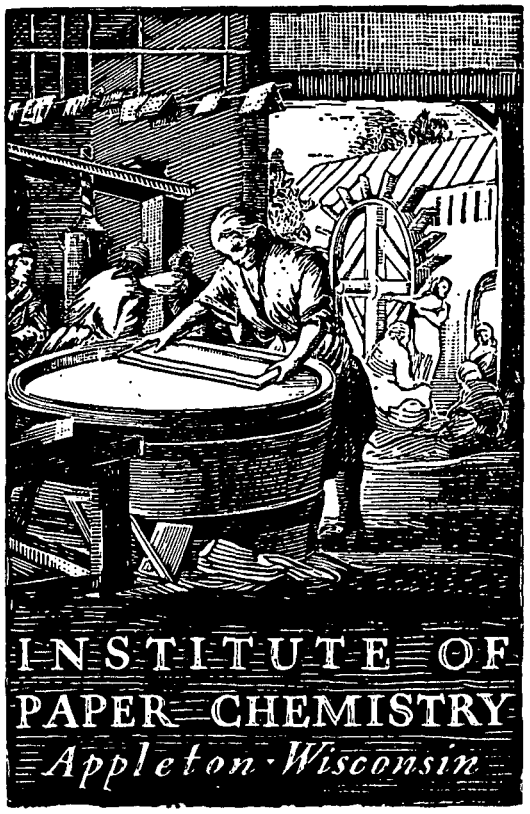


BASE-LINE

First Half, 1988

CONTINUOUS BASE-LINE STUDY (MODIFIED)
(MILL LINERBOARD DATA FOR JAN-FEB, MAR-APR, MAY-JUN, 1988)

Project 2694-1

Report One-Hundred Three
A Progress Report
to
FOURDRINIER KRAFT BOARD GROUP
OF THE
AMERICAN PAPER INSTITUTE

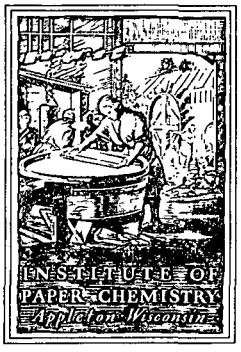
September 1, 1988

NOTICE & DISCLAIMER

The Institute of Paper Chemistry (IPC) has provided a high standard of professional service and has exerted its best efforts within the time and funds available for this project. The information and conclusions are advisory and are intended only for the internal use by any company who may receive this report. Each company must decide for itself the best approach to solving any problems it may have and how, or whether, this reported information should be considered in its approach.

IPC does not recommend particular products, procedures, materials, or services. These are included only in the interest of completeness within a laboratory context and budgetary constraint. Actual products, procedures, materials, and services used may differ and are peculiar to the operations of each company.

In no event shall IPC or its employees and agents have any obligation or liability for damages, including, but not limited to, consequential damages, arising out of or in connection with any company's use of, or inability to use, the reported information. IPC provides no warranty or guaranty of results.



THE INSTITUTE OF PAPER CHEMISTRY
Post Office Box 1039
Appleton, Wisconsin 54912
Phone: 414/734-9251
FAX: 414/738-3448
Telex: 469289

September 1, 1988

Project 2694-1

Dear Sir:

We are enclosing a copy of the following report to the Fourdrinier Kraft Board Group of the American Paper Institute:

Report One-Hundred Three, Project 2694-1 a progress report entitled, "Continuous Baseline Study (Modified); Mill Linerboard Data for January-February, March-April, May-June, 1988" dated September 1, 1988.

The code identities for paper machines in your company from which data were submitted for evaluation are given on the inside of the front cover of this report.

Sincerely,

Roger H. Van Eperen

Roger H. Van Eperen
Research Associate
Paper Materials Division

RHV/les
Enclosure

MAC MILLAN BLOEDEL
Your machine is identified in this report by the following code.

Pine Hill Machine #1 S2

THE INSTITUTE OF PAPER CHEMISTRY

Appleton, Wisconsin

CONTINUOUS BASE-LINE STUDY (MODIFIED)
(MILL LINERBOARD DATA FOR JAN-FEB, MAR-APR, MAY-JUN, 1988)

Project 2694-1

Report One-Hundred Three

A Progress Report

to

FOURDRINIER KRAFT BOARD GROUP

OF THE

AMERICAN PAPER INSTITUTE

September 1, 1988

TABLE OF CONTENTS

THE INSTITUTE OF PAPER CHEMISTRY

Appleton, Wisconsin

CONTINUOUS BASE-LINE STUDY (MODIFIED)
(MILL LINERBOARD DATA FOR JAN-FEB, MAR-APR, MAY-JUN, 1988)

SUMMARY

PART I: SUMMARY OF MOISTURE CONTENT DATA (JAN-JUN, 1988)

Linerboard Grade Wt.		Moisture Content, % JAN-FEB	MAR-APR	MAY-JUN
26 Lb	Max.	7.3	7.1	7.0
	Min.	3.5	3.7	3.6
	Ave.	5.5(17)	5.5(18)	5.5(18)
33 Lb	Max.	7.1	7.4	7.4
	Min.	4.2	4.2	4.1
	Ave.	5.6(26)	5.6(24)	5.6(27)
38 Lb	Max.	7.5	6.5	6.4
	Min.	4.7	5.3	5.2
	Ave.	5.8(21)	5.9(19)	5.8(19)
42 Lb	Max.	7.5	7.3	7.5
	Min.	5.2	5.1	5.1
	Ave.	6.0(44)	6.0(45)	5.9(45)
69 Lb	Max.	7.5	7.4	7.5
	Min.	5.3	5.3	5.4
	Ave.	6.4(30)	6.4(31)	6.4(30)
90 Lb	Max.	7.5	8.3	8.7
	Min.	5.5	5.6	5.8
	Ave.	6.6(12)	6.8(13)	6.8(14)

Max. and Min. values are current machine averages.
Ave. value is current F.K.B.G. average, number of machines is indicated in parentheses.

PART II: SUMMARY OF ADJUSTED BASIS WEIGHT DATA (JAN-JUN, 1988)

Linerboard Grade Wt.		Adjusted Basis Weight, lb/M sq ft JAN-FEB	MAR-APR	MAY-JUN
26 Lb	Max.	26.7	26.7	26.7
	Min.	25.7	25.7	25.8
	Ave.	26.2(17)	26.2(18)	26.2(18)
33 Lb	Max.	33.8	34.3	35.4
	Min.	32.6	32.6	32.7
	Ave.	33.2(26)	33.2(25)	33.3(26)
38 Lb	Max.	40.7	39.8	40.2
	Min.	37.8	37.8	37.6
	Ave.	38.6(21)	38.4(19)	38.4(19)
42 Lb	Max.	43.0	43.2	43.0
	Min.	41.5	41.6	41.6
	Ave.	42.2(44)	42.2(45)	42.2(45)
69 Lb	Max.	70.1	70.0	70.1
	Min.	67.9	67.9	67.9
	Ave.	69.3(30)	69.2(31)	69.3(30)
90 Lb	Max.	91.1	92.3	92.1
	Min.	90.2	89.7	90.0
	Ave.	90.6(12)	90.5(13)	90.5(14)

Max. and Min. values are current machine averages.
Ave. value is current F.K.B.G. average, number of machines is indicated in parentheses.

PART III: SUMMARY OF CALIPER DATA (JAN-JUN, 1988)

Linerboard Grade Wt.		Caliper, mil JAN-FEB	MAR-APR	MAY-JUN
26 Lb	Max.	8.6	8.5	9.0
	Min.	6.4	6.5	6.5
	Ave.	7.7(17)	7.8(18)	7.8(18)
33 Lb	Max.	10.6	10.3	10.5
	Min.	8.6	8.6	8.4
	Ave.	9.7(26)	9.5(25)	9.5(27)
38 Lb	Max.	12.0	11.7	11.5
	Min.	9.8	9.9	9.3
	Ave.	10.7(21)	10.7(19)	10.5(19)
42 Lb	Max.	13.5	12.7	12.7
	Min.	10.0	10.5	10.3
	Ave.	11.3(44)	11.7(44)	11.7(45)
69 Lb	Max.	20.7	20.6	20.6
	Min.	16.2	17.2	16.9
	Ave.	19.0(30)	19.2(31)	19.2(30)
90 Lb	Max.	26.3	27.4	26.5
	Min.	23.1	22.1	22.5
	Ave.	24.3(12)	25.1(12)	25.0(14)

Max. and Min. values are current machine averages.
Ave. value is current F.K.B.G. average, number of machines is indicated in parentheses.

PART IV: SUMMARY OF BURSTING STRENGTH DATA (JAN-JUN, 1988)

Linerboard Grade Wt.		Bursting Strength, psig		
		JAN-FEB	MAR-APR	MAY-JJN
26 Lb	Max.	83	84	89
	Min.	65	67	66
	Ave.	73(17)	73(18)	74(18)
33 Lb	Max.	99	94	116
	Min.	80	78	78
	Ave.	88(26)	87(25)	88(27)
38 Lb	Max.	107	104	106
	Min.	93	91	91
	Ave.	99(21)	99(19)	97(19)
42 Lb	Max.	120	121	116
	Min.	98	98	98
	Ave.	106(44)	107(45)	106(45)
69 Lb	Max.	169	170	161
	Min.	127	130	129
	Ave.	144(30)	144(31)	144(30)
90 Lb	Max.	207	218	189
	Min.	149	157	152
	Ave.	172(12)	174(13)	171(14)

Max. and Min. values are current machine averages.
Ave. value is current F.K.B.G. average, number of machines is indicated in parentheses.

PART V: SUMMARY OF CD RING CRUSH DATA (JAN-JUN, 1988)

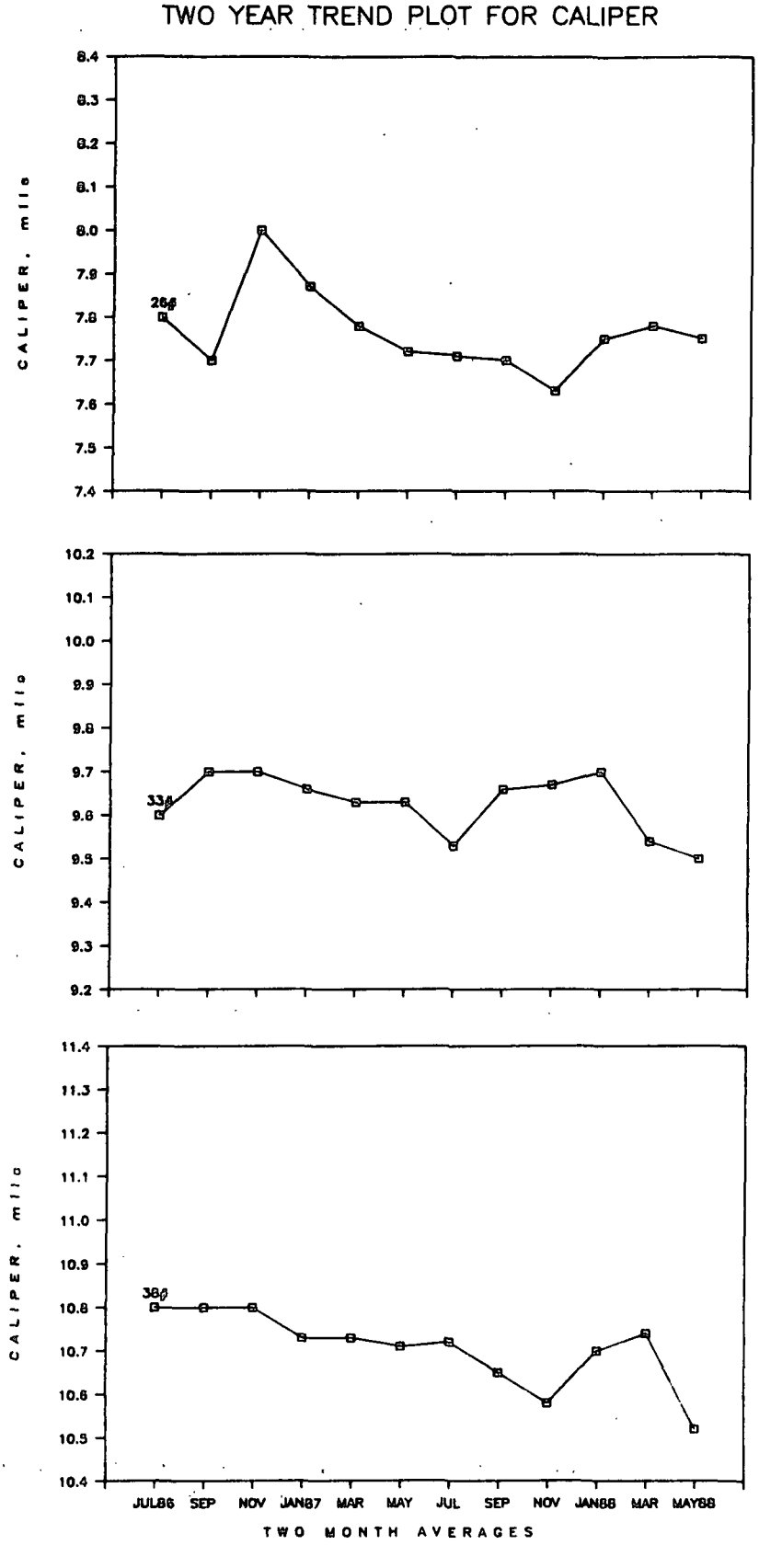
Linerboard Grade Wt.		CD Ring Crush, lb JAN-FEB	MAR-APR	MAY-JUN
26 Lb	Max.	42.1	44.1	44.6
	Min.	31.0	33.0	32.0
	Ave.	37.4(9)	38.9(9)	38.3(9)
33 Lb	Max.	69.0	70.0	68.3
	Min.	46.0	46.0	43.5
	Ave.	56.2(14)	56.0(13)	55.5(15)
38 Lb	Max.	83.6	80.8	82.0
	Min.	58.0	59.0	56.5
	Ave.	67.7(13)	69.0(12)	69.8(13)
42 Lb	Max.	89.3	94.0	93.9
	Min.	65.0	63.0	60.0
	Ave.	77.1(24)	77.9(24)	76.4(25)
69 Lb	Max.	146.5	159.4	148.9
	Min.	106.0	107.0	105.0
	Ave.	121.8(17)	126.4(18)	122.0(16)
90 Lb	Max.	187.6	184.5	193.2
	Min.	141.0	138.0	145.0
	Ave.	157.0(6)	155.0(7)	160.9(7)

Max. and Min. values are current machine averages.
Ave. value is current F.K.B.G. average, number of machines is indicated in parentheses.

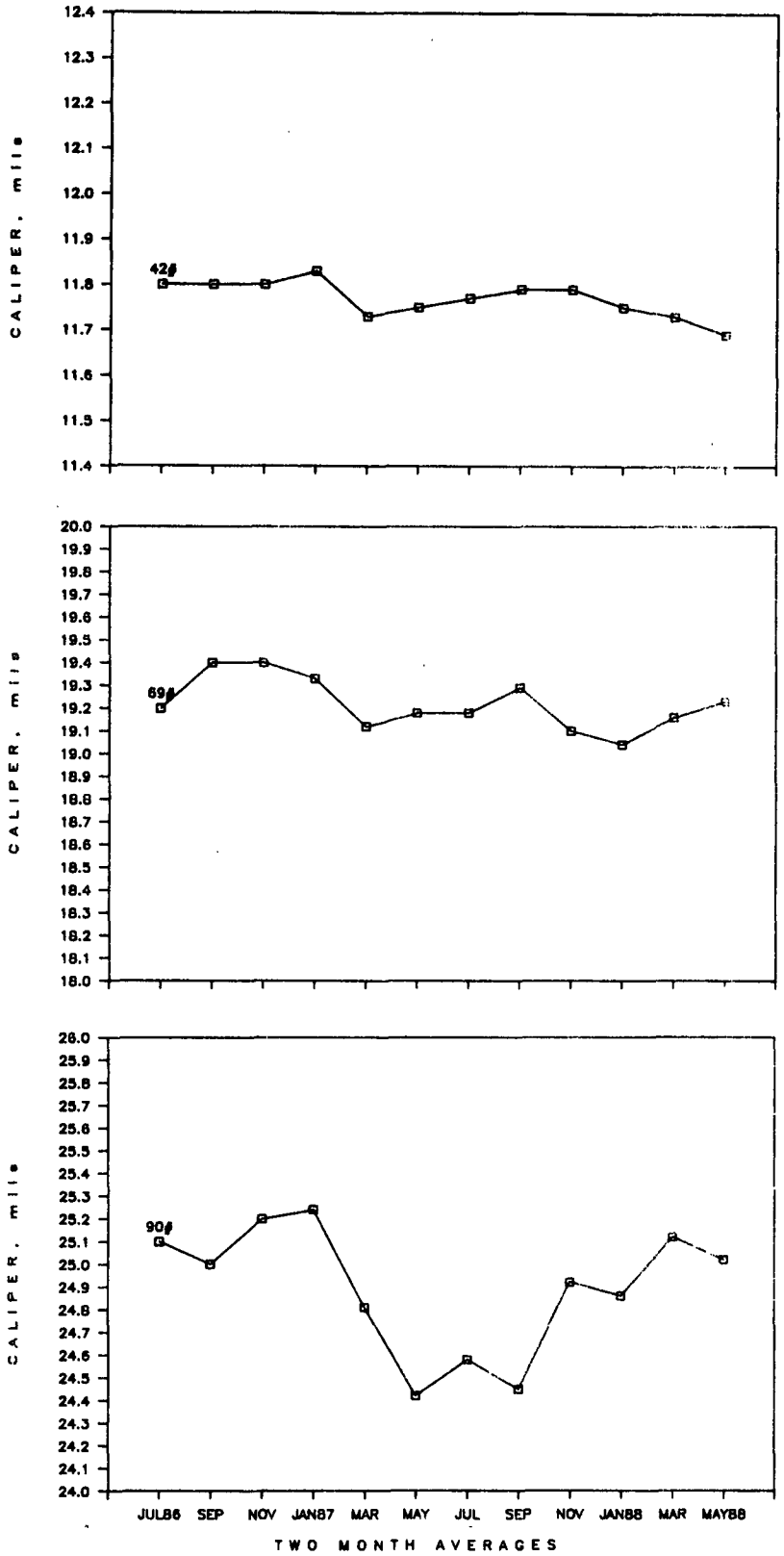
PART VI: SUMMARY OF CD STFI DATA (JAN-JUN, 1988)

