

Gregory #1
W-1528

Rainbow #1
W-16027

Buckingham #1

Alba #1
W-155546

Carter #1
W-16144

Hilltop #1
W-15933

Core Book #1

LEVEL BOOK

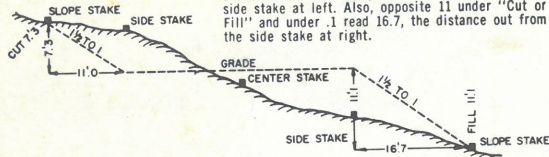
32 0010

Dr. Thomas Scott, Fla. Geological Survey

DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING

Roadway of any Width. Side Slopes $1\frac{1}{2}$ 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								0
1	1.5	1.7	1.8	2.0	2.1	2.3	2.4	2.6	2.7	2.9	1								1
2	3.0	3.2	3.3	3.5	3.6	3.8	3.9	4.1	4.2	4.4	2								2
3	4.5	4.7	4.8	5.0	5.1	5.3	5.4	5.6	5.7	5.9	3								3
4	6.0	6.2	6.3	6.5	6.6	6.8	6.9	7.1	7.2	7.4	4								4
5	7.5	7.7	7.8	8.0	8.1	8.3	8.4	8.6	8.7	8.9	5								5
6	9.0	9.2	9.3	9.5	9.6	9.8	9.9	10.1	10.2	10.4	6								6
7	10.5	10.7	10.8	11.0	11.1	11.3	11.4	11.6	11.7	11.9	7								7
8	12.0	12.2	12.3	12.5	12.6	12.8	12.9	13.1	13.2	13.4	8								8
9	13.5	13.7	13.8	14.0	14.1	14.3	14.4	14.6	14.7	14.9	9								9
10	15.0	15.2	15.3	15.5	15.6	15.8	15.9	16.1	16.2	16.4	10								10
11	16.5	16.7	16.8	17.0	17.1	17.3	17.4	17.6	17.7	17.9	11								11
12	18.0	18.2	18.3	18.5	18.6	18.8	18.9	19.1	19.2	19.4	12								12
13	19.5	19.7	19.8	20.0	20.1	20.3	20.4	20.6	20.7	20.9	13								13
14	21.0	21.2	21.3	21.5	21.6	21.8	21.9	22.1	22.2	22.4	14								14
15	22.5	22.7	22.8	23.0	23.1	23.3	23.4	23.6	23.7	23.9	15								15
16	24.0	24.2	24.3	24.5	24.6	24.8	24.9	25.1	25.2	25.4	16								16
17	25.5	25.7	25.8	26.0	26.1	26.3	26.4	26.6	26.7	26.9	17								17
18	27.0	27.2	27.3	27.5	27.6	27.8	27.9	28.1	28.2	28.4	18								18
19	28.5	28.7	28.8	29.0	29.1	29.3	29.4	29.6	29.7	29.9	19								19
20	30.0	30.2	30.3	30.5	30.6	30.8	30.9	31.1	31.2	31.4	20								20
21	31.5	31.7	31.8	32.0	32.1	32.3	32.4	32.6	32.7	32.9	21								21
22	33.0	33.2	33.3	33.5	33.6	33.8	33.9	34.1	34.2	34.4	22								22
23	34.5	34.7	34.8	35.0	35.1	35.3	35.4	35.6	35.7	35.9	23								23
24	36.0	36.2	36.3	36.5	36.6	36.8	36.9	37.1	37.2	37.4	24								24
25	37.5	37.7	37.8	38.0	38.1	38.3	38.4	38.6	38.7	38.9	25								25
26	39.0	39.2	39.3	39.5	39.6	39.8	39.9	40.1	40.2	40.4	26								26
27	40.5	40.7	40.8	41.0	41.1	41.3	41.4	41.6	41.7	41.9	27								27
28	42.0	42.2	42.3	42.5	42.6	42.8	42.9	43.1	43.2	43.4	28								28
29	43.5	43.7	43.8	44.0	44.1	44.3	44.4	44.6	44.7	44.9	29								29
30	45.0	45.2	45.3	45.5	45.6	45.8	45.9	46.1	46.2	46.4	30								30
31	46.5	46.7	46.8	47.0	47.1	47.3	47.4	47.6	47.7	47.9	31								31
32	48.0	48.2	48.3	48.5	48.6	48.8	48.9	49.1	49.2	49.4	32								32
33	49.5	49.7	49.8	50.0	50.1	50.3	50.4	50.6	50.7	50.9	33								33
34	51.0	51.2	51.3	51.5	51.6	51.8	51.9	52.1	52.2	52.4	34								34
35	52.5	52.7	52.8	53.0	53.1	53.3	53.4	53.6	53.7	53.9	35								35
36	54.0	54.2	54.3	54.5	54.6	54.8	54.9	55.1	55.2	55.4	36								36
37	55.5	55.7	55.8	56.0	56.1	56.3	56.4	56.6	56.7	56.9	37								37
38	57.0	57.2	57.3	57.5	57.6	57.8	57.9	58.1	58.2	58.4	38								38
39	58.5	58.7	58.8	59.0	59.1	59.3	59.4	59.6	59.7	59.9	39								39
40	60.0	60.2	60.3	60.5	60.6	60.8	60.9	61.1	61.2	61.4	40								40

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FLORIDA GEOLOGICAL SURVEY
TALLAHASSEE, FLORIDA



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KEUFFEL & ESSER CO.

Dr

Volusia County DER Cores

Al Stodghill

Volco # 205-J #7/2/85

VC # 7 - Airport

0-18 sand, unconsol ^{to very weak} vf-fine

Trace heavies ang-sub ^{gray → 2, yellow brown} → 8 19 ang → 18

18-30 organic rich sand poor

indur. orgs decrease w/depth

vf-f silty ^{dk brown 18-23.5 giddies} to brown gray → 27 to light
brown gray → 30

30-32 miss

32-60 Sand vf-f, ang-sub, silty

unconsol to very weakly consol

brown gray to more gray 48-60 traces
of mica

60-62 miss

62-69.5 sand, clayey (10-20%), silt,
olive green or gray. mica no fossil
clay increases w/depth. Clay stringers
throughout but most common w/depth

69.5-70

Top Nashua fm(?)

Sand, calc, clayey, mollusk fm
poor ind. sharp contact w/overlying
bed,

70-72 miss

72- clay vary to clayey calc
sand, forams in clay, mollusk,

forams, ostracods in sandier section

variably bedded clay 72-72.5

shelly 72.5-73.5, clayey sand

73.5-74, sand (forams abundant)

heavier? phos? 74-76, clay

76-76.5, sand 76.5-77,

shelly sand 77-77.5, shelly

clay 77.5-78, shelly clay & sand

(Forams) 78-80 (80-82 missing)

82-84 as 78-80,

84-88 Sand, calc, fine med, trace phos

mollusk, forams brn gray

88-90 - Sand w/ ~~much~~ much less shell TD90

VC-6 7/2/85

0-2.5 Sand, vf-f v. lgt gray
unconsolid2.5-10 Sand, vf-f, lgt to dk brn
variable organics, poor ind

10-12 miss

12-22.5 Sand, vf-f, trace phos

very poor ind to unconsolid lgt brn
gray, thin clay seams22.5-25.5 Sand vf-f, clayey, trace
phos mica yellowish brn gray.

25.5 - decrease in clay, Sand.

vf-f, very poor consol to unconsolid

Becomes clayey at 29.5-30

30-32 missing

32-34 Sand, variably clayey, mica

trace phos, vf-f, lgt brn gray

34-34.5 clayey sand, clay increases

w/depth med gray mica

Volco #205-5
VC-7

VC-6

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FLORIDA GEOLOGICAL SUR
TALLAHASSEE, FLORIDA

34.5 - 40 clay, silty, organic
pieces, mica, blue gray to
olive gray brn. diatoms
near base poor consol

40 - 42 missing

42 - 42.5 as 34.5 - 40

42.5 - 50 clays as 42 - 42.5
but w/ abund. shell frags

50 - 52 missing

52 - (50 as 42.5 - 50 but minus shell
abund forams 62 - 64

picks up sand in lower part
grades into underlying sand

65 - 66.5 very sandy shell bed

66.5 - 68 sand, very clayey, abund.
fossil frags, med gray

68 - 72.2 sandy shell bed w/ minor

clay unconsol to zones of
mod. modusk frags white to med gray

72.2 - 76 sand, fine, calc,
shell frags, trace phos
lgt gray

76 - 88 thin shell 76 - 76.5

grades into shelly sand
f-m, poor consol. med gray
to brn gray trace phos
calc

88 - 90 TD sand, vt-f, clayey
calc. shell frags trace
phos..

Suber
W-7539

W-7181

VC-1

VC-2

VC-3

W-15564

VC-5

W-15564

W-15514

VC-1 7/2/85

- 0-8 sand, vf-f yellowish
gray to brown gray, ^{very} poor ind to un
8-14 sand vf-f. dark brn
to black very organic rich
14-15.5 sand, fine, very poor
to unconsol, lgt gray brn. to
lgt gray.
15.5-18.5 sharp contact,
Clay, sandy, silty
med to dark gray brn
18.5-23 sand, fine, clayey
gray brn, variable clay
clay decreases w/depth.
23-34 sand, fine, gray brn,
slightly clayey to non, ^{very} poor.
thin clay beds 30-34
34-40 sand, vf-f, clayey
silty, mica, gray brn, clay increases

with depth

- 40-46.5 clay, silty, sand lenses
dark gray
46.5-48 Sand clayey calc.
fine-vf shell debris at
base
48-50 mic
50-50.5 clay as 40-46.5
50.5-52 sand w/abund shell.
lgt gray, trace phos, calc
52-62 Sand, fine, ~~trace~~
phos. yellowish gray, variable
calc. poor to nonconsol
62-72 Sand stone, calc.
mollusk frags
thin poorly consol zones.
72-76 ls, wackestone Avon Pk
forams.

Volco #205-5
VC-7

VC-6

VC-1

VC-2

FLOR

VC-2 7/2/85

0-4 Sand, VF-f, unto poor
yellow green to light gray4-13 Sand organic rich at
top 6", fine, mica ^{slightly} clayey
yellow gray green. poor and
clay stringers, fine
coarse well rounded green
grades in to underlying13-16 Clay, slightly sandy
silty, shell increases w/
depth. Dk brown gray

16-18 Missing driller says shell.

18-22 as 13-16

22-30 Clay, ^{silty} mud ind, yellow
gray, shell, color f, Blue gray
desiccation & cracks evident
that are filled

30-32 as 22-30

32-36 organic rich clay silty,
dark gray, Black, variably
sandy, plant remains
few snails, mollusk.36-40 Sand, VF-f, poorly to none
ind. variably clayey, few
shells

40-42 misc

42-47 very clayey sand, vt
forams, fossil frags med
gray. becomes good clay
in few zones. med gray.47-48 Sand ^{med to fine} slightly clayey
med - dark gray

48-52 Missing

52-78 Sand, med-fine, calc
abund fossil frags. some
slightly clayey zones.
shell ~~in~~ increases w/ depth

Variable to shelled in
zones

VC-3 Poor recov. 7/2/85

0-4 Sand vf-f, poor to
non ind light gray

4-18 - Sand, organic rich decreasing
w/ depth vf Black to
yellow brn to lgt gray brn.

18-20 Sand clayey (very) vf-f
~~med~~ med dk gray

20-22 miss

22-22.2(?) clay w/ shell

22.2-23.5 clay w/ plant remains
sand stringers, filled
desiccation cracks. sand
increases to base dk gray.

23.5-48 Sand, vf-f, clayey
(variable) shell material
variable. med gray to lgt gray
poor to non ind zones of
med to coarse sand w/ shell

Vol 10 #205-5

VC-6

VC-1

VC-2

VC-3

48-54 Sand, vf-f, mica, ^{trace}pho
minor shell lgt-med gray

54-60 miss

60-62 as 48-54

62-66 miss

66-68 ~~fine~~ sand, vf-f, little
clay shell at base trace phos
med gray non ind

68-76 miss

76-78 - sand, vf-f, phos
some shell (minor) poor
ind.

