Collaborative Testing Services, Inc.

Fasteners & Metals Interlaboratory Testing Program

Summary Report Cycle 133, 1st Qtr 2021

About the Metals Program About CTS Key to Tables and Graphs

Analysis	Test Group
	Dimensional Tests
1001	Dimensional: Outside Diameter of Plain Plug Gage
	Tensile Tests
1101	Tensile Strength: Lab-Machined Flat Aluminum
1102	Yield Strength: Lab-Machined Flat Aluminum
1103	Elongation: Lab-Machined Flat Aluminum
1111	Tensile Strength: Pre-Machined Round Steel
1112	Yield Strength: Pre-Machined Round Steel
1113	Elongation: Pre-Machined Round Steel
1114	Reduction of Area: Pre-Machined Round Steel
1121	Tensile Strength: Lab-Machined Round Steel
1122	Yield Strength: Lab-Machined Round Steel
1123	Elongation: Lab-Machined Round Steel
1124	Reduction of Area: Lab-Machined Round Steel
	Hardness / Metallography Tests
1302	Rockwell Hardness: B Scale
1321	Microhardness: Knoop Indenters (500 gf)
1322	Microhardness: Knoop Indenters (200 gf)
1323	Microhardness: Vickers Indenters (500 gf)
1341	Brinell Hardness
	Chemical Analyses
1600 - 1613	Chemical Analysis: Carbon & Low Alloy Steel

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.

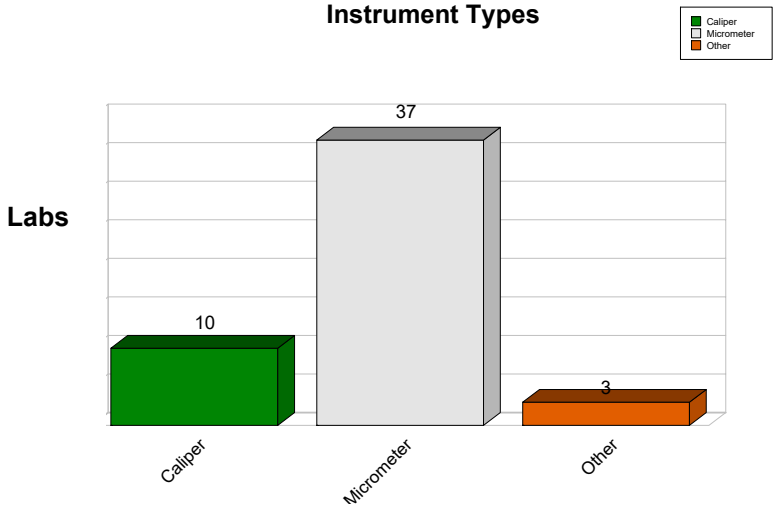
Fasteners and Metals Interlaboratory Testing Program

Analysis 1001

Dimensional: Outside Diameter of Plain Plug Gage
ISO GUM

Cycle 133
1st Qtr 2021

During Cycle 133, CTS conducted the Analysis #101 - Round Dimensional. For this test all participants received two samples I73 and I74 with nominal diameters; 0.2496 in. and 0.2500 in. Each sample is an English Class X gage pin with 0.00002 in roundness limit made from 52100 bearing steel, hardened to 60-62 Rockwell C. Laboratories were asked to determine the outside diameter of the pins. 50 laboratories that subscribed for this test reported testing results. The graph below shows a breakdown of the types of instruments used.



Analysis of the Results

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

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

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

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

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

Xref and Uref were determined by the gage pin manufacturer. The manufacturer is ISO 9001:2000 Certified and an ISO 17025 Accredited company. All master gages used in checking the plug gages are calibrated with standards traceable to NIST.

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

Xref1 = 0.2496 in.

Xref2 = 0.2500 in.

WebCode	Data Flag (if assigned)	Reference Uncertainty (Uref)	Expanded Uncertainty (Ulab)	Sample I73 Lab Mean (Xlab)	Sample I73 Performance Statistic (En1)	Sample I74 Lab Mean (Xlab)	Sample I74 Performance Statistic (En2)	Instrument
2RY3WH		0.00004	Not Reported	0.24900		0.25000		Micrometer
4GXCDM		0.00004	0.00012	0.24950	-0.79	0.24992	-0.63	Micrometer
6BKVEH		0.00004	Not Reported	0.24900		0.24930		Caliper
6R9D4D		0.00004	0.00008	0.24957	-0.37	0.24996	-0.44	Micrometer
7V8377	X	0.00004	0.00005	0.24950	-1.56	0.24985	-2.34	Micrometer
8HCU2A		0.00004	0.00064	0.24953	-0.11	0.24992	-0.12	Micrometer
94RUNF		0.00004	0.00060	0.24900	-1.00	0.24950	-0.83	Caliper
9NGDD8		0.00004	0.00015	0.24948	-0.77	0.24990	-0.64	Micrometer
9YYXX4		0.00004	0.07874	0.24950	0.00	0.24990	0.00	Micrometer
A4A3DB		0.00004	0.00020	0.24945	-0.74	0.24980	-0.98	Micrometer
AZ7C6A		0.00004	0.00176	0.24886	-0.42	0.24894	-0.60	Caliper
B33L3G		0.00004	0.00024	0.24951	-0.37	0.24992	-0.33	Micrometer
B9Y6P9		0.00004	0.00020	0.24960	0.00	0.24999	-0.05	Micrometer
C9VYRB		0.00004	0.00030	0.24950	-0.33	0.24988	-0.40	Micrometer
CBGNA4		0.00004	0.00030	0.24950	-0.33	0.24990	-0.33	Micrometer
CMUYLZ		0.00004	0.00200	0.24950	-0.05	0.25000	0.00	Caliper
DFLQMH		0.00004	0.00013	0.24960	0.00	0.25000	0.00	Micrometer
DLXRU8		0.00004	0.00059	0.24954	-0.10	0.24994	-0.10	Micrometer
EF8TZD		0.00004	0.00260	0.24930	-0.12	0.24950	-0.19	Caliper
ENWL93		0.00004	0.00031	0.24958	-0.06	0.24995	-0.16	Micrometer
EQ8HJY		0.00004	0.00020	0.24950	-0.49	0.24990	-0.49	Caliper
FDRUZZ		0.00004	Not Reported	0.24951		0.24991		Micrometer
H9BA4Y		0.00004	0.00050	0.24950	-0.20	0.24950	-1.00	Other
HN6R4V		0.00004	0.00201	0.24950	-0.05	0.24990	-0.05	Micrometer
HXQXU8		0.00004	0.00024	0.24946	-0.58	0.24985	-0.62	Micrometer
JGP9JV		0.00004	0.00001	0.24957	-0.71	0.24997	-0.63	Other
JPUCD8	X	0.00004	0.00006	0.24953	-1.01	0.24995	-0.77	Micrometer
JWACBV		0.00004	0.00010	0.24960	0.00	0.25000	0.00	Micrometer
K7XJRZ		0.00004	1.00000	0.24950	0.00	0.24992	0.00	Micrometer
LBN79Q		0.00004	0.00016	0.24954	-0.40	0.25004	0.24	Micrometer
LCYVMW		0.00004	6.64000	0.24944	0.00	0.24982	0.00	Micrometer
LFH6FV		0.00004	0.00210	0.24880	-0.38	0.24900	-0.48	Caliper
LH4Q9H	X	0.00004	0.00002	0.24948	-2.68	0.24990	-2.24	Other

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

Xref1 = 0.2496 in.

Xref2 = 0.2500 in.

				Sample I73		Sample I74		
WebCode	Data Flag (if assigned)	Reference Uncertainty (Uref)	Expanded Uncertainty (Ulab)	Lab Mean (Xlab)	Performance Statistic (En1)	Lab Mean (Xlab)	Performance Statistic (En2)	Instrument
LT848X		0.00004	0.00100	0.25000	0.40	0.25000	0.00	Caliper
M4HYXG		0.00004	0.00030	0.24940	-0.66	0.24980	-0.66	Micrometer
MYRD49	X	0.00004	0.00013	0.24950	-0.76	0.24985	-1.13	Micrometer
NWZRYN		0.00004	0.00039	0.24944	-0.40	0.24984	-0.40	Micrometer
QC7TLP	X	0.00004	0.00004	0.24950	-1.85	0.24989	-1.96	Micrometer
QMP64T		0.00004	0.00007	0.24955	-0.62	0.24995	-0.62	Micrometer
QPF4GR		0.00004	0.00016	0.24951	-0.55	0.24991	-0.55	Micrometer
RNAM8X	X	0.00004	0.00011	0.24921	-3.41	0.24961	-3.47	Caliper
TDRCJR		0.00004	0.00009	0.24952	-0.84	0.24992	-0.84	Micrometer
TFYCZT		0.00004	0.00130	0.24950	-0.08	0.24900	-0.77	Caliper
VCNHNR	X	0.00004	0.00006	0.24938	-3.26	0.24975	-3.70	Micrometer
VEUTUT		0.00004	0.00016	0.24957	-0.15	0.24999	-0.05	Micrometer
W62R2W	X	0.00004	0.00006	0.24953	-1.01	0.24992	-1.10	Micrometer
WC9BBM	X	0.00004	0.00000	0.24943	-4.36	0.24978	-5.50	Micrometer
WPCT6V		0.00004	Not Reported	0.24950		0.25000		Micrometer
X6GNTM		0.00004	0.00040	0.24956	-0.10	0.24995	-0.12	Micrometer
XUL7MU		0.00004	0.00030	0.24950	-0.33	0.25000	0.00	Micrometer

Summary Statistics

	Sample I73		Sample I74	
Grand Means	0.2495	inch	0.2499	inch
Stnd Dev Btwn Labs	0.0001	inch	0.0001	inch

Samples I73, I74 : 52100 Steel, 52100 Steel

Statistics based on 40 of 50 reporting participants

Comments on Assigned Data Flags for Test #1001

7V8377 (X) - En value for both samples was low.

JPUCD8 (X) - En value for sample I73 was low.

LH4Q9H (X) - En value for both samples was low.

MYRD49 (X) - En value for sample I74 was low.

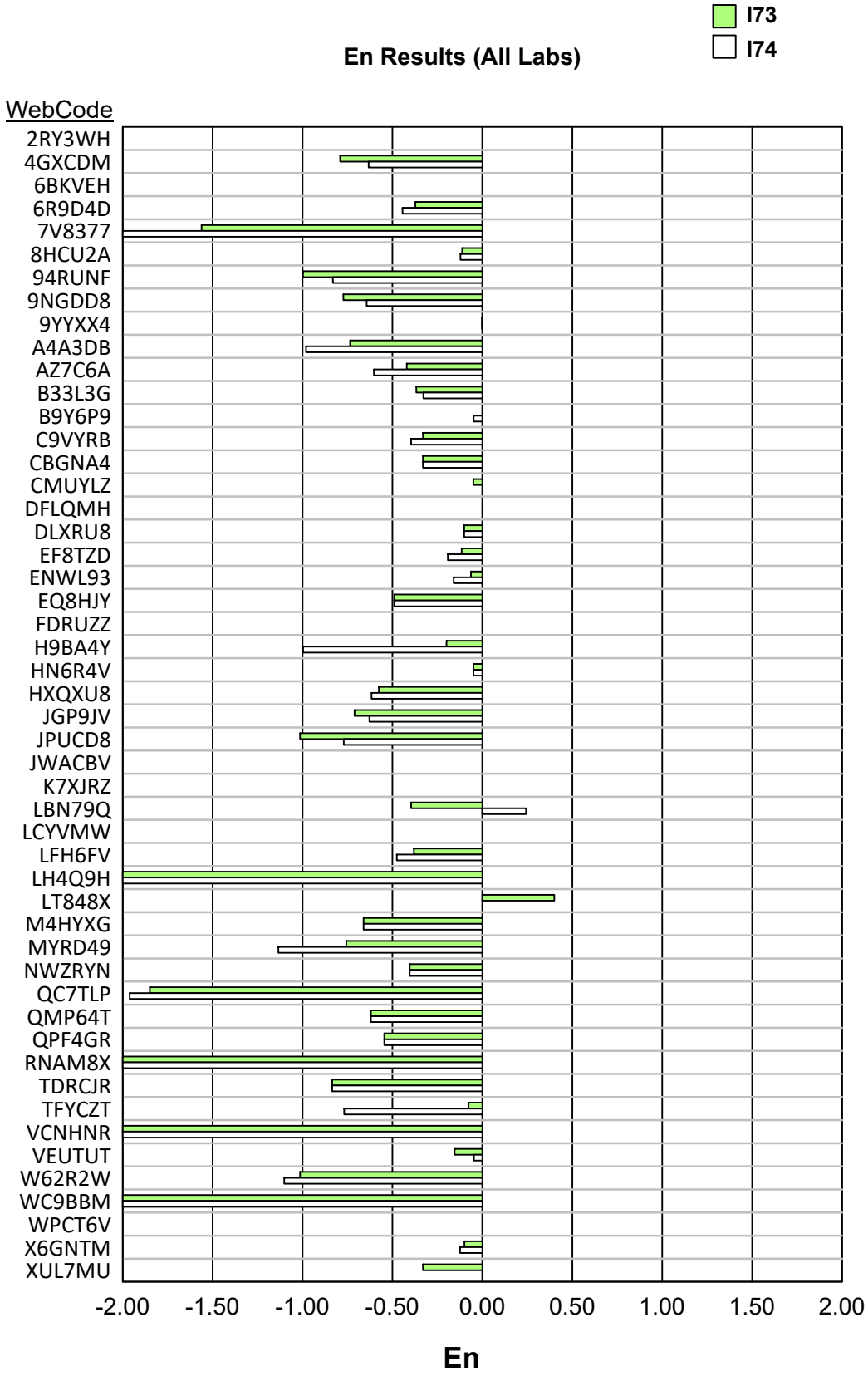
QC7TLP (X) - En value for both samples was low.

RNAM8X (X) - En value for both samples was low.

VCNHNR (X) - En value for both samples was low.

W62R2W (X) - En value for both samples was low.

WC9BBM (X) - En value for both samples was low.



		Sample R73			Sample R74		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
37GD3K	X	49.20	0.24	0.62	49.70	1.38	3.15
3Y2C4B		49.70	0.74	1.88	48.80	0.48	1.10
4B67PK		49.10	0.14	0.36	48.40	0.08	0.19
4G8D6M		48.80	-0.16	-0.40	48.40	0.08	0.19
69WJFD		48.60	-0.36	-0.90	48.00	-0.32	-0.72
6ATQVJ		49.50	0.54	1.38	48.90	0.58	1.33
7EZQUF		48.80	-0.16	-0.40	48.20	-0.12	-0.27
7KKW3M		48.40	-0.56	-1.41	48.10	-0.22	-0.50
92MAWA		49.13	0.18	0.45	48.02	-0.30	-0.67
963NEN		49.10	0.14	0.36	48.30	-0.02	-0.04
9UNKF6		49.80	0.84	2.14	49.20	0.88	2.01
AAVAKG		49.20	0.24	0.62	48.80	0.48	1.10
ACY64K		48.20	-0.76	-1.91	47.50	-0.82	-1.86
BAAT6E		49.30	0.34	0.87	48.70	0.38	0.87
BR6LQC		49.40	0.44	1.12	48.24	-0.08	-0.18
CAJHJB		49.10	0.14	0.36	48.20	-0.12	-0.27
F2YK4E		48.75	-0.21	-0.53	47.59	-0.73	-1.66
FPQH6C		48.50	-0.46	-1.15	48.20	-0.12	-0.27
G7D9QW		48.40	-0.56	-1.41	47.40	-0.92	-2.09
GQVPLA		48.60	-0.36	-0.90	48.50	0.18	0.42
GUVZGA		49.00	0.04	0.11	48.50	0.18	0.42
HGKMZ9		48.60	-0.36	-0.90	48.20	-0.12	-0.27
HQQH6Y	X	48.10	-0.86	-2.17	46.50	-1.82	-4.14
HWYWWW		49.50	0.54	1.38	48.70	0.38	0.87
J4EZDX		49.13	0.17	0.44	48.39	0.07	0.16
J8AKE9		48.90	-0.06	-0.14	48.70	0.38	0.87
JGP9JV		48.20	-0.76	-1.91	47.50	-0.82	-1.86
JMDZP4		48.88	-0.08	-0.20	48.01	-0.31	-0.71
JWWCYV		48.60	-0.36	-0.90	48.20	-0.12	-0.27
KRGA6B	X	48.90	-0.06	-0.14	46.20	-2.12	-4.83
L2EVLT		49.10	0.14	0.36	48.70	0.38	0.87
LHNJYU	X	50.70	1.74	4.42	48.90	0.58	1.33
MQUNM4		48.80	-0.16	-0.40	48.10	-0.22	-0.50
RABGFN		49.20	0.24	0.62	48.50	0.18	0.42
RJETAW		49.20	0.24	0.62	48.60	0.28	0.64
T2YNUK	X	51.00	2.04	5.18	58.84	10.52	23.99
T9Y2LM		49.90	0.94	2.39	48.80	0.48	1.10
VTA6V2		49.02	0.07	0.17	48.01	-0.31	-0.71
VX43KR		49.20	0.24	0.62	48.50	0.18	0.42
WERL4K		48.90	-0.06	-0.14	48.50	0.18	0.42
WGAUZY		48.80	-0.16	-0.40	47.70	-0.62	-1.41
X38KWP	*	49.00	0.04	0.11	49.20	0.88	2.01
XELH2T		48.70	-0.26	-0.65	48.70	0.38	0.87
XJGAAQ		49.10	0.14	0.36	48.30	-0.02	-0.04
XPT74R		48.70	-0.26	-0.65	48.20	-0.12	-0.27
YLKDPJ		48.90	-0.06	-0.14	47.60	-0.72	-1.64
YQCWFG		48.40	-0.56	-1.41	47.90	-0.42	-0.95

		Sample R73			Sample R74		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
ZBFYQQ		49.00	0.04	0.11	48.70	0.38	0.87

Summary Statistics

	Sample R73		Sample R74	
Grand Means	48.96	ksi	48.32	ksi
Stnd Dev Btwn Labs	0.39	ksi	0.44	ksi

Samples R73, R74 : 16G 6061-T6 (A), 14G 6061-T6 (B)

Statistics based on 43 of 48 reporting participants

Comments on Assigned Data Flags for Test #1101

37GD3K (X) - Data for sample R74 are high.

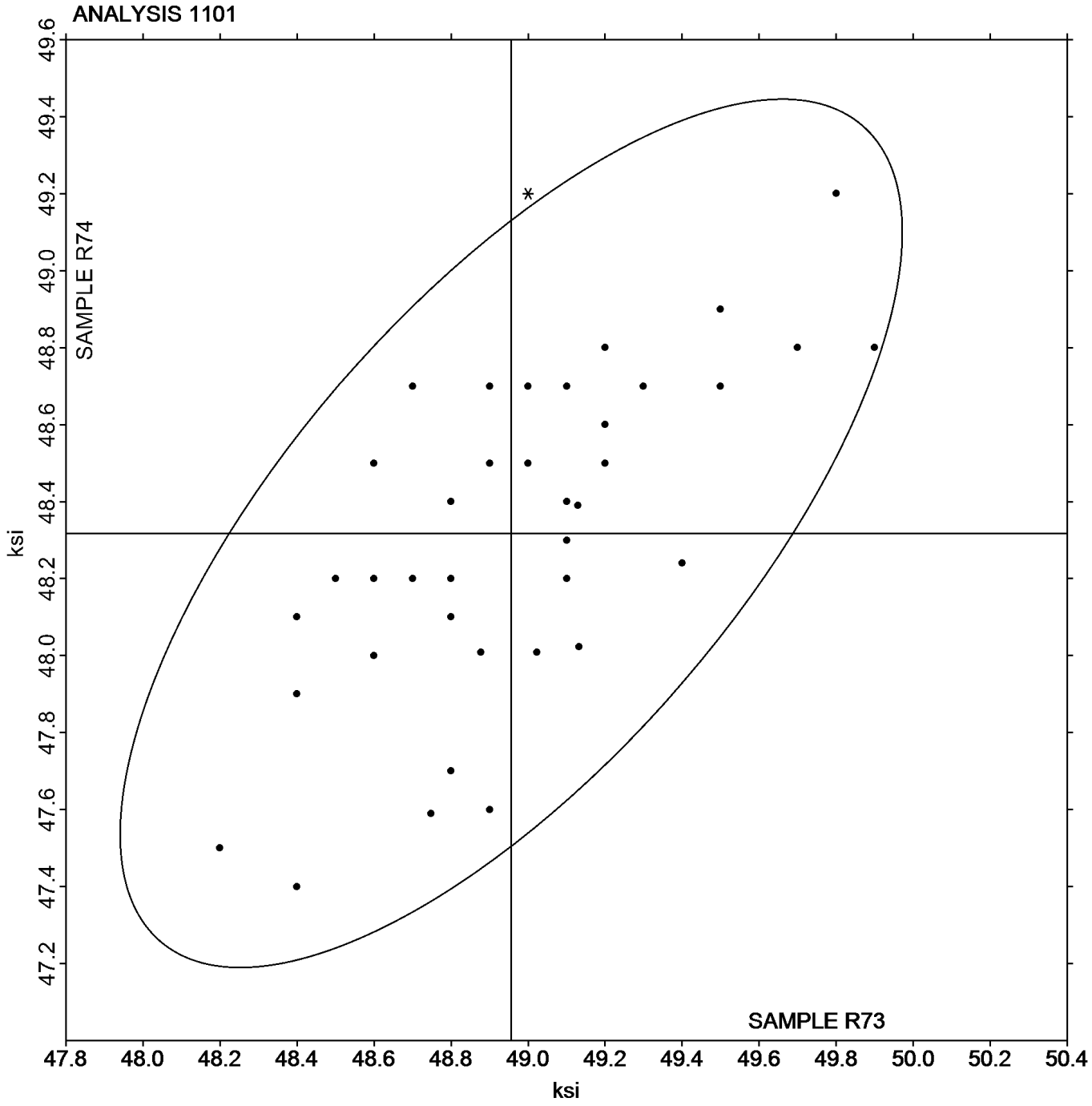
HQQH6Y (X) - Data for sample R74 are low.

KRGA6B (X) - Data for sample R74 are low.

LHNJYU (X) - Data for sample R73 are high.

T2YNUK (X) - Data for both samples are high.

SAMPLE R73	SAMPLE R74
48.96 ksi	48.32 ksi



		Sample R73			Sample R74		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
37GD3K	*	40.40	0.08	0.18	42.70	1.37	2.61
3Y2C4B		41.30	0.98	2.16	41.70	0.37	0.71
4B67PK		40.50	0.18	0.40	41.40	0.07	0.14
4G8D6M		40.20	-0.12	-0.26	41.60	0.27	0.52
69WJFD		40.10	-0.22	-0.48	41.00	-0.33	-0.62
6ATQVJ		40.60	0.28	0.62	42.00	0.67	1.28
7EZQUF		40.31	-0.01	-0.02	41.34	0.01	0.02
7KKW3M		39.70	-0.62	-1.36	41.00	-0.33	-0.62
92MAWA		40.38	0.06	0.13	41.21	-0.12	-0.23
963NEN		40.20	-0.12	-0.26	41.30	-0.03	-0.05
9UNKF6		41.20	0.88	1.94	42.30	0.97	1.85
AAVAKG		40.50	0.18	0.40	41.60	0.27	0.52
ACY64K		39.50	-0.82	-1.80	40.20	-1.13	-2.14
BAAT6E		41.00	0.68	1.50	41.90	0.57	1.09
BR6LQC		40.68	0.36	0.80	41.42	0.10	0.18
CAJHJB		40.20	-0.12	-0.26	41.10	-0.23	-0.43
F2YK4E		39.27	-1.05	-2.30	40.22	-1.11	-2.11
FPQH6C		39.90	-0.42	-0.92	41.20	-0.13	-0.24
G7D9QW	*	40.00	-0.32	-0.70	39.90	-1.43	-2.71
GQVPLA		40.00	-0.32	-0.70	41.50	0.17	0.33
GUVZGA		40.50	0.18	0.40	41.60	0.27	0.52
HGKMZ9		39.60	-0.72	-1.58	41.10	-0.23	-0.43
HQQH6Y	X	39.40	-0.92	-2.02	38.80	-2.53	-4.80
HWYWWW		40.90	0.58	1.28	41.00	-0.33	-0.62
J4EZDX		40.55	0.23	0.51	41.60	0.27	0.52
J8AKE9		40.40	0.08	0.18	41.70	0.37	0.71
JGP9JV		39.74	-0.58	-1.27	40.67	-0.65	-1.24
JMDZP4		40.32	0.00	0.00	41.05	-0.28	-0.53
JWWCYV		40.30	-0.02	-0.04	41.10	-0.23	-0.43
KRGA6B	X	40.30	-0.02	-0.04	39.00	-2.33	-4.42
L2EVLT		40.60	0.28	0.62	41.10	-0.23	-0.43
LHNJYU	*	41.60	1.28	2.82	41.90	0.57	1.09
MQUNM4		40.00	-0.32	-0.70	41.10	-0.23	-0.43
RABGFN		40.10	-0.22	-0.48	41.80	0.47	0.90
RJETAW		40.77	0.45	0.99	41.60	0.27	0.52
T2YNUK	X	44.92	4.60	10.12	44.03	2.70	5.13
T9Y2LM		40.00	-0.32	-0.70	41.30	-0.03	-0.05
VTA6V2		40.03	-0.29	-0.63	40.61	-0.72	-1.36
VX43KR		40.50	0.18	0.40	41.50	0.17	0.33
WERL4K		40.40	0.08	0.18	41.30	-0.03	-0.05
WGAUZY		40.40	0.08	0.18	41.00	-0.33	-0.62
X38KWP		40.40	0.08	0.18	41.90	0.57	1.09
XELH2T		40.30	-0.02	-0.04	41.80	0.47	0.90
XJGAAQ		40.30	-0.02	-0.04	41.40	0.07	0.14
XPT74R		40.00	-0.32	-0.70	41.20	-0.13	-0.24
YLKDPJ		40.50	0.18	0.40	41.00	-0.33	-0.62
YQCWFG		39.80	-0.52	-1.14	41.00	-0.33	-0.62

		Sample R73			Sample R74		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
ZBFYQQ		40.40	0.08	0.18	41.80	0.47	0.90

Summary Statistics

	Sample R73		Sample R74	
Grand Means	40.32	ksi	41.33	ksi
Stnd Dev Btwn Labs	0.45	ksi	0.53	ksi

Samples R73, R74 : 16G 6061-T6 (A), 14G 6061-T6 (B)

Statistics based on 45 of 48 reporting participants

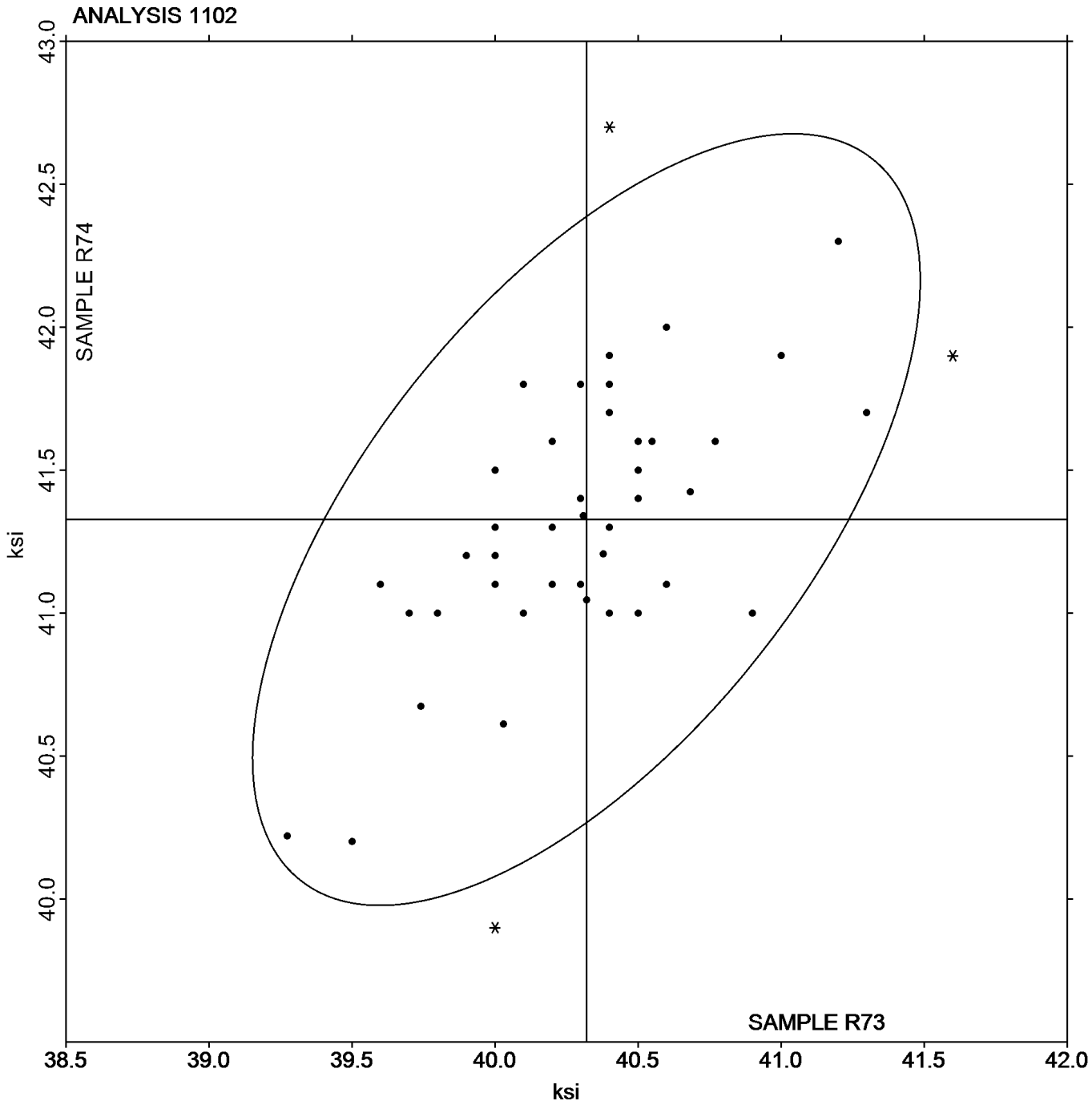
Comments on Assigned Data Flags for Test #1102

HQQH6Y (X) - Data for sample R74 are low.

KRGA6B (X) - Data for sample R74 are low.

T2YNUK (X) - Data for both samples are high.

SAMPLE R73	SAMPLE R74
40.32 ksi	41.33 ksi



		Sample R73			Sample R74		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
37GD3K		14.50	-0.25	-0.36	14.50	0.66	1.09
3Y2C4B	X	12.00	-2.75	-3.93	12.00	-1.84	-3.02
4B67PK		15.00	0.25	0.36	14.50	0.66	1.09
4G8D6M		15.00	0.25	0.36	13.50	-0.34	-0.55
69WJFD		15.50	0.75	1.07	14.30	0.46	0.76
6ATQVJ		15.00	0.25	0.36	14.00	0.16	0.27
7EZQUF		15.00	0.25	0.36	14.00	0.16	0.27
7KKW3M		14.50	-0.25	-0.36	14.00	0.16	0.27
92MAWA		15.45	0.70	1.00	14.80	0.96	1.58
963NEN		15.10	0.35	0.50	14.40	0.56	0.92
9UNKF6		14.50	-0.25	-0.36	14.00	0.16	0.27
AAVAKG		15.00	0.25	0.36	14.50	0.66	1.09
ACY64K		13.00	-1.75	-2.50	12.60	-1.24	-2.03
BAAT6E	*	17.00	2.25	3.21	15.00	1.16	1.91
BR6LQC		15.30	0.55	0.79	14.20	0.36	0.60
CAJHJB		14.50	-0.25	-0.36	14.00	0.16	0.27
F2YK4E		14.00	-0.75	-1.07	14.00	0.16	0.27
FPQH6C		14.50	-0.25	-0.36	13.50	-0.34	-0.55
G7D9QW		14.10	-0.65	-0.93	12.80	-1.04	-1.70
GQVPLA		15.00	0.25	0.36	14.00	0.16	0.27
GUVZGA		14.50	-0.25	-0.36	13.00	-0.84	-1.37
HGKMZ9		14.50	-0.25	-0.36	13.00	-0.84	-1.37
HQQH6Y		14.60	-0.15	-0.21	14.10	0.26	0.43
HWYWWW		15.00	0.25	0.36	13.50	-0.34	-0.55
J4EZDX		14.95	0.20	0.29	13.55	-0.29	-0.47
J8AKE9		14.00	-0.75	-1.07	13.00	-0.84	-1.37
JGP9JV		14.70	-0.05	-0.07	14.60	0.76	1.25
JMDZP4		15.40	0.65	0.93	14.30	0.46	0.76
JWWCYV		13.80	-0.95	-1.36	12.80	-1.04	-1.70
KRGA6B		14.70	-0.05	-0.07	13.80	-0.04	-0.06
L2EVLT		14.50	-0.25	-0.36	14.30	0.46	0.76
LHNJYU	X	16.80	2.05	2.93	16.40	2.56	4.21
MQUNM4		14.50	-0.25	-0.36	13.00	-0.84	-1.37
RABGFN	X	11.30	-3.45	-4.93	11.60	-2.24	-3.67
RJETAW		14.58	-0.17	-0.24	13.52	-0.32	-0.52
T2YNUK	X	15.00	0.25	0.36	33.00	19.16	31.46
T9Y2LM	X	16.80	2.05	2.93	17.00	3.16	5.19
VTA6V2	X	12.80	-1.95	-2.78	10.30	-3.54	-5.81
VX43KR		15.00	0.25	0.36	13.50	-0.34	-0.55
WERL4K		14.90	0.15	0.21	14.10	0.26	0.43
WGAUZY		15.80	1.05	1.50	14.90	1.06	1.74
X38KWP		15.00	0.25	0.36	14.00	0.16	0.27
XELH2T		15.00	0.25	0.36	13.50	-0.34	-0.55
XJGAAQ		15.50	0.75	1.07	14.00	0.16	0.27
XPT74R		13.70	-1.05	-1.50	13.90	0.06	0.10
YLKDPJ		15.40	0.65	0.93	13.90	0.06	0.10
YQCWFG		13.00	-1.75	-2.50	12.80	-1.04	-1.70

		Sample R73			Sample R74		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
ZBFYQQ		14.50	-0.25	-0.36	13.50	-0.34	-0.55

Summary Statistics

	Sample R73		Sample R74	
Grand Means	14.75	Percent	13.84	Percent
Stnd Dev Btwn Labs	0.70	Percent	0.61	Percent

Samples R73, R74 : 16G 6061-T6 (A), 14G 6061-T6 (B)

Statistics based on 42 of 48 reporting participants

Comments on Assigned Data Flags for Test #1103

3Y2C4B (X) - Data for both samples are low.

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

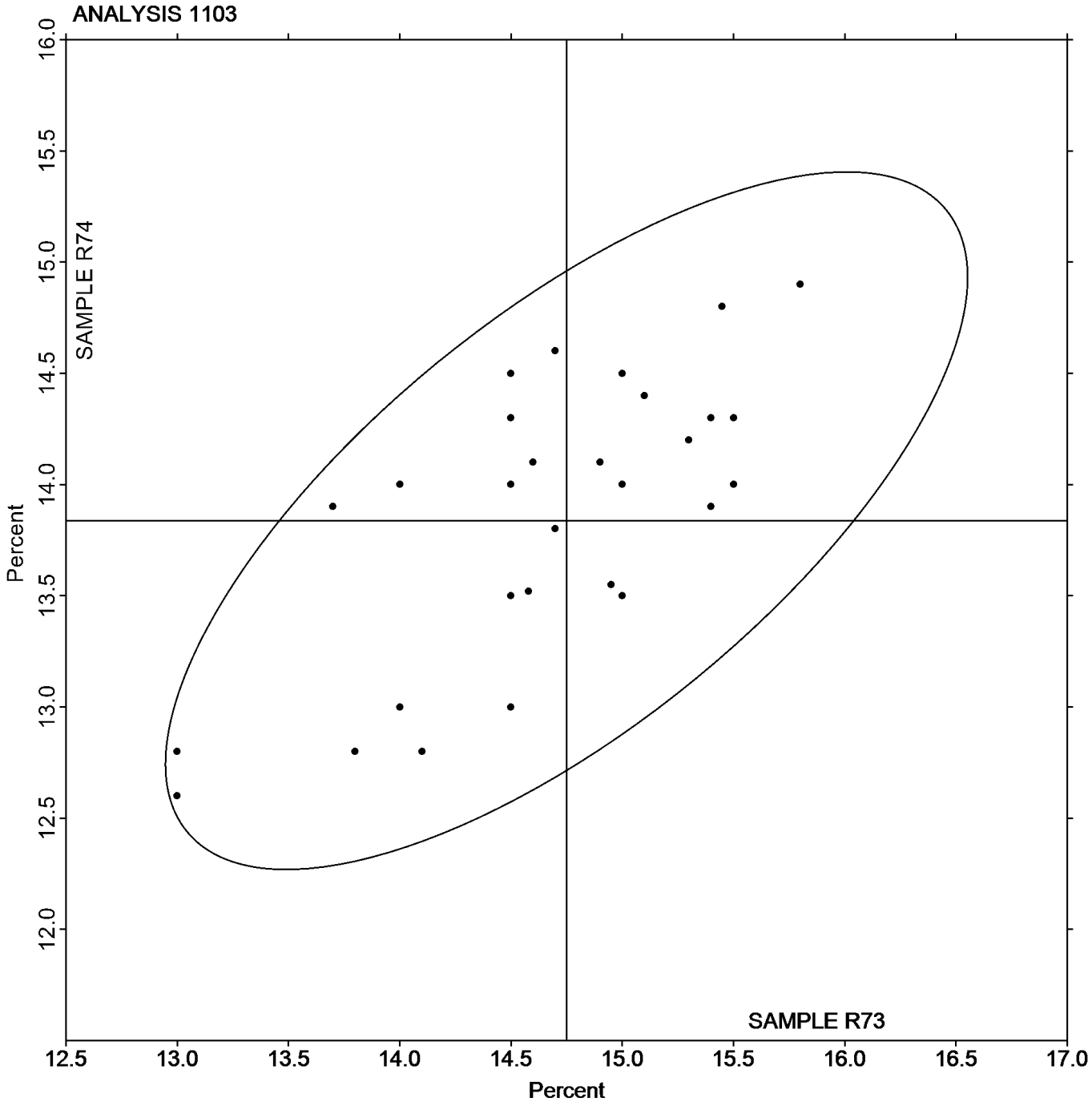
RABGFN (X) - Data for both samples are low.

T2YNUK (X) - Data for sample R74 are extreme.

T9Y2LM (X) - Data for both samples are high.

VTA6V2 (X) - Data for both samples are low.

