

Sp. B. 81.1 days 2sp

J Pac

291

1 00.2

+31

32

08E

6118

5.50 - 0.045 - 0.195 2E

+0004 - 0.266 ± 0

$\frac{4}{45}$ +00105

-0.266

-019

135

844

2944

6

+0134

129
878
288

2844
105

$\frac{40M - 0.27}{11}$

+10.40

11
1.0
+21.5

+0.7

W. M. ...
...

+25
-25
0850
+10.4

-10.02

475
550

4335 98.1

10019 22.1 - 02651.9
+ 10022 - 029
10016 - 027 10.22 95.0

~~147~~
597

1.35
12.017

4537

10016 - 0225
+ 10018 - 024

10.94

1421.27

~~012~~

122

114
3035

4544

10230
1024-125

10.71 10.77

4351

10.85

1440.2

1002

-0.22
70.83

84

3



*000.192

1.000*

0.200*

31.000*

*000

1.000
31.500
28.000
- 28.000
5.500
12.500
18.400

13182

0.826
0.260
0.500
50.869
12.616

+13

- 0.563
0.447
0.695
- 122.994
- 0.251

-9

0.043
0.056
- 0.516
- 108.753
- 19.054

-20

14

+2001.817
+00375 -0005 (0000)

00209 -6185

85 $\frac{1}{2}$

052-006.5

03.0 +21 14

6454/57

upbeat

5.24 -0.01 -0.07

000 145 588 2.8706
33.6 12.68 24.72

+0.8
41.55

+00305 -014 ±1.5 0.10

5.56 -0.06 -0.07 0.03

+0036 -011 $\frac{1}{2}$

-021 145 869 2.855

+0.8
(47.5)

~~+0503~~
~~1057-015~~

55
11

146 914
149 9142.863

0427 0513

9861

-022 -01 875 2450

132 492

00CS-

1148

928

59.765 96.1 40037

~~183~~
~~4652~~

+0024 -014
+0032 -011

-014348

~~88.25~~ 5.52
21.47 91.9
51
21.39

59.7721

+0025 -016
+0032 -016

21.70 38.64

-005 59.726

930

59.7222 / 59.7235

-16 21.57 21.74
21.52 33.9
+12

813 80.4 02252.9

-014348

53.26 95.3
52
22.01

992 3.01

+00345 -0142

53.94 35.64

0.444

+002865 -0112

-16

36.3

53.00 42

-005

475 +0510

53.27 32.09
+12

0.462
4003

4052-016

53.36

0.466

53.32

8

1100 1
1200 1
1300 1
1400 1
1500 1
1600 1
1700 1
1800 1
1900 1
2000 1
2100 1
2200 1
2300 1
2400 1
2500 1
2600 1
2700 1
2800 1
2900 1
3000 1
3100 1
3200 1
3300 1
3400 1
3500 1
3600 1
3700 1
3800 1
3900 1
4000 1
4100 1
4200 1
4300 1
4400 1
4500 1
4600 1
4700 1
4800 1
4900 1
5000 1

2000

5100 1
5200 1
5300 1
5400 1
5500 1
5600 1
5700 1
5800 1
5900 1
6000 1
6100 1
6200 1
6300 1
6400 1
6500 1
6600 1
6700 1
6800 1
6900 1
7000 1
7100 1
7200 1
7300 1
7400 1
7500 1
7600 1
7700 1
7800 1
7900 1
8000 1
8100 1
8200 1
8300 1
8400 1
8500 1
8600 1
8700 1
8800 1
8900 1
9000 1
9100 1
9200 1
9300 1
9400 1
9500 1
9600 1
9700 1
9800 1
9900 1
10000 1

