

COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

W-3118  
C-82

MAILING ADDRESS:

DIVISION OF MINERAL RESOURCES

OFFICE ADDRESS:

Box 3667

JAMES L. CALVER, COMMISSIONER

McCormick Road

Charlottesville, VA 22903

WATER WELL COMPLETION REPORT

Charlottesville, Virginia

Administration & Finance 911 East Broad Street  
OWNER: Commonwealth of Virginia Mailing Address: P.O. Box 1558, Richmond, Va. 23211

TENANT: Rappahannock Community College Mailing Address: Glenss, Virginia

DRILLER: Sydnor Hydrodynamics, Inc. Mailing Address: P.O. Box 27186, Richmond, Va. 23266

WELL LOCATION: County Gloucester Approx. 1/2 ~~miles~~ <sup>feet</sup> West (direction) of  
Route 17 and 1500 ~~miles~~ <sup>feet</sup> North (direction) of Route 33

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

DATE STARTED: 9/12/70 DATE COMPLETED: 10/6/70

TYPE OF DRILL RIG USED: Rotary TOTAL DEPTH 708 feet

WATER LEVEL: Stands 146 1/2 feet below surface OR  
has NATURAL flow of \_\_\_\_\_ gallons per minute.

YIELD TEST: Method Submersible pump  
Drawdown 9 1/6 feet  
Rate 140 gal. per min.  
Duration 9 hrs., 0 min.  
See screen & settings

HOLE SIZE: 12 inches from 0 to 708 feet  
\_\_\_\_\_ inches from \_\_\_\_\_ to \_\_\_\_\_ feet  
\_\_\_\_\_ inches from \_\_\_\_\_ to \_\_\_\_\_ feet  
SCREEN SIZE: 4 inches from 496 to 506 feet  
4 538 548  
4 inches from 582 to 592 feet  
4 600 610  
4 inches from 620 to 630 feet

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

CASE SIZE: 6 inches from +2 to 350 feet  
4 350 496  
4 inches from 506 to 538 feet  
4 548 582  
4 inches from 592 to 600 feet  
4 610 620  
4 630 655

WATER: Color \_\_\_\_\_ Taste \_\_\_\_\_  
Odor \_\_\_\_\_ Temp. \_\_\_\_\_ °F

GROUTING: Method pressure Material Cement & water Depth 100' feet

WELL TO SUPPLY: (check one) Home \_\_\_\_\_  
Farm \_\_\_\_\_ Town \_\_\_\_\_ School   
Industry \_\_\_\_\_ Other \_\_\_\_\_

PUMP: Type \_\_\_\_\_  
Capacity \_\_\_\_\_ gal. per min  
Depth of intake \_\_\_\_\_ feet

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

DRILL CUTTINGS SAVED: Yes  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: Sydnor Hydrodynamics, Inc.

DATE: 10/9/70

| DEPTH (feet) |     | TYPE OF ROCK OR SOIL PENETRATED<br>(gravel, clay, etc., hardness, color, etc.) | REMARKS<br>(water, caving, shot, screen, sample, etc.) |
|--------------|-----|--|--|
| FROM         | TO  |  |  |
| 0            | 60  | Yellow Clay  |  |
| 60           | 100 | Blue Marl Shells   |  |
| 100          | 110 | Gray Sand  |  |
| 110          | 160 | Shells   |  |
| 160          | 170 | Gray Clay  |  |
| 170          | 220 | Blue Clay  |  |
| 220          | 230 | Gray Clay  |  |
| 230          | 240 | Blue Clay  |  |
| 240          | 258 | Blue Clay, Shells  |  |
| 258          | 285 | Green Clay   |  |
| 285          | 347 | Green Clay, shells   |  |
| 347          | 355 | Shell Rock   |  |
| 355          | 378 | Green Clay   |  |
| 378          | 405 | Gray Clay, shells-some black sand  |  |
| 405          | 468 | Blue Clay  |  |
| 468          | 473 | Gray Clay, shells  |  |
| 473          | 476 | Hard gray clay   |  |
| 476          | 483 | Black Sand, Blue Clay  |  |
| 483          | 494 | Blue Clay  |  |
| 494          | 510 | Gray Sand  |  |
| 510          | 523 | Gray Clay with gray sand streaks   |  |
| 523          | 538 | Tough Blue Clay  |  |
| 538          | 553 | Gray Sand  |  |
| 553          | 570 | Tough Brown Clay   |  |
| 570          | 580 | Tough Blue Clay  |  |
| 580          | 635 | Gray Sand  |  |
| 635          | 643 | Tough Gray Clay  |  |
| 643          | 663 | Tough Brown Clay   |  |
| 663          | 688 | Tough Brown Clay with streaks of gray clay                                     |  |
| 688          | 708 | Tough Brown and blue clay  |  |

