

481

LITTLE BOOK

370 A

W481

KEUFFEL & ESSER CO.

DRAWING MATERIALS

AND

SURVEYING INSTRUMENTS.

NEW YORK.

CHICAGO.

ST. LOUIS.

SAN FRANCISCO.

MONTREAL.

TABLES FOR EXCAVATIONS AND EMBANKMENTS.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING

ROADWAY 18 FEET WIDE, SIDE SLOPES 1 TO 1.

FOR SINGLE TRACK EXCAVATION.

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

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

Index 481. ^{6/1/34}_{to}

12/3/34

Photo Record, Gauging of
Wells in Darm, Gen

Insp Notes + Tunnel Sketches
+ Tunnel Notes

L.H. HILL

June 1, 1934

Photo 1 Earth slide N. slope of
spillway, sta. 4+75 10:15 AM. 1"-12.5

Photo 2 Loading sand at gravel plant
10:30 AM S. stop 16.

Gravel Plant: 1 bucket loader operator
1 fore, 3 trucks

Misc. 1 electrician-helper on
lines near borrow pits.

Shop same force at shop

June 2

Shop, Camp, Quarry & road
forces same as yest.

June 4

All forces same as previous
date's Agitators in puddle

core at about N. 360°

1 1/2 sec's - 128 1:15 P.M.

June 5 Pool 6594

Well D. El. Gr. D. El. Casting

1 66.5 596.9

663.4 663.4

3 46.2 651.3

692.7 697.5

4 45.0 652.4

692.8 697.4

5 91.0 618.0

707.5 709.0

6 81.3 620.7

702.0 702.0

Upstroke 3.9 571.1

575.0

Dist. " 549.6

All forces same as previously
reported.

June 6

All forces same as previous
reportedly reported.

June 7

Shop 1 foreman, 3 mechanic

1 truck & driver

Misc. Shop crew operating

shovel #7 + crane #6 in P.M.

to determine facility in

handling silt. An old truck

bed was loaded with spoil

bank material while placed

on Fageal truck and re-

moved by crane to de-

termine lifting power.

June 8

Gauge in lake above dam = 578.3

Photo 4 Agitators operating in pool near Rabbit. 10:30 AM.

3 1/2 sec. stop 128.

Shop Blacksmith added to shop force. 1 add. helper.

June 9

Gauge 578.3

Photo 5 Dam from site 1 10 AM. 1 sec. stop 128.

Photo 6 Bodech. from about site 15:10 10:45 AM. 1 sec. S. 128.

Force as previously reported.

3

June 11

Photo 1 Loading silt from lakeside.

10:15 AM. 1 sec. stop 128.

Photo 2 Dragline "H", 2 trucks with scips, 1 truck 1 cat. 607

McMillan.

Pool 689.1

Wall D. El. Gr. D. El. Casing

1 17.0 596.4 663.4 663.4

2 16.0 651.5 692.7 697.5

4 15.0 652.9 692.8 697.4

5 90.3 618.7 707.5 709.0

6 82.0 620.0 702.0 702.0

Upst. toe 4.0 571.0 575.0

Do " " 549.6

Gauge 578.3 577.5

Photo 2 Unloading silt from lakeside pit into hog box.

1:30 PM. stop 128. 1 sec.

June 12

Gauge 578.4

Pit trucks 20-4, 23-8, 15-9, 5-9

Tagcat 2 skips, sterling 4 skips

1 cat. 60 McMillan, dragline 60

Shop Fore, 3 mech., 2 welders, blacksmith

June 13

Silt trucks 13, 23, 18-21, 20, 51-90

10-2 Co. Moreland 4 skips

Some equip as previous

Gauge 578.4

Roads Cat. 60 + blade, 1 laborer

Fences 1 carp. hrs. at pit

June 14

Trucks 51, 50-9, 18, 23, 15, 9-2

20, 10-2, 4-2,

Some force as previously reported.

Gauge 578.4

Shop Carp. fore and helper

1 less mechanic + helper

E. from W. end of lake side pit 2 sees stop 128.

June 15 689.0

Photo 2 washing upstr. beach near Sample 2834 S.W. end of hog box

S about 1 sec stop at 9:15 AM. 2835 S.E. " " "

Well D. El. Gr. D. El. Casing 2836 N.E. " " "

1 68.0 595.4 663.4 663.4 2837 N.W. " " "

3 77.6 649.9 692.7 697.5 2838 W. " " "

4 45.5 651.9 692.8 697.4 2839 1/4 pt. " " "

5 91.0 618.0 707.5 709.0 2840 3/4 " " "

6 82.5 619.5 702.0 702.0 2841 E. end " " "

Upstake 4.1 570.9 578.0 Silt All equipment idla

Gauge (Lake) 578.5 Roads water truck, Gal. road grader

Photo 3 sloping S. side sp. of sta 11150 Gauge 578.5

1:30 P.M. 15. 1/16

Silt trucks 15, 18, 20, 23, 4, 9, 10, 51

cat. 00 + Mo. + operator

" " bulldozer at pit

June 16

June 18

Pit A trucks 39, 33, 34, 20, 15, 18, 50, 40, 23
4360 shorel "9, 1 cat. car Mo.

Sample N. E.

2842 3850 5060

2843 " 5070

2844 3600 5060

2845 " 5070

2846 3200 5060

2847 " 5070

Photo 4 Cat. car bulldozer on beach at
about N. 3500 upstr. 1 S. 4/16 2:50 PM

Photo 5 S. core wall 3 PM. 1 sec. 128.

Photo 6 Replacing siphon S. side crk.
9:30 AM. 1 sec. 128. See 6/19/34

Gauge 578.5

June 19

Photo 6 Replacing siphon south side
of crk. 9:30 AM. 1 sec. 128

Road widening: trucks 40, 34, 31,

Silt Pit B: trucks 50, 15, 18, 34, 23, 20
shorel "9, 1 cat. car McMillan

Road ramp shorel "8, 3 cat. trucks,
1 galion road grader.

Silt Moved cat car Mo. to
silt pit of Lakeside
truck 51 & trailer.

Gauge 578.6

June 20 690.7

Well	D	El.	G-D	El.	Casing
1	68.3	595.1	663.4	663.4	
3	48.3	649.2	692.7	697.5	
4	46.5	650.9	692.8	697.4	
5	91.3	617.7	707.5	709.0	
6	83.0	619.0	702.0	702.0	

Upholster 1.2 570.8
 Di 579.6

Photo 1 Building up dune beach S.
 at 3200 10 AM. 1 sec. stop 16

Photo 2 Drilling in S side same cut at
 about 8100 10:15 AM. 1 sec. stop 12

Silt Trucks 3, 4, 9, 10, 15, 23.
 Dragline #1, cut 60 ft.

Photo 3 Placing silt in pool at about
 sta. 3850 1:30 PM. 1 sec. stop 12

Gauge 578.6

June 21

Photo 4 Placing Lakeside silt in
 pool, truck on W. side 9:15 1-128
 Photo 5 same as 4 crane dumping
 silt 9:20 AM. 1-128
 Silt truck #51 & trailer, #20, 33, 15,
 4, 18, 34, 5, 9, 40, 23, 50

Gauge 578.6

June 22

Gauge 578.6

Silt trucks 3, trailer, 9, 23, 49, 31, 23

15 - 51, 59, 20, 3, 39, 18, 5

Dragline #11, Cat car McMillan

Photo #6 Spw. ext from 10:50 10:15 AM

7 - 128

Roads 100t 30 r. blade

stop same force.

8

June 23

Silt trucks: 18, 1, 4, 19, D-34, 51, 2, 16,

50, 34, D76, 40, P7, P8, D74, 3, 20, 23

5, 31, 34

Photo #1 Cat bull. silt d'astre ood. N 3450

8:35 AM. 1.S. stop 8

Photo #2 Truck dumping d'astre N 3450

8:40 AM. 1.S. stop 12

Photo #3 D'astre beach. Note silt. S.

from 3850 9:15 AM 7 - stop 12

Gauge 578.7

June 25

Pit A shovel #9, 10 rent trucks
1 dumpmen, 1 cat co bull
dozer

Gauge 578.7

Photo #4 Placing fill on upstr emb
2 P.M. 1-126

Roads Cal. grader & water truck
Well D. El. Gr.D. El. Casin

9
June 26 Pool 691.7

Well D. El. Gr.D. El. Casin

1 69.3 594.1 663.4 663.4

3 45.5 652.0 692.7 697.6

4 44.2 653.2 698.0 697.4

5 92.3 616.7 707.5 709.0

6 84.0 618.0 702.0 702.0

upstr loc 3.3 576.0

Pit A trucks 20, 18, 50, 15, D75, P9,

D76, 8, P8, 7, P6, 23, D66,

shovel #9, 1 cat co r McMillan

Gauge 578.7

Pit C 4 cat trucks, 1 rent

shovel #7, 1 cat. r Mc.

