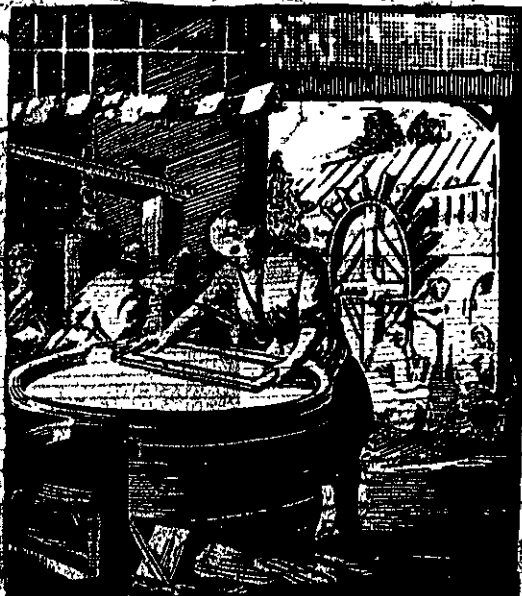


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CONTINUOUS BASELINE STUDY

Project 1108-B

Progress Report 60

to

FOURDRINIER KRAFT BOARD INSTITUTE, INC.

July 1, 1952

THE INSTITUTE OF PAPER CHEMISTRY

Appleton, Wisconsin

CONTINUOUS BASELINE STUDY

Project 1108-B

Progress Report 60

to

FOURDRINIER KRAFT BOARD INSTITUTE, INC.

July 1, 1952

THE INSTITUTE OF PAPER CHEMISTRY

Appleton, Wisconsin

In conjunction with the F.K.I. Continuous Baseline Study, one-hundred and one different sample lots of 42-lb. Fourdrinier kraft linerboard were submitted by twelve different F.K.I. mills to The Institute of Paper Chemistry for testing during the period June 1 through June 30. In addition to the 42-lb. kraft linerboard, five samples of special drum stock were also submitted for evaluation by one of the participating mills. The results on the special stock are tabulated separately in this report. A tabulation of the number of samples classified according to mill may be seen in Table I.

TABLE I
DISTRIBUTION OF 42-LB. LINERBOARD SAMPLES

Mill Code	Samples Submitted
A	6
B	20
C	17
D	11
E	2
F	5
G	8
H	5
I	2
J	10
K	0
L	8
M	<u>7</u>
	101

These sample lots were tested for basis weight, caliper, bursting strength, G. E. puncture, and Elmendorf tear. The average strength results for each mill may be seen in Table II and are graphically presented in Figures 1 to 6. In addition to a comparison of the mill averages for the various tests, Table II also shows the current F.K.I. averages, the cumulative F.K.I. averages, and the F.K.I. indexes. The cumulative F.K.I. average includes all the results up to but not including the current period; the current period in the case of this report is June 1 through June 30. The F.K.I. indexes are obtained as follows:

$$\frac{\text{current F.K.I. average}}{\text{cumulative F.K.I. average}} \times 100 = \text{F.K.I. index } (\%)$$

The F.K.I. index provides a ready means of comparing the current quality with previous results. For example, the current F.K.I. average basis weight is 43.1 lb., and the cumulative F.K.I. average basis weight is 43.1 lb. Hence, the index for basis weight determined in per cent as indicated above is 100.0. This signifies that the current average basis weight is the same as the cumulative average, which in this case covered the period from July 25, 1947, through May 31, 1952.

A comparison of the results in Table II and Figure 1 shows that the average basis weight results for all mills except E conform to the 42-lb. specification set forth in Rule 41. Mills D and F have the highest average basis weight, it being 43.8 lb. or approximately 4.3% higher than the 42-lb. specification. On the other hand, Mill E has the lowest average basis weight, it being 41.8 lb., 0.5% lower than the 42-lb. specification.

The amount by which the mills vary from the 42-lb. specification is as follows:

Mill Code	Per Cent
A	+2.9
B	+2.6
C	+2.6
D	+4.3
E	-0.5
F	+4.3
G	+3.6
H	+2.1
I	+1.9
J	+2.6
K	--
L	+2.9
M	+1.0

A comparison of the average basis weight data for the previous period with the current F.K.I. average indicates that the basis weight results have increased slightly.

A comparison of the average caliper values for the various mills (see Figure 2) shows that the mill averages vary from a low of 12.4 for Mill H to a high of 14.6 for Mill F, the average being 13.3 which is somewhat lower than the cumulative average of 14.0

The average bursting strength values obtained for each mill are presented graphically in Figure 3. It may be observed that the average bursting strength values for the various mills range from a low

of 101 for Mill F to a high of 114 for Mill A. The current F.K.I. average bursting strength is 107, slightly higher than the cumulative average of 106.

The data of Table II and Figure 4 show that the average G. E. puncture result for all mills is 34 units. Mill D has the highest G. E. puncture average, 38 units, and Mill J has the lowest average, 30 units. The current F.K.I. average for G. E. puncture of 34 units is slightly lower than the cumulative F.K.I. average which is 36 units.

A graphic comparison of the Elmendorf tear results for the various mills is given in Figures 5 and 6. The data of Table II show that Mills E and F have the highest average machine direction tear value while Mill B has the lowest. Mill F has the highest average cross-machine direction tear value, whereas Mill E has the lowest value. It may be noted that the current F.K.I. average machine and cross-machine direction tear results are lower than the cumulative averages.

A comparison of the F.K.I. indexes indicates that, for the current period, the current F.K.I. averages for caliper, G. E. puncture, and Elmendorf tear are lower than the respective cumulative F.K.I. averages, whereas the current F.K.I. average for bursting strength is higher, and that for basis weight is the same.

In order to compare the variation within a given mill, the test results for each particular mill have been tabulated in Tables III to XV for Mills A to M, respectively. In addition to the current and cumulative averages, the mill factor and mill index are given for each mill. The cumulative mill average is the average test result obtained

on the samples submitted by the particular mill up to, but not including, the current average. The mill factor and the mill index are obtained as follows:

$$\frac{\text{current mill average}}{\text{cumulative mill average}} \times 100 = \text{mill factor } (\%)$$

$$\frac{\text{current mill average}}{\text{cumulative F.K.I. average}} \times 100 = \text{mill index } (\%)$$

The mill factor and the mill index serve as a ready means for comparing the current mill results either with the previous results for that particular mill or with the cumulative F.K.I. results. As the test data accumulate, the factors and indexes acquire added significance. The reports also contain a comparison of the test data obtained at the mills with test data obtained at The Institute of Paper Chemistry.

The results obtained on the special drum stock may be seen in Table XVI.

It may be noted in Tables III through XVI that the data have been separated on the basis of the sheet finish. The summarized results for the mills which submitted sample lots during the current period are as follows:

Mill Code	No. of Sample Lots		
	W.F.	D.F.	Misc.
A	6 ^a		
B	20 ^a		
C	17		
D	11		
E	2 _b		
	5 ^b		

(Continued on next page.)

Mill Code	No. of Sample Lots		
	W.F.	D.F.	Misc.
F	4		1 ^c
G	8		
H	5 ^a		
I	2 ^a		
J			10 ^d
L			8 ^c
M	7		

^a One side only.

^b Drum linerboard.

^c Sheet finish not reported.

^d Semi-water finish.

The results indicate that a majority of the mills are using
a water finish on their 42-lb. linerboard.

TABLE II

SUMMARY OF COMPOSITE MILL AVERAGES--JUNE 1 THROUGH JUNE 30, 1952

Code No.	Basis Weight, lb.	Caliper, points	Bursting Strength, p.s.i. gage	G. E. Puncture, units	Elmendorf Tear, g./sheet In Direction Across Direction
A	43.2	12.8	114	35	339
B	43.1	13.8	105	31	330
C	43.1	13.0	109	36	362
D	43.8	13.6	105	38	379
E	41.8	12.9	105	32	382
F	43.8	14.6	101	37	382
G	43.5	13.2	107	35	359
H	42.9	12.4	106	34	373
I	42.8	12.9	105	32	334
J	43.1	13.2	111	30	350
K	No samples submitted.				
L	43.2	13.7	103	34	350
M	42.4	13.2	109	33	381
Current FKI Average:	43.1	13.3	107	34	360
Cumulative FKI Average:	43.1	14.0	106	36	374
FKI Index, %:	100.0	95.0	100.9	94.4	96.3
					95.3

Figure 1

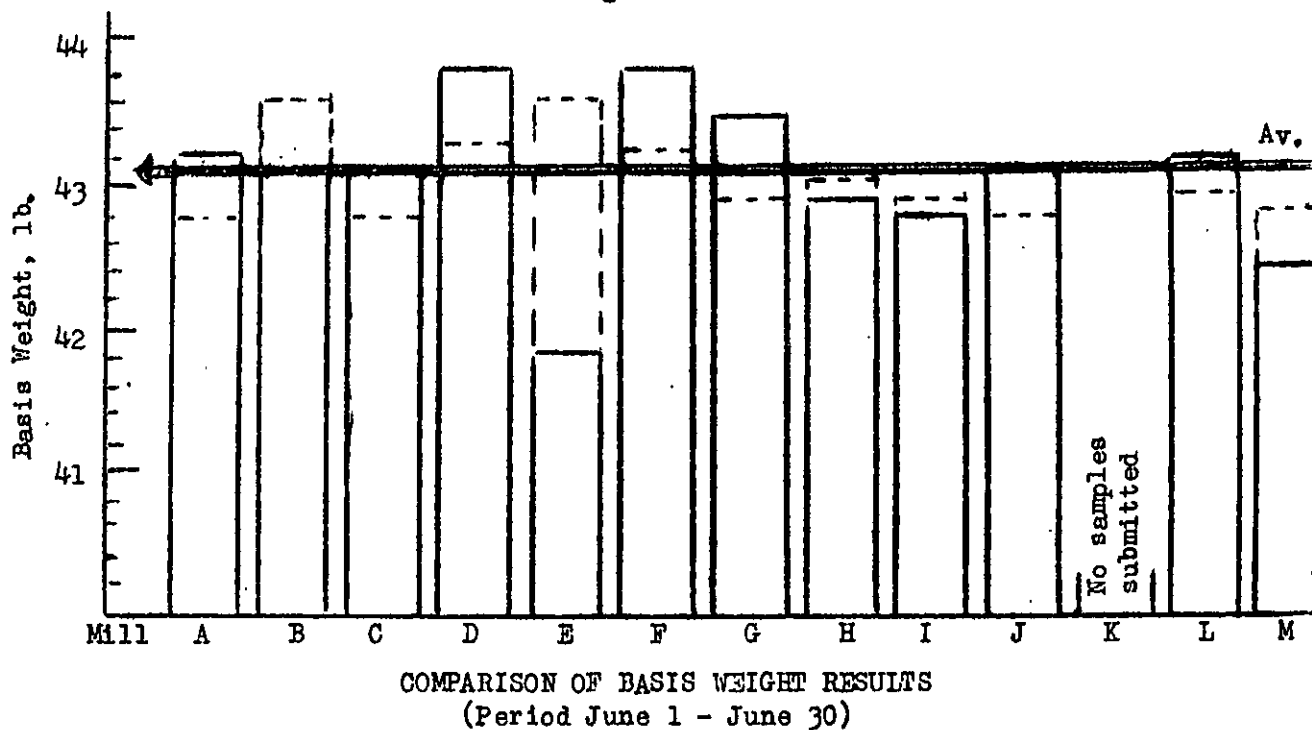
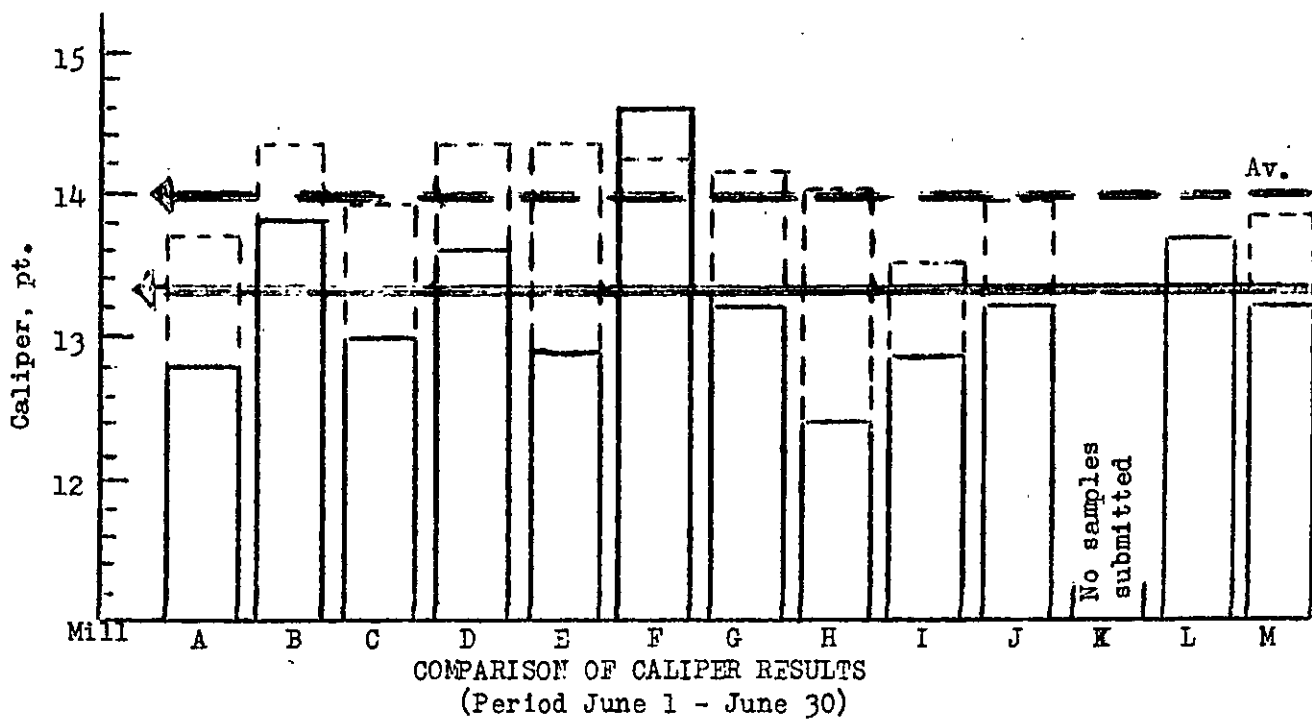