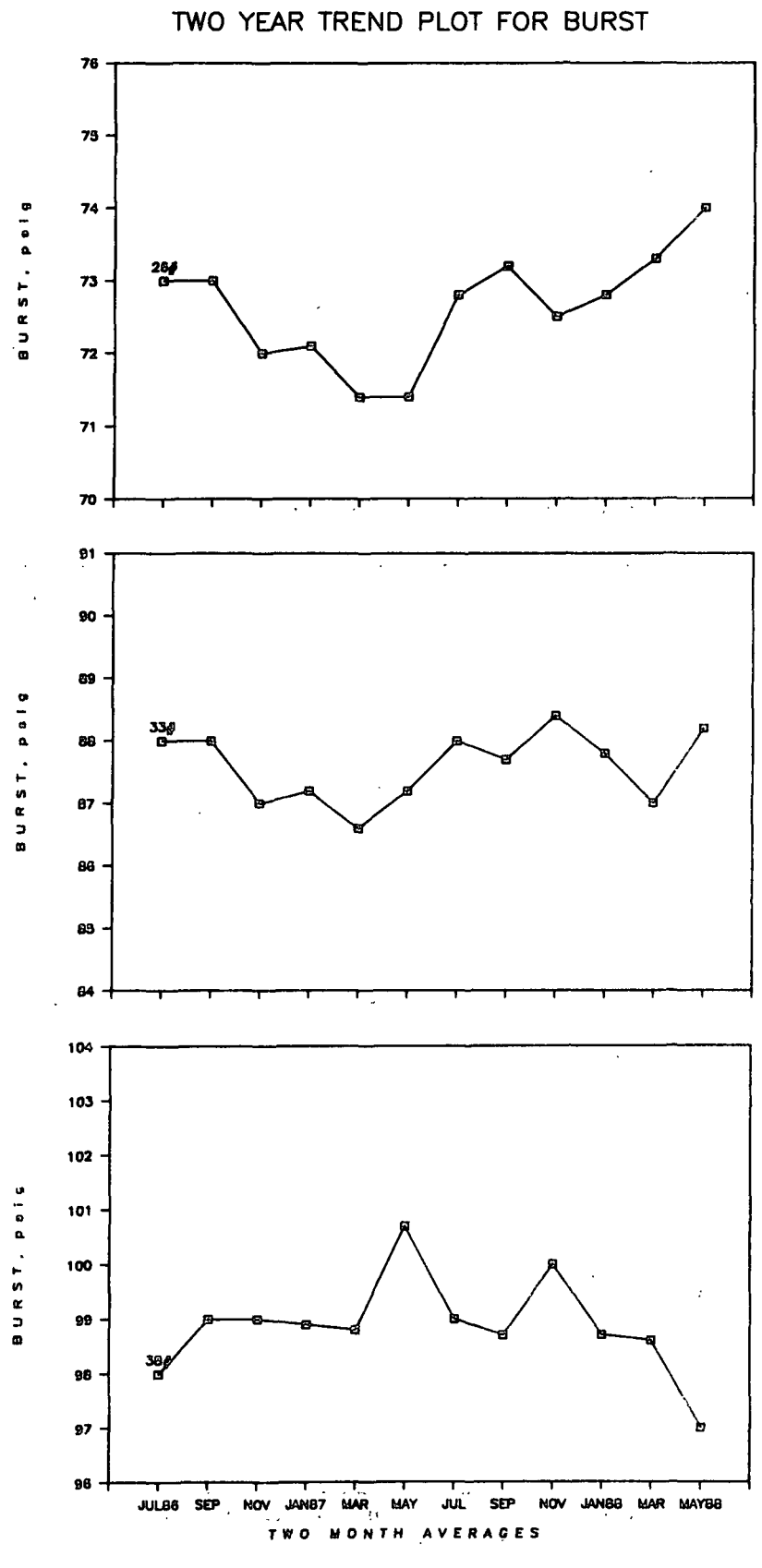
Linerboard Grade Wt.		CD STFI, lb/in JAN-FEB	MAR-APR	MAY-JUN
26 Lb	Max.	14.7	14.9	15.0
	Min.	10.2	11.0	11.1
	Ave.	12.6(9)	12.8(10)	12.8(9)
33 Lb	Max.	19.8	20.6	17.4
	Min.	13.5	13.7	13.4
	Ave.	16.4(13)	16.0(12)	15.9(10)
38 Lb	Max.	22.1	24.9	22.5
	Min.	15.8	17.1	17.8
	Ave.	18.8(7)	20.0(7)	19.8(5)
42 Lb	Max.	24.0	26.9	26.0
	Min.	16.1	16.3	16.1
	Ave.	20.0(21)	20.5(23)	20.1(21)
69 Lb	Max.	34.7	52.5	47.5
	Min.	28.5	25.0	25.8
	Ave.	30.9(13)	32.0(15)	31.3(13)
90 Lb	Max.	44.2	44.0	44.0
	Min.	37.4	36.8	38.7
	Ave.	40.8(7)	41.0(6)	41.1(7)

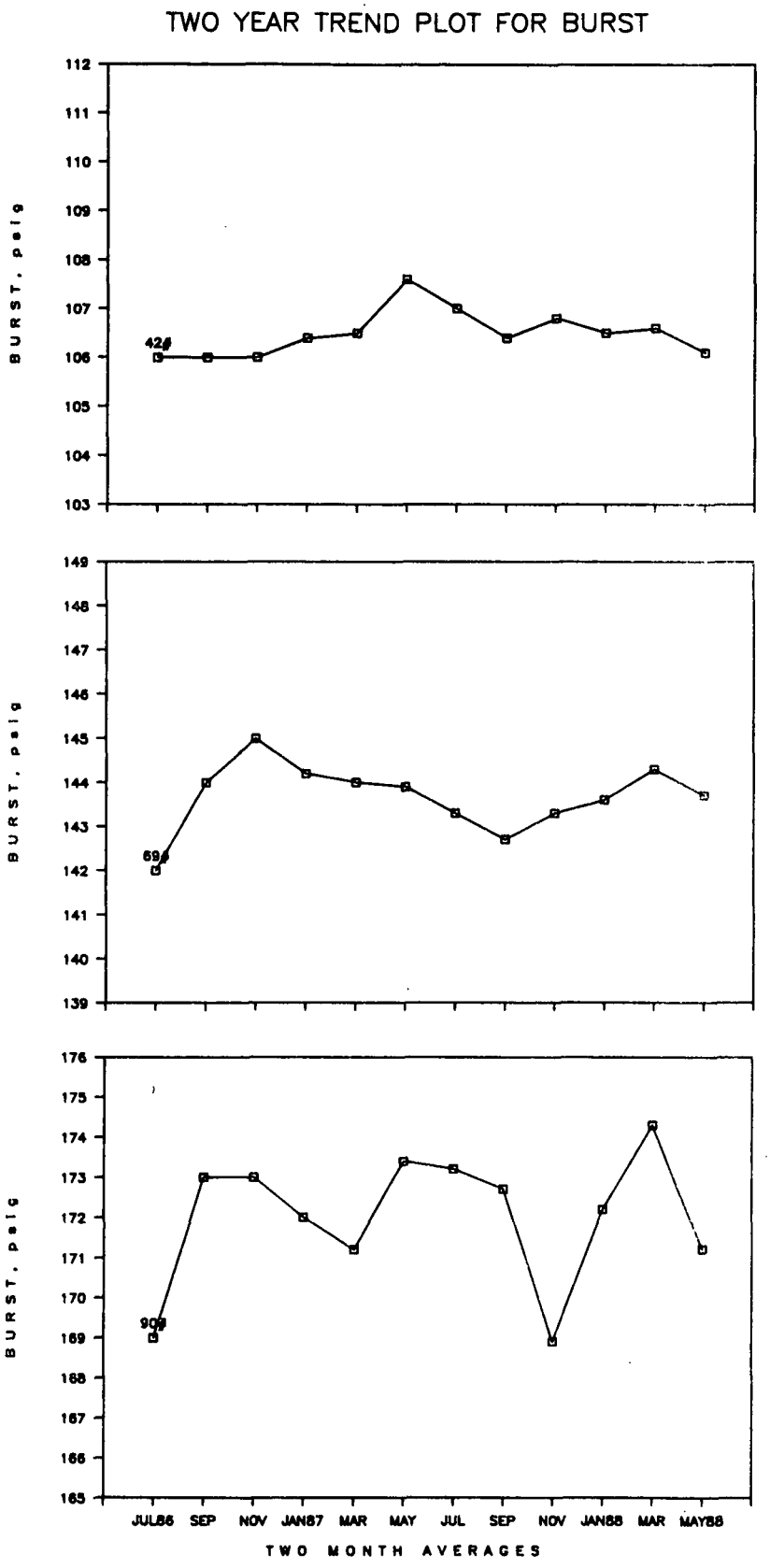
Max. and Min. values are current machine averages.
Ave. value is current F.K.B.G. average, number of machines is indicated in parentheses.

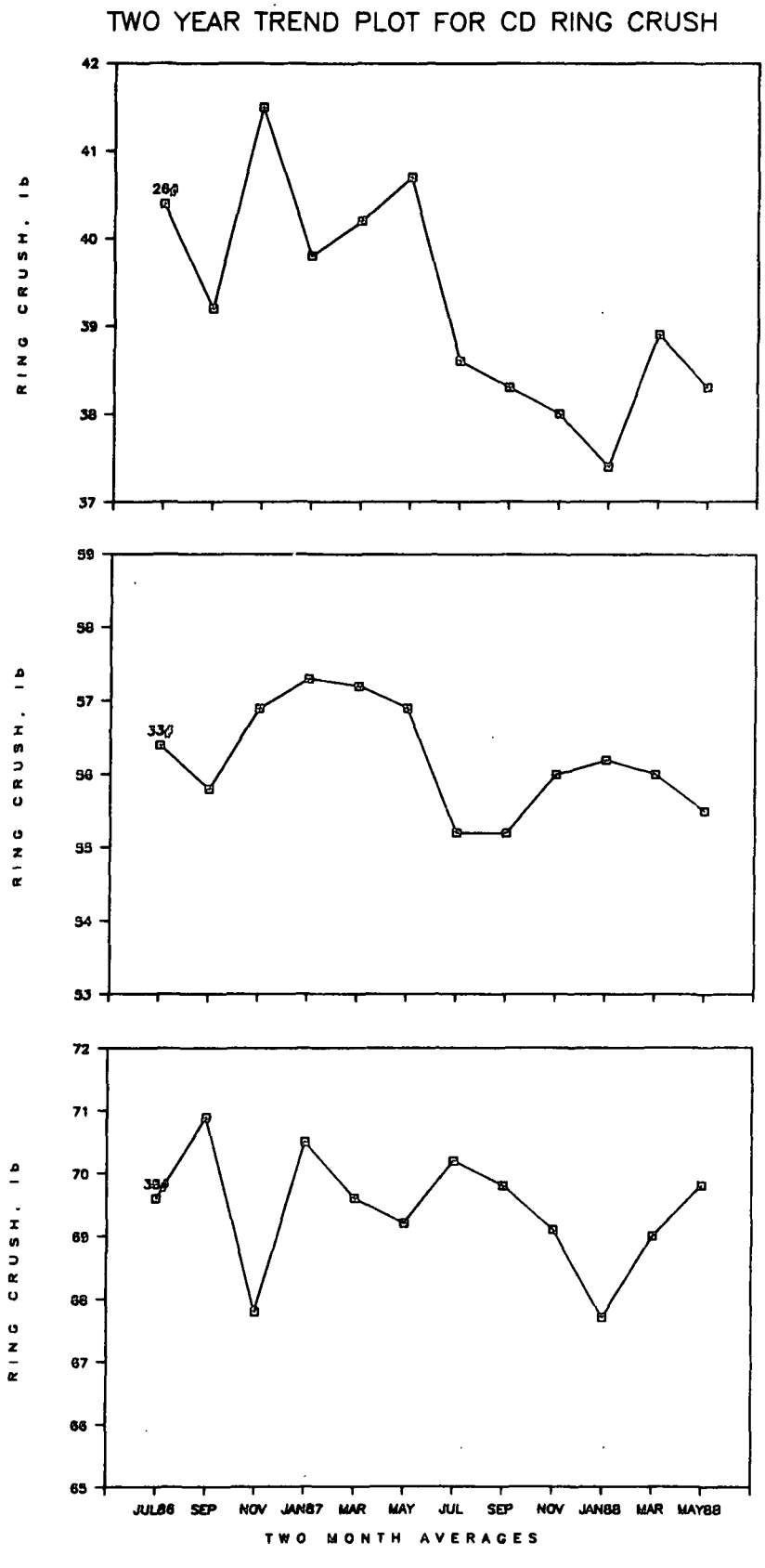

TWO YEAR TREND PLOT FOR CALIPER
CALIPER, mils
8.4
8.3
8.2
8.1
8.0
7.9
7.8
7.7
7.6
7.5
7.4
26Ø
CALIPER, mils
10.2
10.1
10.0
9.9
9.8
9.7
9.6
9.5
9.4
9.3
9.2
33Ø
CALIPER, mils
11.4
11.3
11.2
11.1
11.0
10.9
10.8
10.7
10.6
10.5
10.4
38Ø
JUL86 SEP NOV JAN87 MAR MAY JUL SEP NOV JAN88 MAR MAY88
TWO MONTH AVERAGES

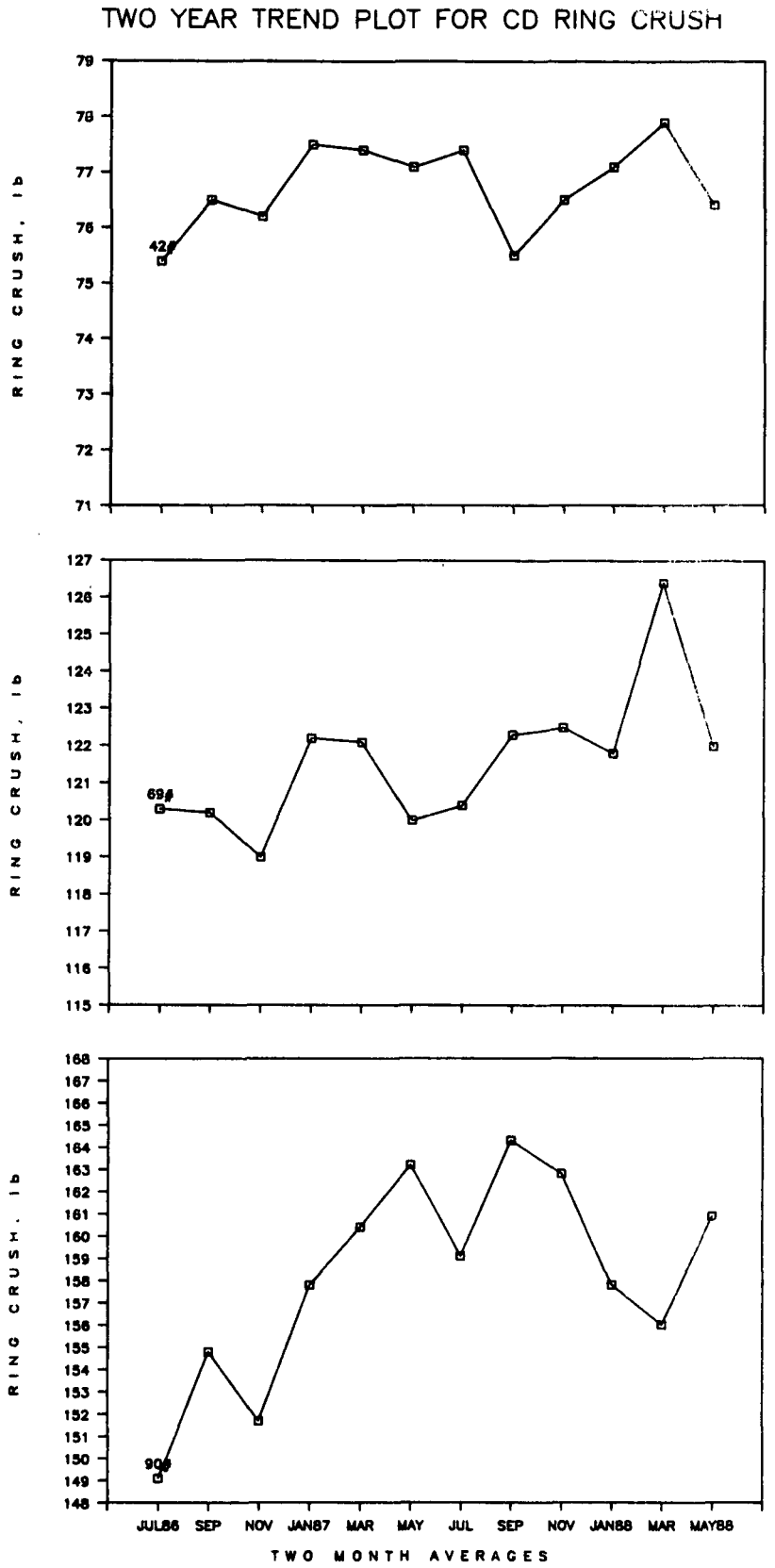
TWO YEAR TREND PLOT FOR CALIPER




TWO YEAR TREND PLOT FOR BURST
BURST, psig
76
75
74
73
72
71
70
284
BURST, psig
91
90
89
88
87
86
85
84
336
BURST, psig
104
103
102
101
100
99
98
97
96
386
JUL86 SEP NOV JAN87 MAR MAY JUL SEP NOV JAN88 MAR MAY88
TWO MONTH AVERAGES


TWO YEAR TREND PLOT FOR BURST
BURST, psig
112
111
110
109
108
107
106
105
104
103
BURST, psig
149
148
147
146
145
144
143
142
141
140
139
BURST, psig
176
175
174
173
172
171
170
169
168
167
166
165
JUL86 SEP NOV JAN87 MAR MAY JUL SEP NOV JAN88 MAR MAY88
TWO MONTH AVERAGES


TWO YEAR TREND PLOT FOR CD RING CRUSH
RING CRUSH, lb
42
41
40
39
38
37
RING CRUSH, lb
59
58
57
56
55
54
53
RING CRUSH, lb
72
71
70
69
68
67
66
65
JUL86 SEP NOV JAN87 MAR MAY JUL SEP NOV JAN88 MAR MAY88
TWO MONTH AVERAGES


TWO YEAR TREND PLOT FOR CD RING CRUSH
RING CRUSH, lb
79
78
77
76
75
74
73
72
71
42#
RING CRUSH, lb
127
126
125
124
123
122
121
120
119
118
117
116
115
69#
RING CRUSH, lb
168
167
166
165
164
163
162
161
160
159
158
157
156
155
154
153
152
151
150
149
148
90#
JUL86 SEP NOV JAN87 MAR MAY JUL SEP NOV JAN88 MAR MAY88
TWO MONTH AVERAGES

INTRODUCTION

The continuous base-line study (modified) is a compilation of bimonthly averages of mill test data obtained routinely on six major grade weights of linerboard manufactured in the member mills of F.K.B.G. Mill data are included for moisture content, basis weight, caliper, bursting strength, C.D. ring crush and C.D. STFI tests made on the production of individual machines which produced at least 500 tons of one or more of the following six major grade weights during a given period: 26, 33, 38, 42, 69, and 90 lb. Participating mills are asked to report reel moisture content, basis weight, and moisture content corresponding to the basis weight measurement. The latter two measurements are used to compute the adjusted basis weight corresponding to a moisture content of 7.8%. Only the reel moisture content and the adjusted basis weight are included in the report.

