

W
370

EUGENE DIETZGEN CO.

DRAWING MATERIALS, MATHEMATICAL and SURVEYING INSTRUMENTS

Chicago New York San Francisco New Orleans Pittsburg Toronto

Distances from Center of Roadway for Cross-Sectioning
Roadway 16 feet wide. Side Slopes 1 on 1.
For Single Track Embankment.

MICROFILMED

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
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
37	46.0	46.1	46.2	46.3	46.4	46.5	46.6	46.7	46.8	46.9	37
38	47.0	47.1	47.2	47.3	47.4	47.5	47.6	47.7	47.8	47.9	38
39	48.0	48.1	48.2	48.3	48.4	48.5	48.6	48.7	48.8	48.9	39
40											40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 30.6. For same slopes but other widths of roadbed, correct above figures by one-half difference in width of roadbed; thus in example above, for 20 ft. roadbed distance will be 30.6 + (20 - 16) * 2 or 2 ft. added to 30.6 = 32.6. For slopes of 1 on 1½ see inside of back cover.

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EL CAPITAN

Levels from Contour Map

St 4090 - 4250

1-80

E	N4090	Cont from F Book
4460	598.6	✓
70	98.4	✓
80	97.9	✓
90	96.8	✓
4500	93.5	✓
10	800.4	✓
20	03.4	✓
30	05.4	✓
40	08.0	✓
50	11.2	✓
60	14.5	✓
70	17.6	✓
80	21.0	✓
90	26.5	✓
4600	31.2	✓
10	37.0	✓
20	39.8	✓
30	45.2	✓
40	49.8	✓
50	56.4	✓
60	61.4	✓
70	66.0	✓
80	71.1	✓
90	83.1	✓
4700	90.1	✓

Not on Dam Sec. #1

These are Original ground and ch as for as used on Dam Sections

U.S.G.S. Datum-

11

E.

47 10	6 954 ✓
20	7 00.6 ✓
30	06.3 ✓
40	10.5 ✓
50	21.7 ✓
60	25.1 ✓
70	27.7 ✓
80	31.1 ✓
90	34.7 ✓
48 00	46.0 ✓
10	49.6 ✓
20	55.4 ✓
30	58.0 ✓
40	60.8 ✓
50	64.2 ✓
60	67.7 ✓
70	69.1 ✓
80	69.0 ✓
90	68.9 ✓
49 00	69.9 ✓
10	71.1 ✓
20	69.4 ✓
30	66.9 ✓
40	63.8 ✓
50	61.2 ✓

See
H

Not on Dam

at Plotting
2000

N.4090

3

E.

4960

757.8 ✓

70

51.9 ✓

80

46.5 ✓

90

43.5 ✓

50 00

39.8 ✓

10

34.2 ✓

20

31.9 ✓

30

26.7 ✓

40

22.7 ✓

50

18.6 ✓

60

14.4 ✓

70

10.8 ✓

80

07.5 ✓

90

704.4 ✓

51 00

699.3 ✓

10

96.9 ✓

20

94.1 ✓

30

90.5 ✓

40

85.0 ✓

50

81.9 ✓

60

77.0 ✓

70

73.7 ✓

80

67.3 ✓

90

69.0 ✓

52 00

70.3 ✓

N.4090

E

52 10

672.3 ✓

20

71.0 ✓

30

69.5 ✓

40

67.3 ✓

50

66.3 ✓

60

63.1 ✓

70

61.2 ✓

80

61.2 ✓

90

59.3 ✓

53 00

55.3 ✓

10

53.1 ✓

20

49.7 ✓

30

47.6 ✓

40

44.8 ✓

4

E.

4460

599.7 ✓

70

99.3 ✓

80

98.5 ✓

90

95.0 ✓

4500

597.1 ✓

10

600.0 ✓

20

03.1 ✓

30

05.8 ✓

40

08.6 ✓

50

11.6 ✓

60

14.7 ✓

70

17.9 ✓

80

21.5 ✓

90

25.8 ✓

4600

30.0 ✓

10

36.1 ✓

20

39.8 ✓

30

44.5 ✓

40

49.4 ✓

50

54.9 ✓

60

60.6 ✓

70

66.0 ✓

80

72.7 ✓

90

79.2 ✓

4700

89.6 ✓

Not on Dam See H.

E.

47 10	695.2	✓
20	98.6	✓
30	701.8	✓
40	09.0	✓
50	18.8	✓
60	23.5	✓
70	26.8	✓
80	31.8	✓
90	36.2	✓
4800	45.5	✓
10	50.9	✓
20	57.2	✓
30	59.9	✓
40	63.8	✓
50	66.2	✓
60	70.2	✓
70	73.8 72.8	✓ ✓
80	77.2	✓
90	76.7	✓
4900	76.2	✓
10	74.9	✓
20	73.5	✓
30	69.9	✓
40	67.8	✓
50	64.5	✓

not on same
level

B 339 P 14

N. 4100

E.

4960	760.7	✓
70	56.0	✓
80	52.0	✓
90	49.9	✓
50 00	43.6	✓
10	38.6 — 48.6	✓ ✓
20	35.5	✓
30	31.7	✓
40	26.4	✓
50	22.3	✓
60	18.5	✓
70	14.3	✓
80	11.0	✓
90	07.2	✓
51 00	03.3	✓
10	700.9	✓
20	697.9	✓
30	93.2	✓
40	88.5	✓
50	82.7	✓
60	79.6	✓
70	75.2	✓
80	72.1	✓
90	74.4	✓
52 00	76.8	✓

7

B339 P30

N. 4100

8

F.

52 10

677.0 ✓

20

75.5 ✓

30

73.3 ✓

40

71.6 ✓

50

69.9 ✓

60

66.8 ✓

70

64.9 ✓

80

64.7 ✓

90

63.1 ✓

5300

10

57.0

E

4460	600.9	✓
70	00.3	✓
80	599.3	✓
90	96.2	✓
4500	98.5	✓
10	601.9	✓
20	04.4	✓
30	06.8	✓
40	09.2	✓
50	11.6	✓
60	15.4	✓
70	18.5	✓
80	21.9	✓
90	25.4	✓
4600	29.9	✓
10	35.5	✓
20	39.4	✓
30	43.8	✓
40	50.1	✓
50	54.7	✓
60	62.0	✓
70	67.5	✓
80	70.8	✓
90	81.6	✓
4700	86.1	✓

Not on same scale
H.

4710	6920	✓	
20	98.9	✓	
30	702.1	✓	
40	075	✓	
50	14.5	✓	
60	20.7	✓	
70	26.2	✓	
80	30.5	✓	
90	39.8	✓	
4800	46.0	✓	
10	50.4	✓	
20	54.9	✓	
30	60.9	✓	
40	65.2	✓	
50	68.9	✓	
60	72.6	✓	
70	74.7	✓	
80	79.2	✓	
90	81.0	✓	
4900	81.7	✓	
10	79.0	✓	
20	74.9	✓	
30	71.6	✓	
40	70.6	✓	
50	67.2	✓	

Not on Dam Sec H



N4110

E		
4960	762.3	✓
70	58.3	✓
80	56.5	✓
90	50.5	✓
5000	47.2	✓
10	42.6	✓
20	39.5	✓
30	33.9	✓
40	30.3	✓
50	26.4	✓
60	22.7	✓
70	18.9	✓
80	14.5	✓
90	11.1	✓
5100	08.2	✓
10	03.0	✓
20	701.4	✓
30	697.8	✓
40	92.4	✓
50	88.7	✓
60	81.9	✓
70	78.2	✓
80	77.3	✓
90	80.2	✓
5200	82.5	✓

N4110

12

52 10

681.8 ✓

20

80.0 ✓

30

77.2 ✓

40

75.0 ✓

50

73.1 ✓

60

70.8 ✓

70

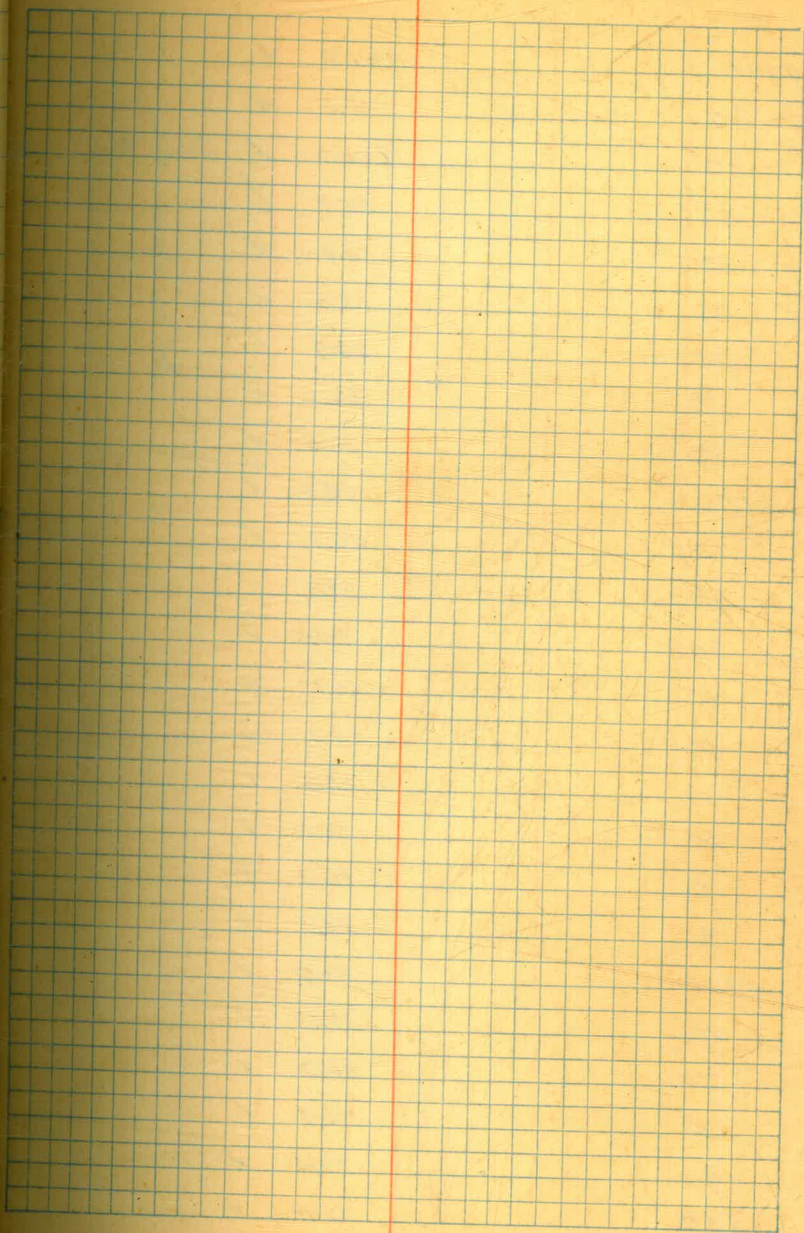
69.3 ✓

80

67.8 ✓

E			
4460		602.0	✓
70		01.2	✓
80		600.2	✓
90		596.8	✓
4500		600.3	✓
10		02.4	✓
20		05.5	✓
30		08.3	✓
40		10.6	✓
50		12.8	✓
60		16.2	✓
70		19.6	✓
80		22.5	✓
90		26.0	✓
4600		30.3	✓
10		34.9	✓
20		39.3	✓
30		43.8	✓
40		49.9	✓
50		54.4	✓
60		59.3	✓
70		65.1	✓
80		75.7	✓
90		78.4	✓
4700		84.5	✓

Not on Dam Sec.
H



E			
4710	691.0	✓	
20	98.1	✓	
30	702.0	✓	
40	08.9	✓	
50	14.9	✓	
60	19.3	✓	
70	24.9	✓	
80	32.2	✓	
90	37.5	✓	
4800	45.0	✓	
10	50.7	✓	
20	54.4	✓	
30	59.5	✓	
40	66.7	✓	
50	68.7	✓	
60	73.2	✓	
70	76.0	✓	
80	80.2	✓	
90	82.1	✓	
4900	84.0	✓	
10	84.0	✓	
20	81.0	✓	
30	75.9	✓	
40	72.6	✓	
50	68.4	✓	

Not on Dam Sec. H

✓

E			
4960		765.8	✓
70		61.3	✓
80	58.1	58.9	✓ ✓
90		54.5	✓
5000		49.5	✓
10		45.5	✓
20		42.5	✓
30		38.6	✓
40		34.0	✓
50		30.0	✓
60		25.2	✓
70		22.8	✓
80		18.2	✓
90		15.0	✓
5100		11.0	✓
10		07.7	✓
20		04.0	✓
30		699.6	✓
40		95.2	✓
50		91.3	✓
60		85.7	✓
70		80.7	✓
80		83.6	✓
90		85.1	✓
5200		87.2	✓

B 339 P11

N4120

5210

686.0 ✓

20

83.8 ✓

30

81.4 ✓

40

79.0 ✓

50

77.2 ✓

60

74.3 ✓

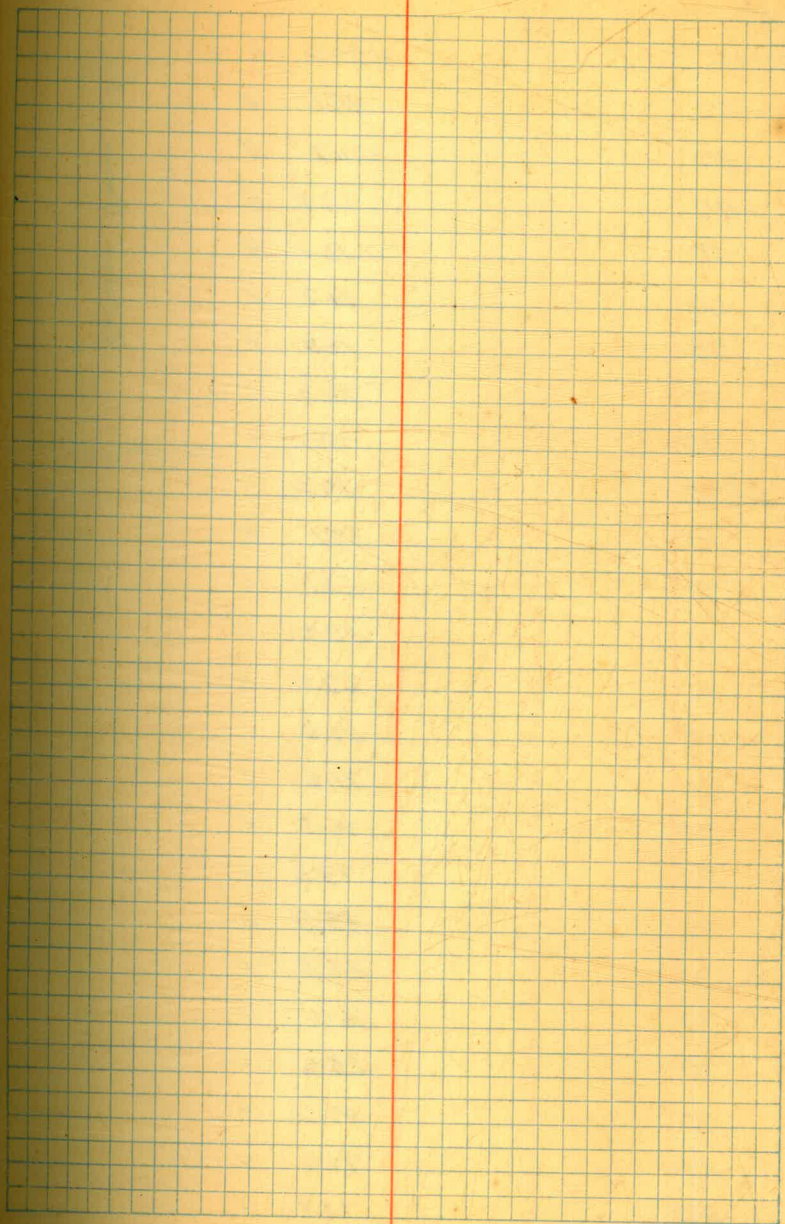
70

73.3 ✓

✓

E			
44 60	603.1	✓	
70	02.1	✓	
80	01.1	✓	
90	596.7	✓	
4500	601.1	✓	
10	04.2	✓	
20	07.4	✓	
30	09.0	✓	
40	11.9	✓	
50	14.0	✓	
60	17.8	✓	
70	21.8	✓	
80	23.3	✓	
90	26.4	✓	
4600	30.5	✓	
10	35.5	✓	
20	39.7	✓	
30	43.9	✓	
40	49.6	✓	
50	53.6	✓	
60	58.8	✓	
70	64.7	✓	
80	69.5	✓	
90	75.1	✓	
4700	82.1	✓	

Not on Dam See H



F			
4710	690.6	✓	
20	98.5	✓	
30	701.2	✓	
40	02.8	✓	
50	13.1	✓	
60	21.7	✓	
70	24.9	✓	
80	32.3	✓	
90	38.3	✓	
4800	44.3	✓	
10	50.1	✓	
20	55.1	✓	
30	59.9	✓	
40	62.6	✓	
50	67.9	✓	
60	71.6	✓	
70	76.5	✓	
80	79.3	✓	
90	85.9	✓	
4900	85.8	✓	
10	86.0	✓	
20	83.6	✓	
30	83.6	✓	
40	77.6	✓	
50	74.8	✓	

Not on Dam Sec. H



N4130

E

49.60	769.9	✓
70	64.6	✓
80	63.3	✓
90	58.5	✓
5000	53.5	✓
10	49.2	✓
20	46.6	✓
30	42.9	✓
40	38.5	✓
50	34.5	✓
60	30.6	✓
70	27.0	✓
80	23.4	✓
90	19.0	✓
5100	14.9	✓
10	11.0	✓
20	06.4	✓
30	703.9	✓
40	698.9	✓
50	95.4 55.1	✓
60	88.7	✓
70	84.4	✓
80	90.3	✓
90	92.0	✓
5200	91.2	✓

