

OWNER: Sprague Electric Company, Well #3
DRILLER: Ray Taylor Drilling Company
COUNTY: Carroll (Hillsville)

VDMR #1460
WWCR #195
TOTAL DEPTH: 225'

GEOLOGIC LOG

- 0-10 Residual Gneiss — light-pinkish-brown, grain size 0.2 to 5 mm; weathered biotite and muscovite, quartz, oligoclase, minor alkali feldspar, apatite, garnet, chlorite, magnetite-ilmenite.
- 10-20 As above.
- 20-25 No sample.
- 25-30 Gravel and Boulders of Gneiss and Quartz — light-gray, coarse-grained biotite gneiss with muscovite, feldspar quartz and garnet; light-greenish-gray actinolite gneiss with chlorite, sericite, quartz, feldspar and minor vein calcite; medium-dark-greenish gray hornblende gneiss with quartz, biotite, and feldspar; the quartz gravel is iron stained and rounded.
- 30-40 As above.
- 40-52 Residual Gneiss — light-pinkish-brown, coarse-grained; weathered biotite and muscovite; quartz, feldspar, chlorite; minor hornblende, ilmenite-magnetite; few small rounded pebbles of quartz.
- 52-62 Biotite-Muscovite Gneiss — white and dark-brown, average grain size 1 mm; quartz, oligoclase-andesine, garnet and magnetite-ilmenite.
- 62-72 As above.
- 72-82 As above — sheared, abundant veins of actinolite and chlorite, minor pyrite.
- 82-92 Actinolite-Chlorite Gneiss — greenish-white to medium-gray-green, banded, grain size 0.1 to 3 mm; quartz, andesine, alkali feldspar, chlorite, actinolite, sericite, garnet, minor calcite.
- 92-102 As above — no medium-gray-green.
- 102-112 Biotite-Muscovite Gneiss — light-gray, average grain size 0.5 mm; quartz, biotite, muscovite, feldspar, minor garnet; one fragment of vein quartz with slickensides of sericite and calcite.
- 112-122 As above — coarser grained, minor actinolite and chlorite.
- 122-132 As above — less actinolite more chlorite, trace pyrite.
- 132-142 As above — darker, still more chlorite.

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- 142-150 Chlorite-Biotite Gneiss — light-greenish-gray, grain size 0.5 to 1.5 mm; quartz, sodic oligoclase, chlorite, biotite, muscovite, garnet; minor hornblende, sphene, epidote, apatite, and pyrite.
- 150-160 As above — less biotite, minor actinolite.
- 160-170 As above.
- 170-180 As above — less quartz, more chlorite.
- 180-190 As above.
- 190-200 As above — with minor vein quartz.
- 200-225 No sample.

GEOLOGIC SUMMARY

These samples are of biotite and chlorite gneiss probably of precambrian age.

Virginia Division of Mineral Resources
Hollis N. Walker, Geologist
January 17, 1966