

W
437

WILKINSON

WILKINSON

LEVEL 2

No. 1

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

Roadway 16 feet wide. Side Slopes 1 on 1.

For Single Track Embankment.

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

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

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437

MICROFILMED

JAN 12 1965

DIST

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30.1

- SPILLWAY EXCAVATION -

Est - Rock - Removed Pg 1-77.

F. E. BRACHMANN.

MICROFILMED

JAN 13 1983

MARCH - 23RD 5PM 2.A.M

DIS	No	CU.YDS	TRUCK NO	TIME	CREW	SHOVEL
	3 LOADS	15.0	25	6 ²²		NO 7
	4 "	18.0	4			
	1 LOADS	5.5	15	6 ²⁵		
			4	7 ³⁰		
	3	15.0	23			
	12	5.0	23	7 ⁰⁸		
	13	3.5	25	7 ²³		
				7 ³⁰		
	14	3.0	4	7 ⁵⁸		
	15	4.0	4	8 ¹⁹		
	16	4.0	23	8 ³⁵		
	17	4.0	4	8 ⁵⁸		
	18	5.0	25	9 ⁰⁴		
	19	4.0	4	10 ⁰⁸		
	20	3.0	15	10 ¹²		
	21	3.0	25	10 ²⁵		
	22	5.0	15	10 ³⁶		
	23	4.0	15	11 ⁰³		
	23 LOADS	101.0				
	TOTAL					

SHOVEL NO 8 CASTING OVER 5.5 HRS = CREW 2 MEN
 SHOVEL NO 7 LOADING 8 HRS. CREW 2 MEN FEB.
 1 FOREMAN 5 MEN DRILLING
 TRUCKS + DRIVERS NO 4, 15, 23, 25.

LOAD	CU.YDS	TRUCK	TIME
24	4.0	4	11 ³⁸ AM.
25	4.5	4	11 ⁴⁹
26	4.0	4	12 ¹⁷ AM.
27	3.5	23	12 ³⁰
28	4.0	4	12 ⁵⁵
29	4.0	11	5 ⁴⁵
30	5.0	25	5 ⁵⁰
31	4.5	11	5 ⁵⁵
32	4.0	25	6 ⁰²
34	4.0	11	6 ¹⁰
10 LOADS	21.5		
TOTAL			

SPILLWAY EXCAV. MARCH 24TH 1933

SHIFT NO 2 - 5PM - 2AM

SHOVEL NO 8 & CREW - 2 MEN
 SHOVEL NO 7 & CREW - 2 MEN
 TRUCKS & DRIVERS NO 11, 15, 23, 25.

FEB.

FEB.

1 FOREMAN 5 MEN
 1/2 HR. 5-5:30 BLASTING.

LOAD	CU. YDS	TRUCK	TIME
35	3.0	25	6 ¹⁶
36	4.5	11	6 ²³
37	4.5	23	6 ³⁰
38	4.0	11	6 ³⁶
39	4.0	23	6 ⁴²
40	5.0	11	6 ⁵⁰
41	3.0	23	6 ⁵⁵
42	5.0	11	7 ⁰⁰
43	4.0	23	7 ⁰⁸
44	4.5	11	7 ¹⁴
45	3.5	23	7 ²²
46	4.0	11	7 ²⁷
47	3.0	23	7 ³⁵
48	4.0	11	7 ⁴³
49	4.5	25	7 ⁵³
50	4.5	15	8 ¹²
51	4.0	11	8 ²⁵
17 LOADS	69.0 TOTAL		

LOAD	CU. YDS	TRUCK	TIME
52	4.0	11	8 ³⁹
53	3.5	11	8 ⁵²
54	3.5	23	10 ³³
55	3.0	23	10 ⁴⁸
56	3.5	25	11 ⁰³
57	3.0	11	11 ²²
58	3.5	11	11 ⁴³ A.M.
59	4.5	11	12 ²³
60	4.0	11	12 ⁴⁵
61	3.0	11	1 ¹⁰
10 LOADS	35.5 TOTAL		

SHOVEL #17 DOWN FOR REPAIRS
10 TO 10:30 P.M.

F.E.B.

LOAD	CU.YDS	TRUCK	TIME P.M.
62	3.5	10	5 ⁰⁰
63	3.0	9	5 ⁰⁵
64	3.5	9	5 ²⁶
65	3.0	10	5 ³³
66	4.0	9	5 ³⁸
67	4.0	15	5 ⁴⁵
68	4.0	10	6 ⁰⁰
69	4.5	9	6 ¹⁰
70	4.5	10	6 ¹⁵
71	5.0	9	6 ²⁴
72	4.0	25	6 ³⁵
73	4.5	9	6 ⁴⁸
74	4.0	9	7 ⁰⁰
75	4.5	9	7 ¹²
76	4.0	25	7 ²⁰
77	5.0	25	7 ³⁸
78	4.0	9	7 ⁵⁰

17
LOADS
69.0
TOTAL

MARCH 25/33 - FOREMAN - MEN DRILLING
 SHOVEL NO 7 + CREW 2 MEN
 SHOVEL NO 8 + CREW 2 MEN
 DRIVERS + TRUCK NO 9, 10, 15, 25
 SPILLWAY ROCK EXCAVATION F.E.B.

LOAD	CU.YDS	TRUCK	TIME
79	4.5	10	8 ¹⁰
80	4.0	9	8 ¹⁴
81	4.0	10	8 ²⁰
82	4.5	9	8 ³²
83	4.0	10	8 ⁴³
84	4.5	9	8 ⁵³
85	4.0	10	9 ⁰³
86	4.5	10	10 ¹⁵
87	4.0	9	10 ³⁴
88	4.0	9	10 ⁴⁵
89	4.0	10	11 ⁰⁰
90	4.0	9	11 ¹²
91	5.0	10	11 ³⁶
92	4.5	9	11 ⁴²
93	5.0	10	11 ⁵²
94	5.0	9	12 ⁰⁷
95	5.0	10	12 ¹⁸

17
LOADS
74.5
TOTAL

SHOVEL NO 8 DOWN 1/2 HRS. REPAIRS F.E.B.

LOAD	CU.YDS	TRUCK	TIME
96	4.5	10	12 ³⁶
97	4.0	9	12 ⁴²
98	5.0	9	1 ⁰²
99	4.5	9	1 ¹⁵
100	5.0	9	1 ²⁷
101	5.0	9	1 ⁴⁰
102	5.0	10	1 ⁵⁷

END SHIFT

SHIFT NO 2 MARCH 26TH 33

17 Loads 85.0

24 LOADS 118.0 TOTAL

17 LOADS FEB.

LOAD	CU.YDS	TRUCK	TIME
120	3.0	25	4 ⁵⁸
121	5.0	15	5 ⁰²
122	4.0	23	5 ⁰⁵
123	3.5	12	5 ⁰⁷
124	4.0	15	5 ¹²
125	3.5	23	5 ¹⁶
126	5.0	10	5 ²⁰
127	5.0	15	5 ²⁸
128	5.0	10	5 ⁴⁰
129	4.0	12	5 ⁴⁶
130	3.5	10	6 ⁰⁰
131	4.5	12	6 ⁰⁶
132	5.0	15	6 ¹⁰
133	4.0	10	6 ³²
134	5.0	15	6 ³⁴
135	5.0	12	6 ⁴⁸
136	4.0	23	6 ⁵⁸
17	73.0		

LOADS TOTAL

MARCH 27TH - FOREMAN - MEN DRILLING
 SHIFT NO 2 SHOVEL NO 7 CREW 2 MEN.
 5 PM TO 2 AM SHOVEL NO 8 CREW 2 MEN - DOWN - 1 HR.
 DRIVERS 4 TRUCK NO 10 - 12 - 15 - 23 - 25.
 FEB.

LOAD	CU.YDS	TRUCK	TIME
137	5.0	10	7 ²³
138	5.0	10	7 ¹²
139	5.0	12	7 ²²
140	5.5	10	7 ²⁶
141	4.0	25	7 ³⁷
142	5.0	12	7 ³⁹
143	4.5	10	7 ⁴⁸
144	5.0	12	7 ⁵²
145	5.0	15	7 ⁵⁸
146	5.0	10	8 ⁰⁶
147	5.0	12	8 ¹⁵
148	4.5	10	8 ²²
149	4.0	15	8 ³⁰
150	4.5	12	8 ³⁹
151	5.0	10	8 ⁵³
152	5.0	15	8 ⁵⁵
153	5.0	10	10 ¹⁸
17 LOADS	82.0 TOTAL		

SHIFT NO 2 MARCH 27 - 1933 F.E.B.

LOAD	CU.YDS	TRUCK	TIME
154	4.5	25	10 ¹⁹
155	5.0	12	10 ³⁰
156	5.0	10	10 ⁴⁶
157	4.5	12	11 ⁰⁵
158	4.5	10	11 ¹²
159	5.0	12	11 ³⁴
160	5.0	10	11 ⁴⁹
161	4.0	10	12 ⁰⁶
162	5.0	15	12 ¹⁰
163	3.5	12	12 ¹⁷
164	4.5	10	12 ³⁵
165	5.0	12	12 ³⁸
166	4.0	10	12 ⁴⁵
167	4.5	12	12 ⁴⁸
168	5.0	10	12 ⁵⁸
169	4.5	12	1 ⁰²
170	4.5	10	1 ¹³
17 LOADS	78.0 TOTAL		

SHIFT NO 2 MARCH 27 - 1933 F.E.B.

LOADS	CU.YDS	TRUCK	TIME
171	5.5	12	1 ²⁰
172	5.0	10	1 ²⁴
173	4.5	12	1 ³⁸
174	5.5	10	1 ⁵⁰
175	5.0	12	1 ⁵⁶
176	4.5	12	2 ⁰⁰
176	4.5	12	5 ¹²

7 34.5
LOADS TOTAL

MARCH 28 TH - 33
SHIFT NO 2
SHOVEL NO 8 - CREW - 2 MEN
3 MEN - DRILLING

RAIN - STOPPED WORK - 6 P.M. FEB.
TRUCK & DRIVERS NO. 12.

SHIFT NO 2 MAR. 27 - 1933

LOAD	CU.YDS	TRUCK	TIME
177	5.0	23	8 ²¹
178	5.0	15	8 ³¹
179	5.0	23	9 ⁰⁶
180	4.0	15	10 ¹⁰
181	4.5	15	10 ²⁶
182	5.0	15	10 ⁴⁴
183	5.5	23	11 ⁰⁰
184	5.0	25	11 ¹²
185	5.0	25	11 ³⁶

9 44.0
LOADS TOTAL

SHIFT NO 2 MARCH - 29 TH 1933 FEB.
SHOVEL NO 8 - CREW - 2 MEN - DOWN FOR REPAIRS - 2 1/2 HRS.
DRILLING - 3 MEN
TRUCKS + DRIVERS NO 15, 23, 25.

LOAD	CU.YDS	TRUCK	TIME
186	5.0	25	5 ¹⁰
187	5.0	25	5 ³⁰
188	5.0	25	5 ⁴⁵
189	5.0	25	6 ⁰⁰
190	5.5	25	6 ¹⁹
191	4.5	18	6 ³³
192	5.5	15	6 ⁴⁰
193	4.5	25	6 ⁴⁵
194	5.0	18	6 ⁵⁰
195	5.0	15	6 ⁵⁷
196	5.5	15	7 ¹⁴
197	5.0	15	7 ²⁷
198	5.0	25	7 ³⁵
199	5.0	15	7 ⁴⁴
200	5.5	18	7 ⁵²
201	5.5	15	8 ⁰⁸
16 LOADS	81.5	TOTAL	

SHIFT NO 2-MARCH-30TH 1933 F.F.B.

SHOVEL-NOS + CREW - 2 MEN
MEN DRILLING - 2 MEN

LOAD	CU.YDS	TRUCK	TIME
202	5.0	18	8 ²⁰
203	5.0	15	8 ³⁵
204	5.0	15	10 ¹⁷
205	4.0	25	10 ²⁵
206	4.5	25	10 ⁴⁵
207	4.0	15	11 ⁰⁵
208	3.0	15	11 ²⁰
209	4.0	25	11 ⁴⁰
210	5.0	18	12 ⁰⁰
211	3.5	25	12 ¹²
212	4.5	15	12 ⁴⁵
213	4.5	18	12 ⁵³
214	4.0	25	1 ¹²
215	5.0	18	1 ³¹
216	5.0	25	1 ⁴⁰
217	4.5	25	1 ⁵⁷
16 LOADS	70.5	TOTAL	

SHIFT NO 2 MARCH 30TH 1933 F.F.B.

LOAD	CU. YDS	TRUCK	TIME
218	4.0	25	5 ¹⁸
219	5.0	18	5 ⁴⁵
220	5.0	10	5 ⁴⁷
221	5.0	12	5 ⁵⁰
222	4.0	25	6 ⁰⁴
223	4.0	10	6 ⁰²
224	4.5	12	6 ¹²
225	4.5	12	6 ³⁷
226	5.0	18	6 ⁴⁹
227	4.5	25	6 ⁵⁴
228	5.5	10	7 ⁰⁰
229	5.0	20	7 ¹⁵
230	4.0	12	7 ²²
231	4.5	10	7 ²⁴
232	4.5	10	7 ⁴⁵
233	4.5	12	8 ¹⁰

73.5
TOTAL

16
LOADS

SHEET NO 2 MARCH 31ST 1933 F.E.B.
SHOVEL NO 8 + CREW - 2 MEN
DRILLING 3 - MEN

LOAD	CU. YDS	TRUCK	TIME
234	4.5	12	8 ²⁴
235	4.5	12	8 ⁴²
236	5.0	25	10 ²⁰
237	4.5	15	10 ²³
238	4.0	12	10 ²⁷
239	5.0	23	10 ³³
240	5.5	25	10 ³⁹
241	5.0	15	10 ⁴³
242	4.5	12	10 ⁵⁰
243	5.0	23	10 ⁵⁵
244	5.0	25	11 ⁰⁰
245	5.0	12	11 ¹⁵
246	4.0	23	11 ²⁰
247	4.5	25	11 ²⁵
248	4.5	12	11 ³³
249	5.0	25	11 ⁵⁷

75.5

16
LOADS

LOAD	CU. YDS	TRUCK	TIME
250	5.0	15	12 ⁰²
251	5.0	12	12 ⁰⁶
252	5.0	23	12 ¹⁶
253	5.0	25	12 ²⁰
254	5.0	12	12 ²⁸
255	5.0	15	12 ³⁶
256	4.5	23	12 ⁴³
257	4.0	12	1 ¹⁵
258	3.0	15	1 ³⁰
259	4.0	15	1 ⁵⁰

10
LOADS TOTAL 45.5 ✓

F.E.B. SHIFT-NO 2 MARCH 31-1933

*at
estimated
Reported to have
at Newwood*

LOAD	CU. YDS	TRUCK	TIME
260	4.5	24	5 ⁰⁷
261	4.0	24	5 ²⁴
262	4.0	24	5 ³⁹
263	5.0	18	6 ⁰⁰
264	4.0	24	6 ¹⁰
265	5.0	18	6 ¹⁶
266	5.0	15	6 ²³
267	3.0	18	6 ³⁵
268	5.0	24	6 ⁵⁰
269	4.0	15	6 ⁵²
270	5.5	23	6 ⁵⁵
271	4.5	25	6 ⁵⁸
272	5.0	18	7 ⁰⁰
273	5.0	15	7 ⁰⁷
274	5.0	24	7 ¹⁰
275	5.0	23	7 ²²

16
LOADS 73.5
reported

7
SHIFT NO 2 APRIL 1ST 1933 F.E.B.
SHOVEL NO 8 - 2 MEN
DRILLING - 3 MEN
SHOVEL NO 7 - 2 MEN

LOAD	CUMYDS	TRUCK	TIME
276	5.0	25	7 ³³
277	5.0	15	7 ⁴⁰
278	5.0	18	8 ³⁰
279	5.0	24	8 ³¹
280	5.0	25	8 ³⁸
281	5.0	18	8 ⁴⁵
282	5.0	24	8 ⁵⁰
283	4.0	25	8 ⁵²
284	5.0	18	9 ⁰⁰
285	4.0	23	10 ⁰⁰
286	4.5	24	10 ⁰⁵
287	5.0	23	10 ²²
288	4.5	24	10 ²⁵
289	4.0	18	10 ³³
290	4.5	23	10 ⁴⁰
291	5.0	24	10 ⁴⁸
16	75.5		
LOADS			reported

LOAD	CUMYDS	TRUCK	TIME
292	5.0	15	11 ⁰⁰
293	4.5	24	11 ⁰⁶
294	5.0	24	11 ²⁵
295	5.0	24	11 ⁴⁰
296	4.0	24	12 ¹⁰
297	5.0	24	12 ⁴³
298	5.0	24	12 ⁵⁶
7 loads	33.5		
			reported

Load #	Rock Loose Measure	TRUCK	TIME
LOAD #	CU. YDS	TRUCK	TIME
299	4.5	26	5-10
300	5.0	25	5-16
301	4.5	23	5-28
302	4.5	26	5-32
303	4.0	25	5-40
304	5.0	23	5-50
305	4.5	26	5-52
306	5.0	25	6-02
307	4.0	23	6-08
308	5.0	26	6-12
309	5.0	25	6-20
310	5.0	23	6-24
311	5.0	26	6-30
312	5.0	25	6-33
313	4.5	23	6-38
314	5.0	26	6-46
16	75.5		reported

SHIFT NO 2 APRIL 3RD 1933 F.E.B.
 SHOVEL NO 7 + CREW 2 MEN
 SHOVEL NO 8 + CREW 2 MEN
 DRILLING 3 MEN

No	Rock Loose Measure	TRUCK	TIME
LOAD	CU. YDS	TRUCK	TIME
315	5.0	23	6-55
316	4.5	25	7-08
317	5.0	23	7-17
318	5.0	25	7-27
319	5.0	23	7-33
320	5.0	26	7-44
321	5.0	23	7-50
322	4.5	25	7-57
323	5.0	26	8-05
324	4.5	23	8-10
325	4.0	25	8-20
326	4.5	24	8-24
327	5.0	25	8-45
328	4.5	23	8-53
329	4.5	25	10-00
330	5.0	23	10-10
16	76.0		reported

SHIFT NO 2 APRIL 3RD 1933 - F.E.B.

