Collaborative Testing Services, Inc.

Rubber Interlaboratory Testing Program

Summary Report #215- 1st Qtr 2023

About the Rubber Program, About CTS

Key for Web Summary Report

Analysis	Analysis Name
605	Tensile Strength: Precured Rubber Samples
606	Ultimate Elongation: Precured Rubber Samples
607	Stress at 300% Elongation: Precured Samples
608	Stress at 100% Elongation: Precured Samples
620	Hardness (Type A): Precured Rubber Samples
621	Density: Precured Rubber Samples @ 25C
625	Hardness (Shore D/Type D)
630	Tensile Strength: Participant-Cured Rubber
631	Ultimate Elongation: Participant-Cured Samples
632	Tensile Stress at 300% Elongation: Lab-Cured
633	Tensile Stress at 100% Elongation: Lab-Cured
635	Compression Set
640	O-Ring Tensile Strength at Break
641	O-Ring Ultimate Elongation
642	O-Ring Stress at 100% Elongation
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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.

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Key for Web Summary Report (Page 1 of 2)

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.

WebCode	Data Flag	Sample A31-A32 Lab Mean	Diff from Grand Mean	CPV	Sample A33-A34 Lab Mean	Diff from Grand Mean	CPV
26GK4B		3,350.5	198.0	1.05	3,282.0	156.0	0.86
2DAVE7		3,067.5	-85.0	-0.45	3,185.5	59.5	0.33
2FXA2V		3,150.5	-2.0	-0.01	3,332.5	206.5	1.14
2H6KYK		3,118.5	-34.0	-0.18	3,231.0	105.0	0.58
2LMM3J		2,811.6	-341.0	-1.82	2,821.0	-305.0	-1.68
2P49CH		3,134.0	-18.5	-0.10	3,042.0	-84.0	-0.46
2PNN7M		2,765.5	-387.0	-2.06	2,855.0	-271.0	-1.49
2TF47U		2,910.0	-242.5	-1.29	2,885.0	-241.0	-1.33
338W2Q		3,211.9	59.4	0.32	3,215.5	89.5	0.49
34GYRV		3,119.5	-33.0	-0.18	3,095.0	-31.0	-0.17
3V7MQR		3,082.1	-70.4	-0.37	3,016.8	-109.2	-0.60
48TAFJ		3,270.0	117.5	0.63	3,266.5	140.5	0.77
4V3HRA		3,453.0	300.4	1.60	3,317.7	191.6	1.06
6CMKRA		3,081.0	-71.5	-0.38	3,082.0	-44.0	-0.24
6DH4VW		2,986.3	-166.3	-0.89	2,981.6	-144.4	-0.80
6UMDXH		3,200.3	47.8	0.25	3,058.1	-67.9	-0.37
7JHQKB		3,321.4	168.9	0.90	3,364.9	238.9	1.32
7RBZQZ		3,054.5	-98.0	-0.52	2,988.5	-137.5	-0.76
8B3LMB	M	2,919.9	-232.6	-1.24	2,758.0	-368.1	-2.03
8FHUCV		3,340.0	187.5	1.00	3,193.5	67.5	0.37
8JEM7Q		3,193.0	40.5	0.22	3,111.1	-14.9	-0.08
8V94QL		2,828.3	-324.3	-1.73	2,784.7	-341.3	-1.88
9BFHRF		2,951.5	-201.0	-1.07	2,894.3	-231.8	-1.28
ABXQGA		3,010.0	-142.5	-0.76	2,985.0	-141.0	-0.78
B6NRHP		3,320.0	167.5	0.89	3,236.0	110.0	0.61
B7YT6N		3,295.5	143.0	0.76	3,183.5	57.5	0.32
B9ZYG9		3,451.0	298.5	1.59	3,325.0	199.0	1.10
BKGNFE		3,204.5	52.0	0.28	3,132.0	6.0	0.03
CCD7E8		3,270.6	118.1	0.63	3,285.1	159.1	0.88
DWH4B9		3,398.5	246.0	1.31	3,347.5	221.5	1.22
ECVMTZ		3,229.9	77.3	0.41	3,385.1	259.1	1.43
FBWYRG		3,129.2	-23.3	-0.12	3,080.6	-45.4	-0.25
G98R8J		3,392.0	239.5	1.27	3,294.0	168.0	0.93
GNWZ4H		2,931.5	-221.0	-1.18	3,147.5	21.5	0.12
HMYCYR		3,256.8	104.3	0.56	3,286.0	159.9	0.88
J3NQP6		3,050.0	-102.5	-0.55	2,885.0	-241.0	-1.33
JBHVJ7		3,094.0	-58.5	-0.31	3,092.5	-33.5	-0.18
KJUCQ7		2,731.1	-421.4	-2.24	2,887.7	-238.3	-1.31

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WebCode	Data Flag	Sample A31-A32 Lab Mean	Diff from Grand Mean	CPV	Sample A33-A34 Lab Mean	Diff from Grand Mean	CPV
KLJPF4		2,958.8	-193.7	-1.03	3,016.8	-109.2	-0.60
L8DVL7		3,093.0	-59.5	-0.32	2,920.5	-205.5	-1.13
L9NX86		3,298.5	146.0	0.78	3,224.0	98.0	0.54
LCRDYG		3,176.4	23.8	0.13	3,078.5	-47.6	-0.26
LDZPEW		3,270.5	118.0	0.63	3,223.5	97.5	0.54
LG6BBA		3,367.1	214.6	1.14	3,288.0	162.0	0.89
LXMGFE	*	3,582.0	429.4	2.29	3,631.1	505.1	2.78
M244NR		3,495.5	343.0	1.83	3,314.0	188.0	1.04
M62MN6		3,169.1	16.6	0.09	3,008.2	-117.8	-0.65
MGJZC2		3,295.5	143.0	0.76	3,268.5	142.5	0.79
MJ3CQX		2,896.5	-256.0	-1.36	2,830.0	-296.0	-1.63
MNZKB8	*	3,085.5	-67.0	-0.36	2,806.0	-320.0	-1.76
N6FDAV		3,170.6	18.1	0.10	3,337.2	211.2	1.16
NNCUFD		3,323.5	171.0	0.91	3,166.0	40.0	0.22
NYV9L2		3,054.5	-98.0	-0.52	3,082.8	-43.2	-0.24
P2XNAH		3,130.0	-22.5	-0.12	3,150.0	24.0	0.13
PR77VA	*	2,623.8	-528.7	-2.81	2,740.0	-386.0	-2.13
PXECVM		3,390.3	237.8	1.27	3,367.1	241.1	1.33
PY96MY	*	3,455.0	302.5	1.61	3,140.0	14.0	0.08
Q38TKL		3,055.0	-97.5	-0.52	3,250.0	124.0	0.68
QCWJ8D		3,074.8	-77.7	-0.41	3,125.6	-0.4	0.00
R7XR9F		3,135.0	-17.5	-0.09	3,300.0	174.0	0.96
RGX3XP		3,169.8	17.3	0.09	3,099.5	-26.5	-0.15
RWXY2A		2,989.3	-163.3	-0.87	3,021.9	-104.1	-0.57
RYZ2PQ		3,113.5	-39.0	-0.21	3,063.0	-63.0	-0.35
TDHA43		3,348.0	195.5	1.04	3,352.5	226.5	1.25
TRDDNT	X	294.9	-2,857.6	-15.21	301.7	-2,824.3	-15.57
TZCYUU		3,187.2	34.7	0.18	3,251.8	125.8	0.69
WP3LAW		2,994.5	-158.0	-0.84	2,872.5	-253.5	-1.40
XC9NNP		3,232.5	80.0	0.43	3,072.0	-54.0	-0.30
XF9YFH		2,992.0	-160.5	-0.85	2,927.0	-199.0	-1.10
XJ7HDA		3,314.6	162.0	0.86	3,275.8	149.7	0.83
YTQ64Q		3,214.5	62.0	0.33	3,182.5	56.5	0.31
YXL2QW		2,939.5	-213.0	-1.13	2,845.0	-281.0	-1.55
ZF42HR		3,182.3	29.8	0.16	3,323.6	197.5	1.09
ZJ4BQ9		3,037.2	-115.3	-0.61	2,961.2	-164.9	-0.91
ZZPV48	X	2,580.0	-572.5	-3.05	2,830.0	-296.0	-1.63

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Summary Statistics

Grand Means	3,152.51 psi	3,126.01 psi
Stnd Dev Btwn Labs	187.86 psi	181.38 psi

Statistics based on 72 of 75 reporting participants

Summary Statistics in SI Units

Grand Means	21.736 MPa	21.550 MPa
Stnd Dev Btwn Labs	1.295 MPa	1.250 MPa

Statistics based on 72 of 75 reporting participants

Samples A31-A32: Polyisoprene compound, batch #1 & A33-A34: Polyisoprene compound, batch #2

Comments on Assigned Data Flags for Test #605

8B3LMB (M) - Missing data for sample A31.

TRDDNT (X) - Extreme Data.

ZZPV48 (X) - Data for sample group A31-A32 are low.

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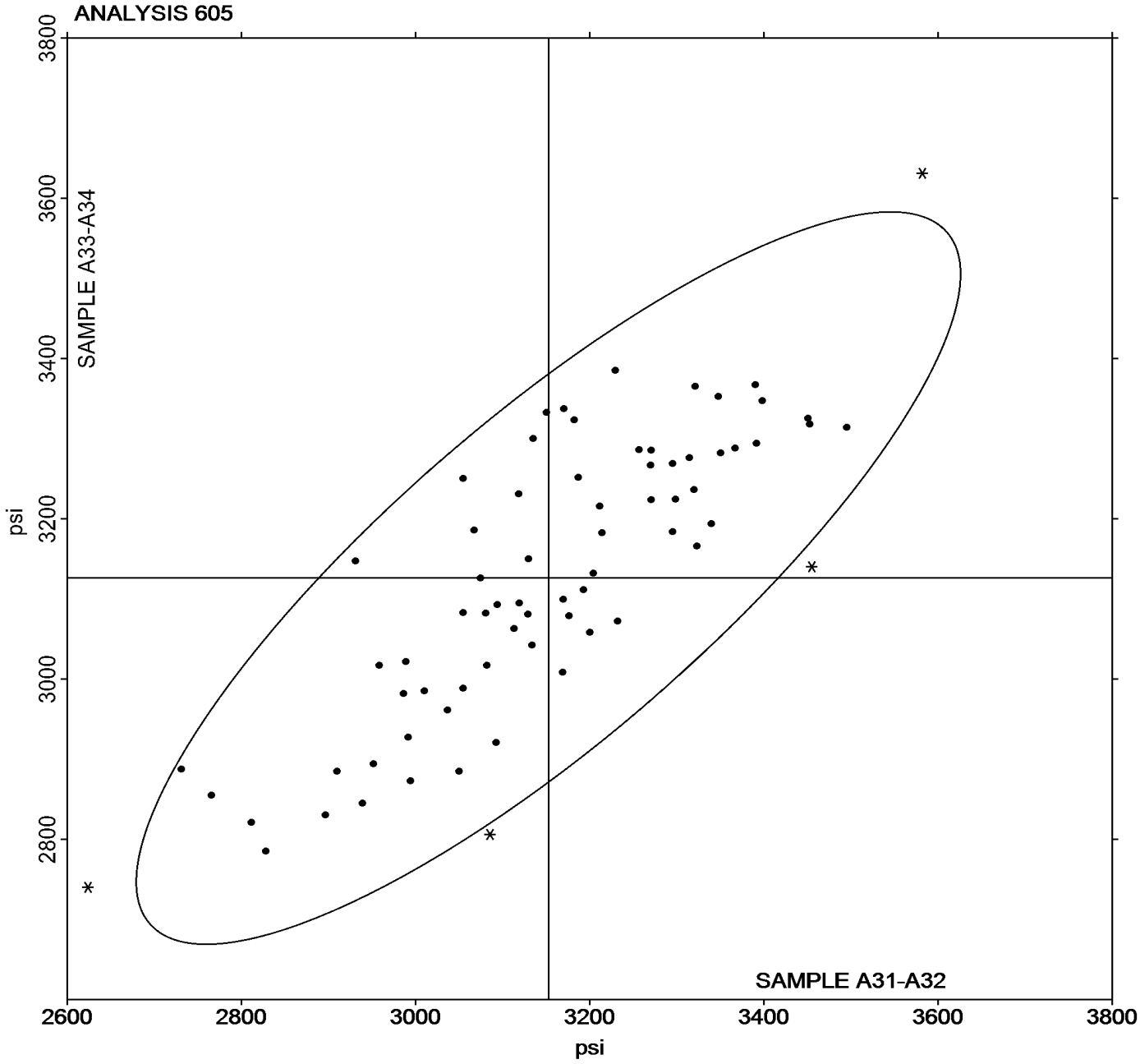
Grand Mean Sample **A31-A32** = 3,152.51 psi

Grand Mean Sample **A33-A34** = 3,126.01 psi



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WebCode	Data Flag	Sample A31-A32 Lab Mean	Diff from Grand Mean	CPV	Sample A33-A34 Lab Mean	Diff from Grand Mean	CPV
26GK4B		683.0	51.0	1.89	669.5	37.3	1.26
2DAVE7		638.0	6.0	0.22	641.5	9.3	0.32
2FXA2V		623.0	-9.0	-0.33	637.0	4.8	0.16
2H6KYK		591.0	-41.0	-1.52	606.5	-25.7	-0.87
2LMM3J		638.4	6.4	0.24	655.5	23.3	0.79
2P49CH		622.5	-9.5	-0.35	609.0	-23.2	-0.78
2PNN7M		621.5	-10.5	-0.39	645.5	13.3	0.45
2TF47U		567.5	-64.5	-2.39	572.0	-60.2	-2.03
338W2Q		651.0	19.0	0.71	651.5	19.3	0.65
34GYRV		651.0	19.0	0.71	613.0	-19.2	-0.65
3V7MQR		643.3	11.3	0.42	650.8	18.6	0.63
48TAFJ		643.5	11.5	0.43	656.5	24.3	0.82
4V3HRA		648.2	16.2	0.60	637.9	5.7	0.19
6CMKRA		593.5	-38.5	-1.43	593.1	-39.1	-1.32
6DH4VW		647.5	15.5	0.58	650.0	17.8	0.60
6UMDXH		627.5	-4.5	-0.17	617.0	-15.2	-0.51
7JHQKB		684.4	52.5	1.94	662.6	30.5	1.03
7RBZQZ		659.5	27.5	1.02	676.5	44.3	1.50
8B3LMB	M	548.3	-83.7	-3.10	609.8	-22.4	-0.76
8FHUCV		622.0	-10.0	-0.37	631.5	-0.7	-0.02
8JEM7Q		636.0	4.0	0.15	627.0	-5.2	-0.17
8V94QL		630.0	-2.0	-0.07	637.5	5.3	0.18
9BFHRF		636.5	4.5	0.17	614.5	-17.7	-0.60
ABXQGA		614.0	-18.0	-0.67	609.5	-22.7	-0.77
B6NRHP		668.0	36.0	1.34	646.5	14.3	0.48
B7YT6N		656.5	24.5	0.91	644.0	11.8	0.40
B9ZYG9		672.5	40.5	1.50	652.5	20.3	0.69
BKGNFE		638.0	6.0	0.22	644.5	12.3	0.42
CCD7E8		608.0	-24.0	-0.89	623.5	-8.7	-0.29
DWH4B9	X	515.5	-116.5	-4.32	495.0	-137.2	-4.63
ECVMTZ		658.8	26.8	0.99	652.2	20.0	0.68
FBWYRG		638.4	6.4	0.24	656.7	24.5	0.83
G98R8J		634.5	2.5	0.09	665.5	33.3	1.13
GNWZ4H		628.0	-4.0	-0.15	642.0	9.8	0.33
HMYCYR	*	677.3	45.3	1.68	714.9	82.7	2.79
J3NQP6		583.0	-49.0	-1.82	596.0	-36.2	-1.22
JBHVJ7		593.0	-39.0	-1.44	585.5	-46.7	-1.58
KJUCQ7		569.3	-62.7	-2.32	570.7	-61.5	-2.08

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WebCode	Data Flag	Sample A31-A32 Lab Mean	Diff from Grand Mean	CPV	Sample A33-A34 Lab Mean	Diff from Grand Mean	CPV
KLJPF4		597.8	-34.2	-1.27	613.3	-18.9	-0.64
L8DVL7		612.0	-20.0	-0.74	584.0	-48.2	-1.63
L9NX86		637.5	5.5	0.21	638.5	6.3	0.21
LCRDYG		617.0	-15.0	-0.55	627.5	-4.7	-0.16
LDZPEW		688.0	56.0	2.08	694.0	61.8	2.09
LG6BBA		621.0	-11.0	-0.41	636.5	4.3	0.15
LXMGFE		608.4	-23.6	-0.87	596.3	-35.9	-1.21
M244NR		640.0	8.0	0.30	640.0	7.8	0.26
M62MN6		641.9	10.0	0.37	630.3	-1.8	-0.06
MGJZC2	X	738.0	106.0	3.93	732.5	100.3	3.39
MJ3CQX	*	676.0	44.0	1.63	706.5	74.3	2.51
MNZKB8		628.5	-3.5	-0.13	614.0	-18.2	-0.61
N6FDAV		615.7	-16.2	-0.60	584.1	-48.0	-1.62
NNCUFD		587.0	-45.0	-1.67	592.0	-40.2	-1.36
NYV9L2		625.0	-7.0	-0.26	600.5	-31.7	-1.07
P2XNAH		625.0	-7.0	-0.26	635.0	2.8	0.10
PR77VA		650.9	19.0	0.70	652.0	19.8	0.67
PXECVM		623.5	-8.5	-0.31	596.0	-36.2	-1.22
PY96MY		650.0	18.0	0.67	628.5	-3.7	-0.12
Q38TKL		588.0	-44.0	-1.63	599.5	-32.7	-1.10
QCWJ8D		649.8	17.8	0.66	642.9	10.7	0.36
R7XR9F		626.0	-6.0	-0.22	637.5	5.3	0.18
RGX3XP		644.3	12.3	0.46	671.0	38.8	1.31
RYZ2PQ		646.5	14.5	0.54	638.0	5.8	0.20
TDHA43		623.5	-8.5	-0.31	622.5	-9.7	-0.33
TRDDNT		626.0	-5.9	-0.22	647.9	15.7	0.53
TZCYUU		639.0	7.0	0.26	640.5	8.3	0.28
WP3LAW		629.0	-3.0	-0.11	631.5	-0.7	-0.02
XC9NNP		592.5	-39.5	-1.46	588.5	-43.7	-1.47
XF9YFH		621.5	-10.5	-0.39	599.5	-32.7	-1.10
XJ7HDA		623.1	-8.9	-0.33	622.2	-10.0	-0.34
YTQ64Q		631.0	-1.0	-0.04	644.0	11.8	0.40
YXL2QW		655.5	23.5	0.87	670.0	37.8	1.28
ZF42HR		602.0	-30.0	-1.11	614.3	-17.9	-0.60
ZJ4BQ9		638.8	6.8	0.25	623.7	-8.5	-0.29
ZZPV48	*	690.0	58.0	2.15	661.5	29.3	0.99

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Summary Statistics		
Grand Means	631.97 percent	632.16 percent
Stnd Dev Btwn Labs	26.97 percent	29.62 percent

Statistics based on 71 of 74 reporting participants

Samples A31-A32: Polyisoprene compound, batch #1 & A33-A34: Polyisoprene compound, batch #2

Comments on Assigned Data Flags for Test #606

8B3LMB (M) - Missing data for sample A31.

DWH4B9 (X) - Data for all samples are low. Possible Systematic Error. Inconsistent within the determinations of both sample groups.

MGJZC2 (X) - Data for all samples are high. Possible Systematic Error.

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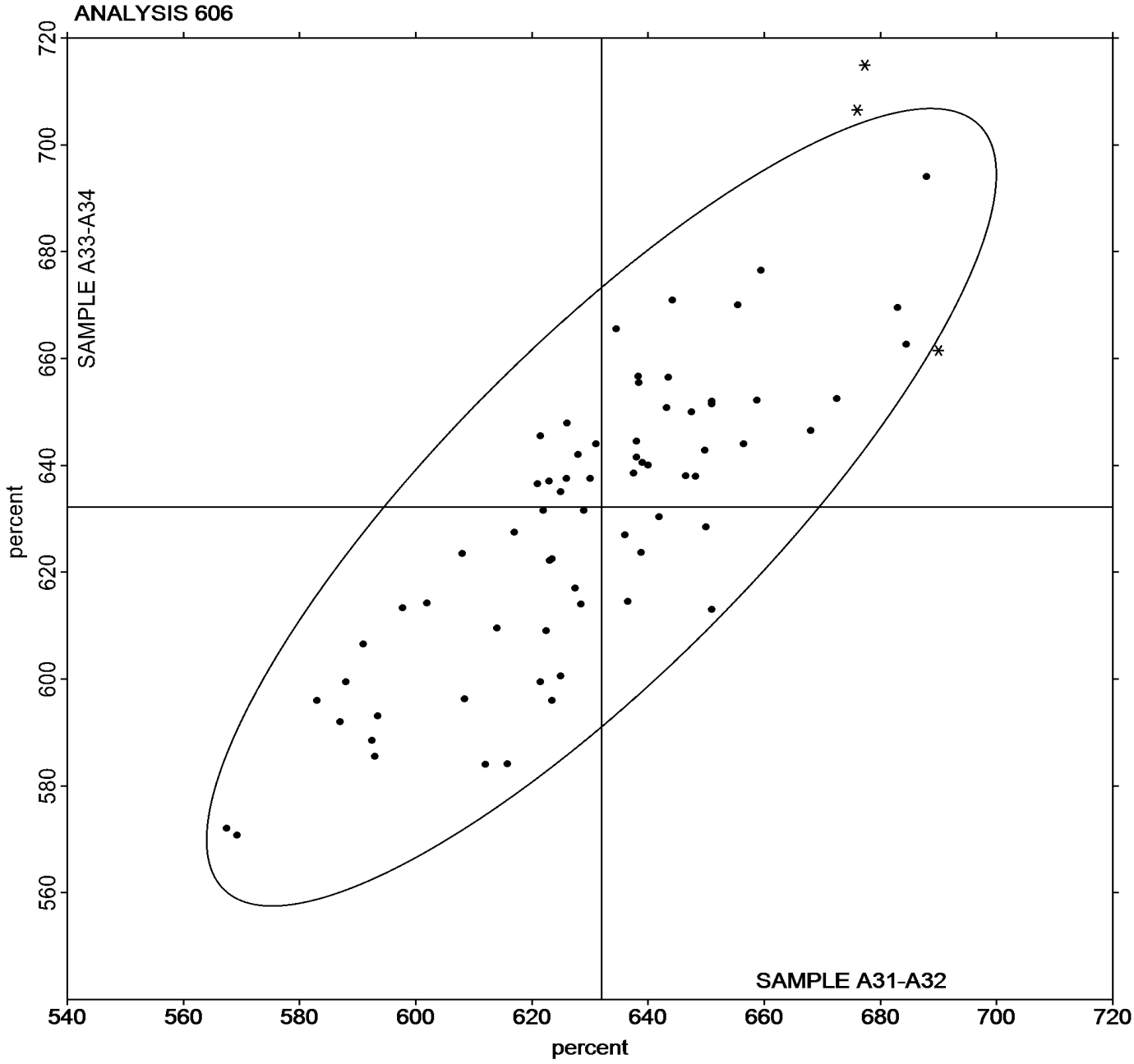
Grand Mean Sample **A31-A32** = 631.97 percent

Grand Mean Sample **A33-A34** = 632.16 percent



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WebCode	Data Flag	Sample A31-A32 Lab Mean	Diff from Grand Mean	CPV	Sample A33-A34 Lab Mean	Diff from Grand Mean	CPV
26GK4B		686.0	-166.3	-1.81	756.0	-91.0	-0.95
2DAVE7		817.5	-34.8	-0.38	812.0	-35.0	-0.36
2FXA2V		842.4	-9.9	-0.11	952.8	105.9	1.10
2H6KYK		967.0	114.7	1.25	955.5	108.5	1.13
2LMM3J		694.4	-157.9	-1.72	710.0	-137.0	-1.42
2P49CH		799.0	-53.3	-0.58	747.5	-99.5	-1.03
2PNN7M		774.0	-78.3	-0.85	762.5	-84.5	-0.88
2TF47U		963.0	110.7	1.20	917.5	70.5	0.73
338W2Q		873.9	21.5	0.23	880.4	33.4	0.35
34GYRV		768.0	-84.3	-0.92	892.5	45.5	0.47
3V7MQR		747.0	-105.4	-1.15	702.0	-145.0	-1.51
48TAFJ		897.0	44.7	0.49	837.5	-9.5	-0.10
4V3HRA		925.6	73.2	0.80	917.8	70.8	0.74
6CMKRA		1,008.9	156.5	1.70	990.4	143.4	1.49
6UMDXH		894.2	41.8	0.45	897.8	50.8	0.53
7JHQKB		755.7	-96.7	-1.05	791.9	-55.0	-0.57
7RBZQZ		802.8	-49.5	-0.54	733.2	-113.8	-1.18
8B3LMB	M	885.0	32.7	0.36	770.8	-76.2	-0.79
8JEM7Q		918.8	66.5	0.72	898.5	51.6	0.54
8V94QL		725.2	-127.1	-1.38	721.6	-125.4	-1.30
9BFHRF		812.2	-40.1	-0.44	890.5	43.6	0.45
ABXQGA		847.5	-4.8	-0.05	894.5	47.5	0.49
B6NRHP		845.5	-6.8	-0.07	861.0	14.0	0.15
B7YT6N		849.0	-3.3	-0.04	889.5	42.5	0.44
B9ZYG9		820.5	-31.8	-0.35	788.0	-59.0	-0.61
BKGNFE		908.5	56.2	0.61	863.5	16.5	0.17
CCD7E8		909.4	57.1	0.62	839.1	-7.9	-0.08
DWH4B9		961.0	108.7	1.18	1,012.0	165.0	1.71
ECVMTZ		818.0	-34.3	-0.37	912.5	65.5	0.68
FBWYRG		844.5	-7.8	-0.09	734.8	-112.1	-1.16
G98R8J	*	1,004.0	151.7	1.65	819.5	-27.5	-0.29
GNWZ4H		740.5	-111.8	-1.22	832.5	-14.5	-0.15
HMYCYR		799.7	-52.6	-0.57	835.8	-11.2	-0.12
J3NQP6		920.5	68.2	0.74	852.5	5.5	0.06
JBHVJ7		824.5	-27.8	-0.30	870.5	23.5	0.24
KJUCQ7		830.3	-22.0	-0.24	899.2	52.3	0.54
KLJPF4		889.1	36.8	0.40	812.9	-34.0	-0.35
L9NX86		903.0	50.7	0.55	839.0	-8.0	-0.08

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WebCode	Data Flag	Sample A31-A32 Lab Mean	Sample A31-A32 Diff from Grand Mean	Sample A31-A32 CPV	Sample A33-A34 Lab Mean	Sample A33-A34 Diff from Grand Mean	Sample A33-A34 CPV
LCRDYG		906.5	54.2	0.59	848.5	1.5	0.02
LDZPEW		727.5	-124.8	-1.36	691.5	-155.5	-1.62
LG6BBA		942.8	90.4	0.98	869.5	22.6	0.23
LXMGFE		973.7	121.4	1.32	1,058.7	211.7	2.20
M244NR		1,001.5	149.2	1.62	898.5	51.5	0.54
M62MN6		865.2	12.9	0.14	812.1	-34.9	-0.36
MGJZC2		737.0	-115.3	-1.25	699.5	-147.5	-1.53
MNZKB8		867.5	15.2	0.16	753.0	-94.0	-0.98
N6FDAV	*	929.9	77.6	0.84	1,064.1	217.1	2.26
NNCUFD	*	1,062.0	209.7	2.28	924.0	77.0	0.80
NYV9L2		804.2	-48.1	-0.52	897.8	50.8	0.53
P2XNAH		887.5	35.2	0.38	870.5	23.5	0.24
PR77VA		642.7	-209.6	-2.28	666.7	-180.3	-1.87
PXECVM		922.4	70.1	0.76	1,005.1	158.2	1.64
PY96MY		895.3	42.9	0.47	827.0	-20.0	-0.21
Q38TKL		875.0	22.7	0.25	975.5	128.5	1.34
QCWJ8D		764.4	-88.0	-0.96	810.8	-36.2	-0.38
R7XR9F		801.8	-50.6	-0.55	926.9	79.9	0.83
RGX3XP		818.7	-33.6	-0.37	760.7	-86.2	-0.90
RYZ2PQ		749.0	-103.3	-1.12	754.5	-92.5	-0.96
TDHA43		949.2	96.9	1.05	982.9	136.0	1.41
TRDDNT	X	85.2	-767.2	-8.34	80.8	-766.1	-7.96
TZCYUU		865.2	12.8	0.14	844.1	-2.8	-0.03
WP3LAW		749.0	-103.3	-1.12	733.0	-114.0	-1.18
XC9NNP		964.0	111.7	1.21	880.5	33.5	0.35
XF9YFH		712.0	-140.3	-1.53	769.5	-77.5	-0.80
XJ7HDA		981.0	128.6	1.40	945.6	98.6	1.03
YTQ64Q		886.0	33.7	0.37	795.0	-52.0	-0.54
YXL2QW		748.0	-104.3	-1.13	666.0	-181.0	-1.88
ZF42HR		997.9	145.6	1.58	1,024.8	177.8	1.85
ZJ4BQ9		819.1	-33.2	-0.36	828.7	-18.3	-0.19
ZZPV48		724.8	-127.5	-1.39	683.3	-163.6	-1.70

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Summary Statistics		
Grand Means	852.33 psi	846.95 psi
Stnd Dev Btwn Labs	91.99 psi	96.24 psi
		Statistics based on 68 of 70 reporting participants

Summary Statistics in SI Units		
Grand Means	5.8766 MPa	5.8400 MPa
Stnd Dev Btwn Labs	0.6342 MPa	0.6600 MPa
		Statistics based on 68 of 70 reporting participants

Samples A31-A32: Polyisoprene compound, batch #1 & A33-A34: Polyisoprene compound, batch #2

Comments on Assigned Data Flags for Test #607

8B3LMB (M) - Missing data for sample A31.

TRDDNT (X) - Extreme data.

