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INDEX

Rock in

Strä Dam Area Pages 2, 3, 4, 7, 11, 13-16.
45-53

N.E. 1/4 " " " 5, 6, 9, 31-43.

S.E. 1/4 " " " 8, 12, 55-59, 65-80

N.W. 1/4 " " " 10, 17-30, 60-63.

Blank 44, 64.

N
↑

N.W. 1/4

N.E. 1/4

N 36000

S.W. 1/4

S.E. 1/4

E 5000.0

Rock above surface in S.W. 1/4

Dawn Area

Co. Ft.

1	N. 3460 E. 4425 N. 3520 E. 4520	3x3x8	72
2		2x2x2	
3		6x6x2	
4		4x6x1	
5		15x6x7	
6		3x9x4	
7		4x4x8	
8		3x4x9	
9		4x6x6	
10		3x3x5	
11		3x3x4	
12		2x4x5	
13		3x4x6	
14		3x3x3	
15		3x4x6	
16		5x6x7	
17		4x5x5	
18		4x5x8	
19		6x10x4	
20		3x4x6	
21		3x3x9	
22		2x6x6	
23		16x11x6	
24		2x6x3	

Note: These Rock
phot or left in place
those moved caught in
Subsequent operations.
8/22.

May 13, 1932.
Stores.
Converse
See Page 7.

S.W. 1/4: West of E. 5000.
South of N. 3600

S.W. 1/4 (Contd.)

Rock above Surface
of
Dam Area

3

25		4x6x10
26	X	2x4x8
27L		3x6x6
28L		10x6x3
29		2x5x9
30		3x6x2
31		5x2x2
32		5x7x2
33		9x7x3
34		6x6x2
35		3x3x27 Loose Rock
36		8x8x2
37		2x2x3
38		3x3x5
39	X	2x2x3
40		3x3x3
41		2x3x5
42		6x5x3
43		2x2x5
44		3x2x6
45L		4x8x8
46		3x6x4
47		5x4x6
48		5x7x3

N. 3530
N. 3460 to N. 4640
E. 4640 to E. 4680N. 3500
N. 3470 to N. 4680
E. 4680 to E. 4700

S.W. 1/4 Contd.
Rock above Surface
of
Dam Area

3500 49L 4720	3x3x12
50	6x5x4
51	2x2x5
52	7x7x18
53	3x3x3
54	2x3x3
55	5x2x3
56	5x3x2
57	2x7x10
58	6x3x3
59	4x6x6
60	3x2x6
61	2x3x4
62	4x3x2
3500 63 4760	4x2x2
3480 64 4770	5x5x5
3460 65 4780	3x2x5
3460 66 4780	2x3x4
3440 67L 4800	3x3x15
3450 68 4900	1x3x3
3420 69L 5000	3x3x12

Rock Above surface in
N.E. 1/4 Dam Area.

May 16, 1932
Steyer
Converse.

		Cuft.
N. 3795		
1 E. 5540	8x6x4	192
N. 3800		
2 E. 5530	6x5x4	120
N. 3820		
3 E. 5540	6x4x2	48
N. 3820		
4 E. 5530	1x9x2	18
N. 3825		
5 E. 5520	8x4x3	96
N. 3840		
6 E. 5520	7x6x3	126
N. 3850		
7 E. 5520	6x4x2	48
N. 3790		
8 E. 5510	8x6x2	96
N. 3810		
9 E. 5500	11x5x3	165
N. 3790		
10 E. 5500	3x5x1	15
N. 3820		
11 E. 5480	6x2x1	12
N. 3760		
12 E. 5460	3x6x17	306
N. 3780		
13 E. 5440	6x5x2	60
N. 3790		
14 E. 5440	6x4x2	48
N. 3815		
15 E. 5440	3x3x2	18
N. 3810		
16 E. 5440	4x3x3	36
N. 3800		
17 E. 5430	4x9x3	108
N. 3810		
18 E. 5430	4x7x2	56
N. 3815		
19 E. 5430	5x4x1	20
N. 3800		
20 E. 5400	5x4x3	60
N. 3820		
21 E. 5380	10x7x1	70
N. 3810		
22 E. 5370	6x6x3	108
N. 3850		
23 E. 5360	10x17x8	960

about same below surface from
in stream the wall of

Placed in E. Rock Embankment
Section + Measured in
Estimate No 3 of July 1932
in Rock Section

✓ shot 6/13
✓ " "
✓ " " 6x4x4
See Page 37
Shot 6/13 8x4x6
shot in upstream toe 6/13/32 7x6x6
6x4x4
shot in upstream toe excavation 6/9/32
8x6x4
Shot 6/13/32 11x8x3/4

Not shot. not in E. W. S. T. W.
6/13/32 shot shot to 6/27/32
note this rock in edge of ...
6x
also 8x8x6 in same

1877

N.E. 1/4 - Contd.
 Rock above Surface
 of Area
 Dam

N. 3810 24 E 5320	15X15X7	1575 ✓
N. 3840 E 5300	8X6X4	192 ✓
N. 3830 E. 5290	3X7X2	42 ✓
N. 3820 E. 5280	6X6X3	108 ✓
N. 3800 E 5280	5X7X3	105 ✓
N. 3780 E. 5300	4X7X2	56 ✓
N. 3760 E. 5290	8X8X3	192 ✓
N. 3825 E 5240	7X4X2	56 ✓
N. 3830 E. 5220	11X4X2	88 ✓
N. 3800 E. 5220	9X6X4	216 ✓
N. 3800 E 5220	5X6X4	120 ✓
N. 3780 E. 5220	5X4X1	20 ✓
N. 3820 E 5180	3X12X2	72 ✓
N. 3820 E. 5160	8X8X4	256 ✓
N. 3780 E. 5180	5X5X1	25 ✓
N. 3780 E 5150	4X4X2	32 ✓
N. 3780 E. 5140	5X5X1	25 ✓
N. 3785 E 5110	5X6X1	30 ✓
N. 3790 E. 5110	8X6X3	144 ✓
N. 3800 E. 5100	6X5X3	90 ✓
N. 3800 E 5090	5X3X1	15 ✓
N. 3720 E 5110	5X8X2	80 ✓
N. 3790 E 5060	17X16X7	1904 ✓ 2288 ✓

Placed in E. Rock Embankment
 Section & Measured in
 Estimate No 3 of July 1932 →

Stynewcomb

See
 On Rock Section
 On Rubber Lane See

Contd. on Page 9.

S.W. 1/4. Exit Portal and approach ext
Excavation. Rock above surface before
Excavation

		Cu. Ft.	Cu. Ft.
		110	111
70	5x5x2	50	
71	4x3x2		24
72	6x6x4	144	
73	3x3x1		9
74	5x3x2	30	
75	6x6x3	108	
76	8x5x4	160	
77	9x6x4	216	
78	2x4x5	40	
79	3x7x1		21
80	7x4x4	112	54
81	3x6x3	54	
82	13x8x2	208	
83	5x5x4	100	
84	5x3x3	45	
85	5x3x2	30	
1	3x3x8	72	136.9 50.7
86	7x4x3	84	
87	4x5x4	80	
88	3x3x3	27	
89	5x2x3	30	
90	5x2x3	30	
91	6x4x2	48	
92	5x4x2	40	
93	5x4x4	80	
		1788	

Uncovered during excavation. Classification Solid Rock Wasted. Act. Segregation = 110.

Contd. on Page 11

5/18/32
Stevens
Converse.

Total of 54 Cu. Ft. added to Est. #1. Item 111.

From Page 10.

May 25, 1932.
Converse
Stevens

S.E. 1/4. Tunnel Entrance Excavation
 Rock uncovered during 1st.
 days excavation 5/19/32
 Cu. Ft.

70			
71	1.	3x5x2	30
72	2	7x4x3	84
73	3	4x4x4	64
74	4	4x3x3	36
75	5	5x4x3	60
76	6	5x5x3	75
77	7	12x11x3	396
78	8	6x3x3	54
79	9	9x11x5	495
80	10	3x3x9	216
81	11	3x6x3	54

2nd Days Excavation 5/20/32

82	12	Round 5' Dia.	65
83	13	2x4x4	32
84	14	7x8x3	168
85	15	5x4x3	60
86	16	3x5x3	45
87	17	4x5x2	40
88	18	5x4x4	80
89	19	5x4x4	80
90	20	5x4x4	80
91	21	3x9x5	135
92	22	7x6x5	210
93	23	10x5x4	200
94		Total	2759

#1 Allowed in Est

Contd. on Page 12.

5/20/32
 Steres
 Converse

above surface 8

Note - No Rock in approach
 cut or portal excavation area
 before excavation

5/21/32
 Steres
 Converse.

Rock 5' Dia. Vol. = $\frac{4}{3} \pi r^3$

N.E. 1/4

(Contd. from Page 6.)

47	5x6x3	90 ✓
48	5x5x2	50 ✓
49	9x8x4	288 ✓
50	5x3x2	30 ✓
51	5x5x2	50 ✓
52	6x5x2	60 ✓
53	8x4x1	32 ✓
54	3x4x2	24 ✓
55	3x3x6	54 ✓
56	5x8x2	80 ✓
57	6x4x2	48 ✓

~~806 ✓~~

May 23, 1932

Stares
Newcomb
Converse

N.W. 1/4. Rocks above ground surface.

1.	7x8x3	168	✓
2	17x12x4	816	✓
3	6x6x3	108	✓
4	9x7x4	252	✓
5	6x3x1	18	✓
6	6x3x1	18	✓
7	7x8x2	112	✓
8	6x10x2	120	✓
9	4x3x2	24	✓
10 not shot 11/30	8x10x4	320	✓
11	6x4x2	48	✓
12 not shot 11/30	9x9x8	648	✓
13 not shot 11/30	16x14x5	1120	✓
	" x 3 below.		

1636

1/2 below S.

To Page 17

✓ ✓
 N.W. 1/4
 of
 Sec
 Rolled
 Sec
 S:1
 ↓

Double
Core
Sec

May 23. 1937
Stores
Converse

rolled sub.
Rocks in S stream about N 36.5°
E 48.25 not shot to 7/17/37

S.W. 1/4 Tunnel Approach
Uncovered during excavation

Contd. From Page 7

		Cu. Ft.
94	4x4x2	32
95	5x4x4	80
96	5x3x2	30
97	4x4x2	32
98	3x6x5	90
99	8x6x2	96
100	4x3x4	48
101	3x3x3	27
102	13x8x10	1040
103	7x7x1	49
104	3x3x5	45
105	12x12x17	2448
106	9x5x6	240
107	3x5x3	45
108	6x6x5	180
109	4x4x4	64
110	5x5x5	125

Sub. total 4671

Brot. Fwd 1788 from Page 7.

Total Est. No. 1 6459.

$$\frac{6459}{27} = 239.2 \text{ Cu. Yds.}$$

To Page 13

Same rock as #92-Page 7. Overall size = 13x8x12

Might be much larger.

May 26, 1932
Converse
O'Brien

S.E. 1/4. Tunnel Entrance Excavation
Contd. from Page 8.

		Co. Ft.	
Brot. Fwd.		2759	from Page 8.
24	4x5x6	120	Co. Ft. Co. Yds.
		2879	106.6
Up stream Toe Wall Excavation			
25	7x2x4	56	✓
26	5x4x2	40	✓
27	5x5x2	50	✓
28	5x5x2	50	✓
29	4x4x2	32	✓
30	4x7x4	112	✓
31	6x6x8	288	✓
32	3x3x3	27	✓
33	6x5x3	90	745 ✓
34	6x3x2.5	45	✓
35	6x3x2.5	27	✓
36	3x4x2.5	30	✓
37	3x3x3	27	✓
38	6x4x2.5	36	✓
39	6x6x2	72	✓
40	4x4x2	32	✓
		269.	

Est # 3 of July 1932
 Est # 2 of June 25th 1932
 N.M.

- To Page 65 -

Included in Est. #1.

5/28/32 ^{9 AM} Newcomb & Steres.
 Upstream Toe Wall Ex. at 550
 below surface.

Shot
 5/31/32 N.M. - In Trench for 24" Cor
 Diversion Pipe through Upstream Toe Wall Ex

S.W. 1/4 Tunnel Approach
Uncovered during excavation.

Cu ft

111	5x3x2	30 ✓
112	5x4x2	40 ✓
113	6x3x3	54 ✓
114	5x4x2	40 ✓
115	5x4x3	60 ✓
116	6x4x3	72 ✓
117	4x5x2	40 ✓
118	4x4x2	32 ✓
119	5x6x3	90 ✓
120	3x3x3	27 ✓
121	3x4x4	48 ✓
122	4x10x3	120 ✓
133	5x3x2	44 ✓
134	3x4x2.5	39 ✓
135	3x3x3	27 ✓
136	4x8x3	96 ✓
137	4x3x3	48 ✓
138	3x3x3	27 ✓
139	3x4x2.5	30 ✓
		<hr/> 964 ✓

June 25 1932.
 Pitt. Newcomb
 of
 1
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 100

May 26, 1932.
Converse
Newcomb

May 27, 1932 830 AM
Converse
Stores.

May 27 1932 Shot 1:30 PM
Newcomb
O'Brien.

SW $\frac{1}{4}$ Tunnel Approach. (Exit)

16

		cu ft
123	8x7x2.4	1344
124	9x7x6	378
125	3x3x3	27
126	4x3x2 $\frac{1}{2}$	30
127	6x4x3	72
128	6x4x3 $\frac{1}{2}$	84
129	5x3x2	30
130	12x4x3	144
131	3x3x4	36
132	3x4x4	48
140	5x2x3.5	219.5
141	4x4x2	
142	5x4x2	
143	5x2.5x2	
144	5x6x3	
145	4x4x3	
146	6x3.5x2	
147	3x3x3	
148	3x3x3.5	
149	3x4x3	
150	4x4x3	
151	4x2x2.5	
152	6x3x2.5	
153	4x3x3	
154	6x3.5x3.5	
155	4.5x4x2.5	

Direct to Rock Emb. Exit
Binds for tunnel
Rock Emb. H.T.W.

above ground
up
to
level
of
the
ground
at
exit
of
tunnel

May 27 1932. J.W. Newcomb & M. Steres
Large Rockson Slope above Collet Tunnel Exit Portal
6' East of Pt $E 4400$
 $N 33 60$ to West edge of Rock
Ordered down by H.I. Mack 5/27/32. cut 60.4
5/28/32 J.W. Newcomb $N 79$ Steres at 5 and 6 Rock
H.I. Mack
M.I. in Exit Portal of Collet Tunnel at
working level of 5542
5/31/32 ^{H.I.} J.W. Newcomb Shot this 4 m.
6/10/32 108 m H.I. & O'Brien
6/10/32 230 m J.W. Newcomb & Steres.

