GEORGIA
STATE DIVISION OF CONSERVATION

DEPARTMENT OF MINES, MINING AND GEOLOGY
GARLAND PEYTON, Director

THE GEOLOGICAL SURVEY
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LOGS OF SELECTED WELLS IN THE COASTAL PLAINS OF GEORGIA

by

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ATLANTA
1964

Depth (feet)	Description
3903-3905	Clay, shaly, red and greenish-gray, mottled, and many fragments of yellow and white quartzite, green sandstone, and the opaque green mineral like the sample at 3900-3903 ft.
3905-3912	Mainly fragments of quartzite and other kinds of material like samples at 3900-3905 ft.

Ordovician

Middle Ordovician Series

The top of the weathered(?) Paleozoic is placed at 3911 ft. on the basis of electric log correlation.

3912	Bit sample. Red and gray mottled irregularly silty shale, and fragments of quartzite.
3912-3916 T.D.	Core. Recovery? Top 3 in. Quartzite, light-green, very fine grained. Bottom. Shale, dull reddish-brown, thinly laminated, micaceous, somewhat silty.

ECHOLS COUNTY

Operator: Hunt Oil Company
Landowner: Superior Pine Products Co. Well 2
Location: Land District 13, Land Lot 317; southwest corner of Land Lot 317
GGS. No. 169
Elevation: 142 ft. (derrick floor)
Total depth: 4062 ft.
Completed: Apr. 7, 1945.

Summary of Stratigraphy

	Depth (feet)	Thickness (feet)
Tertiary		
Not studied		
Cretaceous		
Gulf		
Lawson Limestone(?) upper member(?)	2700?	85?
Beds of Taylor age (1st sample 2890)	2785?	285?
Beds of Austin age	3070	390
Atkinson Formation, upper member	3460	118
lower member	3578	152
Ordovician		
Lower Ordovician[1] quartzitic sandstone and shale	3770?	to total depth 292?

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

[1]Bridge, Josiah, and Berdan, J. M., 1951, U.S. Geological Survey open-file report, p. 5 and map.

Depth (feet)	Description
0-2890	Samples not studied.
	Cretaceous
	Gulf Series
2700(?)	**Lawson Limestone(?) Upper Member(?)** **(electric log correlation)**
2785(?)	**Beds of Taylor age.** **(electric log correlation)**
2890-2900	Chalk, white, containing fragments of *Inoceramus* and other macrofossils, and a few specimens of ostracodes. Specimens of Foraminifera, if present, are indistinguishable owing to insufficient preparation of sample.
2900-2920	Like sample at 2890-2900 ft.
2920-2930	Chalk, like sample at 2890-2900 ft. and a few fragments of light-tan, hard cryptocrystalline limestone. *Inoceramus* fragments are common.
2930-2940	Like sample at 2920-2930 ft., and a few fragments of a large *Ostrea*-like bivalve.
2940-2950	Chalk, many fragments of hard, light-tan limestone, and a few fragments of light olive-gray chalk; *Inoceramus* fragments common.
2950-2960	Limestone, light-tan, hard, about 50 percent of sample.
2960-2970	Limestone, like sample at 2950-2960 ft. about 50 percent of sample; about 50 percent light greenish-gray chalk, a little white chalk, many fragments of *Inoceramus*, and a few fragments of other fossil bivalves.
2970-2980	Chalk, about 75 percent of sample; light-tan, hard limestone about 25 percent.
2980-2990	Sample is chiefly cavings from beds of Eocene age and higher levels.
2990-3000	Marl, light greenish-gray, chalky, and a few fragments of light-tan, hard, limestone; many fragments of *Inoceramus*, and some cavings.
3000-3020	No change.
3020-3030	Chalk, light-gray, marly, and cavings(?) of white chalk and light-tan limestone; many *Inoceramus* fragments.
3030-3070	No change.
	Beds of Austin age
	(Southeastern Geological Society, Mesozoic Committee, 1949, Cross Section CC1)
3070-3080	Chalk, light-gray and many cavings.

