

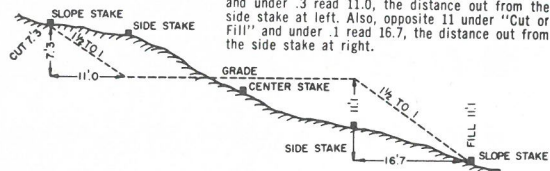
SCINTILLOMETER

K-Σ
LEVEL BOOK
82-040

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	Distance out from Side or Shoulder Stake										Cut or Fill
	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
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	33.8	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

Richard Johnson
Florida Geological Survey
Scintillometer - atcrop /
Readings.



The paper in this book is made of 50% high grade rag stock with a WATER RESISTING surface sizing.

KEUFFEL & ESSER CO.

12/88 + 4/89 + 6/89

① W. Jim Woodruff/Jackson Co

129 ①	229 ⑭
141 ②	255 ⑮
150 ③	231 ⑯
148 ④	166 ⑰
166 ⑤	192 ⑱
194 ⑥	171 ⑲
194 ⑦	185 ⑳
169 ⑧	201 ㉑
196 ⑨	base
152 ⑩	25 Readings
167 ⑪	27'
176 ⑫	Tampa Fm.
187 ⑬	
206 ⑭	12/14/88
172 ⑮	16 beds
166 ⑯	
157 ⑰	

② E. Jim Woodruff - (Gadsden)

top	HP ⑧	174 ②③
170 ①	206 ⑨	189 ②③
196 ①	209 ⑩	212 ②④
175 ②	190 ⑪	199 ②④
175 ②	180 ⑫	173 ②④
185 ②	226 ⑬	189 ②④
175 ②	264 ⑭	base
171 ③	245 ⑭	Tampa Fm.
173 ④	219 ⑮	47'
179 ④	262 ⑯	39 pendants
165 ④	189 ⑰	
167 ④	186 ⑱	12/14/88
166 ⑤	168 ⑲	24 beds
174 ⑤	235 ⑳	
163 ⑤	214 ㉑	
247 ⑥	208 ㉒	
218 ⑦	196 ㉓	

*

③ Weeping Ridge - Torrey a ^{Liberty} St. PK

top 128 ⑥

153 ① 128 ⑥

146 ① 139 ⑥

170 ① base

155 ① UDSC

174 ① Hawthorn Fm.

193 ② 24'

158 ③ 19 readings

122 ③

131 ③ 12/14/88

132 ④ 6 beds

118 ⑤

117 ⑤

114 ⑤

132 ⑤

135 ⑤

144 ⑤

(4) C-167 Rd cut - ^{Jackson Co} Marianna N.

top 95 ⑩

108 ① 101 ⑩

113 ① 84 ⑩

165 ② base

167 ②

147 ③ Sunanee Fm.

131 ④ Marianna Ls.

163 (127) ⑤ 25'

170 ⑥ 20 readings

145 ⑥

104 ⑦ 12/14/88

163 ⑧

133 ⑧ 11 beds

95 ⑨

100 ⑩

114 ⑩

93 ⑪

104 ⑪

⑤ RR Bridge S.R. Ellaville ^{Swansee} Co

top

115

① 3

71

⑩ 12

106

①

63

⑪ 13

199

①

base

129

①

132

①

Swansee Fm

170

② 4

~~191~~ 27'

150

③ 5

~~30~~ ~~RR~~ readings

148

④ 6

12/18/88

147

⑤ 7

~~13~~ beds

145

⑥ 8

Add to top: (7/1/89)

124

⑧ 8

new top

92

125 ⑩

108

⑦ 9

95

85 ③

77

⑨ 10

98

④

67

⑨ 11

97

68

⑩ 12

98

70

⑩ 12

106

② 40

156

137 ⑩

(6) Brantford Quarry (N.) ^{Sumner} Co.

top

83 ①

111 ⑬

88 ①

89 ⑭

106 ②

87 ⑮

126 ③

78 ⑯

232 ④

77 ⑰

206 ④

79 ⑱

210 ④

80 ⑲

162 ⑤

70 ⑲

97 ⑥

73 ⑳

86 ⑥

74 ㉑

93 ⑦

72 ㉒

76 ⑧

WSL

75 ⑧

Ocala Ls

83 ⑨

33'

75 ⑩

28 readings

107 ⑫

21 beds

132 ⑬

12/18/88

*

⑦ White Springs - Sunnyside 12. ^{HAMILTON}

top

94 ①

190 ④

90 ①

219 ④

93 ①

245 ④

100 ①

220 ④

104 ①

188 ⑤

95 ①

203 ⑤

100 ①

110 ②

WSC

121 ②

Hawthorn fm.

94 ②

31'

100 ②

22 readings

121 ②

5 beds

191 ③

12/8/88

293 ③

378 ③

180 ④

⑧ S. Alapaha ① Dead R Hamilton
Co.

top

223 ①

UDSL

169 ②

Hawthorn (wr)

203 ③

12'

281 ④

11 (12) readings

262 ④

7 beds

287 ⑤

12/20/88

~~281 ⑤~~

355 ⑥

436 ⑦

426 ⑦

358 ⑦

300 ⑦

base

⑩ DOT QUARRY Jefferson Co.

top

114 ①

Swansee Fm.