PRESENTATION OF DATA

For the six major grade weights of linerboard referred to earlier, mill test averages for moisture content, adjusted basis weight, caliper, bursting strength, C.D. ring crush, and C.D. STFI are compiled in the following tables.

Table Number	Description
I-II-III	Mill Test Averages on 26-lb Linerboard
IV-V-VI	Mill Test Averages on 33-lb Linerboard
VII-VIII-IX	Mill Test Averages on 38-lb Linerboard
X-XI-XII	Mill Test Averages on 42-lb Linerboard
XIII-XIV-XV	Mill Test Averages on 69-lb Linerboard
XVI-XVII-XVIII	Mill Test Averages on 90-lb Linerboard

TABLE I

AVERAGES OF MILL QUALITY DATA FOR JAN-FEB, 1988 - 26 LB KRAFT LINERBOARD

CODE	MOISTURE CONTENT PERCENT CUR. AV.	MOISTURE CONTENT PERCENT CUM. AV.	MOISTURE CONTENT PERCENT IND. *B	ADJ. BASIS WT. *A LB/M SQ FT CUR. AV.	ADJ. BASIS WT. *A LB/M SQ FT CUM. AV.	ADJ. BASIS WT. *A LB/M SQ FT IND. *B	CALIPER MIL CUR. AV.	CALIPER MIL CUM. AV.	CALIPER MIL IND. *B
A1	5.4	5.2	98.2	26.7	26.7	101.5	8.0	7.5	103.9
L1		5.8			26.5			7.2	
M1		4.4			26.3			8.3	
N1	6.1	6.1	110.9	26.3	26.4	100.0	7.7	7.8	100.0
Z1	6.1	6.1	110.9	26.1	26.1	99.2	8.2	8.2	106.5
D2	6.9	7.0	125.4	26.0	26.0	98.8	7.7	7.7	100.0
M2	5.9	6.1	107.3	26.1	26.1	99.2	6.4	7.0	83.1
V2	3.5	3.6	63.6	26.3	26.6	100.0	8.6	8.3	111.7
B3	7.3		132.7	26.0		98.8	8.4		109.1
E3		4.2			27.4			7.5	
A3	5.1	5.7	92.7	25.7	25.8	97.7	7.1	7.3	92.2
L3	5.2	5.6	94.5	26.3	26.2	100.0	7.5	7.5	97.4
D3	5.6	5.6	101.8	25.9	25.9	98.5	8.1	8.1	105.2
R3	5.2	4.6	94.5	26.4	26.3	100.4	7.3	7.3	94.8
C4	4.8	5.0	87.3	25.5	26.4	100.8	7.8	8.0	101.3
D4	4.9	5.0	89.1	26.1	26.1	99.2	7.8	8.0	101.3
G4	6.8		123.6	25.9		98.5	8.1		105.2
I4	5.6	5.9	101.8	26.2	26.6	99.6	7.8	8.1	101.3
P4	5.3	5.7	96.4	25.2	26.0	99.6	7.8	7.8	101.3
J4	5.0	5.0	90.9	26.0	26.1	98.8	7.4	7.9	96.1
FKBG	5.6	5.5	101.8	26.2	26.3	99.6	7.8	7.7	101.3

NOTES A AND B ARE GIVEN IN APPENDIX.

TABLE I (CONT)

AVERAGES OF MILL QUALITY DATA FOR JAN-FEB, 1988 - 26 LB KRAFT LINERBOARD

CODE	BURST PSIG CUR. AV.	BURST PSIG CUM. AV.	BURST PSIG IND. *B	CD RING CRUSH, LB CUR. AV.	CD RING CRUSH, LB CUM. AV.	CD RING CRUSH, LB IND. *B	CD STFI LB/IN CUR. AV.	CD STFI LB/IN CUM. AV.	CD STFI LB/IN IND. *B
A1	83	81	115.3						
L1		71							
M1		72						13.3	
N1	78	78	108.3	38.0	38.0	96.7	14.7	14.6	108.1
Z1	68	70	94.4	36.0	36.2	91.6			
D2	65	65	90.3				11.2	12.0	82.4
M2	70	69	97.2				11.4	11.8	83.8
V2	82	69	113.9		37.0		10.2	11.4	75.0
B3	69		95.8				11.5		84.6
E3		78			51.4			17.4	
A3	72	77	100.0				14.1	15.0	103.7
L3	67	66	93.0	41.8	43.2	106.4			
D3	72	69	100.0	36.0	37.0	91.6			
R3	76	75	105.6	42.1	43.2	107.1	14.7	15.4	108.1
C4	71	68	98.5						
D4	71	68	98.6	34.0	32.5	86.5	13.3	12.8	97.8
G4	73		101.4						
I4	73	70	101.4	37.0	38.0	94.1			
P4	75	81	104.2	41.0	42.3	104.3			
Q4	73	71	101.4	31.8	33.8	78.9	12.6	12.3	92.6
FKBG	73	72	101.4	37.4	39.3	95.2	12.6	13.6	92.6

NOTE B IS GIVEN IN APPENDIX.

TABLE II

AVERAGES OF MILL QUALITY DATA FOR MAR-APR, 1988 - 26 LB KRAFT LINERBOARD

CODE	MOISTURE CONTENT PERCENT CUR. AV.	MOISTURE CONTENT PERCENT CUM. AV.	MOISTURE CONTENT PERCENT IND. *B	ADJ. BASIS WT. *A LB/M SQ FT CUR. AV.	ADJ. BASIS WT. *A LB/M SQ FT CUM. AV.	ADJ. BASIS WT. *A LB/M SQ FT IND. *B	CALIPER MIL CUR. AV.	CALIPER MIL CUM. AV.	CALIPER MIL IND. *B
A1	5.1	5.2	92.7	26.7	26.7	101.9	8.0	7.5	103.9
L1		5.8			26.5			7.2	
M1	4.3	4.4	78.2	26.7	26.3	101.9	8.5	8.3	110.4
N1	6.0	6.1	109.1	26.3	26.4	100.4	7.7	7.7	100.0
Z1	6.1	6.1	110.9	26.2	26.1	100.0	8.1	8.3	105.2
D2	6.9	7.0	125.4	25.9	26.0	98.8	7.7	7.7	100.0
M2	6.2	6.1	112.7	26.1	26.1	99.6	6.5	6.9	84.4
V2	3.7	3.6	67.3	26.1	26.5	99.6	8.1	8.4	105.2
B3	7.0	7.3	127.3	26.0	26.0	99.2	8.3	8.4	107.8
E3		4.2			27.4			7.4	
A3	5.5	5.6	100.0	25.7	25.8	98.1	7.2	7.2	93.5
L3	5.1	5.4	92.7	26.3	26.2	100.4	7.7	7.4	100.0
D3	5.5	5.6	100.0	26.0	25.9	99.2	8.4	8.1	109.1
R3	5.0	4.8	90.9	26.3	26.3	100.4	7.3	7.3	94.8
C4	4.8	5.0	87.3	26.5	26.4	101.1	7.6	7.9	98.7
D4	5.0	5.0	90.9	26.1	26.1	99.6	7.9	7.9	102.6
G4	7.1	6.8	129.1	26.0	25.9	99.2	8.1	8.1	105.2
I4	5.6	5.8	101.8	26.1	26.5	99.6	7.6	8.1	98.7
P4	5.6	5.6	101.8	26.0	26.1	99.2	7.8	7.8	101.3
Q4	4.9	5.0	89.1	26.1	26.1	99.6	7.6	7.8	98.7
FKBG	5.5	5.5	100.0	26.2	26.2	100.0	7.8	7.7	101.3

NOTES A AND B ARE GIVEN IN APPENDIX.

TABLE II (CONT)

AVERAGES OF MILL QUALITY DATA FOR MAR-APR, 1988 - 26 LB KRAFT LINERBOARD

CODE	BURST PSIG CUR. AV.	BURST PSIG CUM. AV.	BURST PSIG IND. *B	CD RING CRUSH, LB CUR. AV.	CD RING CRUSH, LB CUM. AV.	CD RING CRUSH, LB IND. *B	CD STFI LB/IN CUR. AV.	CD STFI LB/IN CUM. AV.	CD STFI LB/IN IND. *B
H1	84	82	116.7						
_1		71							
M1	70	72	97.2					13.3	
N1	76	78	105.6	37.0	38.0	95.1	14.8	14.6	110.4
Z1	71	70	98.6	38.0	36.2	97.7			
D2	67	65	93.0				11.2	12.0	83.6
M2	75	69	104.2				13.2	11.7	98.5
V2	76	73	105.6				11.4	11.0	85.1
B3	69	69	95.8				11.7	11.5	87.3
E3		77			51.8			18.0	
13	75	76	104.2				14.9	14.8	111.2
_3	69	66	95.8	44.1	42.7	113.4			
D3	73	70	101.4	39.0	36.7	100.2			
R3	78	75	108.3	43.0	43.2	110.5	14.5	15.3	108.2
C4	70	69	97.2						
D4	73	70	101.4	33.0	33.5	84.8	12.8	13.0	95.5
G4	71	73	98.6				11.0		82.1
I4	70	70	97.2	38.0	38.2	97.7			
P4	80	79	111.1	41.0	41.7	105.4			
Q4	72	72	100.0	37.0	33.3	95.1	12.6	12.3	94.0
FKBG	73	72	101.4	38.9	38.9	100.0	12.8	13.4	95.5

NOTE B IS GIVEN IN APPENDIX.

TABLE III

AVERAGES OF MILL QUALITY DATA FOR MAY-JUN, 1988 - 26 LB KRAFT LINERBOARD

CODE	MOISTURE CONTENT PERCENT CUR. AV.	MOISTURE CONTENT PERCENT CUM. AV.	MOISTURE CONTENT PERCENT IND. *B	ADJ. BASIS WT. *A LB/M SQ FT CUR. AV.	ADJ. BASIS WT. *A LB/M SQ FT CUM. AV.	ADJ. BASIS WT. *A LB/M SQ FT IND. *B	CALIPER MIL CUR. AV.	CALIPER MIL CUM. AV.	CALIPER MIL IND. *B
H1	5.5	5.2	100.0	26.6	26.7	101.5	7.1	7.6	92.2
_1		5.8			26.5			7.2	
M1	4.8	4.4	87.3	26.2	26.5	100.0	8.1	8.4	105.2
N1	5.9	6.1	107.3	25.4	26.3	100.8	7.6	7.7	98.7
Z1	6.0	6.1	109.1	26.6	26.2	101.5	8.6	8.3	111.7
D2	6.9	7.0	125.4	26.0	26.0	99.2	7.5	7.7	97.4
M2	6.5	6.1	118.2	26.2	26.1	100.0	6.5	6.8	84.4
V2	3.6	3.6	65.4	25.7	26.4	101.9	8.3	8.5	107.8
B3	7.0	7.2	127.3	26.0	26.0	99.2	8.3	8.4	107.8
E3		4.3			27.8			7.2	
H3	5.4	5.5	98.2	25.8	25.8	98.5	7.5	7.2	97.4
_3	5.2	5.2	94.5	26.2	26.3	100.0	7.2	7.4	93.5
O3	5.5	5.6	100.0	26.0	25.9	99.2	8.3	8.1	107.8
R3	5.1	4.8	92.7	26.7	26.3	101.9	7.1	7.3	92.2
C4	4.9	5.0	89.1	26.5	26.4	101.1	7.4	7.8	96.1
D4	5.0	5.0	90.9	26.1	26.1	99.6	7.8	7.8	101.3
G4	6.9	7.0	125.4	25.9	26.0	98.8	9.0	8.1	116.9
I4	5.4	5.7	98.2	25.1	26.4	99.6	7.8	8.0	101.3
P4	5.3	5.6	96.4	26.2	26.1	100.0	7.8	7.8	101.3
Q4	4.9	5.0	89.1	25.1	26.1	99.6	7.6	7.7	98.7
FKBG	5.5	5.5	100.0	26.2	26.2	100.0	7.8	7.7	101.3

NOTES A AND B ARE GIVEN IN APPENDIX.

TABLE III (CONT)

AVERAGES OF MILL QUALITY DATA FOR MAY-JUN, 1988 - 26 LB KRAFT LINERBOARD

CODE	BURST PSIG CUR. AV.	BURST PSIG CUM. AV.	BURST PSIG IND. *B	CD RING CRUSH, LB CUR. AV.	CD RING CRUSH, LB CUM. AV.	CD RING CRUSH, LB IND. *B	CD STFI LB/IN CUR. AV.	CD STFI LB/IN CUM. AV.	CD STFI LB/IN IND. *B
A1	89	82	121.9						
_1		71							
M1	70	71	95.9					13.3	
N1	77	77	105.5	37.0	37.8	95.8		14.6	
Z1	71	70	97.3	36.0	36.4	93.3			
D2	75	65	102.7				11.1	11.8	84.1
M2	82	71	112.3				13.1	12.2	99.2
V2	82	75	112.3				11.6	11.0	87.9
B3	70	69	95.9				12.7	11.6	96.2
E3		75			53.1			17.8	
A3	74	76	101.4				15.0	14.8	113.6
_3	66	67	90.4	41.8	42.4	108.3			
D3	72	71	98.6	38.0	37.0	98.4			
R3	77	76	105.5	44.6	43.0	115.5	14.3	15.1	108.3
C4	68	69	93.2						
D4	70	72	95.9	32.0	33.5	82.9	12.9	13.0	97.7
G4	71	72	97.3				11.6	11.0	87.9
I4	70	70	95.9	36.0	38.2	93.3			
P4	79	78	108.2	42.0	41.2	108.8			
Q4	69	73	94.5	37.0	33.7	95.8	13.4	12.4	101.5
FXBG	74	73	101.4	38.3	38.6	99.2	12.8	13.2	97.0

NOTE B IS GIVEN IN APPENDIX.

TABLE IV

AVERAGES OF MILL QUALITY DATA FOR JAN-FEB, 1988 - 33 LB KRAFT LINERBOARD

CODE	MOISTURE CONTENT PERCENT CUR. AV.	MOISTURE CONTENT PERCENT CUM. AV.	MOISTURE CONTENT PERCENT IND. *B	ADJ. BASIS WT. *A LB/M SQ FT CUR. AV.	ADJ. BASIS WT. *A LB/M SQ FT CUM. AV.	ADJ. BASIS WT. *A LB/M SQ FT IND. *B	CALIPER MIL CUR. AV.	CALIPER MIL CUM. AV.	CALIPER MIL IND. *B
B1	6.6	6.7	120.0	33.1	33.0	99.7	10.0	9.9	104.2
C1	5.2	5.5	94.5	33.7	33.3	101.5	9.6	9.2	100.0
H1	5.2	5.3	94.5	33.8	33.9	101.8	10.0	9.4	104.2
M1	5.3	5.2	96.4	33.3	33.2	100.3	9.8	10.1	102.1
N1	6.2	6.4	112.7	33.3	33.4	100.3	9.9	9.9	103.1
Z1	6.0	6.1	109.1	33.0	32.8	99.4	9.7	9.4	101.0
F2		5.3			32.6			9.9	
J2	5.3	5.0	96.4	32.7	32.5	98.5	9.8	9.6	102.1
M2	6.5	6.1	118.2	33.1	33.1	99.7	8.6	9.2	89.6
P2		5.4			33.6			9.4	
U2		5.6			33.9			9.6	
V2	4.2	4.2	76.4	33.0	33.0	99.4	10.6	10.4	110.4
Y2	5.6	5.6	101.8	33.2	33.2	100.0	9.0	9.4	93.8
B3	7.1		129.1	33.0		99.4	8.9		92.7
E3	6.0	5.0	109.1	33.8	33.5	101.8	9.9	9.2	103.1
H3	5.8	5.9	105.4	32.6	32.7	98.2	9.0	8.9	93.8
I3	5.9	5.7	107.3	33.1	33.1	99.7	9.0	8.9	93.8
L3	5.5	5.9	100.0	33.3	33.3	100.3	9.6	9.4	100.0
M3		4.4			33.2			9.9	
O3		5.5			32.7			10.2	
R3	5.7	5.1	103.6	33.3	33.2	100.3	9.1	9.1	94.8
S3	6.0	6.2	109.1	33.3	33.4	100.3	8.8		91.7
B4	5.7	5.6	103.6	33.6	34.1	101.2	10.1	10.1	105.2
C4	4.9	5.2	89.1	33.5	33.4	100.9	9.8	9.8	102.1
D4	5.0	5.0	90.9	33.1	33.1	99.7	10.2	9.9	106.2
G4	6.7		121.8	32.9		99.1	10.1		105.2
I4	6.0	6.1	109.1	32.8	33.0	98.8	9.9	10.0	103.1
J4	4.2	4.2	76.4	33.1	33.3	99.7	10.6	10.2	110.4
K4		5.1			33.5			9.4	
O4	4.7	4.8	85.4	33.4	33.6	100.6	10.1	9.7	105.2
P4	5.9	5.9	107.3	33.1	33.0	99.7	10.0	10.0	104.2
Q4	4.9	5.0	89.1	33.0	33.1	99.4	10.0	10.0	104.2
FXBG	5.6	5.5	101.8	33.2	33.2	100.0	9.7	9.6	101.0

NOTES A AND B ARE GIVEN IN APPENDIX.