June 27

Photo's upstr beach S. from N. about Pit A

9:30 AM. 6/27/54; 1" strip 128

Pit A trucks 7, P66, D75, 20, 15, 8, P7, 2

P6, D66, 50, 18, P8

shovel #9, cat # Mc

Pit C trucks 40, 20, D73, 20, D76, D7, 34

Gauge 578.6

Photo's Same a hydr. in instr. crnk near S. about, 1:45 PM. 1" 128

Photo's 2 shovel N. side spw. ext. about sta. 14+50 2:05 PM. 15, 16

Photo's 1 Same as "5" after sluicing 11:55 PM. 1" 128.

Photo's 3 spw. ext. E. from about 14+100 2:10 PM. 1" 128.

10

June 28

shovel #9, cat # Mc

5 trucks hauled 1 load

shovel moved to pit C.

Pit C trucks 23 Co., D75, 26, 20, D76, D73, P4.

shovel #7 + crew

Gauge 578.4

June 29

June 30 696.3

11

Date	Description	Count	Rate	Total	Balance	Balance
June 29	Pit E trucks - 26, D66, 20, D75, D75					
	D76, 20R, 31					
	shovel #7	1	70.3	593.1	663.4	663.4
	Pit B trucks - 11 rent, stopped 8:30	3	25.0	672.5	696.5	697.5
	shovel #9, cat. & McMillan	4	32.0	665.4	702.0	697.4
	Dam Cat. cat bulldozer upstr. emb.	5	93.0	616.0	707.5	709.0
	" " " hogbox	6	83.5	619.5	702.0	702.0
	Crane #10 & operator	4.1		570.9		575.0
	Units 4 & 6 1 operator ^{4 1/2} helper 50-50					
	Hog box - 2 jet men					
	instr. emb. 3 labs. installing					
	pump 2 men					
	Material from pit C to					
	hog box in P.M.					
June 30	Gauge 578.2					

Gauge 578.1 Pool Gauge 895.4
 Well D. El. Gr. D. El. Casing
 1 70.3 593.1 663.4 663.4
 3 25.0 672.5 696.5 697.5
 4 32.0 665.4 702.0 697.4
 5 93.0 616.0 707.5 709.0
 6 83.5 619.5 702.0 702.0
 4.1 570.9 575.0
 Hyd. tilt 1 fore, 8 laborers, 1 monitor
 man, 1 cat. embull.
 5-60, 5 rent trucks

July 2

Fill Units 4 & 6 - 3 men

7 laborers hogbox & pipe

Units 1, 2, 3 & 5

Pit A + D shorel " 7 & crew

Pit B shorel " 9 & crew

1 cat. 60 & McMillan

1 cat. 60 bulldozer at

N. end dist. emb.

18 rent trucks - 5 ea.

Gauge Lake 577.8 Pool 696.6

12

July 3

Gauge 577.8 Pool 697.6

Pit A shorel " 7, cat & Me.

Pit B " 9 " "

Fill Units 1, 2, 3, 4, 5 & 6

mud pump, 2 cat 60 bull
dozer

3 jet men, 1 control man

1 foreman, 3 laborers.

July 5

Gauge 57.7A
 Lakeside dragline "11
 trucks 4 Co. 6 rent
 Pit B shovel "9, cat. + McMillan
 11 rent 2 Co.
 1 checker, 1 dump man
 Fill Units 1, 2, 3, 4, 5
 Maniter "6
 1 fore, 1 control man
 3 jet men, 5 laborers
 2 cat. co bulldozers Hughes
 up + d's str.

13

July 6

Well	D.	El	Gr D.	El.	Casing
1	70.0	593.4		663.4	663.4
3	10.0	693.2		706.5	703.2
4	26.9	681.9		703A	708.8
5	91.9	617.1		707.5	709.0
6	85.0	617.0		702.0	702.0
Spot too	0.0	575.0			575.0
pa.					
Coards Well "3		N. 3622		E 4922	
"4		N. 3619		E 5082	
Lakeside 8 rent	6 Co. trucks				
dragline "11					
Pit B shovel "9, cat. + Mc., 9 rent					
+ 3 Co. trucks, 1 dump man					
Fill Dragline "10, 2 cat bulldozers,					
3 jet men units 1, 2, 3, 4, 5 + 6					
1 control, 2 slicemen, + labs					
Gauge 577.2		Pool 699.4			

July 7

Well "3" 12' 8" 8 AM. No hydr. oper-
ations for 5 hrs.

Well "4" 12' 3" Monitor 100' North
passed well about 1/2 hr. pres.

Gauge 577.1

Lakeside 7 cent & S. Co. trucks

P. & B. 7 cent & Co.
10 cent & Co.

July 9

Gauge Lake 577.1 Pool 700.3

Well "3" 691.5 - "4" 677.0

No hydr. Upstr. 25 hrs.
400' S. of "3" on di. str.

P. & B. 8 Co. & 12 cent trucks

Shorels "7" & "9" 2 cats &
McMillans

Fill Units 1, 2, 3 & 5. Monitor "4"
new work on pipe. fill in AM.
same force but 1 less lbs

photo! Sp. Ext. E. from about sta
15450 A.P.M. 1" 128.

July 10

Well #3 12.1 No hydro oper.

" 4 13.2 Mon. 3' N. 150' S.

Photo #2 Crew sloping 3:00, 1:30 P.M.

I.S. stop 16

Pit B 15 rest trucks, 5 Co.

shovel #9, cat & Ma.

Lakecote 2 Co. 5 rest trucks

Dragline #11, 1 cat. bulldozer

Photo #3 Dam S. from N. about,

3:30 P.M. 1" stop 128.

Gauge Lake 577.1 Pool 701.4

July 11

Well #3 13.2 disch. 50' N.

" 4 13.3 Monitor 250' S.

Photo #4 Spillway ext. W. from 2+80

8:30 AM. 1" 128

Photo #5 New box box arrangement

8:50 AM. I.S. stop 16

Photo #6 Hog box from O.S. 9 AM.

I.S. stop 16.

Pit B 5 Co. trucks 14 rest

shovel #9, 1 cat & Ma.

L.S. 7 rest 1 Co. trucks

Dragline #11

Gauge Lake 576.8 Pool 701.9

Well	D	El	Gr. D.	El.	Casing
1 -	70.1	593.3		663.4	663.4
3 -	13.2	695.8		703.5	709.0
4 -	13.3	695.5		705.0	708.8
5 -	74.0	635.0		707.5	709.0
6 -	55.8	646.2		702.0	702.0
Upst. toe	3.2	571.8			575.0

July 12

Sample 2907 S. end pit B D. 2.0 Quarry

" 2908 " " " D. 9.0

" 2909 130' N.E. " " D. 2.0 Pit B

" 2910 " " " D. 8.0

Gauge Lake elev. 576.8 Pool 702A L.S.

Pit B shovel "9, cat. 60 + Me

3 co. & 12 rent trucks.

L.S. 9 rent trucks no co.

Dragline "11.

Fill Pump hrs. 4 " 4 Mon. 8 hrs.

1 fore. 3 jetmen, 1 control-
man, 2 sluicemen, 3 laborers

16

July 13

Quarry shovel "6, shop, 2 camp's.

cat. 30, 7 trucks

Pit B shovel "9, cat. 7 Me

trucks 17 rent 13 co

L.S. Dragline "11

4 rent trucks.

Gauge Lake 576.8 Pool 703A

coords. beach 5013, 4955.

Fill 1 fore., 1 control man, 3 jet

men, 2 sluicemen, 4 laborers

July 14

Gauge 5765 Pool 703.8
 Quarry shovel "6, comprs. 2 jack hammers, cat. 30, 7 trucks
 2 drillers, 2 labs, powder man
 Fill reg units + force - 1 carp. fore. 4 labs
 Pit B shovel "9, cat. 60 + Me. 10 rent, 1 ea. truck.
 L.S. Dragline "11, 11 rent trucks.

July 16

Gauge 5766 Pool 704.8
 Well D. El. Gr. D. El. Casing
 1 49.0 614.4 663.4 663.9
 3 31.8 677.2 706.3 709.0
 4 34.0 674.8 707.0 708.8
 5 64.2 644.8 707.5 709.0
 6 50.0 652.0 702.0 702.0
 updated 3.2 571.8 675.0
 Quarry shovel "6, 2 comprs, steel truck, 4 drillers, 2 rippers, 1 powder man, 1 cat. 30.
 L.S. 11 rent trucks, dragline "11
 Fill reg. force
 Pit B 6 rent 2 Co.
 Photo "1 Spillway Pit from 13+50 3 AM

11-128 3 AM

July 17

Gauge 576.5 Pool 705.0

Quarry same force as yesterday, 1 blacksmith helper.

Pit B shovel "8, 1 cat, 60 ft Me. 9 rent trucks, 2 bulldozers at fill.

Pit A shovel "9, 8 rent 2 cat trucks

Fill No full hydr. units 4 + 6 req. force slabs

18

July 18

Photo 2 Dam S. from N. abut. 8:30 AM
see stop 128.

