

9

MONTHLY ESTIMATES

BARRETT DAM  
LEVEL BOOK

380

W126

MICROFILMED

JAN 8 1965

47  
248  

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213.65

100  
13  

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87  
8  

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95  
14  

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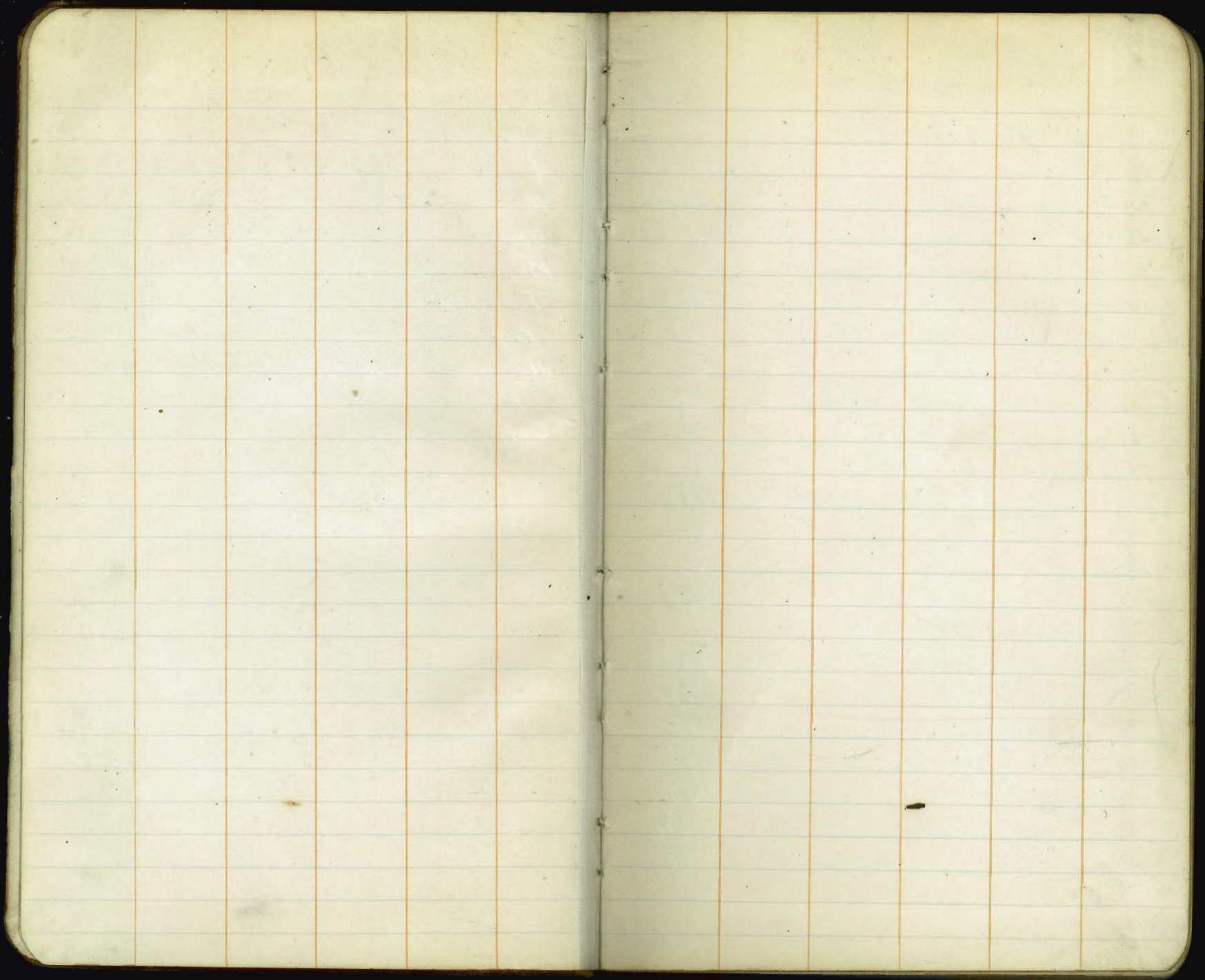
109

19

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1/31/20  
Howard  
Fisher  
Bub

Levels for January Estimate  
Sections

1

8730

38 Line

B38	4.5	74.80	1470.30
425		5.0	69.8
419		5.0	69.8
409		12.7	62.1
400 = C38		12.5	62.3
376		12.0	62.8
370		8.0	66.8
350		7.3	67.5

40 line

375		9.0	65.8
380		11.0	63.8
392		12.5	62.3
400		12.2	62.6
403		13.1	61.7

42+03 line

FP	4.9	75.30	4.4	70.40
375			2.0	73.3
386			5.6	69.7
395			1.0	74.3
401			2.0	73.3
FP	14.00	87.30	2.0	73.30
364			0.0	87.3

40-365  
42+03-406  
40-413  
40-406

B-38

38-425

5  
10  
20  
60  
73 Flume  
73  
86

87  
82  
73 Flume  
73  
65  
10  
00 = C-38

8.0 79.3  
2.0 85.3  
4.8 82.5  
7.5 79.8

44 Radial Line = Zero Area

111 147141 1470.30

440 line = Zero Area

425 line 38 Line = Zero Stationing

1.5 69.9  
4.4 67.0  
8.8 62.6  
10.4 61.0  
10.7 60.7  
9.2 62.2  
5.0 66.4  
0.5 70.9

400 Radius

40.5 71.9  
6.1 65.3  
6.5 64.9  
9.2 62.2  
10.7 60.7  
9.8 61.6  
9.1 62.3

1/31/20 Levels for January Estimate Sections

375 line

147141

375-65		11.3	60.1	440
72 Flume		9.4	62.0	
72		6.3	65.1	425
83		6.2	65.2	
84		1.4	70.0	400
00 = 38-375		8.1	63.3	
14		9.3	62.1	375
20		10.6	60.8	

350 line = 00 Area

See Profile Sheet #1 for Computations

Estimate Sheet #1

Summary January Estimate

End Area Cu Yds

Class 1

440	00
425	94.4
400	340
375	348.0
350	412
	374.1
	396
	183.3
	00

Total Class 1 Cu Yds. 1000.0

Class 2

Class 4

End Area Cu Yds End Area Cu Yds

38 Radial Line	180	198	
40	128	114.1	245.2
41705	00	35.5	
42103		464	397.8
44 line		470	148.0

Total Class 2

149.6

CLASS 3 }  
CLASS 4 }

791.0

Class 3+4 = 791 Cu yds  
Estimated Class 3 = 130  
Total Class 4 = 661

2/28/20

Levels for February Estimate  
Sections

3

Dob.  
Fisher

151266

42-300	0.41	148870	148829	44-329 <sup>37</sup> Nail in Rock	11.8	150086
40-342			105 782	44-332	13.9	98.8
40-348			130 75.7	44-335	14.0	98.7
40-364			250 63.7	44-338	19.0	93.7
				44-345	19.0	93.7
B-44	394	149433	149041	44-345	31.0	81.7
40-414 <sup>53</sup> For			1139 82.94			
40-407			150 79.3	42-300	1.85	149014
42-412 <sup>67</sup> Hub			829 86.04	42-336 <sup>60</sup> For	1.96	88.18
42-410			8.7 85.6	42-340	2.7	87.4
				42-343	9.7	80.4
B-44	1165	150206	149041			
42-442 <sup>92</sup> Nail in Rock			1036 91.70	B-38	9.70	1480.00
44-414 <sup>49</sup> Hub			1053 91.53		<u>38 Line</u>	
44-408			10.4 91.7	417	11.0	69.0
44-407			17.4 84.7	410	17.0	63.0
				390	17.4	62.6
B-46	998	151266	150268	377	17.0	63.0
46-432 <sup>32</sup> Hub			294 1509.72	370	13.0	67.0
46-414 <sup>99</sup> Nail in Rock			896 1503.70	350	12.3	67.7
46-408			10.4 1502.3			
46-408			15.0 97.7		<u>40 Line</u>	
46-396			16.7 96.0	404	17.3	62.7
46-343			3.2 09.5	404	7.3	72.7
46-347			9.6 03.1	390	17.0	63.0

2/28/20 Levels for February Estimate Sections

1480.00

40 Line

370 153 64.7

366 142 65.8

42 line

401 130 67.0

390 130 67.0

370 110 69.0

355 64 73.6

348 2.1 77.9

Hand Level

FF 6.5 1486.0 0.5 79.5

44 line

406 3.0 83.0

390 Estimate cut 7' deeper to 3/1 7.8 78.2

375 " " 8' " " 7.0 77.0

360 " " 7' " " 8.0 78.0

FF 12.0 95.6 2.4 83.6

46 line

393 Estimate cut 5.6 deeper to 3/1 0.0 90.0

390 5.6 90.0

380 2.0 93.6

375 5.0 90.6

365 Estimate cut 3.5 deeper to 3/1 0.0 92.1

360 Estimated Ele to 3/1 93.0

47+05 = ZERO AREA

B-40

137 1475.22

1473.85

38-425 Hub

577 1469.45

38-350 Hub

749 1467.73

28-350 P.O.R.

367 715.5

28-375 Hub

388 713.4

455.79 line

1475.22

B-38 = 00

1470.30

3.0

5.4 69.8

8.0

6.8 68.4

10.0

8.2 67.0

14.0

8.8 66.4

23.0

9.0 66.2

35.0

11.3 63.9

47.0

10.6 64.6

66.0 Plume

10.8 64.4

66.0

11.9 63.3

73.0

11.9 63.3

75.0

10.5 64.7

76.0

7.2 68.0

80.0

6.6 68.6

84.0

4.6 70.6

96.0

2.8 72.4



2/28/20 Levels for February Estimate Sections

38-425 453 1473.98 1469.45

425 line

87		3.3	70.7
80		7.0	67.0
77		8.0	66.0
75		9.6	64.4
73	Flume	9.6	64.4
73	"	11.2	62.8
66.5	"	11.2	62.8
66.5	"	9.2	64.8
61		9.2	64.8
60		10.4	63.6
38		10.4	63.6
15		11.2	62.8
9.0		10.1	64.0
6.0		7.7	66.3
00		4.53	69.45

400 line

38-400 = Sta 0.0		11.4	62.6
25		10.8	63.2
48		10.6	63.4
50		9.3	64.7
58		9.4	64.6

400 Line

5

1473.98

65	Flume	10.2	63.8
65	"	11.4	62.6
72.3	"	11.6	62.4
75		9.8	64.2
83		8.2	65.8
89		2.1	71.9

375 line

28-375	525	1476.59	1471.34
00 = 38-375	13.4	63.2	
12	13.8	62.8	
32	13.7	62.9	
51	14.2	62.4	
66	13.7	62.9	
66	14.3	62.3	
73	14.5	62.3	
73	14.7	61.9	
75	14.8	61.8	
81	12.3	64.3	
85	9.3	66.3	
91	6.0	70.6	
94 = 28-375	525	71.34	

350 line

1476.59

00 = 38-350 677.3

2/28/20 Levels for February Estimate Sections

350 line Cont'

1476.59

27	92	67.4
41	10.5	66.1
48	13.5	63.1
65.3 Flume	14.7	61.9
65.3 "	14.7	61.9
72 "	14.4	62.2
72 "	13.8	62.8
73	13.8	62.8
74	11.3	65.3
77	11.2	65.4
78	9.4	67.2
85	7.7	68.9
87.3 = 28-350		71.55

325 Line

1472.64

6

50	10.1	62.5
57	11.7	60.7
64 Flume	12.2	60.4
71	11.6	61.0
76	9.6	63.0
81 = 28-325		63.74
85	8.6	64.0
87	6.4	66.2
90	4.0	68.6
91	2.2	70.4

300 Line

1472.64

38-425	4.62	1474.07	1469.45	1	7.1	74.7
28-325		10.33	1463.74	10	0.9	71.7
28-300		13.17	1460.90	17	3.9	68.7

325 Line

8.90 1472.64

1463.74

23	4.6	68.0	50	11.9	60.7
33	7.5	65.1	64 Flume	12.2	60.4
41	6.2	66.4	72	12.3	60.3
46	6.2	66.4	74.8 = 28-300		60.9

2/28/20

Bub  
Fisher.

Levels for February Estimate Sections

3-1-20

7

300 Line continued

1472.64

79	10.6	62.0
83	7.0	65.6
87	5.8	66.8
94	4.8	67.8

13' more = 0.0 = 287 Line = 0.0

See Profile Sheet #2  
for Computations

Summary February Estimate.

Station End Area Cu Yds.

