Collaborative Testing Services, Inc.

Fasteners & Metals Interlaboratory Testing Program

Summary Report Cycle 116, 4th Qtr 2016

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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, 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 50 countries, currently participate in the CTS programs.
For further information contact:

COLLABORATIVE TESTING SERVICES, INC.
21331 Gentry Drive
Sterling, VA 20166

Phone: (571) 434-1925
FAX: (571)434-1937
e-mail: metals@cts-interlab.com
www.collaborativetesting.com
Office Hours: 8:00 a.m. - 4:30 p.m. ET

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.

		Sample X39			Sample X40		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2424VN		143.03	-1.21	-0.80	167.40	0.36	0.20
2FQPZD		145.57	1.32	0.87	168.77	1.73	0.96
2NVXQK		142.40	-1.85	-1.22	164.83	-2.20	-1.23
2TGXYK	*	139.60	-4.65	-3.07	163.87	-3.17	-1.77
2TU9BD		143.73	-0.51	-0.34	168.34	1.30	0.73
2UBLEV		145.17	0.92	0.61	165.77	-1.27	-0.71
2W3XZL		145.98	1.73	1.14	167.94	0.91	0.50
3EHB6X		144.33	0.09	0.06	166.67	-0.37	-0.21
3FVXPX		143.50	-0.75	-0.49	166.17	-0.87	-0.49
3MD4NP		144.47	0.22	0.15	165.41	-1.63	-0.91
3XAEQ6		146.21	1.96	1.30	170.26	3.23	1.80
4VGZKR		145.53	1.28	0.84	168.51	1.48	0.82
66DYJ7		144.67	0.42	0.28	169.00	1.96	1.09
6AG3ZE		143.30	-0.95	-0.62	168.67	1.63	0.91
6HR9RB		144.27	0.02	0.01	167.67	0.63	0.35
74PCTA		144.81	0.56	0.37	170.11	3.07	1.71
7FGRU4		145.23	0.99	0.65	167.43	0.40	0.22
7XXWFV		145.80	1.55	1.02	169.87	2.83	1.58
7Z82V6		143.61	-0.63	-0.42	166.41	-0.63	-0.35
9LV2R6		144.33	0.09	0.06	166.40	-0.64	-0.36
AZBXNY	X	144.00	-0.25	-0.16	173.00	5.96	3.32
BAGYPP		142.43	-1.81	-1.20	168.17	1.13	0.63
BCGRJ3	*	148.04	3.79	2.50	169.80	2.77	1.54
BKCBZH	X	152.01	7.76	5.12	174.91	7.87	4.38
BMM2B8		143.97	-0.28	-0.18	165.23	-1.80	-1.01
CGCCBB		141.97	-2.28	-1.50	167.63	0.60	0.33
D7ACBC		141.48	-2.77	-1.83	164.75	-2.29	-1.28
ETZ3XL		142.96	-1.28	-0.85	165.82	-1.22	-0.68
GNGP9J		143.67	-0.57	-0.38	169.14	2.10	1.17
GNZNC9		144.23	-0.01	-0.01	164.73	-2.30	-1.28
GYERAR		146.30	2.05	1.35	166.60	-0.44	-0.24
H7RMPF		147.10	2.86	1.89	170.10	3.07	1.71
J7NTNR		142.14	-2.11	-1.39	167.67	0.63	0.35
JF9Q8Y		143.15	-1.09	-0.72	164.69	-2.35	-1.31
JYA387		145.06	0.82	0.54	167.82	0.78	0.44
K2RTKF		142.83	-1.41	-0.93	166.91	-0.13	-0.07
KG3E7Q		142.28	-1.97	-1.30	167.37	0.33	0.19
KJ8LAX		144.80	0.55	0.36	167.81	0.77	0.43
L8BE78	X	152.91	8.67	5.72	177.00	9.96	5.55
LA6VT3		144.70	0.45	0.30	167.73	0.70	0.39
LJMJEN		142.90	-1.34	-0.89	166.35	-0.69	-0.38
M24XH6		144.65	0.40	0.27	168.89	1.85	1.03
MKXYA2		143.50	-0.75	-0.49	168.68	1.65	0.92
MMKDXB	*	147.99	3.74	2.47	166.60	-0.44	-0.24
N9XP44	*	145.32	1.07	0.71	163.48	-3.55	-1.98
P82GM8		143.33	-0.91	-0.60	166.87	-0.17	-0.10
PD4M3A	X	143.89	-0.35	-0.23	157.50	-9.53	-5.31

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Fasteners and Metals Interlaboratory Testing Program

Analysis 115

Fastener Wedge Tensile (10 degree)

ASTM F606

Cycle 116
4th Qtr 2016

		Sample X39			Sample X40		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
PHKT26		144.30	0.05	0.04	165.81	-1.23	-0.69
PL6T6R		144.93	0.69	0.45	167.40	0.36	0.20
PNLQBN		143.33	-0.91	-0.60	165.33	-1.70	-0.95
PVRWA7		145.60	1.35	0.89	166.80	-0.24	-0.13
PXURT9		142.83	-1.41	-0.93	168.80	1.76	0.98
QBZCNL		142.09	-2.16	-1.42	164.83	-2.21	-1.23
QGMTMQ		145.86	1.61	1.06	166.66	-0.37	-0.21
R96C7V		143.20	-1.05	-0.69	166.80	-0.24	-0.13
RFRQWT		145.07	0.82	0.54	165.47	-1.57	-0.88
RKXCX6		142.33	-1.91	-1.26	163.67	-3.37	-1.88
TE8LPE		143.16	-1.09	-0.72	165.26	-1.78	-0.99
UAQD2E		143.57	-0.68	-0.45	164.13	-2.90	-1.62
UHM9ZY		145.70	1.45	0.96	169.83	2.80	1.56
UUGPNE		144.90	0.65	0.43	168.27	1.23	0.68
VVAZ3D		145.00	0.75	0.50	167.17	0.13	0.07
WB84XH		142.37	-1.87	-1.24	166.56	-0.48	-0.27
WC9EWD		145.00	0.75	0.49	168.13	1.09	0.61
WD8DJR		146.25	2.00	1.32	169.97	2.93	1.63
WDDLZK		145.03	0.78	0.52	166.52	-0.52	-0.29
WDY62L		145.35	1.10	0.73	164.01	-3.03	-1.69
WWU7XU	X	160.77	16.53	10.90	188.36	21.32	11.88
Y3GQ3M		144.33	0.09	0.06	165.17	-1.87	-1.04
Y666QW	X	11,403	11,259.09	7,427.6	13,190	13,022.96	7,252.6
YE8DKB	X	138.13	-6.11	-4.03	166.20	-0.84	-0.47
YF277L		143.53	-0.71	-0.47	169.90	2.86	1.59
YFMUGP		144.83	0.58	0.38	168.28	1.24	0.69
YQD9ZD		144.12	-0.13	-0.09	165.13	-1.90	-1.06
ZPY2DB		143.98	-0.26	-0.17	165.00	-2.04	-1.14
ZWK9FU	X	168.17	23.92	15.78	171.18	4.14	2.31
ZYRU3U		146.00	1.75	1.16	168.40	1.36	0.76

Summary Statistics

	Sample X39		Sample X40	
Grand Means	144.25	ksi	167.04	ksi
Stnd Dev Btwn Labs	1.52	ksi	1.80	ksi

Samples X39, X40 : 3/8-16x2 1/4, 3/8-16x2 1/4

Statistics based on 69 of 77 reporting participants

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AZBXNY (X) - Data for sample X40 are high.

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

L8BE78 (X) - Data for both samples are high. Inconsistent within the determinations of sample X39.

PD4M3A (X) - Data for sample X40 are low. Inconsistent within the determinations of sample X40.

WWU7XU (X) - Data for both samples are high.

Y666QW (X) - Extreme Data

YE8DKB (X) - Data for sample X39 are low. Inconsistent within the determinations of sample X39.

ZWK9FU (X) - Data for sample X39 are high.

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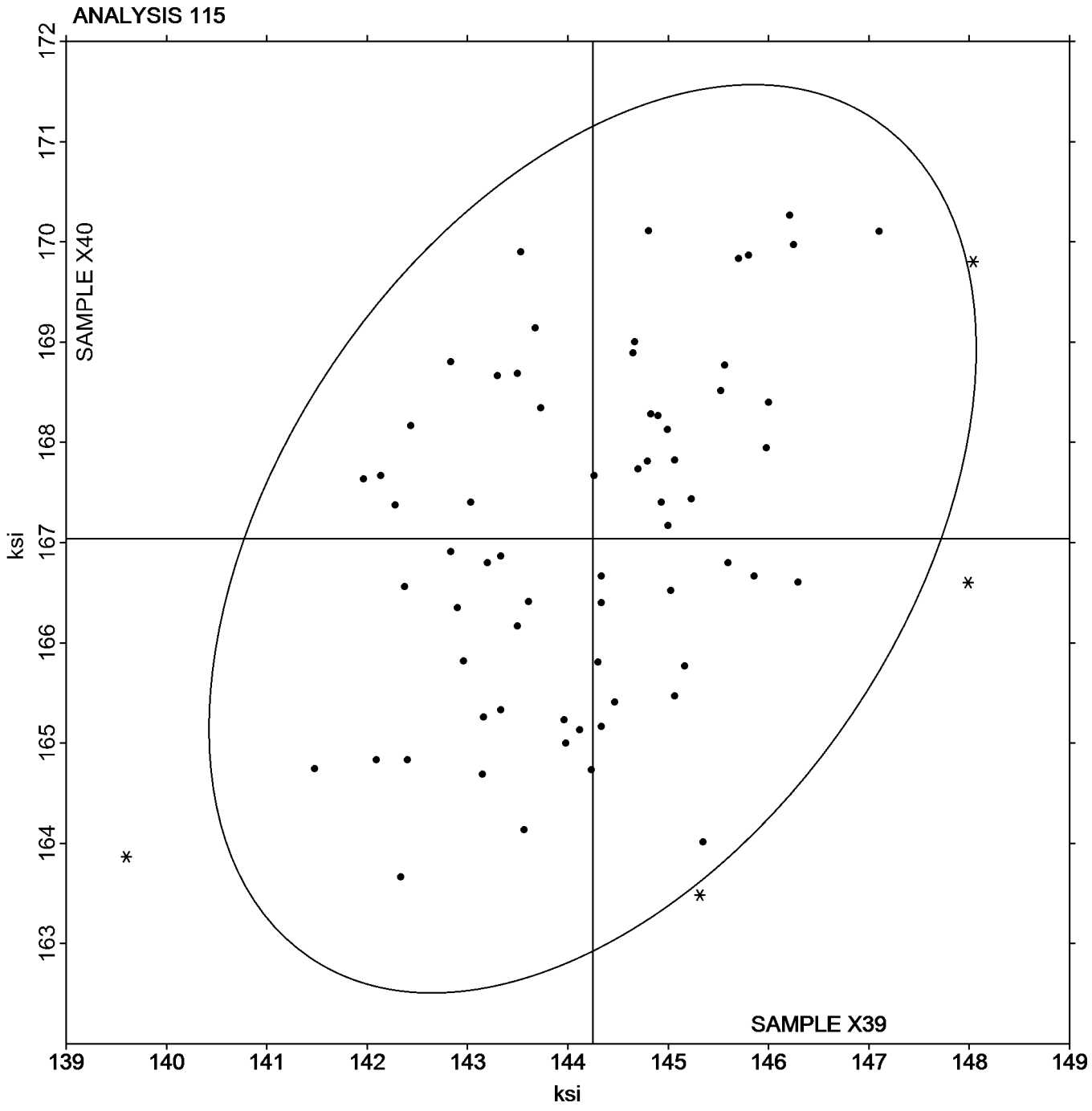
SAMPLE X39	SAMPLE X40
144.25 ksi	167.04 ksi



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		Sample Q39			Sample Q40		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2424VN		144.23	-0.49	-0.33	168.30	0.07	0.04
29WZGA		145.67	0.94	0.62	167.97	-0.26	-0.15
2FQPZD		145.40	0.68	0.45	168.00	-0.23	-0.13
2NVXQK		143.23	-1.49	-0.99	166.57	-1.66	-0.95
2W3XZL		144.81	0.08	0.06	169.19	0.97	0.55
3EHB6X		144.33	-0.39	-0.26	167.67	-0.56	-0.32
3FVXPX		144.33	-0.39	-0.26	165.40	-2.83	-1.62
3MD4NP		146.63	1.91	1.26	171.97	3.74	2.14
3XAEQ6		146.70	1.97	1.30	171.53	3.30	1.89
42PBUL		145.98	1.26	0.83	168.73	0.50	0.29
46HWJH		142.09	-2.63	-1.74	167.97	-0.25	-0.15
4VGZKR		146.11	1.39	0.92	170.65	2.42	1.38
66DYJ7		147.00	2.28	1.50	168.33	0.11	0.06
6AG3ZE	X	145.83	1.11	0.73	175.67	7.44	4.26
73QVR6		144.89	0.17	0.11	167.37	-0.85	-0.49
74PCTA		145.85	1.13	0.75	171.27	3.04	1.74
7FGRU4		145.00	0.28	0.18	167.67	-0.56	-0.32
7XXWFV		146.23	1.51	1.00	169.47	1.24	0.71
7Z82V6		143.14	-1.59	-1.05	168.56	0.33	0.19
8GHUV8		144.21	-0.51	-0.34	169.89	1.66	0.95
AB9GR7		146.67	1.94	1.28	168.67	0.44	0.25
AKDAGZ		147.54	2.81	1.86	168.30	0.07	0.04
AVHVMK		144.01	-0.72	-0.47	170.46	2.23	1.28
B62R2Q		145.57	0.84	0.56	166.70	-1.53	-0.87
BAGYPP		144.47	-0.26	-0.17	167.00	-1.23	-0.70
BCGRJ3		147.94	3.22	2.13	171.23	3.00	1.72
BKCBZH	*	148.43	3.70	2.45	173.22	4.99	2.85
BXJYBZ		145.33	0.61	0.40	166.40	-1.83	-1.04
CBZXG8		144.65	-0.07	-0.05	167.13	-1.10	-0.63
CGCCBB		142.63	-2.09	-1.38	166.17	-2.06	-1.18
CXY2XQ		146.33	1.61	1.06	168.67	0.44	0.25
D7ACBC		142.48	-2.24	-1.48	167.81	-0.41	-0.24
E2LPRH		141.03	-3.69	-2.44	165.87	-2.36	-1.35
ETZ3XL		143.32	-1.41	-0.93	168.18	-0.05	-0.03
GNGP9J		144.11	-0.62	-0.41	167.85	-0.38	-0.22
GNZNC9		142.90	-1.82	-1.21	168.83	0.61	0.35
GYERAR		146.01	1.28	0.85	171.19	2.97	1.70
H7RMPF		144.17	-0.56	-0.37	170.52	2.29	1.31
J7NTNR		142.14	-2.59	-1.71	167.86	-0.37	-0.21
JF9Q8Y		143.86	-0.86	-0.57	168.06	-0.17	-0.09
JYA387		143.50	-1.22	-0.81	167.07	-1.16	-0.66
K2RTKF		142.18	-2.55	-1.69	166.35	-1.88	-1.07
K8U4YV	X	157.21	12.48	8.26	176.12	7.89	4.51
KJ8LAX		145.33	0.60	0.40	167.71	-0.51	-0.29
KLW8G9		143.93	-0.80	-0.53	168.21	-0.02	-0.01
LA6VT3		144.17	-0.56	-0.37	167.57	-0.66	-0.38
LJMJEN		141.87	-2.85	-1.89	167.90	-0.33	-0.19

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		Sample Q39			Sample Q40		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
LKGQL2		146.65	1.93	1.28	167.59	-0.63	-0.36
LKTR4U	X	150.13	5.41	3.58	177.87	9.64	5.51
LNUT8X		145.72	1.00	0.66	170.58	2.35	1.35
M24XH6		142.95	-1.77	-1.17	166.75	-1.47	-0.84
MMKDXB		146.49	1.76	1.17	168.68	0.45	0.26
N9XP44		145.42	0.70	0.46	166.05	-2.18	-1.25
NMH8W8		142.33	-2.39	-1.58	167.46	-0.77	-0.44
P82GM8		142.23	-2.49	-1.65	168.27	0.04	0.02
PL6T6R		144.30	-0.42	-0.28	168.77	0.54	0.31
PNLQBN		144.67	-0.06	-0.04	167.00	-1.23	-0.70
PV9VLH		146.67	1.94	1.28	169.33	1.11	0.63
PVNFQD		144.30	-0.42	-0.28	169.25	1.02	0.58
PVRWA7		145.03	0.31	0.20	165.27	-2.96	-1.69
PWYJLK		141.90	-2.82	-1.87	167.37	-0.86	-0.49
Q329FW		145.60	0.88	0.58	169.61	1.38	0.79
QBZCNL		144.27	-0.45	-0.30	167.25	-0.98	-0.56
QGMTMQ		144.24	-0.48	-0.32	168.64	0.41	0.23
QJQWRY	X	162.08	17.35	11.48	194.66	26.43	15.12
R7J4ZL	*	145.14	0.42	0.28	172.93	4.71	2.69
R96C7V		144.33	-0.39	-0.26	167.27	-0.96	-0.55
RKECFU		145.70	0.97	0.64	168.78	0.55	0.32
RKXCX6		146.15	1.43	0.94	167.53	-0.70	-0.40
RYV8VQ		146.00	1.28	0.84	168.66	0.44	0.25
TDUHVH		145.30	0.58	0.38	166.73	-1.49	-0.85
TE8LPE		144.42	-0.30	-0.20	167.36	-0.87	-0.50
TJG2FK		144.65	-0.08	-0.05	168.29	0.07	0.04
UHM9ZY		145.03	0.31	0.20	168.60	0.37	0.21
UUGPNE		143.33	-1.39	-0.92	169.20	0.97	0.56
VVAZ3D		143.97	-0.76	-0.50	166.67	-1.56	-0.89
WCUTMB		144.74	0.01	0.01	167.48	-0.74	-0.42
WDDLZK		142.58	-2.14	-1.42	166.97	-1.26	-0.72
WDY62L		143.73	-0.99	-0.66	164.86	-3.36	-1.92
WWU7XU		145.18	0.45	0.30	168.99	0.77	0.44
WZUF7B		144.37	-0.36	-0.24	166.57	-1.66	-0.95
X2ZL4R		146.50	1.78	1.17	171.60	3.37	1.93
XNZCLH		144.23	-0.49	-0.33	168.87	0.64	0.37
XWD72K		147.10	2.38	1.57	168.90	0.67	0.39
Y666QW	X	11,500	11,355.28	7,511.3	13,290	13,121.77	7,504.9
Y6H8AJ		146.67	1.94	1.28	169.00	0.77	0.44
YFMUGP		145.37	0.64	0.43	168.55	0.33	0.19
YQD9ZD		144.96	0.24	0.16	166.94	-1.29	-0.74
YZ2XZL	*	143.68	-1.04	-0.69	163.18	-5.04	-2.88
Z9XZZC		144.00	-0.72	-0.48	165.33	-2.89	-1.65
ZPY2DB		146.03	1.31	0.87	168.00	-0.22	-0.13
ZYRU3U		144.70	-0.02	-0.02	169.13	0.91	0.52

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Summary Statistics

	Sample Q39		Sample Q40	
Grand Means	144.72	ksi	168.23	ksi
Stnd Dev Btwn Labs	1.51	ksi	1.75	ksi

Samples Q39, Q40 : 3/8-16x2 1/4, 3/8-16x2 1/4

Statistics based on 87 of 92 reporting participants

Comments on Assigned Data Flags for Test #116

6AG3ZE (X) - Data for sample Q40 are high. Inconsistent within the determinations of sample Q40.

K8U4YV (X) - Data for both samples are high. Inconsistent within the determinations of sample Q39.

LKTR4U (X) - Data for both samples are high.

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

Y666QW (X) - Extreme Data

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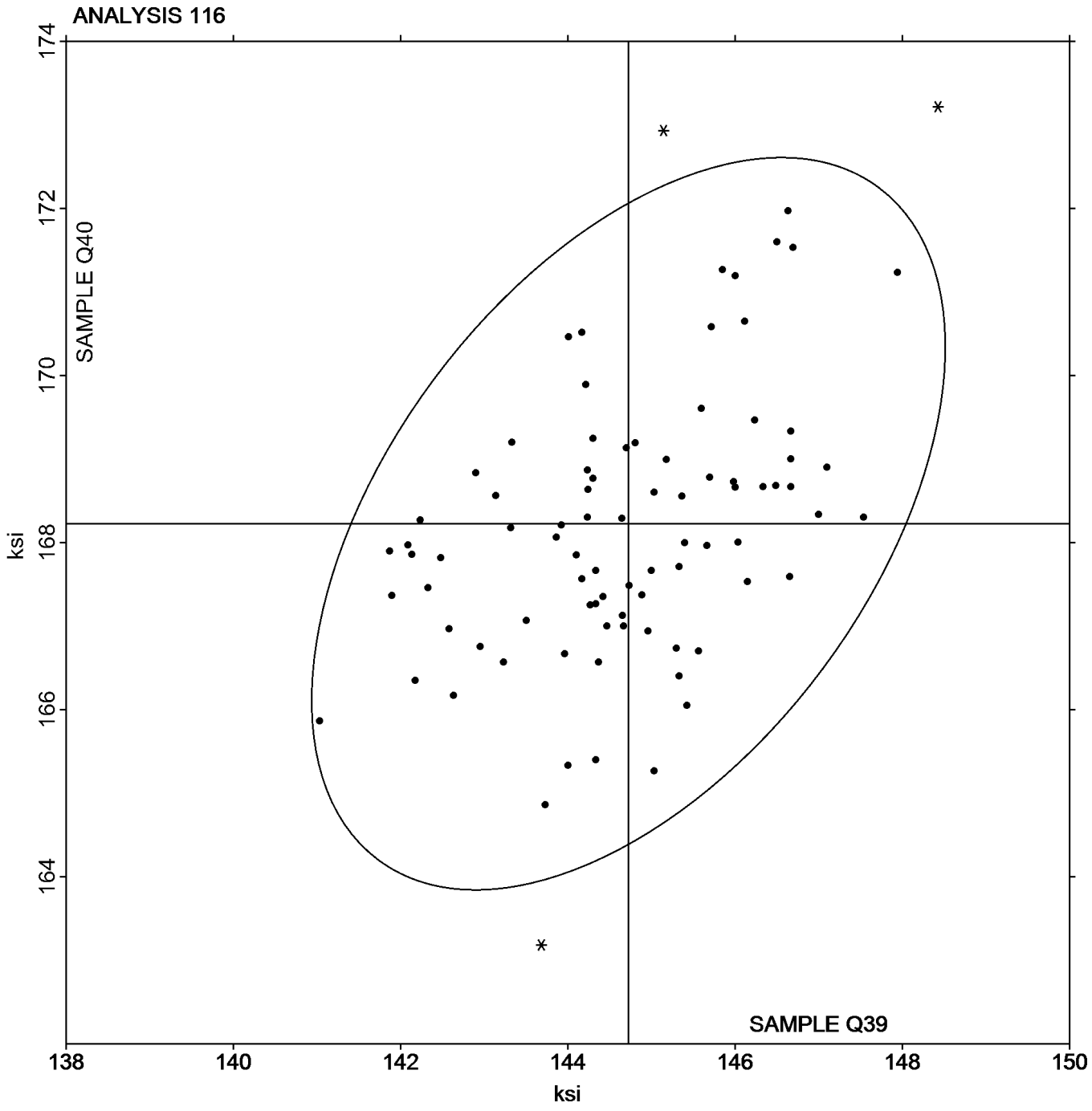
SAMPLE Q39	SAMPLE Q40
144.72 ksi	168.23 ksi



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		Sample E39			Sample E40		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2424VN		57.42	-0.44	-0.99	62.42	0.03	0.06
2CAGCD		57.36	-0.50	-1.13	62.12	-0.27	-0.65
2TU9BD		58.90	1.04	2.36	63.06	0.67	1.57
2UBLEV		58.16	0.30	0.68	62.48	0.09	0.20
3M6VAP	X	56.38	-1.48	-3.35	60.50	-1.89	-4.48
3T2Z4Z		57.84	-0.02	-0.04	62.74	0.35	0.82
3WJ7PG		57.78	-0.08	-0.18	62.22	-0.17	-0.41
3XAEQ6		57.90	0.04	0.09	62.76	0.37	0.87
42PBUL		58.16	0.30	0.68	62.94	0.55	1.29
46HWJH		57.88	0.02	0.05	62.64	0.25	0.58
4PUXUP		57.06	-0.80	-1.81	61.60	-0.79	-1.88
4TU9RA		58.12	0.26	0.59	62.94	0.55	1.29
4VGZKR		58.08	0.22	0.50	62.16	-0.23	-0.55
64LXKA		58.52	0.66	1.50	63.02	0.63	1.48
6L8ZH4		58.84	0.98	2.22	63.13	0.74	1.74
7MH6RL		58.76	0.90	2.04	63.36	0.97	2.28
7VBEZV		58.34	0.48	1.09	62.68	0.29	0.68
8R29WN		57.96	0.10	0.23	62.50	0.11	0.25
8TBHPL		57.70	-0.16	-0.36	62.10	-0.29	-0.70
96RT3P		57.26	-0.60	-1.36	61.74	-0.65	-1.55
9CELDN		57.92	0.06	0.14	62.78	0.39	0.91
9DG8GA		58.25	0.39	0.89	62.34	-0.05	-0.12
9FRVG9		57.88	0.02	0.05	62.56	0.17	0.39
9LV2R6		57.84	-0.02	-0.04	62.38	-0.01	-0.03
AXRU69		57.00	-0.86	-1.94	61.94	-0.45	-1.07
AYCBU2		57.80	-0.06	-0.13	62.54	0.15	0.35
B2F939		57.82	-0.04	-0.09	62.02	-0.37	-0.88
BBTPZE		57.96	0.10	0.23	62.16	-0.23	-0.55
BKCBZH		58.16	0.30	0.68	62.22	-0.17	-0.41
CGCCBB		57.96	0.10	0.23	62.38	-0.01	-0.03
CMXCKW		57.75	-0.11	-0.26	62.57	0.18	0.43
CQUMBJ		57.56	-0.30	-0.68	62.12	-0.27	-0.65
D3RCTB		57.00	-0.86	-1.94	61.54	-0.85	-2.02
DMCLQW		58.22	0.36	0.82	62.64	0.25	0.58
DWG8WG	X	56.32	-1.54	-3.48	62.70	0.31	0.72
E4YUPL		57.68	-0.18	-0.40	62.36	-0.03	-0.08
EJAHWU		57.70	-0.16	-0.36	62.52	0.13	0.30
EVZWDX		58.32	0.46	1.04	62.49	0.10	0.23
FWW76Y		58.00	0.14	0.32	62.40	0.01	0.01
FWX4FU		57.70	-0.16	-0.36	62.36	-0.03	-0.08
G6Y82Y		58.76	0.90	2.04	62.90	0.51	1.20
G6ZKLQ		57.42	-0.44	-0.99	62.56	0.17	0.39
H7PVXY		57.64	-0.22	-0.50	62.12	-0.27	-0.65
HGAH7K		57.80	-0.06	-0.13	62.50	0.11	0.25
HNWJA6	X	56.60	-1.26	-2.85	61.00	-1.39	-3.30
HP64XZ		57.68	-0.18	-0.40	62.12	-0.27	-0.65
HPHVMA	*	58.28	0.42	0.95	61.94	-0.45	-1.07

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		Sample E39			Sample E40		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
JE2B3D		57.78	-0.08	-0.18	62.44	0.05	0.11
JGLYF4		57.74	-0.12	-0.27	62.50	0.11	0.25
K8D9B2		58.22	0.36	0.82	62.92	0.53	1.24
KDA4J8		57.44	-0.42	-0.95	62.20	-0.19	-0.46
KGZKMK		58.54	0.68	1.54	63.24	0.85	2.00
KJRJ2J		57.36	-0.50	-1.13	62.02	-0.37	-0.88
KX9CRB		57.06	-0.80	-1.81	61.68	-0.71	-1.69
KYGD9W		57.26	-0.60	-1.36	61.78	-0.61	-1.45
KYKXZ7		58.12	0.26	0.59	62.46	0.07	0.16
L49YJW		57.48	-0.38	-0.86	62.30	-0.09	-0.22
LKGQL2		57.80	-0.06	-0.13	61.84	-0.55	-1.31
M7FTE2		57.93	0.07	0.16	62.59	0.20	0.47
N763L3	*	56.84	-1.02	-2.31	62.12	-0.27	-0.65
NCX8E8	*	57.90	0.04	0.09	63.20	0.81	1.91
NNCZMK		57.70	-0.16	-0.36	62.52	0.13	0.30
NR2ZJL		57.48	-0.38	-0.86	62.06	-0.33	-0.79
P6D6QM		57.88	0.02	0.05	62.42	0.03	0.06
PAQXPR		57.98	0.12	0.27	62.40	0.01	0.01
PD4M3A	X	56.74	-1.12	-2.53	60.90	-1.49	-3.53
PXURT9		57.94	0.08	0.18	62.42	0.03	0.06
QGL3AG		57.64	-0.22	-0.50	61.94	-0.45	-1.07
QT2WMV		58.48	0.62	1.41	62.90	0.51	1.20
RGG7ZA	*	57.46	-0.40	-0.90	61.30	-1.09	-2.59
T6JQPY		57.88	0.02	0.05	62.26	-0.13	-0.32
T7F4CQ		57.98	0.12	0.27	62.84	0.45	1.05
TJWMPM		57.98	0.12	0.27	62.02	-0.37	-0.88
TM4GNX		57.40	-0.46	-1.04	62.00	-0.39	-0.93
TWCRHH		58.10	0.24	0.55	62.44	0.05	0.11
U2C9QN		58.04	0.18	0.41	62.68	0.29	0.68
U926VK		58.16	0.30	0.68	62.20	-0.19	-0.46
UBWMPK		57.24	-0.62	-1.40	61.80	-0.59	-1.41
UHM9ZY		58.04	0.18	0.41	62.82	0.43	1.01
ULMKYJ		57.66	-0.20	-0.45	62.18	-0.21	-0.51
VBG2WF		57.26	-0.60	-1.36	61.76	-0.63	-1.50
VMWPAM		58.00	0.14	0.32	62.50	0.11	0.25
VT2P7A		57.96	0.10	0.23	62.54	0.15	0.35
VT2TVE		58.22	0.36	0.82	62.64	0.25	0.58
VUBVLJ		58.38	0.52	1.18	62.82	0.43	1.01
VV7DML		58.02	0.16	0.37	62.80	0.41	0.96
VVAZ3D		57.60	-0.26	-0.59	62.04	-0.35	-0.84
W6CFLQ		58.06	0.20	0.46	62.36	-0.03	-0.08
WQTV4J		57.12	-0.74	-1.67	61.90	-0.49	-1.17
WTNCUC		57.40	-0.46	-1.04	62.20	-0.19	-0.46
Y4U46X		56.96	-0.90	-2.03	61.36	-1.03	-2.45
Y6H8AJ		58.80	0.94	2.13	63.20	0.81	1.91
YF277L	X	56.78	-1.08	-2.44	62.30	-0.09	-0.22
YKC7GR		57.92	0.06	0.14	62.82	0.43	1.01

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WebCode	Data Flag	Sample E39 Lab Mean	Sample E39 Diff. from Grand Mean	Sample E39 CPV	Sample E40 Lab Mean	Sample E40 Diff. from Grand Mean	Sample E40 CPV
YQD9ZD		58.20	0.34	0.77	62.82	0.43	1.01
YZ49VA		58.36	0.50	1.13	62.66	0.27	0.63
Z4GRCD		58.40	0.54	1.23	62.48	0.09	0.20
ZMVM8B		57.56	-0.30	-0.68	62.18	-0.21	-0.51

Summary Statistics

	Sample E39		Sample E40	
Grand Means	57.86	HRC	62.39	HRC
Stnd Dev Btwn Labs	0.44	HRC	0.42	HRC

Samples E39, E40 : Steel, Steel

Statistics based on 93 of 98 reporting participants

Comments on Assigned Data Flags for Test #120

3M6VAP (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of sample E40.

DWG8WG (X) - Data for sample E39 are low.

HNWJA6 (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of sample E39.

PD4M3A (X) - Data for sample E40 are low. Inconsistent within the determinations of both samples.

YF277L (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample E39.

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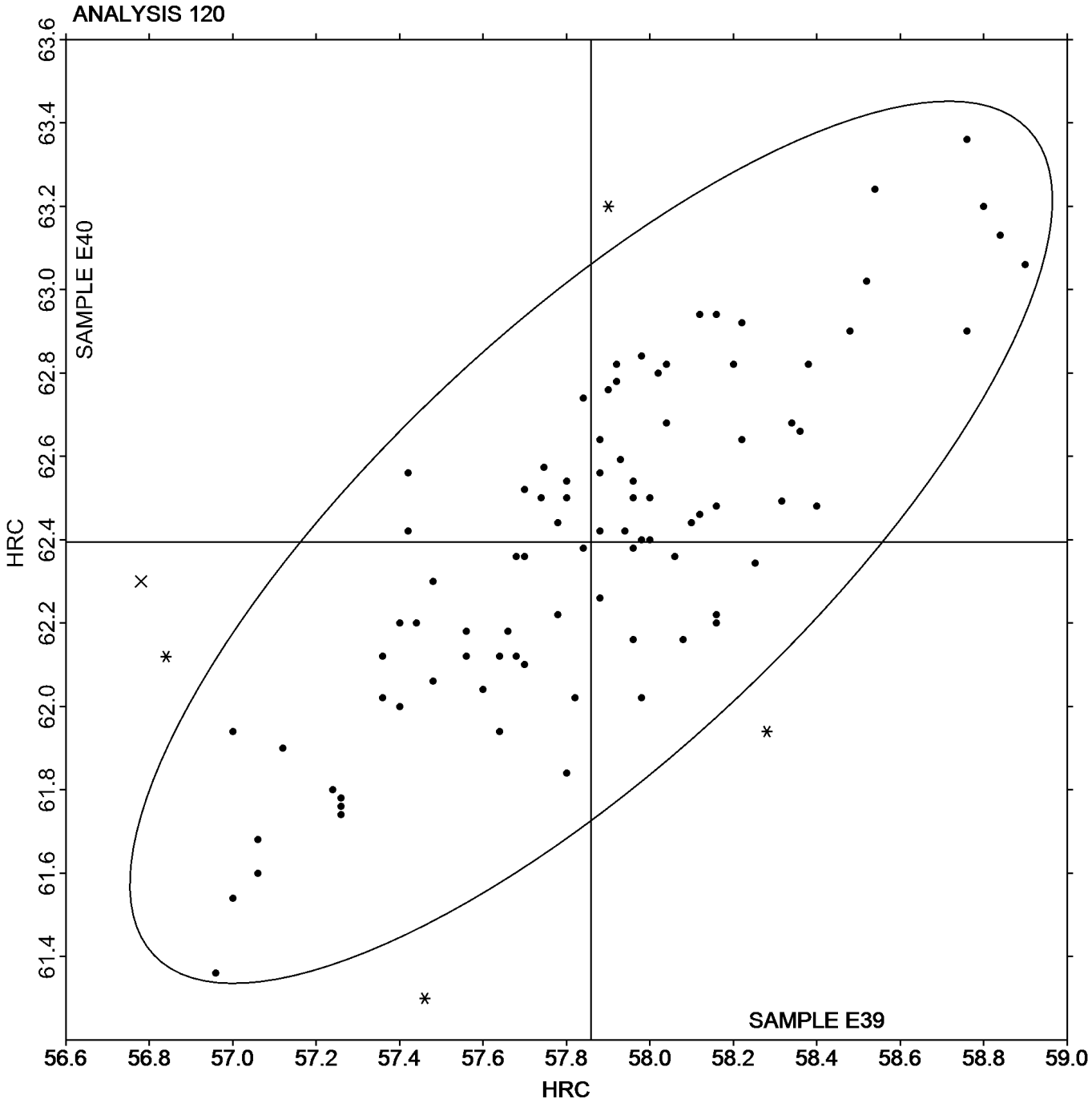
SAMPLE E39	SAMPLE E40
57.86 HRC	62.39 HRC



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		Sample G39			Sample G40		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2NVXQK		36.28	0.09	0.17	35.58	-0.55	-1.05
2W3XZL		35.45	-0.74	-1.42	35.56	-0.56	-1.07
3EHB6X		37.00	0.81	1.56	36.42	0.30	0.58
3FB433		36.21	0.01	0.03	36.13	0.00	0.01
3FVXPX		35.95	-0.24	-0.47	36.19	0.06	0.12
3XAEQ6		36.41	0.21	0.41	36.00	-0.12	-0.23
4KEP7P		36.48	0.29	0.55	36.49	0.37	0.71
4VGZKR		36.88	0.69	1.32	36.74	0.62	1.20
4WCLEH		35.94	-0.25	-0.48	35.53	-0.59	-1.14
6AG3ZE	*	35.59	-0.61	-1.16	36.49	0.37	0.71
6WKLLR		36.47	0.28	0.53	36.18	0.05	0.10
73QVR6		36.56	0.36	0.70	36.49	0.37	0.72
74PCTA		36.19	0.00	0.00	36.24	0.12	0.24
7FGRU4		36.07	-0.12	-0.24	35.78	-0.35	-0.67
7VBEZV		36.32	0.13	0.24	36.22	0.10	0.19
7XXWFV		36.35	0.16	0.30	36.07	-0.05	-0.10
7Z82V6	X	35.22	-0.97	-1.87	36.68	0.56	1.08
9UQDAY		35.53	-0.67	-1.28	35.59	-0.53	-1.03
AKDAGZ		36.55	0.36	0.69	36.06	-0.06	-0.11
AMLZMZ	X	38.07	1.88	3.61	37.94	1.82	3.50
AVHVMK		35.51	-0.68	-1.31	35.61	-0.51	-0.99
AZBXNY	X	32.27	-3.92	-7.55	32.07	-4.05	-7.81
B62R2Q		36.13	-0.07	-0.13	36.53	0.41	0.79
BAGYPP		36.46	0.27	0.52	36.23	0.11	0.21
BHL76P		36.11	-0.09	-0.17	36.11	-0.01	-0.02
BMM2B8		36.39	0.19	0.37	36.20	0.08	0.15
CBZXG8		35.88	-0.31	-0.60	35.96	-0.16	-0.32
CNCXUX		36.19	-0.01	-0.01	35.88	-0.25	-0.47
D6XL28		35.52	-0.67	-1.30	35.26	-0.86	-1.67
D7ACBC		36.39	0.19	0.37	36.66	0.54	1.03
DL2AC8		36.78	0.59	1.13	36.76	0.64	1.22
E3MC92	X	35.71	-0.48	-0.92	34.72	-1.40	-2.70
ETZ3XL		35.52	-0.67	-1.29	35.50	-0.62	-1.19
FECF7Z		36.41	0.21	0.41	35.71	-0.41	-0.80
FJ97CB		35.94	-0.26	-0.49	36.16	0.04	0.08
GNGP9J		37.06	0.87	1.67	37.00	0.88	1.69
GYERAR		37.10	0.91	1.74	36.97	0.85	1.64
J7NTNR		36.55	0.36	0.69	36.59	0.47	0.90
JF9Q8Y		36.46	0.27	0.52	36.63	0.50	0.97
JYA387		36.89	0.70	1.35	36.67	0.55	1.06
K2RTKF		36.24	0.05	0.10	36.07	-0.05	-0.10
K8U4YV	X	32.50	-3.69	-7.10	31.71	-4.41	-8.49
KG3E7Q		36.36	0.17	0.33	36.19	0.07	0.14
KJ8LAX		35.41	-0.79	-1.51	35.00	-1.12	-2.16
KLW8G9	X	34.64	-1.55	-2.98	33.91	-2.21	-4.26
KY7ZU8		36.33	0.13	0.25	36.37	0.25	0.49
LA6VT3		36.60	0.41	0.78	36.32	0.20	0.38

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		Sample G39			Sample G40		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
LFTD9Y		36.49	0.29	0.57	36.80	0.68	1.31
LJMJEN		37.13	0.93	1.79	37.09	0.97	1.87
MKXYA2		35.51	-0.69	-1.32	35.50	-0.62	-1.20
MMKDXB		35.71	-0.49	-0.94	35.93	-0.19	-0.37
N9XP44	X	33.25	-2.94	-5.66	33.49	-2.63	-5.07
NGQXM9		35.88	-0.31	-0.60	36.19	0.07	0.14
NMH8W8		36.88	0.68	1.31	37.24	1.12	2.15
NTPH62	X	33.46	-2.73	-5.25	32.85	-3.27	-6.30
NYTPHJ	*	35.34	-0.86	-1.65	34.71	-1.41	-2.73
P82GM8		35.77	-0.42	-0.82	35.78	-0.34	-0.65
PL6T6R		36.71	0.52	1.00	36.82	0.70	1.34
PNLQBN		35.87	-0.32	-0.62	35.53	-0.59	-1.13
PVNFQD		36.53	0.34	0.65	36.24	0.12	0.23
PVRWA7	*	35.33	-0.87	-1.67	36.23	0.10	0.20
QGMTMQ		36.61	0.42	0.81	36.37	0.25	0.48
QJQWRY		36.58	0.39	0.75	36.56	0.44	0.84
R7J4ZL		36.06	-0.13	-0.25	35.86	-0.26	-0.50
R96C7V		36.10	-0.09	-0.18	36.10	-0.02	-0.04
RJAZ2K		35.21	-0.99	-1.90	35.68	-0.44	-0.85
RKXCX6		36.79	0.60	1.16	36.88	0.75	1.45
TE8LPE		36.36	0.17	0.33	36.46	0.34	0.66
TJZJFQ		36.01	-0.18	-0.35	36.09	-0.03	-0.06
TZNWRX		36.15	-0.04	-0.08	36.09	-0.03	-0.06
UAQD2E	X	33.34	-2.86	-5.49	37.23	1.10	2.13
UB2DZU		35.67	-0.52	-1.01	36.08	-0.04	-0.08
UHM9ZY		36.56	0.36	0.70	35.94	-0.18	-0.35
UK9G89		35.91	-0.28	-0.54	35.71	-0.41	-0.79
UUGPNE		36.35	0.16	0.30	36.38	0.26	0.50
V7QM89		36.64	0.44	0.85	36.43	0.31	0.60
VX2PTL		35.99	-0.21	-0.40	36.04	-0.08	-0.16
WDY62L		36.08	-0.12	-0.23	35.82	-0.30	-0.58
WTNCUC		35.03	-1.16	-2.23	35.32	-0.80	-1.55
WWU7XU		35.53	-0.67	-1.28	35.69	-0.43	-0.82
X8T89D		36.49	0.30	0.58	36.35	0.23	0.44
XWD72K		35.84	-0.36	-0.68	35.31	-0.81	-1.57
Y666QW		36.66	0.46	0.89	36.29	0.17	0.32
Y6H8AJ		36.88	0.68	1.31	36.81	0.69	1.33
YE8DKB	*	35.81	-0.38	-0.73	34.93	-1.19	-2.29
YFHAUL		37.09	0.89	1.72	36.90	0.78	1.50
YT49GW		35.19	-1.01	-1.93	35.39	-0.73	-1.40
YW2VRC	X	37.84	1.64	3.16	37.06	0.94	1.81
Z3TRF9		35.14	-1.05	-2.02	35.40	-0.72	-1.38
Z6KJWK		35.87	-0.32	-0.62	36.19	0.07	0.14
ZWK9FU		36.78	0.58	1.12	36.79	0.67	1.30
ZYRU3U	*	36.90	0.71	1.36	35.87	-0.25	-0.49

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Summary Statistics

	Sample G39		Sample G40	
Grand Means	36.19	HRC	36.12	HRC
Stnd Dev Btwn Labs	0.52	HRC	0.52	HRC

Samples G39, G40 : 1/2-20x2 1/2, 1/2-20x2 3/4

Statistics based on 82 of 92 reporting participants

Comments on Assigned Data Flags for Test #125

7Z82V6 (X) - Inconsistent in testing between samples.

