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

WAYNE COUNTY

Operator: The California Company
Landowner: Brunswick Peninsula Corp.
Well 1
Location: Land Lot 7, Williams Survey
625 ft. from south line; 2500 ft. from west line of Land Lot 7.

GGS. No. 52
Elevation: 73 ft. (derrick floor)
Total depth: 4626 ft.
Completed: Dec. 17, 1944.

Summary of Stratigraphy

	Depth (feet)	Thickness (feet)
Tertiary		
Not reported		
Cretaceous		
Gulf		
Beds of Navarro age	2862	635?
Beds of Taylor age	3497?	74
Beds of Austin age	3571	318
Atkinson Formation, upper member	3889	419
lower member	4308	154
Comanche undifferentiated	4462	164
Pre-Cretaceous(?)		
Arkosic quartzite	4570	to total depth 56

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

Depth (feet)	Description
0-2856	Samples not reported.
	Cretaceous
	Gulf Series
	Beds of Navarro age
2856-2887	Sample is a mixture of sand, sandstone, gray sandy marly shale, and limestone, that are probably mostly caving. However, specimens of *Globotruncana cretacea*, *Gümbelina striata*, and *Gümbelina carseyae* indicate the Cretaceous age of the beds. The top of the beds of Navarro age is placed at 2862 ft. on the basis of electric log correlation.

Depth (feet)	Description
2887-2903	Mainly fragments of cream, chalky limestone (Tertiary); fragments of light-gray, extremely fine-grained, calcareous micaceous, glauconitic sandstone; and some fine to coarse-grained loose sand. A few specimens of Navarro species of Foraminifera are in the sample.
2903-2990	No change. The quantity of loose sand in the samples below 2856-2887 ft. decreases progressively with depth.
2990-3000	Core 4. Recovery ? Part A. Siltstone, slightly argillaceous, micaceous, carbonaceous, glauconitic, which grades into extremely fine-grained sandstone; contains specimens of *Globotruncana cretacea, Gümbelina striata,* and other Navarro species. Part B. Like part A, but sand is slightly coarser grained, and specimens of Foraminifera are slightly more abundant; *Globotruncana* and *Gümbelina* are dominant. Part C. Like part B.
3000-3011	Sand, very fine to moderately fine-grained, loose, quartz; many fragments of buff to pink chalky limestone (caving); fragments of extremely fine grained sandstone (several types, caving from higher levels); nodules of glauconite; fragments of gray marly shale; specimens of species of Foraminifera as in the preceding samples.
3011-3071	No change.
3071-3086	Materials like sample at 3000-3011 ft.; specimens of *Robulus* sp. also in the microfauna.
3086-3102	No samples.
3102-3118	Core 5. Recovery? Part A. Sandstone, brownish-gray, hard, dense, silty to extremely fine grained, micaceous, glauconitic, highly calcareous; contains a fauna of small specimens of species of Foraminifera that are nondiagnostic, for the most part; a few typical Navarro species occur in the sample. Part B. Like part A. Part C. Sandstone, gray, very fine grained, argillaceous, micaceous, somewhat glauconitic. Common species of Foraminifera are *Globotruncana cretacea, Gümbelina striata,* and *Gümbelina* carseyae.
3118-3146	Washed residue, small. Like sample at 3000-3011 ft.
3146-3191	No change.
3191-3201	No sample?
3201-3215	Core 6. Recovery? Part A. Sandstone, greenish-gray, extremely fine grained, argillaceous, calcareous, micaceous, glauconitic. The microfauna consists, mainly of specimens of *Globotruncana cretacea, Gümbelina* spp., *Pseudotextularia elegans;* fairly common specimens are *Dorothia bulletta* and *Clavulinoides trilaterus;* several arena-

