

OWNER: Motel Stony Creek
DRILLER: Sydnor Pump & Well Co., Inc.
COUNTY: Sussex (Stony Creek)

VDMR #1362
WWCR #222
TOTAL DEPTH: 132'

GEOLOGIC LOG

Upland Sand and Gravel (0-20')

- 0-10 Sand — orange-brown, slightly argillaceous and silty; very-fine- to very-coarse-grained, poorly sorted, subangular; quartz, with traces of magnetite, muscovite, brown epidote.
- 10-20 Sand — buff, slightly argillaceous and silty, slightly pebbly (subangular to subrounded quartz gravel, 2-8 mm); fine- to very-coarse-grained, poorly sorted, angular to subangular; quartz.

Patuxent Formation (20-130')

- 20-30 Sand — yellowish-brown, slightly argillaceous, scattered pebbles of quartz up to 10 mm; medium- to very-coarse-grained, poorly sorted, subangular; 90-95% clear quartz, 5-10% dull white, weathered microcline.
- 30-40 Sand — buff, slightly to moderately argillaceous, scattered, subrounded pebbles of quartz (10 mm.); medium- to coarse-grained, moderately sorted, subangular; clear quartz, some weathered white microcline, and a small amount of muscovite.
- 40-50 Sand — brownish-orange, slightly argillaceous, scattered subrounded pebbles of quartz (10 mm.); coarse- to very-coarse-grained, moderately sorted, angular to subangular; 85% clear quartz, 15% white weathered microcline; small amount coarse muscovite and traces of epidote, tourmaline (?).
- 50-60 Sand and Gravel — buff, very slightly argillaceous; gravel (about 30% of sediment) consists of subrounded to rounded quartz, minor white microcline, with average diameter of 4-6 mm, and numerous rounds and broken rounds of quartz with average diameter of 20 mm.; sand (about 75% of sediment) coarse- to very-coarse-grained, moderately sorted, subangular to subrounded; clear quartz with about 10% white microcline.
- 60-70 As above.
- 65-70 Sand — buff; coarse- to very-coarse-grained (mode at 1.0 mm), well-sorted, subangular to subrounded; clear quartz with 5-10% white microcline.
- 70-80 Sand — brown, slightly argillaceous, small amount small rounded gravel (2-8 mm); coarse- to very-coarse-grained, moderately sorted, subangular to subrounded; clear quartz with about 5% white microcline; small amount brown epidote.

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- 80-90 Sand — brownish-gray, moderately argillaceous (brown and dark-gray clays), moderately pebbly (about 15% of sediment consists of small 2-8 mm, subrounded gravel, mostly quartz but some white microcline); sand coarse- to very-coarse-grained, moderately sorted, subangular to subrounded; clear quartz with about 10% subrounded to rounded white microcline.
- 90-100 Sand and Gravel — brownish-gray, very slightly argillaceous gravel (about 30% of sediment) consists of well-sorted, subrounded to rounded quartz and white microcline, with average diameter of 5 mm.; sand (about 70% of sediment) coarse- to very-coarse-grained, subangular to slightly subrounded, moderately sorted; small amount of subround, chalky white feldspar; traces of brown epidote, muscovite, and pyrite.
- 100-110 Sand and Gravel — gray; slightly argillaceous; gravel (about 25% of sediment) consists of subrounded to rounded quartz and feldspar 2-18 mm. in diameter; sand (about 75% of sediment) coarse- to very-coarse-grained, subangular to subrounded, moderately sorted; arkosic (white and gray microcline); abundant subangular pink garnet; small amounts brown epidote, pyrite, muscovite; trace of tourmaline.
- 110-120 As above.
- 120-130 As above.
- 130-132 No sample.

