

INTERVAL SHEET

WWCR - 70

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VDMR Well No: 1737

Date rec'd: July 27, 1966

Sample Interval: from 0 to 305

PROP: New Kent Development Corporation

Number of samples: 30

COMP: O. C. Brenneman

Total Depth: 305 feet

COUNTY: New Kent (Bottoms Bridge)

Oil or Gas: Water: Exploratory:

From-To	From-To	From-To	From-To
0 - 10	-	-	-
10 - 20	-	-	-
20 - 30	-	-	-
30 - 40	-	-	-
40 - 50	-	-	-
50 - 60	-	-	-
60 - 70	-	-	-
70 - 80	-	-	-
80 - 90	-	-	-
90 - 100	-	-	-
100 - 110	-	-	-
110 - 120	-	-	-
120 - 130	-	-	-
130 - 140	-	-	-
140 - 150	-	-	-
150 - 160	-	-	-
160 - 170	-	-	-
170 - 180	-	-	-
180 - 190	-	-	-
190 - 200	-	-	-
200 - 210	-	-	-
210 - 220	-	-	-
220 - 230	-	-	-
230 - 240	-	-	-
240 - 250	-	-	-
250 - 260	-	-	-
260 - 270	-	-	-
270 - 280	-	-	-
280 - 290	-	-	-
290 - 300	-	-	-

No washed samples

OWNER: New Kent Development Corporation
DRILLER: O. C. Brenneman
COUNTY: New Kent (Bottoms Bridge)

VDMR: 1737
WWCR: 70
TOTAL DEPTH: 305'

GEOLOGIC LOG

COLUMBIA GROUP (0-20')

- 0 - 10 Sand — buff, moderately clayey, a few rounded pebbles up to 25 mm; medium- to coarse-grained, fairly well-sorted, subrounded; slightly to moderately feldspathic; trace of magnetite; scattered plant fragments.
- 10 - 20 Sand — brown, clean, 5-10% granule gravel; medium- to very coarse-grained, fairly well-sorted, subrounded; slightly feldspathic; trace of magnetite.

ST. MARY'S FORMATION (20-40')

- 20 - 30 Sand — buff, clean; fine- to medium-grained, well-sorted, angular to subangular; trace of glauconite; scattered pelecypod shell fragments, and a few echinoid spines and bryozoans.
- 30 - 40 " about 5% shell fragments.

CALVERT FORMATION (40 - 90')

- 40 - 50 Sand — gray, trace of clay; fine-grained, well-sorted, angular; accessory glauconite, muscovite, and magnetite; small amount of small shell fragments.
- 50 - 60 Clay — brownish-gray, very sandy; sand is fine, poorly rounded; slightly glauconitic and micaceous (muscovite).
- 60 - 70 " very few foraminifers.
- 70 - 80 " about 10% glauconite; a few foraminifers.
- 80 - 90 " "

NANJEMOY FORMATION (90-200')

- 90 - 100 Sand — dark gray, slightly clayey; very fine- to medium-grained, poorly sorted; 45% glauconite, 45% quartz; about 10% shell fragments (pelecypods, and a few foraminifers, echinoid spines, and fish teeth).

- 100 - 110 Sand — abundant gray clay matrix, and lesser amounts of sandy yellow clay and moderately to slightly-sandy pink clay (Marlboro Clay); medium-grained, fairly well-sorted; sand is 50% glauconite and 50% quartz; traces of muscovite and phosphorite; small amount of shell material (pelecypods, gastropods, and foraminifers); a few plant fragments.
- 110 - 120 Sand — gray, moderately clayey; very fine- to medium-grained, fairly well-sorted, poorly rounded, about 20% glauconite, small amount muscovite; a few shell fragments.
- 120 - 130 Sand — gray, clayey; coarse- to very fine-grained, moderately sorted (skewed fine), angular to subangular; about 30% glauconite, trace of muscovite; a few shell fragments.
- 130 - 140 Sand — dark greenish-gray, very slightly clayey; fine- to medium-grained, fairly well-sorted; 55% glauconite, 35% clear to greenish quartz; traces of pyrite, phosphorite, muscovite; about 10% shell debris comprised of pelecypods, gastropods (mostly Turritella) and Aquia foraminifers (sample contamination); trace of plant material.
- 140 - 150 Sand — dark greenish-gray, very slightly clayey; fine- to medium-grained, fairly well-sorted; 60% glauconite, 30% clear to greenish quartz; traces of pyrite, muscovite, phosphorite; about 10% shell fragments, and a few Aquia foraminifers (sample contamination).
- 150 - 160 Sand — brownish-gray, silty and moderately clayey; very fine- to medium-grained, moderately sorted, poorly rounded; about 25% glauconite, trace of muscovite; small amount finely-divided shell material and a very few foraminifers.
- 160 - 170 " very clayey.
- 170 - 180 " "
- 180 - 190 Sand — dark gray, clayey (abundant gray clay matrix, and abundant slightly-sandy pink clay); fine- to coarse-grained, rather poorly sorted, poorly rounded; about 30% glauconite, small amount muscovite; scattered pelecypod shell fragments and a few echinoid spines and foraminifers; trace of plant material.
- 190 - 200 " a few ostracods.

AQUIA FORMATION (200-260')

- 200 - 210 Sand — clayey (matrix of gray and some yellow clay); small numbers of foraminifers, ostracods, and spores.
- 210 - 220 "
- 220 - 230 Sand — dark gray, clayey; fine- to very fine-grained, fairly well-sorted, angular; 50% glauconite; scattered pelecypod shell fragments, echinoid spines, and foraminifers.
- 230 - 240 "
- 240 - 250 " 30-40% glauconite.
- 250 - 260 Sand — gray, very clayey (40-50%); fine- to very fine-grained, well-sorted, angular; about 10% glauconite, slightly micaceous (muscovite); a very few pelecypod shell fragments, foraminifers, and plant fragments.

PATUXENT FORMATION (260-305')

- 260 - 270 Sand — light gray, clean; coarse-grained, fairly well-sorted, subangular to subrounded; slightly glauconitic and arkosic; traces of garnet, muscovite, and epidote.
- 270 - 280 "
- 280 - 290 Sand — white, clean; coarse- to very coarse-grained, well-sorted, subrounded; arkosic; accessory glauconite, brown epidote; trace of garnet.
- 290 - 305 "

	<u>ROCK UNIT</u>	<u>AGE</u>
0 - 20	Columbia group	Pleistocene
20 - 40	St. Mary's formation	Miocene
40 - 90	Calvert formation	Miocene
90 - 200	Nanjemoy formation	Eocene
200 - 260	Aquia formation	Eocene
260 - 305	Patuxent formation	Lower Cretaceous

Virginia Division of Mineral Resources
 Robert H. Teifke, Geologist
 November 4, 1966