

## Rubber Interlaboratory Testing Program

### Summary Report #156- 2nd Qtr 08

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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. More than 2400 labs from the U.S., as well as more than 55 countries, currently participate in the CTS programs.

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<b>WebCode</b>	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.
<b>Lab Mean</b>	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.
<b>Grand Mean</b>	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.
<b>Difference from Grand Mean</b>	The difference of the LAB MEAN from the GRAND MEAN.
<b>Between-Lab Standard Deviation</b>	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).
<b>Comparative Performance Value</b>	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.
<b>Inst Code</b>	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).
<b>Data Flag</b>	DATA FLAGS are assigned based on the simultaneous analysis of both samples tested. Refer to the following chart for an explanation of each symbol:

<u>DATA FLAG</u>	<u>STATISTICALLY INCLUDED/EXCLUDED</u>	<u>ACTION REQUIRED</u>
*	INCLUDED	<b>CAUTION</b> - 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	<b>STOP</b> - 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	<b>PROCEED</b> - 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.

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

## Rubber Interlaboratory Testing Program

## Analysis 605

## Tensile Strength (psi)

WebCode	Data Flag	Sample B81-B82			Sample B83-B84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1F16SP		3,504.5	219.5	1.49	3,440.5	154.5	1.02	ZZ
1HPKBQ	X	3,127.8	-157.3	-1.07	3,403.3	117.3	0.78	ZZ
1HSLKS		3,302.0	17.0	0.12	3,307.0	21.0	0.14	ZZ
1MP5NB		3,353.5	68.5	0.47	3,425.0	139.0	0.92	ZZ
27KGH2	X	3,941.0	656.0	4.46	3,815.0	529.0	3.51	ZZ
2MYQFK		2,972.5	-312.5	-2.12	2,966.5	-319.5	-2.12	ZZ
2P8NTZ		3,023.5	-261.5	-1.78	2,937.5	-348.5	-2.31	ZZ
38ZENA		3,092.5	-192.5	-1.31	3,037.5	-248.5	-1.65	ZZ
3FMQAZ		3,252.5	-32.5	-0.22	3,350.0	64.0	0.42	ZZ
3H2GS4		3,437.5	152.5	1.04	3,437.0	151.0	1.00	ZZ
3HL2H9	*	2,900.8	-384.3	-2.61	2,937.0	-349.0	-2.32	ZZ
45VNX4		3,146.5	-138.5	-0.94	3,151.0	-135.0	-0.90	ZZ
4GCQU9		3,204.6	-80.4	-0.55	3,229.3	-56.7	-0.38	ZZ
4V12SJ		3,306.5	21.5	0.15	3,250.5	-35.5	-0.24	ZZ
59384V		3,305.5	20.5	0.14	3,249.5	-36.5	-0.24	ZZ
5F2M2Q		3,351.0	66.0	0.45	3,279.5	-6.5	-0.04	ZZ
5GMQ2K		3,406.5	121.5	0.83	3,321.0	35.0	0.23	ZZ
5T4LJN		3,416.0	131.0	0.89	3,323.5	37.5	0.25	ZZ
686864		3,312.5	27.5	0.19	3,327.0	41.0	0.27	ZZ
6B9249		3,158.0	-127.0	-0.86	3,171.5	-114.5	-0.76	ZZ
6FNRE5		3,234.4	-50.7	-0.34	3,343.1	57.1	0.38	ZZ
6SHJ31	X	2,966.0	-319.0	-2.17	2,822.5	-463.5	-3.07	ZZ
6V2LWQ		3,356.9	71.9	0.49	3,380.1	94.1	0.62	ZZ
7B6E15		3,148.8	-136.2	-0.93	3,140.1	-145.9	-0.97	ZZ
7CRCXX		2,966.8	-318.2	-2.16	2,987.0	-299.0	-1.98	ZZ
814XQQ		3,142.0	-143.0	-0.97	3,138.0	-148.0	-0.98	ZZ
869NZF		3,219.5	-65.5	-0.45	3,182.0	-104.0	-0.69	ZZ
8E3REC		3,379.5	94.5	0.64	3,338.0	52.0	0.34	ZZ
8RH6NB		3,368.5	83.5	0.57	3,273.5	-12.5	-0.08	ZZ
8ZNXDK		3,318.0	33.0	0.22	3,327.0	41.0	0.27	ZZ
98HSC9		3,162.0	-123.0	-0.84	3,208.5	-77.5	-0.51	ZZ
9D6E6W		3,349.0	63.9	0.43	3,440.3	154.3	1.02	ZZ
9S4MP3		3,261.5	-23.5	-0.16	3,321.5	35.5	0.24	ZZ
9UDFVP		3,087.5	-197.5	-1.34	3,049.0	-237.0	-1.57	ZZ
A2G2ZJ		3,372.1	87.0	0.59	3,343.1	57.1	0.38	ZZ

## Analysis 605

## Tensile Strength (psi)

WebCode	Data Flag	Sample B81-B82			Sample B83-B84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
A5S9TH		3,308.0	23.0	0.16	3,269.5	-16.5	-0.11	ZZ
AEQTSG		3,343.0	58.0	0.39	3,424.0	138.0	0.92	ZZ
AQDKW		3,372.5	87.5	0.59	3,428.0	142.0	0.94	ZZ
BLND6T		3,275.5	-9.5	-0.06	3,265.0	-21.0	-0.14	ZZ
C15DX4		3,291.5	6.5	0.04	3,418.5	132.5	0.88	ZZ
CHZMR		3,272.0	-13.0	-0.09	3,221.5	-64.5	-0.43	ZZ
D2MYT7		3,399.0	114.0	0.77	3,350.0	64.0	0.42	ZZ
D3T5RL		3,592.6	307.6	2.09	3,559.3	273.2	1.81	ZZ
DR6DFN		3,512.0	227.0	1.54	3,481.0	195.0	1.29	ZZ
DW5JJ1		3,263.4	-21.7	-0.15	3,263.4	-22.6	-0.15	ZZ
DYMU8X		3,177.8	-107.3	-0.73	3,199.3	-86.8	-0.58	ZZ
EMMNQ		3,050.9	-234.1	-1.59	3,013.2	-272.8	-1.81	ZZ
ESHBLJ		3,175.6	-109.4	-0.74	3,146.6	-139.4	-0.92	ZZ
F33XEM	X	722.7	-2,562.4	-17.41	276.4	-3,009.6	-19.97	ZZ
F4ZSB9		3,133.5	-151.5	-1.03	3,181.5	-104.5	-0.69	ZZ
F9BFAL		3,402.3	117.2	0.80	3,400.3	114.3	0.76	ZZ
FF52MC		3,227.1	-57.9	-0.39	3,219.9	-66.2	-0.44	ZZ
FMU22E	*	3,195.9	-89.1	-0.61	3,367.8	81.8	0.54	ZZ
FRX9PG		3,338.5	53.5	0.36	3,357.0	71.0	0.47	ZZ
FZPMR4		3,016.8	-268.2	-1.82	2,980.6	-305.5	-2.03	ZZ
G8RRET		3,430.5	145.5	0.99	3,311.5	25.5	0.17	ZZ
G8W1MJ		3,230.0	-55.0	-0.37	3,289.0	3.0	0.02	ZZ
GESPK2		3,131.0	-154.0	-1.05	3,127.0	-159.0	-1.05	ZZ
GGGXQ		3,210.0	-75.0	-0.51	3,267.0	-19.0	-0.13	ZZ
GZASA8		3,304.5	19.5	0.13	3,354.5	68.5	0.45	ZZ
H7TK7B		3,509.2	224.2	1.52	3,485.8	199.8	1.33	ZZ
HFP2HG	*	3,355.4	70.3	0.48	3,520.4	234.4	1.55	ZZ
J6QRW4		3,302.0	17.0	0.12	3,317.0	31.0	0.21	ZZ
KJ3F3T		2,954.5	-330.5	-2.25	2,984.0	-302.0	-2.00	ZZ
KRZCPA		3,395.0	110.0	0.75	3,337.2	51.2	0.34	ZZ
LL9B49		3,511.0	226.0	1.54	3,448.5	162.5	1.08	ZZ
LNCYVU		3,465.0	180.0	1.22	3,499.5	213.5	1.42	ZZ
LQGBW		3,322.5	37.5	0.25	3,319.0	33.0	0.22	ZZ
M2A1HE	*	3,270.0	-15.0	-0.10	3,451.0	165.0	1.09	ZZ
M3W9F7		3,454.0	169.0	1.15	3,382.0	96.0	0.64	ZZ

## Rubber Interlaboratory Testing Program

## Analysis 605

## Tensile Strength (psi)

WebCode	Data Flag	Sample B81-B82			Sample B83-B84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
M9UL1X		3,302.5	17.5	0.12	3,240.0	-46.0	-0.31	ZZ
MJW3AE		3,406.5	121.5	0.83	3,459.5	173.5	1.15	ZZ
MQ2VQ6		3,328.0	43.0	0.29	3,382.0	96.0	0.64	ZZ
N5DF35		3,204.0	-81.0	-0.55	3,172.0	-114.0	-0.76	ZZ
P4B5MQ		3,492.5	207.5	1.41	3,459.5	173.5	1.15	ZZ
PDZ38R		3,368.0	83.0	0.56	3,428.5	142.5	0.95	ZZ
PP7NZQ		3,358.8	73.8	0.50	3,356.1	70.0	0.46	ZZ
PVKSHK		3,377.5	92.5	0.63	3,460.5	174.5	1.16	ZZ
PYBKVF		2,962.4	-322.6	-2.19	2,979.8	-306.2	-2.03	ZZ
PZWDX6	*	3,114.3	-170.7	-1.16	2,954.4	-331.6	-2.20	ZZ
QHUCYJ		3,353.5	68.5	0.47	3,252.0	-34.0	-0.23	ZZ
QJDF1W		3,314.5	29.5	0.20	3,308.0	22.0	0.15	ZZ
QQH8FK	X	2,676.0	-609.0	-4.14	2,541.0	-745.0	-4.94	ZZ
R44MTL		3,149.5	-135.5	-0.92	3,150.0	-136.0	-0.90	ZZ
R8LZJ1		3,369.0	84.0	0.57	3,372.5	86.5	0.57	ZZ
RHAJ6M		3,444.7	159.6	1.08	3,401.2	115.1	0.76	ZZ
RR2QUY		3,373.9	88.9	0.60	3,365.5	79.4	0.53	ZZ
S68WZ9		3,138.6	-146.4	-0.99	3,209.7	-76.3	-0.51	ZZ
SP21G3		3,378.0	92.9	0.63	3,319.2	33.2	0.22	ZZ
TBBPM7		3,271.4	-13.7	-0.09	3,321.1	35.1	0.23	ZZ
TKJFXM	*	3,543.7	258.6	1.76	3,373.5	87.4	0.58	ZZ
U62RUB		3,052.0	-233.0	-1.58	3,097.0	-189.0	-1.25	ZZ
UCBETH		3,506.3	221.3	1.50	3,548.4	262.4	1.74	ZZ
VFKKLY		3,081.5	-203.5	-1.38	3,066.0	-220.0	-1.46	ZZ
VRJABE		3,184.0	-101.0	-0.69	3,276.5	-9.5	-0.06	ZZ
VUFXTTE		3,525.0	240.0	1.63	3,434.0	148.0	0.98	ZZ
VYRMV		3,352.0	67.0	0.46	3,379.0	93.0	0.62	ZZ
WJUNNF		3,456.5	171.5	1.17	3,499.0	213.0	1.41	ZZ
X2NQZA		3,369.9	84.9	0.58	3,212.9	-73.2	-0.49	ZZ
XH7ELJ		3,277.0	-8.0	-0.05	3,269.0	-17.0	-0.11	ZZ
XSXR5C		3,302.5	17.5	0.12	3,396.1	110.1	0.73	ZZ
XTM8S4		3,347.5	62.5	0.42	3,501.5	215.5	1.43	ZZ
XU7971		3,203.2	-81.8	-0.56	3,173.5	-112.6	-0.75	ZZ
YKJ9CV		3,430.2	145.1	0.99	3,372.2	86.1	0.57	ZZ
YVZKMZ		3,159.0	-126.0	-0.86	3,160.0	-126.0	-0.84	ZZ

## Analysis 605

## Tensile Strength (psi)

## Summary Statistics

Grand Means

3,285.03 psi

3,286.02 psi

Std Dev Btwn Labs

147.16 psi

150.74 psi

Statistics based on 100 of 105 reporting participants

## Summary Statistics in SI Units

Grand Means

22.649 MPa

22.66 MPa

Std Dev Btwn Labs

1.015 MPa

1.04 MPa

Statistics based on 100 of 105 reporting participants

Samples B81-B82: Polyisoprene compound, batch #1 & B83-B84: Polyisoprene compound, batch #2

**Comments on assigned Data Flags for Test #605**

1HPKBQ (X) - Inconsistency in testing between Sample sets. Also inconsistent in testing within sample set B81-B82.

27KGH2 (X) - Data for all Samples are high.

6SHJ31 (X) - Inconsistency in testing between Sample sets. Data for Sample set B83-B84 are low.

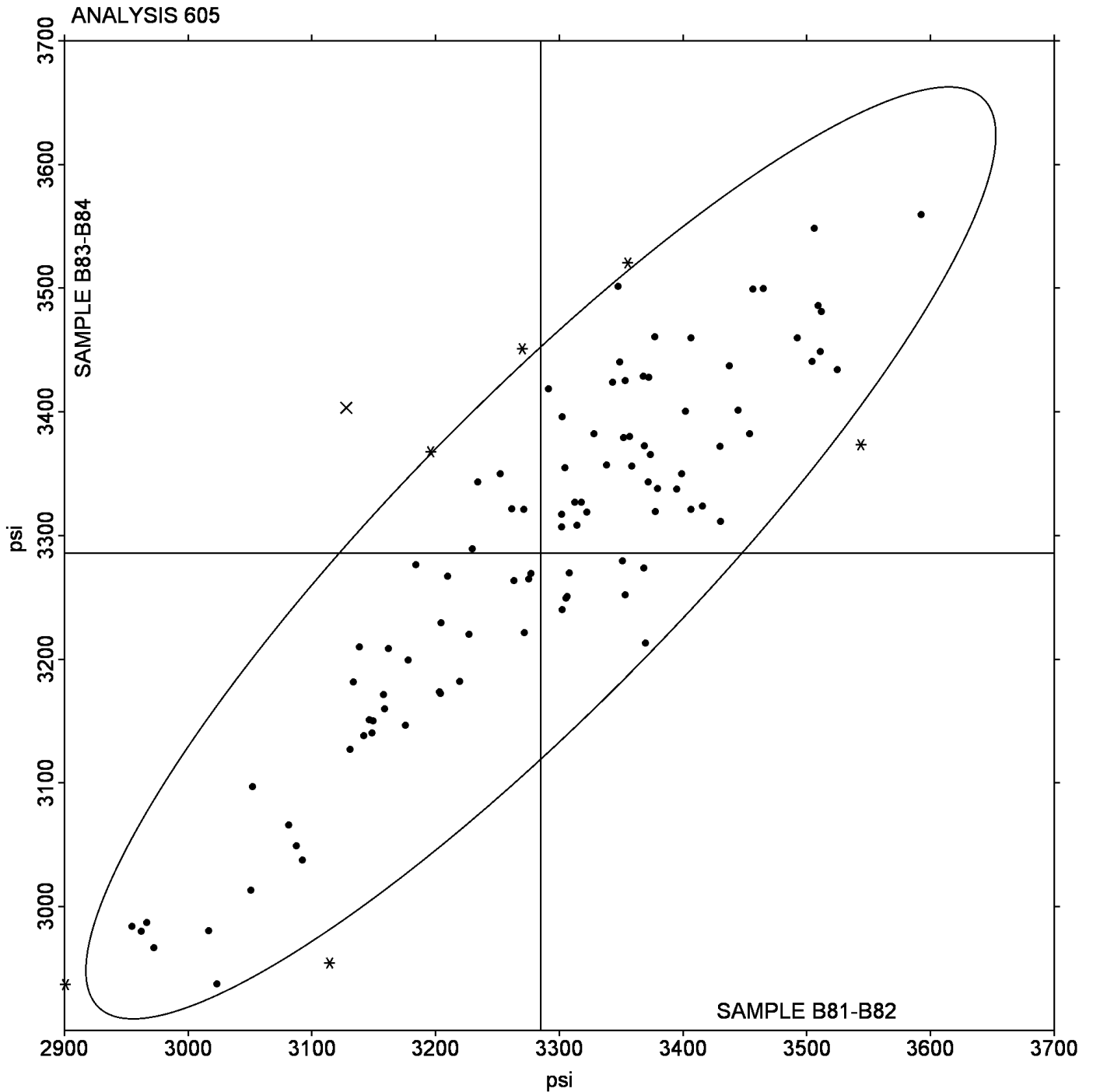
F33XEM (X) - Extreme data for both Sample sets.

QQH8FK (X) - Data for all Samples are low.

Analysis 605  
Tensile Strength (psi)

Grand Mean Sample B81-B82 = 3,285.03 psi

Grand Mean Sample B83-B84 = 3,286.02 psi



## Analysis 606

## Ultimate Elongation (percent)

WebCode	Data Flag	Sample B81-B82			Sample B83-B84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1DJN3D		525.0	-48.1	-2.20	532.0	-41.6	-1.79	ZZ
1HT8JW		587.0	13.9	0.64	584.0	10.4	0.45	ZZ
1TMED4		560.0	-13.1	-0.60	572.5	-1.1	-0.05	ZZ
1VUVLZ		569.5	-3.6	-0.16	556.5	-17.1	-0.74	ZZ
1XSUN7		574.5	1.4	0.07	561.0	-12.6	-0.54	ZZ
2JYYAL		576.5	3.4	0.16	583.0	9.4	0.41	ZZ
2R685M		587.5	14.4	0.66	587.0	13.4	0.58	ZZ
3KFDLS		582.0	8.9	0.41	569.5	-4.1	-0.18	ZZ
3VS8FE		592.1	19.0	0.87	586.4	12.8	0.55	ZZ
3W3MR		574.0	0.9	0.04	572.5	-1.1	-0.05	ZZ
3Y9FW1	*	535.5	-37.6	-1.72	519.0	-54.6	-2.35	ZZ
43SCB9		577.0	3.9	0.18	573.0	-0.6	-0.02	ZZ
49W92Z		563.5	-9.6	-0.44	574.0	0.4	0.02	ZZ
4E24MW		599.8	26.7	1.22	606.3	32.7	1.41	ZZ
56LMUM	X	523.5	-49.6	-2.27	498.2	-75.4	-3.25	ZZ
5CTZ46		529.5	-43.6	-1.99	541.5	-32.1	-1.38	ZZ
5EB27K		563.5	-9.6	-0.44	568.5	-5.1	-0.22	ZZ
5F6GPQ		575.5	2.4	0.11	575.0	1.4	0.06	ZZ
5J71V8		582.5	9.4	0.43	593.5	19.9	0.86	ZZ
5P7448		603.0	29.9	1.37	605.0	31.4	1.36	ZZ
63CKVP	*	533.5	-39.6	-1.81	519.5	-54.1	-2.33	ZZ
658ASB		590.5	17.4	0.80	597.0	23.4	1.01	ZZ
6NBELK		576.8	3.7	0.17	594.8	21.2	0.91	ZZ
6QU74V		590.0	16.9	0.77	600.0	26.4	1.14	ZZ
6T8AT7		524.9	-48.2	-2.20	523.1	-50.5	-2.18	ZZ
6WB4TX		570.0	-3.1	-0.14	560.0	-13.6	-0.58	ZZ
7MM7K8		579.5	6.4	0.29	587.5	13.9	0.60	ZZ
838NW5		575.0	1.9	0.09	578.5	4.9	0.21	ZZ
97YGCC		552.0	-21.1	-0.96	547.5	-26.1	-1.12	ZZ
9JH247		539.5	-33.6	-1.53	529.0	-44.6	-1.92	ZZ
9MU4UG		597.0	23.9	1.09	596.0	22.4	0.97	ZZ
9MYPFR		607.2	34.1	1.56	604.1	30.5	1.31	ZZ
9WPQ2Q		542.5	-30.6	-1.40	546.0	-27.6	-1.19	ZZ
AF6S6G	*	584.5	11.4	0.52	564.5	-9.1	-0.39	ZZ
ANBELM		556.0	-17.1	-0.78	557.5	-16.1	-0.69	ZZ

## Rubber Interlaboratory Testing Program

## Analysis 606

## Ultimate Elongation (percent)

WebCode	Data Flag	Sample B81-B82			Sample B83-B84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
AQ8C6N		552.5	-20.6	-0.94	565.5	-8.1	-0.35	ZZ
AXEU3E		621.5	48.4	2.21	628.0	54.4	2.35	ZZ
B35EYA		587.8	14.7	0.67	581.0	7.4	0.32	ZZ
B3WQ4G		543.5	-29.6	-1.35	546.5	-27.1	-1.17	ZZ
BAAYRZ		586.5	13.4	0.61	592.0	18.4	0.80	ZZ
BN5REV		539.0	-34.1	-1.56	538.0	-35.6	-1.53	ZZ
D61KUS		574.0	0.9	0.04	568.5	-5.1	-0.22	ZZ
D9FVCF		566.0	-7.1	-0.32	566.0	-7.6	-0.33	ZZ
DJGFCN		533.0	-40.1	-1.83	532.5	-41.1	-1.77	ZZ
DSSL9T	X	657.0	83.9	3.83	681.5	107.9	4.65	ZZ
F588LV		584.0	10.9	0.50	587.4	13.8	0.59	ZZ
GASDP2		576.5	3.4	0.16	575.5	1.9	0.08	ZZ
GCHMU	*	509.0	-64.1	-2.93	514.0	-59.6	-2.57	ZZ
GJBXDH		567.5	-5.6	-0.25	569.0	-4.6	-0.20	ZZ
GTTPSR		595.0	21.9	1.00	590.0	16.4	0.71	ZZ
GV2SPQ		584.0	10.9	0.50	579.0	5.4	0.23	ZZ
HR53J9		584.0	10.9	0.50	583.5	9.9	0.43	ZZ
J2H1ZS		575.0	1.9	0.09	575.0	1.4	0.06	ZZ
K2NDRK		542.0	-31.1	-1.42	541.0	-32.6	-1.40	ZZ
K3ZCNE		595.5	22.4	1.02	589.5	15.9	0.69	ZZ
KB1URE	X	226.4	-346.7	-15.84	113.1	-460.4	-19.86	ZZ
KBBHM	*	626.5	53.4	2.44	617.5	43.9	1.89	ZZ
KDQEKQ		608.0	34.9	1.60	604.5	30.9	1.33	ZZ
KQGVJW	X	683.5	110.4	5.04	700.0	126.4	5.45	ZZ
KV7492		568.0	-5.1	-0.23	561.0	-12.6	-0.54	ZZ
LPM7EC		576.5	3.4	0.16	564.0	-9.6	-0.41	ZZ
LTYGM4		583.0	9.9	0.45	590.0	16.4	0.71	ZZ
LWG6Z6	X	632.5	59.4	2.71	566.5	-7.1	-0.30	ZZ
LXXFWF		583.0	9.9	0.45	593.5	19.9	0.86	ZZ
MFTC1E		570.5	-2.6	-0.12	583.5	9.9	0.43	ZZ
MHRHZ		565.0	-8.1	-0.37	568.5	-5.1	-0.22	ZZ
MN357X		581.0	7.9	0.36	594.5	20.9	0.90	ZZ
MVBV3X		561.0	-12.1	-0.55	566.5	-7.1	-0.30	ZZ
N4J8YC		568.5	-4.6	-0.21	567.5	-6.1	-0.26	ZZ
N9AR2F		590.8	17.7	0.81	590.8	17.2	0.74	ZZ

## Rubber Interlaboratory Testing Program

## Analysis 606

## Ultimate Elongation (percent)

WebCode	Data Flag	Sample B81-B82			Sample B83-B84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
P56941		589.5	16.4	0.75	583.0	9.4	0.41	ZZ
PAE2D5	X	540.0	-33.1	-1.51	586.0	12.4	0.54	ZZ
PQXXN7		581.5	8.4	0.38	584.0	10.4	0.45	ZZ
PZ7MX4		602.0	28.9	1.32	609.0	35.4	1.53	ZZ
QKQJ3F		583.0	9.9	0.45	574.0	0.4	0.02	ZZ
QTVLSL	X	574.0	0.9	0.04	604.0	30.4	1.31	ZZ
QUX64V		555.0	-18.1	-0.83	554.5	-19.1	-0.82	ZZ
R1GANM		562.0	-11.1	-0.51	558.0	-15.6	-0.67	ZZ
R8JACH		557.0	-16.1	-0.73	553.0	-20.6	-0.89	ZZ
RQ3K2L		558.5	-14.6	-0.67	566.0	-7.6	-0.33	ZZ
RR1B3C		592.5	19.4	0.89	593.5	19.9	0.86	ZZ
S4XBA1	X	646.5	73.4	3.35	641.0	67.4	2.91	ZZ
SHRN8X		583.8	10.7	0.49	587.3	13.7	0.59	ZZ
SHZ768		558.0	-15.1	-0.69	554.5	-19.1	-0.82	ZZ
STR46F		576.9	3.8	0.17	580.8	7.2	0.31	ZZ
SWHBUB		599.5	26.4	1.21	602.5	28.9	1.25	ZZ
TJUKT5		554.5	-18.6	-0.85	554.0	-19.6	-0.84	ZZ
UKZSHC		551.0	-22.1	-1.01	559.0	-14.6	-0.63	ZZ
ULASE7		591.5	18.4	0.84	608.5	34.9	1.51	ZZ
V2Z4H2		572.5	-0.6	-0.03	578.3	4.7	0.20	ZZ
V4AKVK		592.5	19.4	0.89	602.0	28.4	1.23	ZZ
VJXZM5		576.9	3.8	0.17	565.1	-8.5	-0.37	ZZ
W488VV		599.0	25.9	1.18	595.0	21.4	0.92	ZZ
WGKE3E	X	823.1	250.0	11.42	818.1	244.5	10.54	ZZ
WNPPKN		596.1	23.0	1.05	597.5	23.9	1.03	ZZ
WPBWH		545.5	-27.6	-1.26	547.0	-26.6	-1.15	ZZ
X3GSPW		575.0	1.9	0.09	587.5	13.9	0.60	ZZ
Y1XUHL	X	563.0	-10.1	-0.46	530.5	-43.1	-1.86	ZZ
Y9F41E	X	541.0	-32.1	-1.47	566.5	-7.1	-0.30	ZZ
YWX5Y		585.5	12.4	0.57	578.5	4.9	0.21	ZZ
YXV1B2		559.0	-14.1	-0.64	555.2	-18.4	-0.79	ZZ
ZBMPZ1		581.0	7.9	0.36	583.5	9.9	0.43	ZZ
ZUBE7L		569.0	-4.1	-0.19	568.0	-5.6	-0.24	ZZ

## Analysis 606

## Ultimate Elongation (percent)

		Summary Statistics	
Grand Means	573.07 percent	573.56 percent	
Stnd Dev Btwn Labs	21.89 percent	23.19 percent	
Statistics based on 92 of 103 reporting participants			

Samples B81-B82: Polyisoprene compound, batch #1 & B83-B84: Polyisoprene compound, batch #2

### Comments on assigned Data Flags for Test #606

56LMUM (X) - Inconsistency in testing between Sample sets. Data for Sample set B83-B84 are low.