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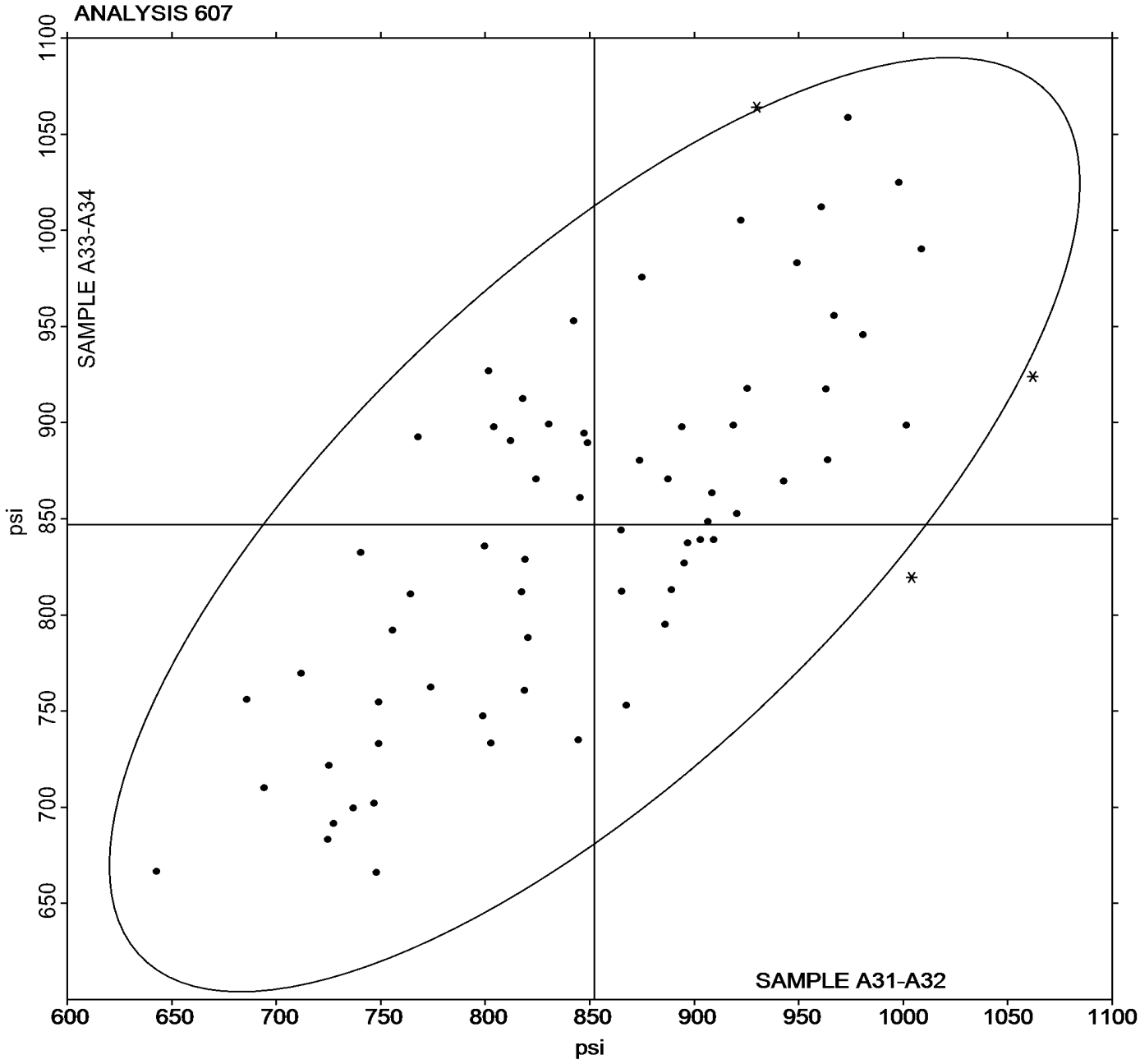
Grand Mean Sample **A31-A32** = 852.33 psi

Grand Mean Sample **A33-A34** = 846.95 psi



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WebCode	Data Flag	Sample A31-A32 Lab Mean	Diff from Grand Mean	CPV	Sample A33-A34 Lab Mean	Diff from Grand Mean	CPV
26GK4B		158.5	-22.9	-1.28	166.5	-16.2	-0.86
2DAVE7		176.0	-5.4	-0.30	170.5	-12.2	-0.65
2FXA2V	*	194.5	13.1	0.73	231.5	48.8	2.59
2H6KYK		189.0	7.6	0.42	190.0	7.3	0.39
2LMM3J		150.7	-30.7	-1.71	151.8	-30.9	-1.64
2P49CH		170.5	-10.9	-0.61	160.5	-22.2	-1.18
2TF47U		183.5	2.1	0.12	188.5	5.8	0.31
338W2Q		194.4	13.0	0.72	191.5	8.8	0.47
34GYRV		166.5	-14.9	-0.83	187.5	4.8	0.26
3V7MQR		160.3	-21.1	-1.18	155.9	-26.7	-1.42
48TAFJ		179.5	-1.9	-0.10	175.5	-7.2	-0.38
4V3HRA		199.3	17.9	1.00	194.5	11.8	0.63
6CMKRA		202.5	21.1	1.18	196.0	13.3	0.71
6UMDXH		184.9	3.5	0.20	194.4	11.7	0.62
7JHQKB		161.0	-20.4	-1.14	184.2	1.5	0.08
7RBZQZ		184.2	2.8	0.16	172.6	-10.1	-0.53
8B3LMB	M	187.0	5.6	0.31	163.0	-19.7	-1.04
8FHUCV		196.5	15.1	0.84	178.5	-4.2	-0.22
8JEM7Q		183.5	2.1	0.12	182.0	-0.6	-0.03
8V94QL		165.3	-16.0	-0.89	164.6	-18.0	-0.96
9BFHRF		169.7	-11.7	-0.65	194.4	11.7	0.62
ABXQGA		174.5	-6.9	-0.38	187.0	4.3	0.23
B6NRHP		178.0	-3.4	-0.19	186.5	3.8	0.20
B7YT6N		183.5	2.1	0.12	200.0	17.3	0.92
B9ZYG9		179.5	-1.9	-0.10	172.0	-10.7	-0.57
BKGNFE		198.0	16.6	0.93	214.5	31.8	1.69
CCD7E8		181.3	-0.1	0.00	169.0	-13.7	-0.73
DWH4B9	*	231.5	50.1	2.79	238.5	55.8	2.96
ECVMTZ		174.3	-7.1	-0.39	204.8	22.1	1.17
FBWYRG		184.6	3.2	0.18	166.1	-16.5	-0.88
G98R8J		220.5	39.1	2.18	193.0	10.3	0.55
GNWZ4H		161.0	-20.4	-1.14	175.0	-7.7	-0.41
HMYCYR		159.4	-21.9	-1.22	169.7	-13.0	-0.69
J3NQP6		165.5	-15.9	-0.89	179.0	-3.7	-0.19
JBHVJ7		181.5	0.1	0.01	190.0	7.3	0.39
KJUCQ7		182.0	0.6	0.04	192.9	10.2	0.54
KLJPF4		177.7	-3.7	-0.21	168.2	-14.4	-0.76
L9NX86		189.0	7.6	0.42	182.5	-0.2	-0.01

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WebCode	Data Flag	Sample A31-A32 Lab Mean	Diff from Grand Mean	CPV	Sample A33-A34 Lab Mean	Diff from Grand Mean	CPV
LCRDYG		204.5	23.1	1.29	197.3	14.6	0.77
LDZPEW		158.0	-23.4	-1.30	149.0	-33.7	-1.79
LG6BBA		193.6	12.2	0.68	182.7	0.1	0.00
LXMGFE		199.8	18.5	1.03	223.5	40.8	2.16
M244NR		215.5	34.1	1.90	187.0	4.3	0.23
M62MN6		187.2	5.8	0.32	180.0	-2.7	-0.14
MGJZC2		201.5	20.1	1.12	189.5	6.8	0.36
MNZKB8		180.5	-0.9	-0.05	160.0	-22.7	-1.20
N6FDAV		183.7	2.3	0.13	203.1	20.4	1.08
NNCUFD		211.0	29.6	1.65	182.5	-0.2	-0.01
NYV9L2		166.8	-14.6	-0.81	191.5	8.8	0.47
P2XNAH		176.0	-5.4	-0.30	177.0	-5.7	-0.30
PR77VA		142.3	-39.1	-2.18	145.9	-36.8	-1.95
PXECVM		176.9	-4.4	-0.25	205.2	22.6	1.20
PY96MY		190.5	9.1	0.51	175.0	-7.7	-0.41
Q38TKL		174.0	-7.4	-0.41	198.0	15.3	0.81
QCWJ8D		160.3	-21.1	-1.18	168.2	-14.4	-0.76
R7XR9F		167.4	-14.0	-0.78	188.1	5.4	0.29
RGX3XP		158.1	-23.3	-1.30	151.6	-31.1	-1.65
RYZ2PQ		166.5	-14.9	-0.83	176.5	-6.2	-0.33
TDHA43	X	263.0	81.6	4.55	268.0	85.3	4.53
TRDDNT	X	17.0	-164.4	-9.16	18.2	-164.5	-8.72
TZCYUU		182.7	1.4	0.08	179.1	-3.5	-0.19
WP3LAW		163.5	-17.9	-1.00	161.5	-21.2	-1.12
XC9NNP		194.5	13.1	0.73	177.0	-5.7	-0.30
XF9YFH		155.0	-26.4	-1.47	161.5	-21.2	-1.12
XJ7HDA		212.9	31.5	1.75	202.4	19.7	1.05
YTQ64Q		194.0	12.6	0.70	178.0	-4.7	-0.25
YXL2QW		168.0	-13.4	-0.75	155.0	-27.7	-1.47
ZF42HR		211.0	29.6	1.65	218.6	35.9	1.91
ZJ4BQ9		170.7	-10.7	-0.60	175.2	-7.5	-0.40
ZZPV48		194.1	12.7	0.71	179.3	-3.4	-0.18

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Summary Statistics

Grand Means	181.38 psi	182.67 psi
Stnd Dev Btwn Labs	17.94 psi	18.86 psi

Statistics based on 67 of 70 reporting participants

Summary Statistics in SI Units

Grand Means	1.2506 MPa	1.2600 MPa
Stnd Dev Btwn Labs	0.1237 MPa	0.1300 MPa

Statistics based on 67 of 70 reporting participants

Samples A31-A32: Polyisoprene compound, batch #1 & A33-A34: Polyisoprene compound, batch #2

Comments on Assigned Data Flags for Test #608

8B3LMB (M) - Missing data for sample A31.

TDHA43 (X) - Data for all samples are high.

TRDDNT (X) - Extreme Data.

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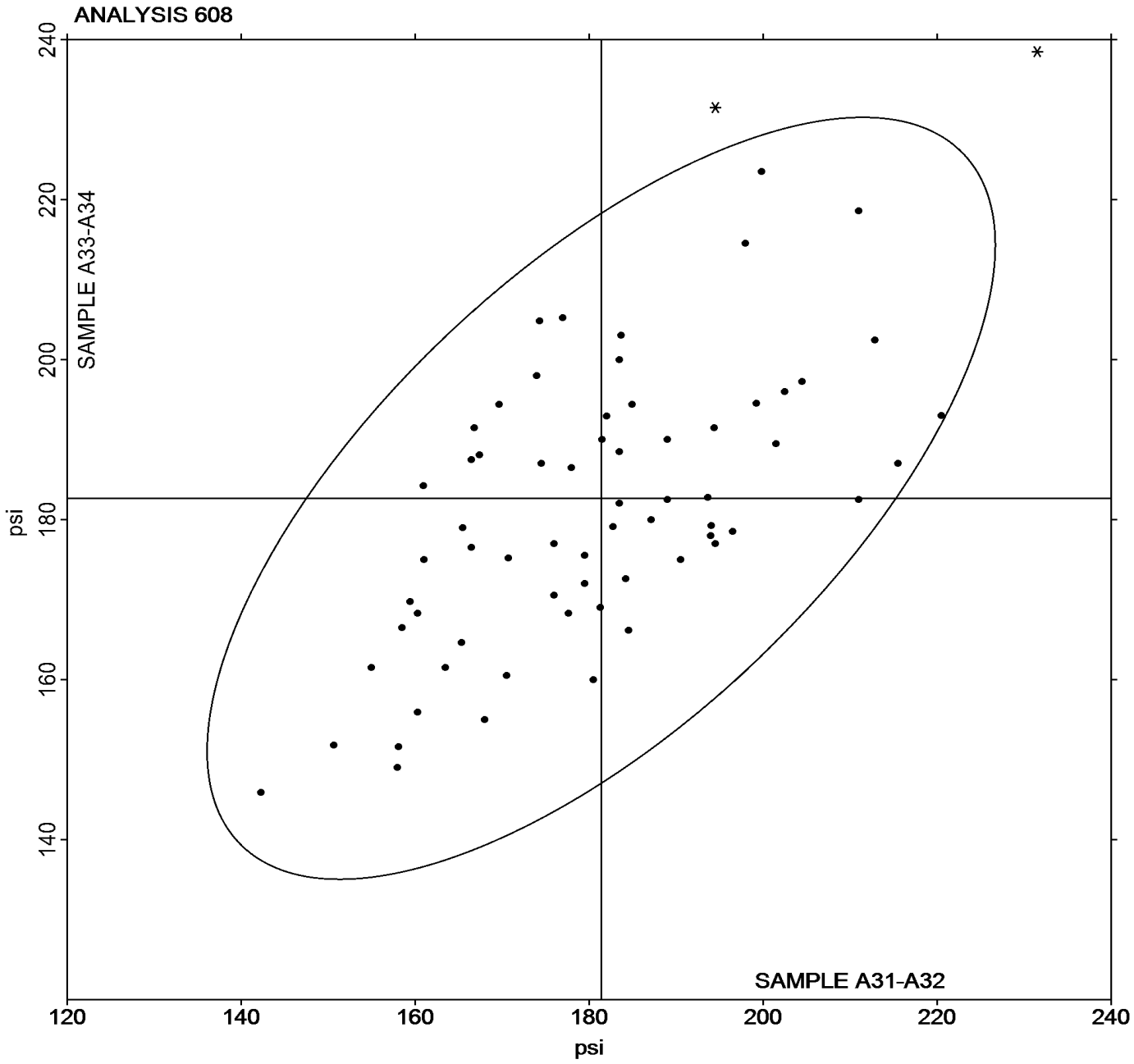
Grand Mean Sample **A31-A32** = 181.38 psi

Grand Mean Sample **A33-A34** = 182.67 psi



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WebCode	Data Flag	Sample A31-A32 Lab Mean	Diff from Grand Mean	CPV	Sample A33-A34 Lab Mean	Diff from Grand Mean	CPV	Instr Code
26GK4B		45.65	-0.62	-0.34	46.25	-0.37	-0.22	BT
2DAVE7		47.00	0.73	0.40	46.50	-0.12	-0.07	HH
2FXA2V		48.00	1.73	0.94	49.00	2.38	1.40	HH
2H6KYK		46.00	-0.27	-0.15	45.00	-1.62	-0.95	BT
2LMM3J	*	51.50	5.23	2.85	51.00	4.38	2.58	BT
2P49CH		48.45	2.18	1.19	47.75	1.13	0.67	BT
2PNN7M	*	41.00	-5.27	-2.87	43.00	-3.62	-2.13	XX
2TF47U		45.00	-1.27	-0.69	45.25	-1.37	-0.81	XX
338W2Q		47.00	0.73	0.40	47.00	0.38	0.23	BT
34GYRV		43.50	-2.77	-1.51	45.50	-1.12	-0.66	BT
34ZRKT	*	43.30	-2.97	-1.62	42.05	-4.57	-2.69	BT
3V7MQR		44.40	-1.87	-1.02	44.50	-2.12	-1.25	BT
43HXJJ		48.00	1.73	0.94	49.00	2.38	1.40	BT
48TAFJ		45.69	-0.58	-0.32	45.25	-1.37	-0.81	BT
4V3HRA		46.65	0.38	0.20	46.70	0.08	0.05	BT
6CMKRA		48.50	2.23	1.21	49.00	2.38	1.40	HH
6DH4VW		45.90	-0.37	-0.20	46.70	0.08	0.05	BT
6UMDXH		47.50	1.23	0.67	49.00	2.38	1.40	BT
7JHQKB		45.65	-0.62	-0.34	46.05	-0.57	-0.33	BT
7RBZQZ		44.70	-1.57	-0.86	44.75	-1.87	-1.10	BT
8B3LMB	M	46.00	-0.27	-0.15	45.20	-1.42	-0.83	BT
8FHUCV		46.60	0.33	0.18	45.35	-1.27	-0.75	BT
8JEM7Q		44.60	-1.67	-0.91	44.80	-1.82	-1.07	BT
8V94QL		43.55	-2.72	-1.48	43.85	-2.77	-1.63	BT
9BFHRF		44.35	-1.92	-1.05	46.50	-0.12	-0.07	BT
ABXQGA		45.05	-1.22	-0.67	47.40	0.78	0.46	BT
AF4J7Y		47.75	1.48	0.80	48.80	2.18	1.28	HH
B6NRHP		46.90	0.63	0.34	47.65	1.03	0.61	BT
B7YT6N		47.50	1.23	0.67	47.50	0.88	0.52	BT
B9ZYG9		46.40	0.13	0.07	46.85	0.23	0.14	BT
BBQVCU		49.00	2.73	1.49	49.00	2.38	1.40	HH
BKGNFE		49.45	3.18	1.73	49.35	2.73	1.61	HH
CCD7E8		46.05	-0.22	-0.12	45.80	-0.82	-0.48	BT
DWH4B9		44.50	-1.77	-0.97	45.50	-1.12	-0.66	BT
ECVMTZ		45.90	-0.37	-0.20	46.75	0.13	0.08	BT
FBWYRG		44.35	-1.92	-1.05	44.20	-2.42	-1.42	BT
G98R8J		49.20	2.93	1.59	47.50	0.88	0.52	BT
GNWZ4H		44.10	-2.17	-1.18	46.25	-0.37	-0.22	BT

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WebCode	Data Flag	Sample A31-A32 Lab Mean	Diff from Grand Mean	CPV	Sample A33-A34 Lab Mean	Diff from Grand Mean	CPV	Instr Code
HMYCYR		49.25	2.98	1.62	49.25	2.63	1.55	HH
J3NQP6		45.00	-1.27	-0.69	46.00	-0.62	-0.36	BT
JBHVJ7		45.00	-1.27	-0.69	46.50	-0.12	-0.07	BT
KJUCQ7		45.75	-0.52	-0.29	47.00	0.38	0.23	BT
KLJPF4		49.00	2.73	1.49	47.00	0.38	0.23	HH
L8DVL7		45.50	-0.77	-0.42	47.00	0.38	0.23	BT
L9NX86		46.70	0.43	0.23	47.00	0.38	0.23	BT
LCRDYG		46.50	0.23	0.12	46.00	-0.62	-0.36	BT
LDZPEW		46.50	0.23	0.12	46.00	-0.62	-0.36	BT
LG6BBA		49.05	2.78	1.51	48.25	1.63	0.96	BT
LXMGFE		46.40	0.13	0.07	47.85	1.23	0.73	BT
M244NR		48.85	2.58	1.40	47.20	0.58	0.34	BT
M62MN6		44.50	-1.77	-0.97	46.00	-0.62	-0.36	BT
MGJZC2		45.10	-1.17	-0.64	44.10	-2.52	-1.48	BT
MJ3CQX		47.50	1.23	0.67	48.50	1.88	1.11	HH
MNZKB8		46.30	0.03	0.01	46.05	-0.57	-0.33	BT
N6FDAV		46.30	0.03	0.01	48.50	1.88	1.11	BT
NNCUFD		48.00	1.73	0.94	47.50	0.88	0.52	BT
NYV9L2		46.00	-0.27	-0.15	48.00	1.38	0.81	BT
P2XNAH		48.50	2.23	1.21	48.00	1.38	0.81	BT
PR77VA		45.45	-0.82	-0.45	45.70	-0.92	-0.54	BT
PXECVM		44.95	-1.32	-0.72	47.40	0.78	0.46	BT
PY96MY		45.00	-1.27	-0.69	46.50	-0.12	-0.07	BT
Q38TKL		47.50	1.23	0.67	47.00	0.38	0.23	HH
QCWJ8D		46.60	0.33	0.18	47.10	0.48	0.28	BT
R7XR9F		46.50	0.23	0.12	47.00	0.38	0.23	BT
RGX3XP		46.50	0.23	0.12	47.00	0.38	0.23	BT
RWXY2A		42.50	-3.77	-2.06	43.50	-3.12	-1.84	BT
RYZ2PQ		49.50	3.23	1.76	50.00	3.38	1.99	HH
TDHA43		47.50	1.23	0.67	48.00	1.38	0.81	HH
TRDDNT		46.00	-0.27	-0.15	45.50	-1.12	-0.66	BT
TZCYUU		46.70	0.43	0.23	46.75	0.13	0.08	BT
WP3LAW		43.00	-3.27	-1.78	43.00	-3.62	-2.13	BT
XC9NNP		46.65	0.38	0.20	47.70	1.08	0.64	BT
XF9YFH		45.50	-0.77	-0.42	46.00	-0.62	-0.36	HH
XJ7HDA		46.75	0.48	0.26	46.50	-0.12	-0.07	BT
XM8JJY		47.50	1.23	0.67	48.00	1.38	0.81	BT

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WebCode	Data Flag	Sample A31-A32 Lab Mean	Sample A31-A32 Diff from Grand Mean	Sample A31-A32 CPV	Sample A33-A34 Lab Mean	Sample A33-A34 Diff from Grand Mean	Sample A33-A34 CPV	Instr Code
YTQ64Q		46.60	0.33	0.18	44.80	-1.82	-1.07	BT
YXL2QW		43.50	-2.77	-1.51	44.00	-2.62	-1.54	BT
ZF42HR		47.15	0.88	0.48	47.10	0.48	0.28	BT
ZJ4BQ9		45.00	-1.27	-0.69	45.50	-1.12	-0.66	BT
ZZPV48		45.00	-1.27	-0.69	44.75	-1.87	-1.10	HH

Summary Statistics

	Sample A31-A32	Sample A33-A34
Grand Means	46.275 Type A	46.618 Type A
Stnd Dev Btwn Labs	1.835 Type A	1.699 Type A

Statistics based on 79 of 80 reporting participants

Samples A31-A32: Polyisoprene compound, batch #1 & A33-A34: Polyisoprene compound, batch #2

Comments on Assigned Data Flags for Test #620

8B3LMB (M) - Missing data for sample A31.

Key to Instrument Codes Reported by Participants

BT	Benchtop	HH	Handheld
XX	Specify Benchtop or Handheld Instrument		

Results by Reading Time (as reported by laboratory)

Reading Time	Sample A31-A32 *Polyisoprene compound, batch #1* Group Mean	Btwn Lab STD	Diff from GM	Sample A33-A34 *Polyisoprene compound, batch #2* Group Mean	Btwn Lab STD	Diff from GM	Labs Incl	/ Rpt
Readings taken within 0 - 5 seconds	46.57	1.64	0.29	46.86	1.47	0.24	50	51
Readings taken at 5 seconds	45.06	1.55	-1.21	44.93	1.16	-1.69	9	9
Readings taken after 5+ seconds	45.34	0.69	-0.93	46.16	0.63	-0.46	7	8
Maximum hardness indicator used	46.87	1.39	0.60	47.65	1.20	1.03	10	11

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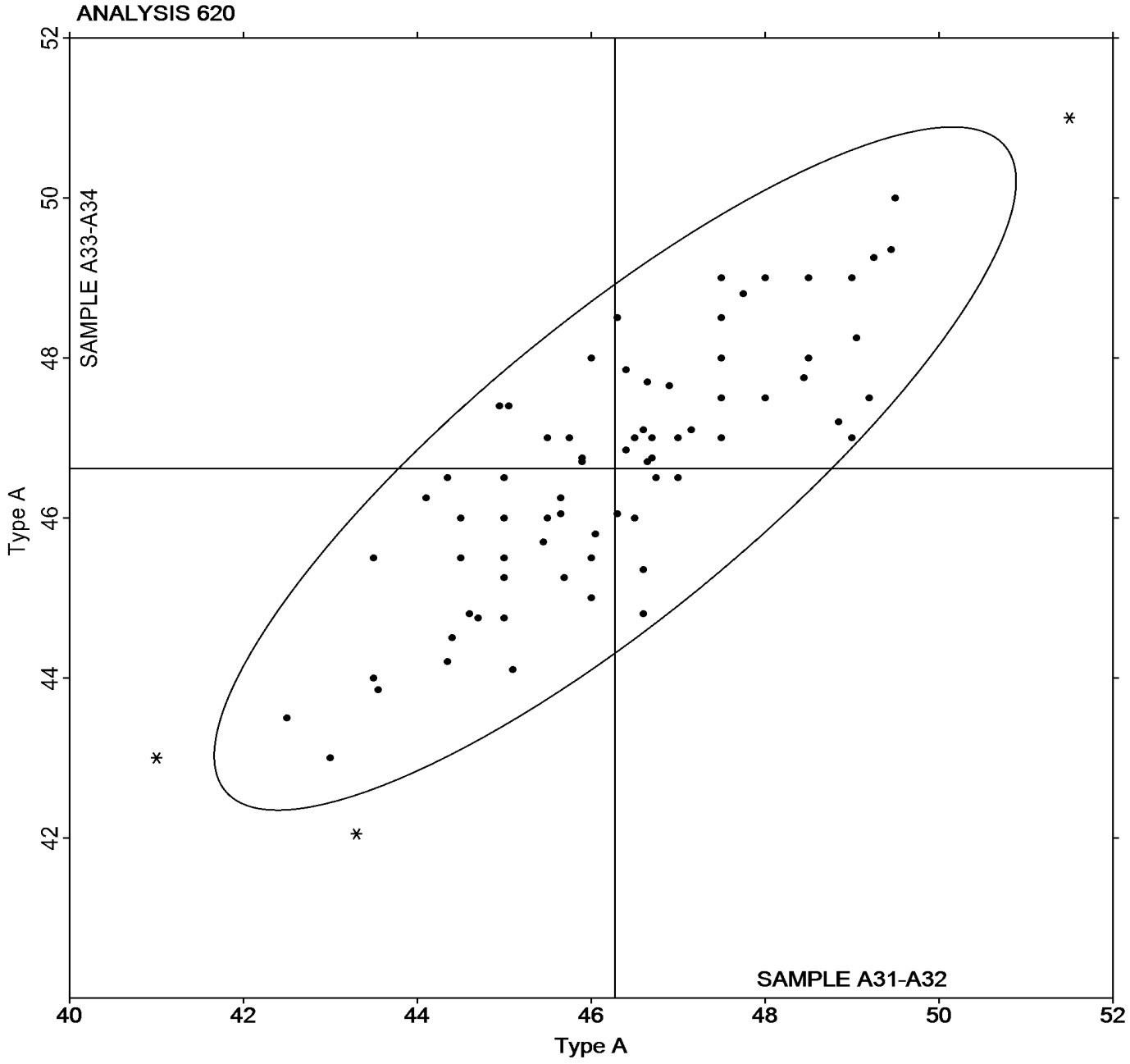
Grand Mean Sample **A31-A32** = 46.275 Type A

Grand Mean Sample **A33-A34** = 46.618 Type A



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WebCode	Data Flag	Sample A31-A32 Lab Mean	Diff from Grand Mean	CPV	Sample A33-A34 Lab Mean	Diff from Grand Mean	CPV
26GK4B	X	1.132	0.002	0.49	1.142	0.010	2.78
2DAVE7	*	1.120	-0.011	-3.13	1.120	-0.011	-2.99
2FXA2V		1.129	-0.001	-0.35	1.129	-0.002	-0.58
2H6KYK		1.130	-0.001	-0.31	1.129	-0.002	-0.58
2LMM3J		1.134	0.004	1.09	1.135	0.003	0.94
2P49CH	X	1.116	-0.015	-4.47	1.118	-0.014	-3.66
2TF47U		1.129	-0.002	-0.46	1.130	-0.001	-0.38
338W2Q		1.131	0.000	-0.01	1.130	-0.002	-0.44
34GYRV		1.129	-0.002	-0.46	1.131	-0.001	-0.17
3V7MQR		1.133	0.002	0.67	1.133	0.002	0.47
4V3HRA		1.131	0.000	0.02	1.130	-0.001	-0.21
6CMKRA		1.127	-0.004	-1.05	1.125	-0.006	-1.65
6UMDXH		1.127	-0.004	-1.20	1.129	-0.002	-0.58
7JHQKB		1.134	0.004	1.06	1.138	0.007	1.81
7RBZQZ	X	1.111	-0.020	-5.82	1.129	-0.003	-0.68
8B3LMB		1.131	0.000	0.08	1.131	0.000	-0.11
8FHUCV		1.135	0.004	1.33	1.136	0.005	1.30
8JEM7Q		1.133	0.002	0.73	1.131	-0.001	-0.17
8V94QL	X	1.101	-0.030	-8.78	1.098	-0.033	-8.89
9BFHRF		1.131	0.000	-0.01	1.136	0.004	1.17
AF4J7Y		1.132	0.001	0.29	1.134	0.003	0.76
B6NRHP		1.134	0.003	0.93	1.134	0.003	0.68
B7YT6N		1.133	0.002	0.61	1.133	0.002	0.54
B9ZYG9		1.133	0.002	0.67	1.133	0.002	0.48
BBQVCU		1.136	0.006	1.67	1.135	0.004	0.98
BKGNFE		1.132	0.002	0.52	1.133	0.002	0.42
G98R8J		1.135	0.004	1.33	1.136	0.004	1.17
GNWZ4H		1.131	0.000	-0.01	1.133	0.002	0.50
J3NQP6		1.125	-0.006	-1.65	1.125	-0.006	-1.65
KJUCQ7		1.135	0.004	1.18	1.136	0.005	1.30
L8DVL7		1.130	-0.001	-0.31	1.133	0.001	0.36
L9NX86		1.126	-0.005	-1.50	1.126	-0.006	-1.52
LCRDYG		1.127	-0.004	-1.05	1.127	-0.004	-1.19
LDZPEW		1.132	0.001	0.44	1.133	0.002	0.50
LXMGFE		1.133	0.002	0.73	1.136	0.005	1.30
M244NR		1.130	0.000	-0.06	1.131	0.000	-0.08
M62MN6		1.133	0.002	0.73	1.135	0.004	0.98
MJ3CQX		1.124	-0.006	-1.87	1.124	-0.007	-1.81

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WebCode	Data Flag	Sample A31-A32 Lab Mean	Diff from Grand Mean	CPV	Sample A33-A34 Lab Mean	Diff from Grand Mean	CPV
MNZKB8		1.133	0.003	0.75	1.133	0.002	0.59
N6FDAV		1.131	0.001	0.17	1.133	0.002	0.55
NNCUFD		1.130	-0.001	-0.31	1.130	-0.002	-0.44
P2XNAH		1.131	0.000	0.14	1.131	-0.001	-0.17
PR77VA		1.131	0.000	0.14	1.130	-0.001	-0.31
Q38TKL		1.136	0.005	1.62	1.136	0.005	1.30
QCWJ8D		1.136	0.005	1.62	1.136	0.004	1.17
R7XR9F		1.131	0.000	0.14	1.129	-0.002	-0.58
RGX3XP		1.136	0.005	1.62	1.139	0.007	1.97
RYZ2PQ		1.130	-0.001	-0.16	1.130	-0.001	-0.31
TDHA43		1.130	-0.001	-0.31	1.131	-0.001	-0.16
TRDDNT		1.130	-0.001	-0.16	1.130	-0.001	-0.31
TZCYUU		1.127	-0.003	-0.95	1.129	-0.002	-0.56
XC9NNP		1.129	-0.001	-0.37	1.130	-0.001	-0.30
XF9YFH		1.129	-0.002	-0.61	1.128	-0.004	-0.98
XJ7HDA		1.126	-0.005	-1.44	1.125	-0.006	-1.56
XM8JJY	*	1.127	-0.004	-1.05	1.133	0.001	0.36
YTQ64Q		1.131	0.000	0.14	1.129	-0.002	-0.51
YXL2QW		1.131	0.000	-0.01	1.128	-0.004	-0.98
ZJ4BQ9	*	1.125	-0.006	-1.65	1.130	-0.001	-0.31
ZZPV48	X	1.120	-0.011	-3.13	1.132	0.000	0.09

Summary Statistics

	Sample A31-A32	Sample A33-A34
Grand Means	1.1305 g/cm^3 (Mg/m^3)	1.1312 g/cm^3 (Mg/m^3)
Stnd Dev Btwn Labs	0.0034 g/cm^3 (Mg/m^3)	0.0037 g/cm^3 (Mg/m^3)

Statistics based on 54 of 59 reporting participants

Samples A31-A32: Polyisoprene compound, batch #1 & A33-A34: Polyisoprene compound, batch #2

Comments on Assigned Data Flags for Test #621

26GK4B (X) - Data for sample group A33-A34 are high.