TABLE IV (CONT)

AVERAGES OF MILL QUALITY DATA FOR JAN-FEB, 1988 - 33 LB KRAFT LINERBOARD

CODE	BURST PSIG CUR. AV.	BURST PSIG CUM. AV.	BURST PSIG IND. *8	CD RING CRUSH, LB CUR. AV.	CD RING CRUSH, LB CUM. AV.	CD RING CRUSH, LB IND. *8	C) STFI LB/IN CUR. AV.	C) STFI LB/IN CUM. AV.	C) STFI LB/IN IND. *8
B1	86	89	97.7				16.2	15.1	100.0
C1	87	84	98.9	52.0	53.2	92.4			
H1	99	98	112.5						
M1	80	82	90.9					15.2	
N1	90	91	102.3	56.0	56.5	99.5	17.4	17.6	107.4
Z1	80	81	90.9	47.5	42.8	84.4			
F2		89			52.0				
J2	92	86	104.5	55.0	53.3	97.7			
M2	86	88	97.7				15.1	13.8	93.2
P2		80							
J2		95							
V2	91	87	103.4		49.0		13.5	14.1	83.3
Y2	91	88	103.4	57.0	53.2	101.2			
B3	87		98.9				16.3		100.6
E3	99	90	112.5	69.0	69.4	122.6	19.8	20.4	122.2
H3	87	91	98.9				16.5	17.1	101.8
I3	89	90	101.1				14.2	15.0	87.6
L3	81	80	92.0	63.8	67.3	113.3			
M3		88			56.0			15.5	
O3		88			56.2				
R3	92	93	104.5	62.4	65.7	110.8	18.2	18.8	112.3
S3	82	83	93.2	58.5	54.5	103.9			
B4	92	94	104.5						
C4	83	83	94.3						
D4	86	86	97.7	50.0	47.5	88.3	16.0	15.8	98.8
G4	83		94.3						
I4	87	82	98.9	49.0	50.8	87.0			
J4	94	87	106.8				15.6	14.8	96.3
K4		88							
O4	88	86	100.0	63.0	59.3	111.9	19.8	18.0	122.2
P4	85	94	96.6	57.0	62.3	101.2			
Q4	86	84	97.7	46.0	45.6	81.7	14.9	14.7	92.0
FXBG	88	83	100.0	56.2	56.3	99.8	16.4	16.2	101.2

NOTE B IS GIVEN IN APPENDIX.

TABLE V

AVERAGES OF MILL QUALITY DATA FOR MAR-APR, 1988 - 33 LB KRAFT LINERBOARD

CODE	MOISTURE CONTENT PERCENT CUR. AV.	MOISTURE CONTENT PERCENT CUM. AV.	MOISTURE CONTENT PERCENT IND. *B	ADJ. BASIS WT. *A LB/M SQ FT CUR. AV.	ADJ. BASIS WT. *A LB/M SQ FT CUM. AV.	ADJ. BASIS WT. *A LB/M SQ FT IND. *B	CALIPER MIL CUR. AV.	CALIPER MIL CUM. AV.	CALIPER MIL IND. *B
B1	6.7	6.6	121.8	33.2	33.0	100.0	10.0	9.9	104.2
C1	5.5	5.4	100.0	32.8	33.4	98.8	9.4	9.2	97.9
H1		5.2			33.9			9.3	
M1	5.1	5.2	92.7	33.1	33.2	99.7	9.6	10.0	100.0
N1	6.0	6.3	109.1	33.4	33.4	100.6	9.7	9.9	101.0
Z1	6.1	6.1	110.9	33.3	32.9	100.3	9.5	9.5	99.0
F2		5.3			32.6			9.9	
J2		5.1			32.6			9.6	
M2	6.3	6.2	114.5	33.2	33.1	100.0	8.6	9.0	89.6
P2		5.3			33.5			9.6	
J2		5.6		34.3	33.9	103.3	9.5	9.6	99.0
V2	4.2	4.2	76.4	33.0	33.0	99.4	10.3	10.4	107.3
Y2	5.8	5.6	105.4	33.4	33.2	100.6	9.2	9.3	95.8
B3	7.4	7.1	134.5	33.1	33.0	99.7	9.0	8.9	93.8
E3	6.0	5.2	109.1	33.5	33.6	100.9	9.8	9.2	102.1
H3	5.7	5.9	103.6	32.6	32.6	93.2	8.6	8.9	89.6
I3	6.1	5.8	110.9	33.1	33.1	99.7	8.9	8.9	92.7
L3	5.4	5.8	98.2	33.2	33.3	100.0	9.5	9.3	99.0
M3		4.4			33.2			9.9	
O3	5.6	5.5	101.8	32.7	32.7	98.5	10.2	10.2	106.2
R3	5.5	5.2	100.0	33.3	33.2	100.3	9.2	9.1	95.8
S3	6.2	6.2	112.7	33.1	33.4	99.7	8.9	8.8	92.7
B4	5.2	5.6	94.5	34.1	34.0	102.7	9.5	10.1	99.0
C4	5.2	5.2	94.5	33.5	33.4	100.9	9.6	9.7	100.0
D4	5.0	5.0	90.9	33.1	33.1	99.7	10.3	9.9	107.3
G4		6.7			32.9			10.1	
I4	5.9	6.0	107.3	33.2	33.0	100.0	9.9	10.0	103.1
J4		4.2			33.3			10.3	
K4	5.1	5.1	92.7	33.2	33.5	100.0	9.3	9.4	96.9
O4	4.8	4.8	87.3	33.9	33.6	102.1	10.2	9.9	106.2
P4	5.8	5.9	105.4	33.0	33.0	99.4	10.0	10.0	104.2
Q4	5.1	5.0	92.7	33.0	33.1	99.4	9.8	10.0	102.1
FXBG	5.6	5.5	101.8	33.2	33.2	100.0	9.5	9.6	99.0

NOTES A AND B ARE GIVEN IN APPENDIX.

TABLE V (CONT)

AVERAGES OF MILL QUALITY DATA FOR MAR-APR, 1988 - 33 LB KRAFT LINERBOARD

CODE	BURST PSIG CUR. AV.	BURST PSIG CUM. AV.	BURST PSIG IND. #B	CD RING CRUSH, LB CUR. AV.	CD RING CRUSH, LB CUM. AV.	CD RING CRUSH, LB IND. #B	CD STFI LB/IN CUR. AV.	CD STFI LB/IN CUM. AV.	CD STFI LB/IN IND. #B
B1	90	88	102.3				15.4	15.4	95.1
C1	85	85	96.6	49.0	52.3	87.3			
H1		98							
M1	80	82	90.9					15.1	
N1	88	90	100.0	54.0	56.3	96.2	17.4	17.6	107.4
Z1	83	81	94.3	49.0	43.3	87.3			
F2		89			52.0				
J2		89			53.3				
M2	88	88	100.0				15.1	13.8	93.2
P2		79							
U2	93	95	105.7						
V2	89	88	101.1				13.7	14.0	84.6
Y2	92	89	104.5		53.8		14.4		88.9
B3	85	87	96.6				17.1	16.3	105.6
E3	93	92	105.7	70.0	69.6	124.8		20.5	
H3	90	91	102.3				15.6	17.0	102.5
I3	90	91	102.3				15.0	14.8	92.6
L3	78	80	88.6	63.7	66.5	113.5			
M3		88			56.0			15.5	
O3	94	88	106.8	58.0	56.2	103.4			
R3	94	93	106.8	62.8	65.9	111.9	17.7	18.8	109.2
S3	82	83	93.2	55.5	55.0	98.9			
B4	87	94	98.9						
C4	84	83	95.4						
D4	86	87	97.7	47.0	48.0	83.8	15.6	15.8	96.3
G4		83							
I4	85	83	96.6	49.0	50.7	87.3			
J4		89						15.0	
K4	82	88	93.2						
O4	87	87	98.9	64.0	60.3	114.1	20.6	18.3	127.2
P4	92	92	104.5	60.0	61.0	107.0			
Q4	79	85	89.8	46.0	45.7	82.0	13.7	14.7	84.6
FXBG	87	88	98.9	56.0	56.1	99.8	16.0	16.2	98.8

NOTE B IS GIVEN IN APPENDIX.

TABLE VI

AVERAGES OF MILL QUALITY DATA FOR MAY-JUN, 1988 - 33 LB KRAFT LINERBOARD

CODE	MOISTURE CONTENT PERCENT CUR. AV.	MOISTURE CONTENT PERCENT CUM. AV.	MOISTURE CONTENT PERCENT IND. *B	ADJ. BASIS WT. *A LB/M SQ FT CUR. AV.	ADJ. BASIS WT. *A LB/M SQ FT CUM. AV.	ADJ. BASIS WT. *A LB/M SQ FT IND. *B	CALIPER MIL CUR. AV.	CALIPER MIL CUM. AV.	CALIPER MIL IND. *B
B1	6.7	6.7	121.8	33.1	33.1	99.7	10.0	9.9	104.2
C1	5.2	5.4	94.5	33.6	33.3	101.2	9.5	9.3	99.0
H1	5.4	5.2	98.2	33.9	33.8	102.1	9.2	9.3	95.8
M1	5.1	5.2	92.7	33.2	33.2	100.0	9.8	9.9	102.1
N1	6.0	6.3	109.1	33.4	33.4	100.6	9.7	9.9	101.0
Z1	6.2	6.1	112.7	32.7	33.0	98.5	10.0	9.5	104.2
F2		5.3			32.6			9.9	
J2	4.9	5.2	89.1	32.7	32.6	98.5	9.6	9.8	100.0
M2	6.4	6.2	116.4	33.1	33.1	99.7	8.5	8.9	88.5
P2		5.2			33.5			9.6	
J2	5.1	5.6	92.7	35.4	34.1	106.6	8.4	9.6	87.5
V2	4.1	4.2	74.5	33.1	33.0	99.7	10.5	10.4	109.4
Y2	5.6	5.6	101.8	33.4	33.2	100.6	9.2	9.2	95.8
B3	7.4	7.2	134.5	33.1	33.0	99.7	9.2	9.0	95.8
E3	6.0	5.3	109.1	33.6	33.6	101.2	9.8	9.4	102.1
H3	5.6	5.8	101.8	32.7	32.6	98.5	8.8	8.8	91.7
I3	6.0	5.8	109.1	33.2	33.1	100.0	8.8	9.0	91.7
L3	5.5	5.6	100.0	33.2	33.3	100.0	8.9	9.2	92.7
M3		4.4			33.2			9.9	
O3	5.4	5.5	98.2	32.7	32.7	98.5	10.3	10.2	107.3
R3	5.4	5.3	98.2	33.1	33.2	99.7	9.0	9.1	93.8
S3	6.2	6.1	112.7	33.1	33.4	99.7	9.0	8.8	93.8
B4	5.4	5.5	98.2	33.6	34.1	101.2	9.7	10.0	101.0
C4	5.1	5.1	92.7		33.4		9.7	9.7	101.0
D4	5.0	5.0	90.9	33.1	33.1	99.7	9.9	10.0	103.1
G4		6.7			32.9			10.1	
I4	5.8	6.0	105.4	33.2	33.0	100.0	9.6	10.0	100.0
J4		4.2			33.3			10.3	
K4	5.8	5.1	105.4	33.3	33.4	100.3	9.0	9.4	93.8
O4	4.8	4.8	87.3	33.7	33.6	101.5	10.2	10.0	106.2
P4	5.8	5.9	105.4	33.1	33.0	99.7	10.2	10.0	106.2
Q4	4.9	5.0	89.1	33.0	33.1	99.4	9.9	10.0	103.1
FKBG	5.6	5.5	101.8	33.3	33.2	100.3	9.5	9.6	99.0

NOTES A AND B ARE GIVEN IN APPENDIX.

TABLE VI (CONT)

AVERAGES OF MILL QUALITY DATA FOR MAY-JUN, 1968 - 33 LB KRAFT LINERBOARD

CODE	BURST PSIG CUR. AV.	BURST PSIG CUM. AV.	BURST PSIG IND. *B	CD RING CRUSH, LB CUR. AV.	CD RING CRUSH, LB CUM. AV.	CD RING CRUSH, LB IND. *B	CD STFI LB/IN CUR. AV.	CD STFI LB/IN CUM. AV.	CD STFI LB/IN IND. *B
B1	92	88	104.5				16.4	15.4	101.2
C1	82	84	93.2	43.5	51.5	77.3			
H1	116	99	131.8						
M1	78	82	88.6					15.1	
N1	91	89	103.4	55.0	55.8	98.4		17.6	
Z1	80	81	90.9	46.0	44.2	82.3			
F2		89			52.0				
J2	92	92	104.5	55.0	54.5	93.4			
M2	91	88	103.4				14.5	14.1	89.5
P2		80							
J2	80	94	90.9						
V2	93	88	105.7				13.4	13.9	82.7
Y2	93	90	105.7		53.2		17.3	14.4	106.8
B3	83	86	94.3				16.7	16.7	103.1
E3	89	92	101.1	68.3	69.8	122.2		20.3	
H3	92	92	104.5				17.4	16.9	107.4
I3	94	91	106.8				15.5	14.8	95.7
L3	78	80	88.6	64.2	65.4	114.8			
M3		88			56.0			15.5	
O3	95	89	108.0	59.0	56.6	105.5			
R3	89	93	101.1	63.3	65.0	113.2	16.6	18.6	102.5
S3	80	83	90.9	51.0	55.5	91.2			
B4	100	94	113.6	63.0		112.7			
C4	82	84	93.2						
D4	86	87	97.7	47.0	48.0	84.1	15.5	15.9	95.7
G4		83							
I4	83	83	94.3	50.0	50.3	89.4			
J4		89						15.0	
K4	88	87	100.0						
O4	86	88	97.7	64.0	61.0	114.5		19.0	
P4	84	91	95.4	55.0	59.2	100.2			
Q4	84	84	95.4	47.0	45.8	84.1	15.6	14.5	96.3
FXBG	88	88	100.0	55.5	55.9	99.3	15.9	16.2	98.1

NOTE B IS GIVEN IN APPENDIX.

TABLE VII

AVERAGES OF MILL QUALITY DATA FOR JAN-FEB, 1988 - 38 LB KRAFT LINERBOARD

CODE	MOISTURE CONTENT PERCENT CUR. AV.	MOISTURE CONTENT PERCENT CUM. AV.	MOISTURE CONTENT PERCENT IND. *B	ADJ. BASIS WT. *A LB/M SQ FT CUR. AV.	ADJ. BASIS WT. *A LB/M SQ FT CUM. AV.	ADJ. BASIS WT. *A LB/M SQ FT IND. *B	CALIPER MIL CUR. AV.	CALIPER MIL CUM. AV.	CALIPER MIL IND. *B
A1	6.2		106.9	38.1		98.7	11.2		104.7
C1	6.1	6.1	105.2	38.4	38.2	99.5	10.9	10.5	101.9
J1	7.5		129.3	38.2		99.0	10.1		94.4
M1		5.7			38.2			10.8	
B2	5.9	5.8	101.7	37.8	38.2	97.9	10.2	10.1	95.3
E2	5.4	6.0	93.1	38.4	38.2	99.5	10.1	9.9	94.4
O2	6.0	6.0	103.4	38.2	38.3	99.0	10.8	10.8	100.9
P2	5.4	5.6	93.1	40.7	41.6	105.4	11.1	11.2	103.7
S2	5.5	5.7	94.8	38.4	38.3	99.5	10.7	10.8	100.0
U2	5.5	5.9	94.8	39.3	38.8	101.8	9.8	10.8	91.6
Y2	5.4	5.5	93.1	38.3	38.5	99.2	10.6	10.8	99.1
E3	6.3	5.8	108.6	38.6	38.5	100.0	10.4	9.5	97.2
L3	5.8	6.3	100.0	38.2	38.3	99.0	10.4	10.6	97.2
N3	5.8	5.9	100.0	39.3	39.2	101.8	11.0	10.6	102.8
R3	5.9	5.7	101.7	38.3	38.1	99.2	10.6	10.6	99.1
S3	6.1	6.3	105.2	38.5	38.5	99.7	10.3		96.3
W3	5.9	5.9	101.7	38.4	38.3	99.5	10.4	11.0	97.2
B4	6.0	5.7	103.4	38.9	39.2	100.8	11.4	11.3	106.5
D4	5.9	6.0	101.7	38.1	38.1	98.7	11.5	11.0	107.5
K4	5.6	5.4	96.6	38.3	38.4	99.2	10.5	10.7	98.1
D4	4.9	5.0	84.5	38.8	38.8	100.5	12.0	11.2	112.1
P4		5.9			38.1			11.0	
R4	5.9	5.7	101.7	39.1	38.7	101.3	10.7	11.4	100.0
S4		5.9			38.1			10.6	
FXBG	5.8	5.8	100.0	38.6	38.6	100.0	10.7	10.7	100.0

NOTES A AND B ARE GIVEN IN APPENDIX.

