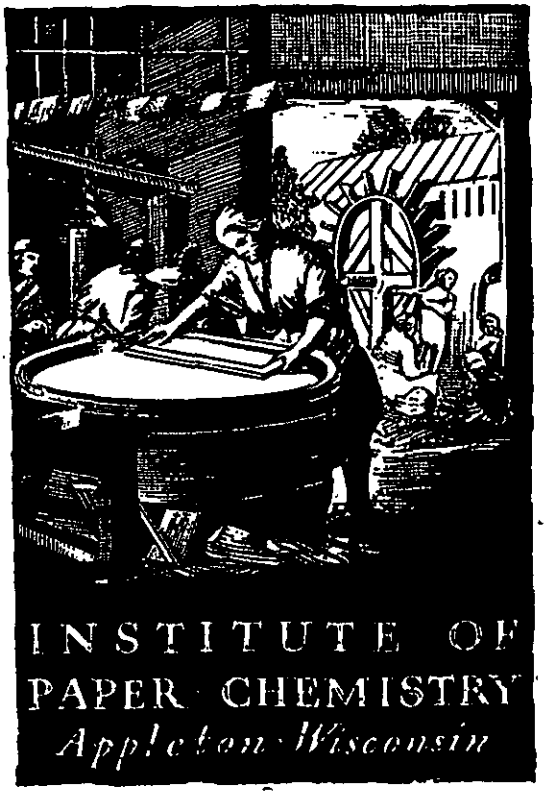

CONTINUOUS BASELINE STUDY

Project 1108-B

Progress Report 12
to
FOURDRINIER KRAFT BOARD INSTITUTE

July 1, 1948

THE INSTITUTE OF PAPER CHEMISTRY

APPLETON, WISCONSIN

CONTINUOUS BASELINE STUDY

Project 1108-B

Progress Report 12

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July 1, 1948

THE INSTITUTE OF PAPER CHEMISTRY

APPLETON, WISCONSIN

In conjunction with the F.K.I. Continuous Baseline Study, sixty-six different sample lots of 42-lb. Fourdrinier kraft linerboard were submitted by nine 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, three samples of special drum stock were also submitted for evaluation. The results on the special stock are reported 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	7
B	12
C	7
D	4
E	1
F	8
G	10
H	9
J	8
	66

The above sample lots were tested for basis weight, caliper, bursting strength, G. E. puncture, and Elmendorf tear. A comparison of the average strength results for each mill may be seen in Table II and

graphically presented in Figures 1 to 6, inclusive. In addition to a comparison of the mill averages, Table II also shows the cumulative F.K.I. averages and the F.K.I. indexes. The cumulative F.K.I. averages include 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. index is 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 furnishes a ready means of comparing the current quality with previous results. For example, the current F.K.I. average basis weight is 43.0 lb., whereas the cumulative F.K.I. average basis weight is 43.1. The index for basis weight determined in per cent as indicated above is 99.8%. This signifies that the current average basis weight is approximately 0.2% lower than the cumulative average which, in this case, covered the period July 25 through May 31.

A comparison of the results in Table II and Figure 1 shows that the average basis weight for all mills is above the 42-lb. specification set forth in Rule 41. Mill D has the highest average basis weight, it being approximately 3.6% higher than the 42-lb. specification. The amount by which the mills exceed the 42-lb. specification is as follows:

Mill Code	Per cent
A	2.9
B	1.4
C	2.1
D	3.6
E	2.4
F	1.9
G	2.4
H	2.4
J	3.1

A comparison of the average basis weight data for the previous period with the current F.K.I. average indicates that the basis weight is substantially the same.

A comparison of the average calipers for the various mills (see Figure 2) shows that the mill averages vary from a low of 13.2 for Mill E to a high of 15.9 for Mill D, the average being 14.6, which is lower than the cumulative average. Although only one sample was submitted by Mill E, it may be noted that the particular sample was considerably higher in density than the other samples submitted as may be seen by comparing the weight-caliper ratios.

The average bursting strength values obtained for each mill are graphically shown in Figure 3. It may be observed that the average bursting strength for the various mills ranges from a low of 94 for Mill E to a high

of 107 for Mills C and J. The current F.K.I. average bursting strength is 103, the same as the cumulative average.

The data of Table II and Figure 4 show that the average G.E. puncture for all mills is 37 units, with Mills D and F having the highest and Mill J the lowest values. In connection with Mill J, it may be observed that this mill had the lowest G. E. puncture during the last period.

A graphic comparison of the Elmendorf tear results for the various mills is given in Figure 5 and 6. The results indicate the current F.K.I. machine direction tear results are approximately 2.1% higher than the cumulative average. Similarly the across-machine direction tear results are approximately 1.4% higher than the cumulative average.

A comparison of the F.K.I indexes indicates that, for the current period, machine and across-machine direction tear are higher than the cumulative averages. Basis weight, caliper, and G. E. puncture, however, are lower than the cumulative averages, whereas bursting strength is the same as the cumulative average.

In order to compare the variation within a given mill, the test results for each particular mill have been tabulated in Tables III to XI for Mills A to J, respectively. In addition to the current averages, cumulative averages for each mill, together with the mill factor and mill index, are given for each mill. The cumulative mill average is the average test results obtained on the samples submitted by the particular mill up to, but not including the current averages. The mill factor and the mill index are obtained as follows:

TABLE II

SUMMARY OF COMPOSITE MILL AVERAGES--JUNE 1 THROUGH JUNE 30, 1948

Code No.	Basis Weight, lb.	Caliper, points	Bursting Strength, points	G. E. Puncture, units	Elmendorf Tear, g./sheet	
					In Direction	Across Direction
A	43.2	15.1	105	39	412	460
B	42.6	14.6	104	36	386	412
C	42.9	14.2	107	38	382	426
D	43.5	15.9	100	40	408	440
E	43.0	13.2	94	36	437	407
F	42.8	14.7	101	40	385	431
G	43.0	14.1	105	37	379	408
H	43.0	15.1	104	37	393	430
J	43.3	14.5	107	33	364	392
Current FKI Average:	43.0	14.6	103	37	394	423
Cumulative FKI Average:	43.1	15.2	103	39	386	417
FKI Index, %:	99.8	96.1	100.0	94.9	102.1	101.4

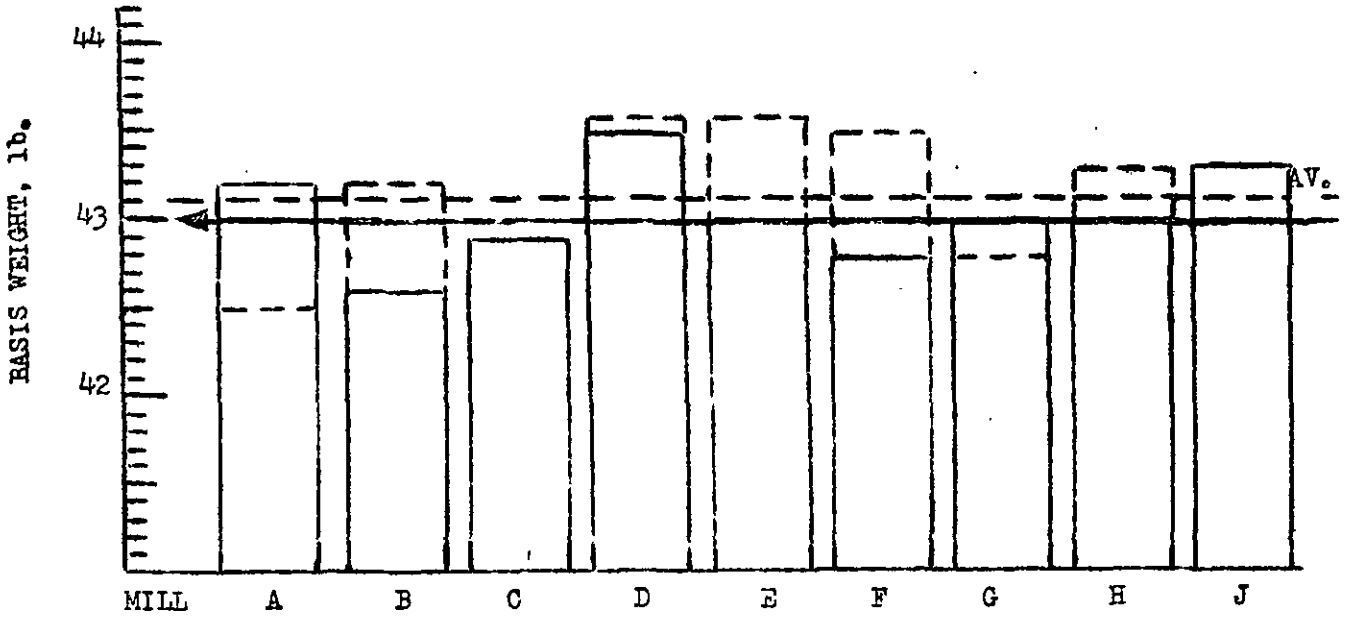
$$\frac{\text{current mill average}}{\text{cumulative mill average}} \times 100 = \text{mill factor (\%)}$$

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

The mill factor and the mill index serve as a ready means for comparing the current mill results either with the previous result for that particular mill or with the cumulative F.K.I. results. As more samples are included and as the test data accumulate, the factors and indexes will have added significance. Starting with the report for December, the reports will contain a comparison of the test data obtained at the mills with that obtained at Appleton.

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

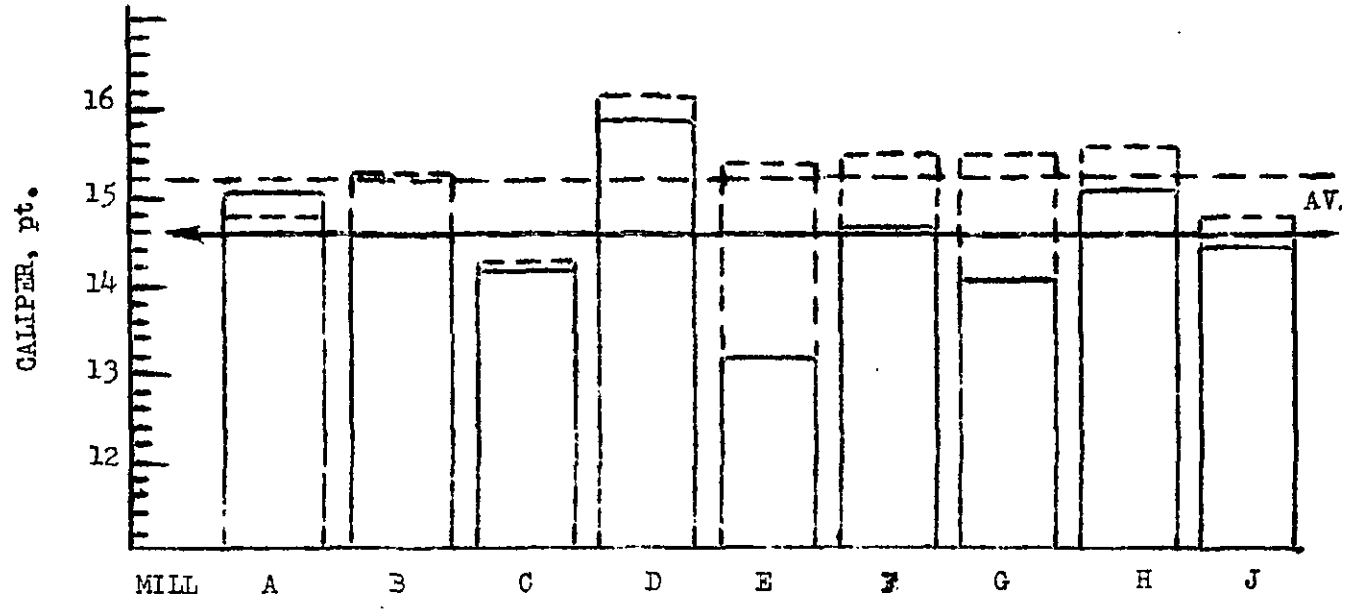
FIGURE 1



COMPARISON OF BASIS WEIGHT RESULTS

(Period June 1 - June 30)