Depth (feet)	Description
	ceous species of Foraminifera characteristic of the Navarro also occur.
	Part B. No change.
	Part C. Clay, gray, highly sandy (very fine grained sand), micaceous, calcareous. Fauna like part A of this core.
	Part D. No change.
3215-3221	Sand, fine to coarse-grained, and many fragments of extremely fine grained micaceous sandstone and highly sandy clay; nodules of glauconite; cavings of buff to pink chalky limestone; microfauna like part A of core 6 at 3201-3215 ft.
3221-3283	No change.
3293	Bit sample. Clay, gray, sandy, micaceous.
3293-3309	Core 7. Recovery? Parts B, C, and D. No change.
3309-3325	Very small sample, composed of fine to moderately fine grained sand; a few fragments of very fine grained micaceous sandstone; fragments of the buff to pink chalky limestone; and a few specimens of Navarro species of Foraminifera.
3325-3358	Like sample at 3309-3325 ft., with the addition of a few fragments of gray marly shale. A few specimens of *Globotruncana fornicata* are added to the microfauna.
3362-3374	Core 8. Recovery? Part A. Shale, gray, silty, somewhat micaceous, calcareous. Microfauna like core 7 at 3293-3309 ft. with the addition of specimens of *Globotruncana* sp., and *Spiroplectammina semicomplanata*.
	Part B. Shale, gray, somewhat sandy (extremely fine grained sand), micaceous, highly calcareous. Fauna like part A.
	Part C. No change.
3374-3376	Shale, gray, micaceous, somewhat silty, and a little loose, fine-grained sand; microfauna like part A of core 8 at 3362-3374 ft.
3376-3427	Shale and sandy shale like sample at 3374-3376 ft., and about 50 percent fine-grained sand. No change in fauna.
3429-3444	Core 9. Recovery? Part A. Shale, gray, micaceous, silty, and thin lenses of light-gray, fine-grained sandstone. No change in fauna.
	Part B. No change.
	Part C. No change.
3444-3460	Marl, green, somewhat sandy, micaceous; fragments of light-gray, fine-grained sandstone; about 25 percent of sample is loose, fine-grained sand.
3460-3495	No change.

Depth (feet)	Description
	Beds of Taylor age
3497-3510	Core 10. Recovery? Part A. Marl, gray, hard, in part highly sandy (fine-grained sand). Washed residue composed almost entirely of specimens of Foraminifera. Common species are: *Globotruncana* spp., *Gümbelina* spp., *Loxostoma cushmani, Eouvigerina gracilis, Heterostomella americana.* The microfauna indicates the Taylor age of the beds.
3514-3526	Shale, gray, marly, micaceous; a little fine-grained sand and fine-grained, argillaceous sandstone. Fauna like core 10 at 3497-3510 ft.
3526-3540	Like sample at 3514-3526 ft., with the addition of many fragments of *Inoceramus.* The microfauna contains specimens of *Planulina spissocostata, Planulina dumblei,* and *Globorotalites conicus,* a typical Taylor fauna.
3540-3571	No change.
	Beds of Austin age
3571-3587	Like sample at 3540-3571 ft., with the addition of many fragments of white hard chalk highly impregnated with specimens of *Oligostegina.* The chalk is typically Austin in character, and the specimens of *Oligostegina* are typical of the top of the beds of Austin age in many wells in southern Georgia and northern Florida.
3587-3602	Like sample at 3571-3587 ft.
3612-3626	Core 11. Recovery? Part A. Chalk, gray, hard, like the white chalk in the samples from 3571 to 3602 ft. Dominant species in the microfauna are: *Pseudoclavulina moorevillensis* (characteristic of the upper part of the outcropping Mooreville Limestone in Alabama and Mississippi), *Globorotalites umbilicatus, Planulina texana.* Part B. No change. Part C. No change. Part D. Chalk like part A, but softer, and leaving a washed residue composed almost entirely of *Inoceramus* prisms and specimens of Foraminifera: Characteristic species are: *Pseudoclavulina moorevillensis* *Neoflabellina suturalis* *Ammobaculites subplanatus* *Gaudryina austiniana* *Pseudoclavulina clavata* *Ventilabrella eggeri* *Kyphopyxa christneri* *Planulina texana*