SW 1/4 Tunnel Approach

156	6x6x2.5	Not shot to 7 27-32
157	3x3x3	
158	6x3.5x3.5	
159	6x3x4	
160	6x4x3	
161	8x3x3.5	
162	4x5x2	
163	5x6x2	
164	4x5x3	SW 1/4 Downstream Toe Wall Ex.
165	3x3x3	27 ✓
166	8x3x3	72 ✓
167	8x4x3.5	112 ✓
168	4x3x3	36 ✓
169	3x3x3	27 ✓
170	7x4x3	84 ✓
171	7x2.5x4	70 ✓
172	5x3x2	30 ✓
173	4x4x2.5	40 ✓
174	4x4x2.5	40 ✓
175	8x3x4	96 ✓
176	4x3x3	36 ✓
177	4x3x3	36 ✓
178	3x3x3	27 ✓
179	5x2x3	30 ✓

n of Tunnel Exit.
 Direct to Rock Emb.
 Paid for in Rock Emb.
 n

SW 1/4 Downstream Toe Wall Ex.

Allowed 25x25 3 July 1932
 833 ✓

Date	Location	Elev	Dist	Notes
6/27/32	Newcomb 50m	51540±	2+50	35' E
	Albert	"	"	30' E
		"	2+65	35' E
		"	2+65	30
		"	2+65	25' E
		"	2+70	30' E
		"	"	30' E
		"	2+90	30' E
		"	2+90	25' E
		"	2+85	25' E
		"	2+80	25' E
		"	2+80	30' E
6/28/32	N+A	"	2+00	5' E
		"	"	5' W
		"	"	10' W
		"	"	20' W

DST WY Sta.

SW 1/4

180	10x5x5	250 ✓
181	5x3x5	75 ✓
182	3x3x3	27 ✓
183	4x4x3	48 ✓
184	5x5x5	125 ✓
185	8x6x5	240 ✓
186	4x4x3	48 ✓
187	5x3x3	45 ✓
188	3x3x3	27 ✓
189	4x3x2 ^{1/2}	30 ✓
190	6x4x4	96 ✓
191	3x3x3	27 ✓
192	6x4x4	96 ✓
193	4x4x4	64 ✓
194	4x3x3	36 ✓
195	9x2x4	72 ✓
196	3x5x3	45 ✓
197	6x2x2 ^{1/2}	30 ✓
198	3x3x3	27 ✓
199	6x5x2	60 ✓
200	4x3x4	48 ✓
201	5x4x4	80 ✓
202	5x6x3	90 ✓
203	4x4x4	64 ✓
204	5x3x4	60 ✓ 1870

to Page 45

Allowed Box # 13
 July 1932

6/29/32 Newcomb & Albert
Shot 6/29/32

DSTN

16
 El 540+
 2+00-30 E
 3+15- 35 W 550
 3+15 30 W "
 3+10 45 W 540
 3+00 25 W 545
 2+95- 30 W 540
 2+90 5 W E 540+
 3+08 10 E " 550
 3+00 20 E " 540
 2+95 35 E " 545
 6/30/32 Newcomb
 Albert
 Shot 6/30/32
 2+25 ♀ " 540
 2+25 10 E "
 2+30 15 E "
 2+20 15 W "
 2+25 10 W "
 2+50 ♀ "
 2+60 10 W "
 2+60 E "
 2+80 ♀ 540
 " " "

pm

N.W. $\frac{1}{4}$ of Dam Area
 Rock above surface of ground.
 No. of river along temporary road Const.

- 14 3x2x2
- 15 4x5x2
- 16 4x4x1
- 17 3x3x2
- 18 3x3x1
- 19 3x3x1
- 20 6x12x12
- 21 3x3x1
- 22 3x3x2
- 23 3x3x1
- 24 4x3x1
- 25 4x3x2
- 26 4x3x1
- 27 3x4x3
- 28 4x1x1
- 29 3x2x1 $\frac{1}{2}$
- 30 4x3x1
- 31 3x3x3
- 32 5x5x1
- 33 6x2x2
- 34 5x3x2
- 35 8x4x1
- 36 3x3x2 $\frac{1}{2}$
- 37 4x3x1
- 38 3x3x1
- 39 5x1 $\frac{1}{2}$ x1

pages 17-23.
 Note: These Rock
 photos side cast &
 Rehandled. Either Caught
 as finally Stopped or
 placed direct into Rock
 Emb. 3/7/32.

(not shot - in Toe Wall See N edge)

Continued from Page 10.

6/7/32 AM
 M. Albino

Coordinate Point N 3780
 E 4700.

South of and East + West of
 across S.W. $\frac{1}{4}$ of Dam along
 N side of river along temporary
 road Elev. about 580±

of Dam Area.
NW $\frac{1}{4}$ - Rock above surface of ground.

W of river along Temporary road Const

Elev. 580 ±

see note page 17

40 5x3x2

41 4x2x1

42 6x3x1

43 3x3x2 $\frac{1}{2}$

44 6x5x $\frac{3}{4}$

45 2x2x1

46 2x2 $\frac{1}{2}$ x1

47 3x2x1 $\frac{1}{2}$

48 2 $\frac{1}{2}$ x2 $\frac{1}{2}$ x1 $\frac{1}{2}$

49 3x2x1

50 9x6x2

51 3x3x1

52 3x4x1 $\frac{1}{2}$

53 5x4x1

54 6x3x1

55 4x3x1 $\frac{1}{2}$

56 2x3x3

57 3x2x1 $\frac{1}{2}$

58 3x1 $\frac{1}{2}$ x1

59 3x3x1 $\frac{1}{2}$

60 2x1 $\frac{1}{2}$ x1 $\frac{1}{2}$

61 2x2x1

62 2x3x1

63 3x3x $\frac{1}{2}$

64 4x2x $\frac{1}{4}$

6/7/32

Newcomb & Albers

NW 1/4 of Dam Area - Rock above surface
of ground. N of river along Turnp.
Road Construction.

65 7x3x2

66 7x5x 3/2

67 2x3x 1 1/2

68 6x5x2

69 3x4x2

70 3x5x3

71 4x3x 3/2

72 3x3x1

73 3x3x2

74 2x3x3

75 4x3x 1 1/2

76 4x8x3

77 4x3x2

78 6x5x9

79 5x5x4

80 6x10x 3/2

81 5x2 1/2 x1

82 4x3x2

83 3x3x1

84 2x2x1

85 3x2x1

86 3x2x1

87 5x2x1

88 6x4x4

89 6x10x4

see note page 11

W of #10 + E

6/7/34
New corral
Albers

19

Along new Road. N. of River Elev. 580±

N. W. $\frac{1}{4}$ of Dam Area - Rack above surface
of ground. N of river along Terrap
Road Construction El. 580±

6	90	6x6x2	
6	91	5x5x1	
6	92	6x2x3	see note page 17
6	93	5x3x1 $\frac{1}{2}$	
6	94	3x2x2	
7	95	2x2 $\frac{1}{2}$ x1	
7	96	4x2x1	
-	97	12x12x7	marked x1
-	98	4x6x1 $\frac{1}{2}$	
-	99	4x1 $\frac{1}{2}$ x1	(at E 4920 + n 3780)
-	100	4x3x2	
-	101	2 $\frac{1}{2}$ x1x1 $\frac{1}{2}$	
-	102	4x1 $\frac{1}{2}$ x1	
-	103	4x5x1	
-	104	3x2x1 $\frac{1}{2}$	at n 3760 + E 4940
8	105	4x3x1	
8	106	2x2x2	
9	107	4x6x1	
1	108	6x6x2 $\frac{1}{2}$	x-2
	109	5x2x1	
	110	6x6x2 $\frac{1}{2}$	
	111	4.5x6x2 $\frac{1}{2}$	
	112	4x3x1 $\frac{1}{2}$	
	113	1x1x3	
	114	4x8x6	

6/7/54
Newcomb
Albers

N. W $\frac{1}{4}$ of Dam Area. Rock above Surface
of ground. N of river along Temp
Road Construction. Bl. 580±

115 8x5x3 (x-3)

116 N3820
E4980 5x4x2 (x-4) see note on p. 17

117 4x3x2

118 6x4x3

119 6x5x3

120 5x3x $\frac{3}{2}$

121 6x2x3

122 4x2x2

123 3x2x2

124 3x3x $\frac{3}{2}$

125 3x3x2

126 2x2x2

127 4x3x3

128 3x6x2

129 3x6x2

130 3x3x $\frac{3}{2}$

131 4x4x2.5

132 3x2x2

133 4x3x2

134 4x5x2.5

135 4x2x2.5

136 4x4x2.5

W of A-13 at N 3835
E 4995

6/7/32

21

- H. V. Newcomb
D. W. Albert
Bonham.

N edge of road on W edge Dam Axis.

N.W. $\frac{1}{4}$ of Dam Area - Rock Shot along
Temp. Road Const. About Elev
580 to N edge of Road.

137	8x3x3	72
138	5x3x2	45
139	6x3x4	72
140	3x2x4.5	27
141	4x3x3	36
142	3x3x3	27
143	3x3x3	27
144	4x3x3	36
145	3x3x4	36
146	5x4x2	40
147	4x3x3	36
148	6x3x3	54
149	3x4x4	48
150	4x3x2.5	30
151	3x5x4	60
152	4x3x3	36
153	3x3x3	27
154	4x4x2	32
155	4x8x3	96
156	3x3x3	27
157	6x5x9	270
158	5x5x4	100
159	6x10x3	180
160	3x3x3	27
161 x-1	4x5x3	60

See photo 2917

6/7/32
Newcomb.
Bonham
Albert

All shot A.P.M. 6/7/32.
A.P.M.

N.W. $\frac{1}{4}$ of Dam Area - Rock shot along
Temp Road Cons. About Elev.
580 to Edge of Road.

162	N 3760 E 4880	4x8x3	96
163		6x6x3	108
164		6x6x3	108
165		9x6x3	162
166		7x6x2	84
167		6x4x3	72
168		6x5x3	90
169		4x4x3	48

See Note 997.

N.W. $\frac{1}{4}$ Down stream Toe Wall Ex

170		12x7x5 =	420 ✓
171		6x4x5	120 ✓
172		3x4x3.5	42 ✓
173		5x2.5x3	37.5 ✓
174		4x3x2.5	30 ✓
175		3x3x4	36 ✓
176		3x4x3	36 ✓
177		3x4x3.5	42 ✓
178		3x3x3	27 ✓
179		4x3x3.5	42 ✓
180		3x3x3.5	31.5 ✓
181		5x4x2	40 ✓
182		4x3x3	36 ✓
183		5x3.5x3	52.5 ✓
			991 ✓

* 2
 of June 25th 1932
 at Newcomb
 Alberta

6/7/32
Newcomb
Bonham
Albert.

23

All shot 6/7/32 at 4 P.M.
J.W.N.

6/25/32 Newcomb 2 P.M.
Albert

Sta 0+95	E of # 15'
"	" " " 25'
1+05	" " " 30'
1+08	" " " 35'
1+10	" " " 20'
"	" " " 15'
1+05	" " " 10'
0+95	" " " 7'
1+10	" " " 3'
1+15	" " " 10'
1+20	" " " 8'
1+25	" " " 5'
1+25	on E
1+40	20' W

W N $\frac{1}{4}$ of Dam Area
Downstream Toe Wall Ex.

184	3x3x3	27 ✓
185	5x3x2.5	37 ✓
186	10x3x3	90 ✓
187	5x4x4	80 ✓
188	5x4x3.5	70 ✓
189	5x3.5x3	52 ✓
190	3x3x3	27 ✓
		<hr/> 383 ✓

191	14x8x5	672 ✓
192	5x4x4	80 ✓
193	4x4x3	48 ✓
194	9x4x3	108 ✓
195	4x3x2.5	30 ✓
196	3x3x3	27 ✓
197	10x6x7	420 ✓
198	5x3x3	45 ✓
199	8x5.5x7	308 ✓
200	3x3x3	27 ✓
201	3x3x3	27 ✓
202	3x3x3	27 ✓
203	3x3x3	27 ✓
204	5x3x3	45 ✓
205	4x3x2.5	30 ✓
206	3x4x3	36 ✓
		<hr/> 1957 ✓

Estimate No
 of June 25th 1932
 at Newcomb
 Allowed Estimate * 3
 70/11 1932
 at Newcomb

6/25/32: N+X

1+05	5' W.
1+05	20' W
1+15	20' W
1+20	25' W
1+45	30' W
1+55	25' W.
1+60	40' W.

6/27/32. Newcomb
Albert

DST in

20' E	of STA 15 E, 547±
20' E	of " 1+30 " "
20' E	" " 1+45 " "
25' E	" " 1+50 " "
30' E	" " 1+60
20' E	" " 1+65
10' E	" " 1+60
25' E	" " 1+70
25' E	" " 1+80
15' E	" " 1+85
15' E	" " 1+93
5' E	" " 1+90
5' W	" " 1+90
5' W	" " 1+82
10' W	" " 1+80
10' W	" " 1+82

NW 1/4

Downstream Toe Wall Ex

207	6x3x4	72 ✓
208	4x4x3	48 ✓
209	5x5x4.5	112 ✓
210	9x3x5	135 ✓
211	9x6x5	270 ✓
212	3x3x3	27 ✓
213	3x3x3	27 ✓
214	10x5x7	350 ✓
215	7x5x6	210 ✓
216	4x3x4	48 ✓
217	3x3x3	27 ✓
218	3x3x3	27 ✓
219	3x3x3	27 ✓
220 ✓	3x3x3	27 ✓
221	3x3x3	27 ✓
222	3x3x3	27 ✓
223	4x5x4	80 ✓
224	3x4x3	36 ✓
225	3x7x4	84 ✓
226	5x3x4	60 ✓
227	3x3x3	27 ✓
228	4x3x4	48 ✓
229	5x4x4	80 ✓
230	5x3x4	60 ✓
231	3x3x3	27 ✓

1963 ✓

Allowed July 1932 * 3 * 5 *
 stream

6/27/32

N+A

25

20' W of Sta 1+85

18' W of " 1+90

15' W of " 1+90

20' W " " "

30' W " " "

35' W " " 1+85

8' E " " 2+00

30' E " " "

6/28/32 N+A

20' E 1+00

25' E 1+25

40' E Sta 1+00

" " 1+05

" " "

" " "

" " 1+10

30' E 1+30

30' E 1+35

35' E 1+40

30' E 1+50

30' E 1+60

20' E 1+70

25' E "

40' E 1+65

4.7.1/2 - Downstream Toe Wall Ex

232	6x4x4	96 ✓
233	6x5x5	150 ✓
234	4x4x3	48 ✓
235	5x3x4	60 ✓
236	20x7x6	840 ✓
237	3x3x4	36 ✓
238	7x3x3	63 ✓
239	4x5x4	80 ✓
240	3x3x4	36 ✓
241	3x3x3	27 ✓
242	3x3x3	27 ✓
243	3x3x3	27 ✓
244	3x4x3	36 ✓
245	3x3x3	27 ✓
246	2x3x4	36 ✓
247	3x3x3	27 ✓
248	3x3x3	27 ✓
249	4x4x4	64 ✓
250	5x2x3	30 ✓
251	5x4x2	50 ✓
252	7x5x5	525 ✓
253	4x3x2 1/2	30 ✓
254	3x3x3	27 ✓
255	3x3x3	27 ✓
256	4x2x4	80 ✓
257	3x3x3	27 ✓

2503 ✓

July 1932
27/7

Est #5

Allowed

7/1/32 Newcomb
Albert

26

1+25	35 E	545
1+30	30 E	" "
1+35	25 E	" "
1+ "	22 E	" "
1+40	25 E	" "
1+50	25 E	" "
1+50	20 E	" "
1+55	"	" "
1+65	"	" "
1+70	"	" "
1+80	"	" "
1+85	"	" "
1+60	"	" "
1+65	35 E	545
1+70	25 E	540
1+80	20 E	540
1+25	20 E	545
1+30	25 E	" "
1+40	25 E	" "
1+45	20 E	540
1+50	20 E	545
1+65	20 E	540
2+90	"	"
2+90	25 E	545
2+90	15 R	540
2+60	5 E	"

7/5/32 Newcomb
Albert.