DSSL9T (X) - Data for all Samples are high.

KB1URE (X) - Extreme data for both Sample sets.

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

LWG6Z6 (X) - Inconsistency in testing between Sample sets. Also inconsistent in testing within both sample sets.

PAE2D5 (X) - Inconsistency in testing between Sample sets.

QTVLSL (X) - Inconsistency in testing between Sample sets. Also inconsistent in testing within both sample sets.

S4XBA1 (X) - Data for all Samples are high.

WGKE3E (X) - Data for all Samples are high.

Y1XUHL (X) - Inconsistency in testing between Sample sets.

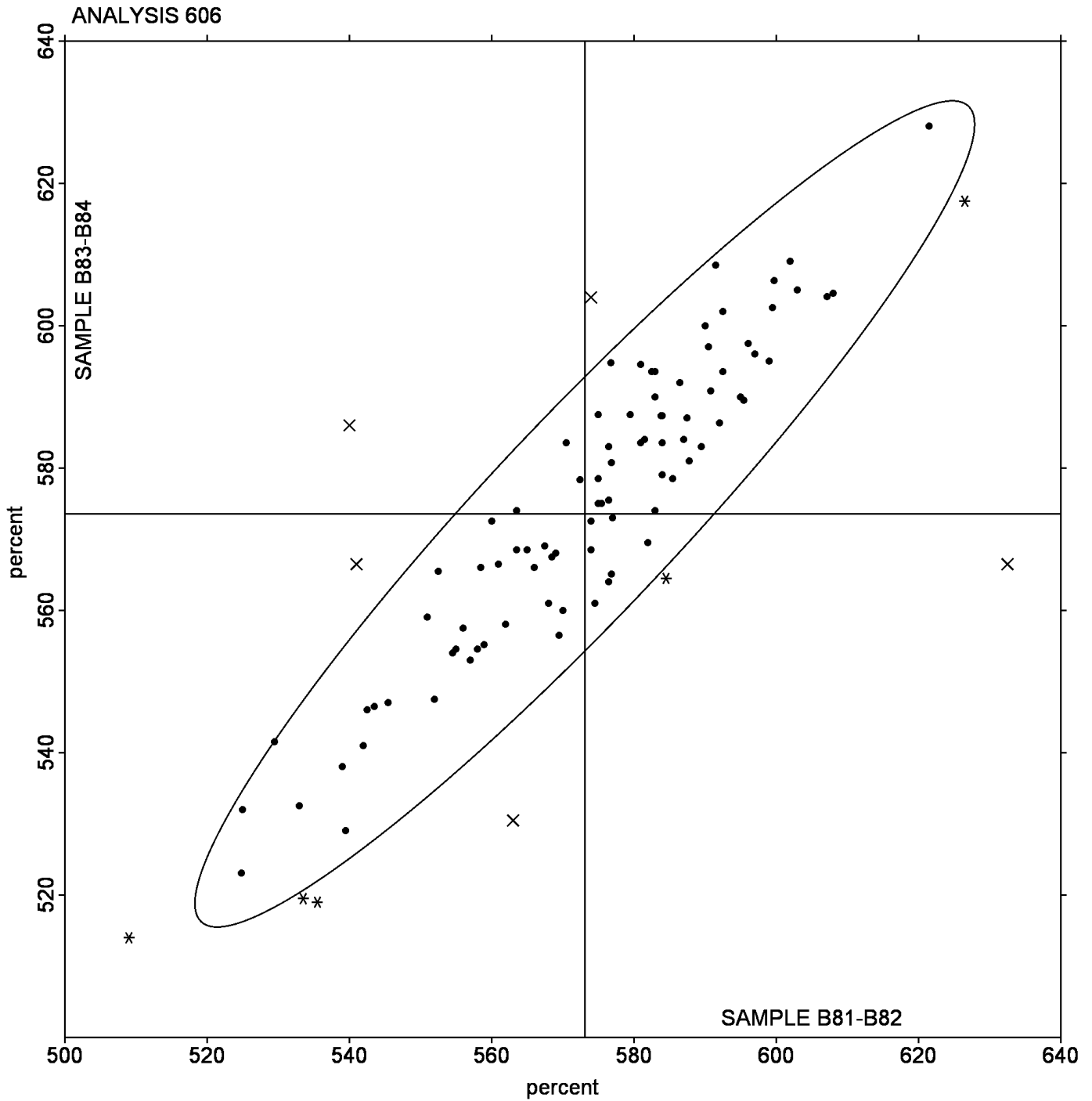
Y9F41E (X) - Inconsistency in testing between Sample sets.

Analysis 606

Ultimate Elongation (percent)

Grand Mean Sample B81-B82 = 573.07 percent

Grand Mean Sample B83-B84 = 573.56 percent



## Analysis 607

## Stress at 300% Elongation (psi)

WebCode	Data Flag	Sample B81-B82			Sample B83-B84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1952EY		1,327.0	106.4	1.33	1,320.5	107.8	1.51	ZZ
19BNE8		1,267.5	46.9	0.59	1,194.9	-17.8	-0.25	ZZ
1G4QW5		1,301.5	80.9	1.01	1,244.5	31.8	0.45	ZZ
1K1CLK		1,267.0	46.4	0.58	1,241.5	28.8	0.41	ZZ
1KERQV		1,283.0	62.4	0.78	1,243.5	30.8	0.43	ZZ
1L6TCC		1,113.5	-107.1	-1.34	1,118.5	-94.2	-1.32	ZZ
1TDABR	X	1,412.5	191.9	2.40	1,521.0	308.3	4.33	ZZ
1UTJS7		1,113.2	-107.4	-1.35	1,156.7	-56.0	-0.79	ZZ
28J466		1,294.0	73.4	0.92	1,281.0	68.3	0.96	ZZ
2MKKDU		1,272.0	51.4	0.64	1,303.5	90.8	1.28	ZZ
2QC11U		1,136.9	-83.7	-1.05	1,188.9	-23.8	-0.33	ZZ
2QM3B9		1,220.5	-0.1	0.00	1,210.0	-2.7	-0.04	ZZ
3EXQJ4	X	967.2	-253.4	-3.17	938.7	-273.9	-3.85	ZZ
3XV4ZG		1,194.5	-26.1	-0.33	1,217.0	4.3	0.06	ZZ
4LH5M1	X	1,520.5	299.9	3.76	1,542.5	329.8	4.63	ZZ
55AQLB	X	1,450.0	229.4	2.87	1,469.5	256.8	3.61	ZZ
5UGAR9	*	1,385.1	164.5	2.06	1,392.4	179.7	2.52	ZZ
629ZWB		1,161.0	-59.6	-0.75	1,143.5	-69.2	-0.97	ZZ
6352TX		1,125.4	-95.2	-1.19	1,094.5	-118.2	-1.66	ZZ
64NZ7G		1,225.0	4.4	0.06	1,249.5	36.8	0.52	ZZ
6Q9ZX7		1,237.9	17.3	0.22	1,237.2	24.5	0.34	ZZ
6R477G		1,214.5	-6.1	-0.08	1,184.0	-28.7	-0.40	ZZ
6WGWR		1,172.7	-47.9	-0.60	1,191.3	-21.4	-0.30	ZZ
75GLN1		1,113.0	-107.6	-1.35	1,103.5	-109.2	-1.53	ZZ
7HYWZX		1,207.5	-13.1	-0.16	1,242.5	29.8	0.42	ZZ
7PZN97		1,280.7	60.1	0.75	1,203.8	-8.8	-0.12	ZZ
7TD9XK		1,255.5	34.9	0.44	1,274.0	61.3	0.86	ZZ
7ZTTPU		1,240.1	19.5	0.24	1,192.9	-19.7	-0.28	ZZ
8W6J3Z		1,204.5	-16.1	-0.20	1,203.5	-9.2	-0.13	ZZ
94Y5GC		1,147.0	-73.6	-0.92	1,141.0	-71.7	-1.01	ZZ
96HFW2	X	733.2	-487.4	-6.11	747.0	-465.7	-6.54	ZZ
9LFBLE		1,177.5	-43.1	-0.54	1,158.5	-54.2	-0.76	ZZ
9RSA6L		1,172.0	-48.6	-0.61	1,131.5	-81.2	-1.14	ZZ
9SV3TG	*	1,359.5	138.9	1.74	1,241.0	28.3	0.40	ZZ
A6VQKF		1,224.5	3.9	0.05	1,265.5	52.8	0.74	ZZ

## Rubber Interlaboratory Testing Program

## Analysis 607

## Stress at 300% Elongation (psi)

WebCode	Data Flag	Sample B81-B82			Sample B83-B84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
BEHLR2		1,065.3	-155.3	-1.95	1,081.3	-131.4	-1.85	ZZ
BZ633A		1,195.1	-25.5	-0.32	1,190.0	-22.6	-0.32	ZZ
C54H4W		1,268.0	47.4	0.59	1,252.5	39.8	0.56	ZZ
CDSJBS		1,169.5	-51.1	-0.64	1,194.0	-18.7	-0.26	ZZ
CHCRSK		1,117.5	-103.1	-1.29	1,184.0	-28.7	-0.40	ZZ
CL8LCG		1,204.5	-16.1	-0.20	1,190.0	-22.7	-0.32	ZZ
CZRJ42		1,155.5	-65.1	-0.82	1,149.5	-63.2	-0.89	ZZ
D1VKGL		1,276.5	55.9	0.70	1,204.5	-8.2	-0.11	ZZ
EG9F3G	*	1,257.5	36.9	0.46	1,146.5	-66.1	-0.93	ZZ
F3KWM		1,341.5	120.9	1.51	1,304.5	91.8	1.29	ZZ
FB89M5		1,205.5	-15.1	-0.19	1,242.0	29.3	0.41	ZZ
FFPLU5		1,132.0	-88.6	-1.11	1,144.5	-68.2	-0.96	ZZ
FMN5JV		1,188.2	-32.4	-0.41	1,201.7	-10.9	-0.15	ZZ
FMW6M		1,236.0	15.4	0.19	1,203.5	-9.2	-0.13	ZZ
FNZJVR		1,220.5	-0.1	0.00	1,230.5	17.8	0.25	ZZ
FPKL6B	X	1,194.4	-26.2	-0.33	1,310.4	97.8	1.37	ZZ
GE5NWS		1,335.1	114.5	1.43	1,340.2	127.5	1.79	ZZ
GEVJG9		1,258.0	37.4	0.47	1,262.0	49.3	0.69	ZZ
GU4NNL		1,264.0	43.4	0.54	1,223.0	10.3	0.15	ZZ
GYUAV		1,320.3	99.7	1.25	1,258.3	45.7	0.64	ZZ
H97PJF		1,317.0	96.4	1.21	1,296.0	83.3	1.17	ZZ
HHK758		1,262.0	41.4	0.52	1,181.0	-31.7	-0.44	ZZ
JF359E		1,140.5	-80.1	-1.00	1,151.0	-61.7	-0.87	ZZ
JSCBZ2	*	1,436.0	215.4	2.70	1,398.5	185.8	2.61	ZZ
K634WF		1,244.2	23.6	0.30	1,271.8	59.1	0.83	ZZ
KLZRDM		1,161.7	-58.9	-0.74	1,096.2	-116.5	-1.64	ZZ
L69GPU		1,230.0	9.4	0.12	1,249.5	36.8	0.52	ZZ
LH4Q9H		1,241.0	20.4	0.26	1,209.5	-3.2	-0.04	ZZ
M4SET1		1,100.0	-120.6	-1.51	1,102.0	-110.7	-1.55	ZZ
MCZ2KP	X	2,369.2	1,148.6	14.39	1,390.2	177.5	2.49	ZZ
MEX6QB		1,205.5	-15.1	-0.19	1,174.0	-38.7	-0.54	ZZ
NEAZ6B		1,322.5	101.9	1.28	1,338.5	125.8	1.77	ZZ
PCYTT9		1,150.6	-70.0	-0.88	1,218.5	5.9	0.08	ZZ
PQX626		1,232.5	11.9	0.15	1,244.5	31.8	0.45	ZZ
PZ9FQA		1,173.0	-47.6	-0.60	1,219.5	6.8	0.10	ZZ

Analysis 607

Stress at 300% Elongation (psi)

WebCode	Data Flag	Sample B81-B82			Sample B83-B84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
Q9XYXD		1,126.0	-94.6	-1.18	1,110.0	-102.7	-1.44	ZZ
QFMV27		1,228.5	7.9	0.10	1,275.6	63.0	0.88	ZZ
QQERBU	X	1,452.0	231.4	2.90	1,490.5	277.8	3.90	ZZ
QRWKC4		1,159.0	-61.6	-0.77	1,138.5	-74.2	-1.04	ZZ
QSTHMK		1,204.5	-16.1	-0.20	1,227.5	14.8	0.21	ZZ
RGPFLY		1,219.5	-1.1	-0.01	1,221.0	8.3	0.12	ZZ
RH5F29		1,060.5	-160.1	-2.01	1,110.0	-102.7	-1.44	ZZ
RQ36MK		1,147.5	-73.1	-0.92	1,177.5	-35.2	-0.49	ZZ
RW4ZN		1,228.0	7.4	0.09	1,236.0	23.3	0.33	ZZ
SCY31P	*	1,385.0	164.4	2.06	1,392.5	179.8	2.53	ZZ
SFTFQU		1,249.0	28.4	0.36	1,181.5	-31.2	-0.44	ZZ
SRCGTL		1,173.5	-47.1	-0.59	1,150.0	-62.7	-0.88	ZZ
T5MJW2		1,182.1	-38.5	-0.48	1,218.3	5.7	0.08	ZZ
T91TW6		1,197.3	-23.3	-0.29	1,213.3	0.6	0.01	ZZ
TJQCHS		1,219.5	-1.1	-0.01	1,168.5	-44.2	-0.62	ZZ
TMZTA3		1,369.2	148.6	1.86	1,295.9	83.3	1.17	ZZ
U3CEV6		1,374.2	153.7	1.93	1,369.9	157.2	2.21	ZZ
VCW8M		1,122.0	-98.6	-1.23	1,133.0	-79.7	-1.12	ZZ
VVDB5G		1,102.3	-118.3	-1.48	1,145.8	-66.8	-0.94	ZZ
VXG43L		1,269.5	48.9	0.61	1,213.6	1.0	0.01	ZZ
VYZA13		1,346.0	125.4	1.57	1,303.0	90.3	1.27	ZZ
W783TC		1,219.5	-1.1	-0.01	1,154.5	-58.2	-0.82	ZZ
XMDB7Z		1,195.1	-25.5	-0.32	1,253.9	41.2	0.58	ZZ
XQ5HS8		1,194.0	-26.6	-0.33	1,179.0	-33.7	-0.47	ZZ
XS67F4		1,083.0	-137.6	-1.72	1,079.0	-133.7	-1.88	ZZ
XY3JCD		1,166.4	-54.2	-0.68	1,176.1	-36.6	-0.51	ZZ
YNUJVZ		1,145.5	-75.1	-0.94	1,171.5	-41.2	-0.58	ZZ
ZEV3XE		1,365.0	144.4	1.81	1,320.0	107.3	1.51	ZZ

Summary Statistics

Grand Means

1,220.58 psi

1,212.66 psi

Std Dev Btwn Labs

79.82 psi

71.20 psi

Statistics based on 90 of 98 reporting participants

## Analysis 607

## Stress at 300% Elongation (psi)

Summary Statistics in SI Units			
Grand Means	8.4155 MPa		8.36 MPa
Std Dev Btwn Labs	0.5504 MPa		0.49 MPa
Statistics based on 90 of 98 reporting participants			

Samples B81-B82: Polyisoprene compound, batch #1 & B83-B84: Polyisoprene compound, batch #2

**Comments on assigned Data Flags for Test #607**

1TDABR (X) - Inconsistency in testing between Sample sets. Data for Sample sets B83-B84 are high.

3EXQJ4 (X) - Data for all Samples are low. Possible Systematic Error.

4LH5M1 (X) - Data for all Samples are high.

55AQLB (X) - Data for all Samples are high. Possible Systematic Error.

96HFW2 (X) - Data for all Samples are low.

FPKL6B (X) - Inconsistency in testing between Sample sets.

MCZ2KP (X) - Data for all Sample B82 are high.

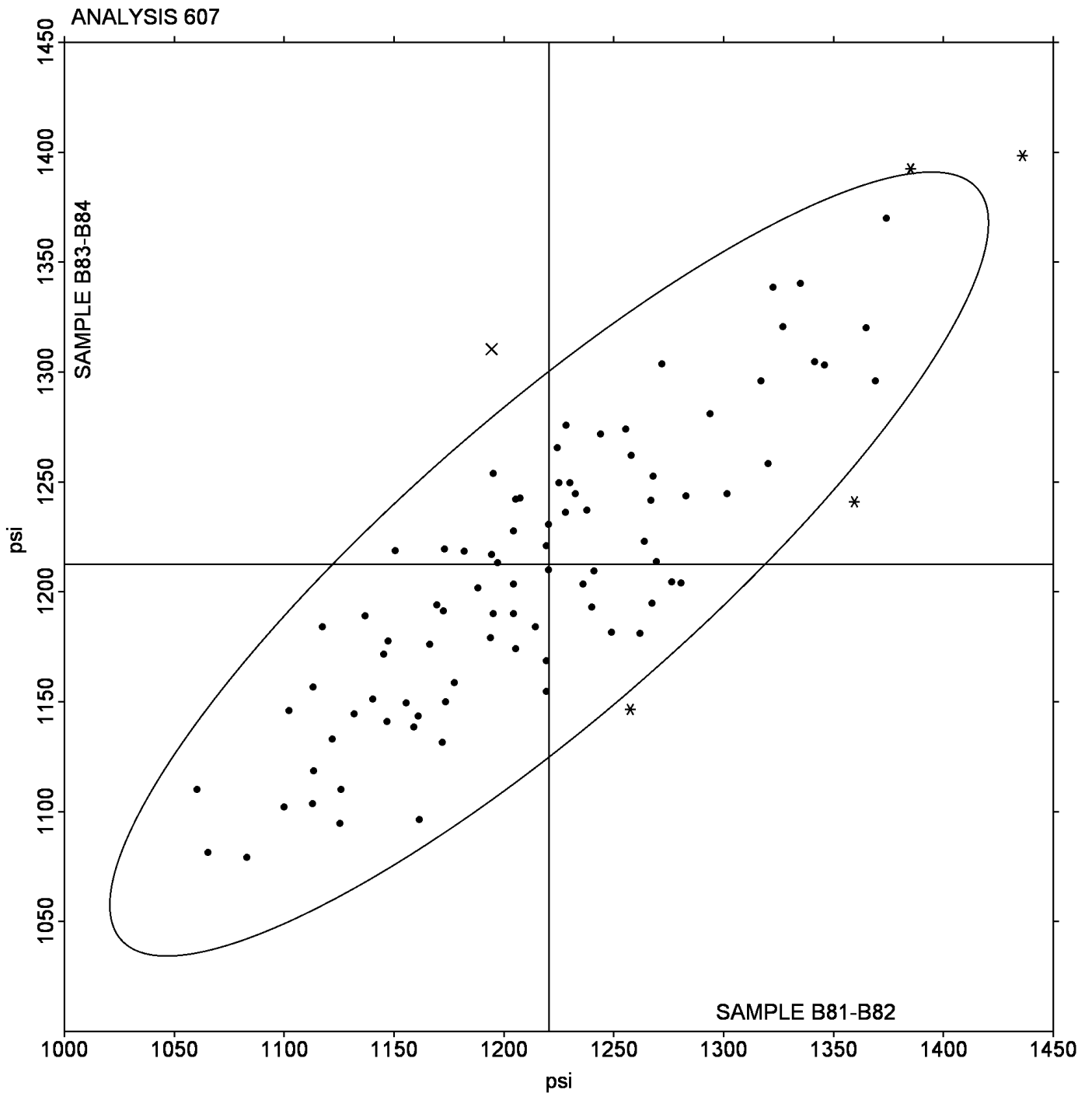
QQERBU (X) - Data for all Samples are high.

