

INTERVAL SHEET

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VDMR Well No: 1851

Date rec'd 4/11/67

Sample Interval: from 1 to 671

PROP: Rectory Area

Number of samples: 63

COMP: Douglas & Dickinson

Total Depth: 671

COUNTY: King George (King George)

Oil or Gas: Water: ^X Exploratory:

From-To	From-To	From-To	From-To
1 - 10	315 - 325	619 - 629	-
10 - 21	325 - 336	629 - 639	-
21 - 31	336 - 346	639 - 649	-
31 - 42	346 - 357	649 - 659	-
42 - 52	357 - 367	659 - 671	-
52 - 63	367 - 378	-	-
63 - 73	378 - 388	-	-
73 - 84	388 - 399	-	-
84 - 94	399 - 409	-	-
94 - 105	409 - 420	-	-
No sample	420 - 430	-	-
115 - 126	430 - 441	-	-
126 - 136	441 - 451	-	-
136 - 147	451 - 462	-	-
147 - 157	No sample	-	-
157 - 168	463 - 473	-	-
168 - 178	473 - 484	-	-
178 - 189	484 - 494	-	-
189 - 199	494 - 504	-	-
199 - 210	504 - 515	-	-
210 - 220	515 - 525	-	-
220 - 231	525 - 536	-	-
231 - 241	536 - 546	-	-
241 - 252	546 - 557	-	-
252 - 262	557 - 567	-	-
262 - 273	567 - 578	-	-
273 - 283	578 - 588	-	-
283 - 294	588 - 598	-	-
294 - 304	598 - 609	-	-
304 - 315	609 - 619	-	-

No washed samples

OWNER: Douglas & Dickinson, Inc. (Rectory Area)
DRILLER: Douglas & Dickinson, Inc.
COUNTY: King George (King George Court House)

W-1851
E-66
TOTAL DEPTH: 671'

GEOLOGIC LOG

Depth in feet

COLUMBIA GROUP (0-31')

- 1-10 Sand - orange-brown, very slightly clayey; fine- to medium-grained, fairly well-sorted, subangular to subrounded; small amounts feldspar, glauconite and magnetite
- 10-21 Sand - reddish-brown, very slightly clayey, trace of granule gravel; fine- to medium-grained, well-sorted (skewed coarse), subangular to subrounded; slightly feldspathic, trace of glauconite.
- 21-31 As above, except: orange-brown

CALVERT FORMATION (31-167')

- 31-42 Sand - light-gray, moderately clayey, a few granules; fine- to coarse-grained, poorly sorted, poorly rounded; slightly to moderately feldspathic; locally goethitic and hematitic
- 42-52 Sand - orange-brown, slightly clayey; fine- to very fine-grained, well-sorted, angular; traces of feldspar, muscovite and glauconite; a few plant fragments
- 52-63 Sand - orange-brown, clean, 2-5 percent granule gravel; medium to very coarse-grained, moderately sorted, subangular to subrounded; coarse-fraction contains abundant feldspar and blue quartz; traces of glauconite and muscovite
- 63-73 Sand - brownish-gray, silty and clayey; fine- to very fine-grained, moderately sorted, angular; abundant finely divided organic material; traces of phosphorite and glauconite
- 73-84 As above
- 84-94 Clay - greenish-gray, silty and sandy; sand is fine, poorly sorted, poorly rounded; plant fragments common but not abundant; a few bone fragments, phosphatic pelecypod fragments, and echinoid spines
- 94-105 Sand - orange-brown, clean; very fine-grained, very well-sorted, angular; a few plant fragments
- 105-115 No sample

