Collaborative Testing Services, Inc.

Rubber Interlaboratory Testing Program

Summary Report #185 - 3rd Qtr 2015

About the Rubber Program, About CTS

Key for Web Summary Report

ABOUT THE PROGRAM

The Collaborative Reference Program for RUBBER, which was initiated in 1969, is operated and maintained by Collaborative Testing Services, Inc. (CTS), with technical guidance provided by the Rubber Division of the American Chemical Society. The program allows laboratories to compare periodically the level and uniformity of their testing with that of other participating laboratories. It also provides a realistic assessment of the state of rubber testing proficiency.

For each test there are summary statistics and a graphical representation of the data. Also shown are notes concerning specific laboratory results, as well as significant findings related to instrument types or other testing variations. Please refer to the section 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 industrial sectors, including rubber, plastics, fasteners and metals, containerboard, paper and color, 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 80 countries, currently participate in CTS programs.

If there are any questions on the report or testing program, please contact:

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WebCode Assigned laboratory identification number (temporary) used to ensure lab confidentiality while permitting a lab to locate its data in the Rubber Report published on the CTS Web site. The WebCode for each analysis can be found in the Performance Analysis Report mailed to each participant.

Lab Mean Tensile & Hardness: the average of the median values obtained for each sample.
All other tests: 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.

Difference from Grand Mean The difference of the LAB MEAN 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 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. 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). The critical value for each CPV will vary depending on the number of labs participating in a test.

Inst Code If instruments are tracked in a test, 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 FLAG	STATISTICALLY INCLUDED/EXCLUDED	ACTION REQUIRED
*	INCLUDED	CAUTION - review testing procedure and monitor future results. Results fall outside 95% ellipse but within a 99% ellipse that is calculated but not drawn.
X	EXCLUDED	STOP - immediate review of data and/or testing procedure is required. Results fall outside the 99% ellipse. See specific notes following each table for more information on why the data is excluded.
M	EXCLUDED	PROCEED - lab was unable to report data for at least one sample. However, a lab receiving two of more M flags for a test may need to stop and review its testing procedures.

Graph - For each laboratory, the LAB MEAN for the first sample (x-axis) is plotted against the LAB MEAN for the second sample (y-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 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.

Common Problems Highlighted in Footnotes

1. *Extreme data* - The laboratory's results for one or both samples are so inconsistent with those of the other participants that the lab mean(s) fall outside the plot. (The data usually vary by more than three standard deviations from the grand mean.) The participant is advised to immediately review his data and/or testing procedure.

2. *Systematic bias* - The laboratory's results are either consistently high or low for both samples when compared to the other participants (the plotted point falls near the top or bottom of the ellipse). This indicates that the participant is performing the test with a constant bias. Causes of systematic errors include improper calibration, the particular make/model of equipment or a modification to the testing procedure.

3. *Inconsistency in testing between samples/sample sets* - The laboratory's results indicate that there are differences in the way the two samples tested (the plotted point falls to the side of the ellipse). This type of error may be attributed to the analyst deviating from the procedure when testing one of the samples or a material interaction occurrence with the instrument or room conditions. The inconsistency is reflected in the CPVs for the two samples, such as a +1.5 CPV for sample A and a -2.2 CPV for sample B. CTS also will specify if the laboratory's data for one sample are high/low compared to the other participants. If this inconsistency is slight, the lab's plotted point will be an * that falls on the edge of the ellipse.

4. *Inconsistency in testing within a sample* - The laboratory's within-lab standard deviation for a specified sample is high when compared to the other participants, often causing the lab's plotted point to fall outside of the ellipse.

5. *Data appeared to be off by a factor of # and was corrected by CTS* - In tests that involve computations, the results reported to CTS may be off by a factor. If this factor can easily be determined, CTS may correct the data and flag the participant. Occasionally CTS will correct a laboratory's results even though the data are still high or low when compared to the other participants. This is done so that the laboratory may be alerted to other possible errors in its testing procedure.

6. *Data for two samples (or two tests) appeared to be switched by the lab, and the error was corrected by CTS.*

Labs flagged with an * are not typically included in the footnotes of a data table. These labs may locate their position in the control ellipse and use the definitions above to help identify the type of testing error. An * should serve as a caution flag, a "yellow light", to a lab. If this error is repeated in future rounds, a lab may need to stop and review its testing procedures. The initial data flag is not cause for alarm. Interlaboratory tests conducted at regular intervals permit a lab to recognize trends in testing.

Rubber Interlaboratory Testing Program

Analysis 605
Tensile Strength (psi)

WebCode	Data Flag	Sample C51 Lab Mean	Diff from Grand Mean	CPV	Sample C52 Lab Mean	Diff from Grand Mean	CPV	Instr Code
2FA48X		3,185.0	-33.6	-0.23	3,241.5	20.3	0.13	ZZ
2PF4JJ		3,265.0	46.4	0.31	3,234.5	13.3	0.09	ZZ
2VJQVT	*	2,812.0	-406.6	-2.73	2,901.5	-319.7	-2.06	ZZ
2XPBJT		3,372.0	153.4	1.03	3,399.5	178.3	1.15	ZZ
3NKN7M		3,037.5	-181.1	-1.22	2,965.5	-255.7	-1.65	ZZ
42GGTF		3,204.5	-14.1	-0.09	3,158.5	-62.7	-0.40	ZZ
43YBTP		3,008.5	-210.1	-1.41	3,165.0	-56.2	-0.36	ZZ
46YQVL		3,386.8	168.1	1.13	3,526.5	305.3	1.97	ZZ
4GTXYH		3,321.0	102.4	0.69	3,240.5	19.3	0.12	ZZ
4PNZ4E		3,215.0	-3.6	-0.02	3,130.0	-91.2	-0.59	ZZ
4QXWMX		3,261.1	42.5	0.28	3,295.4	74.1	0.48	ZZ
6FWTXU		2,961.9	-256.7	-1.72	3,090.9	-130.3	-0.84	ZZ
6H4YJV		3,366.4	147.7	0.99	3,294.6	73.3	0.47	ZZ
6LPWXD		3,270.0	51.4	0.34	3,195.0	-26.2	-0.17	ZZ
6LTZJC		3,293.1	74.5	0.50	3,312.0	90.7	0.59	ZZ
7CRK7P		3,077.0	-141.6	-0.95	3,101.0	-120.2	-0.78	ZZ
7LXF9U		3,312.4	93.8	0.63	3,232.2	11.0	0.07	ZZ
7XUJDN		3,334.8	116.2	0.78	3,254.7	33.5	0.22	ZZ
8K47F6		2,984.0	-234.6	-1.57	2,900.5	-320.7	-2.07	ZZ
8LUDYG		3,305.5	86.9	0.58	3,366.0	144.8	0.93	ZZ
9C87W6		3,416.0	197.4	1.32	3,476.0	254.8	1.64	ZZ
9J67EJ		3,122.7	-96.0	-0.64	3,136.5	-84.8	-0.55	ZZ
9U4YMB		3,160.0	-58.6	-0.39	3,090.0	-131.2	-0.85	ZZ
9WBEUG		3,317.5	98.9	0.66	3,261.0	39.8	0.26	ZZ
A8M2H8		3,154.6	-64.0	-0.43	3,219.9	-1.4	-0.01	ZZ
AKUYFF		3,178.7	-40.0	-0.27	3,087.9	-133.4	-0.86	ZZ
AM38RL		3,193.5	-25.2	-0.17	3,276.0	54.8	0.35	ZZ
B43KGE		3,295.0	76.4	0.51	3,312.0	90.8	0.59	ZZ
BGAJB7		3,115.4	-103.2	-0.69	3,068.3	-152.9	-0.99	ZZ
BPLJ6H		3,197.5	-21.1	-0.14	3,352.5	131.3	0.85	ZZ
CBGN2L		3,180.6	-38.0	-0.26	3,296.7	75.4	0.49	ZZ
CJA22L		3,289.5	70.9	0.48	3,324.0	102.8	0.66	ZZ
CNLZGL		3,118.3	-100.3	-0.67	3,125.6	-95.6	-0.62	ZZ
CTJJHK		3,220.0	1.4	0.01	3,080.0	-141.2	-0.91	ZZ
CXAWHM		3,523.5	304.9	2.05	3,388.7	167.5	1.08	ZZ
D2RDDC		3,520.6	301.9	2.03	3,457.3	236.0	1.52	ZZ
DCNGG7		3,132.5	-86.1	-0.58	3,162.5	-58.7	-0.38	ZZ
DD6D8K		3,393.9	175.3	1.18	3,335.9	114.7	0.74	ZZ
DUTNW9		3,171.3	-47.3	-0.32	3,078.5	-142.7	-0.92	ZZ

Rubber Interlaboratory Testing Program
Analysis 605
Tensile Strength (psi)

| WebCode | Data Flag | Sample C51 | | | Sample C52 | | | Instr Code |
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
DWVRJN		2,994.1	-224.5	-1.51	3,054.7	-166.6	-1.08	ZZ
E8TV3N		3,270.6	52.0	0.35	3,198.1	-23.1	-0.15	ZZ
ED66XZ		3,182.2	-36.5	-0.24	3,269.2	48.0	0.31	ZZ
EHAHCP		3,325.7	107.1	0.72	3,356.9	135.7	0.88	ZZ
EJWAQ4		3,113.0	-105.6	-0.71	3,139.5	-81.7	-0.53	ZZ
EVHCR9	*	2,833.0	-385.6	-2.59	2,836.0	-385.2	-2.49	ZZ
EWHPU4		2,970.3	-248.3	-1.67	2,888.8	-332.4	-2.15	ZZ
F6MWE2		3,244.0	25.4	0.17	3,155.5	-65.7	-0.42	ZZ
FZ99U6		3,045.8	-172.8	-1.16	3,038.6	-182.7	-1.18	ZZ
GFHCT6		3,396.5	177.9	1.19	3,353.0	131.8	0.85	ZZ
GK8Z3G		3,258.5	39.9	0.27	3,290.0	68.8	0.44	ZZ
GL3LV8		3,120.5	-98.1	-0.66	3,127.5	-93.7	-0.60	ZZ
GP7BJA		3,256.1	37.5	0.25	3,221.3	0.1	0.00	ZZ
GW6UJK		3,066.0	-152.6	-1.02	3,095.5	-125.7	-0.81	ZZ
H6EC44		3,370.5	151.9	1.02	3,362.5	141.3	0.91	ZZ
HVCTCV	*	2,871.8	-346.9	-2.33	2,777.5	-443.7	-2.86	ZZ
J4TEUB		3,350.4	131.8	0.88	3,285.1	63.9	0.41	ZZ
J6PU78		3,313.4	94.8	0.64	3,430.2	208.9	1.35	ZZ
J72NL8		3,118.0	-100.6	-0.68	3,043.5	-177.7	-1.15	ZZ
JMB749		3,238.5	19.9	0.13	3,282.0	60.8	0.39	ZZ
JYZCQB		3,255.0	36.4	0.24	3,263.5	42.3	0.27	ZZ
JZGJZY		3,409.5	190.9	1.28	3,355.5	134.3	0.87	ZZ
K7Z4H6		3,193.8	-24.9	-0.17	3,180.7	-40.5	-0.26	ZZ
KCGPGB		3,292.5	73.9	0.50	3,357.0	135.8	0.88	ZZ
KGDDXH		3,546.2	327.6	2.20	3,437.4	216.2	1.40	ZZ
KX8WXE		3,343.1	124.5	0.84	3,422.9	201.7	1.30	ZZ
LRUGK9		3,404.0	185.4	1.24	3,317.0	95.8	0.62	ZZ
M382GA		3,170.5	-48.1	-0.32	3,198.5	-22.7	-0.15	ZZ
MCWNVF		3,036.4	-182.2	-1.22	3,085.7	-135.5	-0.87	ZZ
MH2JG7		3,293.0	74.4	0.50	3,284.5	63.3	0.41	ZZ
MLL92H		3,257.0	38.4	0.26	3,278.0	56.8	0.37	ZZ
MTKWV4		3,199.0	-19.6	-0.13	3,097.5	-123.7	-0.80	ZZ
MZ42RB		3,174.2	-44.5	-0.30	3,287.3	66.1	0.43	ZZ
NTJLC7		3,198.1	-20.6	-0.14	3,150.5	-70.7	-0.46	ZZ
NV4AWJ	*	3,402.6	184.0	1.23	3,206.0	-15.2	-0.10	ZZ
P3MVGA		3,126.3	-92.3	-0.62	3,168.7	-52.6	-0.34	ZZ
QT8HTB		2,944.3	-274.3	-1.84	2,886.3	-335.0	-2.16	ZZ
QT9F48		3,364.0	145.4	0.98	3,286.0	64.8	0.42	ZZ
QVFQ4G		3,156.5	-62.1	-0.42	3,229.5	8.3	0.05	ZZ

Rubber Interlaboratory Testing Program
Analysis 605
Tensile Strength (psi)

WebCode	Data Flag	Sample C51			Sample C52			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
R66PJT		3,272.4	53.8	0.36	3,324.2	103.0	0.66	ZZ
R8UZAL		3,206.5	-12.1	-0.08	3,227.4	6.2	0.04	ZZ
RBKLR9		3,399.7	181.1	1.22	3,494.7	273.5	1.77	ZZ
RJY92C		3,018.5	-200.1	-1.34	2,943.5	-277.7	-1.79	ZZ
RPPVH4		3,176.5	-42.1	-0.28	3,319.8	98.6	0.64	ZZ
RUHVWY	*	3,479.5	260.8	1.75	3,626.0	404.7	2.61	ZZ
RZP9UW		3,154.0	-64.6	-0.43	3,281.0	59.8	0.39	ZZ
T3QPP7	*	3,614.5	395.9	2.66	3,594.0	372.8	2.41	ZZ
T4TAPR		2,933.5	-285.1	-1.91	3,084.5	-136.7	-0.88	ZZ
TNUMXQ		3,321.5	102.9	0.69	3,202.0	-19.2	-0.12	ZZ
TVRCKW		3,057.5	-161.1	-1.08	3,070.0	-151.2	-0.98	ZZ
U2R4DQ		3,272.1	53.4	0.36	3,340.2	119.0	0.77	ZZ
U78BY6		3,154.6	-64.1	-0.43	3,250.5	29.2	0.19	ZZ
UD9QK7		3,112.0	-106.6	-0.72	3,298.5	77.3	0.50	ZZ
UEAVHN	*	3,134.3	-84.3	-0.57	2,928.3	-292.9	-1.89	ZZ
UJFPCJ		3,365.8	147.1	0.99	3,401.8	180.6	1.17	ZZ
UKNDA2		3,401.2	182.5	1.22	3,401.2	179.9	1.16	ZZ
UN8N87		3,309.0	90.4	0.61	3,416.0	194.8	1.26	ZZ
UYBG3R		3,282.0	63.4	0.43	3,341.5	120.3	0.78	ZZ
V7HKG4		3,183.6	-35.0	-0.24	3,350.4	129.2	0.83	ZZ
V8VEW4		3,322.0	103.4	0.69	3,267.5	46.3	0.30	ZZ
V9THXR		3,091.2	-127.4	-0.86	3,196.9	-24.3	-0.16	ZZ
VCQ2X6		3,270.5	51.9	0.35	3,335.5	114.3	0.74	ZZ
VHB4WU		3,290.5	71.9	0.48	3,304.0	82.8	0.53	ZZ
WCRLHL		3,005.3	-213.3	-1.43	3,081.1	-140.2	-0.90	ZZ
WHUAUY		3,186.5	-32.1	-0.22	3,125.6	-95.6	-0.62	ZZ
WKEEBA		3,171.5	-47.1	-0.32	3,200.0	-21.2	-0.14	ZZ
WNFFDR		3,325.0	106.4	0.71	3,313.5	92.3	0.60	ZZ
WR2YHW		3,396.6	178.0	1.19	3,397.7	176.5	1.14	ZZ
WTETZG		3,014.6	-204.0	-1.37	3,074.8	-146.4	-0.94	ZZ
WWU2LV		3,221.0	2.3	0.02	3,258.7	37.5	0.24	ZZ
WX7ZHQ		3,287.3	68.7	0.46	3,164.0	-57.2	-0.37	ZZ
X46U46		3,287.0	68.4	0.46	3,222.0	0.8	0.00	ZZ
X6D4W3		3,193.0	-25.6	-0.17	3,209.1	-12.2	-0.08	ZZ
XTKKHW		3,291.0	72.4	0.49	3,231.0	9.8	0.06	ZZ
XXFCPU		3,393.0	174.4	1.17	3,377.0	155.8	1.01	ZZ
Y4LHQH		3,288.5	69.9	0.47	3,251.5	30.3	0.20	ZZ
YNP22K		3,145.0	-73.6	-0.49	3,105.0	-116.2	-0.75	ZZ
YP7T8H		3,104.6	-114.1	-0.77	2,997.2	-224.0	-1.45	ZZ

Rubber Interlaboratory Testing Program

Analysis 605
Tensile Strength (psi)

WebCode	Data Flag	Sample C51			Sample C52			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
YTNFMN		3,224.4	5.8	0.04	3,245.5	24.3	0.16	ZZ
YVCWZ3		3,106.8	-111.9	-0.75	3,214.5	-6.7	-0.04	ZZ
YVPK2U		2,903.5	-315.1	-2.11	2,893.0	-328.2	-2.12	ZZ
YZ7NBK		3,130.0	-88.6	-0.59	3,115.0	-106.2	-0.69	ZZ
Z789Q2		3,386.7	168.0	1.13	3,403.9	182.7	1.18	ZZ
ZN4YLV		3,049.2	-169.5	-1.14	3,077.3	-144.0	-0.93	ZZ
ZNQHDN		3,225.0	6.4	0.04	3,140.0	-81.2	-0.52	ZZ
ZPYHMW		3,392.5	173.9	1.17	3,324.5	103.3	0.67	ZZ

Summary Statistics

Grand Means

3,218.64 psi   3,221.23 psi

Stnd Dev Btwn Labs

149.01 psi   154.94 psi

Statistics based on 125 of 125 reporting participants

Summary Statistics in SI Units

Grand Means

22.192 MPa   22.21 MPa

Stnd Dev Btwn Labs

1.027 MPa   1.07 MPa

Statistics based on 125 of 125 reporting participants

Samples C51-C52: Polyisoprene compound, batch #1 & C53-C54: Polyisoprene compound, batch #2

Grand Mean Sample **C51** = 3,218.64 psi   Grand Mean Sample **C52** = 3,221.23 psi
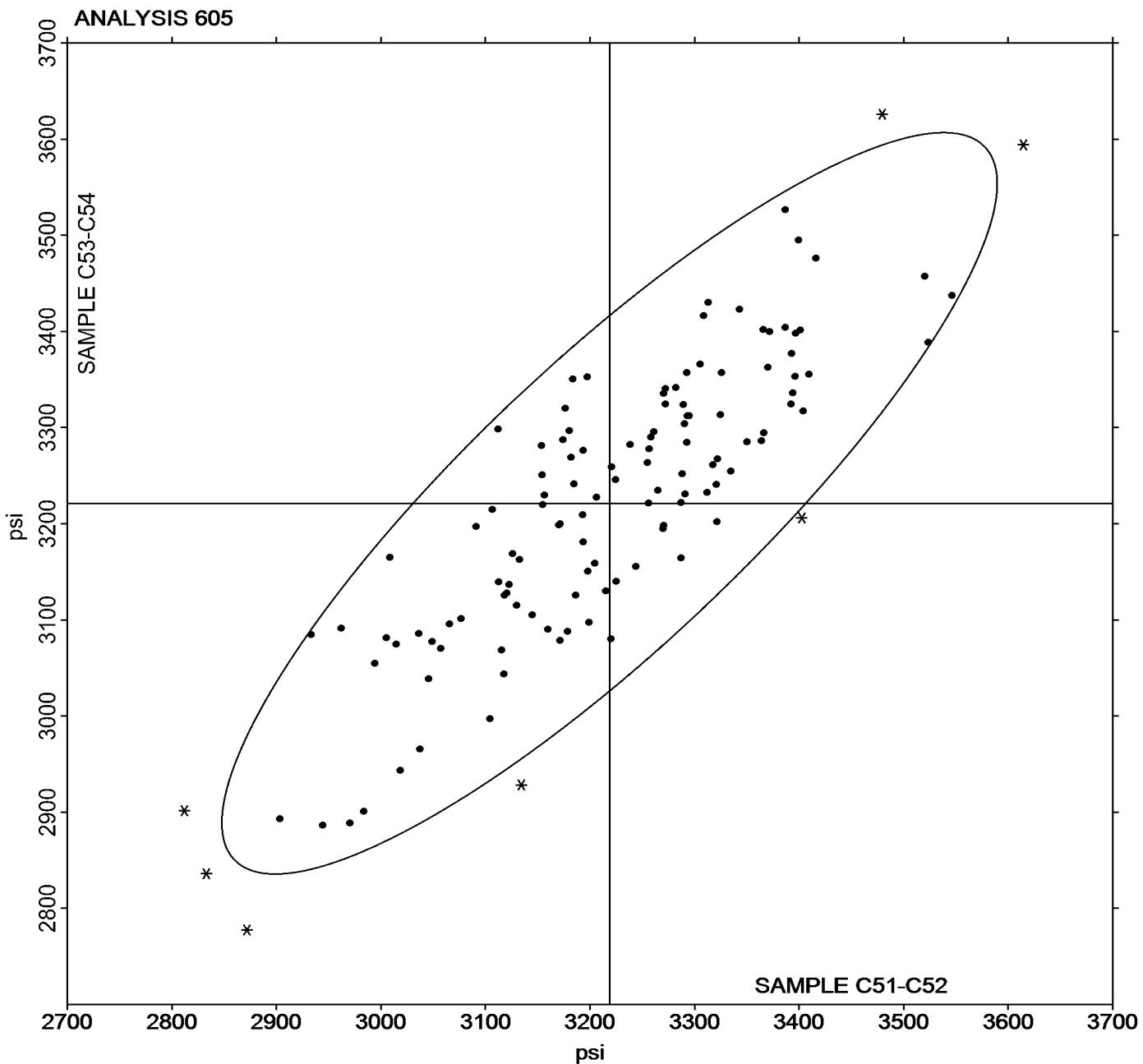
| WebCode | Data Flag | Sample C51 | | | Sample C52 | | | Instr Code |
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2FA48X		640.0	31.8	1.07	628.0	18.6	0.59	ZZ
2PF4JJ		674.5	66.3	2.23	671.0	61.6	1.94	ZZ
3NKN7M		600.0	-8.2	-0.27	600.0	-9.4	-0.30	ZZ
42GGTF		581.5	-26.7	-0.90	567.5	-41.9	-1.32	ZZ
43YBTP		585.5	-22.7	-0.76	586.5	-22.9	-0.72	ZZ
46YQVL	X	771.3	163.1	5.47	772.0	162.6	5.13	ZZ
4GTXYH		648.0	39.8	1.34	646.5	37.1	1.17	ZZ
4PNZ4E		559.5	-48.7	-1.63	549.0	-60.4	-1.91	ZZ
4QXWMX		616.1	7.9	0.26	626.5	17.1	0.54	ZZ
6FWTXU		556.3	-51.9	-1.74	553.8	-55.6	-1.75	ZZ
6H4YJV		623.5	15.3	0.51	608.5	-0.9	-0.03	ZZ
6LPWXD		611.0	2.8	0.09	621.0	11.6	0.36	ZZ
6LTZJC		563.5	-44.7	-1.50	574.0	-35.4	-1.12	ZZ
7CRK7P		595.0	-13.2	-0.44	605.0	-4.4	-0.14	ZZ
7LXF9U		611.5	3.3	0.11	616.5	7.1	0.22	ZZ
7XUJDN		614.7	6.5	0.22	633.4	24.0	0.76	ZZ
8K47F6		588.0	-20.2	-0.68	592.0	-17.4	-0.55	ZZ
8LUDYG		599.5	-8.7	-0.29	620.5	11.1	0.35	ZZ
9C87W6		634.0	25.8	0.87	636.5	27.1	0.85	ZZ
9J67EJ		630.0	21.8	0.73	635.0	25.6	0.81	ZZ
9U4YMB		546.5	-61.7	-2.07	550.5	-58.9	-1.86	ZZ
9WBEUG		611.5	3.3	0.11	617.0	7.6	0.24	ZZ
A8M2H8		632.4	24.2	0.81	630.7	21.3	0.67	ZZ
AKUYFF	*	533.3	-74.9	-2.51	518.1	-91.3	-2.88	ZZ
AM38RL		607.3	-0.9	-0.03	622.8	13.3	0.42	ZZ
B43KGE		579.0	-29.2	-0.98	583.0	-26.4	-0.83	ZZ
BGAJB7		592.5	-15.7	-0.53	592.0	-17.4	-0.55	ZZ
BPLJ6H		612.5	4.3	0.14	630.0	20.6	0.65	ZZ
CBGN2L		609.8	1.6	0.05	617.8	8.4	0.26	ZZ
CJA22L		610.5	2.3	0.08	601.0	-8.4	-0.27	ZZ
CNLZGL		624.6	16.4	0.55	623.3	13.8	0.44	ZZ
CTJJHK		598.5	-9.7	-0.33	619.0	9.6	0.30	ZZ
CXAWHM		614.6	6.5	0.22	614.5	5.0	0.16	ZZ
D2RDDC		640.2	32.1	1.08	622.3	12.9	0.41	ZZ
DCNGG7		582.8	-25.4	-0.85	572.8	-36.7	-1.16	ZZ
DD6D8K		648.5	40.3	1.35	646.5	37.1	1.17	ZZ
DUTNW9		598.4	-9.8	-0.33	598.6	-10.9	-0.34	ZZ
DWVRJN		590.6	-17.6	-0.59	595.3	-14.1	-0.45	ZZ
E8TV3N	X	707.5	99.3	3.33	687.5	78.1	2.46	ZZ

Rubber Interlaboratory Testing Program
Analysis 606
Ultimate Elongation (percent)

WebCode	Data Flag	Sample C51			Sample C52			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
EHAHCP		623.0	14.8	0.50	629.0	19.6	0.62	ZZ
EJWAQ4		601.1	-7.1	-0.24	615.9	6.4	0.20	ZZ
EVHCR9	*	587.5	-20.7	-0.69	616.0	6.6	0.21	ZZ
EWHPU4	*	519.0	-89.2	-2.99	520.5	-88.9	-2.80	ZZ
F6MWE2		615.5	7.3	0.25	612.5	3.1	0.10	ZZ
FZ99U6	X	650.5	42.3	1.42	606.0	-3.4	-0.11	ZZ
GFHCT6		586.0	-22.2	-0.74	578.0	-31.4	-0.99	ZZ
GK8Z3G		615.5	7.3	0.25	628.0	18.6	0.59	ZZ
GL3LV8		569.0	-39.2	-1.32	577.0	-32.4	-1.02	ZZ
GP7BJA	X	747.5	139.3	4.68	733.0	123.6	3.90	ZZ
GW6UJK		638.5	30.3	1.02	624.0	14.6	0.46	ZZ
H6EC44		610.1	1.9	0.06	622.9	13.4	0.42	ZZ
HVCTCV	X	710.5	102.3	3.43	703.5	94.1	2.97	ZZ
J4TEUB		647.0	38.8	1.30	644.0	34.6	1.09	ZZ
J6PU78		610.5	2.3	0.08	614.0	4.6	0.14	ZZ
J72NL8		603.0	-5.2	-0.17	586.0	-23.4	-0.74	ZZ
JMB749		590.7	-17.5	-0.59	617.3	7.8	0.25	ZZ
JYZCQB		625.0	16.8	0.56	627.5	18.1	0.57	ZZ
JZGJZY		633.5	25.3	0.85	626.5	17.1	0.54	ZZ
K7Z4H6		611.0	2.8	0.09	615.5	6.1	0.19	ZZ
KCGPGB		645.0	36.8	1.24	636.0	26.6	0.84	ZZ
KGDDXH		618.9	10.7	0.36	615.6	6.2	0.19	ZZ
KX8WXE		622.5	14.3	0.48	628.0	18.6	0.59	ZZ
LRUGK9		606.5	-1.7	-0.06	601.5	-7.9	-0.25	ZZ
M382GA		650.5	42.3	1.42	656.5	47.1	1.48	ZZ
MCWNVF		611.0	2.8	0.09	610.1	0.6	0.02	ZZ
MH2JG7		585.5	-22.7	-0.76	597.5	-11.9	-0.38	ZZ
MLL92H		635.0	26.8	0.90	640.0	30.6	0.96	ZZ
MTKWV4		572.0	-36.2	-1.21	551.5	-57.9	-1.83	ZZ
MZ42RB		591.5	-16.7	-0.56	608.5	-0.9	-0.03	ZZ
NTJLC7		585.0	-23.2	-0.78	590.0	-19.4	-0.61	ZZ
NV4AWJ		671.5	63.3	2.12	669.9	60.5	1.91	ZZ
P3MVGA		583.0	-25.2	-0.85	594.0	-15.4	-0.49	ZZ
QT8HTB	X	702.5	94.3	3.17	685.0	75.6	2.38	ZZ
QT9F48		618.0	9.8	0.33	640.5	31.1	0.98	ZZ
QVFQ4G		593.0	-15.2	-0.51	596.0	-13.4	-0.42	ZZ
R66PJT		637.0	28.8	0.97	637.4	28.0	0.88	ZZ
R8UZAL	X	763.3	155.1	5.21	743.2	133.8	4.22	ZZ
RBKLR9		634.0	25.8	0.87	646.0	36.6	1.15	ZZ

Rubber Interlaboratory Testing Program
Analysis 606
Ultimate Elongation (percent)

| WebCode | Data Flag | Sample C51 | | | Sample C52 | | | Instr Code |
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
RJY92C		564.0	-44.2	-1.48	558.0	-51.4	-1.62	ZZ
RPPVH4		630.8	22.6	0.76	642.4	33.0	1.04	ZZ
RUHVWY		598.5	-9.7	-0.33	596.0	-13.4	-0.42	ZZ
RZP9UW		537.0	-71.2	-2.39	533.0	-76.4	-2.41	ZZ
T3QPP7		619.0	10.8	0.36	618.0	8.6	0.27	ZZ
T4TAPR		599.0	-9.2	-0.31	598.0	-11.4	-0.36	ZZ
TNUMXQ		604.0	-4.2	-0.14	594.0	-15.4	-0.49	ZZ
TVRCKW		665.0	56.8	1.91	659.5	50.1	1.58	ZZ
U2R4DQ		650.0	41.8	1.40	650.0	40.6	1.28	ZZ
U78BY6		610.5	2.3	0.08	605.5	-3.9	-0.12	ZZ
UD9QK7		609.5	1.3	0.04	614.0	4.6	0.14	ZZ
UEAVHN		558.0	-50.2	-1.68	554.5	-54.9	-1.73	ZZ
UKNDA2		639.5	31.3	1.05	631.5	22.1	0.70	ZZ
UN8N87		630.0	21.8	0.73	639.5	30.1	0.95	ZZ
UYBG3R		568.5	-39.7	-1.33	562.5	-46.9	-1.48	ZZ
V7HKG4	X	482.5	-125.7	-4.22	496.5	-112.9	-3.56	ZZ
V8VEW4		604.5	-3.7	-0.12	626.5	17.1	0.54	ZZ
V9THXR		623.0	14.8	0.50	622.9	13.5	0.43	ZZ
VCQ2X6		644.0	35.8	1.20	660.5	51.1	1.61	ZZ
VHB4WU	X	524.5	-83.7	-2.81	564.5	-44.9	-1.42	ZZ
WCRLHL	X	635.0	26.8	0.90	590.0	-19.4	-0.61	ZZ
WHUAUY		605.0	-3.2	-0.11	602.5	-6.9	-0.22	ZZ
WKEEBA		618.5	10.3	0.35	612.5	3.1	0.10	ZZ
WNFFDR		624.0	15.8	0.53	614.5	5.1	0.16	ZZ
WR2YHW		592.9	-15.3	-0.51	590.2	-19.2	-0.61	ZZ
WTETZG		589.5	-18.7	-0.63	577.5	-31.9	-1.01	ZZ
WWU2LV		596.0	-12.2	-0.41	598.0	-11.4	-0.36	ZZ
WX7ZHQ		637.5	29.3	0.98	623.0	13.6	0.43	ZZ
X46U46		599.0	-9.2	-0.31	611.5	2.1	0.06	ZZ
X6D4W3		621.5	13.3	0.45	616.2	6.8	0.21	ZZ
XTKKHW		595.5	-12.7	-0.43	586.5	-22.9	-0.72	ZZ
XXFCPU	*	644.0	35.8	1.20	622.0	12.6	0.40	ZZ
Y4LHQH		606.0	-2.2	-0.07	605.0	-4.4	-0.14	ZZ
YNP22K		602.0	-6.2	-0.21	592.0	-17.4	-0.55	ZZ
YP7T8H		555.5	-52.7	-1.77	545.5	-63.9	-2.02	ZZ
YTNFMN		609.9	1.7	0.06	619.8	10.3	0.33	ZZ
YVCWZ3		599.8	-8.4	-0.28	615.5	6.1	0.19	ZZ
YVPK2U		560.0	-48.2	-1.62	556.5	-52.9	-1.67	ZZ
YZ7NBK	*	672.5	64.3	2.16	694.0	84.6	2.67	ZZ

Rubber Interlaboratory Testing Program
Analysis 606
Ultimate Elongation (percent)

		Sample C51			Sample C52			
WebCode	Data Flag	Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	Instr Code
Z789Q2		636.1	27.9	0.94	636.6	27.1	0.85	ZZ
ZN4YLV	X	460.0	-148.2	-4.97	552.0	-57.4	-1.81	ZZ
ZNQHDN		611.0	2.8	0.09	596.0	-13.4	-0.42	ZZ
ZPYHMW		658.5	50.3	1.69	657.0	47.6	1.50	ZZ

Summary Statistics

Grand Means

608.19 percent   609.44 percent

Stnd Dev Btwn Labs

29.79 percent   31.71 percent

Statistics based on 110 of 121 reporting participants

Samples C51-C52: Polyisoprene compound, batch #1 & C53-C54: Polyisoprene compound, batch #2

Comments on assigned Data Flags for Test #606

46YQVL (X) - Data for all Samples are high. Possible systematic error.

