

INTERVAL SHEET

WWCR 198

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VDMR Well No.: 1415

Date 11/15/65

Sample Interval: from 0 to 500

PROP: Clay Mill School #2

Total depth 500

COMP: Falwell Well Corp.

Oil  Gas  Water  Exploratory

COUNTY: Halifax (Clay's Mill)  
VDMR Well No: W-1415

Cuttings  Core  Other

From-To	From-To	From-To	From-To	From-To
-	-	0 - 10	300 - 310	-
-	-	10 - 20	310 - 320	-
-	-	20 - 30	320 - 330	-
-	-	30 - 40	330 - 340	-
-	-	40 - 50	340 - 350	-
-	-	50 - 60	350 - 360	-
-	-	60 - 70	360 - 370	-
-	-	70 - 80	370 - 380	-
-	-	80 - 90	380 - 390	-
-	-	90 - 100	390 - 400	-
-	-	100 - 110	400 - 410	-
-	-	110 - 120	410 - 420	-
-	-	120 - 130	420 - 430	-
-	-	130 - 140	430 - 440	-
-	-	140 - 150	440 - 450	-
-	-	150 - 160	450 - 460	-
-	-	160 - 170	460 - 470	-
-	-	170 - 180	470 - 480	-
-	-	180 - 190	480 - 490	-
-	-	190 - 200	490 - 500	-
-	-	200 - 210	-	-
-	-	210 - 220	-	-
-	-	220 - 230	-	-
-	-	230 - 240	-	-
-	-	240 - 250	-	-
-	-	250 - 260	-	-
-	-	260 - 270	-	-
-	-	270 - 280	-	-
-	-	280 - 290	-	-
-	-	290 - 300	-	-

OWNER: Halifax County Schools  
(Clay's Mill School Well #2)  
DRILLER: Falwell Well Corp.  
COUNTY: Halifax (Clay's Mill)

VDMR Well # 1415  
WWCR WELL # 198  
TOTAL DEPTH : 500

GEOLOGIC LOG

0-10	Saprolitic Gneiss - medium-brown and white, coarse to very-coarse-grained; quartz, feldspar, biotite and muscovite.
10-20	As above
20-30	As above
30-40	As above
40-50	As above
50-60	Cataclastic Gneiss - medium-gray, green-gray and white; fine to very coarse grained; biotite, oligoclase, quartz, microcline, hornblende, muscovite, chlorite, sericite epidote, apatite and calcite; porphyroblasts of quartz and feldspar in biotite rich areas; rounded augen in chlorite-sericite rich areas; minor micro-breccia of microcline fragments in a chlorite matrix. Probably this level is a flaser gneiss however such large structures are impossible to recognize in well cuttings.
60-70	As above - trace garnet.
70-80	As above - trace weathering stain.
80-90	As above - less chlorite, more hornblende.
90-100	Biotite Gneiss - medium-gray, medium-coarse-grained, with extremely-coarse porphyroblasts of quartz, feldspar and garnet; matrix: biotite, quartz, feldspar, hornblende, muscovite, chlorite and trace of pyrite.
100-110	As above - more chlorite; some porphyroblasts are crushed some rounded to augen; trace slickensides (see description of 50-60 ft. level).
110-120	As above
120-130	Biotite Gneiss - black and white, coarse-grained or larger; feldspar, biotite, quartz, minor muscovite hornblende, garnet and pyrrhotite. (This level too finely crushed to determine grain size and structure.)
130-140	As above

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- 140-150 Biotite Gneiss - black and white; medium to extremely-coarse-grained; porphyroblasts and augen of feldspar and quartz; matrix: biotite, microcline, oligoclase, quartz; minor garnet, muscovite, chlorite, hornblende, epidote, and calcite; minor hornblende gneiss and chlorite-sericite gneiss.
- 150-160 As above - no chlorite-sericite gneiss.
- 160-170 As above - less hornblende gneiss; more disseminated hornblende.
- 170-180 Biotite Gneiss - medium-gray and white, medium-to very-coarse-grained; biotite, feldspar, quartz, garnet, hornblende, minor chlorite, sericite, epidote and muscovite.
- 180-190 As above
- 190-200 As above
- 200-210 Hornblende Gneiss - dark-green and white, very-coarse-grained; hornblende, oligoclase-andesine, biotite, quartz, apatite, garnet; trace sphene and sericite; minor biotite gneiss with a few of the biotite crystals 15 mm across.
- 210-220 As above - more biotite gneiss, no large crystals of biotite.
- 220-230 Biotite Gneiss - white and black, medium-coarse-grained; biotite, feldspar, quartz garnet and muscovite; minor hornblende and epidote; minor hornblende gneiss as above.
- 230-240 As above - no hornblende gneiss; more feldspar and in large cleavage fragments; trace chlorite.
- 240-250 As above
- 250-260 As above
- 260-270 As above
- 270-280 As above - minor pyrite.
- 280-290 Gneiss - light-gray, medium-to very-coarse-grained, oligoclase-andesine, quartz, alkali-feldspar, biotite, muscovite; trace calcite and epidote.
- 290-300 As above
- 300-310 Biotite Gneiss - black and white, minor pink; coarse-to extremely-coarse-grained; biotite, oligoclase, quartz, microcline, minor chlorite, epidote, muscovite, hornblende, and pyrite; large porphyroblastic augen of colorless oligoclase.

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- 310-320 Biotite Gneiss - black and white, minor pink; coarse-to extremely-coarse-grained; biotite, oligoclase, quartz, microcline, minor chlorite, epidote, muscovite, hornblende, and pyrite; large porphyroblastic augen of colorless oligoclase.
- 320-330 As above - less pink.
- 330-340 As above - slightly more chlorite.
- 340-350 Chlorite-Epidote Gneiss - medium-light-gray, slightly greenish and minor pink; medium-to very-coarse-grained, oligoclase, microcline, epidote, sericite, chlorite, biotite minor pyrite; minor slickensides.
- 350-360 As above - more biotite.
- 360-370 As above
- 370-380 As above
- 380-390 Feldspar-Epidote Gneiss - white, black, and yellow-green, medium to extremely coarse grained; oligoclase (about 40%) with microcline, epidote, biotite and hornblende.
- 390-400 As above
- 400-410 As above - more hornblende.
- 410-420 As above
- 420-430 As above - less biotite.
- 430-440 As above
- 440-450 Gneiss - black and white, minor pink, coarse-to very-coarse-grained; plagioclase, alkali-feldspar, biotite hornblende, chlorite; minor epidote and pyrite.
- 450-460 As above - less hornblende.
- 460-470 As above - more hornblende.
- 470-480 As above
- 480-490 As above - less hornblende, minor muscovite.
- 490-500 As above - more oligoclase.

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GEOLOGIC SUMMARY

0-500 Biotite Gneiss. This gneiss was apparently a hornblende gneiss that has been granitized. The chloritic and sericitic portions are due to later fracturing, distortion and recrystallization.

Virginia Division of Mineral Resources  
Hollis N. Walker, Geologist  
November 30, 1965