FIGURE 2



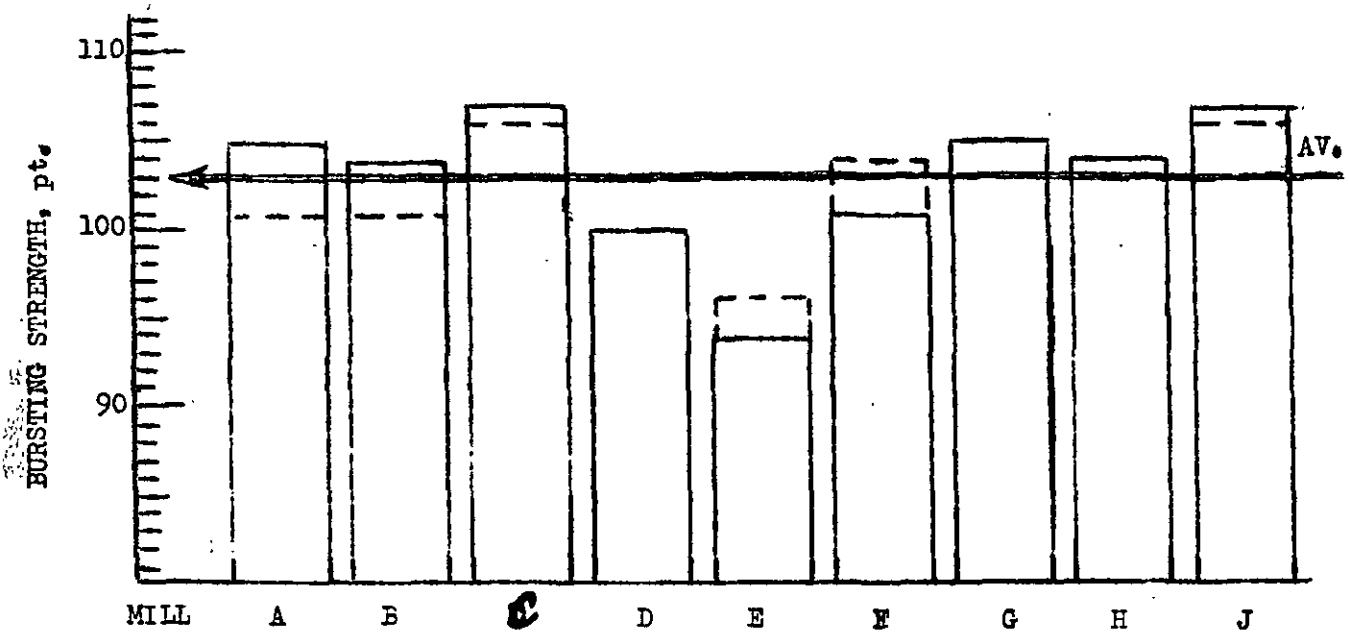
COMPARISON OF CALIPER RESULTS

(Period June 1 - June 30)

Current mill average

Cumulative mill average

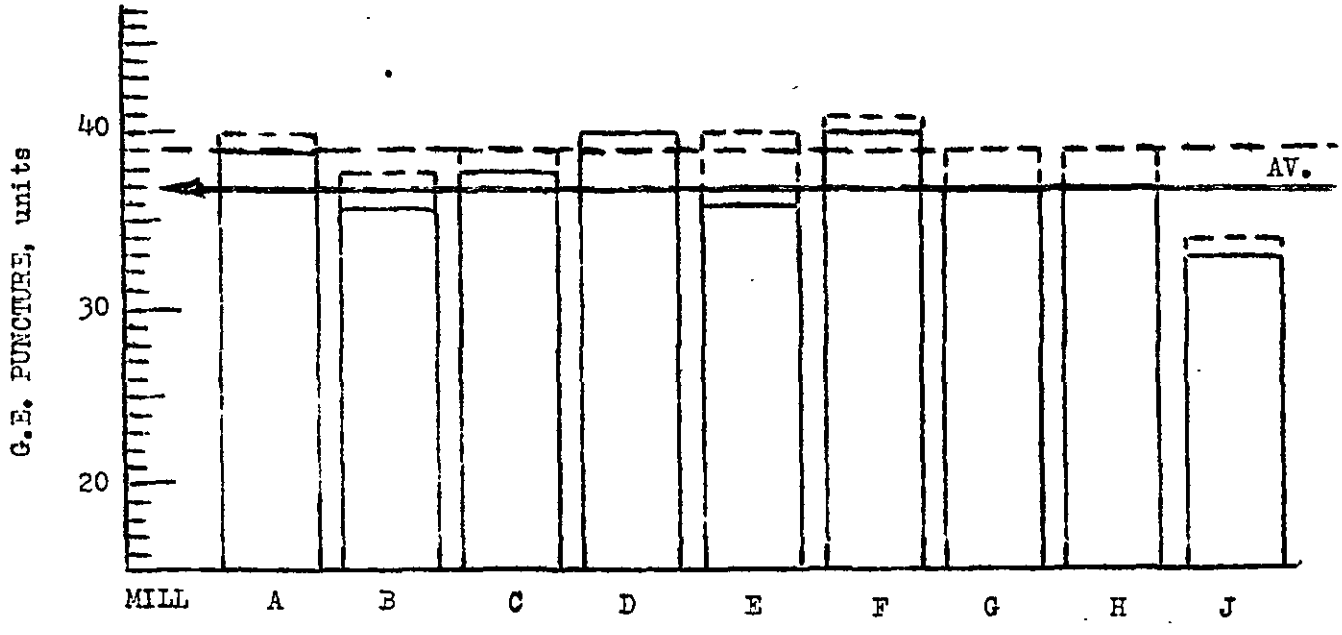
FIGURE 3



COMPARISON OF BURSTING STRENGTH RESULTS

(Period June 1 - June 30)

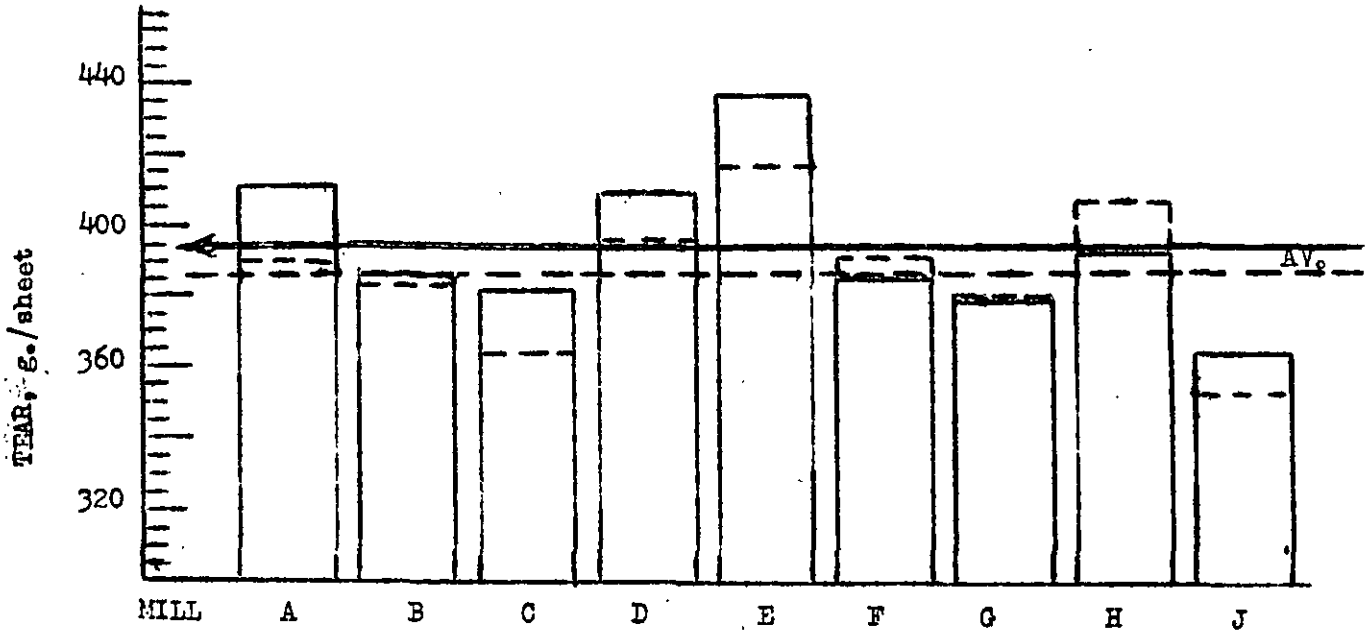
FIGURE 4



COMPARISON OF G.E. PUNCTURE RESULTS

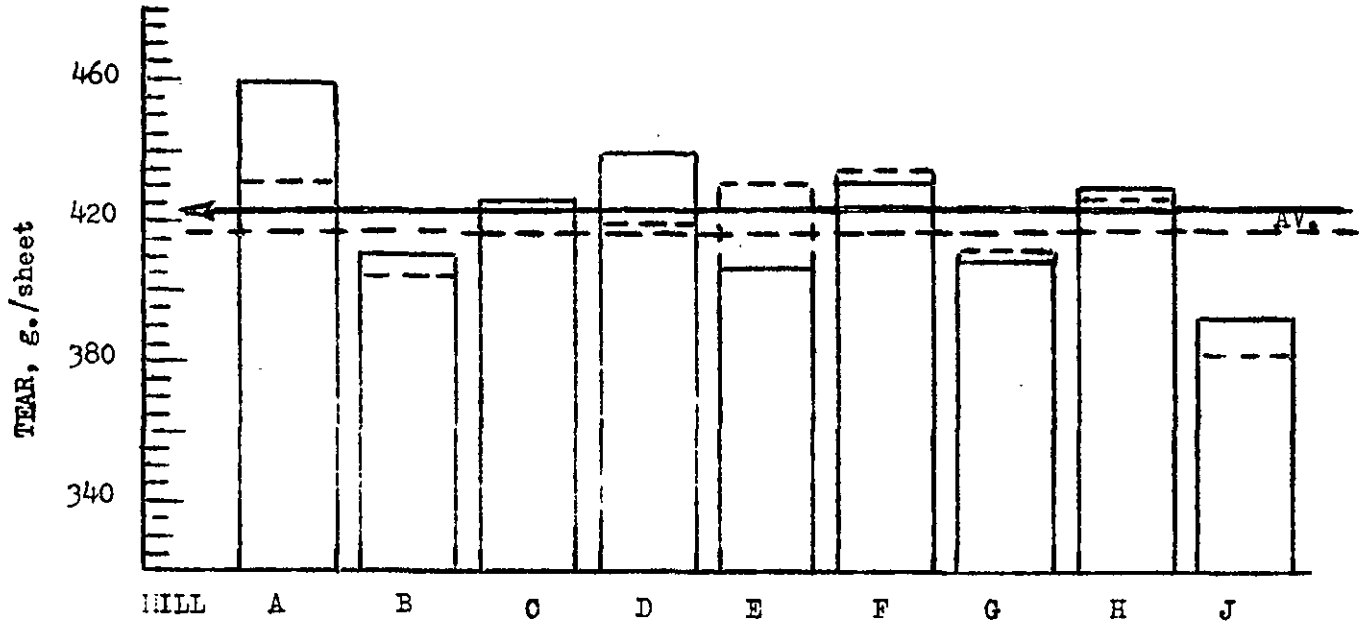
(Period June 1 - June 30)

