

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

Roadway 16 feet wide. Side Slopes 1 on 1.  
For Single Track Embankment.

511

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  $30.6 + (20 - 16) \div 2$  or 2 ft. added to  $30.6 = 32.6$ . For slopes of 1 on 1½ see inside of back cover.

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Note construction  
report & record by  
L.H. Hill of rock removal  
from El. Cap. Dam Spw.

Hodges Dam Strength  
ening field notes. 58-66

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# Spillway Boulders

Oct. 8

## BID PRICES

Compr. on truck arrived  
at 11 A.M.  
Force E.P. Watson contractor  
1 foreman  
1 truck driver  
3 laborers (1/2 day)  
Watson & foreman arrived  
about 8 A.M. Went over hill  
above spw. with L.H.H. to  
discuss shooting.  
Crew began laying pipe  
above spw. in P.M.

Item	Description	Prices
1	2" drill holes per ft.	0.50
2	shooting holes	0.50
3	Haying shovel	75.00
4	" bulldozer	20.00
5	" 5 yd. truck	5.00
6	" 8 " "	10.00
7	Rate per hr. 5 yd truck	2.25
8	" " " 8 " "	3.50
9	" " " shovel	8.00
10	" " " bulldozer	5.00
11	40% powder per lb.	0.25
12	Blasting caps each	0.03
13	Black powder per lb.	0.15
14	Safety fuses per ft.	0.01

Oct. 9

Equip. 1 compressor  
2 jackhammers

Labor 1 foreman - 6 hrs  
2 laborers "

Crew completed air line  
uphill above spillway  
in preparation of blasting  
tomorrow

Oct. 10

Equip. 1 compressor  
2 jackhammers  
3 trucks (not on city work)

Labor 1 foreman  
2 drillers  
2 truck drivers

Remarks Com. drilling above spillway. Lack of gas slowed up work. Holes drilled as per app. page.

Rock No.	C.Y.	No. holes	Depth of holes	lbs. powder
1	18	5	5'	31 sticks 12.92 <sup>4</sup>
			4'10"	
			4'10"	
			5'	
			5'	
"2	15	4	4'11"	22 sticks 9.17
			4'6"	
			4'7"	
			3'5"	
		9	42'1"	

1 1/2" x 8"

3

Note 42 ft. holes allowed for 10/10/15

Oct. 11

Equip. 2 comp's  
 2 jk hms  
 3 trucks (not in use)  
 1 battery

Laber 1 fore.  
 2 drillers  
 2 lab's.

Rock	C.Y.	Holes	Depth	lbs powder
" 3	5	2	2' 1"	12 sticks 5.00
			2' 8"	
" 4	2	1	4' 7"	55 sticks 2.08
" 5	3	1	2' 9"	65 sticks 2.50
" 6	20	4	4' 11"	29 sticks 12.08
			4' 10"	
			4' 9"	
			2' 2"	65 sticks
" 7	3	1	2' 7"	2.50
		<u>9</u>	<u>31' 4"</u>	

Note 60' holes for  
 10/11/35.

Oct. 14

Equip: 2 comprs.  
 3 jk hrs  
 3 trucks (not in use)  
 1 firing battery

Labor: 1 fore.  
 3 drillers  
 1 lab.

Remarks: completed drilling  
 and shot boulders above  
 spillway

Note 89.4' holes 10/14/35

Rock No	C.Y.	Holes	Depth	Powder	$\frac{7}{8} \times 8"$
8	20	4	17' 2"	34.5 lbs	$\frac{7}{8} = 12.25"$
9	3	1	3' 5"	7 "	1.75"
10	3	1	3' 5"	7 "	1.75"
11	53	9	4' 7"	79 "	$\frac{7}{8} = 31.00"$
			4' 7"	30 "	$\frac{1}{8}$
			4' 8"		
			5' 7"		
			4' 10"		
			6' 1"		
			4' 9"		
			4' 7"		
			3' 7"		
			3' 7"		
12	11	2	5' 3"	20 "	5.0"
			6' 5"		
13	2	1	2' 2"	5 "	1.25"
14	6	2	3' 2"	10 "	2.5"
			3' 2"		
15	2	1	3' 1"	5 "	1.25"
16	3	1	3' 2"	6 "	1.50"
17	6	2	1' 3"	14 "	3.50"
			2' 3"		
18	1	1	1' 8"	3 "	0.75"
19	3	1	2' 5"	6 "	1.5"
20	3	1	2' 5"	6 "	1.5"
21	26	2	4' 9"	19 "	4.75"
			4' 10"		
		29			
					118.0



Oct. 15

Equip: 2 compressors  
3 jackhammers  
3 trucks (not in use)

Labor: 1 foreman  
3 drillers

Down hole No.	Depth
1	18'
2	20'
3	17.5"
4	17'
5	16'
6	14.5"
	<hr/>
	102'10"

Remarks: Put down 6 holes in  
D.B. overhang above spill-  
way. Will load & shoot to-  
morrow.

Oct. 16

Equip: 2 compressors  
1 battery  
3 freaks (not in use)

Labor: 1 foreman  
1 laborer

Remarks: Loaded and shot down  
holes above spillway.

7  
Material used

28 electric exploders  
99 sticks 40%  $\frac{7}{8}$ " x 8" Giant  
375 lbs. black powder

Oct. 17

Eq Equip: 2 compr's.  
3 jackhammers  
1 battery

Labor: 1 foreman  
3 drillers

Rem

Remarks: 2 down holes loaded  
with black powder  
placed in overhang  
not disturbed by yes-  
terdays shooting.

8

1 down hole 20'  
2 electric exploders  
100# black powder

1 down hole 20'  
2 electric exploders  
75# black powder

1 hole 5'  
1 exploder  
10 sticks 70%

Oct. 18

Equip: 2 comprs.  
3 jackhammers  
1 battery } (not in use)  
3 tracks }

Labor: 1 foreman  
3 drillers

Remarks: Completed laying  
pipe to spillway and  
began drilling at about  
10 A.M. on boulders on floor  
of spillway.

9

Rock No.	C.Y.	Holes	Depth	Powder	(shots on 19th)
1	2	1	2'2"	2 5 lbs	"
2	2	1	2'1"	2	"
3	3	1	2'8"	2	"
4	2	1	1'10"	2	"
5	3	1	3'2"	2	"
6	3	1	2'9"	2	"
7	5	1	3'4"	3	"
8	5	1	3'11"	3	"
9	5	1	3'4"	3	"
		<hr/>	<hr/>		
		9	25'3"		

Oct. 19.

