

**GEORGIA
STATE DIVISION OF CONSERVATION
DEPARTMENT OF MINES, MINING AND GEOLOGY
GARLAND PEYTON, Director**

THE GEOLOGICAL SURVEY

Bulletin Number 70

**WELL LOGS OF THE
COASTAL PLAIN OF GEORGIA**

by

**Stephen M. Herrick, Geologist
United States Geological Survey**



Prepared cooperatively by the U. S. Geological Survey

**ATLANTA
1961**

| | Thickness (feet) | Depth (feet) |
|--|---------------------|-----------------|
| Middle Eocene (Lisbon formation) | 330 | 1,090 |
| Middle Eocene (Tallahatta formation) | 220 | 1,310 |
| In lower Eocene(?) (Wilcox group, undifferentiated) | 145 | 1,455 |
| Paleocene (Clayton formation) | 245 | 1,700 |
| Upper Cretaceous(?) (undifferentiated) | 151 | 1,851 |
| Upper Cretaceous (post-Tuscaloosa; undifferentiated) | 819 | 2,670 |
| Upper Cretaceous (Tuscaloosa formation) | 840 | 3,510 |
| Lower Cretaceous(?) (undifferentiated) | 153 | 3,663 |
| Basement complex (undifferentiated) | 17 | 3,680 |

Potential Water-Bearing Zones:

| | | |
|------------------------------|-----|-------|
| Limestone | 310 | 760 |
| Sand: fine to medium-grained | 130 | 1,310 |
| Sand: medium-grained | 135 | 1,680 |

TREUTLEN COUNTY

Location: 6 mi. west of Soperton, Land Lot 221, Ga.

Well No.: GGS 127

Military District 1386

Elev.: 291

Owner: No. 1 James Fowler

Driller: Rose and Ray

Drilled: 1940

| | Thickness (feet) | Depth (feet) |
|------------|---------------------|-----------------|
| No samples | 765 | 765 |

In Middle Eocene: Claiborne Group (Undifferentiated):

Limestone: light-gray to white, dense, crystalline, sandy, phosphatic (finely disseminated), coarsely glauconitic, fossiliferous (fragments, casts and molds of megafossils, Ostracods and Foraminifera) 130 895

Nonion advena, *Gyroidina soldanii* var., *Epénides jacksonensis*, *Nonion inexcavatus*, *Cibicides pseudoungerianus*, *Cibicides americanus* var. at 765-815.

Lepidocyclina (Polylepidina) antillea, *Asterigerina* sp. at 815-825.

Asterocyclus monticellensis at 835-855.

Indurated sand: dark-gray, somewhat argillaceous, dense, phosphatic (finely disseminated), carbonaceous, micaceous, fossiliferous (some Foraminifera) 20 915

Cibicides blanpiedi at 895-915.

