



OWNER: Lee Park Golf Club, Inc., Well #1  
DRILLER: Mitchell's Well and Pump Company  
COUNTY: Prince George (Petersburg)

VDMR #1510  
WWCR #160  
TOTAL DEPTH: 224'

### GEOLOGIC LOG

#### Columbia Group (0-30')

- 0-10 Sand — buff, argillaceous; fine- to medium-grained, well-sorted, angular to subangular; small amounts of feldspar and muscovite.
- 10-20 Sand — buff, very argillaceous, a very few granules and very small pebbles; fine- to coarse-grained, moderately sorted (skewed fine), subangular; slightly feldspathic.
- 20-30 Sand — yellowish-brown, argillaceous, scattered pebbles (up to 15 mm); medium- to very-coarse-grained, moderately sorted, subangular; white potassic feldspar abundant, especially as coarser grains; small amounts of garnet, brown and green epidote, hornblende, muscovite, magnetite, kyanite, hematite, and limonite (granules).

#### Yorktown Formation (30-70')

- 30-40 Sand — gray, argillaceous, a very few small pebbles; fine- to medium-grained, fairly well sorted, angular to subrounded; scattered grains of feldspar and muscovite.
- 40-50 scattered, well-worn shell fragment (pelecypod and bryozoa).
- 50-60 Sand — gray, argillaceous; fine- to medium-grained, fairly well sorted, subangular; small amounts of yellowish-green glauconite, hornblende, gray phosphorite, muscovite, epidote; a few small, well-worn shell fragments.
- 60-70 Sand — light-gray, argillaceous; fine- to medium-grained, fairly well sorted, subangular to subrounded; 10-20% coarse shell fragments (pelecypods, gastropods, echinoid spines); trace of yellow-green epidote; a very few foraminifera.

#### Pre-Yorktown Chesapeake Group (70-110')

- 70-80 Sand — grayish-brown, moderately argillaceous, a few coarse shell fragments; fine- to very-coarse-grained, rather poorly sorted, subangular.
- 80-90 Clay — light-gray, slightly sandy.
- 90-100 more sandy.

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100-110 Clay — light gray, slightly sandy.

Pamunkey Group (110-120')

110-120 Sand — black, with greenish cast, slightly to moderately argillaceous; about 5% rounded pebbles, including phosphate nodules up to 10 mm; fine-grained, well-sorted, sub-angular (coarser grains are rounded, polished); subequal amounts of clear to green-stained quartz and fresh glauconite; minor phosphorite and muscovite; traces of garnet and brown epidote; a few shell fragments and vertebrate remains.

Potomac Group (120-160')

120-130 Sand — light-gray, moderately argillaceous to argillaceous, about 10% fine gravel; medium- to very-coarse-grained, poorly sorted, subangular to subrounded; arkosic.

130-140 "

140-150 "

150-160 "

Petersburg Granite (160-224')

160-170 Biotite-Microcline Granite — gray.

170-180 Biotite-Microcline Granite — buff, weathered.

180-190 "

190-200 gray, much less biotite.

200-210 trace of pyrite.

210-224 "

GEOLOGIC SUMMARY

	<u>ROCK UNIT</u>	<u>AGE</u>
0-30	Columbia Group	Pliocene-Pleistocene
30-70	Yorktown Formation	Miocene
70-110	Pre-Yorktown Chesapeake Group	Miocene
110-120	Pamunkey Group	Eocene
120-160	Potomac Group	Lower Cretaceous
160-224	Petersburg Granite	Paleozoic

Virginia Division of Mineral Resources  
Robert H. Teifke, Geologist  
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