	0.44	OE
JFK2MY		0.1483	-0.0035	-1.30	0.2120	-0.0029	-0.72	OE
K3DNT6		0.1534	0.0015	0.56	0.2167	0.0019	0.46	OE
KBPMMF	X	0.1557	0.0038	1.41	0.2447	0.0298	7.42	IC
KWL8CK		0.1504	-0.0015	-0.55	0.2131	-0.0018	-0.44	XX
LDP2JK		0.1540	0.0021	0.79	0.2127	-0.0022	-0.55	GD
LV6JGC		0.1487	-0.0032	-1.18	0.2100	-0.0049	-1.22	OE
LZLR6B		0.1523	0.0005	0.18	0.2160	0.0011	0.28	OE
M8VMA4		0.1535	0.0017	0.62	0.2162	0.0013	0.33	XX
MCCZ34		0.1567	0.0048	1.77	0.2173	0.0025	0.61	OE
MDYTP8		0.1538	0.0020	0.73	0.2143	-0.0006	-0.15	IC
MQQFV2		0.1560	0.0041	1.53	0.2220	0.0071	1.77	OE
NUPYMR		0.1463	-0.0055	-2.04	0.2080	-0.0069	-1.71	GD
PGD3TN		0.1490	-0.0029	-1.05	0.2150	0.0001	0.03	XX
QJXGU4		0.1503	-0.0015	-0.56	0.2117	-0.0032	-0.80	WD
QPLWMG		0.1507	-0.0012	-0.44	0.2150	0.0001	0.03	IC
R4HNU4	X	0.1510	-0.0009	-0.32	0.1867	-0.0282	-7.03	XX
RNAFA4		0.1510	-0.0009	-0.33	0.2119	-0.0029	-0.73	XX
RRKUBE		0.1513	-0.0005	-0.19	0.2137	-0.0012	-0.30	OE
RZYGKH	X	0.1407	-0.0112	-4.13	0.1967	-0.0182	-4.54	OE
TG48ZT		0.1520	0.0001	0.05	0.2153	0.0005	0.11	OE
THV7DQ		0.1583	0.0065	2.39	0.2227	0.0078	1.94	XX
U4FEDR		0.1523	0.0005	0.18	0.2137	-0.0012	-0.30	OE
UQN2NU		0.1535	0.0017	0.62	0.2189	0.0040	1.00	OE
UX3K9U		0.1497	-0.0022	-0.81	0.2070	-0.0079	-1.96	XX
UYG7KG		0.1503	-0.0015	-0.56	0.2111	-0.0037	-0.93	OE
VAX73V		0.1547	0.0028	1.04	0.2203	0.0055	1.36	OE
VB6UTL		0.1516	-0.0002	-0.08	0.2114	-0.0035	-0.88	OE
VJJG4B	X	0.1613	0.0095	3.50	0.2207	0.0058	1.44	WD
VL7Z69	X	0.1290	-0.0229	-8.43	0.1577	-0.0572	-14.26	OE
VMJP7Z		0.1553	0.0035	1.28	0.2180	0.0031	0.78	IC
VVEPNY		0.1477	-0.0042	-1.55	0.2113	-0.0035	-0.88	XX
W2UT8K		0.1483	-0.0036	-1.32	0.2176	0.0027	0.68	OE
WRU9UK		0.1540	0.0021	0.79	0.2170	0.0021	0.53	IC
WYARCY		0.1483	-0.0035	-1.30	0.2113	-0.0035	-0.88	OE
XLZKND		0.1510	-0.0008	-0.30	0.2202	0.0053	1.32	GD
XMRJ3B	X	0.1397	-0.0122	-4.50	0.2023	-0.0125	-3.13	OE
XQD7VY		0.1497	-0.0022	-0.81	0.2153	0.0005	0.11	OE
XVA39W	X	0.1410	-0.0109	-4.01	0.1997	-0.0152	-3.79	OE
XXCVC3		0.1567	0.0048	1.77	0.2203	0.0055	1.36	OE
Y784KZ		0.1493	-0.0025	-0.93	0.2143	-0.0005	-0.14	OE
Y97NZK		0.1487	-0.0032	-1.18	0.2100	-0.0049	-1.22	XX
YMBMBC		0.1537	0.0018	0.67	0.2150	0.0001	0.03	OE
Z22746		0.1460	-0.0059	-2.16	0.2077	-0.0072	-1.80	XX
Z7ERBQ		0.1497	-0.0021	-0.78	0.2178	0.0029	0.73	OE
ZECGUF		0.1550	0.0032	1.17	0.2189	0.0040	0.99	OE

Fasteners and Metals Interlaboratory Testing Program

Analysis 1608

Carbon & Low Alloy Steel, COPPER (Cu)
COPPER (Cu)

