

COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

W#: 5016  
C#: 202

MAILING ADDRESS:

DIVISION OF MINERAL RESOURCES

OFFICE ADDRESS:

B 3667  
Charlottesville, VA 22903

JAMES L. CALVER, COMMISSIONER

McCormick Road  
Charlottesville, Virginia

WATER WELL COMPLETION REPORT

OWNER: County Board of Supervisors Mailing Address: Montross, Va.

TENANT: Cople Primary School #1 Mailing Address: \_\_\_\_\_

DRILLER: Sydnor Hydrodynamics Mailing Address: P.O. Box 27186, Richmond, Va. 23261

WELL LOCATION: County Westmoreland Approx. 500 feet South (direction) of  
St. Rt. 202 and .5 ~~miles~~ miles East (direction) of St. Rd. 626

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

DATE STARTED: October 24, 1977 DATE COMPLETED: November 18, 1977

TYPE OF DRILL RIG USED: rotary TOTAL DEPTH 500 feet

WATER LEVEL: Stands 135'2" feet below surface OR (completed at 490')

has NATURAL flow of - gallons per minute.

YIELD TEST: Method pump

Drawdown 37 feet

Rate 75 gal. per min.

Duration 48 hrs., - min.

HOLE SIZE: 15 inches from 0 to 65 feet

11 inches from 65 to 500 feet

\_\_\_\_\_ inches from \_\_\_\_\_ to \_\_\_\_\_ feet

SCREEN SIZE: 6 inches from 465 to 480 feet

\_\_\_\_\_ inches from \_\_\_\_\_ to \_\_\_\_\_ feet

\_\_\_\_\_ inches from \_\_\_\_\_ to \_\_\_\_\_ feet

WATER ZONES: from \_\_\_\_\_ to \_\_\_\_\_ feet

from \_\_\_\_\_ to \_\_\_\_\_ feet

from \_\_\_\_\_ to \_\_\_\_\_ feet

CASE SIZE: 12 inches from 0 to 81 feet

6 inches from +2 to 465 feet

6 inches from 480 to 490 feet

WATER: Color \_\_\_\_\_ Taste \_\_\_\_\_

Odor \_\_\_\_\_ Temp. \_\_\_\_\_ °F

WELL TO SUPPLY: (check one) Home \_\_\_\_\_

Farm \_\_\_\_\_ Town \_\_\_\_\_ School

Industry \_\_\_\_\_ Other \_\_\_\_\_

GROUTING: Method \_\_\_\_\_

Material - Depth 100 feet

WATER ANALYSIS AVAILABLE: Yes  No \_\_\_\_\_

Capacity \_\_\_\_\_ gal per min

DRILL CUTTINGS SAVED: Yes  No \_\_\_\_\_

Depth of intake \_\_\_\_\_ feet

(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: "E-log by driller

WB: 5018  
 CH: 202

# LOG

FURNISHED BY: **Sylvester Kyger**

DATE: **November 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	5	Red sandy clay	
5	10	White sand	
10	20	Brown sand	
20	30	Brown and white clay	
30	40	Brown sand	
40	65	Brown sandy clay	
65	135	Blue marl	
135	240	Blue marl and shells	
240	287	Gray marl	
287	300	Gray clay	
300	335	Gray clay, shells and sand	
335	338	Gray clay	
338	350	Gray sand	
350	450	Black sand clay	
450	500	Green sand and clay	

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

INTERVAL SHEET

Page 1 of 1

Well Repository No.: W#: 5016  
C#: 202  
Sample Interval: from 0 to: 500

Date rec'd: 1/31/76 Date Processed: 3/2/78

PROPERTY: County Board of Supervisors

Number of samples: 50

COMPANY: Sydnor Hydrodynamics

Total Depth: 500'

COUNTY: Westmoreland

Oil or Gas: Water: Exploratory:

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

Washed and unwashed samples

OWNER: County Board of Supervisors  
(Cople Primary School #1)  
DRILLER: Sydnor Hydrodynamics  
COUNTY: Westmoreland

W#: 5016  
C#: 202  
TOTAL DEPTH: 500'  
QUAD: Machodoc

GEOLOGIC LOG

Depth  
(feet)