10000

310.000*

1.000*

3.000*

21.000*

14.000*

0.052*

-0.015*

4.650*

85.114 9.2

-3.500

0.178

0.456

135

~~13.577~~

12.2

-0.180

0.598

-17.420

-19.2

-0.040

-0.659

+1 145

~~-1.093~~

4.75

713

-20

~~13~~

41

310-311

1 03.0 + 21 12

4 Pa

6456-6457

1309-1310

A 5.34 - 0.01 - 0.07 T abet A 1 1/2
 B 5.36 - 0.06 - 0.17 A 0 1/2

30" 316 -19

A05899

1254 -001 152 938 2.859 J G
 000 165 988 2.870 et al
 0 1.59 987 2.864

Bud 51

1430-1432 1367 147-680 131 782 2.846 J R
 192 1907 192 145 869 2.855 et al

-024 138 875 2.850

1.622 7858
 6236 1126185

56
523 see 090
(2007) see C

85.9

4Pac

6456

1309/10

62011

310/11

$+0034 \pm 2.4$
 $+0036$
 1 03.0 +21 12-

85.55E

A2 -30

$30''$ (5.8
 89E -3.56

A0 -40

89E -3.56

1309) 5-9.765 = 1896.1 +21 12 21.47 1896.9

-183
 $\frac{61}{582}$

22.28
 $\frac{61}{10}$

$5-9.7652$
 $\frac{1}{731}$

21.92
 $\frac{10}{1533.9}$

80.2

5-9.731

21.70
 $\frac{14}{1938.69}$

25.9

36.3

728

21.56
 $\frac{21.82}{-46}$

7.29

44.4

714.9

7003 253.9
-016.22.8
+0033

6

0310) 0.513 18934 721 11 53.25 18953

$$\frac{-181}{33} \quad 2$$

$$\frac{1}{33} \quad 2$$

$$1462$$

$$1486$$

$$\frac{-1}{184}$$

$$\frac{472}{472}$$

$$\frac{7140}{7140}$$

$$\frac{42.9}{42.9}$$

$$\frac{88}{5713}$$

$$\frac{16}{53.26}$$

$$\frac{16}{53.26}$$

$$\frac{16}{53.26}$$

$$\frac{16}{53.26}$$

$$\frac{16}{53.26}$$

$$\frac{5431}{53.34}$$

$$\frac{77}{53.34}$$

193869

1933.9

7259

36.3

$$\frac{41.0}{41.0}$$

16,14 +22,0, +10
0+0,1 -13-4, -17 -7,1, +8

3.8

+18 15

-3

35.76 - 27.48
10.760.57

336 / 07.3 + 68.31

6824 $\frac{150}{10}$

5.29 - 0.02 - 0.06 2E

6516 AUG

→ -005 138 1046 2.831 56
 $\frac{-022}{-03}$ 149 $\frac{1056}{1051}$ 2.846.48 ad
 $\frac{2.831}{1051}$ 2.838

new, 026

9 = -021 138 576

+5063 -0189 blum 140 1054

+ $\frac{0 - 0011}{-020}$ 1334 9966 9254

+5063 $\frac{25.24}{35.24}$ 0.57 3790

1076 1076

1334 9966 9254
6243 3790
-150827 -3790

5079

16

32 class

345

5589

1 58.4 + 64 45

BS TS

6572

100

-046 140 200 2812

126 909
252
96

Var

$\sigma_V = +0.55$

16 14+21, 22, 26, 28, 34

1cc III 201

PAD 8, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

9866
-0527
9866
-3938
0580
0027



45 hand
348

07 III - 12

1 084 + 37 25

2019
ginc
114

581 114

038 108 657 2.741 G2

0014-007
of 12.5
out

665 2020
2020
15

967

0013-0037 -1.1

0154005

0155

-0.65
6.4

+02

$$\begin{array}{r} -101853.1 \\ -1015 \\ \hline -101652.9 \end{array}$$

$$\begin{array}{r} 21.07 \\ 075 \\ \hline 252 \end{array}$$

$$\begin{array}{r} 21.04 \\ 35 \\ \hline 1891.1 \end{array}$$

9

$$\begin{array}{r} 21.39 \\ 35 \\ \hline \end{array}$$

$$\begin{array}{r} 21.60 \\ 0 \\ \hline 092 \end{array}$$

$$\begin{array}{r} 21 \\ 20.5 \\ -11 \\ \hline 21.87 \\ -52 \\ \hline 1552.68 \end{array}$$

$$\begin{array}{r} 21.87 \\ -52 \\ \hline \end{array}$$

1. 1000
2. 2000
3. 3000
4. 4000
5. 5000
6. 6000
7. 7000
8. 8000
9. 9000
10. 10000