Depth (feet)	Description
	Globorotalites umbilicatus *Robulus pondi.* The fauna indicates the upper part of the beds of Austin age.
3626-3632	Sample is mainly cavings, composed of gray sandy marl, light-gray sandstone, and loose sand. Some specimens of Foraminifera are like those in core 11 at 3612-3626 ft.; others are cavings from higher levels.
3632-3642	Like sample at 3626-3632 ft., and fragments of the hard gray chalk reported in core 11 at 3612-3626 ft.
3642-3693	Mainly fragments of hard white chalk and hard gray chalky marl; a little sand, gray marl, and sandy marl, probably caving from higher levels; many *Inoceramus* fragments and prisms. The microfauna is mainly a mixture of specimens caving from higher levels.
3693-3738	Like sample at 3642-3693 ft., with the addition of a few fragments of dark-gray flaky shale. The washed sample at this depth is much smaller than the immediately preceding samples, suggesting that the shale, which washes out, probably was the largest part of the unwashed sample.
3746-3760	Core 12. Recovery? Part A. Marl, gray, hard; and light-gray, hard, dense, highly microfossiliferous, slightly sandy limestone, composed of a mass of microfossils, small fragments of macrofossils, and *Inoceramus* prisms. The microfauna is, mainly, small specimens of *Globigerina cretacea, Gümbelina globulosa, Planulina austiniana,* and a few specimens of *Eouvigerina* sp. Part B. Limestone, gray, hard, marly. Fauna like part A, above. Part C. Like part B, and containing a few fragments of *Citharina texana* var. and a few specimens of *Dorothia alexanderi.* A similar fauna occurs in the Ector Tongue of the Austin chalk in Texas. Part D. Limestone, gray, hard, marly, containing abundant specimens of *Oligostegina* that occur in the lower part of the beds of Austin age in many wells in southern Georgia and northern Florida.
3760-3776	Clay, gray, shaly; gray sandy shale; light-gray sandstone; and loose sand. The material and the microfauna are probably caving from higher levels.
3776-3823	Washed sample, small. Like sample at 3760-3776 ft., but contains a little dark-gray marly shale. No marked change in microfauna.
3838-3847	Core 13. Recovery? Part A. Limestone, gray, hard, marly. Specimens of *Citharina texana* are fairly common; otherwise the microfauna is similar to core 12 at 3746-3760 ft. Part B. Like part A. Part C. Shale, gray, marly. The washed residue contains frag-

Depth (feet)	Description
	ments of the gray shale, many *Inoceramus* fragments, fragments of *Ostrea* sp., and specimens of Foraminifera and Ostracoda. Common in the fauna are: *Globigerina cretacea, Globotruncana* spp., *Planulina austiniana,* and *Dorothia alexanderi.*
3849-3859	Washed residue, small; composed of dark-gray, soft, marly shale, and a little fine-grained sand that may be caving. The material drilled is probably dark-gray, waxy, calcareous shale. No change in microfauna.
3859-3877	No change.
	Atkinson Formation. Upper Member.
3889-3899	Shale, dark-gray, soft; fragments of light-gray, very fine-grained sandstone; a little coarse-grained quartz sand. Fragments of gray flaky shale, lignite, and fine to moderately fine grained sand are common.
3899-3920	No change.
3930-3944	Core 14. Recovery? Part A. Shale, gray, flaky, that seems to be lenticular in light-gray, very fine grained, micaceous, somewhat carbonaceous sandstone. A little carbonaceous material also occurs in the shale, and a few brown irregular-shaped nodules of siderite are present. The microfauna is composed of a few specimens of ostracodes, and specimens of *Globigerina cretacea* var., *Gümbelina* sp., *Valvulineria infrequens,* and *Ammobaculites* sp. Part B. No change.
3944-3950	Shale, dark-gray, flaky, slightly carbonaceous, and fragments of brownish-gray, very fine grained micaceous sandstone; a few specimens of Foraminifera and Ostracoda.
3950-3960	Like sample at 3944-3950 ft. Fragments of gray flaky shale are more abundant.
3960-3972	Like sample at 3950-3960 ft. Many of the shale fragments are thinly flaky and smoother in texture than in the preceding samples.
3972-3987	Like sample at 3960-3972 ft.
3994-4004	Core 15. Recovery? Part A. Marl, dark-gray, hard, containing fragments of *Ostrea* sp. and fish scales. Specimens of Foraminifera common in the sample are: *Globigerina cretacea, Gümbelina moremani, Gümbelina reussi, Neobulimina* sp., *Valvulineria infrequens, Planulina eaglefordensis;* other species are: *Globotruncana* sp., and fragments of *Citharina texana.* Part B. Like part A, but contains no specimens of *Neobulimina* sp. Part C. No change.
4004-4013	Shale, dark-gray, marly, flaky, and fragments of light-gray, fine-