- 0 - 10 Sand - grayish orange; slightly clayey; medium to coarse grained, 10% granules; subangular to subrounded; moderately sorted; quartz; feldspar; some opaques.
- 10 - 20 Sand - dark yellowish orange; slightly stained; coarse to very coarse grained, 3% granules; subrounded; moderately well sorted; quartz; feldspar; few opaques.
- 20 - 30 Sand - dark yellowish orange; slightly to moderately stained; slightly clayey; coarse to very coarse grained, some medium grains, 7% granules; subrounded; moderately sorted; quartz; feldspar; few opaques.
- 30 - 40 Sand - dark yellowish orange; slightly to moderately sorted; medium to coarse grained, few granules; subangular to subrounded; moderately well sorted; quartz; feldspar; some opaques.
- 40 - 50 Sand - grayish orange; coarse grained to granular, some medium grains; subangular to rounded; moderately sorted; quartz; feldspar; few opaques; muscovite.
- 50 - 60 As above.
- 60 - 70 Sand - light olive gray; abundant clay; fine grained, some medium grains; subangular to subrounded; well sorted; quartz; 2% ferricrete; few grains of feldspar; muscovite.
- 70 - 80 As above except fine to coarse grained; moderately sorted; 3% ferricrete.
- 80 - 90 Sand - light olive gray; abundant clay; coarse grained to granular, some medium grains; subangular to subrounded; moderately sorted; quartz; some ferricrete; few opaques; muscovite.
- 90 - 100 Clay - light olive gray; slightly silty; slightly sandy; fine grained to granular; subangular to subrounded; poorly sorted; quartz; some shell fragments, few fragments of ferricrete; glauconite; muscovite.
- 100 - 110 Coquina - light gray; moderate sand; medium to coarse grained; subangular to subrounded; moderately well sorted; 85% limestone and shell fragments; quartz; some echinoid spines; few grains of glauconite.

Depth  
(feet)

- 110 - 120 Clay - olive light gray; moderate sand; fine to coarse grained, some granules; subangular to subrounded; moderately sorted, quartz; some black phosphatic material; few grains of glauconite; muscovite.
- 120 - 130 As above except light olive gray.
- 130 - 140 As above except slightly silty; slightly sandy.
- 140 - 150 Sand - olive light gray; moderate clay; fine to medium grained, few granules; subangular to subrounded; moderately well sorted; quartz; 10% shell fragments; some black phosphatic material; gypsum; foram.
- 150 - 160 As above plus some coarse grains; 3% shell fragments; no foram.
- 160 - 170 Sand - olive light gray; moderate clay; fine to medium grained; subangular to subrounded; moderately well sorted; quartz; 15% shell fragments; some black phosphatic material; few flakes of muscovite; gypsum.
- 170 - 180 As above except abundant clay; 7% shell fragments; 2% black phosphatic material; few bone fragments.
- 180 - 190 Sand - olive light gray; abundant clay; fine grained; subangular to subrounded; well sorted; quartz; some shell fragments; few black phosphatic fragments; glauconite.
- 190 - 200 Clay - light olive gray; slightly silty; moderate sand; fine grained; subangular to subrounded; well sorted; quartz; some shell fragments, few black phosphatic fragments.
- 200 - 210 Clay - light olive gray; some quartz sand; few black phosphatic fragments; few shell fragments; few diatoms.
- 210 - 220 Clay - light olive gray; slightly sandy; fine grained; subangular to subrounded; well sorted; quartz; few black phosphatic fragments.
- 220 - 230 As above plus few flakes of muscovite.
- 230 - 240 As above plus few shell fragments.
- 240 - 250 As above plus forams scarce (inc. Nonion).
- 250 - 260 Clay - light olive gray; some quartz sand; few diatoms; forams scarce (inc. Textularia and Nonion).
- 260 - 270 As above except some diatoms.

