

W

465

LEVEL BOOK

# KEUFFEL & ESSER CO.

DRAWING MATERIALS

AND

SURVEYING INSTRUMENTS.

NEW YORK.

CHICAGO. ST. LOUIS. SAN FRANCISCO. MONTREAL.

## TABLES FOR EXCAVATIONS AND EMBANKMENTS.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

ROAD 18 FEET WIDE. SIDE SLOPES 1 TO 1.

FOR SINGLE TRACK EXCAVATION.

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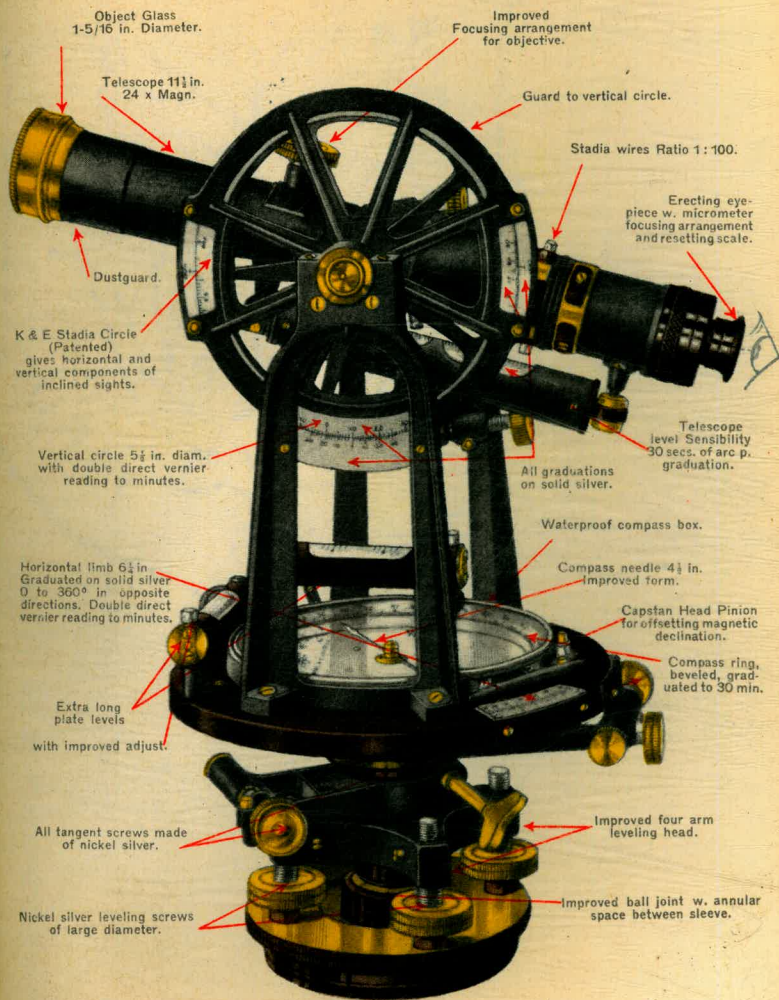
	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	0
1	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	1
2	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	2
3	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	3
4	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	4
5	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	5
6	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	6
7	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	7
8	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	8
9	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	9
10	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	10
11	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	11
12	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	12
13	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	13
14	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	14
15	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	15
16	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	16
17	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	17
18	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	18
19	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	19
20	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	20
21	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	21
22	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	22
23	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	23
24	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	24
25	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	25
26	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	26
27	36.0	36.1	36.2	36.3	36.4	36.5	36.6	36.7	36.8	36.9	27
28	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.8	37.9	28
29	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38.7	38.8	38.9	29
30	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39.9	30
31	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	31
32	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	32
33	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	33
34	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	34
35	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	35
36	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	36

Calculated by Julian A. Hall, M. Am. Soc. C. E.

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Original X Sections of Spillway  
Extension

**EXTRA FINE ENGINEERS' TRANSIT**  
**No. 5060 S**  
**KEUFFEL & ESSER CO., N.Y.**



Object Glass  
1-5/16 in. Diameter.

Telescope 11 1/2 in.  
24 x Magn.

Improved  
Focusing arrangement  
for objective.

Guard to vertical circle.

Stadia wires Ratio 1: 100.

Erecting eye-  
piece w. micrometer  
focusing arrangement  
and resetting scale.

Dustguard.

K & E Stadia Circle  
(Patented)  
gives horizontal and  
vertical components of  
inclined sights.

Vertical circle 5 1/2 in. diam.  
with double direct vernier  
reading to minutes.

Telescope  
level Sensibility  
30 secs. of arc p.  
graduation.

All graduations  
on solid silver.

Waterproof compass box.

Compass needle 4 1/4 in.  
Improved form.

Capstan Head Pinion  
for offsetting magnetic  
declination.

Compass ring,  
beveled, gradu-  
ated to 30 min.

Horizontal limb 6 1/2 in.  
Graduated on solid silver  
0 to 360° in opposite  
directions. Double direct  
vernier reading to minutes.

Extra long  
plate levels  
with improved adjust.

Improved four arm  
leveling head.

All tangent screws made  
of nickel silver.

Improved ball joint w. annular  
space between sleeve.

Nickel silver leveling screws  
of large diameter.

**ALSO MADE WITH**  
**INTERNAL FOCUSING TELESCOPE**  
**PRACTICALLY DUST AND MOISTURE PROOF.**

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Blank 70-79.

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Original xsections of Spillway  
Extension - E 3980 to E 4720 <sup>see table</sup> (Sta. 7+40) 1-69  
Intersection of Eastings with  
Spillway Sta 7+40 80

Original X Sections of  
Spillway Extension

Mar 15 - 1934

B.M. 6.92 576.87 569.95

E 3980

N4140		+1.0	77.9	✓
30		+0.6	77.5	✓
20		+0.3	77.2	✓
10		0.0	76.9	✓
4100		0.2	76.7	✓
4090		0.5	76.4	✓
80		0.9	76.0	✓
70		0.9	76.0	✓
60		1.7	75.2	✓
50		2.3	74.6	✓
40		2.8	74.1	✓
30		3.7	73.2	✓
20		4.3	72.6	✓
10		4.8	72.1	✓
4000		5.2	71.7	✓
3990		5.2	71.7	✓

All notes in this book are

Plotting & by G.H.

Plotted

188284  
Elliott  
Soper  
Remmen

E 3980

576.87

3980	5.7	571.2	✓
70	5.9	71.0	✓
60	6.3	70.6	✓
50	7.0	69.9	✓
40	7.4	69.5	✓
30	7.8	69.1	✓
20	7.9	69.0	✓
10	8.0	68.9	✓
3900	7.8	69.1	✓
3890	8.4	68.5	✓
80	8.9	68.0	✓
70	9.2	67.7	✓
60	9.4	67.5	✓

Plotted

End Mar 15 - 1934

Mar 16 - 1934

Elliott - Note  
Simpson - X  
Soper  
Remmen

E 3990

E 3990

2

B.M.	6.81	576.76	569.95
N 3870		8.8	68.0 ✓
80		8.4	68.4 ✓
90		8.3	68.5 ✓
3900		8.0	68.8 ✓
10		7.9	68.9 ✓
20	Blotted ✓	7.8	69.0 ✓
30		6.7	70.1 ✓
40		7.4	69.4 ✓
50		6.2	70.6 ✓
60		6.1	70.7 ✓
70		5.7	71.1 ✓
80		5.5	71.3 ✓
90		5.1	71.7 ✓
4000		6.6	70.2 ✓
10		9.4	67.4 ✓
20	9.7	67.1 ✓	
30	8.4	68.4 ✓	
40	6.2	70.6 ✓	
50	4.1	72.7 ✓	

1883484

	576.76	
4060	1.8	575.0 ✓
70	1.1	75.7 ✓
80	0.7	76.1 ✓
90	0.4	76.4 ✓
4100	+0.1	76.9 ✓
10	+0.4	77.2 ✓
20	+0.7	77.5 ✓
30	+0.7	77.5 ✓
40	+0.8	77.6 ✓
	E 4000	
40	+1.4	78.2 ✓
30	+0.8	77.6 ✓
20	+0.8	77.6 ✓
10	-2.5	74.3 ✓
4100	3.4	73.4 ✓
4090	0.4	76.4 ✓
80	0.7	76.1 ✓
70	1.6	75.2 ✓
60	7.0	69.8 ✓

1885484

E4000

4050	576.76	9.9	566.9 ✓
40		10.3	66.5 ✓
30		11.3	65.5 ✓
20		11.6	65.2 ✓
10		11.0	65.8 ✓
4000		6.4	70.4 ✓
3990		5.0	71.8 ✓
80	Plotted	5.5	71.3 ✓
70		5.6	71.2 ✓
60		5.8	71.0 ✓
50		5.9	70.9 ✓
40		6.7	70.1 ✓
30		7.3	69.5 ✓
20		7.5	69.3 ✓
10		7.8	69.0 ✓
3900		7.9	68.9 ✓
3890		8.0	68.8 ✓
80	8.3	68.5 ✓	
70	8.6	68.2 ✓	

E4010

	576.76		
3870		8.2	568.6 ✓
80		8.2	68.6 ✓
90		8.0	68.8 ✓
3900		7.9	68.9 ✓
10		7.4	69.4 ✓
20		7.3	69.5 ✓
30		7.0	69.8 ✓
40	Plotted	6.8	70.0 ✓
50		5.9	70.9 ✓
60		5.7	71.1 ✓
70		5.5	71.3 ✓
80		5.5	71.3 ✓
90		5.0	71.8 ✓
4000		6.3	70.5 ✓
10		11.5	65.3 ✓
20		11.5	65.3 ✓
30		11.5	65.3 ✓
40	11.3	65.5 ✓	

## E 4010

576.76

4050	11.0	565.8 ✓
60	10.7	66.1 ✓
70	7.9	68.9 ✓
80	5.5	71.3 ✓
90	5.5	71.3 ✓
4100	7.8	69.0 ✓
10	7.5	69.2 <sup>3</sup> ✓
20	6.4	70.4 ✓
30	5.2	71.6 ✓
40	4.1	72.7 ✓

Plotted ✓

## E 4020

4140	7.1	69.7 ✓
30	7.5	69.3 ✓
20	8.5	68.3 ✓
10	9.3	67.5 ✓
4100	9.1	67.7 ✓
4090	10.1	66.7 ✓
80	10.5	66.3 ✓

1885491

## E 4020

4070	576.76	10.8	566.0 ✓
60		11.2	65.6 ✓
50		11.3	65.5 ✓
40		12.0	64.8 ✓
30		12.0	64.8 ✓
20		12.0	64.8 ✓
10		11.5	65.3 ✓
4000		5.3	71.5 ✓
3990		5.3	71.5 ✓
80		5.5	71.3 ✓
70		5.4	71.4 ✓
60		5.6	71.2 ✓
50		6.2	70.6 ✓
40		6.6	70.2 ✓
30		6.9	69.9 ✓
20		7.2	69.6 ✓
10		7.3	69.5 ✓
3900		7.6	69.2 ✓
3890		7.7	69.1 ✓
80		7.9	68.9 ✓

Plotted ✓



1389484

E 4030

3880	576.76	7.7	569.1 ✓
90		7.6	69.2 ✓
3900		7.3	69.5 ✓
10		7.1	69.7 ✓
20		6.0	70.8 ✓
30		6.2	70.6 ✓
40		6.1	70.7 ✓
50		5.7	71.1 ✓
60		5.4	71.4 ✓
70		5.3	71.5 ✓
80		5.4	71.4 ✓
90		5.3	71.5 ✓
4000		4.9	71.9 ✓
10		9.1	67.7 ✓
20		12.5	64.3 ✓
30		12.2	64.6 ✓
40		12.0	64.8 ✓
50		11.8	65.0 ✓
60		11.5	65.3 ✓

Plotted ✓

E 4030

4070	576.76	11.3	565.5 ✓
80		10.9	65.9 ✓
90		10.4	66.4 ✓
4100		10.0	66.8 ✓
10		9.7	67.1 ✓
20		9.2	67.6 ✓
30		8.3	68.5 ✓
40		7.7	69.1 ✓
50		7.0	69.8 ✓

Plotted ✓

E 4040

4150		5.2	71.6 ✓
40		4.8	72.0 ✓
30		9.0	67.8 ✓
20		9.6	67.2 ✓
10		9.6	67.2 ✓
4100		10.0	66.8 ✓
4090		10.0	66.8 ✓
80		10.6	66.2 ✓
70		11.2	65.6 ✓

E4040

4060	576.76	12.0	564.8 ✓
50		12.0	64.8 ✓
40		12.0	64.8 ✓
30		12.0	64.8 ✓
20		11.5	65.3 ✓
10		6.1	70.7 ✓
4000		4.9	71.9 ✓
3990	Plotted ✓	5.1	71.7 ✓
80		5.3	71.5 ✓
70		5.3	71.5 ✓
60		5.1	71.7 ✓
50		5.3	71.5 ✓
40		5.1	71.7 ✓
30		4.2	72.6 ✓
20		5.1	71.7 ✓
10		6.6	70.2 ✓
3900		7.0	69.8 ✓
3890	7.3	69.5 ✓	
80	7.3	69.5 ✓	