TABLE VII (CONT)

AVERAGES OF MILL QUALITY DATA FOR JAN-FEB, 1988 - 38 LB KRAFT LINERBOARD

CODE	BURST PSIG CUR. AV.	BURST PSIG CUM. AV.	BURST PSIG IND. *B	CD RING CRUSH, LB CUR. AV.	CD RING CRUSH, LB CUM. AV.	CD RING CRUSH, LB IND. *B	CD STFI LB/IN CUR. AV.	CD STFI LB/IN CUM. AV.	CD STFI LB/IN IND. *B
A1	95		96.0				17.5		89.7
C1	96	94	97.0	58.0	60.0	83.2			
J1	101		102.0				15.8		81.0
M1		95						18.3	
B2	98	102	99.0	63.4	61.1	91.0			
E2	107	110	108.1		83.0			22.2	
O2	97	96	98.0				19.3	18.7	99.0
P2	90	91	90.9	67.0	85.0	96.1			
S2	106	103	107.1	61.0	65.8	87.5	16.5	17.9	84.6
J2	98	104	99.0						
Y2	98	96	99.0	73.0	65.8	104.7			
E3	101	100	102.0	83.6	79.8	119.9		21.6	
L3	94	93	94.9	69.3	78.4	99.4			
N3	93	94	93.9	75.5	77.8	100.3			
R3	102	101	103.0	73.6	78.0	105.6	22.1	21.4	113.3
S3	94	94	94.9	71.0	67.1	101.9			
W3	107	108	108.1				21.8	21.0	111.8
B4	102	102	103.0						
D4	98	96	99.0	60.0	57.7	86.1	18.4	18.2	94.4
K4	97	98	98.0		63.0				
O4	92	92	92.9	65.0	69.5	93.2		18.7	
P4		109			78.5				
R4	107	105	108.1	60.0	66.3	86.1		15.4	
S4		95			60.7			17.7	
FXBG	99	99	100.0	67.7	69.7	97.1	18.8	19.5	96.4

NOTE B IS GIVEN IN APPENDIX.

TABLE VIII

AVERAGES OF MILL QUALITY DATA FOR MAR-APR, 1988 - 38 LB KRAFT LINERBOARD

CODE	MOISTURE CONTENT PERCENT			ADJ. BASIS WT. *A LB/M SQ FT			CALIPER MIL		
	CUR. AV.	CUM. AV.	IND. *B	CUR. AV.	CUM. AV.	IND. *B	CUR. AV.	CUM. AV.	IND. *B
A1	6.0	6.2	103.4	38.2	38.1	99.0	11.2	11.2	104.7
C1	6.5	6.0	112.1	37.8	38.3	97.9	10.3	10.6	96.3
J1		7.5			38.2			10.1	
M1									
B2	5.8	5.8	100.0	37.9	38.1	98.2	10.4	10.1	97.2
E2		5.8			38.4			9.9	
G2	6.0	6.0	103.4	38.0	38.3	98.4	10.5	10.8	98.1
P2	5.3	5.5	91.4	39.8	41.6	103.1	10.6	11.2	99.1
S2	5.5	5.6	94.3	38.3	38.3	99.2	10.7	10.7	100.0
U2	6.0	5.8	103.4	38.9	38.9	100.8	10.6	10.7	99.1
Y2	5.9	5.5	101.7	38.4	38.5	99.5	10.9	10.7	101.9
E3	6.2	5.9	106.9	38.5	38.5	99.7	10.4	9.6	97.2
L3	5.8	6.2	100.0	38.3	38.2	99.2	9.9	10.4	92.5
N3	5.8	5.9	100.0	39.1	39.2	101.3	10.8	10.7	100.9
R3	5.9	5.7	101.7	38.4	38.2	99.5	10.6	10.6	99.1
S3	6.2	6.2	106.9	38.3	38.5	99.2	10.4	10.3	97.2
W3	5.9	5.9	101.7	38.3	38.4	99.2	10.7	10.9	100.0
B4	5.7	5.8	98.3	38.9	39.2	100.8	11.2	11.3	104.7
D4	6.1	6.0	105.2	38.1	38.1	98.7	11.7	11.2	109.3
K4	5.8	5.4	100.0	38.1	38.4	98.7	10.4	10.6	97.2
O4		5.0			38.8			11.5	
P4	5.9	5.9	101.7	38.1	38.0	98.7	11.4	11.0	106.5
R4	5.7	5.8	98.3	38.7	39.0	100.2	11.3	11.1	105.6
S4		5.9			38.1			10.6	
X8G	5.9	5.8	101.7	38.4	38.6	99.5	10.7	10.7	100.0

NOTES A AND B ARE GIVEN IN APPENDIX.

TABLE VIII (CONT)

AVERAGES OF MILL QUALITY DATA FOR MAR-APR, 1988 - 38 LB KRAFT LINERBOARD

CODE	BURST PSIG CUR. AV.	BURST PSIG CUM. AV.	BURST PSIG IND. *B	CD RING CRUSH, LB CUR. AV.	CD RING CRUSH, LB CUM. AV.	CD RING CRUSH, LB IND. *B	CD STFI LB/IN CUR. AV.	CD STFI LB/IN CUM. AV.	CD STFI LB/IN IND. *B
A1	99	95	100.0				17.2	17.5	88.6
C1	104	95	105.0	60.0	59.3	86.6			
J1		101						15.8	
M1									
B2	102	102	103.0	65.6	62.0	94.7			
E2		110			83.0			21.9	
J2	98	96	99.0				20.1	19.0	103.6
P2	92	91	92.9	66.5	67.0	96.0			
S2	103	104	104.0	63.0	64.7	90.9	17.1	17.6	88.1
U2	100	101	101.0						
Y2	100	96	101.0		67.2		24.9		128.4
E3	104	101	105.0	78.6	80.6	113.4		21.6	
L3	92	93	92.9	74.0	76.8	106.8			
N3	91	94	91.9	80.8	77.2	116.6			
R3	103	102	104.0	73.9	78.2	106.6	21.5	21.6	110.8
S3	92	94	92.9	67.5	67.5	97.4			
A3	98	109	99.0				22.4	21.3	115.5
B4	103	102	104.0						
D4	100	96	101.0	68.0	57.8	98.1	17.2	18.0	88.6
K4	98	98	99.0		63.0				
N4		92			68.0			18.7	
P4	103	108	104.0	71.0	78.4	102.4			
R4	92	105	92.9	59.0	64.0	85.1		15.0	
S4		96			60.5			17.6	
EXBG	99	99	100.0	69.0	69.3	99.6	20.0	19.4	103.1

NOTE B IS GIVEN IN APPENDIX.

TABLE IX

AVERAGES OF MILL QUALITY DATA FOR MAY-JUNE 1988 - 38 LB KRAFT LINERBOARD

CODE	MOISTURE CONTENT PERCENT CUR. AV.	MOISTURE CONTENT PERCENT CUM. AV.	MOISTURE CONTENT PERCENT IND. *B	ADJ. BASIS WT. *A LB/M SQ FT CUR. AV.	ADJ. BASIS WT. *A LB/M SQ FT CUM. AV.	ADJ. BASIS WT. *A LB/M SQ FT IND. *B	CALIPER MIL CUR. AV.	CALIPER MIL CUM. AV.	CALIPER MIL IND. *B
A1		6.1			38.2			11.2	
C1	5.8	6.1	100.0	38.4	38.2	99.5	10.7	10.6	100.0
J1		7.5			38.2			10.1	
M1	5.3		91.4	38.5		99.7	11.4		106.5
B2	5.8	5.8	100.0	37.6	38.0	97.4	9.9	10.2	92.5
E2		5.7			38.3			10.0	
J2		6.0			38.2			10.8	
P2	5.8	5.5	100.0	40.2	41.1	104.1	11.1	11.1	103.7
R2	6.0		103.4	38.1		98.7	9.8		91.6
S2	5.3	5.6	91.4	38.3	38.4	99.2	10.6	10.6	99.1
T2	5.7		98.3	38.8		100.5	9.3		86.9
U2	5.2	5.8	89.6	39.5	38.9	102.3	10.0	10.6	93.4
Y2	6.0	5.4	103.4	38.2	38.5	99.0	11.0	10.7	102.8
E3	6.2	6.0	106.9	38.4	38.5	99.5	10.0	9.8	93.4
L3	5.8	6.0	100.0	38.3	38.2	99.2	9.9	10.1	92.5
N3	5.9	5.9	101.7	38.9	39.2	100.8	10.4	10.8	97.2
R3	5.8	5.8	100.0	38.2	38.2	99.0	10.4	10.6	97.2
S3	6.2	6.2	106.9	38.1	38.5	98.7	10.4	10.4	97.2
W3	6.4	5.9	110.3	38.3	38.4	99.2	10.4	10.8	97.2
B4	5.6	5.8	96.6	38.4	39.1	99.5	11.3	11.4	105.6
D4	6.0	6.0	103.4	38.0	38.1	98.4	11.3	11.4	105.6
K4	5.6	5.6	96.6	38.3	38.4	99.2	10.4	10.6	97.2
O4		5.0			38.8			11.4	
P4	5.7	5.8	98.3	38.2	38.0	99.0	11.5	11.2	107.5
R4		5.8			39.0			11.1	
S4		5.9			38.1			10.6	
EXHG	5.8	5.8	100.0	38.4	38.6	99.5	10.5	10.7	98.1

NOTES A AND B ARE GIVEN IN APPENDIX.

TABLE IX (CONT)

AVERAGES OF MILL QUALITY DATA FOR MAY-JUN, 1988 - 38 LB KRAFT LINERBOARD

CODE	BURST PSIG CUR. AV.	BURST PSIG CUM. AV.	BURST PSIG IND. *B	CD RING CRUSH, LB CUR. AV.	CD RING CRUSH, LB CUM. AV.	CD RING CRUSH, LB IND. *B	CD STFI LB/IN CUR. AV.	CD STFI LB/IN CUM. AV.	CD STFI LB/IN IND. *B
A1		97						17.4	
C1	92	96	92.9	56.5	58.3	81.6			
J1		101						15.8	
M1	91		91.9						
B2	103	102	104.0	64.6	62.2	93.4			
E2		109			83.0			21.9	
D2		96						19.2	
P2	92	91	92.9	65.0	66.8	93.9			
R2	98		99.0						
S2	106	104	107.1	69.0	64.0	99.7	18.7	17.4	95.4
T2	98		99.0	77.6		112.1			
J2	94	101	94.9						
Y2	98	97	99.0		67.6		22.5	24.9	114.8
E3	97	102	98.0	82.0	80.7	118.5		22.2	
L3	95	93	96.0	77.9	75.7	112.6			
N3	95	94	96.0	78.7	77.6	113.7			
R3	97	102	98.0	74.7	77.2	107.9	19.3	21.4	98.5
S3	92	94	92.9	62.0	67.8	89.6			
A3	102	107	103.0				20.6	21.4	105.1
B4	103	102	104.0	66.5		96.1			
D4	99	98	100.0	60.0	59.8	85.7	17.8	17.9	90.8
K4	94	98	94.9		63.0				
J4		94			67.0				
P4	97	105	93.0	73.0	75.6	105.5			
R4		101			62.7			14.2	
S4		101			57.0			17.2	
FKBG	97	99	98.0	69.8	69.2	100.9	19.8	19.6	101.0

NOTE B IS GIVEN IN APPENDIX.

TABLE X

AVERAGES OF MILL QUALITY DATA FOR JAN-FEB, 1988 - 42 LB KRAFT LINERBOARD

CODE	MOISTURE CONTENT PERCENT CUR. AV.	CUM. AV.	IND. *B	ADJ. BASIS WT. *A LB/M SQ FT CUR. AV.	CUM. AV.	IND. *B	CALIPER MIL CUR. AV.	CUM. AV.	IND. *B
A1	6.2	5.6	105.1	42.1	42.1	99.8	12.2	12.2	103.4
B1	6.6	6.7	111.9	42.1	42.2	99.8	12.0	12.1	101.7
C1	6.2	6.2	105.1	42.3	42.3	100.2	11.9	11.5	100.8
J1	7.5		127.1	42.3		100.2	11.3		95.8
K1	6.0	6.3	101.7	42.1	42.2	99.8	11.7	11.8	99.2
M1	6.4	6.2	108.5	42.2	42.3	100.0	12.2	12.4	103.4
S1	6.0	6.0	101.7	42.4	42.4	100.5	11.6	11.5	98.3
T1	6.5	6.2	110.2	42.2	42.2	100.0	11.4	11.1	96.6
Z1	6.0	6.2	101.7	41.8	41.8	99.0	12.3	12.3	104.2
B2	6.0	6.0	101.7	42.1	42.2	99.8	11.2	11.1	94.9
C2		5.5			42.6			11.8	
E2	5.9	5.9	100.0	42.2	42.2	100.0	11.3	11.1	95.8
F2	6.4	6.2	108.5	41.5	41.8	98.3	11.3	11.7	95.8
J2	5.5	5.5	93.2	41.6	41.7	98.6	12.4	12.4	105.1
K2	5.2	5.2	88.1	42.3	42.2	100.2	11.9	11.8	100.8
M2	6.2	6.2	105.1	42.3	42.1	100.2	11.6	11.9	98.3
O2	6.0	6.1	101.7	42.2	42.1	100.0	12.0	11.9	101.7
P2	5.6	5.8	94.9	42.2	42.2	100.0	11.2	11.3	94.9
R2	6.5	6.0	110.2	42.2	42.4	100.0	11.1	11.0	94.1
S2	5.9	6.0	100.0	42.2	42.2	100.0	12.0	11.8	101.7
T2	5.8	6.1	98.3	43.0	42.8	101.9	10.0	11.0	84.7
U2	5.7	5.9	96.5	43.0	42.9	101.9	11.3	11.8	95.8
V2	5.2	5.2	88.1	42.1	42.1	99.8	12.3	12.4	104.2
X2	5.3	5.3	89.8	42.7	42.6	101.2	11.6	11.2	98.3
Y2	6.0	6.3	101.7	42.2	42.3	100.0	11.8	12.0	100.0
A3	5.8	5.8	98.3	42.3	42.2	100.2	11.2	10.9	94.9
E3	6.4	6.1	108.5	42.3	42.3	100.2	11.2	10.8	94.9
H3	6.1	6.3	103.4	41.7	41.6	98.8	10.9	11.4	92.4
I3	6.2	6.3	105.1	42.1	42.1	99.8	11.1	11.3	94.1
L3	5.9	6.5	100.0	42.2	42.2	100.0	11.2	11.8	94.9
M3	6.0	5.9	101.7	42.2	42.5	100.0	12.4	12.4	105.1
N3	6.0	6.0	101.7	42.8	42.8	101.4	11.4	11.6	96.6
O3	5.8	5.8	98.3	42.5	42.4	100.7	12.0	11.9	101.7
R3	6.0	5.8	101.7	42.3	42.2	100.2	11.8	11.7	100.0
S3	6.0	6.3	101.7	42.3	42.2	100.2	11.1		94.1
W3	6.0	6.0	101.7	42.2	42.2	100.0	11.8	12.1	100.0
Y3	5.2	5.3	88.1	42.3	42.2	100.2	12.3	12.5	104.2
B4	5.9	5.8	100.0	42.9	43.0	101.6	13.5	12.8	114.4
C4		5.3			42.7			12.3	
D4		6.0			42.0			12.0	
G4	7.1		120.3	41.9		99.3	12.7		107.6
J4	5.2	5.2	88.1	42.1	42.2	99.8	12.4	12.2	105.1
K4	5.4	5.4	91.5	42.3	42.3	100.2	11.8	11.6	100.0
O4	5.2	5.3	88.1	42.5	42.6	100.7	12.6	12.3	106.8
P4	5.5	5.9	93.2	42.2	42.1	100.0	12.6	12.4	106.8
R4	5.8	5.7	98.3	42.3	42.3	100.2	11.9	12.2	100.8
S4	5.9	6.0	100.0	42.1	42.1	99.8	11.5	11.5	97.4
FKBG	6.0	5.9	101.7	42.2	42.2	100.0	11.8	11.8	100.0

NOTES A AND B ARE GIVEN IN APPENDIX.

TABLE X (CONT)

AVERAGES OF MILL QUALITY DATA FOR JAN-FEB, 1988 - 42 LB KRAFT LINERBOARD

CODE	BURST PSIG CUR. AV.	BURST PSIG CUM. AV.	BURST PSIG IND. *B	CD RING CRUSH, LB CUR. AV.	CD RING CRUSH, LB CUM. AV.	CD RING CRUSH, LB IND. *B	CD STFI LB/IN CUR. AV.	CD STFI LB/IN CUM. AV.	CD STFI LB/IN IND. *B
A1	102	107	95.3				19.6	19.3	97.5
B1	102	104	95.3				20.0	18.3	99.5
C1	105	102	98.1	66.0	68.7	85.8			
J1	109		101.9				17.4		96.6
K1	120	119	112.1				24.0	23.5	119.4
M1	99	100	92.5					18.1	
S1	103	104	96.3	82.2	90.7	106.9			
T1	112	116	104.7		60.0		20.2	19.8	100.5
Z1	101	102	94.4	66.0	64.2	85.8			
B2	106	107	99.1	72.6	69.2	94.4			
C2		105			76.0				
E2	115	115	107.5		83.0			22.5	
F2	102	102	95.3	74.0	71.2	96.2			
J2	108	104	100.9	73.0	72.3	94.9			
K2	111	105	103.7		64.0		17.2	17.0	85.6
M2	106	108	99.1				18.1	16.8	90.0
O2	102	103	95.3				20.9	19.9	104.0
P2	98	97	91.6	75.5	83.0	98.2			
R2	103	107	96.3					19.9	
S2	109	108	101.9	65.0	68.3	84.5	17.6	18.6	87.6
T2	115	110	107.5	84.7	86.8	110.1			
U2	109	110	101.9						
V2	109	106	101.9				16.1	16.8	80.1
X2	109	107	101.9	89.8	91.5	116.8		23.6	
Y2	105	105	98.1	77.5	70.2	100.8			
A3	109	112	101.9	80.3	85.3	104.4	23.8	23.0	118.4
E3	111	108	103.7	89.6	89.7	116.5	21.3	24.4	106.0
H3	104	111	97.2				20.8	21.0	103.5
I3	106	106	99.1				18.9	18.4	94.0
L3	103	104	96.3	85.8	87.4	111.6			
M3	106	104	99.1	79.0	76.2	102.7	21.0	20.4	104.5
N3	103	104	96.3	86.4	86.7	112.4			
O3	110	112	102.8	67.0	72.8	87.1			
R3	108	108	100.9	83.3	87.9	108.3	23.2	23.0	115.4
S3	102	103	95.3	77.0	76.0	100.1			
A3	108	112	100.9				23.8	22.9	118.4
F3	106	110	99.1	74.0	73.5	96.2			
B4	107	107	100.0						
C4		103							
D4		106			66.0			20.1	
G4	106		99.1						
J4	109	105	101.9		68.0		19.0	17.6	94.5
K4	106	106	99.1		69.0				
O4	100	100	93.4	79.0	76.2	102.7	20.8	21.3	103.5
P4	107	110	100.0	83.0	82.0	107.9			
R4	109	109	101.9	68.0	69.3	88.4	17.2	16.8	85.6
S4	106	104	99.1	71.0	70.5	92.3	19.7	20.6	98.0
FOBG	106	107	99.1	77.1	76.9	100.3	20.0	20.1	99.5

NOTE B IS GIVEN IN APPENDIX.

