PACIFIC
WATERPROOF

Mining Transit Book

FILLER No. 321

RGGT-1 →

RYGT 281

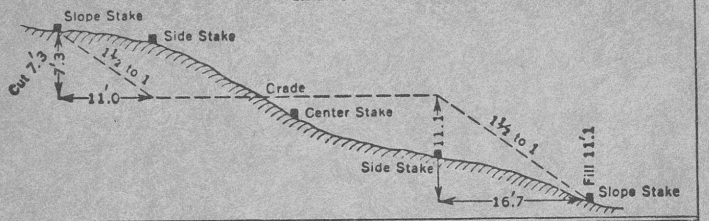
June 7 →

June 16

DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING

Roadway of any Width. Side Slopes 1½ to 1.

In the figure below: opposite 7 under "Cut or Fill" and under .3 read 11.0, the distance out from the side stake at left. Also, opposite 11 under "Cut or Fill" and under .1 read 16.7, the distance out from the side stake at right



Cut or Fill	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	Cut or Fill
	Distance out from Side or Shoulder Stake										
0	0.0	0.2	0.3	0.5	0.6	0.8	0.9	1.1	1.2	1.4	0
1	1.5	1.7	1.8	2.0	2.1	2.3	2.4	2.6	2.7	2.9	1
2	3.0	3.2	3.3	3.5	3.6	3.8	3.9	4.1	4.2	4.4	2
3	4.5	4.7	4.8	5.0	5.1	5.3	5.4	5.6	5.7	5.9	3
4	6.0	6.2	6.3	6.5	6.6	6.8	6.9	7.1	7.2	7.4	4
5	7.5	7.7	7.8	8.0	8.1	8.3	8.4	8.6	8.7	8.9	5
6	9.0	9.2	9.3	9.5	9.6	9.8	9.9	10.1	10.2	10.4	6
7	10.5	10.7	10.8	11.0	11.1	11.3	11.4	11.6	11.7	11.9	7
8	12.0	12.2	12.3	12.5	12.6	12.8	12.9	13.1	13.2	13.4	8
9	13.5	13.7	13.8	14.0	14.1	14.3	14.4	14.6	14.7	14.9	9
10	15.0	15.2	15.3	15.5	15.6	15.8	15.9	16.1	16.2	16.4	10
11	16.5	16.7	16.8	17.0	17.1	17.3	17.4	17.6	17.7	17.9	11
12	18.0	18.2	18.3	18.5	18.6	18.8	18.9	19.1	19.2	19.4	12
13	19.5	19.7	19.8	20.0	20.1	20.3	20.4	20.6	20.7	20.9	13
14	21.0	21.2	21.3	21.5	21.6	21.8	21.9	22.1	22.2	22.4	14
15	22.5	22.7	22.8	23.0	23.1	23.3	23.4	23.6	23.7	23.9	15
16	24.0	24.2	24.3	24.5	24.6	24.8	24.9	25.1	25.2	25.4	16
17	25.5	25.7	25.8	26.0	26.1	26.3	26.4	26.6	26.7	26.9	17
18	27.0	27.2	27.3	27.5	27.6	27.8	27.9	28.1	28.2	28.4	18
19	28.5	28.7	28.8	29.0	29.1	29.3	29.4	29.6	29.7	29.9	19
20	30.0	30.2	30.3	30.5	30.6	30.8	30.9	31.1	31.2	31.4	20
21	31.5	31.7	31.8	32.0	32.1	32.3	32.4	32.6	32.7	32.9	21
22	33.0	33.2	33.3	33.5	33.6	38.8	33.9	34.1	34.2	34.4	22
23	34.5	34.7	34.8	35.0	35.1	35.3	35.4	35.6	35.7	35.9	23
24	36.0	36.2	36.3	36.5	36.6	36.8	36.9	37.1	37.2	37.4	24
25	37.5	37.7	37.8	38.0	38.1	38.3	38.4	38.6	38.7	38.9	25
26	39.0	39.2	39.3	39.5	39.6	39.8	39.9	40.1	40.2	40.4	26
27	40.5	40.7	40.8	41.0	41.1	41.3	41.4	41.6	41.7	41.9	27
28	42.0	42.2	42.3	42.5	42.6	42.8	42.9	43.1	43.2	43.4	28
29	43.5	43.7	43.8	44.0	44.1	44.3	44.4	44.6	44.7	44.9	29
30	45.0	45.2	45.3	45.5	45.6	45.8	45.9	46.1	46.2	46.4	30
31	46.5	46.7	46.8	47.0	47.1	47.3	47.4	47.6	47.7	47.9	31
32	48.0	48.2	48.3	48.5	48.6	48.8	48.9	49.1	49.2	49.4	32
33	49.5	49.7	49.8	50.0	50.1	50.3	50.4	50.6	50.7	50.9	33
34	51.0	51.2	51.3	51.5	51.6	51.8	51.9	52.1	52.2	52.4	34
35	52.5	52.7	52.8	53.0	53.1	53.3	53.4	53.6	53.7	53.9	35
36	54.0	54.2	54.3	54.5	54.6	54.8	54.9	55.1	55.2	55.4	36
37	55.5	55.7	55.8	56.0	56.1	56.3	56.4	56.6	56.7	56.9	37
38	57.0	57.2	57.3	57.5	57.6	57.8	57.9	58.1	58.2	58.4	38
39	58.5	58.7	58.8	59.0	59.1	59.3	59.4	59.6	59.7	59.9	39
40	60.0	60.2	60.3	60.5	60.6	60.8	60.9	61.1	61.2	61.4	40