#. W 1/2 - Downstream Toe Wall Ex.

258	3x3x3	27 ✓
259	3x3x4	36 ✓
260	5x4x5	100 ✓
261	5x3x3	45 ✓
262	4x3x6	72 ✓
263	4x4x2	32 ✓
264	4x3x3	36 ✓
265	3x3x3	27 ✓
266	3x3x3	27 ✓
267	6x6x6	216 ✓
268	5x7x5	175 ✓
269	3x4x2 1/2	30 ✓
270	4x3x3	36 ✓
271	3x3x3	27 ✓
272	3x3x3	27 ✓
273	4x3x3	36 ✓
274 ✓	3x3x3	27 ✓
275	3x4x3	36 ✓
276	4x4x3 1/2	56 ✓
277	4x3x3	36 ✓
278	3x4x3	36 ✓
279	3x5x2	30 ✓
280	4x5x3	60 ✓
281	5x8x6	240 ✓
282	4x3x3	36 ✓
		<u>1506 ✓</u>

Allowed Est # 3 July 1932
 3277.

7/5/32 Newcomb
Albert.

27

0+50 to 1+50 El 540⁺

P.M.

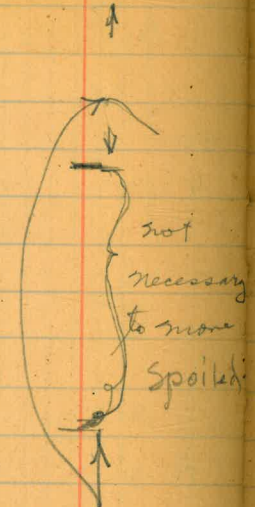
7/6/32 Newcomb
Albert

0+50 to 1+00 El. 545
West of #

7/9/32 Newcomb
Albert

#3 Drain Trench El 545 ±

283	3x3x3	27 ✓
284	3x3x3	27 ✓
285	3x4x3	36 ✓
286	4x4x2	
287	4x3x3	
288	3x3x3	
289	4x4x3	
290	5x4x4	
291	3x4x2 1/2	
292	5x3x2 1/2	37 ✓
293	6x3x3	54 ✓
294	5x3x2	30 ✓
295	14x4x3	168 ✓
296	8x4 1/2 x3	102 ✓
297	4x4x4	64 ✓
298	2x12x3	72 ✓
299	3x3x3	27 ✓
300	4x4x3	48 ✓
301	5x5x3	75 ✓
302	3x6x3	54 ✓
303	4x5x3	60 ✓
304	7x3x3	63 ✓
305	3x3x4	36 ✓
306	3x3x3	27 ✓
307	3x3x3	27 ✓
		<hr/>
		1034 ✓



Allowed Estimate 3 July 1932

7/12/32 Newcomb Albert * 3 Drain 2545

7/12/32 Along road El 580 ± at NW edge of Dam Area.

* 3 Drain

* 2 Drain West end near grade

* 2 Drain S Side.

SW Cor

N ^o	Size	Cu ft	
308	3x6x4	72	✓
309	5x6x7	210	✓
310	3x3x4	36	✓
311	3x3x3	27	✓
312	3x3x3	27	✓
313	3x3x3	27	✓
314	4x5x2	40	✓
		<u>439</u>	✓
315	4x3.5x4	56	✓
		all Cut Above Surface	
316	5x5x4	100	✓
317	3.5x1.5x3.5	18	✓
318	3.5x3x2.0	21	✓
319	2.0x3x6	36	✓
320	boulder Shot	34 ³	✓
321	3x3x1.5	13.5	✓
322	3x3x3.5	31.5	✓
323	3x3.5x3.5	39.4	✓
324	2x5x3	30	✓
325	4x2x3	24	✓
326	6x5x6.5	195	✓
327	4x4x2.5	40	✓
328	3x4x2.5	30	✓
329	3x3x2.0	18	✓
330	Pieces Shot	24 ³	54 ✓
331	6x2.5x3.0	45	✓
		<u>829</u>	✓

Allowed Est # 3 July 1932

Rock

Allowed Est # 8 Dec 1932
H. J. Wood

2 Drain S.W. Cor
" " W. Cor
" " S Side W.
7/14/32 " "
" "
Loaded out direct # 3 Drain W end.
7/15/32 # 3 Drain

Dec 4th 1932 H. J. Wood. Rock N. Abut. under
Dam Down S. Rock Emb E. 575-625.
Moved in Shipping + Placed direct into
W. Rock Emb. STM

W² Contd

		Cu ft all above Surface	Cu ft below Surface
332	4x3x2.5	30 ✓	
333	2.5x3x2	15 ✓	
334	2.5x3x3	22 ✓	
335	3.5x5x6	105 ✓	
336	8x4x4	128 ✓	
337	3x3.5x3.5	37 ✓	
338	3x3.5x2.5	26 ✓	
339	4x3x2.5	30 ✓	
340	2.5x2x3	15 ✓	
341	7x3.5x3.5	86 ✓	
342	6x3x5	90 ✓	
343	5x2x3	30 ✓	
344	2x2x3	12 ✓	
345	4x2.5x5	50 ✓	
346	7x4x4	112 ✓	
347	3x1.5x1.5	7 ✓	
348	4x2.5x3	30 ✓	
349	4x3.5x3	42 ✓	
350	4.5x2.5x3	34 ✓	
351	2.5x2.5x3	19 ✓	
352	3x2x3	18 ✓	
353	12x12x20	2880 ✓	270 ✓
354	12x15x8	1440 ✓	288 ✓
355	25x12x14	4200 ✓	270 ✓
356	30x4x7	1680 ✓	560 ✓
		11138 ✓	1388 ✓

Allowed Estimate No 8 of Dec 1932

W²

Dec 4th 1932.

~~8x12x25~~
~~12x20~~
~~15x30~~
14x25x12

30

^{up} to air line pipe.

10yds below

12/6/32

Newcomb, Clavert, Kiernan

In Hy. fill Sec
Fl 600 ft.

1/5 below

10yds below

(Area #2)

1/3 below

(Area #1)

to base 60

N. E. $\frac{1}{2}$

Above Surface
along road at Elev. 580 + North
of Tixer.

58 $4 \times 4 \times \frac{3}{2}$

59. $3 \times 3 \times 1.5$

60 $7 \times 11 \times \frac{1}{2}$

61 $8 \times 4 \times 2$

62 $3 \times 5 \times \frac{3}{2}$

63 $4 \times 5 \times 3.5$

64 $2 \times 2 \times 3$

65 $4 \times 1 \times 1$

66 $3 \times 2 \times 2$

67 $2 \times 2 \times 2$

68 $4 \times 3 \times 1$

69 $3 \times 3 \times 1$

70 $2 \times 3 \times 1$

71 $6 \times 3 \times 3.5$

72 $6 \times 2 \times 1.5$

73 $5 \times 3 \times 3.5$

74 $4 \times 3.5 \times 5$

74L $4 \times 4 \times 2$

75 $6 \times 3.5 \times 3.5$

75L $3 \times 2 \times 1$

75L $3 \times 3 \times 1$

76 $3 \times 4 \times 3.5$

77 $4 \times 5 \times 3$

78L $6 \times 6 \times 2$

79 $3.5 \times 4.5 \times 3$

6/8/32

Wencomb

Bontam

31

N 5 1/2
 Above Surface -
 Along road at Elev. 580 + North of
 the river

5880	4x4x3.5
5881	7x4x2
682	3x3x3
683	8x5x3.5
684	2x7x2
685	3x5x1
686	4x4x2
687	8x2.5x2.5
688	7x3.5x3
689	6x4.5x2
6890	6x4x2.5
6891	8x4x2.5
792	8x5x2
793	8x5x5
794	3x5x2
795	2x7x1
796	8x2.5x2.5
797	15x4.5x2.5
798	5x4x1
799	6x2x3
7100	6x6x4
7101	6x6x4
7102	4.5x5x3.5
7103	8.5x4x5
710A	6x10x4.5

See 7100-99 17

N 3820
 E 5040

N 3890
 E 5020

N 3890
 E 5040

N 3885
 E 5090

10'5" =

10'5" =

N 3856
 E 5090

6/8/32 Stewcomb
Bonham.

4/8 1/4

Above Surface
Along road at Elev. 580 + North of
the river.

- 105 6x2x1
- 106 6x2.5x2.5
- 107 4x5x2
- 108 4x3x3
- 109 6x11x5
- 110 8x6x2
- 111 2x3x1.5
- 112 4x2.5x1
- 113 E 5100
N 3840 14x9x5
- 114 4x3.5x2.5
- 115 4x6x1.5
- 116 4x3x8
- 117 4x5x2.5
- 118 2x3x2
- 119 8x5x2.5 K edge river
- 120 3x3.5x2
- 121 6x3x1
- 122 6x5x1.5
- 123 4x11x1.5
- 124 4x3x1
- 125 4x6x1
- 126 L E 5100
N 3820 6x7x2
- 127 3x3x1
- 128 2x3x1 1/2
- 129 3.5x3.5x2.5

see Note pg 17.

6/8/32 Newcomb, N.Y.
Bonham, N.M.

Flake on rock.

? where is Rock loc. of Dam E 5140

N. 5 1/2

Above Surface
Along Road at Elev. 580 + North of
the River.

- 130 3.5x5x2.5
131 L 3.5x2.5x2
132 6x4.5x2
133 5x8x2.5
134 6x3.5x4
135 6x6x2
136 4x2x3.5
137 6x2x1.5
138 4.5x2x1.5
139 4x7x3
140 3x1.5x1.5
141 3x2x1
142 3x1x1
143 3x4x1
144 3x2x1
145 ^{E 5170}
_{K 3850} 4x3.5x2
146 5x5x7
147 4x5x3.5
148 4x5x2
149 3x1 1/2 x 1
150 ^{E 5300}
_{K 3870} 8x12x2.5
151 / 3x4x2.5
152 6x10x2.5
153 3x4x2.5
154 12x6x2.5

See Note pg 17

6/8/32 PM

Newcomb
Bontarr.

34

near → 6 h. Rock Sec.

NE $\frac{1}{4}$ - Above Surface
Along Road at Elev 580 + North
of the River.

155 3x2x2
156 5x5x3.5
157 4x2.5x2.5
158 4x5x6
159 4x4x1.5
160 L 7x2.5x4
161 4x3x3.5
162 E5320 K3900 5x7x4
163 3x3x3
164 6x4x4.5
165 4x3.5x2.5
166 L 12x6x4
167 5x3.5x2.5
168 E5340 K3920 2x3.5x2
169 3x3x1
170 6x4x3.5
171 K3920 E5390 2.5x2x3.5
172 3x5x10
173 2x3x1.5
174 6x4x4.8
175 6x7x5
176 5x7x1.5
177 2x2x2
178 4x4x1.5
179 3x3x2

see Note #17
W

shot 6/9/32

6/8/32 Newcomb, H. V.
Bonham, W.M.

35

6' N from
on E of ravine - near White Line for Dam
Elev 575 NE Toe

shot 6/9/32

" "

shot 5x7x4

NE 1/4 - Above Surface
Along Road at Elev. 580 + North
of the River
w ft.

180 L 4x6x4

181 N2865
E5505 6x5x3.5

182 5x3x3.5

183 5x6x3.5

184 E5340
N3880 4x4x10

See Note 9917.

NE 1/4	in Upstream	Toe Wall Excavation
185	3x3x4	36
186	3x4x4	48
187	3x3x4	36
188	5x4x3	60
189	3x3x3	27
190	3x4x3	36
191	2x4x4	32
192	4x4x3	48
193	7x6x5	210
194	4x4x3.5	56
195	3x4x2.5	30
196	1x5x5	350
197	4x4x3	48
198	3x3x3	27
199	3x3x3	27
200	3x4x2.5	30
201	4x4x6	96

Estimate No 2 of June 25th 1932.
at Newcomb

1197

6/8/32 Newcomb
Panham
Albert
Converse.

36

shot 6/9/32

" "

" "

(near 154 10'E)

6/15/32 Newcomb
Albert
Converse.

Shot 6/16/32 n.

		Cu ft.	
202	4.5 x 3 x 3	40	✓
203	14 x 4 x 5	280	✓
204	6 x 3.5 x 2	42	✓
205	4 x 3 x 3	36	✓
206	3 x 3 x 3	27	✓
207	15 x 5 x 4	300	✓
208	4 x 4 x 2	32	✓
209	7 x 4 x 4	112	✓
210	4 x 4 x 5	80	✓
211	4 x 3 x 3	36	✓
212	4 x 4 x 4	64	✓
213	3 x 3 x 4	36	✓
21A	3 x 3 x 3	27	✓
215	5 x 5 x 4	100	✓
216	5 x 5 x 3	75	✓
218	12 x 7 x 8	672	✓
219	6 x 5 x 3	90	✓
220	6 x 3 x 2	36	✓
221	3 x 3 x 3	27	✓
222	10 x 7 x 6	420	✓
223	12 x 4 x 5	240	✓
22A	4 x 3 x 2.5	30	✓
225	5 x 3 x 6	90	✓
226	5 x 4 x 2	40	✓
227	5 x 4 x 5	100	✓
		3032	✓

Estimate No 2 of June 25th 1932
 by J. Newcomb

Shot 6/16/32

Shot 6/16/32
 6/16/32 J. F. Newcomb

old A above ground: Pg 5

Moved by shovel without shooting to SE of Wall

6/21/32 Newcomb. Shot 6/21/32 Between Sta
 Albert

1+50 + Sta 3+00 in West

Section of Ex at Elev. 540-550

6/22/32 J. F. Newcomb.

Shot. same date

NE 1/4

In Upstream Toe Wall Excavation.

