

**BARRETT DAM**

*Contours, Upper Dam site.  
East side of Cañon.*

397

TRANSIT

W 18

# TRAVERSE TABLE FOR TRANSIT BOOK.

From 1° to 90° for a distance of 100.

Degrees.	DEGREES.		¼ DEGREE.		½ DEGREE.		¾ DEGREE.		Degrees.
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	
	0	99.98	1.75	100.00	0.44	100.00	0.87	99.99	
1	99.94	3.49	99.98	2.18	99.97	2.62	99.95	3.05	88
2	99.86	5.23	99.92	3.93	99.91	4.36	99.88	4.80	87
3	99.76	6.98	99.84	5.67	99.81	6.10	99.79	6.54	86
4	99.62	8.72	99.73	7.41	99.69	7.85	99.66	8.28	85
5	99.45	10.45	99.58	9.15	99.54	9.58	99.50	10.02	84
6	99.25	12.19	99.41	10.89	99.36	11.32	99.31	11.75	83
7	99.03	13.92	99.20	12.62	99.14	13.05	99.09	13.49	82
8	98.77	15.64	98.97	14.35	98.90	14.78	98.84	15.21	81
9	98.48	17.36	98.70	16.07	98.63	16.50	98.56	16.93	80
10	98.16	19.08	98.40	17.79	98.33	18.22	98.25	18.65	79
11	97.81	20.79	98.08	19.51	97.99	19.94	97.90	20.36	78
12	97.44	22.50	97.72	21.22	97.63	21.64	97.53	22.07	77
13	97.03	24.19	97.34	22.92	97.24	23.34	97.13	23.77	76
14	96.59	25.88	96.92	24.62	96.81	25.04	96.70	25.46	75
15	96.13	27.56	96.48	26.30	96.36	26.72	96.25	27.14	74
16	95.63	29.24	96.00	27.98	95.88	28.40	95.76	28.82	73
17	95.11	30.90	95.50	29.65	95.37	30.07	95.24	30.49	72
18	94.55	32.56	94.97	31.32	94.83	31.73	94.69	32.14	71
19	93.97	34.20	94.41	32.97	94.26	33.38	94.12	33.79	70
20	93.36	35.84	93.82	34.61	93.67	35.02	93.51	35.43	69
21	92.72	37.46	93.20	36.24	93.04	36.65	92.88	37.06	68
22	92.05	39.07	92.55	37.86	92.39	38.27	92.22	38.67	67
23	91.35	40.67	91.88	39.47	91.71	39.87	91.53	40.27	66
24	90.63	42.26	91.18	41.07	91.00	41.47	90.81	41.87	65
25	89.88	43.84	90.45	42.66	90.26	43.05	90.07	43.44	64
26	89.10	45.40	89.69	44.23	89.49	44.62	89.30	45.01	63
27	88.29	46.95	88.90	45.79	88.70	46.17	88.50	46.56	62
28	87.46	48.48	88.09	47.33	87.88	47.72	87.67	48.10	61
29	86.60	50.00	87.25	48.86	87.04	49.24	86.82	49.62	60
30	85.72	51.50	86.38	50.38	86.16	50.75	85.94	51.13	59
31	84.80	52.99	85.49	51.88	85.26	52.25	85.04	52.62	58
32	83.87	54.46	84.57	53.36	84.34	53.73	84.10	54.10	57
33	82.90	55.92	83.63	54.83	83.39	55.19	83.15	55.56	56
34	81.92	57.36	82.66	56.28	82.41	56.64	82.16	57.00	55
35	80.90	58.78	81.66	57.71	81.41	58.07	81.16	58.42	54
36	79.86	60.18	80.64	59.13	80.39	59.48	80.13	59.83	53
37	78.80	61.57	79.60	60.53	79.34	60.88	79.07	61.22	52
38	77.71	62.93	78.53	61.91	78.26	62.25	77.99	62.59	51
39	76.60	64.28	77.44	63.27	77.16	63.61	76.88	63.94	50
40	75.47	65.61	76.32	64.61	76.04	64.94	75.76	65.28	49
41	74.31	66.91	75.18	65.88	74.90	66.26	74.61	66.59	48
42	73.14	68.20	74.02	67.24	73.73	67.56	73.43	67.88	47
43	71.93	69.47	72.84	68.52	72.54	68.84	72.24	69.15	46
44	70.71	70.71	71.63	69.78	71.33	70.09	71.02	70.40	45
45									
Degrees.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Degrees.
	DEGREES.		¼ DEGREE.		½ DEGREE.		¾ DEGREE.		

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MICROFILMED  
JAN 1965

767  
5+2  
925

Feb. 15, 1907

Barrett Dam.

Base Line across upper dam site for Stadia readings on Gordons.  
Sta. Def. Course approx contour.

Sta.	Def.	Course	approx contour.
0	Δ	N. 67° 19' W	350. East Side of Canon
+ 21	Δ		340
+ 39	Δ		330
+ 54	Δ		320
+ 76	Δ		310
+ 97	Δ		300
1 + 12	Δ		290
			280
1 + 55	Δ		270
			260
			250
			240
			230
			220
2 + 67	Δ		210
2 + 92	Δ		200
3 + 18	Δ		190
3 + 41	Δ		180
3 + 52.7	Δ	S 5° 40' E. N 41° 39' W	175
3 + 65	Δ		170
3 + 87	Δ		160
4 + 13	Δ		150
4 + 34	Δ		140

This course is produced by deflections from the long chord of located curve at lower dam site

The above course is produced by deflections from a meridian established by Six B. Harris

West edge of Hook road

Identical with B. G. of trial curve

Sta	Def.	Course	Approx Elevation
4+56	Δ	N. 41° 39' W	130
4+90	Δ		120
5+11	Δ		110
5+43	Δ		100
5+65	Δ		90
			80
			70
			60
			50
6+33	Δ		40
8+00	Δ		95
			110
8+50	?		120
			130
			140
			150
9+16.4			175

Feb. 16, 1907  
 Naming  
 work in Office.

X on rock.

6+30 pump boiler 9' left.

Near pump boiler east side of cañon

6+35 pumps 13' right, elev. of pump foundation 31.7

West side of cañon

Identical with E.C. of trial curve. The dist from  
 B.C. (3+52?) to E.C. by triangulation is  $563. + 352.7 =$   
 $915.7$  a difference of 0.70

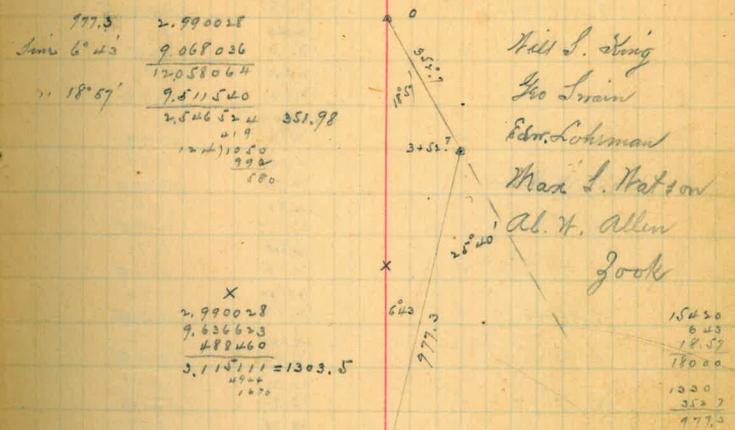


Barrett Dam  
Contours, upper dam site by India

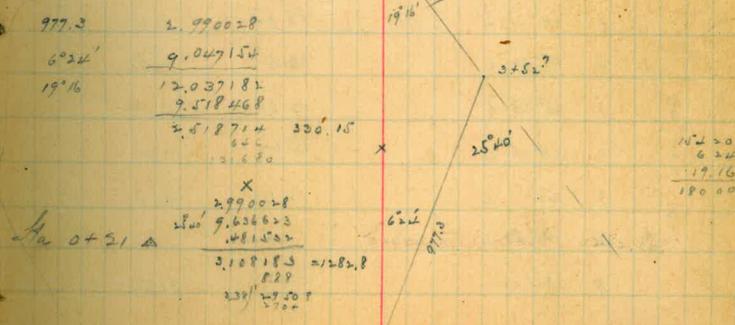
Sta.	Def.	Vert. Ang.	Coord.	
13+30	Δ	27°13' L	✓	14.00 14.08
	∨	25°40' L	✓	13.81 13.96
	∩	24°15' L	✓	13.50 13.59
	∪	22°08' L	✓	13.10 13.17
	∩	20°37' L	✓	12.89 12.10
	∪	19°10' L	✓	12.90 13.05
	∩	17°40' L	✓	13.11 13.07
	∪	16° L	✓	13.19 13.19
	∩	13°36' L	✓	13.03 13.07
	∪	11°50' L	✓	13.06 13.13
	∩	10°30' L	✓	13.31 13.36
	∪	8°50' L	✓	13.17 13.25
	Δ	6°40' L	✓	12.91 12.91
	∩	6°33' L	✓	12.97-1296 1303
	∪	5°30' L	✓	1303-1298 1317
	∩	4°35' L	✓	1324 13.32
	∪	3° L	✓	13.51 13.56
	X	1°50' L	✓	14.27 14.30
	∩	1°33' L	✓	14.14 14.28
	∪	1°47' L	✓	13.69 13.86
	∩	3°20' L	✓	13.39 13.58
	* 3/4	3°52' L	✓	12.75 13.24
	Δ	6°24' L	✓	12.74 12.72
	∩	6°48' L	✓	12.75 12.82

East side of Corron  
Feb. 18, 1907  
Mar 18, 1907

Deflections are from F.S. along course S. 41°39' E.



the 0 of base line A Calculated Dist. from Sta 0 to Sta. 13+30 is 1303.50



Feb. 18, 1907.