FIGURE 5



COMPARISON OF TEAR RESULTS, machine direction
(Period June 1 - June 30)

FIGURE 6



COMPARISON OF TEAR RESULTS, across machine direction
(Period June 1 - June 30)

TABLE III

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH June 30, 1948

Basis Weight, lb.			Caliper, points			Bursting Strength, points			G. E. Puncture, units			Elmendorf Tear,* g./sheet					
												In			Across		
Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
Mill A -- 42-lb. Linerboard																	
45.0	43.0	44.0	15.8	14.2	15.1	133	87	106	44	36	40	480	352	416[b]	528	440	473[a]
45.0	42.0	43.2	16.0	13.3	14.9	121	95	107	40	36	38	496	336	393	528	408	455[a]
47.8	42.4	44.2	16.9	14.1	15.4	132	75	108	46	37	41	528	352	431[a]	560	408	481[a]
45.8	42.2	43.7	15.6	14.8	15.1	146	80	106	44	36	40	536	384	453	560	432	480[a]
43.6	41.4	42.3	15.3	14.8	15.1	126	86	106	41	35	38	504	328	416	512	368	460[a]
43.8	41.6	42.4	15.3	14.1	14.8	129	80	104	38	33	36	456	352	397	512	368	441[a]
44.2	41.0	42.9	16.2	15.0	15.6	132	83	101	44	34	39	480	304	376[a]	464	368	429[a]
		43.2			15.1			105			39			412			460
		42.5			14.8			101			40			390			431
		101.6			102.0			104.0			97.5			105.6			106.7
		100.2			99.3			101.9			100.0			106.7			110.3

or one or more specimens which tore beyond the

s, instead of 12.

TABLE III

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH June 30, 1948

File No.	Mill Code	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Basis Weight, lb. Min.	Basis Weight, lb. Av.	Caliper, points Max.	Caliper, points Min.	Caliper, points Av.	Bursting Strength, points Max.	Bursting Strength, points Min.	Bursting Strength, points Av.	G. E. Puncture, units Max.	G. E. Puncture, units Min.	G. E. Puncture, units Av.	Ma
										Mill A -- 42-lb. Linerboard						
132279	A-48	6/ 5/48	5/31/48	2	45.0	43.0	44.0	15.8	14.2	15.1	133	87	106	44	36	40	48
132280	A-49	6/ 5/48	6/ 1/48	2	45.0	42.0	43.2	16.0	13.3	14.9	121	95	107	40	36	38	49
132623	A-50	6/12/48	6/ 7/48	2	47.8	42.4	44.2	16.9	14.1	15.4	132	75	108	46	37	41	52
132662	A-51	6/18/48	6/14/48	2	45.8	42.2	43.7	15.6	14.8	15.1	146	80	106	44	36	40	53
132663	A-52	6/18/48	6/15/48	2	43.6	41.4	42.3	15.3	14.8	15.1	126	86	106	41	35	38	50
132732	A-53	6/26/48	6/21/48	2	43.8	41.6	42.4	15.3	14.1	14.8	129	80	104	38	33	36	45
132733	A-54	6/26/48	6/22/48	2	44.2	41.0	42.9	16.2	15.0	15.6	132	83	101	44	34	39	48
Current Mill Average:							43.2			15.1			105			39	
Cumulative Mill Average:							42.5			14.8			101			40	
Mill Factor, %:							101.6			102.0			104.0			97.5	
Mill Index, %:							100.2			99.3			101.9			100.0	

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

[b]The average of only 11 determinations, instead of 12.

TABLE IV

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1948--Continued

Basis Weight, lb.			Caliper, points			Bursting Strength, points			G. E. Puncture, units			Elmendorf Tear, g./sheet					
												In			Across		
Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
Mill B -- 42-lb. Linerboard																	
45.4	42.0	43.9	15.3	14.2	14.9	122	77	97	40	35	38	480	376	410[a]	472	368	417[a]
44.0	42.2	43.2	15.6	14.2	14.8	109	86	97	39	35	37	464	336	392[a]	480	368	429[a]
43.0	40.8	42.1	15.3	13.7	14.6	129	91	105	36	30	34	400	336	376	480	376	404[a]
44.4	41.4	42.6	15.2	13.9	14.9	114	86	102	39	33	36	432	344	389[a]	448	360	413[a]
43.8	40.0	42.3	15.0	13.8	14.4	123	83	102	40	35	37	448	336	389[a]	456	360	408[a]
44.8	42.2	43.5	15.0	14.0	14.4	126	85	103	42	34	37	464	336	396[a]	512	368	429[a]
44.0	40.0	42.0	14.8	13.8	14.2	124	95	107	41	33	37	496	328	391	480	352	420[a]
43.6	40.6	42.1	14.8	14.0	14.3	122	80	106	39	34	36	392	336	374	480	368	415[a]
44.4	41.8	43.0	15.1	14.1	14.7	128	88	108	38	32	34	424	376	396	464	368	406
44.0	41.0	42.2	15.1	13.9	14.5	122	77	102	39	31	35	416	320	370	448	360	397
41.6	40.0	40.7	14.8	13.2	14.2	119	94	109	38	32	35	416	328	360	448	336	399[a]
43.8	42.0	42.9	15.3	14.0	14.7	120	85	105	40	36	38	416	344	386	440	352	401[a]
		42.6			14.6			104			36			386			412
		43.2			15.3			101			38			383			404
		98.6			95.4			103.0			94.7			100.8			102.0
		98.8			96.1			101.0			92.3			100.0			98.8

[a] or one or more specimens which tore beyond the 3/8-inch limit.

[redacted]

SUM

TABLE IV

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1948--Continued

File No.	Mill Code	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, points			G. E. Puncture, units			In
					Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.
Mill B -- 42-lb. Linerboard																	
132251	B-59	6/ 1/48	5/23/48	3	45.4	42.0	43.9	15.3	14.2	14.9	122	77	97	40	35	38	480
132252	B-60	6/ 1/48	5/24/48	3	44.0	42.2	43.2	15.6	14.2	14.8	109	86	97	39	35	37	464
132298	B-61	6/ 7/48	5/30/48	3	43.0	40.8	42.1	15.3	13.7	14.6	129	91	105	36	30	34	400
132299	B-62	6/ 7/48	6/ 1/48	3	44.4	41.4	42.6	15.2	13.9	14.9	114	86	102	39	33	36	432
132340	B-63	6/14/48	6/ 7/48	3	43.8	40.0	42.3	15.0	13.8	14.4	123	83	102	40	35	37	448
132358	B-64	6/17/48	6/ 8/48	3	44.8	42.2	43.5	15.0	14.0	14.4	126	85	103	42	34	37	464
132370	B 65	6/21/48	6/10/48	1	44.0	40.0	42.0	14.8	13.8	14.2	124	95	107	41	33	37	496
132371	B-66	6/21/48	6/11/48	1	43.6	40.6	42.1	14.8	14.0	14.3	122	80	106	39	34	36	392
132729	B-67	6/26/48	6/13/48	3	44.4	41.8	43.0	15.1	14.1	14.7	128	88	108	38	32	34	424
132730	B-68	6/26/48	6/14/48	3	44.0	41.0	42.2	15.1	13.9	14.5	122	77	102	39	31	35	416
132743	B-69	6/28/48	6/20/48	3	41.6	40.0	40.7	14.8	13.2	14.2	119	94	109	38	32	35	416
132744	B-70	6/28/48	6/21/48	3	43.8	42.0	42.9	15.3	14.0	14.7	120	85	105	40	36	38	416
Current Mill Average:							42.6			14.6			104			36	
Cumulative Mill Average:							43.2			15.3			101			38	
Mill Factor, %:							98.6			95.4			103.0			94.7	
Mill Index, %:							98.8			96.1			101.0			92.3	

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

TABLE V

OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1948-- continued

sis Weight, lb.			Caliper, points			Bursting Strength, points			G. E. Puncture units			Elmendorf Tear, g./sheet					
												In			Across		
.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
Mill C -- 42-lb. Linerboard																	
0	42.2	43.8	15.2	13.4	14.3	131	73	103	43	35	40	424	304	362	472	392	423[a]
8	41.4	42.3	14.8	12.8	13.9	126	86	104	39	33	36	432	360	386[a]	512	400	434[a]
6	41.6	42.7	15.0	12.2	13.7	130	92	111	42	35	38	424	336	379	464	384	421[a]
4	43.4	43.8	15.3	13.2	14.4	128	93	107	40	35	38	448	344	406	464	424	449[a]
0	41.6	42.1	14.9	13.8	14.4	131	91	107	41	37	39	464	352	391	496	392	429[a]
8	41.8	42.7	14.9	13.6	14.2	129	73	107	38	32	36	392	304	359	440	376	414[a]
0	42.2	43.2	15.0	13.8	14.3	131	79	108	42	37	39	432	336	391	432	376	412[a]
		42.9			14.2			107			38			382			426
		42.9			14.3			106			39			364			417
		100.0			99.3			100.9			97.4			104.9			102.2
		99.5			93.4			103.9			97.4			99.0			102.2

TABLE VI

Mill D -- 42-lb. Linerboard

.8	41.4	42.1	16.8	14.6	15.3	125	87	102	39	34	37	456	320	401	480	352	425[a]
.8	42.8	43.8	17.1	15.7	16.3	121	80	96	47	38	42	464	352	413	464	368	425[a]
.4	43.4	44.0	17.6	15.0	16.1	116	73	100	44	39	42	504	344	415[a]	536	334	466[a]
.6	42.4	43.9	16.3	15.2	16.0	120	86	102	43	37	40	440	368	405	528	368	445[a]
		43.5			15.9			100			40			408			440
		43.6			16.2			100			39			396			419
		99.8			98.1			100.0			102.6			103.0			105.0
		100.9			104.6			97.1			102.6			105.7			105.5

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

TABLE V

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1948-- continued

File No.	Mill Code	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Min.	Av.	Caliper, points Max.	Min.	Av.	Bursting Strength, points Max.	Min.	Av.	G. E. Puncture units Max.	Min.	Av.	E Max.
										Mill C -- 42-lb. Linerboard							
132255	C-40	6/ 1/48	5/24/48	1	45.0	42.2	43.8	15.2	13.4	14.3	131	73	103	43	35	40	424
132256	C-41	6/1 48	5/27/48	1	43.8	41.4	42.3	14.8	12.8	13.9	126	86	104	39	33	36	432
132302	C-42	6/ 7/48	5/31/48	1	43.6	41.6	42.7	15.0	12.2	13.7	130	92	111	42	35	38	424
132307	C-43	6/ 8/48	6/ 3/48	1	44.4	43.4	43.8	15.3	13.2	14.4	128	93	107	40	35	38	448
132672	C-44	6/21/48	6/14/48	1	43.0	41.6	42.1	14.9	13.8	14.4	131	91	107	41	37	39	464
132677	C-45	6/22/48	6/17/48	1	43.8	41.8	42.7	14.9	13.6	14.2	129	73	107	38	32	36	392
132741	C-46	6/28/48	6/21/48	1	44.0	42.2	43.2	15.0	13.8	14.3	131	79	108	42	37	39	432
Current Mill Average:							42.9			14.2			107			38	
Cumulative Mill Average:							42.9			14.3			106			39	
Mill Factor, %:							100.0			99.3			100.9			97.4	
Mill Index, %:							99.5			93.4			103.9			97.4	