E 339 - P 24

95

E

N4130

5210

689.2 ✓

20

87.1 ✓

30

85.0 ✓

40

83.3 ✓

50

80.1 ✓

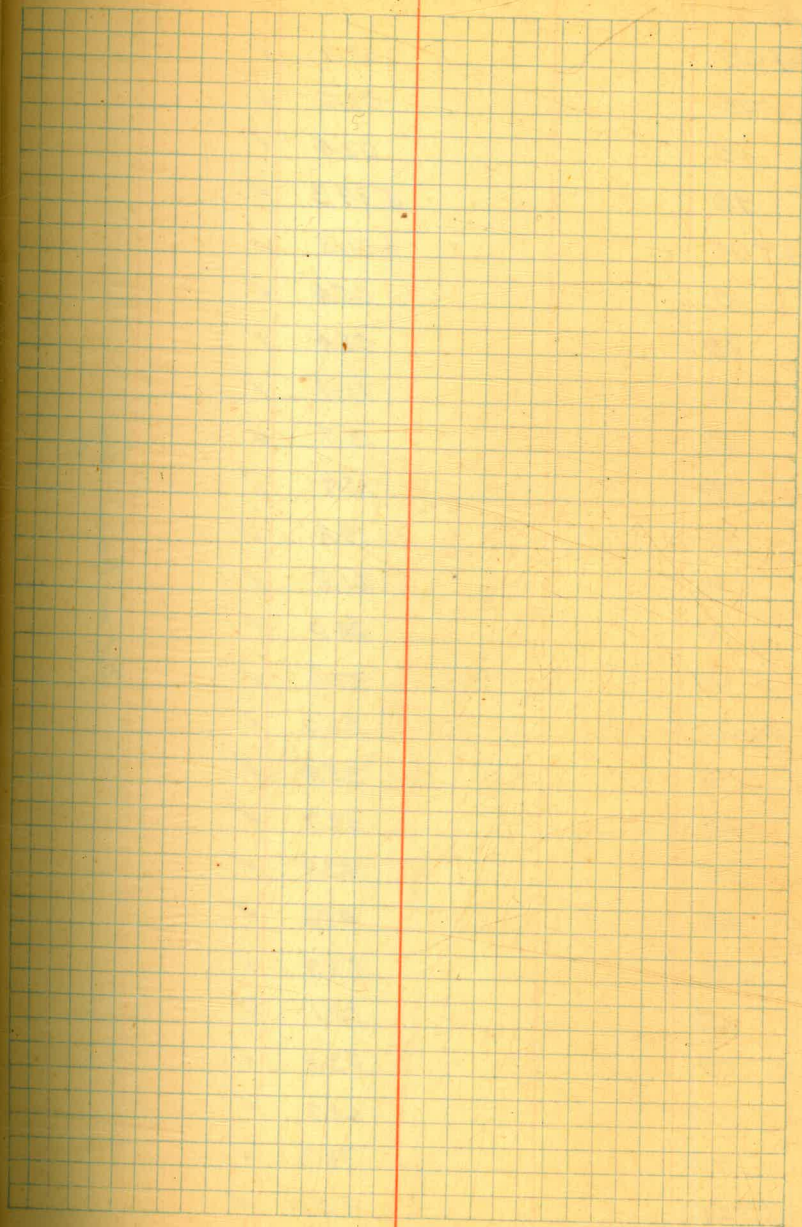
60

79.5 ✓

70

77.8 ✓

20

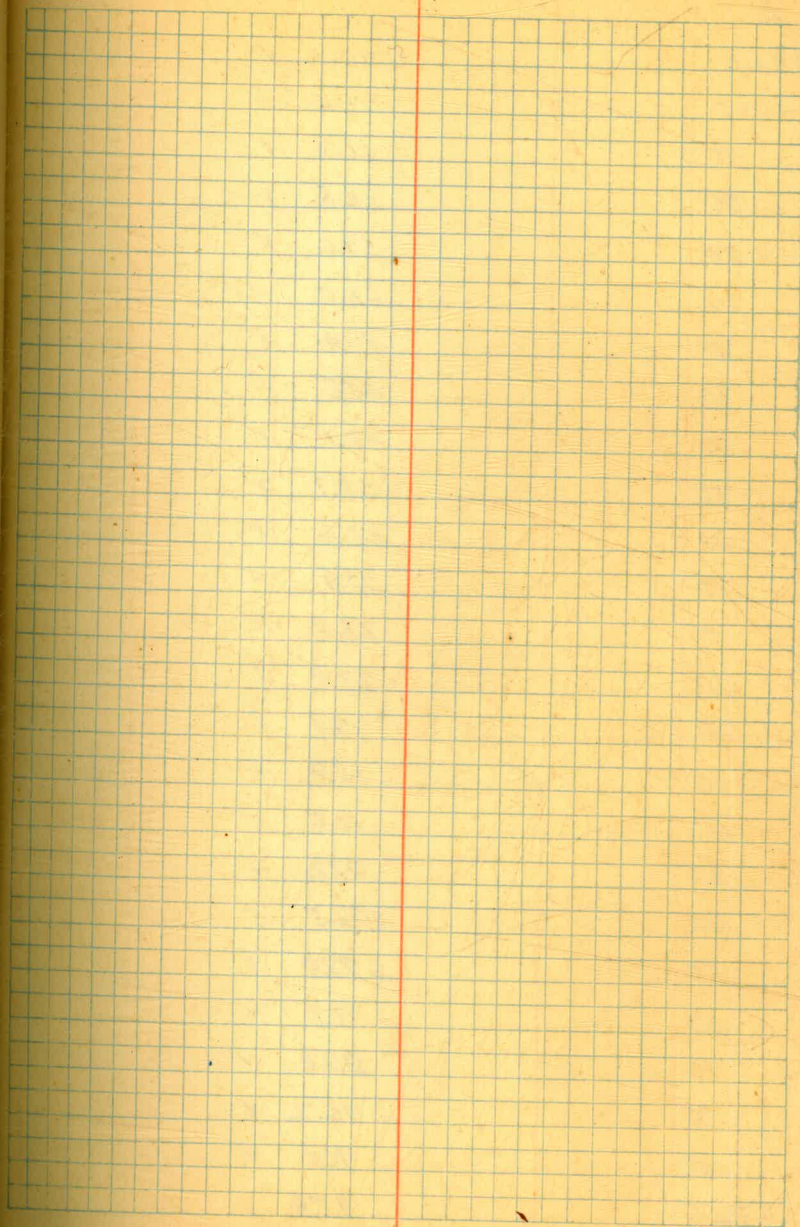


E			
4400		603.9	✓
70		03.0	✓
80		02.4	✓
90		599.3	✓
4500		601.8	✓
10		05.4	✓
20		08.4	✓
30		11.1	✓
40		13.7	✓
50		15.9	✓
60		19.4	✓
70		21.8	✓
80		24.0	✓
90		27.6	✓
4600		31.0	✓
10		35.4	✓
20		39.7	✓
30		43.9	✓
40		48.2	✓
50		52.9	✓
60		58.1	✓
70		63.8	✓
80		68.7	✓
90		73.3	✓
4700		80.0	✓

Not on dam
See #

E

4710	686.6	✓
20	97.2	✓
30	98.9	✓
40	702.5	✓
50	16.5	✓
60	20.7	✓
	17.5	✓
70	22.4	✓
80	33.2	✓
	33.3	✓
90	42.8	✓
4800	44.3	✓
10	51.1	✓
20	55.1	✓
30	59.9	✓
40	62.1	✓
50	66.9	✓
60	71.4	✓
70	76.1	✓
80	79.0	✓
90	86.4	✓
4900	88.3	✓
10	88.1	✓
20	87.3	✓
30	84.0	✓
40	81.9	✓
50	78.3	✓

Not on Dam Sec.
H.

N4140

E

4960	774.6	✓
70	71.4	✓
80	66.4	✓
90	62.8	✓
5000	59.0	✓
10	53.0	✓
20	50.4	✓
30	45.8	✓
40	42.1	✓
50	38.7	✓
60	35.2	✓
70	30.9	✓
80	28.0	✓
90	23.8	✓
5100	19.1	✓
10	15.9	✓
20	11.6	✓
30	07.2	✓
40	702.5	✓
50	697.9	✓
60	91.7	✓
70	90.8	✓
80	96.2	✓
90	96.0	✓
5200	95.4	✓

N4170

P.O.

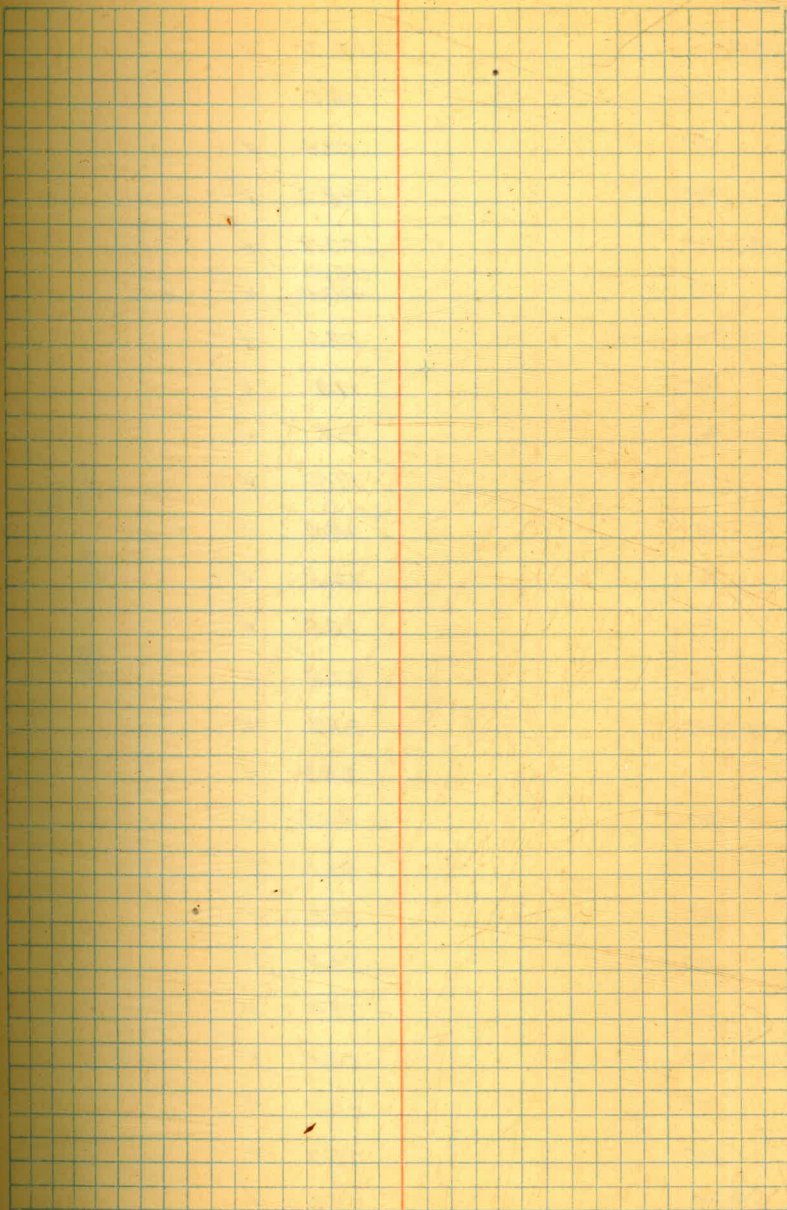
5210	692.7	✓
20	91.4	✓
30	89.6	✓
40	86.3	✓
50	84.5	✓
60	83.5	✓
70	82.3	✓
80	81.0	✓
90	80.7	✓
5300	77.2	✓
10	72.0	✓
20	68.3	✓
30	62.2	✓
40	59.6	✓
50	64.5	✓
60	70.5	✓
70	72.7	✓
80	73.4	✓
90	75.2	✓
5400	75.8	✓
10	77.4	✓
20	79.2	✓
30	81.3	✓
40	84.4	✓
50	88.1	✓

Not on Dam Sec.
H.

N 4140

E			
5460		687.5	✓
70		86.3	✓
80		84.1	✓
90		75.0	✓
5500		60.9	✓
10		59.9	✓
20		55.9	✓
30		61.8	✓
40		61.6	✓
50		62.3	✓
60		70.2	✓
70		74.8	✓
80		80.6	✓
90		86.5	✓
5600		93.5	✓
10			
20			
30			
40			
50			
60			
70			
80			
90			
5700			

Not on Damu Sec.
H.



E

N4150

1460	605.2	✓
70	04.0	✓
80	034	✓
90	598.0	✓
4500	602.7	✓
10	06.0	✓
	07.0	✓
20	086	✓
30	11.9	✓
40	13.9	✓
50	17.2	✓
60	20.0	✓
	20.1	✓
70	22.8	✓
80	25.0	✓
90	27.8	✓
4600	31.7	✓
10	35.3	✓
20	41.5	✓
30	43.1	✓
40	48.3	✓
50	53.8	✓
60	57.4	✓
70	63.1	✓
80	67.4	✓
90	73.2	✓
4700	79.6	✓

Not on same scale
H

E

4710

684.9 ✓

20

90.6 ✓

30

98.7 ✓

40

702.8 ✓

50

09.5 ✓

60

18.9 ✓

70

22.6 ✓

80

33.8 ✓

90

38.0 ✓

4800

44.2 ✓

10

48.2 ✓

20

54.7 ✓

30

59.2 ✓

40

62.3 ✓

50

64.7 ✓

60

70.0 ✓

70

75.6 ✓

80

82.4 ✓

90

87.5 ✓

4900

90.9 ✓

10

89.7 ✓

20

91.3 ✓

30

86.7 ✓

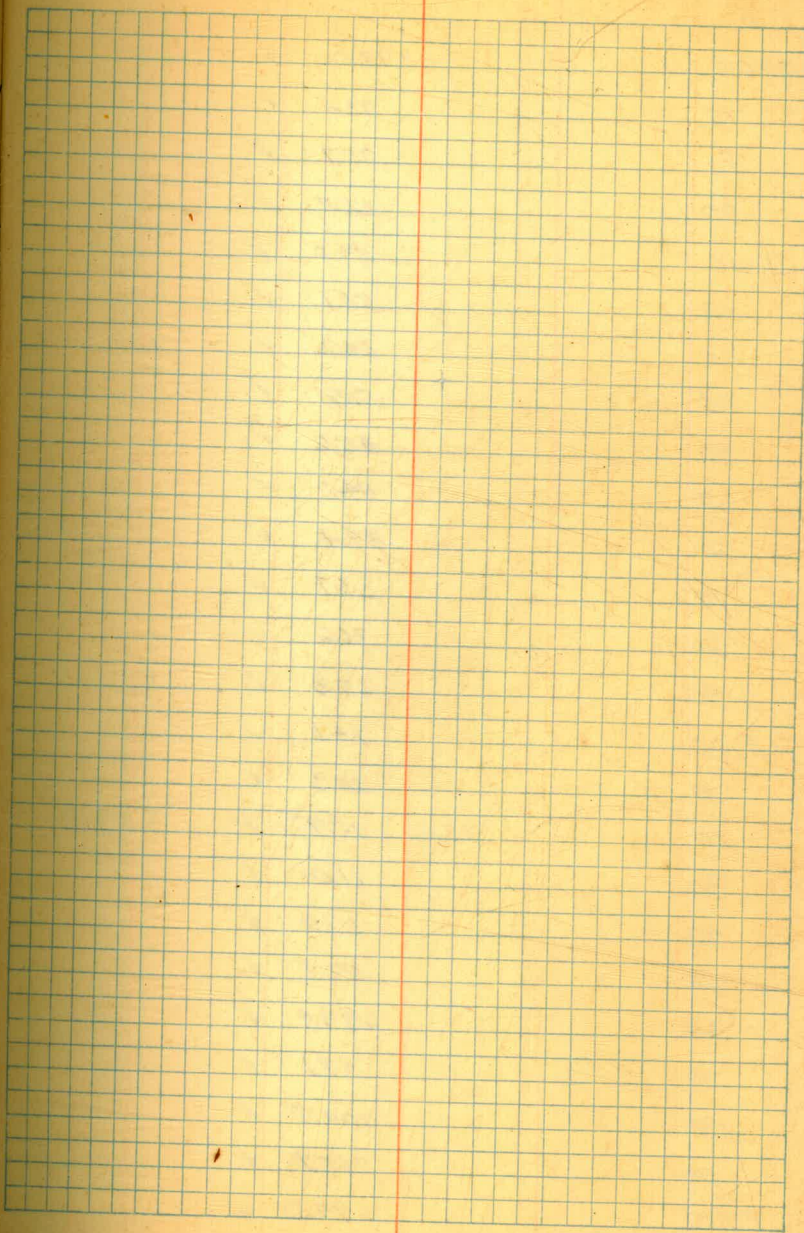
40

85.2 ✓

50

81.2 ✓

Not on Bam. Sec. 4

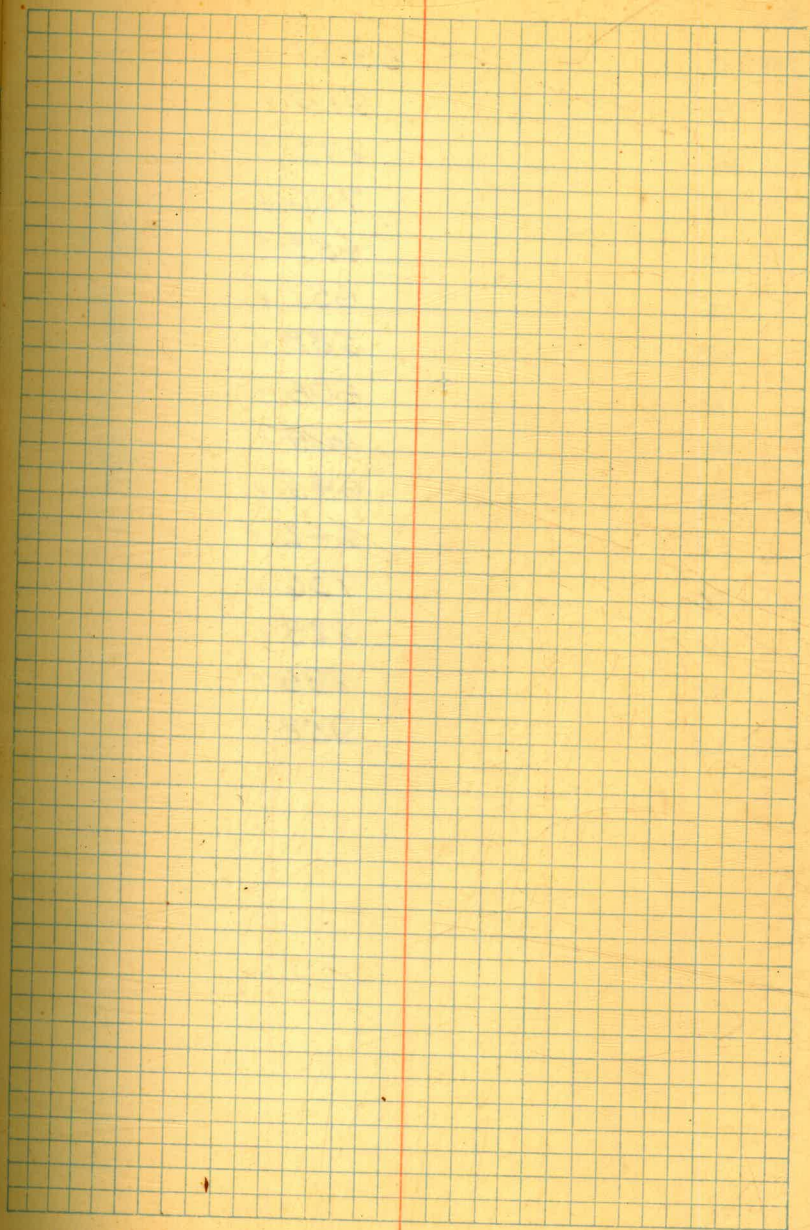


E			
4960		778.0	✓
70		73.8	✓
80		70.7	✓
90		66.7	✓
5000		59.0	✓
10		58.1	✓
20		57.2	✓
30		51.9	✓
40		46.6	✓
50		44.1	✓
60		39.4	✓
70		35.7	✓
80		31.6	✓
90		28.3	✓
5100		24.1	✓
10		20.3	✓
20	15.6	15.7	✓ ✓
30		11.0	✓
40		07.9	✓
50		02.8	✓
60		699.9	✓
70		98.1	✓
80		700.5	✓
90		700.9	✓
5200		699.3	✓

B339 P28

E		
5210	696.9	✓
20	95.0	✓
30	92.7	✓
40	90.9	✓
50	89.0	✓
60	88.2	✓
70	86.5	✓
80	84.8	✓
90	84.8	✓
5300	82.3	✓
10	77.2	✓
20	<u>73.0</u>	✓
30	67.4	✓
40	63.8	✓
50	70.4	✓
60	73.5	✓
70	76.8	✓
80	77.8	✓
90	79.1	✓
5400	80.4	✓
10	81.7	✓
20	83.2	✓
30	84.9	✓
40	88.8	✓
50	90.0	✓

Not on same Sec. H.