No	Rock LOOSE MEASURE	TRUCK	TIME
331	5.0	23	10 ³⁰
332	5.0	26	10 ³⁴
333	5.0	23	10 ⁴⁸
334	4.0	26	10 ⁵³
335	5.0	23	11 ⁰⁶
336	4.5	25	11 ²⁶
337	5.0	23	12 ¹⁰
338	5.0	25	12 ⁵⁰
339	5.0	23	1 ¹⁷
9	43.5		reported

SHIFT NO 2 APRIL 3RD-1933-F.E.B.

No	Rock LOOSE MEASURE	TRUCK	TIME
340	4.5	18	5 ⁴⁰
341	4.0	25	5 ⁴⁰
342	5.0	18	6 ⁰⁰
343	4.0	23	6 ⁰⁵
344	4.0	15	6 ⁰⁸
345	4.0	25	6 ¹⁵
346	4.5	18	6 ²⁰
347	5.0	25	6 ²⁷
348	4.0	15	6 ³⁴
349	5.0	23	6 ⁴²
350	5.0	18	6 ⁴⁸
351	4.0	15	6 ⁵⁰
352	5.0	25	6 ⁵⁵
353	5.0	23	7 ⁰⁰
354	5.0	15	7 ⁰⁶
355	5.0	25	7 ¹³
16	73.0		reported

SHIFT NO 2 APRIL 4TH 1933 F.E.B.

SHOVEL NO 7 + CREW - 2 MEN

SHOVEL NO 8 + CREW - 2 MEN

DRILLING - 3 MEN

SHOVEL NO 8 DOWN - 11³⁰

NO	ROCK LOOSE MEASURE CU. YDS	TRUCK	TIME
356	5.5	23	7 ²²
357	4.5	18	7 ²²
358	4.0	3	7 ⁴³
359	4.0	23	7 ⁵⁰
360	4.5	25	7 ⁵⁵
361	4.5	3	8 ⁰⁵
362	4.5	23	8 ¹⁵
363	4.0	3	8 ²⁴
364	4.5	25	8 ⁴⁰
365	4.5	3	8 ⁵²
366	5.0	23	8 ⁵⁶
367	4.5	15	10 ¹⁵
368	5.0	18	10 ²⁶
369	5.0	3	10 ²⁸
370	4.0	15	10 ⁴⁰
371	4.5	3	10 ⁴⁴
16	72.5 reported		

NO	ROCK LOOSE MEASURE CU. YDS	TRUCK	TIME
372	4.5	18	10 ⁵⁶
373	4.0	3	11 ⁰⁷
374	4.5	18	11 ²²
375	5.0	3	11 ³⁴
376	4.5	25	11 ⁵⁰
377	4.0	3	12 ⁰⁷
	26.5 reported		

APRIL - 4TH 33 F.E.B

NO	ROCK LOOSE MEASURE		
LOAD	CU.YDS	TRUCK	TIME
378	5.0	26	5-10
379	5.0	26	5-42
380	5.0	26	5-56
381	4.0	26	6-20
382	4.0	18	10-15
383	4.0	25	10-25
384	5.0	18	10-30
385	4.5	23	10-40
386	4.5	25	10-56
387	4.0	25	11-15
388	4.0	18	11-55
389	4.5	25	12-20
390	3.5	26	12-30
13	57.0		

reported

SHIFT NO 2 APRIL 5TH 33 F.E.B
SHOVEL NO 7-2 MEN
SHOVEL NO 8 DOWN

NO	ROCK LOOSE MEASURE		
LOAD	CU.YDS	TRUCK	TIME
391	4.5	26	5-12
392	4.0	18	5-17
393	5.0	26	5-25
394	4.0	18	5-35
395	5.0	26	5-45
396	5.0	18	6-00
397	4.5	26	6-08
398	5.0	18	6-18
399	5.0	26	6-24
400	5.0	15	6-32
401	5.5	18	6-40
402	5.0	26	6-47
403	5.0	18	6-58
404	5.0	26	7-03
405	5.0	15	7-08
406	5.0	18	7-15
16	77.5		

reported

SHIFT NO 2 APRIL 6TH 1933
SHOVEL NO 7-2 MEN
DRILLING 3-MEN
TRUCKS NO 15, 18, 26, 31

NO	ROCK LOOSE MEASURE	TRUCK	TIME
LOAD	CN. DYS		
407	5.5	26	7 ²⁰
408	5.0	15	7 ²⁵
409	4.5	26	7 ³²
410	5.0	26	7 ⁴⁵
411	5.0	26	7 ⁵⁸
412	5.0	26	8 ¹⁰
413	4.5	26	8 ²²
414	5.0	26	8 ⁴⁷
415	5.0	18	10 ¹³
416	5.0	26	10 ¹⁷
417	4.5	26	10 ²⁶
418	5.0	26	10 ⁴⁰
419	4.0	26	10 ⁵²
420	5.0	26	11 ⁰²
421	4.0	26	11 ³²
422	5.0	26	11 ⁴⁷
<u>16</u>	<u>77.0</u>		
	reprinted		

SHIFT N#2 APRIL 6TH - 33 FEB

NO	ROCK LOOSE MEASURE	TRUCK	TIME
LOAD	CN. DYS		
423	4.5	26	12 ⁰⁰
424	4.5	26	12 ¹⁵
425	5.0	26	12 ²⁵
426	5.0	26	12 ⁴⁰
427	5.0	26	1 ⁰²
428	5.0	26	1 ²⁵
<u>6</u>	<u>29.0</u>		
	reprinted		

SHIFT N#2 APRIL 6TH - 1933 FEB.

NO	ROCK LOOSE MEASURE	TRUCK	TIME
429	5.0	26	5 ²⁷
430	5.0	24	5 ³⁷
431	5.5	26	5 ⁴⁶
432	5.5	24	6 ⁰⁰
433	5.0	26	6 ⁰⁵
434	5.0	24	6 ¹⁵
435	5.0	26	6 ²¹
436	5.0	24	6 ³³
437	5.0	26	6 ⁴⁰
438	5.0	24	7 ⁰⁵
439	4.5	26	7 ¹⁰
440	5.0	24	7 ²³
441	5.0	24	7 ⁴⁰
442	5.5	26	7 ⁴³
443	5.0	24	7 ⁵⁰
444	5.0	26	8 ⁰⁰
16	81.0		

reported

SHIFT NO 2 APRIL 7TH 1933 - FEB.
SHOVEL NO 7 - 2 MEN
DRILLING + BLASTING - 3-MEN
TRUCKS + DRIVERS 24, 26.

NO	ROCK LOOSE MEASURE	TRUCK	TIME
445	4.5	26	8 ¹²
446	4.5	24	8 ²²
447	5.0	26	8 ⁴⁸
448	4.5	24	11 ⁰⁰
449	4.0	25	11 ⁵³
450	4.0	24	12 ⁰⁰
6	5.0	26	12 ⁴⁰
	5.0	18	12 ⁴⁸
	36.5		

reported

SHIFT NO 2 - APRIL 7TH / 933

FEB. 13.

No	ROCK LOOSE MEASURE	TRUCK	TIME
LOAD	CU.YDS		
451	4.5	24	5 ⁰⁶
452	5.5	25	5 ¹⁹
453	5.0	26	6 ²⁶
454	4.5	26	5 ⁴⁰
455	5.5	26	6 ⁰⁴
456	5.0	26	6 ¹⁷
457	4.5	24	10 ¹⁰
458	5.5	26	10 ¹⁶
459	4.0	23	10 ²⁰
460	4.0	20	11 ⁰⁸
461	4.5	24	11 ³⁷
462	5.0	23	11 ⁴³
463	5.0	26	11 ⁵⁵
464	5.0	25	12 ¹⁴
465	5.0	25	12 ⁴⁵
15	72.5		

reported

SHIFT NO 2 APRIL 8TH 1933 - F.E.B.
SHOVELS NO 7-8-11 - 2 MEN ON EACH SHOVEL
DRILLING - 3 MEN
TRUCKS + DRIVERS NO 18, 19, 20, 23, 24, 25, 26, 31, 39, 45, 70, 77.

No	ROCK LOOSE MEASURE	TRUCK	TIME
LOAD	CU.YDS		
466	4.0	18	3 ¹⁰
467	4.0	18	3 ³⁶
468	4.0	24	3 ⁴⁵
469	4.5	18	4 ⁰⁵
470	4.0	15	6 ⁰⁸
471	4.0	15	6 ²³
472	4.0	18	6 ³⁰
473	4.5	25	6 ⁵⁰
474	4.0	15	8 ¹⁸
475	4.5	18	9 ⁵²
476	4.5	25	10 ⁰⁵
477	4.0	18	10 ¹⁷
478	4.0	18	10 ³³
479	4.5	15	10 ⁴⁶
480	4.5	18	11 ⁰⁵
481	4.0	18	11 ²²
482	4.5	23	11 ³²
483	4.0	18	11 ⁵³
18	75.5		

reported

W.P. STR

SHIFT NO 2 JULY 24-1933 - F.E. BRACHMANN
SHOVELS NO 7-8-12 - 2 MEN ON EACH SHOVEL
TRUCKS + DRIVERS NO 15, 18, 23, 78, 8, 24, 25, 40, 7, 105, 106
NO 12 SHOVEL DOWN 1 1/2 HRS. REP.
255 - LOADS - DECOMPOSED GRANITE TO WASTE DUMP
ON UPSTREAM SIDE OF DAM.

NO. LOAD	ROCK LOOSE MEASURE	TRUCK	TIME
	CU. YDS		
484	4.0	18	3 ⁰⁰
485	4.5	18	4 ¹⁰
486	4.5	18	5 ³⁸
487	5.0	18	6 ²²
488	4.0	18	6 ³³
489	6.0	25	8 ¹⁵
490	6.0	24	8 ²⁰
491	4.5	24	8 ³⁸
492	4.0	24	9 ¹⁵
493	5.0	8	9 ¹²
494	4.0	24	9 ²⁵
495	5.0	18	9 ⁴⁸
12	56.5		

reported
WRSTR

SHIFT NO 2 JULY 25-1933 - F.E. BRACHMANN
 SHOVEL NO. 7-8-12 - 2 MEN ON EACH SHOVEL
 TRUCKS + DRIVERS, 23, 24, 18, 7, 8, 25, 28, 142,
 SHOVEL NO 12 DOWN 3 1/2 HRS.
 198 LOADS D.G. TO WASTE DUMP ON UPSTREAM SIDE OF DAM
 168 " " " " " DOWN " "

NO. LOAD	ROCK LOOSE MEASURE	TRUCK	TIME
	CU. YDS		
496	4.0	15	3 ⁰⁸
497	4.0	25	3 ³⁰
498	4.0	25	4 ¹⁰
499	4.0	25	5 ²⁹
500	4.5	18	6 ⁰⁰
501	4.0	15	6 ³⁴
502	4.5	18	6 ⁴⁰
503	4.0	15	6 ⁴²
504	4.0	25	6 ⁵⁰
505	4.5	15	8 ⁵⁷
506	4.0	15	9 ⁰⁸
507	4.0	15	10 ¹⁵
508	4.0	20	11 ³⁰
509	4.0	18	11 ³⁵
510	4.5	8	11 ³⁹
15	62.0		

reported
WRSTR

SHIFT NO 2 JULY 26-1933 - F.E. BRACHMANN.
 SHOVEL NO 7-8-12 - 2 MEN - ON EACH SHOVEL
 TRUCK + DRIVERS NO 23, 24, 25, 40, 7, 8, 15, 25, 275, 78, 18.
 209 - LOADS - D.G. TO WASTE - ON UP-STREAM - SIDE DAM
 198 " " " " " DOWN STREAM " "

NO LOAD	ROCK LOOSE MEASURE		TRUCK TIME
	CU. YDS		
535	4.0	18	3 ¹⁸
536	4.0	20	3 ²¹
537	4.5	24	3 ²⁴
538	4.0	23	3 ²⁷
539	4.5	18	3 ³¹
540	4.0	13	3 ³⁴
541	4.0	24	3 ³⁶
542	4.0	20	3 ³⁹
543	4.5	23	3 ⁴³
544	3.5	13	3 ⁴⁵
545	5.0	25	3 ⁴⁶
546	4.5	24	3 ⁵⁵
547	4.5	23	3 ⁵⁴
548	4.0	13	4 ⁰⁷
549	4.0	20	4 ²¹
550	4.5	25	4 ²⁵
16	67.5		

SHIFT NO 2 - JULY - 28TH 1933 F.E. BRACHMANN
SHOVEL NO 7-819

TRUCKS NO

SHOVEL NO 12 DOWN 1/2 H.R. PER
" NO 8 CASTING OVER

NO LOAD	ROCK LOOSE MEASURE		TRUCK TIME
	CU. YDS		
551	5.0	18	4 ³³
552	4.5	25	4 ⁴⁰
553	4.5	18	4 ⁵⁰
554	3.5	23	4 ⁵²
555	4.0	25	4 ⁵⁴
556	4.5	24	4 ⁵⁷
557	5.0	15	4 ⁵⁹
558	4.5	18	5 ⁰³
559	4.0	13	5 ⁰⁶
560	4.5	25	5 ⁰⁷
561	4.0	20	5 ⁰⁹
562	4.0	24	5 ¹⁰
563	4.5	23	5 ¹⁴
564	4.5	18	5 ¹⁸
565	4.0	24	5 ²⁶
566	4.5	23	5 ³⁰
16	69.5		

SHIFT NO 2 JULY 28 - 1933 F.E.B.

NO LOAD	Rock LOOSE MEASURE CU.YDS	TRUCK	TIME
567	4.0	25	5 ³⁴
568	5.0	24	5 ³²
569	4.0	23	5 ⁴¹
570	5.0	18	5 ⁴⁴
571	4.0	25	5 ⁵²
572	4.5	24	5 ⁵⁶
573	4.0	20	5 ⁵⁹
574	4.5	25	6 ⁰²
575	5.0	24	6 ⁰⁶
576	4.5	24	6 ¹⁸
577	3.5	18	6 ²⁵
578	4.0	20	6 ²⁷
579	4.5	24	6 ³⁸
580	4.0	23	6 ³²
581	4.0	13	6 ⁴¹
582	4.0	24	6 ⁴⁹
16	68.5		

SHIFT NO-2-JULY 28TH 1933 F.E.B.