Equip: 2 comp's  
 2 jackhammers  
 1 battery  
 1 shovel 4 hrs.  
 1 truck 2 "

Labor: 1 foreman  
 2 drillers (1.6 hrs)  
 1 laborer  
 1 truck driver 2 hrs  
 1 runner 8 hrs. (9 hrs. in transit)

10

Rock No.	C. X.	Holes	Depth	Powder
10	20	2	5'11" 6'2"	4 sticks
11	30	3	5'7" 6'3" 6'6"	6 sticks
12	3	1	2'2"	
13	8	1	4'1"	
14	10	2	3'10" 2'1"	
15	3	1	2'2"	1 1/2 " 1 1/8"
16	3	1	2'5"	
17	7	2	2'2" 2'9"	6 sticks 2 1/2"
18	12	2	3'6"	6 "
19	10	1	5'6"	6 "
20	7	1	2'8"	3 "
21	5	1	2'10"	2 " 2nd 1 1/2"
22	3	1	1'11"	2 " "
23	5	1	2'9"	2 " "
		<u>20</u>	<u>71'3"</u>	

11 caps, 36 fuse, 5 exploders.

Oct 21

Equip: 2 compressors  
 2 jackhammers  
 3 trucks 2-16 hrs - 1 6 1/2 hrs  
 1 shovel - 8 hrs

Labor: 1 fore.  
 1 runner  
 3 truck drivers  
 2 drillers  
 2 laborers

Remarks: truck down at 11 AM. repaired  
 & operating at 1 PM.

Rock	C.Y.	Holes	depth	Powder
		1	2'10"	12.5 lbs 10 " (fragments large boulders)
		1	2'9"	
		1	2'10"	
		1	2'1"	
		1	1'9"	
		1	2'2"	
		1	1'8"	
		1	2'3"	
		1	2'5"	
		1	2'5"	
		1	2'4"	
		11	25'6"	

Lbs powder 12.42  
 51 safety fuse  
 16 caps  
 22 holes  
 56'6" H. of holes

Oct. 21 (cont.)

Rock	C.Y.	Holes	Depth	Powder
24	2	1	2'3"	
25	5	1	2'2"	
26	3	1	1'5"	
27	15	1	4'11"	
28	25	1	6'0"	
29	3	1	2'2"	2 stks
30	4	1	3'1"	
31	4	1	1'11"	2 " "
32	3	1	2'4"	1 1/2
33	2	1	2'1"	1 1/2
34	5	1	2'5"	2
		11	31'0"	

Oct. 22

Equip: 1 shovel 8 hrs.

2 trucks 14 hrs

1 " 4 "

2 jackhams

2 camp's.

Labor: 1 fore.

1 runner

3 truck driver

2 drillers

1 lab

Rock	C.Y.	Holes	Depth	Powder
35	7	1	3' 2"	3 stks 1 1/2 "
36 (shale 21st)	7	1	2' 8"	3 "
28		1	4' 3"	
37	2	1	2' 5"	
38	8	1	2' 9"	3 stks
39	4	1	2' 4"	
40	2	1	2' 11"	1 1/2 "
41	3	1	2' 4"	1 1/2 "
42	5	1	4' 3"	2 "
43	2	1	2' 5"	1 1/2 "
44	2	1	1' 4"	
45	2	1	1' 4"	
			<u>12</u>	<u>32' 2"</u>

Earth overcast 1850 C.Y.



Oct. 23

Equip: 1 shovel 8 hrs  
 1 truck 8 "  
 1 " 4 "  
 1 " 6 "  
 2 comprs  
 2 jk. hms

Labor: 1 fore.  
 1 runner  
 1 oiler  
 1 driller 8 hrs  
 1 " 4 "  
 2 truck drivers 8 hrs  
 1 " " 4 hrs

Rock C.V.	Holes	Depth	Powder
46 8	2	2'3"	4 stks 1/8
47 8	3	2'5" 2'8" 3'2" 2'4"	6 "
48 5	1	2'5"	2 "
49 8	2	3'3" 3'1"	4 "
50 3	1	3'4"	1 1/2 "
51 3	1	1'8"	1 "
52 4	1	2'9"	1 "
53 5	1	3'8"	2 "
54 3	1	2'5"	1 1/2 "
55 3	1	2'2"	1 "
56 3	1	2'8"	1 "
	15	39 10"	
2 holes in D.G.	2	-	32 "
17 caps			)
70' fuse			
23.7 10%			

Oct. 24

Equip: shovel 8 hrs.

2 trucks 8 hrs.

2 compressors

2 jackhammers

Labor 1 foreman

1 runner

1 oiler

2 truck drivers 12 hrs.

1 laborer

Remarks: trucks layed off at noon

shovel overcasting in W. end  
of slide.

Rock	C.V.	Holes	Depth	Powder
57	9	2	2' 5"	
			3' 1"	
58	5	1	3' 2"	
59	10	1	2' 9"	
60	4	1	3' 2"	
61	8	1	4' 0"	
62	20	2	3' 3"	
			3' 1"	
63	25	2	4' 10"	
			4' 9"	
64	3	1	2' 2"	
65	4	1	2' 8"	
66	8	1	3' 3"	
67	4	1	2' 7"	
68	3	1	1' 2"	
		15	46' 4"	

385 lbs

Oct. 25

Rack C.Y. Holes Depth Powder

Equip 1 shovel 8 hrs

69

1

3' 7"

2 trucks 16 hrs

70

1

2' 9"

1 " 1 "

71

1

5' 1"

2 compr's

72

1

2' 8"

1 jkhr

73

1

4' 11"

74

1

4' 8"

75

1

5' 1"

Labor: 1 foreman

7

27' 11"

1 runner

1 oiler

1 driller

3 truck drivers

7 caps

28' fuse

22 stks 40% 1 1/8"

Remarks: 133 loads to dump

Av. load 1 c.y.

Oct. 26

Equip: 1 shovel 8 hrs  
 3 trucks 24 "  
 2 compressors  
 2 jack hammers

Labor 1 foreman  
 1 runner  
 2 drillers  
 3 truck drivers

AM. 8 stks 1/9'

Rock	CV.	Holes	Depth	Powder
76 <sup>+</sup>		1	2'4"	
77 <sup>+</sup>		1	3'0"	
78 <sup>+</sup>		1	2'5"	
79		1	2'8"	
80		1	2'10"	
81		1	1'8"	
82		1	1'11"	
83		1	2'1"	
84		1	3'3"	
85		1	1'2"	
86		1	2'6"	
87 <sup>+</sup>		1	2'5"	
88		1	3'2"	
89		1	1'5"	
90 <sup>+</sup>		1	3'0"	
91 <sup>+</sup>		1	2'4"	
92		1	2'2"	

Oct. 26 (cont.)