102 ②

15'

111 ②

12 Readings

130 ②

9 beds

170 ③

12/20/88

163 ④

108 ⑤

110 ⑥

98 ⑦

101 ⑧

92 ⑨

105 ⑨

base

(9) Alapaha N Dead R. ^{Hamilton Co.} Tampa Fm.

top

149 (1)

176 (2)

182 (2)

139 (3)

109 (3)

105 (3)

119 (3)

134 (4)

149 (5)

165 (5)

177 (6)

179 (6)

177 (7)

224 (8)

244 (9)

144 (10)

149 (10)

148 (9)

138 (10)

136 (10)

119 (11)

138 (12)

128 (13)

base

VDSC

Tampa Fm.

25'

23 readings

13 beds

12/20/88

⑪ Barge Canal & US 19/98 Citrus Co.

top 97 ⑩

97 ① 92 ⑩

94 ① 97 ⑩

84 ② base

80 ② Ocala Ls &

81 ③ Avon Park Fm

83 ③ 22'

82 ④ 20 Readings

78 ⑤ 10 beds

85 ⑥ 12/24/98

76 ⑥

84 ⑥

87 ⑦

146 ⑧

156 ⑨

93 ⑩

104 ⑩

90 ⑩

(12) Withlacoochee R(E) ① citrus
co.

top

78 ①

84 ②

Avon Park Fm.

86 ③

12'

93 ③

11 Readings

94 ④

8 beds

100 ⑤

12/24/88

102 ⑥

124 ⑦

98 ⑧

105 ⑧

102 ⑧

base

(13) Limestone Cliff Jackson Co.

top

136 ① 118 ⑨ 117 ⑬

115 ① 113 ⑩ 115 ⑰

116 ① 107 ⑩ 122 ⑰

103 ① 105 ⑩ base

106 ② 119 ⑩

105 ③ 118 ⑩ Ocala Ls

102 ④ 120 ⑪ Marianna Ls

112 ④ 128 ⑪ 43'

119 ④ 174 ⑫ 37 readings

106 ④ 156 ⑬ 17 beds

119 ⑤ 124 ⑬ 12/29/88

108 ⑥ 104 ⑭

113 ⑦ 87 ⑭

114 ⑦ 95 ⑭

110 ⑦ 118 ⑮

117 ⑧ 124 ⑮

115 ⑨ 113 ⑮

(14) Duncan Church - Washington Co.

top

58 ① 61 ④

60 ① 59 ④

62 ① 60 ⑤

65 ① 57 ⑤

66 ① 56 ③

77 ② 58 ⑤

79 ② 54 ⑤

75 ② 56 ⑤

84 ② 61 ⑥

85 ② base

76 ②

61 ③

58 ③

56 ③

57 ③

62 ④

59 ④

Swannee Fm.

31'

26 readings

6 "beds"

12/29/88

(15) Rd cut near Falling Waters (Wash.)

top

127 ①

141 ②

137 ②

116 ③

105 ③

102 ④

118 ⑤

109 ⑥

103 ⑦

102 ⑦

99 ⑦

base

Tampa Fm

Sunshine Fm.

11'

11 readings

12/29/88

7 beds

(16) Eucheeanna Rd cut (WATTON Co.)

top

180 (1) 243 (12)

200 (2) 230 (13)

195 (2) 6ade

195 (3)

210 (4)

Citronelle Fm.

207 (4)

Alum Bluff Fm.

221 (5)

19'

239 (5)

19 readings

249 (5)

12/29/88

220 (6)

13 beds

271 (7)

291 (7)

260 (8)

240 (9)

237 (9)

217 (10)

244 (11)

(17) Alagua Rd cut (Walton Co)

top

215 (1)

383 (11)

227 (2)

291 (1)

263 (3)

285 (1)

244 (4)

237 (1)

252 (5)

220 (11)

290 (5)

206 (11)

280 (5)

base

234 (6)

242 (6)

Citronelle Fm.

263 (6)

Alum Bluff Fm.

291 (7)

26'

337 (8)

23 Readings

370 (9)

11 beds

371 (9)

12/29/88

366 (9)

(302) (10)

416 (11)

①8 Gopher sink - Leon Co.

top

67	①	191	⑩	116	⑭
68	②	212	⑪	122	⑮
63	③	261	⑪	128	⑮
64	③	85	⑫	600c	
79	③	90	⑫		
72	③	93	⑫	UPSC	
82	④	111	⑬	Tampa Fm	
87	⑤	101	⑬	391	
86	⑤	94	⑬	35 readings	
94	⑥	87	⑬	15 beds	
110	⑥	95	⑬	12/31/88	
92	⑦	127	⑬		
112	⑧	171	⑬		
102	⑨	138	⑭		
106	⑨	119	⑭		
120	⑩	129	⑭		

*

(19)^N Cherokee Sink - Waculla Co.

top

72 ① 95 ⑩

80 ① 125 ⑪

81 ① 600e

79 ②

90 ③

105 ③

139 ③

137 ④

131 ④

213 ⑤

201 ⑤

174 ⑤

82 ⑥

86 ⑦

191 ⑧

96 ⑨

127 ⑩

LPSC

Tampa Fm.

241

19 readings

11 beds

12/31/88

(21) E. Marianna 90US - Jackson Co.

top

120 (1)

130 (1)

128 (1)

105 (2)

97 (2)

88 (3)

122 (4)

107 (4)

87 (5)

105 (6)

101 (6)

97 (6)

96 (6)

base

Marianna Ls

15'

13 readings

6 beds

12/31/88

② Ocheese Pond Ditch - Jackson Co.

top

139 ①

184 ⑧

163 ①

230 ⑨

145 ①

6000

161 ①

165 ①

UPSC

284 ②

Tampa Fm.