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

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

E3MC92 (X) - Inconsistent in testing between samples.

K8U4YV (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of sample G39.

KLW8G9 (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of both samples.

N9XP44 (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of both samples.

NTPH62 (X) - Data for both samples are low. Possible Systematic Error.

UAQD2E (X) - Data for sample G39 are low.

YW2VRC (X) - Data for sample G39 are high.

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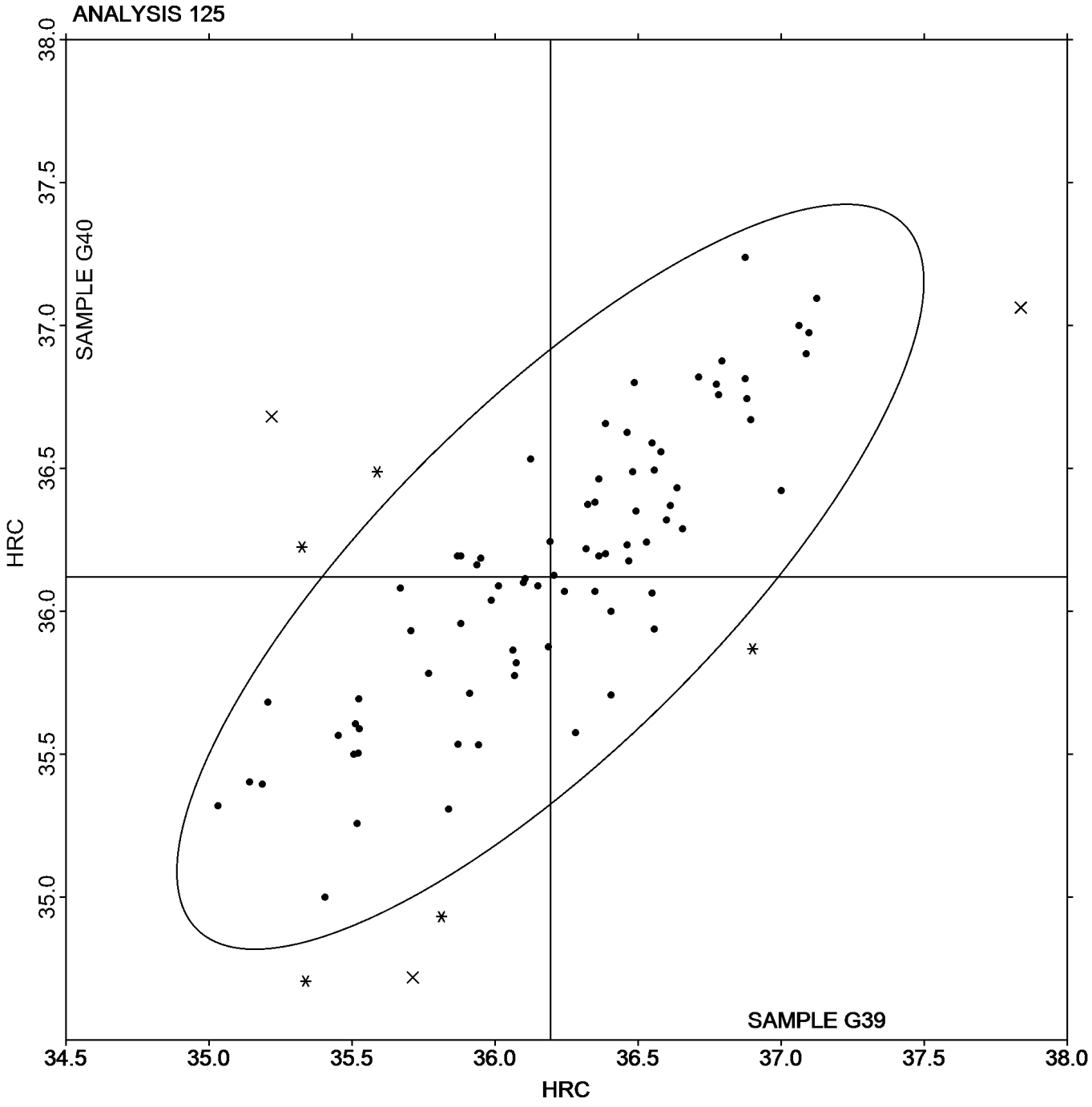
SAMPLE G39	SAMPLE G40
36.19 HRC	36.12 HRC



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Fasteners and Metals Interlaboratory Testing Program

Analysis 126

Vickers Hardness: Externally Threaded Fasteners
ASTM E384

		Sample V39			Sample V40		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
324WNC		357.94	1.81	0.21	357.94	1.12	0.14
4A33GX		361.38	5.25	0.61	358.63	1.81	0.23
73QVR6		358.31	2.19	0.26	356.00	-0.82	-0.10
7FGRU4		352.63	-3.50	-0.41	353.56	-3.26	-0.41
9PVNPL		360.19	4.06	0.47	357.75	0.93	0.12
B4C996		361.00	4.87	0.57	360.00	3.18	0.40
B9XDTT		368.94	12.81	1.50	373.31	16.49	2.08
BBTPZE		377.94	21.81	2.55	375.50	18.68	2.36
BHQG8N		359.50	3.37	0.39	360.00	3.18	0.40
CBZXG8		355.75	-0.38	-0.04	355.44	-1.38	-0.17
CCEJQA		354.15	-1.98	-0.23	352.51	-4.31	-0.54
CNCXUX		370.75	14.62	1.71	368.63	11.81	1.49
D7ACBC		336.81	-19.31	-2.26	341.06	-15.76	-1.99
E3MC92		355.29	-0.84	-0.10	359.16	2.34	0.30
E4YUPL		358.14	2.02	0.24	358.96	2.14	0.27
EFTCXY		357.63	1.50	0.18	356.88	0.06	0.01
ETZ3XL		361.13	5.00	0.58	357.03	0.21	0.03
FNYGNU		351.63	-4.50	-0.53	355.44	-1.38	-0.17
GAW8HZ		356.81	0.69	0.08	357.38	0.56	0.07
H9X6PW		354.10	-2.03	-0.24	360.42	3.60	0.45
K8U4YV		358.28	2.15	0.25	358.49	1.68	0.21
KBY9U9		356.69	0.56	0.07	364.65	7.83	0.99
KG3E7Q		338.75	-17.38	-2.03	343.50	-13.32	-1.68
QGMTMQ		353.81	-2.31	-0.27	357.06	0.24	0.03
TPV7HR		339.50	-16.63	-1.94	342.19	-14.63	-1.85
TWCRHH		352.69	-3.44	-0.40	351.88	-4.94	-0.62
VEDAYJ		353.34	-2.79	-0.33	354.23	-2.59	-0.33
WTNCUC		348.99	-7.13	-0.83	343.58	-13.24	-1.67
YQD9ZD		355.64	-0.48	-0.06	356.59	-0.23	-0.03

Summary Statistics

	Sample V39		Sample V40	
Grand Means	356.13	HV	356.82	HV
Stnd Dev Btwn Labs	8.55	HV	7.91	HV

Samples V39, V40 : 1/2-20x2 1/2, 1/2-20x2 3/4

Statistics based on 29 of 29 reporting participants

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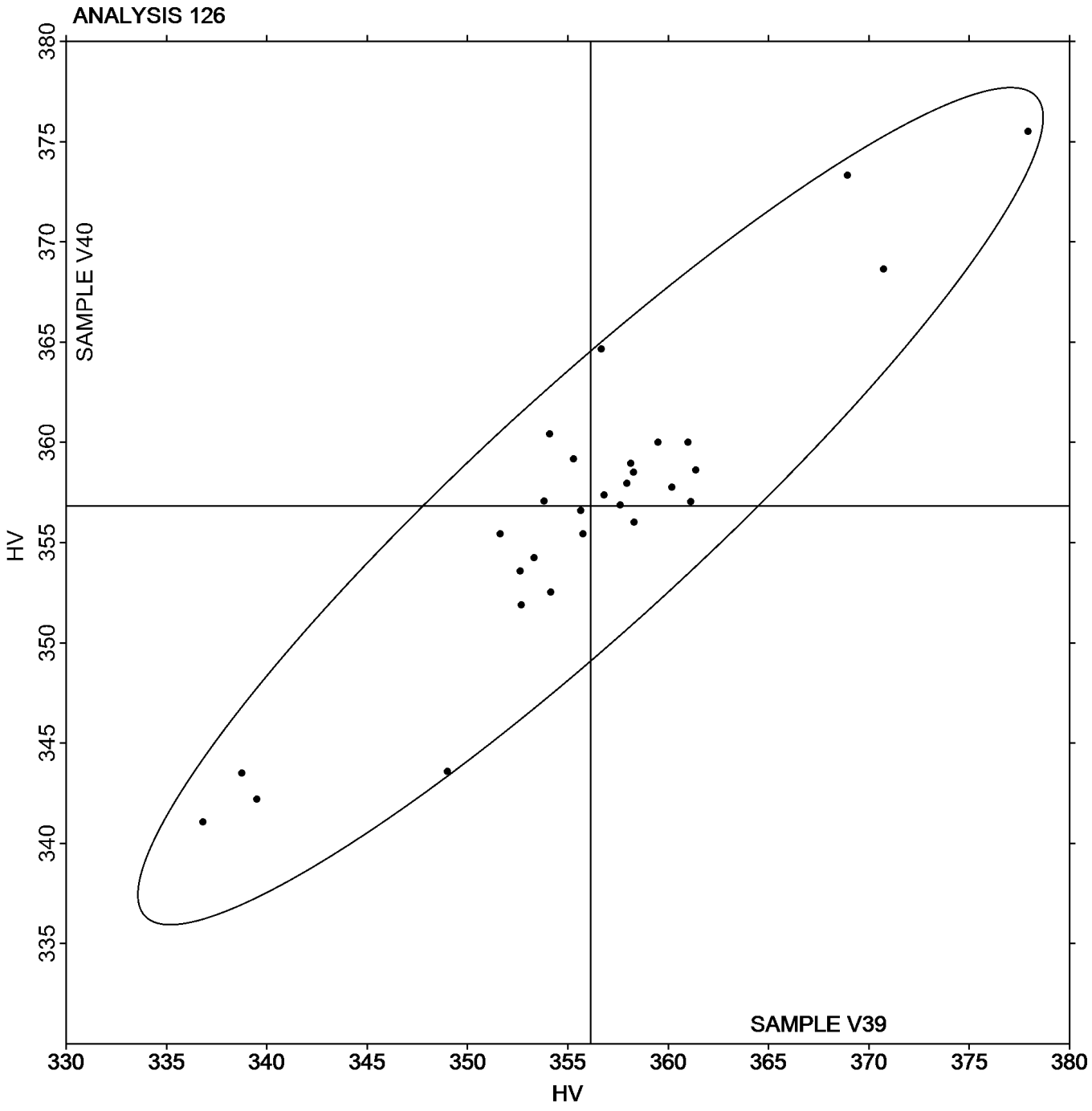
SAMPLE V39	SAMPLE V40
356.13 HV	356.82 HV



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		Sample B39			Sample B40		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2CVCEU		1,162	6	0.75	1,171	9	0.96
4A33GX		1,145	-11	-1.28	1,159	-3	-0.30
4KEP7P		1,157	1	0.14	1,166	4	0.48
6WKLLR		1,151	-5	-0.58	1,153	-9	-1.00
99LHXG	*	1,157	2	0.18	1,183	21	2.28
9PVNPL		1,166	10	1.15	1,163	1	0.10
9UQDAY	X	1,181	25	2.89	1,266	104	11.34
AMLZMZ		1,152	-4	-0.43	1,151	-11	-1.18
AZBXNY		1,157	1	0.11	1,167	5	0.54
B9XDTT	X	116.67	-1,039	-120.54	117.00	-1,045	-113.98
CB3LGY		1,156	0	-0.01	1,158	-4	-0.41
CNCXUX		1,149	-6	-0.74	1,159	-3	-0.35
D6XL28		1,160	5	0.54	1,174	12	1.29
E3MC92		1,139	-16	-1.90	1,153	-8	-0.92
EFTCXY		1,160	4	0.50	1,163	1	0.16
HDTC8P		1,145	-10	-1.22	1,159	-3	-0.35
KG3E7Q		1,150	-6	-0.70	1,155	-6	-0.70
LFTD9Y	X	273.20	-883	-102.38	275.27	-886	-96.72
NYTPHJ		1,154	-1	-0.15	1,152	-10	-1.08
P37PEA		1,151	-5	-0.55	1,162	1	0.06
P73UUV		1,149	-7	-0.82	1,150	-12	-1.32
P82GM8		1,145	-10	-1.21	1,145	-17	-1.87
PVRWA7		1,167	11	1.33	1,168	6	0.69
RQYCTL		1,155	0	-0.05	1,155	-7	-0.77
TJZJFQ		1,157	1	0.15	1,169	7	0.79
TPV7HR		1,162	6	0.69	1,169	8	0.83
UFU7RJ		1,166	11	1.23	1,168	6	0.64
VUBVLJ	*	1,180	24	2.82	1,180	18	2.00
WJAP8C		1,150	-6	-0.67	1,157	-4	-0.48
Z3TRF9		1,162	6	0.73	1,161	-1	-0.08

Summary Statistics

	Sample B39		Sample B40	
Grand Means	1,156	MPa	1,162	MPa
Stnd Dev Btwn Labs	9	MPa	9	MPa

Samples B39, B40 : M10x1.5x70, M10x1.5x75

Statistics based on 27 of 30 reporting participants

Comments on Assigned Data Flags for Test #127

9UQDAY (X) - Data for both samples are high.

B9XDTT (X) - Extreme Data.

LFTD9Y (X) - Extreme Data.

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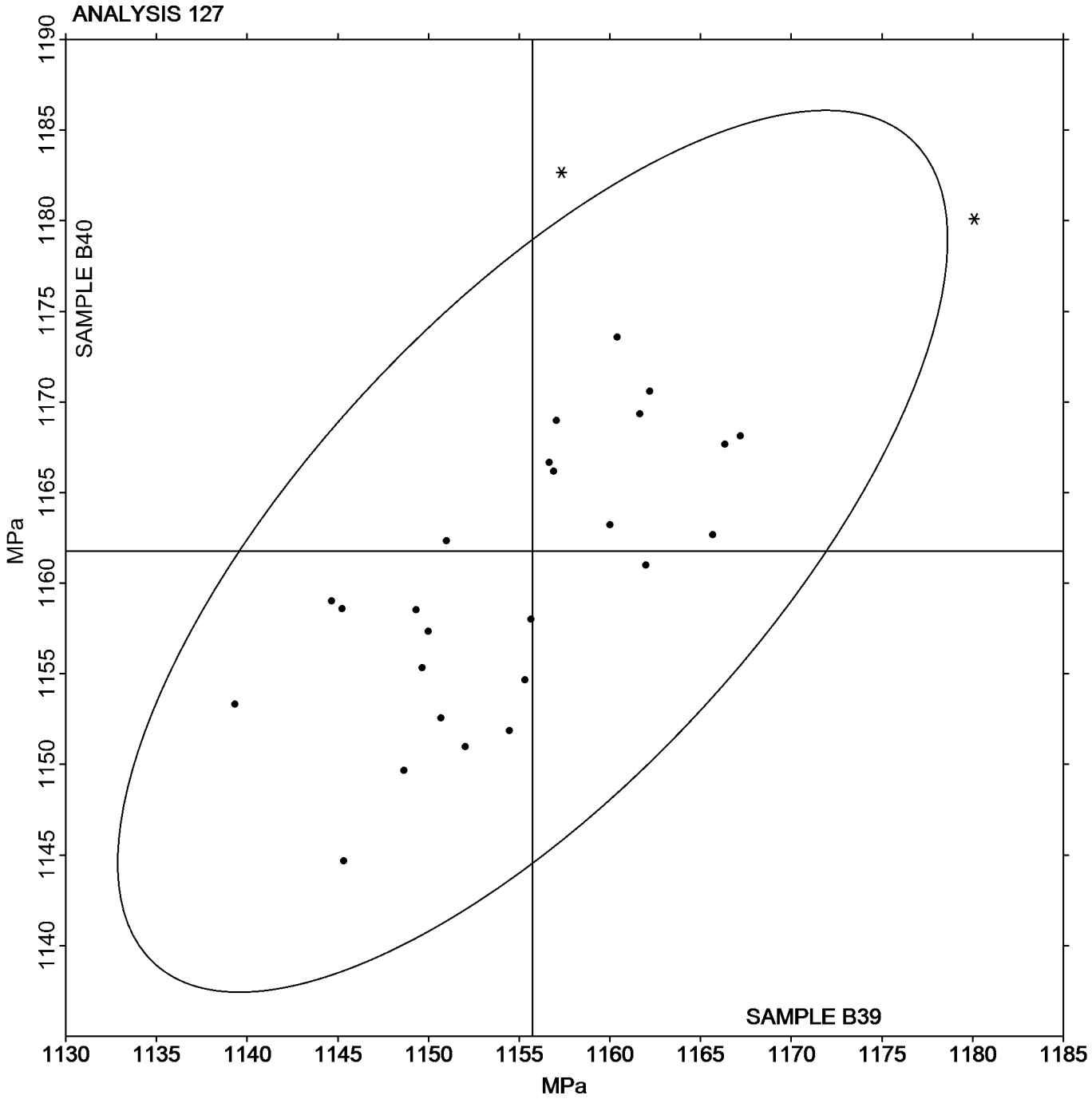
SAMPLE B39	SAMPLE B40
1,156 MPa	1,162 MPa



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WebCode	Data Flag	Sample T39 Lab Mean	Sample T39 Diff. from Grand Mean	Sample T39 CPV	Sample T40 Lab Mean	Sample T40 Diff. from Grand Mean	Sample T40 CPV
2CVCEU		1,157	4	0.41	1,167	3	0.27
4KEP7P		1,157	4	0.44	1,159	-5	-0.44
774EDE		1,149	-4	-0.39	1,166	2	0.15
99LHXG		1,150	-3	-0.28	1,170	6	0.52
9PVNPL		1,163	10	1.05	1,179	15	1.43
AKDAGZ		1,156	4	0.39	1,175	11	1.01
BHL76P		1,146	-6	-0.66	1,163	-1	-0.14
CBZXG8		1,154	2	0.16	1,161	-3	-0.26
DMCLQW		1,128	-25	-2.57	1,140	-24	-2.27
EFTCXY		1,167	14	1.47	1,176	12	1.12
HDTC8P		1,159	6	0.62	1,164	-1	-0.05
KG3E7Q		1,146	-7	-0.73	1,150	-14	-1.36
KY7ZU8		1,154	1	0.11	1,164	0	0.02

Summary Statistics

	Sample T39		Sample T40	
Grand Means	1,153	MPa	1,164	MPa
Stnd Dev Btwn Labs	10	MPa	11	MPa

Samples T39, T40 : M10x1.5x70, M10x1.5x75

Statistics based on 13 of 13 reporting participants

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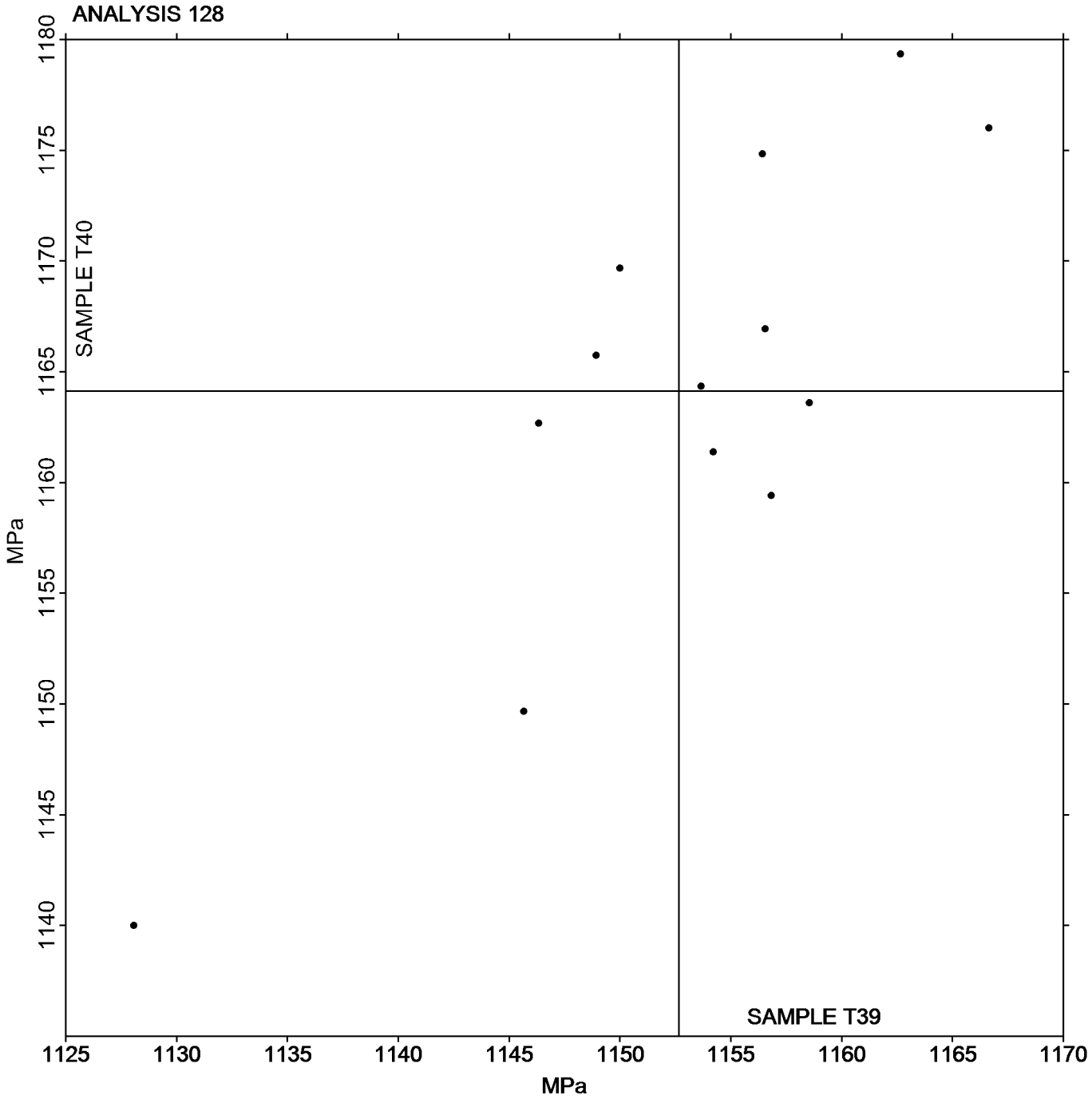
SAMPLE T39
1,153 MPa

SAMPLE T40
1,164 MPa



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		Sample Z39			Sample Z40		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2FQPZD		18,640	-570	-1.51	20,922	-771	-2.00
3EHB6X		19,500	290	0.77	21,600	-93	-0.24
3FVXPX		18,865	-345	-0.92	21,333	-360	-0.93
46HWJH		19,104	-106	-0.28	21,384	-309	-0.80
6AG3ZE		19,255	45	0.12	21,571	-122	-0.32
73QVR6		19,189	-21	-0.05	21,665	-28	-0.07
7FGRU4		19,533	323	0.86	22,347	654	1.69
7X2G7J		19,384	174	0.46	22,460	767	1.99
AKDAGZ		19,503	293	0.78	21,805	112	0.29
AVHVMK		19,690	480	1.27	21,941	248	0.64
GXDGBW		19,439	229	0.61	21,746	53	0.14
LKTR4U		18,804	-406	-1.08	21,612	-81	-0.21
N8F7VK		19,478	268	0.71	22,068	375	0.97
PHKT26		18,650	-560	-1.49	21,267	-426	-1.10
PQRBW3		18,905	-305	-0.81	21,878	185	0.48
PVNFQD		19,000	-210	-0.56	21,350	-343	-0.89
QJQWRY		20,055	845	2.24	22,353	660	1.71
R7J4ZL		19,198	-12	-0.03	21,540	-153	-0.40
RKECFU		19,619	409	1.09	21,884	191	0.49
RYV8VQ		18,927	-283	-0.75	21,589	-104	-0.27
TDUHVH		18,610	-600	-1.59	21,147	-546	-1.41
TE8LPE		19,232	22	0.06	21,831	138	0.36
W6CFLQ		19,814	604	1.60	21,882	189	0.49
WCUTMB		19,223	13	0.03	22,231	538	1.39
XWD72K		19,303	93	0.25	21,500	-193	-0.50
Y3GQ3M		18,737	-473	-1.26	21,630	-63	-0.16
Y6H8AJ		19,016	-194	-0.52	21,175	-518	-1.34

Summary Statistics

	Sample Z39		Sample Z40	
Grand Means	19,210	lb	21,693	lb
Stnd Dev Btwn Labs	377	lb	386	lb

Samples Z39, Z40 : 3/8-16x2 1/4, 3/8-16x2 1/4

Statistics based on 27 of 27 reporting participants

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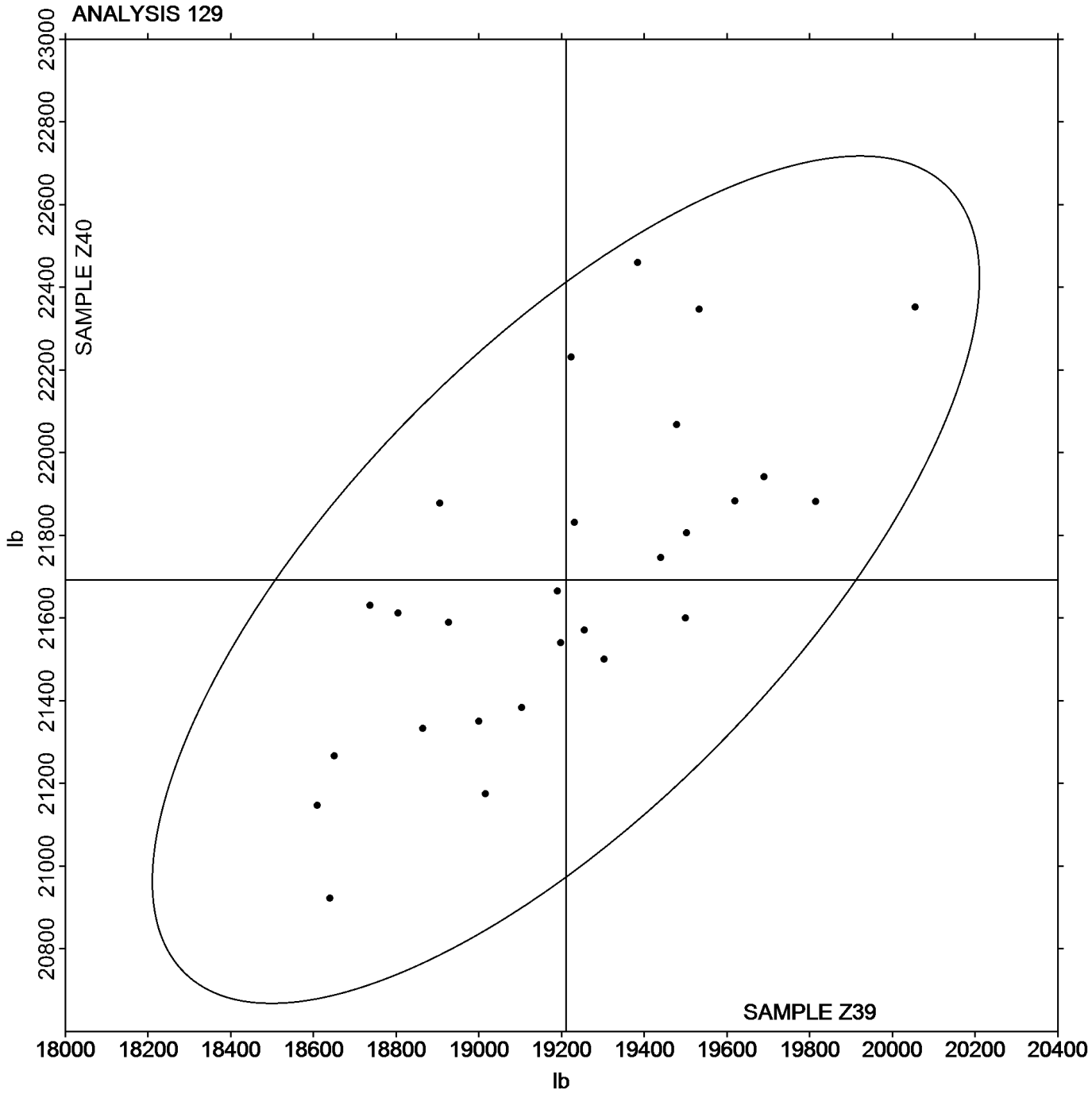
SAMPLE Z39	SAMPLE Z40
19,210 lb	21,693 lb



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		Sample F39			Sample F40		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2CAGCD		74.55	-0.74	-0.78	71.50	-1.38	-1.30
2TGXYK		76.80	1.51	1.59	74.60	1.72	1.63
3277WG		74.80	-0.49	-0.52	72.70	-0.18	-0.17
39KKE8	X	65.39	-9.90	-10.45	57.13	-15.75	-14.93
3AWCAA		74.95	-0.34	-0.36	72.30	-0.58	-0.55
3DLVX8		75.90	0.61	0.64	73.50	0.62	0.59
3T2Z4Z		75.57	0.27	0.29	72.95	0.07	0.07
4P7H3K		76.00	0.71	0.75	74.10	1.22	1.16
622QKM		74.90	-0.39	-0.41	71.60	-1.28	-1.21
6HT6YZ		74.56	-0.73	-0.77	72.42	-0.46	-0.44
6NW9NY	*	73.00	-2.29	-2.42	71.40	-1.48	-1.40
6RCGCX		76.80	1.51	1.59	73.80	0.92	0.87
6VEK2Y	*	73.68	-1.61	-1.70	72.45	-0.43	-0.41
74PCTA		75.20	-0.09	-0.10	72.70	-0.18	-0.17
779Y2H	*	73.80	-1.49	-1.57	73.00	0.12	0.11
7DDWBZ		74.80	-0.49	-0.52	73.00	0.12	0.11
7U99FA		75.40	0.11	0.12	73.30	0.42	0.40
8E3VPB		76.56	1.26	1.34	73.72	0.84	0.80
8FDK82		75.77	0.48	0.50	73.78	0.90	0.85
8HGHDN		75.00	-0.29	-0.31	72.10	-0.78	-0.74
8LCT8G		75.20	-0.09	-0.10	71.90	-0.98	-0.93
8N4QHA		75.50	0.21	0.22	73.00	0.12	0.11
8TBFYG	X	72.30	-2.99	-3.16	68.60	-4.28	-4.06
9PUA2L		75.05	-0.24	-0.25	72.45	-0.43	-0.41
9RRVER		75.50	0.21	0.22	72.30	-0.58	-0.55
9WCN27		76.00	0.71	0.75	72.90	0.02	0.02
AGW2TZ		75.65	0.36	0.38	73.06	0.18	0.17
AJQ642		74.57	-0.72	-0.76	71.07	-1.81	-1.72
AU7FE8		74.20	-1.09	-1.15	71.60	-1.28	-1.21
AV2GGV		76.88	1.59	1.68	74.48	1.60	1.52
AXBHNN		76.24	0.94	1.00	73.53	0.65	0.62
B4369E		74.82	-0.47	-0.50	71.38	-1.50	-1.42
B7RCTB		74.20	-1.09	-1.15	71.03	-1.85	-1.76
BEMTJL		73.90	-1.39	-1.47	71.70	-1.18	-1.12
BM9GNP		75.61	0.32	0.34	72.74	-0.14	-0.13
BZP8Y7		74.98	-0.31	-0.33	72.55	-0.33	-0.31
CNURU8		76.00	0.71	0.75	73.60	0.72	0.68
D7ACBC		74.00	-1.29	-1.36	71.50	-1.38	-1.31
D8YB3A		74.30	-0.99	-1.05	71.90	-0.98	-0.93
DBVWUD		75.90	0.61	0.64	74.00	1.12	1.06
DZGG3C	*	75.83	0.54	0.57	74.86	1.98	1.88
E4T8QD	X	71.12	-4.17	-4.40	67.98	-4.90	-4.65
EAZV4F		76.63	1.34	1.42	74.65	1.77	1.68
EJAHWU		75.90	0.61	0.64	73.30	0.42	0.40
ELB9KF		76.00	0.71	0.75	72.60	-0.28	-0.27
ENJJDD		75.72	0.43	0.46	73.20	0.32	0.30
EX7G4H		77.20	1.91	2.02	74.32	1.44	1.37

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		Sample F39			Sample F40		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
FL6CPB		73.91	-1.38	-1.45	71.63	-1.25	-1.18
FM2R28		75.10	-0.19	-0.20	72.60	-0.28	-0.27
FPVU93		75.10	-0.19	-0.20	73.50	0.62	0.59
FWW76Y		73.63	-1.66	-1.76	71.69	-1.19	-1.12
FX6FWW		74.50	-0.79	-0.83	72.40	-0.48	-0.45
G6ZKLQ		74.70	-0.59	-0.62	72.40	-0.48	-0.45
G8CBXG	*	77.10	1.81	1.91	75.70	2.82	2.67
GA8UDE		76.45	1.16	1.23	74.42	1.54	1.46
GAW8HZ	X	78.61	3.32	3.51	76.15	3.27	3.10
GMV4TT	X	59.61	-15.68	-16.56	53.88	-19.00	-18.01
GNZNC9		75.70	0.41	0.43	73.90	1.02	0.97
GPL2QY		75.60	0.31	0.33	74.50	1.62	1.54
GQ3QTW		74.39	-0.90	-0.95	72.48	-0.40	-0.38
GTQ6FL		76.30	1.01	1.07	73.70	0.82	0.78
H39MAY		75.19	-0.11	-0.11	72.98	0.10	0.09
HT7QPN		76.15	0.86	0.90	73.97	1.09	1.03
HUGQN3		75.90	0.61	0.64	72.70	-0.18	-0.17
HVD2LR	X	74.40	-0.89	-0.94	74.90	2.02	1.91
K2QVBK		75.00	-0.29	-0.31	72.15	-0.73	-0.69
KDA4J8		75.60	0.31	0.33	73.30	0.42	0.40
KGZKMK		75.28	-0.02	-0.02	72.95	0.07	0.07
KNXYA2		73.95	-1.34	-1.42	71.08	-1.80	-1.71
KTD9HY		75.26	-0.03	-0.03	72.39	-0.49	-0.47
KWBRGQ	X	87.75	12.46	13.16	86.15	13.27	12.58
LEQGB4	*	72.80	-2.49	-2.63	71.40	-1.48	-1.40
LFHCXC		76.30	1.01	1.07	74.00	1.12	1.06
LMJT8W		74.04	-1.25	-1.32	71.18	-1.70	-1.61
LWBNMK		75.12	-0.17	-0.18	73.25	0.37	0.35
MP82CW		75.50	0.21	0.22	72.30	-0.58	-0.55
MW4HLV		75.92	0.63	0.66	73.45	0.57	0.54
NKAWXH		75.40	0.11	0.12	73.00	0.12	0.11
NRMCMZ		76.40	1.11	1.17	73.58	0.70	0.66
NWPNLR		75.70	0.41	0.43	73.11	0.23	0.22
PQBYH4		74.80	-0.49	-0.52	72.90	0.02	0.02
PV9VLH		76.29	1.00	1.06	74.84	1.96	1.86
PYNKKL		74.20	-1.09	-1.15	71.90	-0.98	-0.93
Q4RC8J		73.60	-1.69	-1.79	71.80	-1.08	-1.02
Q7MA2P		74.30	-0.99	-1.05	71.80	-1.08	-1.02
QEHC42	X	74.55	-0.74	-0.78	68.89	-3.99	-3.78
QR7GBX		74.50	-0.79	-0.83	73.00	0.12	0.11
QXQGQB		75.17	-0.12	-0.12	72.10	-0.78	-0.74
QZYKM8		75.95	0.66	0.70	73.39	0.51	0.48
R3VULE		74.70	-0.60	-0.63	71.94	-0.94	-0.89
RAGRE9		76.60	1.31	1.38	74.40	1.52	1.44
RF6UHM	X	72.77	-2.52	-2.67	68.56	-4.32	-4.10
RGG7ZA	X	76.50	1.21	1.28	75.80	2.92	2.77
T4P39N		75.00	-0.29	-0.31	72.20	-0.68	-0.64

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		Sample F39			Sample F40		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
TQGLJ2		75.73	0.44	0.47	74.58	1.70	1.61
TU7JX6		75.80	0.51	0.54	73.30	0.42	0.40
U77BR3	*	78.17	2.88	3.05	75.79	2.91	2.76
UGCTRL		74.84	-0.45	-0.48	71.94	-0.94	-0.89
UGEYBM		75.10	-0.19	-0.20	71.90	-0.98	-0.93
UJRHRP		75.88	0.59	0.62	73.17	0.29	0.27
UT2PUK		73.00	-2.29	-2.42	71.00	-1.88	-1.78
VB3LPT		75.52	0.23	0.24	73.19	0.31	0.29
VP3AXM		74.80	-0.49	-0.52	71.80	-1.08	-1.02
WHUUNK		74.88	-0.41	-0.43	71.91	-0.97	-0.92
WPWJ4A		75.40	0.11	0.12	73.00	0.12	0.11
WRGRBJ		75.33	0.04	0.05	72.87	-0.01	-0.01
WWEARJ		75.42	0.13	0.14	72.95	0.07	0.07
WZUF7B		75.10	-0.19	-0.20	72.70	-0.18	-0.17
X8C4MY		75.58	0.29	0.31	73.51	0.63	0.59
XFQPV3		75.55	0.26	0.27	73.33	0.45	0.43
XH6ZFE		74.00	-1.29	-1.36	71.20	-1.68	-1.59
XJKC3Q		74.80	-0.49	-0.52	73.70	0.82	0.78
XNZCLH		76.10	0.81	0.86	74.00	1.12	1.06
XXKDFR		74.60	-0.69	-0.73	72.90	0.02	0.02
Y6NYJU		75.96	0.67	0.70	73.23	0.35	0.33
Y8RQDR		76.60	1.31	1.38	74.00	1.12	1.06
YMHR7D		75.42	0.13	0.14	72.81	-0.07	-0.07
YRYW68		76.80	1.51	1.59	74.51	1.63	1.54
Z3W8XF		74.50	-0.79	-0.83	71.00	-1.88	-1.78
ZJ9PFT	*	75.74	0.45	0.48	71.58	-1.30	-1.23
ZK97VH		75.22	-0.07	-0.08	72.94	0.06	0.06
ZMVM8B		74.08	-1.21	-1.28	71.65	-1.23	-1.17
ZNUTN6		76.00	0.71	0.75	73.30	0.42	0.40
ZXU6JT		76.25	0.96	1.01	74.05	1.17	1.11

Summary Statistics

	Sample F39		Sample F40	
Grand Means	75.29	ksi	72.88	ksi
Stnd Dev Btwn Labs	0.95	ksi	1.05	ksi

Samples F39, F40 : 12G AISI 4130, 14G AISI 4130

Statistics based on 114 of 124 reporting participants

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Comments on Assigned Data Flags for Test #130

39KKE8 (X) - Data for both samples are low. Possible Systematic Error.