348.000*

1.000*

8.400*

37.000*

28.000*

-0.015*

0.000*

120x

+0061 ± 3.9 -008 ± 2.5
+0054 -018

6960 1 8.2 +63 56 5.5 89 -5.9 6

681 -034 14- 946 2825

1426 8 10.318 1887.2 +63 56 15.27 1896.6

942 / 383 9.935 5.50 418 x67 15.70 E 410

6 33.59 818
1 36.26 6.87
8 9.845 6.87
9 2.90 4.12

45 15.1 1927.2
8 0.12
56 15.520 196
10.335 98
+5.05

10.279 10.206
+1 +1.291
250 +1.291

121 1946.83
32 14.93
1155 -3
-99 79.90

6.1 (081) -032
053032

40.4

14.98

-99

926 8543 0619
4090 5755 0002

14.98 490 -0.72 418

17

R.A. :
DEC. : 1.170
R.A. : 03.950
DEC. : 121.800
STANCE : -02.000
ODULUS : 4.550
VEL. : 81
-9.900

P1 (U) :
P2 (U) : 0.814
C3 (U) : -0.878
C4 (U) : 0.878
U : 218.711
11.811

P1 (U) :
P2 (U) : -0.878
C3 (U) : 0.878
C4 (U) : 0.814
U : -148.801

R.A. : 1.150
DEC. : 63.950
. R.A. : 121.000
. DEC. : -32.000
STANCE : 4.550
MODULUS : 81
. VEL. : -9.900

q1 (U) : 0.814
q2 (U) : -0.078
q3 (U) : 0.576
dU : 216.711
U : 11.911

q1 (V) : -0.576
q2 (V) : 0.024
q3 (V) : 0.817
dV : -148.801
V :

45 And
348

1 08.4 +37 28

70.14 5.81

0.6 -0.38 1.08 6.67 2.741

-1.1

+1977 665
164
867
659

-00133 -0037 4380 ~~2.05~~

-0158 -42

$E(P-Z) + 0.015$ No 5.75

$\left[\begin{array}{c} -0158 -008 \end{array} \right]$ Fichten

$$d_V = \frac{-0.6}{6.35}$$

07 III -12
07 III

18



mild
very mild

369

Sic 1 13.5 427 49

7546

622 -006119 627 2.719 Cr

-10
1/2

118

628
234
862

2830
111

-15.2

608

100125 21 ±3.5
100166+

+05

6.50

6.3

100135 4041
41

-105

10136

and hit

(-1.1)