Analysis 607

Stress at 300% Elongation (psi)

Grand Mean Sample B81-B82 = 1,220.58 psi

Grand Mean Sample B83-B84 = 1,212.66 psi



## Rubber Interlaboratory Testing Program

## Analysis 608

## Stress at 100% Elongation (psi)

WebCode	Data Flag	Sample B81-B82			Sample B83-B84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1C5ESQ		235.5	-24.8	-1.26	233.5	-26.5	-1.44	ZZ
1DU7NN		238.5	-21.8	-1.10	238.0	-22.0	-1.20	ZZ
1GDACM		250.0	-10.3	-0.52	242.5	-17.5	-0.95	ZZ
1L5HRN		259.6	-0.7	-0.03	281.4	21.4	1.16	ZZ
1W7XK1		254.5	-5.7	-0.29	242.9	-17.1	-0.93	ZZ
1XLD38		239.0	-21.3	-1.08	239.5	-20.5	-1.11	ZZ
28DPMS		252.5	-7.8	-0.39	257.5	-2.5	-0.14	ZZ
2B1MDB		257.4	-2.8	-0.14	256.7	-3.3	-0.18	ZZ
2KADGE		251.0	-9.3	-0.47	249.0	-11.0	-0.60	ZZ
3DY4QP		262.0	1.7	0.09	265.0	5.0	0.27	ZZ
3EG7HG		234.5	-25.8	-1.31	238.5	-21.5	-1.17	ZZ
3J1WK7		269.5	9.2	0.47	273.0	13.0	0.70	ZZ
3WL4XV	*	227.6	-32.7	-1.66	251.5	-8.6	-0.46	ZZ
4UPGUJ		258.0	-2.3	-0.12	246.0	-14.0	-0.76	ZZ
5A5N51		265.0	4.7	0.24	262.5	2.5	0.13	ZZ
5B6YCW		235.0	-25.3	-1.28	233.0	-27.0	-1.47	ZZ
5EYD3E		254.5	-5.8	-0.29	263.0	3.0	0.16	ZZ
5V6U36		299.0	38.7	1.96	304.5	44.5	2.42	ZZ
7M6V5Q		227.5	-32.8	-1.66	239.0	-21.0	-1.14	ZZ
7UUZ8X		248.1	-12.2	-0.62	241.9	-18.1	-0.98	ZZ
7VSPQD		248.0	-12.3	-0.62	254.5	-5.5	-0.30	ZZ
89FKVQ		255.6	-4.7	-0.24	255.4	-4.7	-0.25	ZZ
8U7HMH		289.5	29.2	1.48	266.5	6.5	0.35	ZZ
9CN8PR		248.0	-12.3	-0.62	241.0	-19.0	-1.03	ZZ
9CQJKJ		260.5	0.2	0.01	263.0	3.0	0.16	ZZ
9YULSY		268.5	8.2	0.42	264.4	4.4	0.24	ZZ
A3U4XW		249.6	-10.7	-0.54	245.4	-14.6	-0.79	ZZ
AAZUJ3		267.4	7.1	0.36	257.7	-2.4	-0.13	ZZ
B5MY9B		254.0	-6.3	-0.32	260.5	0.5	0.03	ZZ
BUB8YE		267.0	6.7	0.34	266.5	6.5	0.35	ZZ
C3UQW9		261.5	1.2	0.06	248.0	-12.0	-0.65	ZZ
C84VH9		256.0	-4.3	-0.22	260.5	0.5	0.03	ZZ
CFELW1		236.5	-23.8	-1.21	240.0	-20.0	-1.09	ZZ
CJT5EM		286.7	26.4	1.34	276.1	16.1	0.88	ZZ
CXPWUT		257.0	-3.3	-0.17	272.0	12.0	0.65	ZZ

## Rubber Interlaboratory Testing Program

## Analysis 608

## Stress at 100% Elongation (psi)

WebCode	Data Flag	Sample B81-B82			Sample B83-B84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
D5GGQR		252.0	-8.3	-0.42	260.5	0.5	0.03	ZZ
DP7B16	*	309.5	49.2	2.49	316.0	56.0	3.04	ZZ
DXV9LL		270.5	10.2	0.52	259.0	-1.0	-0.06	ZZ
EKUBHS		286.5	26.2	1.32	282.1	22.1	1.20	ZZ
EST615		229.2	-31.1	-1.58	232.8	-27.2	-1.48	ZZ
F6JT4A		250.5	-9.8	-0.50	253.0	-7.0	-0.38	ZZ
F8FM8W		258.5	-1.8	-0.09	259.0	-1.0	-0.06	ZZ
FCD3XU		255.6	-4.7	-0.24	257.4	-2.6	-0.14	ZZ
FDM5FW		242.2	-18.1	-0.92	253.8	-6.2	-0.34	ZZ
FHWVR		252.0	-8.3	-0.42	244.0	-16.0	-0.87	ZZ
FMDJHE		243.0	-17.3	-0.88	241.5	-18.5	-1.01	ZZ
FQGX5S		272.5	12.2	0.62	254.5	-5.5	-0.30	ZZ
FU5C3R		296.0	35.7	1.81	286.0	26.0	1.41	ZZ
G4TBLB		245.1	-15.2	-0.77	257.4	-2.6	-0.14	ZZ
GPXS9U		249.0	-11.3	-0.57	249.5	-10.5	-0.57	ZZ
GWVU15		285.5	25.2	1.28	285.0	25.0	1.36	ZZ
GXBW2E	X	197.3	-63.0	-3.19	178.4	-81.6	-4.43	ZZ
H34MEF		289.0	28.7	1.45	271.5	11.5	0.62	ZZ
H36Y6Q		268.1	7.8	0.40	246.5	-13.6	-0.74	ZZ
HNCBYC		265.0	4.7	0.24	266.5	6.5	0.35	ZZ
HVD48C		249.5	-10.8	-0.55	244.4	-15.6	-0.85	ZZ
JBESUR		255.0	-5.3	-0.27	267.5	7.5	0.41	ZZ
JHSDE9	*	288.3	28.0	1.42	306.6	46.6	2.53	ZZ
JVTJG8		277.0	16.7	0.85	274.5	14.5	0.79	ZZ
K7S4QX		270.5	10.2	0.52	262.0	2.0	0.11	ZZ
KA45FB		275.0	14.7	0.74	275.0	15.0	0.81	ZZ
KARGB4		254.5	-5.8	-0.29	247.5	-12.5	-0.68	ZZ
KC37K7		251.6	-8.6	-0.44	248.7	-11.3	-0.61	ZZ
L8CEH9		232.1	-28.2	-1.43	246.6	-13.5	-0.73	ZZ
LH6KTQ		241.5	-18.8	-0.95	250.5	-9.5	-0.52	ZZ
LNXX3E		294.5	34.2	1.73	282.0	22.0	1.19	ZZ
LVQLEH	*	312.5	52.2	2.64	293.5	33.5	1.82	ZZ
M3E9AY		244.6	-15.7	-0.80	254.5	-5.6	-0.30	ZZ
NAHX2C		273.5	13.2	0.67	278.0	18.0	0.98	ZZ
NYQQHT		283.5	23.2	1.18	282.0	22.0	1.19	ZZ

Analysis 608

Stress at 100% Elongation (psi)

WebCode	Data Flag	Sample B81-B82			Sample B83-B84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
P11WUM		279.9	19.6	0.99	279.9	19.9	1.08	ZZ
P9KLVF		271.0	10.7	0.54	259.0	-1.0	-0.06	ZZ
PF82UL	X	398.9	138.6	7.02	398.9	138.8	7.54	ZZ
PW95UA		263.5	3.2	0.16	269.5	9.5	0.51	ZZ
Q7KVY6		248.0	-12.3	-0.62	244.5	-15.5	-0.84	ZZ
QHTVZ6		248.7	-11.6	-0.59	258.6	-1.4	-0.08	ZZ
QHVY1P		266.1	5.9	0.30	243.7	-16.4	-0.89	ZZ
QKYV5S		280.7	20.4	1.03	294.4	34.4	1.87	ZZ
QU7EF8		274.0	13.7	0.69	274.5	14.5	0.79	ZZ
R3VKS6		256.0	-4.3	-0.22	268.3	8.3	0.45	ZZ
R77NNG		231.3	-29.0	-1.47	244.4	-15.6	-0.85	ZZ
RC7KYV	X	332.0	71.7	3.63	327.5	67.5	3.66	ZZ
RZ6AP7		237.0	-23.3	-1.18	251.5	-8.5	-0.46	ZZ
SZCSNJ		270.5	10.2	0.52	278.5	18.5	1.00	ZZ
TCW69C		267.5	7.2	0.37	265.0	5.0	0.27	ZZ
TDZ1LC	*	308.0	47.7	2.42	310.3	50.2	2.73	ZZ
TK8PS6		243.5	-16.8	-0.85	247.0	-13.0	-0.71	ZZ
TXNM4E	*	206.2	-54.1	-2.74	213.3	-46.7	-2.53	ZZ
UFEZ6H		244.3	-16.0	-0.81	245.0	-15.0	-0.82	ZZ
V6FXSJ		249.5	-10.8	-0.55	242.5	-17.5	-0.95	ZZ
V8D1Z1		283.6	23.3	1.18	265.4	5.4	0.29	ZZ
VTLVVJ		240.5	-19.8	-1.00	236.0	-24.0	-1.30	ZZ
WEN4SL		251.5	-8.8	-0.45	246.5	-13.5	-0.73	ZZ
XHGR1V		260.0	-0.3	-0.01	255.0	-5.0	-0.27	ZZ
Y64XBN		265.0	4.7	0.24	249.0	-11.0	-0.60	ZZ
YNYEM4		266.5	6.2	0.31	271.6	11.6	0.63	ZZ
Z8EHY9		294.0	33.7	1.71	281.0	21.0	1.14	ZZ
ZLEJ5F		267.0	6.7	0.34	268.0	8.0	0.43	ZZ
ZQTQN5		266.5	6.2	0.31	280.0	20.0	1.09	ZZ

Summary Statistics	
Grand Means	260.29 psi      260.02 psi
Std Dev Btwn Labs	19.74 psi      18.41 psi
Statistics based on 96 of 99 reporting participants	

## Analysis 608

## Stress at 100% Elongation (psi)

		Summary Statistics in SI Units	
Grand Means	1.7946 MPa	1.79	MPa
Std Dev Btwn Labs	0.1361 MPa	0.13	MPa
Statistics based on 96 of 99 reporting participants			

Samples B81-B82: Polyisoprene compound, batch #1 & B83-B84: Polyisoprene compound, batch #2

**Comments on assigned Data Flags for Test #608**

GXBW2E (X) - Data for all Samples are low.

PF82UL (X) - Data for all Samples are high.

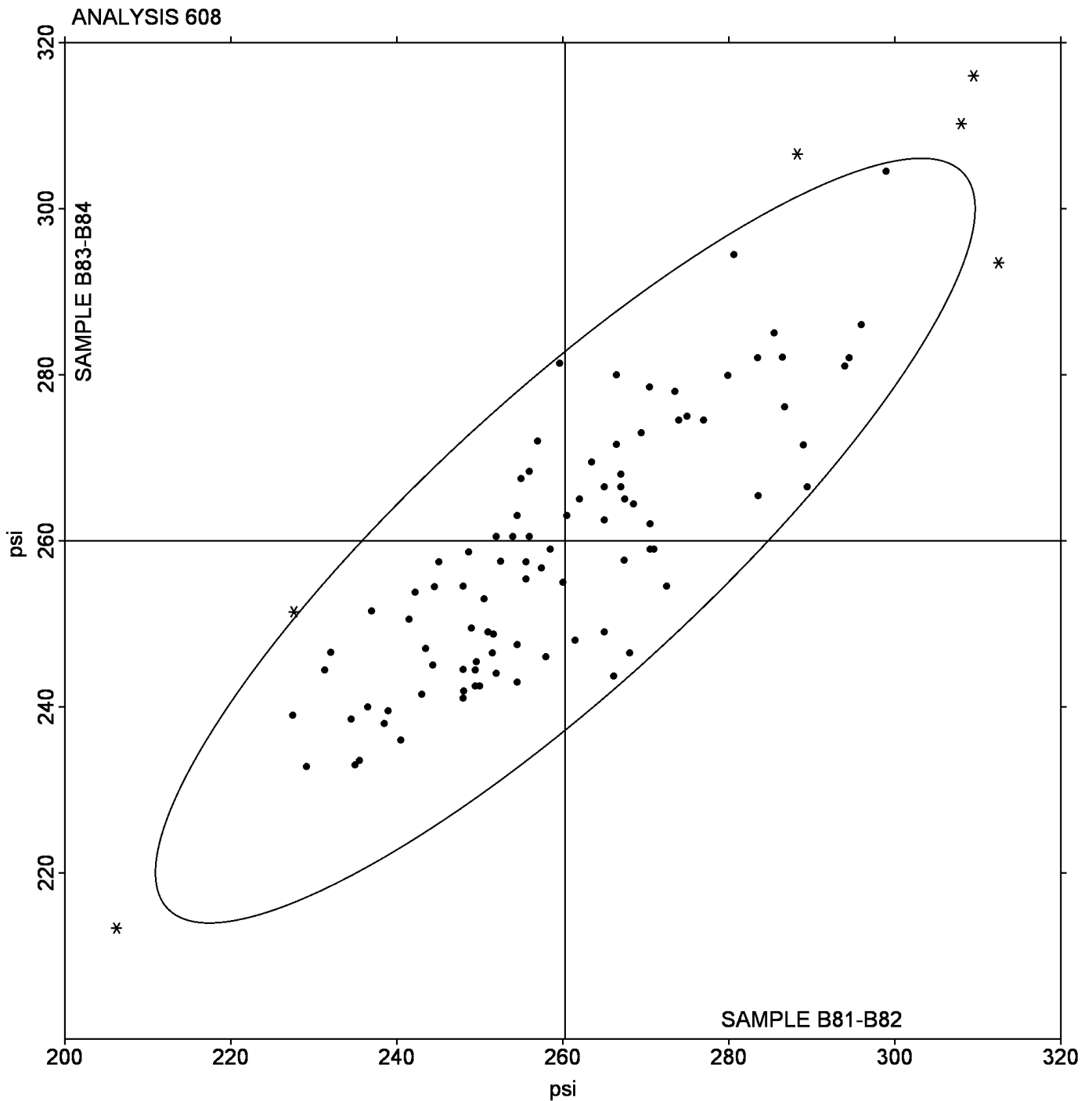
RC7KYV (X) - Data for all Samples are high. Possible Systematic Error.

Analysis 608

Stress at 100% Elongation (psi)

Grand Mean Sample B81-B82 = 260.29 psi

Grand Mean Sample B83-B84 = 260.02 psi



## Rubber Interlaboratory Testing Program

## Analysis 620

## Hardness (Shore A/Type A)

WebCode	Data Flag	Sample B81-B82			Sample B83-B84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1326J5	X	58.00	4.22	3.17	58.50	4.68	3.41	ZZ
17D79J		53.00	-0.78	-0.59	52.00	-1.82	-1.33	ZZ
1MRXFS		52.50	-1.28	-0.97	53.50	-0.32	-0.24	ZZ
21XRV7		52.95	-0.83	-0.63	53.10	-0.72	-0.53	ZZ
27TRUE		54.00	0.22	0.16	54.00	0.18	0.13	ZZ
2Q75BB		53.30	-0.48	-0.36	52.30	-1.52	-1.11	ZZ
36BYGQ		55.00	1.22	0.91	55.00	1.18	0.86	ZZ
41NF77		53.00	-0.78	-0.59	53.00	-0.82	-0.60	ZZ
4EVDGR		53.90	0.12	0.09	53.00	-0.82	-0.60	ZZ
4QP5XJ		55.75	1.97	1.48	56.35	2.53	1.84	ZZ
51XEFH		53.70	-0.08	-0.06	54.10	0.28	0.20	ZZ
5CKVV1		53.00	-0.78	-0.59	54.00	0.18	0.13	ZZ
5RTYR3		54.50	0.72	0.54	54.50	0.68	0.49	ZZ
5VLRG6	*	52.50	-1.28	-0.97	54.00	0.18	0.13	ZZ
5ZJZZT		53.00	-0.78	-0.59	53.75	-0.07	-0.05	ZZ
6MLNY2		54.50	0.72	0.54	55.00	1.18	0.86	ZZ
76R4DC		54.00	0.22	0.16	54.00	0.18	0.13	ZZ
7W8GP7		52.00	-1.78	-1.34	53.00	-0.82	-0.60	ZZ
82GWDJ		56.00	2.22	1.67	56.00	2.18	1.59	ZZ
8AVT9K		56.00	2.22	1.67	56.00	2.18	1.59	ZZ
8HYMRH		55.00	1.22	0.91	55.00	1.18	0.86	ZZ
8LFH34		55.00	1.22	0.91	54.50	0.68	0.49	ZZ
8Z8YP8		53.20	-0.58	-0.44	53.25	-0.57	-0.42	ZZ
9FUR52		54.00	0.22	0.16	54.00	0.18	0.13	ZZ
9KWK7A		53.90	0.12	0.09	54.15	0.33	0.24	ZZ
9UH73U		54.50	0.72	0.54	54.50	0.68	0.49	ZZ
ADZFFS		54.25	0.47	0.35	55.00	1.18	0.86	ZZ
AP3Y7F		54.25	0.47	0.35	53.75	-0.07	-0.05	ZZ
AVEKD	X	60.30	6.52	4.90	60.35	6.53	4.76	ZZ
B9KLE8		53.10	-0.68	-0.52	52.75	-1.07	-0.78	ZZ
BC58TS		54.50	0.72	0.54	54.00	0.18	0.13	ZZ
BCVFFR		55.00	1.22	0.91	54.50	0.68	0.49	ZZ
BHX32T		51.25	-2.53	-1.91	51.55	-2.27	-1.66	ZZ
C2B9CV		53.00	-0.78	-0.59	53.00	-0.82	-0.60	ZZ
C3C7Z2		53.00	-0.78	-0.59	53.50	-0.32	-0.24	ZZ

## Rubber Interlaboratory Testing Program

## Analysis 620

## Hardness (Shore A/Type A)

WebCode	Data Flag	Sample B81-B82			Sample B83-B84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
C7972Z		52.75	-1.03	-0.78	52.20	-1.62	-1.18	ZZ
C9QWUX		54.60	0.82	0.61	54.50	0.68	0.49	ZZ
CNZQVD		53.50	-0.28	-0.21	53.50	-0.32	-0.24	ZZ
CVJV5S		55.20	1.42	1.06	54.90	1.08	0.78	ZZ
CXBJTW		54.00	0.22	0.16	53.50	-0.32	-0.24	ZZ
D6A4PT		53.00	-0.78	-0.59	52.00	-1.82	-1.33	ZZ
DAH3TL		52.90	-0.88	-0.67	52.90	-0.92	-0.67	ZZ
DL5SCT		55.50	1.72	1.29	55.00	1.18	0.86	ZZ
DTCHCZ		56.00	2.22	1.67	56.00	2.18	1.59	ZZ
DWL59J		55.00	1.22	0.91	55.50	1.68	1.22	ZZ
E1ZLG9		51.00	-2.78	-2.09	50.50	-3.32	-2.42	ZZ
E7UHAH	*	50.00	-3.78	-2.85	50.50	-3.32	-2.42	ZZ
E9GJEX		55.00	1.22	0.91	54.00	0.18	0.13	ZZ
EPUYMN		53.95	0.17	0.12	54.80	0.98	0.71	ZZ
EXL86S		53.00	-0.78	-0.59	54.00	0.18	0.13	ZZ
F65RFC		54.10	0.32	0.24	53.50	-0.32	-0.24	ZZ
FF129K		53.00	-0.78	-0.59	52.00	-1.82	-1.33	ZZ
FJ1C4I		54.00	0.22	0.16	53.90	0.08	0.06	ZZ
FMBEXH		53.50	-0.28	-0.21	53.35	-0.47	-0.35	ZZ
FN5PUZ		52.00	-1.78	-1.34	52.00	-1.82	-1.33	ZZ
FVCFRH		52.20	-1.58	-1.19	51.80	-2.02	-1.48	ZZ
H1BB6V		55.00	1.22	0.91	55.00	1.18	0.86	ZZ
HAS6CH		52.10	-1.68	-1.27	51.70	-2.12	-1.55	ZZ
HJN1EM		54.00	0.22	0.16	54.00	0.18	0.13	ZZ
JF1TH5		54.00	0.22	0.16	54.00	0.18	0.13	ZZ
JQ2F92		55.00	1.22	0.91	55.00	1.18	0.86	ZZ
K3ESXA		52.00	-1.78	-1.34	52.00	-1.82	-1.33	ZZ
KCFQGY		54.20	0.42	0.31	54.00	0.18	0.13	ZZ
KJ2SBE		52.65	-1.13	-0.85	52.80	-1.02	-0.75	ZZ
L4K1G7		54.45	0.67	0.50	54.35	0.53	0.38	ZZ
LCV7BP		55.00	1.22	0.91	55.00	1.18	0.86	ZZ
LY9M94		55.00	1.22	0.91	55.00	1.18	0.86	ZZ
PJQE4N		54.00	0.22	0.16	54.50	0.68	0.49	ZZ
PVTZ88		53.20	-0.58	-0.44	52.40	-1.42	-1.04	ZZ
PVW5RA		52.65	-1.13	-0.85	52.40	-1.42	-1.04	ZZ

## Rubber Interlaboratory Testing Program

## Analysis 620

## Hardness (Shore A/Type A)

WebCode	Data Flag	Sample B81-B82			Sample B83-B84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
Q41J28		52.50	-1.28	-0.97	53.00	-0.82	-0.60	ZZ
QBEC8Y		55.00	1.22	0.91	55.00	1.18	0.86	ZZ
QN88CX		54.75	0.97	0.73	55.25	1.43	1.04	ZZ
R2A546		54.00	0.22	0.16	54.00	0.18	0.13	ZZ
R7FZP1		56.95	3.17	2.38	57.15	3.33	2.42	ZZ
RFDV45		53.45	-0.33	-0.25	53.90	0.08	0.06	ZZ
RGSML7		55.30	1.52	1.14	54.60	0.78	0.57	ZZ
RNCAYL		53.00	-0.78	-0.59	53.00	-0.82	-0.60	ZZ
S2M83N		53.00	-0.78	-0.59	53.00	-0.82	-0.60	ZZ
S8VWZK		57.00	3.22	2.42	57.00	3.18	2.32	ZZ
SAP2WJ		55.00	1.22	0.91	56.00	2.18	1.59	ZZ
SR4L73		51.25	-2.53	-1.91	51.70	-2.12	-1.55	ZZ
TFW1TU		56.00	2.22	1.67	56.50	2.68	1.95	ZZ
TSC3QX		53.55	-0.23	-0.18	53.30	-0.52	-0.38	ZZ
TSQRWS		52.00	-1.78	-1.34	52.50	-1.32	-0.97	ZZ
UDRN6C		53.30	-0.48	-0.36	53.90	0.08	0.06	ZZ
ULVH DU		54.95	1.17	0.88	55.15	1.33	0.97	ZZ
UPUT9U		55.50	1.72	1.29	55.50	1.68	1.22	ZZ
V1A5R3		53.35	-0.43	-0.33	53.85	0.03	0.02	ZZ
VLWU7	*	51.10	-2.68	-2.02	52.40	-1.42	-1.04	ZZ
W2WFU1		51.55	-2.23	-1.68	50.75	-3.07	-2.24	ZZ
WBCSNK		53.60	-0.18	-0.14	53.55	-0.27	-0.20	ZZ
WF9EEK		54.50	0.72	0.54	54.50	0.68	0.49	ZZ
WK1CLH		54.50	0.72	0.54	54.00	0.18	0.13	ZZ
WKBT9H		55.00	1.22	0.91	55.00	1.18	0.86	ZZ
WL1NRD		55.00	1.22	0.91	55.00	1.18	0.86	ZZ
WL2J8P		52.50	-1.28	-0.97	52.00	-1.82	-1.33	ZZ
WWNFK		54.50	0.72	0.54	54.50	0.68	0.49	ZZ
X654P2		53.50	-0.28	-0.21	54.00	0.18	0.13	ZZ
XCRW2		55.70	1.92	1.44	55.40	1.58	1.15	ZZ
XFXQ68		51.50	-2.28	-1.72	51.55	-2.27	-1.66	ZZ
XQSSYU		55.00	1.22	0.91	55.00	1.18	0.86	ZZ
XZPH33		51.50	-2.28	-1.72	51.00	-2.82	-2.06	ZZ
Y4WVY4		54.15	0.37	0.27	54.85	1.03	0.75	ZZ
YCWD8T		53.25	-0.53	-0.40	53.50	-0.32	-0.24	ZZ

## Analysis 620

## Hardness (Shore A/Type A)

WebCode	Data Flag	Sample B81-B82			Sample B83-B84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
Z2XED6		54.00	0.22	0.16	54.00	0.18	0.13	ZZ
ZB27HC		53.00	-0.78	-0.59	53.90	0.08	0.06	ZZ
ZQWJRQ		53.50	-0.28	-0.21	53.60	-0.22	-0.16	ZZ

## Summary Statistics

Grand Means

53.785 Type A

53.824 Type A

Std Dev Btwn Labs

1.330 Type A

1.372 Type A

Statistics based on 106 of 108 reporting participants

Samples B81-B82: Polyisoprene compound, batch #1 & B83-B84: Polyisoprene compound, batch #2

**Comments on assigned Data Flags for Test #620**

1326J5 (X) - Data for all Samples are high. Possible Systematic Error.

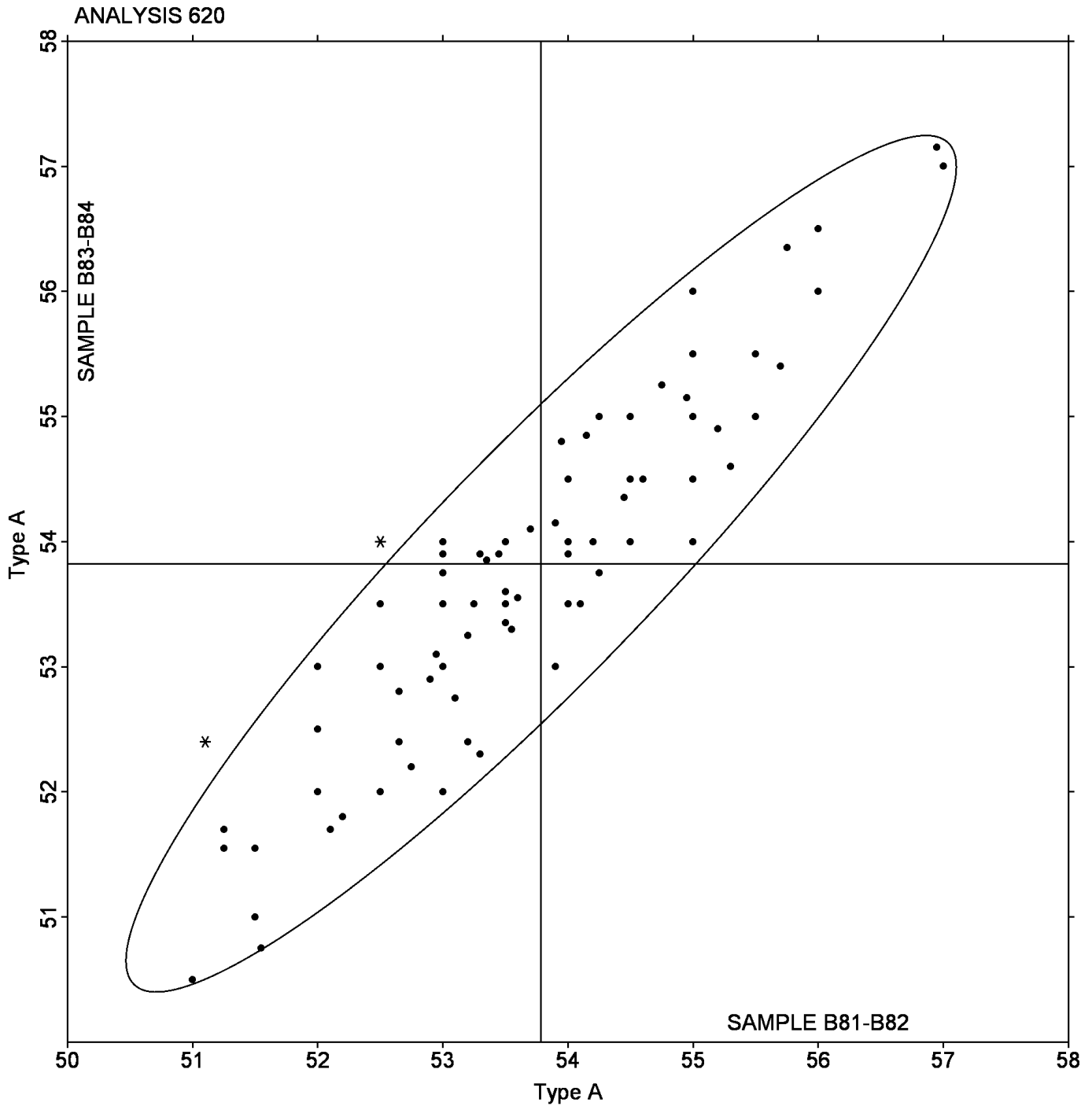
AVEKDW (X) - Data for all Samples are high.