Class 1

440	0.0	
15'		59
425	2.14	
25'		221
400	2.64	
25'		274
375	3.27	
25'		206
350	1.18	
25'		123
325	1.48	
25'		361
300	2.04	
15'		49
287	0.0	

Total Class 1 Cu Yds. 1095.0

Estimate Sheet #2

3-1-20

8

## Summary February Estimate

	Class 2	Class A
	End Area Cu.Yds	End Area Cu.Yds.
38- Radial Line	165	205
19' 6" x	114	297
40- " " x	160	640
19' 6" x	56	666
42- " " x	00	1252
19' 6" x		991
44- " " x		1564
19' 6" x		878
46- " " x		930
15' 6" x		258
47+05 x		00
Total Class 2	<u>170</u>	Class 3+4 } 3090
		Total Est. Class 3 <u>500</u>
		Total Class A <u>2590</u>
	Cu.Yds	Cu.Yds.
Feb. Est. class 1	10,900	class 2 170.0
Jan Est. " 1	<u>1000.0</u>	" 2 <u>149.6</u>
Total-Feb. " 1	<u>90.0</u>	" 2 <u>20.4</u>
Feb Est. Class 3	500.0	class 4 2590.0
Jan Est " 3	<u>130.0</u>	" 4 <u>661.0</u>
Total-Feb.	<u>370.0</u>	<u>1929.0</u>

Estimate Sheet #3

Estimate sheet #3

4/2/20

Bub

Levels for March 1920

Fisher

Excavation Estimate

P.O.R.

115.4

occupy - 40 - 299

40-414.53

115.6

2 52 1485.46

1482.94

Stadia Dist

Converted Dist

40 Radial Line

109.4

408.4

5.3

80.2 ✓

107.5

107.9

105.0

406.9

12.9

72.6 ✓

106.4

406.3

23.1

62.4 ✓

67.7

367.1

21.1

64.4 ✓

67.7

367.1

14.1

71.4 ✓

62.8

367.3

13.6

71.9 ✓

59.2

359.7

18.9

66.6 ✓

44.6

344.3

16.0

69.5 ✓

42.6

342.3

13.9

71.6 ✓

29.0

324.0

13.7

71.8 ✓

19.0

319.0

10.3

75.2 ✓

②

7.0

307.0

9.3

76.2 ✓

①

3.0

303.0

4.8

80.7 ✓

## 38 Radial Line

occupy 38.300

38-304

Stadia

3.85 1478.51

1474.66

④

6.0

306.0

9.5

69.0 ✓

15

315.1

11.1

67.4 ✓

43.5

344.2

12.5

66.0 ✓

52.0

352.6

11.7

66.8 ✓

75

376.3

11.3

67.2 ✓

# Estimate of March 1920

Station	Occupy - 42-300	- 1 foot Lark -
42-300	4.42 14.92.71	1489.29
OK (6.0)	306.0	88 83.9 ✓
(OK) 11.0	311.0	9.3 83.4 ✓
38.0	337.8	16.4 76.3 ✓
45.4	345.1	17.6 75.1 ✓
58.4	350.0	21.7 71.0 ✓
62.0	361.5	24.5 68.2 ✓
66.0	365.4	20.5 72.2 ✓
79.0	378.3	23.4 69.3 ✓
85.0	384.2	29.4 63.3 ✓
99.0	398.0	29.4 63.3 ✓
105	404.0	15.3 77.4 ✓
111	410.8	7.1 85.6 ✓
412.57 114.0	412.7 ✓	6.67 486.04 ✓

## 44 Radial Line

Station	6-back- 44-300	Hand level
44-414.9	12.37 1503.90	1491.53
115	408.8	11.9 92.0 ✓
correct stay	2.2 93.73	91.53 ✓
403		16.0 77.7 ✓
393		19.3 74.4 ✓
370		18.7 75.0 ✓

# Hand level

10

Station	Hand level	7.373
268	17.5	76.2 ✓
358	19.0	74.7 ✓
356	16.0	77.7 ✓
347	15.8	77.9 ✓
Same	0.370	
28.8	32.37	14.3 89.6 ✓
8.6	303.4	12.6 91.3 ✓
6.0	300.0	6.0 97.9 ✓
42.0	298.0	4.2 99.8 ✓
000	296.0	4.0 99.9 ✓
46 Radial Line		
46-300	-0.62 1506.71	1507.33
304.3	Occupy. 304.3	1507.00
302		4.8 01.9 ✓
302		5.2 01.5 ✓
+ 9.5	315.0	11.2 95.5 ✓
310	336.2	5.2 01.5 ✓
Bottom-top Decay point		18.1 88.6 ✓
40	345.1	17.7 89.0 ✓
54	358.9	23.7 83.0 ✓
57	361.9	23.7 83.0 ✓
61	365.8	19.8 86.9 ✓
67	371.5	26.3 80.4 ✓
71	375.7	

Estimate of March 1920

Occupy - 304.3 - 46-Radial Line

Stadia	Corrected Station			
75	379.6	26.0	802.7	✓
78	382.6	20.4	86.3	✓
84	388.5	20.2	86.5	✓
95	399.4	21.0	85.7	✓
101	405.3	14.4	92.3	✓
101	405.3	3.6	03.1	✓
414.04		3.01	1506.71	✓

48 Radial Line

Occupy 48-300

C-48 Stadia	Corrected Station			
97.0	397.0	3.3	17.6	✓
96.0	396.0	10.7	10.2	✓
9.2	310.4	5.0	15.9	✓
13.6	314.7	14.7	06.2	✓
29.0	329.9	14.0	06.9	✓
42.0	342.7	19.1	01.8	✓
47	347.7	14.5	06.4	✓
6.0	360.5	14.5	06.4	✓
82	382.2	25.2	95.1	✓
83	383.2	19.3	01.6	✓
93	393.1	19.2	01.7	✓

48 + 10 = 0-0

Occupy 28-425

B-28 Stadia	Corrected Station			
18.8	405	12.1	78.2	✓
33.0	391	15.0	75.3	✓
43.0	381.3	16.0	74.3	✓
55.0	369.4	16.5	73.8	✓
73.0	351.6	17.4	72.9	✓
81.0	343.7	20.1	70.2	✓
91.0	334.0	19.5	70.8	✓
118.0	307.2	22.2	68.1	✓

TP Hand level						
127.0	298.3	28.5	71.8	✓		
135	294.4	0.4	75.66	15.04	75.26	✓
141	284.5	12.6	63.1	✓		
145	277.6	14.2	61.5	✓		
		15.0	60.7	✓		
		15.5	60.2	✓		

Occupy C-26-

C-26				
121	279.3	4.1	74.97.18	14.93.08
157	279.3	25.7	71.5	✓
115.0	285.2	20.8	76.4	✓
97.0	303.2	19.3	77.9	✓
85.0	304.5	14.7	82.5	✓

Station	Correct Station	Occupy	1497.18 C 26		
89	310.5	✓		19.6	77.6 ✓
57	342.9	✓		15.3	81.9 ✓
48	351.3			11.3	85.9 ✓
33	366.0	✓		8.7	88.5 ✓
26.2	373.5	✓		5.5	91.7 ✓
24.3	374.7			4.1	93.1 ✓
23.5	375.5			12.9	84.3 ✓
14.0	385.0			7.8	89.4 ✓
10.0	389.8			8.8	88.4 ✓

Station	Occupy	C 24			
C-24	4.3	1506.32		1502.02	
8.6	390.2		<del>4.2</del>	02.1 ✓	
12.0	387	✓	1.7	04.6 ✓	
14.5	384.4	✓	1.7	04.6 ✓	
16.0	383.0	✓	4.1	02.2 ✓	
23.0	376.0		3.9	02.4 ✓	
27.3	371.7	✓	5.0	01.3 ✓	
38.0	361.2	✓	11.8	94.5 ✓	
57.0	342.0	✓	15.0	91.3 ✓	
69.0	330.0	✓	14.6	91.7 ✓	
73.0	327.0	✓	11.4	94.9 ✓	
81.0	319.0	✓	16.5	89.8 ✓	
87	313.0		16.5	89.8	
T.P.		0.70	93.62	13.40	92.92 ✓
Hand level					✓

Station	Correct Station	Occupy	93.62		
9.7.0	313.5	✓		3.3	90.3 ✓
88.0	312	✓		7.0	86.0 ✓
103.0	307	✓		8.9	84.7
111.0	289	✓		7.9	85.7
111.0	289			12.7	80.9
115.0	285.1	High rock		14.8	79.6

Station	Occupy	22-370-			
C-23-	6.37	1513.53		1507-16	
7.2	362	✓		71	06.4 ✓
13.2	355.7	✓		8.7	04.8 ✓
25.0	344.0	✓		8.4	05.1 ✓
36.0	333.2	✓		9.0	04.5 ✓
46.0	323.2	✓		14.3	99.2 ✓
53	316.4	✓		14.8	98.7 ✓
T.P. handle	0.10	98.8		14.8	98.7
65	304	✓		9.3	89.5 ✓
72	297	✓		7.9	90.9
74	295	✓		10.6	88.2
80	289	✓		10.1	88.7
86	283	✓		10.0	88.8

Radial Line 20 = - 0 0 Et ✓



## occupy C-29-

C-29	5.00	1476.47	1471.47
3°	397	6.0	70.5 ✓
8°	392	6.9	69.6 ✓
17°	381.9	6.9	69.6 ✓
19°	380.0	3.5	73.0 ✓
50.0	349.4	4.5	72.0 ✓
67.0	332.6	10.1	66.4 ✓
72°	327.6	12.7	63.8 ✓
86.0	313.7	13.2	63.3 ✓

## Sections in Bottom

9°	East.	occupy C-29	
75° 400.	8.2	1476.46	10.3
67.8	15.2		12.0
65.8 Flume	17.2 ✓		12.7
60 Flume	23.0 ✓		12.7
60	23 ✓		12.7
0.00	8.3		12.0

425-hq8

E Side	60	11.1	65.4 ✓
Flume		10.8	65.7 ✓
Flume		12.8	63.7 ✓
"		12.6	63.9 ✓
Westside		9.8	66.7 ✓

1476.46

6' west of  
Flume.

14" "

B Line.

10

23

26

35

38

54

59

66

Flume

66

Flume

72

77

79

455-29

9.6 66.9 ✓ |5.1 71.4 ✓ |9.3 67.2 ✓ |10.0 66.5 ✓ |11.1 65.4 ✓ |11.1 65.4 ✓ |10.1 66.4 ✓ |10.3 66.2 ✓ |11.1 65.4 ✓ |11.4 65.1 ✓ |12.5 64.0 ✓ |12.1 64.4 ✓ |9.4 67.1 ✓ |9.3 67.2 ✓ |8.4 68.1 ✓ |

# Summary March Estimate.

	Class 2 End Area Cu Yds	Class 3+4 End Area Cu Yds
38	506	14
17.5 x	302.7	222.3
40	428	672
17.5 x	211.0	669.2
42	223	1393
10' x 17.5 x	41.3	1059.1
43+00	00	
44		1875
17.5 x 17.5 x		1177.7
46		1759
17.5 x 17.5 x		970.9
48		1237
17.5 x		229.1
48+10		00

Total/Class 2 550.0  
 class 3+4 4328.3  
 Estimated Class 3 800.0

	cu yds	Total Class 4 cu yds
March Est Class 1	1090	class 2 550.0
Feb Est " 1	1090	class 2 170.0
Total March " 1	000	" 2 380.0

March Class 3	800.0	class 4 3528.0
Feb " 3	500.0	" 4 2590.0
Total March Est " 3	300.0	" 4 938.0

4/24/20  
Fisher  
Mixer

Estimate of April 1920

44 Radial Line

1471.85

15

Top Concrete  
Wall

4.47 1471.38 ✓

1467.41

40 - Radial Line

403	1.1	70.8 ✓
403	9.1	62.8 ✓
3+75	8.1	63.8 ✓
3+25	9.6	62.3 ✓
3+00	8.7	63.2 ✓
2+87	8.4	63.5 ✓
2+87	6.0	65.9 ✓
2+84	4.8	67.1 ✓
2+83	7.8	70.1 ✓

38 Radial Line

3+25	8.6	63.3 ✓
3+00	8.8	63.1 ✓
2+82	8.5	63.4 ✓
2+78	6.5	65.4 ✓
2+77	2.9	69.0 ✓
2+72	2.0	69.9 ✓
2+68	1.0	70.9 ✓

42 - Radial Line

3+25	9.0	62.9 ✓
3+00	8.2	63.7 ✓
2+97	7.7	64.2 ✓
2+95	4.4	67.5 ✓
2+95	0.4	71.5 ✓

3+30

9.0 62.9 ✓

3+25

9.0 62.9 ✓

3+25

4.6 67.3 ✓

3+15

2.6 69.3 ✓

3+07

3.1 68.8 ✓

3+07

6.6 65.3 ✓

3+06

5.6 66.3 ✓

3+05

1.7 70.2 ✓

T.P.