| | Thickness (feet) | Depth (feet) |
|---|---------------------|-----------------|
| Limestone: gray, dense, crystalline, sandy, coarsely glauconitic; interbedded marl, light-gray, silty, micaceous, carbonaceous, glauconitic (finely disseminated), fossiliferous (some Foraminifera) | 30 | 945 |
| <i>Reussella subrotundata</i> , <i>Cibicides mauricensis</i> at 915-935. | | |
| Indurated sand: as above, but fossiliferous (a coquina) | 20 | 965 |
| No samples | 20 | 985 |
| Limestone: gray, dense, coarsely glauconitic, sandy, fossiliferous (abundant macroshells and some Foraminifera) | 20 | 1,005 |
| Sand: fine to coarse-grained, phosphatic | 80 | 1,085 |
| Lower Eocene: Wilcox Group (Undifferentiated): | | |
| Clay: dark-gray, somewhat fissile, silty, lignitic, micaceous; interbedded sand, fine to medium grained | 170 | 1,255 |
| <i>Siphonina prima</i> at 1165-1185. | | |
| Paleocene: Midway Group: Clayton Formation: | | |
| Limestone: gray to white at depth, dense, crystalline, sandy, coarsely glauconitic, fossiliferous (casts and molds of megafossils, bryozoan remains, and Foraminifera) | 40 | 1,295 |
| <i>Robulus</i> sp., <i>Discorbis midwayensis</i> , <i>Discorbis midwayensis</i> var. <i>trinitatensis</i> , <i>Sigmomorphina semitecta</i> var., <i>Valvularia scrobiculata</i> , <i>Eponides lotus</i> , <i>Siphonina wilcoxensis</i> , <i>Cibicides howelli</i> at 1275-1295. | | |
| Sand: fine to coarse-grained | 20 | 1,315 |
| In Upper Cretaceous: Post-Tuscaloosa (Undifferentiated): | | |
| Sand: as above; some clay, chocolate-brown to dark-gray, micaceous, somewhat fissile | 20 | 1,335 |
| Sand: fine to coarse-grained, angular, arkosic, grains of "rose quartz" | 80 | 1,415 |
| No samples | 140 | 1,555 |
| Clay: brown, carbonaceous, very micaceous, pyritiferous, fossiliferous (macroshells and Foraminifera at certain levels); interbedded sand, fine to coarse-grained, angular | 320 | 1,875 |
| <i>Planulina taylorensis</i> at 1695-1715. | | |
| <i>Kyphopyxa christneri</i> at 1795-1815. | | |
| Sand: fine to coarse-grained, angular, highly micaceous, abundantly phosphatic; interbedded shale, dark-gray, fissile, micaceous (finely disseminated, "speckled") | 130 | 2,005 |
| No samples | 30 | 2,035 |

| | Thickness (feet) | Depth (feet) |
|--|---------------------|-----------------|
|--|---------------------|-----------------|

In Tuscaloosa Formation:

| | | |
|--|----|-------|
| Sand: fine to coarse-grained, angular; interbedded clay, yellowish-green, fissile, micaceous, somewhat carbonaceous..... | 90 | 2,125 |
|--|----|-------|

Summary:

| | | |
|--|-----|-------|
| No samples | 765 | 765 |
| In middle Eocene (Claiborne group, undifferentiated)..... | 320 | 1,085 |
| Lower Eocene (Wilcox group, undifferentiated)..... | 170 | 1,255 |
| Paleocene (Clayton formation)..... | 60 | 1,315 |
| In Upper Cretaceous (post-Tuscaloosa, undifferentiated)..... | 690 | 2,005 |
| No samples | 30 | 2,035 |
| In Upper Cretaceous (Tuscaloosa formation)..... | 90 | 2,125 |

Potential Water-Bearing Zones:

| | | |
|-----------------------------------|----|-------|
| Sand: fine to coarse-grained..... | 80 | 1,085 |
| Sand: fine to coarse-grained..... | 80 | 1,415 |

Remarks:

The Ocala limestone lies somewhere in the interval 0-765 and constitutes an additional source of ground water besides being at a much shallower depth below land surface datum than the aquifers noted above.

TURNER COUNTY

Location: 0.7 mi. northwest of Coverdale
 Owner: No. 1 C. W. Dearso
 Driller: Winter Hardware Company
 Drilled: October 1942

Well No.: GGS 2
 Elev.: 413

| | Thickness (feet) | Depth (feet) |
|--|---------------------|-----------------|
|--|---------------------|-----------------|

| | | |
|------------------|----|----|
| No samples | 10 | 10 |
|------------------|----|----|

In Miocene (Undifferentiated):

| | | |
|---|----|----|
| Clay: gray, sandy; interbedded sand, fine to coarse-grained, angular..... | 70 | 80 |
|---|----|----|

| | | |
|---|-----|-----|
| Clay: yellowish-green, sandy; interbedded sand, as above..... | 155 | 235 |
|---|-----|-----|

Oligocene (Undifferentiated):

| | | |
|---|----|-----|
| Limestone: white, dense, nodular, calcitized, fossiliferous (bryozoan remains and some Foraminifera)..... | 25 | 260 |
|---|----|-----|

Rotalia mexicana var. at 240-260.