Sta	Def.	Next Ang.	Ards	
13+30 A	6 9° 28' L ✓		13.11 12.84	1323 1297 ✓
	7 10° 34' L ✓		13.24 13.18	1336 1330
	8 12° 01' L ✓	1290	12.90 13.13	1302 1225
	9 13° 54' L ✓		12.84 12.86	1296 1298
	10 16° 47' L ✓		12.96+5 12.85	1311 1297
	11 18° 11' L ✓		12.77 12.98	1289 1310
	12 19° 24' L ✓		12.80 12.83	1295 1295
	13 20° 10' L ✓		12.74 12.88	1286 1297
	14 21° 54' L ✓		12.82 12.82	1294 1294
	15 23° 01' L ✓		13.00 12.94	1312 1306
	16 24° 34' L ✓		13.30 13.06	1347 1318
	17 26° 37' L ✓		13.76 13.42	1389 1354
✓	18 27° 43' L ✓		13.98 13.82	1412 1395

## 330' Contour

13+00 A	1 30° 38' L		13.95	1408
	2 30° 14' L		13.98	1411
	3 29° 20' L		13.84	1397
	4 27° 47' L		13.21	1353
	5 26° 03' L		13.21	1343
	6 25° 27' L		12.97	1309
	7 24° L		12.66	1278
	8 23° 57' L		12.51	1263
	9 21° 02' L		12.28	1239

F.L. along center L. 41° 39' E.

West bank Wood road

East " " "

Feb. 15, 1907

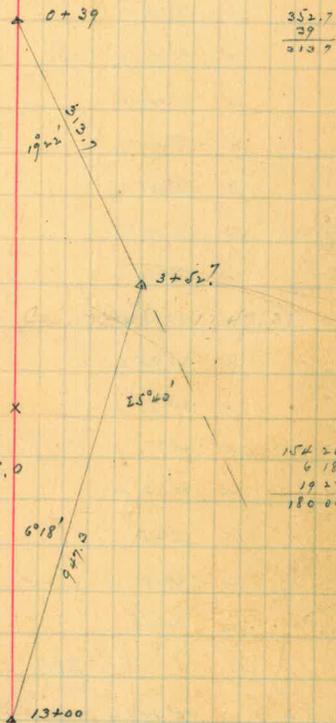
Sta.	Dep.	Dev. ang.	Prod	
13+00 Δ	10	19° 33' L	12.40	1251
	11	17° 32' L	12.50	1263
	12	16° 27' L	12.56	1269
	13	15° L	12.45	1257
	14	13° 45' L	12.45	1257
	15	12° 15' L	12.45	1257
	16	10° 53' L	12.71	1282
	17	8° 51' L	12.45	1257
	18	7° 06' L	12.28	1240
Δ		6° 18' L	12.38	1240 1239.2
	19	5° 17' L	12.29	1241.
	20	3° 50' L	12.52	1265
	21	2° 56' L	12.78	1291
	22	1° 52' L	12.91	1303
	23	1° 06' L	13.48	1360
	24	1° 06' L	13.90	1403
320' Contour				
12+44 Δ	1	0° 38' L	13.22	1342
	2	0° 38' L	12.78	1290
	3	1° 26' L	12.36	1247
	4	2° 32' L	12.17	1228
	5	3° 42' L	11.74	1185
	6	4° 25' L	11.73	1184

L. L. along course S. 41° 39' E.

$$\begin{array}{r}
 947.3 \\
 618' \\
 1922 \\
 \hline
 2.976488 \\
 9.040344 \\
 479639 \\
 \hline
 4.496469 = 313.6
 \end{array}$$

Sta 0+39 Δ

$$\begin{array}{r}
 \times \\
 2540' \\
 \hline
 2.976488 \\
 9.636633 \\
 479639 \\
 \hline
 3.092750 = 1238.0 \\
 2000
 \end{array}$$



$$\begin{array}{r}
 352.7 \\
 39 \\
 \hline
 213.7
 \end{array}$$

$$\begin{array}{r}
 152.20 \\
 6.18 \\
 19.22 \\
 \hline
 180.00
 \end{array}$$

Sta.	Def.	Lat. Ang.	Prod.		
7	5° L		11.54	1165	
8	6°30' L		11.57	1169	✓ 1167.5
8	7°00' L		11.55	1166	
9	9°14' L		11.68	1179	
10	11°12' L		11.92	1203	
11	12°04' L		11.85	1196	
12	13°27' L		11.70	1181	
13	15°13' L		11.76	1187	
14	17°23' L		11.88	1199	
15	20°06' L		11.72	1183	
16	22°45' L		11.69	1180	
17	26°04' L		11.78	1189	
18	26° L		12.05	1216	
19	28°13' L		12.62	1275	
20	28°45' L		12.58	1270	
21	29°33' L		12.64	1276	
22	30°28' L		13.00	1312	
310' Contour.					
12+44 Δ	1 30°40' L		12.86	1298	
	2 30°10' L		12.64	1276	
	3 29°02' L		12.51	1263	
	4 27°21' L		12.05	1216	
	5 25°13' L		11.68	1179	

Feb. 18, 1907

Sta. 0+54 Δ

891.2  
620  
19°20'2.95024  
9.042625  
.480089

2.472758 = 296.8 (P)

61.1  
148.1  
116.3

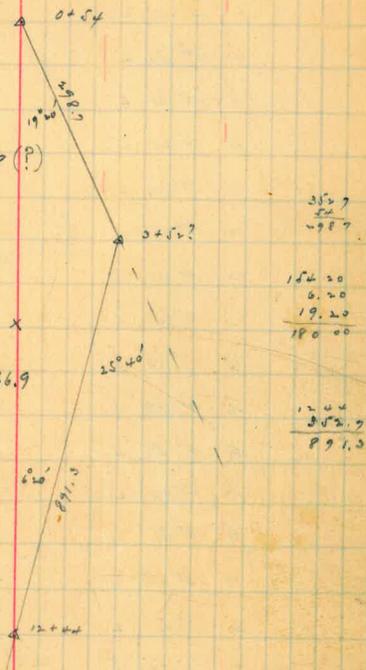
X  
25°40' 2.95024 X  
9.636623  
.480089  
3.066736 = 1166.9  
2700

East Bank of Wood Road.

West " " " "

H.S. along course S 44°39' E

West bank of Wood Brook

352.7  
52  
298.7154.20  
6.20  
19.20  
180.0012.64  
352.7  
891.2

Sta.	Def.	Text any	Pod.		
6	24° 51' L		11.76	1187	
7	22° 43' L		11.60	1171	
8	22° 52' L		11.57	1168	
9	20° 31' L		11.51	1162	
10	19° 20' L		11.55	1166	
11	17° 52' L		11.72	1183	
12	15° 23' L		11.60	1171	
13	13° 32' L		11.50	1166	
14	10° 52' L		11.74	1185	
15	8° 53' L		11.43	1153	
16	6° 49' L		11.38	1148	
17	5° 59' L		11.40	1150	1150.4
18	4° 20' L		11.37	1147	
19	3° 51' L		11.58	1169	
20	3° 05' L		11.64	1175	
21	1° 51' L		12.08	1219	
22	0° 10' R		12.68	1280	
23	0° 10' R		13.14	1324	

Feb. 19

## 300' Contour

11+98	Δ	4° 14' R	✓	12.85	1297
				12.78	1290
				12.77	1289
				12.49	1269
				12.60	1272
				12.47	1258
				12.39	1250
				12.08	1219

Feb. 18, 1907

East bank of Hook Road

891.2  
5.59'  
19° 41'2.950024  
9.018031  
.472600  
2.440655 = 275.90+76  
276.7  
19° 41'352.7  
76  
276.7152.0  
5.59  
19° 41'  
150.02540'  
x2.950024  
9.636623  
.472600

3.059247 = 1146.2

5° 39'  
891.2

25° 40'

3+52.7

12+44

FF 3+52.7

Feb. 19, 1907.

