

OWNER: River's Edge Subdivision
DRILLER: Mitchell's Well and Pump Co.
COUNTY: Prince George (Hopewell)

VDMR # 757
WWCR # 143
TOTAL DEPTH : 252 $\frac{1}{2}$

SAMPLE DESCRIPTION
(Washed Samples)

Columbia Group (0-30)

- 0-10 Sand - light orange, clear and milky quartz, fine to coarse grained, rounded to subangular, argillaceous, trace of white feldspar, slight trace of rounded magnetite grains
- 10-20 As above
- 20-30 Sand and gravel - light yellow, clear and milky quartz, fine grained to pebble size, subangular to subrounded, heavy trace of white feldspar, slight trace of rounded magnetite grains

Calvert Formation (30-80)

- 30-40 Sand - light gray, clear quartz, fine to medium grained, rounded to subangular, argillaceous, trace of rounded magnetite grains
- 40-50 As above
- 50-60 Sand - light gray, clear quartz, fine to medium grained, rounded to subangular, very argillaceous, calcareous, heavy trace of shell fragments and rounded magnetite grains
- 60-70 Sand - light gray, clear quartz, fine to medium grained, rounded to subangular, highly argillaceous and calcareous, 10% shell fragments
- 70-80 Sand - light gray, clear quartz, fine to medium grained, rounded to subangular, highly argillaceous and calcareous, heavy trace of shell fragments

Nanjemoy Formation (80-140)

- 80-90 Sand - dark green, 45% glauconite, 45% clear and milky quartz, fine to coarse grained, rounded to subangular, 8% shell fragments, slightly calcareous, slight trace of pyrite
- 90-100 As above

- 100-110 Sand - dark green, 45% glauconite, 45% clear and milky quartz, fine to coarse grained, rounded to subangular, 8% shell fragments, argillaceous, slightly calcareous, slight trace of pyrite
- 110-120 Sand - dark brown and green, 50% glauconite, 30% clear and milky quartz, fine to coarse grained, rounded to subangular, 15% clay
- 120-130 Sand - light brown, gray and green, 40% quartz, fine to medium grained, rounded to subangular, 30% glauconite, 20% clay, 8% shell fragments, sericitic, trace of pyrite
- 130-140 As above

Aquia Formation (140-180)

- 140-150 Sand - light gray and dark green, 60% glauconite, 30% quartz, fine to medium grained, rounded to subrounded, 5% shell fragments, argillaceous, trace of sericite, slight trace of pyrite
- 150-160 Sand - dark green, 45% glauconite, 40% quartz, medium to large grained, subrounded to subangular, 10% shell fragments
- 160-170 As above
- 170-180 Sand - dark green, 50% quartz, clear, fine grained to granules, rounded to subangular, 30% glauconite, 15% shell fragments

Patuxent Formation

- 180-190 Sand - light gray, 90% clear and milky quartz with some smokey quartz, medium grained to granules, rounded to subrounded, 5% clay, slight trace of dark minerals and iron oxide
- 190-200 As above
- 200-210 As above
- 210-220 Sand - light gray, 90% clear and milky quartz with some smokey quartz, medium grained to granules, rounded to subrounded, 5% clay, trace of white feldspar, slight trace of dark minerals and iron oxide
- 220-230 As above

OWNER: River's Edge Subdivision (continued)

#757

230-240 As above

240-252 $\frac{1}{2}$ As above

GEOLOGIC SUMMARY

	<u>AGE</u>	<u>UNIT</u>
0-30	Pleistocene	Columbia group
30-80	Miocene	Calvert formation
80-140	Eocene	Nanjemoy formation
140-180	Eocene	Aquia formation
180-252 $\frac{1}{2}$	Lower Cretaceous	Patuxent formation

Virginia Division of Mineral Resources
Merrick S. Whitfield - Geologist
November 28, 1962

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SAMPLE DESCRIPTION
(Washed Samples)

✓ Columbia Group (0-30)