Depth (feet)	Description
	grained, micaceous sandstone containing fragments of *Ostrea* sp. and a microfauna like core 15 at 3994-4004 ft.
4013-4081	Washed sample, small. Composed mainly of fragments of gray and some greenish-gray flaky shale, and fragments of light-gray, fine-grained, micaceous sandstone. The microfauna is like core 15 at 3994-4004 ft.
4081-4096	This sample seems to mark a change from the deeper-water marine facies of the upper Atkinson, above, to the shallow-water marine facies, below. The electric log indicates that the change in facies is at 4060 ft. The sample is composed, chiefly, of fragments of light-gray, dense, very fine to fine-grained, micaceous sandstone, many fragments of lignite, and a little shale like the samples just above.
4096-4112	Core 16. Recovery? Part A. Sandstone, clear quartz, fine-grained, moderately even grained, angular, micaceous, somewhat pyritic. Part B. Sandstone, clear quartz, fine to moderately coarse grained, micaceous; and greenish-gray, flaky, smooth-textured shale containing a few fragments of lignite.
4112-4124	Sandstone, white, and a little olive-green flaky shale like core 16 at 4096-4112 ft.; also cavings of shale and sandstone from higher levels.
4124-4139	Like sample at 4112-4124 ft. with the addition of a few coarse grains of clear quartz sand.
4139-4155	Sand, coarse-grained, clear quartz; and fine-grained, dense, micaceous, clear quartz sandstone; gray and greenish-gray flaky shale; many fragments of lignite.
4155-4171	Core 17. Recovery? Part A. Sandstone, clear quartz, moderately fine and even grained, loosely consolidated, micaceous. Part B. Sandstone, hard, dense, moderately fine grained, somewhat uneven grained; conglomeratic, containing many fragments of carbonaceous material, nodules of gray clay, fragments of greenish-gray shale, quartz pebbles, and nodules of limonite.
4171-4188	Shale, gray and greenish-gray, flaky; also coarse-grained quartz sand; lignite; fragments of the conglomeratic sandstone reported in core 17 at 4155-4171 ft.
4188-4209	No change.
4209-4221	Core 18. Recovery? Part A. Sandstone, light-gray, very hard, dense, fine-grained to silty, containing many highly micaceous lenses, and a few lenses of gray flaky shale. Part B. Sandstone, white, loosely consolidated, uneven-grained, silty, micaceous.
4227-4242	Shale, gray, flaky; and fragments of white, fine-grained sandstone; a few shell fragments.

Depth (feet)	Description
4242-4253	Shale, gray, flaky, and many fragments of white, moderately coarse grained, highly fossiliferous, calcareous sandstone.
4253-4260	Core 19. Recovery?
	Part A. Sand, clear quartz, fine-grained, even-grained, angular; also fragments of gray flaky shale, containing many small pieces of carbonaceous material and a trace of mica.
	Part B. Like part A.
	Part C. Sand, clear quartz, fine to moderately fine grained, angular; also many fragments of carbonaceous material, and a few shell fragments.
	Part D. Sand, clear quartz, fine to moderately fine grained; also many fragments of gray, flaky, slightly micaceous, carbonaceous shale that seem to be embedded in the sand.
4260-4269	Shale, gray, and fragments of white, hard, highly microfossiliferous, calcareous sandstone; a few fragments of lignite.
4269-4308	No change.
	Atkinson Formation. Lower Member.
4308-4325	Core 20. Recovery?
	Part A. Sandstone, light-gray, dense, fine-grained, micaceous, somewhat glauconitic.
	Part B. Limestone, light-gray, very hard, dense, microfossiliferous; contains a few fragments of carbonaceous material, and is partially dolomitized.
	Part C. Fragments of limestone like part A, and many fragments of greenish-gray, micaceous siltstone, containing abundant worn and broken shells of fossil bivalves, a few molds of small gastropods, a trace of glauconite, a few phosphatic nodules, and shreds of carbonaceous material.
	Part D. Shale, gray, micaceous, containing much carbonaceous material, fish scales, many fragments of an *Ostrea*-like bivalve; and a few lenses of light-gray, sandy shale in which the sand is very fine grained.
4325-4331	Shale, greenish-gray, and white, hard, fossiliferous limestone.
4331-4347	No change.
4347-4359	Like the preceding samples of the lower Atkinson, but shale fragments are relatively more abundant. The microfauna is composed of a few specimens of ostracodes, and a few specimens of *Ammobaculites agrestis* and other species characteristic of the so-called "marine shale" of the Tuscaloosa.
4360-4371	Core 21. Recovery?
	Part A. Sandstone, gray, hard, silty to very fine grained, micaceous.
	Part B. Shale, gray, hard, sandy, micaceous, containing many fragments of *Ostrea*-like bivalves.