Rock	@Y.	Holes	Depth	Powder
			<sup>1/2</sup> 40" 4"	
93		1	3' 3"	44 sticks
94+		1	3' 1"	
95+		1	2' 5"	
96		3	3' 2"	
			3' 2"	
			2' 9"	
97+		1	3' 1"	
98		1	3' 10"	
99+		1	2' 4"	
100		1	2' 1"	
101		1	1' 11"	
		<u>28</u>	<u>71' 5"</u>	

44 sticks 1 1/2 P.M.  
22 holes loaded & shot

Truck "a	50 loads
"	2 53 "
"	5 54 "
	<u>107</u>

Oct. 28

Equip: 1 shovel  
 3 trucks  
 2 compr's  
 2 jackhammers

Labor: 1 fore.  
 1 runner  
 1 oiler  
 3 truck drivers  
 2 drillers

truck " 2 - 50 loads  
 " " 5 - 50 "  
 " 4 - 48 "  
148

Rock	CY.	Holes	Depth	Powder
102 <sup>+</sup>		1	2'4"	
103 <sup>+</sup>		1	2'7"	
104 <sup>+</sup>		1	2'7"	
105 <sup>+</sup>		1	2'5"	
106		1	2'8"	
107		1	2'10"	
108		1	3'2"	
109		1	3'1"	
110		1	3'0"	
111		1	3'3"	
112		1	3'3"	
113		1	3'3"	
114 <sup>+</sup>		4	{ 1'11" 5'0" 5'2" 5'2"	
115		1	1'5"	
116		3	{ 3'3" 2'10" 3'2"	
117 <sup>+</sup>		1	2'7"	68'01 67'14
118 <sup>+</sup>		1	2'3"	
119		1	2'2"	
		<u>23</u>	<u>72'5"</u>	

30 stks powder  
 shot 28 holes

Oct. 29

Equip: shovel 8 hrs  
3 trucks 12 "  
2 compressors  
2 jackhammers

Labor: 1 foreman 8 hrs  
1 runner 8 hrs  
1 oiler 8 hrs  
3 truckdrivers 12 hrs  
2 drillers 8 hrs

Remarks: All forecas but  
shovel layed off at  
noon. Shovel overcasting  
in P.M.

20

Rock C.V. Holes Depth Powder

No boulders completed  
will measure footage to-  
morrow.

80 loads to spoil bank.

Oct. 30

Equip: 1 shovel 7 1/2 hrs

2 compressors

2 jackhammers

Labor: 1 fore,

1 runner

1 oiler

2 drillers

Remarks: shovel overcasting  
at westerly end of slide

Rock C.V.	Holes	Depth	Powder
120	4	3' 2" 4' 5" 3' 0" 4' 10"	
121	2	3' 6" 3' 10"	
122	1	2' 10"	
123	2	5' 0" 5' 0"	
124	2	4' 9" 1' 10"	
125	1	2' 10"	
126	1	3' 0"	
127	1	1' 0"	
	<u>14</u>	<u>49' 0"</u>	

Holes 15 (1 hole seam shot)

Powder 53 stks.

shovel 7 1/2 hrs.



Oct. 31

Equip: 1 shovel  
 2 compressors  
 2 jackhammers

Labor: 1 foreman

1 runner

1 oiler

2 drillers

Rock	CY.	Holes	Depth	Powder
			6'-6"	
128	62	9	6'-8"	
			7'-2"	
			6'-3"	
			6'-4"	
			6'-10"	
			7'-0"	
			6'-0"	
			6'-3"	
			5'-0"	
129 <sup>+</sup>		4	5'-1"	
			5'-1"	
			5'-0"	
			5'-0"	
			2'-9"	
130		1	2'-9"	
			2'-9"	
131 <sup>+</sup>		4	3'-1"	
			3'-1"	
			3'-1"	
			3'-1"	
			3'-1"	
132 <sup>+</sup>		2	3'-1"	
			3'-0"	
		20	100'-0"	

Powder ca. stki 1 $\frac{1}{2}$

" 26.9 lbs.

20 electric exploders,

Nov. 1

Equip. 1 shovels 8

3 trucks 24

2 compressors

2 jackhammers

Labor: 1 fore.

1 runner

1 oiler

2 drillers

3 truck drivers

Rock C.V.	Holes	Depth	Powder
133 <sup>+</sup>	3	4' 4" 4' 9" 5' 2"	↑ 1 1/2 1 5/8 1 1/2 ↓
134 <sup>+</sup>	1	3' 0"	
135	2	5' 5" 4' 7"	
136	3	5' 5" 5' 7" 5' 5"	
137	1	3' 4"	
138	1	3' 1"	
139	1	2' 9"	
140 <sup>+</sup>	2	3' 0" 1' 5"	
141 <sup>+</sup>	2	3' 3"	
	1	1' 10"	
	17	62' 2"	

269'

Remarks: Photo "1" N.E. from spillway  
near axis 12:45 P.M.

truck 2 - 39 to dump

" 5 - 40 "

" 6 - 38 "

117

Photo "2" looking N.E. from W.  
end of parking place  
above spillway. 2:30 P.M.

Nov. 2

Equip: shovel thrs  
 3 trucks 12 "  
 2 comp's  
 2 jackhammers

Labor 1 fore.

1 runner

1 oiler

3 truck drivers

2 drillers

Remarks: Work stopped  
 at noon - rain.  
 74 loads to spoil

Note Holes not measured with  
 be taken 11/9/55.

Nov. 4

Equip: shovel 4 hrs

3 trucks 10 1/2 "

2 comp's

2 jk hrs

Labor: 1 fore.

1 runner

1 oiler

2 drillers

3 truck drivers

Remarks: shovel down at noon,

burned out bearing,

65 loads to spoil.

Rock	C.V.	Holes	Depth
142		1	1' 5"
143		1	2' 11"
144		1	2' 5"
145		1	2' 8"
146		1	2' 10"
147		2	1' 10" 2' 3"
148		1	1' 11"
149		1	1' 5"
150		1	2' 11"
151		1	2' 3"
152		1	2' 8"
153		1	2' 3"
154		1	2' 0"
155		1	1' 0"
156		1	2' 8"
157		3	3' 4" 3' 1" 2' 8"
158		1	3' 5"
		<u>20</u>	<u>47' 11"</u>

Nov. 4 (cont.)

Rock	c.v.	Holes	Depth	Powder
159		1	2'10"	
160		1	1'8"	
161		1	3'2"	
162		1	2'4"	
163		1	3'5"	
164		1	3'5"	
165		1	2'5"	
166		1	3'3"	
			4'11"	
167		2	4'10"	
			2'3"	
168		3	2'4"	
			2'0"	
169		1	2'11"	
		<u>14</u>	<u>41' 9"</u>	
		<u>20</u>	<u>47 11</u>	
		34	89' 8"	

29 holes loaded &amp; shot

61 sticks 1 1/2

67 loads to dump

Nov. 5

	Rock	Cy.	Holes	Depth	Powder
Equip: 1 shovel (repairs.)	170		1	3'3"	
2 compressors	171		1	2'7"	
2 jackhammers	172		1	2'4"	
3 trucks not working	173		2	3'0" 3'1"	
	174		1	1'8"	
	175		1	4'6"	
Labor: 1 foreman	176		1	3'3"	
1 runner	177		1	3'1"	
2 drillers	178		1	2'5"	
	179		1	3'0"	
	180		2	2'5" 3'4"	
Remarks: repairing shovel.	181		1	3'0"	
	182		1	2'7"	
	183		1	3'3"	
	184		1	3'2"	
	189		1	2'4"	
	190 <sup>+</sup>		1	3'2"	

Nov. 5 (cont.)

