

69 Cms
2 Cms

19 95.2
8 59.5

$\frac{-0.003 - 0.12}{-0.004 - 0.12}$ PPM

+24 39 400 -15.16

5.46 -0.03 -0.10 -0.01 -0.09 GC

65935 77350
12496
5935
3895

39
-0.003 -0.009 N30 -0.002 -0.009

-0.003 ± 1.7 -0.008 ± 1.6 GC → N30

$\frac{\pm 1.7}{-0.001} \frac{\pm 1.6}{-0.009}$

1 1 0 2nd case 6 600 2nd P 600 X Y Z
146 +11 111 +24B 755 -766 656 538 +53.9 -642 +72.9

49.009 4.7 -0.015 -0.12 3.37 40 6007 -9670

$\frac{0.04}{0.13} \frac{-0.010 - 0.13}{0.78} \frac{4.11}{3.78}$

6007 -9670
500 2546
6000 -9442

6007 2546
-9670 3664 } 0B
19676 9304

49.064 +24 0 -0.0112 -0.100 3.17 57.24
-0.09 -0.153

49.05 $\frac{-0.145 - 0.075}{1.080}$ 2.99
+28 2.91

70.57

707-707 417 809 -002 -005 -15.1 -004 -63-035.

001 003 +001 003 -009 015 -127 +007-9.7 009

+9-8-10

-11	-5	-12
-12	-4	-5

+9.1-8.4-5.5 015

-10.7 +1.6 -5.6

+5.6 -7.3 -11

-10.5	-0.8	-11.3
-------	------	-------

005

+8.1-7.8-10.3

01

-10.9 +0.7-11.4

3526 8 55.3 +36 00 A1 II

76595
56596
12393

4.4 665 7901497

~~600~~ 159 1050 2.874 at of
41

160 320 1088
1408
1423
8

160 1.61
a=19
1=75 +1.3

15R 3V

+1.35
5.1

4504

240

$$\begin{array}{r}
 15.054 \\
 \underline{031} \\
 14.023
 \end{array}$$

131.2

$$\begin{array}{r}
 -0001 \\
 +0004 \\
 \hline
 +0004 -012
 \end{array}$$

$$\begin{array}{r}
 -0006 \\
 -012 \\
 \hline
 4282 \cdot 15065 \\
 \underline{04} \\
 42.56
 \end{array}$$

10008 3113 -012 48.3

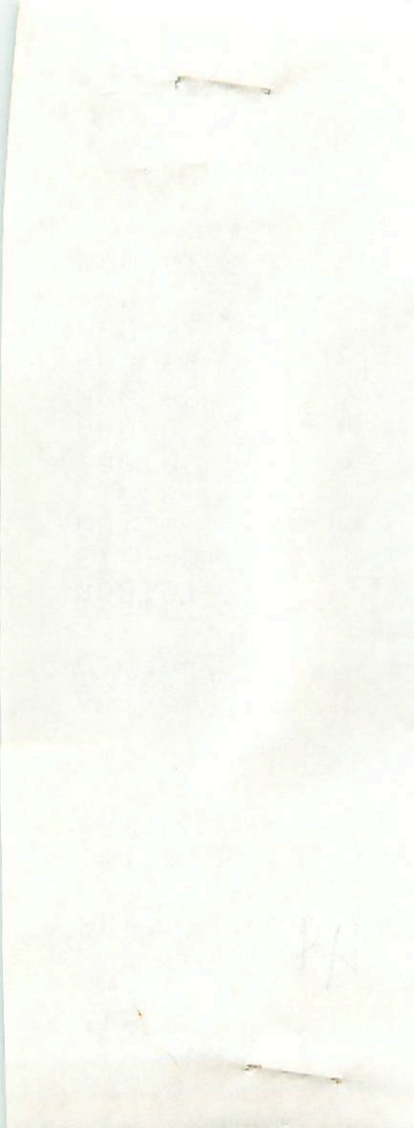
$$\begin{array}{r}
 18.442 \\
 +24 \\
 \hline
 18.466
 \end{array}$$

