

DETAILED

MINING

TRANSIT BOOK

No. 422F

727

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.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	0
1	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	1
2	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	2
3	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	3
4	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	4
5	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	5
6	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	6
7	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	7
8	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	8
9	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	9
10	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	10
11	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	11
12	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	12
13	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	13
14	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	14
15	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	15
16	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	16
17	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	17
18	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	18
19	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	19
20	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	20
21	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	21
22	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	22
23	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	23
24	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	24
25	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	25
26	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	26
27	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	27
28	36.0	36.1	36.2	36.3	36.4	36.5	36.6	36.7	36.8	36.9	28
29	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.8	37.9	29
30	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38.7	38.8	38.9	30
31	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39.9	31
32	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	32
33	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	33
34	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	34
35	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	35
36	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	36
37	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	37
38	46.0	46.1	46.2	46.3	46.4	46.5	46.6	46.7	46.8	46.9	38
39	47.0	47.1	47.2	47.3	47.4	47.5	47.6	47.7	47.8	47.9	39
40	48.0	48.1	48.2	48.3	48.4	48.5	48.6	48.7	48.8	48.9	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 $30.6 + (20 - 16) \times 2$ or 2 ft. added to 30.6 = 32.6. For slopes of 1 on $1\frac{1}{2}$ see inside of back cover.

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Please Return to
City of San Diego Water Dept.
Room 902 Civic Center
Telephone Main 5161

This Field Book is manufactured of a High Grade 50% Rag Paper having a WATER RESISTING SURFACE, and is sewed with Bing Special Enamel Waterproof thread.

Made in U. S. A.

notes indexed

to page

- 11 - 1/20/48 m.s.d.
23 - 8/6/48 m.s.d.
33 - 10/15 m.s.d.
70 - 10/20 m.s.d.
73 - 11/30/48 m.s.d.
75 - 1/4/49 m.s.d.
76/77 - 3/1/49 m.s.d.
57 - m.s.d.
59 - m.s.d.

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Plans Profile (Preliminary) Madison St
St Pipeline ✓

Grades on Madison St pipeline 12-16

Lake Hodges from structure ^{at 395'} on 18-19
Aqueduct to road - profile

Lake Hodges from road to well #4
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LEVELS FOR ELEVATIONS OF RANGE ENDS - SURVEY
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Alice

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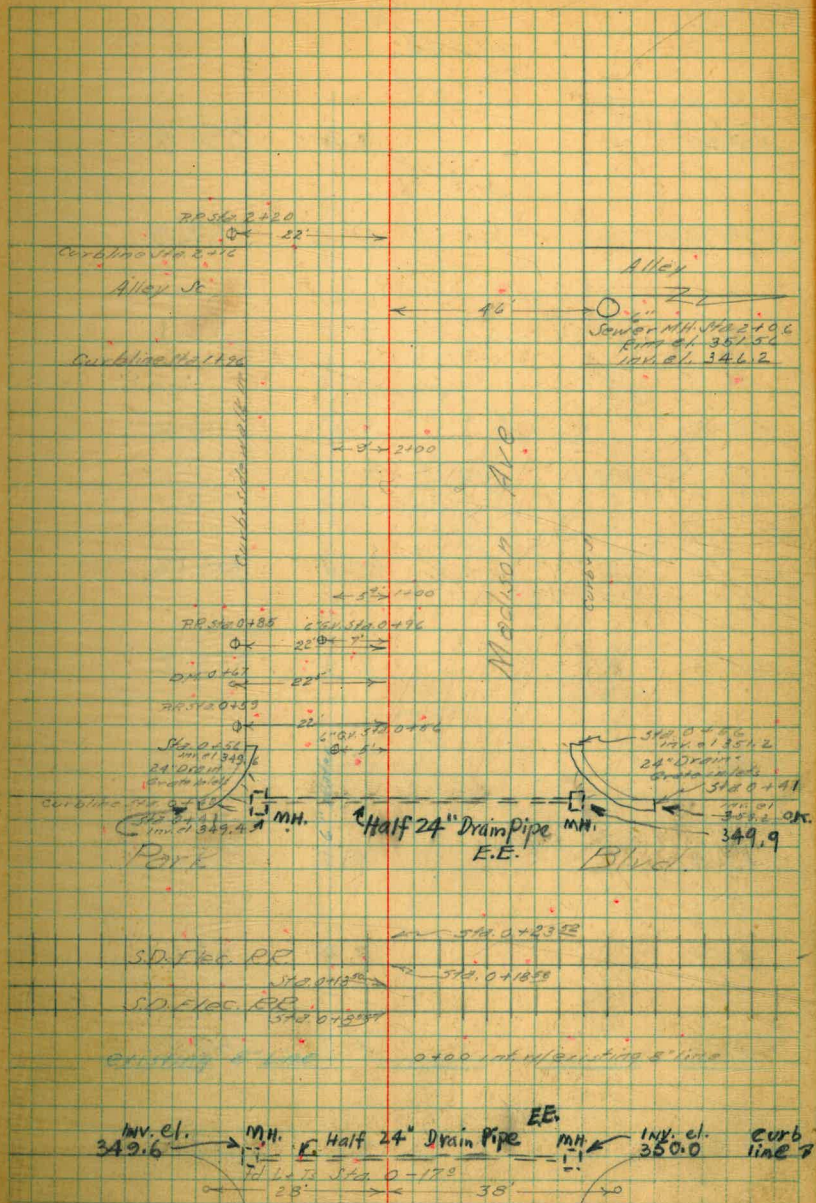
Levels for Topo survey Merced Lake ✓ 42 -
Alice

Profile + Alignment
Madison St. Pipeline

Jan. 16, 1947
19, 1947

Rainey
King
Morrow

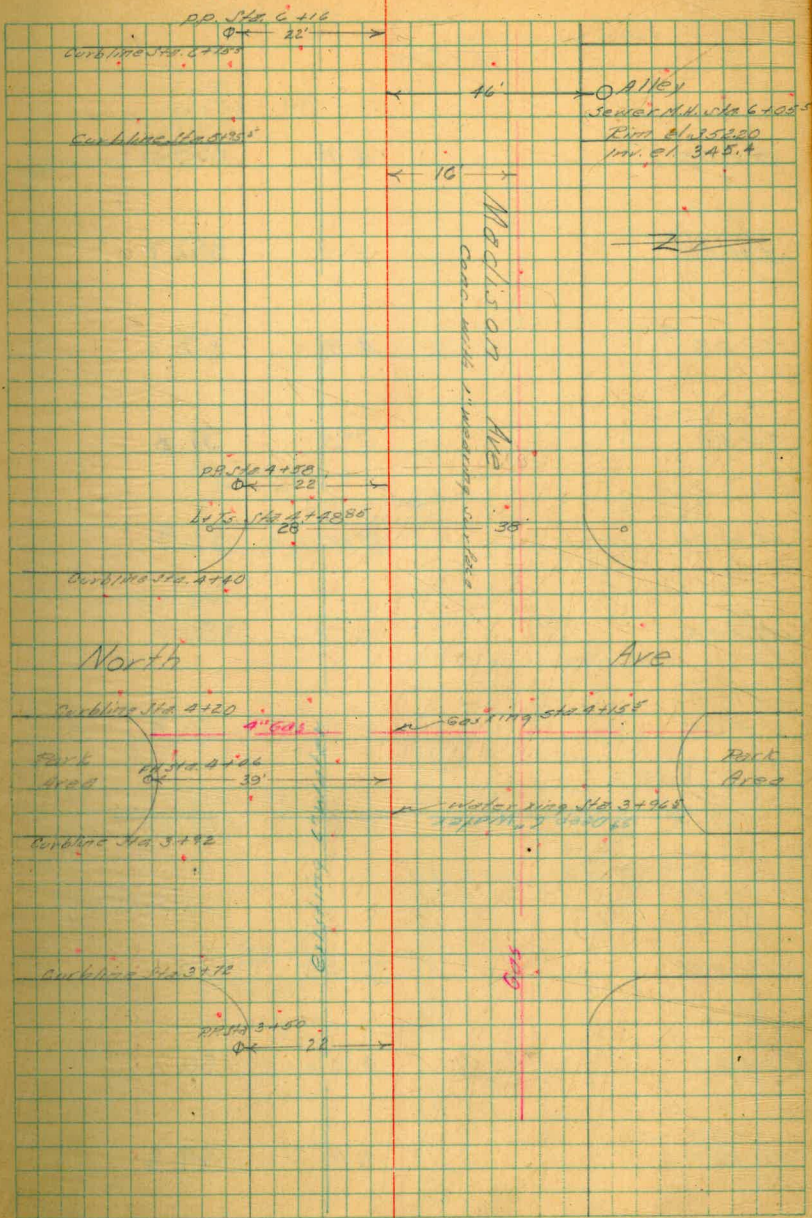
BM. BR. 1/2 Cor. Monroe + Park	344.38	
6.82	351.80	
TR #1	1.35	350.45
5.18	355.63	
0+00	4.6	351.0
0+08 ⁵⁵ E Rail	4.80	350.83
0+13 ⁵⁰ W Rail	4.80	350.83
0+18 ⁵⁵ E Rail	4.82	350.81
0+23 ⁵⁵ W Rail	4.82	350.81
0+50	4.6	51.0
1+00	4.4	51.2
1+50	4.2	51.4
2+00	4.0	51.6
2+50	3.9	51.7



Profile & Alignment
Madison St. Pipeline

Station	Grade	Elevation
3+00	3.8	351.8
3+50	3.6	52.0
4+00	3.5	52.1
T.P. #2	3.49	352.14
4+20	5.5	351.6
4+50	4.9	352.2
5+00	4.8	52.3
6+00	4.7	52.4
6+50	4.5	52.6
7+00	4.3	52.8
7+50	4.2	52.9

4.97 352.11

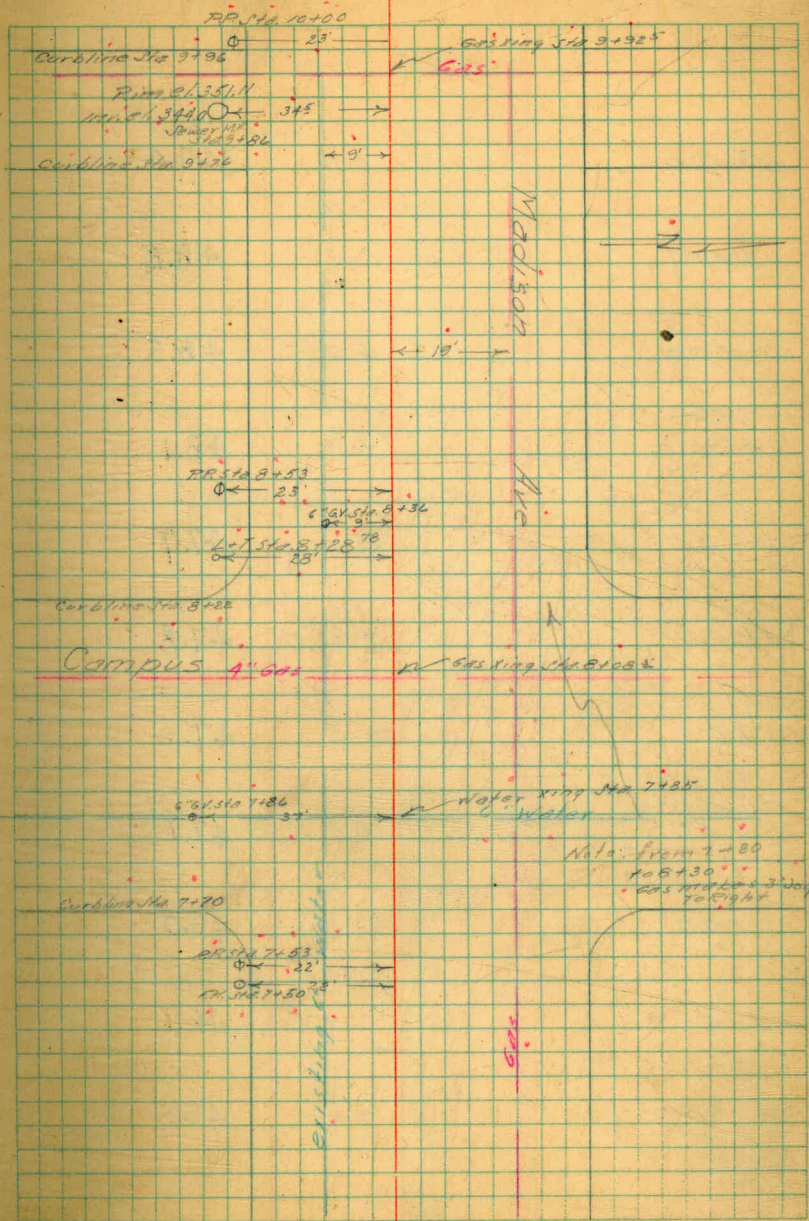


Profile + Alignment
Madison St Pipeline

357.11

6+00	4.1	353.0
8+50	4.4	352.7
9+00	4.9	52.2
9+50	5.3	51.8
10+00	5.8	51.3
10+50	6.3	350.8
11+00	6.8	50.3
T.P. #3	6.79	350.32
2.47	352.79	
11+50	2.7	350.1
12+00	2.6	50.2
12+50	3.0	49.8

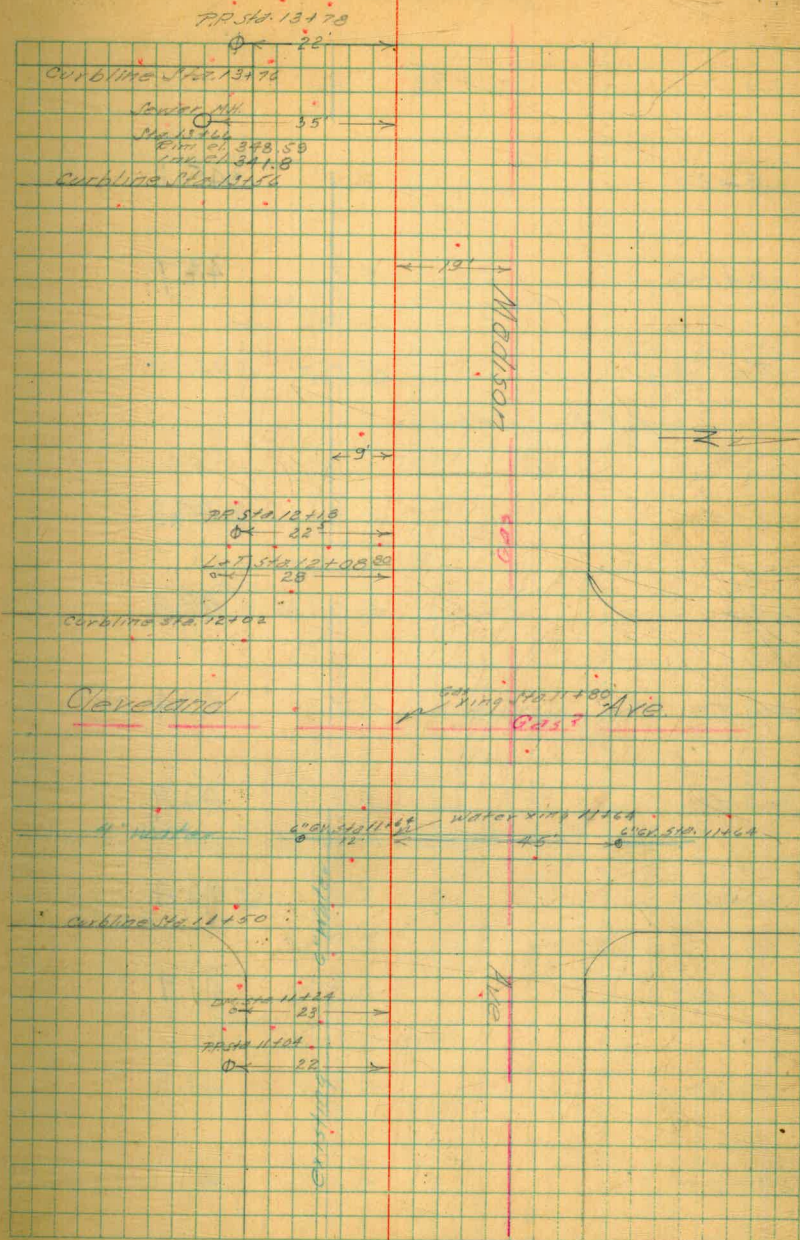
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Profile + Alignment
Madison St. Pipeline

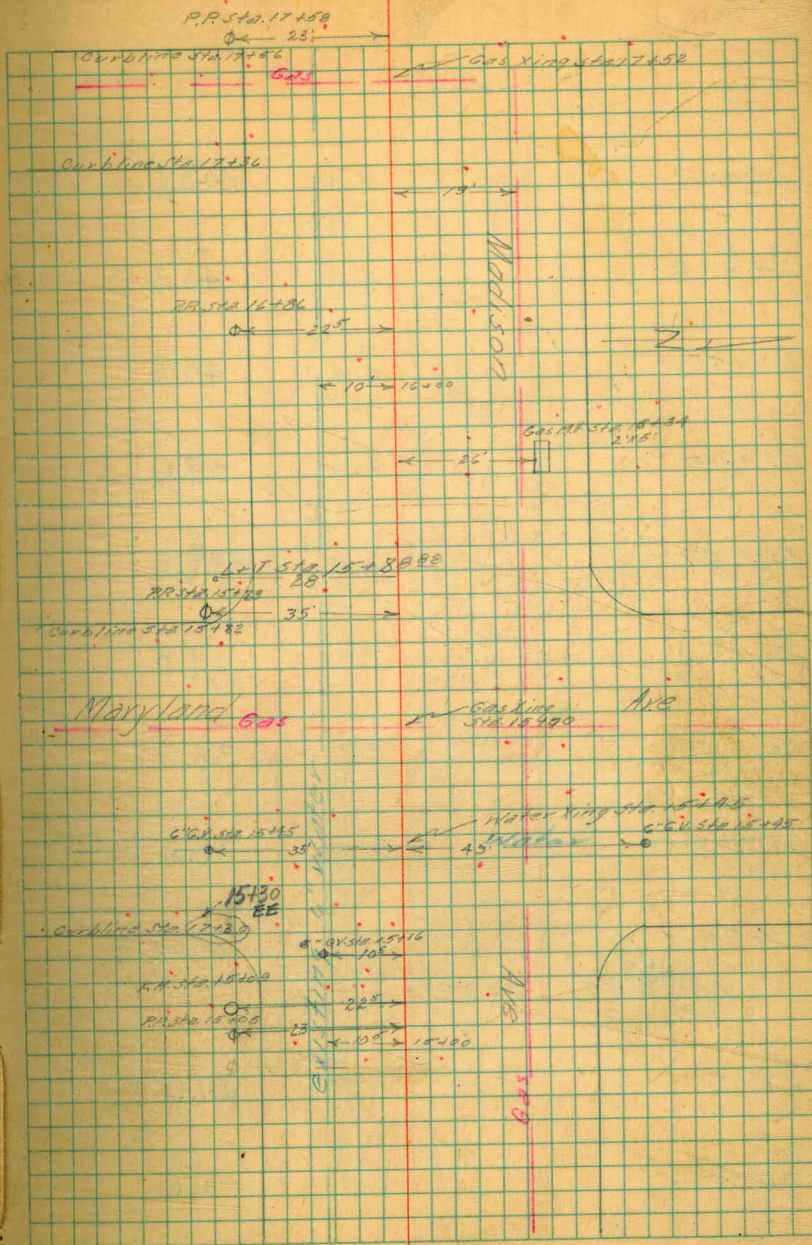
352.79

13+00	3.4	349.4
13+50	3.9	48.9
14+00	4.3	48.5
14+50	4.7	48.1
15+00	5.1	47.7
15+50	5.0	47.8
16+00	5.2	47.6
16+50	5.7	47.1
17+00	6.3	46.5
17+50	6.7	46.1
18+00	7.3	45.5

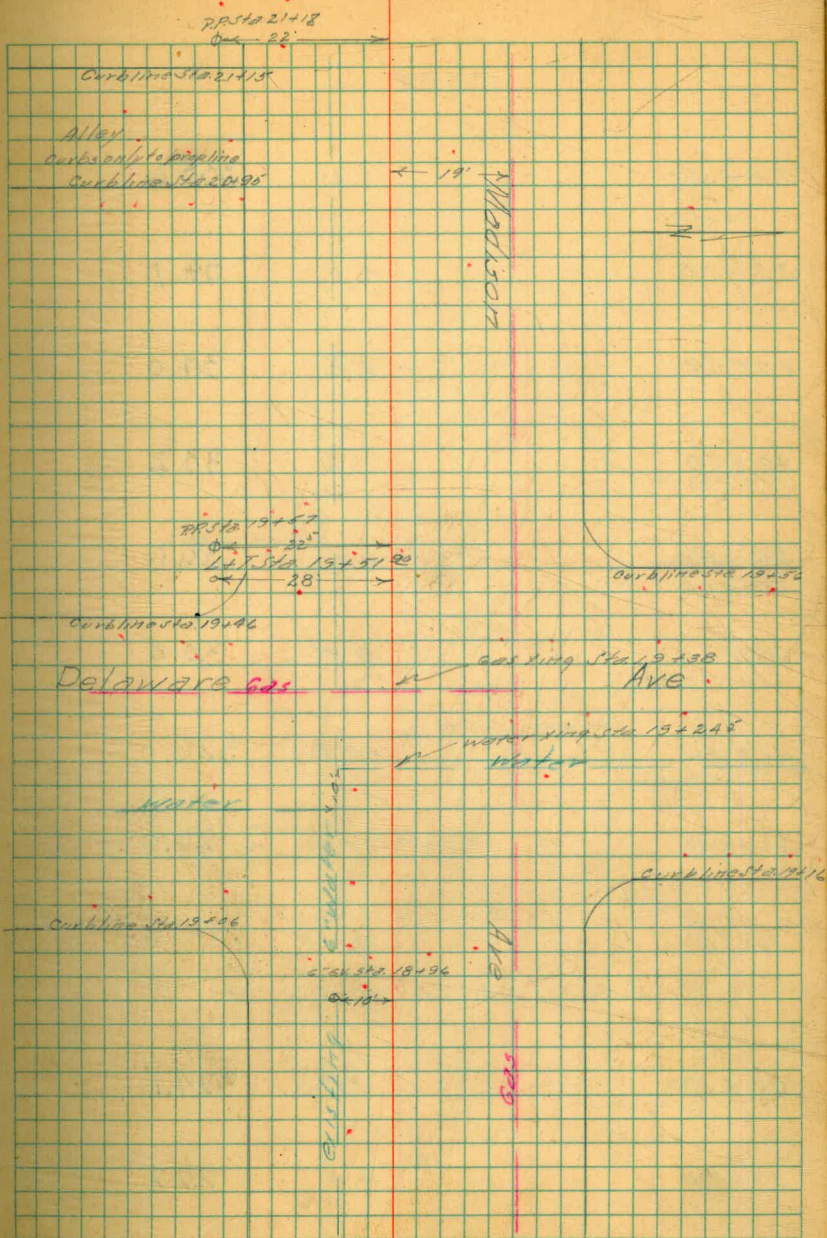


Profile + Alignment
Madison St. Pipeline

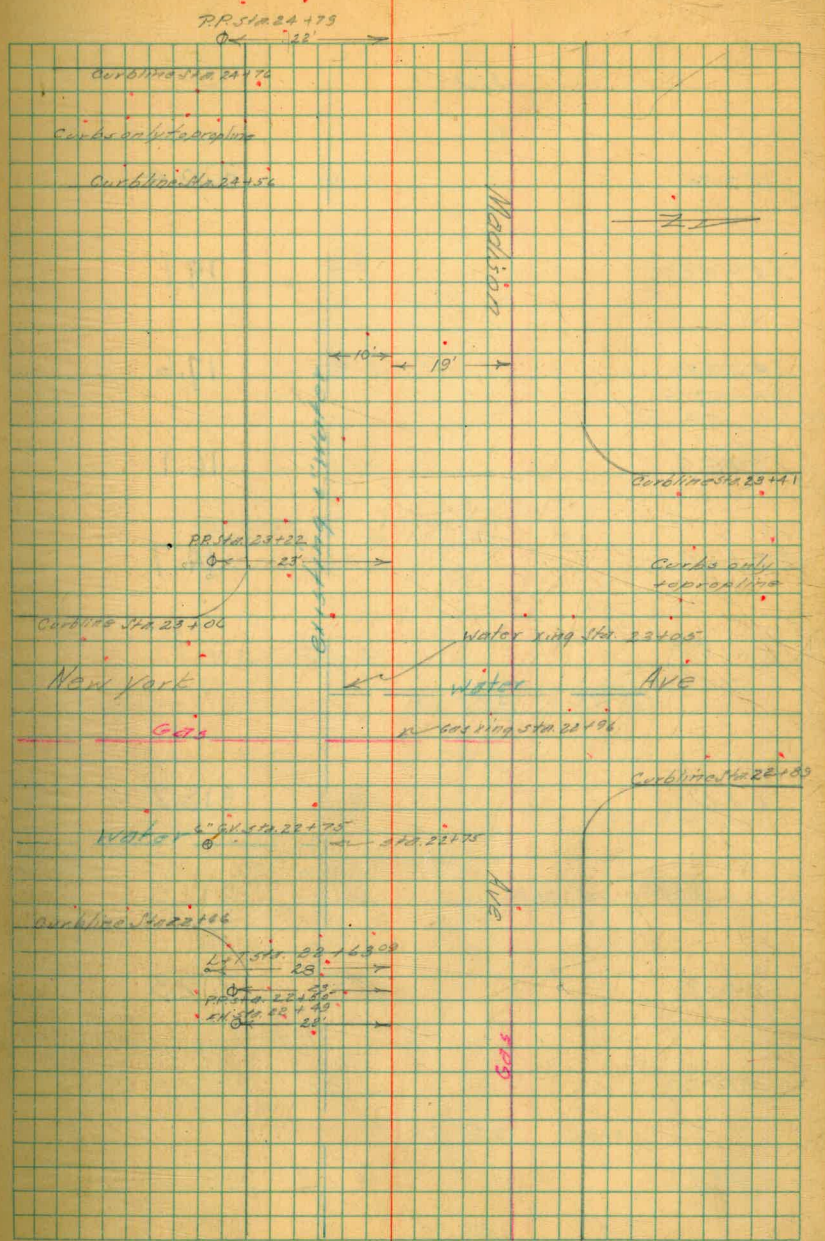
Station	Offset	Elevation
	352.79	
18+50	7.7	345.1
19+00	8.1	44.7
TP#4	8.07	344.72
	1.44	346.16
19+50	1.9	344.3
20+00	2.3	43.9
20+50	2.8	43.4
21+00	3.3	42.9
21+50	3.8	42.4
22+00	4.3	41.9
22+50	4.7	41.5
23+00	5.1	41.1



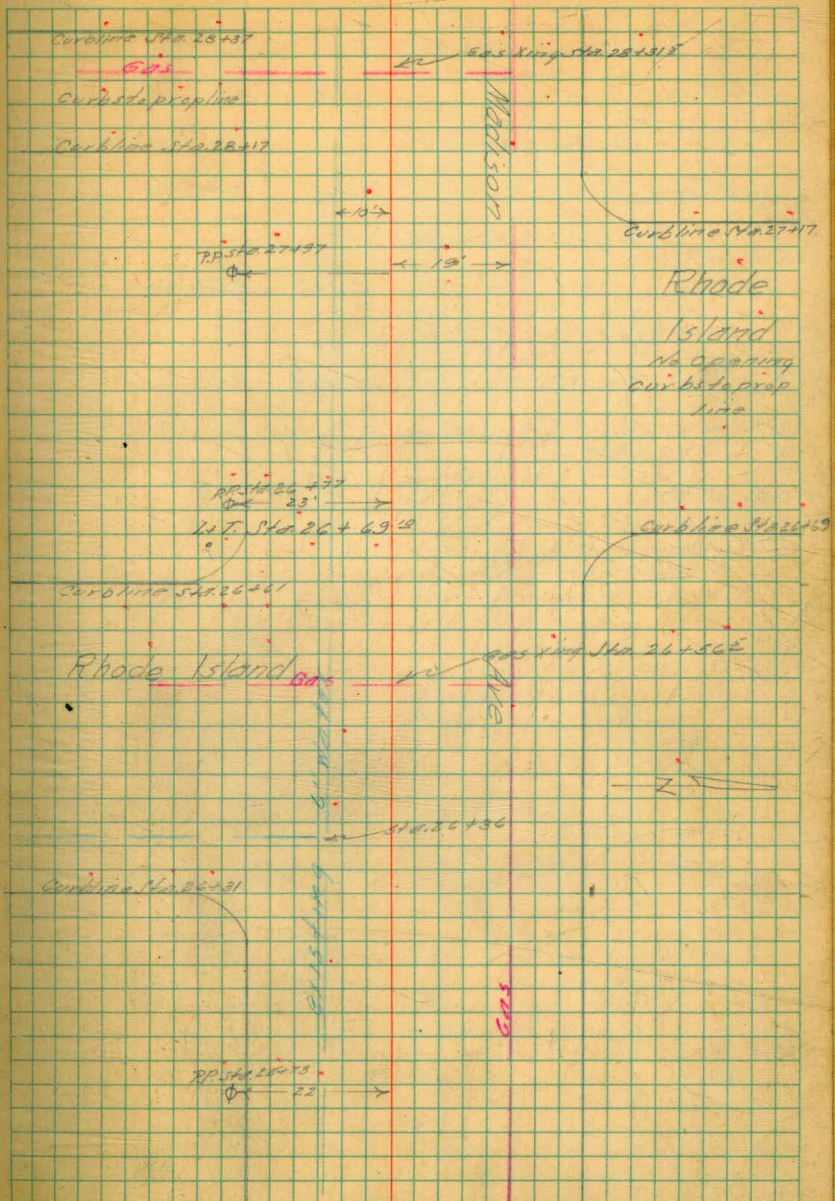
	346.16		
23+50	5.6	340.6	
24+00	5.9	40.3	
24+50	6.2	40.0	
25+00	6.6	39.6	
25+50	6.9	339.3	
26+00	7.2	39.0	
26+50	7.7	38.5	
27+00	8.0	38.2	
T.P. #5	7.97	338.19	
	0.65	338.84	
27+50	1.3	337.5	
28+00	2.2	36.6	