Rock	Holes	Depth
191	2	2'6" 2'4"
192	1	3'3"
193	1	3'5"
194	2	3'4" 3'4"
195	1	2'6"
196	1	3'0"
	27	80'1"

No holes loaded or shot.  
Shot A.M. 11/6/35

66 sticks 1 1/8

30 holes shot

2 " allowed for seam shots.

Nov. 6

Equip: shovel 6 1/2 hrs

3 trucks 19 1/2 hrs.

2 compressors

2 jackhammers

Labor: 1 fore.

1 runner

1 oiler

3 truck drivers

2 drillers

Remarks: shovel repaired and operating at 9:30 AM.

131 loads to dump

Rock	Holes	Depth
197	2	3' 4" 3' 3"
198	1	5' 0"
199	1	3' 4"
200	1	1' 11"
201	1	1' 11"
202	2	3' 7" 5' 6"
203	1	2' 9"
204	1	2' 11"
205	1	1' 4"
206	2	4' 11" 5' 0"
207	1	2' 11"
208	2	2' 7" 2' 0"
209	1	2' 3"
	<u>17</u>	<u>5' 6"</u>

24 holes shot

47 stks 1 1/8

230 lin. ft. fuse (A.M. &amp; P.M.)



Nov. 7

Equip: shovel 7 1/4  
 3 trucks 21 3/4  
 2 compressors  
 2 jackhammers

Labor: 1 fore.  
 1 runner  
 1 oiler  
 2 drillers  
 3 truck drivers

truck " 2 - 46 loads  
 5 - 45  
 6 - 12  
133

Rock	holes	depth		
210	2	3'1"	227	1 2'4"
211	1	3'0"		26 70'7"
212	1	2'3"		
213	1	2'0"	108	linkt. fuse
214	1	3'3"	26	caps
215	2	2'7" 2'10"		
216	1	3'4"		
217	1	3'5"		
218	2	1'11" 1'8"		
219	1	3'4"		
220	1	3'4"		
221	2	3'2" 3'2"		
222	2	1'9" 2'6"		
223	1	3'3"		
224	2	3'4" 2'10"		
225	2	2'0" 2'7"		
226	2	2'3" 2'3"		

645/11/8

Nov. 8

Equip: 1 shovel 5 hrs.  
3 trucks 15 "  
2 compressors  
2 jackhammers

Labor: 1 foreman  
1 runner  
1 oiler  
2 drillers  
3 truck drivers

Remarks: Compressors out of gas  
at about 10 AM.  
Shovel out of gas at  
1:30 PM. necessitating  
shut down.

31

Note Drillers off at 10 AM.  
linear ft. of hole  
drilled to this time  
will be measured to  
morrow.

Loads to dump  
truck 2-38  
" 5-38  
6-26  

---

102

Nov. 9

Equip: shovel 8 hrs.  
trucks 24 hrs.  
2 comp. prs.  
2 jackhamrs

Labors: 1 foreman  
1 runner  
1 oiler  
2 drillers  
3 truck drivers

150 loads to spoil.

Rock holes	Depth	Rock holes	Depth
228 <sup>+</sup>	2 3' 2" 2' 7"	243 <sup>+</sup>	7 5' 5"
229 <sup>+</sup>	1 1' 8"		5' 7"
230	1 2' 9"		6' 7"
231 <sup>+</sup>	1 3' 0"		5' 7"
232 <sup>+</sup>	2 3' 4" 3' 5"		5' 6"
233 <sup>+</sup>	3 4' 2" 3' 1" 3' 2"	241	2 3' 3" 2' 10"
234 <sup>+</sup>	1 2' 11" 3' 7"	245 <sup>+</sup>	1 2' 4"
235	3 1' 9" 1' 10"		127' 4"
236	2 2' 0" 2' 3"	246	1 1' 2"
237	2 3' 1" 1' 10"	38	128' 6"
238	4 4' 1" 5' 3" 3' 10" 3' 11"		
239	1 3' 0"	100 stks	1 1/2
240	1 2' 2"		
241	2 2' 4" 3' 2"		
242	1 2' 4"		

Nov. 12

Equip: 1 shovel & hrs  
 3 trucks 24 "  
 2 compressors  
 3 jack hammers

Labor: 1 fore.

1 runner  
 1 oiler  
 2 drillers  
 3 truck drivers

Remarks: 19 holes shot in AM.

1 1/8 powder:

9 holes shot in PM.

178 loads to spoil

49 stks 1 1/8

Rock	Holes	Depth	Rock	Holes	Depth
					1'10"
247	1	2'0"	261	2	1'11"
248	1	2'0"	262	2	1'10" 2'5"
249	1	2'1"	263	3	3'2" 3'1" 4'0"
250	1	1'9"	264	3	2'4" 2'3" 2'8"
251	1	2'0"			
252 <sup>+</sup>	3	5'3" 5'5" 5'4"	265	2	4'3" 4'5"
			266	2	2'1" 1'5"
253	2	2'11" 2'11"	267	2	3'2" 3'4"
254	2	3'2" 3'1"	268	2	2'2" 2'1"
255	1	2'3"	269	1	2'8"
256	1	3'0"	270	3	1'9" 2'4" 2'4"
257	1	3'0"			
258	1	3'5"		22	57'6"
259	2	3'7" 3'8"	271	1	2'10"
260	1	3'9"	272	1	2'5"
	19	61'3"		24	62'9"

AM. shot at noon

Nov. 13

Equip: shovel 8 hrs.

3 trucks 24 "

2 compressors

3 jackhammers

Labor: 1 fore.

1 runner

1 oiler

3 drillers

3 track drivers

Rock holes Depth

273 1 2'7"

274 1 2'1"

275 1 3'0"

276 1 1'2"

277 4 5'9"

6'0"

5'7"

5'11"

278 2 2'11"

2'8"

279 1 3'1"

280 1 2'0"

281 2 4'4"

4'3"

282 4 4'2"

4'8"

283 4 4'7"

3'2"

283 1 5'3"

19 73' 2"

seam shot 1

20

20 exploders, 14 caps

Powder 66 stks 1 1/8

Remarks: 20 loads to spoil bank

trucks layed off at

close of day

34 holes loaded &amp; shot.