Figure 2



— Current Mill Average
- - - Cumulative Average

Figure 3

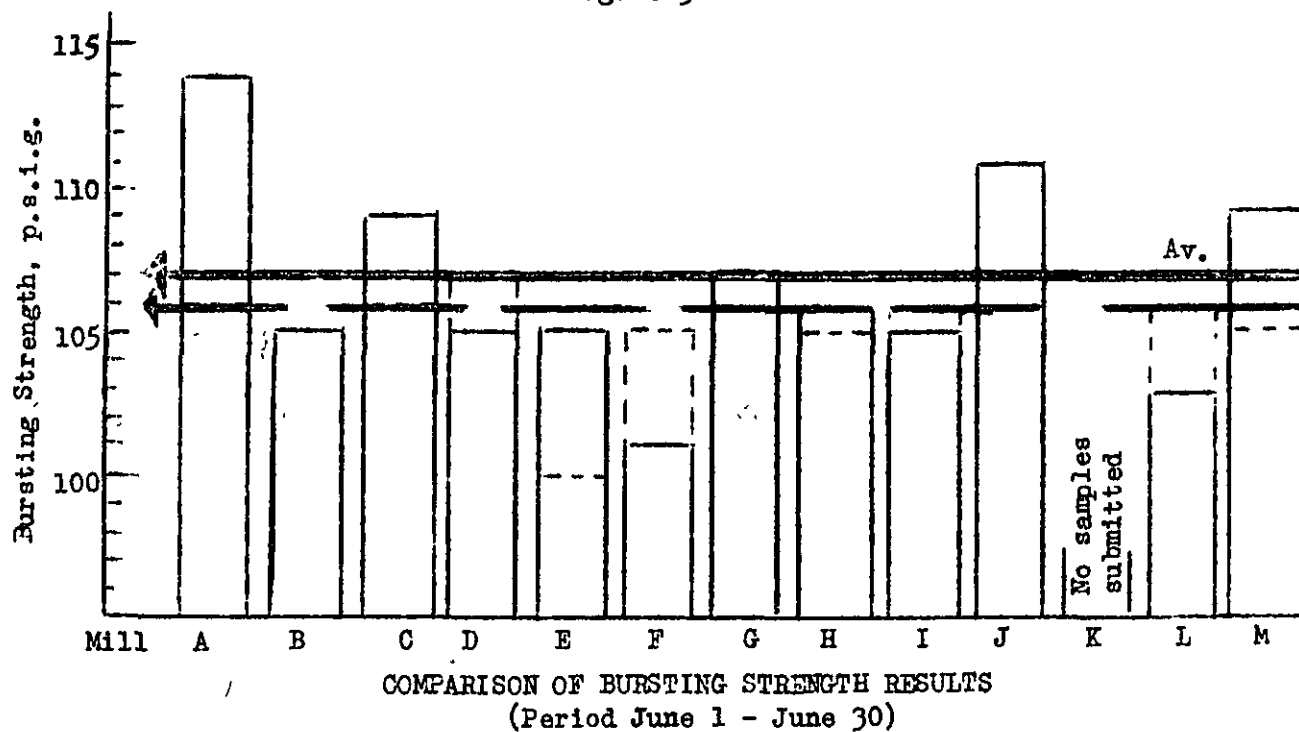


Figure 4

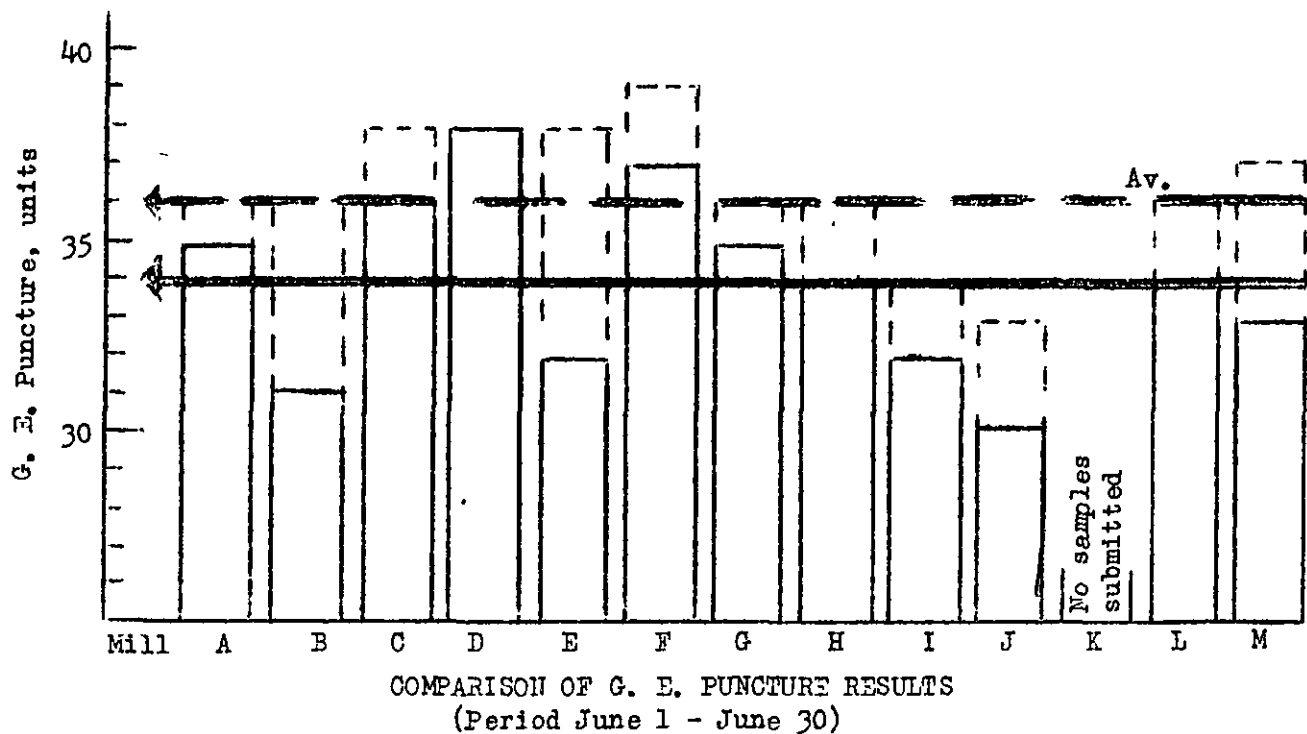


Figure 5

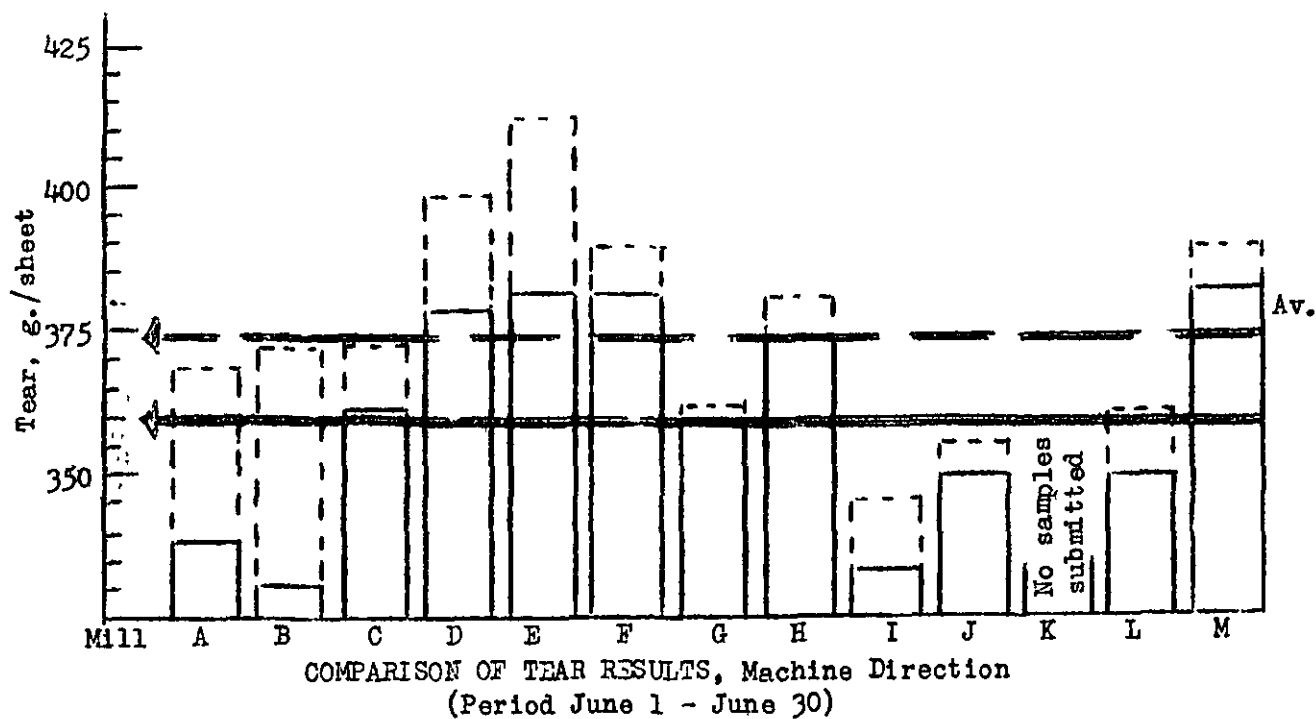
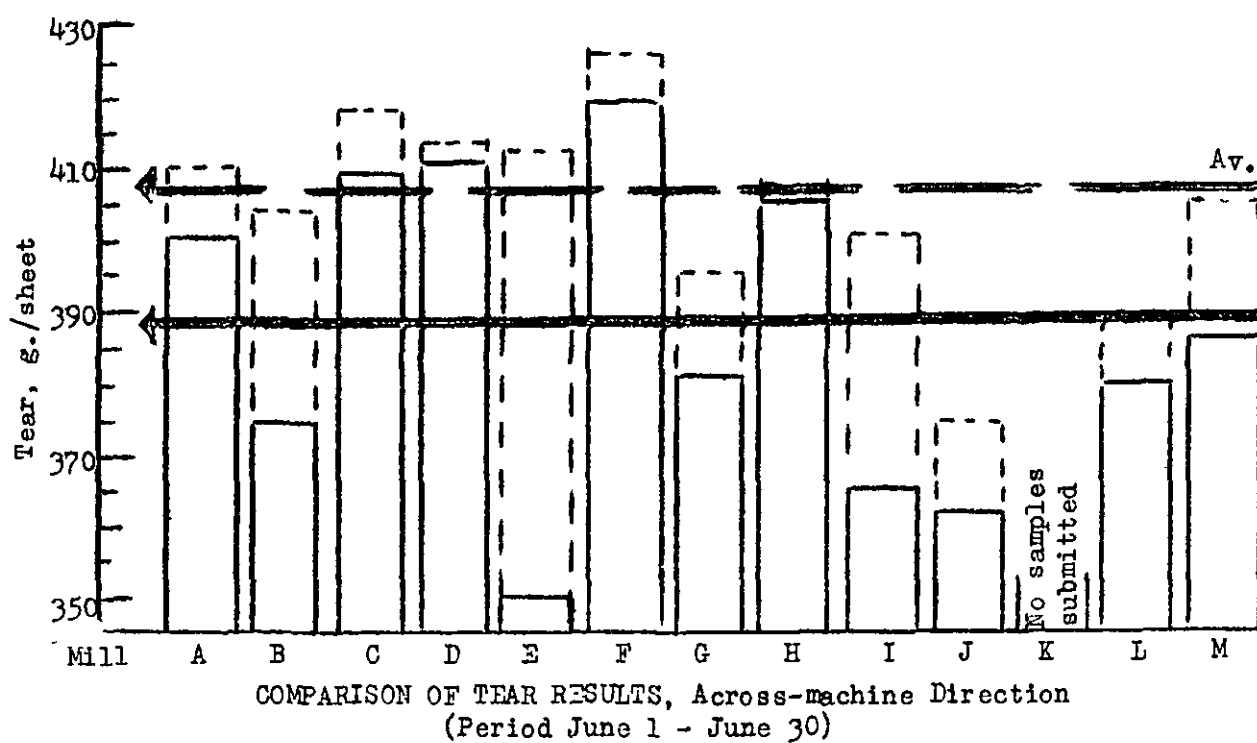


Figure 6



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TABLE III
SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1952

Tens Weight, lb. Min.	Av.	Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		Elmendorf Tear, g./sheet								
		Max.	Min.	Av.	Max. Min. Av.	Max. Min	Av.	In Max. Min. Av.	Across Max. Min. Av.							
<u>Mill A--42-lb. Linerboard</u>																
42.6	44.0	13.0	12.1	12.6	140	100	116	40	32	37	392	280	345 ^a	440	360	389 ^a
43.0	44.0	13.3	12.0	12.8	142	99	117	39	34	36	392	296	336 ^a	440	320	391 ^a
42.0	42.3	13.9	12.3	13.1	129	89	110	35	30	32	376	272	329 ^a	432	328	383 ^a
43.8	44.4	14.5	12.0	13.0	140	85	114	40	32	36	408	304	361	456	384	420 ^a
41.8	42.3	13.0	12.4	12.6	130	86	114	37	33	35	408	280	328	448	360	411 ^a
41.6	42.2	13.0	12.3	12.7	140	97	113	37	32	34	376	304	337 ^a	448	384	414 ^a
43.2				12.8			114			35			339			401
42.8				13.7			106			36			368			410
100.9				93.4			107.5			97.2			92.1			97.8
100.2				91.4			107.5			97.2			90.6			98.5

re specimens which tore beyond the 3/8-inch limit.