78-86 miss

86-88 shell at top then
silty clay w/ vf sand
scattered shell, med gray

88-90 miss

90-92 Sand vf, shell slightly
clayey(?) forams. green gray

92-98 miss

98-98.8 Clay, ^{slightly}sandy, silty
med-dark gray.

98.8-99 Ls restful pack stone
lower Ocala

Volco #205-5
VC-7

VC-6

VC-1

VC-2

VC-3

VC-4 7/2/85

0-16 Sand, med as well
sorted as other wells, med
f-coarse, yellowish to lgt
gray.

16-52 Sand, f-med, abund
shell in zones, ^{med to} minor clay

52-98.5 Sand vf f, med
clayey, variable shell,
clay varies to sandy
clay. med to dk gray.
trace phos.

98.5-104 clay, sandy silty
shelly dk gray forams

104-105 sand, med-fine, very
clayey, shelly, med to dk
gray.

105-122 Sand med to coarse
shelly phos (trace) lgt gray

clay and phos increase w/
depth variable shell

122-130 missing

130-137 Top of Hawk?

Sand, ^{f to v f} clayey, dls
very silty, abund phos,
trace shell.

dk green gray to med green gray

TD core 137 well-157

Vol 100 #205-5
VC-5

VC-6

VC-1

VC-2

VC-3

VC-5

VC-5 Lumped 7/2/85

0-18 sand, fine to med
variable org. dk gry
to lgt brn gry non to poor ind18-26 sand vf-fine, med,
trace phos, lgt brn gry
some shell at base non to poor26-32 sand vf-f, clayey
calc, shell, poor ind
zones of shell, lgt to med gry32-46(?) sand, abundant shell
frag, fine, clayey(?)
lgt gry.46-60 sand, fine-med,
calc, trace phos,
shell frags, forams

60-72 miss

72-74 shell.

7/8/85 R. Johnson
S. Spencer

W-15504 Jackson Co.

1st bx start 35'35-59.5 siltstone w/ fine-vf
sand trace phos, calcareousto dolom matrix, clayey
thin gln gry clay bedsvariable to very silty, sandy clay
Ls. poor to med ind59.5-65 Ls, sandy, silty, malleable
molded, fossiliferous, med ind

65-73.0 as 35-59.5 zones w/

noticeable increases in phos
more clayey w/ depth to 72.5

less clayey 72.5 to 73 poor to med ind

73-94 very sandy Ls to
calc. gt, sand silty variably
clayey, much less phos., mica

Volco #205-5
VC-7
VC-6
VC-1
VC-2
VC-3
VC-5
W-15504

Chatt^{LS} 94 - 99 mudstone (calcareous)

slightly sandy clayey

99 - 101.5, weathered calcareous

101.5 - ^{approx} 161 Dolosilt brown appearance

to be rextal packstone. Dolostone

161 - 162 LS calcareous

162 - 194 Dolo as 101.5

194 - 195 very rextal LS.

Os - 99 - 195

Chattahoochee in this
core contains more
clay as discrete beds
than in Chatt ~~in~~ to
the east.

W-1534 W-15508 W-15711 W-15712

15514

7/8/84

1st bx 4.5

4.5 - 31 Citronelle poorly sorted
qty sands silt clay reddish
orange.

31 - 34.5 no sample

34.5 - 41 weathered fine to vf
clayey sand. mottled

41 - 44.5 no sample

44.5 - 50.8 Sand, vf-f, clayey
mottled, white - yellowish gray

50.8 - 69 LS (mudstone) vf sand
trace phos(?), (very sandy)
variable sand content. zones of

more clay centered clay clasts
in LS 63' poor to mod' mud

69 - 92.5 LS rextal hard no sand
fossiliferous, forams, mollusks

Volco #205-5
VC-7

VC-6

VC-1

VC-2

VC-3

VC-5

W-15504

W-15514

92.5 - 131.5 Dolo, moldic well
incl. brownish

last box looked at 119.0 - ~~131.5~~

OS 69 - 131.5

Chatla ? 50.8 - 69

Hnw 34.5 - 50.8

Citronelle 4.5 - 34.5

2N 4W 32ea 265'

W-7539 Suber #1 Gadsden Co.

0 - 26 micco reddish orange

becoming rust colored thin

lgt orangish brn at 24

24 - clayey sand w/ thin clay

layers poor to med

26 - 35 thin bedded clays and

sands white to lgt orangish

brn f-med w/ zones of

med - coarse. Poor to none

35 - 70 f-med sand, varic clay,

lgt gry (white) to lgt brn, some

thin clay beds some coarse ^{poor to none} zones

70 - 76 miss

76 - 77 - sand w/ clay med,

77 - 78 miss

78 - 80 sand clayey med-f

80 - 83 miss

Suber #1
W-7539

W-7181

Boofen #1
W-6906

W-15506

W-15728

W-15863

W-1528

83-84 weathered clays, sand
rusty brn w/ gry grn lenses
of clay. mod.

84-89 grn gry clay w/ vlf sand
on partings, white phos
abund in sand mod
clay becomes lgt gry w/ depth
very FE rich.

89-91 sand, vlf-f, clayey, white
lgt brn gry, poor to mod
grades into sandy clay

91-96 mud

96-124 clay, sandy, lgt gry
to med gray sand decreases
w/ depth then increases below
119.

124-125 dolosilty clay, w/sand

125-129 Ls, sandy, abund forams
soules, white, mod to good.

very retentive
129-136 Ls, sandy trace phos,
very small moldic, mod to
good, drk gry to tan poor recov

136-142 poor recov, gry
clay sandy mod-poor

142-145? Ls very sandy,
shell moldic, poor to mod.

lgt gry to white

145?-157.5 sand, ^{bf-med} very calc intrx
fossil debris, some zones
clayey, lgt gry w/ lgt grn gry
zones.

157.5-159 clay, slightly sandy
med gry mod

159-160 sand, clayey, vlf-f.
lgt gry mod

160-161 as 157.5

161-162. as 159

162-176 Clay, ^{thin layered} massive, slight
sand, 1st gry poor recov.
mod.

176-182 sand, v f, clayey
carb in matrix 1st gry gry
poor-mod ind

182-187 miss

187-197 as 176

197-201 hard ls, sandy, dolo,
^{carb} light gry

201-213 sand, very calc ~~matrix~~
zones of sandy carb.
carb at 208-209 212-213

213-226 miss

226-228 Ls, white vari sand,
~~228~~ poor-mod.

228-229 sand, f, 1st to med
gry grn

229-237 Ls, sandy, phos, intra
clasts, 1st gry, poor-mod
poor recov.

237-252.5 Dolo very calc
sandy, hard 1st-med gry
moldic at base (4").

252.5-267 clay, ^{carb} sandy, abund
ls. intra clasts, dk gry
mod. varies to gry gry
has zones of hard carb at
260-260.5, 261-262
cherty ^{looking} zones 263(?) to 265±
(poor recov 262-267)

267-270 Ls, slightly sandy,
abund, forams, white poor
to mod. grades into a
very calc clay at 270

270-271 very calc clay, sandy

271 - 273⁺ clay med grey
minor sand, med.
273⁺ - 280 Ls, slightly sandy,
trace phos, clay in mtrix and
in clasts much more
sandy (med - coarse) below
277 + some fossil debris
forams.

280 - 292.5(?) Poor cov. clayey
sands, grey grn, calc.
bluish carb. fossil frags ^{Oyster} shell.

292.5 - 297.5 very sandy ls to very calc
sand, abund fossil molds
mold (large pecten noted)
sandy & clayey zones

297.5 - 301.5 sand, vf to coarse,
yell grn, to grey grn, calc
in zones (Ls.)

301.5 - 322 very sandy ls to very
calc sand ^(f. coarse) lgt grey lgt green
grey, shell frags (oysters and
?). Some Sorites noted

322 - 327 mss

327 - 329? sand, f-med, clayey
calc, poor yell grn grades
into next unit

329 - 352 as 301.5 - 322 zones
with noticeable phos (1-2%)
more grayish than 301.5

Mica common near base

352 - 356 Rubble zone

dk brn grey clasts of dolo
in brn grn grey mtrix

Mtrix is dolo in qtz sand.

Dolo clasts are mold moldic

356 - 372 Dolo, very moll maldic,
non sandy to slightly sandy
brn gry hard
appears that this was original
a grainstone w/ wackestone
zones.

372 - 377 Dolo silt, slightly
sandy poor to good ind.
whole to lgt gry

377 - 382 2" of recov. prob
St. M. 434 1/2 lb

382 - 392.5 St marks 1 lb Dolo

392.5 - 396 Dolo, of sof sand

lgt brn gry to lgt gry mod-good

396 - 400 miss

400 - 406 bubbly zone

406 - 435? as 392.5 vari sand
bubble zone 432 1/2

very poor recov between 412 - 435

435 - 436.5 clay, sandy, doloc,
gry grn.

436.5 - 451 as 406

451 - 454 Dolo, shell maldic
slightly sandy

454 - 457 clay, sandy med gry

457 - 465 Dolo maldic slightly
sandy

TD

W-71181

0-5 $\pm$ 5' micro

5 $\pm$ 5' - 60 mas

60 - 62 weathered zone

62 - 63 grey gm clay sand sand
organic

1163-65 clayey sand, plus white
65-84 grey clay w/ sand &
white plus

82-106 sand, calc, clay

DT white plus

106 hard to dol, sandy

Torreya (interbedded green sandy
clays and sand
Ls below 117

Rubble 137-144

St Marks 144-201

201-214 Hard Brw Dolo

214-239? Ls, fine grained sandy
Chattra like molds
to very sandy some fossil

OS 239 - TD

W-6906 Wooten #1 Jeff Co

1st core 165' in St Marks

165-222 $\pm$ St. Marks w/
Chattra zones at 180-222

Rubble zone around 222'

OS 222 - TD (250)

W-15499 DH-3 Liberty Co

TD 501

cherty mud to
granular part wackestone

501-467 Ls fine grained textal
mod. lgt gry - white - lgt brn
Dolomitic in zones

467-458.5 Dolo brn, moldic
mod - good. fine grained

458.5-456.5 Ls white, wackestone
Forams poor - mod

456.5-421 Dolo very moldic
brn mod - good and ^{fine to med} grained
non moldic zones; gry brn
in zones

421-409 Dolo, fine grained,
lgt brn to lgt gry brn.
less moldic than below

409-351.5 Dolo fine to med grained,
moldic in zones, mod - good
lgt brn to lgt gry brn

very moldic 393-377.5

Fine grained 377.5-373.
some of abund vugs 353.5
- 351.5

351.5-344 very weathered dolo w/clay?
poor recov

344-43 as 353.5-351.5

343-333 Dolo lgt gry fine
grained hard

333-330+ (poor recov) waxy zone

330-320 Rubbly zone

cherty hard gry dolo clasts
in a softer white dolo
mtx.

320-310 Dolo, fine, sandy
to very sandy (sand is vf)
clayey zones

310-307 Clay, sandy, dolo in part
white to med gry poor - mod

307-302 Dolo, white lgt gry, mod
sandy (sand is f-med
more coarse than below)

302-296 Dolo lgt gry mod ind
moldic very conchiferous
in zones, moll. forams.