8TBFYG (X) - Data for both samples are low. Possible Systematic Error.

E4T8QD (X) - Data for both samples are low. Possible Systematic Error.

GAW8HZ (X) - Data for both samples are high. Possible Systematic Error.

GMV4TT (X) - Data for both samples are low. Possible Systematic Error.

HVD2LR (X) - Inconsistent in testing between samples.

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

QEHC42 (X) - Data for sample F40 are low.

RF6UHM (X) - Data for sample F40 are low.

RGG7ZA (X) - Data for sample F40 are high.

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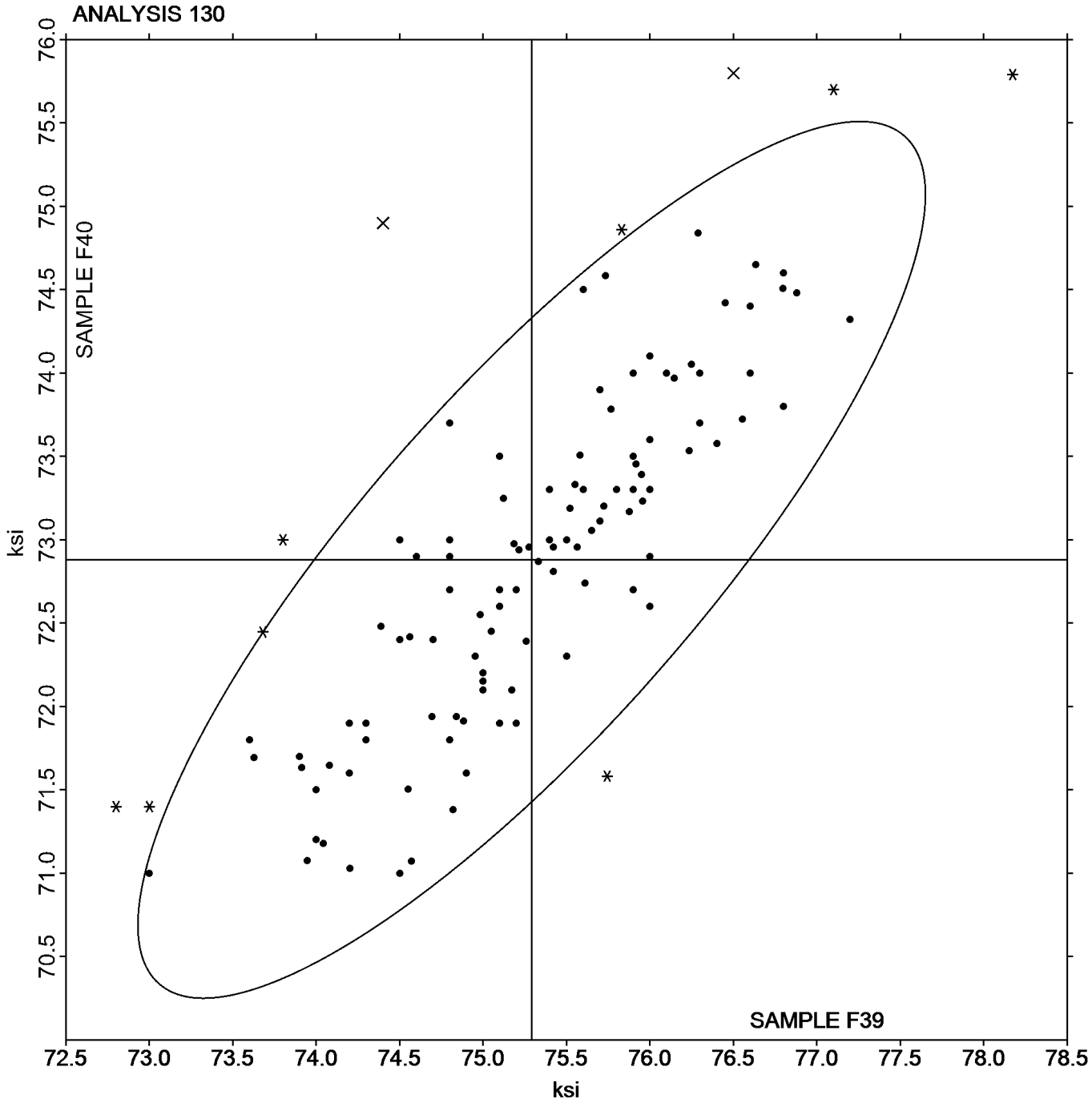
SAMPLE F39	SAMPLE F40
75.29 ksi	72.88 ksi



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		Sample F39			Sample F40		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2CAGCD		52.65	-1.44	-0.89	43.22	-0.45	-0.27
2TGXYK		54.90	0.81	0.50	43.50	-0.18	-0.10
3277WG		52.50	-1.59	-0.98	43.90	0.22	0.13
39KKE8	X	43.34	-10.75	-6.61	28.35	-15.32	-8.96
3AWCAA		54.70	0.62	0.38	44.31	0.63	0.37
3DLVX8		51.80	-2.29	-1.41	44.10	0.42	0.25
3T2Z4Z		54.10	0.01	0.01	44.82	1.14	0.67
4P7H3K	*	54.70	0.61	0.38	48.50	4.82	2.82
622QKM		53.40	-0.69	-0.42	42.60	-1.08	-0.63
6HT6YZ		50.94	-3.15	-1.94	43.84	0.16	0.09
6NW9NY		52.00	-2.09	-1.28	44.00	0.32	0.19
6RCGCX		55.20	1.11	0.68	43.20	-0.48	-0.28
6VEK2Y		52.88	-1.21	-0.75	46.40	2.73	1.60
74PCTA		54.50	0.41	0.25	44.40	0.72	0.42
779Y2H		53.50	-0.59	-0.36	47.60	3.92	2.30
7DDWBZ		53.10	-0.99	-0.61	44.50	0.82	0.48
7U99FA		54.50	0.41	0.25	43.30	-0.38	-0.22
8E3VPB		55.77	1.69	1.04	44.71	1.04	0.61
8FDK82		52.90	-1.19	-0.73	44.56	0.88	0.52
8HGHDN		51.60	-2.48	-1.53	41.57	-2.11	-1.23
8LCT8G		56.40	2.31	1.42	46.10	2.42	1.42
8N4QHA		55.50	1.41	0.87	45.00	1.32	0.77
8TBFYG	*	52.90	-1.19	-0.73	38.70	-4.98	-2.91
9PUA2L		54.33	0.24	0.15	42.76	-0.92	-0.54
9RRVER		51.00	-3.09	-1.90	43.40	-0.28	-0.16
9WCN27		56.30	2.21	1.36	43.50	-0.18	-0.10
AGW2TZ		52.55	-1.54	-0.95	42.80	-0.87	-0.51
AJQ642	*	57.43	3.34	2.06	41.46	-2.22	-1.30
AU7FE8		53.30	-0.79	-0.49	41.80	-1.88	-1.10
AV2GGV	*	50.96	-3.12	-1.92	46.62	2.94	1.72
AXBHNN		55.47	1.38	0.85	42.24	-1.43	-0.84
B4369E		54.20	0.11	0.07	41.80	-1.88	-1.10
B7RCTB		55.33	1.24	0.77	41.07	-2.60	-1.52
BEMTJL		53.20	-0.89	-0.55	42.10	-1.58	-0.92
BM9GNP		52.24	-1.85	-1.14	42.24	-1.44	-0.84
BZP8Y7		53.96	-0.13	-0.08	42.49	-1.19	-0.70
CNURU8		53.50	-0.59	-0.36	45.50	1.82	1.07
D7ACBC		51.50	-2.59	-1.59	44.20	0.52	0.31
D8YB3A		53.50	-0.59	-0.36	46.00	2.32	1.36
DBVWUD	X	53.60	-0.49	-0.30	49.80	6.12	3.58
DZGG3C		55.50	1.41	0.87	46.61	2.93	1.72
E4T8QD		53.11	-0.98	-0.60	41.24	-2.44	-1.42
EAZV4F		53.63	-0.46	-0.28	44.12	0.44	0.26
EJAHWU		54.40	0.31	0.19	42.80	-0.88	-0.51
ELB9KF		56.10	2.01	1.24	42.40	-1.28	-0.75
ENJJDD		54.85	0.77	0.47	42.74	-0.93	-0.55
EX7G4H		55.80	1.71	1.05	44.82	1.15	0.67

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		Sample F39			Sample F40		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
FL6CPB		52.15	-1.94	-1.19	43.19	-0.48	-0.28
FM2R28		56.00	1.91	1.18	45.00	1.32	0.77
FPVU93		54.60	0.51	0.31	42.70	-0.98	-0.57
FWW76Y		51.85	-2.24	-1.38	42.56	-1.11	-0.65
FX6FWW		53.30	-0.79	-0.49	43.40	-0.28	-0.16
G6ZKLQ		53.70	-0.39	-0.24	44.30	0.62	0.37
G8CBXG		57.80	3.71	2.28	45.70	2.02	1.18
GA8UDE		55.00	0.91	0.56	42.79	-0.88	-0.52
GAW8HZ	X	55.11	1.03	0.63	49.60	5.93	3.47
GMV4TT	X	40.83	-13.26	-8.16	23.70	-19.97	-11.68
GNZNC9		51.50	-2.59	-1.59	43.80	0.12	0.07
GPL2QY		52.30	-1.79	-1.10	44.60	0.92	0.54
GQ3QTW		53.47	-0.62	-0.38	46.55	2.87	1.68
GTQ6FL		55.80	1.71	1.05	43.40	-0.28	-0.16
H39MAY		54.63	0.54	0.33	43.98	0.30	0.18
HT7QPN		55.55	1.46	0.90	44.09	0.42	0.24
HUGQN3		53.60	-0.49	-0.30	43.30	-0.38	-0.22
HVD2LR		54.80	0.71	0.44	46.60	2.92	1.71
K2QVBK		55.70	1.61	0.99	43.25	-0.43	-0.25
KDA4J8		53.80	-0.29	-0.18	47.00	3.32	1.94
KGZKMK		54.10	0.01	0.01	44.38	0.71	0.41
KNXYA2		54.36	0.27	0.16	41.69	-1.98	-1.16
KTD9HY		53.94	-0.15	-0.09	42.15	-1.53	-0.89
KWBRGQ	X	62.15	8.06	4.96	56.06	12.38	7.24
LEQGB4		54.30	0.21	0.13	45.70	2.02	1.18
LFHCXC		56.40	2.31	1.42	43.70	0.02	0.01
LMJT8W		53.85	-0.24	-0.15	41.69	-1.99	-1.16
LWBNMK		54.40	0.31	0.19	40.52	-3.16	-1.85
MP82CW		56.20	2.11	1.30	42.80	-0.88	-0.51
MW4HLV		54.53	0.44	0.27	43.54	-0.13	-0.08
NKAWXH		55.70	1.61	0.99	44.50	0.82	0.48
NRMCMZ		57.61	3.52	2.16	45.05	1.38	0.80
NWPNLR		54.70	0.61	0.38	45.74	2.06	1.21
PQBYH4		56.30	2.21	1.36	45.60	1.92	1.13
PV9VLH		55.55	1.46	0.90	45.40	1.72	1.01
PYNKKL		52.90	-1.19	-0.73	42.66	-1.02	-0.59
Q4RC8J		52.00	-2.09	-1.28	45.00	1.32	0.77
Q7MA2P		53.80	-0.29	-0.18	44.00	0.32	0.19
QEHC42	*	51.49	-2.60	-1.60	38.87	-4.80	-2.81
QR7GBX		53.50	-0.59	-0.36	43.40	-0.28	-0.16
QXQGQB		55.39	1.30	0.80	42.71	-0.96	-0.56
QZYKM8		55.19	1.10	0.67	42.67	-1.01	-0.59
R3VULE		55.11	1.03	0.63	42.06	-1.61	-0.94
RAGRE9		55.30	1.21	0.75	43.50	-0.18	-0.10
RF6UHM		52.10	-1.99	-1.22	42.80	-0.88	-0.51
RGG7ZA		56.10	2.01	1.24	44.70	1.02	0.60
T4P39N		54.80	0.71	0.44	42.80	-0.88	-0.51

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		Sample F39			Sample F40		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
TU7JX6		53.10	-0.99	-0.61	43.60	-0.08	-0.04
UGCTRL		52.79	-1.29	-0.80	44.82	1.14	0.67
UGEYBM		53.30	-0.79	-0.49	41.70	-1.98	-1.16
UJRHRP		57.35	3.27	2.01	45.58	1.90	1.11
UT2PUK		50.80	-3.29	-2.02	41.10	-2.58	-1.51
VB3LPT		53.66	-0.42	-0.26	40.09	-3.59	-2.10
VP3AXM		54.40	0.31	0.19	41.50	-2.18	-1.27
WHUUNK		55.40	1.32	0.81	42.77	-0.90	-0.53
WPWJ4A		53.90	-0.19	-0.12	44.50	0.82	0.48
WRGRBJ		55.01	0.92	0.57	43.19	-0.48	-0.28
WWEARJ		52.36	-1.73	-1.06	45.83	2.16	1.26
WZUF7B		53.50	-0.59	-0.36	43.10	-0.58	-0.34
X8C4MY		54.29	0.20	0.13	43.84	0.16	0.10
XFQPV3		51.96	-2.13	-1.31	45.27	1.59	0.93
XH6ZFE		50.70	-3.39	-2.08	42.80	-0.88	-0.51
XJKC3Q	X	55.00	0.91	0.56	53.10	9.42	5.51
XNZCLH		55.20	1.11	0.68	43.10	-0.58	-0.34
XXKDFR	X	57.60	3.51	2.16	55.50	11.82	6.92
Y6NYJU		56.10	2.01	1.24	43.16	-0.51	-0.30
Y8RQDR		55.60	1.51	0.93	42.50	-1.18	-0.69
YMHR7D		52.94	-1.15	-0.71	42.64	-1.03	-0.60
YRYW68		54.43	0.34	0.21	44.22	0.55	0.32
Z3W8XF		52.00	-2.09	-1.28	43.00	-0.68	-0.39
ZK97VH		57.36	3.27	2.01	43.25	-0.42	-0.25
ZMVM8B		52.42	-1.67	-1.03	44.83	1.16	0.68
ZNUTN6		56.10	2.01	1.24	43.60	-0.08	-0.04
ZXU6JT		53.65	-0.44	-0.27	47.60	3.92	2.30

Summary Statistics

	Sample F39		Sample F40	
Grand Means	54.09	ksi	43.68	ksi
Stnd Dev Btwn Labs	1.63	ksi	1.71	ksi

Samples F39, F40 : 12G AISI 4130, 14G AISI 4130

Statistics based on 114 of 121 reporting participants

Comments on Assigned Data Flags for Test #131

39KKE8 (X) - Data for both samples are low.

DBVWUD (X) - Data for sample F40 are high.

GAW8HZ (X) - Data for sample F40 are high.

GMV4TT (X) - Data for both samples are low.

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

XJKC3Q (X) - Data for sample F40 are high.

XXKDFR (X) - Data for sample F40 are high.

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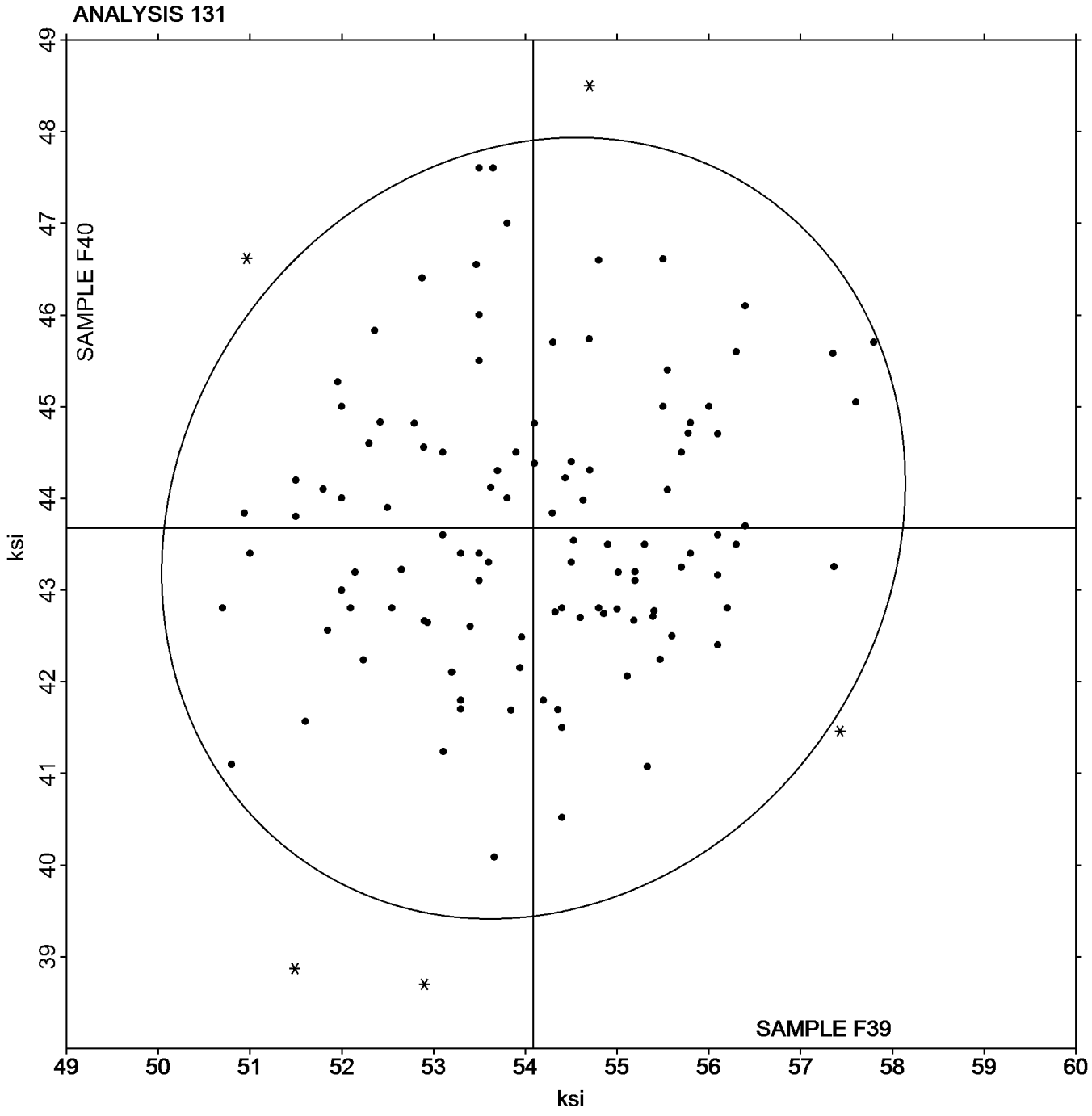
SAMPLE F39	SAMPLE F40
54.09 ksi	43.68 ksi



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		Sample F39			Sample F40		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2CAGCD		32.00	2.28	1.22	30.00	1.91	0.94
2TGXYK		26.50	-3.22	-1.72	25.10	-2.99	-1.46
3277WG		31.00	1.28	0.69	28.20	0.11	0.06
39KKE8		33.33	3.61	1.93	31.18	3.09	1.51
3AWCAA		30.09	0.37	0.20	27.83	-0.26	-0.12
3DLVX8		30.00	0.28	0.15	29.70	1.61	0.79
3T2Z4Z		28.00	-1.72	-0.92	26.00	-2.09	-1.02
4P7H3K		27.60	-2.12	-1.13	25.00	-3.09	-1.51
622QKM		33.50	3.78	2.02	33.00	4.91	2.40
6HT6YZ		27.72	-2.00	-1.07	25.96	-2.13	-1.04
6NW9NY		27.80	-1.92	-1.03	27.50	-0.59	-0.29
6RCGCX		28.10	-1.62	-0.87	27.00	-1.09	-0.53
6VEK2Y		30.51	0.79	0.42	27.96	-0.13	-0.06
74PCTA		31.00	1.28	0.69	31.00	2.91	1.42
779Y2H	X	23.20	-6.52	-3.49	22.00	-6.09	-2.97
7DDWBZ		29.82	0.10	0.05	28.65	0.56	0.28
7U99FA		28.60	-1.12	-0.60	26.90	-1.19	-0.58
8E3VPB		29.30	-0.42	-0.22	28.80	0.71	0.35
8FDK82		28.60	-1.12	-0.60	26.80	-1.29	-0.63
8HGHDN		30.50	0.78	0.42	27.70	-0.39	-0.19
8LCT8G		28.40	-1.32	-0.71	25.40	-2.69	-1.31
8N4QHA		31.00	1.28	0.69	30.00	1.91	0.94
8TBFYG		32.30	2.58	1.38	28.70	0.61	0.30
9PUA2L	*	29.40	-0.32	-0.17	31.20	3.11	1.52
9RRVER		28.50	-1.22	-0.65	26.00	-2.09	-1.02
9WCN27		31.00	1.28	0.69	28.50	0.41	0.20
AGW2TZ		29.41	-0.31	-0.17	27.38	-0.71	-0.34
AJQ642		32.30	2.58	1.38	30.50	2.41	1.18
AU7FE8		30.00	0.28	0.15	29.00	0.91	0.45
AV2GGV		25.96	-3.76	-2.01	24.53	-3.56	-1.74
AXBHNN		30.60	0.88	0.47	30.10	2.01	0.98
B4369E		28.85	-0.87	-0.47	27.68	-0.41	-0.20
B7RCTB		32.50	2.78	1.49	32.37	4.28	2.09
BEMTJL		29.50	-0.22	-0.12	28.00	-0.09	-0.04
BM9GNP		26.50	-3.22	-1.72	25.23	-2.86	-1.40
BZP8Y7		31.00	1.28	0.69	28.10	0.01	0.01
CNURU8		31.40	1.68	0.90	29.20	1.11	0.54
D7ACBC		31.00	1.28	0.69	30.00	1.91	0.94
D8YB3A		32.40	2.68	1.43	29.40	1.31	0.64
DBVWUD		28.13	-1.59	-0.85	28.13	0.04	0.02
DZGG3C		29.82	0.10	0.05	28.78	0.69	0.34
E4T8QD		27.00	-2.72	-1.46	25.50	-2.59	-1.26
EAZV4F	X	21.30	-8.42	-4.51	20.04	-8.05	-3.93
EJAHWU		28.80	-0.92	-0.49	27.60	-0.49	-0.24
ELB9KF		31.00	1.28	0.69	31.00	2.91	1.42
ENJJDD		28.20	-1.52	-0.81	27.00	-1.09	-0.53
EX7G4H		31.70	1.98	1.06	31.20	3.11	1.52

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		Sample F39			Sample F40		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
FL6CPB		28.32	-1.40	-0.75	26.42	-1.67	-0.81
FM2R28		28.80	-0.92	-0.49	25.50	-2.59	-1.26
FPVU93		29.90	0.18	0.10	28.10	0.01	0.01
FWW76Y		28.00	-1.72	-0.92	26.00	-2.09	-1.02
FX6FWW		31.20	1.48	0.79	29.30	1.21	0.59
G6ZKLQ		30.70	0.98	0.52	29.20	1.11	0.54
G8CBXG		30.00	0.28	0.15	25.60	-2.49	-1.21
GA8UDE		29.50	-0.22	-0.12	27.00	-1.09	-0.53
GAW8HZ		29.00	-0.72	-0.38	26.00	-2.09	-1.02
GMV4TT		32.95	3.23	1.73	31.27	3.18	1.56
GNZNC9		28.50	-1.22	-0.65	27.40	-0.69	-0.33
GPL2QY		29.60	-0.12	-0.06	27.00	-1.09	-0.53
GQ3QTW		33.00	3.28	1.76	31.00	2.91	1.42
GTQ6FL		28.10	-1.62	-0.87	26.50	-1.59	-0.77
H39MAY	*	32.60	2.88	1.54	33.60	5.51	2.70
HT7QPN		29.00	-0.72	-0.38	28.00	-0.09	-0.04
HUGQN3	*	24.90	-4.82	-2.58	23.80	-4.29	-2.09
HVD2LR		30.00	0.28	0.15	26.30	-1.79	-0.87
K2QVBK		27.60	-2.12	-1.13	28.35	0.26	0.13
KDA4J8		28.90	-0.82	-0.44	28.20	0.11	0.06
KGZKMK		30.00	0.28	0.15	28.00	-0.09	-0.04
KNXYA2		31.80	2.08	1.12	31.83	3.74	1.83
KTD9HY		29.80	0.08	0.04	26.90	-1.19	-0.58
KWBRGQ	X	33.18	3.46	1.85	27.78	-0.31	-0.15
LEQGB4		30.80	1.08	0.58	26.80	-1.29	-0.63
LFHCXC		30.00	0.28	0.15	28.00	-0.09	-0.04
LMJT8W		33.70	3.98	2.13	30.80	2.71	1.33
LWBNMK		27.70	-2.02	-1.08	24.82	-3.27	-1.60
MP82CW		31.40	1.68	0.90	28.80	0.71	0.35
MW4HLV		27.08	-2.64	-1.41	26.93	-1.16	-0.56
NKAWXH		29.70	-0.02	-0.01	29.40	1.31	0.64
NRMCMZ		29.15	-0.57	-0.30	30.05	1.96	0.96
NWPNLR		31.50	1.78	0.95	30.50	2.41	1.18
PQBYH4		29.60	-0.12	-0.06	28.20	0.11	0.06
PV9VLH		25.81	-3.91	-2.09	25.05	-3.04	-1.48
PYNKKL		32.20	2.48	1.33	30.70	2.61	1.28
Q4RC8J		30.30	0.58	0.31	27.90	-0.19	-0.09
Q7MA2P		30.90	1.18	0.63	29.70	1.61	0.79
QR7GBX		30.50	0.78	0.42	26.50	-1.59	-0.77
QXQGQB		30.00	0.28	0.15	29.00	0.91	0.45
QZYKM8		30.20	0.48	0.26	28.00	-0.09	-0.04
R3VULE		29.00	-0.72	-0.38	26.00	-2.09	-1.02
RAGRE9		27.40	-2.32	-1.24	25.80	-2.29	-1.12
RF6UHM		31.00	1.28	0.69	30.90	2.81	1.38
RGG7ZA		32.60	2.88	1.54	29.90	1.81	0.89
T4P39N		29.60	-0.12	-0.06	26.90	-1.19	-0.58
TQGLJ2		32.30	2.58	1.38	30.20	2.11	1.03

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		Sample F39			Sample F40		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
TU7JX6		27.00	-2.72	-1.46	26.50	-1.59	-0.77
UGCTRL	*	32.60	2.88	1.54	28.40	0.31	0.15
UGEYBM		27.90	-1.82	-0.97	25.50	-2.59	-1.26
UJRHRP		28.57	-1.15	-0.62	27.54	-0.55	-0.27
UT2PUK	X	29.00	-0.72	-0.38	32.00	3.91	1.91
VB3LPT	*	24.90	-4.82	-2.58	23.50	-4.59	-2.24
VP3AXM		31.50	1.78	0.95	28.30	0.21	0.10
WHUUNK	*	32.30	2.58	1.38	33.10	5.01	2.45
WPWJ4A		31.42	1.70	0.91	27.32	-0.77	-0.37
WRGRBJ		29.40	-0.32	-0.17	28.50	0.41	0.20
WWEARJ		31.40	1.68	0.90	28.80	0.71	0.35
WZUF7B		30.20	0.48	0.26	27.70	-0.39	-0.19
X8C4MY		27.90	-1.82	-0.97	28.60	0.51	0.25
XFQPV3		30.25	0.53	0.28	28.96	0.87	0.43
XH6ZFE		31.20	1.48	0.79	28.80	0.71	0.35
XJKC3Q		27.50	-2.22	-1.19	26.70	-1.39	-0.68
XNZCLH		30.00	0.28	0.15	27.70	-0.39	-0.19
XXKDFR		27.40	-2.32	-1.24	24.80	-3.29	-1.61
Y6NYJU		29.10	-0.62	-0.33	26.50	-1.59	-0.77
Y8RQDR		28.60	-1.12	-0.60	26.80	-1.29	-0.63
YMHR7D		30.10	0.38	0.20	29.20	1.11	0.54
YRYW68		27.98	-1.74	-0.93	26.72	-1.37	-0.67
Z3W8XF		31.50	1.78	0.95	31.00	2.91	1.42
ZJ9PFT	X	20.94	-8.78	-4.70	19.43	-8.66	-4.23
ZK97VH		27.90	-1.82	-0.97	27.00	-1.09	-0.53
ZMVM8B		29.00	-0.72	-0.38	28.00	-0.09	-0.04
ZNUTN6		28.90	-0.82	-0.44	27.40	-0.69	-0.33
ZXU6JT		27.40	-2.32	-1.24	25.75	-2.34	-1.14

Summary Statistics

	Sample F39		Sample F40	
Grand Means	29.72	Percent	28.09	Percent
Stnd Dev Btwn Labs	1.87	Percent	2.05	Percent

Samples F39, F40 : 12G AISI 4130, 14G AISI 4130

Statistics based on 117 of 122 reporting participants

Comments on Assigned Data Flags for Test #132

779Y2H (X) - Data for both samples are low. Possible Systematic Error.

EAZV4F (X) - Data for both samples are low. Possible Systematic Error.

KWBRGQ (X) - Inconsistent in testing between samples.

UT2PUK (X) - Inconsistent in testing between samples.

ZJ9PFT (X) - Data for both samples are low. Possible Systematic Error.