SAMPLE R73	SAMPLE R74
14.75 Percent	13.84 Percent



		Sample A73			Sample A74		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
3Y2C4B		71.50	0.89	1.24	73.00	0.39	0.62
43DWAM		70.80	0.19	0.27	73.10	0.49	0.78
44R24E	*	69.90	-0.71	-0.98	71.40	-1.21	-1.96
6DRDDE		70.48	-0.13	-0.18	72.42	-0.19	-0.31
6JUBVQ		70.50	-0.11	-0.15	72.70	0.09	0.14
737A6E		70.40	-0.21	-0.29	72.52	-0.09	-0.15
7LG4TE		69.88	-0.73	-1.01	72.33	-0.29	-0.46
8LGLBA		71.10	0.49	0.69	73.00	0.39	0.62
8WWLFH		69.50	-1.11	-1.54	71.46	-1.15	-1.86
9AD2WM		70.20	-0.41	-0.57	72.40	-0.21	-0.35
9C9BE6	X	73.00	2.39	3.33	71.00	-1.61	-2.60
9CPMWA	X	72.40	1.79	2.49	71.90	-0.71	-1.15
9DYJE8		70.80	0.19	0.27	72.90	0.29	0.46
9GYU8L	*	72.20	1.59	2.21	73.40	0.79	1.27
9UNKF6		71.50	0.89	1.24	73.00	0.39	0.62
ATMFQM		70.94	0.33	0.46	72.90	0.29	0.46
AZ7C6A		70.11	-0.50	-0.70	72.33	-0.28	-0.45
B9YZF7		71.10	0.49	0.69	72.80	0.19	0.30
CG4KQD		69.67	-0.94	-1.30	71.71	-0.90	-1.46
D8TJ6D		69.65	-0.96	-1.33	71.79	-0.82	-1.33
ETQF74		70.60	-0.01	-0.01	72.40	-0.21	-0.35
H3P88U		71.40	0.79	1.10	73.40	0.79	1.27
J4FRG7		69.58	-1.03	-1.43	71.63	-0.98	-1.59
JPUCD8		70.72	0.11	0.16	73.14	0.53	0.85
JXAYJV		70.50	-0.11	-0.15	72.50	-0.11	-0.18
K3X8VZ		71.10	0.49	0.69	73.30	0.69	1.10
K8UPHR		70.70	0.09	0.13	73.10	0.49	0.78
KDGHNZ		70.92	0.32	0.44	72.37	-0.24	-0.39
KK4AZZ		70.07	-0.54	-0.75	72.23	-0.38	-0.62
KLDJNQ		71.11	0.51	0.70	73.09	0.47	0.76
KRGA6B		72.00	1.39	1.94	73.50	0.89	1.43
L44246		70.02	-0.59	-0.82	72.27	-0.34	-0.55
MYRD49	X	70.30	-0.31	-0.43	78.20	5.59	9.00
NKMMRT		70.61	0.00	0.00	72.47	-0.14	-0.23
Q23HCE		70.76	0.15	0.21	72.66	0.05	0.07
RCZMXZ		69.90	-0.71	-0.98	72.15	-0.46	-0.75
UA9C8J	*	71.10	0.49	0.69	73.70	1.09	1.75
UM9AYV		69.19	-1.42	-1.97	71.71	-0.90	-1.46
VR8TQL		71.40	0.79	1.10	73.40	0.79	1.27
VRHZNM		69.62	-0.99	-1.37	71.79	-0.82	-1.32
XLB42T		71.54	0.93	1.30	73.74	1.13	1.81
XUL7MU		70.02	-0.59	-0.82	72.15	-0.46	-0.74
ZTYRHF		71.20	0.59	0.82	72.70	0.09	0.14

Summary Statistics

	Sample A73		Sample A74	
Grand Means	70.61	ksi	72.61	ksi
Stnd Dev Btwn Labs	0.72	ksi	0.62	ksi

Samples A73, A74 : AISI 1018 (L), AISI 1018 (S)

Statistics based on 40 of 43 reporting participants

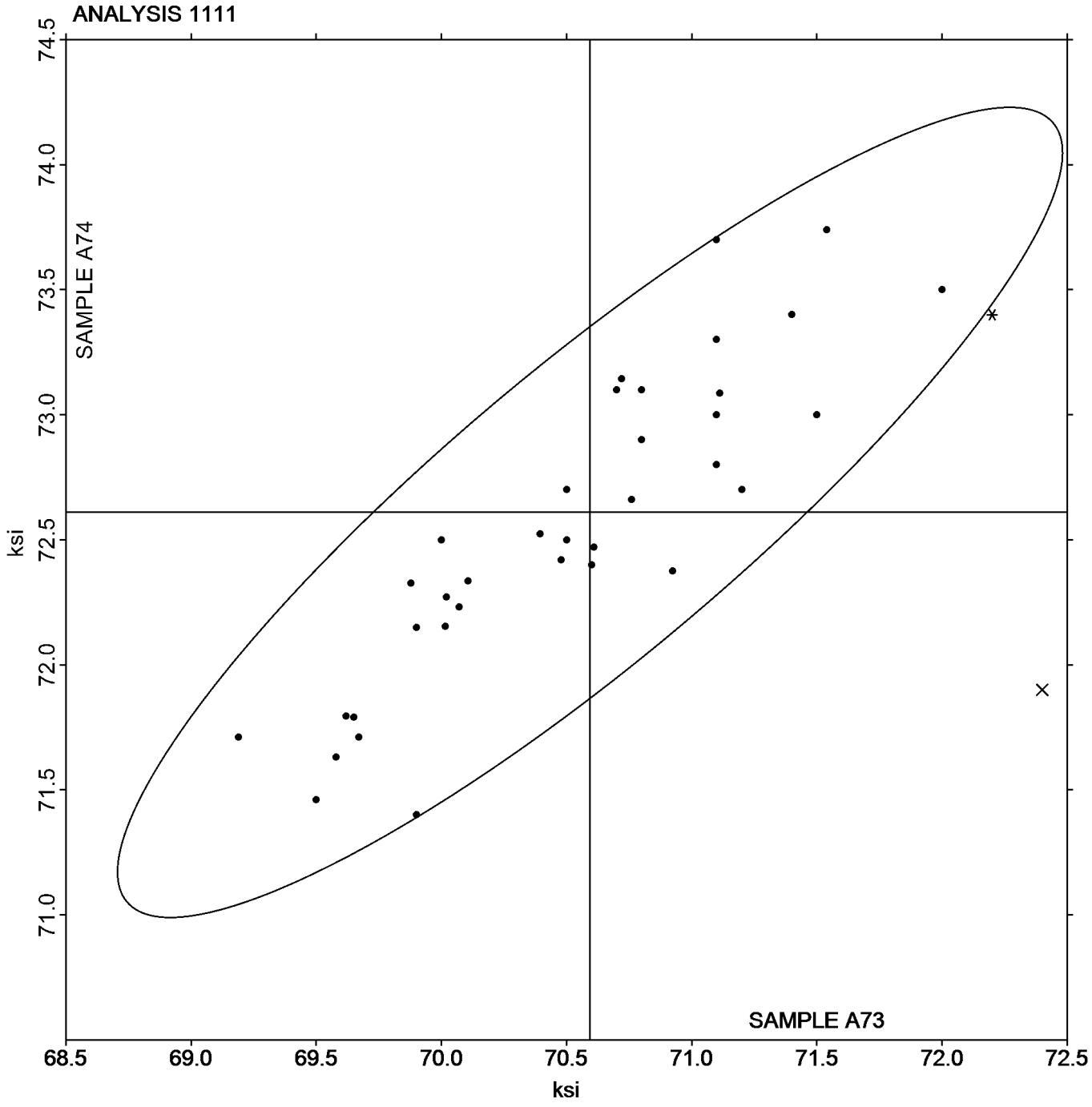
Comments on Assigned Data Flags for Test #1111

9C9BE6 (X) - Data for sample A73 are high.

9CPMWA (X) - Inconsistent in testing between samples.

MYRD49 (X) - Data for sample A74 are high.

SAMPLE A73	SAMPLE A74
70.61 ksi	72.61 ksi



		Sample A73			Sample A74		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
3Y2C4B		49.50	2.49	0.94	51.00	2.27	0.91
43DWAM		49.20	2.19	0.82	50.50	1.77	0.71
44R24E		43.80	-3.21	-1.21	45.70	-3.03	-1.21
6DRDDE		45.09	-1.93	-0.73	47.47	-1.26	-0.50
6JUBVQ		51.50	4.49	1.69	51.20	2.47	0.99
737A6E		45.48	-1.53	-0.58	47.05	-1.67	-0.67
7LG4TE		46.21	-0.80	-0.30	48.50	-0.22	-0.09
8LGLBA		42.80	-4.21	-1.59	46.80	-1.93	-0.77
8WWLFH		50.26	3.25	1.22	48.27	-0.46	-0.18
9AD2WM	*	54.00	6.99	2.63	53.10	4.37	1.75
9C9BE6		47.00	-0.01	0.00	45.00	-3.73	-1.49
9CPMWA		46.50	-0.51	-0.19	46.10	-2.63	-1.05
9DYJE8		44.70	-2.31	-0.87	47.00	-1.73	-0.69
9GYU8L		45.80	-1.21	-0.46	47.90	-0.83	-0.33
9UNKF6		51.50	4.49	1.69	50.00	1.27	0.51
ATMFQM		46.68	-0.33	-0.13	47.77	-0.96	-0.38
AZ7C6A		46.11	-0.91	-0.34	47.00	-1.73	-0.69
B9YZF7	*	46.10	-0.91	-0.34	53.20	4.47	1.79
CG4KQD		46.47	-0.54	-0.20	50.60	1.87	0.75
D8TJ6D		47.94	0.93	0.35	50.33	1.60	0.64
ETQF74		45.60	-1.41	-0.53	48.00	-0.73	-0.29
H3P88U		45.80	-1.21	-0.46	49.90	1.17	0.47
J4FRG7		47.08	0.07	0.03	51.78	3.05	1.22
JPUCD8		47.86	0.85	0.32	50.05	1.33	0.53
JXAYJV		49.90	2.89	1.09	48.70	-0.03	-0.01
K3X8VZ		45.30	-1.71	-0.64	46.60	-2.13	-0.85
K8UPHR		50.90	3.89	1.46	47.90	-0.83	-0.33
KDGHNZ		45.98	-1.03	-0.39	49.17	0.44	0.18
KK4AZZ		44.97	-2.04	-0.77	46.11	-2.61	-1.04
KLDJNQ		49.26	2.24	0.85	52.55	3.82	1.53
KRGA6B		50.00	2.99	1.13	52.10	3.37	1.35
L44246		48.29	1.28	0.48	47.67	-1.06	-0.42
MYRD49	*	46.50	-0.51	-0.19	53.70	4.97	1.99
NKMMRT		45.81	-1.20	-0.45	47.37	-1.36	-0.54
Q23HCE		45.45	-1.56	-0.59	45.46	-3.27	-1.30
RCZMXZ		46.58	-0.43	-0.16	48.04	-0.69	-0.27
UA9C8J	*	53.20	6.19	2.33	54.90	6.17	2.47
UM9AYV		44.38	-2.63	-0.99	47.02	-1.71	-0.68
VR8TQL		45.80	-1.21	-0.46	48.30	-0.43	-0.17
VRHZNM		44.38	-2.63	-0.99	45.11	-3.62	-1.44
XLB42T		43.80	-3.21	-1.21	47.06	-1.67	-0.66
XUL7MU		42.82	-4.19	-1.58	46.22	-2.50	-1.00
ZTYRHF		45.20	-1.81	-0.68	47.00	-1.73	-0.69

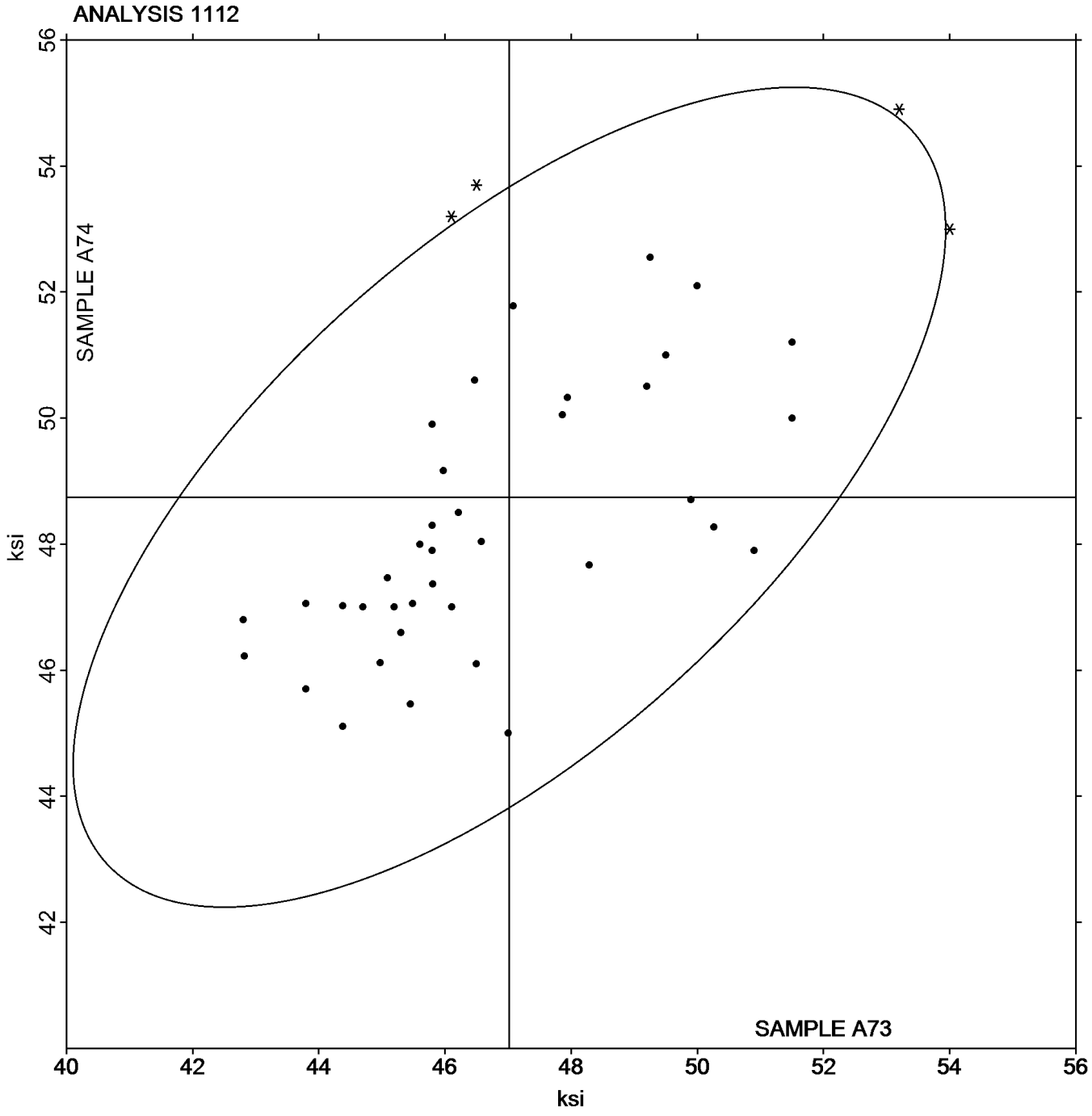
Summary Statistics

	Sample A73		Sample A74	
Grand Means	47.01	ksi	48.73	ksi
Stnd Dev Btwn Labs	2.65	ksi	2.50	ksi

Samples A73, A74 : AISI 1018 (L), AISI 1018 (S)

Statistics based on 43 of 43 reporting participants

SAMPLE A73	SAMPLE A74
47.01 ksi	48.73 ksi



		Sample A73			Sample A74		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
3Y2C4B		32.00	-2.38	-1.67	32.00	-2.10	-1.52
43DWAM		35.40	1.02	0.72	33.90	-0.20	-0.14
44R24E		36.40	2.02	1.42	34.70	0.60	0.44
6DRDDE		34.80	0.42	0.30	34.40	0.30	0.22
6JUBVQ		32.00	-2.38	-1.67	33.00	-1.10	-0.79
737A6E		33.80	-0.58	-0.40	34.00	-0.10	-0.07
7LG4TE		35.60	1.22	0.86	34.48	0.38	0.28
8LGLBA	*	34.00	-0.38	-0.26	31.00	-3.10	-2.24
8WWLFH		33.82	-0.56	-0.39	35.75	1.65	1.20
9AD2WM	X	31.80	-2.58	-1.81	36.20	2.10	1.52
9C9BE6	*	31.20	-3.18	-2.23	30.40	-3.70	-2.68
9CPMWA		34.40	0.02	0.02	35.00	0.90	0.65
9DYJE8		36.40	2.02	1.42	35.30	1.20	0.87
9GYU8L		35.00	0.62	0.44	34.00	-0.10	-0.07
9UNKF6		32.00	-2.38	-1.67	33.00	-1.10	-0.79
ATMFQM		35.64	1.26	0.89	34.44	0.34	0.25
AZ7C6A		35.90	1.52	1.07	35.65	1.55	1.12
B9YZF7		33.80	-0.58	-0.40	33.90	-0.20	-0.14
CG4KQD		33.37	-1.01	-0.71	34.76	0.66	0.48
D8TJ6D		34.17	-0.21	-0.15	35.28	1.18	0.86
ETQF74	X	35.50	1.12	0.79	30.00	-4.10	-2.97
H3P88U		34.20	-0.18	-0.12	34.20	0.10	0.07
J4FRG7		35.05	0.67	0.47	34.94	0.84	0.61
JPUCD8		34.40	0.02	0.02	33.10	-1.00	-0.72
JXAYJV		34.00	-0.38	-0.26	33.00	-1.10	-0.79
K3X8VZ		35.80	1.42	1.00	34.00	-0.10	-0.07
K8UPHR		34.00	-0.38	-0.26	33.30	-0.80	-0.58
KDGHNZ		32.00	-2.38	-1.67	32.00	-2.10	-1.52
KK4AZZ	X	40.95	6.57	4.61	40.75	6.65	4.82
KLDJNQ		33.30	-1.08	-0.76	34.10	0.00	0.00
KRGA6B		32.20	-2.18	-1.53	32.60	-1.50	-1.08
L44246		34.13	-0.25	-0.17	35.55	1.45	1.05
MYRD49		35.60	1.22	0.86	34.40	0.30	0.22
NKMMRT		37.00	2.62	1.84	37.00	2.90	2.10
Q23HCE		35.60	1.22	0.86	34.50	0.40	0.29
RCZMXZ		33.04	-1.34	-0.94	34.20	0.10	0.07
UA9C8J		35.40	1.02	0.72	35.60	1.50	1.09
UM9AYV		35.47	1.09	0.77	35.38	1.28	0.93
VR8TQL		34.30	-0.08	-0.05	34.60	0.50	0.36
VRHZNM		36.40	2.02	1.42	36.50	2.40	1.74
VUAY2L		32.72	-1.66	-1.16	34.20	0.10	0.07
XLB42T		34.60	0.22	0.16	32.10	-2.00	-1.45
XUL7MU		35.25	0.87	0.61	34.65	0.55	0.40
ZTYRHF		35.30	0.92	0.65	33.10	-1.00	-0.72

Summary Statistics

	Sample A73		Sample A74	
Grand Means	34.38	Percent	34.10	Percent
Stnd Dev Btwn Labs	1.43	Percent	1.38	Percent

Samples A73, A74 : AISI 1018 (L), AISI 1018 (S)

Statistics based on 41 of 44 reporting participants

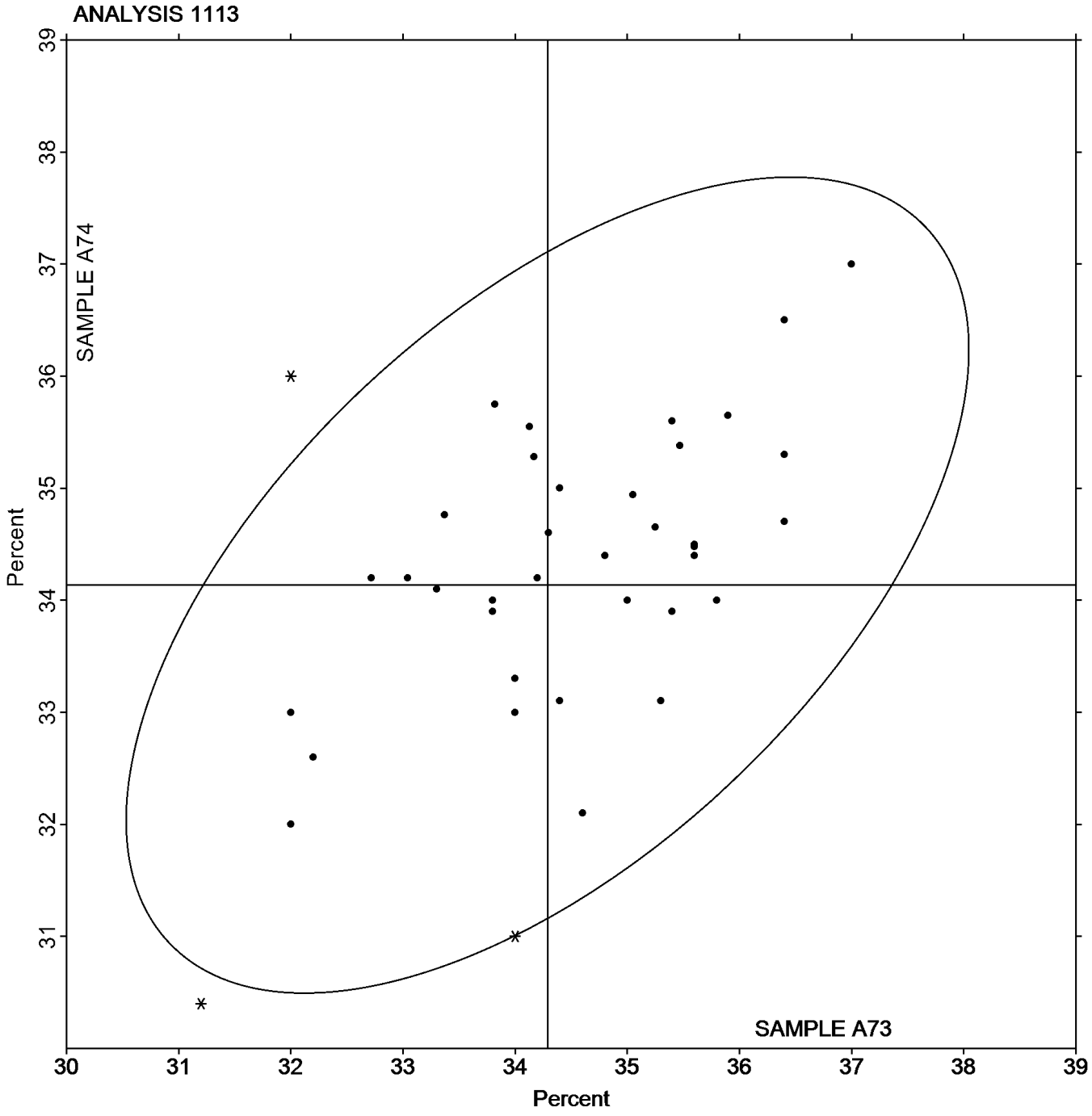
Comments on Assigned Data Flags for Test #1113

9AD2WM (X) - Inconsistent in testing between samples.

ETQF74 (X) - Data for sample A74 are low.

KK4AZZ (X) - Data for both samples are high.

SAMPLE A73	SAMPLE A74
34.38 Percent	34.10 Percent



		Sample A73			Sample A74		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
3Y2C4B		68.00	0.77	0.86	66.00	-0.62	-0.79
43DWAM		67.40	0.17	0.19	66.60	-0.02	-0.02
44R24E		67.50	0.27	0.31	66.10	-0.52	-0.66
6DRDDE		67.40	0.17	0.19	66.40	-0.22	-0.28
6JUBVQ		67.00	-0.23	-0.25	67.00	0.38	0.49
737A6E		66.90	-0.33	-0.36	66.00	-0.62	-0.79
7LG4TE		68.55	1.32	1.48	67.36	0.74	0.95
8LGLBA		68.00	0.77	0.86	67.00	0.38	0.49
8WWLFH		68.30	1.07	1.20	67.70	1.08	1.38
9AD2WM		67.60	0.37	0.42	67.00	0.38	0.49
9C9BE6		66.50	-0.73	-0.81	67.30	0.68	0.87
9CPMWA		66.90	-0.33	-0.36	67.70	1.08	1.38
9DYJE8		66.90	-0.33	-0.36	65.70	-0.92	-1.17
9GYU8L		65.90	-1.33	-1.48	66.50	-0.12	-0.15
9UNKF6		67.00	-0.23	-0.25	67.00	0.38	0.49
ATMFQM	*	64.93	-2.30	-2.56	64.96	-1.66	-2.12
AZ7C6A		67.11	-0.12	-0.13	66.36	-0.26	-0.33
B9YZF7		66.10	-1.13	-1.26	66.30	-0.32	-0.40
CG4KQD		67.10	-0.13	-0.14	67.90	1.28	1.64
D8TJ6D		67.90	0.67	0.75	66.40	-0.22	-0.28
H3P88U		66.98	-0.24	-0.27	65.05	-1.57	-2.00
J4FRG7		68.50	1.27	1.42	67.80	1.18	1.51
JPUCD8		66.30	-0.93	-1.03	65.00	-1.62	-2.07
JXAYJV		67.00	-0.23	-0.25	67.00	0.38	0.49
K3X8VZ		67.70	0.47	0.53	66.40	-0.22	-0.28
K8UPHR		68.90	1.67	1.87	66.20	-0.42	-0.53
KDGHNZ		68.00	0.77	0.86	67.00	0.38	0.49
KK4AZZ		67.93	0.70	0.79	67.64	1.02	1.31
KLDJNQ		67.20	-0.03	-0.03	65.70	-0.92	-1.17
L44246		67.40	0.17	0.19	66.40	-0.22	-0.28
MYRD49		67.20	-0.03	-0.03	66.80	0.18	0.23
NKMMRT	*	65.00	-2.23	-2.49	67.00	0.38	0.49
Q23HCE		67.15	-0.08	-0.08	66.89	0.27	0.35
RCZMXZ		67.80	0.57	0.64	67.10	0.48	0.62
UA9C8J		67.40	0.17	0.19	66.50	-0.12	-0.15
UM9AYV		68.00	0.77	0.86	67.90	1.28	1.64
VR8TQL		66.80	-0.43	-0.48	66.00	-0.62	-0.79
VRHZNM		67.00	-0.23	-0.25	67.00	0.38	0.49
VUAY2L		67.53	0.30	0.34	66.75	0.13	0.17
XLB42T		68.80	1.57	1.76	66.10	-0.52	-0.66
XUL7MU		65.80	-1.43	-1.59	67.28	0.66	0.85
ZTYRHF		66.10	-1.13	-1.26	65.10	-1.52	-1.94

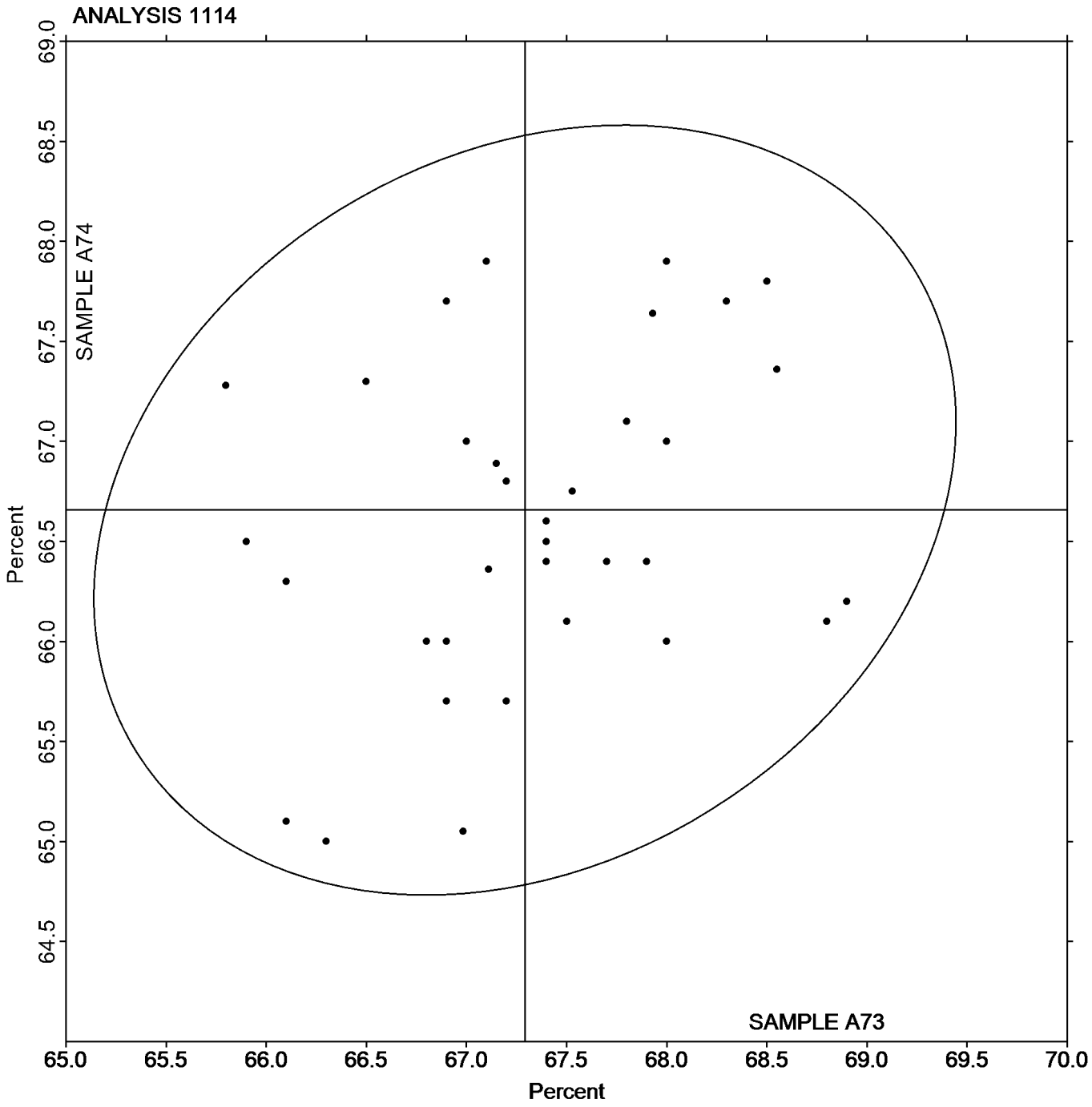
Summary Statistics

	Sample A73		Sample A74	
Grand Means	67.23	Percent	66.62	Percent
Stnd Dev Btwn Labs	0.90	Percent	0.78	Percent

Samples A73, A74 : AISI 1018 (L), AISI 1018 (S)

Statistics based on 42 of 42 reporting participants

SAMPLE A73	SAMPLE A74
67.23 Percent	66.62 Percent



		Sample P73			Sample P74		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2NZNCE	*	71.07	-1.84	-2.26	70.05	-0.80	-0.99
2Q9QCR	X	69.61	-3.30	-4.06	67.91	-2.94	-3.63
2RY3WH		72.50	-0.41	-0.50	70.50	-0.35	-0.44
33G28K		73.70	0.79	0.97	71.30	0.45	0.55
4GXCDM		72.70	-0.21	-0.26	70.30	-0.55	-0.68
6DRDDE		72.82	-0.09	-0.11	71.76	0.91	1.12
6M2MZ8		72.70	-0.21	-0.26	71.20	0.35	0.43
6M3FYE		74.24	1.33	1.64	72.13	1.28	1.58
6N938D		73.00	0.09	0.11	70.60	-0.25	-0.31
737A6E		72.47	-0.44	-0.54	71.02	0.17	0.20
7BJH7F		73.20	0.29	0.36	70.60	-0.25	-0.31
8LFQLC		72.50	-0.41	-0.50	70.50	-0.35	-0.44
8ZTBWP		71.50	-1.40	-1.73	69.04	-1.81	-2.24
92MAWA		72.40	-0.51	-0.62	69.62	-1.23	-1.52
94RUNF		73.40	0.49	0.60	71.10	0.25	0.30
97WME9		73.20	0.29	0.36	70.47	-0.38	-0.47
9C9BE6		73.00	0.09	0.11	71.00	0.15	0.18
9HBJJC		72.80	-0.11	-0.13	70.80	-0.05	-0.07
9TC8B9	X	71.60	-1.31	-1.61	74.00	3.15	3.88
A8M8K4		72.20	-0.71	-0.87	71.40	0.55	0.67
BE37UA	X	72.20	-0.71	-0.87	74.60	3.75	4.62
BG9NT6		73.00	0.09	0.11	71.00	0.15	0.18
BJCD6L	*	71.66	-1.24	-1.53	70.84	-0.02	-0.02
BT83DB		72.89	-0.02	-0.02	71.74	0.88	1.09
BW8DAB		73.95	1.04	1.28	71.86	1.01	1.24
BZ6UL6		73.00	0.09	0.11	71.00	0.15	0.18
CJRWPJ		71.94	-0.97	-1.19	69.76	-1.09	-1.34
CR2L3H		73.40	0.49	0.60	71.30	0.45	0.55
CTZH2R		72.20	-0.71	-0.87	69.50	-1.35	-1.67
CZEB4B		72.46	-0.45	-0.55	70.59	-0.27	-0.33
DWVNWA		73.90	0.99	1.22	71.70	0.85	1.04
EYHK6Z		72.70	-0.21	-0.26	69.90	-0.95	-1.18
FTP2X3		72.40	-0.51	-0.63	70.90	0.05	0.06
FUGZCZ		73.00	0.09	0.11	71.00	0.15	0.18
H4KUJX		72.50	-0.41	-0.50	70.50	-0.35	-0.44
HGKPPD		72.09	-0.82	-1.01	70.84	-0.01	-0.01
HK6KHX		73.00	0.09	0.11	71.00	0.15	0.18
HWYWWW		72.80	-0.11	-0.13	70.30	-0.55	-0.68
K3X8VZ		73.20	0.29	0.36	71.70	0.85	1.04
KK3H2R		73.50	0.59	0.73	71.00	0.15	0.18
LFH6FV		73.70	0.79	0.97	71.00	0.15	0.18
M44CLT		73.10	0.19	0.23	71.07	0.22	0.27
M6FXAA		74.30	1.39	1.71	72.50	1.65	2.03
MAVEUZ		72.39	-0.52	-0.64	70.63	-0.23	-0.28
MFHAQX		72.80	-0.11	-0.13	70.50	-0.35	-0.44
MHK82P		73.10	0.19	0.23	70.78	-0.07	-0.09
N72CYV		71.80	-1.11	-1.36	70.10	-0.75	-0.93

Fasteners and Metals Interlaboratory Testing Program

Analysis 1121

Tensile Strength: Lab-Machined Round Steel

ASTM E8

		Sample P73			Sample P74		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
N9T9NP		71.30	-1.61	-1.98	69.50	-1.35	-1.67
NDN3LQ		72.20	-0.71	-0.87	70.40	-0.45	-0.56
NGN7FY		73.70	0.79	0.97	72.00	1.15	1.41
NQPLB6		73.20	0.29	0.36	71.40	0.55	0.67
NVN3MY		73.00	0.09	0.11	70.80	-0.05	-0.07
P66784		72.95	0.04	0.05	71.16	0.31	0.38
QRYCE7		74.20	1.29	1.59	72.10	1.25	1.54
QX2LKY		73.68	0.77	0.95	71.36	0.51	0.62
QY2CYU		72.40	-0.51	-0.63	70.50	-0.35	-0.44
R8QKXP		73.42	0.51	0.63	70.90	0.04	0.05
RL3693		72.66	-0.24	-0.30	71.07	0.22	0.27
RXF66V	*	70.95	-1.96	-2.41	68.45	-2.40	-2.96
RYR6Y6	X	70.61	-2.30	-2.83	72.27	1.42	1.75
T2YNUK	*	74.86	1.95	2.40	72.89	2.04	2.51
TWJ3YR		72.10	-0.81	-0.99	69.30	-1.55	-1.91
UUTFJA		74.60	1.69	2.08	72.10	1.25	1.54
UZCV2L		72.81	-0.10	-0.12	70.92	0.07	0.09
VDGDBZ		73.82	0.91	1.12	71.85	1.00	1.23
VHC6JW		72.38	-0.53	-0.65	70.67	-0.19	-0.23
VLGL7T		73.66	0.75	0.92	70.33	-0.52	-0.64
WX48PT		73.30	0.39	0.48	71.10	0.25	0.30
WZ7ZTY		72.50	-0.41	-0.50	71.00	0.15	0.18
X88M8K		71.95	-0.96	-1.18	69.99	-0.86	-1.06
XLB42T		73.90	0.99	1.22	71.86	1.01	1.24
XPT74R	*	74.60	1.69	2.08	71.50	0.65	0.80
YE2AHG		72.50	-0.41	-0.50	70.00	-0.85	-1.05
YNQZXH		72.78	-0.13	-0.16	70.16	-0.70	-0.86
YQCWFG	X	66.94	-5.97	-7.34	67.70	-3.16	-3.89

Summary Statistics

	Sample P73		Sample P74	
Grand Means	72.91	ksi	70.85	ksi
Stnd Dev Btwn Labs	0.81	ksi	0.81	ksi

Samples P73, P74 : AISI 1018 (E), AISI 1018 (L)

Statistics based on 70 of 75 reporting participants

Comments on Assigned Data Flags for Test #1121

2Q9QCR (X) - Data for both samples are low. Possible Systematic Error.

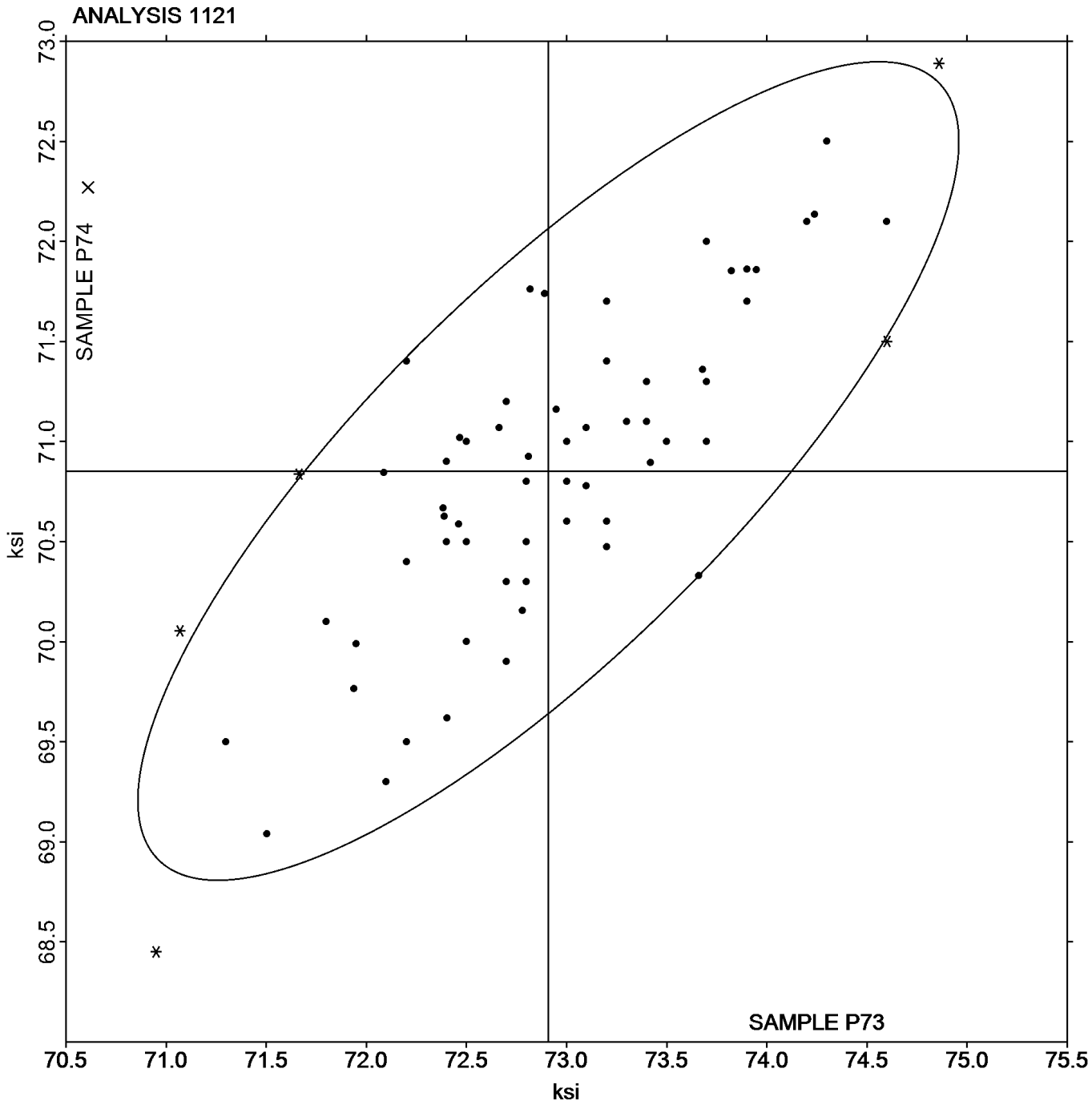
9TC8B9 (X) - Data for sample P74 are high.

