

COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

MAILING ADDRESS:  
B- 3667  
Charlottesville, VA 22903

DIVISION OF MINERAL RESOURCES  
JAMES L. CALVER, COMMISSIONER  
WATER WELL COMPLETION REPORT

OFFICE ADDRESS:  
McCormick Road  
Charlottesville, Virginia

OWNER: Lafayette Land Company Mailing Address: P. O. Box 890, Gloucester, VA 23061

TENANT: Forest Glen Subdivision Well #2 Mailing Address: \_\_\_\_\_

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

WELL LOCATION: County James City Approx. 1000 <sup>feet</sup>~~miles~~ North (direction) of  
Rt. 612 and 600 <sup>feet</sup>~~miles~~ East (direction) of Rt. 614

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

DATE STARTED: November 6, 1972 DATE COMPLETED: December 29, 1972

TYPE OF DRILL RIG USED: Rotary TOTAL DEPTH 353 feet

WATER LEVEL: Stands 116 feet below surface OR  
has NATURAL flow of \_\_\_\_\_ gallons per minute.

YIELD TEST: Method Submersible pumps  
Drawdown 6 feet  
Rate 142 gal. per min.  
Duration 24 hrs., \_\_\_\_\_ min.

HOLE SIZE: 24 inches from 0 to 60 feet  
17 inches from 60 to 290 feet  
9-7/8 inches from 290 to 353 feet

WATER ZONES: from 225 to 240 feet  
from 262 to 277 feet  
from \_\_\_\_\_ to \_\_\_\_\_ feet

SCREEN SIZE: 6 inches from 225 to 240 feet

6 inches from 262 to 277 feet  
\_\_\_\_\_ inches from \_\_\_\_\_ to \_\_\_\_\_ feet

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

CASE SIZE: 8 inches from +2 to 225 feet  
6 inches from 240 to 262 feet  
6 inches from 277 to 282 feet

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

GROUTING: Method Pressure  
Material Cement & Water Depth 60 feet

WATER ANALYSIS AVAILABLE: Yes X No \_\_\_\_\_  
34

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: Electric Log Ran by driller

LOG

FURNISHED BY: SYDNOR HYDRODYNAMICS, INC.

DATE: 12/29/72

DEPTH (feet)		TYPE OF ROCK OR SOIL PENETRATED (gravel, clay, etc., hardness, color, etc.)	REMARKS (water, caving, shot, screen, sample, etc.)
FROM	TO		
0	1	Top Soil	
1	20	Yellow Clay	
20	30	Brown Clay	
30	70	Yellow Sandy Clay	
70	113	Yellow Clay and shells	
113	133	Rock	
133	193	Gray Clay	
193	220	Hard Gray Clay	
220	248	Gray Sandy Clay and shells mixed	
248	293	Gray Shell Rock	
293	308	Gray Sandy Clay	
308	353	Gray Clay	

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

INTERVAL SHEET

Page 1 of 1 Well Repository No.: C- 163 W- 3799  
 Date rec'd: 1/22/73 Date Processed: 9/10/73 Sample Interval: from 0 to: 350  
 PROPERTY: Lafayette Land Co. Number of samples: 34  
 (Forest Glen Section #2)  
 COMPANY: Sydnor Hydrodynamics Total Depth: 353'  
 COUNTY: James City (Centerville) Oil or Gas: Water:  Exploratory:

From-To	From-To	From-To	From-To	From-To
0 - 10	-	-	-	-
10 - 20	-	-	-	-
20 - 30	-	-	-	-
30 - 40	-	-	-	-
40 - 50	-	-	-	-
50 - 60	-	-	-	-
60 - 70	-	-	-	-
70 - 80	-	-	-	-
80 - 90	-	-	-	-
90 - 100	-	-	-	-
100 - 110	-	-	-	-
110 - 120	-	-	-	-
120 - 130	-	-	-	-
130 - 140	-	-	-	-
140 - 150	-	-	-	-
150 - 160	-	-	-	-
160 - 170	-	-	-	-
170 - 180	-	-	-	-
180 - 190	-	-	-	-
190 - 200	-	-	-	-
200 - 210	-	-	-	-
210 - 220	-	-	-	-
220 - 230	-	-	-	-
230 - 240	-	-	-	-
240 - 250	-	-	-	-
250 - 260	-	-	-	-
-	-	-	-	-
270 - 280	-	-	-	-
280 - 290	-	-	-	-
290 - 300	-	-	-	-
300 - 310	-	-	-	-
310 - 320	-	-	-	-
320 - 330	-	-	-	-
330 - 340	-	-	-	-
340 - 350	-	-	-	-