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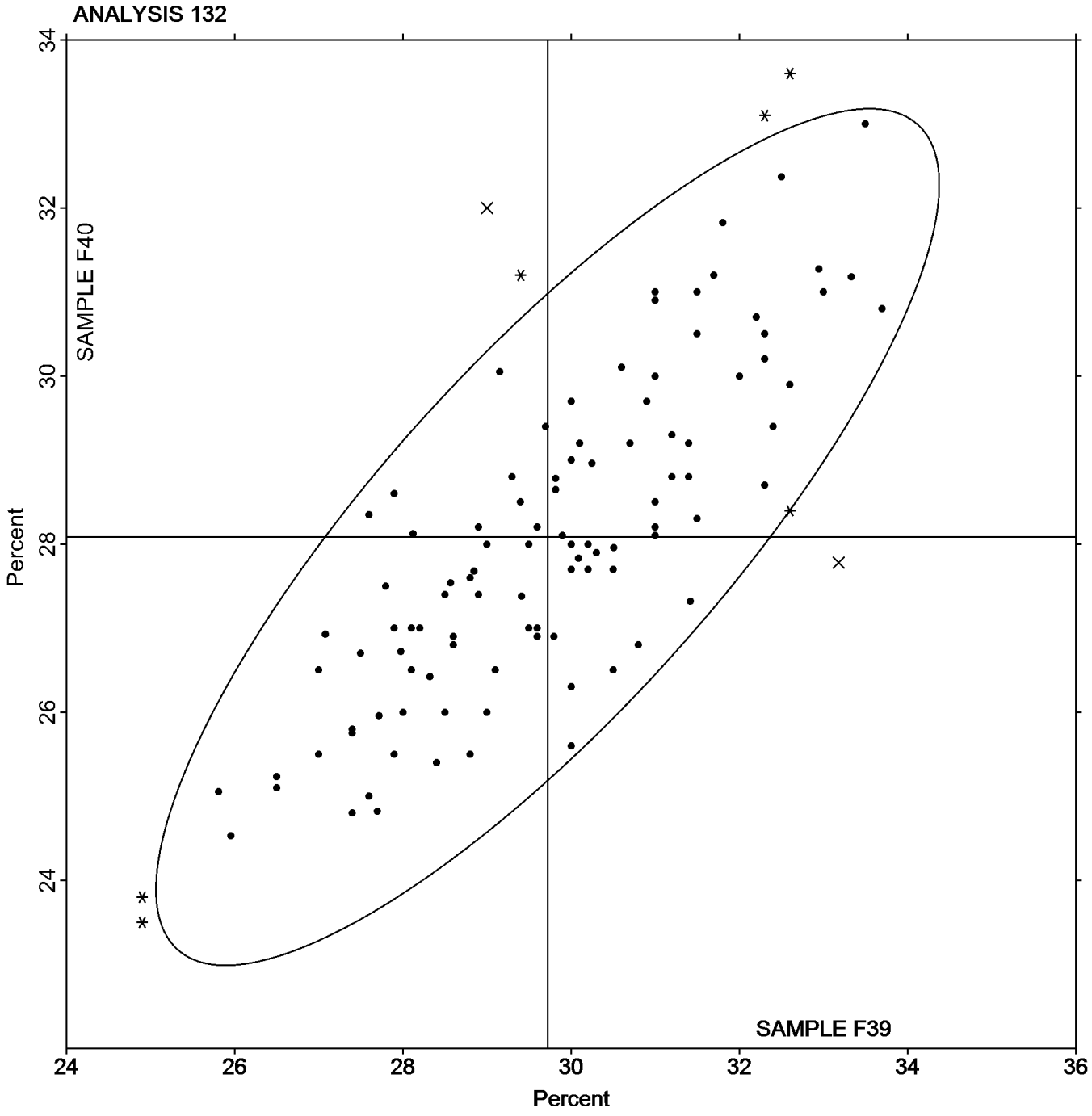
SAMPLE F39	SAMPLE F40
29.72 Percent	28.09 Percent



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		Sample E39			Sample E40		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
29WZGA		76.06	0.33	0.66	79.62	0.20	0.47
2UBLEV		75.60	-0.13	-0.27	79.80	0.38	0.89
42PBUL		76.18	0.45	0.90	80.00	0.58	1.36
46HWJH		76.22	0.49	0.98	79.02	-0.40	-0.93
6AG3ZE		74.76	-0.97	-1.96	78.96	-0.46	-1.07
6HR9RB		75.90	0.17	0.33	79.86	0.44	1.03
6NW9NY		75.70	-0.03	-0.07	80.00	0.58	1.36
7FGRU4		75.38	-0.35	-0.71	78.74	-0.68	-1.58
7XXWFV		74.92	-0.81	-1.64	78.82	-0.60	-1.40
7Z82V6		75.64	-0.09	-0.19	79.70	0.28	0.66
9LV2R6		75.36	-0.37	-0.75	79.48	0.06	0.15
A89KK6		75.16	-0.57	-1.16	79.52	0.10	0.24
AXRU69		75.82	0.09	0.17	79.22	-0.20	-0.46
AYCBU2		76.22	0.49	0.98	79.92	0.50	1.17
AZBXNY	X	73.82	-1.91	-3.85	77.64	-1.78	-4.16
B7CB7U		76.04	0.31	0.62	79.46	0.04	0.10
CQUMBJ		76.76	1.03	2.07	79.54	0.12	0.29
D6XL28		76.96	1.23	2.47	79.74	0.32	0.75
EN3JWN		75.58	-0.15	-0.31	79.00	-0.42	-0.98
FM2R28		76.40	0.67	1.34	79.52	0.10	0.24
FU427E		76.31	0.57	1.16	79.83	0.41	0.97
FXLEAU		75.92	0.19	0.37	79.28	-0.14	-0.32
GNZNC9		74.70	-1.03	-2.08	78.50	-0.92	-2.15
HGAH7K		75.40	-0.33	-0.67	79.50	0.08	0.19
J2XGVF		75.46	-0.27	-0.55	79.42	0.00	0.01
K8D9B2		76.02	0.29	0.58	79.44	0.02	0.05
LFTD9Y		75.94	0.21	0.42	79.34	-0.08	-0.18
LKTR4U		75.72	-0.01	-0.03	78.62	-0.80	-1.86
LTETCX		75.82	0.09	0.17	80.28	0.86	2.02
N763L3		76.56	0.83	1.66	80.00	0.58	1.36
NTPH62		75.42	-0.31	-0.63	79.30	-0.12	-0.27
Q2BNQX		75.02	-0.71	-1.44	79.30	-0.12	-0.27
QXQGQB		75.40	-0.33	-0.67	78.80	-0.62	-1.44
R2RR9W		75.98	0.25	0.50	79.96	0.54	1.27
R96C7V		76.06	0.33	0.66	78.84	-0.58	-1.35
RC7WBL		75.72	-0.01	-0.03	79.62	0.20	0.47
T4P39N		75.24	-0.49	-0.99	79.40	-0.02	-0.04
TGD6RG		75.30	-0.43	-0.87	79.26	-0.16	-0.37
UBWMPK		75.26	-0.47	-0.95	79.02	-0.40	-0.93
VBG2WF		76.01	0.28	0.56	79.76	0.34	0.80
VHGGLM		75.30	-0.43	-0.87	78.84	-0.58	-1.35
WCUTMB		75.74	0.01	0.01	79.64	0.22	0.52
XWD72K		76.12	0.39	0.78	79.86	0.44	1.03
Y8RQDR		75.26	-0.47	-0.95	79.22	-0.20	-0.46
Z3W8XF		75.68	-0.05	-0.11	79.84	0.42	0.99
ZYRU3U		76.00	0.27	0.54	79.00	-0.42	-0.98

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Summary Statistics

	Sample E39		Sample E40	
Grand Means	75.73	HR30N	79.42	HR30N
Stnd Dev Btwn Labs	0.50	HR30N	0.43	HR30N

Samples E39, E40 : Steel, Steel

Statistics based on 45 of 46 reporting participants

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

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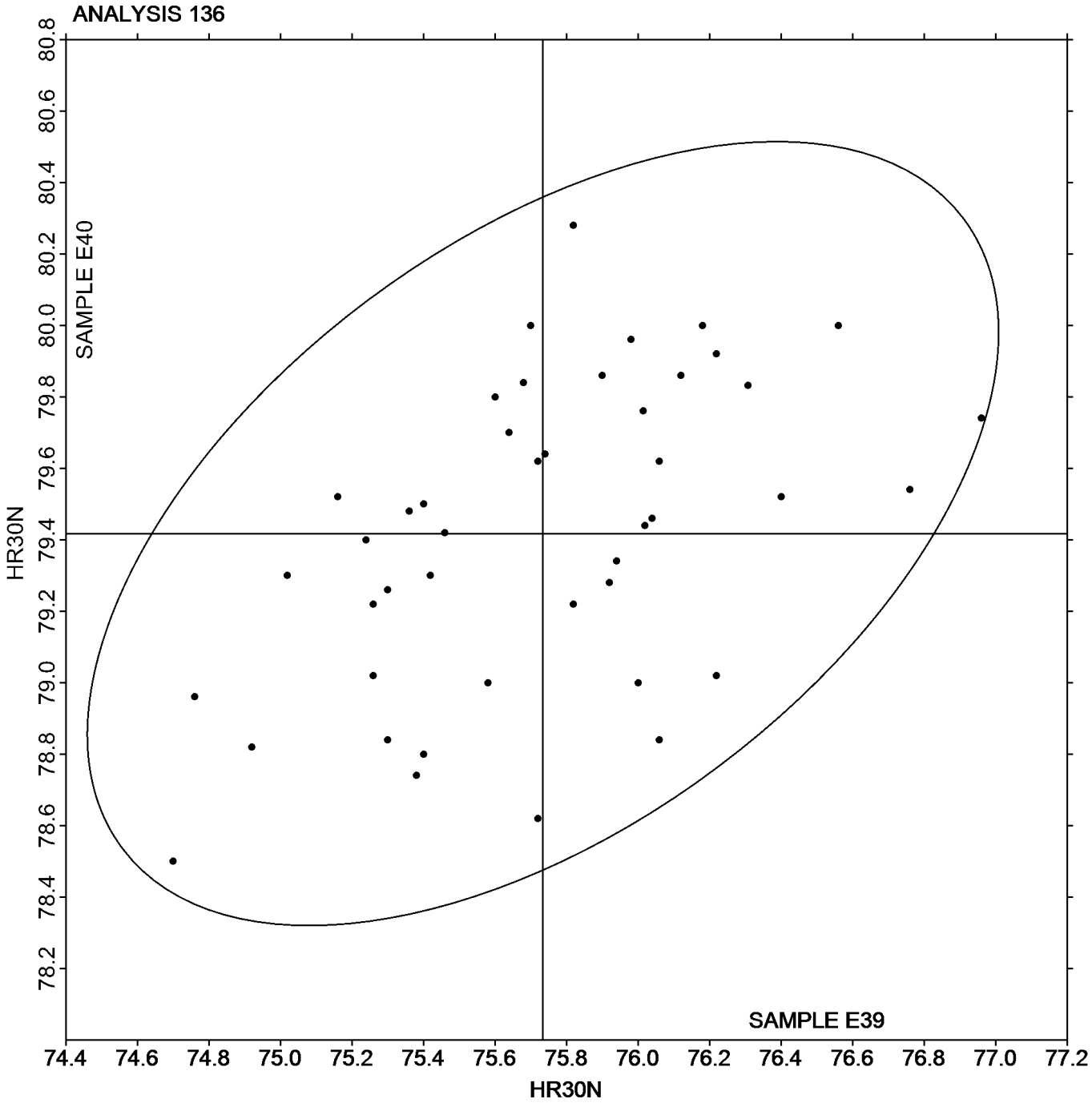
SAMPLE E39	SAMPLE E40
75.73 HR30N	79.42 HR30N



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		Sample C39			Sample C40		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2424VN		0.0272	-0.0004	-0.10	0.0308	-0.0016	-0.40
2TU9BD		0.0252	-0.0024	-0.63	0.0292	-0.0032	-0.79
32MPG9		0.0302	0.0026	0.67	0.0334	0.0010	0.24
3CPKYJ		0.0263	-0.0014	-0.35	0.0342	0.0018	0.44
3FB433		0.0284	0.0008	0.21	0.0321	-0.0003	-0.07
3FVXPX		0.0332	0.0056	1.45	0.0346	0.0022	0.54
4VGZKR		0.0279	0.0003	0.07	0.0380	0.0056	1.38
64LXKA		0.0254	-0.0022	-0.58	0.0294	-0.0030	-0.74
67EYBC		0.0266	-0.0010	-0.26	0.0288	-0.0036	-0.89
6AG3ZE		0.0258	-0.0018	-0.47	0.0337	0.0012	0.31
6PHJF7		0.0282	0.0006	0.15	0.0320	-0.0004	-0.10
6R9F97		0.0241	-0.0035	-0.91	0.0291	-0.0033	-0.81
78Q638		0.0292	0.0016	0.42	0.0322	-0.0002	-0.06
82Z69C		0.0224	-0.0053	-1.36	0.0282	-0.0042	-1.04
9KHAX4		0.0287	0.0011	0.29	0.0303	-0.0021	-0.52
9LV2R6		0.0280	0.0004	0.10	0.0344	0.0020	0.49
A89KK6		0.0300	0.0024	0.62	0.0312	-0.0012	-0.30
AVHVMK		0.0242	-0.0034	-0.89	0.0284	-0.0040	-0.99
BHQG8N	*	0.0376	0.0100	2.60	0.0390	0.0066	1.62
BKCBZH		0.0309	0.0033	0.86	0.0346	0.0022	0.55
BXJYBZ		0.0250	-0.0026	-0.68	0.0310	-0.0014	-0.35
CBZXG8		0.0280	0.0004	0.11	0.0380	0.0056	1.38
CMKVA4		0.0284	0.0008	0.20	0.0346	0.0022	0.54
E3MC92		0.0198	-0.0079	-2.04	0.0233	-0.0091	-2.23
EK3YQX		0.0276	0.0000	0.00	0.0376	0.0052	1.27
GNZNC9		0.0322	0.0046	1.19	0.0328	0.0004	0.09
H39MAY		0.0301	0.0025	0.64	0.0393	0.0069	1.69
H7RMPF		0.0272	-0.0004	-0.11	0.0344	0.0020	0.49
HDTC8P		0.0288	0.0012	0.31	0.0341	0.0017	0.41
HGAH7K		0.0233	-0.0043	-1.12	0.0319	-0.0005	-0.12
K4DB3Z		0.0287	0.0011	0.29	0.0327	0.0003	0.06
KBY9U9		0.0294	0.0018	0.48	0.0346	0.0022	0.53
KDA4J8		0.0206	-0.0070	-1.82	0.0246	-0.0078	-1.92
LFTD9Y		0.0244	-0.0032	-0.83	0.0285	-0.0039	-0.97
NE6ZCX		0.0301	0.0025	0.65	0.0404	0.0079	1.95
NJVYJU		0.0288	0.0011	0.30	0.0340	0.0016	0.39
P37PEA		0.0283	0.0007	0.19	0.0338	0.0014	0.34
P82GM8		0.0284	0.0008	0.20	0.0307	-0.0017	-0.41
PAQXPR		0.0250	-0.0026	-0.68	0.0310	-0.0014	-0.35
PD4M3A		0.0296	0.0020	0.51	0.0348	0.0024	0.59
PVRWA7		0.0240	-0.0036	-0.94	0.0280	-0.0044	-1.08
PWYJLK		0.0206	-0.0070	-1.82	0.0294	-0.0030	-0.74
Q2BNQX		0.0270	-0.0006	-0.16	0.0300	-0.0024	-0.59
QGMTMQ		0.0285	0.0009	0.23	0.0310	-0.0014	-0.34
QXQGQB		0.0301	0.0025	0.64	0.0359	0.0035	0.86
R96C7V		0.0366	0.0090	2.33	0.0388	0.0064	1.57
RAGRE9		0.0189	-0.0087	-2.26	0.0274	-0.0050	-1.24

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Analysis 145

Total Case Depth
SAE J423, SAE J78

WebCode	Data Flag	Sample C39 Lab Mean	Sample C39 Diff. from Grand Mean	Sample C39 CPV	Sample C40 Lab Mean	Sample C40 Diff. from Grand Mean	Sample C40 CPV
T4P39N	*	0.0350	0.0074	1.92	0.0446	0.0122	2.99
TGD6RG		0.0268	-0.0008	-0.22	0.0300	-0.0024	-0.59
TM4GNX		0.0302	0.0025	0.66	0.0344	0.0020	0.49
TNCVDL		0.0282	0.0006	0.16	0.0352	0.0027	0.67
U2C9QN		0.0284	0.0008	0.20	0.0318	-0.0006	-0.15
UBWMPK		0.0218	-0.0058	-1.50	0.0276	-0.0048	-1.17
UHM9ZY		0.0275	-0.0001	-0.02	0.0305	-0.0019	-0.46
VHGGLM		0.0258	-0.0019	-0.48	0.0314	-0.0010	-0.24
W6CFLQ		0.0214	-0.0062	-1.61	0.0265	-0.0059	-1.45
WCUTMB		0.0282	0.0006	0.15	0.0294	-0.0030	-0.74
WQTV4J		0.0284	0.0008	0.20	0.0300	-0.0024	-0.59
WTNCUC		0.0228	-0.0048	-1.25	0.0250	-0.0074	-1.82
Y3GQ3M		0.0318	0.0042	1.09	0.0374	0.0050	1.22
Y9FQBH		0.0346	0.0070	1.82	0.0380	0.0056	1.38
Z3W8XF		0.0322	0.0046	1.19	0.0315	-0.0010	-0.23

Summary Statistics

	Sample C39		Sample C40	
Grand Means	0.0276	inches	0.0324	inches
Stnd Dev Btwn Labs	0.0039	inches	0.0041	inches

Samples C39, C40 : Steel, Steel

Statistics based on 62 of 62 reporting participants

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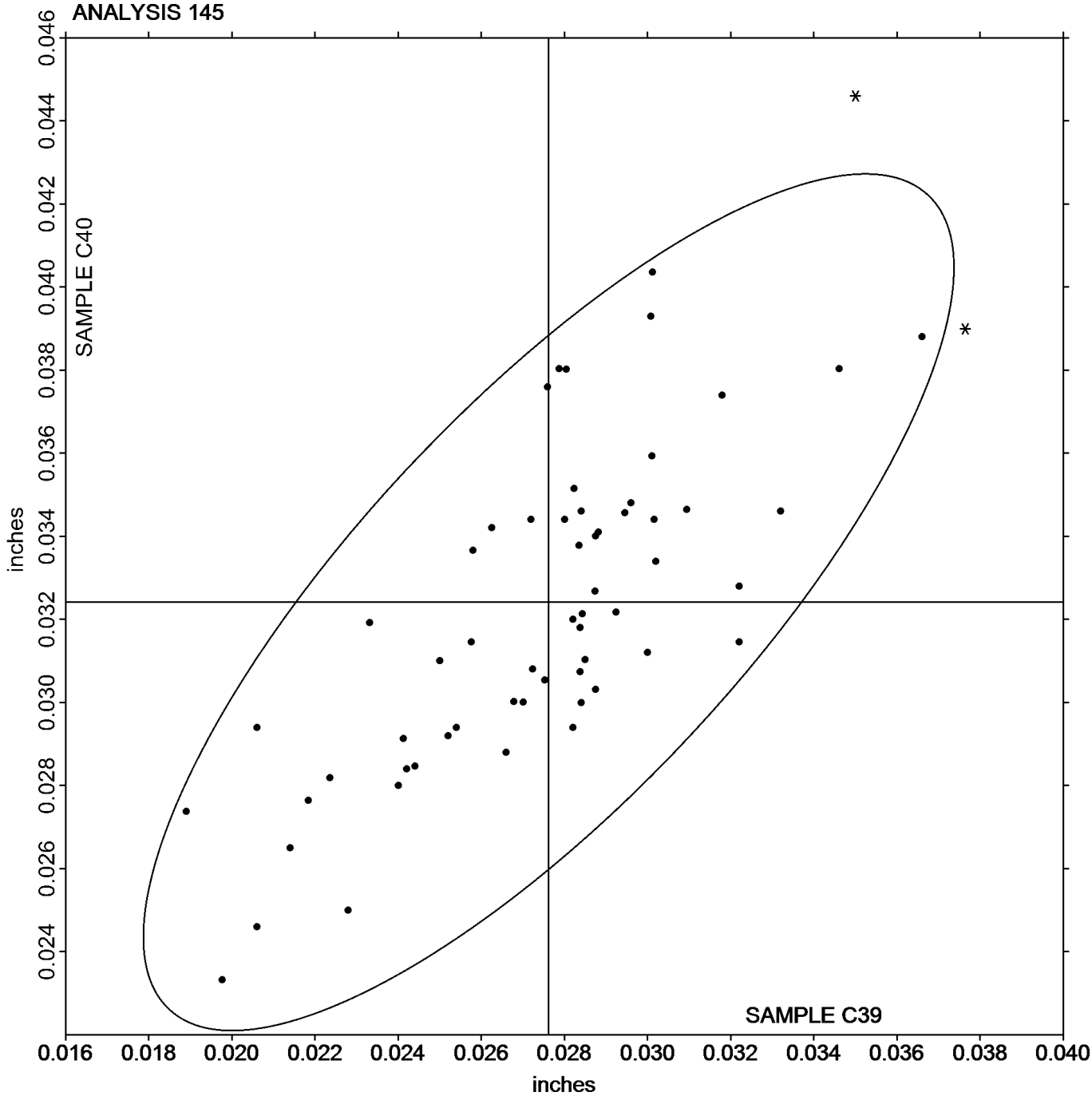
SAMPLE C39
0.0276 inches

SAMPLE C40
0.0324 inches



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		Sample C39			Sample C40		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2424VN		0.0244	-0.0014	-0.78	0.0274	-0.0025	-1.43
2TU9BD		0.0244	-0.0014	-0.78	0.0284	-0.0015	-0.85
32MPG9		0.0294	0.0036	2.01	0.0324	0.0025	1.45
3CPKYJ		0.0257	-0.0001	-0.07	0.0303	0.0004	0.25
3FB433		0.0254	-0.0004	-0.21	0.0283	-0.0016	-0.93
3FVXPX		0.0258	0.0000	0.00	0.0310	0.0011	0.65
4VGZKR		0.0238	-0.0020	-1.13	0.0287	-0.0011	-0.65
64LXKA		0.0238	-0.0020	-1.12	0.0278	-0.0021	-1.20
67EYBC		0.0248	-0.0010	-0.56	0.0268	-0.0031	-1.77
6AG3ZE		0.0246	-0.0012	-0.67	0.0298	-0.0001	-0.04
6HR9RB		0.0246	-0.0012	-0.69	0.0287	-0.0011	-0.65
6PHJF7		0.0270	0.0012	0.67	0.0308	0.0009	0.53
6R9F97		0.0249	-0.0009	-0.53	0.0289	-0.0010	-0.56
78Q638		0.0245	-0.0013	-0.72	0.0290	-0.0009	-0.50
7FJCLD		0.0272	0.0014	0.78	0.0316	0.0017	0.99
7X2G7J		0.0258	0.0000	-0.01	0.0291	-0.0008	-0.47
82Z69C		0.0246	-0.0012	-0.65	0.0291	-0.0008	-0.47
8TBHPL	*	0.0280	0.0022	1.21	0.0292	-0.0007	-0.42
9KHAX4		0.0254	-0.0004	-0.21	0.0298	-0.0001	-0.06
9LV2R6		0.0248	-0.0010	-0.56	0.0300	0.0001	0.07
A89KK6		0.0234	-0.0024	-1.34	0.0266	-0.0033	-1.89
AVHVMK		0.0240	-0.0018	-1.01	0.0282	-0.0017	-0.97
B62R2Q		0.0254	-0.0004	-0.22	0.0302	0.0003	0.19
BHQG8N		0.0272	0.0014	0.81	0.0294	-0.0004	-0.25
BKCBZH		0.0298	0.0040	2.22	0.0335	0.0036	2.07
BXJYBZ		0.0260	0.0002	0.11	0.0310	0.0011	0.65
CBZXG8		0.0260	0.0002	0.10	0.0291	-0.0007	-0.43
CMKVA4		0.0243	-0.0015	-0.84	0.0296	-0.0003	-0.16
E3MC92		0.0270	0.0012	0.67	0.0309	0.0011	0.62
GNZNC9		0.0268	0.0010	0.56	0.0318	0.0019	1.11
H39MAY		0.0277	0.0019	1.07	0.0321	0.0022	1.27
H7RMPF		0.0256	-0.0002	-0.11	0.0310	0.0011	0.65
HDTC8P		0.0260	0.0002	0.10	0.0309	0.0010	0.57
HGAH7K		0.0233	-0.0025	-1.40	0.0269	-0.0030	-1.70
HUGQN3		0.0238	-0.0020	-1.12	0.0280	-0.0019	-1.08
J7NTNR		0.0284	0.0026	1.47	0.0317	0.0018	1.02
JE2B3D		0.0275	0.0017	0.94	0.0309	0.0011	0.62
K2RTKF		0.0272	0.0014	0.76	0.0320	0.0022	1.25
K4DB3Z		0.0274	0.0016	0.89	0.0320	0.0021	1.22
KBY9U9		0.0261	0.0003	0.19	0.0322	0.0023	1.35
LFTD9Y		0.0240	-0.0018	-0.98	0.0292	-0.0007	-0.40
N763L3		0.0263	0.0005	0.28	0.0294	-0.0004	-0.25
N9XP44		0.0256	-0.0002	-0.11	0.0322	0.0023	1.34
NE6ZCX		0.0288	0.0030	1.70	0.0321	0.0022	1.26
NJVYJU		0.0266	0.0008	0.46	0.0315	0.0016	0.92
P37PEA		0.0262	0.0004	0.23	0.0306	0.0008	0.43
P82GM8		0.0260	0.0002	0.13	0.0281	-0.0018	-1.01

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WebCode	Data Flag	Sample C39 Lab Mean	Sample C39 Diff. from Grand Mean	Sample C39 CPV	Sample C40 Lab Mean	Sample C40 Diff. from Grand Mean	Sample C40 CPV
PAQXPR		0.0232	-0.0026	-1.48	0.0271	-0.0027	-1.58
PD4M3A		0.0284	0.0026	1.45	0.0316	0.0017	0.99
PVRWA7	*	0.0212	-0.0046	-2.57	0.0262	-0.0037	-2.12
PWYJLK		0.0238	-0.0020	-1.12	0.0300	0.0001	0.07
Q2BNQX		0.0278	0.0020	1.11	0.0311	0.0012	0.71
QGMTMQ		0.0287	0.0029	1.60	0.0308	0.0009	0.54
QXQGQB		0.0270	0.0012	0.69	0.0309	0.0010	0.58
R96C7V		0.0268	0.0010	0.56	0.0292	-0.0007	-0.39
RAGRE9		0.0272	0.0014	0.78	0.0294	-0.0005	-0.27
T4P39N		0.0248	-0.0010	-0.56	0.0300	0.0001	0.07
TGD6RG		0.0254	-0.0004	-0.21	0.0290	-0.0009	-0.52
TM4GNX		0.0283	0.0025	1.42	0.0329	0.0030	1.75
TNCVDL		0.0263	0.0005	0.25	0.0319	0.0021	1.19
U2C9QN		0.0264	0.0006	0.33	0.0310	0.0011	0.65
UAQD2E		0.0268	0.0010	0.56	0.0322	0.0023	1.34
UBWMPK		0.0219	-0.0039	-2.17	0.0281	-0.0017	-1.00
UHM9ZY	X	0.0325	0.0067	3.76	0.0343	0.0045	2.57
VHGGLM		0.0248	-0.0010	-0.56	0.0294	-0.0005	-0.28
W6CFLQ		0.0260	0.0002	0.13	0.0302	0.0003	0.20
WCUTMB	X	0.0248	-0.0010	-0.56	0.0248	-0.0051	-2.93
WQTV4J	X	0.0254	-0.0004	-0.22	0.0194	-0.0105	-6.04
WTNCUC		0.0226	-0.0032	-1.79	0.0260	-0.0039	-2.23
WZUF7B		0.0236	-0.0022	-1.23	0.0280	-0.0019	-1.08
XRFVKQ		0.0276	0.0018	1.00	0.0300	0.0002	0.09
Y3GQ3M		0.0240	-0.0018	-1.01	0.0278	-0.0021	-1.20
Y9FQBH		0.0256	-0.0002	-0.11	0.0286	-0.0013	-0.74
Z3W8XF		0.0282	0.0024	1.35	0.0314	0.0015	0.88

Summary Statistics

	Sample C39		Sample C40	
Grand Means	0.0258	inches	0.0299	inches
Stnd Dev Btwn Labs	0.0018	inches	0.0017	inches

Samples C39, C40 : Steel, Steel

Statistics based on 71 of 74 reporting participants

UHM9ZY (X) - Data for sample C39 are high.

WCUTMB (X) - Data for sample C40 are low.

WQTV4J (X) - Data for sample C40 are low.

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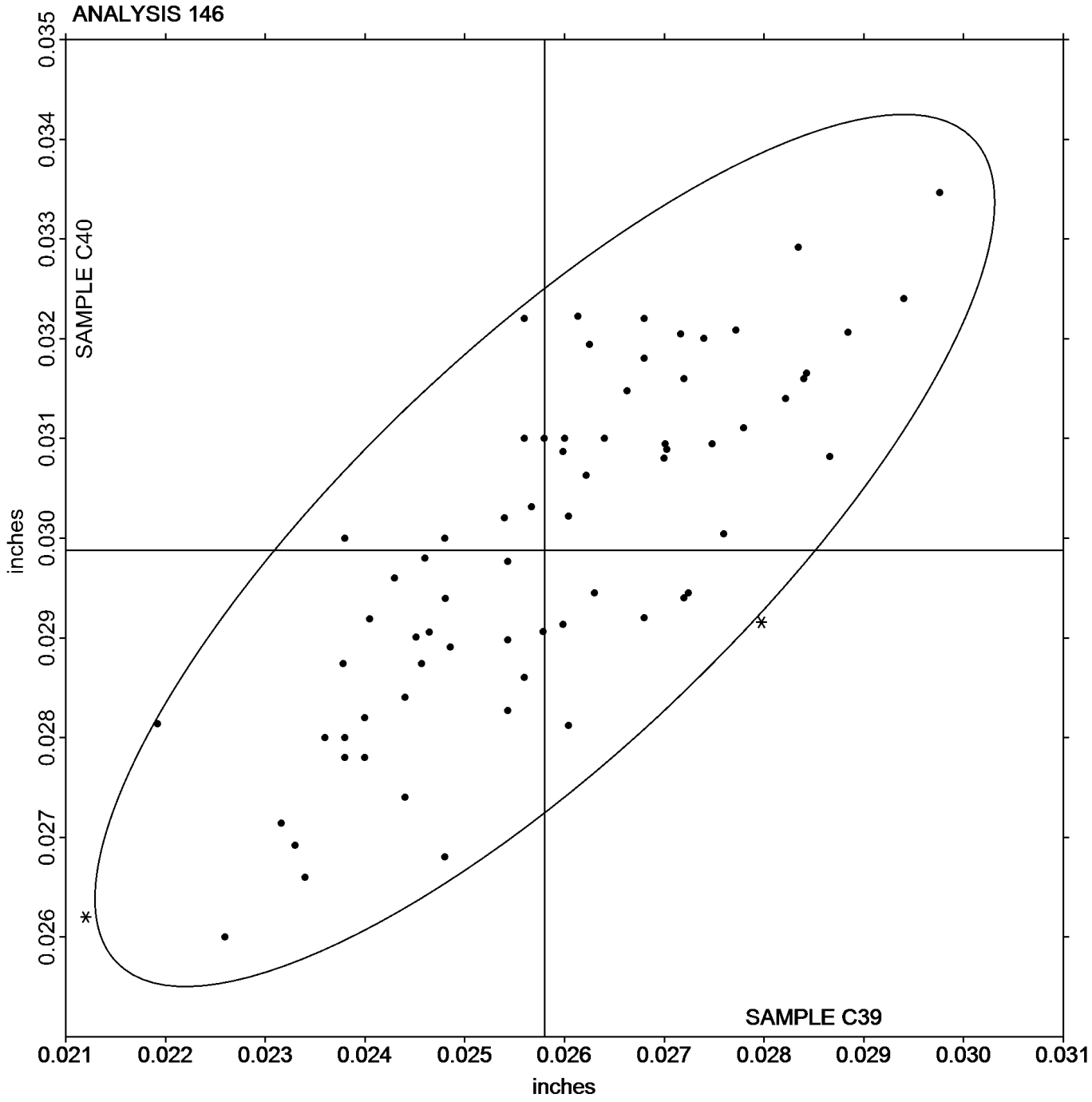
SAMPLE C39	SAMPLE C40
0.0258 inches	0.0299 inches



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		Sample M3			Sample M4			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
24ELAA		8.90	-0.43	-0.70	7.40	-0.61	-0.90	Comparison Method
29WZGA		9.40	0.07	0.12	8.70	0.69	1.00	N/A
3EHB6X		9.70	0.37	0.62	8.70	0.69	1.00	N/A
42PBUL		9.80	0.47	0.78	9.20	1.19	1.73	N/A
4TU9RA		9.50	0.17	0.29	8.10	0.09	0.13	Comparison Method
64MAJ6		9.10	-0.23	-0.37	8.40	0.39	0.56	Comparison Method
6A9U36		8.85	-0.48	-0.78	8.76	0.74	1.08	Automatic Image Analysis
6AG3ZE		8.70	-0.63	-1.03	8.20	0.19	0.27	N/A
7YPG4A		10.30	0.97	1.60	8.50	0.49	0.71	Comparison Method
82Z69C		8.50	-0.83	-1.36	7.50	-0.51	-0.75	Comparison Method
99LHXG		8.60	-0.73	-1.19	7.00	-1.01	-1.48	Comparison Method
B4KWKJ		9.50	0.18	0.29	7.52	-0.49	-0.72	Heyn Linear Intercept
BXJYBZ		9.20	-0.13	-0.21	7.20	-0.81	-1.19	N/A
CNQN2C		9.66	0.34	0.55	8.85	0.84	1.23	General Intercept
G6ZKLQ		8.10	-1.23	-2.02	6.80	-1.21	-1.77	Comparison Method
GXDGBW		9.90	0.57	0.94	8.80	0.79	1.15	Comparison Method
H7RMPF		8.40	-0.93	-1.52	7.20	-0.81	-1.19	Comparison Method
KQQ9HM		9.80	0.47	0.78	7.50	-0.51	-0.75	Comparison Method
KTD9HY		10.23	0.90	1.49	8.04	0.03	0.04	Planimetric (Jeffries)
M7FTE2		10.47	1.14	1.88	9.05	1.04	1.51	Abrams Three-Circle
N9EQZD		8.90	-0.43	-0.70	7.80	-0.21	-0.31	Comparison Method
PVNFQD		9.70	0.37	0.62	8.80	0.79	1.15	N/A
RKXCX6		8.90	-0.43	-0.70	7.50	-0.51	-0.75	Comparison Method
T4P39N		9.30	-0.03	-0.04	8.20	0.19	0.27	Comparison Method
T7F4CQ		9.40	0.07	0.12	7.80	-0.21	-0.31	N/A
VT2TVE		8.36	-0.97	-1.59	7.30	-0.71	-1.04	Automatic Image Analysis
W6CFLQ		9.40	0.07	0.12	8.40	0.39	0.56	Comparison Method
WCUTMB		9.90	0.57	0.94	7.80	-0.21	-0.31	Comparison Method
WTNCUC		9.40	0.07	0.12	7.00	-1.01	-1.48	Comparison Method
Y6H8AJ		9.90	0.57	0.94	8.40	0.39	0.56	N/A
ZCCUHV	X	7.50	-1.83	-3.00	9.70	1.69	2.46	Comparison Method

Summary Statistics

	Sample M3		Sample M4	
Grand Means	9.33	ASTM Grain Si	8.01	ASTM Grain Si
Stnd Dev Btwn Labs	0.61	ASTM Grain Si	0.68	ASTM Grain Si

Samples M3, M4 : Inco 625 (5/8), Inco 625 (1/2)

Statistics based on 30 of 31 reporting participants

Comments on Assigned Data Flags for Test #148

ZCCUHV (X) - Data for sample M3 are low.

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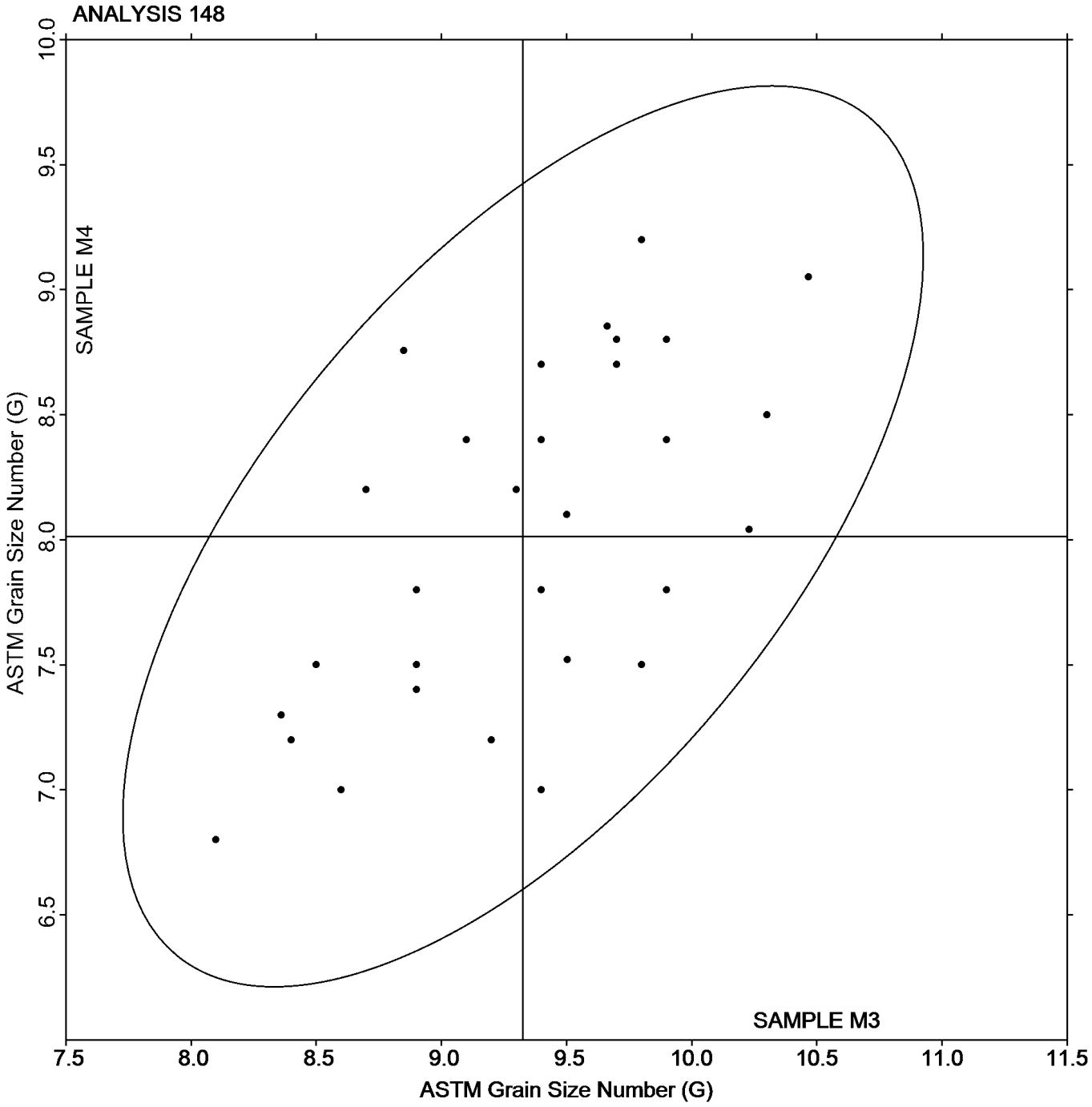
SAMPLE M3
9.33 ASTM Grain Size Number (G)

SAMPLE M4
8.01 ASTM Grain Size Number (G)



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Fasteners and Metals Interlaboratory Testing Program

Analysis 160

Copper-based Alloy, Element #1
COPPER (Cu)

		Sample K39			Sample K40			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2424VN		81.38	0.15	0.22	81.08	0.11	0.17	OE
2FQPZD		80.98	-0.26	-0.38	80.82	-0.15	-0.24	OE
39R2XK		82.43	1.20	1.78	81.99	1.02	1.62	XX
4VGZKR		81.04	-0.19	-0.28	80.67	-0.31	-0.49	GR
6HR9RB		81.20	-0.04	-0.05	80.86	-0.11	-0.18	OE
7VBEZV		82.23	1.00	1.48	82.04	1.07	1.70	OE
8DQYHK		81.00	-0.23	-0.35	80.80	-0.17	-0.27	OE
9Y3P69		81.17	-0.07	-0.10	80.90	-0.07	-0.11	IC
CGCCBB		81.50	0.26	0.39	81.20	0.23	0.37	OE
EBEZ2D		80.67	-0.56	-0.84	80.67	-0.30	-0.48	AA
EFTCXY		81.33	0.10	0.15	81.03	0.06	0.10	XX
JZVFLW		80.13	-1.10	-1.63	79.90	-1.07	-1.71	OE
KALPVX		81.49	0.26	0.38	81.44	0.47	0.75	IC
KYGD9W		80.74	-0.49	-0.73	80.59	-0.38	-0.60	OE
L9PFE2		82.33	1.10	1.63	82.00	1.03	1.64	OE
M2Y9R8	*	79.47	-1.77	-2.62	79.26	-1.71	-2.73	XR
R8H3HU		80.77	-0.46	-0.68	80.61	-0.37	-0.58	EL
RFRQWT		81.43	0.20	0.30	81.10	0.13	0.20	OE
RGG7ZA		81.37	0.14	0.21	81.04	0.07	0.11	OE
V3UUMQ	*	81.65	0.42	0.62	80.94	-0.03	-0.05	BD
VVAZ3D		81.12	-0.12	-0.17	81.13	0.16	0.26	WD
Y3GQ3M		81.69	0.46	0.68	81.30	0.33	0.52	OE

Summary Statistics

	Sample K39		Sample K40	
Grand Means	81.23	Percent	80.97	Percent
Stnd Dev Btwn Labs	0.67	Percent	0.63	Percent

Samples K39, K40 : CDA 932, CDA 932

Statistics based on 22 of 22 reporting participants

Key to Method Codes Reported by Participants

AA	Spectrometry - Atomic Absorption (AAS)	BD	By Difference
EL	Electrochemistry	GR	Gravimetry
IC	Spectrometry - Inductively Coupled Plasma (ICP)	OE	Spectrometry - Optical Emission (OES)
WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)	XR	X-Ray Fluorescence - ED or WD not specified
XX	Please Indicate Method Used for Current Element		

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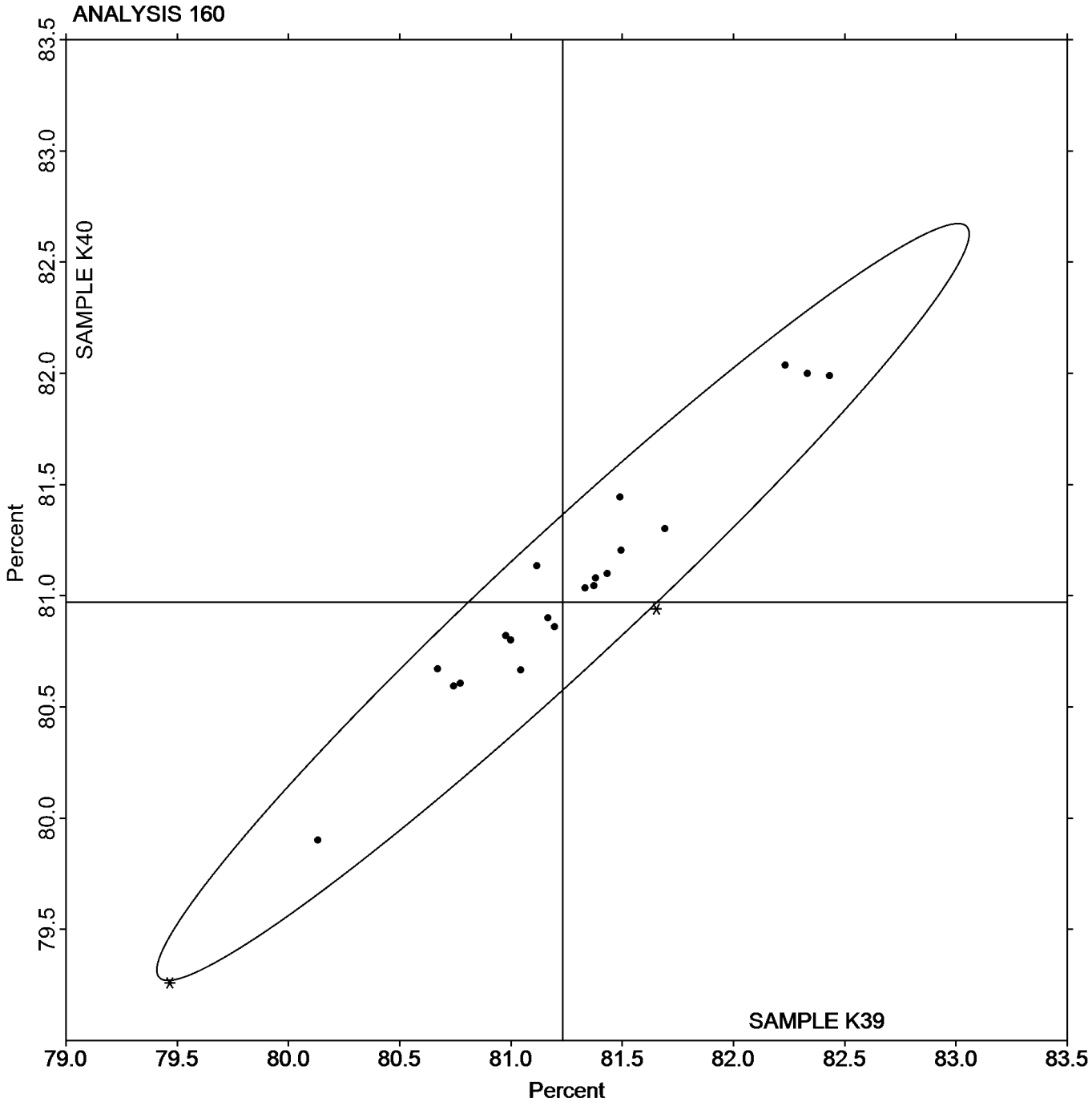
SAMPLE K39	SAMPLE K40
81.23 Percent	80.97 Percent



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Fasteners and Metals Interlaboratory Testing Program

Analysis 161

Copper-based Alloy, Element #2
TIN (Sn)

Cycle 116
4th Qtr 2016

		Sample K39			Sample K40			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2424VN		6.764	0.084	0.75	6.751	0.013	0.10	OE
2FQPZD		6.728	0.049	0.43	6.773	0.035	0.27	OE
39R2XK		6.684	0.005	0.04	6.711	-0.027	-0.20	XX
4VGZKR	*	6.598	-0.081	-0.73	6.452	-0.286	-2.18	IC
6HR9RB		6.465	-0.214	-1.92	6.518	-0.220	-1.68	OE
7VBEZV	X	5.933	-0.746	-6.68	5.993	-0.745	-5.68	OE
8DQYHK		6.770	0.091	0.81	6.840	0.102	0.78	XX
9Y3P69		6.750	0.071	0.63	6.840	0.102	0.78	IC
CGCCBB		6.733	0.054	0.48	6.810	0.072	0.55	OE
EBEZ2D	X	7.658	0.978	8.76	7.627	0.889	6.78	ED
EFTCXY		6.780	0.101	0.90	6.857	0.119	0.91	XX
JZVFLW		6.520	-0.159	-1.43	6.617	-0.121	-0.92	OE
KALPVX	X	6.543	-0.136	-1.22	7.177	0.439	3.35	IC
KYGD9W		6.768	0.089	0.79	6.779	0.041	0.32	OE
L9PFE2		6.793	0.114	1.02	6.777	0.039	0.30	OE
M2Y9R8	*	6.367	-0.312	-2.80	6.427	-0.311	-2.37	XR
R8H3HU		6.783	0.104	0.93	6.810	0.072	0.55	IC
RFKQPX		6.697	0.018	0.16	6.807	0.069	0.53	IC
RFRQWT		6.670	-0.009	-0.08	6.720	-0.018	-0.14	OE
RGG7ZA	X	4.827	-1.853	-16.59	4.907	-1.831	-13.97	OE
V3UUMQ		6.691	0.012	0.10	6.911	0.173	1.32	OE
VEDAYJ		6.636	-0.044	-0.39	6.705	-0.033	-0.25	IC
VVAZ3D		6.687	0.008	0.07	6.755	0.017	0.13	WD
Y3GQ3M		6.792	0.113	1.01	6.915	0.177	1.35	OE
YF277L		6.632	-0.047	-0.42	6.751	0.013	0.10	ED
Z2HTJE		6.637	-0.042	-0.38	6.707	-0.031	-0.24	WD

Summary Statistics

	Sample K39		Sample K40	
Grand Means	6.679	Percent	6.738	Percent
Stnd Dev Btwn Labs	0.112	Percent	0.131	Percent

Samples K39, K40 : CDA 932, CDA 932

Statistics based on 22 of 26 reporting participants

Key to Method Codes Reported by Participants

ED	X-Ray Fluorescence - Energy Dispersive (EDX)	IC	Spectrometry - Inductively Coupled Plasma (ICP)
OE	Spectrometry - Optical Emission (OES)	WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)
XR	X-Ray Fluorescence - ED or WD not specified	XX	Please Indicate Method Used for Current Element

Comments on Assigned Data Flags for Test #161

7VBEZV (X) - Data for both samples are low.