Analysis 620

Hardness (Shore A/Type A)

Grand Mean Sample B81-B82 = 53.785 Type A

Grand Mean Sample B83-B84 = 53.824 Type A



## Analysis 630

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

WebCode	Data Flag	Sample B81-B82			Sample K81-K82			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
11S9SN		3,252.5	-45.1	-0.35	2,950.0	-62.6	-0.34	ZZ
1UDRYV		3,159.0	-138.6	-1.08	3,119.5	106.9	0.58	ZZ
45TV45		3,234.4	-63.2	-0.49	2,922.5	-90.0	-0.49	ZZ
5SXAWC		3,322.5	24.9	0.19	3,101.5	88.9	0.49	ZZ
5W5MQE		3,302.5	5.0	0.04	3,057.4	44.9	0.25	ZZ
647M1X		3,402.3	104.7	0.82	3,193.3	180.7	0.99	ZZ
7NGFE6		3,543.7	246.1	1.92	3,046.0	33.4	0.18	ZZ
7T96S8		3,092.5	-205.1	-1.60	3,162.5	149.9	0.82	ZZ
8HAJMW		3,338.5	40.9	0.32	3,093.5	80.9	0.44	ZZ
8R4PMS		3,369.0	71.4	0.56	2,750.0	-262.6	-1.44	ZZ
AQG21E		3,277.0	-20.6	-0.16	3,132.5	119.9	0.66	ZZ
C5QQ4R		3,356.9	59.3	0.46	3,195.2	182.6	1.00	ZZ
CEZEEN		3,343.0	45.4	0.36	2,947.0	-65.6	-0.36	ZZ
G27HYG		3,318.0	20.4	0.16	3,344.0	331.4	1.81	ZZ
GS5RJ8		3,399.0	101.4	0.79	2,659.5	-353.1	-1.93	ZZ
JYQVVD		3,372.1	74.5	0.58	3,130.1	117.5	0.64	ZZ
KUTZVY	*	2,972.5	-325.1	-2.54	2,616.0	-396.6	-2.17	ZZ
L4L5QP		3,406.5	108.9	0.85	3,048.0	35.4	0.19	ZZ
M2NPKZ		3,302.0	4.4	0.03	3,061.5	48.9	0.27	ZZ
M7FRT6		3,219.5	-78.1	-0.61	3,043.5	30.9	0.17	ZZ
MN8R8R		3,377.5	79.9	0.63	3,069.0	56.4	0.31	ZZ
MY435B		3,509.2	211.6	1.66	3,263.4	250.8	1.37	ZZ
MYJMN		3,261.5	-36.1	-0.28	2,983.0	-29.6	-0.16	ZZ
MZ42EC		3,347.5	49.9	0.39	2,886.0	-126.6	-0.69	ZZ
NVE9CH		3,203.2	-94.4	-0.74	2,958.1	-54.5	-0.30	ZZ
PE1VHJ		3,177.8	-119.8	-0.94	3,081.2	68.6	0.38	ZZ
RSUZQF		3,353.5	55.9	0.44	3,068.0	55.4	0.30	ZZ
RTFN9M		3,525.0	227.4	1.78	3,180.0	167.4	0.92	ZZ
S23AU6		3,373.9	76.3	0.60	3,178.8	166.2	0.91	ZZ
U43ATU		3,304.5	6.9	0.05	2,988.5	-24.1	-0.13	ZZ
UN1FRL		3,131.0	-166.6	-1.30	2,922.5	-90.1	-0.49	ZZ
UPRL5R		3,210.0	-87.6	-0.69	2,660.0	-352.6	-1.93	ZZ
VQVTEB		3,272.0	-25.6	-0.20	2,806.5	-206.1	-1.13	ZZ
WDXC2F	*	2,966.8	-330.7	-2.59	3,186.9	174.4	0.95	ZZ
WL7MC4		3,302.0	4.4	0.03	3,004.5	-8.1	-0.04	ZZ

Analysis 630

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

WebCode	Data Flag	Sample B81-B82			Sample K81-K82			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
YSMMQ		3,305.5	7.9	0.06	3,104.0	91.4	0.50	ZZ
ZS1TMN	*	3,406.5	108.9	0.85	2,551.0	-461.6	-2.52	ZZ

Summary Statistics			
Grand Means	3,297.59	psi	3,012.56
			psi
Std Dev Btwn Labs	127.86	psi	182.88
			psi
Statistics based on 37 of 37 reporting participants			

Summary Statistics in SI Units			
Grand Means	22.736	MPa	20.77
			MPa
Std Dev Btwn Labs	0.882	MPa	1.26
			MPa
Statistics based on 37 of 37 reporting participants			

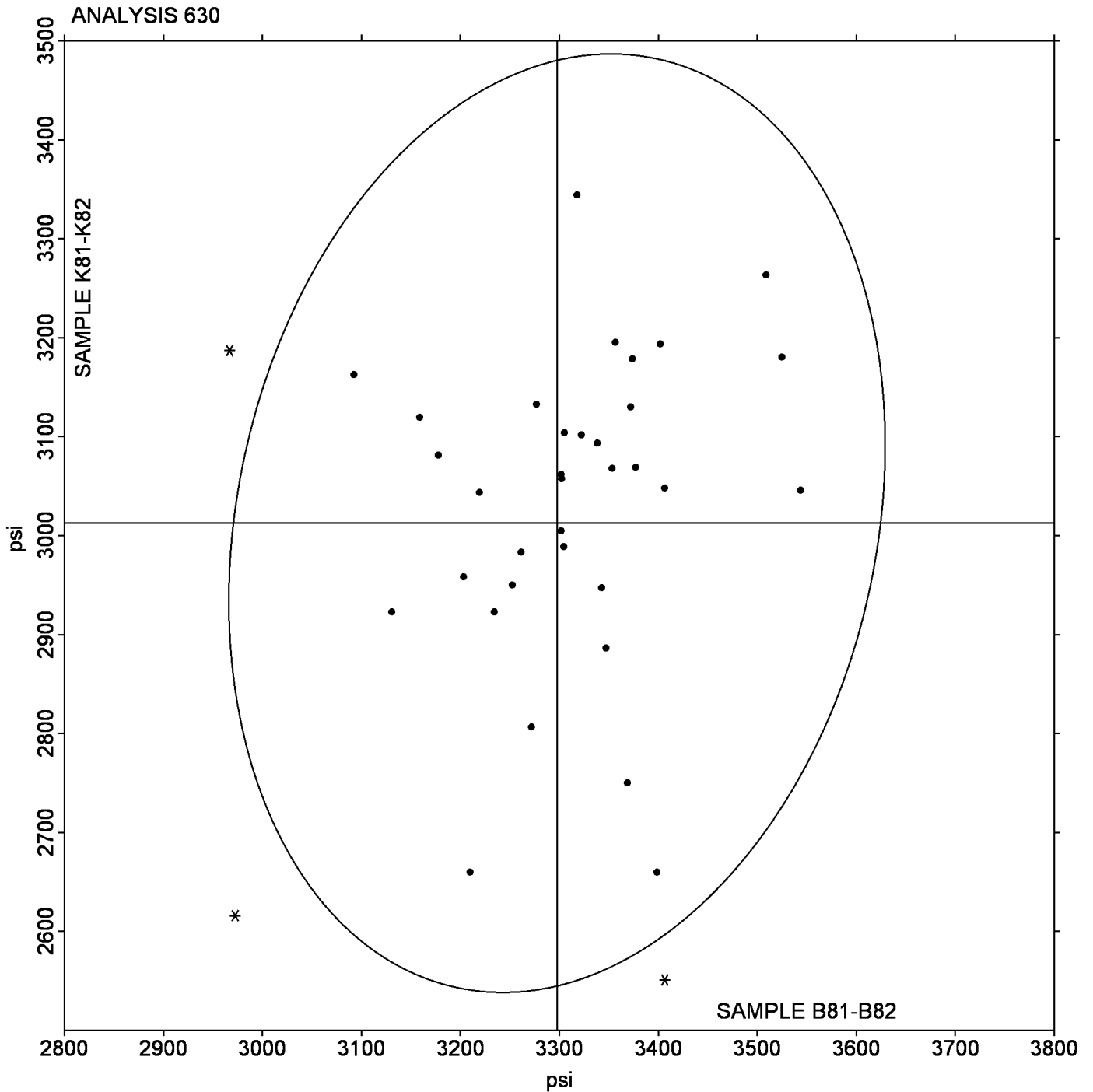
All samples : Polyisoprene compound, batch #1

Analysis 630

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

Grand Mean Sample B81-B82 = 3,297.59 psi

Grand Mean Sample K81-K82 = 3,012.56 psi



## Analysis 631

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

WebCode	Data Flag	Sample B81-B82			Sample K81-K82			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
16W9SS		569.5	-3.0	-0.15	550.5	-0.7	-0.03	ZZ
1E33SK	*	509.0	-63.5	-3.09	510.0	-41.2	-1.94	ZZ
2CU629		582.5	10.0	0.48	551.0	-0.2	-0.01	ZZ
3TZ6HB		583.0	10.5	0.51	521.0	-30.2	-1.42	ZZ
42F1R4	*	542.0	-30.5	-1.48	570.5	19.3	0.91	ZZ
42UK85		586.5	14.0	0.68	558.5	7.3	0.34	ZZ
46MT9P		581.0	8.5	0.41	551.5	0.3	0.01	ZZ
8LS1NF		560.0	-12.5	-0.61	520.0	-31.2	-1.47	ZZ
B4Z6N2		557.0	-15.5	-0.75	545.0	-6.2	-0.29	ZZ
BBEVG2		579.5	7.0	0.34	549.5	-1.7	-0.08	ZZ
CGYUFA		589.5	17.0	0.82	579.0	27.8	1.31	ZZ
DBNJVX		592.5	20.0	0.97	557.5	6.3	0.30	ZZ
FWH82H		597.0	24.5	1.19	575.5	24.3	1.14	ZZ
G66AA5		562.0	-10.5	-0.51	568.0	16.8	0.79	ZZ
H2VWH6		576.8	4.3	0.21	558.3	7.1	0.33	ZZ
HSJA5P		556.0	-16.5	-0.80	531.5	-19.7	-0.93	ZZ
KQET9D		576.9	4.4	0.21	546.3	-4.9	-0.23	ZZ
LUPYBH		574.0	1.4	0.07	562.8	11.6	0.54	ZZ
MF77KX		552.0	-20.5	-1.00	510.0	-41.2	-1.94	ZZ
MXDPDZ		583.0	10.5	0.51	573.5	22.3	1.05	ZZ
MYMPJ9		542.5	-30.0	-1.46	507.0	-44.2	-2.08	ZZ
NKP7RV		529.5	-43.0	-2.09	521.5	-29.7	-1.40	ZZ
NLSMNU		575.0	2.5	0.12	550.0	-1.2	-0.06	ZZ
P987YB		602.0	29.5	1.43	580.5	29.3	1.38	ZZ
PYXGTF		559.0	-13.6	-0.66	525.7	-25.5	-1.20	ZZ
QNQ4Z8		552.5	-20.0	-0.97	558.5	7.3	0.34	ZZ
QZYGNE		581.5	9.0	0.44	553.0	1.8	0.08	ZZ
SSP9TW	X	590.5	18.0	0.87	706.0	154.8	7.29	ZZ
TVRAR6		570.5	-2.0	-0.10	564.0	12.8	0.60	ZZ
UQ5HS4		563.5	-9.0	-0.44	582.5	31.3	1.47	ZZ
V7W3ER		587.5	15.0	0.73	562.0	10.8	0.51	ZZ
VJXX27		590.8	18.3	0.89	564.9	13.6	0.64	ZZ
W4YESK		576.5	4.0	0.19	552.5	1.3	0.06	ZZ
X66C1G		592.1	19.5	0.95	557.6	6.4	0.30	ZZ
XB913A		595.5	23.0	1.12	562.5	11.3	0.53	ZZ

Analysis 631

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

WebCode	Data Flag	Sample B81-B82			Sample K81-K82			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
Y8Y262		599.0	26.5	1.29	580.5	29.3	1.38	ZZ
ZL31RY		583.8	11.3	0.55	531.4	-19.8	-0.93	ZZ

Summary Statistics	
Grand Means	
572.52 percent	551.22 percent
Std Dev Btwn Labs	
20.58 percent	21.24 percent
Statistics based on 36 of 37 reporting participants	

All samples : Polyisoprene compound, batch #1

**Comments on assigned Data Flags for Test #631**

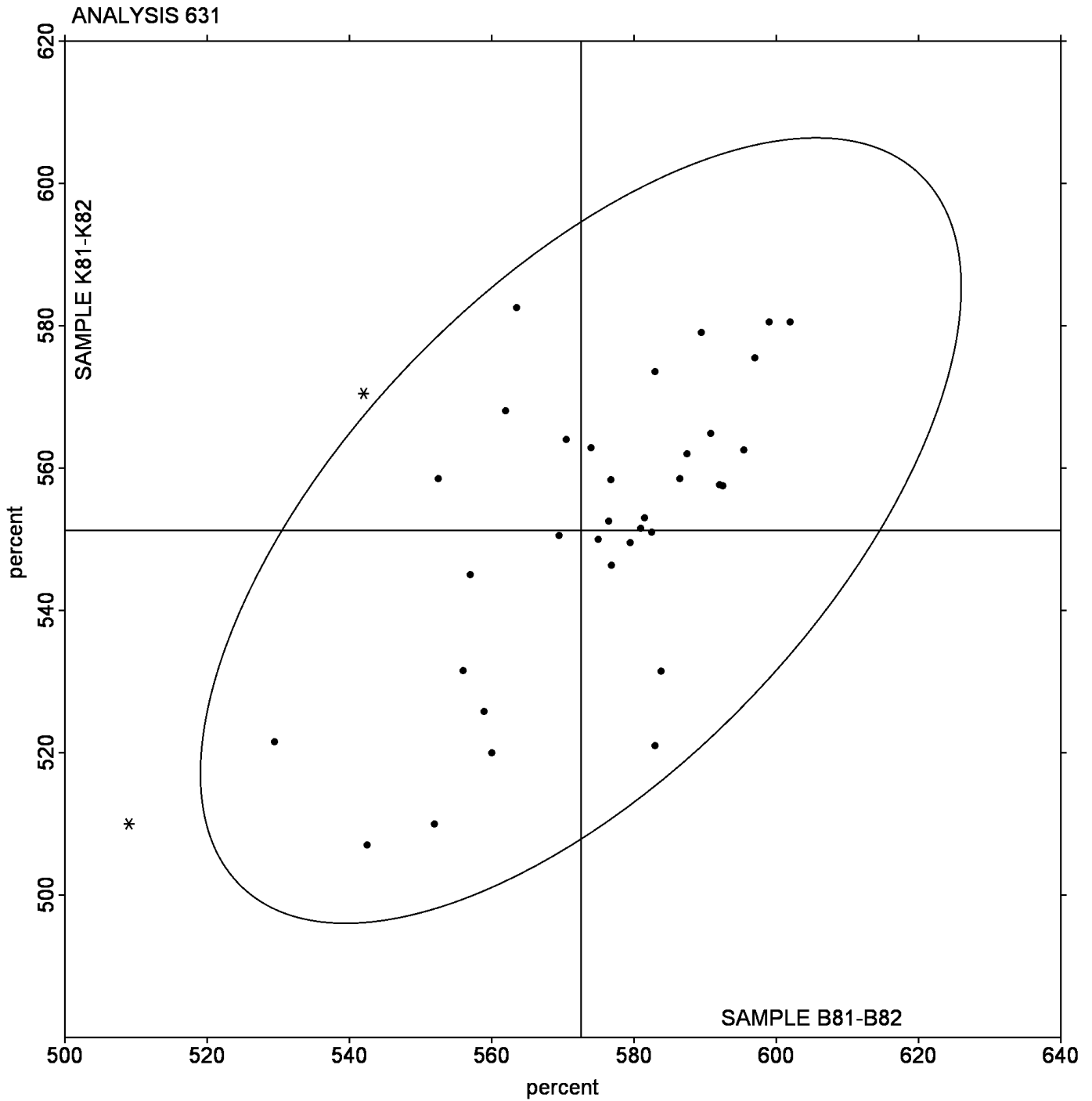
SSP9TW (X) - Data for Sample set K81-K82 are high. Also inconsistent in testing within Sample set K81-K82.

Analysis 631

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

Grand Mean Sample B81-B82 = 572.52 percent

Grand Mean Sample K81-K82 = 551.22 percent



## Analysis 632

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

WebCode	Data Flag	Sample B81-B82			Sample K81-K82			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1F3V75		1,317.0	91.2	1.21	1,264.5	116.3	1.15	ZZ
245EU9		1,241.0	15.2	0.20	1,104.5	-43.7	-0.43	ZZ
24L3UC		1,204.5	-21.3	-0.28	1,227.0	78.8	0.78	ZZ
2QEGKM		1,262.0	36.2	0.48	1,171.0	22.8	0.23	ZZ
4TCQTD	*	1,452.0	226.2	3.01	1,157.5	9.3	0.09	ZZ
4TE1P6		1,102.3	-123.5	-1.64	1,015.3	-132.9	-1.31	ZZ
6HJGQ2		1,188.2	-37.6	-0.50	1,114.4	-33.8	-0.33	ZZ
7AMBYR		1,258.0	32.2	0.43	1,156.5	8.3	0.08	ZZ
9JBN54		1,341.5	115.7	1.54	1,195.5	47.3	0.47	ZZ
AV4CU4		1,269.5	43.6	0.58	1,116.9	-31.3	-0.31	ZZ
B8A3N3		1,230.0	4.2	0.06	1,156.0	7.8	0.08	ZZ
BZ1VS2		1,301.5	75.7	1.01	1,179.0	30.8	0.30	ZZ
C988NG		1,136.9	-88.9	-1.18	1,202.2	54.0	0.53	ZZ
CBD8T3	X	2,369.2	1,143.4	15.20	1,322.0	173.8	1.72	ZZ
G11KZE		1,145.5	-80.3	-1.07	974.5	-173.7	-1.71	ZZ
HRQ4QE		1,322.5	96.7	1.29	1,301.0	152.8	1.51	ZZ
HSP2GL		1,194.0	-31.8	-0.42	1,068.5	-79.7	-0.79	ZZ
K8DQ3S		1,155.5	-70.3	-0.94	1,145.0	-3.2	-0.03	ZZ
KU26P1		1,214.5	-11.3	-0.15	1,191.0	42.8	0.42	ZZ
PW56KW		1,147.0	-78.8	-1.05	1,136.5	-11.7	-0.12	ZZ
Q2FNMX	*	1,249.0	23.2	0.31	881.5	-266.7	-2.63	ZZ
QL22L7		1,244.2	18.3	0.24	1,181.1	32.9	0.32	ZZ
R94BN6		1,276.5	50.7	0.67	1,166.0	17.8	0.18	ZZ
SRRZL6		1,219.5	-6.3	-0.08	1,214.5	66.3	0.65	ZZ
TALQYC		1,228.5	2.6	0.04	1,295.9	147.7	1.46	ZZ
UG58UZ		1,346.0	120.2	1.60	1,076.5	-71.7	-0.71	ZZ
UNF7TY		1,219.5	-6.3	-0.08	1,225.5	77.3	0.76	ZZ
UQSKER		1,173.5	-52.3	-0.70	1,158.5	10.3	0.10	ZZ
V6AULL		1,132.0	-93.8	-1.25	1,120.0	-28.2	-0.28	ZZ
V8M8TV		1,161.0	-64.8	-0.86	888.0	-260.2	-2.57	ZZ
VALG6X		1,177.5	-48.3	-0.64	1,062.0	-86.2	-0.85	ZZ
VN3J5P		1,207.5	-18.3	-0.24	1,217.5	69.3	0.68	ZZ
VYYNY		1,272.0	46.2	0.61	1,255.5	107.3	1.06	ZZ
WU8GL7		1,161.7	-64.1	-0.85	1,232.3	84.1	0.83	ZZ
XDMGZ8		1,294.0	68.2	0.91	1,322.9	174.6	1.72	ZZ

Analysis 632

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

WebCode	Data Flag	Sample B81-B82			Sample K81-K82			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
XU9XU4		1,159.0	-66.8	-0.89	1,078.5	-69.7	-0.69	ZZ
XZZD15		1,125.4	-100.4	-1.33	1,082.3	-65.9	-0.65	ZZ

Summary Statistics	
Grand Means	1,225.84 psi
Std Dev Btwn Labs	75.22 psi
	1,148.20 psi
	101.29 psi
Statistics based on 36 of 37 reporting participants	

Summary Statistics in SI Units	
Grand Means	8.4518 MPa
Std Dev Btwn Labs	0.5186 MPa
	7.92 MPa
	0.70 MPa
Statistics based on 36 of 37 reporting participants	

All samples : Polyisoprene compound, batch #1

**Comments on assigned Data Flags for Test #632**

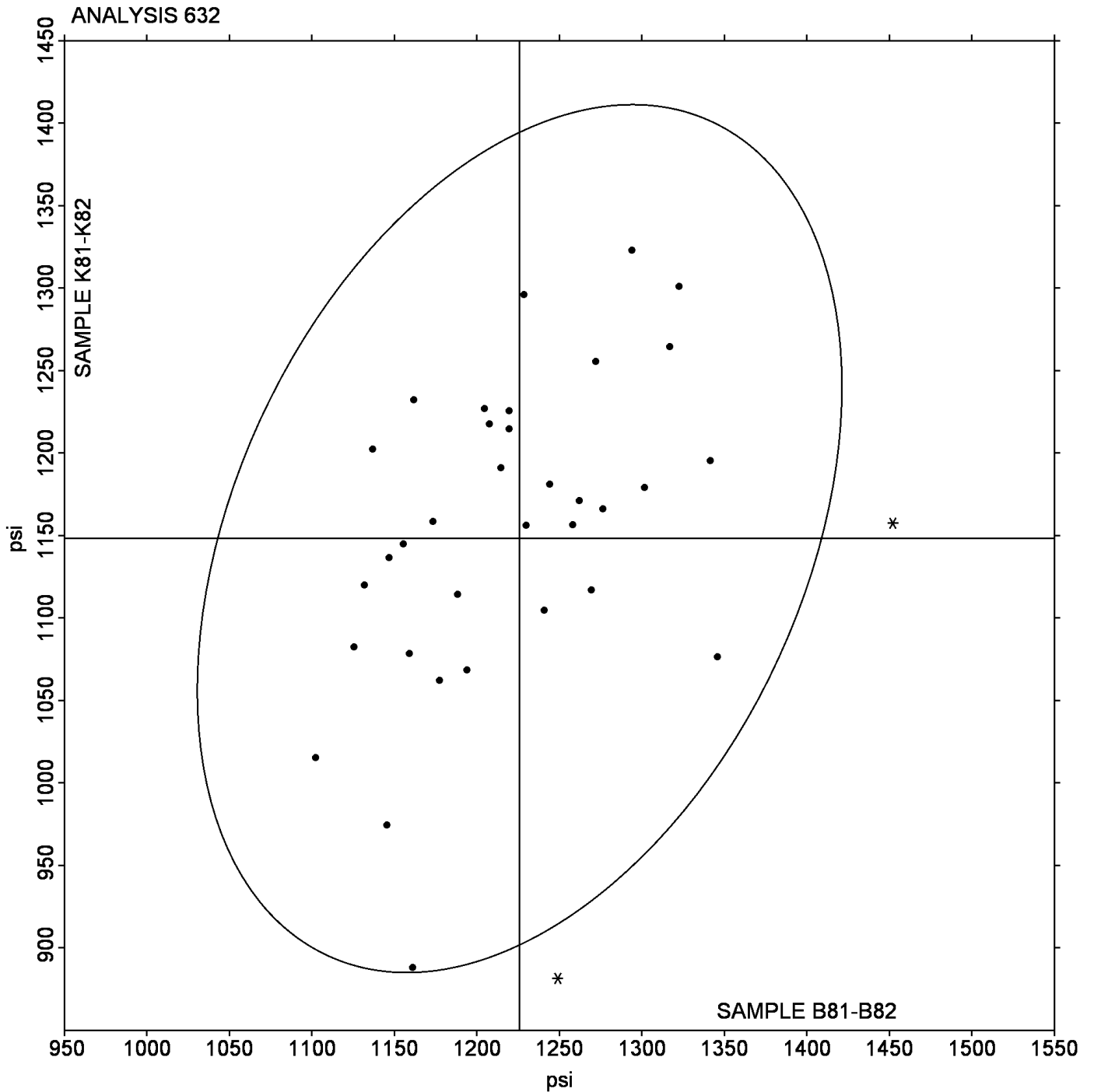
CBD8T3 (X) - Data for Sample set B81-B82 are high. Also inconsistent in testing within Sample B81-B82.