E8TV3N (X) - Inconsistency in testing between Sample groups. Data for Sample group C51-C52 are high.

FZ99U6 (X) - Inconsistency in testing between Sample groups.

GP7BJA (X) - Data for all Samples are high. Possible systematic error.

HVCTCV (X) - Data for all Samples are high. Possible systematic error.

QT8HTB (X) - Inconsistency in testing between Sample groups. Data for Sample group C51-C52 are high.

R8UZAL (X) - Data for all Samples are high. Possible systematic error. Inconsistency in testing within Sample group C53-C54.

V7HKG4 (X) - Data for all Samples are low. Possible systematic error.

VHB4WU (X) - Inconsistency in testing between Sample groups. Data for Sample group C51-C52 are low.

WCRLHL (X) - Inconsistency in testing between Sample groups and within both Sample groups.

ZN4YLV (X) - Inconsistency in testing between Sample groups. Data for Sample group C51-C52 are low.

Rubber Interlaboratory Testing Program
Analysis 606
Ultimate Elongation (percent)

Grand Mean Sample **C51** = 608.19 percent   Grand Mean Sample **C52** = 609.44 percent
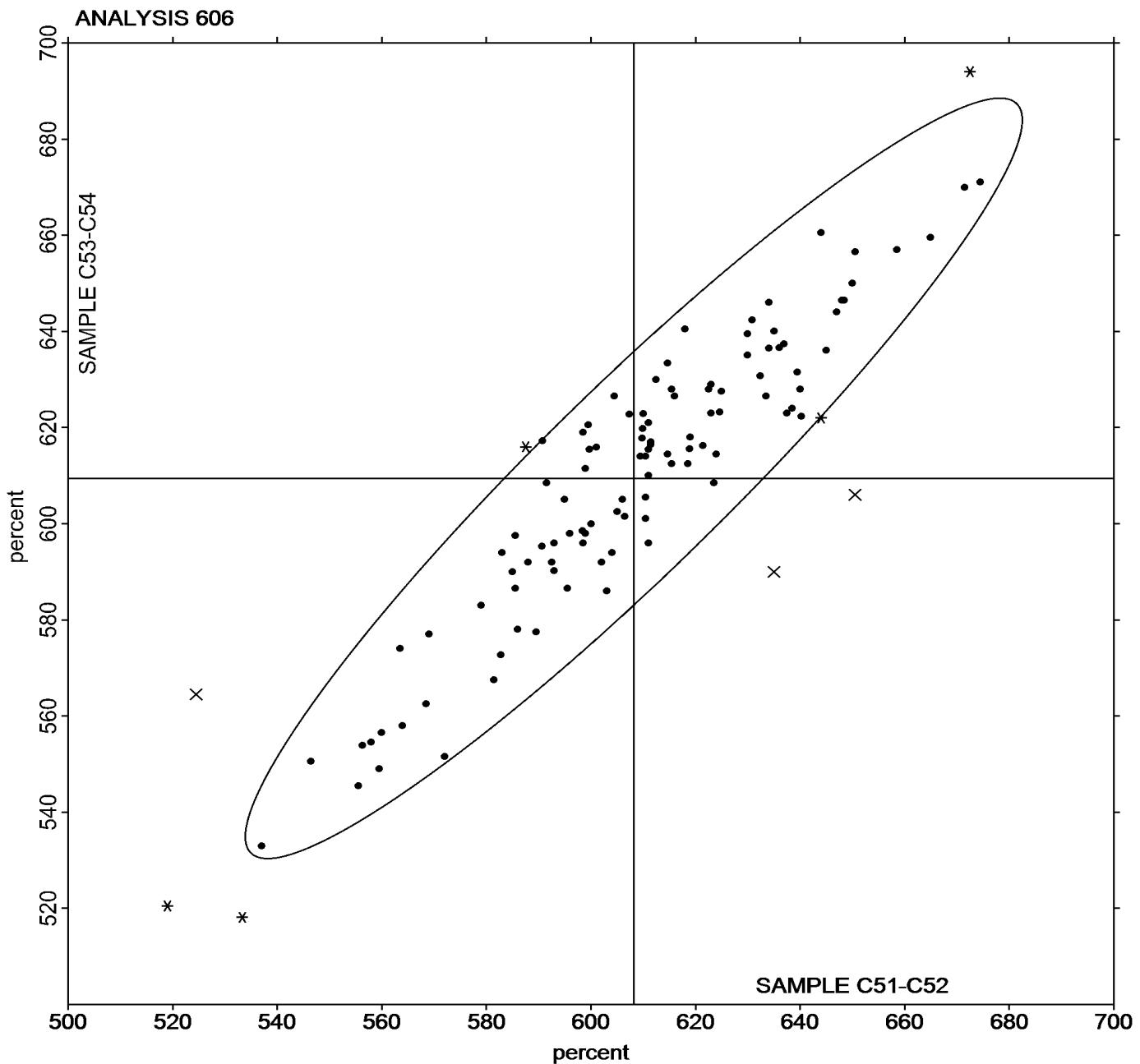
ANALYSIS 606

Rubber Interlaboratory Testing Program
Analysis 607
Stress at 300% Elongation (psi)

WebCode	Data Flag	Sample C51			Sample C52			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2PF4JJ		829.5	-140.8	-1.83	839.5	-132.9	-1.74	ZZ
3NKN7M	X	979.0	8.7	0.11	843.5	-128.9	-1.69	ZZ
42GGTF		1,051.0	80.7	1.05	1,045.0	72.6	0.95	ZZ
43YBTP		980.5	10.2	0.13	1,023.5	51.1	0.67	ZZ
46YQVL	X	663.0	-307.3	-4.00	699.0	-273.4	-3.58	ZZ
4GTXYH		889.5	-80.8	-1.05	891.0	-81.4	-1.07	ZZ
4PNZ4E	*	1,165.0	194.7	2.53	1,190.0	217.6	2.85	ZZ
4QXWMX		972.1	1.8	0.02	955.1	-17.3	-0.23	ZZ
6FWTXU	*	1,039.3	69.0	0.90	1,110.5	138.1	1.81	ZZ
6H4YJV		966.0	-4.3	-0.06	990.6	18.2	0.24	ZZ
6LPWXD		953.5	-16.8	-0.22	938.0	-34.4	-0.45	ZZ
6LTZJC		1,095.0	124.8	1.62	1,103.7	131.4	1.72	ZZ
7CRK7P		972.0	1.7	0.02	955.5	-16.9	-0.22	ZZ
7LXF9U		958.7	-11.6	-0.15	918.7	-53.7	-0.70	ZZ
7XUJDN		947.3	-22.9	-0.30	884.9	-87.4	-1.15	ZZ
8K47F6		982.5	12.2	0.16	944.0	-28.4	-0.37	ZZ
8LUDYG		1,032.0	61.7	0.80	980.5	8.1	0.11	ZZ
9C87W6		972.0	1.7	0.02	976.0	3.6	0.05	ZZ
9J67EJ		889.1	-81.2	-1.06	868.8	-103.6	-1.36	ZZ
9U4YMB	X	1,230.0	259.7	3.38	1,165.0	192.6	2.52	ZZ
9WBEUG		961.0	-9.3	-0.12	946.5	-25.9	-0.34	ZZ
A8M2H8		884.0	-86.3	-1.12	936.2	-36.2	-0.47	ZZ
AKUYFF	X	1,273.0	302.8	3.94	1,299.0	326.7	4.28	ZZ
AM38RL		973.0	2.8	0.04	969.3	-3.1	-0.04	ZZ
B43KGE	*	1,154.5	184.2	2.40	1,164.0	191.6	2.51	ZZ
BGAJB7		950.7	-19.6	-0.25	922.4	-49.9	-0.65	ZZ
BPLJ6H		978.5	8.2	0.11	968.0	-4.4	-0.06	ZZ
CBGN2L		1,004.0	33.7	0.44	1,013.1	40.7	0.53	ZZ
CJA22L		1,028.5	58.2	0.76	1,063.5	91.1	1.19	ZZ
CNLZGL		886.9	-83.4	-1.09	931.9	-40.5	-0.53	ZZ
CTJJHK		908.5	-61.8	-0.80	935.5	-36.9	-0.48	ZZ
CXAWHM		1,090.1	119.8	1.56	1,046.7	74.3	0.97	ZZ
D2RDDC		954.9	-15.4	-0.20	977.8	5.4	0.07	ZZ
DCNGG7		996.0	25.7	0.33	1,012.8	40.4	0.53	ZZ
DD6D8K		863.0	-107.3	-1.40	855.7	-116.7	-1.53	ZZ
DUTNW9		972.7	2.4	0.03	954.6	-17.8	-0.23	ZZ
DWVRJN		964.4	-5.9	-0.08	980.8	8.4	0.11	ZZ
E8TV3N		950.0	-20.3	-0.26	964.5	-7.9	-0.10	ZZ
EHAHCP		1,006.6	36.3	0.47	983.4	11.0	0.14	ZZ

Rubber Interlaboratory Testing Program

Analysis 607
Stress at 300% Elongation (psi)

WebCode	Data Flag	Sample C51			Sample C52			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
EJWAQ4		979.5	9.2	0.12	960.5	-11.9	-0.16	ZZ
EVHCR9	*	873.5	-96.8	-1.26	813.0	-159.4	-2.09	ZZ
EWHPU4		1,138.6	168.3	2.19	1,135.7	163.3	2.14	ZZ
F6MWE2		1,000.0	29.7	0.39	964.5	-7.9	-0.10	ZZ
GFHCT6		1,113.0	142.7	1.86	1,096.0	123.6	1.62	ZZ
GK8Z3G		966.5	-3.8	-0.05	995.5	23.1	0.30	ZZ
GL3LV8		1,005.5	35.2	0.46	1,008.0	35.6	0.47	ZZ
GP7BJA		785.4	-184.9	-2.41	810.0	-162.3	-2.13	ZZ
GW6UJK		827.5	-142.8	-1.86	898.0	-74.4	-0.97	ZZ
H6EC44	*	1,085.1	114.8	1.49	1,005.3	32.9	0.43	ZZ
HVCTCV	X	1,414.1	443.8	5.78	1,334.4	362.0	4.74	ZZ
J4TEUB		873.9	-96.4	-1.26	908.7	-63.7	-0.83	ZZ
J6PU78		1,029.8	59.5	0.77	1,037.0	64.6	0.85	ZZ
J72NL8		939.0	-31.3	-0.41	903.0	-69.4	-0.91	ZZ
JMB749		1,010.5	40.2	0.52	988.0	15.6	0.20	ZZ
JYZCQB		923.0	-47.3	-0.62	898.0	-74.4	-0.97	ZZ
JZGJZY		949.0	-21.3	-0.28	964.0	-8.4	-0.11	ZZ
K7Z4H6		947.8	-22.5	-0.29	929.0	-43.4	-0.57	ZZ
KCGPGB		897.5	-72.8	-0.95	950.5	-21.9	-0.29	ZZ
KGDDXH		1,087.1	116.8	1.52	1,043.6	71.2	0.93	ZZ
KX8WXE		871.5	-98.8	-1.29	903.0	-69.4	-0.91	ZZ
LRUGK9		971.5	1.2	0.02	947.0	-25.4	-0.33	ZZ
M382GA		890.0	-80.3	-1.05	911.5	-60.9	-0.80	ZZ
MCWNVK		904.2	-66.1	-0.86	937.9	-34.5	-0.45	ZZ
MH2JG7		1,056.5	86.2	1.12	1,029.5	57.1	0.75	ZZ
MLL92H		927.5	-42.8	-0.56	911.5	-60.9	-0.80	ZZ
MTKWV4	*	1,054.0	83.7	1.09	1,139.0	166.6	2.18	ZZ
MZ42RB		1,013.1	42.8	0.56	999.3	26.9	0.35	ZZ
NTJLC7		1,011.0	40.7	0.53	1,024.0	51.6	0.68	ZZ
NV4AWJ		841.2	-129.1	-1.68	819.5	-152.8	-2.00	ZZ
P3MVGA		993.1	22.8	0.30	949.5	-22.9	-0.30	ZZ
QT8HTB	X	1,341.6	371.3	4.83	1,406.9	434.5	5.69	ZZ
QT9F48		961.0	-9.3	-0.12	919.0	-53.4	-0.70	ZZ
QVFQ4G		961.5	-8.8	-0.11	970.0	-2.4	-0.03	ZZ
R66PJT		950.5	-19.8	-0.26	970.2	-2.2	-0.03	ZZ
R8UZAL	X	667.0	-303.3	-3.95	716.2	-256.2	-3.36	ZZ
RBKLR9		929.7	-40.6	-0.53	914.5	-57.9	-0.76	ZZ
RJY92C		1,025.0	54.7	0.71	1,002.5	30.1	0.39	ZZ
RPPVH4		931.8	-38.5	-0.50	991.5	19.1	0.25	ZZ

Rubber Interlaboratory Testing Program
Analysis 607
Stress at 300% Elongation (psi)

WebCode	Data Flag	Sample C51			Sample C52			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
RUHVWY		1,028.3	58.0	0.76	1,051.5	79.1	1.04	ZZ
RZP9UW		975.5	5.2	0.07	1,032.0	59.6	0.78	ZZ
T3QPP7		1,048.5	78.2	1.02	1,018.0	45.6	0.60	ZZ
T4TAPR		888.5	-81.8	-1.06	950.5	-21.9	-0.29	ZZ
TNUMXQ		1,032.0	61.7	0.80	990.5	18.1	0.24	ZZ
TVRCKW		804.5	-165.8	-2.16	799.0	-173.4	-2.27	ZZ
U78BY6		954.4	-15.9	-0.21	982.3	9.9	0.13	ZZ
UD9QK7		983.0	12.7	0.17	1,012.5	40.1	0.53	ZZ
UEAVHN		1,006.6	36.3	0.47	1,008.7	36.4	0.48	ZZ
UKNDA2		935.5	-34.8	-0.45	964.5	-7.9	-0.10	ZZ
UN8N87		953.0	-17.3	-0.23	961.5	-10.9	-0.14	ZZ
UYBG3R		1,068.0	97.7	1.27	1,125.0	152.6	2.00	ZZ
V7HKG4	X	1,359.0	388.7	5.06	1,312.6	340.2	4.46	ZZ
V8VEW4	X	1,030.5	60.2	0.78	919.5	-52.9	-0.69	ZZ
V9THXR		863.7	-106.6	-1.39	907.0	-65.4	-0.86	ZZ
VCQ2X6		900.5	-69.8	-0.91	866.0	-106.4	-1.39	ZZ
VHB4WU		1,051.5	81.2	1.06	1,036.5	64.1	0.84	ZZ
WHUAUY		923.9	-46.4	-0.60	952.2	-20.2	-0.26	ZZ
WKEEBA		925.5	-44.8	-0.58	957.0	-15.4	-0.20	ZZ
WNFFDR		938.0	-32.3	-0.42	993.0	20.6	0.27	ZZ
WR2YHW		1,080.7	110.4	1.44	1,121.5	149.1	1.95	ZZ
WTETZG	X	881.1	-89.2	-1.16	998.6	26.2	0.34	ZZ
WWU2LV		1,020.5	50.2	0.65	1,001.5	29.1	0.38	ZZ
WX7ZHQ		931.9	-38.4	-0.50	913.7	-58.6	-0.77	ZZ
X46U46		1,120.5	150.2	1.96	1,058.0	85.6	1.12	ZZ
X6D4W3		957.8	-12.4	-0.16	984.1	11.7	0.15	ZZ
XTKKHW		1,091.5	121.2	1.58	1,065.5	93.1	1.22	ZZ
XXFCPU		915.0	-55.3	-0.72	979.0	6.6	0.09	ZZ
Y4LHQH		988.5	18.2	0.24	972.5	0.1	0.00	ZZ
YNP22K		953.0	-17.3	-0.23	953.0	-19.4	-0.25	ZZ
YP7T8H		1,097.9	127.7	1.66	1,055.9	83.5	1.09	ZZ
YTNFMN		978.2	7.9	0.10	1,000.6	28.2	0.37	ZZ
YVCWZ3		929.8	-40.5	-0.53	934.5	-37.9	-0.50	ZZ
YVPK2U		958.0	-12.3	-0.16	996.0	23.6	0.31	ZZ
YZ7NBK	*	773.5	-196.8	-2.56	768.5	-203.9	-2.67	ZZ
Z789Q2		950.3	-20.0	-0.26	953.1	-19.3	-0.25	ZZ
ZN4YLV		936.2	-34.1	-0.44	925.5	-46.9	-0.61	ZZ
ZNQHDN		992.0	21.7	0.28	974.5	2.1	0.03	ZZ
ZPYHMW		917.0	-53.3	-0.69	890.5	-81.9	-1.07	ZZ

Rubber Interlaboratory Testing Program
Analysis 607
Stress at 300% Elongation (psi)

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Summary Statistics

Grand Means

970.29 psi   972.38 psi

Stnd Dev Btwn Labs

76.82 psi   76.35 psi

Statistics based on 107 of 117 reporting participants

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Summary Statistics in SI Units

Grand Means

6.6898 MPa   6.70   MPa

Stnd Dev Btwn Labs

0.5297 MPa   0.53   MPa

Statistics based on 107 of 117 reporting participants

</div>

Samples C51-C52: Polyisoprene compound, batch #1 & C53-C54: Polyisoprene compound, batch #2

Comments on assigned Data Flags for Test #607

3NKN7M (X) - Inconsistency in testing between Sample groups.

46YQVL (X) - Data for all Samples are low. Possible systematic error.

9U4YMB (X) - Inconsistency in testing between Sample groups. Data for Sample group C51-C52 are high.

AKUYFF (X) - Data for all Samples are high. Possible systematic error.

HVCTCV (X) - Data for all Samples are high. Possible systematic error.

QT8HTB (X) - Data for all Samples are high. Possible systematic error.

R8UZAL (X) - Data for all Samples are low. Possible systematic error.

V7HKG4 (X) - Data for all Samples are high. Possible systematic error.

V8VEW4 (X) - Inconsistency in testing between Sample groups.

WTETZG (X) - Inconsistency in testing between Sample groups.

Rubber Interlaboratory Testing Program
Analysis 607
Stress at 300% Elongation (psi)

Grand Mean Sample **C51** = 970.29 psi

Grand Mean Sample **C52** = 972.38 psi
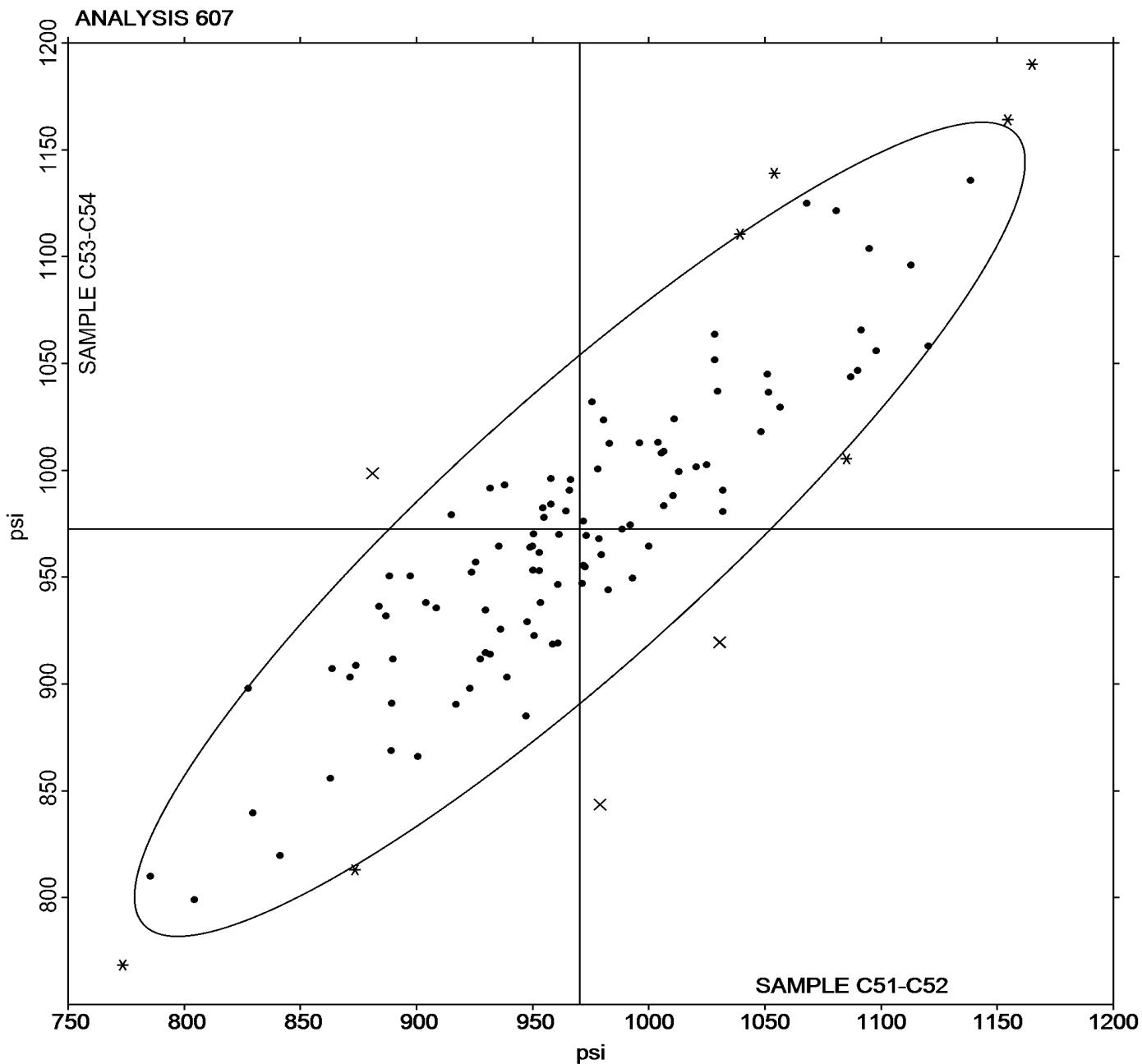
Analysis 608
Stress at 100% Elongation (psi)

| WebCode | Data Flag | Sample C51 | | | Sample C52 | | | Instr Code |
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2FA48X		190.0	-16.5	-1.15	197.5	-9.9	-0.72	ZZ
2PF4JJ		195.5	-11.0	-0.76	196.0	-11.4	-0.83	ZZ
3NKN7M	X	199.0	-7.5	-0.52	172.5	-34.9	-2.55	ZZ
42GGTF		214.5	8.0	0.56	212.5	5.1	0.37	ZZ
43YBTP		207.5	1.0	0.07	216.5	9.1	0.67	ZZ
46YQVL	*	165.0	-41.5	-2.89	167.5	-39.9	-2.92	ZZ
4GTXYH		199.0	-7.5	-0.52	198.0	-9.4	-0.69	ZZ
4PNZ4E	X	278.5	72.0	5.02	287.0	79.6	5.82	ZZ
4QXWMX		214.1	7.6	0.53	212.3	4.9	0.36	ZZ
6FWTXU		211.1	4.6	0.32	221.7	14.3	1.04	ZZ
6H4YJV		221.2	14.7	1.02	228.4	21.0	1.54	ZZ
6LPWXD		203.5	-3.0	-0.21	204.0	-3.4	-0.25	ZZ
6LTZJC		221.9	15.4	1.08	226.3	18.9	1.38	ZZ
7CRK7P		212.0	5.5	0.38	212.5	5.1	0.37	ZZ
7LXF9U		205.5	-1.0	-0.07	193.1	-14.4	-1.05	ZZ
7XUJDN		203.3	-3.2	-0.22	193.1	-14.3	-1.05	ZZ
8K47F6		211.0	4.5	0.32	203.0	-4.4	-0.32	ZZ
8LUDYG		214.0	7.5	0.52	204.5	-2.9	-0.21	ZZ
9C87W6		217.5	11.0	0.77	215.5	8.1	0.59	ZZ
9J67EJ		193.6	-12.8	-0.89	192.9	-14.5	-1.06	ZZ
9U4YMB	X	298.0	91.5	6.38	282.5	75.1	5.49	ZZ
9WBEUG		198.5	-8.0	-0.56	202.0	-5.4	-0.39	ZZ
A8M2H8		191.5	-15.0	-1.05	200.9	-6.5	-0.48	ZZ
AKUYFF	X	278.1	71.7	4.99	276.8	69.4	5.07	ZZ
AM38RL		231.7	25.2	1.75	231.9	24.4	1.79	ZZ
B43KGE	X	373.0	166.5	11.60	379.5	172.1	12.58	ZZ
BGAJB7		212.5	6.0	0.42	206.7	-0.7	-0.05	ZZ
BPLJ6H		204.0	-2.5	-0.17	210.5	3.1	0.23	ZZ
CBGN2L		217.2	10.7	0.74	216.6	9.2	0.67	ZZ
CJA22L		216.5	10.0	0.70	222.0	14.6	1.07	ZZ
CNLZGL		188.6	-17.9	-1.25	195.8	-11.6	-0.85	ZZ
CTJJHK		186.0	-20.5	-1.43	193.7	-13.7	-1.00	ZZ
CXAWHM		235.0	28.5	1.99	230.0	22.6	1.65	ZZ
D2RDDC		196.8	-9.7	-0.67	204.7	-2.8	-0.20	ZZ
DCNGG7		199.0	-7.5	-0.52	205.5	-1.9	-0.14	ZZ
DD6D8K		188.6	-17.9	-1.25	181.3	-26.1	-1.91	ZZ
DUTNW9		216.6	10.1	0.70	207.5	0.1	0.01	ZZ
DWVRJN		216.4	9.9	0.69	213.7	6.3	0.46	ZZ
E8TV3N	X	261.1	54.6	3.80	261.1	53.7	3.92	ZZ

Rubber Interlaboratory Testing Program
Analysis 608
Stress at 100% Elongation (psi)

WebCode	Data Flag	Sample C51 Lab Mean	Sample C51 Diff from Grand Mean	Sample C51 CPV	Sample C52 Lab Mean	Sample C52 Diff from Grand Mean	Sample C52 CPV	Instr Code
EHAHCP		210.3	3.8	0.27	211.8	4.4	0.32	ZZ
EJWAQ4		204.0	-2.5	-0.17	206.5	-0.9	-0.07	ZZ
EVHCR9		182.0	-24.5	-1.70	177.0	-30.4	-2.22	ZZ
EWHPU4		238.6	32.1	2.24	237.9	30.5	2.23	ZZ
F6MWE2		200.5	-6.0	-0.42	192.5	-14.9	-1.09	ZZ
GFHCT6		240.0	33.5	2.34	235.5	28.1	2.05	ZZ
GK8Z3G		205.0	-1.5	-0.10	213.5	6.1	0.45	ZZ
GL3LV8		217.5	11.0	0.77	220.0	12.6	0.92	ZZ
GP7BJA		200.2	-6.3	-0.44	206.0	-1.4	-0.11	ZZ
GW6UJK		183.5	-23.0	-1.60	197.0	-10.4	-0.76	ZZ
H6EC44	X	241.2	34.7	2.42	222.5	15.0	1.10	ZZ
HVCTCV	X	1,240.1	1,033.6	72.00	1,153.1	945.7	69.13	ZZ
J4TEUB		195.1	-11.4	-0.79	200.9	-6.5	-0.48	ZZ
J6PU78		222.6	16.2	1.13	223.4	16.0	1.17	ZZ
J72NL8	*	182.5	-24.0	-1.67	172.5	-34.9	-2.55	ZZ
JMB749		225.0	18.5	1.29	216.5	9.1	0.67	ZZ
JYZCQB		207.5	1.0	0.07	202.5	-4.9	-0.36	ZZ
JZGJZY		208.5	2.0	0.14	214.5	7.1	0.52	ZZ
K7Z4H6		206.0	-0.5	-0.04	208.1	0.7	0.05	ZZ
KCGPGB		191.0	-15.5	-1.08	201.0	-6.4	-0.47	ZZ
KGDDXH		219.7	13.3	0.92	211.0	3.6	0.27	ZZ
KX8WXE		188.0	-18.5	-1.29	197.5	-9.9	-0.72	ZZ
LRUGK9		206.7	0.3	0.02	198.3	-9.1	-0.66	ZZ
M382GA		207.0	0.5	0.04	213.0	5.6	0.41	ZZ
MCWNVK		199.7	-6.8	-0.47	209.2	1.8	0.13	ZZ
MH2JG7		222.0	15.5	1.08	215.0	7.6	0.56	ZZ
MLL92H		207.5	1.0	0.07	202.5	-4.9	-0.36	ZZ
MTKWV4		210.0	3.5	0.25	223.5	16.1	1.18	ZZ
MZ42RB		223.4	16.9	1.18	216.8	9.4	0.69	ZZ
NTJLC7		207.5	1.0	0.07	206.0	-1.4	-0.10	ZZ
NV4AWJ		191.1	-15.3	-1.07	191.0	-16.4	-1.20	ZZ
P3MVGA		215.7	9.2	0.64	209.3	1.9	0.14	ZZ
QT8HTB	X	1,109.5	903.1	62.91	1,167.6	960.2	70.19	ZZ
QT9F48		204.5	-2.0	-0.14	195.0	-12.4	-0.91	ZZ
QVFQ4G		206.5	0.0	0.00	210.8	3.3	0.24	ZZ
R66PJT		201.4	-5.1	-0.36	205.4	-2.1	-0.15	ZZ
R8UZAL		174.3	-32.2	-2.24	181.7	-25.7	-1.88	ZZ
RBKLR9		206.0	-0.5	-0.04	203.8	-3.6	-0.26	ZZ
RJY92C		221.5	15.0	1.05	215.5	8.1	0.59	ZZ