296-294 Clay

294-289 Dolo as 302

289-274 Dolo white-lgt gry, sandy
(uf-f sand) mod to good ind
clayey in zones

274-267 Clay, gry grn, mix
w/ dol in part

267-206 Dolo, sandy, clayey zones
lgt gry to lgt grngry
mod. moldic zones

very moldic zone 212-209

206-191+ Rubble zone hard clasts
in a softer dol matrix, sand in mtr

is med-coarse,

191+ - 185 Sand, f-med, slightly
clayey lgt, yell gry poor

185-183 ls, very sandy, (f-med)

white to lgt gry poor - mod

183-176.5 Sand, clayey to calc,

f-med, soft, lgt grngry
grades into sandy clay

176.5-172 Clay, sandy (less
upward to a waxy grngry
clay)

172-158 Sand, calc, f-med
Variclastic calc., soft, ^{scattered} moll.
thin ls zone at 162-161

158-154 ls, sandy, clayey trace
phos. ~~gr~~ soft
grades upward into sand

154-150 Sand, clayey (very clayey in zones)
f-med. poor

151 - 146 ls, vari sand, clay
soft to med, fms frags
grades into sand

146 - 122 Sand, calc, clayey,
f-med, ^{some coarse} fms molds
soft lgt ~~g~~ gry
thin ls 138.5 - 139

becomes lgt grn gry above
132

Thin rubbly ls at 122 -
122.5

HAW 122.5 - 120 CLAY ^{Feishy} lgt gry
some sand, sand increases
up. poor to mod.

120 - 115+ Sand, f-med, clayey
trace heavies lgt gry to
lgt grn gry grades
into very sandy clay

115+ - 108+ CLAY, sandy, lgt gry
FE ish poor - mod.
grades into very clayey
sand.

108 - 57.5 Sand, clayey, f-med
soft lgt grn gry

Weathered (oxidized zone)

clays and sand 106 - 103.5

sands and clays 57.5 - 103.5 are oxidized and look like weathered HAW

Cit 57.5 - 0 Cit coarse to med

sands w/ some clay reddish
orange to rusty red

W-15508 DH-12

Does not appear to have
any Torr or Haw.

Thin weathered section
below Citron. maybe
Torreya but is not very
good (well developed).

W-15506 DH-10

0 - 50.3 Citronelle

50.3 - 71 Dk gry sand,
fine, abund mica, clayey
minor phos. becomes
shelly in lower part.

71 - 91+ Sand lgt grn gry
fine ^{to med} mica, calc, some
fossil debris

91+ - 105 Ls, wackestone to packstone
sandy, forams, white
soft.

105 - 120 hard vental ls
sand, (phos?), fossil
molds & frags
lgt to med gry
softer w/ depth
sandier w/ depth

chipola?
Alum
Bluff?

120 - 142 Sand, calc, med-fine,
mica, organic flakes phos?
fossil frags very micaceous
zones

142 - 157.5 Ls, fossiliferous, sand,
mica. hard to 147 then
soft and clayey.

157.5 - Dolo, moldic (finely)
some sand (lf) sortes
?

W-15728 Hoenstine #1 Madison Co.

0 - 6.5 Sand Tan unconsolidated
to poor f - med

6.5 - 26± Sands & clays

Micco poor to med, f - med

26± - 37 weathered zone at

HAW top, clays, sandy
lgt gry brn to gry grn.

37 - 50 Clay, FEish, lgt gry
to lgt gry grn ^{and white} sandy
w/ weathered phos below
42'

50 - about 71 Sandy dolc phos
very poor consol.

more calc w/ depth
(to 52') rubblely

to very rubblely w/
hard dolc clasts

clay zone 61 - 62.5

clasts appear to be
Os.

71 - chert silicified

Os

Weathered Os below it
to 82±

Imp't notes

W 7539 Suber

P. Hud. top Dogtown 136

Base 175.

suggest a ~~unit~~ package
from 125 (ls shelly above
FE clays) to 197 (base of carb
mtx qtz sand on top of hard
ls) This might be a good
unit. Section 83.5 - 125 maybe
mid mid. see W 7472

W-7472 Owenby

P. Hud Top Dogtown 115

Base 139

Top Torr 92.5

Top mid mid? 63

The clays etc above 93'

do look like the basal Coosawatchie
in St. Johns Co. Duval etc

A package similar to that in
W-7539 can be picked here

93' to 175 (at base of carb
mtx sand below FE clay. This
is on top of a thin hard ls
w/a brecciated zone.

W-7528 Gregory #1

Top DT prob 99+

Base " 118.5

Package as in 7539 & 7472

from 83.5 - to 142 or 145

Wall #2 W-7458

section above 85 is unusual
for cores looked at

DT 87? top 116 Base
package as above (other cores)
86? to ls hard w/ clasts
at 139+ (poor recov).

Rock Bluff #1 W 66H

one small zone of possible
FE clay at 147-147.5

Base of sandy zone is at 177
appears traceable across trough
but there are problems w/
what the upper stuff relates to
towards the east.

W-6933 DT may be 57-61.5 or 68

W-7180 Phipps

56.5-87.5 = clays & sands
of upper package in Gadsden
cores 87.5-130 is D.T.
and sand unit then Torrey

W-7181 Kinhega #1

Top #AW 63

63-82 upper zone

82-106 DT w/ sand zone on handls.

106-144 Torr.

W-6998 Goode #1

49.5-93 upper zone

93-116 DT + sand on handls

116-142.5 Torr

W-6937 Baer #1

62 - 87.5 upper zone

87.5 - 106 DT + sand on hand ls

106 - 151 Torr

6911 Soimer #1

upper zone 11.5(?) - ^{38'}~~at least~~

NO DT NO Torrey

W-15795 4 Baker
W-15272 NWFWMD

0-16? Micco clayey sand
and sandy clays, red, poor

16-24 Sands slight clay brown
to orange poor to very poor

25-27 sand lgt gray brn clayey

27-27.5 Oxydized weathered zone
sands w/ clay

27.5-40.5 clay mid gray to blue gray
little to no sand except in
thin zones signs of abund

Org matter

40.5-47 sand clayey white to org
brn uf-f some calc in
mtrx

47-52.5 ls, hard clasts in clayey
calc mtrx, more calc less clay
and softer w/ depth. fossil frags
Pecten echinoid some

52.5 - 59.5 FE ish clay. lgt
grn gry very minor
sand

59.5 - 79 ls ^{and sand} soft fossil frags
clay blebs. Very sandy
variable to a very calc ss
w/ med grains
becomes mostly very calc ss

✓ w/ thin lenses of ls some
D very fossiliferous zones
il 7 8 - 79

79 - 81 FE clay sandy w/
calc streaks

81 - 82.5 zone of ls ss w/ clay lenses

82.5 - 83.5 FE ish clay & dolo silt(?)

83.5 - 112 Sand very carb mtrix
zones of very sandy carb lgt to
med gry. thin 1-1.5 ft zone
of brn gry sand at 92-93 (.5?)

traces of phos

shelly zone 102+ - 105

112 - 113.5 weathered sandy
clay soil zone

113.5 - 116 bent up carb, sandy
clay filled voids less
bent up w/ depth also harder
w/ depth

116 - 129 dolo ls sandy clay blebs
some intraclasts some fossil

✓ frags maldec
becomes sandier around 129

129 - 134 sand v-f carb mtrix
lgt gry grades into
clay

134 - 137 clay med gry grn

137 - 184 ls, maldec wht to lgt gry
sandy, very fossiliferous
Oysters 158 - 163 Variable sand
and clay

bryozoans noted around 174-5
variably moldic

grades into a very fine sand
by 184.5

184-196 sand vf-f poor lgt gry
carb mtrix less ind w/
depth

196-201 sandy ls fossil
moldic mod becomes
very sandy to ss at
198-9

201-210 sand clayey variable
carb, lenses of carb
yell. grn to lgt grn gry

210-214 very sandy carb to
carb sand w/ minor clay

214-226 hard dolo zone very
rectal broken up appearance

lay as zone at 217

clay filled voids

226-28 ls hard moldic sandy
2 lgt gry

228-265 brn gry carb (Dolo?) hard
w/ soft fine grained lgt colored
zones very moldic forams
mollusks. minor sand

SM 255 less moldic below
247

265-314 Dolo, fine grained
(Chat) lgt gry variable amts
of vf-f sand

clayey zone 276
hard brn dolo zone 289.5-
296? (poor recovery 3/7)
Back to dolo as above but
less sand

314-349 Dolo, lgt brn grg to
sm brn very moldic no sand
? - 349-361 finer grained, dolo
chatt. sandy (vf) clayey in
zones.

361-362.25 weathered soil

OS zone w/ carb. clay & sand
362.25-365 hard yell. brn dolo
365-397 lgt gry brn hard dolo
fossil molds (very fine)

grades into more macro
moldic dolo w/ fractured
zones dolo silty zones

397-399 lost due to friable
nature

399 - 402 soft to hard fine
grained dolo

11 June 86 ~~314~~ 30m
Inglis cores #1 & 2 missing

#1 12582 #2 12583

0-7' Ls, grainstone to packstone
forams, moll, echin, coarse
vc-m, mod ind, cream colored

7' - grainstone to packstone
finer more even grained. Williston
appearance, moll, echinoids
virtually absent

more micritized below 9' to 12'
12-14 gap ^{Driller - Brown slush Limey clay} 12-14 (Dolo silt?).

14-16 Dolo, silt sized, mod ind
yellow tan, moll moldic foram molds

16-19 gap driller - same as 16
but very soft (dolo silt)

19-39 coarse grainstone vc-m
micritized in zones, white to cream
to medium gray to lgt gry and cream w/ depth

Thin bedded to more massive
forams (millialids), clasts,
variable vential (soft to
hard) some of the vential
maybe dolo.

Zones of finer grained
(medium) grain to pack
stone ^{cross bedded zones 25-26}
^{maybe 27-29?}

cavity 37-38

38-39 as above

39-40.5 becomes much coarser
to 40.5, increase in mallock
fraggs, and clasts

40.5-41.5 cavity

42-47 Dolo, silt sized, hard
moldic (forams) better vential
w/ depth minor peat flecks
or fine pyrite

chiller says small cavities
between 42-47 (maybe fine

soft dolo silt.

47-51 Ls, white poor to mod.
pack stone, ^{to wackestone} VC to med and fine
grains and clasts, small
echin. forams.

51-53.5? hard dark brn dolo
moldic, peat flecks or pyrite,
↑ Echin, moll, foram

sucrosic vf-f 1 ft reav

53.5? - 58 light brn hard dolo

sucrosic (vf-f) moldic (~~smaller~~
smaller than 51-53.5 ^{minor} ~~smaller~~ peat
flecks core loss near
base

Base (58') hard burrowed
Dark gray brn dolo more
porous (moldic) in the burrows,
w/ some wash out, peat fleck in

NOF WND
W-15272

Inglis Cores #1-
W-12582 | #2-W12583

W-691

#1 W-691

Hoonstine #1
W-15728

Greengard #1
W-1528

This burrowed hard dolo
could be from the same zone
as the boulders noted in
Red Level pit and F1A, Lime
and dolo pit Gulf Hammack
58-64 ~~to~~ light to mid yellowish
brown, dolo, sucronic silt to
fine, moldic (forams)
mod ind (peat flecks)
harder w/ depth
scattered large clasts (dolo)
very porous less lith zone
60-61.5' and 62.5-63?
slightly moldic 63-64
abund. plant remains 64'
64-64.5 lgt gray dolo, hard
w/ burrows w/ softer fill washed
out. grades into mud stone
w/

to wakestone

64.5-69.5 mudstone, lgt gray
mod ind, clasts and forams
c to f, molds of what appear
to be root structures,
peat flecks, some rextal
zone. May be dolo-mitic
very soft at 68.5 maybe
from dulling since below
68.5 it is hard again,
very fine to med grained 68.5-
more dolomitic w/ depth
to 69.5

69.5-71 Dolo, med-dark ^{gray} bin
moldic, hard, peat flecked
sucronic v/f to f.
becomes lighter gray w/ depth
71-73.5 as 64.5-69.5
but harder (slightly)

73.5 - 75(?) light brn, dolo, mod ind
moldic, forams partially
replaced, root traces?