E4050

3880	576.76	7.2	569.6 ✓
3890		6.9	69.9 ✓
3900		6.5	70.3 ✓
10		6.1	70.7 ✓
20		5.7	71.1 ✓
30		4.2	72.6 ✓
40		3.7	73.1 ✓
50		3.6	73.2 ✓
60	Plotted ✓	4.7	72.1 ✓
70		4.9	71.9 ✓
80		5.1	71.7 ✓
90		5.1	71.7 ✓
4000		5.1	71.7 ✓
10		6.0	70.8 ✓
20		7.1	69.7 ✓
30		8.0	68.8 ✓
40		7.8	69.0 ✓
50		11.0	65.8 ✓
60	10.8	66.0 ✓	

## E 4050

4070	576.76	10.8	566.0 ✓
80		10.4	66.4 ✓
90		10.4	66.4 ✓
4100		10.1	66.7 ✓
10		9.9	66.9 ✓
20		9.9	66.9 ✓
30		3.7	78.1 ✓
40		4.1	72.7 ✓
50		5.1	71.7 ✓
60		5.4	71.4 ✓

Plotted ✓

## E 4060

4160		4.3	72.5 ✓
50		4.3	72.5 ✓
40		4.0	72.8 ✓
30		3.6	73.2 ✓
20		2.5	74.3 ✓
10		5.3	71.5 ✓
4100		3.5	73.3 ✓
4090		5.3	71.5 ✓

1330484

## E 4060

4080	576.76	6.0	570.8 ✓
70		6.6	70.2 ✓
60		5.5	71.3 ✓
50		3.8	73.0 ✓
40		5.5	71.3 ✓
30		7.2	69.6 ✓
20		6.8	70.0 ✓
10		5.8	71.0 ✓
4000		4.6	72.2 ✓
3990		4.6	72.2 ✓
80		4.7	72.1 ✓
70		4.6	72.2 ✓
60		4.2	72.6 ✓
50		4.0	72.8 ✓
40		3.1	73.7 ✓
30		4.1	72.7 ✓
20		5.3	71.5 ✓
10		5.7	71.1 ✓
3900		6.1	70.7 ✓
3890		6.5	70.3 ✓

Plotted ✓

## E4060

3880 576.76 6.7 570.1 ✓

## E4070

3880 6.5 70.3 ✓

90 6.1 70.7 ✓

3900 5.5 71.3 ✓

10 4.9 71.9 ✓

20 4.3 72.5 ✓

30 3.3 73.5 ✓

40 3.6 73.2 ✓

50 3.6 73.2 ✓

60 3.9 72.9 ✓

70 4.2 72.6 ✓

80 4.4 72.4 ✓

90 4.4 72.4 ✓

4000 4.5 72.3 ✓

4010 6.3 70.5 ✓

20 4.8 72.0 ✓

30 6.5 70.3 ✓

40 " " ✓

Plotted ✓

11889404

## E4070

4050 576.76 6.1 570.7 ✓

60 7.3 69.5 ✓

70 7.6 69.2 ✓

80 5.9 70.9 ✓

90 5.4 71.4 ✓

4100 5.0 71.8 ✓

10 5.2 71.6 ✓

20 1.5 75.3 ✓

30 3.5 73.3 ✓

40 3.7 73.1 ✓

50 4.2 72.6 ✓

60 5.0 71.8 ✓

Plotted ✓

## E4080

4160 5.8 71.0 ✓

50 5.2 71.6 ✓

40 4.3 72.5 ✓

30 3.2 73.6 ✓

20 2.1 74.7 ✓

10 3.9 72.9 ✓

## E 4080

4100	576.76	4.5	572.3 ✓
4090		5.0	71.8 ✓
80		5.7	71.1 ✓
70		6.6	70.2 ✓
60		7.0	69.8 ✓
50		6.9	69.9 ✓
40		7.5	69.3 ✓
30	Plotted ✓	8.4	68.4 ✓
20		6.3	70.5 ✓
10		3.4	73.4 ✓
4000		3.7	73.1 ✓
3990		4.0	72.8 ✓
80		4.0	72.8 ✓
70		3.7	73.1 ✓
60		3.4	73.4 ✓
50		2.6	74.2 ✓
40		2.8	74.0 ✓
30		3.1	73.7 ✓
20		3.8	73.0 ✓

12880-131

## E 4080

3910	576.76	4.3	572.5 ✓
3900		5.0	71.8 ✓
3890		5.6	71.2 ✓
80		6.0	70.8 ✓

## E 4090

3890		5.3	71.5 ✓
3900		4.4	72.4 ✓
10		3.8	73.0 ✓
20		3.2	73.6 ✓
30		2.7	74.1 ✓
40		1.4	75.4 ✓
50		1.9	74.9 ✓
60		2.6	74.2 ✓
70		3.2	73.6 ✓
80		3.5	73.3 ✓
90		3.6	73.2 ✓
4000		3.2	73.6 ✓
10		2.7	74.1 ✓
20		7.6	69.2 ✓

9

## E 4090

4030	576.76	8.5	568.3 ✓
40		7.6	69.2 ✓
50		7.1	69.7 ✓
60		6.7	70.1 ✓
70		6.2	70.6 ✓
80		5.3	71.5 ✓
90		4.8	72.0 ✓
4100		4.1	72.7 ✓
10		2.9	73.9 ✓
20		2.3	74.5 ✓
30		2.2	74.6 ✓
40		3.5	73.3 ✓
50		5.3	71.5 ✓
60		6.0	70.8 ✓
70		7.0	69.8 ✓

## E 4100

4170		4.3	72.5 ✓
60		3.7	73.1 ✓
50		3.8	73.0 ✓

## E 4100

4140	576.76	2.9	573.9 ✓
30		1.7	75.1 ✓
20		1.7	75.1 ✓
10		1.8	75.0 ✓
4100		1.4	75.4 ✓
4090		3.0	73.8 ✓
80		3.9	72.9 ✓
70		5.1	71.7 ✓
60		5.8	71.0 ✓
50		6.1	70.7 ✓
40		7.8	69.0 ✓
30		7.9	68.9 ✓
20		5.9	70.9 ✓
10		2.3	74.8 ✓
4000		2.7	74.1 ✓
3990		3.1	73.7 ✓
80		3.0	73.8 ✓
70		2.6	74.7 ✓
60		1.9	74.9 ✓

E4100

3950	576.76	1.2	575.6 ✓
40	Plotted	1.9	74.9 ✓
30		2.3	74.5 ✓
20		2.7	74.1 ✓
10		3.1	73.7 ✓
3900		3.9	72.9 ✓
3890	4.6	72.2 ✓	

E4110

3900	Plotted	3.1	73.7 ✓
10		2.5	74.3 ✓
20		1.8	75.0 ✓
30		1.7	75.1 ✓
40		1.3	75.5 ✓
50		1.1	75.2 ✓
60		1.4	75.4 ✓
70		1.9	74.9 ✓
80		3.4	73.4 ✓
90		2.1	74.7 ✓
4000	1.7	75.1 ✓	

E4110

4010	576.76	1.8	575.0 ✓	
20	Plotted	5.9	70.9 ✓	
30		8.1	68.7 ✓	
40		7.1	69.7 ✓	
50		5.4	71.4 ✓	
60		5.0	71.8 ✓	
70		1.2	75.6 ✓	
T.P.		9.49	585.05	1.20 575.56 ✓
80		9.8	75.2 ✓	
90		9.9	75.1 ✓	
4100		9.8	75.2 ✓	
10	8.9	76.1 ✓		
20	8.2	76.8 ✓		
30	8.0	77.0 ✓		
40	6.5	78.5 ✓		
50	6.1	78.9 ✓		
60	6.1	78.9 ✓		
70	5.9	79.1 ✓		

E4120

4180	585.05	5.7	579.3 ✓
70		5.8	77.2 ✓
60		5.8	79.2 ✓
50		6.0	79.0 ✓
40		6.3	78.7 ✓
30		6.6	78.4 ✓
20		5.2	79.8 ✓
10		7.2	77.8 ✓
4100		8.7	76.3 ✓
4090		9.6	75.4 ✓
80		9.4	75.6 ✓
70		9.1	75.9 ✓
60		12.3	72.7 ✓
50		13.2	71.8 ✓
40		12.0	73.0 ✓
30		12.2	72.8 ✓
20		9.4	75.6 ✓
10		9.8	75.2 ✓
4000		9.7	75.3 ✓

Plotted ✓

E4120

3990	585.05	9.9	575.1 ✓
80		10.2	74.8 ✓
70		9.8	75.2 ✓
60		9.2	75.8 ✓
50		8.7	76.3 ✓
40		9.2	75.8 ✓
30		9.1	75.9 ✓
20		9.5	75.5 ✓
10		9.6	75.4 ✓
3900		6.9	78.1 ✓

Plotted ✓

E4130

3900		7.0	78.0 ✓
10		6.8	78.2 ✓
20		8.5	76.5 ✓
30		8.4	76.6 ✓
40		8.4	76.6 ✓
50		8.4	76.6 ✓
60		8.5	76.5 ✓
70		9.4	75.6 ✓

Plotted ✓



## E4130

3980	585.05	9.7	575.3 ✓
90		9.6	75.4 ✓
4000		9.4	75.6 ✓
10		9.4	75.6 ✓
20		8.8	76.2 ✓
30		12.9	72.1 ✓
40		12.8	72.2 ✓
50		12.2	72.8 ✓
60		10.5	74.5 ✓
70		8.3	76.7 ✓
80		8.6	76.4 ✓
90		8.2	76.8 ✓
4100		7.5	77.5 ✓
10		6.3	78.7 ✓
20		5.8	79.2 ✓
30		5.7	79.3 ✓
40		5.7	79.3 ✓
50		5.8	79.2 ✓
60		5.7	79.3 ✓

Plotted ✓

## E 4130

4170	585.05	5.4	579.6 ✓
80		5.1	79.9 ✓
90		5.0	80.0 ✓
4200		4.6	80.4 ✓

## E 4140

4200		3.8	81.2 ✓
4190		4.3	80.7 ✓
80		4.7	80.3 ✓
70		3.4	81.6 ✓
60		5.5	79.5 ✓
50		5.3	79.7 ✓
40		5.3	79.7 ✓
30		5.2	79.8 ✓
20		5.5	79.5 ✓
10		5.6	79.4 ✓
4100		5.6	79.4 ✓
4090		5.8	79.2 ✓
80		6.3	78.7 ✓
70		6.9	78.1 ✓

Plotted ✓

E4140

E4150

New H.I.

4060	585.05	7.3	577.7 ✓
50		11.1	73.9 ✓
40		12.0	73.0 ✓
30		12.6	72.4 ✓
20		8.1	76.9 ✓
10		8.8	76.2 ✓
4000	Plotted ↓	9.1	75.9 ✓
3990		9.3	75.7 ✓
80		9.4	75.6 ✓
70		9.3	75.7 ✓
60		8.9	76.1 ✓
50		8.3	76.7 ✓
40		7.9	77.1 ✓
30		8.0	77.0 ✓
20		7.5	77.5 ✓
10		7.0	78.0 ✓
		<del>10.2</del>	<del>74.8</del> ✓
3900		6.7	78.3 ✓
T.P.		5.53	579.52 ✓

T.P.	5.77	585.29	579.52
3910			6.7 78.6 ✓
20			7.6 77.7 ✓
30			8.1 77.2 ✓
40			7.6 77.7 ✓
50			8.3 77.0 ✓
60			8.6 76.7 ✓
70			9.3 76.0 ✓
80			9.3 76.0 ✓
90			9.2 76.1 ✓
4000			9.1 76.2 ✓
10			8.7 76.6 ✓
20			9.7 75.6 ✓
30			12.1 73.2 ✓
40			11.5 73.8 ✓
50			11.1 74.2 ✓
60			7.2 78.1 ✓
70			6.6 78.7 ✓
80			5.9 79.4 ✓

Plotted ↓

## E4150

4090	585.29	5.5	579.8	✓
4100		5.4	79.9	✓
10		5.5	79.8	✓
20		5.5	79.8	✓
30		5.3	80.0	✓
40		5.2	80.1	✓
50		4.7	80.6	✓
60	Plotted ↓	4.2	81.1	✓
70		3.0	82.3	✓
80		0.1	85.2	✓
90		+2.1	87.4	✓
4200		+10.3	95.6	✓
10		+10.7	96.0	✓
20	+10.0	95.3	✓	

End Mar 16 - 1934

Start Mar 17 - 1934

T.P.	6.34	585.86		579.52
	10.71	594.84	1.73	584.13

## E4160

4230	594.8	0.4	594.4	✓
20		0.7	94.1	✓
10		0.9	93.9	✓
4200		1.1	93.7	✓
4190		7.2	87.6	✓
80		9.9	84.9	✓
70		11.4	83.4	✓
60		13.1	81.7	✓
50		13.9	80.9	✓
40		14.5	80.3	✓
30		14.7	80.1	✓
20		14.9	79.9	✓
10		14.8	80.0	✓
4100		14.7	80.1	✓
4090		14.7	80.1	✓
	585.86			
80		5.1	80.8	✓
70		6.3	79.6	✓
60		7.5	78.4	✓