2P49CH (X) - Data for all samples are low. Possible Systematic Error. Inconsistent within the determinations of both sample groups.

7RBZQZ (X) - Data for sample group A31-A32 are low. Inconsistent within the determinations of sample group A31-A32.

8V94QL (X) - Data for all samples are low. Possible Systematic Error. Inconsistent within the determinations of both sample groups.

ZZPV48 (X) - Data for sample group A31-A32 are low.

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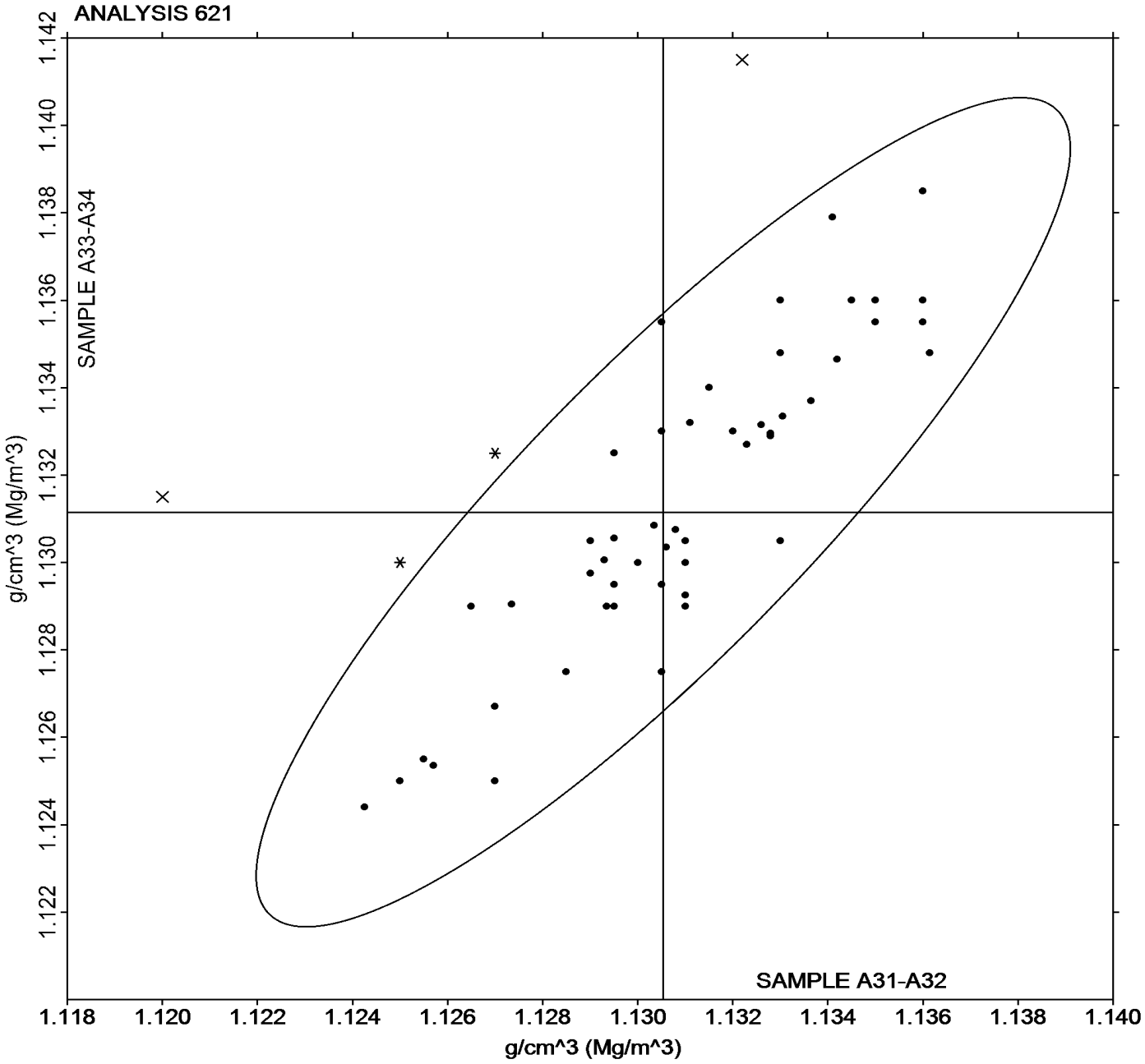
Grand Mean Sample **A31-A32** = 1.1305 g/cm^3 (Mg/m^3)

Grand Mean Sample **A33-A34** = 1.1312 g/cm^3 (Mg/m^3)



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WebCode	Data Flag	Sample HA31-HA32 Lab Mean	Diff from Grand Mean	CPV	Sample HA33-HA34 Lab Mean	Diff from Grand Mean	CPV	Instr Code
2P49CH	X	94.85	42.18	14.58	95.70	29.56	11.40	BT
34ZRKT		51.70	-0.97	-0.34	64.00	-2.14	-0.83	BT
3EDWRN		53.50	0.83	0.29	68.50	2.36	0.91	BT
6DH4VW		54.95	2.28	0.79	68.35	2.21	0.85	BT
7Z3FDH	X	42.50	-10.17	-3.52	52.50	-13.64	-5.26	HH
98KJJC		52.00	-0.67	-0.23	67.00	0.86	0.33	XX
BDY9WG		54.25	1.58	0.55	66.75	0.61	0.23	HH
CCD7E8		50.70	-1.97	-0.68	62.45	-3.69	-1.42	BT
CDUBXQ		56.25	3.58	1.24	68.40	2.26	0.87	BT
EUDLZJ		57.65	4.98	1.72	69.10	2.96	1.14	HH
FL9DL3	*	45.25	-7.42	-2.57	58.65	-7.49	-2.89	BT
FTD6Y7		56.00	3.33	1.15	70.00	3.86	1.49	HH
KZGJ9X		52.00	-0.67	-0.23	64.50	-1.64	-0.63	BT
N6FDAV		50.60	-2.07	-0.72	65.65	-0.49	-0.19	BT
NNCUFD		54.00	1.33	0.46	66.00	-0.14	-0.05	HH
NWPQJY		49.60	-3.07	-1.06	64.70	-1.44	-0.56	BT
P2XNAH		52.00	-0.67	-0.23	66.00	-0.14	-0.05	BT
PR77VA		50.25	-2.42	-0.84	64.45	-1.69	-0.65	BT
PY96MY		52.00	-0.67	-0.23	66.00	-0.14	-0.05	BT
QCWJ8D		52.50	-0.17	-0.06	66.80	0.66	0.25	BT
RYZ2PQ		57.00	4.33	1.50	70.00	3.86	1.49	HH
TRDDNT		50.00	-2.67	-0.92	64.50	-1.64	-0.63	BT
XJ7HDA		51.20	-1.47	-0.51	66.80	0.66	0.25	BT
ZDDXNK		55.40	2.73	0.94	66.50	0.36	0.14	BT

Summary Statistics

	Sample HA31-HA32	Sample HA33-HA34
Grand Means	52.673 Type D	66.141 Type D
Stnd Dev Btwn Labs	2.892 Type D	2.592 Type D

Statistics based on 22 of 24 reporting participants

Samples HA31-HA32: Hardness Disc, batch #1 & HA33-HA34: Hardness Disc, batch #2

Comments on Assigned Data Flags for Test #625

2P49CH (X) - Extreme Data.

7Z3FDH (X) - Data for all samples are low. Possible Systematic Error. Inconsistent within the determinations of both sample groups.

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Key to Instrument Codes Reported by Participants

BT	Benchtop	HH	Handheld
XX	Specify Benchtop or Handheld Instrument		

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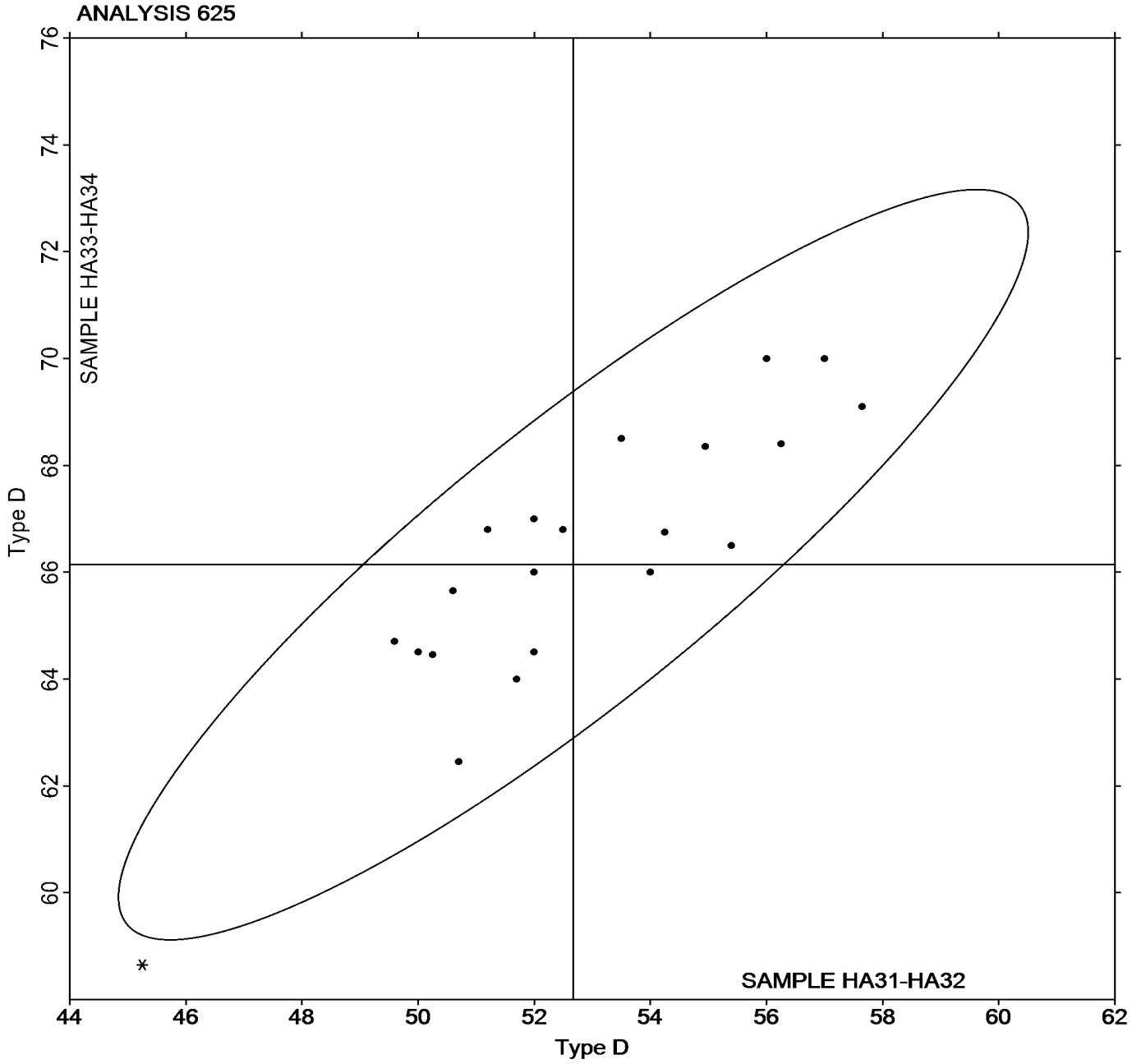
Grand Mean Sample **HA31-HA32** = 52.673 Type D

Grand Mean Sample **HA33-HA34** = 66.141 Type D



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Rubber Interlaboratory Testing Program

Analysis 630

Tensile Strength: Precured vs. Lab-Cured Samples (psi)

WebCode	Data Flag	Sample A31-A32 Lab Mean	Sample A31-A32 Diff from Grand Mean	Sample A31-A32 CPV	Sample J31-J32 Lab Mean	Sample J31-J32 Diff from Grand Mean	Sample J31-J32 CPV
26GK4B		3,350.5	207.2	1.02	2,833.0	85.8	0.37
2P49CH		3,134.0	-9.3	-0.05	2,816.5	69.3	0.30
4V3HRA		3,453.0	309.7	1.52	3,024.1	276.9	1.20
6CMKRA		3,081.0	-62.3	-0.31	2,400.5	-346.7	-1.50
6DH4VW		2,986.3	-157.0	-0.77	2,874.0	126.8	0.55
7JHQKB		3,321.4	178.1	0.88	2,991.4	244.3	1.06
7RBZQZ		3,054.5	-88.8	-0.44	2,683.9	-63.2	-0.27
9BFHRF		2,951.5	-191.8	-0.94	2,688.3	-58.9	-0.26
BKGNFE		3,204.5	61.2	0.30	3,194.0	446.8	1.94
J3NQP6		3,050.0	-93.3	-0.46	2,750.0	2.8	0.01
LDZPEW		3,270.5	127.2	0.63	2,431.0	-316.2	-1.37
M244NR		3,495.5	352.2	1.73	2,377.4	-369.8	-1.60
N6FDAV		3,170.6	27.3	0.13	2,617.9	-129.3	-0.56
NNCUFD		3,323.5	180.2	0.89	2,965.0	217.8	0.94
Q38TKL		3,055.0	-88.3	-0.43	2,905.0	157.8	0.68
QCWJ8D		3,074.8	-68.5	-0.34	2,828.3	81.1	0.35
R7XR9F		3,135.0	-8.3	-0.04	2,865.0	117.8	0.51
RGX3XP	X	3,169.8	26.5	0.13	1,739.7	-1,007.4	-4.37
XF9YFH		2,992.0	-151.3	-0.74	2,385.0	-362.2	-1.57
ZF42HR		3,182.3	39.0	0.19	2,542.7	-204.5	-0.89
ZZPV48	*	2,580.0	-563.3	-2.77	2,770.0	22.8	0.10

Summary Statistics

	Sample A31-A32	Sample J31-J32
Grand Means	3,143.30 psi	2,747.15 psi
Stnd Dev Btwn Labs	203.13 psi	230.75 psi

Statistics based on 20 of 21 reporting participants

Summary Statistics in SI Units

	Sample A31-A32	Sample J31-J32
Grand Means	21.672 MPa	18.940 MPa
Stnd Dev Btwn Labs	1.401 MPa	1.590 MPa

Statistics based on 20 of 21 reporting participants

Samples A31-A32: Polyisoprene compound, batch #1 & J31-J32: Polyisoprene compound, batch #1

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Comments on Assigned Data Flags for Test #630

RGX3XP (X) - Data for sample group J31-J32 are low.

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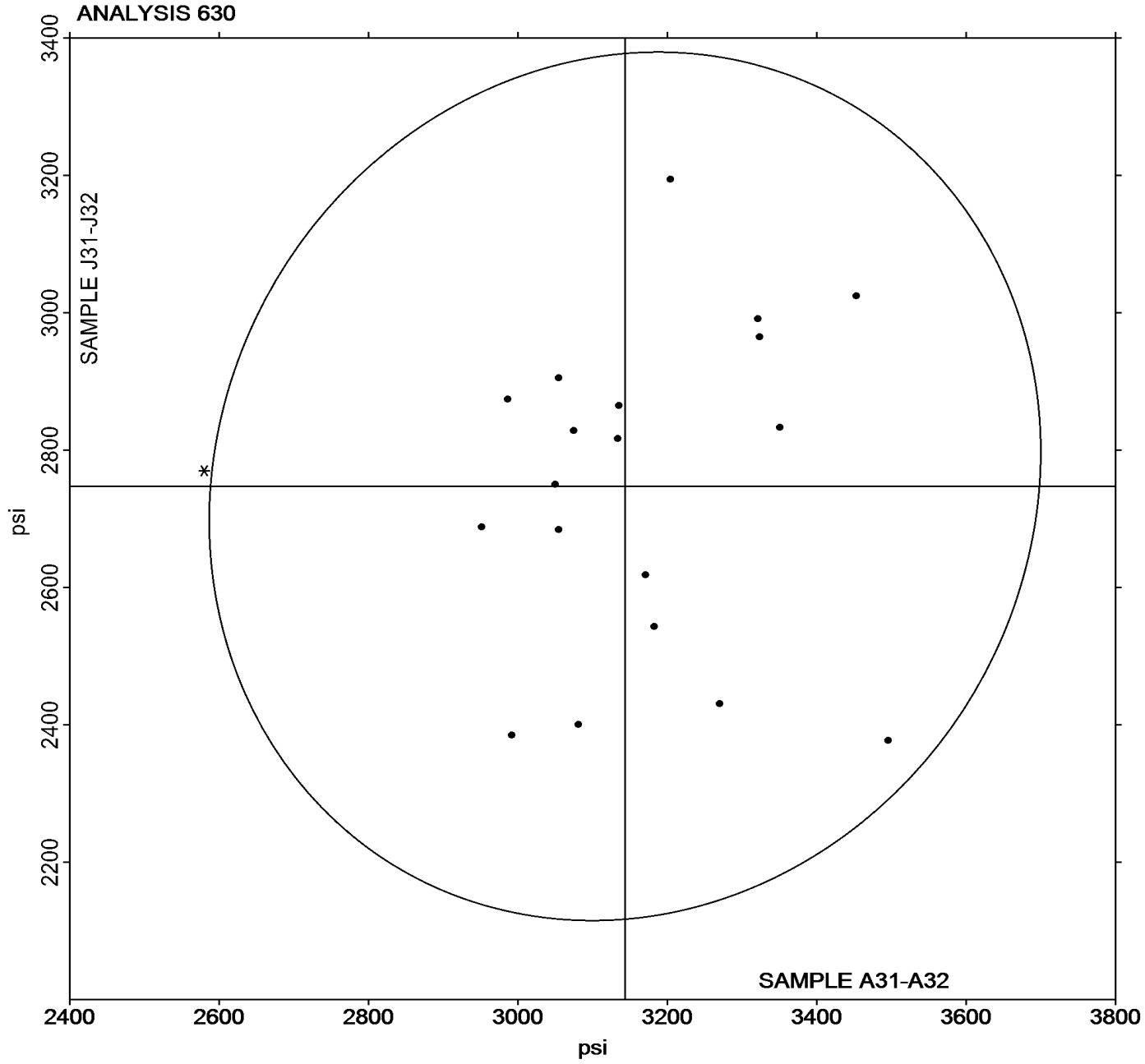
Tensile Strength: Precured vs. Lab-Cured Samples (psi)

Grand Mean Sample **A31-A32** = 3,143.30 psi

Grand Mean Sample **J31-J32** = 2,747.15 psi



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WebCode	Data Flag	Sample A31-A32 Lab Mean	Sample A31-A32 Diff from Grand Mean	Sample A31-A32 CPV	Sample J31-J32 Lab Mean	Sample J31-J32 Diff from Grand Mean	Sample J31-J32 CPV
26GK4B		683.0	47.4	1.41	579.5	19.6	0.44
2P49CH		622.5	-13.1	-0.39	573.0	13.1	0.30
4V3HRA		648.2	12.5	0.37	562.7	2.8	0.06
6CMKRA		593.5	-42.2	-1.25	498.0	-61.9	-1.40
6DH4VW		647.5	11.9	0.35	585.0	25.1	0.57
7JHQKB		684.4	48.8	1.45	603.9	44.0	0.99
7RBZQZ		659.5	23.9	0.71	591.5	31.6	0.71
9BFHRF		636.5	0.9	0.03	560.0	0.1	0.00
BKGNFE		638.0	2.4	0.07	616.0	56.1	1.27
J3NQP6		583.0	-52.6	-1.56	555.5	-4.4	-0.10
LDZPEW		688.0	52.4	1.56	585.5	25.6	0.58
M244NR		640.0	4.4	0.13	527.5	-32.4	-0.73
N6FDAV		615.7	-19.9	-0.59	549.6	-10.3	-0.23
NNCUFD		587.0	-48.6	-1.44	530.5	-29.4	-0.66
Q38TKL		588.0	-47.6	-1.41	541.5	-18.4	-0.42
QCWJ8D		649.8	14.1	0.42	573.3	13.3	0.30
R7XR9F		626.0	-9.6	-0.29	579.0	19.1	0.43
RGX3XP	*	644.3	8.6	0.26	465.9	-94.0	-2.12
XF9YFH		621.5	-14.1	-0.42	518.5	-41.4	-0.93
ZF42HR		602.0	-33.7	-1.00	499.8	-60.1	-1.36
ZZPV48		690.0	54.4	1.62	662.0	102.1	2.30

Summary Statistics

	Sample A31-A32	Sample J31-J32
Grand Means	635.63 percent	559.92 percent
Stnd Dev Btwn Labs	33.67 percent	44.31 percent

Statistics based on 21 of 21 reporting participants

Samples A31-A32: Polyisoprene compound, batch #1 & J31-J32: Polyisoprene compound, batch #1

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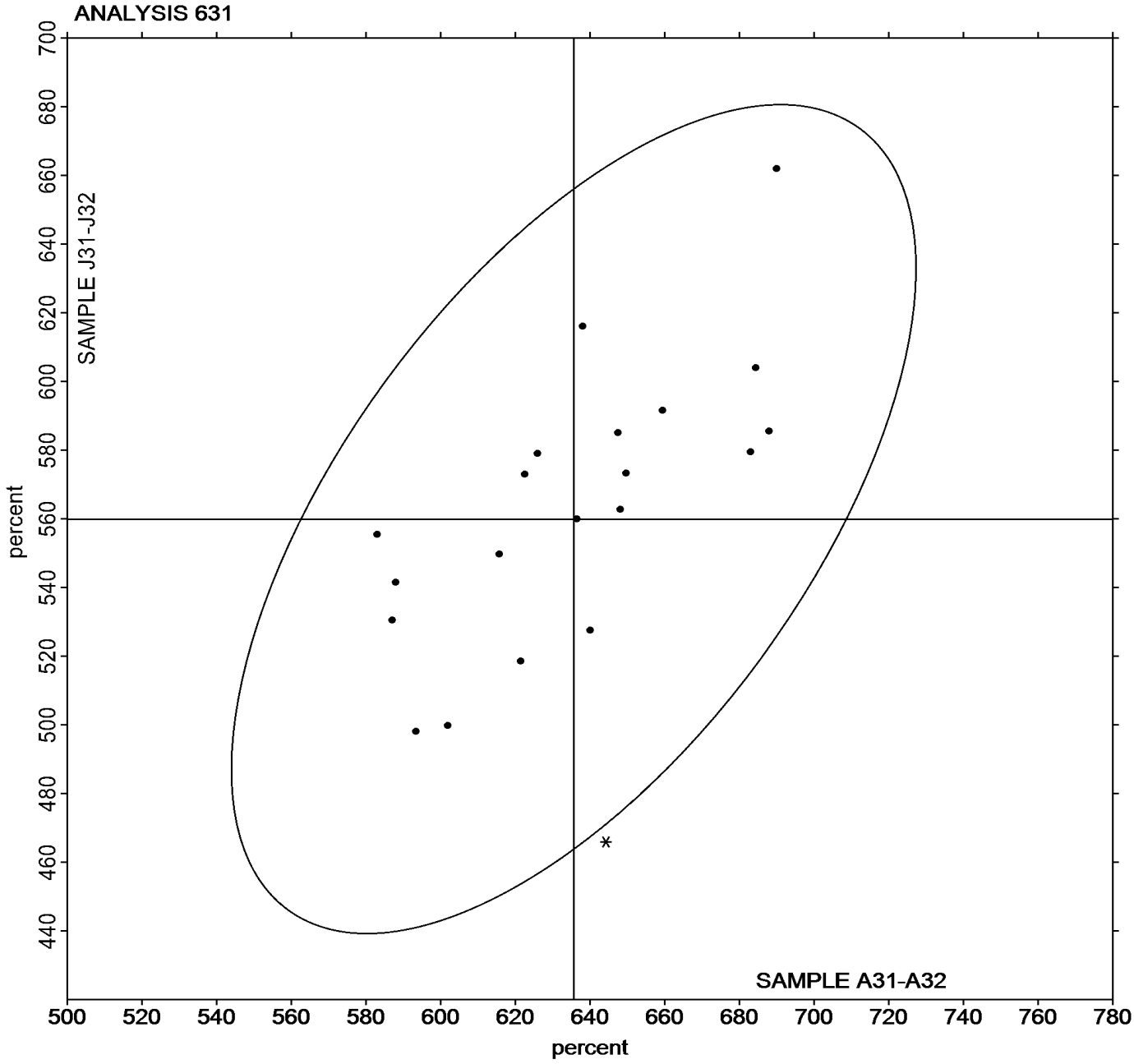
Ultimate Elongation: Precured vs. Lab-Cured Samples (percent)

Grand Mean Sample **A31-A32** = 635.63 percent

Grand Mean Sample **J31-J32** = 559.92 percent



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

WebCode	Data Flag	Sample A31-A32 Lab Mean	Sample A31-A32 Diff from Grand Mean	Sample A31-A32 CPV	Sample J31-J32 Lab Mean	Sample J31-J32 Diff from Grand Mean	Sample J31-J32 CPV
26GK4B		686.0	-165.7	-1.48	883.5	-77.0	-0.68
2P49CH		799.0	-52.7	-0.47	930.5	-30.0	-0.26
4V3HRA		925.6	73.8	0.66	1,073.1	112.6	0.99
6CMKRA		1,008.9	157.1	1.40	1,065.0	104.5	0.92
6DH4VW	M	No data reported for this sample			921.6	-39.0	-0.34
7JHQKB		755.7	-96.1	-0.86	966.0	5.5	0.05
7RBZQZ		802.8	-48.9	-0.44	897.8	-62.7	-0.55
9BFHRF		812.2	-39.5	-0.35	973.2	12.7	0.11
BKGNFE		908.5	56.8	0.51	884.5	-76.0	-0.67
J3NQP6		920.5	68.8	0.61	1,010.0	49.5	0.43
LDZPEW		727.5	-124.2	-1.11	750.0	-210.5	-1.85
M244NR		1,001.5	149.8	1.34	886.8	-73.7	-0.65
N6FDAV		929.9	78.2	0.70	956.0	-4.6	-0.04
NNCUFD		1,062.0	210.3	1.88	1,193.5	233.0	2.04
Q38TKL		875.0	23.3	0.21	1,107.0	146.5	1.29
QCWJ8D		764.4	-87.4	-0.78	947.1	-13.4	-0.12
R7XR9F		801.8	-49.9	-0.45	955.0	-5.5	-0.05
RGX3XP		818.7	-33.0	-0.29	843.4	-117.1	-1.03
XF9YFH		712.0	-139.7	-1.25	924.0	-36.5	-0.32
ZF42HR		997.9	146.2	1.30	1,158.2	197.6	1.73
ZZPV48		724.8	-126.9	-1.13	805.5	-155.0	-1.36

Summary Statistics

	Sample A31-A32	Sample J31-J32
Grand Means	851.73 psi	960.50 psi
Stnd Dev Btwn Labs	112.03 psi	113.94 psi

Statistics based on 20 of 21 reporting participants

Summary Statistics in SI Units

	Sample A31-A32	Sample J31-J32
Grand Means	5.8724 MPa	6.6200 MPa
Stnd Dev Btwn Labs	0.7724 MPa	0.7900 MPa

Statistics based on 20 of 21 reporting participants

Samples A31-A32: Polyisoprene compound, batch #1 & J31-J32: Polyisoprene compound, batch #1

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Comments on Assigned Data Flags for Test #632

6DH4VW (M) - Missing data for sample group A31-A32.

