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

DECATUR COUNTY

Operator: D. E. Hughes Landowner: H. W. Martin well 1 GGS: No. 191 Elevation: 132 ft. (derrick floor) Total depth: 3717 ft. Completed: Dec. 5, 1947

Location: Land District 15, Land Lot 189, center of southeast 40 acres of S.E. 1/4, of Land Lot 189

Summary of Stratigraphy

Depth	Thickness
(feet)	(feet)

Tertiary Not studied

Cretaceous

Gulf

Beds of Navarro age	1670	.210?
Beds of Taylor age	1880?	620?
Beds of Austin age	2500?	270?
Atkinson Formation, upper member		420
lower member	3190	260
Comanche undifferentiated	. 3450	total 267
		depth

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

Depth Description

0-1670 Samples not studied.

Cretaceous

Gulf Series

Beds of Navarro Age

1670-1680

Clay, gray, shaly, somewhat micaceous, irregularly and weakly silty, containing a few specimens of *Globotruncana arca*. The sample also contains abundant cuttings of the overlying white, chalky, silty, glauconitic Clayton (Paleocene) Limestone, specimens of Midway species of Foraminifera, and some species that occur in the Tamesí (Paleocene) fauna.

1680-1790 Materials and fauna like the sample at 1670-1680 ft. but showing gradual increase in the amount of gray shaly clay and specimens of Cretaceous species of Foraminifera.

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Depth (feet)

1790-1800

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Description

Clay, shaly, fine to coarse-grained sand, and cavings of the Clayton (Paleocene) Limestone. The specimens of Cretaceous species of Foraminifera are mixed with Midway species that have caved from higher levels.

1800-1880 i No change.

Beds of Taylor age

1880-2000

The top of the beds of Taylor age is placed at 1880 ft. on the basis of electric-log characteristics. The highest occurrence of specimens of *Stensičina americana*, a diagnostic Taylor species, is in the sample at 1960-1970 ft. If the species occurred at a higher level, the specimens were obscured by the coarse-grained sand that composes about 50-75 percent of the samples. Beginning with the sample at 1960-1970 ft., the sand content diminishes gradually, and is small in the sample at 2000-2010 ft.

2000-2010 Small sample, composed of fine-grained sand, glauconite, and fragments of gray shaly clay containing *Inoceramus* fragments, and specimens of *Stensiöina americana*, *Planulina dumblei*, and other species of Foraminifera.

2010-2260 No change.

2260-2270 Shale, gray, hard, begins to show in this sample and increases in abundance with depth as the sand content of the samples decreases. The microfauna indicates the Taylor age of the beds.

2270-2410 No change.

2410-2420 Clay, gray, shaly, also fine-grained sand, glauconite, and specimens of Foraminifera, including *Pseudogaudryinella capitosa* that indicates the early Taylor(?) or late Austin(?) age of the beds.

2420-2500 Not described.

Beds of Austin age (electric log correlation)

2500-2520 Not described.

- 2520-2530 Clay, gray, shaly, fairly hard; contains *Inoceramus* fragments and fragments of specimens of *Kyphopyxa christneri* (early Taylor(?) or late Austin(?) age).
- 2530-2560 Not described.

2560 - 2570	Highest occurrence	of	Citharina te	xana	(definite	Austin	age).	

2570-2670 Not described.

2670-2680 Shale, gray, speckled, begins to show in the samples.

2680-2770 Not described.

Atkinson Formation. Upper Member.