231 ②

21'

245 ③

9 beds

145 ③

12/31/88

229 ④

19 readings

220 ④

214 ⑤

202 ⑤

196 ⑥

200 ⑦

199 ⑦

194 ⑧

(22) 90 Rdcut - Cottondale - Jackson Co.

Top

126 ①

128 ①

155 ②

193 ②

184 ③

176 ③

102 ④

100 ④

109 ⑤

107 ⑥

140 ⑦

119 ⑧

131 ⑨

120 ⑩

123 ⑪

Base

VDSC

Summit Fm.

16'

11 beds

12/21/88

15 Readings

(23) High Hill Dist Rd - Washington Co.

top

137 ①

160 ②

164 ②

166 ③

188 ③

232 ④

236 ④

178 ④

140 ⑤

160 ⑥

155 ⑥

146 ⑦

148 ⑦

151 ⑧

149 ⑧

64Ac

Citronelle Fm

A/um Blv & Fm(?)

15'

15 readings

12/31/88

8 beds

(24) NFS 390. N. Rock Bluff / Lean Co.
top

104 ①

235 ⑩

180 ②

180 ⑩

174 ②

base

171 ②

219 ③

UPSC

178 ③

Alum Bluff Fm

136 ④

Hawthorn Fm

166 ④

21'

138 ⑤

19 readings

136 ⑥

10 beds

150 ⑦

" 1/4/89

218 ⑧

244 ⑨

213 ⑨

224 ⑨

221 ⑨

222 ⑨

(25) Greenwood Deep Sink Jackson Co.

Top

104	(1)	103	(8)	72	(12)
137	(1)	109	(9)	76	(12)
153	(2)	101	(9)	69	(12)
175	(2)	94	(9)	74	(12)
160	(13)	103	(10)	77	(12)
172	(3)	109	(11)	75	(18)
174	(4)	(117)	(12)	69	(19)
171	(4)	(122)	(13)	73	(19)
105	(5)	115	(14)	72	(19)
81	(5)	114	(14)	81	(19)
87	(6)	(121)	(15)	76	(20)
99	(6)	90	(16)	77	(20)
119	(7)	79	(17)	81	(20)
110	(7)	86	(17)	83	(20)
109	(7)	82	(17)	86	(20)
101	(7)	80	(17)	base	
107	(7)	73	(17)		

WSC

Ocala Ls →

59'

4 readings

20 beds

1/4, 9/89

*

26 Bell Quarry - Gulchrest Co.

top 67 (8)

65 (1) 68 (9)

69 (2) 73 (10)

66 (2) 69 (11)

71 (2) 67 (12)

86 (2) 66 (12)

101 (3) 61 (12)

88 (4) 64 (12)

58 (5) 79 (13)

68 (5) 88 (14)

60 (5) base

65 (5)

UDSC

71 (5)

Ocala Ls.

73 (6)

33'

75 (7)

27 Readings

69 (7)

14 beds

72 (7)

1/7/89

70 (8)

*

(27) Trenton Quarry - Gilchrist Co.

top

84 (1)

78 (10)

77 (1)

79 (11)

75 (2)

76 (12)

77 (3)

79 (13)

83 (4)

base

74 (4)

75 (5)

Ocala Ls.

71 (5)

23'

74 (5)

21 Readings

71 (5)

13 beds

81 (6)

1/7/89

79 (6)

82 (6)

77 (7)

76 (8)

75 (9)

74 (9)

(28) Dowling Park Quarry - Lafayette Co.

top

92 (1) 114 (9) 61 (15)

101 (2) 117 (9) 63 (15)

99 (2) 116 (9) 64 (15)

97 (2) 121 (9) 62 (16)

104 (2) 132 (9) base

143 (3)

144 (3)

USC
Citronelle (?)
Suwannee Fm.

178 (4) 79 (10) Ocala Ls.

165 (4) 75 (11) 44'

158 (4) 71 (11) 36 readings

164 (4) 74 (11) 1/7/89 & 7/8/89

165 (4) 78 (11) 16 beds

193 (5) 65 (12)

135 (6) 66 (13)

129 (7) 62 (13)

111 (7) 61 (14)

115 (7) 62 (14)

② Phil pot Quarry - Gilchrist Co.
top

67 ①

64 ①

69 ①

71 ①

68 ①

82 ②

76 ③

75 ③

72 ④

71 ④

68 ⑤

73 ⑥

71 ⑦

72 ⑧

76 ⑨

74 ⑨

base

Ocala Ls.

17'

16 Readings

1/7/89

9 beds

(30) MarTax Quarry - Jackson Co.
top

182	①	107	⑬	114	②①	117	②①
193	②	88	⑭	110	②①	120	②①
190	③	118	⑮	102	②①	118	②①
237	③	108	⑮	107	②①	122	②①
239	④	92	⑯	110	②①	base	
225	④	118	⑰	106	②①		
244	⑤	99	⑱	98	②①	Citronelle	
174	⑥	105	⑱	101	②①	Marianna	
		100	⑱	111	②①	Ocala	
141	⑦	96	⑱	107	②①	55 readings	
156	⑧	92	⑱	105	②①	1/12/89	
159	⑨	95	⑱	103	②①	26 beds	
133	⑩	97	⑱	112	②①		
167	⑪	104	②①	113	②①		
131	⑫	102	②①	111	②①		
114	⑫	98	②①	99	②①		
110	⑬	108	②①	100	②①	*	

③1 ONF - North - Marion Co.

top

68 ②

86 ④

71 ②

88 ④

65 ②

91 ⑤

68 ②

80 ⑤

75 ②

base

77 ③

WDC

101 ③

Citronelle Fm.