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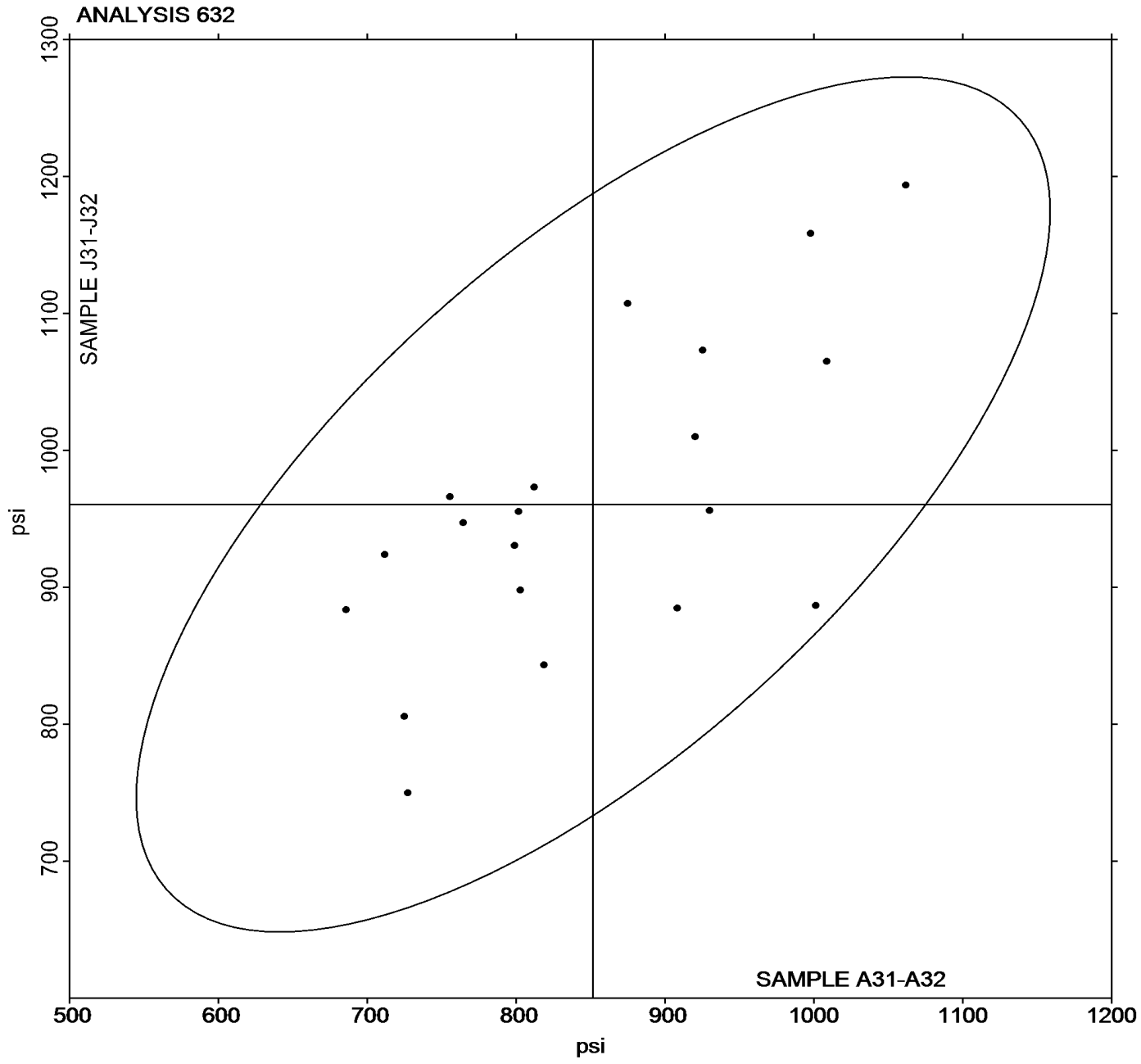
Stress at 300% Elongation: Precured vs. Lab-Cured Samples (psi)

Grand Mean Sample **A31-A32** = 851.73 psi

Grand Mean Sample **J31-J32** = 960.50 psi



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Stress at 100% Elongation: Precured vs. Lab-Cured Samples (psi)

WebCode	Data Flag	Sample A31-A32 Lab Mean	Sample A31-A32 Diff from Grand Mean	Sample A31-A32 CPV	Sample J31-J32 Lab Mean	Sample J31-J32 Diff from Grand Mean	Sample J31-J32 CPV
26GK4B		158.5	-21.4	-1.04	200.5	-16.5	-0.65
2P49CH		170.5	-9.4	-0.46	214.5	-2.5	-0.10
4V3HRA		199.3	19.4	0.94	244.2	27.2	1.07
6CMKRA		202.5	22.6	1.10	228.5	11.5	0.45
6DH4VW	M	No data reported for this sample			209.6	-7.4	-0.29
7JHQKB		161.0	-18.9	-0.92	215.7	-1.3	-0.05
7RBZQZ		184.2	4.3	0.21	231.3	14.3	0.56
9BFHRF		169.7	-10.2	-0.49	223.4	6.3	0.25
BKGNFE		198.0	18.1	0.88	202.5	-14.5	-0.57
J3NQP6		165.5	-14.4	-0.70	231.0	14.0	0.55
LDZPEW		158.0	-21.9	-1.06	175.5	-41.5	-1.64
M244NR	*	215.5	35.6	1.74	186.0	-31.1	-1.22
N6FDAV		183.7	3.8	0.19	208.1	-9.0	-0.35
NNCUFD		211.0	31.1	1.52	258.0	41.0	1.61
Q38TKL		174.0	-5.9	-0.29	240.5	23.5	0.93
QCWJ8D		160.3	-19.6	-0.95	213.2	-3.8	-0.15
R7XR9F		167.4	-12.5	-0.61	217.7	0.7	0.03
RGX3XP		158.1	-21.8	-1.06	163.2	-53.9	-2.12
XF9YFH		155.0	-24.9	-1.21	196.0	-21.0	-0.83
ZF42HR		211.0	31.1	1.52	260.7	43.7	1.72
ZZPV48		194.1	14.2	0.69	230.0	13.0	0.51

Summary Statistics

	Sample A31-A32	Sample J31-J32
Grand Means	179.86 psi	217.02 psi
Stnd Dev Btwn Labs	20.54 psi	25.38 psi

Statistics based on 20 of 21 reporting participants

Summary Statistics in SI Units

	Sample A31-A32	Sample J31-J32
Grand Means	1.2401 MPa	1.5000 MPa
Stnd Dev Btwn Labs	0.1416 MPa	0.1700 MPa

Statistics based on 20 of 21 reporting participants

Samples A31-A32: Polyisoprene compound, batch #1 & J31-J32: Polyisoprene compound, batch #1

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Comments on Assigned Data Flags for Test #633

6DH4VW (M) - Missing data for sample group A31-A32.

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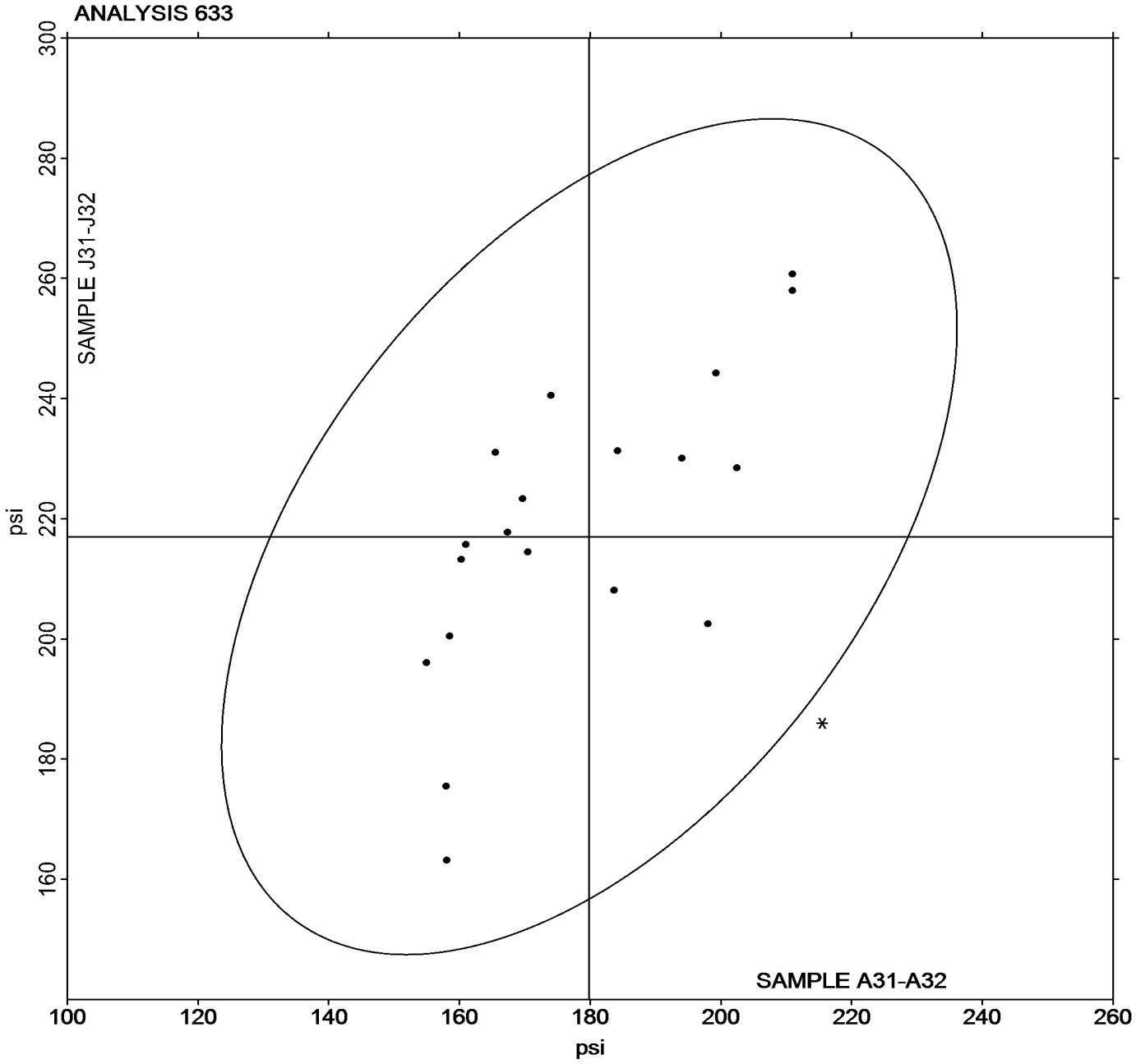
Stress at 100% Elongation: Precured vs. Lab-Cured Samples (psi)

Grand Mean Sample **A31-A32** = 179.86 psi

Grand Mean Sample **J31-J32** = 217.02 psi



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WebCode	Data Flag	Sample N31 Lab Mean	Sample N31 Diff from Grand Mean	Sample N31 CPV	Sample N32 Lab Mean	Sample N32 Diff from Grand Mean	Sample N32 CPV
2H6KYK	*	10.00	-10.08	-2.79	9.33	-10.94	-3.01
2P49CH		20.00	-0.08	-0.02	16.67	-3.61	-0.99
34GYRV		15.33	-4.74	-1.31	16.00	-4.28	-1.18
3V7MQR		26.10	6.02	1.67	26.33	6.05	1.67
4V3HRA		23.07	2.99	0.83	22.00	1.72	0.47
6CMKRA		14.08	-6.00	-1.66	15.29	-4.98	-1.37
6DH4VW		19.76	-0.31	-0.09	19.51	-0.77	-0.21
8FHUCV		20.43	0.36	0.10	21.57	1.29	0.36
8JEM7Q		16.33	-3.74	-1.04	20.00	-0.28	-0.08
B6NRHP		20.67	0.59	0.16	21.33	1.06	0.29
B7YT6N		19.67	-0.41	-0.11	19.67	-0.61	-0.17
B9ZYG9		17.25	-2.83	-0.78	16.70	-3.58	-0.99
BKGNFE		19.63	-0.44	-0.12	18.37	-1.91	-0.53
CCD7E8		22.33	2.26	0.62	25.00	4.72	1.30
GZA6BD		21.00	0.92	0.26	20.67	0.39	0.11
L8DVL7		17.67	-2.41	-0.67	18.00	-2.28	-0.63
LCRDYG		22.33	2.26	0.62	25.00	4.72	1.30
LDZPEW		18.33	-1.74	-0.48	19.33	-0.94	-0.26
M244NR		24.00	3.92	1.09	23.67	3.39	0.93
N6FDAV		20.67	0.59	0.16	21.67	1.39	0.38
NNCUFD		23.17	3.09	0.86	20.34	0.06	0.02
NYV9L2		21.15	1.08	0.30	21.23	0.95	0.26
P2XNAH		24.00	3.92	1.09	21.00	0.72	0.20
PW3UCG		16.00	-4.08	-1.13	16.00	-4.28	-1.18
Q38TKL		22.33	2.26	0.62	23.33	3.06	0.84
Q3KCJX		16.44	-3.64	-1.01	19.57	-0.70	-0.19
TJ33J9		17.60	-2.48	-0.68	18.70	-1.58	-0.43
XC9NNP		20.67	0.59	0.16	20.67	0.39	0.11
XF9YFH		25.67	5.59	1.55	27.00	6.72	1.85
YXL2QW		21.30	1.22	0.34	20.03	-0.24	-0.07
ZF42HR		25.37	5.29	1.46	24.57	4.29	1.18

Summary Statistics

	Sample N31	Sample N32
Grand Means	20.076 % Compression	20.275 % Compression
Stnd Dev Btwn Labs	3.615 % Compression	3.633 % Compression

Statistics based on 31 of 31 reporting participants

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Samples N31: EPDM compound, batch #1 & N32: EPDM compound, batch #1

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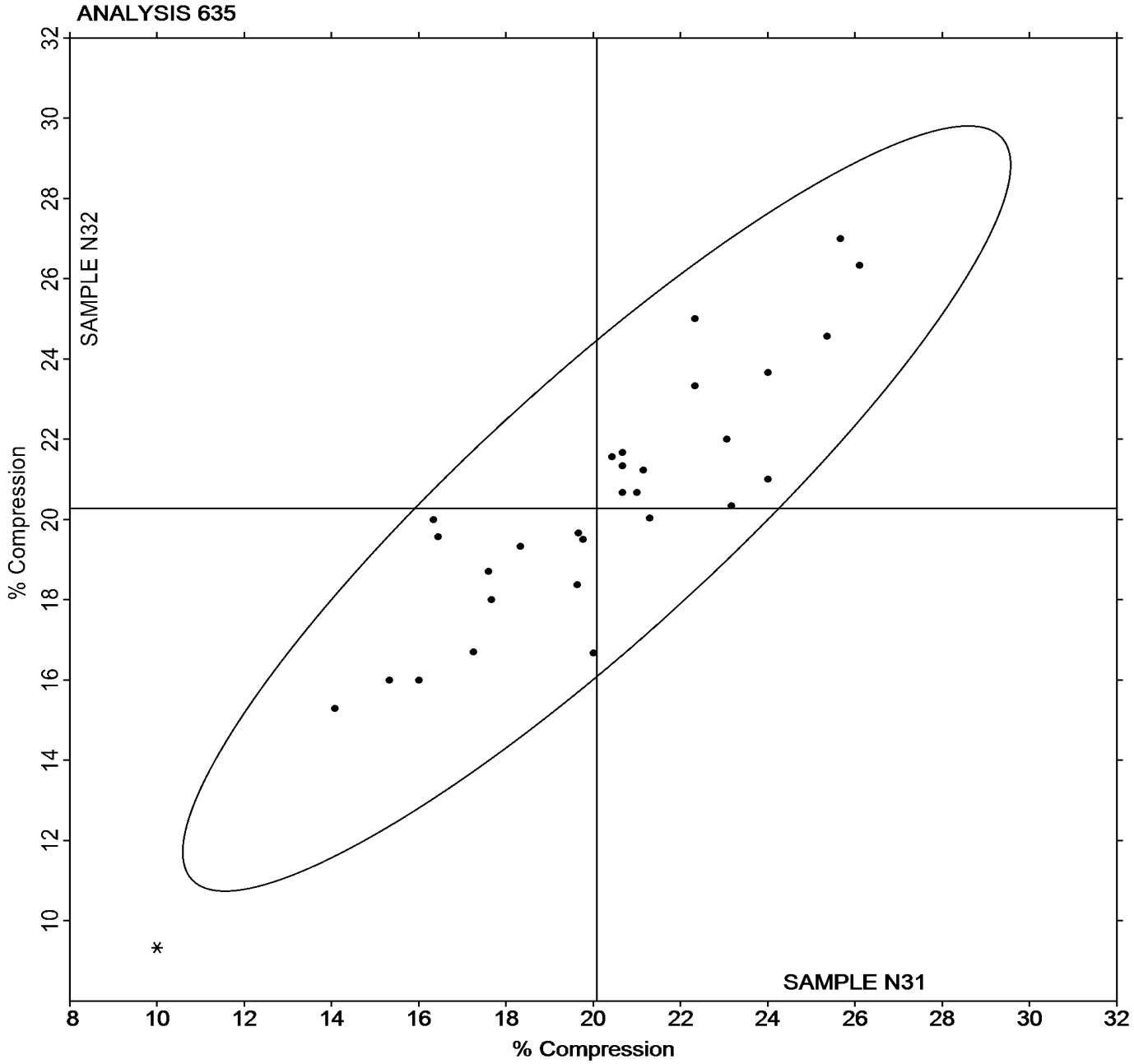
Grand Mean Sample **N31** = 20.076 % Compression

Grand Mean Sample **N32** = 20.275 % Compression



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Rubber Interlaboratory Testing Program

Analysis 640

O-Ring Tensile Strength at Break (psi)

WebCode	Data Flag	Sample RA31 Lab Mean	Sample RA31 Diff from Grand Mean	Sample RA31 CPV	Sample RA32 Lab Mean	Sample RA32 Diff from Grand Mean	Sample RA32 CPV
2H6KYK		2,414.6	57.4	1.07	2,402.6	23.0	0.42
34GYRV		2,331.8	-25.4	-0.47	2,290.6	-89.0	-1.61
6DH4VW		2,436.4	79.2	1.47	2,472.2	92.6	1.68
8B3LMB		2,395.1	37.9	0.71	2,420.1	40.5	0.73
B6NRHP		2,265.4	-91.8	-1.71	2,362.0	-17.6	-0.32
B7YT6N		2,320.4	-36.8	-0.69	2,321.4	-58.2	-1.05
B9ZYG9		2,427.0	69.8	1.30	2,448.4	68.8	1.24
BKGNFE		2,350.6	-6.6	-0.12	2,349.6	-30.0	-0.54
GNWZ4H		2,349.4	-7.8	-0.15	2,351.0	-28.6	-0.52
M244NR		2,295.5	-61.7	-1.15	2,327.3	-52.3	-0.95
N6FDAV		2,323.2	-34.0	-0.63	2,385.3	5.7	0.10
PW3UCG	X	3,774.0	1,416.8	26.37	3,784.6	1,405.0	25.42
TXHEL2		2,377.0	19.8	0.37	2,424.6	45.0	0.81

Summary Statistics

	Sample RA31	Sample RA32
Grand Means	2,357.21 psi	2,379.58 psi
Stnd Dev Btwn Labs	53.73 psi	55.27 psi

Statistics based on 12 of 13 reporting participants

Samples RA31: Nitrile O-Ring & RA32: Nitrile O-Ring

Comments on Assigned Data Flags for Test #640

PW3UCG (X) - Extreme Data.

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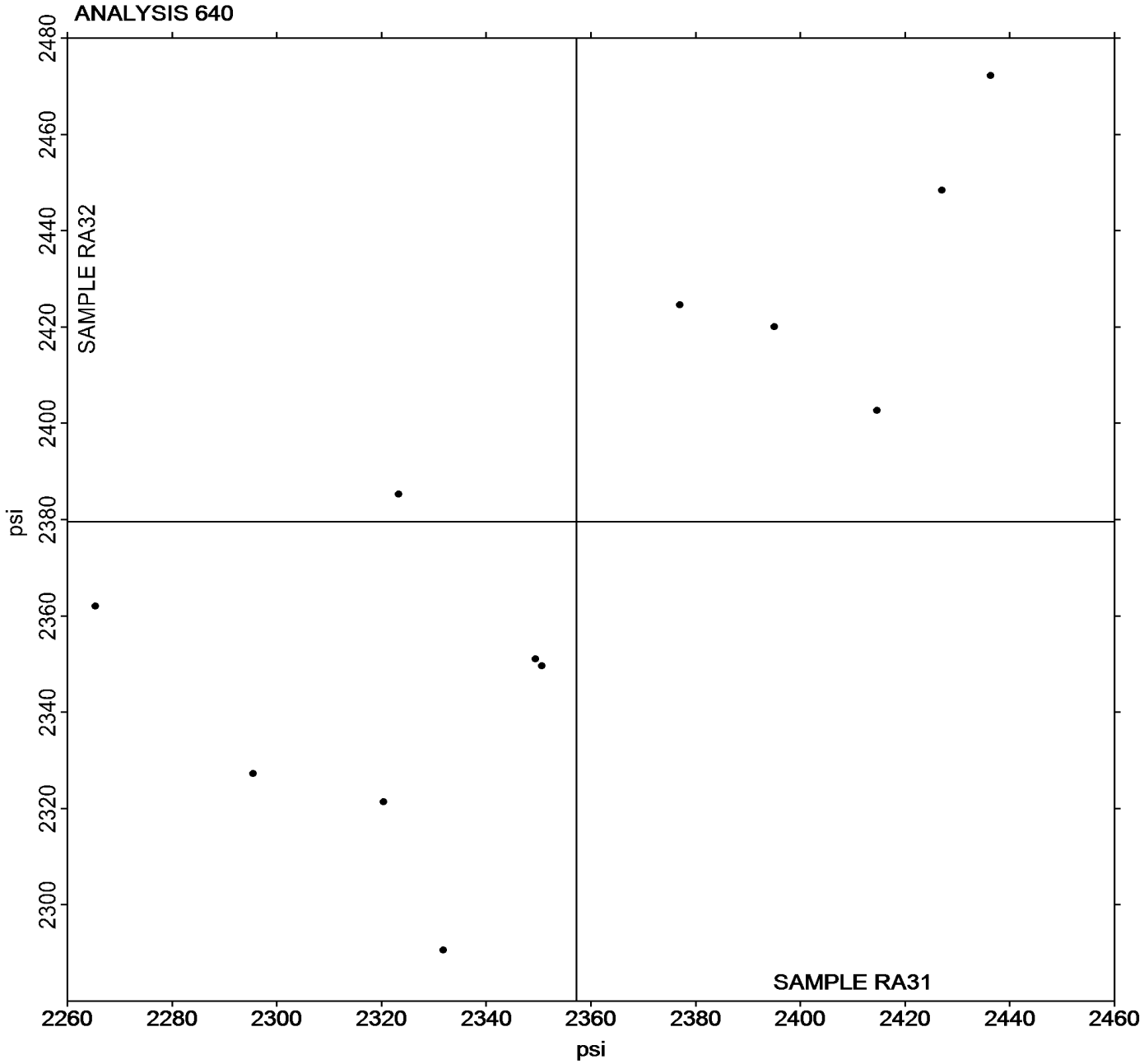
Grand Mean Sample **RA31** = 2,357.21 psi

Grand Mean Sample **RA32** = 2,379.58 psi



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.

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Rubber Interlaboratory Testing Program

Analysis 641

O-Ring Ultimate Elongation (%)

WebCode	Data Flag	Sample RA31 Lab Mean	Sample RA31 Diff from Grand Mean	Sample RA31 CPV	Sample RA32 Lab Mean	Sample RA32 Diff from Grand Mean	Sample RA32 CPV
2H6KYK		427.0	2.4	0.09	431.4	2.6	0.09
34GYRV		428.2	3.6	0.13	420.4	-8.4	-0.28
6DH4VW		445.8	21.2	0.77	453.2	24.4	0.81
8B3LMB	X	70.5	-354.1	-12.86	70.8	-358.0	-11.85
B6NRHP		371.6	-53.0	-1.93	378.8	-50.0	-1.65
B7YT6N		373.4	-51.2	-1.86	371.8	-57.0	-1.89
B9ZYG9		435.0	10.4	0.38	444.0	15.2	0.50
BKGNFE		416.4	-8.2	-0.30	416.0	-12.8	-0.42
GNWZ4H		436.6	12.0	0.43	437.0	8.2	0.27
M244NR		441.9	17.3	0.63	444.3	15.5	0.51
N6FDAV		450.8	26.2	0.95	465.8	37.0	1.22
PW3UCG	X	872.4	447.8	16.26	889.6	460.8	15.25
TXHEL2		444.2	19.6	0.71	454.0	25.2	0.83

Summary Statistics

	Sample RA31	Sample RA32
Grand Means	424.63 percent	428.79 percent
Stnd Dev Btwn Labs	27.54 percent	30.21 percent

Statistics based on 11 of 13 reporting participants

Samples RA31: Nitrile O-Ring & RA32: Nitrile O-Ring

Comments on Assigned Data Flags for Test #641

8B3LMB (X) - Extreme Data.

PW3UCG (X) - Extreme Data.

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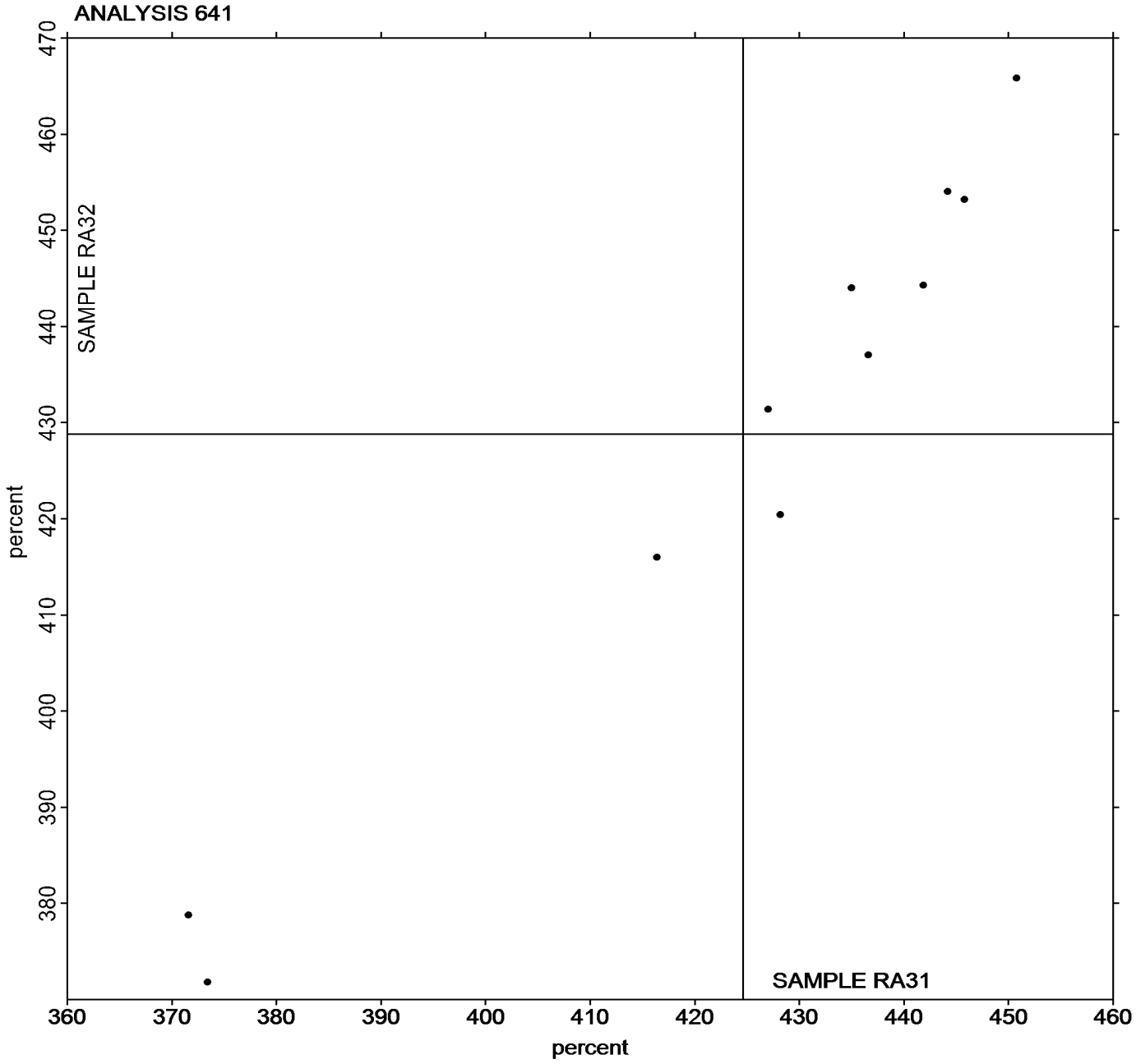
Grand Mean Sample **RA31** = 424.63 percent

Grand Mean Sample **RA32** = 428.79 percent



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WebCode	Data Flag	Sample RA31 Lab Mean	Sample RA31 Diff from Grand Mean	Sample RA31 CPV	Sample RA32 Lab Mean	Sample RA32 Diff from Grand Mean	Sample RA32 CPV
2H6KYK		527.4	67.9	0.89	525.0	64.6	0.83
34GYRV		456.4	-3.1	-0.04	452.6	-7.8	-0.10
6DH4VW		473.2	13.7	0.18	474.6	14.2	0.18
B6NRHP		547.2	87.7	1.16	566.8	106.4	1.36
B7YT6N		528.4	68.9	0.91	533.4	73.0	0.93
B9ZYG9		459.6	0.1	0.00	458.2	-2.2	-0.03
BKGNFE		570.2	110.7	1.46	562.6	102.2	1.31
GNWZ4H		439.0	-20.5	-0.27	434.8	-25.6	-0.33
M244NR		363.5	-96.0	-1.26	373.9	-86.5	-1.11
N6FDAV		325.2	-134.3	-1.77	321.4	-139.0	-1.78
PW3UCG		382.6	-76.9	-1.01	370.4	-90.0	-1.15
TXHEL2		441.0	-18.5	-0.24	451.0	-9.4	-0.12

Summary Statistics

	Sample RA31	Sample RA32
Grand Means	459.48 psi	460.39 psi
Stnd Dev Btwn Labs	75.94 psi	78.15 psi

Statistics based on 12 of 12 reporting participants

Samples RA31: Nitrile O-Ring & RA32: Nitrile O-Ring

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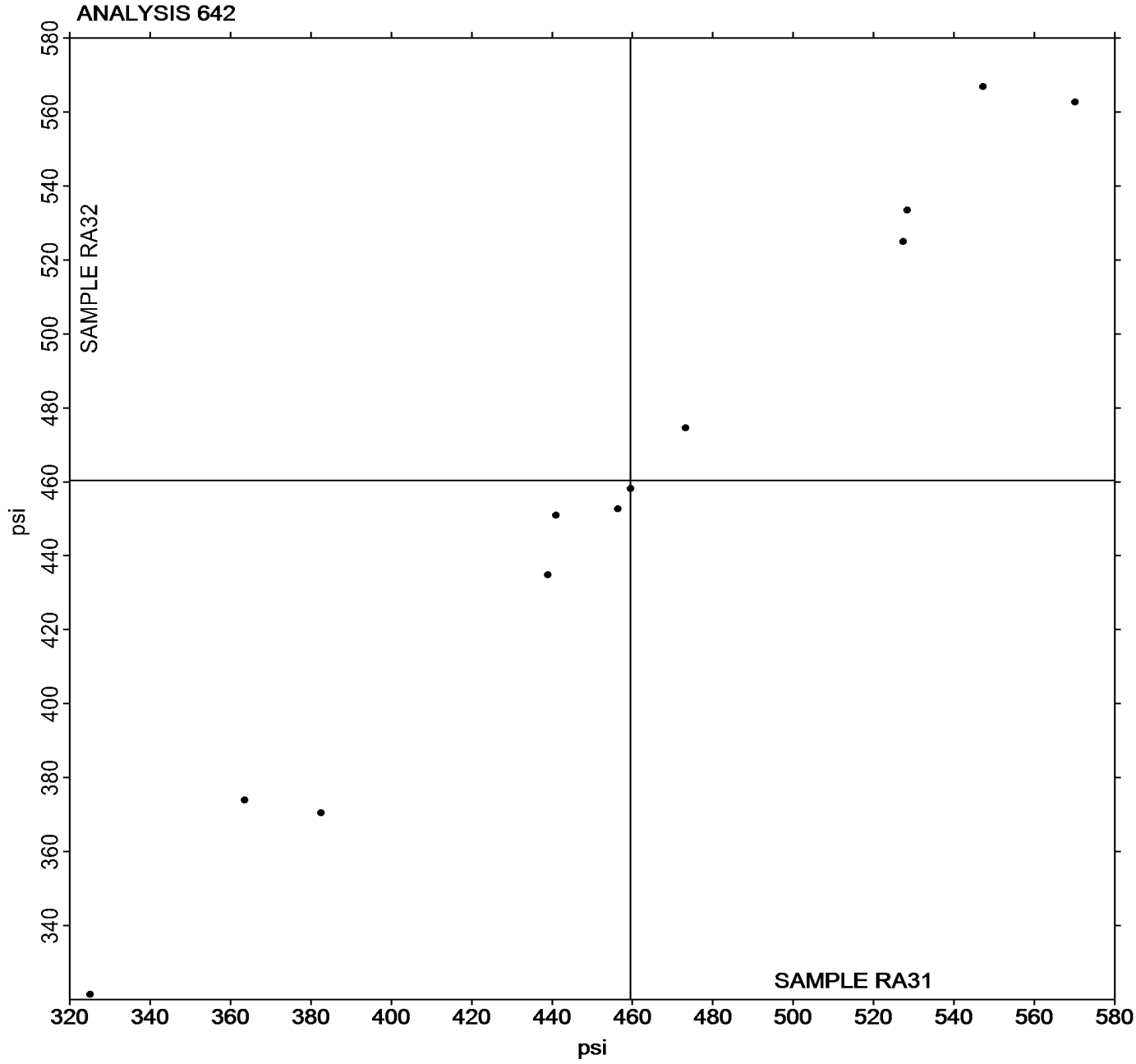
Grand Mean Sample **RA31** = 459.48 psi

Grand Mean Sample **RA32** = 460.39 psi



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.