E.

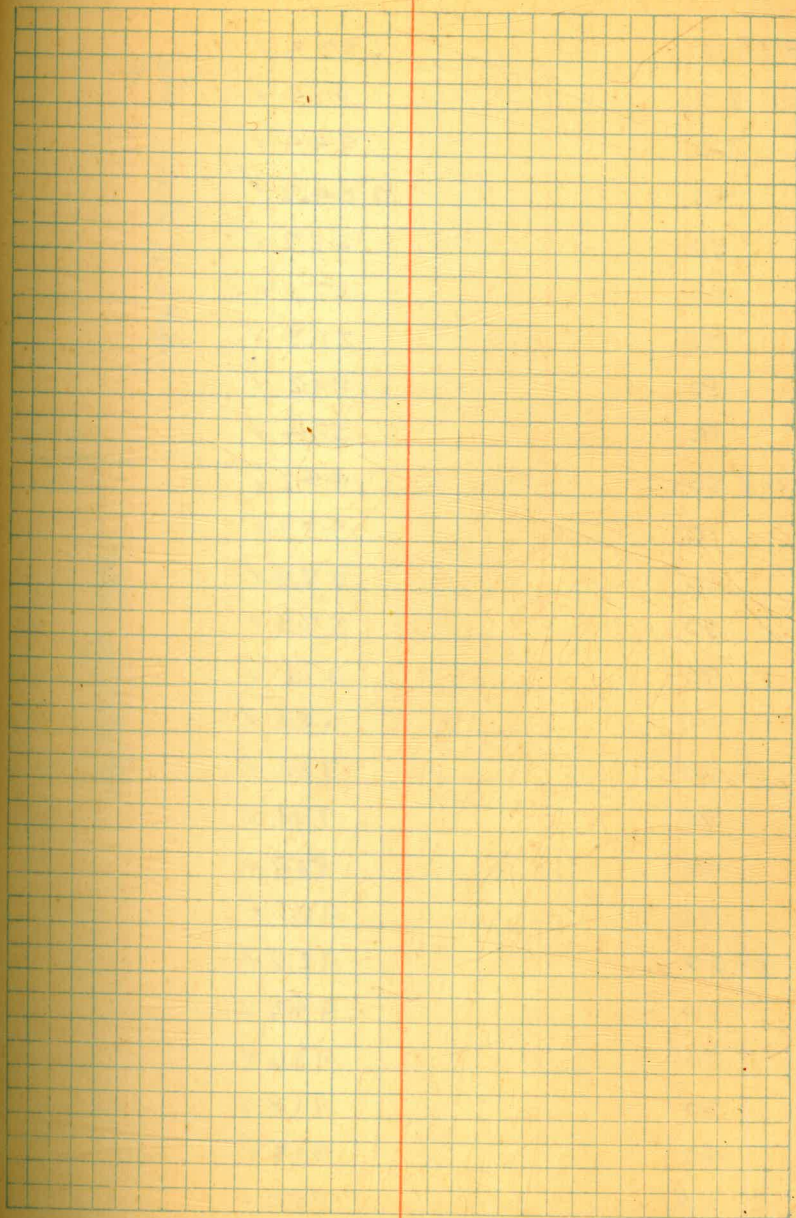
5460	690.7 ✓
70	91.0 ✓
80	87.3 ✓
90	75.6 ✓
5500	65.3 ✓
10	65.2 ✓
20	58.8 ✓
30	60.6 ✓
40	68.4 ✓
50	64.8 ✓
60	64.2 ✓
70	73.6 ✓
80	82.9 ✓
90	89.6 ✓
5600	95.8 ✓

Not on Deer Pass,
H.

E.

4460	606.4	✓
70	05.5	✓
80	04.3	✓
90	599.7	✓
4500	602.9	✓
10	05.4	✓
20	08.5	✓
30	11.6	✓
40	15.6	✓
50	18.2	✓
60	21.7	✓
70	23.3	✓
80	25.9	✓
90	28.6	✓
4600	33.9	✓
10	36.7	✓
20	39.9	✓
30	44.2	✓
40	48.2	✓
50	52.7	✓
60	57.9	✓
70	62.5	✓
80	67.4	✓
90	72.4	✓
4700	77.9	✓

Not over 5000
H.



E.

4710	683.3 ✓
20	87.4 ✓
30	94.4 ✓
40	704.7 ✓
50	08.7 ✓
60	17.1 ✓
70	21.3 ✓
80	29.2 ✓
90	39.4 ✓
4800	44.2 ✓
10	47.9 ✓
20	52.9 ✓
30	57.3 ✓
40	61.1 ✓
50	65.3 ✓
60	73.1 ✓
70	79.1 ✓
80	85.7 ✓
90	90.1 ✓
4900	92.6 ✓
10	94.3 ✓
20	93.6 ✓
30	91.8 ✓
40	90.3 ✓
50	85.0 ✓

Not over 500 sec. H.

Exp Plotting 2004

E.

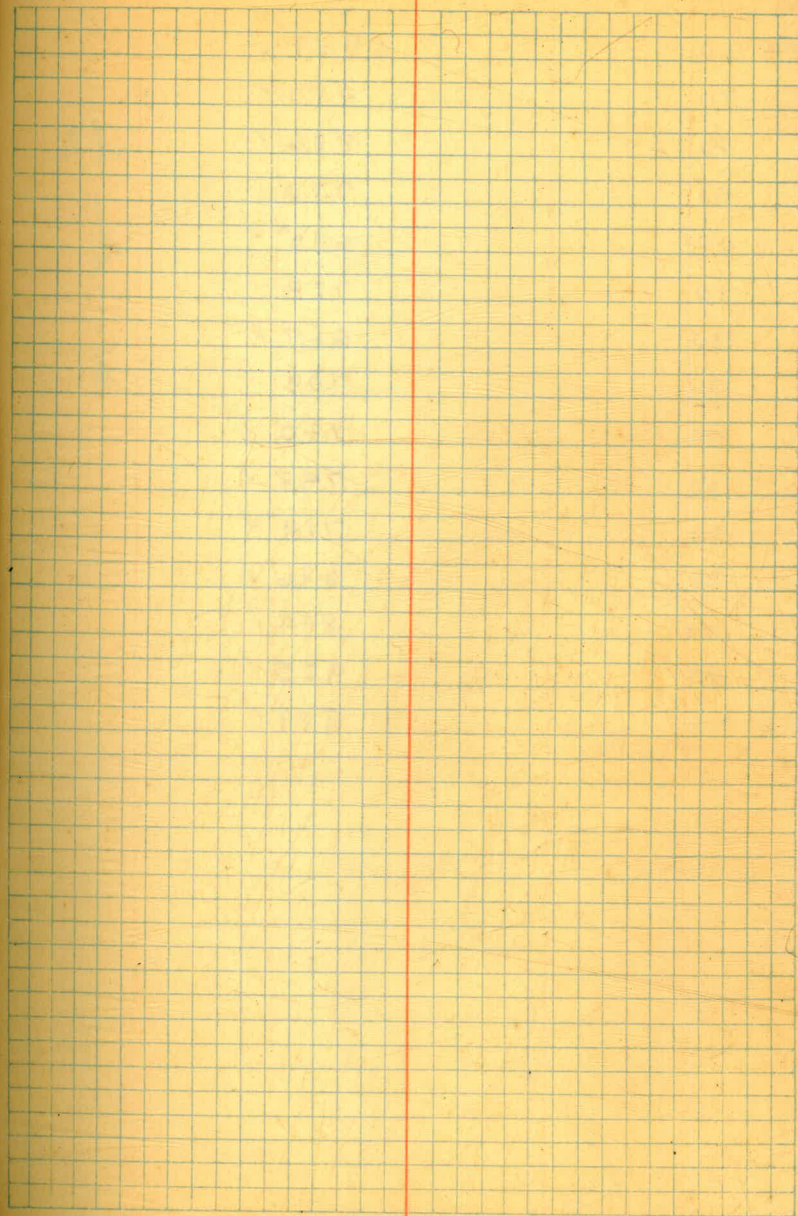
4960	782.0 ✓
70	78.7 ✓
80	74.4 ✓
90	72.5 ✓
50 00	65.9 ✓
10	61.8 ✓
20	59.1 ✓
30	54.6 ✓
40	51.3 ✓
50	47.1 ✓
60	43.1 ✓
70	39.6 ✓
80	34.3 ✓
90	31.6 ✓
51 00	28.2 ✓
10	24.5 ✓
20	20.1 ✓
30	14.8 ✓
40	10.1 ✓
50	07.3 ✓
60	05.3 ✓
70	06.2 ✓
80	06.9 ✓
90	05.2 ✓
52 00	03.8 ✓

E

52 10	700.8 ✓
20	699.1 ✓
30	95.3 ✓
40	95.7 ✓
50	93.9 ✓
60	92.5 ✓
70	90.9 ✓
80	89.9 ✓
90	88.2 ✓
53 00	84.9 ✓
10	80.2 ✓
20	76.3 ✓
30	71.7 ✓
40	67.1 ✓
50	72.6 ✓
60	77.9 ✓
70	79.5 ✓
80	80.8 ✓
90	82.2 ✓
54 00	82.8 ✓
10	84.2 ✓
20	86.5 ✓
30	89.8 ✓
40	92.2 ✓
50	94.0 ✓

Spaul Area's
Plotting of as shown by 9-16-34 GBH

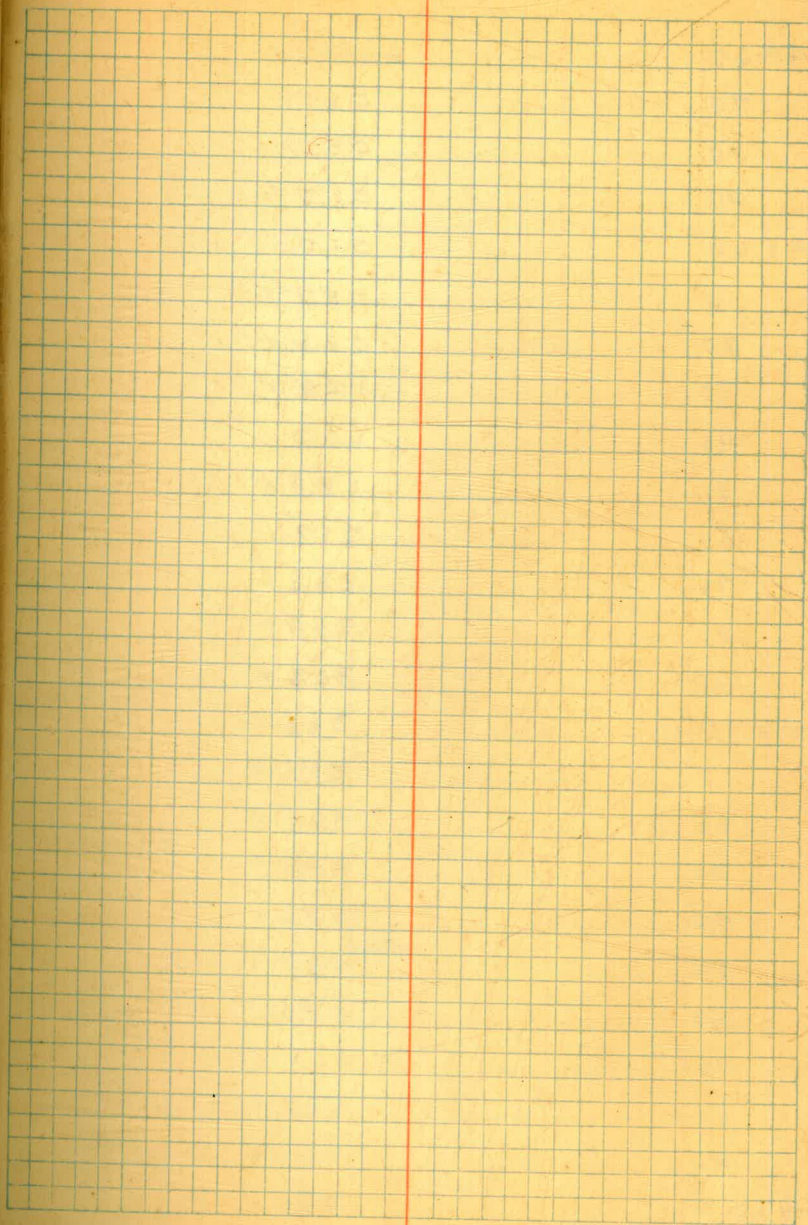
Not on
Dawson
Sec.
4



E.

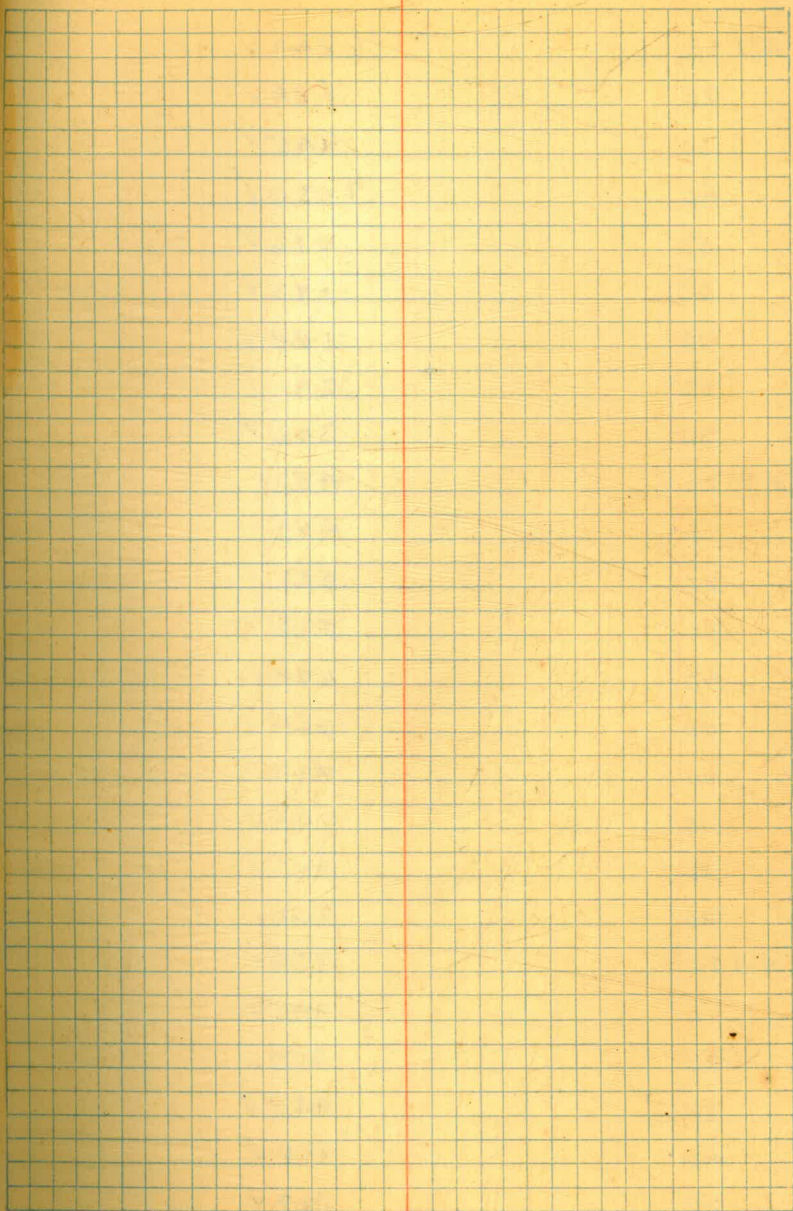
54 60	695.2 ✓
70	95.7 ✓
80	88.6 ✓
90	77.0 ✓
55 00	69.5 ✓
10	72.4 ✓
20	66.7 ✓
30	70.3 ✓
40	74.0 ✓
50	74.8 ✓
60	71.9 ✓
70	69.6 ✓
80	84.4 ✓
90	92.5 ✓
56 00	98.9 ✓

Not in Dan Sec. H.



E.

4460	607.7 ✓
70	06.5 ✓
80	05.5 ✓
90	01.3 ✓
4500	01.0 ✓
10	05.7 ✓
20	08.6 ✓
30	12.4 ✓
40	16.0 ✓
50	18.8 ✓
60	21.7 ✓
70	23.9 ✓
80	26.9 ✓
90	30.3 ✓
4600	36.6 ✓
10	38.1 ✓
20	40.6 ✓
30	44.5 ✓
40	48.6 ✓
50	^{52.1} 52.7 ✓
60	58.0 ✓
70	61.1 ✓
80	69.2 ✓
90	72.0 ✓
4700	78.5 ✓



E.