Gauge 576.4 Pool 706.5

Pit B 11 rent 2 cat, 9 Me. 4 operator, shovel "9

Photo 3 Carryall excav. at 8:40.

3:15 PM. IS. - 16.

Fill req. force 3 slabs, 2 cat, 60 bulldozer.

Pool 706.5 Pumps hrs. 6

July 19

Photo 4 Searlier at about sta 8400

8:45 AM 15-16

Photo 5 Searlier & airgall open

ating between stas 7400 & 8100

8:55 AM 15-16

Photo 6 Constr. 708 rock lift N. from

S. about 9:15 AM 11-12 E.

Fill 1 control, 1 jet, 4 sluicemen
1 pumpman, 1 laborer

Gauge 576.4

Quarry 6 trucks same force

July 20

Well - D. El. Gr D El. Casing

1 57.2 606.2 663.4 663.4

3 12.7 696.3 0.2 708.8 709.0

4 1.5 707.3 0.0 708.8 708.8

5 56.6 652.4 707.5 709.0

6 42.3 659.7 702.0 702.0

Updated 0.2 574.8 575.0

Fill Pit B 11 rent trucks, 1 cat. & Me
1 ball dr., 1 dump, 1 checker

Fill 1 core, 2 jet. Units 1-2-3-4-5

1 control, 1 sluiceman, 1 lab.

Gauge 576.2 Pool 707.0 Depth: 7.0

Beaches - variable

Quarry same force 7 rock trucks

July 21

Pit B shovel "9, cat + Me
Bulldz., dumpman, checker
10 reat, 3 eu. trucks

Fill Units 1, 2, 3, 4 + 5, 1 central
1 core, 4 sluicemen, 2 jet
1 pumpman 1 laborer

Well "3-200", "4-11.0"

Well "3+1-214.7 46 pipe

Gauge 576.0 Pool 707.5

July 23

Sample "2959 N.E. end pit B-100's
of ravine Red material D
4 ft. N. 1900. E 11000

Sample "2960 same loc as above-D 6
6' below surface

Samples 2963 969 for city lab
same as above

Sample "2961 Pit A 12' below
surface 2965 city lab

Sample 2963 spoil W. 2966 " "
N. 3000 E 11,300

Pit B shovel "9, cat + Me ^{cat + vapor.}
11 reat trucks checker, dump.

Quarry same force of 6 trucks

Gauge 575.9 Pool 708.5

Fill 1 core, 1 central, 4 sluicemen, 2 jet
2 lab. Units 1, 2, 3, 4, 5 8 hrs

July 24

Quarry Same force. 2 rent trucks

Fill 1 core, 1 control, 1 jet, 1 pump
2 sluice, 4 lads.

Pit B shovel '9, cat. & Me.,
12 rent & Co. trucks

Gauge 575.9 Pool 708.7

21

July 25

Quarry Regular force - 7 trucks

Lakes Dragline "11, & Co. trucks
9 rent trucks, crane "11.

Pit B shovel '9, 1 cat. & Me.,
1 bulldozer, 11 rent, 2 Co. trucks

Fill 1 core, 1 control, 1 jet,
1 pumpman, 4 sluice men
2 laborers all units

Gauge 575.8 Pool 709.5

July 26

Quarry Same force - 9 rock trucks

Gauge 575.8 Pool 709.5

Fill fore, control, 1 jet, 1 slicer,
men, 1 pumpman

Lakes dragline "11, 4 eo.,
4 rock trucks

Pit B shovel "9, cat. co + Me.,
9 rent, 2 eo. trucks

Well	D.	El.	Gr. D.	El.	Casing
1	63.6	600.4	663.4	663.4	
3	14.8	699.2	710.0	709.0	
4	10.6	678.2	710.5	708.8	
5	55.9	653.1	707.5	709.0	
6	45.6	656.4	702.0	702.0	
Upstr. toe		573.8		575.0	

July 27

Gauge 576.8 Pool 710.3

Quarry Same force, Clotrac bull
rock trucks

Photo 1 Dam from site "1 10:15 AM
1 sec. stop 128

Fill fore, control, 2 jet, pump,
1 slicer

Pit B shovel "9, cat + Me.
1 cat. co bull dr. 8 rent trucks

Lakes dragline "11, 4 eo.
4 rent trucks quit noon

July 28

Photo 2 Section & carryall at
about sta. 800 El. 655 10 AM.

1^{1/2} 128

Photo 3 Sloping bet. 7+20 & 6+20 N. side
10:05 AM. 1^{1/2} 128

Gauge 575.7 Pool 710.5

Quarry Reg. force - 6 rock trucks

Fill Reg. force

Pit B. " 9 rent trucks

July 30

23

Pit B+D went 3 co. trucks

shovels " 7 & 9 1 cat. & Ma.

1 bulldz., 1 checker, 1 dump

Fill Units 1, 2, 3 & 5 1 fore.,

1 control, 1 jet, 4 sluice

men, 2 labs.

Quarry Reg. force - 7 rock trucks

Gauge 575.6 Pool 710.5

Roads 1 Galion road grader,

1 water truck.

July 31

Well	D.	El.	Gr. D.	El.	Casing
1	64.6	598.8		603.4	603.4
3	23.8	596.7	8.7	711.8	720.5
4	25.8	594.7	8.0	712.5	720.5
5	54.8	654.2		707.5	709.0
6	42.3	659.7		702.0	702.0
Upstake	0	575.0			575.0

Quarry Same force. 6 rock trucks

Gauge 575.6 Pool 711.5

Pi + B 11 rent trucks, shovel #9,
cat. + M.M., cat. buldo.

Fill Reg. Force 7 hrs.

Photo 4 excar. at E. end spw. 2:30
P.M. Inst. 5 stop 16

24

Aug 1

Quarry Same force. 7 trucks
Fill 4 fore, 1 central, 1 jet,
2 sluicemen, 1 pumpman,
1 cat. 60 buldo.

Pit A + B shovels 8 + 9 2 cat. 60

4 M.M., 1 operator, 1 checker

3 cat. + 12 rent trucks.

Gauge 575.5 Pool 712.2 Time 7 hrs.

Photo 5 Spillway ext. E. from 15 + 50
3:15 P.M. 3/4" stop 120.

Photo 6 Dam from Niabut. 3:30 P.M.
3/4" stop 120. Pool 712.

Quarry night 2 drillers

Aug. 7

Gauge 575.6 Pool 712.8

Fill Reg. force,

Pit A " " 12 rent truck

Roads " " "

Quarry " " 7 rock trucks

2 drillers on egg stone

Aug. 3

Gauge 575.5 Pool 713.2

9 A+B 12 rent 29 Co. trucks, trucks

shovels 8 + 9 2 cat. 60

7 McMs.

4 fore, 1 control, 1 jet,

4 sluicemen, 1 pumpman,

1 laborer, 2 cat. 60 +

operators

Quarry Reg. force - 7 rock trucks

Aug. 4

Photo 1 not exposed

" 2 Ditch beach from N. about
8:50 AM. 1/2" step 12

Gauge 575.4 Pool 713.5

Pit A great trucks, remainder
of force same

up Fill. Same force, a hrs, run

Qu

Ca

L

F

P

Ph

Aug. 6

Well	P.	El.	Gr. D.	El.	Casing
1	86.0	598.4		663.9	663.4
3	22.8	697.7	5.0	715.5	720.5
4	33.2	687.3	4.8	715.7	720.5
5	55.2	653.8		707.5	709.0
6	42.3	659.7		702.0	702.0

Washbas 0.0 575.0
Post 549.6

Gauge 575.4 Pool 713.8

Quarry Same force

Fill. same force

Aug 7

Gauge 575.4 Pool 714.8

Fill Same force - 6 hrs. 1 bull

Pit A+B shovels 8+9 1 cat. + Mc

1 cat. + Mc. at hog box

14 rent trucks.

Quarry Same force. 7 trucks

4 lab's loading coyote

27
Aug 8

Spw. excav. shovel + crew on ramp

1 part crane 2 jackhammers

2 drillers, 5 labs, 1 forc.

Gauge 575.3 Pool 715.2

Photo 3 Upstr. beach N. from S. about

8:45 AM $3\frac{1}{4}$ " stop 128.

Photo 4 9 AM Dist. beach N. from

S. about $3\frac{1}{4}$ " stop 128.

Quarry Reg. force

Fill Same force. time 6 hrs.

Pit A+B Reg. force 14 rent 2 co. trucks

Aug. 11

Aug. 13

Well D, El. G.P. El. Can Fill

1 58.3 603.1 663.4 663.5

3 12.0 708.5 1.0 719.5 720.5

4 21.9 695.6 1.0 719.5 720.5

5 55.4 653.6 707.5 709.5

6 12.5 659.5 702.6 702.0

Up. Upstake 0.0 575.0
Do " 549.6

Fill Reg. force - 1 cat.