5	0° 30' R ✓	12.88	1300
		11.80	1191
6	0° 47' L ✓	11.59	1170
		11.39	1149
7	1° 25' L ✓	11.51	1162
		11.23	1133
8	2° 20' L ✓	11.10	1120
		10.94	1104
9	3° 48' L ✓	11.05	1112
		10.79	1089
10	4° 52' L ✓	10.80	1090
		10.60	1070
11	5° 52' L ✓	10.78	1088
		10.55	1065
12	6° 17' L ✓	10.74	1085
		10.58	1068
13	8° 22' L ✓	10.83	1093
		10.62	1072
14	10° 22' L ✓	10.96	1106
		10.77	1087
15	11° 23' L ✓	11.12	1122
		11.11	1121
16	14° 03' L ✓	10.98	1108
		10.94	1104
17	16° 11' L ✓	10.99	1111
		11.03	1113
18	18° 29' L ✓	11.15	1126.5
		11.13	1123
19	21° 16' L ✓	11.12	1122
		11.02	1112
20	24° 29' L ✓	10.94	1105
		10.99	1109
21	26° 29' L ✓	10.97	1107
		10.86	1096
22	28° 08' L ✓	11.08	1118
		11.11	1121
23	29° 29' L ✓	11.29	1139
		11.23	1133
24	31° 28' L ✓	11.59	1170
		11.53	1164
25	32° 02' L ✓	11.86	1191
		11.76	1187
26		12.03	1214
		11.93	1204
		12.41	1252
		12.42	1253

X  
1064.

Sta. 0+97

Top of East bank of Wood Road.

East Bank of Wood Road.

West " " "

845.3	2.927011
505'	9.009570
19'48"	.470136
	<hr/>
	2.406677 = 245.06
	520
	760

845.3	X
25'00"	2.927011
19'48"	9.626623
	.470136
	<hr/>
	3.003770 = 1080.8
	244
	210

0+97

2° 5'

3+52'

X

2° 20'

545'

11+98

322.7  
245.0  
1187  
242.7  
742.0

162.20  
8.42  
19.48  
180.00



22	1° 01' L ✓	11.37	1147
		11.38	1148
		11.66	1177
23	0° 26' R ✓	11.69	1180
		12.05	1216
24	1° 21' R ✓	12.03	1214
25	1° 27' R	12.45	1256

## 280' Contour

11-72 Δ	1	5° 04' R	11.98	1209
	2	2° 14' R	12.10	1221
	3	1° 30' R	11.57	1168
	4	0° 26' R	11.18	1128
	5	0° 40' L	11.04	1114
	6	1° 16' L	10.74	1084
	7	3° 10' L	10.51	1061
	8	4° 28' L	10.21	1030
	9	7° 12' L	10.25	1034
	10	10° 22' L	10.47	1056
	11	10° 43' L	10.39	1048
	12	12° 34' L	10.52	1062
	13	13° 40' L	10.54	1064
	14	16° 56' L	10.42	1051
	15	18° 34' L	10.54	1064
	16	19° 54' L	10.51	1061
	17	22° 20' L	10.42	1052
	18	26° 10' L	10.47	1056

Feb, 19. 1907

West bank of Wood Road  
East " " "East Bank of Wood Road  
West " " "

19	27° 30'	10.58	1068
20	28° 48'	10.80	1090
21	30° 54'	11.26	1136
22	32° 34'	11.53	1164
23	33° 30'	11.75	1186

## 270' Contour:

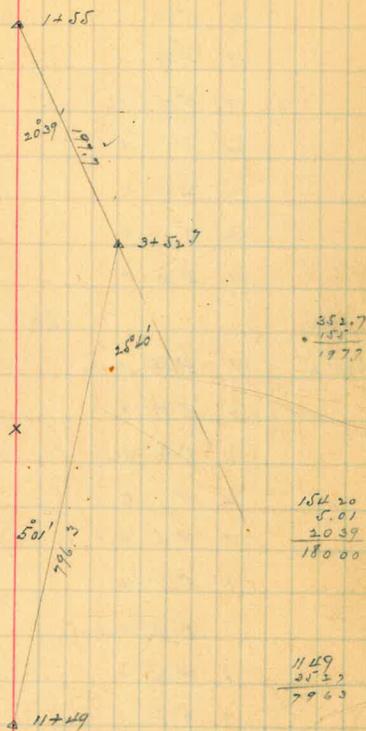
11+49 Δ	1	34° 51' L	11.44	1154
	2	34° L	11.17	1127
	3	32° 29' L	10.96	1106
	4	30° 02' L	10.50	1060
	5	28° 56' L	10.24	1033
	6	27° 40' L	10.11	1020
	7	25° 10' L	10.02	1011
	8	20° 20' L	10.15	1024
	9	18° 54' L	10.23	1032
	10	16° 54' L	10.06	1015
	11	14° 50' L	10.13	1022
	12	12° 49' L	10.18	1027
	13	8° 34' L	9.85	994
	14	8° 32' L	9.78	987
	15	5° 17' L	9.62	971
	Δ	5° 01' L	9.70	979
	16	5° 36' L	9.87	996

978.7

Feb. 19. 1907

$$\begin{array}{r}
 776.3 \\
 5^{\circ} 01' \\
 20^{\circ} 39' \\
 \hline
 2.901077 \\
 8.941738 \\
 225.646 \\
 2.295461 \\
 227 \\
 \hline
 197.285 \checkmark \\
 11.20
 \end{array}$$

$$\begin{array}{r}
 \times \\
 776.3 \\
 25^{\circ} 20' \\
 \hline
 2.901077 \\
 9.636653 \\
 253.646 \\
 \hline
 2.990346 = 978.02
 \end{array}$$



East bank of road down to old camp  
 that " " " "

Sta. 1+55 Δ

17	3° 50' L	10.10	1019
18	0° 58' L	10.56	1066
19	0° 12' R	10.72	1082
20	1° R	10.70	1080
21	2° 30' R	11.05	1115
22	3° 11' R	11.30	1140
23	3° 28' R	11.48	1158

## 260' Contour:

11+20' Δ	1	4° 08' R ✓	11.13	1123
	2	3° 09' R ✓	10.61	1070
	3	1° 56' R ✓	10.50	1059
	4	1° R ✓	10.25	1044
	5	0° 15' R ✓	10.00	1009
	6	1° <sup>5</sup> / <sub>8</sub> L	9.89	998
	7	3° 13' L ✓	9.60	969
	8	4° 35' L	9.11	919
	9	6° 48' L	9.14	922
	10	9° 09' L	9.40	948
	11	13° 08' L	9.64	973
	12	14° 29' L	9.67	976
	13	16° 05' L	9.72	979
	14	18° 20' L	9.76	985
	15	19° 44' L	9.80	989

Feb. 19, 1907

East bank at junction of roads.

E bank of road to town

" " " "

F.L. 3+52? Δ

W of road on base line

West bank of old camp road

E. " " "

2/19/07

16	21° 57' L	9.73	982
17	22° 57' L	9.70	979
18	29° 42' L	9.75	984
19	30° 50' L	9.95	1004
20	33° 37' L	10.65	1075
21	35° 16' L	10.75	1085
22	35° 47' L	10.90	1100

250' Contour

10+96 Δ	1	4° 50' R	10.64	1074
	2	4° 10' R	10.40	1049
	3	3° 25' R	10.18	1027
	4	1° 23' R	9.90	999
	5	0° 10' R	9.61	969
	6	0° 55' L	9.49	957
	7	3° 52' L	9.28	936
	8	3° 50' L	8.86	894
	9	6° 08' L	8.67	875
	10	9° 15' L	9.00	908
	11	13° 40' L	9.27	935
	12	16° 21' L	9.22	930
	13	18° 26' L	9.25	933
	14	20° 22' L	9.38	946
	15	22° 23' L	9.26	934

F.L. 3+52 Δ

16	24° 06' L	9.23	931
17	24° 24' L	9.40	948
18	26° 06' L	9.46	954
19	29° 57' L	9.31	939
20	31° 28' L	9.44	952
21	32° 24' L	9.66	974
22	35° 37' L	9.98	1007
23	32° 51' L	10.25	1034
24	36° 21' L	10.46	1049

## 240' Contour

10+75A	1	35° 40' L	9.86	995
	2	34° 15' L	9.56	964
	3	33° 16' L	9.34	942
	4	32° 30' L	9.23	931
	5	31° 10' L	9.17	925
	6	29° 51' L	8.95	903
	7	27° 02' L	9.04	912
	8	26° 28' L	8.96	904
	9	22° 51' L	8.97	905
	10	21° 02' L	9.07	915
	11	18° 24' L	8.91	899
	12	16° 35' L	8.91	899
	13	14° 02' L	8.91	899

4/19/27

West bank of road

East

L.S. 3+50?