47 10

6849 ✓

20

884 ✓

30

945 ✓

40

7020 ✓

50

086 ✓

60

133 ✓

70

188 ✓

80

291 ✓

90

362 ✓

48 00

453 ✓

10

469 ✓

20

525 ✓

30

573 ✓

40

609 ✓

50

664 ✓

60

747 ✓

70

798 ✓

80

851 ✓

90

902 ✓

49 00

936 ✓

10

945 ✓

20

953 ✓

30

945 ✓

40

918 ✓

50

897 ✓

E

49 60

7 88.0 ✓

70

82.8 ✓

80

77.5 ✓

90

75.0 ✓

50 00

71.1 ✓

10

67.2 ✓

20

63.0 ✓

30

57.4 ✓

40

55.4 ✓

50

53.0 ✓

60

48.0 ✓

70

42.7 ✓

80

38.9 ✓

90

35.7 ✓

51 00

32.1 ✓

10

29.7 ✓

20

24.0 ✓

30

19.3 ✓

40

13.5 ✓

50

13.4 ✓

60

12.7 ✓

70

12.9 ✓

80

11.2 ✓

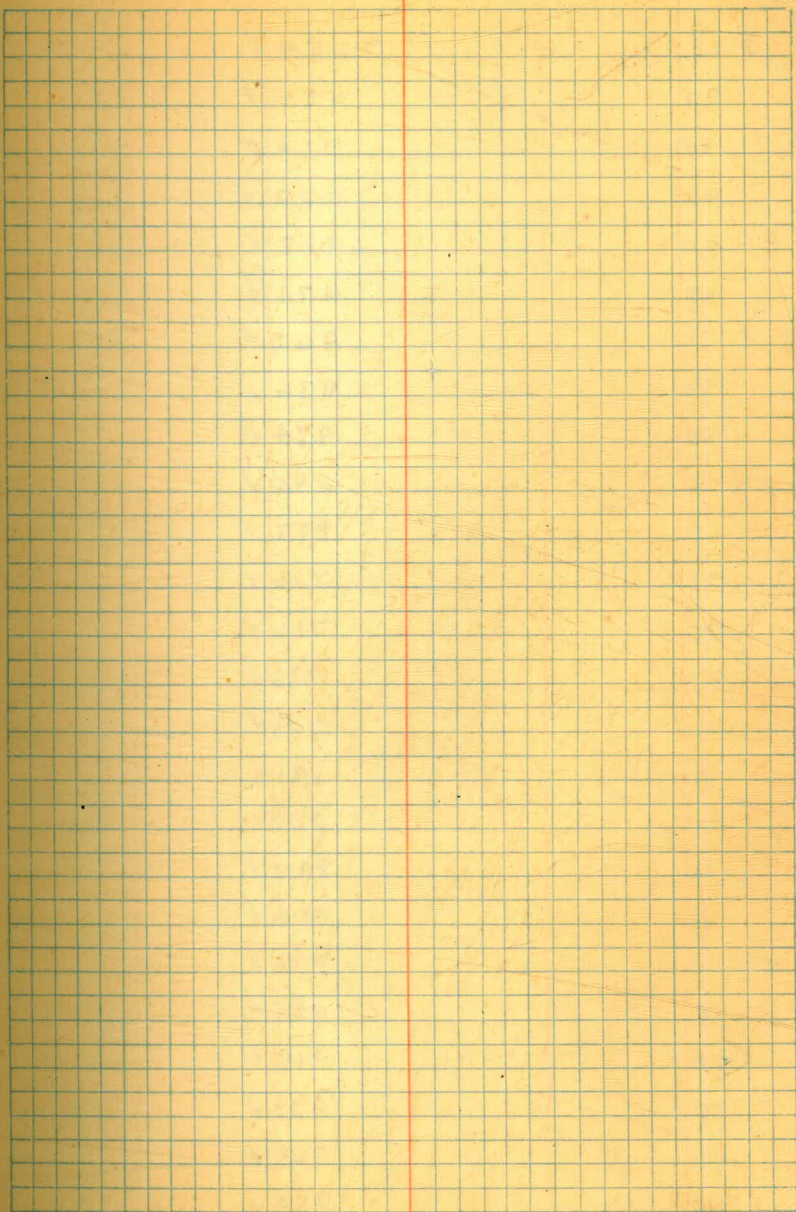
90

09.8 ✓

52 00

08.1 ✓

These Etc. Original names Jotted on Dam Sec 9-28-34 C.B.H.

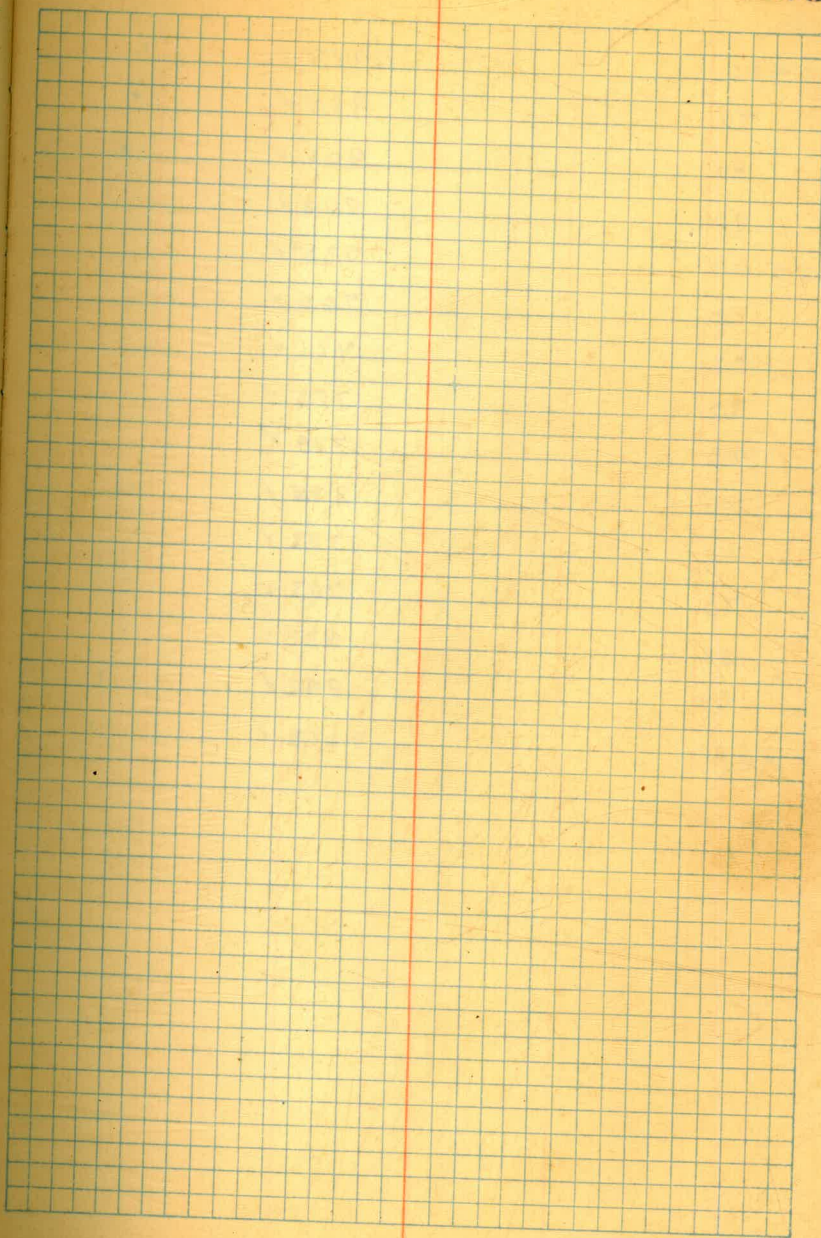


N. 4170

E

52 10	705.4 ✓
20	02.5 ✓
30	01.6 ✓
40	700.7 ✓
50	698.2 ✓
60	97.1 ✓
70	96.0 ✓
80	93.6 ✓
90	92.4 ✓
53 00	89.0 ✓
10	85.2 ✓
20	78.6 ✓
30	71.6 ✓
40	73.6 ✓
50	78.3 ✓
60	82.1 ✓
70	82.7 ✓
80	84.0 ✓
90	85.0 ✓
54 00	87.3 ✓
10	89.4 ✓
20	91.5 ✓
30	93.3 ✓
40	96.3 ✓
50	97.4 ✓

39



N.4170

E.

5460

698.7 ✓

70

98.5 ✓

80

90.1 ✓

90

80.9 ✓

5500

73.5 ✓

10

76.0 ✓

20

72.1 ✓

30

75.3 ✓

40

78.9 ✓

50

80.5 ✓

60

78.2 ✓

70

76.3 ✓

80

83.7 ✓

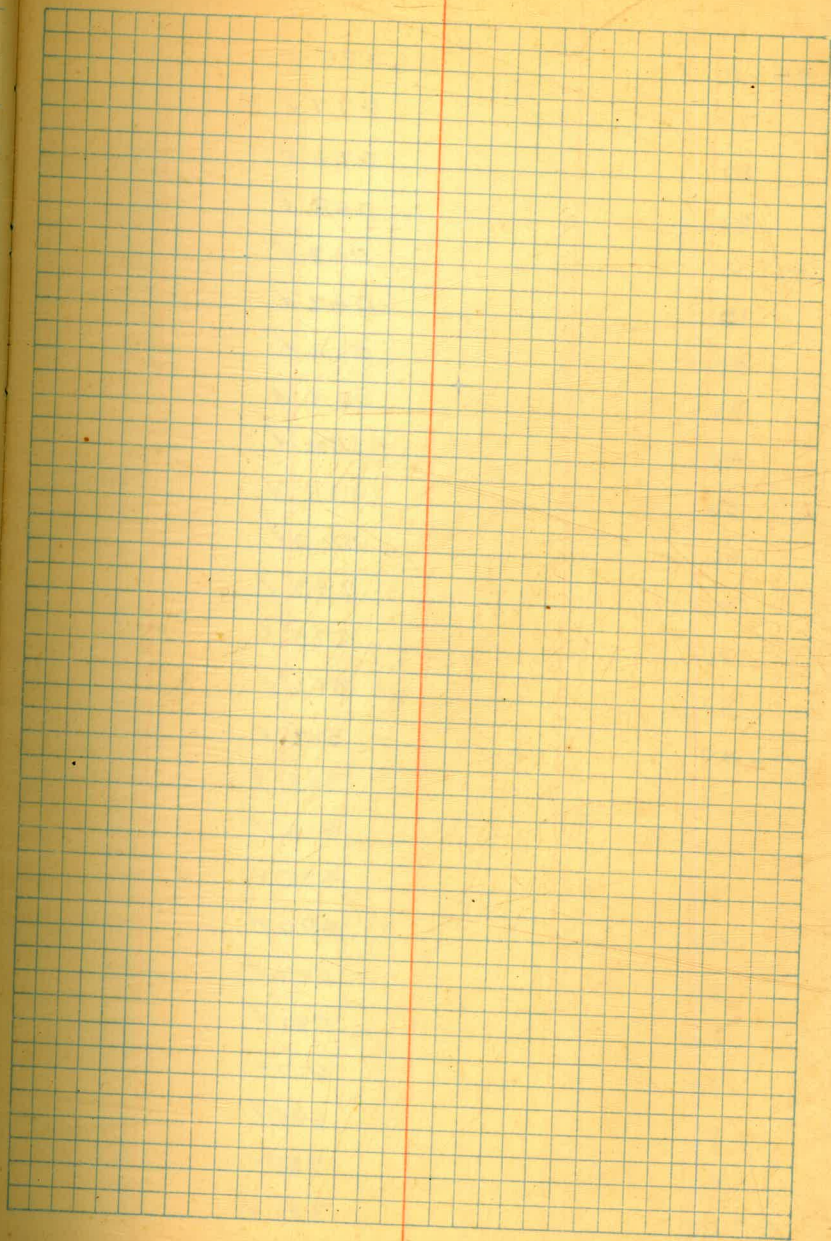
90

94.2 ✓

5600

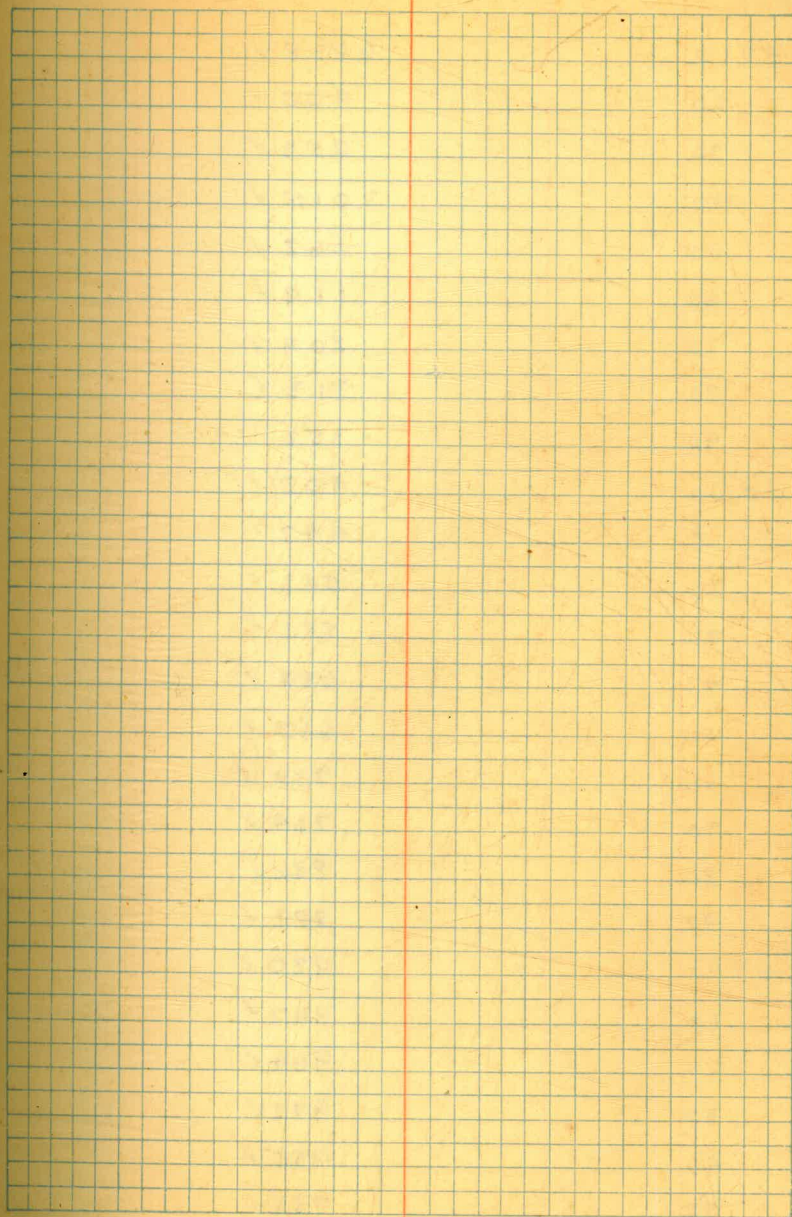
70.3 ✓

40



E.

44 60	608.5 ✓
70	07.7 ✓
80	02.6 ✓
90	04.9 ✓
45 00	04.8 ✓
10	04.2 ✓
20	08.4 ✓
30	12.2 ✓
40	15.9 ✓
50	19.1 ✓
60	22.0 ✓
70	24.3 ✓
80	27.5 ✓
90	31.1 ✓
46 00	36.2 ✓
10	39.8 ✓
20	41.4 ✓
30	45.5 ✓
40	49.0 ✓
50	52.7 ✓
60	58.1 ✓
70	62.7 ✓
80	68.5 ✓
90	72.5 ✓
47 00	78.1 ✓



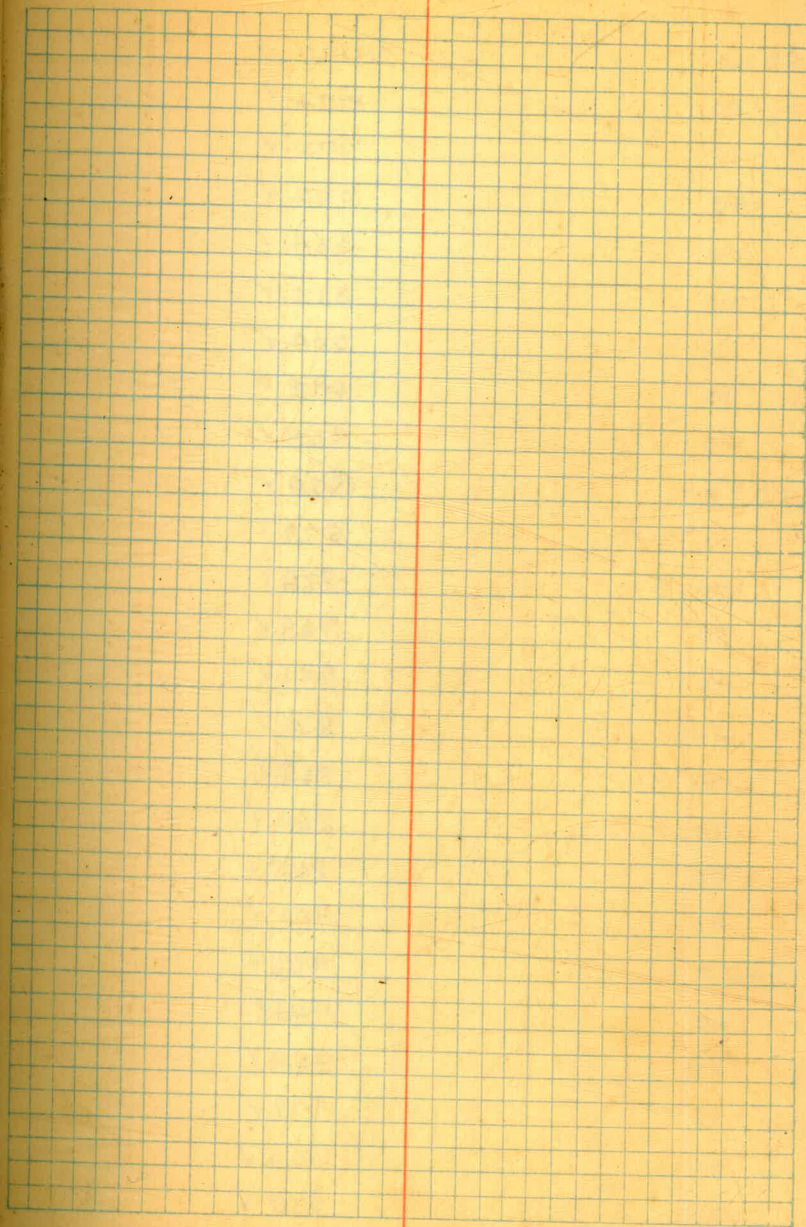
E.