TABLE III

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1952

File No.	Mill Code	Fin- ish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting, Strength, p.s.i. gage		G. E. Puncture, units					
						Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
						Mill A--42-lb. Linerboard											
151109	A-350	WF1S	6/11/52	6/ 4/52	2	45.0	42.6	44.0	13.0	12.1	12.6	140	100	116	40	32	37
151110	A-351	WF1S	6/11/52	6/ 4/52	2	45.0	43.0	44.0	13.3	12.0	12.8	142	99	117	39	34	36
151171	A-352	WF1S	6/19/52	6/ 8/52	1	43.0	42.0	42.3	13.9	12.3	13.1	129	89	110	35	30	32
151172	A-353	WF1S	6/19/52	6/13/52	2	45.6	43.8	44.4	14.5	12.0	13.0	140	85	114	40	32	36
151204	A-354	WF1S	6/25/52	6/15/52	2	43.0	41.8	42.3	13.0	12.4	12.6	130	86	114	37	33	35
151205	A-355	WF1S	6/25/52	6/15/52	2	42.6	41.6	42.2	13.0	12.3	12.7	140	97	113	37	32	34
Current Mill Average:						43.2		12.8		114		35					
Cumulative Mill Average:						42.8		13.7		106		36					
Mill Factor, %:						100.9		93.4		107.5		97.2					
Mill Index, %:						100.2		91.4		107.5		97.2					

^a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE IV

INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1952 (continued)

Weight, lb.	Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		Elmendorf Tear, g./sheet		Across	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	In	Max.
in.	Av.	Av.	Av.	Av.	Av.	Av.	Av.	Av.	Av.	Av.
Mill B--42-lb. Linerboard										
1.4	42.9	13.8	12.7	13.2	127	87	105	33	29	31
1.8	43.4	14.4	12.0	13.5	133	88	110	35	30	32
2.0	42.9	14.0	12.4	13.2	120	90	106	35	29	31
1.8	43.5	14.0	11.5	13.3	131	83	106	35	28	32
1.8	43.0	14.7	13.2	13.9	125	90	105	34	29	31
2.2	43.1	14.7	13.3	13.9	119	73	100	33	27	30
2.0	43.2	14.8	13.1	13.9	128	74	98	32	27	30
2.2	43.4	14.8	13.5	14.2	114	70	95	33	26	30
2.4	43.4	15.0	13.2	14.0	118	80	102	34	28	31
2.0	43.2	14.9	12.1	13.8	113	85	101	33	27	30
2.0	43.0	15.0	13.1	14.0	129	81	102	34	28	31
2.0	43.3	14.8	13.0	13.9	126	77	102	33	28	31
2.4	43.8	14.9	13.2	14.0	132	86	111	35	30	32
2.2	43.6	14.8	11.8	13.8	129	88	109	35	30	32
2.0	43.7	15.0	13.0	14.2	134	98	113	35	30	32
2.0	43.2	14.7	13.2	14.0	128	95	110	33	27	31
2.8	42.3	14.7	13.5	14.0	119	70	106	34	28	31
2.0	42.5	15.0	13.3	14.0	133	92	107	34	28	31
2.0	42.4	14.6	13.0	13.8	122	91	109	35	29	32
2.0	42.5	14.9	13.4	14.0	122	91	108	35	29	32
43.1		13.8					105			31
43.6		14.3					105			36
98.9		96.5					100.0			86.1
100.0		98.6					99.1			86.1
375									330	
404									372	
92.8									88.7	
92.1									88.2	

specimens which tore beyond the 3/8-inch limit.

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TABLE IV

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1952 (continued)

File No.	Mill Code	Fin- ish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Strength, p.s.i. gage		G. E. Puncture, units				
						Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.			
						Av.	Av.	Av.	Av.	Av.	Av.	Av.	Av.			
Mill B--42-lb. Linerboard																
150982	B-595	WFLS	6/ 2/52	5/19/52	1	44.4	41.4	42.9	13.8	12.7	13.2	87	105	33	29	31
151009	B-596	WFLS	6/ 2/52	5/19/52	1	45.0	41.8	43.4	14.4	12.0	13.5	133	88	35	30	32
151010	B-597	WFLS	6/ 2/52	5/19/52	1	45.0	42.0	42.9	14.0	12.4	13.2	120	90	35	29	31
151011	B-598	WFLS	6/ 2/52	5/19/52	1	45.0	41.8	43.5	14.0	11.5	13.3	131	83	35	28	32
151026	B-599	WFLS	6/ 2/52	5/26/52	1	44.2	41.8	43.0	14.7	13.2	13.9	125	90	34	29	31
151027	B-600	WFLS	6/ 2/52	5/26/52	1	44.2	42.2	43.1	14.7	13.3	13.9	119	73	33	27	30
151028	B-601	WFLS	6/ 2/52	5/26/52	1	44.0	42.0	43.2	14.8	13.1	13.9	128	74	32	27	30
151037	B-602	WFLS	6/ 3/52	5/26/52	1	44.2	42.2	43.4	14.8	13.5	14.2	114	70	33	26	30
151038	B-603	WFLS	6/ 3/52	5/27/52	1	45.2	41.4	43.4	15.0	13.2	14.0	118	80	34	28	31
151029	B-604	WFLS	6/ 2/52	5/27/52	1	44.0	42.0	43.2	14.9	12.1	13.8	113	85	33	27	30
151030	B-605	WFLS	6/ 2/52	5/27/52	1	44.2	41.0	43.0	15.0	13.1	14.0	129	81	34	28	31
151031	B-606	WFLS	6/2/ 52	5/27/52	1	45.0	42.0	43.3	14.8	13.0	13.9	126	77	33	28	31
151080	B-607	WFLS	6/ 9/52	6/ 3/52	1	45.2	42.4	43.8	14.9	13.2	14.0	132	86	35	30	32
151081	B-608	WFLS	6/ 9/52	6/ 3/52	1	45.8	42.2	43.6	14.8	11.8	13.8	129	88	35	30	32
151082	B-609	WFLS	6/ 9/52	6/ 3/52	1	44.2	42.0	43.7	15.0	13.0	14.2	134	98	35	30	32
151083	B-610	WFLS	6/ 9/52	6/ 3/52	1	44.0	42.0	43.2	14.7	13.2	14.0	128	95	33	27	31
151155	B-611	WFLS	6/17/52	6/10/52	1	43.0	41.8	42.3	14.7	13.5	14.0	119	70	34	28	31
151156	B-612	WFLS	6/17/52	6/10/52	1	43.6	42.0	42.5	15.0	13.3	14.0	133	92	34	28	31
151157	B-613	WFLS	6/17/52	6/10/52	1	43.8	42.0	42.4	14.6	13.0	13.8	122	91	35	29	32
151158	B-614	WFLS	6/17/52	6/10/52	1	43.6	42.0	42.5	14.9	13.4	14.0	122	91	35	29	32
Current Mill Average:								43.1		13.8				105		31
Cumulative Mill Average:								43.6		14.3				105		36
Mill Factor, %:								98.9		96.5				100.0		86.1
Mill Index, %:								100.0		98.6				99.1		86.1

^a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE V

INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1952 (continued)

asis Weight, lb.	Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		Elmendorf Tear, g./sheet		Av.	Min.	Max.	Av.	Min.	Max.	Av.	Min.	Max.
	Max.	Min.	Av.	Min.	Max.	Av.	Min.	Max.									
Mill C-42-lb. Linerboard																	
.8	41.6	43.2	14.1	13.0	13.4	115	77	101	38	33	36	366 ^a	320	416	456	368	414 ^a
.2	42.0	43.2	12.6	11.2	11.8	140	93	108	36	33	35	349	304	400	432	368	398 ^a
.2	42.4	43.4	12.4	11.1	11.8	140	91	116	37	33	35	342	312	368	448	352	385 ^a
.0	41.8	42.2	13.4	12.0	12.9	130	90	111	35	31	33	338 ^a	304	368	448	368	405 ^a
.0	42.0	42.4	13.2	12.2	12.9	128	92	111	36	32	34	368 ^a	328	408	456	376	401 ^a
.C	42.0	43.2	13.6	12.5	13.0	139	70	105	40	34	37	372	344	408	472	376	426 ^a
.0	42.0	43.3	14.1	12.9	13.5	130	66	103	40	33	37	387 ^a	312	464	472	376	423 ^a
.0	44.0	45.1	13.8	12.2	13.0	137	88	113	42	36	39	366 ^a	312	424	464	392	427 ^a
.0	43.6	44.8	13.5	12.2	12.9	132	83	107	42	35	39	367	336	400	480	376	415 ^a
.6	41.8	42.7	13.8	12.5	13.2	135	82	107	38	33	35	355 ^a	312	424	424	368	391 ^a
.6	42.0	42.5	13.9	11.9	12.9	131	87	110	36	33	34	357 ^a	288	448	440	360	387 ^a
.8	41.8	42.6	13.7	12.5	13.1	130	99	114	36	32	34	356 ^a	296	448	440	384	405 ^a
.8	41.0	42.4	13.8	12.6	13.1	131	97	113	37	32	34	361	320	392	472	376	412 ^a
.0	42.2	43.4	13.5	12.2	12.9	124	80	107	40	34	37	353	304	408	448	360	402 ^a
.8	42.2	43.1	13.2	11.9	12.8	120	84	105	39	32	37	367 ^a	328	456	464	376	411 ^a
.0	42.0	42.9	14.1	13.0	13.4	131	92	110	39	34	37	380 ^a	352	440	440	392	417 ^a
.0	42.0	42.7	14.1	13.0	13.5	125	90	104	40	34	37	362	312	408	440	300	409 ^a
	43.1				13.0			109			36	362				408	
	42.8				13.9			106			38	373				418	
	100.7				93.5			102.8			94.7	97.1				97.6	
	100.0				92.9			102.8			100.0	96.8				100.2	

ore specimens which tore beyond the 3/8-inch limit.

TABLE V

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1952 (continued)

File No.	Mill Code	Fin- ish	DATE Recd.	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units					
						Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.			
Mill C--42-lb. Linerboard																	
150985	C-368	W.F.	6/ 2/52	4/17/52	1	43.8	41.6	43.2	14.1	13.0	13.4	115	77	101	38	33	36
150986	C-371	W.F.	6/ 2/52	5/14/52	1	44.2	42.0	43.2	12.6	11.2	11.8	140	93	108	36	33	35
150987	C-372	W.F.	6/ 2/52	5/14/52	1	44.2	42.4	43.4	12.4	11.1	11.8	140	91	116	37	33	35
150988	C-373	W.F.	6/ 2/52	5/15/52	1	43.0	41.8	42.2	13.4	12.0	12.9	130	90	111	35	31	33
150989	C-374	W.F.	6/ 2/52	5/15/52	1	43.0	42.0	42.4	13.2	12.2	12.9	128	92	111	36	32	34
150990	C-375	W.F.	6/2/ 52	5/20/52	1	44.0	42.0	43.2	13.6	12.5	13.0	139	70	105	40	34	37
150991	C-376	W.F.	6/ 2/52	5/20/52	1	44.0	42.0	43.3	14.1	12.9	13.5	130	66	103	40	33	37
150992	C-377	W.F.	6/ 2/52	5/21/52	1	46.0	44.0	45.1	13.8	12.2	13.0	137	88	113	42	36	39
150993	C-378	W.F.	6/ 2/52	5/21/52	1	46.0	43.6	44.8	13.5	12.2	12.9	132	83	107	42	35	39
151159	C-379	W.F.	6/17/52	6/ 3/52	1	43.6	41.8	42.7	13.8	12.5	13.2	135	82	107	38	33	35
151160	C-380	W.F.	6/17/52	6/ 4/52	1	43.6	42.0	42.5	13.9	11.9	12.9	131	87	110	36	33	34
151161	C-381	W.F.	6/17/52	6/ 9/52	1	43.8	41.8	42.6	13.7	12.5	13.1	130	99	114	36	32	34
151162	C-382	W.F.	6/17/52	6/ 9/52	1	43.8	41.0	42.4	13.8	12.6	13.1	131	97	113	37	32	34
151190	C-383	W.F.	6/23/52	6/12/52	1	44.0	42.2	43.4	13.5	12.2	12.9	124	80	107	40	34	37
151191	C-384	W.F.	6/23/52	6/12/52	1	43.8	42.2	43.1	13.2	11.9	12.8	120	84	105	39	32	37
151192	C-385	W.F.	6/23/52	6/13/52	1	44.0	42.0	42.9	14.1	13.0	13.4	131	92	110	39	34	37
151193	C-386	W.F.	6/23/52	6/13/52	1	44.0	42.0	42.7	14.1	13.0	13.5	125	90	104	40	34	37

^a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE VI

OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1952 (continued)

Weight, lb.	Min.	Av.	Caliper, points		Bursting Strength, p.s.i. gage		Puncture, units		In		Across					
			Max.	Min.	Av	Max.	Min.	Av	Max.	Min.	Av.	Max.	Min.	Av.		
Mill D--42-lb. Linerboard																
42.6	43.6	14.8	13.2	14.0	130	80	106	40	34	37	472	288	365 ^a	472	400	424 ^a
42.2	43.6	14.5	13.0	13.7	137	78	108	42	34	38	408	328	374 ^a	504	352	427 ^a
43.0	44.0	14.5	13.2	13.8	128	80	109	43	35	39	424	352	382 ^a	488	336	424 ^a
42.8	44.0	14.0	13.0	13.6	129	74	103	39	32	35	408	328	363 ^a	440	344	375 ^a
43.0	43.7	14.5	13.1	13.6	131	74	106	39	32	36	424	328	367 ^a	472	344	415 ^a
44.0	44.8	14.9	13.9	14.2	122	74	98	42	34	38	480	368	424 ^a	440	344	397 ^a
43.0	44.0	14.1	12.9	13.7	138	77	109	42	35	38	432	320	371 ^a	464	344	409 ^a
42.0	43.9	14.0	12.4	13.2	131	84	103	42	36	39	424	360	395 ^a	504	376	431 ^a
43.0	43.5	14.1	13.0	13.4	129	79	103	42	35	38	488	328	373 ^a	472	360	402 ^a
42.0	43.3	14.1	12.7	13.3	125	85	106	40	31	37	432	312	366 ^a	472	368	418 ^a
42.6	43.8	13.7	12.5	13.1	118	84	101	41	36	38	432	344	388 ^a	472	336	405 ^a
	43.8			13.6			105			38			379			412
	43.3			14.3			107			38			398			414
	101.2			95.1			98.1			100.0			95.2			99.5
	101.6			97.1			99.1			105.6			101.3			101.2
TABLE VII																
Mill E--42-lb. Linerboard																
41.6	42.1	14.0	12.3	13.1	120	73	103	35	30	32	472	336	395 ^a	408	312	347 ^a
40.4	41.4	13.6	12.0	12.8	129	87	106	33	29	31	416	328	369 ^a	384	320	355 ^a
	41.8			12.9			105			32			382			351
	43.6			14.3			100			38			411			413
	95.9			90.2			105.0			84.2			92.9			85.0
	97.0			92.1			99.1			88.9			102.1			86.2

TABLE VII

Mill E--42-lb. Linerboard

41.6	42.1	14.0	12.3	13.1	120	73	103	35	30	32	472	336	395 ^a	408	312	347 ^a
40.4	41.4	13.6	12.0	12.8	129	87	106	33	29	31	416	328	369 ^a	384	320	355 ^a
41.8				12.9			105			32			382			351
43.6				14.3			100			38			411			413
95.9				90.2			105.0			84.2			92.9			85.0
97.0				92.1			99.1			88.9			102.1			86.2

re specimens which tore beyond the 3/8-inch limit.