BE37UA (X) - Data for sample P74 are high.

RYR6Y6 (X) - Data for sample P73 are low.

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

SAMPLE P73	SAMPLE P74
72.91 ksi	70.85 ksi



		Sample P73			Sample P74		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2NZNCE		47.72	-0.86	-0.33	45.83	-1.43	-0.60
2Q9QCR		44.66	-3.92	-1.50	44.45	-2.81	-1.17
2RY3WH		46.90	-1.68	-0.64	45.80	-1.46	-0.61
33G28K		47.00	-1.58	-0.60	45.50	-1.76	-0.74
4GXCDM	*	55.30	6.72	2.57	52.60	5.34	2.23
6DRDDE		46.30	-2.28	-0.87	46.52	-0.74	-0.31
6M2MZ8		49.20	0.62	0.24	46.30	-0.96	-0.40
6M3FYE		46.34	-2.24	-0.86	43.64	-3.62	-1.51
6N938D		48.10	-0.48	-0.18	47.30	0.04	0.02
737A6E		46.84	-1.74	-0.67	45.62	-1.64	-0.68
7BJH7F		47.80	-0.78	-0.30	46.10	-1.16	-0.48
8LFQLC		50.50	1.92	0.73	48.00	0.74	0.31
8ZTBWP	X	43.66	-4.92	-1.88	48.73	1.47	0.61
92MAWA	*	54.39	5.81	2.22	49.75	2.49	1.04
94RUNF		46.50	-2.08	-0.80	44.80	-2.46	-1.03
97WME9		49.97	1.39	0.53	48.24	0.98	0.41
9C9BE6		46.00	-2.58	-0.99	46.00	-1.26	-0.53
9HBJJC		48.10	-0.48	-0.18	49.80	2.54	1.06
9TC8B9		48.60	0.02	0.01	48.10	0.84	0.35
A8M8K4		45.90	-2.68	-1.02	45.50	-1.76	-0.74
BE37UA	X	58.10	9.52	3.64	54.70	7.44	3.10
BG9NT6		52.00	3.42	1.31	50.00	2.74	1.14
BJCD6L		49.63	1.05	0.40	48.05	0.79	0.33
BT83DB		47.82	-0.76	-0.29	46.97	-0.29	-0.12
BW8DAB		47.51	-1.08	-0.41	45.53	-1.74	-0.72
BZ6UL6		52.00	3.42	1.31	52.50	5.24	2.19
CJRWPJ		46.12	-2.46	-0.94	46.12	-1.14	-0.48
CR2L3H		46.40	-2.18	-0.83	45.00	-2.26	-0.94
CTZH2R	*	55.20	6.62	2.53	54.80	7.54	3.14
CZEB4B		46.80	-1.79	-0.68	45.72	-1.54	-0.64
DWVNWA		48.30	-0.28	-0.11	46.00	-1.26	-0.53
EYHK6Z		47.10	-1.48	-0.57	46.00	-1.26	-0.53
FTP2X3		45.90	-2.68	-1.02	44.80	-2.46	-1.03
FUGZCZ		52.50	3.92	1.50	51.00	3.74	1.56
H4KUJX		51.50	2.92	1.12	50.50	3.24	1.35
HGKPPD		50.14	1.56	0.60	47.85	0.58	0.24
HK6KHX		53.00	4.42	1.69	50.50	3.24	1.35
HWYWWW		50.10	1.52	0.58	46.00	-1.26	-0.53
K3X8VZ		45.10	-3.48	-1.33	45.80	-1.46	-0.61
KK3H2R		49.90	1.32	0.50	46.70	-0.56	-0.23
LFH6FV		45.40	-3.18	-1.22	43.80	-3.46	-1.44
M44CLT		46.85	-1.73	-0.66	46.56	-0.70	-0.29
M6FXAA		50.70	2.12	0.81	50.20	2.94	1.23
MAVEUZ		52.36	3.78	1.44	51.24	3.97	1.66
MFHAQX		47.50	-1.08	-0.41	44.90	-2.36	-0.99
MHK82P	X	46.41	-2.17	-0.83	59.90	12.64	5.27
N72CYV		47.50	-1.08	-0.41	46.90	-0.36	-0.15

Fasteners and Metals Interlaboratory Testing Program

Analysis 1122

Yield Strength: Lab-Machined Round Steel
ASTM E8

		Sample P73			Sample P74		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
N9T9NP	*	47.90	-0.68	-0.26	50.20	2.94	1.23
NDN3LQ		45.20	-3.38	-1.29	45.70	-1.56	-0.65
NGN7FY		48.50	-0.08	-0.03	45.90	-1.36	-0.57
NQPLB6		50.10	1.52	0.58	50.80	3.54	1.48
NVN3MY		47.50	-1.08	-0.41	45.60	-1.66	-0.69
P66784		45.67	-2.91	-1.11	45.29	-1.97	-0.82
QRYCE7		49.10	0.52	0.20	46.82	-0.44	-0.18
QX2LKY		47.14	-1.44	-0.55	46.12	-1.14	-0.48
QY2CYU		46.30	-2.28	-0.87	45.60	-1.66	-0.69
R8QKXP		47.98	-0.60	-0.23	46.78	-0.49	-0.20
RL3693		50.91	2.33	0.89	49.75	2.49	1.04
RXF66V		46.56	-2.02	-0.77	44.08	-3.18	-1.33
RYR6Y6	*	53.25	4.67	1.78	48.00	0.74	0.31
T2YNUK		51.99	3.40	1.30	48.44	1.18	0.49
TWJ3YR		47.90	-0.68	-0.26	46.50	-0.76	-0.32
UUTFJA		51.20	2.62	1.00	48.30	1.04	0.43
UZCV2L		50.04	1.46	0.56	47.86	0.60	0.25
VDGDBZ		47.22	-1.36	-0.52	45.24	-2.02	-0.84
VHC6JW		46.68	-1.90	-0.72	45.44	-1.82	-0.76
VLGL7T		45.39	-3.19	-1.22	43.05	-4.21	-1.76
WX48PT		47.50	-1.08	-0.41	47.00	-0.26	-0.11
WZ7ZTY	*	46.10	-2.48	-0.95	48.50	1.24	0.52
X88M8K		43.74	-4.84	-1.85	44.53	-2.74	-1.14
XLB42T		51.05	2.47	0.94	51.45	4.19	1.75
XPT74R		48.80	0.22	0.08	46.60	-0.66	-0.28
YE2AHG		52.00	3.42	1.31	50.00	2.74	1.14
YNQZXH		50.08	1.50	0.57	48.78	1.51	0.63
YQCWFG	X	39.60	-8.98	-3.43	41.45	-5.81	-2.43

Summary Statistics

	Sample P73		Sample P74	
Grand Means	48.58	ksi	47.26	ksi
Stnd Dev Btwn Labs	2.62	ksi	2.40	ksi

Samples P73, P74 : AISI 1018 (E), AISI 1018 (L)

Statistics based on 71 of 75 reporting participants

Comments on Assigned Data Flags for Test #1122

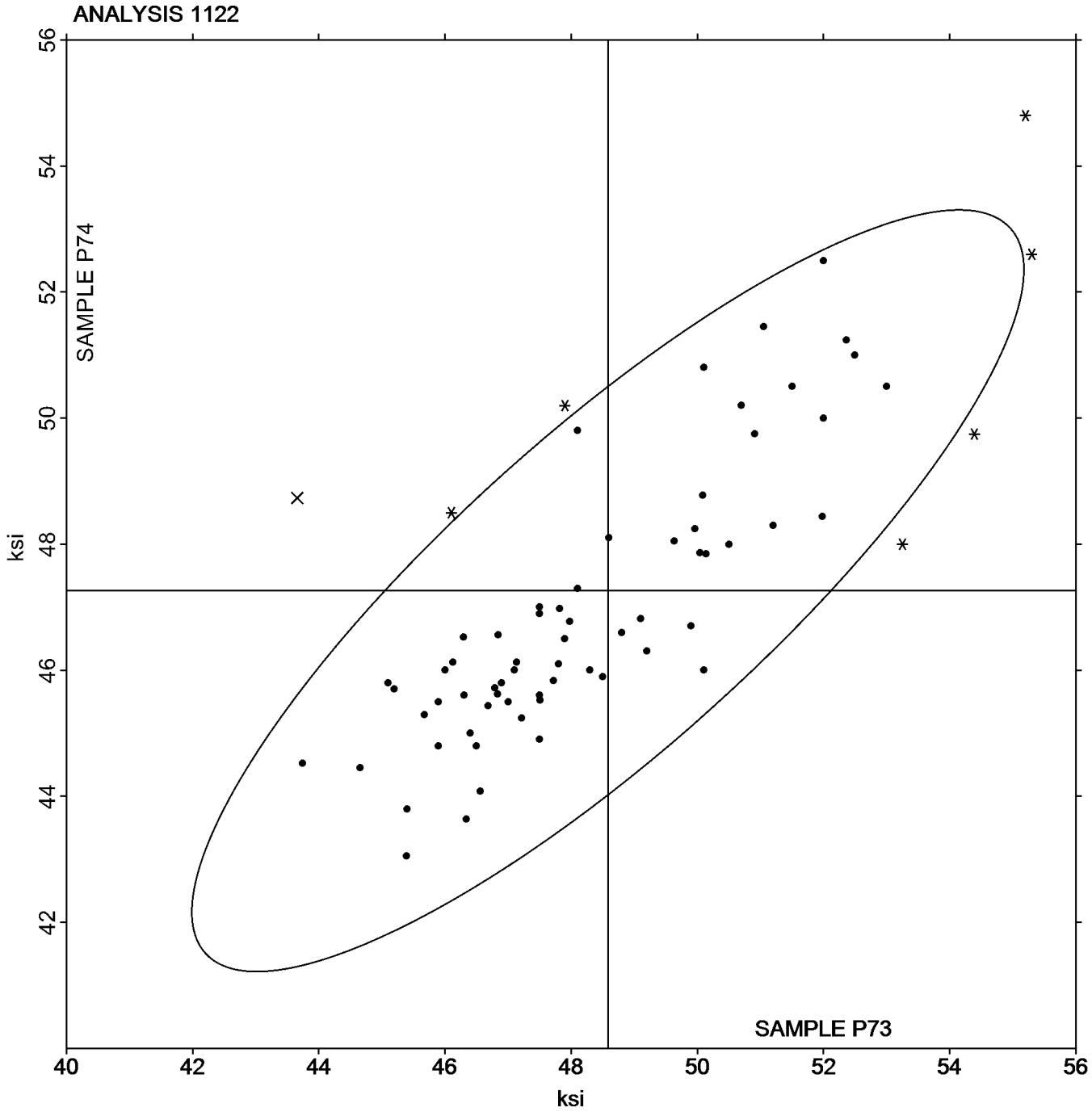
8ZTBWP (X) - Inconsistent in testing between samples.

BE37UA (X) - Data for both samples are high. Possible Systematic Error.

MHK82P (X) - Data for sample P74 are high.

YQCWFG (X) - Data for sample P73 are low.

SAMPLE P73	SAMPLE P74
48.58 ksi	47.26 ksi



		Sample P73			Sample P74		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2NZNCE	*	39.10	4.79	2.44	38.50	3.63	1.86
2Q9QCR		35.10	0.79	0.40	37.10	2.23	1.14
2RY3WH		37.50	3.19	1.63	37.00	2.13	1.09
33G28K		33.10	-1.21	-0.62	33.90	-0.97	-0.49
4GXCDM		34.00	-0.31	-0.16	35.00	0.13	0.07
6DRDDE		35.05	0.74	0.38	36.40	1.53	0.78
6M2MZ8		33.40	-0.91	-0.47	34.90	0.03	0.02
6M3FYE		30.65	-3.66	-1.87	32.85	-2.02	-1.03
6N938D		33.70	-0.61	-0.31	35.20	0.33	0.17
737A6E		33.50	-0.81	-0.41	35.00	0.13	0.07
7BJH7F		30.90	-3.41	-1.74	32.20	-2.67	-1.36
8LFQLC		33.00	-1.31	-0.67	35.00	0.13	0.07
8ZTBWP	X	38.70	4.39	2.24	34.90	0.03	0.02
92MAWA		35.00	0.69	0.35	37.00	2.13	1.09
94RUNF		33.40	-0.91	-0.47	34.90	0.03	0.02
97WME9		34.80	0.49	0.25	35.50	0.63	0.32
9C9BE6		30.80	-3.51	-1.79	31.40	-3.47	-1.77
9HBJJC		34.30	-0.01	-0.01	33.00	-1.87	-0.95
9TC8B9	*	33.90	-0.41	-0.21	32.00	-2.87	-1.47
A8M8K4		38.70	4.39	2.24	38.50	3.63	1.86
BE37UA	X	34.40	0.09	0.04	31.90	-2.97	-1.52
BG9NT6		33.00	-1.31	-0.67	33.50	-1.37	-0.70
BJCD6L		34.72	0.41	0.21	35.74	0.87	0.45
BT83DB		32.40	-1.91	-0.98	31.40	-3.47	-1.77
BW8DAB		36.00	1.69	0.86	38.00	3.13	1.60
BZ6UL6		33.00	-1.31	-0.67	33.50	-1.37	-0.70
CJRWPJ		36.00	1.69	0.86	38.00	3.13	1.60
CR2L3H		34.90	0.59	0.30	35.10	0.23	0.12
CTZH2R		35.50	1.19	0.61	36.50	1.63	0.83
CZEB4B		36.00	1.69	0.86	36.00	1.13	0.58
DWVNWA		30.48	-3.83	-1.96	30.77	-4.10	-2.09
EYHK6Z		35.00	0.69	0.35	36.00	1.13	0.58
FTP2X3		37.10	2.79	1.42	37.90	3.03	1.55
FUGZCZ		33.00	-1.31	-0.67	33.50	-1.37	-0.70
H4KUJX		33.50	-0.81	-0.41	34.00	-0.87	-0.44
HGKPPD		34.35	0.04	0.02	35.53	0.66	0.34
HK6KHX		33.00	-1.31	-0.67	33.50	-1.37	-0.70
HWYWWW		33.50	-0.81	-0.41	33.50	-1.37	-0.70
K3X8VZ		33.60	-0.71	-0.36	33.40	-1.47	-0.75
KK3H2R		34.00	-0.31	-0.16	34.00	-0.87	-0.44
LFH6FV		35.00	0.69	0.35	35.00	0.13	0.07
M44CLT	X	36.00	1.69	0.86	40.00	5.13	2.62
M6FXAA		32.00	-2.31	-1.18	31.40	-3.47	-1.77
MAVEUZ		34.70	0.39	0.20	34.40	-0.47	-0.24
MFHAQX		34.10	-0.21	-0.11	35.10	0.23	0.12
MHK82P		32.60	-1.71	-0.87	32.00	-2.87	-1.47
N72CYV		30.90	-3.41	-1.74	32.00	-2.87	-1.47

WebCode	Data Flag	Sample P73 Lab Mean	Sample P73 Diff. from Grand Mean	Sample P73 CPV	Sample P74 Lab Mean	Sample P74 Diff. from Grand Mean	Sample P74 CPV
N9T9NP		38.40	4.09	2.09	37.40	2.53	1.29
NDN3LQ		38.20	3.89	1.99	37.50	2.63	1.35
NGN7FY		36.00	1.69	0.86	36.00	1.13	0.58
NQPLB6		34.50	0.19	0.10	35.00	0.13	0.07
NVN3MY		35.40	1.09	0.56	35.80	0.93	0.48
P66784		36.60	2.29	1.17	36.60	1.73	0.89
QRYCE7		33.00	-1.31	-0.67	32.00	-2.87	-1.47
QX2LKY		36.00	1.69	0.86	36.50	1.63	0.83
QY2CYU		33.60	-0.71	-0.36	34.00	-0.87	-0.44
R8QKXP		37.50	3.19	1.63	38.00	3.13	1.60
RL3693		35.20	0.89	0.45	35.40	0.53	0.27
RXF66V		36.30	1.99	1.01	38.30	3.43	1.75
RYR6Y6		36.10	1.79	0.91	35.80	0.93	0.48
T2YNUK		31.80	-2.51	-1.28	33.60	-1.27	-0.65
TWJ3YR		35.80	1.49	0.76	36.30	1.43	0.73
UUTFJA		32.00	-2.31	-1.18	32.50	-2.37	-1.21
UZCV2L		35.00	0.69	0.35	35.00	0.13	0.07
VDGDBZ		32.95	-1.36	-0.70	33.15	-1.72	-0.88
VHC6JW		32.00	-2.31	-1.18	33.00	-1.87	-0.95
VLGL7T		34.00	-0.31	-0.16	36.00	1.13	0.58
WX48PT		35.90	1.59	0.81	36.20	1.33	0.68
WZ7ZTY		34.00	-0.31	-0.16	34.00	-0.87	-0.44
X88M8K		35.00	0.69	0.35	36.00	1.13	0.58
XLB42T		31.40	-2.91	-1.49	32.50	-2.37	-1.21
XPT74R		32.30	-2.01	-1.03	34.60	-0.27	-0.14
YE2AHG		33.50	-0.81	-0.41	34.00	-0.87	-0.44
YNQZXH		36.50	2.19	1.12	36.90	2.03	1.04
YQCWFG		33.30	-1.01	-0.52	33.30	-1.57	-0.80

Summary Statistics

	Sample P73		Sample P74	
Grand Means	34.31	Percent	34.87	Percent
Stnd Dev Btwn Labs	1.96	Percent	1.96	Percent

Samples P73, P74 : AISI 1018 (E), AISI 1018 (L)

Statistics based on 72 of 75 reporting participants

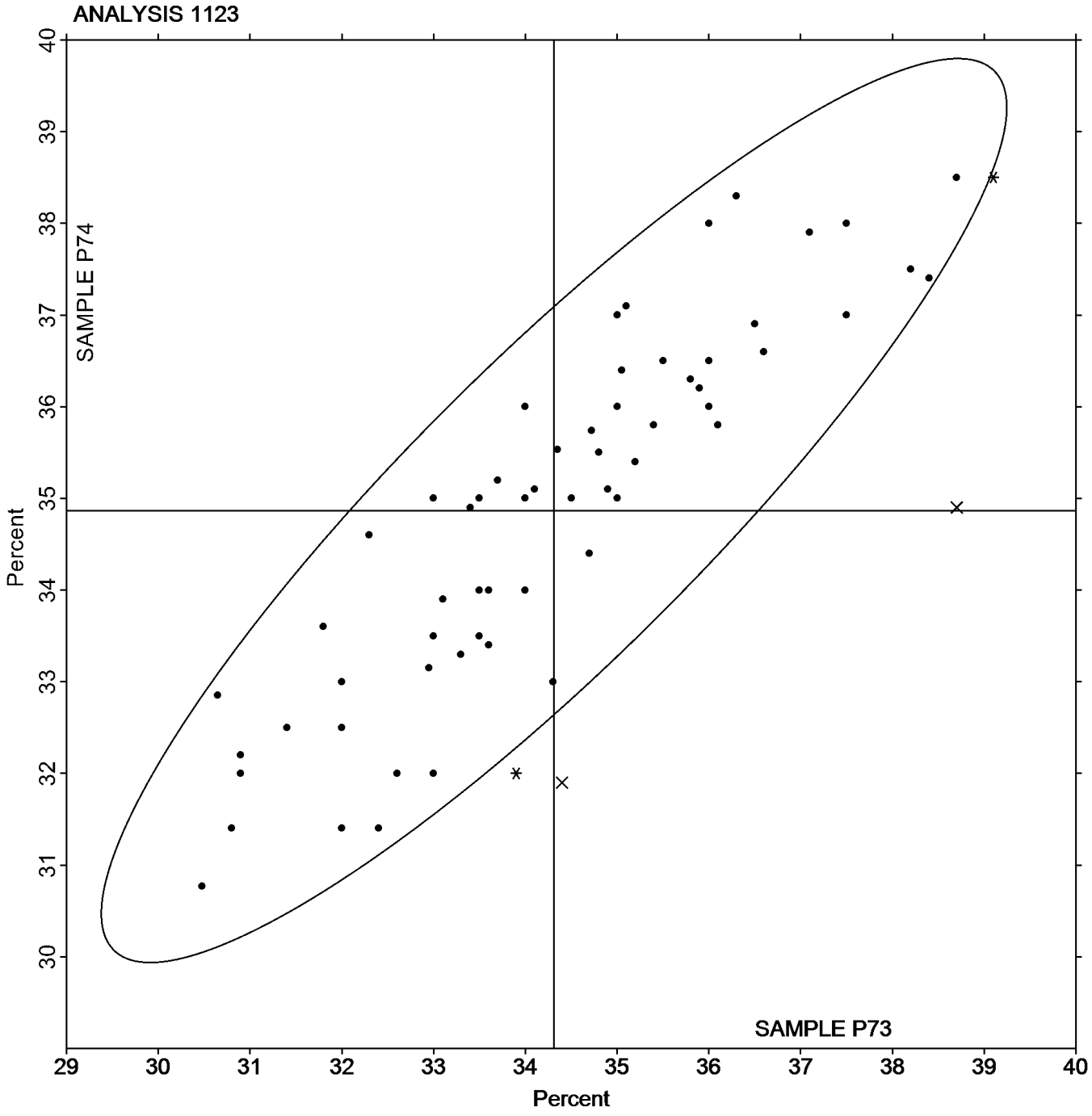
Comments on Assigned Data Flags for Test #1123

8ZTBWP (X) - Inconsistent in testing between samples.

BE37UA (X) - Inconsistent in testing between samples.

M44CLT (X) - Inconsistent in testing between samples.

SAMPLE P73	SAMPLE P74
34.31 Percent	34.87 Percent



		Sample P73			Sample P74		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2NZNCE		68.20	1.34	1.44	68.70	1.18	1.33
2Q9QCR		65.69	-1.17	-1.25	66.82	-0.70	-0.78
2RY3WH		65.40	-1.46	-1.57	67.90	0.38	0.43
33G28K		66.50	-0.36	-0.38	67.40	-0.12	-0.13
4GXCDM		66.70	-0.16	-0.17	67.90	0.38	0.43
6DRDDE		68.66	1.80	1.94	67.71	0.19	0.22
6M2MZ8	X	66.90	0.04	0.05	64.40	-3.12	-3.51
6M3FYE		66.32	-0.53	-0.57	66.99	-0.53	-0.59
6N938D		67.30	0.44	0.48	67.90	0.38	0.43
737A6E		66.40	-0.46	-0.49	67.70	0.18	0.21
7BJH7F		64.70	-2.16	-2.32	66.50	-1.02	-1.14
8LFQLC		65.00	-1.86	-2.00	67.00	-0.52	-0.58
8ZTBWP		67.90	1.04	1.12	68.20	0.68	0.77
92MAWA		66.30	-0.56	-0.60	68.90	1.38	1.56
94RUNF		66.50	-0.36	-0.38	67.70	0.18	0.21
97WME9		66.50	-0.36	-0.38	67.50	-0.02	-0.02
9C9BE6		66.10	-0.76	-0.81	66.60	-0.92	-1.03
9HBJJC		68.50	1.64	1.77	69.10	1.58	1.78
9TC8B9	X	66.90	0.04	0.05	64.80	-2.72	-3.06
A8M8K4		68.20	1.34	1.44	67.20	-0.32	-0.36
BE37UA		67.80	0.94	1.01	67.80	0.28	0.32
BG9NT6		67.00	0.14	0.15	68.00	0.48	0.54
BJCD6L		66.62	-0.24	-0.25	67.26	-0.26	-0.29
BT83DB		66.66	-0.20	-0.21	66.73	-0.79	-0.88
BW8DAB		67.00	0.14	0.15	69.00	1.48	1.67
BZ6UL6		67.30	0.44	0.48	68.00	0.48	0.54
CJRWPJ		67.00	0.14	0.15	68.00	0.48	0.54
CR2L3H		66.80	-0.06	-0.06	67.50	-0.02	-0.02
CTZH2R		67.30	0.44	0.48	66.70	-0.82	-0.92
CZEB4B		68.00	1.14	1.23	69.00	1.48	1.67
DWVNWA		65.90	-0.96	-1.03	66.90	-0.62	-0.69
EYHK6Z		67.10	0.24	0.26	68.60	1.08	1.22
FUGZCZ		66.40	-0.46	-0.49	67.50	-0.02	-0.02
H4KUJX		67.50	0.64	0.69	68.00	0.48	0.54
HGKPPD		65.96	-0.90	-0.96	66.63	-0.89	-1.00
HK6KHX		66.80	-0.06	-0.06	68.00	0.48	0.54
HWYWWW		67.20	0.34	0.37	68.50	0.98	1.11
K3X8VZ		66.60	-0.26	-0.28	66.60	-0.92	-1.03
KK3H2R		68.00	1.14	1.23	67.00	-0.52	-0.58
LFH6FV		65.20	-1.66	-1.78	66.50	-1.02	-1.14
M44CLT	X	65.00	-1.86	-2.00	69.00	1.48	1.67
M6FXAA		66.00	-0.86	-0.92	66.80	-0.72	-0.81
MAVEUZ		68.33	1.47	1.58	68.05	0.53	0.60
MFHAQX		66.90	0.04	0.05	68.60	1.08	1.22
MHK82P		67.00	0.14	0.15	66.00	-1.52	-1.71
N72CYV	*	66.40	-0.46	-0.49	65.11	-2.41	-2.71
N9T9NP		68.50	1.64	1.77	68.00	0.48	0.54

		Sample P73			Sample P74		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
NDN3LQ		68.30	1.44	1.55	68.80	1.28	1.44
NGN7FY	X	64.14	-2.72	-2.92	64.00	-3.52	-3.96
NQPLB6		66.90	0.04	0.05	65.90	-1.62	-1.82
P66784		66.00	-0.86	-0.92	66.00	-1.52	-1.71
QRYCE7		67.00	0.14	0.15	67.00	-0.52	-0.58
QX2LKY		67.00	0.14	0.15	67.00	-0.52	-0.58
QY2CYU		68.40	1.54	1.66	69.70	2.18	2.46
R8QKXP		65.70	-1.16	-1.24	66.80	-0.72	-0.81
RL3693		67.00	0.14	0.15	67.30	-0.22	-0.24
RXF66V		66.60	-0.26	-0.28	66.90	-0.62	-0.69
RYR6Y6		67.60	0.74	0.80	67.60	0.08	0.09
T2YNUK		65.50	-1.36	-1.46	66.40	-1.12	-1.26
TWJ3YR		66.90	0.04	0.05	68.20	0.68	0.77
UUTFJA		66.50	-0.36	-0.38	68.10	0.58	0.66
UZCV2L		66.00	-0.86	-0.92	66.00	-1.52	-1.71
VDGDBZ		66.69	-0.17	-0.18	67.38	-0.14	-0.15
VHC6JW		66.00	-0.86	-0.92	67.00	-0.52	-0.58
VLGL7T		67.00	0.14	0.15	68.00	0.48	0.54
WX48PT		67.20	0.34	0.37	67.90	0.38	0.43
WZ7ZTY	*	69.00	2.14	2.31	67.00	-0.52	-0.58
X88M8K		67.00	0.14	0.15	67.00	-0.52	-0.58
XLB42T		67.40	0.54	0.58	68.60	1.08	1.22
XPT74R	X	66.50	-0.36	-0.38	73.40	5.88	6.62
YE2AHG		67.00	0.14	0.15	68.20	0.68	0.77
YNQZXH		65.90	-0.96	-1.03	68.00	0.48	0.54
YQCWFG		65.50	-1.36	-1.46	67.80	0.28	0.32

Summary Statistics

	Sample P73		Sample P74	
Grand Means	66.86	Percent	67.52	Percent
Stnd Dev Btwn Labs	0.93	Percent	0.89	Percent

Samples P73, P74 : AISI 1018 (E), AISI 1018 (L)

Statistics based on 68 of 73 reporting participants

Comments on Assigned Data Flags for Test #1124

6M2MZ8 (X) - Data for sample P74 are low.

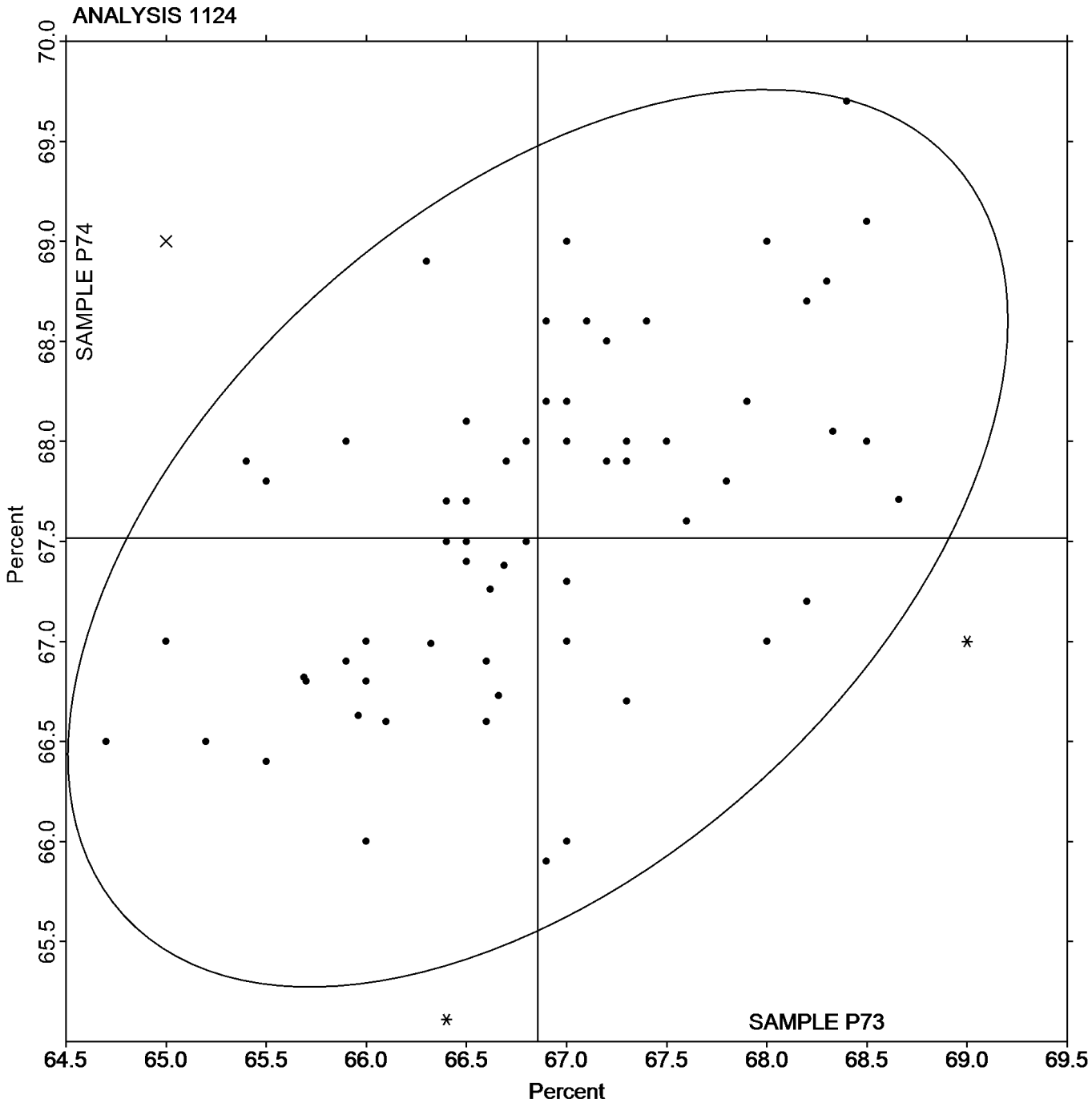
9TC8B9 (X) - Data for sample P74 are low.

M44CLT (X) - Inconsistent in testing between samples.

NGN7FY (X) - Data for both samples are low.

XPT74R (X) - Data for sample P74 are high.

SAMPLE P73	SAMPLE P74
66.86 Percent	67.52 Percent



		Sample N73			Sample N74		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2LFYR2	*	89.90	-0.91	-1.46	94.80	0.59	0.81
2RY3WH		89.80	-1.01	-1.62	93.40	-0.81	-1.12
2WWL4M		90.70	-0.11	-0.18	94.30	0.09	0.12
37GD3K	X	93.30	2.49	3.99	96.80	2.59	3.57
3HATRL		91.24	0.43	0.69	94.92	0.71	0.98
3HTHAG	*	89.38	-1.43	-2.30	94.24	0.03	0.04
3RDXRP		90.60	-0.21	-0.34	93.72	-0.49	-0.68
3U7H7A		91.01	0.20	0.32	94.15	-0.07	-0.09
4HR3GF		90.80	-0.01	-0.02	93.80	-0.41	-0.57
69HX7B		92.12	1.31	2.10	94.94	0.73	1.00
6BKVEH		91.12	0.31	0.49	94.86	0.65	0.89
6DQKE7		91.06	0.25	0.40	94.40	0.19	0.26
6XVWMF		90.50	-0.31	-0.50	94.50	0.29	0.40
8FNJ34		91.16	0.35	0.56	94.46	0.25	0.34
8UAVED		91.32	0.51	0.81	95.62	1.41	1.94
9AZ8H8		90.74	-0.07	-0.12	94.44	0.23	0.31
9NGDD8		90.44	-0.37	-0.60	94.54	0.33	0.45
9TC8B9		90.96	0.15	0.24	94.54	0.33	0.45
BEGJ8K		91.46	0.65	1.04	95.02	0.81	1.11
BRR6LC		91.64	0.83	1.33	94.52	0.31	0.42
BT83DB		90.68	-0.13	-0.21	94.45	0.24	0.33
CTZH2R		91.06	0.25	0.40	94.74	0.53	0.73
E4AWXB		91.60	0.79	1.27	94.83	0.61	0.85
EF8TZD		90.80	-0.01	-0.02	94.42	0.21	0.29
FCHTD2		91.74	0.93	1.49	94.84	0.63	0.87
FQM34W	X	92.10	1.29	2.07	97.00	2.79	3.85
GUZ4J2		92.06	1.25	2.00	95.32	1.11	1.53
GWJCFE	X	86.94	-3.87	-6.21	92.48	-1.73	-2.39
H3P88U		89.82	-0.99	-1.59	93.02	-1.19	-1.65
H9PKXX		90.18	-0.63	-1.01	93.06	-1.15	-1.59
J9V82W		90.98	0.17	0.27	94.74	0.53	0.73
JDZ9XK		90.48	-0.33	-0.53	93.76	-0.45	-0.63
JGP9JV		90.80	-0.01	-0.02	94.32	0.11	0.15
JXAYJV		91.00	0.19	0.30	95.00	0.79	1.09
K8UPHR	X	87.44	-3.37	-5.41	93.00	-1.21	-1.68
L3XPDV		90.70	-0.11	-0.18	93.38	-0.83	-1.15
LHNJYU		90.68	-0.13	-0.21	93.42	-0.79	-1.10
M44CLT		90.52	-0.30	-0.47	93.04	-1.18	-1.62
MCDQH4		90.64	-0.17	-0.28	93.06	-1.15	-1.59
MFHAQX		91.06	0.25	0.40	94.56	0.35	0.48
NH4BAQ		90.72	-0.09	-0.15	94.30	0.09	0.12
NMWT83		90.20	-0.61	-0.98	94.26	0.05	0.06
P66784		89.62	-1.19	-1.91	93.12	-1.09	-1.51
Q7684M		91.22	0.41	0.65	94.02	-0.19	-0.27
QRFJNU		91.26	0.45	0.72	94.96	0.75	1.03
QWAGDK		90.98	0.17	0.27	94.14	-0.07	-0.10
QXM7FX		92.04	1.23	1.97	94.78	0.57	0.78

WebCode	Data Flag	Sample N73 Lab Mean	Sample N73 Diff. from Grand Mean	Sample N73 CPV	Sample N74 Lab Mean	Sample N74 Diff. from Grand Mean	Sample N74 CPV
QY2CYU		90.94	0.13	0.21	94.64	0.43	0.59
RH7GRV		89.84	-0.97	-1.56	92.98	-1.23	-1.70
TAE8CY	X	87.56	-3.25	-5.21	93.74	-0.47	-0.65
UG9YXX		90.36	-0.45	-0.72	92.60	-1.61	-2.23
UJX6DN		90.24	-0.57	-0.92	93.10	-1.11	-1.54

Summary Statistics

	Sample N73		Sample N74	
Grand Means	90.81	HRB	94.21	HRB
Stnd Dev Btwn Labs	0.62	HRB	0.72	HRB

Samples N73, N74 : Brass, Steel

Statistics based on 47 of 52 reporting participants

Comments on Assigned Data Flags for Test #1302

37GD3K (X) - Data for both samples are high.

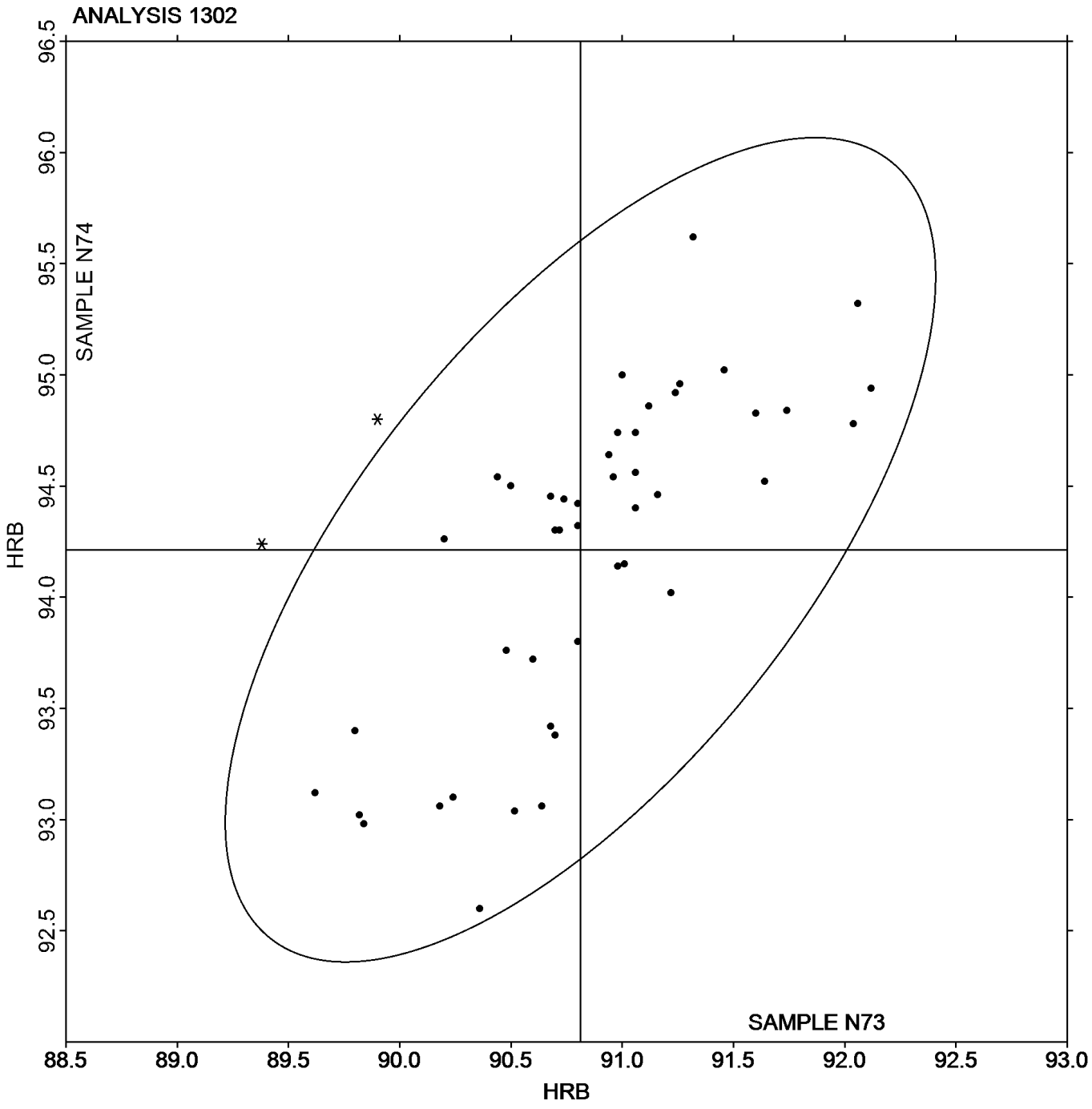
FQM34W (X) - Data for sample N74 are high.

