

OWNER: Fairview Community Center Inc.
DRILLER: Sydnor Pump and Well Company, Inc.
COUNTY: Bath

VDMR #938
WWCR #25
TOTAL DEPTH: 408'

GEOLOGIC LOG

Overburden (0-22')

0-20 No sample.

20 Overburden — light-brown, coarse-grained, quartz, sand and sandstone with ferruginous clay, vein quartz, minor magnetite and fragments of ferruginous sandstone.

Oriskany Formation (22-78')

22 Sandstone — cream-colored, coarse-grained, angular, poorly sorted quartz grains with clay cement and a few ferruginous clay, concretions.

35 Sandstone — medium-brown, coarse-grained, subangular, poorly sorted, quartz sand and sandstone, clay cement and ferruginous cement; minor light-brown sandstone, very permeable.

50 Sandstone — white, coarse-grained, quartz sand and sandstone, poorly sorted, subangular clay cement.

65 Ferruginous Sandstone and Goethite — medium-dark brown, coarse- to fine-grained, poorly sorted, subangular quartz, sand with ferruginous clay cement; 50% of the rock fragment are almost pure goethite.

Helderberg Group (78-408')

78 Sandstone and Limestone — sandstone as above ferruginous, porous; limestone medium-dark gray, medium-grained, calcite, and quartz veins.

90 Limestone — medium-dark gray, fine-grained, with calcite veins.

105 As above — with light-gray, medium-grained, limestone.

105-125 Limestone — dark-gray and fine- to medium-gray, minor veins of calcite.

125-145 Dolomitic Limestone — very dark-gray, fine-grained, dolomite; calcite, minor calcite veins.

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- 145-150 Limestone — dark-gray, fine- to medium-grained, calcite veins and chalcedony veins, silty limestone layers.
- 150-160 Limestone — dark-gray, fine-grained, calcite with minor white calcite veins.
- 160-168 Silty Limestone — dark-gray, fine-grained, X-ray examination; calcite, quartz, minor epidote.
- 168-183 As above.
- 183-198 As above — with white calcite veins and minor buff-colored siltstone.
- 198-213 Calcareous Sandstone — medium-gray, coarse-grained, quartz, calcite and carbonaceous material.
- 213-228 Sandstone and Limestone — 50% light-brown, coarse-grained, calcareous sandstone; limestone, 50% dark-gray, coarse-grained, crystalline limestone.
- 228-243 Marble — light-gray, coarse-grained, crystals of calcite up to 5 mm across, minor pyrite; minor buff-colored siltstone.
- 243-258 Marble — medium-gray, coarse-grained calcite with minor dark, fine-grained, calcareous limestone; and minor buff-colored siltstone.
- 258-273 As above — marble slightly darker, less siltstone.
- 273-288 Dolomite — dark-gray, fine-grained; (X-ray examination shows predominant dolomite, minor calcite and quartz).
- 288-303 Sandstone — buff-colored, medium-grained, subrounded; minor amount of medium-dark gray, fine-grained sandstone.
- 303-318 Dolomite — very dark-gray with minor white; minor quartz.
- 318-333 Dolomite and Sandy Limestone — 50% dolomite as above; 50% very light-gray, coarse-grained, limestone with rounded grains of quartz and chert.
- 333-348 Sandstone — 1/3 of which is light-gray, fine-grained, subrounded with calcareous cement.
- 1/3 of sample is dark-gray, shaly, minor chlorite, silt and calcareous cement.
- 1/3 of sample is light-brown, fine-grained, angular, calcareous cement.

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- 348-363 Sandy Dolomite — light-gray, coarse-grained and dark-gray, fine-grained; darker, contains chlorite; minor pyrite throughout.
- 363-378 Silty Dolomitic Limestone — dark-gray, fine-grained and dark-brown, medium-grained, X-ray examination showed predominance of calcite, lesser amounts of quartz and dolomite.
- 378-393 As above.
- 393-400 Carbonaceous Dolomite — very dark-gray almost black, very fine-grained; calcareous minor brown siltstone; vein calcite.
- 400-408 As above — less siltstone, vein quartz, very minor pyrite.

GEOLOGIC SUMMARY

	<u>ROCK UNIT</u>	<u>TIME ROCK UNIT</u>
0-22	Overburden	Quaternary
22-78	Oriskany Formation	Devonian
78-408	Helderberg Group	Devonian

Virginia Division of Mineral Resources
Hollis N. Walker, Geologist
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