

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

THE GEOLOGICAL SURVEY
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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)
Limestone: light-gray, dense, crystalline, sandy, phosphatic, fossiliferous (fragments, casts and molds of macroshells); sand, fine to coarse-grained, subrounded, phosphatic	10	319
Oligocene (Undifferentiated):		
Limestone: light-gray, nodular, somewhat crystalline and saccharoidal, fossiliferous (echinoid and bryozoan remains and Foraminifera)	21	340
<i>Asterocyclina</i> ¹ sp., <i>Pyrgo</i> sp., <i>Rotalia byramensis</i> var. at 319-330.		
<i>Dictyoconus</i> ¹ sp. at 330-340.		
<i>Gypsina globula</i> ¹ , <i>Quinqueloculina</i> sp. common, <i>Pyrgo</i> sp., <i>Reussella oligocenică</i> , <i>Discorbis alabamensis</i> , <i>Rotalia byramensis</i> var., <i>Globulina</i> sp., <i>Baggina xenoula</i> , <i>Cibicides lobatulus</i> at 340-350.		
<i>Dictyoconus</i> ¹ sp. common at 360-370.		
Limestone: ² cream, somewhat soft and weathered (?), fossiliferous (macroshells, echinoid and bryozoan remains, and Foraminifera)	60	400

Summary:

Miocene (undifferentiated)	319	319
Oligocene (undifferentiated)	81	400

Potential Water-Bearing Zones:

Limestone	81	400
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EMANUEL COUNTY

Location: 0.9 miles southwest of Courthouse in Swainsboro
 Well No.: GGS 176
 Elev.: 330

Owner: No. 3 City of Swainsboro
 Driller: Virginia Supply and Well Company
 Drilled: February 1949

	Thickness (feet)	Depth (feet)
Miocene (Undifferentiated):		
Clay: mottled, dark-green at depth, blocky, sandy; interbedded sand, fine to coarse-grained, angular, arkosic; limestone, yellow to white, massive, crystalline (in texture), sandy	178	178

¹Reworked (?) fossil of middle Eocene age.

²May be Ocala limestone of upper Eocene age.

	Thickness (feet)	Depth (feet)
Oligocene (Undifferentiated):		
Limestone: white, dense, crystalline or saccharoidal at certain levels, cherty, coarsely glauconitic at depth, fossiliferous (casts and molds of megafossils, echinoid and bryozoan remains, and Foraminifera); interbedded sand, fine to coarse-grained, angular; clay, gray, sandy	180	358
<i>Asterigerina subacuta</i> , <i>Reussella byramensis</i> , <i>Nonion advena</i> , <i>Rotalia</i> sp., <i>Cibicides americanus</i> at 223-236.		
In Upper Eocene: Jackson Group: Barnwell Formation:		
Marl: gray, silty, sparsely glauconitic, fossiliferous (echinoid and bryozoan remains and Foraminifera)	132	490
<i>Nonion inexcavatus</i> , <i>Nonion advena</i> , <i>Valvulineria jacksonensis</i> , <i>Discorbis assulata</i> at 358-398.		
Middle Eocene: Claiborne Group: Lisbon Formation:		
Marl: light-gray to cream, somewhat sandy, limey, with inclusions of hard lime nodules, Ostracods and Foraminifera at certain levels; interbedded sand, fine to coarse, subangular to subrounded, molluscan shells; thin beds of limestone, light-gray, dense, crystalline, sandy, phosphatic	160	650
<i>Operculinoides</i> sp., <i>Lepidocyclina</i> sp. at 490-498.		
<i>Cibicides westi</i> at 611-616.		
Glauconite prominent at 621-650.		
Limestone: gray, dense, massive, sandy, phosphatic, at certain levels fragments, molds and impressions of megafossils; interbedded beds of indurated sand, fine to coarse, subangular to subrounded, phosphatic, molluscan shells common	100	750
<i>Operculinoides</i> sp. at 710-723.		
Limestone: cream, much calcitized, granular, cherty, Ostracods and Foraminifera at certain levels	62	812
Sand: fine to coarse-grained, subangular to subrounded, phosphatic	11	823
Tallahatta Formation:		
Marl: pale-green, somewhat sandy, micaceous, phosphatic, fish teeth, molluscan shells (small Gastropods and Pelecypods), Radiolaria and some Foraminifera	20	843

	Thickness (feet)	Depth (feet)
Sand: fine to coarse-grained, subangular to subrounded, phosphatic	27	870
Marl: as above	8	873

Summary:

Miocene (undifferentiated)	178	178
Oligocene (undifferentiated)	180	358
In upper Eocene (Barnwell formation)	132	490
Middle Eocene (Lisbon formation)	333	823
Middle Eocene (Tallahatta formation)	50	873

Potential Water-Bearing Zones:

Sand: fine to coarse-grained	3	72
Sand: fine to coarse-grained	5	155
Sand: fine to coarse-grained	16	358
Sand: fine to coarse-grained	13	550
Sand: fine to coarse-grained	10	682
Sand: fine to coarse-grained	11	823
Sand: fine to coarse-grained	27	870

Remarks:

1. The limestones noted above are dense, crystalline in texture, hence are more or less nonporous. Such limestones, therefore, cannot be relied upon for ground-water supplies.

2. The best aquifers lie below the total depth penetrated by this well and are of Late Cretaceous age. The water-bearing sands enumerated above are thought to be satisfactory for domestic needs only.

EMANUEL COUNTY

Location: Approximately 12 mi. northeast of Swainsboro, west side of Highway 56, at school house Well No.: GGS 372
 Owner: No. 1 Summertown Consolidated School Elev.: 255
 Driller: Virginia Supply and Well Company
 Drilled: 1954

Thickness (feet)	Depth (feet)
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Miocene (Undifferentiated):

Clay: bluish-gray to tan to red (mottled), blocky, very sandy.....	25	25
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