## E 4160

4050	585.86	8.0	577.9 ✓
40		11.2	74.7 ✓
30		12.4	73.5 ✓
20		12.0	73.9 ✓
10		8.6	77.3 ✓
4000		9.3	76.6 ✓
3990	Plotted	9.5	76.4 ✓
80		9.6	76.3 ✓
70		9.5	76.4 ✓
60		9.0	76.9 ✓
50		8.2	77.8 ✓
40		9.2	76.7 ✓
30		8.8	77.1 ✓
20		8.2	77.7 ✓

## E 4170

3920	Plotted	8.3	77.6 ✓
30		8.7	77.2 ✓
40		9.3	76.6 ✓
50		8.6	77.3 ✓

## E 4170

3960	585.9	8.4	577.5 ✓	
70		9.4	76.5 ✓	
80		9.2	76.7 ✓	
90		9.3	76.6 ✓	
4000		8.6	77.3 ✓	
10	Plotted	8.1	77.8 ✓	
20		11.9	74.0 ✓	
30		12.1	73.8 ✓	
40		10.7	75.2 ✓	
50		6.6	79.3 ✓	
60		6.0	79.9 ✓	
70		5.5	80.4 ✓	
80		5.1	80.8 ✓	
90		594.84	14.3	80.5 ✓
4100			14.3	80.5 ✓
10		14.4	80.4 ✓	
20		14.6	80.2 ✓	
30		14.5	80.3 ✓	

## E 4170

4140	594.84	13.3	581.5 ✓
50		10.4	84.4 ✓
60		11.7	83.1 ✓
70		10.9	83.9 ✓
80		9.1	85.7 ✓
90		6.1	88.7 ✓
4200		1.5	93.3 ✓
10		1.3	93.5 ✓
20		1.0	93.8 ✓
30		0.8	94.0 ✓

Plotted ✓

## E 4180

4230		1.2	93.6 ✓
20		1.5	93.3 ✓
10		1.7	93.1 ✓
4200		1.9	92.9 ✓
4190		5.0	89.8 ✓
80		8.1	86.7 ✓
70		7.9	86.9 ✓
60		12.6	82.2 ✓

Plotted ✓

## E 4180

4150	594.84	14.5	580.3 ✓
40		14.5	80.3 ✓
30		14.5	80.3 ✓
20		14.4	80.4 ✓
10		14.3	80.5 ✓
4100		14.0	80.8 ✓
4090		13.8	81.0 ✓
	585.9		
80		4.8	81.1 ✓
70		5.0	80.9 ✓
60		5.4	80.5 ✓
50		5.0	80.9 ✓
40		10.6	75.3 ✓
30		11.8	74.1 ✓
20		11.8	74.1 ✓
10		8.0	77.9 ✓
4000		8.3	77.6 ✓
3990		8.9	77.0 ✓
80		8.9	77.0 ✓

Plotted ✓

E 4180

3970	585.9	9.3	576.6 ✓
60		8.8	77.1 ✓
50		9.3	76.6 ✓
40		8.7	77.2 ✓
30		7.1	78.8 ✓

Plotted -

E 4190

3930		9.5	76.4 ✓
40		9.7	76.2 ✓
50		9.5	76.4 ✓
60		8.9	77.0 ✓
70		8.9	77.0 ✓
80		8.8	77.1 ✓
90		8.5	77.4 ✓
4000		7.9	78.0 ✓
10		7.3	78.6 ✓
20		11.6	74.3 ✓
30		11.6	74.3 ✓
40		10.4	75.5 ✓
50		4.9	81.0 ✓

Plotted -

E 4190

4060	585.9	4.4	581.5 ✓
70		4.3	81.6 ✓
80		4.3	81.6 ✓
	594.84		
90		13.8	81.0 ✓
4100		14.1	80.7 ✓
10		14.3	80.5 ✓
20		14.6	80.2 ✓
30		14.6	80.2 ✓
40		15.2	79.6 ✓
50		15.2	79.6 ✓
60		15.2	79.6 ✓
70		14.0	80.8 ✓
80		9.8	85.0 ✓
83		2.8	92.0 ✓
90		2.6	92.2 ✓
4200		2.4	92.4 ✓
10		2.1	92.7 ✓
20		1.5	93.3 ✓
30		1.1	93.7 ✓
40		0.7	94.1 ✓

Plotted -

E 4200

4240	594.84	0.2	594.6 ✓
30		0.8	94.0 ✓
20		1.3	93.5 ✓
10		1.9	92.9 ✓
4200		2.4	92.4 ✓
4195		2.6	92.2 ✓
	585.9		
4188		6.1	79.8 ✓
80		6.5	79.4 ✓
70		6.9	79.0 ✓
60		6.7	79.2 ✓
50		6.4	79.5 ✓
40		6.0	79.9 ✓
30		5.7	80.2 ✓
20		5.4	80.5 ✓
10		5.2	80.7 ✓
4100		5.4	80.5 ✓
4090		5.4	80.5 ✓
85		1.8	84.1 ✓

Plotted ↓

1389481

E 4200

4080	585.9	3.7	582.2 ✓
70		4.0	81.9 ✓
60		4.1	81.8 ✓
50		7.4	78.5 ✓
40		9.9	76.0 ✓
30		11.0	74.9 ✓
20		10.5	75.4 ✓
13		6.6	79.3 ✓
4000		7.7	78.2 ✓
3990		8.2	77.7 ✓
80		8.5	77.4 ✓
70		9.5	76.4 ✓
60		9.5	76.4 ✓
50		8.6	77.3 ✓
40		9.0	76.9 ✓
30		10.8	75.1 ✓

Plotted ↓

E 4210

3930		7.8	78.1 ✓
40		10.8	75.1 ✓

Plotted ↓

E 4210

3950	585.86	9.0	576.9 ✓
60		9.5	76.4 ✓
70		11.1	74.8 ✓
80		11.1	74.8 ✓
82		7.9	78.0 ✓
90		7.6	78.3 ✓
4000		7.2	78.7 ✓
10		5.9	80.0 ✓
15		5.7	80.2 ✓
20		9.7	76.2 ✓
30		9.8	76.1 ✓
40		9.2	76.7 ✓
50		7.8	78.1 ✓
57		3.7	82.2 ✓
70		2.6	83.3 ✓
	594.84		
80		8.8	86.0 ✓
85		8.6	86.2 ✓

plotted ✓

E 4210

4090	585.86	4.0	581.9 ✓
4100		5.4	80.5 ✓
10		5.2	80.7 ✓
20		5.2	80.7 ✓
30		5.7	80.2 ✓
40		6.0	79.9 ✓
50		6.0	79.9 ✓
60		6.5	79.4 ✓
70		6.4	79.5 ✓
80		6.8	79.1 ✓
90		6.3	79.6 ✓
96		6.2	79.7 ✓
	594.84		
4203		2.3	92.5 ✓
10		2.0	92.8 ✓
20		1.4	93.4 ✓
30		0.7	94.1 ✓
40		0.2	94.6 ✓

plotted ✓

↑ MTH



E 4220

4250	594.84	+0.3	595.1
40		0.2	94.6 ✓
30		0.6	94.2 ✓
20		1.0	93.8 ✓
07		1.6	93.2 ✓
	585.86		
4202		2.3	83.6 ✓
4197		6.1	79.8 ✓
90		6.7	79.2 ✓
80		6.8	79.1 ✓
70		6.9	79.0 ✓
60		6.4	79.5 ✓
50		6.1	79.8 ✓
40		6.2	79.7 ✓
30		5.5	80.4 ✓
20		5.0	80.9 ✓
10		5.0	80.9 ✓
4100		5.1	80.8 ✓
4090		4.0	81.9 ✓

Plotted

E 4220

	585.86		
4080		+4.2	90.1 ✓
70		1.6	84.3 ✓
60		3.1	82.8 ✓
50		7.2	78.7 ✓
40		8.3	77.6 ✓
30		8.8	77.1 ✓
20		5.4	80.5 ✓
10		5.8	80.1 ✓
4000		6.7	79.2 ✓
3993		6.9	79.0 ✓
90		10.4	75.5 ✓
80		11.9	74.0 ✓
65		11.9	74.0 ✓
62		8.2	77.7 ✓
50		10.0	75.9 ✓
40		12.2	73.7 ✓
30		13.7	72.2 ✓

Plotted

E 4230

3940	585.86	12.2	73.7 ✓
50		10.0	75.9 ✓
60		8.2	77.7 ✓
67		7.5	78.4 ✓
69		12.1	73.8 ✓
80		12.4	73.5 ✓
90		12.1	73.8 ✓
96		10.1	75.8 ✓
4000		5.6	80.3 ✓
10		5.5	80.4 ✓
23		4.2	81.7 ✓
29		7.6	78.3 ✓
40		7.3	78.6 ✓
50		6.2	79.7 ✓
60		4.1	81.8 ✓
70		4.0	81.9 ✓
80		3.4	82.5 ✓
90		4.7	81.2 ✓
4100		4.6	81.3 ✓

Plotted ✓

E 4230

4110	585.86	4.7	81.2 ✓
20		5.1	80.8 ✓
30		5.9	80.0 ✓
40		6.3	79.6 ✓
50		6.4	79.5 ✓
60		6.4	79.5 ✓
70		6.9	79.0 ✓
80		7.0	78.9 ✓
92		6.9	79.0 ✓
4203		3.7	82.2 ✓
	594.84		
4208		1.0	93.8 ✓
20		0.4	94.4 ✓
30		+0.1	94.9 ✓
40		+0.6	95.4 ✓
50		+1.5	96.3 ✓

Plotted ✓

End Mar. 17-1934

Mar 18 - 1934  
 Elliott - Simpson - Soper - Remmen

E 4240

T.P.	11.85	591.37	579.52	
B.M. Check		4.24	587.13	587.14
	11.80	598.94		
N 4260		2.0	96.9	✓
50		2.5	96.4	✓
40		2.8	96.1	✓
30		3.3	95.6	✓
20		4.2	94.7	✓
4209		4.6	94.3	✓
		591.37		
05		6.8	84.6	✓
4200		10.3	81.1	✓
4190		12.6	78.8	✓
80		12.7	78.7	✓
70		12.5	78.9	✓
60		12.0	79.4	✓
50		12.0	79.4	✓
40		11.9	79.5	✓
30		11.6	79.8	✓

Plotted ✓

E 4240

4120	591.37	10.9	80.5	✓
10		10.4	81.0	✓
4100		9.9	81.5	✓
4090		9.9	81.5	✓
80		10.0	81.4	✓
70		10.2	81.2	✓
60		10.2	81.2	✓
50		10.5	80.9	✓
40		11.4	80.0	✓
30		9.9	81.5	✓
20		10.1	81.3	✓
06		10.1	81.3	✓
4000		16.6	74.8	✓
3990		17.2	74.2	✓
80		17.6	73.8	✓
72		17.6	73.8	✓
70		12.3	79.1	✓
60		13.2	78.2	✓
50		15.1	76.3	✓
40		17.4	74.0	✓

Plotted ✓

## E 4250

3940	591.37	16.5	74.9 ✓
50		14.6	76.8 ✓
60		13.0	78.4 ✓
72		11.3	80.1 ✓
75		17.2	74.2 ✓
80		17.2	74.2 ✓
90		16.7	74.7 ✓
4000		16.1	75.3 ✓
05		15.3	76.1 ✓
10		9.9	81.5 ✓
20		10.1	81.3 ✓
30		10.1	81.3 ✓
40		10.3	81.1 ✓
50		10.3	81.1 ✓
60		10.3	81.1 ✓
70		10.2	81.2 ✓
80		10.0	81.4 ✓
90		9.8	81.6 ✓
4100		7.9	81.5 ✓

Plotted ✓

## E 4250

4110	591.37	10.7	80.7 ✓
20		11.3	80.1 ✓
30		11.7	79.7 ✓
40		12.1	79.3 ✓
50		12.2	79.2 ✓
60		12.4	79.0 ✓
70		12.8	78.6 ✓
80		12.8	78.6 ✓
90		12.7	78.7 ✓
4198		12.0	79.4 ✓
4206		5.7	85.7 ✓
	598.94		
10		4.1	94.8 ✓
20		3.6	95.3 ✓
30		3.2	95.7 ✓
40		2.9	96.0 ✓
50		2.6	96.3 ✓
60		1.4	97.5 ✓

Plotted ✓

E 4260

598.94

4260	1.0	97.9	✓
50	1.9	97.0	✓
40	2.7	96.2	✓
30	3.5	95.4	✓
20	3.8	95.1	✓
09	4.2	94.7	✓
0.5	591.37 → 8.5	82.9	✓
4200	11.9	79.5	✓
4190	12.9	78.5	✓
80	12.8	78.6	✓
70	12.9	78.5	✓
60	12.6	78.8	✓
50	12.4	79.0	✓
40	12.4	79.0	✓
30	12.1	79.3	✓
20	11.6	79.8	✓
10	11.6	79.8	✓
4100	10.9	80.5	✓

Plotted ✓

E 4260

4090

591.37	10.2	81.2	✓
80	10.0	81.4	✓
70	10.2	81.2	✓
60	10.0	81.4	✓
50	10.4	81.0	✓
40	10.2	81.2	✓
30	10.2	81.2	✓
19	9.5	81.9	✓
13	13.9	77.5	✓
4000	15.1	76.3	✓
3990	15.8	75.6	✓
80	16.1	75.3	✓
73	10.5	80.9	✓
70	10.8	80.6	✓
60	11.8	79.6	✓
50	13.1	78.3	✓
40	15.0	76.4	✓

