(X) ←

+30° 26 11 15 04.7 +80 12 68 II

(X)

-278.2 t

+011 -003 Rein

+012 +0005 Fix4

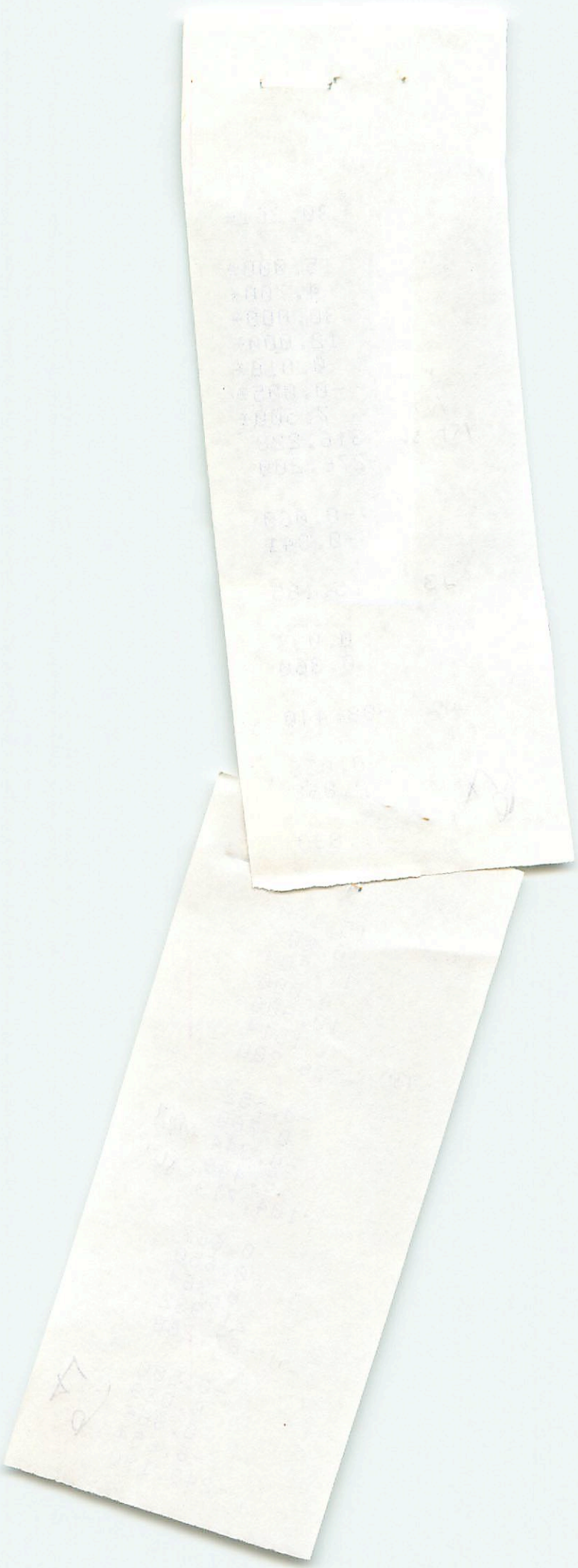
~~+015 +004~~

+015 +004

+015-015 AG12

+013-008

+016 -005



30.261*

15.000*
4.700*
30.000*
12.000*
0.016*
-0.005*
7.500*
316.228
-276.200

-0.060
-0.341

75.185

0.035
0.360

-88.440

-0.039
0.868

-11.167
3.438
0.529

15.100
30.200
17.500
4.000
10.900
1514
-276.200

-0.552
0.760
-0.344
-6.449
104.713

0.667
0.650
0.364
21.932
-67.268

-0.500
0.029
0.866
-6.654
-249.190

+30°2611 15 04.7 +30 12 dG2 −278.2 6 w(4)

W8742 9.13 +1.24 +1.13 G8III −274.2 ±0.7 G

+011±5 −003±5
+1 −2
+12 −5 Rely

dG2 not w
G8III Roman

+1.24 = K3III very wk

Jesse a duty -

CH strong
Not III -
probably IV -
(very plate poor)
Lines rather weak
color. Extreme!!
for deficiency if K3III