(Use additional forms if necessary)

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

INTERVAL SHEET

C-82

Page 1 of 1 Well Repository No: 3118

Date rec'd: 11-19-70 ; processed 4-1-71 Sample Interval: from 0 to: 708'

PROPERTY: Commonwealth of Virginia  
Rappahanock Community College  
COMPANY: Sydnor Hydrodynamics, Inc. Number of samples: 69

Total Depth: 708'

COUNTY: Gloucester (Glenns) Oil or Gas: Water:  Exploratory:

| From-To  | From-To   | From-To   | From-To |
|----------|-----------|-----------|---------|
| 0 - 10   | 250 - 260 | 500 - 510 | -       |
| 10 - 20  | 260 - 270 | 510 - 520 | -       |
| 20 - 30  | 270 - 280 | 520 - 530 | -       |
| 30 - 40  | 280 - 290 | 530 - 540 | -       |
| 40 - 50  | 290 - 300 | 540 - 550 | -       |
| 50 - 60  | 300 - 310 | 550 - 560 | -       |
| 60 - 70  | 310 - 320 | 560 - 570 | -       |
| 70 - 80  | 320 - 330 | 570 - 580 | -       |
| -        | 330 - 340 | 580 - 590 | -       |
| 90 - 100 | 340 - 350 | 590 - 600 | -       |
| 100- 110 | 350 - 360 | 600 - 610 | -       |
| 110- 120 | 360 - 370 | 610 - 620 | -       |
| 120- 130 | 370 - 380 | 620 - 630 | -       |
| 130- 140 | 380 - 390 | 630 - 640 | -       |
| 140- 150 | 390 - 400 | 640 - 650 | -       |
| 150- 160 | 400 - 410 | 650 - 660 | -       |
| 160- 170 | 410 - 420 | 660 - 670 | -       |
| -        | 420 - 430 | 670 - 680 | -       |
| 180- 190 | 430 - 440 | 680 - 690 | -       |
| 190- 200 | 440 - 450 | 690 - 700 | -       |
| 200- 210 | 450 - 460 | 700 - 708 | -       |
| 210- 220 | 460 - 470 | -         | -       |
| 220- 230 | 470 - 480 | -         | -       |
| 230- 240 | 480 - 490 | -         | -       |
| 240- 250 | 490 - 500 | -         | -       |

All intervals have both washed and unwashed samples.

OWNER: Commonwealth of Virginia  
(Rappahannock Community College)  
DRILLER: Sydnor Hydrodynamics, Inc.  
COUNTY: Gloucester (Glenns)

W#3118  
C#82  
TOTAL DEPTH: 708'

|         |  |
|---------|--|
| 0-50    | Buff sand, variably clayey   |
| 50-70   | Decomposed shell-and glauconitic-bearing sands   |
| 70-110  | Gray well-sorted quartz sands (marine?) with minor shells and trace of glauconite  |
| 110-160 | Well-sorted reworked shell; some gray clay   |
| 170-220 | Drab silt-clay with some coarse shell and sand   |
| 220-240 | Well-sorted clayey sand with shell (near shore marine?)  |
| 240-300 | Gray to olive clays, become less silty-sandy and more compact downsection  |
| 300-348 | Quartz-phosphate basal lithotope of Calvert Formation  |
| 348-390 | Brown "glauc"-stained quartz association; coarse, clayey basal litho. #1 locally a calcitic sandstone  |
| 390-470 | Sands-autochthonous glauconite and quartz; drab clay mixture   |
| 470-490 | Sands (as above)-well-sorted, slightly clayey  |
| 490-500 | Medium sand, slightly clayey and glauconitic   |
| 500-510 | Gray, coarse felsic sand; very slightly clayey   |
| 510-708 | Gray felsic sands; mainly medium to coarse grained, a few fine; slightly glauconitic: intervals 560-580' and 650-708' are silty, bright-clayey w/plants and glauconite |