Plotted ✓

E4270

3940	591.37	14.5	76.9 ✓
50		12.0	79.4 ✓
60		11.1	80.3 ✓
70		10.1	81.3 ✓
76		9.6	81.8 ✓
85		15.3	76.1 ✓
90		15.8	75.6 ✓
4000		15.0	76.4 ✓
10		13.8	77.6 ✓
23		12.5	78.9 ✓
27		10.7	80.7 ✓
30		10.6	80.8 ✓
40		10.5	80.9 ✓
50		10.6	80.8 ✓
60		10.5	80.9 ✓
70		10.6	80.8 ✓
80		10.7	80.7 ✓
90		10.9	80.5 ✓
4100		11.3	80.1 ✓

Plotted ✓

E4270

4110	591.37	11.7	79.7 ✓
20		12.1	79.3 ✓
30		12.4	79.0 ✓
40		12.4	79.0 ✓
50		12.7	78.7 ✓
60		12.8	78.6 ✓
70		13.0	78.4 ✓
80		12.9	78.5 ✓
90		13.0	78.4 ✓
4200		12.6	78.8 ✓
05		9.5	81.9 ✓
	598.94		
09		4.3	94.6 ✓
20		3.9	95.0 ✓
30		2.8	96.1 ✓
40		2.2	96.7 ✓
50		1.3	97.6 ✓
60		0.7	98.2 ✓

Plotted ✓

## E4280

4270	598.94	+1.0	99.9 ✓
60		+0.6	99.5 ✓
50		1.1	97.8 ✓
40		1.8	97.1 ✓
30		2.5	96.4 ✓
20		3.2	95.7 ✓
09		4.4	94.5 ✓
	591.37		
07		8.8	82.6 ✓
4200		13.0	78.4 ✓
4190		13.1	78.3 ✓
80		13.0	78.4 ✓
70		13.0	78.4 ✓
60		13.0	78.4 ✓
50		12.5	78.9 ✓
40		12.5	78.9 ✓
30		12.5	78.9 ✓
20		12.3	79.1 ✓
10		12.0	79.4 ✓

Plotted ✓

## E4280

4100	591.37	11.6	79.8 ✓
4090		11.1	80.3 ✓
80		10.8	80.6 ✓
70		10.8	80.6 ✓
60		11.0	80.4 ✓
50		10.7	80.7 ✓
40		10.8	80.6 ✓
30		11.3	80.1 ✓
20		12.1	79.3 ✓
10		13.1	78.3 ✓
4000		14.6	76.8 ✓
3990		14.8	76.6 ✓
84		14.2	77.2 ✓
77		8.4	83.0 ✓
70		9.5	81.9 ✓
60		10.3	81.1 ✓
50		11.7	79.7 ✓

Plotted ✓

Coordinate  
North

+

H. I.

-

Elev.

E 4290

Coordinate North	H. I.	Elev.
3950	591.37	11.6 79.8 ✓
60		10.7 80.7 ✓
70		9.4 82.0 ✓
82		7.5 83.9 ✓
88		13.9 77.5 ✓
4000		13.5 77.9 ✓
10		11.9 79.5 ✓
20		11.7 79.7 ✓
30		11.2 80.2 ✓
40		11.0 80.4 ✓
50		10.9 80.5 ✓
60		11.6 79.8 ✓
70		9.4 82.0 ✓
80		11.3 80.1 ✓
90		11.6 79.8 ✓
4100		11.8 79.6 ✓
10		12.5 78.9 ✓
20		12.5 78.9 ✓
30		12.5 78.9 ✓

Plotted

E 4290

Coordinate North	H. I.	Elev.
4140	591.37	12.8 78.6 ✓
50		13.2 78.2 ✓
60		13.1 78.3 ✓
70		12.9 78.5 ✓
80		13.0 78.4 ✓
90		12.8 78.6 ✓
4200		12.9 78.5 ✓
09		6.6 84.8 ✓
	598.94	
10		3.8 95.1 ✓
20		3.0 95.9 ✓
30		2.6 96.3 ✓
40		1.8 97.1 ✓
50		0.6 98.3 ✓
60		+0.9 99.8 ✓
70		+1.8 600.7 ✓
80		+4.0 602.9 ✓

Plotted



E4300

4270	598.94	+4.4	603.3 ✓
60		+3.0	601.9 ✓
50		0.4	98.5 ✓
40		1.6	97.3 ✓
30		2.6	96.3 ✓
20		3.1	95.8 ✓
09		3.6	95.3 ✓
	591.37		
09 also		6.3	85.1 ✓
4200		12.6	78.8 ✓
4190		13.1	78.3 ✓
80		13.1	78.3 ✓
70		12.8	78.6 ✓
60		16.0	75.4 ✓
50		13.0	78.4 ✓
40		12.9	78.5 ✓
30		12.4	79.0 ✓
20		12.5	78.9 ✓
10		12.3	79.1 ✓

Plotted

E4300

4100	591.37	12.0	79.4 ✓
4090		11.8	79.6 ✓
80		11.7	79.7 ✓
70		11.9	79.5 ✓
60		11.6	79.8 ✓
50		11.1	80.3 ✓
40		11.1	80.3 ✓
30		10.9	80.5 ✓
20		11.1	80.3 ✓
10		11.4	80.0 ✓
4000		12.3	79.1 ✓
3993		11.1	80.3 ✓
85		6.5	84.9 ✓
80		7.0	84.4 ✓
70		9.1	82.3 ✓
60		10.8	80.6 ✓
50		11.4	80.0 ✓

Plotted

E4310

3960	591.37	9.5	81.9 ✓
70		8.0	83.4 ✓
80		6.6	84.8 ✓
90		5.7	85.7 ✓
4000		11.3	80.1 ✓
10	Plotted	11.1	80.3 ✓
20		10.6	80.8 ✓
30		11.0	80.4 ✓
40		11.4	80.0 ✓
50		11.2	80.2 ✓
60		11.6	79.8 ✓
70		11.9	79.5 ✓
80		12.1	79.3 ✓
90		11.9	79.5 ✓
4100		12.2	79.2 ✓
10		12.3	79.1 ✓
20		12.6	78.8 ✓
30		12.6	78.8 ✓
40		12.8	78.6 ✓

E4310

4150	591.37	12.9	78.5 ✓
60		12.8	78.6 ✓
70		12.9	78.5 ✓
80		13.0	78.4 ✓
90		12.9	78.5 ✓
95		12.9	78.5 ✓
4207		7.4	84.0 ✓
10	598.94	3.3	95.6 ✓
20		2.8	96.1 ✓
30		2.3	96.6 ✓
40		1.5	97.4 ✓
50		0.0	98.9 ✓
60		+4.0	602.9 ✓
	625.28		
65		12.0	613.3 ✓
70		11.5	613.8 ✓
80		9.9	15.4 ✓

E4320

4280	625.28	9.2	616.1 ✓
70		11.1	614.2 ✓
60		12.2	613.1 ✓
50		13.5	611.8 ✓
	598.94		
40	Plotted ✓	0.5	98.4 ✓
30		2.1	96.8 ✓
20		3.0	95.9 ✓
08		3.2	95.7 ✓
04		591.37	8.2
4197		12.6	78.8 ✓
90		13.0	78.4 ✓
80		11.6	79.8 ✓
70		13.0	78.4 ✓
60		12.8	78.6 ✓
50		12.8	78.6 ✓
40		12.5	78.9 ✓
30		12.8	78.6 ✓
20		12.7	78.7 ✓

E4320

4110	591.37	12.7	78.7 ✓
4100		12.8	78.6 ✓
4090		12.9	78.5 ✓
80		12.9	78.5 ✓
70		12.8	78.6 ✓
60		11.5	79.9 ✓
50		11.4	80.0 ✓
40		11.5	79.9 ✓
30		10.7	80.7 ✓
20		10.5	80.9 ✓
10		10.3	81.1 ✓
4000		10.2	81.2 ✓
3992		4.9	86.5 ✓
85		3.6	87.8 ✓
80		6.0	85.4 ✓
70		7.2	84.2 ✓
60		9.0	82.4 ✓

Plotted ✓

E 4330

3960	591.37	8.4	83.0 ✓
70		6.9	84.5 ✓
80		5.9	85.5 ✓
85		5.5	85.9 ✓
90		3.7	87.7 ✓
93		4.6	86.8 ✓
4002		9.9	81.5 ✓
10		9.2	82.2 ✓
20		10.1	81.3 ✓
30		11.0	80.4 ✓
40		11.3	80.1 ✓
50		11.8	79.6 ✓
60		11.4	80.0 ✓
70		13.6	77.8 ✓
80		13.6	77.8 ✓
90		13.6	77.8 ✓
4100		13.6	77.8 ✓
10		13.1	78.3 ✓
20		12.9	78.5 ✓
30		12.8	78.6 ✓

Plotted ✓

E 4330

4140	591.37	12.5	78.9 ✓
50		12.6	78.8 ✓
60		12.7	78.7 ✓
70		12.9	78.5 ✓
80		11.1	80.3 ✓
90		13.1	78.3 ✓
97		11.9	79.5 ✓
4203		8.4	83.0 ✓
06	598.94	3.8	95.1 ✓
10		3.4	95.5 ✓
20		2.4	96.5 ✓
30		+ 2.6	601.5 ✓
	625.28		
35		14.4	610.9 ✓
40		14.0	611.3 ✓
50		12.8	612.5 ✓
60		11.1	14.2 ✓
70		10.0	15.3 ✓
80		6.4	18.9 ✓

Plotted ✓

E 4340

625.28

4280	2.9	622.4 ✓
70	6.4	618.9 ✓
60	10.6	14.7 ✓
50	12.2	13.1 ✓
40	13.6	11.7 ✓
24	15.3	10.0 ✓

598.94

20	+ 5.2	604.1 ✓
10	2.1	596.8 ✓
04	3.6	95.3 ✓

591.37

4201	7.2	84.2 ✓
4190	13.0	78.4 ✓
80	13.0	78.4 ✓
70	12.7	78.7 ✓
60	12.6	78.8 ✓
50	12.5	78.9 ✓
40	12.4	79.0 ✓
30	12.6	78.8 ✓

E 4340

4120 591.37 12.7 78.7 ✓

10 12.7 78.7 ✓

4100 13.0 78.4 ✓

4090 13.5 77.9 ✓

80 13.2 78.2 ✓

70 12.6 78.8 ✓

60 11.5 79.9 ✓

50 11.4 80.0 ✓

40 11.0 80.4 ✓

30 10.6 80.8 ✓

20 9.3 82.1 ✓

10 9.4 82.0 ✓

05 9.2 82.2 ✓

3995 3.8 87.6 ✓

90 5.2 86.2 ✓

80 6.1 85.3 ✓

70 6.7 84.7 ✓

Plotted ✓

E 4350

3970	591.37	7.5	83.9 ✓
80		6.9	84.5 ✓
90		5.1	86.3 ✓
98		2.9	88.5 ✓
4009		9.6	81.8 ✓
20	Plotted ✓	9.3	82.1 ✓
30		9.7	81.7 ✓
40		10.8	80.6 ✓
50		11.2	80.2 ✓
60		11.3	80.1 ✓
70		11.9	79.5 ✓
80		12.5	78.9 ✓
90		12.5	78.9 ✓
4100		12.5	78.9 ✓
10		12.6	78.8 ✓
20	12.5	78.9 ✓	
30	12.5	78.9 ✓	
40	12.4	79.0 ✓	
50	12.5	78.9 ✓	
60	12.6	78.8 ✓	

E 4350

4170	591.37	12.8	78.6 ✓	
80		12.4	79.0 ✓	
93		7.5	83.9 ✓	
	612.75			
	Plotted ✓			
4198		14.9	597.9 ✓	
4210		3.8	609.0 ✓	
20		2.9	609.9 ✓	
30		1.4	611.4 ✓	
		625.28		
40		12.9	612.4 ✓	
50		11.2	14.1 ✓	
60		6.3	19.0 ✓	
72		2.9	22.4 ✓	
4280	2.5	22.8 ✓		

## E 4360

3970	591.37	7.7	83.7 ✓
80		6.9	84.5 ✓
90		4.2	87.2 ✓
4001		2.2	89.2 ✓
09		8.0	83.4 ✓
20		8.6	82.8 ✓
30		9.2	82.2 ✓
40		10.7	80.7 ✓
50		10.5	80.9 ✓
60		10.8	80.6 ✓
70		11.7	79.7 ✓
80		12.3	79.1 ✓
90		12.4	79.0 ✓
4100		12.5	78.9 ✓
10		12.4	79.0 ✓
20		12.4	79.0 ✓
30		12.6	78.8 ✓
40		12.6	78.8 ✓
50		12.8	78.6 ✓
60		12.8	78.6 ✓

Plotted ✓

## E 4360

4170	591.37	12.2	79.2 ✓
85		7.5	83.9 ✓
	612.75		
87		11.1	601.7 ✓
94		5.0	07.8 ✓
4200		4.5	8.3 ✓
10		3.4	9.4 ✓
20		2.1	10.7 ✓
	625.28		
30		13.6	11.7 ✓
35		12.8	12.5 ✓
40		11.0	14.3 ✓
55		5.6	19.7 ✓
60		5.1	20.2 ✓
70		3.9	21.4 ✓
80		3.2	22.1 ✓

