W - 3366
C - 144

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

MAILING ADDRESS: [illegible] 3667, Charlottesville, VA 22903

DIVISION OF MINERAL RESOURCES

JAMES L. CALVER, COMMISSIONER

OFFICE ADDRESS: McCormick Road, Charlottesville, Virginia

WATER WELL COMPLETION REPORT

OWNER: Dr. L. O. Snead — Mailing Address: 1104 W. Franklin Street, Richmond, Virginia

TENANT: Farm — Mailing Address: Peaks, Virginia

DRILLER: SYDNOR HYDRODYNAMICS, INC. — Mailing Address: P. O. Box 27186, Richmond, VA 23261

WELL LOCATION: County Hanover — Approx. 1/4 ~~XX feet~~ miles South (direction) of Campbell Creek and 1/2 ~~XXX~~ miles West (direction) of Rt. 656

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

DATE STARTED: 10-14-71 — DATE COMPLETED: 11-1-71

TYPE OF DRILL RIG USED: Rotary — TOTAL DEPTH 405 feet

WATER LEVEL: Stands 95'1" feet below surface OR

has NATURAL flow of _____ gallons per minute.

YIELD TEST: Method submersible pump

Drawdown 155'8" feet

Rate 12.6 gal. per min.

Duration 7 hrs., 10 min.

WATER ZONES: at ~~XXX~~ 260' to _____ feet

from 331 to 345 feet

from _____ to _____ feet

WATER: Color x — Taste _____

Odor none — Temp. _____ °F

WELL TO SUPPLY: (check one) Home _____

Farm x — Town _____ School _____

Industry _____ Other _____

WATER ANALYSIS AVAILABLE: Yes x No _____

DRILL CUTTINGS SAVED: Yes 28 No _____

HOLE SIZE: 8-3/4 inches from 0 to 50 feet

7-7/8 inches from 50 to 225 feet

5 inches from 225 to 405 feet

SCREEN SIZE: _____ inches from _____ to _____ feet

_____ inches from _____ to _____ feet

_____ inches from _____ to _____ feet

CASE SIZE: 5 inches from +18" to 225 feet

_____ inches from _____ to _____ feet

_____ inches from _____ to _____ feet

GROUTING: Method Pressure

Material cement & Water — Depth 50 feet

PUMP: Type _____

Capacity _____ gal. per min

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: Electric Log ran 225' (by driller)

(LOG OF WELL) OVER

LOG

FURNISHED BY: _____ DATE: _____

DEPTH (feet) FROM	DEPTH (feet) TO	TYPE OF ROCK OR SOIL PENETRATED (gravel, clay, etc., hardness, color, etc.)	REMARKS (water, caving, shot, screen, sample, etc.)
0	1	Top Soil	
1	15	Yellow Clay	
15	25	Yellow Sand-Clay	
25	50	Blue Marl and gravel	
50	60	Gray Sandy Clay	
60	80	Gray clay and shells	
80	150	Gray Clay	
150	165	Gray Sandy Clay	
165	209	Soft Gray Slate Rock	
209	219	Hand gray slate Rock	
219	331	Gray granite (Picked up some water 260')	
331	405	Gray Granite with soft streaks (increased capacity 331-345)	

(Use additional forms if necessary)

W - 3366
C - 144

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

MAILING ADDRESS: P. O. 3667, Charlottesville, VA 22903

DIVISION OF MINERAL RESOURCES

JAMES L. CALVER, COMMISSIONER

WATER WELL COMPLETION REPORT

OFFICE ADDRESS: McCormick Road, Charlottesville, Virginia

OWNER: Dr. L.O. Snead — Mailing Address: 1104 W. Franklin Street, Richmond, Virginia

TENANT: Farm — Mailing Address: Peaks, Virginia

DRILLER: SYDNOR HYDRODYNAMICS, INC. — Mailing Address: P. O. Box 27186, Richmond, VA 23261

WELL LOCATION: County Hanover — Approx. 1/4 ~~feet~~ miles South (direction) of Campbell Creek and 1/2 ~~feet~~ miles West (direction) of Rt. 656

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

DATE STARTED: 10-14-71 — DATE COMPLETED: 11-1-71

TYPE OF DRILL RIG USED: Rotary — TOTAL DEPTH 405 feet

WATER LEVEL: Stands 95'1" feet below surface OR

has NATURAL flow of _____ gallons per minute.

YIELD TEST: Method submersible pump

Drawdown 155'8" feet

Rate 12.6 gal. per min.

Duration 7 hrs., 10 min.