NO LOAD	Rock LOOSE MEASURE CU.YDS	TRUCK	TIME
583	4.0	15	6 ⁵³
584	4.0	13	8 ⁰¹
585	4.5	15	8 ⁰⁷
586	4.0	23	8 ¹⁰
587	4.5	18	8 ¹⁷
588	4.0	23	8 ²⁹
589	4.5	15	8 ⁴⁵
590	4.0	23	8 ⁵²
591	3.5	24	9 ⁰⁰
592	4.5	23	9 ⁰³
593	4.5	23	9 ¹⁷
594	5.0	24	9 ²⁰
595	4.0	23	9 ³⁵
596	3.0	15	9 ⁴⁵
597	4.0	15	9 ⁵²
598	4.0	18	10 ⁰⁸
16	66.0		

SHIFT NO 2 - JULY 28TH 1933

NO LOAD	ROCK LOOSE MEASURE C.U. YDS	TRUCK	TIME
599	4.0	13	10 ¹¹
600	4.5	25	10 ⁴²
601	4.0	13	10 ⁵²
602	4.5	23	10 ⁵⁵
603	4.0	15	10 ⁵⁶
604	3.5	13	11 ⁰¹
605	4.5	23	11 ⁰⁵
606	4.0	13	11 ¹⁵
607	4.0	23	11 ²⁰
608	4.0	15	11 ²²
609	4.0	13	11 ²⁵
610	4.0	23	11 ⁴⁷
611	4.0	23	12 ⁰⁰
13	53.0		

reported

324.5
TOTAL

113-LOADS-DIG. TO WASTE UPSTREAM
 141 " " DOWNSTREAM
 SHIFT NO 2 JULY - 28 - 1933 F.E.B.

NO LOAD	ROCK LOOSE MEASURE C.U. YDS	TRUCK	TIME
612	4.0	24	3 ⁰³
613	4.0	25	3 ⁰⁸
614	3.0	18	3 ¹⁵
615	3.5	24	3 ²⁰
616	4.0	18	3 ³⁰
617	4.5	24	3 ³⁸
618	4.0	18	3 ⁴²
619	4.0	24	3 ⁴⁹
620	4.5	15	3 ⁵⁰
621	4.5	18	3 ⁵⁴
622	4.0	24	4 ⁰⁰
623	4.0	15	4 ¹⁰
624	4.5	18	4 ⁰⁶
625	4.0	24	4 ¹⁶
626	4.0	18	4 ¹⁸
627	4.5	15	4 ²¹
16	65.0		

SHIFT NO-2 - JULY 29 TH 1933 - F.E. BRACHMANN
 SHOVEL NO 7-8-12
 TRUCKS NO 15, 18, 20, 23, 24, 25, 29, 40, 7, 44

NO LOAD	ROCK LOOSE MEASURE CU. YDS	TRUCK	TIME
628	4.5	18	4 ³⁵
629	4.0	25	4 ⁴⁷
630	4.0	15	4 ⁴⁸
631	4.5	18	4 ²⁹
632	3.5	24	5 ⁰⁸
633	4.0	25	5 ¹⁵
634	4.5	18	5 ²⁵
635	4.0	10	5 ³⁰
636	4.0	25	5 ³²
637	4.0	18	5 ⁴⁰
638	3.5	15	5 ⁴³
639	4.0	24	5 ⁴⁶
640	4.0	25	6 ⁰³
641	4.5	20	5 ⁵⁸
642	4.0	24	6 ¹⁰
643	4.0	18	6 ¹⁵
16	65.0		

NO LOAD	ROCK LOOSE MEASURE CU. YDS	TRUCK	TIME
644	4.5	20	6 ¹⁵
645	4.5	24	6 ²²
646	5.0	15	6 ²⁵
647	4.5	18	6 ²⁸
648	4.0	25	6 ³²
649	4.0	24	6 ⁴⁰
650	4.5	18	6 ⁴⁴
651	4.5	20	6 ⁴¹
652	4.0	25	6 ⁵⁰
653	4.5	25	8 ⁰¹
654	4.0	20	8 ⁰⁷
655	4.5	18	8 ⁰⁸
656	4.0	25	8 ¹⁴
657	4.5	25	8 ²⁷
658	5.0	24	8 ³¹
659	4.5	20	8 ³⁷
16	70.5		

NO LOAD	ROCK LOOSE MEASURE CU. YDS	TRUCK	TIME
660	5.0	18	8 ⁴⁸
661	4.0	20	8 ⁵⁴
662	4.0	25	9 ⁰³
663	3.5	15	9 ¹⁰
664	4.5	25	9 ⁴⁰
665	4.0	18	9 ⁴⁴
666	5.0	24	9 ⁴⁸
667	4.5	20	9 ⁴⁹
668	4.5	15	10 ⁰⁰
669	5.0	20	10 ⁰²
670	4.0	15	10 ¹⁰
671	4.5	18	10 ¹⁸
672	4.0	20	10 ²²
673	5.0	24	10 ²⁹
674	6.0	15	10 ⁴⁰
675	5.0	25	10 ⁴³
16	72.5		

64

NO LOAD	ROCK LOOSE MEASURE CU. YDS	TRUCK	TIME
676	6.0	20	10 ⁵⁰
677	4.5	15	11 ⁰⁰
678	4.5	25	11 ⁰³
679	5.0	20	11 ⁰⁹
680	5.5	20	11 ³⁰
681	3.5	15	11 ⁴⁰
682	6.5	20	11 ⁴¹
683	4.0	24	11 ⁴⁴
684	5.0	20	11 ⁵²
9	43.5		

316.5

reported

SHIFT - NO. 2 JULY - 29 FEB.
 64 LOADS D.D.G. TO DOWN-STREAM DUMP
 286
 316.5 CU. YDS ROCK - TO DAM UP STREAM

LN	ROCK LOOSE MEASURE		TRUCK	TIME
	LOAD	CU. YDS		
685	4.0	20	3	<u>09</u>
686	4.0	25	3	<u>10</u>
687	4.0	24	3	<u>11</u>
688	4.5	15	3	<u>14</u>
689	4.5	18	3	<u>19</u>
690	5.0	20	3	<u>22</u>
691	4.0	24	3	<u>24</u>
692	4.0	22	3	<u>26</u>
693	4.5	23	3	<u>29</u>
694	5.0	15	3	<u>30</u>
695	5.0	18	3	<u>33</u>
696	4.0	20	3	<u>35</u>
697	4.5	25	3	<u>38</u>
698	2.5	23	3	<u>42</u>
699	4.0	24	3	<u>44</u>
700	4.0	15	3	<u>48</u>
16	67.5			

SHIFT NO 2 - JULY - 31 - 1933 F. E. BRACHMANN,
 SHOVELS - NO - 7-8-12 (2) MEN ON EACH SHOVEL
 TRUCKS NO 7, 15, 18, 20, 23, 25, 26, 17, 24

NO	ROCK LOOSE MEASURE		TRUCK	TIME
	LOAD	CU. YDS		
701	4.5	18	3	<u>56</u>
702	4.5	25	4	<u>00</u>
703	4.0	23	4	<u>00</u>
704	4.0	23	4	<u>10</u>
705	4.5	20	4	<u>17</u>
706	5.0	25	4	<u>32</u>
707	4.0	23	4	<u>37</u>
708	4.0	20	4	<u>38</u>
709	4.5	15	4	<u>49</u>
710	5.5	24	4	<u>45</u>
711	5.0	23	4	<u>56</u>
712	6.0	18	5	<u>05</u>
713	5.0	23	5	<u>21</u>
714	4.5	24	5	<u>22</u>
715	4.0	20	5	<u>32</u>
716	4.5	25	5	<u>36</u>
16	73.5			

ROCK
LOOSE
MEASURE

NO LOAD	CU. YDS	TRUCK	TIME
717	4.5	23	5 ³⁸
718	4.5	24	5 ²⁰
719	4.5	20	5 ⁵⁴
720	4.0	25	5 ⁵⁵
721	4.5	20	6 ⁰⁴
722	4.5	15	6 ⁰⁵
723	5.0	20	6 ¹²
724	4.5	20	6 ²¹
725	5.0	20	6 ²⁸
726	5.0	20	6 ³⁸
727	4.0	25	6 ⁴²
728	6.0	20	6 ⁵⁰
729	5.0	15	6 ⁵⁴
730	4.5	18	7 ⁰⁰
731	5.0	25	7 ⁰²
732	5.5	18	8 ¹⁰
16	76.0		

ROCK
LOOSE
MEASURE

26

NO LOAD	CU. YDS	TRUCK	TIME
733	4.5	24	8 ¹¹
734	5.0	20	8 ¹²
735	5.5	23	8 ¹⁵
736	5.0	17	8 ¹⁸
737	5.0	20	8 ²²
738	4.5	18	8 ²⁵
739	4.5	17	8 ³¹
740	5.0	23	8 ⁴⁰
741	5.0	20	8 ⁴⁷
742	4.0	17	8 ⁵⁴
743	4.0	20	9 ⁰⁵
744	4.5	18	9 ⁰⁶
745	5.5	17	9 ¹²
746	6.0	24	9 ¹³
747	4.5	20	9 ²¹
748	4.5	17	9 ²⁸
16	77.0		

64

NO. LOAD	ROCK LOOSE MEASURE	TRUCK	TIME
	C.U. YDS		
749	5.0	17	10 ⁰⁸
750	4.5	15	10 ¹³
751	4.5	20	10 ²³
752	5.0	17	10 ³⁸
753	4.5	25	10 ⁵⁰
754	5.5	20	10 ⁵³
755	6.0	17	10 ⁵⁸
756	5.5	15	11 ⁰⁰
757	4.0	17	11 ¹⁰
758	4.5	18	11 ²³
759	4.0	24	11 ²⁵
760	4.0	25	11 ²⁶
761	4.0	25	11 ⁴²
762	4.5	20	11 ⁵²
763	4.0	24	11 ⁵⁹
80 764	5.0	15	11 ⁵⁹
16	76.5		
	370.5		
	TOTAL		

reported

SHIFT NO 2 JULY 31ST 1933 F.E.B.
 212 LOADS D.G. TO DOWNSTREAM DUMP
 120 " " UP

NO. LOAD	ROCK LOOSE MEASURE	TRUCK	TIME
	C.U. YDS		
765	4.5	25	3 ⁰⁹
766	4.0	17	3 ⁰⁴
767	5.0	18	3 ⁰⁸
768	4.5	25	3 ¹⁰
769	3.0	23	3 ²⁰
770	4.0	25	3 ²⁵
771	4.5	17	3 ⁴⁹
772	4.0	18	3 ⁵⁹
773	4.0	17	4 ¹¹
774	5.0	18	4 ²²
775	4.0	20	4 ²⁰
776	4.0	?	4 ²⁵
777	5.5	24	4 ³³
778	4.5	20	4 ³⁴
779	4.5	18	4 ⁵⁶
780	4.5	24	5 ¹²
16	69.5		

SHIFT NO 2 AUGUST - 1ST 1933 - F.E. BRACHMANN
 SHOVEL NO 7-8-12 NO 12 SHOVEL DOWN-1-Hour.
 TRUCK NO 18-20-23-24-25-25-? - 44-34 - 17-

NO. LOAD	ROCK LOOSE MEASURE	TRUCK	TIME	
	CU. YDS			
781	4.5	?	5 ²²	
782	5.5	23	5 ³⁶	
783	4.5	17	5 ⁴⁴	
784	4.5	24	6 ³⁰	
785	4.5	20	6 ⁴⁰	
786	5.0	24	7 ⁰¹	
787	4.5	25	7 ¹²	
788	5.5	17	7 ²²	
789	6.0	24	7 ³⁰	
790	5.0	25	7 ³²	
791	4.5	17	7 ⁴¹	
792	5.0	24	7 ⁴⁵	
793	4.5	25	7 ⁴⁹	
794	4.5	17	7 ⁵²	
795	4.5	24	7 ⁵⁶	
796	5.0	25	7 ⁵⁹	32
16	77.5			

28

NO. LOAD	ROCK LOOSE MEASURE	TRUCK	TIME	
	CU. YDS			
797	5.0	17	8 ²⁵	
798	4.5	20	8 ³⁴	
799	5.0	17	9 ¹⁰	
800	5.0	24	9 ¹⁸	
801	5.0	25	9 ²⁵	
802	6.0	18	9 ³⁰	
803	4.5	24	9 ⁴⁰	
804	4.5	17	9 ⁵⁰	
805	5.0	24	9 ⁵⁵	
806	4.5	23	10 ⁰⁷	
807	4.5	18	10 ¹⁶	
808	4.5	?	10 ²⁰	
809	4.0	25	10 ²⁵	
810	5.0	?	10 ⁴⁰	
811	4.0	23	10 ⁴⁹	
812	4.5	24	11 ¹⁵	48
76	75.5			

NO LOAD	ROCK LOOSE MEASURE CU. YDS	TRUCK	TIME
813	5.0	17	11 ³²
814	4.0	?	11 ⁴²
51	<u>815</u>	24	11 ⁴⁹
	14.0		
	69.5		
	77.5		
	79.5		
	<u>236.5</u>		
	TOTAL		

reported

230 LOADS D.G. TO-DOWN STREAM DUMP
 137 " " UP STREAM DUMP
 SHIFT NO 2 AUG. 1ST 1933 F.E.B.

NO LOAD	ROCK CU. YDS	TRUCK	TIME
816	4.0	26	3 ⁰²
817	5.0	20	3 ⁰⁹
818	3.0	23	3 ¹³
819	4.0	17	3 ¹⁷
820	3.0	8	3 ²¹
821	4.0	23	3 ²⁸
822	4.5	24	3 ³²
823	4.0	17	3 ³⁷
824	4.0	8	3 ⁴⁶
825	3.5	10	4 ¹¹
826	4.0	23	4 ²¹
827	4.0	17	4 ³⁵
828	4.0	20	4 ³⁶
829	4.0	8	4 ⁴³
830	4.0	23	4 ⁵¹
831	4.5	17	
16	<u>68.5</u>		

SHIFT NO 2 - AUGUST - 2ND 1933 - F.E.B.
 SHOVEL NO 7-8-12.

TRUCK NO 8-10-17-18 20-23-24-25-25, 7, 34, 40.

NO LOAD	ROCK CU. YDS	TRUCK	TIME
832	5.0	26	5 ⁰¹
833	4.0	2	5 ⁰⁵
834	4.0	24	5 ¹⁵
835	4.0	5	5 ¹⁸
836	3.0	2	5 ³⁵
837	3.5	26	6 ³⁶
838	4.0	17	6 ⁴⁶
839	4.0	26	6 ⁴⁹
840	4.0	24	6 ⁵²
841	4.5	17	7 ⁰⁰
842	4.5	24	8 ⁰⁴
843	4.5	5	8 ⁰⁷
844	4.5	18	8 ¹⁰
845	4.5	17	8 ¹²
846	4.0	8	8 ²⁴
847	4.0	17	8 ²⁹
16	66.0		

36

NO LOAD	ROCK CU. YDS	TRUCK	TIME
848	4.0	2	8 ³³
849	4.0	18	8 ⁴⁰
850	4.0	23	8 ⁴³
851	4.0	20	8 ⁴⁴
852	4.0	24	8 ⁴⁵
853	4.5	2	8 ⁴⁸
854	5.0	17	8 ⁵²
855	4.5	20	8 ⁵⁸
856	4.0	18	8 ⁵⁸
857	5.0	8	9 ⁰⁵
858	4.5	17	9 ⁰⁹
859	4.0	18	9 ¹⁰
860	4.0	23	9 ²⁴
861	4.5	24	9 ²⁸
862	5.0	17	9 ³⁰
863	4.0	20	9 ³⁵
76	69.0		

No	LOAD	ROCK CU.YDS	TRUCK	TIME
864		4.5	2	9 ³⁶
865		4.5	17	9 ⁴⁵
866		4.0	24	9 ⁰⁰
867		4.0	23	9 ⁵⁵
868		4.5	2	10 ⁰⁸
869		5.0	24	10 ³²
870		5.0	26	10 ³⁷
871		4.0	24	11 ⁰⁷
872		4.0	23	11 ¹⁰
873		5.0	2	11 ¹²
874		4.0	24	11 ¹⁹
875		4.0	26	11 ²²
876		3.5	8	11 ³⁷
877		4.0	23	11 ⁴⁰
878		4.0	11	11 ⁵⁶
64	879	64.0		reported
		63.5		
		66.0		
		69.0		
		262.5		TOTAL

SHIFT NO-2 AUGUST-2ND-1933 F.I.E.B

No	LOAD	ROCK CU.YDS	TRUCK	TIME
880		4.0	23	3 ⁰¹
1		4.0	24	3 ⁰⁵
2		4.0	20	3 ⁰⁹
3		4.0	26	3 ¹³
4		4.0	23	3 ¹⁸
5		4.5	24	3 ²³
6		4.0	20	3 ²⁸
7		5.0	26	3 ⁴⁰
8		2.0	23	3 ⁴⁶
9		4.5	20	4 ²⁰
890		5.0	20	5 ²⁶
1		3.0	26	5 ³²
2		5.0	26	6 ⁰⁷
3		5.5	17	6 ²⁵
4		4.0	24	8 ⁰¹
895		4.0	26	8 ³⁶
16		66.5		

SHIFT NO.2 - AUG. 3RD 1933 F.F. BRACHMANN

SHOVEL NO 7-8-12. NO 8 DOWN 1/4.

