

OWNER: Mr. Joseph Sturt (Hill Top Trailer Park)
DRILLER: Mitchell's Well & Pump Company
COUNTY: Prince George (Pr. George C.H.)

VDMR: 1937
WWCR: 165
TOTAL DEPTH: 168'

GEOLOGIC LOG

Depth in feet

COLUMBIA GROUP (0-20)

- 0-10 Sand - pale-orange, clayey, a few granules; very fine- to coarse-grained, moderately sorted (skewed fine), angular; clear quartz; feldspar common in coarse fraction
- 10-20 Clay - bright-orange, mottled red; moderately sandy; sand is poorly sorted, with some feldspar

YORKTOWN AND CALVERT FORMATIONS (20-90')

- 20-30 Sand - abundant matrix of brownish-gray clay, 15% pelecypod shell fragments; fine-grained, well sorted, angular to subangular; minor carbonophosphorite (small, black fragments) and glauconite; a few echinoid spines
- 30-40 Sand - orange-brown clay binder, 20% shell fragments, including a few echinoid spines; medium-grained, moderately sorted, subangular, clear quartz; minor-fine-grained glauconite, magnetite, black carbonophosphorite; a few foraminifers and ostracods
- 40-50 " "
- 50-60 Sand - dark greenish-gray, very slightly clayey; fine grained, extremely well-sorted, angular; remarkably uniform
- 60-70 Sand - dark greenish-gray, clayey; fine to very fine-grained, very well-sorted, angular; very uniform
- 70-80 Clay - medium-gray, with greenish cast, abundant coarse-grained silt to fine-grained sand; trace of glauconite; foraminifers common
- 80-90 Sand - medium-gray with greenish cast, very clayey; fine-grained, well sorted, angular; very slightly glauconitic and muscovitic

MATTAPONI FORMATION (90-110')

- 90-100 Sand - black-clay binder; fine- to very fine-grained, well sorted, very angular; clear quartz (80%), fine fragments of dark-gray to black carbonophosphatic material (10-15%) and glauconite (5-10%); moderately muscovitic; coarser grains and nodules of phosphorite are common

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100-110 Sand - brownish-black clay binder; fine grained, fairly well sorted; 50% clear to green-tinted, angular quartz; 50% greenish-black glauconite; slightly muscovitic

PATUXENT FORMATION (110-168')

110-120 Gravel and Sand - clean; 70% fine gravel (2-10 mm); 30% coarse- to very coarse-grained, fairly well-sorted, subangular to subrounded sand (both fractions are feldspathic); authigenic pyrite relatively abundant (commonly as cement)

120-130 Sand - grains coated with brown clay; 10-15% granule gravel; coarse- to very coarse-grained, well-sorted, subangular to subrounded; very feldspathic; pyrite relatively abundant (authigenic, cementing)

130-140 Sand and Clay - 50% coarse feldspathic sand; 50% yellowish brown, silty, micaceous, sand-free clay

140-150 Sand - white, clean, a few small pebbles and large cleavage fragments of feldspar; coarse- to very coarse-grained, fairly well sorted, subangular to subrounded; very feldspathic; minor garnet; some authigenic pyrite

150-168 " "

GEOLOGIC SUMMARY

	<u>Rock Unit</u>	<u>Age</u>
0-20	Columbia Group	Pleistocene
20-90	Yorktown and Calvert Formations	Eocene
90-110	Mattaponi Formation	Paleocene - Late Cretaceous
110-168	Patuxent Formation	Early Cretaceous

Virginia Division of Mineral Resources
Robert H. Teifke, Geologist
October 18, 1967

Robert H. Teifke
March 3, 1972