Rubber Interlaboratory Testing Program

Analysis 608
Stress at 100% Elongation (psi)

WebCode	Data Flag	Sample C51			Sample C52			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
RPPVH4		205.3	-1.2	-0.08	212.7	5.3	0.39	ZZ
RUHVWY		217.6	11.1	0.77	225.5	18.1	1.33	ZZ
RZP9UW		202.0	-4.5	-0.31	214.0	6.6	0.48	ZZ
T3QPP7		226.5	20.0	1.40	219.5	12.1	0.88	ZZ
T4TAPR		187.5	-19.0	-1.32	198.5	-8.9	-0.65	ZZ
TNUMXQ		216.5	10.0	0.70	206.0	-1.4	-0.10	ZZ
TVRCKW		181.0	-25.5	-1.77	176.5	-30.9	-2.26	ZZ
U78BY6		210.3	3.8	0.26	219.8	12.4	0.91	ZZ
UD9QK7		200.0	-6.5	-0.45	207.0	-0.4	-0.03	ZZ
UEAVHN		205.2	-1.2	-0.09	208.1	0.7	0.05	ZZ
UKNDA2		195.8	-10.7	-0.74	203.1	-4.3	-0.32	ZZ
UN8N87		217.0	10.5	0.73	213.0	5.6	0.41	ZZ
UYBG3R		220.0	13.5	0.94	230.0	22.6	1.65	ZZ
V7HKG4		234.2	27.8	1.93	230.6	23.2	1.70	ZZ
V8VEW4	X	219.0	12.5	0.87	195.5	-11.9	-0.87	ZZ
V9THXR		182.0	-24.5	-1.71	191.4	-16.0	-1.17	ZZ
VCQ2X6		193.0	-13.5	-0.94	187.5	-19.9	-1.45	ZZ
VHB4WU		211.5	5.0	0.35	207.0	-0.4	-0.03	ZZ
WHUAUY		192.2	-14.3	-1.00	196.5	-10.9	-0.79	ZZ
WKEEBA		198.5	-8.0	-0.56	208.5	1.1	0.08	ZZ
WNFFDR		202.5	-4.0	-0.28	214.5	7.1	0.52	ZZ
WR2YHW		214.4	7.9	0.55	216.8	9.3	0.68	ZZ
WTETZG	X	180.6	-25.9	-1.80	204.5	-2.9	-0.21	ZZ
WWU2LV		214.0	7.5	0.52	213.0	5.6	0.41	ZZ
WX7ZHQ		198.7	-7.8	-0.54	196.5	-10.9	-0.79	ZZ
X46U46	X	257.0	50.5	3.52	239.0	31.6	2.31	ZZ
X6D4W3		201.5	-5.0	-0.35	205.6	-1.8	-0.13	ZZ
XTKKHW		234.0	27.5	1.92	227.5	20.1	1.47	ZZ
XXFCPU		199.0	-7.5	-0.52	210.0	2.6	0.19	ZZ
Y4LHQH		204.5	-2.0	-0.14	201.5	-5.9	-0.43	ZZ
YNP22K		194.0	-12.5	-0.87	194.0	-13.4	-0.98	ZZ
YP7T8H		223.4	16.9	1.18	219.0	11.6	0.85	ZZ
YTNFMN		230.2	23.7	1.65	229.0	21.6	1.58	ZZ
YVCWZ3		195.8	-10.7	-0.75	198.0	-9.4	-0.69	ZZ
YVPK2U		209.5	3.0	0.21	218.0	10.6	0.77	ZZ
YZ7NBK		191.5	-15.0	-1.04	189.5	-17.9	-1.31	ZZ
Z789Q2		221.1	14.6	1.02	226.1	18.7	1.37	ZZ
ZN4YLV		193.9	-12.6	-0.88	190.7	-16.7	-1.22	ZZ
ZNQHDN		229.5	23.0	1.60	221.5	14.1	1.03	ZZ

Rubber Interlaboratory Testing Program

Analysis 608

Stress at 100% Elongation (psi)

WebCode	Data Flag	Sample C51			Sample C52			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
ZPYHMW		202.0	-4.5	-0.31	198.0	-9.4	-0.69	ZZ

Summary Statistics	
Grand Means	
206.47 psi	207.40 psi
Stnd Dev Btwn Labs	
14.36 psi	13.68 psi
	Statistics based on 106 of 118 reporting participants

Summary Statistics in SI Units	
Grand Means	
1.4236 MPa	1.43 MPa
Stnd Dev Btwn Labs	
0.0990 MPa	0.09 MPa
	Statistics based on 106 of 118 reporting participants

Samples C51-C52: Polyisoprene compound, batch #1 & C53-C54: Polyisoprene compound, batch #2

Comments on assigned Data Flags for Test #608

3NKN7M (X) - Inconsistency in testing between Sample groups.

4PNZ4E (X) - Data for all Samples are high. Possible systematic error.

9U4YMB (X) - Data for all Samples are high. Possible systematic error.

AKUYFF (X) - Data for all Samples are high. Possible systematic error.

B43KGE (X) - Extreme data.

E8TV3N (X) - Data for all Samples are high. Possible systematic error.

H6EC44 (X) - Inconsistency in testing between Sample groups.

HVCTCV (X) - Extreme data.

QT8HTB (X) - Extreme data.

V8VEW4 (X) - Inconsistency in testing between Sample groups.

WTETZG (X) - Inconsistency in testing between Sample groups.

X46U46 (X) - Inconsistency in testing between Sample groups. Data for Sample group C51-C52 are high.

Rubber Interlaboratory Testing Program
Analysis 608
Stress at 100% Elongation (psi)

Grand Mean Sample **C51** = 206.47 psi

Grand Mean Sample **C52** = 207.40 psi
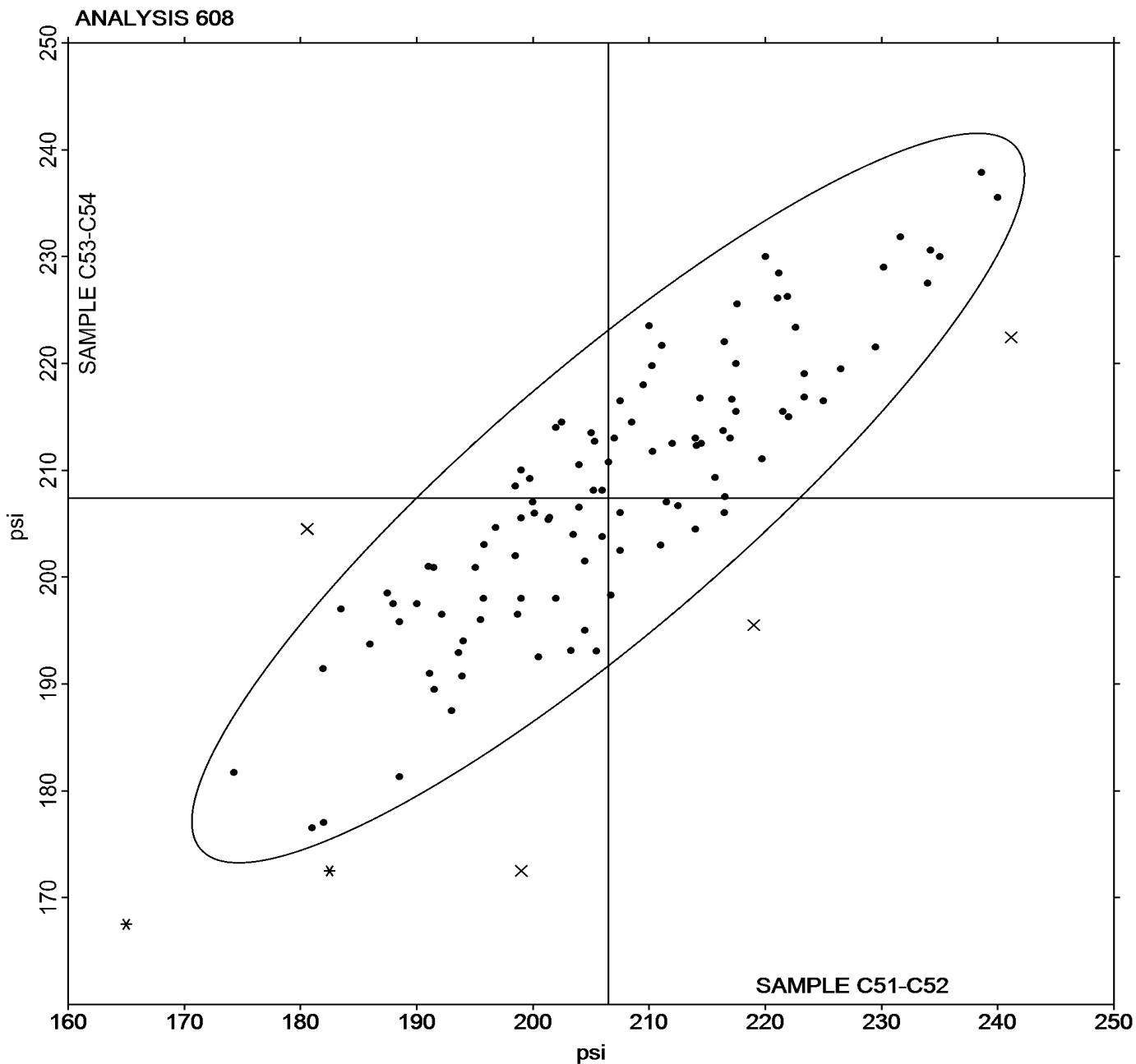
ANALYSIS 608

SAMPLE C53-C54

psi

SAMPLE C51-C52

psi

| WebCode | Data Flag | Sample C51 | | | Sample C52 | | | Instr Code |
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2FA48X		49.50	-0.55	-0.42	49.50	-0.61	-0.45	BT
2PF4JJ		51.30	1.25	0.96	50.65	0.54	0.40	BT
2VJQVT	X	45.00	-5.05	-3.87	46.00	-4.11	-3.05	BT
3NKN7M	*	52.80	2.75	2.11	51.10	0.99	0.74	BT
42GGTF		52.50	2.45	1.88	52.00	1.89	1.40	XX
43YBTP		50.00	-0.05	-0.04	50.00	-0.11	-0.08	HH
46YQVL		50.35	0.30	0.23	49.65	-0.46	-0.34	XX
4GTXYH		49.10	-0.95	-0.73	48.75	-1.36	-1.01	BT
4PNZ4E		50.25	0.20	0.15	51.00	0.89	0.66	HH
4QXWMX		49.00	-1.05	-0.80	49.50	-0.61	-0.45	XX
6FWTXU		49.00	-1.05	-0.80	50.50	0.39	0.29	XX
6H4YJV		49.50	-0.55	-0.42	49.50	-0.61	-0.45	HH
6LPWXD		50.00	-0.05	-0.04	51.00	0.89	0.66	HH
6LTZJC		49.10	-0.95	-0.73	48.75	-1.36	-1.01	BT
7CRK7P	X	59.50	9.45	7.24	58.50	8.39	6.23	BT
7LXF9U		47.50	-2.55	-1.95	47.50	-2.61	-1.94	XX
7XUJDN		49.75	-0.30	-0.23	49.70	-0.41	-0.31	BT
8K47F6		48.15	-1.90	-1.45	48.05	-2.06	-1.53	BT
8LUDYG		50.50	0.45	0.35	50.00	-0.11	-0.08	BT
9C87W6		49.50	-0.55	-0.42	50.00	-0.11	-0.08	HH
9J67EJ		50.50	0.45	0.35	50.00	-0.11	-0.08	BT
9U4YMB		50.50	0.45	0.35	50.75	0.64	0.48	HH
9WBEUG		48.50	-1.55	-1.19	48.50	-1.61	-1.20	HH
A8M2H8		52.50	2.45	1.88	53.00	2.89	2.15	HH
AKUYFF		50.35	0.30	0.23	49.40	-0.71	-0.53	BT
AM38RL		51.50	1.45	1.11	51.00	0.89	0.66	HH
B43KGE	X	44.00	-6.05	-4.63	44.00	-6.11	-4.54	BT
BGAJB7		51.00	0.95	0.73	51.05	0.94	0.70	BT
BPLJ6H		49.50	-0.55	-0.42	48.00	-2.11	-1.57	HH
CBGN2L	X	45.75	-4.30	-3.29	46.00	-4.11	-3.05	BT
CJA22L		50.00	-0.05	-0.04	50.00	-0.11	-0.08	XX
CNLZGL		50.20	0.15	0.12	50.75	0.64	0.48	BT
CTJJHK		49.50	-0.55	-0.42	49.25	-0.86	-0.64	BT
CXAWHM		51.00	0.95	0.73	51.00	0.89	0.66	HH
D2RDDC		52.50	2.45	1.88	53.00	2.89	2.15	XX
DCNGG7		51.00	0.95	0.73	50.50	0.39	0.29	HH
DD6D8K		50.50	0.45	0.35	50.50	0.39	0.29	XX
DUTNW9		52.00	1.95	1.49	52.00	1.89	1.40	BT
DWVRJN		51.90	1.85	1.42	50.75	0.64	0.48	BT

Rubber Interlaboratory Testing Program
Analysis 620
Hardness (Shore A/Type A)

WebCode	Data Flag	Sample C51			Sample C52			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
E8TV3N		51.10	1.05	0.81	51.05	0.94	0.70	BT
ED66XZ		47.50	-2.55	-1.95	47.50	-2.61	-1.94	BT
EHAHCP		51.00	0.95	0.73	50.50	0.39	0.29	BT
EJWAQ4		49.50	-0.55	-0.42	50.00	-0.11	-0.08	XX
EVHCR9		52.30	2.25	1.72	51.90	1.79	1.33	XX
EWHPU4		50.30	0.25	0.19	50.25	0.14	0.10	BT
F6MWE2		51.00	0.95	0.73	51.25	1.14	0.85	XX
FZ99U6	X	55.50	5.45	4.18	56.00	5.89	4.38	HH
GFHCT6		49.50	-0.55	-0.42	49.50	-0.61	-0.45	BT
GK8Z3G		52.00	1.95	1.49	52.50	2.39	1.78	XX
GL3LV8		51.45	1.40	1.07	51.55	1.44	1.07	HH
GP7BJA	X	45.50	-4.55	-3.48	46.00	-4.11	-3.05	BT
GW6UJK		48.00	-2.05	-1.57	47.00	-3.11	-2.31	BT
H6EC44		50.75	0.70	0.54	51.95	1.84	1.37	BT
HUN6P7	X	56.50	6.45	4.94	57.50	7.39	5.49	HH
HVCTCV		51.50	1.45	1.11	51.00	0.89	0.66	XX
J4TEUB		47.00	-3.05	-2.33	47.40	-2.71	-2.01	BT
J72NL8		50.45	0.40	0.31	49.75	-0.36	-0.27	XX
JEFDKF		48.50	-1.55	-1.19	49.50	-0.61	-0.45	BT
JMB749		52.00	1.95	1.49	52.00	1.89	1.40	HH
JYZCQB		49.00	-1.05	-0.80	50.00	-0.11	-0.08	BT
JZGJZY		49.50	-0.55	-0.42	50.25	0.14	0.10	HH
K7Z4H6		50.00	-0.05	-0.04	50.00	-0.11	-0.08	HH
KCGPGB		49.50	-0.55	-0.42	50.00	-0.11	-0.08	XX
KGDDXH		50.45	0.40	0.31	48.90	-1.21	-0.90	XX
KH9YQA		49.25	-0.80	-0.61	50.25	0.14	0.10	BT
KX8WXE	*	46.65	-3.40	-2.60	47.40	-2.71	-2.01	BT
LRUGK9		50.90	0.85	0.65	49.95	-0.16	-0.12	XX
M382GA		51.00	0.95	0.73	52.00	1.89	1.40	BT
MCWNVF		49.45	-0.60	-0.46	49.15	-0.96	-0.71	XX
MH2JG7		49.50	-0.55	-0.42	50.00	-0.11	-0.08	BT
MLL92H		51.00	0.95	0.73	50.50	0.39	0.29	HH
MTKWV4		49.50	-0.55	-0.42	50.00	-0.11	-0.08	BT
MZ42RB		50.15	0.10	0.08	49.40	-0.71	-0.53	BT
NTJLC7		49.00	-1.05	-0.80	49.50	-0.61	-0.45	HH
NV4AWJ		49.00	-1.05	-0.80	50.00	-0.11	-0.08	BT
P3MVGA		50.00	-0.05	-0.04	50.50	0.39	0.29	BT
PFBZP8		50.50	0.45	0.35	50.00	-0.11	-0.08	BT
QT8HTB		50.50	0.45	0.35	50.00	-0.11	-0.08	HH

Rubber Interlaboratory Testing Program
Analysis 620
Hardness (Shore A/Type A)

WebCode	Data Flag	Sample C51			Sample C52			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
QT9F48		48.00	-2.05	-1.57	47.50	-2.61	-1.94	XX
QVFQ4G		51.50	1.45	1.11	51.50	1.39	1.03	HH
R66PJT		50.35	0.30	0.23	50.65	0.54	0.40	BT
R8UZAL		51.50	1.45	1.11	52.50	2.39	1.78	XX
RBKLR9		49.30	-0.75	-0.57	48.45	-1.66	-1.23	BT
RJY92C		50.00	-0.05	-0.04	49.75	-0.36	-0.27	HH
RPPVH4		50.95	0.90	0.69	50.90	0.79	0.59	BT
RUHVWY		50.75	0.70	0.54	50.85	0.74	0.55	BT
RYUPQA	*	51.50	1.45	1.11	53.00	2.89	2.15	BT
RZP9UW		48.90	-1.15	-0.88	50.20	0.09	0.07	BT
T3QPP7		50.50	0.45	0.35	51.00	0.89	0.66	HH
T4TAPR		50.00	-0.05	-0.04	50.00	-0.11	-0.08	HH
TNUMXQ		50.50	0.45	0.35	50.15	0.04	0.03	BT
TVRCKW		50.00	-0.05	-0.04	50.50	0.39	0.29	BT
U2R4DQ		51.00	0.95	0.73	51.00	0.89	0.66	XX
UD9QK7		48.70	-1.35	-1.03	49.15	-0.96	-0.71	BT
UEAVHN		52.50	2.45	1.88	53.00	2.89	2.15	HH
UJFPCJ		47.50	-2.55	-1.95	47.50	-2.61	-1.94	XX
UKNDA2		49.95	-0.10	-0.08	49.40	-0.71	-0.53	XX
UN8N87		51.50	1.45	1.11	50.60	0.49	0.36	BT
UYBG3R	*	50.00	-0.05	-0.04	52.00	1.89	1.40	XX
V7HKG4		49.70	-0.35	-0.27	50.35	0.24	0.18	BT
V8VEW4	*	50.50	0.45	0.35	48.50	-1.61	-1.20	BT
V9THXR		48.65	-1.40	-1.07	48.95	-1.16	-0.86	BT
VCQ2X6		49.35	-0.70	-0.53	49.50	-0.61	-0.45	XX
VHB4WU		50.65	0.60	0.46	51.05	0.94	0.70	BT
VHZ9LN		48.25	-1.80	-1.38	48.00	-2.11	-1.57	BT
WCRLHL		50.00	-0.05	-0.04	50.00	-0.11	-0.08	HH
WHUAUY		49.50	-0.55	-0.42	49.50	-0.61	-0.45	BT
WKEEBA		50.05	0.00	0.00	50.10	-0.01	-0.01	BT
WNFFDR		53.00	2.95	2.26	53.00	2.89	2.15	BT
WR2YHW		48.50	-1.55	-1.19	48.50	-1.61	-1.20	XX
WTETZG	X	46.10	-3.95	-3.02	48.50	-1.61	-1.20	HH
WWU2LV		50.00	-0.05	-0.04	51.50	1.39	1.03	HH
WX7ZHQ		48.70	-1.35	-1.03	48.55	-1.56	-1.16	BT
X46U46	X	54.50	4.45	3.41	54.50	4.39	3.26	BT
X6D4W3		50.80	0.75	0.58	51.30	1.19	0.88	BT
XTKKHW		47.40	-2.65	-2.03	48.60	-1.51	-1.12	XX
XXFCPU		50.60	0.55	0.42	51.10	0.99	0.74	XX

Rubber Interlaboratory Testing Program
Analysis 620
Hardness (Shore A/Type A)

WebCode	Data Flag	Sample C51			Sample C52			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
Y4LHQH		48.50	-1.55	-1.19	48.00	-2.11	-1.57	XX
YNP22K		50.50	0.45	0.35	50.25	0.14	0.10	HH
YP7T8H		47.55	-2.50	-1.91	48.40	-1.71	-1.27	BT
YTNFMN		47.95	-2.10	-1.61	48.35	-1.76	-1.31	BT
YVCWZ3		50.25	0.20	0.15	50.00	-0.11	-0.08	BT
YVPK2U		50.00	-0.05	-0.04	50.00	-0.11	-0.08	HH
YZ7NBK		51.00	0.95	0.73	51.25	1.14	0.85	HH
Z789Q2		49.00	-1.05	-0.80	48.50	-1.61	-1.20	BT
ZN4YLV		49.00	-1.05	-0.80	49.80	-0.31	-0.23	XX
ZNQHDN		50.00	-0.05	-0.04	49.50	-0.61	-0.45	BT
ZPYHMW		52.00	1.95	1.49	52.00	1.89	1.40	XX

Summary Statistics	
Grand Means	
50.048 Type A	50.111 Type A
Stnd Dev Btwn Labs	
1.306 Type A	1.346 Type A
	Statistics based on 119 of 128 reporting participants

Samples C51-C52: Polyisoprene compound, batch #1 & C53-C54: Polyisoprene compound, batch #2

Comments on assigned Data Flags for Test #620

2VJQVT (X) - Data for all Samples are low. Possible systematic error.

7CRK7P (X) - Data for all Samples are high. Possible systematic error.

B43KGE (X) - Data for all Samples are low. Possible systematic error. Inconsistency in testing within Sample group C53-C54.

CBGN2L (X) - Data for all Samples are low. Possible systematic error.

FZ99U6 (X) - Data for all Samples are high. Possible systematic error.

GP7BJA (X) - Data for all Samples are low. Possible systematic error.

HUN6P7 (X) - Data for all Samples are high. Possible systematic error.

WTETZG (X) - Inconsistency in testing between Sample groups. Data for Sample group C51-C52 are low.

X46U46 (X) - Data for all Samples are high. Possible systematic error.

Rubber Interlaboratory Testing Program
Analysis 620
Hardness (Shore A/Type A)

Results by Reading Time (as reported by laboratory)

Reading Time	Sample C51 *Polyisoprene compound, batch #1*			Sample C52 *Polyisoprene compound, batch #1*			Labs Incl / Rpt	
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM		
Readings taken within 0 - 5 seconds	50.33	0.33	0.29	50.40	0.71	0.29	3	3
Readings taken within 0 - 5 seconds	50.28	1.21	0.24	50.40	1.19	0.29	81	89
Readings taken at 5 seconds	48.91	1.22	-1.14	48.72	1.15	-1.39	15	17
Readings taken after 5+ seconds	49.44	0.98	-0.61	49.56	0.89	-0.55	5	6
Maximum hardness indicator used	49.94	1.11	-0.11	49.87	1.33	-0.25	10	13

Rubber Interlaboratory Testing Program
Analysis 620
Hardness (Shore A/Type A)

Grand Mean Sample **C51** = 50.048 Type A

Grand Mean Sample **C52** = 50.111 Type A
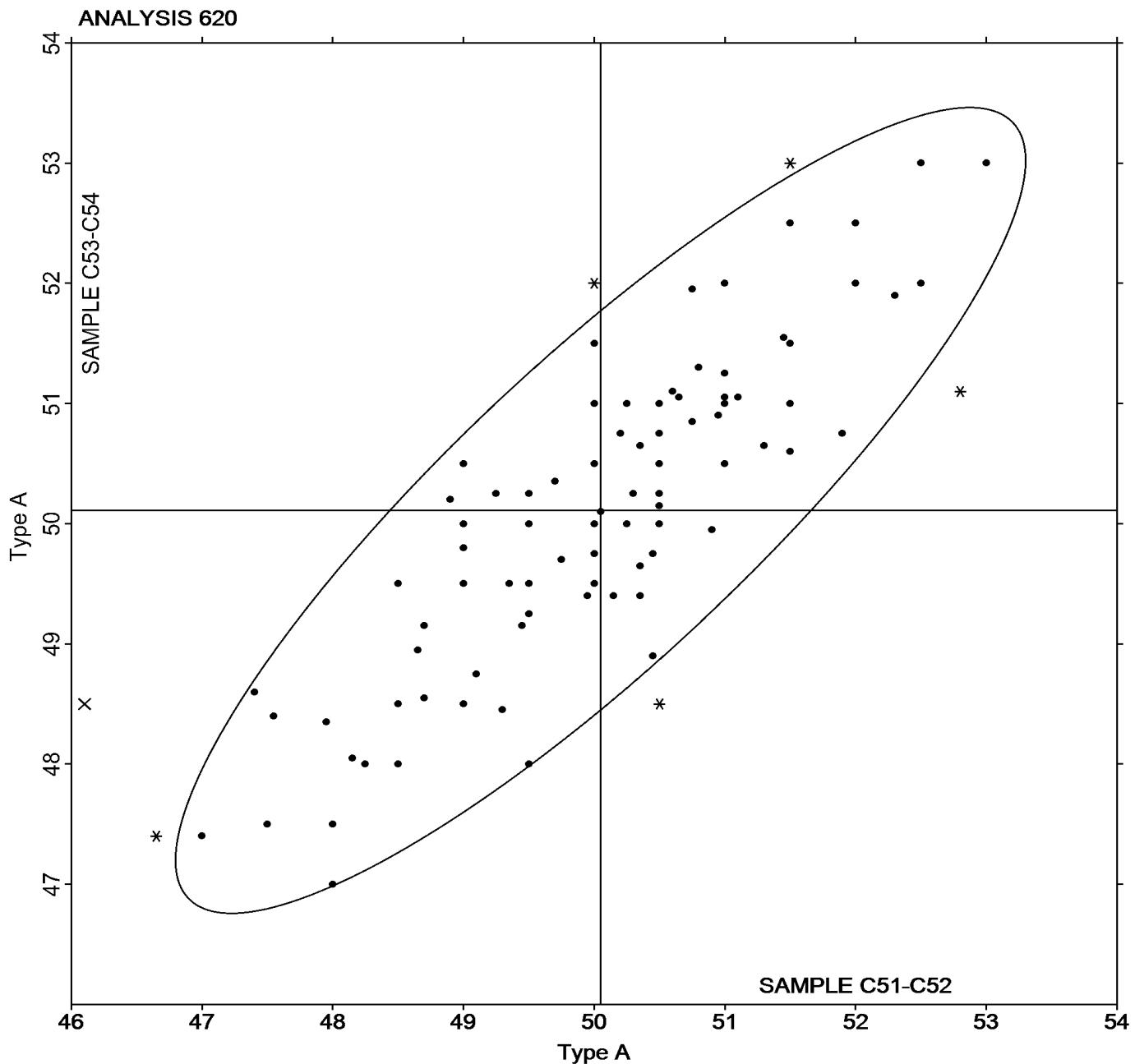
Rubber Interlaboratory Testing Program

Analysis 621
Density

| WebCode | Data Flag | Sample C51 | | | Sample C52 | | | Instr Code |
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2FA48X		1.138	0.003	1.05	1.137	0.002	0.74	ZZ
3NKN7M		1.137	0.001	0.54	1.136	0.001	0.37	ZZ
42GGTF		1.137	0.002	0.62	1.135	0.000	-0.14	ZZ
46YQVL		1.136	0.001	0.26	1.137	0.002	0.74	ZZ
4GTXYH		1.137	0.002	0.66	1.138	0.003	1.14	ZZ
4QXWMX		1.136	0.001	0.26	1.138	0.003	1.14	ZZ
6FWTXU		1.138	0.002	0.97	1.137	0.002	0.63	ZZ
6LTZJC		1.134	-0.002	-0.67	1.133	-0.002	-0.79	ZZ
7LXF9U		1.132	-0.003	-1.31	1.132	-0.003	-1.22	ZZ
7XUJDN		1.131	-0.004	-1.63	1.130	-0.005	-1.84	ZZ
8K47F6		1.138	0.002	0.95	1.138	0.003	1.04	ZZ
8LUDYG		1.138	0.002	0.85	1.135	0.000	-0.04	ZZ
9C87W6		1.133	-0.003	-1.02	1.133	-0.002	-0.88	ZZ
AKUYFF	*	1.134	-0.002	-0.66	1.130	-0.005	-1.94	ZZ
AM38RL		1.136	0.001	0.20	1.136	0.001	0.33	ZZ
B43KGE		1.136	0.000	0.07	1.135	0.000	-0.04	ZZ
BGAJB7		1.134	-0.002	-0.72	1.133	-0.002	-0.82	ZZ
CBGN2L		1.135	0.000	-0.13	1.135	-0.001	-0.24	ZZ
CJA22L		1.133	-0.002	-0.88	1.134	-0.001	-0.37	ZZ
CXAWHM		1.138	0.003	1.11	1.135	0.000	-0.14	ZZ
DUTNW9		1.137	0.002	0.84	1.137	0.002	0.92	ZZ
DWVRJN		1.136	0.000	0.07	1.134	-0.001	-0.43	ZZ
EHAHCP		1.137	0.002	0.62	1.138	0.003	1.15	ZZ
EJWAQ4	*	1.134	-0.002	-0.72	1.130	-0.005	-2.00	ZZ
EWHPU4	*	1.129	-0.006	-2.49	1.129	-0.006	-2.39	ZZ
GK8Z3G		1.133	-0.002	-0.98	1.134	-0.001	-0.35	ZZ
GL3LV8		1.135	-0.001	-0.33	1.134	-0.002	-0.63	ZZ
GP7BJA		1.138	0.003	1.05	1.138	0.002	0.94	ZZ
GW6UJK		1.137	0.001	0.46	1.137	0.002	0.74	ZZ
HVCTCV		1.136	0.001	0.26	1.135	-0.001	-0.24	ZZ
J4TEUB		1.133	-0.002	-0.92	1.131	-0.004	-1.61	ZZ
J72NL8		1.134	-0.002	-0.72	1.136	0.000	0.16	ZZ
JMB749		1.136	0.001	0.24	1.136	0.001	0.29	ZZ
K7Z4H6		1.136	0.000	0.11	1.134	-0.001	-0.43	ZZ
KCGPGB		1.135	0.000	-0.07	1.135	0.000	0.04	ZZ
KGDDXH		1.134	-0.001	-0.58	1.134	-0.001	-0.33	ZZ
KX8WXE		1.137	0.001	0.56	1.136	0.001	0.51	ZZ
LRUGK9		1.134	-0.001	-0.39	1.135	0.000	0.12	ZZ
M382GA		1.136	0.001	0.38	1.134	-0.001	-0.32	ZZ

