

County: James City

VDMR Well # 6039

Well: "M"

Property Owner:

Driller: Va Dept. Highways (VDMR)

Location: Rt 614 at BM 68 (339,700m East; 4,125,560m North)

Altitude Top of Hole: 68'

Total Depth: 30.0'

Started Drilling: 21 March 79

Completed Drilling: " "

Sample Description by: Kelvin Ramsey

GEOLOGIC SUMMARY

Depth	Thickness	Formation	Age
0-15.6'	15.6'	Columbia Group	Pleistocene
15.6'-30'	14.4'	Yorktown Fm.	Pliocene

VIRGINIA DIVISION OF MINERAL RESOURCES
 Box 3667, Charlottesville, VA 22903

INTERVAL SHEET

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Well Repository No.: W- 6039

Date rec'd: 21 March '79 Date Processed: June 1, 1979

Sample Interval: from 5.0' to: 30.0'

PROPERTY: Rt. 614 at BM 68

Number of samples: 29

COMPANY:

Total Depth: 30.0'

COUNTY: James City

Oil or Gas: Water: Exploratory: X

From-To	From-To	From-To	From-To	From-To
5.0 - 5.3	25.6 - 26.0	-	-	-
5.3 - 5.6	26.0 - 26.3	-	-	-
5.6 - 6.0	26.3 - 26.6	-	-	-
6.0 - 6.3	26.6 - 30.0	-	-	-
6.3 - 6.6	-	-	-	-
10.0 - 10.3	-	-	-	-
10.3 - 10.6	-	-	-	-
10.6 - 11.0	-	-	-	-
11.0 - 11.3	-	-	-	-
11.3 - 11.6	-	-	-	-
11.6 - 12.0	-	-	-	-
15.0 - 15.3	-	-	-	-
15.3 - 15.6	-	-	-	-
15.6 - 16.0	-	-	-	-
16.0 - 16.3	-	-	-	-
16.3 - 16.6	-	-	-	-
16.6 - 17.0	-	-	-	-
20.0 - 20.3	-	-	-	-
20.3 - 20.6	-	-	-	-
20.6 - 21.0	-	-	-	-
21.0 - 21.3	-	-	-	-
21.3 - 21.6	-	-	-	-
21.6 - 22.0	-	-	-	-
25.0 - 25.3	-	-	-	-
25.3 - 25.6	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

Interval

GEOLOGIC LOG

W-6039

5.0' - 5.3'	Same as below
5.3' - 5.6'	Clay - light 2.5Y-7/2; some sand - fine grained; some silt; mottled w/ dark red clay.
5.6' - 6.0'	Same as above; some heavies.
6.0' - 6.3'	Same as above - some heavies.
6.3' - 6.6'	Same as above - more red; some heavies (muscovite).
6.6' - 10.0'	Missing.
10.0' - 10.3'	Sand - gray 2.5Y N61; gradation from top to bottom fine to coarse grained; subrounded; poorly sorted (coarse-clay); gradation from top to bottom abundant - moderate clay; some heavies; red laminations at top; red to orange band in middle pocket of heavies.
10.3' - 10.6'	Sand - gray 2.5Y N61; coarse-medium grained; subrounded; v. poorly sorted (coarse-clay); moderate - abundant clay; some heavies red & orange mottling; laminations of heavies muscovite; few highly weathered feldspar?
10.6' - 11.0'	Same as above, crossbedding;
11.0' - 11.3'	Same as above; crossbedding;
11.3' - 11.6'	Same as above - grains more towards medium -
11.6' - 12.0'	Same as above.
12.0' - 15.0'	Missing
15.0' - 15.3'	Clay - yellowish brown 10YR-5/8; abundant sand - coarse grained; extremely poorly sorted (pebbles 1"-clay) some heavies.
15.3' - 15.6'	Same as above; 1 large pebble; slightly laminated w/ lighter color clay; 1% glauconite.
15.6' - 16.0'	Clay - yellowish brown 10YR-5/8; moderate-some sand; fine grained; poorly sorted (medium)-clay); 2-3% glauconite laminated w/ lighter clay; crossbedded?
16.0' - 16.3'	Same as above - 1 pebble bottom 1-1/2" dark color, finer grained.
16.3' - 16.6'	Clay - yellowish brown 10YR-5/6; moderate - some sand; coarse grained; v. poorly sorted (coarse-clay); subrounded; feldspar.