104 ②

24'

119 ③

21 readings

109 ③

5 beds

101 ③

1/21/89

99 ③

82 ④

75 ④

73 ④

82 ④

81 ④

(32) Grandin pit - Putnam Co.

top

82 ① 85 ⑦

92 ① 88 ⑧

145 ② 106 ⑨

133 ② 95 ⑩

130 ③ 92 ⑫

143 ③ 112 ⑬

160 ③ 88 ⑭

144 ③ 84 ⑮

137 ③ 86 ⑮

127 ③ 85 ⑮

123 ③ 83 ⑮

105 ④ 72 ⑮

117 ④ 80 ⑮

99 ④ base

95 ⑤

90 ⑥

89 ⑥

UDSC

citronelle fm

40'

30 readings

17 beds

1/21/89

(33) Lansing Quarry - Hernando Co.
top 62 ① 111 ⑧

67 ① 106 ⑧

63 ② 97 ⑨ Sumner

59 ② 113 ⑩ Ocala

62 ③ 102 ⑪ 45'

61 ③ 75 ⑫ 34 readings

66 ④ 76 ⑬ 18 beds

62 ④ 79 ⑭ 1/24/89

61 ⑤ 81 ⑭ ± 2/1/89

63 ⑤ 78 ⑭

65 ⑤ 74 ⑮

92 ⑤ 73 ⑯

98 ⑥ 72 ⑯

101 ⑥ 69 ⑯

103 ⑦ 75 ⑰

107 ⑦ 70 ⑱

106 ⑧ base

103 ⑧

(34) Type ch ipda (src) Calhoun Co.
top

119 ①

VDSC

129 ①

Alum Bluff Fm.

169 ①

Tampa Fm.

196 ②

16'

234 ③

17 Readings

260 ④

1/28/89

300 ④

312 ④

208 ④

219 ⑤

212 ⑥

213 ⑥

219 ⑥

203 ⑦

185 ⑧

172 ⑧

⑨ 171 base

(35) old Camp Quarry - Hernando Co.

top

113 ①

136 ①

121 ②

145 ②

167 ③

149 ③

88 ④

114 ④

153 ⑤

148 ⑤

154 ⑤

153 ⑤

150 ⑤

132 ⑥

121 ⑥

114 ⑥

109 ⑥

116 ⑥

93 ⑦

94 ⑦

101 ⑦

111 ⑧

107 ⑧

91 ⑨

87 ⑨

89 ⑨

94 ⑨

'base

UDSC

Tampa

Swansea

32'

27 Readings

9 beds

2/1/89

(36) N29 Collier Co.

top

95 ①

100 ②

134 ②

106 ③

105 ③

104 ④

112 ⑤

134 ⑤

base

upsc

Caloosahatchee?

Tamiami' fm

p1

Dreadings

5 beds

2/4/29

(37)

S 29 Collier County

top

UPSC

98 ①

Calusahatchee Fm

70 ②

TAMiami Fm

67 ③

8'

99 ④

6 readings

89 ④

5 beds

111 ⑤

2/4/89

base

(38) Jackson Bluff Leon Co.

top
↓

228	(7)	143	(14)	
231	(7)	157	(14)	
311	(8)	151	(15)	WDL
119 (1)	270 (9)	146	(16)	Alum Bluff
114 (1)	188 (9)	166	(16)	Hawthorn
150 (2)	184 (9)	148	(16)	50'
199 (3)	212 (10)	146	(17)	45 readings
202 (3)	211 (10)	145	(18)	21 beds
208 (3)	194 (11)	158	(18)	2/9/89 &
220 (4)	193 (11)	153	(18)	2/17/89
197 (5)	179 (12)	126	(19)	
177 (5)	160 (12)	132	(20)	
182 (6)	154 (12)	116	(21)	
185 (6)	112 (13)	109	(21)	
189 (7)	130 (14)	108	(21)	
208 (7)	137 (14)	91	(21)	

base

(39) Central Rock Bluff - Leon Co.

to p

125 (1)

198 (2)

171 (2)

179 (2)

159 (3)

158 (3)

217 (4)

256 (5)

206 (5)

139 (6)

127 (6)

118 (6)

116 (7)

108 (8)

88 (8)

base

UDSC

Alum Bluff Fm.

Hawthorn Fm.

16'

15 readings

8 beds

2/9/89

(40) Tennille Quarry - Taylor Co.

Top

60

①

UDSC

58

①

Ocala Ls.

63

②

stern hatchree

77

②

mbr

235

③

11 1/2'

104

④

13 readings

81

④

6 beds

84

④

2/11/89

83

④

67

⑤

69

⑤

71

⑥

72

⑥

base

(41) Lee Sink - Madison Co.

top

390 (1) 145 (10)

565 (2) 143 (10)

737 (3) Gase

710 (3) Hawthorn Fm.

599 (3) Sumner Fm.