Rubber Interlaboratory Testing Program
Analysis 621
Density

WebCode	Data Flag	Sample C51			Sample C52			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
MH2JG7		1.133	-0.002	-0.92	1.135	-0.001	-0.24	ZZ
MZ42RB		1.134	-0.001	-0.37	1.134	-0.001	-0.51	ZZ
NV4AWJ	*	1.141	0.006	2.23	1.138	0.003	1.14	ZZ
P3MVGA		1.140	0.005	1.84	1.137	0.002	0.74	ZZ
QT8HTB		1.133	-0.002	-0.92	1.134	-0.001	-0.43	ZZ
QT9F48	X	1.113	-0.023	-8.99	1.119	-0.016	-6.31	ZZ
QVFQ4G		1.138	0.002	0.85	1.138	0.002	0.98	ZZ
R66PJT		1.139	0.003	1.25	1.139	0.004	1.47	ZZ
R8UZAL		1.137	0.001	0.56	1.137	0.001	0.59	ZZ
RBKLR9		1.132	-0.003	-1.31	1.134	-0.001	-0.43	ZZ
RPPVH4		1.130	-0.005	-2.08	1.130	-0.005	-1.86	ZZ
RUHVWY		1.137	0.001	0.46	1.136	0.001	0.23	ZZ
RYUPQA	X	1.146	0.010	4.01	1.136	0.000	0.16	ZZ
RZP9UW		1.130	-0.005	-2.10	1.130	-0.006	-2.20	ZZ
T4TAPR		1.138	0.003	1.05	1.138	0.002	0.94	ZZ
TNUMXQ		1.136	0.001	0.26	1.136	0.001	0.35	ZZ
TVRCKW		1.135	0.000	-0.13	1.136	0.000	0.16	ZZ
UEAVHN		1.135	-0.001	-0.33	1.133	-0.002	-0.82	ZZ
UKNDA2		1.132	-0.003	-1.31	1.133	-0.002	-0.82	ZZ
UN8N87		1.138	0.003	1.05	1.139	0.003	1.33	ZZ
UYBG3R		1.138	0.002	0.85	1.138	0.002	0.94	ZZ
V8VEW4		1.132	-0.003	-1.15	1.133	-0.002	-0.65	ZZ
V9THXR		1.136	0.001	0.22	1.138	0.003	1.23	ZZ
VCQ2X6		1.130	-0.005	-1.94	1.132	-0.003	-1.33	ZZ
VHB4WU	X	1.121	-0.015	-5.84	1.129	-0.006	-2.39	ZZ
WHUAUY		1.135	-0.001	-0.33	1.134	-0.002	-0.63	ZZ
WNFFDR		1.138	0.003	1.19	1.137	0.001	0.55	ZZ
X6D4W3		1.137	0.001	0.48	1.138	0.003	1.27	ZZ
XXFCPU		1.135	-0.001	-0.29	1.138	0.003	1.02	ZZ
YP7T8H		1.140	0.005	1.84	1.140	0.005	1.92	ZZ
YTNFMN		1.140	0.005	1.84	1.140	0.005	1.92	ZZ
YVCWZ3		1.135	0.000	0.05	1.135	0.000	-0.16	ZZ
YVPK2U		1.135	0.000	-0.13	1.137	0.001	0.55	ZZ
Z789Q2	X	1.125	-0.011	-4.26	1.125	-0.010	-3.98	ZZ
ZPYHMW		1.134	-0.002	-0.68	1.133	-0.003	-1.00	ZZ

Rubber Interlaboratory Testing Program

Analysis 621

Density

Summary Statistics	
Grand Means	
1.1353 Mg/M^3	1.1351 Mg/M^3
Stnd Dev Btwn Labs	
0.0025 Mg/M^3	0.0026 Mg/M^3
	Statistics based on 70 of 74 reporting participants

Samples C51-C52: Polyisoprene compound, batch #1 & C53-C54: Polyisoprene compound, batch #2

Comments on assigned Data Flags for Test #621

QT9F48 (X) - Data for all Samples are low. Possible systematic error.

RYUPQA (X) - Inconsistency in testing between Sample groups. Data for Sample group C51-C52 are high. Inconsistency in testing within Sample group C51-C52.

VHB4WU (X) - Inconsistency in testing between Sample groups. Inconsistency in testing within Sample group C51-C52.

Z789Q2 (X) - Data for all Samples are low. Possible systematic error.

Analysis 621

Density

Grand Mean Sample **C51** = 1.1353 Mg/M^3   Grand Mean Sample **C52** = 1.1351 Mg/M^3
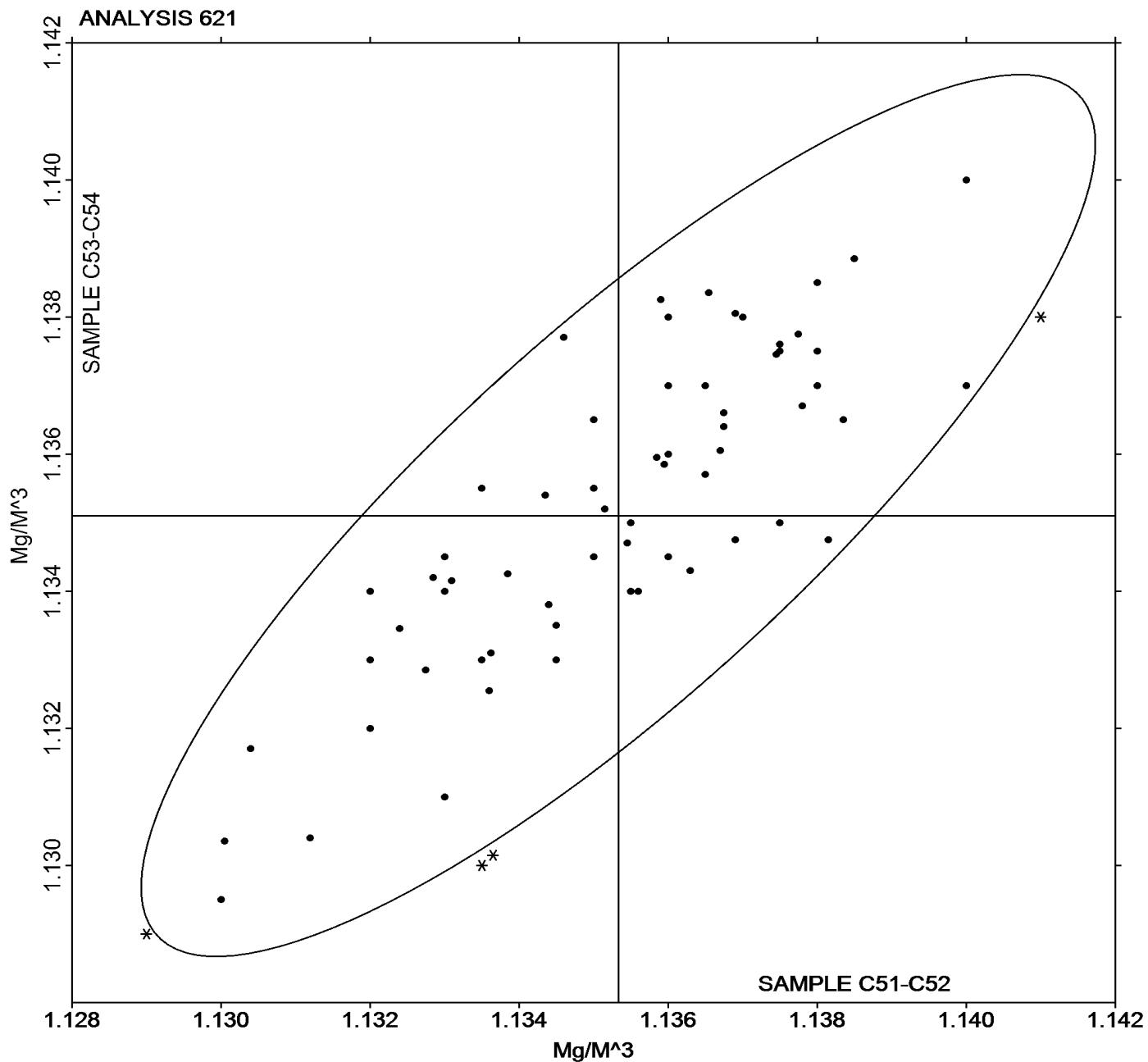
ANALYSIS 621

SAMPLE C53-C54

Mg/M^3

SAMPLE C51-C52

Mg/M^3

Rubber Interlaboratory Testing Program
Analysis 630
Tensile Strength: Precured vs. Lab-Cured Samples (psi)

WebCode	Data Flag	Sample L51 Lab Mean	Sample L51 Diff from Grand Mean	Sample L51 CPV	Sample L52 Lab Mean	Sample L52 Diff from Grand Mean	Sample L52 CPV	Instr Code
2PF4JJ		3,265.0	3.3	0.02	2,866.5	-304.2	-1.57	ZZ
6LTZJC		3,293.1	31.4	0.21	3,299.6	128.9	0.66	ZZ
7LXF9U		3,312.4	50.7	0.34	3,325.4	154.7	0.80	ZZ
AM38RL		3,193.5	-68.2	-0.45	2,704.4	-466.3	-2.40	ZZ
B43KGE		3,295.0	33.3	0.22	3,118.0	-52.7	-0.27	ZZ
CBGN2L		3,180.6	-81.1	-0.54	3,342.6	171.9	0.89	ZZ
CNLZGL		3,118.3	-143.3	-0.95	3,111.1	-59.6	-0.31	ZZ
CXAWHM		3,523.5	261.8	1.74	3,307.4	136.7	0.70	ZZ
D2RDDC		3,520.6	258.9	1.72	3,109.8	-60.9	-0.31	ZZ
DD6D8K		3,393.9	132.2	0.88	3,372.2	201.5	1.04	ZZ
DWVRJN		2,994.1	-267.6	-1.78	3,256.7	86.0	0.44	ZZ
GP7BJA		3,256.1	-5.5	-0.04	3,238.0	67.3	0.35	ZZ
J4TEUB		3,350.4	88.7	0.59	3,408.4	237.7	1.22	ZZ
JYZCQB		3,255.0	-6.7	-0.04	3,078.0	-92.7	-0.48	ZZ
K7Z4H6		3,193.8	-67.9	-0.45	3,103.8	-66.9	-0.34	ZZ
KGDDXH		3,546.2	284.5	1.89	3,379.4	208.7	1.07	ZZ
LRUGK9		3,404.0	142.3	0.95	3,145.0	-25.7	-0.13	ZZ
MH2JG7		3,293.0	31.3	0.21	3,295.5	124.8	0.64	ZZ
NTJLC7		3,198.1	-63.6	-0.42	3,095.4	-75.3	-0.39	ZZ
P3MVGA		3,126.3	-135.4	-0.90	3,117.4	-53.3	-0.27	ZZ
QT9F48		3,364.0	102.3	0.68	2,978.0	-192.7	-0.99	ZZ
R66PJT		3,272.4	10.7	0.07	3,437.7	267.0	1.37	ZZ
RPPVH4		3,176.5	-85.1	-0.57	3,264.6	93.9	0.48	ZZ
RUHVWY		3,479.5	217.8	1.45	3,495.4	324.7	1.67	ZZ
T4TAPR		2,933.5	-328.2	-2.18	2,935.0	-235.7	-1.21	ZZ
U78BY6		3,154.6	-107.1	-0.71	3,086.8	-83.9	-0.43	ZZ
VCQ2X6		3,270.5	8.8	0.06	3,007.5	-163.2	-0.84	ZZ
WKEEBA		3,171.5	-90.2	-0.60	3,214.5	43.8	0.23	ZZ
WNFFDR		3,325.0	63.3	0.42	3,367.0	196.3	1.01	ZZ
WR2YHW		3,396.6	134.9	0.90	3,218.8	48.1	0.25	ZZ
WWU2LV		3,221.0	-40.7	-0.27	2,803.4	-367.3	-1.89	ZZ
XTKKHW		3,291.0	29.3	0.20	3,269.0	98.3	0.51	ZZ
YTNFMN		3,224.4	-37.3	-0.25	3,253.9	83.2	0.43	ZZ
YVPK2U		2,903.5	-358.2	-2.38	2,797.5	-373.2	-1.92	ZZ
Z789Q2	X	3,386.7	125.0	0.83	2,375.5	-795.2	-4.09	ZZ

Rubber Interlaboratory Testing Program
Analysis 630
Tensile Strength: Precured vs. Lab-Cured Samples (psi)

Summary Statistics

Grand Means

    3,261.67 psi   3,170.70 psi

Stnd Dev Btwn Labs

    150.28 psi   194.21 psi

Statistics based on 34 of 35 reporting participants

Summary Statistics in SI Units

Grand Means

    22.488 MPa   21.86 MPa

Stnd Dev Btwn Labs

    1.036 MPa   1.34 MPa

Statistics based on 34 of 35 reporting participants

All samples : Polyisoprene compound, batch #1

## Comments on assigned Data Flags for Test #630

Z789Q2 (X) - Data for Sample group L51-L52 are low.

Report #185

Rubber Interlaboratory Testing Program
Analysis 630
Tensile Strength: Precured vs. Lab-Cured Samples (psi)

3rd Qtr 2015

Grand Mean Sample **L51** = 3,261.67 psi   Grand Mean Sample **L52** = 3,170.70 psi

ANALYSIS 630

SAMPLE L51-L52

psi

SAMPLE C51-C52

psi
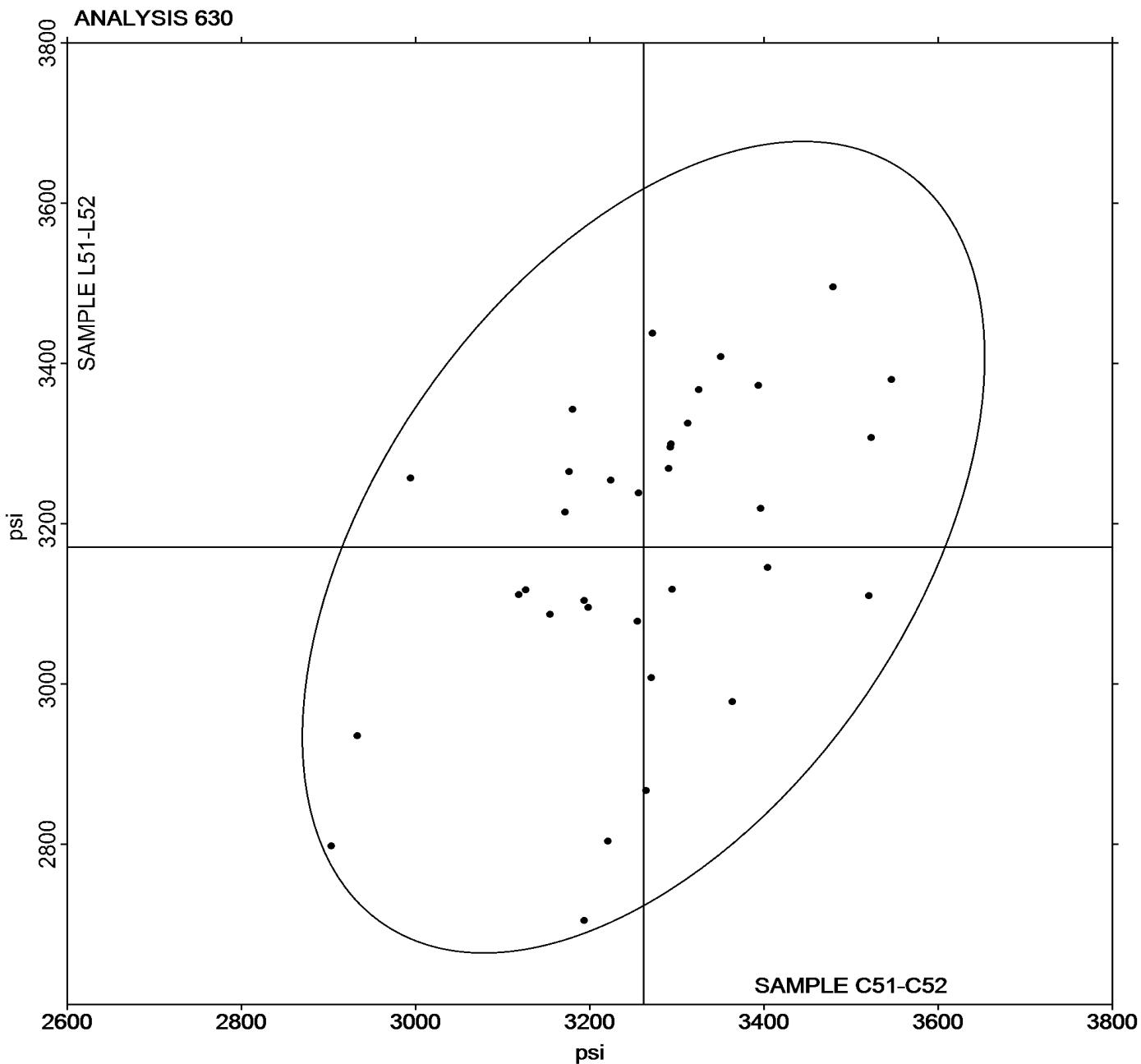
Rubber Interlaboratory Testing Program
Analysis 631
Ultimate Elongation: Precured vs. Lab-Cured Samples (percent)

WebCode	Data Flag	Sample L51 Lab Mean	Sample L51 Diff from Grand Mean	Sample L51 CPV	Sample L52 Lab Mean	Sample L52 Diff from Grand Mean	Sample L52 CPV	Instr Code
2PF4JJ	*	674.5	62.8	2.51	669.0	88.8	2.98	ZZ
6LTZJC		563.5	-48.2	-1.93	526.0	-54.2	-1.82	ZZ
7LXF9U		611.5	-0.2	-0.01	585.0	4.8	0.16	ZZ
AM38RL		607.3	-4.4	-0.17	591.9	11.7	0.39	ZZ
B43KGE		579.0	-32.7	-1.31	553.5	-26.7	-0.90	ZZ
CBGN2L		609.8	-1.9	-0.07	586.0	5.9	0.20	ZZ
CNLZGL		624.6	12.9	0.52	596.2	16.0	0.54	ZZ
CXAWHM		614.6	3.0	0.12	575.0	-5.2	-0.17	ZZ
D2RDDC		640.2	28.6	1.14	601.4	21.2	0.71	ZZ
DD6D8K		648.5	36.8	1.47	639.0	58.8	1.97	ZZ
DWVRJN		590.6	-21.1	-0.84	586.2	6.0	0.20	ZZ
GP7BJA	X	747.5	135.8	5.43	692.0	111.8	3.75	ZZ
J4TEUB		647.0	35.3	1.41	602.5	22.3	0.75	ZZ
JYZCQB		625.0	13.3	0.53	575.5	-4.7	-0.16	ZZ
K7Z4H6		611.0	-0.7	-0.03	577.0	-3.2	-0.11	ZZ
KGDDXH		618.9	7.2	0.29	573.9	-6.3	-0.21	ZZ
LRUGK9		606.5	-5.2	-0.21	563.0	-17.2	-0.58	ZZ
MH2JG7		585.5	-26.2	-1.05	571.0	-9.2	-0.31	ZZ
NTJLC7		585.0	-26.7	-1.07	567.5	-12.7	-0.43	ZZ
P3MVGA		583.0	-28.7	-1.15	544.5	-35.7	-1.20	ZZ
QT9F48		618.0	6.3	0.25	576.0	-4.2	-0.14	ZZ
R66PJT		637.0	25.3	1.01	603.3	23.1	0.78	ZZ
RPPVH4		630.8	19.1	0.77	610.7	30.5	1.02	ZZ
RUHVWY		598.5	-13.2	-0.53	549.0	-31.2	-1.05	ZZ
T4TAPR		599.0	-12.7	-0.51	561.0	-19.2	-0.64	ZZ
U78BY6		610.5	-1.2	-0.05	532.5	-47.7	-1.60	ZZ
VCQ2X6		644.0	32.3	1.29	609.0	28.8	0.97	ZZ
WKEEBA		618.5	6.8	0.27	580.5	0.3	0.01	ZZ
WNFFDR		624.0	12.3	0.49	634.5	54.3	1.82	ZZ
WR2YHW		592.9	-18.7	-0.75	574.0	-6.2	-0.21	ZZ
WWU2LV		596.0	-15.7	-0.63	563.5	-16.7	-0.56	ZZ
XTKKHW		595.5	-16.2	-0.65	570.0	-10.2	-0.34	ZZ
YTNFMN		609.9	-1.8	-0.07	571.7	-8.4	-0.28	ZZ
YVPK2U		560.0	-51.7	-2.07	545.5	-34.7	-1.16	ZZ
Z789Q2		636.1	24.4	0.98	560.6	-19.6	-0.66	ZZ

Rubber Interlaboratory Testing Program
Analysis 631
Ultimate Elongation: Precured vs. Lab-Cured Samples (percent)

Summary Statistics

Grand Means

611.67 percent	580.17 percent

Stnd Dev Btwn Labs

25.00 percent	29.80 percent

Statistics based on 34 of 35 reporting participants

All samples : Polyisoprene compound, batch #1

Comments on assigned Data Flags for Test #631

GP7BJA (X) - Data for all Samples are high.

Rubber Interlaboratory Testing Program

Analysis 631

Ultimate Elongation: Precured vs. Lab-Cured Samples (percent)

Grand Mean Sample **L51** = 611.67 percent   Grand Mean Sample **L52** = 580.17 percent
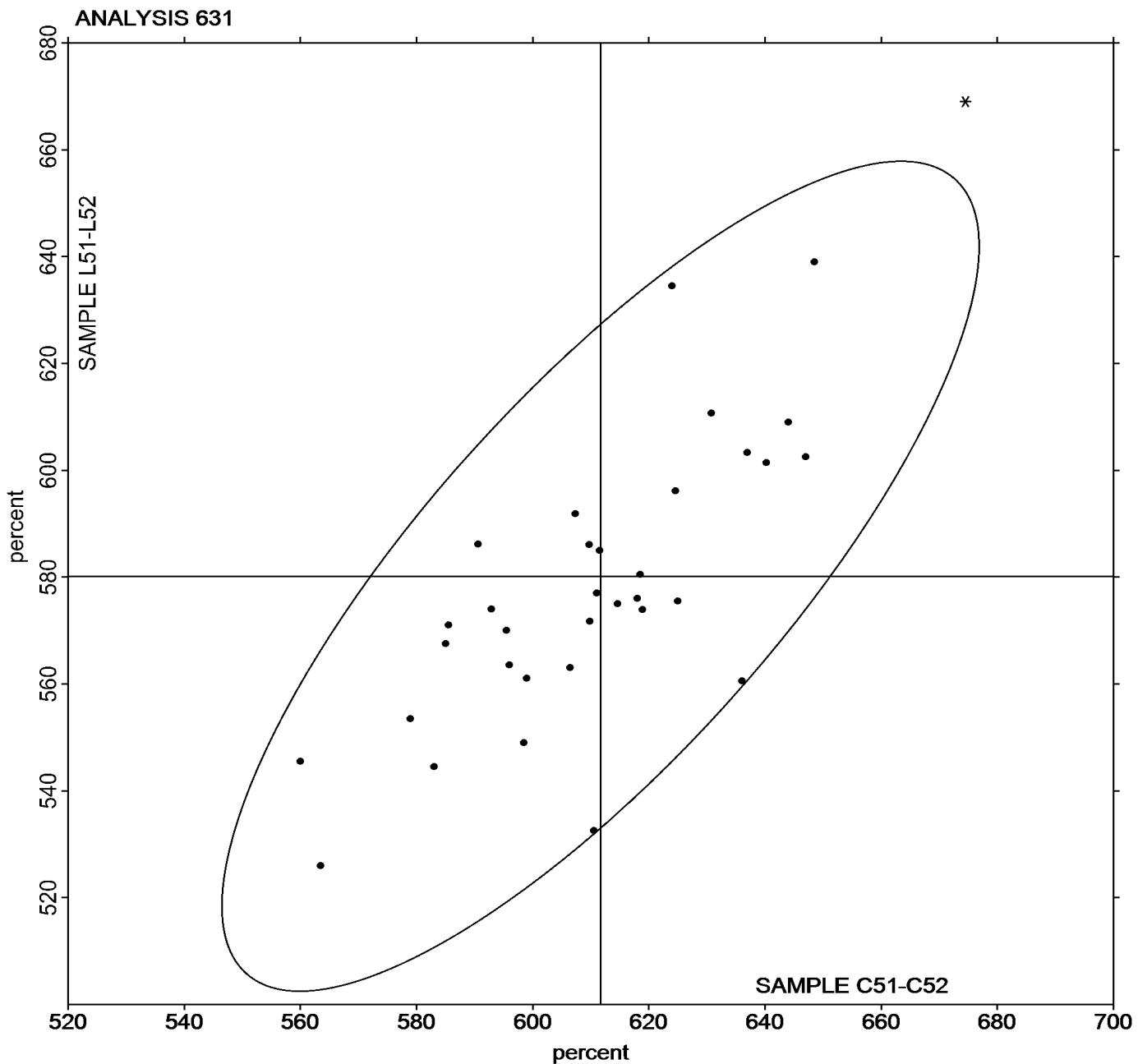
ANALYSIS 631

Rubber Interlaboratory Testing Program
Analysis 632
Stress at 300% Elongation: Precured vs. Lab-Cured Samples (psi)

WebCode	Data Flag	Sample L51 Lab Mean	Diff from Grand Mean	CPV	Sample L52 Lab Mean	Diff from Grand Mean	CPV	Instr Code
2PF4JJ	*	829.5	-141.4	-1.74	745.0	-386.5	-2.86	ZZ
6LTZJC		1,095.0	124.2	1.53	1,405.4	274.0	2.03	ZZ
7LXF9U		958.7	-12.2	-0.15	1,173.9	42.4	0.31	ZZ
AM38RL		973.0	2.2	0.03	901.6	-229.8	-1.70	ZZ
B43KGE		1,154.5	183.6	2.27	1,270.0	138.5	1.03	ZZ
CBGN2L		1,004.0	33.1	0.41	1,215.7	84.2	0.62	ZZ
CNLZGL		886.9	-84.0	-1.04	1,078.4	-53.1	-0.39	ZZ
CXAWHM		1,090.1	119.2	1.47	1,150.1	18.6	0.14	ZZ
D2RDDC		954.9	-16.0	-0.20	1,010.9	-120.5	-0.89	ZZ
DD6D8K		863.0	-107.9	-1.33	950.0	-181.5	-1.34	ZZ
DWVRJN		964.4	-6.5	-0.08	1,197.6	66.1	0.49	ZZ
GP7BJA		785.4	-185.5	-2.29	967.4	-164.1	-1.22	ZZ
J4TEUB		873.9	-97.0	-1.20	1,201.6	70.2	0.52	ZZ
JYZCQB		923.0	-47.9	-0.59	1,052.5	-79.0	-0.58	ZZ
K7Z4H6		947.8	-23.1	-0.28	1,090.7	-40.8	-0.30	ZZ
KGDDXH		1,087.1	116.2	1.43	1,266.9	135.4	1.00	ZZ
LRUGK9		971.5	0.6	0.01	1,119.0	-12.5	-0.09	ZZ
MH2JG7		1,056.5	85.6	1.06	1,264.5	133.0	0.99	ZZ
NTJLC7		1,011.0	40.1	0.49	1,157.0	25.5	0.19	ZZ
P3MVGA		993.1	22.2	0.27	1,246.2	114.7	0.85	ZZ
QT9F48		961.0	-9.9	-0.12	1,139.0	7.5	0.06	ZZ
R66PJT		950.5	-20.4	-0.25	1,191.9	60.4	0.45	ZZ
RPPVH4		931.8	-39.1	-0.48	1,120.4	-11.1	-0.08	ZZ
RUHVWY		1,028.3	57.4	0.71	1,356.8	225.4	1.67	ZZ
T4TAPR		888.5	-82.4	-1.02	1,083.5	-48.0	-0.36	ZZ
U78BY6		954.4	-16.5	-0.20	1,270.0	138.5	1.03	ZZ
VCQ2X6		900.5	-70.4	-0.87	1,022.5	-109.0	-0.81	ZZ
WKEEBA		925.5	-45.4	-0.56	1,199.0	67.5	0.50	ZZ
WNFFDR		938.0	-32.9	-0.41	1,107.0	-24.5	-0.18	ZZ
WR2YHW		1,080.7	109.8	1.36	1,210.8	79.3	0.59	ZZ
WWU2LV		1,020.5	49.6	0.61	1,013.0	-118.5	-0.88	ZZ
XTKKHW		1,091.5	120.6	1.49	1,215.0	83.5	0.62	ZZ
YTNFMN		978.2	7.3	0.09	1,160.7	29.2	0.22	ZZ
YVPK2U		958.0	-12.9	-0.16	1,136.0	4.5	0.03	ZZ
Z789Q2		950.3	-20.6	-0.25	911.5	-220.0	-1.63	ZZ

Rubber Interlaboratory Testing Program
Analysis 632
Stress at 300% Elongation: Precured vs. Lab-Cured Samples (psi)

Summary Statistics

Grand Means

970.89 psi   1,131.47 psi

Stnd Dev Btwn Labs

81.05 psi   135.01 psi

Statistics based on 35 of 35 reporting participants

Summary Statistics in SI Units

Grand Means

6.6940   MPa   7.80   MPa

Stnd Dev Btwn Labs

0.5588   MPa   0.93   MPa

Statistics based on 35 of 35 reporting participants

All samples : Polyisoprene compound, batch #1

Analysis 632

Stress at 300% Elongation: Precured vs. Lab-Cured Samples (psi)