TABLE VI

SUMMARY OF INDIVIDUAL TEST LOTS - JUNE 1 THROUGH JUNE 30, 1952 (continued)

File No.	Mill Code	Fin- ish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units		
						Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
Mill D--42-lb. Linerboard																	
150996	D-537	W.F.	6/ 2/52	5/25/52	4	44.2	42.6	43.6	14.8	13.2	14.0	130	80	106	40	34	37
151012	D-538	W.F.	6/ 2/52	5/26/52	4	44.0	42.2	43.6	14.5	13.0	13.7	137	78	108	42	34	38
151013	D-539	W.F.	6/ 2/52	5/27/52	4	45.0	43.0	44.0	14.5	13.2	13.8	128	80	109	43	35	39
151041	D-540	W.F.	6/ 4/52	6/ 1/52	4	46.0	42.8	44.0	14.0	13.0	13.6	129	74	103	39	32	35
151042	D-541	W.F.	6/ 4/52	6/ 2/52	4	44.0	43.0	43.7	14.5	13.1	13.6	131	74	106	39	32	36
151111	D-542	W.F.	6/11/52	6/8/ 52	4	46.0	44.0	44.8	14.9	13.9	14.2	122	74	98	42	34	38
151125	D-543	W.F.	6/12/52	6/ 9/52	4	44.4	43.0	44.0	14.1	12.9	13.7	138	77	109	42	35	38
151166	D-544	W.F.	6/18/52	6/16/52	4	45.0	42.0	43.9	14.0	12.4	13.2	131	84	103	42	36	39
151177	D-545	W.F.	6/19/52	6/17/52	4	44.0	43.0	43.5	14.1	13.0	13.4	129	79	103	42	35	38
151184	D-546	W.F.	6/23/52	6/18/52	4	44.2	42.0	43.3	14.1	12.7	13.3	125	85	106	40	31	37
151202	D-547	W.F.	6/25/52	6/20/52	4	44.6	42.6	43.8	13.7	12.5	13.1	118	84	101	41	36	38
Current Mill Average:								43.8			13.6			105			38
Cumulative Mill Average:								43.3			14.3			107			38
Mill Factor, %:								101.2			95.1			98.1			100.0
Mill Index, %:								101.6			97.1			99.1			105.6

TABLE VII

Mill E--42-lb. Linerboard

151008	E-338	W.F.	6/ 2/52	5/26/52	1	43.6	41.6	42.1	14.0	12.3	13.1	120	73
151032	E-339	W.F.	6/ 2/52	5/27/52	1	42.2	40.4	41.4	13.6	12.0	12.8	129	87
Current Mill Average:						41.8			12.9			105	
Cumulative Mill Average:						43.6			14.3			100	
Mill Factor, %:						95.9			90.2			105.0	
Mill Index, %:						97.0			92.1			99.1	

^a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE VIII

ARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1952 (continued)

Basis Weight, lb.	Caliper, points	Bursting Strength, p.s.i. gage	G. E. Puncture, units		Elmendorf Tear, g./sheet		Av.	Max. Min.	Av.	Max. Min.	Av.						
			Max.	Min.	Max.	Min.											
												Max.	Min.				
Mill F--42-lb. Linerboard																	
5.0	42.4	43.4	16.2	15.0	15.4	116	83	98	41	36	38	408	344	381 ^a	464	368	400 ^a
5.0	42.0	44.0	15.2	14.0	14.5	118	84	101	41	35	38	432	352	393 ^a	464	392	421 ^a
5.6	42.2	44.1	16.0	14.4	15.1	114	72	99	42	35	38	424	320	383	480	360	429 ^a
5.0	41.0	44.2	15.2	13.8	14.5	118	90	106	40	34	37	416	352	386 ^a	488	408	442 ^a
4.2	42.0	43.2	14.5	12.5	13.5	115	86	100	40	32	36	400	328	367 ^a	456	368	407 ^a
		43.8			14.6			101			37			382			420
		43.2			14.2			105			39			388			427
		101.4			102.8			96.2			94.9			98.5			98.4
		101.6			104.3			95.3			102.8			102.1			103.2

TABLE IX

Mill G--42-lb. Linerboard

4.2	43.0	43.8	14.2	12.7	13.5	120	80	100	38	32	34	392	296	351	400	344	375 ^a
5.8	43.0	44.1	14.5	12.4	13.3	129	80	102	38	32	34	384	328	359 ^a	400	312	355 ^a
3.4	41.3	42.4	13.4	11.5	12.4	145	92	113	33	29	31	336	280	322 ^a	408	344	373 ^a
3.8	41.4	42.3	13.2	11.9	12.4	129	85	111	33	30	32	384	312	347 ^a	408	328	367 ^a
5.4	44.0	44.2	14.9	12.8	14.0	135	84	107	39	32	37	432	336	374 ^a	464	352	407 ^a
5.6	44.0	44.5	14.4	12.6	13.2	132	82	105	39	34	37	424	312	369 ^a	432	344	379 ^a
4.0	42.4	43.3	14.2	13.0	13.6	129	89	112	38	33	36	400	336	377 ^a	448	352	384 ^a
4.0	43.2	43.7	14.1	12.7	13.4	134	86	109	38	32	35	416	320	371 ^a	464	368	418 ^a
		43.5			13.2			107			35			359			382
		42.9			14.1			107			36			362			395
		101.4			93.6			100.0			97.2			99.2			96.7
		100.9			94.3			100.9			97.2			96.0			93.9

TABLE VIII

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1952 (continued)

File No.	Mill Code	Fin- ish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units						
						Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.				
Mill F--42-lb. Linerboard																		
150980	F-33	--	6/ 2/52	5/15/52	--	45.0	42.4	43.4	16.2	15.0	15.4	116	83	98	41	36	38	4
151056	F-34	W.F.	6/7/ 52	5/20/52	--	45.0	42.0	44.0	15.2	14.0	14.5	118	84	101	41	35	38	4
151057	F-35	W.F.	6/ 7/52	5/21/52	--	45.6	42.2	44.1	16.0	14.4	15.1	114	72	99	42	35	38	4
151058	F-36	W.F.	6/ 7/52	5/22/52	--	46.0	41.0	44.2	15.2	13.8	14.5	118	90	106	40	34	37	4
151091	F-37	W.F.	6/10/52	5/29/52	--	44.2	42.0	43.2	14.5	12.5	13.5	115	86	100	40	32	36	4
Current Mill Average:								43.8			14.6			101			37	
Cumulative Mill Average:								43.2			14.2			105			39	
Mill Factor, %:								101.4			102.8			96.2			94.9	
Mill Index, %:								101.6			104.3			95.3			102.8	

TABLE IX

Mill G--42-lb. Linerboard													
151035	G-420	WFL	6/ 2/52	5/29/52	1	44.2	43.0	43.8	14.2	12.7	13.5	120	80
151036	G-421	WFL	6/ 2/52	5/29/52	1	45.8	43.0	44.1	14.5	12.4	13.3	129	80
151130	G-422	WFL	6/13/52	6/ 7/52	1	43.4	41.3	42.4	13.4	11.5	12.4	145	92
151131	G-423	WFL	6/13/52	6/ 7/52	1	43.8	41.4	42.3	13.2	11.9	12.4	129	85
151145	G-424	WFL	6/16/52	6/10/52	1	45.4	44.0	44.2	14.9	12.8	14.0	135	84
151146	G-425	WFL	6/16/52	6/10/52	1	45.6	44.0	44.5	14.4	12.6	13.2	132	82
151188	G-426	WFL	6/23/52	6/19/52	1	44.0	42.4	43.3	14.2	13.0	13.6	129	89
151189	G-427	WFL	6/23/52	6/19/52	1	44.0	43.2	43.7	14.1	12.7	13.4	134	86
Current Mill Average:						43.5		13.2		107		35	
Cumulative Mill Average:						42.9		14.1		107		36	
Mill Factor, %:						101.4		93.6		100.0		97.2	
Mill Index, %:						100.9		94.3		100.9		97.2	

^a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

See next page.

TABLE X

INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1952 (continued)

315 Weight, lb. Min. Av.	Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		Elmendorf Tear, g./sheet		Av.							
	Max.	Min.	Max.	Min.	Max.	Min.	In	Across								
Mill H--42-lb. Linerboard																
42.0	42.8	12.9	11.9	12.3	122	75	101	39	33	36	456	304	370	456	344	401 ^a
42.4	43.2	12.7	11.9	12.2	117	81	106	37	32	35	448	328	387 ^a	464	352	401 ^a
41.8	42.9	13.5	12.1	12.8	145	90	108	37	29	32	416	256	357 ^a	448	368	404 ^a
41.8	42.4	12.3	11.7	12.0	133	83	111	37	31	33	496	344	392 ^a	440	344	387 ^a
42.0	43.3	13.9	11.9	12.6	145	79	105	40	30	35	448	288	357 ^a	472	392	431 ^a
42.9				12.4			106			34			373			405
43.0				14.0			105			36			381			407
99.8				88.6			101.0			94.4			97.9			99.5
99.5				88.6			100.0			94.4			99.7			99.5

TABLE XI

Mill I--42-lb. Linerboard																
42.2	42.6	13.0	12.1	12.7	118	87	102	33	29	31	392	288	313	416	328	354 ^a
42.0	43.1	13.7	12.5	13.1	124	86	108	35	30	32	408	320	355 ^a	432	328	378 ^a
42.8				12.9			105			32			334			366
42.9				13.5			106			34			345			402
99.8				95.6			99.1			94.1			96.8			91.0
99.3				92.1			99.1			88.9			89.3			89.9

e specimens which tore beyond the 3/8-inch limit.

TABLE X

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1952 (continued)

File No.	Mill Code	Fin- ish	Date Recd.	Date Made	Mch. No.	Basis Weight,		Caliper,		Bursting Strength,		G. E. Puncture,					
						lb.	points	p.s.i. gage	units								
						Max. Min.	Max. Min.	Max. Min.	Max. Min.								
Mill H-42-1b. Linerboard																	
151126	H-320	WFLS	6/12/52	6/2/52	2	43.8	42.0	42.8	12.9	11.9	12.3	122.75	101	39	33	36	456
151127	H-321	WFLS	6/12/52	6/3/52	2	43.8	42.4	43.2	12.7	11.9	12.2	117.81	106	37	32	35	448
151173	H-322	WFLS	6/19/52	6/10/52	2	44.0	41.8	42.9	13.5	12.1	12.8	145.90	108	37	29	32	416
151174	H-323	WFLS	6/19/52	6/11/52	2	43.0	41.8	42.4	12.3	11.7	12.0	133.83	104	37	31	33	496
151201	H-324	WFLS	6/25/52	6/16/52	2	44.0	42.0	43.3	13.9	11.9	12.6	145.79	105	40	30	35	448
Current Mill Average:						42.9		12.4		106		34					
Cumulative Mill Average:						43.0		14.0		105		36					
Mill Factor, %:						99.8		88.6		101.0		94.4					
Mill Index, %:						99.5		88.6		100.0		94.4					

TABLE XI

Mill I-42-1b Linerboard																		
150981	I-237	WFLS	6/2/52	5/21/52	1	43.4	42.2	42.6	13.0	12.1	12.7	118	87	102	33	29	31	392
151090	I-238	WFLS	6/9/52	6/3/52	1	44.0	42.0	43.1	13.7	12.5	13.1	124	86	108	35	30	32	408
Current Mill Average:								42.8			12.9			105			32	
Cumulative Mill Average:								42.9			13.5			106			34	
Mill Factor, %:								99.8			95.6			99.1			94.1	
Mill Index, %:								99.3			92.1			99.1			88.9	

^a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XII

OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1952 (continued)

Height, Min. Av.	Caliper, points		Bursting Strength, P.S.i. gage		G. E. Puncture, units		Elmendorf Tear, g./sheet	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
Mill J--42-lb. Linerboard								
41.4	13.3	12.0	12.8	97	32	28	400	320
41.8	13.1	12.2	12.7	80	32	28	408	320
42.2	14.1	13.2	13.6	91	34	28	392	296
43.2	13.8	12.9	13.3	89	33	28	440	312
43.4	14.0	12.9	13.3	90	34	28	472	352
43.8	13.9	12.8	13.2	80	32	28	408	328
43.4	13.8	12.9	13.2	100	31	26	416	296
42.8	13.5	12.8	13.1	91	32	28	368	320
42.0	13.9	13.0	13.3	87	31	28	384	288
42.0	14.0	13.0	13.4	101	30	27	352	304
43.1			13.2				350	
42.8			13.9				355	
100.7			95.0				98.6	
100.0			94.3				93.6	

TABLE XIII

Mill K--42-lb. Linerboard

No samples submitted.