+015 +004 Rely
+015-015 AGK2

+018-012

-707 -707 502 865 +011 -003 -278.2 -002 -139 -012

008 -001 -005 001 033 -042 +170 +170 001

+203 +128 -151

+59 -70 -264

18 112 -71

98 -58 -114

-176 -21 -71

89

-236.711

G 30 -57

+23.13

0 09.9 +14 17 -12.5 (80)

-2.9 carbon

8.59 081 0.27

P = 1.64

325 10^0

314 -64

324

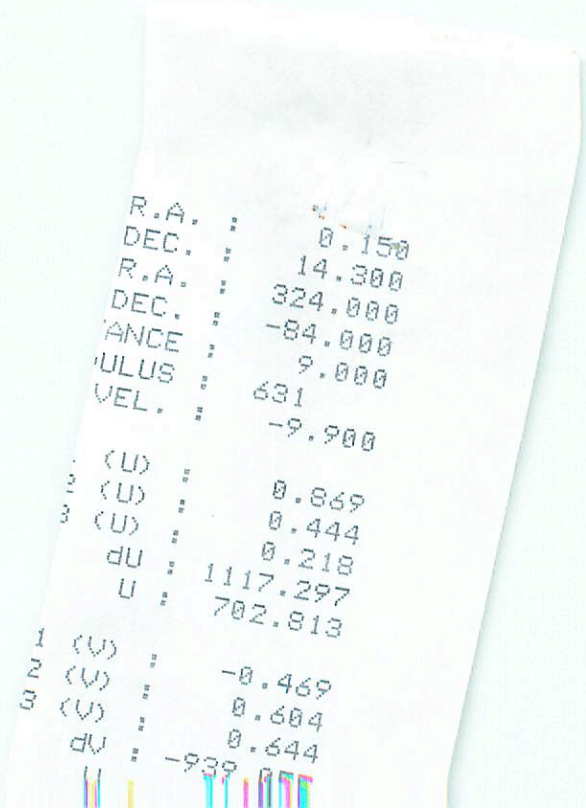
-84

90

-99

13489 15 07.5 -16 5
13490

5


R.A. : 0.150
DEC. : 14.300
R.A. : 324.000
DEC. : -84.000
ANCE : 9.000
ULUS : 631
VEL. : -9.900
(U) : 0.869
(U) : 0.444
(U) : 0.218
dU : 1117.297
U : 702.813
1 (V) : -0.469
2 (V) : 0.604
3 (V) : 0.644
dV : -939.

133.642 15 05.9 -59 04 1=5/6W

-58.582

Very underexposed; possibly weak lined; b Band and metallic line yield F2/3

P Folk +005

+0023 -005 C
-5 -9
+0018 -014
+3 -005

+022
+020+011

+34
+11
—
055

+0035 -006 Sydney
+0021 -006
+0058 -008

135449 15 13.1 -8 2 42 F/G cv

-32.10648 714

160 -23.0 -44 (2) 150
-57 (2)

Metals not visible at all; C-
band faint trace present; Carbon
yield about 4%; very viscous...

5.4 023 (078)

pFeIII -50

5.41 336 089 261 (3)
935 336 071 551 (1)