-1.6

250
25

6.4

1.1

1574.2
+ 1521.15

3095.35

26944 1896.5 ✓
- 688

564

7-10 1892.5 ✓
+ 11

921

26916 1
+ 12

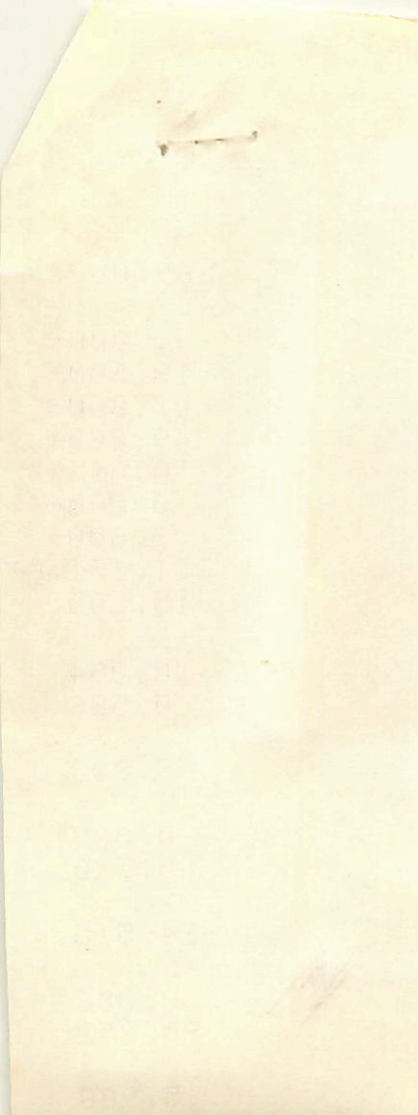
928

37.89 1557.63
- 33

37.56
+ 36

064

6



369.000*

1.000*

13.500*

47.000*

49.000*

0.014*

0.000*

7.600*

331.131 *3/162*

-15.200

0.054

0.586

8.833

-0.039

0.770

-24.515

0.006

-0.252

5.908



7804 898e
1566

1 15.2 +3 2/ 5.3 Alm +5.36

746 1055
1566

10-59

-0033 -018 N30

-0034 ±1.3 -019 ±1.2 GC cont. N30

(378)