15.57 1485.83 ✓ 1.62 1470.26 ✓

40-2+73

14.1 71.7 ✓

40+2+73

4.1 81.7 ✓

42-2+90

12.8 73.0 ✓

42-2+90

0.0 95.9 ✓

44-298

12.4 73.4 ✓

44-298

4.9 80.9 ✓

42 Radial Line

407 +14

0.00 85.8 ✓

406 +7.4

8.0 77.8 ✓

406

15.4 70.4 ✓

403

14.8 71.0 ✓

402

16.8 69.0 ✓

400

18.6 67.2 ✓

3+90

19.1 66.7 ✓

3+75

21.5 64.3 ✓

1485.83

44 Radial Line

40.6	0.0	85.8 ✓
40.6	11.0	74.8 ✓
40.2	12.2	73.6 ✓
38.8	11.2	74.6 ✓
37.5	11.3	74.5 ✓
36.5	10.8	75.0 ✓
35.0	12.0	73.7 ✓
34.8	10.2	75.6 ✓
33.7	9.2	76.6 ✓
33.2	10.3	75.5 ✓

46 Radial Line

40.6	+13.5	94.5 ✓
40.6		4.5 81.3 ✓
39.8		3.1 82.7 ✓
39.8		5.8 80.0 ✓
37.5		7.4 78.9 ✓
37.0		4.7 81.1 ✓
37.6		3.6 82.2 ✓
37.5		4.2 81.6 ✓
37.4		4.7 81.1 ✓
37.3		2.8 83.0 ✓
37.2		8.0 77.8 ✓
37.1		9.1 76.7 ✓
37.0		7.1 78.1 ✓
37.0	+17	9.0 ✓

46 Radial Line

1485.83

37.0	2.6	83.2 ✓
37.16		90.2 ✓
7.7	3.30	82.53 ✓
48 Radial Line - 0.0		
40-		0.0 -
406-		
47 407 ✓		
44 409 ✓		
46-408 ✓		
48 Radial Line 0.15 - Bottom -		
50 = 0.0 for Decomposed granite 40 to 350		
38-262		0.0
40 270 ✓		
42 284 ✓		
42-270 ✓		
44-286 ✓		
46-290 ✓		
46-294 ✓		

A/30/20  
Fisher  
Mixer.

Estimate of April 1920

B-26 9.57 1513.42 1503.85

24-422  
B-24 2.93 10.49

26-427 12.11 01.31

occupy 22-369 - 22 Radial Line  
Station Dist

3.69 4.3 09.1 ✓

365 5.4 08.0 ✓

359 9.3 04.1 ✓

289 19.6 10.0 03.4 ✓

338 31.0 8.1 05.3 ✓

326 43.0 10.1 03.3 ✓

305 64.0 11.8 01.6

Occupy 24-4135-

B-26 6.50 1510.35 1503.85

Station Dist

408 6.2 04.2 ✓

406 10.7 99.7 ✓

388 26° 10.6 99.8 ✓

386 28 14.6 95.8 ✓

315 46 19.5 90.9 ✓

350 61

B-28 2.13 1490.58 1488.45

24-Line

24-350<sup>00</sup>

352 4.0 86.6 ✓

350 2.3 88.3 ✓

334 +16° 5.2 85.4 ✓

~~329~~ +15° 6.6 84.0 ✓

303 9.2 81.4 ✓

28 Line

425<sup>00</sup> 00 01.0 -

400 4.0 86.6

B-29 \* 0.75 1473.10 1472.35

366 2.0 75.1

361 4.0 69.1

351 8.0 65.1

340 8.0 65.1

326 10.0 63.1

317 9.6 63.5

317 7.0 66.1

299 00 73.1

4/30/20

Estimate April 1920

B-29

0.75 1473.10

1472.35

28 Line

0.0  
4.75

4.13

4.00

3.75

3.50

3.25

3.5

6.6

10.0

11.4

11.0

69.6

66.5

63.1

61.7

62.1

18

18

34

42

58

Flume

Flume

28.350

1473.10

350 Line

5.8

10.7

11.0

7.0

10.3

11.6

11.2

11.3

67.3 ✓

62.4 ✓

62.1 ✓

66.1 ✓

62.8 ✓

61.5 ✓

61.5 ✓

61.5 ✓

Sections in Bottom.

4 + 10 = 0.0 Section

38-400-  
0-0

9.0

Flume

Flume

21

10.8

11.7

10.6

10.9

9.6

62.3 ✓

61.4 ✓

62.5 ✓

62.2 ✓

63.5 ✓

375

38-375  
0.0

18

Flume

Flume

14

16

25-375

11.9

11.3

10.8

11.2

11.0

10.1

9.4

61.2 ✓

61.8 ✓

62.3 ✓

61.9 ✓

62.1 ✓

63.0 ✓

63.7 ✓

325 = 0-0 Section

18

4/8/20

## Summary April Estimate

	Class 2	Class 3+4
	Area Cubic Yds.	Area Cubic Yds.
38	850	232
	619.3	409
40	1060	1030
	616.7	983.9
42	843	2004
	299.8	1466.8
43	82	
		2522
44		1656.0
46		2588
		1239.2
48		1236
		228.8
48+10		00
Est - Class 1	1535.8	Est - class 3
	100.0	5983.7
	1435.8	100.00
		4983.7

19

Class 2	CLASS 3+4
Area	Cubic Yds
28	831
	301
26	347.0
	397.6
24	1041
	100.8
22	493.0
	623
	192.9
	28
	447.8
	Est - class 3
	1083.5
	100.0
	983.5
	CLASS - 1 -
350	00
	69.4
325	150
	211.6
350	30.7
	359.7
875	470
	326.4
4+00	235
	43.5
4+10	00
	1010.6

4/8/20

## Summary April Estimate

April Est	class 1	1110.0	class 2	1884.0
March Est	class 1	<u>1090.4</u>	2	<u>550.0</u>
Total April	class 1	20.0	2	1334.0

April Est	class 3	1100	class 4	5968
March "	class 3	<u>800</u>	class 4	<u>3528</u>
Total April	class 3	300	class 4	2440

Estimate sheet #4

Estimate sheet #4



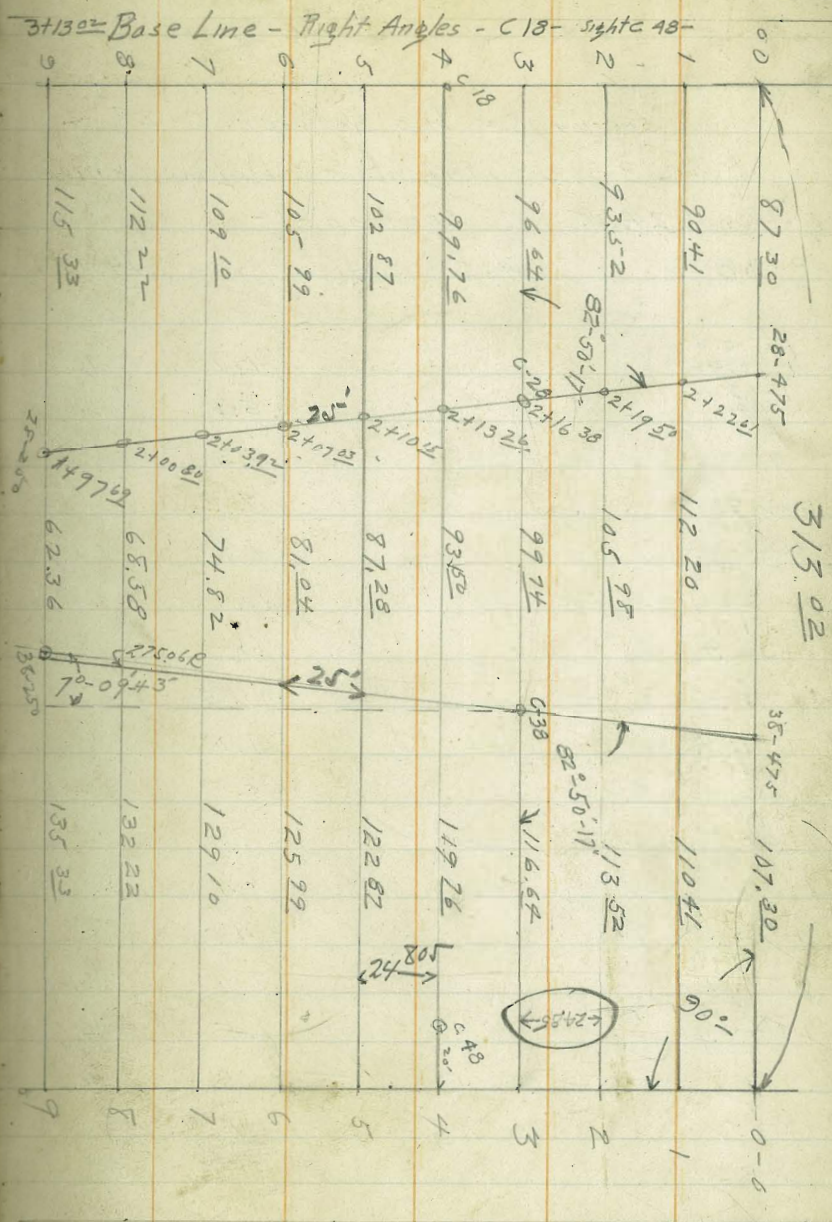
May 24 1920

Fisher  
M.D.M.

# Sections for May 1920 Estimate

Occupy - C-48 - Sight C 18 -  
 for 0-0 Turn 90° - chain 49.70  
 for 325' Section - 74.55 for  
 300' - + 98.60 for 275' Section.

Prolong line from C 48 - C 18 - 375' section  
 11.8 - Occupy Auxil point - Turn 90°  
 + chain 24.85 = 350 - Section



Base Line = 20' from C-48 = 00

May 28  
Sub  
Futer  
Minter

May 1920 Estimate -

Section 3 = Line between C-38 +

C 28 = Tangent - All Lines Parravall  
(24.85) Section - 1 -

Section 0-0.0

B-38	488	1475.18		1470.30
38-475 0+90.41			4.9	70.3 ✓
1+13 93- 1+18.4			5.3	69.9 ✓
98.4 ✓			63	68.9 ✓
1+22.9			82	67.0 ✓
1+07.9 ✓			89	66.3 ✓
1+39 1+19 ✓			10.1	65.1 ✓
1+47.4			10.2	65.0 ✓
4+27.4			11.5	63.7 ✓
Edge A 47.6			11.0	64.2 ✓
1+56.0			8.8	66.4 ✓
1+76.5			8.6	66.6 ✓
1+56.5			6.1	69.1 ✓
1+82.9			4.5	70.7 ✓
1+62.9			3.4	71.8
Edge 178.3 ✓			0.5	74.7 ✓
1+63.9				
1+87				
1+67.0				
1+89.4				
1+69.4				
1+92.8				
1+72.8				
1+99.4				
1+79.4				
2+02.9				
1+84.9				

38-475	
<del>0+87.30</del>	
1+07.31	
B-38	
1+9.48	
1+74.8	
1+72.3	
1+72.3	
1+98.8	
1+68.8	
1488.8	
1+60.8	
1480.3	
<del>1+60.3</del>	
1+73.8	
1+53.8	
1+73.3	
1+53.3	
1+55.5	
1+35.5	
1+23.3	
1+03.3	
1+20.3	
1+00.3	
1+11.8	
0+71.8	
1+11.8	
0+91.8	
1+07.3	
0+87.30	

1077	1481.07	1470.30
5.7	75.4	
8.6	72.5 ✓	
11.9	69.2 ✓	
14.2	66.9	
14.1		
17.3	63.8 ✓	
18.1	63.0 ✓	
15.9	65.2 ✓	
15.7	65.4 ✓	
15.6	65.5 ✓	
13.3	67.8 ✓	
10.6	70.5 ✓	
5.6	75.5	
4.3	76.8	

Section 2 -

1+35	Estimated	55.0
1+86	"	55.0

✓

May 26-10

But  
from  
next

B-38

Section #2

362 147392

1470.30

42-  
434-02

Section 3

12.68 1504.38

1491.70

23

110				
0+90		2.6	71.3 ✓	0+38
1+13.5				
0+93.5		5.1	68.8 ✓	0+49
1+15				
0+95		5.1	68.5 ✓	0+50
1+20				
1+50		7.6	66.3 ✓	0+61
1+25				
1+05		11.7	62.2 ✓	0+67
1+31				
1+11		12.2	61.7 ✓	0+67
1+39				
1+19		19.4	54.5 ✓	0+81
1+70				
1+50		19.4	54.5 ✓	0+89
1+73.5				
1+53.5		13.1	60.8 ✓	0+89
Edge Flange 1+89				
1+69		13.4	60.5 ✓	T.P.
Nail in Flange				
1+69.5 1+89.5				403
1+94.5				
1+74.5		11.7	60.2 ✓	1+16.64
T.P. 2+06				
1+86	1438	84.09	4.21	469.71 ✓
2+13				
1+93			6.9	77.2 ✓
T.P. Rich				1+20
2+38	1404	96.80	1.33	82.76 ✓
2+19			11.3	85.5 ✓
2+52.3				1+10
2+32.3			70.3	97.0 ✓
T.P. Rich				1+00
2+52.3			1.02	95.78 ✓
2+32.3	1236	1508.14		0+86
2+54			11.1	97.0 ✓
2+34			5.2	02.9 ✓
2+59				0+70
2+39			1.5	06.6 ✓
2+63				0+65
2+43				0+50
			12.0	77
				0+43