	338.84		
28+50	3.2	335.6	
29+00	4.1	34.7	
29+50	4.8	34.0	
30+00	5.6	33.2	
30+50	6.7	32.1	
31+00	8.8	30.0	
31+50	10.8	328.0	
32+00	12.8	26.0	
TR #6	12.65	326.19	
	0.63	327.02	
32+50	2.9	324.1	
33+00	4.8	22.2	

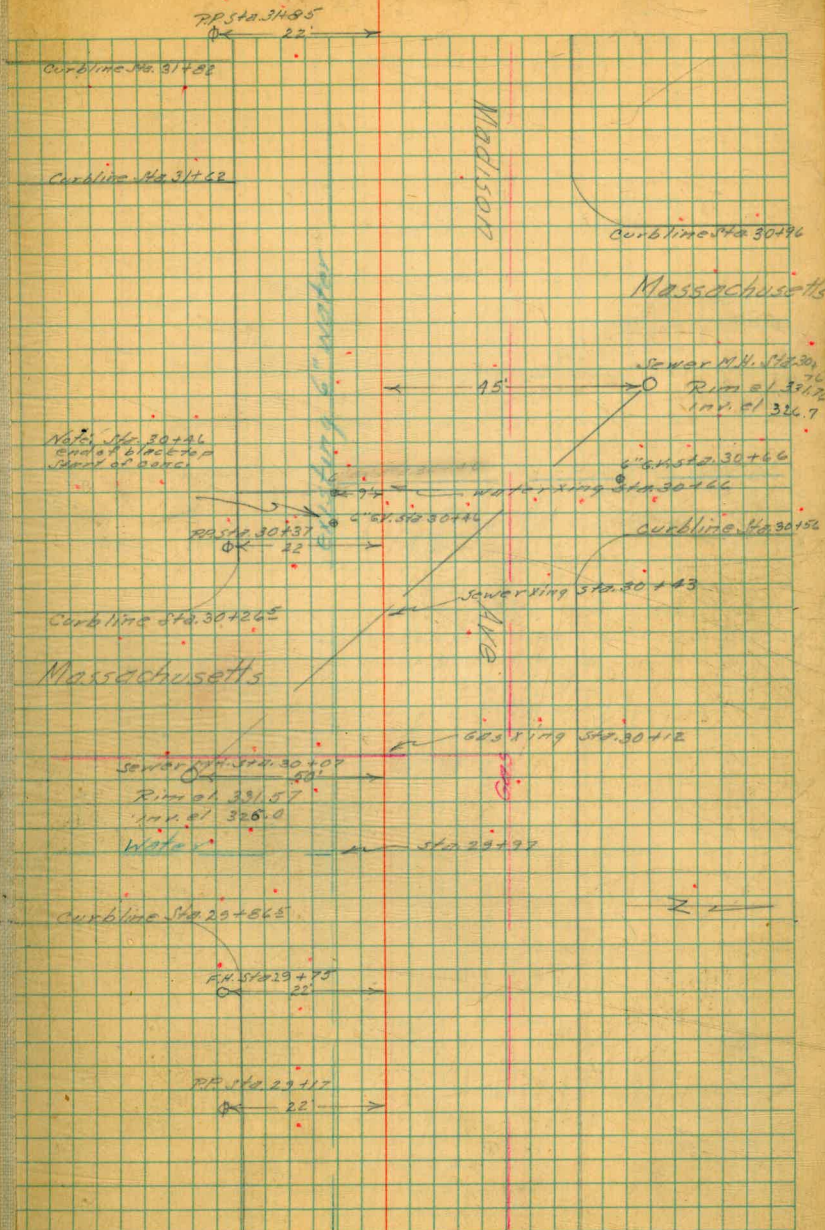


	327.02		
33+50	6.6	320.4	
34+00	7.9	19.1	
34+50	9.4	17.6	
35+00	10.9	16.1	
35+50	12.3	14.7	
TP#7	12.50	314.52	
	8.96	323.48	
36+00	10.3	313.2	
36+21 ⁴ end conc.	11.0	312.5	
36+50	11.2	312.3	
TP#8	0.60	322.88	
	13.00	335.88	
TP#9	0.55	335.35	
	8.49	343.84	



Madison St Pipeline
Profile + Alignment

	343.84		
TP #10	1.95	341.89	
TP #11	8.76	350.65	
TP #12	1.70	348.95	
	7.61	356.56	
TP #12	3.92	352.64	
	3.05	355.69	
B.P.	Cor. Monroe + Park 10.69	345.00	



725 Sta 33+63
22' →

1/2" 7.5' 2" 33+52.5
20' →

Carbline Sta 33+31
62.5

625+122 Sta 33+47

New
Hampshire

Sewer NH Sta 33+37
5'0" R.I. 1.321.02
T.M.C. 306.5

625+50 Sta 33+27

Carbline Sta 33+22
40' →
T.M.C. 33+21

Madison

← 9' →

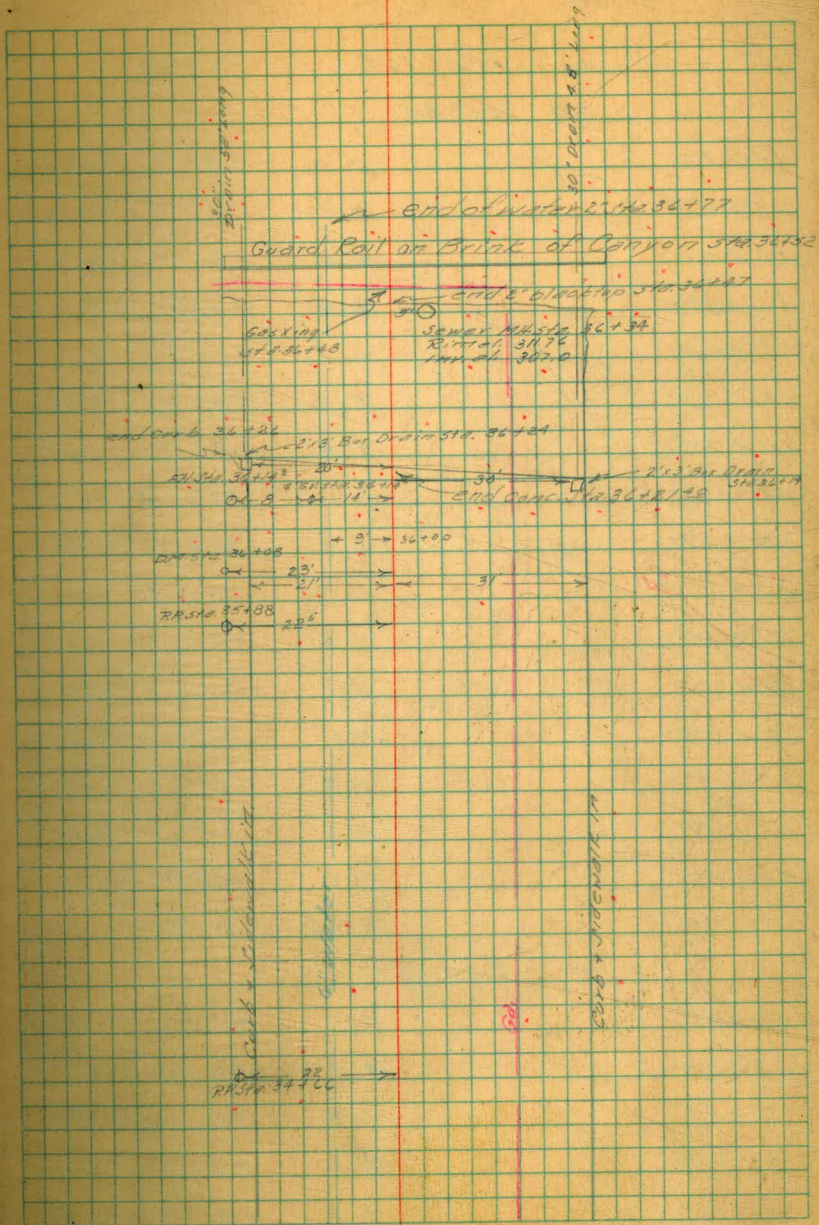
5'0" End of Sewer Sta 22+34.5
4/5

← 19' →

existing carbline

62.5

Profile and Alignment
Madison St. Pipeline



Madison St. for Construction

July 9, 1948

Rainier 12
King
West

Rim of sewer M.H. 13+66		348.59	
2.82	351.41		
15+50	3.8	349.6	343.6
15+65	3.8	347.6	342.7
16+00	4.0	347.4	342.6
16+50	4.5	346.9	342.6
17+00	5.1	346.3	342.5
17+50	5.5	345.9	342.4
17+75	5.8	345.6	342.4
18+00	6.0	345.4	342.2
18+50	6.5	344.9	341.8
19+00	6.9	344.5	341.3
19+15	7.0	344.4	341.2
19+35	7.1	344.3	341.2
19+50	7.3	344.1	341.2
20+00	7.7	343.7	340.1
20+50	8.1	343.3	340.0
21+00	8.6	342.8	339.6
T.P. #1	8.86	342.55	
2.70	345.25		
21+50	3.1	342.2	339.1
22+00	3.5	341.8	338.6
22+50	3.9	341.4	338.2
22+74	4.1	341.2	338.0
22+95	4.3	341.0	336.8

4.0 ✓
4.9 ✓
4.8 ✓
4.3 ✓
3.8 ✓
3.5 ✓
3.2 ✓
3.2 ✓
3.1 ✓
3.2 ✓
3.2 ✓
3.1 ✓
3.2 ✓
3.9 ✓
3.6 ✓
3.3 ✓
3.2 ✓
3.1 ✓
3.2 ✓
3.2 ✓
4.2 ✓

345.25

23+00	4.3	341.0	336.8
23+50	4.7	340.6	336.7
24+00	5.0	340.3	336.7
24+50	5.3	340.0	336.6
25+00	5.7	339.6	336.2
25+50	6.0	339.3	335.8
26+00	6.3	339.0	335.5
26+37	6.6	338.7	335.3
26+55	6.8	338.5	334.6
27+00	7.2	338.1	334.5
27+50	7.9	337.4	334.3
28+00	8.7	336.6	333.3
28+50	9.4	335.6	332.2
TP	9.30	335.95	

0.29 336.24

29+00	1.5	334.7	331.3
29+50	2.3	333.9	330.6
29+76	2.7	333.5	330.2
30+00	3.1	333.1	328.8
30+10	3.3	332.9	328.3
30+50	4.2	332.0	328.3
30+67	4.9	331.3	328.3
31+00	6.3	329.9	326.7
31+50	8.2	328.0	324.7

4.2 ✓

3.9 ✓

3.6 ✓

3.4 ✓

3.4 ✓

3.5 ✓

3.5 ✓

3.4 ✓

3.9 ✓

3.6 ✓

3.1 ✓

3.3 ✓

3.3 ✓

3.4 ✓

3.3 ✓

3.3 ✓

3.3 ✓

4.6 ✓

3.7 ✓

3.0 ✓

3.2 ✓

3.3 ✓

Aug. 3-5, 1948

Rainey 14
King
West
Adams

	336.24			
32+00	10.2	326.0	322.7	
32+50	12.2	324.0	320.7	
T.P.	11.93	324.31		
	1.59	325.90		
32+75	2.8	323.1	319.9	
33+00	3.7	322.2	318.4	
33+45	5.2	320.7	315.9	
34+00	6.9	319.0	315.8	
34+50	8.3	317.6	314.2	
35+00	9.9	316.0	312.7	
35+50	11.3	314.6	311.2	
36+00	12.8	313.1	309.8	
36+25	13.3	312.6	309.0	
36+50	13.7	311.9	309.0	
EMA Sewer N.H.H.	4.85	321.05	corr. 321.0	

ERail		350.83		
	5.69	356.52		
0+00 ⁷	5.5	351.0	347.4	
0+50	5.5	351.0	347.4	
1+00	5.5	351.0	347.4	
1+50	5.4	351.1	347.5	
2+00	5.2	351.3	347.5	
2+50	5.1	351.4	347.6	

3.3

3.3

3.2

3.8

4.8

3.2

3.4

3.3

3.4

3.3

3.5

2.9

3.6

3.6

3.6

3.6

3.8

3.8

356.52

3+00	4.9	351.6	347.6
3+50	4.7	351.8	347.7
4+00	4.5	352.0	347.7
4+15	4.7	351.8	347.0
4+30	4.9	351.6	347.0
4+50	5.1	351.4	348.0
5+00	4.6	351.9	348.4
6+50	4.5	352.0	348.6
6+00	4.3	352.2	348.7
6+50	4.1	352.4	348.9
7+00	4.0	352.5	349.1
7+50	3.9	352.6	349.3
8+00	3.7	352.8	348.0
T.P.#1	3.71	352.81	
2.00		354.81	
8+50	2.2	352.6	347.9
9+00	2.7	352.1	347.9
9+50	3.1	351.7	347.8
10+00	3.6	351.2	347.7
10+50	4.1	350.7	347.2
11+00	4.6	350.2	346.8
11+50	4.8	350.0	346.7
11+85	4.6	350.2	346.6
12+00	4.7	350.1	345.8
12+10	4.8	350.0	345.5

2.75

4.0
4.1
4.3
4.8
4.6
3.4
3.5
3.4
3.5
3.5
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3.3
4.8
4.7
4.2
3.9
3.5
3.5
3.4
3.3
3.6
4.0
4.5

Madison St. for Constr.
Cont.

354.81

12+50	5.2	349.6	345.4
13+00	5.5	349.3	345.4
13+50	6.1	348.7	345.3
14+00	6.5	348.3	344.9
14+50	6.9	347.9	344.5
15+00	7.2	347.6	344.0
15+44	7.3	347.5	343.9
ck to N.H. firm.	6.33		

4.2

3.9

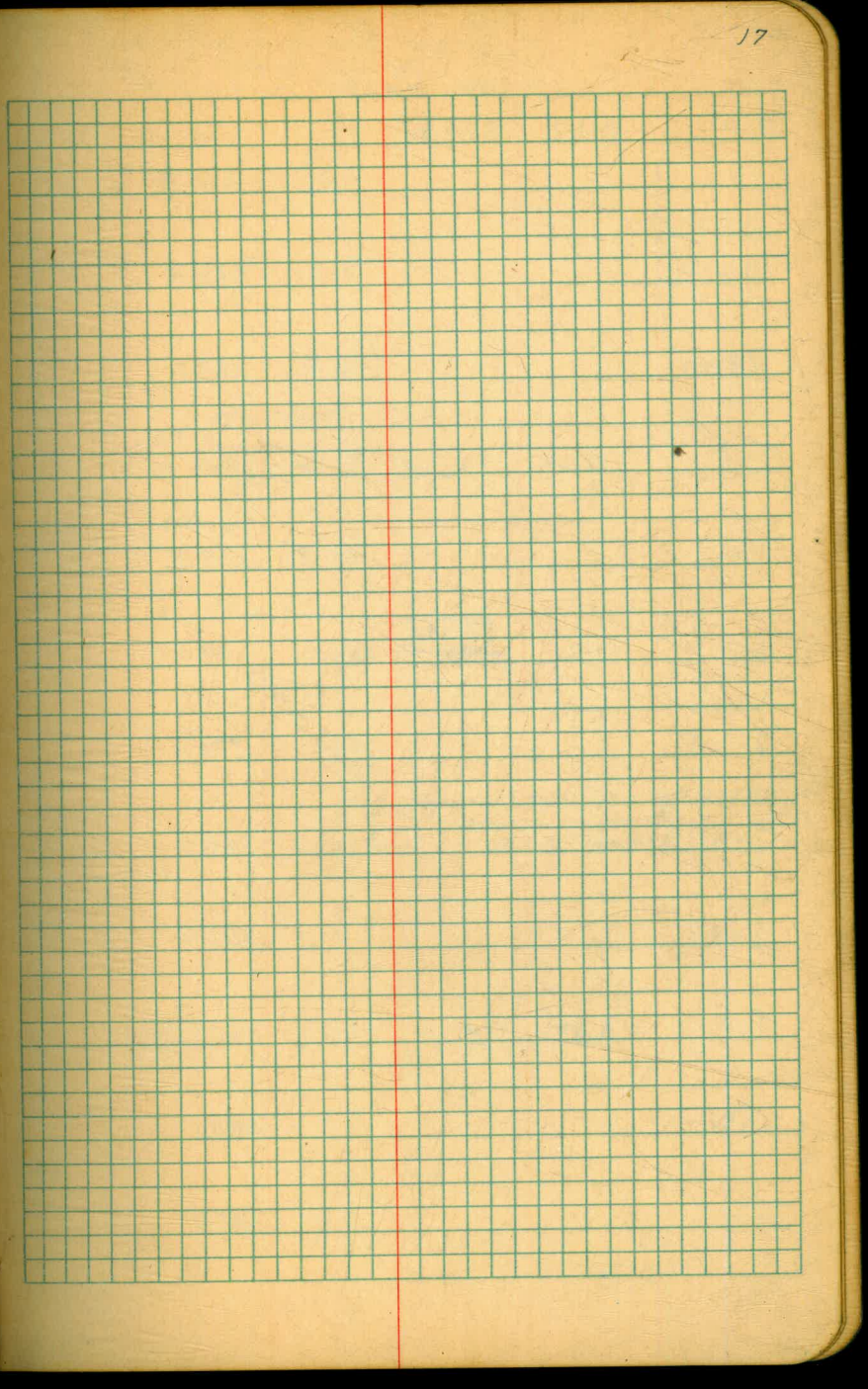
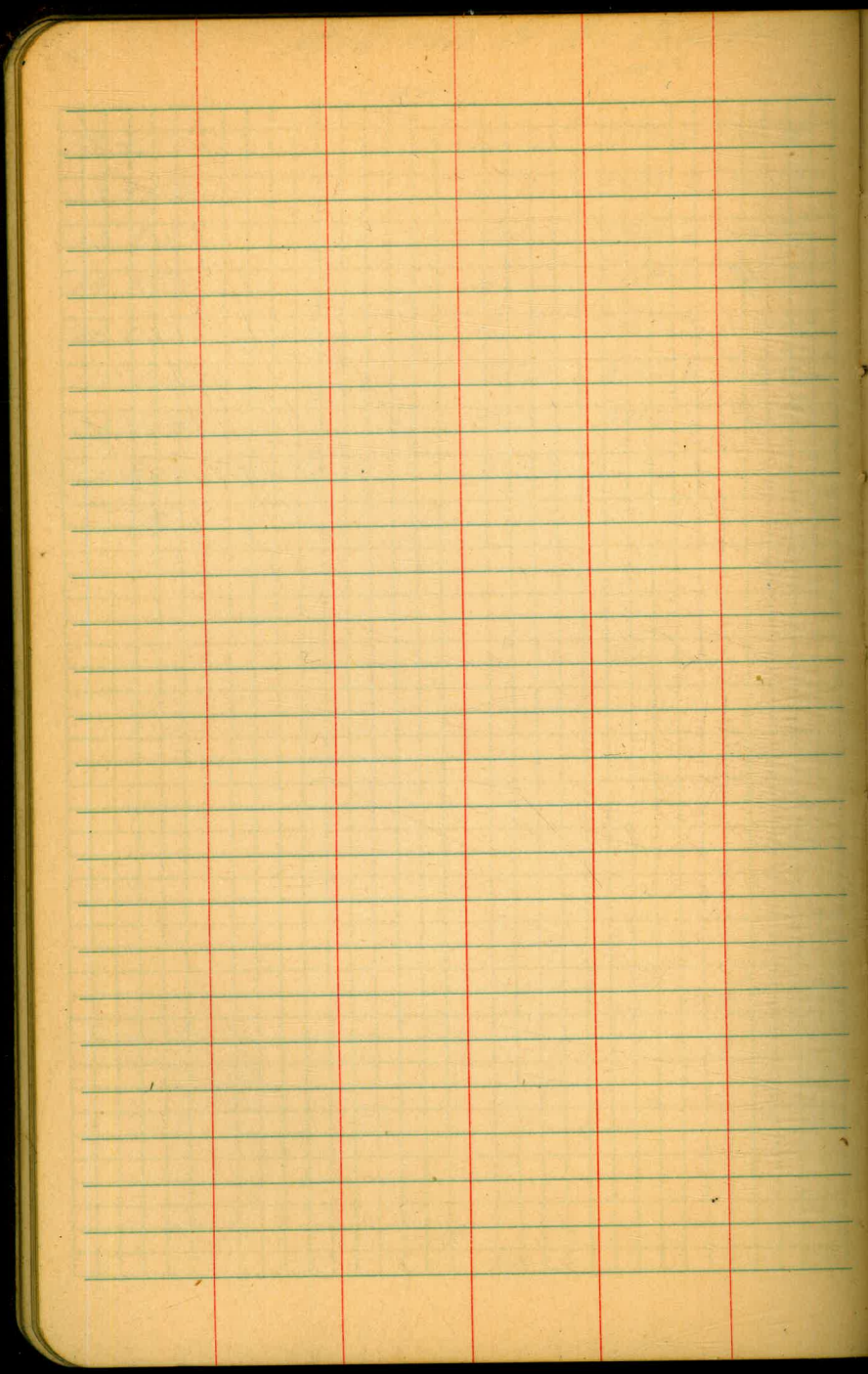
3.4

3.4

3.4

3.6

3.6



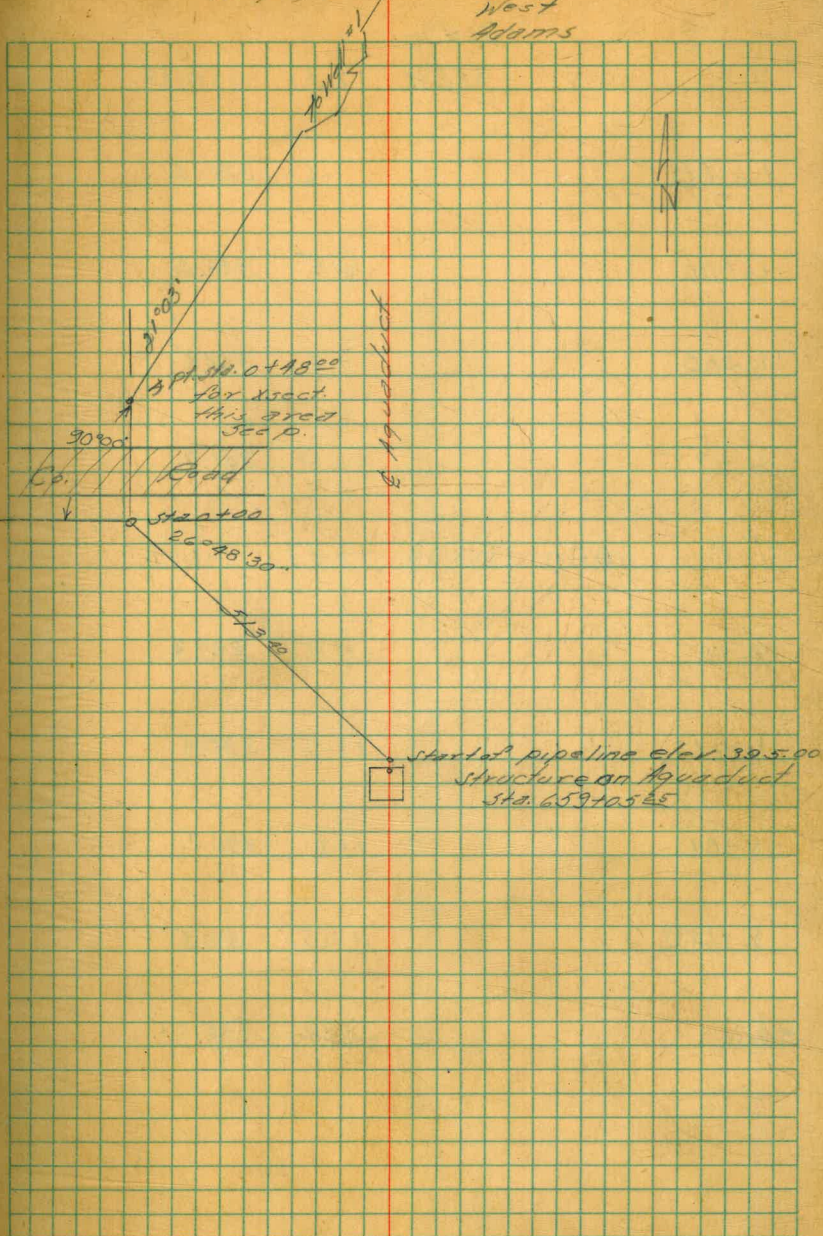
Lake Hodges from
structure on
Aqueduct to road

B.M.	0.62	398.96		398.34	N.E. Cor 8.0. Chamber
0+00			3.96	395.0	
0+50			9.2	389.8	
1+00			16.9	382.1	
T.P.	0.19	386.05	13.10	385.86	
1+50			10.3	375.7	
T.P.	1.12	375.67 376.67	11.50	374.55	
2+00			5.4	370.3	
2+50			11.2	364.5	
2+83			14.0	361.7	
T.P.	8.89	344.70	11.86	363.81	
3+00			6.6	358.1	
3+50			12.0	352.7	

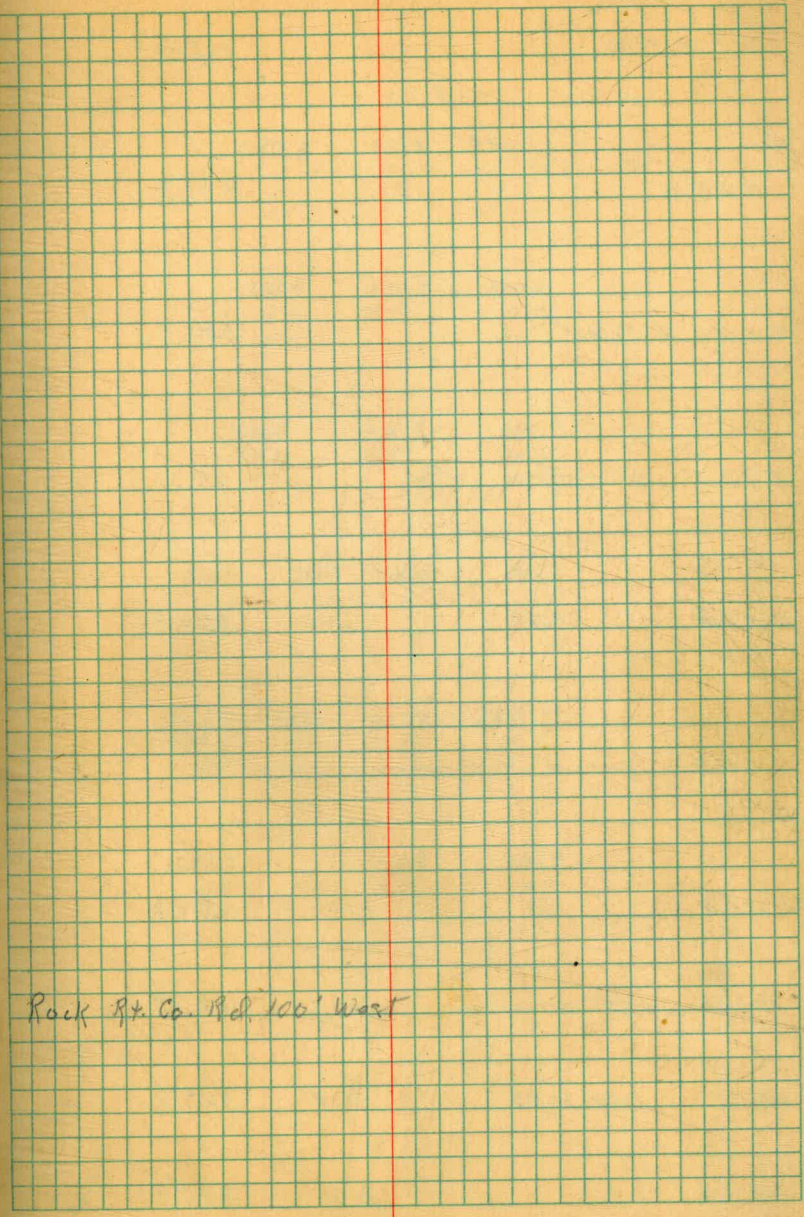
Aug. 5, 1948

Rainey
King
West
Adams

18



		344.70		
T.P.	0.57	352.96	12.31	352.39
3+66			1.6	350.4
4+00			6.5	345.5
4+08			7.6	344.4
4+25			10.8	341.2
T.P.	0.70	341.79	11.87	341.09
4+50			4.5	337.3
4+71			11.5	330.3
5+00			11.6	330.2
5+1340			11.3	330.5
T.B.M.			8.88	332.91



Rock Pt. Co. Ref. 100' West

Lake Hodges
From road to well #1

el. T.B.M.		332.91
2.66	335.57	
0+00		330.2
0+11 to Road		330.7
0+25 N edge Rd.		330.9
0+34	loc	329.3
0+48	int. w pipe from well #1	327.3
0+64		326.9
0+48	3 Pt. on grade	8.3 327.3
1+00	on pipe	9.7 325.9
1+34	"	11.3 324.3

Sta.	ft.	ft.	ft.
0+00	530.5 5.1 25	530.2 5.4 25	330.2 5.4 25
	331.0 4.6 25	330.7 4.9 25	330.6 5.0 25
	330.9 4.7 25	330.9 4.7 25	330.9 4.7 25
	327.8 7.8 25	328.2 7.4 9.0	329.3 6.3 25
	326.9 8.7 25	327.6 8.0 6.0	327.3 8.3 25
	326.1 8.5 25	326.9 8.7 25	326.9 8.7 25

335.57

1+50 on pipe 12.5 323.1

TP #1 12.57 323.00

0.30 323.30

2+00 on pipe 3.2 320.1

2+50 " 5.5 317.8

3+00 " 7.0 316.3

3+38 on pipe 6.5 316.8

3+50 " 6.4 316.9

4+00 " 6.2 317.1

4+50 " 6.4 316.9

4+60 " 6.5 316.8

5+00 7.0 316.3

TP 6.97 316.33

9.58 319.93

21

319.23

5420 on pipe 4.0 315.8

5450 5.7 314.1

6400 7.0 312.8

6454 Lowpt. 7.9 311.9

7400 5.0 314.8

7430 3.4 316.4

7460 2.8 317.0

7480 2.8 317.0

8400 3.1 316.7

8444⁵⁰ from well #1
1st w/line 3.6 316.2

ck. to Aqueduct Structure 0.74 319.09 Corr. 319.05

T.P. 3.09 317.74

10.75 318.04
T.P. 6.09 318.38

8.22 336.60

3.5' nested well #4

Reduced 8-6-98 R.M.