$$\begin{array}{r}
 14.018 \\
 \underline{.005} \\
 13.993
 \end{array}$$

$$\begin{array}{r}
 48.33 \\
 -14 \\
 \hline
 34.29 \\
 \underline{27} \\
 6.59
 \end{array}$$

$$\begin{array}{r}
 48.33 \\
 \underline{27} \\
 75.63
 \end{array}$$

87



3556.000*

8.000*

55.300*

36.000*

0.000*

0.004*

-0.012*

5.100*

104.713

-15.000

-0.015

0.756

-12.925

-0.057

-0.101

-4.488

0.009

0.647

-3.787

48

-0021 +00 of Sheng
-00 +007

HR3582
558 -59 03
72466

7700 ✓
59 ✓
302 po. -28 ✓
+12 ✓
+240 ✓
59 ✓
+1 ✓
73 ✓
+24 ✓

-0021 -001 A30
-0018 -003 BL
-0020 -002

2015

-652 750 -114
-041 -187 -581
757 635 -150
+0463 -0071 +0392 +11.8 -2.8 +9
+0031 +0018 +0049 +1.5 -24.0 -22
-0538 -0070 -0608 -18.4 -3.8 -23

2.659
2.789

742 -080 100 223
683 -053 117 500

-013 +008

+240

159 101 511 710

49





1000
1000
1000
1000
1000
1000



-59.000
-25.000
8.000
7.300
288
26.500

205

-0.649
0.752
-0.112
-0.0
68.154
16.683

(047)

V=015

-0.047
-0.187
-0.981
-4.286
-27.214

0.759
0.632
-0.157
-22.366
-10.618

49

mid SW

199 95.1

8 55.9 2489 1401.4

V line SW SW

3555
77850

9.0
2344
0
-1
54
-142

S-43-055-115 AG
-17 133 2816 ca. 3
-22 181 956
-23 139 1004
-118 131 1008 2820 G
2814 G

128 1.013 2934
256
1.269

13 10052 10074
14 10017 1006
15 10022 10037
16 10074
17 10074
18 10074
19 10074
20 10074
21 10074
22 10074
23 10074
24 10074
25 10074
26 10074
27 10074
28 10074
29 10074
30 10074

