

OWNER:
DRILLER: O. C. Brenneman
COUNTY: New Kent (Quinton)

VDMR #197
WWCR #9
TOTAL DEPTH: 305+
ELEV. 135

GEOLOGIC LOG *

0-145 No sample.

Yorktown Formation (145-155')

145-155 Sand - gray, a few subrounded to rounded and polished granules (2-4 mm) of quartz and phosphorite; fine- to medium-grained, well-sorted, angular to subangular; 2-5% fine-grained, fresh glauconite, small amount finely crystalline, authigenic pyrite and platy phosphorite, traces of pink and salmon garnet and brown epidote; foraminifera and ostracoda, pelecypoda, gastropoda, bryozoa, and echinoid spines and plates.

155-165 As above - but with a binder of calcareous mud.

Nanjemoy Formation (165-285')

165-175 Sand - "salt-and pepper"; fine- to medium-grained, moderately well-sorted, subangular to subrounded; subequal amounts of clear quartz and fresh to slightly oxidized glauconite (quartz is coarser than glauconite); minor garnet, brown epidote, pyrite, and phosphorite; minor amount of limestone containing glauconitic sand; ostracoda and foraminifera, and scattered pelecypod and gastropod shell fragments, and a few echinoid spines.

175-180 As above.

180-225 As above - but much less fossiliferous, and better sorted.

225-265 Sand - "salt-and-pepper"; fine-grained, well-sorted, angular to subangular; subequal amounts clear to greenish quartz and fresh to slightly oxidized glauconite; small amounts phosphorite, muscovite, biotite, pyrite, epidote, and garnet; ostracoda and foraminifera moderately abundant; about 5% pelecypod and gastropod shell fragments, and a few echinoid spines and fish teeth.

265-292 Sand - dark-green; 10% very-coarse-grained, subrounded quartz; 90% fine-grained, well-sorted, glauconite-quartz sand (70-80% fresh glauconite, 20-30% angular to subangular, clear quartz); traces of pyrite, epidote, phosphorite, green mica; small amount of sand-free, orange-pink clay; a few foraminifers, ostracods, and pelecypod shell fragments.

285-292 As above - but slightly coarser, more glauconitic (about 90%).

Aquia Formation (292-305')

292-295

Sand — white; medium-grained, fairly well sorted, angular to subangular; very arkosic (dull-white to yellowish microcline and microperthite); minor glauconite, muscovite, and green biotite.

295-

305

Sand — black; very-fine- to medium-grained, fairly well sorted; 50% clear angular quartz, 50% fresh glauconite; a very few foraminifers, ostracods, pelecypod shell fragments, and echinoid spines.

* Samples had been washed and floated previous to this examination.

GEOLOGIC SUMMARY

ROCK UNIT

TIME ROCK UNIT

0-145
145-155
165-285
292-305

No sample
Yorktown Formation
Nanjemoy Formation
Aquia Formation

Miocene
Eocene
Eocene

Virginia Division of Mineral Resources
Robert H. Teifke, Geologist
February 3, 1966