EBEZ2D (X) - Data for both samples are high. Inconsistent within the determinations of both samples.

KALPVX (X) - Data for sample K40 are high.

RGG7ZA (X) - Data for both samples are low.

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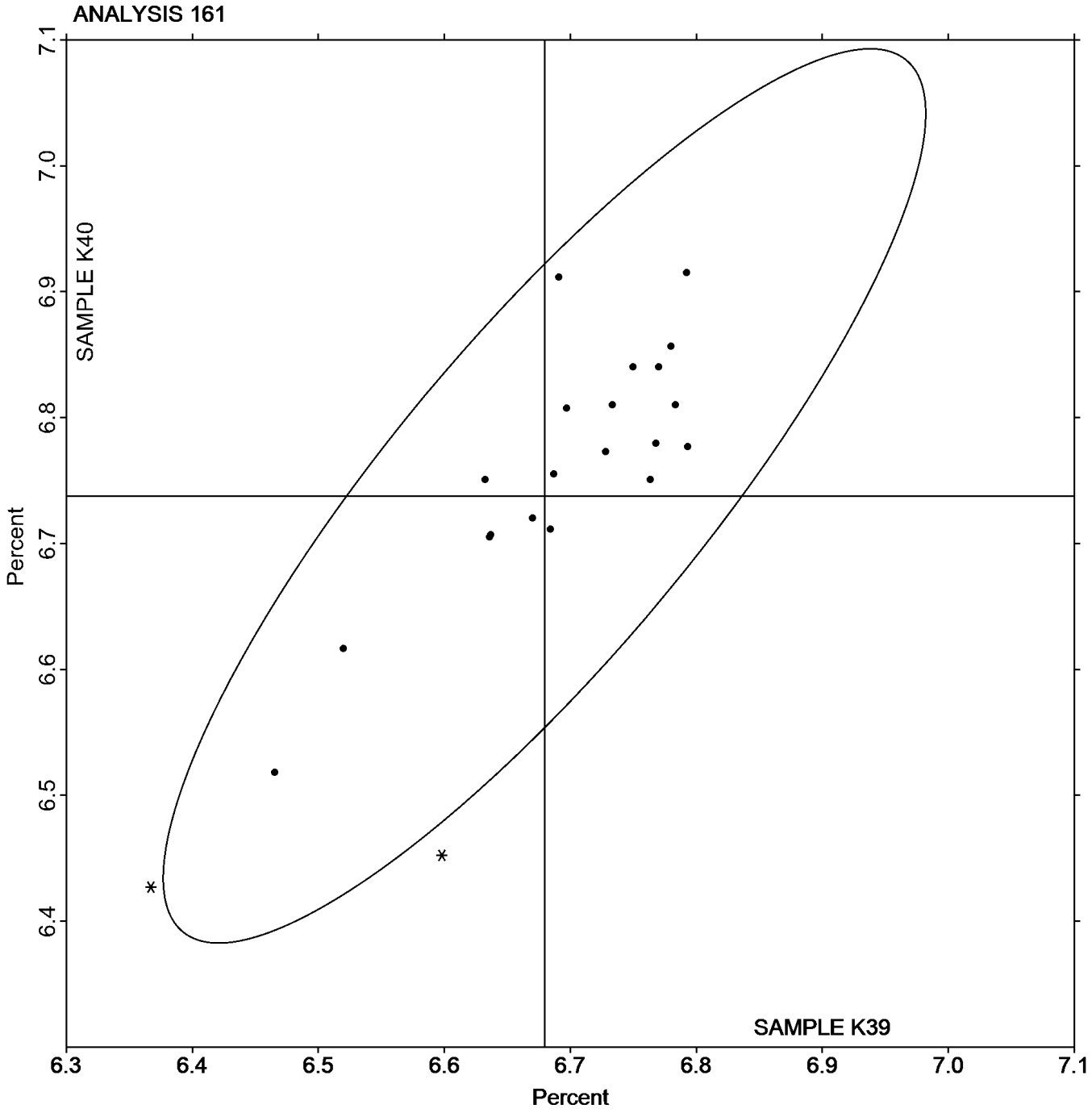
SAMPLE K39	SAMPLE K40
6.679 Percent	6.738 Percent



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Fasteners and Metals Interlaboratory Testing Program

Analysis 162

Copper-based Alloy, Element #3

LEAD (Pb)

		Sample K39			Sample K40			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2424VN		7.591	-0.089	-0.16	7.934	-0.005	-0.01	OE
2FQPZD		7.772	0.091	0.16	7.933	-0.006	-0.01	OE
39R2XK		7.374	-0.306	-0.54	7.588	-0.352	-0.58	XX
4VGZKR		7.556	-0.124	-0.22	8.258	0.319	0.53	IC
6HR9RB		7.792	0.112	0.20	8.108	0.169	0.28	OE
7VBEZV		7.603	-0.077	-0.14	7.830	-0.109	-0.18	OE
8DQYHK		7.820	0.140	0.24	7.950	0.011	0.02	XX
9Y3P69		7.423	-0.257	-0.45	7.683	-0.256	-0.42	IC
CGCCBB		7.330	-0.350	-0.61	7.500	-0.439	-0.73	OE
EBEZ2D		6.885	-0.795	-1.40	6.712	-1.227	-2.03	ED
EFTCXY		7.393	-0.287	-0.50	7.673	-0.266	-0.44	XX
JZVFLW		8.290	0.610	1.07	8.443	0.504	0.84	OE
KALPVX		7.060	-0.620	-1.09	7.710	-0.229	-0.38	IC
KYGD9W		7.868	0.188	0.33	8.101	0.162	0.27	OE
L9PFE2		7.337	-0.344	-0.60	7.590	-0.349	-0.58	OE
M2Y9R8	*	9.256	1.575	2.76	9.478	1.539	2.55	XR
R8H3HU		7.813	0.133	0.23	7.900	-0.039	-0.07	IC
RFKQPX		7.631	-0.050	-0.09	7.928	-0.012	-0.02	IC
RFRQWT		7.567	-0.114	-0.20	7.833	-0.106	-0.18	OE
RGG7ZA	*	9.360	1.680	2.95	9.790	1.851	3.07	OE
V3UUMQ		7.285	-0.395	-0.69	7.904	-0.036	-0.06	OE
VEDAYJ		7.565	-0.116	-0.20	7.801	-0.139	-0.23	IC
VVAZ3D		7.686	0.006	0.01	7.724	-0.216	-0.36	WD
Y3GQ3M		7.117	-0.563	-0.99	7.470	-0.470	-0.78	OE
Z2HTJE		7.638	-0.043	-0.08	7.645	-0.294	-0.49	WD

Summary Statistics

	Sample K39		Sample K40	
Grand Means	7.680	Percent	7.939	Percent
Stnd Dev Btwn Labs	0.570	Percent	0.603	Percent

Samples K39, K40 : CDA 932, CDA 932

Statistics based on 25 of 25 reporting participants

Key to Method Codes Reported by Participants

ED	X-Ray Fluorescence - Energy Dispersive (EDX)	IC	Spectrometry - Inductively Coupled Plasma (ICP)
OE	Spectrometry - Optical Emission (OES)	WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)
XR	X-Ray Fluorescence - ED or WD not specified	XX	Please Indicate Method Used for Current Element

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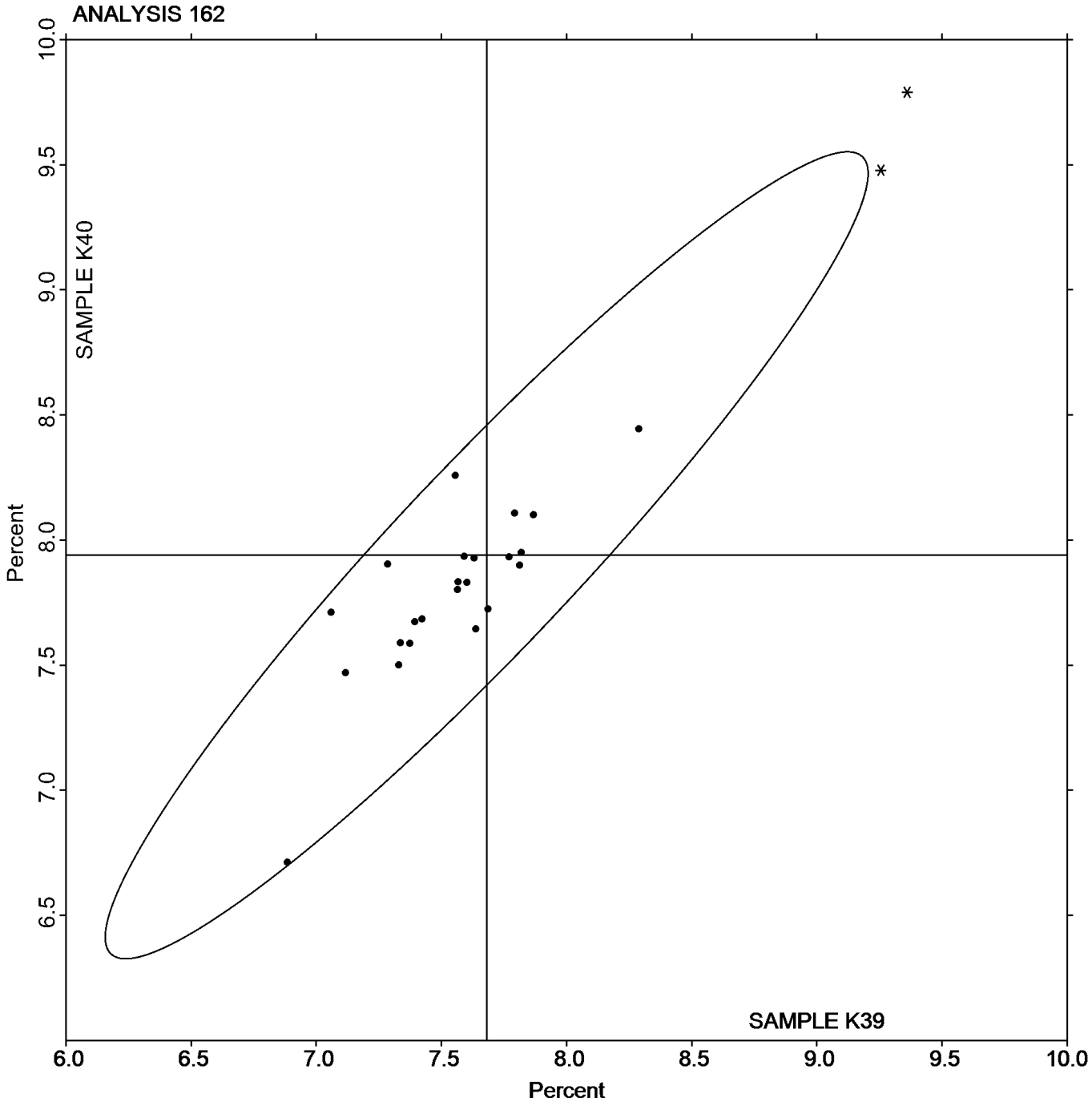
SAMPLE K39	SAMPLE K40
7.680 Percent	7.939 Percent



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WebCode	Data Flag	Sample K39 Lab Mean	Sample K39 Diff. from Grand Mean	Sample K39 CPV	Sample K40 Lab Mean	Sample K40 Diff. from Grand Mean	Sample K40 CPV	Method
2424VN		3.722	-0.091	-0.25	3.480	-0.044	-0.13	OE
2FQPZD		3.748	-0.065	-0.18	3.469	-0.055	-0.16	OE
39R2XK	*	4.961	1.148	3.14	4.602	1.078	3.06	XX
4VGZKR		3.624	-0.189	-0.52	3.256	-0.268	-0.76	IC
6HR9RB		3.805	-0.008	-0.02	3.507	-0.017	-0.05	OE
7VBEZV		3.093	-0.720	-1.97	3.093	-0.431	-1.22	OE
8DQYHK		3.620	-0.193	-0.53	3.360	-0.164	-0.47	XX
9Y3P69		3.593	-0.220	-0.60	3.317	-0.207	-0.59	IC
CGCCBB		3.680	-0.133	-0.36	3.450	-0.074	-0.21	OE
EBEZ2D		3.697	-0.116	-0.32	3.433	-0.091	-0.26	ED
EFTCXY		3.717	-0.096	-0.26	3.447	-0.077	-0.22	XX
JZVFLW		4.183	0.370	1.01	3.863	0.339	0.96	OE
KALPVX		3.733	-0.080	-0.22	3.430	-0.094	-0.27	IC
KYGD9W		3.860	0.047	0.13	3.563	0.039	0.11	OE
L9PFE2	*	4.920	1.107	3.03	4.617	1.093	3.10	OE
M2Y9R8		3.384	-0.429	-1.17	3.106	-0.418	-1.18	XR
R8H3HU		3.573	-0.240	-0.66	3.307	-0.217	-0.62	IC
RFKQPX		3.689	-0.124	-0.34	3.448	-0.076	-0.21	IC
RFRQWT		3.723	-0.090	-0.25	3.487	-0.037	-0.11	OE
RGG7ZA		3.870	0.057	0.16	3.583	0.059	0.17	XX
V3UUMQ		3.753	-0.060	-0.17	3.394	-0.130	-0.37	OE
VEDAYJ		3.645	-0.168	-0.46	3.339	-0.185	-0.52	IC
VVAZ3D		3.715	-0.098	-0.27	3.446	-0.078	-0.22	WD
Y3GQ3M		3.708	-0.105	-0.29	3.397	-0.127	-0.36	OE
YF277L		3.741	-0.072	-0.20	3.425	-0.099	-0.28	ED
Z2HTJE		3.662	-0.151	-0.41	3.377	-0.147	-0.42	WD

Summary Statistics

	Sample K39		Sample K40	
Grand Means	3.813	Percent	3.524	Percent
Stnd Dev Btwn Labs	0.366	Percent	0.353	Percent

Samples K39, K40 : CDA 932, CDA 932

Statistics based on 25 of 26 reporting participants

Key to Method Codes Reported by Participants

ED	X-Ray Fluorescence - Energy Dispersive (EDX)	IC	Spectrometry - Inductively Coupled Plasma (ICP)
OE	Spectrometry - Optical Emission (OES)	WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)
XR	X-Ray Fluorescence - ED or WD not specified	XX	Please Indicate Method Used for Current Element

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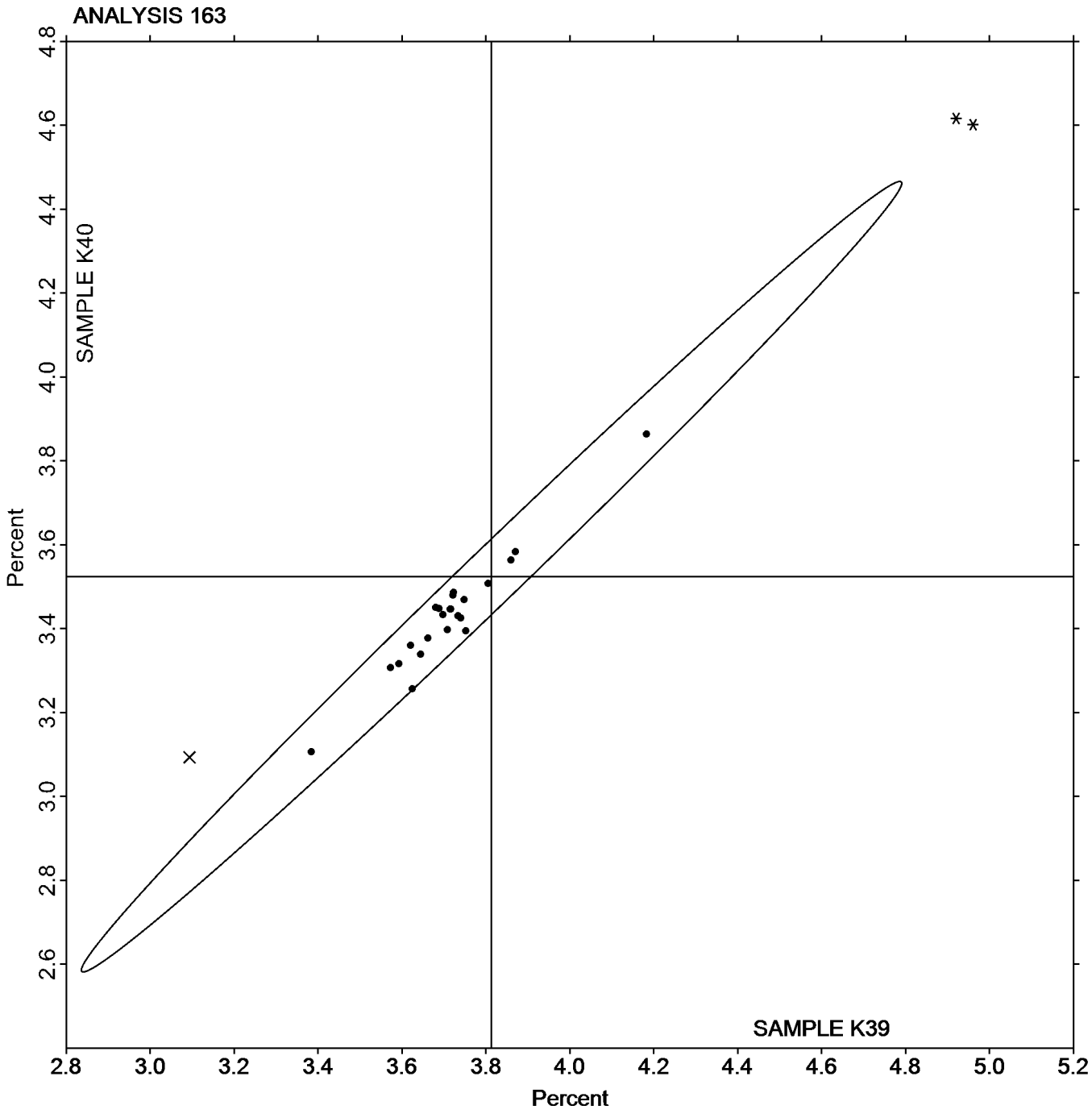
SAMPLE K39	SAMPLE K40
3.813 Percent	3.524 Percent



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Fasteners and Metals Interlaboratory Testing Program

Analysis 164

Copper-based Alloy, Element #5
IRON (Fe)

WebCode	Data Flag	Sample K39 Lab Mean	Sample K39 Diff. from Grand Mean	Sample K39 CPV	Sample K40 Lab Mean	Sample K40 Diff. from Grand Mean	Sample K40 CPV	Method
2424VN		0.1163	0.0032	0.31	0.0693	0.0016	0.22	OE
2FQPZD		0.1240	0.0109	1.04	0.0643	-0.0034	-0.47	OE
39R2XK	*	0.1144	0.0013	0.13	0.0836	0.0158	2.18	XX
4VGZKR		0.1234	0.0102	0.98	0.0667	-0.0010	-0.14	IC
6HR9RB		0.1167	0.0035	0.34	0.0693	0.0016	0.22	OE
7VBEZV		0.1067	-0.0065	-0.62	0.0630	-0.0048	-0.66	XX
8DQYHK		0.1120	-0.0011	-0.11	0.0650	-0.0028	-0.38	XX
9Y3P69		0.1133	0.0002	0.02	0.0700	0.0022	0.31	IC
CGCCBB		0.1243	0.0112	1.07	0.0727	0.0049	0.68	OE
EBEZ2D	X	0.2735	0.1604	15.34	0.1870	0.1192	16.47	ED
EFTCXY		0.1123	-0.0008	-0.08	0.0659	-0.0019	-0.26	XX
JZVFLW		0.1004	-0.0127	-1.21	0.0609	-0.0069	-0.95	OE
KALPVX		0.1000	-0.0131	-1.26	0.0567	-0.0111	-1.53	IC
KYGD9W		0.1153	0.0022	0.21	0.0673	-0.0004	-0.06	OE
L9PFE2	*	0.1143	0.0012	0.12	0.0845	0.0167	2.31	OE
M2Y9R8		0.0931	-0.0200	-1.92	0.0554	-0.0124	-1.71	XR
R8H3HU	X	0.2697	0.1565	14.97	0.7920	0.7242	100.07	IC
RFKQPX		0.1083	-0.0048	-0.46	0.0650	-0.0028	-0.38	IC
RFRQWT		0.1100	-0.0031	-0.30	0.0697	0.0019	0.26	OE
RGG7ZA	*	0.1440	0.0309	2.95	0.0783	0.0106	1.46	OE
V3UUMQ		0.1100	-0.0031	-0.30	0.0697	0.0019	0.26	OE
VEDAYJ		0.0986	-0.0145	-1.39	0.0584	-0.0093	-1.29	IC
VVAZ3D		0.1110	-0.0021	-0.20	0.0657	-0.0021	-0.29	WD
Y3GQ3M		0.1143	0.0012	0.12	0.0687	0.0009	0.12	OE
Z2HTJE		0.1190	0.0059	0.56	0.0687	0.0009	0.12	OE

Summary Statistics

	Sample K39		Sample K40	
Grand Means	0.1131	Percent	0.0678	Percent
Stnd Dev Btwn Labs	0.0105	Percent	0.0072	Percent

Samples K39, K40 : CDA 932, CDA 932

Statistics based on 23 of 25 reporting participants

Key to Method Codes Reported by Participants

ED	X-Ray Fluorescence - Energy Dispersive (EDX)	IC	Spectrometry - Inductively Coupled Plasma (ICP)
OE	Spectrometry - Optical Emission (OES)	WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)
XR	X-Ray Fluorescence - ED or WD not specified	XX	Please Indicate Method Used for Current Element

Comments on Assigned Data Flags for Test #164

EBEZ2D (X) - Data for both samples are high. Inconsistent within the determinations of both samples.

R8H3HU (X) - Data for both samples are high.

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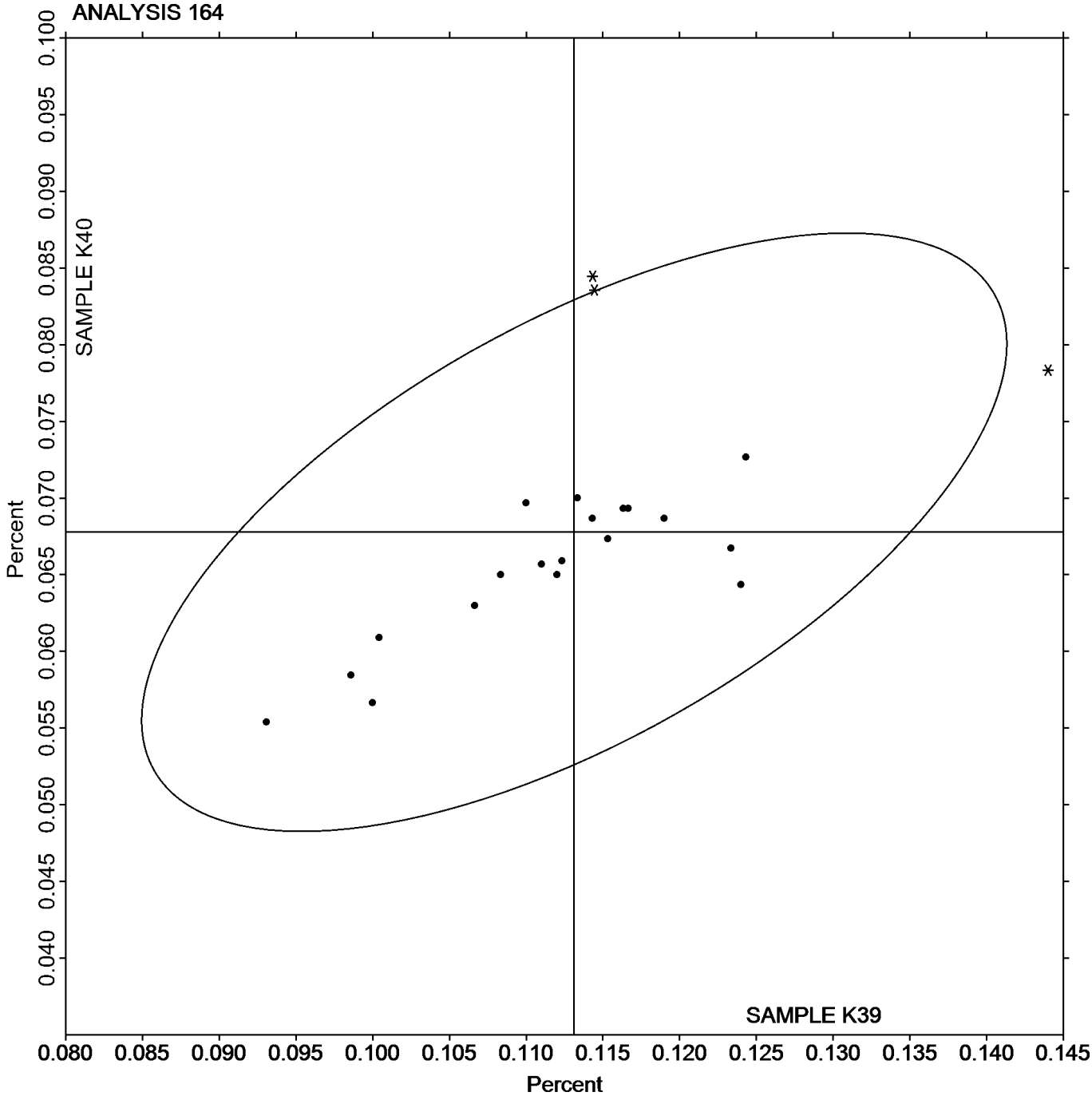
SAMPLE K39	SAMPLE K40
0.1131 Percent	0.0678 Percent



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Fasteners and Metals Interlaboratory Testing Program

Analysis 165

Copper-based Alloy, Element #6
NICKEL (Ni)

		Sample K39			Sample K40			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2424VN		0.2977	-0.0073	-0.19	0.4197	-0.0262	-0.69	OE
2FQPZD		0.2970	-0.0079	-0.21	0.4500	0.0042	0.11	OE
39R2XK	*	0.3724	0.0675	1.77	0.4331	-0.0127	-0.33	XX
4VGZKR		0.2907	-0.0142	-0.37	0.4304	-0.0154	-0.40	IC
6HR9RB		0.3207	0.0157	0.41	0.4830	0.0372	0.98	OE
7VBEZV		0.3263	0.0214	0.56	0.5233	0.0775	2.04	OE
8DQYHK		0.3030	-0.0019	-0.05	0.4580	0.0122	0.32	OE
9Y3P69		0.3033	-0.0016	-0.04	0.4533	0.0075	0.20	IC
CGCCBB		0.3160	0.0111	0.29	0.4740	0.0282	0.74	OE
EBEZ2D		0.4010	0.0961	2.52	0.5123	0.0665	1.75	ED
EFTCXY		0.3093	0.0044	0.12	0.4563	0.0105	0.28	XX
JZVFLW		0.3420	0.0371	0.97	0.5007	0.0548	1.44	OE
KALPVX		0.2467	-0.0583	-1.53	0.4033	-0.0425	-1.12	IC
KYGD9W		0.3000	-0.0049	-0.13	0.4573	0.0115	0.30	OE
L9PFE2	*	0.3767	0.0717	1.88	0.4350	-0.0108	-0.28	OE
M2Y9R8	*	0.2270	-0.0779	-2.04	0.3429	-0.1029	-2.70	XR
R8H3HU		0.2890	-0.0159	-0.42	0.4293	-0.0165	-0.43	IC
RFKQPX		0.2927	-0.0123	-0.32	0.4363	-0.0095	-0.25	IC
RFRQWT		0.3000	-0.0049	-0.13	0.4500	0.0042	0.11	OE
RGG7ZA	X	0.3227	0.0177	0.46	0.0490	-0.3968	-10.42	OE
V3UUMQ		0.2697	-0.0353	-0.92	0.4247	-0.0212	-0.56	OE
VEDAYJ		0.2627	-0.0422	-1.11	0.3869	-0.0589	-1.55	IC
VVAZ3D		0.3033	-0.0016	-0.04	0.4660	0.0202	0.53	WD
Y3GQ3M		0.2960	-0.0089	-0.23	0.4533	0.0075	0.20	OE
YF277L		0.2860	-0.0189	-0.50	0.4377	-0.0082	-0.21	ED
Z2HTJE		0.2940	-0.0109	-0.29	0.4290	-0.0168	-0.44	OE

Summary Statistics

	Sample K39		Sample K40	
Grand Means	0.3049	Percent	0.4458	Percent
Stnd Dev Btwn Labs	0.0382	Percent	0.0381	Percent

Samples K39, K40 : CDA 932, CDA 932

Statistics based on 25 of 26 reporting participants

Key to Method Codes Reported by Participants

ED	X-Ray Fluorescence - Energy Dispersive (EDX)	IC	Spectrometry - Inductively Coupled Plasma (ICP)
OE	Spectrometry - Optical Emission (OES)	WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)
XR	X-Ray Fluorescence - ED or WD not specified	XX	Please Indicate Method Used for Current Element

Comments on Assigned Data Flags for Test #165

RGG7ZA (X) - Data for sample K40 are low.

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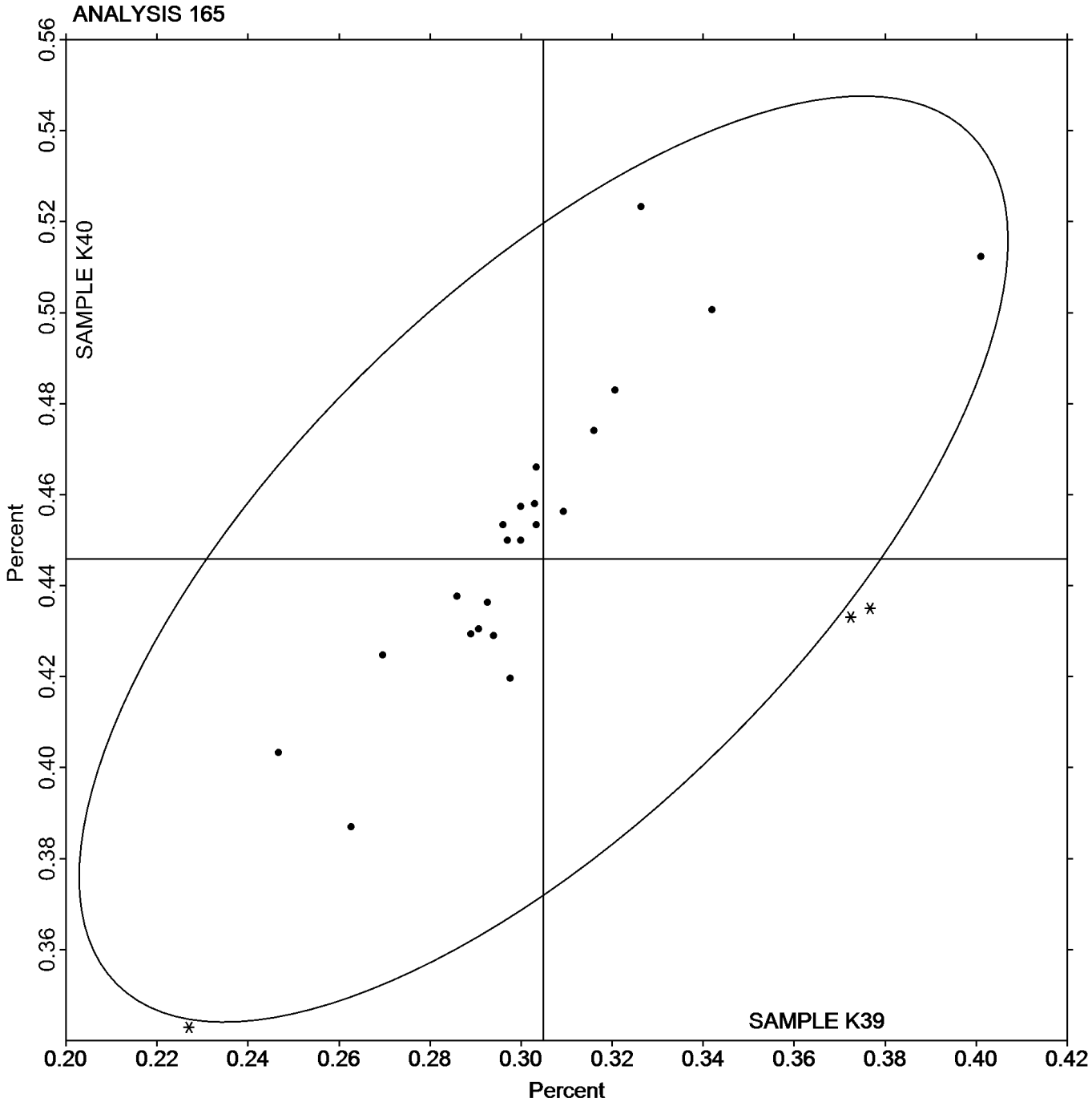
SAMPLE K39	SAMPLE K40
0.3049 Percent	0.4458 Percent



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Fasteners and Metals Interlaboratory Testing Program

Analysis 166

Copper-based Alloy, Element #7
PHOSPHORUS (P)

WebCode	Data Flag	Sample K39 Lab Mean	Sample K39 Diff. from Grand Mean	Sample K39 CPV	Sample K40 Lab Mean	Sample K40 Diff. from Grand Mean	Sample K40 CPV	Method
2FQPZD		0.0317	0.0037	1.12	0.0452	0.0059	1.12	OE
4VGZKR		0.0242	-0.0037	-1.12	0.0347	-0.0046	-0.88	IC
6HR9RB		0.0263	-0.0016	-0.49	0.0390	-0.0003	-0.07	OE
8DQYHK		0.0240	-0.0040	-1.19	0.0330	-0.0063	-1.21	XX
9Y3P69		0.0300	0.0020	0.61	0.0400	0.0007	0.13	IC
CGCCBB		0.0304	0.0024	0.72	0.0418	0.0024	0.46	OE
EBEZ2D	M	No Data Reported			0.0460	0.0067	1.27	ED
EFTCXY		0.0249	-0.0031	-0.93	0.0342	-0.0052	-0.99	XX
JZVFLW		0.0351	0.0071	2.14	0.0498	0.0104	1.99	OE
KALPVX	X	0.0867	0.0587	17.62	0.0800	0.0407	7.77	IC
KYGD9W		0.0228	-0.0052	-1.55	0.0345	-0.0049	-0.93	OE
M2Y9R8	*	0.0297	0.0017	0.51	0.0301	-0.0092	-1.77	XR
R8H3HU		0.0293	0.0013	0.39	0.0416	0.0023	0.44	IC
RFRQWT		0.0270	-0.0010	-0.29	0.0390	-0.0003	-0.07	OE
RGG7ZA		0.0264	-0.0016	-0.47	0.0400	0.0006	0.12	OE
V3UUMQ		0.0255	-0.0024	-0.73	0.0382	-0.0011	-0.21	OE
VVAZ3D		0.0297	0.0017	0.52	0.0421	0.0027	0.52	OE
Y3GQ3M		0.0305	0.0025	0.75	0.0464	0.0071	1.35	OE

Summary Statistics

	Sample K39		Sample K40	
Grand Means	0.0280	Percent	0.0393	Percent
Stnd Dev Btwn Labs	0.0033	Percent	0.0052	Percent

Samples K39, K40 : CDA 932, CDA 932

Statistics based on 16 of 18 reporting participants

Key to Method Codes Reported by Participants

ED	X-Ray Fluorescence - Energy Dispersive (EDX)	IC	Spectrometry - Inductively Coupled Plasma (ICP)
OE	Spectrometry - Optical Emission (OES)	XR	X-Ray Fluorescence - ED or WD not specified
XX	Please Indicate Method Used for Current Element		

Comments on Assigned Data Flags for Test #166

EBEZ2D (M) - Participant did not submit data for sample K39.