-20 133 1000 2817
124 1004 2433
258
1262

Red

1013
252
1215

-15.1

~~10019 10074
10026 10074
10027 10074~~

50



3595.000*

8.000*

55.900*

24.000*

39.000*

-0.002*

-0.004*

5.750*

141.254

-14.300

0.002

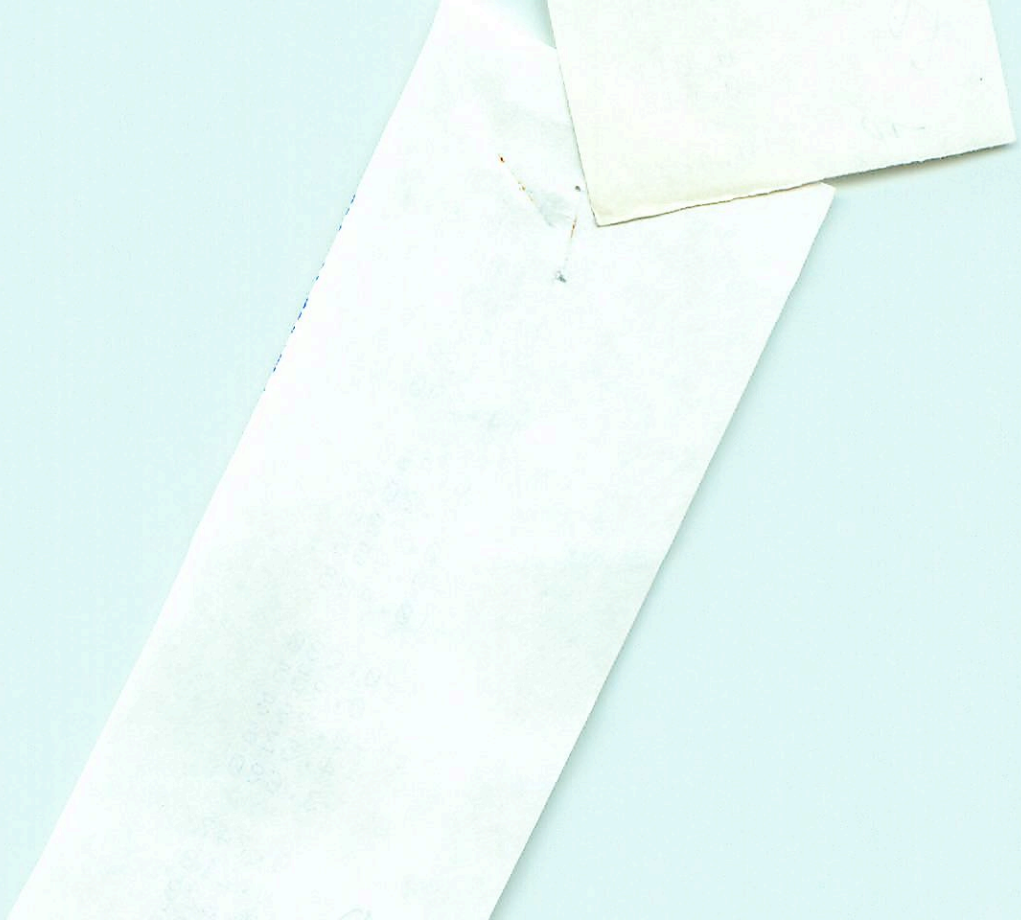
0.730

120

-10.094

-0.019

505
1025



50

72

1.717

-0.011

0.617

-10

-10

9.000

24.660

6.000

-1.000

5.400

120

-14.300

-0.665

0.202

0.720

-0.956

-10.405

-0.030

0.955

-0.295

-4.526

3.680

0.747

0.218

20 35.1

3601 9 01.2 +28 06 A05

7757 31-12-1-20 6.7

6159

915
2868 2868 2868
47

018 156

9.0 159
+28.1 318
-2 1074
-2 1392
6.05 1.425

a=30 1.68
n=78 44

24.7
11.7
5.02

40.45
58.5

1001-1006 900
1007 1007
1008 1008
1009 1009
1010 1010
1011 1011
1012 1012
1013 1013
1014 1014
1015 1015
1016 1016
1017 1017
1018 1018
1019 1019
1020 1020

1006 1006
1007 1007
1008 1008
1009 1009
1010 1010
1011 1011
1012 1012
1013 1013
1014 1014
1015 1015
1016 1016
1017 1017
1018 1018
1019 1019
1020 1020