TRUCK NO 8-10-17-18-20-23-24-25-39-40-34-142-7-44

NO LOAD	ROCK CU. YDS	TRUCK	TIME
896	4.0	26	10 ⁰⁸
897	5.0	26	10 ⁵⁵
898	5.0	18	11 ²⁹
19	14.0		
	66.5		
	80.5		
	TOTAL		

reported

SHIFT NO 2 - AUGUST - 3RD 1933 FEB

LOAD	ROCK CU. YDS	TRUCK	TIME
899	4.0	20	3 ³⁰
900	4.0	20	3 ⁵³
1	4.0	26	4 ²¹
2	4.0	26	4 ⁴⁷
3	4.5	20	5 ⁰⁶
4	4.0	20	5 ³³
5	3.0	26	6 ⁰⁰
6	4.5	26	8 ⁰³
7	4.5	20	8 ¹⁴
8	4.0	26	8 ¹⁸
9	4.5	20	8 ²⁷
910	4.0	26	8 ³⁰
11	5.0	20	8 ⁴¹
12	4.0	20	9 ⁴⁸
13	4.5	20	10 ⁰⁰
914	4.0	26	10 ²⁰
915	5.0	20	11 ³⁸
	71.5		

SHIFT NO 2 - AUGUST - 4TH - 1933 - F.E. BRACHMANN
SHOVEL NO 7 - 8 - 12 - NO CASTING OVER
TRUCK NO

LOAD	ROCK CU.YDS	TRUCK	TIME
915	3.5	26	11 ⁵⁵
19	71.5		
	75.0		
	TOTAL		

reported

SHIFT NO 2 - AUGUST 4TH 1933. F.E.B

LOAD	ROCK CU.YDS	TRUCK	TIME
916	4.0	26	3 ⁰⁷
917	4.0	20	3 ¹¹
918	4.0	26	3 ²⁰
919	3.0	26	3 ³⁰
920	4.0	26	3 ⁵⁵
921	3.5	18	4 ⁰³
922	3.5	18	4 ²⁵
923	3.5	26	4 ³⁶
924	4.5	20	5 ⁰⁰
925	3.5	18	5 ¹⁵
926	4.0	26	5 ²⁰
927	4.0	18	5 ²⁹
928	4.0	18	5 ⁴⁵
929	2.5	20	6 ⁰²
930	4.0	20	6 ³⁰
931	4.0	18	8 ⁰⁶
	60.0		

SHIFT NO 2 - AUGUST 5TH 1933. F.E.B. BRACHMANN

SHOVEL NO 7-8-12

TRUCK NO 4.

LOAD	ROCK CU. YD	TRUCK	TIME
932	6.0	20	8 ¹⁰
933	4.0	26	8 ³⁰
934	5.0	18	8 ⁴²
934	4.0	26	10 ¹⁰
935	4.0	18	10 ²⁹

23.0

60
73.0
TOTAL

189 D.G. TO UP-STR-DUMP

484 D.G. 4 DOWNSTR " "
reported

73.0

34

LOADS	ROCK CU. YDS	TRUCK	TIME
936	4.0	26	3.05
937	4.0	26	4.30
938	4.0	20	4.47
939	4.5	26	4.56
940	4.0	20	5.09
941	3.5	26	5.17
942	4.0	20	5.21
943	4.0	26	5.31
942	4.0	20	5.35
943	4.0	20	5.49
944	4.5	26	5.53
945	4.5	20	6.00
946	4.0	26	6.05
947	5.0	20	6.10
948	4.0	26	6.15
949	4.5	20	6.21
16	66.5		

SHIFT NO 2-AUGUST-7TH 1933-F.F. BRACHMANN
SHOVEL NO 7-8-9-12
TRUCKS NO 16

LOADS	ROCK CU. YDS	TRUCK	TIME
950	3.5	26	6 ²⁴
951	4.5	18	6 ³⁵
952	4.5	20	6 ⁴⁴
953	4.0	24	6 ⁴⁸
954	4.0	18	8 ⁰⁵
955	4.0	26	8 ⁰⁸
956	4.0	26	8 ²⁰
957	5.0	20	8 ³⁵
958	4.0	18	8 ³⁸
959	5.0	18	9 ¹⁷
960	4.0	26	9 ³⁰
961	4.5	26	9 ⁵⁰
962	4.0	18	9 ⁴⁰
963	4.5	18	9 ⁵⁷
964	3.0	26	10 ⁰⁰
965	4.0	18	10 ⁰⁸
<u>16</u>	<u>66.5</u>		

LOADS	ROCK CU. YD	TRUCK	TIME
966	5.0	26	10 ²⁰
967	3.5	20	10 ³³
968	4.0	20	10 ⁴⁵
969	4.0	26	10 ⁵⁰
970	4.0	18	10 ⁵⁷
971	3.0	20	11 ⁰³
972	4.0	18	11 ²²
973	3.0	26	11 ³⁶
974	6.0	18	11 ³⁹
975	4.0	20	11 ³⁹
43 976	4.5	26	11 ⁴⁷
11	46.0		
	66.5		
	66.5		
	<u>178.0</u>		

reported

NO LOADS ROCK
CU. YDS TRUCK TIME

977	4.0	26	5.09
978	4.0	20	5.21
979	4.0	20	5.34
980	3.0	26	5.41
981	4.0	20	6.06
982	4.0	26	6.23
983	2.0	26	6.39
97	<u>25.5</u>		
	TOTAL		

reported

SHIFT NO 2 - AUGUST 8TH 1933 - F.E. BRACHMANN
SHOVEL NO 7 - 8-9-12 NO 12 DOWN 2 HRS.
3 MEN DRILLING
TRUCKS - 14

NO 12 SHOVEL - 4 HRS
AIR-COM PRESSOR

LOADS ROCK
CU. YDS TRUCK TIME

984	4.0	18	3.28
985	3.0	15	3.32
986	4.0	26	3.36
987	4.5	23	3.43
988	4.5	18	3.48
989	4.0	17	3.50
990	4.0	25	4.04
991	3.0	18	4.12
992	3.5	17	4.16
993	4.0	23	5.00
994	4.0	25	5.32
995	4.0	17	5.46
996	5.0	23	6.00
997	4.0	17	6.02
998	4.0	17	6.32
999	4.0	15	8.22
16	<u>63.5</u>		

SHIFT NO 2 - AUGUST 9TH 1933 - F.E. BRACHMANN
SHOVELS NO 7-8-9
TRUCKS NO 10
5 MEN - DRILLING
1 - AIR-COM PRESSOR

LOADS	ROCK CU. YDS	TRUCK	TIME
1000	5.0	23	8 ⁴¹
1	4.5	23	9 ⁰⁵
2	3.0	15	9 ²²
3	4.0	15	10 ⁰²
4	6.0	25	10 ⁵¹
5	4.0	25	11 ⁰⁶
6	4.0	18	9 ⁰⁴
7	4.0	24	11 ⁵⁸
	<u>35.0</u>		
	63.5		

98.5

TOTAL

reported

LOADS	ROCK CU. YDS	TRUCK	TIME
1009	3.0	20	3 ⁰⁶
9	3.0	23	3 ¹⁰
10	3.0	20	6 ²⁵
11	4.5	23	8 ⁰⁵
12	3.5	24	9 ²²
13	4.0	18	8 ⁵⁷
14	4.0	25	9 ⁴²
15	3.0	18	9 ⁵⁷
16	4.0	26	11 ¹⁰
17	4.0	18	11 ²⁰
18	4.0	15	11 ³⁰
19	5.0	20	11 ³⁶
20	4.0	18	11 ⁴⁹
21	4.0	24	11 ⁵⁰
14	<u>53.0</u>		
	CU. YDS		

reported

SHIFT NO 2 - AUGUST - 10 TH 1933 - F. E. BRACHMANN
 SHOVEL NO 7 - 8. - 8 - DOWN 1 1/2 HRS. - 7 DOWN - 2 HRS. - 7 DOWN 2 1/2 HRS.
 2 - AIR-COMPRESSORS - NO 9 WORKING 1 1/4 HRS.
 1 - CATERPILLAR - 3 MEN - DRILLING

11 - TRUCKS

119 - LOADS - P. G. DOWN - STR DUMP
 2676 - " UP "

ON DAM { 1 - MAN - DRILLING
 1 - AIR - COMP - ON DAM

LOADS	ROCK CU.YDS	TRUCK	TIME
1022	4.5	25	3 ¹⁰
23	4.0	15	3 ¹⁴
24	4.5	18	3 ¹⁵
25	4.5	20	3 ²⁴
26	4.0	26	3 ²⁷
27	4.5	18	3 ³⁰
28	4.0	15	3 ³⁵
29	4.5	20	3 ⁴⁰
30	4.0	26	3 ⁴⁵
31	4.5	18	3 ⁴⁸
32	4.0	25	3 ⁵¹
33	5.0	26	3 ⁵³
34	4.0	17	3 ⁵⁴
35	4.0	25	4 ⁰³
36	5.0	17	4 ⁰⁷
37	3.0	2	4 ¹²
<u>16.</u>	<u>68.0</u>		

SHIFT NO 2 - AUGUST 11TH 1933 - F.E. BRACHMANN.
 SHOVELING 7-8-9
 TRUCKS NO 13
 5-MEN-DRILLING + B ZAIR-COMPRESSORS
 1-MAN-DRILLING - ON-DAY
 1-AIR-COMPR.

LOADS	ROCK CU.YDS	TRUCK	TIME
1038	4.5	18	4 ¹⁴
39	3.0	25	4 ¹⁸
40	3.0	17	4 ²³
41	4.0	25	4 ³²
42	3.5	26	4 ³⁵
43	5.5	2	4 ⁴⁰
44	4.0	18	4 ⁴⁷
45	3.0	25	4 ⁵¹
46	3.5	17	4 ⁵⁵
47	4.0	26	5 ⁰⁷
48	4.5	2	5 ¹⁰
49	4.0	18	5 ²⁰
50	4.0	17	5 ²⁵
51	4.0	18	5 ³⁵
52	4.5	26	5 ⁴⁰
53	4.5	17	5 ⁴²
<u>16</u>	<u>61.5</u>		

LOADS	ROCK CU. YDS	TRUCK	TIME
1054	4.0	25	5:46
55	4.0	18	5:57
56	4.5	18	6:29
57	4.0	17	6:35
58	4.5	26	6:47
59	4.0	17	6:53
60	4.0	18	6:58
61	4.0	26	7:00
62	4.5	17	8:10
63	5.0	15	8:11
64	4.5	18	8:12
65	4.0	26	8:15
66	4.5	24	8:17
67	5.0	23	8:21
68	4.5	17	8:22
69	4.5	15	8:25
48	16	69.5	

LOADS	ROCK CU. YDS	TRUCK	TIME
1070	4.5	26	8:28
1	4.0	24	8:30
2	4.5	17	8:34
3	5.0	18	8:40
4	4.0	20	8:43
5	4.0	25	8:45
6	5.0	17	8:49
7	4.0	26	8:53
8	4.5	18	8:56
9	4.5	25	9:00
1080	4.5	18	9:15
1	4.5	25	9:18
2	4.0	26	9:21
3	5.0	17	9:24
4	5.0	18	9:30
1085	4.5	25	9:42
64	16	71.5	

LOADS	ROCK CU. YDS	TRUCK	TIME	
1086	3.5	17	9 ⁵⁵	
87	4.5	18	10 ⁰⁰	
88	4.5	26	10 ⁰⁵	
89	4.0	18	10 ¹⁴	
90	3.5	26	10 ²¹	
91	4.0	17	10 ²⁵	
92	4.0	18	10 ³⁰	
93	5.0	25	10 ³²	
94	4.5	26	10 ³⁵	
95	4.5	17	10 ⁴⁰	
96	4.5	18	10 ⁵⁰	
97	5.0	17	10 ⁵⁷	
98	4.5	26	11 ⁰³	
99	5.0	17	11 ⁰⁸	
1100	5.0	25	11 ²⁰	
80	1	4.5	18	11 ²²
	<u>16</u>			
	70.5			

LOADS	ROCK CU. YDS	TRUCK	TIME
1102	4.5	25	11 ³¹
	4.0	25	11 ⁴⁰
	4.0	17	11 ⁴⁶

12.5
68.
61.5
69.5
71.5
70.5

353.5

353.5

TOTAL

reported.

40
AUGUST - 11TH 1933 F.V.E. B.
400 - LOADS - DIG TO UP-STREAM DUMP
117 " " DOWN-STREAM DUMP

LOADS	Rock CU.YDS	TRUCK	TIME
1103	4.0	20	3 ²³
4	4.0	23	3 ²⁷
5	3.5	17	3 ³²
6	4.5	23	3 ⁴³
7	4.5	26	4 ¹⁵
8	4.5	20	4 ²⁶
9	4.0	25	4 ³⁰
10	3.5	26	4 ⁴⁵
11	5.0	23	4 ⁴⁶
12	4.0	17	5 ⁰⁰
13	4.5	13	5 ⁴²
14	4.5	23	5 ⁴⁵
15	3.5	26	5 ⁴⁶
16	3.0	17	5 ⁵⁸
17	4.0	26	6 ⁰³
11 18	4.0	12	4 ⁴¹
16	65.0		

4.D.S.
61.U.S.

SHIFT NO 2 AUGUST - 12TH 1933. F.E. BRACHMANN
SHOVEL NO 7-8-9
TRUCKS NO 13

4 MEN - DRILLING + BLASTING - 2 AIR-COMP-1-CAT
ON-DAM - 2 MEN DRILLING BOW-DOERS
1-AIR COMPRESSOR

LOADS	Rock CU.YDS	TRUCK	TIME
1119	4.0	25	6 ¹²
20	4.0	18	6 ¹⁸
21	4.0	12	6 ²⁶
22	4.0	10	6 ³²
23	4.5	13	6 ³³
24	4.0	26	6 ⁴³
25	4.0	25	8 ⁰⁶
26	5.0	25	8 ¹⁸
27	4.5	18	8 ³⁰
28	4.5	17	8 ³²
29	4.0	18	8 ⁴⁵
30	4.0	12	8 ⁵³
31	4.5	25	8 ⁵⁶
32	4.0	26	9 ⁰⁴
33	5.0	18	9 ¹⁰
34	4.0	26	9 ²⁰
16	68.0		

8.D.S.
60.U.S.