-0044 -049 X + Cu0 -149

-126 -046 336 075 557 -46

-57.0

6.4

918 910 70 -0106 -041 ppm

-134 -041

759 -41 6.24 -50

5.40 336 074 556 541 252 089

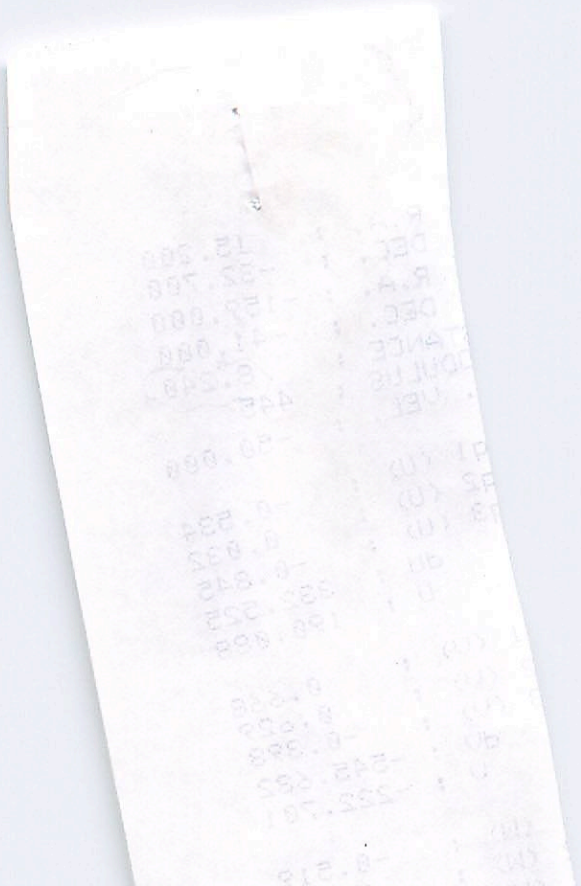
6.5

111.5

-86.3

+1.0

X



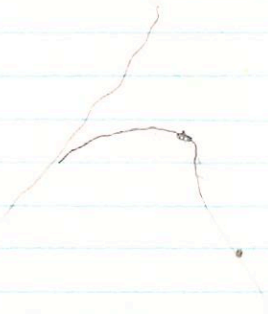

R.A. : 15.200
DEC. : -32.700
R.A. : -159.000
DEC. : -41.000
STANCE : 8.240
ODULUS : 445
. VEL. : -50.000
q1 (U) :
q2 (U) : -0.534
q3 (U) : 0.032
dU : -0.845
U : 332.525
190.088
1 (V) :
2 (V) : 0.668
3 (V) : 0.629
dV : -0.398
V : -545.632
-222.701
(W) :
(W) : -0.519

G15-24 15 28.3 +8 34 Arp

11.43 +0.57 -0.11 2Sa/sp

-85: ①

-345 -105 Gals ②



0.000*

15.000*
28.300*
8.000*
34.000*
-0.395*

28.3 +8 34 1950 2 Sa

G15-24 15 28.8 +8 32 1960 11.43 +0.57 -0.11

S = 21

$\rho = -84.6 \pm 0.6$ 1 plate

138 parallax

-.400 000

-483	+507	-714	+91.6	+126.4	+60.4	186.8
+665	+742	+97	-126.1	-174.0	-6.5	-180.5
-569	+438	+694	+107.9	+148.9	-58.9	+90.0

~~B-15-24~~

15 28.3 +8 34 11.6(6)

1 Syndage

$\delta = .21$ -84.6 ± 0.6

11.43 +0.57 −0.11 2 Syndage

$5.70 = 138\ p_1$ $\tan^2\theta = 10.70 = \frac{.152 - \mu_s^2}{\mu_s^2}$

$11.70\,\mu_s^2 = .152$ $\mu_s^2 = .0130$ $\mu_s =$

.42 261
.38 245
29 253

μ_d μ_s

−.373 −.114

−483 +586 −652	+8539 −3167	+5372 +74.1 +55.1 +129.2
+645 +728 +161	−1.1757 −3934	−1.5691 −216.5 −13.6 −230.1
−569 +356 +742	+1.1060 −1924	+8136 +112.2 −63.6 +48.6