11.381

$\frac{-010}{321}$

1.0

$\frac{+000 \neq 2.4}{-00020}$

$\frac{-006 \neq 2.3}{-007}$

50.61 964

$\frac{32}{50.93}$

0000-0065

-00016-0051

11.294

-002.1

50.64 38.7

$\frac{+N}{312}$

$\frac{-002-002}{}$

$\frac{0}{50.64}$

5

3623

78316

9 0-17 110 2-2

14746

8929 1651
1156 653

1335 ~ 5.56

20.24 16.04
10.40 91

8038

8906

6227

8556

1516

6227

52

R.A. : 9.050
DEC. : 10.850
PM. R.A. : 0.000
PM. DEC. : 0.000
DISTANCE : 0.000
MODULUS : 10
RAD. VEL. : 0.000

q1 (U) : -0.672
q2 (U) : 0.369
q3 (U) : 0.642
pU : 0.000
U : 0.000

q1 (V) : -0.021
q2 (V) : 0.857
q3 (V) : -0.515
pV : 0.000
V : 0.000

52

q1 (W) : 0.740
q2 (W) : 0.360
q3 (W) : 0.568
pW : 0.000
W : 0.000

1914ya
78556

ASP 24, 125 249.
AP 564, 1

9 06.3

⁻⁰⁰¹³
-0016 ± 2.4
-0010
-8-001123

-012 ± 2.3
-005

5.5007 B8 +23.46

12626
5991

15.322 1898.4

+4
+15
-8 23

+74
+34
10.99 1895.2

083
405

+66
10.3 3

3620

+23.4

70.13

15.337
+9
346

15.28
+24
323

10.83
10.75

11.00 1934.27
+36
10.64

7431

-0011-006

00135-007

-0200

-019-004

9.1
8.4
-18
-4
6.1
234

1.920
13.455
5.375
370
114
594

365
-040

38.8

55.17
10.60
10.62

15.005
+24
1329

7.80 1935.04
-2.05
9.85
-90
10.75
+30
10.45

18.54
-21

37.2

42.0



1

10/10/10

1

1

9.200
2.500
130.000
-312.000
3.250

45.7 44.66
-10.000

072

-0.693
0.460
0.555
-1105.030
-54.988

56

0.005

AD57253 79469

0114m 127-3

M3 3665

11.8 + 2 32

50(59)

66036

3.89 -05

-F C

AUG

M1 -315 101 N30

+0084

+0086 509-315 ±0.9

+130 -315 60

83m

-36.8 -4.5 = -41

-36.4 + 5.1 = -33

-7.1 -4.2 = -11

High Velocity Star

+0094 -0315 N10

+0096 -0315 027 N30

03m

+0085 -0315

85m

-689 +460 +560

0 1773 -634

+725 +437 +531

-4164 -6868

0 -1.1542

+4892 -6635

276

-17032

-18542

-2143

53

-69.5 -4.5

-72.7 +0.1

-13.5

=740

345

868

854581

85385

-37

707-707

0

1

125

-315

-8

00

-1482

025

-090 0 -050 0

-426

-426

-8

+5.6

-5.6

-114 -22.6

04

-4.4 -16.0 -37.3

1140.119
-44.50

-5
-28
-7

3667 9 11.5 -88 24 AD

revised

~~Answers~~

~~3661~~

~~9~~

~~107~~

~~-43~~

~~21~~

~~352~~

55

9.200

-47.100

-26.500

4.000

6.200

174

19.000

-0.693

0.720

0.009

72.951

12.857

9.200
-47.100
-26.500
2.000
6.150
170
19.000

-0.693
0.720
0.009
66.121
11.408

0.005
0.018
-1.000
-0.255
-19.040

0.721
0.693
0.016
-55.037
-9.043

55

-0019 ± 6.9 -018 ± 5.9
-0019 -020

79752 9 13.1 -14 49 6.2 Aom +32.48

12774 6.30 +0.01 +150 37 20 "E49"

6044 3.013 1915.0 -14 48 57.38 1912.4

$$\begin{array}{r} 086 \\ \hline 099 \\ \hline \end{array}$$
$$\begin{array}{r} 52.085 \\ \hline 10.945 \\ \hline 3.033 \\ \hline 034 \\ \hline 28 \\ \hline 06 \\ \hline \end{array}$$
$$\begin{array}{r} 44.41 \\ \hline 12.22 \\ \hline 56.63 \\ \hline -85 \\ \hline 57.48 \\ \hline +37 \\ \hline 57.11 \\ \hline \end{array}$$
$$\begin{array}{r} 57.11 \\ \hline -43 \\ \hline 106 \\ \hline \end{array}$$
$$\begin{array}{r} 57.00 \\ \hline +15 \\ \hline 57.15 \\ \hline \end{array}$$