Pits A & B " " 2 cat. & 12 foot trucks

Quarry Reg. force 6 rock trucks

Crane "10 - 3 men

Gauge 575.0 Pool 718.1

Same force - 1 cat, 60 pull
dozer, 1 crane 1/2 day
shovel " 7, 3 trucks 1/2 day, 1 dump
Pits no hauling - 1
Quarry Reg. force - 6 rock trucks
Pool 718.2
Lakes shift " 2 - 11 trucks
" 3 10 "

Aug 14

Photo 1 Spw ext. W. from about 10:40 AM. $\frac{1}{2}$ " step 128

Eill 1 fore, 7 laborers, 2 trucks & drivers, 1 crane & operator

Quarry Same force, 5 rock trucks
1 fore, 6 lab's hand placed
Dist. at 715'

Lakeside Shift 1 - dragline, 12
rent trucks, 1 dumpman

6
operated 0.0
Eill 1 fore, 1 cat. ball & operator,
6 lab's, 1 dumpman.

Quarry Same force 7 rock trucks
Lakeside Same force - 12 shift trucks

Photo 4 Lakeside pit westerly
from S.E. cor. 3 PM. $\frac{1}{2}$ " 128.

Aug 15

Photo 2 Placing lakeside material
on upstr. beach N. about S.

10:12 AM. $\frac{1}{2}$ " 128
Photo 3 Dam from site 1 10 AM. $\frac{3}{4}$ " 128

Well D. El. Gr.D. El. Casing
55.6 607.8 663.4 663.4
3 20.4 706.1 6.5 720.0 726.5

4 32.2 698.9 6.0 720.6 726.6

5 15.5 653.5 707.5 709.0
6 42.6 659.4 702.2 702.0

575.0
599.6

Photo 4 Lakeside pit westerly
from S.E. cor. 3 PM. $\frac{1}{2}$ " 128.

Aug. 16

Emb. 1 fore 7 labs.

Quarry Same force.

Fill 1 cat. 30 + blade, 1 cat. + the
bulldo. 1 dumpman. 1 fore. Lake S.
8 labs.

Lake S. 1 dragline, 14 trucks, 1 dump. Pit A
man 1 checker, 1 cat. bull. Quarry above

Photo 5 Pool N. from S. 1:45 PM 1/2-1

Photo 6 Pontoon bridge across
pool 2 PM. 1/2-128

31

Aug. 17

Fill 1 fore, 2 labs.

Quarry Reg. force - 7 rack trucks

1 fore, 5 labs, 1 driller, 1 camp

Lake S. 13 rock silt trucks, 1 cat. 60 bull

Gauge 575.2 Pool 717.9

runners, boilers repairs to 9
Quarry above

Aug. 18

Gauge 5753 Peal 710.5

Emb. 1 fore, 7 labs, 1 cat bull

Fill 1 fore, 1 cat bull, 5 SE, 2 labs

Quarry shovel "6, 5 truck trucks, 1 truck
steel, 1 powder man, 2 drillers,
2 rippers, 1 lab, 1 blk smith
1 helper (day)

Pit A shovel "8, 1 cat + McMillan
6 trucks

Lake S. Same force 11 trucks

Sept. 9

Gauge 5757 Peal 728.5

Upst emb 1 fore, 8 labs.

Do. " " " 1 cat. co. bull 2 oper.

Hydr. Fill 1 cat. 30 + 1 A.C. bull + shift.
2 cat. co. bull/die 2 dump, 1 fore,
4 cat. operators, 3 basemen
1 cat. + Ma, 1 blade

Pit A shovel "9, 10 rent trucks

Lake S. Drag "11, 9 rent trucks

Drag "10, 2 Co. trucks

shovel "6 1 Co. trucks

Quarry 5 trucks, 1 truck misc, shovel "8,
2 campers, 1 jk horse, 1 powder, 1 helper
1 driller, 1 ripper, 1 blk smith 1 helper
1 cat. co. bull/die

Sept 5

Fill 24.5 net

Dry 24.0 - 9.5 after hole filled

Fill 29.0 net

Dry 27.0 Grass - after filling

Fill 19.5

Dry 26.5 - 13.5

Fill 29.5

S Dry 24.5 - 15

Upstream 1 hole 7 men

down 1 " 12 " 1 cast bull rope

Gauge 575.8

Photo 1 Lakeside pit W. from E

end 1/2" - 12.2 - 10.15 A.M.

Photo 2 Spu. ext. E. from 15750 3:45 P.M. 1/2"

33

Sept 6

Upstream 1 hole, 10 labor, 1 cast bull

rope force - 8 trucks (rock)

Photo 3 Dam looking south

from N. abutment 2:45 P.M.

1/2 sec. stop 12.6

Upstream 1 hole, 3 laborers

Sept. 7

Dustrack 1 horse, 2 labs.

Upstr. rack 1 horse, 7 " 1 cat, bull, sheep

Gauge 575.7

Quarry same force 2 nippers

7 rock trucks

Roads reg. force

Sept. 8

Photo 455 - sheepfoot jammed in

Tow of tractor on upstr. emb.

8:30 AM. I.S. stop 12

Chick City force sinking well

in puddle core of ^{E. 5008} N. 3160

8:45 AM. I.S. stop 12

Upstr. rack 1 horse, 15 labs, 1 cat, bull, sheep

Quarry Reg. force

Sept. 10

Shovel '7 in spm. AM. 6 trucks in

spoil in PM.

Sept. 10

Dnstr. emb. 1 fare, 6 labs
 Up. " " " " 1 cat
 Quarry 4 drillers, 2 nippers, 2 rock
 bal. of forec. same
 Sherol 9 down
 " 7-5
 " 6-8
 " 10-5 (4 Co.)
 " 11-12

Photo 1 Dragline removing ramp
 from S. side sp. at about 7100
 10 A.M. 3/4 stop 128

Well	D.	El.	Gr. D.	El.	Casing
1	51.0	609.4	663.4	663.7	
3	55.5	678.2	730.7	733.7	
4	72.0	660.1	724.0	732.1	
5	73.0	636.0	707.5	709.0	
6	46.5	655.5	704.0	702.0	
Upstr. toe	1.2	573.8		575.0	

35

Sept. 12

Quarry Reg. force 2 rock trucks
 Upstr. 1 fare, 8 labs, cat
 " " " " 1 " 6 "

Sept. 13

Bracon 2203 Meade Ave.

Wall # 3 - 227 739.5

" 1 738.0

Rock nests, 1 here, 2 labs, 1 cat.

shovel 6 - 6

7 - 3

9 - 8

11 - 12

Quarry reg. force - 9 rock trucks

instramb

Sept. 14

11 hrs, 10 labs.

Sample #1 - 17 3/4 lbs (dry)

" 2 - 10 3/4

" 3 - 11 1/2

" 4 - 11 1/4

Quarry Reg. force, 9 rock trucks

Sept. 15

Photo 2 ^{Rock} Upstr. emb. N. from S. abt. Photo 1

Note elev. top rolled emb.

about 742 lower bench 720

9:10 AM $3\frac{1}{2}$ "-128

Photo 3 Distr. rock emb. N. from S. abt. Photo 1

Note elev. top 742, bench 720

9:45 AM. $3\frac{1}{4}$ "-128

Photo 4 Distr. rock emb. S. from 315

$1\frac{1}{2}$ "-128 9:55 AM.

Photo 5 N. from "4" - $1\frac{1}{2}$ "-128 10 AM.

Photo 6 Conc. floor spw. ext. S.W. 11

14400 I.S. stop 14, 10:40 AM.

Sept. 16

Photo 1 hole in N. side spw. of "3-A"

9:55 AM. 15cc. stop 128

Photo 2 Same as "1" at further dist.

10 AM. 11"-128

Photo 3 Well rigs in operation 10:20

AM $3\frac{1}{4}$ " stop 128.

Photo 6 4 ca. trucks - 2 $\frac{1}{2}$ hrs. hauling

waste from shop grounds to

spw. stack pile.

Photo 4 no work - runner + oiler on

reposts

Shop 1 fore., 11 men.

Photo 2

Sept 17

Gauge 575.7 Pool 741.7

Quarry shovels 6 x 8, same fore
9 trucks.

Roller Fill 2 cat. 60 bulldozers + op

1 A.E. tractor + sheep foot

1 cat. 60 + Me.

1 blade, 2 dumpmen

1 jetman, 1 fore

Rock comb 1 fore, 11 labs, 1 cat. 60

1 cat. 60 tractor

Material Pit L shovel "9, 9 trucks

1 cat. + Me.