TABLE XII

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1952 (continued)

File No.	Mill Code	Fish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		Elmendorf g./In		
						Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	
Mill J--42-lb. Linerboard																
50994	J-355	B.F.	6/ 2/52	5/ 8/52	1	42.4	41.4	42.0	13.3	12.0	12.8	128	97	110	320	371 ^a
50995	J-356	B.F.	6/ 2/52	5/ 8/52	1	42.0	41.8	41.9	13.1	12.2	12.7	139	80	112	408	363 ^a
51033	J-357	B.F.	6/ 2/52	4/16/52	1	44.0	42.2	43.4	14.1	13.2	13.6	132	91	112	392	349 ^a
51034	J-358	B.F.	6/ 2/52	5/24/52	1	44.2	42.2	43.2	13.8	12.9	13.3	128	89	109	440	359 ^a
51088	J-359	B.F.	6/ 9/52	6/ 1/52	1	44.6	43.4	44.1	14.0	12.9	13.3	133	90	111	472	353 ^a
51089	J-360	B.F.	6/ 9/52	6/ 1/52	1	44.2	42.4	43.8	13.9	12.8	13.2	122	80	108	408	367 ^a
51147	J-361	B.F.	6/16/52	6/ 7/52	1	44.2	42.4	43.4	13.8	12.9	13.2	136	100	114	416	346 ^a
51148	J-362	B.F.	6/16/52	6/ 7/52	--	44.2	42.8	43.4	13.5	12.8	13.1	133	91	114	368	340 ^a
51186	J-363	B.F.	6/23/52	6/14/52	1	43.6	42.0	42.7	13.9	13.0	13.3	121	87	107	384	327 ^a
51187	J-364	B.F.	6/23/52	6/14/52	1	43.8	42.0	42.8	14.0	13.0	13.4	132	101	114	352	323
Current Mill Average:								43.1			13.2			111	30	350
Cumulative Mill Average:								42.8			13.9			106	33	355
Mill Factor, %:								100.7			95.0			104.7	90.9	98.6
Mill Index, %:								100.0			94.3			104.7	83.3	93.6

TABLE XIII

Mill K--42-lb. Linerboard

No samples submitted.

TABLE XIV

OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1952 (continued)

Weight, lb.	Min.	Av.	Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		Elmendorf Tear, g./sheet												
			Max.	Min.	Av.	Max.	Min.	Av.	In		Across										
									Max.	Min.	Max.	Min.	Av.								
Mill L--42-lb. Linerboard																					
41.6	42.2		13.9	12.3	13.2	129	74	102	37	31	34	336	296	315 ^a	408	328	369 ^a				
43.4	44.0		14.6	13.3	13.9	128	63	100	40	34	37	400	320	350 ^a	424	344	390 ^a				
42.4	43.6		15.0	13.5	14.4	119	66	96	38	30	35	416	320	356 ^a	408	320	369 ^a				
42.4	44.1		14.8	13.4	14.3	128	80	107	39	31	35	400	328	367 ^a	432	360	387 ^a				
43.0	43.8		14.8	13.6	14.2	133	92	113	36	32	34	440	328	379 ^a	448	328	381 ^a				
42.2	43.1		13.8	12.1	12.9	128	83	105	34	29	32	360	304	329 ^a	416	328	375 ^a				
41.8	42.3		14.3	13.2	13.9	122	71	99	36	31	33	392	320	353 ^a	432	336	379 ^a				
42.0	42.4		13.8	12.0	12.8	127	75	105	37	31	34	392	312	357 ^a	432	376	401 ^a				
43.2					13.7			103			34			350			381				
42.9					13.7			106			36			361			390				
100.7					100.0			97.2			94.4			97.0			97.7				
100.2					97.9			97.2			94.4			93.6			93.6				

TABLE XV

Mill M--42-lb. Linerboard																	
40.2	41.5	13.6	12.8	13.2	130	88	104	36	30	32	416	320	377 ^a	424	304	363 ^a	
40.8	42.5	13.2	12.2	12.7	133	97	117	35	30	32	456	336	391 ^a	416	304	368 ^a	
42.0	43.8	13.6	13.0	13.2	130	92	110	35	30	33	440	312	389 ^a	448	352	395 ^a	
40.0	41.9	13.5	12.5	13.1	140	92	114	36	29	32	488	304	399 ^a	416	336	377 ^a	
41.8	43.2	13.9	12.8	13.4	122	84	106	39	31	35	448	296	378 ^a	432	376	403 ^a	
41.8	42.6	14.0	12.9	13.4	122	95	106	36	31	34	432	336	383	432	352	391 ^a	
40.0	41.5	13.7	12.8	13.2	133	91	108	34	30	32	384	296	349 ^a	448	360	405 ^a	
	42.4			13.2			109			33			381			386	
	42.8			13.8			105			37			388			406	
	99.1			95.7			103.8			89.2			98.2			95.1	
	98.4			94.3			102.8			91.7			101.9			94.8	

specimens which tore beyond the 3/8-inch limit.

TABLE XIV

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1952 (continued)

File No.	Mill Code	Fin- ish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units						
						Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	
Mill L--42-lb. Linerboard																		
150983	L-91		6/ 2/52	4/29/52	1	43.0	41.6	42.2	13.9	12.3	13.2	129	74	102	37	31	34	33
150984	L-92		6/ 2/52	5/ 4/52	1	45.2	43.4	44.0	14.6	13.3	13.9	128	63	100	40	34	37	40
151084	L-93		6/ 9/52	5/24/52	1	45.4	42.4	43.6	15.0	13.5	14.4	119	66	96	38	30	35	41
151085	L-94		6/ 9/52	5/27/52	1	46.0	42.4	44.1	14.8	13.4	14.3	128	80	107	39	31	35	40
151142	L-95		6/16/52	5/16/52	1	44.4	43.0	43.8	14.8	13.6	14.2	133	92	113	36	32	34	41
151143	L-96		6/16/52	5/26/52	1	43.8	42.2	43.1	13.8	12.1	12.9	128	83	105	34	29	32	30
151182	L-97		6/23/52	6/ 8/52	1	43.0	41.8	42.3	14.3	13.2	13.9	122	71	99	36	31	33	30
151183	L-98		6/23/52	6/ 9/52	1	43.2	42.0	42.4	13.8	12.0	12.8	127	75	105	37	31	34	30
Current Mill Average:						43.2		13.7		13.2		103		34		34		30
Cumulative Mill Average:						42.9		13.7		13.6		106		36		94.4		30
Mill Factor, %:						100.7		100.0		97.2		94.4		94.4		94.4		30
Mill Index, %:						100.2		97.9		97.2		94.4		94.4		94.4		30

TABLE XV

Mill M--42-lb. Linerboard

150978	M-95	W.	6/ 2/52	5/18/52	2	43.8	40.2	41.5	13.6	12.8	13.2	130	88	36	30	32	41
150979	M-96	W.	6/ 2/52	5/20/52	2	43.6	40.8	42.5	13.2	12.2	12.7	133	97	35	30	32	41
151039	M-97	W.	6/ 3/52	5/28/52	2	45.8	42.0	43.8	13.6	13.0	13.2	130	92	35	30	33	41
151040	M-98	W.	6/ 3/52	5/29/52	2	44.2	40.0	41.9	13.5	12.5	13.1	140	92	36	29	32	41
151086	M-99	W.	6/ 9/52	6/ 2/52	2	45.0	41.8	43.2	13.9	12.8	13.4	122	84	39	31	35	44
151087	M-100	W.	6/ 9/52	6/ 2/52	4	44.2	41.8	42.6	14.0	12.9	13.4	122	95	36	31	34	41
151180	M-101	W.	6/20/52	6/ 9/52	2	43.0	40.0	41.5	13.7	12.8	13.2	133	91	34	30	32	41
Current Mill Average:						42.4		13.2		13.2		109		33		33	
Cumulative Mill Average:						42.8		13.8		13.8		105		37		89.2	
Mill Factor, %:						99.1		95.7		103.8		103.8		89.2		89.2	
Mill Index, %:						98.4		94.3		102.8		102.8		91.7		91.7	

^a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XVI

INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1952 (continued)

Weight, lb.	Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		Elmendorf Tear, g./sheet									
	Av.	Max. Min.	Av.	Max. Min.	Av.	Max. Min.	Av.	Max. Min.	In	Across						
<u>Mill E-44/46-lb. Drum Linerboard</u>																
6.6	48.0	14.8	13.4	14.1	118	83	96	42	33	37	504	400	447 ^a	440	360	406 ^a
7.0	47.9	15.0	13.3	14.3	126	83	102	39	35	37	488	408	447 ^a	448	352	396 ^a
0.0	41.1	14.0	12.5	13.3	118	94	109	34	31	32	480	360	393 ^a	424	344	383 ^a
6.8	48.8	15.7	14.1	15.0	115	77	94	42	36	39	504	392	445 ^a	448	296	392 ^a
7.2	48.1	15.5	13.7	14.6	127	77	105	39	34	37	488	368	431 ^a	408	328	369 ^a
46.8				14.3			101			37			433			389
47.2				14.3			100			40			444			422
99.2				100.0			101.0			92.5			97.5			92.2

specimens which tore beyond the 3/8-inch limit.

TABLE XVI

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1952 (continued)

File No.	Mill Code	Fin- ish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units					
						Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.			
<u>Mill E--44/46-lb. Drum Linerboard</u>																	
151043	E-340	W.F.	6/ 5/52	6/ 2/52	1	49.8	46.6	48.0	14.8	13.4	14.1	118	83	96	42	33	37
151128	E-342	W.F.	6/12/52	6/ 9/52	1	48.6	47.0	47.9	15.0	13.3	14.3	126	83	102	39	35	37
151144	E-343	W.F.	6/16/52	6/10/52	1	43.0	40.0	41.1	14.0	12.5	13.3	118	94	109	34	31	32
151181	E-344	W.F.	6/20/52	6/17/52	1	50.0	46.8	48.8	15.7	14.1	15.0	115	77	94	42	36	39
151203	E-345	W.F.	6/25/52	6/20/52	1	49.2	47.2	48.1	15.5	13.7	14.6	127	77	105	39	34	37
Current Mill Average:						46.8		14.3		101		37					
Cumulative Mill Average:						47.2		14.3		100		40					
Mill Factor, %:						99.2		100.0		101.0		92.5					

^a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

As a supplementary part of the Continuous Baseline Study, comparisons of the mill test results with those obtained at The Institute of Paper Chemistry on corresponding samples have been included in this report. As may be noted in Table XVII, the atmospheric conditions used prior to and during the testing period varied considerably.

TABLE XVII

Mill Code	Preconditioning			Conditioning		
	R.H., %	Temp., ° F.	Time, hr.	R.H., %	Temp., ° F.	Time, hr.
A	No preconditioning			42-62	88-96	—
B	53-68	54-84	1/2 - 1	50-72	70	24-48
C	47-54	72-78	2-144	46-54	73-77	8-168
D	30-31	78	8	49-53	71-73	16
E	No preconditioning			61-62	80-84	—
F	46-54	71-76	24	55-60	70-75	48
G	No preconditioning			50	73	24-48
H	No preconditioning			50	73	24
I	No preconditioning			44-64	84-85	—
J	No preconditioning			50	72-73	1/2
K	No samples submitted					
L	No preconditioning			53-60	79-98	—
M	No preconditioning			47-1/2 to 80	66-92	—
E*	No preconditioning			41-65	86-96	—

* Drum linerboard.

A summary of the mill comparisons for the current period as compared with the previous period may be seen in Tables XVIII and XIX,

respectively. The comparison for the various mills is given in Tables XX to XXXII, for the 42-lb. liner samples. A comparison of the special drum stock is given in Table XXXIII. In all the comparisons given in Tables XVIII to XXXIII, the Institute's test values have been used as the reference line.

A comparison of the test data in Tables XVIII and XIX indicates that in the majority of cases there is good agreement between the mill and institute data. Table XVIII shows the average difference encountered in the comparison of Institute and mill results for the sample lots submitted by each mill for the current period, as well as the maximum difference encountered in comparing the Institute and mill test results for a given sample lot. In Table XIX, the average differences shown for each test in Table XVIII have been calculated on a percentage basis for each mill. In addition, for purposes of comparison, the average percentage differences for the preceding two periods are shown.

It may be noted in Table XIX that the maximum variation between the average basis weight results of the Institute and those of a given mill on corresponding samples is one per cent for the current period. This figure compares favorably with the maximum variation of two per cent for the preceding two periods. Further, it may be noted that the average basis weight results for Mills E, F, H, and M are higher than those for the Institute, whereas the results for Mills A, B, C, D, G, I, and L are lower and the result for Mill J is the same. In general, the agreement in basis weight results is very good for the current period.

The maximum variation in caliper for the current period is three per cent. Compared with the values for the Institute, the average result for Mill H is the same whereas the results for Mills A, B, C, D, E, F, G, I, L and M are lower and the result for Mill J is higher. The accord between Institute and mill caliper values is good.

It may be noted in Table XIX that the bursting strength results exhibit a maximum variation of six per cent for the current period. The average results for Mills B, C, D, E, F, G, I, J, L, and M are higher than those for the Institute, whereas the results for Mills A and H are the same. The agreement in bursting strength results is good with possible exceptions for Mills D, E, F, and M.

The G. E. puncture results exhibit a maximum variation of thirty-nine per cent for the current period. Compared with the values for the Institute, the results for Mills B, I, and M are lower, whereas the results for Mills A, E, F, G, and J are higher and the results for Mill C and H are the same. The average test value reported by Mill M appears to be abnormally small. The agreement between the Institute and mill results is good with the exception of the variations for Mills E and M.

It may be seen in Table XIX that the average machine direction tear results for Mills A, C, I, and M are higher than those for the Institute, whereas the average results for Mills B, D, E, F, G, H, J, and L are lower. The maximum variation for the current period is nine per cent. The difference encountered for Mill G appears to be excessive.