Depth (feet)	Description
3080-3090	Chalk, light greenish-gray, and darker gray chalky marl. *Inoceramus* fragments and prisms common; specimens of *Globotruncana marginata, Planulina austiniana,* and other species of Foraminifera.
3090-3100	Like the sample at 3080-3090 ft.
3100-3110	Chalk, light greenish-gray, and darker gray chalky marl. *Inoceramus* fragments common, specimens of several species of ostracodes, and specimens of Foraminifera: *Globotruncana marginata, Globigerina* sp., *Planulina austiniana,* and *Marginulina austiniana.*
3110-3120	Like sample at 3100-3110 ft., and a few fragments of fish bones.
3120-3130	No change.
3130-3140	Marl, greenish-gray, and material and fauna like sample at 3100-3110 ft. Highest occurrence of specimens of *Citharina texana.*
3140-3150	Like sample at 3131-3140 ft.
3150-3300	No change.
3300-3310	Like samples at 3130-3140 ft. and below. The dominant species of Foraminifera are *Gümbelina reussi* and *Globigerina* sp.
3310-3350	No change.
3350-3360	No change. Fauna contains specimens of *Massilina* sp., indicative of the lower part of the beds of Austin age.
3360-3370	Marl greenish-gray, like the preceding samples, containing fragments of *Inoceramus,* and specimens of Foraminifera, mainly *Globigerina* sp. and *Gümbelina* sp.
3370-3390	No change.
3390-3400	Like preceding samples beginning at 3130-3140 ft.; contains in addition, many cuttings of dark-gray marl and dark brownish-gray, light-speckled marl. The speckled appearance is caused by crushed microfossil debris. Fish scales are common in the speckled marl.
3400-3410	Marl, chiefly gray-green, and fragments of brownish-gray speckled marl; many cavings.
3410-3420	Like sample at 3400-3410 ft.
3420-3430	Like the sample at 3400-3410 ft., and many cuttings of cream, chalky, highly microfossiliferous limestone containing abundant comminuted calcitic molds of small specimens of *Gümbelina* sp. and *Globigerina* sp. Sample also contains *Inoceramus* prisms and fish scales.
3430-3440	Like the sample at 3420-3430, and many cavings.
3440-3450	Mainly fragments of greenish-gray marl, and a few fragments of highly microfossiliferous chalky limestone. Many cavings from much higher depths.
3450-3460	Like the sample at 3440-3450 ft. A few fragments of the highly microfossiliferous chalk contain sandy areas.

Depth (feet)	Description
	Atkinson Formation. Upper Member.
3460-3470	Sandstone, fine-grained, angular, clear quartz, containing glauconite, phosphatic nodules, mica and pyrite, is about 50 percent of the sample. The sandstone also contains fragments of fossil bivalves. Cavings are about 50 percent of the sample.
3470-3480	Sandstone, like the sample at 3460-3470 ft., and abundant fragments of green, thinly flaky shale. Sample contains a few fragile specimens of *Planulina eaglefordensis*.
3480-3490	Shale, grayish-green, thinly flaky, slightly micaceous, and fragments of very fine and angular grained, micaceous, carbonaceous sandstone that is probably interbedded with the shale.
3490-3500	Shale, like the sample at 3480-3490 ft., and much light-gray, micaceous siltstone that probably occurs as thin lenses in the shale.
3500-3510	Shale, like the sample at 3480-3490 ft., and a little siltstone.
3510-3520	Shale, about 75 percent of sample; soft micaceous siltstone about 25 percent.
3520-3530	No change.
3530-3540	Shale, gray-green, micaceous; also a little soft micaceous siltstone, and very fine grained sandstone, both of which are slightly carbonaceous.
3540-3550	Like the sample at 3530-3540 ft. The shale is more micaceous, and is slightly carbonaceous.
3550-3560	Like the sample at 3540-3550 ft. The shale contains small, crushed, chalky fragments of fossil shells; a few specimens of *Planulina eaglefordensis*, and very small irregular-shaped nodules of siderite.
3560-3570	Material like the sample at 3550-3560, but contains no determinable fossils. Reddish-brown, irregular-shaped nodules of siderite are common in some fragments of siltstone.
3570-3580	Like the sample at 3560-3570 ft.
	Atkinson Formation. Lower Member.
3580-3590	Like the sample at 3560-3570 ft. The shale contains a few molds of macrofossils and fragments of fish bones. The top of the lower member of the Atkinson Formation is placed at 3578 ft. on the basis of electric log correlation. Earlier workers reported a microfauna characteristic of the lower Atkinson at the depth of 3778 ft., but at the time of this study, the samples contained no fossils.
3590-3600	Mainly shale and a little siltstone; no identifiable microfossils or macrofossils.
3603-3623	Core. Recovery? Top. Sandstone, brownish-gray, hard, calcareous, argillaceous, slightly glauconitic; sample is, in part, a nodular(?) sandy limestone.