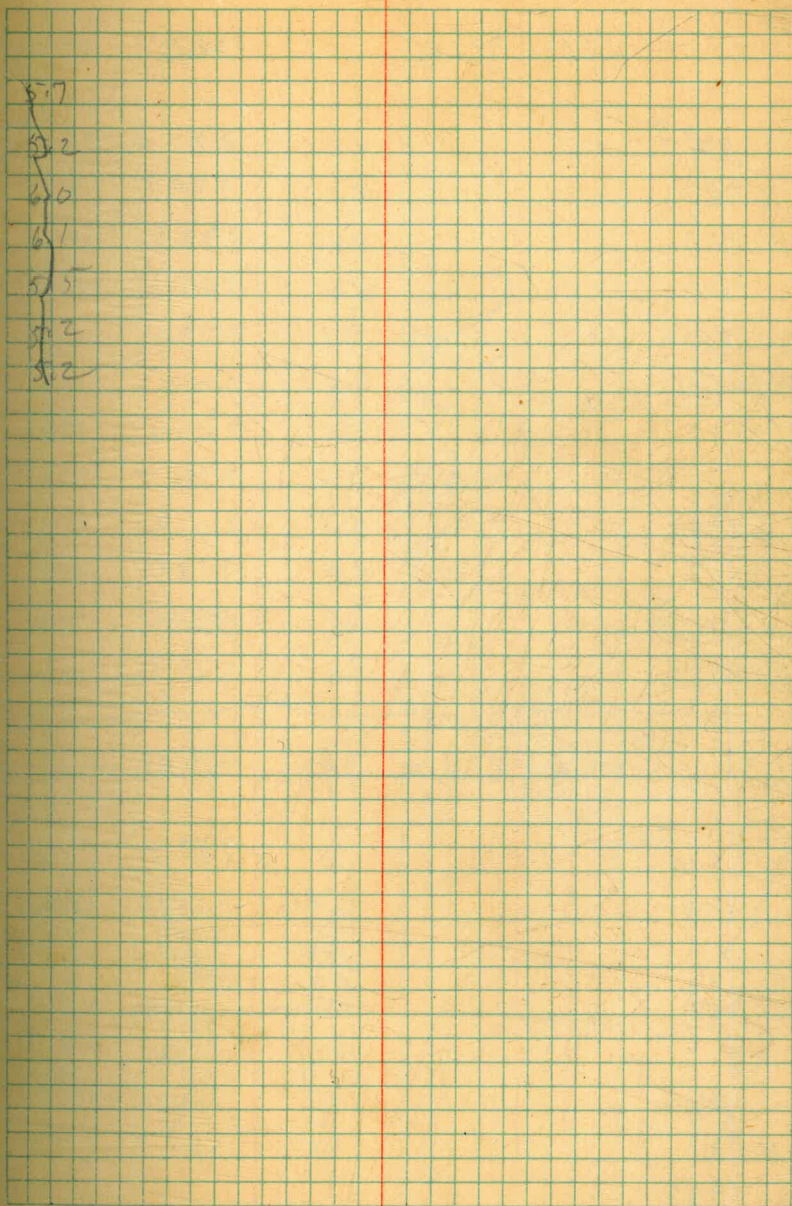
		336.60		
ck to TBM.			2.69	333.91
T.P.	H.		0.11	336.49
	12.55	349.04		
T.P.			0.20	348.84
	12.55	361.39		
T.P.			0.23	361.16
	12.53	373.69		
T.P.			0.65	373.04
	12.29	385.33		
T.P.			0.08	385.25
	1.04	386.29		

Profile - 12' OCE - Hodges
Open Ditch

	1.18	325.14	323.96	
68+00		1.4	323.7	318
67+50		1.9	323.2	318
67+00		1.1	321.0	318
66+50		1.0	324.1	318
66+00		1.6	323.5	318
65+50		1.9	323.2	318
65+36.94		1.9	323.2	318
<hr/>				
T.P. ON 65+36.94	1.88	323.26		

10-6-48

24



10-14-48

T.P.	6.56	329.64	323.08	
38+1029		7.2	22.4	318.5
⊕		7.8		
38+50		7.0	22.6	318.5
⊕		7.7		
39		6.8	22.8	318.5
⊕		7.4		
BC 350		6.5	23.1	318.5
⊕		7.0		
M.C.		6.2	23.4	318.5
⊕		6.6		
EC 40+0962		6.3	23.3	318.5
⊕		7.0		
BC 40+2157		6.5	23.1	318.5
⊕		7.1		
P.O.C.		6.7	22.9	318.5
⊕		7.2		
M.C.		6.9	22.7	318.5
⊕		7.4		
P.O.C.		6.8	22.8	318.5
⊕		7.4		
EC 40+9167		6.8	22.8	318.5
⊕		7.5		
41		6.8	22.8	318.5
⊕		7.5		
41+50		6.2	23.4	318.5
⊕		6.8		

3.9 ~~MA~~ Profile ⊕ 412' OEC sets
Hodges Ditch

26

3.9	
4.1	
4.3	
4.6	
4.9	
4.8	
4.6	
4.4	
4.2	
4.3	
4.3	
4.3	
4.0	

328.76

P.O.C.		5.5	323.3	318.4
℄		6.1	322.7	
M.C.		5.6	323.2	318.4-4.8
℄		6.4	322.4	
P.O.C.		5.8	323.0	318.4-4.6
℄		6.6	322.2	
EC.		6.0	322.8	318.4-4.4
46+83.75		6.8	322.0	
℄		6.1	322.7	318.4-4.3
47+00		6.8	322.0	
℄		5.8	323.0	318.4-4.6
47+50		6.5	322.3	
℄		5.7	323.1	318.4-4.7
48+00		6.4	322.4	
℄		5.5	323.3	318.4-4.9
48+50		6.2	322.6	
℄		6.0	322.8	318.4-4.4
BC.		6.6	322.2	
49+00				
℄				
J.P.	4.51	324.32	5.95	322.81
				OM 91449 49+00
P.O.C.		4.7	322.6	318.4
℄		5.2	322.1	
M.C.		4.5	322.8	318.4
℄		5.0	322.3	

Realignment
Lake Hodges
open ditch

Rainey 28

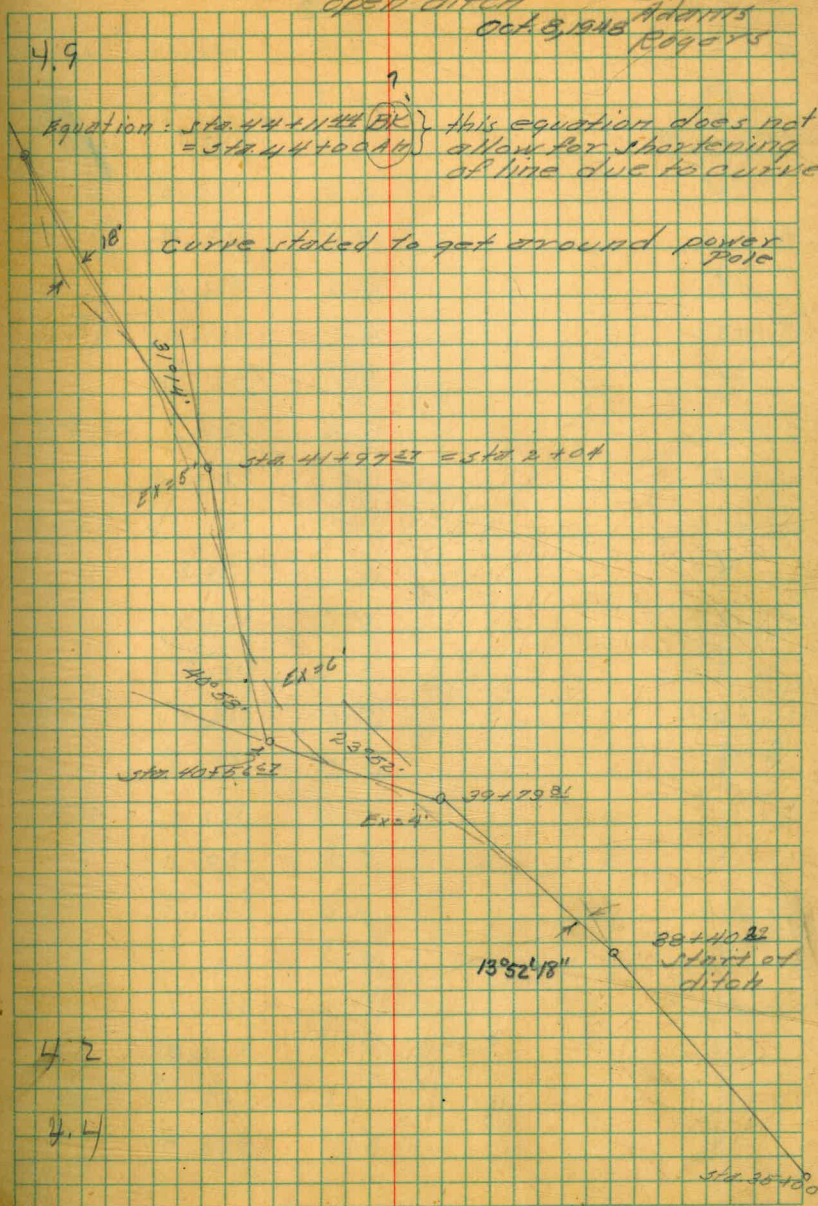
King

Baker

Adams

Rogers

Oct 8, 1945



	327.32			
P.O.C	4.3	323.0	318.4	
E	4.9	322.4		
E.C.S.O. to 400	4.1	323.1 ²	318.3	
E	4.5	322.8		
50+50	4.7	322.6	318.3	
E	5.3	322.0		
51+50	4.3	323.0	318.3	
E	4.9	322.4		
51+50	5.0	322.3	318.3	
E	5.3	322.0		
52+50	3.8	323.5	318.3	
E	4.1	323.2		
52+50	4.3	323.0	318.3	
E	4.6	322.7		
53+50	5.1	322.2	318.3	
E	5.5	321.8		
53+50	4.9	322.4	318.3	
E	5.3	322.0		
54+50	4.6	322.7	318.3	
E	5.3	322.0		
R.C. 54+21 ⁴⁵	4.6	322.7	318.3	
E	5.3	322.0		
M.C.	4.3	323.0	318.3	
E	5.0	322.3		

29
Cut

4.6

4.8

4.3

4.7

4.0

5.2

4.7

3.9

4.1

4.4

4.4

4.7

327.32

E.C. 527 7145

4.7 322.6 318.3

4.3

E

5.4 321.9 318.3

4.6

55410

4.4 322.9 318.3

E

5.2 322.1 318.3

4.2

55450

4.8 322.5 318.2

E

5.4 321.9 318.2

4.2

56410

4.9 322.4 318.2

E

5.5 321.8

4.6

+50

4.5 322.8 318.2

B.C. E

5.3 322.0

5.4

57100

3.7 323.6 318.2

E

4.6 322.7

4.9

P.O.C.

4.2 323.1 318.2

E

4.9 322.4

5.1

M.C.

4.0 323.3 318.2

E

4.8 322.5

T.F

6.24

32960

3.98 323.34

ORIGINAL
M.C.

P.O.C.

6.1 323.5 318.2

5.3

E

6.9 322.7

5.7

E.C. 527 7094

5.7 323.9 318.2

E

6.5 323.1

58100

5.5 324.1 318.2

5.9

E

6.5 323.1

329.60

58+50	5.8	323.8	318.2
♀	6.7	322.9	
B.C.	6.1	323.5	318.2
♀	7.1	322.5	
P.O.C.	6.3	323.3	318.2
♀	7.2	322.4	
M.C.	6.5	323.1	318.2
♀	7.3	322.3	
P.O.C.	6.3	323.3	318.2
♀	7.3	322.3	
Ec. 60124 ¹⁰	6.5	323.1	318.2
♀	7.3	322.3	
60+50	6.5	323.1	318.2
♀	7.3	322.3	
61+00	6.7	322.9	318.2
♀	7.5	322.1	
B.C. 61+20	6.8	322.8	318.2
♀	7.6	322.0	
P.O.C.	7.0	322.0	318.2
♀	7.8	321.8	
M.C.	6.3	323.3	318.2
♀	7.2	322.4	
P.O.C.	6.2	323.4	318.2
♀	7.1	322.5	
Ec. 62+09 ⁷⁰	6.2	323.4	318.1
♀	7.0	322.6	

5.6

5.3

5.1

4.9

5.1

4.9

4.9

4.7

4.6

4.4

5.1

5.2

5.3

329.60

62450	6.2	323.4	318.1
⊕	7.1	322.5	318.1
63400	6.2	323.4	318.1
⊕	7.1	322.5	
B.C. 63+30	6.3	323.3	318.1
⊕	7.5	322.1	
P.O.C.	6.3	323.3	318.1
⊕	7.3	322.3	
M.C.	6.3	323.3	318.1
⊕	7.2	322.4	
P.O.C.	6.1	323.5	318.1
⊕	7.1	322.4	
EC. 64+1004	6.2	323.4	318.1
⊕	7.1	322.5	
B.C. 64+50	6.3	323.3	318.1
⊕	7.0	322.6	
P.O.C.	6.6	323.0	318.1
⊕	7.2		
M.C.	6.5	323.1	318.1
⊕	7.1		
P.O.C.	6.3	323.3	318.1
⊕	7.1		
EC. B.C. 65+3694	6.1	323.5	318.1
⊕	7.1		
65+50	6.1	323.5	318.1
⊕	7.3		

5.3

5.5

5.2

5.2

5.2

5.4

5.3

5.2

4.9

5.0

5.2

5.4

5.4

329.60

66+00 5.8 323.8 318.2

P 7.3 322.3

T.P. 2.45 326.25 5.75 323.80

66+50 1.9 324.4 318.1

E 3.8 322.5

67+00 2.0 324.7 318.1

P 3.9

67+50 2.8 323.5 318.1

E 4.2

68+00 2.3 324.0 318.1

E

5.6

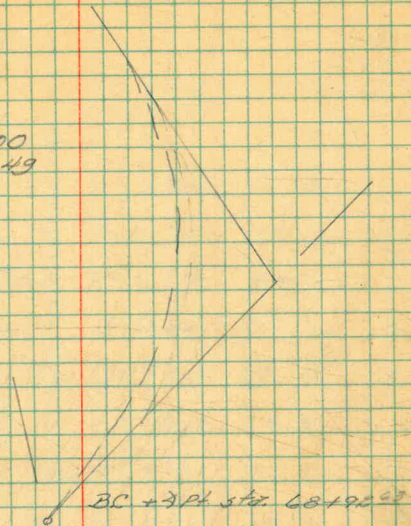
6.3

6.2

5.4

33

$\Delta = 146.00$
 $T = 146.49$



BC + 3rd str 68+95.00

62+77.50

Rogers & Cold +
Finney Windy

October 18, 1949
Wye Level #

164.18
72.04
92.14

3045.91
92.14
2953.77

35

LEVELS RUN FOR ELEVATIONS OF TOPS OF
1 1/2" PIPES AT RANGE ENDS - SILT SURVEY AT
MORENA LAKE

DM.	0.85	3053.67		3052.82
TP 1			11.58	3042.29
	3.62	3045.91		
GAGE			0.00	3045.91 = 164.18 72.04 WATER
	2.19	3044.48		3042.29 TP #1
TP 2	11.71	3056.03	0.16	3044.32
RO I				
TP 3	7.98	3060.43	3.58	3052.45 R-1
TP 4	11.08	3068.86	2.65	3057.78
TP 5	0.39	3057.53	11.72	3057.14
TP 6	4.97	3051.00	11.50	3046.03
TP 7	12.29	3063.13	0.16	3050.84
TP 8	2.26	3065.22	0.17	3062.96
R 05				
TP 9	0.45	3065.22	0.45	3064.77 R-5
TP 10	0.54	3052.82	12.94	3052.28
R 06				
TP 11	3.05	3051.46	4.41	3048.41
TP 12	12.56	3060.22	3.80	3047.66
R 08				
TP 13	0.40	3060.22	0.40	3059.82 R-8
TP 14 ⁽¹²⁾	1.09	3048.75	12.56	3047.66
TP 15	11.48	3047.64	12.59	3036.16
TP 16	0.93	3043.14	5.43	3042.21
TP 17	10.70	3052.57	1.27	3041.87
R 07				
TP 18	1.32	3052.57	1.32	3051.25 R-7
TP 19 ⁽¹⁾	4.33	3046.20	10.70	3041.87
TP 20	10.51	3049.92	6.79	3037.41

USCGS BM. (DISC. ON PARAPET WALL NWLY END OF DAM)
NO 6-575

3052.82 BM
- 14.00 ft. above
3038.82

Water ELEVATION = 2953.77
Tuesday 3 PM.

October 19, 1949 Windy & cold.

MORENA LAKE 10-19-49
ELEVATIONS, TORS OF PIPE - RANGE ENDS

		3049.92			
^{R 03}					
TP 21	1.78	3049.92	1.78	<u>3048.14</u>	<u>R-3</u>
TP 22	6.00	3043.50	12.42	3037.50	
TP 23	3.77	3044.19	3.08	3040.11	
TP 24	6.55	3046.20	4.54	3039.65	
TP 25	9.42	3051.91	3.65	3042.55	
^{R 011}					
TP 26	1.55	3051.91	1.55	<u>3050.42</u>	<u>R-11</u>
¹²⁵					
TP 27	4.60	3047.15	9.42	3042.55	
TP 28	10.30	3050.56	6.89	3040.26	
TP 29	11.63	3060.05	2.14	3048.42	
^{R 013}					
TP 30	0.23	3060.05	0.23	<u>3059.82</u>	<u>R-12</u>
TP 31	0.18	3048.03	12.20	3047.85	
TP 32	9.67	3051.51	6.13	3041.90	
^{R 016}					
TP 33	3.10	3051.51	3.10	<u>3048.41</u>	<u>R-14</u>
TP 34	1.83	3040.88	12.52	3039.05	
TP 35	9.95	3042.01	8.82	3032.06	
TP 36	9.37	3045.23	6.15	3035.86	
TP 37	7.64	3049.79	3.08	3042.15	
^{R 018}					
TP 38	0.76	3049.79	0.76	<u>3049.03</u>	<u>R-18</u>
³⁹					
TP 39	3.08	3045.23	7.64	3042.15	
¹³⁰					
TP 40	0.83	3036.69	9.37	3035.86	
TP 41	12.18	3048.46	0.41	3036.28	
TP 42	9.64	3056.16	1.94	3046.52	
^{R 017}					
TP 43	1.16	3056.16	1.16	<u>3055.00</u>	<u>R-17</u>
TP 44	6.52	3052.73	9.95	3046.21	
TP 45	8.53	3060.03	1.23	3051.50	

October 20, 1949 Mild BREEZY

MORENA LAKE
ELEVATIONS, TOP OF PIPE - RANGE ENDS

8/20/49

37

		3060.03			
R015					
TP 46	5.44	3060.03	5.44	3054.59	R-15
TP 47	2.73	3056.89	5.87	3054.16	
TP 48	2.63	3046.93	12.59	3044.30	
TP 49	8.05	3045.29	9.69	3037.24	
TP 50	4.20	3047.27	2.22	3043.07	
R19					
TP 51	0.12	3047.27	0.12	3047.15	R-19
TP 52	4.40	3047.83	3.84	3043.43	
TP 53	7.69	3047.99	7.53	3040.30	
TP 54	3.87	3045.17	6.69	3041.30	✓
TP 55	11.90	3055.09	2.04	3043.13	
R021					
TP 56	1.28	3055.03	1.28	3053.75	R-21
TP 57	2.04	3045.17	11.90	3043.13	
TP 58	1.88	3043.18	3.87	3041.30	
TP 59	0.15	3030.97	12.96	3030.22	
TP 60	0.15	3017.44	13.05	3017.29	
TP 61	0.16	3004.97	12.63	3004.81	
TP 62	0.28	2992.59	12.66	2992.31	
TP 63	0.40	2980.05	12.94	2979.65	
TP 64	0.51	2968.41	12.15	2967.90	
TP 65	0.76	2960.68	8.49	2959.92	
TP 66	12.14	2972.68	0.14	2960.54	
TP 67	11.56	2983.41	0.83	2971.85	
TP 68	12.30	2994.89	0.82	2982.59	
TP 69	11.84	3005.59	1.14	2993.75	
TP 70	11.27	3016.60	0.26	3005.33	

3053.75 BM on R-21
 + 12.96
 3066.71 Ni
 - 1.96
 3064.75 Elev. R-24
 + 3.76
 3068.51 Ni
 - 12.55
 3055.96 TP
 1.42
 3057.08 1
 - 3.30
 3053.75 R-21.

Side Shot on WATER at Boat Float - 6.78
 El. 2953.90
 (NOON Thursday)

Note: WATER IN Reservoir
 has raised 0.17 on
 gauge.

10/18/49 (See pg. 35) gauge 72.04
 10/26/49 gauge 72.21 =
 El 2953.94

Moreno Lake
ELEVATIONS, TOP OF PIPE - RANGE ENDS

8/20/49

TP#					
		3016.60			
TP# 71	10.85	3026.08	1.37	3015.23	
TP# 72	11.38	3036.91	0.55	3025.53	
TP# 73	11.05	3047.53	0.43	3036.48	
TP# 74	11.37	3057.97	0.93	3046.60	
^{RO 22} TP# 75	7.10	3057.97	7.10	3050.87	R-22
TP# 76	11.29	3056.27	12.99	3044.98	
TP# 77	6.02	3051.79	10.50	3045.77	
^{RO 20} TP# 78	7.39	3051.79	7.39	3044.40	R-20
TP# 79	7.27	3049.90	9.16	3042.63	
TP# 80	7.40	3054.78	2.52	3047.38	
^{RO 14} TP# 81	7.17	3054.78	7.17	3047.61	A-14
TP# 81	1.14	3045.87	10.05	3044.73	
TP# 82	6.04	3038.87	13.04	3032.83	
TP# 83	13.04	3047.47	4.44	3034.43	
TP# 84	9.45	3056.86	0.06	3047.41	
^{RO 12} TP# 85	5.70	3056.86	5.70	3051.16	A-12
TP# 86	6.96	3054.26	9.56	3047.30	
TP# 87	9.70	3053.45	10.51	3043.75	
^{RO 6} TP# 88	2.13	3053.45	2.13	3051.82	R-6
⁽⁸⁷⁾ TP# 89	5.49	3049.24	9.70	3043.75	
TP# 90	1.25	3044.50	5.99	3042.25	
TP# 91	6.30	3049.84	0.96	3042.54	
^{RO 9} TP# 92	1.18	3049.84	1.18	3047.66	R-9
⁽⁹³⁾ TP# 93	0.16	3043.70	6.30	3042.54	
TP# 94	8.07	3046.29	5.48	3038.22	

Friday 10/21/49 Mild, Breezy Clear

Norena Lake
ELEVATIONS Top of PIPE - RANGE ENDS 8/21/09

		3046.29			
TP # 95	11.87	3057.29	0.87	3045.42	
TP # 96	6.60	3059.54	4.35	3052.94	
^{R010} TP # 97	3.10	3059.54	3.10	3056.44	R-10
TP # 98	1.78	3048.75	12.57	3046.97	
TP # 99	0.63	3048.42	0.96	3047.79	
^{R04} TP # 100	1.86	3048.42	1.86	3046.56	R-4
⁽⁹⁹⁾ TP # 101	5.39	3053.18	0.63	3047.79	
TP # 102	4.54	3055.71	2.01	3051.17	
TP # 103	6.06	3060.49	1.28	3054.43	
^{R02} TP # 104	9.47	3068.76	1.20	3059.29	R-2
TP # 105	1.51	3057.74	12.53	3056.23	
CK BM G-575			4.85	3052.89 = 3052.82	

VERY WINDY 11.00 PM.

Ducks Feeding 12:01 PM.

Betty
Reyes
Payne 4/7/50

				Top Pipe
	0.20	3053.95		3053.75 R 21
IP	1.42	3042.73	12.64	3041.31
IP	0.11	3029.84	13.00	3027.73
IP	0.88	3017.82	12.90	3016.94
IP	0.27	3006.08	12.01	3005.81
IP	0.04	2993.69	12.43	2993.65
IP	0.64	2981.29	13.04	2980.65
IP	0.10	2968.38	13.01	2968.28
	3.64	2959.74	12.28	2956.10
			9.74	2950.00 A
IP	3.23	2955.59	7.38	2952.36
			10.59	2945.00 B
IP	3.86	2951.23	8.22	2947.31
			6.23	2945.00 C
			1.23	2950.00 D
			6.23	2945.00 E
IP	6.11	2950.41	6.75	2944.30
			10.41	2940.00 F
IP	7.19	2950.60	7.00	2943.61
IP	12.90	2963.34	0.16	2950.44

OVERCAST + COOL

164.18 = 3045.91 40
81.50 82.68
82.68 2963.23

81.50 (stall gauge) = 2963.34 = 2963.23

Check Levels - No. End Move Hq

	+	HI	-	EL.	
B.M.	4.41	3043.81			3039.4
T.P.	2.27	3035.04	11.04	3032.77	
T.P.	4.71	3033.71	6.04	3029.00	
T.P.	9.78	3036.61	6.88	3026.83	
T.P.	5.22	3041.55	0.28	3036.23	
T.P.	9.63	3045.80	5.38	3036.17	
T.P.	5.15	3048.03	2.92	3042.88	
T.P.	7.60	3052.66	2.97	3045.06	
T.P.	6.03	3055.08	3.61	3045.09	
T.P.	6.26	3058.39	2.95	3052.13	
T.P.	5.46	3060.52	3.33	3055.06	
T.P.	11.39	3071.85	0.06	3060.46	
T.P.	11.72	3081.55	2.02	3069.83	
T.P.	5.49	3085.99	1.05	3080.50	
CHECK TO BRIDGE			4.42	3081.57	
			3.50	3082.49	

11-3-52
K49

41

Set by Gov.