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WebCode	Data Flag	Sample RA31 Lab Mean	Sample RA31 Diff from Grand Mean	Sample RA31 CPV	Sample RA32 Lab Mean	Sample RA32 Diff from Grand Mean	Sample RA32 CPV
2H6KYK		62.50	-6.03	-1.82	63.50	-5.29	-1.59
34GYRV		74.80	6.27	1.89	75.20	6.41	1.93
6DH4VW		70.92	2.39	0.72	70.92	2.13	0.64
B6NRHP		67.58	-0.95	-0.29	68.02	-0.77	-0.23
B7YT6N		68.60	0.07	0.02	69.20	0.41	0.12
B9ZYG9		64.82	-3.71	-1.12	64.54	-4.25	-1.28
BKGNFE		68.52	-0.01	0.00	69.20	0.41	0.12
M244NR		70.42	1.89	0.57	69.72	0.93	0.28
N6FDAV		68.26	-0.27	-0.08	68.20	-0.59	-0.18
PW3UCG		66.40	-2.13	-0.64	66.20	-2.59	-0.78
XM8JJY		71.00	2.47	0.74	72.00	3.21	0.96

Summary Statistics

	Sample RA31	Sample RA32
Grand Means	68.529 Type A	68.791 Type A
Stnd Dev Btwn Labs	3.322 Type A	3.329 Type A

Statistics based on 11 of 11 reporting participants

Samples RA31: Nitrile O-Ring & RA32: Nitrile O-Ring

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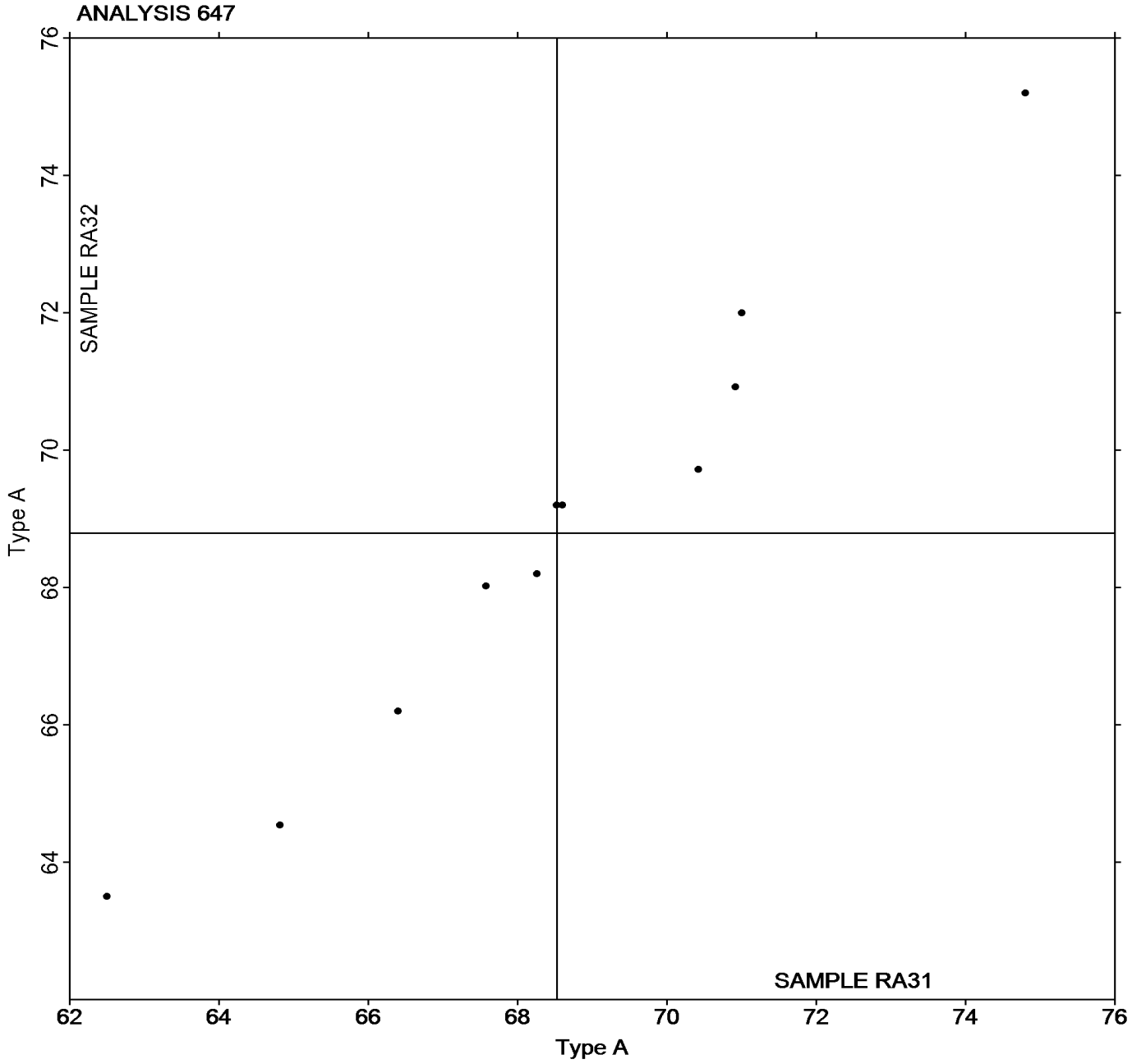
Grand Mean Sample **RA31** = 68.529 Type A

Grand Mean Sample **RA32** = 68.791 Type A



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.

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WebCode	Data Flag	Sample RA31 Lab Mean	Sample RA31 Diff from Grand Mean	Sample RA31 CPV	Sample RA32 Lab Mean	Sample RA32 Diff from Grand Mean	Sample RA32 CPV
2H6KYK		75.70	-0.40	-0.58	76.08	-0.33	-0.41
34GYRV		77.08	0.98	1.41	78.10	1.69	2.08
6DH4VW		75.80	-0.30	-0.44	75.88	-0.53	-0.65
B6NRHP		75.18	-0.92	-1.33	75.72	-0.69	-0.85
B7YT6N		75.68	-0.42	-0.61	76.02	-0.39	-0.48
B9ZYG9		76.84	0.74	1.06	76.72	0.31	0.38
BKGNFE		76.44	0.34	0.49	76.36	-0.05	-0.06

Summary Statistics

	Sample RA31	Sample RA32
Grand Means	76.103 Type M	76.411 Type M
Stnd Dev Btwn Labs	0.695 Type M	0.814 Type M

Statistics based on 7 of 7 reporting participants

Samples RA31: Nitrile O-Ring & RA32: Nitrile O-Ring

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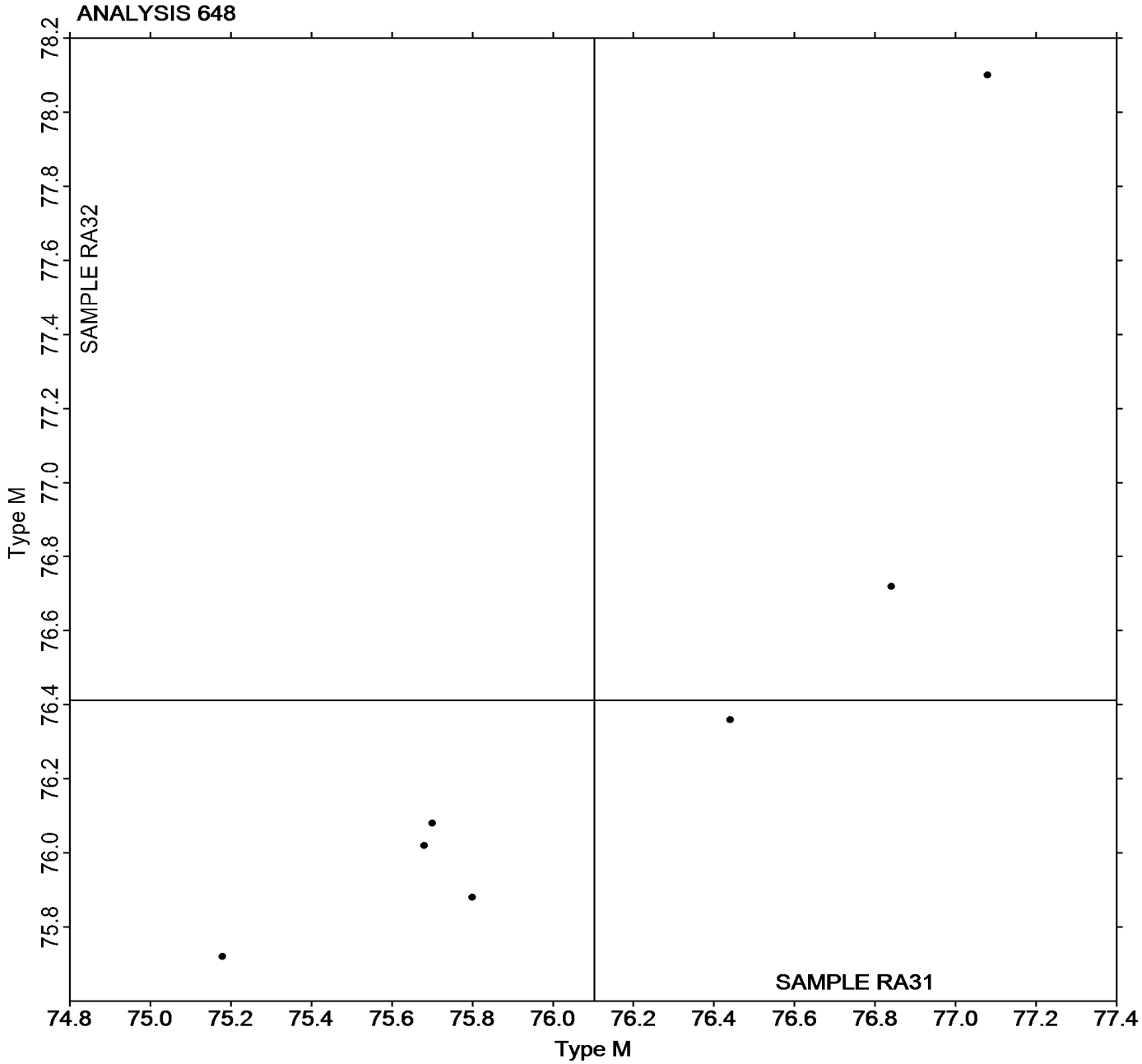
Grand Mean Sample **RA31** = 76.103 Type M

Grand Mean Sample **RA32** = 76.411 Type M



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.

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Rubber Interlaboratory Testing Program

Analysis 649

O-Ring Density

WebCode	Data Flag	Sample RA31 Lab Mean	Sample RA31 Diff from Grand Mean	Sample RA31 CPV	Sample RA32 Lab Mean	Sample RA32 Diff from Grand Mean	Sample RA32 CPV
2H6KYK		1.207	-0.004	-1.06	1.202	-0.009	-2.44
34GYRV		1.212	0.002	0.49	1.213	0.002	0.47
6DH4VW		1.216	0.006	1.62	1.215	0.004	1.10
8B3LMB		1.207	-0.003	-0.91	1.209	-0.002	-0.66
B6NRHP		1.204	-0.006	-1.80	1.209	-0.002	-0.65
B7YT6N		1.207	-0.004	-1.05	1.210	-0.001	-0.25
B9ZYG9		1.212	0.001	0.39	1.212	0.000	0.13
BKGNFE		1.215	0.004	1.18	1.210	-0.001	-0.23
GNWZ4H		1.213	0.002	0.66	1.215	0.003	0.90
M244NR		1.210	-0.001	-0.15	1.211	0.000	-0.07
N6FDAV		1.213	0.003	0.81	1.213	0.002	0.48
PW3UCG		1.213	0.002	0.62	1.218	0.006	1.75
TXHEL2		1.207	-0.003	-0.89	1.209	-0.003	-0.69
XM8JJY		1.211	0.000	0.09	1.212	0.001	0.19

Summary Statistics

	Sample RA31	Sample RA32
Grand Means	1.2105 g/cm^3 (Mg/m^3)	1.2113 g/cm^3 (Mg/m^3)
Stnd Dev Btwn Labs	0.0035 g/cm^3 (Mg/m^3)	0.0036 g/cm^3 (Mg/m^3)

Statistics based on 14 of 14 reporting participants

Samples RA31: Nitrile O-Ring & RA32: Nitrile O-Ring

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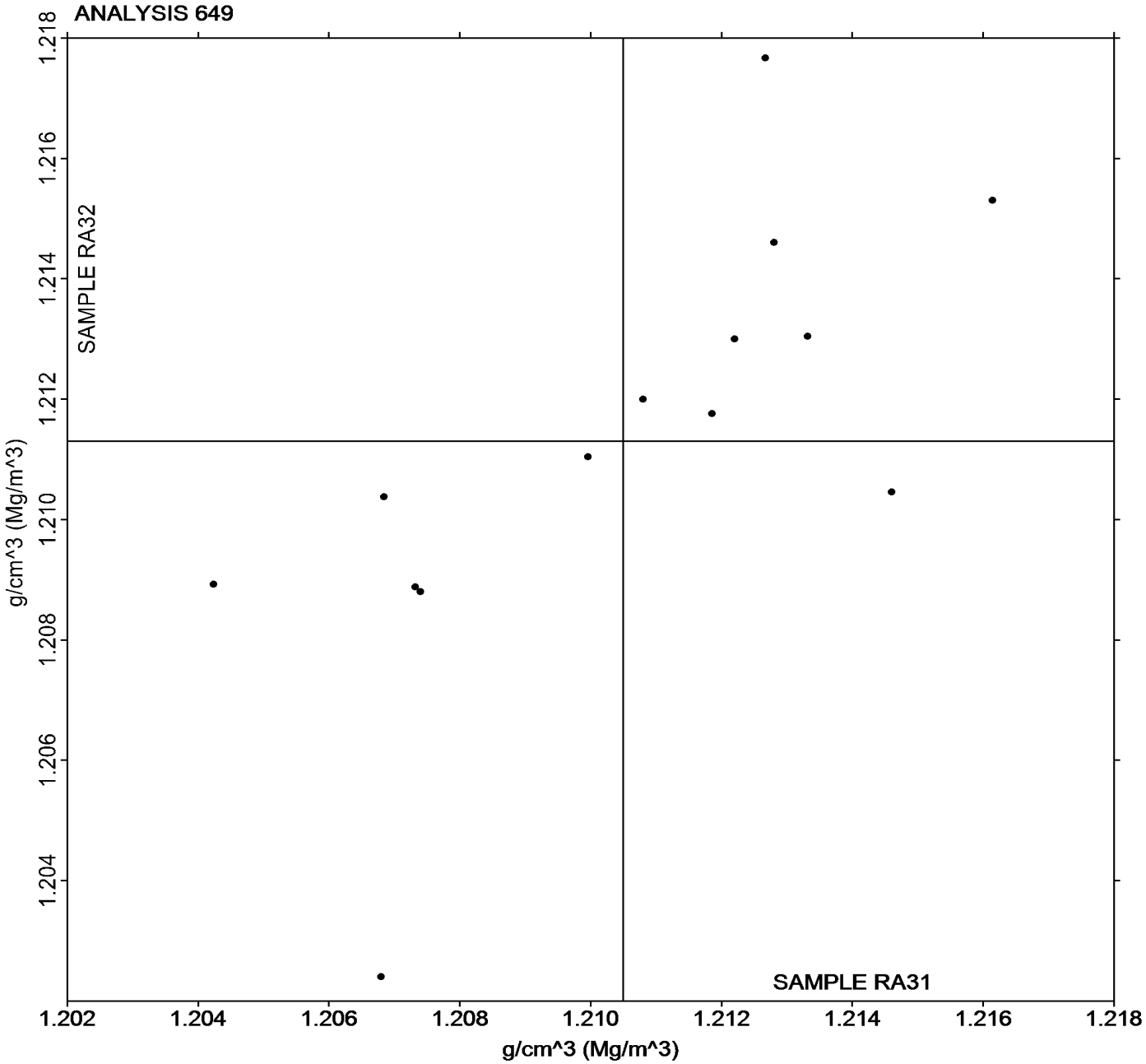
Grand Mean Sample **RA31** = 1.2105 g/cm^3 (Mg/m^3)

Grand Mean Sample **RA32** = 1.2113 g/cm^3 (Mg/m^3)



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.

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WebCode	Data Flag	Sample RA33 Lab Mean	Sample RA33 Diff from Grand Mean	Sample RA33 CPV	Sample RA34 Lab Mean	Sample RA34 Diff from Grand Mean	Sample RA34 CPV
2H6KYK		11.100	1.724	0.94	10.667	0.714	0.42
2LMM3J		7.833	-1.543	-0.84	9.900	-0.053	-0.03
34GYRV		8.333	-1.043	-0.57	9.700	-0.252	-0.15
6DH4VW		10.707	1.331	0.73	12.057	2.104	1.23
8B3LMB		13.667	4.291	2.34	13.633	3.681	2.15
B6NRHP		9.000	-0.376	-0.21	9.000	-0.953	-0.56
B7YT6N		8.000	-1.376	-0.75	8.000	-1.953	-1.14
B9ZYG9		10.273	0.897	0.49	11.140	1.188	0.69
BKGNFE		8.700	-0.676	-0.37	8.767	-1.186	-0.69
M244NR		7.000	-2.376	-1.30	8.000	-1.953	-1.14
N6FDAV		9.633	0.257	0.14	10.133	0.181	0.11
TXHEL2		8.267	-1.109	-0.61	8.433	-1.519	-0.89

Summary Statistics

	Sample RA33	Sample RA34
Grand Means	9.3761 % Compression	9.9525 % Compression
Stnd Dev Btwn Labs	1.8305 % Compression	1.7120 % Compression

Statistics based on 12 of 12 reporting participants

Samples RA33: Nitrile O-Ring & RA34: Nitrile O-Ring

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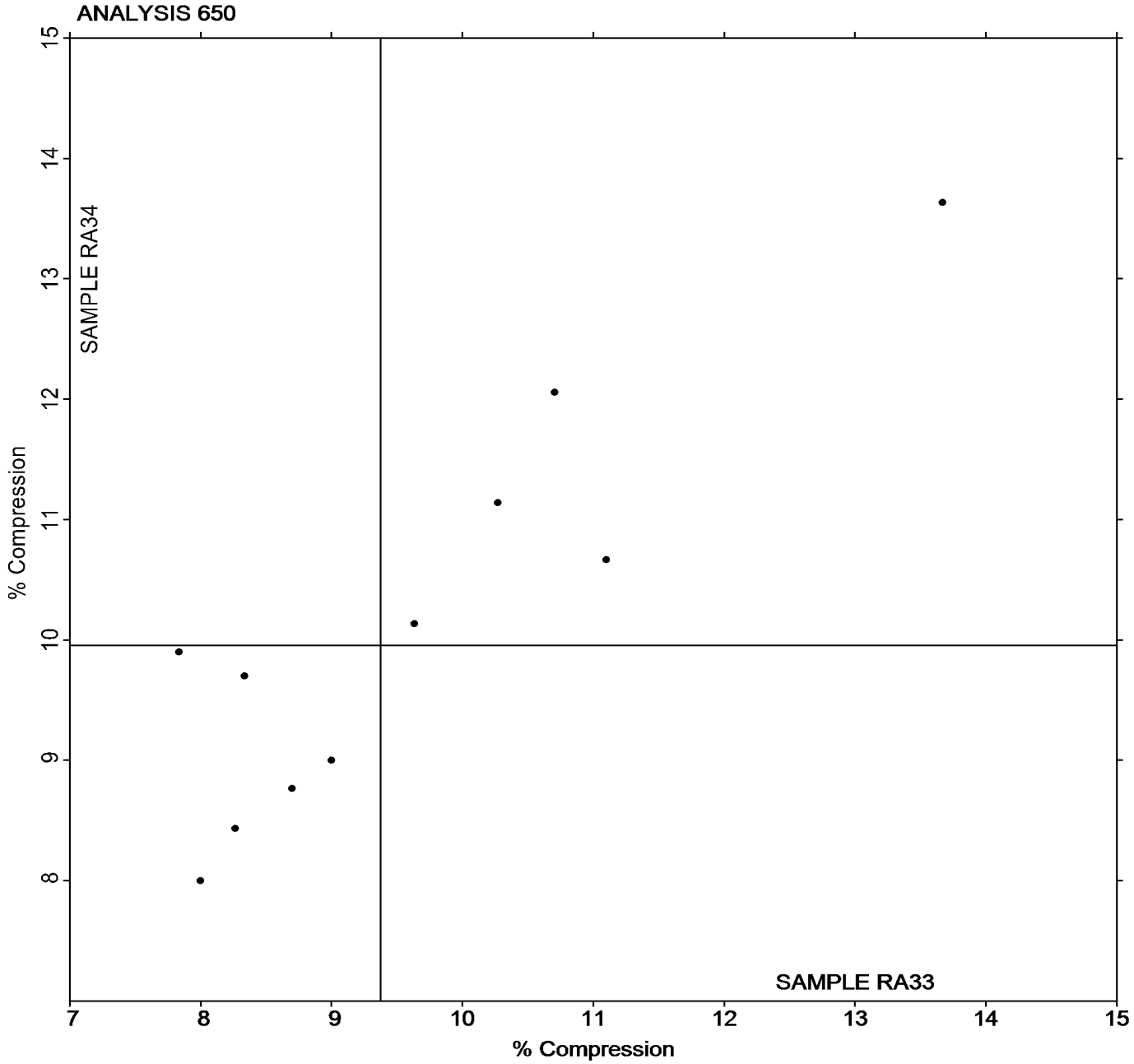
Grand Mean Sample **RA33** = 9.3761 % Compression

Grand Mean Sample **RA34** = 9.9525 % Compression



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.

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WebCode	Data Flag	Sample S31-S32 Lab Mean	Diff from Grand Mean	CPV	Sample S33-S34 Lab Mean	Diff from Grand Mean	CPV	Instr Code
26GK4B		46.57	0.55	0.38	51.97	-0.71	-0.54	MR
2LMM3J		46.65	0.63	0.44	53.77	1.09	0.83	MV
2P49CH		44.97	-1.05	-0.73	51.85	-0.82	-0.63	MM
2RRHN6		45.78	-0.24	-0.17	52.90	0.23	0.17	MR
34GYRV		43.83	-2.19	-1.52	51.48	-1.19	-0.91	MR
4M9CX9		45.62	-0.40	-0.28	52.52	-0.16	-0.12	MR
4V3HRA		45.05	-0.97	-0.67	51.75	-0.93	-0.71	MR
7E2KHA		44.17	-1.85	-1.29	52.67	-0.01	-0.01	MR
7JHQKB		46.47	0.45	0.31	52.20	-0.47	-0.36	MV
7RBZQZ		49.00	2.98	2.07	54.86	2.19	1.67	XX
8JEM7Q		45.80	-0.22	-0.15	53.45	0.78	0.59	MR
9BFHRF		47.23	1.21	0.84	53.43	0.76	0.58	MR
A9AEG6		44.75	-1.27	-0.88	52.32	-0.36	-0.27	MR
AF4J7Y		47.08	1.06	0.74	52.30	-0.37	-0.29	MR
ECVMTZ		46.69	0.67	0.47	51.48	-1.20	-0.91	MR
FJ9Z7P		48.42	2.40	1.67	55.35	2.68	2.04	MR
N6FDAV		47.35	1.33	0.92	53.78	1.11	0.85	ML
NF3AGM		45.94	-0.09	-0.06	51.55	-1.13	-0.86	MV
PL3BT2		45.61	-0.41	-0.29	53.57	0.90	0.69	MR
Q38TKL		44.97	-1.05	-0.73	51.58	-1.09	-0.83	MR
QCWJ8D		45.58	-0.44	-0.30	52.35	-0.32	-0.25	MR
R7XR9F		42.56	-3.46	-2.41	49.73	-2.94	-2.24	MV
VT2J3A		46.17	0.15	0.10	54.24	1.56	1.19	TA
XF9YFH		45.15	-0.87	-0.61	50.63	-2.04	-1.56	MP
YXL2QW		47.75	1.73	1.20	54.27	1.59	1.22	MR
ZZPV48		47.40	1.38	0.96	53.52	0.85	0.65	MR

Summary Statistics

	Sample S31-S32	Sample S33-S34
Grand Means	46.021 ML 1 + 4	52.673 ML 1 + 4
Stnd Dev Btwn Labs	1.437 ML 1 + 4	1.310 ML 1 + 4

Statistics based on 26 of 26 reporting participants

Samples S31-S32: NBR & S33-S34: Butyl

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Key to Instrument Codes Reported by Participants

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
MV	MonTech	TA	TA Instruments (any model)
XX	Instrument make/model not specified by lab		

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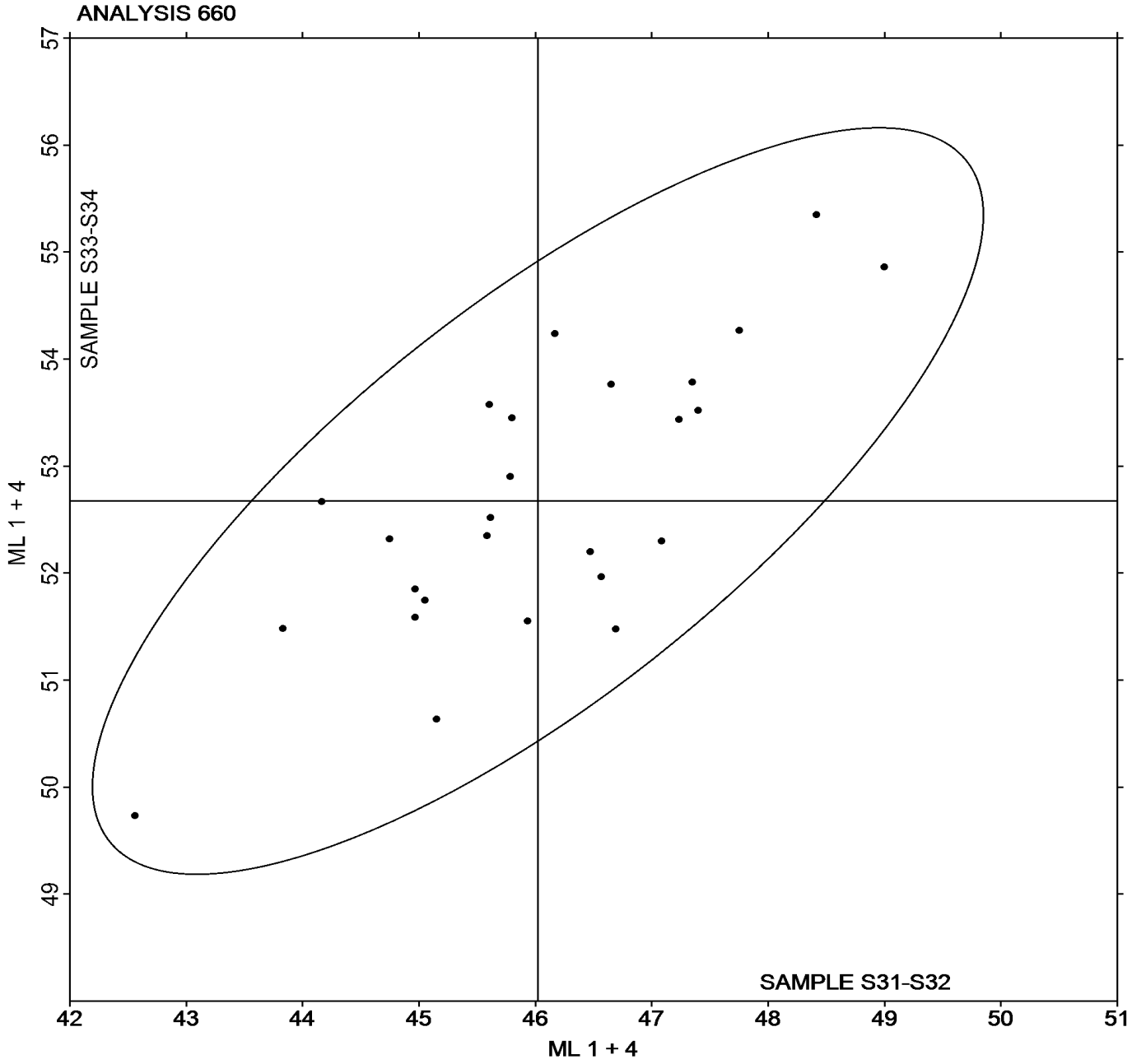
Mooney Viscosity: 4-minute readings (ML 1 + 4)

Grand Mean Sample **S31-S32** = 46.021 ML 1 + 4

Grand Mean Sample **S33-S34** = 52.673 ML 1 + 4



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

WebCode	Data Flag	Sample S31-S32 Lab Mean	Diff from Grand Mean	CPV	Sample S33-S34 Lab Mean	Diff from Grand Mean	CPV	Instr Code
26GK4B		46.57	0.31	0.24	49.70	-0.85	-0.66	MR
2LMM3J		46.65	0.39	0.31	51.31	0.76	0.59	MV
2P49CH		44.97	-1.29	-1.01	52.12	1.57	1.22	MR
2RRHN6		45.78	-0.48	-0.37	50.50	-0.05	-0.04	MR
34GYRV		43.83	-2.43	-1.89	50.18	-0.37	-0.29	MR
4M9CX9		45.62	-0.64	-0.50	50.43	-0.12	-0.09	MR
4V3HRA		45.05	-1.21	-0.94	49.75	-0.80	-0.62	MR
7JHQKB	X	46.47	0.21	0.16	35.66	-14.89	-11.63	MV
7RBZQZ		49.00	2.74	2.13	51.24	0.69	0.54	XX
8JEM7Q		45.80	-0.46	-0.36	50.47	-0.08	-0.06	MR
9BFHRF		47.23	0.97	0.76	50.92	0.37	0.29	MR
A9AEG6		44.75	-1.51	-1.18	49.88	-0.67	-0.52	MR
AF4J7Y		47.08	0.82	0.64	50.00	-0.55	-0.43	MR
ECVMTZ		46.69	0.43	0.33	49.38	-1.17	-0.91	MR
FJ9Z7P		48.42	2.16	1.68	52.98	2.43	1.90	MR
N6FDAV		47.35	1.09	0.85	52.60	2.05	1.60	ML
NF3AGM		45.94	-0.33	-0.25	49.61	-0.94	-0.73	MV
Q38TKL		44.97	-1.29	-1.01	48.92	-1.63	-1.27	MR
QCWJ8D		45.58	-0.68	-0.53	49.90	-0.65	-0.51	MR
R7XR9F	X	42.56	-3.70	-2.89	40.35	-10.20	-7.97	MV
VT2J3A		46.17	-0.09	-0.07	52.01	1.46	1.14	TA
XF9YFH		45.15	-1.11	-0.87	47.53	-3.02	-2.35	MP
YXL2QW		47.75	1.49	1.16	51.89	1.34	1.05	MR
ZZPV48		47.40	1.14	0.89	50.76	0.21	0.16	MR

Summary Statistics

	Sample S31-S32	Sample S33-S34
Grand Means	46.262 ML 1 + 8	50.549 ML 1 + 8
Stnd Dev Btwn Labs	1.283 ML 1 + 8	1.281 ML 1 + 8

Statistics based on 22 of 24 reporting participants

Samples S31-S32: NBR & S33-S34: Butyl

Comments on Assigned Data Flags for Test #661

7JHQKB (X) - Low data for sample group S33-S34.