38

cu ft

228	3x3x5	45 ✓
229	4x3x4	48 ✓
230	4x4x4.5	72 ✓
231	4x5x8	160 ✓
232	6x3x3	54 ✓
233	3x3x3	27 ✓
234	3x3x4	36 ✓
235	10x4x4	80 ✓
236	6x3x4	72 ✓
237	4x3x3	36 ✓
238	3x3x3	27 ✓
239	3x3x4	36 ✓
240	3x3x4	36 ✓
241	20x10x7	1400 ✓
242	4x4x3	48 ✓
243	5x8x6	240 ✓
244	4x4x2	32 ✓
245	5x3x3	45 ✓
246	5x5x4	100 ✓
247	3x3x3	27 ✓
248	4x18x7	504 ✓
249	8x5x4	160 ✓
250	4x7x4	112 ✓
251	8x17x4	544 ✓
252	4x7x4	112 ✓
		<u>4053</u> ✓

25th 1932

J. H. Newcomb

Alex
Lance

f

o

r

20

20

estimate

20

20

20

20

20

AM.
6/23/32J. H. Newcomb
D. W. Albert

Shot 6/23/32

6/23/32 PM.

Newcomb
AlbertShot 6/23/32
30' x 2+25 at Elev. 535-545
40' W 2+00 " " " "
30' W 1+50 " " " "

6/24/32

Shot 6/24/32
Newcomb
Albert1+35 - 20' W of E
1+20 - 8' W " "

Sta 1+15 & El 545

" 0+97 4'E El 550.

Prob. Point not recorded of 203 & 207. at 0+60 & 10'E

E of # 248

0+90 - 5'E

0+90 - 5'N

6/23/32 J. H. Newcomb 11:30 AM.

0+65

0+10

WE 1/4 In Upstream Toe Wall Excavation

		Cu ft
253	5x3x2	30 ✓
254	3x3x4	36 ✓
255	4x4x2	32 ✓
256	7x2x2	28 ✓
257	4x3x2 1/2	30 ✓
258	5x8x3	120 ✓
259	3x4x3	36 ✓
260	5x4x4	80 ✓
261	4x5x1 1/2	30 ✓
262	3x4x2 1/2	30 ✓
263	3x3x7	63 ✓
264	5x3x2	30 ✓
265	3x3x10	90 ✓
266	6x5x3	90 ✓
267	2x2x5	30 ✓
268	5x4x3	60 ✓
269	3x3x3	27 ✓

84 ✓

Rocks # 1, 2, 3, 5, 6, 7, 8, 9

*1	8x6x4	192 ✓
2	6x5x4	120 ✓
3	6x4x4	96 ✓
5	8x4x6	192 ✓
6	7x6x6	252 ✓
7	6x4x4	96 ✓
8	8x6x4	192 ✓
9	11x8x4	352 ✓

149 ✓

Page 5 Shot

Above Ground

909 cu ft

Estimate No. 2 of June 25 1932

Extensive

6/25/32
4 PM

N + A

15' E	2 + 45
"	"
15' W	2 + 40
20' W	"
15' W	2 + 40
15' W	2 + 40
10' W	2 + 40
10' W	2 + 25
10' W	2 + 20
10' W	2 + 15
15' E	2 + 00
10' E	1 + 90
15' E	1 + 90
20' E	1 + 80
20' E	1 + 75
40' E	2 + 00
50' E	1 + 80

4E 1/2

Upstream Toe Wall Ex. El 535 to 545
Sta 2 to 2+50 West Side

6/27/32
Stevens, Albert, Newcomb.

40

Shot 6/27/32

270	4x3x3	36 ✓
271	3x3x3	27 ✓
273	6x6x3	108 ✓
274	3x4x3	36 ✓
275	4x4x3	48 ✓
276	8x6x6	288 ✓
277	9x6x4	216 ✓
278	8x4x4	128 ✓
279	8x6x4	192 ✓
280	5x3x3	45 ✓
281	4x3x5	60 ✓
282	3x3x3	27 ✓
283	4x3x2.5	30 ✓
284	4x3x5	? outside
285	5+5+5	" " "
286	10x2.5x4	" " "
287	3x10x3.5	" " "
288	12x3.5x4	168 ✓
289	4x3x3	36 ✓
290	5x3x3	45 ✓
291	5x3x2 1/2	37 ✓
292	5x3x2 1/2	38 ✓
293	10x4x3	120 ✓
294	3x3x3	27 ✓
295	3x3x3	27 ✓

1739 ✓

7/1932

Allowed Est #3

Allowed

Slope too wet to Mast

Allowed Est #3
July 1932

60
125
100
105
390
14.4

1+50 25' W.
1+00 20' W.
0+50 20' W.
0+50 20' W.
0+30 P
0+50 P
0+50 5' W E540
0+50 - P

NR 1/4 - Upstream Toe Wall Ex.

296	8x3x3	72 ✓	
297	4x4x3	48 ✓	
298	3x3x3	27 ✓	
299	3x4x2 1/2	30 ✓	
300	4x3x2 1/2	30 ✓	
301	3x3x3	27 ✓	
302	3x4x2 1/2	30 ✓	
303	3x3x4	36 ✓	
304	5x3x2	30 ✓	
305	3x3x3	27 ✓	
306	5x3x2	30 ✓	

387 ✓

307	8x5x4	160 ✓	160 ✓
308	4x3x2 1/2	30 ✓	30 ✓
309	5x3x3	45 ✓	45 ✓
310	5x4x2	40 ✓	40 ✓
311	4x3x3	36 ✓	36 ✓
312	5x4x2	40 ✓	40 ✓
313	5x3x2	30 ✓	30 ✓
314	4x3x3	36 ✓	36 ✓
315	6x4x5	120 ✓	80 ✓
316	4x3x3	36 ✓	18 ✓
317	4x3x2 1/2	30 ✓	30 ✓
318	3x3x3	27 ✓	27 ✓
319	3x4x3	36 ✓	36 ✓

666 ✓

608 ✓

Allowed 354 # 3 2/22

Estimate No 8 of Dec 31st 1932

Surface all below surface

6/30/32 Newcomb Albert.

2 + 25	-	S'W	540
2 + 15	#		545
2 + 10	#		"
2 + 10	S'E		"
2 + 10	S'W		"
1 + 90	S'E		"
1 + 90	10'E		"

7/7/32 Newcomb Albert. 1+95 # Trench above 4.7 Cut for Trench at Sta 2+00

12/1/32 N.M.

Strip along N.E. edge of Rock Tomb El. 580-600. Placed direct to Rock Tomb

12/22/32 N.M. Clean up of Hyfill Sec Rock from above 550. To Rock fill Sec at Elev. 550 ±

NE 1/4 Rock to E. Rock Emb. E1 550+

S = Surface

42

320	3x3x3	27 ✓	27 ✓	↑ Dec 31st 1982 North Rock	All below S	
321	3x4x2 1/2	30 ✓	30 ✓			
322	5x3x4	60 ✓	60 ✓			
323	3x4x3	36 ✓	36 ✓			
324	3x3x3	27 ✓	27 ✓			
325	4x4x2	48 ✓	48 ✓			
326	3x3x3	27 ✓	27 ✓			
327	3x4x2	24 ✓	24 ✓			
328	4x4x2	32 ✓	32 ✓			
329	3x3x3	27 ✓	27 ✓			
330	4x3x2 1/2	30 ✓	30 ✓	↓ Along Estem at No 8	1/2 below	
331	4x3x3	36 ✓	36 ✓			
332	5x4x3	60 ✓	30 ✓			
333	4x5x2 1/2	50 ✓	33 ✓			2/3 "
334	4x3x3	36 ✓	24 ✓			2/3 "
335	3x3x3	27 ✓	27 ✓			All "
336	4x3x3	36 ✓	36 ✓			" "
337	4x3x2 1/2	30 ✓	30 ✓			" "
338	4x3x2	24 ✓	24 ✓			" "
339	3x3x3	27 ✓	27 ✓			" "
340	3x3x3	27 ✓	27 ✓			" "
341	3x4x3	36 ✓	36 ✓			" "
342	3x3x3	27 ✓	27 ✓			" "
343	3x4x2 1/2	30 ✓	30 ✓			" "
344	3x3x3	27 ✓	27 ✓			" "
345	3x3x3	27 ✓	27 ✓	" "		
		868 ✓	809 ✓			

Hy fill Area 550-575

n 2 1/2

346	4x3x2	24 ✓	24 ✓	8 of Dec 31, 1932 HMM	All below Surface
347	3x3x3	27 ✓	27 ✓		"
348	3x3x3	27 ✓	27 ✓		"
349	6x4x4	96 ✓	96 ✓		"
		174 ✓	174 ✓		

Strip 2/7 Fill Sec Below El 625 + W. of ER Emb.

		Below Sur.	Above Sur.
350	4x4x2	32 ✓	
351	4x3x2 1/2	30 ✓	
352 L	2(3x3x3)	54 ✓	
353 L	2(3x3x3)		54 ✓
354 L	2(2 3/4)		54 ✓
355 L	2(2 3/4)	27 ✓	27 ✓
356	5x4x2 1/2	70 ✓	
357	3x3x3	27 ✓	
358	3x4x3	36 ✓	
359 L ³	5x4x3	30 ✓	30 ✓
360	3x3x3	27 ✓	
361	4x4x2 1/2	40 ✓	
362 L ²	4x4x2 1/2	40 ✓	
363	3x3x3	27 ✓	
		440 ✓	165 ✓

Track in East 10 of 2/28/33
 HMM

12/22/32 HMM

43

2/7/33 HMM. Rock Placed on W Side Rock Emb

Rock Shot along Road El 625

2/11/33.
From 625 Ee Road.

2/17/33 HMM

3

3

3

3

3

3

3

3

3

3

3

3

3

3

3

3

3

3x 1/4 - Downstream Toe Wall Ex.

From Pg 16

205	2x2 1/2 x 4	30 ✓
206	4x3x3	36 ✓
207	3x3x3	27 ✓
208	7x3x4	84 ✓
209	4x3x3	36 ✓
210	5x4x4	80 ✓
211	5x6x5	150 ✓
212	3x3x3	27 ✓
213	3x4x4	48 ✓
214	3x3x4	36 ✓
215	3x3x3	27 ✓
216	4x4x3	48 ✓
217	5x4x3	60 ✓
218	3x3x3	27 ✓
219	3x3x3	27 ✓
220	4x3x2 1/2	30 ✓
221	3x4x2 1/2	30 ✓
222	4x4x4	64 ✓
223	7x3x5	105 ✓
224 ^{3 plot}	4x4x4	
225 "	5x6x5	
226 "	5x4x3	
227 ^{not what to 1/28}	4x6x4	
228 ^{3 plot}	3x3x3	
229	10x5x4	200 ✓
		1172 ✓

July 1932
From

Allowed Est #3



7/1/32 PM.

Elev. 540 Sta 2 to 3 R Side

- 5' W. of 3+00. Hill
- 15' W " 3+25
- 2' E " 3+25
- 25' E " 2+60

Sta 2 to 3 along E. 540 E 7/6/32 Newcomb Albert

- In Trench at 2+50 15' E Vert Slope on West Side E. 540 E
- 2+25 25' W E. 540 7/1/32 N + A 15' SE of Pump
- 3+25 " " " "
- " " " "
- 3+20 20' W " 545
- 3+20 40' W " 540 10' W of Pump.
- 3+25 75' W 545 in trench

230	4x5x3	60 ✓
231	5x8x4	160 ✓
232	5x3x3	45 ✓
233	3x3x3	27 ✓
234	4x3x4	48 ✓
235	3x3x3	27 ✓
236	5x4x3	60 ✓
237 ✓	3x4x3	36 ✓
238	3x4x2 1/4	27 ✓
239	3x4x3	36 ✓
240	3x3x3	27 ✓
241	3x3x3	27 ✓
242	4x4x3	48 ✓
243	4x3x2 1/2	30 ✓
244	4x4x2 1/4	40 ✓
245	4x4x3	48 ✓
246	4x3x2 1/4	27 ✓
247	3x3x6	54 ✓
248	3x4x2 1/4	27 ✓
249	4x3x2 1/4	27 ✓
250	4x3x2 1/4	27 ✓
251	4x4x2	32 ✓
252	5x3x3	45 ✓
253	7x4x2	56 ✓
254	4x4x2 1/4	40 ✓
		1081 ✓

Allowed 254-3 July 1932

Nack
Exam

In Trench Sta 3 + El 545
 " " " " + " "
 " " " 2 + " 540
 " " " 2 + " "
 50' W. " 2 + " 545
 In trench " 2 + " 540
 50' W. " 2 " "
 " " 2 + 10 " "

In #1 Drain Trench 7/11/32 N+X

7/11/32 Newcomb
 Albert

In #1 Drain Trench

255	3x3x3	27 ✓
256	3x3x3	27 ✓
257	4x3x2 $\frac{1}{4}$	27 ✓
258	5x3x3	27 ✓
259	4x3x2 $\frac{1}{4}$	27 ✓
260	4x4x3 $\frac{1}{2}$	56 ✓
261	4x5x3	60 ✓
262	4x3x2 $\frac{1}{4}$	27 ✓
263	4x4x2	32 ✓
264	3x3x3	27 ✓
265	5x3x3	45 ✓
266	4x3x2 $\frac{1}{4}$	27 ✓
267	4x5x4	80 ✓
268	4x4x3	48 ✓
269	4x4x2 $\frac{1}{2}$	40 ✓
270	3x3x3	27 ✓
271	6x4x2 $\frac{1}{2}$	60 ✓
272	4x4x4	64 ✓
273	4x5x6	120 ✓
274	5x6x5	150 ✓
275	3x3x3	27 ✓
276	4x7x3	84 ✓
277	5x4x3	60 ✓
278	3x6x3	54 ✓
279	8x4x3 $\frac{1}{2}$	112 ✓
		1335 ✓

264 1932
 265 1932
 266 1932
 267 1932
 268 1932
 269 1932
 270 1932
 271 1932
 272 1932
 273 1932
 274 1932
 275 1932
 276 1932
 277 1932
 278 1932
 279 1932

16
 10

*1 Drain Contd.

1/1/32 *1 Drain B1540-555 J+A

280	4x5x9	180 ✓
281	3x3x3	27 ✓
282	5x6x4	120 ✓
283	4x4x4	64 ✓
284	5x5x5	125 ✓
285	5x5x4	100 ✓
286	5x3x5	75 ✓
287	3x4x3	36 ✓
288	3x3x6	54 ✓
289	3x3x3	27 ✓
290	3x3x3	27 ✓
291	3x3x3	27 ✓
292	6x3x3	54 ✓
293	3x3x3	27 ✓
294	3x3x3	27 ✓
295	3x3x3	27 ✓
296	3x3x3	27 ✓
297	3x4x2 ¹ / ₂	30 ✓
298	3x3x4	36 ✓
299	4x3x2 ¹ / ₂	30 ✓
300	4x5x2	40 ✓
301	4x4x2	32 ✓
302	6x4x4	96 ✓
303	3x3x3	27 ✓
		<hr/>
		1375 ✓



July 1932
P.M.

Est #3

allowed

10
9

* 1 Drain Contd.