TABLE VI

										Mill D -- 42-lb. Linerboard							
132270	D-30	6/ e/48	5/31/48	4	42.8	41.4	42.1	16.8	14.6	15.3	125	87	102	39	34	37	456
132276	D-31	6/ 4/48	6/ 1/48	4	44.8	42.8	43.8	17.1	15.7	16.3	121	80	96	47	38	42	464
132281	D-32	6/5/ 48	6/ 2/48	4	44.4	43.4	44.0	17.6	15.0	16.1	116	73	100	44	39	42	504
132645	D-33	6/14/48	6/11/48	4	44.6	42.4	43.9	16.3	15.2	16.0	120	86	102	43	37	40	440
Current Mill Average:							43.5			15.9			100			40	
Cumulative Mill Average:							43.6			16.2			100			39	
Mill Factor, %:							99.8			98.1			100.0			102.6	
Mill Index, %:							100.9			104.6			97.1			102.6	

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

TABLE VII

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1948--continued

Basis Weight, lb.			Caliper, points			Bursting Strength, points			G. E. Puncture, units			Elmendorf Tear, g./sheet					
												In			Across		
x.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
Mill E -- 42-lb. Linerboard																	
.0	42.2	43.0	13.7	12.9	13.2	117	73	94	38	33	36	512	352	437	456	368	407[a]
		43.0			13.2			94			36			437			407
		43.6			15.2			96			40			417			431
		98.6			86.8			97.9			90.0			104.8			94.4
		99.8			86.8			91.3			92.3			113.2			97.6

TABLE VIII

Mill F -- 42-lb. Linerboard

mill code.																	
.2	42.2	43.2	15.7	13.5	14.7	122	91	105	45	36	40	496	352	398[a]	504	368	440[a]
.0	42.2	43.4	15.9	12.5	14.7	125	85	107	44	38	41	472	336	389[a]	480	384	432[a]
.4	41.8	42.1	14.8	13.8	14.3	116	86	104	43	38	40	440	352	403	488	400	458
.0	40.0	41.8	15.5	14.1	14.7	117	86	101	40	35	38	488	336	399	456	360	416[a]
.2	40.6	41.7	15.9	15.0	15.4	119	85	99	41	34	38	416	336	367	480	384	420[a]
.2	42.4	44.1	15.6	14.7	15.1	119	87	101	48	38	43	416	336	376	496	416	445[a]
.6	42.0	42.6	14.7	13.8	14.2	106	81	94	41	35	38	392	320	353	456	352	406[a]
.8	42.2	43.0	15.2	14.0	14.7	118	77	99	45	38	41	472	360	397	496	376	433[a]
		42.8			14.7			101			40			385			431
		43.5			15.3			104			41			391			435
		98.4			96.1			97.1			97.6			98.5			99.1
		99.3			96.7			98.1			102.6			99.7			103.4

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

TABLE VII

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1948--contir

File No.	Mill Code	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Min.	Av.	Caliper, points Max.	Min.	Av.	Bursting Strength, points Max.	Min.	Av.	G. E. Puncture, units Max.	Min.	Av.	Max
								Mill E -- 42-lb. Linerboard									
132661	E-28	6/18/48	6/15/48	1	44.0	42.2	43.0	13.7	12.9	13.2	117	73	94	38	33	36	512
Current Mill Average:							43.0			13.2			94			36	
Cumulative Mill Average:							43.6			15.2			96			40	
Mill Factor, %:							98.6			86.8			97.9			90.0	
Mill Index, %:							99.8			86.8			91.3			92.3	

TABLE VIII

Mill F -- 42-lb. Linerboard

	F-32	No sample received for this mill code.															
132641	F-33	6/14/48	6/ 5/48		44.2	42.2	43.2	15.7	13.5	14.7	122	91	105	45	36	40	49
132642	F-34	6/14/48	6/ 5/48	1	44.0	42.2	43.4	15.9	12.5	14.7	125	85	107	44	38	41	47
132643	F-35	6/14/48	6/ 7/48		42.4	41.8	42.1	14.8	13.8	14.3	116	86	104	43	38	40	44
132644	F-36	6/14/48	6/ 8/48		43.0	40.0	41.8	15.5	14.1	14.7	117	86	101	40	35	38	48
132664	F-37	6/18/48	6/15/48	1	42.2	40.6	41.7	15.9	15.0	15.4	119	85	99	41	34	38	41
132665	F-38	6/18/48	6/15/58	1	45.2	42.4	44.1	15.6	14.7	15.1	119	87	101	48	38	43	41
132723	F-39	6/24/48	6/22/48	1	43.6	42.0	42.6	14.7	13.8	14.2	106	81	94	41	35	38	39
132745	F-40	6/28/48	6/23/48		43.8	42.2	43.0	15.2	14.0	14.7	118	77	99	45	38	41	47
Current Mill Average:							42.8			14.7			101			40	
Cumulative Mill Average:							43.5			15.3			104			41	
Mill Factor, %:							98.4			96.1			97.1			97.6	
Mill Index, %:							99.3			96.7			98.1			102.6	

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

TABLE IX

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1948--continued

ight, Av.	Caliper, points Max.	Caliper, points Min.	Caliper, points Av.	Bursting Strength, points Max.	Bursting Strength, points Min.	Bursting Strength, points Av.	G. E. Puncture, units Max.	G. E. Puncture, units Min.	G. E. Puncture, units Av.	Elmendorf Tear, g./sheet In Max.	Elmendorf Tear, g./sheet In Min.	Elmendorf Tear, g./sheet In Av.	Elmendorf Tear, g./sheet Across Max.	Elmendorf Tear, g./sheet Across Min.	Elmendorf Tear, g./sheet Across Av.
Mill G -- 42-lb. Linerboard															
41.4	14.8	13.1	14.2	130	74	104	39	34	36	440	360	402[c]	440	376	403[c]
42.1	16.0	14.5	15.2	130	71	107	42	35	38	496	352	423[c]	480	360	415[c]
42.6	15.1	13.9	14.4	126	82	105	39	35	37	432	328	372[c]	440	384	413[c]
43.2	15.2	12.8	14.1	124	85	104	41	34	38	440	360	396[c]	480	376	420[c]
43.3	15.2	13.1	13.9	146	74	97	39	32	35	408	320	361	488	368	437[c]
42.5	14.8	12.2	13.3	127	70	104	37	30	33	400	320	354	464	384	411[c]
42.9	14.1	12.0	13.0	123	98	112	40	36	38	408	328	360	448	352	393[c]
43.3	14.6	12.8	13.7	118	70	97	43	38	40	472	344	392	432	368	392[c]
44.5	16.2	15.0	15.6	119	81	100	43	37	40	392	336	373	440	352	395
43.7	14.3	12.9	13.8	141	97	120	38	34	36	416	336	359	456	376	404[c]
43.0			14.1			105			37			379			408
42.8			15.3			105			39			380			412
100.5			92.2			100.0			94.9			99.7			99.0
99.8			92.8			101.9			94.9			98.2			97.8

ked "D-8." One of the numbers was arbitrarily changed to "D-7."
data sheet gives the date of manufacture as June 23, 1948.
or more specimens which tore beyond the 3/8-inch limit.

TABLE IX

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1948--continue

File No.	Mill Code	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Min.	Av.	Caliper, points Max.	Min.	Av.	Bursting Strength, points Max.	Min.	Av.	G. E. Puncture, units Max.	Min.	Av.	Max
								Mill G -- 42-lb. Linerboard									
132249	G-52	6/ 1/48	5/25/48	1	42.2	39.4	41.4	14.8	13.1	14.2	130	74	104	39	34	36	44(
132250	G-53	6/ 1/48	5/26/48	1	42.6	41.6	42.1	16.0	14.5	15.2	130	71	107	42	35	38	49(
132271	G-54	6/ 2/48	5/31/48	1	43.6	42.2	42.6	15.1	13.9	14.4	126	82	105	39	35	37	43:
132272	G-55	6/ 2/48	5/31/48	1	44.0	42.2	43.2	15.2	12.8	14.1	124	85	104	41	34	38	44(
132614	G-56	6/11/48	6/ 8/48	1	44.4	42.6	43.3	15.2	13.1	13.9	146	74	97	39	32	35	40(
132615	G-57	6/11/48	6/ 8/48	1	43.4	41.0	42.5	14.8	12.2	13.3	127	70	104	37	30	33	40(
132666	G-58	6/21/48	6/15/48	1	43.6	42.2	42.9	14.1	12.0	13.0	123	98	112	40	36	38	40(
132667	G-59[a]	6/21/48	6/17/48	1	44.0	42.4	43.3	14.6	12.8	13.7	118	70	97	43	38	40	47:
132734	G-60	6/26/48	6/21/48	1	45.6	43.8	44.5	16.2	15.0	15.6	119	81	100	43	37	40	39:
132735	G-61	6/26/48	6/24/48[b]	1	44.2	42.4	43.7	14.3	12.9	13.8	141	97	120	38	34	36	41.
Current Mill Average:							43.0			14.1			105			37	
Cumulative Mill Average:							42.8			15.3			105			39	
Mill Factor, %:							100.5			92.2			100.0			94.9	
Mill Index, %							99.8			92.8			101.9			94.9	

[a] Two of the sheets in the "D" series were marked "D-8." One of the numbers was arbitrarily changed to "D-7."
[b] This date appeared on the sample; the mill data sheet gives the date of manufacture as June 23, 1948.
[c] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE X

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1948--continued

asis Weight, lb.			Caliper, points			Bursting Strength, points			G. E. Puncture, units			Elmendorf Tear, g./sheet In			Elmendorf Tear, g./sheet Across		
x.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
						Mill H -- 42-lb. Linerboard											
.0	42.4	43.4	16.0	14.4	15.3	117	71	100	43	38	40	456	360	411[c]	552	424	461[c]
.8	41.2	42.3	19.9	14.1	15.0	116	82	99	38	32	36	488	320	387[c]	464	384	426
.2	41.6	42.6	15.8	13.3	14.2	125	85	106	38	32	35	424	344	392	480	368	430[c]
.0	41.6	42.8	17.5	14.7	15.6	124	90	110	38	33	36	456	336	371[c]	464	360	417[c]
.8	41.4	42.2	16.1	14.1	15.1	114	79	100	35	30	32	432	328	393	512	360	418[c]
.0	40.8	42.7	16.3	14.0	15.3	121	80	101	40	33	37	432	360	401[c]	480	376	429[c]
.6	42.0	43.1	16.2	14.6	15.4	116	88	105	41	34	38	448	344	385	480	400	437[c]
.6	42.6	44.0	15.3	14.2	14.9	118	92	108	40	34	37	448	360	401	456	368	420
.2	42.4	43.5	15.8	14.4	15.3	122	92	106	42	35	39	424	368	391	480	392	433[c]
		43.0			15.1			104			37			393			430
		43.3			15.4			104			39			407			426
		99.3			98.1			100.0			94.9			96.6			100.9
		99.8			99.3			101.0			94.9			101.8			103.1

ed for testing; instead, the sheets "C1-C8" were forwarded.
d have been "F-8" had "E-8" in its place.
one or more specimens which tore beyond the 3/8-inch limit.

