

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

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Prepared cooperatively by the U. S. Geological Survey

ATLANTA
1961

| | Thickness (feet) | Depth (feet) |
|---|---------------------|-----------------|
| Upper Eocene: Jackson Group: Ocala Limestone: | | |
| Dolomitic limestone: dark-brown to rather light-brown at depth, saccharoidal | 25 | 260 |
| Limestone: cream, considerably calcitized, somewhat crystalline, fossiliferous (Foraminifera); interbedded dolomitic limestone, as above..... | 40 | 300 |
| <i>Lepidocyclina</i> sp. and <i>Asterocyclina</i> sp. common at 265. | | |
| <i>Gypsina globula</i> at 280. | | |

Summary:

| | | |
|---|-----|-----|
| Pliocene to Recent (undifferentiated) | 30 | 30 |
| Miocene (undifferentiated) | 125 | 155 |
| Oligocene (undifferentiated) | 80 | 235 |
| Upper Eocene (Ocala limestone) | 65 | 300 |

Potential Water-Bearing Zones:

| | | |
|-----------------|----|-----|
| Limestone | 65 | 300 |
|-----------------|----|-----|

THOMAS COUNTY

Location: East side of Jackson Street, few hundred yd. east of Atlantic Coast Line R.R. depot at City Water Works in Thomasville. Well No.: GGS 132 Elev.: 256

Owner: City of Thomasville Well No. 5

Driller: Layne-Atlantic Company

Drilled: February 1949

| | Thickness (feet) | Depth (feet) |
|---|---------------------|-----------------|
| Pliocene to Recent (Undifferentiated): | | |
| Sand: fine-grained, argillaceous, gray to tan (mottled), angular, finely disseminated phosphatic grains | 35 | 35 |
| Miocene (Undifferentiated): | | |
| Sand: fine to medium-grained, angular; some clay, light-gray, sandy, gray to light-brown phosphatic pebbles | 5 | 40 |
| Limestone: white to light-brown, somewhat dolomitized, saccharoidal at depth, dense, sandy, cherty, sparsely fossiliferous at depth | 130 | 170 |
| <i>Archaius</i> sp. at 150-170. | | |

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

Oligocene (Undifferentiated):

| | | |
|--|-----|-----|
| Limestone: white to cream, nodular, crystalline, much calcitized, fossiliferous (casts and impressions of megafossils and some Foraminifera) | 130 | 300 |
| <i>Rotalia mexicana</i> var., <i>Quinqueloculina</i> sp., <i>Dictyoconus</i> sp. at 170-300. | | |

Upper Eocene: Jackson Group: Ocala Limestone:

| | | |
|---|------|-------|
| Dolomitic limestone: dark-brown to light-brown to white at depth, saccharoidal, gypsiferous | 205 | 505 |
| Limestone: light-gray to white, saccharoidal, dense, crystalline, much calcitized, gypsiferous at certain horizons, fossiliferous (macroshells, echinoid remains and Foraminifera) .. | 200. | 705 |
| <i>Lepidocyclina</i> sp., <i>Operculinoides</i> sp. at 505-520. <i>Gypsina globula</i> at 530-545. <i>Pseudophragmina flintensis</i> at 570-585. | | |
| Limestone: yellowish, crystalline, highly calcitized, somewhat saccharoidal, fossiliferous (Foraminifera) | 320 | 1,025 |
| <i>Camerina striatoreticulata</i> , <i>Amphistegina pinarensis</i> var. at 770-790. <i>Camerina striatoreticulata</i> abundant at 920-945. | | |

In Middle Eocene: Claiborne Group: Lisbon Formation:

| | | |
|---|-----|-------|
| Limestone: cream, granular, rather loosely consolidated, cherty at depth dense, crystalline, coarsely glauconitic; interbedded marl, light-gray, somewhat indurated, fissile..... | 587 | 1,612 |
|---|-----|-------|

Tallahatta Formation:

| | | |
|--|----|-------|
| Sand: fine to coarse-grained, angular, abundantly glauconitic, fossiliferous (some Foraminifera) | 23 | 1,635 |
| <i>Operculinoides</i> sp., <i>Asterocyclina</i> sp. at 1612-1620. | | |

Summary:

| | | |
|---|-----|-------|
| Pliocene to Recent (undifferentiated) | 35 | 35 |
| Miocene (undifferentiated) | 135 | 170 |
| Oligocene (undifferentiated) | 130 | 300 |
| Upper Eocene (Ocala limestone) } | 725 | 1,025 |
| In middle Eocene (Lisbon formation) | 587 | 1,612 |
| Middle Eocene (Tallahatta formation) | 23 | 1,635 |

| | Thickness (feet) | Depth (feet) |
|---------------------------------------|---------------------|-----------------|
| Potential Water-Bearing Zones: | | |
| Limestone | 130 | 300 |
| Limestone | 270 | 770 |

Remarks:

Because the dolomitic limestone above carries gypsum (CaSO_4) crystals, it yields highly mineralized water and is, therefore, not a source of good ground water. Sand at depth 1612-1635 contained salt water with chlorides approaching that of sea water, hence is not a source of fresh ground water.

THOMAS COUNTY

Location: In Thomasville
 Owner: City of Thomasville
 Driller: M. M. Gray Drilling Company
 Drilled: September 1954

Well No.: GGS 401
 Elev.: 285¹

| | Thickness (feet) | Depth (feet) |
|--|---------------------|-----------------|
| Pliocene to Recent (Undifferentiated): | | |
| Sand: fine-grained, argillaceous, mottled, limonitic | 10 | 10 |
| Sand: fine-grained, argillaceous, olive-green to tan; with inclusions of kaolin, white, sandy | 25 | 35 |
| Miocene (Undifferentiated): | | |
| Clay: white to light-gray to pale-green, sandy, phosphatic | 15 | 50 |
| White to light-gray phosphatic pebbles prominent at 40-50. | | |
| Limestone: white, dense, sandy, cherty; interbedded sand, fine to medium-grained, angular; beds of clay, white to light-gray to pale-green, sandy, phosphatic | 50 | 100 |
| Limestone: light-brown, somewhat dolomitized and saccharoidal, dense, crystalline, sandy, fossiliferous (casts and molds of megafossils); interbedded clay, as above | 80 | 180 |
| Oligocene (Undifferentiated): | | |
| Limestone: light-gray to white, dense, nodular, much calcitized, fossiliferous (some Foraminifera at various horizons) | 115 | 295 |
| <i>Asterigerina subacuta</i> at 180-190. | | |
| <i>Dictyoconus</i> ² sp. at 280-290. | | |

¹Average elevation based on Georgia State Highway Maps.

²Reworked(?) fossil of middle Eocene age.