

OWNER: Allied Chemical Corporation (Fibers Division)
DRILLER: Mitchell's Well & Pump Company
COUNTY: Chesterfield (Hopewell)

VDMR #1506
WWCR #162
TOTAL DEPTH: 171'

GEOLOGIC LOG

Columbia Group (0-20')

0-10 Clay — reddish-brown, very sandy; sand fine- to medium-grained, moderately sorted, angular to subangular; moderate amount of soft, weathered mica (muscovite and Fe-Mg micas); scattered intensely weathered rock fragments; hornblende, magnetite, and earthy hydrous iron oxides present.

10-20 less clay and more sand; feldspar present.

Pamunkey Group (20-30')

20-30 Sand — gray, very argillaceous, small amount limestone and quartz gravel (up to 10 mm); fine- to very-coarse-grained, rather poorly sorted, variably rounded; 10-15% glauconite, about 5% potassic feldspar, abundant grains of glauconitic limestone sand, and relatively abundant hornblende fragments (all unweathered); traces of muscovite and phosphorite; some pelecypod fragments, echinoid spines, and fish teeth; abundant foraminifers and ostracods.

Potomac Group (30-171')

30-40 Sand — buff, argillaceous, 5-10% granules and small pebbles; coarse- to very-coarse-grained, fairly well sorted, subangular to subrounded; very arkosic (fresh potassic feldspar); traces of garnet, mica, glauconite, and carbonaceous fragments.

40-50 medium- to very-coarse-grained, less gravel, no glauconite.

50-60 "

60-70 "

70-80 "

80-90 Sand — buff, very slightly silty and argillaceous, about 10% fine gravel, mostly granules; coarse- to very-coarse-grained, fairly well sorted, subangular to subrounded; arkosic in both sand and gravel fractions (fresh, white potassic feldspar); traces of garnet and plant fragments.

90-100 argillaceous, finer grained, more poorly sorted.

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- 100-110 Sand — gray, very argillaceous, about 5% granules and small pebbles; medium- to very-coarse-grained, rather poorly sorted and rounded; arkosic (fresh potassic feldspar); traces of epidote and muscovite.
- 110-120 Sand — gray, very argillaceous, 10-15% granules and small pebbles; medium- to very-coarse-grained, rather well sorted (skewed fine), poorly rounded; arkosic: small amounts muscovite and pink garnet.
- 120-130 "
- 130-140 Sand — light-gray, very argillaceous; medium- to very-coarse-grained, fairly well sorted, subangular to subrounded; arkosic; traces of muscovite, garnet, tourmaline, and brown epidote.
- 140-150 coarser, with about 10% small pebbles.
- 150-171 Sand — buff, clean, about 10% fine, well-sorted poorly rounded gravel (2-5 mm); coarse- to very-coarse-grained, fairly well sorted, poorly rounded; arkosic; iron staining common.

GEOLOGIC SUMMARY

	<u>ROCK UNIT</u>	<u>AGE</u>
0-20	Columbia Group	Pliocene-Pleistocene
20-30	Pamunkey Group	Eocene
30-171	Potomac Group	Lower Cretaceous

Virginia Division of Mineral Resources
Robert H. Teifke, Geologist
March 25, 1966