		Sample L97			Sample L98			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
ZM4Y73	X	0.1290	-0.0229	-8.43	0.1577	-0.0572	-14.26	OE
ZQ8T7T		0.1529	0.0010	0.38	0.2200	0.0051	1.28	OE
ZTTFYG		0.1536	0.0017	0.63	0.2126	-0.0023	-0.56	XX
ZWRQVG		0.1470	-0.0049	-1.79	0.2093	-0.0055	-1.38	OE

Summary Statistics

	Sample L97		Sample L98	
Grand Means	0.1519	Percent	0.2149	Percent
Stnd Dev Btwn Labs	0.0027	Percent	0.0040	Percent

Samples L97, L98 : AISI 6150, AISI 6150

Statistics based on 87 of 98 reporting participants

Key to Method Codes Reported by Participants

GD Spectrometry - Glow Discharge (GDS)
IC Spectrometry - Inductively Coupled Plasma (ICP)
OE Spectrometry - Optical Emission (OES)
WD X-Ray Fluorescence - Wavelength Dispersive (WDX)
XX Please Indicate Method Used for Current Element

Comments on Assigned Data Flags for Test #1608

7NK6A9 (X) - Data for sample L98 are low.

CK2ZZR (X) - Data for both samples are low.

KBPMMF (X) - Data for sample L98 are high. Inconsistent within the determinations of sample L98.

R4HNU4 (X) - Data for sample L98 are low.

RZYGKH (X) - Data for both samples are low.

VJJG4B (X) - Data for sample L97 are high.

VL7Z69 (X) - Data for both samples are low.

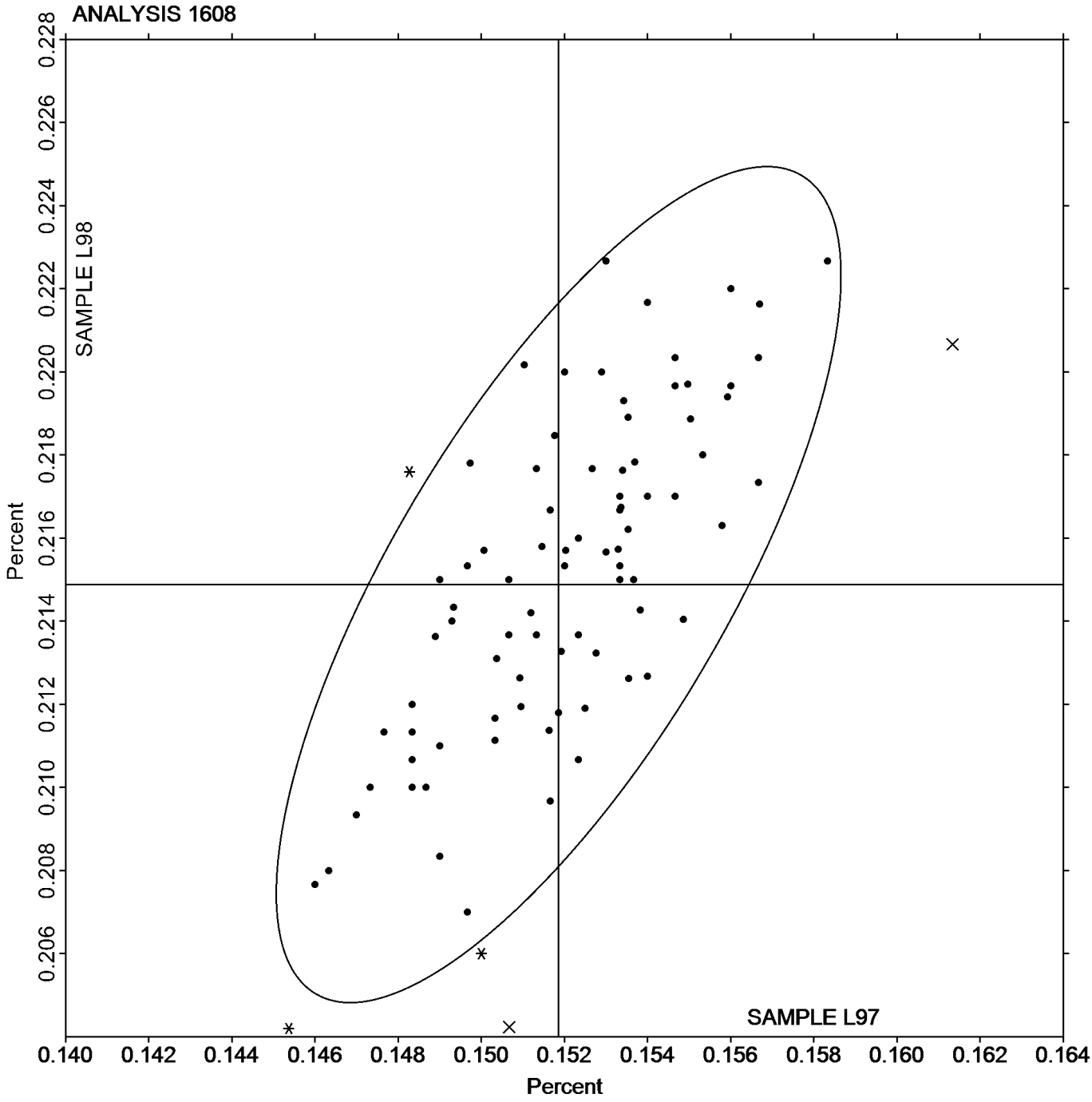
XMRJ3B (X) - Data for both samples are low.