All intervals have both washed and unwashed samples

OWNER: Lafayette Land Co.  
DRILLER: Sydnor Hydrodynamics  
COUNTY: James City (Centerville)

VDMR: #3799  
WWCR: # 163  
TOTAL DEPTH: 353'

GEOLOGIC LOG

Depth  
(feet)

BACONS CASTLE (0-70')

- 0-10 Sand and silt - light brown; abundant clay; silt to fine sand; well sorted; subangular; quartz; feldspathic.
- 10-20 Sand and silt - light brown and orange; abundant clays; some white and reddish purple matrix clays; silt to fine grained; moderately well sorted; subangular to subrounded; quartz; feldspar; trace of muscovite.
- 20-30 Sand and silt - pinkish cream; abundant clay; largely reddish matrix; silt to fine grained; moderately well sorted; subangular to subrounded; quartz; feldspar; trace of muscovite; trace of very fine opaque heavy minerals; clasts of limonitic cemented sands; few grains of glauconite.
- 30-40 Sand and silt - orange; abundant clay; alternating purple, yellow and white matrix clays; silt to medium grained; moderately sorted; subangular to subrounded; quartz; feldspar; trace of muscovite; trace of very fine opaque heavy minerals; clasts of limonitic cemented sands.
- 40-50 Sand and silt - cream, abundant clay; alternating purple, yellow and white matrix clays; silt to medium grained; moderately sorted; subangular to subrounded; quartz; feldspar; trace of very fine opaque minerals; clasts of limonitic cemented sands.
- 50-60 Sand - tan; moderately clayey; silty to medium grained; moderately sorted; subangular to subrounded; quartz; feldspathic; trace of glauconite; trace of very fine opaque minerals; fragments of ferricrete; few quartz pebbles.
- 60-70 Sand - tan; moderately clayey; fine to coarse grained; moderately sorted; subangular to subrounded; quartz; feldspar; glauconite; quartz pebbles; few fragments of ferricite.

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Depth  
(feet)

YORKTOWN FORMATION (70-140')

- 70-80 Sand - tan; slightly clayey; fine to medium grained; moderately sorted; subangular; quartz; 30% shell fragments; feldspars; glauconite; calcareous sandstone fragments.
- 80-90 Sand - tan; abundant clay; silty; fine to medium grained; moderately well sorted; subangular to subrounded; quartz; glauconite common; some feldspars; 7% shell fragments; fragments of calcareous sandstone; forams scarce.
- 90-100 Sand - tan; slightly clayey; silty; fine to medium grained; well sorted; subangular to subrounded; quartz; 50% shell fragments; glauconite; some feldspar; fragments of calcareous sandstone.
- 100-110 Sand - tan; slightly clayey; fine grained; well sorted; subangular; quartz; 40% shell fragments; 30% fragments of calcareous sandstone.
- 110-120 Sand - tan; slightly clayey; fine grained; well sorted; subangular; 20% shell fragments; some calcareous sandstone and limestone fragments; trace glauconite and opaque minerals.
- 120-130 Sand - grayish brown, slightly clayey; fine grained; well sorted; subangular; 15% shell fragments; trace glauconite; trace of fine opaques; fragments of calcareous sandstone.
- 130-140 As above + trace mica; lignite.

CALVERT FORMATION (140-240')

- 140-150 Sand - greenish gray, abundant gray clay; fine grained; well sorted; subangular; quartz; trace of opaques; glauconite and muscovite; echinoid spines, few shell fragments.
- 150-160 Sand - greenish gray, abundant gray clay; fine grained; well sorted; subangular; quartz; some black phosphatic material inc. sharks teeth and small vertebra; trace of glauconite and muscovite; echinoid spines, few shell fragments.