415 (4) 23'

361 (4) 19 readings

531 (5) 10 beds

545 (5) 2/23/89

528 (5)

111 (6)

92 (6)

100 (6)

149 (7)

134 (7)

161 (8)

162 (9)

(42) Swanee Springs, Hamilton Co.

top

85 ①

75 ⑥

88 ①

64 ⑦

96 ①

59 ⑧

99 ①

56 ⑨

107 ①

58 ⑩

97 ①

64 ⑩

107 ②

62 ⑩

116 ②

55 ⑪

122 ②

68 ⑫

118 ②

base

113 ②

119 ②

UDSC

145 ③

Swanee Fm

23'

166 ③

26 readings

76 ④

12 beds

80 ⑤

2/23/89

87 ⑥

(43) Alligator CK @ Dam-Charlotte

top

58

①

UPSL

62

②

TAMiami Fm

105

②

81

171

③

'7 Readings

230

④

6 beds

196

⑤

3/4/89

162

⑥

base

(44) N. Orona Lock: Glades Co.
top

176 ①

231 ②

188 ③

154 ③

237 ④

292 ④

base

Caloosahatchee Fm

6'

6 readings

4 beds

3/4/89

(45) River Bend Estate - Harris Co.

top

107 ①

UDSL

125 ②

Calposahatchee Fm

160 ③

TAMiami (?) Fm

184 ④

8'

172 ④

9 readings

150 ⑤

7 beds

216 ⑥

3/4/89

251 ⑥

255 ⑦

base

(46) Sal Marie Branch SR - Hamilton

top

141 ①

213 ②

Hawthorn Fm.

170 ②

17'

160 ②

14 readings

121 ③

5 beds

117 ③

3/9/89

114 ③

110 ③

139 ③

137 ③

250 ④

207 ⑤

271 ⑤

205 ⑤

base

(47) Haw-Sewn #2-S.R. - Sunance Co.

top

417 ①

84 ⑩

385 ①

80 ⑪

344 ①

81 ⑪

335 ②

base

336 ②

385 ③

Hawthorn Fm.

247 ③

Sunance Fm.

251 ③

22'

448 ④

20 readings

405 ④

11 beds

471 ⑤

3/9/89

152 ⑥

108 ⑦

76 ⑧

75 ⑧

77 ⑨

80 ⑨

(48) Alum Bluff - Liberty Co

top

77	①	202	⑩	207	⑩
79	①	268	⑩	192	⑩
75	①	225	⑪	210	⑪
74	①	230	⑫	196	⑪
72	②	254	⑫	188	⑪
83	②	267	⑫	182	⑪
75	②	283	⑫	203	⑪
167	③	303	⑫	228	⑪
122	④	299	⑬	236	⑪
101	⑤	277	⑬	248	⑫
106	⑥	309	⑬	205	⑫
79	⑦	314	⑬	197	⑫
72	⑦	289	⑬	213	⑫
68	⑨	251	⑬	141	⑫
71	⑨	189	⑭	115	⑫
78	⑨	194	⑮	105	⑫
163	⑩	201	⑮	next pg → *	

(AB) continued

119	(24)	Alum Bluff Fm
104	(25)	WDC
133	(25)	Citronelle Fm
113	(26)	(115')
96	(26)	57 readings
111	(27)	27 beds
99	(27)	3/11/89
(base)	(WL)	

• (some interpolation)

*

(49) Pond Creek - Okaloosa Co.

top

248 ①

270 ⑥

233 ①

230 ⑦

Alum Bluff Fm.

225 ①

224 ⑦

37'

199 ②

237 ⑦

30 readings

195 ②

296 ⑧

11 beds

196 ③

288 ⑧

3/25/89

215 ③

279 ⑧

205 ③

265 ⑨

269 ④

247 ⑨

294 ④

240 ⑨

312 ④

248 ⑩

341 ⑤

237 ⑩

321 ⑥

231 ⑪

306 ⑥

base

296 ⑥

282 ⑥

273 ⑥

(50) Blackwater R. St. For. Santa Rosa

top

84 ①

77 ②

93 ①

78 ②

97 ①

base

101 ①

99 ①

UDSC

128 ②

Citronelle Fm.

131 ③

19 Readings

171 ③

7 beds

120 ③

4/16/89

107 ④

221

87 ⑤

86 ⑤

87 ⑥

80 ⑦

79 ⑦

78 ⑦

73 ⑦

57 N. Bumpnose Rd. - Jackson Co

top 109 ⑨

173 ① 93 ⑩ UDSC

178 ② 108 ⑩ Suwannee Fm.

189 ② 96 ⑪ Marianna L.

170 ② 102 ⑪ 26'

209 ③ 85 ⑫ 25 readings

218 ③ 94 ⑬ 13 beds

280 ③ 97 ⑬ 6/24/89

228 ④ base

219 ⑤

212 ⑤

156 ⑥

163 ⑥

151 ⑥

134 ⑧

142 ⑨

126 ⑨

124 ⑨

(52) Walker/Gardner Co Pit

(No section)

top	125	⑥ ¹	UDSC Citronelle
88 ① ⁵	134	⑦ ⁵	34'
94 ①	126	⑧	29 readings
97 ①	118	⑦	13 beds
103 ①	127	⑧ ²	6/24/89
128 ①	171	⑨ ¹	
152 ①	219	⑩ ³	
187 ② ¹	204	⑩	
201 ③ ⁸	197	⑩	
189 ③	160	⑪ ¹	
190 ③	134	⑫ ¹	
181 ③	114	⑬ ²	
166 ③	111	⑬	
154 ④ ¹	base		
126 ⑤ ³			
136 ⑤			
135 ⑤			1406.5'