CON. EAST END BRIDGE

N.E. Wheel guard - Top Cons

Morena Lake
Topo Survey Levels

BM R-24	+0.32	3065.07		30.64.75	3064.75
ck BM R-21			11.32	30.53.75	=
	0.43	3052.76	12.74	30.52.33	
	0.17	3039.64	13.29	30.39.47	
	6.25	3038.51	7.38	30.32.26	
	13.23	3057.44	0.30	30.38.21	
	7.51	30.55.58	3.37	30.48.07	
	0.59	3055.13	1.04	30.54.54	
	6.65	3049.45	12.33	30.42.80	
	2.07	3038.98	13.04	30.36.41	
	9.87	3042.36	5.99	30.32.49	
	12.49	3053.16	1.69	30.40.67	
	13.12	3063.06	3.22	30.49.94	
	10.11	3070.14	2.73	30.60.33	
			5.78	30.64.66	=
	4.53	3059.07	1.29	30.54.54	=
	0.52	3058.30	8.67	30.57.78	
	7.32	3056.95	4.04	30.49.63	
	8.26	3061.17	4.49	30.52.91	
	0.75	3057.44	4.86	30.56.69	
	5.61	3058.19	6.72	30.52.58	
	9.04	3061.51	1.55	30.51.47	
	0.91	3059.87	5.36	30.58.96	
				30.54.57	= 30.54.54

West
Williams
Vernon Fokis
Kullhofer

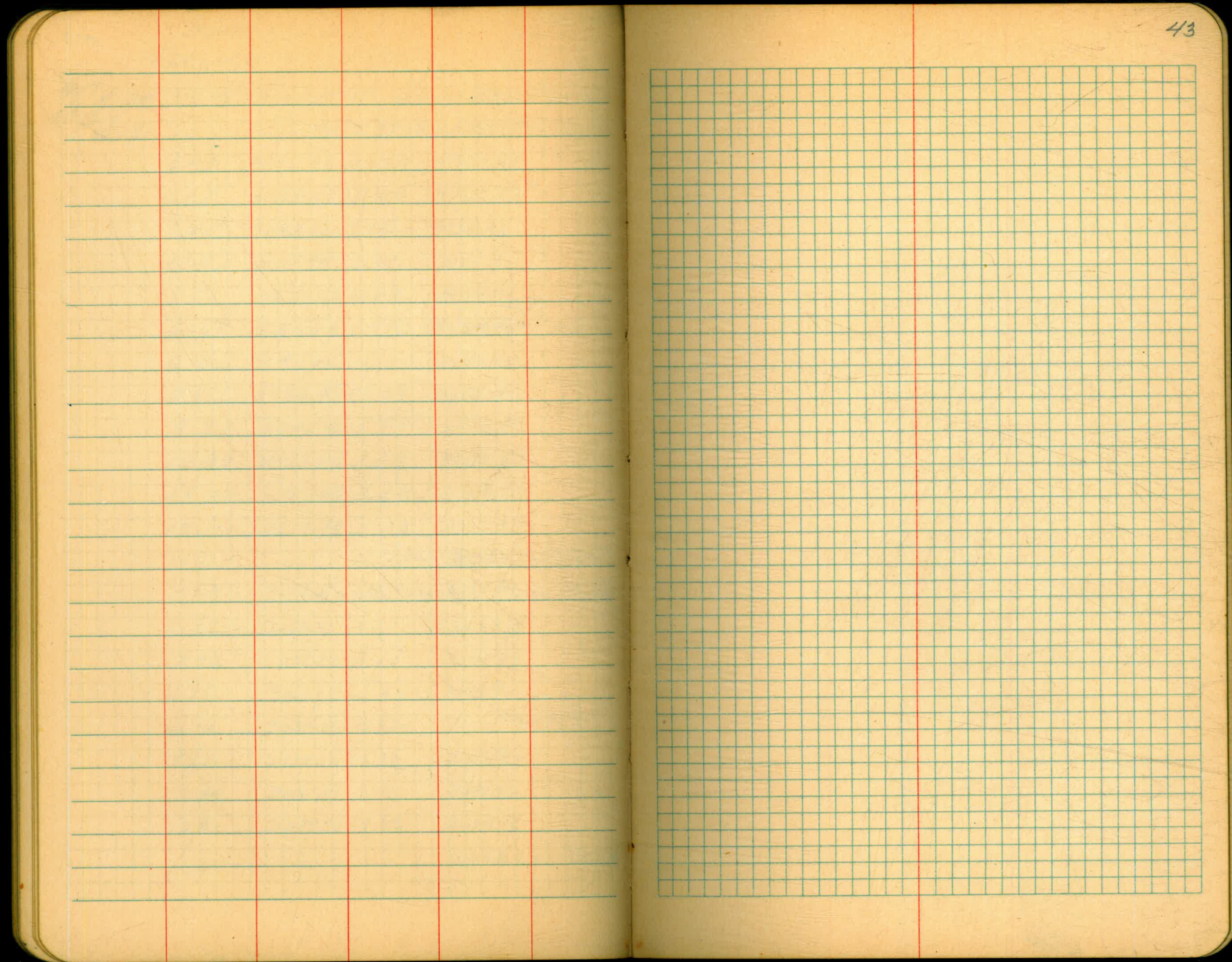
001
1/16/55
42

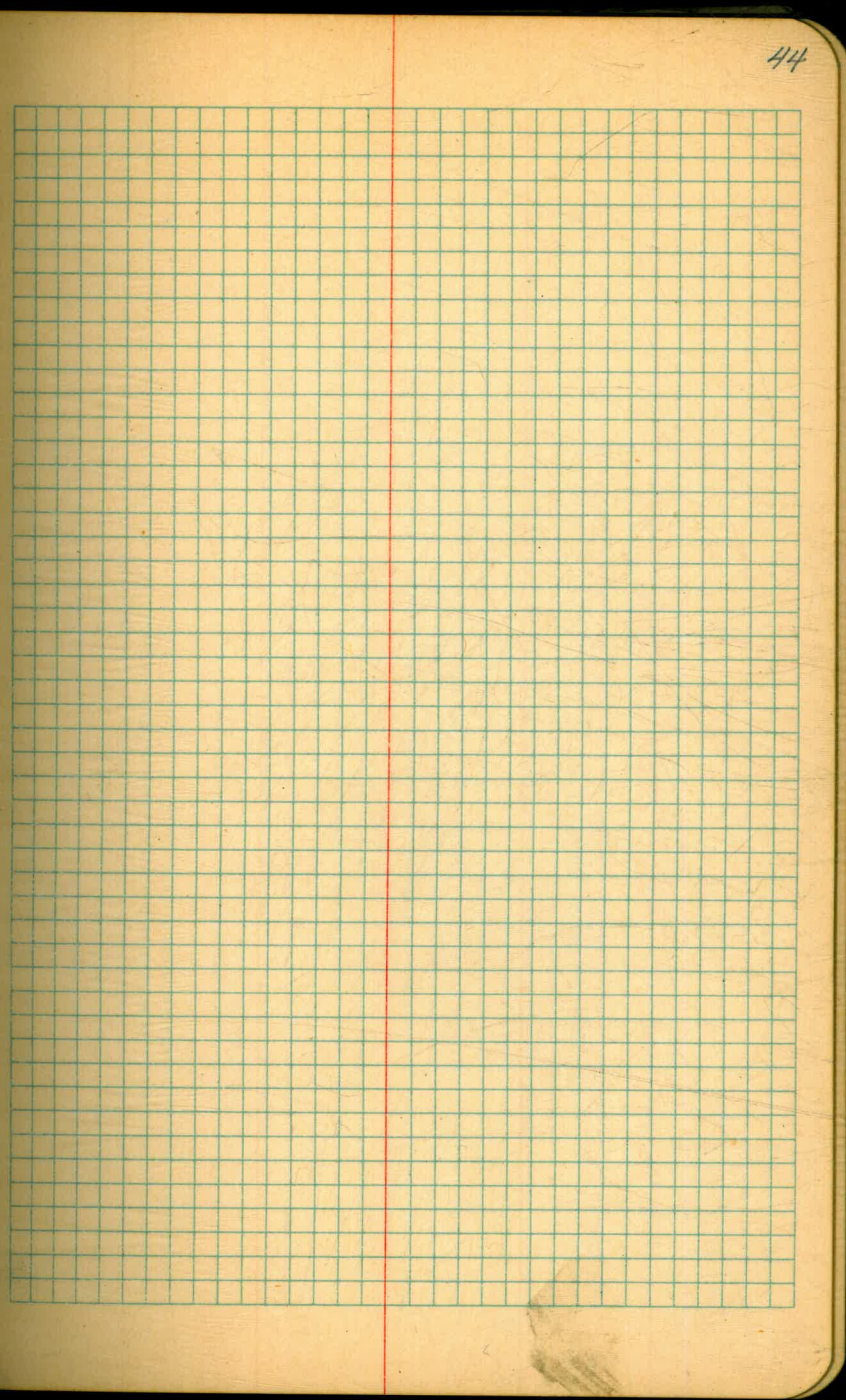
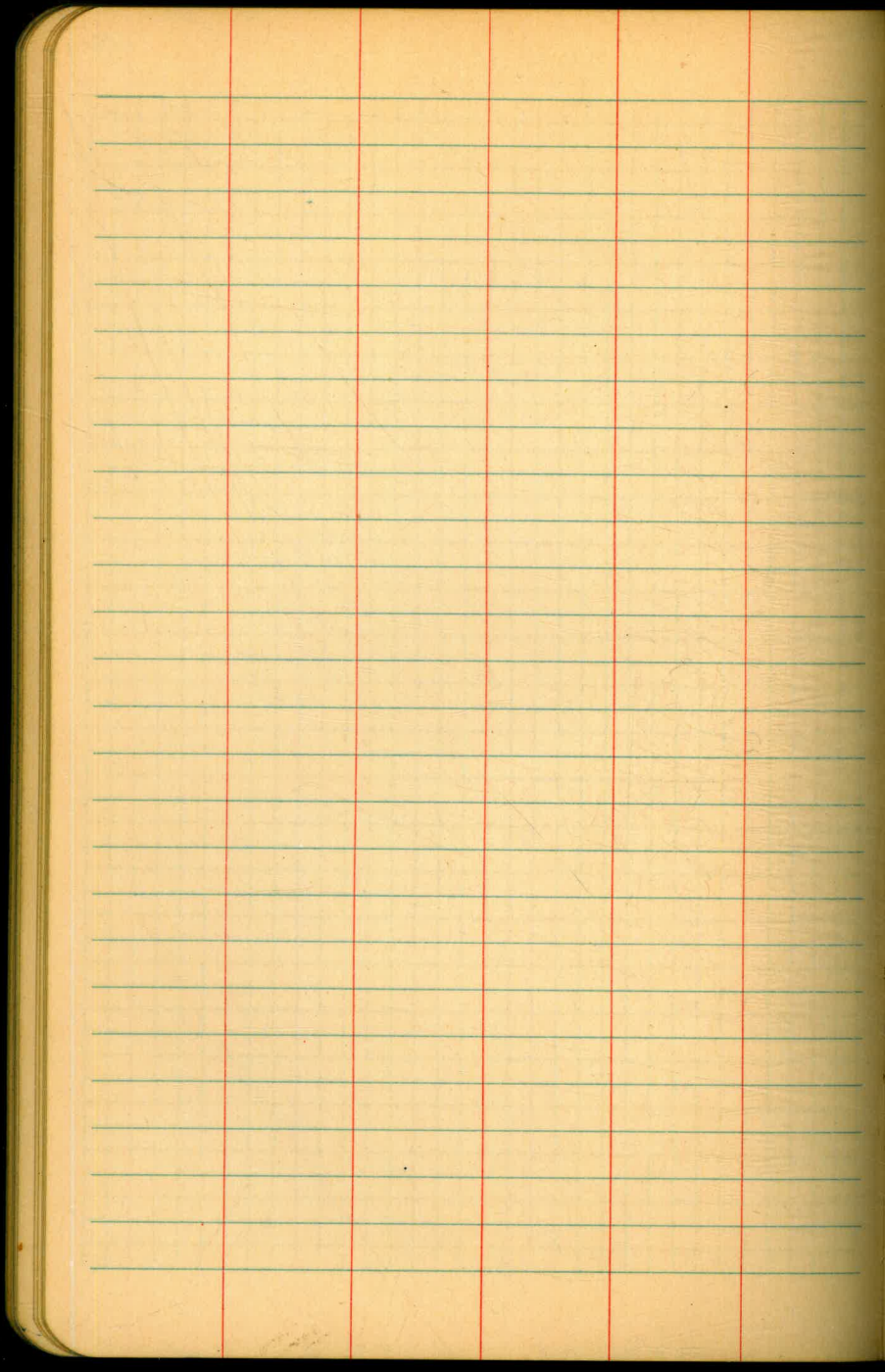
1/2" IP See page 37
3053.75 Top 1/2" IP R21

Top
TBM Large Rock

3064.75 = 1/2" IP
BM TOP LARGE ROCK

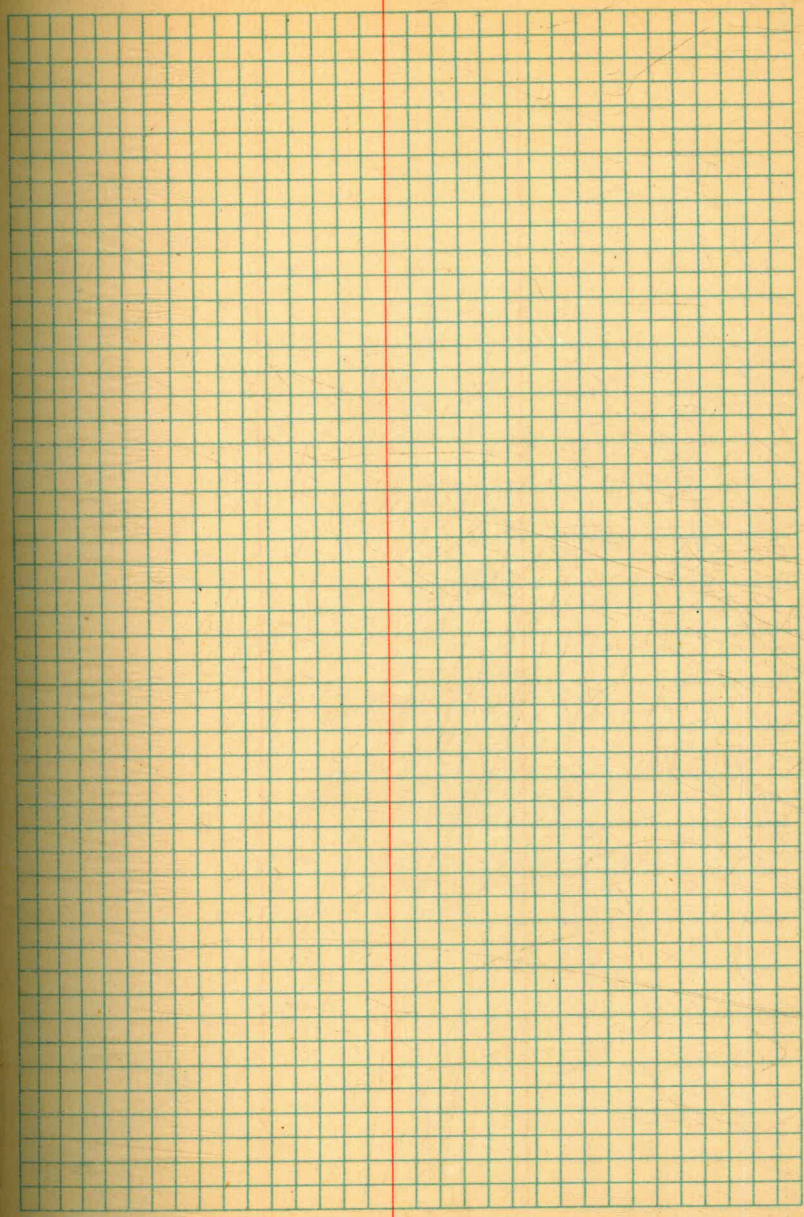
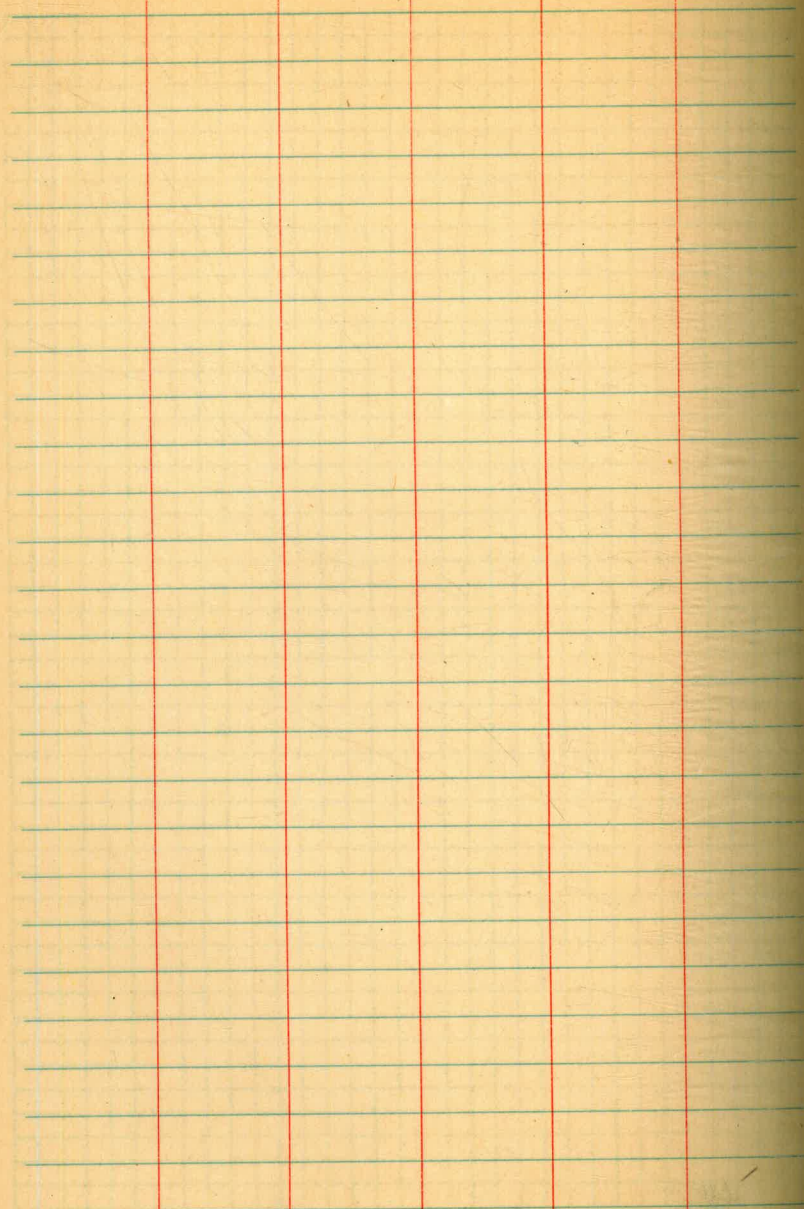
TBM

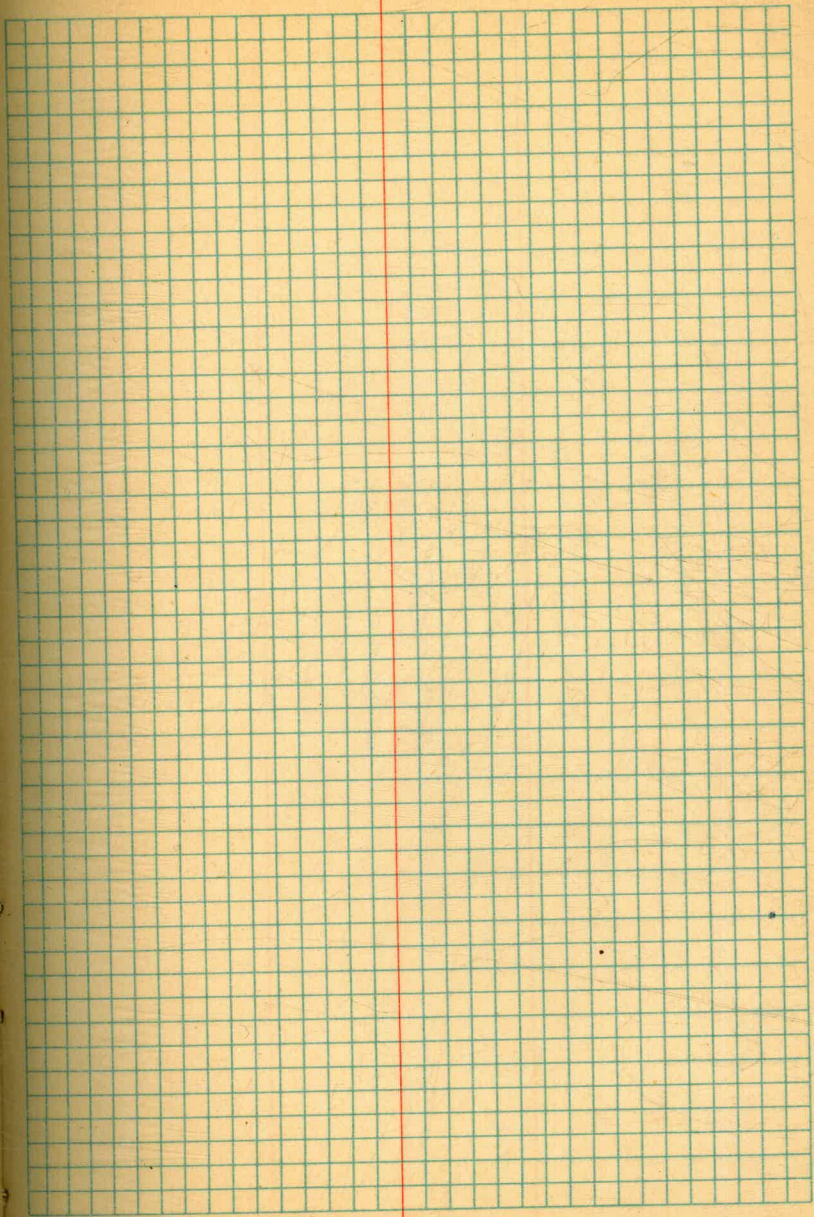
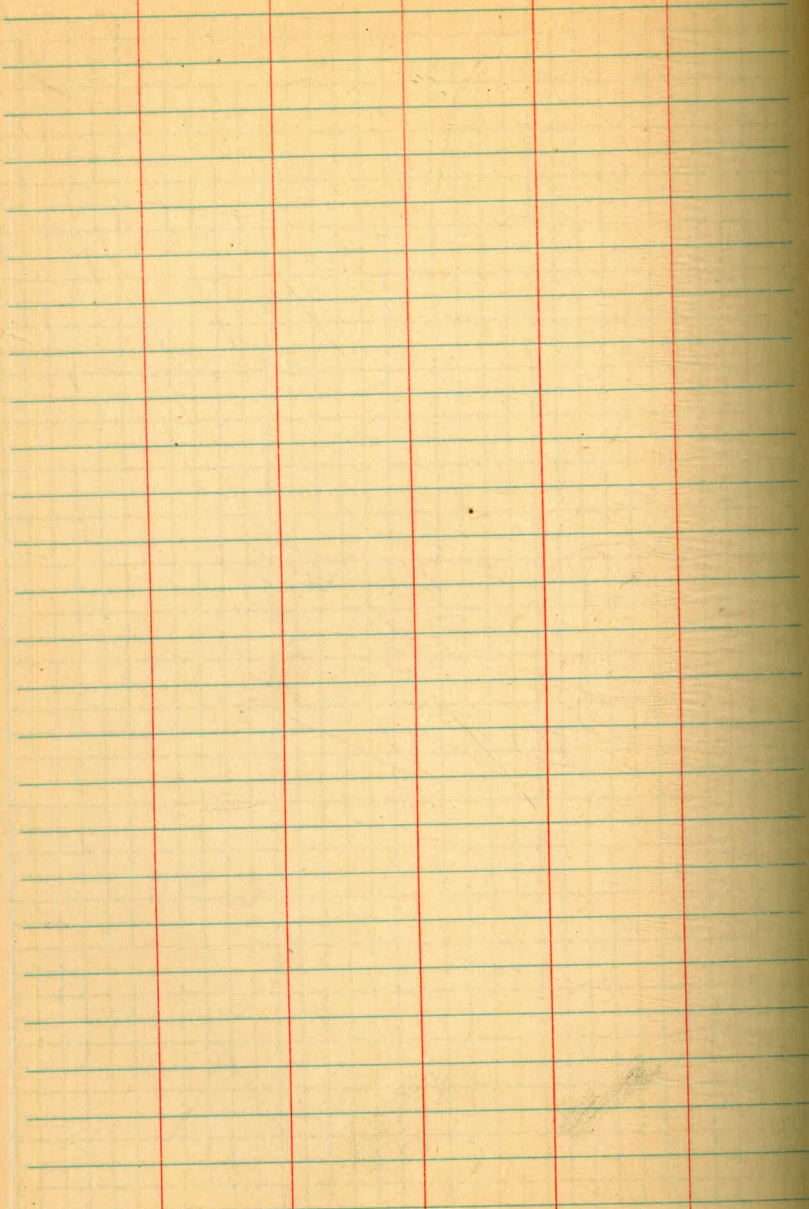