With regard to the cross-machine direction tear results, it

may be noted that the average results for Mills A, C, D, E, F, I, J, L, and M are higher than those for the Institute whereas the average results for Mills B, G, and H are lower. The maximum variation for the current period is twelve per cent. Only the differences encountered for Mills I and M appear to be excessive.

TABLE XVIII
SUMMARY OF TEST RESULT COMPARISONS
(Average Mill and Institute Results)

Mills*	A	B	C	D	E	F	G	H	I	J	L	M
No. Samples Compared	6	20	17	11	2	5	8	5	2	10	8	7
<u>Basis Weight</u>												
Institute	43.2	43.1	43.1	43.8	41.8	43.8	43.5	42.9	42.8	43.1	43.2	42.4
Mill	43.0	43.0	43.0	43.5	42.2	44.3	43.2	43.4	42.5	43.1	42.8	42.5
Av. Diff.**	-0.2	-0.1	-0.1	-0.3	+0.4	+0.5	-0.3	+0.5	-0.3	0.0	-0.4	+0.1
Max. Diff.***	+0.9	-0.7	-1.1	-0.7	+0.6	+0.8	-0.9	+0.7	-0.4	+0.5	-1.4	+0.6
<u>Caliper</u>												
Institute	12.8	13.8	13.0	13.6	12.9	14.6	13.2	12.4	12.9	13.2	13.7	13.2
Mill	12.5	13.6	12.8	13.4	12.6	14.2	12.9	12.4	12.5	13.5	13.4	13.0
Av. Diff.**	-0.3	-0.2	-0.2	-0.2	-0.3	-0.4	-0.3	0.0	-0.4	+0.3	-0.3	-0.2
Max. Diff.***	-0.5	-0.8	-0.6	-0.4	-0.4	-0.7	-0.6	-0.2	-0.4	+0.4	-0.5	-0.5
<u>Bursting Strength</u>												
Institute	114	105	109	105	105	101	107	106	105	111	103	109
Mill	114	107	111	111	111	107	110	106	110	112	108	116
Av. Diff.**	0	+2	+2	+6	+6	+6	+3	0	+5	+1	+5	+7
Max. Diff.***	+8	+8	+9	+11	+15	+8	+5	-4	+7	+7	+10	+9
<u>G. E. Puncture</u>												
Institute	35	31	36	38	32	37	35	34	32	30	34	33
Mill	39	29	36	--	39	40	39	34	29	31	--	20
Av. Diff.**	+4	-2	0	--	+7	+3	+4	0	-3	+1	--	-13
Max. Diff.***	+7	-5	-4	--	+9	+4	+8	-2	-2	+3	--	-15
<u>Tearing Strength, in</u>												
Institute	339	330	362	379	382	382	359	373	334	350	350	381
Mill	349	308	365	367	372	369	325	353	344	344	341	403
Av. Diff.**	+10	-22	+3	-12	-10	-13	-34	-20	+10	-6	-9	+22
Max. Diff.***	+15	-48	+30	-35	-11	-34	-44	-36	+34	-42	-43	+53
<u>Tearing Strength, across</u>												
Institute	401	375	408	412	351	420	382	405	366	363	381	386
Mill	406	365	424	416	358	425	366	401	404	364	382	434
Av. Diff.**	+5	-10	+16	+4	+7	+5	-16	-4	+38	+1	+1	+48
Max. Diff.***	+18	-44	+56	+35	+28	+13	-36	-22	+57	+32	+41	+69

* Comparison based on averages involves only those samples on which mill test data were submitted.

** Average difference is the difference between the Institute mill average and the mill average based on mill test data.

*** Maximum difference encountered in comparing the Institute average and the mill average for any sample submitted by that particular mill.

TABLE XIX

SUMMARY OF TEST RESULTS--COMPARISON BY PERIODS

	Basis Weight	Caliper	Average Difference, %		Tearing Strength in	Tearing Strength across
			Bursting Strength	G. E. Puncture		
Mill A						
Current period	-0.5	-2	0	+11	+3	+1
59th period	-1	-0.8	-0.9	+6	+3	+2
58th period	-0.7	-2	+0.9	+3	+6	+4
Mill B						
Current period	-0.2	-1	+2	-6	-7	-3
59th period	+0.7	-4	-5	-9	-9	-5
58th period	+0.2	-1	-4	-9	-7	0
Mill C						
Current period	-0.2	-2	+2	0	+0.8	+4
59th period	0	-0.7	+1	0	-5	+3
58th period	+0.2	-0.7	-0.9	-6	-2	+1
Mill D						
Current period	-0.7	-1	+6	--	-3	+1
59th period	-0.5	0	+2	--	-4	+2
58th period	-0.5	-1	-0.9	--	-6	-2
Mill E						
Current period	+1	-2	+6	+22	-3	+2
59th period	--	--	--	--	--	--
58th period	--	--	--	--	--	--
Mill F						
Current period	+1	-3	+6	+8	-3	+1
59th period	-1	-3	+3	-3	-9	-2
58th period	-0.7	-3	+6	+2	-3	+0.2
Mill G						
Current period	-0.7	-2	+3	+11	-9	-4
59th period	0	-0.8	+0.9	+6	-6	-3
58th period	+0.2	-2	-2	-6	-8	-7
Mill H						
Current period	+1	0	0	0	-5	-1
59th period	--	--	--	--	--	--
58th period	+0.5	-2	-2	-6	-2	+6
Mill I						
Current period	-0.7	-3	+5	-9	+3	+10
59th period	-0.7	-2	0	+3	+5	+2
58th period	0	-0.8	+2	-10	+5	+3
Mill J						
Current period	0	+2	+0.9	+3	-2	+0.3
59th period	+0.7	+0.8	+0.9	+3	-4	0
58th period	+0.5	0	-3	0	+4	+4
Mill L						
Current period	-0.9	-2	+5	--	-3	+0.3
59th period	-2	-3	-2	--	-11	-7
58th period	-1	-2	-2	--	-16	-8
Mill M						
Current period	+0.2	-2	+6	-39	+6	+12
59th period	-1	-2	+6	-23	+0.5	+9
58th period	-2	-4	+7	-28	-10	-3

TABLE XX

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1952

Institute Data versus Mill Data

Diff.	Caliper, points	IPC	Mill Diff.	Bursting Strength	G. E.		Elmendorf Tear,							
					Puncture, units	g./sheet	In	Across						
									IPC	Mill Diff.	IPC	Mill Diff.		
<u>Mill A-42-1b. Linerboard</u>														
0.7	12.6	12.4	-0.2	116	112	-4	37	36	345 ^a	345	0	389 ^a	407	+18
0.7	12.8	12.4	-0.4	117	110	-7	36	36	336 ^a	349	+13	391 ^a	405	+14
0.1	13.1	12.7	-0.4	110	111	+1	32	36	329 ^a	343	+14	383 ^a	393	+10
0.3	13.0	12.5	-0.5	114	116	+2	36	43	361	376	+15	420 ^a	418	-2
0.2	12.6	12.4	-0.2	114	114	0	35	39	328	341	+13	411 ^a	407	-4
0.9	12.7	12.5	-0.2	113	121	+8	34	41	337 ^a	343	+6	414 ^a	406	-8
0.2	12.8	12.5	-0.3	114	114	0	35	39	339	349	+10	401	406	+5

re specimens which tore beyond the $3/8$ -inch limit.

ted from the totals of the individual readings.

TABLE XX

SUMMARY OF INDIVIDUAL TEST LOTS - JUNE 1 THROUGH JUNE 30 1952

Institute Data versus Mill Data

File No.	Mill Code	Fin- ish	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength		G. E. Puncture, units		Elmer	
					IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill		Diff.
Mill A-42-lb. Linerboard														
151109	A-350	WFLS	6/4/52	2	44.0	43.3	-0.7	12.6	12.4	-0.2	116	112	-4	345 ^a
151110	A-351	WFLS	6/4/52	2	44.0	43.3	-0.7	12.8	12.4	-0.4	117	110	-7	345
151171	A-352	WFLS	6/8/52	1	42.3	42.4	+0.1	13.1	12.7	-0.4	110	111	+1	349 ^a
151172	A-353	WFLS	6/13/52	2	44.4	44.1	-0.3	13.0	12.5	-0.5	114	116	+2	343
151204	A-354	WFLS	6/15/52	2	42.3	42.1	-0.2	12.6	12.4	-0.2	114	114	0	361
151205	A-355	WFLS	6/15/52	2	42.2	43.1	+0.9	12.7	12.5	-0.2	113	121	+8	376
Current Mill Average:					43.2	43.0	-0.2	12.8	12.5	-0.3	114	114	0	341
											35	39	+4	349
											34	41	+7	357 ^a

^a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXI

OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1952 (continued)

Institute Data versus Mill Data

Caliper, points	IPC	Bursting Strength, p.s.i. gage		G. E. Puncture, units		Elmendorf Tear, g./sheet		IPC Mill Diff.		IPC Mill Diff.				
		IPC	Mill Diff.	IPC	Mill Diff.	IPC	Mill Diff.	IPC	Mill Diff.	IPC	Mill Diff.			
Mill B--42-lb. Linerboard														
13.2	13.2	0.0	105	107	+2	31	28	338	-3	313	-25	387 ^a	365	-22
13.5	13.2	-0.3	110	107	-3	32	28	321 ^a	-4	303	-18	382 ^a	356	-26
13.2	13.2	0.0	106	108	+2	31	27	337	-4	299	-38	389 ^a	368	-21
13.3	13.2	-0.1	106	108	+2	32	27	323 ^a	-5	325	+2	381 ^a	389	+8
13.9	13.4	-0.5	105	102	-3	31	30	343	-1	300	-43	368 ^a	366	-2
13.9	13.4	-0.5	100	102	+2	30	29	309 ^a	-1	298	-11	355 ^a	367	+12
13.9	13.3	-0.6	98	102	+4	30	29	331 ^a	-1	303	-28	348 ^a	356	+8
14.2	13.4	-0.8	95	103	+8	30	30	309 ^a	0	311	+2	356 ^a	367	+11
14.0	13.5	-0.5	102	101	-1	31	30	309	-1	307	-2	371 ^a	343	-28
13.8	13.5	-0.3	101	104	+3	30	29	321 ^a	-1	293	-28	359 ^a	338	-21
14.0	13.6	-0.4	102	106	+4	31	29	341 ^a	-2	296	-45	358 ^a	352	-6
13.9	13.6	-0.3	102	105	+3	31	30	353 ^a	-1	305	-48	393 ^a	343	-44
14.0	14.0	0.0	111	112	+1	32	29	328 ^a	-3	319	-9	382 ^a	383	+1
13.8	13.9	+0.1	109	113	+4	32	29	339 ^a	-3	321	-18	364 ^a	367	+3
14.2	14.1	-0.1	113	111	-2	32	29	345	-3	316	-29	398 ^a	380	-18
14.0	13.9	-0.1	110	111	+1	31	29	328	-2	331	+3	389 ^a	398	+9
14.0	13.8	-0.2	106	108	+2	31	28	335 ^a	-3	299	-36	381 ^a	362	-19
14.0	13.8	-0.2	107	109	+2	31	28	322 ^a	-3	323	+1	383 ^a	363	-20
13.8	13.8	0.0	109	108	-1	32	29	327	-3	297	-30	387 ^a	365	-22
14.0	13.9	-0.1	108	108	0	32	28	337	-4	292	-45	378 ^a	369	-9
13.8	13.6	-0.2	105	107	+2	31	29	330	-2	308	-22	375	365	-10

specimens which tore beyond the 3/8-inch limit.

: from the totals of the individual readings.

TABLE XII

SUMMARY OF INDIVIDUAL TEST LOGS--JUNE 1 THROUGH JUNE 30, 1952 (continued)

Institute Data versus Mill Data

File No.	Mill Code	Fin- ish	Date Made	Mch. No.	Basis Weight,		Caliper,		Bursting		Puncture,		Hm			
					lb.	IPC	Diff.	IPC	Mill	Diff.	IPC	Mill		Diff.	IPC	Mill
Mill B=42-lb. Linerboard																
150982	B-595	WF1S	5/19/52	1	42.9	42.7	-0.2	13.2	13.2	0.0	105	107	+2	338	313	-3
151009	B-596	WF1S	5/19/52	1	43.4	42.8	-0.6	13.5	13.2	-0.3	110	107	-3	321 ^a	303	-4
151010	B-597	WF1S	5/19/52	1	42.9	42.8	-0.1	13.2	13.2	0.0	106	108	+2	337	299	-14
151011	B-598	WF1S	5/19/52	1	43.5	43.2	-0.3	13.3	13.2	-0.1	106	108	+2	325 ^a	305	-5
151026	B-599	WF1S	5/26/52	1	43.0	42.7	-0.3	13.9	13.4	-0.5	105	102	-3	343	300	-1
151027	B-600	WF1S	5/26/52	1	43.1	42.6	-0.5	13.9	13.4	-0.5	100	102	+2	309 ^a	298	-1
151028	B-601	WF1S	5/26/52	1	43.2	42.6	-0.6	13.9	13.3	-0.6	98	102	+4	331 ^a	303	-1
151037	B-602	WF1S	5/26/52	1	43.4	42.7	-0.7	14.2	13.4	-0.8	95	103	+8	309 ^a	311	0
151038	B-603	WF1S	5/27/52	1	43.4	43.2	-0.2	14.0	13.5	-0.5	102	101	-1	309	307	-1
151029	B-604	WF1S	5/27/52	1	43.2	43.0	-0.2	13.8	13.5	-0.3	101	104	+3	321 ^a	293	-1
151030	B-605	WF1S	5/27/52	1	43.0	43.3	+0.3	14.0	13.6	-0.4	102	106	+4	341 ^a	296	-4
151031	B-606	WF1S	5/27/52	1	43.3	43.5	+0.2	13.9	13.6	-0.3	102	105	+3	353 ^a	305	-4
151080	B-607	WF1S	6/ 3/52	1	43.8	44.0	+0.2	14.0	14.0	0.0	111	112	+1	328 ^a	319	-1
151081	B-608	WF1S	6/ 3/52	1	43.6	43.7	+0.1	13.8	13.9	+0.1	109	113	+4	339 ^a	321	-1
151082	B-609	WF1S	6/ 3/52	1	43.7	44.0	+0.3	14.2	14.1	-0.1	113	111	-2	345	316	-2
151083	B-610	WF1S	6/ 3/52	1	43.2	43.3	+0.1	14.0	13.9	-0.1	110	111	+1	328	331	+
151155	B-611	WF1S	6/10/52	1	42.3	42.2	-0.1	14.0	13.8	-0.2	106	108	+2	335 ^a	299	-3
151156	B-612	WF1S	6/10/52	1	42.5	42.4	-0.1	14.0	13.8	-0.2	107	109	+2	322 ^a	323	+
151157	B-613	WF1S	6/10/52	1	42.4	42.2	-0.2	13.8	13.8	0.0	109	108	-1	327	297	-3
151158	B-614	WF1S	6/10/52	1	42.5	42.3	-0.2	14.0	13.9	-0.1	108	108	0	337	292	-4
Current Mill Average:					43.1	43.0	-0.1	13.8	13.6	-0.2	105	107	+2	330	308	-2