(54) Doline Quarry - Citrus Co.

top

85 (1) 95 (10) 140 (23)

73 (1) 107 (11) 110 (24)

75 (2) 108 (12) 98 (24)

87 (3) 104 (13) 112 (24)

92 (3) 96 (14) 100 (24)

95 (3) 102 (15) 102 (25)

301 (4) 96 (16) 87 (26)

187 (5) 91 (17) 81 (27)

158 (6) 95 (17) 91 (27)

156 (7) 105 (18) base

129 (8) 110 (18) UDSC

116 (8) 101 (19) Ocala Ls

120 (8) 100 (20) Avon Park Fm

118 (8) 94 (21) 43 readings

115 (8) 93 (21) 27 beds

108 (9) 102 (22) 7/28/89

102 (9) 99 (22) 471 *

(55) LeTune N Sunset Dade Co.

top

69 ① 73 ⑫

80 ② base

74 ③

Miami Ls.

78 ③

1 p'

76 ③

18 readings

78 ④⑤

12 beds

80 ⑥

8/28/89

81 ⑥

77 ⑥

78 ⑦

76 ⑧

61 ⑨

65 ⑩

68 ⑩

65 ⑪

66 ⑫

71 ⑫

*

(57) Flagler Co. 100(S) pit - Flagler

top

68

Anastasia Fm.

93

10' (17' original)

84

11 readings

41

P Geds (13 original)

44

10/16/89

41

49

47

48

51

54

—

base

(58) Brooks Sink, Bradford Co.

top	211 (10)	403 (13)	346 (29)
134 (1)	214 (10)	376 (18)	414 (30)
125 (2)	208 (10)	427 (19)	314 (31)
144 (2)	225 (11)	449 (19)	274 (31)
215 (2)	261 (11)	376 (19)	380 (32)
410 (3)	266 (11)	408 (20)	317 (32)
363 (3)	353 (12)	491 (21)	274 (32)
465 (3)	311 (12)	452 (22)	303 (32)
373 (3)	341 (13)	628 (22)	base
356 (4)	363 (13)	1216 (23)	HawThorn incl
347 (5)	509 (14)	946 (23)	Jax dolo.
339 (6)	1040 (15)	408 (24)	m62
318 (7)	1010 (15)	329 (24)	75'
260 (8)	1079 (16)	280 (25)	61 readings
277 (8)	987 (17)	304 (26)	32 beds
238 (9)	517 (18)	436 (27)	10/17/89
225 (9)	492 (18)	553 (27)	
212 (10)	528 (18)	276 (28)	

*

(59) para Pit - Volusia County

top

80 (1) 76 (14) Anastasia - Calusa -

98 (2) 75 (15) hatchee Fms

101 (2) 72 (16) 20'

119 (3) 70 (17) 24 readings

163 (3) 72 (18) 18 beds

149 (4) 75 (18) 10/18/89

61 (5) 76 (18)

56 (5) base

57 (6)

60 (6)

75 (7)

83 (8)

84 (9)

88 (10)

95 (11)

91 (12)

69 (13)

(59) para Pit - Volusia County

top

80	(1)	76	(14)	Anastasia - Caloosa -
98	(2)	75	(15)	hatchee Fms
101	(2)	72	(16)	20'
119	(3)	70	(17)	24 readings
163	(3)	72	(18)	18 beds
149	(4)	75	(18)	10/13/89
61	(5)	76	(18)	
56	(5)	base		
57	(6)			
60	(6)			
75	(7)			
83	(8)			
84	(9)			
88	(10)			
95	(11)			
91	(12)			
69	(13)			

(60) Addison Canal - Brevard Co.

top

97 ①	66 ②	Anastasia Fm.
104 ①	63 ⑦	28'
90 ②	72 ⑦	29 readings
89 ②	68 ⑧	12 beds
97 ②	66 ⑨	10/19/89
79 ③	65 ⑩	
68 ④	61 ⑩	
63 ④	52 ⑪	
67 ⑤	57 ⑫	
59 ⑤	53 ⑫	
62 ⑤	52 ⑫	
60 ⑥	53 ⑫	
63 ⑥	base	
62 ⑦		
66 ⑦		
64 ⑦		
69 ⑦		

(61) Type Anastasia - St. Johns Co.

top

57 ①

Anastasia Fm.

54 ②

10'

49 ②

10 readings

45 ③

10 beds (9) ^{base} flooded

44] ④ ⑤ ⑥

10/19/89

42 ⑦

46 ⑧

43 ⑧

46 ⑧

43 ⑨

—

base

(62) Devils Hole - Putnam Co.

top

94 ① 100 ⑧ 299 ⑩ Citronelle - d

109 ① 103 ⑧ 391 ⑩ Hawthorn Fm

118 ① 113 ⑨ 484 ⑪ 51'

101 ① 102 ⑩ 640 ⑪ 50 readings

114 ① 99 ⑪ 693 ⑪ 24 beds

126 ② 92 ⑪ 737 ⑫ 10/20/89

135 ② 98 ⑪ 503 ⑫

129 ② 104 ⑪ 536 ⑫

147 ② 111 ⑫ 841 ⑫

155 ② 109 ⑫ 278 ⑫

142 ② 117 ⑬ 309 ⑫

126 ② 124 ⑬ 909 ⑫

112 ③ 134 ⑭ 825 ⑫

109 ④ 146 ⑭ 508 ⑫

99 ⑤ 160 ⑭ 517 ⑫

100 ⑥ 257 ⑮ 315 ⑫

101 ⑦ 335 ⑮ base

*

(63) Rock Springs - Orange Co.

top

953 ① 704 ⑨ Hawthorn Fm.