Depth (feet)	Description
	Part C. Sand, clear quartz, fine to coarse-grained, micaceous; and many fragments of light-gray, soft, micaceous, finely carbonaceous siltstone.
	Part D. Sand, clear, quartz, fine to coarse-grained and fragments of very fine grained, micaceous, somewhat glauconitic sandstone containing worn fragments of *Ostrea*-like bivalves and a little carbonaceous material.
4371-4380	Sandstone, light-gray, hard, dense, calcareous, containing worn and broken fragments of microfossils; also cuttings of gray and greenish-gray flaky shale.
4380-4389	Sandstone, gray, dense, highly micaceous; and gray and greenish-gray shale.
4389-4419	Like sample at 4380-4389 ft., but shale fragments are dominant.
4419-4437	Core 22. Recovery?
	Part A. Sandstone, dark-gray to black-streaked, very fine grained, highly micaceous, argillaceous.
	Part B. Like part A, and a little loose, coarse-grained sand.
	Part C. Sand white, loosely consolidated, fine to very coarse grained, micaceous.
	Part D. Like part C.
4437-4449	Sand like part C and part D of core 22 at 4419-4437 ft.
4449-4462	Like sample at 4437-4449 ft. The sand contains a few yellowish-green grains.
	Comanche Series undifferentiated
4462-4477	Like sample at 4449-4462 ft. Greenish-yellow grains are common in the sand, which also contains many pink grains.
4477-4497	Core 23. Recovery?
	Part A. Shale, hard, mottled, gray, mustard-yellow, purple, and reddish-brown, micaceous, unctuous; contains small siderite spherules.
	Part B. Like part A, siderite common.
	Part C. Like part B, and white, fine to coarse-grained, clay-cemented, clear quartz sand.
	Part D. Clay, multicolored, hard; and fine to coarse-grained sand; abundant siderite spherules.
4497-4506	Like core 22 at 4477-4497 ft., and a few fragments of pink and white, moderately coarse-grained, calcareous sandstone.
4506-4515	Like sample at 4497-4506 ft., and many fragments of pink sandstone.
4515-4529	Sand, fine to very coarse grained, clear quartz, and fragments of multicolored shale. The sand contains many greenish-yellow and pink grains.
4529-4544	Sand, similar to sample at 4515-4529 ft., but is composed mainly

Depth (feet)	Description
	of white and yellow grains and a little white feldspar; also a little multicolored shale.
4555-4575	Core 24. Recovery? Part A. 2 ft. Sandstone, pinkish-white, loosely consolidated, fine to moderately coarse grained, somewhat calcareous, cemented with white bentonitic clay; pink-tinted and greenish-yellow grains are fairly common. Part B. Like part A, but sand is mostly coarse grained.

Pre-Cretaceous(?)

The top of the pre-Cretaceous(?) rocks is placed at 4570 ft. on the basis of electric log correlation, supported by sample data.

4575-4585	Like core 24 at 4555-4575 ft., and also fragments of reworked and weathered "basement" rocks.
4585-4595	Like sample at 4575-4585 ft., but the reworked and weathered "basement" material is dominant.
4595-4604	Pink and gray arkosic quartzite.
4607-4616	Top of black "basement" material; igneous rock?