4710	683.8 ✓
20	9.00 ✓
30	95.3 ✓
40	701.5 ✓
50	06.2 ✓
60	11.9 ✓
70	20.9 ✓
80	31.3 ✓
90	35.2 ✓
4800	40.7 ✓
10	44.7 ✓
20	54.2 ✓
30	58.1 ✓
40	62.4 ✓
50	66.7 ✓
60	75.8 ✓
70	76.4 ✓
80	88.6 ✓
90	88.9 ✓
4900	92.0 ✓
10	94.7 ✓
20	96.4 ✓
30	97.3 ✓
40	95.5 ✓
50	93.8 ✓

E

4960	791.6 ✓
70	87.6 ✓
80	81.7 ✓
90	78.3 ✓
50 00	75.3 ✓
10	72.5 ✓
20	68.4 ✓
30	64.2 ✓
40	61.7 ✓
50	56.8 ✓
60	52.3 ✓
70	49.6 ✓
80	42.3 ✓
90	39.7 ✓
51 00	36.1 ✓
10	32.9 ✓
20	28.3 ✓
30	22.6 ✓
40	19.6 ✓
50	19.4 ✓
60	18.6 ✓
70	17.1 ✓
80	16.2 ✓
90	13.7 ✓
52 00	11.2 ✓

Plotted on Dam See 9-28-34 200H



E.

5210

709.7 ✓

20

07.6 ✓

30

07.0 ✓

40

05.2 ✓

50

03.4 ✓

60

01.1 ✓

70

00.9 ✓

80

01.8 ✓

90

696.8 ✓

5300

92.9 ✓

10

87.9 ✓

20

82.9 ✓

30

76.9 ✓

40

79.1 ✓

50

83.0 ✓

60

86.3 ✓

70

86.9 ✓

80

88.5 ✓

90

90.1 ✓

5400

92.6 ✓

10

94.1 ✓

20

95.9 ✓

30

97.7 ✓

40

700.6 ✓

50

03.5 ✓

E.

5460

703.1 ✓

70

02.2 ✓

80

691.9 ✓

90

84.6 ✓

5500

78.6 ✓

10

79.0 ✓

20

73.7 ✓

30

82.8 ✓

40

86.6 ✓

50

88.9 ✓

60

90.3 ✓

70

85.5 ✓

80

83.0 ✓

90

93.4 ✓

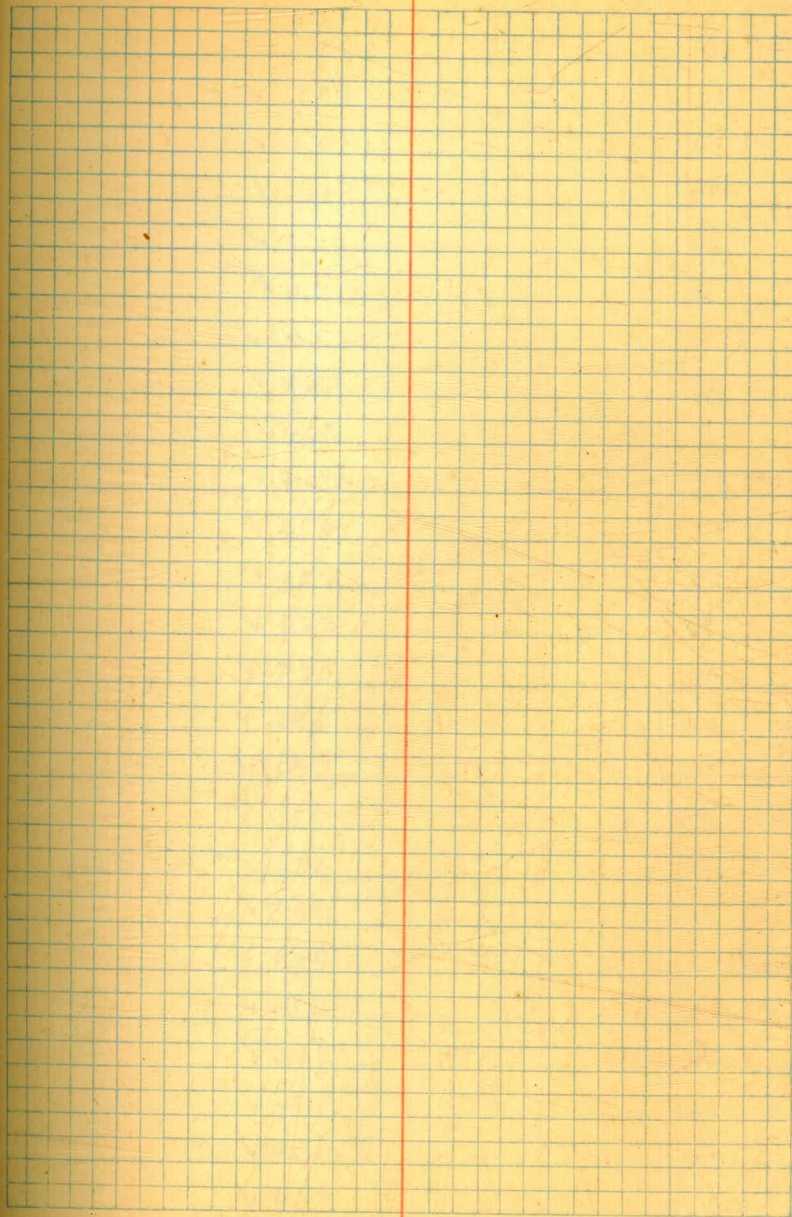
5600

701.9 ✓

Spot Areas
Plotting checked as shown by - 9-14-34 - LCH

E.

4460	609.7 ✓
70	09.6 ✓
80	04.3 ✓
90	06.8 ✓
4500	06.2 ✓
10	05.3 ✓
20	08.0 ✓
30	12.3 ✓
40	15.3 ✓
50	19.4 ✓
60	21.4 ✓
70	24.3 ✓
80	27.6 ✓
90	31.1 ✓
4600	35.1 ✓
10	38.7 ✓
20	42.4 ✓
30	46.7 ✓
40	49.5 ✓
50	55.5 ✓
60	59.4 ✓
70	64.6 ✓
80	68.8 ✓
90	72.5 ✓
4700	77.4 ✓



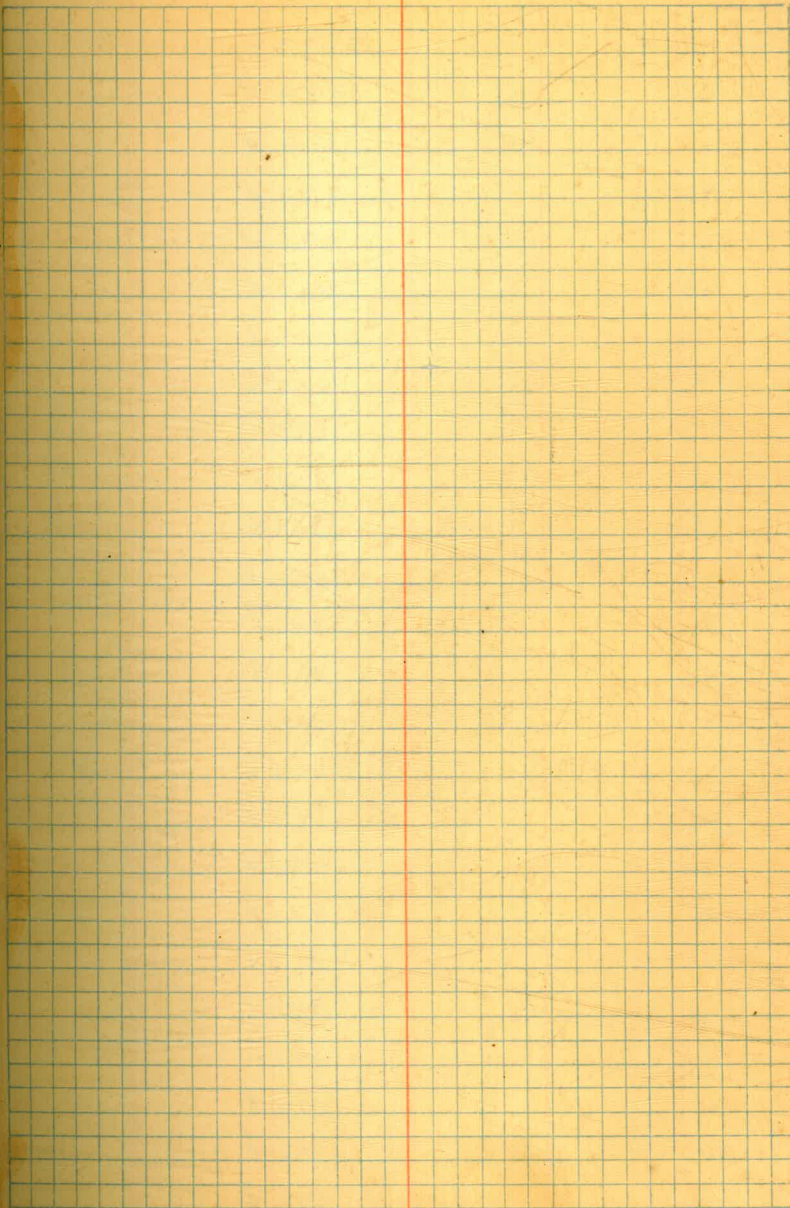
E.

47 10	683.4 ✓
20	89.2 ✓
30	95.1 ✓
40	700.1 ✓
50	05.8 ✓
60	10.6 ✓
70	17.4 ✓
80	26.8 ✓
90	30.9 ✓
48 00	40.8 ✓
10	47.0 ✓
20	52.4 ✓
30	58.9 ✓
40	62.4 ✓
50	68.3 ✓
60	74.5 ✓
70	77.0 ✓
80	85.6 ✓ ← interp.
90	90.4 ✓
49 00	95.4 ✓
10	97.4 ✓
20	96.6 ✓
30	97.1 ✓
40	97.4 ✓
50	96.4 ✓

E

4960	794.7 ✓
70	91.6 ✓
80	86.9 ✓
90	82.7 ✓
50 00	79.0 ✓
10	77.6 ✓
20	73.7 ✓
30	70.0 ✓
40	67.6 ✓
50	61.8 ✓
60	56.6 ✓
70	53.3 ✓
80	50.5 ✓
90	44.8 ✓
51 00	40.6 ✓
10	37.5 ✓
20	31.1 ✓
30	26.1 ✓
40	24.1 ✓
50	25.1 ✓
60	22.6 ✓
70	23.7 ✓
80	19.3 ✓
90	18.0 ✓
52 00	15.9 ✓

Plotted on Dam Sec. 9-28-34 CBA



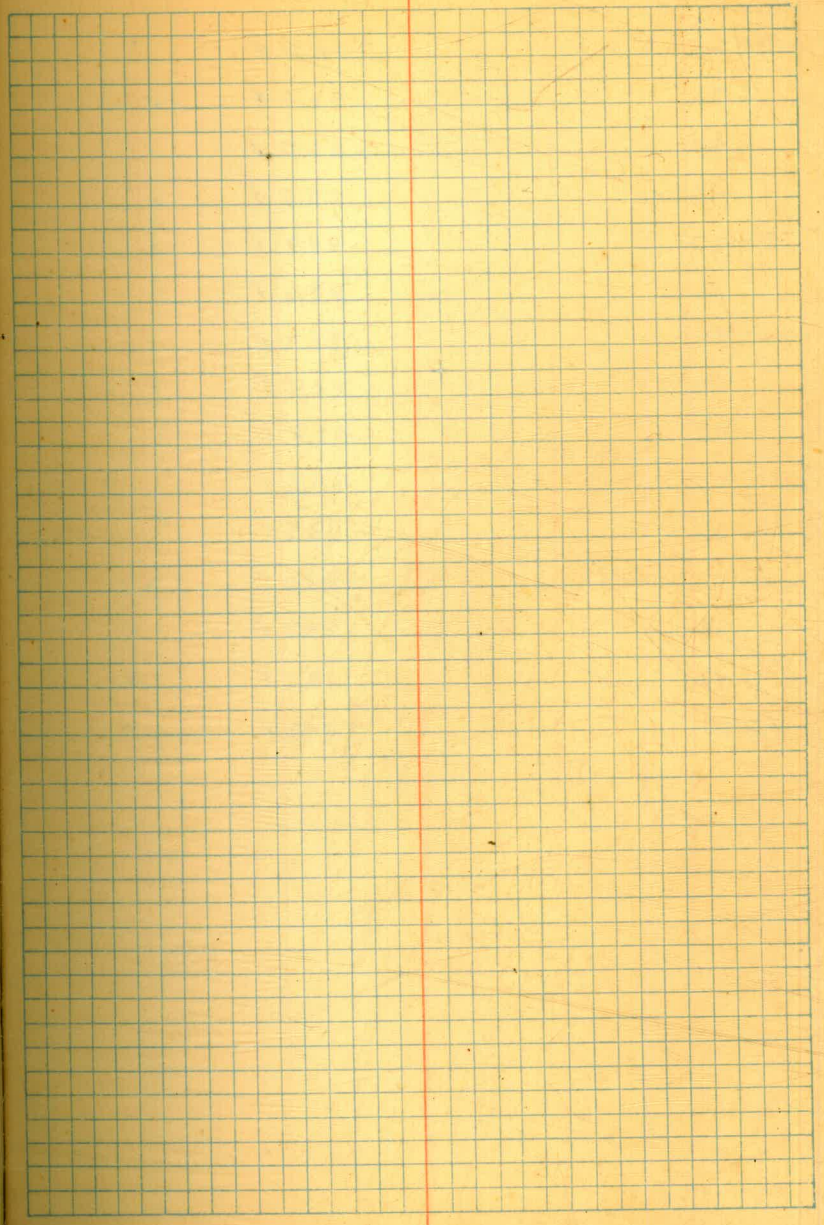
N. 4190

E.

5210	717.3 ✓
20	12.4 ✓
30	11.4 ✓
40	10.6 ✓
50	09.2 ✓
60	06.7 ✓
70	07.3 ✓
80	04.5 ✓
90	00.8 ✓
5300	96.1 ✓
10	90.1 ✓
20	85.0 ✓
30	84.1 ✓
40	83.1 ✓
50	89.4 ✓
60	90.8 ✓
70	92.3 ✓
80	92.8 ✓
90	95.6 ✓
5400	96.3 ✓
10	98.2 ✓
20	99.7 ✓
30	02.2 ✓
40	05.4 ✓
50	07.3 ✓

Spaz Area
Plotting cp as shown by 9-14-30 BKH

F.O.



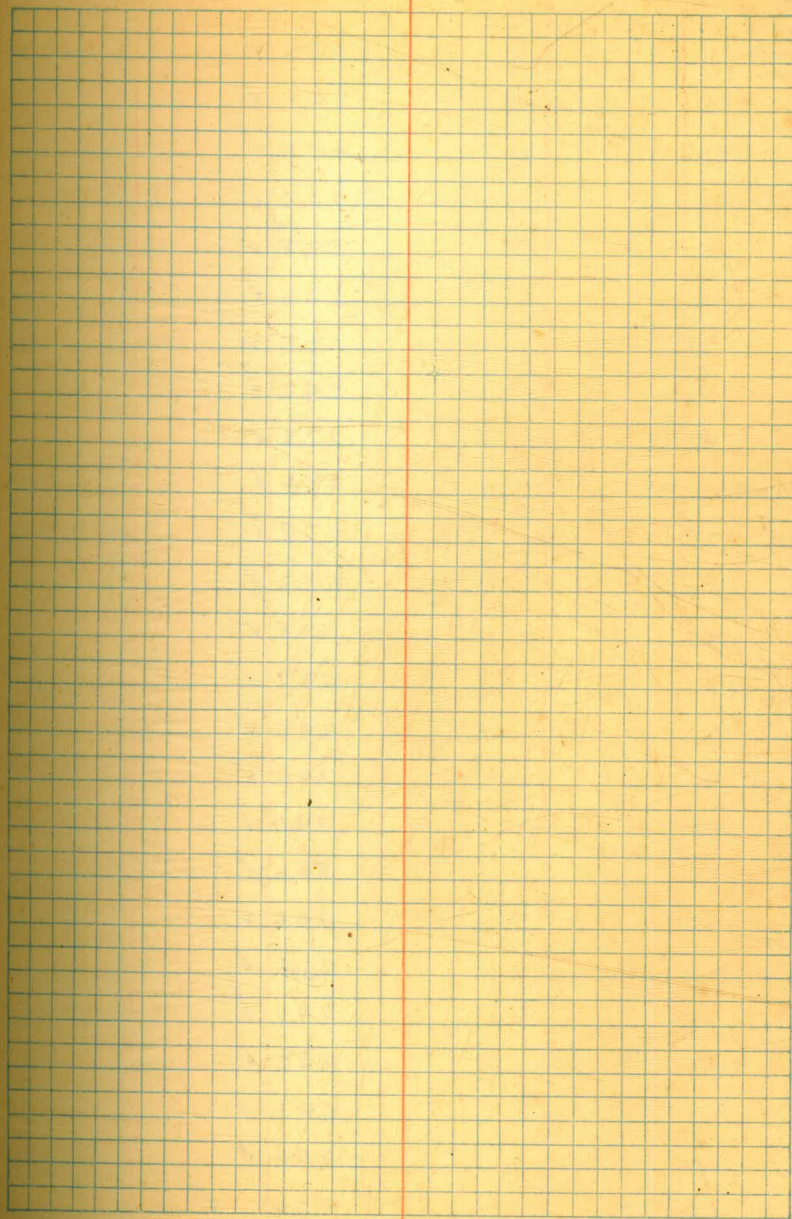
N. 4190

Fö.

E.