3 - Continued Page 28 -  
Section 4 -

		0.7	1503.7 ✓	
		87	95.7 ✓	
		13.7	90.7 ✓	
0.03	8280	14.61	89.77 ✓	
		58	84.0 ✓	
		168	73.0 ✓	
		21.6	68.2 ✓	
		15.5	74.3 ✓	
		27.0	62.8 ✓	
2.85	77.05	15.60	74.20	
		17.8	59.3	
		190	58.1	
		19.0	59.1 ✓	
		13.6	63.5 ✓	
		13.3	63.8 ✓	
		14.2	62.9 ✓	
		8.7	68.4 ✓	
		2.5	74.6 ✓	
		1.2	75.9 ✓	
13.06	89.73	0.38	76.67	
		91	80.6	

✓

May 26

Section 4

89.73

0+39		4.7	85.0 ✓
0+31		4.0	85.7 ✓
0+31		ap-12.5	97.8 ✓
46-41404	6.55	1510.25	1503.70 ✓
0+31		11.9	98.3 ✓
0+29.5		11.9	98.3 ✓
0+29		1.2	09.0 ✓
C-48-	15.48	32.23	1512.75 ✓
0+06		6.6	25.6 ✓
0+11		10.1	22.1 ✓
0+19		16.1	16.1 ✓

Continued on Page

Section 5

Section 6

Section 7

Section 9

0+20		6.2	26.1 ✓
0+32		14.5	17.7 ✓
6+35		8.4	23.8 ✓
0+45		16.4	15.8 ✓
0+53		12.0	20.2 ✓

May 27. 1920

B.S.  
Fisher  
Mixer

Top Wall -

2+32			
2+31			
2+22			
2+19.5			
2+14			
1+97.69	147.69		
1+84.6			
1+79.0			
1+79.2			

Top of Wall

2+100.80			
2+21.8			
2+21.8			
2+26.8			
2+29.8			
2+35			
2+78.4			
2+80.4			
2+37			

Last one - OK Dist.

2.4

8.53 1475.94 1467.41

Section 9 -

9.3		66.6 ✓
14.0		61.9 ✓
14.72		61.22 ✓
14.5		61.4 ✓
17.9		58.0 ✓
18.5		57.4 ✓
18.5		57.5 ✓
18.0		57.9 ✓
13.5		62.4 ✓

Section 8

8.97 1476.38 1467.41

18.5		57.9 ✓
18.2		58.2 ✓
13.2		63.2 ✓
14.3		62.1 ✓
4.0		72.4 ✓
2.1		74.3 ✓
up 2.4		78.8 ✓

May 27 1920

Bub  
Fisher  
Mixer

May Estimator  
(Section 8) 1476.38

1+85.4		18.8	57.6	T.P. 35-370 1429.1	
1+854		14.8	61.6	0+73	
1+784	2+1004	14.0	62.4	0+57.5	
1+780		17.0	59.4	0+75.0	
1+771	1+64	13.7	62.7	T.P.	
1+68	2+104	10.7	65.7	0+71	
1+60	2+102	9.8	66.6	0+66	
1+56	1+99	8.0	68.4	0+61	
1+54	1+97	1.8	74.6	T.P.	
1+45	1+85	0.6	75.8	0+53.6	
T.P.	0.21	75.77	0.62	1475.76	0+51.0
1+43	1+86	6.9	69.1	0+48	
1+36		9.0	67.0		
1+32		9.1	66.9		
(5-28-20)					
T.P.	0.41	76.17		1475.76	
1+17		3.4	72.8		
1+17			86.0		
1+17			88.5		

Section 7  
0.41 76.17

		13.7	63.0	
		13.4	62.8	✓
		11.0	65.2	✓
		6.1	70.1	✓
13.50	89.44	0.23	75.94	✓
		12.0	77.4	✓
		6.0	<del>6.0</del> 83.4	
		<del>1.0</del>	<del>90.4</del>	
		11.0	90.4	✓
15.1	1502.04	2.50	86.94	
		6.2	95.8	✓
		0.0	02.04	✓
		2.0	04.00	✓

Hand Level

Section 6 -  
8944

Assumed -		26.2	63.4
		25.6	62.8
		12.6	76.8
		10.3	79.1
		5.1	84.3

-Section 5-

1+229	8944 1502.44	61.2
0+95	25.5	64.0 ✓
0+75	19.0	70.4 ✓
0+72	14.1	75.3 ✓
0+60	13.3	76.1 ✓
0+60	10.0	79.4 ✓
0+54	9.6	79.8 ✓
0+53	7.5	81.9 ✓
0+40	6.0	83.4 ✓
0+39	2.4	87.0 ✓
0+33	2.4	87.0 ✓

Section #7

Top of Wall	4.35	1471.76
1+34	8.5	63.3 ✓
1+35	3.0	68.8 ✓
1+40	2.4	69.4 ✓
1+48	3.2	68.6 ✓
1+59	6.1	65.7 ✓
1+67	4.7	67.1 ✓
1+92	12.4	59.4 ✓
1+97	12.9	58.9 ✓
2+07	11.2	60.6 ✓

1471.76

- 2+15
- 2+24
- 2+32
- 2+39
- T.P.
- 2+42

12.5	59.3 ✓
11.5	60.7 ✓
6.1	65.7 ✓
4.0	67.8 ✓
0.68	71.08 ✓

Section 6

- 1+26
- 1+28
- 1+46
- 1+51
- 1+51
- 1+66
- 1+93
- 2+07
- 2+16
- 2+22
- 2+30
- 2+34
- 2+40
- 2+46
- T.P.

8.6	63.2 ✓
3.9	67.9 ✓
3.2	68.6 ✓
6.2	65.6 ✓
11.5	60.3 ✓
10.8	61.0 ✓
11.3	60.5 ✓
8.3	63.5 ✓
11.6	60.7 ✓
11.4	60.4 ✓
10.4	61.4 ✓
6.8	65.0 ✓
6.2	65.6 ✓
1.1	70.7 ✓
10.4	70.72 ✓

Section 5

1471.76

1+23  
1+2287

1+47

1+47

1+57

1+66

1+90

2+20

Flume  
2+29

2+36

2+39

TP.

612 ✓  
4.1 67.7 ✓  
11.1 60.7 ✓  
13.0 58.8 ✓  
5.5 66.3 ✓  
11.5 60.3 ✓  
10.2 61.6 ✓  
11.5 60.3 ✓  
9.6 62.2 ✓  
2.4 69.4 ✓  
2.37 69.39 ✓

Section 6 TP  
2+46

15.70 86.42

1470.72

- Section 7 -

2+483

12.7 73.7

Section 6

2+515

0.2 86.2 ✓

TP.

76.0 1501.86 0.56 85.86

Hand Level

1  
2+63

7.9 94.0 ✓

Section 6  
2+46 TP

2+39

2+49

TP  
2+515

2+50

2+66

2+

?

2+53

Top of cliff

2+37

2+804

2+85

2+85

2+85

Section 5  
Hand level

14.4 85.12

15.6

2.0

16.0 1501.86

14.9

6.3

Section

Section 7

0.0

1502.0

Section 8.

14.0 92.8

10.5

5.5

78.8

82.3

87.3

5-29-30

18-303

5.10 1534.50

15297.0

Section 7.

2+85	3.4	31.1	✓		
2+83.6	8.7	25.8	✓		
2+716	9.5	25.0	✓		
T.P.	6.8	28.1	13.2	21.3	✓
2+650	14.0	14.1	✓		
2+65	19.0	09.1	✓		

Section 6

1534.5

2+74			
2+77	15.0	19.5	✓
2+78	11.5	23.0	✓
2+93.2	5.2	29.3	✓
2+964	4.9	29.6	✓
3+024	4.9	35.8	✓

Section 5

1534.5

T.P.					
3+03'2	0.8	29.60	5.70	28.80	✓
2+89		8.8	20.8	✓	
		15.83			

Section 4

1534.50

2+83	144	20.1	✓		
T.P.	2.65	21.32	15.83	18.67	✓
T.P.	2.36	07.96	15.82	05.50	✓
2+76		4.3	03.6	✓	
2+59		12.0	95.9	✓	
T.P.	0.30	93.79	14.37	93.49	✓
2+59		3.4	90.4	✓	
2+51		6.1	87.7	✓	
2+46		13.2	80.5	✓	
2+36		16.3	77.5	✓	
3-38	3.61	1478.91		1470.30	
T.P.	5.37	64.21	15.07	58.84	✓

From page 23

Section 3

(20-35)				
1+16.6		8.7	55.5	✓
1+10		4.8	59.4	✓
1+20		10.6	53.6	✓
1+39		12.9	51.3	✓
1+47		14.2	50.0	✓
1+67		13.9	50.3	✓
1+91		6.1	58.1	✓



Section 3

64.21 ✓

2+18	6.3	57.9 ✓
2+31	3.8	60.4 ✓
T.P. 2+38	0.0	64.62 ✓
2+38	(+5.0)	69.62 ✓

Section 4

64.21

1+19.8	5.1	59.1 ✓
1+28	5.8	58.4 ✓
1+32	9.3	54.9 ✓
1+41	12.0	52.2 ✓
1+58	13.0	51.2 ✓
1+66	14.3	49.9 ✓
1+80	10.9	53.3 ✓
1+82	8.4	55.8 ✓
1+92	5.7	58.5 ✓
2+02	4.2	60.0 ✓
2+14	5.6	58.6 ✓
2+28	4.8	59.4 ✓

Section 3-

16.00 80.62

T.P.	64.62 ✓
2+41	7.0 73.6 ✓
2+48	4.5 76.1 ✓
T.P. 2+50	2.0 78.62 ✓
2+54	86.0 ✓
46.4	88.0 ✓
2+70	02.0 ✓

Est-Sheet # 5

June 1st

Summary May Estimate

Section	CLASS 1+2		CLASS 3+4	
	End Area	Cubic Yds.	End Area	Cubic Yds.
0 0	0 0			
1	526	9.8	0 0	
		612.1	0 0	87.0
2	804	1296.3	470	
		1744.1		821.9
3	2013	1744.1	1316	
		1299.1		1697.2
4	1777	860.6	2372	
		479.1		2237.9
5	1046	33.1	2491	
		861		2299.1
6	1009	860.6	2505	
		479.1		2029.9
7	861	479.1	1906	
		33.1		977.4
8	180	33.1	218	
		0 0		40.4
Total		7280.1	10191.0	

April Est Class 1 1110 cubic Yds.  
 Sand [Bryson] 2785 (Note) - Sand in Stock Pile 1023  
 3875  
 Est. additional 105  
 Total Class(1) 4000 cubic -

May - Total Class 1+2 7280

Est. Class 1 - 4000

Total Class 2 - 3280

April Est Class 3 1100

Est. May 300

Est. Total. 1400

May Total Class 3+4 10191

Est. Class 3 1400

Total Class 4 8791

May Estimate.

CLASS 1 4000

CLASS 2 3280

CLASS 3 1400

CLASS 4 8791

17471

Estimate Sheet #5

6/8/20

Bud  
Fisher  
Mixer.Transferred from Book 10 - Page 55

Elevation Bottom Sand Excav.

- Section 3 - for June Estimate

Near B-30

BM nail in stump

0.47 72.20 1471.73

0.00 57.81 14.39 57.81

C-38 11.2 46.6

C 36 13.5 44.3

C 34 14.0 43.8

C 32 14.0 43.8

31

June 29/20

Estimate of June 1920

BM. 15' North  
52 + 54

Estimate of June 1920

14.10

48.83

~~15.34~~ 73

54 Line

00

~~14~~

14.5 34.3 ✓

29.3 ✓

107 47.3 ✓

13.2

13.2 35.6 ✓

46.0 ✓

5.7 52.3 ✓

31.9

9.2 39.6 ✓

49.6 ✓

24 55.6 ✓

40.9

10.2 38.6 ✓

66.0 ✓

0.7 57.3 ✓

50.0

9.4 39.4 ✓

68 ✓

+3.0 61.0 ✓

65

9.2 39.6 ✓

00 = 52

70

7.5 41.3 ✓

00 = 59 ✓

74

4.7 44.1 ✓

Base Line = 00 = -400' Radius

56 Line

66

+40 52.8 ✓

76.6

00 48.8 ✓

61

50

3.2 45.6 ✓

40

5.6 43.2 ✓

29

4.0 44.8 ✓

15

5.1 43.7 ✓

9.5

3.5 45.3 ✓

00

45.0 ✓

occupy C58 - -4.0 58.0

540

9.8

3.5 54.5 ✓

19.3

10.7 47.3 ✓

21.7

582

June 30/20  
Fisher  
Mixer  
Auxil Point  
B. from 8B

- June Estimate -

T.P.