GWJCFE (X) - Data for sample N73 are low.

K8UPHR (X) - Data for sample N73 are low.

TAE8CY (X) - Data for sample N73 are low.

SAMPLE N73	SAMPLE N74
90.81 HRB	94.21 HRB



		Sample S73			Sample S74		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2MQENN		442.20	-9.66	-0.74	518.40	-10.03	-0.68
2NZNCE		442.40	-9.46	-0.73	517.20	-11.23	-0.76
2PVJNP		440.28	-11.58	-0.89	511.40	-17.02	-1.16
2QPZBK		461.80	9.94	0.76	523.20	-5.23	-0.35
2RY3WH		468.00	16.14	1.24	545.00	16.57	1.13
2U9A4H	X	445.80	-6.06	-0.47	476.24	-52.19	-3.54
3HTHAG	X	404.20	-47.66	-3.67	508.60	-19.83	-1.35
3UK782		448.00	-3.86	-0.30	508.60	-19.83	-1.35
3Y2C4B		465.00	13.14	1.01	535.60	7.17	0.49
4GXCDM		475.40	23.54	1.81	553.80	25.37	1.72
4VRVYC		461.00	9.14	0.70	543.20	14.77	1.00
66DALE		441.40	-10.46	-0.80	520.00	-8.43	-0.57
6BKVEH	*	465.00	13.14	1.01	567.60	39.17	2.66
7BJH7F		446.48	-5.38	-0.41	522.00	-6.43	-0.44
7KKW3M		451.26	-0.60	-0.05	527.40	-1.03	-0.07
7WY34G	*	486.20	34.34	2.64	550.00	21.57	1.47
92MAWA		446.00	-5.86	-0.45	530.00	1.57	0.11
98DJ78		464.88	13.02	1.00	545.44	17.01	1.16
9AXQ9F		424.40	-27.46	-2.11	509.40	-19.03	-1.29
9AZ8H8		463.60	11.74	0.90	537.40	8.97	0.61
9C9BE6		434.90	-16.96	-1.30	521.46	-6.97	-0.47
9CPMWA		448.40	-3.46	-0.27	532.60	4.17	0.28
A8M8K4		445.38	-6.48	-0.50	531.02	2.59	0.18
BAAT6E		443.20	-8.66	-0.67	516.60	-11.83	-0.80
BHK9X9		466.40	14.54	1.12	535.80	7.37	0.50
BZLBED		439.40	-12.46	-0.96	510.40	-18.03	-1.22
D2R83E		452.40	0.54	0.04	523.40	-5.03	-0.34
DMPNJ2		432.80	-19.06	-1.47	527.20	-1.23	-0.08
E4AWXB		454.76	2.90	0.22	522.08	-6.35	-0.43
EREU6G		445.80	-6.06	-0.47	533.40	4.97	0.34
EUMZT4		438.48	-13.38	-1.03	522.18	-6.25	-0.42
FLA4NW		453.20	1.34	0.10	515.24	-13.19	-0.90
FXZA9E		445.33	-6.54	-0.50	528.22	-0.21	-0.01
G7NBCV		466.40	14.54	1.12	538.80	10.37	0.70
H9BA4Y		462.38	10.52	0.81	552.40	23.97	1.63
H9PKXX		449.00	-2.86	-0.22	526.20	-2.23	-0.15
HWYWWW		480.40	28.54	2.19	558.60	30.17	2.05
JDZ9XK		430.80	-21.06	-1.62	504.40	-24.03	-1.63
JGP9JV		449.40	-2.46	-0.19	525.60	-2.83	-0.19
JXAYJV		433.00	-18.86	-1.45	503.00	-25.43	-1.73
K4Q4KU		438.06	-13.80	-1.06	502.44	-25.99	-1.77
K4UEMR		449.40	-2.46	-0.19	551.00	22.57	1.53
KQAYJT		440.62	-11.24	-0.86	530.54	2.11	0.14
L2EVLT		444.40	-7.46	-0.57	524.40	-4.03	-0.27
L44246		453.20	1.34	0.10	516.80	-11.63	-0.79
LCYVMW		433.54	-18.32	-1.41	532.30	3.87	0.26
LFH6FV		450.60	-1.26	-0.10	534.20	5.77	0.39

Fasteners and Metals Interlaboratory Testing Program

Analysis 1321

Microhardness: Knoop Indenters (500 gf)
ASTM E384

		Sample S73			Sample S74		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
MT7C9P		438.00	-13.86	-1.07	507.60	-20.83	-1.41
NEF9T4		457.00	5.14	0.40	522.00	-6.43	-0.44
NGMG7V		445.80	-6.06	-0.47	535.40	6.97	0.47
NH4BAQ		466.00	14.14	1.09	548.00	19.57	1.33
P6N3LP		477.40	25.54	1.96	536.80	8.37	0.57
PU8DRP		435.80	-16.06	-1.24	513.20	-15.23	-1.03
Q23HCE		444.88	-6.98	-0.54	518.50	-9.93	-0.67
RBN2AJ		447.60	-4.26	-0.33	519.20	-9.23	-0.63
RCZMXZ		449.40	-2.46	-0.19	528.80	0.37	0.03
REP64R		468.20	16.34	1.26	539.00	10.57	0.72
RKRCJU		445.60	-6.26	-0.48	516.40	-12.03	-0.82
RNAM8X		476.00	24.14	1.86	545.20	16.77	1.14
RU2NVR		452.40	0.54	0.04	542.00	13.57	0.92
RUKGNN		466.00	14.14	1.09	537.80	9.37	0.64
RXF66V		458.80	6.94	0.53	521.60	-6.83	-0.46
T2YNUK		457.40	5.54	0.43	535.00	6.57	0.45
TD6UDX	*	486.60	34.74	2.67	547.38	18.95	1.29
TDRCJR		449.60	-2.26	-0.17	515.94	-12.48	-0.85
TZLZAK		462.00	10.14	0.78	544.40	15.97	1.09
U74TYP		435.20	-16.66	-1.28	508.28	-20.15	-1.37
UA9C8J		452.40	0.54	0.04	520.20	-8.23	-0.56
V4VA3Z		447.00	-4.86	-0.37	536.00	7.57	0.51
VC7GVM		447.20	-4.66	-0.36	525.40	-3.03	-0.21
VDGDBZ		446.60	-5.26	-0.40	509.80	-18.63	-1.27
VYZ9CK		455.80	3.94	0.30	530.20	1.77	0.12
WGAUZY		449.40	-2.46	-0.19	537.40	8.97	0.61
WPCT6V		448.50	-3.36	-0.26	527.58	-0.85	-0.06
XPT74R		454.80	2.94	0.23	528.40	-0.03	0.00
YH7XYR		440.00	-11.86	-0.91	505.80	-22.63	-1.54
YHJHEV		457.44	5.58	0.43	540.76	12.33	0.84
ZTL83C		459.40	7.54	0.58	558.40	29.97	2.04
ZTYRHF		440.20	-11.66	-0.90	500.40	-28.03	-1.90

Summary Statistics

	Sample S73		Sample S74	
Grand Means	451.86	HK 500 gf	528.43	HK 500 gf
Stnd Dev Btwn Labs	13.00	HK 500 gf	14.72	HK 500 gf

Samples S73, S74 : Steel, Steel

Statistics based on 77 of 79 reporting participants

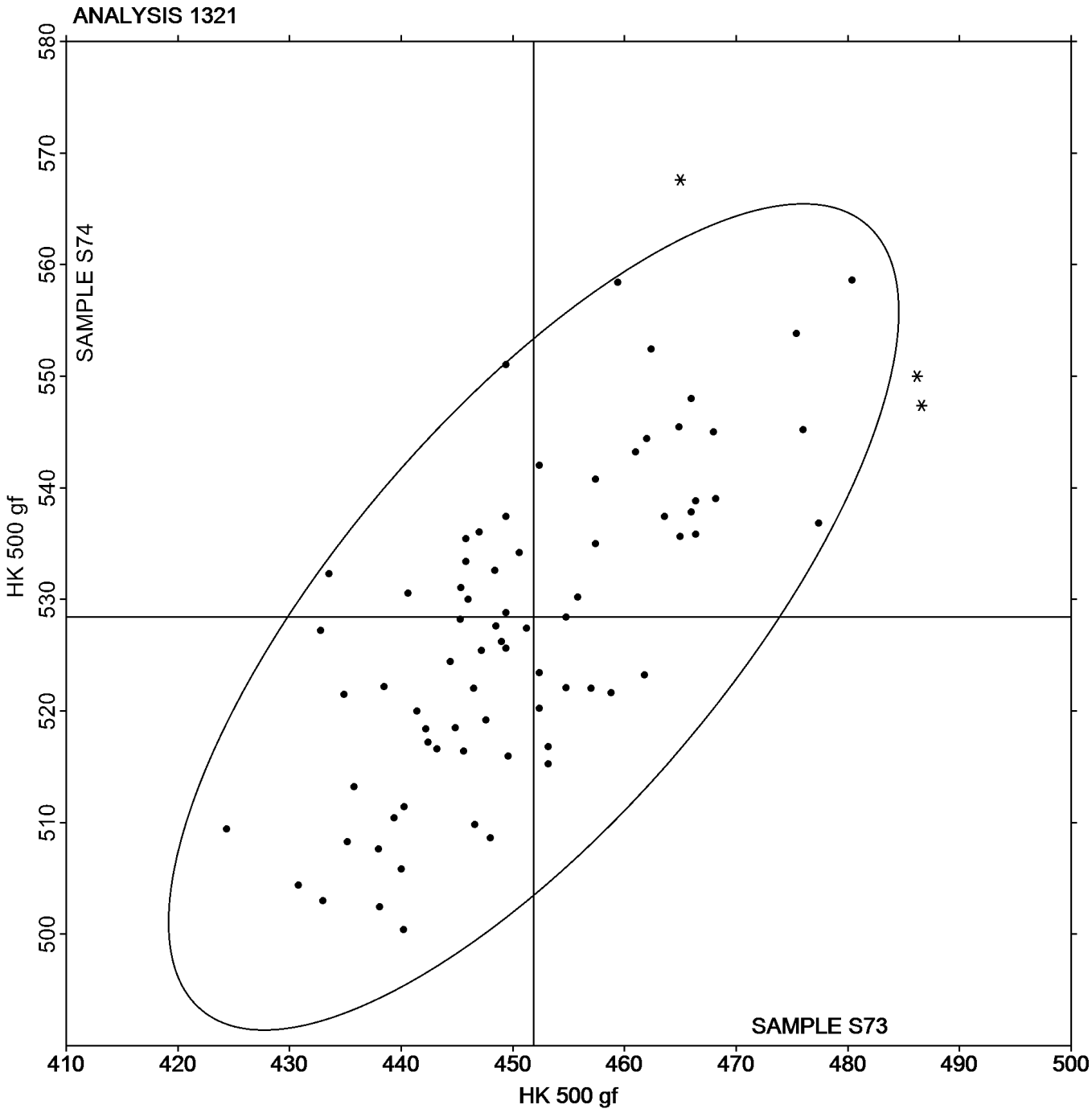
Comments on Assigned Data Flags for Test #1321

2U9A4H (X) - Data for sample S74 are low.

3HTHAG (X) - Data for sample S73 are low. Inconsistent within the determinations of sample S74.

SAMPLE S73
451.86 HK 500 gf

SAMPLE S74
528.43 HK 500 gf



		Sample S73			Sample S74		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2PVJNP		464.20	0.96	0.07	527.39	-13.41	-0.78
2QPZBK		468.20	4.96	0.35	532.20	-8.60	-0.50
2RY3WH		486.20	22.96	1.62	560.00	19.20	1.12
3UK782		456.60	-6.64	-0.47	515.20	-25.60	-1.49
3Y2C4B	*	498.80	35.56	2.50	558.00	17.20	1.00
4GXCDM	X	504.20	40.96	2.89	625.40	84.60	4.92
66DALE		458.00	-5.24	-0.37	532.80	-8.00	-0.47
6BKVEH		479.80	16.56	1.17	566.40	25.60	1.49
7BJH7F		444.32	-18.92	-1.33	532.46	-8.34	-0.49
7KKW3M		448.44	-14.80	-1.04	539.62	-1.18	-0.07
92MAWA		460.60	-2.64	-0.19	533.60	-7.20	-0.42
9AXQ9F		452.20	-11.04	-0.78	532.00	-8.80	-0.51
9C9BE6		469.16	5.92	0.42	539.30	-1.50	-0.09
9CPMWA		473.80	10.56	0.74	550.80	10.00	0.58
A8M8K4		467.74	4.50	0.32	533.96	-6.84	-0.40
D2R83E		469.00	5.76	0.41	536.20	-4.60	-0.27
DMPNJ2	*	430.20	-33.04	-2.33	533.60	-7.20	-0.42
E4AWXB		453.02	-10.22	-0.72	532.16	-8.64	-0.50
FLA4NW		460.66	-2.58	-0.18	520.28	-20.52	-1.19
FXZA9E		466.68	3.44	0.24	547.60	6.80	0.40
G7NBCV		458.00	-5.24	-0.37	539.80	-1.00	-0.06
H9BA4Y	*	476.46	13.22	0.93	581.56	40.76	2.37
H9PKXX		473.00	9.76	0.69	548.00	7.20	0.42
JXAYJV		449.00	-14.24	-1.00	525.00	-15.80	-0.92
K4UEMR		484.60	21.36	1.50	576.60	35.80	2.08
L2EVLT		452.20	-11.04	-0.78	532.20	-8.60	-0.50
L44246		457.20	-6.04	-0.43	532.80	-8.00	-0.47
LFH6FV		466.40	3.16	0.22	552.40	11.60	0.67
NEF9T4		469.20	5.96	0.42	544.20	3.40	0.20
NH4BAQ		492.20	28.96	2.04	568.60	27.80	1.62
Q23HCE		448.68	-14.56	-1.03	516.40	-24.40	-1.42
RBN2AJ		456.80	-6.44	-0.45	525.00	-15.80	-0.92
RCZMXZ		458.00	-5.24	-0.37	524.60	-16.20	-0.94
RKRCJU		447.40	-15.84	-1.12	519.20	-21.60	-1.26
RNAM8X		480.00	16.76	1.18	566.00	25.20	1.47
RXF66V		470.80	7.56	0.53	534.00	-6.80	-0.40
T2YNUK		464.00	0.76	0.05	543.20	2.40	0.14
TZLZAK		492.60	29.36	2.07	579.60	38.80	2.26
U74TYP		449.32	-13.92	-0.98	535.04	-5.76	-0.33
UA9C8J		458.00	-5.24	-0.37	521.00	-19.80	-1.15
V4VA3Z		471.00	7.76	0.55	548.80	8.00	0.47
VC7GVM		452.60	-10.64	-0.75	527.20	-13.60	-0.79
VYZ9CK		467.40	4.16	0.29	552.20	11.40	0.66
WGAUZY		451.20	-12.04	-0.85	543.20	2.40	0.14
WPCT6V		435.88	-27.36	-1.93	534.62	-6.18	-0.36
XPT74R		457.20	-6.04	-0.43	528.20	-12.60	-0.73
YH7XYR		456.40	-6.84	-0.48	514.60	-26.20	-1.52

Analysis 1322

Microhardness: Knoop Indenters (200 gf)
ASTM E384

WebCode	Data Flag	Sample S73 Lab Mean	Sample S73 Diff. from Grand Mean	Sample S73 CPV	Sample S74 Lab Mean	Sample S74 Diff. from Grand Mean	Sample S74 CPV
YHJHEV		461.24	-2.00	-0.14	553.02	12.22	0.71
ZTL83C		471.20	7.96	0.56	567.80	27.00	1.57

Summary Statistics

	Sample S73		Sample S74	
Grand Means	463.24	HK 200 gf	540.80	HK 200 gf
Stnd Dev Btwn Labs	14.20	HK 200 gf	17.20	HK 200 gf

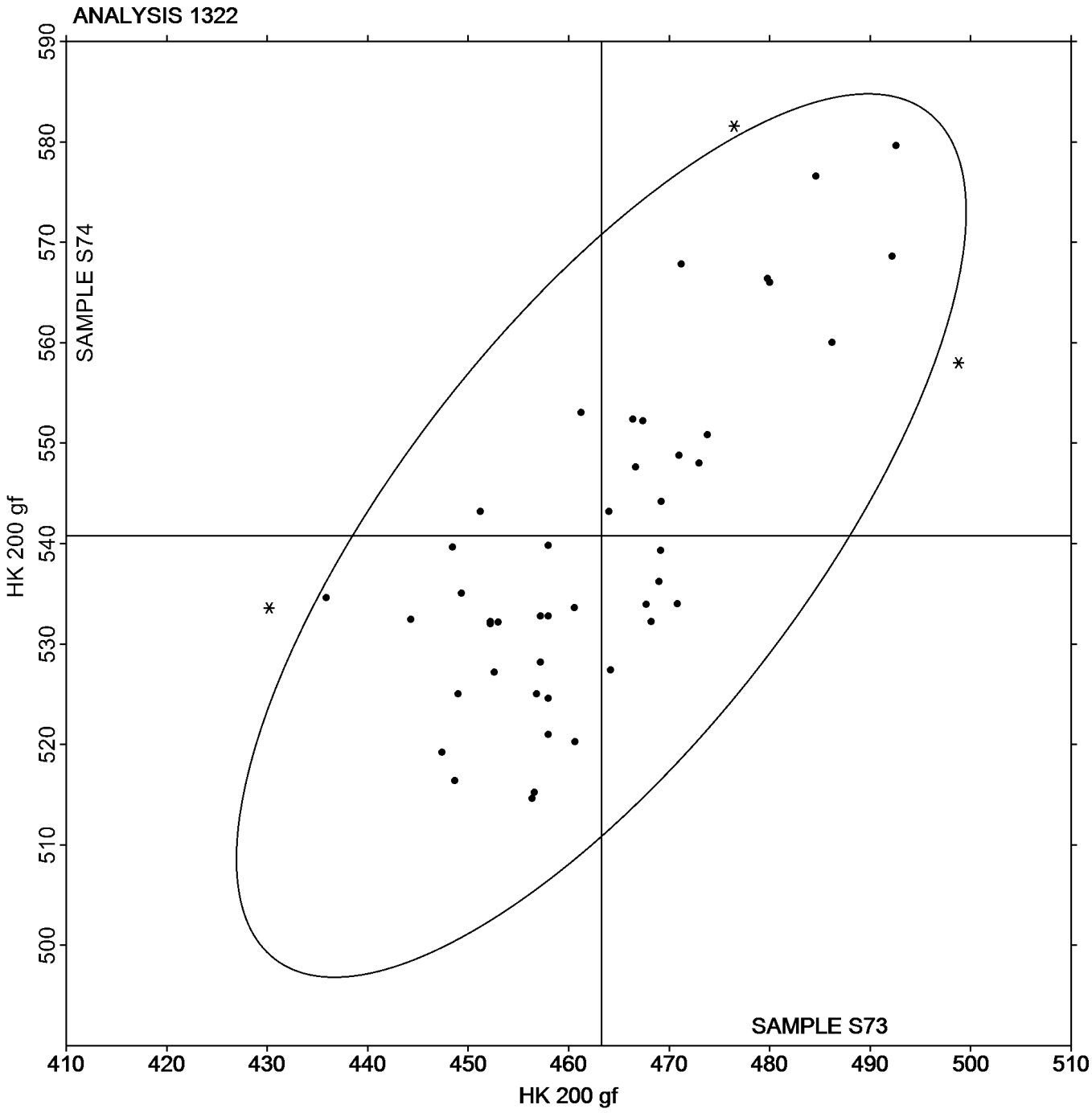
Samples S73, S74 : Steel, Steel

Statistics based on 48 of 49 reporting participants

Comments on Assigned Data Flags for Test #1322

4GXCDM (X) - Data for both samples are high.

SAMPLE S73	SAMPLE S74
463.24 HK 200 gf	540.80 HK 200 gf



		Sample S73			Sample S74		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2BZPNH		435.80	2.21	0.19	519.80	6.55	0.50
2NZNCE		426.20	-7.39	-0.63	503.40	-9.85	-0.75
2QPZBK		440.00	6.41	0.54	512.20	-1.05	-0.08
2RY3WH		439.60	6.01	0.51	521.40	8.15	0.62
33G28K		438.80	5.21	0.44	537.60	24.35	1.85
3UK782		432.20	-1.39	-0.12	502.20	-11.05	-0.84
3Y2C4B		434.20	0.61	0.05	521.80	8.55	0.65
42Z6EL		429.20	-4.39	-0.37	510.00	-3.25	-0.25
4CG3UP		431.20	-2.39	-0.20	503.60	-9.65	-0.73
4GXCDM		436.00	2.41	0.20	527.20	13.95	1.06
66DALE		434.20	0.61	0.05	514.80	1.55	0.12
6BKVEH	*	446.20	12.61	1.07	546.00	32.75	2.49
6DQKE7		423.08	-10.51	-0.89	509.94	-3.31	-0.25
6N938D		445.94	12.35	1.05	539.06	25.81	1.96
6PPYZC		453.82	20.23	1.71	543.30	30.05	2.28
7BJH7F		426.36	-7.23	-0.61	499.96	-13.29	-1.01
7KKW3M		432.80	-0.79	-0.07	506.60	-6.65	-0.51
92MAWA	*	412.20	-21.39	-1.81	515.40	2.15	0.16
9AXQ9F		415.40	-18.19	-1.54	508.60	-4.65	-0.35
9C9BE6	X	436.64	3.05	0.26	486.02	-27.23	-2.07
9CPMWA		426.60	-6.99	-0.59	498.80	-14.45	-1.10
A8M8K4		428.62	-4.97	-0.42	501.54	-11.71	-0.89
A9LBEE		418.60	-14.99	-1.27	506.80	-6.45	-0.49
APN27H		436.60	3.01	0.26	510.86	-2.39	-0.18
ATMFQM		452.20	18.61	1.58	527.60	14.35	1.09
AZ7C6A		428.00	-5.59	-0.47	511.80	-1.45	-0.11
BAAT6E		409.00	-24.59	-2.08	490.00	-23.25	-1.77
BHK9X9		437.40	3.81	0.32	518.60	5.35	0.41
BZLBED		434.20	0.61	0.05	517.20	3.95	0.30
CBGNA4		436.88	3.29	0.28	498.32	-14.93	-1.13
CHBZXJ	*	404.60	-28.99	-2.45	481.40	-31.85	-2.42
CQAFV4		436.42	2.83	0.24	508.84	-4.41	-0.34
D2R83E		429.00	-4.59	-0.39	511.80	-1.45	-0.11
DG97AZ		449.20	15.61	1.32	534.60	21.35	1.62
DJ6W9Y		425.80	-7.79	-0.66	497.40	-15.85	-1.20
DJUWB6	*	403.20	-30.39	-2.57	492.40	-20.85	-1.58
DMPNJ2		427.80	-5.79	-0.49	497.40	-15.85	-1.20
E4AWXB		429.46	-4.13	-0.35	513.44	0.19	0.01
EUMZT4		429.50	-4.09	-0.35	518.28	5.03	0.38
EYHK6Z		437.20	3.61	0.31	526.20	12.95	0.98
FDRUZZ		440.60	7.01	0.59	514.20	0.95	0.07
FEKZ8E		452.02	18.43	1.56	534.13	20.88	1.59
FLA4NW		430.82	-2.77	-0.23	505.60	-7.65	-0.58
FXZA9E		417.48	-16.10	-1.36	504.71	-8.54	-0.65
G7NBCV		437.60	4.01	0.34	526.80	13.55	1.03
GNQVC6		437.00	3.41	0.29	516.40	3.15	0.24
H3P88U		433.40	-0.19	-0.02	504.60	-8.65	-0.66

		Sample S73			Sample S74		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
H743FC		416.60	-16.99	-1.44	494.60	-18.65	-1.42
H9PKXX		424.20	-9.39	-0.79	506.20	-7.05	-0.54
HA64HU		444.16	10.57	0.90	526.51	13.26	1.01
HXQXU8		443.54	9.95	0.84	522.44	9.19	0.70
JAZX2K		445.40	11.81	1.00	540.80	27.55	2.09
JDZ9XK		430.80	-2.79	-0.24	504.40	-8.85	-0.67
JGP9JV		437.60	4.01	0.34	522.80	9.55	0.73
JWACBV		435.64	2.05	0.17	518.68	5.43	0.41
JXAYJV		419.00	-14.59	-1.24	496.00	-17.25	-1.31
JYK7FW		429.60	-3.99	-0.34	504.40	-8.85	-0.67
K4UEMR		428.60	-4.99	-0.42	502.60	-10.65	-0.81
K7XJRZ		429.60	-3.99	-0.34	507.40	-5.85	-0.44
K8UPHR		425.80	-7.79	-0.66	508.40	-4.85	-0.37
KQAYJT		428.64	-4.95	-0.42	514.14	0.89	0.07
L2EVLT		433.80	0.21	0.02	517.20	3.95	0.30
L44246		428.20	-5.39	-0.46	513.20	-0.05	0.00
LCYVMW		420.46	-13.13	-1.11	493.66	-19.59	-1.49
LFH6FV		434.80	1.21	0.10	523.20	9.95	0.76
M44CLT		436.84	3.25	0.28	515.08	1.83	0.14
MT7C9P		432.60	-0.99	-0.08	509.80	-3.45	-0.26
NDN3LQ		448.40	14.81	1.25	513.20	-0.05	0.00
NEF9T4		433.60	0.01	0.00	521.40	8.15	0.62
NH4BAQ	X	440.00	6.41	0.54	432.00	-81.25	-6.17
NXQZXR		426.82	-6.77	-0.57	510.80	-2.45	-0.19
P6N3LP		445.80	12.21	1.03	509.00	-4.25	-0.32
PU8DRP		420.00	-13.59	-1.15	504.20	-9.05	-0.69
Q8RX6R	X	437.00	3.41	0.29	547.40	34.15	2.59
QC7TLP		421.60	-11.99	-1.01	521.40	8.15	0.62
QMNC6L		431.80	-1.79	-0.15	512.80	-0.45	-0.03
RBN2AJ		427.20	-6.39	-0.54	505.40	-7.85	-0.60
RCZMXZ		426.40	-7.19	-0.61	501.40	-11.85	-0.90
RE6FRX		459.60	26.01	2.20	543.08	29.83	2.27
REP64R		449.60	16.01	1.36	522.60	9.35	0.71
RH7GRV		417.26	-16.33	-1.38	493.84	-19.41	-1.47
RKRCJU		442.00	8.41	0.71	519.00	5.75	0.44
RNAM8X		453.00	19.41	1.64	531.00	17.75	1.35
RU2NVR		440.60	7.01	0.59	524.20	10.95	0.83
RVYUGR		419.92	-13.67	-1.16	483.80	-29.45	-2.24
RXF66V		438.80	5.21	0.44	502.20	-11.05	-0.84
T2YNUK		438.59	5.00	0.42	512.80	-0.45	-0.03
TD6UDX	X	444.10	10.51	0.89	563.54	50.29	3.82
TDRCJR		431.26	-2.33	-0.20	507.39	-5.86	-0.44
TQWE6L		440.80	7.21	0.61	522.00	8.75	0.66
TZLZAK		433.20	-0.39	-0.03	516.40	3.15	0.24
U2AY2N		456.60	23.01	1.95	530.00	16.75	1.27
U7A3VV	*	456.94	23.35	1.98	516.84	3.59	0.27
UA9C8J		434.40	0.81	0.07	509.20	-4.05	-0.31

Analysis 1323

Microhardness: Vickers Indenters (500 gf)
ASTM E384

		Sample S73			Sample S74		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
UMVQZK	*	467.60	34.01	2.88	538.60	25.35	1.93
UQ8NKZ		441.60	8.01	0.68	535.00	21.75	1.65
V4VA3Z		430.00	-3.59	-0.30	503.40	-9.85	-0.75
V977ZM		429.20	-4.39	-0.37	510.80	-2.45	-0.19
VC7GVM		438.00	4.41	0.37	510.40	-2.85	-0.22
VCNHNR		434.36	0.77	0.07	515.44	2.19	0.17
VDGDBZ		422.60	-10.99	-0.93	498.00	-15.25	-1.16
VYZ9CK		435.00	1.41	0.12	517.00	3.75	0.28
W7MADH		424.64	-8.95	-0.76	498.74	-14.51	-1.10
WGAUZY		432.40	-1.19	-0.10	516.40	3.15	0.24
XPT74R		440.00	6.41	0.54	513.40	0.15	0.01
Y7W33G		453.40	19.81	1.68	526.86	13.61	1.03
YDAB4J	*	461.60	28.01	2.37	522.60	9.35	0.71
YH7XYR		416.80	-16.79	-1.42	494.00	-19.25	-1.46
YHJHEV		436.58	2.99	0.25	521.88	8.63	0.66
ZTYRHF		414.00	-19.59	-1.66	494.20	-19.05	-1.45

Summary Statistics

	Sample S73		Sample S74	
Grand Means	433.59	HV 500 gf	513.25	HV 500 gf
Stnd Dev Btwn Labs	11.81	HV 500 gf	13.17	HV 500 gf

Samples S73, S74 : Steel, Steel

Statistics based on 106 of 110 reporting participants

Comments on Assigned Data Flags for Test #1323

9C9BE6 (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample S74.

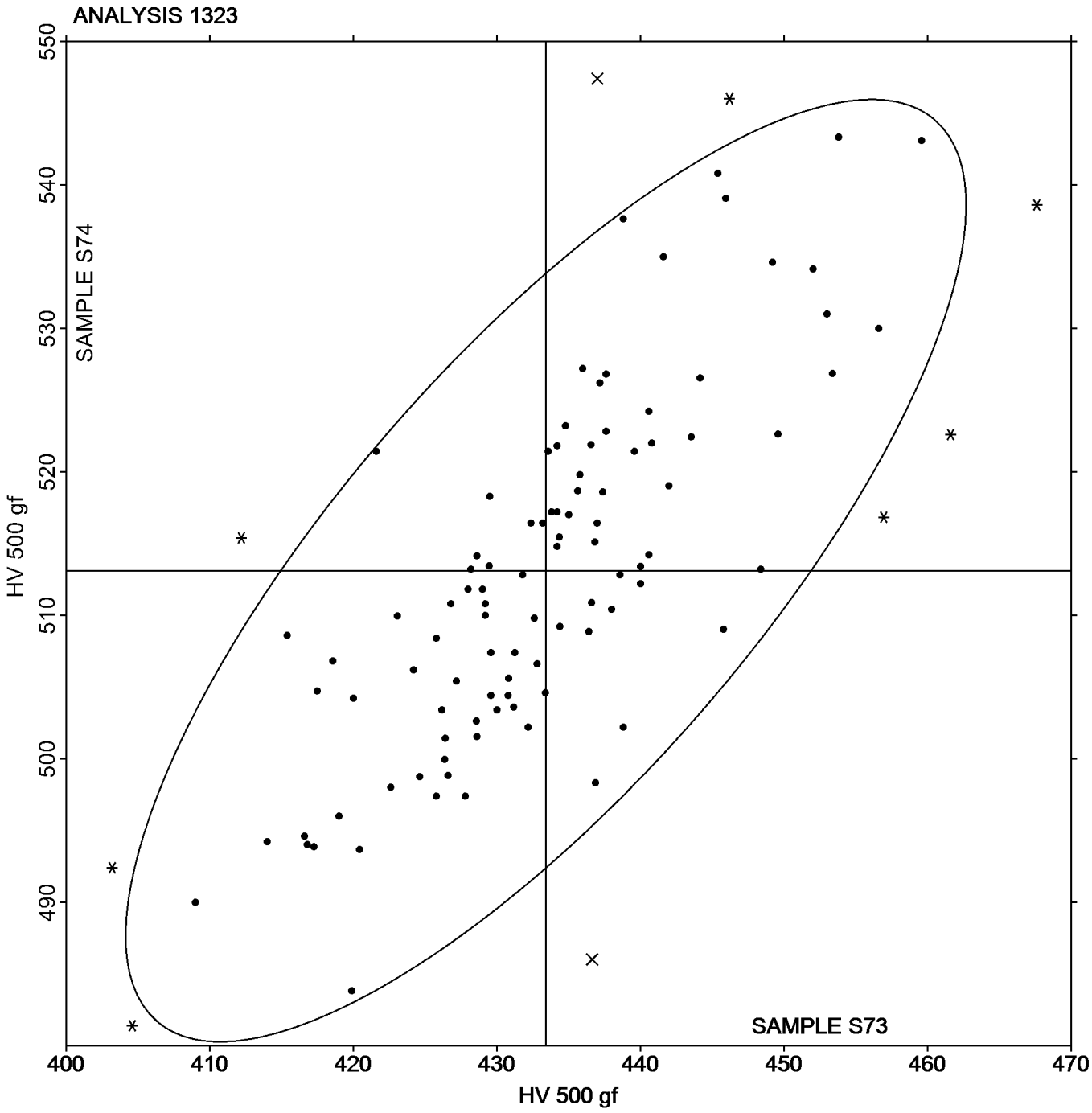
NH4BAQ (X) - Data for sample S74 are low.

Q8RX6R (X) - Inconsistent in testing between samples.

TD6UDX (X) - Data for sample S74 are high. Inconsistent within the determinations of sample S74.

SAMPLE S73
433.59 HV 500 gf

SAMPLE S74
513.25 HV 500 gf



		Sample D73			Sample D74		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2NZNCE		404.00	1.00	0.14	429.60	-0.27	-0.03
2Q9QCR		393.80	-9.20	-1.25	424.80	-5.07	-0.60
2RY3WH		401.20	-1.80	-0.24	427.80	-2.07	-0.25
3Y2C4B		400.00	-3.00	-0.41	429.40	-0.47	-0.06
3YGVN9		409.00	6.00	0.82	437.60	7.73	0.92
44R24E		410.80	7.80	1.06	441.00	11.13	1.33
4GXCDM		390.40	-12.60	-1.71	411.20	-18.67	-2.23
4PPLTJ		400.40	-2.60	-0.35	422.88	-6.99	-0.83
6DQKE7		405.50	2.50	0.34	429.80	-0.07	-0.01
6XVWMF		393.00	-10.00	-1.36	420.00	-9.87	-1.18
737A6E		399.60	-3.40	-0.46	423.00	-6.87	-0.82
7BJH7F		403.20	0.20	0.03	436.80	6.93	0.83
8DGCEH		411.76	8.76	1.19	444.54	14.67	1.75
8PVBEJ		415.00	12.00	1.63	441.00	11.13	1.33
92MAWA		392.20	-10.80	-1.47	414.00	-15.87	-1.89
9AXQ9F		401.50	-1.50	-0.20	423.46	-6.41	-0.76
9CPMWA		408.00	5.00	0.68	438.40	8.53	1.02
A49BF3	X	444.00	41.00	5.57	415.00	-14.87	-1.77
A8M8K4		404.40	1.40	0.19	428.40	-1.47	-0.17
BAAT6E	X	409.00	6.00	0.82	420.60	-9.27	-1.11
BE37UA	X	388.00	-15.00	-2.04	401.00	-28.87	-3.44
BT83DB		403.40	0.40	0.05	432.60	2.73	0.33
BZLBED		403.20	0.20	0.03	425.40	-4.47	-0.53
CR2L3H		391.40	-11.60	-1.58	426.00	-3.87	-0.46
CRMZNE		403.00	0.00	0.00	430.00	0.13	0.02
CTZH2R		401.20	-1.80	-0.24	428.40	-1.47	-0.17
CXXYF8		405.00	2.00	0.27	434.60	4.73	0.56
E3GZB3		390.80	-12.20	-1.66	412.60	-17.27	-2.06
FEKZ8E		411.40	8.40	1.14	444.00	14.13	1.69
FTP2X3		397.98	-5.02	-0.68	425.34	-4.53	-0.54
FXZA9E		398.35	-4.65	-0.63	421.53	-8.33	-0.99
H3P88U		395.80	-7.20	-0.98	429.60	-0.27	-0.03
H9PKXX		403.20	0.20	0.03	427.80	-2.07	-0.25
HWYWWW		403.80	0.80	0.11	432.00	2.13	0.25
JGP9JV		400.50	-2.50	-0.34	433.50	3.63	0.43
JPUCD8	X	426.66	23.66	3.22	468.64	38.77	4.62
KAVZ4U		413.80	10.80	1.47	442.80	12.93	1.54
KK3H2R		398.20	-4.80	-0.65	429.00	-0.87	-0.10
KNY28W		400.41	-2.59	-0.35	423.87	-5.99	-0.71
LFH6FV		401.00	-2.00	-0.27	428.40	-1.47	-0.17
M44CLT		404.12	1.12	0.15	432.72	2.85	0.34
MFHAQX		401.00	-2.00	-0.27	429.00	-0.87	-0.10
MHK82P		406.20	3.20	0.44	426.80	-3.07	-0.37
N9T9NP		406.60	3.60	0.49	429.00	-0.87	-0.10
NEF9T4		403.00	0.00	0.00	426.40	-3.47	-0.41
NQPLB6		409.00	6.00	0.82	429.00	-0.87	-0.10
NR7QYV	*	418.00	15.00	2.04	435.60	5.73	0.68

WebCode	Data Flag	Sample D73 Lab Mean	Sample D73 Diff. from Grand Mean	Sample D73 CPV	Sample D74 Lab Mean	Sample D74 Diff. from Grand Mean	Sample D74 CPV
NVN3MY		415.00	12.00	1.63	444.00	14.13	1.69
P6N3LP		402.80	-0.20	-0.03	431.00	1.13	0.14
QRYCE7		406.60	3.60	0.49	429.00	-0.87	-0.10
QX2LKY		402.58	-0.42	-0.06	431.88	2.01	0.24
QY2CYU		401.00	-2.00	-0.27	429.00	-0.87	-0.10
RBN2AJ		407.20	4.20	0.57	436.40	6.53	0.78
RNAM8X		399.40	-3.60	-0.49	424.60	-5.27	-0.63
RYR6Y6		405.20	2.20	0.30	426.00	-3.87	-0.46
T2YNUK		412.20	9.20	1.25	444.00	14.13	1.69
TD6UDX	*	383.92	-19.08	-2.59	411.60	-18.27	-2.18
TY8WFT		415.00	12.00	1.63	441.00	11.13	1.33
TZLZAK		388.00	-15.00	-2.04	420.60	-9.27	-1.11
UUTFJA		402.00	-1.00	-0.14	429.20	-0.67	-0.08
VDGDBZ		395.20	-7.80	-1.06	414.40	-15.47	-1.84
VLGL7T		409.20	6.20	0.84	431.20	1.33	0.16
VTA6V2	X	362.20	-40.80	-5.55	397.20	-32.67	-3.90
VYZ9CK		397.40	-5.60	-0.76	424.60	-5.27	-0.63
WX48PT	*	404.20	1.20	0.16	443.80	13.93	1.66
XLB42T	*	423.00	20.00	2.72	448.00	18.13	2.16
ZTYRHF		402.00	-1.00	-0.14	431.80	1.93	0.23

Summary Statistics

	Sample D73		Sample D74	
Grand Means	403.00	HBW	429.87	HBW
Stnd Dev Btwn Labs	7.36	HBW	8.39	HBW

Samples D73, D74 : Steel, Steel

Statistics based on 62 of 67 reporting participants

Samples D73, D74 are hardness test blocks made from steel. The blocks are heat treated to hardness levels specified by CTS.

Comments on Assigned Data Flags for Test #1341

A49BF3 (X) - Data for sample D73 are high.