HP803-27 15 428 -20 26.5 -28.5

LHS 407

-1.230 614

-1812

-614

-24

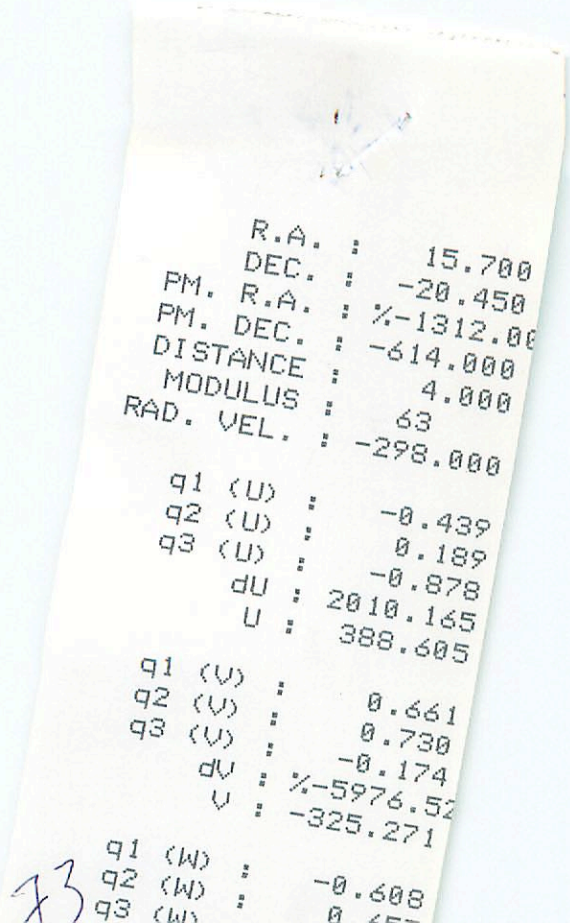
410

R.A. :
DEC. : 15.700
PM. R.A. : -20.450
PM. DEC. : -1312.00
DISTANCE : -614.000
MODULUS : 4.000
RAD. VEL. : 63
-298.000

(U) ip :
(U) sp : -0.439
(U) sp : 0.189
(U) sp : -0.878
Ub : 2010.165
U : 388.605

(V) ip :
(V) sp : 0.661
(V) sp : 0.730
(V) sp : -0.174
Vb : -5926.52
V : -325.271

(W) ip :
(W) sp : -0.508
(W) sp : 0.


R.A. : 15.700
DEC. : -20.450
PM. R.A. : %-1312.00
PM. DEC. : -614.000
DISTANCE : 4.000
MODULUS : 63
RAD. VEL. : -298.000
q1 (U) : -0.439
q2 (U) : 0.189
q3 (U) : -0.878
dU : 2010.165
U : 388.605
q1 (V) : 0.661
q2 (V) : 0.730
q3 (V) : -0.174
dV : %-5976.52
V : -325.271
q1 (W) :
q2 (W) : -0.608
q3 (W) :