XVA39W (X) - Data for both samples are low.

ZM4Y73 (X) - Data for both samples are low.

SAMPLE L97
0.1519 Percent

SAMPLE L98
0.2149 Percent



		Sample L97			Sample L98			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2XLYG6		0.1520	-0.0031	-0.77	0.1558	-0.0023	-0.55	XX
2YC8CR		0.1539	-0.0011	-0.28	0.1569	-0.0012	-0.28	OE
36JYEX	*	0.1519	-0.0032	-0.80	0.1604	0.0023	0.54	XX
3H2ZLN		0.1550	0.0000	-0.01	0.1580	-0.0001	-0.03	OE
3H84NF		0.1581	0.0030	0.75	0.1613	0.0032	0.76	OE
3THK7K		0.1480	-0.0071	-1.75	0.1497	-0.0084	-2.01	OE
3UWZNT	X	0.1457	-0.0094	-2.33	0.1453	-0.0128	-3.04	GD
3VTKBR		0.1533	-0.0017	-0.43	0.1567	-0.0014	-0.34	OE
4DNEF3	X	0.1650	0.0099	2.46	0.1717	0.0136	3.22	OE
4GPMHR		0.1567	0.0016	0.40	0.1610	0.0029	0.69	OE
4KQE2Q		0.1574	0.0023	0.58	0.1599	0.0018	0.42	OE
4TY9VJ	X	0.1763	0.0213	5.27	0.1763	0.0182	4.33	OE
4XEGJH		0.1523	-0.0027	-0.68	0.1573	-0.0008	-0.19	XX
6BC3B7		0.1558	0.0007	0.17	0.1595	0.0014	0.33	OE
78VUM7		0.1563	0.0013	0.31	0.1597	0.0016	0.37	OE
83TFCL		0.1560	0.0009	0.22	0.1598	0.0017	0.41	OE
8HUZ4C		0.1580	0.0029	0.73	0.1597	0.0016	0.37	OE
8QZ33H		0.1527	-0.0024	-0.60	0.1557	-0.0024	-0.58	OE
9HKR4M	*	0.1553	0.0003	0.07	0.1540	-0.0041	-0.98	OE
9REQ49		0.1545	-0.0005	-0.13	0.1576	-0.0005	-0.11	OE
9Z6AHH		0.1515	-0.0036	-0.89	0.1540	-0.0041	-0.99	OE
AJU2RD		0.1540	-0.0011	-0.27	0.1572	-0.0009	-0.22	XX
AY8JP9		0.1556	0.0005	0.13	0.1601	0.0020	0.47	OE
AZJAMQ		0.1533	-0.0017	-0.43	0.1550	-0.0031	-0.74	OE
BUVUPC		0.1587	0.0036	0.89	0.1610	0.0029	0.69	WD
CK2ZZR		0.1660	0.0109	2.71	0.1673	0.0092	2.19	OE
CMJDKF		0.1563	0.0013	0.31	0.1587	0.0006	0.13	OE
CPDXWE		0.1557	0.0006	0.15	0.1560	-0.0021	-0.50	GD
CRG2Y2		0.1526	-0.0024	-0.60	0.1552	-0.0029	-0.68	IC
D4BNT4		0.1497	-0.0054	-1.34	0.1523	-0.0058	-1.37	OE
D6JPTG		0.1563	0.0012	0.30	0.1569	-0.0012	-0.28	XX
DQ3RLU		0.1503	-0.0047	-1.17	0.1537	-0.0044	-1.06	GD
E2KLLU		0.1477	-0.0074	-1.84	0.1507	-0.0074	-1.77	OE
ECGRGD	*	0.1560	0.0009	0.23	0.1490	-0.0091	-2.17	IC
EU2JFD		0.1533	-0.0017	-0.43	0.1580	-0.0001	-0.03	OE
EW7X2X		0.1550	-0.0001	-0.03	0.1575	-0.0006	-0.15	OE
F6D63J		0.1537	-0.0013	-0.33	0.1557	-0.0024	-0.56	OE
G2QW63		0.1582	0.0032	0.78	0.1619	0.0038	0.91	OE
GAMLB8		0.1596	0.0046	1.13	0.1644	0.0063	1.50	OE
GHHNDJ		0.1560	0.0009	0.23	0.1590	0.0009	0.21	OE
GQBWXA	*	0.1490	-0.0061	-1.51	0.1563	-0.0018	-0.42	IC
GYL86F		0.1587	0.0037	0.91	0.1597	0.0016	0.38	OE
H7ZDER	X	0.1387	-0.0164	-4.07	0.1390	-0.0191	-4.54	OE
HPTFQL		0.1550	-0.0001	-0.02	0.1589	0.0008	0.18	OE
HZDMRW		0.1533	-0.0017	-0.43	0.1577	-0.0004	-0.11	OE
JFK2MY		0.1540	-0.0011	-0.27	0.1570	-0.0011	-0.26	OE
K3DNT6		0.1524	-0.0027	-0.67	0.1546	-0.0035	-0.84	OE