Interval

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- 16.6' - 17.0' Same as above - more clay, less sand; laminated light & dark brown; feldspar.
- 17.0' - 20.0' Missing.
- 20.0' - 20.3' Clay - yellowish brown 10YR-5/8; abundant sand; coarse-medium grained; v. poorly sorted (coarse-clay); subrounded; 5% glauconite laminations of brown clay in sandy clay; feldspar.
- 20.3' - 20.6' Same as above - lamination of fine gray sand & heavies.
- 20.6' - 21.0' Same as above, layer of gray clay more sand less clay.
- 21.0' - 21.3' Sand - yellowish brown 10YR-5/8; coarse grained; subrounded; poorly sorted (coarse-clay); 1% glauconite abundant-moderate clay; laminations brown clay few feldspars.
- 21.3' - 21.6' Same as above; 1" clay bed in center; crossbedded? some heavies.
- 21.6' - 22.0' Same as above; slightly darker; two 1/2" clay beds; manganese, 10% heavies.
- 22.0' - 25.0' Missing.
- 25.0' - 25.3' Sand - yellowish brown 10YR-5/8; medium-fine grained; subrounded; moderately sorted (medium-clay); moderate clay, 5% heavies; day layer.
- 25.3' - 25.6' Same as above.
- 25.6' - 26.0' Same as above.
- 26.0' - 26.3' Same as above - white shell fragments; echinoderm plate & spines in coquina.
- 26.3' - 26.6' Same as above; coquina & shell frags; Chesapecten.
- 26.6' - 30.0' Same as above; shell frast coquina; Chesapecten.

Hole

logged by
Kelvin Ramsey

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Interval

~~Description~~ GEOLOGIC LOG

- 5.0-5.3 same as below
- 5.3-5.6 Clay; light gray 2.5Y 7/2; some sand-fine grained; some silt; mottled w/ dark red clay
- 5.6-6.0 same as above; some heavies
- 6.0-6.3 same as above - some heavies
- 6.3-6.6 same as above - more red; some heavies (muscovite)
- 6.6-10.0 missing
- 10.0-10.3 Sand; gray 2.5Y N6/; gradation from top to bottom fine to coarse grained; subrounded; poorly sorted (coarse-clay); gradation from top to bottom abundant-moderate clay; some heavies; red laminations at top; red to orange band in middle pocket of heavies
- 10.3-10.6 Sand; gray 2.5Y N6/; coarse-medium grained; subrounded; v. poorly sorted (coarse-clay); moderate-abundant clay; some heavies. red + orange mottling; laminations of heavies muscovite; few highly weathered feldspar?
- 10.6-11.0 same as above; crossbedding;
- 11.0-11.3 same as above; crossbedding;
- 11.3-11.6 same as above - grains more ^{towards} medium -
- 11.6-12.0 same as above

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- 12.0-15.0 missing
- 15.0'-15.3' Clay; yellowish brown 10YR 5/8; abundant sand-coarse grained; extremely poorly sorted (pebbles > 1" - clay) some heavies
- 15.3'-15.6' same as above; 1 large pebble; slightly laminated w/ lighter color clay; 1% glauconite
- 15.6'-16.0' Clay; yellowish brown 10YR 5/8; moderate-some sand; fine grained; poorly sorted (medium)-clay; 2-3% heavies glauconite laminated w/ lighter clay; crossbedded?
- 16.0'-16.3' same as above - 1 pebble bottom 1 1/2" darker color, finer grained;
- 16.3'-16.6' Clay; yellowish brown 10YR 5/6; moderate-some sand; coarse grained; v. poorly sorted (coarse-clay); subrounded; feldspar
- 16.6-17.0' same as above - more clay, less sand; laminated light + dark brown; feldspar
- 17.0'-20.0' missing
- 20.0'-20.3' Clay; yellowish brown 10YR 5/8; abundant sand; coarse-medium grained; v. poorly sorted (coarse-clay); subrounded; 5% glauconite laminations of brown clay in sandy clay; feldspar
- 20.3'-20.6' same as above - lamination of fine^{gray} sand + heavies
- 20.6'-21.0' same as above, layer of gray clay more sand less clay
- 21.0-21.3' same as above

Hole
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- 21.0'-21.3' Sand; yellowish brown 10YR 5/8; coarse grained; subrounded; poorly sorted (coarse-clay); 1% glauconite abundant-moderate clay; laminations brown clay few feldspars
- 21.3'-21.6' same as above; 1" clay bed in center; crossbedded; ^{some} heavies
- 21.6'-22.0' same as above; slightly darker; two ^{1/2"} clay beds; manganese; ^{10% heavies}
- 22.0'-25.0' missing
- 25.0'-25.3' Sand; yellowish brown 10YR ^{5/8}; medium ^{fine} grained; subrounded; moderately sorted (medium-clay); moderate clay; 5% heavies; clay layer
- 25.3'-25.6' same as above
- 25.6'-26.0' same as above
- 26.0'-26.3' same as above - white shell fragments; echinoderm plate + spines in coquina
- 26.3'-26.6' same as above; coquina + shell frags; Chesapecten
- 26.6'-30.0' same as above; shell frags + coquina; Chesapecten