2770-2780

2780 Clay, gray, shaly, and a little speckled shale like samples at 2670-

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Depth (feet)	Description
×	2680 and below; in addition, many fragments of white, very fine grained, micaceous, slightly glauconitic sandstone, containing many fragments of <i>Ostrea</i> sp.
2784-2793	 Core. Recovery? Top. Sandstone, gray, moderately soft, extremely fine grained, highly micaceous and carbonaceous, weakly glauconitic. Middle. Like the top part of the core, but is less carbonaceous and contains thin streaks of greenish-gray shale. Bottom. Clay, gray, shaly, micaceous, sandy (medium-grained sand); contains glauconite, many phosphatic nodules, and a few shell fragments.
2780-2820	Cuttings not described.
2820-2830	Sandstone, white, very fine grained, somewhat glauconitic, mica- ceous, phosphatic, containing many fragments of Ostrea sp., is about 10-25 percent of the sample; a few fragments of greenish- gray, soft flaky shale. Cuttings of gray shaly clay that are probably caving from higher depths, composed most of one sam- ple; the specimens of Foraminifera in the sample do not seem to be indigenous to the material penetrated at this depth, but are probably cavings.
2830-2860	Like sample at 2820-2830 ft.
2860-2870	Sandstone, white, medium-grained, phosphatic, glauconitic, mica- ceous, calcareous, containing many fragments of Ostrea sp., is at least 25 percent of the sample. The upper member of the Atkinson Formation seems to consist of clay, interbedded with Ostrea-bearing sandstone and relatively thin lenses of greenish- gray shale.
2870-2940	No change.
2940-2950	Sand, fine to coarse-grained is at least 75 percent of the sample; fragments of white, fossiliferous sandstone, like sample at 2860- 2870 ft.; a few fragments of carbonaceous material. Cuttings of gray shaly clay are probably cavings.
2950-3030	No change.
3030-3040	The coarse-grained sand composes a smaller part of the cuttings than in the sample at 2940-2950 ft., and the gray clay and fossili- ferous sandstone are relatively more abundant.
3040-3060	Not described.
3060-3070	Sandstone, white, medium-grained, glauconitic, phosphatic contain- ing abundant fragments of <i>Ostrea</i> sp., composes most of the sample. Other constitutents are a little clay, fine to coarse- grained sand, and a few fragments of grayish-green shale.
3080-3090	Clay fragments are dominant in the sample. Fragments of gray- ish-green shaly clay are more common here than in samples from higher parts of the upper member of the Atkinson Forma- tion.
3090-3110	Not described.

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Depth (feet)	Description
3130	Sidewall core.
· ' • ~	Sandstone or siltstone, light greenish-gray, very fine grained, micaceous, glauconitic, carbonaceous.
3110-3170	Sample seems to be mostly cavings composed of sand and clay from higher levels.
3178	Sidewall core. Siltstone, light-gray, soft, finely glauconitic.
3170-3190	Not described.
	Atkinson Formation. Lower Member
3190-3200	Shale, grayish-green, soft, flaky, somewhat micaceous and finely carbonaceous.
3200-3270	Samples are similar to the one at 3190-3200 ft., and contain vary- ing amounts of shale that caves from higher levels.
3270-3280	Shale, grayish-green, that is the principal constituent of the sam- ple, contains minute specimens of Foraminifera.
3280-3290	This sample is the highest occurrence of specimens of Ammobacu-
or;	<i>lites advenus</i> , a characteristic species of the lower member of the Atkinson Formation (Woodbine age).
3290-3358	Not described.
3358-3364	Core. Recovery?
• • ^{• •} \$	 Top. Sand, gray, soft, fine to medium-grained, argillaceous, mi- caceous, somewhat glauconitic. Bottom. Sand, light-gray, fine-grained, argillaceous, micaceous, glauconitic, containing fragments of carbonaceous material.
3370-3380	Shale, greenish-gray, flaky, containing a little fine-grained sand and a few specimens of species of Foraminifera characteristic of the lower Atkinson.
3380-3410	No change.
3410-3420	Shale, like sample at 3370-3380 ft., but 50 percent of the sample
an' A	is fine to coarse-grained, roughly angular, etched quartz and containing a little coarse-grained glauconite.
3420-3430	Not described.
3430-3440	Sandstone, fine to very coarse grained, containing a little glau- conite and few phosphatic nodules. The washed sample is com- posed, chiefly, of loose sand and cemented fragments of the
	'sandstone.
3440-3450	Not described.
	Comanche Series undifferentiated
3450-3460	Sand, fine to coarse-grained, roughly angular, clear quartz, and a
3460-3470	little feldspar; some sand grains are yellow and pink-tinted. No change.
3470-3480	Sand, like sample at 3450-3460 ft., and a few small fragments of
	brownish-red, gray and green mottled, slightly micaceous shale.
3400-3117 T.D	b. The samples were not studied in detail and are composed, mainly, of sand like the immediately preceding samples, and sparse frag- ments of red and multi-colored shale. The samples do not sug-
	gest that the well penetrated beds older than Comanche.

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