1933.96

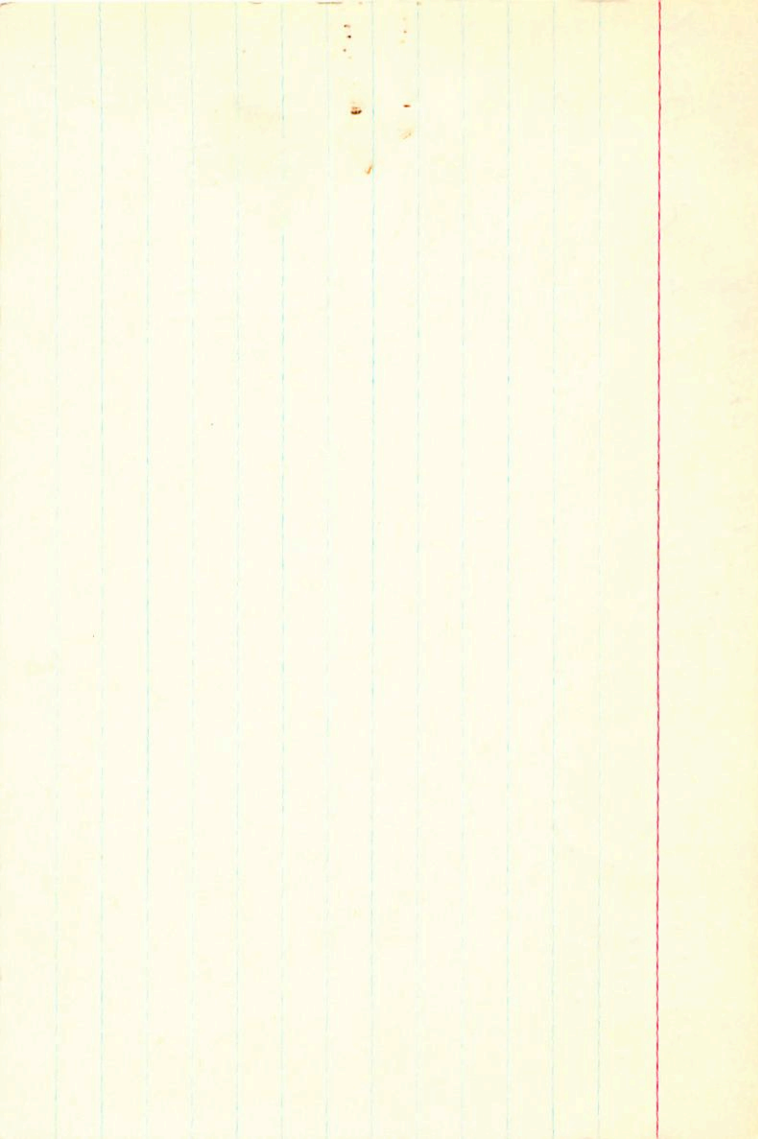
18.5

$$\begin{array}{r} 063 \\ \hline 036 \\ \hline \end{array}$$
$$\begin{array}{r} 57.13 \\ \hline -43 \\ \hline 106 \\ \hline \end{array}$$