OWNER: Commonwealth of Virginia  
(Rappahannock Community College)  
DRILLER: Sydnor Hydrodynamics, Inc.  
COUNTY: Gloucester (Glenns)

VDMR # 3118  
WWCR # 82  
TOTAL DEPTH: 708'

GEOLOGIC SUMMARY

| <u>Depth<br/>(feet)</u> | <u>Rock Unit</u>                     | <u>Age</u>       |
|-------------------------|--------------------------------------|------------------|
| 0-50                    | Columbia Group                       | Pleistocene      |
| 50-170                  | Yorktown (& St. Marys?)<br>Formation | Late Miocene     |
| 170-348                 | Calvert Formation                    | Middle Miocene   |
| 348-390                 | Nanjemoy Formation                   | Eocene           |
| 390-490                 | Mattaponi Formation                  | Paleocene        |
| 490-708                 | Patuxent Formation                   | Early Cretaceous |

Virginia Division of Mineral Resources  
Robert H. Teifke - Geologist  
July 2, 1971

OWNER: Commonwealth of Virginia  
(Rappahannock Community College)  
DRILLER: Sydnor Hydrodynamics, Inc.  
COUNTY: Gloucester (Glenns)

VDMR # 3118  
WWCR # 82  
TOTAL DEPTH: 708'

GEOLOGIC SUMMARY

| <u>Depth<br/>(feet)</u> | <u>Rock Unit</u>                     | <u>Age</u>       |              |
|-------------------------|--------------------------------------|------------------|--------------|
| 0-50                    | Columbia Group                       | Pleistocene      | +90 to +40   |
| 50-170                  | Yorktown (& St. Marys?)<br>Formation | Late Miocene     | +40 to -80   |
| 170-348                 | Calvert Formation                    | Middle Miocene   | -80 to -258  |
| 348-390                 | Nanjemoy Formation                   | Eocene           | -258 to -300 |
| 390-490                 | Mattaponi Formation                  | Paleocene        | -300 to -400 |
| 490-708                 | Patuxent Formation                   | Early Cretaceous | -400 to -618 |

Virginia Division of Mineral Resources  
Robert H. Teifke - Geologist  
July 2, 1971

Owner: Rappa-Comm. College Adm. and Finance  
Driller: Sydnor  
County: Gloucester

W# 3118  
C# 82  
Total Depth: 430'  
Quad: Saluda  
Elev: 105'

Depth  
(feet)

WELL LOG

- 0-130 No Samples.
- 130-160 Gravel, Shell - Light and dark gray; 90% shell fragments, Dentalium, Turritella; very sparse clay at 130-140; very fine to fine, subangular, well sorted; quartz; sand.
- 160-170 Gravel, Shell - Light and dark gray; very sparse clay in small clasts and grains; 85% shell fragments; fine to coarse, subangular, poorly sorted; quartz; sand; iron oxide fragments.
- 170-180 No Samples.
- 180-200 Gravel, Shell - Light and dark gray; sparse clay; clasts at 190-200; 60% shell fragments; fine with some larger grains, subangular, well sorted; iron oxide fragments.
- 200-220 Clay, Shelly - Light and dark gray; light olive gray (5y 6/1); clasts and grains; fine with some larger grains, subangular, well sorted; 50% shell fragments; iron oxide fragments.
- 220-230 Sand - Light and dark gray; sparse clay; medium to coarse, subangular, well sorted; 35% shell fragments; few phosphate fragments.
- 230-260 Sand - Light and dark gray; moderate clay, some in clasts; medium to coarse, subangular, moderately well sorted; 40% shell fragments; 8% fine phosphate fragments.
- 260-280 Clay - Light and dark gray; clay in clasts; abundant sand; fine to coarse, subangular, moderate sorting; sparse phosphate fragments; 40% shell fragments; iron oxide fragment.
- 280-300 Clay - Light olive gray (5y 6/1); in clasts and granular; abundant sand, fine to coarse, subangular, poorly sorted; 15% shell fragments; very rare phosphate fragments.
- 300-310 Sand - Light olive gray (5y 6/1); moderate clay; fine to very coarse, subangular, poorly sorted; 8% phosphate fragments; 12% shell fragments.
- 310-340 Sand - Light olive gray (5y 6/1); sparse clay; medium to coarse, subangular and angular, well sorted; 1% phosphate fragments; 5% shell fragments; some larger grains at 320-340; Foram-Quinqueloculina, at 330-340.