Plotted ✓

E4370

3970	591.37	8.8	82.6 ✓
80		4.5	86.9 ✓
90		4.1	87.3 ✓
4000		1.5	89.9 ✓
04		1.6	89.8 ✓
14		8.2	83.2 ✓
20		8.8	82.6 ✓
30		8.6	82.8 ✓
40		9.3	82.1 ✓
50		10.2	81.2 ✓
60		11.3	80.1 ✓
70		12.5	78.9 ✓
80		12.2	79.2 ✓
90		12.6	78.8 ✓
4100		12.6	78.8 ✓
10		12.6	78.8 ✓
20		12.5	78.9 ✓
30		12.7	78.7 ✓
40		12.8	78.6 ✓
50		12.8	78.6 ✓

plotted

E4370

4160	591.37	12.3	79.1 ✓
77		6.1	85.3 ✓
	612.75		
82		16.4	596.4 ✓
90		12.3	600.5 ✓
95		9.1	603.7 ✓
4197		3.8	609.0 ✓
4210		2.5	610.3 ✓
	625.28		
20		13.7	611.6 ✓
30		10.4	14.9 ✓
40		2.7	17.6 ✓
50		6.6	18.7 ✓
60		5.8	19.5 ✓
70		4.9	20.4 ✓
4280		4.0	21.3 ✓

plotted



E 4380

3980	591.37	5.0	586.4 ✓
90		3.8	87.6 ✓
4000		2.0	89.4 ✓
08		1.1	90.3 ✓
18		7.2	84.2 ✓
30		8.0	83.4 ✓
40		7.2	84.2 ✓
50		7.3	84.1 ✓
60		12.4	79.0 ✓
70		13.2	78.2 ✓
80		12.9	78.5 ✓
90		12.3	79.1 ✓
4100		12.5	78.9 ✓
10		12.4	79.0 ✓
20		12.7	78.7 ✓
30		12.6	78.8 ✓
40		12.6	78.8 ✓
50		12.3	79.1 ✓
60		7.2	84.2 ✓
70		3.5	87.9 ✓

↓  
Pajpold

E 4380

	612.75		
4178		15.0	597.8 ✓
85		13.1	599.7 ✓
90		4.4	608.4 ✓
4200		3.0	9.8 ✓
10		1.7	11.1 ✓
	625.28		
22		9.6	15.7 ✓
30		9.2	16.1 ✓
40		8.3	17.0 ✓
50		7.4	17.9 ✓
60		6.5	18.8 ✓
70		5.8	19.5 ✓
80		4.8	20.5 ✓

↓  
Pajpold

E 4390

3980	598.94	12.1	86.8 ✓
90		11.3	87.6 ✓
4000		9.7	89.2 ✓
11		8.0	90.9 ✓
20	591.37	7.0	84.4 ✓
30	Plotted ✓	6.9	84.5 ✓
40		6.4	85.0 ✓
50		5.2	86.2 ✓
56		4.6	86.8 ✓
62		13.1	78.3 ✓
70		13.6	77.8 ✓
80		13.1	78.3 ✓
90		12.2	79.2 ✓
4100		12.4	79.0 ✓
10		12.5	78.9 ✓
20	12.5	78.9 ✓	
30	12.5	78.9 ✓	
40	12.0	79.4 ✓	
50	10.7	80.7 ✓	
55	7.1	84.3 ✓	

E 4390

	612.75		
61		16.9	95.9 ✓
69		14.1	98.7 ✓
71		9.1	603.7 ✓
76		5.2	607.6 ✓
80		4.9	7.9 ✓
90		3.6	9.2 ✓
4200		2.2	10.6 ✓
	625.28		
10		10.8	14.5 ✓
20		10.7	14.6 ✓
30		9.8	15.5 ✓
40		9.0	16.3 ✓
50		7.9	17.4 ✓
60		7.1	18.2 ✓
70		6.4	18.9 ✓
4280		3.0	22.3 ✓

## E4400

3980	598.94	13.0	85.9 ✓
90		11.4	87.5 ✓
4000		9.8	89.1 ✓
10		7.3	91.6 ✓
15		7.0	91.9 ✓
28	591.37	6.2	85.2 ✓
40		5.7	85.7 ✓
50		5.9	85.5 ✓
57		4.5	86.9 ✓
65		13.3	78.1 ✓
80		13.1	78.3 ✓
90		11.8	79.6 ✓
4100		12.2	79.2 ✓
10		12.3	79.1 ✓
20		12.2	79.2 ✓
30		12.2	79.2 ✓
40		12.4	79.0 ✓
50		11.8	79.6 ✓
60		5.4	86.0 ✓

Plotted ✓

## E 4400

	612.75		
4164		12.3	95.5 ✓
70		16.6	96.2 ✓
82		9.0	603.8 ✓
85		3.7	609.1 ✓
4200		0.3	12.5 ✓
10		+0.5	13.3 ✓
20		+1.2	14.0 ✓
30		+2.0	14.8 ✓
40		+2.9	15.7 ✓
	631.20		
50		14.1	617.1 ✓
60		13.6	17.6 ✓
70		12.5	18.7 ✓
80		7.4	23.8 ✓
T.P.		12.72	618.48 ✓
6.80	625.28		

Plotted ✓

E4410

3990	598.94	10.9	88.0 ✓
4000		8.9	90.0 ✓
10		6.7	92.2 ✓
22		6.3	92.6 ✓
35	591.37	5.2	86.2 ✓
50		5.8	85.6 ✓
62		5.2	86.2 ✓
68		12.3	79.1 ✓
80		11.9	79.5 ✓
90		11.0	80.4 ✓
4100		11.7	79.7 ✓
10		11.8	79.6 ✓
20		11.8	79.6 ✓
30		11.7	79.7 ✓
40		11.5	79.9 ✓
51		12.3	79.1 ✓
63		4.8	86.6 ✓
	612.75		
65		15.5	97.3 ✓
70		13.5	99.3 ✓

Plotted

E4410

4178	612.75	9.6	603.2 ✓
81		3.5	9.3 ✓
90		1.8	11.0 ✓
4200		1.0	11.8 ✓
10		0.1	12.7 ✓
20		10.6	13.4 ✓
	631.2		
30		17.2	14.0 ✓
40		15.9	15.3 ✓
50		14.4	16.8 ✓
60		13.9	17.3 ✓
64		13.6	17.6 ✓
70		8.3	22.9 ✓
80		2.6	28.6 ✓
90		3.0	28.2 ✓
4300		1.0	30.2 ✓

Plotted

E4420

4000	598.94	6.1	92.8 ✓
10		5.9	93.0 ✓
20		6.0	92.9 ✓
30		6.1	92.8 ✓
44	591.37	6.0	85.4 ✓
50		6.1	85.3 ✓
61		5.6	85.8 ✓
70		10.5	80.9 ✓
80		11.2	80.2 ✓
90		11.3	80.1 ✓
4100		11.4	80.0 ✓
10		11.4	80.0 ✓
20		11.2	80.2 ✓
30		11.2	80.2 ✓
40		11.0	80.4 ✓
50		11.1	80.3 ✓
61		5.1	86.3 ✓
	612.75		
66		15.3	597.5 ✓

Plotted ✓

E4420

4177	612.75	7.2	605.6 ✓
78		3.7	609.1 ✓
90		2.3	10.5 ✓
4200		1.6	11.2 ✓
10		0.8	12.0 ✓
20		0.0	12.8 ✓
	631.2		
30		17.9	13.3 ✓
40		17.2	14.0 ✓
50		15.9	15.3 ✓
60		13.5	17.7 ✓
69		4.6	26.6 ✓
77		0.8	30.4 ✓
90		1.9	29.3 ✓
4300		1.2	30.0 ✓

Plotted ✓

E 4430

4010	598.94	5.6	93.3 ✓
20		5.7	93.2 ✓
30		5.9	93.0 ✓
40		5.2	93.7 ✓
52	591.37	6.7	84.7 ✓
60		6.8	84.6 ✓
65		5.9	85.5 ✓
75		10.0	81.4 ✓
80		10.4	81.0 ✓
90		10.4	81.0 ✓
4100		10.7	80.7 ✓
10		10.3	81.1 ✓
20		10.5	80.9 ✓
30		10.2	81.2 ✓
40		8.6	82.8 ✓
56		3.0	88.4 ✓

Plotted ✓

B.M. 8.93 612.75 603.82  
 B.M. +(-1.44) 631.20 632.64

E 4430

	612.75		
59		16.2	596.0 ✓
73		4.2	08.6 ✓
80		3.9	08.9 ✓
90		3.0	09.8 ✓
4200		2.1	10.7 ✓
10		1.3	11.5 ✓
20		0.6	12.2 ✓
30		0.0	12.8 ✓
40		+0.1	12.9 ✓
	631.2		
50		17.2	14.0 ✓
60		10.3	20.9 ✓
63		5.8	25.4 ✓
70		1.6	29.6 ✓
80		2.0	29.2 ✓
90		1.2	30.0 ✓
4300		1.6	29.6 ✓

Plotted ✓

E 4440

4010	598.94	5.6	593.3 ✓
20		5.5	93.4 ✓
35		5.6	93.3 ✓
40		3.3	95.6 ✓
49		5.7	93.2 ✓
62	591.37	7.5	83.9 ✓
70		8.0	83.4 ✓
80		8.9	82.5 ✓
90		9.6	81.8 ✓
4100		10.1	81.3 ✓
10		10.3	81.1 ✓
20		9.4	82.0 ✓
30		8.3	83.1 ✓
40		1.8	89.6 ✓
	614.7		
52		17.3	597.4 ✓
62		7.2	607.5 ✓

Plotted ✓

E 4440

	614.7 <sup>4</sup>		
73		6.9	607.8 ✓
74		10.1	4.6 ✓
79		9.2	5.5 ✓
80		6.2	8.5 ✓
90		5.4	9.3 ✓
4200		4.3	10.4 ✓
10		3.5	11.2 ✓
20		3.4	11.3 ✓
30		3.0	11.7 ✓
40		2.1	12.6 ✓
48		0.4	14.3 ✓
	631.9 <sup>x</sup>		
58		11.5	20.4 ✓
60		7.1	24.8 ✓
69		2.5	29.4 ✓
80		2.0	29.9 ✓
90		2.2	29.7 ✓
4300		2.4	29.5 ✓

Plotted ✓

E 4450

4020	598.94	5.2	93.7 ✓
30		5.3	93.6 ✓
40		5.2	93.7 ✓
45		2.2	96.7 ✓
50		4.2	94.7 ✓
58		6.9	92.0 ✓
67	591.37	7.5	83.9 ✓
80		8.0	83.4 ✓
90		7.6	83.8 ✓
4100		6.4	85.0 ✓
10		5.8	85.6 ✓
20		5.6	85.8 ✓
25		4.2	87.2 ✓
30	598.94	5.4	93.5 ✓
40		3.0	86.0 ✓
			95.9 ✓
			88.4 ✓
B.M.	10.91	614.73	603.82
50		12.3	602.4 ✓
54		9.7	5.0 ✓
58		12.6	2.1 ✓
66		12.6	2.1 ✓

Plotted ✓

E 4450

4167	614.73	8.2	606.5 ✓
80		6.8	7.9 ✓
90		5.6	9.1 ✓
4200		4.6	10.1 ✓
10		5.8	8.9 ✓
20		3.5	11.2 ✓
30		3.4	11.3 ✓
37		2.2	12.5 ✓
B.M.	$\pi$	$(-0.70)$	631.94
			632.64
50		14.2	17.7 ✓
51		11.7	20.2 ✓
60		6.2	25.7 ✓
67		2.9	29.0 ✓
80		2.4	29.5 ✓
90		2.3	29.6 ✓
4300		2.4	29.5 ✓

Plotted ✓



Mar 20 - 1934

45

E 4460

E 4460

B.M.	1.38	634.02	632.64	
4300		4.5	29.5 ✓	
4290		4.5	29.5 ✓	
80		4.4	29.6 ✓	
70		4.6	29.4 ✓	
60		6.2	27.8 ✓	
50		13.6	20.4 ✓	
45		12.7	21.3 ✓	
42		17.1	16.9 ✓	
36		17.3	16.7 ✓	
25		22.3	12.7 ✓	
		4 # 2		
		612.75		
25		1.0	11.8 ✓	
20		1.9	10.9 ✓	
10		2.8	10.0 ✓	
4200		3.6	9.2 ✓	
4190		4.3	8.5 ✓	
80		5.1	7.7 ✓	
70		6.3	6.5 ✓	

Plotted ↓

4160	612.75	7.5	605.3 ✓
50		8.6	4.2 ✓
40		10.4	2.4 ✓
30		12.6	600.2 ✓
T.P.		12.77	599.98 ✓
	1.12	π ✓	601.10 ✓
20		3.8	597.3 ✓
10		6.5	94.6 ✓
4100		8.9	92.2 ✓
4090		15.1	86.0 ✓
80		16.2	84.9 ✓
70		13.8	87.3 ✓
60		8.8	92.3 ✓
50		6.9	94.2 ✓
40		6.9	94.2 ✓
30		7.0	94.1 ✓