+5.0050 15 43.4 +5 12

G16-9 .254 288

2.4 0.83

P=413

-272 78

+1.5

15.7

+5.2

-250

78

2.0

+1.5

141.27
+2.3001

15 45.6 +01 44 27.6

7.44 47.9 8.24 30.44 (1)
7.47 47.8 BGU

-0.8 -1.65
-1.77 -1.67

-0.5
7.43
+5.89

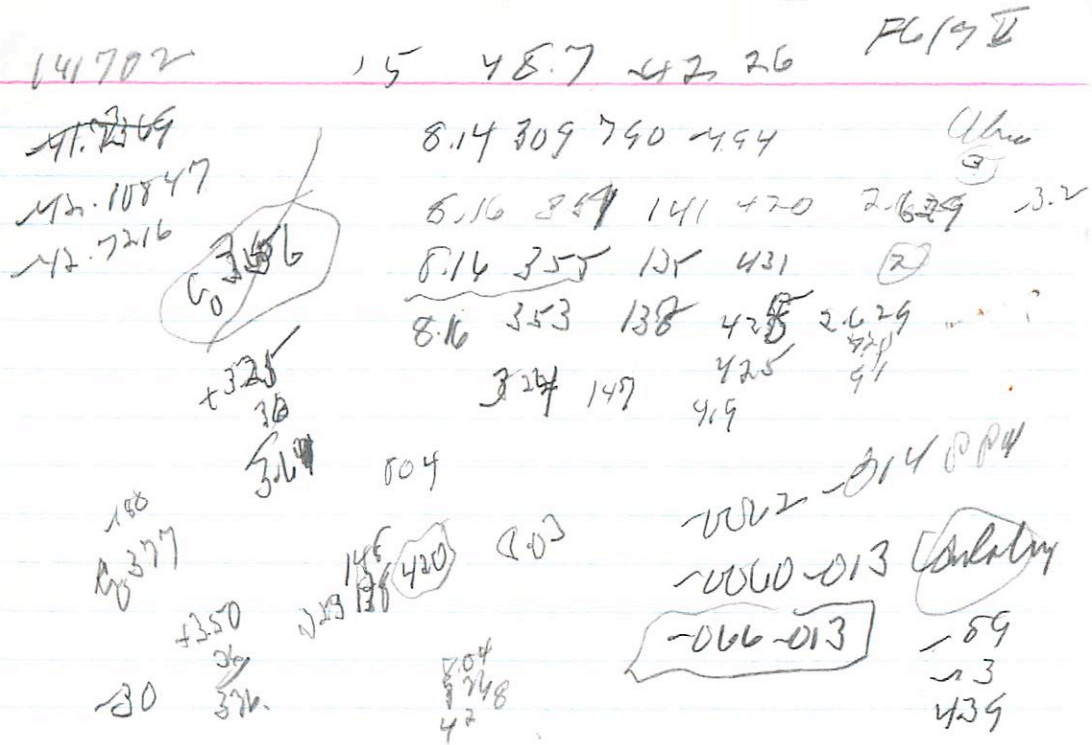
-1.77
-1.65
1.54
-1.75

R.A.	:	15.750
DEC.	:	1.750
. R.A.	:	-177.000
. DEC.	:	-165.000
STANCE	:	1.540
IODULUS	:	20
). VEL.	:	-27.900

q1 (U)	:	-0.429
q2 (U)	:	0.507
q3 (U)	:	-0.748
dU	:	-36.316
U	:	20.125

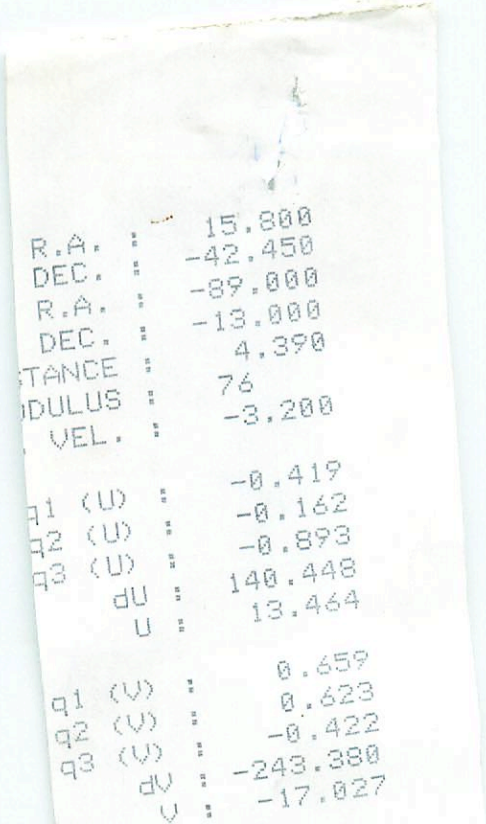
q1 (V)	:	0.660
q2 (V)	:	0.741
q3 (V)	:	0.123
dV	:	%-1133.040
V	:	-26.470

q1 (W)	:	-0.617
q2 (W)	:	0.440
q3 (W)	:	0.652
dW	:	172.677
W	:	-14.693


141702
15
48.7
42.26
FC19
41.2369
42.10847
42.7216
8.14 309 740 454
8.16 141 420 2.629
8.14 355 131 431
8.16 353 138 425 2.629
314 147 419
+325
36
361
504
+350
30
376
30
504
348
42
420
503
-0062
-014 0PM
-0060-013
-066-013
-59
-3
434

13
16
+10

76



R.A. : 15.800
DEC. : -42.450
R.A. : -89.000
DEC. : -13.000
STANCE : 4.390
DULUS : 76
VEL. : -3.200

q1 (U) : -0.419
q2 (U) : -0.162
q3 (U) : -0.893
dU : 140.448
U : 13.464

q1 (V) : 0.659
q2 (V) : 0.623
q3 (V) : -0.422
dV : -243.380
V : -17.027

14 8 64 15 #2.6 −76 24 F6 7 2

−76.11 m³

9.00 0.67 316 (1)