		Sample L97			Sample L98			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
KBPMMF		0.1550	-0.0001	-0.02	0.1600	0.0019	0.45	IC
LDP2JK		0.1533	-0.0017	-0.43	0.1563	-0.0018	-0.42	GD
LV6JGC		0.1500	-0.0051	-1.26	0.1543	-0.0038	-0.91	OE
M8VMA4		0.1493	-0.0058	-1.43	0.1498	-0.0083	-1.98	XX
MCCZ34		0.1577	0.0026	0.64	0.1613	0.0032	0.77	OE
MDYTP8		0.1521	-0.0030	-0.74	0.1543	-0.0038	-0.91	IC
MQQFV2		0.1560	0.0009	0.23	0.1610	0.0029	0.69	OE
NUPYMR		0.1500	-0.0051	-1.26	0.1523	-0.0058	-1.37	GD
PGD3TN		0.1610	0.0059	1.47	0.1670	0.0089	2.11	OE
QJXGU4		0.1597	0.0046	1.14	0.1627	0.0046	1.08	WD
QPLWMG		0.1587	0.0036	0.89	0.1640	0.0059	1.40	IC
R4HNU4		0.1560	0.0009	0.23	0.1580	-0.0001	-0.03	XX
RNAFA4		0.1545	-0.0006	-0.14	0.1572	-0.0009	-0.22	XX
RRKUBE		0.1540	-0.0011	-0.27	0.1583	0.0002	0.05	OE
RZYGKH		0.1567	0.0016	0.40	0.1603	0.0022	0.53	OE
TG48ZT		0.1487	-0.0064	-1.59	0.1520	-0.0061	-1.45	OE
THV7DQ		0.1653	0.0103	2.55	0.1690	0.0109	2.59	XX
U4FEDR		0.1580	0.0029	0.73	0.1610	0.0029	0.69	OE
UQN2NU		0.1537	-0.0014	-0.34	0.1565	-0.0016	-0.38	OE
UX3K9U		0.1607	0.0056	1.39	0.1623	0.0042	1.00	XX
UYG7KG		0.1510	-0.0041	-1.02	0.1555	-0.0026	-0.63	OE
VAX73V		0.1550	-0.0001	-0.02	0.1580	-0.0001	-0.03	OE
VB6UTL		0.1472	-0.0079	-1.95	0.1494	-0.0087	-2.08	OE
VJJG4B		0.1550	-0.0001	-0.02	0.1577	-0.0004	-0.11	WD
VL7Z69		0.1660	0.0109	2.71	0.1673	0.0092	2.19	OE
VMJP7Z		0.1550	-0.0001	-0.02	0.1567	-0.0014	-0.34	IC
VVEPNY		0.1493	-0.0057	-1.42	0.1503	-0.0078	-1.85	XX
W2UT8K		0.1535	-0.0016	-0.39	0.1561	-0.0020	-0.47	OE
WRU9UK		0.1580	0.0029	0.73	0.1600	0.0019	0.45	IC
WYARCY		0.1514	-0.0037	-0.91	0.1544	-0.0037	-0.88	OE
XLZKND		0.1481	-0.0070	-1.73	0.1526	-0.0055	-1.32	GD
XMRJ3B		0.1573	0.0023	0.56	0.1603	0.0022	0.53	OE
XQD7VY		0.1547	-0.0004	-0.10	0.1580	-0.0001	-0.03	OE
XVA39W		0.1527	-0.0024	-0.60	0.1533	-0.0048	-1.14	OE
XXCVC3	X	0.1673	0.0123	3.04	0.1677	0.0096	2.27	OE
Y784KZ		0.1543	-0.0007	-0.18	0.1593	0.0012	0.29	OE
Y97NZK		0.1563	0.0013	0.31	0.1597	0.0016	0.37	XX
YMBMBC		0.1597	0.0046	1.14	0.1637	0.0056	1.32	OE
Z22746		0.1603	0.0053	1.31	0.1637	0.0056	1.32	XX
Z7ERBQ		0.1565	0.0014	0.35	0.1604	0.0023	0.54	OE
ZECGUF	X	0.1433	-0.0118	-2.93	0.1519	-0.0062	-1.49	OE
ZM4Y73		0.1660	0.0109	2.71	0.1673	0.0092	2.19	OE
ZQ8T7T		0.1510	-0.0041	-1.02	0.1560	-0.0021	-0.50	OE
ZTTFYG		0.1526	-0.0025	-0.61	0.1542	-0.0039	-0.92	XX
ZWRQVG		0.1577	0.0026	0.64	0.1627	0.0046	1.08	OE