Analysis 632

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

Grand Mean Sample B81-B82 = 1,225.84 psi

Grand Mean Sample K81-K82 = 1,148.20 psi



## Analysis 633

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

WebCode	Data Flag	Sample B81-B82			Sample K81-K82			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2BEXR2		270.5	8.8	0.55	262.0	10.3	0.44	ZZ
3CE1NB		271.0	9.3	0.58	256.5	4.8	0.21	ZZ
4DJ67Q		275.0	13.3	0.83	262.5	10.8	0.46	ZZ
4PJPTK		234.5	-27.2	-1.70	239.0	-12.7	-0.54	ZZ
5HWSQ4		267.4	5.7	0.35	255.5	3.8	0.16	ZZ
6QKFSC		258.0	-3.7	-0.23	262.5	10.8	0.46	ZZ
82B9CR		277.0	15.3	0.95	269.5	17.8	0.76	ZZ
8VZW4L		248.7	-13.1	-0.81	263.1	11.5	0.49	ZZ
9TN3JY		269.5	7.8	0.49	248.0	-3.7	-0.16	ZZ
A55DYP		266.5	4.8	0.30	258.0	6.3	0.27	ZZ
ACS39C		254.5	-7.2	-0.45	265.5	13.8	0.59	ZZ
AHD5RM		248.0	-13.7	-0.86	235.0	-16.7	-0.71	ZZ
APTJWT		248.1	-13.6	-0.85	248.5	-3.2	-0.14	ZZ
BVGVFZ		268.5	6.8	0.42	299.4	47.7	2.04	ZZ
DKAAU7		250.0	-11.7	-0.73	250.5	-1.2	-0.05	ZZ
FTLLNM		274.0	12.3	0.77	272.0	20.3	0.87	ZZ
GU1GBM		267.5	5.8	0.36	243.5	-8.2	-0.35	ZZ
J2PQEV		280.7	18.9	1.18	288.6	37.0	1.58	ZZ
J8B1LR		255.6	-6.2	-0.38	246.9	-4.8	-0.21	ZZ
J9D3V9		248.0	-13.7	-0.86	236.5	-15.2	-0.65	ZZ
KWTC36		251.5	-10.2	-0.64	195.5	-56.2	-2.40	ZZ
NDKCR6		289.0	27.3	1.70	225.5	-26.2	-1.12	ZZ
NSHF1Y		249.5	-12.2	-0.76	260.0	8.3	0.36	ZZ
PX84GQ		267.0	5.3	0.33	252.5	0.8	0.04	ZZ
Q69MY7		273.5	11.8	0.73	274.5	22.8	0.98	ZZ
R9U7MU		255.0	-6.7	-0.42	257.5	5.8	0.25	ZZ
RT5L1W	*	265.0	3.3	0.20	183.5	-68.2	-2.91	ZZ
SR7MDH		242.2	-19.5	-1.22	232.1	-19.6	-0.84	ZZ
T7ME3C		256.0	-5.7	-0.36	284.3	32.6	1.39	ZZ
UF1N9Y		261.5	-0.2	-0.01	265.0	13.3	0.57	ZZ
UX49SK		296.0	34.3	2.14	245.0	-6.7	-0.28	ZZ
V2D8W4		250.5	-11.2	-0.70	262.0	10.3	0.44	ZZ
VKMU41		243.5	-18.2	-1.14	209.0	-42.7	-1.82	ZZ
W3MHM		240.5	-21.2	-1.32	240.0	-11.7	-0.50	ZZ
YK21LF		251.0	-10.7	-0.67	252.5	0.8	0.04	ZZ

Analysis 633

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

WebCode	Data Flag	Sample B81-B82			Sample K81-K82			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
YLF5ZJ	*	309.5	47.8	2.98	233.0	-18.7	-0.80	ZZ
ZA6FL6		249.6	-12.1	-0.76	277.0	25.4	1.08	ZZ

Summary Statistics			
Grand Means	261.72	psi	251.67
Std Dev Btwn Labs	16.03	psi	23.41
Statistics based on 37 of 37 reporting participants			

Summary Statistics in SI Units			
Grand Means	1.8045	MPa	1.74
Std Dev Btwn Labs	0.1105	MPa	0.16
Statistics based on 37 of 37 reporting participants			

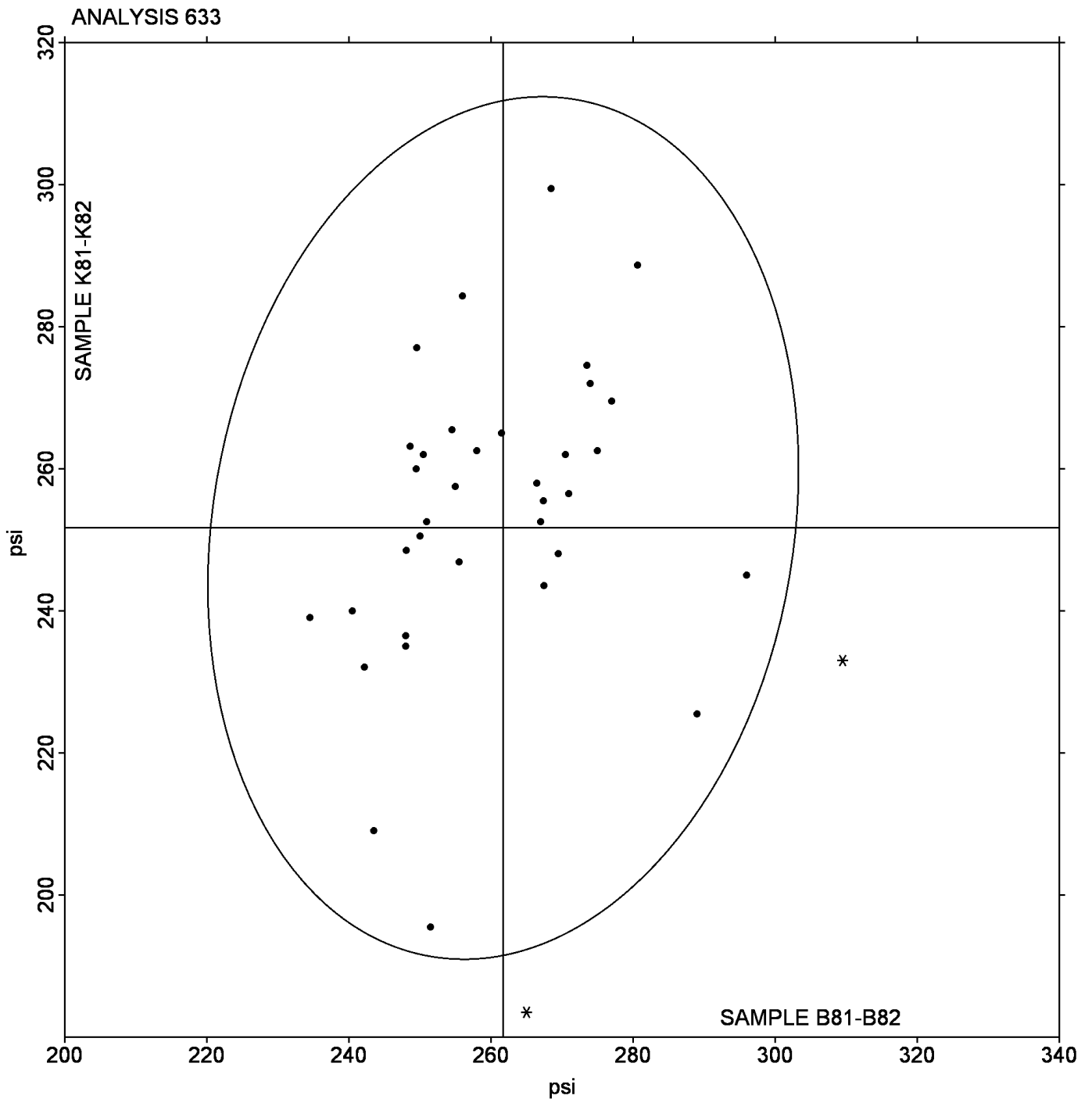
All samples : Polyisoprene compound, batch #1

Analysis 633

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

Grand Mean Sample B81-B82 = 261.72 psi

Grand Mean Sample K81-K82 = 251.67 psi



## Analysis 660

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

WebCode	Data Flag	Sample T81-T82			Sample T83-T84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1DQCK3		86.81	0.98	1.13	45.95	-0.25	-0.26	MR
1K3Z5L		86.52	0.69	0.79	44.80	-1.40	-1.44	MR
2ANHTD		86.03	0.21	0.24	46.05	-0.15	-0.15	MR
2KHL CZ		85.63	-0.19	-0.22	45.70	-0.50	-0.51	MR
2VNHGG		85.25	-0.58	-0.67	46.42	0.22	0.23	MR
3EF9CU		85.33	-0.49	-0.57	44.22	-1.98	-2.04	MR
4FGB3C		85.30	-0.53	-0.61	46.90	0.70	0.72	MR
69LQ53		85.95	0.12	0.14	46.44	0.24	0.25	TV
6PVN1N		85.97	0.14	0.16	46.83	0.64	0.66	MR
9W28XF		86.68	0.86	0.99	46.70	0.50	0.52	MR
9WANJ1		87.44	1.61	1.86	47.04	0.84	0.87	MP
9ZTWKN		86.52	0.69	0.79	46.50	0.30	0.31	MP
A42JPA		87.00	1.17	1.35	46.63	0.44	0.45	MR
B8RJHV		86.02	0.19	0.22	47.15	0.95	0.98	XX
CFWXE6		85.15	-0.68	-0.78	46.52	0.32	0.33	MM
DY1J1R	X	69.50	-16.33	-18.82	46.63	0.44	0.45	MR
ESQBV2		86.53	0.71	0.81	45.70	-0.50	-0.51	MR
GDGQN7		86.75	0.92	1.06	47.80	1.60	1.65	MR
GW1ARY		85.13	-0.69	-0.80	46.40	0.20	0.21	MR
H46CZX	X	82.77	-3.06	-3.53	41.95	-4.25	-4.38	MZ
HR43RU		86.43	0.61	0.70	46.23	0.04	0.04	MR
J4CQQR	*	83.40	-2.43	-2.80	44.48	-1.71	-1.77	MR
K5H543		86.07	0.24	0.28	46.58	0.39	0.40	MR
K6QBJR		85.33	-0.49	-0.57	46.23	0.04	0.04	MR
KNBHLX		86.97	1.14	1.31	48.05	1.85	1.91	MR
L312NA		85.25	-0.58	-0.67	44.75	-1.45	-1.49	MR
LMH8S1		83.97	-1.86	-2.14	44.45	-1.75	-1.80	MM
M3J525		85.43	-0.39	-0.45	45.07	-1.13	-1.17	MP
M7DHY7		86.07	0.24	0.28	45.14	-1.06	-1.09	MP
N2Q44Z		85.02	-0.81	-0.93	46.68	0.49	0.50	MR
PN1CQM		86.13	0.31	0.35	47.55	1.35	1.39	MR
RKEZ74		86.43	0.61	0.70	46.35	0.15	0.16	MR
RVQU8Q		86.48	0.66	0.76	47.28	1.09	1.12	MR
VYDX14		85.88	0.05	0.05	45.87	-0.32	-0.33	MR
XNK5BW		84.92	-0.91	-1.05	45.00	-1.20	-1.23	MR

## Analysis 660

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

WebCode	Data Flag	Sample T81-T82			Sample T83-T84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
XNLGX		85.48	-0.34	-0.40	47.07	0.87	0.90	MR
ZNLVYB		84.69	-1.14	-1.32	46.37	0.17	0.18	MR

## Summary Statistics

Grand Means

85.827 ML 1 + 4

46.197 ML 1 + 4

Std Dev Btwn Labs

0.868 ML 1 + 4

0.970 ML 1 + 4

Statistics based on 35 of 37 reporting participants

Samples T81-T82: NBR &amp; T83-T84: Butyl

**Comments on assigned Data Flags for Test #660**

DY1J1R (X) - Data for Sample set T81-T82 are low.

H46CZX (X) - Data for all Samples are low.

Instrument Code Listing

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

**Instruments:**

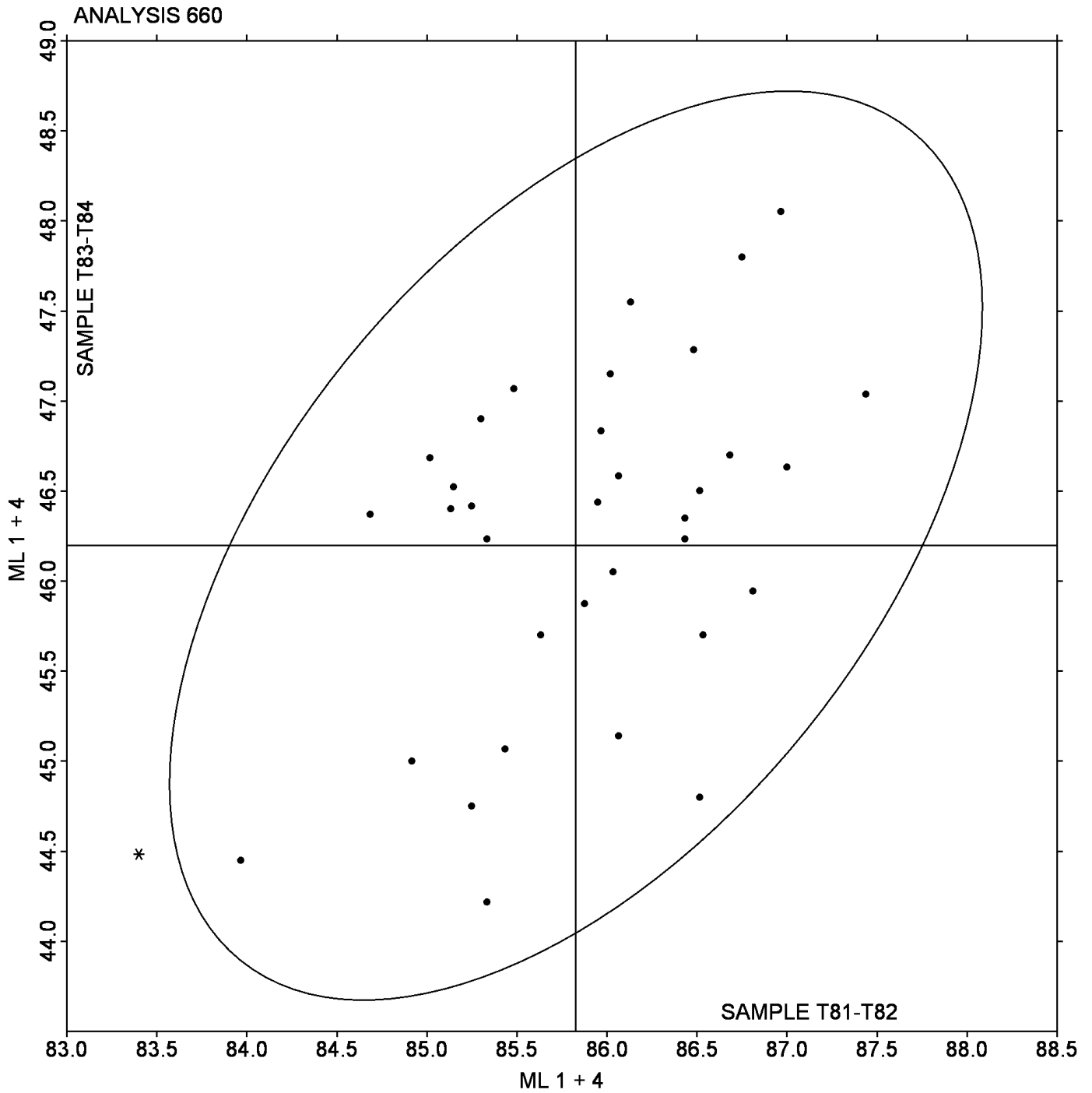
- |  |  |
|--|--|
| (ML) Alpha Technologies/Monsanto model not specified | (MM) Alpha Technologies Model 1xxx or OSM    |
| (MP) Monsanto Compact Mooney Viscometer              | (MR) Alpha Technologies Model MV2000/MV2000E |
| (MZ) Rebuilt Monsanto Mooney Viscometer              | (SF) Scott STI (any model)                   |
| (TV) Tech Pro Visc Tech (any model)                  | (XA) Special In-House Instrument             |
| (XX) Instrument make/model not specified by lab      |  |

Analysis 660

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

Grand Mean Sample T81-T82 = 85.827 ML 1 + 4

Grand Mean Sample T83-T84 = 46.197 ML 1 + 4



## Analysis 661

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

WebCode	Data Flag	Sample T81-T82			Sample T83-T84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
76ZVUY		86.13	0.28	0.32	45.97	1.44	1.32	MR
78UUNC		85.15	-0.70	-0.80	43.56	-0.97	-0.88	MM
7VVEV3		85.95	0.10	0.11	46.66	2.14	1.95	TV
9UVFS2		85.33	-0.52	-0.59	44.68	0.16	0.14	MR
9ZR7D5		85.13	-0.72	-0.81	44.77	0.24	0.22	MR
A8YK9K		86.43	0.58	0.66	45.83	1.31	1.20	MR
B2KHV4	X	82.77	-3.08	-3.51	40.17	-4.36	-3.98	MZ
BURH39		87.00	1.15	1.31	45.05	0.53	0.48	MR
DB2Z1Y		86.43	0.58	0.66	44.85	0.33	0.30	MR
GTP4F		85.25	-0.60	-0.68	42.88	-1.64	-1.50	MR
HAQ3BX		86.03	0.18	0.21	44.22	-0.31	-0.28	MR
JDTPVA		85.97	0.12	0.13	45.30	0.78	0.71	MR
JMQVW9		85.02	-0.83	-0.95	45.40	0.88	0.80	MR
JWB1MM	X	69.50	-16.35	-18.61	45.08	0.56	0.51	MR
K8MK63		86.52	0.67	0.76	42.92	-1.61	-1.47	MR
KZCETB		86.52	0.67	0.76	44.22	-0.31	-0.28	MM
MDWCT		85.25	-0.60	-0.68	44.77	0.24	0.22	MR
NY3FC7		86.07	0.22	0.25	43.57	-0.95	-0.87	MP
PJA71C		85.63	-0.22	-0.25	43.98	-0.54	-0.49	MR
QS9U4Q		86.53	0.68	0.78	43.40	-1.12	-1.03	MR
R8SMC7		85.33	-0.52	-0.59	42.83	-1.69	-1.54	MR
RWF96D		86.81	0.96	1.10	44.65	0.13	0.12	MR
SDNZ8R		86.97	1.12	1.27	46.42	1.89	1.73	MR
SH9U7N	*	83.40	-2.45	-2.79	42.80	-1.72	-1.58	MR
SKLTZX		86.68	0.83	0.95	45.12	0.59	0.54	MR
SUUMQ		86.07	0.22	0.25	44.63	0.11	0.10	MR
U4QNTS		86.48	0.63	0.72	44.83	0.31	0.28	MR
WT5Z39		84.69	-1.16	-1.32	44.98	0.46	0.42	MR
XJT2ZY		85.88	0.03	0.03	44.24	-0.29	-0.26	MR
Y7KQ9H		85.30	-0.55	-0.63	45.05	0.53	0.48	MR
YBF9LN		83.97	-1.88	-2.14	42.55	-1.97	-1.80	MM
YE6XDM		85.48	-0.37	-0.42	45.18	0.66	0.60	MR
YPSHHC		87.44	1.59	1.81	45.17	0.64	0.58	MP
Z7B1EP		86.75	0.90	1.03	45.83	1.31	1.20	MR
ZSG6VS		85.43	-0.42	-0.47	43.00	-1.52	-1.39	MP

## Analysis 661

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

		Summary Statistics	
Grand Means	85.849 ML 1 + 8	44.525 ML 1 + 8	
Stnd Dev Btwn Labs	0.879 ML 1 + 8	1.095 ML 1 + 8	
Statistics based on 33 of 35 reporting participants			

Please refer to the sample information provided for Analysis 660.

**Comments on assigned Data Flags for Test #661**

B2KHV4 (X) - Data for all Samples are low.

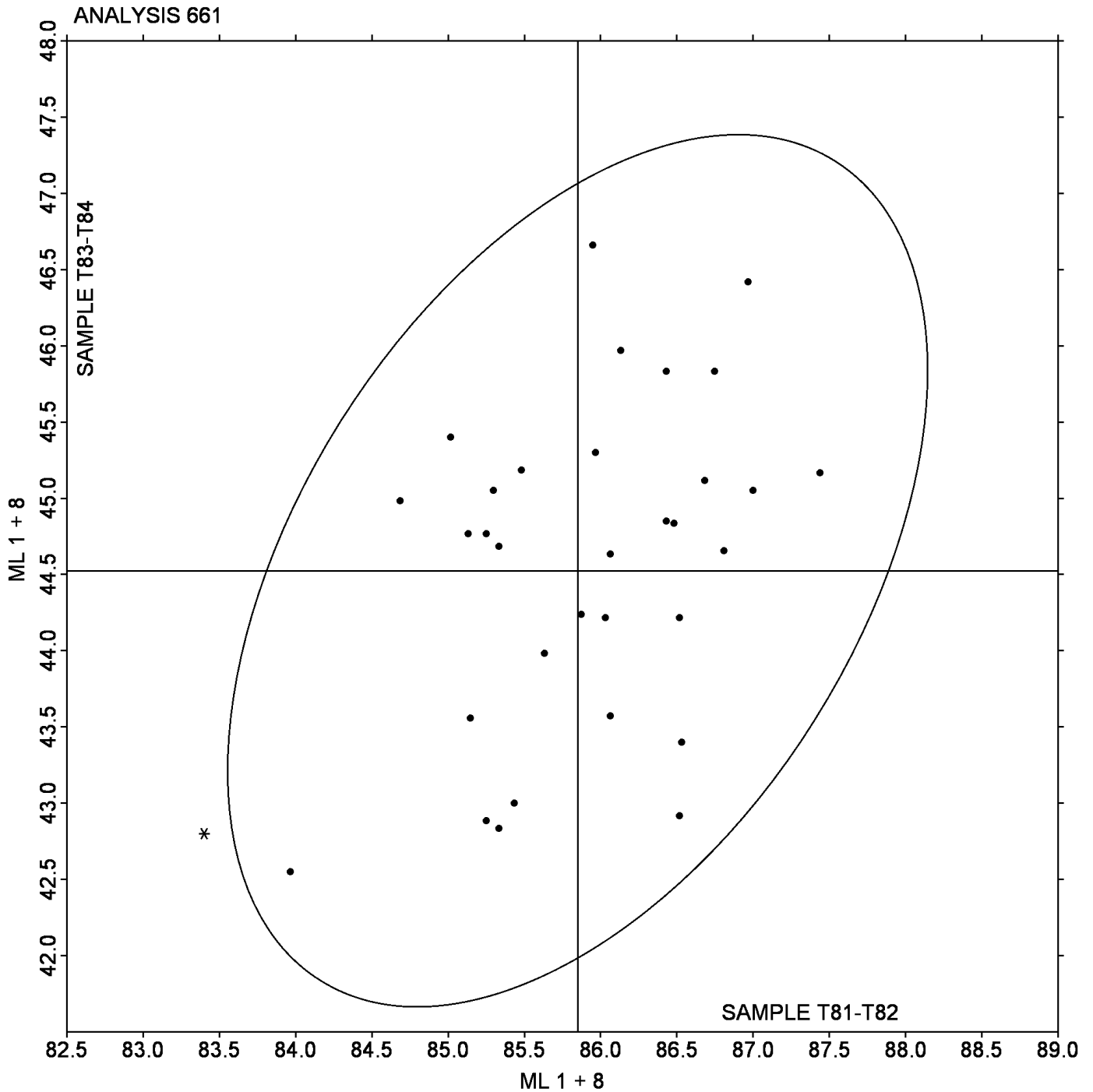
JWB1MM (X) - Data for Sample set T81-T82 are low.