E bank of road  
W. " "

12	12°18' L	8.84	892
15	10°30' L	8.79	887
16	9°30' L	8.56	864
17	8°25' L	8.63	871
18	6°25' L	8.40	847
19	5°35' L	8.60	868
20	2°16' L	8.99	907
21	0°45' L	9.17	925
22	1°09' R	9.39	947
23	2° R	9.58	967
24	2°57' R	9.74	983
25	5°12' R	10.19	1028
26	5°44' R	10.45	1054

## 230' Contours

10+36 A	1	6°36' R	9.86	995
	2	5°51' R	9.45	953
	3	2°16' R	9.32	940
	4	2°43' R	9.03	911
X	5	2°04' R ✓	<del>8.89</del> 8.91	899
	6	1°34' L	8.58	864
	7	2°33' L	8.39	846
	8	3°15' L	8.19	826
	9	5°23' L	7.92	799

2/19/07

FS 3+527 A

2/19/07

10	8°10' L	7.94	801
11	9°30' L	8.20	827
12	11°15' L	8.24	831
13	14°46' L	8.30	840
14	17°42' L	8.32	839
15	19°20' L	8.38	845
16	21°57' L	8.52	860
17	25°36' L	8.45	852
18	27°50' L	8.53	861
19	30°11' L	8.52	860
20	31°58' L	8.46	853
21	34° L	8.60	868
22	28°20' L	8.71	879
23	36° L	8.90	898

220' Contour

10+36 A	1	37° L	8.70	878
	2	34°29' L	8.43	850
	3	33°20' L	8.36	843
	4	28°03' L	8.43	850
	5	26°11' L	8.26	833
	6	24°52' L	8.21	838
	7	22°08' L	8.41	848
	8	19°52' L	8.24	831

	9	17°36' L	8.15	822
	10	14°10' L	8.16	823
	11	11°20' L	8.14	821
	12	8°47' L	7.85	792
	13	6°04' L	7.78	785
	14	3°46' L	7.74	781
	15	3°16' L	8.02	809
	16	1°58' L	8.27	834
	17	0°40' L	8.45	852
x	18	0°51' R ✓	8.51	860
	19	3°18' R	8.84	892
	20	3°42' R	8.98	906
	21	4°35' R	9.13	921
	22	5°34' R	9.25	933
	23	6°52' R	9.55	964
	24	7°28' R	9.69	978

## 210' Contour

10+03 Δ	1	8°28' R	9.23	931
	2	7°23' R	8.95	903
	3	6°08' R	8.67	875
	4	5°16' R	8.67	875
	5	3°08' R	8.48	855
	6	3°14' R	8.53 - 2.0	841

E.L. 3+52' Δ

7	1° 52' R	8.12	819
8	0° 11' L	7.96	803
9	1° 25' L	7.88	795
10	1° 54' L	7.41	747
11	2° 28' L	7.24	730
△	2° 54' L	7.23	729
12	4° 02' L	7.17	723
13	5° 15' L	7.22	728
14	7° 44' L	7.32	738
15	10° L	7.41	747
16	11° 45' L	7.61	768
17	14° 18' L	7.78	785
18	15° 33' L	7.67	774
19	18° 32' L	7.70	777
20	20° 45' L	7.71	778
21	22° 47' L	7.93	801
22	26° 25' L	7.92	800
23	29° 15' L	8.01	808
24	31° 47' L	7.95	802
25	35° 10' L	8.05	812
26	37° 18' L	8.22	829
27	38° 54' L		
28			

$$\begin{array}{r}
 650.3 \\
 254 \\
 2246 \\
 \hline
 2.813114 \\
 8.704090 \\
 .412312 \\
 \hline
 1.929516 = 85.02
 \end{array}$$

729.2 Sta 2+67.2

$$\begin{array}{r}
 650.3 \\
 254 \\
 2246 \\
 \hline
 2.813114 \\
 9.636633 \\
 .412312 \\
 \hline
 2.862049 = 727.85
 \end{array}$$

2+67

35.1  
22.46

3+52.7

$$\begin{array}{r}
 352.7 \\
 267 \\
 \hline
 85.7
 \end{array}$$

X

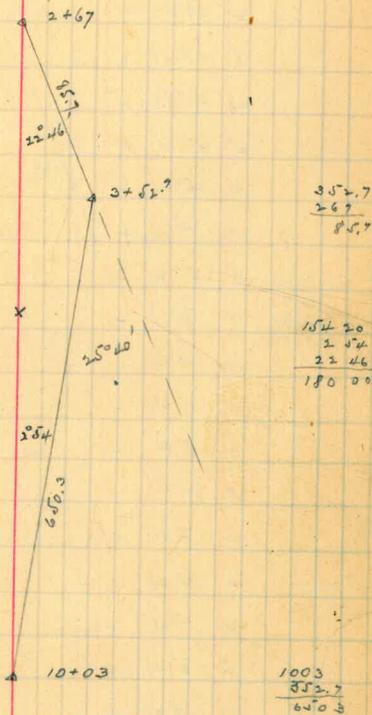
25.4  
650.3

$$\begin{array}{r}
 154.20 \\
 254 \\
 22.46 \\
 \hline
 180.00
 \end{array}$$

10+03

$$\begin{array}{r}
 1003 \\
 852.7 \\
 \hline
 650.3
 \end{array}$$

2/19/07





22	5° 40' R	8.38	845
23	6° 20' R	8.62	870
24	8° 03' R	8.82	890
25	9° 09' R	9.07	915

## 190' Contour

10+03 Δ	1	9° 37' R	8.90	898
	2	8° 40' R	8.76	884
	3	6° 54' R	8.46	853
	4	6° 03' R	8.37	844
	5	4° 44' R	8.24	831
	6	3° 07' R	7.91	+13.0 811
	7	1° 26' R	7.80	787
	8	0° 50' R	7.50	757
	9	0° 04' L	6.89	695
	10	1° 08' L	6.79	685
Δ		1° 18' L	6.76	682 681.7
	11	2° 23' L	6.76	682
	12	5° 08' L	6.80	686
	13	8° 04' L	6.89	695
	14	10° 08' L	7.06	712
	15	11° 24' L	7.21	727
	16	13° 28' L	7.33	739
	17	15° 10' L	7.57	764

2/20/07

L.L. 3+52.7 Δ

$$\begin{array}{r}
 650.3 \\
 10.5' \\
 24.25' \\
 \hline
 2.813114 \\
 8.338753 \\
 .373662 \\
 \hline
 1.555529 = 34.3
 \end{array}$$

$$\begin{array}{r}
 650.3 \\
 15.20' \\
 24.25' \\
 \hline
 2.813114 \\
 9.636623 \\
 .373662 \\
 \hline
 2.853399 = 681.3
 \end{array}$$

Sta. 3+18



18	16° 30' L	7.51	768
19	19° 02' L	7.42	748
20	21° 52' L	7.44	750
21	23° 24' L	7.60	767
22	25° 13' L	7.57	764
23	27° 05' L	7.60	767
24	28° 13' L	7.82 +2.0	791
25	33° 07' L	7.71 +1.0	779
26	35° 42' L	7.81	788
27	35° 35' L	7.79	786
28	38° 40' L	7.79	786

180'

9+16+ Δ	1	41° 50' L	6.94	700
	2	36° 05' L	6.87	693
	3	32° 08' L	6.82	695
	4	29° 15' L	6.71	677
	5	26° 42' L	6.59	666
	6	24° 03' L	6.46	651
	7	22° 40' L	6.48	653
	8	20° 33' L	6.52	658
	9	19° 47' L	6.53	659
	10	18° 42' L	6.55	690
	11	13° 23' L	6.16	621

2/20/07

F. S. 3+52?

12	10° 46' L	5.92	597.0
13	7° 48' L	5.77	582.0
14	5° 15' L	5.72	577.
15	3° 51' L	5.70	575.
16	1° 40' L	5.67	572.
Δ	0° 30' L	5.65.	572.7
17	0° 10' L	5.70.	575
18	1° 09' R	5.84	589
19	1° 49' R	6.01	606
20	1° 59' R	6.27	628
21	2° 27' R	6.40	666
22	3° 04' R	6.52	699
23	5° R	7.17	723
24	6° 42' R	7.34	741
25	8° 36' R	7.58	765
26	10° 16' R	7.72	779
27	11° 56' R	8.00	807

170'

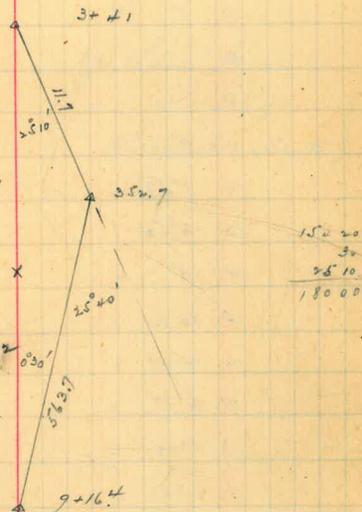
9+16 <sup>u</sup> Δ	1	12° 32' R	7.78	785
	2	10° 52' R	7.62	769
	3	9° R	7.39	745
	4	7° 20' R	7.22	728
	5	5° 33' R	7.08	714

Sta. 3+41

563.7	2.751048
0° 30'	7.940842
25° 10'	.371353
<hr/>	
	1.063243 = 11.57

563.7	x
25° 40'	2.751048
25° 10'	9.626623
	.371353
<hr/>	
	2.759044 = 574.2

Sta. 3+52?