Plotted ↓

E 4470

4030	$\pi$ 601.10	6.3	594.8 ✓
40		6.5	94.6 ✓
50		6.3	94.8 ✓
60		6.0	95.1 ✓
65		10.5	90.6 ✓
75		5.9	95.2 ✓
80		5.0	96.1 ✓
90		4.7	96.4 ✓
4100		3.4	97.7 ✓
10		2.0	99.1 ✓
20		0.9	600.2 ✓
30		70.1	601.2 ✓
	#2 612.75		
40		10.4	602.4 ✓
50		8.9	3.9 ✓
60		7.9	4.9 ✓
70		6.7	6.1 ✓
80		5.7	7.1 ✓
90		5.0	7.8 ✓

Plotted ✓

E 4470

4200	#2 612.75	4.0	608.8 ✓
10		3.1	9.7 ✓
20		0.1	12.7 ✓
30		+3.4	16.2 ✓
35		+3.4	16.2 ✓
	#1 634.02		
50		6.1	27.9 ✓
55		7.5	26.5 ✓
65		4.6	29.4 ✓
70		4.5	29.5 ✓
80		4.3	29.7 ✓
90		4.4	29.6 ✓
4300		4.2	29.8 ✓

Plotted ✓

E 4480

	#1		
4310	634.02	4.0	630.0 ✓
4300		4.6	29.4 ✓
4290		4.2	29.8 ✓
80		4.2	29.8 ✓
70		4.3	29.7 ✓
60		4.4	29.6 ✓
50		4.5	29.5 ✓
44		4.7	29.3 ✓
40		8.2	25.8 ✓
30		14.2	19.8 ✓
24		18.8	15.2 ✓
14		18.5	15.5 ✓
	#2		
	612.75		
10		0.3	12.5 ✓
05		3.7	9.1 ✓
4200		4.4	8.4 ✓
4190		5.6	7.2 ✓
80		6.7	6.1 ✓
70		7.0	605.8 ✓

Plotted ✓

E 4480

4160	612.75	8.3	604.5 ✓
50		9.2	3.6 ✓
40		10.3	2.5 ✓
30		11.4	1.4 ✓
20		12.5	600.3 ✓
10		13.6	599.2 ✓
	↑		
	601.10		
4100		2.9	598.2 ✓
4090		3.7	97.4 ✓
80		4.3	96.8 ✓
70		4.7	96.4 ✓
60		5.4	95.7 ✓
50		5.6	95.5 ✓
40		5.7	95.4 ✓

Plotted ✓

E 4490

 $\pi$   
601.10

4040	5.0	596.1 ✓
50	4.9	96.2 ✓
60	4.7	96.4 ✓
70	4.3	96.8 ✓
80	3.8	97.3 ✓
90	3.2	97.9 ✓
4100	2.4	98.7 ✓
10	1.5	99.6 ✓
20	0.3	<del>99.8</del> 100.8 ✓
30	11.1	601.7 ✓
40	10.2	2.6 ✓
50	9.5	3.3 ✓
60	8.7	4.1 ✓
70	7.8	5.0 ✓
80	7.1	5.7 ✓
90	5.5	7.3 ✓
4200	1.7	11.1 ✓

Plotted ↓

 $\pi$   
612.75

E 4490

 $\pi$   
612.75

4210	+2.2	615.0 ✓
20	+2.6	15.4 ✓
30	12.9	621.1 ✓
39	4.5	29.5 ✓
50	4.3	29.7 ✓
60	4.1	29.9 ✓
70	4.0	30.0 ✓
80	4.0	30.0 ✓
90	4.2	29.8 ✓
4300	4.4	29.6 ✓
10	4.4	29.6 ✓
10	4.0	30.0 ✓
4300	4.3	29.7 ✓
4290	4.3	29.7 ✓
80	4.2	29.8 ✓
70	3.9	30.1 ✓

 $\pi$   
634.02

Plotted ↓

E 4500

E 4500

	#1		
4260	634.02	3.8	630.2
50		4.0	30.0 ✓
40		4.2	29.8 ✓
32		4.3	29.7 ✓
30		9.3	24.7 ✓
20		14.8	19.2 ✓
10		18.4	15.6 ✓
4200		19.3	14.7 ✓
4195		19.5	14.5 ✓

Plotted ✓

#2  
612.75

90	4.4	608.4 ✓
80	5.7	7.1 ✓
70	7.1	5.7 ✓
60	8.4	4.4 ✓
50	9.6	3.2 ✓
40	10.5	2.3 ✓
30	10.9	1.9 ✓
20	12.0	600.8 ✓
10	12.6	600.2 ✓

E 4500

	#2		
	612.75		
4100		13.4	599.4 ✓
		601.1	
4090		2.6	598.5 ✓
80		3.3	97.8 ✓
70		4.0	97.1 ✓
60		4.1	97.0 ✓
50		4.5	96.6 ✓

Plotted ✓

E 4510

4060	4.3	96.8 ✓
70	3.9	97.2 ✓
80	3.1	98.0 ✓
90	0.7	600.4 ✓
4100	2.2	598.9 ✓
10	1.2	99.9 ✓
20	0.1	601.0 ✓
	#2	
	612.75	
30	10.3	602.5 ✓
40	10.3	2.5 ✓

## E 4510

	#2		
4150	612.75	9.3	603.5 ✓
60		6.2	6.6 ✓
70		6.2	6.6 ✓
80		3.9	8.9 ✓
T.P.		2.78	609.97 ✓
	New T.H.I.		
	11.05	621.02 ✓	
90		10.8	610.2 ✓
91		6.6	614.4 ✓
4200		4.7	616.2 ✓
10		2.3	618.7 ✓
	#1		
	634.02		
18		10.8	623.2 ✓
24		4.2	29.8 ✓
30		3.9	30.1 ✓
40		3.8	30.2 ✓
50		3.6	30.4 ✓
60		3.7	30.3 ✓
70		3.8	30.2 ✓
80		4.2	29.8 ✓

## E 4510

	#1		
	634.02		
4290		4.2	629.8 ✓
4300		4.1	29.9 ✓
10		1.5	32.5 ✓
20		0.0	34.0 ✓

## E 4520

4320		+2.8	36.8 ✓
10		+0.8	34.8 ✓
07		+0.8	34.8 ✓
4300		4.0	30.0 ✓
4290		4.3	29.7 ✓
80		4.3	29.7 ✓
70		3.7	30.3 ✓
60		3.2	30.8 ✓
50		3.4	30.6 ✓
40		3.3	30.7 ✓
30		3.5	30.5 ✓
20		3.8	30.2 ✓
16		4.3	29.7 ✓

## E4520

4215	#1 634.02	7.1	626.9 ✓
10		10.3	23.7 ✓
	↑ 621.02		
4200		2.6	18.4 ✓
4190		5.4	15.6 ✓
80		6.5	14.5 ✓
70		6.4	14.6 ✓
65		6.2	14.8 ✓
60		12.2	608.8 ✓
	#2 612.75		
50		5.6	7.2 ✓
40		10.0	2.8 ✓
30		11.1	1.7 ✓
20		12.0	600.8 ✓
10		12.3	600.5 ✓
4100		11.7	601.1 ✓
4097		12.1	600.7 ✓
93		7.5	605.3 ✓
85		8.9	3.9 ✓

Plotted ✓

## E4520

4080	#2 612.75	11.7	601.1 ✓
70		12.7	600.1 ✓
60		13.6	599.2 ✓

## E4530

4060		6.9	605.9 ✓
70		5.8	607.0 ✓
80		3.9	608.9 ✓
4090		2.0	610.8 ✓
4105		10.7	602.1 ✓
20		11.2	601.6 ✓
30		10.9	601.9 ✓
40		10.3	602.5 ✓
50		9.1	603.7 ✓
60		3.5	609.3 ✓
	↑ 621.02		
65		6.1	614.9 ✓
74		6.0	15.0 ✓
80		4.1	16.9 ✓
90		1.0	20.0 ✓

Plotted ✓

E4530

	#1		
4200	634.02	9.5	6 24.5 ✓
10		7.4	26.6 ✓
15		3.3	30.7 ✓
30		3.0	31.0 ✓
40		3.1	30.9 ✓
50		3.3	30.7 ✓
60		3.5	30.5 ✓
70		4.0	30.0 ✓
80		3.9	30.1 ✓
90		3.8	30.2 ✓
42 98		3.6	30.4 ✓
4302		+2.7	36.7 ✓
10		+4.6	38.6 ✓
20		+5.7	39.7 ✓

Plotted ✓

E4540

20		+8.3	42.3 ✓
10		+6.4	40.4 ✓
4304		+5.9	39.9 ✓
4299		-0.8	33.2 ✓

E4540

	#1		
4290	634.02	3.5	6 30.5 ✓
80		3.6	30.4 ✓
70		2.8	31.2 ✓
60		2.9	31.1 ✓
50		3.0	31.0 ✓
40		3.0	31.0 ✓
30		2.8	31.2 ✓
20		2.7	31.3 ✓
4210		2.9	31.1 ✓
4196		2.8	31.2 ✓
95		5.7	28.3 ✓
90		7.9	26.1 ✓
80		12.1	21.9 ✓
Check of H.T.	0.0	621.02	621.0 ✓
70		0.8	20.2 ✓
57		5.5	15.5 ✓
53		10.2	10.8 ✓
		+2 612.75	
40		7.7	60.51 ✓

Plotted ✓



## E4540

4130	<sup>#2</sup> 612.75	7.8	605.0 ✓
20		8.2	604.6 ✓
10		8.5	604.3 ✓
4105		7.4	605.4 ✓
	<sup>↑</sup> 621.02		
4095		5.7	15.3 ✓
80		5.7	15.3 ✓
70		5.1	15.9 ✓

## E4550

4070		5.5	15.5 ✓
80		5.5	15.5 ✓
90		5.5	15.5 ✓
4100		5.4	15.6 ✓
10		5.5	15.5 ✓
20		12.6	608.4 ✓
30		5.2	615.8 ✓
40		4.2	16.8 ✓
50		1.6	19.4 ✓

Plotted ✓

## E4550

4160	<sup>#1</sup> 634.02	11.6	622.1 ✓
70		9.1	24.9 ✓
77		5.7	28.3 ✓
78		2.3	31.7 ✓
90		2.9	31.1 ✓
4200		2.4	31.6 ✓
10		2.3	31.7 ✓
20		2.5	31.5 ✓
30		2.8	31.2 ✓
40		3.0	31.0 ✓
50		2.9	31.1 ✓
60		2.3	31.7 ✓
70		2.2	31.8 ✓
80		2.2	31.8 ✓
B.M.	12.61	<sup>#2</sup> ✓ 645.25	632.64
4293		13.4	631.9 ✓
4304		7.8	637.5 ✓
07		2.7	42.6 ✓
20		0.0	45.3 ✓

Plotted ✓

E4560

	#2			
4320	645.25	+2.7	648.0	✓
10		0.0	45.3	✓
4304		7.7	37.6	✓
4295		13.6	31.7	✓
80		13.4	31.9	✓
70		13.8	31.5	✓
60		13.7	31.6	✓
50		13.7	31.6	✓
40		14.0	31.3	✓

#1  
634.02

30		2.9	31.1	✓
20		2.5	31.5	✓
10		2.1	31.9	✓
4200		1.8	32.2	✓
4190		1.7	32.3	✓
80		2.2	31.8	✓
70		1.4	32.6	✓
58		1.8	32.2	✓
58 700		5.7	28.3	✓

Plotted ✓

E4560

	#1			
4150	634.02	7.8	626.2	✓
40		11.5	22.5	✓
	621.02			
30		2.3	18.7	✓
20		4.5	16.5	✓
10		4.8	16.2	✓
4100		5.3	15.7	✓
4090		5.2	15.8	✓
80		5.2	15.8	✓

Plotted ✓

E4570

4080		3.9	17.1	✓
90		2.8	18.2	✓
4100		2.1	18.9	✓
10		0.8	20.2	✓
	634.02			
20		11.9	22.1	✓
30		8.7	25.3	✓
44		3.2	30.8	✓
45		0.7	33.3	✓

E 4570

	#1 634.02			
4150	0.5	633.5	✓	
60	1.1	32.9	✓	
70	1.1	32.9	✓	
80	1.1	32.9	✓	
90	1.3	32.7	✓	
4200	1.7	32.3	✓	
10	2.1	31.9	✓	
20	2.5	31.5	✓	

Plotted ✓

End Mar 20 - 1934

Start Mar 21 - 1934 - 3:00 P.M.