0-10 Sand - light orange, clear and milky quartz, fine to coarse grained, rounded to subangular, argillaceous, trace of white feldspar, slight trace of rounded magnetite grains *clay lenses*

10-20 As above

20-30 Sand and gravel - light yellow, clear and milky quartz, fine grained to pebble size, subangular to subrounded, heavy trace of white feldspar, slight trace of rounded magnetite grains

✓ Calvert Formation (30-80)

30-40 ^{clay} Sand - light gray, ^{sl. sandy} clear quartz, fine to medium grained, rounded to subangular, argillaceous, trace of rounded magnetite grains *v. sl. glauconitic*

40-50 As above ✓

50-60 Sand - ^{F-M, moderately sorted;} ~~light gray, clear quartz, fine to medium grained, rounded to subangular, very argillaceous, calcareous, trace of shell fragments and rounded magnetite grains~~ *pale greenish-gray, very clayey; clear quartz and bluish-gray* ~~bioclasts, graded bioclasts, with smaller % chalky bioclasts (?) and spine.~~

~~60-70 Sand - light gray, clear quartz, fine to medium grained, rounded to subangular, highly argillaceous and calcareous, 10% shell fragments~~ *finely divided bone P₂O₅ common; slightly glauconitic.*

~~60-70 - As above, except: with 10 percent coarse shell, mainly blue; bone more abund~~

~~70-80 Sand - light gray, clear quartz, fine to medium grained, rounded to subangular, highly argillaceous and calcareous, heavy trace of shell fragments~~

~~70-80 - As above (50-60')~~ *50-80': blue bioclasts range sl. coarser than quartz.*

Nanjemoy Formation (80-140) **125**

✓ 80-90 Sand - dark green, 45% glauconite, 45% clear and milky quartz, fine to coarse grained, rounded to subangular, 8% shell fragments, slightly calcareous, slight trace of pyrite

✓ 90-100 As above

100-110 Sand - dark green, 45% glauconite, 45% clear and milky quartz, fine to coarse grained, rounded to subangular, 8% shell fragments, argillaceous, slightly calcareous, slight trace of pyrite

110-120 Sand - dark brown and green, 50% glauconite, 30% clear and milky quartz, fine to coarse grained, rounded to subangular, 15% clay

120-130 Sand - light brown, gray and green, 40% quartz, fine to medium grained, rounded to subangular, 30% glauconite, 20% clay, 8% shell fragments, sericitic, trace of pyrite ; *pink clay in interval.*

TN / TNMC / TM →

130-140 ~~As above~~ Sand - *bluish-gray, very clayey, with lenses of black sl. clayey, micaceous ; fine- to very fine- (to medium-) grained ; well sorted ; quartz-glauc. ; hybrid sediment ; trace of chalky shells ; Robulus common, Nodosaria present. Dentalia present.*

~~Aquia Formation (140-180)~~

~~140-150 Sand - light gray and dark green, 60% glauconite, 30% quartz, fine to medium grained, rounded to subrounded, 5% shell fragments, argillaceous, trace of sericite, slight trace of pyrite~~

140-150 As above, except: black, sl. clayey sand is more abundant.

150-160 Sand - dark green, 45% glauconite, 40% quartz, medium to large grained, subrounded to subangular, 10% shell fragments

160-170 As above

170-~~180~~
185 Sand - dark green, 50% quartz, clear, fine grained to granules, rounded to subangular, 30% glauconite, 15% shell fragments

Patuxent Formation

185 ~~180~~-190 Sand - light gray, 90% clear and milky quartz with some smokey quartz, medium grained to granules, rounded to subrounded, 5% clay, slight trace of dark minerals and iron oxide

190-200 As above

200-210 As above

210-220 Sand - light gray, 90% clear and milky quartz with some smokey quartz, medium grained to granules, rounded to subrounded, 5% clay, trace of white feldspar, slight trace of dark minerals and iron oxide

220-230 As above

OWNER: River's Edge Subdivision (continued)

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230-240 As above

240-252 $\frac{1}{2}$ As above

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