75 - 79 lgt brn dolo. mod ind
foram molds, root traces?
very fine grained
harder to 79' more brn also

79 - 82.5 very moldic sucrose
Dolo, mod yell. Brn
mod ind peat checks

large org. chunks at 82

82.5 - 83 hind white to lgt gray
dolo(?) root traces(?), bored,
burrowing grades into

83 - 88 fine grained dolo, few mold
at root traces mod to good ind.
burrows filled w/ partially
dissolved forams and softer mud.

Comments

Inglis - typical coarse bed
is at the top then into
finer more Willistonish looking
grain to pack stone.

in gray grain to pack stone
there is ~~abundant~~ common pyrite
x bedded in zones

Dolo silt at 14-16 seems
anomalous for Inglis

Inglis possibly to 41.5'

Avon Park - begins w/ dolo
then a wackestone to packstone
w/ much mud in inter
then to characteristic Dolo
lighter colored zones may be
the grays seen in piles of
pits

TD is in white to gray
fine grained Dolo.

12583 Inglis #2

abandoned at 11.5'

0-6 sand w/ ls chunker

some clay in zones

6-8 grainstone, med to

poor ind, med to coarse
grained. white to light
gray.

8-11.5 grainstone to pack stone

iron stained orangish white

soft crumbly. fine to

med grained.

appears micritized.

16 June 86

W-12362 Homosassa Springs #1

0-2.5 missing

2.5-10 cuttings ls, pack to

grainstone, f-m, white to cream,

mod ind, forams, Bryo, moll,

core starts at 10

10-25± as above, mulliolid

rich grain to pack stone

f-c, med,

—? some zones well ind, nextal

25±-45 more coarse grainstone

some intraclasts (few and

scattered) breaks across the

mulliolid rather than

around (as it does above 25)

finer zone. Echinoid frags

common. Some softer zones

33-36.

finer grained zones 36-38.5
(med instead of coarse)

Muriel Hunter calls 26-59
the Rubble zone.

Periarchus frags 41.5
abund. frags (Echinoid)

43-45? very coarse frags

45-59 grainstone vf-m, fine

avg, w/ abund Echinoid
and moll. frags c-vc

as in 25-45 Some zones
appear very rubbley
poor to med ind

Thin hard zone 53-54

becomes m-c grainstone around

54

Fe stained weathered appearing
rock at 59.

small cavity 59.5-60.5

60.5-61.5 Ls hard vextal
packed to wackestone, moll.

molds, foram molds
white to light brown

few echinoid frag.
look A.P. ish

61.5-63.5 cavity

63.5-64 1 inch recovered

dolo, moldier lgt brn

hard, very fine - micro

64-68.5 dolo, hard, lgt to med

brn, some moldic zones

peat flecks w/ chunks in some

zones. vf - micro

68.5-70 cavity

70-72 poor recov. as 64

72-74 loss due to soft, friable
nature

74-84.5 Dolo hard med brn
very moldic vf-f
trace to zero organics
dolomitized pack or grain
stone
core loss 81-84 due to friable
dolo.

Comments
appears to be Ew
to 25 then E; to 60.5
E; dolo below 60.5 - ~~80.5~~

84.5 - ⁸⁸~~84~~ med to dark brn
moldic dolo w/ trace
organics, moll molds, foram
molds. micro - vf

88-89.5 dolo w/ calc. fossils
remains

89.5 - 105? carb ^{ls w/ minor dolo} thin darker

w/organics common
wacke to pack stone f-vc
lgt - med gray med to good ind
forams, moll, organics
variably dolomitized

105-110 Ls, white to lgt gray
mud - to wacke stone forams
med to good ind.

root traces, organic flecks
moll., vf-f graind

110-110.75 dolo lgt brn, x-vf,
hard, minor molds

110.75-115 ls white mudstone
root traces, soft to med.
harder about 113-113.5

mos top core lost 115-122
122-125 Ls A-105 w/
increasing dolo towards

125 dolb, mod-hard, maldie

Comments

from 60.5-89.5 may
be equiv to dolb at
Dolime

[A.P. dolb begins at 89.5

18 June 86 Footage marked poorly

W-13863 ROMP 114

starts at 29' in

29-78 med brn Dolb, very porous
vf xtals fossil molds mod ind

48-58? Ls, pack to wacke, micritic,
abund forams, moll molds

poor to mod. ind cream colored
moderately to highly vexte

interbedded w/ very maldie
ind brn dolb. mod ind

varying degrees of dolb.

pack to wacke stone

achiroid frags

comments

Ls at 56-58 appears as rubbly
inglis. Ls below looks like
A.P. Ls.

58? - 67? Ls, lgt + brn mod ind
molds of Forams, barrous
mod-high rextal

67? - 69.5 Dolo, lgt to mod brn
micro - vf, mod-good
root traces?, traces of organics

69.5 - 74.5? Ls, hard rextal, grain
to pack, cream to lgt brn gray f-med

74.5? - 75? mod brn dolo, large
molds, vf, well ind

75? - 97± Ls lgt brn - white f-med
mod ind, rextal mtrix, micritized
fossils, rextal pack stone to grainstone

Forams, poorly sorted very etched
97 - 98 Dolo yellow brn moldic

root traces? mod-good ind
fossil molds

98 - 160? Ls, grain to pack, Forams
mod ind f-med thin rextal zones

poor sorting, micritized
mold molds

grain size varies to coarse in
some zones

Thin dolo zone, 124.5 - 125.5 (?)
128 - 129 (?) 138 ±

greenstone from 132 - 139

then grain to pack

very rextal zone around 144

160 - 169.5 rextal grainstones
and fine grained dolos inter
bedded.

169.5 - 174.5 massive

174.5 - 176 ± finegrained dolo.

176 - lgt to med brown porous
dolo, mod ind molds

NOFIND
W-15272

Inglis Core #1 -
W-12582 #2 - W-12583

Inglis #2
W-12583

Hemlock #1
W-12362

Ramp #1
W-13863

Grey #1
W-1528

w-6903

0 - 90.5 sand, f-m, f (med ~~deep~~)
nonind to poor.

variable clay from 0 - 25%
light gray to pale orange to white.

not really increase in clay
around 72-3 then back
to less clay

90.5 - 90.8 weathered zone

limonite, clayey sandy

90.8 - 106⁷ Phos. clay - hard rx

phos? variable sand

becomes very sandy around

97.5'. contains black phos?

7 grains < 5% (few zones higher)

106⁷ - 107.5 looks weathered, soil

horizon. organics

107.5 - 110.7 silt, yellowish gray
minor sand, clay.

organics looks weathered

110.7 - 112.5 sand w/ organics

med, f-m, poor, clay

(phos clay?).

112.5 - 117, as 107.5 w/ peat beds

at 113 - 113.25, 115.5 - 115.75

chunks of very rextal ls in
lower part

117 - 118.5 sand, as 110.7

118.5 - 133.75, very rextal white

weathered, soft, punky

forams molds. looks like

Ew. cavities at 120± - 121.5
and around 123-4

133 - 134 hard rextal ls dolomite

forams, lgt brn, moldic

becomes good dolo w/ forams

134- 162 ^{Ls and} Dolo lgt brn vf moldic, hard (soft zones probably lost; poor recovery) root traces? organics (near 158-9

Ls zones are grain to wacke variably nertal. poor recov. makes it difficult to tell exact depths.

162-186? Ls white, wackestone micritized? Forams, moll molds poor to mod.

186-192 Ls, med grey, highly nertal, moldic, forams, molds

192-194 cavity? no core

194-195 Ls, white, pack-wacke forams + vf-med. mod ind organic flecks

195-212 Dolo light brn moldic vf-f, mold of forams mod ind, poor recov.

212-240 hard med grey dolo moldic, vf-crypto, moll molds & foram mold. some zones appear to be dolomitized mudstone other dolo. pack to wacke

dolo silty 238?-240? worked to 240 TD is 442

NEFWIND W-15272

Inglis Core #1 W-12582 #2 W-12583

Inglis #2 W-12583

Homo 545a Spg #1 W-12362

Ramp 114 W-13863

Gregory #1 W-1528

W-15938

Hilltop Groves #1 W-15933

0-3 soil, sand

3-12 sand; brn. yell. red, vf-m, f
poor, clay 35%, trace heavies
silly yellowish in mottled
zones 7-12, subangular - rnd

12-19 sand, rusty brn, orange
poor ind brn, vf-f, silty, clay 10%
clay higher in zones. sub ang - round

19-26 sand orange yellow rusty
yellow, vf-f, f, silty very
little clay very poor ind sub ang - round

26-30 as 12-19

30-64 1/2 sand vf-med f
rusty yellow orange to ^{orangeish, cream} orangeish yellow
minor clay ^{to no clay} silty, very poor ind

Few zones w/ higher % clay
slightly coarser near 48
sub ang - rnd. 50-53 missing

f-m, m in zones

64-75 sand vf-m f
reddish brown, ^{to yellowish brn} silty very little
to no clay, poor ind to none
few zones w/ >10% clay

75-77 sand, pale orangeish brn
clay 15%, vf-m, f poor

77-83.5 sand, brn. yell. - yell. cream
vf-m, f zones vf-m,

83.5-88 sand lgt gry - white
vf-f, f, trace heavies minor
clay at base

88-91 sand, vf-m, f
clay content increases w/ depth
rusty yell mottled

91-92 sand vf-m, f, yellow
brn to white, clayey (some
perhaps is phosphatic clay - white)

NECUM Hilltop Groves #1 W-15933

Inglis Cores #2 W-12582

Inglis Cores #3 W-12583

Homo sapiens W-12362

Ramp 114 W-13863

Gregory #1 W-1528

92-97.5 sand, yell. brn, mottled
w/ reddish at base, vf-f,
f, clay content increases
w/ depth to a sandy clay
at 97.5. mod ind

97.5 - 101 clay, mottled
greenish gray w/ reddish, black
organic humus more reddish
to 100. Then as 97.5
sand 45% variable
mod ind

101 - 105 clay, white to dark
gray, silty sand 30% vari
abund. organic matter
organics decrease w/ depth

105 - 108.5 clay, lgt grn gray w/
white patches, variable
sand usually < 10%
mod ind., clasts of clayey white

TOP of weathered HAW GP
is about ~~97.5~~ ' 91-92'

Sandy dol 107.5-108.5

108.5 - 110.5 Dolo, white to lgt gray
sandy, silty, clayey poor-mod
ind

110.5 - 114.5 sand, lgt grn gray
mod ind
some mottling, vf-f, f, silty,
clay 25% variable, some organics
contains clasts of dol from
113.5 - 114.5 very clayey

113-113.5

114.5 - 116 white ^{very} clayey dol
to dolomitic clay, minor
variable fine sand. mod ind
116 - 116.5 dol, white, sandy
less clay than 114.5.

116.5 - 140 ~~very sandy clay to~~

variable % of dark grains (phos?)
very clayey sand, lgt gray
mod-poor ind, variable
amounts of dolomite as
stringers, crack filling,
etc. dolo is white to
lgt gray sandy
sand is vf-f

zones of very sandy clay
abundant siliceous chunks
(replaced shell? frags)
at 139-140

140-145 Sand, lgt gray, dolo,
clayey. mod ind. less clay
more carb w/ depth, vf-f,
F,

145-150.5 Clay, white to lgt gray
variable minor sand poor-mod
ind, dolomite

zones of abund. clay clasts
Ls. clasts at base

150.5-152 Ls, white, mod ind
clay chunks, minor sand & s
slightly moldic trace phos.
152 - us 150 but sand ^{20 to} 35%

intraclasts in some zones
harder below 154

156 intraclast of coasts,
softer clasts, brecciated
appearance some replaced
by chert

clayey in between clasts
more silica ~~white~~ between

157-160

thin dolo zone 161.5-162

highly retextured below 154
very " below 158

comments

from top of Haw Gr. to
approx 150.5 the section
looks very much like the
Eastern Panhandle section
of Torreya sands, clays and
carbs.