TABLE XI

AVERAGES OF MILL QUALITY DATA FOR MAR-APR, 1988 - 42 LB KRAFT LINERBOARD

CODE	MOISTURE CONTENT PERCENT CUR. AV.	MOISTURE CONTENT PERCENT CUM. AV.	MOISTURE CONTENT PERCENT IND. *B	ADJ. BASIS WT. *A LB/M SQ FT CUR. AV.	ADJ. BASIS WT. *A LB/M SQ FT CUM. AV.	ADJ. BASIS WT. *A LB/M SQ FT IND. *B	CALIPER MIL CUR. AV.	CALIPER MIL CUM. AV.	CALIPER MIL IND. *B
A1	6.2	5.8	105.1	42.1	42.1	99.8	12.5	12.2	105.9
B1	6.7	6.6	113.6	42.2	42.2	100.0	12.0	12.1	101.7
C1	6.2	6.2	105.1	41.7	42.3	98.8	11.7	11.6	99.2
J1	7.3	7.5	123.7	41.6	42.3	98.6	11.4	11.3	96.6
K1	6.5	6.3	110.2	42.1	42.2	99.8	11.7	11.7	99.2
M1	6.2	6.2	105.1	42.4	42.3	100.5	12.3	12.3	104.2
S1	5.6	6.0	94.9	42.4	42.4	100.5	10.8	11.5	91.5
T1	6.6	6.3	111.9	42.1	42.2	99.8	11.3	11.0	95.8
Z1	6.2	6.1	105.1	41.8	41.8	99.0	12.1	12.3	102.5
B2	6.0	6.0	101.7	42.1	42.2	99.8	11.2	11.2	94.9
C2		5.4			42.7			11.8	
E2	5.7	5.9	96.6	42.6	42.3	100.9	11.3	11.1	95.8
F2	6.6	6.3	111.9	41.7	41.7	98.8	11.6	11.6	98.3
J2	5.6	5.5	94.9	41.6	41.6	98.6	12.4	12.3	105.1
K2	5.1	5.2	86.4	42.2	42.2	100.0	11.8	11.8	100.0
A2	6.4	6.2	108.5	42.2	42.2	100.0	10.7	11.8	90.7
D2	6.0	6.0	101.7	42.6	42.1	100.9	11.7	11.9	99.2
P2	5.4	5.7	91.5	42.3	42.2	100.2	11.4	11.2	96.6
R2	6.5	6.1	110.2	42.2	42.4	100.0	11.5	11.0	97.4
S2	5.9	6.0	100.0	42.1	42.2	99.8	11.5	11.8	97.4
T2	5.8	6.0	98.3	43.2	42.8	102.4	10.5	10.6	89.0
U2	5.6	5.9	94.9	43.1	43.0	102.1	11.1	11.8	94.1
V2	5.2	5.2	88.1	42.1	42.1	99.8	12.3	12.4	104.2
X2	5.4	5.3	91.5	42.8	42.6	101.4		11.3	
Y2	6.1	6.2	103.4	42.2	42.3	100.0	12.1	12.0	102.5
A3	5.9	5.8	100.0	42.3	42.2	100.2	11.0	11.0	93.2
E3	6.4	6.2	108.5	42.3	42.3	100.2	11.3	10.9	95.8
H3	5.9	6.2	100.0	41.7	41.6	98.8	11.1	11.3	94.1
I3	6.2	6.2	105.1	42.1	42.1	99.3	10.9	11.3	92.4
L3	6.0	6.3	101.7	42.3	42.2	100.2	11.0	11.5	93.2
M3	5.6	5.9	94.9	42.3	42.4	100.2	12.5	12.5	105.9
N3	6.1	6.0	103.4	42.8	42.8	101.4	11.8	11.6	100.0
Q3	6.0	5.8	101.7	41.6	42.4	98.6	12.2	11.9	103.4
R3	5.9	5.8	100.0	42.3	42.2	100.2	11.8	11.8	100.0
S3	6.1	6.2	103.4	42.1	42.2	99.3	11.2	11.1	94.9
A4	5.9	6.0	100.0	42.3	42.2	100.2	12.3	12.0	104.2
Y3	5.1	5.2	86.4	42.3	42.2	100.2	12.5	12.4	105.9
B4	6.0	5.8	101.7	42.8	43.0	101.4	12.3	13.0	104.2
C4	5.1	5.3	86.4	42.7	42.7	101.2	12.2	12.3	103.4
D4		6.0			42.0			12.1	
G4	7.2	7.1	122.0	42.0	41.9	99.5	12.7	12.7	107.6
J4	5.2	5.2	88.1	42.1	42.1	99.3	12.1	12.2	102.5
K4	5.6	5.4	94.9	42.1	42.4	99.8	11.4	11.6	96.6
O4	5.2	5.2	88.1	42.4	42.6	100.5	12.5	12.5	105.9
P4	6.0	5.8	101.7	42.0	42.1	99.5	12.6	12.5	106.8
R4	5.8	5.8	98.3	42.3	42.3	100.2	12.2	12.1	103.4
S4	5.9	6.0	100.0	42.1	42.1	99.8	11.5	11.5	97.4
FXBG	6.0	5.9	101.7	42.2	42.2	100.0	11.7	11.8	99.2

NOTES A AND B ARE GIVEN IN APPENDIX.

TABLE XI (CONT)

AVERAGES OF MILL QUALITY DATA FOR MAR-APR, 1988 - 42 LB KRAFT LINERBOARD

CODE	BURST PSIG CUR. AV.	BURST PSIG CUM. AV.	BURST PSIG IND. *B	CD RING CRUSH, LB CUR. AV.	CD RING CRUSH, LB CUM. AV.	CD RING CRUSH, LB IND. *B	CD STFI LB/IN CUR. AV.	CD STFI LB/IN CUM. AV.	CD STFI LB/IN IND. *B
A1	107	106	100.0				18.8	19.4	93.5
B1	102	103	95.3				20.4	18.8	101.5
C1	103	103	96.3	63.0	67.5	82.0			
J1	111	109	103.7				18.9	17.4	94.0
K1	121	120	113.1				25.0	23.5	124.4
M1	100	100	93.4					18.1	
S1	103	104	96.3	78.1	89.9	101.7			
T1	114	116	106.5		60.0		21.6	20.2	107.5
Z1	101	102	94.4	67.0	64.4	87.2			
B2	107	107	100.0	71.5	69.9	93.1			
C2		105			76.8				
E2	111	114	103.7	94.0	83.0	122.4	24.8	22.9	123.4
F2	103	102	96.3	75.0	72.2	97.6			
J2	104	106	97.2	74.0	72.0	96.4			
K2	113	106	105.5				17.7	17.0	88.0
M2	110	108	102.8				18.7	17.0	93.0
O2	102	102	95.3				21.2	20.0	105.5
P2	98	97	91.6	77.0	76.2	100.3			
R2	102	106	95.3					19.7	
S2	110	108	102.8	67.0	67.5	87.2	18.2	18.3	90.5
T2	113	110	105.6	90.9	86.2	118.4			
U2	110	110	102.8						
V2	105	107	98.1				16.3	16.6	81.1
X2	110	107	102.8	92.2	91.6	120.0		23.6	
Y2	107	105	100.0		71.2		26.9		133.8
A3	114	112	106.5	82.0	84.9	106.8	23.6	23.2	117.4
E3	111	109	103.7	88.5	90.2	115.2		23.9	
H3	112	110	104.7				21.2	21.0	105.5
I3	105	107	98.1				18.9	18.5	94.0
L3	103	104	96.3	84.5	88.0	110.0			
M3	102	105	95.3	77.0	77.0	100.3	19.8	20.6	98.5
N3	102	103	95.3	89.4	86.4	116.4			
Q3	107	112	100.0	63.0	71.6	82.0			
R3	109	108	101.9	81.5	87.8	106.1	22.5	23.0	111.9
S3	102	103	95.3	77.0	75.9	100.3			
W3	107	112	100.0				22.9	23.1	113.9
Y3	108	109	100.9	75.0	73.5	99.0			
B4	110	107	102.8						
C4	103	103	96.3						
D4		107			64.8			20.1	
G4	107	106	100.0				16.7		83.1
J4	108	106	100.9				19.2	17.8	95.5
K4	102	105	95.3		68.0				
O4	100	100	93.4	78.0	76.5	101.6	21.3	21.5	106.0
P4	107	108	100.0	82.0	80.0	106.8			
R4	106	109	99.1	71.0	69.0	92.4	17.0	16.8	84.6
S4	106	104	99.1	71.0	70.3	92.4	19.9	20.4	99.0
FKBG	107	107	100.0	77.9	76.8	101.4	20.5	20.1	102.0

NOTE B IS GIVEN IN APPENDIX.

TABLE XII

AVERAGES OF MILL QUALITY DATA FOR MAY-JUNE 1988 - 42 LB KRAFT LINERBOARD

CODE	MOISTURE CONTENT PERCENT CUR. AV.	MOISTURE CONTENT PERCENT CUM. AV.	MOISTURE CONTENT PERCENT IND. *B	ADJ. BASIS WT. *A LB/M SQ FT CUR. AV.	ADJ. BASIS WT. *A LB/M SQ FT CUM. AV.	ADJ. BASIS WT. *A LB/M SQ FT IND. *B	CALIPER MIL CUR. AV.	CALIPER MIL CUM. AV.	CALIPER MIL IND. *B
A1	6.1	5.9	103.4	42.2	42.1	100.0	12.4	12.3	105.1
B1	6.7	6.7	113.6	42.2	42.2	100.0	12.0	12.1	101.7
C1	5.4	6.2	91.5	42.7	42.2	101.2	11.8	11.6	100.0
J1	7.5	7.4	127.1	41.9	42.0	99.3	11.3	11.4	95.8
K1	6.0	6.4	101.7	42.2	42.1	100.0	11.9	11.7	100.8
M1	6.1	6.2	103.4	42.3	42.3	100.2	11.9	12.3	100.8
S1	5.5	5.9	93.2	42.2	42.4	100.0	11.1	11.4	94.1
T1	6.6	6.4	111.9	42.2	42.2	100.0	11.7	11.2	99.2
Z1	6.0	6.1	101.7	41.7	41.8	98.8	12.6	12.2	106.8
B2	5.0	6.0	101.7	42.1	42.2	99.8	11.4	11.2	96.6
C2		5.2			42.8			11.8	
E2	5.8	5.8	98.3	41.9	42.4	99.3	11.2	11.1	94.9
F2	6.4	6.4	108.5	41.8	41.7	99.0	11.5	11.6	97.4
J2	5.5	5.5	93.2	41.6	41.6	98.6	12.2	12.4	103.4
K2	5.2	5.2	88.1	42.1	42.2	99.8	12.1	11.8	102.5
M2	6.8	6.2	115.2	42.1	42.2	99.8	10.8	11.6	91.5
O2	6.0	6.0	101.7	42.2	42.2	100.0	11.2	11.9	94.9
P2	6.1	5.6	103.4	42.0	42.3	99.5	11.4	11.3	96.6
R2	6.2	6.2	105.1	42.3	42.3	100.2	11.1	11.1	94.1
S2	5.4	6.0	91.5	42.2	42.2	100.0	11.6	11.6	98.3
T2	5.9	6.0	100.0	42.7	42.9	101.2	10.3	10.7	87.3
U2	5.7	5.8	96.6	43.0	43.0	101.9	10.8	11.6	91.5
V2	5.2	5.2	88.1	42.1	42.1	99.8	12.5	12.4	105.9
X2	5.3	5.3	89.8	42.7	42.7	101.2	11.5	11.4	97.4
Y2	6.1	6.1	103.4	42.3	42.3	100.2	12.2	12.0	103.4
A3	5.8	5.8	98.3	42.4	42.3	100.5	10.9	11.0	92.4
E3	6.5	6.2	110.2	42.4	42.3	100.5	11.3	11.0	95.8
H3	6.1	6.1	103.4	41.6	41.6	98.6	11.4	11.2	96.6
I3	6.2	6.2	105.1	42.1	42.1	99.8	10.7	11.2	90.7
L3	6.1	6.2	103.4	42.2	42.2	100.0	10.8	11.2	91.5
N3	6.1	5.9	103.4	42.2	42.3	100.0	12.5	12.5	105.9
W3	5.9	6.0	100.0	42.2	42.8	100.3	11.4	11.7	96.6
Q3	5.4	5.9	91.5	42.7	42.3	101.2	11.9	12.0	100.8
R3	5.9	5.9	100.0	42.1	42.2	99.8	11.7	11.8	99.2
S3	6.2	6.2	105.1	42.1	42.2	99.3	11.2	11.2	94.9
A4	6.4	6.0	108.5	42.2	42.2	100.0	12.0	12.0	101.7
Y3	5.2	5.2	88.1	42.3	42.2	100.2	12.6	12.4	106.8
B4	6.1	5.8	103.4	42.2	43.0	100.0	12.4	12.8	105.1
C4		5.2			42.7			12.2	
D4	6.0	6.0	101.7	42.1	42.0	99.8	12.0	12.3	101.7
G4	7.1	7.2	120.3	42.0	42.0	99.5	12.5	12.7	105.9
J4	5.2	5.2	88.1	42.3	42.1	100.2	12.3	12.2	104.2
K4	5.7	5.6	96.6	42.1	42.4	99.8	11.2	11.6	94.9
O4	5.1	5.2	86.4	42.7	42.5	101.2	12.7	12.6	107.6
P4	5.5	5.8	93.2	42.2	42.1	100.0	12.6	12.6	106.8
R4	5.8	5.8	98.3	42.3	42.3	100.2	11.9	12.1	100.8
S4	5.9	6.0	100.0	42.1	42.1	99.8	11.4	11.5	96.6
FXBG	5.9	5.9	100.0	42.2	42.2	100.0	11.7	11.8	99.2

NOTES A AND B ARE GIVEN IN APPENDIX.

TABLE XII (CONT)

AVERAGES OF MILL QUALITY DATA FOR MAY-JUN, 1988 - 42 LB KRAFT LINERBOARD

CODE	BURST PSIG CUR. AV.	BURST PSIG CUM. AV.	BURST PSIG IND. *B	CD RING CRUSH, LB CUR. AV.	CD RING CRUSH, LB CUM. AV.	CD RING CRUSH, LB IND. *B	CD STFI LB/IN CUR. AV.	CD STFI LB/IN CUM. AV.	CD STFI LB/IN IND. *B
A1	111	106	103.7				19.0	19.2	94.5
B1	104	103	97.2				19.9	19.1	99.0
C1	102	103	95.3	60.0	66.0	78.0			
J1	109	110	101.9				20.2	18.2	100.5
K1	116	120	108.4				22.5	23.8	111.9
M1	100	100	93.4					18.0	
S1	102	104	95.3	80.6	87.9	104.8			
T1	116	116	108.4		61.0		20.6	20.3	102.5
Y1	100	101	93.4	65.0	64.8	84.5			
B2	105	107	98.1	70.9	70.4	92.2			
C2		104			78.8				
E2	108	113	100.9		85.2			23.8	
F2	101	102	94.4	77.0	72.9	100.1			
J2	105	106	98.1	72.0	72.3	93.6			
K2	112	108	104.7				18.5	17.2	92.0
M2	108	109	100.9				19.6	17.5	97.5
D2	104	102	97.2				20.2	20.1	100.5
P2	98	97	91.6	66.5	76.5	86.5			
R2	103	105	96.3					19.1	
S2	111	109	103.7	69.0	67.0	89.7	18.7	18.2	93.0
T2	109	111	101.9	88.9	87.0	115.6			
J2	107	109	100.0						
V2	107	107	100.0				16.5	16.5	82.1
X2	109	108	101.9	93.9	92.0	122.1		23.3	
Y2	107	105	100.0		71.4		26.0	26.9	129.4
A3	110	112	102.8	84.0	83.6	109.2	21.3	23.2	106.0
E3	108	110	100.9	90.7	90.3	117.9		23.7	
H3	106	111	99.1				22.0	21.0	109.4
I3	109	106	101.9				19.8	18.7	98.5
L3	103	104	96.3	84.6	86.7	110.0			
M3	101	104	94.4	77.0	77.0	100.1		20.3	
N3	103	103	96.3	89.0	86.6	115.7			
Q3	100	111	93.4	65.0	70.2	84.5			
R3	106	108	99.1	84.0	86.0	109.2	20.9	22.8	104.0
S3	102	102	95.3	72.0	75.8	93.6			
W3	111	111	103.7				22.4	23.1	111.4
Y3	108	108	100.9	74.0	73.5	96.2			
B4	112	108	104.7	74.0		96.2			
C4		103							
D4	107	107	100.0	66.0	63.8	85.8	19.3	20.0	96.0
G4	106	106	99.1				16.1	16.7	80.1
J4	111	107	103.7				19.0	18.1	94.5
K4	102	105	95.3		68.0				
O4	99	100	92.5	79.0	76.7	102.7		21.6	
P4	105	103	98.1	83.0	80.3	107.9			
R4	104	109	97.2	70.0	69.0	91.0	18.5	16.9	92.0
S4	106	105	99.1	73.0	70.3	94.9	20.5	20.2	102.0
FKBG	106	107	99.1	76.4	76.9	99.3	20.1	20.1	100.0

NOTE B IS GIVEN IN APPENDIX.