991 ① 816 ⑩ 22'

1520 ① 823 ⑪ 24 readings

696 ① 985 ⑪ 11 beds

1257 ② 977 ⑪ 10/20/89

1212 ③ 1426 ⑪

645 ③ 1770 ⑪

567 ④ base

502 ⑤

439 ⑤

620 ⑥

559 ⑦

590 ⑧

612 ⑧

634 ⑧

647 ⑧

740 ⑨

(64) Lady Lake Pit - Lake Co.

top

136 ① 75 ②

184 ① base

194 ①

Citronelle Fm.

195 ①

20'

305 ②

18 readings

240 ②

6 beds

281 ②

10/21/89

241 ②

151 ③

136 ③

138 ③

157 ④

140 ④

125 ④

113 ⑤

80 ⑤

79 ⑥

⑥5 44 pit - Lake Co.

top	486	⑦	
94	①	523	⑦ Citronelle Fm
110	①	478	⑦ 27 feet
112	①	558	⑧ 27 readings
117	①	464	⑨ 10 beds
127	①	388	⑨ 10/21/89
129	①	440	⑩
222	②	249	⑩
281	③	252	⑩
296	③	189	⑩
306	③	base	
331	③		
303	③		
385	④		
451	⑤		
328	⑥	≡ 11 = 1 reading	
329	⑥	(no diagramed section)	
322	⑥		

(66) Jay Citronelle - Santa Rosa

top

141 ① 97 ② 243 ⑬

153 ② 91 ③ 252 ⑬

151 ② 90 ③ 257 ⑬

165 ② 87 ③ base

154 ② 96 ④

143 ② 88 ⑤ Citronelle Fm

140 ② 80 ⑥ 41'

156 ③ 79 ⑥ 37 readings

166 ③ 77 ⑥ 13 beds

128 ③ 74 ⑥ 11/17/89

156 ④ 85 ⑥

145 ④ 115 ⑦

116 ⑤ 111 ⑦

102 ⑤ 239 ⑧

100 ⑤ 214 ⑧

103 ⑥ 238 ⑧

100 ⑥ 248 ⑧

(67) Bellevue Deep Quarry - Marion Co.

top	115 (8)	119 (14)
129 (1)	111 (9)	126 (15)
198 (2)	113 (9)	124 (15)
256 (3)	132 (10)	118 (15)
312 (3)	124 (11)	base

309 (3)	133 (12)
---------	----------

125 (4)	134 (12)
---------	----------

Ocala Ls.

124 (5)	137 (12)
---------	----------

44'

126 (5)	132 (12)
---------	----------

39 readings

117 (5)	128 (12)
---------	----------

16 beds

116 (5)	136 (12)
---------	----------

11/24/89

109 (6)	132 (12)
---------	----------

111 (6)	126 (12)
---------	----------

108 (6)	129 (12)
---------	----------

107 (7)	121 (13)
---------	----------

115 (7)	122 (14)
---------	----------

117 (7)	131 (14)
---------	----------

114 (8)	128 (14)
---------	----------

X

(68) Wainwright Park - Dade Co.

top

59 ①

56 ①

miami ls.

67 ①

11'

73 ②

10 readings

71 ②

3 beds

68 ②

12/7/89

67 ②

63 ②

66 ③

63 ③

base

69 Kendall WAYSIDE PK. Dade Co.

top

73 ①

85 ①

81 ①

75 ①

77 ①

80 ①

75 ①

74 ①

72 ①

75 ①

base

Miami Ls.

10'

10 readings

1 bed

12/7/89

(70) Perrine Wayside PL-Dade Co.

top

68 ①

66 ①

64 ①

77 ①

75 ②

72 ②

73 ②

62 ③

63 ③

53 ③

base

Miami Ls.

10'

10 readings

3 beds

12/7/89

(71) 7th & 3rd Miami, Dade Co.

top

86 ①

85 ①

91 ①

99 ①

96 ①

92 ①

95 ①

base

Miami Ls.

8'

7 Readings

1 bed

1/26/90

(72) SW 10th St Miami, Dade Co.

top

88 ①

Miami Ls.

86 ①

9'

88 ①

9 readings

92 ②

5 beds

89 ②

1/26/90

91 ③

93 ④

79 ⑤

83 ⑤

base

(73) 72nd & 124 St. "Alnetto", Dade

top

74 ①

Miami Ls

83 ②

4'

86 ②

4 readings

84 ③

3 "beds"

base

1/26/90

(88) The Rocks - Flayler Co.

top

28 ①

35 ①

40 ①

32 ①

34 ①

43 ①

45 ①

50 ①

6ade

Anastasia Fm

7'

8 readings

1 bed

6/28/90

(74) 13th St N 1st Ave SW Miami Dades

top

84 ①

87 ②

94 ③

100 ④

102 ⑤

101 ⑤

99 ⑥

97 ⑥

94 ⑦

101 ⑧

99 ⑨

103 ⑨

101 ⑨

99 ⑨

92 ⑩

6ade

Miami Ls.

