

OWNER: Christchurch School
DRILLER: Sydnor Pump & Well Co., Inc.
COUNTY: Middlesex

VDMR # 746
WWCR # 107
TOTAL DEPTH : 750'

GEOLOGIC LOG

COLUMBIA GROUP (0-20)

0-10 Clay - tan, slightly ferruginous, very sandy and silty
10-20 Sand - tan, coarse to fine grained, subangular, slightly argillaceous and ferruginous

YORKTOWN FORMATION (20-100)

20-30 Sand - tan, coarse to fine grained, subangular, slightly argillaceous and ferruginous, small amount of shell fragments
30-40 Sand - tan, medium to fine grained, subangular, slightly argillaceous, ferruginous and silty, large numbers of shell fragments
40-50 As above
50-60 Sand - gray to brown, medium to fine grained, subangular, small number of shell fragments
60-70 As above
70-80 Sand - light gray, fine grained, subangular, large number of shell fragments.
80-90 As above
90-100 Sand - light gray, coarse to fine grained, subangular, trace of iron, large number of shell fragments

ST. MARYS FORMATION (100-260)

100-110 Shell fragments - white to gray (Turritella, Pecten, Mercenaria Spisula), trace of iron, slightly sandy and silty
110-120 As above
120-130 Shell fragments - white to gray, (Spisula, Tellina, Mercenaria, Pecten), traces of iron and sand, very silty
130-140 As above
140-150 Shell fragments - white to gray, traces of iron and sand, very silty and argillaceous
150-160 As above

- 160-170 As above
- 170-180 Clay - gray, slightly silty, trace of mica and iron, large number of shell fragments
- 180-190 Shell fragments - white to gray, traces of iron and mica, very silty and argillaceous
- 190-200 As above
- 200-210 Clay - gray, trace of iron, slightly sandy and silty, small number of shell fragments
- 210-220 As above
- 220-230 Clay - gray, traces of iron and sand, slightly silty
- 230-240 Clay - gray, slightly ferruginous, slightly sandy and silty
- 240-250 Clay - gray, traces of iron and sand, slightly silty
- 250-260 Clay - gray, trace of mica, very silty
- CALVERT FORMATION (260-370)
- 260-270 Clay - light gray, trace of sand, small number of diatoms (Coscinodiscus) and Foraminifera (Nonion incisum)
- 270-280 Clay - light gray, trace of sand, small number of diatoms (Coscinodiscus)
- 280-290 As above
- 290-300 Clay - light gray, trace of sand, small number of diatoms (Coscinodiscus) and Foraminifera (Siphogenerina lamellata), bird feathers?
- 300-310 Clay - light gray, slightly sandy and silty, small number of shell fragments, diatoms (Coscinodiscus), and Foraminifera (Siphogenerina lamellata, Nonion incisum)
- 310-320 As above
- 320-330 Sand - gray, medium to fine grained, subangular, very argillaceous and silty, large number of shell fragments
- 330-340 As above
- 340-350 As above
- 350-360 Sand - gray, medium to fine grained, subangular, very argillaceous and silty, small number of shell fragments and Foraminifera (Siphogenerina lamellata)

- 360-370 Sand - gray, medium to fine grained, subangular, very argillaceous and silty, small number of shell fragments
- PAMUNKEY GROUP (370-650)
- 370-380 Sand - buff, medium to fine grained, subangular, very argillaceous, slightly glauconitic
- 380-390 Sand - buff, coarse to fine grained, subangular, very argillaceous, slightly glauconitic, small number of shell fragments
- 390-400 As above
- 400-410 Sand - buff, coarse to fine grained, subangular, slightly argillaceous and glauconitic, some calcareous cement, large number of shell fragments
- 410-420 Sand - buff, coarse to fine grained, subangular, slightly argillaceous, very glauconitic, large number of Bryozoa and shell fragments
- 420-430 Sand - gray, coarse to fine grained, subangular, slightly argillaceous, very glauconitic, large number of Bryozoa and shell fragments
- 430-440 As above
- 440-450 Sand - gray, coarse to fine grained, subangular, slightly argillaceous, very glauconitic, large number of Bryozoa, small number of shell fragments
- 450-460 Greensand - gray to green, medium to fine grained, rounded to subrounded, slightly argillaceous, very sandy and silty, small number of Foraminifera (Robulus)
- 460-470 Greensand - gray to green, medium to fine grained, rounded to subrounded, slightly argillaceous, very sandy and silty, small number of shell fragments
- 470-480 As above
- 480-490 As above
- 490-500 As above
- 500-510 Greensand - gray to green, medium to fine grained, rounded to subrounded, very argillaceous, sandy and silty, small number of shell fragments
- 510-520 Greensand - gray to green, medium to fine grained, rounded to subrounded, very argillaceous, sandy and silty, small number of Foraminifera (Nodosaria)

520-530	Sand - light gray, coarse to fine grained, subangular, slightly arkosic and glauconitic, traces of clay, and silt
530-540	As above
540-550	As above
550-560	Sand - light gray, coarse to fine grained, subangular, very argillaceous and silty, slightly glauconitic, small number of shell fragments
560-570	Sand - light gray, coarse to fine grained, subangular, very argillaceous and silty, slightly glauconitic
570-580	As above
580-590	As above
590-600	As above
600-610	Clay - gray, trace of iron, slightly glauconitic and sandy, very silty, small number of shell fragments
610-620	Clay - gray, trace of iron, slightly glauconitic and sandy, very silty
620-630	As above
630-640	As above
640-650	As above
PATUXENT FORMATION (650-750)	
650-660	Sand - light gray, coarse to fine grained, angular to subangular, very arkosic, trace of glauconite
660-670	As above
670-680	As above
680-690	As above
690-700	As above
700-710	Sand - light gray, coarse to fine grained, angular to subangular, very arkosic, traces of glauconite and silt
710-720	As above
720-730	Sand - light gray, coarse to fine grained, angular to subangular, very arkosic, traces of iron and glauconite, slightly silty

OWNER: Christchurch School (continued)

#746

730-740 Sand - light gray, coarse to fine grained, angular to subangular, traces of iron and mica, slightly glauconitic, silty, and arkosic

740-750 Sand - light gray, coarse to fine grained, angular to subangular, trace of iron, slightly glauconitic, silty, and arkosic

GEOLOGIC SUMMARY

<u>AGE</u>	<u>ROCK UNIT</u>
Pleistocene	Columbia group (0-20)
Miocene	Yorktown fm. (20-100)
"	St. Marys fm. (100-260)
"	Calvert fm. (260-370)
Eocene	Pamunkey group (370-650)
Lower Cretaceous	Patuxent fm. (650-750)

Virginia Division of Mineral Resources
James L. Ruhle - Geologist
January 28, 1963