TABLE XIII

AVERAGES OF MILL QUALITY DATA FOR JAN-FEB, 1988 - 69 LB KRAFT LINERBOARD

CODE	MOISTURE CONTENT PERCENT CUR. AV.	MOISTURE CONTENT PERCENT CUM. AV.	MOISTURE CONTENT PERCENT IND. *B	ADJ. BASIS WT. *A LB/M SQ FT CUR. AV.	ADJ. BASIS WT. *A LB/M SQ FT CUM. AV.	ADJ. BASIS WT. *A LB/M SQ FT IND. *B	CALIPER MIL CUR. AV.	CALIPER MIL CUM. AV.	CALIPER MIL IND. *B
A1	6.3	5.8	100.0	69.1	69.2	99.7	19.3	19.6	100.5
J1	7.5		119.0	69.3		100.0	18.4		95.8
K1	7.1	7.0	112.7	69.2	69.2	99.8	18.9	18.8	98.4
M1		6.3			69.5			21.2	
S1	6.4	6.3	101.6	69.3	69.3	100.0	19.2	19.1	100.0
T1	6.6	6.4	104.8	69.4	69.2	100.1	19.4	17.7	101.0
Z1	6.1	6.4	96.8	67.9	68.0	98.0	20.0	20.4	104.2
B2	7.0	6.9	111.1	69.2	69.4	99.8	18.7	18.6	97.4
C2	6.3	6.5	100.0	69.8	69.4	100.7	19.1	19.5	99.5
E2	6.5	6.4	103.2	69.5	69.5	100.3	18.7	19.4	97.4
F2	6.8	7.4	107.9	68.5	68.4	98.8	18.8	19.2	97.9
J2	6.1	5.9	96.8	68.4	68.3	98.7	20.3	20.1	105.7
K2	5.7	5.7	90.5	70.1	69.4	101.2	18.5	18.6	96.4
M2	6.6	6.2	104.8	69.6	69.9	100.4	19.0	20.0	99.0
O2		6.8			69.0			20.1	
P2	6.4	6.4	101.6	69.7	69.6	100.6	18.9	19.0	98.4
R2	6.7	6.8	106.3	69.5	69.4	100.3	19.3	19.3	100.5
S2	6.1	6.3	96.8	69.2	69.2	99.8	18.6	18.6	96.9
T2	6.5	6.5	103.2	69.9	69.9	100.9	16.2	17.9	84.4
U2	6.9	6.6	109.5	69.7	69.9	100.6	17.7	18.1	92.2
X2	5.8	5.7	92.1	69.5	69.5	100.3	19.0	18.2	99.0
Y2	5.9	6.0	93.6	69.4	69.4	100.1	19.4	19.1	101.0
A3	6.9	6.9	109.5	69.1	68.9	99.7	18.2	17.8	94.3
H3	6.4	6.5	101.6	68.6	68.4	99.0	19.3	19.8	100.5
I3		6.4			69.5			19.8	
M3	6.7	6.6	106.3	69.5	69.3	100.3	20.0	19.7	104.2
N3		6.0			70.0			19.9	
Q3	6.6	6.4	104.3	69.4	69.3	100.1	19.4	19.2	101.0
S3	6.2	6.4	98.4	69.2	69.4	99.8	18.0		93.8
Y3	5.3	5.5	84.1	69.5	69.4	100.3	19.9	20.3	103.6
Z3	6.3	5.9	100.0	70.0	70.3	101.0	18.6	18.7	96.9
G4	7.1		112.7	68.9		99.4	20.7		107.3
K4	6.2	5.6	98.4	69.2	69.6	99.8	20.2	19.8	105.2
R4	5.8	5.8	92.1	69.4	69.5	100.1	19.6	20.0	102.1
FKBG	6.4	6.3	101.6	69.3	69.3	100.0	19.0	19.2	99.0

NOTES A AND B ARE GIVEN IN APPENDIX.

TABLE XIII (CONT)

AVERAGES OF MILL QUALITY DATA FOR JAN-FEB, 1988 - 59 LB KRAFT LINERBOARD

CODE	BURST PSIG CUR. AV.	BURST PSIG CUM. AV.	BURST PSIG IND. *B	CD RING CRUSH, LB CUR. AV.	CD RING CRUSH, LB CUM. AV.	CD RING CRUSH, LB IND. *3	CD STFI LB/IN CUR. AV.	CD STFI LB/IN CUM. AV.	CD STFI LB/IN IND. *B
A1	137	139	95.1				29.8	27.6	98.0
J1	163		113.2				28.5		93.8
K1	146	151	101.4				34.0	34.3	111.8
M1		133							
S1	143	142	99.3	123.0	143.2	101.2			
T1	152	147	105.6		108.0		29.6	30.8	97.4
Z1	137	138	95.1	114.5	112.2	94.2			
B2	144	148	100.0	117.4	117.1	96.5			
C2	135	133	93.8	116.0	117.8	95.4			
E2	140	142	97.2		131.0			36.2	
F2	127	130	88.2	130.0	124.2	106.9			
J2	146	145	101.4	120.0	119.7	98.7			
K2	142	142	98.6		129.0		31.6	30.7	103.9
M2	145	138	100.7				30.2	31.0	99.3
O2		140						30.9	
P2	136	136	94.4	135.5	138.0	111.4			
R2	134	141	93.3					29.5	
S2	149	149	103.5	106.0	113.9	87.2	28.6	30.5	94.1
T2	157	154	109.0	146.5	139.8	120.5			
U2	169	168	117.4						
X2	156	148	108.3	141.9	141.2	116.7	33.5	32.6	110.2
Y2	137	137	95.1	132.5	121.9	109.0			
A3	145	148	100.7	111.2	118.0	91.4	34.0	32.6	111.8
H3	138	144	95.8				34.7	31.5	114.1
I3		139						28.8	
M3	141	140	97.9	113.0	112.0	92.9	29.0	29.7	95.4
N3		142			136.3				
Q3	139	140	96.5	107.0	110.3	88.0			
S3	144	145	100.0	134.0	130.0	110.2			
Y3	137	141	95.1	111.0	111.5	91.3			
Z3	141	146	97.9				29.0	28.8	95.4
G4	146		101.4						
K4	136	138	94.4		117.5				
R4	146	148	101.4	112.0	105.7	92.1	29.7	24.6	97.7
FKBG	144	144	100.0	121.8	121.6	100.2	30.9	30.4	101.6

NOTE B IS GIVEN IN APPENDIX.

TABLE XIV

AVERAGES OF MILL QUALITY DATA FOR MAR-APR, 1988 - 69 LB KRAFT LINERBOARD

CODE	MOISTURE CONTENT PERCENT			ADJ. BASIS WT. *A LB/M SQ FT			CALIPER MIL		
	CUR. AV.	CUM. AV.	IND. *B	CUR. AV.	CUM. AV.	IND. *B	CUR. AV.	CUM. AV.	IND. *B
A1	6.3	5.9	100.0	69.1	69.2	99.7	19.5	19.6	101.6
J1	7.4	7.5	117.5	69.0	69.3	99.6	17.8	18.4	92.7
K1	7.0	7.0	111.1	69.1	69.2	99.7	19.6	18.8	102.1
M1		6.3			69.5			21.2	
S1	6.4	6.3	101.6	69.3	69.3	100.0	19.0	19.1	99.0
T1	6.8	6.4	107.9	69.3	69.3	100.0	19.8	18.0	103.1
Z1	6.1	6.3	96.8	67.9	68.0	98.0	20.0	20.4	104.2
B2	7.0	7.0	111.1	69.2	69.3	99.8	18.5	18.6	96.4
C2	6.2	6.4	98.4	69.6	69.6	100.4	19.1	19.4	99.5
E2	6.4	6.4	101.6	69.7	69.5	100.6	18.6	19.3	96.9
F2	7.2	7.2	114.3	68.8	68.4	99.3	19.4	19.1	101.0
J2	6.0	6.0	95.2	68.2	68.3	98.4	20.0	20.1	104.2
K2	5.8	5.7	92.1	69.2	69.4	99.8	18.6	18.6	96.9
M2		6.3			69.9			19.4	
O2	6.9	6.8	109.5	68.7	69.0	99.1	20.2	20.0	105.2
P2	6.4	6.4	101.6	69.7	69.6	100.6	18.7	19.0	97.4
R2	6.8	6.8	107.9	69.4	69.5	100.1	20.0	19.3	104.2
S2	6.2	6.3	98.4	69.2	69.2	99.8	18.4	18.4	95.8
T2	6.2	6.5	98.4	69.9	69.9	100.9	17.2	17.5	89.6
J2	6.6	6.6	104.8	69.8	69.9	100.7	17.7	18.0	92.2
K2	5.7	5.7	90.5	69.4	69.5	100.1	18.8	18.4	97.9
Y2	6.2	6.0	98.4	69.4	69.4	100.1	19.3	19.2	100.5
A3	7.0	6.9	111.1	69.0	69.0	99.6	18.1	17.9	94.3
H3	5.8	6.4	92.1	68.8	68.5	99.3	19.5	19.6	101.6
I3		6.5			69.5			19.8	
M3	6.9	6.6	109.5	69.7	69.3	100.6	20.0	20.0	104.2
N3	6.4	6.0	101.6	70.0	70.0	101.0	20.1	19.9	104.7
O3	6.4	6.4	101.6	68.7	69.3	99.1	18.9	19.3	98.4
S3	6.2	6.4	98.4	69.2	69.4	99.3	18.4	18.0	95.8
Y3	5.3	5.4	84.1	69.5	69.4	100.3	20.6	20.2	107.3
Z3	6.2	6.0	98.4	69.6	70.2	100.4	19.0	18.7	99.0
G4	7.2	7.1	114.3	68.8	68.9	99.3	20.6	20.7	107.3
K4	6.6	5.8	104.8	69.1	69.6	99.7	18.9	19.9	98.4
R4	5.8	5.8	92.1	69.6	69.5	100.4	19.7	20.0	102.6
FKBG	6.4	6.3	101.6	69.2	69.3	99.8	19.2	19.2	100.0

NOTES A AND B ARE GIVEN IN APPENDIX.

TABLE XIV (CONT)

AVERAGES OF MILL QUALITY DATA FOR MAR-APR, 1988 - 69 LB KRAFT LINERBOARD

CODE	BURST PSIG CUR. AV.	BURST PSIG CUM. AV.	BURST PSIG IND. *B	CD RING CRUSH, LB CUR. AV.	CD RING CRUSH, LB CUM. AV.	CD RING CRUSH, LB IND. *B	CD STFI LB/IN CUR. AV.	CD STFI LB/IN CUM. AV.	CD STFI LB/IN IND. *B
A1	148	138	103.5				28.6	28.1	94.1
J1	170	163	118.9				31.4	28.5	103.3
K1	147	150	102.8				34.0	34.2	111.8
M1		133							
S1	140	142	97.9	126.8	140.7	104.4			
T1	148	148	103.5		108.0		32.0	31.0	105.3
Z1	139	137	97.2	121.0	111.7	99.6			
B2	145	147	101.4	123.2	117.6	101.4			
C2	136	132	95.1	114.0	119.0	93.8			
E2	140	141	97.9	132.0	131.0	125.1	35.7	34.9	117.4
F2	130	129	90.9	125.0	126.2	102.9			
J2	151	145	105.6	123.0	119.2	101.2			
K2	146	141	102.1				30.2	30.8	99.3
M2		141						31.5	
O2	137	141	95.8				31.7	30.8	104.3
P2	136	136	95.1	136.0	137.9	111.9			
R2	134	140	93.7					29.1	
S2	162	150	113.3	110.0	112.1	90.5	29.4	30.0	96.7
T2	157	155	109.8	159.4	141.0	131.2			
J2	159	167	111.2						
X2	148	150	103.5	143.3	142.0	117.9		32.5	
Y2	138	137	96.5		123.2		52.5		172.7
A3	146	148	102.1	113.7	117.0	93.6	33.6	32.8	110.5
H3	150	142	104.9				34.8	32.3	114.5
I3		139						28.3	
M3	140	140	97.9	116.0	111.7	95.5	28.0	29.5	92.1
N3	139	142	97.2	139.6	136.3	114.9			
O3	140	140	97.9	115.0	109.3	94.6			
S3	140	145	97.9	135.0	130.1	111.1			
Y3	138	140	96.5	116.0	111.8	95.5			
Z3	144	144	100.7				28.8	29.0	94.7
G4	143	146	100.0				25.1		82.6
K4	138	138	96.5		118.0				
R4	145	147	101.4	107.0	106.0	88.1	25.0	25.3	82.2
FKBG	144	143	100.7	126.4	121.5	104.0	32.0	30.4	105.3

NOTE B IS GIVEN IN APPENDIX.

TABLE XV

AVERAGES OF MILL QUALITY DATA FOR MAY-JUNE 1988 - 69 LB KRAFT LINERBOARD

CODE	MOISTURE CONTENT PERCENT CUR. AV.	MOISTURE CONTENT PERCENT CUM. AV.	MOISTURE CONTENT PERCENT IND. *B	ADJ. BASIS WT. *A LB/M SQ FT CUR. AV.	ADJ. BASIS WT. *A LB/M SQ FT CUM. AV.	ADJ. BASIS WT. *A LB/M SQ FT IND. *B	CALIPER MIL CUR. AV.	CALIPER MIL CUM. AV.	CALIPER MIL IND. *B
A1	6.2	6.0	96.9	69.1	69.2	99.7	20.1	19.5	104.7
J1	7.6	7.4	118.8	69.1	69.2	99.7	17.5	18.1	91.1
K1	7.4	7.1	115.6	69.2	69.2	99.8	19.5	19.0	101.6
M1		6.3			69.5			21.2	
S1	6.6	6.4	103.1	69.3	69.3	100.0	19.2	19.1	100.0
T1	6.8	6.5	106.2	69.3	69.3	100.0	20.0	18.4	104.2
Z1	6.3	6.3	98.4	67.9	68.0	98.0	20.6	20.2	107.3
B2	7.0	7.0	109.4	69.3	69.3	100.0	18.4	18.6	95.8
C2	6.0	6.4	93.8	69.7	69.6	100.6	19.2	19.2	100.0
E2	6.3	6.4	98.4	69.6	69.5	100.4	18.7	19.2	97.4
F2	7.3	7.2	114.1	68.6	68.5	99.0	19.9	19.2	103.6
J2	6.0	6.0	93.8	68.2	68.3	98.4	20.2	20.1	105.2
K2	5.7	5.7	89.1	69.3	69.4	100.0	18.8	18.6	97.9
M2		6.4			69.8			19.4	
O2	6.9	6.8	107.8	69.2	69.0	99.8	19.8	20.1	103.1
P2	6.6	6.4	103.1	69.5	69.6	100.3	18.8	19.0	97.9
R2	6.7	6.9	104.7	69.2	69.4	99.8	19.2	19.4	100.0
S2	6.0	6.2	93.8	69.3	69.2	100.0	18.0	18.4	93.8
T2		6.4			69.9			17.4	
U2	6.8	6.5	106.2	69.7	69.9	100.6	15.9	18.0	88.0
X2	5.7	5.7	89.1	69.5	69.5	100.3	19.6	18.6	102.1
Y2	6.0	6.0	93.8	69.8	69.4	100.7	20.0	19.3	104.2
A3	6.9	6.9	107.8	69.1	69.0	99.7	17.8	18.0	92.7
H3	6.1	6.3	95.3	68.1	68.6	98.3	19.4	19.5	101.0
I3		6.4			69.5			19.8	
M3	7.1	6.7	110.9	70.1	69.4	101.2	20.1	20.1	104.7
N3	6.2	6.2	96.9	69.9	70.0	100.9	19.7	20.0	102.6
Q3	5.7	6.4	89.1	70.1	69.2	101.2	19.4	19.2	101.0
S3	6.2	6.3	96.9	69.2	69.3	99.8	18.0	18.2	93.8
Y3	5.4	5.3	84.4	69.4	69.4	100.1	20.3	20.3	105.7
Z3	6.3	6.1	98.4	69.2	70.1	99.8	18.8	18.7	97.9
G4	7.0	7.2	109.4	68.9	68.8	99.4	20.3	20.6	105.7
C4	6.3	5.9	98.4	69.5	69.5	100.3	18.7	19.7	97.4
X4	5.8	5.8	90.6	69.5	69.5	100.3	19.9	19.8	103.6
FKBG	6.4	6.4	100.0	69.3	69.3	100.0	19.2	19.2	100.0

NOTES A AND B ARE GIVEN IN APPENDIX.

TABLE XV (CONT)

AVERAGES OF MILL QUALITY DATA FOR MAY-JUN, 1988 - 69 LB KRAFT LINERBOARD

CODE	BURST PSIG CUR. AV.	BURST PSIG CUM. AV.	BURST PSIG IND. *B	CD RING CRUSH, LB CUR. AV.	CD RING CRUSH, LB CUM. AV.	CD RING CRUSH, LB IND. *B	CD STFI LB/IN CUR. AV.	CD STFI LB/IN CUM. AV.	CD STFI LB/IN IND. *B
A1	137	140	95.1				25.8	28.2	84.0
J1	153	166	106.2				32.2	30.0	104.9
K1	141	150	97.9				32.5	34.3	105.9
M1		133							
S1	143	141	99.3	123.4	138.7	101.0			
T1	152	148	105.6		111.0		31.6	30.9	102.9
Z1	138	137	95.8	110.0	113.8	90.0			
B2	158	147	109.7	125.2	118.8	102.4			
C2	138	133	95.8	116.0	119.2	94.9			
E2	142	140	98.6		152.0			35.3	
F2	129	129	89.6	127.0	125.9	103.9			
J2	152	146	105.6	125.0	119.7	102.3			
K2	146	142	101.4				31.3	30.8	102.0
M2		142						30.4	
O2	135	140	93.8				30.8	30.9	100.3
P2	136	136	94.4	126.0	137.7	103.1			
R2	137	138	95.1					28.5	
S2	155	152	107.6	113.0	111.8	92.5	30.3	29.9	98.7
T2		156			144.5				
J2	161	165	111.8						
X2	151	150	104.9	148.9	142.4	121.8		32.4	
Y2	140	137	97.2		121.8		47.5	52.5	154.7
A3	150	148	104.2	119.2	115.8	97.5	31.0	33.0	101.0
H3	147	145	102.1				32.5	32.8	105.9
I3		138						28.5	
M3	139	141	96.5	113.0	111.5	92.5		29.5	
N3	143	140	99.3	141.3	138.0	115.6			
O3	136	141	94.4	115.5	108.8	94.5			
S3	146	143	101.4	133.0	130.4	108.8			
Y3	136	139	94.4	105.0	112.0	85.9			
Z3	146	144	101.4				28.4	28.9	92.5
G4	142	144	98.6				27.0	25.1	87.9
K4	136	138	94.4		118.0				
R4	146	146	101.4	111.0	105.5	90.8	26.0	25.4	84.7
FKBG	144	144	100.0	122.0	122.2	99.8	31.3	30.7	102.0

NOTE B IS GIVEN IN APPENDIX.