Depth (feet)	Description
	Middle. Sandstone, tan-gray, moderately hard, highly argillaceous, glauconitic, somewhat micaceous. Bottom. Sandstone, gray, soft, fine-grained, highly argillaceous, micaceous, glauconitic.
3620-3630	Like cuttings at 3590-3600 ft.
3623-3642	Core. Recovery 4 ft. Top. Clay, gray, silty, highly micaceous, slightly glauconitic. Bottom. Like top part of core, but slightly carbonaceous.
3630-3640	No change in cuttings.
3640-3650	No change. A few specimens of *Planulina eaglefordensis*, and a small *Gümbelina* sp.
3650-3660	No change. No determinable fossils.
3660-3670	Shale and a little micaceous siltstone; also many fragments of moderately soft, moderately fine-grained sandstone.
3670-3680	No sample?
3680-3690	Sandstone, poorly sorted, fine to coarse-grained; green-tinted grains common.
3690-3700	Sandstone, moderately fine to coarse-grained, slightly argillaceous, somewhat glauconitic, about 50 percent of sample; 50 percent grayish-green shale.
3700-3710	Mainly flaky gray-green shale; a little sand and sandstone.
3710-3720	Sand, fine to coarse-grained, and soft sandstone 50 percent of sample; green-tinted grains common; a little feldspar.
3720-3730	Like the sample at 3710-3720 ft.
	Ordovician
	Lower Ordovician Series
3730-3740	Like sample at 3710-3720 ft. and many fragments of light to dark-red fine-grained quartzite.
3740-3750	No change.
3750-3760	Quartzite, red to light-pink, fine-grained, and moderately hard sandstone. In addition, the sample contains many cavings of grayish-green, flaky, micaceous shale, and gray, micaceous, irregularly carbonaceous siltstone and very fine grained sandstone.
3760-3770	Like the sample at 3750-3760 ft., but very little quartzite.
3770-3780	Shale and sandstone, like the samples from the Atkinson Formation; very little quartzite.
3780-3840	Like the sample at 3770-3780 ft.
3845-3855	Core. Recovery 4 ft. Sandstone, quartzitic, dense light greenish-gray, fine-grained, irregularly highly micaceous.
3840-3850	Sandstone, quartzitic, light greenish-gray, micaceous, like core at 3845-3855 ft., is about 50 percent of sample. The remainder of the sample is mainly cavings.

Depth (feet)	Description
3850-3900	Like sample at 3840-3850 ft.
3900-3910	Sandstone, dense, light-green, very fine grained, micaceous; a few fragments of red quartzite, and cavings from the upper Atkinson.
3910-3980	No change.
3980-3990	Like the samples from 3900 to 3980 ft., with the addition of a few fragments of red and reddish-brown quartzite.
3990-4062 T.D.	No change.

ECHOLS COUNTY

Operator: Humble Oil & Refining Co.
Landowner: Bennett and Langsdale Well 1
Location: Land District 12, Land Lot 146; 660 ft. south and 666 ft. east of northwest corner of Land Lot 146
GGS. No. 189
Elevation: 181 ft. (derrick floor)
Total depth: 4185 ft.
Completed: May 6, 1949

Summary of Stratigraphy

	Depth (feet)	Thickness (feet)
Tertiary		
Paleocene		
In beds containing Tamesí fauna; 1st sample 2700 ft.	?	?
Cretaceous		
Gulf		
Beds of Taylor age	2810	240
Beds of Austin age	3050	290
Atkinson Formation, upper member	3340	210
lower member	3550	210
Comanche undifferentiated	3760	360
Silurian		
Upper Silurian[1] quartzitic sandstone	4120	to total depth 65
Diabase intrusion[2]	4125-4150	

[1]Bridge, Josiah, and Berdan, J. M. 1951, U.S. Geological Survey open-file report, p. 7 and map, tentatively classified the age of the quartzitic sandstone and dark shale as Early Ordovician. J. M. Schopf (written communication to J. M. Berdan, February 1959; written communication to P. L. Applin, July 1963), U.S. Geological Survey, classified the age of the rocks as Silurian on the basis of "acid resistant" microfossils in the sample at 4171 ft.

[2]Applin, P. L., 1951, U.S. Geological Survey Circular 91, p. 15-16, and table 4.
———1957, Geological Society of America Bulletin v. 68, p. 1486-1489.