F86

034 173 1.116 2.891

W-02310 -02310
+0000

W-02310 -02310

5.14 -091 1M99

W-02310 -02310
+0000

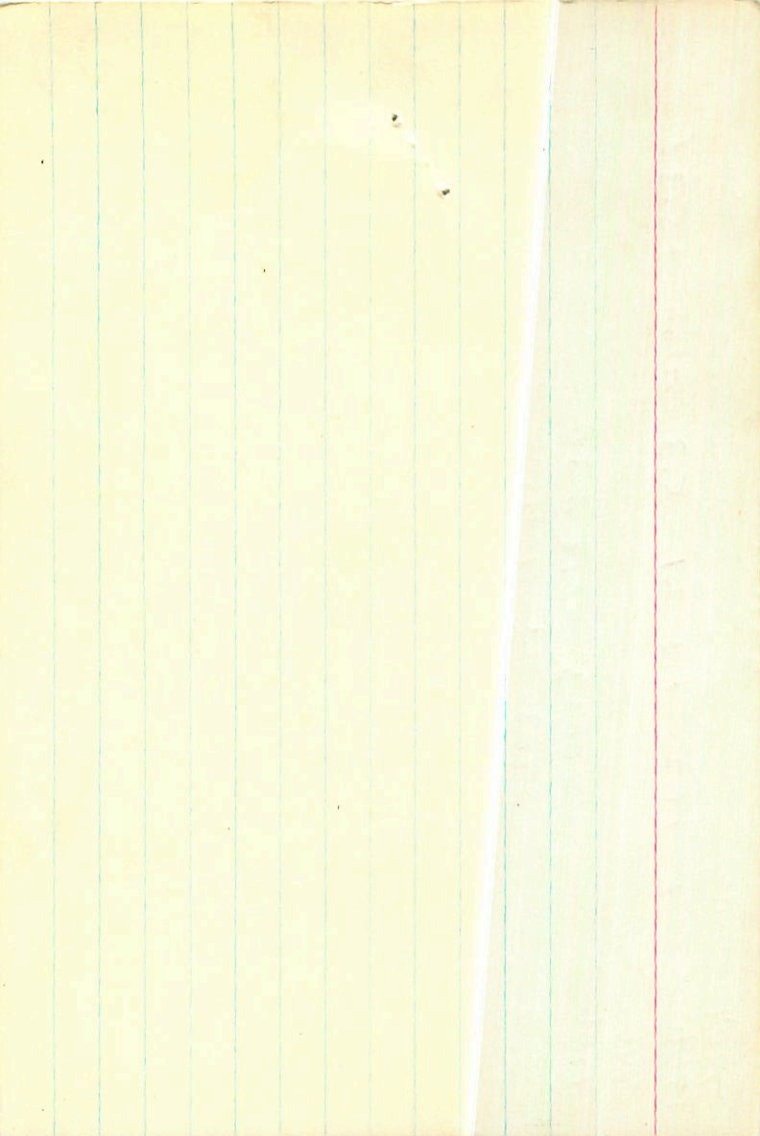
W-02310 -02310

26

-46

14336 17741 -2615 / 052
2242 -1487 / 0007
7524

W-02310 -02310



89 Pac

1 15.2 +3 21 Alm +5.08

HR378

5.17 +0.07 +0.08 ABE

W746

-052 -01966

-049 -018N

-053 -19F

-051 -019

322 947 058 956 -051-019 +5.3-0010³-090³

016 0-048-001 051 -227 +5.3 +5.0 +A.7 014

+14.5-14.5-4.2

-14.8+7.0-9.9

+10 -12.5 4. 016

-13 +6 -10

018

+9.5 -10.9 -4.7

-11.0 +6.0 -8.6

-42
-14
-004

697

895 | 22.0 + 70 42 A0

021 1021
-007 135 1.012 2.818 9 -021
133 1013 R 101
266
1279

+017-007 GC

+017-006 F1Y

+016-010 +600
1.4
+007
+29
-8
+9.9

$E(1-y) = +0.01$ $m_V = +0.05$

$V_0 = 6.4$
 $\frac{6.35}{}$

$3,732$
 $- 177$

 $3,555$
 $+0035740$
 -007730

 $13,05439$
 39

13,44

4021
am

3,607
~~4021~~
+113

+0030-005
+0025-004

13,82 1545.26

3,690

115

+0134

402

1330

.14

+013-008

2

398.000*

1.000*

22.100*

70.000*

42.000*

0.016*

-0.010*