32

LOADS	ROCK CU. YDS	TRUCK	TIME
1135	4.5	26	940
36	4.5 D.S.	12	950
37	4.0	17	1000
38	4.0	17	1013
29	4.0	18	1032
30	5.0	18	1043
31	3.0	26	1057
32	4.0	18	1100
33	4.0	26	1115
34	4.5	18	1120
35	4.0	15	1121
36	4.5	24	1130
37	4.0	26	1135
38	3.5	24	1144
39	4.0	26	1147
40	4.0	20	1155
	61.0	18.5.	
	4.5	D.S.	
	194	U.S.	

repeated

LOADS 445 = D.G. TO-UP STR
" 90 = D.G. TO-DOWN STR

LOADS	ROCK CU. YDS	TRUCK	TIME
1141	3.0	23	306
42	4.0	18	315
43	3.5	23	321
44	4.0	18	326
45	3.5	23	335
46	4.0	18	345
47	3.5	18	413
48	4.5	23	421
49	4.0	18	426
50	5.0	23	431
51	4.5	18	442
52	4.0	26	445
53	5.0	29	450
54	4.5	26	452
55	4.0	23	500
56	5.0	26	505
	66.0		

SHIFT NO 2 AUGUST 14TH 1933. F.E. BRACHMANN
SHOVEL NO 7-8-12
TRUCKS NO 13

AIR-COMPRESSORS - 2 - 5 MEN DRILLING & BLASTING

ON DAM { 2 MEN DRILLING BOLLERS 1 - MAN - 8 HRS.
1 AIR-COMPRESSOR 1 - MAN - 4 "

LOADS	ROCK CU. YDS	TRUCK	TIME
1157	4.5	23	5 ¹⁰
58	4.0	26	5 ¹⁵
59	4.5	23	5 ²³
60	4.5	26	5 ²⁷
61	4.0	18	5 ³¹
62	5.0	23	5 ⁴⁰
63	4.0	26	5 ⁴⁵
64	4.5	18	5 ⁴⁷
65	3.0	23	5 ⁵³
66	3.5	26	6 ⁰⁰
67	4.0	18	6 ¹⁰
68	4.0	23	6 ¹³
69	2.5	26	6 ²⁰
70	3.5	18	6 ²⁸
71	4.0	23	6 ³⁴
72	4.5	26	7 ⁰⁰
16	64.0		32

LOADS	ROCK CU. YDS	TRUCK	TIME
1173	4.5	26	8 ⁰⁷
74	4.9	23	8 ¹⁰
75	4.0	18	8 ¹⁵
76	4.5	26	8 ¹⁸
77	4.5	23	8 ²⁴
78	5.0	18	8 ²⁶
79	4.0	26	8 ³²
80	4.5	23	8 ⁴⁰
81	5.0	18	8 ⁴⁰
82	4.0	26	8 ⁵⁷
83	4.5	18	8 ⁵⁶
84	5.0	18	9 ⁰⁹
85	4.0	23	9 ¹⁵
86	5.0	26	9 ¹⁶
87	5.0	18	9 ²²
88	4.0	23	9 ³²
	71.5		48

LOADS	ROCK CU. YDS	TRUCK	TIME
1189	4.5	26	9 ³⁰
90	4.5	18	9 ⁴²
91	5.0	26	9 ⁴⁸
92	4.0	23	9 ⁴²
93	5.0	18	9 ⁵⁶
94	4.0	23	10 ⁰⁰
95	4.5	26	10 ⁰⁵
96	5.0	18	10 ⁰⁸
97	4.5	18	10 ²⁰
98	4.5	26	10 ²²
99	4.5	18	10 ³¹
1200	4.5	18	10 ⁴¹
1	4.0	26	10 ⁴⁶
2	5.0	18	11 ⁰⁷
3	4.5	26	11 ⁰⁸
4	4.0	23	11 ⁰⁹
	72.0		64

LOADS	ROCK CU. YDS	TRUCK	TIME
1205	4.5	26	11 ²⁵
6	4.5	26	11 ³⁸
7	5.0	26	11 ⁴⁹
8	4.5	26	12 ⁰⁰
	18.5		

283, U.S.
9 D.S.
reprinted

45 LOADS D.G. TO DUMP UP STREAY
159
SHIFT NO 2 AUGUST 14TH 1933 F.E. BRACHMANN

LOADS	ROCK CU.YDS	TRUCK	TIME
1209	4.5	23	3 ⁰⁶
10	4.5	23	3 ²⁶
11	4.5	23	3 ⁵²
12	5.0	23	4 ²⁷
13	4.5	23	4 ⁴⁸
14	5.0	23	5 ⁰⁴
15	4.5	23	5 ³⁵
	<u>32.5</u>	23	

reported.

122-LOADS-D.G TO UP-STR-D
218 " " DOWN-STR

SHIFT NO 2 AUGUST-15TH 1933 - F.E. BRACHMANN
SHOVEL NO 7-8-12
TRUCKS NO 10
AIR COMPRESSORS
6 MEN-DRILLING + BLASTING

LOADS	ROCK CU.YDS	TRUCK	TIME
1216	4.0	26	6 ²⁷
17	4.5	26	6 ⁴³
18	5.0	26	8 ²²
	<u>13.5</u>		
	TOTAL		

reported

LOADS-D.G TO DOWN STREAM DUMP
" " " UP STREAM

SHIFT NO 2 AUGUST-15TH 1933 F.E. BRACHMANN
SHOVELS NO 7, 8, 12
AIR COMPRESSORS-2-2 CATAPILLAR
TRUCKS NO 10
DRILLING-G MEM

98-LOADS-D.G TO UP STREAM DUMP
212-

" " DOWN STREAM DUMP
" " SHOVEL 12 RAN-AWAY
" " BUMPED TRUCKS NO 10 + NO 8

LOADS	ROCK CU.YDS	TRUCK	TIME
1219	4.0	26	4 ⁰⁰
20	4.5	26	4 ¹⁷
21	4.0	26	5 ⁰⁵
22	4.0	26	5 ¹⁶
23	4.5	26	5 ³³
24	5.0	26	6 ⁰⁰
25	4.5	26	8 ¹⁴
26	4.5	26	8 ³⁶
27	4.0	26	9 ⁰⁵
28	4.5	26	9 ³⁷
29	4.0	D.S. 26	10 ¹⁵
30	4.0	26	10 ⁵⁶

51:5
4
47:5 = D.S.

reported.

SHIFT NO 2 AUGUST 17TH 1933 - F.E. BRACHMANN
SHOVEL NO 7 -
AIR-COMPRESSORS = 1 - 2 MEN DRILLING
TRUCKS - 2
97-LOADS-DIG. TO DOWNSTREAM DUMP

LOADS	ROCK CU.YDS	TRUCK	TIME
1231	3.0	39	4 ²⁶
32	4.0	34	4 ³¹
33	4.0	26	4 ³⁸
34	4.0	39	4 ⁴³
35	4.0	26	4 ⁵³
36	4.0	39	4 ⁵⁹
37	4.5	26	5 ⁰⁴
38	3.5	39	5 ⁰⁹
39	4.5	26	5 ¹⁵
40	4.0	39	5 ²²
41	4.5	26	5 ²⁵
42	4.0	39	5 ³⁵
43	4.0	26	5 ⁴⁴
44	5.0	26	5 ⁵⁸
45	4.0	26	6 ⁰⁸
46	4.0	34	6 ¹⁷
16	65.0		

ALL DOWNSTREAM

SHIFT NO 2 - AUGUST - 18TH 1933 - F.E. BRACHMANN
SHOVEL NO 7 -
TRUCKS NO 2
1-AIR-COMPRESSOR
1-CATERPILLAR
3-MEN DRILLING

LOADS	ROCK CU. YDS	TRUCK	TIME
1247	4.0	39	6 ²⁴
48	4.0	26	6 ³⁸
49	4.5	34	6 ⁴⁰
50	4.0	25	8 ⁰⁹
51	4.5	25	8 ²⁰
52	4.0	39	8 ¹³
53	4.0	39	8 ³¹
54	4.0	25	8 ⁵⁰
55	4.0	39	9 ⁰¹
56	4.5	25	9 ⁰⁸
57	4.0	39	9 ¹⁶
58	4.0	25	9 ⁴⁵
59	4.0	25	11 ¹⁶
60	4.0	39	11 ²³
61	4.0	34	11 ²⁷
62	4.5	25	11 ³⁶
43	<u>41.50</u>	25	11 ⁵⁰
	70.5		

reported

LOADS	ROCK CU. YDS	TRUCK	TIME
1264	4.0	34 ^{D.S.}	3 ²²
65	4.5	23 ^{U.S.}	3 ²⁶
66	4.0	39 ^{D.S.}	3 ²⁹
67	3.0	25 ^{U.S.}	3 ²⁰
68	4.0	39 ^{D.S.}	3 ⁴³
69	4.0	34 ^{D.S.}	3 ⁴⁹
70	5.0	23 ^{U.S.}	3 ⁵⁴
71	4.0	34 ^{D.S.}	4 ⁰⁰
72	4.0	34 ^{U.S.}	4 ¹²
73	4.0	23 ^{U.S.}	4 ¹³
74	4.0	25 ^{D.S.}	4 ²¹
75	4.0	34 ^{U.S.}	4 ²⁵
76	4.0	25 ^{D.S.}	4 ⁴⁸
77	4.5	34 ^{D.S.}	4 ⁵⁴
78	4.0	39 ^{D.S.}	5 ¹⁰
79	3.0	34 ^{D.S.}	5 ²⁰
	<u>64.5</u>		

SHIFT NO 2 - AUGUST 19 - 1933 - F. E. BRACHMANN
 SHOVEL NO 7 - B-12
 2 - AIR-COMPRESSOR
 TRUCKS NO 9
 5 MEN - DRILLING
 KEAT.

LOADS	Rock CU. YDS	TRUCK D.S.	TIME
1280	4.0	39	5 ³²
1	4.0	34	5 ³⁹
2	4.0	39	5 ⁴⁴
3	4.0	23	5 ⁴⁴
4	4.0	39	6 ¹⁵
5	4.0	25	6 ³⁰
6	4.0	39	6 ³⁸
7	4.0	23	6 ⁵⁵
8	4.0	25	8 ⁰⁴
9	4.5	25	8 ¹⁹
90	4.5	25	8 ³³
91	4.0	25	8 ⁴⁵
92	4.5	25	9 ¹²
93	4.0	23	9 ³⁰
94	4.5	25	9 ³⁷
95	4.0	23	9 ⁰²
<u>66.0</u>			

LOADS	Rock CU. YDS	TRUCK D.S.	TIME
1296	4.5	23	10 ⁰⁰
97	4.5	23	10 ¹⁴
98	4.5	25	10 ¹⁹
99	4.0	25	10 ³⁴
1300	4.5	25	10 ⁴⁰
1	4.5	25	11 ⁰⁰
2	4.5	23	11 ⁰²
3	4.0	25	11 ²¹
4	4.5	23	11 ²⁵
<u>39.5</u>			

232 LOADS - D.G. TO - UP STREAM DUMP

reported

LOADS	ROCK CU. YDS U.S.	TRUCK	TIME
1305	4.0	25	3 ⁰⁹
6	4.0	25	3 ²⁵
7	3.0	25	3 ³²
8	4.0	25	3 ⁴⁹
9	4.0	25	4 ¹³
10	5.0	25	4 ⁴⁵
11	4.5	25	5 ⁰⁰
12	3.5	25	5 ¹⁴
13	4.0	25	5 ³⁸
14	4.0	25	6 ¹⁰
15	4.0	8	8 ⁴⁰
16	4.0	25	9 ⁴⁷
	48.0		
	4.0	D.S.	
	44.0	U.S.	

reported

SHIFT NO 2 - AUGUST - 21ST 1933 - F.E. BRACHMANN

SHOVELS - 7-8-12

AIR-COMPRESSORS - 2

TRUCKS NO 9

CATERPILLAR

5 MEN - DRILLING

LOADS	ROCK CU. YDS U.S.	TRUCK	TIME
1317	4.5	25	3 ⁰⁹
18	4.0	39	3 ¹⁹
19	4.5	25	3 ³⁴
20	4.0	25	3 ⁵⁰
21	4.0	25	4 ⁰²
22	4.0	39	4 ¹⁷
23	4.0	25	4 ³⁸
24	4.0	25	4 ⁵²
25	4.0	25	5 ⁰⁵
26	3.0	25	5 ²¹
27	3.0	25	6 ²²
28	4.0	25	8 ¹⁷
29	4.0	34	8 ²¹
30	4.5	25	8 ³⁰
31	2.0	34	8 ³⁹
32	4.0	39	8 ³⁹
	61.5		

SHIFT NO 2 - AUGUST - 22ND 1933 - F.E. BRACHMANN

SHOVELS - 7-8-12

AIR-COMPRESSORS

TRUCKS NO 9

4 MEN - DRILLING + BLASTING 8 HR + 3 MEN - 3 HRS.

1 - CATERPILLAR

LOADS	ROCK CU.YDS	TRUCK	TIME
1333	4.5	25	8 ⁴⁴
34	4.5	39	8 ⁵²
35	5.0	25	9 ⁰⁰
36	4.0	39	9 ⁰⁶
37	4.0	25	9 ¹²
38	4.5	39	9 ²⁰
39	4.5	25	9 ²⁶
40	4.0	39	9 ³³
41	4.5	25	9 ⁴⁰
42	4.0	40	9 ⁴⁴
43	4.5	39	9 ⁵⁰
44	4.0	25	9 ⁵⁸
45	4.0	40	10 ¹²
46	4.5	25	10 ¹⁷
47	4.0	39	10 ²⁰
48	4.0	40	10 ²⁶
	<u>68.5</u>		

LOADS	ROCK CU.YDS	TRUCK	TIME
1349	5.0	25	10 ³²
50	3.5	39	10 ³⁵
51	4.0	40	10 ⁴⁴
52	4.5	25	10 ⁴⁹
53	4.0	39	10 ⁵³
54	4.0	40	10 ⁵⁸
55	4.0	25	11 ⁰²
56	4.0	39	11 ⁰⁷
57	4.5	40	11 ²⁹
58	4.0	39	11 ³⁶
59	4.0	40	11 ⁴⁵
60	4.0	39	11 ⁵⁰
	<u>49.5</u>		

reported

86 LOADS DUG TO DUMP DOWN STREAM
25 UP

LOADS	ROCK CU.YDS	TRUCK	TIME
1387	4.0	25	3 ⁰³
88	4.0	25	3 ¹⁶
89	3.5	25	3 ³⁶
90	3.5	25	3 ⁵⁵
91	4.0	25	4 ¹²
92	4.0	25	5 ⁰⁰
93	3.5	25	5 ³⁰
94	4.0	25	5 ⁵⁰
95	4.0	25	6 ⁰⁸
96	4.5	24	6 ¹⁶
97	3.0	24	8 ¹⁸
98	4.5	24	8 ³²
99	3.5	24	8 ⁵⁰
1400	4.0	24	9 ¹⁰
1401	3.0	34	9 ¹³
1402	4.0	24	9 ²⁴
			65.0

SHIFT NO 2 AUGUST - 24TH 1933 - F. E. BRACHMANN
 SHOVEL NO 7-8-12
 2-AIR-COMPRESSORS
 TRUCKS NO 10
 5-MEN DRILLING 8-HRS - 3 MEN - 3 HRS.

LOADS	ROCK CU.YDS	TRUCK	TIME
1403	3.5	24	11 ⁰⁷
4	4.0	25	10 ¹³
5	4.0	24	11 ²²
6	4.0	25	11 ³³
7	3.5	24	11 ³⁷
8	3.0	25	11 ⁴⁸
			22.0
			83.0
TOTAL			

reported

244 LOADS D.G. TO - 11 P STREAK DUMP
 71 " " " " " DOWN "

LOADS	ROCK CU.YDS	TRUCK	TIME
+ 1409	4.0	25	3 ⁰⁰
10	3.0	34	3 ²⁰
11	3.5	15	3 ²⁴
12	3.0	15	3 ⁴⁴
13	2.5	24	6 ⁰⁵
14	3.0	24	6 ¹⁸
15	3.0	34	6 ²¹
16	3.5	24	6 ³³
17	4.0	25	8 ¹⁰
18	4.0	23	8 ¹⁸
19	5.0	25	8 ²²
20	4.0	24	8 ²²
21	4.5	15	8 ²⁵
22	4.0	23	8 ³³
23	5.0	24	8 ⁴³
24	4.5	25	8 ⁴⁶

60.5
TOTAL

41.5

CU.YDS
UNDER-1CU.YD

SHIFT NO 2 - AUGUST - 25TH 1933 - F.F. BRACHMANN

SHOVEL NO 7 - 8 - 12

TRUCK NO 9

2 AIR-COMPRESSORS

1-CAM DRILLING - 5-8 HRS.