6	3° 52' R	6.74	630
7	3° 12' R	6.33	638
8	3° 06' R	5.90	635
9	2° 08' R	5.67	672
10	1° R	5.51	556
Δ		5.47	551.5
Δ		5.60	564.6
11	0° 15' L	5.47	551
12	1° 57' L	5.48	552
13	6° 52'	5.57	562
14	10° L	5.67	572
15	12° 24' L	5.82	587
16	14° 27' L	6.01	606
17	16° 58' L	6.25	630
18	18° 27' L	6.39	644
19	21° 07' L	6.32	639
20	23° 02' L	6.38	643
21	25° 40' L	6.40	645
22	27° 11' L	6.52	658
23	28° 46' L	6.47	652
24	31° L	6.73	677
25	35° 10' L	6.72	680

Sta. 3+65

Sta. 3+52.7

by chain 551.4

" " 563.7

} " triangulation 562.98 }

5/20/07

160'

9+16 <sup>4</sup> Δ	1	35° 44' L	6.58	664
	2	33° 23' L	6.61	667
	3	32° 56' L	6.58	664
	4	30° 25' L	6.39	643
	5	29° 34' L	6.45	650
	6	16° 27' L	6.20	635
	7	24° 35' L	6.20	635
	8	22° 13' L	6.22	627
	9	18° 40' L	6.23	623
	10	17° 56' L	6.09	614
	11	16° 30' L	5.97	602
	12	12° 45' L	5.78	583
	13	13° 20' L	5.65	570
	14	11° 36' L	5.53	558
	15	9° 45' L	5.48	552
	16	4° 48' L	5.37	541
	17	0° 50' L	5.26	530
	Δ		5.26	530.2
	18	1° 41' R	5.29	533
	19	3° 10' R	5.38	542
	20	4° 23' R	5.57	562
	21	4° 54' R	5.74	577

2/20/07

F. S. 3+52.7

Ra. 3+67.2

by chain 529.4

22	5° 05' R	5.92	597
23	5° 01' R	6.18	623
24	5° R	6.42	647
25	5° 33' R	6.70	676
26	6° 48' R	6.90	696
27	9° R	7.21	727
28	11° 20' R	7.43	749
29	13° 45' R	7.62	770

## 150' Contour

9+16.4 Δ	15° R	7.42	748
✓	10° 40' R	7.13	719
3	8° 35' R	6.92	698
4	6° 34' R	6.60	666
5	6° 17' R	6.34	629
6	6° 31' R	5.83	598
7	6.31' R	5.62	569
8	5° 40' R	5.40	544
9	4° 47' R	5.19	523
10	3° 35' R	5.10	514
11	1° 53' R	5.03	507
12	10' R	5.00	504
Δ	vert. 2° 46'	5.02	501.7
13	1° 40' L	5.04	505.7

Feb. 20, 1907

Trail

Old road West edge

" " East bank.

St. 3+52.3 Δ

St. 4+13

by chain 503.4

14	3° 08' L		5.12	516
15	5° 16' L		5.20	524
16	7° 42' L		5.29	533
17	12° 40' L		5.38	542
18	15° 10' L		5.53	553
19	17° 30' L		6.73	578
20	18° 15' L		5.87	592
21	19° 26' L		6.04	609
22	24° 07' L		6.07	612
23	28° 43' L		6.31	636
24	30° 12' L		6.33	638
25	32° 20' L		6.44	649
26	35° 46' L		6.44	649

140' Contour.

9+16'	16° 52' R	2° 20'	7.25	724.3	730
	14° 58' R	2° 20'	7.13	712.0	719
	10° 40' R	2° 20'	6.87	686.4	692
	8° 26' R	2° 30'	6.57	656.4	663
	8° 58' R	2° 40'	6.22	621.4	626
	8° 30' R	2° 50'	5.76	578.8	580
	8° 02' R	3°	5.57	536.5	540
	5° 27' R	3° 20'	5.14	513.5	517
	3° 25' R	3° 20'	4.83	482.6	486

3+527

10	2°08' R	3°20'	480	478.60	482
11		3°20'	479	477.1	480.9
11	1°20' L	3°20'	483	481.1	485
12	5°48' L	3°10'	502	502.5	506
13	10°52' L	3°10'	513	511.5	515
14	14°24' L	3°10'	526	524.4	528
15	17° L	3°	547	545.4	549
16	20°44' L	2°50'	587	585.3	590
17	23°10' L	2°50'	598	596.4	599
18	25°44' L	2°50'	599	596.4	601
19	28°34' L	2°20'	614	612.4	617
20	30°38' L	2°40'	614	612.2	617
21	32°42' L	2°40'	633	631.1	636
22	35°06' L	2°40'	627	625.1	630
23	38°12' L	2°40'	637	635.1	640
24	40°27' L	2°40'	646	644.1	649
25	42°44' L	2°20'	662	660.	666
26	45°40' L	2°20'	690	688.	694

## 130' Contour

9+16.4 Δ	1	46°57' L	3°20'	683	680.3	686
	2	43°52' L	3°20'	687	684.4	690
	3	41°44' L	3°30'	693	690.5	698
	4	38°15' L	3°20'	625	622.5	629

Sta 4+34 Δ

482.4 by chain.

F.L. 3+52? Δ

5	36°	L	3° 40'	6.10	610.5	615
6	32° 54'	L	3° 40'	6.17	614.5	619
7	30° 10'	L	3° 40'	6.04	601.6	606
8	25° 52'	L	3° 40'	5.83	580.3	585
9	21° 30'	L	3° 50'	5.69	566.2	571
10	17° 30''	L	4° 10'	5.24	521.4	525
11	14° 26'	L	4° 20'	5.05	502.	506
12	11° 40'	L	4° 20'	4.96	493.	497
13	7° 45'	L	4° 30'	4.90	487.1	491
14	0° 45'	L	4° 40'	4.60	457.2	461
Δ			4° 40'	4.60	457.2	460.7
15	2° 40'	R	4° 50'	4.55	451.8	456
16	5° 45'	R	4° 30'	4.83	480.1	484
17	8° 02'	R	4° 20'	5.00	497.	501
18	9° 50'	R	4° 10'	5.27	534.3	537
19	10° 10'	R	3° 50'	5.73	570.4	575
20	9° 45'	R	3° 40'	6.22	619.5	624
21	10° 20'	R	3° 20'	6.57	654.4	660
22	13° 10'	R	3° 20'	6.83	680.6	686
23	15° 40'	R	3° 0'	6.92	687.7	693
24	18° 55'	R	3° 10'	7.00	697.7	703
25	19° 04'	R	3° 10'	7.14	711.7	717

In 1456

460.4 by chain

Def. 188. Any Rod. Horizontal.

9+16<sup>d</sup> Δ

120' Contour

1	21°20' R	4°	705	701.5	711
2	20°49' R	4°10'	687	683.4	693
3	17°20' R	4°10'	675	671.4	677
4	13°51' R	4°20'	663	659.3	665
5	12°04' R	4°20'	643	639.3	644
6	11°20' R	4°40'	617	614.7	619
7	12° R	5°	580	575.6	589
8	10°28' R	5°20'	507	502.7	506
9	8°50' R	5°50'	472	467.3	471
10	6°40' R	6°10'	452	446.6	449
11	3°09' R	6°20'	417	412	415
12	2°40' R	5°20'	447	443.2	444
	0°10' L	5°30'	443	439	442
12	0°17' R	6°30'	427	423.2	426
Δ		6°30'	427	421.8	428.0
13	3°45' L	6°10'	446	441.6	444
Feb. 23, 1907	14	8°50' L	473	468.3	472
	15	18°35' L	488	483.2	487
	16	18°52' L	512	507.4	511
	17	23°10' L	550	545.6	549
	18	27° L	561	556.5	561
	19	32°08' L	576	571.8	576

Feb. 20, 1907  
" 23 "

Feb. 21 + 22 in Office  
on 100' + 120' Contour.

L.S. 3+52?

Laid

L.S. Cont. of Cont. (L.S. Cont.)