Grand Mean Sample **L51** = 970.89 psi   Grand Mean Sample **L52** = 1,131.47 psi
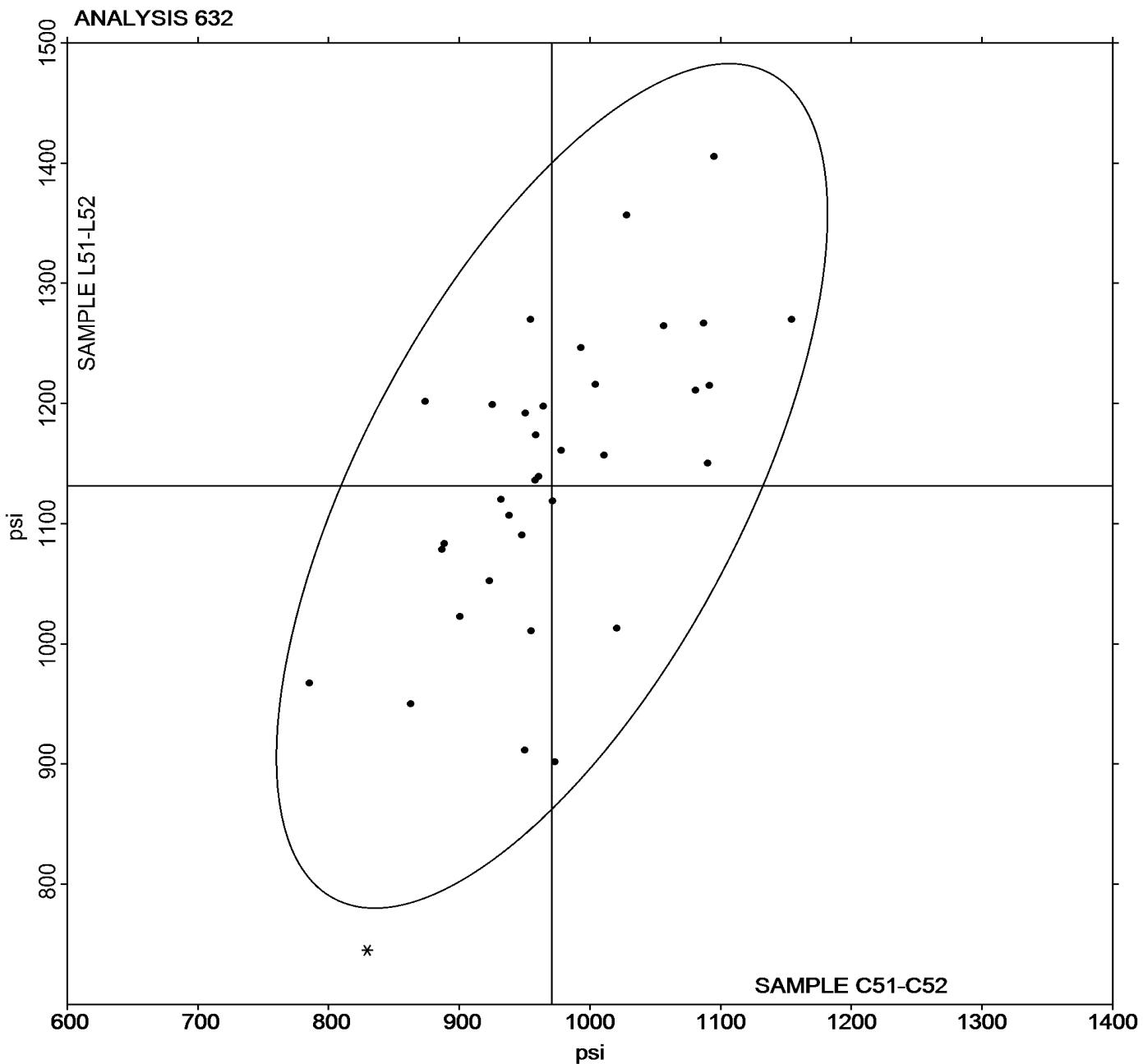
Rubber Interlaboratory Testing Program
Analysis 633
Stress at 100% Elongation: Precured vs. Lab-Cured Samples (psi)

WebCode	Data Flag	Sample L51 Lab Mean	Diff from Grand Mean	CPV	Sample L52 Lab Mean	Diff from Grand Mean	CPV	Instr Code
2PF4JJ	*	195.5	-13.9	-1.07	183.0	-72.8	-2.69	ZZ
6LTZJC		221.9	12.5	0.96	311.1	55.3	2.04	ZZ
7LXF9U		205.5	-4.0	-0.31	271.9	16.1	0.60	ZZ
AM38RL		231.7	22.2	1.71	230.1	-25.7	-0.95	ZZ
B43KGE	X	373.0	163.6	12.57	418.0	162.2	5.99	ZZ
CBGN2L		217.2	7.7	0.59	280.4	24.6	0.91	ZZ
CNLZGL		188.6	-20.9	-1.61	244.4	-11.4	-0.42	ZZ
CXAWHM		235.0	25.6	1.97	262.5	6.7	0.25	ZZ
D2RDDC		196.8	-12.6	-0.97	216.5	-39.3	-1.45	ZZ
DD6D8K		188.6	-20.9	-1.61	217.6	-38.2	-1.41	ZZ
DWVRJN		216.4	7.0	0.54	286.4	30.6	1.13	ZZ
GP7BJA		200.2	-9.3	-0.71	253.8	-2.0	-0.07	ZZ
J4TEUB		195.1	-14.4	-1.10	272.7	16.9	0.62	ZZ
JYZCQB		207.5	-1.9	-0.15	250.0	-5.8	-0.21	ZZ
K7Z4H6		206.0	-3.5	-0.27	252.4	-3.4	-0.13	ZZ
KGDDXH		219.7	10.3	0.79	267.6	11.8	0.44	ZZ
LRUGK9		206.7	-2.7	-0.21	242.0	-13.8	-0.51	ZZ
MH2JG7		222.0	12.6	0.97	290.0	34.2	1.26	ZZ
NTJLC7		207.5	-1.9	-0.15	248.0	-7.8	-0.29	ZZ
P3MVGA		215.7	6.3	0.48	277.5	21.7	0.80	ZZ
QT9F48		204.5	-4.9	-0.38	262.0	6.2	0.23	ZZ
R66PJT		201.4	-8.1	-0.62	256.0	0.2	0.01	ZZ
RPPVH4		205.3	-4.1	-0.32	247.4	-8.4	-0.31	ZZ
RUHVWY		217.6	8.1	0.62	302.4	46.6	1.72	ZZ
T4TAPR		187.5	-21.9	-1.69	233.0	-22.8	-0.84	ZZ
U78BY6		210.3	0.8	0.06	288.2	32.4	1.20	ZZ
VCQ2X6		193.0	-16.4	-1.26	225.0	-30.8	-1.14	ZZ
WKEEBA		198.5	-10.9	-0.84	262.0	6.2	0.23	ZZ
WNFFDR		202.5	-6.9	-0.53	258.0	2.2	0.08	ZZ
WR2YHW		214.4	5.0	0.38	264.5	8.7	0.32	ZZ
WWU2LV		214.0	4.6	0.35	225.0	-30.8	-1.14	ZZ
XTKKHW		234.0	24.6	1.89	274.5	18.7	0.69	ZZ
YTNFMN		230.2	20.8	1.60	272.5	16.7	0.62	ZZ
YVPK2U		209.5	0.1	0.00	248.0	-7.8	-0.29	ZZ
Z789Q2		221.1	11.6	0.89	220.4	-35.4	-1.31	ZZ

Rubber Interlaboratory Testing Program
Analysis 633
Stress at 100% Elongation: Precured vs. Lab-Cured Samples (psi)

Summary Statistics

Grand Means

    209.44 psi   255.78 psi

Stnd Dev Btwn Labs

    13.01 psi   27.07 psi

Statistics based on 34 of 35 reporting participants

Summary Statistics in SI Units

Grand Means

    1.4440 MPa   1.76 MPa

Stnd Dev Btwn Labs

    0.0897 MPa   0.19 MPa

Statistics based on 34 of 35 reporting participants

All samples : Polyisoprene compound, batch #1

Comments on assigned Data Flags for Test #633

B43KGE (X) - Extreme data.

Rubber Interlaboratory Testing Program
Analysis 633
Stress at 100% Elongation: Precured vs. Lab-Cured Samples (psi)

Grand Mean Sample **L51** = 209.44 psi   Grand Mean Sample **L52** = 255.78 psi

ANALYSIS 633

Rubber Interlaboratory Testing Program
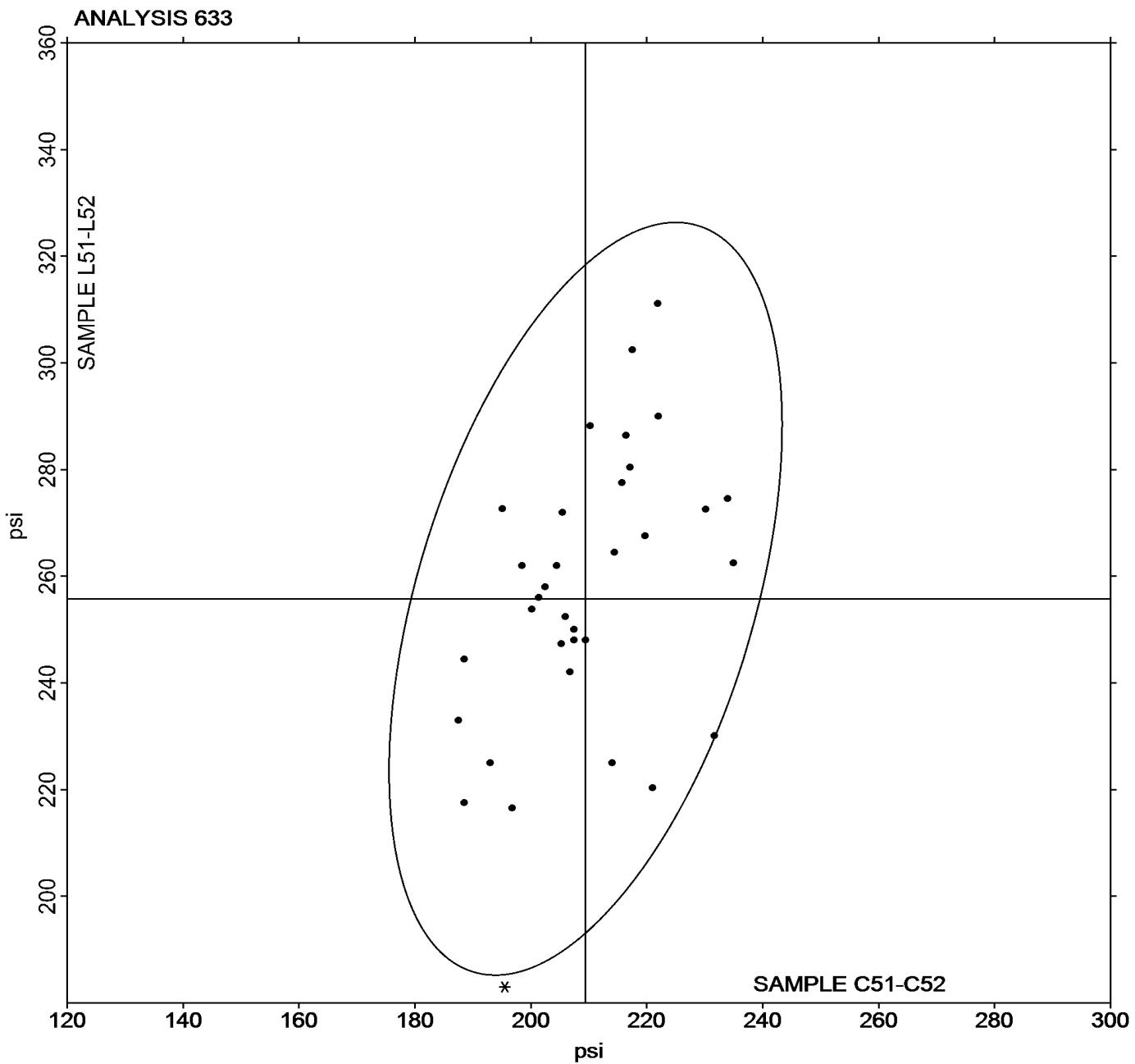
Analysis 660

Mooney Viscosity: 4-minute readings (ML 1 + 4)

WebCode	Data Flag	Sample U51 Lab Mean	Diff from Grand Mean	CPV	Sample U52 Lab Mean	Diff from Grand Mean	CPV	Instr Code
6LTZJC		45.55	-0.06	-0.05	56.03	-0.40	-0.31	MR
6VQDCW		46.02	0.41	0.35	58.07	1.63	1.29	MR
7XUJDN		45.87	0.26	0.22	56.50	0.07	0.05	MR
8CQZ3M		44.97	-0.64	-0.55	56.13	-0.30	-0.24	MR
8LUDYG		48.15	2.54	2.18	58.34	1.91	1.50	MR
8V23MD	*	44.47	-1.14	-0.98	57.17	0.73	0.58	MR
CBGN2L		46.12	0.51	0.44	56.28	-0.15	-0.12	XX
CNLZGL		44.70	-0.91	-0.78	55.62	-0.82	-0.64	MR
CXAWHM	*	48.30	2.69	2.32	59.89	3.46	2.72	TV
DD6D8K		45.58	-0.02	-0.02	54.98	-1.45	-1.14	MR
DWVRJN		46.17	0.56	0.48	56.30	-0.13	-0.10	MR
FJY7AB		47.03	1.43	1.23	58.32	1.88	1.48	MR
GE6XA2		45.77	0.16	0.14	56.55	0.12	0.09	MR
GP7BJA		45.60	-0.01	-0.01	56.88	0.45	0.35	MR
H6EC44		45.03	-0.57	-0.49	54.72	-1.72	-1.35	MR
JWZYDJ		46.22	0.61	0.53	56.77	0.34	0.26	MR
JYZCQB		45.35	-0.26	-0.22	56.40	-0.03	-0.03	MR
K7Z4H6		45.08	-0.52	-0.45	56.83	0.40	0.32	MR
KGDDXH		47.50	1.89	1.62	58.43	2.00	1.57	MR
LRUGK9		44.93	-0.67	-0.58	55.67	-0.77	-0.60	MR
NV4AWJ		46.03	0.43	0.37	57.40	0.97	0.76	MR
NV9P6D		44.48	-1.12	-0.97	55.17	-1.27	-1.00	MR
P3MVGA		43.68	-1.92	-1.66	54.92	-1.51	-1.19	TV
QT9F48		44.60	-1.01	-0.87	54.90	-1.53	-1.21	XX
RPPVH4		47.10	1.49	1.28	57.10	0.67	0.53	MR
T4TAPR		44.03	-1.57	-1.36	54.70	-1.73	-1.36	MR
U2CMHX		44.53	-1.07	-0.92	56.72	0.28	0.22	MP
U2R4DQ		42.71	-2.90	-2.50	53.29	-3.15	-2.48	XX
U78BY6		45.60	-0.01	-0.01	56.63	0.20	0.16	MR
UKNDA2		44.95	-0.66	-0.57	55.48	-0.95	-0.75	MR
WNFFDR		45.39	-0.22	-0.19	56.13	-0.30	-0.24	MR
WWU2LV		46.47	0.86	0.74	56.45	0.02	0.01	MR
XXFCPU		45.20	-0.41	-0.35	55.88	-0.55	-0.43	MR
YTNFMN		46.43	0.82	0.70	56.76	0.33	0.26	MR
YZ7NBK		46.08	0.48	0.41	56.78	0.35	0.28	MR
Z789Q2		46.21	0.61	0.52	57.37	0.94	0.74	TV

Rubber Interlaboratory Testing Program
Analysis 660
Mooney Viscosity: 4-minute readings (ML 1 + 4)

Summary Statistics

Grand Means

   45.608 ML 1 + 4   56.433 ML 1 + 4

Stnd Dev Btwn Labs

    1.162 ML 1 + 4   1.270 ML 1 + 4

Statistics based on 36 of 36 reporting participants

Samples U51-U52: NBR & U53-U54: Butyl

Instrument Code Listing

| **660**	Mooney Viscosity: 4-minute readings (ML 1 + 4)

Instruments:

(ML) Alpha Technologies/Monsanto model not specified   (MM) Alpha Technologies Model 1xxx or OSM

(MP) Monsanto Compact Mooney Viscometer   (MR) Alpha Technologies Model MV2000/MV2000E

(MZ) Rebuilt Monsanto Mooney Viscometer   (SF) Scott STI (any model)

(TV) Tech Pro Visc Tech   (any model)   (XA) Special In-House Instrument

(XX) Instrument make/model not specified by lab

Rubber Interlaboratory Testing Program
Analysis 660
Mooney Viscosity: 4-minute readings (ML 1 + 4)

Grand Mean Sample **U51** = 45.608 ML 1 + 4   Grand Mean Sample **U52** = 56.433 ML 1 + 4

Rubber Interlaboratory Testing Program
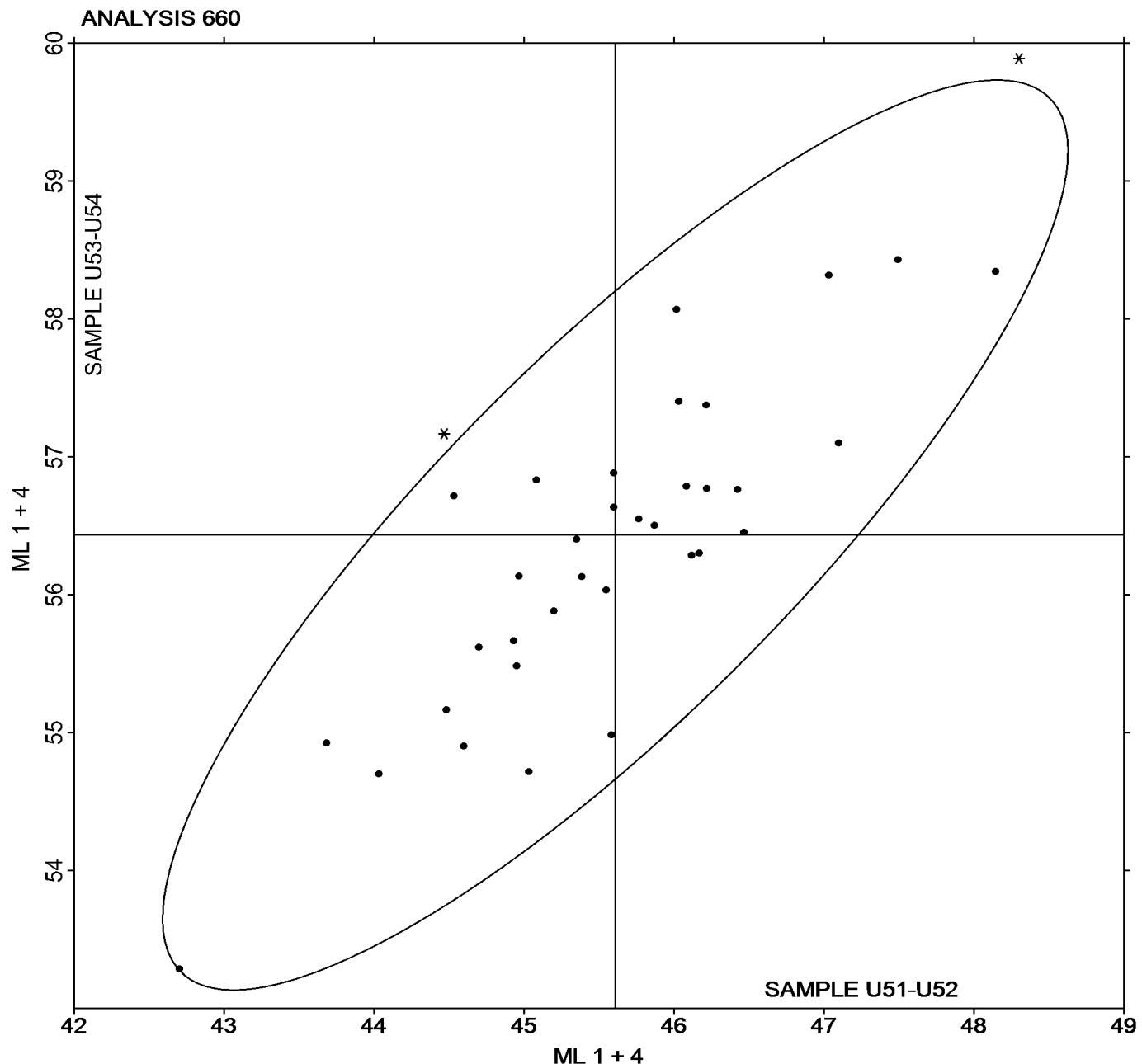
Analysis 661

Mooney Viscosity: 4-min NBR/SBR & 8-min butyl readings (ML)

WebCode	Data Flag	Sample Lab Mean	Diff from Grand Mean	CPV	Sample Lab Mean	Diff from Grand Mean	CPV	Instr Code
6LTZJC		45.55	-0.15	-0.14	53.67	-0.14	-0.12	MR
7XUJDN		45.87	0.17	0.15	53.89	0.08	0.06	MR
8LUDYG		48.15	2.44	2.24	55.95	2.14	1.78	MR
8V23MD		44.47	-1.24	-1.14	53.83	0.02	0.02	MR
CBGN2L		46.12	0.41	0.38	54.85	1.04	0.87	XX
CNLZGL		44.70	-1.00	-0.92	53.18	-0.63	-0.52	MR
CXAWHM	*	48.30	2.60	2.38	57.00	3.19	2.65	XX
DD6D8K		45.58	-0.12	-0.11	52.05	-1.76	-1.46	MR
DWVRJN		46.17	0.46	0.43	53.87	0.06	0.05	MR
FJY7AB		47.03	1.33	1.22	55.67	1.86	1.54	MR
GE6XA2		45.77	0.06	0.06	53.37	-0.44	-0.37	MR
GP7BJA		45.60	-0.10	-0.09	53.98	0.17	0.14	MR
H6EC44		45.03	-0.67	-0.62	52.63	-1.18	-0.98	MR
JWZYDJ		46.22	0.52	0.47	54.91	1.10	0.91	MR
JYZCQB		45.35	-0.35	-0.32	53.78	-0.03	-0.02	MR
K7Z4H6		45.08	-0.62	-0.57	54.07	0.26	0.21	MR
KGDDXH		47.50	1.79	1.65	54.39	0.58	0.48	MR
LRUGK9		44.93	-0.77	-0.71	52.72	-1.09	-0.91	XX
NV4AWJ		46.03	0.33	0.30	55.03	1.22	1.02	MR
NV9P6D		44.48	-1.22	-1.12	52.62	-1.19	-0.99	MR
P3MVGA		43.68	-2.02	-1.85	51.29	-2.52	-2.09	TV
QT9F48		44.60	-1.10	-1.01	51.40	-2.41	-2.00	XX
RPPVH4		47.10	1.40	1.28	54.80	0.99	0.82	MR
T4TAPR		44.03	-1.67	-1.53	52.72	-1.09	-0.91	MP
U2CMHX		44.53	-1.17	-1.07	53.27	-0.54	-0.45	MP
U78BY6		45.60	-0.10	-0.09	54.23	0.42	0.35	MR
UKNDA2		44.95	-0.75	-0.69	52.95	-0.86	-0.71	MR
WNFFDR		45.39	-0.32	-0.29	53.72	-0.09	-0.07	MR
WWU2LV		46.47	0.76	0.70	54.33	0.52	0.44	MR
XXFCPU		45.20	-0.50	-0.46	53.78	-0.03	-0.02	MR
YTNFMN		46.43	0.72	0.66	53.60	-0.21	-0.17	MR
YZ7NBK		46.08	0.38	0.35	53.83	0.02	0.02	MR
Z789Q2		46.21	0.51	0.47	54.33	0.52	0.44	TV

Rubber Interlaboratory Testing Program
Analysis 661
Mooney Viscosity: 4-min NBR/SBR & 8-min butyl readings (ML)

Summary Statistics

Grand Means

    45.703 ML 1 + 8   53.809 ML 1 + 8

Stnd Dev Btwn Labs

    1.089 ML 1 + 8   1.203 ML 1 + 8

Statistics based on 33 of 33 reporting participants

Please refer to the sample information provided for Analysis 660.

Rubber Interlaboratory Testing Program
Analysis 661
Mooney Viscosity: 4-min NBR/SBR & 8-min butyl readings (ML)

Grand Mean Sample = 45.703 ML 1 + 8

Grand Mean Sample = 53.809 ML 1 + 8
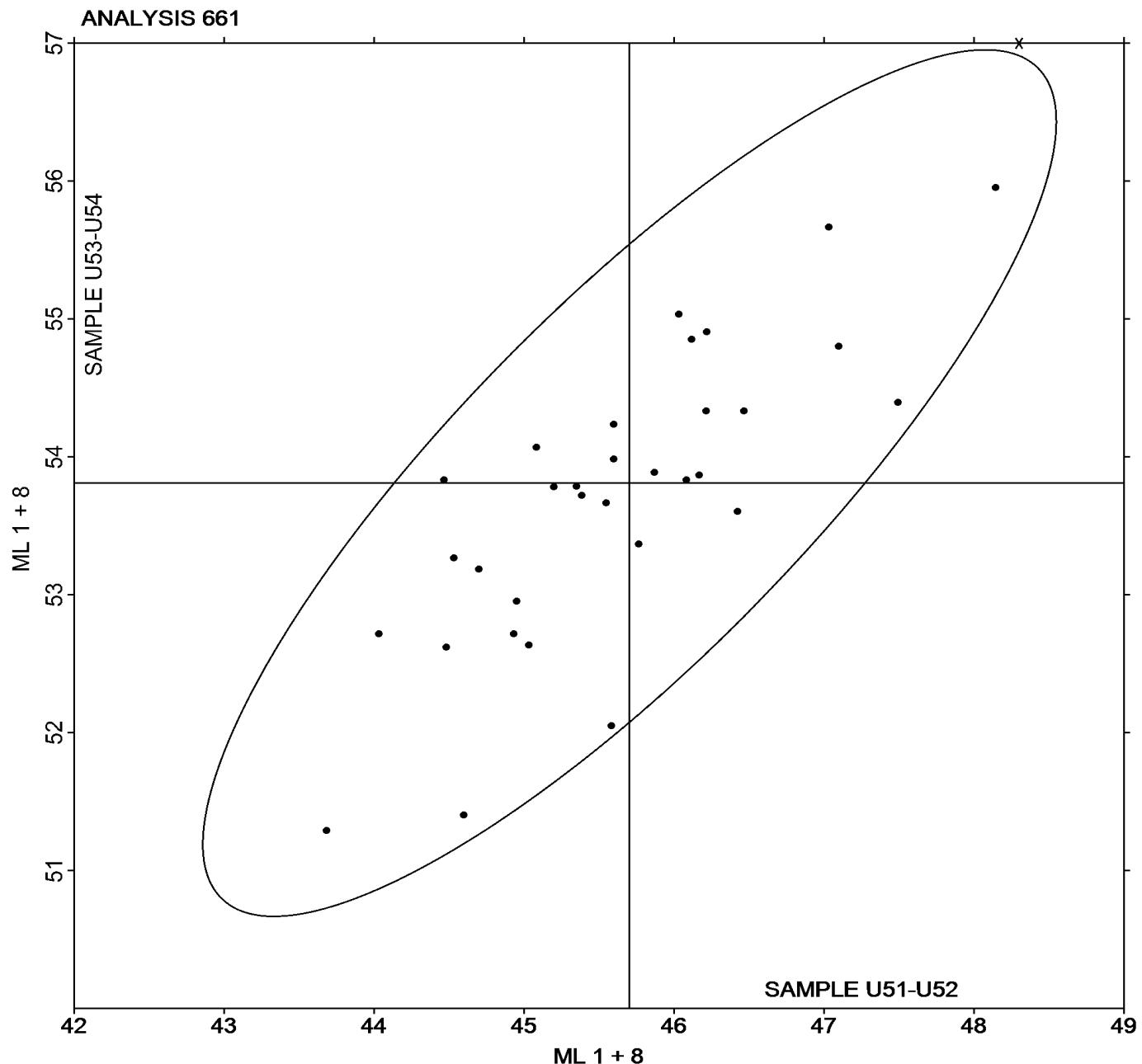
ANALYSIS 661

SAMPLE U53-U54

ML 1 + 8

SAMPLE U51-U52

ML 1 + 8

Rubber Interlaboratory Testing Program

Analysis 662

Mooney Stress Relaxation: t80 (seconds)

		Sample U51			Sample U52			
WebCode	Data Flag	Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	Instr Code
8CQZ3M		4.500	-0.359	-0.90	8.700	0.477	0.83	MR
CNLZGL		5.240	0.381	0.96	8.440	0.217	0.38	MR
CXAWHM		5.073	0.214	0.54	9.130	0.907	1.57	XX
DD6D8K		5.267	0.408	1.02	8.953	0.730	1.26	XX
DWVRJN		5.123	0.264	0.66	8.593	0.370	0.64	MR
GE6XA2		4.967	0.108	0.27	8.300	0.077	0.13	MR
GP7BJA		4.780	-0.079	-0.20	7.863	-0.360	-0.62	MR
JYZCQB		4.580	-0.279	-0.70	7.837	-0.387	-0.67	MR
KGDDXH		5.070	0.211	0.53	9.137	0.913	1.58	XX
LRUGK9		4.717	-0.142	-0.36	7.703	-0.520	-0.90	MR
RPPVH4		4.575	-0.284	-0.71	8.073	-0.150	-0.26	MR
UKNDA2		4.257	-0.602	-1.51	7.460	-0.763	-1.32	MR
WNFFDR	*	5.675	0.816	2.05	7.542	-0.682	-1.18	MR
WWU2LV		4.227	-0.632	-1.59	7.583	-0.640	-1.11	MR
XXFCPU		4.833	-0.026	-0.06	8.033	-0.190	-0.33	MR
Z789Q2	X	839.500	834.641	2,093.00	631.100	622.877	1,078.34	TV

Summary Statistics

Grand Means		
4.8589 seconds		8.2232 seconds
Stnd Dev Btwn Labs		
0.3988 seconds		0.5776 seconds
		Statistics based on 15 of 16 reporting participants

Samples U51-U52: NBR & U53-U54: Butyl

Comments on assigned Data Flags for Test #662

Z789Q2 (X) - Extreme data.