Lake S. Drag "11, 15 trucks

Well	D.	El. of G.O.	El. of C.O.
1	55.5	607.9	663.7
3	62.0	677.5	732.0
4	82.8	655.2	722.0
5	89.0	620.0	707.5
6	48.5	653.5	702.0
Upstr. toe	1.8	573.2	575.0
Do		599.6	

Sept 18

38

Sample 1 - Dry 25" Wet 18 lbs

Net 16 3/4 Dry 14.5

$$\begin{array}{r} 35 \\ 14.5 \\ \hline 10.5 \end{array}$$

$$\begin{array}{r} 1.59 \\ 10.5 \\ \hline 12.09 \end{array}$$

$$\begin{array}{r} 1.59 \\ 1.9310 \\ \hline 3.421 \end{array}$$

$$\begin{array}{r} 1.59 \\ 9.07 \\ \hline 10.66 \end{array}$$

N. 3750 E 5030

Sample 2 Dry 25 lbs - 10 1/2 lbs - 14 1/2

Wet 21 lbs net 19 1/4

$$\begin{array}{r} 1.33 \\ 14.5 \\ \hline 15.83 \end{array}$$

$$\begin{array}{r} 1.33 \\ 15.83 \\ \hline 17.16 \end{array}$$

$$\begin{array}{r} 1.33 \\ 17.16 \\ \hline 18.49 \end{array}$$

Sample 3 Dry 24" - 13"

Wet 20.5 net 18.75

$$\begin{array}{r} 1.26 \\ 17.5 \\ \hline 18.76 \end{array}$$

$$\begin{array}{r} 1.26 \\ 18.76 \\ \hline 20.02 \end{array}$$

$$\begin{array}{r} 1.26 \\ 20.02 \\ \hline 21.28 \end{array}$$

Lake S. - 9 trucks

7 - 4 (3 ea.)

9 8

Quarry 10

Sept. 19

Shovel 9. 10 trucks

Lake S. 2 trucks.

Rock emb. 1 fore, 11 lake, 1 dump, 2 extra

Pool 742.7 lake 575.6

Emb. 2 cat bulls + oper., 1 A.C.

shift, 1 blade, 1 nozzle man, 11.5 trucks

1 jet man, 1 dump man.

Quarry Same force, 10 rock trucks

39

Sept. 20

Spw. ext. W from 7400, 8:40 AM 1/2-128

Dam from site 1, 8:50 AM 1/2-128

575.6 Pool

Spw. ext E from 15450

11:05 AM 1/2-128

9-9 "

Quarry 10 "

Shovel 5 (3 ca)

Colled Emb: 1 cat. 60 bull, 1 A.C.

sheep foot, 1 blade, 1 fore

nozzle man.

Sept. 21

Rockemb 1 fore, 1 dump, 11 labs
2 cats.

Roller emb 1 fore, 1 cat, 100 ft. ^{cat} ~~1~~ shovel 9-8
7 skip H, 1 nozzle, 1 dump

Quarry 10 trucks

shovel 9-9 trucks

" 11-3 " Co. 1/2 day

Sand 4 rent trucks

Wall	D.	El.	G.P.	El.	Casino
------	----	-----	------	-----	--------

1	56.5	606.9		663.4	663.5
---	------	-------	--	-------	-------

3	78.5	667.0		742.0	743.1 734.5
---	------	-------	--	-------	----------------

4	85.5	652.5		729.0	736.0
---	------	-------	--	-------	-------

5	90.0	619.0		707.5	709.0
---	------	-------	--	-------	-------

6	17.2	644.8		704.0	702.0
---	------	-------	--	-------	-------

Upstr. toe 1.7

40

Sept 22

Rock Emb 1 fore, 1 dump, 11 labs,
2 cats.

shovel 9-8 Pit L
7-3 Co. 1/2 day lakes.

Quarry 12 trucks, same force, cycle
in E. face.

Sand Dragline 11, 5 rent trucks

lake 575.6 Pool 545.5

Sept. 23

Quarry shovel crews on
repairs.

Pit L. shovel crew on repairs,
shop reg. shop force, 1 cat
operator, 2 shovel crew

Sept 24

Quarry reg. force 12 trucks
Rollad emb 3 "

Rock 1 store, 11 abs., 1 dumpman,
2 cats.
Roads cat 30, blade

Gauge 525.7 Pool 745.5

*1 wet 11 3/4
Dry 11

Sample 1 Dry 29 1/2 - 20 3/4

Wet 14 3/8 net 13 1/4

E. 960
N. 3606

El. 747

*2 wet 11 3/4
Dry 11

Sample 2 Dry 20 3/4 - 13 1/4

Wet 12 3/8 - 10 3/8

N. 3600
E. 4980

*3 wet 11 3/4
Dry 11 1/8

Sample 3 Dry 23 - 14 1/2

Wet 16 - 11 1/4

N. 4075
E. 5035

*4 wet 11 3/4
Dry 11 1/2

Sample 4 Dry 21 1/4 - 12 1/4

Wet 13 - 11 1/4

N. 4050
E. 5020

Shovel 8 - 8 trucks

Sept. 25

Quarry reg. force - 13 trucksPit shovel "8 - 6Dustris spoil shovel "11 - 2 trucksLakeside shovel "7 - 2 trucks 1/2 dayRoller emb. 1 cat. 60 balls, 1 A.C.

1 sp. ft. blade, 1 fare,

1 dump, 1 mozzelman.

Well	D	El.	Gr.	Bot.	Casing	
1		577.5	605.9	663.4	87.0 576.4	663.4
3		900	653.1	7120	146. 598.	743.1
4		870	661.0	729.0	122. 616.	738.0
5		915	617.5	707.5	115. 594.	709.0
6		860	636.0	7090	116. 586.	762.0

Quarry Reg. force 12 trucksPhoto "1 Dam S. from N. wall 10 AM 3/4 - 1282 Concr. spec 12+60 1:20 PM S-163 Point. sta. 11+60, 1:30 PM 3/4 - 128Sand Barb. Greene 6 trucks (100)Pit A. trucks "8

2:10 PM

Photo "2 Concr. N. spec wall about 1100 7/4 - 128Spoil 6 trucks - "11

Sept 27

Rockemb. fore., 1 dump, 2 cats,
14 labs.

Pit A trucks 7

Lake S. shovel " 11, 3 rock trucks

Quarry 11 trucks

Full same force + cat + Me.

Sept 28

Photo's Dam from N. abut. site " 1

9:45 AM. 1/2 - 128.

Pit A trucks

Spill no work

Quarry Reg. force 12 rock trucks

Rock Emb. fore, dumpman, 13 labs
2 cats.

Roller Emb. 1 cat. 60 bulldozer,

1 A.C. tractor + sheepfoot,

1 blade, 1 fore, 1 dump,

1 nozzle man.

Sept 29

Pit A - no work

Spoil "11" - 8 trucks (2/10)

Quarry 8 rock trucks

Rock emb. 2 cat co bulldozer, 1 cat. co. truck
1 dump, 11 lobs

Rollid emb. 1 a.c. + spott., 1 cat. co bulldozer
1 blade, 1 loco, 12222, dump

Sept 30

44

Oct. 1

Pit A shovel "8, 7 rent, 1 co
trucks, cat & Mc.

Spoil shovel "11, 6 trucks (4 co)

Quarry 13 rock trucks

Oct. 2

Photo "6 Spm. ext. - W. from 6450
9:15 AM. 1/2" stop 128.

Spoil "7 + 11 4 co. trucks 7 rent

Quarry 7 rock trucks

Well D. El. G-D El. Casing

1 57.5 605.9 663.4 663.4

3 91.5 651.6 742.0 743.1

4 88.0 650.0 729.0 738.0

5 71.5 617.5 707.5 709.0

6 71.0 631.0 704.0 702.0

Post 1.7 573.3 575.0

Post 547±

Rock Emb 1 fore., 1 dump 11 lbs.,
2 balls, 1 cat. co

Rolled Emb. 1 Cat. 60 balls, 1 A.C.
+ 5 hp. ht., 1 cat. 30 + blade
10022ch, 1 dump

Oct. 3

Rock Emb. 2 cat. bolts, 1 cat. catrucks

Rolled to 1 cat. 30 x blades, 1 AC + sh

1 fore, 1 dump, 1 220

Rock Emb. 12 lbs., 1 dump 1 fore

Quarry req. force - 8 racket trucks

Pit A "8 - 7 trucks

Lakeside "7 - 4 catrucks 1/2 day

Photo "1 Dam at elev. 753 N. from

S. core wall 1:45 PM "1/2"

Photo "2 Sp. w. ext. E from 12:50

3:45 PM stack shutter prep. 3000

Photo "3 Peering sp. lining at about

1440
sta. 3:55 PM. Inst S. stop

Oct. 4

Rock Emb. 1 fore, 1 dump, 14 lbs, 2 cats,

Pit A 7 trucks

Sp. w. 10 4 cent 2 Co trucks

Lakeside "7 - 2 Co trucks

Quarry 8 trucks.

Oct 5

Pit A "8- trucks

Spoil "11-5 " (2 Co)

Quarry 6 trucks, shovel "9 bal. same

47

Oct. 6

Rock Emb. 2 cars, + 11 laborers 2 cat
1 bulldozer

Rock Emb. 1 cat, 60 bulldozer, 1 cat
30 + skippett, 1 blade, 1 fire,
1 dump, 1 nozel.

Quarry 1 part compr. trucks
bal. force same

Pit A shovel "8, 6 trucks

Spoil " " " " " " " "

Road " " " " " " " " Co.

Oct. 7

Quarry Coyote crew, 1 part.
comp.