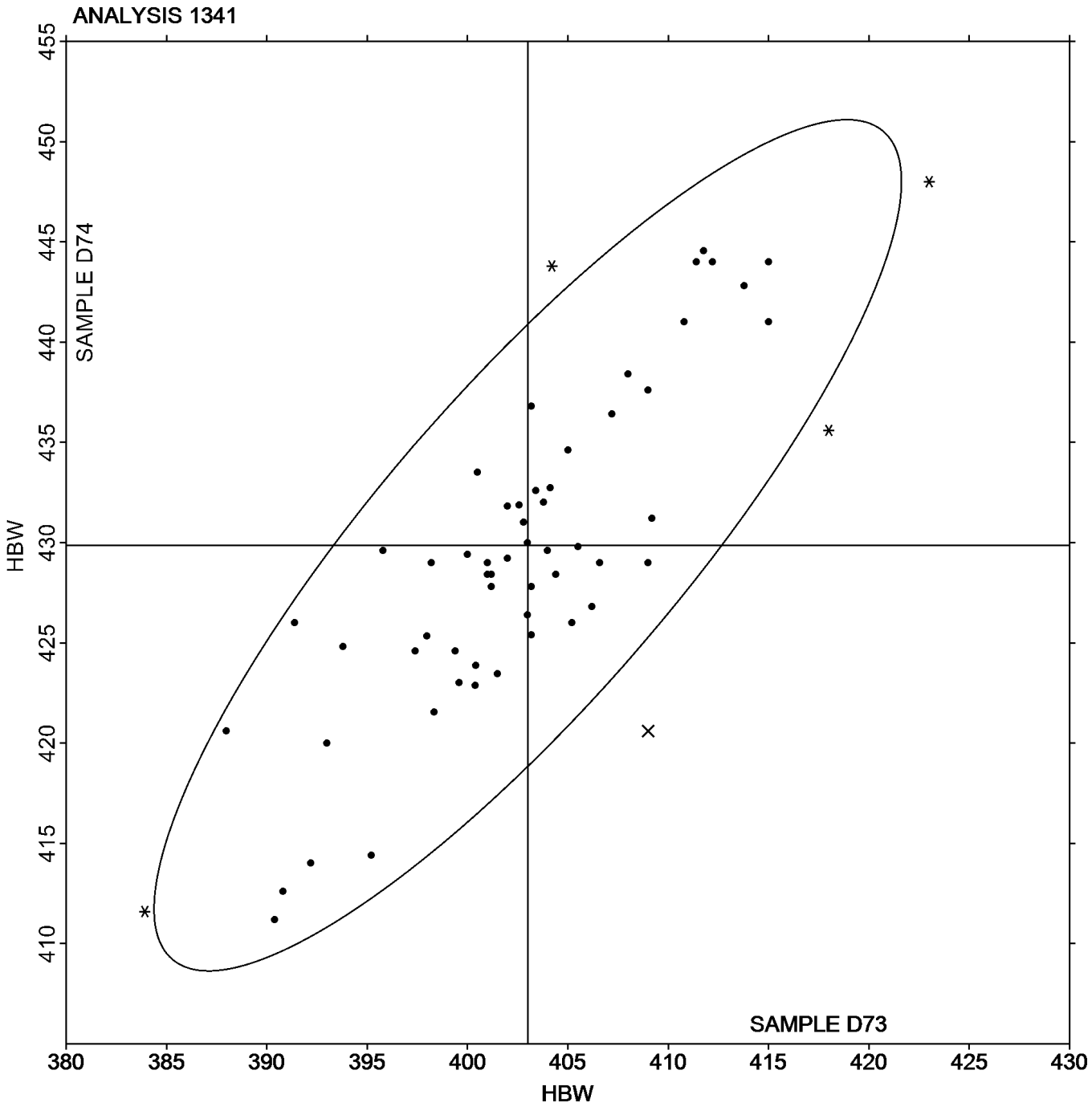
BAAT6E (X) - Inconsistent in testing between samples.

BE37UA (X) - Data for sample D74 are low.

JPUCD8 (X) - Data for both samples are high. Possible Systematic Error.

VTA6V2 (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of both samples.

SAMPLE D73	SAMPLE D74
403.00 HBW	429.87 HBW



		Sample L73			Sample L74			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
28CDPC		0.5160	0.0044	0.42	0.5007	-0.0027	-0.27	OE
29N9AH		0.5040	-0.0076	-0.72	0.4890	-0.0143	-1.47	XX
2CNJ6H		0.4980	-0.0136	-1.29	0.4970	-0.0063	-0.65	XX
2NZNCE		0.5107	-0.0009	-0.08	0.5040	0.0007	0.07	CO
3268ME		0.5130	0.0014	0.14	0.5030	-0.0003	-0.03	CI
3JJVNT		0.5347	0.0231	2.20	0.5222	0.0188	1.93	OE
3RU62D		0.5200	0.0084	0.80	0.5130	0.0097	0.99	CO
3YGVN9		0.4927	-0.0189	-1.79	0.4830	-0.0203	-2.08	OE
44R24E		0.5110	-0.0006	-0.05	0.4903	-0.0130	-1.33	CO
4CG3UP		0.4940	-0.0176	-1.67	0.4970	-0.0063	-0.65	CI
4JYCJL		0.5017	-0.0099	-0.94	0.4947	-0.0087	-0.89	OE
4PPLTJ		0.5080	-0.0036	-0.34	0.4980	-0.0053	-0.55	OE
6DR6GN	X	0.4883	-0.0232	-2.20	0.4703	-0.0330	-3.38	XX
6DRDDE		0.5155	0.0040	0.38	0.5078	0.0044	0.45	OE
6M3FYE		0.5197	0.0081	0.77	0.4943	-0.0090	-0.92	OE
6R9D4D		0.4898	-0.0217	-2.06	0.4940	-0.0094	-0.96	OE
6YLBMQ		0.5213	0.0098	0.93	0.5211	0.0178	1.82	OE
737A6E		0.4992	-0.0124	-1.18	0.4899	-0.0134	-1.37	OE
7BJH7F	*	0.5310	0.0194	1.85	0.5020	-0.0013	-0.14	GD
829FKF		0.5133	0.0018	0.17	0.5033	0.0000	0.00	XX
8LGLBA		0.5177	0.0061	0.58	0.5040	0.0007	0.07	OE
8UAVED		0.5183	0.0068	0.64	0.5127	0.0093	0.95	OE
8WCWEB		0.5263	0.0148	1.40	0.5050	0.0017	0.17	CO
94PD2G		0.5200	0.0084	0.80	0.5100	0.0067	0.68	OE
9CPMWA		0.5057	-0.0059	-0.56	0.4957	-0.0077	-0.78	CI
9GYU8L		0.4967	-0.0149	-1.41	0.4833	-0.0200	-2.05	OE
9KEBRC		0.5108	-0.0007	-0.07	0.5014	-0.0019	-0.20	OE
9NGDD8	X	0.5606	0.0490	4.66	0.5658	0.0625	6.39	OE
9TC8B9		0.4960	-0.0156	-1.48	0.5043	0.0010	0.10	OE
A9LBEE		0.5103	-0.0012	-0.12	0.5020	-0.0013	-0.14	CI
ALT2E2		0.5105	-0.0010	-0.10	0.4936	-0.0098	-1.00	OE
APN27H		0.5107	-0.0009	-0.08	0.4967	-0.0067	-0.68	OE
B9Y6P9		0.5034	-0.0081	-0.77	0.4859	-0.0174	-1.78	OE
B9YZF7		0.5127	0.0011	0.11	0.5050	0.0017	0.17	OE
BABWKB		0.5185	0.0069	0.66	0.5093	0.0060	0.61	CI
BCT89E		0.5193	0.0077	0.73	0.5186	0.0153	1.56	OE
BEGJ8K		0.5190	0.0074	0.71	0.5073	0.0040	0.41	OE
BZLBED		0.5077	-0.0039	-0.37	0.5007	-0.0027	-0.27	OE
E6MD3C		0.5233	0.0118	1.12	0.5133	0.0100	1.02	OE
F7PUED		0.5105	-0.0010	-0.10	0.4997	-0.0037	-0.38	OE
FDRUZZ		0.4953	-0.0162	-1.54	0.4966	-0.0068	-0.69	OE
FEKZ8E		0.5213	0.0098	0.93	0.5057	0.0023	0.24	OE
FQM34W		0.5163	0.0048	0.45	0.5113	0.0080	0.82	OE
GK788X		0.5146	0.0030	0.29	0.5097	0.0063	0.65	OE
GNQVC6		0.5020	-0.0096	-0.91	0.4950	-0.0083	-0.85	OE
GWJCFE		0.5197	0.0081	0.77	0.5067	0.0033	0.34	OE
GYU6JU		0.5133	0.0018	0.17	0.5067	0.0033	0.34	OE

		Sample L73			Sample L74			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
H3P88U		0.5197	0.0081	0.77	0.5217	0.0183	1.87	OE
HGKPPD		0.5197	0.0081	0.77	0.5039	0.0006	0.06	OE
HQQH6Y	X	0.5733	0.0618	5.86	0.5750	0.0717	7.33	OE
JEG3XU		0.5095	-0.0021	-0.19	0.5038	0.0004	0.04	IR
JGP9JV		0.4967	-0.0149	-1.41	0.5000	-0.0033	-0.34	OE
JT99J9		0.5226	0.0111	1.05	0.5194	0.0160	1.64	OE
JXAYJV	*	0.4820	-0.0296	-2.80	0.4860	-0.0173	-1.77	OE
K8AVVW		0.5218	0.0103	0.98	0.5069	0.0036	0.36	OE
KDGHNZ		0.5132	0.0016	0.16	0.5106	0.0072	0.74	OE
KNY28W		0.5297	0.0181	1.72	0.5233	0.0200	2.05	OE
L2EVLT		0.5343	0.0228	2.16	0.5230	0.0197	2.01	GD
L4A8RU		0.5124	0.0008	0.08	0.5044	0.0011	0.11	AE
LH4Q9H		0.5203	0.0088	0.83	0.5210	0.0177	1.81	CO
M6FXAA		0.5230	0.0114	1.09	0.5127	0.0093	0.95	CI
MCDQH4		0.4900	-0.0216	-2.05	0.4810	-0.0223	-2.29	OE
MHK82P		0.5167	0.0051	0.49	0.5030	-0.0003	-0.03	CI
NFCEKW		0.5150	0.0034	0.33	0.5060	0.0027	0.27	OE
NH4BAQ		0.5222	0.0106	1.01	0.5069	0.0035	0.36	OE
NKLR3V		0.5220	0.0104	0.99	0.5090	0.0057	0.58	OE
NMWT83		0.4977	-0.0139	-1.32	0.5047	0.0013	0.14	CI
NPMUDQ		0.5080	-0.0035	-0.33	0.5107	0.0074	0.75	CO
NR7QYV		0.5237	0.0121	1.15	0.5130	0.0097	0.99	OE
P8CN7Y		0.5113	-0.0002	-0.02	0.5020	-0.0013	-0.14	OE
PGLYNQ		0.5190	0.0074	0.71	0.5153	0.0120	1.23	OE
PMBEJP	X	0.5533	0.0418	3.97	0.4937	-0.0097	-0.99	GD
PQNBR8		0.5189	0.0074	0.70	0.5108	0.0074	0.76	OE
Q23HCE		0.5223	0.0108	1.02	0.5143	0.0110	1.12	OE
Q8RX6R		0.5040	-0.0076	-0.72	0.5033	0.0000	0.00	OE
QEAJUP		0.5023	-0.0092	-0.87	0.4950	-0.0083	-0.85	OE
QGTRQ4		0.5080	-0.0036	-0.34	0.5032	-0.0001	-0.01	CI
QRFJNU		0.5067	-0.0049	-0.46	0.4933	-0.0100	-1.02	GD
QRYCE7		0.5200	0.0084	0.80	0.5067	0.0033	0.34	OE
R8QKXP		0.5187	0.0071	0.68	0.5106	0.0073	0.74	IR
RNC4UW		0.5014	-0.0102	-0.97	0.4963	-0.0071	-0.72	OE
T2YNUK		0.5037	-0.0079	-0.75	0.4970	-0.0063	-0.65	CI
TD6UDX		0.5080	-0.0036	-0.34	0.4950	-0.0083	-0.85	GD
TQWE6L		0.5087	-0.0029	-0.27	0.5003	-0.0030	-0.31	OE
U4FGZJ	*	0.5270	0.0154	1.47	0.4873	-0.0160	-1.64	XX
UA9C8J		0.4933	-0.0182	-1.73	0.4893	-0.0140	-1.43	OE
UQ8NKZ		0.5030	-0.0086	-0.81	0.4947	-0.0087	-0.89	OE
UYP8PL		0.5204	0.0088	0.84	0.5102	0.0068	0.70	OE
UZCV2L		0.5167	0.0051	0.49	0.5056	0.0022	0.23	OE
V6M9GY		0.5173	0.0057	0.54	0.5080	0.0047	0.48	OE
VDGDBZ		0.5127	0.0011	0.11	0.5103	0.0070	0.72	OE
VR8TQL		0.5123	0.0008	0.07	0.5077	0.0043	0.44	OE
VZREJX		0.5173	0.0058	0.55	0.4990	-0.0043	-0.44	CI
W7MADH		0.4850	-0.0266	-2.52	0.4820	-0.0213	-2.18	OE

WebCode	Data Flag	Sample L73 Lab Mean	Sample L73 Diff. from Grand Mean	Sample L73 CPV	Sample L74 Lab Mean	Sample L74 Diff. from Grand Mean	Sample L74 CPV	Method
WC9BBM		0.5033	-0.0082	-0.78	0.4863	-0.0170	-1.74	GD
X88M8K	*	0.5000	-0.0116	-1.10	0.5200	0.0167	1.70	CO
XM2AGJ		0.5190	0.0074	0.71	0.5080	0.0047	0.48	CI
Y8YE7W		0.5152	0.0037	0.35	0.5065	0.0031	0.32	OE

Summary Statistics

	Sample L73		Sample L74	
Grand Means	0.5116	Percent	0.5033	Percent
Stnd Dev Btwn Labs	0.0105	Percent	0.0098	Percent

Samples L73, L74 : AISI 6150, AISI 6150

Statistics based on 91 of 98 reporting participants

Key to Method Codes Reported by Participants

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

Comments on Assigned Data Flags for Test #1600

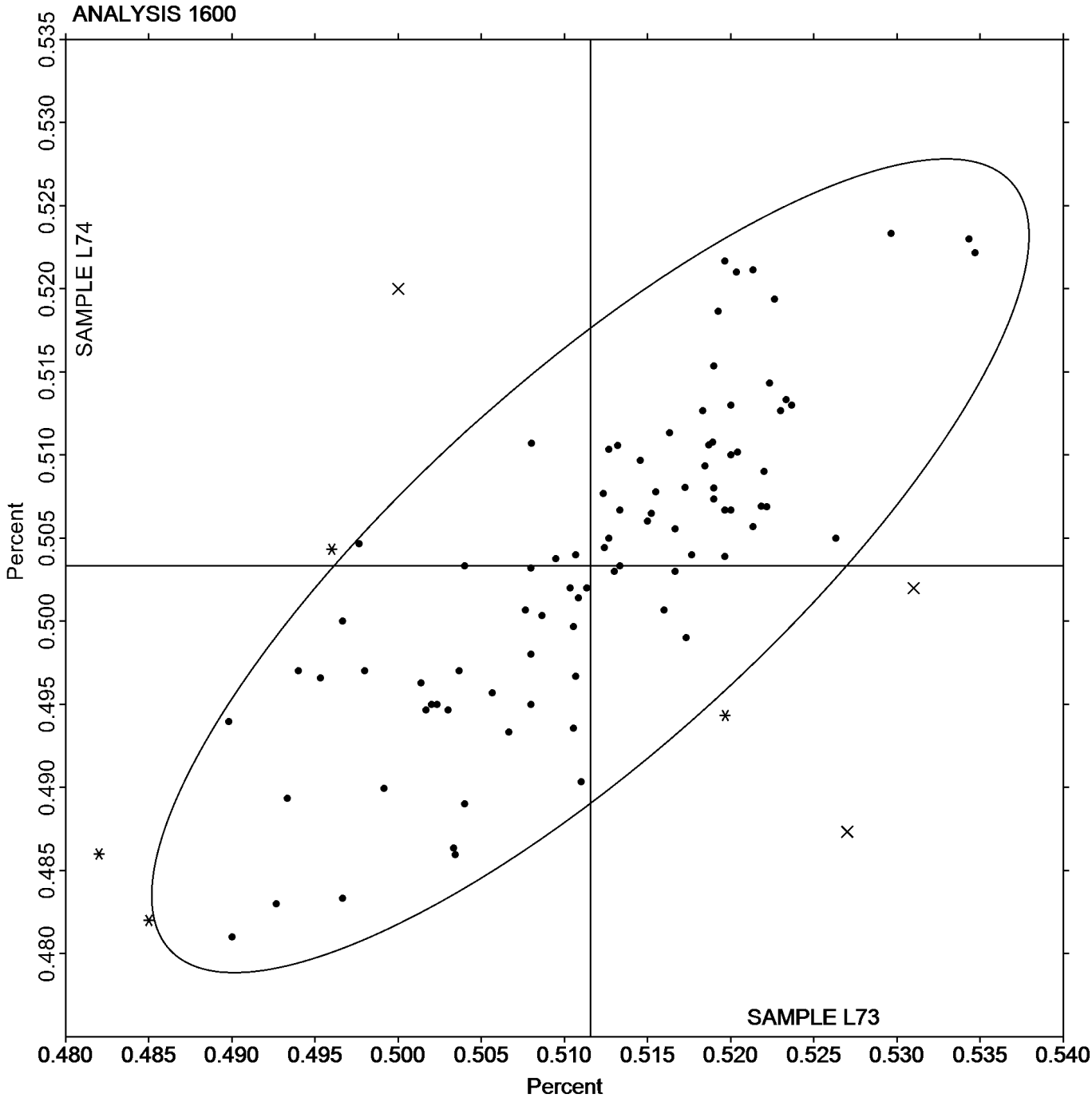
6DR6GN (X) - Data for sample L74 are low. Inconsistent within the determinations of sample L74.

9NGDD8 (X) - Data for both samples are high. Possible Systematic Error.

HQQH6Y (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample L73.

PMBEJP (X) - Data for sample L73 are high.

SAMPLE L73	SAMPLE L74
0.5116 Percent	0.5033 Percent



		Sample L73			Sample L74			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
28CDPC		0.8437	-0.0084	-0.87	0.8473	-0.0099	-0.94	OE
29N9AH		0.8740	0.0219	2.26	0.8793	0.0221	2.09	XX
2CNJ6H		0.8533	0.0012	0.13	0.8600	0.0028	0.26	XX
2NZNCE		0.8520	-0.0001	-0.01	0.8620	0.0048	0.45	OE
3268ME		0.8507	-0.0014	-0.15	0.8523	-0.0049	-0.46	IC
3JJVNT		0.8539	0.0018	0.18	0.8625	0.0052	0.49	OE
3RU62D		0.8570	0.0049	0.51	0.8680	0.0108	1.02	OE
3YGVN9		0.8310	-0.0211	-2.17	0.8343	-0.0229	-2.16	OE
44R24E		0.8400	-0.0121	-1.25	0.8607	0.0034	0.32	WD
4JYCJL		0.8613	0.0092	0.95	0.8687	0.0114	1.08	OE
4PPLTJ		0.8540	0.0019	0.20	0.8580	0.0008	0.07	OE
4T6DGR		0.8533	0.0012	0.12	0.8530	-0.0043	-0.40	WD
6DR6GN		0.8540	0.0019	0.20	0.8440	-0.0132	-1.25	XX
6DRDDE		0.8490	-0.0031	-0.32	0.8545	-0.0028	-0.26	OE
6M3FYE	X	0.8703	0.0182	1.88	0.8560	-0.0012	-0.12	OE
6R9D4D		0.8548	0.0027	0.28	0.8675	0.0102	0.96	OE
6YLBMQ		0.8559	0.0038	0.39	0.8570	-0.0002	-0.02	OE
737A6E		0.8430	-0.0091	-0.93	0.8477	-0.0096	-0.90	OE
7BJH7F		0.8310	-0.0211	-2.17	0.8370	-0.0202	-1.91	GD
829FKF		0.8487	-0.0034	-0.35	0.8590	0.0018	0.17	XX
8LGLBA		0.8543	0.0022	0.23	0.8610	0.0038	0.35	OE
8UAVED	X	0.8920	0.0399	4.11	0.8917	0.0344	3.25	OE
8WCWEB		0.8493	-0.0028	-0.28	0.8617	0.0044	0.42	OE
94PD2G		0.8700	0.0179	1.84	0.8800	0.0228	2.15	OE
9CPMWA		0.8456	-0.0065	-0.67	0.8350	-0.0222	-2.10	WD
9GYU8L		0.8433	-0.0088	-0.90	0.8467	-0.0106	-1.00	OE
9KEBRC		0.8455	-0.0066	-0.68	0.8538	-0.0034	-0.33	OE
9NGDD8		0.8782	0.0261	2.69	0.8787	0.0215	2.03	OE
9TC8B9		0.8717	0.0196	2.02	0.8777	0.0204	1.93	OE
A9LBEE		0.8530	0.0009	0.09	0.8603	0.0031	0.29	IC
ALT2E2		0.8501	-0.0020	-0.21	0.8529	-0.0043	-0.41	OE
APN27H		0.8507	-0.0014	-0.15	0.8530	-0.0042	-0.40	OE
B9Y6P9		0.8488	-0.0033	-0.34	0.8412	-0.0160	-1.52	OE
B9YZF7		0.8470	-0.0051	-0.53	0.8500	-0.0072	-0.68	OE
BABWKB		0.8722	0.0201	2.07	0.8777	0.0204	1.93	OE
BCT89E		0.8474	-0.0047	-0.48	0.8589	0.0016	0.15	OE
BEGJ8K		0.8497	-0.0024	-0.25	0.8540	-0.0032	-0.31	OE
BZLBED		0.8507	-0.0014	-0.15	0.8580	0.0008	0.07	OE
E6MD3C		0.8507	-0.0014	-0.15	0.8600	0.0028	0.26	OE
F7PUED		0.8422	-0.0099	-1.02	0.8465	-0.0108	-1.02	OE
FDRUZZ		0.8479	-0.0042	-0.43	0.8530	-0.0043	-0.40	OE
FEKZ8E		0.8440	-0.0081	-0.83	0.8550	-0.0022	-0.21	OE
FQM34W		0.8760	0.0239	2.46	0.8747	0.0174	1.64	OE
GK788X		0.8488	-0.0033	-0.34	0.8549	-0.0023	-0.22	OE
GNQVC6	X	0.8150	-0.0371	-3.82	0.8287	-0.0286	-2.70	OE
GWJCFE		0.8503	-0.0018	-0.18	0.8553	-0.0019	-0.18	OE
GYU6JU		0.8470	-0.0051	-0.53	0.8637	0.0064	0.61	OE

		Sample L73			Sample L74			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
H3P88U		0.8587	0.0066	0.68	0.8627	0.0054	0.51	OE
HGKPPD		0.8504	-0.0017	-0.17	0.8483	-0.0090	-0.85	OE
HQQH6Y		0.8357	-0.0164	-1.69	0.8390	-0.0182	-1.72	OE
JEG3XU		0.8458	-0.0063	-0.65	0.8497	-0.0075	-0.71	OE
JGP9JV		0.8567	0.0046	0.47	0.8600	0.0028	0.26	OE
JT99J9	*	0.8570	0.0049	0.51	0.8836	0.0264	2.49	OE
JXAYJV		0.8530	0.0009	0.09	0.8550	-0.0022	-0.21	OE
K8AVVW		0.8597	0.0076	0.79	0.8653	0.0080	0.76	OE
KDGHNZ		0.8512	-0.0009	-0.09	0.8428	-0.0144	-1.36	OE
KNY28W		0.8460	-0.0061	-0.63	0.8473	-0.0099	-0.94	OE
L2EVLT		0.8367	-0.0154	-1.59	0.8410	-0.0162	-1.53	GD
L4A8RU		0.8446	-0.0075	-0.77	0.8547	-0.0025	-0.24	AE
LH4Q9H		0.8590	0.0069	0.71	0.8647	0.0074	0.70	OE
MCDQH4		0.8647	0.0126	1.30	0.8677	0.0104	0.98	OE
MHK82P		0.8487	-0.0034	-0.35	0.8563	-0.0009	-0.09	XX
NFCEKW		0.8490	-0.0031	-0.32	0.8610	0.0038	0.35	OE
NH4BAQ		0.8659	0.0138	1.42	0.8735	0.0162	1.53	OE
NKLR3V		0.8543	0.0022	0.23	0.8657	0.0084	0.79	OE
NMWT83		0.8658	0.0137	1.42	0.8643	0.0071	0.67	DR
NPMUDQ	*	0.8452	-0.0069	-0.71	0.8863	0.0291	2.74	IC
NR7QYV		0.8650	0.0129	1.33	0.8750	0.0178	1.68	OE
P8CN7Y		0.8527	0.0006	0.06	0.8597	0.0024	0.23	OE
PGLYNQ		0.8543	0.0022	0.23	0.8610	0.0038	0.35	OE
PMBEJP		0.8577	0.0056	0.57	0.8530	-0.0042	-0.40	GD
PQNBR8		0.8635	0.0114	1.18	0.8618	0.0045	0.43	OE
Q23HCE		0.8470	-0.0051	-0.53	0.8567	-0.0006	-0.05	OE
Q8RX6R		0.8467	-0.0054	-0.56	0.8467	-0.0106	-1.00	OE
QEAJUP		0.8357	-0.0164	-1.69	0.8403	-0.0169	-1.60	OE
QGTRQ4		0.8505	-0.0016	-0.16	0.8593	0.0021	0.20	OE
QRFJNU		0.8500	-0.0021	-0.22	0.8600	0.0028	0.26	GD
QRYCE7		0.8500	-0.0021	-0.22	0.8500	-0.0072	-0.68	OE
R8QKXP		0.8603	0.0082	0.85	0.8730	0.0158	1.49	OE
RNC4UW		0.8432	-0.0089	-0.92	0.8528	-0.0045	-0.42	OE
T2YNUK		0.8577	0.0056	0.57	0.8490	-0.0082	-0.78	IC
TD6UDX		0.8670	0.0149	1.54	0.8790	0.0218	2.05	GD
TQWE6L		0.8490	-0.0031	-0.32	0.8567	-0.0006	-0.05	OE
U4FGZJ		0.8603	0.0082	0.85	0.8577	0.0004	0.04	XX
UA9C8J		0.8657	0.0136	1.40	0.8637	0.0064	0.61	OE
UQ8NKZ		0.8360	-0.0161	-1.66	0.8430	-0.0142	-1.35	OE
UYP8PL		0.8527	0.0006	0.06	0.8608	0.0036	0.34	OE
UZCV2L		0.8510	-0.0011	-0.12	0.8579	0.0007	0.06	OE
V6M9GY		0.8510	-0.0011	-0.11	0.8621	0.0049	0.46	OE
VDGDBZ		0.8423	-0.0098	-1.01	0.8530	-0.0042	-0.40	OE
VR8TQL		0.8497	-0.0024	-0.25	0.8597	0.0024	0.23	OE
VZREJX		0.8346	-0.0175	-1.80	0.8402	-0.0171	-1.61	IC
W7MADH		0.8440	-0.0081	-0.83	0.8403	-0.0169	-1.60	OE
WC9BBM		0.8637	0.0116	1.19	0.8700	0.0128	1.20	GD

WebCode	Data Flag	Sample L73 Lab Mean	Sample L73 Diff. from Grand Mean	Sample L73 CPV	Sample L74 Lab Mean	Sample L74 Diff. from Grand Mean	Sample L74 CPV	Method
X88M8K		0.8400	-0.0121	-1.25	0.8500	-0.0072	-0.68	OE
XM2AGJ		0.8467	-0.0054	-0.56	0.8513	-0.0059	-0.56	AE
Y8YE7W		0.8643	0.0122	1.25	0.8681	0.0108	1.02	OE

Summary Statistics

	Sample L73		Sample L74	
Grand Means	0.8521	Percent	0.8572	Percent
Stnd Dev Btwn Labs	0.0097	Percent	0.0106	Percent

Samples L73, L74 : AISI 6150, AISI 6150

Statistics based on 92 of 97 reporting participants

Key to Method Codes Reported by Participants

AE	Spectrometry - Atomic Emission (AES)	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)
XX	Please Indicate Method Used for Current Element		

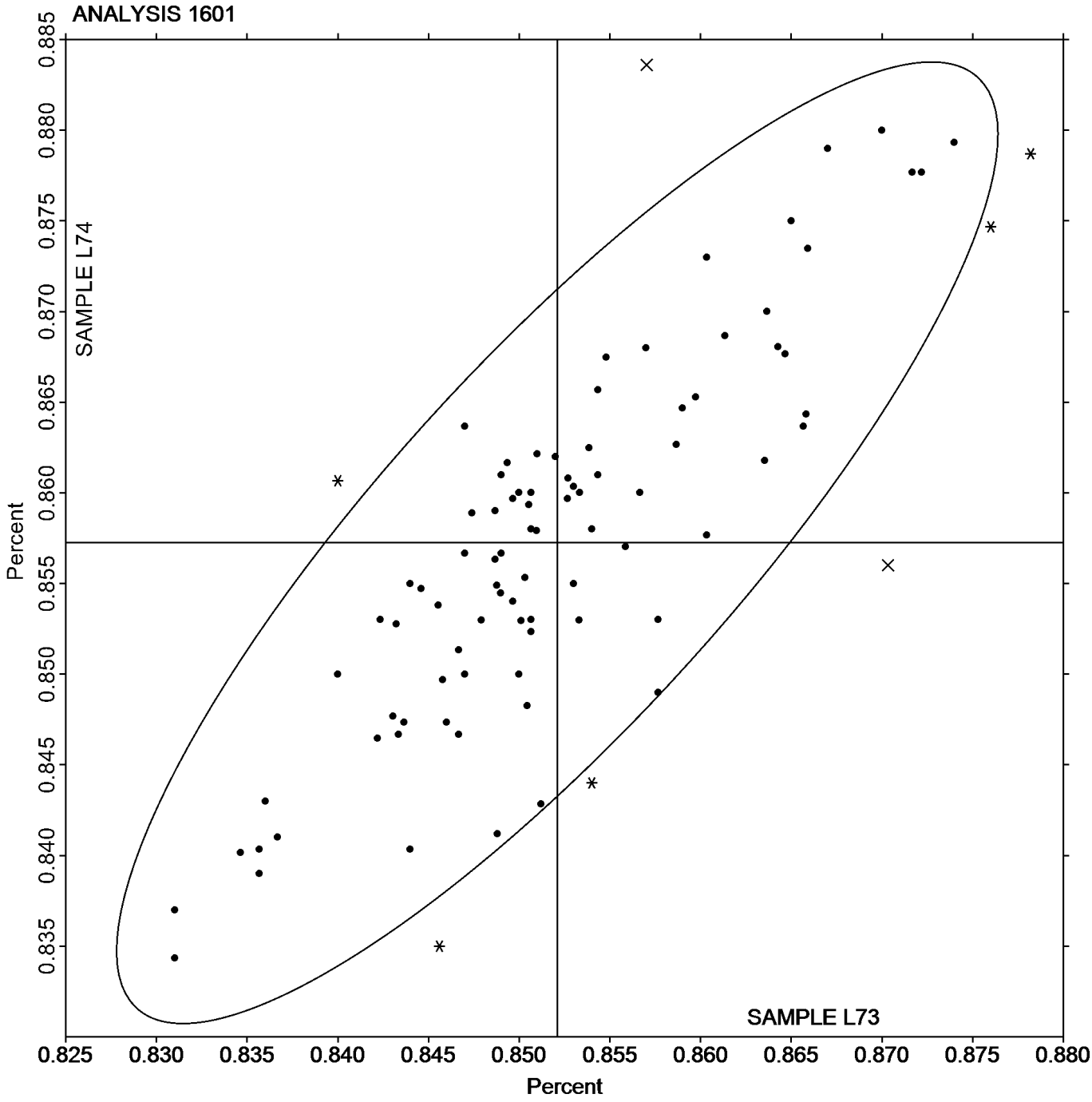
Comments on Assigned Data Flags for Test #1601

6M3FYE (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample L74.

8UAVED (X) - Data for both samples are high. Possible Systematic Error.

GNQVC6 (X) - Data for sample L73 are low. Inconsistent within the determinations of sample L73.

SAMPLE L73	SAMPLE L74
0.8521 Percent	0.8572 Percent



		Sample L73			Sample L74			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
28CDPC		0.0107	-0.0011	-0.97	0.00667	-0.00110	-0.90	OE
29N9AH		0.0120	0.0002	0.18	0.00700	-0.00076	-0.62	XX
2CNJ6H		0.0100	-0.0018	-1.54	0.00600	-0.00176	-1.44	XX
2NZNCE		0.0121	0.0003	0.27	0.00780	0.00004	0.03	OE
3268ME		0.0107	-0.0011	-0.94	0.00670	-0.00106	-0.87	IC
3JJVNT		0.0110	-0.0008	-0.68	0.00627	-0.00150	-1.22	OE
3RU62D		0.0122	0.0004	0.32	0.00743	-0.00033	-0.27	OE
3YGVN9	X	0.0120	0.0002	0.18	0.00400	-0.00376	-3.08	OE
44R24E	*	0.0130	0.0012	1.04	0.00680	-0.00096	-0.79	WD
4JYCJL		0.0111	-0.0007	-0.57	0.00610	-0.00166	-1.36	OE
4PPLTJ		0.0120	0.0002	0.21	0.00737	-0.00040	-0.32	OE
4T6DGR		0.0119	0.0001	0.07	0.00640	-0.00136	-1.11	WD
6DR6GN		0.0100	-0.0018	-1.54	0.00667	-0.00110	-0.90	XX
6DRDDE		0.0130	0.0012	1.01	0.00756	-0.00020	-0.17	OE
6M3FYE	X	0.0179	0.0061	5.26	0.0136	0.00584	4.77	OE
6R9D4D		0.0129	0.0011	0.95	0.00899	0.00122	1.00	OE
6YLBMQ		0.0120	0.0002	0.21	0.00760	-0.00016	-0.13	OE
737A6E		0.0118	0.0000	0.01	0.00783	0.00007	0.06	OE
7BJH7F		0.0130	0.0012	1.04	0.00900	0.00124	1.01	GD
829FKF		0.0109	-0.0009	-0.74	0.00697	-0.00080	-0.65	XX
8LGLBA		0.0116	-0.0002	-0.16	0.00753	-0.00023	-0.19	OE
8UAVED		0.0135	0.0017	1.47	0.00970	0.00194	1.58	OE
8WCWEB		0.0110	-0.0008	-0.68	0.00700	-0.00076	-0.62	OE
94PD2G	X	0.0140	0.0022	1.90	0.0130	0.00524	4.28	OE
9CPMWA		0.0113	-0.0005	-0.42	0.00800	0.00024	0.19	WD
9GYU8L	X	0.00767	-0.0041	-3.55	0.00500	-0.00276	-2.26	OE
9KEBRC		0.0122	0.0004	0.38	0.00810	0.00034	0.28	OE
9NGDD8		0.00890	-0.0029	-2.49	0.00440	-0.00336	-2.75	OE
9TC8B9		0.0141	0.0023	1.96	0.0101	0.00234	1.91	OE
A9LBEE		0.0103	-0.0015	-1.25	0.00723	-0.00053	-0.43	IC
ALT2E2		0.0116	-0.0002	-0.16	0.00697	-0.00080	-0.65	OE
APN27H		0.0111	-0.0007	-0.62	0.00703	-0.00073	-0.60	OE
B9Y6P9		0.0120	0.0002	0.18	0.00780	0.00004	0.03	OE
B9YZF7		0.0117	-0.0001	-0.05	0.00743	-0.00033	-0.27	OE
BABWKB		0.0130	0.0012	1.04	0.00797	0.00020	0.17	OE
BCT89E		0.0119	0.0001	0.07	0.00753	-0.00024	-0.19	OE
BEGJ8K		0.0110	-0.0008	-0.68	0.00800	0.00024	0.19	OE
BZLBED		0.0117	-0.0001	-0.11	0.00803	0.00027	0.22	OE
E6MD3C		0.0117	-0.0001	-0.11	0.00700	-0.00076	-0.62	OE
F7PUED		0.0115	-0.0003	-0.25	0.00740	-0.00036	-0.30	OE
FDRUZZ		0.0124	0.0006	0.49	0.00850	0.00073	0.60	OE
FEKZ8E		0.0146	0.0028	2.42	0.0102	0.00247	2.02	OE
FQM34W		0.0120	0.0002	0.18	0.00733	-0.00043	-0.35	OE
GK788X		0.0109	-0.0009	-0.80	0.00683	-0.00093	-0.76	OE
GNQVC6		0.0105	-0.0013	-1.08	0.00700	-0.00076	-0.62	OE
GWJCFE		0.0112	-0.0006	-0.51	0.00677	-0.00100	-0.81	OE
GYU6JU		0.0120	0.0002	0.18	0.00800	0.00024	0.19	OE

		Sample L73			Sample L74			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
H3P88U		0.0130	0.0012	1.07	0.00870	0.00094	0.77	OE
HGKPPD		0.0104	-0.0014	-1.17	0.00707	-0.00070	-0.57	OE
HQQH6Y		0.0113	-0.0005	-0.45	0.00773	-0.00003	-0.02	OE
JEG3XU		0.0108	-0.0010	-0.82	0.00687	-0.00090	-0.73	OE
JGP9JV		0.0127	0.0009	0.75	0.00867	0.00090	0.74	OE
JT99J9		0.0120	0.0002	0.18	0.00960	0.00184	1.50	OE
JXAYJV		0.0127	0.0009	0.78	0.00830	0.00054	0.44	OE
K8AVVW		0.0119	0.0001	0.12	0.00797	0.00020	0.17	OE
KDGHNZ	*	0.0140	0.0022	1.92	0.0112	0.00340	2.78	OE
KNY28W		0.0110	-0.0008	-0.68	0.00700	-0.00076	-0.62	OE
L2EVLT		0.0140	0.0022	1.90	0.0100	0.00224	1.83	GD
L4A8RU		0.0123	0.0005	0.41	0.00867	0.00090	0.74	AE
LH4Q9H		0.0103	-0.0015	-1.28	0.00673	-0.00103	-0.84	OE
MCDQH4		0.0120	0.0002	0.15	0.00757	-0.00020	-0.16	OE
MHK82P		0.0120	0.0002	0.18	0.00790	0.00014	0.11	XX
NFCEKW		0.0127	0.0009	0.75	0.00867	0.00090	0.74	OE
NH4BAQ		0.0129	0.0011	0.95	0.00903	0.00127	1.04	OE
NKLR3V		0.0130	0.0012	1.01	0.00907	0.00130	1.07	OE
NMWT83		0.0113	-0.0005	-0.42	0.00747	-0.00030	-0.24	DR
NPMUDQ		0.0116	-0.0002	-0.19	0.00730	-0.00046	-0.38	IC
NR7QYV		0.0117	-0.0001	-0.11	0.00867	0.00090	0.74	OE
P8CN7Y		0.0112	-0.0006	-0.51	0.00767	-0.00010	-0.08	OE
PGLYNQ		0.00977	-0.0020	-1.74	0.00683	-0.00093	-0.76	OE
PMBEJP		0.0135	0.0017	1.44	0.00970	0.00194	1.58	GD
PQNBR8		0.0114	-0.0004	-0.32	0.00722	-0.00054	-0.44	OE
Q23HCE		0.0135	0.0017	1.44	0.00883	0.00107	0.88	OE
Q8RX6R		0.0115	-0.0003	-0.25	0.00850	0.00074	0.60	OE
QEAJUP		0.0107	-0.0011	-0.97	0.00700	-0.00076	-0.62	OE
QGTRQ4		0.00993	-0.0019	-1.60	0.00560	-0.00216	-1.77	OE
QRFJNU		0.0110	-0.0008	-0.68	0.00700	-0.00076	-0.62	GD
QRYCE7	*	0.0147	0.0029	2.48	0.0113	0.00357	2.92	OE
R8QKXP		0.0113	-0.0005	-0.39	0.00713	-0.00063	-0.51	OE
RNC4UW		0.0118	0.0000	-0.02	0.00736	-0.00041	-0.33	OE
T2YNUK	X	0.0120	0.0002	0.18	0.0103	0.00257	2.10	IC
TD6UDX		0.0106	-0.0012	-1.03	0.00649	-0.00127	-1.04	GD
TQWE6L		0.0100	-0.0018	-1.54	0.00567	-0.00210	-1.71	OE
U4FGZJ		0.0140	0.0022	1.90	0.0103	0.00257	2.10	XX
UA9C8J		0.0114	-0.0004	-0.37	0.00757	-0.00020	-0.16	OE
UQ8NKZ		0.0148	0.0030	2.62	0.0102	0.00240	1.97	OE
UYP8PL		0.0127	0.0009	0.82	0.00929	0.00153	1.25	OE
UZCV2L		0.0121	0.0003	0.25	0.00797	0.00020	0.17	OE
V6M9GY		0.0111	-0.0007	-0.57	0.00680	-0.00096	-0.79	OE
VDGDBZ		0.0123	0.0005	0.47	0.00867	0.00090	0.74	OE
VR8TQL		0.0107	-0.0011	-0.97	0.00700	-0.00076	-0.62	OE
VZREJX		0.0105	-0.0013	-1.14	0.00693	-0.00083	-0.68	IC
W7MADH		0.0110	-0.0008	-0.68	0.00720	-0.00056	-0.46	OE
WC9BBM		0.0120	0.0002	0.15	0.00767	-0.00010	-0.08	GD

		Sample L73			Sample L74			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
X88M8K	*	0.0110	-0.0008	-0.68	0.00900	0.00124	1.01	OE
XM2AGJ		0.0118	0.0000	0.04	0.00753	-0.00023	-0.19	XX
Y8YE7W		0.0116	-0.0002	-0.16	0.00680	-0.00096	-0.79	OE

Summary Statistics

	Sample L73		Sample L74	
Grand Means	0.0118	Percent	0.00776	Percent
Stnd Dev Btwn Labs	0.0012	Percent	0.00122	Percent

Samples L73, L74 : AISI 6150, AISI 6150

Statistics based on 90 of 97 reporting participants

Key to Method Codes Reported by Participants

AE	Spectrometry - Atomic Emission (AES)	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)
XX	Please Indicate Method Used for Current Element		

Comments on Assigned Data Flags for Test #1602

3YGVN9 (X) - Data for sample L74 are low. Inconsistent within the determinations of both samples.