TABLE XIII

RY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1952 (continued)

Institute Data versus Mill Data

ff.	Caliper, points		IPC	Bursting Strength, p.s.i. gage		IPC	G. E. Puncture, units		IPC	Elmendorf Tear, g./sheet		IPC	In Across		IPC	Mill Diff.	
	IPC	Mill		Diff.	IPC		Mill	Diff.		IPC	Mill		Diff.	IPC			Mill
Mill C--42-1b. Linerboard																	
1	13.4	12.8	-0.6	101	110	+9	36	32	-4	366 ^a	355	-11	414 ^a	398	-16		
0	11.8	11.8	0.0	108	113	+5	35	36	+1	349	354	+5	398 ^a	442	+44		
1	11.8	11.6	-0.2	116	117	+1	35	36	+1	342	344	+2	385 ^a	415	+30		
0	12.9	12.7	-0.2	111	114	+3	33	35	+2	338 ^a	321	-17	405 ^a	393	-12		
1	12.9	12.7	-0.2	111	113	+2	34	34	0	368 ^a	354	-14	401 ^a	402	+1		
2	13.0	13.4	+0.4	105	108	+3	37	37	0	372	372	0	426 ^a	437	+11		
0	13.5	13.4	-0.1	103	109	+6	37	38	+1	387 ^a	403	+16	425 ^a	434	+11		
1	13.0	12.9	-0.1	113	112	-1	39	40	+1	366 ^a	377	+11	427 ^a	462	+35		
1	12.9	13.0	+0.1	107	107	0	39	40	+1	367	396	+29	415 ^a	471	+56		
1	13.2	12.9	-0.3	107	108	+1	35	37	+2	355 ^a	385	+30	391 ^a	445	+54		
2	12.9	12.5	-0.4	110	111	+1	34	36	+2	357	354	-3	387 ^a	404	+17		
5	13.1	12.8	-0.3	114	116	+2	34	36	+2	356 ^a	337	-19	405 ^a	406	+1		
2	13.1	12.9	-0.2	113	113	0	34	34	0	361	344	-17	412 ^a	399	-13		
1	12.9	12.8	-0.1	107	109	+2	37	36	-1	353	354	+1	402 ^a	414	+12		
1	12.8	12.6	-0.2	105	109	+4	37	34	-3	367	365	-2	411 ^a	426	+15		
1	13.4	13.3	-0.1	110	105	-5	37	35	-2	380 ^a	403	+23	417 ^a	435	+18		
2	13.5	13.3	-0.2	104	105	+1	37	36	-1	362	382	+20	409 ^a	433	+24		
1	13.0	12.8	-0.2	109	111	+2	36	36	0	362	365	+3	408	424	+16		

are specimens which tore beyond the 3/8-inch limit.
ted from the totals of the individual readings.

TABLE III

SUMMARY OF INDIVIDUAL TEST LOTS - JUNE 1 THROUGH JUNE 30, 1952 (continued)

Institute Data Versus Mill Data

File No.	Mill Code	Fin- ish	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gauge		G. E. Puncture, units						
					IPC	lb.	IPC	Mill	IPC	Mill	IPC	Mill					
					Diff.	Diff.	Diff.	Diff.	Diff.	Diff.	Diff.	Diff.					
Mill C-42-ib. Linerboard																	
150985	C-368	W.F.	4/17/52	1	43.2	42.1	-1.1	13.4	12.8	-0.6	101	110	+9	36	32	-4	366 ^a
150986	C-371	W.F.	5/14/52	1	43.2	43.2	0.0	11.8	11.8	0.0	108	113	+5	35	36	+1	349
150987	C-372	W.F.	5/14/52	1	43.4	43.3	-0.1	11.8	11.6	-0.2	116	117	+1	35	36	+1	342
150988	C-373	W.F.	5/15/52	1	42.2	42.2	0.0	12.9	12.7	-0.2	111	114	+3	35	35	+2	338 ^a
150989	C-374	W.F.	5/15/52	1	42.4	42.3	-0.1	12.9	12.7	-0.2	111	113	+2	34	34	0	368 ^a
150990	C-375	W.F.	5/20/52	1	43.2	43.4	+0.2	13.0	13.4	+0.4	105	108	+3	37	37	0	372
150991	C-376	W.F.	5/20/52	1	43.3	43.3	0.0	13.5	13.4	-0.1	103	109	+6	37	38	+1	387 ^a
150992	C-377	W.F.	5/21/52	1	45.1	45.0	-0.1	13.0	12.9	-0.1	113	112	-1	39	40	+1	368 ^a
150993	C-378	W.F.	5/21/52	1	44.8	44.9	+0.1	12.9	13.0	+0.1	107	107	0	39	40	+1	367
151159	C-379	W.F.	6/3/52	1	42.7	42.6	-0.1	13.2	12.9	-0.3	107	108	+1	35	37	+2	355 ^a
151160	C-380	W.F.	6/4/52	1	42.5	42.7	+0.2	12.9	12.5	-0.4	110	111	+1	34	36	+2	357
151161	C-381	W.F.	6/9/52	1	42.6	42.1	-0.5	13.1	12.8	-0.3	114	116	+2	34	36	+2	356 ^a
151162	C-382	W.F.	6/9/52	1	42.4	42.2	-0.2	13.1	12.9	-0.2	113	113	0	34	34	0	361
151190	C-383	W.F.	6/12/52	1	43.4	43.3	-0.1	12.9	12.8	-0.1	107	109	+2	37	36	-1	353
151191	C-384	W.F.	6/12/52	1	43.1	43.0	-0.1	12.8	12.6	-0.2	105	109	+4	37	34	-3	367 ^a
151192	C-385	W.F.	6/13/52	1	42.9	43.0	+0.1	13.4	13.3	-0.1	110	105	-5	37	35	-2	380 ^a
151193	C-386	W.F.	6/13/52	1	42.7	42.9	+0.2	13.5	13.3	-0.2	104	105	+1	37	36	-1	362
Current Mill Average:					43.1	43.0	-0.1	13.0	12.8	-0.2	109	111	+2	36	36	0	362

^a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXIII

INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1952 (continued)

Institute Data versus Mill Data

IPC	Caliper, points	Bursting Strength,		IPC	p.s.i. gage	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC Mill Diff.	IPC	IPC
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TABLE XXIV

Mill E--42-lb. Linerboard

13.1	12.7	-0.4	103	118	+15	32	41	+ 9	395 ^a	385	-10	347 ^a	375	+28
12.8	12.6	-0.2	106	104	- 2	31	37	+ 6	369 ^a	358	-11	355 ^a	341	-14
12.9	12.6	-0.3	105	111	+ 6	32	39	+ 7	382	372	-10	351	353	+ 7

specimens which tore beyond the 3/8-inch limit.

from the totals of the individual readings.

SUMMARY OF INDIVIDUAL TEST LOGS--JUNE 1 THROUGH JUNE 30, 1952 (continued)

Institute Data versus Mill Data

File No.	Mill Code	Fin- ish	Date Made	Mch. No.	Basis Weight,		Caliper,		G. E.		IPC Mill Diff.	IPC Mill Diff.	IPC Mill Diff.	IPC Mill I		
					lb.	IPC	points	Strength,	Puncture,							
										P.S.I. gage					units	
IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC		Mill	Diff.	IPC	Mill		Diff.
Mill D--42-lb. Linerboard																
150996	D-537	W.F.	5/25/52	4	43.6	42.9	-0.7	14.0	13.9	-0.1	106	110	+ 4	37	365 ^a	364
151012	D-538	W.F.	5/26/52	4	43.6	43.6	0.0	13.7	13.7	0.0	108	115	+ 7	38	374 ^a	367
151013	D-539	W.F.	5/27/52	4	44.0	43.4	-0.6	13.8	13.9	+0.1	109	112	+ 3	39	382 ^a	384
151041	D-540	W.F.	6/ 1/52	4	44.0	43.6	-0.4	13.6	13.4	-0.2	103	113	+10	35	363 ^a	349
151042	D-541	W.F.	6/ 2/52	4	43.7	43.7	0.0	13.6	13.6	0.0	106	110	+ 4	36	367 ^a	347
151111	D-542	W.F.	6/ 8/52	4	44.8	44.1	-0.7	14.2	13.8	-0.4	98	104	+ 6	38	424 ^a	389
151125	D-543	W.F.	6/ 9/52	4	44.0	43.3	-0.7	13.7	13.4	-0.3	109	114	+ 5	38	371 ^a	354
151166	D-544	W.F.	6/16/52	4	43.9	44.1	+0.2	13.2	13.1	-0.1	103	114	+11	39	395 ^a	392
151177	D-545	W.F.	6/17/52	4	43.5	43.3	-0.2	13.4	13.1	-0.3	103	109	+6	38	373 ^a	369
151184	D-546	W.F.	6/18/52	4	43.3	42.9	-0.4	13.3	12.9	-0.4	106	109	+ 3	37	366 ^a	358
151202	D-547	W.F.	6/20/52	4	43.8	44.0	+0.2	13.1	13.0	-0.1	101	108	+ 7	38	388 ^a	370
Current Mill Average:					43.8	43.5	-0.3	13.6	13.4	-0.2	105	111	+ 6	38	379	367

TABLE XXIV

Mill E--42-lb. Linerboard

151008	E-338	W.F.	5/26/52	1	42.1	42.3	+0.2	13.1	12.7	-0.4	103	118	+15	32	41	+ 9	395 ^a	385
151032	E-339	W.F.	5/27/52	1	41.4	42.0	+0.6	12.8	12.6	-0.2	106	104	- 2	31	37	+ 6	369 ^a	358
Current Mill Average:					41.8	42.2	+0.4	12.9	12.6	-0.3	105	111	+ 6	32	39	+ 7	382	372

^a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXV
OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1952 (continued)

Institute Data versus Mill Data

Caliper, points	IPC Mill Diff.	Bursting Strength, p.s.i. gage	IPC Mill Diff.	G. E. Puncture, units	IPC Mill Diff.	Elmendorf Tear,			IPC Mill Diff.
						g./sheet		Across	
						In	Mill Diff.	IPC	
Mill F--42-lb. Linerboard									
15.4	14.7	-0.7	98	106	+8	38	40	381 ^a	359
								400 ^a	404
14.5	14.0	-0.5	101	109	+8	38	40	393 ^a	359
								421 ^a	419
15.1	14.9	-0.2	99	106	+7	38	42	383	373
								429 ^a	439
14.5	14.2	-0.3	106	109	+3	37	41	386 ^a	387
								442 ^a	446
13.5	13.4	-0.1	100	105	+5	36	39	367 ^a	367
								407 ^a	420
14.6	14.2	-0.4	101	107	+6	37	40	382	369
								420	425

TABLE XXVI

Mill G--42-lb. Linerboard

13.5	12.9	-0.6	100	104	+4	34	34	351	307	-44	375 ^a	354	-21
13.3	13.0	-0.3	102	105	+3	34	34	359 ^a	321	-38	355 ^a	359	+4
12.4	12.2	-0.2	113	118	+5	31	39	322 ^a	315	-7	373 ^a	351	-22
12.4	12.1	-0.3	111	114	+3	32	39	347	305	-42	367 ^a	351	-16
14.0	13.7	-0.3	107	106	-1	37	44	374 ^a	334	-40	407 ^a	378	-29
13.2	13.1	-0.1	105	110	+5	37	41	369 ^a	336	-33	379 ^a	377	-2
13.6	13.2	-0.4	112	113	+1	36	41	377 ^a	353	-24	384	374	-10
13.4	13.0	-0.4	109	114	+5	35	39	371 ^a	330	-41	418 ^a	382	-36
13.2	12.9	-0.3	107	110	+3	35	39	359	325	-34	382	366	-16

e specimens which tore beyond the 3/8-inch limit.

ed from the totals of the individual readings.

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TABLE XXVI

^a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXVII

Y OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1952 (continued)

Institute Data versus Mill Data

Caliper, points	IPC	Diff.	Bursting Strength,		G. E. Puncture, units	Elmendorf Tear,		IPC	Mill	Diff.	IPC	Mill	Diff.		
			p.s.i. gage	IPC		In	Across								
Mill H-42-lb. Linerboard															
5	12.3	12.4	+0.1	101	102	+1	36	34	-2	370	363	-7	401 ^a	396	-5
2	12.2	12.2	0.0	106	108	+2	35	35	0	387 ^a	373	-14	401 ^a	413	+12
4	12.8	12.6	-0.2	108	104	-4	32	31	-1	357 ^a	323	-34	404 ^a	385	-19
5	12.0	12.1	+0.1	111	109	-2	33	34	+1	392 ^a	356	-36	387 ^a	399	+12
7	12.6	12.6	0.0	105	104	-1	35	34	-1	357 ^a	350	-7	431 ^a	409	-22
5	12.4	12.4	0.0	106	106	0	34	34	0	373	353	-20	405	401	-4

TABLE XXVIII

Mill I--42-lb. Linerboard

+	12.7	12.4	-0.3	102	109	+7	31	29	-2	313	347	+34	354 ^a	411	+57
+	13.1	12.7	-0.4	108	110	+2	32	30	-2	355 ^a	340	-15	378 ^a	396	+18
3	12.9	12.5	-0.4	105	110	+5	32	29	-3	334	344	+10	366	404	+38

ore specimens which tore beyond the 3/8-inch limit.

ted from the totals of the individual readings.

