

OWNER: Daniel Creek Water Company #6
DRILLER: Carolina Virginia Well Company
COUNTY: Henry (Collinsville)

VDMR: 1691
WWCR: 167
TOTAL DEPTH: 400'

GEOLOGIC LOG

Depth in feet

- 0-80 No samples
- 80-90 Biotite-hornblende-plagioclase gneiss - biobole (biotite and amphibole) to felsic (feldspar and quartz) ratio is 1 : 3. Quartz (less than 10%), magnetite (less than 4%); entire sample is slightly weathered and comprised of sand-size grains.
- 90-100 " "
- 100-110 " with granitic (migmatitic lenticles?) fragments containing 95% feldspar and quartz, and 5% biotite.
- 110-120 Biotite-hornblende-plagioclase gneiss - with pegmatitic granite or potassium feldspar porphyroblasts; one gray-brown potassium-feldspar cleavage fragment (18 mm x 20 mm) with trace of biotite.
- 120-130 Biotite-hornblende-plagioclase gneiss - with minor felsic lenticles; bioboies range from 5-35% , and average 20% of sample.
- 130-140 Biotite-amphibole-plagioclase gneiss - with biotite granite fragments that contain about 10% biotite and no amphibole.
- 140-150 Biotite-plagioclase gneiss - with minor amphibolite (40% amphibole, 60% plagioclase).
- 150-160 Biotite-amphibole-plagioclase gneiss - with minor, coarse biotite-granite porphyroblasts or pegmatitic lenticles. One gneissic fragment consists of 40% biobole (largely greenish-black amphibole) and 60% plagioclase (may be equivalent to quartz monzonite).
- 160-170 Biotite-plagioclase gneiss - with minor biotite granite and pegmatitic lenticles.
- 170-180 Amphibolite - 50% plagioclase, 40% blue-black amphibole, 10% biotite.
- 180-190 Biotite-muscovite granite and altered amphibolite
- 190-200 Amphibolite - 50-60% plagioclase, 40-50% green amphibole, biotite and chlorite; pyrite occurs in ubiquitous trace amounts with green amphibole.

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- 200-210 Amphibolite and biotite granite
- 210-220 Amphibolite - with minor biotite -granite. Most of the amphibolite has been altered to a gray-green rock with 20-40% biotite and green-green plagioclase; traces of pyrite occur in the altered gabbroic material.
- 220-230 Altered amphibolite - with biotite-plagioclase-quartz and small amount of pegmatitic quartz.
- 230-240 Altered amphibolite - with some biotite-plagioclase-quartz gneiss.
- 240-250 Biotite-plagioclase-quartz gneiss - with some amphibolite.
- 250-260 Biotite-plagioclase-quartz gneiss - with a small amount of pegmatite and some potassium feldspar, quartz, and green muscovite.
- 260-270 Biotite-plagioclase-quartz gneiss - with hornblende-plagioclase gneiss that consists of 20% black hornblende and 78% gray plagioclase with traces pyrite, pyrrhotite and chalcopyrite.
- 270-280 Biotite-plagioclase gneiss
- 280-290 Biotite-plagioclase gneiss - with biotite granite.
- 290-300 Biotite-plagioclase-quartz gneiss - with altered amphibolite traces of pyrite. and
- 300-310 "
- 310-320 "
- 320-330 " with a 2 mm-band of manganese oxides in biotite granite.
- 330-340 "
- 340-350 Amphibolite with biotite-muscovite granite - traces of magnetite, pyrrhotite, chalcopyrite, and 2-3 mm bands black aphanitic manganese oxides; black aphanite with slickensides indicative of shearing.
- 350-360 Amphibolite and biotite-plagioclase gneiss
- 360-370 Biotite-plagioclase-quartz gneiss - with minor chlorite and traces of pyrite.

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- 370-380 Altered amphibolite - with biotite granite (5% biotite); amphibolite contains black aphanitic veinlets (manganese oxides?) and traces of pyrite, pyrrhotite, chalcopyrite, and magnetite.
- 380-390 Biotite-plagioclase-quartz gneiss and biotite granite
- 390-400 "

GEOLOGIC SUMMARY

<u>Rock Unit</u>	<u>Age</u>
0-80 No samples	
80-400 Interbanded altered amphibolite and biotite-plagioclase-quartz gneiss with minor biotite granite.	Early Paleozoic

Virginia Division of Mineral Resources
Richard S. Good
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