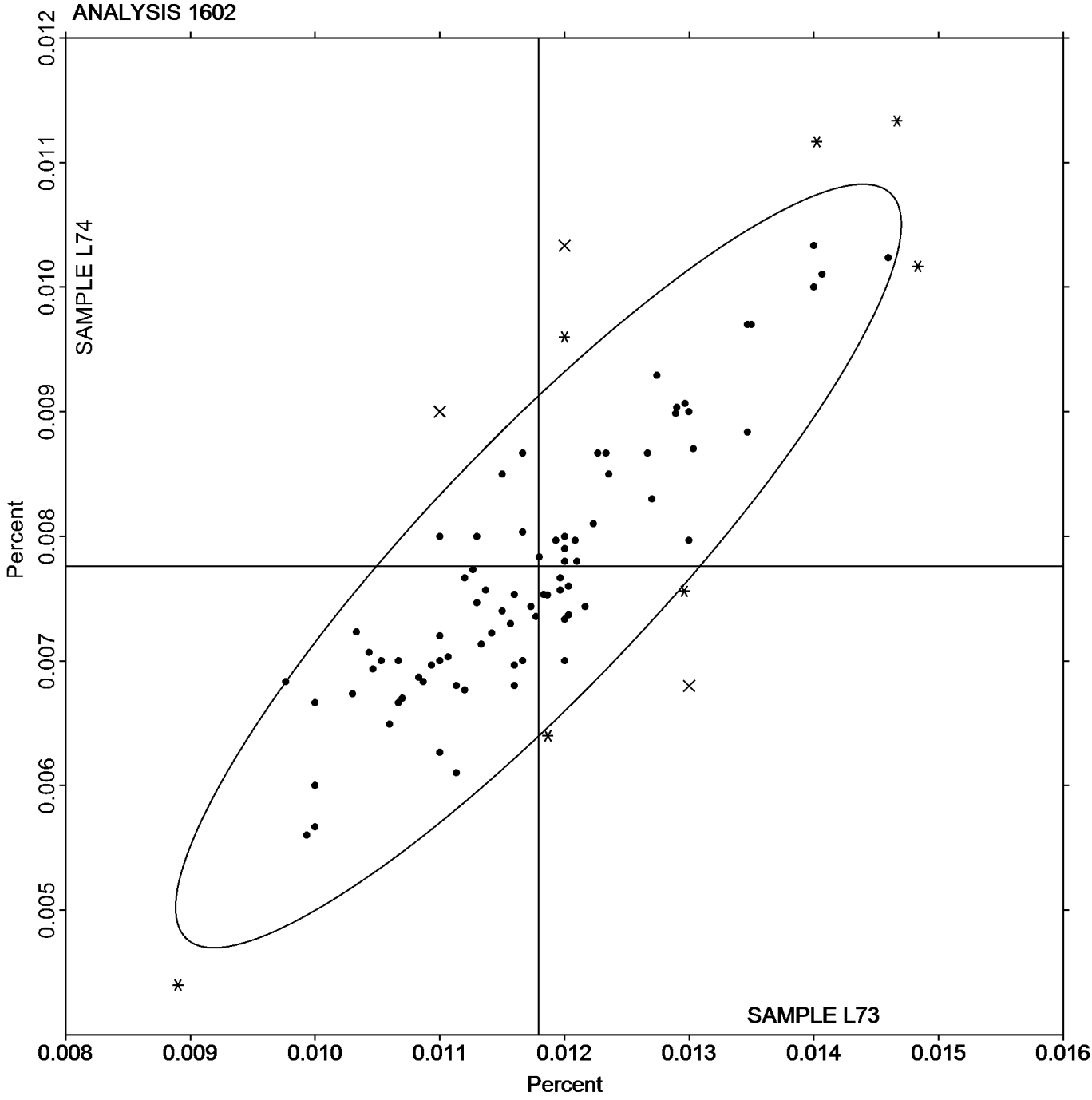
6M3FYE (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of both samples.

94PD2G (X) - Data for sample L74 are high.

9GYU8L (X) - Data for sample L73 are low.

T2YNUK (X) - Inconsistent in testing between samples. Inconsistent within the determinations of both samples.

SAMPLE L73	SAMPLE L74
0.0118 Percent	0.00776 Percent



		Sample L73			Sample L74			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
28CDPC		0.0213	0.0006	0.35	0.0213	0.0011	0.70	OE
29N9AH		0.0210	0.0003	0.16	0.0187	-0.0016	-1.00	XX
2CNJ6H		0.0210	0.0003	0.16	0.0210	0.0008	0.49	XX
2NZNCE		0.0200	-0.0007	-0.37	0.0195	-0.0008	-0.49	CO
3268ME		0.0200	-0.0007	-0.41	0.0193	-0.0010	-0.62	CI
3JJVNT		0.0203	-0.0004	-0.24	0.0204	0.0002	0.11	OE
3RU62D		0.0223	0.0016	0.90	0.0217	0.0014	0.91	CO
3YGVN9		0.0210	0.0003	0.16	0.0200	-0.0002	-0.15	OE
44R24E		0.0250	0.0043	2.37	0.0217	0.0014	0.91	CO
4JYCJL		0.0218	0.0011	0.58	0.0224	0.0021	1.36	OE
4PPLTJ		0.0198	-0.0009	-0.48	0.0192	-0.0011	-0.68	OE
4T6DGR		0.0237	0.0030	1.67	0.0226	0.0024	1.53	WD
6DR6GN		0.0230	0.0023	1.26	0.0200	-0.0002	-0.15	XX
6DRDDE		0.0203	-0.0004	-0.23	0.0196	-0.0006	-0.39	OE
6M3FYE		0.0229	0.0022	1.21	0.0214	0.0012	0.76	OE
6R9D4D		0.0193	-0.0014	-0.78	0.0204	0.0002	0.10	OE
6YLBMQ		0.0211	0.0004	0.23	0.0219	0.0016	1.04	OE
737A6E		0.0203	-0.0004	-0.21	0.0199	-0.0004	-0.23	OE
7BJH7F		0.0230	0.0023	1.26	0.0210	0.0008	0.49	XX
829FKF		0.0230	0.0023	1.26	0.0223	0.0021	1.34	XX
8LGLBA		0.0201	-0.0006	-0.32	0.0194	-0.0008	-0.51	OE
8UAVED		0.0239	0.0032	1.78	0.0231	0.0029	1.85	OE
8WCWEB		0.0230	0.0023	1.26	0.0213	0.0011	0.70	CO
94PD2G		0.0220	0.0013	0.71	0.0210	0.0008	0.49	OE
9CPMWA		0.0220	0.0013	0.71	0.0227	0.0024	1.55	CO
9GYU8L		0.0183	-0.0024	-1.31	0.0163	-0.0039	-2.48	OE
9KEBRC		0.0206	-0.0001	-0.08	0.0208	0.0006	0.36	OE
9NGDD8		0.0213	0.0006	0.33	0.0226	0.0024	1.51	OE
9TC8B9	X	0.0236	0.0029	1.61	0.0258	0.0055	3.52	OE
A9LBEE		0.0197	-0.0010	-0.57	0.0191	-0.0012	-0.74	CI
ALT2E2		0.0215	0.0008	0.46	0.0206	0.0004	0.23	OE
APN27H		0.0209	0.0002	0.12	0.0215	0.0013	0.83	OE
B9Y6P9		0.0207	0.0000	-0.02	0.0219	0.0017	1.08	OE
B9YZF7		0.0203	-0.0004	-0.22	0.0194	-0.0008	-0.53	OE
BABWKB		0.0198	-0.0009	-0.48	0.0194	-0.0008	-0.51	CI
BCT89E		0.0203	-0.0004	-0.25	0.0198	-0.0005	-0.30	OE
BEGJ8K		0.0190	-0.0017	-0.94	0.0207	0.0004	0.28	OE
BZLBED		0.0204	-0.0003	-0.17	0.0201	-0.0001	-0.06	OE
E6MD3C		0.0217	0.0010	0.53	0.0213	0.0011	0.70	OE
F7PUED		0.0208	0.0001	0.05	0.0205	0.0002	0.15	OE
FDRUZZ		0.0215	0.0008	0.42	0.0205	0.0003	0.18	OE
FEKZ8E	X	0.0271	0.0064	3.51	0.0266	0.0064	4.08	OE
FQM34W		0.0183	-0.0024	-1.31	0.0183	-0.0019	-1.21	OE
GK788X		0.0216	0.0009	0.51	0.0208	0.0005	0.34	OE
GNQVC6		0.0183	-0.0024	-1.31	0.0177	-0.0026	-1.63	OE
GWJCFE		0.0217	0.0010	0.57	0.0207	0.0005	0.32	OE
GYU6JU		0.0183	-0.0024	-1.31	0.0183	-0.0019	-1.21	OE

		Sample L73			Sample L74			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
H3P88U	X	0.0257	0.0050	2.74	0.0273	0.0071	4.52	XX
HGKPPD		0.0230	0.0023	1.28	0.0204	0.0002	0.11	OE
HQQH6Y		0.0231	0.0024	1.32	0.0236	0.0034	2.14	OE
JEG3XU		0.0194	-0.0013	-0.74	0.0190	-0.0013	-0.81	IR
JGP9JV		0.0190	-0.0017	-0.94	0.0200	-0.0002	-0.15	OE
JT99J9		0.0210	0.0003	0.16	0.0219	0.0016	1.04	OE
JXAYJV		0.0195	-0.0012	-0.67	0.0204	0.0002	0.11	OE
K8AVVW		0.0193	-0.0014	-0.78	0.0187	-0.0015	-0.98	OE
KDGHNZ		0.0235	0.0028	1.53	0.0215	0.0012	0.78	OE
KNY28W		0.0193	-0.0014	-0.76	0.0197	-0.0006	-0.36	OE
L2EVLT		0.0227	0.0020	1.08	0.0227	0.0024	1.55	GD
L4A8RU		0.0191	-0.0016	-0.91	0.0200	-0.0002	-0.15	AE
LH4Q9H		0.0165	-0.0042	-2.32	0.0183	-0.0019	-1.21	CO
M6FXAA		0.0214	0.0007	0.40	0.0203	0.0000	0.02	CI
MCDQH4		0.0214	0.0007	0.38	0.0184	-0.0018	-1.17	OE
MHK82P		0.0217	0.0010	0.53	0.0201	-0.0001	-0.08	CI
NFCEKW		0.0197	-0.0010	-0.57	0.0187	-0.0016	-1.00	OE
NH4BAQ		0.0198	-0.0009	-0.50	0.0197	-0.0005	-0.32	OE
NKLR3V	X	0.0239	0.0032	1.76	0.0276	0.0074	4.69	OE
NMWT83		0.0179	-0.0028	-1.53	0.0176	-0.0026	-1.66	CI
NPMUDQ		0.0171	-0.0036	-1.99	0.0173	-0.0029	-1.85	CO
NR7QYV		0.0210	0.0003	0.16	0.0197	-0.0006	-0.36	OE
P8CN7Y		0.0204	-0.0003	-0.15	0.0195	-0.0007	-0.47	OE
PGLYNQ		0.0173	-0.0034	-1.88	0.0174	-0.0028	-1.80	OE
PMBEJP		0.0202	-0.0005	-0.26	0.0181	-0.0021	-1.36	GD
PQNBR8		0.0207	0.0000	-0.01	0.0197	-0.0005	-0.32	OE
Q23HCE		0.0245	0.0038	2.07	0.0229	0.0026	1.68	OE
Q8RX6R		0.0210	0.0003	0.16	0.0225	0.0023	1.44	OE
QEAJUP		0.0197	-0.0010	-0.57	0.0190	-0.0012	-0.79	OE
QGTRQ4		0.0193	-0.0014	-0.79	0.0189	-0.0014	-0.87	CI
QRFJNU		0.0200	-0.0007	-0.39	0.0200	-0.0002	-0.15	GD
QRYCE7		0.0230	0.0023	1.26	0.0207	0.0004	0.28	OE
R8QKXP		0.0211	0.0004	0.22	0.0200	-0.0003	-0.18	IR
RNC4UW		0.0213	0.0006	0.31	0.0202	-0.0001	-0.05	OE
T2YNUK		0.0200	-0.0007	-0.39	0.0193	-0.0009	-0.57	CI
TD6UDX		0.0202	-0.0005	-0.28	0.0196	-0.0006	-0.40	GD
TQWE6L		0.0207	0.0000	-0.02	0.0197	-0.0006	-0.36	OE
U4FGZJ		0.0243	0.0036	2.00	0.0237	0.0034	2.19	XX
UA9C8J		0.0177	-0.0030	-1.64	0.0188	-0.0015	-0.93	OE
UQ8NKZ		0.0250	0.0043	2.39	0.0229	0.0027	1.70	OE
UYP8PL		0.0217	0.0010	0.54	0.0216	0.0013	0.86	OE
UZCV2L		0.0223	0.0015	0.85	0.0219	0.0017	1.05	OE
V6M9GY		0.0212	0.0005	0.27	0.0224	0.0022	1.40	OE
VDGDBZ		0.0190	-0.0017	-0.94	0.0187	-0.0016	-1.00	OE
VR8TQL		0.0185	-0.0022	-1.22	0.0181	-0.0022	-1.38	OE
VZREJX		0.0167	-0.0040	-2.23	0.0167	-0.0036	-2.27	CI
W7MADH		0.0175	-0.0032	-1.79	0.0195	-0.0007	-0.47	OE

		Sample L73			Sample L74			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
WC9BBM		0.0203	-0.0004	-0.21	0.0207	0.0004	0.28	XX
X88M8K	X	0.0220	0.0013	0.71	0.0250	0.0048	3.04	OE
XM2AGJ		0.0200	-0.0007	-0.39	0.0190	-0.0012	-0.76	CI
Y8YE7W		0.0206	-0.0001	-0.08	0.0205	0.0003	0.17	OE

Summary Statistics

	Sample L73		Sample L74	
Grand Means	0.0207	Percent	0.0202	Percent
Stnd Dev Btwn Labs	0.0018	Percent	0.0016	Percent

Samples L73, L74 : AISI 6150, AISI 6150

Statistics based on 93 of 98 reporting participants

Key to Method Codes Reported by Participants

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

Comments on Assigned Data Flags for Test #1603

9TC8B9 (X) - Data for sample L74 are high. Inconsistent within the determinations of both samples.

FEKZ8E (X) - Data for both samples are high. Possible Systematic Error.

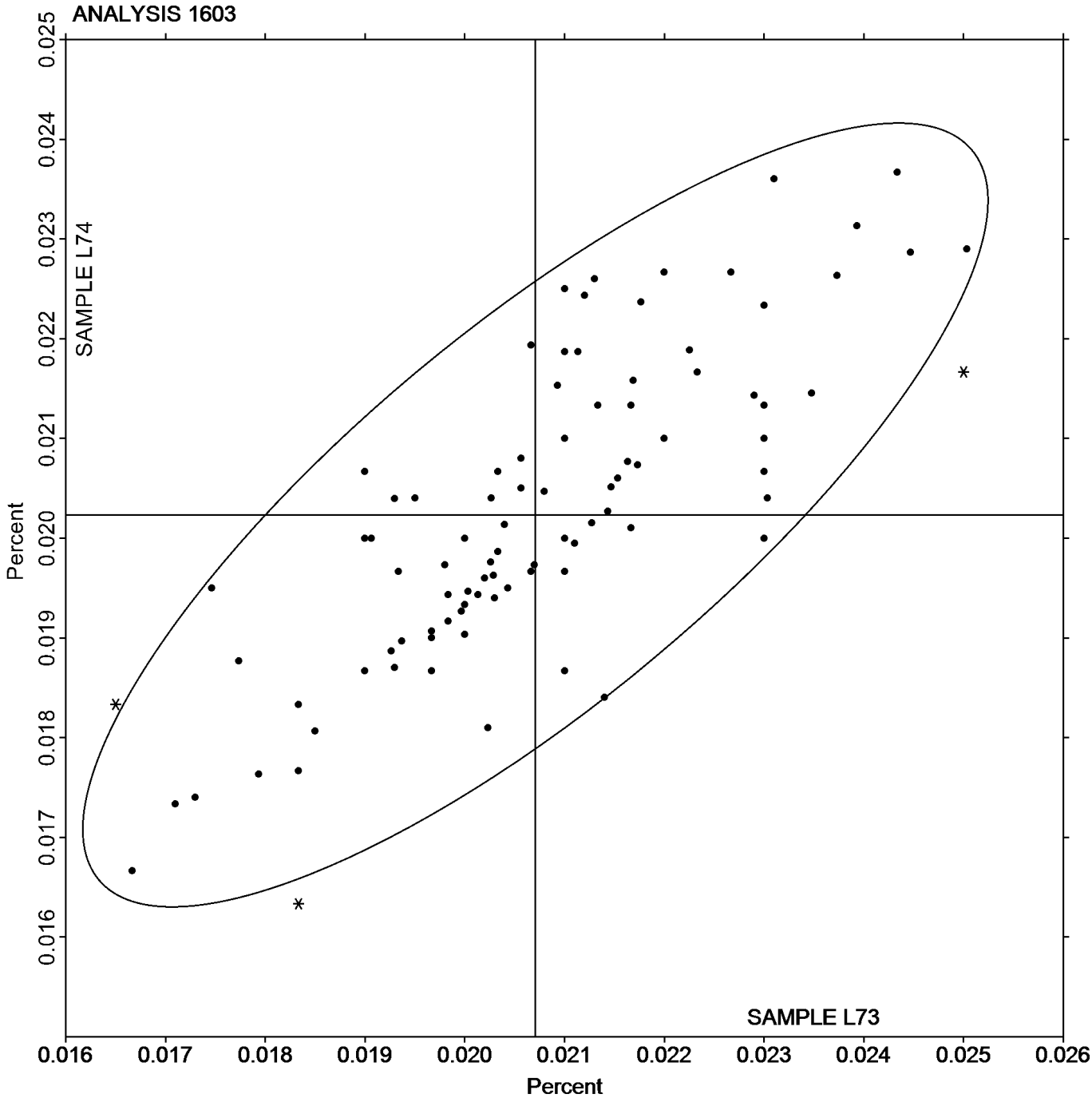
H3P88U (X) - Data for sample L74 are high.

NKLR3V (X) - Data for sample L74 are high.

X88M8K (X) - Data for sample L74 are high.

SAMPLE L73
0.0207 Percent

SAMPLE L74
0.0202 Percent



		Sample L73			Sample L74			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
28CDPC		0.2923	-0.0054	-0.80	0.2527	-0.0030	-0.56	OE
29N9AH		0.3023	0.0046	0.68	0.2580	0.0023	0.43	XX
2CNJ6H		0.3077	0.0099	1.47	0.2650	0.0093	1.73	XX
2NZNCE		0.3020	0.0043	0.63	0.2600	0.0043	0.80	OE
3268ME		0.2913	-0.0064	-0.94	0.2497	-0.0060	-1.12	IC
3JJVNT		0.2986	0.0008	0.12	0.2594	0.0038	0.70	OE
3RU62D		0.2940	-0.0037	-0.55	0.2520	-0.0037	-0.68	OE
3YGVN9		0.3067	0.0089	1.32	0.2593	0.0037	0.68	OE
44R24E	X	0.2900	-0.0077	-1.14	0.2377	-0.0180	-3.35	WD
4JYCJL		0.2983	0.0006	0.09	0.2567	0.0010	0.18	OE
4PPLTJ		0.2913	-0.0064	-0.94	0.2483	-0.0073	-1.37	OE
4T6DGR		0.2973	-0.0004	-0.06	0.2558	0.0001	0.02	WD
6DR6GN		0.2990	0.0013	0.19	0.2530	-0.0027	-0.50	XX
6DRDDE		0.3022	0.0045	0.66	0.2578	0.0021	0.39	OE
6M3FYE	X	0.2990	0.0013	0.19	0.2473	-0.0083	-1.55	OE
6R9D4D		0.3036	0.0059	0.86	0.2600	0.0043	0.81	OE
6YLBMQ		0.3051	0.0074	1.09	0.2646	0.0089	1.66	OE
737A6E		0.3108	0.0131	1.93	0.2665	0.0109	2.02	OE
7BJH7F		0.2910	-0.0067	-0.99	0.2530	-0.0027	-0.50	GD
829FKF		0.2865	-0.0112	-1.65	0.2524	-0.0033	-0.62	XX
8LGLBA		0.2913	-0.0064	-0.94	0.2497	-0.0060	-1.12	OE
8UAVED		0.2970	-0.0007	-0.11	0.2497	-0.0060	-1.12	OE
8WCWEB		0.2983	0.0006	0.09	0.2553	-0.0003	-0.06	OE
94PD2G		0.2860	-0.0117	-1.73	0.2460	-0.0097	-1.80	OE
9CPMWA		0.2866	-0.0111	-1.64	0.2440	-0.0117	-2.17	WD
9GYU8L		0.2900	-0.0077	-1.14	0.2500	-0.0057	-1.06	OE
9KEBRC		0.3053	0.0075	1.11	0.2620	0.0064	1.18	OE
9NGDD8		0.3084	0.0107	1.58	0.2642	0.0085	1.59	OE
9TC8B9		0.3057	0.0079	1.17	0.2623	0.0067	1.24	OE
A9LBEE		0.2979	0.0001	0.02	0.2552	-0.0005	-0.09	GR
ALT2E2		0.2886	-0.0091	-1.34	0.2501	-0.0055	-1.03	OE
APN27H		0.2953	-0.0024	-0.35	0.2530	-0.0027	-0.50	OE
B9Y6P9		0.2921	-0.0057	-0.84	0.2500	-0.0057	-1.06	OE
B9YZF7		0.2913	-0.0064	-0.94	0.2513	-0.0043	-0.81	OE
BABWKB		0.2832	-0.0145	-2.15	0.2444	-0.0113	-2.10	OE
BCT89E		0.2902	-0.0075	-1.11	0.2521	-0.0036	-0.66	OE
BEGJ8K		0.3040	0.0063	0.93	0.2613	0.0057	1.05	OE
BZLBED		0.2987	0.0009	0.14	0.2550	-0.0007	-0.13	OE
E6MD3C		0.3023	0.0046	0.68	0.2617	0.0060	1.11	OE
F7PUED		0.3060	0.0083	1.22	0.2611	0.0054	1.00	OE
FDRUZZ		0.2892	-0.0085	-1.25	0.2531	-0.0026	-0.48	OE
FEKZ8E		0.2920	-0.0057	-0.85	0.2493	-0.0063	-1.18	OE
FQM34W		0.3007	0.0029	0.43	0.2553	-0.0003	-0.06	OE
GK788X		0.2981	0.0003	0.05	0.2547	-0.0009	-0.18	OE
GNQVC6		0.3053	0.0076	1.12	0.2613	0.0057	1.05	OE
GWJCFE		0.2963	-0.0014	-0.21	0.2530	-0.0027	-0.50	OE
GYU6JU		0.2853	-0.0124	-1.83	0.2460	-0.0097	-1.80	OE

		Sample L73			Sample L74			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
H3P88U		0.3150	0.0173	2.55	0.2650	0.0093	1.73	OE
HGKPPD		0.2940	-0.0037	-0.55	0.2509	-0.0048	-0.89	OE
HQQH6Y		0.2963	-0.0014	-0.21	0.2537	-0.0020	-0.37	OE
JEG3XU		0.3026	0.0048	0.72	0.2581	0.0025	0.46	OE
JGP9JV	*	0.3000	0.0023	0.34	0.2500	-0.0057	-1.06	OE
JT99J9	*	0.2819	-0.0158	-2.33	0.2513	-0.0044	-0.82	OE
JXAYJV	X	0.2770	-0.0207	-3.06	0.2350	-0.0207	-3.85	OE
K8AVVW		0.2947	-0.0030	-0.45	0.2551	-0.0006	-0.11	OE
KDGHNZ		0.3064	0.0087	1.28	0.2666	0.0109	2.03	OE
KNY28W		0.2967	-0.0011	-0.16	0.2557	0.0000	0.00	OE
L2EVLT		0.2863	-0.0114	-1.68	0.2470	-0.0087	-1.61	GD
L4A8RU		0.3029	0.0052	0.76	0.2558	0.0002	0.03	AE
LH4Q9H		0.3053	0.0076	1.12	0.2593	0.0037	0.68	OE
MCDQH4		0.3017	0.0039	0.58	0.2580	0.0023	0.43	OE
MHK82P		0.3073	0.0096	1.42	0.2660	0.0103	1.92	XX
NFCEKW		0.2880	-0.0097	-1.44	0.2540	-0.0017	-0.31	OE
NH4BAQ	X	0.3084	0.0107	1.58	0.2713	0.0156	2.91	OE
NKLR3V		0.2960	-0.0017	-0.25	0.2585	0.0029	0.53	OE
NMWT83		0.3098	0.0121	1.79	0.2631	0.0074	1.38	XX
NPMUDQ	X	0.3314	0.0337	4.98	0.2942	0.0386	7.17	IC
NR7QYV		0.2967	-0.0011	-0.16	0.2540	-0.0017	-0.31	OE
P8CN7Y		0.2967	-0.0011	-0.16	0.2530	-0.0027	-0.50	OE
PGLYNQ		0.2997	0.0019	0.29	0.2577	0.0020	0.37	OE
PMBEJP	*	0.3093	0.0116	1.71	0.2557	0.0000	0.00	GD
PQNBR8		0.3006	0.0029	0.42	0.2561	0.0004	0.08	OE
Q23HCE		0.3007	0.0029	0.43	0.2560	0.0003	0.06	OE
Q8RX6R		0.2913	-0.0064	-0.94	0.2493	-0.0063	-1.18	OE
QEAJUP	*	0.2817	-0.0161	-2.37	0.2407	-0.0150	-2.79	OE
QGTRQ4		0.2974	-0.0003	-0.05	0.2559	0.0002	0.04	OE
QRFJNU	X	0.3233	0.0256	3.78	0.2800	0.0243	4.53	GD
QRYCE7		0.2957	-0.0021	-0.30	0.2550	-0.0007	-0.13	OE
R8QKXP		0.2990	0.0013	0.19	0.2593	0.0037	0.68	OE
RNC4UW		0.2972	-0.0005	-0.08	0.2560	0.0003	0.06	OE
T2YNUK		0.3023	0.0046	0.68	0.2613	0.0057	1.05	IC
TD6UDX		0.2980	0.0003	0.04	0.2580	0.0023	0.43	GD
TQWE6L		0.2973	-0.0004	-0.06	0.2547	-0.0010	-0.19	OE
U4FGZJ		0.3043	0.0066	0.98	0.2607	0.0050	0.93	XX
UA9C8J		0.3050	0.0073	1.07	0.2580	0.0023	0.43	OE
UQ8NKZ		0.2913	-0.0064	-0.94	0.2517	-0.0040	-0.75	OE
UYP8PL		0.3034	0.0057	0.84	0.2595	0.0038	0.71	OE
UZCV2L		0.2964	-0.0013	-0.20	0.2538	-0.0019	-0.36	OE
V6M9GY		0.2927	-0.0051	-0.75	0.2531	-0.0026	-0.48	OE
VDGDBZ		0.2957	-0.0021	-0.30	0.2553	-0.0003	-0.06	OE
VR8TQL		0.2880	-0.0097	-1.44	0.2490	-0.0067	-1.24	OE
VZREJX		0.2979	0.0001	0.02	0.2570	0.0013	0.24	IC
W7MADH		0.3050	0.0073	1.07	0.2617	0.0060	1.11	OE
WC9BBM		0.2977	-0.0001	-0.01	0.2573	0.0017	0.31	GD

WebCode	Data Flag	Sample L73 Lab Mean	Sample L73 Diff. from Grand Mean	Sample L73 CPV	Sample L74 Lab Mean	Sample L74 Diff. from Grand Mean	Sample L74 CPV	Method
X88M8K		0.3000	0.0023	0.34	0.2600	0.0043	0.80	OE
XM2AGJ		0.3020	0.0043	0.63	0.2570	0.0013	0.25	XX
Y8YE7W		0.2978	0.0001	0.02	0.2562	0.0005	0.10	OE

Summary Statistics

	Sample L73		Sample L74	
Grand Means	0.2977	Percent	0.2557	Percent
Stnd Dev Btwn Labs	0.0068	Percent	0.0054	Percent

Samples L73, L74 : AISI 6150, AISI 6150

Statistics based on 88 of 97 reporting participants

Key to Method Codes Reported by Participants

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

Comments on Assigned Data Flags for Test #1604

44R24E (X) - Data for sample L74 are low.

6M3FYE (X) - Inconsistent in testing between samples. Inconsistent within the determinations of both samples.

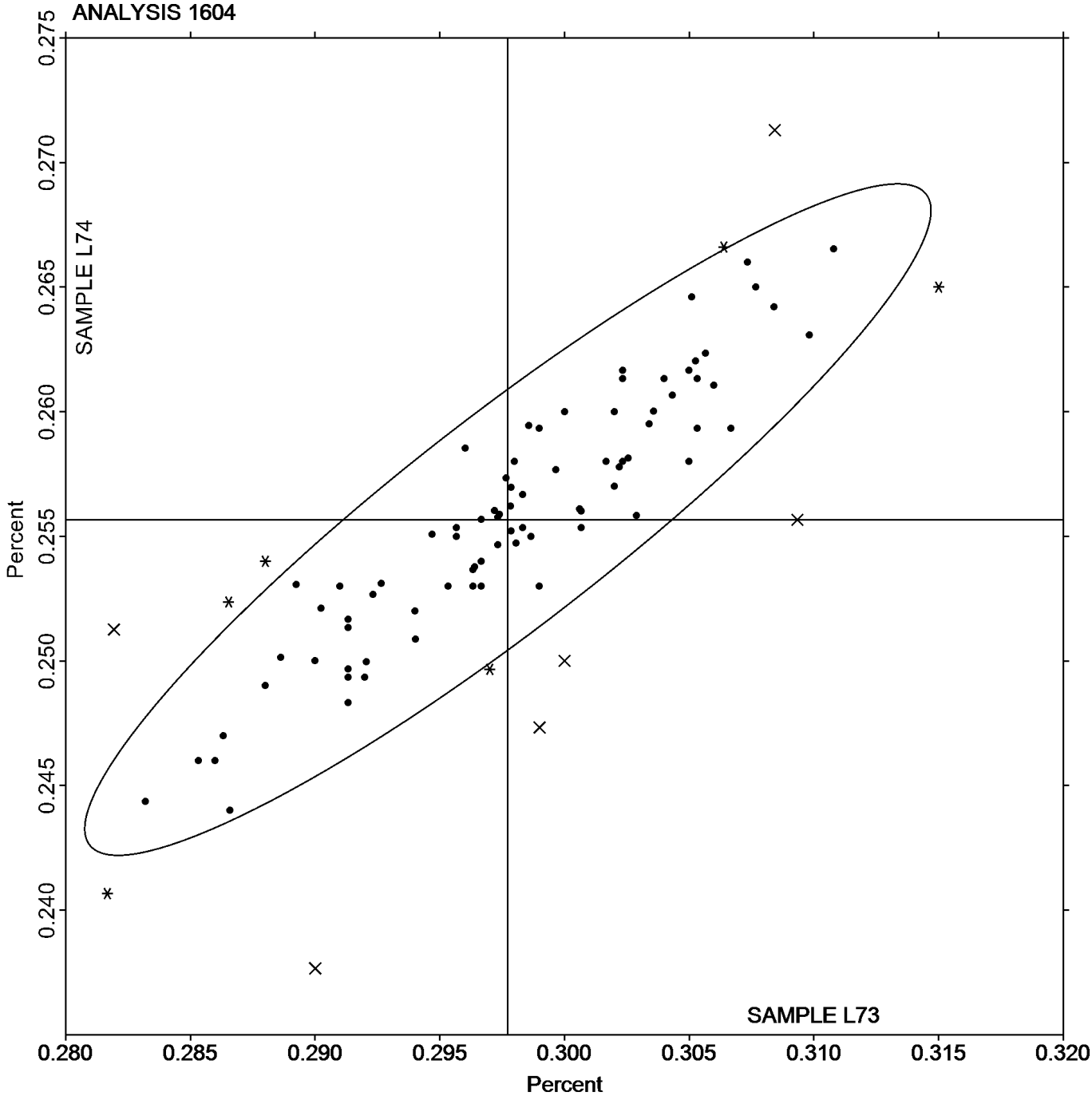
JXAYJV (X) - Data for both samples are low.

NH4BAQ (X) - Data for sample L74 are high. Inconsistent within the determinations of sample L73.

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

QRFJNU (X) - Data for both samples are high. Inconsistent within the determinations of sample L73.

SAMPLE L73	SAMPLE L74
0.2977 Percent	0.2557 Percent



		Sample L73			Sample L74			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
28CDPC		0.0290	0.0005	0.27	0.0463	0.0007	0.33	OE
29N9AH		0.0263	-0.0022	-1.24	0.0420	-0.0036	-1.70	XX
2CNJ6H	X	0.0363	0.0078	4.44	0.0527	0.0070	3.29	XX
2NZNCE		0.0301	0.0016	0.90	0.0480	0.0024	1.11	OE
3268ME		0.0278	-0.0007	-0.41	0.0442	-0.0014	-0.67	IC
3JJVNT		0.0302	0.0017	0.97	0.0487	0.0031	1.45	OE
3RU62D		0.0287	0.0002	0.12	0.0471	0.0015	0.70	OE
3YGVN9		0.0287	0.0001	0.08	0.0467	0.0010	0.48	OE
44R24E		0.0277	-0.0009	-0.49	0.0447	-0.0010	-0.46	WD
4JYCJL		0.0280	-0.0005	-0.30	0.0457	0.0001	0.04	OE
4PPLTJ		0.0279	-0.0006	-0.35	0.0450	-0.0006	-0.28	OE
4T6DGR		0.0280	-0.0005	-0.30	0.0452	-0.0004	-0.21	WD
6DR6GN	X	0.3003	0.2718	154.59	0.0467	0.0010	0.48	XX
6DRDDE	X	0.0343	0.0058	3.30	0.0426	-0.0030	-1.42	OE
6M3FYE	X	0.0355	0.0070	3.99	0.0501	0.0045	2.10	OE
6R9D4D		0.0293	0.0008	0.46	0.0467	0.0011	0.49	OE
6YLBMQ		0.0304	0.0018	1.05	0.0479	0.0023	1.06	OE
737A6E		0.0278	-0.0007	-0.39	0.0439	-0.0017	-0.80	OE
7BJH7F		0.0320	0.0035	1.98	0.0490	0.0034	1.57	GD
829FKF		0.0298	0.0013	0.75	0.0462	0.0006	0.26	XX
8LGLBA		0.0269	-0.0016	-0.90	0.0443	-0.0013	-0.63	OE
8UAVED	X	0.0359	0.0074	4.20	0.0499	0.0042	1.98	OE
8WCWEB		0.0310	0.0025	1.41	0.0470	0.0014	0.64	OE
94PD2G	X	0.0210	-0.0075	-4.28	0.0390	-0.0066	-3.11	OE
9CPMWA		0.0267	-0.0018	-1.04	0.0450	-0.0006	-0.30	WD
9GYU8L		0.0303	0.0018	1.03	0.0480	0.0024	1.11	OE
9KEBRC		0.0298	0.0013	0.73	0.0472	0.0015	0.72	OE
9NGDD8		0.0261	-0.0024	-1.38	0.0437	-0.0019	-0.91	OE
9TC8B9		0.0308	0.0023	1.31	0.0488	0.0032	1.50	OE
A9LBEE		0.0275	-0.0010	-0.56	0.0446	-0.0011	-0.50	IC
ALT2E2		0.0293	0.0007	0.42	0.0461	0.0005	0.22	OE
APN27H		0.0296	0.0011	0.61	0.0468	0.0012	0.56	OE
B9Y6P9		0.0287	0.0002	0.10	0.0451	-0.0005	-0.24	OE
B9YZF7		0.0288	0.0003	0.16	0.0459	0.0003	0.12	OE
BABWKB		0.0262	-0.0023	-1.30	0.0438	-0.0018	-0.85	OE
BCT89E		0.0265	-0.0021	-1.17	0.0427	-0.0029	-1.38	OE
BEGJ8K		0.0310	0.0025	1.41	0.0477	0.0020	0.95	OE
BZLBED		0.0295	0.0010	0.58	0.0468	0.0012	0.54	OE
E6MD3C		0.0277	-0.0009	-0.49	0.0447	-0.0010	-0.46	OE
F7PUED		0.0293	0.0007	0.42	0.0447	-0.0009	-0.42	OE
FDRUZZ	X	0.0282	-0.0003	-0.18	0.0558	0.0101	4.75	OE
FEKZ8E		0.0299	0.0014	0.78	0.0466	0.0009	0.43	OE
FQM34W		0.0283	-0.0002	-0.11	0.0460	0.0004	0.17	OE
GK788X	*	0.0336	0.0050	2.87	0.0501	0.0045	2.09	OE
GNQVC6	*	0.0293	0.0008	0.46	0.0437	-0.0020	-0.92	OE
GWJCFE		0.0250	-0.0035	-2.00	0.0420	-0.0036	-1.70	OE
GYU6JU		0.0260	-0.0025	-1.43	0.0440	-0.0016	-0.77	OE

		Sample L73			Sample L74			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
H3P88U		0.0278	-0.0007	-0.39	0.0457	0.0001	0.03	OE
HGKPPD		0.0282	-0.0003	-0.18	0.0425	-0.0032	-1.48	OE
HQQH6Y	X	0.0231	-0.0055	-3.10	0.0371	-0.0086	-4.01	OE
JEG3XU		0.0284	-0.0002	-0.09	0.0462	0.0005	0.25	OE
JGP9JV		0.0300	0.0015	0.84	0.0500	0.0044	2.04	OE
JT99J9		0.0256	-0.0029	-1.66	0.0431	-0.0025	-1.17	OE
JXAYJV		0.0279	-0.0006	-0.35	0.0452	-0.0004	-0.21	OE
K8AVVW		0.0282	-0.0004	-0.20	0.0460	0.0003	0.15	OE
KDGHNZ	*	0.0257	-0.0028	-1.58	0.0471	0.0015	0.69	OE
KNY28W		0.0280	-0.0005	-0.30	0.0450	-0.0006	-0.30	OE
L2EVLT		0.0300	0.0015	0.84	0.0487	0.0030	1.42	GD
L4A8RU		0.0284	-0.0001	-0.07	0.0460	0.0003	0.15	AE
LH4Q9H		0.0271	-0.0014	-0.81	0.0458	0.0001	0.06	OE
MCDQH4		0.0260	-0.0026	-1.45	0.0410	-0.0047	-2.19	OE
MHK82P		0.0287	0.0001	0.08	0.0456	0.0000	0.00	XX
NFCEKW		0.0290	0.0005	0.27	0.0450	-0.0006	-0.30	OE
NH4BAQ		0.0307	0.0021	1.22	0.0477	0.0021	0.96	OE
NKLR3V		0.0311	0.0026	1.47	0.0503	0.0047	2.20	OE
NMWT83		0.0289	0.0004	0.22	0.0458	0.0001	0.06	XX
NPMUDQ	X	0.0305	0.0020	1.13	0.0393	-0.0064	-2.98	IC
NR7QYV		0.0317	0.0031	1.79	0.0473	0.0017	0.79	XX
P8CN7Y		0.0239	-0.0046	-2.63	0.0420	-0.0036	-1.70	OE
PGLYNQ		0.0289	0.0004	0.23	0.0461	0.0004	0.20	OE
PMBEJP		0.0310	0.0025	1.43	0.0474	0.0018	0.82	GD
PQNBR8		0.0276	-0.0009	-0.51	0.0452	-0.0004	-0.19	OE
Q23HCE		0.0301	0.0015	0.88	0.0497	0.0041	1.92	OE
Q8RX6R		0.0300	0.0015	0.84	0.0468	0.0012	0.56	OE
QEAJUP		0.0273	-0.0012	-0.68	0.0443	-0.0013	-0.61	OE
QGTRQ4		0.0280	-0.0005	-0.28	0.0457	0.0000	0.01	OE
QRFJNU		0.0297	0.0011	0.65	0.0473	0.0017	0.79	GD
QRYCE7	X	0.0397	0.0111	6.34	0.0537	0.0080	3.76	OE
R8QKXP		0.0258	-0.0028	-1.57	0.0416	-0.0040	-1.89	IC
RNC4UW		0.0290	0.0005	0.26	0.0457	0.0001	0.05	OE
T2YNUK	X	0.0207	-0.0079	-4.47	0.0357	-0.0100	-4.67	IC
TD6UDX	*	0.0244	-0.0041	-2.34	0.0395	-0.0061	-2.87	GD
TQWE6L		0.0283	-0.0002	-0.11	0.0460	0.0004	0.17	OE
U4FGZJ		0.0300	0.0015	0.84	0.0470	0.0014	0.64	XX
UQ8NKZ		0.0296	0.0011	0.63	0.0474	0.0018	0.82	OE
UYP8PL		0.0268	-0.0017	-0.98	0.0455	-0.0001	-0.07	OE
UZCV2L		0.0285	0.0000	0.00	0.0440	-0.0017	-0.78	OE
V6M9GY		0.0274	-0.0012	-0.66	0.0435	-0.0021	-0.99	OE
VDGDBZ		0.0273	-0.0012	-0.68	0.0450	-0.0006	-0.30	OE
VR8TQL		0.0276	-0.0009	-0.52	0.0448	-0.0008	-0.38	OE
VZREJX	X	0.0331	0.0046	2.62	0.0537	0.0080	3.76	IC
W7MADH		0.0270	-0.0015	-0.87	0.0423	-0.0033	-1.55	OE
WC9BBM		0.0264	-0.0021	-1.19	0.0430	-0.0026	-1.24	GD
X88M8K	*	0.0300	0.0015	0.84	0.0400	-0.0056	-2.64	OE

		Sample L73			Sample L74			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
XM2AGJ		0.0290	0.0005	0.29	0.0457	0.0001	0.04	AE
Y8YE7W		0.0297	0.0012	0.69	0.0472	0.0016	0.73	OE

Summary Statistics

	Sample L73		Sample L74	
Grand Means	0.0285	Percent	0.0456	Percent
Stnd Dev Btwn Labs	0.0018	Percent	0.0021	Percent

Samples L73, L74 : AISI 6150, AISI 6150

Statistics based on 82 of 96 reporting participants

Key to Method Codes Reported by Participants

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

Comments on Assigned Data Flags for Test #1605

2CNJ6H (X) - Data for both samples are high.