Rubber Interlaboratory Testing Program
Analysis 662
Mooney Stress Relaxation: t80 (seconds)

Grand Mean Sample **U51** = 4.8589 seconds

Grand Mean Sample **U52** = 8.2232 seconds
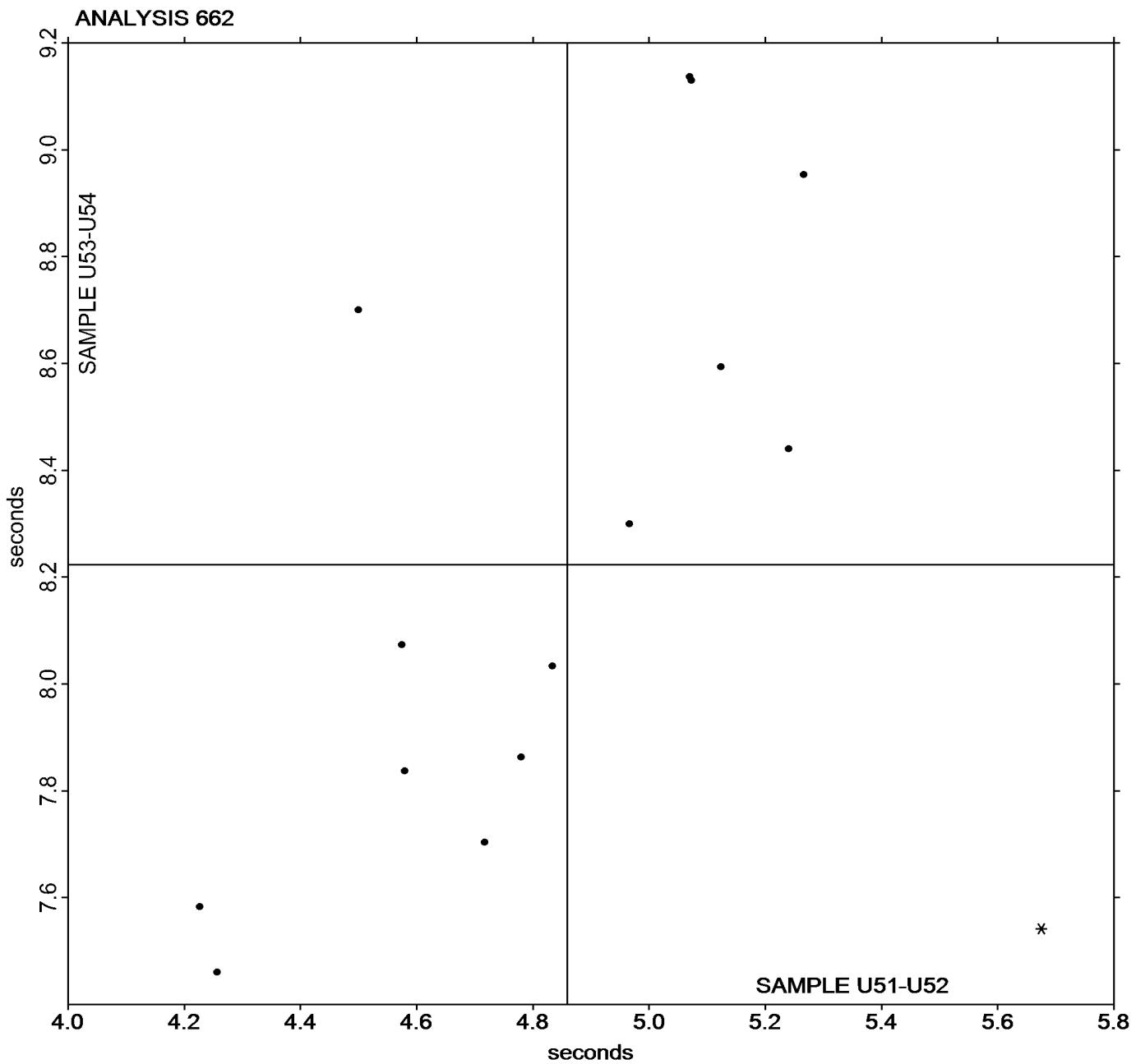
ANALYSIS 662

SAMPLE U53–U54

seconds

SAMPLE U51–U52

seconds

Rubber Interlaboratory Testing Program

Analysis 663
Mooney Stress Relaxation: X30 (percent)

		Sample U51			Sample U52			
WebCode	Data Flag	Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	Instr Code
CNLZGL		91.65	0.25	0.19	91.35	-0.08	-0.12	MR
CXAWHM		92.96	1.57	1.16	92.49	1.06	1.59	XX
DD6D8K		90.40	-0.99	-0.74	90.20	-1.23	-1.85	XX
DWVRJN		90.29	-1.11	-0.82	90.63	-0.81	-1.21	MR
GE6XA2		91.00	-0.39	-0.29	90.95	-0.48	-0.72	MR
GP7BJA		91.16	-0.23	-0.17	91.47	0.03	0.05	MR
JYZCQB		91.74	0.35	0.26	91.68	0.24	0.36	MR
KGDDXH		93.03	1.64	1.22	91.97	0.53	0.80	XX
LRUGK9		91.87	0.48	0.36	91.98	0.54	0.81	MR
RPPVH4		92.00	0.61	0.45	91.52	0.08	0.12	MR
UKNDA2		92.04	0.65	0.48	91.77	0.34	0.51	MR
WNFFDR		91.42	0.03	0.02	91.96	0.53	0.79	MR
WWU2LV		92.43	1.04	0.77	91.91	0.47	0.71	MR
XXFCPU		91.44	0.05	0.04	91.40	-0.03	-0.05	MR
Z789Q2	*	87.44	-3.95	-2.93	90.24	-1.20	-1.79	TV

Summary Statistics

Grand Means

91.392 percent   91.433 percent

Stnd Dev Btwn Labs

1.349 percent   0.667 percent

Statistics based on 15 of 15 reporting participants

Samples U51-U52: NBR & U53-U54: Butyl

Analysis Notes:

CXAWHM - Data appear to be reported as percent decay and not X30. Data corrected by CTS.

DD6D8K - Data appear to be reported as percent decay and not X30. Data corrected by CTS.

JYZCQB - Data appear to be reported as percent decay and not X30. Data corrected by CTS.

KGDDXH - Data appear to be reported as percent decay and not X30. Data corrected by CTS.

LRUGK9 - Data appear to be reported as percent decay and not X30. Data corrected by CTS.

RPPVH4 - Data appear to be reported as percent decay and not X30. Data corrected by CTS.

UKNDA2 - Data appear to be reported as percent decay and not X30. Data corrected by CTS.

WWU2LV - Data appear to be reported as percent decay and not X30. Data corrected by CTS.

Rubber Interlaboratory Testing Program
Analysis 663
Mooney Stress Relaxation: X30 (percent)

Grand Mean Sample **U51** = 91.392 percent

Grand Mean Sample **U52** = 91.433 percent

Rubber Interlaboratory Testing Program
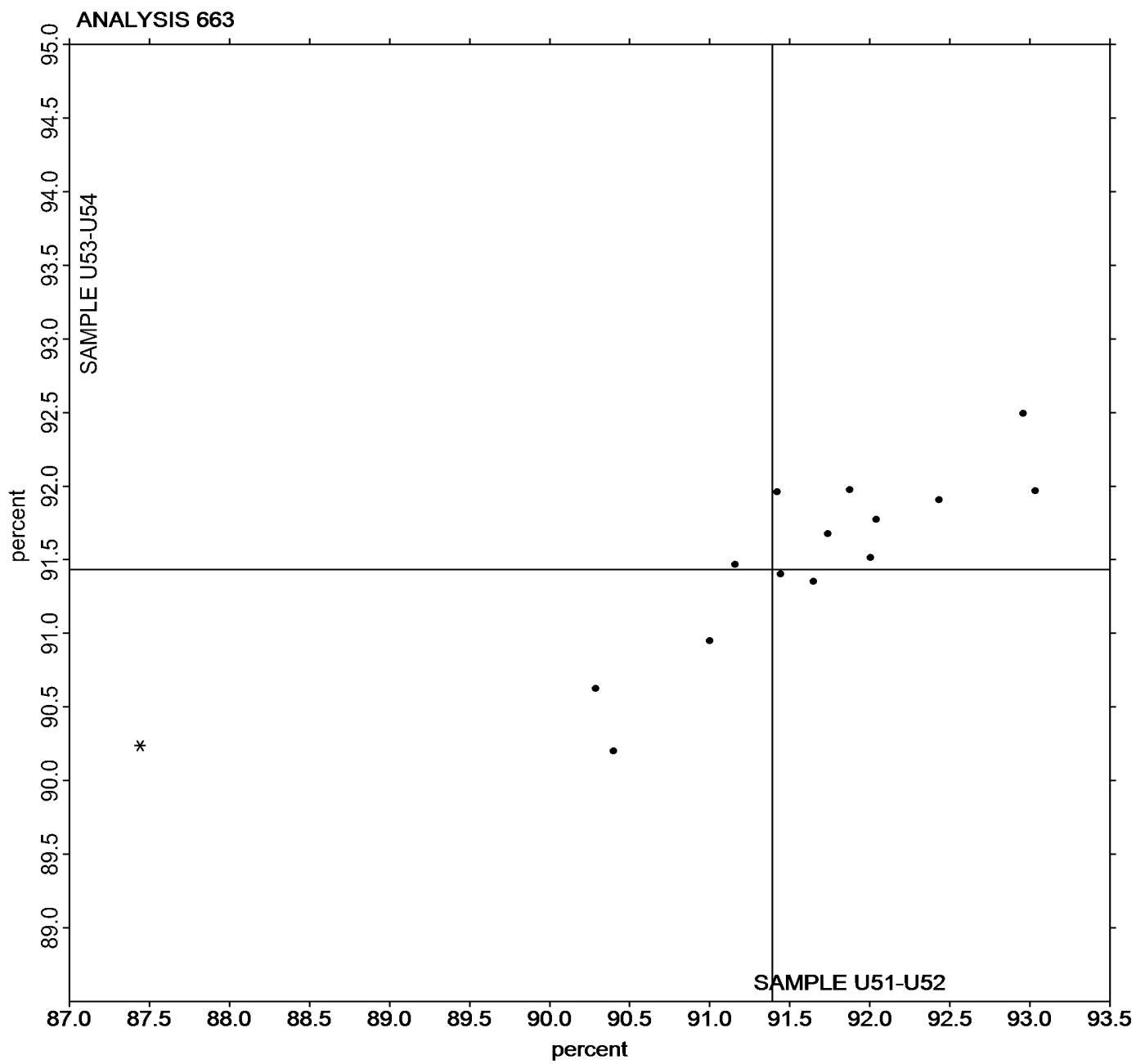
Analysis 664

Mooney Stress Relaxation: Area under curve (M-s)

WebCode	Data Flag	Sample U51			Sample U52			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
CNLZGL		416.0	-0.3	-0.01	519.5	-1.2	-0.03	XX
CXAWHM		366.7	-49.7	-1.32	470.9	-49.8	-1.19	XX
DD6D8K		475.5	59.2	1.58	603.6	82.8	1.97	XX
DWVRJN		489.9	73.5	1.96	568.5	47.8	1.14	MR
GE6XA2		452.9	36.5	0.97	535.9	15.2	0.36	MR
GP7BJA		434.5	18.1	0.48	517.6	-3.1	-0.07	MR
JYZCQB		406.7	-9.7	-0.26	503.7	-17.0	-0.41	MR
KGDDXH	X	0.6	-415.8	-11.08	0.6	-520.1	-12.38	XX
LRUGK9		395.0	-21.3	-0.57	477.6	-43.1	-1.03	MR
RPPVH4		405.5	-10.8	-0.29	516.9	-3.8	-0.09	MR
UKNDA2		388.2	-28.1	-0.75	488.7	-32.0	-0.76	MR
WNFFDR		417.6	1.3	0.03	486.7	-34.0	-0.81	MR
WWU2LV		377.7	-38.6	-1.03	494.1	-26.7	-0.63	MR
Z789Q2		386.3	-30.1	-0.80	585.8	65.1	1.55	TV

Summary Statistics

Grand Means

　　416.35 M-s　　　　　　　　　　520.70 M-s

Stnd Dev Btwn Labs

　　37.51 M-s　　　　　　　　　　42.00 M-s

Statistics based on 13 of 14 reporting participants

Samples U51-U52: NBR & U53-U54: Butyl

### Comments on assigned Data Flags for Test #664

KGDDXH (X) - Extreme data.

Rubber Interlaboratory Testing Program
Analysis 664
Mooney Stress Relaxation: Area under curve (M-s)

Grand Mean Sample **U51** = 416.35 M-s   Grand Mean Sample **U52** = 520.70 M-s
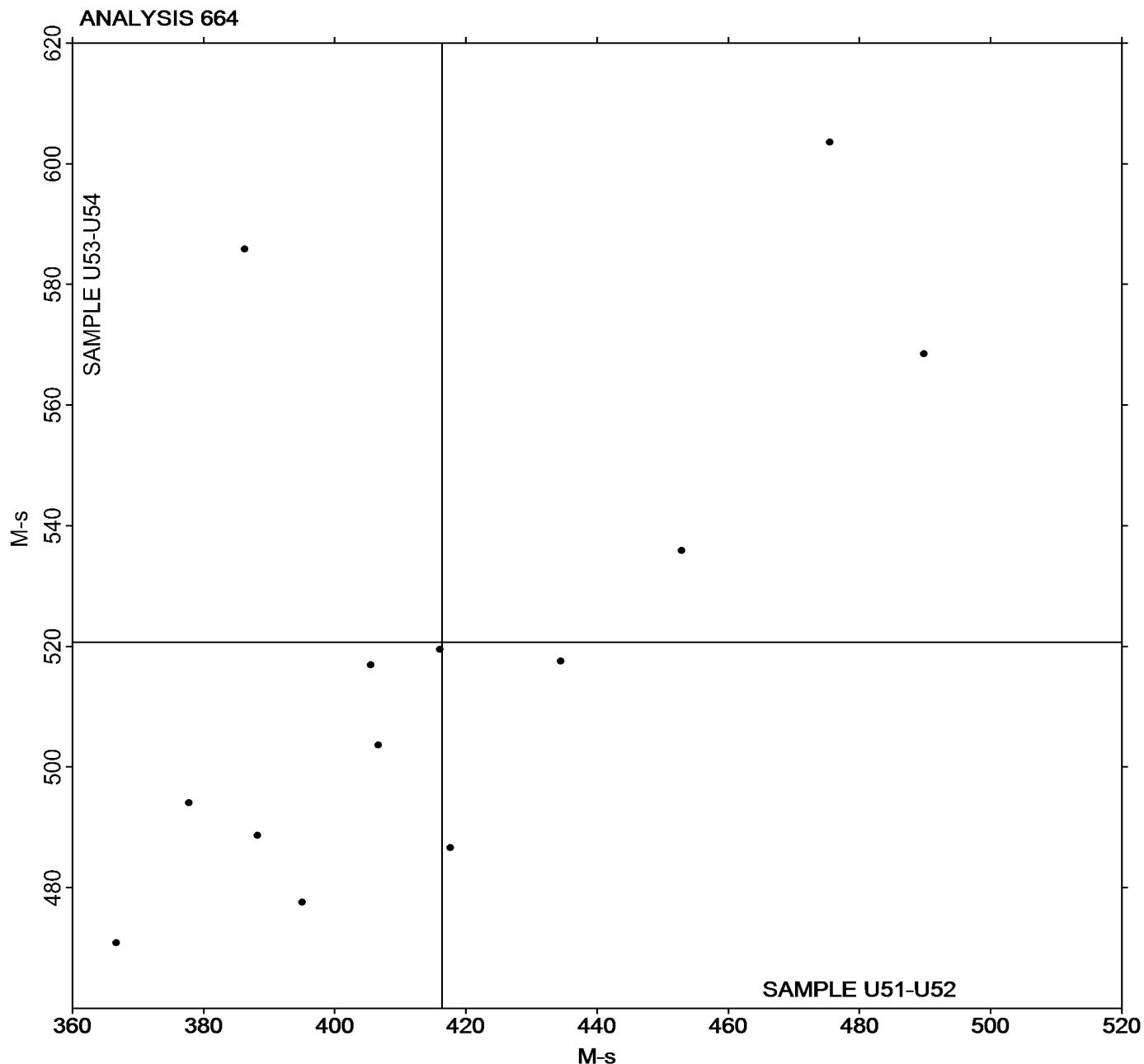
Rubber Interlaboratory Testing Program
Analysis 669
ODR Vulcanization-Cure Time 10% (minutes)

		Sample Y51			Sample Y52			
WebCode	Data Flag	Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	Instr Code
7XUJDN		0.9133	-0.0560	-0.38	1.503	0.013	0.06	ZZ
D2RDDC		0.8833	-0.0860	-0.59	1.467	-0.024	-0.10	ZZ
DD6D8K		0.9133	-0.0560	-0.38	1.383	-0.107	-0.47	ZZ
H6EC44		1.1067	0.1374	0.94	1.692	0.201	0.89	ZZ
JWZYDJ		0.9367	-0.0326	-0.22	1.475	-0.015	-0.07	ZZ
K7Z4H6		1.0550	0.0857	0.59	1.628	0.138	0.61	ZZ
NV4AWJ		0.9800	0.0107	0.07	1.573	0.083	0.37	ZZ
T4TAPR		1.1250	0.1557	1.07	1.735	0.245	1.08	ZZ
U2CMHX		0.9450	-0.0243	-0.17	1.453	-0.037	-0.16	ZZ
V8VEW4		1.1267	0.1574	1.08	1.655	0.165	0.73	ZZ
WNFFDR		0.6000	-0.3693	-2.54	0.860	-0.630	-2.78	ZZ
Z789Q2		1.0467	0.0774	0.53	1.460	-0.030	-0.13	ZZ

Summary Statistics

Grand Means

      0.96931 minutes   1.4904 minutes

Stnd Dev Btwn Labs

      0.14554 minutes   0.2267 minutes

Statistics based on 12 of 12 reporting participants

Samples Y51-Y52: EPDM compound #1 & Y53-Y54: EPDM compound #2

Rubber Interlaboratory Testing Program
Analysis 669
ODR Vulcanization-Cure Time 10% (minutes)

Grand Mean Sample **Y51** = 0.96931 minutes

Grand Mean Sample **Y52** = 1.4904 minutes
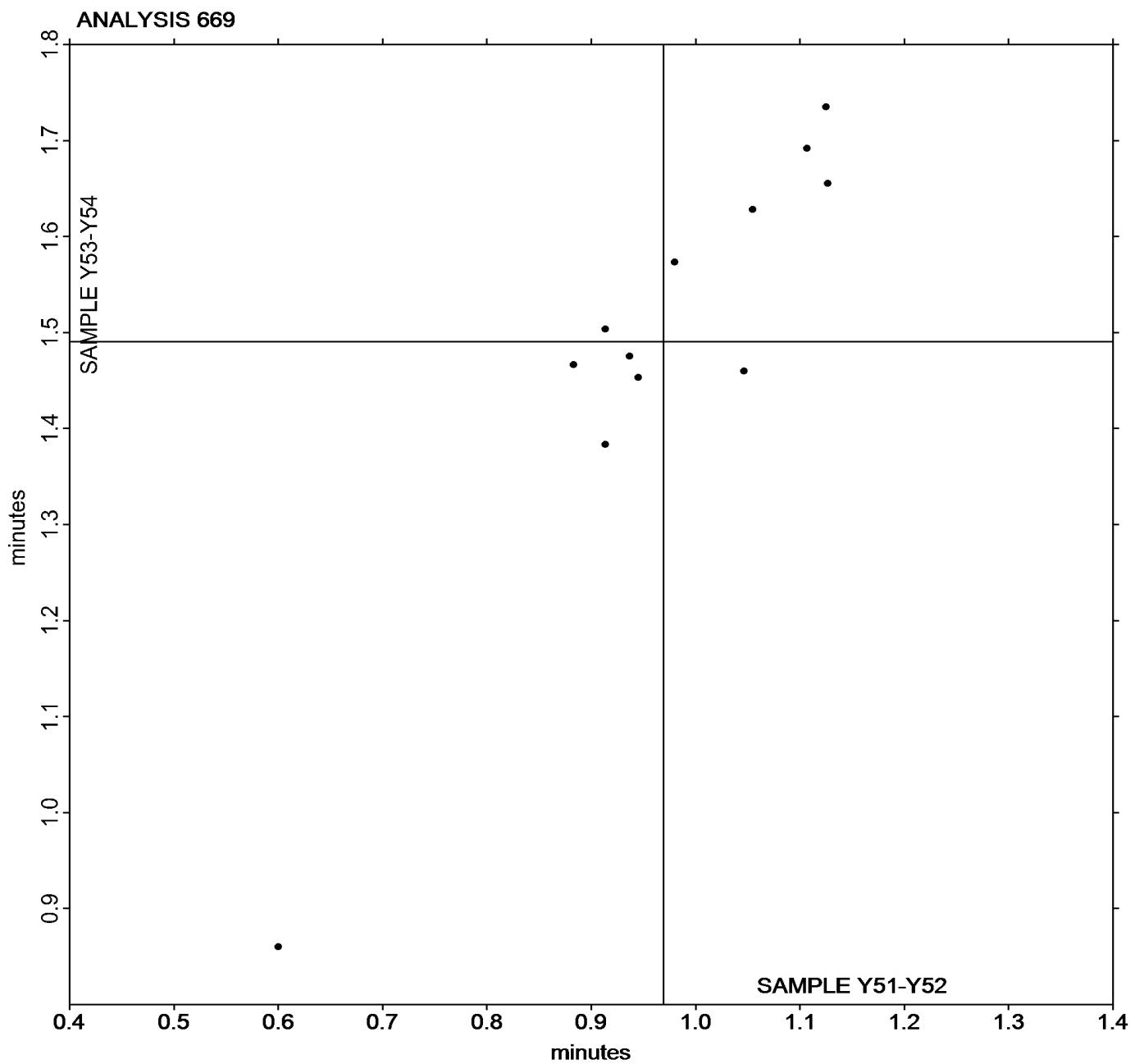
Rubber Interlaboratory Testing Program
Analysis 670
ODR Vulcanization-Scorch Time, Ts1 (minutes)

		Sample Y51			Sample Y52			
WebCode	Data Flag	Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	Instr Code
7XUJDN		0.6233	-0.0440	-0.44	0.9850	-0.0121	-0.08	ZZ
D2RDDC		0.5967	-0.0707	-0.71	0.9600	-0.0371	-0.25	ZZ
DD6D8K		0.6150	-0.0524	-0.53	0.8900	-0.1071	-0.73	ZZ
H6EC44		0.8017	0.1343	1.35	1.1717	0.1746	1.19	ZZ
JWZYDJ		0.6333	-0.0340	-0.34	0.9733	-0.0238	-0.16	ZZ
K7Z4H6		0.7117	0.0443	0.45	1.0700	0.0729	0.50	ZZ
NV4AWJ		0.6700	0.0026	0.03	1.0550	0.0579	0.40	ZZ
T4TAPR		0.7517	0.0843	0.85	1.1433	0.1463	1.00	ZZ
U2CMHX		0.6617	-0.0057	-0.06	0.9917	-0.0054	-0.04	ZZ
V8VEW4		0.7750	0.1076	1.08	1.1000	0.1029	0.70	ZZ
WNFFDR		0.4333	-0.2340	-2.35	0.6100	-0.3871	-2.65	ZZ
Z789Q2		0.7350	0.0676	0.68	1.0150	0.0179	0.12	ZZ

Summary Statistics

Grand Means

0.66736 minutes   0.99708 minutes

Stnd Dev Btwn Labs

0.09950 minutes   0.14612 minutes

Statistics based on 12 of 12 reporting participants

Samples Y51-Y52: EPDM compound #1 & Y53-Y54: EPDM compound #2

Rubber Interlaboratory Testing Program
Analysis 670
ODR Vulcanization-Scorch Time, Ts1 (minutes)

Grand Mean Sample **Y51** = 0.66736 minutes

Grand Mean Sample **Y52** = 0.99708 minutes
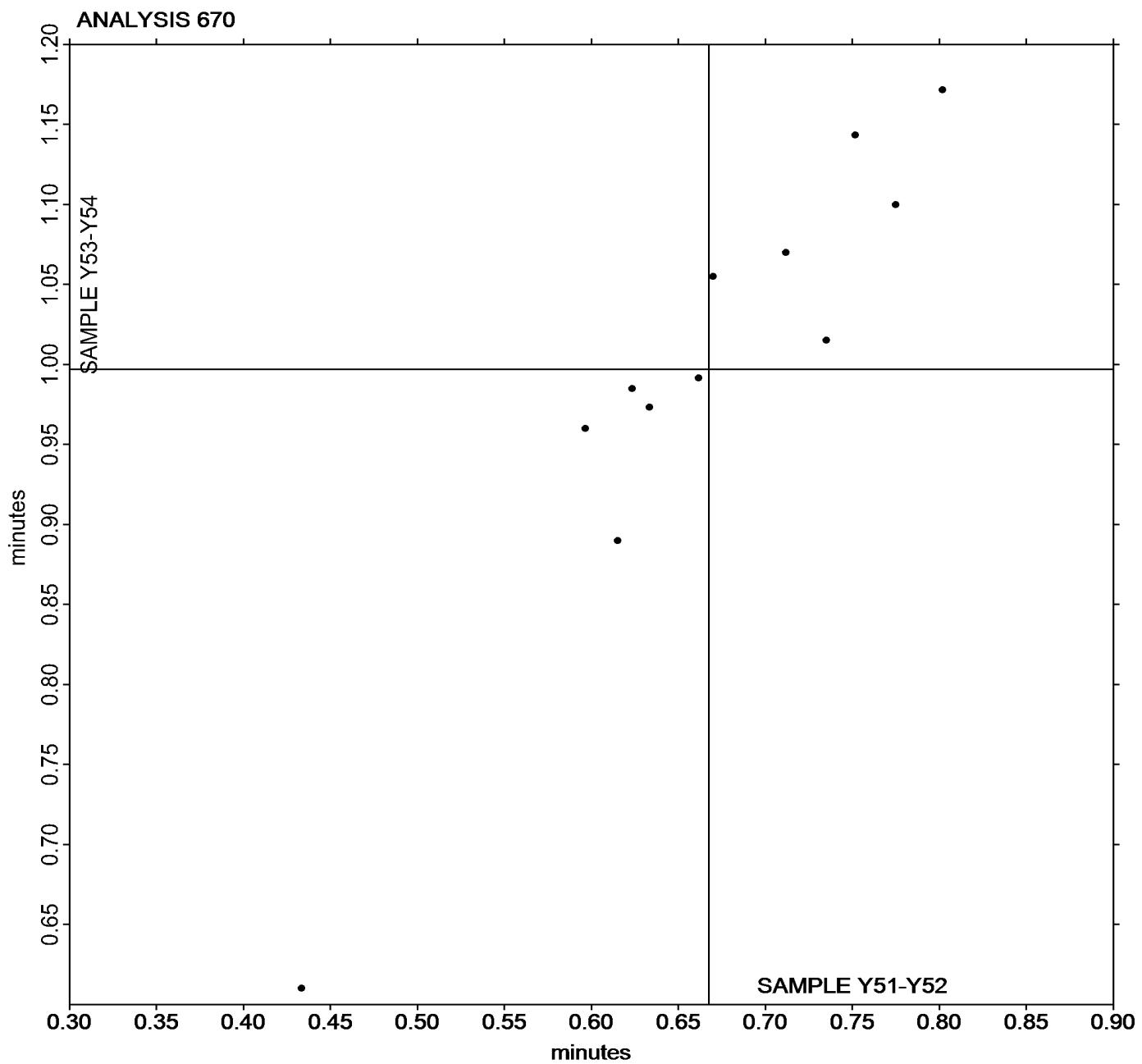
Rubber Interlaboratory Testing Program
Analysis 671
ODR Vulcanization-Cure Time 50% (minutes)

		Sample Y51			Sample Y52			
WebCode	Data Flag	Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	Instr Code
7XUJDN		2.363	-0.155	-0.36	3.567	0.016	0.03	ZZ
D2RDDC		2.247	-0.272	-0.64	3.542	-0.009	-0.02	ZZ
DD6D8K		2.528	0.010	0.02	3.683	0.132	0.22	ZZ
H6EC44		2.850	0.332	0.78	3.912	0.361	0.59	ZZ
JWZYDJ		2.533	0.015	0.04	3.498	-0.053	-0.09	ZZ
K7Z4H6		2.777	0.258	0.61	3.747	0.196	0.32	ZZ
NV4AWJ		2.470	-0.048	-0.11	3.640	0.089	0.15	ZZ
T4TAPR		2.967	0.448	1.05	4.420	0.869	1.43	ZZ
U2CMHX		2.428	-0.090	-0.21	3.392	-0.159	-0.26	ZZ
V8VEW4		2.922	0.403	0.95	3.805	0.254	0.42	ZZ
WNFFDR		1.383	-1.135	-2.67	1.810	-1.741	-2.86	ZZ
Z789Q2		2.750	0.232	0.54	3.598	0.047	0.08	ZZ

Summary Statistics

Grand Means

2.5182 minutes   3.5511 minutes

Stnd Dev Btwn Labs

0.4254 minutes   0.6087 minutes

Statistics based on 12 of 12 reporting participants

Samples Y51-Y52: EPDM compound #1 & Y53-Y54: EPDM compound #2

Rubber Interlaboratory Testing Program
Analysis 671
ODR Vulcanization-Cure Time 50% (minutes)

Grand Mean Sample **Y51** = 2.5182 minutes

Grand Mean Sample **Y52** = 3.5511 minutes
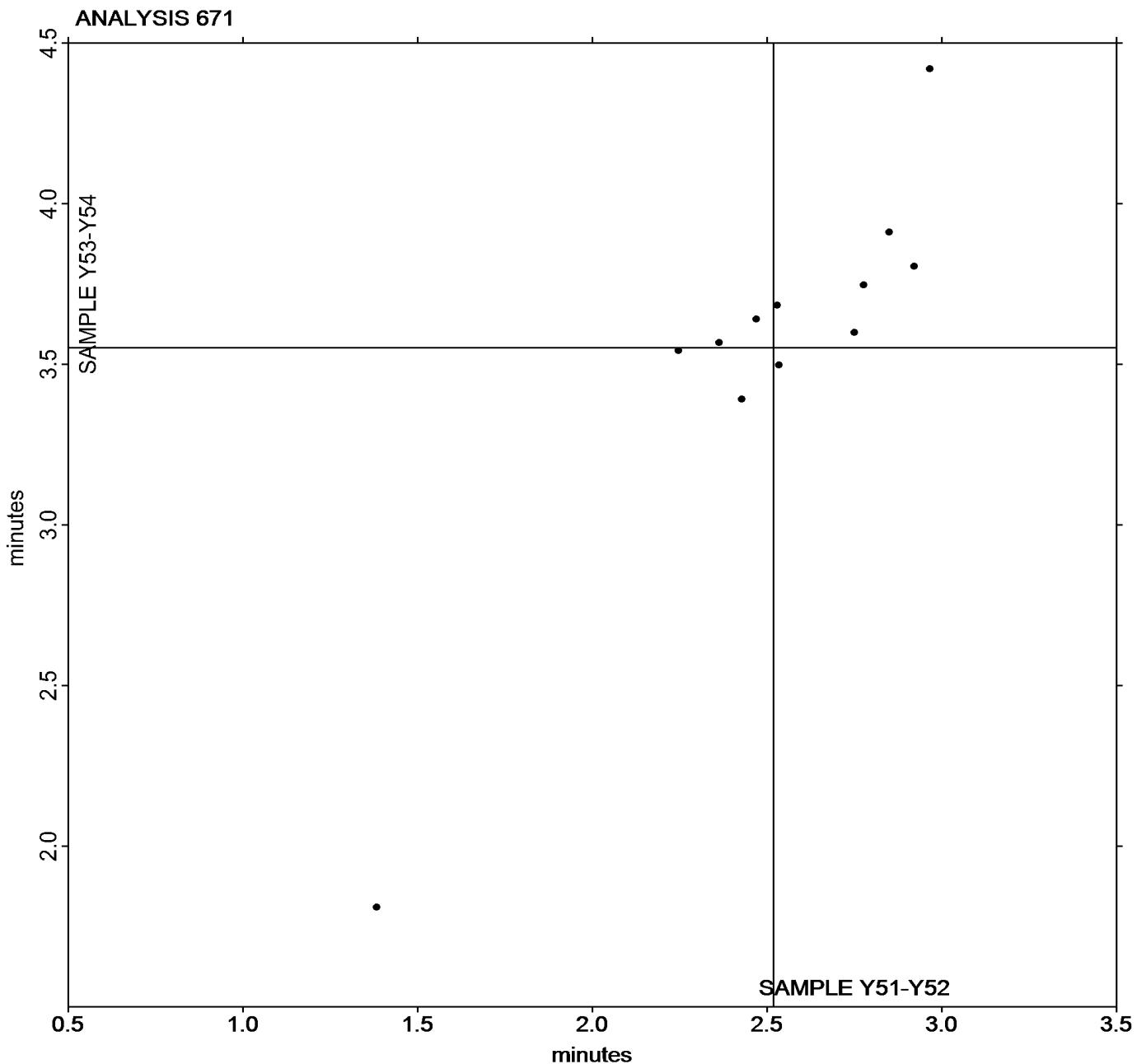
Rubber Interlaboratory Testing Program
Analysis 672
ODR Vulcanization-Cure Time 90% (minutes)

WebCode	Data Flag	Sample Y51 Lab Mean	Sample Y51 Diff from Grand Mean	Sample Y51 CPV	Sample Y52 Lab Mean	Sample Y52 Diff from Grand Mean	Sample Y52 CPV	Instr Code
7XUJDN		12.59	-0.35	-0.38	7.935	-0.773	-0.98	ZZ
D2RDDC		11.28	-1.66	-1.78	7.930	-0.778	-0.99	ZZ
DD6D8K		12.57	-0.38	-0.40	9.617	0.909	1.15	ZZ
H6EC44		12.96	0.02	0.02	8.927	0.219	0.28	ZZ
JWZYDJ		14.27	1.32	1.41	8.602	-0.106	-0.13	ZZ
K7Z4H6		13.29	0.35	0.37	8.293	-0.415	-0.53	ZZ
NV4AWJ		11.96	-0.98	-1.05	8.243	-0.465	-0.59	ZZ
T4TAPR		13.59	0.65	0.69	9.905	1.197	1.52	ZZ
U2CMHX		12.10	-0.85	-0.90	7.798	-0.910	-1.16	ZZ
V8VEW4		13.86	0.92	0.98	8.623	-0.085	-0.11	ZZ
WNFFDR	X	5.00	-7.94	-8.49	3.272	-5.436	-6.91	ZZ
Z789Q2		13.90	0.96	1.02	9.913	1.205	1.53	ZZ

Summary Statistics

Grand Means	
12.943 minutes	8.7079 minutes

Stnd Dev Btwn Labs	
0.936 minutes	0.7871 minutes

Statistics based on 11 of 12 reporting participants

Samples Y51-Y52: EPDM compound #1 & Y53-Y54: EPDM compound #2

Comments on assigned Data Flags for Test #672

WNFFDR (X) - Data for all Samples are low.