04 9 W 9

203
9
8.5 2
316

```
      R.A. :    15.900
     DEC. :   -76.500
M. R.A. :   203.000
M. DEC. :     9.000
ISTANCE :     8.500
MODULUS :   501
AD. VEL. :   316.000

   q1 (U) :    -0.399
   q2 (U) :    -0.645
   q3 (U) :    -0.652
       dU : -117.108
        U : -264.747

   q1 (V) :     0.655
   q2 (V) :     0.297
   q3 (V) :    -0.694
       dV :  159.889
        V :
```

-06 +30

142575 15 52.6 +8 13 1=0T

2474

2M 105 564
184 $30

-64.8

-0189 +033 GC+
-01785 +037
-282 +037 → fbk
-259 +028 Y →
-291 +043 A GC
-277 +036
-275 +028

-64.8
8.4

5
-0194 +40 GC
-0184 +38 new(3)
-0173 +30 Tale

142575 15 52.6 +5 13 -64.8 5 Romans

662372 833 -154±8.7 +34±8.0 S=10

+503113 6.10 -184 +22 8.62 +38 -08 120E

35.119 1506.5 833 54.72 1405.1 -256 x 35 Y

8.1 -3 -11

+6 Y(10) 84 1.55 -259 +24

.969 53.17

-250 +84 x30 → 35.374 26.4 54.31 1536.4

-270 +37 new 25 -22

-254 +24.4 → 3.09 54.09

-241 +43 Acts 9.52 65

-285 +40 -283 +042 4.78 3.24

-194 +40 66 → x30 -485 +27.5

-184 +38 new 54.4 1529.4

-173 +30 Yale -34

-184 +36 54.04

54.06

+.89

n.b

Colgy

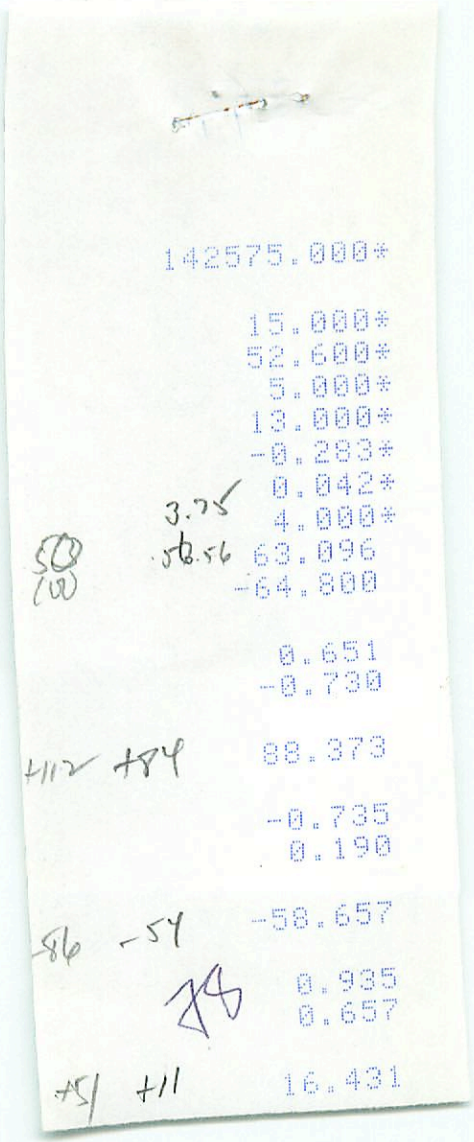
NO

$$
\begin{array}{l}
+91.8 \\
-82.3 \\
+27.0
\end{array}
$$

$$
\begin{array}{l}
+2.2 \quad +446 \quad +42.6 \\
-2.2 \quad -70.1 \quad +69.6 \quad -42.6 \\
+37.1 \quad -8.26 \quad -2.2
\end{array}
\Bigg|
\begin{array}{l}
+53.00 \quad +446 \quad +42.6 \\
-8.00 \quad +70.5 \quad -2.2 \\
+8303 \quad -155.8 \quad +37.1
\end{array}
\Bigg|
\begin{array}{l}
+55.4 \quad +36.8 \quad -63.7 \\
+18.4 \quad +73.0 \quad +55.4 \\
-72.7 \quad -155.4 \quad -40.4
\end{array}
$$