NO IN UPPER LEFT CORNER IS ROCK UNDER 1CU.YD IN VOLUME

LOADS	ROCK CU.YDS	TRUCK	TIME
1425	4.5	26	8 ⁵²
26	3.5	15	8 ⁵⁵
27	4.0	23	9 ⁰⁰
28	4.0	25	9 ⁰²
29	3.5	24	9 ⁰³
30	4.0	23	9 ¹²
31	4.5	25	9 ²⁵
32	4.0	24	9 ²⁷
33	4.0	23	9 ³⁰
34	4.0	39	9 ³¹
35	5.0	25	9 ⁴⁰
36	6.0	15	9 ⁴⁸
37	4.0	23	9 ⁵⁰
38	4.0	26	9 ⁵⁵
39	4.5	24	10 ⁰⁰
40	4.0	15	10 ⁰⁴

67.5
TOTAL

32.0

CU.YDS
UNDER-1CU.YD

LOADS	ROCK CU.YDS	TRUCK	TIME
1441	4/4.0	23	10 ⁰⁷
2	2/4.0	24	10 ²⁶
3	2/4.0	23	10 ²⁶
4	3/3.5	26	11 ⁰⁰
5	3/5.0	15	11 ²⁶
6	4/4.0	25	11 ⁴²
7	4/4.0	15	11 ⁵²
8	2/5.0	26	12 ⁰²

34.5
TOTAL

LOADS=40
16.5
CU.YDS
UNDER
1-CU.YD

AUGUST-25-1933

TOTAL

162.5

90.0
UNDER
1CU.YD

reported

TOTAL 162.5 CU.YDS.
90.0 CU.YDS - UNDER 1CU.YD
1ST 40-LOADS.

LOADS	ROCK CU.YDS	TRUCK	TIME
1449	3/4.0	26	3 ⁰⁵
50	0/4.0	25	3 ³⁷
57	2/4.0	24	3 ⁵⁷
52	4.5/4.5	23	4 ²⁵
53	3.0/9.0	15	4 ³⁵
54	2.5/3.5	23	4 ⁴⁶
55	4/4.0	15	4 ⁵⁵
56	4.0/4.0	24	5 ⁰⁸
57	2/4.0	15	5 ¹⁴
58	1.5/4.5	25	5 ¹²
59	1.5/3.5	23	5 ²⁴
60	3.0/3.0	24	5 ⁴²
61	4.0/4.0	15	5 ⁴⁸
62	3.5/3.5	24	5 ⁵³
63	4.0/4.0	15	6 ⁰⁰
56	3.5/3.5	23	6 ⁰⁸
	61.0		

46.0 CU.YDS
UNDER 1CU.YD
56-LOADS.

SHIFT NO. 2 - AUGUST 26 TO 1933. F. E. BRAGN MANN
SHOVEL NO. 7-B-12
TRUCKS NO. 5
2 AIR COMPRESSORS

LOADS	ROCK CU. YDS	TRUCK	TIME
1465	4.0 / 4.0	24	6 ¹³
66	3.0 / 3.0	15	6 ¹⁹
67	2.0 / 3.5	23	6 ²⁴
68	3.5 / 3.5	24	6 ³⁰
69	2.0 / 3.5	15	6 ³⁵
70	3.0 / 4.0	23	6 ⁴¹
71	3.0 / 3.0	24	6 ⁴⁵
72	3.0 / 4.0	15	6 ⁵⁰
73	3.5 / 3.5	25	6 ⁵⁰
74	4.0 / 3.5	23	6 ⁵⁵
75	4.0 / 4.0	24	7 ⁰⁰
76	2.0 / 3.5	15	8 ⁰⁷
77	4.0 / 4.0	24	8 ¹⁵
78	4.0 / 4.0	23	8 ²⁰
79	4.0 / 4.0	15	8 ²⁴
72	2.0 / 4.5	24	8 ³⁰
	59.5		
	TOTAL		
	50.5		
	UNDER		
	1 CU YD		

LOADS	ROCK CU. YDS	TRUCK	TIME
1481	3.5 / 3.5	20	8 ³²
82	3.0 / 3.0	23	8 ³⁷
83	4.0 / 4.0	15	8 ⁴³
84	2.0 / 3.0	24	8 ⁴⁶
85	4.0 / 4.0	23	8 ⁵²
86	3.0 / 3.0	15	9 ⁰⁰
87	3.5 / 3.5	40	8 ⁵⁸
88	2.0 / 4.0	24	9 ²⁶
89	4.0 / 4.0	23	9 ¹²
90	2.0 / 4.0	26	9 ¹³
91	1.0 / 3.5	15	9 ¹⁷
92	4.0 / 4.0	24	9 ²³
93	4.0 / 4.0	23	9 ³¹
94	2.0 / 3.0	24	9 ³⁰
95	3.5 / 3.0	15	9 ³⁴
1496	2.0 / 4.0	24	9 ⁴⁰
	59.0		
	TOTAL		
	48.5		
	UNDER		
	1 CU YD		

LOADS	ROCK CU.YDS	TRUCK	TIME
1527	3.5	30	4 ¹⁴
28	3.5	20	4 ¹⁸
29	4.0	32	4 ²²
30	4.5	20	4 ³⁰
31	4.0	30	4 ³⁸
32	4.0	20	4 ⁴⁵
33	4.0	20	5 ⁰⁷
34	3.5	30	6 ⁴²
35	5.0	32	6 ⁵⁰
36	4.5	20	7 ⁰⁰
37	4.5	24	7 ⁰⁵
38	5.0	20	7 ³⁰
39	5.0	20	7 ⁵⁵
40	3.5	15	9 ⁰⁸
41	4.0	20	9 ¹²
42	4.5	30	9 ¹⁷
			67 ¹⁰

SHIFT-NO 2-AUGUST-28TH 1933 F.E. BRACHMANN

SHOVEL NO 7-8
2-AIR-COMPRESSOR
TRUCK S.NO. 6

1 MEN DRILLING 8 HRS.

LOADS	ROCK CU.YDS	TRUCK	TIME
1542	5.0	32	9 ³⁰
43	4.5	20	9 ⁵³
44	4.0	30	10 ⁰⁵
45	4.0	20	10 ¹²
46	3.5	20	10 ²⁵
47	5.0	25	11 ¹⁶
48	5.0	25	12 ⁴²
49	4.0	24	12 ⁴⁵
50	4.0	15	12 ⁵⁰
51	4.0	23	12 ⁵⁵
			43.0

141 LOADS-DIG TO W.D. STREAM DUMP
80 " " DOWN STREAM DUMP

reported

LOADS	ROCK CU. YDS	TRUCK	TIME
1552	4.0	15	4 ⁵²
53	5.0	32	6 ¹³
54	4.5	23	6 ⁴³
55	5.5	15	11 ¹⁵
	19.0		
	TOTAL		

reported

SHIFT - NO 2 - AUGUST - 29TH 1933 - FEB BRACHMANN

SHOVEL NO 7-B

2-AIR COMPRESSORS

1-CAT

TRUCKS 6

5 MEN DRILLING - 8 HRS

2 " " 4 HRS

138 LOADS TO DOWN STREAM DUMP
26 " TO-DAM

LOADS	ROCK CU. YDS	TRUCK	TIME
1556	4.5	15	4 ²⁵
57	4.0	15	4 ³⁵
58	5.0	15	4 ⁴⁵
59	4.0	15	5 ⁰⁰
60	4.5	23	5 ¹⁰
61	4.0	32	5 ²¹
62	3.5	15	5 ³²
63	4.0	23	6 ⁰²
64	3.5	15	6 ²⁰
65	4.0	32	6 ³²
66	4.5	15	6 ⁴²
67	5.0	23	6 ⁵⁰
68	4.5	32	6 ⁵⁵
69	4.5	23	7 ⁰⁰
70	5.0	32	7 ¹⁰
71	4.5	23	7 ¹⁷
	69.0		

SHIFT NO 2 AUG. 30TH 1933 - FEB BRACHMANN
SHOVEL NO 7-B
TRUCKS 6

DRILLING ROCK ON DAM.
2-MEN
1-AIR COMPRESSOR

LOADS	ROCK CU. YDS	TRUCK	TIME
1572	4.5	23	9 ⁰²
73	4.5	23	10 ³²
74	4.0	15	11 ²⁰
75	4.0	15	12 ¹²
76	4.0	15	10 ⁵⁵
77	4.5	23	12 ¹²
78	4.0	23	11 ⁰⁹
79	4.5	23	9 ⁴⁸
			34.0
			69.0
			103.0
			TOTAL

reported

310 LOADS - D.G. TO DOWN STREAM DUMP

LOADS	ROCK CU. YDS	TRUCK	TIME
1580	4.0	32	4 ³³
81	3.5	15	4 ⁴²
82	3.0	15	5 ⁰⁵
83	4.0	15	10 ⁰⁵
84	4.0	30	10 ⁰⁷
85	4.0	31	10 ²²
			22.5
			TOTAL

reported

SHIFT NO 2 - AUGUST - 31 ST 19133 - F. E. BRACHMANN
SHOVEL NO - 7-8
TRUCKS: NO 7

ON DAM

317 LOADS D.G. TO DOWN STREAM DUMP
(2) MAN DRILLING & BOULDERS
(1) AIR COMPRESSOR

(2) CHARGES OF POWDER DUG UP BY SHOVEL # 7
AUGUST - 31 - 5:15 PM F.E.B.

LOADS	Rock CU. YDS	TRUCK	TIME
15-86	3.5	31	4 ⁰⁶
87	4.0	15	4 ²⁶
88	3.0	15	4 ³⁸
89	3.5	15	4 ⁴⁹
90	4.5	12	4 ⁵⁸
91	3.5	4	5 ⁰⁶
92	5.0	12	5 ¹⁰
93	3.0	12	5 ²⁷
94	3.5	12	5 ³⁸
95	4.5	12	5 ⁴⁹
96	4.5	4	6 ⁰⁴
97	4.0	12	6 ¹²
98	3.5	4	6 ³⁴
99	4.5	4	6 ⁵⁰
1600	3.5	12	7 ⁰⁰
1	4.0	15	7 ¹⁵
	620		

SHIFT-NO 2 SEPT. 15TH 1933 - F. E. BRACHMANN

SHOVEL NO 7, 8
TRUCKS NO 8
2 MEN DRILLING
1 AIR COMP
1 CAT.

LOADS	Rock CU. YDS	TRUCK	TIME
1602	3.5	12	7 ⁴⁸
3	4.0	15	9 ³⁵
4	5.0	15	10 ²⁰
5	5.0	12	10 ⁴⁵
6	4.5	23	11 ¹⁴
7	4.0	7	11 ²⁰
8	4.0	8	12 ²⁰
9	4.0	23	12 ²²
	34.0		
	62		
	96.0		

reported

45-9-D.G. TO DOWN STREAM DUMP

LOADS	Rock CU.YDS	TRUCK	TIME
1610	3.5	32	4 ⁵⁷
11	4.0	15	5 ⁰³
12	4.0	23	5 ³⁹
13	5.0	12	6 ⁵⁰
14	4.0	12	10 ¹⁰
15	4.5	12	10 ²⁰
	<u>25.0</u>		

reported

SHIFT NO 2 SEPT-2ND 1933. F. E. BRACHMANN
SHOVEL NO 7-8
TRUCKS NO 8

359 LOADS D.G. TO DOWNSTREAM DUMP

LOADS	Rock CU.YDS	TRUCK	TIME
1616	3.5	3	4 ²⁵
17	3.5	1	4 ⁰⁴
18	3.0	1	1.2 ⁵⁵ a.m.
19	4.0	2	1 ⁰⁰
	<u>14.0</u>		TOTAL

reported

SHIFT NO 2-SEPT. 5TH 1933 F. E. BRACHMANN
SHOVEL NO 7-8
TRUCKS NO 7
2-AIR COMPRESSORS

4-MEN DRILLING

324 LOADS DIG. TO DOWNSTREAM DUMP

LOADS	ROCK CU. YDS	TRUCK	TIME
1620	3.0	3	4 ¹⁷
21	3.0	3	6 ²⁴
22	3.5	2	6 ³²
23	4.0	3	6 ³⁸
24	3.5	2	6 ⁴⁷
25	3.0	3	6 ⁵²
26	3.5	3	7 ⁰⁷
27	4.0	1	12 ⁴⁰
<u>27.5</u>			

reported

SHIFT NO. 2 - SEPT. 6 TH 1933 - F. E. BRACHMANN
SHOVEL NO. 7-8.

TRUCKS NO. 6-3HRS.

2 MEN - BARREL BUILDING ROAD

DRILLING & BOULDER DAM UPSTREAM

2 MEN

1 - AIR COMPRESSOR

163 LOADS - DIG. TO DOWNSTREAM DUMP
98 WIDENING ROAD

LOADS	ROCK CU. YDS	TRUCK	TIME
1628	3.5	17	5 ⁰³
29	3.5	15	5 ⁰⁷
30	4.0	17	5 ¹²
31	4.0	15	5 ¹⁶
32	3.0	17	5 ²¹
33	3.5	15	5 ²⁵
34	3.0	17	5 ³²
35	3.5	17	5 ⁴¹
36	3.5	17	6 ⁰²
37	3.0	17	6 ¹³
38	4.0	20	7 ²⁰
39	3.5	17	7 ³⁹
40	4.0	2	10 ³⁵
41	4.5	20	10 ⁴⁴
42	4.0	20	11 ⁰⁰
43	4.0	17	11 ²⁴
<u>58.5</u>			
TOTAL			reported

reported

SHIFT NO. 2 - SEPT. 7 TH 1933 - F. E. BRACHMANN

SHOVEL NO. 7-8-9-12-10.

TRUCKS NO. 15

6 BOULDERERS

ON DAM - DRILLING BOULDERS

2 MEN

1 - AIR COMPRESSOR

553 LOADS - DIG. TO DOWNSTREAM DUMP

LOADS	ROCK CU.YDS	TRUCK	TIME
1644	4.0	15	5 ⁵²
45	4.0	26	6 ⁵⁷
46	4.0	26	9 ³⁷
47	4.0	26	9 ⁵²
48	5.0	20	9 ⁵⁷
49	4.0	23	7 ⁰³
	<u>25.0</u>		

reported

SHIFT NO 2-9ERT. 8TH 1933 F.F. BRACHMANN
 SHOVEL NO 7-8-9-10-12 NO 10- WORKING A SKIP
 TRUCKS NO 11
 AIR COMPRESSORS 3
 2-CAT-SKINNER
 8 LABORERS

13 MEN DRILLING
 1-FOREMAN
 ESTIMATE OF HARD ROCK IN D.G. TO DUMP - 2%

54 LOADS D.G. TO DOWNS D. TRAIL
 633 LOADS D.G. MAKING ROAD

LOADS	ROCK CU.YDS	TRUCK	TIME
1650	3.0	17	4 ⁰⁴
57	2.5	2	4 ⁰⁵
52	2.0	24	4 ⁰⁷
53	2.5	1	4 ¹⁶
54	3.0	23	4 ¹⁰
55	3.5	17	4 ²⁰
56	3.5	24	4 ²²
57	3.0	1	4 ²⁴
58	3.0	3	4 ²⁷
59	4.0	23	4 ³²
60	3.5	17	4 ³⁷
61	3.5	24	4 ⁴⁰
62	3.0	3	4 ⁴⁵
63	2.5	1	4 ⁴⁸
64	3.5	40	4 ⁵⁷
65	3.0	17	5 ⁰⁵
	<u>49.0</u>		

SHIFT NO 2 SEPT. 9TH 1933 F.F. BRACHMANN
 SHOVEL NO 7-8-9-10-12
 TRUCKS NO 12
 AIR COMPRESSORS 5
 2-CATERPILLARS

8 LABORERS - 1 1/2 HRS.
 13 MEN DRILLING + BLASTING

NO-10 WORKING SKIP = 1 1/2 HRS.

