GEORGIA
STATE DIVISION OF CONSERVATION

DEPARTMENT OF MINES, MINING AND GEOLOGY
GARLAND PEYTON, Director

THE GEOLOGICAL SURVEY
Bulletin Number 74

LOGS OF SELECTED WELLS IN THE COASTAL PLAINS OF GEORGIA

by

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ATLANTA
1964

Depth (feet)	Description
	Bottom. Like top sample, and irregularly streaked with light bluish-gray, silty to sandy (fine-grained sand), argillaceous clay.
4170-4180	Clay, red, 75 percent; sand, like sample at 4160-4170 25 percent.
4180-4190	No change.
4190-4200	Sand, 50 percent; clay 50 percent. Sand is in part, like sample at 4160-4170 ft., and in part, fragments of fine-grained, even-grained, soft sandstone containing grains of red feldspar, and hard yellow clay.
4200-4210	Sandstone, fine to very coarse grained, composed of yellow and red-stained grains, and a few grains of feldspar; also medium-grained sandstone having small amount of matrix.
4210-4220	Sand, yellow and white, mostly coarse-grained, quartz and a little feldspar.
	Pre-Cretaceous
4220-4280	Igneous rock.
4279-4282½	Core 148. Recovery 3 ft. Igneous rock.
4280-4296 T.D.	No samples.

BACON COUNTY

Operator: City of Alma Well 1
Location: City of Alma, Ga.

GGS. No. 58
Elevation: 195 ft. (approx.)
Total depth: 626 ft.
Completed: May 20, 1938

Summary of Stratigraphy

		Depth (feet)	Thickness (feet)
	Tertiary		
Pliocene to Recent		Surface	50
No samples		50	14
Miocene undifferentiated		64	386
Oligocene			
upper,	Suwannee Limestone	450	50
Eocene			
upper,	Ocala Limestone, upper member	500	to total depth 126

Lithologic and paleontologic description of cuttings and cores. Samples are cuttings unless otherwise stated.

Depth (feet)	Description
	Pliocene Series to Recent Series
0- 10	Sand, quartz, dark, reddish-brown, coarse-grained argillaceous.
10- 40	Clay, red, sandy. Washed residue, large; composed of fine-grained, angular, clear quartz sand, red-stained by the clay matrix.
40- 50	Sand, quartz, clear, coarse-grained, subangular, etched.
50- 64	No samples.
	Miocene Series undifferentiated
64- 118	Clay, greenish-gray, sandy. Washed residue, large; composed of fine-grained, angular, clear quartz sand, and several fragments of carbonaceous material.
118	Clay, greenish-gray, sandy. Washed residue, large; composed of moderately coarse grained, subangular, moderately even grained, clear quartz sand, and a few fragments of the clay matrix.
118- 140	Chalk, white, sandy, soft. Washed residue, large; composed, chiefly, of nodules of hard sandy chalk, some of which contain worn fragments of macroscopic fossils (*Ostrea* (?) sp.); about 10 percent of washed residue is clear, uneven-grained, quartz sand.
140- 150	Clay, greenish-tan, sandy. Washed residue, moderately small; composed of fragments of clay and about 50 percent clear, angular, uneven-grained quartz sand.
150- 160	Clay, light-tan, sandy. Washed residue, small; composed of clear quartz sand, a few nodules of hard limestone as in sample at 118-140 ft., and a few fragments of greenish-gray carbonaceous clay.
160- 170	Clay, tan, sandy. Washed residue, moderately large; composed of very uneven grained, clear quartz sand, and about 10 percent fragments of hard clay.
170- 180	Clay, tan, somewhat sandy. Washed residue, small; composed of fragments of hard clay, and about 50 percent very uneven grained clear quartz sand.
180- 190	Clay, greenish-tan, sandy. Washed residue, moderately large; composed of nodular fragments of hard calcareous clay, and about 50 percent very uneven grained clear quartz sand.
190- 200	Clay, light-brown, sandy. Washed residue, moderately large; composed of very uneven grained, angular, clear quartz sand.
200- 210	Sand, quartz, clear, angular, uneven-grained, and about 25 percent light-brown chert; a few fragments of white chalky limestone.
210- 220	Sand, quartz, clear, uneven-grained; a few fragments of white chalky limestone, as in the sample at 200-210 ft., and a few fragments of grayish-green, sandy clay shale.
220- 230	Limestone, cream, soft, chalky, irregularly sandy, and about 25 percent uneven-grained quartz sand; a small amount of light-brown chert.
230- 240	Limestone, white, chalky, sandy, and greenish-gray, shaly, sandy clay. Washed residue, moderately large; composed of fragments