From:
7/13/32 Hennecomb #1 Drain

304	4x5x3	60	✓
305	5x3x3	45	✓
306	7x3x3	63	✓
307	7x6x4	168	✓
308	5x5x3	75	✓
309	3x3x3	27	✓
310	5x5x3	75	✓
311	3x3x3	27	✓
312	3x4x2 1/2	30	✓
313	5x3x2	30	✓
314	3x4x3	36	✓
315	3x3x3	27	✓
316	4x4x3	48	✓
317	3x4x2 1/2	30	✓
318	3x4x2 1/2	30	✓
319	3x3x3	27	✓
320	3x3x6	54	✓
321	3x3x3	27	✓
322	3x3x3	27	✓
323	3x3x3	27	✓
324	3x3x3	27	✓
325	3x4x3	36	✓
326	3x3x3	27	✓
327	4x4x2	32	✓
328	3x3x3	27	✓
		<u>1082</u>	✓

Allowed 1st July 1932
 13
 12
 9

*1 Drain Contd.

7/14/32 Newcomb.

*2 Drain at Grade

in W. trench S end E53St

7/10/32 4x4 *3 Drain at grade

S. W. 1/4 Down Stream Toe Ex

329	4x6x2 1/2	60'	↓ Allowed Est #3 July 1932 N+V
330 ^{not shot}	3x3x3	27'	
331 ^{not shot}	3x3x3	27'	

Inspection 7/28/32

Rock # 330, + 331 on W bank of W trench
of D.S. T.W. Not shot + will go
direct to Dam Rock Embankment

6 Cu yds Shot. Been taken up, lying
adjacent to above rock will go
direct to Rock Embankment
All South of Pump ^{opposite} Sta 2+75±

2 yd. Cu on E. bank of W. trench
not shot. Direct to Emb. not taken up
^{deduct from Ex}

6 Cu yds West Bank of West trench
Sta 0 to 2. Go direct to Dam
embankment. Not taken up
Deduct from Ex.

* 227 Not shot will go direct to
Dam Emb

8 Cu yds same though shot + taken up
Numbers destroyed.

7/21/32. N + A

Sta 2+75 25' W. Bl 545

out of Trench to W at S end not shot

" " " " " " " " " " " "

SW 1/4

E1585

Rock from Clean up along Road
SW 1/4 Hy fill Area Below Surface
El. 575 East to Core Wall.

332 1 4x4x2 ^{cut +} 32
333 ~~h.~~ 81

to East of imp. 1/2
SW 1/4

Rock from ~~Bottom of~~ Road Ramp
SW 1/4 edge Beach fill El. 575 to
El. 560± and placed from 10±
Cut for Ramp Road along N Side
of Pt of Hill direct into Area
Hy fill ^E of R. Emb Rock at El 560-570.

		Total cut	cut below S.
334	4x3x2 1/2	30	15
335	5x3x2	30	15
336	5x4x2	40	40
337	3x3x3	27	27
338	8x5x3	120	80
339	3x3x3	27	13
340	3x3x3	27	14
341	4x4x3	48	32
342	4x3x2 1/2	30	20
343	5x3x2	30	20
344	5x6x5	150	150
345	6x5x3	90	45
346	5x4x2 1/2	50	25
347	4x3x3	36	36
348	3x3x3	27	27
349	4x3x2 1/2	30	30
350	4x5x5	100	100

around
dune
hy fill
in S 1/4

1/27/33 HT76 Rock placed in W
Rock Emb El. 575

51

<u>5W 1/4</u>	Rock in Place not Above Surface Deduct. from for Dam.	in Cross Sections. Area to be filled EI 575 to 600 ±	
W	Rock fill	Cu ft	
351	4x4x2	32 ✓	Allowed Est #10 2/28/33 772
352	4x3x3	36 ✓	
353	6x4x1 1/2	36 ✓	
354	4x4x2	32 ✓	
355	6x5x2	60 ✓	
356	8x3x1 1/2	36 ✓	
357	5x3x3	45 ✓	
358	6x3x3	54 ✓	
359	6x4x1 1/2	36 ✓	
360	6x10x5	300 ✓	
361	4x4x2	32 ✓	Allowed Est #10 2/28/33 772
362	4x3x3	36 ✓	
363	5x5x4	100 ✓	
364	6x6x5	180 ✓	
365	3x3x3	27 ✓	
366	6x3x2	36 ✓	
367	6x9x4	216 ✓	
368	4x3x3	36 ✓	
369	6x3x2	36 ✓	
370	3x3x3	27 ✓	
371	4x4x2	32 ✓	Allowed Est #10 2/28/33 772
372	7x5x2	70 ✓	
373	3x3x3	27 ✓	
374	5x3x2	30 ✓	
375	3x3x4	36 ✓	
		1598 ✓	

2/10/33 ±
Rock from Hy. Fill Strip Ee 600 to E R 2

Above Surface E I. 575 +

2/10/33

3/25 Estimate 35^{Net} yards
Rock from 5W 1/4 Rock Emb
See Moved & placed in
Rock emb. in attempt to
strip below Ee 620-575.
2/27/33

SW 1/4 Rock in Place not in Cross Sections
 Above Bedrock from Area to be filled
 Deduct from Area to be filled

SW 1/4 Rock in Place not in Cross Sec.
 Deduct from Area to be filled

Rock Emb.	Rock Emb. Cu ft	Dam E1575-6000	High - 79m
376	5x4x2 1/2	50 ✓	2/13/33 XTR
377	6x10x3	180 ✓	
378	4x3x2 1/2	30 ✓	
379	4x3x3	36 ✓	
380	5x3x2	30 ✓	
381	6x6x2	72 ✓	
382	5x2x2	20 ✓	
383	4x4x2	32 ✓	
384	6x6x5	180 ✓	
385	8x4x2	64 ✓	
387	12x5x6	360 ✓	
388 ✓	5x4x3	60 ✓	
389	7x8x2	112 ✓	
390	5x4x3	60 ✓	
391	5x4x3	60 ✓	
392	3x3x3	27 ✓	
393	6x3x2	36 ✓	
394	4x3x3	36 ✓	
395	6x3x2	36 ✓	
396	6x4x2	48 ✓	
397 ✓	6x2x3	36 ✓	
398	14x6x4	336 ✓	
399	6x8x2	96 ✓	
400	8x3x3	72 ✓	
401	8x5x2	80 ✓	
402	4x4x2	32 ✓	
403	6x8x5	240 ✓	
		2189 ✓	232 ✓

Incl. in 2/18/33

Near Toilet
 " Ex. Portal Tow

Hy Fill Area
 " " "

Cu ft
 W Rock
 Emb.

Incl. in Est # 10 of 2/28/33

403 1/2	6x5x2	60 ✓	
	(above Sur) 207 ³	540 ✓	
404	7x5x4	140 ✓	
405	7x6x4	168 ✓	
406	6x4x4	96 ✓	
407	6x5x3	90 ✓	
408	6x3x2	36 ✓	
409	5x8x6	240 ✓	
410	5x4x4	80 ✓	
411	5x5x4	100 ✓	
412	7x4x4	112 ✓	
413	10x6x3	180 ✓	
414	6x4x2	48 ✓	
415	6x3x2	36 ✓	
416	9x5x4	180 ✓	
417 L		540 ✓	

180 ✓
 540 ✓
 1926 ✓ 720 " "

W Hy F Sec
 2/24/33

2/15/33 XTR

SE 1/4 E1. 590+

Rock in Hy Till Area E1. 585-615 ± At

Above ground.

- 450 6x6x4
- 451 12x12x3
- 452 6x6x2 1/2
- 453 6x6x3
- 45A 4x3x2 1/2
- 455 6x5x3
- 456 5x3x2
- 457 4x3x2 1/2
- 458 4x3x2 1/2
- 459 6x3x1 1/2
- 460 6x3x3
- 461 4x3x2 1/4
- 461 L 4(3x3x3)

Hand
 2x4x4
 Rock left in place
 caught by + fell from
 Rock moved to emb. same
 as quarry rock
 2x4x4

Rock in Hy Till Area E1. 610-635

Above ground.

- 462 10x12x3
- 463 8x4x2 1/2
- 464 4x3x2 1/2
- 465 4x3x2 1/2
- 466 3x3x3
- 467 5x15x5
- 468 6x3x3
- 469 4x3x3
- 470 4x5x2

2/4/33 X.X.N.

Road to Core Hall.

Fought by Final Sections.

Stripped around this rock without shooting

At E1. 585 in Top Through Road at 590 1/3 originally below surface
(Rock 4x4x4 E1. 580. 125' E.C.W.)

1/2 originally below surface Rock Emb Strip

All " " "

All orig below surface

At W. end of Road E1. 615 ± 15' E of C.W.

" " " "

Scattered Small Rock Proj out ground

Between 2 Stripping Roads.

10' E.C.W. E1. 625

All orig below surface.

" " " "

" " " "

" " " "

SE $\frac{1}{2}$

Below Sur.

Above Sur.

- 471 4x4x2
 472 10x6x3
 473 6x2x2 $\frac{1}{4}$
 474 6x3x2 $\frac{1}{2}$
 475 9x6x2 $\frac{1}{2}$
 476 4x6x3
 477 6x2 $\frac{1}{2}$ x3
 478 4x3x2 $\frac{1}{2}$
 479 8x4x2
 480 12x14x2 $\frac{1}{2}$
 481 6x6x3
 482 6x4x2
 483 12x4x1
 484 3x3x3
 485 7x3x3
 486 5x5x2
 487 8x4x3
 488 6x4x2
 489 4x5x2
 489 L. 5(3x3x3)

This rock ^{found + left in fall}
 All orig below surface

ATN
 same into 87 54
 ATN

orig Below

$\frac{1}{2}$ 78
 Prog Sum. Boulders

Rock from Stripping Puddle Core Area + Et 5 side.
To Rock Emb. E. El 625-
SE 1/4 Strip +
P.C. Area.
El 600±

		Above	Below
		From Pa 80	40±
A 389L			135.
A 390	4x3x2 ^{1/2}		30 ^{left}
A 391	3x3x3		27 ¹¹
A 392	3x3x3		27 ¹¹
A 393	3x4x4		48 [✓]
A 394	3x3x4	18 [✓]	18 [✓]
A 395 L	3x3 ^{1/2}	27 [✓]	54 [✓]
A 396 L	1 ^{1/2} x3 ^{1/2}		40 [✓]
A 397 L	1 ^{1/2} x3 ^{1/2}	14 [✓]	27 [✓]
A 398	4x4x2		32 [✓]
A 399 L			54 [✓]
A 400 ~	3x4x2 ^{1/2}	10 ^{1/2}	20 [✓]
A 401	5x4x2 ^{1/2}		50 [✓]
A 402	6x4x2		48 [✓]
A 403	3x3x3		27 [✓]
A 404	3x3x3	27 [✓]	
A 405	3x3x3		27 [✓]
A 406	4x3x3	36 [✓]	
A 407 L		54 [✓]	
A 408	4x4x2 ^{1/2}	40 [✓]	
A 409	4x4x2	30 [✓]	
A 409 1/2 - L		43 [✓]	24 ³
A 410	3x3x3		27 [✓]
A 11	6x8x3		144 [✓]
A 12	7x5x3		105 [✓]
A 13	4x4x3		48 [✓]
A 14	3x3x3		27 [✓]
		690	1258 [✓]

2/28/33
WLT
*10
EST
1000

2/9/33 Night
RAT Rock
406.

2/10/33
WLT

Rock from Stripping (SE 1/4) to E.P. Emb
P.C. Area
El. 625-

		Cu fr. Surface Above	Cu fr. Below Surface
415 L	2(3x3x3)	27 [✓]	27 [✓]
416	5x4x3		60 [✓]
417	3x4x3		36 [✓]
418 L	2(3x3x3)		54 [✓]
419 L	2(3x3x3)	27 [✓]	27 [✓]
420 L	3x3x3		27 [✓]
421 L	3x3x3		27 [✓]
422 L	4x4x2 ^{1/2}		40 [✓]
423 L ^{1/2}	3x3x4 ^{1/2}		40 [✓]
424 L ^{1/2}	3x3x3		27 [✓]
425 L ^{1/2}	3x3x3		27 [✓]
426 L ^{1/2}	3x4x3		36 [✓]
427 L ^{1/2}	2(3x3x3)	54 [✓]	
428 L ^{1/2}	3x3x3		27 [✓]
429 L ^{1/2}	3x4x3 ^{1/2}		42 [✓]
430 L		14 [✓]	27 [✓]
431 L ^{1/2}		27 [✓]	14 [✓]
432		27 [✓]	
433	4x4x3		48 [✓]
434 L ³	2(3x3x3)	14 [✓]	40 [✓]
435 L ³	3x3x3		27 [✓]
435 1/2 L		297 [✓]	432 [✓]
436	6x3x2		36 [✓]
437	4x4x3		48 [✓]
438	5x4x2 ^{1/2}	25 [✓]	25 [✓]
439 L	3x3x3		27 [✓]
		512 [✓]	1221 [✓]

2/28/33
WLT
*10
EST
1000

2/10/33
Night by RAT
2/11/33 WLT

SE 1/4	Stripping + P.C. Rock to Emb. Cuff +		Stripping on S Side
	Above Surface	Below Surface	
440	3x3x3		27 ✓
441	3x3x3		27 ✓
442	205	553 29	783 ✓
2/11/33 Night by R.A.T. Book 406.			
443 L-4 Loads	173	27 7	189 ✓
very dirty 2/12/33 272			
444 L	4x4x2 1/2		40 ✓
445	7x3x1 1/2	16 ✓	16 ✓
446	3x4x3	18 ✓	18 ✓
447	2(4x4x2)	24 ✓	40 ✓
448	3x3x3		27 ✓
449 L	4x3x4	18 ✓	30 ✓
450 L			40 ✓
451 L			40 ✓
452 L	3x4x3 1/2		42 ✓
453 L clean		15 ✓	30 ✓
454 L dirty	3x4x3		36 ✓
455	4x4x3		48 ✓
456 L	" 3x4x3 1/2		42 ✓
457	4x4x3		48 ✓
458		20 ✓	30 ✓
459		20 ✓	30 ✓
460		20 ✓	30 ✓
461	4x4x2 1/2		40 ✓
462	4x4x2 1/2		36 ✓
463	3x4x3	36 ✓	
464	3x3x3		27 ✓
		767 ✓	1716 ✓

Time of 2/18/33
10:15 AM
10:00 AM

SE 1/4	Stripping + Puddle Core Ex. To E Rock Emb.		Above Surface	Below Surface
	Cuff	Emb.		
465 L Dirty	3x3x3			27 ✓
466 L "	3x3x3			27 ✓
467 L "	4x4x3			48 ✓
468 L "	3x4x3			36 ✓
469 L "	4x4x2 1/2			40 ✓
470 L "	2(3x3x3)			54 ✓
471 L "	3x3x3			27 ✓
472 L "	3x3x3			27 ✓
473 L "	2(3x3x3)			54 ✓
474	4x3x2 1/2			30 ✓
475	3x4x3			36 ✓
476	4x6x2		24 ✓	24 ✓
477 L	6x4x2			48 ✓
478	2(3x3x3)			54 ✓
479 L	4x4x2 1/2			40 ✓
480 L	3(3x3x3)			81 ✓
481 L	3(3x4x2 1/2)			90 ✓
482 L	6x6x2			72 ✓
483	5x3x3			45 ✓
484	4x4x3			48 ✓
485				54 ✓
486				15 ✓
487				40 ✓
488 Dirty	3x4x3			36 ✓
489 "				54 ✓
			78 ✓	2482 ✓

Time of 2/13/33
10:15 AM
10:00 AM

Note
2/13/33
272

2/13/33
272

2/12/33
Night by R.A.T.
Book 406

2/13/33
Night
Est. from R. Emb
272

2/14/33
272

SE ¼ Stripping + P.C. Area Ex. + Core Trench Ex

		Cu ft Below Surface	Core Trench Ex	pm 2/14/33 XTW
490 L	4x4x3	48 ✓		
491 L	3x4x3	36 ✓		
492 L	3x3x3	27 ✓		
493 L	4x4x2½	40 ✓		
494 L	4x4x3	48 ✓		
495 L	3x4x3	36 ✓		
496 L	4x4x3	48 ✓		
497 L	5x5x2¼	56 ✓		
498 L	3x4x3	36 ✓		
499	4x4x2	32 ✓		
500 L	4x4x2½	40 ✓		
501	3x3x3	27 ✓		
502	3x3x3	27 ✓		
503	4x4x4	64 ✓		
504	4x4x3	48 ✓		
505	3x3x3	27 ✓		
506	3x3x3	27 ✓		
507	3x2x3½	25 ✓		
508	3x4x3	36 ✓		
509	3x3x3	27 ✓		
510 L		27 ✓	15 ✓	
511 L			40 ✓	
512 L			35 ✓	
513			40 ✓	
514			35 ✓	
		782 ✓	165 ✓	

Incl Est #10 of 2/28/33
XTW

2/15/33
XTW

2/16/33
XTW

ON N side
to WR Emb

SE ¼ + Core Trench Ex. to Rock Emb.