R7XR9F (X) - Data for all samples are low.

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Key to Instrument Codes Reported by Participants

ML	Alpha Technologies/Monsanto model not specified	MP	Monsanto Compact Mooney Viscometer
MR	Alpha Technologies Model MV2000/MV2000E	MV	Montech
TA	TA Instruments (any model)	XX	Instrument make/model not specified by lab

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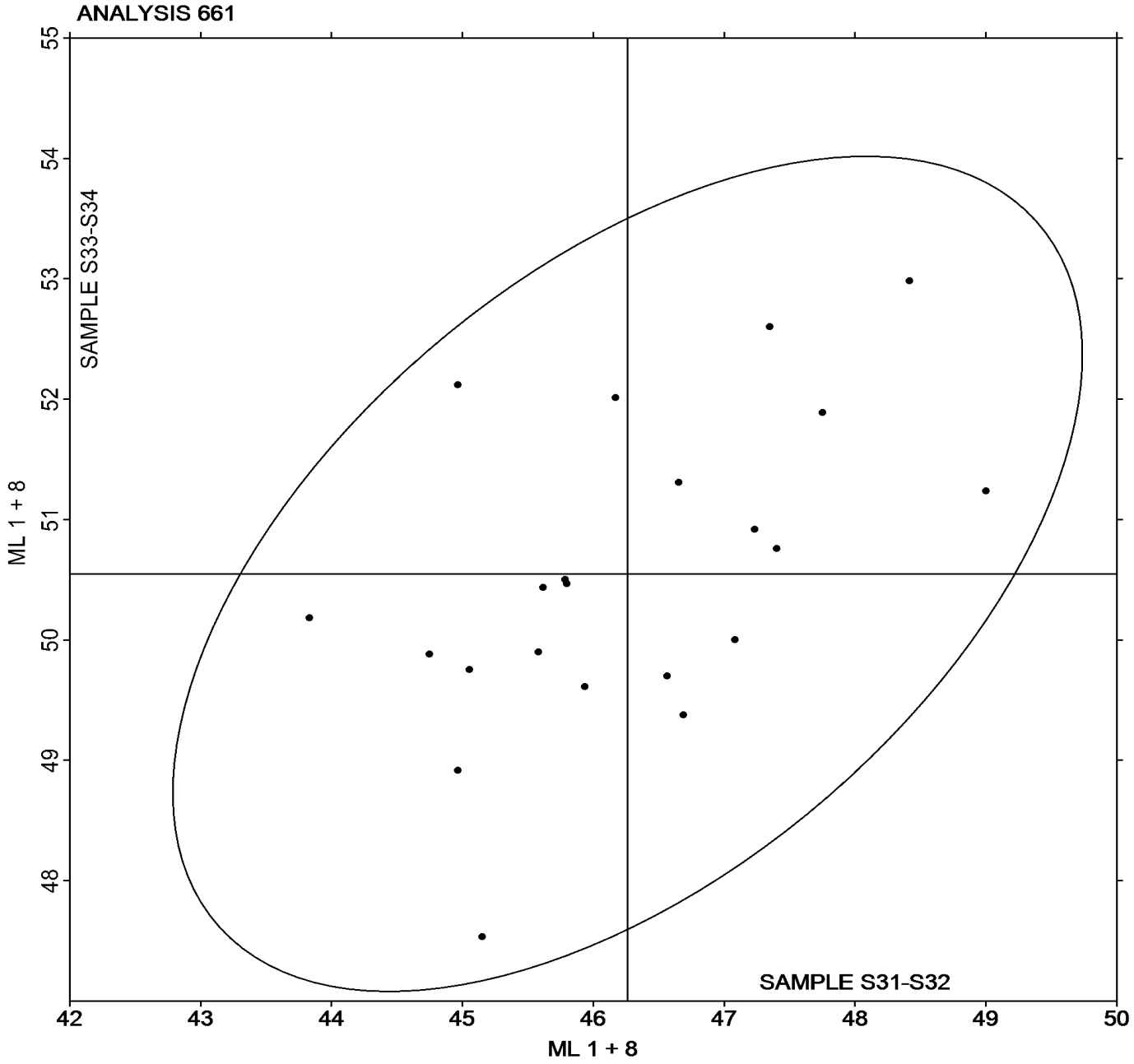
Mooney Viscosity: 4-min NBR/SBR & 8-min butyl readings (ML)

Grand Mean Sample **S31-S32** = 46.262 ML 1 + 8

Grand Mean Sample **S33-S34** = 50.549 ML 1 + 8



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WebCode	Data Flag	Sample S31-S32 Lab Mean	Diff from Grand Mean	CPV	Sample S33-S34 Lab Mean	Diff from Grand Mean	CPV	Instr Code
2LMM3J		3.933	-0.928	-1.21	6.400	-0.950	-0.84	MV
2RRHN6		5.233	0.372	0.49	7.467	0.116	0.10	MR
4V3HRA		5.235	0.373	0.49	7.628	0.278	0.25	MR
7E2KHA		5.800	0.938	1.23	8.600	1.250	1.11	MR
7JHQKB		5.072	0.210	0.27	5.130	-2.220	-1.97	MV
7RBZQZ		5.167	0.305	0.40	8.833	1.483	1.31	XX
9BFHRF		4.683	-0.178	-0.23	8.633	1.283	1.14	MR
AF4J7Y		5.193	0.332	0.43	7.290	-0.060	-0.05	MR
N6FDAV		5.073	0.212	0.28	7.533	0.183	0.16	ML
QCWJ8D		5.090	0.228	0.30	7.140	-0.210	-0.19	MR
R7XR9F	X	543.867	539.005	704.03	547.500	540.150	478.64	MV
ZZPV48		3.000	-1.862	-2.43	6.200	-1.150	-1.02	MR

Summary Statistics

	Sample S31-S32	Sample S33-S34
Grand Means	4.8618 seconds	7.3505 seconds
Stnd Dev Btwn Labs	0.7656 seconds	1.1285 seconds

Statistics based on 11 of 12 reporting participants

Samples S31-S32: NBR & S33-S34: Butyl

Comments on Assigned Data Flags for Test #662

R7XR9F (X) - Extreme Data.

Key to Instrument Codes Reported by Participants

ML	Alpha Technologies/Monsanto model not specified	MR	Alpha Technologies Model MV2000/MV2000E
MV	MonTech	XX	Instrument make/model not specified by lab

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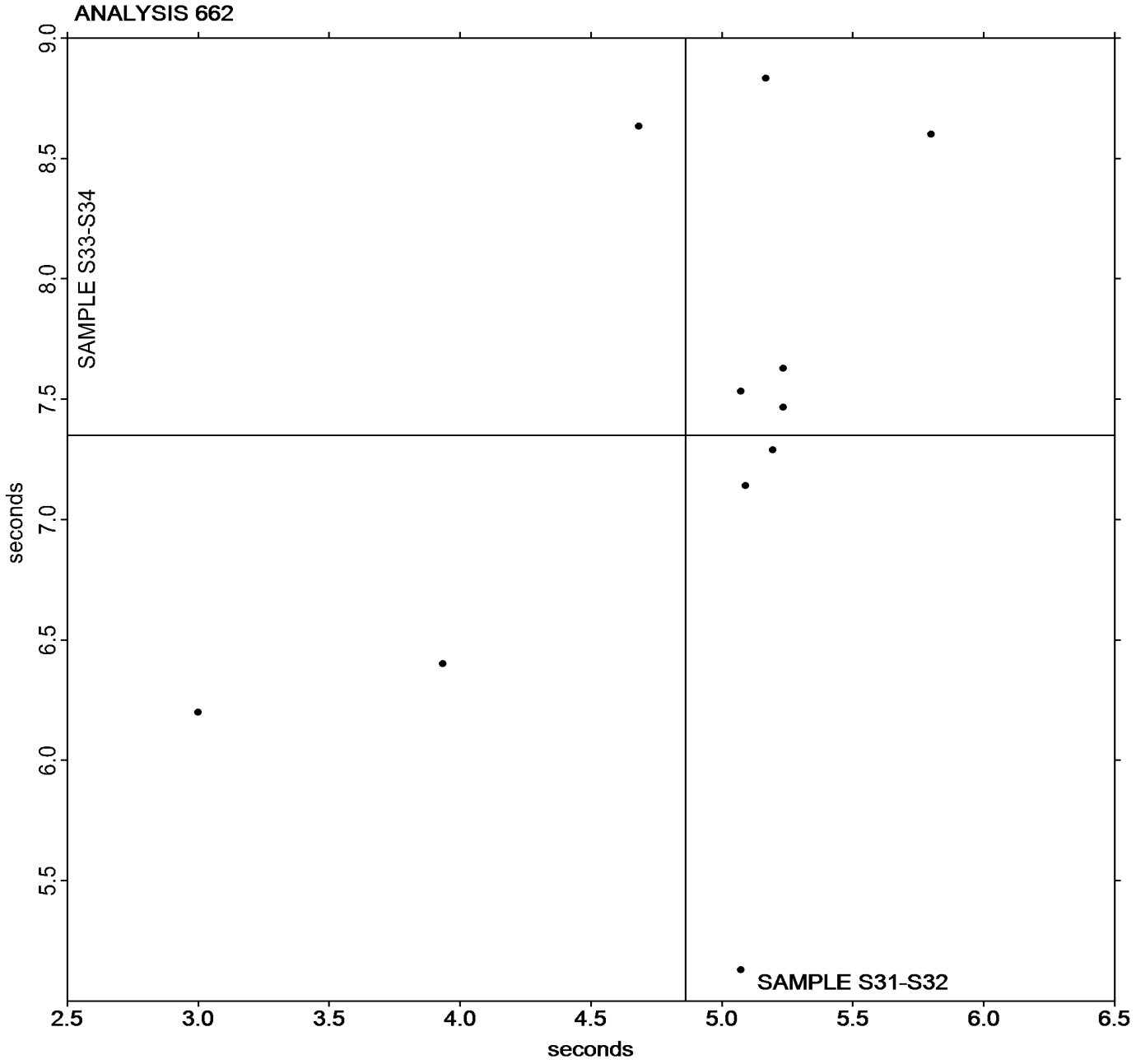
Grand Mean Sample **S31-S32** = 4.8618 seconds

Grand Mean Sample **S33-S34** = 7.3505 seconds



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.

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WebCode	Data Flag	Sample S31-S32 Lab Mean	Diff from Grand Mean	CPV	Sample S33-S34 Lab Mean	Diff from Grand Mean	CPV	Instr Code
2LMM3J		93.12	1.21	1.02	93.70	1.55	1.16	MV
2RRHN6		91.55	-0.36	-0.30	92.48	0.34	0.25	MR
4V3HRA		90.91	-1.00	-0.85	91.70	-0.45	-0.34	MR
7JHQKB		91.63	-0.28	-0.23	91.64	-0.51	-0.38	MV
7RBZQZ		90.99	-0.92	-0.78	91.24	-0.91	-0.68	XX
9BFHRF		91.57	-0.34	-0.29	89.18	-2.97	-2.22	MR
AF4J7Y		90.97	-0.94	-0.79	92.27	0.13	0.09	MR
N6FDAV		91.04	-0.87	-0.73	91.88	-0.27	-0.20	ML
QCWJ8D		91.55	-0.36	-0.30	93.02	0.88	0.65	MR
R7XR9F		93.06	1.15	0.97	92.26	0.11	0.08	MV
ZZPV48		94.63	2.72	2.29	94.25	2.10	1.57	MR

Summary Statistics

	Sample S31-S32	Sample S33-S34
Grand Means	91.909 percent	92.147 percent
Stnd Dev Btwn Labs	1.187 percent	1.338 percent

Statistics based on 11 of 11 reporting participants

Samples S31-S32: NBR & S33-S34: Butyl

Key to Instrument Codes Reported by Participants

ML	Alpha Technologies/Monsanto model not specified	MR	Alpha Technologies Model MV2000/MV2000E
MV	Montech	XX	Instrument make/model not specified by lab

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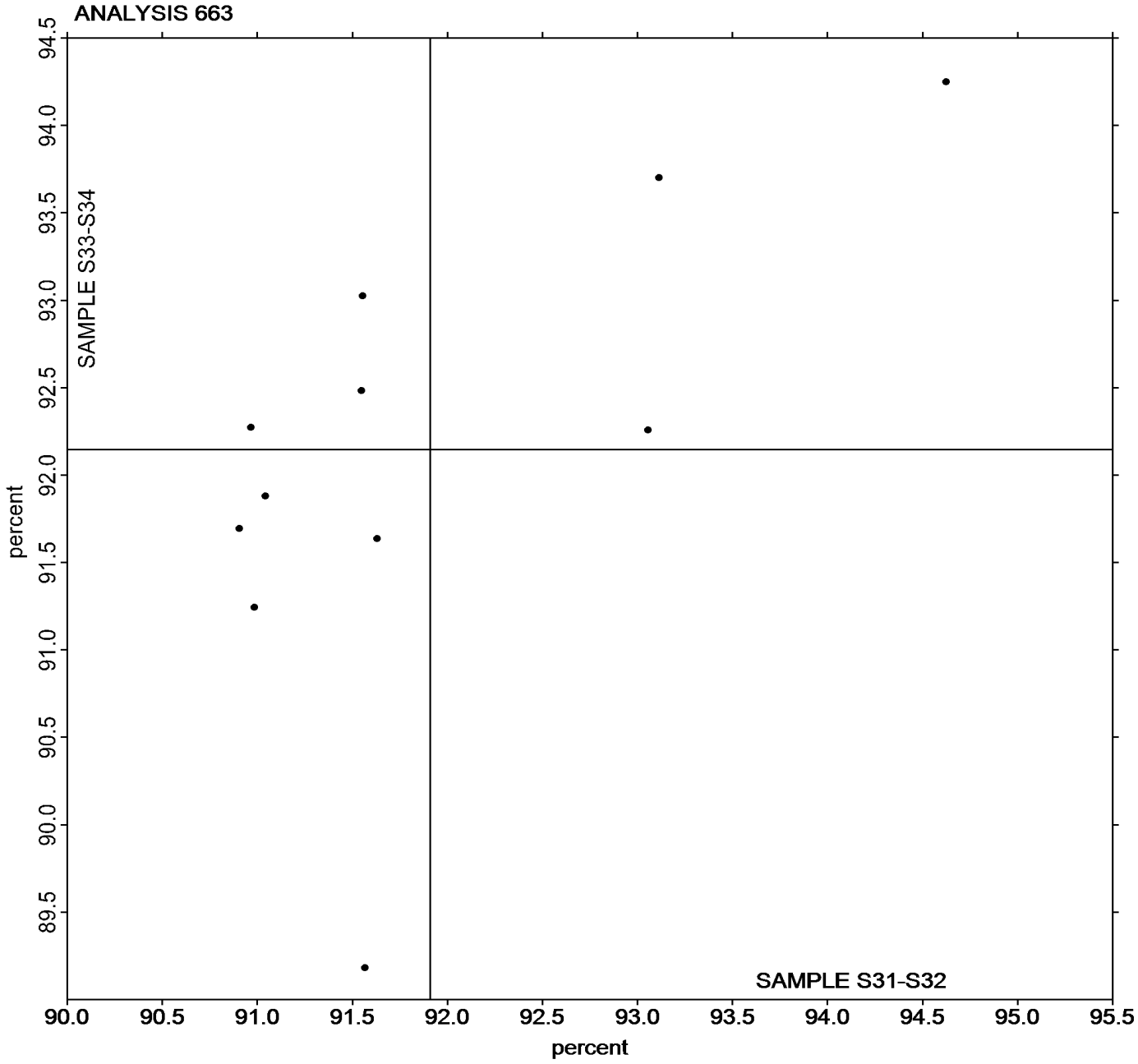
Grand Mean Sample **S31-S32** = 91.909 percent

Grand Mean Sample **S33-S34** = 92.147 percent



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.

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

WebCode	Data Flag	Sample S31-S32 Lab Mean	Diff from Grand Mean	CPV	Sample S33-S34 Lab Mean	Diff from Grand Mean	CPV	Instr Code
2LMM3J		336.4	-59.8	-0.79	352.0	-99.3	-1.25	MV
2RRHN6		425.8	29.6	0.39	439.5	-11.8	-0.15	MR
4V3HRA		443.9	47.7	0.63	466.7	15.4	0.19	MR
7JHQKB		418.0	21.8	0.29	480.3	29.0	0.37	MV
7RBZQZ		481.0	84.8	1.13	551.8	100.5	1.27	XX
9BFHRF		428.4	32.2	0.43	591.9	140.5	1.78	MR
N6FDAV		460.2	64.0	0.85	470.2	18.9	0.24	ML
QCWJ8D		417.0	20.8	0.28	403.2	-48.2	-0.61	XX
R7XR9F		307.1	-89.1	-1.18	412.7	-38.6	-0.49	MV
ZZPV48		244.3	-151.9	-2.02	344.9	-106.4	-1.34	MR

Summary Statistics

	Sample S31-S32	Sample S33-S34
Grand Means	396.20 M-s	451.32 M-s
Stnd Dev Btwn Labs	75.25 M-s	79.18 M-s

Statistics based on 10 of 10 reporting participants

Samples S31-S32: NBR & S33-S34: Butyl

Key to Instrument Codes Reported by Participants

ML	Alpha Technologies/Monsanto model not specified	MR	Alpha Technologies Model MV2000/MV2000E
MV	MonTech	XX	Instrument make/model not specified by lab

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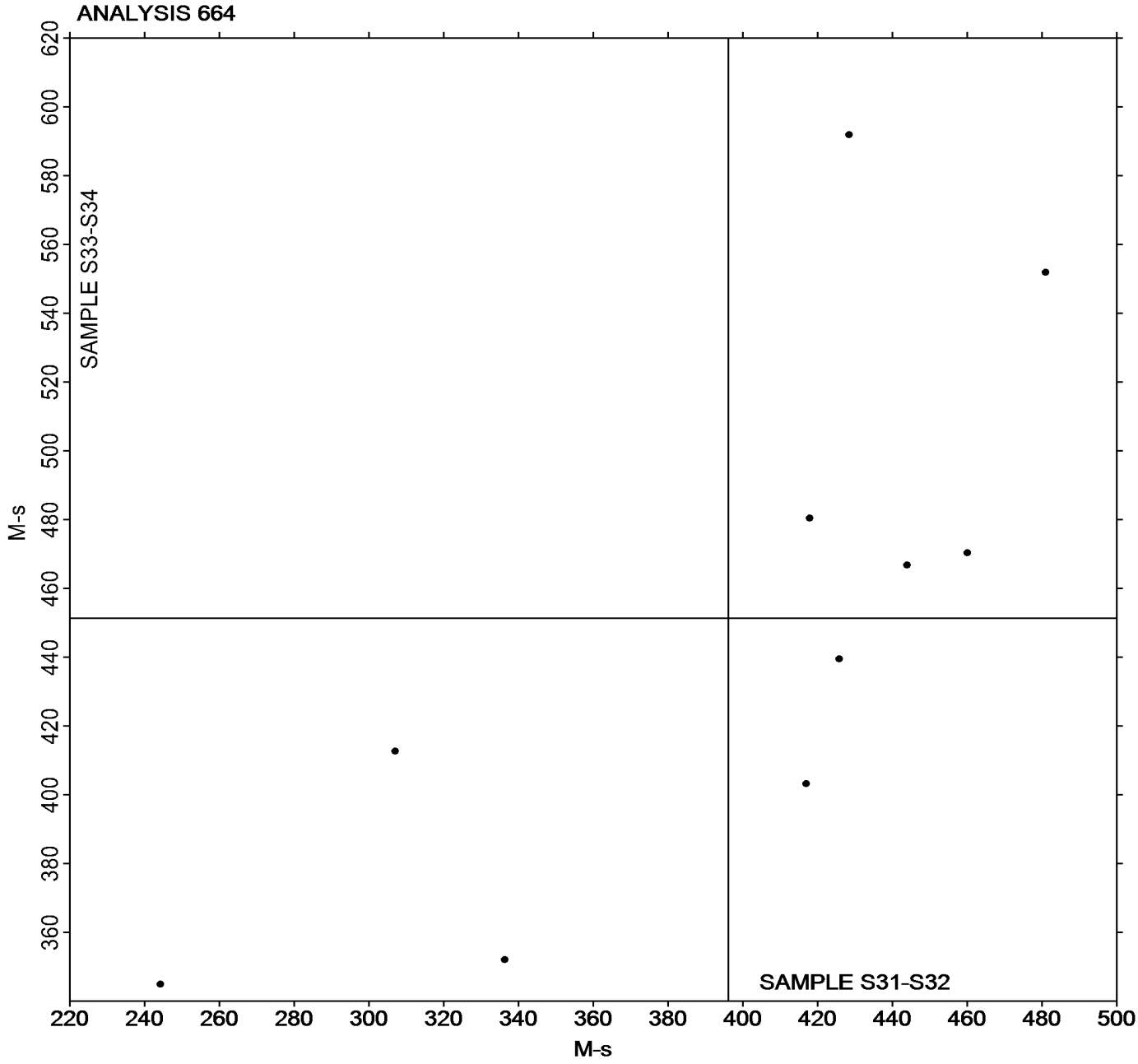
Mooney Stress Relaxation: Area under curve (M-s)

Grand Mean Sample **S31-S32** = 396.20 M-s

Grand Mean Sample **S33-S34** = 451.32 M-s



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.

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WebCode	Data Flag	Sample W35-W36 Lab Mean	Diff from Grand Mean	CPV	Sample W37-W38 Lab Mean	Diff from Grand Mean	CPV	Instr Code
26GK4B		2.332	-0.227	-1.20	2.337	-0.227	-1.22	MC
2LMM3J		2.695	0.136	0.72	2.667	0.103	0.56	XX
2MGC7C		2.732	0.173	0.92	2.657	0.093	0.50	ME
2P49CH		2.497	-0.062	-0.33	2.670	0.106	0.57	XX
34GYRV		2.435	-0.124	-0.66	2.412	-0.152	-0.82	MC
4V3HRA		2.355	-0.204	-1.08	2.343	-0.220	-1.19	MD
6CMKRA		2.348	-0.210	-1.12	2.485	-0.079	-0.42	XX
6DH4VW		2.552	-0.007	-0.04	2.550	-0.014	-0.07	MC
7JHQKB	*	2.298	-0.260	-1.38	2.153	-0.410	-2.21	MR
7RBZQZ		2.730	0.171	0.91	2.770	0.206	1.11	ME
8JEM7Q	*	3.057	0.498	2.64	3.043	0.480	2.59	ME
9BFHRF		2.607	0.048	0.26	2.550	-0.014	-0.07	MC
AF4J7Y		2.858	0.300	1.59	2.802	0.238	1.29	MC
DD7EXB		2.667	0.108	0.57	2.787	0.223	1.20	MR
DWH4B9		2.475	-0.084	-0.44	2.490	-0.074	-0.40	ME
ECVMTZ		2.490	-0.069	-0.36	2.443	-0.120	-0.65	MC
LDZPEW		2.369	-0.189	-1.00	2.344	-0.219	-1.18	MC
M244NR		2.678	0.120	0.64	2.657	0.093	0.50	ME
MNZKB8		2.617	0.058	0.31	2.635	0.071	0.39	MD
N6FDAV		2.472	-0.087	-0.46	2.450	-0.114	-0.61	ME
NF3AGM	X	1.897	-0.662	-3.51	1.723	-0.840	-4.54	MC
NNCUFD		2.507	-0.052	-0.28	2.572	0.008	0.04	MC
PL3BT2		2.288	-0.270	-1.43	2.315	-0.249	-1.34	MC
QUDMRK		2.350	-0.209	-1.11	2.422	-0.142	-0.77	ME
R2RVTL		2.870	0.311	1.65	2.785	0.221	1.20	MM
R7XR9F	X	5.695	3.136	16.64	5.633	3.070	16.57	ME
RYZ2PQ		2.463	-0.095	-0.51	2.533	-0.030	-0.16	XX
XF9YFH		2.685	0.126	0.67	2.548	-0.015	-0.08	ME
YXL2QW		2.595	0.036	0.19	2.632	0.068	0.37	MC
ZF42HR		2.478	-0.080	-0.43	2.582	0.018	0.10	MC
ZZPV48		2.698	0.140	0.74	2.710	0.146	0.79	MX

Summary Statistics

	Sample W35-W36	Sample W37-W38
Grand Means	2.5585 minutes	2.5635 minutes
Stnd Dev Btwn Labs	0.1885 minutes	0.1852 minutes

Statistics based on 29 of 31 reporting participants

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Samples W35-W36: EPDM compound, batch #1 & W37-W38: EPDM compound, batch #2

Comments on Assigned Data Flags for Test #684

NF3AGM (X) - Data for all samples are low. Possible Systematic Error. Inconsistent within the determinations of sample group W37-W38.

R7XR9F (X) - Data for all Samples are high.

Key to Instrument Codes Reported by Participants

MC	Alpha Technologies [Monsanto] MDR 2000 or 2000E	MD	Alpha Tech. Rubber Process Analyzer (RPA 2000)
ME	Alpha Tech. MDR Premiere	MM	MonTech MDR 3000
MR	MonTech D-RPA 3000	MX	Rebuilt MonTech Alpha
XX	Instrument model not specified by lab		

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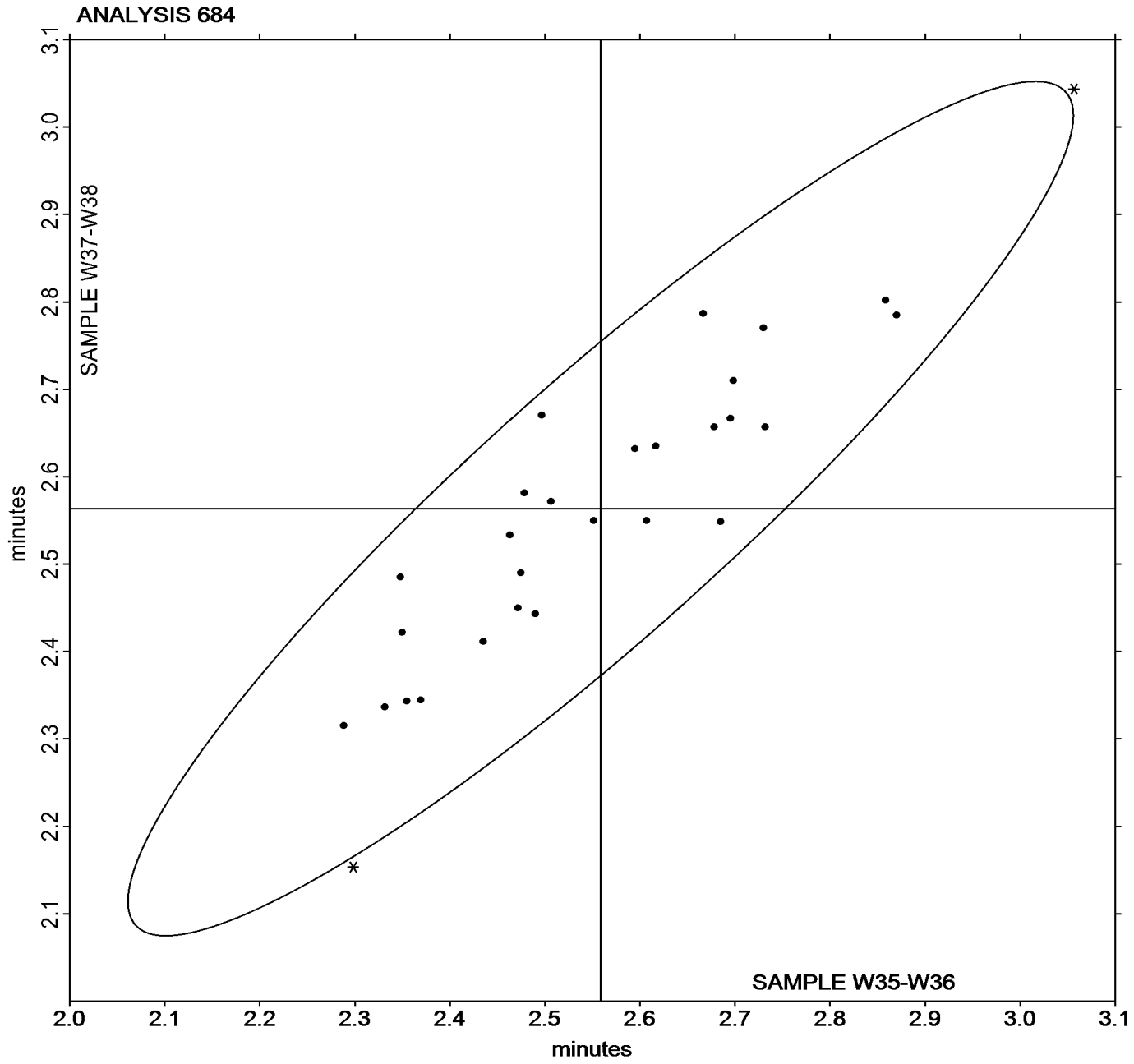
Grand Mean Sample **W35-W36** = 2.5585 minutes

Grand Mean Sample **W37-W38** = 2.5635 minutes



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WebCode	Data Flag	Sample W35-W36 Lab Mean	Diff from Grand Mean	CPV	Sample W37-W38 Lab Mean	Diff from Grand Mean	CPV	Instr Code
26GK4B		3.915	0.139	0.49	3.892	0.127	0.44	MC
2LMM3J		4.063	0.287	1.01	4.103	0.339	1.17	XX
2MGC7C		3.647	-0.129	-0.46	3.603	-0.161	-0.56	ME
2P49CH	X	3.290	-0.486	-1.71	3.487	-0.278	-0.96	XX
34GYRV	*	3.773	-0.003	-0.01	3.897	0.132	0.46	MC
4V3HRA		3.742	-0.034	-0.12	3.730	-0.035	-0.12	MD
6CMKRA		3.693	-0.083	-0.29	3.683	-0.081	-0.28	MR
6DH4VW		3.957	0.181	0.64	3.990	0.225	0.78	MC
7E2KHA	X	1.808	-1.968	-6.93	1.792	-1.973	-6.81	MC
7JHQKB	X	5.348	1.572	5.54	5.308	1.544	5.33	MR
7RBZQZ		3.938	0.162	0.57	3.963	0.199	0.69	ME
8JEM7Q		3.990	0.214	0.75	3.953	0.189	0.65	ME
9BFHRF		3.722	-0.054	-0.19	3.692	-0.073	-0.25	MC
AF4J7Y		3.982	0.206	0.72	3.947	0.182	0.63	MC
DD7EXB		4.070	0.294	1.04	4.113	0.349	1.20	MR
DWH4B9		3.777	0.001	0.00	3.748	-0.016	-0.06	ME
ECVMTZ		3.912	0.136	0.48	3.835	0.070	0.24	MC
LDZPEW		3.658	-0.118	-0.41	3.661	-0.103	-0.36	MC
M244NR		3.837	0.061	0.21	3.885	0.120	0.42	ME
M62MN6		3.443	-0.333	-1.17	3.387	-0.378	-1.30	MC
MNZKB8		4.002	0.226	0.80	3.980	0.215	0.74	MD
N6FDAV		3.683	-0.093	-0.33	3.658	-0.106	-0.37	ME
NF3AGM	X	3.158	-0.618	-2.18	2.393	-1.371	-4.73	MC
NNCUFD		3.805	0.029	0.10	3.820	0.055	0.19	MC
PL3BT2		3.293	-0.483	-1.70	3.277	-0.488	-1.68	MC
Q38TKL	*	2.862	-0.914	-3.22	2.823	-0.941	-3.25	MR
QCWJ8D		3.433	-0.343	-1.21	3.392	-0.373	-1.29	MC
QUDMRK		3.805	0.029	0.10	3.832	0.067	0.23	ME
R2RVTL	*	4.232	0.456	1.61	4.110	0.345	1.19	MM
RYZ2PQ		3.848	0.072	0.25	3.865	0.100	0.35	XX
XF9YFH		4.230	0.454	1.60	4.175	0.410	1.42	ME
YXL2QW		3.837	0.061	0.21	3.847	0.082	0.28	MC
ZF42HR		3.383	-0.393	-1.38	3.367	-0.398	-1.37	MC
ZZPV48		3.748	-0.028	-0.10	3.708	-0.056	-0.19	MX

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Summary Statistics

Grand Means	3.7760 minutes	3.7646 minutes
Stnd Dev Btwn Labs	0.2837 minutes	0.2898 minutes

Statistics based on 30 of 34 reporting participants

Samples W35-W36: EPDM compound, batch #1 & W37-W38: EPDM compound, batch #2

Comments on Assigned Data Flags for Test #685

2P49CH (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample group W35-W36.