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

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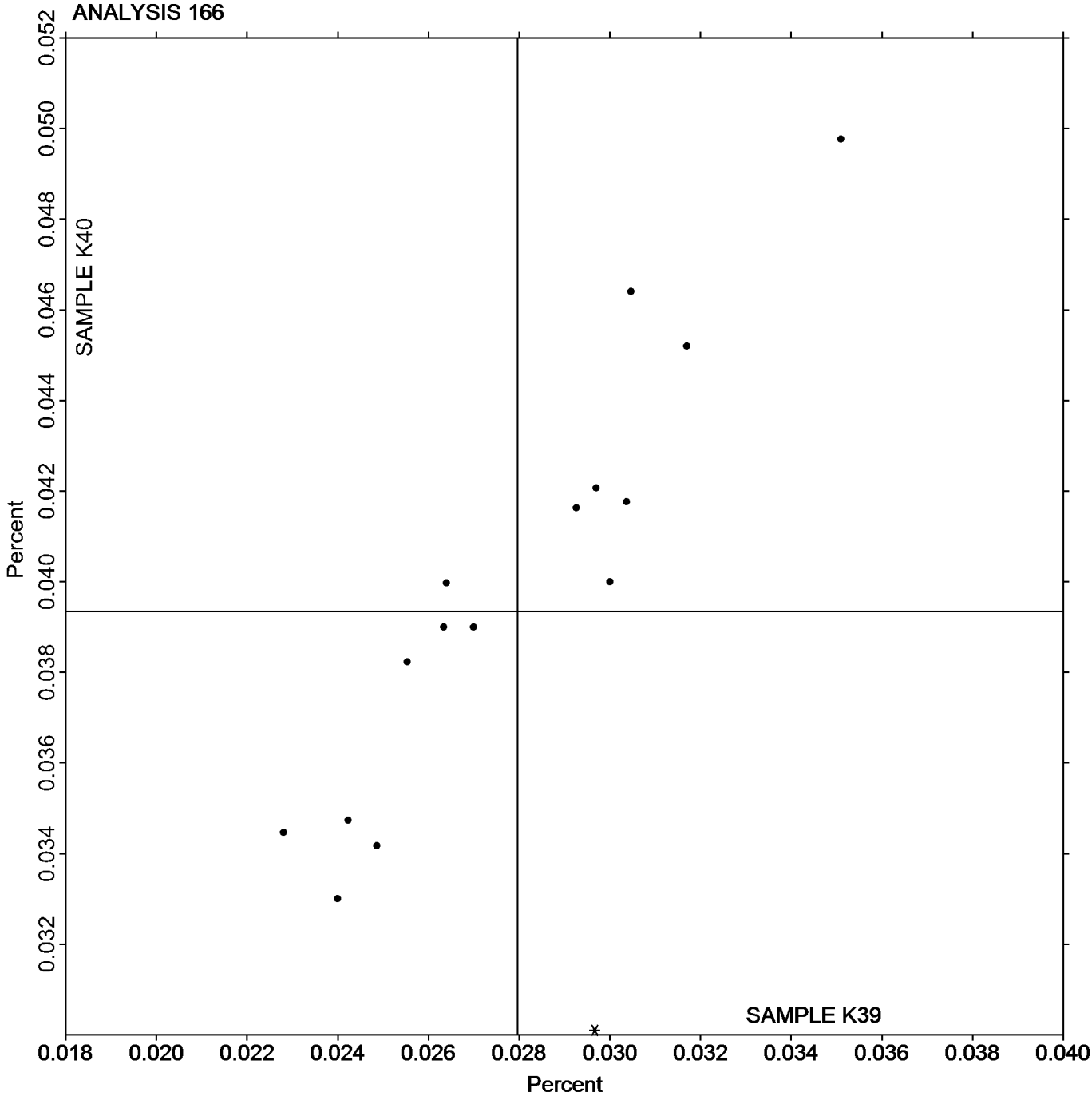
SAMPLE K39
0.0280 Percent

SAMPLE K40
0.0393 Percent



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Fasteners and Metals Interlaboratory Testing Program

Analysis 167

Copper-based Alloy, Element #8

SULFUR (S)

		Sample K39			Sample K40			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2424VN		0.0297	-0.0005	-0.06	0.0330	0.0005	0.06	OE
2FQPZD		0.0304	0.0002	0.03	0.0340	0.0016	0.17	OE
4VGZKR	*	0.0249	-0.0053	-0.70	0.0180	-0.0145	-1.50	CI
6HR9RB		0.0336	0.0035	0.47	0.0379	0.0054	0.56	OE
7VBEZV	*	0.0533	0.0232	3.11	0.0600	0.0276	2.86	OE
8DQYHK		0.0310	0.0009	0.12	0.0330	0.0006	0.06	OE
9Y3P69		0.0290	-0.0011	-0.15	0.0323	-0.0001	-0.01	CI
CGCCBB		0.0310	0.0008	0.11	0.0316	-0.0008	-0.09	OE
EBEZ2D	X	0.0790	0.0489	6.54	0.1107	0.0782	8.11	ED
EFTCXY		0.0292	-0.0009	-0.12	0.0326	0.0002	0.02	XX
JZVFLW		0.0395	0.0094	1.26	0.0430	0.0105	1.09	OE
KALPVX		0.0167	-0.0135	-1.80	0.0133	-0.0191	-1.98	IC
KYGD9W		0.0242	-0.0060	-0.80	0.0261	-0.0064	-0.66	OE
M2Y9R8	X	0.0697	0.0395	5.29	0.0718	0.0394	4.09	XR
RFKQPX		0.0300	-0.0001	-0.01	0.0336	0.0012	0.13	IC
RFRQWT		0.0300	-0.0001	-0.02	0.0337	0.0012	0.13	OE
RGG7ZA		0.0307	0.0006	0.08	0.0348	0.0024	0.25	OE
V3UUMQ		0.0279	-0.0022	-0.30	0.0315	-0.0009	-0.10	OE
VVAZ3D		0.0283	-0.0019	-0.25	0.0295	-0.0029	-0.30	WD
Y3GQ3M		0.0229	-0.0073	-0.97	0.0258	-0.0066	-0.69	OE

Summary Statistics

	Sample K39		Sample K40	
Grand Means	0.0301	Percent	0.0324	Percent
Stnd Dev Btwn Labs	0.0075	Percent	0.0096	Percent

Samples K39, K40 : CDA 932, CDA 932

Statistics based on 18 of 20 reporting participants

Key to Method Codes Reported by Participants

CI	Combustion / IR	ED	X-Ray Fluorescence - Energy Dispersive (EDX)
IC	Spectrometry - Inductively Coupled Plasma (ICP)	OE	Spectrometry - Optical Emission (OES)
WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)	XR	X-Ray Fluorescence - ED or WD not specified
XX	Please Indicate Method Used for Current Element		

Comments on Assigned Data Flags for Test #167

EBEZ2D (X) - Data for both samples are high. Inconsistent within the determinations of both samples.

M2Y9R8 (X) - Data for both samples are high.

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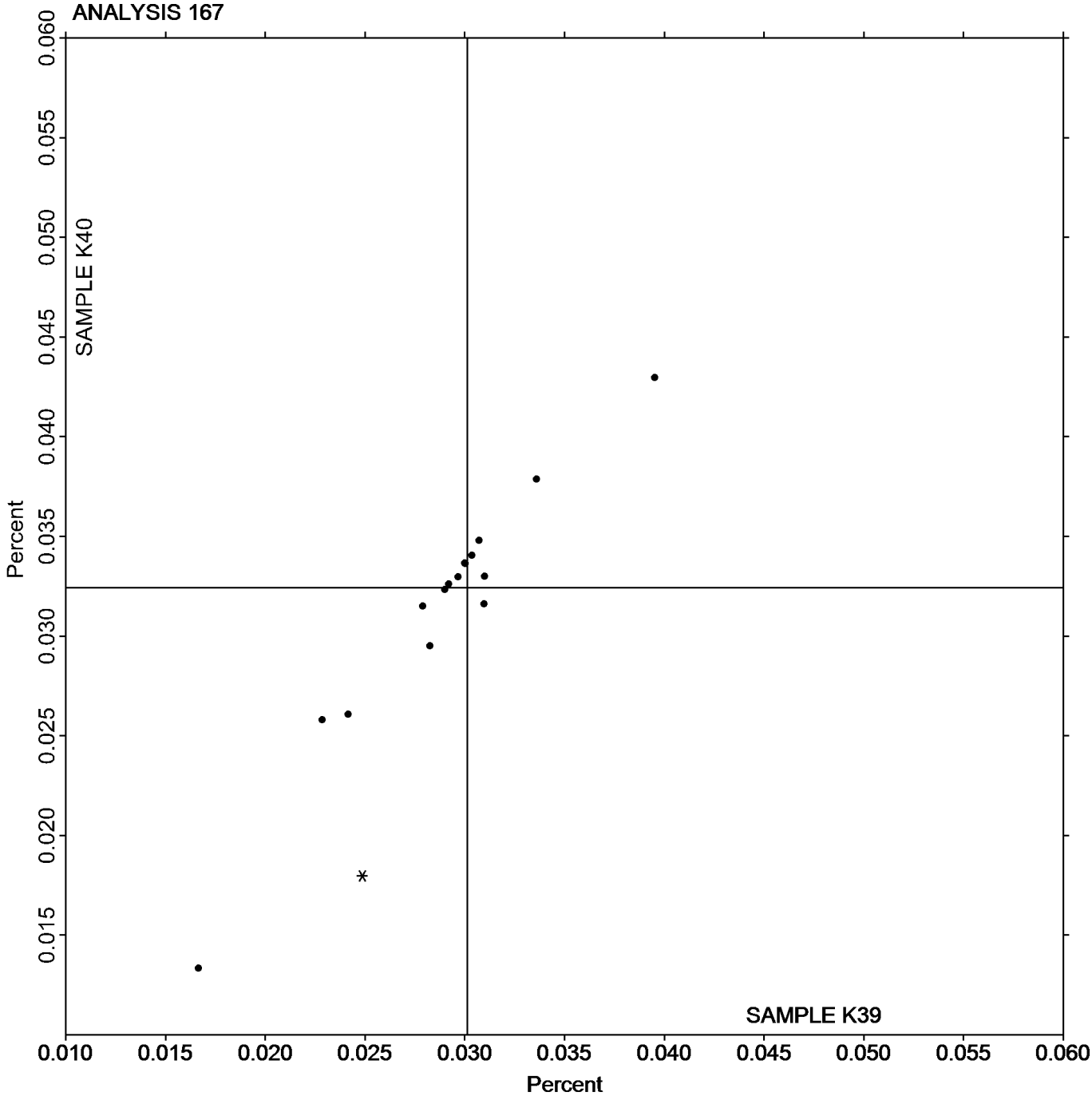
SAMPLE K39
0.0301 Percent

SAMPLE K40
0.0324 Percent



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		Sample M39			Sample M40			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2424VN	*	0.0551	0.0045	1.73	0.0235	-0.0012	-0.59	OE
24YGEB		0.0513	0.0007	0.28	0.0267	0.0019	0.92	CI
3FVXPX		0.0484	-0.0022	-0.82	0.0219	-0.0028	-1.35	CI
3KFNM8		0.0470	-0.0036	-1.36	0.0230	-0.0017	-0.82	OE
4HG2XV		0.0558	0.0052	1.97	0.0278	0.0031	1.47	CI
4VGZKR		0.0517	0.0011	0.41	0.0273	0.0026	1.24	OE
6HR9RB		0.0485	-0.0021	-0.79	0.0215	-0.0032	-1.52	OE
74PCTA		0.0510	0.0004	0.16	0.0257	0.0009	0.44	CI
7VBEZV	X	0.0837	0.0331	12.56	0.0587	0.0339	16.13	OE
82Z69C		0.0513	0.0007	0.28	0.0273	0.0026	1.24	CI
8DQYHK	X	0.0520	0.0014	0.54	0.0190	-0.0057	-2.72	OE
8HGHDN		0.0516	0.0010	0.38	0.0227	-0.0021	-0.98	CI
8TBHPL		0.0443	-0.0063	-2.38	0.0214	-0.0034	-1.60	CI
9PUA2L		0.0540	0.0034	1.28	0.0276	0.0029	1.38	OE
AB9GR7		0.0510	0.0004	0.14	0.0248	0.0000	0.02	DR
AU7FE8		0.0547	0.0041	1.56	0.0237	-0.0010	-0.47	OE
AVHVMK	X	0.0500	-0.0006	-0.22	0.0340	0.0093	4.41	OE
AYCBU2	X	0.0387	-0.0119	-4.53	0.0182	-0.0065	-3.10	GD
BBTPZE		0.0543	0.0037	1.42	0.0257	0.0009	0.44	OE
BCYEWW		0.0501	-0.0005	-0.20	0.0234	-0.0014	-0.65	CI
BHL76P	X	0.0563	0.0057	2.18	0.0341	0.0094	4.45	OE
BM9GNP		0.0553	0.0047	1.80	0.0283	0.0036	1.71	OE
BRFCZC		0.0495	-0.0011	-0.41	0.0223	-0.0024	-1.16	CI
CGCCBB		0.0495	-0.0011	-0.43	0.0273	0.0025	1.21	OE
CXY2XQ		0.0503	-0.0003	-0.10	0.0237	-0.0011	-0.51	DR
DDK4EA	X	0.0510	0.0004	0.16	0.0370	0.0123	5.83	OE
DYMQWX		0.0510	0.0004	0.16	0.0257	0.0009	0.44	CI
ECBWQT		0.0512	0.0006	0.24	0.0224	-0.0024	-1.12	CO
EFLQ3X		0.0480	-0.0026	-0.98	0.0230	-0.0017	-0.82	CI
EFTCXY		0.0507	0.0001	0.03	0.0247	-0.0001	-0.03	XX
EWD6HW		0.0513	0.0007	0.28	0.0267	0.0019	0.92	CI
FECF7Z		0.0543	0.0037	1.40	0.0285	0.0038	1.78	OE
FWW76Y		0.0504	-0.0002	-0.08	0.0261	0.0014	0.67	OE
H39MAY		0.0503	-0.0003	-0.10	0.0230	-0.0017	-0.82	GD
HDTC8P		0.0487	-0.0019	-0.73	0.0253	0.0006	0.29	OE
JTU3LU		0.0480	-0.0026	-0.98	0.0233	-0.0014	-0.66	CI
KDA4J8		0.0540	0.0034	1.29	0.0290	0.0043	2.03	OE
KPHUD3		0.0511	0.0005	0.18	0.0244	-0.0003	-0.14	CI
L49YJW		0.0507	0.0001	0.03	0.0287	0.0039	1.87	OE
PV9VLH		0.0483	-0.0023	-0.87	0.0238	-0.0009	-0.42	OE
QXQGQB		0.0490	-0.0016	-0.59	0.0230	-0.0018	-0.83	OE
R8H3HU		0.0500	-0.0006	-0.24	0.0236	-0.0012	-0.55	GD
R96C7V		0.0476	-0.0030	-1.12	0.0266	0.0018	0.87	OE
RFKQPX		0.0534	0.0028	1.07	0.0242	-0.0005	-0.25	CO
RFRQWT		0.0515	0.0009	0.36	0.0247	0.0000	-0.01	OE
RGG7ZA		0.0442	-0.0064	-2.44	0.0231	-0.0017	-0.79	OE
UJRHRP		0.0477	-0.0029	-1.11	0.0217	-0.0031	-1.46	OE

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		Sample M39			Sample M40			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
V3UUMQ		0.0543	0.0037	1.42	0.0254	0.0007	0.32	OE
VVAZ3D		0.0533	0.0027	1.04	0.0253	0.0006	0.27	OE
VWXZYH	X	0.0820	0.0314	11.93	0.0293	0.0046	2.19	OE
W8ZU9F		0.0478	-0.0028	-1.06	0.0225	-0.0022	-1.06	CI
WAX2BJ		0.0493	-0.0013	-0.48	0.0230	-0.0017	-0.82	CI
XH6ZFE		0.0467	-0.0039	-1.49	0.0240	-0.0007	-0.35	GD
XWD72K		0.0523	0.0017	0.66	0.0287	0.0039	1.87	OE
Y3GQ3M		0.0508	0.0002	0.07	0.0251	0.0003	0.16	OE
YRYW68		0.0513	0.0007	0.28	0.0250	0.0003	0.13	OE
Z2HTJE		0.0490	-0.0016	-0.60	0.0230	-0.0017	-0.82	CO
Z9BRTT		0.0490	-0.0016	-0.60	0.0243	-0.0004	-0.19	CI
ZK97VH		0.0507	0.0001	0.03	0.0229	-0.0018	-0.87	CI

Summary Statistics

	Sample M39		Sample M40	
Grand Means	0.0506	Percent	0.0247	Percent
Stnd Dev Btwn Labs	0.0026	Percent	0.0021	Percent

Samples M39, M40 : AISI 304, AISI 304L

Statistics based on 52 of 59 reporting participants

Key to Method Codes Reported by Participants

CI	Combustion / IR	CO	Combustion
DR	Spectrometry - Direct Reading OE (DROES)	GD	Spectrometry - Glow Discharge (GDS)
OE	Spectrometry - Optical Emission (OES)	XX	Please Indicate Method Used for Current Element

Comments on Assigned Data Flags for Test #180

7VBEZV (X) - Data for both samples are high. Inconsistent within the determinations of sample M39.

8DQYHK (X) - Data for sample M40 are low.

AVHVMK (X) - Data for sample M40 are high. Inconsistent within the determinations of sample M40.

AYCBU2 (X) - Data for both samples are low.

BHL76P (X) - Data for sample M40 are high.

DDK4EA (X) - Data for sample M40 are high.

VWXZYH (X) - Data for sample M39 are high. Inconsistent within the determinations of both samples.

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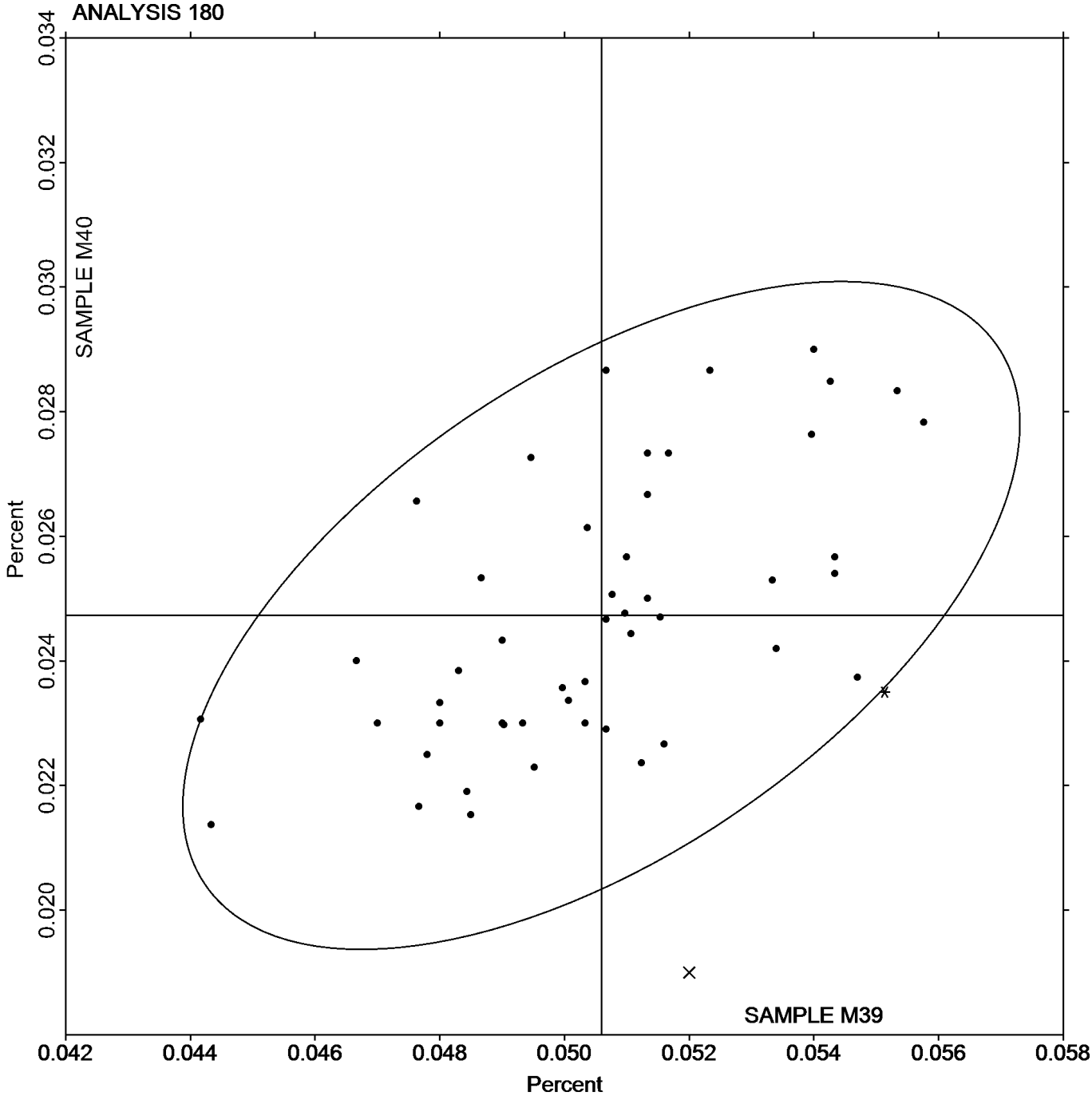
SAMPLE M39	SAMPLE M40
0.0506 Percent	0.0247 Percent



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		Sample M39			Sample M40			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2424VN		1.877	0.016	0.66	1.848	0.016	0.65	OE
24YGEB		1.833	-0.027	-1.10	1.815	-0.017	-0.69	XR
3FVXPX		1.857	-0.004	-0.14	1.824	-0.008	-0.33	OE
3KFNM8		1.884	0.023	0.95	1.854	0.022	0.88	OE
4HG2XV	X	2.173	0.313	12.63	2.127	0.295	11.89	OE
4VGZKR		1.844	-0.016	-0.64	1.818	-0.014	-0.57	OE
6HR9RB		1.920	0.059	2.40	1.890	0.058	2.35	OE
74PCTA		1.853	-0.007	-0.28	1.830	-0.002	-0.07	DR
7VBEZV	*	1.793	-0.067	-2.70	1.763	-0.068	-2.76	OE
82Z69C		1.840	-0.020	-0.81	1.807	-0.025	-1.01	IC
8DQYHK		1.870	0.010	0.40	1.830	-0.002	-0.07	XX
8HGHDN		1.858	-0.003	-0.10	1.832	0.000	0.00	WD
9PUA2L	*	1.930	0.070	2.82	1.900	0.068	2.75	OE
AB9GR7		1.860	0.000	-0.01	1.832	0.001	0.02	DR
AU7FE8		1.878	0.017	0.70	1.841	0.009	0.36	OE
AVHVMK		1.853	-0.007	-0.28	1.827	-0.005	-0.21	OE
AYCBU2	X	1.736	-0.124	-5.01	1.757	-0.075	-3.02	GD
BBTPZE		1.812	-0.048	-1.94	1.795	-0.036	-1.47	WD
BCYEWW		1.876	0.016	0.65	1.838	0.007	0.26	OE
BHL76P		1.868	0.007	0.30	1.844	0.013	0.51	OE
BM9GNP		1.857	-0.004	-0.14	1.827	-0.005	-0.21	OE
BRFCZC		1.859	-0.001	-0.06	1.841	0.009	0.36	WD
BXJYBZ		1.857	-0.003	-0.12	1.830	-0.002	-0.07	WD
CGCCBB		1.862	0.001	0.06	1.832	0.000	0.00	OE
CXY2XQ		1.854	-0.007	-0.26	1.832	0.000	0.00	DR
DDK4EA	X	1.980	0.120	4.83	1.940	0.108	4.36	OE
DYMQWX		1.884	0.024	0.96	1.847	0.015	0.60	DR
ECBWQT		1.868	0.007	0.30	1.827	-0.004	-0.18	OE
EFLQ3X		1.857	-0.004	-0.14	1.823	-0.008	-0.34	WD
EFTCXY		1.863	0.003	0.13	1.847	0.015	0.60	XX
EWD6HW		1.850	-0.011	-0.42	1.828	-0.004	-0.15	XR
FECF7Z		1.852	-0.008	-0.32	1.823	-0.009	-0.37	OE
FWW76Y		1.894	0.034	1.36	1.869	0.038	1.51	OE
H39MAY		1.850	-0.010	-0.41	1.810	-0.022	-0.88	GD
HDTC8P		1.863	0.003	0.13	1.823	-0.008	-0.34	OE
JTU3LU		1.857	-0.004	-0.14	1.823	-0.008	-0.34	WD
KDA4J8		1.823	-0.038	-1.51	1.812	-0.020	-0.81	OE
KPHUD3		1.864	0.003	0.14	1.835	0.003	0.13	WD
L49YJW	X	1.953	0.093	3.76	1.927	0.095	3.83	OE
NWH98K	X	1.790	-0.070	-2.83	1.820	-0.012	-0.47	ED
PV9VLH		1.889	0.029	1.17	1.863	0.031	1.26	OE
QXQGQB		1.814	-0.047	-1.88	1.778	-0.053	-2.15	OE
R8H3HU		1.903	0.043	1.74	1.887	0.055	2.21	GD
R96C7V		1.903	0.043	1.74	1.840	0.008	0.33	OE
RFKQPX		1.868	0.008	0.31	1.844	0.012	0.49	IC
RFRQWT		1.847	-0.014	-0.55	1.833	0.002	0.06	OE
RGG7ZA		1.870	0.010	0.40	1.843	0.012	0.47	OE

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Fasteners and Metals Interlaboratory Testing Program

Analysis 181

Corrosion Resistant Steel, Element #2

MANGANESE (Mn)

WebCode	Data Flag	Sample M39 Lab Mean	Sample M39 Diff. from Grand Mean	Sample M39 CPV	Sample M40 Lab Mean	Sample M40 Diff. from Grand Mean	Sample M40 CPV	Method
UJRHRP		1.838	-0.023	-0.91	1.792	-0.039	-1.59	XR
V3UUMQ		1.886	0.026	1.05	1.841	0.009	0.36	OE
VVAZ3D		1.854	-0.007	-0.26	1.835	0.003	0.12	WD
VWXZYH		1.872	0.011	0.46	1.845	0.014	0.55	OE
W8ZU9F		1.843	-0.017	-0.68	1.821	-0.011	-0.45	WD
WAX2BJ		1.866	0.006	0.23	1.840	0.008	0.33	IC
XH6ZFE		1.880	0.020	0.80	1.843	0.012	0.47	GD
XWD72K		1.927	0.066	2.68	1.777	-0.055	-2.22	OE
Y3GQ3M		1.822	-0.038	-1.53	1.787	-0.045	-1.82	OE
YRYW68		1.870	0.010	0.40	1.840	0.008	0.33	WD
Z2HTJE		1.836	-0.024	-0.96	1.822	-0.010	-0.39	WD
Z9BRTT		1.876	0.016	0.65	1.849	0.018	0.71	IC
ZK97VH		1.839	-0.022	-0.87	1.805	-0.027	-1.08	WD

Summary Statistics

	Sample M39		Sample M40	
Grand Means	1.860	Percent	1.832	Percent
Stnd Dev Btwn Labs	0.025	Percent	0.025	Percent

Samples M39, M40 : AISI 304, AISI 304L

Statistics based on 53 of 60 reporting participants

Key to Method Codes Reported by Participants

DR	Spectrometry - Direct Reading OE (DROES)	ED	X-Ray Fluorescence - Energy Dispersive (EDX)
GD	Spectrometry - Glow Discharge (GDS)	IC	Spectrometry - Inductively Coupled Plasma (ICP)
OE	Spectrometry - Optical Emission (OES)	WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)
XR	X-Ray Fluorescence - ED or WD not specified	XX	Please Indicate Method Used for Current Element

Comments on Assigned Data Flags for Test #181

4HG2XV (X) - Data for both samples are high. Possible Systematic Error.

AYCBU2 (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of sample M39.

DDK4EA (X) - Data for both samples are high. Possible Systematic Error.

L49YJW (X) - Data for both samples are high. Possible Systematic Error.

NWH98K (X) - Data for sample M39 are low.

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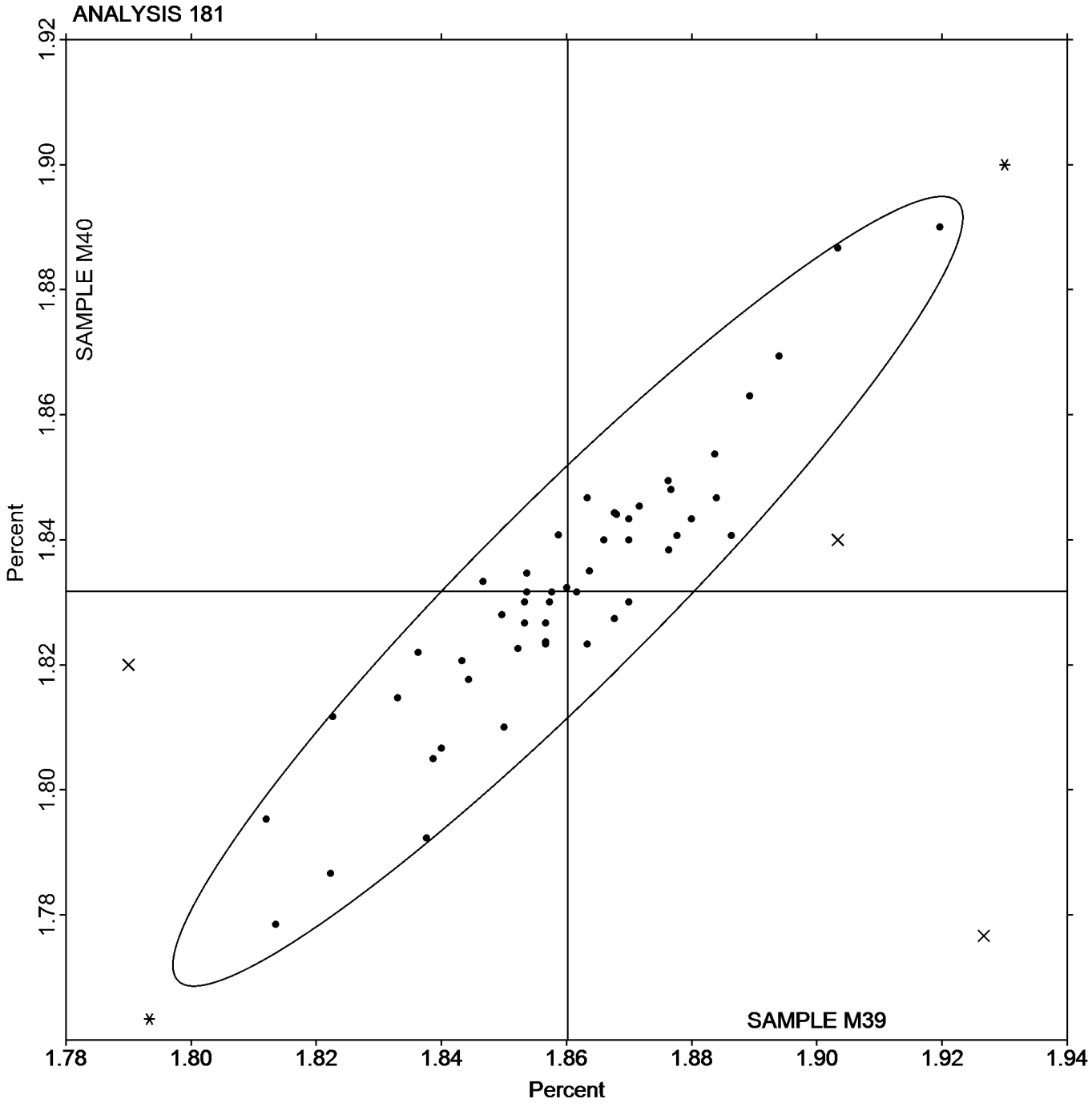
SAMPLE M39	SAMPLE M40
1.860 Percent	1.832 Percent



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		Sample M39			Sample M40			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2424VN		0.0310	-0.0004	-0.16	0.0288	-0.0007	-0.34	OE
24YGEB		0.0323	0.0009	0.43	0.0324	0.0029	1.39	XR
3FVXPX		0.0307	-0.0007	-0.33	0.0287	-0.0009	-0.40	OE
3KFNM8		0.0280	-0.0034	-1.54	0.0260	-0.0035	-1.67	OE
4VGZKR		0.0293	-0.0021	-0.93	0.0287	-0.0009	-0.40	OE
6HR9RB		0.0265	-0.0049	-2.20	0.0247	-0.0049	-2.30	OE
74PCTA		0.0310	-0.0004	-0.18	0.0287	-0.0009	-0.40	DR
82Z69C		0.0290	-0.0024	-1.08	0.0277	-0.0019	-0.88	IC
8DQYHK		0.0310	-0.0004	-0.18	0.0300	0.0005	0.23	XX
8HGHDN		0.0322	0.0008	0.38	0.0303	0.0008	0.39	WD
9PUA2L		0.0345	0.0031	1.43	0.0310	0.0015	0.72	OE
AB9GR7		0.0320	0.0006	0.28	0.0301	0.0006	0.29	DR
AU7FE8		0.0314	0.0000	0.02	0.0293	-0.0003	-0.12	OE
AVHVMK		0.0343	0.0029	1.33	0.0327	0.0031	1.50	OE
AYCBU2	*	0.0380	0.0066	3.00	0.0353	0.0058	2.76	GD
BBTPZE		0.0307	-0.0007	-0.33	0.0333	0.0038	1.81	WD
BCYEWW		0.0290	-0.0024	-1.08	0.0289	-0.0007	-0.31	OE
BHL76P		0.0298	-0.0016	-0.72	0.0280	-0.0015	-0.71	OE
BM9GNP		0.0310	-0.0004	-0.18	0.0283	-0.0012	-0.56	OE
BRFCZC		0.0315	0.0001	0.04	0.0301	0.0006	0.28	WD
CGCCBB		0.0329	0.0015	0.68	0.0297	0.0002	0.09	OE
CXY2XQ		0.0317	0.0003	0.13	0.0297	0.0001	0.07	DR
DDK4EA		0.0300	-0.0014	-0.63	0.0280	-0.0015	-0.72	OE
DYMQWX		0.0317	0.0003	0.13	0.0293	-0.0002	-0.09	DR
ECBWQT		0.0319	0.0005	0.24	0.0293	-0.0002	-0.08	OE
EFLQ3X		0.0300	-0.0014	-0.63	0.0297	0.0001	0.07	WD
EFTCXY		0.0327	0.0013	0.58	0.0297	0.0001	0.07	XX
EWD6HW	*	0.0339	0.0025	1.15	0.0342	0.0046	2.21	XR
FECF7Z		0.0324	0.0010	0.46	0.0298	0.0003	0.15	OE
FWW76Y		0.0320	0.0006	0.29	0.0304	0.0008	0.40	OE
H39MAY		0.0313	-0.0001	-0.03	0.0303	0.0008	0.39	GD
HDTC8P		0.0300	-0.0014	-0.63	0.0290	-0.0005	-0.25	OE
JTU3LU		0.0317	0.0003	0.13	0.0287	-0.0009	-0.40	WD
KDA4J8		0.0280	-0.0034	-1.54	0.0270	-0.0025	-1.20	OE
KPHUD3		0.0308	-0.0006	-0.27	0.0291	-0.0004	-0.18	WD
L49YJW	*	0.0373	0.0059	2.69	0.0360	0.0065	3.08	OE
PV9VLH		0.0312	-0.0002	-0.09	0.0290	-0.0006	-0.26	OE
QXQGQB		0.0292	-0.0022	-1.00	0.0262	-0.0034	-1.60	OE
R8H3HU		0.0321	0.0007	0.34	0.0306	0.0011	0.53	GD
R96C7V		0.0307	-0.0007	-0.33	0.0300	0.0005	0.25	OE
RFKQPX		0.0310	-0.0004	-0.16	0.0291	-0.0005	-0.21	IC
RFRQWT		0.0313	-0.0001	-0.03	0.0310	0.0015	0.70	OE
RGG7ZA	*	0.0350	0.0036	1.64	0.0306	0.0010	0.50	OE
UJRHRP		0.0317	0.0003	0.13	0.0297	0.0001	0.07	XR
V3UUMQ		0.0295	-0.0019	-0.84	0.0273	-0.0023	-1.07	OE
VVAZ3D		0.0314	0.0000	-0.01	0.0301	0.0005	0.26	WD
VWXZYH		0.0323	0.0009	0.43	0.0303	0.0008	0.39	OE

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Fasteners and Metals Interlaboratory Testing Program

Analysis 182

Corrosion Resistant Steel, Element #3

PHOSPHORUS (P)

		Sample M39			Sample M40			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
W8ZU9F		0.0303	-0.0011	-0.48	0.0287	-0.0009	-0.40	WD
WAX2BJ		0.0323	0.0009	0.43	0.0300	0.0005	0.23	IC
XH6ZFE	*	0.0250	-0.0064	-2.90	0.0240	-0.0055	-2.62	GD
XWD72K		0.0323	0.0009	0.43	0.0340	0.0045	2.13	OE
Y3GQ3M		0.0313	-0.0001	-0.04	0.0288	-0.0007	-0.33	OE
YRYW68		0.0320	0.0006	0.28	0.0300	0.0005	0.23	WD
Z2HTJE		0.0330	0.0016	0.73	0.0300	0.0005	0.23	OE
Z9BRTT		0.0335	0.0021	0.97	0.0307	0.0011	0.55	IC
ZK97VH		0.0310	-0.0004	-0.16	0.0285	-0.0011	-0.50	WD