	Below Surface Cu ft Puddle Cove	Cu ft Core Trench Ex	58
515 L		30 ✓	
516 L		35 ✓	
517 L		42 ✓	
518 L	20 ✓	15 ✓	
519 L	30 ✓		
520 L	50 ✓		
521	40 ✓		
522 L	45 ✓		
523 L		40 ✓	
524 L		54 ✓	2/17/33 XTW
525 L		20 ✓	2/18/33 XTW
526 L		45 ✓	
527 L		40 ✓	
528 L		40 ✓	
529 L		30 ✓	
530 L		50 ✓	
531 L		40 ✓	
532 L		45 ✓	
533 L		270 ✓	2/18/33 Night EAT
534 L		81 ✓	2/21/33 XTW
535 L		54 ✓	
536 L		60 ✓	
537 L		65 ✓	
538 L		70 ✓	
539 L		65 ✓	
540 L		50 ✓	
541 L		54 ✓	
	185 ✓	1295 ✓	

Incl Est #10 of 2/28/33
XTW

SE 4 - Stripping P.C.E. + Core Trench Ex
 Pic 2ed in ER Emb.

Core Trench Ex. Cuff.	2/19/33 RNCarter
542 L	568 L
543 L	569 L
544 L	570 L
545 L	571 L
546 L	572 L 1 Load
547 L ¹⁶ 16 Loads DG	573 L 1 "
548 L	574 L
549 L	575 L 1 "
550 L	576 L 1 "
551 L	577 L 3 "
552 L	578 L 3 "
553 L	579 L 1 "
554 L	580 L 3 "
555 L	581 L 3 "
556 L	
557 L	
558 L	
559 L	
560 L	
561 L	
562 L	
563 L	
564 L	
565 L	
566 L	
567 L	
4621 ✓	

Incl Est. #10
2/28/33
RTN

Core Trench Ex. Cuff.	2/19/33 RNCarter	2/19/33 Night 64 EAT. Book 405	2/20/33 RAT Book 406	2/21/33 RAT Book 405	2/22/33 RTN	2/22/33 Night RAT Book 405	2/23/33 RTN	2/23/33 Night RAT. Book 405
2 = 54 ✓								
3 = 81 ✓								
3 = 81 ✓								
2 = 54 ✓								
2 = 54 ✓								
40 Y ³ = 1080 ✓								
14 Y ³ = 378 ✓								
6 Y ³ = 162 ✓								
54 ✓								
60 ✓								
45 ✓								
24 met 648 ✓								
50 ✓								
60 ✓								
54 ✓								
54 ✓								
54 ✓								
60 ✓								
54 ✓								
24 Y ³ = 648 ✓								
40 ✓								
54 ✓								
40 ✓								
54 ✓								
22 Y ³ = 594 ✓								
4621 ✓								

59

T to E Rock
Trench
Core Trench
Ex. Net

Core Trench Ex. Net	2/24/33 R.M.C.	2/25/33 RTN	2/26/33 RTN	2/27/33 RTN	2/28/33 RTN	2/29/33 RTN	3/1/33 RTN	3/2/33 RTN	3/3/33 RTN	3/4/33 RTN	3/5/33 RTN	3/6/33 RTN
40												
54 ✓												
54 ✓												
67 ✓												
68												
94												
68												
40 - dirty												
216 - dirty												
162												
40												
175												
230												
1214 ✓ = 45. cu yds												

Vol 411 RC Area
to ER Emb
23.0 cu yds

Vol 407 4/1/33 Core Trench Ex to ER Emb.
 4/1/33 6 Loads Rock = 19 1/2 Cu yds loose Measure RTN
 4/4/33 1 " " = 2 " Net RTN

165
1295
4621
6175
1295
4621
6010
6175

W 1/4

From Pg 30

		Cu ft	Cu ft below surface		Stares #
357	9x6x5	720	120	1/6 below	# 4
358	4x4x5	80	16	1/5 "	" # 5
359	10x6x5	300	100	1/3 "	" # 6
360	4x4x3	48	-	all above	" # 8
361	6x6x5	180	120	2/3 below	" # 10
362	5x7x4	140	70	1/2 "	" # 13
363	10x4x3	120	30	1/4 "	" # 14
364	5x5x4	100	50	1/2 "	" # 15
365	5x4x5	100	67	2/3 "	" # 16
366	5x3x2	30	15	1/2 "	" # 17
367	3x4x4	48	24	1/2 "	" # 18
368	4x4x3	48	48	all "	"
368 1/2	18x8x6	864	216	1/4 "	"
369	9(3x3x3)	243	243	all below	"
370	5x4x5 1/2	70	35	1/2 "	"
371	5x4x3	60	30	1/2 "	"
372	6x4x3	72	72	all "	"
373 1/2	16(3x3x3) #	432	432	" "	"
374	6x6x12	432	72	1/6 "	"
375	4x3x2 1/2	30	15	1/2 "	"
376	12x6x5	360	120	1/3 "	"
377	6x5x3	90	15	1/6 "	"
378	7x10x4	280	280	all "	"
379	6x4x3	72	24	1/3 "	"
380	6x3x3	54	54	all "	"
		4973	2268		

No 8 of Dec 1932
Estimated

~~7-10 x 4 x 6 7/3 below~~
~~9-5 x 3 x 4 1/2 below~~
~~11-4 x 12 x 6 1/3 "~~
~~12-8 x 5 x 4 1/2 "~~

12/6/32 ~~strn~~

E 4930 m. 3820

X Not removed 5/3/33 strn

12/1/32 strn

12/9/32 strn N 3790 S 4800

Exc out of stripping placed in Rock Emb. Wash Pit

12/15/32 Exc out of stripping placed in Rock Emb. Wash Pit

12/13/32 strn. by Bill Sec.

measured in Exc Pit & that Pit N 3800 S 4780

10 E of 378
18 E " "

KWA		Total		Cu ft Below Surface	all above
		Cu ft	Cu ft		
381	5x4x2	40	40	✓	✓
382	3x5x2	30	30	✓	✓
383	4x4x2	40	40	✓	✓
384	2x3x2	12	12	✓	✓
385	4x3x2	24	24	✓	✓
386	3x3x3	27	27	✓	✓
387	3x2x2	12	12	✓	✓
388	4x3x2	24	24	✓	✓
389	2x3x4	24	24	✓	✓
390	4x4x3½	56	56	✓	✓
391	3x3x3	27	27	✓	✓
392	3x3x4	36	36	✓	✓
393	3x4x4	48	48	✓	✓
394	5x6x3	90	90	✓	✓
395	3x4x4	48	48	✓	✓
396	5x4x3	60	60	✓	✓
397	6x3x3	54	54	✓	✓
		652	612		

Dec 19th 1932. J.T.H.
 " 20th " " " " Out of Cut at El 60±

Allowed Estimate No 8 Dec 1932
 at Newcomb

12/22/32 J.T.H. Unit # 8 operation measured

12/27/32 "

Rock from Stripping KWA
 Placed in N. Rock Emb below 1E/525.

1/12/33. J.T.H.

398	6x4x3	72	72		
399	3x3x3	27	27		
400	3x4x3	36	36		
401	3(3x3x3)	81	81		
402	3x4x2½	30	30		
		246		✓	

Est. of Jan 1933
 *9

MM¹/₂ Contd

		Total Cuf ⁺	below Surface
403	4x4x2	32	246 32
404	4x3x3	36	36
405	4x3x2 ¹ / ₂	30	30
406	4x3x3	36	36

(20x12x10 2400 960)
 (Print from Rock Est)
 Note this rock taken into account in Cross Sec. per G.M.C. 7/2/33 X.Y.N.

Rock Est #9 of 9th
 1933

1/12/33 X.Y.N

Center choice
 Big Rock in Rock Emb. Shot & left in place in Rock "

2/6/33 X.Y.N

Rock from below Surface by Pit Strip to N. R.T.
 2/8/33 Rock below Road F.I. 625 to E.R.T. Sand. F.I. 615

		Below Sur	Above Sur.
407-L	5(3x3x3)	135	
408-L	4(3x3x3)	108	
409	3x3x3	27	
410 L 3pc	3x4x3	18	18 1/2 above
411 L 3pc	2x3x3	54	
412	5x4x2	40	
413	2x4x3	27	27 1/2 above
414	1 1/2 x 3	27	13 1/3 "
415 L.	3x3x3	27	
416 L	2x3x3	54	
417 L	1x2	40	
418 W	2	54	
419 L	2	54	
420 L	7x8	135	54 2 1/2 above
AM	7x3x2	42	
		842	112

88/82/2/10
 10/10/10/10
 10/10/10/10
 10/10/10/10

2/9/33 X.Y.N

WT#	Pr	Below Surface	Above Surface	
422	3x4x3	36	✓	2/8/33 AT Newcomb
423	5x3x2	30	✓	
424	4x4x2 ^{1/2}	40	✓	
426	5x3x3	27	✓	
427	3x3x3	27	✓	
428	3x3x3	27	✓	
429	4x3x2 ^{1/2}	27	✓	
430	1 ^{1/2} x 4	40	✓	
431	5x3x3	27	✓	
432	6x4x2	48	✓	
433	2 ^{1/2}	27	✓	
434	6x3x3	54	✓	
435	4x4x3	48	✓	
436	4x4x3	48	✓	
437	6x6x5	36	144 ✓	
438	2x4x4	48	✓	
439	3x3x3	27	✓	
440	3x4x3	36	✓	
441	3x4x3	36	✓	
442	4x4x2 ^{1/2}	40	✓	
443		108	✓	
✓	429	279	✓	

2/9/33 ATN

2/10/33 ATN

2/10/33 At Sedge 625 Road to W-Rock

2/13/33 ATN Rock Picked up by Cable Unit

2/11/33 RA Thurston Sight.

3/15/33

2 Rocks measured as drilled
 6x6x7
 6x5x4

Area N.W. 1/4 - 40' x 20' + Loose measure
 90 cu yds placed here from stripping
 N.W. below Ee 640 including Rock
 in vol 359 placed in stripping. ATN.
 58² Est #11 3/15/33 ATN

SE 1/4

From Page 12
Upstream Toe Wall Excavation

		Cu ft
41	3x3x4	36 ✓
42	4x3x4	48 ✓
43	3x4x3	36 ✓
44	7x5x6	210 ✓
45	7x5x5	175 ✓
46	6x4x3	72 ✓
47	4x3x3	36 ✓
48	3x4x4	48 ✓
49	3x4x4	48 ✓
50	8x4x7	224 ✓
51	10x6x4.5	270 ✓
52	10x6.5x7	455 ✓
53	5x5x2	50 ✓
54	2x3x5	30 ✓
55	4x3x3	36 ✓
56	4x2 1/2 x 3	30 ✓
57	3x3x4	36 ✓
58	4x3x3	36 ✓
59	5x3x5	75 ✓
60	5x3x4	60 ✓
61	4x2 1/2 x 3	30 ✓
62	4x3x2.5	30 ✓
63	5x4 x 5	100 ✓
64	3x3x3	27 ✓
65	4x3x2 1/4	30 ✓

2228

Estimate of volume of Newcomb
 June 25 1932

6/17/32
Newcomb
Albert

65

Shot in Toe Wall Ex Sta. 3+00 to 3+50
at Elev 545± Shot 2 P.M. 6/17/32
N-

Same Sta. El. 540±

6/20/32 Newcomb
Albert

⇒ E 1/2 Upstream Toe Wall Ex.

		Wgt	
66	3x3x3	27	✓
67	4x3x4	48	✓
68	4x3x2 1/2	30	✓
69	4x4x2	32	✓
70	12x4x4	192	✓
71	3x3x3	27	✓
72	3x3x3	27	✓
73	3x7x4	84	✓
74	4x6x2	48	✓
75	6x3x2.5	45	✓
76	4x6x6	144	✓
77	3x5x6	90	✓
78	3x6x6	108	✓
79	8x3x3	72	✓
80	3x3x3	27	✓
81	4x4x2	32	✓
82	5x7x2	70	✓
83	4x4x4.5	72	✓
84	14x5x5.5	385	✓
85 -	5x4x6	120	✓
86	3x3.5x3	31	✓
87	3x3x3	27	✓
88	3x3x3	27	✓
89 -	5x3x5	75	✓
90	4x3x3	36	✓
91 -	5x4x1.5	30	✓

1906 ✓

Stone 25 1932. Newcomb

6/20/32
Newcomb
Albert

6/24/32. Shot - Same date
Sta 2 to 3 on W. Side at Elev. 540
550

6/25/32 Newcomb 3+50 Shot Same date
Albert

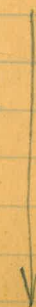
83' 84, 85
86 - 300
87 88
89 191
= 90

≡ ≡ ¼

Upstream Toe Wall Excavation.