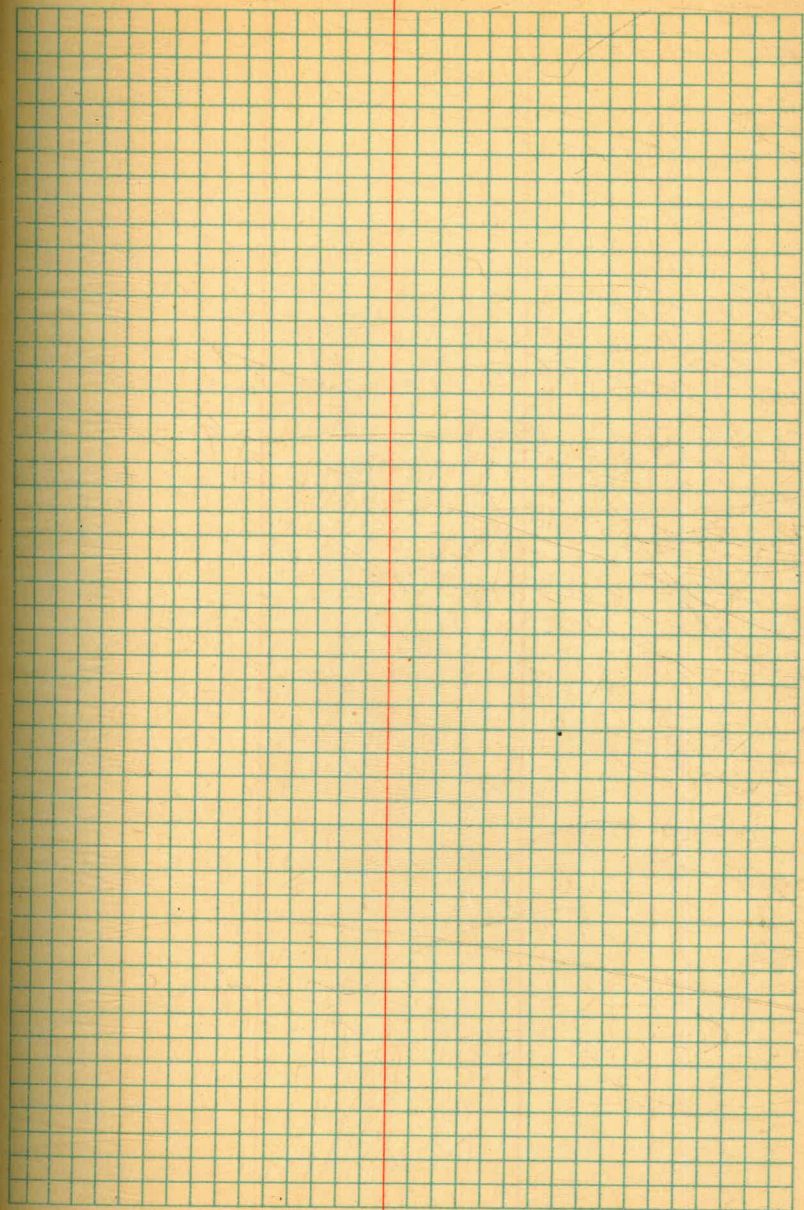
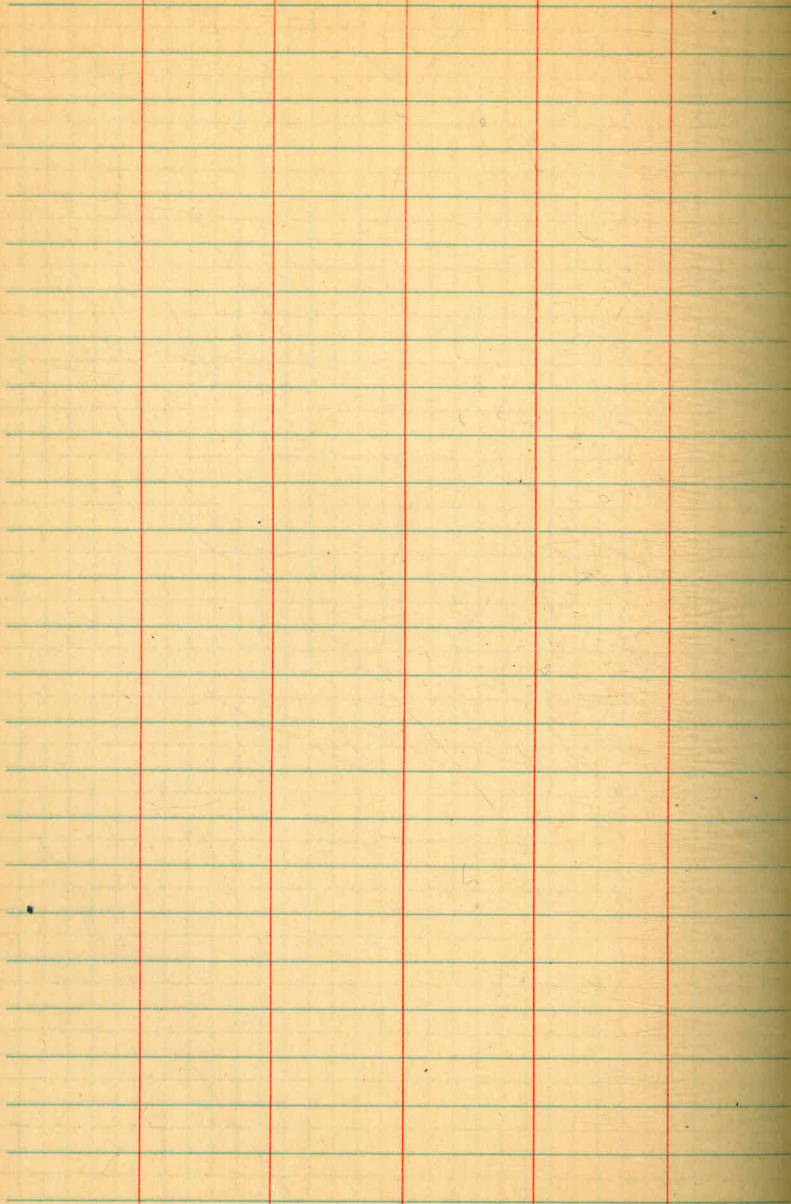


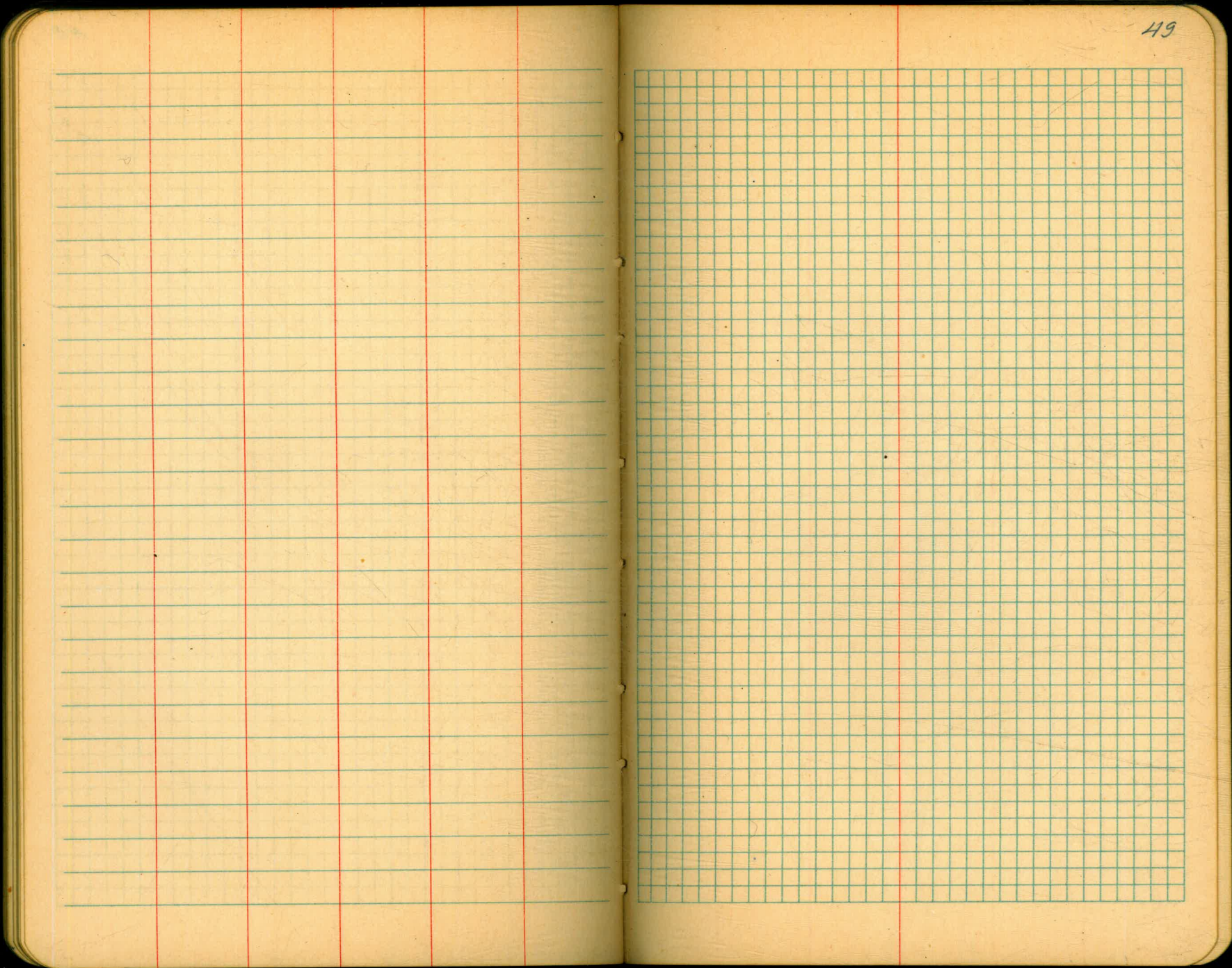
Blank lined page with horizontal green lines and vertical red margin lines.

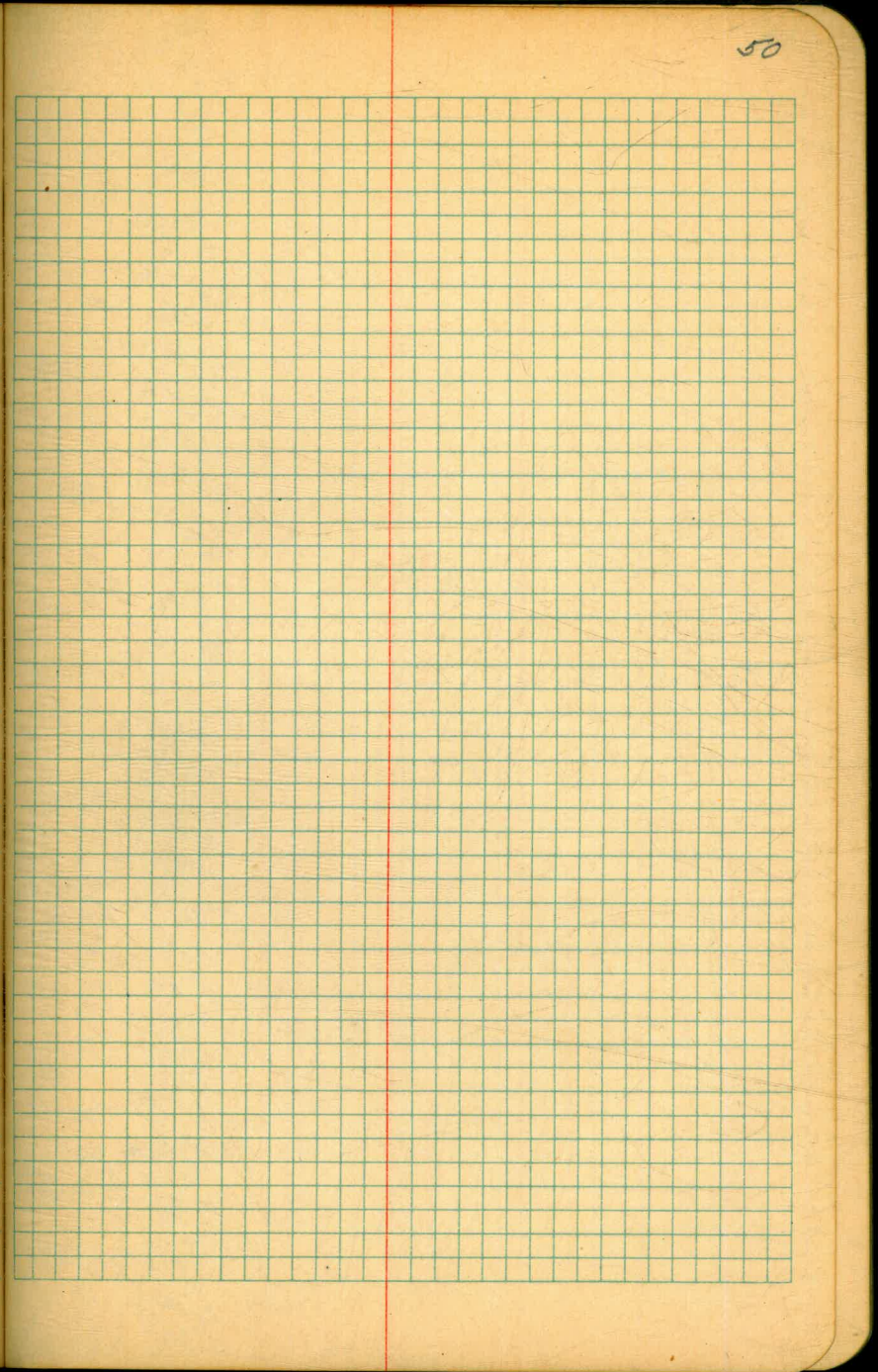
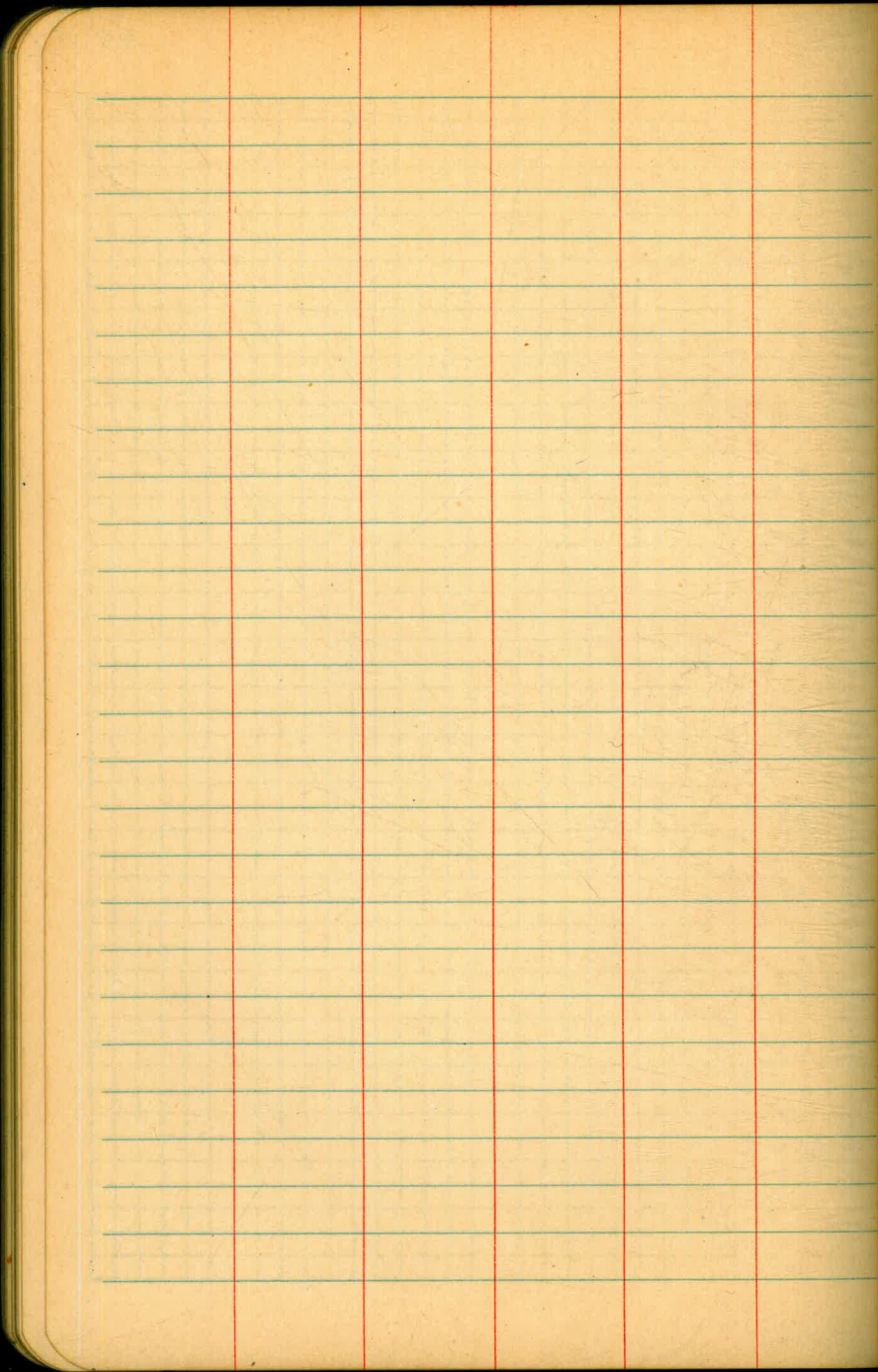
Blank graph paper with a grid of green lines.

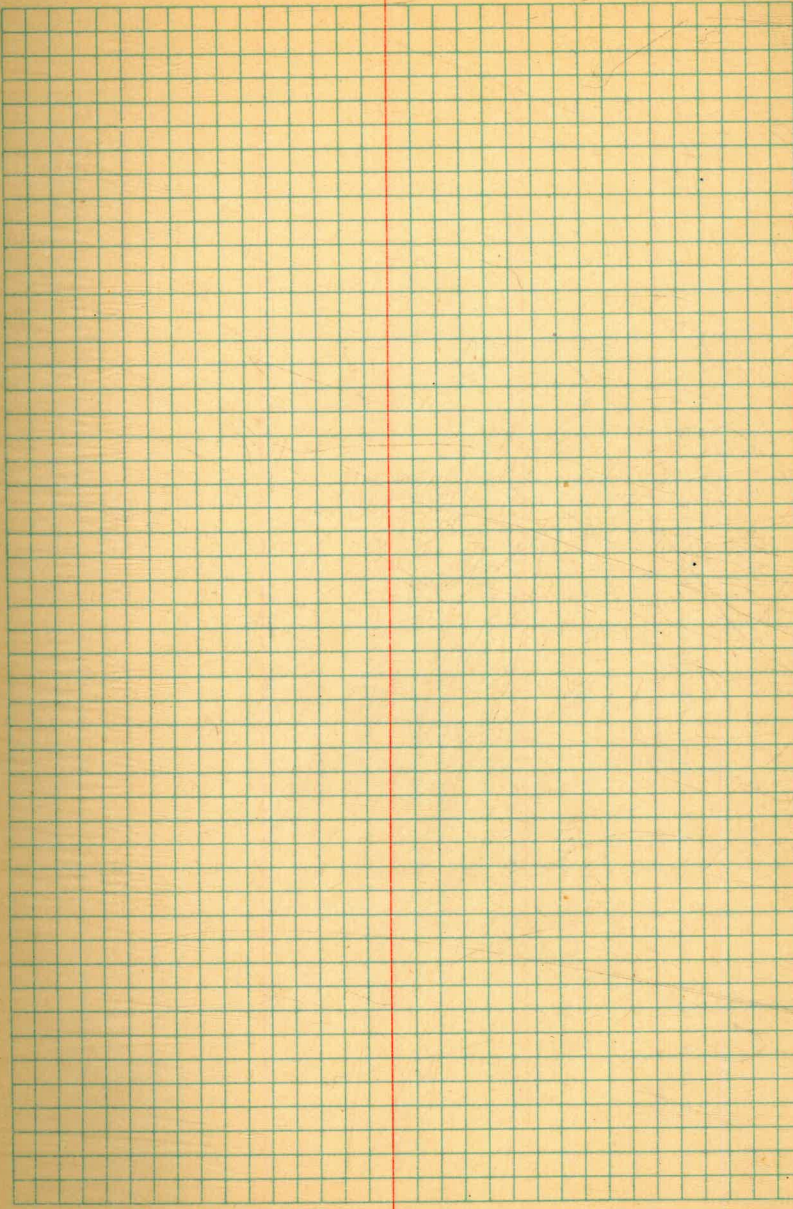
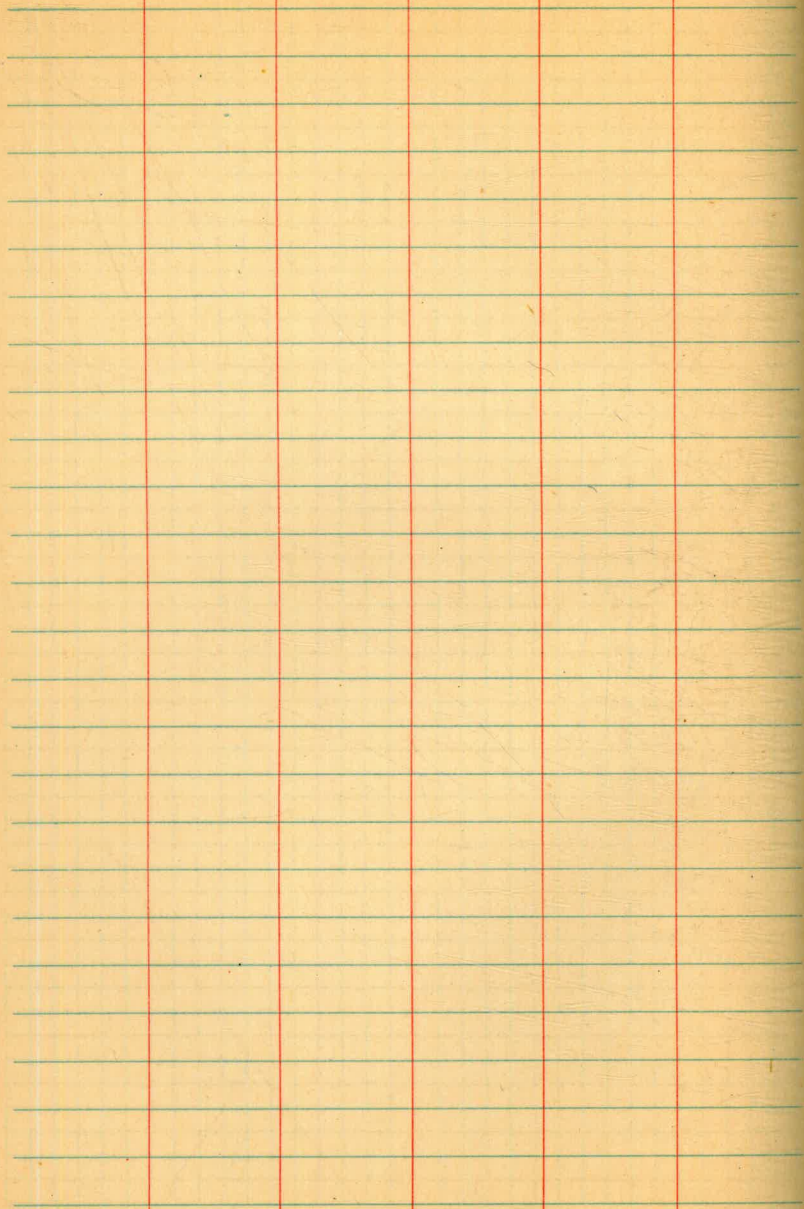


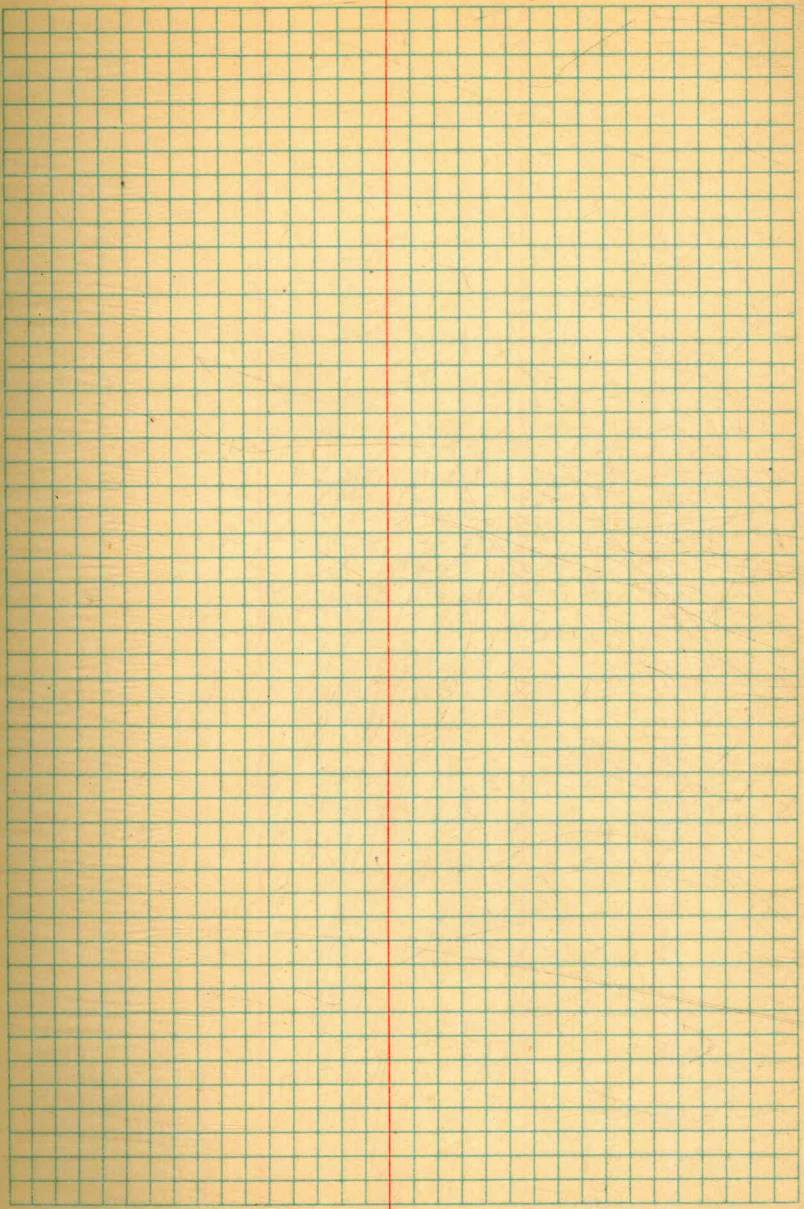
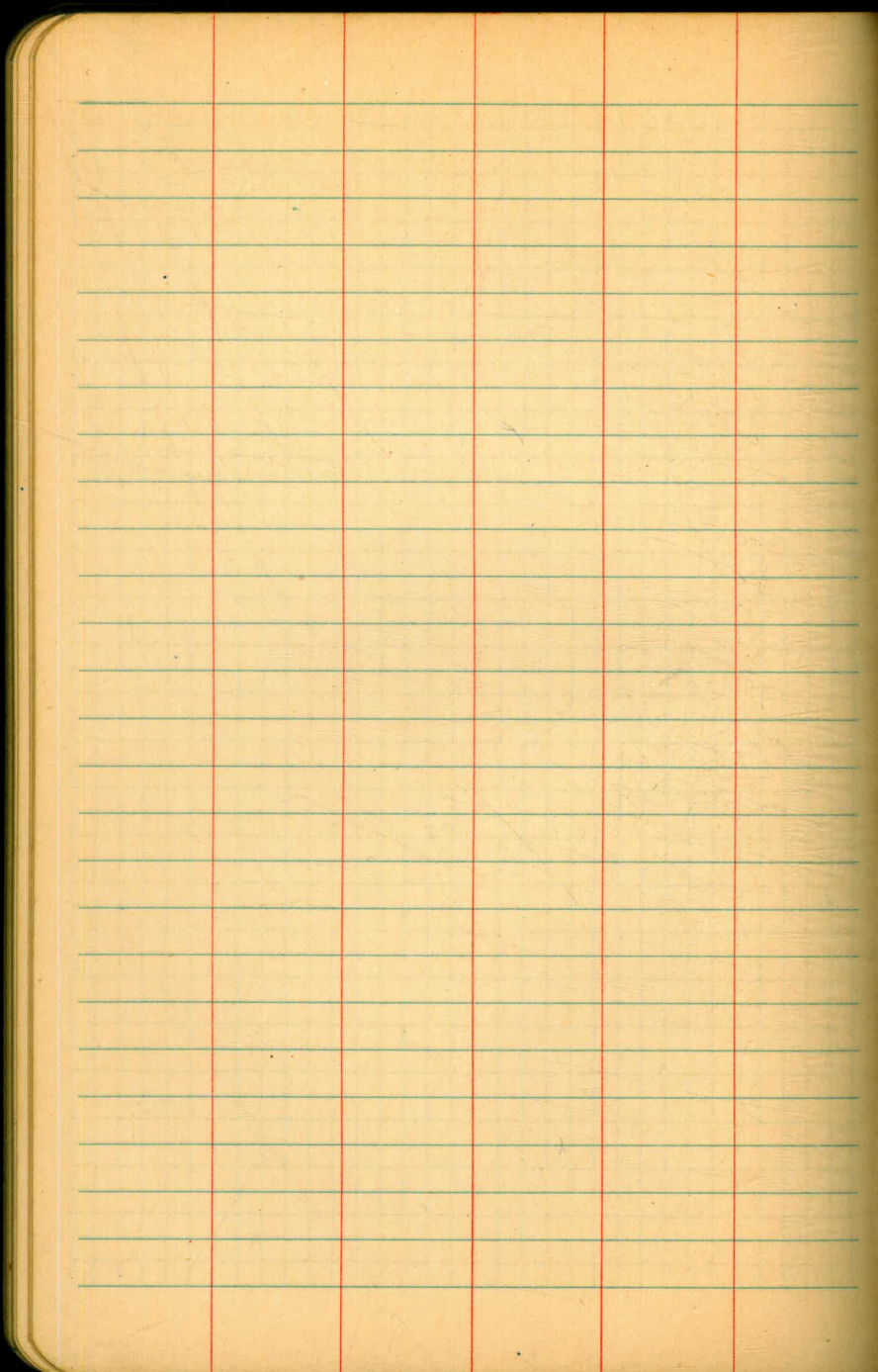