From 150.5 - 191^{178?} the section
appears to be Tampa Member

20 June 86

160 - 178 Ls, ^{maybe dolomitic} sandy (10-15%) variable
trace phos, white to lgt grey
brn, few molds, scattered
micritized forams(?) very hard
rextal, zones of silica replacement
softer dol zone 161.5-162
zones of intraclasts
rextal moll frags(?)

generally few molds low perm,
very minor clay
abund in fract. str 165-178
highly rextal

178-191 Ls (dolomitic?), very-rextal
hard, sand 5% clay in
streaks often bright yellow
green, Ls is lgt brn, trace of phos
scattered in track sets
almost rubblely appearance to
the broken surfaces. Maybe
a rextal grain or packstone
few molds of small moll,
and possibly forams.

191-216.5 Ls, lgt brn to white hard
rextal but not as much as 178
appears to be a rextal grain to
packstone, abund forams
moll. mold filled w/ spar

w-6937 5499 w-15508 w-15391

sand (5%) few intraclasts
Traces of phos, fossils often
are almost obliterated by
micrite, noted Bryozoans
zones of mudstone

i.e. 199-200 many times
looks like burrow fill

Some clay filling cracks
grains of are vf-f

muddy zones are higher in
sand and clay

more muddy zones between
207-211

more rextal less visible
grains below 209

216.5-227 Ls, lgt brn to white, grain
to pack, mod - good ind,
abund forams, moll molds.

mod rextal vf-m, f and m-c

COLES (SOFWIND)

zones vf to silt sized quartz

very common 5% (?)

some zones very sandy

as at 221.5 and 225

trace black grains (phos?)

in vf size

227-241.5 Ls, white to lgt grn grey

grainstone vf-m, m,

mod ind. abund forams

fossil frags, moll molds.

vf to silt sized quartz

and black grains

→ thin yell. grn. clay at 234
and 236.75

very moll moll zone at 240-1.5

241.5-245.5 Ls, grainstone, white

to lgt brn grey, vf-f. very minor

sand. forams, moll. mod

to good ind

Hilltop Geos. #1
w-15933

Ingalls Cores
w-12582 #2-w

Ingalls #2
w-12583

Homo sapiens Spgs #1
w-12362

Ramp #14
w-13863

Geology #1
w-1528

chert at 242.25 - thin clay
at 245.5 -

245.5 - 260 Ls, white to very lgt
brn m-c, m, mod ind
some zones poor ind others
good grainstone to
some pack stones forams
echinoids moll
some micritized zones
some clay along fractures
variable rextal

260 - 298 Ls, white - ^{very} lgt brn
vf-f, f, mod-good ind
forams, variable rextal
clay pockets probably in
cavities zone of f-m grain
size, grainstone to pack
few very rextal zones at 269
- 269.75 abund. moll molds
268 - 269

very white 270 - 271.5
then to very lgt brn.

soft poor ind 260 - 61
270 - 70.5, 272 - 74
275 - 76 278 - 80

much harder 280 - 290
298 - 301 Ls, Lgt gry to lgt gry brn
mod-good, f to vc, m,
abund forams, moll molds
mod high rextal originally
a packstone (?)

301 - 304.5 Ls, ^{lgt brn gry} very lgt brn, grainstone
to pack, m-c, m, very porous,
moldic, forams, moll
mod to very high rextal
mod ind to poor

304.5 - 309 Ls as above, packstone
vf-f, f, poor ind
moll mold 308 - 309

309 - 309.5

frams? moll
Ls, med gry brn

very fine grained mudstone
dolomitic (?) < 5% sand
thin bedded, dark and light
bands. trace dark (black)
mineral grains (phas?)

309.5 - 331

Ls, lgt gry brn

grain-pack, uf-f, f,
very porous, poor to mod
ind, forams moll,
very beatup (dissolved
foram tests) becomes

finer grained below ~~317~~
317' - 323

very fine grained zone at
330.5 - 331 w/ root traces

331 - 332 Ls, med gry brn, hard
very textal, root traces

332 - 333.5

Ls, lgt brn, poor-mod

uf-f, f, harder w/ depth

forams moll, grainstone

333.5 - ~~340~~ Ls, white - lgt brn

^{grainstone to}
wackestone abund moll, ind
high textal mod ind

to good, uf-c, m

in more sorted zone f-m, m

few well textal hard zones

340. - 342 Ls, white to ^{very} pale orange

hard textal zone at 340.5 - 340.5

uf-f, uf, mod-poor ind, packstone

fossil frags. more coarse w/ depth

342 - 343.2 Ls, very pale orange

f-m, m, porous moll,
frag abund. forams soft.
packstone.

343.2 - 364 as 340.5 becomes

very lgt brn w/ depth

poor ind uf-f, uf

open st
p. 150 n. 4

coarser zone at 361.5-62
★ clayey bed at 363.5

harder zone at 364

364-367 Ls, very lgt brn

vf-f, f becoming f-c, m

at 365, grainstone

Leptopora present forams
small. Bryoz.

367-382 Ls, very lgt brn

poor ind, vf-f, vf forams
small. packstone to wacke

~~Leptopora~~ opercula, Leptopora opercula become
more abund w/ depth

374.5 very abund opercula

382-387.5 Ls very lgt brn, poor ind

vf-f, f, forams, sand frogs

pack to wacke

Noticeable decrease in large forams

and moll. frags

387.5-395 as 367 mod ind

to 392 f-c, m, mod

to high rectal, grain-pack

395-399.5 as 367

399.5-402 Ls, very light brn

grain-pack, vf-vc

large forams, poor ind

soft zones, Leptopora opercula small
molds.

TD

Comments

base of Tompa may be
gradational at 191 into

unnamed sandy grain to pack

stone (late Olig?)

may also be at 178

Top of OS appears to be at 245
below the chert and sandy Ls.

Transitional
from 235 to
245

Top of Ecr appears at
340. Hard vextal 340-40.5
softer below. Ls is brownish
and etched looking (ground
water) maybe mineralized to
varying degrees.

TD appears to be still in Ecr

25 June 86 W-11541

Ballast Point

Notes on this core from
Base of Tampa to Suwannee

Base of Tampa is at
approx 76-78'

78-80 Ls ^{white} to lg + gry, med to good
ind, very vextal, root traces,
foram molds, minor very
fine grained sand
increasing # of forams and
less ind w/ depth

80- Ls, pack to wacke ^{to grains w/ depth}
white - lg + gry, med to
poor ind, forams, very
minor sand, mollusks, bivalves
vt - f, f.

more mud in matrix (pack to wacke)
around 88'

becomes rubbly appearing
around 89' color to lgt gry
to med gry.

89-92.5hs, lgt gry - med gry, pack to
wacke, sand (vf), clayey,
scattered fossil molds

forams, moll poor ind

92.5-98 Ls, hard rextal pack - wacke
lgt gry brn to med gry vf-m, f

? forams, fractures,

98-100 Ls, grainstone, lgt brn gry
to lgt gry, f-c, m, poor to
mod ind very rextal grains ^{varies}
(grains coated w/ spar) forams, moll ^{forams common}

100-101.5hs, pack, f-c, m, root traces
forams, poor to mod ind

101.5-110 as 98-100 variable rextal
moll molds finer grained
zones and coarser zones

110-113 Ls, pack-grain vf-f, f
poor ind, white-lgt gry
clay filled voids or clasts
forams, rubbly appearance

113-113.5 sandy clay green, mod ind
113.5-114.5 as 110

114.5-? clay (lost)

119? - 136 Ls, grain-pack, vf-f
mod ind, white to lgt gry, forams
moll, molds, mod rextal

vf sand zones of very rextal
mudstone to wacke -

136-145 Ls vf-med, poor ind
white-lgt gry fossil frags
minor fine sand. forams
moll molds sampled 144

145-151 no recov. v. soft Ls

151-162 as 136 but somewhat
coarser. Moll pack to grainstone 155-6

Sortes noted in many
samples from 98 down
harder textal zone at 161.5

162-189 Ls white very soft
vf-f, pebble wacke forams
vf sand common, vf black grains
ind varies w/ depth

Sampled 187 variable textal
moll pack-grain stone 185'
much more sand near 187'

189-203 Ls lgt gry to white,
poor-mod ind, abund moll.
sand (vf) packstone, zones
of ls as 162 variable textal
vf-m becoming f-c near
200 abund. Sortes

203-213 Ls, grain-pack, poor-mod
white-lgt gry, forams, vf-f
sand (vf) moll frags (molds)

213-224 Ls, lgt brn, grain
vf-f, f, minor vf sand
forams, ^{poor to} mod ind

224-226.5 Ls, lgt gry, textal shell
bed, forams, poor-mod, sand?
grain to pack

226.5-230.5 Ls, lgt brn-lgt gry, mod
grain to pack, forams moll.

230.5-231.25 hard zone textal Ls

231.5-252 Ls, lgt brn, grain
f-m, f, mod-poor, forams
↑ mod textal, trace sand?

Looks Like Suwannee ^{coarser zones}

252-258 Ls, white to lgt brn hard,
textal. Pack-grain vf-f.
zones of mud-wacke textal
forams, moll

258-262 Ls, lgt brn, mod ind
vf, ^{quite} sandy (vf),
forams, packstone

262-272 Ls, white to lgt gry
mod ind, vf-f, wacke-
pack fossil frags, forams

272-282 Ls, very lgt brn to lgt brn
gry, f-c, m packstone, foss.
frags, forams moll molds
mod to good ind. high rextal
becomes finer near base
organic flecks 1st noted 280.5
very abund 282

282-284 Ls w/ abund org matter
pack to wacke vf-f-f.
poor-mod forams
thin fine grained org rich
zone at 282.5 (sampled)
root structures(?) noted

284-291 Ls, white-lgt gry
mod-poor ind, f-m, f,
forams, moll molds, barwades
mod-high rextal traces of org matter
traces^v fine sand

291-307 Ls, lgt brn gry, ^{to med gry} grainⁿ
stone, m, f-m, poor-mod,
moll, forams, fossil frags, "cores"
some genes vf-f other
f-m.

307-309.5 Ls, lgt brn gry
moll rich (molds) forams
packstone high rextal
mod ind f-mod.

309.5-321 Ls, lgt gry brn,
vf-f, f, poor-mod, mod
rextal forams, fossil
frags, ^{moll molds} organic matter
appears to have abund. qtz sand ^{sampled}

Packstone, restal varies
to high and ind. poor
to fairly good.

321-324 as above but lacking

Cap Type most of the organic matter
f-m, f pack micrized

324-341 as 309.5 quite a bit
of org matter

— Echinoid spines

341-360 ls, lgt brn gry, grain

Saw type stone, f-m, m, forams, moll,
minor org matter

more coarse in zones

zones of abundant moll molds

— some are very porous

360-361.5 ls, lgt gry, cream

20 Type vt-f, pack to grain,

500 Type forams, poor to mod,
361.5 - 370 as 341 vt-f and f-m
zones

370 - 400 as 360

400 Type thin hard zone 377 ±
TD

ROMP CL-3 Polk Co.

inspected 21 July 1986 at SWFWMD

0 - approx 90 fine gr, sand

90-106 med olive green clay, silty,
mica, trace shell(?)

106-118 v.l. gr, sand, mica minor
phos.

118-223 Dolomite, sandy, phos.
Arcadia.

Nocatee 223-226

OS 227-256

EO 256 - 439.5 Crystal River

NO Williston encountered

W 12529 Bell #1 21 Aug 1986

0-7 Sand, poorly sorted, f-c,
nonind, white.

7-9 Sand, clayey, gray brn
rusty stain, fine

9-10.8 Sand, fine-med
clayey, mottled gray brn-orange
brn

10-13.5 Clay, sandy, gray

14-24.5 Sand, variable clay
fine, v.f-m poor ind

26.5-42.5 ls, silty, forams, grainstone

lgt gray ^{to lgt brn gray} appears to be weathered
Xtal River, less weathered

below 30' packstone siltier in
patches. fine grained v.f to
very large w/leps

42.5-47.5 less weathered silty mtr
Ls

47.5-75 Ls, grainstone, white
to pale orangeish, forams
fine zones, med zones
few larger forams
appears to be Williston
color changes abt to more
Fe stained

75-83 Ls, grainstone, fine
few larger forams, well sorted
lgt gray silt more abundant toward 83
83-84.5 Ls weathered, orangeish cream,
forams.