92	3x5x3	45 ✓
93	8x3x5	120 ✓
94	15x6x6	540 ✓
95	9x4x2	72 ✓
96	5x4x3	60 ✓
97	12x8x4	384 ✓
98	3x4x2½	30 ✓
99	6x4x3	72 ✓
100	4x4x3	48 ✓
101	12x3x4	144 ✓
102	4x6x5	120 ✓
103	7x3x4	84 ✓
104	4x3x3	36 ✓
105	5x3x3	45 ✓
106	4x4x4	64 ✓
107	3½x4x4	56 ✓
108	3x4x3	36 ✓
109	7x4x5	140 ✓
110	3x3x3	27 ✓
111	3x3x3	27 ✓
112	3½x7x3	73 ✓
113	4x7x1½	42 ✓
114	10x7x6	420 ✓
115	7x4x5	140 ✓
116	7x3x1½	31 ✓
		<u>2856 ✓</u>

Allowed Est #3 July 1932 from



67

6/27/32 Newcomb
Albert

Shot 27th

40' Est 3+00

6/28/32 Newcomb
Albert
Shot 28th

3+20 20' W. 540
545

3+20 15' W

3+10 15' W 540

3+ 15' W

3+20 15' W 545

3+25 8' W

3+30 8' W

3+35 5' W

3+35 5' W

3+30 5' W

3+30 15' W

3+10 15' W

3+40 25' W

3+30 25' W

3+25 "

3+20 25' W

3+20 20' W

2+30 30' W

2+30 30' W

6/29/32 N x A Shot A.M. 29th

3+20 25' W

2+35 30' W

2+35 35' W

2R 1/2 - Upstream Toe Wall Ex.

9 117	3x3x3	27 ✓
9 118	3x3x3	27 ✓
9 119	5x3x5	75 ✓
9 120	6x4x4	96 ✓
9 121	3x3x3	27 ✓
9 122	3x3x3	27 ✓
9 123	3x4x2 1/2	30 ✓
9 124	9x4x4	144 ✓
1 125	6x4x4	96 ✓
1 126	3x3x3	27 ✓
1 127	5x3x4	60 ✓
1 128	3x3x3	27 ✓
1 129	7x3x4	84 ✓
1 130	4x3x3	36 ✓
1 131	3x3x3	27 ✓
1 132	3x4x4	48 ✓
1 133	3x3x3	27 ✓
1 134	3x4x2 1/2	30 ✓
1 135	3x3x3	27 ✓
1 136	3x3x3	27 ✓
1 137	3x3x3	27 ✓
1 138	3x4x2 1/2	30 ✓
1 139	2 1/2 x 2 x 4	60 ✓
1 140	4x4x2 1/2	40 ✓
1 141	3x4x2 1/2	30 ✓

1156 ✓

July 1932

#3

Estimated

Allowed

↑
↓

6/29/32 Newcomb
Albert.

68

Shot 6/29/32.

2+95	30' W 535
	25' W
2+95	35' W - 540
3+25	35' W - "
3+30	30' W - "
3+40	5' W - 538
3+30	12' E 535
3+40	35' E 540
3+25	20' E 540
3+35	30' E "
3+40	15' E 540
3+45	15' E 545
3+45	5' E "
3+40	10' W "
3+45	10' W "
3+35	10' W 540
3+30	10' W "
3+25	10' W "
3+35	15' W 545
3+35	20' W "
" /	" "
3+25	20' W "
3+15	20' W 545
3+20	20' E 540
" + 20	" "

6/30/32 Newcomb
Albert

7/4 - Upstream Toe Wall Ex.

142	3x3x6	54 ✓
143	3x3x3	27 ✓
144	4x3x3	36 ✓
145	3x3x3	27 ✓
146	3x3x3	27 ✓
147	3x4x5	60 ✓
148	4x3x3	36 ✓
149	3x4x5	60 ✓
150	3x3x5	45 ✓
151	4x6x10	240 ✓
152	3x3x5	45 ✓
153	3x6x3	54 ✓
154	6x5x4	120 ✓
155	3x3x3	27 ✓
156	3x3x3	27 ✓
157	4x3x3	36 ✓
158	6x3x3	54 ✓
159	4x4x6	96 ✓
160	5x3x2	30 ✓
161	3x2x4	48 ✓
162	3x3x3	27 ✓
163	4x3x2	30 ✓
164	3x4x3	36 ✓
165	3x3x4	36 ✓
166	5x2x4	40 ✓

Allowed Est. 3 July 1932
 W.C.E.

372

452
54

36
507

Note omit 151, 154, 155, 156 + 158-201

Slate of toe stone
 for concrete
 below 21550

Taken up
 as said
 very rocky. See converse estimate.

Alberta Hill A.M. 7/2/32

25' W of 3+75	
3+75	
16' E "	3+50
5' E "	3+10
"	3+90
"	3+95
5' W "	3+50
15' W "	3+50
20' W "	3+10
15' W "	3+55
22' W "	3+45
26' W "	3+43
"	3+56
10' E "	3+53
15' E "	3+52
17' E "	3+48
22' W "	3+60
18' W "	3+55
"	3+55

EC
545
"

July 2 1932 P.M.
Wood + Albert.

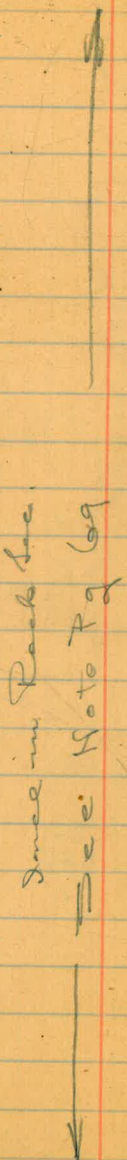
↑
Rocks

7/5/32 Newcomb
Albert

12 noon 69
in bottom cut 44
Sta 3. 69
7th
8
off same 3 3 PM

SB 7 - Upstream Toe Wall Ex.

167	4x4x3	48 ✓
168	4x6x4	96 ✓
169	4x6x3	72 ✓
170	4x4x2	32 ✓
171	3x3x3	27 ✓
172	3x3x3	27 ✓
173	4x5x2½	50 ✓
174	5x3x3	27 ✓
175	3x3x3	27 ✓
176	3x3x3	27 ✓
177	10x3x3	90 ✓
178	3x5x5	75 ✓
179	10x5x4	200 ✓
180	3x4x2½	30 ✓
181	5x5x4	100 ✓
182	4x4x2½	40 ✓
183	3x3x3	27 ✓
184	3x3x4	36 ✓
185	3x4x2½	30 ✓
186	3x4x3	36 ✓
187	4x3x3	36 ✓
188	3x4x6	72 ✓
189	3x3x3	27 ✓
190	5x3x4	60 ✓



7/5/32 Newcomb
Albert

70

Fl.

550
535

Loaded direct

" "

" "

Loaded direct arms

SE 1/4 - Upstream Toe Wall Exc. Stripping

191	3x3x3	27 ✓	↑
192	4x3x3	36 ✓	↑
193	4x3x3	36 ✓	↑
194	4x3x4	48 ✓	9'
x 196	5x3x3	45 ✓	of
197	5x4x3	60 ✓	A
198	5x5x3	75 ✓	to
x 200	4x4x2	32 ✓	of
201	7x7x3	147 ✓	0
202	4x3x5	60 ✓	0
203	4x4x3	48 ✓	0
204	3x3x3	27 ✓	0
205	4x5x4	80 ✓	0
206	11x6x6	396 ✓	0
207	6x6x6	216 ✓	0
208 ^{not shot} 1/26	8x6x3 1/2	Stripping S of River Bank	0
209 "	7x4x2		0
210 "	9x5x1 1/2		0
211 "	5x4x1 1/2		0
212 "	5x5x2		0
213 "	4x4x6		0
214	10x4x5	225 ✓	0
215	6x4x6	144 ✓	0
216	4x4x6	96 ✓	0

25+
July 1932 ↑

74
48
120

71

7/6/32 Newcomb
Albert.

Sta 3+50 - 3+75 E1 ⁵⁵⁰
535

7/14/32 St. above surface on (y) on pt W side
at S end
not shot to 7/23/32

10 cu ft above ground
1 yd above ground -
debris.

Back of Pt
not shot to
7/23/32

1/2 above surface
" " "

SE 4 - Stripping S. of River Bank

217	3x3x3?	27 ✓
218	6x2x5	60 ✓
219	5x3x3	45 ✓
220	4x4x2	32 ✓
221	3x4x5	60 ✓
222	6x6x12	432 ✓
223	3x3x3	27 ✓
224	3x4x2½	30 ✓
225	3x3x3	27 ✓
226	3x3x3	27 ✓
227	3x3x7	63 ✓
228	3x3x6	54 ✓
229	4x3x3	36 ✓
230	4x11x6	264 ✓
231	15x6x3	270 ✓
232	4x3x2½	30 ✓
233	4x3½x1½	31.5 ✓
234	^{measured} 6x6x1½	54 ✓
235	6x6x5	180 ✓

Estimate No 3 July 1932

1664 ✓

Above Surface

13
27
45

216

30

~~30~~

331

Above Surface

1/2
198 " " "
" "
7/19/32, Newcomb,
Albert

1/2 below ground

7/20/32 Newcomb
Albert

7/21/32 on Road + Stripping above Surface

edge road -
6x6x2 fuel rock. El 280 E of PC mound not shot
2 yards above surface shot 7/19/32
in Road Ek + Stripping El 600 E edge of PC Sec.

N 34 20
E 52 30
South of River
E of Fill Sec E1575-

Below Surface

" " "
" "

SE 1/4

Sta 3+50 - 3+75+ to be allowed
as Rock Ex to Elev. 550. per H.I.W.

Approach to Tunnel Entrance

13 Rock removed during night

per H.I. Wood. + Foreman Ray

		cu ft	
236	6x3x3	54	✓
236b		891	✓
237	6x7x19	798	✓
238	6x6x21	756	✓
239	6x5x4	120	✓
240	12x5x3	180	✓
241	4x4x6	96	✓
242	5x5x3	75	✓
243	4x4x4	64	✓
244	4x3x8	96	✓
245	6x6x9	324	✓
246	5x6x3	90	✓
247	5x6x5	150	✓
248	5x5x4	100	✓
249	4x3x2 1/2	30	✓
250	4x4x2 1/2	40	✓
251	4x4x2	32	✓
25v	5x4x3	60	✓
		3956	✓
		146.5	✓

Allowed on Estimate No 4
for August 1932
Newcomb

Base of Rock

1207
108
127

45

69

73

H. Newcomb

August 23 1932. Night Shift

No road open across river to Rock

Section of Dam. Rock spoiled

with dirt into road extending East

crossing river above main Spoil E

of Dam.

Measured in Spoil bank.

Measured by Mr Ray at night. OK by H.I.W.

9 AM.
8/24/32 H. Newcomb A.M. (in Floor)

150' E of Portal El. 563

20' SW of *239. El. 563-570

40' W of 240 " 565-570

At face Cut - 75' E of Portal " 567+

" " " been shot " 563+

" " " " " " " " +

S Slope 15' E of Face El. " - 572

near Surface at face cut " 573-

70' E of Portal " " " " " "

from
system " " " floor El 563

65' E " " " " " " " " " " " "

70' E " " " El 570 " " " "

75' E " " " " " " " " " "

50' E of Portal W of El 563

SE 1/4

27 E of Portal D.G. 1st Shot. Line Holes
R+ Angle to E Tunnel Approach
cut

Shot 30 Pm 25th

A.M.

8/25/32 H.T. Newcomb

74

Entrance Portal Ex

253	5x3x2	30 ✓
254	6x4x3	72 ✓
255	3x3x3	27 ✓
256	6x5x2 1/2	75 ✓
257	6x4x4	96 ✓
258	6x5x5	150 ✓
259	3x5x5	75 ✓
260	4x4x3	48 ✓
261	3x3x3	27 ✓
262	8x4x2	X
263	5x4x3	X
264	5x3x2 1/2	X
265	4x5x3	X
266	5x5x5	X
267	3x4x5	X
268	3x3x3	X

↑ Allowed on

Est No 4 of Aug

1932

H.T. Newcomb

600' 22" encls

Placed in Dam
Not allowed as
Rock 27.7m.

168.7

75 E of Portal E1563 Loaded direct

" " " " " "

70 E of Portal on S. Slope
of 2/3 of cut

40 E of Portal - NW. At Face E1563

On E1563 100 E Portal

PM -
8/20/32 S Slope E1563 35 E of Portal

8/21/32 Loaded Direct Late Pm S Slope 200 E of P.

" " " " " " " "

in floor 200 E of Portal

" " 50 E of " N Edge offset

" Slope N side - at offset

DG S of E at offset.

S Side E1568 250 E of Portal

" " " 570 245 E " near portal

" "

Rock Excavation - Stripping Operations
 Rock To. E. Rock Emb.

X Side Pod Core Sec. Stereo #
 = 7-11-12 OK
 1-2-3-5-6-14 Come out def. State Map 75

269 Rock Ex. + Shot S. of Ramp
 Road along S. Toe of Rock Emb
 West of U.S.T.W. and Placed
 direct into Rock Emb. North of
 said road.

Allowed Est #8
 Nov. 1932
 Allowed in Nov 1932
 Estimate

Nov. 30th 1932, Location.
 N 3460 to N 3480 + E 5140 to 5240.
 E 1600 - 5400

Dec. 2, 1932. Agreed upon by Mr. Steere
 H.M.M.

	Cu ft	Cu ft below sur	
270	6x6x6	216	144
271	5x5x5	125	63
272	12x4x3	144	108
273	5x3x3	45	22
274	4x3x3	36	18
275	4(3x3x3)	108	54
276	4x3x2 1/2	30	15
277	6x4x3	72	48
278	5x5x4	100	50
279	6x4x3	72	36
280	5x4x4	80	40
281	10x6x5	300	200
282	4x4x2	32	16
283	6x6x8	288	192
284	4x5x1 1/2	30	15
285	6x4x2	48	16
286	5x3x2	30	10
287	5x3x2	30	15
288	4x4x3	48	24
Total sheet		1834	1086

Dec 31 1932
 H.M.M.
 Allowed Est #8

12/2/32 H.M.M. (P.M.)
 N 40 + E 60 of #278

N 3410 - E 5170

12/2/32 Night H.M.M.
 12/3/32 AM H.M.M.

SE 1/4 Rock Emb + Puddle Sec E 575-625

Rock to E Rock Emb from Stripping.

		cu ft	below sur.		
289	5x3x2	30	20	Dec 31 1934 Stream Emb Allowed Estimate No 8	2/3 below
290	5x3x2	30	20		2/3 "
291	3x3x3	27	27		all "
292	5x5x3	75	37		1/2 "
293	3x3x3	27	27		all "
294	7x7x6	294	147		1/2 Below
295	4.5x7.5x4	135	67		1/2 "
296	3x5x2.5	37	37		all "
297	3x5x3	45	30		2/3 "
298	4x3.5x1/2	21	-		0 "
299	4.5x8x5	180	120		2/3 "
300	3x5x6	90	45		1/2 "
301	6x5x5	150	75		1/2 "
302	5x3x3	45	15	1/3 "	
303	4x3x3	36	36	all "	
304	3x3x3	27	27	" "	
305	5x5x5	125	75	3/5 "	
306	5x5x2	50	25	1/2 "	
307	5x4x4	80	40	1/2 Below	
308	3x3x4	36	18	1/2 "	
309	3x3x3	27	27	all "	
310	3x3x3	27	-	-	
311	6x6x3	108	54	1/2 "	
312	12x5x4	240	120	1/2 "	
313	4x4x3	48	24	1/2 "	
Total of Sheet		1990	1113		

12/3/32 H.T.N.