57.00 1933.10 33.5
57.15

2.044
20
064

61.1



55

top 2 154 1048 2.88

3675 9 13.1 -14 48 40

79752

12774

6.34 + 0.02 - (+0.5) C

-0.20 - 0.16

#03

1592451
11.8 2.871
5.15

6.31 0.10 145 1.040 2.871

147
294
1081
1.332
1.350

008 = 2 ✓
057 = 2

1555.1

9.2
14.8

18
16

+0.6 ✓
5.15

5.7
132.4

15
-0.20
-0.20
128
128
128

56



3675.000*

9.000*

13.100*

-14.000*

-48.000*

0.028*

-0.020*

5.75 5.650*

141 134.896

32.400

-0.150

0.390 *sr*

-8.4 -7.545

-0.051

-0.836 *-110*

-34 -33.951

56

0.040

0.387 *sr*

18.007

32.200
-14.800
-31.000
-16.000
5.700
138
32.400

141

-0.693
0.604
0.393
52.705
20.007

0.005
0.549
-0.836
-42.370
-32.921

0.721
0.577
0.384
-146.155
-7.735

56

100
195
90

447 02 A1

14.2 W6 50

3676

79763

12744

8000

4000

4000

1017+1012

1017+1012

→

5016

1021 / 8008

1021 / 1201

15151

925

44

125

112

45

121

5.57 + 04 + 05 15992

029 186 1006 2.874
033 172 1.025 2.507
031 188 1013 2.896

188 a = 0462

386 a = 022

1009 175 177

1130 + 14
465 4.6

10485 68
 $\frac{-1123}{39}$
 Total Fair
 10055.0
 3205 150.1

100

10476
 $\frac{24}{10485}$ / .112

10024
 $\frac{10024}{10029}$

3227 1502.11

$\frac{-40}{36.59}$

10431
 $\frac{14}{447}$

$\frac{46}{194}$

32.9 1902.57

$\frac{-115}{3202}$

32



3676.000*

9.000*

200*

9.250
47.000
23.000
12.000
4.900
95
-12.100

-0.700
-0.054
0.712
-59.685
-14.312

0.014
0.996
0.009
57.754
4.434

0.714
-0.072
0.697
53.561
-3.315

54

79763

9

14.2

+47

02

5.7

A1

12799

6050

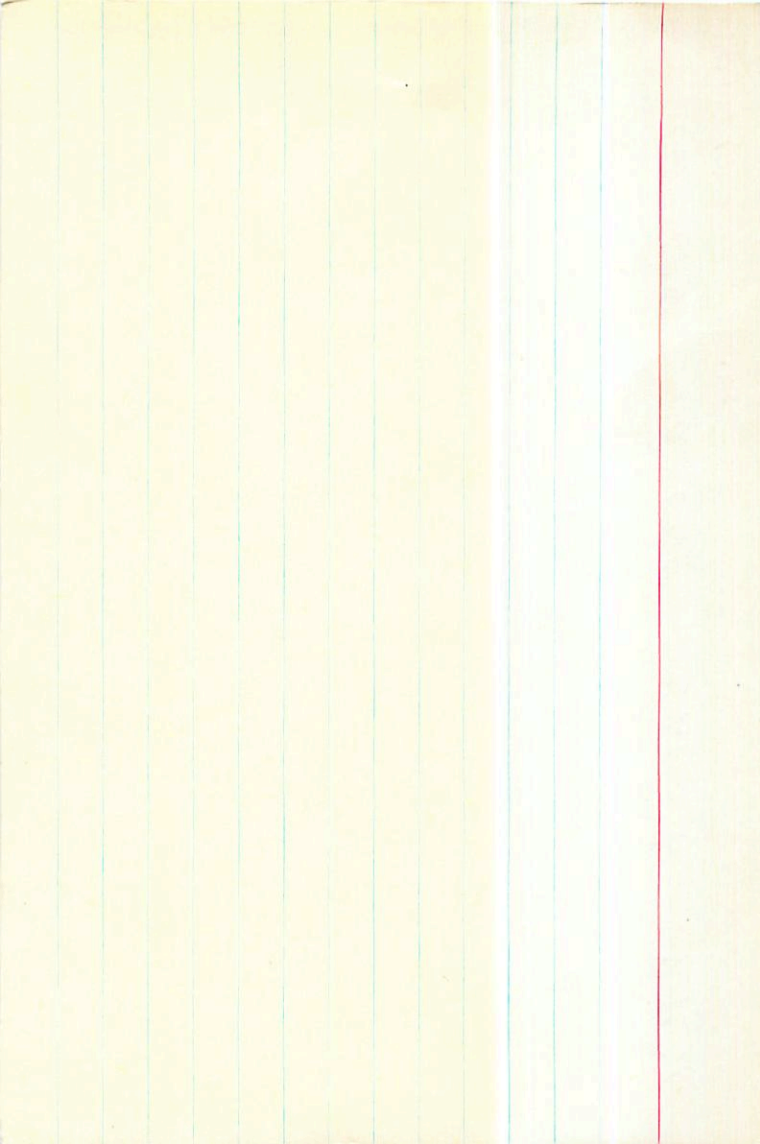
+0020 +005 N30

+0022 ± 2.5 + 009 ± 2.1 GL → N30

16

Σ p.o.p.:

-12.1a



Sp. B. P = 16.0^d

HR3674 9 14.2 447 02 A1 -12.1a

W6050 5.7

t021 t0056c

t020 t005N

t016 t005 F

019 t006

662-744 231 682 4019 +006 -12.1 004 -9.8 019

-113-003-014-003 -047 -081 -5.3 6.2 -5.5 01

+1.5 -13.5 -6.9

-1.5 +1.5 -1

015

+3.1 -10.9 -7.5

$-12.8 + 0.2 + 1.4$

012

+2.2 -12.4 -7.2

$-14.1 + 1.2 - 3.3$

013

+2.6 -11.7 -7.3

-13.4 +0.8 -7.2

241492

3683

79931

5.47-08-31 C

9 14.2 -8 32

BS 144

+04

5.35

025 107 845 2.735

103 850

420

206
1056

66

-0014 -0015

-50165 -0023

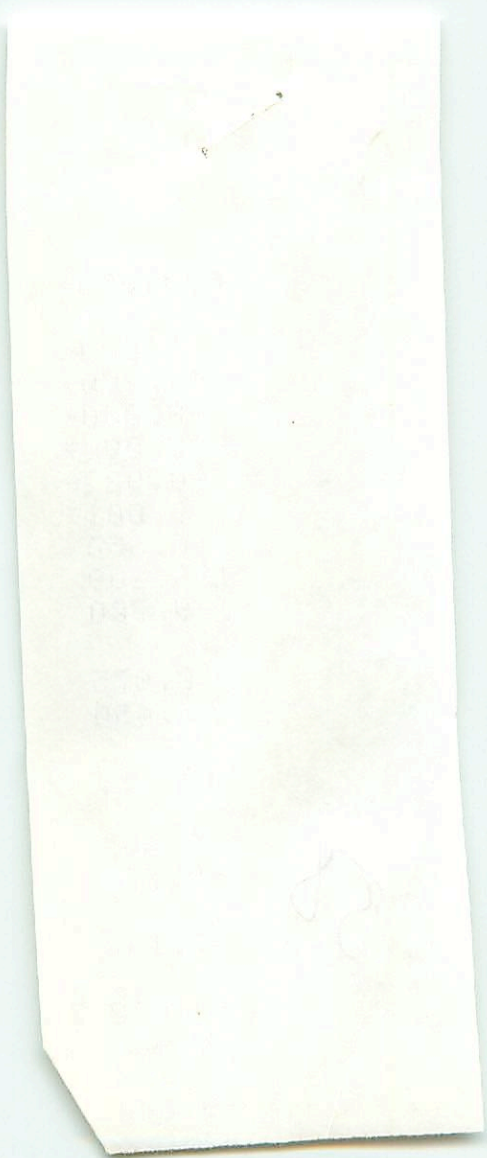
-1.0

6.85

-0245 +47
022 +001



2



3683.000*

9.000*

14.200*

-8.000*

-32.000*

-0.022*

0.001*

6.350*

186.209

9.700

0.075

0.450

18.419

0.002

-0.771

-7.132

-0.072

0.451

-9.04



24 Hyar
79931

12802

6052
6103

14.361
77
438

1898.7
-8
-0014
-0016
-0020
-0237

-8
-0015
-0020

32 6.32 1898.6

0
6.32

14.359
+9
368

-021.5 + 001.5
363

6.87
+36
6.51

1939.76
404

0.881
13.522
14.403
348
14.751

390
488
-21.5
+1.5
6.40
74.7

51.88
13.88
5.76
-8.7
6.63
+39
6.33

6.42
37.0
-1.10
193428

38.4

14.349
+2.004
6.34
6.42

6.33
6.42

59



19/5

9.250
-8.500
-21.500
1.500
6.400
191
9.700

80613

9 18.5

+15 35

6.5 Am 717.98

12894

6090

-0007 -005 6090

370

29874
117
990

1502.3

+15 35

3.80 1801.1

1.08
4.88

29894
15
90

322

4.27 1934.9

911
079

6.987
22.542
29.529
25.927
3.602

8550 -9024
5185 -4309

4.56
50

24.79 1928.40
19.50
4.99

4.3 1940.14
4.30 1944.44
4.01 1948.45

26.532
1.6
28.132

34.5
33.4