8.17 62.17 54.00  
11.55 1465.75 8.47 1453.70

- Section 5 -

65.3

2+36

2.9 62.4

2+30

4.8 60.5

2+18

3.2 62.1

2<sup>nd</sup> line  
2+10

4.3 61.0

2+01

6.2 59.1

1+98

9.8 55.5

1+93

11.0 54.3

1+93

13.4 51.9

1+78

15.3 50.0

T.P.

3.5 53.50 15.3 50.0

1+73

5.0 48.5

1+65

11.0 47.5

1+55

11.0 47.5

1+49

7.5 46.0

1+40

Est 13.5 67.0

#1

65.3

section 6

2+23

4.4 60.9

2+07

2.9 62.4

2+02

4.8 60.5

2+00

5.4 59.9

1+90

12.0 53.3

1+85

6.2 49.1

1+77

12.5 52.8

T.P.

4.5 53.7 16.1 49.2

1+75

6.5 47.2

1+62

7.5 46.2

1+53

7.5 46.2

1+53

2.5 51.2

1+46

Est

10.25 63.95 1453.70

section 7-

2+03.2

3.4 60.6

1+88

3.1 60.9

1+72

12.0 52.0

1+70

2.5 61.5

1+65

1.8 62.2

1+54

4.0 66.0



Summary of June Estimate

Class 3 + 4

section	End Area	Cubic Yds
52 Line	0.0	
		31.9
54 "	86.0	
		123.0
56 "	246.0	
		228.1
58 "	370	
		685
59	00	
		4515

Sections in Bottom

Class 1	Class 2
cubic yds	cubic yds
Total class 1 -- 6547	Total Class 2 6495

Class 3

	Cubic Yds
Section in Bottom	20.670
Sections 52-59	4515
Prison Est	
June 30 - Excav	387.0
	2906.5
Deduct Class 4	765
Total Class 3	2141

Class 4

	cubic Yds
	8026
Prison Est	8791
Deduct from Class 3	- 765
Total Class 4	8791

Estimate # 5

Class 1	6547
Class 2	6495
Class 3	2141
Class 4	8791
	25974
	900
	<u>25074</u>

7/24/20  
Fisher  
Mixer

Coordinate Points - 50-62  
For July Estimate 1920

At B-50 Chained 50.79' toward Center  
= 50-405 - Chained 98' from 50-405  
= 50-307

At 52-468<sup>u</sup> Chained toward Center  
59<sup>u</sup>' = 52-409 - chained from 52-  
409 - 95' = 52-314<sup>e</sup>

At 54-450 - chained 27<sup>e</sup>' toward  
Center = 54-423 - chained 100'  
from 54-423 = 54-323 -

At 56-450 - chained 27' toward  
Center = 54-423 - chained 100' from  
56-423 = 56-323<sup>u</sup>

At 58-450 - Chained 36' toward Center  
= 58-414 - Chained 89' from  
58-414 = 58-325 ✓

At 60-450 - chained 32' toward  
Center = 60-418 -

At 62-450 - chained 34' toward  
Center = 62-416



7/24/20

Fisher  
MixerJuly Estimate  
Elevations Coordinate Points

B-48	11.37	1524.15	1512.78
Lowest Elev.		17.2	1507-
50-405		2.12	22.03
B.M.-	0.43	1538.20	1537.77
52-409		9.27	28.93
50-307		13.58	24.62
52-314		2.50	34.70
B.M.	12.09	49.86	1537.77
54-423		10.55	37.31
56-423		2.34	47.52
54-323		6.12	43.74
B-58	6.11	65.64	1559.53
56-323		11.58	54.06
58-325		3.49	62.15
58-414		8.05	57.59
60-419		2.23	63.41
B-60	5.62	74.07	1568.41
62-416		2.28	71.79
B-		<del>4.49</del>	

37

7/26/20  
Fisher  
Mixer.

July Estimate 1920  
Sections East Tangent

B-48

14.26 1527.04

1512.75

50-Radial Line

405 ✓

1522.01

408.5 ✓

5.4

21.6 ✓

400 ✓

5.4

21.6 ✓

393 ✓

8.0

19.0 ✓

383 ✓

7.3

19.7 ✓

379 ✓

9.9

17.1 ✓

366 ✓

11.8

15.4 ✓

353 ✓

13.6

13.4 ✓

339 ✓

13.1

13.9 ✓

320 ✓

2.5

24.5 ✓

T.P.

10.58

23.86

13.76

13.28

52 Radial Line

405 ✓

29.0 ✓

402 ✓

elev. of 400 -

27.0 ✓

398 ✓

1.5

22.8 ✓

396 ✓

9.5

14.4 ✓

392 ✓

11.4

12.4 ✓

390 ✓

13.7

10.2 ✓

368 ✓

15.8

08.4 ✓

23.86

38

Sections East Tangent

52 Radial Line

363 ✓

12.8

11.1 ✓

359 ✓

10.2

13.7 ✓

343 ✓

7.6

16.3 ✓

332 ✓

2.1

21.8 ✓

331 ✓

+ 1.0

24.9 ✓

327 ✓

+ 4.0

27.9 ✓

322 ✓

33.7 ✓

#2 23.86

54 Radial Line

412 ✓

38.3 ✓

408 ✓

34.0 ✓

406 ✓

26.0 ✓

400 ✓

15.3 ✓

388 ✓

8.6

09.7 ✓

376 ✓

14.2

08.7 ✓

366 ✓

15.2

09.9 ✓

359 ✓

14.0

09.9 ✓

349 ✓

13.0

40.9 ✓

346 ✓

9.4

12.5 ✓

323 ✓

3.4

20.5 ✓

323 ✓

32.0 ✓

#1 23.86

56 Radial Line

410 ✓

39.3 ✓

404 ✓

46.0 ✓

400 ✓

36.0 ✓

399 ✓

6.6

17.3 ✓

395 ✓

12.4

11.5 ✓

7/26/20

## Sections East Tangent-

56 Radial Line

23.86

377 ✓	12.2	11.8 ✓	39.0 ✓
366 ✓	6.2	17.7 ✓	404 ✓
358 ✓	0.0	23.9 ✓	409 ✓
352 ✓	+5.1	29.0 ✓	
343 ✓	+11.1	35.0 ✓	
336 ✓		1537.0 ✓	

58 Radial Line

406 ✓		57.0 ✓	62-418
406 ✓		45.0 ✓	
397 ✓	0.0	23.9 ✓	
395 ✓	1.8	22.1 ✓	407 ✓
382 ✓	5.5	18.4 ✓	401 ✓
366 ✓	3.7	20.2 ✓	390 ✓
359 ✓	0.0	23.9 ✓	382 ✓
355 ✓	+2.0	25.9 ✓	368 ✓
355 ✓	+14.0	37.9 ✓	355 ✓
337.0 ✓		61.2 ✓	353 ✓

60-Section

332 ✓		71.0 ✓	
332 ✓		63.3 ✓	
345 ✓		65.8 ✓	
60-418	00	63.41	
353 ✓		12.0	51.4 ✓
360 ✓		18.0	45.4 ✓

63.41

39

20.0	43.4 ✓
20.0	43.4 ✓
15.0	48.4 ✓
5.2	58.2 ✓
1.4	62.0 ✓

62-Section

250 74.29 1571.79

4.6	69.7 ✓
10.4	63.9 ✓
13.0	61.3 ✓
18.0	56.3 ✓
16.0	58.3 ✓
	72.0 ✓
	79.5 ✓

62 + 50' = 0-0 Section

7/31/20

866  
Fisher  
Mixer

## Monthly Estimate July 1920

50 - Top of -

At 28-340 2 Sight Center for 00 Az <sup>Left</sup> <sub>Right</sub>Rod 47  
H.T. 66.45

12.85 1466.45

1453.62

Rod 16-5

Rod 11.5

14.50 70.0 93-15 55.0 42-0

" 67.0 84-15 80-0 68-0

" 76.0 75-0 78-0 90-45

" 70.0 66-30 67-0 94-0

" 65.0 65-30

" (?) 55.0 48-0 Rod 6.5

" 57.0 16-15 1460 73-0 97-0

" 47.0 949-30 " 80-0 95-0

" 38.0 351-45 " 80-0 65-45

" 34-0 4-30 " 70-0 68-0

" 33-0 21-45 " 57-0 40-30

" 23-0 36-0 " 57-0 17-30

check short.

16.0 47.30 57-0 11-0

67-0 13-30

Rod 11.5

gap

14.55 8-0 12-30 42-0 333-15

" 23.0 5-0 17.0 299-0

48.0 345-30 18-0 246-30

57.0 13-0

40

RC 14.0 16.0 327-30

RC 25.0 356-30

RC 25.0 337-0

Rod 1.5

14.65 67.0 13-30

" 60.0 20-0

" 70.0 23-30

" 70.0 30-0

" 60.0 29-30

" 72.0 53-45

" 85.0 51-15

" 105.0 50-0

" RC 80.0 73-45

" RC 80.0 97-45

" RC 77.0 98-45

" RC 81.0 102-30

" RC 97.0 101-15

" RC 100.0 96-30

" RC 92.0 94-30

" RC 88-0 88-30

" RC 84-0 82-30

connect up

July 31 - Concrete Run

July 31 Excav Hole

July 27-31 - Excav E Tang

7/120

## July Estimate 1920

At Avvil Pt from 28-340-0 slight  
 28-340-0 for Zero - AZ Rt

TP <sup>20 E</sup>		2.3	55.92		1453.62
Rod 10.9					
1445	18.0	350-0	✓		
"	35.0	293-0	✓		
"	47.0	306.0	✓		
"	55.0	301.45	✓		
"	56.0	289-0	✓		
"	50.0	280-0	✓		
"	42.0	259-0	✓		
"	37.0	236-0	✓		
"	42.0	220-0	✓		
	35.0	181-30			
<hr/>					
	25.0	159-0		14.3	41.6
	25.0	212-0		14.2	41.7
	26.0	237.0		13.6	42.3
	28.0	272-0		13.6	42.3

41

## For Concrete Estimate

for July 1920

See Concrete Estimate Book #  
 Page 1-

Final Contours =

1428 to 1430 -

1435 to 1440

Contraction Joint #1 is division  
 Point for Higher Contours.

East of Contraction Joint  
 1440 = Highest Contour

West of Contraction Joint  
 1450 = Highest Contour.

Above Contours - Sections  
 were taken - for Est of  
 yardage.

8/1/20

Summary of  
July 1920 Estimate  
Excavation

Sections in Bottom of

Sections	class 1		class 2		class 3		class 4	
	End Area	Cubic Yards	End Area	Cubic Yards	End Area	Cubic Yds	End Area	Cubic Yds.
00	00	107.4						
1	580	731.7			00	97.2		
2	1010	1448.2	00	823.0	525	364.5	00	395.2
3	2137	1607.4	2222	1936.0	267	175.8	1067	1547.0
4	1356	1202.9	1985	1335.0	115	295.4	2281	2010.0
5	1258	1223.2	916	794.3	527	473.5	2087	1922.2
6	1400	1072.2	810	668.2	502	439.5	2090	1624.9
7	930	455.6	642	376.0	453	276.6	1441	746.9
8	60	11.1	175	32.4	148	27.4	182	33.7
9	00		00		00		00	
		7860.0		5965.0		2150.0		8280.0

Green Lines on  
Sections = July Est.

A2

8/1/20

Summary July 1920 Estimate  
Excavation (Continued)

Section (7/24/20)	End Area	Class 3+4 Cubic Yds	
50 Line	676		Class 4 = 40%
		687.0	Class 3 = 60%
52	1179		
		1168.5	Class 3 4068
54	1976		
		1399.3	
56	1802		
		1353.7	
58	1934		
		1165.2	
60	1212		
		749.6	
62	812		
		75.2	
62+05	00		
		6629.	
Excav-7/27-7/31		151	
		<u>6780</u>	
		40%	
Class 4		2712.00	

43

Class 1 from Bottom Sections 7860  
Boulders - 200  
7660  
To Balance error June Est. 250  
Total Class 1 7410

Class 2 - from Bottom Sections 5965  
Excavated July 31 70  
Overhang 10  
6045  
Add Boulder Class 1 200  
Total Class 2 6245  
Error June 250  
Total Class 2 6495

Class 3 Bottom Sections 2150  
... East Tangent 4068  
Total Class 3 6218

Class 4 - Bottom Sections 8280  
... East Tangent 2712  
10992

8/1/20

Excavation

Class 1

7410

Class 2

6495

Class 3

6218

Class 4

10992

Concrete Masonary

Concrete

2206

Pipe  
Grout Holes

120'

Copper.