Depth  
(feet)

- 340-350 Sand - Light olive gray (5y 6/1); very sparse clay in sand clasts; fine to granule, subangular, rounded (granule) and angular (medium), poorly sorted; 40% shell fragments; 10% glauconite.
- 350-360 Sand, Glauconitic - Light and dark brown; very sparse clay; 80% glauconite, brown, medium to granular; fine to granule with 20% small (4mm) pebbles, poorly sorted; 10% shell fragments; rare limestone fragments with glauconite.
- 360-370 Sand, Glauconitic - Light and dark gray; 50%+ glauconite, dark green and brown, fine to coarse; moderate limestone/clay in both clasts and grains; fine to granule, subangular, angular and rounded, poorly sorted; 3% shell fragments.
- 370-380 Sand, Glauconitic - Dusky yellowish brown (10yr 2/2); 80%+ glauconite, brown, fine to very coarse; sparse clay; medium to granule, subangular, poorly sorted; rare shell fragments; limestone fragments with glauconite.
- 380-410 Sand, Glauconitic - Dark yellowish brown (10yr 3/2); 80% glauconite, brown and dark green\*, fine to coarse; sparse clay with some in clasts; fine to granule, angular, subangular and rounded, poorly sorted; 3% shell fragments; petrified wood fragment; \*more green at 390-400; limestone fragments; garnet 400-410.
- 410-430 Sand, Glauconitic - Greenish black (5Gy 2/1); 90% glauconite, green, very coarse; very sparse clay; fine to granule, subangular and rounded, poorly sorted; 2% shell fragment; Forams (badly broken); rare limestone fragments.

Logged by: J. K. Polzin  
Sept. 9, 1980



OWNER: Commonwealth of Virginia  
(Rappahannock Community College)  
DRILLER: Sydnor Hydrodynamics, Inc.  
COUNTY: Gloucester (Glenns)

VDMR # 3118  
WWCR # 82  
TOTAL DEPTH: 708'

|         |  |
|---------|--|
| 0-50    | Buff sand, variably clayey   |
| 50-70   | Decomposed shell- and glauc. -bearing sands  |
| 70-110  | Gray well-sorted Q sands (marine?) with minor shells and tr. glauc.  |
| 110-160 | Well-sorted reworked shell with minor well-sorted Q sand   |
| 160-170 | Coarse sand and reworked shell; some gray clay   |
| 170-220 | Drab silt-clay with some coarse shell and sand   |
| 220-240 | Well-sorted clayey sand with shell (near shore marine?)  |
| 240-300 | Gray to olive clays, become less silty-sandy and more compact down <i>section</i>  |
| 300-348 | Q-P <sub>2</sub> O <sub>5</sub> basal lithotope of T <sub>c</sub>  |
| 348-390 | Brown "glauc"-stained Q @ss"; coarse, clayey-basal litho. #1 locally, a calcitic sandstone   |
| 390-470 | Sands-auto. glauc. and Q <sup>2</sup> drab clay mtx.   |
| 470-490 | Sands (as above) - well-sorted, sl. clayey   |
| 490-500 | Medium sand, sl. clayey, sl. glauc.  |
| 500-510 | Gray coarse F'ic sand; v. sl. clayey   |
| 510-708 | Gray F'ic sands, mainly M→C, a few VC, a few fine and sl. glauc. Intervals 560-580 and 650-708 are silty bright clayey w/plants and glauc. |

Elev.: 80-107' estimate = 90'  
Saluda Quad.