Nov. 14

Equip: 1 shovel & hrs  
2 compasses  
2 jackhammers

Labor: 1 foreman  
1 runner  
1 oiler  
2 drillers

Rock	Holes	Depth	Rock	Holes	Depth
284	1	2'3"	299 <sup>+</sup>	1	2'4"
285 <sup>+</sup>	1	3'0"	300 <sup>+</sup>	2	4'4" 5'6"
286	1	4'7"	301 <sup>+</sup>	1	2'7"
287	1	4'8"	302	1	4'7"
288 <sup>+</sup>	1	4'3"	303 <sup>+</sup>	1	2'9"
289 <sup>+</sup>	1	5'3"			36'3"
290	1	1'10"	304 <sup>+</sup>	1	2'4"
291	1	5'7"	305	1	4'3"
292	1	4'11"	306	1	1'6"
	9	36'4"	307 <sup>+</sup>	1	2'1"
				17	46'5"
				9	36'4"
293	2	2'10" 2'4"		26	82'9"
294	1	1'3"			
295	1	1'6"	485 <sup>+</sup>	1 1/8	
296	1	2'1"			
297	1	1'11"			
298 <sup>+</sup>	1	2'3"			

Nov. 15

Equip: Shovel 8 hrs

2 comprs

2 jackhamrs

Labor: 1 foreman

1 runner

1 oiler

2 drillers

Rock	Holes	Depth	
308	1	5' 0"	} shot in A.M. 11:45
309 <sup>+</sup>	1	4' 3"	
310	1	4' 8"	
311	1	3' 3"	
312	1	3' 3"	
313	1	3' 7"	
314	1	3' 11"	375 lbs 1 1/2
315	1	4' 8"	
316	1	4' 6"	
317	1	4' 7"	
318	1	4' 5"	
319	1	4' 8"	
320	1	4' 4"	
321	1	4' 0"	
322	1	3' 3"	
323	1	1' 5"	
324	1	3' 2"	
	17	66' 11"	

Nov. 16

Equip: 1 shovel & hrs.  
2 compr's  
2 jack hms.

Labor: 1 foreman  
1 runner  
1 oiler  
2 drillers

Remarks: Contract terminated  
today.

Whitey Wilson

40'4" 39'3"

7000 C.X. to spoil bank

5000 " over east.

12,000

Rock holes Depth

325	2	4'0"	342 <sup>+</sup>	1	2'6"
326	1	3'11"	343 <sup>+</sup>	1	2'6"
327	2	4'9"	344 <sup>+</sup>	1	2'4"
328	1	2'8"	345	1	1'11"
329 <sup>+</sup>	1	3'2"	346	1	2'3"
330 <sup>+</sup>	1	2'6"	347 <sup>+</sup>	1	2'8"
331 <sup>+</sup>	1	2'8"	8	1	2'11"
332 <sup>+</sup>	1	2'2"	9 <sup>+</sup>	1	2'9"
333 <sup>+</sup>	1	1'10"	350 <sup>+</sup>	1	2'6"
334	1	1'3"	1 <sup>+</sup>	1	2'5"
335	1	2'2"	2 <sup>+</sup>	1	2'4"
336	1	2'9"	3	1	2'7"
337	1	2'5"	4	1	2'10"
338	1	1'5"	355 <sup>+</sup>	1	2'10"
339 <sup>+</sup>	1	2'9"	6	1	2'6"
340 <sup>+</sup>	1	2'5"	7 <sup>+</sup>	1	2'0"
341	1	1'8"	seam	1	40'0"
		44'10"		36	44'10"
					84'10"



Dec. 12

Photo "6" slide from N. W. cor.  
parking place above  
spillway 2 P.M.

Dec. 17

Watson contract "2."

39

Equip: 1 truck

2 compressors

Labor: 1 foreman

2 laborers

Remarks: crew arrived in AM.  
with truck load of pipe  
and fittings. Layed pipe  
up easterly side of slide  
to drill rocks near top  
that are considered  
dangerous.

Dec. 18

Equip: 2 compressors  
2 jack hammers  
1 truck (idle)

Labor: 1 foreman  
2 drillers

Remarks: Drill crew commenced  
on boulders considered  
dangerous that lay high  
up on slope.

Out of gas at 3:30  
P.M. shut down.

Dec. 19

Equip: 2 compressor  
3 jackhammers

Labor: 1 foreman (drilling party)  
2 drillers

Remarks: Large boulder near  
top of slide drilled  
also several smaller  
ones lower down on  
slope.

Dec. 20

Equip: 2 compressors  
3 jackhammers  
2 trucks (idle)

Labor: 1 foreman  
2 drillers  
1 truck driver

Remarks: drill force continuing  
drilling of boulders.  
2 trucks brot to jobs  
in A.M.

42

Rock	Holes	Depth	
1	7	7'-1"	
		7'-0"	
		7'-2"	
		7'-1"	
		7'-1"	
		7'-0"	
		6'-9"	49' 2"
2	3	6'-11"	
		5'-2"	
		4'-10"	16' 11"
3	<u>13</u>	83' 10"	<u>83' 10"</u>
	23		149' 11"

Some of above holes drilled on  
18th + 19th. All shot to-day  
23 electric exploders  
50 40% powder

Dec. 21

Equip: 2 comprs.  
 3 jk hms  
 2 trucks (idle)  
 1 shovel "

Labor: 1 foreman part time drilling  
 2 drillers

Remarks: 32 electric exploders  
 & 40 powder used to-day

Rock	Holes	Depth
		2' 9"
4	3	2' 11"
		2' 11"
5	1	3' 1"
6	1	3' 2"
		6' 10"
7	4	6' 10"
		5' 6"
		6' 10"
8	1	3' 4"
		4' 3"
9	2	4' 5"
		3' 0"
10	3	3' 0"
		3' 0"
		3' 4"
11	2	2' 6"
		5' 2"
12	3	1' 4"
		2' 10"
		2' 10"
13	4	2' 9"
		2' 10"
		2' 9"
		4' 6"
14	2	3' 0"
		3' 0"
15	2	3' 0"
		2' 9"
		104' 5"
16	2	6' 9"
		7' 5"
17	2	6' 7"
		3' 0"
37		127' 2"

Dec. 23

Equip: 2 compressors  
 2 jackhammers  
 1 shovel str  
 3 trucks 20 "

Labor: 1 foreman  
 1 runner  
 1 oiler  
 3 truck drivers

Rock	Holes	Depth
18	1	2'-8"
19	1	3'-2"
20	1	3'-4"
21	1	1'-7"
22	1	3'-10"
23	1	3'-2"
24	1	3'-5"
25	2	4'-5" 2'-7"
	9	28'-2"

Remarks: No drilling done in afternoon. (No sharp steel on job)

Truck #3 - 26 P.M. 28 A.M.  
 " #5 - 55  
 " #6 - 26 P.M. 1/2 day  
135 loads to dump

9 caps  
 45 fuse  
 7 powder

Dec. 24

Equip: 1 shovel 4 hrs.  
3 trucks 12 "  
2 comp's (idle)  
2 jk hrs "

Labor: 1 foreman  
1 runner  
1 oiler  
3 truck drivers.

Remarks: Work closed down at noon. No drilling, men quit before start of work in A.M.  
84 loads to dump.



Dec. 26

Equip: 1 shovel 8 hrs  
 3 trucks 24 "  
 2 comp's.  
 2 j'kn's

Rock	Holes	Depth
26	1	2'3"
27	1	2'9"
28	1	3'2"
29	1	4'9"
30	1	2'3"
31	1	5'0"
32	1	1'2"
33	1	1'10"
34	1	3'10"
35	2	2'6" 2'11"
36	5	4'2" 5'2" 5'2" 5'2" 5'2"
37	1	2'6"
38	1	4'8"
39	1	3'0"
40	2	3'5" 3'10"
		<hr/>
21		74'7"

Labor: 1 fore:  
 1 runner  
 1 oiler  
 3 truck drivers  
 2 drillers

Remarks: Loaded & shot 21 holes  
 21 caps  
 110' fuse  
 50 sticks 3/4 40%  
 170 loads to dump

Dec, 27

Equip: 1 shovel 8 hrs  
 3 trucks 29 "  
 2 comp's  
 2 j/k mis.