22.5"



8/29/30  
Fisher  
Mixer.

August 1920 Estimate -

Sections - 50 - to 63 - lines -

B-4.8 <sup>HT</sup> 10.52 23.30 1512.78

T.P. <sup>(16.2)</sup> 4.18 <sup>(1516.19)</sup> 1129 12.01

Section 50							
	16.2	08.5	08.6	11.4	Elw	Elw	Elw
3487	00	16.7	7.6	4.8	19.6	23.0	24.0
	387	375	350	348	322	319	311

Section 52 -

12.2	06.2	03.5	03.0	07.4	12.6	14.9	Elw
4.0	10.2	12.4	13.2	5.8	3.6	1.3	24.0
390	375	375	360	347	342	335	330

54							
Elw	16.2	10.2	09.3	05.1	03.2	00.8	03.7
260	0.0	4.2	6.9	11.1	13.2	15.4	12.3
412	397	388	352	320	325	371	355

56							
Elw	16.2	12.5	16.2	Elw	Elw		
273	0.0	3.7	0.0	21.4	29.0		
405	395	375	369	360	350		

58							
El	16.2	14.7	15.2	19.0	35.7	33.7	39.0
245	0.0	1.5	2.0	36.6	35.5	35.5	35.3
395	391.2	375	370				

60							
Elw	29.6	29.6	29.6				
395	375	366					

BM Nail in Stamp 11' SE. 52-468"	3.52	1541.29		1537.77
52-41507 <del>506</del>			11.58	29.71
52-411			13.0	18.3
54-4230			1.97	39.32
54-419			2.5	38.7
<del>54</del> 54-412			8.1	28.2
T.P. <del>54</del> 54-423 Hub.	11.71	57.03	197	39.32
56-427.35			2.54	48.19
56-425 Hub 56-427.35 T.P.	12.95	60.14	2.54	48.19
58-427.15			4.70	55.44
58-421			6.6	53.5
T.P. Prop.	11.72	73.70 <del>71.66</del>	0.16	1560.78
60-42382			8.17	63.49
60-417			10.0	62.7
60-413			21.0	51.7
62-416			1.12	72.58 <del>70.44</del>
B-60			449	68.21
62-405			3.3	

62-325	0.0	1582.52		1582.52
62-352			3.5	79.0 ✓
62-354			10.8	71.7 ✓
60-325	2.20	1584.79		1582.59
60-330			2.7	82.2 ✓
60-332			9.3	75.5 ✓
60-345			6.7	75.1 ✓
58-325	4.6	1566.75		1562.15
55-338			4.8	62.0 ✓
56-323	3.0	1557.02		1554.06
56-336			5.5	57.6 ✓
54-323	3.0	4674		1543.74
54-327			3.0	1543.7
52-314	5.0	153970		1534.70
5V322			6.0	33.7 ✓

## Copper - August.

To Date — 22.5  
 August — 21.0  
 August Est — 43.5 # = \$4.35

Estimate #7 Summary August 1920  
 Sept 1st/1920 Excavation  
 Excavation Bottom Sections.

Sections	Class End Area	1 - Cubic Yds	- Class 2 - End Area	Cubic Yds	- Class 3 - End Area	Cubic Yds	- Class 4 - End Area	Cubic Yds	
00	00								
10'		1074							
1 x	580				00				
2485		731.7			10	97.2			
2 x	1010		00		525		0.0		
2485		1448.2	20	823.0		364.5	50	395.2	
3 x	2137		2222		267		1067		
2485		1607.5		2041.9		176.0		1540.7	
4 x	1356		2215		115		2281		
2485		1306.0		1755.7		295.4		2010.2	
5 x	1482		1600		527		2087		
2485		1524.2		1343.8		473.5		1931.5	
6 x	1830		1320		502		2110		
2485		1422.0		979.3		439.5		1634.2	
7 x	1260		808		453		1441		
2485		607.5		452.4		276.6		746.9	
8 x	60		175		148		182		
10'		11.1		32.4		27.4		33.7	
0 0	0.0		0.0		00		0.0		
Boulders Class		8765.6	overhang		7428.5	Class 3			
		200	Boulders		10.0	2150.1	Class 4		
		8565.6	overhang		200.0				
overhang		50	Horns Dam		60				
Class 1		8615.6	Class 2		15				
			Class 2		7714.0				

Excavation  
Summary August 1920 Est.

Upper Sections  
Class 3+4

50	1055	9641
52	1548	14674
54	2414	16193
56	1958	15867
58	2326	15559
60	1875	995.2
62	812	150.4
63	00	
		<hr/>
August 30-31		8339.0
		150.0
		<hr/>
		8489.0
		60%
Jan 3		5093.40
		8489
		40
Class 4		<hr/>
		3395.60

10' x 20' x 20' = 20 x 20 x 20 = 20' x 20' x 20'

Bottom Sections Class 1 8616.0

Bottom Sections Class 2 7714.0

Bottom Sections Class 3 2150.1  
 Upper " " 3 5093.4  
 7243.0 7243.0

Bottom Sections Class 4 8292.4  
 Upper " " 4 3395.6  
 11688.0 11689.0

Total to Date 8 35262

Copper July Est 22.5

Used during August 21.0

Total to Date Concrete 435 43.5

Est. Book # 13 - Page 5

For August Est.

Concrete -

5796 cu yds

9/30/20  
Fisher  
Mixter

September Estimate 1920

60 Radial Line

1572.51

B-48

12.17 24.95

1512.75

60-420

8.3

64.2

Stake  
TP

1.23 13.57 12.61 12.84

B-58

58 Radial Line

4.4 63.9

1559.53

T.P.

10.01 03.56

58-430

6.3 57.6

58-338

2.9 61.0

62+10 - 00 Section

B-60

3.15 71.56

1568.41

56-323 -

56

56-336.5

0.85 5491

54.06

~~56-338.5~~

3.0 51.9

Section - 62 Radial Line

416 -

5642.5

1548.2

62-409

0.3 71.3

62-406

1.3 70.3

B-56 -

4.18 1554.52

1550.34

62-325

0.85 83.37

1582.5

416 -

62-350

3.2 80.2

56-325

0.52 1554.00

54-325

11.58 42.94

60 Radial Line

54

56-327

11.8 42.7

60-325

1.26 72.51

1571.25

~~56-333~~

16.9 37.6

60-331

1.5 71.0

331

9.3 63.2

342

8.8 63.7

150  
56

1508.56

T.P.	6.71	10.27	1503.56	56380
50-370			4.64	05.13
50-380				
	5.30	1508.56	1503.56	56395
				56405
50-380			4.7	03.9
50-395			2.6	06.0
50-360			1.4	07.2
50-342			0.2	08.4
	52			
52-334			<del>+30</del> +11.6	11.6
52-345			1.7	06.9
52-353			3.0	05.6
52-364			8.8	99.8
52-380			10.3	98.3
52-394			7.5	01.1
52-415			42.0	10.6
	54			
54380			9.2	99.4
54364			7.5	01.1
54-347			0.7	07.9
54-393			6.8	01.8
54-422			+72	15.6

					3.8	04.8
					2.4	06.2
				12' Deepen		39.9
					4.2	04.4
					5.0	08.6
				T.P.	0.55	08.01
				13.00	21.00	
				58-		
					6.7	14.3
					58	15.2
					00	21.0
					68	15.0
					80	21.00
					+10	31.0
					13.00	34.00
					00	21.00
					13.00	21.00
					4.0	30.0
					9.3	14.7
					00	34.00
					13.00	41.00
					6.00	25.00
					1.0	40.00
					1.3	39.7

	<sup>20</sup> 12.6		
B-48	19.60	32.38	1512.78
50-416		11.4	21.8
52-412		21.4	11.00
	52		
52-420		2.1	30.4 <sup>3</sup>
52-325			38.31
54-423			39.3 <sup>✓</sup>
	32.4		
50-331		<sup>11</sup> 20.8	11.6
50-330		14.1	18.3 <sup>✓</sup>
50-322		8.2	24.2 <sup>✓</sup>
			50

Summary September 1920

Oct 2 1920 Estimate # 8.

Sections East Tanager.

Radial Line	End Area	Cyds.		
50	1505		class 4	
		1398.9	in August	3396
52	2272		sub-Boulders	150.
		1961.1	Total Class 4	3546
54	3023			
		2095.9	Class 3+4	11000.0
56	2636			3546.0
		1909.6	Total Class 3	7454
58	2520			
		1898.9		
60	2607			
		1465.5		
62	1350			
		250.0		
63	00			
		10979.9		
class 3 Excav - in Bottom		20		
Class 3+4		11000.0		

No copper used this month -  
August Est. = 43.5 #

Bottom Section Class 1	8765.6
sub-Boulders	200.0
	8565.6
Overhang	50.0
Total Class 1	8616.0
Bottom Section Class 2	7428.5
add Boulders	200.0
Overhang	70.0
Harris Dam	15.0
Total Class 2 -	7714.0
Bottom Sections Class 3	2150.0
Upper " " "	7454.0
Total Class 3	9604.0
Bottom Sections Class 4	8292.0
Upper " " "	3546.0
Total Class 4	11838.0
Total to Date	37,772
Bryson	37,246
difference -	526

See Concrete Estimate Book # 13  
Page for Sept Est. Concrete -



Estimate of October 1920

Sections in Bottom -  
From 50 Radial Line West  
50 Radial Line = 0 0

~~46-41K~~

46-414<sup>of</sup>

687 1510.57 ✓ 150370  
50 Line

408	9.8	1500.57
400	10.6	00.0
393	10.4	00.2
391	8.0	02.6
376	4.7	05.9
363	2.6	08.0
350	4.2	06.4
337	2.3	08.3
<sup>TP</sup> 337	11.5	221 00 10.57
333	10.6	11.5
331	8.0	14.1
311	4.6	17.5
310	2.1	20.0
303	2.5	24.6

Line 4-

1510.6

0-02=50 line  
13'  
27

9.8	00.8
10.0	00.6
11.1	99.5

Line 5

0+09  
50 line  
13'  
25

10.5	00.1
10.8	99.8
17.0	93.6

Line 6

50 line  
0+21  
13  
+23

4.7	05.9
4.0	06.6
10.0	00.6

line 7

0+32  
50 line  
9  
17

3.9	06.7
3.8	06.8
7.5	03.1

line 8

0+43  
17  
9  
21

11.0	11.6
1.4	09.2
7.4	03.2

5<sup>687</sup> 1510.6

52 line

150370

56-337

56 line

1510.6

54

411		10.2	00.4	407	
400		10.2	00.4	411	
394		10.7	99.9	415	
398		11.5	99.1	400	
376		14.2	96.4	387	
366		12.6	98.0	378	
364		10.0	00.6	371 <sup>IP</sup>	
356		4.8	05.8	363	
350		3.4	07.2	359	
T.P.	10.0	16.6	4.0	06.6	348
337		2.6	14.0		
334			27.0		

line 54

54-327-02

1510.6

58-338

416		3.0	07.6	422
407		7.0	03.6	400
400		8.0	02.6	386
393		10.0	00.6	376
380		10.7	99.9	364
367		9.2	01.4	360
352		3.8	06.8	
338			17.5	

TR

13.0 23.6

Line 58

23.6

4.8	05.8	✓
	13.8	✓
	15.5	✓
5.6	05.0	✓
5.1	05.5	✓
4.1	06.5	✓
0.0	10.6	✓
8.0	15.6	✓
2.0	21.6	✓
+8.0	29.6	✓

3.7	19.9	X
	33.0	X
9.3	14.3	X
11.0	12.6	X
4.4	19.2	✓
4.0	19.6	✓
3.0	20.6	✓
	35.6	✓

13.0 35.0 1.6 22.0

TP	13.0	1535.0	22.0
60-342-00	60 line		
412		1.0	34.0
400		5.4	29.6
387		8.3	26.7
375		9.0	26.0
364		2.7	32.3
<del>B-48</del>	<del>B-</del>		
B-48	9.4	22.2	1512.78
50-418		2.0	20.2
50-415		4.7	17.4
54-425			00
52-420			00
54-426			00
54-422			00
56-427			00
58-431			00
58-426		5.0	
60-420.8			

