

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) |
|--|---------------------|-----------------|
|--|---------------------|-----------------|

Summary:

| | | |
|--|-----|-------|
| Residuum | 80 | 80 |
| Oligocene (undifferentiated) | 20 | 100 |
| Upper Eocene (Cooper marl) | 35 | 135 |
| Upper Eocene (Barnwell formation) | 120 | 255 |
| Middle Eocene (Lisbon formation) | 125 | 380 |
| Middle Eocene (Tallahatta formation) | 70 | 450 |
| Upper Cretaceous (post-Tuscaloosa, undifferentiated) | 920 | 1,370 |
| In Upper Cretaceous (Tuscaloosa formation) | 790 | 2,160 |
| In Lower Cretaceous (?) | 328 | 2,488 |

Potential Water-Bearing Zones:

| | | |
|------------------------------------|-----|-------|
| Limestone | 80 | 255 |
| Sand: coarse-grained | 250 | 790 |
| Sand: coarse-grained | 200 | 1,150 |
| Sand: fine to coarse-grained | 140 | 1,510 |

QUITMAN COUNTY

Location: 0.9 mi. east of road intersection in Georgetown, 0.4 mi. east of junction of Highways 27 and 50, north side of Highway 50 at school house
 Well No.: GGS 436
 Elev.: 341
 Owner: No. 1 Kaigler School
 Driller: Gray Artesian Well Company
 Drilled: May 1955

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

Pliocene to Recent (Undifferentiated):

| | | |
|--|----|----|
| Clay: mottled, sandy | 11 | 11 |
| Sand: fine to medium-grained, coarser-grained at depth, angular; some clay, as above | 31 | 42 |
| Sand: fine to coarse-grained, angular; some clay, tan, sandy, micaceous | 9 | 51 |
| Gravel: pea-size grains, subrounded | 5 | 56 |

Upper Cretaceous: Providence Sand:

| | | |
|--|----|----|
| Marl: dark bluish-gray, sandy, micaceous, fossiliferous at depth (macroshells, Ostracods and Foraminifera) | 39 | 95 |
|--|----|----|

Anomalina pseudopapillosa at 72-82.

²This well reportedly penetrated the Basement complex. Samples in our collection reached a total depth of 2488.

| | Thickness (feet) | Depth (feet) |
|---|---------------------|-----------------|
| Indurated sand (or sandy limestone): gray, fine-grained, dense | 3 | 98 |
| Marl: dark bluish-gray, sandy, micaceous..... | 13 | 111 |
| Indurated sand (or sandy limestone): as above | 2 | 113 |
| Marl: dark-gray, silty, micaceous, pyritiferous | 79 | 192 |

Ripley Formation:

| | | |
|---|-----|-----|
| Marl: dark bluish-gray, silty, micaceous, pyritiferous, glauconitic, fossiliferous (at certain horizons, macroshells, Ostracods and Foraminifera) | 203 | 395 |
|---|-----|-----|

Gaudryina rudita, *Cibicides harperi* at 212-232.

Summary:

| | | |
|---|-----|-----|
| Pliocene to Recent (undifferentiated) | 56 | 56 |
| Upper Cretaceous (Providence sand) | 136 | 192 |
| Upper Cretaceous (Ripley formation) | 203 | 395 |

Potential Water-Bearing Zones:

None observed to total depth of well.

Remarks:

Owing to scarcity of water-bearing sands, this well is in an area in which it is difficult to obtain ground water. It is doubtful that the shallow-lying terrace gravels would be perennially productive. Moreover, the indurated sand (or sandy limestone) at depths 95-98 and 111-113 are not thought to be of sufficient thickness to carry water in sufficient quantity to satisfy even domestic needs. The best aquifers, therefore, should be sought at considerably lower depths than that reached by this well. Such water-bearing sands would be encountered in the underlying Eutaw formation and in the more deeply buried Tuscaloosa formation.

QUITMAN COUNTY

Location: In Georgetown
 Owner: No. 1 City of Georgetown
 Driller: Layne-Atlantic Company
 Drilled: October 1956

Well No.: GGS 502
 Elev.: 316

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

**Upper Cretaceous: Providence and Ripley Formations
(Undifferentiated):**

Marl: dark bluish-gray to black, sandy, micaceous, pyritiferous, glauconitic, fossiliferous (macroshells, Ostracods,