Labor: 1 fore.  
 1 runner  
 1 oiler  
 3 truck drivers  
 2 drillers

Remarks: loaded & shot 28 holes  
 154 loads to dump

Rock	Holes	Depth	Rock	Holes	Depth
41	2	2'9" 2'0"	56	1	2'4" 1'10"
42	1	2'10"	57	5	4'6" 4'8" 4'6" 4'9"
43	1	2'9"			
44	1	1'5"			
45	1	1'7"	58	2	1'10" 1'11"
46	1	2'8"		28	94'2"
47	1	2'6"			
48	1	4'0"			
49	1	4'3"			
50	2	3'11" 2'8"			
51	1	4'3"			
52	1	5'3"			
53	1	4'4"			
54	4	4'2" 3'3" 5'4" 4'5"			
55	1	3'5"			

Dec. 28

Equip: 1 shovel 8 hrs  
 3 trucks 2 1/2"  
 2 comprs.  
 2 jtkmrs

Labor: 1 foreman  
 1 runner  
 1 oiler  
 3 truck drivers  
 2 drillers

Remarks: Loaded & shot 21 holes  
 130 loads to dump

Rock	Holes	Depth
59	1	3'0"
60	4	4'3" 3'6" 3'10" 2'11"
61	1	2'8"
62	1	1'6"
63	1	1'10"
64	1	3'5"
65	1	2'6"
66	1	3'6"
67	1	2'6"
68	1	2'10"
69	2	4'5" 4'5"
70	2	4'5" 4'5"
71	2	7'0" 7'0"
72	1	2'8"
73	1	3'9"
		<hr/> 78'3"
	21	
seam shots	2	
	<hr/> 23	

Dec. 29

Equip: 1 shovel - 4 hrs.  
3 trucks 23 "  
2 comprs.  
2 j'k hmr's

Labor: 1 foreman  
1 runner  
1 oiler  
3 truck drivers  
2 drillers

Remarks: Heavy rain began  
falling about noon. Job  
closed down in P.M.  
52 c.v. to dump

49

2 seam shots.

Drilling will be meas-  
tomorrow

Dec. 30

Equip: 1 shovel - 8 hrs.  
 3 trucks - 19 "  
 2 comprs.  
 2 jk hms.

Labor: 1 foreman  
 1 runner  
 1 oiler  
 3 truck drivers  
 2 drillers

Remarks: Shovel continued on  
 upper ramp.  
 132 loads to dump

Rock	Holes	Depth	Rock	Holes	Depth
74	1	2'7"	91	1	1'7"
75	2	1'11" 3'10"	7 D.G. holes for loosening	7	30'0"
76	1	2'11"		<u>18</u>	<u>57'1"</u>
77	1	1'11"		26	88'8"
78	1	1'9"			
79	1	4'10"			
80	1	2'9"			
81	1	2'2"			
82	1	2'10"			
83	1	2'4"			
84	1	2'6"			
85	1	3'4"			
86	1	3'7"			
87	1	4'4"			
88	1	4'0"			
89	1	7'2"			
90	1	<u>2'4"</u>			
		<u>18</u>			<u>57'1"</u>

Dec. 31.

Equip: 1 shovel 8 hrs  
3 trucks 24 "  
2 compressors  
2 jackhammers

Labor: 1 foreman  
1 runner  
1 oiler  
3 truck drivers  
2 drillers

164 loads to dump

51

Rock	Holes	Depth
92	1	2'9"
93	1	1'7"
94	1	2'6"
95	2	* 3'2" * 2'7"
96	1	* 4'9"
97	1	* 4'8"
98	1	* 1'8"
99	1	2'5"
100	1	1'8"
101	1	4'1"
102	1	3'4"
103	1	2'7"
104	1	2'3"
105	1	3'7"
106	2	5'3"
	17	48'10"
Seams	2	15"
	19	63'10"

Jan. 2

Equip: 1 shovel  
2 compressors  
2 jackhammers

Labor: 1 foreman & runner  
1 ailer  
2 drillers

Remarks: shovel overcasting  
from ramp in A.M.  
moved to westerly end  
of slide in P.M.

52

Rock	Holes	Depth	
107	1	4'3"	
108	2	4'4" 4'2"	
109	1	5'3"	
110	1	2'6"	
111	1	2'6"	
112	1	2'0"	
113	1	2'2"	
114	1	4'1"	
115	1	4'0"	
116	1	3'9"	
117	1	4'0"	
118	1	3'1"	
119	1	1'10"	
120	1	2'8"	
121	1	4'6"	
122	2	x 2'6" x 2'7"	} shot on 3rd.
123	1	x 5'0"	
	19	65'2"	

Jan. 3

Equip: 1 shovel 6 1/2 hrs.  
2 compressors 4"  
2 jtkims 4"

Rock	Holes	Depth
124	1	2'
125	1	2'
126	1	2'
127	1	2'
128	1	2'
129		

Labor: 1 foreman & runner  
1 oiler  
2 drillers 1/2 day

Remarks: shovel lost 1 1/2 hrs.  
due to repairs.  
Drill force layed off at  
noon



Jan, 4

Rock Holes Depth

129 1 2'10"

130 1 1'4"

131 2 4'4"  
4'4"

132 1 2'3"

133 1 4'3"

134 1 2'7"

135 1 2'2"

136 2 2'11"  
2'9"

---

10 29'9"

holes prev. 2

12 loaded &amp; shot

Equip: 1 shovel

2 compressors

1 jack hammer

Labor: 1 fore. &amp; runner

1 oiler

1 driller

Remarks: Shovel overcasting on  
uncovered portion of  
spillway working from  
west to east.

Jan. 6

Equip: 1 shovel  
1 compressor (idle)

Labor: 1 foreman & runner  
1 oiler

Remarks: shovel continuing over casting  
of material on open stretch  
of spillway floor.

Jan. 7

56

L

Equip: 1 shovel

1 compressor

1 jackhammer

Rock	Holes	Depth
		4' 1"
137	3	4' 4"
		4' 2"

138	1	1' 2"
-----	---	-------

139	1	4' 3"
-----	---	-------

140	1	3' 9"
-----	---	-------

141	1	1' 4"
-----	---	-------

Labor: 1 foreman + runner

1 oiler

1 driller

	7	23' 1"
--	---	--------

142	1	2' 1"
-----	---	-------

	8	25' 2"
--	---	--------

Remarks: shovel overcasting on  
spillway floor. Drilling  
discontinued today.

Photo #1 W. from N.E. cor. spillw. 10:15 AM

" 2 shovel from about 400 10:20 AM

" 3 N.E. from park place 10:30 AM

Jan. 8

Equip: 1 shovel & hrs

Labor: 1 Foreman & runner  
1 oiler

Remarks: Contract completed  
to-day, shovel depositing  
material on uncovered  
portions of spillway  
floor

57

Photo #4 slide after completion  
of contract. N.W. from  
E. end (0+50) of Spillway  
lip 10 A.M. 1/10/36.