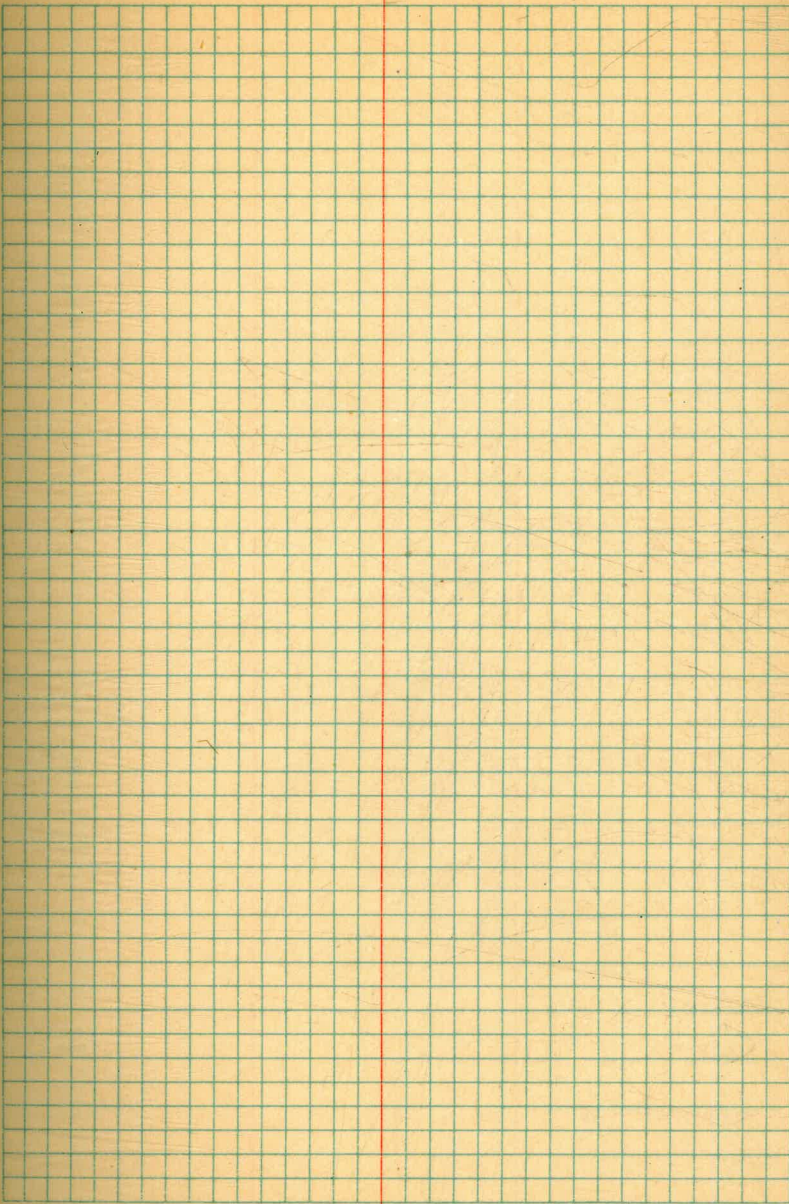
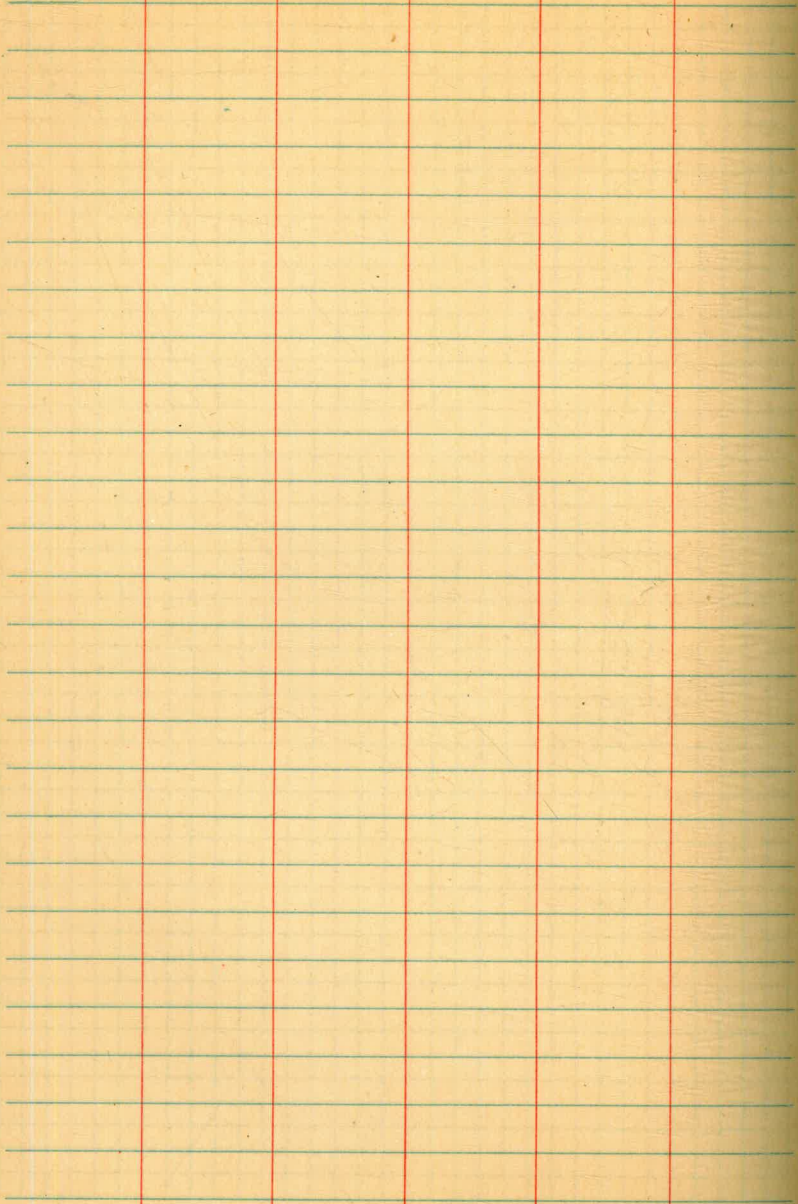


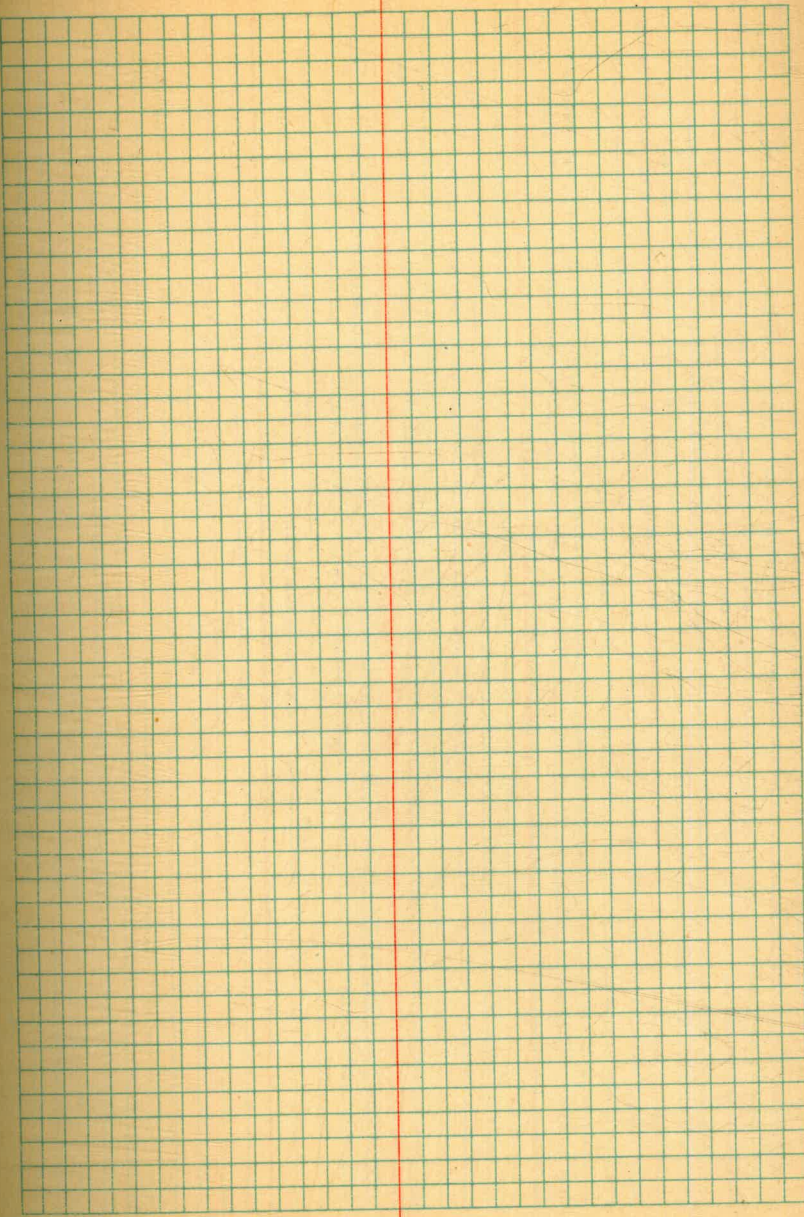
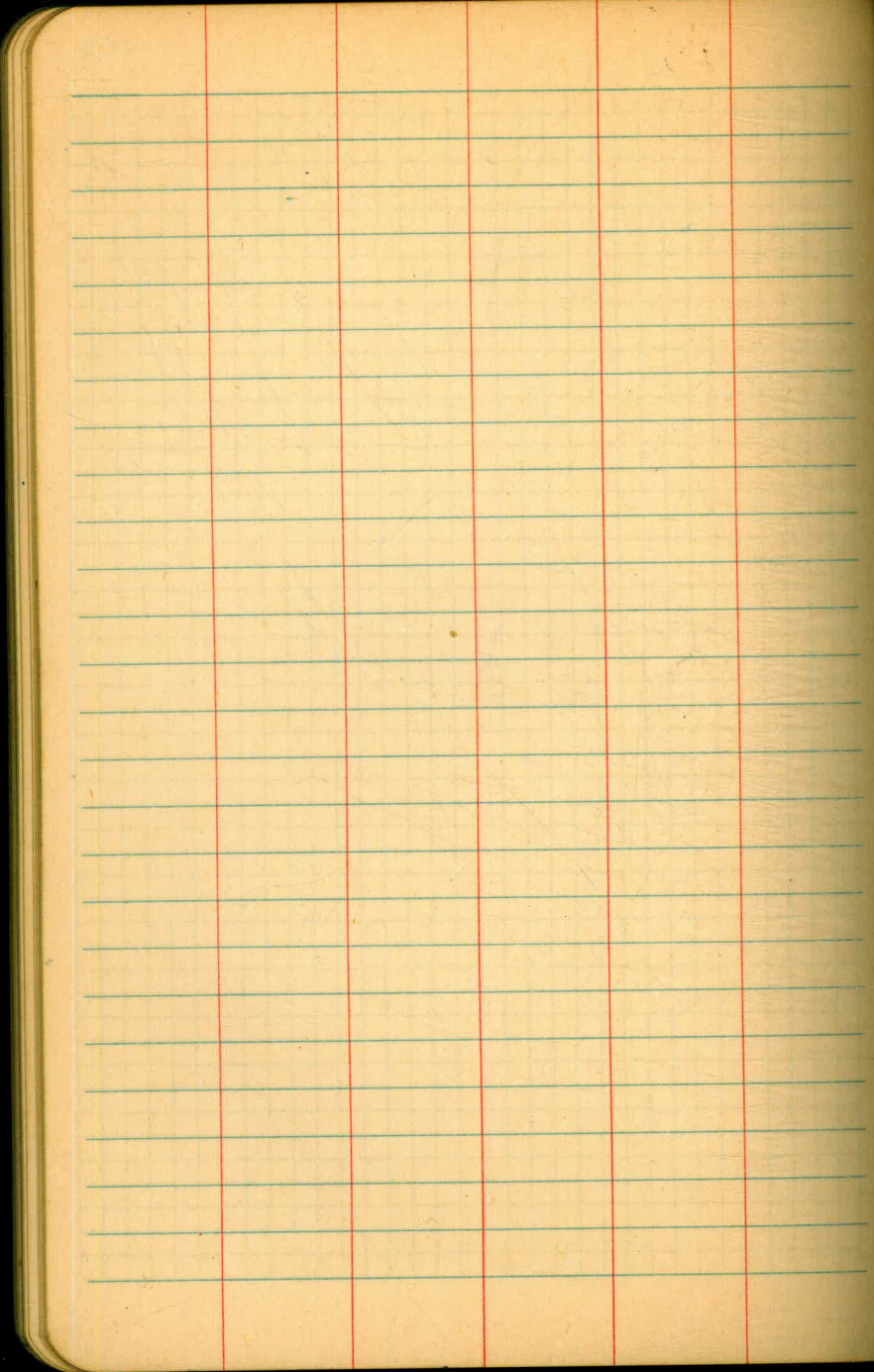


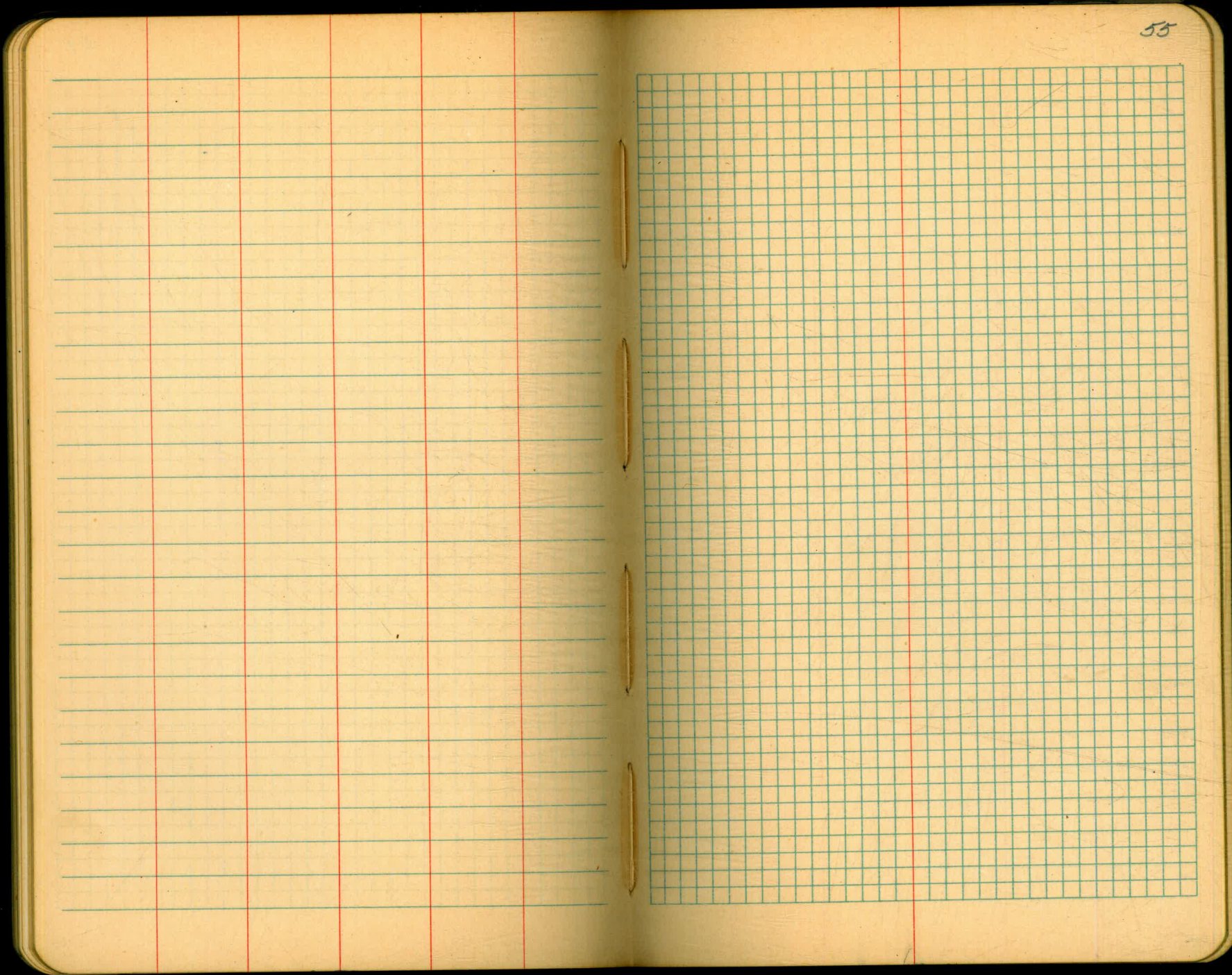


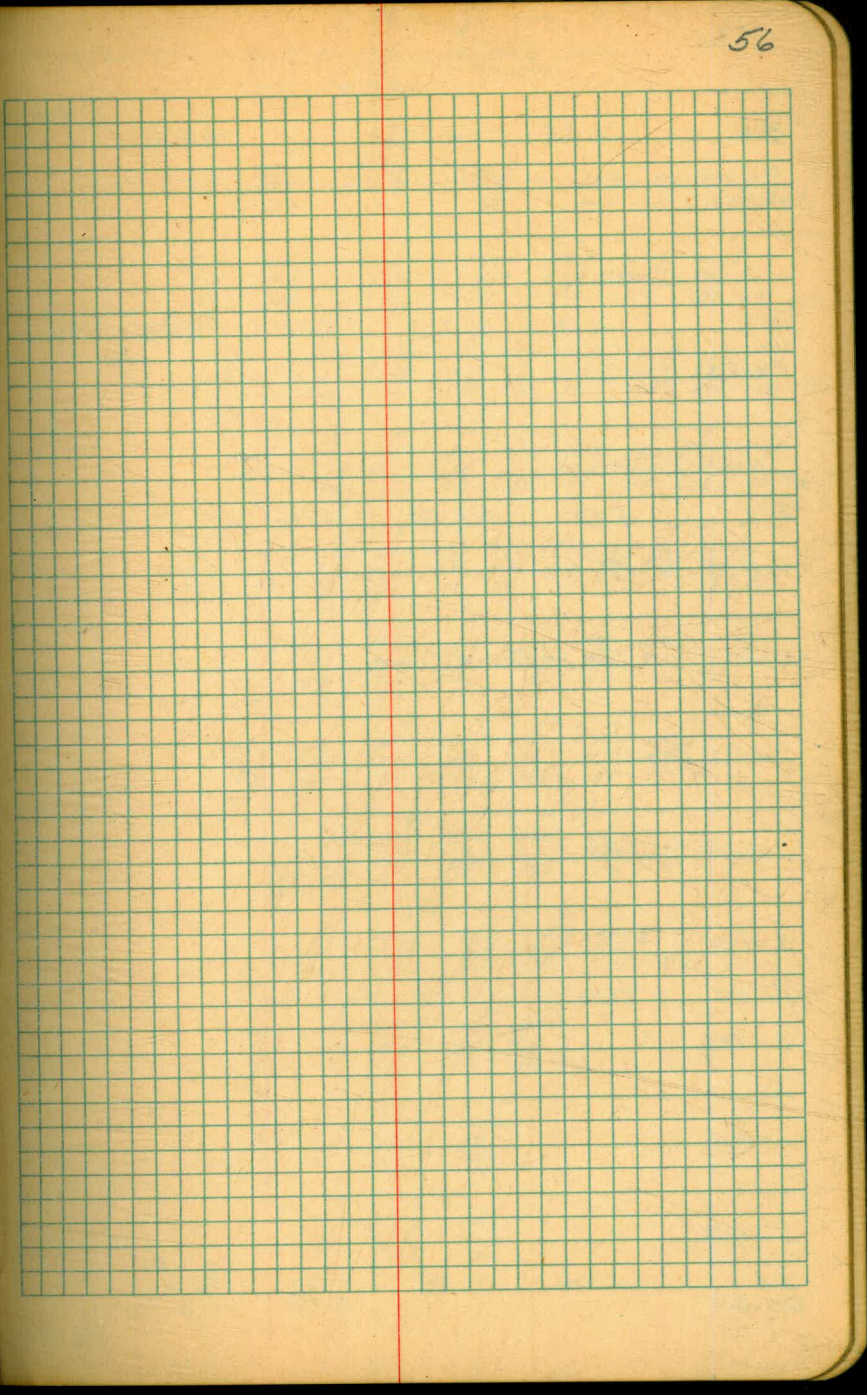
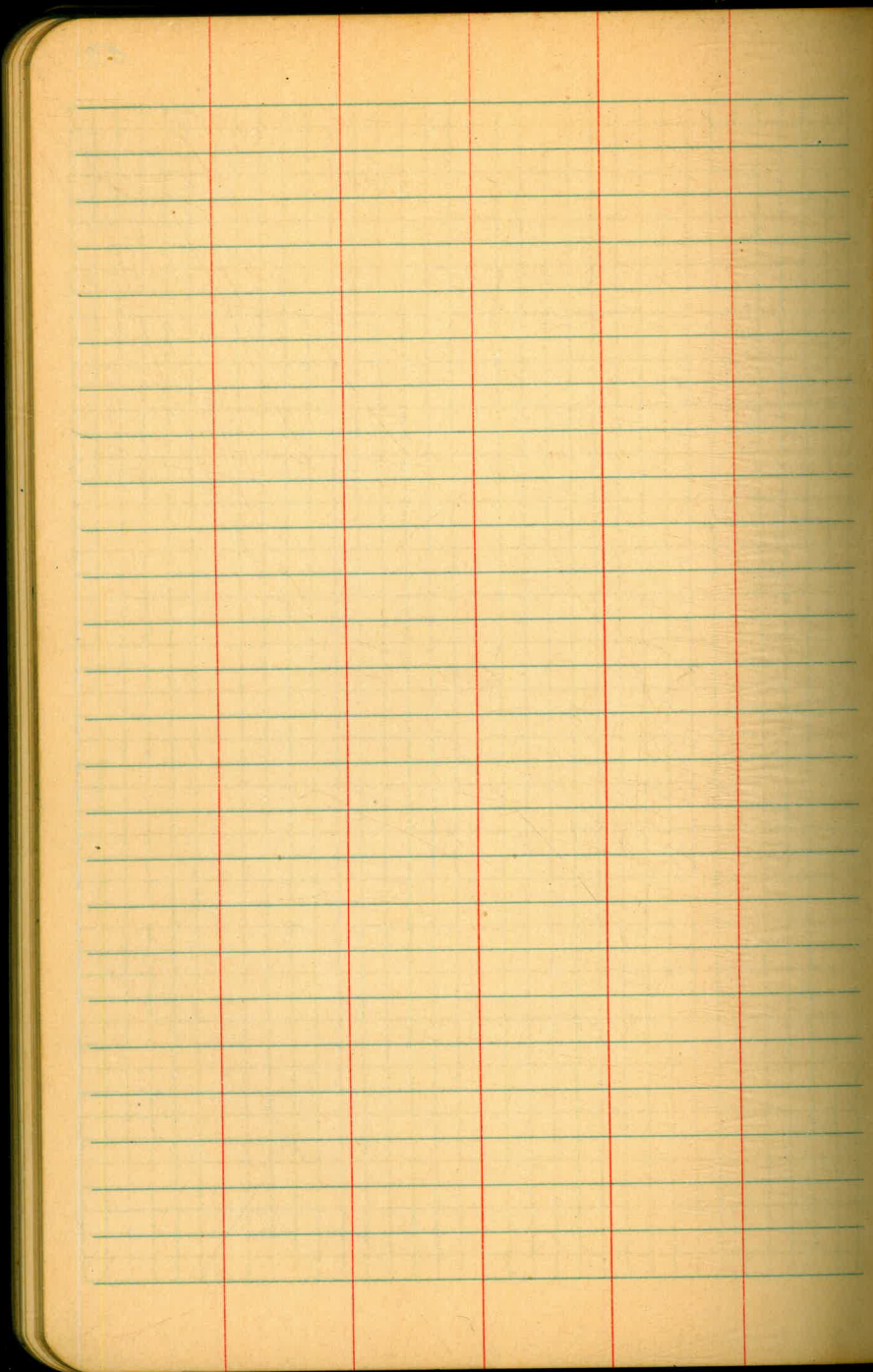












FINAL ELEVATIONS - Top of Mole Pier

8. ELEVATIONS SET CHECKING SETTLEMENT

B.M. 0.29 162.71 162.42 NAIL on OALTY
36" LT 372.0400

0+00

0+50

(EL. on Large Imbedded Boulder)

(NAIL Driven
into Rock)

+70

(3' LT)

4.11

160.60

1+00

+50

R

5.65

167.39

2.97

161.74

2+00

(2+00)

(3' LT)

6.58

160.81

+50

3+00

+20

(3' LT)

5.48

161.91

+50

+85

(3' LT)

5.52

161.87

4+00

+50

+90

(3' LT)

5.90

161.29

5+00

+50

MAR. 31 1929
Same Party

58

162.4 162.9 161.4
2.3 2.7 2.3
22 4 2

162.4 161.7 157.6
2.3 2.0 7.1
22 4 2

162.4 161.4 158.7
2.3 2.3 2.8
22 4 2

162.7 161.7 157.8
2.0 2.0 6.9
22 4 2

162.1 161.7 160.8
2.3 5.7 6.6
22 4 2

162.1 161.9 158.8
2.3 5.5 8.6
22 4 2

162.9 162.2 159.1
2.5 5.2 8.3
22 4 2

163.0 161.9 159.1
2.4 5.5 8.3
22 4 2

162.5 162.1 158.5
2.6 5.3 8.2
22 4 2

162.8 162.2 159.6
2.6 5.6 7.8
22 4 2

162.2 159.3
5.2 12.1
4 2

162.3 162.1 160.5
5.1 5.3 6.9
19.2 2 2

FINAL Elev's Cont'd.