N.B. " " "

Sta. 4490 a

by plane 426.4

	Def.	Vert. Ang	Red.		
20	35° 25' L	4° 40'	6.02	597.8	602
21	40° 20' L	4° 30'	6.15	611.3	616
22	45° 48' L	4° 30'	6.27	623.2	628
23	44° 50' L	4° 20'	6.23	639.2	644
24	48° 08' L	4° 10'	6.70	666.6	672
25	50° 10' L	4°	6.87	683.6	689
26	52°	4°	7.04	700.5	706

## 110' Contour

9+16	1	52° 48' L	4° 50'	6.76	691.1	697
	2	51° 40' L	4° 50'	6.80	678.2	681
	3	49°	5°	6.57	651.7	657
	4	46° 20' L	5° 20'	6.23	637.6	642
	5	45° 24' L	5° 20'	6.32	626.7	641
	6	42° 20' L	5° 30'	6.07	601.5	606
	7	39° 10' L	5° 20'	5.92	587.1	592
	8	35° 54' L	5° 40'	5.84	576.2	581
	9	33° 40' L	5° 40'	5.85	579.2	584
	10	30° 05' L	6°	5.62	555.8	559
	11	26° 37' L	6° 10'	5.26	538.5	542
	12	23° 48' L	6° 10'	5.37	530.6	534
	13	20° 25' L	6° 50'	4.95	488.1	492
	14	17° 20' L	7°	4.76	468.9	472
	15	12° 55' L	7° 10'	4.64	456.6	460

S.S. 3+527

	Def.	Vert Ang	Pod.	Horizontal	
16	8° L	7° 30'	4.22	436.5	439
17	5° 12' L	8°	4.22	414.	417
18	0° 48' L	8°	4.20	412.	415
Δ		8° 15'	4.10	401.6	404.6
19	0° 28' R	7°	4.22	415.7	418
19	2° 10' R	8°	4.23	415.	418
	3° 30' R	7° 30'	4.27	419.3	422
20	4° 40' R	7° 40'	4.27	419.3	422
21	8° 12' R	7° 40'	4.45	440.	443
22	12° 52' R	6° 30'	5.09	502.4	504
23	12° 30' R	6° 00'	5.42	536.	540
24	13° 02' R	5° 50'	5.67	561.4	566
25	13° 02' R	5° 30'	6.02	598.6	603
26	18° 45' R	5° 0'	6.33	627.9	632
27	19° 10' R	5° 10'	6.44	636.9	641
28	21° 50' R	5°	6.52	647.8	652
29	22° 02' R	5°	6.67	661.7	667

## 100' Contour

8+00 Δ	1	29° 12' R	5.89		564
	2	27° 56' R	5.32		538
	3	24° 09' R	5.13		517
	4	20° 42' R	5.05		509
	5	17° 05' R	4.88		492

East bank of old road

Sta. 5+11 Δ

N.W. Cor. Cut (L.H.)

S.W. Cor. Cut (R.H.)

Top of West Bank of old road

405.4 by chain

E. of 3+55.7

6	17° 44' R	4.61	465
7	19° 05' R	4.26	429
8	16° 53' R	3.87	370
9	19° 25' R	3.84	387
10	18° 08' R	3.76	379
11	17° 04' R	3.43	345
12	15° 07' R	3.19	321
13	10° 30' R	2.86	288
14	8° 10' R	2.70	272
	5° 20' R    2° 20'	2.90	292
	0° 28' R	2.68	270
15	0° 47' R	2.54	256
A		2.55	256.5
16	7° 24' L	2.61	263
17	14° L	2.87	289
18	15° 05' L	3.05	307
19	31° 53' L	3.27	329
20	26° L	3.27	349
21	39° 15' L	3.69	372
22	31° 25' L	4.04	407
23	32° 26' L	4.17	420
24	37° 57' L	4.37	440
25	44° L	4.57	461

H. Bank old road

Edge of Cut

S.E. Cor. of Cut

Edge of Cut

Edge of Cut

No. 5+40

257.0 by chain

36	44° 50' L	4.77	481
37	49° 12' L	4.96	500
38	52° 57' L	5.25	529
39	55° 10' L	5.48	552
30	58° 22' L	5.92	597
31	61° 40' L	6.20	625

## 90' contour

8+00 Δ	1	62° 32' L	6.05	610
	2	60° 25' L	5.82	587
	3	57° 45' L	5.53	558
	4	55° 30' L	5.34	538
	5	52° 40' L	5.06	510
	6	49° 33' L	4.80	484
	7	45° 54' L	4.60	464
	8	42° 41' L	4.25	448
	9	39° 08' L	4.14	417
	10	35° 30' L	3.91	394
	11	30° 45' L	3.46	348
	12	26° L	3.28	331
	13	26° L	3.15	315
	14	19° 52' L	2.88	290
	15	15° 26' L	2.67	269
	16	11° 32' L	2.28	229

S. J. 3+52?

S. tank old road

N. " "

17	3° 49' L	2.34	233.
18	0° 31' L	2.29	231
Δ		2.32	233.3
19	3° 44' R	2.40	241
20	10° 36' R	2.52	254
21	16° 02' R	2.74	276
22	16° 52' R	2.94	296
23	19° 34' R	3.27	329
24	20° 53' R	3.58	360
25	23° 22' R	3.93	395
26	23° 27' R	4.24	427
27	23° R	4.43	446
28	20° 50' R	4.47	450
29	19° 25' R	4.91	494
30	22° 30' R	4.93	496
31	26° 09' R	5.00	504
32	28° 05' R	5.22	526
33	30° 46' R	5.68	573

## 80' contour

8+00 Δ	1	32° 03' R	2°	5.86	585.4	579
	2	30° 40' R	4°	5.44	543.5	547
	3	31° 33' R	2°	5.28	527.8	531
	4	29° 57' R		5.04	504.	508

Feb. 23, 1907

to 5+65. Δ x on rock.

by chain 235.0

S. edge of cut.

N. " "

Trail

Old Road E. Bank

E

S. S. 3+52? Δ

E. Bank old road.

N. " " "

5	26°15' R	2°10'	4.86	465.5	469
6	24°25' R		4.27	427.	430
7	25°46' R	2°30'	4.11	410.6	413
8	25°30' R	2°40'	3.77	376.6	379
9	24°16' R	2°50'	3.24	323.7	335
10	21°20' R	3°20'	2.96	292.8	296
11	18°49' R	3°20'	2.73	271.9	273
12	18°40' R	3°50'	2.48	246.8	247
13	12°35' R	4°	2.39	237.8	238
14	6° R.	4°10'	2.27	225.9	226
15	1° R	4°10'	2.27	225.9	226
16	3°55' L	4°30'	2.20	218.7	219
17	13°29' L	4°20'	2.34	232.6	233
18	18°30' L	4°20'	2.36	234.6	235
19	20°05' L	3°40'	2.63	262.	264
19	21°07' L	3°40'	2.68	267	269
20	24°40' L	3°	2.88	287.1	289
21	30°05' L	3°	3.10	309.1	311
22	36°05' L	3°	3.50	349	351
23	35°15' L	2°40'	3.66	365.3	368
24	35°55' L	2°40'	3.77	376.2	379
25	39°30' L	2°30'	3.87	386.2	389
26	43°27' L	2°20'	4.18	417.2	420

Trail

S. Edge of cut.

N. " "

Center of Shaft, No. 1.

West edge of old road

E. " " " "

Feb. 23. 1907

27	45°40' L	2°20'	4.43	442.1	445.5
28	50°24' L	2°20'	4.67	466.1	469.7
	51°40' L	2°30'	4.77	476.1	479.8
	53°38' L	2°30'	4.89	488.	
29	54°33' L	2°	5.07	506.5	510
30	56°12' L	2°	5.24	523.5	527
31	59°45' L	2°	5.48	547.5	551
32	62° L	2°	5.79	578.5	583
33	63°45' L	1°40'	6.04	603.4	608

## 70' Contour

8400 a	1	65°20' L	2°40'	6.10	608.8	613
	2	63°07' L	2°40'	5.72	570.9	575
	3	61°22' L	3°	5.47	545.4	549
	4	58°05' L	3°10'	5.23	621.4	626
	5	55°50' L	3°20'	4.96	494.	498
	6	52°14' L	3°20'	4.85	483.1	487
	7	52°10' L	3°40'	4.61	458.9	462
	8	49°20' L	3°50'	4.39	436.8	439
	9	46°27' L	4°	4.16	413.9	416
	10	43°50' L	4°10'	4.00	397.8	400
	11	44°31' L	4°10'	3.89	386.9	389
	12	40°20' L	4°20'	3.52	349.9	351
	13	37°40' L	4°40'	3.30	327.7	329

North.