Spoil shorel crew working on "u"

Spurway Wild Bill, 2 lab's. misc work
about spur

Rollad Emb 1 nozzle, 1 eat ca bell

Lake S. shorel #7, 2 trucks 1 hr.

48

Oct. 8

Quarry Reg. force - 7 trucks

Rollad Emb 1 nozzle man, 1 eat. ca bell
3 hrs. (camp N.E. cor.)

Rock Emb 2 eat, 2/00, 12 lab's

Sand shorel #8. 8 cent trucks

Road shorel #6. - 4 cent trucks

Pump Proj Drybal Net.

17.75 25.0 21.5 13.5

Photo A Looking E spw. ext. 3:15 PM

Inst S stop 16 from about 12:45

Oct 11

Photo 5 Spw. ext. F train about lakeside shovel #7 - 3 cat. trucks

Tost. 5-11 10:30 AM

Quarry 10 rock trucks

Photo 6 Spw. N.E. from junction of creek

+ Spillway lining

Rock Emb. 2 cat. co. bulldozers, 1 cat. tractor, 2 fore., 12 kabs

Rollod Emb. - reg. force

Quarry 7 rock trucks - reg. force

50
Oct. 12

Oct. 13

Reg. forces

Oct. 15

Quarry Reg. forces - 9 rock trucks

Rock Emb. in "

Rolled Emb. " "

Lake S. Shred '7, 3 co. trucks

Well Dr. El. G.R. El. Casting

1 61.5 6019 663.4 663.4

3 88.0 645.1 742.0 743.1

4 72.0 617.5 729.0 738.0

5 91.5 617.5 702.5 709.0

6 73.0 629.0 704.0 702.0

Upstate 4.0 571.0 575.0

Dastre 549.4

Oct. 14

Oct. 16

Quarry shovel #9, 5 drillers, snipper
2 labs, 9 trucks

Rock Emb. 2 cat bills, 1 cat. co, 2 bars,
11 labs.

Rolled Emb. 1 A.C. & shps. lt., 1 blade,
1 dump. & checker

Spoil #11, 3 co., 2 rent trucks

Tunnel 1 truck, 4 labs.

Oct. 17

52

Quarry Drill force only.
Rolled Emb. A.C. tractor & shps. lt.,
blade, dumpman, checker

Spoil shovel #11, 3 co. 3 rent trucks

Rock Emb. 11 labs (1/2 day) 2 bars, 2 cat
6 bills, 1 tractor.

Tunnel 1 port. camp, 1 truck,

1 waterline drill, 1 driller
1 snipper, 2 labs.

Oct. 18

Spoil "11 2 rent, 1 co. truck

Quarry 9 rock trucks

Rock Emb. 1 core, 8 slabs

Oct. 19

53

Photo'l. Dam W. from S. abut.

9:45 AM 15-16

Tunnel 2 drillers, 1 nipper, 1 jk

1 waterliner

Rock Emb. 2 core, 8 slabs 2 cuts

Spoil shovel "10, 3 rent trucks

Pit A shovel "8, 3 rent, 1 co. truck

Quarry 13 trucks

Oct 20

Quarry Same force, 4 jk hours
12 rock trucks

Spaul "11" 3 ea. trucks

Rock Emb 2 Fore, 1 dump, 13 lab

Rollad Emb 1 A.C. & 5 hp. part
time.

photo 2 Placing rock in w. str.
emb 9:15 AM 15-16

photo 3 Spw. Ext. W. train
about 7:00 15-16 10 AM

Tunnel 1 fore, 2 drillers, 3 lab, 1 comp
2 jk hours.

54

Oct 21

Quarry 1 fore, 4 jk hours, 7 men
1 blk smith, 1 helper, 1 emp. man

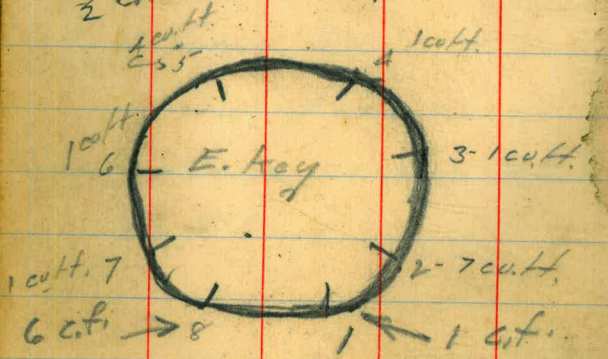
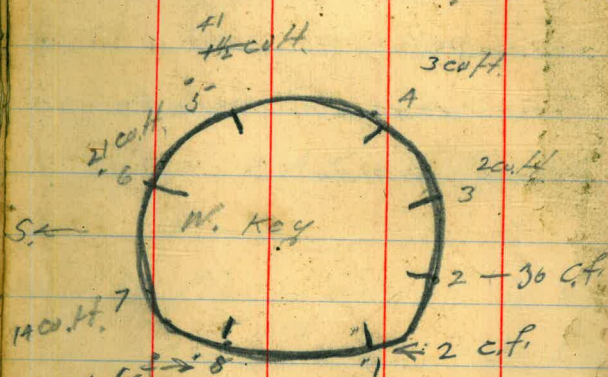
Tunnel no work

Gravel 5-8-10 cent trucks

Shop 1 fore, 8 men

Oct. 22

Tunnel 1 fore, 3 jk. mix, 2 great men,
1 transit mixer, 2 muckers



Rock 3 balls, 1 A.C., 1 cat. 60 2 fore,
15 lbs., 1 dump.

Com 10 AM Finished - 7:00 P.M.
28 batches 140 sk. con.

Oct. 23

Rock Emb. 2 fore, 26 lbs, 1 dump.

3 cat. 60 balls, 1 A.C. tractor

Quarry 2 shovels, 12 trucks 1 jk. barre

Tunnel Fore, 2 drillers, 1 part emp.

1 cat. 30, 1 truck 6 lbs.

Oct. 24

Oct. 25

Tunnel Com. 2:30 finished 5:15
 1 fore, 6 lab's, mix crew
 49 batchers
 294 sacks
 1.5 sack batch plant

Photo 4 hand placing rock upstr.
 S from N. 2 PM 15-16
 Photo 5 Spun from about D. 1900
 L. 9190
 1. S-16 2:15 PM.

Well	D.	El.	Gr.D.	El.	Casing
1	63.0	600.4	663.4	663.5	
3	100.5	642.6	742.0	743.1	
4				738.0	
5	93.5	615.5	707.5	709.0	
6	74.5	627.5	704.0	702.0	
Upstr.		571±		575.0	
Dostr.		549±			

Rock Lab. 2 fore, 1 dump, 31 lab's,
 3 cat bulls, 1 A.C. tractor
 Quarry shovel '8, (9 repairs) 1 part.
 camp, 2 jk mix, 2 rippers,
 2 lab's, 1 comp. man.
 Tunnel 1 fore, 3 lab's.
 Gravel plant shovel '71 2 ea. 2.5 cent
 trucks.

Tunnel plug mix.

Sand	1400'	Gravel	2 1/2"	740'
			1 1/2"	880
			3/4"	550
		pea		150

Oct. 26

Photo 6 Corner N sidewalk N.E. Quarry

15750 10:15 A.M. 15-16

3350-51-52 9-57-58 56-58
1310 1330 1250

66-68 63-65
1200 1810

Rock Emb. 30 labs, 2 fore,

Tunnel 1 fore, 1 pipeman, 7 truck
6 labs.

57

Oct. 27

Reg. drill force
shovel '9. 6 trucks.

Rock Emb. 7 bulldoz. 26 labs, 2 fore,

Tunnel 1 cat, 30 tractor, 1 fore,
1 pipeman, 1 lab.

Oct 29

Photo 1. E. end of G. 9:15 AM
shutter

Photo 2 same as 1. I.S. 16

" 3 " " ditto A. 9:20

I.S. - 16.

Rock cab. 2 tons, 22 laborers

2 cat. 60 belts

Quarry Reg. force, 2 shovels, 10 trucks

Tunnel 1 cat. 60, 1 pipe man & outfit

4 laborers

58

Oct. 30

Photo 4. Pit at same site 11:10 AM.

" " " " 12:00

Dist from W. end 9' 10 1/2' 6 1/2' H.

9' 10' - 6' " " " " " "

strucks Pit C

Quarry 11 trucks

Rock cab. 1 ton, 1 bulldozer 12 lobs

Tunnel 2 truck & driver, 1 cat. 60,

1 ton, 1 pipeman, 9 lobs.