Spoiled E of Dam. No Reason for Spoiling Rock

Charged to E Rock Emb

12/4/32 H.S. Wood Rock on S About

Under Upstream Rock Emb to Elev. 610

12/5/32 H.S. Wood U-S R.F. E. edge E. 600-650. Stories

SE 1/4 Stripping Operations. Rock to E Rock Emb

		Cu ft		Cu ft + Below Sur	
314	6x4x3	72	-	72	all Below
315	4x3x3	36		36	"
316	4x3x3	36		36	"
317	5x3x3	45		22	1/2 below
318	6x3x3	54		54	all "
319	3x3x3	27		14	1/2 below
320	8x6x6	288		144	1/2 "
321	4x3x3	36		18	1/2 "
322	3x3x3	27		27	all "
323	7x4x2 1/2	70		47	2/3
324	5x3x3	45		22	1/2 "
325	12x6x8	576		192	1/3 "
326	6x5x2	60		30	1/2 "
327	4x4x3	48		24	1/2 "
328	5x2x4	40		20	1/2 "
329	3x3x3	27		13	1/2 "
330	6x4x5	120		40	1/3 "
331	4x2 1/2 x3	30		23	3/4 "
332	3x3x4	36		18	1/2 "
333	6x6x2	72		24	1/3 "
334	3x3x3	27		14	1/2 "
335	9x6x7	378		94	1/4 "
336	6x5x4	120		90	3/4 "
337	12x6x6	432		144	1/3 "
338	4x4x3	48		24	1/2 "
Total of Sheet		2750		1242	

Allowed Estimate No. 8 Dec 31, 1932
 777 Newcomb

May 16th 1933. Newcomb
 SE 1/4 Stripping Operations Rock Emb Sec
 Rock to E Rock Emb on stripped area
 above 625 + at inner Rock A pale Elev. 625.
 Rock above Surface

		Cu ft	
4x3x2		24	✓
4 1/2 x 3 x 2 1/2		34	✓
6x3x2		36	✓
5x3x2		30	✓
5x3x2		30	✓
6x2x1 1/2		18	✓
4x3x1 1/2		18	✓
5x4x2 1/2		50	✓
5x4x1 1/2		30	✓
5x5x2 1/2		63	✓
4x5x2		40	✓
Rock Incl the above also part below surface			
5x4x3		60	✓
3x3x3		27	✓
3x3x3		27	✓
7x5x3		105	✓
3x3x2		18	✓
3x3x3		27	✓
2x3x2 1/2 + 10 Cu ft		25	✓
6x4x2 1/2		60	✓
4x3x3		36	✓
3x3x4		36	✓
4x4x3 1/2		56	✓
5x4x3		60	✓
6x4x3		72	✓
6x4x4		96	✓
6x4x2 1/2		60	✓
6x4x3 1/2		84	✓
6x3x4		72	✓
4x5x3		27	✓
Total = 38.3			
Total = 24.5 below surface			
Reported on 5/19/33			

3 Big Rock (irregular)
 Not necessary to move
 6x7x2 1/2
 5x4x1 1/2
 10x3x4

373 = 14.0 Cu ft above surface

5/19/33
 Rock taken up above
 Surface on 16th stripped
 around & moved but left
 in SE 1/4 in Rte. Sec 625
 total above below surface
 A of rock up to S.W. corner
 625 E in SE 1/4 in Rock Sec.

In E Rte Sec 625 at edge strip fill Sec

No rock taken up above
 rock except at marine

27 left
 60 left
 27 left
 Total = 38.3
 = 24.5 below surface
 Reported on 5/19/33
 XTW

SE 1/4 Stripping Rock to Rock Emb.	Total per Rock	Cu. ft Below Surface	Cu. ft Below Surface	Part Below Surface
339	4x4x3	48	24	1/2 below
340	5x3x4	60	40	2/3 "
341	5x3x4	60	30	1/2 "
342	5x3x3	45	30	2/3 "
343	5x4x3	60	60	all below
344	4x3x3	36	-	0 "
345	3x3x3	27	14	1/2 "
346	5x3x3	45	30	2/3 "
347	6x4x3	72	24	1/3 "
348	5x3x3	45	34	3/4 "
349	3x3x3	27	27	all "
350	3x3x3	27	27	" "
351	3x3x3	27	27	" "
352	6x4x3	72	36	1/2 "
353	3x3x3	27	27	all "
354	4x2 1/2 x3	30	20	2/3 "
355	3x3x3	27	18	2/3 "
356	4x4x4	64	43	2/3 "
357	3x3x3	27	18	2/3 "
358	4x3x3	36	18	1/2 "
359	3x3x3	27	18	2/3 "
360	6x5x5	150	100	2/3 "
361	6x3x4	72	36	1/2 "
362	8x6x4	192	96	1/2 "
363	5x4x3	60	40	2/3 "
Total of Sheet		1363	831	

Allowed Est No 8 of Dec 31 1932
 J.H. Hancock

12/7/32 J.H.W. E 5240 N 3320

E 5200 N 3320

SE 1/4	Size of Rock	Cu. ft. Total Upper Rock	Cu. ft. Below Surface	Surface
389	4x4x6	96	96	all below
390	4(3x3x3)	108	108	" "
364	4x4x3	48	36	3/4 below
365	6x4x4	96	32	1/3 below
366	4x3x3	36	24	2/3 below
367	4x3x3	36	18	1/2 "
368	7x4x3	84	42	1/2 "
369	3x3x3	27	13	1/2 "
370	4x4x3	48	24	1/2 "
371	5x4x4	80	53	2/3 "
372	6x3x5	90	67	3/4 "
373	5x4x3	60	60	all below
374	4x3x3	36	36	" "
375	5x6x2	60	45	3/4 below
376	5x3x3	45	23	1/2 "
377	4x4x3	48	36	3/4 "
378	6x4x3	72	58	4/5 "
379	5x4x4	80	53	2/3 "
380	12x12x6	864	432	1/2 "
381	3x3x3	27	20	3/4 "
382	6x4x4	96	72	3/4 "
383	6x3x3	54	40	3/4 "
384	6x5x3	90	68	3/4 "
385	6x6x6	216	54	1/4 "
386	5x4x3	60	60	all "
387	6x5x5	150	150	all "
388	6x6x5	180	170	
		2887	1720	

Excavated in stripping Rock to Rock

to line E. of draw at E 5200 n 3320 Pt.
12/8/32

E 5180 N 3320

12/9/32 N of Toe trail no. E 585±

Rack from Strip SE 1/4 Roads above
 El. 625 + placed on E
 Rock Emb blanket on wide
 365 B69L-4 (3x3x3) all below Surface.

36	Rack from Strip direct to E. Emb	El. 590 - 2/4/33	
36 370	3x3x3	Below	27 ✓
36 371	5x4x3	Below	60 ✓
36 372	5x3x2	15 ✓	15 ✓
36 372 L	7 ^{Y3}		189 ✓
36 373	2 ^{Y3}		52 ✓
36 374	3x4x2 1/4		27 ✓
36 375	3x3x3		27 ✓
36 376	3x4x2 1/4		27 ✓
36 377	30 ^{Y3}	150 675 ✓	400 135 ✓
36 378	5x4x2		40 ✓
36 379	3x3x4		36 ✓
36 380	3x3x3		27 ✓
36 381	3x4x2 1/4		27 ✓
36 382	2(3x3x3)		54 ✓
36 383	3x4x2 1/4		27 ✓
36 384	5 ^{Y3}		135 ✓
36 385	5x4x2		40 ✓
36 386 W	20 ^{Y3}	405	135 ✓
36 387	2		54 ✓
36 388	5x4x2		40 ✓
		1095 ✓	1176 ✓
		288 ✓	

Time in Estimate #10

2/28/33

277

Pioneer Tunnel at Ent Portal
 11.5' above floor line at "

562.16
 11.5
573.7 s.w.c.

TABLE No. 1
 Distance of tape taken from side of station
 take for any width roadway above 12 ft
 If ground is nearly level the cut or fill at
 stake is located by the double end method
 the column and top row. The number in
 of table in same row and column gives
 TABLE No. 2

2/6/33

2/7/33

IMPROVED TABLES

AND

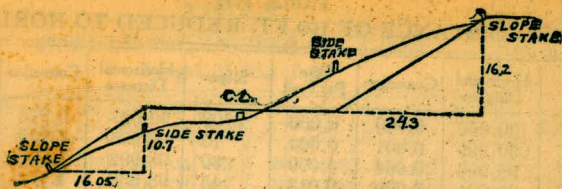
INFORMATION

2/8/33

Placed
 Rack in end of ERE El. 625 from
 Rack from

TABLE No. 3
 To find Tangent and External for curve of
 any other degree, divide by degree of curve and
 add correction found in column of correction.
 Degree of curve with a given L may be found
 by dividing tangent (or external), opposite L
 given tangent (or external).
 The distance from a point on the tangent
 the curve is very nearly the square of the tangent
 length divided by twice the radius.

2/9/33



DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING

SLOPE 1 1/2 TO 1. ROADWAY OF ANY WIDTH.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0 00	0 15	0 30	0 45	0 60	0 75	0 90	1 05	1 20	1 35	0
1	1 50	1 65	1 80	1 95	2 10	2 25	2 40	2 55	2 70	2 85	1
2	3 00	3 15	3 30	3 45	3 60	3 75	3 90	4 05	4 20	4 35	2
3	4 50	4 65	4 80	4 95	5 10	5 25	5 40	5 55	5 70	5 85	3
4	6 00	6 15	6 30	6 45	6 60	6 75	6 90	7 05	7 20	7 35	4
5	7 50	7 65	7 80	7 95	8 10	8 25	8 40	8 55	8 70	8 85	5
6	9 00	9 15	9 30	9 45	9 60	9 75	9 90	10 05	10 20	10 35	6
7	10 50	10 65	10 80	10 95	11 10	11 25	11 40	11 55	11 70	11 85	7
8	12 00	12 15	12 30	12 45	12 60	12 75	12 90	13 05	13 20	13 35	8
9	13 50	13 65	13 80	13 95	14 10	14 25	14 40	14 55	14 70	14 85	9
10	15 00	15 15	15 30	15 45	15 60	15 75	15 90	16 05	16 20	16 35	10
11	16 50	16 65	16 80	16 95	17 10	17 25	17 40	17 55	17 70	17 85	11
12	18 00	18 15	18 30	18 45	18 60	18 75	18 90	19 05	19 20	19 35	12
13	19 50	19 65	19 80	19 95	20 10	20 25	20 40	20 55	20 70	20 85	13
14	21 00	21 15	21 30	21 45	21 60	21 75	21 90	22 05	22 20	22 35	14
15	22 50	22 65	22 80	22 95	23 10	23 25	23 40	23 55	23 70	23 85	15
16	24 00	24 15	24 30	24 45	24 60	24 75	24 90	25 05	25 20	25 35	16
17	25 50	25 65	25 80	25 95	26 10	26 25	26 40	26 55	26 70	26 85	17
18	27 00	27 15	27 30	27 45	27 60	27 75	27 90	28 05	28 20	28 35	18
19	28 50	28 65	28 80	28 95	29 10	29 25	29 40	29 55	29 70	29 85	19
20	30 00	30 15	30 30	30 45	30 60	30 75	30 90	31 05	31 20	31 35	20
21	31 50	31 65	31 80	31 95	32 10	32 25	32 40	32 55	32 70	32 85	21
22	33 00	33 15	33 30	33 45	33 60	33 75	33 90	34 05	34 20	34 35	22
23	34 50	34 65	34 80	34 95	35 10	35 25	35 40	35 55	35 70	35 85	23
24	36 00	36 15	36 30	36 45	36 60	36 75	36 90	37 05	37 20	37 35	24
25	37 50	37 65	37 80	37 95	38 10	38 25	38 40	38 55	38 70	38 85	25
26	39 00	39 15	39 30	39 45	39 60	39 75	39 90	40 05	40 20	40 35	26
27	40 50	40 65	40 80	40 95	41 10	41 25	41 40	41 55	41 70	41 85	27
28	42 00	42 15	42 30	42 45	42 60	42 75	42 90	43 05	43 20	43 35	28
29	43 50	43 65	43 80	43 95	44 10	44 25	44 40	44 55	44 70	44 85	29
30	45 00	45 15	45 30	45 45	45 60	45 75	45 90	46 05	46 20	46 35	30
31	46 50	46 65	46 80	46 95	47 10	47 25	47 40	47 55	47 70	47 85	31
32	48 00	48 15	48 30	48 45	48 60	48 75	48 90	49 05	49 20	49 35	32
33	49 50	49 65	49 80	49 95	50 10	50 25	50 40	50 55	50 70	50 85	33
34	51 00	51 15	51 30	51 45	51 60	51 75	51 90	52 05	52 20	52 35	34
35	52 50	52 65	52 80	52 95	53 10	53 25	53 40	53 55	53 70	53 85	35
36	54 00	54 15	54 30	54 45	54 60	54 75	54 90	55 05	55 20	55 35	36
37	55 50	55 65	55 80	55 95	56 10	56 25	56 40	56 55	56 70	56 85	37
38	57 00	57 15	57 30	57 45	57 60	57 75	57 90	58 05	58 20	58 35	38
39	58 50	58 65	58 80	58 95	59 10	59 25	59 40	59 55	59 70	59 85	39
40	60 00	60 15	60 30	60 45	60 60	60 75	60 90	61 05	61 20	61 35	40
41	61 50	61 65	61 80	61 95	62 10	62 25	62 40	62 55	62 70	62 85	41
42	63 00	63 15	63 30	63 45	63 60	63 75	63 90	64 05	64 20	64 35	42
43	64 50	64 65	64 80	64 95	65 10	65 25	65 40	65 55	65 70	65 85	43
44	66 00	66 15	66 30	66 45	66 60	66 75	66 90	67 05	67 20	67 35	44
45	67 50	67 65	67 80	67 95	68 10	68 25	68 40	68 55	68 70	68 85	45
46	69 00	69 15	69 30	69 45	69 60	69 75	69 90	70 05	70 20	70 35	46
47	70 50	70 65	70 80	70 95	71 10	71 25	71 40	71 55	71 70	71 85	47
48	72 00	72 15	72 30	72 45	72 60	72 75	72 90	73 05	73 20	73 35	48
49	73 50	73 65	73 80	73 95	74 10	74 25	74 40	74 55	74 70	74 85	49
50	75 00	75 15	75 30	75 45	75 60	75 75	75 90	76 05	76 20	76 35	50

Computed by L. Leland Locke.

Take Out 1, 2, 3, 5, 6, 14
 Leave 9, 7-11-12

1720

E 6130
N 3315

16

... of ...
K 3520 ...
E 4090

43700
360
1-3550

June 16
11727

car
94 26 x 6 980
Pg
51
61

478
13.1
314 100 / 50

~~16
81
15 59~~

~~57
27
39
14
1539~~



...
...
begin May 16th 1930