Photo #5 slide from N.W.  
cor. parking 2:45 P.M.,  
1/14/36

Photo #6 New fence along  
S. side spw. 3 P.M. 1/14/36

---

4,100 cu. taken to spoil  
5,000 " overcast

---

Hodges 2/20/36

1. Depth of but. footings.

2. <sup>But.</sup> which buttr. leaking

Hodges 3/16/31 City reink steel available for use.

1 1/4"	494	16'
"	61	40'
"	2	37'
"	1	32'
"	2	24'
"	37	21'
1 1/8"	182	40'
"	4	38'
"	4	36'
"	5	34'
"	6	32'
"	7	30'
"	4	28'
"	4	26'
"	2	24'
"	195	21'

1"	190	20'
1"	38	40'
"	8	36'
"	9	32'
"	4	30'
"	4	28'
7/8"	125	40'
"	4	38'
"	6	35'
"	4	33'
"	7	30'
"	18	28'
"	110	20'
3/4"	430	40'
"	115	40'

4/20/30

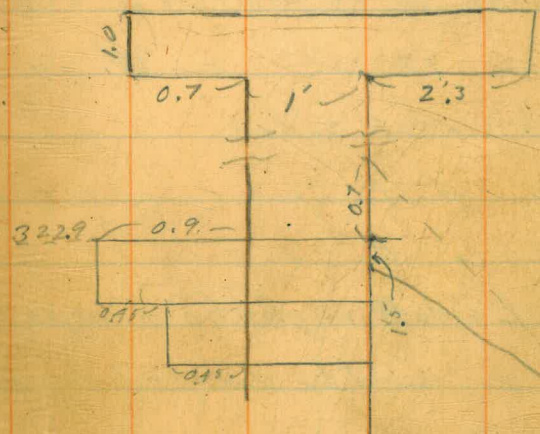
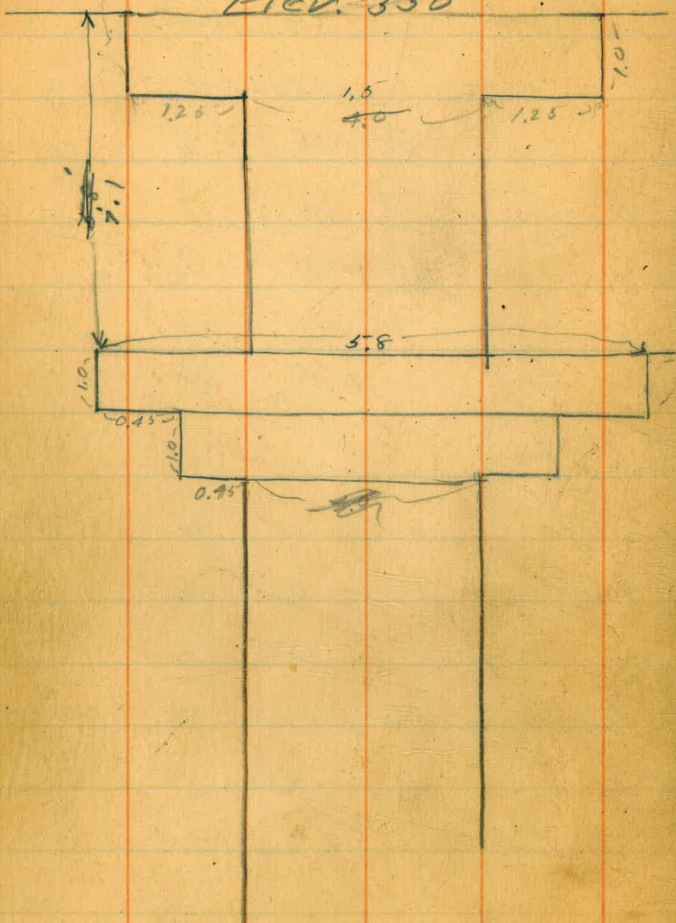
} quite badly rusted

} quite badly rusted

1 1/4"	60,321	lbs
1 1/8"	54,280	"
1"	21,019	"
7/8"	16,389	"
3/4"	46,560	"
+ 198,569		lbs

City steel available near office

Elev. 330



3229

1/7/36

61

Inspection, diag. re-int. & ground

W. side " 9 could be dropped to  
nearly E. side level by re-  
moving considerable rock.

W. side " 10 could be lowered 6'  
easily

W. side " 16 to match E. side

E. " 17 " " W. "

" 18 match sides

" 19 " E. "

" 20 " E. "

" 21 E side might be dropped 5 or 6'

22 E. " could be dropped by heavy  
excav.

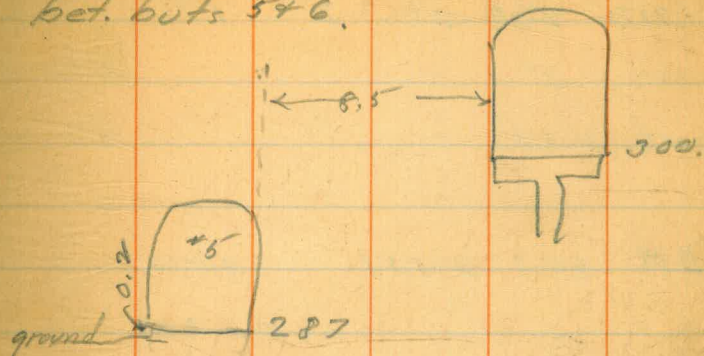
23 Water in last 2 bays hard  
to size up probably heavy excav.



Buttress #9 0.7 above coping

2 sack sand  $\frac{3}{4}$   $\frac{1}{2}$   
2 sack  
ford 427 181 159

62  
Elev. of doorway + struts  
bet. but's 5+6.



280  
5

Tie Bolts

63

	A	B	C	D
El. 2175	2 1/2"	2 1/8"	2"	1 3/4"
upset	3"			
nut	3 1/2 x 5"			