Rubber Interlaboratory Testing Program
Analysis 672
ODR Vulcanization-Cure Time 90% (minutes)

Grand Mean Sample **Y51** = 12.943 minutes

Grand Mean Sample **Y52** = 8.7079 minutes
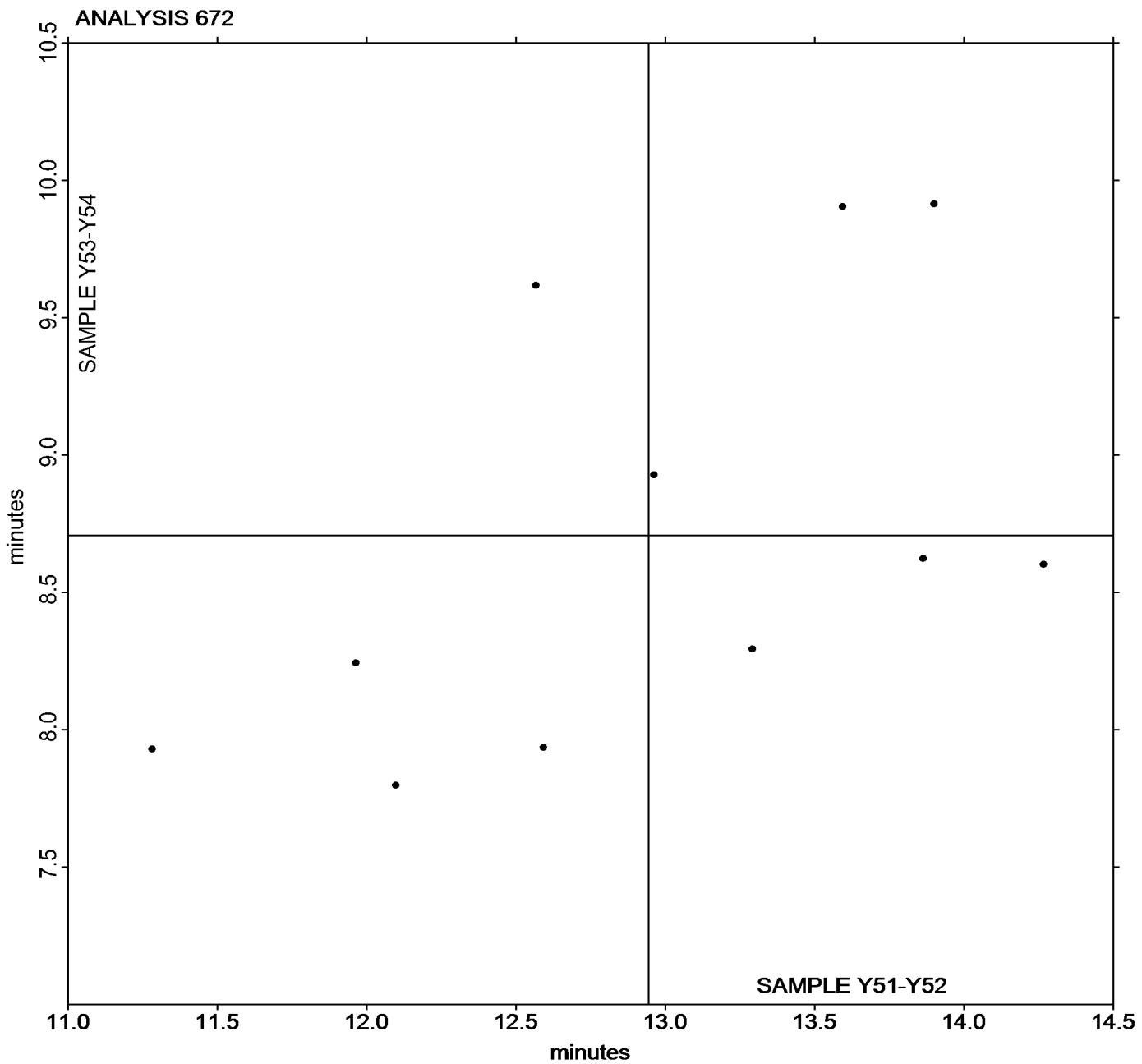
ANALYSIS 672

Rubber Interlaboratory Testing Program
Analysis 673
ODR Vulcanization: Minimum Torque (lbf.in)

WebCode	Data Flag	Sample Y51			Sample Y52			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
7XUJDN		10.17	-1.90	-2.38	7.977	-1.616	-1.46	ZZ
D2RDDC		12.21	0.14	0.17	9.923	0.330	0.30	ZZ
DD6D8K		12.50	0.43	0.54	10.800	1.207	1.09	ZZ
H6EC44		11.93	-0.14	-0.18	9.730	0.137	0.12	ZZ
JWZYDJ		12.31	0.24	0.30	9.273	-0.320	-0.29	ZZ
K7Z4H6		11.37	-0.71	-0.88	8.752	-0.841	-0.76	ZZ
NV4AWJ		11.46	-0.61	-0.76	7.837	-1.756	-1.59	ZZ
T4TAPR		12.93	0.86	1.07	10.862	1.269	1.15	ZZ
U2CMHX		12.27	0.19	0.24	10.035	0.442	0.40	ZZ
V8VEW4		13.10	1.03	1.29	9.793	0.200	0.18	ZZ
WNFFDR		11.90	-0.17	-0.21	8.820	-0.773	-0.70	ZZ
Z789Q2		12.71	0.64	0.79	11.313	1.720	1.55	ZZ

Summary Statistics

Grand Means

    12.071 lbf.in   9.5929 lbf.in

Stnd Dev Btwn Labs

    0.800 lbf.in   1.1076 lbf.in

Statistics based on 12 of 12 reporting participants

Summary Statistics in SI Units

Grand Means

    13.638 dN.m   10.8385 dN.m

Stnd Dev Btwn Labs

    0.904 dN.m   1.2514 dN.m

Statistics based on 12 of 12 reporting participants

Samples Y51-Y52: EPDM compound #1 & Y53-Y54: EPDM compound #2

Rubber Interlaboratory Testing Program
Analysis 673
ODR Vulcanization: Minimum Torque (lbf.in)

Grand Mean Sample **Y51** = 12.071 lbf.in   Grand Mean Sample **Y52** = 9.5929 lbf.in
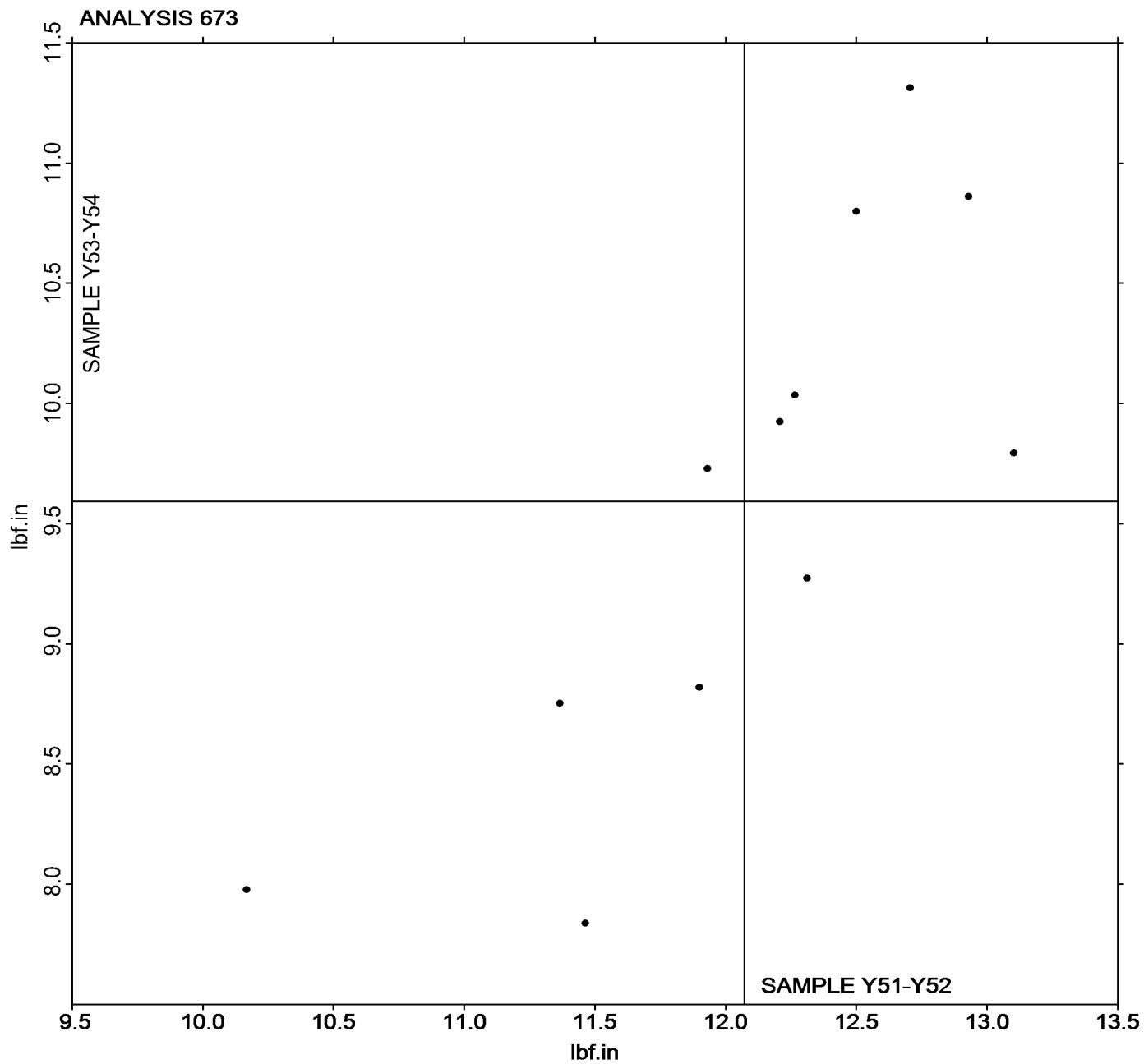
Rubber Interlaboratory Testing Program
Analysis 674

ODR Vulcanization: Maximum Torque (lbf.in)

WebCode	Data Flag	Sample Y51			Sample Y52			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
7XUJDN		44.82	-2.04	-0.67	42.05	0.80	0.31	ZZ
D2RDDC		45.69	-1.17	-0.38	42.07	0.83	0.32	ZZ
DD6D8K		47.38	0.52	0.17	40.95	-0.29	-0.11	ZZ
H6EC44		43.18	-3.68	-1.21	39.24	-2.01	-0.77	ZZ
JWZYDJ		51.23	4.37	1.43	44.47	3.23	1.24	ZZ
K7Z4H6		51.33	4.46	1.46	45.17	3.92	1.51	ZZ
NV4AWJ		49.13	2.26	0.74	42.87	1.63	0.63	ZZ
T4TAPR		47.49	0.63	0.21	41.17	-0.07	-0.03	ZZ
U2CMHX		45.28	-1.58	-0.52	40.16	-1.08	-0.42	ZZ
V8VEW4		49.90	3.04	0.99	42.46	1.22	0.47	ZZ
WNFFDR		42.08	-4.78	-1.56	35.66	-5.58	-2.14	ZZ
Z789Q2		44.84	-2.03	-0.66	38.63	-2.61	-1.00	ZZ

Summary Statistics

Grand Means

　　46.861 lbf.in　　　　　　　　　　41.240 lbf.in

Stnd Dev Btwn Labs

　　3.054 lbf.in　　　　　　　　　　2.604 lbf.in

Statistics based on 12 of 12 reporting participants

Summary Statistics in SI Units

Grand Means

　　52.946 dN.m　　　　　　　　　　46.595 dN.m

Stnd Dev Btwn Labs

　　3.451 dN.m　　　　　　　　　　2.942 dN.m

Statistics based on 12 of 12 reporting participants

Samples Y51-Y52: EPDM compound #1 & Y53-Y54: EPDM compound #2

Grand Mean Sample **Y51** = 46.861 lbf.in   Grand Mean Sample **Y52** = 41.240 lbf.in

ANALYSIS 674

SAMPLE Y53-Y54

lbf.in

SAMPLE Y51-Y52

lbf.in

Rubber Interlaboratory Testing Program
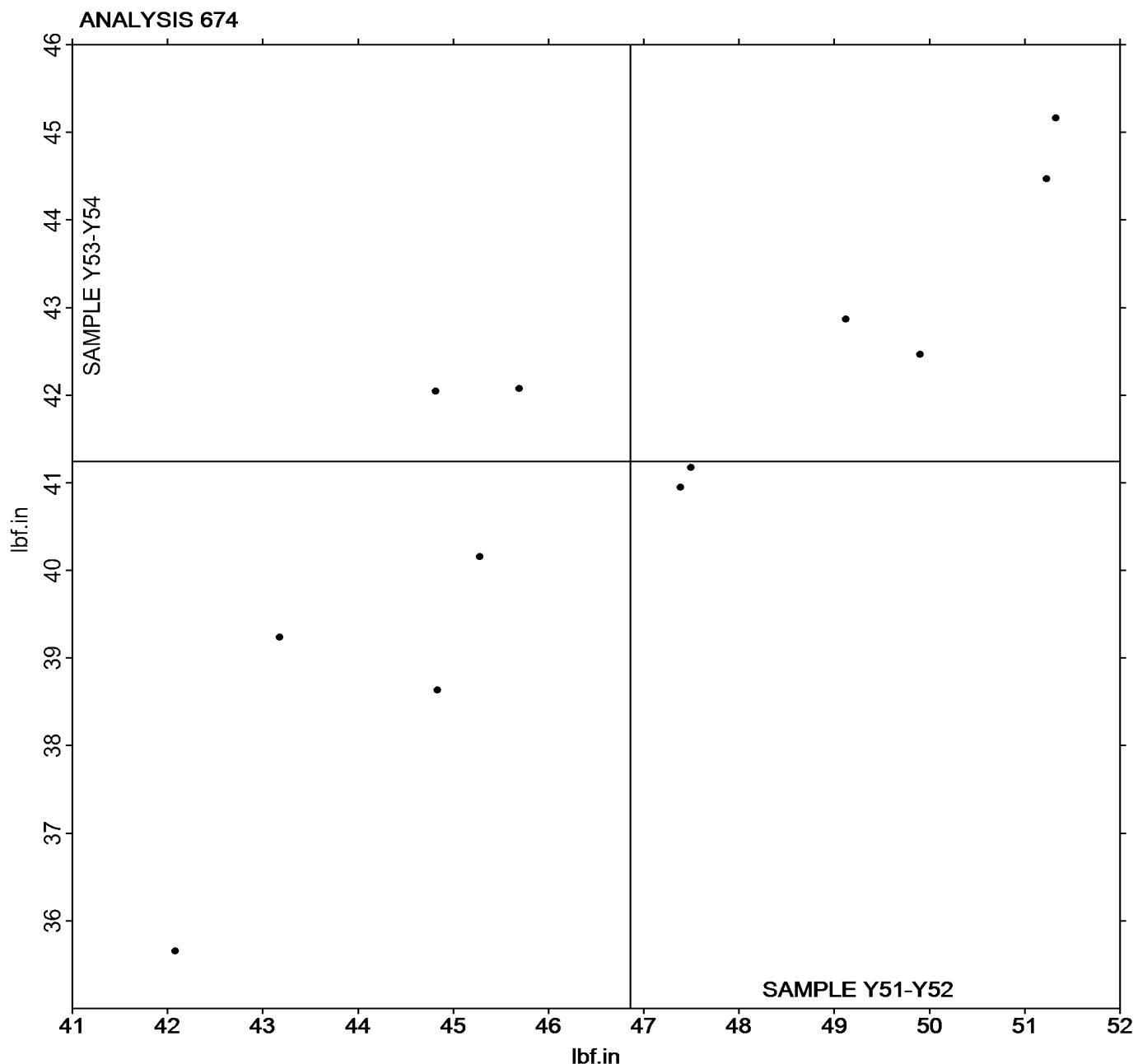
Analysis 684
MDR Vulcanization-Cure Time 10% (minutes)

WebCode	Data Flag	Sample Y55			Sample Y56			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
67UF9F		0.8533	0.0558	1.07	0.9933	0.0997	1.31	MC
6LTZJC		0.7717	-0.0259	-0.50	0.8450	-0.0486	-0.64	MD
6VQDCW		0.8333	0.0358	0.69	0.9317	0.0380	0.50	MP
7XUJDN		0.8567	0.0591	1.13	0.9550	0.0614	0.81	MC
8LUDYG		0.8867	0.0891	1.71	0.9850	0.0914	1.20	MC
B43KGE		0.8267	0.0291	0.56	0.9500	0.0564	0.74	MC
CBGN2L		0.7667	-0.0309	-0.59	0.8383	-0.0553	-0.73	XX
DWVRJN		0.8200	0.0224	0.43	0.9233	0.0297	0.39	MD
GP7BJA		0.9050	0.1074	2.06	1.0267	0.1330	1.75	MC
H6EC44		0.8167	0.0191	0.37	0.9333	0.0397	0.52	MC
J4TEUB		0.8195	0.0219	0.42	0.9195	0.0258	0.34	MC
JWZYDJ		0.8150	0.0174	0.33	0.9517	0.0580	0.76	MC
JYZCQB	X	0.4767	-0.3209	-6.16	0.5400	-0.3536	-4.65	MC
LRUGK9		0.8067	0.0091	0.17	0.9083	0.0147	0.19	MC
MH2JG7		0.7639	-0.0337	-0.65	0.8528	-0.0408	-0.54	MC
MZ42RB		0.7950	-0.0026	-0.05	0.9100	0.0164	0.22	MC
NV4AWJ		0.8900	0.0924	1.77	1.0217	0.1280	1.68	MC
P3MVGA		0.7883	-0.0092	-0.18	0.8667	-0.0270	-0.35	MC
QT9F48		0.7583	-0.0392	-0.75	0.8367	-0.0570	-0.75	MC
R66PJT		0.7717	-0.0259	-0.50	0.8700	-0.0236	-0.31	MC
RUHVWY	*	0.7050	-0.0926	-1.78	0.8267	-0.0670	-0.88	MD
TNAUBV		0.8067	0.0091	0.17	0.8983	0.0047	0.06	MC
UKNDA2		0.7083	-0.0892	-1.71	0.7333	-0.1603	-2.11	MC
V9THXR		0.8217	0.0241	0.46	0.9733	0.0797	1.05	MC
VHB4WU		0.8333	0.0358	0.69	0.9150	0.0214	0.28	XX
WNFFDR		0.7483	-0.0492	-0.95	0.8150	-0.0786	-1.03	XX
WWU2LV		0.7883	-0.0092	-0.18	0.9033	0.0097	0.13	MC
XTKKHW	*	0.7200	-0.0776	-1.49	0.7250	-0.1686	-2.22	MC
XXFCPU		0.7250	-0.0726	-1.39	0.7700	-0.1236	-1.62	MC
YTNFMN		0.7483	-0.0492	-0.95	0.8617	-0.0320	-0.42	MD
YVPK2U		0.7767	-0.0209	-0.40	0.8683	-0.0253	-0.33	TP

Summary Statistics

Grand Means

0.79756 minutes   0.89363 minutes

Stnd Dev Btwn Labs

0.05209 minutes   0.07612 minutes

Statistics based on 30 of 31 reporting participants

Rubber Interlaboratory Testing Program
Analysis 684
MDR Vulcanization-Cure Time 10% (minutes)

Samples Y55-Y56: EPDM compound, batch #1 & Y57-Y58: EPDM compound, batch #2

Comments on assigned Data Flags for Test #684

JYZCQB (X) - Data for all Samples are low.

Rubber Interlaboratory Testing Program
Analysis 684
MDR Vulcanization-Cure Time 10% (minutes)

Grand Mean Sample **Y55** = 0.79756 minutes

Grand Mean Sample **Y56** = 0.89363 minutes
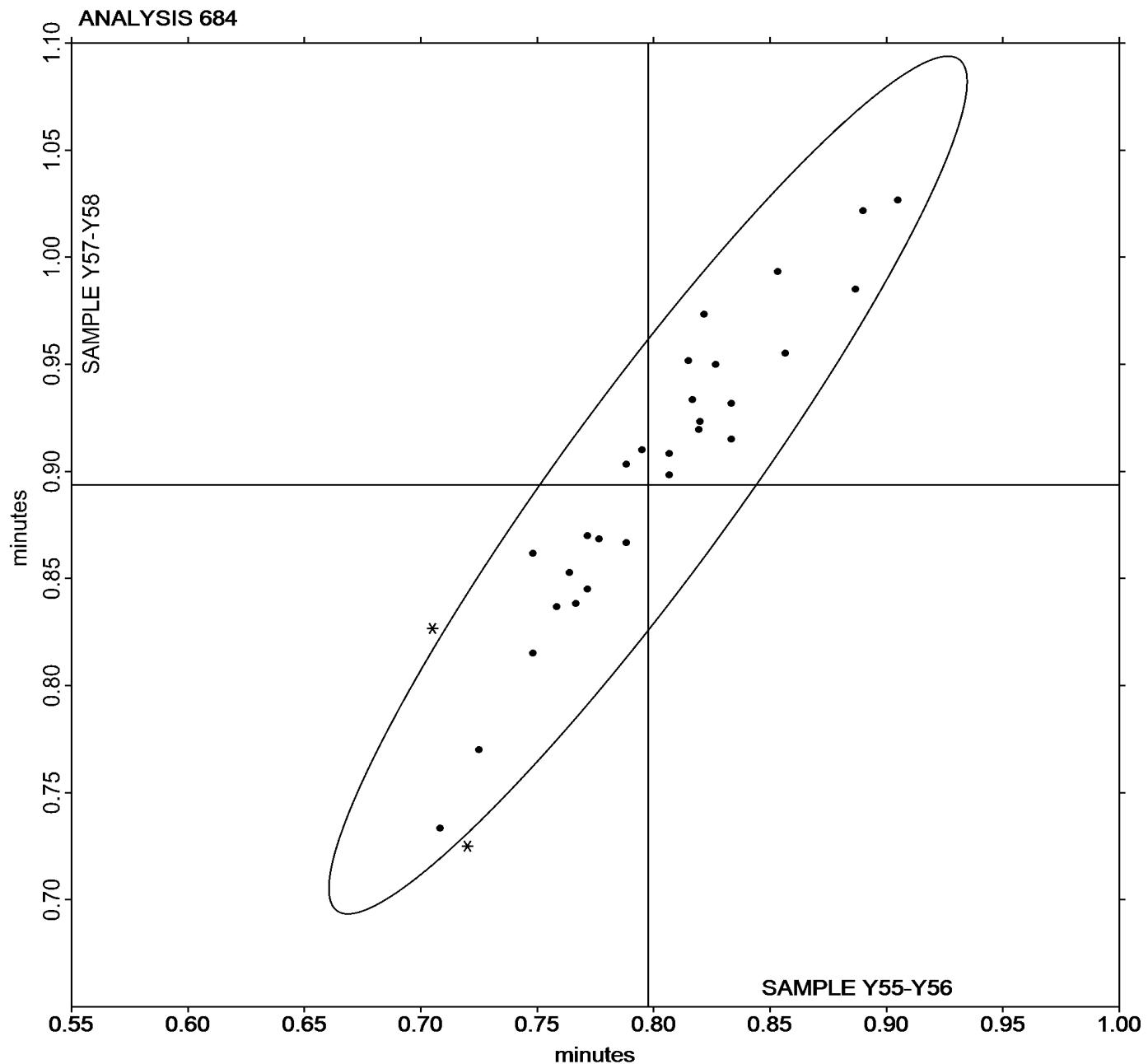
Rubber Interlaboratory Testing Program
Analysis 685
MDR Vulcanization-Scorch Time, Ts1 (minutes)

WebCode	Data Flag	Sample Y55			Sample Y56			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
67UF9F		0.7633	0.0711	1.32	0.8450	0.0947	1.44	MC
6FWTXU	*	0.7167	0.0244	0.45	0.7183	-0.0320	-0.49	MC
6LTZJC		0.6500	-0.0423	-0.79	0.6933	-0.0570	-0.86	MD
6VQDCW		0.6083	-0.0839	-1.56	0.6850	-0.0653	-0.99	MP
7XUJDN		0.7333	0.0411	0.77	0.8083	0.0580	0.88	MC
8CQZ3M		0.6550	-0.0373	-0.69	0.6783	-0.0720	-1.09	MC
8LUDYG		0.7467	0.0544	1.01	0.8217	0.0713	1.08	MC
B43KGE		0.7133	0.0211	0.39	0.7933	0.0430	0.65	MC
CBGN2L		0.7067	0.0144	0.27	0.7533	0.0030	0.05	XX
CNLZGL		0.6645	-0.0278	-0.52	0.7533	0.0030	0.05	MC
DWVRJN		0.7317	0.0394	0.73	0.7983	0.0480	0.73	MD
GP7BJA		0.7200	0.0277	0.52	0.7983	0.0480	0.73	MC
H6EC44		0.6950	0.0027	0.05	0.7650	0.0147	0.22	MC
J4TEUB		0.7222	0.0300	0.56	0.7806	0.0302	0.46	MC
JWZYDJ		0.6750	-0.0173	-0.32	0.7583	0.0080	0.12	MC
JYZCQB		0.6983	0.0061	0.11	0.7700	0.0197	0.30	MC
LRUGK9		0.7017	0.0094	0.18	0.7517	0.0013	0.02	MC
MH2JG7		0.6639	-0.0284	-0.53	0.7250	-0.0253	-0.38	MC
MZ42RB		0.7100	0.0177	0.33	0.7800	0.0297	0.45	MC
NV4AWJ		0.7717	0.0794	1.48	0.8383	0.0880	1.33	MC
P3MVGA		0.6483	-0.0439	-0.82	0.6950	-0.0553	-0.84	MC
QT9F48		0.6883	-0.0039	-0.07	0.7217	-0.0287	-0.43	MC
R66PJT		0.6950	0.0027	0.05	0.7667	0.0163	0.25	MC
RPPVH4		0.6250	-0.0673	-1.25	0.6733	-0.0770	-1.17	MC
RUHVWY	*	0.5783	-0.1139	-2.12	0.6583	-0.0920	-1.40	MD
TNAUBV		0.7467	0.0544	1.01	0.8050	0.0547	0.83	MC
UKNDA2		0.6550	-0.0373	-0.69	0.6600	-0.0903	-1.37	MC
V9THXR		0.7033	0.0111	0.21	0.7917	0.0413	0.63	MC
VHB4WU		0.6333	-0.0589	-1.10	0.6825	-0.0678	-1.03	XX
WNFFDR		0.6683	-0.0239	-0.45	0.7133	-0.0370	-0.56	XX
WWU2LV	*	0.8550	0.1627	3.03	0.9483	0.1980	3.00	MC
XTKKHW		0.5972	-0.0950	-1.77	0.6172	-0.1331	-2.02	MC
XXFCPU		0.6783	-0.0139	-0.26	0.6967	-0.0537	-0.81	MC
YTNFMN		0.6850	-0.0073	-0.14	0.7267	-0.0237	-0.36	MD
YVPK2U		0.7250	0.0327	0.61	0.7900	0.0397	0.60	TP

Rubber Interlaboratory Testing Program
Analysis 685
MDR Vulcanization-Scorch Time, Ts1 (minutes)

Summary Statistics

Grand Means

    0.69227 minutes   0.75034 minutes

Stnd Dev Btwn Labs

    0.05364 minutes   0.06592 minutes

Statistics based on 35 of 35 reporting participants

Samples Y55-Y56: EPDM compound, batch #1 & Y57-Y58: EPDM compound, batch #2

Instrument Code Listing

| **685**	MDR Vulcanization-Scorch Time, Ts1 (minutes)

Instruments:

(MC)   Alpha Technologies [Monsanto] MDR 2000 or 2000E

(MP)   Alpha Technologies [Monsanto] MDR 2000P

(XX)   Instrument model not specified by lab

(MD)   Alpha Tech. Rubber Process Analyzer (RPA 2000)

(TP)   Tech Pro MDR model MDPT

Rubber Interlaboratory Testing Program
Analysis 685
MDR Vulcanization-Scorch Time, Ts1 (minutes)