Abbreviations

org = organic

June 7/76 Gremlin Claims

106E RG6T-1 → 55.

RG6T-12 org
-15 "
-16 "
-17.5 very organic took moss with silt in it
46 paces from 16
-19 weak under moss
org
19 paces from 18
-20 -51 paces from 19 - tedious - frozen
24-5 moss & silt on top
11 paces from 23
27 L org.
30 "
32 L "
33 almost to weak
34 rocky - free rocks going up stream
37.5 highly org frozen
38 L org.
39 -41.0 frozen
41 begin 500' spacing after 41
49 S

June 8/76

106E RG6T 56 → 132

57 SP 50 paces from 56
60 SP 48 " " 59
- going up stream
63 org
65 frozen
67 SP 79 paces from 66
70 SP highly org - frozen
48 paced from 69
71 org
73 SP 16 paces from 72
75 SP 50 paces from 74
77 SP 17 paces from 76
79 SP 23 paces from 78
80 SP 61 " " "
81 SP org
89 SP 81 paces from 88
92 SP 64 paces from 91
102 SP 64 " " 101
103 SP
105 SP 19 paces from 104
109 S 78 paces from 108
116 SP 11 paces from 115
117 SP 66 " " 116
119 SP 76 " " 118

R-6-T-120 org
121 SP highly org
122 SP 450 paces from 121
124 SP small stream
30 paces from 123
126 SP
128 SP 33 paces from 127
132 S 64 paces from 131

June 9/26
Tags on Cremin claim posts

June 10 moved camp

June 11 RYGT 133 → 205

106 E-2

135 SP 77 paces

136 creek on mountain but is L sample

138 highly org frozen

139 "S" 80 paces sand creek from mountain

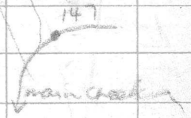
142 ~~144~~ SP 65 paces

143 ~~145~~ SP frozen

144 SP 5 paces

146 L frozen

147 S. from creek



148 SP in creek too

152 SP org

153 SP 79 paces

from SP off creek

155 SP creek 36 paces

163 L highly org

164 L org

165 L 41 paces decent soil

174 S 92 paces 175 taken 500' later

179 L org

181 S 54 paces

184 SP small creek 64 paces

186 187 org

188 SP ~~10~~ paces indentation just south of camp

190 SP 68 paces " " south

193 L org

195 L frozen

197 SP 82 paces

202 SP 82 paces

June 12 106E-2

RYGT 206 → 272

207 SP 81 paces

219 org

220 frozen

221 S 30 paces

may be main creek silt as well

222 SP further up that side creek

223 224 org

238 SP frozen org

249 org frozen

258 L org red soil

261 L 58 paces

263 L 40 paces

June 16/76 106E-2 200' spacing

line along break of hill on Ki Claims

RYGT 273 → 285

274 org

275 "

276 "

