

OWNER: American Tel. & Tel. (Omps #1)
DRILLER: Herman Singhas
COUNTY: Frederick (Whitacre)

VDMR # 959
WWCR # 281
TOTAL DEPTH : 400

GEOLOGIC LOG

- 0-40 No sample- (Drillers log says overabundant sandstone, fine grained, tan, red and gray.)
- 40-55 Sandstone and Siltstone - tanish-orange, brown, fine grained, subangular to subrounded, friable, arkosic, multi-colored quartz grains cemented by silt-sized feldspathic particles.
- 55-70 As above - gray matrix.
- 70-85 Sandstone and Siltstone - tanish-orange, fine grained (1/7 mm average size) subangular to subrounded, friable, arkosic, multi-colored quartz grains cemented by yellow-brown or red-brown feldspathic matrix, minor white siliceous clay .
- 85-100 Sandstone and Siltstone - gray, fine grained, subangular to subrounded friable, silty, multi-colored, quartz (mostly milky to clear), cemented by gray, micaceous, feldspathic siltstone.
- 100-115 Sandstone and Siltstone - tanish-brown, fine-grained, subangular to subrounded, friable, arkosic sandstone, multi-colored quartz grains cemented by yellow to brown silt, some iron oxide. Yellowish brown, very fine grained, siliceous, micaceous siltstone with some secondary iron oxide.
- 115-130 As above - with increase in milky vein quartz.
- 130-145 As above
- 145-160 Sandstone and Siltstone - light grayish to brown, fine grained, subangular to subrounded, friable, arkosic, silty sandstone. Brown, very fine grained, medium soft, siltstone.
- 160-175 Sandstone and Siltstone - tanish-brown sandstone, milky, fine grained, angular quartz fragments cemented by brown silt and clay particles. Brown, slightly micaceous siltstone.
- 175-190 Sandstone and Siltstone - tanish-brown, multi-colored, fine grained, angular quartz cemented by cream-colored clay & silt.
- 190-205 As above

- 205-220 Sandstone and Siltstone - grayish-tan, gray, fine grained, subangular quartz grains cemented by light gray silt and clay. Gray to milky, fine grained, subangular quartz cemented by brown silt and clay.
- 220-235 Siltstone and sandstone - grayish-brown, with milky, gray, and clear, fine grained, subangular quartz cemented by brown, orange and white silt and clay. White and gray matrices are extremely fine grained and siliceous.
- 235-250 Siltstone and Sandstone - tan to brown, with fine grained, milky to gray, subangular quartz cemented by brown silt and clay. Some gray, orange, and brown very fine grained, silty, siliceous sandstone. In this interval light gray to light tan, micaceous, silty, sandstone exhibits shear surfaces and minor quartz crystal development.
- 250-265 Sandstone and Siltstone - gray to brown. Milky to gray, fine grained, subangular, quartz cemented by brown or gray silt and clay. Some reddish-brown extremely fine grained siltstone.
- 265-280 Siltstone and Sandstone - milky to gray, fine grained, subangular, quartz cemented by gray to brown silt and clay. Gray, very fine grained siltstone.
- 280-305 As above
- 305-320 As above, plus minor amount of yellow clay.
- 320-335 Siltstone and Sandstone - light brown, fine grained, micaceous, silty, minor white clay. Gray to milky, medium to fine grained, subangular, quartz cemented by dark gray silt & clay.
- 335-350 As above, plus minor amount of vein quartz.
- 350-365 Sandstone and Siltstone - gray to milky, medium to fine grained, subangular quartz, cemented by orange and brown silt. In this interval vein quartz and quartz crystals indicate a shear zone with open spaces.
- 365-380 Sandstone and Siltstone - milky to gray, fine grained subangular quartz cemented by medium to dark gray silt & clay. Minor milky vein quartz and considerable iron oxide.
- 380-395 Sandstone and Siltstone - milky to gray, fine grained, subangular quartz cemented by medium to dark gray silt and clay. Yellow to brown siltstone with considerable vein quartz and crystals.
- 395-400 As above

GEOLOGIC SUMMARYROCK UNITAGE

Juniata formation

Ordovician

Shear zones and partings occur in the 235-250, 350-400 foot depth intervals; the most prominent open zone in the gray and brown, silty, fine grained sandstone is from 350-365 feet.

Virginia Division of Mineral Resources
F. Fitzgerald - Geologist
June 12, 1964