

W#: 4901
C#: 198

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

DIVISION OF MINERAL RESOURCES

JAMES L. CALVER, COMMISSIONER

OFFICE ADDRESS:
McCormick Road
Charlottesville, Virginia

MAILING ADDRESS:
3667
Charlottesville, VA 22903

WATER WELL COMPLETION REPORT

OWNER: Commonwealth of Virginia Mailing Address: P.O. Box 808, Fredericksburg

TENANT: Department of Highways Mailing Address: _____

DRILLER: Douglas Drilling Company Mailing Address: Box 498, Warsaw, Va. 22572

WELL LOCATION: County Westmoreland Approx. 1 1/2 ~~to~~ miles East (direction) of
Mt. Holly and 1/4 ~~to~~ miles West (direction) of St. Rt. 202

(GIVE DIRECTION AND DISTANCE IN FEET OR MILES FROM TWO REFERENCE POINTS - ROADS, TOWNS, RIVERS, ETC. - ON COUNTY HIGHWAY OR OTHER MAP.)

DATE STARTED: February 16, 1977 DATE COMPLETED: February 18, 1977

TYPE OF DRILL RIG USED: rotary TOTAL DEPTH 305 feet

WATER LEVEL: Stands 88 feet below surface OR
has NATURAL flow of --- gallons per minute.

YIELD TEST: Method submersible pump
Drawdown 58 feet
Rate 29 gal. per min.
Duration 8 hrs., - min.

HOLE SIZE: 8 1/2 inches from 0 to 63 feet
6 1/2 inches from 63 to 206 feet
4 inches from 206 to 305 feet

WATER ZONES: from 278 to 288 feet
from _____ to _____ feet
from _____ to _____ feet

SCREEN SIZE: 2 inches from 278 to 288 feet
_____ inches from _____ to _____ feet
_____ inches from _____ to _____ feet

WATER: Color _____ Taste _____
Odor _____ Temp. _____ °F

CASE SIZE: 4 inches from 0 to 210 feet
2 inches from 210 to 278 feet
2 inches from 288 to 305 feet

WELL TO SUPPLY: (check one) Home _____
Farm _____ Town _____ School _____
Industry _____ Other Hwy. Dept. Maint. Hdqtrs.

GROUTING: Method tremmie pipe
Material neat cement Depth 63 feet

WATER ANALYSIS AVAILABLE: Yes _____ No X

PUMP: Type _____
Capacity _____ gal per min
Depth of intake _____ feet

DRILL CUTTINGS SAVED: Yes X No _____

(DRILL CUTTINGS SHOULD BE COLLECTED AT 10 FOOT INTERVALS. THESE SAMPLES MAY BE SHIPPED TO THIS OFFICE EXPRESS COLLECT. SAMPLE BAGS ARE FURNISHED FREE OF CHARGE UPON REQUEST.)

REMARKS: _____

LOG

FURNISHED BY: Douglas Drilling Co., Inc.

DATE: February 18, 1977

DEPTH (feet)		TYPE OF ROCK OR SOIL PENETRATED (gravel, clay, etc., hardness, color, etc.)	REMARKS (water, caving, shot, screen, sample, etc.)
FROM	TO		
0	10	brown clay	
10	42	tan & orange sandy clay	
42	52	gray sandy clay with shells	
52	63	dark gray sandy clay	
63	74	gray clay and fine sand	
74	126	dark gray clay	
126	136	gray slightly sandy clay	
136	178	gray/green sandy clay	
178	210	dark gray clay	
210	220	tan slightly sandy clay	
220	231	dark gray clay	
231	241	gray sandy clay	
241	252	gray fine sand with some clay & shell	
252	262	gray sandy clay with shells	
262	283	gray fine sand with shells	
283	294	shells with fine gray sand	
294	305	fine gray sand with shells	

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

INTERVAL SHEET

Page 1 of 1

Well Repository No.: W#: 4901
 C#: 198

Date rec'd: 8/29/77 Date Processed: 10/19/77

Sample Interval: from 0 to: 304

PROPERTY: Va. Dept. of Highways

Number of samples: 29

COMPANY: Douglas Drilling Co.