Summary Statistics

	Sample L97		Sample L98	
Grand Means	0.1551	Percent	0.1581	Percent
Stnd Dev Btwn Labs	0.0040	Percent	0.0042	Percent

Samples L97, L98 : AISI 6150, AISI 6150

Statistics based on 82 of 92 reporting participants

Key to Method Codes Reported by Participants

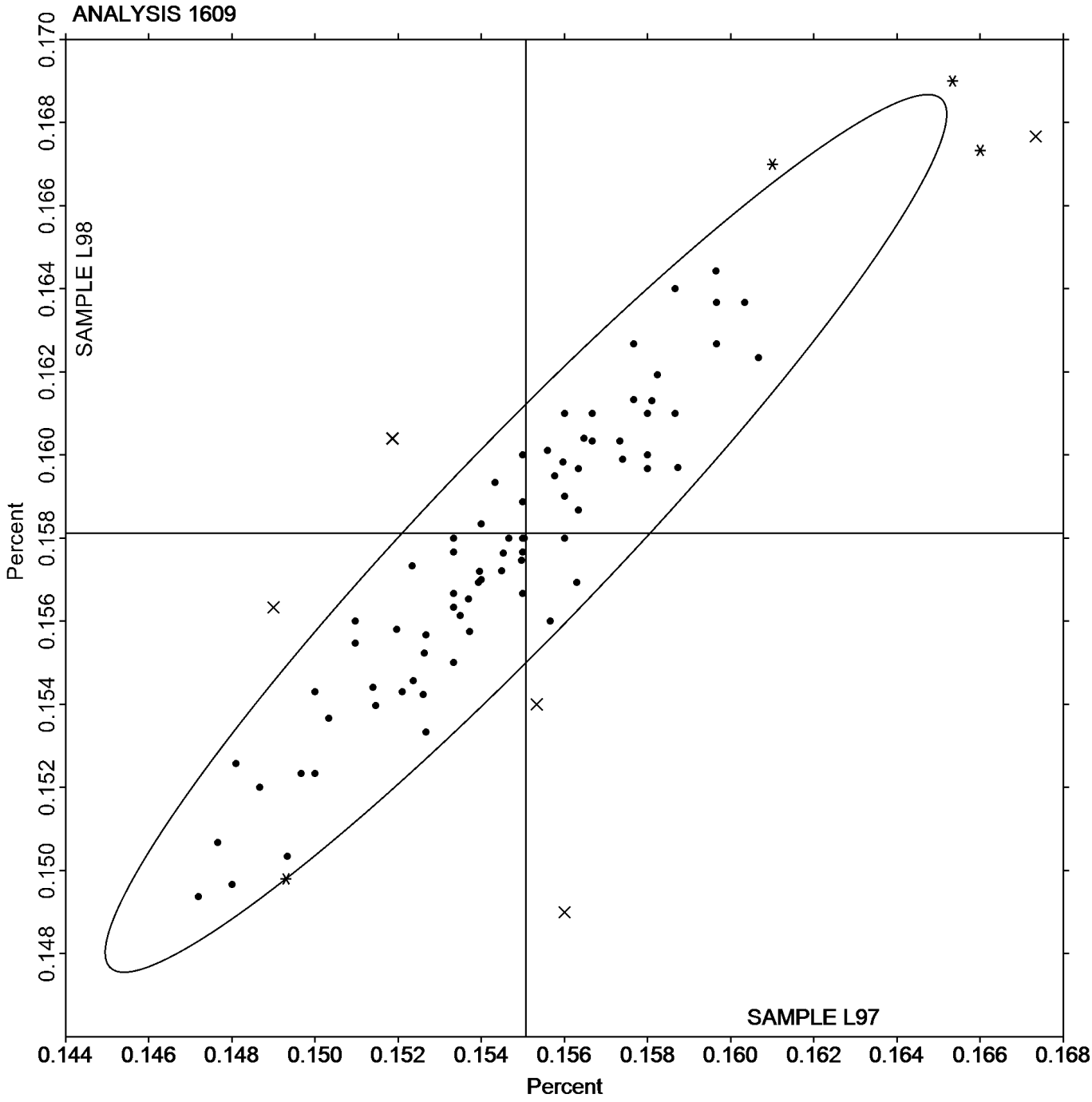
GD Spectrometry - Glow Discharge (GDS)
IC Spectrometry - Inductively Coupled Plasma (ICP)
OE Spectrometry - Optical Emission (OES)
WD X-Ray Fluorescence - Wavelength Dispersive (WDX)
XX Please Indicate Method Used for Current Element

Comments on Assigned Data Flags for Test #1609

3UWZNT (X) - Data for sample L98 are low.
4DNEF3 (X) - Data for sample L98 are high.
4TY9VJ (X) - Data for both samples are high. Possible Systematic Error.
H7ZDER (X) - Data for both samples are low. Possible Systematic Error.
XXCVC3 (X) - Data for sample L97 are high.
ZECGUF (X) - Data for sample L97 are low.