Elliott  
Simpson  
Seper  
Kammer

B.M. 7.26 #1 639.90 632.64

T.P. 0.21 639.69 ✓

12.74 #2 652.43 ✓

#1  
639.9

30	8.4	31.5	✓
40	8.5	31.4	✓
50	8.2	31.7	✓

E 4570

	#1 639.9			
4260	8.0	631.9	✓	
70	8.0	31.9	✓	
80	8.1	31.8	✓	
90	8.0	31.9	✓	
4296	7.7	32.2	✓	
4307	2.3	37.6	✓	
	#2 652.4			
14	5.2	64.2	✓	
20	1.8	50.6	✓	
26	+0.9	53.3	✓	

Plotted ✓

E 4580

4340	+4.5	56.9	✓
35	+7.0	59.4	✓
19	2.6	49.8	✓
	#1 639.9		
11	2.1	37.8	✓
4302	6.7	33.2	✓
4290	7.6	32.3	✓
80	7.8	32.1	✓

E4580

	#1 639.9		
42 70	7.8	32.1	✓
60	7.9	32.0	✓
50	8.1	31.8	✓
30	8.4	31.5	✓
20	8.3	31.6	✓
10	7.9	32.0	✓
4200	7.5	32.4	✓
4190	7.1	32.8	✓
80	6.8	33.1	✓
70	6.5	33.4	✓
60	6.3	33.6	✓
50	6.2	33.7	✓
40	6.2	33.7	✓
30	5.5	34.4	✓
21	6.7	33.2	✓
18	11.2	28.7	✓
10	12.9	27.0	✓
4100	15.1	24.8	✓
4090	15.9	24.0	✓
80	17.4	22.5	✓

Plotted ↓

E4590

	#1 639.9		
4080	9.3	30.6	✓
90	9.1	30.8	✓
4100	5.3	34.6	✓
10	4.7	35.2	✓
20	5.3	34.6	✓
30	5.4	34.5	✓
40	5.5	34.4	✓
50	5.7	34.2	✓
60	5.8	34.1	✓
70	6.1	33.8	✓
80	6.2	33.7	✓
90	6.3	33.6	✓
4200	7.0	32.9	✓
10	7.4	32.5	✓
20	7.7	32.2	✓
30	7.8	32.1	✓
40	8.0	31.9	✓
50	7.9	32.0	✓
60	7.7	32.2	✓

Plotted ↓

## E 4590

70	#1 639.9	7.6	632.3 ✓
80		7.2	32.7 ✓
90		6.7	33.2 ✓
4300		6.7	33.7 <sup>2</sup> ✓
06		6.8	33.1 ✓
16		1.3	38.6 ✓
	#2 652.4		
21		1.1	51.3 ✓
29		+4.9	657.3 ✓
40		+3.5	55.9 ✓

End Mar 21 - 1934

Start Mar 22 - 1934 Same Crew

B.M.	11.09	u. #1 643.73 ✓	632.64 ✓
T.P.		0.22	643.51 ✓
	12.68	656.19 ✓	
T.P.		0.15	656.04 ✓ ←
	4.39	u. #2 660.43 ✓	
	13.28	669.32 ✓	656.04 ✓ ←
T.P.	11.84	x 675.69 ✓	5.47 663.85 ✓

## E 4600

4080	#1 643.7	7.9	635.8 ✓
90		8.1	35.6 ✓
4100		8.2	35.5 ✓
10		8.3	35.4 ✓
20		8.4	35.3 ✓
30		8.7	35.0 ✓
40		8.8	34.9 ✓
50		9.0	34.7 ✓
60		9.2	34.5 ✓
70		9.6	34.1 ✓
80		9.9	33.8 ✓
90		10.1	33.6 ✓
4200		10.7	33.0 ✓
10		10.9	32.8 ✓
20		11.2	32.5 ✓
30		10.7	33.0 ✓
40		11.3	32.4 ✓
50		11.2	32.5 ✓
60		11.1	32.6 ✓

E 4600

	#1 643.7		
4270		10.9	632.8 ✓
80		10.3	33.4 ✓
90		9.8	33.9 ✓
4300	Plotted ↓	9.8	33.9 ✓
10		10.2	33.5 ✓
19		5.5	38.2 ✓
		#2 660.4	
25		7.2	53.2 ✓
28		3.9	56.5 ✓
40		4.7	55.7 ✓
45		4.7	55.7 ✓
47		0.1	60.3 ✓

E 4610

4345		+1.6	62.0 ✓
42		5.0	55.4 ✓
27		4.2	56.2 ✓
21		10.3	50.1 ✓
	#1 643.7		
19		3.5	40.2 ✓

E 4610

	#1 643.7		
4308		9.5	34.2 ✓
4300		8.9	34.8 ✓
90		9.2	34.5 ✓
80		9.6	34.1 ✓
70		9.8	33.9 ✓
60		10.6	33.1 ✓
50		11.2	32.5 ✓
40		11.1	32.6 ✓
30	Plotted ↓	11.1	32.6 ✓
20		10.9	32.8 ✓
10		10.7	33.0 ✓
4200		10.5	33.2 ✓
4190		10.3	33.4 ✓
80		9.6	34.1 ✓
70		9.0	34.7 ✓
60		8.8	34.9 ✓
50		8.7	35.0 ✓
40		8.5	35.2 ✓
30		8.2	35.5 ✓

E4610

	#1 643.7		
4120	8.1	635.6	✓
10	7.9	35.8	✓
4100	7.7	36.0	✓
4090	7.6	36.1	✓

E4620

90	6.8	36.9	✓
4100	6.7	37.0	✓
10	6.8	36.9	✓
20	7.2	36.5	✓
30	7.9	35.8	✓
40	8.4	35.3	✓
50	8.5	35.2	✓
60	8.7	35.0	✓
70	9.1	34.6	✓
80	9.6	34.1	✓
90	10.0	33.7	✓
4200	10.2	33.5	✓
10	10.3	33.4	✓
20	10.6	33.1	✓

Plotted ✓

E4620

	#1 643.7		
4230	10.6	633.1	✓
40	10.6	33.1	✓
50	9.4	34.3	✓
60	9.2	34.5	✓
70	9.2	34.5	✓
80	8.7	35.0	✓
4290	8.1	35.6	✓
4303	8.0	35.7	✓
12	3.5	40.2	✓
	#2 660.43		
17	10.7	49.7	✓
25	4.7	55.7	✓
30	5.7	54.7	✓
39	5.7	54.7	✓
	675.7		
42	12.6	663.1	✓
50	13.4	662.3	✓

Plotted ✓

E 4630

	$\pi$		
4360	675.7	12.8	62.9 <sup>v</sup>
50		12.1	63.6 <sup>v</sup>
42		11.5	64.2 <sup>v</sup>
	$\pi$ 660.4		
38		0.2	60.2 <sup>v</sup>
37		3.6	56.8 <sup>v</sup>
31		6.2	54.2 <sup>v</sup>
22		5.9	54.5 <sup>v</sup>
18		5.3	55.1 <sup>v</sup>
	$\pi$ 643.7		
10		+1.1	44.8 <sup>v</sup>
07		+1.0	44.7 <sup>v</sup>
05		6.0	37.7 <sup>v</sup>
4300		7.1	36.6 <sup>v</sup>
4290		7.0	36.7 <sup>v</sup>
80		8.1	35.6 <sup>v</sup>
70		8.9	34.8 <sup>v</sup>
60		9.0	34.7 <sup>v</sup>
50		9.3	34.4 <sup>v</sup>

Plotted ↓

E 4630

	$\pi$		
4240	643.7	8.2	635.5 <sup>v</sup>
30		8.9	34.8 <sup>v</sup>
20		9.0	34.7 <sup>v</sup>
10		10.5	33.2 <sup>v</sup>
4200		10.1	33.6 <sup>v</sup>
4190		9.8	33.9 <sup>v</sup>
80		10.0	33.7 <sup>v</sup>
70		8.7	35.0 <sup>v</sup>
60		8.7	35.0 <sup>v</sup>
50		8.0	35.7 <sup>v</sup>
40		7.0	36.7 <sup>v</sup>
28		6.5	37.2 <sup>v</sup>
18		0.8	42.9 <sup>v</sup>
	$\pi$ 660.4		
10		16.6	43.8 <sup>v</sup>
4100		15.9	44.5 <sup>v</sup>

Plotted ↓



E 4640

	#2 660.4		
4100		10.7	649.7 ✓
10		10.2	50.2 ✓
20		10.8	49.6 ✓
24		11.3	49.1 ✓
	#1 643.7		
29		4.4	39.3 ✓
40		8.3	35.4 ✓
50		8.5	35.2 ✓
60		8.7	35.0 ✓
70	Plotted ✓	8.8	34.9 ✓
80		9.5	34.2 ✓
90		7.9	35.8 ✓
4200		7.3	36.4 ✓
10		7.7	36.0 ✓
20		7.8	35.9 ✓
30		8.4	35.3 ✓
40		9.0	34.7 ✓
50		9.7	34.0 ✓
60		9.2	34.5 ✓

E 4640

	#1 643.7			
4270		9.2	34.5 ✓	
80		8.0	35.7 ✓	
90		7.0	36.7 ✓	
4297		4.9	38.8 ✓	
	#2 660.4			
4310		5.6	54.8 ✓	
16		6.0	54.4 ✓	
26	Plotted ✓	5.4	55.0 ✓	
33		2.0	58.4 ✓	
		π 675.7		
38		9.1	66.6 ✓	
43		10.3	65.4 ✓	
60		11.6	64.1 ✓	
70		11.5	64.2 ✓	
	E 4650			
4380		7.8	67.9 ✓	
70		9.0	66.7 ✓	
65		10.7	65.0 ✓	
50		9.7	66.0 ✓	

E 4650

4340	675.7	8.9	666.8	✓
35		7.4	68.3	✓
33		8.8	66.9	✓
32		14.7	61.0	✓
	+2 660.4			
20		4.4	56.0	✓
10		5.5	54.9	✓
4300		4.6	55.8	✓
4293		3.7	56.7	✓
89		4.5	55.9	✓
80		16.7	43.7	✓
	#1 643.7			
70		3.4	40.3	✓
60		5.8	37.9	✓
50		7.1	36.6	✓
40		8.6	35.1	✓
30		8.9	34.8	✓
20		8.6	34.1	✓
10		8.5	34.2	✓

E 4650

42.00	#1 643.7	7.5	636.2	✓
4190		7.4	36.3	✓
80		8.4	35.3	✓
70		9.1	34.6	✓
60		8.5	35.2	✓
50		7.1	36.6	✓
38		6.8	36.9	✓
31		2.6	41.1	✓
	#2 660.4			
26		8.5	51.9	✓
20		5.8	54.6	✓
10		5.7	54.7	✓
4100		5.3	55.1	✓
	E 4660			
4100		+0.3	60.7	✓
10		+1.1	61.5	✓
20		1.1	59.3	✓
28		1.6	58.8	✓
30		4.9	55.5	✓

E 4660

4136	#1 643.7	0.8	642.9	✓
41		2.4	41.3	✓
50		2.1	41.6	✓
60		1.2	42.5	✓
70		6.4	37.3	✓
80		6.1	37.6	✓
90		7.8	35.9	✓
4200		6.5	37.2	✓
10	Plotted ✓	7.5	36.2	✓
20		6.7	37.0	✓
30		5.1	38.6	✓
40		3.5	40.2	✓
50		1.2	42.5	✓
60	#2 660.4	13.1	47.3	✓
75		6.1	54.3	✓
79		1.8	58.6	✓
90		3.3	57.1	✓
4300		3.7	56.7	✓

E 4660

4310	#2 660.4	4.4	656.0	✓
	X 675.7			
30		10.7	65.0	✓
32		6.6	69.1	✓
40		7.8	67.9	✓
50	Plotted ✓	8.5	67.2	✓
60		9.4	66.3	✓
70		7.5	68.2	✓
80		7.0	68.7	✓
85		5.9	69.8	✓

E 4670

4380		5.7	70.0	✓
70		3.7	72.0	✓
60		7.6	68.1	✓
50		7.6	68.1	✓
40		6.7	69.0	✓
30		5.3	70.4	✓
22		3.9	71.8	✓
13		13.5	62.2	✓
08		10.3	65.4	✓

E4670

4297	π	675.7	15.4	660.3 ✓
90			17.3	58.4 ✓
80			17.0	58.7 ✓
70			16.0	59.7 ✓
62			15.5	60.2 ✓

#2  
660.4

52			4.4	56.0 ✓
32			4.2	56.2 ✓
18			9.1	51.3 ✓

#1  
643.7

4205			0.6	43.1 ✓
4190			2.6	41.1 ✓
80			1.5	42.2 ✓

#2  
660.4

70			13.0	47.4 ✓
60			10.6	49.8 ✓
46			10.5	49.9 ✓
38			8.8	51.6 ✓

Plotted

E4670

4135	π	675.7	14.7	661.0
33			10.7	65.0
30			10.2	65.5
20			10.9	64.8
10			8.4	67.3

Plotted

E4680

4110			5.3	70.4
20			5.9	69.8
30			5.4	70.3
42			8.4	67.3

#2  
660.4

47			2.5	57.9
50			4.3	56.1
60			4.1	56.3
70			8.1	52.3
4179			8.4	52.0

Plotted

π  
675.7

4230			10.1	65.6
40			10.7	65.0

E 4680

	X			
4250	675.69	11.6	66.41	✓
60		13.5	62.2	✓
73		11.3	64.4	✓
T.P.		0.84	674.85	✓
	9.46	4. "A"	684.31	✓
85		9.6	74.7	✓
90		9.0	75.3	✓
4300		8.2	76.1	✓
10		10.1	74.2	✓
20		12.1	72.2	✓
30		13.3	71.0	✓
40		14.2	70.1	✓
50		14.6	69.7	✓
60		12.9	71.4	✓
69		11.8	72.5	✓
T.P.		0.38	683.93	✓
	12.75	4. "B"	696.68	✓
Check B.M.		0.34	696.34	696.36
76		11.7	685.0	✓
86		10.0	86.7	✓