TABLE X

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1948--continue

File No.	Mill Code	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Min.	Av.	Caliper, points Max.	Min.	Av.	Bursting Strength, points Max.	Min.	Av.	G. E. Puncture, units Max.	Min.	Av.	Ma
								Mill H -- 42-lb. Linerboard									
132253	H-40	6/ 1/48	5/24/48	2	44.0	42.4	43.4	16.0	14.4	15.3	117	71	100	43	38	40	45
132269	H-41[a]	6/ 2/48	5/25/48	2	43.8	41.2	42.3	19.9	14.1	15.0	116	82	99	38	32	36	48
132295	H-42	6/ 7/48	5/31/48	2	44.2	41.6	42.6	15.8	13.3	14.2	125	85	106	38	32	35	42
132296	H-43	6/ 7/48	5/31/48	3	44.0	41.6	42.8	17.5	14.7	15.6	124	90	110	38	33	36	45
132297	H-44	6/ 7/48	6/ 1/48	2	43.8	41.4	42.2	16.1	14.1	15.1	114	79	100	35	30	32	43
132622	H-45	6/12/48	6/ 7/48	2	44.0	40.8	42.7	16.3	14.0	15.3	121	80	101	40	33	37	43
132648	H-46[b]	6/14/48	6/ 8/48	2	44.6	42.0	43.1	16.2	14.6	15.4	116	88	105	41	34	38	44
132731	H-47	6/26/48	6/21/48	2	44.6	42.6	44.0	15.3	14.2	14.9	118	92	108	40	34	37	44
132742	H-48	6/28/48	6/22/48	2	44.2	42.4	43.5	15.8	14.4	15.3	122	92	106	42	35	39	42
Current Mill Average:							43.0			15.1			104			37	
Cumulative Mill Average:							43.3			15.4			104			39	
Mill Factor, %:							99.3			98.1			100.0			94.9	
Mill Index, %:							99.8			99.3			101.0			94.9	

[a] The "F" series of sheets was not received for testing; instead, the sheets "C1-C8" were forwarded.
[b] The sheet in the "F" series which should have been "F-8" had "E-8" in its place.
[c] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XI

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1948--continued

Basis Weight, lb.			Caliper, points			Bursting Strength, points			G. E. Puncture, units			Elmendorf Tear, g./sheet					
												In			Across		
ax.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
			Mill J -- 42-lb. Linerboard														
.0	42.2	43.0	16.0	14.9	15.3	111	67	93	38	33	36	408	304	367[d]	416	304	377[d]
.4	40.6	41.7	15.0	13.9	14.3	111	73	95	38	30	33	400	328	365	472	312	374[d]
.2	43.0	43.8	15.1	13.0	14.3	131	83	109	34	29	32	464	328	376[d]	440	368	414[d]
.0	42.0	43.6	15.2	13.9	14.6	120	85	107	35	30	33	432	320	379[d]	440	336	387[d]
.2	43.6	44.1	15.1	13.2	14.2	138	96	118	38	32	35	416	328	368[d]	512	360	414[d]
.8	41.8	43.6	14.9	13.5	14.3	128	88	111	36	31	34	416	296	355[d]	520	328	401[d]
.6	40.6	42.2	14.8	13.1	14.2	138	77	112	35	31	34	400	304	345	480	320	370[d]
.6	42.4	44.2	15.9	13.9	15.0	131	81	108	33	30	31	408	312	357[d]	448	352	398[d]
		43.3			14.5			107			33			364			392
		43.0			14.8			106			34			352			381
		100.7			98.0			100.9			97.1			103.4			102.9
		100.5			95.4			103.9			84.6			94.3			94.0

had "C-3" in its place.

. Because of the sequence in which the sample was received it is assumed that its identification should identified as "J 51" is considered to be for the corresponding mill sample.

Because of the sequence in which the sample was received, it is assumed that its identification should identified as "J-52" is considered to be for the corresponding mill sample.

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

TABLE XI

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1948--continu

File No.	Mill Code	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Basis Weight, lb. Min.	Basis Weight, lb. Av.	Caliper, points Max.	Caliper, points Min.	Caliper, points Av.	Bursting Strength, points Max.	Bursting Strength, points Min.	Bursting Strength, points Av.	G. E. Puncture, units Max.	G. E. Puncture, units Min.	G. E. Puncture, units Av.	F In Max.	F In M
								Mill J -- 42-lb. Linerboard										
132273	J-45	6/ 3/48	5/29/48	1	44.0	42.2	43.0	16.0	14.9	15.3	111	67	93	38	33	36	408	3
132274	J-46	6/ 3/48	5/26/48	1	42.4	40.6	41.7	15.0	13.9	14.3	111	73	95	38	30	33	400	3
132300	J-47	6/ 7/48	6/ 4/48	1	44.2	43.0	43.8	15.1	13.0	14.3	131	83	109	34	29	32	464	3
132301	J-48	6/ 7/48	6/ 5/48	1	44.0	42.0	43.6	15.2	13.9	14.6	120	85	107	35	30	33	432	3
132646	J-49[a]	6/14/48	6/10/48	1	45.2	43.6	44.1	15.1	13.2	14.2	138	96	118	38	32	35	416	3
132647	J-50	6/14/48	6/10/48	1	44.8	41.8	43.6	14.9	13.5	14.3	128	88	111	36	31	34	416	2
132668	J-41[b]	6/21/48	6/18/48	1	43.6	40.6	42.2	14.8	13.1	14.2	138	77	112	35	31	34	400	3
132669	J-42[c]	6/21/48	6/18/48	1	45.6	42.4	44.2	15.9	13.9	15.0	131	81	108	33	30	31	408	3
Current Mill Average:							43.3			14.5			107			33		
Cumulative Mill Average:							43.0			14.8			106			34		
Mill Factor, %:							100.7			98.0			100.9			97.1		
Mill Index, %:							100.5			95.4			103.9			84.6		

[a] The sheet which should have been "B-3" had "C-3" in its place.

[b] This mill code appeared on the sample. Because of the sequence in which the sample was received it is assumed that it have been "J-51." The mill data sheet identified as "J 51" is considered to be for the corresponding mill sample.

[c] This mill code appeared on the sample. Because of the sequence in which the sample was received, it is assumed that its have been "J-52." The mill data sheet identified as "J-52" is considered to be for the corresponding mill sample.

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

TABLE XII

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1948--Continued

Basis Weight, lb.			Caliper, points			Bursting Strength, points			G. E. Puncture, units			Elmendorf Tear, g./sheet					
												In			Across		
Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
Mill E -- 44/46-lb. Drum Linerboard																	
47.6	45.6	46.3	14.1	13.1	13.7	125	81	102	45	38	42	512	416	467	552	440	477[a]
46.6	44.4	45.6	14.8	13.3	14.0	118	72	97	44	38	42	544	392	446	488	384	444[a]
49.6	46.4	48.2	14.1	13.5	13.9	112	66	95	43	37	41	512	432	461	504	432	463[a]
		46.7			13.9			98			42			458			461
		46.4			14.3			93			43			434			444
		100.6			97.2			105.4			97.7			105.5			103.8

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

TABLE XII

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1948--Continued

File No.	Mill Code	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Basis Weight, lb. Min.	Basis Weight, lb. Av.	Caliper, points Max.	Caliper, points Min.	Caliper, points Av.	Bursting Strength, points Max.	Bursting Strength, points Min.	Bursting Strength, points Av.	G. E. Puncture, units Max.	G. E. Puncture, units Min.	G. E. Puncture, units Av.	[a] Max.
								Mill E -- 44/46-lb. Drum Linerboard									
132254	E-25	6/ 1/48	5/27/48	1	47.6	45.6	46.3	14.1	13.1	13.7	125	81	102	45	38	42	512
132277	E-26	6/ 4/48	6/ 2/48	1	46.6	44.4	45.6	14.8	13.3	14.0	118	72	97	44	38	42	544
132624	E-27	6/12/48	6/ 8/48	1	49.6	46.4	48.2	14.1	13.5	13.9	112	66	95	43	37	41	512
Current Mill Average:							46.7			13.9			98			42	
Cumulative Mill Average:							46.4			14.3			93			43	
Mill Factor, %:							100.6			97.2			105.4			97.7	

[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 XIII, the atmospheric conditions used prior to and during the testing period varied considerably.

TABLE XIII

Mill Code	Preconditioning R.H., %	Temp., °F.	Time	Conditioning R.H., %	Temp., °F.	Time
A	No preconditioning			58-68	88-94	—
B	30-70	80-92	1/2 hr.	50	70	24 hrs.
C	59-65	70-72	3-30 days	57-65	70-72	5- hrs.-7 days
D	33-35	78-86	4 hrs.	51	75	16 hrs.
E	No preconditioning			53	93	—
F	No preconditioning			No conditioning		
G	No preconditioning			No conditioning		
H	No preconditioning			50-70	53-73	24 hrs.
J	No preconditioning			46-80	80-94	1 hr.

A summary of the mill comparisons for the current period as compared with the previous period may be seen in Tables XIV and XV, respectively. The comparison for the various mills is given in Tables XVI to XXIV, inclusive, for the 42-lb. liner samples. A comparison of the special drum stock is given in Table XXV. In all the comparisons given in Tables XIV to XXV, inclusive, the Institute's test values have been used as the reference line.

A comparison of the test data in Tables XIV and XV indicates that in the majority of cases there is good agreement between the mill data and that of the Institute. As may be seen in Table XV, the maximum variation in the average basis weight between the results of the Institute and those of a given mill on corresponding samples is approximately 3% for the current period. In regard to caliper for the current period, the results for all mills except Mills B, E, and J are lower than those obtained at the Institute. All mills are in accord with the Institute's caliper values. It may be observed on reviewing the bursting strength results that the averages for Mills A, C, G, and J are lower than those for the Institute, whereas the averages for Mills B, D, E, and F are higher. The bursting strength test results for Mill H are the same as those for the Institute. The results for Mills E, F, and J appear to be significantly different.

With the exception of Mill B, the G. E. puncture results for all mills are the same as or higher than the reference values, Mills A, B, C, F, G, and J having the greatest variation. The tear results appear to vary more widely than any of the other tests. Mills B, C, D, E, and J have the greatest variation for both in and across machine direction tear.

The data in Table XV also show the comparison of the average per cent differences between mill and Institute test results for the past three periods. It may be noted that the maximum variation in basis weight encountered during this time amounts to approximately 3%. The maximum average variation encountered in the basis weight results for the current period is commensurate with the variations for the preceding periods.

It may also be noted that the variation encountered in the bursting strength values for each mill for the current period is approximately the same as for the previous period. The same conditions appear to exist for the G. E. puncture and tearing strength results.