Grand Mean Sample **Y55** = 0.69227 minutes

Grand Mean Sample **Y56** = 0.75034 minutes

ANALYSIS 685

SAMPLE Y57-Y58

minutes

SAMPLE Y55-Y56

minutes
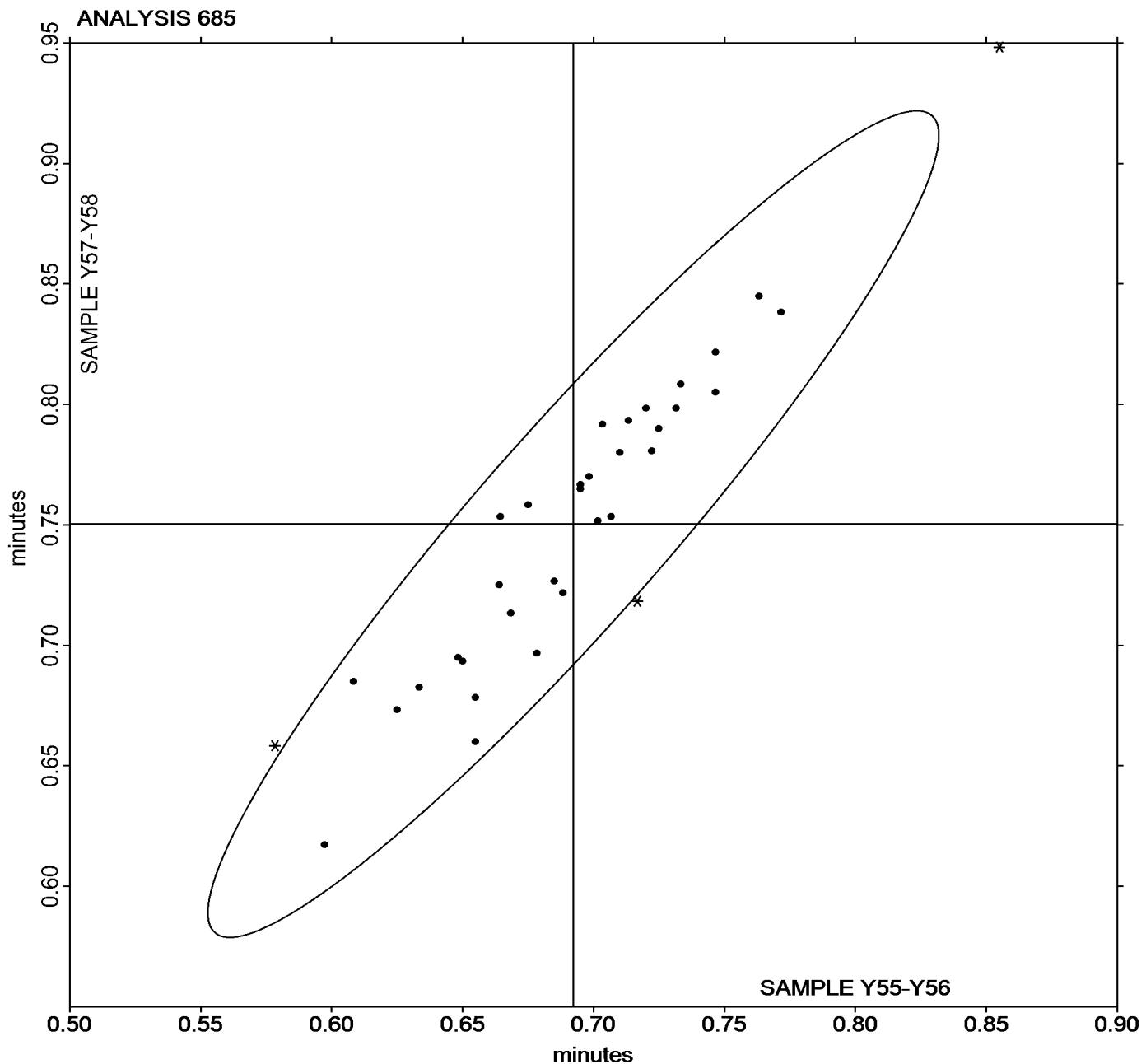
Rubber Interlaboratory Testing Program
Analysis 686
MDR Vulcanization-Cure Time 50% (minutes)

WebCode	Data Flag	Sample Y55			Sample Y56			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
67UF9F		3.035	0.027	0.16	3.243	0.092	0.52	MC
6FWTXU		2.902	-0.107	-0.65	2.952	-0.200	-1.13	MC
6LTZJC		3.012	0.003	0.02	3.222	0.070	0.40	XX
6VQDCW		2.793	-0.215	-1.31	2.912	-0.240	-1.36	MC
7XUJDN		3.042	0.033	0.20	3.202	0.050	0.28	MC
8CQZ3M		2.977	-0.032	-0.19	3.062	-0.090	-0.51	MC
8LUDYG		3.217	0.208	1.27	3.383	0.232	1.31	MC
B43KGE		3.175	0.167	1.01	3.347	0.195	1.11	MC
CBGN2L		2.877	-0.132	-0.80	3.035	-0.116	-0.66	XX
CNLZGL		3.146	0.138	0.84	3.366	0.214	1.22	MC
DWVRJN		3.030	0.022	0.13	3.208	0.057	0.32	MD
GP7BJA		3.262	0.253	1.54	3.430	0.279	1.58	MC
H6EC44		3.120	0.112	0.68	3.315	0.164	0.93	MC
J4TEUB	*	3.142	0.133	0.81	3.164	0.013	0.07	MC
JWZYDJ		3.215	0.207	1.26	3.310	0.159	0.90	MC
JYZCQB		3.028	0.020	0.12	3.165	0.014	0.08	MC
LRUGK9		2.885	-0.123	-0.75	2.970	-0.181	-1.03	MC
MH2JG7		3.028	0.019	0.12	3.183	0.032	0.18	MC
MZ42RB		3.000	-0.008	-0.05	3.145	-0.006	-0.04	MC
NV4AWJ		3.188	0.180	1.09	3.332	0.180	1.02	MC
P3MVGA		2.930	-0.078	-0.48	3.015	-0.136	-0.77	MC
QT9F48		3.045	0.037	0.22	3.172	0.020	0.11	MC
R66PJT		2.978	-0.030	-0.18	3.103	-0.048	-0.27	MC
RPPVH4		3.070	0.062	0.37	3.120	-0.031	-0.18	MC
RUHVWY		2.603	-0.405	-2.46	2.770	-0.381	-2.16	MD
TNAUBV		3.082	0.073	0.45	3.250	0.099	0.56	MC
UKNDA2		2.790	-0.218	-1.33	2.943	-0.208	-1.18	MC
V9THXR		3.232	0.223	1.36	3.437	0.285	1.62	MC
VHB4WU		2.832	-0.177	-1.08	2.937	-0.215	-1.22	XX
WNFFDR		2.843	-0.165	-1.00	2.945	-0.206	-1.17	XX
WWU2LV		3.268	0.260	1.58	3.445	0.294	1.66	MC
XTKKHW		2.662	-0.347	-2.11	2.867	-0.285	-1.61	MC
XXFCPU		2.817	-0.192	-1.17	2.990	-0.161	-0.91	MC
YTNFMN		3.060	0.052	0.31	3.195	0.044	0.25	MD
YVPK2U		3.012	0.003	0.02	3.167	0.015	0.09	TP

Rubber Interlaboratory Testing Program
Analysis 686
MDR Vulcanization-Cure Time 50% (minutes)

Summary Statistics	
Grand Means	
3.0085 minutes	3.1514 minutes
Stnd Dev Btwn Labs	
0.1644 minutes	0.1765 minutes
	Statistics based on 35 of 35 reporting participants

Samples Y55-Y56: EPDM compound, batch #1 & Y57-Y58: EPDM compound, batch #2

Rubber Interlaboratory Testing Program
Analysis 686
MDR Vulcanization-Cure Time 50% (minutes)

Grand Mean Sample **Y55** = 3.0085 minutes

Grand Mean Sample **Y56** = 3.1514 minutes
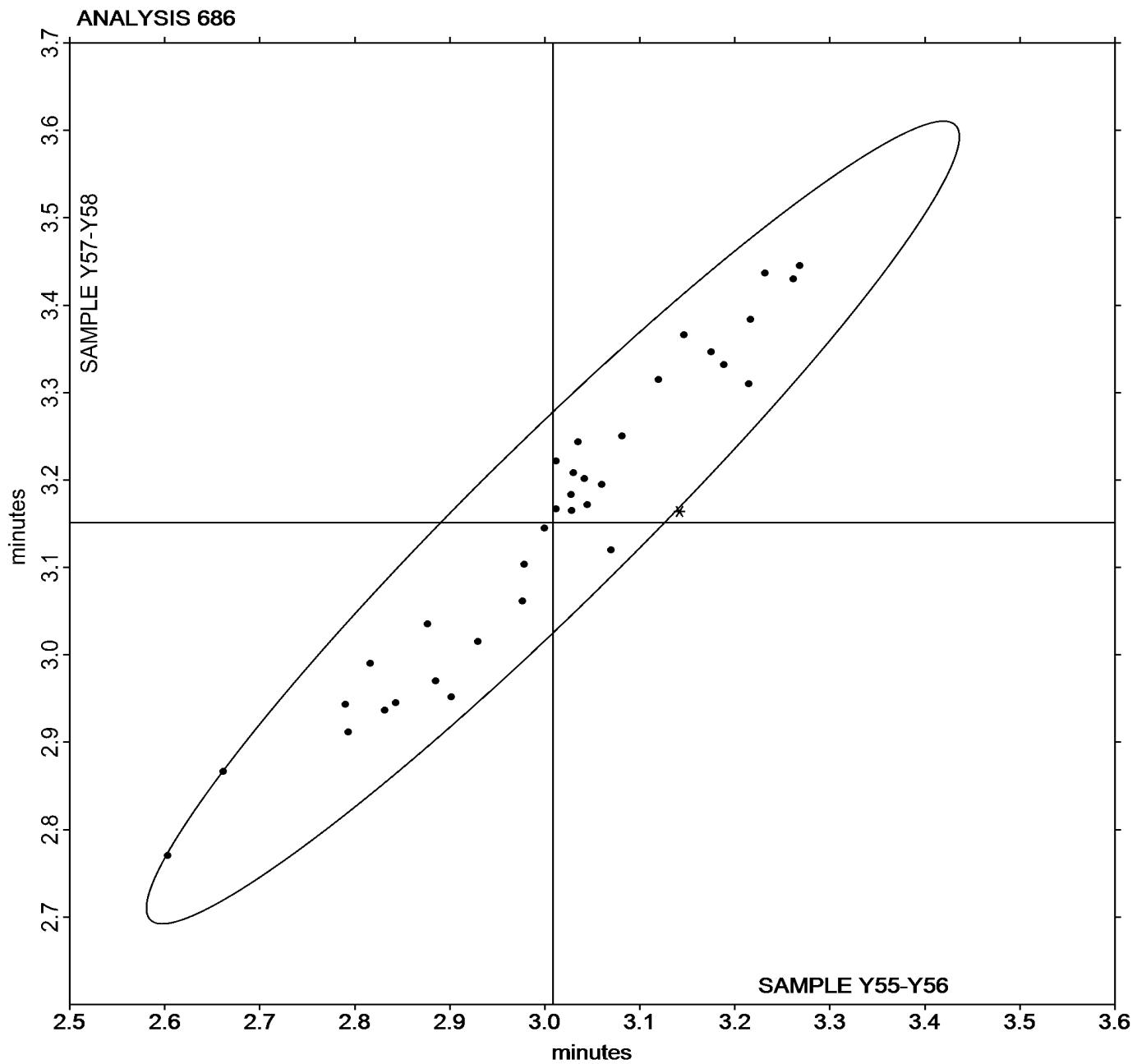
ANALYSIS 686

SAMPLE Y57-Y58

minutes

SAMPLE Y55-Y56

minutes

Rubber Interlaboratory Testing Program
Analysis 687
MDR Vulcanization-Cure Time 90% (minutes)

| WebCode | Data Flag | Sample Y55 | | | Sample Y56 | | | Instr Code |
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
67UF9F		6.157	-0.153	-0.65	6.452	0.055	0.22	MC
6FWTXU		6.063	-0.247	-1.05	6.098	-0.298	-1.21	MC
6LTZJC		6.367	0.057	0.24	6.405	0.009	0.04	MD
6VQDCW	*	6.060	-0.250	-1.06	5.883	-0.513	-2.08	MP
7XUJDN		6.458	0.148	0.63	6.535	0.139	0.56	MC
8CQZ3M		6.538	0.228	0.97	6.567	0.170	0.69	MC
8LUDYG		6.780	0.470	2.00	6.825	0.429	1.74	MC
B43KGE		6.328	0.018	0.08	6.460	0.064	0.26	MC
CBGN2L		6.247	-0.063	-0.27	6.197	-0.200	-0.81	XX
CNLZGL		6.431	0.121	0.51	6.635	0.238	0.97	MC
DWVRJN		6.255	-0.055	-0.23	6.253	-0.143	-0.58	MD
GP7BJA		6.617	0.307	1.30	6.710	0.314	1.27	MC
H6EC44		6.507	0.197	0.84	6.652	0.255	1.03	MC
J4TEUB		6.417	0.107	0.45	6.550	0.154	0.62	MC
JWZYDJ		6.463	0.153	0.65	6.548	0.152	0.62	MC
JYZCQB		6.152	-0.158	-0.67	6.348	-0.048	-0.19	MC
LRUGK9		6.155	-0.155	-0.66	6.220	-0.176	-0.71	MC
MH2JG7		6.189	-0.121	-0.51	6.300	-0.096	-0.39	MC
MZ42RB		6.255	-0.055	-0.23	6.415	0.019	0.08	MC
NV4AWJ		6.533	0.223	0.95	6.700	0.304	1.23	MC
P3MVGA		6.268	-0.042	-0.18	6.360	-0.036	-0.15	MC
QT9F48		6.065	-0.245	-1.04	6.163	-0.233	-0.94	MC
R66PJT		6.042	-0.268	-1.14	6.133	-0.263	-1.06	MC
RPPVH4		6.313	0.003	0.01	6.387	-0.010	-0.04	MP
RUHVWY	X	5.305	-1.005	-4.27	5.410	-0.986	-3.99	MD
TNAUBV		6.372	0.062	0.26	6.515	0.119	0.48	MC
UKNDA2		6.475	0.165	0.70	6.387	-0.010	-0.04	MC
V9THXR		6.513	0.203	0.86	6.710	0.314	1.27	MC
VHB4WU		5.920	-0.390	-1.65	5.990	-0.406	-1.64	XX
WNFFDR		5.830	-0.480	-2.04	5.897	-0.500	-2.02	XX
WWU2LV		6.535	0.225	0.96	6.648	0.252	1.02	MC
XTKKHW		5.846	-0.464	-1.97	6.020	-0.376	-1.52	MC
XXFCPU		6.688	0.378	1.61	6.573	0.177	0.72	MC
YTNFMN		6.548	0.238	1.01	6.640	0.244	0.99	MD
YVPK2U		6.150	-0.160	-0.68	6.293	-0.103	-0.42	TP

Rubber Interlaboratory Testing Program
Analysis 687
MDR Vulcanization-Cure Time 90% (minutes)

Summary Statistics	
Grand Means	
6.3099 minutes	6.3962 minutes
Stnd Dev Btwn Labs	
0.2356 minutes	0.2469 minutes
	Statistics based on 34 of 35 reporting participants

Samples Y55-Y56: EPDM compound, batch #1 & Y57-Y58: EPDM compound, batch #2

Comments on assigned Data Flags for Test #687

RUHVWY (X) - Data for all Samples are low. Possible systematic error.

Rubber Interlaboratory Testing Program
Analysis 687
MDR Vulcanization-Cure Time 90% (minutes)

Grand Mean Sample **Y55** = 6.3099 minutes

Grand Mean Sample **Y56** = 6.3962 minutes
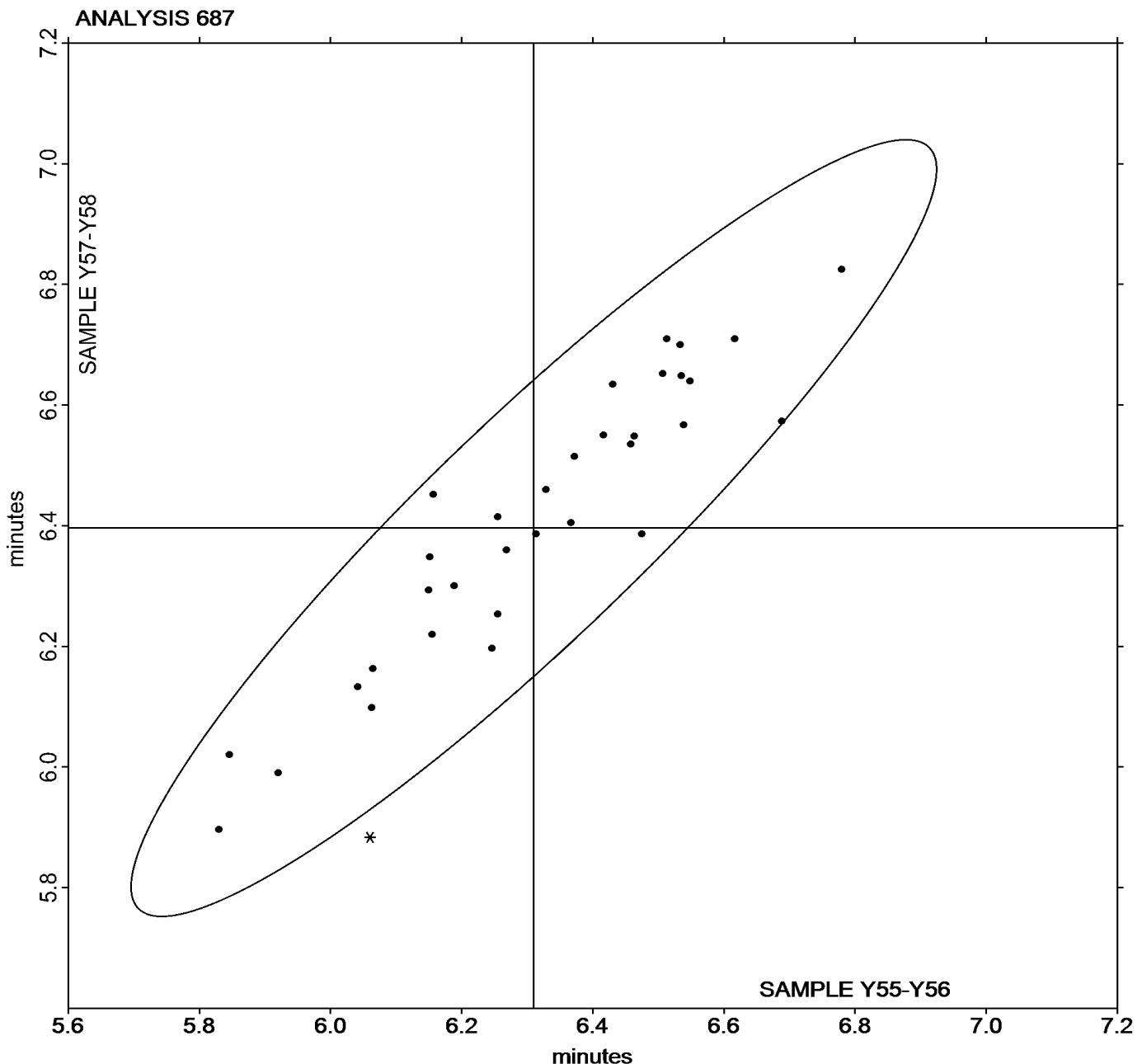
Rubber Interlaboratory Testing Program
Analysis 688
MDR Vulcanization: Minimum Torque (lbf.in)

WebCode	Data Flag	Sample Y55			Sample Y56			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
67UF9F		2.325	-0.139	-0.72	2.070	-0.121	-0.79	MC
6FWTXU		2.932	0.468	2.43	2.542	0.351	2.28	MC
6LTZJC		2.440	-0.024	-0.12	2.134	-0.057	-0.37	MD
6VQDCW		2.583	0.119	0.62	2.269	0.078	0.51	MP
7XUJDN		2.363	-0.100	-0.52	2.140	-0.051	-0.33	MC
8CQZ3M	*	2.885	0.421	2.19	2.580	0.389	2.53	MC
8LUDYG		2.322	-0.142	-0.74	2.125	-0.066	-0.43	MC
B43KGE		2.377	-0.087	-0.45	2.135	-0.056	-0.36	MC
CBGN2L		2.670	0.206	1.07	2.303	0.112	0.73	XX
CNLZGL		2.227	-0.236	-1.23	2.053	-0.138	-0.90	MC
DWVRJN		2.138	-0.326	-1.70	1.876	-0.315	-2.05	MD
GP7BJA		2.244	-0.220	-1.14	2.039	-0.152	-0.99	MC
H6EC44		2.437	-0.027	-0.14	2.180	-0.011	-0.07	MC
J4TEUB		2.585	0.121	0.63	2.263	0.072	0.47	MC
JWZYDJ		2.527	0.063	0.33	2.245	0.054	0.35	MC
JYZCQB		2.430	-0.034	-0.18	2.177	-0.014	-0.09	MC
LRUGK9		2.430	-0.034	-0.18	2.187	-0.004	-0.03	MC
MH2JG7		2.613	0.150	0.78	2.258	0.067	0.44	MC
MZ42RB		2.341	-0.123	-0.64	2.093	-0.098	-0.64	MC
NV4AWJ		2.280	-0.184	-0.96	2.077	-0.114	-0.74	MC
P3MVGA		2.805	0.341	1.78	2.487	0.296	1.93	MC
QT9F48		2.702	0.238	1.24	2.352	0.161	1.05	MC
R66PJT		2.437	-0.027	-0.14	2.152	-0.039	-0.26	MC
RPPVH4		2.463	0.000	0.00	2.253	0.062	0.40	MP
RUHVWY		2.436	-0.028	-0.15	2.158	-0.033	-0.21	MD
TNAUBV		2.328	-0.135	-0.70	2.058	-0.133	-0.86	MC
UKNDA2	X	3.328	0.865	4.50	2.940	0.749	4.88	MC
V9THXR		2.337	-0.127	-0.66	2.118	-0.073	-0.47	MC
VHB4WU		2.582	0.118	0.61	2.263	0.072	0.47	XX
WNFFDR		2.507	0.043	0.22	2.172	-0.019	-0.13	XX
WWU2LV	*	2.195	-0.269	-1.40	1.895	-0.296	-1.93	MC
XTKKHW		2.642	0.178	0.93	2.292	0.101	0.66	MC
XXFCPU	X	3.293	0.830	4.32	3.008	0.817	5.32	MC
YTNFMN		2.458	-0.006	-0.03	2.250	0.059	0.38	MD
YVPK2U		2.265	-0.199	-1.03	2.105	-0.086	-0.56	TP

Rubber Interlaboratory Testing Program
Analysis 688

MDR Vulcanization: Minimum Torque (lbf.in)

Summary Statistics

Grand Means

 2.4637 lbf.in   2.1909 lbf.in

Stnd Dev Btwn Labs

 0.1923 lbf.in   0.1536 lbf.in

Statistics based on 33 of 35 reporting participants

Summary Statistics in SI Units

Grand Means

 2.7836 dN.m   2.4754 dN.m

Stnd Dev Btwn Labs

 0.2172 dN.m   0.1735 dN.m

Statistics based on 33 of 35 reporting participants

Samples Y55-Y56: EPDM compound, batch #1 & Y57-Y58: EPDM compound, batch #2

Comments on assigned Data Flags for Test #688

UKNDA2 (X) - Data for all Samples are high.

XXFCPU (X) - Data for all Samples are high. Inconsistency in testing within both Sample groups.

Rubber Interlaboratory Testing Program
Analysis 688
MDR Vulcanization: Minimum Torque (lbf.in)

Grand Mean Sample **Y55** = 2.4637 lbf.in

Grand Mean Sample **Y56** = 2.1909 lbf.in
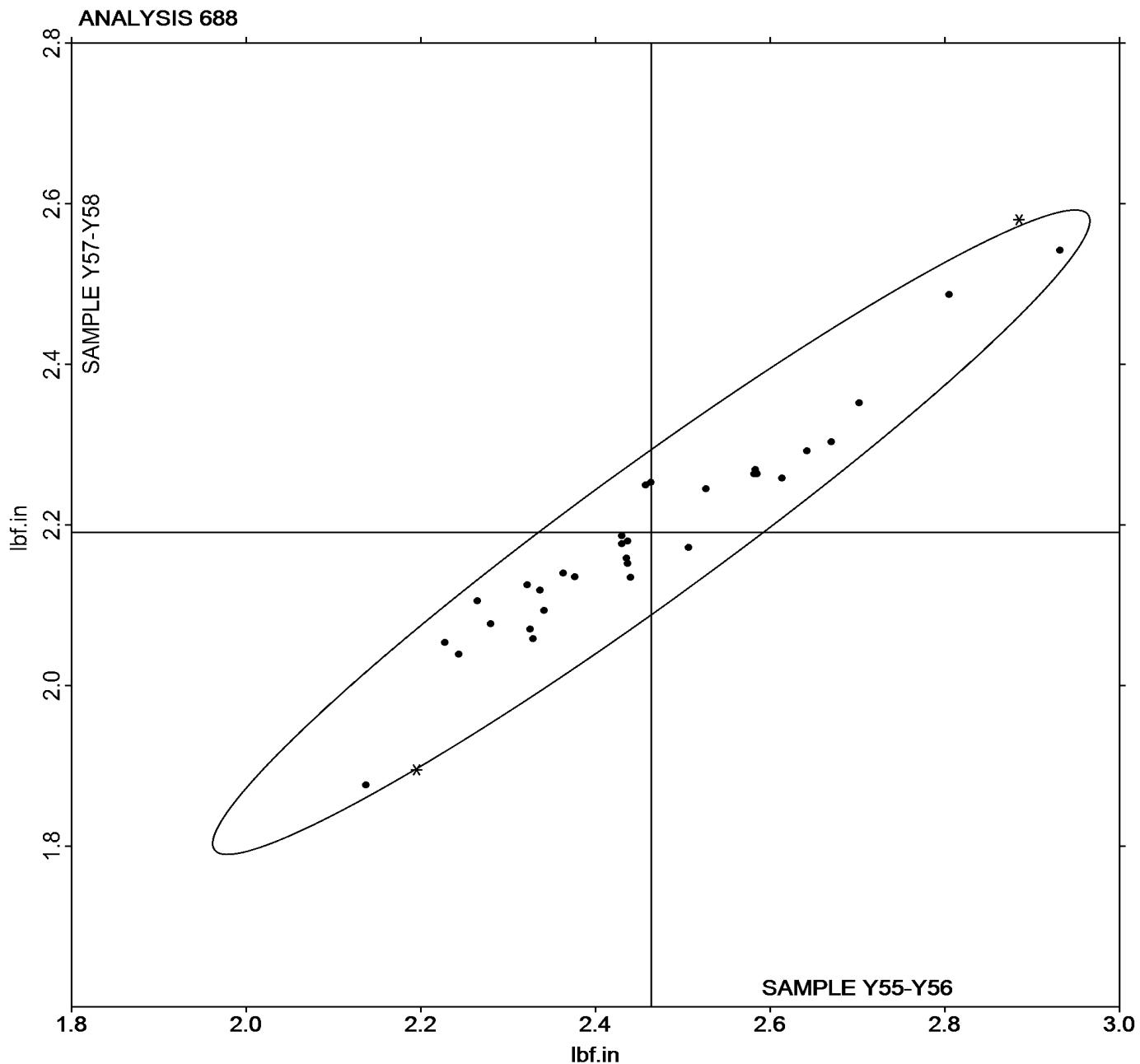
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SAMPLE Y57-Y58

lbf.in

SAMPLE Y55-Y56

lbf.in

Rubber Interlaboratory Testing Program
Analysis 689
MDR Vulcanization: Maximum Torque (lbf.in)

WebCode	Data Flag	Sample Y55			Sample Y56			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
67UF9F		14.34	-0.77	-0.77	15.14	-0.38	-0.38	MC
6FWTXU		16.69	1.59	1.59	17.02	1.51	1.52	MC
6LTZJC		14.20	-0.91	-0.91	14.51	-1.01	-1.02	MD
6VQDCW	*	17.27	2.16	2.17	17.15	1.63	1.64	XX
7XUJDN		15.31	0.21	0.21	15.37	-0.14	-0.14	MC
8CQZ3M		14.52	-0.59	-0.59	15.06	-0.45	-0.46	MC
8LUDYG		15.56	0.46	0.46	15.68	0.16	0.16	MC
B43KGE		15.08	-0.03	-0.03	15.65	0.14	0.14	MC
CBGN2L		14.19	-0.92	-0.92	14.39	-1.13	-1.14	XX
CNLZGL		15.46	0.36	0.36	15.95	0.44	0.44	MC
DWVRJN		14.44	-0.66	-0.66	14.70	-0.81	-0.82	MD
GP7BJA		15.28	0.17	0.17	15.73	0.22	0.22	MC
H6EC44		15.21	0.10	0.11	15.91	0.40	0.40	MC
J4TEUB		14.98	-0.13	-0.13	15.46	-0.06	-0.06	MC
JWZYDJ		16.29	1.18	1.18	16.89	1.37	1.38	MC
JYZCQB		14.87	-0.24	-0.24	15.33	-0.19	-0.19	MC
LRUGK9		14.97	-0.14	-0.14	15.78	0.27	0.27	MC
MH2JG7		15.12	0.02	0.02	15.33	-0.19	-0.19	MC
MZ42RB		14.43	-0.67	-0.67	15.02	-0.49	-0.50	MC
NV4AWJ		15.10	-0.01	-0.01	16.07	0.55	0.55	MC
P3MVGA		16.54	1.43	1.44	16.97	1.46	1.47	MC
QT9F48		14.51	-0.60	-0.60	15.20	-0.32	-0.32	MC
R66PJT		14.27	-0.84	-0.84	14.55	-0.97	-0.98	MC
RPPVH4		15.58	0.48	0.48	15.67	0.16	0.16	MP
RUHVWY		16.25	1.15	1.15	16.88	1.37	1.38	MD
TNAUBV		13.62	-1.49	-1.49	14.01	-1.51	-1.52	MC
UKNDA2		14.60	-0.51	-0.51	14.63	-0.88	-0.89	MC
V9THXR		15.23	0.12	0.12	16.24	0.72	0.73	MC
VHB4WU	*	17.84	2.73	2.74	17.97	2.45	2.47	XX
WNFFDR		14.85	-0.26	-0.26	14.94	-0.58	-0.58	XX
WWU2LV	X	11.09	-4.02	-4.03	11.18	-4.34	-4.38	MC
XTKKHW	X	14.52	-0.58	-0.58	13.74	-1.78	-1.80	MC
XXFCPU		14.47	-0.64	-0.64	14.93	-0.58	-0.59	MC
YTNFMN		14.07	-1.04	-1.04	14.05	-1.47	-1.48	MD
YVPK2U		13.37	-1.74	-1.75	13.86	-1.66	-1.67	TP

Rubber Interlaboratory Testing Program
Analysis 689
MDR Vulcanization: Maximum Torque (lbf.in)

Summary Statistics

Grand Means

15.105 lbf.in   15.516 lbf.in

Stnd Dev Btwn Labs

0.997 lbf.in   0.992 lbf.in

Statistics based on 33 of 35 reporting participants

Summary Statistics in SI Units

Grand Means

17.067 dN.m   17.531 dN.m

Stnd Dev Btwn Labs

1.126 dN.m   1.120 dN.m

Statistics based on 33 of 35 reporting participants

Samples Y55-Y56: EPDM compound, batch #1 & Y57-Y58: EPDM compound, batch #2

Comments on assigned Data Flags for Test #689

WWU2LV (X) - Data for all Samples are low. Possible systematic error.

XTKKHW (X) - Inconsistency in testing between Sample groups.

Rubber Interlaboratory Testing Program
Analysis 689

MDR Vulcanization: Maximum Torque (lbf.in)

Grand Mean Sample **Y55** = 15.105 lbf.in   Grand Mean Sample **Y56** = 15.516 lbf.in

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SAMPLE Y57-Y58

lbf.in

SAMPLE Y55-Y56

lbf.in