

OWNER: Barksdale Theater (D.S. Kilgore)
DRILLER: Sydnor Pump & Well Company, Inc.
COUNTY: Hanover (Hanover Courthouse)

VDMR: 1613
WWCR: 95
TOTAL DEPTH: 234

GEOLOGIC LOG

Depth in feet

COLUMBIA GROUP (0-10)

0 - 10 Sand and Gravel ~~is~~ orange-brown, very slightly-argillaceous (orange-brown clay); 20-30% very-fine gravel consisting of subrounded quartz and white feldspar up to 8 mm.; 70 - 80% fine- to very coarse-grained, poorly-sorted sand; slightly- to moderately-arkosic; small amounts of muscovite, decomposed biotite, garnet, tourmaline, kyanite, magnetite, etc.

CALVERT FORMATION (10-60)

10 - 20 Sand — dull brown, argillaceous; fine- to very fine-grained, well sorted, angular to subangular, with a minor amount of coarser, poorly-rounded sand; traces of brown garnet, carbono-phosphatic material, glauconite and diatoms.

20 - 30 " grayish brown

30 - 40 Sand — dark gray, very argillaceous, a few granules and very small pebbles up to 6 mm.; fine- to very fine-grained, fairly well-sorted, angular to subangular, with 10-20% admixture of much coarser sand; traces of brown epidote, glauconite, carbono-phosphatic material, and diatoms.

40 - 50 "

50 - 60 Sand — medium gray, slightly- to moderately-argillaceous; fine- to very fine-grained, well sorted, angular to subangular; minor amount of very finely-divided, black, carbono-phosphatic material; trace of glauconite.

AQUIA FORMATION (60-100)

60 - 70 Sand — dark gray, argillaceous; fine- to very fine-grained, very well-sorted (skewed fine), angular; about 65% clear to green-tinted quartz, 25-30% fresh glauconite, and 5-10% chalky shell fragments; minor amounts of mica and nodular and platy phosphorite; a small number of large Aquia foraminifers.

70 - 80 " foraminifers moderately abundant.

80 - 90 Sand — dark gray; argillaceous; fine- to very fine-grained, very well-sorted (skewed fine), angular; about 65% clear quartz, and 35% fresh glauconite; small amounts of pyrite and phosphorite; a few shell fragments, fish teeth, and foraminifers.

90 - 100 Sand — dark gray, argillaceous; very fine- to medium-grained, well sorted; 35% fine- to very fine-grained, angular, clear to green-tinted quartz, 45% very fine- to medium-grained, fresh glauconite, and 20% chalky abraded molluscan shell fragments; a very few foraminifers.

POTOMAC GROUP (100 - 230)

100 - 110 Sand and Gravel — gray, argillaceous; sand (30%) is coarse- to very-coarse grained, well sorted (skewed coarse), subrounded to rounded; gravel (70%) is fine (2-10 mm), well sorted, subrounded to rounded; both fractions are arkosic and contain abundant stained quartz and feldspar; some pebbles of quartzite are present in gravel fraction; small amount of glauconite and chalky shell debris.

110 - 120 " "

120 - 130 " gravel is finer (2-6 mm) and better sorted.

130 - 140 Sand, Clay, and Gravel — grayish brown; sand (70%) is poorly sorted, variably rounded, arkosic and slightly glauconitic. Gravel (10%) consists of rounded quartz granules and small pebbles up to 10 mm.

140 - 150 " clay is mottled, more abundant (about 30%)

150 - 160 " "

160 - 170 " 50% gravel, 40% sand, 10% clay

170 - 180 " 40% gravel, 60% sand

180 - 190 Sand — drab brown, moderately argillaceous and silty; medium- to coarse-grained, moderately sorted, subangular to subrounded; moderately arkosic and slightly glauconitic.

190 - 200 " argillaceous

200 - 210 " moderately argillaceous (gray clay), with a few small pebbles.

210 - 220 " "

220 - 230 " "

230 - 234 No sample

GEOLOGIC SUMMARY

	<u>Rock Unit</u>	<u>Age</u>
0 - 10	Columbia Group	Pliocene-Pleistocene
10 - 60	Calvert Formation	Miocene
60 - 100	Aquia Formation	Eocene
100 - 230	Potomac Group	Early Cretaceous
230 - 234	No sample	

Virginia Division of Mineral Resources
Robert H. Teifke - Geologist
July 20, 1966