6DR6GN (X) - Data for sample L73 are high. Inconsistent within the determinations of sample L73.

6DRDDE (X) - Data for sample L73 are high.

6M3FYE (X) - Data for sample L73 are high. Inconsistent within the determinations of both samples.

8UAVED (X) - Data for sample L73 are high. Inconsistent within the determinations of sample L74.

94PD2G (X) - Data for both samples are low.

FDRUZZ (X) - Data for sample L74 are high.

HQQH6Y (X) - Data for both samples are low.

NPMUDQ (X) - Data for sample L74 are low.

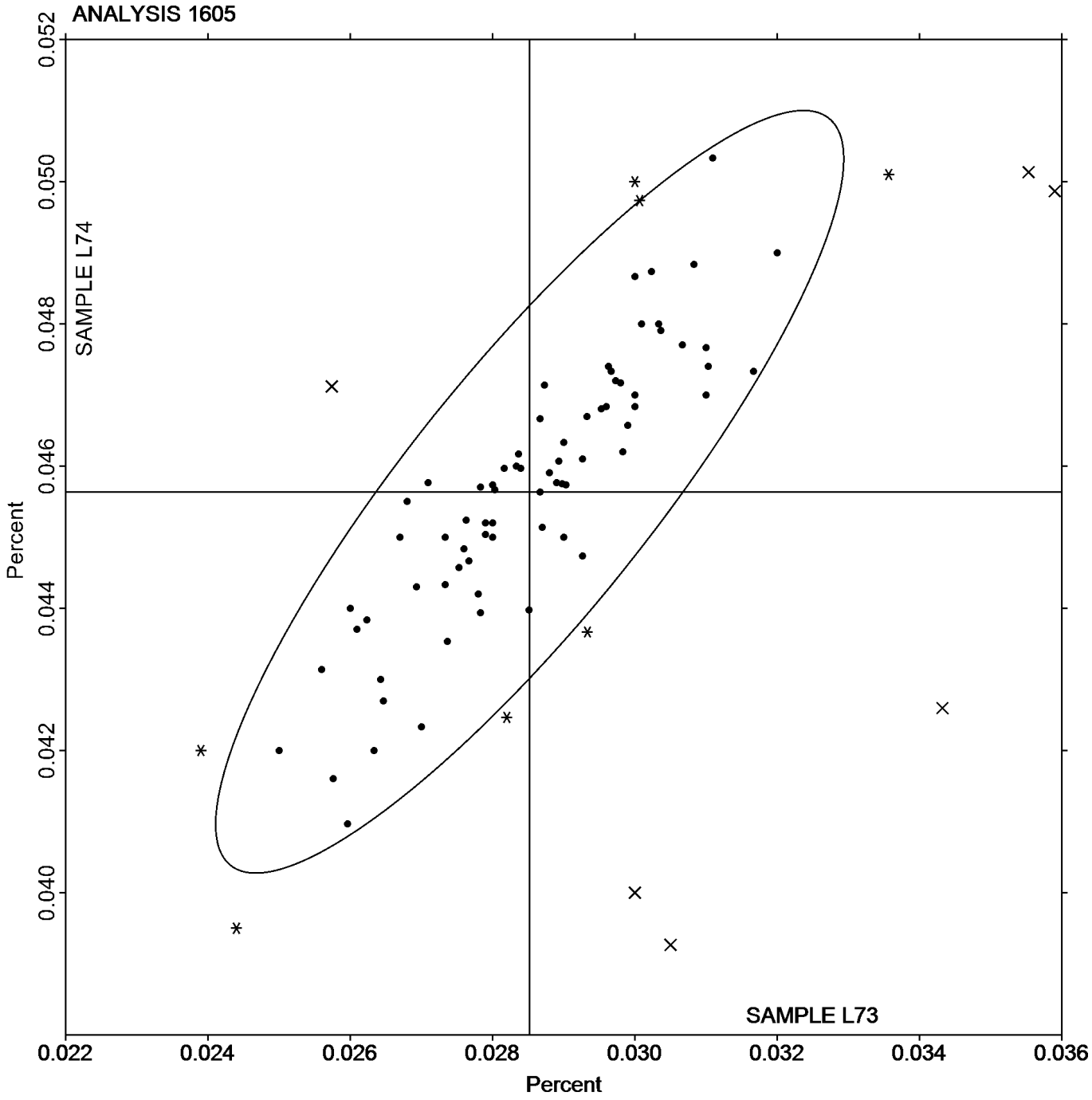
QRYCE7 (X) - Data for both samples are high.

T2YNUK (X) - Data for both samples are low.

VZREJX (X) - Data for sample L74 are high. Inconsistent within the determinations of both samples.

SAMPLE L73
0.0285 Percent

SAMPLE L74
0.0456 Percent



		Sample L73			Sample L74			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
28CDPC		0.1267	-0.0078	-2.52	0.1043	-0.0076	-2.59	OE
29N9AH		0.1357	0.0012	0.40	0.1127	0.0008	0.27	XX
2CNJ6H		0.1367	0.0022	0.73	0.1140	0.0021	0.73	XX
2NZNCE		0.1360	0.0016	0.51	0.1130	0.0011	0.38	OE
3268ME		0.1370	0.0026	0.83	0.1140	0.0021	0.73	IC
3JJVNT		0.1360	0.0015	0.50	0.1136	0.0017	0.59	OE
3RU62D		0.1281	-0.0063	-2.05	0.1074	-0.0045	-1.53	OE
3YGVN9		0.1357	0.0012	0.40	0.1123	0.0004	0.15	OE
44R24E	*	0.1300	-0.0044	-1.44	0.1143	0.0024	0.84	WD
4JYCJL		0.1287	-0.0058	-1.87	0.1070	-0.0049	-1.68	OE
4PPLTJ		0.1310	-0.0034	-1.11	0.1103	-0.0016	-0.53	OE
4T6DGR		0.1340	-0.0004	-0.14	0.1112	-0.0007	-0.25	WD
6DR6GN		0.1363	0.0019	0.62	0.1120	0.0001	0.04	XX
6DRDDE	*	0.1347	0.0002	0.08	0.1077	-0.0042	-1.44	OE
6M3FYE	X	0.1217	-0.0128	-4.14	0.0977	-0.0142	-4.88	OE
6R9D4D	*	0.1317	-0.0027	-0.89	0.1140	0.0021	0.73	OE
6YLBMQ	X	0.1215	-0.0129	-4.19	0.1020	-0.0099	-3.40	OE
737A6E		0.1334	-0.0011	-0.34	0.1106	-0.0013	-0.43	OE
7BJH7F		0.1350	0.0006	0.19	0.1130	0.0011	0.38	GD
829FKF	*	0.1323	-0.0021	-0.69	0.1134	0.0015	0.52	XX
8LGLBA		0.1340	-0.0004	-0.14	0.1100	-0.0019	-0.65	OE
8UAVED		0.1277	-0.0068	-2.19	0.1060	-0.0059	-2.02	OE
8WCWEB		0.1350	0.0006	0.19	0.1130	0.0011	0.38	OE
94PD2G		0.1360	0.0016	0.51	0.1140	0.0021	0.73	OE
9CPMWA	*	0.1269	-0.0075	-2.44	0.1130	0.0011	0.38	WD
9GYU8L	X	0.1400	0.0056	1.81	0.1133	0.0014	0.50	OE
9KEBRC		0.1363	0.0018	0.60	0.1137	0.0018	0.63	OE
9NGDD8		0.1276	-0.0068	-2.21	0.1058	-0.0061	-2.09	OE
9TC8B9		0.1290	-0.0054	-1.76	0.1080	-0.0039	-1.33	OE
A9LBEE		0.1322	-0.0022	-0.72	0.1111	-0.0008	-0.28	IC
ALT2E2		0.1296	-0.0049	-1.58	0.1077	-0.0042	-1.44	OE
APN27H		0.1310	-0.0034	-1.11	0.1090	-0.0029	-0.99	OE
B9Y6P9		0.1316	-0.0028	-0.91	0.1069	-0.0050	-1.70	OE
B9YZF7		0.1373	0.0029	0.94	0.1137	0.0018	0.61	OE
BABWKB		0.1372	0.0028	0.90	0.1141	0.0022	0.75	OE
BCT89E		0.1416	0.0071	2.32	0.1188	0.0069	2.36	OE
BEGJ8K		0.1353	0.0009	0.29	0.1120	0.0001	0.04	OE
BZLBED		0.1330	-0.0014	-0.46	0.1120	0.0001	0.04	OE
E6MD3C		0.1337	-0.0008	-0.25	0.1110	-0.0009	-0.30	OE
F7PUED		0.1363	0.0018	0.60	0.1140	0.0021	0.74	OE
FDRUZZ		0.1401	0.0056	1.82	0.1194	0.0075	2.57	OE
FEKZ8E		0.1390	0.0046	1.48	0.1157	0.0038	1.30	OE
FQM34W		0.1357	0.0012	0.40	0.1130	0.0011	0.38	OE
GK788X		0.1355	0.0011	0.36	0.1144	0.0025	0.85	OE
GNQVC6		0.1320	-0.0024	-0.79	0.1090	-0.0029	-0.99	OE
GWJCFE		0.1383	0.0039	1.27	0.1147	0.0028	0.95	OE
GYU6JU		0.1380	0.0036	1.16	0.1170	0.0051	1.76	OE

		Sample L73			Sample L74			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
H3P88U		0.1380	0.0036	1.16	0.1150	0.0031	1.07	OE
HGKPPD		0.1326	-0.0019	-0.60	0.1117	-0.0002	-0.05	OE
HQQH6Y		0.1343	-0.0001	-0.03	0.1127	0.0008	0.27	OE
JEG3XU		0.1344	0.0000	0.00	0.1123	0.0004	0.15	OE
JGP9JV	*	0.1400	0.0056	1.81	0.1100	-0.0019	-0.65	OE
JT99J9	X	0.1189	-0.0155	-5.02	0.1027	-0.0092	-3.14	OE
JXAYJV	*	0.1330	-0.0014	-0.46	0.1060	-0.0059	-2.02	OE
K8AVVW		0.1345	0.0000	0.01	0.1116	-0.0003	-0.10	OE
KDGHNZ	X	0.1369	0.0025	0.81	0.1217	0.0098	3.38	OE
KNY28W		0.1373	0.0029	0.94	0.1160	0.0041	1.41	OE
L2EVLT		0.1363	0.0019	0.62	0.1127	0.0008	0.27	GD
L4A8RU		0.1356	0.0012	0.38	0.1141	0.0022	0.77	AE
LH4Q9H		0.1350	0.0006	0.19	0.1127	0.0008	0.27	OE
MCDQH4		0.1333	-0.0011	-0.36	0.1110	-0.0009	-0.30	OE
MHK82P		0.1350	0.0006	0.19	0.1120	0.0001	0.04	XX
NFCEKW		0.1380	0.0036	1.16	0.1140	0.0021	0.73	OE
NH4BAQ		0.1369	0.0025	0.81	0.1127	0.0008	0.28	OE
NKLR3V	X	0.1456	0.0111	3.61	0.1251	0.0132	4.54	OE
NMWT83		0.1348	0.0004	0.12	0.1118	-0.0001	-0.02	XX
NPMUDQ		0.1375	0.0031	1.01	0.1125	0.0006	0.22	IC
NR7QYV		0.1360	0.0016	0.51	0.1140	0.0021	0.73	OE
P8CN7Y		0.1310	-0.0034	-1.11	0.1083	-0.0036	-1.22	OE
PGLYNQ		0.1353	0.0009	0.29	0.1120	0.0001	0.04	OE
PMBEJP		0.1353	0.0009	0.29	0.1147	0.0028	0.95	GD
PQNBR8		0.1322	-0.0023	-0.73	0.1093	-0.0026	-0.88	OE
Q23HCE	*	0.1400	0.0056	1.81	0.1130	0.0011	0.38	OE
Q8RX6R		0.1340	-0.0004	-0.14	0.1093	-0.0026	-0.88	OE
QEAJUP		0.1333	-0.0011	-0.36	0.1100	-0.0019	-0.65	OE
QGTRQ4		0.1354	0.0010	0.33	0.1131	0.0012	0.43	OE
QRFJNU	*	0.1400	0.0056	1.81	0.1100	-0.0019	-0.65	GD
QRYCE7	X	0.1223	-0.0121	-3.92	0.1073	-0.0046	-1.56	OE
R8QKXP		0.1357	0.0012	0.40	0.1150	0.0031	1.07	OE
RNC4UW	X	0.1336	-0.0009	-0.28	0.1148	0.0029	0.99	OE
T2YNUK	X	0.0853	-0.0491	-15.92	0.0710	-0.0409	-14.03	IC
TD6UDX		0.1280	-0.0064	-2.08	0.1060	-0.0059	-2.02	GD
TQWE6L		0.1327	-0.0018	-0.57	0.1113	-0.0006	-0.19	OE
U4FGZJ		0.1350	0.0006	0.19	0.1123	0.0004	0.15	XX
UQ8NKZ		0.1380	0.0036	1.16	0.1147	0.0028	0.95	OE
UYP8PL	X	0.1450	0.0106	3.43	0.1221	0.0102	3.51	OE
UZCV2L		0.1294	-0.0050	-1.62	0.1072	-0.0047	-1.62	OE
V6M9GY		0.1382	0.0037	1.21	0.1139	0.0020	0.68	OE
VDGDBZ		0.1343	-0.0001	-0.03	0.1117	-0.0002	-0.08	OE
VR8TQL		0.1340	-0.0004	-0.14	0.1113	-0.0006	-0.19	OE
VZREJX		0.1332	-0.0012	-0.39	0.1112	-0.0007	-0.25	IC
W7MADH		0.1330	-0.0014	-0.46	0.1107	-0.0012	-0.42	OE
WC9BBM		0.1320	-0.0024	-0.79	0.1080	-0.0039	-1.33	XX
X88M8K	*	0.1400	0.0056	1.81	0.1100	-0.0019	-0.65	OE

		Sample L73			Sample L74			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
XM2AGJ		0.1370	0.0026	0.83	0.1137	0.0018	0.61	AE
Y8YE7W		0.1368	0.0024	0.78	0.1135	0.0016	0.55	OE

Summary Statistics

	Sample L73		Sample L74	
Grand Means	0.1344	Percent	0.1119	Percent
Stnd Dev Btwn Labs	0.0031	Percent	0.0029	Percent

Samples L73, L74 : AISI 6150, AISI 6150

Statistics based on 76 of 96 reporting participants

Key to Method Codes Reported by Participants

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

Comments on Assigned Data Flags for Test #1606

6M3FYE (X) - Data for both samples are low. Possible Systematic Error.

6YLBMQ (X) - Data for both samples are low. Possible Systematic Error.

9GYU8L (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample L74.

JT99J9 (X) - Data for both samples are low. Possible Systematic Error.

KDGHNZ (X) - Data for sample L74 are high.

NKLR3V (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample L74.

QRYCE7 (X) - Data for sample L73 are low. Inconsistent within the determinations of both samples.

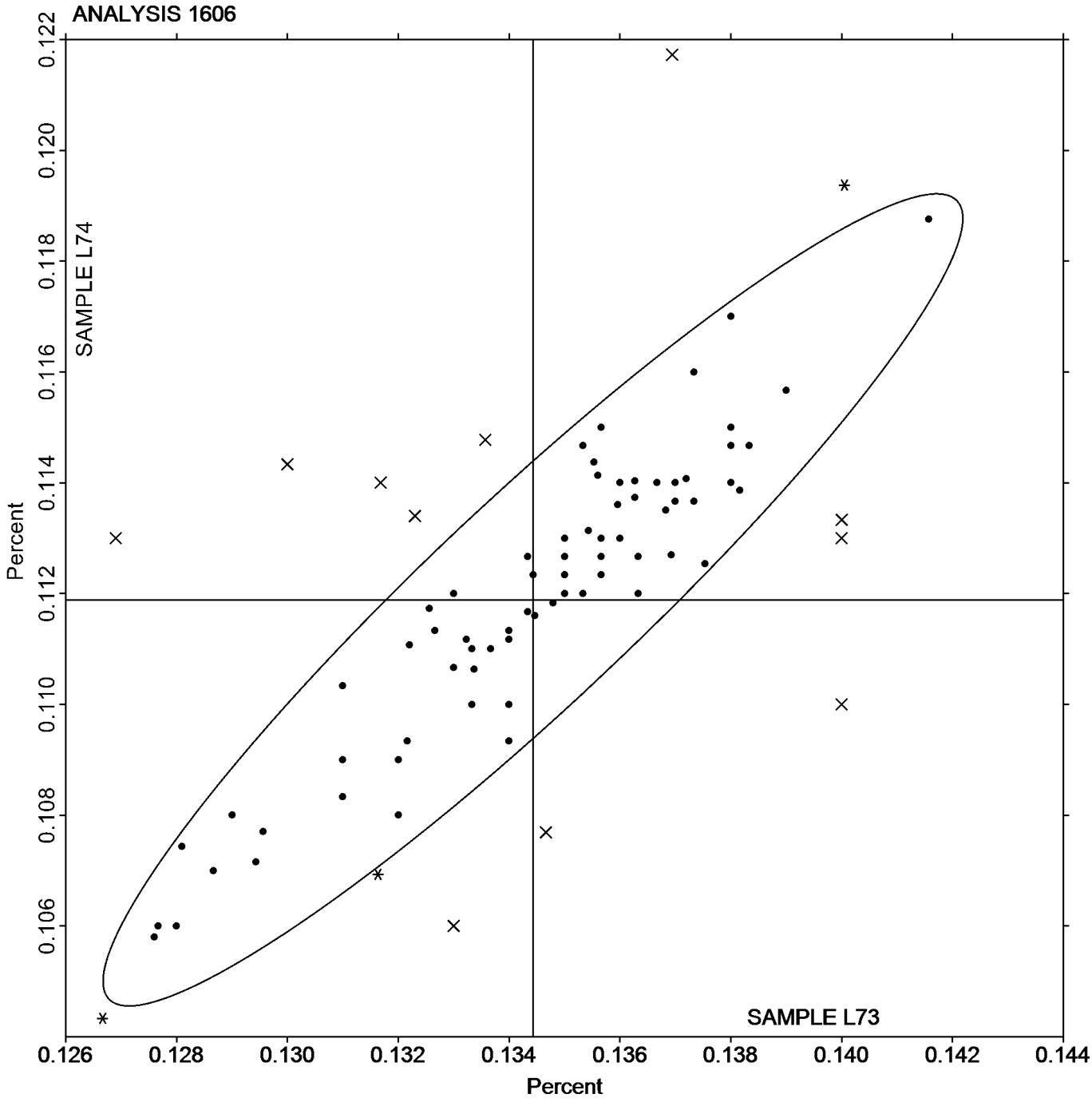
RNC4UW (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample L74.

T2YNUK (X) - Data for both samples are low. Possible Systematic Error.

UYP8PL (X) - Data for both samples are high. Possible Systematic Error.

SAMPLE L73
0.1344 Percent

SAMPLE L74
0.1119 Percent



		Sample L73			Sample L74			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
28CDPC		0.9013	-0.0137	-0.96	0.9563	-0.0073	-0.51	OE
29N9AH		0.9077	-0.0073	-0.52	0.9593	-0.0043	-0.30	XX
2CNJ6H		0.9100	-0.0050	-0.35	0.9667	0.0031	0.21	XX
2NZNCE		0.9010	-0.0140	-0.98	0.9530	-0.0106	-0.74	OE
3268ME		0.9260	0.0110	0.77	0.9707	0.0071	0.49	IC
3JJVNT		0.9270	0.0120	0.85	0.9678	0.0042	0.29	OE
3RU62D		0.9013	-0.0137	-0.96	0.9522	-0.0114	-0.80	OE
3YGVN9		0.9307	0.0157	1.10	0.9727	0.0091	0.64	OE
44R24E		0.9200	0.0050	0.35	0.9740	0.0104	0.73	WD
4JYCJL		0.9073	-0.0077	-0.54	0.9560	-0.0076	-0.53	XX
4PPLTJ		0.9020	-0.0130	-0.91	0.9603	-0.0033	-0.23	OE
4T6DGR		0.9326	0.0176	1.24	0.9751	0.0115	0.80	WD
6DR6GN		0.9193	0.0043	0.31	0.9710	0.0074	0.52	XX
6DRDDE	*	0.9244	0.0094	0.66	0.9907	0.0271	1.90	OE
6M3FYE		0.9330	0.0180	1.27	0.9777	0.0141	0.99	OE
6R9D4D		0.9297	0.0147	1.04	0.9634	-0.0002	-0.01	OE
737A6E		0.9140	-0.0010	-0.07	0.9532	-0.0104	-0.73	OE
7BJH7F		0.8880	-0.0270	-1.90	0.9450	-0.0186	-1.31	GD
829FKF		0.9123	-0.0027	-0.19	0.9653	0.0017	0.12	XX
8LGLBA		0.9040	-0.0110	-0.77	0.9537	-0.0099	-0.70	OE
8UAVED	X	0.9613	0.0463	3.26	1.002	0.0381	2.67	OE
8WCWEB		0.9210	0.0060	0.42	0.9710	0.0074	0.52	OE
94PD2G		0.9000	-0.0150	-1.05	0.9500	-0.0136	-0.95	OE
9CPMWA		0.9191	0.0041	0.29	0.9610	-0.0026	-0.18	WD
9GYU8L	X	1.020	0.1050	7.39	1.073	0.1097	7.69	OE
9KEBRC		0.9066	-0.0084	-0.59	0.9563	-0.0073	-0.51	OE
9NGDD8		0.9281	0.0131	0.92	0.9766	0.0130	0.91	OE
9TC8B9		0.9123	-0.0027	-0.19	0.9623	-0.0013	-0.09	OE
A9LBEE		0.9123	-0.0027	-0.19	0.9677	0.0041	0.28	IC
ALT2E2		0.9202	0.0052	0.37	0.9563	-0.0073	-0.52	OE
APN27H		0.9180	0.0030	0.21	0.9663	0.0027	0.19	OE
B9Y6P9		0.9242	0.0092	0.65	0.9633	-0.0003	-0.02	OE
B9YZF7		0.9437	0.0287	2.02	0.9947	0.0311	2.18	OE
BABWKB		0.9083	-0.0067	-0.47	0.9573	-0.0063	-0.44	OE
BCT89E		0.9096	-0.0054	-0.38	0.9593	-0.0043	-0.30	OE
BEGJ8K		0.9207	0.0057	0.40	0.9657	0.0021	0.14	OE
BZLBED		0.9190	0.0040	0.28	0.9727	0.0091	0.64	OE
E6MD3C		0.9247	0.0097	0.68	0.9747	0.0111	0.78	OE
F7PUED		0.9169	0.0019	0.13	0.9574	-0.0062	-0.44	OE
FDRUZZ		0.9217	0.0067	0.47	0.9585	-0.0052	-0.36	OE
FEKZ8E		0.9280	0.0130	0.91	0.9747	0.0111	0.78	OE
FQM34W	X	0.8507	-0.0643	-4.53	0.8993	-0.0643	-4.51	OE
GK788X		0.8956	-0.0194	-1.37	0.9446	-0.0190	-1.33	OE
GNQVC6		0.9160	0.0010	0.07	0.9673	0.0037	0.26	OE
GWJCFE		0.8993	-0.0157	-1.10	0.9430	-0.0206	-1.45	OE
GYU6JU	X	0.9560	0.0410	2.88	1.016	0.0524	3.67	OE
H3P88U		0.8916	-0.0234	-1.65	0.9456	-0.0180	-1.27	OE

		Sample L73			Sample L74			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
HGKPPD		0.9069	-0.0081	-0.57	0.9492	-0.0144	-1.01	OE
HQQH6Y		0.8947	-0.0203	-1.43	0.9477	-0.0159	-1.12	OE
JEG3XU		0.9045	-0.0105	-0.74	0.9502	-0.0134	-0.94	XX
JGP9JV		0.9200	0.0050	0.35	0.9800	0.0164	1.15	OE
JT99J9	X	0.8736	-0.0414	-2.91	0.9418	-0.0218	-1.53	OE
JXAYJV		0.8900	-0.0250	-1.76	0.9440	-0.0196	-1.38	OE
K8AVVW		0.9009	-0.0141	-0.99	0.9534	-0.0102	-0.72	OE
KDGHNZ		0.9210	0.0060	0.42	0.9831	0.0194	1.36	OE
KNY28W		0.9367	0.0217	1.52	0.9800	0.0164	1.15	OE
L2EVLT		0.9453	0.0303	2.13	0.9937	0.0301	2.11	GD
L4A8RU		0.9134	-0.0016	-0.11	0.9590	-0.0046	-0.32	AE
LH4Q9H		0.9303	0.0153	1.08	0.9763	0.0127	0.89	OE
MCDQH4		0.9023	-0.0127	-0.89	0.9457	-0.0179	-1.26	OE
MHK82P		0.9110	-0.0040	-0.28	0.9607	-0.0029	-0.21	XX
NFCEKW		0.9230	0.0080	0.56	0.9720	0.0084	0.59	OE
NH4BAQ		0.9245	0.0095	0.67	0.9597	-0.0039	-0.27	OE
NKLR3V		0.9047	-0.0103	-0.73	0.9540	-0.0096	-0.67	OE
NMWT83		0.9496	0.0346	2.43	0.9970	0.0334	2.34	XX
NPMUDQ		0.9238	0.0088	0.62	0.9668	0.0032	0.22	IC
NR7QYV		0.9267	0.0117	0.82	0.9790	0.0154	1.08	OE
P8CN7Y		0.9400	0.0250	1.76	0.9953	0.0317	2.22	OE
PGLYNQ		0.9050	-0.0100	-0.70	0.9557	-0.0079	-0.56	OE
PMBEJP	X	0.8933	-0.0217	-1.52	0.9637	0.0001	0.00	GD
PQNBR8		0.9045	-0.0105	-0.74	0.9488	-0.0148	-1.04	OE
Q23HCE		0.9177	0.0027	0.19	0.9630	-0.0006	-0.04	OE
Q8RX6R		0.8783	-0.0367	-2.58	0.9267	-0.0369	-2.59	OE
QEAJUP		0.9020	-0.0130	-0.91	0.9490	-0.0146	-1.02	OE
QGTRQ4		0.9278	0.0128	0.90	0.9813	0.0177	1.24	OE
QRFJNU		0.9267	0.0117	0.82	0.9767	0.0131	0.92	GD
QRYCE7	X	1.030	0.1150	8.09	1.080	0.1164	8.16	OE
R8QKXP		0.9217	0.0067	0.47	0.9767	0.0131	0.92	OE
RNC4UW		0.9180	0.0030	0.21	0.9673	0.0037	0.26	OE
T2YNUK	X	0.8663	-0.0487	-3.42	0.9033	-0.0603	-4.23	IC
TD6UDX		0.9130	-0.0020	-0.14	0.9650	0.0014	0.10	GD
TQWE6L		0.9177	0.0027	0.19	0.9687	0.0051	0.35	OE
U4FGZJ	*	0.9260	0.0110	0.77	0.9970	0.0334	2.34	XX
UA9C8J		0.9023	-0.0127	-0.89	0.9503	-0.0133	-0.93	OE
UQ8NKZ	X	0.8597	-0.0553	-3.89	0.8937	-0.0699	-4.90	OE
UYP8PL		0.9135	-0.0015	-0.11	0.9666	0.0030	0.21	OE
UZCV2L		0.9022	-0.0128	-0.90	0.9443	-0.0193	-1.35	OE
V6M9GY		0.9010	-0.0140	-0.98	0.9541	-0.0095	-0.67	OE
VDGDBZ		0.9270	0.0120	0.84	0.9737	0.0101	0.71	OE
VR8TQL		0.9023	-0.0127	-0.89	0.9503	-0.0133	-0.93	OE
VZREJX		0.9274	0.0124	0.87	0.9780	0.0144	1.01	IC
W7MADH		0.8790	-0.0360	-2.53	0.9273	-0.0363	-2.54	OE
WC9BBM	X	0.8547	-0.0603	-4.24	0.9180	-0.0456	-3.20	GD
X88M8K		0.9300	0.0150	1.06	0.9900	0.0264	1.85	OE

Fasteners and Metals Interlaboratory Testing Program

Analysis 1607

Carbon & Low Alloy Steel, CHROMIUM (Cr)
CHROMIUM (Cr)

WebCode	Data Flag	Sample L73 Lab Mean	Sample L73 Diff. from Grand Mean	Sample L73 CPV	Sample L74 Lab Mean	Sample L74 Diff. from Grand Mean	Sample L74 CPV	Method
XM2AGJ		0.9147	-0.0003	-0.02	0.9587	-0.0049	-0.35	AE
Y8YE7W		0.9345	0.0195	1.37	0.9850	0.0214	1.50	OE

Summary Statistics

	Sample L73		Sample L74	
Grand Means	0.9150	Percent	0.9636	Percent
Stnd Dev Btwn Labs	0.0142	Percent	0.0143	Percent

Samples L73, L74 : AISI 6150, AISI 6150

Statistics based on 84 of 96 reporting participants

Key to Method Codes Reported by Participants

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

Comments on Assigned Data Flags for Test #1607

8UAVED (X) - Data for sample L73 are high.

9GYU8L (X) - Data for both samples are high. Possible Systematic Error.

FQM34W (X) - Data for both samples are low. Possible Systematic Error.

GYU6JU (X) - Data for both samples are high. Possible Systematic Error.

JT99J9 (X) - Data for sample L73 are low.

PMBEJP (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample L73.

QRYCE7 (X) - Data for both samples are high. Possible Systematic Error.

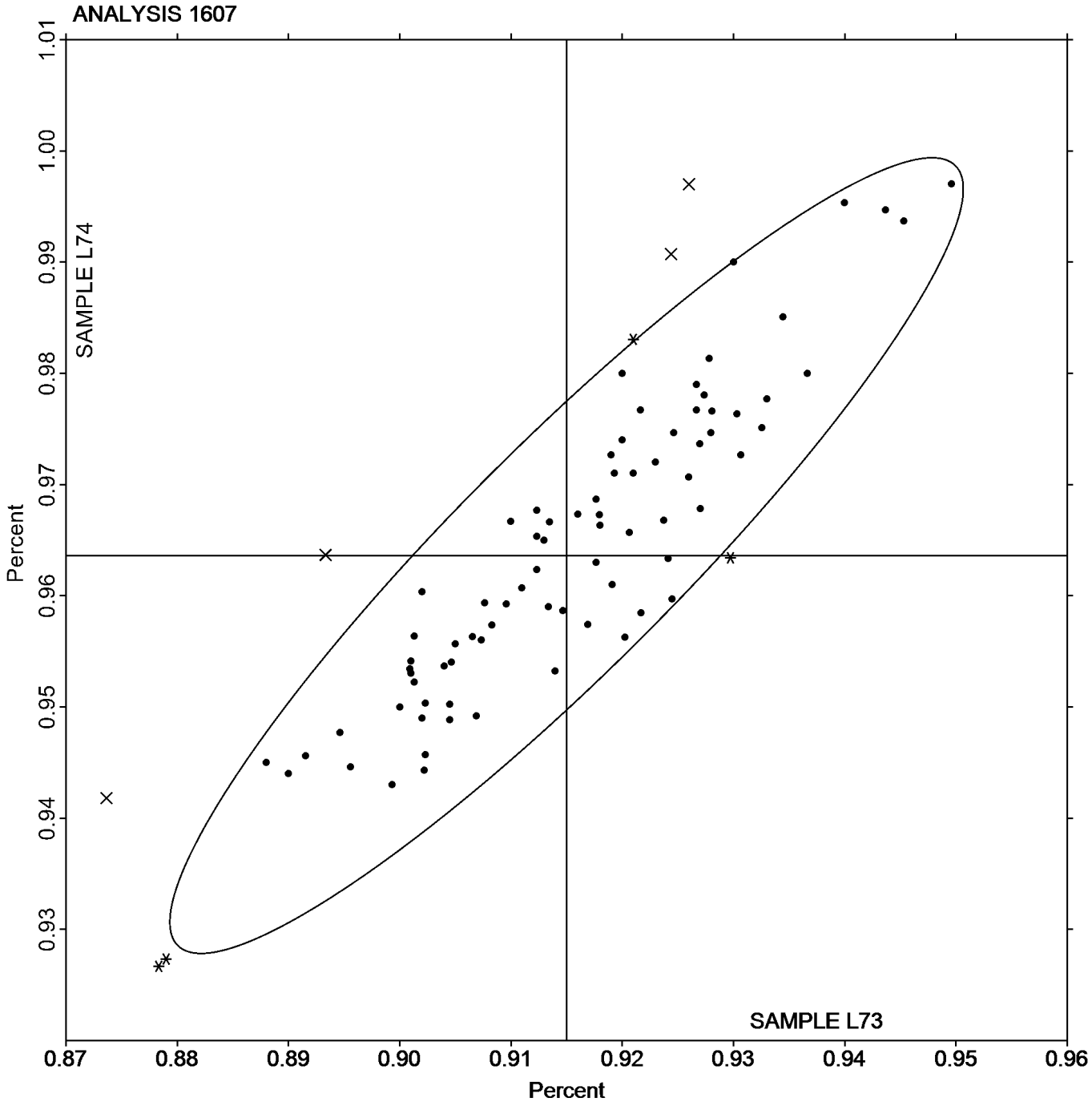
T2YNUK (X) - Data for both samples are low. Possible Systematic Error.

UQ8NKZ (X) - Data for both samples are low. Possible Systematic Error.

WC9BBM (X) - Data for both samples are low. Possible Systematic Error.