85.5-116.7 Dolo, lgt brn, finely xtal,
molds of Opencs. soft zones
most is hard echinoids & plin
in base of dolo.

Inglis? 6 T
116.7-142 Ls lgt gry brn, med-crse
grains, silty, small molds.
forams; biogen frags.

Dolo stringer 123-124
3 zones w/ good sparry mtr
142-154 Dolo (dolored grainstone)
P. Igel: frag, forams-molds, small
molds, hard to med, fine to med
Xtal. Rubble zone litho very
apparent.

154- Dolo lgt brn-med
20 grainstone to packstone rextal
soft to hard burrows
minor organic matter
much grayer below 168 to 187 or 88
alternates from dolo grainstone
to dolo wackestone (204-207
for ex) more med brn
below 188 to TD w/ few zones

of gray-bn to mod brn.
molds of Forams, mollusks
echinoids

WALKULA CO Drilled 2/13/57

MacKery

0-15 sd, vf-f sr-r, poor to none variable
org ^{and clay} content, v lgt gry to dark brn.

18 heavies Dark gry & gy brn 9-
picks up wr crs sd about 15'

15-21 sd, ^{fine} med - crse, sr to wr, variably
ind, clayey < 10%, org matter
dissem., heavies

21-23 silt to vf sd, SA-SR, poor clay
clay 20%± ^{Trace heavies} dk grn gry to dk gry

23-26 sd w/ very calc. mtr to carb mud
w/ abund sd., 2%± phos., med gry
forams? appears to be sdy carb.
Archais ^{mollusks}
Sorites more clayey below

24

26-33 Dolo, sd 10%, phos 1-2% or less

fossil molds. lgt grn gry. mod ind

clayey below 28 ^{clay stringers}
sd stringers - dolo, clay sd variable ind

sd is med WR

33-34.5 vf Gravel ^{VC sand}, WR gtz w/
dol frags muddy mtrx
(drill mud ??), phos 2%
calc mtrx & clayey

34.5-37 sd, clay carb mix, phos 1%
lgt grn gry, calc. mollusk
frags, abund calc grains
(modules?)

37-39 sand fine-med, SA-R,
poor to mod ind, calcite cont,
minor clay, phos 2%
mollusk molds become
abund 39-40

39-44 Carb, v sandy (40-50%)
very moldic, some clay?
med gry. poor ind to mod

44-55 sd vf-f SA-SA, poor ind
carb mtrx, clay < 10%, fossils, phos
2%

forams, Sorites med gry

55-56 loss variable carb, clay and sd.

56-57 Carb (calc), sd (f-m) mod
ind very moldic, mollusk

lgt med grn gry.

57-64 sd as 44 w/ Numerous

thin carb zones (more lithified)

64-66 loss

66-67 Sand, ^{f-m SR} clayey, carb, zones

of more ind. clay blebs
phos, poor to mod. mollusk
frags poorly preserved. lgt gry
blue green in very clay zones.

67-72 loss sandy rock by diagen

72-80 sd, vf-m SA-SR very carb,
clayey, lgt gry. poor ind
zones of very sandy carb
poor ind, phos 1%

80-82 loss

82-82 1/2 as 72-80

82 1/2 - 83 1/2 Ls, sdy, mod ind
fossil molds, forams Sorites
mollusks lgt gry grn

83 1/2 - 87 loss

87 - 89.75 Ls. sandy (variable)
abund forams, minor phos
softer and more clayey

87.5 - 89.75

89 3/4 - 96 Ls, sd 20%, very moldier
(mollusks) forams, lgt brn gry
mod ind. corals, Abund
Sorites

96 - 100 1/2 Lost green clay ^{ly} brn

100 1/2 - 102? Clay, ^{vf} sdy, calc, trace phos
mollusk frags. med gry to gry
green. Ls increases w/ depth

102-120 Ls, sdy, ^{vf-f} clay, poor to mod ind.
moldic, mollusk, forams
Sorites lgt to med gry
only slightly ^{vf} sdy below 105-6
from 111 to 113 Ls as 105 but
w/ clay (interbedded ??)

113-114 Lost

114 Ls as 105

Some zones very moldic

120-123 Lost tan limen rock 122'

(disiller)
123 - ^{Packstone} Ls ^{silty} ^{< 3%} sdy ^{vf}, zones hard to
^{wackestone} soft, moldic zones, tan to lgt
gry Mollusks, forams,
abund. Sorites
Some zones appear clayey

Tops Toney - 82.5

Bastonya? 82.5-159

SM 159 - 289.5 w/ chatla zones

Chatla 289.5 - 385?

Suw 385 - TD 402

W-16027 FI PR #1

0-7.5 fill

7.5-8.1 Reat

8.1-19.5 Sand, f variable clay

poor ind colors vari 1/4 grey to dark grey in org rich zones

19.5-24 clay & sand variable

concentrations clayey sand to sandy clay, sand f, poor ind, grey gm. white weathered phos up to 15%.

24-36 Sand, clayey to sandy clay

poor ind, phos to 30+%

f-m tan phos at top

becoming black mostly phos sand / some gravel

pinkish to grey gm

phos matrix zone

36-77 Dolosilt ^{to Dolostone} weathered
slightly sandy to sandy, ^{poor to} mod ind
minor phos (sand to fine gravel)
some clayey zones yellow brn
at top to tan deeper, grn
gry in clayey zones

loss 44-46 white clay (Biller)
sand & phos content ~~increases~~ increases
below 50 sand-med phos med-
fine gravel. incl decreases below
53.5

1' loss 52.5-53.5
below 53.5 clay increases
color to gry grn mixed w/ tan
1' loss 56.5-57.5

more ind at 60.5-63

63-67 loss (soft rock - Driller)
dark clay zone 67-67.2

mod ind dolo w/ minor phos
& sand 67.2-69+

then clayey zone to 70

Dolo, vari ind, sand & clay
vari, to 75

2' loss 75-77

77-80 Clay, minor sand,
drk gry gry poor ind

80-85 1 1/2 to 2 feet recov.

~~well ind~~ well ind dolostone,
slightly sandy, minor phos

85-88 2' loss 1' recov as
80-85

as above to 90.5

90.5-93 Dolo, sandy, clayey
phos, abundant clay last
mod ind. zones of cleaner
dolo (thin)

93-96 Sand, ^{poor to mod ind} dol, clayey vf-f.
abund phos. vari to dol w/
sand & clay and clay w/ dolos
sand, some zones (95+).

With phos gravel ^{gray t.} gray
96-97 Clay, pockets of sand w/
abund phos, mod ind,
dk gry.

97-102 Dol, sandy phos 10%

poor-mod ind (well ind 99.5-100.5 in thin layers, burrow fills are very sandy
lgt gry phos var 1-10%

loss 100.5-101.5

dark gry hard zones 102-103.5
mollusk molds

Some phos gravel.

ind best 107.5-112

112-114.5 Sand, very clayey, calc.
phos sand & gravel gry brn

114.5-136 Ls, sandy phos 2%

white to lgt gry mod ind
chert at 115.5-116

loss 2' 116-118

well ind 118 mollusk frags?

Chert 118.5-119

119.6 hard Ls brown gry rextal
chert 120

Ls hard slight sandy and phos
intraclasts, small molds
w/ phos.

Layers of sandy phos ls.

intraclasts, small molds

lgt - dk gry

soft ls at 124 w/ Sorites

very moldic (Mollusk) ls 126-128.5

Variably sandy & phos

Bryozoans? 132.5

grades into clayey dol around 136

136-138 dolo (calc?) ^{mod ind.} sandy
phos, clayey lgt to dk gry

138-139.25 Dolo silt, clayey poor to
mod ind. ^{now} clay with depth

139.25-140 clay, silty, dolo, sandy

140-146 Dolo, sandy, phos, mod-good
ind, lgt yellow gry to lgt gry.

146-148.5 Sand, clayey, phos, dolo,
mod olive gry, m, fm,
variable near base to sandy, calc,
clay grades into ls

148.5-150.5 LS, sandy, phos, moll frags
white to lgt grn gry
grades into clay at
loss 150.5-152

152-157 Clay, very sandy, phos sand
and gravel, calc, ^{non calc} lgt gry
gry to dark gry, (very dark)
below 154

then ls at 153

loss 1.5' 155-156.5

lighter colored clay, dolo, sandy
phos 156.5-158?

carb. bldgs

157-159.5 ls, sandy, phos very mollie
(smaller) well ind lgt to med gry

159.5-165 Sand/Clayey ^{calc} phos f, vf-f
shell frags clayey poor to mod ind
variable to clay mod-dk gry

loss 1' 160-161

161-162 25% recov. ls, sandy

slightly phos, poor ind.

lgt grn gry

162 very sandy ls to

very calc sand, minor phos
f-m, poor ind w/ few hard
zones. moll molds

Poor recov. very moldic near 172

1055 172-186.5 Driller

2 days sandy clay

186.5-191.5 Sand, calc, 2% plus
some clay, poor ind vf-f, f, lgt grngy
to lgt brngry appears to
have small forams

OS 191.5 Ls ~~calc~~ packstone
to grainstone, vf-M, very
poor ind, lgt gry to cream,
forams,

more coarse w/depth
moll moldic zone 221

222-232 no recov

232-232.3 shell moldic Ls

232.3-234(?) Ls, mudstone to
wackestone, mod rextal, good ind
forams, few mollusks

234.2 shell moldic zone

234.2-237 Ls, pack to wacke,
soft w/ hard zones, forams
lgt-med gry

237-241 Ls, pack to grain,
poor ind to unconsol, f, f-med
med gry forams

241-246 Ls, pack - grain,
mod - good ind, M, f-m,
poor recov 242-246

246-252 Dolo, fine grain - vf
f. sucrosic, good ind lgt brngry
plant remains noted

scattered molds - moll, forams

252-253 Dolo, calc fossil molds
goes to mod ind, lgt gry to
cream.

253-259.5 Dolo, calc (variable)
good ind, lgt gry to cream
fossil molds, moll forams.

becomes darker w/ depth to
med brn gry.

plant remains more common

256-259.5

259.5-262 loss Q 1/2' duller

sandy clay - (maybe very soft
calc mud ??).

262-266 - Ls, ^{wacke} soft to mod hard

lgt grn gry to lgt gry ^{maybe} clayey.

266-268 loss clay - Driller

268 - c/s 262

270-272 - clayey Ls to

calc clay poor to mod ind

few forams

Scr 272-292 Ls, ^{wacke} to grain w/ depth, weathered

looking at top, foram molds,
mollusks, mod ind., Bryozoans

variable ind to good w/ about

50% recov. Gastropods - Turritella-like

292-402 Ls, pack, ^{poor to} mod ind

lgt brn fossil molds

lgt gry to white at 308

Forams, Mollusks

coarser grained 344-346

finer grained 346-7

loss 347-352

abund Leps - Operecs

356(?) and deeper

TD in lgt brn gry is

w/ abund Operecs, Leps.

Rookery Bay Core 6/7/88

0 - 17 sand, variable amts of organics

17 - 23 Clayey sand, no shell

23 - 23.5 dark blue gray to rusty colored
sandy clay to clayey sand

marks unconformity between

→ sands (undif UDSG) and Tamiami

23.5 - 30.5 soft, calc mud w/ mollusks

echinoids (E. tamiamiensis

noted). Scattered hard

chunks (increase toward

base) Buckingham type fcarb.