Depth  
(feet)

- 270 - 280 As above except no forams.
- 280 - 290 Clay - light olive gray; slightly silty; few grains of quartz sand; few diatoms; forams scarce.
- 290 - 300 Sand - olive light gray; medium to coarse grained; subangular to subrounded; moderately well sorted; quartz; 3% shell fragments; some black phosphatic material; few grains of glauconite, muscovite; forams rare (inc. Nonion).
- 300 - 310 Sand and coquina - light olive gray; medium to coarse grained, some granules; subangular to rounded; moderately well sorted; 40% sandy limestone and shell fragments; quartz; 15% glauconite (black, green); 2% black phosphatic material; few grains of pyrite; forams (inc. Buccella and Robulus).
- 310 - 320 Sand and clay - light olive gray; moderate clay; abundant sand; medium to coarse grained, some fine grains; subangular to rounded; moderately well sorted; quartz; 25% glauconite (black, green); 15% sandy limestone and shell fragments; forams scarce (inc. Buccella).
- 320 - 330 As above plus few black phosphatic fragments.
- 330 - 340 Sand - light olive gray; medium to coarse grained; subangular to rounded; moderately well sorted; quartz; 10% glauconite; 3% shell fragments; few black phosphatic fragments; forams (inc. Robulus and Buccella).
- 340 - 350 As above except 15% glauconite, some ferricrete.
- 350 - 360 Sand - olive light gray; medium to coarse grained, subangular to rounded; moderately well sorted; quartz; 25% glauconite; 2% sandy limestone and shell fragments; few grains of pyrite; muscovite.
- 360 - 370 Sand - light olive gray; some stained grains; medium to coarse grained, few granules; subangular to rounded; moderately well sorted; quartz; 20% glauconite; some sandy limestone and shell fragments; few flakes of muscovite.
- 370 - 380 As above except some granules; 25% glauconite; 2% sandy limestone and shell fragments.
- 380 - 390 Sand - light olive gray; medium grained, some coarse grains; subangular to rounded; well sorted; quartz; 35% glauconite; few shell fragments; muscovite.
- 390 - 400 As above except medium to coarse grained; moderately well sorted; some shell fragments.

Depth  
(feet)

- 400 - 410 As above except 40% glauconite.
- 410 - 420 As above.
- 420 - 430 Sand - olive light gray; medium to coarse grained, few granules, few pebbles; subangular to rounded; moderately well sorted; 50% glauconite; quartz; some sandy limestone and shell fragments; few flakes of muscovite; pyrite.
- 430 - 440 As above except slightly clayey; 65% glauconite.
- 440 - 450 Sand - olive light gray; slightly clayey; coarse to very coarse grained, some pebbles; subrounded to rounded; moderately well sorted; 60% glauconite; quartz; some sandy limestone and shell fragments; few flakes of muscovite; forams rare (inc. Cibicides).
- 450 - 460 Sand - olive gray; medium grained, some coarse grains; rounded; well sorted; 80% glauconite; quartz; few shell fragments.
- 460 - 470 Sand - olive light gray; medium to coarse grained, some pebbles; subrounded to rounded; moderately sorted; 65% glauconite; quartz; some sandy limestone and shell fragments.
- 470 - 480 Sand - salt and pepper; some heavily stained grains; medium to coarse grained, some pebbles; subangular to rounded; moderately sorted; quartz; 40% glauconite; some shell fragments.
- 480 - 490 As above plus 5% granules; 2% sandy limestone and shell fragments.
- 490 - 500 As above plus few flakes of muscovite; forams rare (inc. Nodosaria).

Logged by: Michael T. Currie  
May 16, 1979

OWNER: County Board of Supervisors  
(Cople Primary School #1)

- 5 -

W#: 5016

GEOLOGIC SUMMARY

<u>Depth</u> <u>(feet)</u>	<u>Thickness</u> <u>(feet)</u>	<u>Rock Unit</u>	<u>Time Rock Unit</u>
0- 60	60	Columbia Group	Pleistocene
60-180	120	Choptank Formation	Miocene
180-300	120	Calvert Formation	Miocene
300-500	200	Nanjemoy-Aquia Formations	Eocene-Cretaceous

VIRGINIA DIVISION OF MINERAL RESOURCES  
David A. Hubbard, Jr., Geologist  
June 28, 1979