TABLE XIV

SUMMARY OF TEST RESULT COMPARISONS

Average Mill and Institute Results	Mills*								
	A	B	C	D	E	F	G	H	J
No. samples compared	7	12	7	4	1	8	10	9	8
Basis Weight									
Institute	43.2	42.6	42.9	43.5	43.0	42.8	43.0	43.0	43.3
Mill	42.5	42.6	42.7	43.5	44.3	42.3	43.2	42.8	43.2
Av. difference**	-0.7	0.0	-0.2	0.0	+1.3	-0.5	+0.2	-0.2	-0.1
Max. difference***	-1.6	+1.4	-0.5	+0.7	+1.3	-1.2	+0.7	+1.0	-2.1
Caliper									
Institute	15.1	14.6	14.2	15.9	13.2	14.7	14.1	15.1	14.5
Mill	14.8	14.8	14.1	15.4	13.2	14.1	13.9	14.9	14.6
Av. difference**	-0.3	+0.2	-0.1	-0.5	0.0	-0.6	-0.2	-0.2	+0.1
Max. difference***	-0.9	+0.5	-0.3	-0.7	0.0	-1.0	-0.5	-1.4	-1.0
Bursting Strength									
Institute	105	104	107	100	94	101	105	104	107
Mill	104	107	105	103	99	107	102	104	99
Av. difference**	-1	+3	-2	+3	+5	+ 6	-3	0	-8
Max. difference***	-4	+8	-6	+6	+5	+9	-10	±6	-13
C.E. Puncture									
Institute	39	36	38	40	36	40	37	37	33
Mill	42	34	43	—	36	43	40	37	37
Av. difference**	+3	-2	+5	—	0	+3	+3	0	+4
Max. difference***	+7	-4	+9	—	0	+6	+6	+5	+8
Tearing Strength, in.									
Institute	412	386	382	408	437	385	379	393	364
Mill	426	350	400	355	461	393	392	383	399
Av. difference**	+14	-36	+18	-53	+24	+8	+13	-10	+35
Max. difference***	+54	-65	+62	-57	+24	+57	+56	-41	+54
Tearing Strength, across									
Institute	460	412	426	440	407	431	408	430	392
Mill	459	386	470	389	454	446	423	427	444
Av. difference**	-1	-26	+44	-51	+47	+15	+15	-3	+52
Max. difference***	+50	-56	+63	-70	+47	+48	+41	-40	+116

*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 XV

SUMMARY OF TEST RESULTS—COMPARISON BY PERIODS

	Average Difference, per cent					
	Basis Weight	Caliper	Bursting Strength	G.E. Puncture	Tearing Strength, in	Tearing Strength, across
Mill A						
Current period	-2	-2	-1	+8	+3	-0.2
11th period	+1	-2	-4	+13	+7	+5
10th period	-0.5	-0.7	+4	+18	0	-2
Mill B						
Current period	0	+1	+3	-6	-9	-6
11th period	-0.2	+1	+5	0	-12	-8
10th period	-0.5	+0.7	+6	-3	-10	-7
Mill C						
Current period	-0.5	-0.7	-2	+13	+5	+10
11th period	-0.7	-1	-0.9	+8	+3	+9
10th period	-0.7	-0.7	+4	+3	+10	+9
Mill D						
Current period	0	-3	+3	—	-13	-12
11th period	+0.2	-4	+1	—	-15	-7
10th period	+0.2	-3	+2	—	-14	-7
Mill E						
Current period	+3	0	+5	0	+5	+12
11th period	-1	-2	-1	-13	-24	+1
10th period	-1	-3	+6	-17	-24	-19
Mill F						
Current period	-1	-4	+6	+8	+2	+3
11th period	-1	-5	0	+5	+8	+12
10th period	-1	-5	+3	+11	+9	+14
Mill G						
Current period	+0.5	-1	-3	+8	+3	+4
11th period	+0.7	-0.7	-5	+8	-3	-2
10th period	+0.5	-3	-2	+3	-4	-2
Mill H						
Current period	-0.5	-1	0	0	-3	-0.7
11th period	+1	-0.7	-1	+3	-5	-1
10th period	+0.2	-1	0	0	-9	-5
Mill J						
Current period	-0.2	+0.7	-7	+12	+10	+13
11th period	-3	-3	-6	-6	-11	-6
10th period	-2	-3	-4	+3	-13	-10

TABLE XVI

SUMMARY OF INDIVIDUAL TEST LOTS -- JUNE 1 THROUGH JUNE 30, 1948

Institute Data versus Mill Data

ight,		Caliper, points			Bursting Strength, points			G. E. Puncture, units			Elmendorf Tear, g./sheet					
											In			Across		
	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
					Mill A -- 42-lb. Linerboard											
)	-1.0	15.1	15.0	-0.1	106	104	-2	40	39	-1	416[b]	437	+21	473[a]	461	-12
)	-0.7	14.9	14.6	-0.3	107	103	-4	38	35	-3	393	415	+22	455[a]	462	+ 7
)	-1.6	15.4	15.3	-0.1	108	105	-3	41	45	+4	431[a]	434	+3	481[a]	451	-30
)	-1.0	15.1	14.9	-0.2	106	103	-3	40	46	+6	453	428	-25	480[a]	467	-13
)	-0.4	15.1	14.6	-0.5	106	106	0	38	41	+3	416	425	+9	460[a]	445	-15
)	0.0	14.8	14.2	-0.6	104	103	-1	36	43	+7	397	411	+14	441[a]	450	+9
)	-0.2	15.6	14.7	-0.9	101	104	+3	39	45	+6	376[a]	430	+54	429[a]	479	+50
)	-0.7	15.1	14.8	-0.3	105	104	-1	39	42	+3	412	426	+14	460	459	-1

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

instead of 12.

are calculated from the totals of the individual readings.

TABLE XVI

SUMMARY OF INDIVIDUAL TEST LOTS -- JUNE 1 THROUGH JUNE 30, 1948

Institute Data versus Mill Data

File No.	Mill Code	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, points			G. E. Puncture, units			El	
				IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	In Mill
Mill A -- 42-lb. Linerboard																	
132279	A-48	5/31/48	2	44.0	43.0	-1.0	15.1	15.0	-0.1	106	104	-2	40	39	-1	416[b]	437
132280	A-49	6/ 1/48	2	43.2	42.5	-0.7	14.9	14.6	-0.3	107	103	-4	38	35	-3	393	415
132623	A-50	6/ 7/48	2	44.2	42.6	-1.6	15.4	15.3	-0.1	108	105	-3	41	45	+4	431[a]	434
132662	A-51	6/14/48	2	43.7	42.7	-1.0	15.1	14.9	-0.2	106	103	-3	40	46	+6	453	428
132663	A-52	6/15/48	2	42.3	41.9	-0.4	15.1	14.6	-0.5	106	106	0	38	41	+3	416	425
132732	A-53	6/21/48	2	42.4	42.4	0.0	14.8	14.2	-0.6	104	103	-1	36	43	+7	397	411
132733	A-54	6/22/48	2	42.9	42.7	-0.2	15.6	14.7	-0.9	101	104	+3	39	45	+6	376[a]	430
Current Mill Average:				43.2	42.5	-0.7	15.1	14.8	-0.3	105	104	-1	39	42	+3	412	426

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

[b] The average of only 11 determinations, instead of 12.

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

TABLE XVII

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1948--continued

Institute Data versus Mill Data

Basis Weight, lb.			Caliper, points			Bursting Strength, points			G. E. Puncture, units			Elmendorf Tear, g./sheet					
												In			Across		
IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
						Mill B -- 42-lb. Linerboard											
43.9	43.5	-0.4	14.9	15.3	+0.4	97	105	+8	38	34	-4	410[a]	363	-47	417[a]	397	-20
43.2	43.1	-0.1	14.8	15.1	+0.3	97	105	+8	37	33	-4	392[a]	339	-53	429[a]	373	-56
42.1	42.0	-0.1	14.6	14.9	+0.3	105	106	+1	34	34	0	376	316	-60	404[a]	351	-53
42.6	42.6	0.0	14.9	14.7	-0.2	102	107	+5	36	34	-2	389[a]	324	-65	413[a]	375	-38
42.3	42.4	+0.1	14.4	14.4	0.0	102	107	+5	37	34	-3	389[a]	365	-24	408[a]	409	+1
43.5	43.5	0.0	14.4	14.7	+0.3	103	105	+2	37	33	-4	396[a]	354	-42	429[a]	399	-30
42.0	42.6	+0.6	14.2	14.7	+0.5	107	105	-2	37	34	-3	391	370	-21	420[a]	414	-6
42.1	42.0	-0.1	14.3	14.7	+0.4	106	107	+1	36	34	-2	374	408	+34	415[a]	420	+5
43.0	43.1	+0.1	14.7	14.9	+0.2	108	109	+1	34	35	+1	396	332	-64	406	380	-26
42.2	42.0	-0.2	14.5	14.6	+0.1	102	107	+5	35	33	-2	370	337	-33	397	394	-3
40.7	42.1	+1.4	14.2	14.6	+0.4	109	110	+1	35	34	-1	360	365	+5	399[a]	353	-46
42.9	42.5	-0.4	14.7	14.7	0.0	105	108	+3	38	35	-3	386	322	-64	401[a]	365	-36
42.6	42.6	0.0	14.6	14.8	+0.2	104	107	+3	36	34	-2	386	350	-36	412	386	-26

ings for one or more specimens which tore beyond the 3/8-inch limit.

' data are calculated from the totals of the individual readings.

TABLE XVII

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1948--continued

Institute Data versus Mill Data

File No.	Mill Code	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, points			G. E. Puncture, units			—
				IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC
							Mill B -- 42-lb. Linerboard									
132251	B-59	5/23/48	3	43.9	43.5	-0.4	14.9	15.3	+0.4	97	105	+8	38	34	-4	410
132252	B-60	5/24/48	3	43.2	43.1	-0.1	14.8	15.1	+0.3	97	105	+8	37	33	-4	392
132298	B-61	5/30/48	3	42.1	42.0	-0.1	14.6	14.9	+0.3	105	106	+1	34	34	0	376
132299	B-62	6/ 1/48	3	42.6	42.6	0.0	14.9	14.7	-0.2	102	107	+5	36	34	-2	389
132640	B-63	6/ 7/48	3	42.3	42.4	+0.1	14.4	14.4	0.0	102	107	+5	37	34	-3	389
132653	B-64	6/ 8/48	3	43.5	43.5	0.0	14.4	14.7	+0.3	103	105	+2	37	33	-4	396
132670	B-65	6/10/48	1	42.0	42.6	+0.6	14.2	14.7	+0.5	107	105	-2	37	34	-3	391
132671	B-66	6/11/48	1	42.1	42.0	-0.1	14.3	14.7	+0.4	106	107	+1	36	34	-2	374
132729	B-67	6/13/48	3	43.0	43.1	+0.1	14.7	14.9	+0.2	108	109	+1	34	35	+1	396
132730	B-68	6/14/48	3	42.2	42.0	-0.2	14.5	14.6	+0.1	102	107	+5	35	33	-2	370
132743	B-69	6/20/48	3	40.7	42.1	+1.4	14.2	14.6	+0.4	109	110	+1	35	34	-1	360
132744	B-70	6/21/48	3	42.9	42.5	-0.4	14.7	14.7	0.0	105	108	+3	38	35	-3	386
Current Mill Average:				42.6	42.6	0.0	14.6	14.8	+0.2	104	107	+3	36	34	-2	386

[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.