SAMPLE L97
0.1551 Percent

SAMPLE L98
0.1581 Percent



		Sample L97			Sample L98			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2XLYG6		0.0230	-0.0016	-0.84	0.0347	-0.0007	-0.31	OE
2YC8CR		0.0271	0.0025	1.35	0.0404	0.0050	2.30	OE
36JYEX		0.0226	-0.0019	-1.03	0.0325	-0.0029	-1.30	XX
3H2ZLN		0.0250	0.0004	0.23	0.0357	0.0003	0.13	XX
3H84NF		0.0276	0.0030	1.61	0.0390	0.0036	1.64	OE
3THK7K		0.0249	0.0004	0.20	0.0360	0.0006	0.28	OE
3UWZNT		0.0293	0.0047	2.51	0.0395	0.0041	1.86	GD
3VTKBR		0.0247	0.0001	0.06	0.0350	-0.0004	-0.18	OE
4AN7BT		0.0226	-0.0019	-1.02	0.0335	-0.0019	-0.84	OE
4DNEF3	X	0.0245	-0.0001	-0.03	0.1687	0.1333	60.64	XX
4GPMHR		0.0250	0.0004	0.22	0.0362	0.0008	0.35	OE
4KQE2Q		0.0259	0.0013	0.69	0.0367	0.0013	0.61	OE
4QCCMT		0.0250	0.0005	0.25	0.0349	-0.0005	-0.24	OE
4XEGJH		0.0268	0.0022	1.17	0.0383	0.0029	1.34	XX
6BC3B7		0.0247	0.0001	0.08	0.0355	0.0001	0.04	OE
78VUM7		0.0252	0.0006	0.34	0.0363	0.0009	0.43	OE
7NK6A9		0.0210	-0.0036	-1.88	0.0317	-0.0037	-1.69	OE
83TFCL		0.0242	-0.0004	-0.21	0.0348	-0.0006	-0.25	OE
8HUZ4C		0.0249	0.0003	0.18	0.0359	0.0005	0.25	OE
8QZ33H		0.0256	0.0011	0.57	0.0374	0.0020	0.92	OE
9HKR4M		0.0267	0.0021	1.12	0.0360	0.0006	0.28	OE
9REQ49		0.0235	-0.0011	-0.58	0.0352	-0.0002	-0.09	OE
9Z6AHH		0.0248	0.0003	0.15	0.0365	0.0011	0.49	OE
AJU2RD		0.0241	-0.0004	-0.22	0.0339	-0.0015	-0.66	XX
AY8JP9		0.0240	-0.0005	-0.28	0.0347	-0.0007	-0.31	IC
AZJAMQ		0.0232	-0.0013	-0.70	0.0344	-0.0010	-0.46	OE
BUVUPC		0.0218	-0.0027	-1.44	0.0333	-0.0021	-0.93	OE
BXV7KB		0.0223	-0.0023	-1.19	0.0350	-0.0004	-0.16	XX
CK2ZZR	X	0.0201	-0.0045	-2.37	0.1033	0.0679	30.92	OE
CMJDKF		0.0240	-0.0006	-0.29	0.0352	-0.0002	-0.09	OE
CPDXWE		0.0249	0.0003	0.16	0.0358	0.0004	0.19	GD
CRG2Y2		0.0225	-0.0021	-1.09	0.0323	-0.0031	-1.42	IC
D2NMAB		0.0238	-0.0008	-0.40	0.0351	-0.0003	-0.13	OE
D4BNT4		0.0234	-0.0012	-0.63	0.0336	-0.0018	-0.81	OE
D6JPTG		0.0243	-0.0003	-0.15	0.0350	-0.0004	-0.16	XX
DQ3RLU		0.0293	0.0048	2.53	0.0403	0.0049	2.25	GD
E2KLLU		0.0225	-0.0021	-1.10	0.0331	-0.0023	-1.06	OE
ECGRGD		0.0220	-0.0026	-1.35	0.0330	-0.0024	-1.09	IC
EU2JFD	*	0.0201	-0.0045	-2.37	0.0293	-0.0061	-2.75	OE
EW7X2X		0.0244	-0.0001	-0.06	0.0363	0.0009	0.43	OE
F6D63J		0.0247	0.0001	0.06	0.0353	-0.0001	-0.04	OE
G2QW63		0.0251	0.0005	0.27	0.0369	0.0015	0.67	OE
GAMLB8		0.0250	0.0004	0.22	0.0359	0.0005	0.22	OE
GHHNDJ		0.0228	-0.0018	-0.93	0.0342	-0.0012	-0.56	OE
GQBWXA		0.0281	0.0035	1.86	0.0385	0.0031	1.43	IC
GYL86F		0.0277	0.0032	1.68	0.0383	0.0029	1.31	OE
H7ZDER		0.0284	0.0039	2.05	0.0388	0.0034	1.54	OE