Analysis 661

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

Grand Mean Sample T81-T82 = 85.849 ML 1 + 8

Grand Mean Sample T83-T84 = 44.525 ML 1 + 8



## Analysis 669

## ODR Vulcanization-Cure Time 10% (minutes)

WebCode	Data Flag	Sample X81-X82			Sample X83-X84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
4LDAZ1		1.697	-0.138	-0.42	1.800	-0.136	-0.25	ZZ
5BCX2X	*	1.000	-0.835	-2.55	0.425	-1.511	-2.81	ZZ
5FTCGY		2.073	0.239	0.73	2.350	0.414	0.77	ZZ
61V4BA		1.744	-0.091	-0.28	1.852	-0.084	-0.16	ZZ
CSFLW7		2.058	0.224	0.68	2.082	0.145	0.27	ZZ
CYS8H8		1.737	-0.098	-0.30	1.793	-0.143	-0.27	ZZ
DCYY2F		1.820	-0.015	-0.04	1.873	-0.063	-0.12	ZZ
H19YWK		1.632	-0.203	-0.62	1.840	-0.096	-0.18	ZZ
H88QW2		2.513	0.679	2.07	3.057	1.120	2.09	ZZ
HDQRUK		1.802	-0.033	-0.10	1.882	-0.055	-0.10	ZZ
KDETA9		1.770	-0.065	-0.20	1.817	-0.120	-0.22	ZZ
KTD3KE		2.192	0.357	1.09	2.413	0.477	0.89	ZZ
T87T5P		1.878	0.044	0.13	1.990	0.054	0.10	ZZ
UZSLSR		1.902	0.067	0.20	1.957	0.020	0.04	ZZ
WPBAUE		1.703	-0.131	-0.40	1.915	-0.021	-0.04	ZZ

## Summary Statistics

Grand Means

1.8347 minutes

1.9364 minutes

Std Dev Btwn Labs

0.3272 minutes

0.5372 minutes

Statistics based on 15 of 15 reporting participants

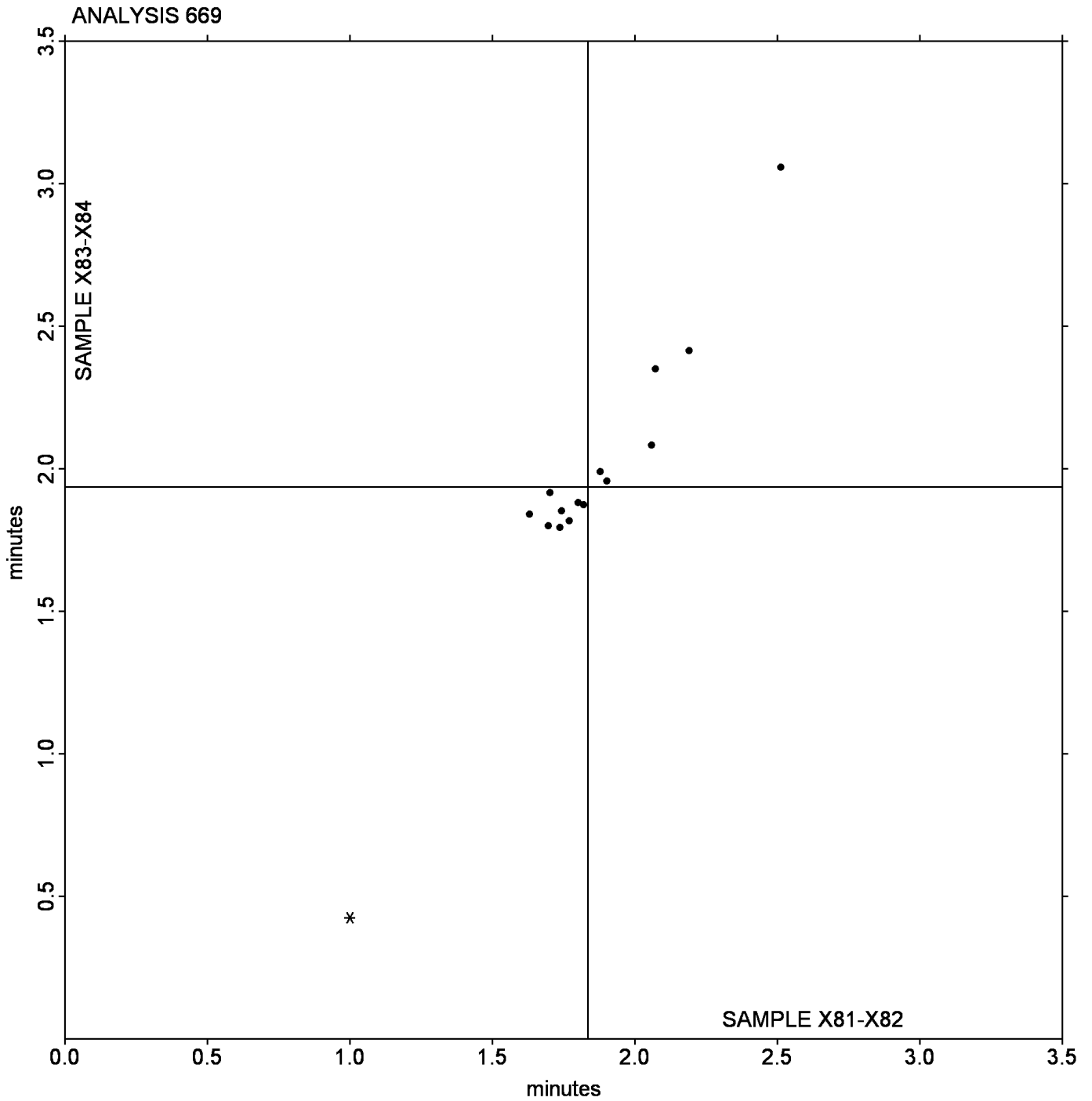
Samples X81-X82: EPDM compound #1 &amp; X83-X84: EPDM compound #2

Analysis 669

ODR Vulcanization-Cure Time 10% (minutes)

Grand Mean Sample X81-X82 = 1.8347 minutes

Grand Mean Sample X83-X84 = 1.9364 minutes



Analysis 670

ODR Vulcanization-Scorch Time, Ts1 (minutes)

WebCode	Data Flag	Sample X81-X82			Sample X83-X84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
229BV2		1.272	-0.059	-0.28	1.375	-0.102	-0.41	ZZ
2KSCNH		1.363	0.032	0.15	1.465	-0.012	-0.05	ZZ
3HT6NX		1.435	0.104	0.50	1.648	0.172	0.69	ZZ
7JJZ3C		1.500	0.169	0.81	1.508	0.032	0.13	ZZ
7MU6UR		1.482	0.151	0.72	1.627	0.150	0.61	ZZ
8FWEDE		1.607	0.276	1.32	1.630	0.153	0.62	ZZ
9DFBB8		1.262	-0.069	-0.33	1.302	-0.175	-0.71	ZZ
9KJF4S		1.290	-0.041	-0.20	1.450	-0.027	-0.11	ZZ
CZB437		1.402	0.071	0.34	1.565	0.088	0.36	ZZ
D3NWF E		1.323	-0.008	-0.04	1.482	0.005	0.02	ZZ
FPHD2K		1.250	-0.081	-0.39	1.500	0.023	0.09	ZZ
HWDXE		1.342	0.011	0.05	1.567	0.090	0.36	ZZ
HXU33Q		1.262	-0.069	-0.33	1.625	0.148	0.60	ZZ
K8RFVL		1.323	-0.008	-0.04	1.392	-0.085	-0.34	ZZ
LZ NJ18		1.310	-0.021	-0.10	1.367	-0.110	-0.44	ZZ
V3ZGQ8		1.790	0.459	2.20	2.108	0.632	2.55	ZZ
VLRR28		0.763	-0.568	-2.72	0.848	-0.628	-2.54	ZZ
WCGPG7		1.043	-0.288	-1.38	1.110	-0.367	-1.48	ZZ
Z4LZYG		1.272	-0.059	-0.28	1.487	0.010	0.04	ZZ

Summary Statistics	
Grand Means	1.3311 minutes
Std Dev Btwn Labs	0.2089 minutes
	1.4766 minutes
	0.2477 minutes
Statistics based on 19 of 19 reporting participants	

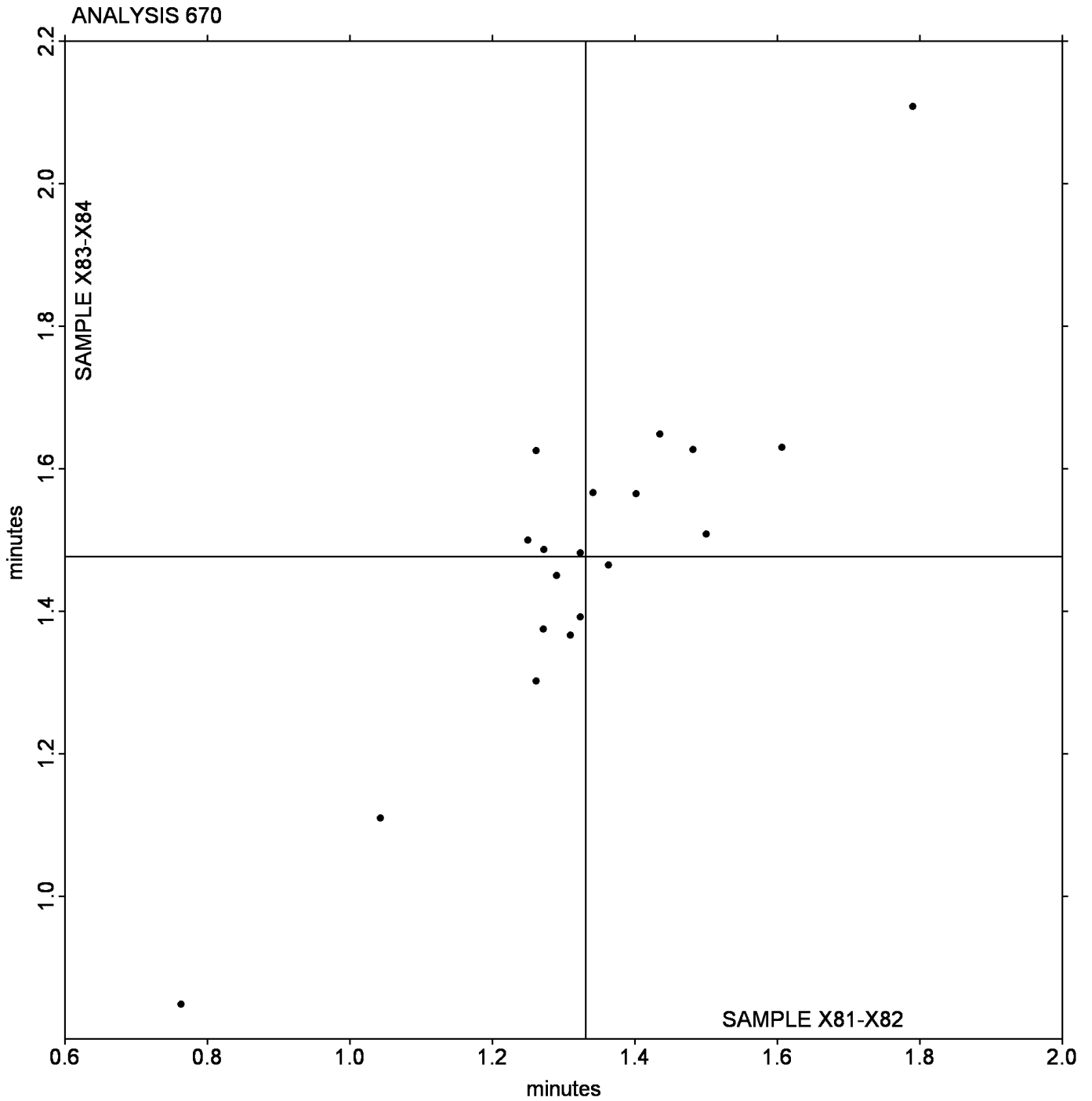
Samples X81-X82: EPDM compound #1 & X83-X84: EPDM compound #2

Analysis 670

ODR Vulcanization-Scorch Time, Ts1 (minutes)

Grand Mean Sample X81-X82 = 1.3311 minutes

Grand Mean Sample X83-X84 = 1.4766 minutes



Analysis 671

ODR Vulcanization-Cure Time 50% (minutes)

WebCode	Data Flag	Sample X81-X82			Sample X83-X84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1DY3EU		3.375	-0.041	-0.08	3.472	-0.188	-0.36	ZZ
5SQ8S6		3.245	-0.171	-0.35	3.700	0.041	0.08	ZZ
8CJ48Q		3.600	0.184	0.37	4.028	0.369	0.71	ZZ
8WLS7U		3.383	-0.033	-0.07	3.517	-0.143	-0.28	ZZ
AAU475		3.468	0.052	0.10	3.810	0.151	0.29	ZZ
AB8DHR		3.017	-0.400	-0.81	3.250	-0.409	-0.79	ZZ
E7WKK2		3.507	0.090	0.18	3.778	0.119	0.23	ZZ
FY8DTU	*	1.832	-1.585	-3.20	1.967	-1.693	-3.27	ZZ
KDZUL		3.210	-0.206	-0.42	3.508	-0.151	-0.29	ZZ
KLPCBK		3.435	0.019	0.04	3.693	0.034	0.07	ZZ
M7CQPD		4.362	0.945	1.91	4.490	0.831	1.61	ZZ
S4FZEV		3.910	0.494	1.00	4.102	0.442	0.86	ZZ
STR6SD		3.205	-0.211	-0.43	3.480	-0.179	-0.35	ZZ
US3UMD		3.160	-0.256	-0.52	3.485	-0.174	-0.34	ZZ
WFLP2L		3.250	-0.167	-0.34	3.397	-0.262	-0.51	ZZ
XGR77N		4.003	0.587	1.18	4.433	0.774	1.50	ZZ
XQEPKR		3.462	0.045	0.09	3.628	-0.031	-0.06	ZZ
XZLGXS		3.905	0.489	0.99	4.060	0.401	0.78	ZZ
YEA1Y6		3.527	0.110	0.22	3.628	-0.031	-0.06	ZZ
ZTR6YD		3.475	0.059	0.12	3.757	0.097	0.19	ZZ

Summary Statistics	
Grand Means	
3.4165 minutes	3.6592 minutes
Std Dev Btwn Labs	
0.4956 minutes	0.5168 minutes
Statistics based on 20 of 20 reporting participants	

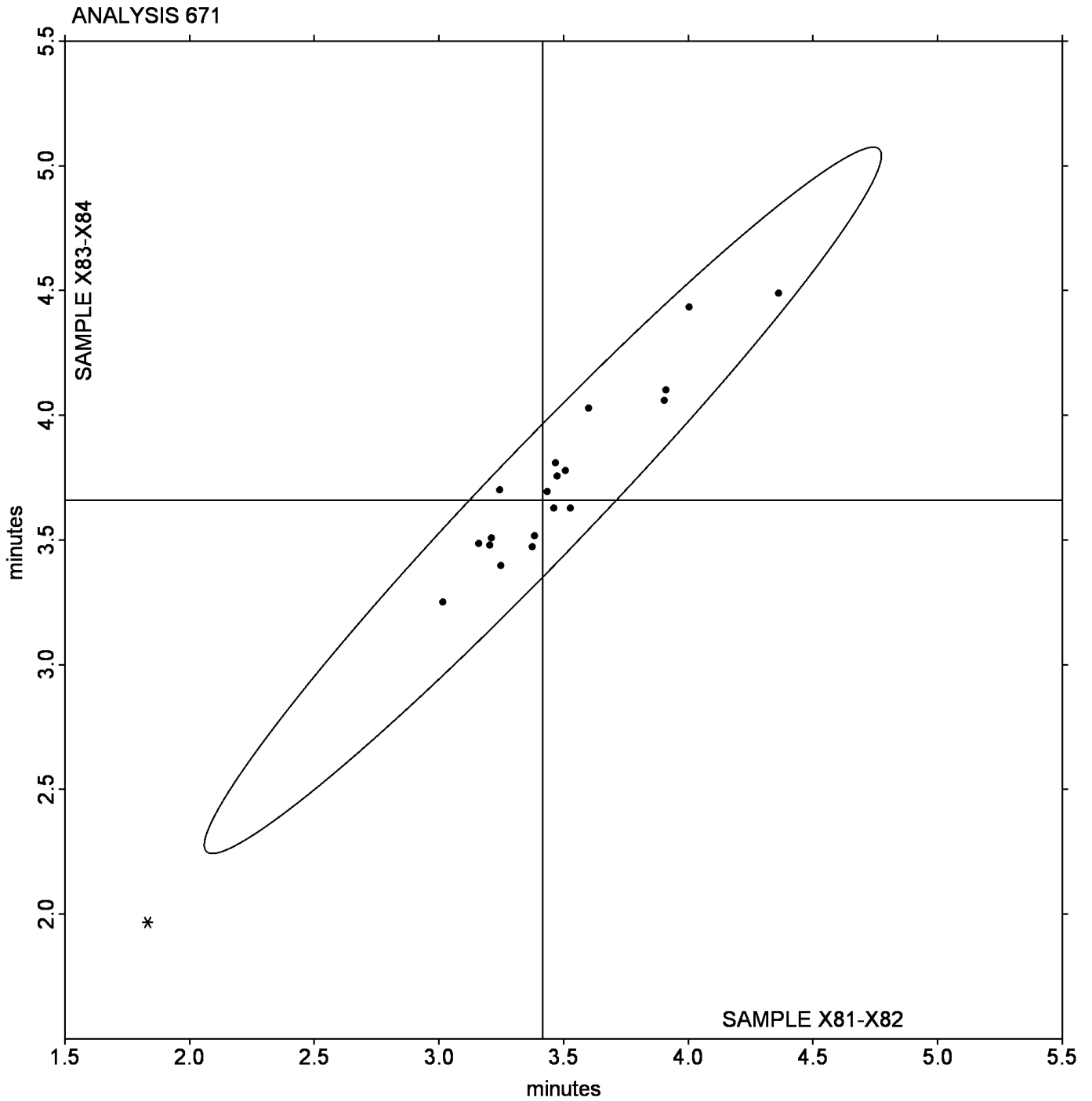
Samples X81-X82: EPDM compound #1 & X83-X84: EPDM compound #2

Analysis 671

ODR Vulcanization-Cure Time 50% (minutes)

Grand Mean Sample X81-X82 = 3.4165 minutes

Grand Mean Sample X83-X84 = 3.6592 minutes



Analysis 672

ODR Vulcanization-Cure Time 90% (minutes)

WebCode	Data Flag	Sample X81-X82			Sample X83-X84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2JUF6V		17.66	4.32	2.02	10.937	3.192	2.00	ZZ
36X6NE		12.75	-0.59	-0.28	7.044	-0.701	-0.44	ZZ
4UZ2ZT		13.69	0.35	0.16	9.030	1.285	0.81	ZZ
65LHKY		13.95	0.60	0.28	6.973	-0.771	-0.48	ZZ
6SPA9U		11.90	-1.44	-0.67	6.998	-0.746	-0.47	ZZ
73GR4J		13.70	0.36	0.17	6.768	-0.976	-0.61	ZZ
AUP826		14.03	0.69	0.32	7.572	-0.173	-0.11	ZZ
CHP7S1		12.98	-0.36	-0.17	6.862	-0.883	-0.55	ZZ
FALHY5		13.63	0.29	0.13	9.003	1.259	0.79	ZZ
FTFSP9		13.90	0.56	0.26	8.132	0.387	0.24	ZZ
GV41G3		14.66	1.31	0.61	8.637	0.892	0.56	ZZ
JJQYDQ		11.62	-1.72	-0.80	7.985	0.240	0.15	ZZ
K1KKJS	*	7.18	-6.16	-2.88	3.323	-4.421	-2.77	ZZ
MHVJJ3		13.69	0.35	0.16	7.858	0.114	0.07	ZZ
NFECAJ		10.27	-3.07	-1.43	6.567	-1.178	-0.74	ZZ
R4BB7Q		13.30	-0.04	-0.02	6.962	-0.783	-0.49	ZZ
WQ2N65		12.93	-0.42	-0.19	7.183	-0.561	-0.35	ZZ
WVTB3E		16.24	2.90	1.35	10.602	2.857	1.79	ZZ
XAMD57		15.26	1.92	0.90	8.437	0.692	0.43	ZZ
XDZ8FK		13.51	0.17	0.08	8.020	0.275	0.17	ZZ

Summary Statistics			
Grand Means	13.341 minutes	7.7446 minutes	
Std Dev Btwn Labs	2.143 minutes	1.5965 minutes	
Statistics based on 20 of 20 reporting participants			

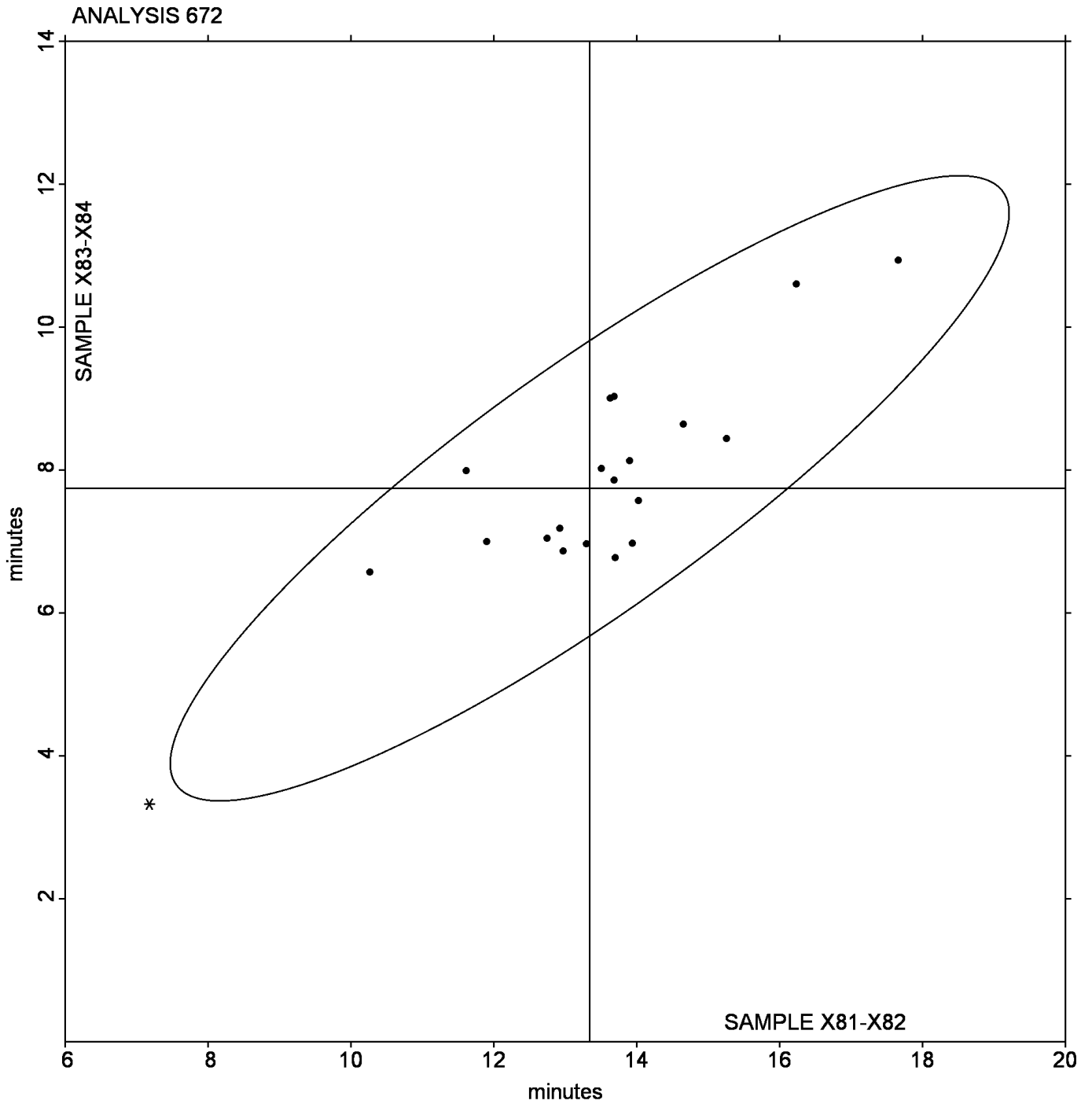
Samples X81-X82: EPDM compound #1 & X83-X84: EPDM compound #2

Analysis 672

ODR Vulcanization-Cure Time 90% (minutes)

Grand Mean Sample X81-X82 = 13.341 minutes

Grand Mean Sample X83-X84 = 7.7446 minutes



Analysis 673

ODR Vulcanization: Minimum Torque (lbf.in)

WebCode	Data Flag	Sample X81-X82			Sample X83-X84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2SRU9P		5.798	-1.739	-0.64	12.98	-0.70	-0.15	ZZ
49MGSD		7.105	-0.432	-0.16	15.28	1.60	0.35	ZZ
4DKBVU		6.417	-1.120	-0.41	12.18	-1.50	-0.32	ZZ
4FT3Y7		7.175	-0.362	-0.13	11.62	-2.07	-0.45	ZZ
6K7TP7		6.018	-1.519	-0.56	12.90	-0.79	-0.17	ZZ
896YSP	*	11.732	4.195	1.55	25.35	11.67	2.52	ZZ
8JV5MS		5.664	-1.873	-0.69	10.55	-3.14	-0.68	ZZ
91KBXZ		6.318	-1.219	-0.45	15.75	2.06	0.45	ZZ
BH4XV6		5.762	-1.775	-0.66	9.07	-4.61	-1.00	ZZ
CAS7HE		7.047	-0.490	-0.18	10.21	-3.48	-0.75	ZZ
G4XAVQ		11.970	4.433	1.64	19.44	5.75	1.24	ZZ
GPZPDY		5.973	-1.564	-0.58	13.42	-0.26	-0.06	ZZ
GXMB3L		6.805	-0.732	-0.27	11.79	-1.89	-0.41	ZZ
J361SN		5.827	-1.710	-0.63	9.96	-3.72	-0.80	ZZ
KXQHN6		5.452	-2.085	-0.77	9.24	-4.44	-0.96	ZZ
NKEH3W		5.983	-1.554	-0.58	9.57	-4.12	-0.89	ZZ
PD4DDA		7.118	-0.419	-0.15	14.43	0.75	0.16	ZZ
UJ3B5N		5.693	-1.844	-0.68	9.77	-3.91	-0.85	ZZ
USFWDX		13.752	6.215	2.30	23.78	10.09	2.18	ZZ
UVL8P7	*	13.132	5.595	2.07	16.38	2.69	0.58	ZZ

Summary Statistics	
Grand Means	7.5371 lbf.in      13.684 lbf.in
Std Dev Btwn Labs	2.7018 lbf.in      4.623 lbf.in
Statistics based on 20 of 20 reporting participants	

Summary Statistics in SI Units	
Grand Means	8.5157 dN.m      15.460 dN.m
Std Dev Btwn Labs	3.0527 dN.m      5.223 dN.m
Statistics based on 20 of 20 reporting participants	