GEOLOGIC SUMMARY

	<u>ROCK UNIT</u>	<u>TIME ROCK UNIT</u>
0-20	Upland Sands and Gravels	Pliocene - Pleistocene
20-130	Patuxent Formation	Lower Cretaceous
130-132	No sample	

Virginia Division of Mineral Resources
Robert H. Teifke, Geologist
September 20, 1965

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²³
Upland Sand and Gravel (0-20')

0-10 Sand — orange-brown, slightly argillaceous and silty; very-fine- to very-coarse-grained, poorly sorted, subangular; quartz, with traces of magnetite, muscovite, brown epidote.

²³
10-20 Sand — buff, slightly argillaceous and silty, slightly pebbly (subangular to subrounded quartz gravel, 2-3 mm); fine- to very-coarse-grained, poorly sorted, angular to subangular; quartz.

²³
Patuxent Formation (20-130')

²³
20-30 Sand — yellowish-brown, slightly argillaceous, scattered pebbles of quartz up to 10 mm; medium- to very-coarse-grained, poorly sorted, subangular; 90-95% clear quartz, 5-10% dull white, weathered microcline.

30-40 Sand — buff, slightly to moderately argillaceous, scattered, subrounded pebbles of quartz (10 mm.); medium- to coarse-grained, moderately sorted, subangular; clear quartz, some weathered white microcline, and a small amount of muscovite.

40-50 Sand — brownish-orange, slightly argillaceous, scattered subrounded pebbles of quartz (10 mm.); coarse- to very-coarse-grained, moderately sorted, angular to subangular; 35% clear quartz, 15% white weathered microcline; small amount coarse muscovite and traces of epidote, tourmaline (?).

50-60 Sand and Gravel — buff, very slightly argillaceous; gravel (about 30% of sediment) consists of subrounded to rounded quartz, minor white microcline, with average diameter of 4-6 mm, and numerous rounds and broken rounds of quartz with average diameter of 20 mm.; sand (about 75% of sediment) coarse- to very-coarse-grained, moderately sorted, subangular to subrounded; clear quartz with about 10% white microcline.

60-70 As above.

65-70 Sand — buff; coarse- to very-coarse-grained (mode at 1.0 mm), well-sorted, subangular to subrounded; clear quartz with 5-10% white microcline.

70-80 Sand — brown, slightly argillaceous, small amount small rounded gravel (2-8 mm); coarse- to very-coarse-grained, moderately sorted, subangular to subrounded; clear quartz with about 5% white microcline; small amount brown epidote.

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- 80-90 Sand — brownish-gray, moderately argillaceous (brown and dark-gray clays), moderately pebbly (about 15% of sediment consists of small 2-8 mm, subrounded gravel, mostly quartz but some white microcline); sand coarse- to very-coarse-grained, moderately sorted, subangular to subrounded; clear quartz with about 10% subrounded to rounded white microcline.
- 90-100 Sand and Gravel — brownish-gray, very slightly argillaceous gravel (about 30% of sediment) consists of well-sorted, subrounded to rounded quartz and white microcline, with average diameter of 5 mm. ; sand (about 70% of sediment) coarse- to very-coarse-grained, subangular to slightly subrounded, moderately sorted; small amount of subround, chalky white feldspar; traces of brown epidote, muscovite, and pyrite.
- 100-110 Sand and Gravel — gray; slightly argillaceous; gravel (about 25% of sediment) consists of subrounded to rounded quartz and feldspar 2-18 mm. in diameter; sand (about 75% of sediment) coarse- to very-coarse-grained, subangular to subrounded, moderately sorted; arkosic (white and gray microcline); abundant subangular pink garnet; small amounts brown epidote, pyrite, muscovite; trace of tourmaline.
- 110-120 As above.
- 120-130 As above.
- 130-132 No sample.

GEOLOGIC SUMMARY

	<u>ROCK UNIT</u>	<u>TIME ROCK UNIT</u>
0-20	Upland Sands and Gravels Columbia Group	Pliocene Pleistocene
²³ 20-130/132	Patuxent Formation	Lower Cretaceous
130-132	No sample	Early

R. H. Teifke
3/1/72

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