LOADS	ROCK CU.YDS	TRUCK	TIME
1666	3.0	23	5 ¹⁴
67	3.0	1	5 ¹⁸
68	3.0	17	5 ²⁶
69	2.0	40	5 ³³
70	3.0	3	5 ⁴⁰
71	4.0	17	5 ⁴⁵
72	3.5	23	5 ⁴⁵
73	3.5	25	5 ⁵⁵
74	3.5	23	6 ¹⁰
75	3.0	1	6 ³⁵
76	3.0	23	6 ⁵⁵
77	4.0	23	7 ¹⁶
78	4.0	29	7 ²²
79	4.0	40	7 ²⁵
80	4.0	25	7 ³³
81	4.0	23	7 ³⁴
	<u>54.5</u>		

64

LOADS	ROCK CU.YDS	TRUCK	TIME
1682	3.5	39	7 ⁴⁴
83	2.5	26	7 ⁴⁶
84	3.5	40	7 ⁴⁸
85	3.0	23	7 ⁵⁰
86	4.0	40	9 ⁰⁹
87	3.5	39	9 ¹⁸
88	4.0	23	9 ⁰⁸
89	3.0	40	9 ²²
90	3.5	24	9 ²³
91	3.5	23	9 ²⁸
92	3.5	39	9 ³⁵
93	3.0	24 ⁺	9 ³⁸
94	4.0	40	9 ⁴²
95	4.5	25 ⁺	9 ⁴⁴
96	6.0	24	9 ⁵⁰
97	3.5	39	9 ⁵³
	<u>58.0</u>		

LOADS	ROCK CU. YDS	TRUCK	TIME
1698	3.0	40	9 ⁵⁸
99	3.5	24 ⁺	10 ⁰⁰
1700	3.5	23	10 ⁰⁵
1	3.0	24 ⁺	10 ¹⁰
2	3.0	17	10 ¹⁴
3	4.0	39	10 ²⁰
4	3.0	24 ⁺	10 ²⁴
5	5.0	23	10 ²⁵
6	4.0	25	10 ¹⁸
7	3.5	24 ⁺	10 ³⁴
8	4.0	25	10 ⁴²
9	3.5	23	10 ⁴⁴
10	3.0	24 ⁺	10 ⁴⁷
11	5.0	3	10 ⁵³
12	3.0	23	11 ⁰⁴
13	4.0	24 ⁺	11 ⁰⁹
	<u>58.0</u>		

LOADS	ROCK CU. YDS	TRUCK	TIME
1714	3.0	40	11 ¹⁴
15	3.5	24 ⁺	11 ²²
16	3.5	24 ⁺	11 ³²
17	4.0	25	11 ³¹
18	3.5	24 ⁺	11 ⁵⁸
19	4.5	25	12 ¹¹
20	4.5	23	12 ¹⁴
21	2.5	24 ⁺	12 ¹⁹
22	3.0	40	12 ³⁹
23	4.0	25	12 ⁴⁰
24	4.0	25	12 ⁵⁰
	40.0		
	58.0		
	58.0		
	54.0		
	49.0		
	<u>259.5</u>		

reported

150 LOADS-DIG TO DOWNSTREAM DUMP
341 LOADS-DIG TO ROAD-UP-STREAM

LOADS	ROCK CU.YDS	TRUCK	TIME
1725	2.0	17	4 ²⁴
26	3.0	23	4 ²⁹
27	3.0	17	4 ⁴¹
28	3.0	23	4 ⁴⁸
29	3.0	23	5 ¹⁶
30	3.5	17	5 ¹⁹
31	3.0	23	5 ²⁵
32	2.5	17	5 ⁵⁴
33	4.0	23	6 ⁵⁴
34	4.0	23	7 ¹⁰
35	4.0	23	7 ¹⁸
36	6.5	17	9 ¹⁰
37	3.5	25	9 ⁴⁵
38	3.5	17	10 ⁰⁸
39	4.5	25	10 ¹⁵
40	4.0	3	10 ¹⁸
<u>57.0</u>			

SHIFT NO 2 - SEPT. 11TH 1933 - F.E. BRACHMANN

SHOVEL NO 6-7-9-12

TRUCKS NO 14

AIR-COMPRESSORS - 4

CATERPILLARS - 2

LABORERS - 6 - FOREMAN - 4 HRS.

1 - FOREMAN

DRILLING - BLASTING - 4 MEN - FOREMAN

{ 4 - MEN - DRILLING & IN DAM - AREA

{ 1 - AIR-COMPRESSOR

LOADS	ROCK CU.YDS	TRUCK	TIME
1741	5.5	17	10 ²⁴
42	4.5	3	10 ³⁰
43	4.0	17	10 ⁴⁹
44	3.5	17	11 ¹⁰
<u>17.5</u>			
<u>57.0</u>			
<u>64.5</u>			

reported

293 LOADS - D.G. TO-DOWN N-STREAM DUMP
329 D.G. TO-UP-STREAM - SOUTH OF SPILLWAY

LOADS	Rock CU. YDS DOWN = + STREAM	TRUCK	TIME
1745	3.0	26	4 ⁰²
46	4.0	17	4 ¹²
47	5.0	26	5 ⁴⁰
48	3.5	25	5 ⁵³
49	4.0	25	6 ¹²
50	3.0	26	6 ⁴¹
51	3.0	24	9 ¹²
52	4.5	17	9 ²¹
53	4.5	24	9 ⁴⁰
54	4.0	26	9 ⁵⁰
55	4.0	17	9 ⁵¹
56	4.0	24	9 ⁵²
57	4.5	15	10 ⁰⁰
58	3.5	25	10 ²⁹
59	5.0	18	10 ³⁴
60	5.0	17	10 ³⁸
	64.5		

SHIFT-NO 2-SEPT-12TH 1933-F. E. BRACHMANN
 SHOVEL NO 6-8-9-12
 TRUCKS NO 14
 NO 12 WORKING-7 HRS.

3-AIR-COMPRESSORS
 1-CAT 1-BULLDOZER
 14-MEN DRILLING-BLASTING
 3-MEN
 SHOVEL NO 7 40 LOADS-4 HRS.
 2-TRUCKS

N. DAM AREA NORTH END

LOADS	Rock CU. YDS	TRUCK	TIME
1761	2.5	18	10 ⁴⁵
62	4.0	15	10 ⁵⁷
63	4.5	18	10 ⁵⁸
64	3.5	25	12 ²⁸
	14.5		
	64.5		
	79.0		
	reported		

298 LOADS. DIG. TO DOWN STREAM DUMP.
 479 LOADS. DIG. TO UP STREAM TILL.

LOADS	ROCK CU. YDS UP-STREAM	TRUCK	TIME
1765	3.0	10	4 ⁰⁶
66	3.0	18	4 ¹⁵
67	2.5	26	4 ²⁵
68	4.0	23	5 ³²
69	3.5	17	6 ¹⁰
70	2.0	26	6 ²²
71	3.5	25	9 ²⁵
72	3.5	18	9 ³³
73	3.5	26	9 ⁴⁰
74	4.0	25	10 ⁰²
75	4.5	24	10 ²⁰
76	4.0	25	11 ⁰⁸
77	41.0		
7			

reported

SHIFT NO. 2 - SEPT. 13TH 1933. FEIBRACHMANN
SHOVELS NO. 6-7-8-9-12. NO. 12 WORKING 4 1/2 HRS.

3 - AIR COMPRESSORS

1 - BULLDOZER

1 - DRILLING + BLASTING

1 - FOREMAN

369 L. LOADS - D.G. TO DOWN STR. DUMP
530 L. LOADS - D.G. UP STR. DUMP

LOADS	ROCK CU. YDS	TRUCK	TIME
1777			

reported

LOADS - D.G. TO DOWN STREAM DUMP
LOADS - D.G. TO UP-STREAM - FILL

SHIFT NO. 2 - SEPT. 14TH 1933 - FEIBRACHMANN

SHOVEL NO. 6-8-9-12.

TRUCKS NO. 14

3 - AIR COMPRESSORS

2 - MEN - DRILLING + BLASTING

4 - MEN - DRILLING + GROUT HOLES SOUTH SIDE, SPILLWAY

1 -

" DRIVER

LOADS	ROCK CU. YDS	TRUCK	TIME
1777	3.5	2	6 ³²
1778	3.5	33	6 ³⁶
	<u>7.0</u>		

reported

SHIFT NO 22 SEPT. 15TH 1933. F. E. BRACHMANN

SHOVEL NO 6, 7, 9, 12

TRUCKS NO 10

AIR-COMPRESSORS-3

3- DRILLING GROUT HOLES - SOUTH SIDE SPILLWAY

3- MEN- DRILLING + BLASTING

1- BULLDOZER + DRIVER

reported

201 - LOADS D.G. TO-DOWNSTREAM DUMP
 80 - LOADS D.G. TO-FILL - SOUTH OF SPILLWAY

SHIFT NO 22 SEPT. 16TH 1933. F. E. BRACHMANN

SHOVEL NO 6-7-9

TRUCKS NO 7

AIR-COMPRESSORS

1- BULLDOZER

3- MEN DRILLING + BLASTING

2- LABORERS

1- CAT SKINNER

LOADS	ROCK CU.YDS	TRUCK	TIME
1779	2.0	1	4 ⁰⁸
80	3.0	1	4 ²⁰
81	2.5	1	4 ³⁵
82	3.0	2	4 ⁵⁰
83	2.0	2	5 ⁰⁵
84	5.5	20	5 ²²
85	2.5	2	5 ³²
86	4.5	20	5 ³⁸
87	3.0	20	5 ⁵²
88	3.5	20	6 ⁰¹
89	3.5	26	6 ²³
90	3.5	1	6 ³⁰
91	3.0	3	6 ³⁸
92	4.5	1	6 ⁵⁵
93	3.0	40	7 ⁰⁵
94	3.0	3	7 ¹⁴
			<u>52.0</u>

SHIFT NO 2 SEPT 18TH 1933 F. BRACHMANN

SHOVELS NO 8, 12,

TRUCKS NO 5,

2 - AIR COMPRESSORS

1 - BULLDOZER

3 - MEN DRILLING & BLASTING

4 - MEN - EXCAVATING & SHORING - UP

LOADS	ROCK CU.YDS	TRUCK	TIME
1795	3.0	40	7 ²²
96	3.0	3	7 ²⁴
97	3.5	40	7 ³⁴
98	4.0	3	7 ³⁶
99	3.5	2	7 ⁴²
1800	3.0	2	9 ⁰⁰
1	3.0	3	9 ⁰⁸
2	2.5	1	9 ¹⁰
3	3.5	3	9 ¹⁸
4	4.5	3	9 ²²
5	4.0	1	9 ³⁶
6	3.5	3	9 ³⁹
7	4.0	1	9 ⁵⁰
8	4.0	3	10 ⁰⁰
9	4.5	3	10 ¹¹
10	3.5	1	10 ¹⁵
			<u>57.0</u>

LOADS	ROCK CU. YDS	TRUCK	TIME
1811	4.0	3	10 ²³
12	3.5	1	10 ²⁹
13	4.5	3	10 ⁴¹
14	4.5	3	10 ⁵⁸
15	4.0	2 ^{D.S.}	11 ⁰⁴
16	20.5		
	52.0		
	57.0		
	129.5		

reported

172-LOADS-D.G.-TO-UP STREAM FILL SOUTH SILLWAY

LOADS	ROCK CU. YDS	TRUCK	TIME
1816	5.0	1	4 ⁰⁵
17	3.0	3	4 ¹²
18	4.5	2	4 ¹⁹
19	3.0	1	4 ²⁵
20	3.5	50	4 ²⁹
21	3.0	3	5 ¹⁰
22	3.5	2	5 ³⁴
23	5.0	17	5 ³⁵
24	4.0	2	6 ¹⁵
25	3.5	3	6 ⁰³
26	4.0	25	6 ²⁴
27	3.5	3	6 ²⁷
28	3.0	1	6 ³²
29	4.0	25	6 ³⁵
30	4.5	12	6 ⁴¹
31	4.0	2	6 ⁴⁹
	61.5		

SHIFT. MS. SEPT. 19TH 1933 - F.F. BRACHMANN

SHOVELS NO. 6, 7, 8. NO. 8 - 2 HRS. 11 TO 1

TRUCKS NO. 2 - AIR-COMPRESSORS

1 - BULLDOZER

5 - MEN DRIFTING + BASTING

1 - LABORER ON DUMP

LOADS	ROCK CU. YDS	TRUCK	TIME
1832	3.5	1	9 ⁰⁶
33	3.5	25	9 ¹⁵
34	3.5	1	9 ¹⁸
35	4.0	2	9 ²¹
36	4.0	1	9 ³¹
37	4.0	1	9 ⁴⁷
38	4.0	1	9 ⁵⁹
39	3.5	50	10 ¹²
40	4.5	1	10 ¹⁸
41	3.0	3	10 ³³
42	4.5	3	10 ⁵⁰
43	4.0	3	11 ⁰⁰
44	4.5	1	11 ¹⁵
45	4.0	3	11 ²⁶
46	4.5	1	11 ³¹
47	7.0	50	11 ²⁸
	<u>63.0</u>		32

LOADS	ROCK CU. YDS	TRUCK	TIME
1848	3.0	1	11 ⁴⁶
49	4.5	3	11 ⁴²
50	4.0	25	11 ⁵¹
51	4.5	3	11 ⁵⁸
52	4.0	1	12 ⁰⁵
53	4.5	25	12 ⁰⁶
54	4.0	3	12 ¹⁴
55	4.0	1	12 ²¹
56	3.5	3	12 ³¹
57	4.0	1	12 ⁵⁰
58	4.5	50	12 ⁵²
59	4.5	3	1 ⁰⁰
	<u>49.5</u>		
	<u>61.5</u>		
	<u>63.0</u>		
	<u>174.0</u>		

reported

170 LOADS - D. G. TO UPSIDE DOWN

LOADS	ROCK CU. YDS	TRUCK	TIME
1860	4.0	1	4 ⁰⁰
61	3.5	2	4 ⁰⁷
62	3.0	3	4 ⁰⁹
63	3.5	1	4 ¹⁵
64	3.5	12	4 ¹⁶
65	3.0	2	4 ²⁰
66	3.0	3	4 ⁴⁰
67	2.5	1	4 ⁴⁶
68	3.0	3	5 ¹⁶
69	3.5	1	5 ⁴⁵
70	4.0	1	5 ⁵⁶
71	4.0	1	6 ¹⁵
72	4.0	3	6 ²⁶
73	4.5	3	6 ⁴⁰
74	4.0	1	6 ⁴⁸
75	3.0	3	7 ⁵³
			56.0

SHIFT NO 2 - SEPT. 20TH 1933. F. BRACHMANN
SHOVEL NO 4, 8, 7. NO 7 - WORKING 4 HRS.