6.350*

22357 186.209

9.900

0.069

0.578

+21 18.597

-0.043

0.803

-2 -0.089

-0.037

0.144

21

-7 -5.432

+33+24+33+24+19
 +21+13+6+22

-129 -88

419 | 24.3 +8 16 · 85.5

8403

6.58 -0.04 -0.19 C
 G -0.59
 05

13/24 888 2.850
 117 851
 1091

-011 118 850 2.817 C
 118 850 2.984
 2000
 1082

+00 088 -0159 26 #30
 + 2
 +00000 -0182 -60 +150
 17
 +00069

ELT(2) = +0.02
 MY = +0.3
 VD = 6.5

+0.3

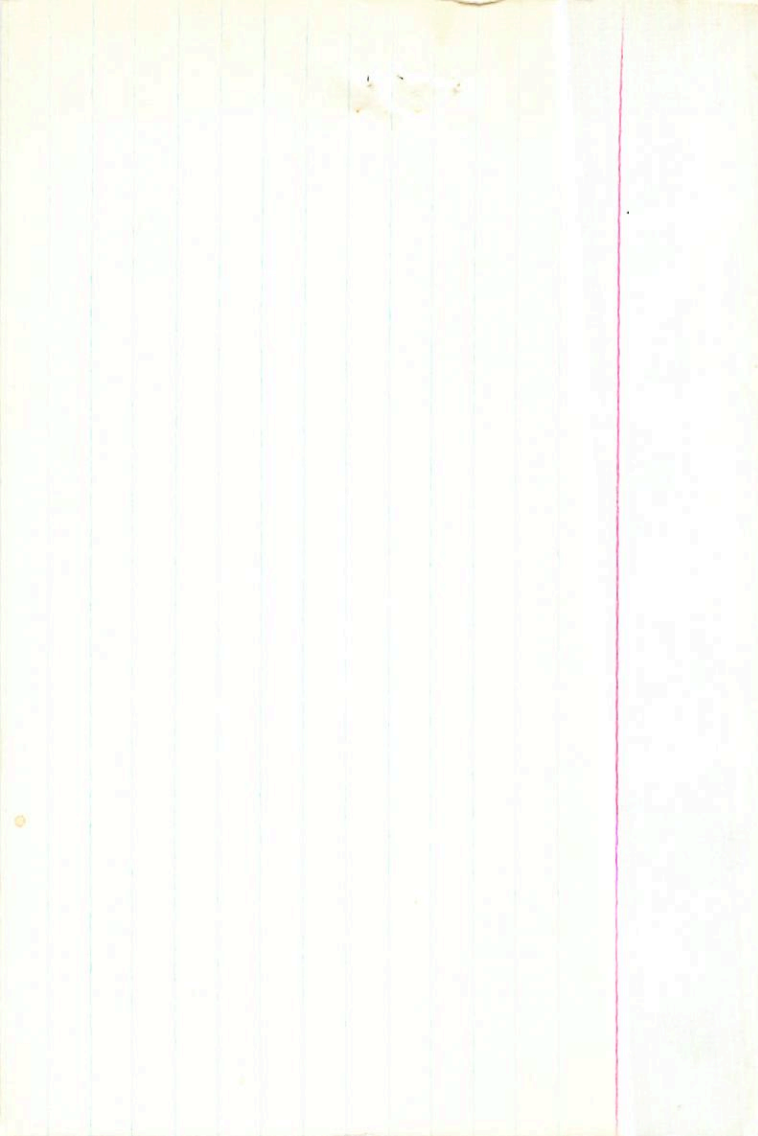
6.25

+0009 -019

+15.0
 +24.6 SB?
 word

6.2

1000



1390334

422

1 27.9

+40 04

A0 III

8837

~~-10
+14~~

6.59

+011 -018 60

012 088 994 2.724

+012 -015⁴

092 992 2.409

+012 -014

(032)

184
11 78

185

-1.9

-1.5

-1.3

1.4
+40.1

+10

-13

8.4

-1.5

X

+03

(7.8)

52.379 1503.4

+0210 74.4
-018 74.0
+0003

36.55 15008

027
332

+00066-012
+00011-009

+84
3784

+0020

+005-013

32.51 1969.35

-11

3240

-44

52.348
+ 4
352
1020

27



422.000*

1.000*

24.900*

40.000*

1.000*

422

1 27.9 +40 04 A0 III

8837

well
~~215~~

+0.12 0.88 994 (4) 2.724 (5)