TABLE XVI

AVERAGES OF MILL QUALITY DATA FOR JAN-FEB, 1988 - 90 LB KRAFT LINERBOARD

CODE	MOISTURE CONTENT PERCENT			ADJ. BASIS WT. *A LB/M SQ FT			CALIPER MIL		
	CUR. AV.	CUM. AV.	IND. *B	CUR. AV.	CUM. AV.	IND. *B	CUR. AV.	CUM. AV.	IND. *B
J1	7.6		113.4	90.3		99.9	23.1		93.5
K1	7.3	7.1	109.0	90.4	90.3	100.0	24.8	24.3	100.4
S1	6.7	6.9	100.0	91.0	90.9	100.7	25.6	25.4	103.6
T1	7.0	6.6	104.5	90.5	90.4	100.1	25.8	22.6	104.4
C2	6.1	6.5	91.0	91.1	90.7	100.8	24.8	25.7	100.4
J2		8.2			89.9			26.8	
K2	6.0	6.1	89.6	90.4	90.2	100.0	23.9	24.1	96.8
P2	7.0	6.8	104.5	91.1	90.4	100.8	25.0	25.1	101.2
R2	7.3	7.2	109.0	90.4	90.6	100.0	26.4	25.7	106.9
S2	6.0	6.3	89.6	90.3	90.2	99.9	24.6	24.4	99.6
X2	5.5	5.7	82.1	90.5	90.6	100.1	26.5	24.0	107.3
A3	7.0	6.9	104.5	90.2	90.0	99.8	23.5	23.8	95.1
Z3	5.9	6.0	88.0	90.6	91.2	100.2	24.3	24.4	98.4
FKBG	6.6	6.7	98.5	90.6	90.4	100.2	24.9	24.7	100.8

NOTES A AND B ARE GIVEN IN APPENDIX.

TABLE XVI (CONT)

AVERAGES OF MILL QUALITY DATA FOR JAN-FEB, 1988 - 90 LB KRAFT LINERBOARD

CODE	BURST PSIG CUR. AV.	BURST PSIG CUM. AV.	BURST PSIG IND. *B	CD RING CRUSH, LB CUR. AV.	CD RING CRUSH, LB CUM. AV.	CD RING CRUSH, LB IND. *3	CD STFI LB/IN CUR. AV.	CD STFI LB/IN CUM. AV.	CD STFI LB/IN IND. *B
J1	207		120.3				39.2		93.8
K1	181	180	105.2				42.0	44.8	100.5
S1	163	182	94.8	141.8	189.2	87.9			
T1	168	167	97.7		139.0		37.4	40.1	89.5
C2	161	163	93.6	167.0	158.8	103.5			
J2		178			149.8				
K2	168	165	97.7		145.0		44.2	45.1	105.7
P2	156	154	90.7	158.5	176.4	98.3			
R2	149	164	86.6					38.3	
S2	191	179	111.0	141.0	149.2	87.4	37.8	39.8	90.4
K2	169	171	98.2	187.6	184.9	116.3		42.6	
A3	175	179	101.7	150.9	159.0	93.6	41.5	40.8	99.3
Z3	178	188	103.5				43.5	41.3	104.1
FKBG	172	172	100.0	157.8	161.3	97.8	40.8	41.8	97.6

NOTE B IS GIVEN IN APPENDIX.

TABLE XVII

AVERAGES OF MILL QUALITY DATA FOR MAR-APR, 1988 - 90 LB KRAFT LINERBOARD

CODE	MOISTURE CONTENT PERCENT			ADJ. BASIS WT. *A LB/M SQ FT			CALIPER MIL		
	CUR. AV.	CUM. AV.	IND. *B	CUR. AV.	CUM. AV.	IND. *B	CUR. AV.	CUM. AV.	IND. *B
J1	7.5	7.6	111.9	90.3	90.3	99.8	22.1	23.1	89.5
K1	7.1	7.2	106.0	90.3	90.4	99.8	24.9	24.4	100.8
S1	6.6	6.8	98.5	90.6	90.9	100.1	25.6	25.4	103.6
T1	7.3	6.7	109.0	90.6	90.4	100.1	26.3	23.2	106.5
C2	6.3	6.4	94.0	90.7	90.9	100.2	25.1	25.4	101.6
J2	8.3	8.1	123.9	89.7	90.0	99.1	26.3	26.8	106.5
K2	6.2	6.0	92.5	90.0	90.3	99.4	24.4	24.1	98.8
P2	7.2	6.8	107.5	91.2	90.4	100.8	25.0	25.0	101.2
R2	7.0	7.2	104.5	90.3	90.6	99.8	25.2	25.8	102.0
S2	6.4	6.3	95.5	90.0	90.2	99.4	25.0	24.4	101.2
X2	5.6	5.7	83.6	90.8	90.6	100.3		24.4	
A3		6.9			90.0			23.8	
M3	6.3		94.0	92.3		102.0	27.4		110.9
Z3	6.3	6.1	94.0	90.3	91.0	99.8	24.1	24.4	97.6
FKBG	6.8	6.7	101.5	90.5	90.5	100.0	25.1	24.7	101.6

NOTES A AND B ARE GIVEN IN APPENDIX.

TABLE XVII (CONT)

AVERAGES OF MILL QUALITY DATA FOR MAR-APR, 1988 - 90 LB KRAFT LINERBOARD

CODE	BURST PSIG CUR. AV.	BURST PSIG CUM. AV.	BURST PSIG IND. *B	CD RING CRUSH, LB CUR. AV.	CD RING CRUSH, LB CUM. AV.	CD RING CRUSH, LB IND. *B	CD STFI LB/IN CUR. AV.	CD STFI LB/IN CUM. AV.	CD STFI LB/IN IND. *B
J1	218	207	126.7				41.9	39.2	100.7
K1	180	179	104.6				44.0	44.3	105.8
S1	162	175	94.2	162.0	173.4	100.4			
T1	161	168	93.5		139.0		39.0	39.6	93.8
C2	164	162	95.3	157.0	162.7	97.3			
J2	181	179	105.2	141.0	149.4	87.4			
K2	169	166	98.2				41.7	45.1	100.2
P2	157	154	91.3	163.5	172.5	101.4			
R2	174	161	101.2					38.2	
S2	179	181	104.1	138.0	147.8	85.6	36.8	39.5	88.5
K2	180	171	104.6	184.5	186.5	114.4		42.2	
A3		179			157.8			40.9	
M3	160		93.0	146.0		90.5			
Z3	181	187	105.2				42.7	41.3	102.6
AVBG.	174	172	101.2	156.0	161.3	96.7	41.0	41.6	98.6

NOTE B IS GIVEN IN APPENDIX.

TABLE XVIII

AVERAGES OF MILL QUALITY DATA FOR MAY-JUN, 1988 - 90 LB KRAFT LINERBOARD

CODE	MOISTURE CONTENT PERCENT CUR. AV.	MOISTURE CONTENT PERCENT CUM. AV.	MOISTURE CONTENT PERCENT IND. *B	ADJ. BASIS WT. *A LB/M SQ FT CUR. AV.	ADJ. BASIS WT. *A LB/M SQ FT CUM. AV.	ADJ. BASIS WT. *A LB/M SQ FT IND. *B	CALIPER MIL CUR. AV.	CALIPER MIL CUM. AV.	CALIPER MIL IND. *B
J1	7.4	7.6	110.4	90.3	90.3	99.8	22.5	22.6	91.1
K1	7.4	7.2	110.4	90.3	90.3	99.8	25.3	24.4	102.4
S1	6.8	6.7	101.5	90.6	90.9	100.1	25.7	25.6	104.0
T1	7.0	6.8	104.5	90.4	90.5	99.9	25.4	23.6	102.8
C2	6.0	6.4	89.6	90.8	90.9	100.3	25.0	25.2	101.2
J2	8.7	8.1	129.8	90.0	89.9	99.4	26.5	26.7	107.3
K2	6.1	6.1	91.0	90.4	90.2	99.9	24.9	24.1	100.8
P2	7.0	6.9	104.5	91.3	90.5	100.9	25.4	25.0	102.8
R2	6.7	7.2	100.0	90.5	90.5	100.0	25.5	25.7	103.2
S2	5.9	6.2	88.0	90.3	90.2	99.8	24.0	24.5	97.2
X2	5.8	5.6	86.6	90.4	90.6	99.9	25.6	24.7	103.6
A3	6.8	6.9	101.5	90.0	90.1	99.4	23.7	23.8	96.0
M3	6.8	6.3	101.5	92.1	92.3	101.8	26.4	27.4	106.9
Z3	6.1	6.2	91.0	90.1	90.9	99.6	24.4	24.3	98.8
FKBG	6.8	6.7	101.5	90.5	90.5	100.0	25.0	24.7	101.2

NOTES A AND B ARE GIVEN IN APPENDIX.

TABLE XVIII (CONT)

AVERAGES OF MILL QUALITY DATA FOR MAY-JUN, 1988 - 90 LB KRAFT LINERBOARD

CODE	BURST PSIG CUR. AV.	BURST PSIG CUM. AV.	BURST PSIG IND. *B	CD RING CRUSH, LB CUR. AV.	CD RING CRUSH, LB CUM. AV.	CD RING CRUSH, LB IND. *B	CD STFI LB/IN CUR. AV.	CD STFI LB/IN CUM. AV.	CD STFI LB/IN IND. *B
J1	189	212	109.9				43.4	40.6	104.6
K1	178	182	103.5				44.0	44.7	106.0
S1	160	167	93.0	149.4	162.7	93.1			
T1	168	166	97.7		145.0		38.7	40.0	93.2
C2	163	162	94.8	167.0	163.5	104.0			
J2	181	179	105.2	146.0	147.8	91.0			
K2	167	167	97.1				41.5	44.6	100.0
P2	152	154	88.4	154.0	168.3	96.0			
R2	163	163	94.3					37.4	
S2	182	181	105.8	145.0	147.0	90.3	38.8	39.2	93.5
X2	169	173	98.2	193.2	186.9	120.4		41.3	
A3	170	179	98.3	171.6	157.9	106.9	41.2	41.2	99.3
M3	168	160	97.7		146.0				
Z3	187	184	108.7				39.9	41.6	96.1
FCBG	171	172	99.4	160.9	160.5	100.2	41.1	41.5	99.0

NOTE B IS GIVEN IN APPENDIX.

Data submitted by the participating mills relative to conditioning and testing environments are summarized in Table XIX. The procedures used in calculating adjusted basis weight, cumulative machine averages, machine factors, machine indexes, and F.K.B.G. indexes are described in the Appendix.

It should be explained that the number of machines for which data are compiled in each table for a specified period varies for these reasons: a machine must have (a) produced at least 500 tons of the pertinent grade weight during the specified period, or (b) produced 500 tons of the pertinent grade weight during any one or more of the 12 months prior to the specified period (so that a cumulative average is available), to be included in a given table.

TABLE XIX

DATA ON CONDITIONING AND TESTING ENVIRONMENTS

JAN-FEB, MAR-APR, MAY-JUN, 1988

Code	Conditioning Environment: Are Quality Samples Conditioned Before Testing?	Conditioning Environment: Procedure: Time	Conditioning Environment: Procedure: Temp., °F	Conditioning Environment: Procedure: RH, %	Testing Environment: Are Quality Samples Tested Under Controlled Conditions of Temperature & Humidity?
A1	Yes	10 min	--	--	Yes: 71 ± 2°F; 50 ± 2% RH
B1	No	--	--	--	Yes: 73 ± 3°F; 50 ± 5% RH
C1	No	--	--	--	No
H1	Yes	--	--	--	Yes: 73 ± 2°F; 50 ± 2% RH
J1	No	--	--	--	No
K1	No	--	--	--	Yes: 73°F; 50% RH
L1	No data was submitted for this period				
M1	No	--	--	--	Yes: 72 ± 5°F; 50 ± 5% RH
N1	No	--	--	--	No
S1	No	--	--	--	Yes: 73 ± 2°F; 50 ± 2% RH
T1	No	--	--	--	Yes: 73°F; 50% RH
Z1	No	--	--	--	Yes: 75 ± 2°F; 50 ± 2% RH
B2	No	--	--	--	No
C2	Yes	10 min	--	--	Yes: 72 ± 2°F; 50 ± 2% RH
D2	No	--	--	--	Yes: 73 ± 2°F; 50 ± 2% RH
E2	No	--	--	--	Yes: 73°F; 50% RH
F2	No	--	--	--	No
J2	No	--	--	--	Yes: 70 ± 2°F; 50 ± 2% RH
K2	No	--	--	--	Yes: 70 ± 4°F; 50 ± 5% RH
M2	No	--	--	--	Yes: 73 ± 2°F; 50 ± 2% RH
O2	Yes	7 min	--	--	Yes: 73 ± 2°F; 50 ± 5% RH
P2	No	--	--	--	No
R2	No	--	--	--	Yes: 72 ± 5°F; 50 ± 5% RH
S2	No	--	--	--	Yes: 72 ± 2°F; 50 ± 1% RH
T2	No	--	--	--	Yes: 73 ± 3.5°F; 50 ± 2% RH
U2	Yes	--	--	--	Yes: 73 ± 2°F; 50 ± 2% RH
V2	No	--	--	--	Yes: 70 ± 4°F; 50 ± 5% RH
X2	No	--	--	--	Yes: 73 ± 3°F; 50 ± 2% RH
Y2	No	--	--	--	No
A3	No	--	--	--	Yes: 73 ± 2°F; 50 ± 2% RH
B3	No	--	--	--	No
E3	No	--	--	--	Yes: 73 ± 3°F; 50 ± 2% RH
H3	Yes	15 min	--	--	Yes: 73 ± 2°F; 50 ± 1% RH
I3	No	--	--	--	Yes: 73 ± 2°F; 50 ± 2% RH
L3	No	--	--	--	Yes: 73 ± 2°F; 50 ± 2% RH
M3	No	--	--	--	Yes: 72 ± 3°F; 50 ± 2% RH
N3	No	--	--	--	Yes: 73 ± 3.5°F; 50 ± 2% RH
O3	No	--	--	--	Yes: 70 ± 2°F; 50 ± 2% RH
Q3	No	--	--	--	No
R3	No	--	--	--	Yes: 73 ± 2°F; 50 ± 2% RH
S3	No	--	--	--	No
W3	No	--	--	--	Yes: 73°F; 50% RH
Y3	No	--	--	--	Yes: 72 ± 3°F; 50 ± 2% RH
Z3	No	--	--	--	Yes: 73 ± 2°F; 50 ± 2% RH
B4	Yes	--	--	--	Yes: 73 ± 3°F; 50 ± 1% RH
C4	No	--	--	--	Yes: 72 ± 2°F; 50 ± 2% RH
D4	No	--	--	--	Yes: 73 ± 2°F; 50 ± 2% RH
G4	No	--	--	--	No
I4	Yes	10 min	--	--	Yes: 72 ± 2°F; 50 ± 2% RH
J4	No	--	--	--	Yes: 70 ± 4°F; 50 ± 5% RH
K4	No	--	--	--	Yes: 72 ± 2°F; 50 ± 2% RH
O4	No	--	--	--	Yes: 72 ± 3°F; 50 ± 2% RH
P4	No	--	--	--	Yes: 72 ± 3°F; 50 ± 2% RH
Q4	No	--	--	--	Yes: 73 ± 2°F; 50 ± 2% RH
R4	No	--	--	--	No
S4	No	--	--	--	Yes: 73 ± 2°F; 50 ± 2% RH

THE INSTITUTE OF PAPER CHEMISTRY

Roger H. Van Eperen
Research Associate
Paper Materials Division

Approved by

Maclin S. Hall
Acting Director
Paper Materials Division

APPENDIX

NOTES A AND B USED IN TABULATIONS OF MILL DATA

Notes A and B used in the tables of mill data are given below; these notes define the procedure used in calculating adjusted basis weight, machine index, and F.K.B.G. index. It should be stressed that each formula is applicable only to a specific physical property of a specific grade weight of linerboard.

Note A: Adjusted basis weight (ABW) = reported weight (RBW) adjusted to moisture content of 7.8%:

$$ABW = RBW \left[\frac{(100 - \text{reported moisture content, \%})}{(100 - 7.8)} \right]$$

Note B: Machine index (%) $= \left[\frac{\text{Current machine average}}{\text{Cumulative F.K.B.G. average}} \right] \cdot 100$ where

$$\text{Cumulative F.K.B.G. average} = \sum \frac{\text{CFKBGA's}^{b} \text{ for previous 6 periods excluding CFKBGA for current period}}{6}$$

$$\text{F.K.B.G. index (\%)} = \left[\frac{\text{Current F.K.B.G. average}}{\text{Cumulative F.K.B.G. average}} \right] \cdot 100 \text{ where}$$

$$\text{Current F.K.B.G. average} = \sum \frac{\text{CMA's}^{a} \text{ for current period for all machines}}{\text{Number of machines}}$$

---

[a]CMA = current machine average for a specific physical property of a specific linerboard grade weight obtained during a given period on a specific machine.

[b]CFKBGA = current F.K.B.G. average for a specific physical property of a specific linerboard grade weight obtained during a given period.