B 60	70	1575.4	55
62380	62 line		1568.41
62423		14	71.0
62418		59	69.5
62413		10.6	64.8
TP	00	63.8	63.8
62408		34	60.4
404		8.5	55.3
400		11.0	52.8
392		13.6	50.2
387		17.6	46.2
378		10.0	53.0
358	64		or section
355		3.6	60.2
400		3.6	60.2
404		0.0	63.8
416		00	63.8
420			64
	66=00 Section		

## Summary October Estimate

Nov 1st 1970

Estimate # 9

- Excavation -

- Bottom Sections -

Section	- Class 1 -	- Class 2 -	- Class 3 -	- Class 4 -
00	00			
10	107.4			
1	580		00	
24.85	731.7		97.2	
2	1010	00	525	00
24.85	1448.2	823.0	364.5	395.2
3	2137	2222	267	1067
24.85	1607.5	2041.9	442.7	1540.7
4	1356	2215	695	2281
24.85	1306.0	1755.7	724.3	2010.2
5	1482	1600	879	2087
24.85	1524.2	1343.8	721.5	1931.5
6	1830	1320	689	2110
24.85	1422.0	979.3	621.7	1634.2
7	1260	808	662	1441
24.85	607.5	452.4	372.5	746.9
8	60	175	148	182
10	11.1		27.4	
00	00	00	00	33.7
		7428.5		
		add Boulders 200.0		
		ore hang 70.0		
		Karris Dam 15.0		
		7714.0		
		Concrete Tower Base 62.0		
		7776.0		
Subtract Boulders	8765.6		3372	8292.4
	200.0			
Add Overhang	8565.6			
	50.0			
	8616.0			

- Continued -  
Summary October 1920 - Est -

section	End Area	Cu bcy/ft
50	1840	
20'		1527.0
52	2283	
20'		1965.6
54	3024	
20'		2133.0
56	2735	
20'		2032.2
58	2752	
20'		1938.0
60	2480	
20'		1380.0
62	1246	
20'		823.0
64	976	
20'		361.5
66	00	
		<u>12,162.0</u>

57

Bottom Sections Class 1		8616.0
Bottom Sections Class 2		7776.0
Bottom Sections Class 3	3372	
Upper " " "	7297	
	<u>10669</u>	10670.0
Bottom Section Class 4	8292	
	<u>4865</u>	
	13157	
Add Bryson Skiff - West Tarpent	91.1	
	<u>14068</u>	14,068.0
		<u>41,130.0</u>
Bryson Est -		41,298
Copper used during October		
63 <sup>th</sup> -		
Total to Date		1065 <sup>th</sup>

11/18/20

November Estimate

See Book 13 - Page 13 for  
weight of 16" Pipe thru dam -

3 - 13" Copper  
17 - 13" "

35' of Concrete Pipe -

12/2/20  
Bib  
Mixer.

Transferred from Book 13 - Page 22-24

Excavation Est. November

Bottom Sections

Line # 8

40 413 <sup>53</sup>	2.77	85.71	1482.94
Top of Rock			72.82
in Concrete	1.44	74.24	12.91
			72.90
1+16	vert up 15'		00
35-275			74.2
1+32.22			7.7
			66.5
1+39			7.0
Pencil Pt on Rock			67.2
1+45 <sup>56</sup>			7.65
			74.89
1+45.56			4.2
			70.0
1+53 <sup>54</sup>			6.5
Nail in Ground			67.7
1+66			8.6
Edge Pot Hole			65.6
1+79			8.9
Top of Rock on face			65.3
1+80 <sup>61</sup>			13.9
Top of Iron Pin in			60.3
West Wall of Lamin	0.52	62.47	12.29
			61.95
Top of Stake			12.55
			49.92

Top of Stake	7.19	51.11	49.92
1+80 61			1.1
			50.0
1+82.6			1.5
			49.6
TP on Old Dam	1.71	42.66	10.16
			40.95
			12.60
			30.06

12/3/20

Top of Stake	1.02	50.94	49.92
1+85.6			4.3
			46.6
1+85.6			15.0
			35.9
2+00.61			17.0
			33.9
2+03.0			7.7
			43.2
2+07.3			4.9
			46.0
2+11.3			4.9
			46.0
Top of stake	12.31	62.23	49.92
Nail in Concrete			0.43
Old Pump Base			146.80
2+19.61			5.7
			56.5
2+26.61			0.0
			62.2

Platted 2/5/20

12/1/20

# Transferred from Book 13

November Excavation Est.

## Page 17-20

59

Sub  
Mixer.

### East Tangent Lt Abut

C 66 = 00 Cut on Lt. Abut. cut

52 Line

1505.09

46-414<sup>04</sup>

8.36 1512.06

1503.70

52=20.0

11.0

94.1

400 R-Arc = 00 Station

50 Line

1.80 1505.09

8.77

1503.79

0+25

11.1

94.0

0+4

12.0

93.1

0+34

9.5

1495.6

c 50

400-00

13.0

92.1

1512.06

0+5

11.4

93.7

0+39

11.7

00.7

0+8

5.1

1500.0

0+48

6.2

05.9

1512.06

0+54

5.1

07.0

0+67

+2.0

14.1

54 Line

0+17

8.8

03.3

1512.06

0+30

6.5

05.6

0+41

5.0

07.1

0-17

4.4

07.7

0+70

3.6

08.5

54-00

12.8

99.3

TP.

12.6

23.3

1.4

10.7

0+14

13.0

99.1

0+75

11.4

11.9

0+16

16.6

95.5

0+79

8.4

14.9

0+35

15.5

96.6

0+98

5.0

15.3

0+38

11.0

01.1

1+06

+2.0

1525.3

0+52

5.6

06.5

50 Line

## 56 Line

1512.06

0-6		6.0	06.1	0+27
c56 = 00		7.1	05.0	0+35
0+26		5.0	07.1	0+41
0+29		1.6	10.5	0+41
0+34		00	12.1	
0+43	Estimated	—	21.1	
0+53	"	—	29.0	

## 58 Line

Hand Level

	13.0	1522.9	2.20	1509.9
0-18			+1.0	23.9
c58 = 00			10.0	12.9
0+18			14.0	08.9
0+27			12.6	10.3
0+38			7.6	15.3
0+38			3.6	19.3
T.P.	13.0	27.9	8.0	14.9
0+46			3.0	24.9
0+46			+5.0	32.9

## 60 Line

1522.9

T.P.	12.5	1532.6	2.8	1520.1
0-11			00	32.6
C 60-00			6.2	26.4
0+20			14.0	18.6

## 60 Line

1532.6

	13.0	19.6
	8.5	24.1
	2.0	30.6
	+4.0	36.6

C.62 - C.64 = Same as  
October Est.



Excavation  
Bottom Sections

November 1920

Estimate # 10

## Bottom Sections

Sections	CLASS 1		CLASS 2		CLASS 3		CLASS 4	
	End Area	Cu Yds.	End Area	Cu Yds.	End Area	Cu Yds.	End Area	Cu Yds.
00	00							
10'		107.4						
1	580				00			
2	2485	731.7			10'	97.2		
	10 10		00		525		00	
	2485	1448.2	20'	823.0		364.5		395.2
3	2137		2222		267		1067	
	2485	1607.5		2041.9		442.7		1540.7
4	1356		2215		695		2281	
	2485	1306.0		1755.7		724.3		2010.2
5	1482		1600		879		2087	
	2485	1524.2		1343.8		721.5		1931.5
6	1830		1320		689		2110	
	2485	1422.0		979.3		621.7		1634.2
7	1260		808		662		1441	
	2485	945.7		513.6		372.8		752.4
8	795		308		151		194	
	2485	575.7		228.7		28.0		35.9
9	456		189		10'	00		00
	35'	570	369.4	35.0				
00	00		00					
Total for Bottom Sections		10037.8		7721.0		3372.7		8300.0

East Tangent Left Abutment

November Est.  
Summary

Sections End Area Cu Yds.

50	20.91	1747.8
52	2628	2164.4
54	3216	2216.3
56	2768	2194.8
58	3158	2205.2
60	2796	1497.0
62	1246	823.0
64	976	361.5
66	00	

13210  
 60%  
 7926.0 = Class 3  
 5284 = Class 4

13,210.0

RT Abutment

No Sections taken for RT Abut.

Skip measurement ←

Class 4 =

Class 3 -

1633  
 1600  
 75%  
 1200  
 400 25%

CLASS 1 CLASS 2 CLASS 3 CLASS 4

Bottom Sections	10038	7721	3373	8300
Boulders -	200 +	200		
	9838	7921		
Harris Dam +		15 -		
Overhang front face +		10		
Overhang over Pot hole +	50	35		
Overhang Toe of Dam <sup>Sand</sup>	80			
	9968	7981		

{ East Tangent Left Abut.			7926	5284
Right Abut.			400	1200
			11,699	14,784

Total Excav. - 9968 7981 11,699 14,784

145  
2  
180  
180

12/30/20  
Fisher  
Mixer

1920 December Estimate #11  
Excavation East Tangent  
Left Abutment

Ann C4+75  
April Pt.

				-10	
				-10	
	5.55	1509.96	1504.41	C 62	
				-7	
C 54			11.0	98.96	+7
C 56			6.30	03.66	22'
T.P.	13.0	22,86	0.10	1509.96	28'
C 58			9.4	13.5	
T.P.	13.0	1535.66	0.2	1522.66	
C 60			11.0	24.7	C 60
	13.0	48.36	0.3	1535.36	-5
C 62			5.2	43.2	-10
T.P.	12.90	59.06	2.20	46.16	-11.5
C 64			6.3	52.8	C 60
C 66 - 00 Sections					+8
64 Line					+25
C 64	63	59.1		52.8	+7
13'			6.6	52.5	32
20'			4.0	55.1	41
	11.6	64.4		52.5	44
-5'			10.3	54.1	058
8'			6.6	57.8	-5'
12			1.0	63.4	12
16			+2.0	66.4	18
					18

62 Line  
NJ 64.4

	8.5	55.9	✓
	13.5	50.9	✓
5.3	48.5	43.2	✓
	2.2	46.3	✓
	7.5	41.0	✓
	7.8	40.7	✓
	0.0	48.5	✓

Platted 12/31/20

60 Line

12.5	37.2	1524.7	✓
	10.6	26.6	✓
	5.7	31.5	✓
	+3.3	40.5	✓
7.0	31.7	1524.7	✓
	11.0	20.7	✓
	12.4	19.3	✓
	11.1	20.6	✓
	6.5	25.2	✓
	+6.5	38.2	✓

58 Line

11.6	25.1	13.5	✓
	10.7	14.4	✓
	6.8	18.3	✓
	0.0	25.1	✓
	+4.0	32.1	✓

58 Line

c 58	5D	18.5	13.5
+ 7		9.4	9.1
+ 17		16.0	0 25
+ 29		92	093
+ 36		00	18.5
+ 38		+ 20	20.5

56 Line

	9.6	13.2	03.7
- 4		83	04.9
- 9		40	09.2
- 10		+ 1.0	14.2
14		+ 4.0	17.2
	11.4	15.1	037
+ 12.0		13.0	02.1
21		12.8	02.3
24		9.0	06.1
29		6.0	09.1
36		47	10.4
40		00	15.1
43		+ 3.3	18.4

54 Line

c 54	13.0	12.0	199.0
- 13		8.0	04.0
- 17		4.8	07.2
- 17		+ 2.2	14.2
22		+ 7.2	19.2
c 50	00	99.0	99.0

c 57		8.0	91.0
6.54	2.7	01.7	99.0
13.0		6.0	95.7
26		15.0	86.7
33		15.0	86.7
+ 39	9.3	11.0	00
49		00	01.7
52		7.0	04.0
		+ 3.0	07.0

(52 Line)

c 52	13.3	04.3	91.0
- 12		7.0	97.3
- 12		3.0	94.3
- 15		50	04.3
	00	91.0	91.0
14		4.7	86.3
8		7.5	83.5
9		10.0	81.0
10		10.0	81.0

## (52 Line)

April. 21	4.6.	1509.0	1504.4
+ 23		11.2	97.8
36		11.5	97.5
38.5		9.0	1570.0
43		7.0	02.0
47		3.6	054
54		1.5	08.5
TP	8.0.	17.0	09.0
66		3.0	14.0
66		+ 3.0	20.0
67.5		+ 7.0	240

## 50 Line

052	00	91.0	91.0
050		6.0	85
- 5.0		6.0	85
+ 1.0		6.0	85

11/1/21

Steel in Outlet Tower  
Bryson Placed Dec. - Est.

3-Bell T- 3500#

Weight of 1 Flap Valve

4090#

Weight of 1 Sarcer Valve.