13'

15 readings

10 beds

2/26/90

(87) Deepck Bridge Volusia Co.

top

114 (1)

120 (2)

128 (3)

118 (4)

156 (5)

187 (6)

191 (7)

162 (8)

213 (8)

base

Calbos hatchree

9'

9 Readings

8 beds

6/28/90

(75) M D Adams Watkinson Monroe Co

top

61 (1)

60 (2)

57 (2)

55 (2)

58 (2)

57 (2)

61 (2)

59 (2)

63 (2)

62 (2)

56 (2)

57 (2)

base

Key Largo Ls.

11'

12 Readings

2 beds

2/27/90

(26) Haulover. Canal SE/Brew. Co

top

49 (1)

Anastasia Fm.

54 (2)

9'

51 (2)

9 readings

50 (2)

5 beds

45 (3)

6/25/90

49 (3)

39 (4)

41 (4)

43 (5)

base

(76) Blue Hole, Big Pine Key / Manzanillo

top

54 (1)

57 (1)

Miami Ls.

63 (1)

5'

66 (1)

6 readings

56 (1)

1 bed

55 (1)

2/27/90

base

⑧5 South Rockledge / Broward Co.

top

45 ①

Anastasia Fm.

51 ①

17'

43 ①

7 readings

45 ②

3 beds

46 ②

6/25/90

57 ③

52 ③

base

⑧7 Big Pine Key Canal SE / Monroe Co

top

61 ①

Miami Ls.

75 ①

4.5'

81 ①

6 readings

88 ①

1 bed

81 ①

2/27/90

83 ①

base

(P4) Pinetta "Micooskee" / W. Madison

top	175	(5)
90 (1)	185	(5)
95 (1)	163	(5)
99 (1)	167	(5)
101 (1)	213	(5)
107 (1)	264	(5)
102 (1)	231	(5)
106 (2)	309	(6)
127 (2)	358	(6)
154 (2)	base	
200 (3)	Citronelle Fm.	
212 (3)	22 feet	
196 (4)	26 readings	
167 (4)	6 beds	
156 (4)	6/16/90	
146 (4)		
166 (5)		
156 (5)		

(78) House of Refuge / Maestri Co.

top		
38 (1)		
46 (1)	60 (2)	Anastasia Fm.
39 (1)	53 (2)	16'
41 (1)	44 (2)	18 readings
42 (1)	base	2 beds
45 (1)		3/2/90
39 (1)		
45 (1)		
49 (1)		
52 (1)		
46 (1)		
53 (1)		
54 (2)		
57 (2)		
59 (2)		

(83) Madison Thickest "Miccosukee" Mod.

top 274 (4)

184 (1) 282 (4)

214 (1) 368 (5)

228 (1) 312 (6)

230 (2) 311 (7)

234 (2) 332 (7)

212 (2) base

206 (2) citronelle fm

194 (2) 27'

206 (2) 23 readings

228 (2) 7 beds

220 (3) 6/8/90

239 (3)

232 (3) (Thickest "Miccosukee")

228 (3)

214 (3)

235 (4)

232 (4)

(79) Hillsboro Canal - Palm Beach Co

top

48 (1)

50 (1)

52 (1)

65 (2)

71 (2)

75 (2)

66 (2)

64 (2)

base

Miami Ls.

7'

Readings

2 beds

3/24/90

82 near type micaceous Jefferson

top

132 ①

Citronelle Fm.

137 ①

11'

165 ②

12 readings

172 ②

4 beds

211 ③

6/3/90

203 ③

195 ③

181 ③

183 ③

164 ③

186 ④

184 ④

base

80 Miami-TAMI contact/Monroe Co

top

71 ①

73 ①

89 ②

105 ②

Miami Ls.

TAMIAMI Fm.

2'

4 readings

2 beds

4/19/90

⑧ Calos - Tami Monroe/Lap Rd

top

109 ①

103 ②

117 ③

129 ④

Calosahatchee Fm

Tami Fm

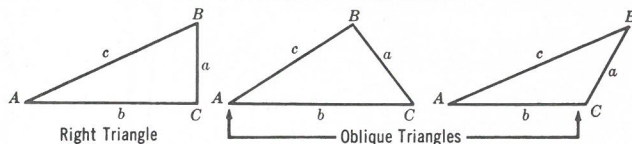
2 1/2'

4 readings

2 beds

4/19/90

SOLUTION OF TRIANGLES



Solution of Right Triangles

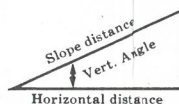
For Angle A, $\sin = \frac{a}{c}$, $\cos = \frac{b}{c}$, $\tan = \frac{a}{b}$, $\cot = \frac{b}{a}$, $\sec = \frac{c}{a}$, $\csc = \frac{c}{b}$

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 $B = 90^\circ - A$, $b = a \cot A$, $c = \frac{a}{\sin A}$
A, b	B, a, c $B = 90^\circ - A$, $a = b \tan A$, $c = \frac{b}{\cos A}$
A, c	B, a, b $B = 90^\circ - A$, $a = c \sin A$, $b = c \cos A$

Solution of Oblique Triangles

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

REDUCTION TO HORIZONTAL



Horizontal distance = Slope distance multiplied by the cosine of the vertical angle. Thus: slope distance = 319.4 ft. Vert. angle = $5^\circ 10'$. From Table, Page X, $\cos 5^\circ 10' = .9959$. Horizontal distance = $319.4 \times .9959 = 318.09$ 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 $5^\circ 10' = .9959$, $1 - .9959 = .0041$, $319.4 \times .0041 = 1.31$, $319.4 - 1.31 = 318.09$ 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.