$$
\begin{array}{l}
+36 \\
-18.1
\end{array}
$$

$$
4.0.4 = 83.2 - 79
$$


142575.000*
15.000*
52.600*
5.000*
13.000*
-0.283*
0.042*
4.000*
3.75
56.56
63.096
-64.800
0.651
-0.730
88.373
-0.735
0.190
-58.657
0.935
0.657
16.431

142579.000*

15.000*
52.600*
5.000*
13.000*
-0.275*
0.038*
5.400*

15 5-2.6 -76 28 +8H O

F6/9 w?

14H 864

-76.11 W

049 009

R-F

320 Vans

5.00 069

8.50

209

9

8.88

311

C091 517 0655

#3070 15 201 401 20

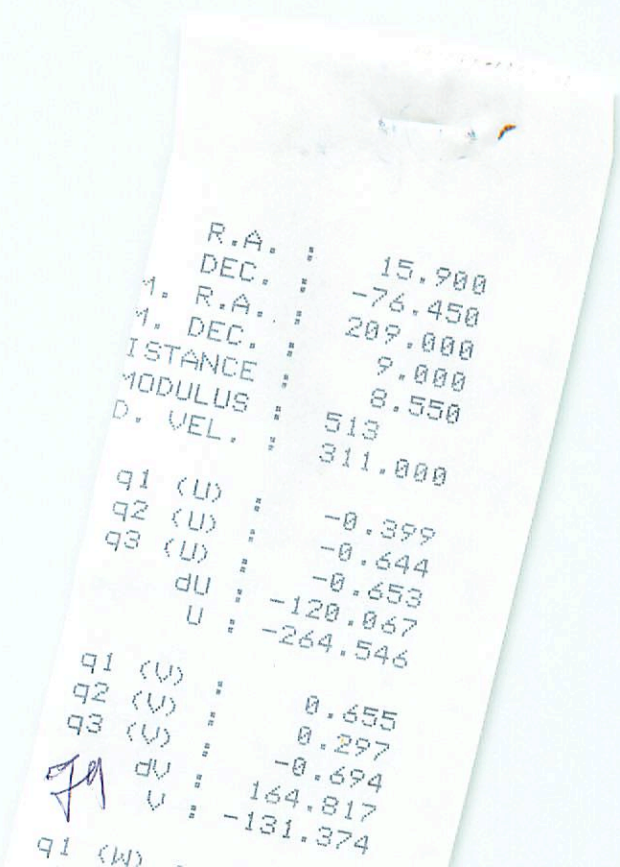
-329.4(5)

R.A.
DEC.
M. R.A.
M. DEC.
DISTANCE
MODULUS
C. VEL.

P1 (U)
P2 (U)
P3 (U)
dU
V

P1 (V)
P2 (V)
P3 (V)
dV
V

P1 (W)

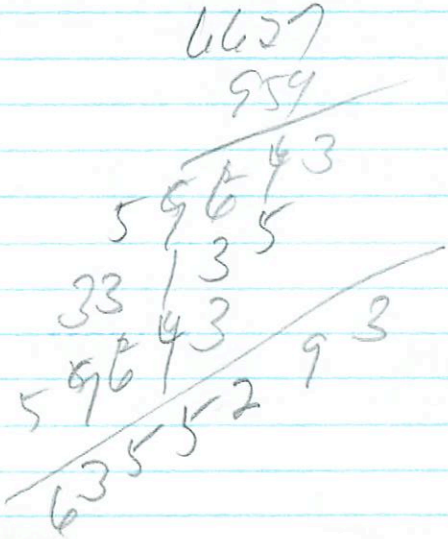


```
      R.A. :    15.900
      DEC. :   -76.450
M. R.A.  :   209.000
M. DEC.  :     9.000
ISTANCE  :     8.550
MODULUS  :   513
D. VEL.  :   311.000

q1 (U)   :    -0.399
q2 (U)   :    -0.644
q3 (U)   :    -0.653
     dU  :  -120.067
      U  :  -264.546

q1 (V)   :     0.655
q2 (V)   :     0.297
q3 (V)   :    -0.694
     dV  :   164.817
      V  :  -131.374

q1 (W)
```