5460	706.0 ✓
70	06.0 ✓
80	696.0 ✓
90	89.0 ✓
5500	85.7 ✓
10	82.6 ✓
20	80.3 ✓
30	88.9 ✓
40	91.8 ✓
50	94.7 ✓
60	96.3 ✓
70	92.6 ✓
80	94.3 ✓
90	92.7 ✓
5600	700.3 ✓

4460	610.6 ✓
70	09.4 ✓
80	07.0 ✓
90	08.6 ✓
4500	07.9 ✓
10	07.2 ✓
20	06.7 ✓
30	10.2 ✓
40	12.7 ✓
50	16.7 ✓
60	19.7 ✓
70	24.1 ✓
80	27.4 ✓
90	31.3 ✓
4600	34.7 ✓
10	39.1 ✓
20	43.7 ✓
30	48.4 ✓
40	51.6 ✓
50	57.3 ✓
60	60.9 ✓
70	64.2 ✓
80	69.8 ✓
90	73.8 ✓
4700	78.0 ✓

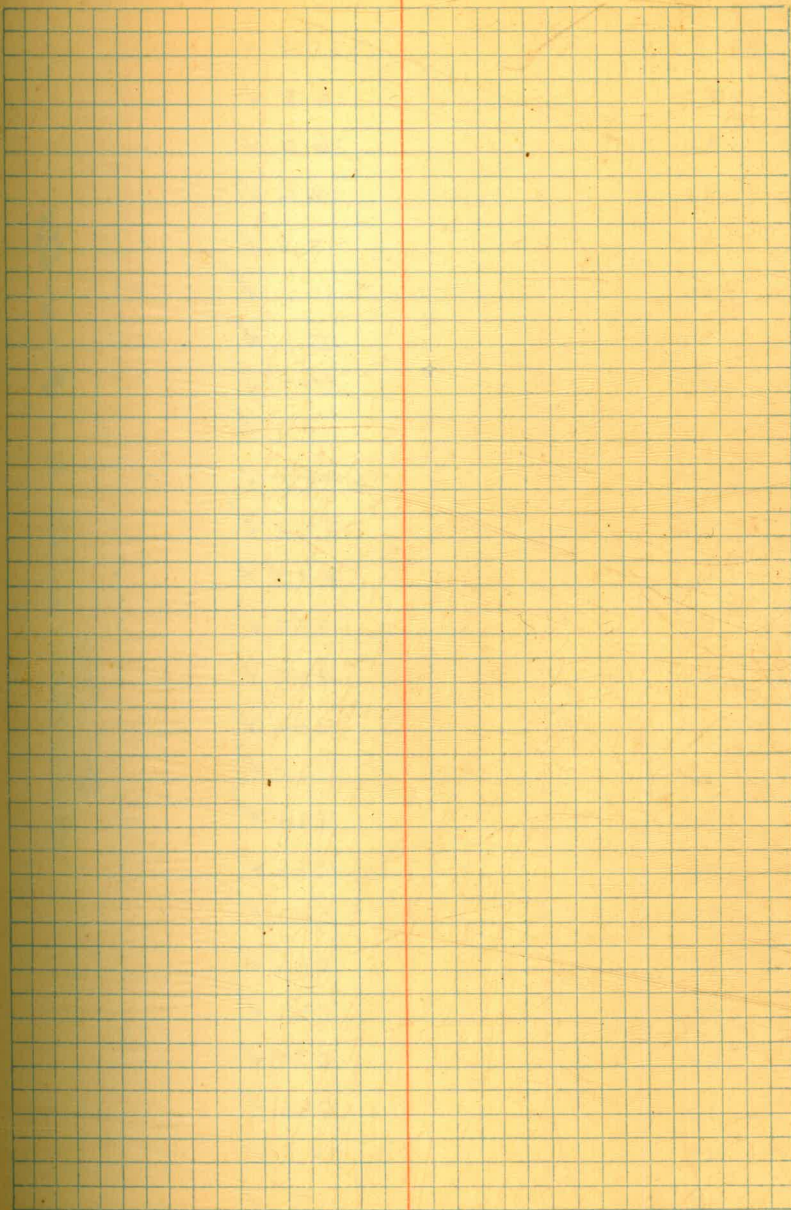


E.

4710	683.6	✓
20	89.1	✓
30	95.0	✓
40	700.3	✓
50	03.8	✓
60	09.6	✓
70	13.5	✓
80	24.2	✓
90	27.2	✓
4800	43.4	✓
10	46.9	✓
20	52.2	✓
30	57.8	✓
40	63.7	✓
50	69.0	✓
60	74.9	✓
70	79.0	✓
80	84.6	✓
90	90.6	✓
4900	96.4	✓
10	97.1	✓
20	98.2	✓
30	99.3	✓
40	98.4	✓
50	97.8	✓

E		
4960	796.2	✓
70	944	✓
80	914	✓
90	86.7	✓
50 00	84.0	✓
10	79.8	✓
20	78.7	✓
30	75.1	✓
40	70.6	✓
50	67.2	✓
60	62.4	✓
70	56.5	✓
80	54.5	✓
90	48.6	✓
5100	46.1	✓
10	39.9	✓
20	26.4	✓
30	26.4	✓
40	26.2	✓
50	25.9	✓
60	28.2	✓
70	27.3	✓
80	24.9	✓
90	22.8	✓
5200	20.7	✓

Grand
Original Sec. plotted on
Dam Sec. 9-28-34 CBN



N. 4200

E.

5210	720.8	✓
20	16.8	✓
30	16.0	✓
40	14.4	✓
50	12.6	✓
60	11.1	✓
70	09.6	✓
80	07.7	✓
90	02.9	✓
5300	698.5	✓
10	92.8	✓
20	87.5	✓
30	85.7	✓
40	86.4	✓
50	93.6	✓
60	96.8	✓
70	99.4	✓
80	98.6	✓
90	700.0	✓
5400	04.6	✓
10	03.1	✓
20	03.5	✓
30	06.6	✓
40	09.1	✓
50	11.3	✓

P.O. 6

Spoil Areas
checked Plotting as storm by . 9-14-34 - BBA

E.

5460

710.3 ✓

70

08.8 ✓

80

00.6 ✓

90

694.8 ✓

5500

87.6 ✓

10

26.6 ✓

20

83.1 ✓

30

95.2 ✓

40

700.6 ✓

50

00.8 ✓

60

02.8 ✓

70

699.8 ✓

80

703.0 ✓

90

03.3 ✓

5600

05.5 ✓

10

20

30

40

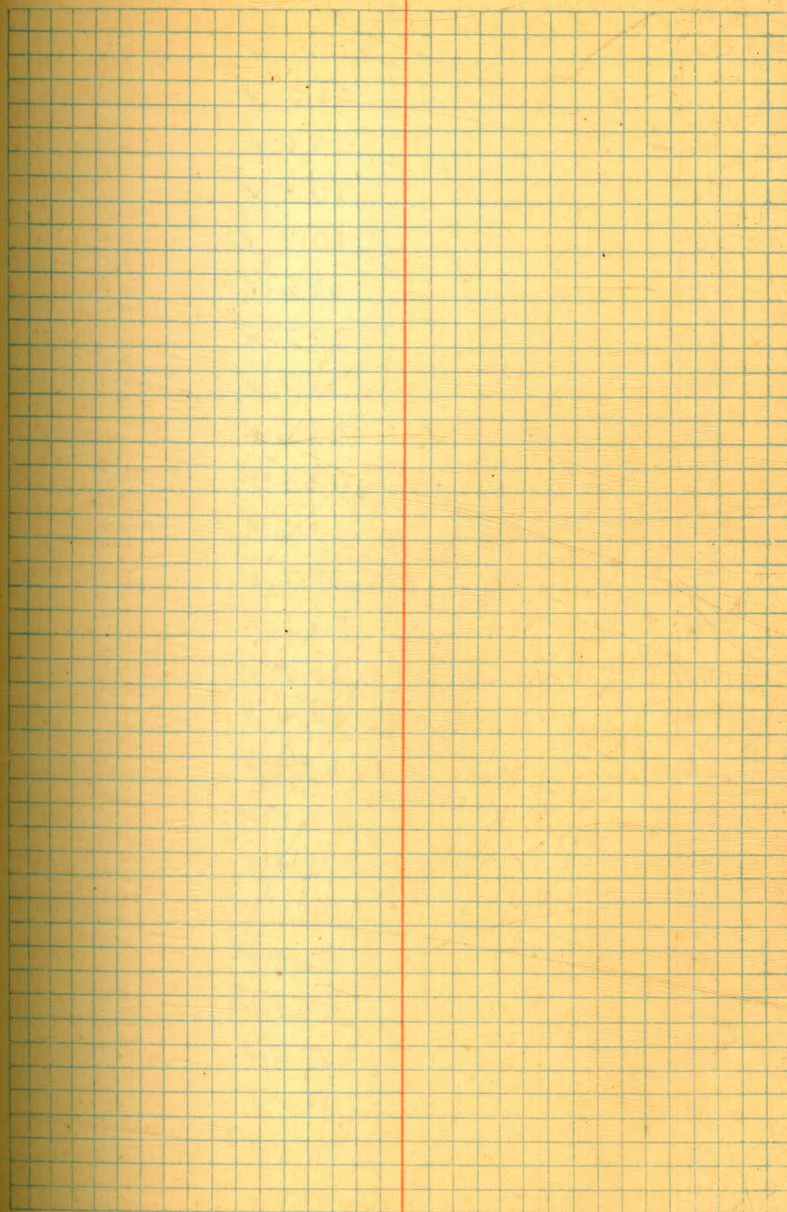
50

60

70

80

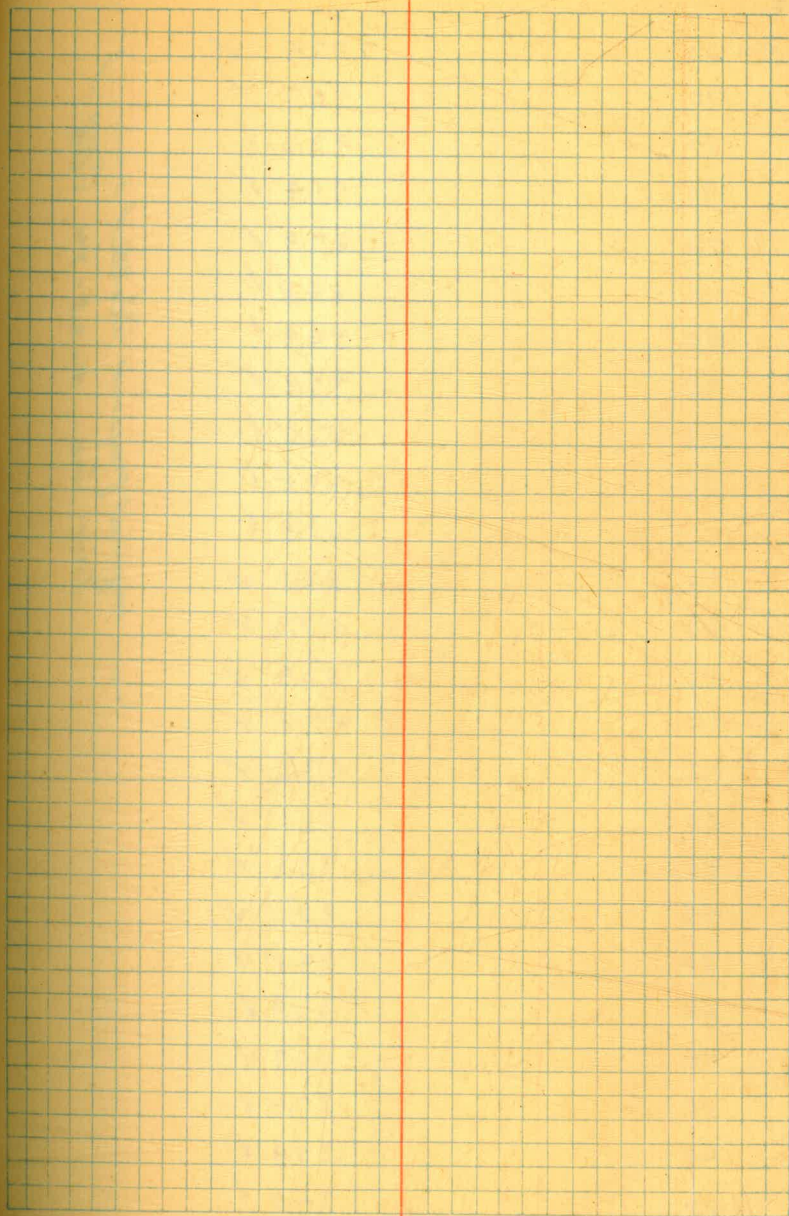
90



4460	611.6	✓
70	06.0	✓
80	09.6	✓
90	10.8	✓
4500	10.7	✓
10	09.6	✓
20	09.7	✓
30	10.0	✓
40	08.2	✓
50	13.9	✓
60	17.6	✓
70	22.7	✓
80	26.1	✓
90	30.5	✓
4600	34.7	✓
10	38.9	✓
20	45.5	✓
30	52.4	✓
40	54.9	✓
50	56.5	✓
60	64.8	✓
70	65.5	✓
80	69.9	✓
90	74.6	✓
4700	81.7	✓

E.

4710	684.1	✓
20	88.9	✓
30	94.3	✓
40	98.4	✓
50	705.8	✓
60	12.9	✓
70	16.2	✓
80	22.8	✓
90	27.5	✓
4800	39.9	✓
10	40.4	✓
20	50.9	✓
30	55.8	✓
40	61.4	✓
50	67.4	✓
60	75.1	✓
70	80.1	✓
80	86.5	✓
90	91.3	✓
4900	94.3	✓
10	97.7	✓
20	99.2	✓
30	99.4	✓
40	99.4	✓
50	98.8	✓

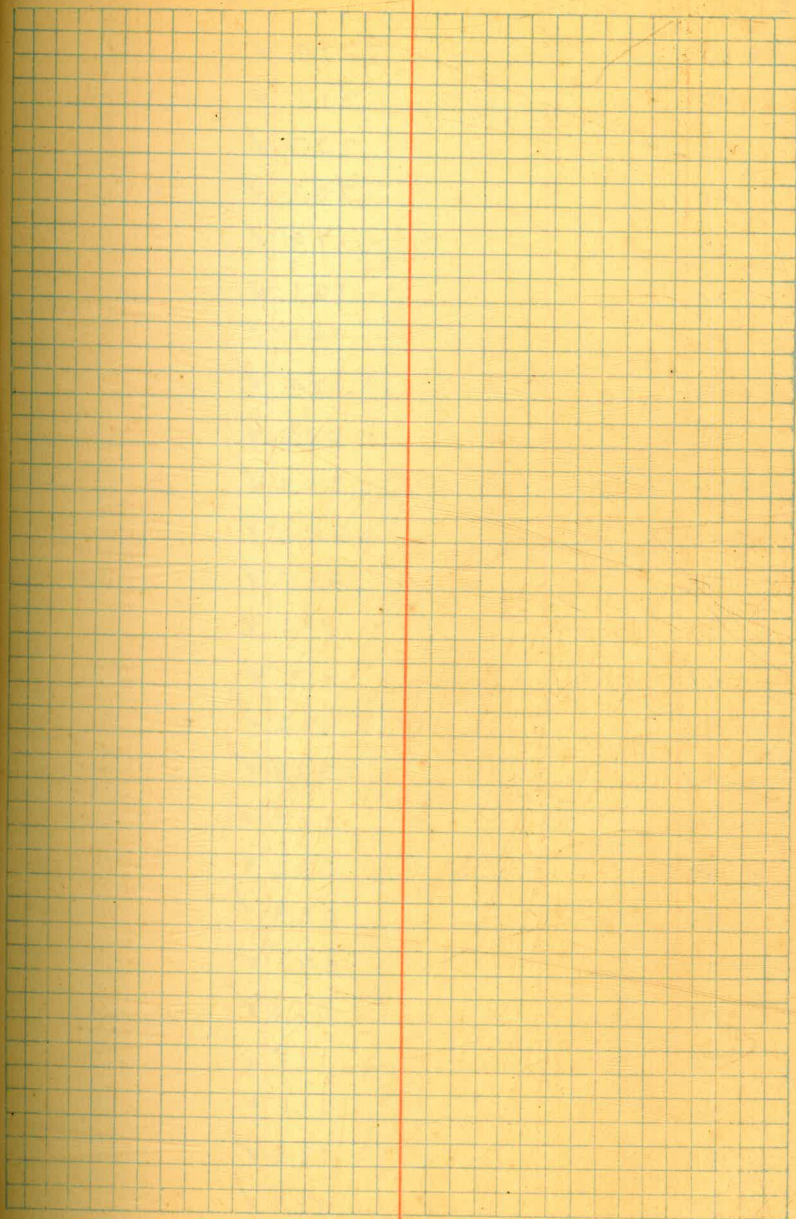


E

POC

49.60	797.4	✓
70	957	✓
80	933	✓
90	914	✓
50.00	879	✓
10	848	✓
20	809	✓
30	779	✓
40	733	✓
50	695	✓
60	659	✓
70	621	✓
80	582	✓
90	539	✓
51.00	478	✓
10	432	✓
20	353	✓
30	331	✓
40	280	✓
50	298	✓
60	339	✓
70	307	✓
80	275	✓
90	259	✓
52.00	240	✓

original ground plotted on
Jan. Sec. 9-28-36 C.B.H.