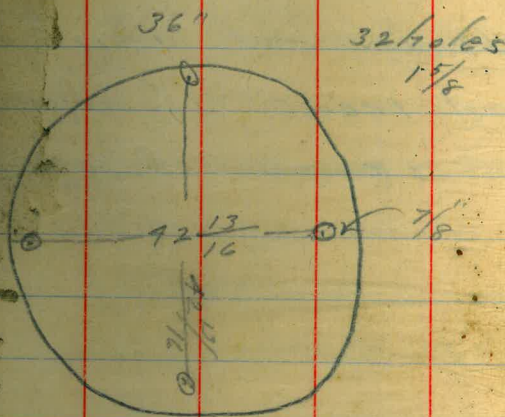
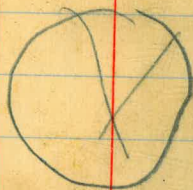
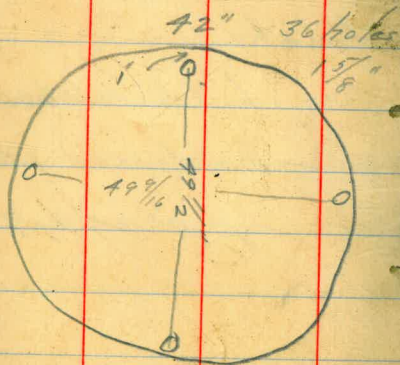
Oct. 31

59

Quarry 9 quarry trunks 5 ft
15 bore.

Rect Emb 1 face, cut 15 slabs

Tunnel 1 cut 30, 1 leading
out lit. 5 slabs



Nov. 1

Quarry 2 shovels, 5 jk hms
bat. same, no heading

Rock Emb. 1 cat., 1 fore, 14 lab.

Tunnel 1 cat. 30, 1 lead. out lit,
1 compr. 1 fore, 6 lab.

Nov. 2

60
Quarry shovels 8 & 9, 4 jk hms,
13 rock trucks

Rock Emb. 1 fore, 1 cat 10 bull dozer
13 laborers.

Tunnel 1 cat. 30, 1 compr., 1 lead
out lit, 1 pipeman,
1 fore, 5 laborers.

Photo's Dam from site "1", 10 A.M.
1/2" - 128.

Nov. 2

Photo⁶ Dam N. from S. side

10:45 AM

Rock Emb. 1 fore, 10 lab's, 1 cat.

Quarry 2 shovels, reg. force,
13 rock trucks.

Tunnel 1 fore, 1 pipe man, 1 carp.
6 lab's, mixing crew,
1 truck, 1 comp, 1 mixing
truck.

61

Nov 1.

Quarry 1 Powderman, 5 drillers

2 nippers, 6 ft smith force

Tunnel 1 fore, 2 lab's, 1 truck.

Board Plant 1 crane², 1 operator,
1 truck driver 2 lab's.

Nov. 5

Photo¹ Warped section at east
end of O.G. 10:30 AM. $\frac{1}{2}$ sec.
s. top 128.

Well	D	El	G.P. El.	Casing
1	64.3	599.1		663.4
3	101.0	642.1		743.1
4				738.0
5	96.2	612.8		709.0
6	76.0	626.0		702.0
Upstr. too		571		575.0
On		549.		

Tunnel 1 pipeman, 1 lab.

Quarry reg. force, 12 rock trucks

62

Nov. 6

Photo² Dam N. from S. about 9:40 AM.
 $\frac{1}{2}$ - 128.

Photo³ Saw. Ext. W. from about 6:00
10:15 AM. $\frac{1}{2}$ - 128

Photo⁴ Spurt E. from about 5:50, 10:20 AM.
 $\frac{1}{2}$ - 128

Tunnel 1 fore, 1 pipeman, 1 cat. operator
2 laborers, 1 compr. 1 truck.

Rock Emb. 1 fore, 17 labs, 1 driller,
1 cat. bull, 1 j. h. m., 1 compr.

Gravel Plant 41 crew, 1 truck & driver

Nov. 7

Quarry 2 shovels, same force

7 rock trucks,

Rock Emb. 1 cat. bull., 1 comp., 1 jthm

1 core, 10 labs, 1 driller.

Tunnel 1 core, 1 pipeman, 5 labs.

1 cat. 30,

Dry sand 27 $\frac{1}{4}$ 19 $\frac{1}{4}$ 8.0

core 13 $\frac{1}{2}$ 11 $\frac{3}{4}$ 134

D.S. 26 10 $\frac{1}{2}$ 15 $\frac{1}{2}$

core 24 $\frac{1}{2}$ 22 $\frac{3}{4}$ 134

Nov. 8

Quarry 7 rock trucks, 2 in P.M.

reg. force till noon trans

to rock emb. in P.M.

Rock Emb. 2 part. comp., 1 cat. 60

bulldozer, 3 drillers 2 rippers,

1 truck, 22 labs 2 core.

Tunnel 1 pipeman, core, 5 labs.

Gravel Plant 1 crane - 11 & crew,

1 bulldozer part time, 1 truck

& driver.

Misc. 1 Cat. 60 & Mc. dig. out gas

tank near gravel plant.

Shop loading out trucks &

misc equip.

Nov. 9

Quarry shovel "8" crew, blacksmith force, 1 comp. man.

3 rock trucks,

Gravel Plant Crane "11" crew,

3 lads, 2 hrs.

Misc. Crane "11" crew & 3 lads removing gas tanks

Tunnel 1 fore, 1 pipe, 5 lads,

Rock Emb. 2 fore, 2 drillers,

2 rippers, 2 lads, cat, quarry

64
Nov. 10

Rock Emb 2 fore, 3 drillers, 1 powderman, 14 lads, 2 comp. men.

Gravel crane "16" crew, 2 concret. trucks, 4 lads

run 8:30 AM. finish 12:30 PM

2 5 sack at grant 30 concret.

120 sacks cement

Tunnel 1 fore, 1 pipeman, 10 lads, 1 concret. truck

blacksmith force only

Nov. 13

Rock Emb. 1 fore, 1 powder man,
3 drillers, 2 rippers 12 lobs
1 cat. bull, 2 comprs
Tunnel 1 fore, 1 pipe man, 8 lobs,
1 truck, 1 cat. 30, 1 comp.
1 cutting out bit.
2 lobs cleaning up around
tower
Quarry shop force.

65

Nov 14

Photo 5 Barn from S. about 10 AM.
1/2" - 128.
Well D. El. Gr. D. El. Casing
1 66.0 598.9 663.4 663.4
3 101.8 641.3 742.0 743.1
5 97.3 611.7 707.5 709.0
6 77.0 625.0 701.0 702.0
Upstr. 4.3 570.7 576.0
Distr. 549.2

Rock Emb. 1 powder man, 1 foreman,
18 lobs.

Quarry 1 electr. 3 lobs 1 truck
shop crew

Cleanup 1 fore, 2 lobs.

Tunnel 1 foreman, 1 carpenter,
1 pipe man, 7 laborers
truck, cat., comp.

Nov. 15

Rock Emb. 1 fore, 7 labs.

Quarry shop force

Tunnel 1 fore, 1 carpenter 7
2 concr. trucks, 1 comp.

1 jackhammer, 1 eat. 30

concr. 7:00 AM. Fin. 9

66
Nov. 16

Photo 6 Dam from quarry road

2:15 PM. 4-128.

Tunnel 1 fore, 1 carp. 1 pipeman
5 labs.

Quarry No work.

Rock Emb. 1 fore, 1 eat. 2 operators
5 labs. distr.

Nov. 17

Photo 1 slide W. from sta 410
8:50 AM. 1 sec. 128

Photo 2 slide E. from 410
1 1/2 sec 128

Photo 3 slide N. from 410
9:05 AM. 1" - 128

Photo 4 same 1/2 - 128 sun.

Photo 5 from 06 3725 19:30 AM
3/4" - 128

Photo 6 same as 374 - 10:03 AM
3/4 - 128

67

Nov. 19

1 Para, 1 lops, cementing joints.

shop cleaning out, 4 men.

golden crane & operator

2 men installing pump

Pipe connects to Trial pipe



Nov. 20

Gravel Plant 1 dragline & truck
hauling to stock pile.

Gravel & Trucks hauling
from Dennis

Tunnel 1 fore, 5 lags until
noon

Nov. 21

Photo 1

Dennis transit "1, 10:45 AM - 12:15

Photo 2

same as "1, further E. 10:55 AM

Nov. 22

Trial pipe on hand

65 sections 20" 108.3

1 " 60" 5'

Misc. 40" 3.3

116.6

21 connections-pipe

13 " sleeves

Tunnel con. pour ^{concr.} 7 A.M. finished

1 P.M. Mixer crew, 1 fore,

5 slabs.

69

Nov. 23

Photo "3 Spw. Ext. E. from 15+50

2:50 P.M. 3/4" - 128

Tunnel 1 fore, 2 slabs, 1 finisher

obs. cleanup, + man

hurt.

Golden 1 fore, 1 timekeeper,

1 runner, 1 elect., 4 slabs.

Nov. 24

Photo "A" N. spw. sidewalk at 425
1:30 P.M. 1S-12 (tucus?)

Photo "B" same as "A"

Golden 1 fore, 1 trunk, 110000
1 elect., 4 abs.

Tunnel 1 fore, 3 abs., 1 eat, 30
1 camp.

70
Nov. 25

Tunnel 1 fore, 2 abs., 1 eat
30 tractor.