SAMPLE L73
0.9150 Percent

SAMPLE L74
0.9636 Percent



		Sample L73			Sample L74			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
28CDPC		0.1497	-0.0019	-0.46	0.2137	-0.0015	-0.26	OE
29N9AH		0.1583	0.0067	1.61	0.2243	0.0092	1.63	XX
2CNJ6H		0.1550	0.0034	0.81	0.2183	0.0032	0.56	XX
2NZNCE		0.1540	0.0024	0.57	0.2190	0.0038	0.68	OE
3268ME		0.1540	0.0024	0.57	0.2167	0.0015	0.27	IC
3JJVNT		0.1598	0.0082	1.95	0.2242	0.0091	1.61	OE
3RU62D		0.1531	0.0015	0.37	0.2161	0.0009	0.16	OE
3YGVN9		0.1507	-0.0009	-0.22	0.2190	0.0038	0.68	OE
44R24E		0.1500	-0.0016	-0.38	0.2097	-0.0055	-0.97	WD
4JYCJL		0.1473	-0.0043	-1.02	0.2120	-0.0032	-0.56	OE
4PPLTJ		0.1490	-0.0026	-0.62	0.2160	0.0008	0.15	OE
4T6DGR		0.1507	-0.0009	-0.21	0.2142	-0.0010	-0.17	WD
6DR6GN		0.1513	-0.0003	-0.06	0.2110	-0.0042	-0.74	XX
6DRDDE		0.1522	0.0006	0.14	0.2121	-0.0031	-0.54	OE
6M3FYE		0.1493	-0.0023	-0.54	0.2137	-0.0015	-0.26	OE
6R9D4D		0.1559	0.0043	1.03	0.2220	0.0068	1.21	OE
6YLBMQ		0.1513	-0.0003	-0.08	0.2178	0.0026	0.47	OE
737A6E		0.1462	-0.0054	-1.30	0.2068	-0.0084	-1.48	OE
7BJH7F		0.1450	-0.0066	-1.58	0.2050	-0.0102	-1.80	GD
829FKF		0.1498	-0.0018	-0.43	0.2117	-0.0035	-0.61	XX
8LGLBA		0.1510	-0.0006	-0.14	0.2133	-0.0018	-0.32	OE
8UAVED		0.1583	0.0067	1.61	0.2230	0.0078	1.39	OE
8WCWEB		0.1517	0.0001	0.02	0.2173	0.0022	0.39	OE
94PD2G	X	0.1600	0.0084	2.01	0.2350	0.0198	3.51	OE
9CPMWA		0.1556	0.0040	0.96	0.2090	-0.0062	-1.09	WD
9GYU8L		0.1500	-0.0016	-0.38	0.2167	0.0015	0.27	OE
9KEBRC		0.1566	0.0050	1.20	0.2224	0.0073	1.29	OE
9NGDD8		0.1535	0.0019	0.45	0.2135	-0.0017	-0.29	OE
9TC8B9		0.1473	-0.0043	-1.02	0.2083	-0.0068	-1.21	OE
A9LBEE		0.1531	0.0015	0.35	0.2171	0.0020	0.35	IC
ALT2E2		0.1541	0.0025	0.60	0.2108	-0.0043	-0.76	OE
APN27H	X	0.1800	0.0284	6.80	0.2130	-0.0022	-0.38	OE
B9Y6P9		0.1512	-0.0004	-0.10	0.2068	-0.0084	-1.48	OE
B9YZF7		0.1523	0.0007	0.18	0.2183	0.0032	0.56	OE
BABWKB		0.1556	0.0040	0.95	0.2236	0.0085	1.50	OE
BCT89E	*	0.1398	-0.0118	-2.82	0.2038	-0.0114	-2.01	OE
BEGJ8K		0.1520	0.0004	0.10	0.2120	-0.0032	-0.56	OE
BZLBED		0.1463	-0.0053	-1.26	0.2170	0.0018	0.33	OE
E6MD3C		0.1507	-0.0009	-0.22	0.2160	0.0008	0.15	OE
F7PUED		0.1496	-0.0020	-0.48	0.2176	0.0024	0.43	OE
FDRUZZ		0.1512	-0.0004	-0.09	0.2166	0.0014	0.25	OE
FEKZ8E		0.1567	0.0051	1.21	0.2197	0.0045	0.80	OE
FQM34W		0.1507	-0.0009	-0.22	0.2143	-0.0008	-0.15	OE
GK788X	X	0.1437	-0.0079	-1.89	0.1963	-0.0189	-3.34	OE
GNQVC6		0.1510	-0.0006	-0.14	0.2137	-0.0015	-0.26	OE
GWJCFE		0.1593	0.0077	1.85	0.2213	0.0062	1.09	OE
GYU6JU		0.1503	-0.0013	-0.30	0.2200	0.0048	0.86	OE

		Sample L73			Sample L74			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
H3P88U		0.1587	0.0071	1.69	0.2217	0.0065	1.15	OE
HGKPPD		0.1553	0.0037	0.88	0.2143	-0.0009	-0.15	OE
HQQH6Y		0.1517	0.0001	0.02	0.2140	-0.0012	-0.20	OE
JEG3XU		0.1501	-0.0015	-0.37	0.2134	-0.0017	-0.30	OE
JGP9JV		0.1500	-0.0016	-0.38	0.2100	-0.0052	-0.91	OE
JT99J9		0.1449	-0.0067	-1.60	0.2142	-0.0009	-0.16	OE
JXAYJV		0.1490	-0.0026	-0.62	0.2100	-0.0052	-0.91	OE
K8AVVW		0.1516	0.0000	0.00	0.2155	0.0003	0.06	OE
KDGHNZ		0.1536	0.0020	0.49	0.2240	0.0088	1.56	OE
KNY28W		0.1493	-0.0023	-0.54	0.2197	0.0045	0.80	OE
L2EVLT		0.1437	-0.0079	-1.90	0.2123	-0.0028	-0.50	GD
L4A8RU		0.1510	-0.0006	-0.14	0.2133	-0.0019	-0.33	AE
LH4Q9H		0.1507	-0.0009	-0.22	0.2140	-0.0012	-0.20	OE
MCDQH4		0.1490	-0.0026	-0.62	0.2123	-0.0028	-0.50	OE
MHK82P		0.1490	-0.0026	-0.62	0.2153	0.0002	0.03	XX
NFCEKW		0.1520	0.0004	0.10	0.2120	-0.0032	-0.56	OE
NH4BAQ	X	0.1669	0.0153	3.66	0.2377	0.0225	3.99	OE
NKLR3V		0.1526	0.0010	0.25	0.2174	0.0023	0.40	OE
NMWT83		0.1607	0.0091	2.19	0.2240	0.0088	1.56	XX
NPMUDQ		0.1499	-0.0017	-0.41	0.2086	-0.0065	-1.15	IC
NR7QYV		0.1540	0.0024	0.57	0.2180	0.0028	0.50	OE
P8CN7Y		0.1507	-0.0009	-0.22	0.2153	0.0002	0.03	OE
PGLYNQ		0.1590	0.0074	1.77	0.2187	0.0035	0.62	OE
PMBEJP		0.1547	0.0031	0.73	0.2223	0.0072	1.27	GD
PQNBR8		0.1474	-0.0042	-1.01	0.2082	-0.0069	-1.23	OE
Q23HCE		0.1517	0.0001	0.02	0.2113	-0.0038	-0.68	OE
Q8RX6R		0.1517	0.0001	0.02	0.2117	-0.0035	-0.62	OE
QEAJUP		0.1483	-0.0033	-0.78	0.2130	-0.0022	-0.38	OE
QGTRQ4		0.1487	-0.0029	-0.70	0.2205	0.0053	0.95	OE
QRFJNU		0.1600	0.0084	2.01	0.2300	0.0148	2.63	GD
QRYCE7	X	0.2243	0.0727	17.41	0.2807	0.0655	11.60	OE
R8QKXP		0.1517	0.0001	0.02	0.2130	-0.0022	-0.38	OE
RNC4UW		0.1543	0.0027	0.65	0.2194	0.0043	0.76	OE
T2YNUK		0.1583	0.0067	1.61	0.2197	0.0045	0.80	IC
TD6UDX		0.1500	-0.0016	-0.38	0.2130	-0.0022	-0.38	GD
TQWE6L		0.1537	0.0021	0.49	0.2180	0.0028	0.50	OE
U4FGZJ		0.1497	-0.0019	-0.46	0.2080	-0.0072	-1.27	XX
UQ8NKZ		0.1527	0.0011	0.26	0.2143	-0.0008	-0.15	OE
UYP8PL	*	0.1599	0.0083	1.99	0.2320	0.0168	2.98	OE
UZCV2L		0.1537	0.0021	0.51	0.2176	0.0025	0.44	OE
V6M9GY		0.1499	-0.0017	-0.41	0.2116	-0.0036	-0.63	OE
VDGDBZ		0.1500	-0.0016	-0.38	0.2143	-0.0008	-0.15	OE
VR8TQL		0.1540	0.0024	0.57	0.2197	0.0045	0.80	OE
VZREJX		0.1490	-0.0026	-0.63	0.2116	-0.0035	-0.62	IC
W7MADH		0.1480	-0.0036	-0.86	0.2100	-0.0052	-0.91	OE
WC9BBM		0.1513	-0.0003	-0.06	0.2150	-0.0002	-0.03	GD
X88M8K	*	0.1400	-0.0116	-2.78	0.2000	-0.0152	-2.68	OE

Fasteners and Metals Interlaboratory Testing Program

Analysis 1608

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

WebCode	Data Flag	Sample L73 Lab Mean	Sample L73 Diff. from Grand Mean	Sample L73 CPV	Sample L74 Lab Mean	Sample L74 Diff. from Grand Mean	Sample L74 CPV	Method
XM2AGJ		0.1497	-0.0019	-0.46	0.2120	-0.0032	-0.56	AE
Y8YE7W	*	0.1405	-0.0111	-2.66	0.1990	-0.0162	-2.86	OE

Summary Statistics

	Sample L73		Sample L74	
Grand Means	0.1516	Percent	0.2152	Percent
Stnd Dev Btwn Labs	0.0042	Percent	0.0056	Percent

Samples L73, L74 : AISI 6150, AISI 6150

Statistics based on 91 of 96 reporting participants

Key to Method Codes Reported by Participants

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

Comments on Assigned Data Flags for Test #1608

94PD2G (X) - Data for sample L74 are high.

APN27H (X) - Data for sample L73 are high.

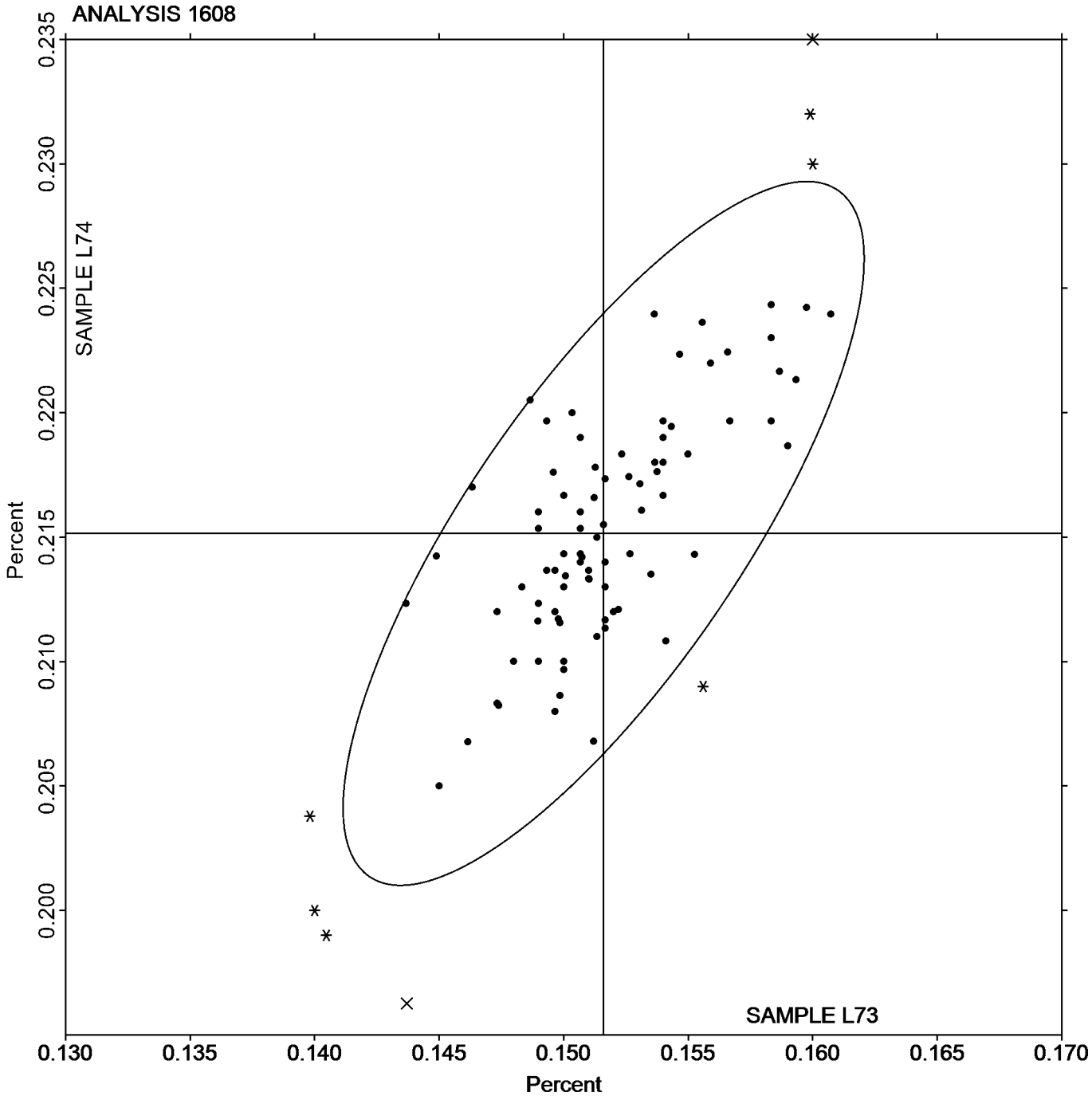
GK788X (X) - Data for sample L74 are low.

NH4BAQ (X) - Data for both samples are high.

QRYCE7 (X) - Data for both samples are high. Inconsistent within the determinations of sample L73.

SAMPLE L73
0.1516 Percent

SAMPLE L74
0.2152 Percent



		Sample L73			Sample L74			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
28CDPC		0.1537	-0.0010	-0.25	0.1603	0.0024	0.59	OE
29N9AH		0.1613	0.0067	1.75	0.1637	0.0058	1.41	XX
2CNJ6H		0.1573	0.0027	0.71	0.1640	0.0061	1.49	XX
2NZNCE		0.1550	0.0004	0.10	0.1600	0.0021	0.51	OE
3268ME		0.1563	0.0017	0.45	0.1583	0.0004	0.11	IC
3JJVNT		0.1537	-0.0009	-0.23	0.1593	0.0014	0.34	OE
3RU62D	X	0.1400	-0.0146	-3.82	0.1428	-0.0151	-3.70	OE
3YGVN9	X	0.1410	-0.0136	-3.56	0.1410	-0.0169	-4.13	OE
44R24E		0.1500	-0.0046	-1.21	0.1540	-0.0039	-0.95	WD
4JYCJL		0.1520	-0.0026	-0.68	0.1557	-0.0022	-0.55	OE
4PPLTJ		0.1540	-0.0006	-0.16	0.1580	0.0001	0.02	OE
4T6DGR		0.1543	-0.0003	-0.08	0.1562	-0.0017	-0.42	WD
6DR6GN		0.1523	-0.0023	-0.60	0.1543	-0.0036	-0.87	XX
6DRDDE		0.1562	0.0016	0.42	0.1598	0.0019	0.46	OE
6M3FYE		0.1573	0.0027	0.71	0.1580	0.0001	0.02	OE
6R9D4D		0.1535	-0.0011	-0.28	0.1603	0.0024	0.58	OE
6YLBMQ		0.1523	-0.0024	-0.61	0.1548	-0.0031	-0.77	OE
737A6E		0.1581	0.0035	0.92	0.1618	0.0039	0.95	OE
7BJH7F		0.1510	-0.0036	-0.95	0.1540	-0.0039	-0.95	GD
829FKF		0.1513	-0.0033	-0.86	0.1572	-0.0007	-0.18	XX
8LGLBA		0.1547	0.0000	0.01	0.1577	-0.0002	-0.06	OE
8UAVED		0.1563	0.0017	0.45	0.1580	0.0001	0.02	OE
8WCWEB		0.1540	-0.0006	-0.16	0.1573	-0.0006	-0.14	OE
94PD2G		0.1630	0.0084	2.19	0.1680	0.0101	2.47	OE
9CPMWA		0.1489	-0.0057	-1.49	0.1520	-0.0059	-1.44	WD
9GYU8L	X	0.1700	0.0154	4.01	0.1767	0.0188	4.59	OE
9KEBRC		0.1616	0.0069	1.81	0.1666	0.0087	2.12	OE
9NGDD8		0.1612	0.0066	1.72	0.1648	0.0069	1.69	OE
9TC8B9	X	0.1683	0.0137	3.58	0.1717	0.0138	3.37	OE
A9LBEE		0.1549	0.0003	0.07	0.1559	-0.0020	-0.49	IC
APN27H		0.1523	-0.0023	-0.60	0.1540	-0.0039	-0.95	OE
B9YZF7		0.1553	0.0007	0.19	0.1587	0.0008	0.19	OE
BABWKB		0.1570	0.0024	0.63	0.1601	0.0022	0.53	OE
BCT89E		0.1529	-0.0017	-0.46	0.1577	-0.0002	-0.04	OE
BEGJ8K		0.1583	0.0037	0.97	0.1610	0.0031	0.76	OE
BZLBED		0.1557	0.0010	0.27	0.1597	0.0018	0.43	OE
E6MD3C		0.1543	-0.0003	-0.08	0.1577	-0.0002	-0.06	OE
F7PUED		0.1602	0.0055	1.45	0.1625	0.0046	1.12	OE
FDRUZZ		0.1548	0.0002	0.04	0.1564	-0.0015	-0.37	OE
FEKZ8E	X	0.1700	0.0154	4.01	0.1733	0.0154	3.77	OE
FQM34W		0.1500	-0.0046	-1.21	0.1527	-0.0052	-1.28	OE
GK788X		0.1510	-0.0036	-0.94	0.1537	-0.0042	-1.03	OE
GNQVC6		0.1563	0.0017	0.45	0.1603	0.0024	0.59	OE
GWJCFE		0.1515	-0.0032	-0.82	0.1540	-0.0039	-0.95	OE
GYU6JU		0.1543	-0.0003	-0.08	0.1610	0.0031	0.76	OE
H3P88U		0.1598	0.0052	1.36	0.1632	0.0053	1.30	OE
HGKPPD		0.1544	-0.0003	-0.07	0.1562	-0.0017	-0.41	OE

		Sample L73			Sample L74			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
HQQH6Y		0.1607	0.0060	1.58	0.1653	0.0074	1.82	OE
JEG3XU		0.1552	0.0006	0.15	0.1589	0.0010	0.25	OE
JGP9JV		0.1500	-0.0046	-1.21	0.1500	-0.0079	-1.93	OE
JT99J9	X	0.1345	-0.0201	-5.25	0.1427	-0.0152	-3.71	OE
JXAYJV		0.1530	-0.0016	-0.42	0.1570	-0.0009	-0.22	OE
K8AVVW		0.1541	-0.0005	-0.14	0.1576	-0.0003	-0.07	OE
KDGHNZ		0.1651	0.0104	2.73	0.1660	0.0080	1.97	OE
KNY28W		0.1520	-0.0026	-0.68	0.1540	-0.0039	-0.95	OE
L2EVLT		0.1473	-0.0073	-1.90	0.1510	-0.0069	-1.69	GD
L4A8RU		0.1616	0.0070	1.83	0.1639	0.0060	1.47	AE
MCDQH4	X	0.1783	0.0237	6.19	0.1807	0.0228	5.57	OE
MHK82P		0.1577	0.0030	0.80	0.1617	0.0038	0.92	OE
NFCEKW		0.1530	-0.0016	-0.42	0.1570	-0.0009	-0.22	OE
NH4BAQ		0.1545	-0.0001	-0.03	0.1564	-0.0015	-0.38	OE
NKLR3V		0.1530	-0.0016	-0.42	0.1575	-0.0004	-0.10	OE
NMWT83		0.1521	-0.0026	-0.67	0.1539	-0.0040	-0.99	XX
NPMUDQ		0.1543	-0.0003	-0.08	0.1574	-0.0005	-0.11	IC
NR7QYV		0.1587	0.0040	1.06	0.1620	0.0041	1.00	OE
P8CN7Y		0.1553	0.0007	0.19	0.1590	0.0011	0.27	OE
PMBEJP	X	0.1543	-0.0003	-0.08	0.1640	0.0061	1.49	GD
PQNBR8		0.1534	-0.0012	-0.31	0.1571	-0.0008	-0.19	OE
Q23HCE		0.1507	-0.0040	-1.03	0.1543	-0.0036	-0.87	OE
QEAJUP		0.1460	-0.0086	-2.25	0.1487	-0.0092	-2.26	OE
QGTRQ4		0.1494	-0.0052	-1.36	0.1541	-0.0038	-0.93	OE
QRFJNU		0.1600	0.0054	1.40	0.1600	0.0021	0.51	GD
QRYCE7	X	0.1100	-0.0446	-11.65	0.1113	-0.0466	-11.39	OE
R8QKXP		0.1519	-0.0028	-0.72	0.1552	-0.0027	-0.67	IC
RNC4UW		0.1545	-0.0001	-0.03	0.1574	-0.0005	-0.12	OE
T2YNUK		0.1593	0.0047	1.23	0.1617	0.0038	0.92	IC
TD6UDX		0.1470	-0.0076	-1.99	0.1500	-0.0079	-1.93	GD
TQWE6L		0.1530	-0.0016	-0.42	0.1563	-0.0016	-0.38	OE
U4FGZJ	X	0.2647	0.1100	28.73	0.2710	0.1131	27.66	XX
UA9C8J		0.1533	-0.0013	-0.34	0.1557	-0.0022	-0.55	OE
UQ8NKZ		0.1540	-0.0006	-0.16	0.1563	-0.0016	-0.38	OE
UYP8PL		0.1531	-0.0015	-0.40	0.1571	-0.0008	-0.20	OE
UZCV2L		0.1539	-0.0007	-0.19	0.1563	-0.0016	-0.39	OE
V6M9GY		0.1537	-0.0009	-0.23	0.1582	0.0003	0.07	OE
VDGDBZ		0.1547	0.0000	0.01	0.1607	0.0028	0.68	OE
VR8TQL		0.1523	-0.0023	-0.60	0.1567	-0.0012	-0.30	OE
VZREJX		0.1517	-0.0029	-0.76	0.1559	-0.0020	-0.50	IC
W7MADH		0.1513	-0.0033	-0.86	0.1550	-0.0029	-0.71	OE
X88M8K		0.1500	-0.0046	-1.21	0.1500	-0.0079	-1.93	OE
XM2AGJ		0.1570	0.0024	0.62	0.1580	0.0001	0.02	AE
Y8YE7W		0.1638	0.0092	2.40	0.1682	0.0103	2.53	OE

Summary Statistics

	Sample L73		Sample L74	
Grand Means	0.1546	Percent	0.1579	Percent
Stnd Dev Btwn Labs	0.0038	Percent	0.0041	Percent

Samples L73, L74 : AISI 6150, AISI 6150

Statistics based on 81 of 91 reporting participants

Key to Method Codes Reported by Participants

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

Comments on Assigned Data Flags for Test #1609

3RU62D (X) - Data for both samples are low. Possible Systematic Error.

3YGVN9 (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of both samples.

9GYU8L (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample L74.

9TC8B9 (X) - Data for both samples are high. Possible Systematic Error.

FEKZ8E (X) - Data for both samples are high. Possible Systematic Error.

JT99J9 (X) - Data for both samples are low. Possible Systematic Error.

MCDQH4 (X) - Data for both samples are high. Possible Systematic Error.

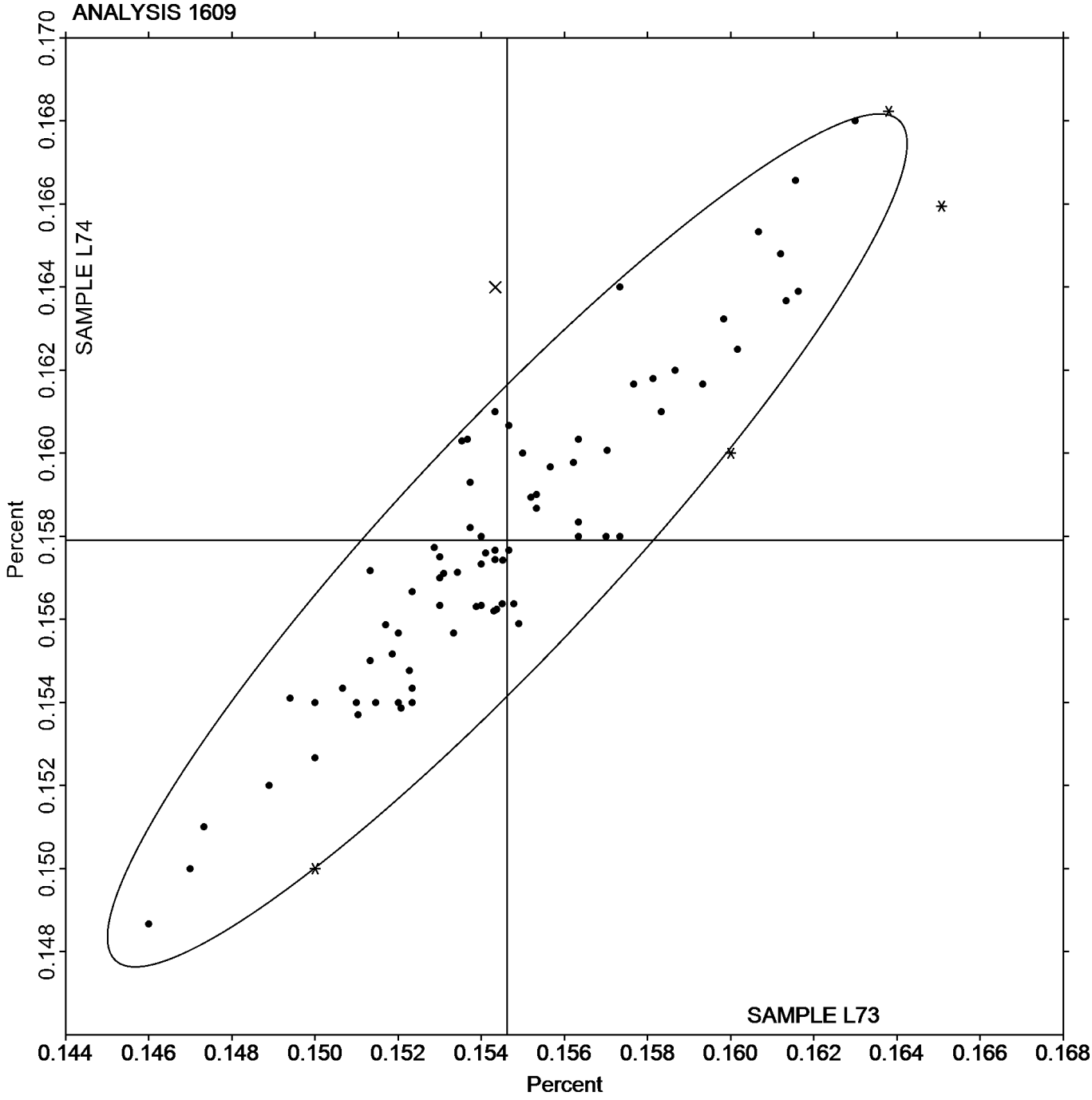
PMBEJP (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample L74.

QRYCE7 (X) - Data for both samples are low. Possible Systematic Error.

U4FGZJ (X) - Data for both samples are high. Possible Systematic Error.

SAMPLE L73
0.1546 Percent

SAMPLE L74
0.1579 Percent



		Sample L73			Sample L74			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
28CDPC		0.0237	0.0000	0.03	0.0373	0.0021	1.08	OE
29N9AH	*	0.0213	-0.0023	-1.56	0.0357	0.0004	0.21	XX
2CNJ6H		0.0237	0.0000	0.03	0.0367	0.0014	0.73	XX
2NZNCE		0.0209	-0.0027	-1.86	0.0325	-0.0028	-1.43	OE
3268ME		0.0251	0.0015	1.01	0.0369	0.0017	0.87	IC
3JJVNT		0.0232	-0.0004	-0.27	0.0357	0.0004	0.21	OE
3RU62D		0.0241	0.0005	0.35	0.0345	-0.0007	-0.37	OE
3YGVN9		0.0223	-0.0013	-0.88	0.0330	-0.0023	-1.17	OE
44R24E	X	0.0310	0.0074	5.04	0.0357	0.0004	0.21	WD
4JYCJL		0.0232	-0.0004	-0.29	0.0355	0.0002	0.13	OE
4PPLTJ		0.0225	-0.0011	-0.77	0.0350	-0.0003	-0.15	OE
4T6DGR	X	0.0310	0.0074	5.06	0.0470	0.0118	6.11	WD
6DR6GN	X	0.2280	0.2044	139.55	0.3440	0.3087	160.14	XX
6DRDDE		0.0235	-0.0001	-0.06	0.0353	0.0000	0.01	OE
6M3FYE		0.0209	-0.0028	-1.88	0.0329	-0.0024	-1.22	OE
6R9D4D		0.0244	0.0008	0.53	0.0346	-0.0006	-0.32	OE
6YLBMQ	X	0.0145	-0.0091	-6.21	0.0233	-0.0119	-6.18	OE
737A6E		0.0243	0.0007	0.48	0.0363	0.0011	0.56	OE
7BJH7F		0.0220	-0.0016	-1.11	0.0340	-0.0013	-0.65	GD
829FKF	X	0.0283	0.0047	3.22	0.0420	0.0067	3.50	XX
8LGLBA		0.0229	-0.0007	-0.47	0.0357	0.0004	0.21	OE
8UAVED		0.0272	0.0036	2.46	0.0392	0.0039	2.03	OE
8WCWEB		0.0240	0.0004	0.26	0.0350	-0.0003	-0.13	OE
94PD2G		0.0270	0.0034	2.31	0.0380	0.0027	1.42	OE
9CPMWA	X	0.0232	-0.0004	-0.29	0.0460	0.0107	5.57	WD
9GYU8L		0.0200	-0.0036	-2.47	0.0300	-0.0053	-2.73	OE
9KEBRC		0.0246	0.0010	0.67	0.0370	0.0017	0.89	OE
9NGDD8		0.0272	0.0036	2.44	0.0375	0.0022	1.16	OE
9TC8B9		0.0224	-0.0012	-0.81	0.0339	-0.0014	-0.70	OE
A9LBEE		0.0226	-0.0011	-0.72	0.0350	-0.0002	-0.12	IC
ALT2E2		0.0218	-0.0018	-1.22	0.0315	-0.0038	-1.97	OE
APN27H		0.0214	-0.0022	-1.50	0.0309	-0.0044	-2.26	OE
B9Y6P9		0.0239	0.0003	0.19	0.0354	0.0002	0.09	OE
B9YZF7		0.0242	0.0006	0.39	0.0354	0.0002	0.09	OE
BABWKB		0.0250	0.0014	0.96	0.0376	0.0024	1.23	OE
BCT89E		0.0221	-0.0015	-1.01	0.0342	-0.0010	-0.54	OE
BEGJ8K	X	0.0140	-0.0096	-6.57	0.0283	-0.0069	-3.59	OE
BZLBED		0.0233	-0.0003	-0.20	0.0334	-0.0018	-0.95	OE
E6MD3C		0.0240	0.0004	0.26	0.0343	-0.0009	-0.48	OE
F7PUED		0.0233	-0.0004	-0.24	0.0348	-0.0005	-0.25	OE
FDRUZZ		0.0239	0.0002	0.15	0.0361	0.0008	0.43	OE
FEKZ8E		0.0239	0.0003	0.19	0.0357	0.0004	0.23	OE
FQM34W		0.0223	-0.0013	-0.88	0.0333	-0.0019	-1.00	OE
GK788X		0.0242	0.0006	0.39	0.0350	-0.0002	-0.12	OE
GNQVC6	X	0.0190	-0.0046	-3.16	0.0340	-0.0013	-0.65	OE
GWJCFE		0.0203	-0.0033	-2.27	0.0326	-0.0026	-1.36	OE
GYU6JU		0.0210	-0.0026	-1.79	0.0317	-0.0036	-1.86	OE

		Sample L73			Sample L74			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
H3P88U		0.0251	0.0015	1.03	0.0360	0.0007	0.39	OE
HGKPPD		0.0238	0.0001	0.10	0.0342	-0.0010	-0.53	OE
HQQH6Y		0.0235	-0.0001	-0.08	0.0335	-0.0018	-0.93	OE
JEG3XU		0.0229	-0.0007	-0.49	0.0342	-0.0010	-0.53	OE
JGP9JV	X	0.0300	0.0064	4.35	0.0400	0.0047	2.46	OE
JT99J9		0.0252	0.0015	1.05	0.0394	0.0041	2.15	OE
JXAYJV		0.0229	-0.0007	-0.49	0.0330	-0.0023	-1.17	OE
K8AVVW		0.0238	0.0002	0.14	0.0360	0.0007	0.39	OE
KDGHNZ		0.0252	0.0015	1.05	0.0379	0.0026	1.35	OE
KNY28W		0.0213	-0.0023	-1.56	0.0327	-0.0026	-1.34	OE
L2EVLT		0.0223	-0.0013	-0.88	0.0350	-0.0003	-0.13	GD
L4A8RU		0.0232	-0.0004	-0.27	0.0348	-0.0005	-0.24	AE
LH4Q9H		0.0233	-0.0003	-0.22	0.0346	-0.0007	-0.36	OE
MCDQH4		0.0255	0.0019	1.30	0.0381	0.0029	1.49	OE
MHK82P		0.0244	0.0007	0.51	0.0369	0.0017	0.87	XX
NFCEKW	X	0.0240	0.0004	0.26	0.0280	-0.0073	-3.76	OE
NH4BAQ		0.0241	0.0005	0.35	0.0360	0.0008	0.40	OE
NKLR3V		0.0235	-0.0002	-0.11	0.0366	0.0014	0.71	OE
NMWT83		0.0243	0.0007	0.46	0.0341	-0.0012	-0.62	XX
NPMUDQ		0.0238	0.0002	0.14	0.0349	-0.0004	-0.20	IC
NR7QYV		0.0247	0.0010	0.71	0.0373	0.0021	1.08	OE
P8CN7Y		0.0241	0.0004	0.30	0.0359	0.0006	0.33	OE
PMBEJP	X	0.0149	-0.0087	-5.93	0.0250	-0.0102	-5.30	IC
PQNBR8		0.0252	0.0016	1.06	0.0372	0.0019	1.00	OE
Q23HCE	X	0.0292	0.0056	3.81	0.0439	0.0087	4.50	OE
QEAJUP		0.0230	-0.0006	-0.43	0.0340	-0.0013	-0.65	OE
QGTRQ4		0.0234	-0.0003	-0.18	0.0359	0.0006	0.33	OE
QRFJNU		0.0250	0.0014	0.94	0.0380	0.0027	1.42	GD
QRYCE7	X	0.0413	0.0177	12.09	0.0343	-0.0009	-0.48	OE
R8QKXP	X	0.0190	-0.0046	-3.13	0.0326	-0.0027	-1.40	OE
RNC4UW		0.0242	0.0005	0.36	0.0363	0.0010	0.52	OE
T2YNUK		0.0217	-0.0020	-1.34	0.0320	-0.0033	-1.69	IC
TD6UDX		0.0246	0.0010	0.67	0.0362	0.0009	0.49	GD
TQWE6L		0.0243	0.0007	0.48	0.0370	0.0017	0.90	OE
U4FGZJ		0.0240	0.0004	0.26	0.0360	0.0007	0.39	XX
UQ8NKZ		0.0264	0.0027	1.87	0.0389	0.0037	1.91	OE
UYP8PL	X	0.0128	-0.0108	-7.39	0.0313	-0.0040	-2.05	OE
UZCV2L		0.0242	0.0005	0.37	0.0361	0.0008	0.43	OE
V6M9GY		0.0237	0.0001	0.07	0.0353	0.0001	0.04	OE
VDGDBZ		0.0237	0.0000	0.03	0.0367	0.0014	0.73	OE
VR8TQL		0.0237	0.0001	0.07	0.0346	-0.0006	-0.32	OE
VZREJX		0.0214	-0.0022	-1.52	0.0334	-0.0019	-0.96	IC
W7MADH		0.0241	0.0004	0.30	0.0345	-0.0008	-0.39	OE
WC9BBM	X	0.0146	-0.0091	-6.18	0.0270	-0.0083	-4.28	GD
X88M8K	X	0.0100	-0.0136	-9.30	0.0200	-0.0153	-7.91	OE
XM2AGJ		0.0240	0.0003	0.23	0.0352	-0.0001	-0.05	AE
Y8YE7W		0.0256	0.0019	1.33	0.0376	0.0023	1.20	OE

Summary Statistics

	Sample L73		Sample L74	
Grand Means	0.0236	Percent	0.0353	Percent
Stnd Dev Btwn Labs	0.0015	Percent	0.0019	Percent

Samples L73, L74 : AISI 6150, AISI 6150

Statistics based on 76 of 94 reporting participants

Key to Method Codes Reported by Participants

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

Comments on Assigned Data Flags for Test #1613

44R24E (X) - Data for sample L73 are high.

4T6DGR (X) - Data for both samples are high.

6DR6GN (X) - Data for both samples are high. Inconsistent within the determinations of sample L73.

6YLBMQ (X) - Data for both samples are low.

829FKF (X) - Data for both samples are high.

9CPMWA (X) - Data for sample L74 are high.

BEGJ8K (X) - Data for both samples are low.

GNQVC6 (X) - Data for sample L73 are low.

JGP9JV (X) - Data for sample L73 are high.

NFCEKW (X) - Data for sample L74 are low.

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

Q23HCE (X) - Data for both samples are high.

QRYCE7 (X) - Data for sample L73 are high. Inconsistent within the determinations of both samples.

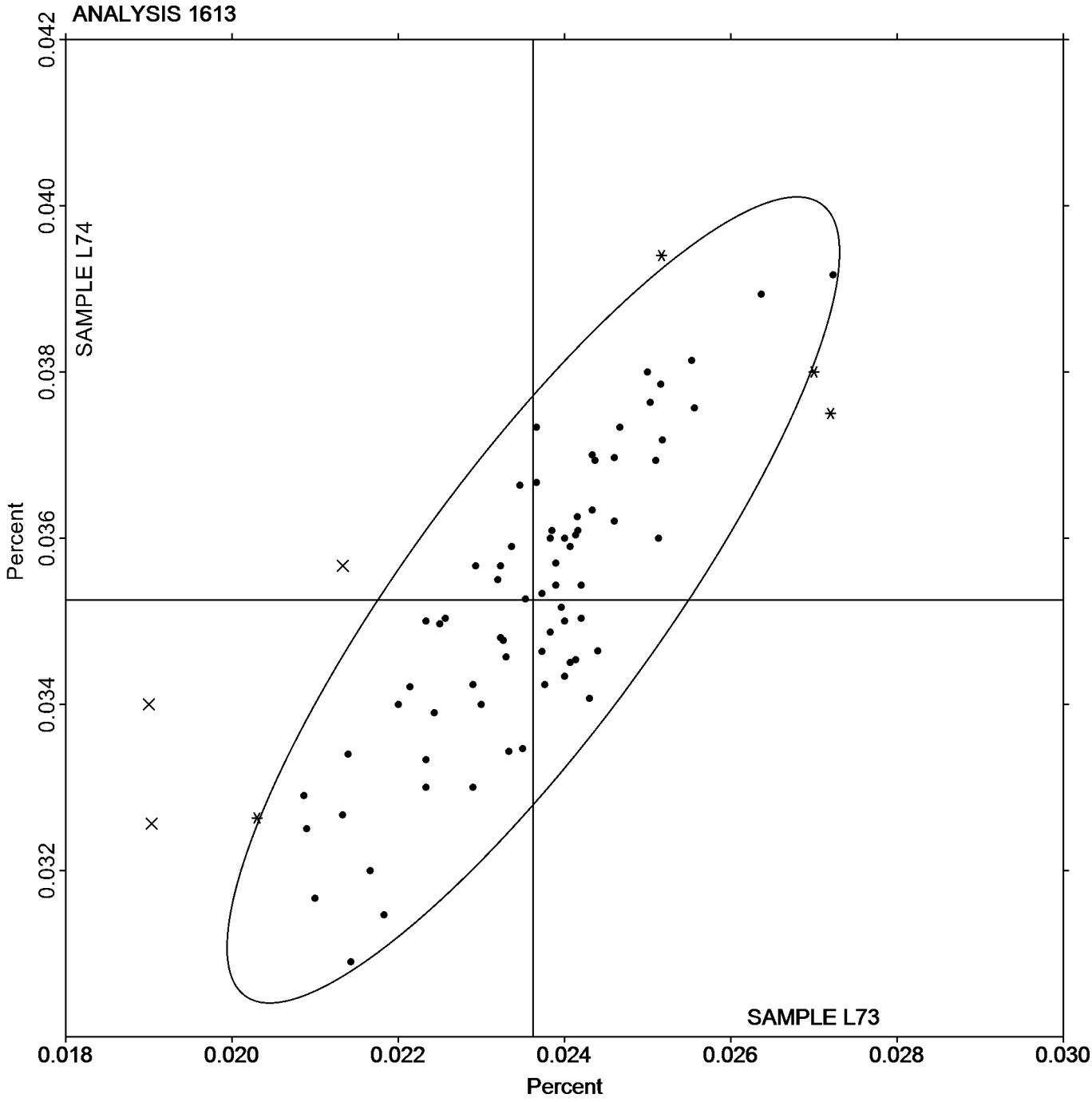
R8QKXP (X) - Data for sample L73 are low.

UYP8PL (X) - Data for sample L73 are low.

WC9BBM (X) - Data for both samples are low.

X88M8K (X) - Data for both samples are low.

SAMPLE L73	SAMPLE L74
0.0236 Percent	0.0353 Percent



-End of Report-