2 1/4  
upset 3/4  
Nut 4 1/4

Set A Elev. 237.5

BM. 057 315.57 315.00

8.0 7.57

307.00 8.57

TP. 131.0302.17

0.46 302.93

299.00 3.93

291.00 11.93

5.33 296.33 291.00

8.26 288.07

69

But 9



But 10



But 11

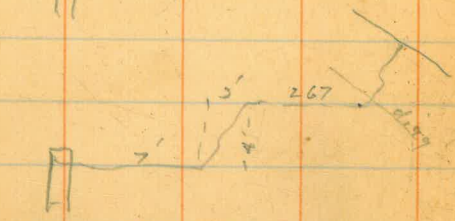


But 12



13

14



15



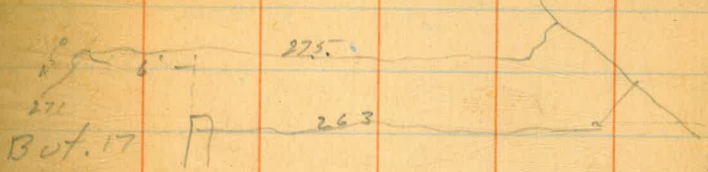
15



But 16



But 17



But 18



But 19



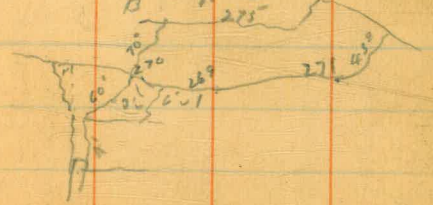
But 20



But 21



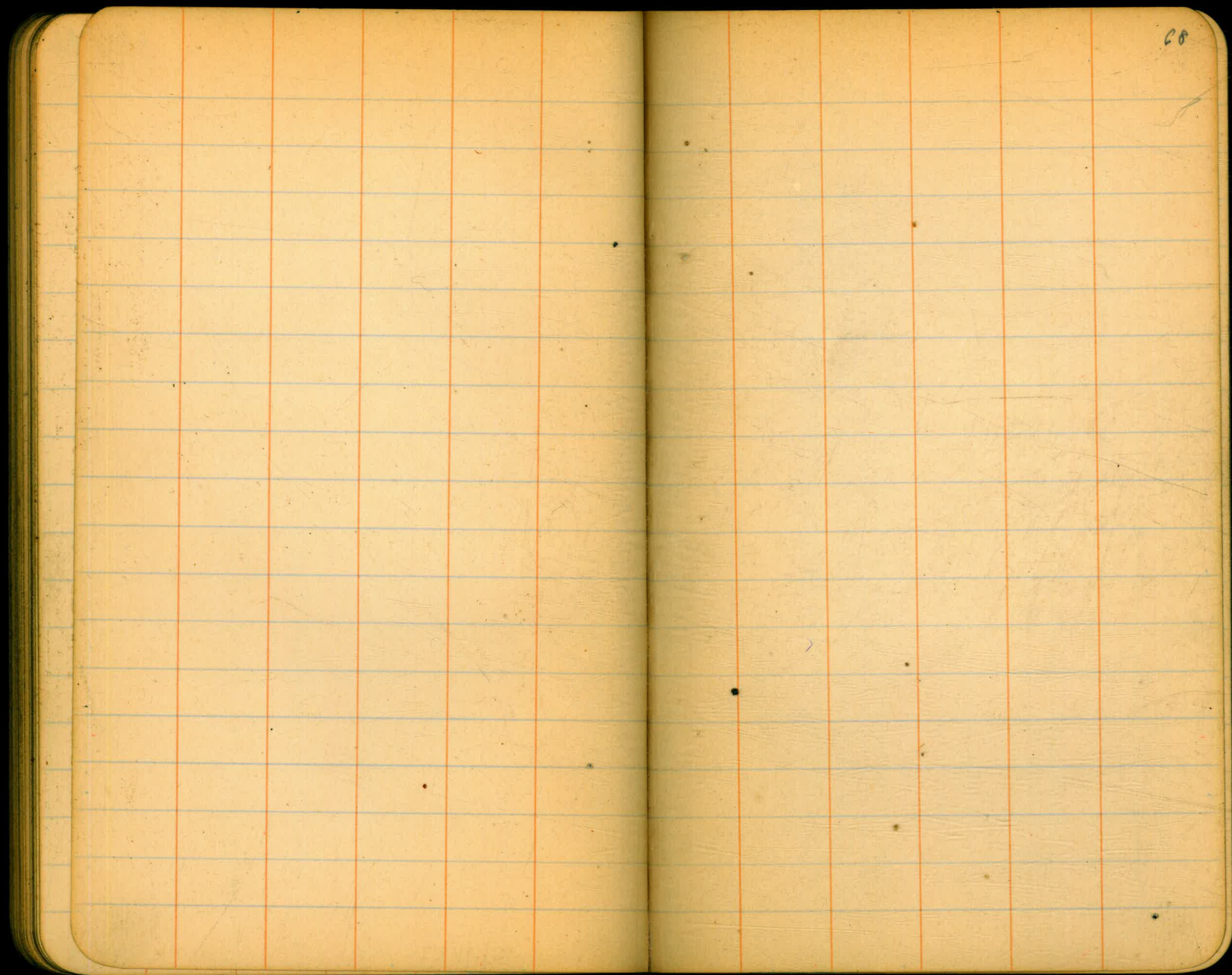
But 22



But. 23







20

Oct. 10 100 c' elec. caps 9.50  
 100 A' " " 9.00

x 10/10  
 250 40%  
 10/16  
 50 "  
 10/26  
 100 " (17.25) + tax  
 11/5  
 100  
 11/14  
 100

10/10 " 100 black powder 2.90 \* 25  
 10/16 " 150 " "  
 10/16 100 " "

Fuse 1000' 10.50  
 1/5 1  
 1000 10.50  
 11/12  
 1000 10.50

495  
 17  
 34  
 546

Holes to 15th 510.  
 Lin. of " " 1763.8  
 79.6  
 1843.4

1702.0  
 66.9  
 79.6  
 1848.5

Caps 100 2.25  
 10/23  
 100 2.25  
 10/30  
 100 2.25  
 11/6  
 100 2.25  
 11/12  
 100 2.25

510  
 17  
 993  
 510  
 39  
 594



100

24' dec. exploders	13.00	
special handling	.50	13.50
Tax	.39	
		<u>13.89</u>

100 ✓  
150 ✓  
100 ✓

3'0"

4'3"

5'3"

2'3"

2'4"

4'4"

5'6"

2'9"

2'1"

2'1"

34'1"

829

341

48'8"

9

44'8"

38'1"

829

13  
14/101  
12  
91  
36  
5

329

3'2"

2'6"

2'8"

2'2"

1'10"

4'3"

2'9"

2'5"

2'6"

2'6"

2'3"

2'8"

1'9"

1'6"

2'5"

2'4"

2'0"

37'5"

37'5"  
1'10"  
39'3"  
40'4"

o  
st  
le  
)

100 #4 5' 4' 10" 4' 10" 5' 5'  
 n 24 6 4' 11" 4' 0" 4' 7" 3' 5"  
 spec 3

39" 3' 3" 15  
 52" 4' 4" 12  
 58" 4' 10" 30  
 59" 4' 11" 15

27 39 17' 4" 78 8  
 19 14 27 21 0 8  
 51 135  
 49 90  
 81 64

1 case 7/8

1 " 1 1/8 + 300 lbs

490  
 560 20  
 53  
 27 1440  
 135  
 90

64  
 3825 178  
 350 6  
 14 1068  
 5  
 12475

Yds 18

" 25

22 sticks

" 2

189

~~89.00~~

189.00

13.50

40.00

26.50

18.00

38.00

~~1024~~

12 24' 7" H.

341 holes

209 1/4 trucks

105 1/4 stoves

141 1/2

16

157 1/2

8

165 1/2

178

157

10



H  
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