		Sample L97			Sample L98			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
HPTFQL		0.0255	0.0009	0.48	0.0351	-0.0003	-0.15	OE
HZDMRW		0.0245	-0.0001	-0.05	0.0358	0.0004	0.17	OE
JFK2MY		0.0243	-0.0002	-0.12	0.0360	0.0006	0.28	OE
K3DNT6		0.0255	0.0010	0.52	0.0368	0.0014	0.66	OE
KBPMMF		0.0216	-0.0029	-1.55	0.0309	-0.0045	-2.03	IC
KWL8CK		0.0258	0.0012	0.66	0.0369	0.0015	0.67	XX
LDP2JK		0.0260	0.0014	0.76	0.0380	0.0026	1.19	GD
LV6JGC		0.0242	-0.0003	-0.17	0.0347	-0.0007	-0.31	OE
M8VMA4		0.0231	-0.0015	-0.79	0.0342	-0.0012	-0.53	XX
MCCZ34		0.0239	-0.0007	-0.36	0.0344	-0.0010	-0.46	OE
MDYTP8		0.0254	0.0008	0.45	0.0371	0.0017	0.78	IC
MQQFV2		0.0242	-0.0004	-0.19	0.0359	0.0005	0.23	OE
NUPYMR		0.0253	0.0008	0.41	0.0350	-0.0004	-0.18	GD
PGD3TN		0.0263	0.0017	0.92	0.0372	0.0018	0.82	OE
QPLWMG		0.0278	0.0032	1.70	0.0390	0.0036	1.64	IC
R4HNU4		0.0220	-0.0025	-1.33	0.0314	-0.0040	-1.80	XX
RNAFA4		0.0273	0.0028	1.47	0.0374	0.0020	0.89	XX
RRKUBE		0.0246	0.0001	0.04	0.0354	0.0000	0.02	OE
RZYGKH		0.0240	-0.0006	-0.29	0.0350	-0.0004	-0.18	OE
TG48ZT		0.0250	0.0005	0.25	0.0362	0.0008	0.38	OE
THV7DQ	X	0.0187	-0.0059	-3.11	0.0313	-0.0041	-1.84	XX
U4FEDR		0.0240	-0.0005	-0.28	0.0338	-0.0016	-0.72	OE
UQN2NU		0.0239	-0.0007	-0.36	0.0364	0.0010	0.48	OE
UX3K9U		0.0227	-0.0019	-1.00	0.0330	-0.0024	-1.09	XX
VAX73V		0.0230	-0.0016	-0.82	0.0333	-0.0021	-0.93	OE
VB6UTL		0.0238	-0.0007	-0.38	0.0339	-0.0015	-0.68	OE
VL7Z69	X	0.0201	-0.0045	-2.37	0.1033	0.0679	30.92	OE
VMJP7Z		0.0251	0.0006	0.31	0.0351	-0.0003	-0.12	IC
VVEPNY		0.0240	-0.0005	-0.28	0.0339	-0.0015	-0.66	XX
W2UT8K		0.0213	-0.0033	-1.74	0.0315	-0.0039	-1.78	OE
WRU9UK		0.0251	0.0006	0.31	0.0359	0.0005	0.23	IC
XLZKND		0.0238	-0.0008	-0.42	0.0338	-0.0015	-0.70	GD
XMRJ3B		0.0243	-0.0002	-0.12	0.0350	-0.0004	-0.18	OE
XQD7VY		0.0244	-0.0001	-0.06	0.0353	-0.0001	-0.05	OE
XVA39W		0.0257	0.0011	0.59	0.0360	0.0006	0.28	OE
XXCVC3		0.0213	-0.0032	-1.70	0.0317	-0.0037	-1.69	OE
Y784KZ		0.0250	0.0004	0.23	0.0347	-0.0007	-0.33	OE
Y97NZK		0.0240	-0.0006	-0.29	0.0370	0.0016	0.73	XX
YKGXPV		0.0290	0.0044	2.35	0.0410	0.0056	2.55	OE
YMBMBC		0.0237	-0.0009	-0.47	0.0330	-0.0024	-1.09	OE
Z22746		0.0220	-0.0026	-1.35	0.0320	-0.0034	-1.54	XX
Z7ERBQ		0.0256	0.0011	0.57	0.0366	0.0012	0.57	OE
ZECGUF		0.0213	-0.0033	-1.72	0.0329	-0.0025	-1.13	OE
ZM4Y73	X	0.0201	-0.0045	-2.37	0.1033	0.0679	30.92	OE
ZQ8T7T		0.0261	0.0016	0.83	0.0382	0.0028	1.28	OE
ZTTFYG		0.0252	0.0006	0.33	0.0355	0.0001	0.04	XX
ZWRQVG		0.0262	0.0017	0.89	0.0376	0.0022	0.99	OE

Summary Statistics

	Sample L97		Sample L98	
Grand Means	0.0246	Percent	0.0354	Percent
Stnd Dev Btwn Labs	0.0019	Percent	0.0022	Percent

Samples L97, L98 : AISI 6150, AISI 6150

Statistics based on 89 of 94 reporting participants

Key to Method Codes Reported by Participants

GD	Spectrometry - Glow Discharge (GDS)	IC	Spectrometry - Inductively Coupled Plasma (ICP)
OE	Spectrometry - Optical Emission (OES)	XX	Please Indicate Method Used for Current Element

Comments on Assigned Data Flags for Test #1613

4DNEF3 (X) - Data for sample L98 are extreme. Inconsistent within the determinations of sample L98.