F.S. 3+52.2

N. edge of cut.

S "

E. edge of old road

W. " "

14	33°04' L	5°20'	2.77	296.3	298
15	28°04' L	5°40'	2.77	276.2	278
16	23°16' L	6°10'	2.44	241.1	242
17	18°35' L	7°	2.18	214.7	216
18	9°40' L	7°10'	2.13	209.6	211
19	0°48' L	7°20'	2.06	202.7	204
20	4°06' R	7°20'	2.19	215.5	217
21	9°50' R	6°20'	2.36	233.2	234
22	14°30' R	6°50'	2.27	223.8	225
23	19°20' R	6°40'	2.36	222.7	234
24	21°56' R	7°	2.47	243.3	244
25	23°56' R	5°30'	2.82	281.4	283
26	28°16' R	5°20'	3.08	305.2	307
27	30°43' R	5°20'	3.10	307.2	307
28	38° R	4°30'	3.37	335.	337
29	38°20' R	4°20'	3.67	364.8	368
30	29°08' R	3°	3.92	390.8	394
31	28°35' R	3°	4.14	412.8	416
32	26°37' R	3°50'	4.24	432.7	436
33	29°10' R	3°20'	4.75	473.1	477
34	30°55' R	3°20'	4.93	491	495
35	32°44' R	3°	5.20	518.5	522
36	33°50' R	3°	5.29	537.4	541

Center of West end of cut.

## 60' Contour

S+00 A	1	36°22' R	3°20'	5.57	554.8	558
	2	31°48' R	4°40'	4.71	468.2	472
	3	29°20' R	4°30'	4.54	457.0	455
	4	33°10' R	5°20'	4.06	402.3	405
	5	32°23' R	5°30'	3.94	390.5	393
	6	32°20' R	5°40'	3.78	374.2	377
	7	31°08' R	5°20'	3.50	346.9	349
	8	33°46' R	7°	3.11	306.3	308
	9	31°05' R	7°20'	2.98	293.3	295
	10	28°17' R	7°30'	2.87	282.7	285
	11	26°09' R	7°	2.63	259.1	261
	12	24°38' R	9°20'	2.28	222.1	223
	13	21°10' R	9°40'	2.19	213.	214
	14	14°20' R	9°40'	2.23	216.8	218
	15	7°05' R	9°40'	2.30	222.6	224
✓	16	1°32' R	10°30'	✓ 2.04	197.3	198
✓	17	3°40' L	10°40'	✓ 2.00	193.2	194
✓	18	10°46' L	✓ 9°20'	✓ 2.10	204.1	205
✓	19	19°16' L	✓ 10°50'	✓ 1.96	189.1	190
✓	20	22°46' L	✓ 9°20'	✓ 2.26	220.1	221
✓	21	27°46' L	✓ 8°40'	✓ 2.45	239.4	240
22	30°18' L	8°	2.73	267.8	270	

Feb. 23. 1907

F.S. 3454? A

23	37°20' L	7°20'	2.95	290.3	292
24	41°30' L	7°	3.16	311.3	313
25	44°25' L	6°40'	3.20	325.4	327
26	43°05' L	6°	3.54	350.1	353
27	47° L	5°50'	3.88	384.1	387
28	49°49' L	5°30'	3.96	392.4	395
29	50°54' L	5°	4.23	419.6	422
30	50°20' L	5°	4.31	427.6	430
31	52° L	4°50'	4.56	452.8	456
32	55°50' L	4°40'	4.76	472.7	475
33	58°50' L	4°20'	5.08	505.	509.1
34	61°12' L	4°10'	5.34	531.3	535
35	65°15' L	3°50'	5.82	579.1	583

50' Contour.

8400A	1	66°27' L	4°10'	5.80	577.1	582
	2	62°09' L	5°20'	5.23	518.6	523
	3	58°07' L	6°	4.76	470.8	475
	4	57°05' L	6°	4.65	459.9	463
	5	58°04' L	6°20'	4.41	435.7	439
	6	56°40' L	6°40'	4.28	422.	425
	7	52°14' L	6°40'	4.22	416.1	419
	8	51° L	6.50'	4.07	401.3	424
	9	50°40' L	7°	3.77	371.3	373

W. edge old road

S. bank of cut

S. S. 3+52? a

E. edge of old road

Feb. 23, 1907.

	Dep.	Vert. ang	Prod.	Horizontal	
10	46° 46' L	7°	3.51	345.7	347
11	45° 10' L	8° 20'	3.19	312.	314
12	40° 52' L	9° 20'	2.88	280.2	282
13	36° 20' L	10°	2.76	267.7	269
14	32° 45' L	10° 20'	2.64	255.6	258
15	29° 45' L	11° 20'	2.39	229.7	231
✓ 16	25° 20' L	✓ 12° 20'	✓ 2.19	208.9	210
✓ 17	23° 20' L	✓ 13° 50'	✓ 2.00	188.6	190
✓ 18	14° 15' L	✓ 15° 20'	✓ 2.12	199.0	200
✓ 19	7° 20' L	✓ 13° 30'	✓ 2.13	201.3	202
✓ 20	3° 45' L	✓ 14°	✓ 1.96	184.5	186
21	1° 07' R	14° 50'	2.00	186.8	188
22	3° 33' R	14° 10'	2.10	197.4	198
23	6° 13' R	13° 40'	2.16	203.9	205
24	14° 05' R	12° 40'	1.91	178.8	180
25	19° 15' R	12°	2.13	200.5	202
26	22° 06' R	13° 40'	2.18	205.8	207
27	28° 04' R	13°	2.27	215.4	216
28	30° 10' R	10° 20'	2.60	251.7	254
29	31° 35' R	9° 30'	2.90	282.2	284
30	36° 18' R	9°	3.20	312.3	314
31	34° 06' R	7°	3.44	338.8	340
32	34° 43' R	7° 20'	3.78	371.6	374

33	36°35' R	7°20'	3.90	383.4	386
34	33°50' R	5°	4.35	421.5	435
35	32°50' R	5°	4.60	456.3	450
36	37°40' R				

40' Contour

8+00 A

1

2

3

4

5

8+00 A	6	39°30' R	7°40'	3.88	381.4	384
	7	37°20' R	9°	3.77	368.	371
	8	36°54' R	9°20'	3.46	336.7	339
	9	37° R	10°20'	3.18	307.8	309
	10	34°05' R	11°20'	2.88	276.8	278
	11	32°05' R	12°20'	2.63	250.9	253
	12	35°22' R	13°40'	2.47	233.2	234
	13	33°22' R	13°40'	2.24	211.5	212
	14	23°40' R	16°40'	2.05	188.2	189
	15	19°52' R	16°40'	2.06	189.1	190
	16	15°12' R	19°	1.82	164.5	165
	17	5°30' R	19°40'	1.78	157.9	159

See opp. page →

February 23, 1907.

See page 37

1+74 A. I. 3+52.7 Def. 41°05' R Red. 4.51 Vert ang. 4°20' 448.4 451  
 42°10' R 4.66 " " 4°20' 463.3 466.

1+822 F. I. 3+52.7 Def. 40°26' R Red. 4.54 Vert ang. 5°20' 449.5 452  
 38°15' R 4.11 " " 6°20' 405.7 408

could not see. (true.)

40°43' R 5.34 " " 6°20' 329.9 332  
 37°50' R 5.62 " " 7°10' 348.5 361

F. I. 3+52.7 A

	Def.	Max. Ang.	Red.	Horizontal.	
A		19°10'	1.86	165.91	166.7
18	5°10' L	18°	1.99	180.1	181.
19	12°34' L	16°10'	2.13	196.4	197.4
20	26°40' L	17°55'	2.01	182.1	183.1
21	29°53' L	14°50'	2.16	202.8	204
22	31°10' L	14°20'	2.34	219.7	221
23	32°07' L	13°30'	2.48	234.4	236
24	36°50' L	11°50'	2.65	253.9	255
25	43°53' L	11°20'	2.87	275.8	278
26	49°50' L	11°10'	3.21	308.8	310
27	49°50' L	10°	3.34	324.	326
28	52°50' L	10°10'	3.45	334.3	336
29	54° L	8°	3.70	363.	366
30	55°15' L	8°20'	4.00	391.2	394
31	59° L	7°50'	4.27	418.9	421
32	61°20' L	7°	4.70	463.	466
33	64° L	6°10'	5.00	494.5	499

Sta. 6+334

by chain 167

## 30' Contour

8+00A	68°40' L	7°30'	5.10	501.3	505
2	61°15' L	9°10'	4.23	412.4	415
3	60°02' L	8°50'	4.04	394.5	397
4	66°03' L	10°30'	3.71	358.8	361
5	64°47' L	10°50'	3.63	350.3	353
6	58°20' L	9°20'	3.77	367.2	370
7	56°45' L	10°30'	3.47	335.5	337
8	56° L	12°	3.19	305.3	307
9	49°54' L	12°20'	3.01	287.2	289
10	45°10' L	14°40'	2.85	267.7	269
11	39°54' L	15°50'	2.66	250.8	253
12	35°40' L	17°10'	2.47	225.5	227
13	33°25' L	17°50'	2.32	210.2	211
14	28°30' L	20°30'	2.05	179.8	181
15	27°47' L	20°50'	2.00	174.8	176
16	21°45' L	19°20'	2.09	185.4	186
17	19° L	21°50'	1.94	167.2	168
18	12°05' L	20°40'	1.98	173.3	174
19	9°20' L	22°40'	1.87	159.1	160
20	1°40' L	23°20'	1.80	151.7	153
21	10°50' R	26°	1.75	141.4	142
22	20°20' R	20°20'	2.04	179.3	180
23	25°40' R	20°20'	2.04	179.3	180

F.L. 3+82?