Nov. 26

Well D.	El.	Gr. D	El.	Case
1	67.4	596.0	663.9	663.0
3	97.0	646.1	742.0	743.1
5	98.7	610.3	707.5	709.0
6	77.6	624.4	704.0	702.0
upstr. toe	4.0	571.0		575.0
downstr. "		549.5		

Tunnel 1 fore., 2 labs.
 Photo G Pump at Golden's about
 300' dist. of tunnel. 11.30
 AM. 4/2 - 12.8.
 Golden 1 foreman, 1 t.k., 1 carp,
 1 runner, 1 electric, 4 labs.

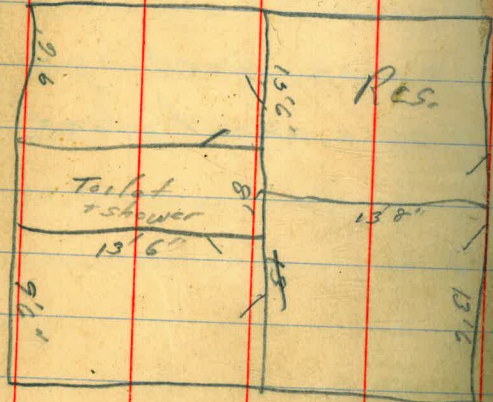
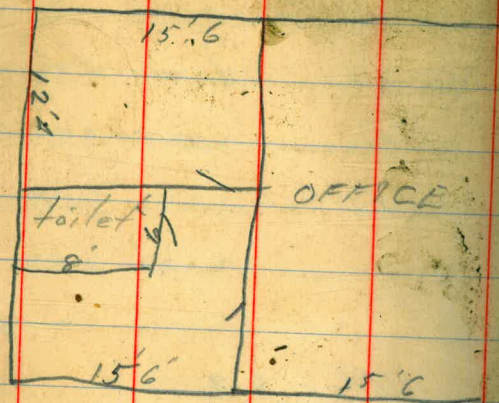
Nov. 27

Golden same force
 Tunnel 1 fore., 1 lab. part time
 Photo 1 Exit from about 7:00. 10:15
 AM. 15. - 10.

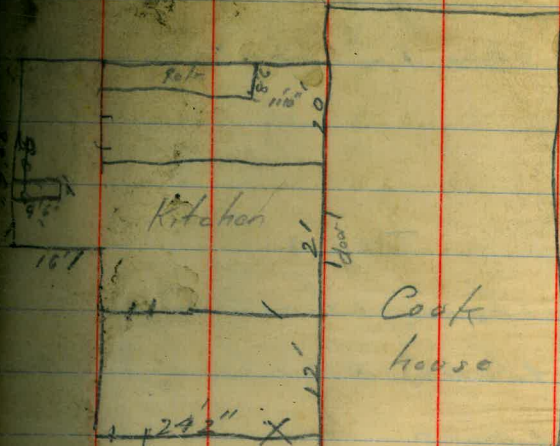
Nov. 28

Photo 2 Cement floor 8:00 - 2:00 PM,
 4/2 - 12.8.
 Golden 7 men - working in tunnel
 & misc. about plant.

Rohel - Connolly Bldg



72



Dec. 1

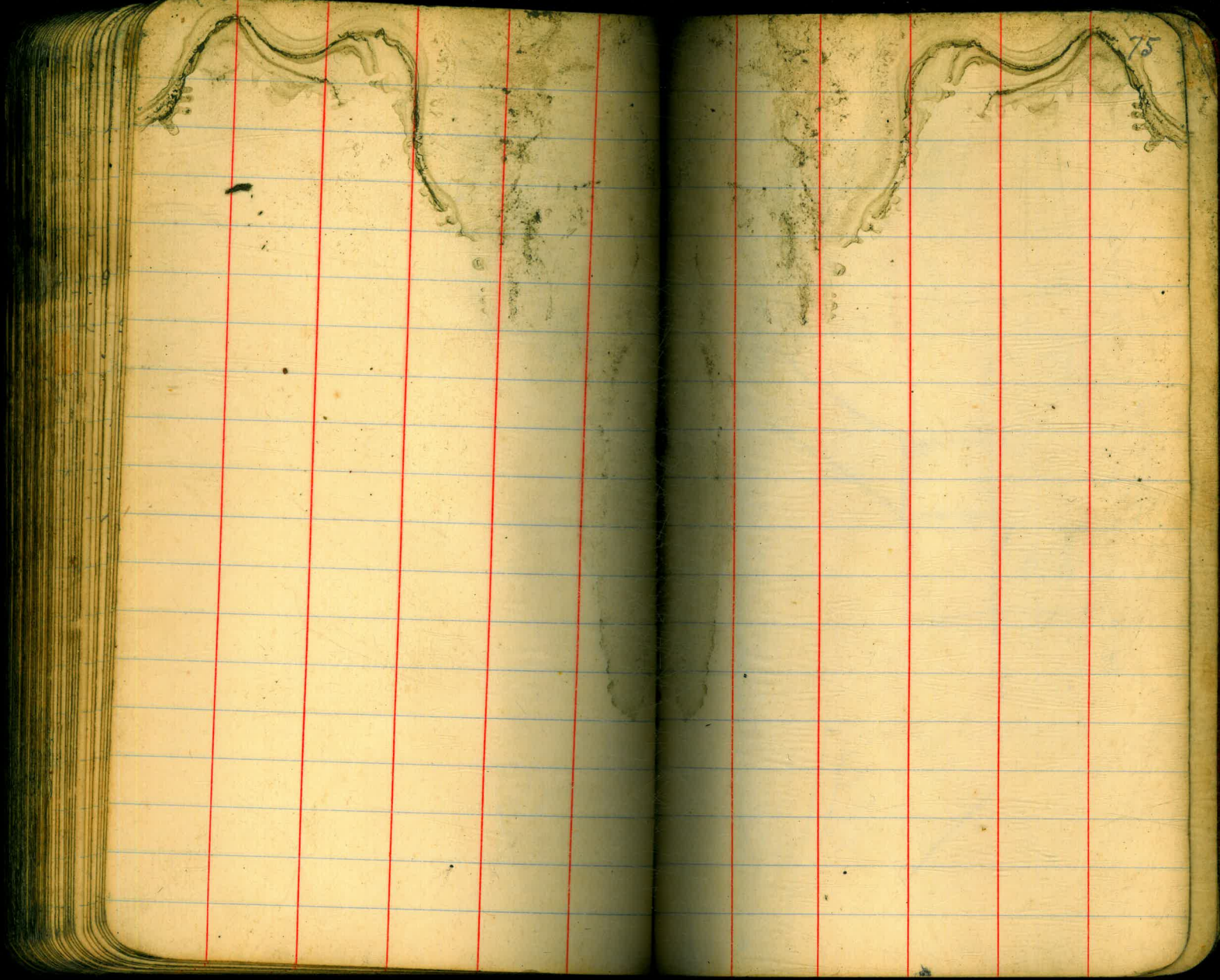
Golden 2 fore, 1 runner, 10 lab.

Dec. 3

Golden 1 fore, 1 timetaper, 10 lab.

4 lab. S.B. 1 fore, 2 lab.

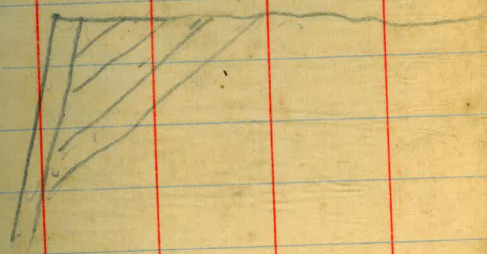
1 carp.





175
568
175
568

26
19
9
54
2
108
73
121



250 300 150
 146
 146
 1158
 175
 1.9
 163
 15/24.5
 15
 95
 90
 50
 1307
 44
 62
 88
 264
 77
 92
 1256
 243
 39
 139
 1775
 13
 136
 28
 200
 236
 0
 27
 1256
 243
 39

3:5:1:8:4
 24
 5/12
 10
 20

175
 14/24.5
 305
 798
 75
 175
 175
 1900
 141.75



1750
 125
 attraction samples N. 3750
 E. 1925

375
 375
 1875
 2625
 1125
 140625
 3142
 281250
 562500
 140625
 121875
 491947.10
 30/250
 44
 75
 220
 308
 3300
 175
 150
 14000
 17
 80
 1360

18
 15-
 4-
 20-
 9-
 -10-
 23
 51

64
 200
 12800
 600

704
 650
 675

3180
 3300
 3550 LL
 3400 LL
 3430 LL
 3600
 3700
 3800

4890
 4910
 4900-4930
 4940

226
 17
 129
 127
 1500
 500
 1119
 1119

314
 4
 1256
 4
 4824
 82
 1477
 35592

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.
 ROADWAY 14 FEET WIDE. SIDE SLOPES 1 1/2 TO 1.
 FOR SINGLE TRACK EMBANKMENT.

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

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

MADE IN GERMANY.