CK2ZZR (X) - Data for sample L98 are extreme.

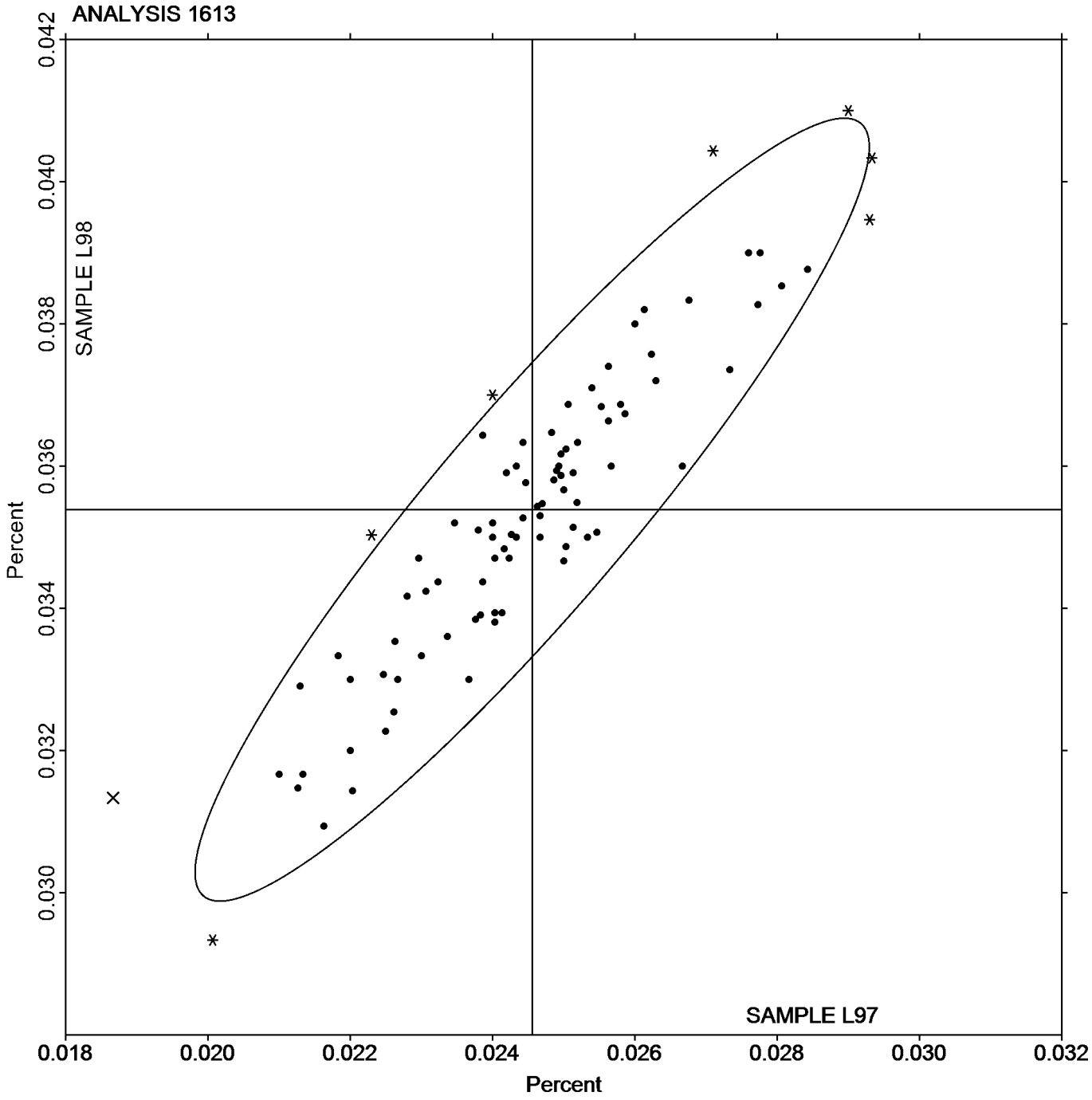
THV7DQ (X) - Data for sample L97 are low.

VL7Z69 (X) - Data for sample L98 are extreme.

ZM4Y73 (X) - Data for sample L98 are extreme.

SAMPLE L97
0.0246 Percent

SAMPLE L98
0.0354 Percent



-End of Report-