Summary Statistics

	Sample M39		Sample M40	
Grand Means	0.0314	Percent	0.0295	Percent
Stnd Dev Btwn Labs	0.0022	Percent	0.0021	Percent

Samples M39, M40 : AISI 304, AISI 304L

Statistics based on 54 of 56 reporting participants

Key to Method Codes Reported by Participants

DR	Spectrometry - Direct Reading OE (DROES)	GD	Spectrometry - Glow Discharge (GDS)
IC	Spectrometry - Inductively Coupled Plasma (ICP)	OE	Spectrometry - Optical Emission (OES)
WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)	XR	X-Ray Fluorescence - ED or WD not specified
XX	Please Indicate Method Used for Current Element		

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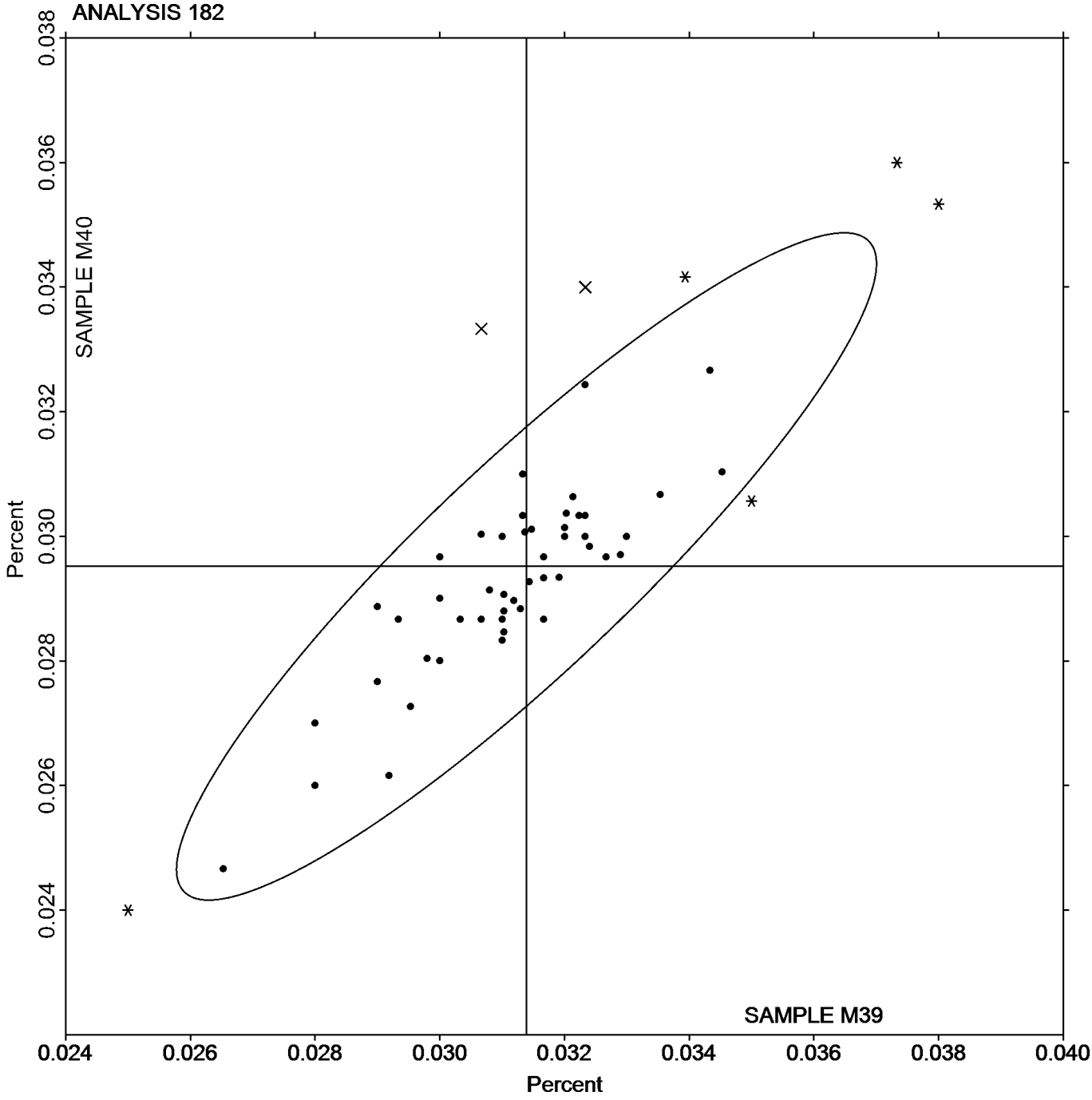
SAMPLE M39	SAMPLE M40
0.0314 Percent	0.0295 Percent



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		Sample M39			Sample M40			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2424VN		0.0278	0.0004	0.24	0.0255	-0.0006	-0.39	OE
24YGEB		0.0255	-0.0019	-1.03	0.0254	-0.0007	-0.41	CI
3FVXPX		0.0275	0.0002	0.09	0.0269	0.0008	0.49	CI
3KFNM8	X	0.0307	0.0033	1.81	0.0320	0.0059	3.60	OE
4HG2XV		0.0287	0.0013	0.71	0.0273	0.0012	0.75	CI
4VGZKR		0.0287	0.0013	0.71	0.0257	-0.0004	-0.26	OE
6HR9RB		0.0244	-0.0029	-1.61	0.0235	-0.0026	-1.56	OE
74PCTA		0.0273	0.0000	-0.02	0.0273	0.0012	0.75	CI
7VBEZV	X	0.1053	0.0780	42.75	0.1063	0.0802	48.90	OE
82Z69C		0.0267	-0.0007	-0.39	0.0250	-0.0011	-0.67	CI
8DQYHK		0.0270	-0.0004	-0.20	0.0260	-0.0001	-0.06	XX
8HGHDN		0.0279	0.0005	0.27	0.0272	0.0011	0.69	CI
8TBHPL		0.0288	0.0014	0.77	0.0260	-0.0001	-0.06	CI
9PUA2L	X	0.0345	0.0071	3.89	0.0316	0.0055	3.37	OE
AB9GR7		0.0278	0.0005	0.25	0.0266	0.0005	0.31	DR
AU7FE8		0.0281	0.0007	0.40	0.0248	-0.0013	-0.81	OE
AVHVMK		0.0317	0.0043	2.36	0.0290	0.0029	1.77	OE
AYCBU2	X	0.0413	0.0140	7.66	0.0254	-0.0007	-0.43	GD
BBTPZE		0.0243	-0.0030	-1.67	0.0227	-0.0034	-2.09	OE
BCYEWW		0.0249	-0.0025	-1.37	0.0244	-0.0017	-1.02	CI
BHL76P		0.0262	-0.0012	-0.66	0.0252	-0.0009	-0.55	OE
BM9GNP		0.0297	0.0023	1.26	0.0273	0.0012	0.75	OE
BRFCZC	*	0.0299	0.0025	1.40	0.0307	0.0046	2.83	CI
CGCCBB		0.0285	0.0012	0.64	0.0260	-0.0001	-0.06	OE
CXY2XQ		0.0267	-0.0007	-0.39	0.0257	-0.0004	-0.26	DR
DDK4EA		0.0300	0.0026	1.44	0.0270	0.0009	0.55	OE
DYMQWX		0.0263	-0.0010	-0.57	0.0260	-0.0001	-0.06	CI
ECBWQT		0.0298	0.0024	1.33	0.0269	0.0008	0.47	CO
EFLQ3X		0.0271	-0.0003	-0.17	0.0266	0.0005	0.31	CI
EFTCXY		0.0297	0.0023	1.26	0.0270	0.0009	0.55	XX
EWD6HW		0.0255	-0.0019	-1.03	0.0254	-0.0007	-0.41	CI
FECF7Z		0.0277	0.0004	0.21	0.0259	-0.0002	-0.14	OE
FWW76Y		0.0287	0.0014	0.75	0.0253	-0.0008	-0.49	OE
H39MAY		0.0253	-0.0020	-1.12	0.0250	-0.0011	-0.67	GD
HDTC8P	*	0.0237	-0.0037	-2.03	0.0213	-0.0048	-2.90	OE
JTU3LU		0.0272	-0.0002	-0.11	0.0272	0.0011	0.69	CI
KDA4J8		0.0313	0.0040	2.17	0.0297	0.0036	2.17	OE
KPHUD3		0.0256	-0.0018	-0.97	0.0264	0.0003	0.16	CI
L49YJW		0.0287	0.0013	0.71	0.0277	0.0016	0.96	OE
PV9VLH		0.0292	0.0018	0.98	0.0266	0.0005	0.32	OE
QXQGQB		0.0282	0.0008	0.46	0.0250	-0.0011	-0.67	OE
R8H3HU		0.0271	-0.0003	-0.17	0.0248	-0.0013	-0.81	GD
R96C7V	*	0.0235	-0.0038	-2.10	0.0263	0.0002	0.10	OE
RFKQPX		0.0280	0.0007	0.36	0.0259	-0.0002	-0.12	CO
RFRQWT		0.0267	-0.0007	-0.39	0.0250	-0.0011	-0.67	OE
RGG7ZA		0.0284	0.0011	0.58	0.0279	0.0018	1.08	OE
UJRHRP		0.0243	-0.0030	-1.67	0.0237	-0.0024	-1.48	OE

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Fasteners and Metals Interlaboratory Testing Program

Analysis 183

Corrosion Resistant Steel, Element #4

SULFUR (S)

Cycle 116
4th Qtr 2016

		Sample M39			Sample M40			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
V3UUMQ	X	0.0348	0.0074	4.06	0.0298	0.0037	2.26	OE
VVAZ3D		0.0272	-0.0001	-0.08	0.0241	-0.0020	-1.24	WD
VWXZYH	X	0.0363	0.0090	4.91	0.0260	-0.0001	-0.06	OE
W8ZU9F		0.0275	0.0002	0.09	0.0276	0.0015	0.89	CI
WAX2BJ		0.0290	0.0016	0.89	0.0287	0.0026	1.56	CI
XH6ZFE		0.0273	0.0000	-0.02	0.0280	0.0019	1.16	GD
XWD72K		0.0280	0.0006	0.34	0.0250	-0.0011	-0.67	OE
Y3GQ3M		0.0274	0.0000	0.00	0.0250	-0.0011	-0.69	OE
YRYW68		0.0259	-0.0015	-0.81	0.0255	-0.0006	-0.34	OE
Z2HTJE		0.0260	-0.0014	-0.75	0.0260	-0.0001	-0.06	CO
Z9BRTT		0.0253	-0.0020	-1.12	0.0263	0.0002	0.14	CI
ZK97VH		0.0269	-0.0004	-0.24	0.0264	0.0003	0.18	CI

Summary Statistics

	Sample M39		Sample M40	
Grand Means	0.0274	Percent	0.0261	Percent
Stnd Dev Btwn Labs	0.0018	Percent	0.0016	Percent

Samples M39, M40 : AISI 304, AISI 304L

Statistics based on 53 of 59 reporting participants

Key to Method Codes Reported by Participants

CI	Combustion / IR	CO	Combustion
DR	Spectrometry - Direct Reading OE (DROES)	GD	Spectrometry - Glow Discharge (GDS)
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 #183

3KFNM8 (X) - Data for sample M40 are high.

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

9PUA2L (X) - Data for both samples are high.

AYCBU2 (X) - Data for sample M39 are high. Inconsistent within the determinations of both samples.

V3UUMQ (X) - Data for sample M39 are high.

VWXZYH (X) - Data for sample M39 are high. Inconsistent within the determinations of both samples.

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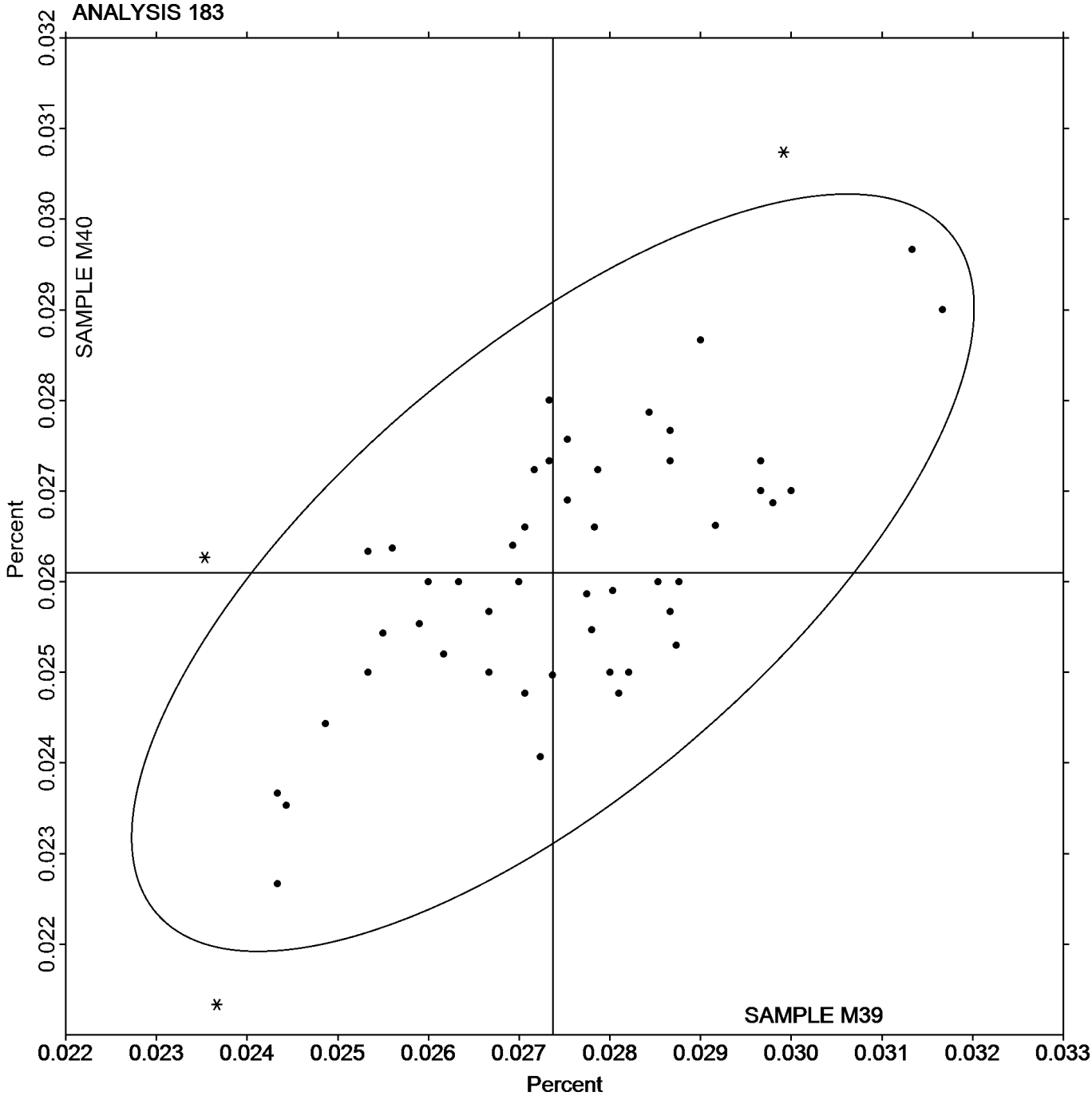
SAMPLE M39	SAMPLE M40
0.0274 Percent	0.0261 Percent



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		Sample M39			Sample M40			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2424VN		0.2600	0.0036	0.31	0.5780	0.0034	0.20	OE
24YGEB		0.2443	-0.0121	-1.03	0.5827	0.0080	0.46	XR
3FVXPX		0.2537	-0.0027	-0.23	0.5610	-0.0136	-0.79	OE
3KFNM8	*	0.2797	0.0233	1.98	0.5530	-0.0216	-1.25	OE
4HG2XV		0.2777	0.0213	1.81	0.5867	0.0120	0.70	OE
4VGZKR		0.2583	0.0019	0.16	0.5813	0.0067	0.39	OE
6HR9RB		0.2657	0.0093	0.79	0.6063	0.0317	1.83	OE
74PCTA		0.2533	-0.0031	-0.26	0.5800	0.0054	0.31	DR
7VBEZV	*	0.2743	0.0179	1.53	0.5400	-0.0346	-2.00	OE
82Z69C		0.2763	0.0199	1.70	0.5763	0.0017	0.10	IC
8DQYHK		0.2510	-0.0054	-0.46	0.5700	-0.0046	-0.27	XX
8HGHDN		0.2580	0.0016	0.14	0.5787	0.0040	0.23	WD
9PUA2L		0.2403	-0.0161	-1.37	0.5560	-0.0186	-1.08	OE
AB9GR7		0.2583	0.0019	0.16	0.5783	0.0037	0.21	DR
AU7FE8		0.2590	0.0026	0.22	0.5820	0.0074	0.43	OE
AVHVMK		0.2567	0.0003	0.02	0.5800	0.0054	0.31	OE
AYCBU2		0.2367	-0.0197	-1.68	0.5497	-0.0250	-1.44	GD
BBTPZE	*	0.2700	0.0136	1.16	0.6233	0.0487	2.81	WD
BCYEWW		0.2560	-0.0004	-0.04	0.5663	-0.0083	-0.48	OE
BHL76P		0.2517	-0.0047	-0.40	0.5733	-0.0013	-0.07	OE
BM9GNP		0.2533	-0.0031	-0.26	0.5367	-0.0380	-2.19	OE
BRFCZC		0.2637	0.0073	0.62	0.5770	0.0024	0.14	OE
BXJYBZ		0.2423	-0.0141	-1.20	0.5880	0.0134	0.77	WD
CGCCBB		0.2563	-0.0001	-0.01	0.5783	0.0037	0.21	OE
CXY2XQ		0.2600	0.0036	0.31	0.5780	0.0034	0.20	DR
DDK4EA		0.2810	0.0246	2.10	0.6000	0.0254	1.47	OE
DYMQWX		0.2637	0.0073	0.62	0.5863	0.0117	0.68	DR
ECBWQT		0.2600	0.0036	0.31	0.5663	-0.0084	-0.48	OE
EFLQ3X		0.2450	-0.0114	-0.97	0.5697	-0.0050	-0.29	WD
EFTCXY		0.2583	0.0019	0.16	0.5610	-0.0136	-0.79	XX
EWD6HW		0.2483	-0.0081	-0.69	0.5657	-0.0090	-0.52	XR
FECF7Z		0.2479	-0.0085	-0.73	0.5864	0.0118	0.68	OE
FWW76Y	X	0.3603	0.1039	8.86	0.5658	-0.0089	-0.51	OE
H39MAY		0.2570	0.0006	0.05	0.5750	0.0004	0.02	GD
HDTC8P		0.2527	-0.0037	-0.32	0.5933	0.0187	1.08	OE
JTU3LU		0.2457	-0.0107	-0.92	0.5680	-0.0066	-0.38	WD
KDA4J8		0.2553	-0.0011	-0.09	0.6057	0.0310	1.79	OE
KPHUD3		0.2500	-0.0064	-0.55	0.5713	-0.0033	-0.19	WD
L49YJW		0.2460	-0.0104	-0.89	0.5833	0.0087	0.50	OE
NWH98K	*	0.2300	-0.0264	-2.25	0.5300	-0.0446	-2.58	ED
PV9VLH		0.2588	0.0024	0.20	0.5823	0.0077	0.44	OE
QXQGQB		0.2517	-0.0047	-0.40	0.5838	0.0092	0.53	OE
R8H3HU		0.2637	0.0073	0.62	0.5927	0.0180	1.04	GD
R96C7V		0.2607	0.0043	0.36	0.5827	0.0080	0.46	OE
RFKQPX		0.2573	0.0009	0.08	0.5793	0.0047	0.27	IC
RFRQWT		0.2587	0.0023	0.19	0.5763	0.0017	0.10	OE
RGG7ZA		0.2830	0.0266	2.27	0.5900	0.0154	0.89	OE

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Fasteners and Metals Interlaboratory Testing Program

Analysis 184

Corrosion Resistant Steel, Element #5

SILICON (Si)

		Sample M39			Sample M40			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
UJRHRP		0.2473	-0.0091	-0.77	0.5643	-0.0103	-0.59	XR
V3UUMQ		0.2563	-0.0001	-0.01	0.5443	-0.0303	-1.75	OE
VVAZ3D		0.2560	-0.0004	-0.04	0.5773	0.0027	0.16	WD
VWXZYH	X	0.3613	0.1049	8.95	0.6567	0.0820	4.74	OE
W8ZU9F		0.2483	-0.0081	-0.69	0.5653	-0.0093	-0.54	WD
WAX2BJ		0.2567	0.0003	0.02	0.5920	0.0174	1.00	IC
XH6ZFE	X	0.2437	-0.0127	-1.09	0.4683	-0.1063	-6.14	GD
XWD72K		0.2733	0.0169	1.44	0.5600	-0.0146	-0.84	OE
Y3GQ3M		0.2687	0.0123	1.05	0.5927	0.0180	1.04	OE
YRYW68		0.2400	-0.0164	-1.40	0.5600	-0.0146	-0.84	WD
Z2HTJE		0.2630	0.0066	0.56	0.5703	-0.0043	-0.25	OE
Z9BRTT		0.2469	-0.0095	-0.81	0.5686	-0.0060	-0.35	IC
ZK97VH		0.2277	-0.0287	-2.45	0.5483	-0.0263	-1.52	WD

Summary Statistics

	Sample M39		Sample M40	
Grand Means	0.2564	Percent	0.5746	Percent
Stnd Dev Btwn Labs	0.0117	Percent	0.0173	Percent

Samples M39, M40 : AISI 304, AISI 304L

Statistics based on 57 of 60 reporting participants

Key to Method Codes Reported by Participants

DR	Spectrometry - Direct Reading OE (DROES)	ED	X-Ray Fluorescence - Energy Dispersive (EDX)
GD	Spectrometry - Glow Discharge (GDS)	IC	Spectrometry - Inductively Coupled Plasma (ICP)
OE	Spectrometry - Optical Emission (OES)	WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)
XR	X-Ray Fluorescence - ED or WD not specified	XX	Please Indicate Method Used for Current Element

Comments on Assigned Data Flags for Test #184

FWW76Y (X) - Data for sample M39 are high.

VWXZYH (X) - Data for both samples are high. Inconsistent within the determinations of sample M40.

XH6ZFE (X) - Data for sample M40 are low. Inconsistent within the determinations of sample M40.

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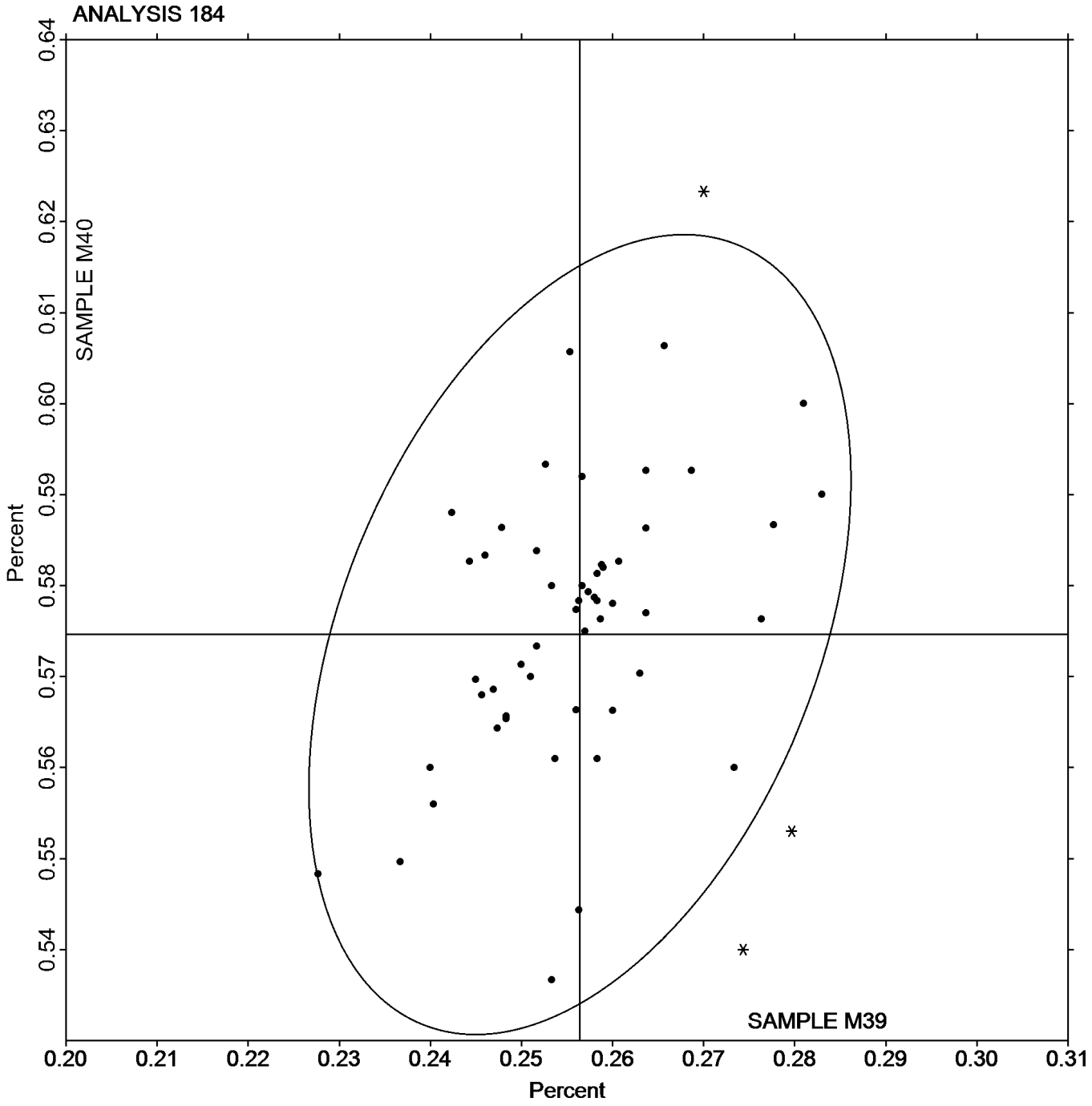
SAMPLE M39	SAMPLE M40
0.2564 Percent	0.5746 Percent



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		Sample M39			Sample M40			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2424VN		0.0780	-0.0008	-0.26	0.0980	0.0007	0.25	OE
24YGEB		0.0790	0.0002	0.06	0.0957	-0.0016	-0.56	CI
3FVXPX		0.0810	0.0022	0.70	0.0983	0.0011	0.36	IR
3KFNM8		0.0737	-0.0052	-1.66	0.0953	-0.0019	-0.67	OE
74PCTA		0.0790	0.0002	0.06	0.0937	-0.0036	-1.25	CI
82Z69C		0.0823	0.0035	1.13	0.1007	0.0034	1.17	XX
8HGHDN		0.0769	-0.0019	-0.61	0.0968	-0.0005	-0.18	CI
AU7FE8		0.0783	-0.0005	-0.16	0.0980	0.0007	0.25	OE
AVHVMK		0.0830	0.0042	1.35	0.0980	0.0007	0.25	OE
AYCBU2	X	0.0703	-0.0085	-2.74	0.0707	-0.0266	-9.21	GD
BCYEWW		0.0784	-0.0004	-0.14	0.0944	-0.0029	-1.00	OE
BM9GNP		0.0797	0.0008	0.27	0.1023	0.0051	1.75	OE
BRFCZC		0.0848	0.0059	1.92	0.1030	0.0057	1.98	CI
CGCCBB		0.0753	-0.0035	-1.12	0.0953	-0.0019	-0.67	OE
DYMQWX	X	0.0610	-0.0178	-5.75	0.0780	-0.0193	-6.67	DR
ECBWQT		0.0769	-0.0020	-0.63	0.0955	-0.0018	-0.61	CO
EFLQ3X		0.0808	0.0019	0.63	0.0983	0.0010	0.35	CO
EFTCXY		0.0750	-0.0038	-1.23	0.0960	-0.0013	-0.44	XX
EWD6HW		0.0790	0.0002	0.06	0.0957	-0.0016	-0.56	CI
FECF7Z		0.0725	-0.0064	-2.05	0.0923	-0.0050	-1.72	OE
FWW76Y	X	0.0929	0.0140	4.52	0.1023	0.0051	1.75	OE
JTU3LU		0.0795	0.0007	0.22	0.0993	0.0020	0.69	CO
KPHUD3		0.0793	0.0005	0.16	0.0983	0.0010	0.34	CI
L49YJW	X	0.0650	-0.0138	-4.46	0.0823	-0.0149	-5.17	OE
PV9VLH	X	0.0935	0.0147	4.73	0.1187	0.0214	7.41	OE
QXQGQB	*	0.0809	0.0021	0.66	0.1042	0.0069	2.39	OE
R96C7V		0.0819	0.0030	0.98	0.0990	0.0017	0.59	OE
RFKQPX		0.0783	-0.0005	-0.16	0.0977	0.0004	0.13	CO
RGG7ZA		0.0840	0.0052	1.67	0.0990	0.0017	0.59	OE
UJRHRP		0.0740	-0.0048	-1.55	0.0973	0.0001	0.02	OE
V3UUMQ		0.0797	0.0008	0.27	0.0963	-0.0009	-0.33	OE
W8ZU9F		0.0780	-0.0009	-0.28	0.0948	-0.0024	-0.85	XX
WAX2BJ		0.0783	-0.0005	-0.16	0.0947	-0.0026	-0.90	CI
XH6ZFE		0.0831	0.0043	1.38	0.1010	0.0037	1.29	XX
Y3GQ3M	X	0.0707	-0.0082	-2.63	0.1070	0.0097	3.36	OE
YRYW68		0.0710	-0.0078	-2.52	0.1013	0.0041	1.40	OE
Z2HTJE		0.0810	0.0022	0.70	0.0977	0.0004	0.13	XX
Z9BRTT		0.0733	-0.0055	-1.78	0.0921	-0.0052	-1.79	IC
ZK97VH		0.0775	-0.0013	-0.43	0.0944	-0.0029	-1.00	XX

Summary Statistics

	Sample M39		Sample M40	
Grand Means	0.0788	Percent	0.0973	Percent
Stnd Dev Btwn Labs	0.0031	Percent	0.0029	Percent

Samples M39, M40 : AISI 304, AISI 304L

Statistics based on 32 of 39 reporting participants

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Key to Method Codes Reported by Participants

CI	Combustion / IR	CO	Combustion
DR	Spectrometry - Direct Reading OE (DROES)	GD	Spectrometry - Glow Discharge (GDS)
IC	Spectrometry - Inductively Coupled Plasma (ICP)	IR	IR (Absorption / Detection)
OE	Spectrometry - Optical Emission (OES)	XX	Please Indicate Method Used for Current Element

Comments on Assigned Data Flags for Test #185

AYCBU2 (X) - Data for both samples are low. Inconsistent within the determinations of both samples.

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

FWW76Y (X) - Data for sample M39 are high. Inconsistent within the determinations of sample M39.

L49YJW (X) - Data for both samples are low.

PV9VLH (X) - Data for both samples are high. Inconsistent within the determinations of both samples.

Y3GQ3M (X) - Data for sample M40 are high.

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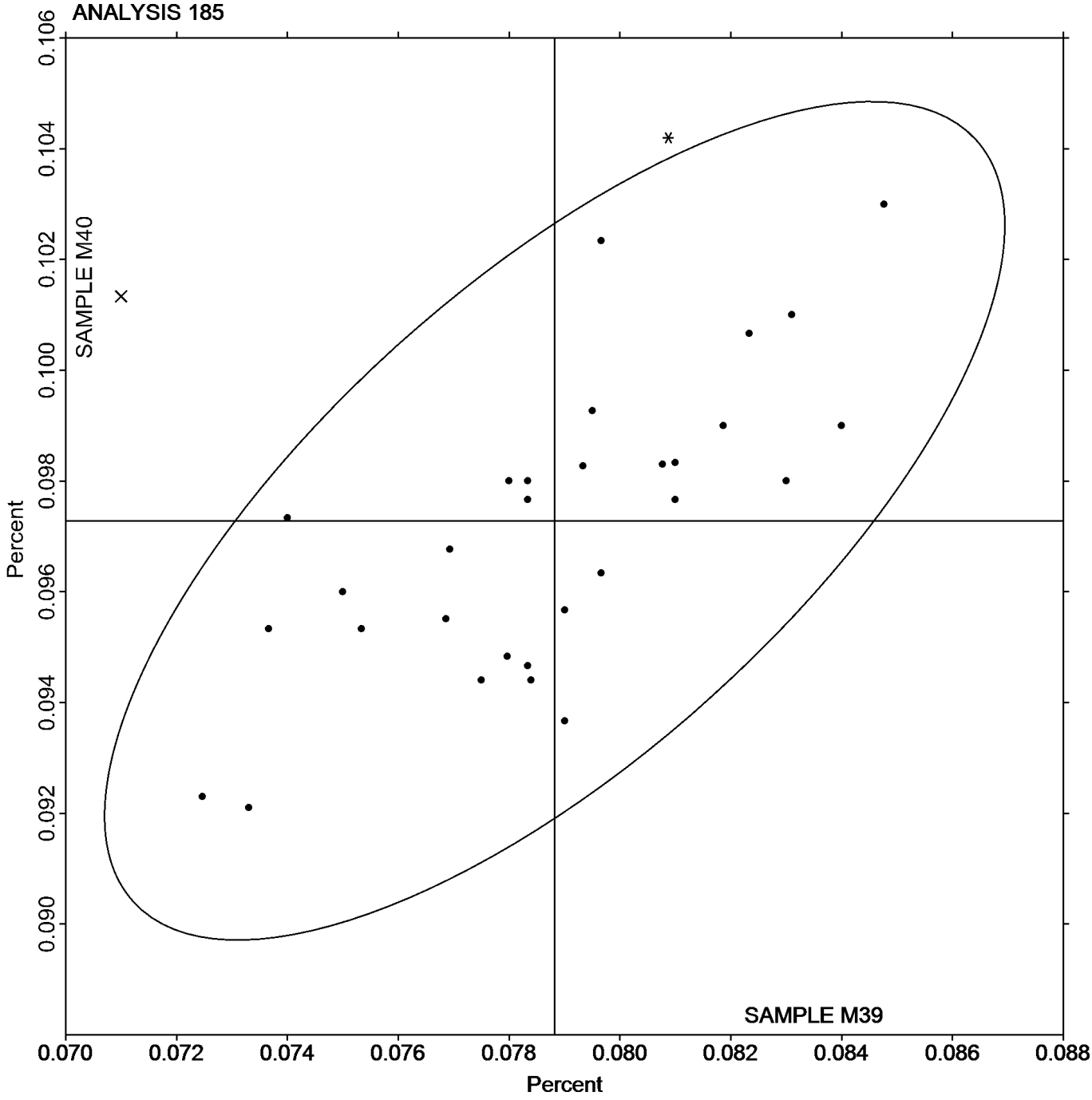
SAMPLE M39	SAMPLE M40
0.0788 Percent	0.0973 Percent



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		Sample M39			Sample M40			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2424VN		8.331	0.080	0.93	8.168	0.038	0.49	OE
24YGEB		8.267	0.017	0.19	8.178	0.048	0.62	XR
3FVXPX		8.214	-0.036	-0.42	8.087	-0.043	-0.55	OE
3KFNM8		8.360	0.110	1.27	8.172	0.042	0.54	OE
4HG2XV		8.113	-0.137	-1.59	7.953	-0.177	-2.28	OE
4VGZKR		8.328	0.077	0.90	8.217	0.087	1.12	OE
6HR9RB		8.097	-0.154	-1.78	7.981	-0.149	-1.92	OE
74PCTA		8.303	0.053	0.61	8.177	0.047	0.60	WD
7VBEZV		8.393	0.143	1.66	8.267	0.137	1.76	OE
82Z69C		8.430	0.179	2.08	8.253	0.123	1.59	IC
8DQYHK		8.210	-0.041	-0.47	8.060	-0.070	-0.90	XX
8HGHDN		8.245	-0.006	-0.07	8.132	0.002	0.02	WD
9PUA2L		8.047	-0.204	-2.37	7.957	-0.173	-2.23	OE
AB9GR7		8.252	0.001	0.01	8.135	0.005	0.07	DR
AU7FE8		8.327	0.076	0.88	8.147	0.017	0.21	OE
AVHVMK		8.227	-0.024	-0.28	8.130	0.000	0.00	OE
AYCBU2	*	8.182	-0.069	-0.80	8.205	0.075	0.97	GD
BBTPZE		8.225	-0.026	-0.30	8.121	-0.009	-0.12	WD
BCYEWW		8.262	0.011	0.13	8.243	0.113	1.46	OE
BHL76P		8.190	-0.061	-0.71	8.107	-0.023	-0.30	OE
BM9GNP	*	8.363	0.113	1.31	8.313	0.183	2.36	OE
BRFCZC		8.235	-0.015	-0.18	8.108	-0.022	-0.28	WD
BXJYBZ		8.323	0.072	0.84	8.226	0.096	1.24	WD
CGCCBB		8.373	0.123	1.43	8.067	-0.063	-0.82	OE
CXY2XQ		8.260	0.009	0.11	8.135	0.005	0.06	DR
DDK4EA		8.250	-0.001	-0.01	8.140	0.010	0.13	OE
DYMQWX		8.329	0.079	0.91	8.146	0.016	0.20	DR
ECBWQT		8.335	0.085	0.98	8.187	0.057	0.74	OE
EFLQ3X		8.230	-0.021	-0.24	8.113	-0.017	-0.22	WD
EFTCXY		8.287	0.036	0.42	8.163	0.033	0.43	XX
EWD6HW		8.218	-0.033	-0.38	8.144	0.014	0.18	XR
FECF7Z		8.464	0.214	2.48	8.265	0.135	1.74	OE
FWW76Y		8.275	0.025	0.29	8.137	0.007	0.09	OE
H39MAY		8.233	-0.017	-0.20	8.100	-0.030	-0.39	GD
HDTC8P		8.213	-0.037	-0.43	8.083	-0.047	-0.60	OE
JTU3LU		8.223	-0.027	-0.32	8.093	-0.037	-0.47	WD
KDA4J8		8.232	-0.018	-0.21	8.124	-0.006	-0.08	OE
KPHUD3		8.233	-0.018	-0.21	8.122	-0.008	-0.11	WD
L49YJW		8.143	-0.107	-1.25	8.093	-0.037	-0.47	OE
NWH98K		8.240	-0.011	-0.12	8.050	-0.080	-1.03	ED
PV9VLH		8.175	-0.075	-0.87	8.018	-0.112	-1.44	OE
QXQGQB		8.234	-0.017	-0.19	8.085	-0.045	-0.58	XX
R8H3HU	*	8.010	-0.241	-2.79	7.900	-0.230	-2.96	GD
R96C7V		8.197	-0.054	-0.63	8.147	0.017	0.21	OE
RFKQPX		8.310	0.059	0.69	8.123	-0.007	-0.10	IC
RFRQWT		8.200	-0.051	-0.59	8.143	0.013	0.17	OE
RGG7ZA		8.400	0.149	1.74	8.243	0.113	1.46	OE