E 4690

	B			
4379	696.7	8.9	687.8	✓
73		11.2	85.5	✓
	684.3	A		
68		10.6	73.7	✓
60		8.0	76.3	✓
50		9.9	74.4	✓
40		12.6	71.7	✓
30		12.5	71.8	✓
20		11.5	72.8	✓
10		10.0	74.3	✓
4300		8.9	75.4	✓
4290		7.4	76.9	✓
80		6.5	77.8	✓
70		4.9	79.4	✓
57		6.5	77.8	✓
	675.7	X		
54		11.4	64.3	✓
50		10.4	65.3	✓
40		9.8	65.9	✓

E 4690

	A		
4230	675.7	7.2	668.5 ✓
20		8.6	67.1 ✓
10		6.7	69.0 ✓
4200		6.9	68.8 ✓
4192		6.6	69.1 ✓
91		1.0	74.7 ✓ Reck
86		1.5	74.2 ✓
85		6.1	69.6 ✓
80		4.9	70.8 ✓
74		3.5	72.2 ✓
59		9.7	66.0 ✓
50		3.5	72.2 ✓
40		+0.9	76.6 ✓
	A		
	684.3		
30		5.8	78.5 ✓
	B,		
	696.7		
20		9.8	86.9 ✓
10		9.7	87.0 ✓

Plotted ✓

E 4700

	B		
4110	696.7	3.9	692.8 ✓
20		4.8	91.9 ✓
30		9.8	86.9 ✓
40		11.9	84.8 ✓
	A		
	684.3		
47		2.1	82.2 ✓
	A		
	675.7		
57		0.1	75.6 ✓
69		+1.4	77.1 ✓
80		3.4	72.3 ✓
90		4.2	71.5 ✓
91		2.1	73.6 ✓ Back
95		2.0	73.7 ✓ "
96		5.0	70.7 ✓
4200		5.5	70.2 ✓
10		5.1	70.6 ✓
20		4.9	70.8 ✓
30		4.5	71.2 ✓

Plotted ✓

E 4700

	A		
4235	684.3	2.1	82.2 ✓
40		1.4	82.9 ✓
50		3.3	81.0 ✓
60		3.9	80.4 ✓
70		5.0	79.3 ✓
80		6.3	78.0 ✓
90		7.4	76.9 ✓
4300		8.5	75.8 ✓
10		9.6	74.7 ✓
20		10.6	73.7 ✓
30		11.4	72.9 ✓
40		11.8	72.5 ✓
50		7.0	77.3 ✓
55		4.4	79.9 ✓
64		7.2	77.1 ✓
	B.		
	696.7		
70		10.0	86.7 ✓
80		6.6	90.1 ✓

plotted ✓

E 4710

	B.		
4385	696.7	3.3	693.4 ✓
75		6.4	90.3 ✓
	A		
	684.3		
71		6.0	78.3 ✓
60		3.8	80.5 ✓
50		10.6	73.7 ✓
40		10.9	73.4 ✓
30		10.7	73.6 ✓
20		9.9	74.4 ✓
10		9.1	75.2 ✓
4300		8.2	76.1 ✓
4290		7.1	77.2 ✓
80		5.9	78.4 ✓
70		4.9	79.4 ✓
60		3.9	80.4 ✓
50		2.9	81.4 ✓
40		1.6	82.7 ✓
30		0.4	83.9 ✓

plotted ✓

E 4710

4220 B. 696.7 10.5 686.2 ✓

10 10.3 86.4 ✓

A  
684.3

4196 7.1 77.2 ✓

83 5.4 78.9 ✓

B  
696.68

73 9.2 87.5 ✓

53 12.2 84.5 ✓

0.13 696.55 ✓

New T. H.I.

1081 707.36 ✓

37 12.7 694.7 ✓

30 12.0 95.4 ✓

20 10.8 96.6 ✓

10 9.8 97.6 ✓

E 4720

4110 4.9 702.5 ✓

20 4.6 702.8 ✓

30 5.3 702.1 ✓

40 9.1 698.3 ✓

Plo Hed ✓

E 4720

4150 707.4 12.4 695.0 ✓

60 12.6 694.8 ✓

70 11.5 695.9 ✓

B.  
696.7

80 4.0 692.7 ✓

90 4.2 92.5 ✓

4200 7.1 89.6 ✓

10 9.1 87.6 ✓

20 11.1 85.6 ✓

30 12.5 84.2 ✓

A  
684.3

40 1.3 83.0 ✓

50 2.8 81.5 ✓

60 3.8 80.5 ✓

70 4.5 79.8 ✓

80 5.3 79.0 ✓

90 6.8 77.5 ✓

4300 8.0 76.3 ✓

10 8.8 75.5 ✓

Plo Hed ✓



E 4720

4320	A	684.3	9.6	674.7 ✓
30			10.2	74.1 ✓
40			10.2	74.1 ✓
45			10.4	73.9 ✓
50			7.3	77.0 ✓
	B.	696.7		
60			13.1	83.6 ✓
74			11.1	85.6 ✓
77			2.5	94.2 ✓
	π	707.4		
90			9.3	698.1 ✓

End Mar 22-1934

Cont. See. FB 467-1

Plotted.

All Alen in this Book  
OK for Plotting  
C. H. H.

1382484

1395431

71

1895404

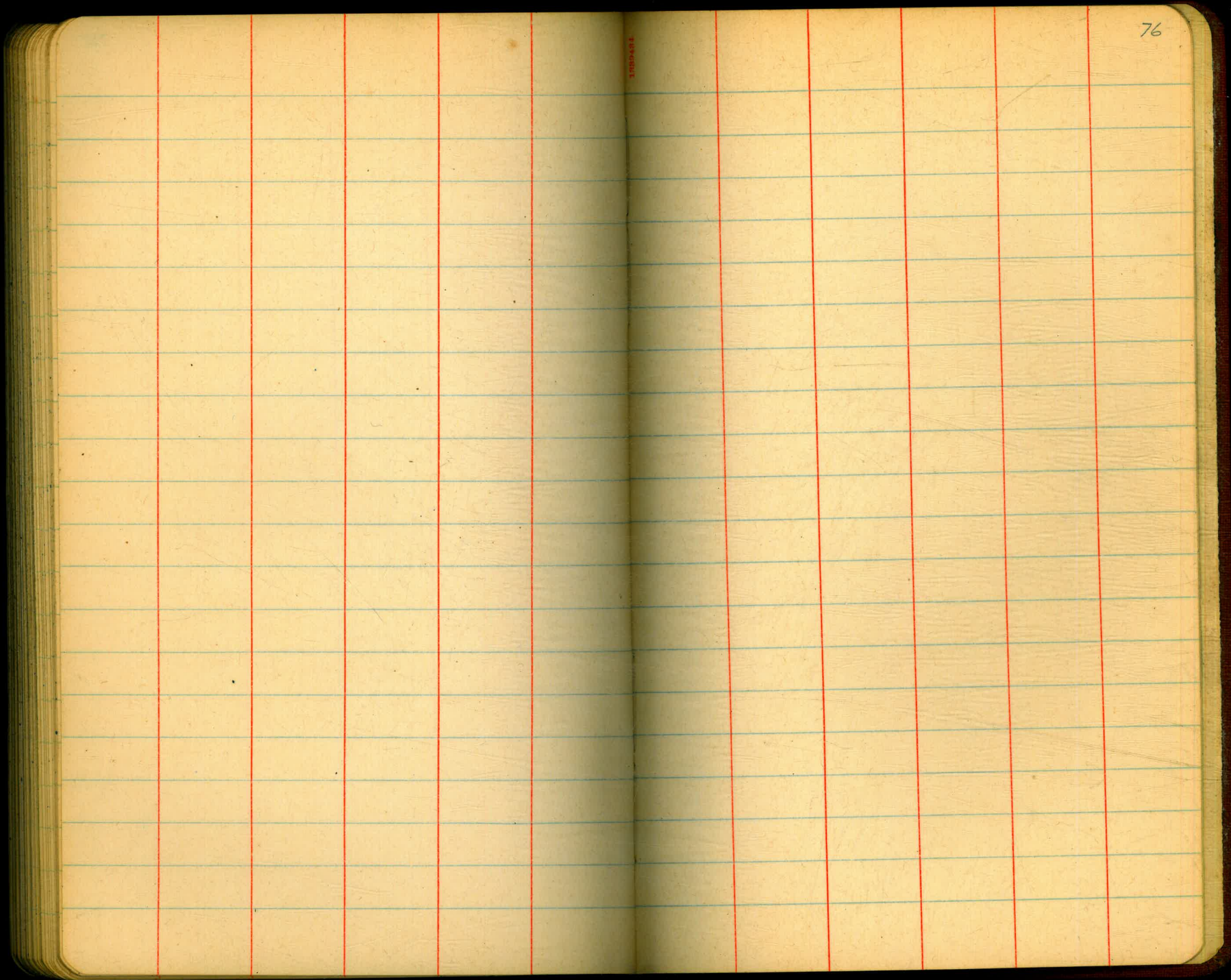
72



1055/431

74

1886-1887











Intersections of castings  
with 7+40

East North

4820 4131.13

4810 4159.04

4800 4186.95

4790 4214.86

4780 4242.77

4770 4270.68

4760 4298.60

4750 4326.50

4740 4354.41

4730 4382.32

0+20W

0+25

0+30W

0+35

0+40W

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

ROADWAY 14 FEET WIDE. SIDE SLOPES 1 1/2 TO 1.

FOR SINGLE TRACK EMBANKMENT.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	7.0	7.2	7.3	7.5	7.6	7.8	7.9	8.1	8.2	8.4	0
1	8.5	8.7	8.8	9.0	9.1	9.3	9.4	9.6	9.7	9.9	1
2	10.0	10.2	10.3	10.5	10.6	10.8	10.9	11.1	11.2	11.4	2
3	11.5	11.7	11.8	12.0	12.1	12.3	12.4	12.6	12.7	12.9	3
4	13.0	13.2	13.3	13.5	13.6	13.8	13.9	14.1	14.2	14.4	4
5	14.5	14.7	14.8	15.0	15.1	15.3	15.4	15.6	15.7	15.9	5
6	16.0	16.2	16.3	16.5	16.6	16.8	16.9	17.1	17.2	17.4	6
7	17.5	17.7	17.8	18.0	18.1	18.3	18.4	18.6	18.7	18.9	7
8	19.0	19.2	19.3	19.5	19.6	19.8	19.9	20.1	20.2	20.4	8
9	20.5	20.7	20.8	21.0	21.1	21.3	21.4	21.6	21.7	21.9	9
10	22.0	22.2	22.3	22.5	22.6	22.8	22.9	23.1	23.2	23.4	10
11	23.5	23.7	23.8	24.0	24.1	24.3	24.4	24.6	24.7	24.9	11
12	25.0	25.2	25.3	25.5	25.6	25.8	25.9	26.1	26.2	26.4	12
13	26.5	26.7	26.8	27.0	27.1	27.3	27.4	27.6	27.7	27.9	13
14	28.0	28.2	28.3	28.5	28.6	28.8	28.9	29.1	29.2	29.4	14
15	29.5	29.7	29.8	30.0	30.1	30.3	30.4	30.6	30.7	30.9	15
16	31.0	31.2	31.3	31.5	31.6	31.8	31.9	32.1	32.2	32.4	16
17	32.5	32.7	32.8	33.0	33.1	33.3	33.4	33.6	33.7	33.9	17
18	34.0	34.2	34.3	34.5	34.6	34.8	34.9	35.1	35.2	35.4	18
19	35.5	35.7	35.8	36.0	36.1	36.3	36.4	36.6	36.7	36.9	19
20	37.0	37.2	37.3	37.5	37.6	37.8	37.9	38.1	38.2	38.4	20
21	38.5	38.7	38.8	39.0	39.1	39.3	39.4	39.6	39.7	39.9	21
22	40.0	40.2	40.3	40.5	40.6	40.8	40.9	41.1	41.2	41.4	22
23	41.5	41.7	41.8	42.0	42.1	42.3	42.4	42.6	42.7	42.9	23
24	43.0	43.2	43.3	43.5	43.6	43.8	43.9	44.1	44.2	44.4	24
25	44.5	44.7	44.8	45.0	45.1	45.3	45.4	45.6	45.7	45.9	25
26	46.0	46.2	46.3	46.5	46.6	46.8	46.9	47.1	47.2	47.4	26
27	47.5	47.7	47.8	48.0	48.1	48.3	48.4	48.6	48.7	48.9	27
28	49.0	49.2	49.3	49.5	49.6	49.8	49.9	50.1	50.2	50.4	28
29	50.5	50.7	50.8	51.0	51.1	51.3	51.4	51.6	51.7	51.9	29
30	52.0	52.2	52.3	52.5	52.6	52.8	52.9	53.1	53.2	53.4	30
31	53.5	53.7	53.8	54.0	54.1	54.3	54.4	54.6	54.7	54.9	31
32	55.0	55.2	55.3	55.5	55.6	55.8	55.9	56.1	56.2	56.4	32
33	56.5	56.7	56.8	57.0	57.1	57.3	57.4	57.6	57.7	57.9	33
34	58.0	58.2	58.3	58.5	58.6	58.8	58.9	59.1	59.2	59.4	34
35	59.5	59.7	59.8	60.0	60.1	60.3	60.4	60.6	60.7	60.9	35
36	61.0	61.2	61.3	61.5	61.6	61.8	61.9	62.1	62.2	62.4	36

Calculated by Julien A. Hall, M. Am. Soc. C. E.

MADE IN GERMANY.

Buy American