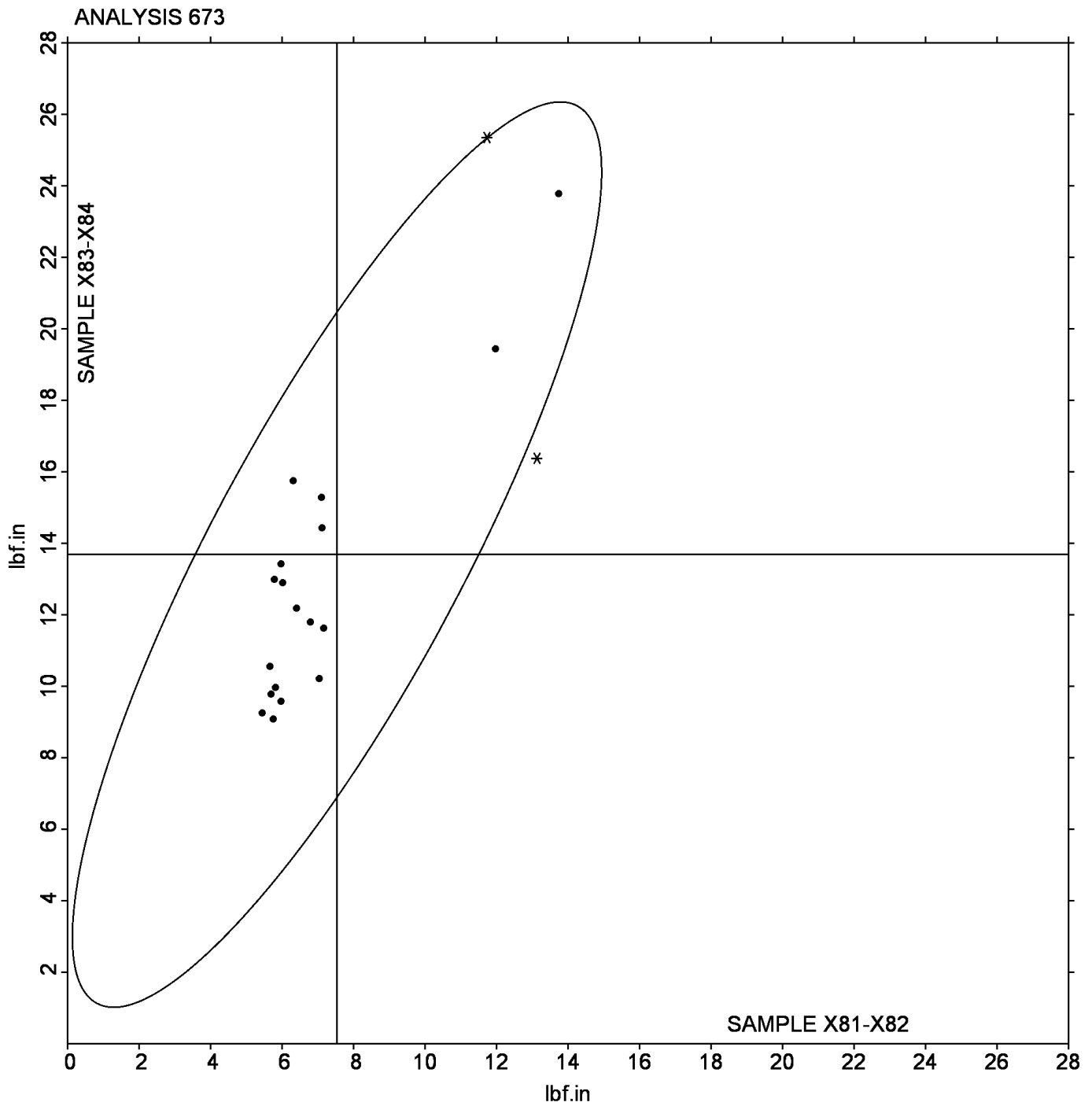
Samples X81-X82: EPDM compound #1 & X83-X84: EPDM compound #2

Analysis 673

ODR Vulcanization: Minimum Torque (lbf.in)

Grand Mean Sample X81-X82 = 7.5371 lbf.in

Grand Mean Sample X83-X84 = 13.684 lbf.in



Analysis 674

ODR Vulcanization: Maximum Torque (lbf.in)

WebCode	Data Flag	Sample X81-X82			Sample X83-X84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1CA7WC		39.96	1.87	1.17	35.43	0.56	0.38	ZZ
1N35QR	X	77.91	39.82	24.89	74.07	39.21	26.36	ZZ
324V1V	X	69.89	31.80	19.88	68.57	33.70	22.66	ZZ
3AYJTX		38.59	0.51	0.32	35.54	0.67	0.45	ZZ
4LW914		40.21	2.12	1.33	37.19	2.32	1.56	ZZ
6A6B2B		39.39	1.30	0.81	35.07	0.20	0.13	ZZ
6UNSUS		36.30	-1.79	-1.12	34.13	-0.73	-0.49	ZZ
8Y74RC		37.38	-0.71	-0.44	32.52	-2.35	-1.58	ZZ
AV1GZS		36.38	-1.71	-1.07	33.23	-1.64	-1.10	ZZ
C7MV65		38.95	0.86	0.54	34.16	-0.70	-0.47	ZZ
DMZMT		37.77	-0.32	-0.20	34.69	-0.17	-0.12	ZZ
E7E3C8		37.82	-0.27	-0.17	35.85	0.99	0.66	ZZ
GAUAUR	X	73.08	34.99	21.87	70.19	35.33	23.76	ZZ
H6EFT9		39.71	1.62	1.02	35.05	0.18	0.12	ZZ
HAHJ9G		37.61	-0.48	-0.30	36.44	1.57	1.06	ZZ
HEPMSX		38.41	0.32	0.20	35.96	1.10	0.74	ZZ
JS358J		34.10	-3.99	-2.50	31.66	-3.20	-2.15	ZZ
SGQ9KY		37.52	-0.57	-0.36	33.91	-0.95	-0.64	ZZ
SSNRZM		37.39	-0.70	-0.44	35.00	0.13	0.09	ZZ
UMA636		40.03	1.94	1.21	36.89	2.02	1.36	ZZ

Summary Statistics	
Grand Means	38.089 lbf.in      34.864 lbf.in
Std Dev Btwn Labs	1.600 lbf.in      1.487 lbf.in
Statistics based on 17 of 20 reporting participants	

Summary Statistics in SI Units	
Grand Means	43.034 dN.m      39.391 dN.m
Std Dev Btwn Labs	1.807 dN.m      1.680 dN.m
Statistics based on 17 of 20 reporting participants	

Samples X81-X82: EPDM compound #1 & X83-X84: EPDM compound #2

Analysis 674

ODR Vulcanization: Maximum Torque (Ibf.in)

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**Comments on assigned Data Flags for Test #674**

1N35QR (X) - Data for all Samples are high.

324V1V (X) - Data for all Samples are high.

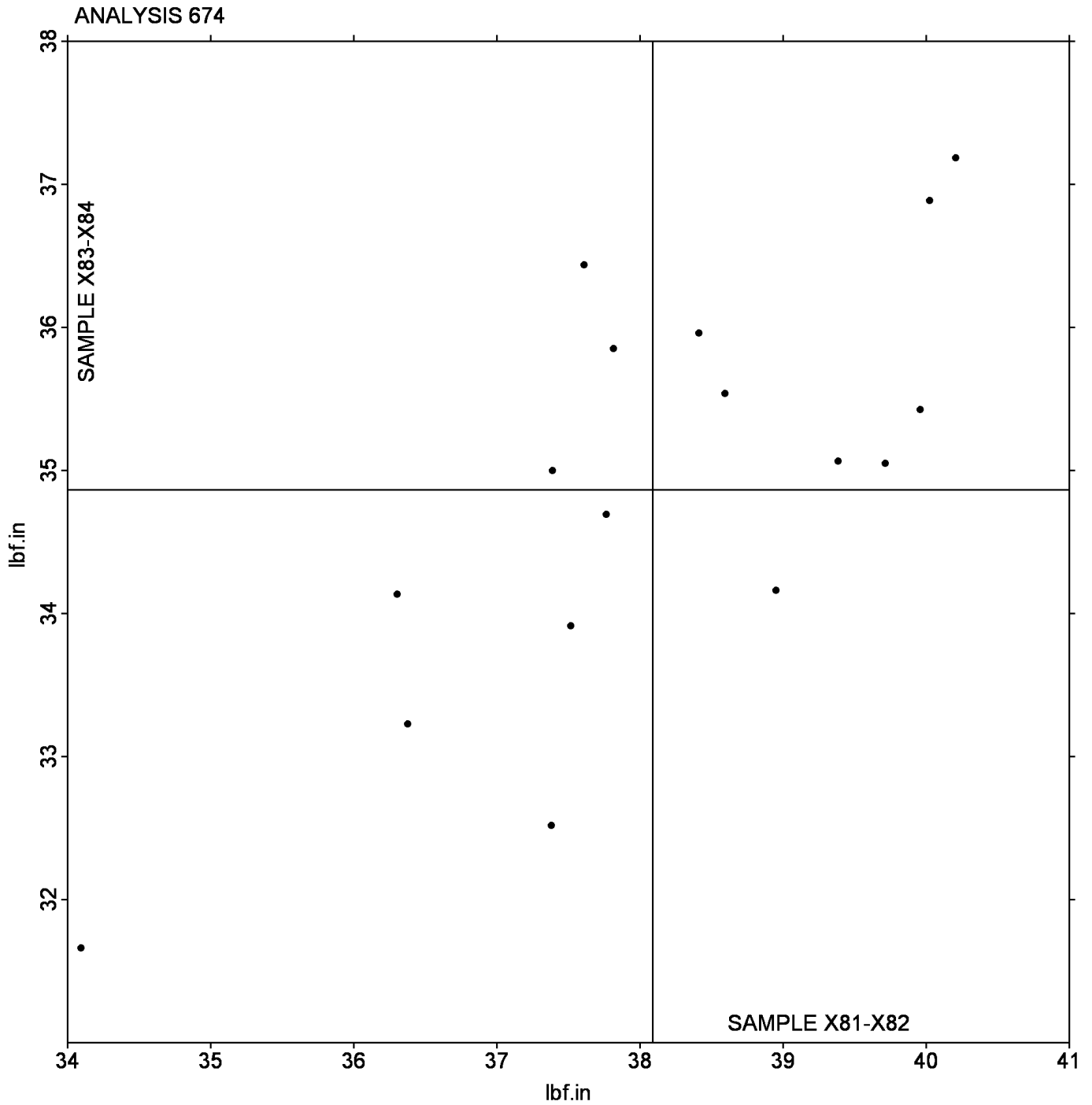
GAUAUR (X) - Data for all Samples are high.

Analysis 674

ODR Vulcanization: Maximum Torque (lbf.in)

Grand Mean Sample X81-X82 = 38.089 lbf.in

Grand Mean Sample X83-X84 = 34.864 lbf.in



Analysis 684

MDR Vulcanization-Cure Time 10% (minutes)

WebCode	Data Flag	Sample X85-X86			Sample X87-X88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3FNKXB		1.172	-0.122	-1.40	1.332	-0.093	-0.97	TP
3H4LBZ		1.370	0.076	0.87	1.577	0.152	1.59	MC
4XG9GZ		1.217	-0.077	-0.88	1.303	-0.121	-1.26	MC
645T8R		1.333	0.039	0.45	1.383	-0.041	-0.43	MC
6HLGZV		1.315	0.021	0.24	1.400	-0.024	-0.25	MC
79G5X5		1.270	-0.024	-0.27	1.433	0.009	0.10	MD
7W4GPP		1.268	-0.026	-0.29	1.285	-0.139	-1.45	MC
94T88E		1.240	-0.054	-0.62	1.377	-0.048	-0.50	MC
9NR5T3		1.302	0.008	0.09	1.502	0.077	0.81	MC
A3EB4K	*	1.560	0.266	3.04	1.667	0.242	2.53	MC
ABUH1C		1.482	0.188	2.14	1.525	0.101	1.05	MC
ALTM1T		1.258	-0.036	-0.41	1.511	0.087	0.91	MC
C5PS2H		1.315	0.021	0.24	1.373	-0.051	-0.53	TP
DVU2M1		1.257	-0.037	-0.43	1.472	0.047	0.50	MC
ET13V3		1.307	0.013	0.14	1.483	0.059	0.62	XX
GF6YT2		1.250	-0.044	-0.50	1.383	-0.041	-0.43	MD
GQDQE3		1.425	0.131	1.50	1.513	0.089	0.93	MC
JFWV63		1.263	-0.031	-0.35	1.395	-0.029	-0.31	MC
LEHM8Z		1.293	-0.001	-0.01	1.377	-0.048	-0.50	MC
PB8XUM		1.320	0.026	0.30	1.478	0.054	0.57	MC
QE2V7A		1.238	-0.056	-0.64	1.407	-0.018	-0.18	MP
QLG7YB		1.198	-0.096	-1.09	1.298	-0.126	-1.32	MC
QNM74X		1.195	-0.099	-1.13	1.313	-0.111	-1.16	MC
R6TYLX		1.320	0.026	0.30	1.418	-0.006	-0.06	XX
RR9LKQ		1.153	-0.141	-1.61	1.273	-0.151	-1.58	MC
VPNG7U		1.292	-0.002	-0.03	1.512	0.087	0.91	TP
YNG6T3		1.330	0.036	0.41	1.517	0.092	0.97	MC
ZK67WU		1.288	-0.006	-0.06	1.370	-0.054	-0.57	MC

Summary Statistics

Grand Means

1.2940 minutes

1.4242 minutes

Std Dev Btwn Labs

0.0875 minutes

0.0957 minutes

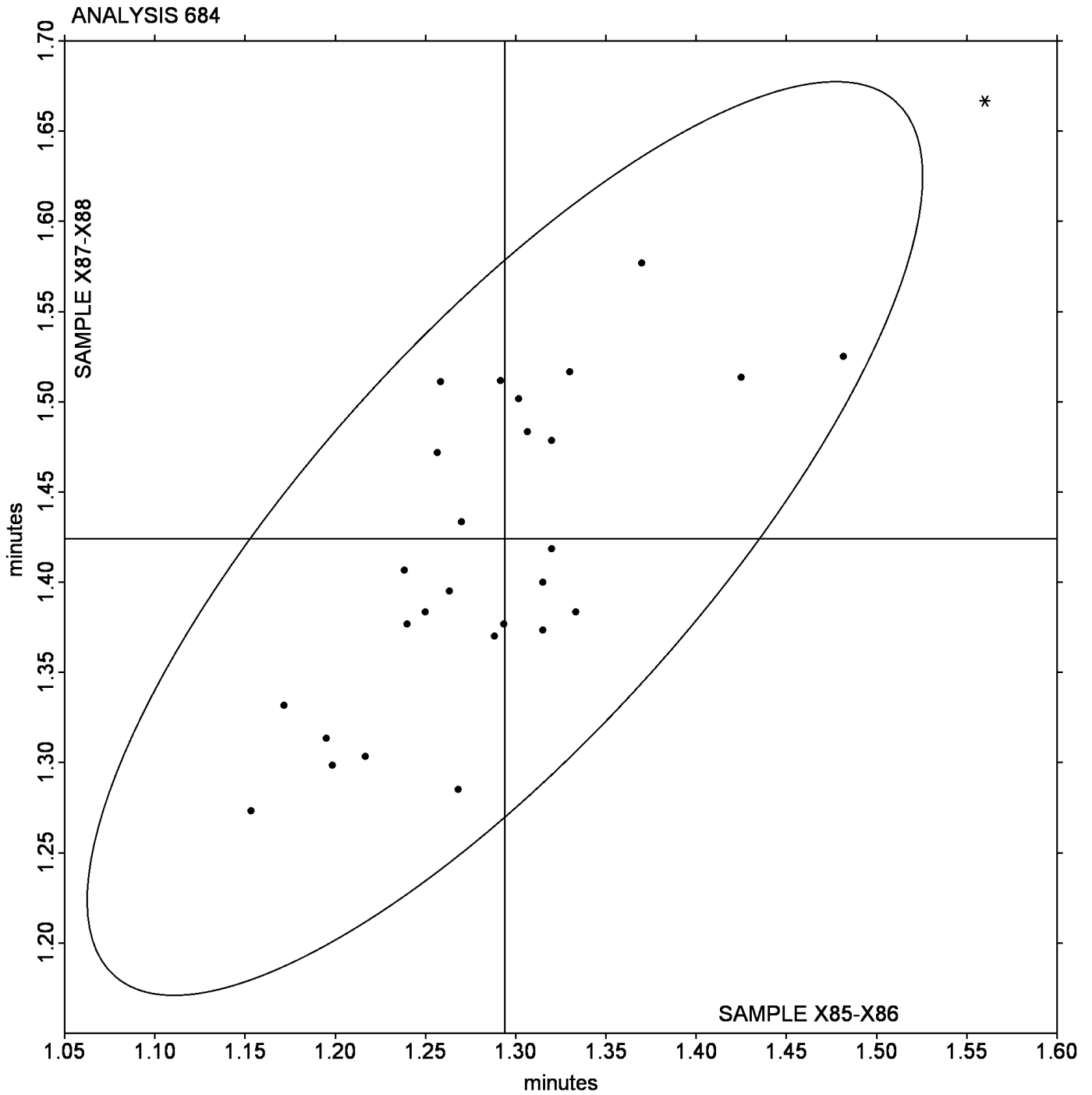
Statistics based on 28 of 28 reporting participants

Analysis 684

MDR Vulcanization-Cure Time 10% (minutes)

Grand Mean Sample X85-X86 = 1.2940 minutes

Grand Mean Sample X87-X88 = 1.4242 minutes



## Rubber Interlaboratory Testing Program

## Analysis 685

## MDR Vulcanization-Scorch Time, Ts1 (minutes)

WebCode	Data Flag	Sample X85-X86			Sample X87-X88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
29G3TK		1.335	0.128	1.41	1.402	0.088	0.92	MC
488NWJ		1.327	0.120	1.32	1.362	0.048	0.50	MC
4F7MEC		1.053	-0.154	-1.70	1.157	-0.157	-1.65	MC
5JUF6X		1.090	-0.117	-1.29	1.165	-0.149	-1.57	MC
6AGPHM		1.225	0.018	0.20	1.293	-0.021	-0.22	MC
6P8SEQ	*	1.480	0.273	3.01	1.557	0.243	2.55	MC
7BH6MH		1.217	0.010	0.11	1.343	0.029	0.31	MC
8CRTNU		1.285	0.078	0.86	1.462	0.148	1.55	MC
8GHHVE		1.043	-0.164	-1.81	1.140	-0.174	-1.83	MC
AP2SXD		1.260	0.053	0.58	1.338	0.024	0.25	XX
B7BHKX		1.180	-0.027	-0.30	1.343	0.029	0.31	MC
BETKTX		1.220	0.013	0.14	1.350	0.036	0.38	MD
DLJZ21		1.118	-0.089	-0.98	1.275	-0.039	-0.41	MC
EMFYBH		1.247	0.040	0.44	1.253	-0.061	-0.64	MC
FBWS46		1.193	-0.014	-0.15	1.243	-0.071	-0.74	MC
FGBGKK		1.212	0.005	0.05	1.392	0.078	0.82	MC
JFG1UF		1.198	-0.009	-0.10	1.202	-0.112	-1.18	MC
JSQS87		1.187	-0.020	-0.22	1.332	0.018	0.18	MC
JYQQHR	*	1.139	-0.068	-0.75	1.436	0.122	1.28	MC
KF42F4		1.250	0.043	0.47	1.364	0.050	0.52	MC
MZRXTB		1.107	-0.100	-1.11	1.223	-0.091	-0.95	XX
PTKWB9		1.242	0.035	0.38	1.281	-0.034	-0.35	MC
QULTV5		1.298	0.091	1.01	1.355	0.041	0.43	TP
QUVYZT		1.187	-0.020	-0.22	1.285	-0.029	-0.31	MD
RY3S5R		1.213	0.006	0.07	1.322	0.008	0.08	MC
S64DYX		1.235	0.028	0.31	1.418	0.104	1.10	TP
UA2CY7		1.225	0.018	0.20	1.295	-0.019	-0.20	MC
UKDDT8		1.055	-0.152	-1.68	1.190	-0.124	-1.30	MP
V2KEGE		1.243	0.036	0.40	1.382	0.068	0.71	MC
WATPL5		1.140	-0.067	-0.74	1.223	-0.091	-0.95	MC
Z9G1HQ		1.213	0.006	0.07	1.355	0.041	0.43	XX

## Analysis 685

## MDR Vulcanization-Scorch Time, Ts1 (minutes)

		Summary Statistics	
Grand Means	1.2070 minutes		1.3141 minutes
Std Dev Btwn Labs	0.0906 minutes		0.0951 minutes
Statistics based on 31 of 31 reporting participants			

Samples X85-X86: EPDM compound, batch #1 & X87-X88: EPDM compound, batch #2

Instrument Code Listing

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

**Instruments:**

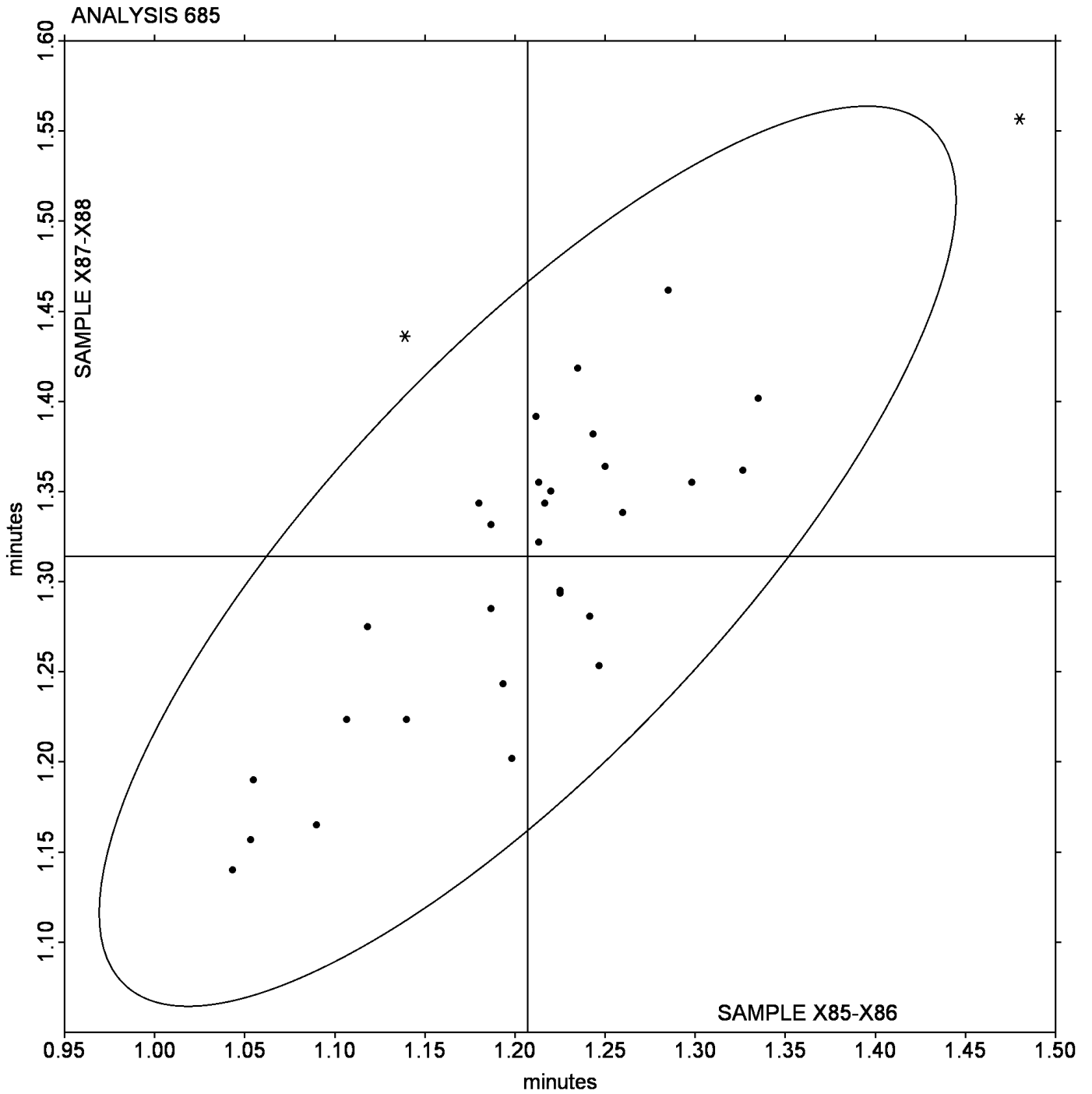
- (MC) Alpha Technologies [Monsanto] MDR 2000 or 2000E      (MD) Alpha Tech. Rubber Process Analyzer (RPA 2000)  
(MP) Alpha Technologies [Monsanto] MDR 2000P              (TP) Tech Pro MDR model MDPT  
(XX) Instrument model not specified by lab

Analysis 685

MDR Vulcanization-Scorch Time, Ts1 (minutes)