143333 15 57.5 −16 23 F=8 V

5.44 +0.52 +0.02 2 Eggs

5.45 328 176 437 2638 (3)

−044A −3960 F=N4

235 +5

371 +49 / 54

2.36 +43 −97 +12 −0437

+7 −34 +8 −357 −25.0

2.10

.000*
5
5.000*
57.530*
-14.000*
-23.000*
-9.635*
-1.394*
2.100*
2.303
-5.005

3.712
-3.090

43.967

-3.373
-4.079

-65.736

3.816
3.450

15.208

8.50

144287 16 02.0 +25 23 dBS -41C

GC21599 GSD -42.60(4)L 5B

w9241 -36.1w(8) λ0!

Y3643 7.11 +0.77 +0.32 BSV R → -44.5±0.7 SD

+25°3020 S=.06

+92 -12 +18 .0475

+81 -15 +7 .060

11.3 4.5

-5-54 +676 N30

-528 +667 GC

-53125 +67215Y

-538 +672

-586 +668 1.6 3W1

27M(6)

53Y2(6)

41±9

370

441

hot, Pleiades

١٠٥٠ ٢٤٥٦٧٨٩٠ ٢٤٥٦٧٨٩٠ ٢٤٥٦٧٨٩٠ ٢٤٥٦٧٨٩٠

+٢٦ ١١-٩٥١٨

+٢٦ ٢٥٤ -١٥ -

+٢٦ ٥٢٠ -٣٥٠٤ -٢٠٤٥ -١٥٤٥٢٠٤٥ -٣٥٠٤ -٢٠٤٥ -١٥٤٥٢٠٤٥

145293 16 07.4 -13 22 F7/8W/45

-13.43.7 1503 44 08

1004 478 016 431 (1)

4

146296
-70^{0} 1402 16 15.9 −71 10 Co +41.451.2

+3688 9.77 +72 −12 ' 24" 3 Lum

938 37 132 374 209 −53 −32 Lin

2.590 40 no. −065 PEEK −1.60 M

−001 (10 Y) 035 L

−322 −612 −722	+0763 +1.1458	+1.2221 +48.9 −29.9 19.0	
+640 +421 −643	−1517 −.7882	−9399 −37.6 −266 −64.2	
−697 +669 −256	+1652 −1.2526	−1.0874 −43.5 −106 −54.1	

63 MO +77.0 +47.1
−56.4 −86.0
−68.5 −79.1

146296

-30°1402 -30°02'16

16 15.9 -71 10 60

G3 V Hough Cavity

46648

1.0

11M GB

9.25

9.76 +0.005 -0.065 (2)

+41.4 Vacuum (3)

~~-580 -520 BPm~~

-490 -440 BPm

-476 -346 CR

DB (1)

75
-138.3
13.8

81

146296.000*

Fortsetzung

33

146296.000*

16.000*
15.900*
-71.000*
-10.000*
-0.476*
-0.396*
4.500*
79.433
41.400

1.881
-0.720

119.567

-2.231
-0.644

-203.858

0.317
-0.258

14.472

16.036
25.400
-586.000
665.000
1.600
21
-36.100

-0.368
0.777
-0.510
3374.010
88.905

0.650
0.607
0.457
283.601
-10.566

-0.665
0.163
0.729
2183.387
19.307

N V Oct 16 20.4 −53 47.6

24.3 43 28.3 96 +0.542.6 25

9.1
+0.5
8.6

+0.004 −123 +1.84
+12

−634

−123

+109

8.6

1.09

R.A. : 16.350
DEC. : -83.800
M. R.A. : -639.000
: -123.000
8.600