45

← 1/2 page  
Spur Line  
1+84 Δ

24	28°35' R	19°40'	2.07	183.6	185
25	36°08' R	20°	2.12	187.2	188
26	40°50' R	15°	2.47	230.5	232
27	39°30' R	15°10'	2.69	250.7	252
28	37°20' R	13°10'	2.74	259.8	262
29	39°10' R	11°40'	3.08	292.5	296
30	42°54' R	13°10'	2.22	210.5	212
31	42°34' R	11°30'	2.45	235.2	236
32	30°32' R	11°10'	2.83	272.3	274
33	37°04' R	10°10'	3.20	310.1	312
34	45°36' R	9°20'	3.37	328.7	330

20' Contour

1	46°06' R	11°50'	3.24	310.5	
2	37°50' R	9°50'	3.13	303.9	305.9
3	33°18' R	12°30'	2.73	260.2	262
4	Could not see				
5	17°51' R	15°10'	2.29	212.4	214
6	8°37' R	25°20'	1.64	133.1	134
7	5°49' R	22°	1.82	152.0	153
8	6°32' L	30°	1.96	173.1	174
9	12°22' L	19°20'	2.05	182.5	184
10	16°02' L	17°40'	2.28	204.3	205
11	28°52' L	16°40'	2.34	214.8	216

F.S. 3+52 Δ

F.S. 3+52?

-13.0 = 292.9

No. 1000 discharged, 2/25/07  
at 10:00

Feb. 25, 1907.

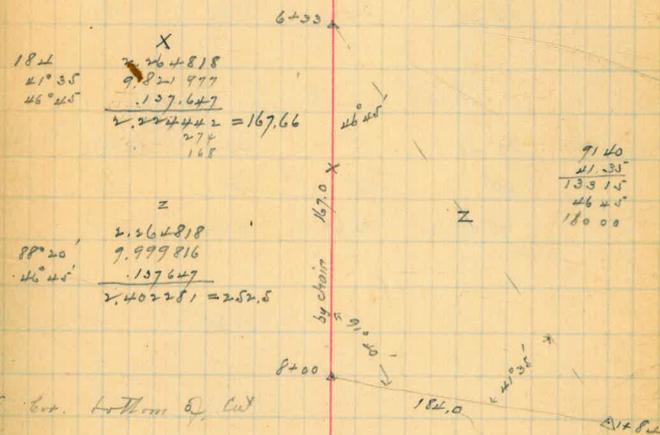
## Vert Ang

	2	29°54' L	12°50'	2.64	2116.6	248
	13	32°27' L	12°30'	2.72	255.4	257
	14	32°24' L	12°50'	2.97	282.5	285
	15	38°27' L	15°30'	3.03	286.4	289
	16	40° L	9°20'	3.22	333.10	335
		10' Contour				
184A	1	1°50' L	30°10'	1.72	128.6	129
	2	17°55' R	30°20'	1.68	125.1	126
	3	44°52' R	24°20'	1.95	161.1	162
	4	52°26' R	21°20'	2.12	185.8	187
	5	57°30' R	16°30'	2.70	248.1	249
	6	59°22' R	12°40'	3.12	292.	294
	7	59°38' R	12°30'	3.47	330.8	333
	8	58°09' R	11°50'	3.67	351.6	354
	9	56°34' R	10°40'	4.00	386.4	389
	10	56°20' R	10°10'	4.27	423.4	427
	11	58°10' R	9°30'	4.67	454.4	458
		10°15' L		3.26	326	328
		7°29' L		3.27	327	329
1+84A		41°35' R	10°30'	2.58	249.5	251.0
6+33A		56°56' L	11°40'	1.07	102	

Feb. 25, 1907.

West End of Gordon millhead at cut off wall.

F.S. 3250?



N.E. cut bottom of cut

S.E. " " "

F.S. 8+00

F.S. 13+30A

6+33 61° 16' L 6° 0.37 36.6

16° 13' L 3° 16' 1.03 103

West bank of creek above cut off mill

57° 33' R 7° 1.51 1.48.

65° 15' R 6° 1.85 1.83 1.84

69° 30' R 4° 10' 2.50 2.49 2.51

74° R 3° 30' 3.10 3.09 3

77° 40' R 3° 3.64 3.63

80° 30' R 2° 40' 3.91 3.90

East Bank of creek

8+00 39° 53' L 19° 2.41 2.15

49° 16° 2.80 2.59

60° 45' L 12° 20' 3.42 3.26

9+16 4 0 24 L 11' 5.55 560

4-23 L 3 25 5.01 505

9-46 L 8° 10' 4.53 4.43 4.46

14-5 L 13 48 3.93 3.70 3.73

F.S. 13+30 E end of Foot bridge

N. " " "

F.S. 34527

F.S. 4+13 Shaft #4 5 40 10 E

#3

#2

1st Base line for Stadia rods

300	U 1/2 1.20 L 1/2 1.26	2.915
200	U 1/2 0.99 L 1/2 0.97	1.96
100	U 1/2 0.49 L 1/2 0.48	0.97

2.915  
1.96  
0.97

2.915  
1.96  
0.97

2nd Serial base line: constant for Stadia (1.25)  
is included in laying off base

100	U 1/2 0.496 L 1/2 0.497	0.993	.007
200	U 1/2 0.995 L 1/2 0.995	1.990	.01
300	U 1/2 1.495 L 1/2 1.490	2.985	.015
400	U 1/2 1.98 L 1/2 1.99	3.970	.03
500	U 1/2 2.48 L 1/2 2.48	4.960	.04
600	U 1/2 2.97 L 1/2 2.98	5.950	.05
700			.06
800			.07
900			.08
1000			.09
1100			.10
1200			.11
1300			.12
1400			.13

5  
4  
3

Table showing the difference of latitude and departure in running 80 chains at any course from 1 to 60 minutes.

MINUTES	LKS.	MINUTES	LKS.	MINUTES	LKS.
1	2 $\frac{1}{3}$	21	49	41	95 $\frac{2}{3}$
2	4 $\frac{2}{3}$	22	51 $\frac{1}{3}$	42	98
3	7	23	53 $\frac{2}{3}$	43	100 $\frac{1}{3}$
4	9 $\frac{1}{3}$	24	56	44	102 $\frac{2}{3}$
5	11 $\frac{2}{3}$	25	58 $\frac{1}{3}$	45	105
6	14	26	60 $\frac{2}{3}$	46	107 $\frac{1}{3}$
7	16 $\frac{1}{3}$	27	63	47	109 $\frac{2}{3}$
8	18 $\frac{2}{3}$	28	65 $\frac{1}{3}$	48	112
9	21	29	67 $\frac{2}{3}$	49	114 $\frac{1}{3}$
10	23 $\frac{1}{3}$	30	70	50	116 $\frac{2}{3}$
11	25 $\frac{2}{3}$	31	72 $\frac{1}{3}$	51	119
12	28	32	74 $\frac{2}{3}$	52	121 $\frac{1}{3}$
13	30 $\frac{1}{3}$	33	77	53	123 $\frac{2}{3}$
14	32 $\frac{2}{3}$	34	79 $\frac{1}{3}$	54	126
15	35	35	81 $\frac{2}{3}$	55	128 $\frac{1}{3}$
16	37 $\frac{1}{3}$	36	84	56	130 $\frac{2}{3}$
17	39 $\frac{2}{3}$	37	86 $\frac{1}{3}$	57	133
18	42	38	88 $\frac{2}{3}$	58	135 $\frac{1}{3}$
19	44 $\frac{1}{3}$	39	91	59	137 $\frac{2}{3}$
20	46 $\frac{2}{3}$	40	93 $\frac{1}{3}$	60	140

TABLE FOR RUNNING ON SLOPES.

In the following table the first column shows the angle, the second the number of links to be added to a chain on the slopes, to make one chain, horizontal measurement.

Angle	COR. IN LINKS						
0		0		0		0	
4	0.24	11	1.88	18	5.14	25	10.54
5	0.38	12	2.24	19	5.76	26	11.26
6	0.55	13	2.63	20	6.42	27	12.24
7	0.76	14	3.06	21	7.11	28	13.37
8	0.98	15	3.53	22	7.85	29	14.34
9	1.24	16	4.02	23	8.64	30	15.47
10	1.55	17	4.56	24	9.47	35	22.07