Grand Mean Sample X85-X86 = 1.2070 minutes

Grand Mean Sample X87-X88 = 1.3141 minutes



## Rubber Interlaboratory Testing Program

## Analysis 686

## MDR Vulcanization-Cure Time 50% (minutes)

WebCode	Data Flag	Sample X85-X86			Sample X87-X88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2B1GL2		3.805	0.247	1.24	4.208	0.404	1.84	MC
3YRYQS		3.617	0.059	0.30	3.845	0.041	0.19	MC
4CPCEL		3.463	-0.094	-0.47	3.713	-0.091	-0.41	MD
4N1TYD		3.457	-0.101	-0.51	3.723	-0.081	-0.37	MC
4YUYPK		3.222	-0.336	-1.69	3.433	-0.371	-1.68	MC
55QNG3		3.687	0.129	0.65	4.038	0.234	1.06	MC
6TME79		3.415	-0.143	-0.72	3.638	-0.166	-0.75	MC
7HZRM9		3.520	-0.038	-0.19	3.940	0.136	0.62	TP
8AMY4P		3.422	-0.136	-0.68	3.635	-0.169	-0.77	MC
8G4GCQ		3.750	0.192	0.97	3.833	0.029	0.13	MC
9BEPUH		3.530	-0.028	-0.14	3.875	0.071	0.32	MC
BU4XVC		3.915	0.357	1.80	4.003	0.199	0.91	MC
CYNXDQ		3.758	0.201	1.01	4.018	0.214	0.97	MC
E38NAK		3.710	0.152	0.77	3.683	-0.121	-0.55	MC
FWKY77		3.658	0.101	0.51	3.870	0.065	0.30	MC
GFC15V		3.588	0.031	0.15	3.885	0.081	0.37	MC
GPLA8L		3.433	-0.124	-0.63	3.643	-0.161	-0.73	MC
H1PFK1		3.208	-0.349	-1.76	3.475	-0.329	-1.50	MC
LDLKNF		3.612	0.054	0.27	3.775	-0.029	-0.13	TP
LSQW51		3.858	0.301	1.51	4.047	0.243	1.10	MC
N8GGVC		3.680	0.122	0.62	3.885	0.081	0.37	MC
PAP831		3.257	-0.301	-1.51	3.617	-0.187	-0.85	MC
QZBDTJ		3.262	-0.296	-1.49	3.467	-0.337	-1.53	MC
RP9A63		3.515	-0.043	-0.21	3.707	-0.097	-0.44	MC
TDYM9F		3.643	0.086	0.43	3.965	0.161	0.73	MD
TWEHLP		3.805	0.247	1.24	3.938	0.134	0.61	MC
UBSLRU		3.643	0.086	0.43	3.853	0.049	0.22	XX
UQPRQS		3.683	0.126	0.63	4.042	0.238	1.08	TP
VB3B77		3.378	-0.179	-0.90	3.708	-0.096	-0.44	MP
XHC1MC		3.658	0.101	0.51	4.131	0.327	1.48	MC
YBTFBQ		3.550	-0.008	-0.04	3.920	0.116	0.53	XX
Z18KZY	*	3.142	-0.416	-2.09	3.215	-0.589	-2.68	MC

Analysis 686

MDR Vulcanization-Cure Time 50% (minutes)

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Summary Statistics

Grand Means

3.5577 minutes

3.8041 minutes

Std Dev Btwn Labs

0.1989 minutes

0.2201 minutes

Statistics based on 32 of 32 reporting participants

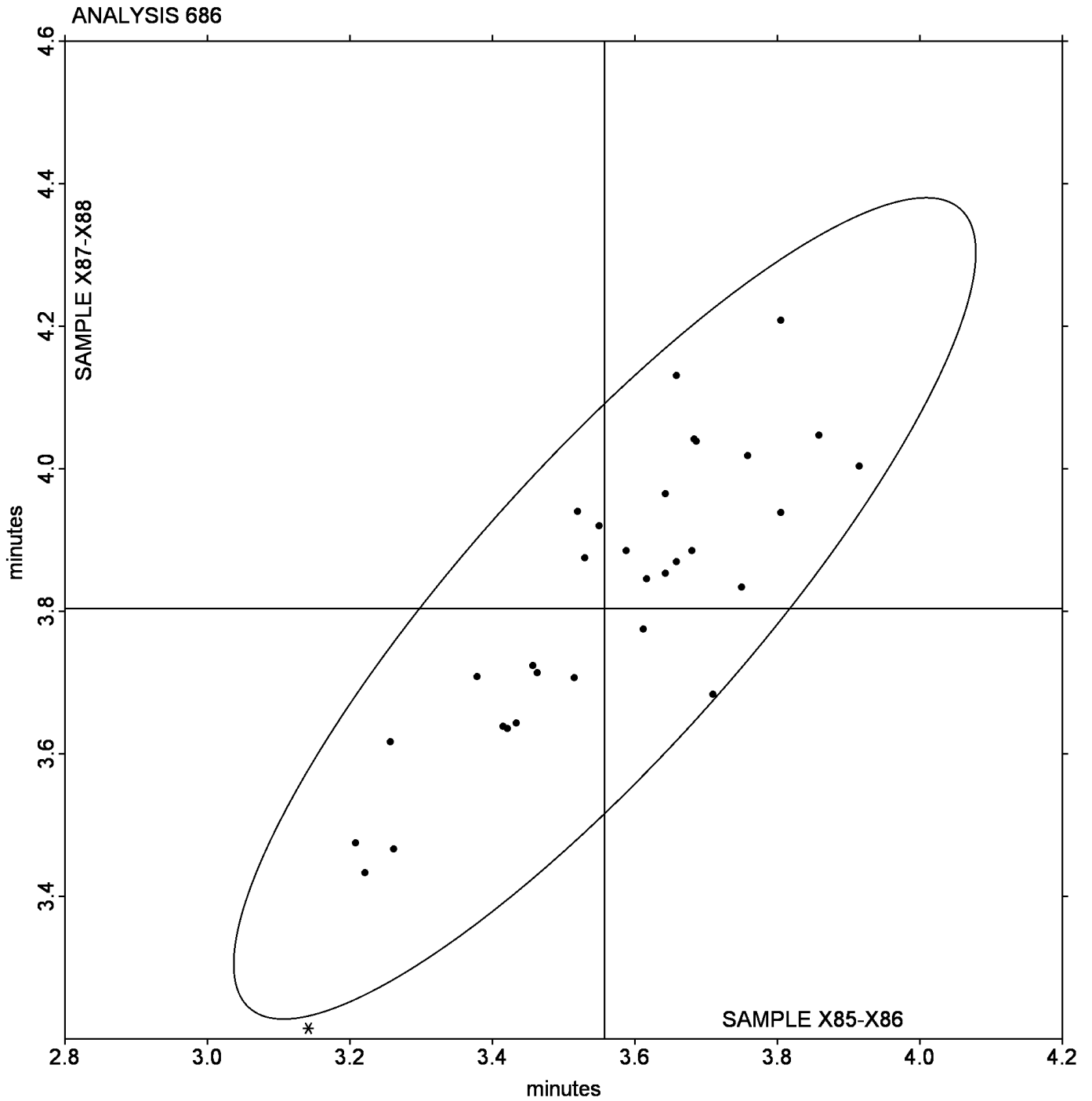
Samples X85-X86: EPDM compound, batch #1 & X87-X88: EPDM compound, batch #2

Analysis 686

MDR Vulcanization-Cure Time 50% (minutes)

Grand Mean Sample X85-X86 = 3.5577 minutes

Grand Mean Sample X87-X88 = 3.8041 minutes



## Rubber Interlaboratory Testing Program

## Analysis 687

## MDR Vulcanization-Cure Time 90% (minutes)

WebCode	Data Flag	Sample X85-X86			Sample X87-X88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1GE9GG		6.207	0.113	0.46	6.507	0.153	0.57	MC
2WSCNM		6.047	-0.047	-0.19	6.227	-0.127	-0.47	XX
98BLRE		5.892	-0.202	-0.82	6.128	-0.225	-0.84	MD
AUF61D		6.048	-0.045	-0.18	6.185	-0.168	-0.63	MC
B8FEB1		6.288	0.195	0.79	6.580	0.227	0.85	MC
BD37G7		6.453	0.360	1.46	6.653	0.300	1.12	MC
CGPPFR		5.687	-0.407	-1.65	5.947	-0.407	-1.52	MC
CRLXEW		6.200	0.106	0.43	6.407	0.053	0.20	MC
DTUQEU		6.135	0.041	0.17	6.345	-0.008	-0.03	MC
E4YPWC		6.311	0.218	0.88	6.478	0.125	0.47	MC
EXVZKU		5.912	-0.182	-0.74	6.227	-0.127	-0.47	MP
H5GTU3		5.923	-0.170	-0.69	5.988	-0.365	-1.36	MC
H8HM51		5.995	-0.099	-0.40	6.257	-0.097	-0.36	MC
HF7A7B		6.117	0.023	0.09	6.470	0.116	0.43	MC
JSDDYZ		5.623	-0.470	-1.90	5.835	-0.518	-1.94	MC
JUA5QJ		6.232	0.138	0.56	6.595	0.242	0.90	MC
JWTZTQ		6.107	0.013	0.05	6.385	0.032	0.12	MD
KE4NR5	*	6.668	0.575	2.33	6.738	0.385	1.44	MC
LBDNQ		6.153	0.059	0.24	6.492	0.139	0.52	MC
LGPCPC8		6.093	0.000	0.00	6.263	-0.090	-0.34	MC
LZLUGG		6.732	0.638	2.58	7.002	0.648	2.42	MC
M1CQN5		5.878	-0.215	-0.87	6.268	-0.085	-0.32	MC
M5AH2E		5.817	-0.277	-1.12	6.047	-0.307	-1.15	TP
MU8BXG		6.317	0.223	0.90	6.695	0.342	1.28	MC
NM4WM		5.860	-0.234	-0.95	6.258	-0.095	-0.35	TP
NUJBX2		6.225	0.131	0.53	6.618	0.265	0.99	XX
P2MTMK		5.943	-0.150	-0.61	6.070	-0.283	-1.06	MC
TGGVA3		6.087	-0.007	-0.03	6.447	0.093	0.35	MC
UM396L		6.030	-0.064	-0.26	6.587	0.233	0.87	MC
UTBY64		5.808	-0.285	-1.15	5.863	-0.490	-1.83	MC
W4B2YF		5.972	-0.122	-0.49	6.345	-0.008	-0.03	TP
WYU3V9		6.238	0.145	0.59	6.398	0.045	0.17	MC

Analysis 687

MDR Vulcanization-Cure Time 90% (minutes)

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Summary Statistics

Grand Means

6.0937 minutes

6.3533 minutes

Std Dev Btwn Labs

0.2471 minutes

0.2678 minutes

Statistics based on 32 of 32 reporting participants

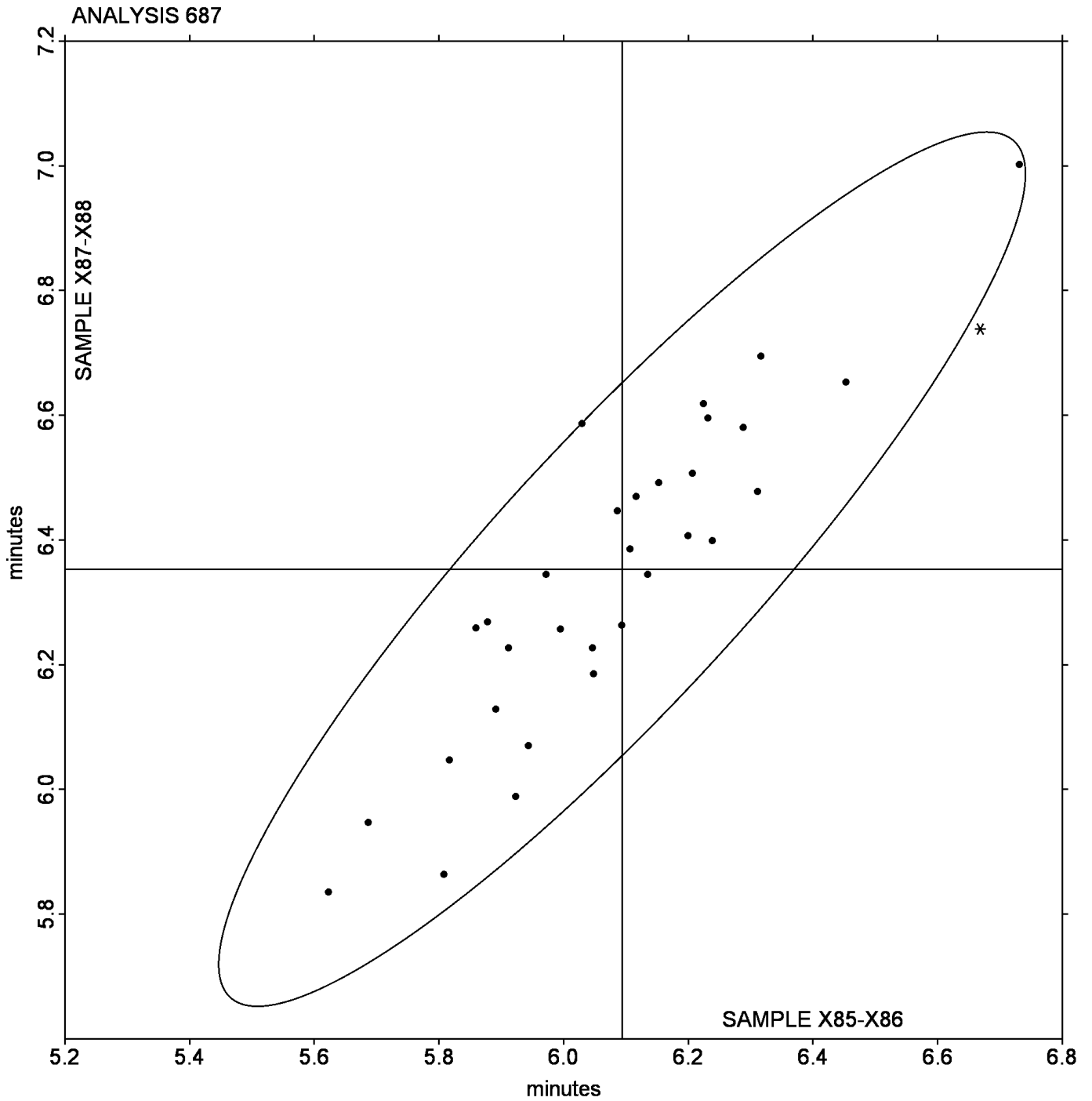
Samples X85-X86: EPDM compound, batch #1 & X87-X88: EPDM compound, batch #2

Analysis 687

MDR Vulcanization-Cure Time 90% (minutes)

Grand Mean Sample X85-X86 = 6.0937 minutes

Grand Mean Sample X87-X88 = 6.3533 minutes



## Analysis 688

## MDR Vulcanization: Minimum Torque (lbf.in)

WebCode	Data Flag	Sample X85-X86			Sample X87-X88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1JFCRP		2.558	-0.291	-0.57	2.358	-0.306	-0.60	XX
21EAPX		2.343	-0.506	-1.00	2.198	-0.466	-0.92	MC
2ALXVA		2.845	-0.004	-0.01	2.618	-0.046	-0.09	MC
2NHW6G		2.860	0.011	0.02	2.673	0.009	0.02	MC
3QBUJ6		2.828	-0.021	-0.04	2.642	-0.022	-0.04	MP
4PBTV8		3.262	0.413	0.81	3.073	0.409	0.81	TP
4U71EM		2.982	0.133	0.26	2.773	0.109	0.22	MC
66EW5Q		2.425	-0.424	-0.84	2.247	-0.418	-0.83	MC
86WZVA		2.341	-0.508	-1.00	2.148	-0.517	-1.02	MC
AMRYQS		2.120	-0.729	-1.44	2.022	-0.643	-1.27	MC
BCLE4H		2.380	-0.469	-0.92	2.148	-0.516	-1.02	MC
BZQ8W		2.313	-0.536	-1.06	2.227	-0.438	-0.86	MC
CBWKM		3.057	0.208	0.41	2.827	0.162	0.32	MC
EKCQ8V		3.618	0.770	1.52	3.446	0.782	1.54	MC
HZ7KJ1		3.325	0.476	0.94	3.203	0.539	1.07	MC
JNDF9R		2.260	-0.589	-1.16	2.115	-0.550	-1.09	MD
JY3XCZ		2.608	-0.241	-0.47	2.417	-0.248	-0.49	MC
KALNBP		2.402	-0.447	-0.88	2.277	-0.388	-0.77	MC
KB4CV5		2.472	-0.377	-0.74	2.235	-0.429	-0.85	MC
LBKKJ5		3.167	0.318	0.63	2.930	0.266	0.53	MC
LDUFBM		2.754	-0.095	-0.19	2.522	-0.142	-0.28	MC
LUTU11		2.587	-0.262	-0.52	2.302	-0.363	-0.72	TP
MU96H6		2.550	-0.299	-0.59	2.370	-0.294	-0.58	MC
N6ESWX		3.658	0.809	1.59	3.537	0.872	1.72	MC
NX3LBN		2.668	-0.181	-0.36	2.478	-0.186	-0.37	MC
P8RQEZ		3.754	0.905	1.78	3.599	0.935	1.85	MC
PM1MAT	*	3.800	0.951	1.87	3.701	1.037	2.05	MC
Q1JYGG		3.048	0.199	0.39	2.822	0.158	0.31	MC
QD9G3B		2.458	-0.391	-0.77	2.260	-0.404	-0.80	TP
UNJUCZ	*	3.985	1.136	2.24	3.692	1.027	2.03	MC
USFX4W		3.191	0.342	0.67	3.021	0.356	0.70	MD
XJEJ6T		2.548	-0.301	-0.59	2.377	-0.288	-0.57	XX

Analysis 688

MDR Vulcanization: Minimum Torque (lbf.in)

Summary Statistics

Grand Means

2.8490 lbf.in

2.6643 lbf.in

Std Dev Btw Labs

0.5075 lbf.in

0.5060 lbf.in

Statistics based on 32 of 32 reporting participants

Summary Statistics in SI Units

Grand Means

3.2189 dN.m

3.0102 dN.m

Std Dev Btw Labs

0.5734 dN.m

0.5717 dN.m

Statistics based on 32 of 32 reporting participants

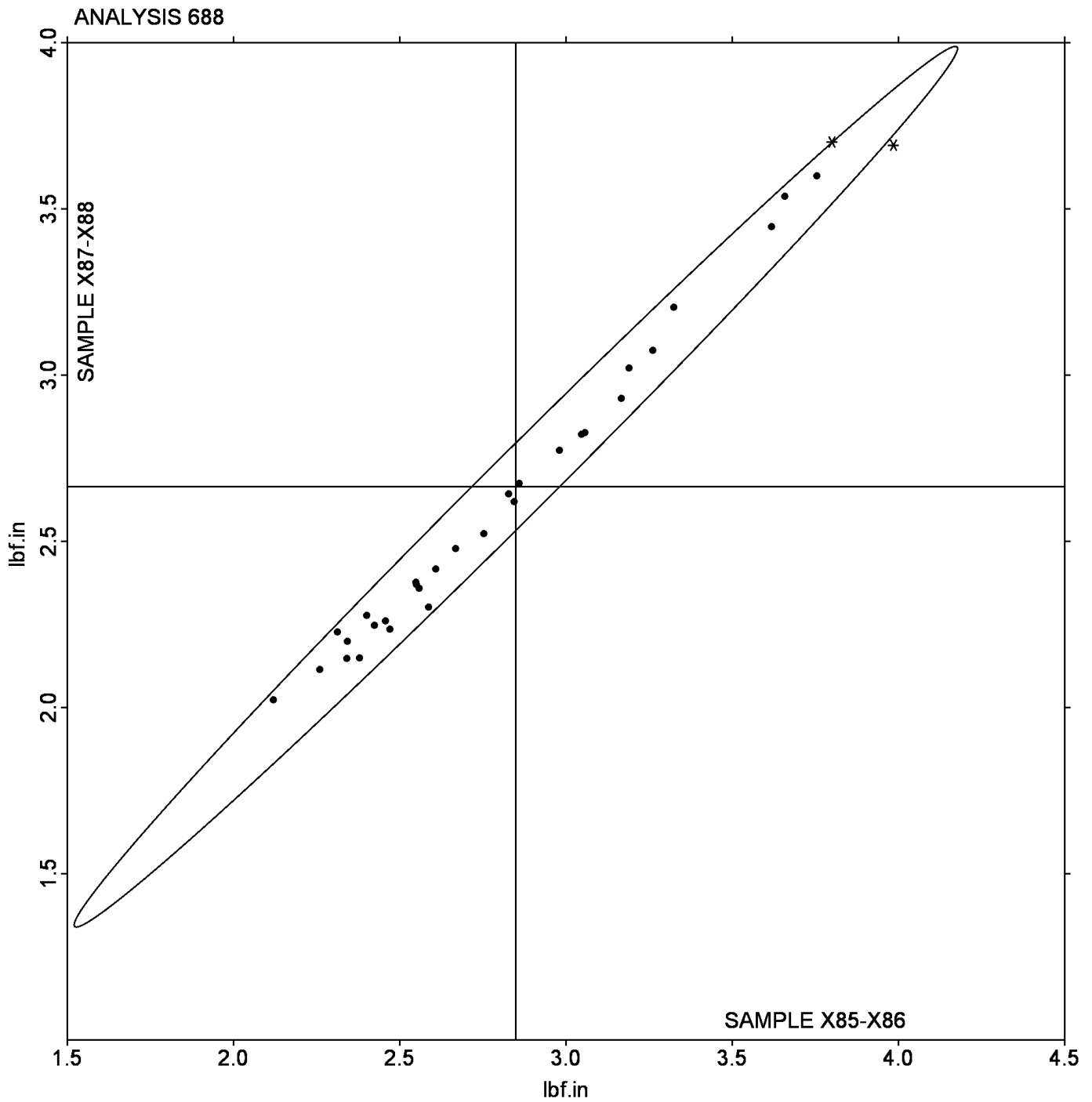
Samples X85-X86: EPDM compound, batch #1 & X87-X88: EPDM compound, batch #2

Analysis 688

MDR Vulcanization: Minimum Torque (lbf.in)

Grand Mean Sample X85-X86 = 2.8490 lbf.in

Grand Mean Sample X87-X88 = 2.6643 lbf.in



## Rubber Interlaboratory Testing Program

## Analysis 689

## MDR Vulcanization: Maximum Torque (Ibf.in)

WebCode	Data Flag	Sample X85-X86			Sample X87-X88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2P231K		14.04	0.14	0.23	14.05	0.06	0.10	MC
2RENX1		13.46	-0.45	-0.76	13.73	-0.26	-0.43	MC
338UJR		14.39	0.48	0.82	14.26	0.27	0.45	MC
3TYWGJ		13.27	-0.63	-1.07	13.37	-0.62	-1.04	TP
4SPNCE	*	12.43	-1.47	-2.49	12.66	-1.33	-2.23	MC
5X4CTT		13.91	0.01	0.01	13.91	-0.08	-0.13	MC
7D9DW7		14.18	0.27	0.46	14.28	0.29	0.49	MC
7EHLRZ		14.35	0.45	0.75	14.46	0.47	0.80	MC
8XYWL		13.30	-0.61	-1.03	13.42	-0.57	-0.96	MC
ALE2LQ		13.53	-0.38	-0.64	13.64	-0.35	-0.60	MC
C6ZMSH		13.27	-0.64	-1.08	13.51	-0.48	-0.81	MC
D5UQEY	X	15.14	1.23	2.08	15.72	1.73	2.91	MC
D7QB2N	*	12.67	-1.24	-2.09	12.47	-1.52	-2.55	TP
ELQ4W5		13.96	0.06	0.10	13.95	-0.04	-0.06	MC
G1HMUS		13.70	-0.20	-0.34	13.54	-0.45	-0.75	MC
JB2EUE		14.20	0.29	0.49	14.37	0.38	0.64	MC
KGC7XY		13.93	0.02	0.03	14.10	0.11	0.18	MC
LRKKTD		14.01	0.10	0.17	14.01	0.02	0.03	MC
NEQ616		13.82	-0.08	-0.14	13.90	-0.09	-0.16	MC
NPU313		14.00	0.10	0.16	14.20	0.21	0.36	MD
S7TXBX		14.21	0.31	0.52	14.37	0.38	0.64	MC
S9AR2H		14.41	0.50	0.85	14.36	0.38	0.63	MC
SECGUH		14.51	0.61	1.03	14.68	0.69	1.17	MP
T676MX		13.49	-0.41	-0.70	13.48	-0.51	-0.85	XX
TP2FD3		14.66	0.76	1.28	14.48	0.49	0.83	MC
UR9KRW		14.39	0.48	0.81	14.42	0.43	0.72	MC
WSQZ5A		14.57	0.66	1.12	14.68	0.69	1.17	MC
WW9D4P		15.04	1.13	1.91	15.12	1.14	1.91	MC
X4F7AP		13.92	0.02	0.03	14.10	0.11	0.18	XX
X7ZRDC		12.94	-0.97	-1.64	13.09	-0.90	-1.51	MD
XYRTGH		14.22	0.32	0.53	14.45	0.46	0.77	MC
ZBZYDD		14.31	0.40	0.68	14.60	0.61	1.03	TP

## Analysis 689

## MDR Vulcanization: Maximum Torque (lbf.in)

## Summary Statistics

Grand Means

13.905 lbf.in

13.989 lbf.in

Std Dev Btwn Labs

0.592 lbf.in

0.595 lbf.in

Statistics based on 31 of 32 reporting participants

## Summary Statistics in SI Units

Grand Means

15.710 dN.m

15.806 dN.m

Std Dev Btwn Labs

0.669 dN.m

0.672 dN.m

Statistics based on 31 of 32 reporting participants

Samples X85-X86: EPDM compound, batch #1 &amp; X87-X88: EPDM compound, batch #2

**Comments on assigned Data Flags for Test #689**

D5UQEY (X) - Data for Sample set X87-X88 are high.

Analysis 689

MDR Vulcanization: Maximum Torque (lbf.in)

Grand Mean Sample X85-X86 = 13.905 lbf.in

Grand Mean Sample X87-X88 = 13.989 lbf.in