167.39

6+00

+35

+46 (3'LT)

+48 (E)

6.89 160.50

CK. RM

2.97 164.42

161.4	161.6	160.8
6.0	5.8	6.6
18.2	4	2

161.4	161.2	161.5
6.0	6.2	5.9
18.2	4	2

161.7	161.7	161.7
5.7	5.7	5.7
18.2	4	2

LAKE MORENA BOAT BASIN

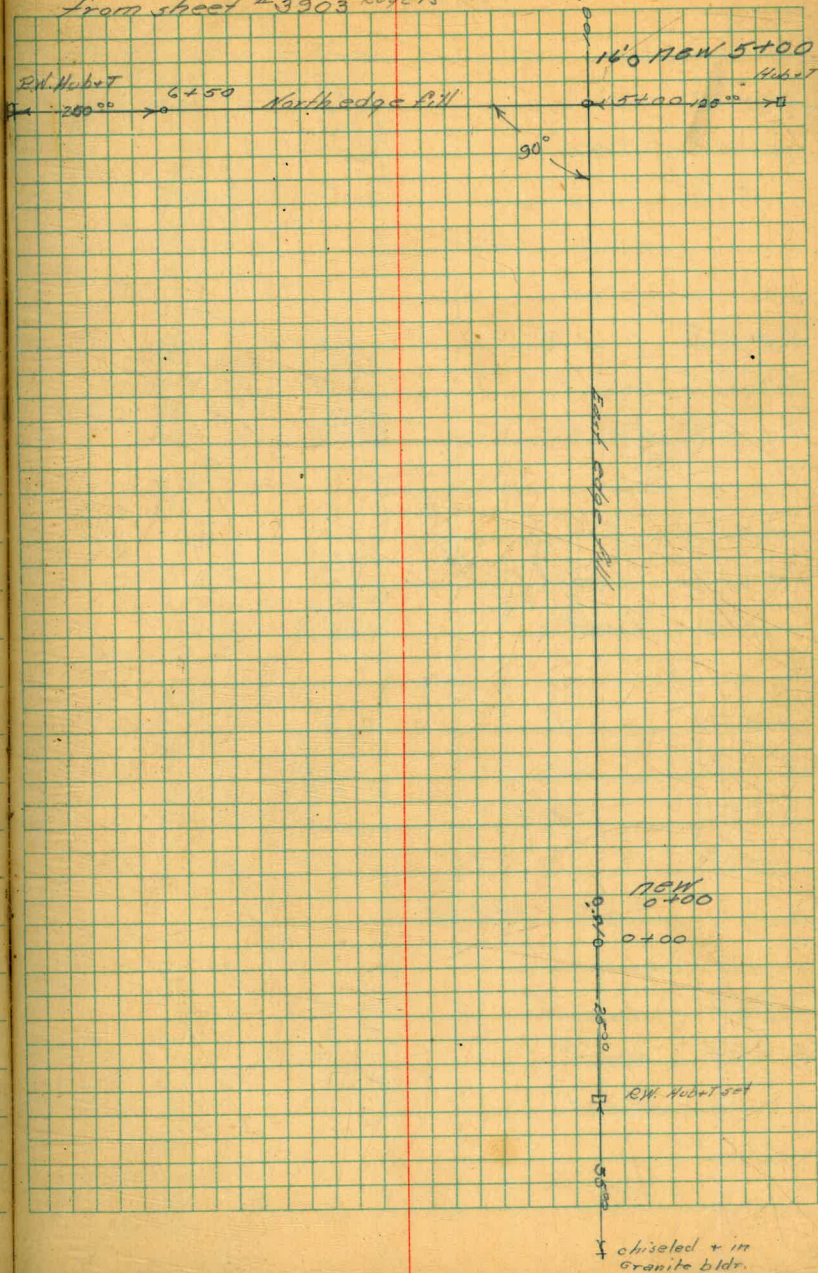
	H.I.		
"	140.93		
6450	£	5.7	
"	North	£28.4	
"	30° West	(28.1)	
"	60° West	(27.3)	
"	90° West	£26.5	
"	South	(26.0)	
"	30° West	(25.5)	
"	60° West	(25.0)	
"	90° West	on rock	
6400		7.9	
6400	North	set off 31.2	
		(31.2)	
5450	£	9.3	
5450	North	set off other H.I.	
		(32.0)	
5400	£	11.1	
5400	North	£33.6	
		(33.6)	
		£33.5	
5400	East	(33.5)	
T.P.		3.90	131.03
5.97	132.02		
4450	£	6.0	
4450	West	£27.2	
		(27.2)	
		£32.2	
		(32.2)	
		£28.0	
		(28.0)	
Int. 1:1	3:1	4452	£28.0 (28.0)

Void

Oct 13, 1948
 Palmer
 King
 Baker
 Adams
 Rogers

From sheet #3903

set R.P. R.W.
 Hubert 60



137.02
 4+00 ♀ 4.8
 238.9
 4+00 West (80.7)
 151.3
 4+00 East (31.2)
 T.P. 2.57 134.45
 6.60 141.05

3+50 ♀ 7.4
 235.0
 3+50 West (25.0)
 159.9
 3+50 East (27.9)

3+00 ♀ 6.6
 233.7
 3+00 West (21.1)
 229.0
 3+00 East (29.0)

Void

2+50 ♀ 6.3
 222.8
 2+50 West (28.4)
 228.8
 2+50 East (28.8)
 T.P. 1.57 139.48
 7.80 147.28

2+00 ♀ 11.0
 221.9
 2+00 West (65.7)
 227.4
 2+00 East (27.4)

147.28

1+50	2	8.6	
		5.10	
1+50	West	(58.8)	
		1247	
1+50	East	(247)	
1+00	2	4.1	
		116.3	
1+00	West	(48.9)	
		120.0	
1+00	East	(200)	

T.P.		2.92	144.36
------	--	------	--------

10.34 154.70

0+50	2	3.1	
		110.3	
0+50	West	(30.9)	
		110.9	
0+50	East	(10.9)	

T.P.		0.64	154.06
------	--	------	--------

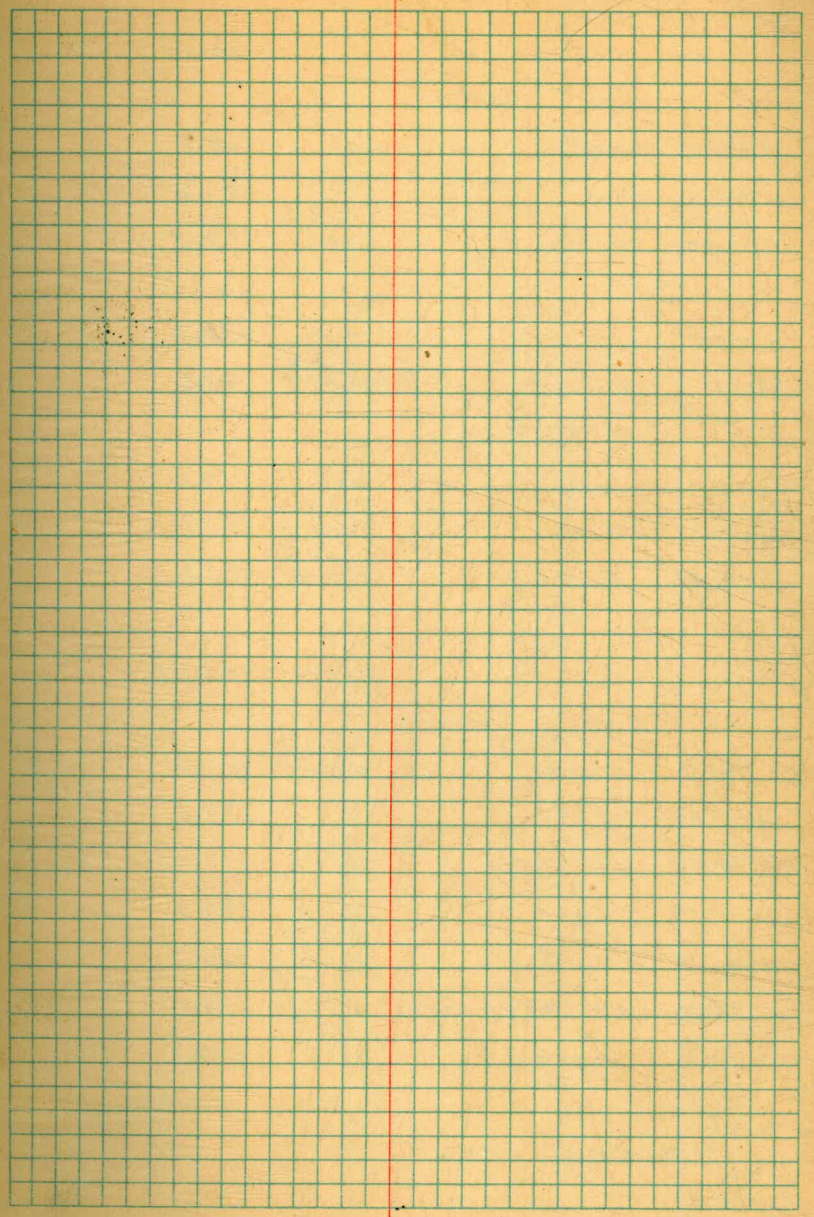
10.95 165.01

0+00	100	0.00	
0+04		4.9	
0+19		7.0	
0+22		8.0	
0+37		8.3	

T.P.		1.62	163.39
------	--	------	--------

6.81 170.20

ck to BM.		5.74	164.46
-----------	--	------	--------



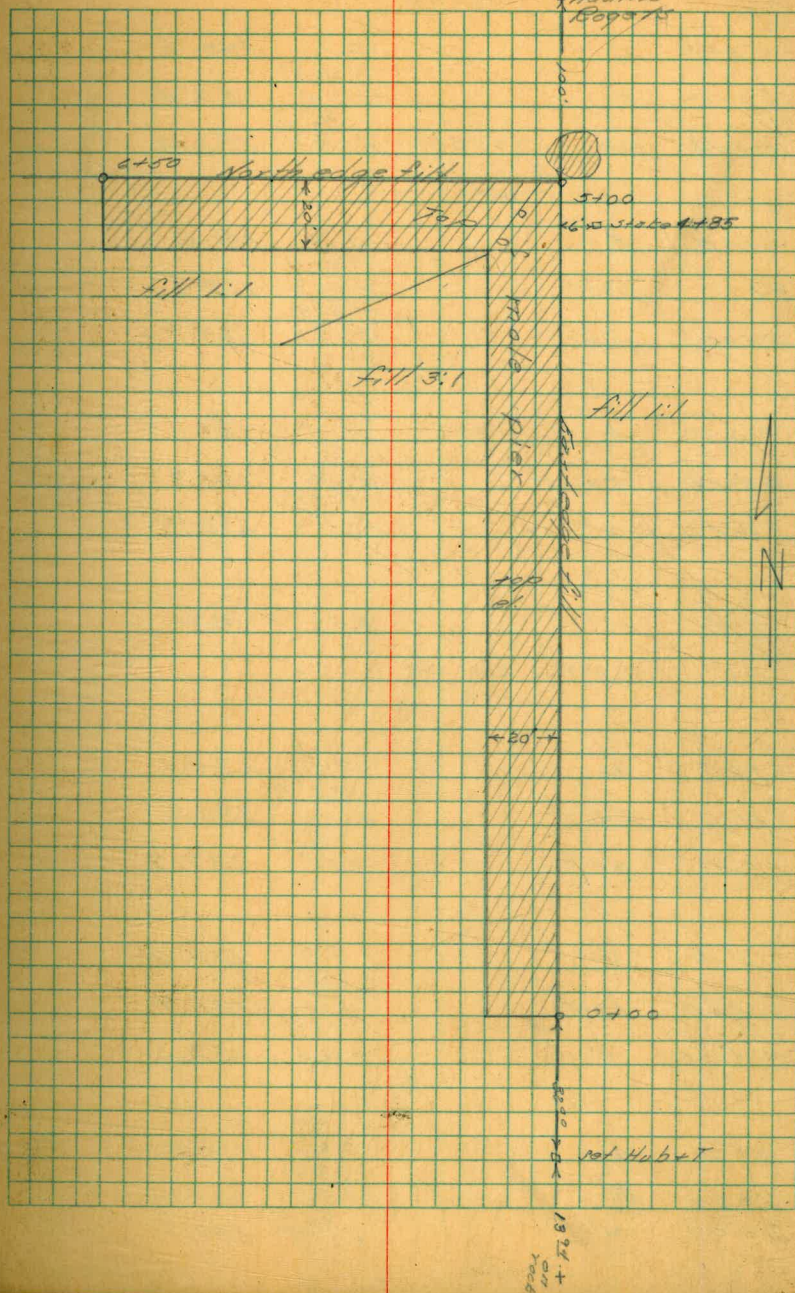
Lake Morena
MOLE PIER

an staff gauge			132.00
2.21	134.21		
5400 East	$\frac{34.0}{134.0}$		128.0
5400 S	$\frac{4.6}{34.5}$		129.6
5400 North	$\frac{34.5}{134.5}$		127.5
5450 S	$\frac{3.5}{32.8}$		130.7
5450 North	$\frac{32.8}{132.8}$		129.2
6400 S	$\frac{2.2}{32.7}$		132.0
6400 North	$\frac{32.7}{38.8}$		129.3
6404 South	$\frac{38.8}{128.8}$		133.8
T.P.	$\frac{0.99}{6.72}$		133.22
672	139.94		
6450 North	$\frac{30.9}{4.1}$		131.1
6450 S	$\frac{29.0}{37.5}$		133.8
6450 45° NW.	$\frac{27.5}{26.9}$		133.0
6450 West	$\frac{26.9}{25.9}$		134.5
6450 South	$\frac{25.9}{26.1}$		135.1
6450 45° West South	$\frac{26.1}{9.01}$		136.1
6450 South West			135.9
T.P.			130.93
6.65	132.58		

Oct. 19, 1948

Rainey
King
Baker
Hubert Adams
Koppe

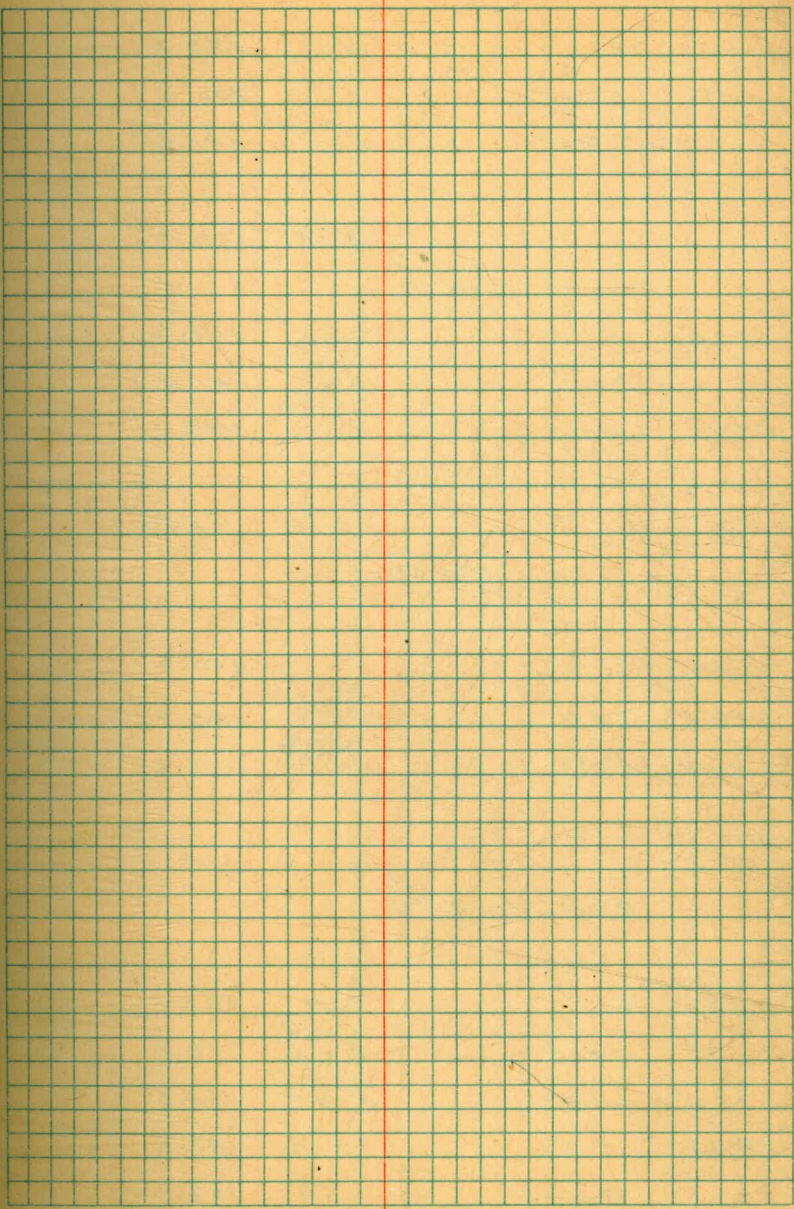
63



129.9
32.00
31

137.58

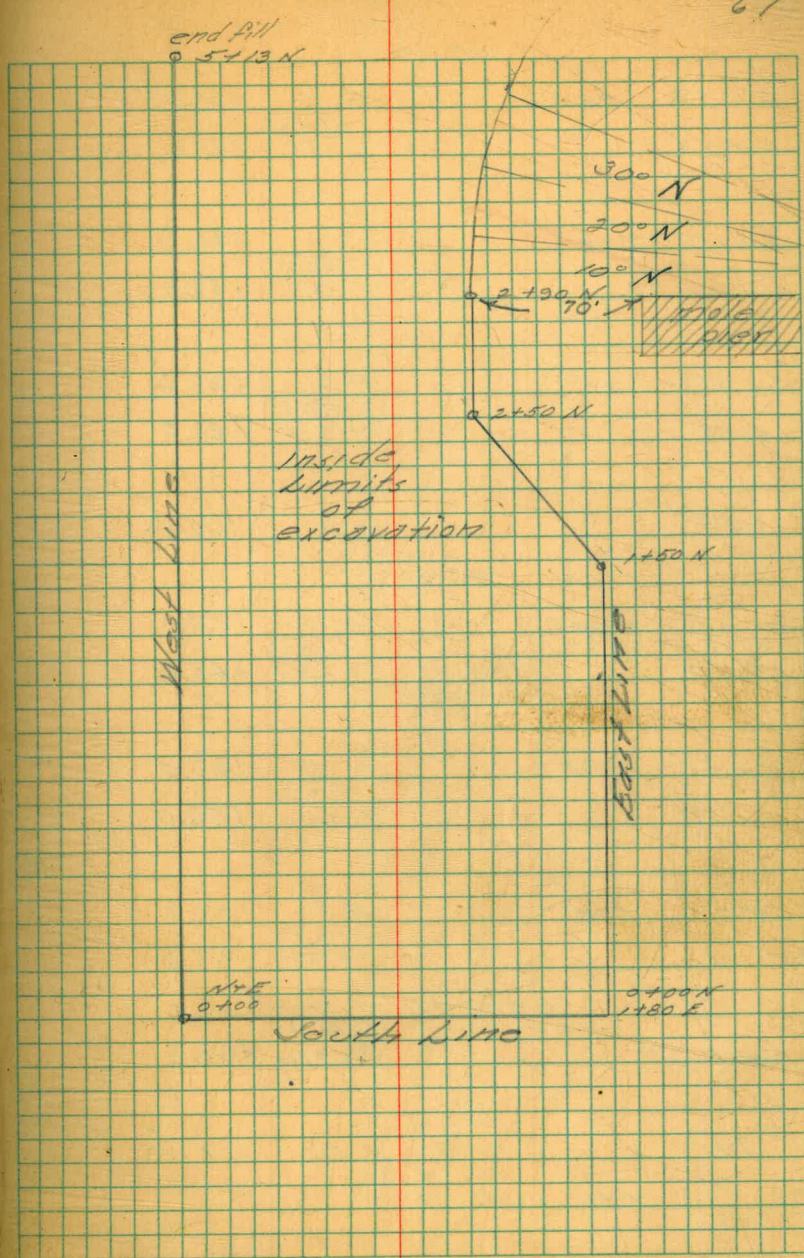
4450	¢	7.1	130.5
		(32.6)	
4450	E	f32.6	129.4
		(34.0)	
4451	West	f28.2	133.8
		(57546)	
		6+046 A.R.	
4400	¢	6.0	131.6
		(32.1)	
4400	East	f32.1	129.9
		(31.9)	
4400	West	f22.3	134.7
3450	¢	4.5	133.1
		(30.7)	
3450	East	f30.7	131.3
		(77.1)	
3450	West	f25.7	136.3
I.P.		3.88	133.70
		3.47	142.17
3400	¢	8.1	134.1
		(29.4)	
3400	East	f29.4	132.6
		(72.9)	
3400	West	f24.3	137.7
2450	¢	7.6	134.6
		(29.1)	
2450	East	f29.1	132.9
		(70.2)	
2450	West	f23.4	138.6
2400	¢	6.6	135.6
		(28.0)	
2400	E	f28.0	134.0
		(66.9)	
2400	W	f22.3	139.7



		142.17		
1+50	¢		4.2	138.0 ✓
			(25.7)	
1+50	East		+35.7	136.3 ✓
			(61.2)	
1+50	West		+20.4	141.6 ✓
			4.38	137.79 ✓
		10.91		148.70
1+00	¢		6.5	142.2 ✓
			(21.0)	
1+00	East		+21.0	141.0 ✓
			(51.9)	
1+00	West		+17.3	144.7 ✓
TR			2.15	146.55 ✓
		9.08		155.63
0+50	¢		5.3	150.3 ✓
			(11.1)	
0+50	East		+11.1	150.9 ✓
			(35.4)	
0+50	West		+11.8	150.2 ✓
TR			1.53	154.10 ✓
		9.00		163.10
0+30	¢		7.0	156.1 ✓
			(5.2)	
0+30	East		+5.2	156.8 ✓
			(19.5)	
0+30	West		+7.5	155.5 ✓
0+15	Edge		5.8	157.3
0+14	Edge		5.1	158.0

163.10
0+00 4 3.5 159.6
0+00 east
0+00 West ^(4.5) 165 160.5

		132.61	
10°N	top of cut	3.6	134.0
10°N		<u>10.8</u> C 3.6	133.6
20°N	top of cut	5.4	132.2
20°N		<u>6.6</u> C 2.2	132.2
30°N		7.6	130.0
30°N		<u>0.0</u> C 0.0	130.0
	West line		
5+00	top	7.3	130.3 ✓
5+00		<u>0.9</u> C 0.3	130.3 ✓
4+50	top	5.9	131.7 ✓
4+50		<u>4.5</u> C 1.5	131.5 ✓
4+00	top	4.5	133.1 ✓
4+00		<u>11.4</u> C 3.8	133.8 ✓
3+50	top	2.5	135.1 ✓
3+50		<u>18.9</u> C 4.3	136.3 ✓
T.P.		0.60	136.8 ✓
	11.23	148.04	
3+00	top	10.5	137.5
3+00		<u>28.2</u> C 9.7	139.4



end Pile
0 5+13 N

inside
limits
of
excavation

West line

East line

South line

PILE
OVER

30° N

20° N

10° N

0+100 N
70°

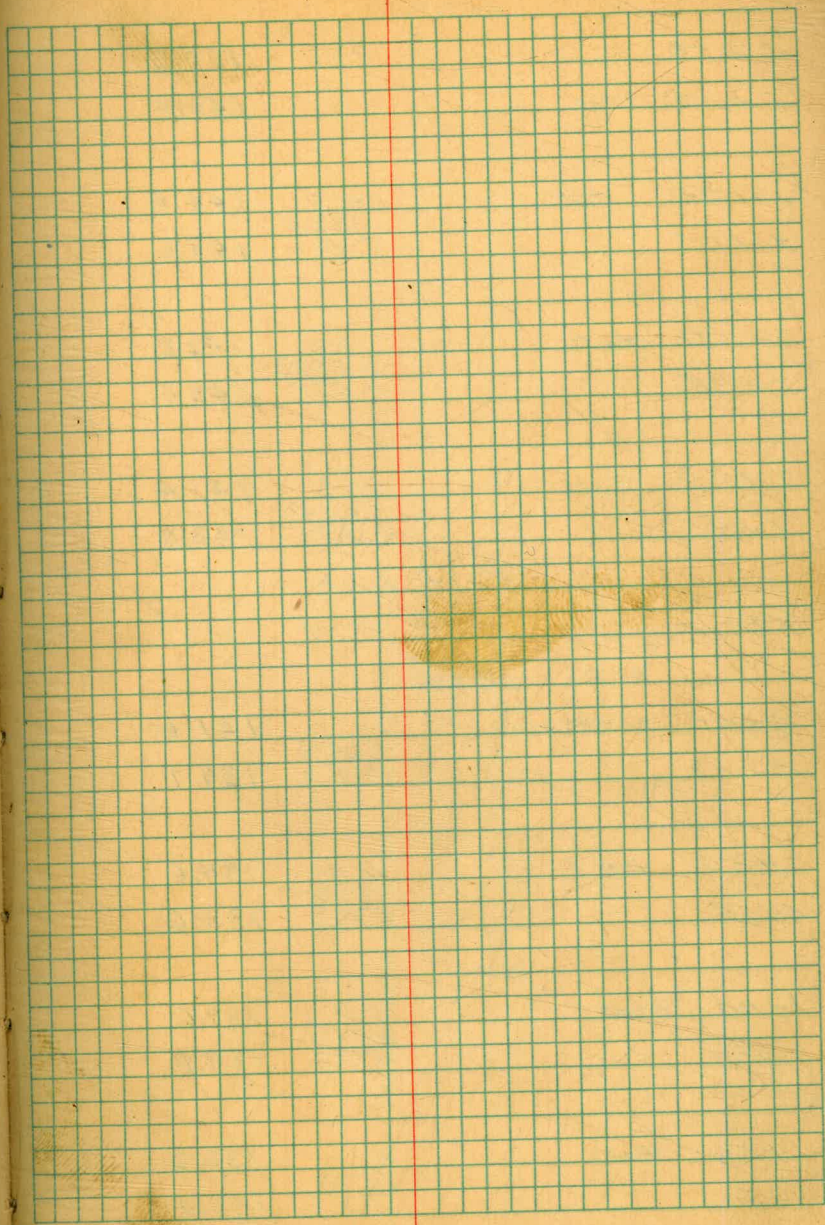
1+50 N

2+50 N

0+100
140.5

0+00 N
148.5

		148.04 ✓		
2+50	top		8.6	139.4
2+50			(34.8) C11.6	141.6
2+10	top		7.1	140.9
2+10			(41.7) C13.9	143.9
1+50	top		4.6	143.4
1+50			(49.2) C16.4	146.4
T.P.			1.21	146.83 ✓
		6.14	152.97 ✓	
1+00	top		7.7	145.3
1+00			(55.7) C18.4	148.4
0+50	top		6.0	147.0
0+50			(60.0) C20.0	150.0
0+00	top		4.1	148.9
0+00			(67.5) C22.5	152.5
	South		11.8	
0+00			(116.0) C23.2	153.2
T.P.			1.54	151.43 ✓
		1.31	152.74 ✓	



S line, cont

152.74

69

0+50		(101.0) C20.2	150.2
0+50	toc	6.3	146.4
1+00	toc	8.3 (93.0)	144.4
1+00		C18.6	148.6
1+50	toc	9.9 (75.0)	142.8
1+50		C15.0	145.0
1+80	toc	11.3 (65.0)	141.4
1+80		C13.0	143.0

East line

T.P.		111.7	141.57
	2.86	144.43	
0+00	=1+80 above		141.4
0+00		(29.1) C9.7	139.7
0+50	toc	4.8	139.6
0+50		(35.8) C8.6	138.6
1+00	toc	6.8	137.6
1+00		(21.0) C7.0	137.0
1+50	toc	8.2	136.2
1+50		(16.2) 5.4	135.4

144.43

1+50 2 PT ^(5.9)
C 5.3 135.3

2+00 toe 7.6 136.8

2+00 ^(8.0)
C 6.2 136.2

T.P. 6.01 135.42 ✓

3.25 141.67 ✓

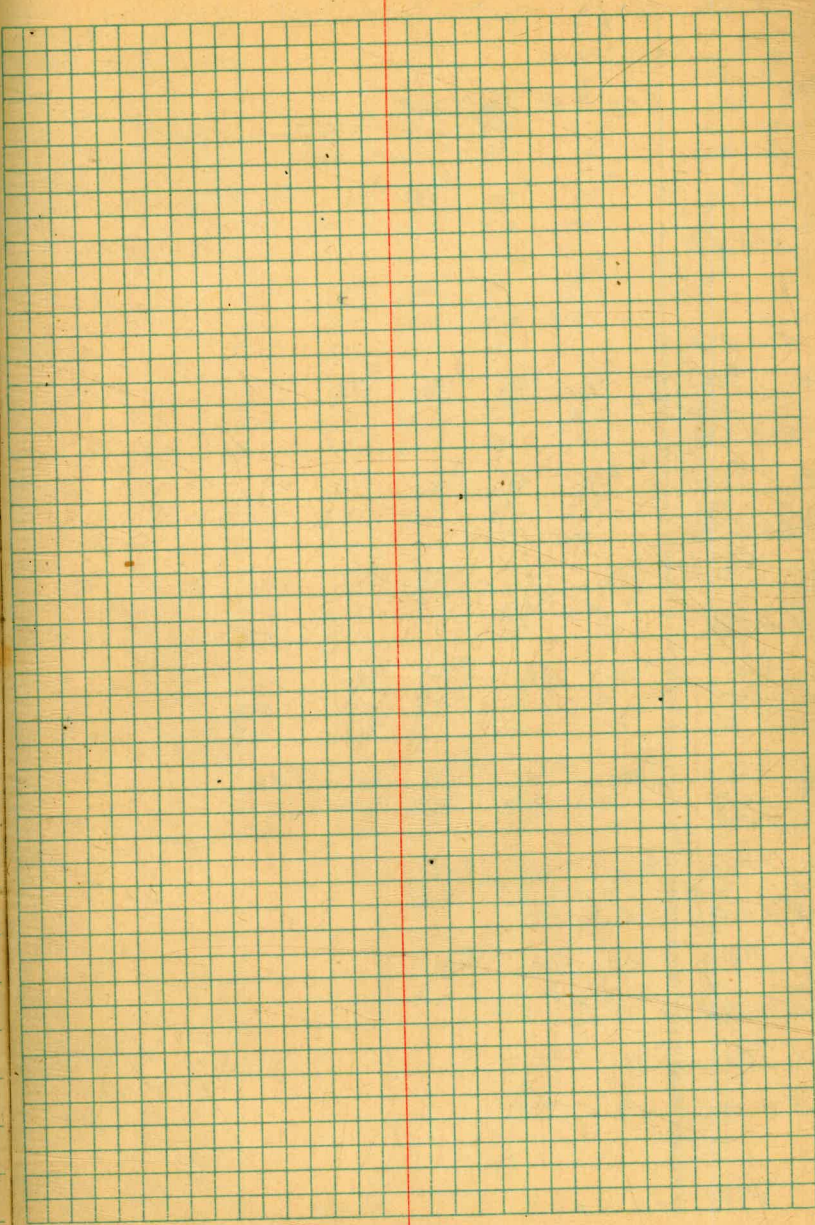
2+50 toe 4.0 137.7

2+50 ^(8.9)
C 6.3 136.3

2+90 toe 6.0 135.7

2+90 ^{15.0}
C 5.0 135.0

C 6.7 to 132.00 staff 9.67 132.00



Cross Section
 Morena Reservoir
 Boat Basin + Mole Pier

Staff gauge		135.00	Rock width at base
1400	12.64 147.64 MOLE PIER N.S. LINE		108
1750			112
2100			124
2750			123
3400			123
3950			132
4400			135
4450			133
5100 East			142
5400 45° NE			
5400 North			144
T.P. on rock	3.31	144.33	

Nov 23, 1948

Lts. West

Rainey

Baker

Rogers

71

Pls. East

meets ground on this sta.						Rock
	142.5	142.6	142.5	142.6	142.5	143.2
	5.1	5.0	5.1	5.0	5.1	5.0
	141.8	141.9	142.3	142.2	142.5	141.7
	5.8	5.7	5.8	5.4	5.1	5.9
	51	26	5	5	19	24
	141.9	141.9	142.0	141.8	141.9	141.4
	5.7	5.7	5.6	5.8	5.9	6.2
	81	27	5	5	16	22
	141.8	142.0	142.4	142.3	142.4	142.3
	5.8	5.6	5.2	5.3	5.2	5.5
	51	27	4	4	19	23
	142.1	142.3	142.5	142.6	142.7	143.2
	5.5	5.3	5.1	5.0	4.9	4.4
	80	26	5	5	16	19
	142.6	142.7	142.6	143.1	143.1	142.8
	5.0	4.9	5.0	4.5	4.5	4.8
	78	23	5	5	16	21
	142.7	143.0	142.8	143.0	142.8	142.5
	4.9	4.6	4.8	4.6	4.8	5.1
	78	25	0	0	16	21
	142.9	142.9	143.2	143.4	142.3	142.3
	4.7	4.7	4.4	4.2	5.3	5.3
	78	25	5	5	12	21
	142.8	142.1	140.6	141.6	141.6	141.9
	4.8	5.5	2.0	6.0	6.0	5.7
	7	7	11	12	12	21
	142.8	140.8	141.6	143.0	142.8	142.8
	4.8	5.8	6.0	4.6	4.6	4.8
	7	7	11	13	13	20
	141.7	140.6	142.6	142.8	142.8	142.8
	5.9	7.0	5.0	4.8	5.0	4.8
	7	8	11	20	11	20

MOLE PIER
E W LINE

T.P.