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Fasteners and Metals Interlaboratory Testing Program

Analysis 186

Corrosion Resistant Steel, Element #7

NICKEL (Ni)

Cycle 116
4th Qtr 2016

		Sample M39			Sample M40			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
UJRHRP		8.220	-0.031	-0.36	8.110	-0.020	-0.26	XR
V3UUMQ		8.239	-0.011	-0.13	8.036	-0.094	-1.21	OE
VVAZ3D		8.257	0.006	0.07	8.132	0.002	0.03	WD
VWXZYH	X	9.067	0.816	9.48	8.887	0.757	9.75	OE
W8ZU9F		8.214	-0.037	-0.43	8.103	-0.027	-0.35	WD
WAX2BJ		8.290	0.039	0.46	8.110	-0.020	-0.26	GR
X9QEGX		8.228	-0.023	-0.26	8.139	0.009	0.12	WC
XH6ZFE		8.177	-0.074	-0.86	8.047	-0.083	-1.07	GD
XWD72K	*	8.437	0.186	2.16	8.190	0.060	0.77	OE
Y3GQ3M		8.159	-0.092	-1.06	8.153	0.023	0.30	OE
YF277L	*	8.188	-0.063	-0.73	8.197	0.067	0.86	ED
YRYW68		8.280	0.029	0.34	8.160	0.030	0.38	WD
Z2HTJE		8.308	0.058	0.67	8.187	0.057	0.73	WD
Z9BRTT		8.205	-0.046	-0.53	8.079	-0.051	-0.65	IC
ZK97VH		8.217	-0.034	-0.39	8.068	-0.062	-0.80	WD

Summary Statistics

	Sample M39		Sample M40	
Grand Means	8.251	Percent	8.130	Percent
Stnd Dev Btwn Labs	0.086	Percent	0.078	Percent

Samples M39, M40 : AISI 304, AISI 304L

Statistics based on 60 of 62 reporting participants

Key to Method Codes Reported by Participants

DR	Spectrometry - Direct Reading OE (DROES)	ED	X-Ray Fluorescence - Energy Dispersive (EDX)
GD	Spectrometry - Glow Discharge (GDS)	GR	Gravimetry
IC	Spectrometry - Inductively Coupled Plasma (ICP)	OE	Spectrometry - Optical Emission (OES)
WC	Wet Chemistry	WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)
XR	X-Ray Fluorescence - ED or WD not specified	XX	Please Indicate Method Used for Current Element

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

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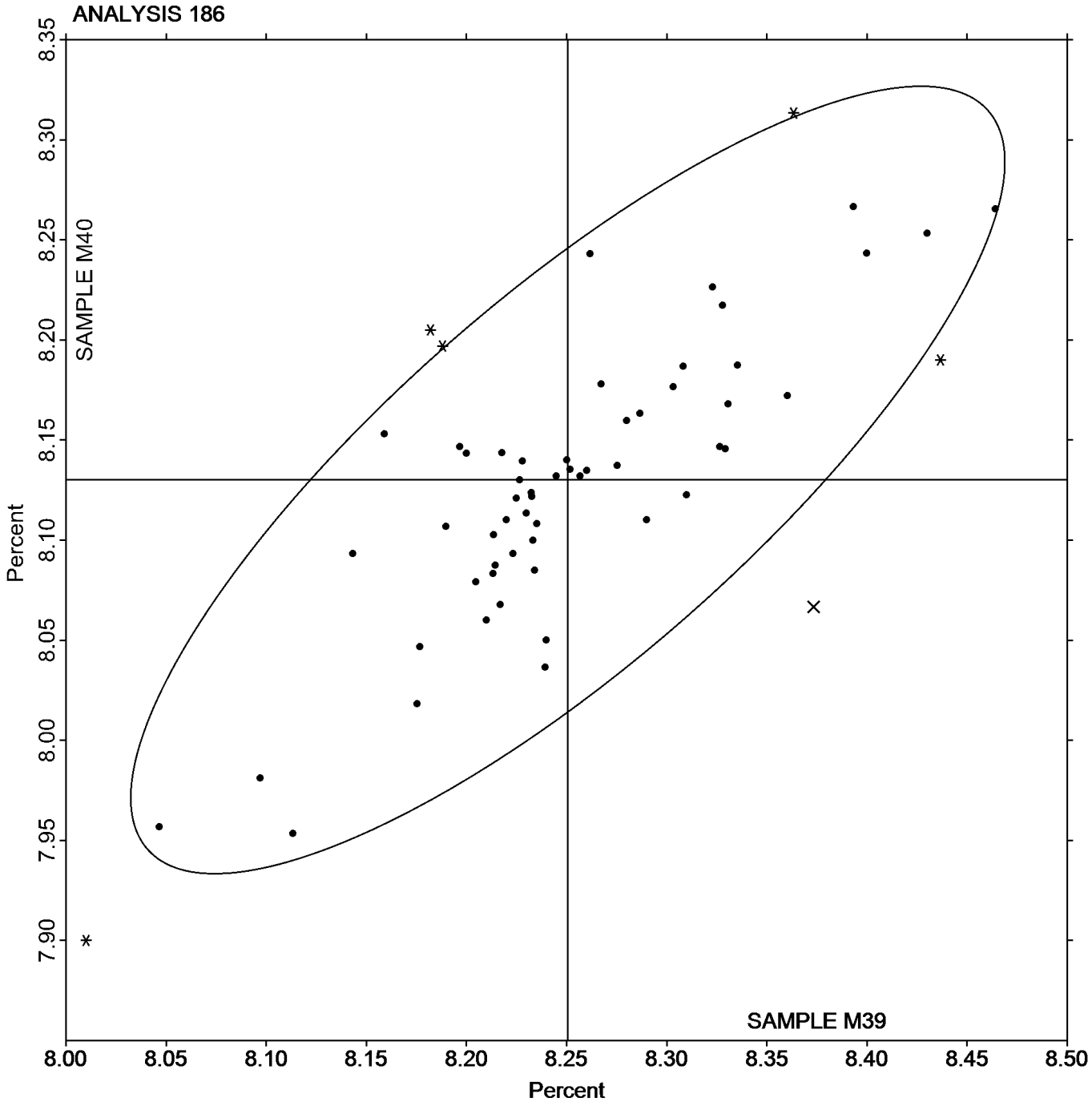
SAMPLE M39	SAMPLE M40
8.251 Percent	8.130 Percent



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		Sample M39			Sample M40			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2424VN		18.24	-0.02	-0.28	18.18	-0.08	-0.77	OE
24YGEB		18.16	-0.10	-1.22	18.15	-0.11	-1.08	XR
3FVXPX		18.25	-0.01	-0.09	18.27	0.01	0.11	OE
3KFNM8		18.34	0.08	0.96	18.37	0.11	1.02	OE
4HG2XV	*	18.01	-0.25	-2.88	17.99	-0.27	-2.53	XX
4VGZKR		18.32	0.06	0.65	18.32	0.06	0.57	OE
6HR9RB		18.34	0.08	0.92	18.29	0.02	0.23	WD
74PCTA		18.27	0.01	0.07	18.30	0.04	0.36	WD
7VBEZV		18.14	-0.12	-1.44	18.12	-0.15	-1.38	OE
82Z69C		18.26	0.00	-0.05	18.31	0.05	0.45	TI
8DQYHK	X	18.18	-0.08	-0.94	18.66	0.40	3.75	XX
8HGHDN		18.26	-0.01	-0.06	18.29	0.03	0.25	WC
9PUA2L		18.12	-0.14	-1.63	18.07	-0.19	-1.78	OE
AB9GR7		18.29	0.03	0.38	18.29	0.03	0.30	DR
AU7FE8		18.23	-0.03	-0.36	18.18	-0.08	-0.77	OE
AVHVMK		18.30	0.04	0.41	18.27	0.01	0.11	OE
AYCBU2	X	19.15	0.89	10.31	19.08	0.81	7.67	GD
BBTPZE		18.28	0.02	0.22	18.35	0.09	0.83	WD
BCYEWW		18.30	0.04	0.49	18.30	0.04	0.36	OE
BHL76P	X	17.79	-0.47	-5.42	17.81	-0.45	-4.26	OE
BM9GNP	*	18.03	-0.23	-2.64	17.95	-0.31	-2.91	OE
BRFCZC		18.30	0.04	0.45	18.25	-0.01	-0.12	WD
BXJYBZ		18.24	-0.02	-0.29	18.26	0.00	0.00	WD
CGCCBB		18.30	0.04	0.41	18.29	0.03	0.30	OE
CXY2XQ		18.30	0.04	0.42	18.29	0.03	0.30	DR
DDK4EA		18.33	0.07	0.80	18.33	0.07	0.64	OE
DYMQWX		18.30	0.04	0.49	18.32	0.06	0.59	DR
ECBWQT		18.42	0.16	1.81	18.44	0.18	1.65	OE
EFLQ3X		18.18	-0.08	-0.90	18.20	-0.06	-0.58	WD
EFTCXY		18.15	-0.11	-1.32	18.18	-0.09	-0.80	XX
EWD6HW		18.17	-0.09	-1.00	18.18	-0.08	-0.77	XR
FECF7Z		18.45	0.19	2.17	18.31	0.04	0.42	OE
FWW76Y		18.26	0.00	-0.01	18.29	0.03	0.26	OE
H39MAY		18.20	-0.06	-0.71	18.20	-0.06	-0.58	GD
HDTC8P		18.41	0.15	1.73	18.39	0.12	1.17	OE
JTU3LU		18.21	-0.05	-0.59	18.21	-0.05	-0.46	WD
KDA4J8	*	18.29	0.03	0.33	18.14	-0.12	-1.13	OE
KPHUD3		18.29	0.03	0.36	18.31	0.05	0.45	WD
L49YJW	X	17.87	-0.39	-4.57	17.89	-0.37	-3.50	OE
NWH98K	*	18.17	-0.09	-1.05	18.28	0.02	0.17	ED
PV9VLH		18.26	0.00	-0.02	18.26	0.00	-0.02	OE
QXQGQB	*	18.33	0.07	0.80	18.48	0.22	2.07	OE
R8H3HU		18.23	-0.03	-0.32	18.17	-0.10	-0.90	GD
R96C7V		18.08	-0.18	-2.14	18.32	0.05	0.52	OE
RFKQPX		18.28	0.02	0.22	18.27	0.01	0.08	IC
RFRQWT		18.23	-0.03	-0.32	18.22	-0.04	-0.40	OE
RGG7ZA		18.24	-0.02	-0.20	18.22	-0.04	-0.40	OE

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Fasteners and Metals Interlaboratory Testing Program

Analysis 187

Corrosion Resistant Steel, Element #8
CHROMIUM (Cr)

Cycle 116
4th Qtr 2016

WebCode	Data Flag	Sample M39 Lab Mean	Sample M39 Diff. from Grand Mean	Sample M39 CPV	Sample M40 Lab Mean	Sample M40 Diff. from Grand Mean	Sample M40 CPV	Method
UJRHRP		18.20	-0.06	-0.67	18.22	-0.05	-0.43	XR
V3UUMQ		18.47	0.21	2.46	18.47	0.21	1.96	OE
VVAZ3D		18.20	-0.06	-0.74	18.25	-0.01	-0.08	WD
VWXZYH		18.36	0.10	1.19	18.46	0.20	1.90	OE
W8ZU9F		18.24	-0.02	-0.22	18.25	-0.02	-0.15	WD
WAX2BJ		18.32	0.06	0.69	18.27	0.00	0.04	TI
X9QEGX		18.27	0.01	0.10	18.29	0.02	0.22	WC
XH6ZFE		18.07	-0.19	-2.25	18.27	0.00	0.04	XX
XWD72K		18.37	0.11	1.26	18.35	0.08	0.80	OE
Y3GQ3M		18.19	-0.07	-0.86	18.07	-0.19	-1.81	OE
YF277L		18.49	0.23	2.62	18.30	0.04	0.36	ED
YRYW68		18.25	-0.01	-0.17	18.28	0.02	0.15	WD
Z2HTJE		18.28	0.02	0.19	18.33	0.07	0.63	WD
Z9BRTT		18.34	0.08	0.95	18.36	0.09	0.89	IC
ZK97VH		18.37	0.11	1.30	18.37	0.11	1.00	WD

Summary Statistics

	Sample M39		Sample M40	
Grand Means	18.26	Percent	18.26	Percent
Stnd Dev Btwn Labs	0.09	Percent	0.11	Percent

Samples M39, M40 : AISI 304, AISI 304L

Statistics based on 54 of 62 reporting participants

Key to Method Codes Reported by Participants

DR	Spectrometry - Direct Reading OE (DROES)	ED	X-Ray Fluorescence - Energy Dispersive (EDX)
GD	Spectrometry - Glow Discharge (GDS)	IC	Spectrometry - Inductively Coupled Plasma (ICP)
OE	Spectrometry - Optical Emission (OES)	TI	Titrimetry
WC	Wet Chemistry	WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)
XR	X-Ray Fluorescence - ED or WD not specified	XX	Please Indicate Method Used for Current Element

Comments on Assigned Data Flags for Test #187

8DQYHK (X) - Data for sample M40 are high.

AYCBU2 (X) - Data for both samples are high.

BHL76P (X) - Data for both samples are low.

L49YJW (X) - Data for both samples are low.

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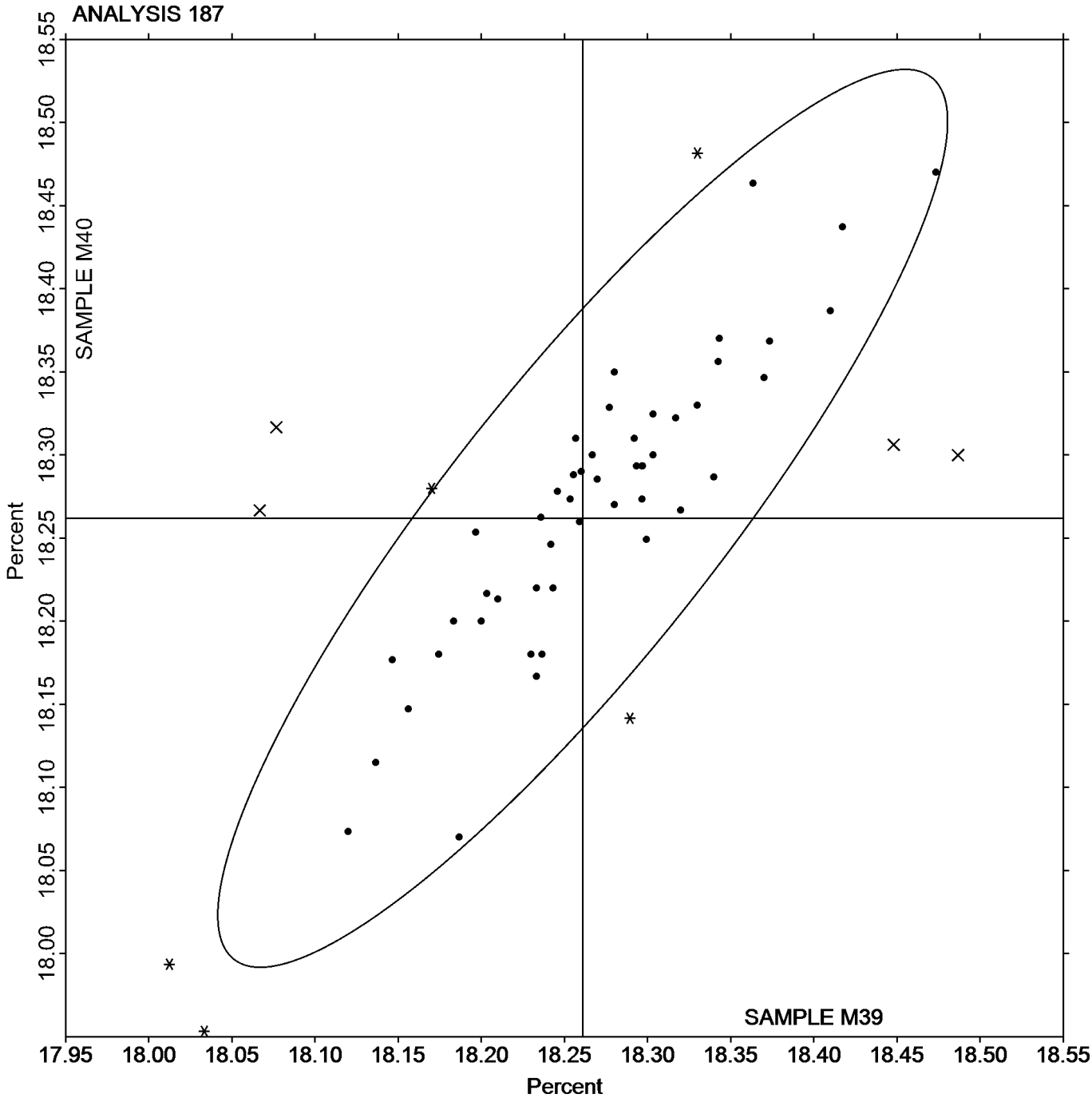
SAMPLE M39	SAMPLE M40
18.26 Percent	18.26 Percent



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		Sample M39			Sample M40			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2424VN		0.2727	0.0028	0.29	0.5720	-0.0008	-0.05	OE
24YGEB		0.2633	-0.0065	-0.68	0.5677	-0.0051	-0.30	XR
3FVXPX		0.2813	0.0115	1.20	0.5533	-0.0194	-1.16	OE
3KFNM8		0.2887	0.0188	1.96	0.6067	0.0339	2.02	OE
4HG2XV		0.2897	0.0198	2.06	0.5667	-0.0061	-0.36	XX
4VGZKR		0.2600	-0.0098	-1.03	0.5617	-0.0111	-0.66	OE
6HR9RB		0.2783	0.0085	0.88	0.5870	0.0142	0.85	OE
74PCTA		0.2700	0.0002	0.02	0.5700	-0.0028	-0.16	DR
7VBEZV	X	0.3093	0.0395	4.11	0.6667	0.0939	5.59	OE
82Z69C		0.2690	-0.0008	-0.09	0.5577	-0.0151	-0.90	IC
8DQYHK	*	0.2700	0.0002	0.02	0.6200	0.0472	2.81	XX
8HGHDN		0.2686	-0.0012	-0.13	0.5787	0.0060	0.36	IC
9PUA2L	*	0.2980	0.0282	2.93	0.5937	0.0209	1.24	OE
AB9GR7	*	0.2550	-0.0148	-1.55	0.5213	-0.0514	-3.06	DR
AU7FE8		0.2740	0.0042	0.43	0.5743	0.0016	0.09	OE
AVHVMK		0.2667	-0.0032	-0.33	0.5400	-0.0328	-1.95	OE
AYCBU2		0.2657	-0.0042	-0.43	0.5600	-0.0128	-0.76	GD
BBTPZE		0.2687	-0.0012	-0.12	0.5787	0.0059	0.35	WD
BCYEWW		0.2590	-0.0108	-1.13	0.5767	0.0039	0.23	OE
BHL76P	X	0.2997	0.0298	3.11	0.6227	0.0499	2.97	OE
BM9GNP		0.2600	-0.0098	-1.03	0.5667	-0.0061	-0.36	OE
BRFCZC		0.2608	-0.0091	-0.94	0.5667	-0.0060	-0.36	WD
BXJYBZ		0.2747	0.0048	0.50	0.5497	-0.0231	-1.38	WD
CGCCBB		0.2597	-0.0102	-1.06	0.5687	-0.0041	-0.24	OE
CXY2XQ		0.2607	-0.0092	-0.96	0.5527	-0.0201	-1.20	DR
DDK4EA	*	0.2640	-0.0058	-0.61	0.6100	0.0372	2.22	OE
DYMQWX		0.2770	0.0072	0.75	0.5723	-0.0004	-0.03	DR
ECBWQT		0.2713	0.0014	0.15	0.5668	-0.0059	-0.35	OE
EFLQ3X		0.2643	-0.0055	-0.57	0.5700	-0.0028	-0.16	WD
EFTCXY		0.2757	0.0058	0.61	0.5923	0.0196	1.17	XX
EWD6HW		0.2640	-0.0058	-0.61	0.5763	0.0036	0.21	XR
FECF7Z		0.2599	-0.0100	-1.04	0.5813	0.0086	0.51	OE
FWW76Y		0.2561	-0.0138	-1.43	0.5545	-0.0182	-1.09	OE
H39MAY		0.2793	0.0095	0.99	0.5753	0.0026	0.15	GD
HDTC8P	X	0.2637	-0.0062	-0.64	0.6607	0.0879	5.23	OE
JTU3LU		0.2647	-0.0052	-0.54	0.5710	-0.0018	-0.10	WD
KDA4J8		0.2843	0.0145	1.51	0.6043	0.0316	1.88	OE
KPHUD3		0.2593	-0.0105	-1.09	0.5710	-0.0018	-0.10	WD
L49YJW		0.2547	-0.0152	-1.58	0.5767	0.0039	0.23	OE
NWH98K		0.2700	0.0002	0.02	0.5750	0.0022	0.13	ED
PV9VLH		0.2727	0.0028	0.30	0.5828	0.0100	0.60	OE
QXQGQB		0.2653	-0.0046	-0.48	0.5861	0.0134	0.80	OE
R8H3HU		0.2793	0.0095	0.99	0.5740	0.0012	0.07	GD
R96C7V	*	0.2770	0.0072	0.75	0.5363	-0.0364	-2.17	OE
RFKQPX		0.2700	0.0002	0.02	0.5767	0.0039	0.23	IC
RFRQWT		0.2610	-0.0088	-0.92	0.5657	-0.0071	-0.42	OE
RGG7ZA		0.2730	0.0032	0.33	0.5777	0.0049	0.29	OE

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Corrosion Resistant Steel, Element #9
MOLYBDENUM (Mo)

WebCode	Data Flag	Sample M39 Lab Mean	Sample M39 Diff. from Grand Mean	Sample M39 CPV	Sample M40 Lab Mean	Sample M40 Diff. from Grand Mean	Sample M40 CPV	Method
UJRHRP		0.2657	-0.0042	-0.43	0.5697	-0.0031	-0.18	XR
V3UUMQ		0.2890	0.0192	2.00	0.5943	0.0216	1.28	OE
VVAZ3D		0.2660	-0.0038	-0.40	0.5820	0.0092	0.55	WD
VWXZYH		0.2840	0.0142	1.47	0.5660	-0.0068	-0.40	OE
W8ZU9F		0.2663	-0.0035	-0.37	0.5713	-0.0014	-0.09	WD
WAX2BJ		0.2657	-0.0042	-0.43	0.5790	0.0062	0.37	IC
XH6ZFE		0.2733	0.0035	0.36	0.5623	-0.0104	-0.62	GD
XWD72K		0.2600	-0.0098	-1.03	0.5667	-0.0061	-0.36	OE
Y3GQ3M		0.2673	-0.0025	-0.26	0.5663	-0.0064	-0.38	OE
YF277L		0.2680	-0.0018	-0.19	0.5693	-0.0034	-0.20	ED
YRYW68		0.2640	-0.0058	-0.61	0.5737	0.0009	0.05	WD
Z2HTJE		0.2767	0.0068	0.71	0.5850	0.0122	0.73	OE
Z9BRTT		0.2865	0.0167	1.74	0.5861	0.0134	0.80	IC
ZK97VH		0.2610	-0.0088	-0.92	0.5617	-0.0111	-0.66	WD

Summary Statistics

	Sample M39		Sample M40	
Grand Means	0.2698	Percent	0.5728	Percent
Stnd Dev Btwn Labs	0.0096	Percent	0.0168	Percent

Samples M39, M40 : AISI 304, AISI 304L

Statistics based on 58 of 61 reporting participants

Key to Method Codes Reported by Participants

DR	Spectrometry - Direct Reading OE (DROES)	ED	X-Ray Fluorescence - Energy Dispersive (EDX)
GD	Spectrometry - Glow Discharge (GDS)	IC	Spectrometry - Inductively Coupled Plasma (ICP)
OE	Spectrometry - Optical Emission (OES)	WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)
XR	X-Ray Fluorescence - ED or WD not specified	XX	Please Indicate Method Used for Current Element

Comments on Assigned Data Flags for Test #188

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

BHL76P (X) - Data for both samples are high.

HDTC8P (X) - Data for sample M40 are high.

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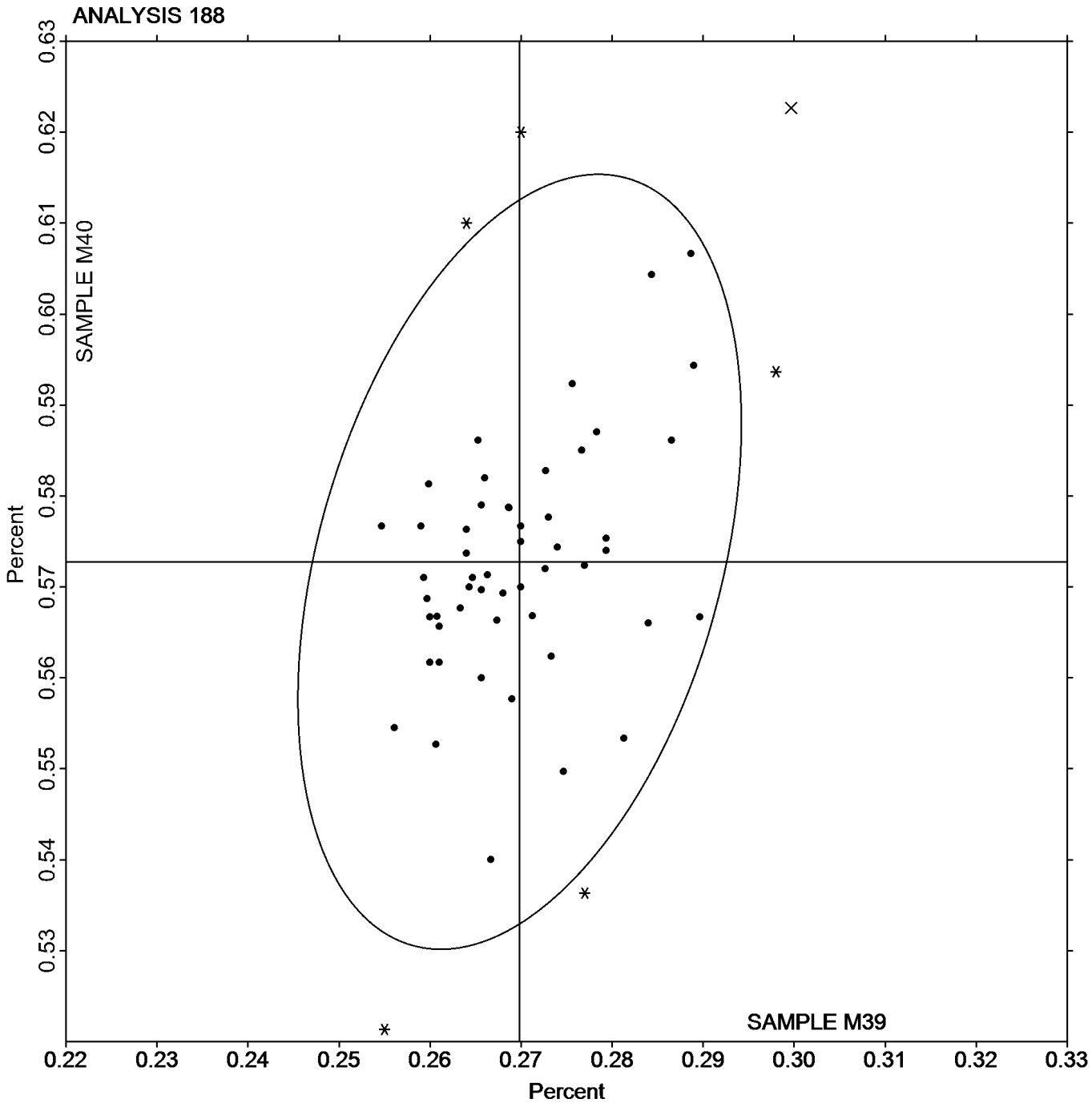
SAMPLE M39
0.2698 Percent

SAMPLE M40
0.5728 Percent



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		Sample M39			Sample M40			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2424VN		0.4373	-0.0004	-0.03	0.5147	-0.0077	-0.51	OE
24YGEB		0.4347	-0.0031	-0.21	0.5160	-0.0064	-0.42	XR
3FVXPX		0.4353	-0.0024	-0.17	0.5090	-0.0134	-0.88	OE
3KFNM8	X	0.3723	-0.0654	-4.53	0.4410	-0.0814	-5.35	OE
4HG2XV		0.4290	-0.0087	-0.60	0.5073	-0.0150	-0.99	XX
4VGZKR		0.4347	-0.0031	-0.21	0.5103	-0.0120	-0.79	OE
6HR9RB		0.4193	-0.0184	-1.27	0.4967	-0.0257	-1.69	OE
74PCTA		0.4300	-0.0077	-0.54	0.5100	-0.0124	-0.81	OE
7VBEZV	X	0.5167	0.0789	5.47	0.5967	0.0743	4.88	OE
82Z69C		0.4293	-0.0084	-0.58	0.5107	-0.0117	-0.77	IC
8DQYHK		0.4480	0.0103	0.71	0.5000	-0.0224	-1.47	XX
8HGHDN		0.4370	-0.0007	-0.05	0.5217	-0.0007	-0.05	WD
9PUA2L		0.4463	0.0086	0.60	0.5360	0.0136	0.90	OE
AB9GR7		0.4397	0.0019	0.13	0.5223	0.0000	0.00	DR
AU7FE8		0.4370	-0.0007	-0.05	0.5203	-0.0020	-0.13	OE
AVHVMK		0.4400	0.0023	0.16	0.5233	0.0010	0.06	OE
AYCBU2		0.4613	0.0236	1.63	0.5480	0.0256	1.68	GD
BBTPZE	*	0.4010	-0.0367	-2.54	0.4947	-0.0277	-1.82	WD
BCYEWW	*	0.4073	-0.0304	-2.10	0.5077	-0.0147	-0.97	OE
BHL76P	*	0.4733	0.0356	2.47	0.5637	0.0413	2.71	OE
BM9GNP		0.4367	-0.0011	-0.07	0.5133	-0.0090	-0.59	OE
BRFCZC		0.4437	0.0060	0.41	0.5294	0.0070	0.46	WD
BXJYBZ		0.4397	0.0019	0.13	0.5273	0.0050	0.33	WD
CGCCBB		0.4413	0.0036	0.25	0.5220	-0.0004	-0.02	OE
CXY2XQ		0.4377	-0.0001	0.00	0.5263	0.0040	0.26	DR
DDK4EA		0.4120	-0.0257	-1.78	0.5000	-0.0224	-1.47	OE
DYMQWX		0.4383	0.0006	0.04	0.5143	-0.0080	-0.53	DR
ECBWQT		0.4360	-0.0018	-0.12	0.5287	0.0063	0.41	OE
EFLQ3X		0.4343	-0.0034	-0.24	0.5170	-0.0054	-0.35	WD
EFTCXY		0.4400	0.0023	0.16	0.5307	0.0083	0.54	XX
EWD6HW		0.4347	-0.0031	-0.21	0.5180	-0.0044	-0.29	XR
FECF7Z		0.4437	0.0059	0.41	0.5216	-0.0008	-0.05	OE
FWW76Y		0.4505	0.0128	0.89	0.5282	0.0058	0.38	OE
H39MAY		0.4453	0.0076	0.53	0.5293	0.0070	0.46	GD
HDTC8P		0.4340	-0.0037	-0.26	0.5200	-0.0024	-0.16	OE
JTU3LU		0.4340	-0.0037	-0.26	0.5187	-0.0037	-0.24	WD
KDA4J8		0.4317	-0.0061	-0.42	0.5273	0.0050	0.33	OE
KPHUD3		0.4347	-0.0031	-0.21	0.5230	0.0006	0.04	WD
L49YJW		0.4453	0.0076	0.53	0.5400	0.0176	1.16	OE
NWH98K		0.4400	0.0023	0.16	0.5300	0.0076	0.50	ED
PV9VLH		0.4579	0.0202	1.40	0.5501	0.0278	1.82	OE
QXQGQB	X	0.3845	-0.0532	-3.69	0.4482	-0.0742	-4.87	OE
R8H3HU		0.4257	-0.0121	-0.84	0.5210	-0.0014	-0.09	GD
R96C7V		0.4550	0.0173	1.20	0.5440	0.0216	1.42	OE
RFKQPX		0.4380	0.0003	0.02	0.5183	-0.0040	-0.27	IC
RFRQWT		0.4293	-0.0084	-0.58	0.5173	-0.0050	-0.33	OE
RGG7ZA	*	0.4100	-0.0277	-1.92	0.4807	-0.0417	-2.74	OE

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Fasteners and Metals Interlaboratory Testing Program

Analysis 189

Corrosion Resistant Steel, Element #10
COPPER (Cu)

Cycle 116
4th Qtr 2016

WebCode	Data Flag	Sample M39 Lab Mean	Sample M39 Diff. from Grand Mean	Sample M39 CPV	Sample M40 Lab Mean	Sample M40 Diff. from Grand Mean	Sample M40 CPV	Method
UJRHRP		0.4330	-0.0047	-0.33	0.5187	-0.0037	-0.24	XR
V3UUMQ		0.4580	0.0203	1.40	0.5307	0.0083	0.54	OE
VVAZ3D		0.4353	-0.0024	-0.17	0.5237	0.0013	0.09	WD
VWXZYH		0.4053	-0.0324	-2.24	0.4903	-0.0320	-2.10	OE
W8ZU9F		0.4357	-0.0021	-0.14	0.5203	-0.0020	-0.13	WD
WAX2BJ		0.4413	0.0036	0.25	0.5323	0.0100	0.65	IC
XH6ZFE		0.4607	0.0229	1.59	0.5457	0.0233	1.53	GD
XWD72K		0.4333	-0.0044	-0.30	0.5200	-0.0024	-0.16	OE
Y3GQ3M		0.4623	0.0246	1.70	0.5480	0.0256	1.68	OE
YRYW68		0.4400	0.0023	0.16	0.5233	0.0010	0.06	WD
Z2HTJE	*	0.4727	0.0349	2.42	0.5500	0.0276	1.82	OE
Z9BRTT		0.4353	-0.0024	-0.17	0.5192	-0.0031	-0.21	IC
ZK97VH		0.4377	-0.0001	0.00	0.5217	-0.0007	-0.05	WD

Summary Statistics

	Sample M39		Sample M40	
Grand Means	0.4377	Percent	0.5224	Percent
Stnd Dev Btwn Labs	0.0144	Percent	0.0152	Percent

Samples M39, M40 : AISI 304, AISI 304L

Statistics based on 56 of 60 reporting participants

Key to Method Codes Reported by Participants

DR	Spectrometry - Direct Reading OE (DROES)	ED	X-Ray Fluorescence - Energy Dispersive (EDX)
GD	Spectrometry - Glow Discharge (GDS)	IC	Spectrometry - Inductively Coupled Plasma (ICP)
OE	Spectrometry - Optical Emission (OES)	WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)
XR	X-Ray Fluorescence - ED or WD not specified	XX	Please Indicate Method Used for Current Element

Comments on Assigned Data Flags for Test #189

3KFNM8 (X) - Data for both samples are low. Possible Systematic Error.

7VBEZV (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of both samples.

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

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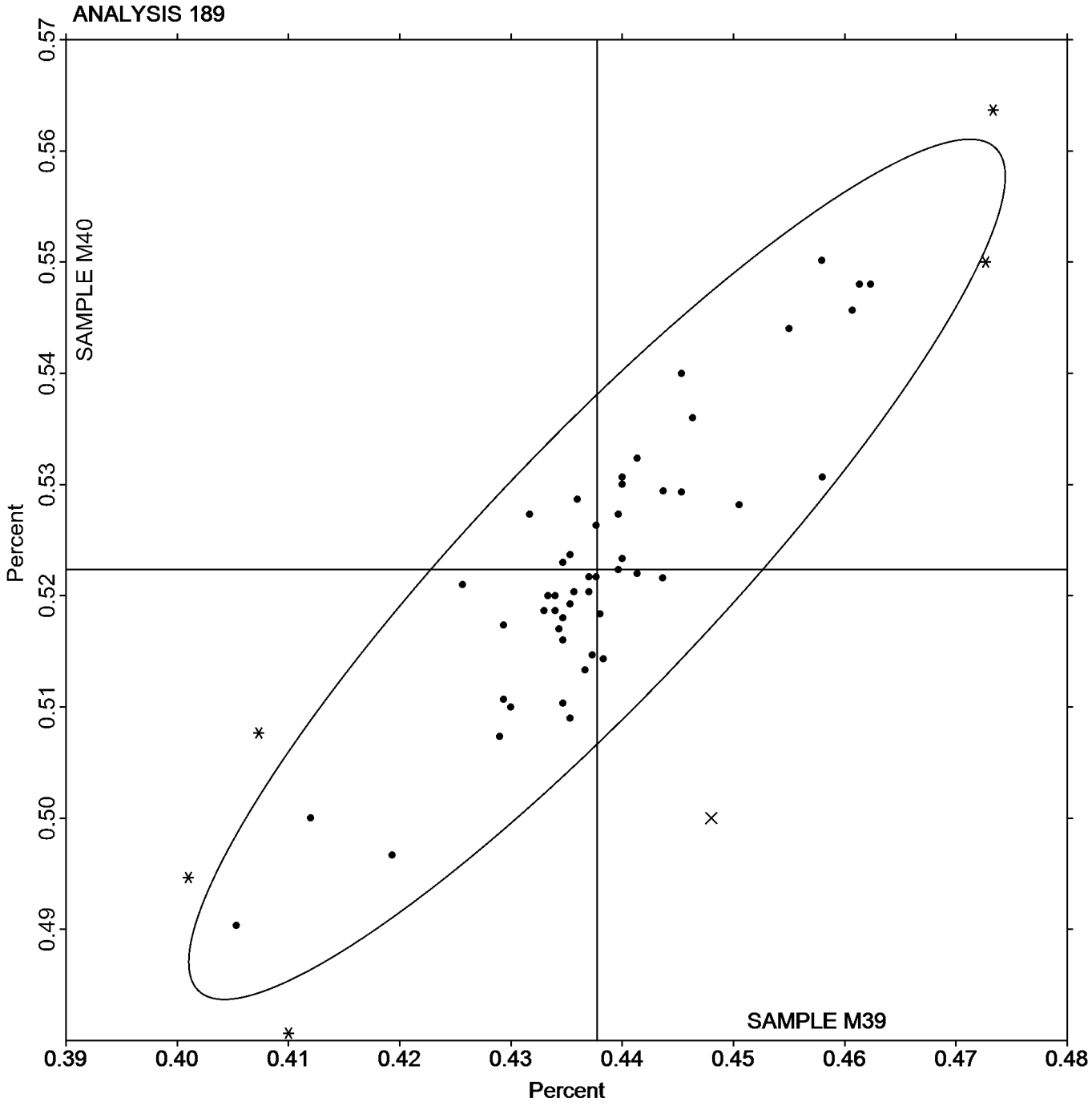
SAMPLE M39	SAMPLE M40
0.4377 Percent	0.5224 Percent



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