7E2KHA (X) - Data for all samples are low. Possible Systematic Error.

7JHQKB (X) - Data for all samples are high. Possible Systematic Error.

NF3AGM (X) - Data for sample group W37-W38 are low. Inconsistent within the determinations of sample group W37-W38.

Key to Instrument Codes Reported by Participants

MC	Alpha Technologies [Monsanto] MDR 2000 or 2000E	MD	Alpha Tech. Rubber Process Analyzer (RPA 2000)
ME	Alpha Tech. MDR Premiere	MM	MonTech MDR 3000
MR	MonTech D-RPA 3000	MX	Rebuilt MonTech Alpha
XX	Instrument model not specified by lab		

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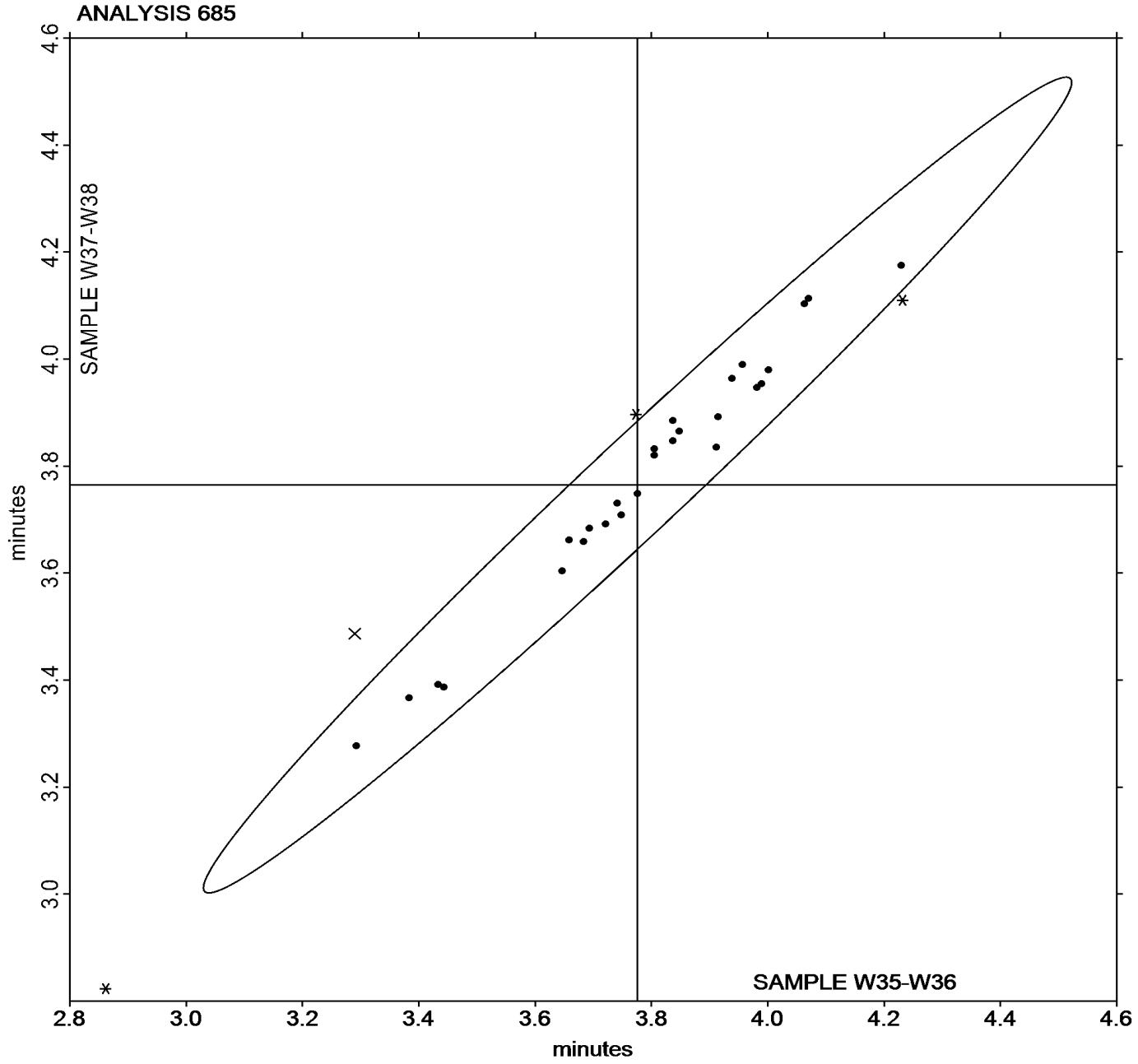
MDR Vulcanization-Scorch Time, Ts1 (minutes)

Grand Mean Sample **W35-W36** = 3.7760 minutes

Grand Mean Sample **W37-W38** = 3.7646 minutes



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WebCode	Data Flag	Sample W35-W36 Lab Mean	Diff from Grand Mean	CPV	Sample W37-W38 Lab Mean	Diff from Grand Mean	CPV	Instr Code
26GK4B		7.193	-0.057	-0.26	7.195	-0.024	-0.11	MC
2LMM3J		7.482	0.231	1.06	7.278	0.059	0.26	XX
2MGC7C		7.293	0.043	0.20	7.195	-0.024	-0.11	ME
2P49CH	X	6.553	-0.697	-3.18	7.028	-0.191	-0.85	XX
34GYRV		7.147	-0.104	-0.47	7.085	-0.134	-0.60	MC
4V3HRA		7.350	0.099	0.45	7.232	0.012	0.06	MD
6CMKRA		6.868	-0.382	-1.75	6.987	-0.233	-1.03	MR
6DH4VW		7.095	-0.156	-0.71	7.147	-0.073	-0.32	MC
7E2KHA	X	3.198	-4.052	-18.51	3.132	-4.088	-18.14	MC
7JHQKB	*	6.648	-0.602	-2.75	6.543	-0.676	-3.00	MR
7RBZQZ		7.297	0.046	0.21	7.290	0.071	0.31	ME
8JEM7Q		7.695	0.444	2.03	7.742	0.522	2.32	ME
9BFHRF		7.085	-0.166	-0.76	6.990	-0.229	-1.02	MC
AF4J7Y		7.308	0.058	0.26	7.257	0.037	0.17	MC
DD7EXB	*	7.630	0.379	1.73	7.780	0.561	2.49	MR
DWH4B9		7.140	-0.111	-0.50	7.117	-0.103	-0.46	ME
ECVMTZ		7.360	0.109	0.50	7.280	0.061	0.27	MC
LDZPEW		7.133	-0.117	-0.53	7.131	-0.089	-0.39	MC
M244NR		7.248	-0.002	-0.01	7.127	-0.093	-0.41	ME
M62MN6		7.122	-0.129	-0.59	7.015	-0.204	-0.91	MC
MNZKB8		7.283	0.033	0.15	7.293	0.074	0.33	MD
N6FDAV		7.370	0.119	0.55	7.312	0.092	0.41	ME
NF3AGM	X	6.955	-0.296	-1.35	5.738	-1.481	-6.57	MC
NNCUFD		7.333	0.083	0.38	7.367	0.147	0.65	MC
PL3BT2		7.293	0.043	0.20	7.393	0.174	0.77	MC
Q38TKL		6.983	-0.267	-1.22	6.923	-0.296	-1.31	MR
QCWJ8D		7.316	0.065	0.30	7.293	0.073	0.33	MC
QUDMRK		7.058	-0.192	-0.88	7.118	-0.101	-0.45	ME
R2RVTL		7.297	0.046	0.21	7.218	-0.001	0.00	MM
R7XR9F	X	8.243	0.993	4.54	8.187	0.967	4.29	ME
RYZ2PQ		7.337	0.086	0.39	7.273	0.054	0.24	XX
XF9YFH	*	7.613	0.363	1.66	7.372	0.152	0.68	ME
YXL2QW		7.197	-0.054	-0.25	7.168	-0.051	-0.23	MC
ZF42HR		7.058	-0.192	-0.88	7.198	-0.021	-0.09	MC
ZZPV48		7.532	0.281	1.28	7.478	0.259	1.15	MX

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Summary Statistics		
Grand Means	7.2505 minutes	7.2192 minutes
Stnd Dev Btwn Labs	0.2189 minutes	0.2253 minutes

Statistics based on 31 of 35 reporting participants

Samples W35-W36: EPDM compound, batch #1 & W37-W38: EPDM compound, batch #2

Comments on Assigned Data Flags for Test #686

2P49CH (X) - Data for sample group W35-W36 are low. Inconsistent within the determinations of sample group W35-W36.

7E2KHA (X) - Extreme Data.

NF3AGM (X) - Data for sample group W37-W38 are low. Inconsistent within the determinations of sample group W37-W38.

R7XR9F (X) - Data for all samples are high. Possible Systematic Error.

Key to Instrument Codes Reported by Participants

MC	Alpha Technologies [Monsanto] MDR 2000 or 2000E	MD	Alpha Tech. Rubber Process Analyzer (RPA 2000)
ME	Alpha Tech. MDR Premiere	MM	MonTech MDR 3000
MR	MonTech D-RPA 3000	MX	Rebuilt MonTech Alpha
XX	Instrument model not specified by lab		

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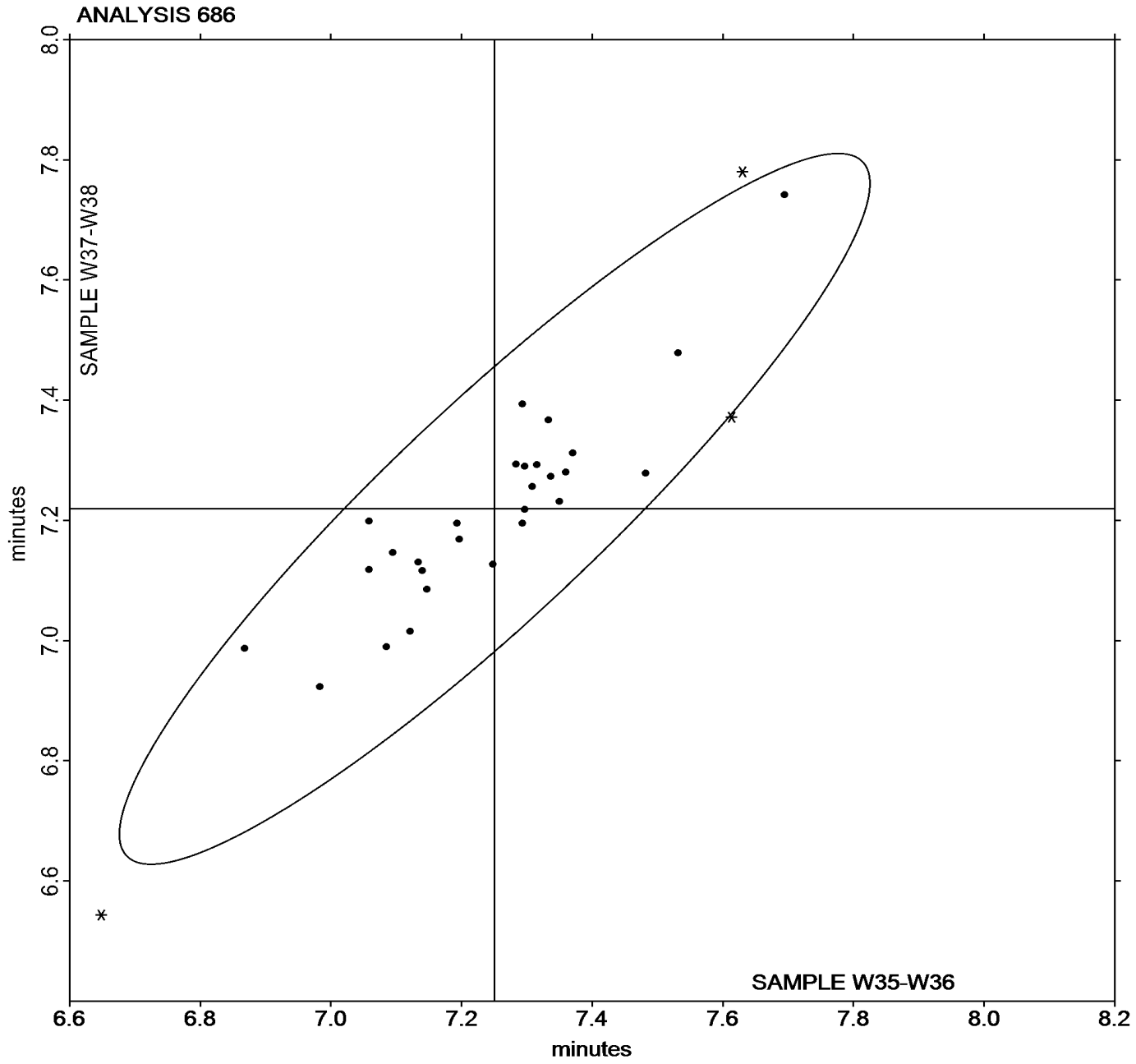
Grand Mean Sample **W35-W36** = 7.2505 minutes

Grand Mean Sample **W37-W38** = 7.2192 minutes



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WebCode	Data Flag	Sample W35-W36 Lab Mean	Diff from Grand Mean	CPV	Sample W37-W38 Lab Mean	Diff from Grand Mean	CPV	Instr Code
26GK4B		11.12	-0.25	-1.05	11.15	-0.18	-0.64	MC
2LMM3J		11.59	0.23	0.99	11.39	0.07	0.24	XX
2MGC7C		11.14	-0.22	-0.93	11.05	-0.28	-1.02	ME
2P49CH	X	10.55	-0.82	-3.47	11.18	-0.15	-0.54	XX
34GYRV		11.31	-0.05	-0.21	11.20	-0.13	-0.46	MC
4V3HRA		11.48	0.11	0.48	11.35	0.02	0.07	MD
6CMKRA		11.05	-0.31	-1.33	11.12	-0.21	-0.77	MR
6DH4VW		11.47	0.11	0.47	11.39	0.06	0.23	MC
7E2KHA	X	5.29	-6.07	-25.84	5.14	-6.18	-22.48	MC
7JHQKB		10.80	-0.57	-2.41	10.73	-0.60	-2.18	MR
7RBZQZ		11.37	0.01	0.04	11.38	0.05	0.18	ME
8JEM7Q		11.73	0.37	1.58	11.94	0.61	2.21	ME
9BFHRF		11.25	-0.11	-0.46	11.15	-0.17	-0.63	MC
AF4J7Y		11.29	-0.07	-0.30	11.25	-0.07	-0.26	MC
DD7EXB	*	11.66	0.30	1.26	11.99	0.67	2.42	MR
DWH4B9		11.22	-0.14	-0.62	11.20	-0.13	-0.46	XX
ECVMTZ		11.60	0.24	1.00	11.53	0.20	0.73	MC
LDZPEW		10.98	-0.38	-1.62	10.93	-0.39	-1.43	MC
M244NR		11.48	0.12	0.51	11.30	-0.03	-0.11	ME
M62MN6		11.37	0.01	0.04	11.15	-0.17	-0.63	MC
MNZKB8		11.28	-0.08	-0.35	11.33	0.00	0.01	MD
N6FDAV		11.54	0.18	0.77	11.56	0.23	0.84	ME
NF3AGM	X	11.23	-0.13	-0.57	9.66	-1.66	-6.05	MC
NNCUFD		11.49	0.13	0.56	11.41	0.09	0.31	MC
PL3BT2		11.53	0.16	0.70	11.70	0.37	1.34	MC
Q38TKL		11.28	-0.08	-0.35	11.13	-0.19	-0.71	MR
QCWJ8D		11.02	-0.35	-1.47	11.07	-0.26	-0.94	MC
QUDMRK		11.11	-0.25	-1.06	11.17	-0.16	-0.57	ME
R2RVTL		11.48	0.12	0.51	11.51	0.19	0.68	MM
R7XR9F	X	12.67	1.31	5.58	12.76	1.44	5.23	MM
RYZ2PQ		11.74	0.37	1.59	11.67	0.35	1.26	XX
XF9YFH		11.54	0.18	0.76	11.19	-0.14	-0.50	ME
YXL2QW		11.33	-0.03	-0.12	11.29	-0.03	-0.13	MC
ZF42HR	X	10.70	-0.66	-2.82	11.18	-0.15	-0.54	MC
ZZPV48		11.60	0.24	1.02	11.57	0.25	0.89	MX

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Summary Statistics		
Grand Means	11.361 minutes	11.326 minutes
Stnd Dev Btwn Labs	0.235 minutes	0.275 minutes
		Statistics based on 30 of 35 reporting participants

Samples W35-W36: EPDM compound, batch #1 & W37-W38: EPDM compound, batch #2

Comments on Assigned Data Flags for Test #687

2P49CH (X) - Data for sample group W35-W36 are low. Inconsistent within the determinations of sample group W35-W36.

7E2KHA (X) - Extreme Data.

NF3AGM (X) - Data for sample group W37-W38 are low. Inconsistent within the determinations of sample group W37-W38.

R7XR9F (X) - Data for all samples are high.

ZF42HR (X) - Data for sample group W35-W36 are low. Inconsistent within the determinations of sample group W37-W38.

Key to Instrument Codes Reported by Participants

MC	Alpha Technologies [Monsanto] MDR 2000 or 2000E	MD	Alpha Tech. Rubber Process Analyzer (RPA 2000)
ME	Alpha Tech. MDR Premiere	MM	MonTech MDR 3000
MR	MonTech D-RPA 3000	MX	Rebuilt MonTech Alpha
XX	Instrument model not specified by lab		

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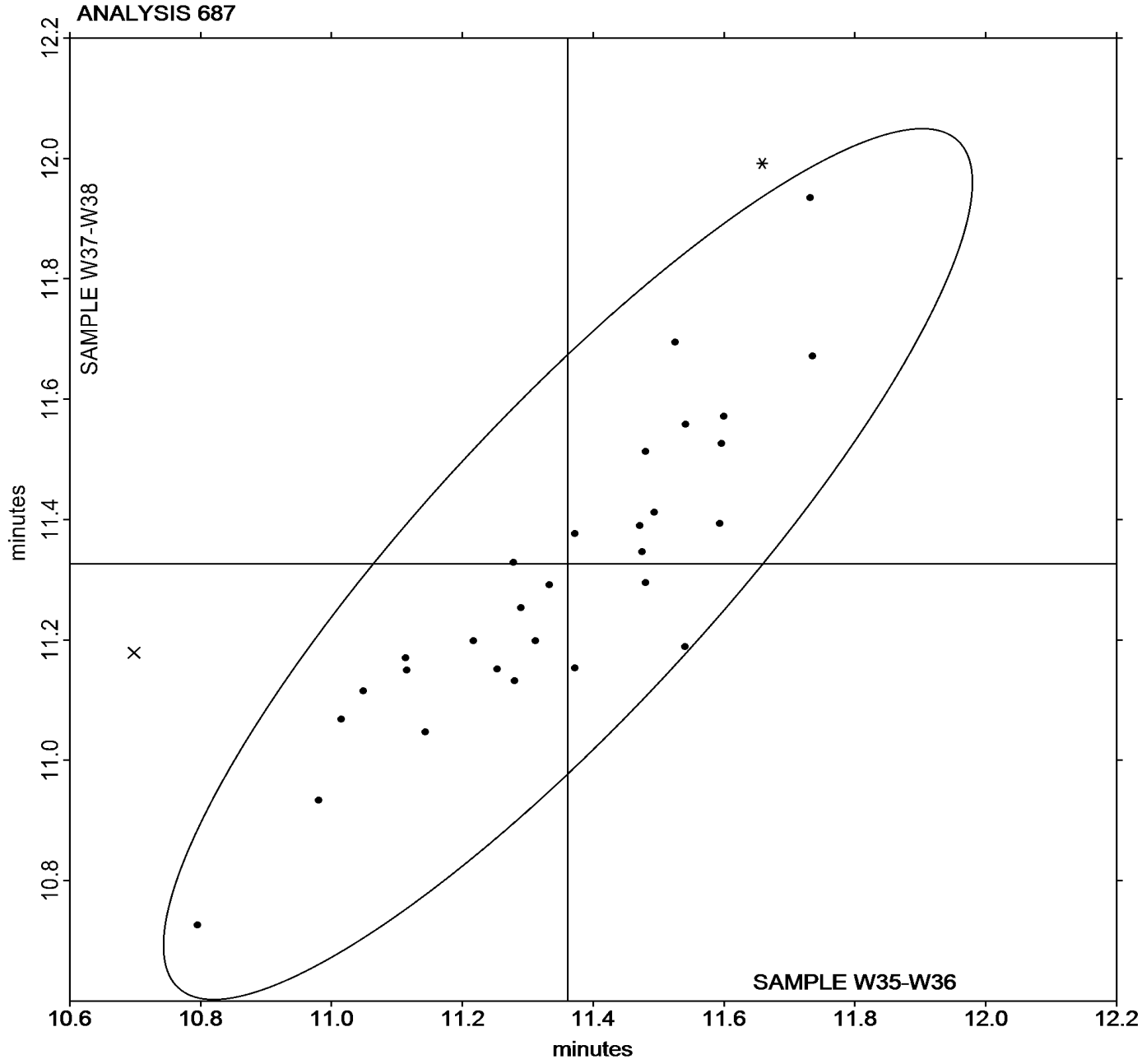
Grand Mean Sample **W35-W36** = 11.361 minutes

Grand Mean Sample **W37-W38** = 11.326 minutes



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WebCode	Data Flag	Sample W35-W36 Lab Mean	Diff from Grand Mean	CPV	Sample W37-W38 Lab Mean	Diff from Grand Mean	CPV	Instr Code
26GK4B		1.770	-0.087	-0.49	1.703	-0.093	-0.50	MC
2LMM3J		1.638	-0.219	-1.22	1.563	-0.233	-1.26	MM
2MGC7C		2.099	0.242	1.34	1.984	0.188	1.02	ME
2P49CH		2.308	0.451	2.51	2.268	0.472	2.55	XX
34GYRV		1.778	-0.079	-0.44	1.707	-0.090	-0.48	MC
4V3HRA		1.641	-0.216	-1.20	1.578	-0.218	-1.18	MD
6CMKRA		1.813	-0.044	-0.25	1.775	-0.021	-0.11	MR
6DH4VW		1.807	-0.051	-0.28	1.737	-0.060	-0.32	MC
7E2KHA		1.733	-0.124	-0.69	1.697	-0.100	-0.54	MC
7JHQKB		1.760	-0.097	-0.54	1.653	-0.143	-0.77	MR
7RBZQZ		2.012	0.154	0.86	1.970	0.174	0.94	ME
8JEM7Q		2.077	0.220	1.22	2.018	0.222	1.20	ME
9BFHRF		1.690	-0.167	-0.93	1.620	-0.177	-0.95	MC
AF4J7Y		2.125	0.268	1.49	2.047	0.250	1.35	MC
DD7EXB	*	2.063	0.206	1.15	2.088	0.292	1.58	MR
DWH4B9		1.773	-0.084	-0.47	1.683	-0.113	-0.61	ME
ECVMTZ		1.733	-0.124	-0.69	1.623	-0.173	-0.93	MC
LDZPEW		1.823	-0.034	-0.19	1.772	-0.025	-0.13	MC
M244NR		2.000	0.143	0.79	1.958	0.162	0.88	ME
M62MN6		1.798	-0.059	-0.33	1.720	-0.076	-0.41	MC
MNZKB8		1.748	-0.109	-0.61	1.708	-0.088	-0.48	MD
N6FDAV		1.716	-0.142	-0.79	1.692	-0.104	-0.56	ME
NF3AGM	X	1.993	0.136	0.76	2.428	0.632	3.42	MC
NNCUFD		1.857	-0.001	0.00	1.803	0.007	0.04	MC
PL3BT2		1.660	-0.198	-1.10	1.615	-0.181	-0.98	MC
Q38TKL		1.825	-0.032	-0.18	1.760	-0.036	-0.20	MR
QCWJ8D		1.704	-0.154	-0.86	1.598	-0.199	-1.07	MC
QUDMRK		1.768	-0.089	-0.50	1.717	-0.080	-0.43	ME
R2RVTL		1.952	0.094	0.52	1.878	0.082	0.44	MM
R7XR9F	*	2.270	0.413	2.30	2.165	0.369	1.99	ME
RYZ2PQ		1.946	0.088	0.49	1.901	0.105	0.57	XX
XF9YFH		1.617	-0.241	-1.34	1.545	-0.251	-1.36	ME
YXL2QW		1.787	-0.071	-0.39	1.705	-0.091	-0.49	MC
ZF42HR		2.073	0.215	1.20	2.042	0.245	1.33	MC
ZZPV48		1.788	-0.069	-0.38	1.777	-0.020	-0.11	MX

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Summary Statistics

Grand Means	1.8574 lbf.in	1.7962 lbf.in
Stnd Dev Btwn Labs	0.1797 lbf.in	0.1850 lbf.in

Statistics based on 34 of 35 reporting participants

Summary Statistics in SI Units

Grand Means	2.0986 dN.m	2.0294 dN.m
Stnd Dev Btwn Labs	0.2031 dN.m	0.2090 dN.m

Statistics based on 34 of 35 reporting participants

Samples W35-W36: EPDM compound, batch #1 & W37-W38: EPDM compound, batch #2

Comments on Assigned Data Flags for Test #688

NF3AGM (X) - Data for sample group W37-W38 are high. Inconsistent within the determinations of sample group W37-W38.