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Depth  
(feet)

- 160-170 As 150-160 except slightly more muscovite than glauconite.
- 170-180 As above + except gray locally tanish.
- 180-190 As above except a few more shell and calcareous sandstone fragments.
- 190-200 Sand and clay - gray, locally tanish; interlayered sandstone with abundant clay and clay (some pink); fine grained; moderately well sorted; subangular to subrounded; quartz; some black phosphatic material inc. sharks teeth; a few grains glauconite; shell and calcareous sandstone fragments.
- 200-210 Sand and clay - gray, locally tanish; sand with abundant clay interbedded with clay; fine to medium grained; moderately sorted; subangular to subrounded; quartz; black phosphatic material; a few grains of glauconite; shell and calcareous sandstone fragments.
- 210-220 As above except, 5% shell fragments.
- 220-230 Sand - gray, moderately clayey; fine to coarse grained; moderately well sorted; angular to subrounded; quartz; 5% shell fragments; 2% black phosphatic material; spines; forams (Siphogenerina, Robulus and Nonion); bone fragments.
- 230-240 Sand - gray, moderately clayey; fine to medium grained; moderately well sorted; subangular to subrounded; 2% shell fragments; some black phosphatic material.

NANJEMOY FORMATION (240-350')

- 240-250 Limestone - gray, limestone contains some black glauconite, pyrite, shells and imprints (inc. gastropod); some clay; fine to medium grained sand; moderately well sorted; subangular to subrounded; some black phosphatic material; forams (inc. Nonion, Bulimina and Uvigerina sp. ?) spines.
- 250-260 As above + sharks teeth.
- 260-270 No sample

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Depth  
(feet)

- 270-280 Limestone and sand - light brown; contains sand, shiny brown clay pellets, glauconite and pyrite; medium to coarse grained sand; moderately sorted; subangular to rounded; quartz; 6% brown clay pellets; few grains of glauconite and phosphatic material; forams scarce; bone fragment.
- 280-290 Limestone and sand - gray; slightly clayey; much of limestone is a sandstone containing quartz, glauconite, brown clay pellets, pyrite; fine to coarse sand; moderately sorted; subangular to rounded; quartz; 10% shell fragments; 10% glauconite; brown clay pellets; forams common (inc. Textularia); ostracodes; spines.
- 290-300 Sand and limestone - dark gray; moderately clayey; fine to coarse grained; moderately sorted; subrounded to rounded; quartz; 25% brown, black and green glauconite; brown clay pellets; 15% shell fragments; forams (inc. Textularia); ostracodes; spines and pyrite limestone varies from pure to sandstone, some drussy and some with pyrite.
- 300-310 Sand - brown; abundant clay; silty, fine to medium grained; moderately sorted; subangular to rounded; quartz; 20% glauconite; some phosphate material; few shell calcareous sandstone fragments; poorly washed sample.
- 310-320 As above
- 320-330 Sand and clay - gray, locally tanish; abundant clay; silty; fine to medium grained; moderately well sorted; rounded; gray clay contains some glauconite and silt size muscovite; 50% glauconite; 15% quartz; small calcareous sandstone fragments; a few shell fragments. Poorly washed sample.
- 330-340 Sand - salt and pepper brown; abundant brown clay; fine to coarse grained; moderately sorted; rounded; 50% glauconite; 30% quartz (some green); a few calcareous sandstone and shell fragments; spines; foram (Dentalina).  
Nedozaria
- 340-350 As above + (Robulus).  
(sp): sample taken
- 350-353 No sample

GEOLOGIC SUMMARY

<u>Thickness</u> <u>(feet)</u>	<u>Rock Unit</u>	<u>Time Rock Unit</u>
70	Bacons Castle Formation	Pleistocene
70	Yorktown Formation	Pliocene-Miocene
100	Calvert Formation	Miocene-Eocene
110+	Nanjemoy Formation	Eocene

Virginia Division of Mineral Resources  
David A. Hubbard, Jr., Geologist  
May 5, 1978