144.33

3.61

147.94

0+50

0+80 end rock on south slope

1+00

1+50 North

1+50 45° W.N } off north west corner

1+50 West

1+50 South

1+50 45° S.W. } off south west corner

1+50 West

ck to staff gauge 12.93 135.01

Lts South

North
edge

Rts. North 72

on rock

on rock

142.5
5.4

142.7
5.2
8

140.4
7.5
9

142.7
5.2
18

145.0
2.9
17

145.7
2.2
34

144.6
3.3
29

142.3
5.6
27

142.4
5.5
9

142.5
5.4
9

141.9
6.0
10

143.1
4.8
12

143.3
4.6
18

139.5
8.4

139.2
8.7
13

142.3
5.6
18

143.1
4.8
21

139.5
8.4

138.8
9.1
17

141.3
6.6
20

141.5
6.4
25

139.5
8.4

137.9
10.0
22

140.2
7.7

140.4
7.5
27

143.2
4.7
9

143.9
4.0
18

140.2
7.7

140.7
7.2
22

142.6
5.3
5

143.1
4.8
18

140.2
7.7

140.6
7.3

142.4
5.5
12

142.6
5.3
17

BOAT BASIN
0+00 = 5' toe of excavation

BM. in oak tree	164.42	
1.15	165.57	
	12.27	153.30
2.82	156.12	
0-1+10		
0-50		
T.P.	12.39	143.73
0.62	144.35	
0+00		
1+00		
1+50		
2+10		
3+00		
4+00		
5+00		
ck to staff gauge	12.35	132.00

Lts. West East Rts 73

50' staff of West toe

3.82	5.1	7.5	9.7	12.0	14.2	14.4	14.4	13.1	14.0	14.8
70	82	67	63	45	33		11	17	100	150
3.2	5.1	6.1								
50		25								
15.9	14.1	14.0	14.0	138.3	138.0	138.2	141.6	139.8	138.8	
114	112	65	42	62	6.5	6.9	3.9	4.7	5.7	
111	100	66	55	30		8	16	100	135	
140	125	3.6	8.0	8.0	7.8	6.5	6.9	5.2		
105.2	100	70	54		4	7.5	100	144		
12.0	5.2	9.6	9.8		9.2					
99.2	60	48			100					
43.7	137.2	133.0	132.4		132.0	131.9	135.1	136.7		
57	7.2	11.1	12.0		12.4	12.5	9.3	7.7		
90	57	46			50	68	69	82		
50	8.0	12.7	12.8		12.1					
78.2	63	40			57					
	10.9	13.0	14.3		15.4					
	59	45			87					
		13.8	15.9		No excavation					
		52								

MOLE PIER

Elevations of Rock Fill & EARTH FILL.

B.M.	0.19	164.61	162.42	ON OAK TREE
			7.61	157.00 (SET Highwater Line)
D (Rock)	1.46	154.05	12.02	152.59
0+50				
1+00				
+50				
2+00				
+50				
3+00				
+50				
4+00				
+50				
5+00				
5+00				
5+00				

JAN. 3, 1948 Very Cold & Windy
BEATTY, 35° E 74
BAKER,
ROGERS.

(SOUTH)	MEAN HIGH FILL	±	MEAN HIGH ROCK	(EAST)
	150.7	3.4		
	151.0		151.1	
	3.1		3.0	
	56.		8.	
	151.7		151.5	
	2.4		2.6	
	55.		9.	
	151.9		150.4	
	2.2		3.7	
	55		10.	
	152.1		149.8	
	2.1		4.3	
	52.		10	
	152.0		151.1	
	152.0		3.0	
	2.1		10.	
	53.			
	151.7		150.8	
	2.4		3.3	
	53.		10.	
	151.5		151.4	
	2.6		150.7	
	53.		2.7	
			10.	
	151.3		152.1	
	2.8		2.0	
	52		6.	
			151.6	
			2.5	
			5	
			151.6	
			2.5	
			7	(45° NE)
			151.6	
			2.5	
			7	(NORTH)

5+50		152.05		
6+00				
+50				
+50				
6+71				
TP (Rock)	0.27	143.74	10.58	143.47
TP (Rock)	3.08	135.18	11.64	132.10
			5.18	130.00 (Set Maximum Depth, in Escav)
TP (Rock)	5.13	131.93	8.38	126.80
ck P.M.	Staff Gauge		0.01	131.92 = 132.00
				(Level very stiff to turn)

MEAN HIGH FILL		MEAN HIGH ROCK
142.1		148.0
7.0		5.1
35		17
145.7		148.6
8.4		158.6
30		5.5
(SOUTH)		15
145.0		143.8
9.1		10.3
27		20
(SW. 45° LT)		144.6
		154.6
		9.5
		20
		(NW 45° RT)
		142.3
		11.8

MOLE PIER
Elevations of Earth & Rock Fill

B.M. 0.29 164.71 164.42 on oak tree

R 0.29 157.66 7.34 157.37

0+00

+20

+42 (Begin Rock Fill Rqpt)

+50

1+00

+50

2+00

+50

3+00

+50

4+00

+50

FEB. 28, 1929 76.
Beatty, Baker, Rogers
Cold, Rain.

Station	Earth Fill	Rock	Berm	Rock Fill
0+00	159.7 +2.0 C			
+20	156.2 1.5 C			
+42	154.5 3.2 C			
+50	154.8 2.9 4.6 C	156.0 1.7 3 C	153.4 4.3 4.3 C	153.2 4.5 10 C
1+00	153.7 4.0 4.6 C	154.7 3.0 4 C	151.3 6.4 6 C	151.1 6.6 11 C
+50	152.7 4.8 4.8 C	155.1 2.6 3 C	151.8 5.9 6 C	151.0 6.7 9.5 C
2+00	152.9 4.8 2.9 C	153.8 3.9 4 C	150.3 7.4 6 C	150.4 7.3 10 C
+50	152.5 5.2 5.0 C	154.1 3.6 2 C	151.5 6.2 6 C	150.6 7.1 11 C
3+00	152.4 5.3 4.9 C	155.4 5.6 3 C	150.9 4.9 6 C	150.7 7.0 10.5 C
+50	152.9 4.8 4.9 C	156.1 1.6 3 C	150.7 7.0 7 C	150.1 7.6 12 C
4+00	152.8 1.9 4.2 C	156.3 4.4 4.5 C	152.0 5.7 7 C	150.4 7.3 12 C
+50	155.9 1.8 4.5 C	157.1 2.0 3.6 C	150.9 0.5 6.8 C	151.2 6.5 11 C

5+00 157.66

+50

(+78 Begin Rock Slope LT.)

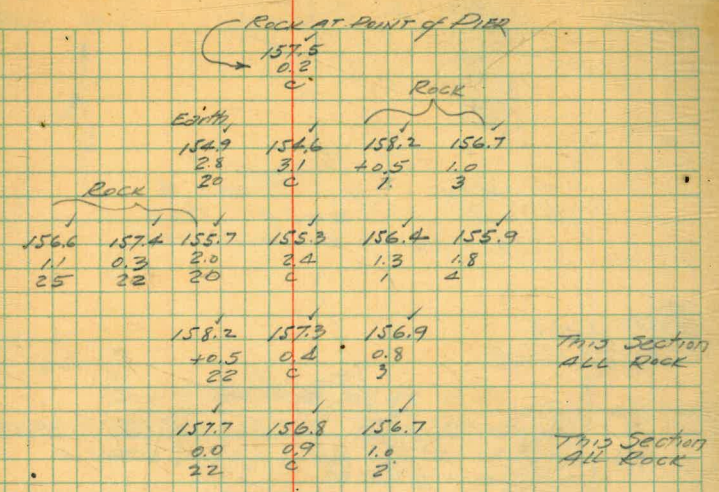
6+00

+50

+53

R 8.26 164.43 1.49 156.17

OK B.M. 0.01 164.42



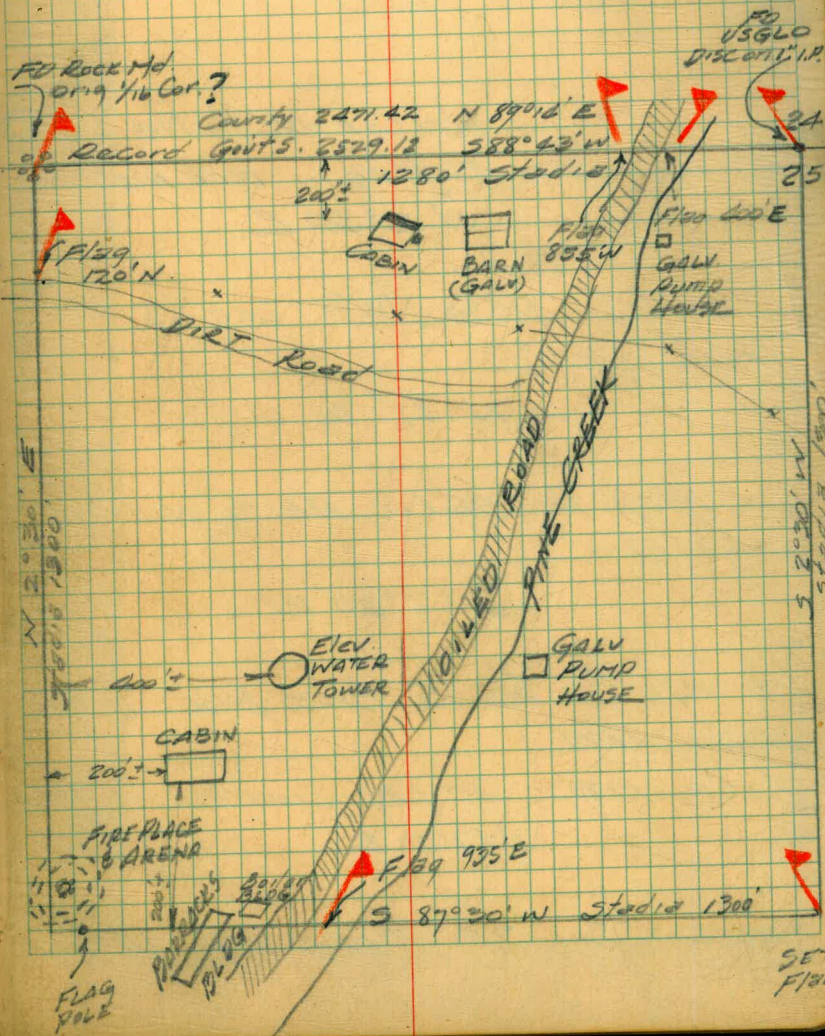
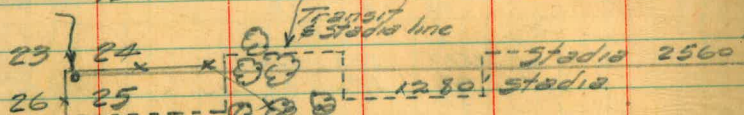
STADIA SURVEY BOUNDARY
 PARCEL 138
 PINE VALLEY - DWG 6587-31-W

Nov. 23 1955
 BEETH
 MARTELL

78.

NOTE: All lines are approx. only. Trees & brush prevented true line being established.

FD USGLO.
 DISC on 1/2" I.P.



PARCEL 138
Cont'd

NOV 25 1955
BEATTY
VARDENFAXS

Nov. 25 1957.
BEATTY
HALBERT

79.

NW Cor NE 1/4 NW 1/4 Sec 25
Stadia 1300 to flag in rock mid
N 2° 30' E

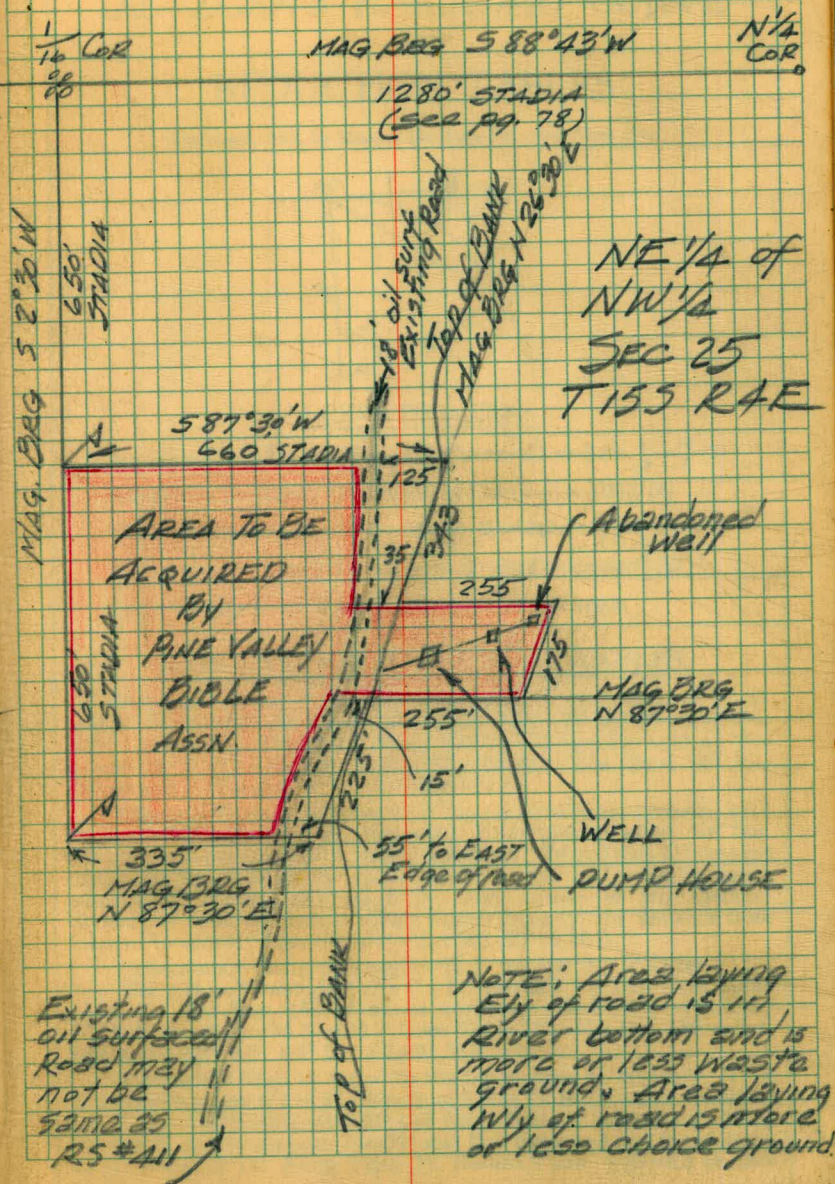
SW Cor NE 1/4 NW 1/4 Sec 25
Stadia 1300'
N 87° 30' W

Set Flag for SE Cor NE 1/4 NW 1/4 Sec 25
Stadia 1300'
S 2° 30' W

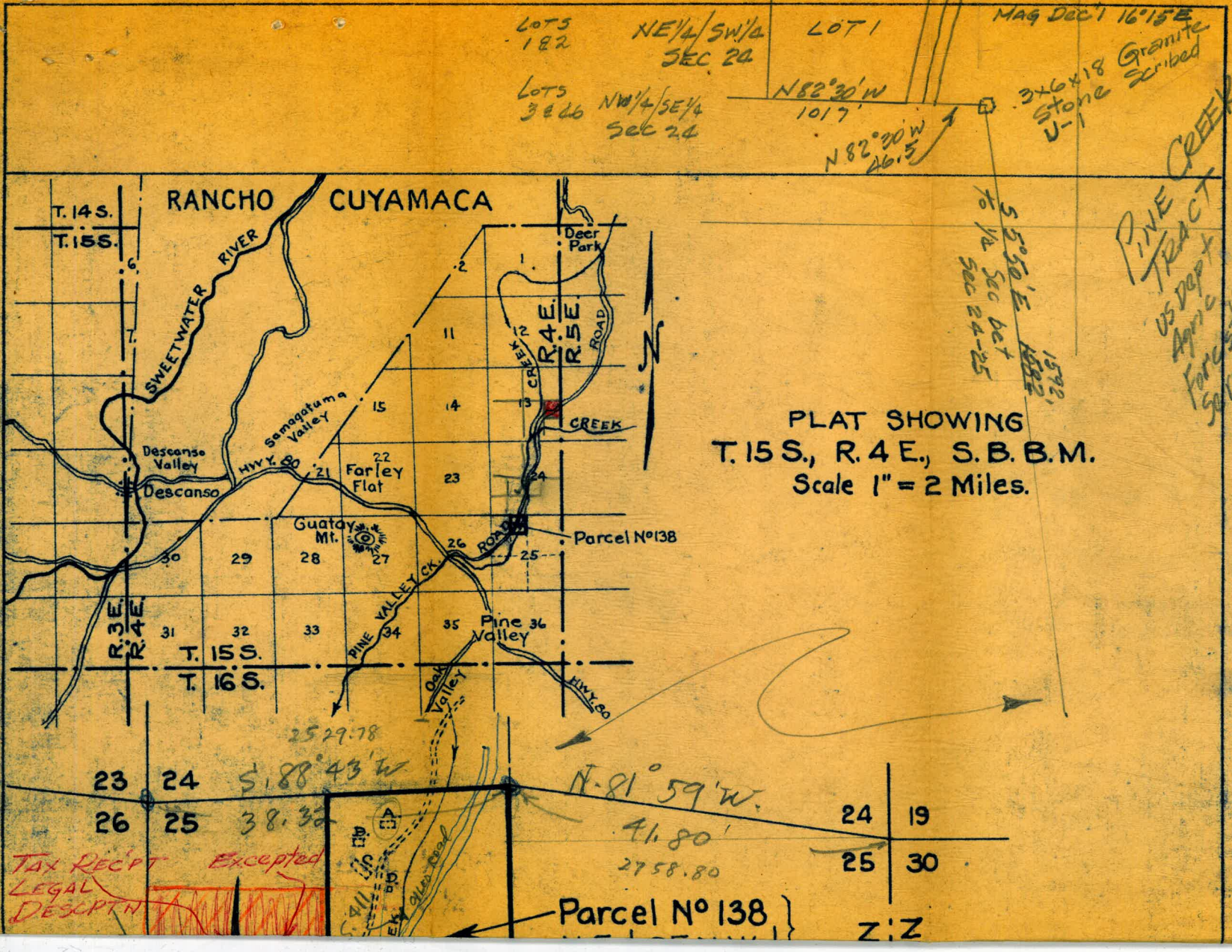
Fd N 1/4 Cor Sec 25 Brass Disc USGLO
Stadia 1280'

Stadia 1280' Set flag in rock mid for 1/4 Cor
N 87° 30' E

NW Cor Sec 25 Brass Disc USGLO
Begin.



NOTE: Area lying Ely of road is 1/4 River bottom and is more or less waste ground. Area lying Wly of road is more or less choice ground.



LOTS
182 NE 1/4 SW 1/4
SEC 20

LOTS
3826 NW 1/4 SE 1/4
SEC 24

LOT 1
N 82° 30' W
1017
N 82° 30' W
261.5

MAG DECT 16° 15' E
3x6x18 Granite
Stone
U-1
scribed

5550' E
10 1/2 Sec Dec 1
1592
1882
SEC 24-25

PINE CREEK
TRACT
US Dept
Agric
Forest
Service

PLAT SHOWING
T. 15 S., R. 4 E., S. B. B. M.
Scale 1" = 2 Miles.

TAX RECPT
LEGAL
DESCRPTN

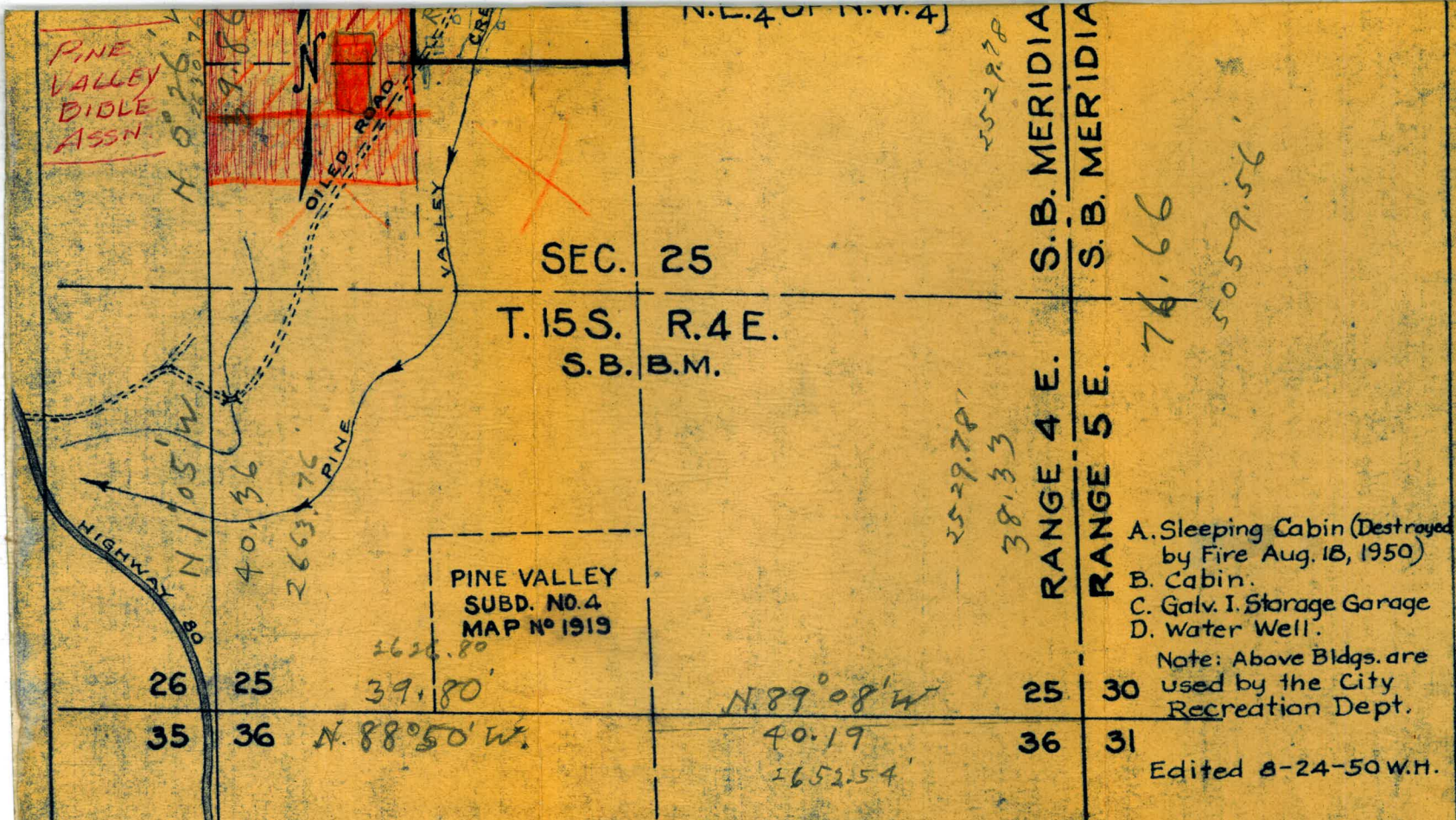
Excepted

25 29.78
S 188° 43' W
38.35
N 81° 59' W
41.80
2758.80

Parcel No 138

24	19
25	30

Z:Z



- A. Sleeping Cabin (Destroyed by Fire Aug. 18, 1950)
 - B. Cabin.
 - C. Galv. I. Storage Garage
 - D. Water Well.
- Note: Above Bldgs. are used by the City Recreation Dept.

Edited 8-24-50 W.H.

DRAWN BY G.R.H.
 CHECKED BY _____
 FIELD BOOKS _____
 CITY ENGINEER _____
 MGR. OF OPERATION _____

CITY OF SAN DIEGO--OPERATING DEPARTMENT
 Plat showing the N.E. 1/4 of the N.W. 1/4
 of Sec. 25, T.15 S., R.4E., S.B.B.M.
 D.B. 598 Pg. 54 Rec. Jan. 31, 1913 Original Purchase
 \$2,500,000 So. Calif. Mt. W. Co. to City of S. D.

DATE August 31, 1936
 SCALE 1"=1000'
 DRAWING NUMBER
~~2098 1/2~~ **B**

6587-31-W

HI 5-22-11
Chief Ranger Britton
Descauso Ranger
Station

39.86 5
66

23916
23916

2630.76

Handwritten numbers and symbols:

25
22
21
20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1



Wily
see me
Pine survey PB

Re: Pine Valley City Owned Land ✓

The Pine Valley Bible Conference Association wants to purchase from the City of San Diego the portion of land outlined in RED on attached Plot Map. This is a portion of property which we appraised for the City last year.

Our appraisal reflected a value of \$ 200.00 per acre (quote Odgen) for entire area we appraised . Since the area the Bible Conference wants is the only flat and level part of entire area Odgen thinks that probably it should be worth more money.

Odgen would like the following information:

1. Total Acreage in area outlined in RED. *about 5 1/2 @*
2. Our Appraised Fair Market Value per acre.
3. Total Fair Market Value.

He would like this information as soon as possible. He thought that since we had the old appraisal that maybe it would not be necessary to make another trip down.

Survey
& legal deser.

Mr. Worthington
Flankers 5-1340
Imperial, Calif
Call collect

+ 376	on R024	376
		<u>142</u>
TP - 12.85		5.18
+ 1.42		
		<u>11.00</u>
- 3.31	R021	

$$\begin{array}{r} 23.5 \\ \hline 105 \end{array}$$

+ 12.96 on R021
 - 1.96 on R024

8 2

$$\begin{array}{r} 12.96 \\ \hline 3.31 \\ \hline 16.16 \\ \hline 5 \end{array}$$

- 9.09	767
<u>1.42</u>	<u>331</u>
10.51	1098
<u>2.31</u>	

Please Return to
 City of San Diego Water Dept.
 Room 902 Civic Center
 Telephone Main 5161

12.5
 31.9
 3
 57

157 T.P. 16+56 - 420.93 ^{69.37} 51.87
 152 Rock 332.89 ^{8.50} 333.39
 130 ^{607.80} 600.00
 51 ^{15.80} 36.050
 152.4 22.0 7.50
 39.4 5.0 8.57 22.4 2
 143.4 ^{57.82} 51.71 18.4
 144.3 136.4 25.0 10.00
 137.6 40 10.450
 94.24 1406.9
 11.16 46.99 59.04 210
 105.40 51.23 7.813
 142.4 108
 1000 40 yds
 2000 yds
 0.644

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	26.2	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 $41.9 + (20 - 16) \times 2$ or 2 ft. added to 41.9 = 43.9. For slopes of 1 on 1 see inside of front cover.

MADE IN U.S.A.