30.5 - 31 Fe stained ls

31 - 48 Ls, hard chunks w/ abund.

moll molds. grades down into

intact core. sandy ^{abund. oyster shell} 31-43

48 - 75 cuttings. as ls a 48

80 - 92 Ls, very sandy, trace phos

yellowish gray, moll molds mod ind

fine grained
light olive gray
92-97 sand, very calc, minor phos, mod ind

97-99 Ls, yellowish gray, ^{very} sandy, minor
phos, moll, molds, mod ind

99-125 Ls to sand, very sandy to very
calc. minor phos. mod ind

fine grained
typically sand w/ calc mtrx

TOP → but varies to Ls w/ abund sand.

125-131 Ls dark gray, sandy

minor phos, moldic (Mol)

hard, appears to be unconformity
poor recovery in this zone.

1.5 feet out of 6 returned.

131-151 sand, poorly indur, to unconsol.

→ fine grained, dolo mtrx

151-155+ Dolo, sandy, ^{very} moldic light

brn gray to ^{yellow} brn, sand it

much more coarse than above
phos crust surface at 151. Unconformity?

poor recovery

155-165 Very sandy Dolomite to

very dolo (intr) qtz sand, occasional

→ small molds sand in C, M-L
rotted qtz pebbles 8-10 mm

165-172 Sand, C, M-L unconsol.

172-187 Sand, dolo intr to

very sandy dolo. very coarse
sand.

187 - current TD until deepened
July 88

165 Ortona Sand equiv?

151 - crust on top of dolo w/
very coarse sand ~~or~~ maybe
top Mh.

125 top of ^{L3} dolo section sand
is still fine grained
very moldic Ls that is
weathered looking

131 is top of dolo qtz sand
section is this Haw.?

23.5 - 131 or 151 Tamiama Fm.

Alachua Ambient #10 ^{9 June 89}

0 - 13 sand w/ variable org
& clay content, fin to med
to 9' then med-coarse
poorly sorted

13 - 15 sand, clayey, fine to
coarse w/ gravel,

15 - 16.5 sand med grained clayey
clay content increases
with depth grading into

blue green clay at 16.5

16.5 - 27 very sandy clay to clayey
sand sand % decreases rapidly
to become a "fat" clay by
18' scattered silty zones.

variably sandy between 24 & 26 trace
phos.

27 - 27.5 very sandy clay to very clayey
sand w/ abund. phos sand

and ^{phos} gravel. grades abruptly
into underlying unit

27.5 - 38.5 very dolomitic qtz sand
w/ 5 - 10% phos. varies to
very sandy dolo (poorly consol)
minor variable clay

38.5 - 39 clay, sandy, phos sand
and gravel

39 - 47 sand, ^{fine to med} decreasing amt of
dolo in mtr, phos 5% - 20%
minor clay, rubble of phos &
dolo at 42 - 42.7

coarse grain of qtz sand
appear at 45' in gray
dolo qtz sand w/ phos

47 - 49 split spoon sample

49 - 51 sand, fine, phos 3 - 8% phos
minor dolo, clay.

51-52 phos rubble in silty clay

52-54 silty clay, sandy

phos, dolo, lgt olive green

54-68 clay sand (very fine) with

phos, olive gray to dark

gray, thinly laminated

upto 20% phos few

moll. molds.

68-69 rubbly zone clay w/ dolo

→ frags, sand, phos

69. MKHD Dolo white - lgt greenish

gray, mid ind, sandy, phos

5-15% moll molds

clayey dolo zone 71-72.5

clayey 74.5-75 into

clay 77 then clay dolo 79'

clayey to 82.5

82.5-89 Dolo sandy, phos to 15% moll
molds abund.

has abund clay zones
interbedded 86-89

89-93 zone of phos. dolo rubble
w/ borings 89.5-91 loss

93-94 soft clayey dolo, phos

→ sandy
94. PNTM?

dolo hard sandy

phos, bored in zones

lithoclasts few moll molds

thin clay zone - 111-111.5

" " " 114-114.5

Poor recovery 125-159

driller says clay

162-163 Sand, coarse, minor
clayey dolo, phos

163-174 very sandy dolo to
very dolo sand 5% phos mod to
thin clay zones 169-171

good ind

174-178 Laying rock according to
driller lost

178- ls, dark brn gray weathered
looking grades to lighter
gray and cream.
foram grainstone to pack
stone.

Alva #1 W-15556 10 June 88

0-3 No sample see Alva Core in
Core Book #2

3-4 Clay, sandy organic rich

4-7.5 Sandy, ls (mudstone) to calc. sand
fine grained, poor ind, clay pockets, organic
rich pockets, no fossil noted.

7.5-7.6 thin dark sandy clay zone

7.6-8 Sand, vf-f, unconsol.

Fe stained, grades into
ls below

Back

cream to lat gray to white
8-22 ls, (mudstone), variably sandy

sand is vf-f, poor ind except
at 8 where it is med. to good.
fossil frags, varies to
very calc qtz sand in some zones

22-28.5 ls (wackestone?), sandy, white
mold molds common, med to poor
ind., hard rextal zone at 24
more rextal ls, gray, sandy. at
25.5 - 28.5 trace phos notal

28.5-46 Dolos. H_{minor} (variably) sandy, variably ind
some poorly ind and few well ind
well ind zone at 31 appears
to have root casts

sand is more apparent and
coarser below 43
phos present

more charac.
Tamiami

Bonita Springs

46-52.5 Dolostone, ^{med gray} very sandy
med-coarse sand, phos 3%
moll-molds, hard at 47
poor ind 47.5 and below with
few hard stringers

52.5-56 Dolo, very sandy to very
dolo sand, 15% phos
poor ind, some fossil molds
and frags.

56-67 Ls, ^{1st greenish to white} variably dolomitic,
sandy (from minor to very sandy)
3-5% phos, fossil frags
Barnacles, mollusks
Some zones moldic

67-68.5 Dolo, hard moldic, sand
minor phos.

68.5-76 ^{10% phos} Clay, olive gray, sandy (of
Peace River to silt) phos 10-20%, Diatoms
Fm
HW GP.

Dolomitic in lower part.

Carter #1 16/44 10 June 87
near ALVA

0-1 Organic rich sand

1-4.5 weathered ls

4.5-8 ls, soft marly (mudstone)
1-3% sand 1-4% phos

Pecten frags

8-8.4 hard weathered ls

8.4-13 soft Ls 5-10% phos, sandy
some zones as 4.5-8 but
generally much high phos

13-13.3 hard weathered ls

13.3-14 Ls, clayey, very soft,
abund phos up to 40%, Pecten

Frags., more clayey w/
depth, zone of slightly calc

19-28.1 ^{1st to mod gray} clay, sandy, calc, phos to
40 or 50%, fossil frags
Barnacles, zones of clay
w/ few accessories.

Forams? Diatoms?
clay w/ little sand, phos
22- with oysters
appears calc.

phos content increases
dramatically at 27'

28-28.2 hard rectal Ls - coquina
of barnacles w/ phos sand
and clay filling pores

28.2-30 clay, sandy, silty, mod
yellow green phos 15-20%
abund barnacle frags
calc.

30- ^{to sand} clay, silty sandy
minor phos < 5% few
fossil frags
becomes clayey sand
by 31.5
shell frag w/ phos visible
at 33
TD 35 in clayey sand
w/ phos

Interesting core in light of
Alva Core - Totally different.
Alva has Buckingham's over good
Tennoni on Dolobelt
phos present as trace
above 40-46 feet
more phos in Dol at 52.5-56
and clay 68.5-70

in Carter - Buckingham ls
with much phos is present
to 13 or 14 feet from there
it is a very phos. clay
and sand with few
ls lenses. Note the very
phos.

10 June 88

Buckingham #1 Descript in
Hawthorn core Book

top Buckingham ls about

6.7' slightly phos
more phos around 19'

conc around 20'-21' looks like

dolomite from 21-24.5

Shell (Oyster & Pecten) at 24.5

to 26 Clay at 26

grades into carbonate to 30'

30 carb (LS?)

55.5 Hard ls Looks like Tamiami
abund. Pecten molds

87.5 phos. surface on Dolo
concs are at least dolomitic
below this.

→ next to Coquina (all molds now)
93± to 103 or 4

dolomitic clay

109 calc sandy clay

112 clay calc w/ shell frags
oyster 115

116 ls w/ sand, phos, fossil

150 grades into clay

160 clay w/ weathered shells as in
Oceda Co

206.5 back to ls as 116

A quick look at

Cork screw #1 showell

Tremiumi to 99

then Clay as Buckingham at

150 (also 160 w/ leached shell)

then back to 1s (carb)

South Seas Core ^{7 Oct 88 w/KC} W-16242

0-3.5 Soil zone w/ abundant shell
peat at 3.5

3.5-8 shell, broken whole
minor sand, variably finer
3ms to coarser shell finer
3ms more broken

8-10 sand v-f w/ shell
gray

10-24 sand, ^{very} clayey, shelly
gray, trace phos, Forams
at 14.25 there is a shell
lag then back to clayey sand
another shell bed 19-19.5 or
more poor recovery 19-24

24-29 poor recovery
abund Mercenaria frags at
24

at approx 27' back into CS
w/ shell. Shell content decreases
at 29' sand has more organic
matter 28-29'

Shell lag as 24 at 27'
then v of sand w/ clay to 30'

30 - 37 1/2' lag of Mercenaria frags
grades in to qtz sand w/ carb
mtx, forams, shell frags,
trace phos, light gray, minor clay

33-34? lag w/ shell frags and few
chunks of rock
bottom 1/2' sand w/ carb mtx
shell frags

37-41 in bags - sand w/ minor
carb mtx, trace - 1% phos
little shell few forams

These 3 may appear to be Holo Core Lagoons & Beaches
migrating over this area

Top Tamiami? → vertal packstone?
41-48.5' Ls, mod hard, variably sandy
mold moldic, med gray
w/ dark gray zones

Poor recovery - prob loss
of soft zones -

48.5-53.75 Fresh H₂O Ls (mod poor
recov.)

hard vental, sand (minor)
mod brown, moldic, Fresh H₂O
Gastropods (many molds)

53.75-68 Ls, very to mod sandy
grain to packstone. Sample appears
very moldic (large voids) probably
burrows, hard to soft in burrows.
becomes dark gray 57'

hard dense zones appear to
be muddy zones

Fresh H₂O zone 63-64?

64? back to Ls as 54-56

68-78 Ls, sandy, ^{lt gray} poorly consol
w/ few hard zones, forams
mall. very common Turritellid type
gastropods, Chione cancellata
Trace phos. more clayey
w/ depth more sand

78-83 Ls, ^{to dark gray} green gray, mod ind to well
abund small, sandy, trace phos
worm tubes, oysters,

Variable ~~mix~~ sand, carb, clay w/ phos
and shell
Sandy, clayey, ^{calc} lt green gray
to mod green gray, large Pecten
few forams. 19-3% phos abund
mollusk (Pecten) frags

variable carb in mtrk

This looks like Lean Green in Osceola
Co. May be Wabasso equiv.
more clayey 83-98
98-107 more Ls and sand

107 - sand, med, phos 3-4%
minor clay, ^{and carb} scattered shell
frags. carb increases at 111'
hard zone at ~~111'~~ 111' ^{very sandy} Ls
at 113-116 in soft mtrk
clay increases 116 to
sandy clayey carb on w/ phos
sandy limey clay w/ shell
frags (Pecten, dark colored)

Poor recovery
117-140 clayey limey sand ^{f-m} w/ phos 2%
shell frags, lt green gray
barnacles present, forams through
out

140-150 ^{f-m} sand w/ clay & carb mtrk w/ phos 3%
abund Oyster frags, other shell
forams? and barnacles very clayey
zone at 145-146 then
back to shell sand w/ clay
& carb

Mud-dick
station
?

worm tubes common at 148

carb increase 147-150

150-167 variable from ^{1st gray to gray} v. sandy ls

to v. limey sand w/ ^{fm} clay & phos.

abund shell, biogenic debris

mod lith zones btwn 150-2

generally a poorly to non indurated

lime mud w/ sand 1-2% phos

shell etc and scattered

hard zones or clasts, variably

clayey clay content increases

around 158-160 then back

to lime mud & sand.