Key to Instrument Codes Reported by Participants

MC	Alpha Technologies [Monsanto] MDR 2000 or 2000E	MD	Alpha Tech. Rubber Process Analyzer (RPA 2000)
ME	Alpha Tech. MDR Premiere	MM	MonTech MDR 3000
MR	MonTech D-RPA 3000	MX	Rebuilt MonTech Alpha
XX	Instrument model not specified by lab		

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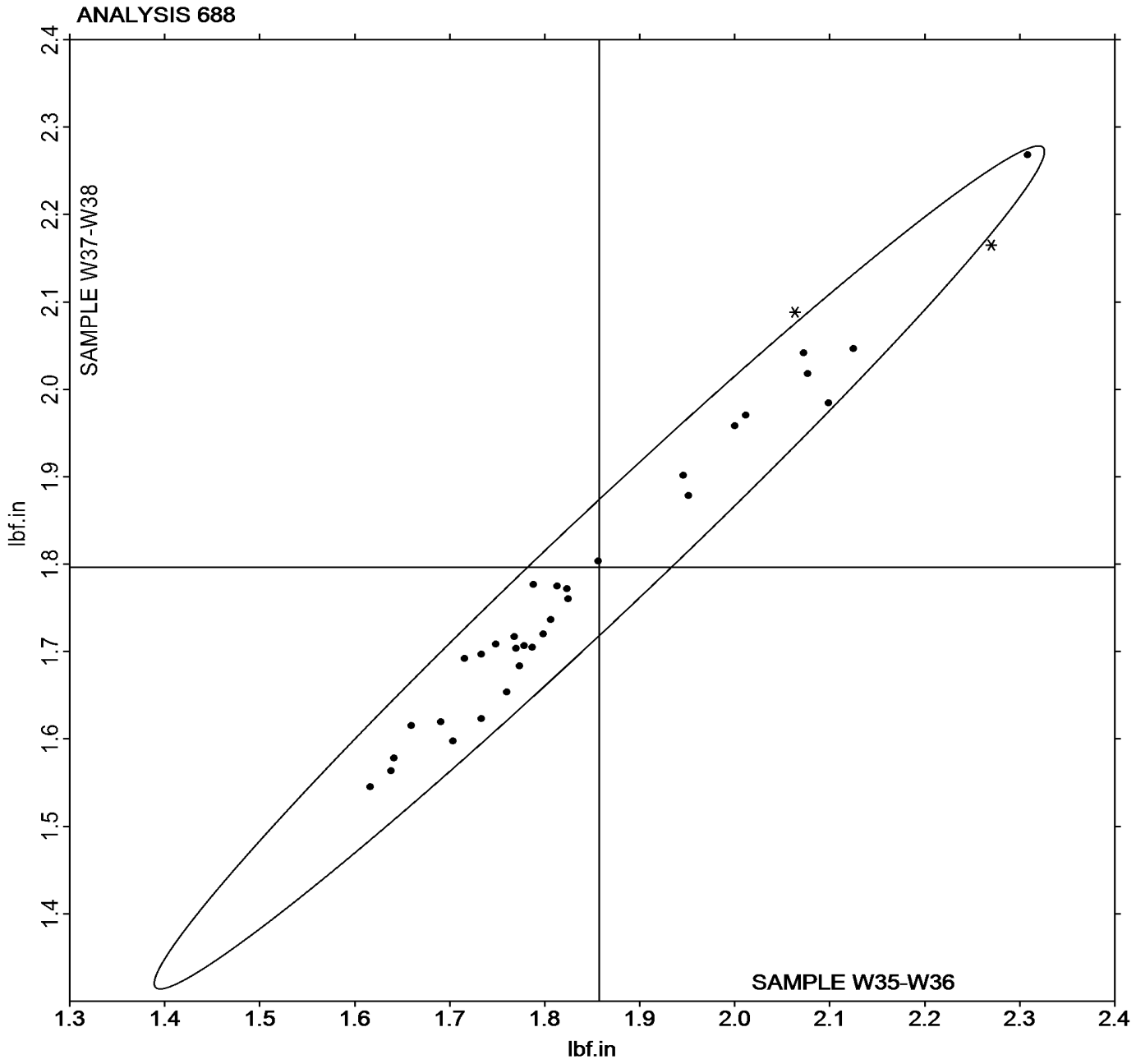
Grand Mean Sample **W35-W36** = 1.8574 lbf.in

Grand Mean Sample **W37-W38** = 1.7962 lbf.in



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WebCode	Data Flag	Sample W35-W36 Lab Mean	Diff from Grand Mean	CPV	Sample W37-W38 Lab Mean	Diff from Grand Mean	CPV	Instr Code
26GK4B		6.765	-0.638	-1.33	6.770	-0.600	-1.20	MC
2LMM3J		7.177	-0.227	-0.47	6.878	-0.491	-0.98	MM
2MGC7C		7.840	0.437	0.91	7.613	0.243	0.49	MC
2P49CH	*	8.625	1.222	2.55	8.757	1.387	2.76	XX
34GYRV		7.133	-0.270	-0.56	7.108	-0.261	-0.52	MC
4V3HRA		7.239	-0.164	-0.34	7.102	-0.267	-0.53	MD
6CMKRA		7.098	-0.305	-0.64	7.427	0.057	0.11	MR
6DH4VW		7.040	-0.363	-0.76	6.893	-0.476	-0.95	MC
7E2KHA		7.407	0.003	0.01	7.337	-0.033	-0.07	MC
7JHQKB		7.462	0.058	0.12	7.128	-0.241	-0.48	MR
7RBZQZ		7.795	0.392	0.82	7.757	0.387	0.77	ME
8JEM7Q		7.812	0.409	0.85	7.870	0.500	1.00	ME
9BFHRF		6.867	-0.537	-1.12	6.747	-0.622	-1.24	MC
AF4J7Y		7.973	0.570	1.19	7.870	0.500	1.00	MC
DD7EXB		7.610	0.207	0.43	7.832	0.462	0.92	MR
DWH4B9		7.293	-0.110	-0.23	7.298	-0.071	-0.14	ME
ECVMTZ		7.068	-0.335	-0.70	7.062	-0.308	-0.61	MC
LDZPEW		7.532	0.128	0.27	7.448	0.079	0.16	MC
M244NR		7.847	0.443	0.92	7.520	0.150	0.30	ME
M62MN6		7.595	0.192	0.40	7.472	0.102	0.20	MC
MNZKB8		7.063	-0.340	-0.71	7.150	-0.220	-0.44	MD
N6FDAV		6.821	-0.582	-1.22	6.839	-0.531	-1.06	ME
NF3AGM	X	7.713	0.310	0.65	10.647	3.277	6.53	MC
NNCUFD		7.422	0.018	0.04	7.555	0.185	0.37	MC
PL3BT2		7.476	0.073	0.15	7.557	0.187	0.37	MC
Q38TKL		7.810	0.407	0.85	7.605	0.235	0.47	MR
QCWJ8D		7.351	-0.053	-0.11	7.271	-0.099	-0.20	MC
QUDMRK		6.883	-0.520	-1.08	6.957	-0.413	-0.82	ME
R2RVTL		7.238	-0.165	-0.34	7.283	-0.086	-0.17	MM
R7XR9F		8.530	1.127	2.35	8.460	1.090	2.17	ME
RYZ2PQ		6.396	-1.007	-2.10	6.482	-0.888	-1.77	XX
XF9YFH		6.847	-0.557	-1.16	6.567	-0.803	-1.60	ME
YXL2QW		7.427	0.023	0.05	7.353	-0.016	-0.03	MC
ZF42HR		7.893	0.490	1.02	8.165	0.795	1.59	MC
ZZPV48		7.380	-0.023	-0.05	7.435	0.065	0.13	MX

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Summary Statistics

Grand Means	7.4034 lbf.in	7.3696 lbf.in
Stnd Dev Btwn Labs	0.4793 lbf.in	0.5017 lbf.in

Statistics based on 34 of 35 reporting participants

Summary Statistics in SI Units

Grand Means	8.3647 dN.m	8.3266 dN.m
Stnd Dev Btwn Labs	0.5416 dN.m	0.5668 dN.m

Statistics based on 34 of 35 reporting participants

Samples W35-W36: EPDM compound, batch #1 & W37-W38: EPDM compound, batch #2

Comments on Assigned Data Flags for Test #689

NF3AGM (X) - Data for sample group W37-W38 are high. Inconsistent within the determinations of sample group W37-W38.

Key to Instrument Codes Reported by Participants

MC	Alpha Technologies [Monsanto] MDR 2000 or 2000E	MD	Alpha Tech. Rubber Process Analyzer (RPA 2000)
ME	Alpha Tech. MDR Premiere	MM	MonTech MDR 3000
MR	MonTech D-RPA 3000	MX	Rebuilt MonTech Alpha
XX	Instrument model not specified by lab		

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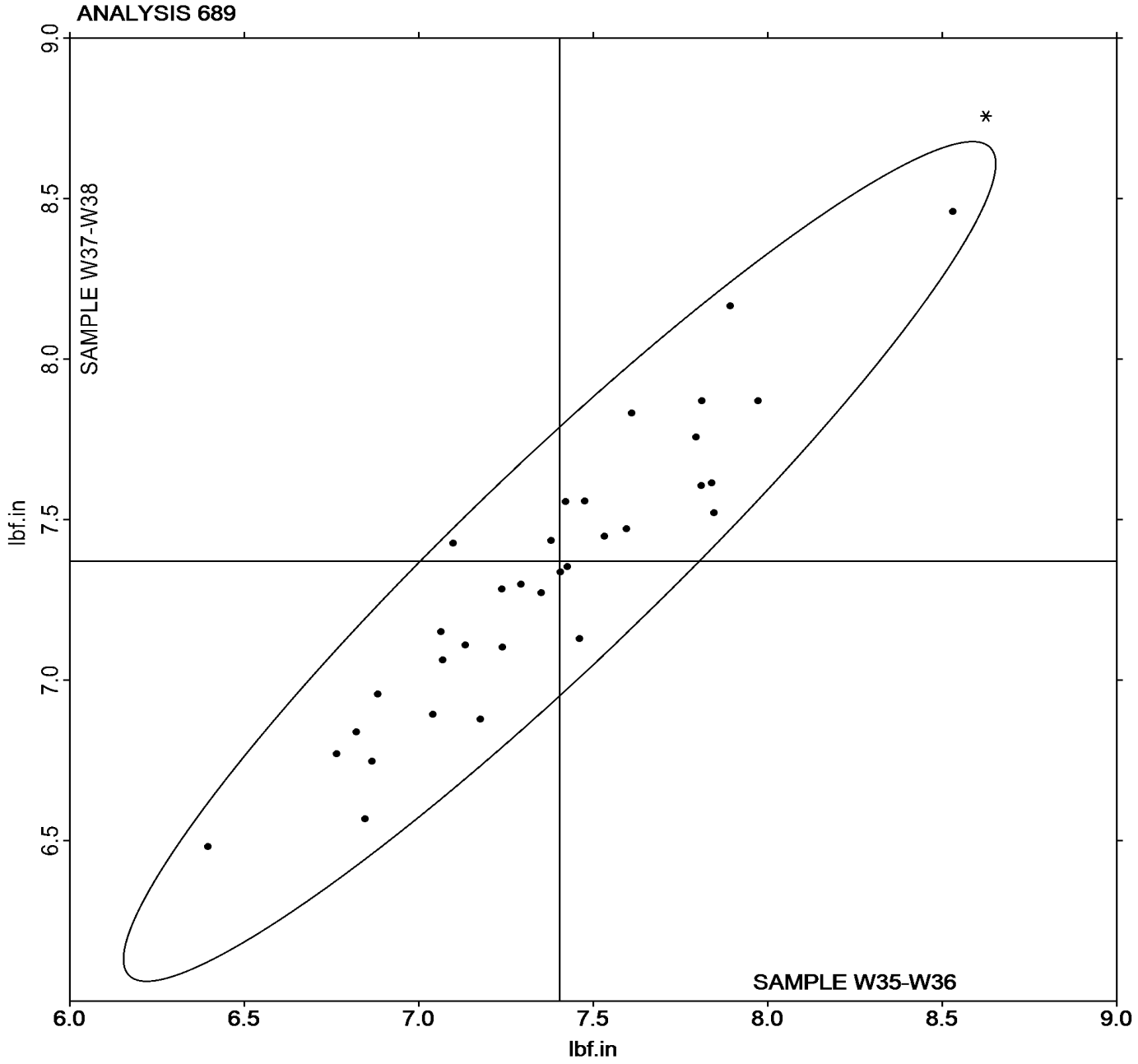
Grand Mean Sample **W35-W36** = 7.4034 lbf.in

Grand Mean Sample **W37-W38** = 7.3696 lbf.in



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RPA Rheological Properties: Part A - G' at 20Hz (kPa)

WebCode	Data Flag	Sample E31-E32 Lab Mean	Sample E31-E32 Diff from Grand Mean	Sample E31-E32 CPV	Sample E33-E34 Lab Mean	Sample E33-E34 Diff from Grand Mean	Sample E33-E34 CPV	Instr Code
4V3HRA		361.4	17.3	0.63	356.4	13.9	0.49	RP
6DH4VW		318.0	-26.2	-0.96	317.8	-24.7	-0.87	RP
DWH4B9		358.5	14.3	0.52	357.1	14.6	0.51	RP
N6FDAV		352.9	8.7	0.32	351.3	8.8	0.31	XX
QCWJ8D		302.7	-41.5	-1.52	298.3	-44.2	-1.55	RP
RYZ2PQ		371.5	27.4	1.00	374.1	31.7	1.11	XX

Summary Statistics

	E31-E32	E33-E34
Grand Means	344.15 kPa	342.49 kPa
Stnd Dev Btwn Labs	27.33 kPa	28.48 kPa

Statistics based on 6 of 6 reporting participants

Samples E31-E32: EPDM compound, batch #1 & E33-E34: EPDM compound, batch #2

Key to Instrument Codes Reported by Participants

RP	RPA 2000	XX	Instrument model not specified by lab

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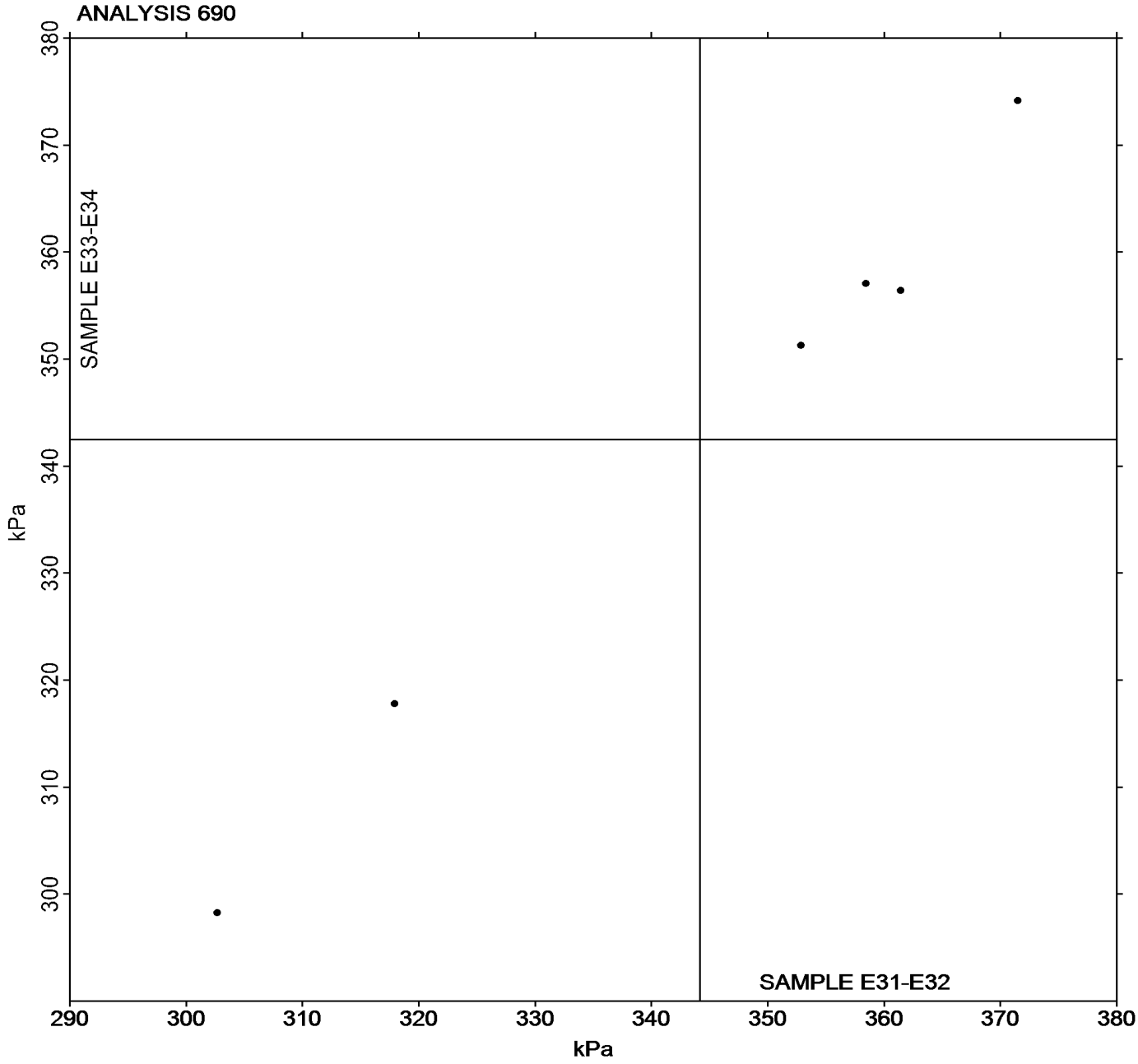
Grand Mean Sample **E31-E32** = 344.15 kPa

Grand Mean Sample **E33-E34** = 342.49 kPa



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.

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RPA Rheological Properties: Part A - G" at 20Hz (kPa)

WebCode	Data Flag	Sample E31-E32 Lab Mean	Diff from Grand Mean	CPV	Sample E33-E34 Lab Mean	Diff from Grand Mean	CPV	Instr Code
4V3HRA		112.2	2.3	0.28	110.5	1.7	0.19	RP
6DH4VW		109.1	-0.8	-0.09	106.6	-2.2	-0.25	RP
DWH4B9		107.1	-2.8	-0.33	105.9	-2.9	-0.32	RP
N6FDAV		112.9	3.0	0.36	113.1	4.3	0.48	XX
QCWJ8D		96.4	-13.5	-1.63	94.7	-14.1	-1.56	RP
RYZ2PQ		121.7	11.8	1.42	122.0	13.2	1.46	XX

Summary Statistics

	Sample E31-E32	Sample E33-E34
Grand Means	109.90 kPa	108.80 kPa
Stnd Dev Btwn Labs	8.30 kPa	9.02 kPa

Statistics based on 6 of 6 reporting participants

Samples E31-E32: EPDM compound, batch #1 & E33-E34: EPDM compound, batch #2

Key to Instrument Codes Reported by Participants

RP	RPA 2000	XX	Instrument model not specified by lab

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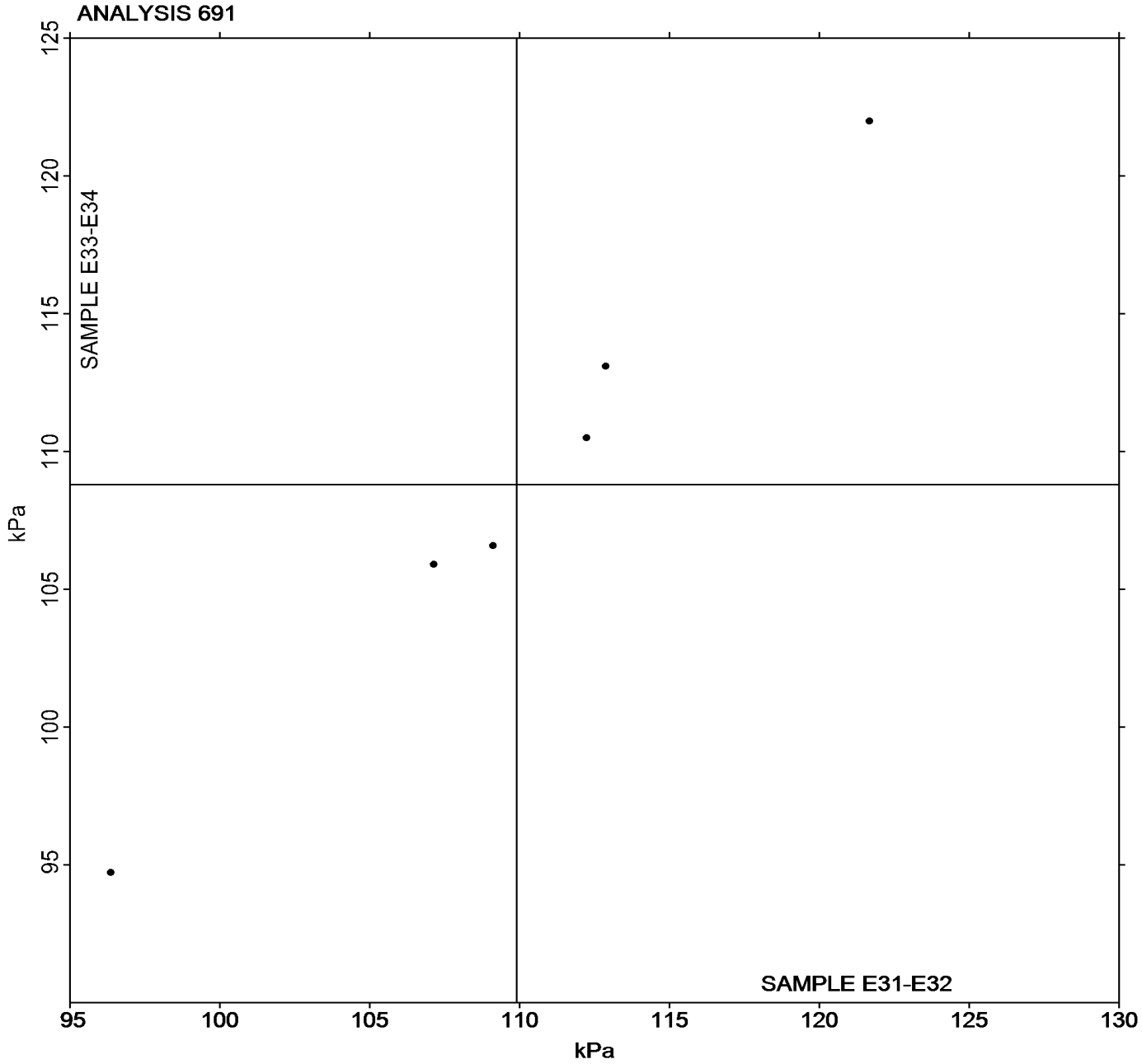
Grand Mean Sample **E31-E32** = 109.90 kPa

Grand Mean Sample **E33-E34** = 108.80 kPa



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Rubber Interlaboratory Testing Program

Analysis 695

RPA Rheological Properties: Part B - G' at 1.0Hz (kPa)

WebCode	Data Flag	Sample E31-E32 Lab Mean	Sample E31-E32 Diff from Grand Mean	Sample E31-E32 CPV	Sample E33-E34 Lab Mean	Sample E33-E34 Diff from Grand Mean	Sample E33-E34 CPV	Instr Code
4V3HRA		62.43	6.81	0.68	62.50	6.92	0.69	RP
6DH4VW		57.69	2.07	0.21	58.56	2.97	0.30	RP
DWH4B9		62.62	6.99	0.70	62.06	6.47	0.65	RP
N6FDAV		59.61	3.99	0.40	58.52	2.93	0.29	XX
QCWJ8D		35.93	-19.69	-1.96	35.88	-19.70	-1.98	RP
RYZ2PQ		55.45	-0.17	-0.02	55.99	0.40	0.04	XX

Summary Statistics

	Sample E31-E32	Sample E33-E34
Grand Means	55.620 kPa	55.583 kPa
Stnd Dev Btwn Labs	10.033 kPa	9.955 kPa

Statistics based on 6 of 6 reporting participants

Samples E31-E32: EPDM compound, batch #1 & E33-E34: EPDM compound, batch #2

Key to Instrument Codes Reported by Participants

RP	RPA 2000	XX	Instrument model not specified by lab

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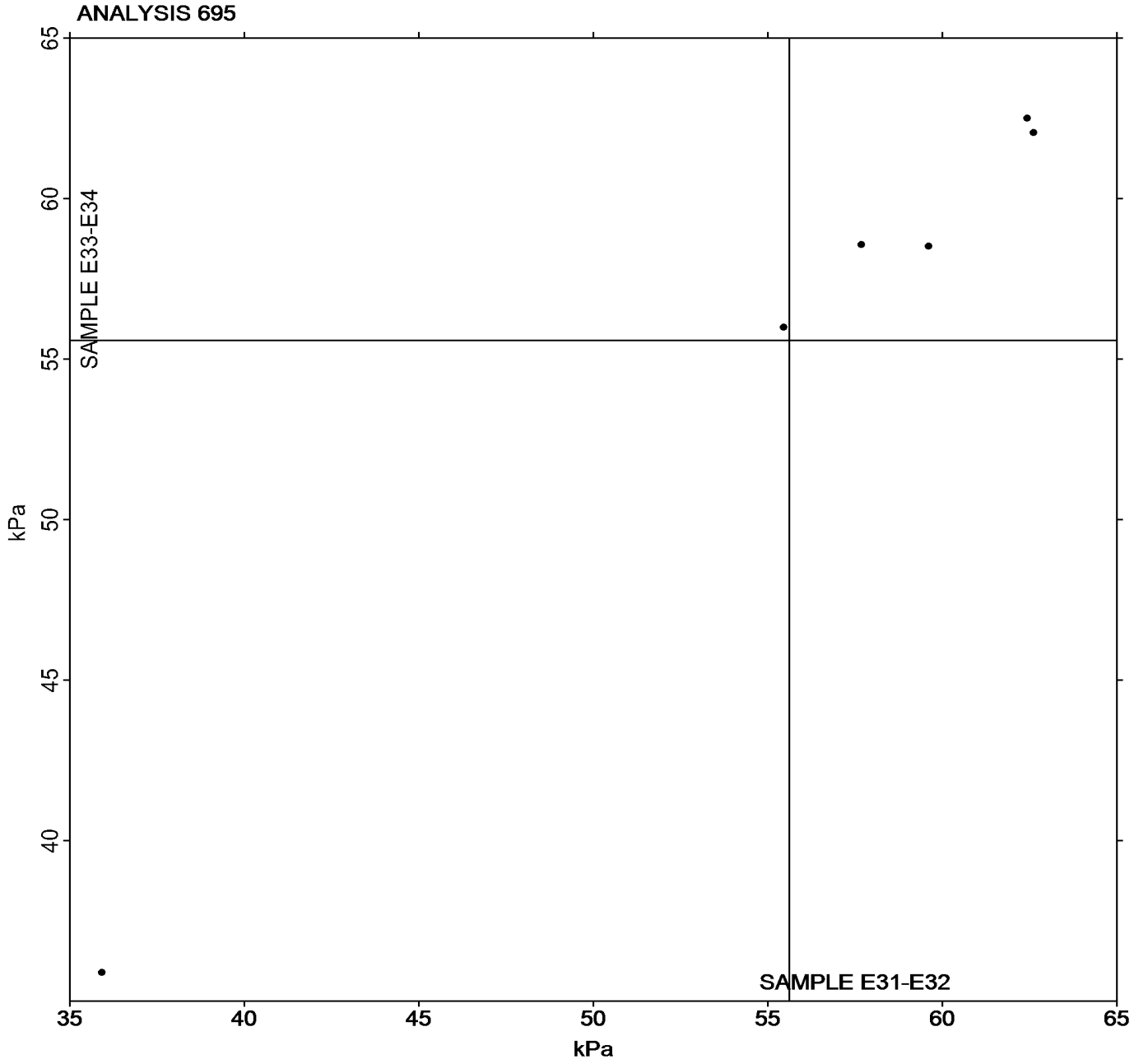
Grand Mean Sample **E31-E32** = 55.620 kPa

Grand Mean Sample **E33-E34** = 55.583 kPa



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Rubber Interlaboratory Testing Program

Analysis 696

RPA Rheological Properties: Part B - G" at 1.0Hz (kPa)

WebCode	Data Flag	Sample E31-E32 Lab Mean	Sample E31-E32 Diff from Grand Mean	Sample E31-E32 CPV	Sample E33-E34 Lab Mean	Sample E33-E34 Diff from Grand Mean	Sample E33-E34 CPV	Instr Code
4V3HRA		56.47	6.92	0.67	56.08	6.87	0.66	RP
6DH4VW		47.11	-2.43	-0.23	46.79	-2.42	-0.23	RP
DWH4B9		53.78	4.24	0.41	52.65	3.44	0.33	RP
N6FDAV		56.75	7.21	0.69	56.67	7.46	0.71	XX
QCWJ8D		29.56	-19.99	-1.92	29.12	-20.09	-1.92	RP
RYZ2PQ		53.60	4.06	0.39	53.96	4.74	0.45	XX

Summary Statistics

	Sample E31-E32	Sample E33-E34
Grand Means	49.544 kPa	49.211 kPa
Stnd Dev Btwn Labs	10.389 kPa	10.456 kPa

Statistics based on 6 of 6 reporting participants

Samples E31-E32: EPDM compound, batch #1 & E33-E34: EPDM compound, batch #2

Key to Instrument Codes Reported by Participants

RP	RPA 2000	XX	Instrument model not specified by lab

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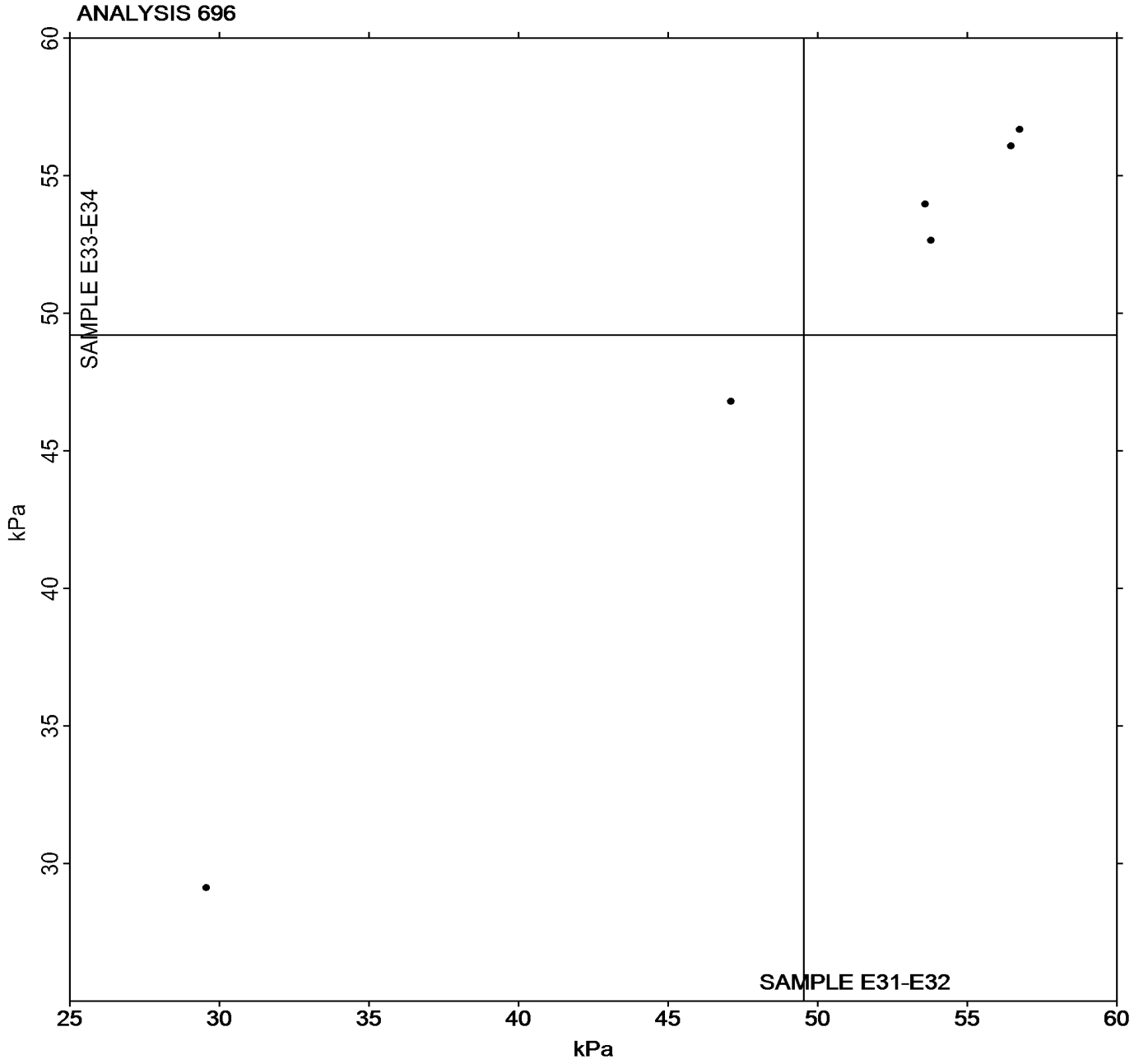
Grand Mean Sample **E31-E32** = 49.544 kPa

Grand Mean Sample **E33-E34** = 49.211 kPa



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-End of Report-

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