5210

727.2 ✓

20

21.1 ✓

30

20.7 ✓

40

20.1 ✓

50

17.9 ✓

60

16.1 ✓

70

14.1 ✓

80

12.4 ✓

90

08.2 ✓

5300

00.2 ✓

10

692.5 ✓

20

91.5 ✓

30

88.3 ✓

40

91.2 ✓

50

97.0 ✓

60

700.8 ✓

70

02.7 ✓

80

03.2 ✓

90

03.9 ✓

5400

07.1 ✓

10

06.8 ✓

20

11.5 ✓

30

11.1 ✓

40

13.2 ✓

50

13.3 ✓

5460

713.8 ✓

70

11.8 ✓

20

059 ✓

90

01.0 ✓

5500

697.9 ✓

10

91.3 ✓

20

27.9 ✓

30

702.3 ✓

40

085 ✓

50

11.1 ✓

60

10.2 ✓

70

08.1 ✓

80

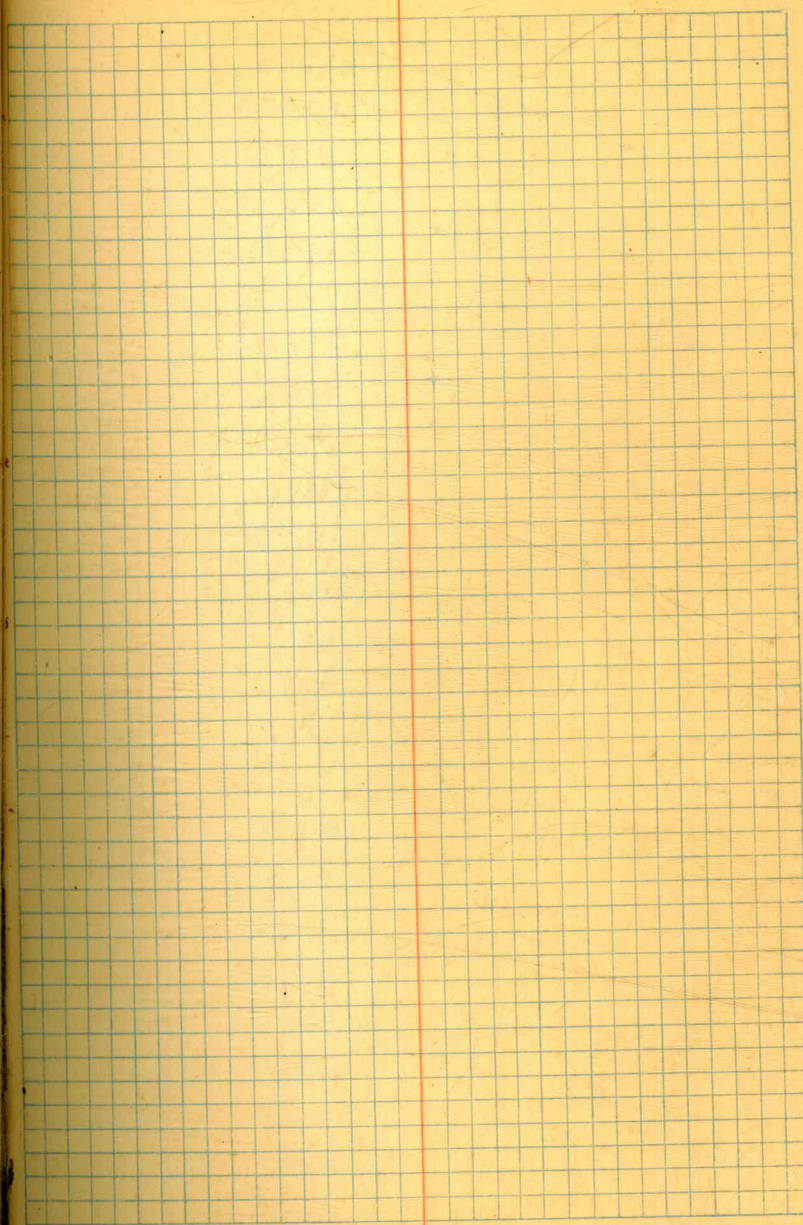
12.4 ✓

90

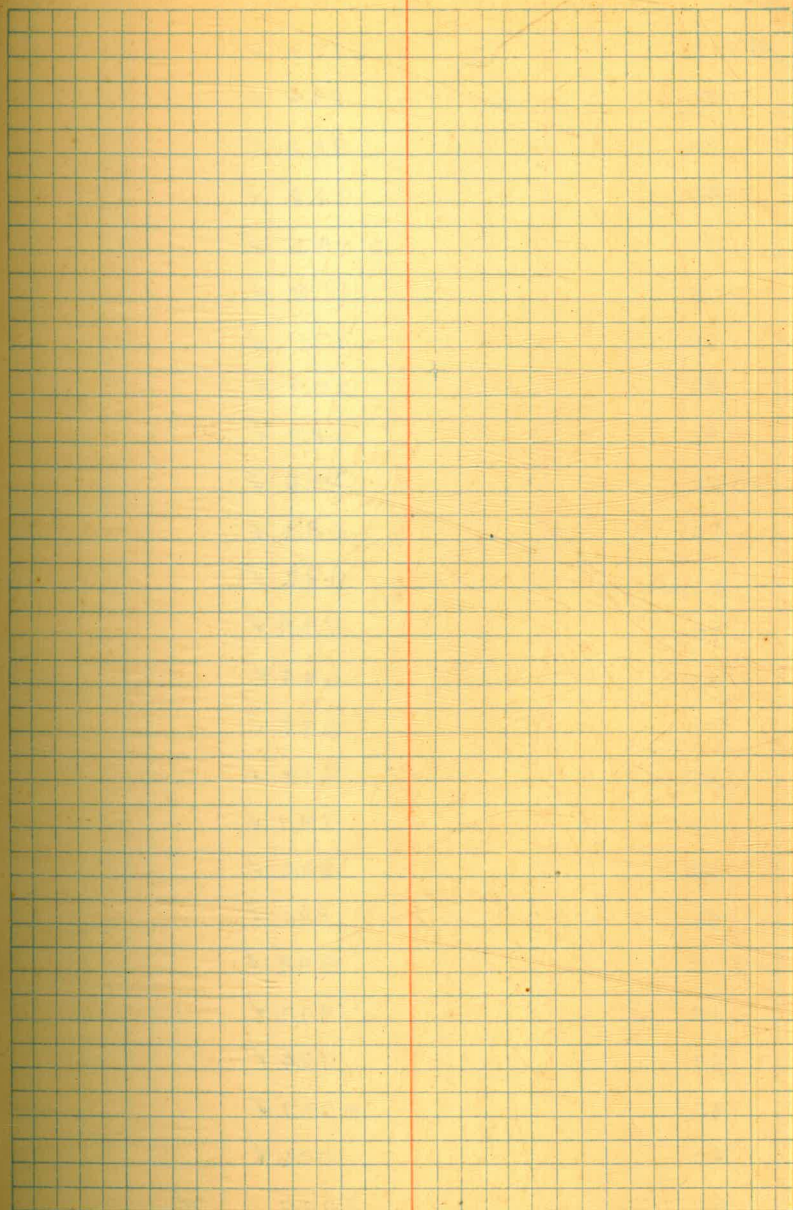
13.4 ✓

5600

14.7 ✓

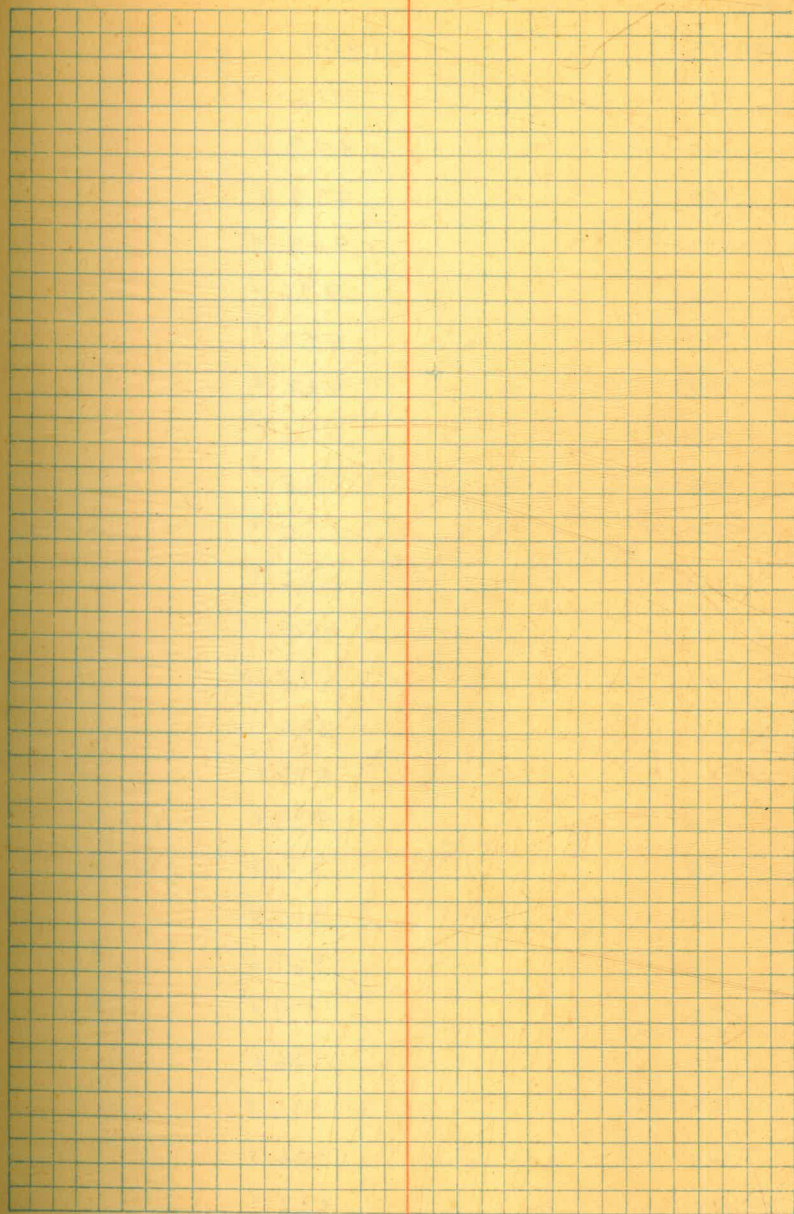


4460	612.2 ✓
70	10.4 ✓
80	11.2 ✓
90	12.8 ✓
4500	13.3 ✓
10	13.2 ✓
20	13.2 ✓
30	13.1 ✓
40	14.2 ✓
50	13.2 ✓
60	14.0 ✓
70	18.5 ✓
80	24.7 ✓
90	29.8 ✓
4600	34.6 ✓
10	39.5 ✓
20	44.1 ✓
30	50.3 ✓
40	55.2 ✓
50	59.7 ✓
60	64.4 ✓
70	68.0 ✓
80	71.7 ✓
90	77.8 ✓
4700	82.4 ✓



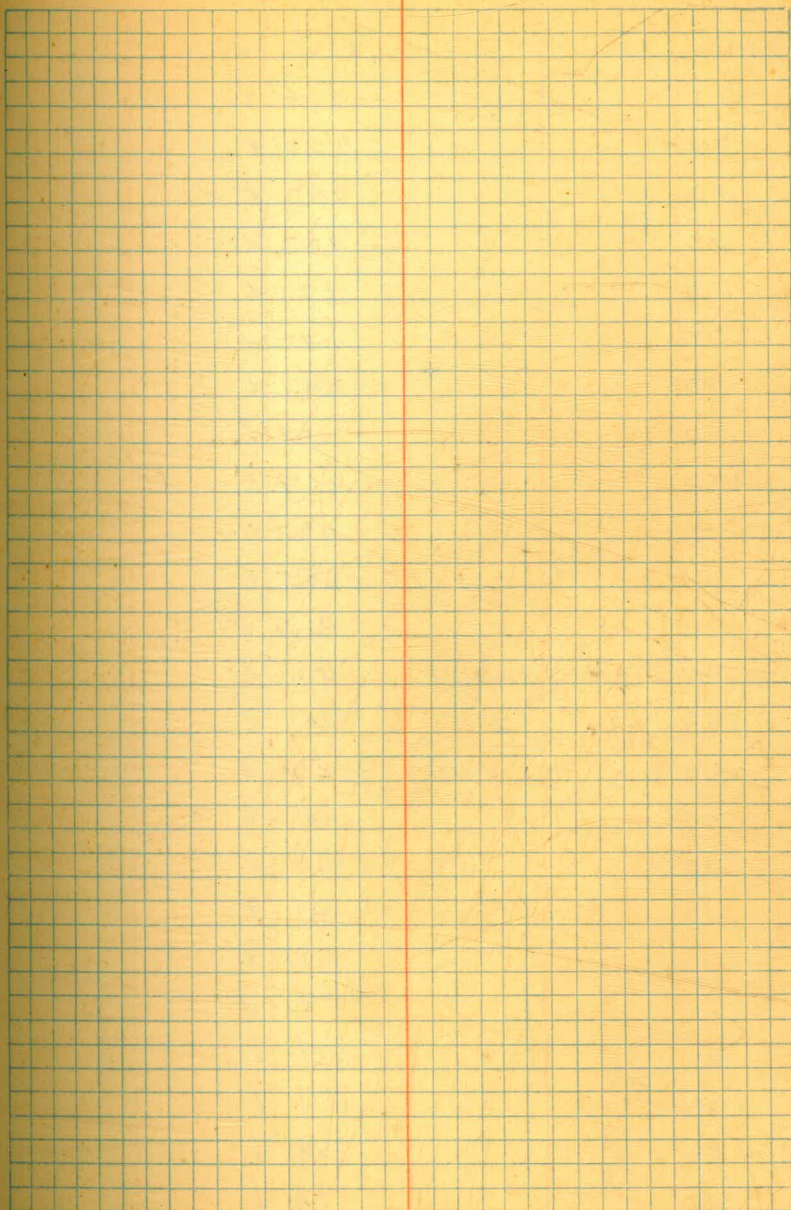
E.

4710	685.6	✓
20	89.4	✓
30	92.9	✓
40	99.8	✓
50	704.6	✓
60	11.8	✓
70	17.1	✓
80	22.9	✓
90	28.7	✓
4800	34.0	✓
10	38.3	✓
20	48.2	✓
30	53.4	✓
40	60.4	✓
50	63.7	✓
60	73.4	✓
70	79.7	✓
80	83.2	✓
90	89.1	✓
4900	94.8	✓
10	97.3	✓
20	99.4	✓
30	800.7	✓
40	00.6	✓
50	800.0	✓



E.

4960	799.1	✓
70	97.6	✓
80	95.3	✓
90	93.9	✓
5000	90.7	✓
10	87.6	✓
20	85.3	✓
30	81.2	✓
40	77.6	✓
50	73.8	✓
60	71.0	✓
70	66.5	✓
80	62.3	✓
90	57.8	✓
5100	53.4	✓
10	47.7	✓
20	43.3	✓
30	37.1	✓
40	31.0	✓
50	36.7	✓
60	37.9	✓
70	35.6	✓
80	33.0	✓
90	30.6	✓
5200	29.2	✓



E.

5210	726.6	✓
20	26.4	✓
30	25.6	✓
40	24.7	✓
50	23.3	✓
60	22.1	✓
70	18.7	✓
80	14.6	✓
90	08.7	✓
5300	01.8	✓
10	00.7	✓
20	694.5	✓
30	91.0	✓
40	96.1	✓
50	99.1	✓
60	704.2	✓
70	06.9	✓
80	08.5	✓
90	09.1	✓
5400	10.6	✓
10	11.8	✓
20	13.7	✓
30	15.7	✓
40	16.9	✓
50	17.4	✓

Copied from original
 Sheet 2 5/12/37
 (Detail Paper) H.V.N.
 N.C.

N. 4220

65

E.

5460

Σ/ev.

717.5 ✓

70

16.1 ✓

80

10.6 ✓

90

0.54 ✓

5500

699.8 ✓

10

91.2 ✓

20

95.0 ✓

30

704.2 ✓

40

16.0 ✓

50

17.0 ✓

60

16.5 ✓

70

13.0 ✓

80

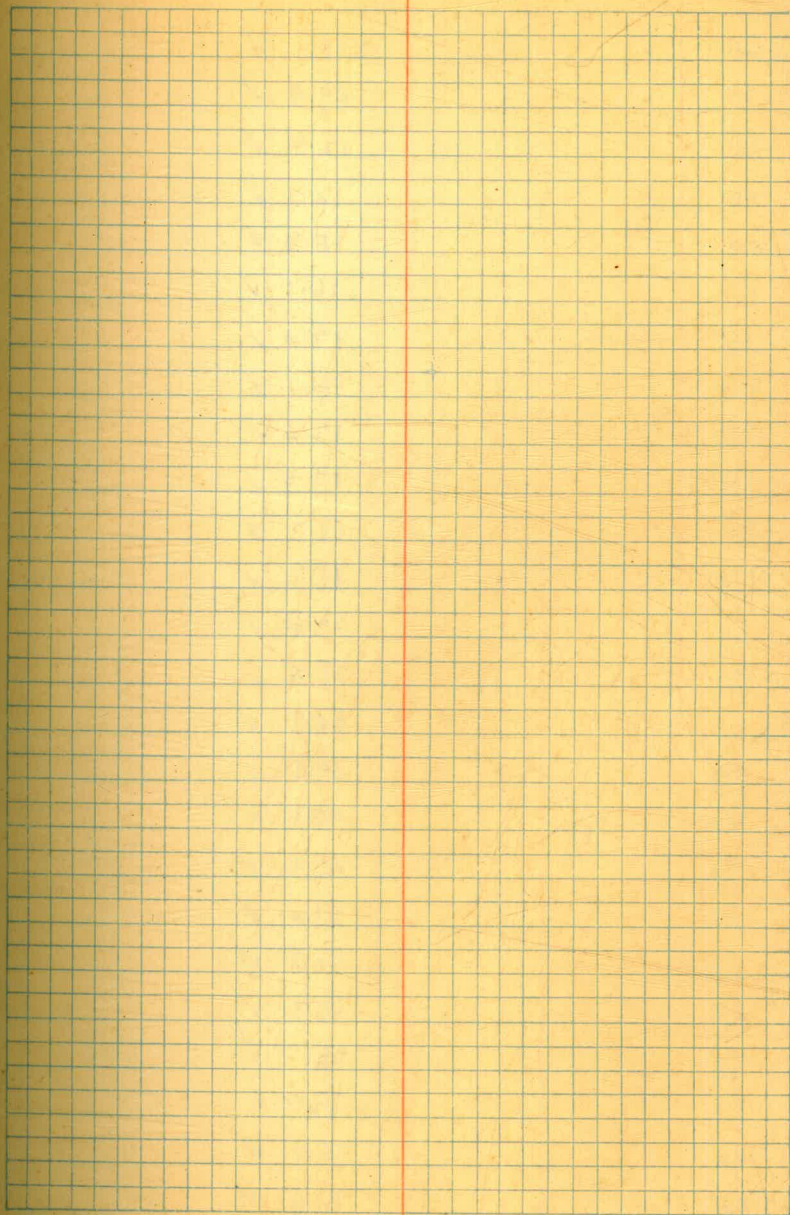
19.3 ✓

90

21.0 ✓

5600

23.1 ✓



N 4230

Elev.

4460	613.1	✓
70	09.9	✓
80	12.2	✓
90	14.7	✓
4500	15.3	✓
10	16.1	✓
20	17.0	✓
30	16.1	✓
40	17.0	✓
50	17.2	✓
60	18.2	✓
70	18.7	✓
80	22.6	✓
90	28.4	✓
4600	34.3	✓
10	39.5	✓
20	45.6	✓
30	49.4	✓
40	57.0	✓
50	60.5	✓
60	65.3	✓
70	68.1	✓
80	72.2	✓
90	76.3	✓
4700	81.6	✓

66

N° 42 30

Elev.