} ended up SP

280 L hi org

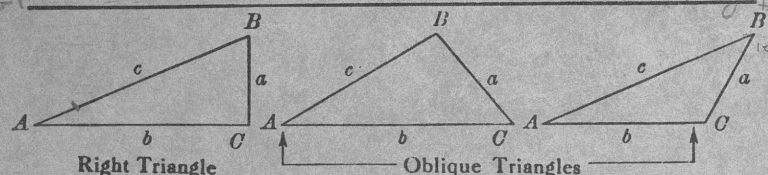
281 S 30 paces

- intrusive extrusive igneous metamorphic volcanic tuff chert plutonic periphery. felspar
- calcapyrite - Cu - Fe - Sulfur
- boranite - blue metalic shine - Cu - Fe - S_4FeCu_5
- malakite - blue not shiny - $Cu_2(CO_3)_3 \cdot H_2O$
- azurite - dark blue $Cu\,CO_3$ & OH's ∴ darker blue than malakite $[Cu_3(OH)_2(CO_3)_2]$
- siderite - $Fe_2(CO_3)_3$ - chocolate brown when weathered
  - shines like mica
  - orangy brown " fresh - dull rusty sort of
- hematite - browny-purple or blue metallic
  - scratches red always
  - replaces magnetite can look like magnetite
- Cambrian - sandstone + limestone
  - forms beds can follow for miles
  - weathers red-pink
- Hellecian - layer below Cambrian
  - sometimes forms beds but around Cloe
  + Yogi doesn't
  - dolomite, some limestone, shales
- brecha vs conglomerate - H_2O carried round rocks in it
- quartz veins running then chert - remobilized Si that reforms in cracks → quartz vein

925 Maco
870 US
VGF

5280' to mile
2640' to ½ mile
@ 500' spacing = 5 samples to ½ mile
ie to 1"

TRIGONOMETRIC FORMULÆ



Solution of Right Triangles

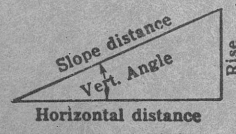
For Angle A. $\sin = \frac{a}{c}$, $\cos = \frac{b}{c}$, $\tan = \frac{a}{b}$, $\cot = \frac{b}{a}$, $\sec = \frac{c}{b}$, $\operatorname{cosec} = \frac{c}{a}$

Given	Required	
a, b	A, B, c	$\tan A = \frac{a}{b} = \cot B, c = \sqrt{a^2 + b^2} = a\sqrt{1 + \frac{b^2}{a^2}}$
a, c	A, B, b	$\sin A = \frac{a}{c} = \cos B, b = \sqrt{(c+a)(c-a)} = c\sqrt{1 - \frac{a^2}{c^2}}$
A, a	B, b, c	$B = 90° - A, b = a \cot A, c = \frac{a}{\sin A}$
A, b	B, a, c	$B = 90° - A, a = b \tan A, c = \frac{b}{\cos A}$
A, c	B, a, b	$B = 90° - A, a = c \sin A, b = c \cos A$

Solution of Oblique Triangles

Given	Required	
A, B, a	b, c, C	$b = \frac{a \sin B}{\sin A}, C = 180° - (A + B), c = \frac{a \sin C}{\sin A}$
A, a, b	B, c, C	$\sin B = \frac{b \sin A}{a}, C = 180° - (A + B), c = \frac{a \sin C}{\sin A}$
a, b, C	A, B, c	$A + B = 180° - C, \tan \frac{1}{2}(A - B) = \frac{(a-b)\tan \frac{1}{2}(A+B)}{a+b}, c = \frac{a \sin C}{\sin A}$
a, b, c	A, B, C	$s = \frac{a+b+c}{2}, \sin \frac{1}{2}A = \sqrt{\frac{(s-b)(s-c)}{bc}}, \sin \frac{1}{2}B = \sqrt{\frac{(s-a)(s-c)}{ac}}, C = 180° - (A + B)$
a, b, c	Area	$s = \frac{a+b+c}{2}$, area $= \sqrt{s(s-a)(s-b)(s-c)}$
A, b, c	Area	area $= \frac{b c \sin A}{2}$
A, B, C, a	Area	area $= \frac{a^2 \sin B \sin C}{2 \sin A}$

REDUCTION TO HORIZONTAL



Horizontal distance = Slope distance multiplied by the cosine of the vertical angle. Thus: slope distance = 319.4 ft. Vert. angle = 5° 10′. From Table, Page IX. cos 5° 10′ = .9959. Horizontal distance = 319.4 × .9959 = 318.09 ft.
Horizontal distance also = Slope distance minus slope distance times (1 − cosine of vertical angle). With the same figures as in the preceding example, the following result is obtained. Cosine 5° 10′ = .9959. 1 − .9959 = .0041. 319.4 × .0041 = 1.31. 319.4 − 1.31 = 318.09 ft.

When the rise is known, the horizontal distance is approximately:—the slope distance less the square of the rise divided by twice the slope distance. Thus: rise = 14 ft., slope distance = 302.6 ft. Horizontal distance = $302.6 - \frac{14 \times 14}{2 \times 302.6} = 302.6 - 0.32 = 302.28$ ft.