5180

## Reinforcing Steel in Tower.

Base 4-30# rail 8.3" each 33' @ 10 330#

4- " " " 14.3" " = 57' @ 10 = 570

6- " " " 18.4" " = 110' @ 10 = 1100

Vertical Rails 24-30# @ 30' each 720' @ 10 = 7200

Horizontal Hoops around Tower

3 bars 1/2" Steel @ 63'-4" 190' @ .85 161.5

## Around Flap Valves.

4-3/4 bars 10'-3 1/2" each 41.17' @ 1.913 79.5

4 3/4 " 11-9 " 47' @ 1.913 90.0

4 3/4 " 13-2 1/2 " 52.82' @ 1.913 101.5

8 3/4 " 1'-3" long 10' @ 1.913 19.0

## Steel in Tunnel.

vert bars 150-3/4 bars 5'-8 1/2" = 856.5 x 1.913 1638.5

Side Walls 12 1/2 " " 80' = 960 x .85 816.0

Roof 20 3/4 " " 8'-4 1/2" 1624 @ 1.913 320.0

" 20 3/4 " " 7'-2" 1434 @ 1.913 274.0

Used Extra 5-3/4 " 5'-8 1/2" 285 @ 1.913 54.0

" " 6-1/2 " @ 30' = 180' @ .85 153.0

" " 15 1/2 " @ 3' 45 @ .85 38.0

12945.0#

December 1920

66

Summary Excavation Est #11  
East (Left Abutment) Tangent.

Radial Line	End Area	Cu yds
50	2175	
20'		1880.0
52	2901	
20'		2327.0
54	3382	
20'		2328.1
56	2904	
20'		22652
58	3212	
20'		22792
60	2942	
20'		18067
62	1936	
20'		1177.0
64	1242	
20'		460.0
66	00	
		14523.2

December 1920  
Summary Excavation Est. #11

- Topog -

Contour	End Area	Cu yds.	Contour	End Area	Cu Yds.
1412	00		1430	1691	
		0.6			417.7
1415	10		1435	2820	
		3.0			
1420	122		1435	4733	
		13.2			1107.3
1425	120		1440	7226	
		41.1			1633.4
1428	619		1445	10415	
		71.5			2224.2
1430	1311		1450	13607	
					2814.0
14275	185		1455	16783	
		26.2			3189.2
1430	380		1460	17660	
14274	00				3704.3
		0.2	1465	22351	
1428	20				
		13.2	(Total up to 1465)		15467.2
1430	335				
		208.1			
1435	1912				

December 1920  
Summary Excavation Est #11

67

- Topog -

Contour	End Area	Cu yds	Contour	End Area	Cu Yds.
			Left Abut.		Right Abut.
1465	4905	1022.4	1465	3340	708.1
1470	6137	1120.4	1470	4307	731.1
1475	5963	1068.2	1475	3589	628.9
1480	5574	998.1	1480	3203	582.7
1485	5205	897.3	1485	3090	567.2
1490	4486	807.3	1490	3036	551.5
1495	4233	743.1	1495	2921	542.2
<del>1500</del>	<del>3793</del>		1500	2935	509.4
	3853	711.5	1505	2566	457.9
1505	3831	654.3	1510	2379	409.8
1510	3235	529.5	1515	2047	351.0
1515	2483	373.8	1520	1744	300.6
1520	1554	154.0	1525	1503	272.6
1525	1108		1530	1441	315.4
		9079.9	<del>1535</del>		
			1540	262	38.7
			1545	156	27.1
			1550	137	
					6794.2

50 Radial:  
00-ft Section  
East Tangent.

Summary Excavation Est<sup>n</sup> 11  
December 1920

- Excav - Totals

Nov. Est Class 1	9968	
" " Class 3	<u>11699</u>	
Total Class 1+3 -	21667	<u>Dec. Est.</u>

Class 1 9968

Class 2 8481

Class 3 11699

Nov Est Class 2	7981	
Dec " add	<u>500</u>	
Total Class 2	8481 =	<u>Dec Est.</u>

Class 4 17092

Left Abut		
above 1465	{	21667
Right Abut		8481
Above 1465 contours below 1465		30148
	<u>15467.2</u>	
	31541.3	

See Book 17 Page 1-4

Bottom Sections	1075.2	
East Tangent	<u>14523.2</u>	(32616)

- For January Est -

	47139.7	
Overhang	<u>100.0</u>	
	47239.7	
	30148.0 (Class 1+2+3)	
	<u>17092.0</u> ✓	Class 4



Coordinate Points		Reference Points		Coordinate Points		Reference Points	
Coordinate Points	Elevation	Coordinate Points	Elevation	Coordinate Points	Elevation	Coordinate Points	Elevation
<u>B LINE = 45579 line</u>							
14	1578.62	60	1568.41	at 38	1474.66		
out 16	1568.76	62	1579.43	out 40	1480.30		
out 18	1557.81	64	1588.64	out 42	1488.29		
20	1545.11	66	1603.56	out 44	1496.84		
22	1534.73	68	1617.48	out 46	1507.33		
24	1525.20	70	1624.03	out 48	1516.37		
26	1503.85	74	1650.44	50	1524.46		
28	1488.45			out 52	1536.34		
30	1472.35			out 54	1540.42		
32		East Tangent <u>325' LINE</u>		out 56	1551.41		
34		60	1571.25	out 58	1560.76		
36		62	1582.59	60	1571.50		
38	1470.30	64	1591.57				
40	1473.85	66	1602.58	<u>250' LINE</u>			
42	1480.64	68	1612.52	38	1491.47		
44	1490.41	70	1623.02	40	1496.25		
46	1502.68	72	1633.50	42	1507.15		
48	1512.78			44	1513.11		
50				46	1519.99		
52-468"	1532.83	East Tangent <u>275' LINE</u>		48	1526.28		
54-468"		60	1567.79	50	out		
"B Line Tangent 450 Line		62	1579.68	52	out		
56	1550.34	64	1588.49	54	out		
58	1559.53	66	1600.42	56	out		
		68	1614.82	58	out		
		70	1622.85	60	1568.21		
		72	1633.30				

Coordinate Points		Reference Points		Coordinate Points		Reference Points	
Coordinate Points	Elevation	Coordinate Points	Elevation	Coordinate Points	Elevation	Coordinate Points	Elevation
<u>Miscellaneous</u>							
00-330	1626.16	Miscellaneous		25-116	1487.16	24 08	1696.61
00-429	1630.56			at 116		555- Iron Peg	
4-350	1603.26			Stub on tie		1485	1679.42
4-455	1615.92					27 33.6	1703.13
6-						Nail 1 in 2 x 8"	
6-480	1615.35					North side Tunnel	1650.97
8							
8-450	1601.85						
10-315	1573.27						
10-442	1596.55						
10-447	1597.75						
12-315	1561.72						
12-340.13	1569.42						
12-437	1588.34						
12-426.22	1525.75						
14-319	1551.84						
14-350.42	1556.70						
14-436.28	1574.96						
14-417.72	1574.98						
14-495.10	1578.87						
16-309.0	1539.52						
16-333.90	1569.42						
16-446.17	1567.78						
18-488	1561.08						
18-303.0	1529.40						
18-470.25							
18-502.17							
20-421.21	1541.71						
22-505.0	1549.60						
22-409.24							
22-499.40							
24-505.2							
26-471.90	1570.42						
26- about 500	R.P.						
26-580	+ on Rock						
16-490.04							

Coordinate Points		Reference Points		Coordinate Points		Reference Points	
Coordinate Points	Elevation	Coordinate Points	Elevation	Coordinate Points	Elevation	Coordinate Points	Elevation
<u>"P" LINE</u>							
00-330	1626.16	25-116	1487.16	24 08	1696.61		
00-429	1630.56			555- Iron Peg			
4-350	1603.26			Stub on tie		1485	1679.42
4-455	1615.92					27 33.6	1703.13
6-				Nail 1 in 2 x 8"			
6-480	1615.35			North side Tunnel	1650.97		
8							
8-450	1601.85						
10-315	1573.27						
10-442	1596.55						
10-447	1597.75						
12-315	1561.72						
12-340.13	1569.42						
12-437	1588.34						
12-426.22	1525.75						
14-319	1551.84						
14-350.42	1556.70						
14-436.28	1574.96						
14-417.72	1574.98						
14-495.10	1578.87						
16-309.0	1539.52						
16-333.90	1569.42						
16-446.17	1567.78						
18-488	1561.08						
18-303.0	1529.40						
18-470.25							
18-502.17							
20-421.21	1541.71						
22-505.0	1549.60						
22-409.24							
22-499.40							
24-505.2							
26-471.90	1570.42						
26- about 500	R.P.						
26-580	+ on Rock						
16-490.04							



C Line

C Line

16	1546.14	50	1522.70
18	1541.61	52	1526.16
19	1536.11	54	1534.24
20	1529.37	56	1545.01
21	1522.67	58	1553.96
48	1516.25	60	1564.03
50		62	1573.16
52		64	1581.73
52-314		66	1591.73
52.52		68	1602.37
54-321		70	1613.50
54		72	1624.59
56-321	B.M.	74	1635.07
56		75	1640.96
58-325		760	1649.80
58-427.18			
60-42382			
60			
62-416			
62			

List of B.M.'s

U.S. G.S.	Iron Pin Set in top of Boulder 60' south of Old Blacksmith Shop - Harris B.M.	1626.33
	Top of Wall	1467.41
	Nail in Stump C 52-C54 - 15' North -	1534.73
	Hub about C-7460 with Witt.	1649.80
	Iron Pin set in Boulder - 2+08 P-Line 5' South	1696.61
	Nail in Rock 30' N West Cableway - 3+00	1764.33
x	On Old Engine Base - N.S. Canyon -	1461.38

	Nail in Stump about 10-340	1579.56
	End Iron Pipe (10-447)	1577.75
	Nail Top Concrete Joint Sewer Line -	1570.84
	Nail Stump about 12-330	1572
	Nail Stump about 16-460	1530.96
	Nail in Rock 41 West SW for Concrete Tower #1	1546.24
	Nail in Rock 24-432	1525.75
	Nail in Stump near B-30	1471.73
	Rock 50 S.E. Sump	1452.98
	about 44-350	1474.44
	on Rock 20' East of 340 el	1453.62
	TP Top of Rock 7' East of 34-329	1472.82

c of Curve

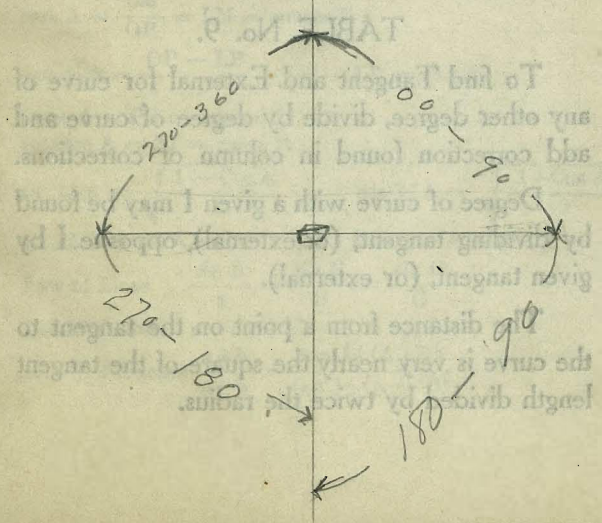
DIRECTIONS FOR USE OF TABLES

TABLE No. 1.

Distance of slope stake from side or shoulder stake for any width roadway, slope 1% to 1% If ground is nearly level, the cut or fill at side stake is located by the double entry method in both

IMPROVED TABLES  
AND  
INFORMATION

Read ~~and determine~~  
South  $\frac{E \text{ of Curve}}{100} = 0.0$



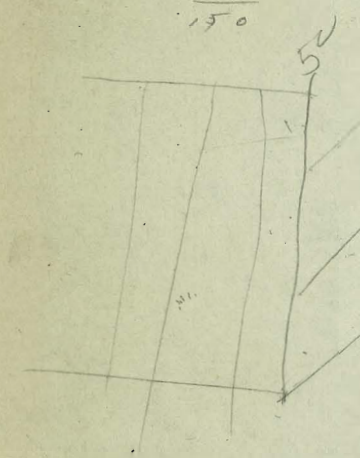
29

$$\begin{array}{r} 180 \\ 8250 \\ \hline 97943 \end{array}$$

$$\begin{array}{r} 7.98 \\ .1334 \\ \hline 21.32 \end{array}$$

$$\begin{array}{r} 243920 \\ 240080 \\ \hline 3840 \end{array}$$

$$\begin{array}{r} 4-19.F \\ 7F \\ \hline 150 \end{array}$$



$$\begin{array}{r} 325 \\ 326 \\ \hline 57 \end{array}$$

$$\begin{array}{r} 91 \\ 57 \\ \hline 33 \\ 20 \\ \hline 13 \\ 12 \end{array}$$

$$\begin{array}{r} 130 \\ 45 \\ \hline 85 \end{array}$$