SUMMARY OF INDIVIDUAL TEST LOGS--JUNE 1 THROUGH JUNE 30, 1952 (continued)

File No.	Mill Code	Fin- ish	Date Made	Mch. No.	Basis Weight,		Caliper,		Strength,		Puncture, units				
					lb. IPC	Mill Diff.	IPC	Mill points	IPC	Mill Diff.		p.s.i. gage	IPC Mill Diff.		
<u>Institute Data versus Mill Data</u>															
<u>G. E.</u>															
<u>Bursting</u>															
<u>Mill H--42-lb. Linerboard</u>															
151126	H-320	WFLS	6/ 2/52	2	42.8	43.4	+0.6	12.3	12.4	+0.1	101	102	+1	36	34
151127	H-321	WFLS	6/ 3/52	2	43.2	43.4	+0.2	12.2	12.2	0.0	106	108	+2	35	35
151173	H-322	WFLS	6/10/52	2	42.9	43.3	+0.4	12.8	12.6	-0.2	108	104	-4	32	31
151174	H-323	WFLS	6/11/52	2	42.4	43.0	+0.6	12.0	12.1	+0.1	111	109	-2	33	34
151201	H-324	WFLS	6/16/52	2	43.3	44.0	+0.7	12.6	12.6	0.0	105	104	-1	35	34
Current Mill Average:					42.9	43.4	+0.5	12.4	12.4	0.0	106	106	0	34	34

TABLE XXVIII

<u>Mill I--42-lb. Linerboard</u>																		
150981	I-237	WF1S	5/21/52	1	42.6	42.2	-0.4	12.7	12.4	-0.3	102	109	+7	31	29	-2	313	347
151090	I-238	WF1S	6/ 3/52	1	43.1	42.7	-0.4	13.1	12.7	-0.4	108	110	+2	32	30	-2	355 ^a	340
Current Mill Average:					42.8	42.5	-0.3	12.9	12.5	-0.4	105	110	+5	32	29	-3	334	344

a. This average includes the readings for one or more specimens which tore beyond the $3/8$ -inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXX

INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1952 (continued)

Institute Data versus Mill Data

Caliper, points	Bursting Strength p.s.i. gage	IPC Mill Diff.	IPC Mill Diff.	G. E. Puncture, units	IPC Mill Diff.	Elmendorf Tear,			IPC Mill Diff.	Across I+C Mill Diff.				
						g./sheet								
In														
Mill J--42-lb. Linerboard														
12.8	+3.0	+0.2	110	115	+5	29	31	+2	371 ^a	329	-42	359 ^a	354	-5
12.7	13.0	+0.3	112	112	0	30	31	+1	363 ^a	337	-26	353 ^a	348	-5
13.6	14.0	+0.4	112	110	-2	31	32	+1	349 ^a	377	+28	365 ^a	347	-18
13.3	13.7	+0.4	109	108	-1	31	32	+1	359 ^a	369	+10	349 ^a	349	0
13.3	13.6	+0.3	111	110	-1	31	34	+3	353 ^a	363	+10	392 ^a	391	-1
13.2	13.6	+0.4	108	108	0	31	34	+3	367 ^a	357	-10	361 ^a	393	+32
13.2	13.4	+0.2	114	113	-1	29	31	+2	346 ^a	343	-3	363 ^a	378	+15
13.1	13.3	+0.2	114	115	+1	30	30	0	340 ^a	334	-6	377 ^a	368	-9
13.3	13.6	+0.3	107	114	+7	29	30	+1	327 ^a	333	+6	350 ^a	358	+8
13.4	13.6	+0.2	114	111	-3	29	30	+1	323	301	-22	363 ^a	354	-9
13.2	13.5	+0.3	111	112	+1	30	31	+1	350	344	-6	363	364	+1

TABLE XXX

Mill K--42-lb. Linerboard

No samples submitted.

specimens which tore beyond the 3/8-inch limit.
from the totals of the individual readings.

TABLE XXII

SUMMARY OF INDIVIDUAL TEST LOTS - JUNE 1 THROUGH JUNE 30, 1952 (continued)

Institute Data versus Mill Data

File No.	Mill Code	Fin- ish	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		Element
					IPC	Mill Diff.	IPC	Mill Diff.	IPC	Mill Diff.	IPC	Mill Diff.	
Mill J--42-lb. Linerboard													
150994	J-355	B.F.	5/ 8/52	1	42.0	41.7 -0.3	12.8	13.0 +0.2	110	115 +5	29	31 +2	371 ^a 329 -
150995	J-356	B.F.	5/ 8/52	1	41.9	42.0 +0.1	12.7	13.0 +0.3	112	112 0	30	31 +1	363 ^a 337 -
151033	J-357	B.F.	4/16/52	1	43.4	43.5 +0.1	13.6	14.0 +0.4	112	110 -2	31	32 +1	349 ^a 377 +
151034	J-358	B.F.	5/24/52	1	43.2	43.4 +0.2	13.3	13.7 +0.4	109	108 -1	31	32 +1	359 ^a 369 +
151088	J-359	B.F.	6/ 1/52	1	44.1	44.5 +0.4	13.3	13.6 +0.3	111	110 -1	31	34 +3	353 ^a 363 +
151089	J-360	B.F.	6/ 1/52	1	43.8	43.8 0.0	13.2	13.6 +0.4	108	108 0	31	34 +3	367 ^a 357 -
151147	J-361	B.F.	6/ 7/52	1	43.4	43.0 -0.4	13.2	13.4 +0.2	114	113 -1	29	31 +2	346 ^a 343 -
151148	J-362	B.F.	6/ 7/52	--	43.4	43.3 -0.1	13.1	13.3 +0.2	114	115 +1	30	30 0	340 ^a 334 -
151186	J-363	B.F.	6/14/52	1	42.7	43.2 +0.5	13.3	13.6 +0.3	107	114 +7	29	30 +1	327 ^a 333 +
151187	J-364	B.F.	6/14/52	1	42.8	43.0 +0.2	13.4	13.6 +0.2	114	111 -3	29	30 +1	323 301 -
Current Mill Average:					43.1	43.1 0.0	13.2	13.5 +0.3	111	112 +1	30	31 +1	350 344 -

TABLE XXX

Mill K--42-lb. Linerboard

No samples submitted.

^a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

Institute Data versus Mill Data

Caliper, points IPC Mill	Bursting Strength, p.s.i. gage IPC Mill Diff.	G. E. Puncture, units IPC Mill Diff.	Elmendorf Tear, g./sheet in Across Mill Diff. IPC Mill Diff.
<u>Mill L--42-lb. Linerboard</u>			
13.2	13.0	-0.2	102
13.9	13.7	-0.2	109
14.4	14.2	-0.2	100
14.3	13.8	-0.5	96
14.2	13.8	-0.4	107
12.9	12.8	-0.1	113
13.9	13.6	-0.3	105
12.8	12.7	-0.1	99
			103
			107
			108
			109
			113
			113
			12.8
			12.9
			14.2
			14.3
			14.4
			13.9
			13.2

TABLE XXXII

Mill M--42-1b. Linerboard															
13.2	13.0	-0.2	104	112	+	8	32	23	- 9	377 ^a	430	+53	363 ^a	431	+68
12.7	12.4	-0.3	117	124	+	7	32	17	-15	391 ^a	407	+16	368 ^a	419	+51
13.2	13.2	0.0	110	116	+	6	33	21	-12	389 ^a	435	+46	395 ^a	449	+54
13.1	12.6	-0.5	114	120	+	6	32	18	-14	399 ^a	385	-14	377 ^a	410	+33
13.4	13.3	-0.1	106	113	+	7	35	21	-14	378 ^a	393	+15	403 ^a	472	+69
13.4	13.2	-0.2	106	108	+	2	34	19	-15	383	427	+44	391 ^a	424	+33
13.2	12.9	-0.3	108	117	+	9	32	17	-15	349 ^a	341	- 8	405 ^a	431	+26
13.2	13.0	-0.2	109	116	+	7	33	20	-13	381	403	+22	386	434	+48

specimens which tore beyond the 3/8-inch limit.
11 from the totals of the individual readings.

SUMMARY OF INDIVIDUAL TEST DATA - JUNE 1 THROUGH JUNE 30, 1952 (continued)

Institute Data versus Mill Data

File No.	Mill Code	Fin- ish	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, P.S.I. gage		Puncture, units				
					IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill
Mill L-42-lb. Linerboard															
150983	L-91		4/29/52	1	42.2	41.3	-0.9	13.2	13.0	-0.2	102	109	+7	315 ^a	292
150984	L-92		5/1/52	1	44.0	42.6	-1.4	13.9	13.7	-0.2	100	106	+6	350 ^a	307
151084	L-93		5/24/52	1	43.6	43.4	-0.2	14.4	14.2	-0.2	96	106	+10	356 ^a	359
151085	L-94		5/27/52	1	44.1	43.9	-0.2	14.3	13.8	-0.5	107	113	+6	367 ^a	384
151142	L-95		5/16/52	1	43.8	43.8	0.0	14.2	13.8	-0.4	113	113	0	379 ^a	371
151143	L-96		5/26/52	1	43.1	43.2	+0.1	12.9	12.8	-0.1	105	106	+1	329 ^a	340
151182	L-97		6/18/52	1	42.3	42.2	-0.1	13.9	13.6	-0.3	99	103	+4	353 ^a	331
151183	L-98		6/9/52	1	42.4	42.3	-0.1	12.8	12.7	-0.1	105	107	+2	357 ^a	342

Current Mill Average:

TABLE XXXII

Mill M-42-lb. Linerboard

150978	M-95	W.	5/18/52	2	41.5	41.6	+0.1	13.2	13.0	-0.2	104	112	+ 8	32	23	- 9	377 ^a	430	+
150979	M-96	W.	5/20/52	2	42.5	41.9	-0.6	12.7	12.4	-0.3	117	124	+ 7	32	17	-15	391 ^a	407	+
151039	M-97	W.	5/28/52	2	43.8	44.4	+0.6	13.2	13.2	0.0	110	116	+ 6	33	21	-12	389 ^a	435	+
151040	M-98	W.	5/29/52	2	41.9	41.6	-0.3	13.1	12.6	-0.5	114	120	+ 6	32	18	-14	399 ^a	385	-
151086	M-99	W.	6/ 2/52	2	43.2	43.2	0.0	13.4	13.3	-0.1	106	113	+ 7	35	21	-14	378 ^a	393	+
151087	M-100	W.	6/ 2/52	4	42.6	42.9	+0.3	13.4	13.2	-0.2	106	108	+ 2	34	19	-15	383	427	+
151180	M-101	W.	6/ 9/52	2	41.5	41.6	+0.1	13.2	12.9	-0.3	108	117	+ 9	32	17	-15	349 ^a	341	-
Current Mill Average:					42.4	42.5	+0.1	13.2	13.0	-0.2	109	116	+ 7	33	20	-13	381	403	+

Current Mill Average:

a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXXIII

OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1952 (continued)

Institute Data versus Mill Data

IPC	Caliper, points	IPC Mill	Diff.	Bursting		G. E.		Elmendorf Tear,							
				Strength, p.s.i. gage	IPC Mill	Diff.	Puncture, units	IPC Mill	Diff.	g./sheet	IPC Mill	Diff.			
													IPC Mill	Diff.	
Mill E--44/46-lb. Drum Linerboard															
14.1	12.9	-1.2	96	100 +4	37	40 +3	447 ^a	429 -18	405 ^a	376 -30					
	13.3 ^c			118 ^c		39 ^c				381 ^c					
14.3	13.7	-0.6	102	110 +8	37	40 +3	447 ^a	446 -1	396 ^a	388 -8					
13.3	12.9	-0.4	109	115 +6	32	38 +6	393 ^a	409 +16	385 ^a	382 -1					
15.0	14.7	-0.3	94	90 -4	39	48 +9	445 ^a	483 +38	392 ^a	453 +61					
14.6	13.6	-1.0	105	106 +1	37	39 +2	431 ^a	362 -69	369 ^a	317 -52					
14.3	13.6	-0.7	101	104 +3	37	41 +4	433	426 -7	389	383 -6					

e specimens which tore beyond the 3/8-inch limit

ted from the totals of the individual readings.

TABLE XVIII

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1952 (continued)

Institute Data Versus Mill Data

File No.	Mill Code	Fin- ish	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		G. E. Puncture, units								
					IPC	Mill Diff.	IPC	Mill Diff.	IPC	Mill Diff.							
<u>Mill E--44/46-lb. Drum Linerboard</u>																	
151043	E-340	W.F.	6/ 2/52	1	48.0	47.8	-0.2	14.1	12.9	-1.2	96	100	+4	37	40	+3	447 ^a
	E-341 ^b	W.F.	6/ 3/52	1		47.3 ^c			13.3 ^c			118 ^c			39 ^c		447 ^a
151128	E-342	W.F.	6/ 9/52	1	47.9	46.6	-1.3	14.3	13.7	-0.6	102	110	+8	37	40	+3	393 ^a
151144	E-343	W.F.	6/10/52	1	41.1	42.2	+1.1	13.3	12.9	-0.4	109	115	+6	32	38	+6	445 ^a
151181	E-344	W.F.	6/17/52	1	48.8	49.9	+1.1	15.0	14.7	-0.3	94	90	-4	39	48	+9	431 ^a
151203	E-345	W.F.	6/20/52	1	48.1	47.8	-0.3	14.6	13.6	-1.0	105	106	+1	37	39	+2	
Current Mill Average:					46.8	46.9	+0.1	14.3	13.6	-0.7	101	104	+3	37	41	+4	433

^a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

^b This sample was not received by the Institute.

^c Not included in the current mill average.

Note: All "current mill average" data are calculated from the totals of the individual readings.