Depth (feet)	Description
	of hard limestone, and nodular fragments of calcareous clay; about 25 percent of the washed residue is uneven-grained, clear quartz sand.
240- 260	Clay, greenish-tan. Washed residue, small; composed of small fragments of clay, and about 50 percent very uneven grained clear quartz sand; a few small, black, phosphatic pebbles.
260- 270	Chalk, soft, sandy. Washed residue, moderately large; composed of about 75 percent nodular fragments of hard sandy chalk containing inclusions of shells (ostracodes?); about 25 percent fine, angular, clear quartz sand, and a few small, black, phosphatic pebbles.
270- 280	Like sample at 260-270 feet, but nodular fragments of limestone constitute about 25 percent of the washed residue, and sand constitutes about 75 percent.
280- 290	Sand, fine, uneven-grained, and a few nodules of hard sandy chalk.
290- 300	Clay, tan, sandy (fine-grained sand). Washed residue, very small; composed of fine-grained, angular, clear quartz sand, and a few resistant fragments of light greenish-gray unctuous clay.
300- 310	Clay, greenish-tan, sandy. Washed residue, small; composed of fine-grained, angular, clear (white) quartz sand.
310- 320	Clay, greenish-gray, sandy (fine-grained sand). Washed residue, small; composed of fine-grained sand, and about 10 percent small, tough fragments of clay.
320- 340	Bit sample. Clay, gray, sandy. Washed residue, small; composed of moderately coarse grained, clear quartz sand, and a few fragments of light-green clay.
340- 350	Clay, greenish-gray, somewhat sandy. Washed residue, very small; composed of sand like sample at 320-340 ft., and about 10 percent fragments of hard clay.
350- 360	Clay, greenish-gray, sandy. Washed residue is small, and similar to the sample at 340-350 ft.
360- 370	Clay, sandy, and chalk. Washed residue, large; composed of fragments of hard sandy, chalky limestone, and about 25 percent uneven-grained, clear quartz sand. Some fragments of limestone show traces of embedded worn and broken fossil shells.
370- 380	Like sample at 360-370 ft.; sand composes about 75 percent of the sample.
380- 400	Limestone, white, nodular, is about 50 percent of the sample, and coarse, uneven-grained quartz sand is about 50 percent. The limestone shows traces of worn and fragmented fossil shells.
400- 410	Limestone, light-gray and light-tan, hard, nodular, sandy, containing traces of fragmented and very much worn fossil shells. About 25 percent of the sample is composed of clear, angular, fine-grained quartz sand.
410- 430	Limestone, white, sandy, nodular, containing a few small, black, phosphatic pebbles, and many worn fragments of fossil shells, among which are *Barnea* sp., *Ostrea* sp., large echinoid spines, and crab claws. About 50 percent of the sample is composed of fine-grained, angular, clear quartz sand, and many small, black, phosphatic pebbles.

Depth (feet)	Description
430- 450	Like sample at 410-430 ft., but showing an increase in sand content.
	Oligocene Series
	Upper Oligocene Suwannee Limestone.
450- 460	Limestone, white, hard, nodular. Some fragments of the limestone are porous and oolitic, and many fragments contain worn and broken fossil shells. Megafossils are, chiely, *Ostrea* sp., *Pecten* sp., and Echinoids. Microfossils are, chiefly, molds of a small, sharply conical form of *Coskinolina cookei*, poorly-preserved specimens of *Archais* sp. and *Rotalia* cf. *R. mexicana*, and a few specimens of *Gypsina* sp., *Elphidium* cf. *E. chapmani*, *Eponides* sp., and *Quinqueloculina* spp.
460- 470	Limestone, white, hard, fossiliferous, containing many specimens of: *Coskinolina cookei* (typical form) *Valvulammina* sp. (Cushman and McGlamery) *Quinqueloculina* cf. *Q. lustra* *Quinqueloculina* cf. *Q. glabrata* *Textularia* cf. *T. subhauerrii* *Valvulina* sp. (Cushman and McGlamery) Echinoid fragments
470- 490	No change.
490- 500	Similar to samples at 450-470 ft., but the fossil material is less well preserved.
	Eocene Series
	Upper Eocene. Ocala Limestone. Upper Member.
500- 510	Limestone, cream, hard, highly fossiliferous. The dominant macrofossils are fragments of Bryozoa, *Ostrea* sp., and *Pecten* sp. Microfossils are, chiefly, specimens of *Operculina* cf. *O. floridensis*, *Lepidocyclina ocalana*, *Asterocyclina georgiana*, *Sphaerogypsina globula*.
510- 520	No sample.
520- 530	Limestone, cream, coquinoid, composed, mainly, of calcitised bryozoan fragments, many specimens of *Operculina* sp., and a few specimens of *Lepidocyclina* sp.
530- 540	Limestone, white, hard, coquinoid, composed of fragments of Bryozoa, *Ostrea* sp., *Pecten* sp., and many specimens of species of Foraminifera as in sample at 500-510 ft.
540- 550	Like sample at 530-540 ft., containing many specimens of Foraminifera. The most abundant species are: *Lepidocyclina ocalana* *Operculina floridensis* *Heterostegina ocalana* *Asterocyclina georgiana* *Cibicides lobatulus* var. *Sphaerogypsina globula* *Eponides budensis*

Depth (feet)	Description
	Eponides jacksonensis *Eponides* n. sp. *Guttulina irregularis* *Siphonina jacksonensis* *Nonion advenum* var.
550- 560	Like sample at 530-540 ft. The most abundant species are: *Operculina floridensis, Asterocyclina georgiana,* and *Heterostegina ocalana. Robulus limbosus* var. is fairly common, and other species are as listed in sample at 540-550 ft.
560- 570	Like sample at 550-560 ft.
570- 580	Like sample at 550-560 ft. Specimens of *Lepidocyclina* cf. *L. cookei* are common.
580- 590	No sample.
590- 600	Like sample at 570-580 ft.
600- 626 T.D.	Like sample at 570-580 ft.

BROOKS COUNTY

Operator: D. E. Hughes
Landowner: E. M. Rogers, Sr., Well 1 B

Location: Land District 12, Land Lot 454
2830 ft. south and 1570 ft. west of northeast corner of Land Lot 454.

GGS. No. 184
Elevation: 136 ft. (derrick floor)
Total depth: 3850 ft.
Completed: Apr. 12, 1949

Summary of Stratigraphy

	Depth (feet)	Thickness (feet)
Tertiary		
Paleocene		
in beds containing Tamesí fauna; 1st sample at 2200 ft.	?	?
Cretaceous		
Gulf		
Beds of Navarro(?) age or Taylor (?) age	2230	100
Beds of Taylor age (definite)	2330	220
Beds of Austin age	2550	540
Atkinson Formation, upper member	3090	300
do lower member	3390	230
Comanche undifferentiated	3620 to total depth	230

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