WATER ZONES: ~~from~~ at 260' to _____ feet

from 331 to 345 feet

from _____ to _____ feet

WATER: Color x Taste _____

Odor none Temp. _____ °F

WELL TO SUPPLY: (check one) Home _____

Farm x Town _____ School _____

Industry _____ Other _____

WATER ANALYSIS AVAILABLE: Yes x No _____

DRILL CUTTINGS SAVED: Yes 28 No _____

HOLE SIZE: 8-3/4 inches from 0 to 50 feet

7-7/8 inches from 50 to 225 feet

5 inches from 225 to 405 feet

SCREEN SIZE: _____ inches from _____ to _____ feet

_____ inches from _____ to _____ feet

_____ inches from _____ to _____ feet

CASE SIZE: 5 inches from +18" to 225 feet

_____ inches from _____ to _____ feet

_____ inches from _____ to _____ feet

GROUTING: Method Pressure

Material cement & Water Depth 50 feet

PUMP: Type _____

Capacity _____ gal. per min

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: Electric Log ran 225' (by driller)

ELEV. : 190' 4/73

YELLOW TAVERN QUADRANGLE

(LOG OF WELL) OVER

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

INTERVAL SHEET

C 144

Page 1 of 1

Well Repository No: 3366

Date rec'd: 11/18/71 : processed 2/3/72

Sample Interval: from 0 to: 315'

PROPERTY: L. O. Snead

Number of samples: 26

COMPANY: Sydnor Hydrodynamics

Total Depth: 405'

COUNTY: Hanover (Peak)

Oil or Gas: Water: x Exploratory:

From-To	From-To	From-To	From-To
0 - 10	270 - 285	-	-
10 - 25	285 - 300	-	-
25 - 30	300 - 315	-	-
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	-	-	-
-	-	-	-
-	-	-	-
190 - 200	-	-	-
200 - 210	-	-	-
210 - 225	-	-	-
225 - 240	-	-	-
240 - 255	-	-	-
255 - 270	-	-	-

All intervals have both washed and unwashed samples.

Owner: L. O. Snead
Driller: Sydnor Hydrodynamics, Inc.
County: Hanover (Peak)

W - 3366
C - 144
Total Depth: 405'

GEOLOGIC LOG

Depth (feet)

COLUMBIA GROUP (0-25')

0-10 Clay - bright orange with red and white mottles, very sandy; sand is fine- to very coarse-grained, poorly sorted, poorly rounded; contains some poorly preserved feldspar.

10-25 Sand - very poorly sorted, angular and irregular clear quartz in 10 to 20 percent matrix of brightly variegated clays.

CALVERT FORMATION (25-150')

25-30 Sand - sparse binder of lead-gray clay, some orange mottles; fine- to very fine-grained, well-sorted, angular; quartz, with traces of muscovite, magnetite.

30-40 " , except: slightly more clayey, locally carbonaceous.

40-50 Sand - sparse binder of greenish-brown to orange-brown clay, locally lead-gray; fine- to very fine-grained, well-sorted, angular; quartz, with traces of muscovite and, in the gray areas, magnetite.

50-60 " , except: the gray lithology is more common and contains numerous chalky pelecypod shell fragments.

60-70 Sand - gray, locally orange; clayey, chalky pelecypod shell fragments common; fine- to very fine-grained, very well-sorted, angular; quartz, with accessory magnetite.

70-80 Clay - gray to brownish-gray, trace of quartz sand; 15 to 20 percent pelecypod shell fragments.

80-90 Clay - lead-gray, compact, trace of sand and a few pelecypod shell fragments; subordinate laminae or pockets of light-brown, slightly clayey, rather poorly sorted quartz sand.

90-100 Clay - gray, compact: a very few shell fragments.

100-110 " "

110-120 " , except: slightly sandy (quartz), less compact.

120-130 Clay - gray to buff, compact to pulverulent; buff areas are slightly diatomaceous; scattered plant fragments.

130-140 " "

140-150 " , except: buff, pulverulent, moderately diatomaceous clay is more common; trace of glauconite.

PATUXENT FORMATION (150-165')

150-160 Sand - gray, clean, trace of granule gravel; medium- to very coarse-grained, fairly well-sorted, subangular to subrounded; 10 to 20 percent fresh feldspar; accessory garnet and authigenic pyrite.

160-165 " "

PETERSBURG GRANITE (165-315')

165-180 No sample, but driller states that material in this interval is same as that present from 190-209'; because the 190-209' material is pre-Patuxent, the Patuxent Formation-Petersburg Granite contact is placed at 165'.

180-190 No sample, same comment as above.

190-200	Decomposed biotite-granite - gray; generally coarse, poorly sorted, very angular and irregular quartz; abundant decomposed biotite; small amounts pyrite, muscovite and decomposed feldspar; matrix of brownish-gray clay; a few intact but highly decomposed fragments of biotite-granite.
200-210	" "
210-225	" , except: less decomposed; rock fragments abundant.
225-240	" , except: very biotitic, with abundant brown clay (probably decomposed schlieren).
240-255	Granite - gray; quartz, biotite, and white to gray feldspar; trace of pyrite.
255-270	" "
270-285	" "
285-300	" "
300-315	" , except: very biotitic, with abundant brown clay (probably decomposed schlieren).
315-405	No samples

GEOLOGIC SUMMARY

Depth (feet)	Rock Unit	
0-25	Columbia Group	post-Miocene
25-150	Calvert Formation	Miocene
150-165	Patuxent Formation	Early Cretaceous
165-315	Petersburg Granite	Paleozoic (?)
315-405	No samples	--

VIRGINIA DIVISION OF MINERAL RESOURCES
Robert H. Teifke - Geologist
April 17, 1972