Total Depth: 305'

COUNTY: Westmoreland (Mt. Holly)

Oil or Gas: Water: Exploratory:

From-To	From-To	From-To	From-To	From-To
0 - 10	-	-	-	-
10 - 21	-	-	-	-
21 - 31	-	-	-	-
31 - 42	-	-	-	-
42 - 52	-	-	-	-
52 - 63	-	-	-	-
63 - 74	-	-	-	-
74 - 84	-	-	-	-
84 - 94	-	-	-	-
94 - 105	-	-	-	-
105 - 115	-	-	-	-
115 - 126	-	-	-	-
126 - 136	-	-	-	-
136 - 147	-	-	-	-
147 - 157	-	-	-	-
157 - 168	-	-	-	-
168 - 178	-	-	-	-
178 - 188	-	-	-	-
188 - 199	-	-	-	-
199 - 210	-	-	-	-
210 - 220	-	-	-	-
220 - 231	-	-	-	-
231 - 241	-	-	-	-
241 - 252	-	-	-	-
252 - 262	-	-	-	-
262 - 273	-	-	-	-
273 - 283	-	-	-	-
283 - 294	-	-	-	-
294 - 304	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

Washed and unwashed samples

OWNER: Va. Dept. of Highways
DRILLER: Douglas Drilling Co.
COUNTY: Westmoreland
(Mt. Holly)

W#: 4901
C#: 198
TOTAL DEPTH: 305'
Quad: Machodoc

GEOLOGIC LOG

Depth
(feet)

- 0 - 10 Sand - grayish orange; slightly clayey; fine to coarse grained; subangular to subrounded; moderately sorted; quartz; feldspar; few grains of glauconite.
- 10 - 21 As above plus few opaques; no glauconite.
- 21 - 31 As above except dark yellowish orange.
- 31 - 42 As above.
- 42 - 52 Gravel - light olive gray; slightly clayey; abundant sand; medium grained to granular; subangular to subrounded; poorly sorted; quartz; feldspar; few opaques.
- 52 - 63 As above except sand and gravel; 40% pebbles.
- 63 - 73 Sand - light olive gray; abundant clay (clasts); fine to coarse grained; subangular to subrounded; moderately sorted; quartz; few shell fragments; feldspar; forams rare (inc. Bolivina).
- 73 - 84 Clay - light olive gray; some quartz sand; few shell fragments.
- 84 - 94 Clay - light olive gray; some quartz sand; few diatoms; few shell fragments; forams (inc. Bulimina, Textularia, and Nonion).
- 94 - 105 As above except forams (inc. Textularia); no shell fragments.
- 105 - 115 As above.
- 115 - 126 As above.
- 126 - 136 As above except forams (inc. Textularia and Bulimina).
- 136 - 147 As above except forams (inc. Nonion and Textularia).
- 147 - 157 As above except forams rare (inc. Textularia).
- 157 - 168 As above except no forams.
- 168 - 178 As above except forams scarce (inc. Textularia).
- 178 - 189 As above except no forams.
- 189 - 199 As above.

Depth
(feet)

- 199 - 210 As above.
- 210 - 220 As above plus foram.
- 220 - 231 As above except forams rare (inc. Bulimina).
- 231 - 241 As above except no forams.
- 241 - 252 Sand - light olive gray; slightly clayey; medium to coarse grained, few granules; subangular to subrounded; moderately well sorted; quartz; 10% shell fragments; 2% black phosphatic material; forams rare (inc. Buccella).
- 252 - 262 Sand - olive light gray; moderate clay; medium to coarse grained, 2% granules; subangular to subrounded; moderately well sorted; quartz; 15% shell fragments; some black phosphatic material; few bone fragments.
- 262 - 273 Sand - light olive gray; slightly clayey; medium to coarse grained, some granules; subangular to subrounded; moderately well sorted; quartz; 25% sandy limestone and shell fragments; some black phosphatic material; few grains of glauconite.
- 273 - 283 As above except 30% sandy limestone and shell fragments, 15% glauconite; few black phosphatic fragments.
- 283 - 294 Coquina and sand - light olive gray; medium to coarse grained, few granules; subrounded; moderately well sorted; 50% sandy limestone and shell fragments; quartz; 7% glauconite, forams (inc. Buccella and Robulus); few grains of garnet; few echinoid spines.
- 294 - 304 As above except sand; 25% sandy limestone and shell fragments; ostracode.
- 304 - 305 No sample.

Logged by: Michael T. Currie
May 9, 1979

GEOLOGIC SUMMARY

<u>Depth</u> <u>(feet)</u>	<u>Thickness</u> <u>(feet)</u>	<u>Rock Unit</u>	<u>Time Rock Unit</u>
0- 63	63	Columbia Group	Pleistocene
63-252	189	Calvert Formation	Miocene
252-304	52	Nanjemoy-Aquia Formation	Eocene-Cretaceous
304-305	1	No sample	

VIRGINIA DIVISION OF MINERAL RESOURCES
David A. Hubbard, Jr., Geologist
June 29, 1979