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1948--continued

Institute Data versus Mill Data

asis Weight, lb.			Caliper, points			Bursting Strength, points			G. E. Puncture, units			Elmendorf Tear, g./sheet					
												In			Across		
C	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
						Mill C -- 42-lb. Linerboard											
.8	43.3	-0.5	14.3	14.4	+0.1	103	105	+2	40	44	+4	362	424	+62	423[a]	474	+51
.3	42.2	-0.1	13.9	14.0[b]	+0.1	104	105	+1	36	45	+9	386[a]	399	+13	434[a]	462	+28
.7	42.3	-0.4	13.7	13.8	+0.1	111	110	-1	38	45	+7	379	387	+8	421[a]	484	+63
.8	43.3	-0.5	14.4	14.4	0.0	107	106	-1	38	41	+3	406	407	+1	449[a]	477	+28
.1	42.4	+0.3	14.4	14.1	-0.3	107	105	-2	39	40	+1	391	405	+14	429[a]	465	+36
.7	42.5	-0.2	14.2	14.0	-0.2	107	105	-2	36	40	+4	359	378	+19	414[a]	456	+42
.2	43.0	-0.2	14.3	14.3	0.0	108	102	-6	39	43	+4	391	398	+7	412[a]	469	+57
.9	42.7	-0.2	14.2	14.1	-0.1	107	105	-2	38	43	+5	382	400	+18	426	470	+44

ngs for one or more specimens which tore beyond the 3/8-inch limit.

ations, instead of 24.

data are calculated from the totals of the individual readings.

Institute Data versus Mill Data

File No.	Mill Code	Date Made	Mch. No.	Basis Weight, lb. IPC	Basis Weight, lb. Mill	Basis Weight, lb. Diff.	Caliper, points IPC	Caliper, points Mill	Caliper, points Diff.	Bursting Strength, points IPC	Bursting Strength, points Mill	Bursting Strength, points Diff.	G. E. Puncture, units IPC	G. E. Puncture, units Mill	G. E. Puncture, units Diff.	IPC
							Mill C -- 42-lb. Linerboard									
132255	C-40	5/24/48	1	43.8	43.3	-0.5	14.3	14.4	+0.1	103	105	+2	40	44	+4	362
132256	C-41	5/27/48	1	42.3	42.2	-0.1	13.9	14.0[b]	+0.1	104	105	+1	36	45	+9	386[a]
132302	C-42	5/31/48	1	42.7	42.3	-0.4	13.7	13.8	+0.1	111	110	-1	38	45	+7	379
132307	C-43	6/ 3/48	1	43.8	43.3	-0.5	14.4	14.4	0.0	107	106	-1	38	41	+3	406
132672	C-44	6/14/48	1	42.1	42.4	+0.3	14.4	14.1	-0.3	107	105	-2	39	40	+1	391
132677	C-45	6/17/48	1	42.7	42.5	-0.2	14.2	14.0	-0.2	107	105	-2	36	40	+4	359
132741	C-46	6/21/48	1	43.2	43.0	-0.2	14.3	14.3	0.0	108	102	-6	39	43	+4	391
Current Mill Average:				42.9	42.7	-0.2	14.2	14.1	-0.1	107	105	-2	38	43	+5	382

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

[b] The average of only 23 determinations, instead of 24.

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

TABLE XIX

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1948--continued

Institute Data versus Mill Data

s Weight, lb.		Caliper, points			Bursting Strength, points			G. E. Puncture, units			Elmendorf Tear, g./sheet					
											In			Across		
Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
					Mill D -- 42-lb. Linerboard											
42.8	+0.7	15.3	14.9	-0.4	102	108	+6	37			401	348	-53	425[a]	380	-45
43.7	-0.1	16.3	15.6	-0.7	96	100	+4	42			413	360	-53	425[a]	396	-29
43.7	-0.3	16.1	15.6	-0.5	100	104	+4	42			415[a]	364	-51	466[a]	396	-70
43.6	-0.3	16.0	15.4	-0.6	102	101	-1	40			405	348	-57	445[a]	382	-63
43.5	0.0	15.9	15.4	-0.5	100	103	+3	40			408	355	-53	440	389	-51

TABLE XX

					Mill E -- 42-lb. Linerboard											
44.3	+1.3	13.2	13.2	0.0	94	99	+5	36	36	0	437	461	+24	407[a]	454	+47
44.3	+1.3	13.2	13.2	0.0	94	99	+5	36	36	0	437	461	+24	407	454	+47

gs for one or more specimens which tore beyond the 3/8-inch limit.

data are calculated from the totals of the individual readings.

TABLE XIX

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1948--continued

Institute Data versus Mill Data

File No.	Mill Code	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, points			G. E. Puncture, units			E	
				IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	M
Mill D -- 42-lb. Linerboard																	
132270	D-30	5/31/48	4	42.1	42.8	+0.7	15.3	14.9	-0.4	102	108	+6	37			401	3
132276	D-31	6/ 1/48	4	43.8	43.7	-0.1	16.3	15.6	-0.7	96	100	+4	42			413	3
132281	D-32	6/ 2/48	4	44.0	43.7	-0.3	16.1	15.6	-0.5	100	104	+4	42			415[a]	3
132645	D-33	6/11/48	4	43.9	43.6	-0.3	16.0	15.4	-0.6	102	101	-1	40			405	3
Current Mill Average:				43.5	43.5	0.0	15.9	15.4	-0.5	100	103	+3	40			408	3

TABLE XX

Mill E -- 42-lb. Linerboard																	
132661	E-28	6/15/48	1	43.0	44.3	+1.3	13.2	13.2	0.0	94	99	+5	36	36	0	437	4
Current Mill Average:				43.0	44.3	+1.3	13.2	13.2	0.0	94	99	+5	36	36	0	437	4

[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

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1948--continued

Institute Data versus Mill Data

Weight,		Caliper, points			Bursting Strength, points			G. E. Puncture, units			Elmendorf Tear, g./sheet					
											In			Across		
Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
					Mill F -- 42-lb. Linerboard											
or this mill code.																
42.0	-1.2	14.7	14.2	-0.5	105	110	+5	40	42	+2	398[a]	402	+4	440[a]	461	+21
43.0	-0.4	14.7	14.2	-0.5	107	113	+6	41	43	+2	389[a]	397	+8	432[a]	455	+23
41.7	-0.4	14.3	13.8	-0.5	104	106	+2	40	43	+3	403	432	+29	458	492	+34
41.1	-0.7	14.7	14.2	-0.5	101	108	+7	38	40	+2	399	390	-9	416[a]	438	+22
41.7	0.0	15.4	14.4	-1.0	99	107	+8	38	43	+5	367	371	+4	420[a]	432	+12
43.9	-0.2	15.1	14.6	-0.5	101	109	+8	43	45	+2	376	433	+57	445[a]	493	+48
42.0	-0.6	14.2	13.3	-0.9	94	103	+9	38	44	+6	353	349	+4	406[a]	379	-27
42.8	-0.2	14.7	13.8	-0.9	99	103	+4	41	45	+4	397	372	-25	433[a]	419	-14
42.3	-0.5	14.7	14.1	-0.6	101	107	+6	40	43	+3	385	393	+8	431	446	+15

ɜ for one or more specimens which tore beyond the 3/8-inch limit.

ıta are calculated from the totals of the individual readings.

TABLE XXI

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1948--continued

Institute Data versus Mill Data

File No.	Mill Code	Date Made	Mch. No.	Basis Weight, lb. IPC	Basis Weight, lb. Mill	Basis Weight, lb. Diff.	Caliper, points IPC	Caliper, points Mill	Caliper, points Diff.	Bursting Strength, points IPC	Bursting Strength, points Mill	Bursting Strength, points Diff.	G. E. Puncture, units IPC	G. E. Puncture, units Mill	G. E. Puncture, units Diff.	IPC
								Mill F -- 42-lb. Linerboard								
	F-32	No sample received for this mill code.														
132641	F-33	6/ 5/48	--	43.2	42.0	-1.2	14.7	14.2	-0.5	105	110	+5	40	42	+2	398[a]
132642	F-34	6/ 5/48	1	43.4	43.0	-0.4	14.7	14.2	-0.5	107	113	+6	41	43	+2	389[a]
132643	F-35	6/ 7/48	--	42.1	41.7	-0.4	14.3	13.8	-0.5	104	106	+2	40	43	+3	403
132644	F-36	6/ 8/48	--	41.8	41.1	-0.7	14.7	14.2	-0.5	101	108	+7	38	40	+2	399
132664	F-37	6/15/48	1	41.7	41.7	0.0	15.4	14.4	-1.0	99	107	+8	38	43	+5	367
132665	F-38	6/15/48	1	44.1	43.9	-0.2	15.1	14.6	-0.5	101	109	+8	43	45	+2	376
132723	F-39	6/22/48	1	42.6	42.0	-0.6	14.2	13.3	-0.9	94	103	+9	38	44	+6	353
132745	F-40	6/23/48	--	43.0	42.8	-0.2	14.7	13.8	-0.9	99	103	+4	41	45	+4	397
Current Mill Average:				42.8	42.3	-0.5	14.7	14.1	-0.6	101	107	+6	40	43	+3	385

[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 XXII

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1948--continued

Institute Data versus Mill Data

Basis Weight, lb.			Caliper, points			Bursting Strength points			G. E. Puncture, units			Elmendorf Tear, g./sheet					
												In			Across		
IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
						Mill G -- 42-lb. Linerboard											
1.4	42.0	+0.6	14.2	14.0	-0.2	104	105	+1	36	39	+3	402[c]	415	+13	403[c]	409	+6
2.1	42.8	+0.7	15.2	15.1	-0.1	107	101	-6	38	41	+3	423[c]	427	+4	415[c]	427	+12
2.6	42.7	+0.1	14.4	14.0	-0.4	105	105	0	37	40	+3	372[c]	373	+1	413[c]	415	+2
3.2	43.6	+0.4	14.1	13.6	-0.5	104	109	+5	38	40	+2	396[c]	376	-20	420[c]	415	-5
3.3	44.0	+0.7	13.9	14.2	+0.3	97	91	-6	35	41	+6	361	417	+56	437[c]	470	+33
2.5	42.9	+0.4	13.3	13.1	-0.2	104	94	-10	33	37	+4	354	381	+27	411[c]	452	+41
2.9	43.0	+0.1	13.0	13.0	0.0	112	104	-8	38	38	0	360	372	+12	393[c]	421	+28
3.3	42.9	-0.4	13.7	13.4	-0.3	97	94	3	40	39	-1	392	393	+1	392[c]	397	+5
4.5	44.2	-0.3	15.6	15.2	-0.4	100	98	-2	40	44	+4	373	369	-4	395	402	+7
3.7	43.6	-0.1	13.8	13.4	-0.4	120	117	-3	36	40	+4	359	399	+40	404[c]	425	+21
3.0	43.2	+0.2	14.1	13.9	-0.2	105	102	-3	37	40	+3	379	392	+13	408	423	+15

series were marked "D-8." One of the numbers was arbitrarily changed to "D-7."
ple; the mill data sheet gives the date of manufacture as June 23, 1948.
lings for one or more specimens which tore beyond the 3/8-inch limit.

s" data are calculated from the totals of the individual readings.