4710

685.9 ✓

20

89.2 ✓

30

95.7 ✓

40

99.4 ✓

50

705.1 ✓

60

710.6 ✓

70

717.1 ✓

80

232 ✓

90

27.5 ✓

4800

32.7 ✓

10

37.5 ✓

20

48.2 ✓

30

53.9 ✓

40

58.7 ✓

50

64.6 ✓

60

69.3 ✓

70

77.8 ✓

80

84.0 ✓

90

88.6 ✓

4900

93.1 ✓

10

97.3 ✓

20

799.6 ✓

30

800.6 ✓

40

801.5 ✓

50

801.3 ✓

67

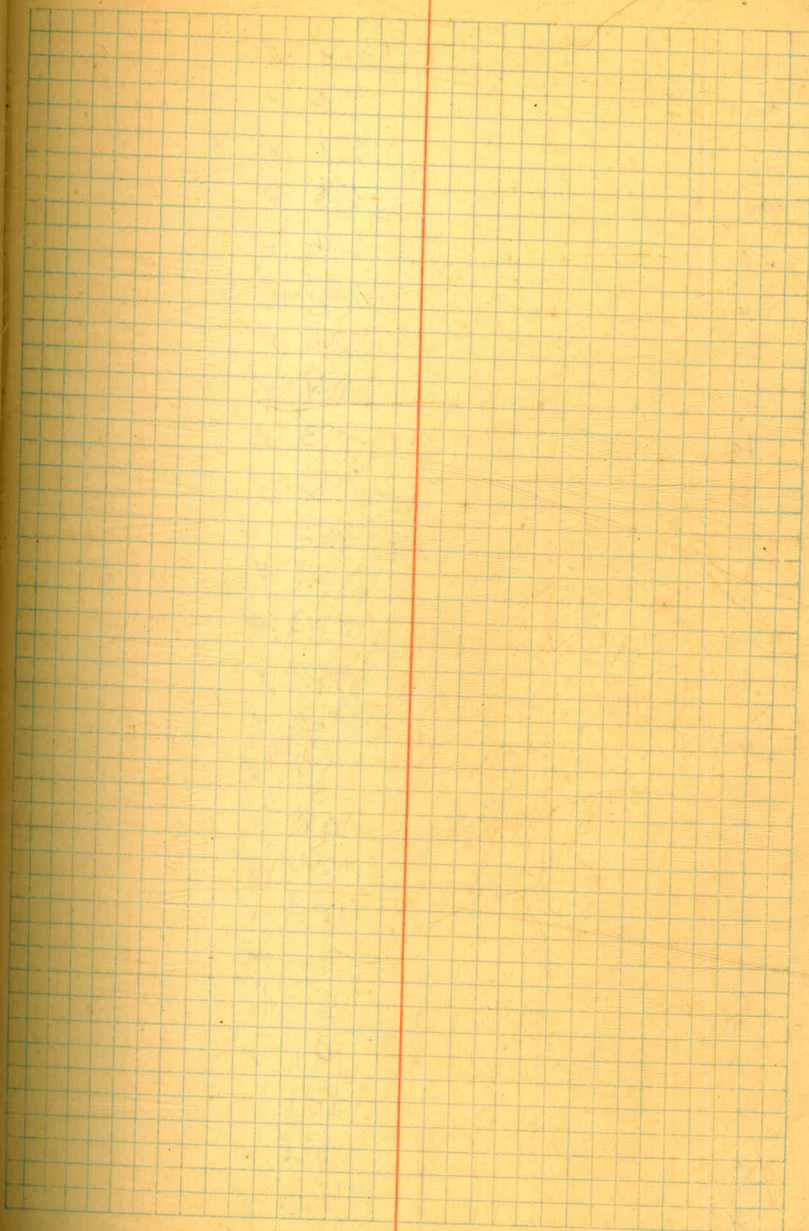
88

N 4230

POE

68

E			
4960		801.0	✓
70		800.3	✓
80		797.8	✓
90		95.9	✓
5000		944	✓
10		916	✓
20		87.7	✓
30		85.4	✓
40		81.3	✓
50		77.0	✓
60		74.1	✓
70		70.4	✓
80		66.4	✓
90		62.5	✓
5100.		57.6	✓
10		52.2	✓
20		46.9	✓
30		41.3	✓
40		36.0	✓
50		42.0	✓
60		42.6	✓
70		39.6	✓
80		38.7	✓
90		35.2	✓
5200.		733.7	✓



5210	731.9	✓
20	32.4	✓
30	28.1	✓
40	27.6	✓
50	27.6	✓
60	26.5	✓
70	22.8	✓
80	16.9	✓
90	11.3	✓
5300	69.6	✓
10	68.3	✓
20	702.5	✓
30	692.3	✓
40	698.0	✓
50	702.8	✓
60	67.9	✓
70	10.4	✓
80	12.6	✓
90	14.4	✓
5400	16.1	✓
10	16.3	✓
20	19.1	✓
30	20.1	✓
40	21.5	✓
50	722.6	✓

K4230

F.O.

70

5460	7225	✓	✓
70	199	✓	.
80	156	✓	.
90	100	✓	.
5500	7054	✓	.
10	6950	✓	.
20	7024	✓	.
30	122	✓	.
40	207	✓	.
50	224	✓	.
60	234	✓	.
70	235	✓	.
80	244	✓	.
90	291	✓	.
5600	7292	✓	.

E	N° 42 40	Elev.	
4460		614.7	✓
70		12.3	✓
80		13.9	✓
90		16.8	✓
4500		17.8	✓
10		18.2	✓
20		20.2	✓
30		19.2	✓
40		20.2	✓
50		21.6	✓
60		22.5	✓
70		23.5	✓
80		24.5	✓
90		29.0	✓
4600		34.3	✓
10		40.5	✓
20		45.6	✓
30		51.1	✓
40		56.0	✓
50		60.4	✓
60		66.5	✓
70		70.2	✓
80		74.0	✓
90		78.0	✓
4700		681.5	✓

interpr

71

4240

4710	686.2	✓
20	90.8	✓
30	95.2	✓
40	702.1	✓
50	05.7	✓
60	10.2	✓
70	17.1	✓
80	22.9	✓
90	27.6	✓
4800	31.9	✓
10	38.1	✓
20	44.6	✓
30	51.3	✓
40	55.0	✓
50	66.0	✓
60	73.2	✓
70	76.4	✓
80	82.5	✓
90	87.0	✓
4900	91.2	✓
10	96.4	✓
20	799.0	✓
30	801.1	✓
40	02.1	✓
50	802.2	✓

E

W4240

P. 95

4960	802.2	✓
70	02.1	✓
80	800.3	✓
90	798.2	✓
5000.	96.9	✓
10	94.5	✓
20	91.4	✓
30	85.6	✓
40	84.8	✓
50	80.4	✓
60	77.9	✓
70	74.0	✓
80	69.3	✓
90	65.5	✓
5100	60.4	✓
10	55.0	✓
20	50.5-50.8	✓
30	42.1	✓
40	44.7	✓
50	46.9	✓
60	47.8	✓
70	46.7	✓
80	44.2	✓
90	39.1	✓
5200.	737.6	✓

5210	736.1	✓
20	36.7	✓
30	35.2	✓
40	33.9	✓
50	34.7	✓
60	28.9	✓
70	24.4	✓
80	22.3	✓
90	19.5	✓
5300	16.1	✓
10	12.5	✓
20	706.9	✓
30	695.1	✓
40	92.8	✓
50	709.2	✓
60	11.0	✓
70	14.8	✓
80	16.7	✓
90	18.3	✓
5400.	20.4	✓
10	21.9	✓
20	23.6	✓
30	24.5	✓
40	25.9	✓
50	726.9	✓

54

N4240

F.O.

E

5460

727.1 ✓

70

26.9 ✓

80

21.1 ✓

90

14.4 ✓

5500

11.4 ✓

10

700.5 ✓

20

08.6 ✓

30

15.8 ✓

40

26.3 ✓

50

28.5 ✓

60

29.4 ✓

70

30.4 ✓

80

27.2 ✓

90

31.7 ✓

5600

733.9 ✓

F

#4250

Elev.

4460	6160	✓
70	112	✓
80	162	✓
90	192	✓
4500.	201	✓
10	214	✓
20	221	✓
30	231	✓
40	245	✓
50	265	✓
60	272	✓
70	272	✓
80	280	✓
90	272	✓
4600.	289	✓
10	394	✓
20	453	✓
30	508	✓
40	563	✓
50	609	✓
60	664	✓
70	708	✓
80	747	✓
90	790	✓
4700	6821	✓

4710	687.0	✓
20	91.4	✓
30	95.4	✓
40	699.4	✓
50	707.0	✓
60	10.7	✓
70	16.0	✓
80	21.6	✓
90	26.0	✓
4800	330	✓
10	375	✓
20	446	✓
30	510	✓
40	545	✓
50	586	✓
60	69.9	✓
70	74.8	✓
80	81.1	✓
90	86.1	✓
4900	91.0	✓
10	96.1	✓
20	799.2	✓
30	800.9	✓
40	036	✓
50	803.9	✓

N 4250

P. 0.0

4960	8039	✓
70	02.3	✓
80	01.5	✓
90	800.4	✓
5000	798.3	✓
10	96.5	✓
20	94.7	✓
30	91.7	✓
40	85.5	✓
50	83.8	✓
60	80.9	✓
70	77.5	✓
80	72.1	✓
90	68.4	✓
5100.	64.0	✓
10	60.1	✓
20	53.5	✓
30	46.0	✓
40	50.0	✓
50	52.8	✓
60	55.7	✓
70	51.3	✓
80	48.5	✓
90	45.5	✓
5200	743.3	✓

5210	741.7	✓
20	42.5	✓
30	40.9	✓
40	39.6	✓
50	34.2	✓
60	33.9	✓
70	31.2	✓
80	29.8	✓
90	26.4	✓
5300	22.8	✓
10	18.4	✓
20	12.7	✓
30	07.7	✓
40	04.2	✓
50	10.5	✓
60	13.4	✓
70	16.1	✓
80	21.3	✓
90	24.1	✓
5400	24.7	✓
10	26.4	✓
20	28.1	✓
30	29.7	✓
40	31.0	✓
50	731.3	✓

P.O.

Special Areas

ck. Plot: as shown by 9-14-34 - CBH

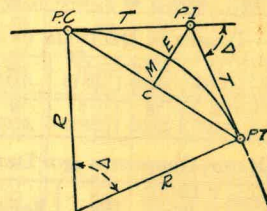
Elev.	P.O.
5460	731.8 ✓
70	31.0 ✓
80	25.8 ✓
90	19.8 ✓
5500	15.3 ✓
10	09.5 ✓
20	06.3 ✓
30	22.1 ✓
40	29.6 ✓
50	34.5 ✓
60	35.6 ✓
70	36.2 ✓
80	34.2 ✓
90	35.3 ✓
5600	740.7 ✓

Plotting checked as shown by - 9-14-34 BBH

Cont. in 371-1

DIETZGEN'S RAILROAD CURVE AND REDUCTION TABLES

Copyright, 1914, by Eugene Dietzgen Co., New York City



CURVE FORMULAS

Radius= $R = \frac{50}{\sin \frac{D}{2}}$ (1) Degree of Curve= D and $\sin \frac{D}{2} = \frac{50}{R}$ (2)

Tangent= $T = R \tan \frac{\Delta}{2}$ (3) Length of Curve= $L = 100 \frac{\Delta}{D}$ (4)

Middle ordinate= $M = R(1 - \cos \frac{\Delta}{2})$ (5) $= R \text{vers} \frac{\Delta}{2}$ (6)

External= $E = T \tan \frac{\Delta}{4}$ (7) $= R \div \cos \frac{\Delta}{2} - R$ (8) $= R \text{exsec} \frac{\Delta}{2}$ (9)

Long Chord= $C = 2 R \sin \frac{\Delta}{2}$ (10) $\Delta = \text{Central Angle}$

EXPLANATION AND USE OF TABLES

Stations.—Given P. I.—Sta. 161+60.35 to find Sta. of P. C. and P. T. $\Delta = 62^\circ 10'$ $D = 8^\circ 20'$. From Table IV for 1° curve $T = 3454.1$ and $\div 8\frac{1}{3} = 414.49$ ft. From Table V correction = .36 or $T = 414.85$ ft. P. C.—Sta. P. I.— $T = 157 + 45.50$. Also from (4) $L = 746.00$ and P. T.—Sta. P. C. + $L = 164 + 91.50$.

Offsets.—Tangent offsets vary (approximately) directly with D and with square of the distance. Thus tangent offset for Sta. 158 on above curve is 2.16 ft. found as follows. From Table III tangent offset for 100 ft. = 7.27 ft. Distance = 158—Sta. P. C. = 54.50, hence offset = $7.27 (54.50 \div 100)^2 = 2.16$ ft. Also square of any distance divided by twice the radius equals (approximately) the distance from tangent to curve. Thus $(54.50)^2 \div (2 \times 688.26) = 2.16$ ft.

Deflections.—Deflection angle = $\frac{1}{2} D$ for 100 ft., $\frac{1}{4} D$ for 50 ft., etc. For c ft. = (in minutes) $.3 \times C \times D^\circ$ or = defl. for 1 ft. from Table III $\times C$. For Sta. 158 of above curve = $.3 \times 54.5 \times 8\frac{1}{3} = 136.2'$ or $2^\circ 16.2'$, or = $2.50 \times 54.5 = 136.2'$ from Table III. For Sta. 159 deflection angle = $2^\circ 16.2' + 8^\circ 20' \div 2 = 6^\circ 26.2'$, etc.

Externals.—May be found in similar manner to tangents. Thus E for curve above is 91.37. For from Table IV for 1° curve $E = 960.6$ for $8^\circ 20' = 960.6 \div 8\frac{1}{3} = 91.27$ and from Table V correction = .10 or $E = 91.37$ ft. Or suppose $\Delta = 32^\circ$ and E is measured and found to be 42 ft. What is D ? From Table IV $E = 230.9$ and $\div 42 = 5.5$ or $D = 5^\circ 30'$.

DISTANCES FROM CENTER OF ROADWAY FOR
CROSS-SECTIONING.

Roadway 16 feet wide. Side Slopes 1 on 1½.

For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.2	8.3	8.5	8.6	8.8	8.9	9.1	9.2	9.4	0
1	9.5	9.7	9.8	10.0	10.1	10.3	10.4	10.6	10.7	10.9	1
2	11.0	11.2	11.3	11.5	11.6	11.8	11.9	12.1	12.2	12.4	2
3	12.5	12.7	12.8	13.0	13.1	13.3	13.4	13.6	13.7	13.9	3
4	14.0	14.2	14.3	14.5	14.6	14.8	14.9	15.1	15.2	15.4	4
5	15.5	15.7	15.8	16.0	16.1	16.3	16.4	16.6	16.7	16.9	5
6	17.0	17.2	17.3	17.5	17.6	17.8	17.9	18.1	18.2	18.4	6
7	18.5	18.7	18.8	19.0	19.1	19.3	19.4	19.6	19.7	19.9	7
8	20.0	20.2	20.3	20.5	20.6	20.8	20.9	21.1	21.2	21.4	8
9	21.5	21.7	21.8	22.0	22.1	22.3	22.4	22.6	22.7	22.9	9
10	23.0	23.2	23.3	23.5	23.6	23.8	23.9	24.1	24.2	24.4	10
11	24.5	24.7	24.8	25.0	25.1	25.3	25.4	25.6	25.7	25.9	11
12	26.0	25.2	26.3	26.5	26.6	26.8	26.9	27.1	27.2	27.4	12
13	27.5	27.7	27.8	28.0	28.1	28.3	28.4	28.6	28.7	28.9	13
14	29.0	29.2	29.3	29.5	29.6	29.8	29.9	30.1	30.2	30.4	14
15	30.5	30.7	30.8	31.0	31.1	31.3	31.4	31.6	31.7	31.9	15
16	32.0	32.2	32.3	32.5	32.6	32.8	32.9	33.1	33.2	33.4	16
17	33.5	33.7	33.8	34.0	34.1	34.3	34.4	34.6	34.7	34.9	17
18	35.0	35.2	35.3	35.5	35.6	35.8	35.9	36.1	36.2	36.4	18
19	36.5	36.7	36.8	37.0	37.1	37.3	37.4	37.6	37.7	37.9	19
20	38.0	38.2	38.3	38.5	38.6	38.8	38.9	39.1	39.2	39.4	20
21	39.5	39.7	39.8	40.0	40.1	40.3	40.4	40.6	40.7	40.9	21
22	41.0	41.2	41.3	41.5	41.6	41.8	41.9	42.1	42.2	42.4	22
23	42.5	42.7	42.8	43.0	43.1	43.3	43.4	43.6	43.7	43.9	23
24	44.0	44.2	44.3	44.5	44.6	44.8	44.9	45.1	45.2	45.4	24
25	45.5	45.7	45.8	46.0	46.1	46.3	46.4	46.6	46.7	46.9	25
26	47.0	47.2	47.3	47.5	47.6	47.8	47.9	48.1	48.2	48.4	26
27	48.5	48.7	48.8	49.0	49.1	49.3	49.4	49.6	49.7	49.9	27
28	50.0	50.2	50.3	50.5	50.6	50.8	50.9	51.1	51.2	51.4	28
29	51.5	51.7	51.8	52.0	52.1	52.3	52.4	52.6	52.7	52.9	29
30	53.0	53.2	53.3	53.5	53.6	53.8	53.9	54.1	54.2	54.4	30
31	54.5	54.7	54.8	55.0	55.1	55.3	55.4	55.6	55.7	55.9	31
32	56.0	56.2	56.3	56.5	56.6	56.8	56.9	57.1	57.2	57.4	32
33	57.5	57.7	57.8	58.0	58.1	58.3	58.4	58.6	58.7	58.9	33
34	59.0	59.2	59.3	59.5	59.6	59.8	59.9	60.1	60.2	60.4	34
35	60.5	60.7	60.8	61.0	61.1	61.3	61.4	61.6	61.7	61.9	35
36	62.0	62.2	62.3	62.5	62.6	62.8	62.9	63.1	63.2	63.4	36
37	63.5	63.7	63.8	64.0	64.1	64.3	64.4	64.6	64.7	64.9	37
38	65.0	65.2	65.3	65.5	65.6	65.8	65.9	66.1	66.2	66.4	38
39	66.5	66.7	66.8	67.0	67.1	67.3	67.4	67.6	67.7	67.9	39
40	68.0	68.2	68.3	68.5	68.6	68.8	68.9	69.1	69.2	69.4	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 41.9. For same slopes but other widths of roadbed correct above figures by one-half difference in width of roadbed; thus in example above for 20 ft. roadbed distance will be $41.9 + (20 - 16) \div 2$ or 2 ft. added to 41.9 = 43.9. For slopes of 1 on 1 see inside of front cover.

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