- 115-126 Clay - medium-gray, moderately silty and sandy; sand is fine- to coarse-grained, poorly sorted, poorly rounded; abundant plant fragments; a few phosphatic fragments and grains of feldspar
- 126-136 Sand - brownish-gray, clayey; very fine- to coarse-grained, poorly sorted, poorly rounded; small amounts feldspar and black phosphatic fragments (vertebrate, invertebrate, and nodular); trace of glauconite; abundant plant fragments; a very few foraminifers (Lagena, Sphagenerina, Nonion)
- 136-147 Clay - brownish-gray, sandy; sand is fine- to medium-grained, fairly well-sorted (skewed fine), angular; small amounts of feldspar and black phosphatic fragments; traces of muscovite and glauconite; a very few echinoid spines and plant fragments
- 147-157 Sand - grayish-brown, moderately silty and clayey; fine-grained, fairly well-sorted, angular to subangular; small amount platy, black phosphorite; trace of feldspar; plant fragments common but not abundant
- 157-168 Sand - grayish-brown, silty and clayey; fine- to medium-grained, fairly well-sorted, subrounded, slightly glauconitic; traces of muscovite, phosphorite, and feldspar; a few bone, plant, and phosphatic shell fragments
- NANJEMOY FORMATION (167-270') Top of formation defined on basis of other information.
- 168-220 Sand - brownish-gray, moderately silty and clayey; medium- to very fine-grained, moderately sorted; angular to subrounded; 10-20 percent glauconite; minor muscovite and phosphorite; a very few shell fragments, plant fragments, and foraminifers
- 220-241 As above, except: with 5 percent shell fragments
- 241-273 Clay - orange-pink, sand-free (50 percent), light-gray, sand free (10 percent), and dark-gray, silty, micaceous (40 percent); a few plant fragments
- MATTAPONI FORMATION (270-315') Top of formation defined on basis of other information.
- 273-315 Sand - black, silty and clayey; fine- to very fine-grained, fairly well-sorted, angular to subangular; about 20 percent glauconite; minor muscovite, feldspar, phosphorite; a few plant and shell fragments
- TRANSITIONAL BEDS (315-504')
- 315-325 Sand - light-gray, speckled, very slightly silty and clayey; medium- to coarse-grained, fairly well-sorted, subrounded; 10-15 percent fresh glauconite; slightly feldspathic; 3-5 percent shell fragments

- 325-336 Sand - medium-gray, moderately silty and clayey; medium- to very fine-grained, rather poorly sorted, poorly rounded; about 20 percent glauconite; small amounts muscovite, feldspar, and phosphorite; a few plant and shell fragments
- 336-420 Clay - brown, subtly mottled; variably sandy; sand fraction contains glauconite and feldspar; a few plant fragments, and a trace of shell fragments
- 420-462 Clay - brown, subtly mottled; variably sandy; sand fraction contains glauconite and feldspar; a few plant fragments, and a trace of shell fragments
- 462-463 No sample
- 463-504 Clay - reddish-brown aspect (mottled gray, greenish-gray, yellow, reds), variably sandy; sand is fine, variably glauconitic and feldspathic; a few plant fragments
- PATUXENT FORMATION (504-671')
- 504-536 Sand - brown, slightly silty and clayey; medium- to coarse-grained, fairly well-sorted, subangular to subrounded; feldspathic, very slightly glauconitic; a very few plant fragments
- 536-557 As above, except: medium-grained, well-sorted; trace of glauconite
- 557-578 Sand - brown, moderately clayey; medium- to coarse-grained, fairly well-sorted, subrounded; feldspathic; trace of glauconite; abundant plant fragments
- 578-588 As above, except: clayey
- 588-598 Sand - brown, slightly clayey; very fine- to very coarse-grained, poorly sorted, variably rounded; moderately feldspathic; trace of glauconite; a few plant fragments
- 598-609 Sand - gray, clean, a very few granules; coarse- to very coarse-grained, fairly well-sorted, subrounded; abundant feldspar and blue quartz; trace of plant debris
- 609-629 As above, except: fine- to very coarse-grained, poorly sorted
- 629-639 Clay - light greenish-gray, very silty
- 639-649 Sand - light grayish-green, clayey; fine- to very fine-grained, fairly well-sorted, angular; small amounts of feldspar, biotite, and muscovite

- 649-659 Sand - abundant matrix of mottled clay (grays and browns), 5-10 percent granule gravel; medium- to very coarse-grained, rather poorly sorted, subangular to subrounded; feldspathic (white weathered feldspar), blue quartz common; a few plant fragments
- 659-671 Clay - brightly mottled (grayish-green and brownish-red), moderately sandy; sand is coarse, poorly sorted, subangular to subrounded; slightly feldspathic

GEOLOGIC SUMMARY

	<u>Rock Name</u>	<u>Age</u>
0-31'	Columbia Group	post-Miocene
31-167'	Calvert Formation	Miocene
167-270'	Nanjemoy Formation	Eocene
270-315'	Mattaponi Formation	Paleocene - Late Cretaceous
315-504'	Transitional beds	Late Cretaceous
504-671'	Patuxent Formation	Early Cretaceous

Virginia Division of Mineral Resources
 Robert H. Teifke, Geologist
 May 24, 1967

Robert H. Teifke
 March 3, 1972