TABLE XXII

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1948--conti

Institute Data versus Mill Data

File No.	Mill Code	Data Made	Mch. No.	Basis Weight, lb. IPC	Basis Weight, lb. Mill	Basis Weight, lb. Diff.	Caliper, points IPC	Caliper, points Mill	Caliper, points Diff.	Bursting Strength points IPC	Bursting Strength points Mill	Bursting Strength points Diff.	G. E. Puncture, units IPC	G. E. Puncture, units Mill	G. E. Puncture, units Diff.
							Mill G -- 42-lb. Linerboard								
132249	G-52	5/25/48	1	41.4	42.0	+0.6	14.2	14.0	-0.2	104	105	+1	36	39	+3
132250	G-53	5/26/48	1	42.1	42.8	+0.7	15.2	15.1	-0.1	107	101	-6	38	41	+3
132271	G-54	5/31/48	1	42.6	42.7	+0.1	14.4	14.0	-0.4	105	105	0	37	40	+3
132272	G-55	5/31/48	1	43.2	43.6	+0.4	14.1	13.6	-0.5	104	109	+5	38	40	+2
132614	G-56	6/ 8/48	1	43.3	44.0	+0.7	13.9	14.2	+0.3	97	91	-6	35	41	+6
132615	G-57	6/ 8/48	1	42.5	42.9	+0.4	13.3	13.1	-0.2	104	94	-10	33	37	+4
132666	G-58	6/15/48	1	42.9	43.0	+0.1	13.0	13.0	0.0	112	104	-8	38	38	0
132667	G-59[a]	6/17/48	1	43.3	42.9	-0.4	13.7	13.4	-0.3	97	94	-3	40	39	-1
132734	G-60	6/21/48	1	44.5	44.2	-0.3	15.6	15.2	-0.4	100	98	-2	40	44	+4
132735	G-61	6/24/48[b]	1	43.7	43.6	-0.1	13.8	13.4	-0.4	120	117	-3	36	40	+4
Current Mill Average:				43.0	43.2	+0.2	14.1	13.9	-0.2	105	102	-3	37	40	+3

[a] Two of the sheets in the "D" series were marked "D-8." One of the numbers was arbitrarily changed to "D-7."
[b] This data appeared on the sample; the mill data sheet gives the date of manufacture as June 23, 1948.
[c] 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

SUMMARY OF INDIVIDUAL TEST LOTS -JUNE 1 THROUGH JUNE 30, 1948--continued

Institute Data versus Mill Data

ght,	Caliper, points			Bursting Strength, points			G. E. Puncture, units			Elmendorf Tear, g./sheet					
										In			Across		
Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
	Mill H - 42-lb. Linerboard														
-0.8	15.3	14.8	-0.5	100	106	+6	40	37	-3	411[c]	370	-41	461[c]	421	-40
+1.0	15.0	15.1	+0.1	99	103	+4	36	40	+4	387[c]	408	+21	426	443	+17
+0.3	14.2	14.1	-0.1	106	106	0	35	38	+3	392	377	-15	430[c]	416	-14
-0.6	15.6	14.2	-1.4	110	104	-6	36	32	-4	371[c]	342	-29	417[c]	395	-22
+0.5	15.1	15.1	0.0	100	105	+5	32	37	+5	393	380	-13	418[c]	428	+10
-0.5	15.3	15.2	-0.1	101	103	+2	37	37	0	401[c]	381	-20	429[c]	425	-4
-0.1	15.4	15.2	-0.2	105	102	-3	38	37	-1	385	394	+9	437[c]	439	+2
-0.4	14.9	15.2	+0.3	108	107	-1	37	40	+3	401	413	+12	420	447	+27
-0.5	15.3	15.4	+0.1	106	103	-3	39	38	-1	391	384	-7	433[c]	425	-8
-0.2	15.1	14.9	-0.2	104	104	0	37	37	0	393	383	-10	430	427	-3

ved for testing; instead, the sheets "C1 - C8" were forwarded.
ld have been "F-8" had "E-8" in its place.
one or more specimens which tore beyond the 3/8-inch limit.

re calculated from the totals of the individual readings.

TABLE XXIII

SUMMARY OF INDIVIDUAL TEST LOTS -JUNE 1 THROUGH JUNE 30, 1948--continue

Institute Data versus Mill Data

File No.	Mill Code	Date Made	Mch. No.	Basis Weight, lb. IPC	Mill	Diff.	Caliper, points IPC	Mill	Diff.	Bursting Strength, points IPC	Mill	Diff.	G. E. Puncture, units IPC	Mill	Diff.	In IPC
								Mill H -- 42-lb. Linerboard								
132253	H-40	5/24/48	2	43.4	42.6	-0.8	15.3	14.8	-0.5	100	106	+6	40	37	-3	411[c]
132269	H-41[a]	5/25/48	2	42.3	43.3	+1.0	15.0	15.1	+0.1	99	103	+4	36	40	+4	387[c]
132295	H-42	5/31/48	2	42.6	42.9	+0.3	14.2	14.1	-0.1	106	106	0	35	38	+3	392
132296	H-43	5/31/48	3	42.8	42.2	-0.6	15.6	14.2	-1.4	110	104	-6	36	32	-4	371[c]
132297	H-44	6/ 1/48	2	42.2	42.7	+0.5	15.1	15.1	0.0	100	105	+5	32	37	+5	393
132622	H-45	6/ 7/48	2	42.7	42.2	-0.5	15.3	15.2	-0.1	101	103	+2	37	37	0	401[c]
132648	H-46[b]	6/ 8/48	2	43.1	43.0	-0.1	15.4	15.2	-0.2	105	102	-3	38	37	-1	385
132731	H-47	6/21/48	2	44.0	43.6	-0.4	14.9	15.2	+0.3	108	107	-1	37	40	+3	401
132742	H-48	6/22/48	2	43.5	43.0	-0.5	15.3	15.4	+0.1	106	103	-3	39	38	-1	391
Current Mill Average:				43.0	42.8	-0.2	15.1	14.9	-0.2	104	104	0	37	37	0	393

[a] The "F" series of sheets was not received for testing; instead, the sheets "C1 - C8" were forwarded.
[b] The sheet in the "F" series which should have been "F-8" had "E-8" in its place.
[c] 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 XXIV

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1948--Continued

Institute Data versus Mill Data

Weight,		Caliper, points			Bursting Strength, points			G. E. Puncture, units			Elmendorf Tear, g./sheet					
											In			Across		
Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
					Mill J -- 42-lb. Linerboard											
.5	+0.5	15.3	16.1	+0.8	93	85	-8	36	41	+5	367[d]	402	+35	377[d]	458	+81
.4	-0.3	14.3	14.3	0.0	95	92	-3	33	36	+3	365	393	+28	374[d]	433	+59
.0	+0.2	14.3	14.5	+0.2	109	101	-8	32	36	+4	376[d]	407	+31	414[d]	454	+40
.5	+0.9	14.6	14.9	+0.3	107	99	-8	33	41	+8	379[d]	433	+54	387[d]	503	+116
.0	-1.1	14.2	13.5	-0.7	118	105	-13	35	34	-1	363[d]	365	-3	414[d]	389	-25
.9	-0.7	14.3	14.2	-0.1	111	106	-5	34	35	+1	355[d]	403	+48	401[d]	443	+42
.2	+2.0	14.2	15.1	+0.9	112	100	-12	34	39	+5	345	381	+36	370[d]	445	+75
.1	-2.1	15.0	14.0	-1.0	108	104	-4	31	33	+2	357[d]	409	+52	398[d]	427	+29
.2	-0.1	14.5	14.6	+0.1	107	99	-8	33	37	+4	364	399	+35	392	444	+52

had "C-3" in its place.

Because of the sequence in which the sample was received, it is assumed that its identification should identified as "J-51" is considered to be for the corresponding mill sample.

Because of the sequence in which the sample was received, it is assumed that its identification should identified as "J-52" is considered to be for the corresponding mill sample.

one or more specimens which tore beyond the 3/8-limit.

calculated from the totals of the individual readings.

TABLE XXIV

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1948--Continued

Institute Data versus Mill Data

File No.	Mill Code	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, points			G. E. Puncture, units			I
				IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	
							Mill J -- 42-lb. Linerboard									
132273	J-45	5/29/48	1	43.0	43.5	+0.5	15.3	16.1	+0.8	93	85	-8	36	41	+5	3
132274	J-46	5/26/48	1	41.7	41.4	-0.3	14.3	14.3	0.0	95	92	-3	33	36	+3	3
132300	J-47	6/ 4/48	1	43.8	44.0	+0.2	14.3	14.5	+0.2	109	101	-8	32	36	+4	3
132301	J-48	6/ 5/48	1	43.6	44.5	+0.9	14.6	14.9	+0.3	107	99	-8	33	41	+8	3
132646	J-49[a]	6/10/48	1	44.1	43.0	-1.1	14.2	13.5	-0.7	118	105	-13	35	34	-1	3
132647	J-50	6/10/48	1	43.6	42.9	-0.7	14.3	14.2	-0.1	111	106	-5	34	35	+1	3
132668	J-41[b]	6/18/48	1	42.2	44.2	+2.0	14.2	15.1	+0.9	112	100	-12	34	39	+5	3
132669	J-42[c]	6/18/48	1	44.2	42.1	-2.1	15.0	14.0	-1.0	108	104	-4	31	33	+2	3
Current Mill Average:				43.3	43.2	-0.1	14.5	14.6	+0.1	107	99	-8	33	37	+4	3

[a] The sheet which should have been "B-3" had "C-3" in its place.

[b] This mill code appeared on the sample. Because of the sequence in which the sample was received, it is assumed th have been "J-51." The mill data sheet identified as "J-51" is considered to be for the corresponding mill sample.

[c] This mill code appeared on the sample. Because of the sequence in which the sample was received, it is assumed th have been "J-52." The mill data sheet identified as "J-52" is considered to be for the corresponding mill sample.

[d] This average includes the readings for one or more specimens which tore beyond the 3/8-limit.

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

TABLE XXV

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1948--continued

Institute Data versus Mill Data

s Weight, .		Caliper, points			Bursting Strength, points			G. E. Puncture, units			Elmendorf Tear, g./sheet					
											In			Across		
Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
Mill E -- 44/46-lb. Drum Linerboard																
47.4	+1.1	13.7	14	+0.3	102	96	-6	42	44	+2	467	563	+96	477[a]	560	+83
46.2	+0.6	14.0	14	0.0	97	99	+2	42	40	-2	446	488	+42	444[a]	483	+39
48.8	+0.6	13.9	14.1	+0.2	95	100	+5	41	42	+1	461	508	+47	463[a]	523	+60
47.5	+0.8	13.9	14.0	+0.1	98	98	0	42	42	0	458	520	+62	461	522	+61

[a] from one or more specimens which tore beyond the 3/8-inch limit.

.ta are calculated from the totals of the individual readings.

TABLE XXV

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1948--continued

Institute Data versus Mill Data

File No.	Mill Code	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, points			G. E. Puncture, units			In	
				IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mi
Mill E -- 44/46-lb. Drum Linerboard																	
132254	E-25	5/27/48	1	46.3	47.4	+1.1	13.7	14	+0.3	102	96	-6	42	44	+2	467	5(
132277	E-26	6/2/48	1	45.6	46.2	+0.6	14.0	14	0.0	97	99	+2	42	40	-2	446	4(
132624	E-27	6/ 8/48	1	48.2	48.8	+0.6	13.9	14.1	+0.2	95	100	+5	41	42	+1	461	5(
Current Mill Average:				46.7	47.5	+0.8	13.9	14.0	+0.1	98	98	0	42	42	0	458	5(

[a] This average includes the readings from 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.