TRUCKS NO 7
3 - AIR-COMPRESSORS
1 - BULLDOZER

1 - CATERPILLAR
3 - MEN - DRILLING GROUT HOLES ON S. SPILLWAY
4 - MEN - DRILLING & BLASTING
1 - LABORER ON DUMP

LOADS	ROCK CU. YDS	TRUCK	TIME
1876	4.0	1	7 ⁰⁰
77	3.5	3	7 ⁰⁷
78	4.0	1	7 ¹²
79	3.0	3	7 ²⁰
80	4.0	1	7 ²⁷
81	4.0	3	7 ³⁵
82	4.0	8	9 ¹⁶
83	2.5	10	9 ²⁰
84	3.5	33	9 ³⁰
85	4.0	1	10 ⁰⁰
86	4.0	3	10 ⁰⁷
87	4.5	1	10 ¹⁴
88	3.5	33	10 ²⁰
89	3.5	33	10 ⁴⁰
90	4.0	3	11 ⁰⁰
91	4.0	1	11 ⁰⁹
			60.0

LOADS ROCK CU. YDS TRUCK TIME

1892	2.0	33	11 ¹¹
93	3.0	3	11 ¹²
94	4.0	3	11 ⁵⁸
95	4.0	3	12 ²⁰
96	4.0	1	12 ²⁵
97	4.0	3	12 ⁴⁵
98	3.5	1	12 ⁵³

24.5
56.0
60.0
140.5
TOTAL

reported

346 LOADS D.G. TO DOWN STREAM DUMP
+ REQUEST MADE TO OSCAR SWANSON TO DUMP D.G. DOWN STREAM. COMPLIED WITH.

LOADS ROCK CU. YDS TRUCK TIME

1899	3.5	3	4 ¹⁹
1900	3.0	1	5 ⁵⁶
1	3.5	3	6 ⁰⁵
2	3.5	1	6 ¹²
3	4.0	3	6 ¹⁷
4	4.0	1	6 ²⁰
5	3.0	2	6 ²¹
6	4.0	3	6 ³⁰
7	3.5	1	6 ³³
8	3.0	2	6 ³⁷
9	4.0	2	6 ⁵⁰
10	3.5	1	7 ³⁰
11	3.5	2	7 ⁵⁷
12	4.0	2	9 ¹⁸
13	3.0	2	9 ³²
14	3.0	1	9 ³⁶
			<u>56.0</u>

SHIFT NO. 2 SEP 21 ST 1935 - F. BRACHMANN

SHOVEL NO. 6-8
TRUCKS NO. 6
1 - AIR COMPRESSORS
1 - BUTYRENE

3 - MEN DRILLING & EXCAVATING
1 - LABORER ON DUMP

14 LOADS D.G. TO DOWN STREAM DUMP
175 LOADS D.G. TO UP STREAM DUMP S.S. SPILLWAY
CHANGED DUMPING D.G. TO UP STREAM DUMP.
ORDERED BY MR. ROHL

LOADS	ROCK CU.YDS	TRUCK	TIME
1915	4.5	2	11 ⁰⁰
16	2.5	1	12 ³⁶
17	3.5	2	12 ⁵⁰
	<u>10.5</u>		
	56.		
	<u>66.5</u>		

reported

LOADS	ROCK CU.YDS	TRUCK	TIME
1918	2.5	40	4 ⁰⁰
19	3.5	3	4 ⁰⁵
20	3.0	2	4 ¹⁰
21	3.0	40	4 ¹¹
22	3.5	40	4 ²⁰
23	2.0	2	4 ²⁶
24	3.0	3	4 ³⁷
25	3.0	1	4 ³⁵
26	2.0	3	4 ⁴³
27	3.0	3	4 ⁵⁸
28	3.0	3	5 ¹⁰
29	3.5	1	5 ¹³
30	3.0	39	5 ¹⁷
31	3.5	3	5 ²³
32	4.5	1	5 ³⁰
33	3.5	1	5 ³⁵
	<u>49.5</u>		

SHIFT NO 2 SEPT. 22ND 1933. F. EIBRACHMANN

SHOVEL NO 67.
TRUCKS NO 6.

3-AIR COMPRESSOR
1-CATERPILLAR

6-MEN DRILLING GROUNDHOLES-EXCAVATING S.S. SPILLWAY
3-MEN DRILLING + BLASTING

LOADS	ROCK CU.YDS	TRUCK	TIME
1934	3.5	3	6 ⁰⁰
35	3.0	2	6 ⁰⁸
36	3.5	1	6 ⁰⁹
37	3.5	3	6 ¹¹
38	3.0	34	6 ¹⁵
39	4.5	2	6 ²⁰
40	4.0	3	6 ²⁵
41	2.5	34	6 ²⁷
42	3.0	1	6 ⁵⁶
43	4.0	3	7 ⁰⁰
44	3.0	34	7 ¹⁰
45	4.0	1	7 ¹⁹
46	3.5	34	7 ²⁶
47	3.5	1	7 ³²
48	4.0	3	7 ³²
49	4.0	3	7 ⁵⁰
32	<u>57.0</u>		

76

LOADS	ROCK CU.YDS	TRUCK	TIME
1950	4.0	1	7 ⁵⁵
57	3.0	39	7 ⁵⁸
52	3.0	1	9 ¹⁵
53	3.5	39	9 ¹⁷
54	3.5	1	9 ²⁵
55	3.5	39	9 ²⁸
56	4.0	3	9 ³⁶
57	3.5	3	10 ⁰⁰
58	4.0	3	10 ²⁶
59	3.5	39	10 ³⁵
60	4.0	3	10 ⁴¹
61	4.0	3	11 ⁰⁶
62	4.0	3	11 ¹⁶
63	3.5	39	11 ²⁵
64	3.0	3	11 ²⁸
48	65	3	11 ⁴²
	<u>57.5</u>		

LOADS	ROCK CU. YDS	TRUCK	TIME
1966	3.5	40	11 ⁵⁸
67	3.5	3	12 ⁰³
68	3.5	40	12 ¹²
69	5.0	1	12 ³¹
70	3.5	40	12 ³⁶
71	3.5	1	12 ⁴⁶
72	3.5	40	12 ⁵⁵
73	4.5	1	1 ⁰⁰
	<u>30.5</u>		
	49.5		
	57.0		
	<u>57.5</u>		
	194.5		

reported

216 LOADS - D.G. TO DOWN-STREAM PILE

TRUCK

79

#2

1 to 100

10

15

25

30

3.25

1-24

2-46

3-36

106

2

29-47

50-52

99

1

80

10.

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

CALCULATION OF EARTHWORK.

Width	HEIGHT														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	.02	.04	.06	.07	.09	.11	.13	.15	.17	.18	.20	.22	.24	.26	.28
2	.04	.07	.11	.15	.18	.22	.26	.30	.33	.37	.41	.44	.48	.52	.56
3	.06	.11	.17	.22	.28	.33	.39	.44	.50	.56	.61	.67	.72	.78	.83
4	.07	.15	.22	.30	.37	.44	.52	.59	.67	.74	.81	.89	.96	1.04	1.11
5	.09	.19	.28	.37	.46	.56	.65	.74	.83	.93	1.02	1.11	1.20	1.30	1.39
6	.11	.22	.33	.44	.56	.67	.78	.89	1.00	1.11	1.22	1.33	1.44	1.55	1.67
7	.13	.26	.39	.52	.65	.78	.91	1.04	1.16	1.30	1.42	1.55	1.68	1.81	1.94
8	.15	.30	.44	.59	.74	.89	1.04	1.19	1.33	1.48	1.63	1.78	1.92	2.08	2.22
9	.17	.33	.50	.67	.83	1.00	1.17	1.33	1.50	1.67	1.83	2.00	2.17	2.33	2.50
10	.18	.37	.56	.74	.93	1.11	1.30	1.48	1.67	1.85	2.04	2.22	2.41	2.59	2.78
11	.20	.41	.61	.82	1.02	1.22	1.43	1.63	1.83	2.04	2.24	2.44	2.65	2.85	3.06
12	.22	.44	.67	.89	1.11	1.33	1.56	1.78	2.00	2.22	2.44	2.67	2.89	3.11	3.33
13	.24	.48	.72	.96	1.20	1.44	1.68	1.92	2.16	2.41	2.65	2.89	3.13	3.37	3.61
14	.26	.52	.78	1.04	1.30	1.55	1.81	2.08	2.33	2.59	2.85	3.11	3.37	3.63	3.89
15	.28	.56	.83	1.11	1.39	1.67	1.94	2.22	2.50	2.78	3.06	3.33	3.61	3.89	4.17
16	.30	.59	.89	1.18	1.48	1.78	2.07	2.37	2.67	2.96	3.26	3.56	3.85	4.15	4.44
17	.31	.63	.94	1.26	1.57	1.89	2.20	2.52	2.83	3.15	3.46	3.78	4.09	4.41	4.72
18	.33	.67	1.00	1.33	1.67	2.00	2.33	2.67	3.00	3.33	3.67	4.00	4.33	4.67	5.00
19	.35	.70	1.06	1.41	1.76	2.11	2.46	2.82	3.17	3.52	3.87	4.22	4.57	4.92	5.28
20	.37	.74	1.11	1.48	1.85	2.22	2.59	2.96	3.33	3.70	4.07	4.44	4.81	5.18	5.56
21	.39	.78	1.17	1.55	1.94	2.33	2.72	3.11	3.50	3.89	4.28	4.67	5.06	5.44	5.83
22	.41	.81	1.22	1.63	2.04	2.44	2.85	3.26	3.67	4.07	4.48	4.89	5.30	5.70	6.11
23	.43	.85	1.28	1.70	2.13	2.56	2.98	3.41	3.83	4.26	4.68	5.11	5.54	5.96	6.39
24	.44	.89	1.33	1.78	2.22	2.67	3.11	3.56	4.00	4.44	4.89	5.33	5.78	6.22	6.67
25	.46	.92	1.39	1.85	2.31	2.78	3.24	3.70	4.17	4.63	5.09	5.56	6.02	6.48	6.94
26	.48	.96	1.44	1.92	2.41	2.89	3.37	3.85	4.33	4.82	5.30	5.78	6.26	6.74	7.24
27	.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50
28	.52	1.04	1.55	2.07	2.59	3.11	3.63	4.15	4.67	5.18	5.70	6.22	6.74	7.26	7.78
29	.54	1.07	1.61	2.15	2.68	3.22	3.76	4.30	4.83	5.37	5.91	6.44	6.98	7.52	8.06
30	.56	1.11	1.67	2.22	2.78	3.33	3.89	4.44	5.00	5.55	6.11	6.67	7.22	7.78	8.33
31	.57	1.15	1.72	2.30	2.87	3.44	4.02	4.59	5.17	5.74	6.32	6.89	7.46	8.04	8.61
32	.59	1.18	1.78	2.37	2.96	3.56	4.15	4.74	5.33	5.92	6.52	7.11	7.70	8.30	8.89
33	.61	1.22	1.83	2.44	3.05	3.67	4.28	4.89	5.50	6.11	6.72	7.33	7.94	8.55	9.17
34	.63	1.26	1.89	2.52	3.15	3.78	4.40	5.04	5.67	6.29	6.93	7.56	8.18	8.81	9.44
35	.65	1.30	1.94	2.59	3.24	3.89	4.53	5.18	5.83	6.48	7.13	7.78	8.42	9.08	9.72
36	.67	1.33	2.00	2.67	3.33	4.00	4.66	5.33	6.00	6.67	7.33	8.00	8.67	9.33	10.00
37	.68	1.37	2.06	2.74	3.42	4.11	4.79	5.48	6.17	6.85	7.54	8.22	8.91	9.59	10.28
38	.70	1.41	2.11	2.82	3.52	4.22	4.92	5.63	6.33	7.03	7.74	8.44	9.15	9.85	10.56
39	.72	1.44	2.17	2.89	3.61	4.33	5.05	5.78	6.50	7.22	7.95	8.67	9.39	10.11	10.83
40	.74	1.48	2.22	2.96	3.70	4.44	5.18	5.92	6.67	7.41	8.15	8.89	9.63	10.37	11.11

Table gives cu. yds. in 1 ft. of a triangle of given width and height. Corrections for tenths of width are one tenth the values found under each height considering the widths from 1 to 9 as tenths and similarly the corrections for tenths of height are one tenth the figures opposite width considering the heights from 1 to 9 as tenths. Thus if $w = 16.2$ and $h = 5.3$, cu. yds. $= 1.48 + .028 + .089 = 1.597$ cu. yds. or practically 160 cu. yds. per 100 ft. If w exceeds 40 ft., use one half and multiply result by 2, if both w and h are large use one half of each and multiply result by 4. Any cross-section may be divided into triangles by the following rule. To the triangle of the sum of the outside cuts (or fills) $= h$, and $\frac{1}{2}$ the roadbed $= w$, add the triangles formed by taking the distance out to each break in turn ($= w$'s) by the difference between the cuts (or fills) on each side of it ($= h$'s) always subtracting the outer from the inner.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

Roadway 16 feet wide. Side Slopes 1 on 1 1/2.

For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	II
0	8.0	8.2	8.3	8.5	8.6	8.8	8.9	9.1	9.2	9.4	0
1	9.5	9.7	9.8	10.0	10.1	10.3	10.4	10.6	10.7	10.9	1
2	11.0	11.2	11.3	11.5	11.6	11.8	11.9	12.1	12.2	12.4	2
3	12.5	12.7	12.8	13.0	13.1	13.3	13.4	13.6	13.7	13.9	3
4	14.0	14.2	14.3	14.5	14.6	14.8	14.9	15.1	15.2	15.4	4
5	15.5	15.7	15.8	16.0	16.1	16.3	16.4	16.6	16.7	16.9	5
6	17.0	17.2	17.3	17.5	17.6	17.8	17.9	18.1	18.2	18.4	6
7	18.5	18.7	18.8	19.0	19.1	19.3	19.4	19.6	19.7	19.9	7
8	20.0	20.2	20.3	20.5	20.6	20.8	20.9	21.1	21.2	21.4	8
9	21.5	21.7	21.8	22.0	22.1	22.3	22.4	22.6	22.7	22.9	9
10	23.0	23.2	23.3	23.5	23.6	23.8	23.9	24.1	24.2	24.4	10
11	24.5	24.7	24.8	25.0	25.1	25.3	25.4	25.6	25.7	25.9	11
12	26.0	26.2	26.3	26.5	26.6	26.8	26.9	27.1	27.2	27.4	12
13	27.5	27.7	27.8	28.0	28.1	28.3	28.4	28.6	28.7	28.9	13
14	29.0	29.2	29.3	29.5	29.6	29.8	29.9	30.1	30.2	30.4	14
15	30.5	30.7	30.8	31.0	31.1	31.3	31.4	31.6	31.7	31.9	15
16	32.0	32.2	32.3	32.5	32.6	32.8	32.9	33.1	33.2	33.4	16
17	33.5	33.7	33.8	34.0	34.1	34.3	34.4	34.6	34.7	34.9	17
18	35.0	35.2	35.3	35.5	35.6	35.8	35.9	36.1	36.2	36.4	18
19	36.5	36.7	36.8	37.0	37.1	37.3	37.4	37.6	37.7	37.9	19
20	38.0	38.2	38.3	38.5	38.6	38.8	38.9	39.1	39.2	39.4	20
21	39.5	39.7	39.8	40.0	40.1	40.3	40.4	40.6	40.7	40.9	21
22	41.0	41.2	41.3	41.5	41.6	41.8	41.9	42.1	42.2	42.4	22
23	42.5	42.7	42.8	43.0	43.1	43.3	43.4	43.6	43.7	43.9	23
24	44.0	44.2	44.3	44.5	44.6	44.8	44.9	45.1	45.2	45.4	24
25	45.5	45.7	45.8	46.0	46.1	46.3	46.4	46.6	46.7	46.9	25
26	47.0	47.2	47.3	47.5	47.6	47.8	47.9	48.1	48.2	48.4	26
27	48.5	48.7	48.8	49.0	49.1	49.3	49.4	49.6	49.7	49.9	27
28	50.0	50.2	50.3	50.5	50.6	50.8	50.9	51.1	51.2	51.4	28
29	51.5	51.7	51.8	52.0	52.1	52.3	52.4	52.6	52.7	52.9	29
30	53.0	53.2	53.3	53.5	53.6	53.8	53.9	54.1	54.2	54.4	30
31	54.5	54.7	54.8	55.0	55.1	55.3	55.4	55.6	55.7	55.9	31
32	56.0	56.2	56.3	56.5	56.6	56.8	56.9	57.1	57.2	57.4	32
33	57.5	57.7	57.8	58.0	58.1	58.3	58.4	58.6	58.7	58.9	33
34	59.0	59.2	59.3	59.5	59.6	59.8	59.9	60.1	60.2	60.4	34
35	60.5	60.7	60.8	61.0	61.1	61.3	61.4	61.6	61.7	61.9	35
36	62.0	62.2	62.3	62.5	62.6	62.8	62.9	63.1	63.2	63.4	36
37	63.5	63.7	63.8	64.0	64.1	64.3	64.4	64.6	64.7	64.9	37
38	65.0	65.2	65.3	65.5	65.6	65.8	65.9	66.1	66.2	66.4	38
39	66.5	66.7	66.8	67.0	67.1	67.3	67.4	67.6	67.7	67.9	39
40	68.0	68.2	68.3	68.5	68.6	68.8	68.9	69.1	69.2	69.4	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 41.9. For same slopes but other widths of roadbed correct above figures by one-half difference in width of roadbed; thus in example above for 20 ft. roadbed distance will be $41.9 + (20 - 16) \div 2$ or 2 ft. added to 41.9 = 43.0. For slopes of 1 on 1 see inside of front cover.

Made in Germany.