0.90 992

180

1172

-0.7

$M_V = -1.3$

7.75

52.379 19034

+0010 54.9 -017 54.0

86.95 1501.8

+0010 -015

1012 -019

3



422.000*

1.000*

24.900*

40.000*

4.000*

0.012*

-0.019*

7.750*

354.813

-0.700

0.034

0.601

11.468

-0.068

0.706

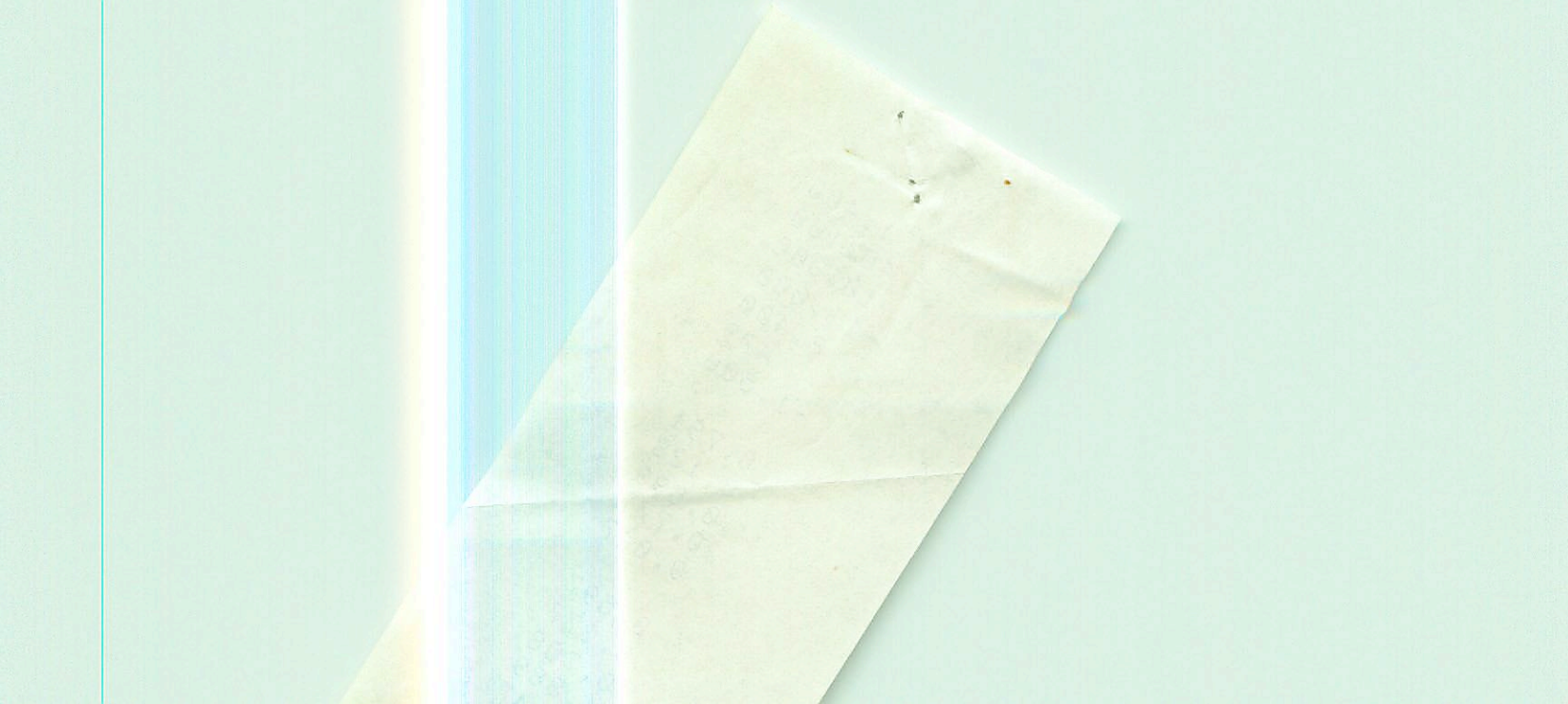
-24.681

-0.075

-0.375

-26.234

23



1.400
40.100
10.000
-13.000
8.400
479
-1.500

0.791
0.128
0.599
20.777
0.047

-0.597
0.377
0.708
1.889
-1.17

6460

433 / 27.2 -21 54

91320

1809

5.12 +0.02 +0.02 895

ADG 1184 12^m 22"

(V)

5504 328^m

5.10 021 130

1093

2.890

1,22,3,2 (2)

Bud 51 14.20

ATG

1084

260
1,353
42

25 100

027=2

1.71

-4, -9, -9, -6

16

1238,233 +40, +9, +9, +2

1,355

056=2

10.75
435

-7.76

+10 van vsh.

0:

+053

1040 006
1040 005

8903

4554

938 ✓

0554
0003

1006



24

433,000+

1,000*

27,100*

-21,000*

-54,100*

0,950*

0,306*

4,350*

74,131

0,000

0,214

0,178

15,878

-0,128

-0,008

-9,510

0,040

-0,984

7,955

24

+390334

422

1 27.9 490 05

-10

+0010 ± 49 -0.18 ± 49

52379 15224

365 005

+00105 -0.18

+012

~~+012 -0.22~~

1.4 1.4

+40.1 +40.1

~~+014 -0.19~~

+15.5 +19

-22 -19

012 088 994 2.224

5.5

8.2

-1.0

25

1,400
40,400
15,500
-22,000
7,750
355
-1,000

0,791
0,125
0,599
31,211
10,475

-0,557
0,373
0,710
-72,351
-26,381

0,135
0,919
-0,370
-88,295
-30,958

25

1954
1955
1956
1957
1958
1959

1960
1961
1962
1963
1964

1965
1966
1967
1968
1969

1.400
40.100
18.000
-19.000
8.200
437
-1.000

0.791
0.128
0.599
40.070
16.693

-0.597
0.377
0.708
-72.934
-32.545

4966t A061184

9132 423 1

849

1508

27.2

-21 53

5.1

A0

-7.76

+10 Var 423

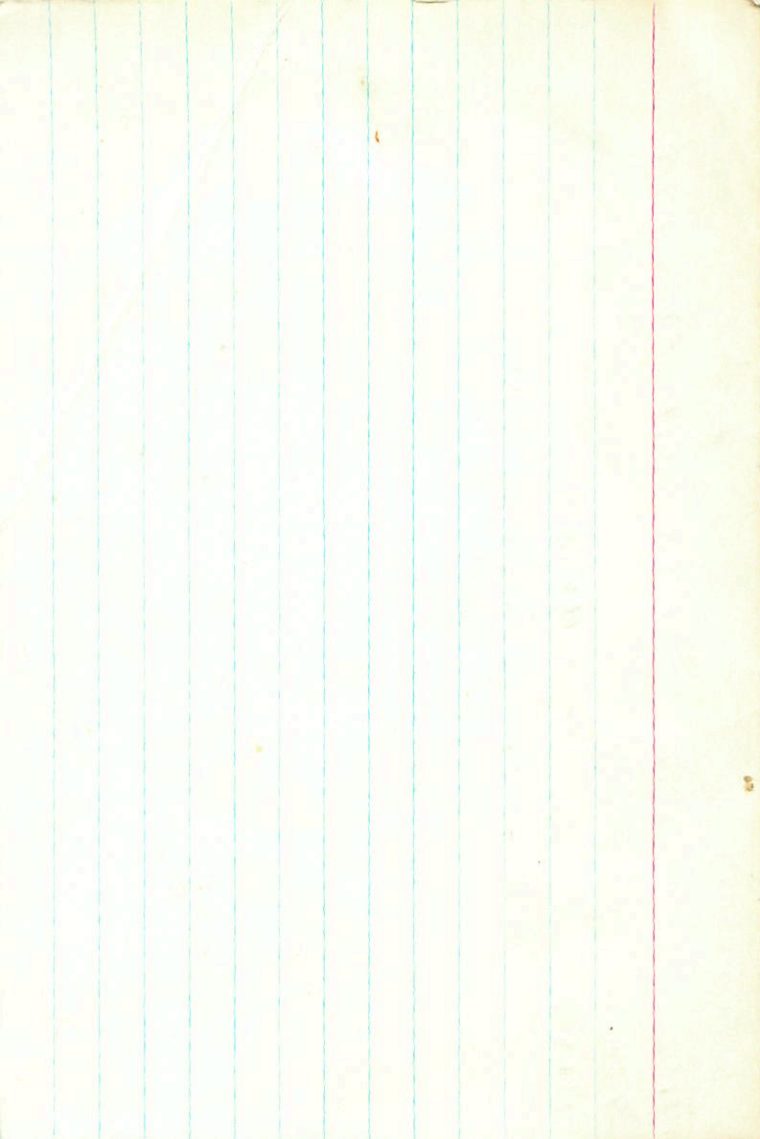
+0037 +0006 A30

+0038 +0005 G-C con 6N30

±2.1 ±2.4

A1E

01155 1084 2900



443

20 35.1

(29.5 -45 50 6.17 A) $\frac{1}{2}$

24 29.5

001121 1072 2.894

(150) 1066

-0023 +005 shy

-00199 +009
.1.5

-0206
-450
-26

-018 +005

+5
5.15
+15

6000
8000
-0757

26