167-168 grades into f sand w/

1-2% phos few small shell frags

more clay less carb in mtrx

168-177.2 sand v f-f, clayey ^{dark} gray

phos 1-3% very little to no shell.

more clay between 168-172.5

less clay 172.5- then returns
to f lovf sand minor

clay, phos 1-2% No fossils/recog.

clay content highest 176-7

177-177.2 back to less clay

177.2-178 sand, v f, clayey, carb?

leached shell frags. phos

2-3% med ^{gray}

178-186.5 clay very sandy (v f)

phos 2-3% weathered & leached

shell med gray

variable to very clayey sand

Forams present

carb in mtrx increases

slowly w/ depth

186.5 Limestone w/ abund shell

frags, very sandy (variable to
sand w/ carb mtrx) phos 2-3%

More
carb

Less
carb

forams

sand, f-f, lg tan gry, phos 3%

187.5-190 shell frags forams

shelly minor ^{hs} spicules

little to no shell greenish 190-198 silt to vf sand, clay phos

3% few shell frags

thin bedding dark graygn

198- sand, vf-f, clayey med gry

to lg olive thin clay zones, phos

gray & med olive gray Stop at 204 waiting for more core

Tops as picked

TAMIAMI 41

HAW GP 167

PR 167

ARC 385

Tampa hke 598

OS?

67.5

19 Dec 88

T. Missimer 12/15/82

0-41 Holo

41-69 FT+TH.

69-83 Caloss.

83-190 TAMIAMI

190-308 PCRV

308-665 ARC

665-Sun.

10761

NOTE: seeds below 190 to 289

appear to be more clayey (in general)

and w/ less (to no) shell. Shelly interval 289-298 has many mollusks.

10 Feb 89

more clayey below 204

→ diatoms present 206

very silty phos 1-3%

varies from silty clay to vf fine sand on a mm by mm basis

mica present as in much of the

overlying section, biogenic

frags are extremely small so cannot determine origin. some appear to be

→ forams. (noted at 248.5)

thin pale silt 252.5

section 273-287 is med gry to

lg olive gray vf sand w/ clay

variable, abundant biogen frags

including spicules. clayey with

depth to 281 then more sandy

287-289 vf sand, clayey, calc, abundant

biogen debris (mollusks, forams?)

med gry to med olive gray

NOTE: Noticeable increase in phos 287 & down

common phos gravel (2%)

and phos sand (3%)

289-298 sand, ^{mf-m} calc, minor clay to no clay
phos increases dramatically
to approx 10% very abundant
moll. frags: *Whale*, *Ostrea*
many shells punky textured,
due to ground H₂O

298-321 very sandy dol w/ clay to
very dol sand w/ clay
phos 3-10%, moll. molds
variably clayey, lgt gray + lgt gray grn.
f, H-m, FE type clays 306.5
poor to poor-mid lith.

321-327 as 298 but clay clasts occur
and increase w/ depth to 322

322-326.5 clay, lgt gray grn silty, minor
sand and phos;

326.5-330.5 grades into Dol, very
sandy, variable clay, phos 7-10%
sand is vf-c, some coarse well
rounded grains

lgt gray gray, poor ind
330.5 hard pieces of Dol in above
liths.

331-346 Dol, sand (20%) ^{40%} phos (10-20%)
poor-mid ind white to mid gray
as phos increases
becomes sandier w/ depth
poor recovery 331-337

Sand, f, vf-m, lgt gray
poor ind, Dol matrix, phos 5-15%
Dol in silt sized xtls.

zones of very little sand or phos

346-495 Ls, calc mud, few bryozoan frags
until 348, sand (5-40%), phos (2-25%)
poor ind, mollusk molds.

Less
Carb
above

More
Carb
below

W-15586
A199 #1
Cactee
W-16144

Buckingham #1

W-16027

W-1528

349.5-354(?) Sand, f, f-m, lgt gry to lgt
gry, poor ind, carb mtr (Ls)
phos → 25%.

poor recovery 350-355

354(P) Ls, mod ind lgt gry, g.
varies to ss, phos to 20%

355-362 sand, f, vf-m, lgt gry to lgt
gry, poor ind, minor clay
phos to 30%, dolo mtr.
grades into dolomite at 362

362- Dolo, lgt gry, poor-mod ind
sand upto 40%, phos to 30%
decreasing with depth
becomes more calc 364-5

w/ very leached shell present.
grades in very sandy Ls

365 or very calc sand,
burrows present w/ mollusks

372± becomes a Ls, lgt gry, ^{to lgt brn} sandy 5-40%
phos 3-20% moll. molds mod ind
P.R. Ostrea, remnants of forams
becoming more fossiliferous
w/ depth

Arc? few very hard, vextal zones
around 381.5, sandy

385 Ls, grainstone, white to lgt gry

Arc very porous, friable, poor-mod
ind, minor sand (<5%) little
to no phos (<1%) moll. frags
and molds, bryozoans, corals
forams.

389.5 thin dolo, highly vextal.

to 391(P) slightly sandy, trace phos
good ind, moll molds, small frags

modls, poor recovery from
390-95

391±(?) - 400 Ls, ^{vf-c} pack-grain, lgt gry
to white, minor sand (<10%)
phos 1-3%, mod ind, fossil
frag and molds

very porous, silt sized
dolo xtals in mtrx,
prominent zone at 394.5-95
more calc mud in mtrx
w/ depth

400 - Ls, grain, lgt brn gry,
m, f-c, mod ind. sand 5%
(vf), phos 3% (vf), fossil
molds & frags (forams etc)
sand and phos variable
abund moll (molds & frags)

401-403

403-405 fine moll

405-411 more moll

some dolo xtals in mtrx - variable %

phos more common below 410 to 416

Ostrea common 409-415
grades into packstone around
416, sandier

420-425 packstone to wacke stone w/ root
traces

421-427.5 pack to grainstone

427.5-432 Dolo; ^{vf} mod brn gry to lgt gry
good ind (best at top decreases
to mod-good with depth)
high vaxtal, fossil molds
phos 3-5% sand 1% more
fossil molds w/ depth

432-433.5 dolo clay, v lgt tan, mod ind.

<1% phos & sand organic matter
present, appears as plant remains
clay content increases w/ depth
grades in to next bed.

433.5 - 438 clay, lgt gry grn,
★ poor-mod ind, silty, phos?
diatom molds? minor dolo.
burrows w/ w/ sand w/ abundant
phos in some parts
grades into dolo

438 - 444 Dolo-silt, lgt yellow gry, mid brn gry
mod ind, < 1% phos; sand
bryozoans occur below 440
phos content increases below
442

444 - 446 Dolo, ^{vf} lgt brn yellow, mod ind
phos, 2-5%, quartz, silt.
clay(?)

446 - 457 Ls, lgt brn gry, to lgt gry
mod ind phos to 15% sand (vf) ¹⁻¹⁰ ~~1-10~~?
forams (Planktic?) fossil frags.
mollusk frags and molds 450-45
Ostrea, worm tubes

softer toward base, grades into
dolo

NOTE: Occurrence of phos in
this section (427 - Here)
is not well supported by qtz sand.

457 - 58 Dolo^{vf}, lgt yellow gry, poor-mod
ind, phos to 15% sand 1?
fossil molds

458 - 467 Dolo^{vf}, lgt brn gry, good
ind., abundant fossil molds
& casts and some original
material forams, this
was a foram grainstone
prior to retextal (dolo)
phos to 15% sand 1-3%
more porous and moldic with
depth
mollusk molds common
below 461

467 - burrow pured, very porous
Dolo^{vf}, sandy, phos grades
into hard Dolo claystone
467.5 - 68

468-472 Dolo clay, mod gry, poor-
mod ind, very little phos or
sand, clay content variable
most clayey 469-70

472-481 Dolo^{vf}, mod gray, mod ind
minor phos & sand, abund
mollusk molds, ^{other} fossil molds

zones of white ls w/ fossil molds
many ls clasts have algal
layers surrounding them
gradational w/ underlying bed

481-89.5 Dolo^{vf}, lgt gray, good ind
phos < 1% sand < 1% few fossil
molds

489.5-491.5 Dolo, vf, lgt ^{brn} gry, mod-good
ind., phos 1-3%, sand 1-2%
fossil molds more abund than above

491.5-97 Dolo as 481

poor recovery of presumed
soft zones

phos more abund near base

497-503 Dolo, lgt gry, ^{to lgt gry gry} mod ind

phos to 10% sand 10% fossil
molds, more phos & sand w/ depth
much softer at base

503-521.5 Dolo lgt brn gry to mod brn gry,
good ind, phos 5-10% sand 3-5
fossil molds very moldic

503-505 then much less.

variable phos

521.5-523 Sand, vf, vf-f, lgt gm gry
to lgt gry, poor ind ~~calc~~ calc
matrix, phos 15-20% ^{Forams?} fossil frags

dolo increases w/ depth
523-532 Dolo, ^{vf} lgt brn gry to lgt gry
mod to good ind, phos 10%-15%
sand 10%, few fossil frags
and molds

dolo cemented sand zones, soft
appear to have washed out in
many zones, particularly

524 to 531

sand content highly variable
from minor to dolo cemented sand.

532-36 Ls, lgt grn gry to white,
poor to mod-poor ind, phos (sand &
gravel size percent) 10% sand 3%
fossil frags (mol?)
hard pieces around 536,
which are hard dolo

536-537 Dolo, mod gry, good ind
numerous frags, fossil molds

537-39.5 Ls, dolomite, lgt brn gry, mod ind
phos 3%, sand 5%
fossil frags & molds
phos variable, pyrite noted
in minor

grades into dolo

539.5-46 Dolo, lgt gry, ^{lgt grn gry} soft
phos 3% sand 3-5%

phos increase w/ depth
as does sand phos to 35%
vf

harder below 542, also color
change appears due to slight
increase in clay content

546-53 Dolo, ^{light gry to} mod to dk gry, good ind
phos 5% but highly variable (vt to
gravel size) sand 1-2%
thin clayey soft zones, fossil
molds, phos. fossil frags.

phos gravel becomes common

Lithoclasts of dol in dol matrix

Softer zones washed out near 552

553-55 Dol, 1st grn guy to 1st grn,
mod ind, phos 1% sand 1% (?)
bugs, root traces (?)

555-56 Dol, ^{vf to mod} 1st grn guy - mod grn guy,
mod ind, clayey, phos 1% sand
abundant qtz silt (?) phos gravel
Bryozoan frags

556-63.5 Dol, vf, 1st grn, mod ind
phos 1%, some ^{phos} gravel, sand and
silt

clayey below 558

lithoclasts in clayey dol 559-560

~~thin~~ sand beds 563.5-67

563.5-67 Sand, 1st grn guy, ~~fine~~ to mod ind.

Dol matrix w/ clay to 564 then calc
and dol (?) matrix w/ fossil frags to 67

See Core Book #2
for continuation

5% min pay grade Jan 1

Crit. Class

Mind Pauses -

Martin L. King Holiday - Discretionary Holiday

will make Federal Holiday

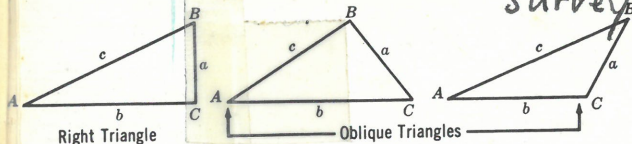
all OPS will have to pay 1.4% deduct

for Medicaid.

Dr. Thomas Scott

Florida Geologist
Survey

SOLUTION OF TRIANGLES



Solution of Right Triangles

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

Given	Required	Formulas
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	Formulas
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	$\text{Area} = \frac{a + b + c}{2}$, $\text{area} = \sqrt{s(s - a)(s - b)(s - c)}$
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. $\cos 5^\circ 10' = .9959$, $1 - .9959 = .0041$, $319.4 \times .0041 = 1.31$, $319.4 - 1.31 = 318.09$ 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.

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