

COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

Well - Job order

W-2830  
C-81

MAILING ADDRESS:

Box 3667  
Charlottesville, VA 22903

DIVISION OF MINERAL RESOURCES

JAMES L. CALVER, COMMISSIONER

OFFICE ADDRESS:

McCormick Road  
Charlottesville, Virginia

WATER WELL COMPLETION REPORT

OWNER: Virginia Electric & Power Co. Mailing Address: P. O. Box 38 - Mineral, Virginia

Stone & Webster Engineering Corp. AGENT

TENANT: (Plant well #1) Mailing Address:

DRILLER: Sydnor Hydrodynamics, Inc. Mailing Address: P. O. Box 1476 - Richmond, Virginia

23212

WELL LOCATION: County LOUISA Approx. 1 miles Northeast (direction) of

Route #652 and 1-1/4 miles Southeast (direction) of Route #685

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

DATE STARTED: 2/20/70 DATE COMPLETED: 3/9/70

TYPE OF DRILL RIG USED: Rotary TOTAL DEPTH 350 feet

WATER LEVEL: Stands \_\_\_\_\_ feet below surface OR

has NATURAL flow of 1 P.F. ~~xxxxxx~~ per minute.

YIELD TEST: Method Submersible

Drawdown 300 feet

Rate 7.14 gal. per min.

Duration 55 hrs., 29 min

HOLE SIZE: 8-3/4 inches from 0 to 96 feet

5 inches from 96 to 350 feet

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

SCREEN SIZE: \_\_\_\_\_ inches from \_\_\_\_\_ to \_\_\_\_\_ feet

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

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

CASE SIZE: 5 inches from +2 to 96 feet

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

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

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

Odor \_\_\_\_\_ Temp. \_\_\_\_\_ °F

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

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

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

GROUTING: Method Pressure

Material Cement & Water Depth 96 feet

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

DRILL CUTTINGS SAVED: <sup>36</sup> Yes  No \_\_\_\_\_

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: \_\_\_\_\_

#1 Well - PLANT SITE

# LOG

#1 Well - Job Order #27150

FURNISHED BY: Sydnor Hydrodynamics, Inc.

DATE: 3/9/70

DEPTH (feet)		TYPE OF ROCK OR SOIL PENETRATED (gravel, clay, etc., hardness, color, etc.)	REMARKS (water, caving, shot, screen, sample, etc.)
FROM	TO		
0	15	Rotten Gray Granite	
15	25	Gray Granite - Soft Streaks	
25	50	Gray Granite	
50	95	Soft Streaks of Yellow, Gray and Brown Granite	
95	100	Gray Granite	
100	115	Gray Brown Granite	
115	119	Red Granite	
119	180	Gray Granite	
180	210	Soft Black Rock	
210	245	Gray Granite	
245	250	Red Granite (7 gpm 250')	
250	307	Gray Granite	
307	310	Red Granite	
310	350	Gray Granite	

(Use additional forms if necessary)

VIRGINIA DIVISION OF MINERAL RESOURCES  
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INTERVAL SHEET

Page 1 of 1

C-81  
 Well Repository No.: W- 2830

Date rec'd: 4/20/70 Date Processed: 5/15/70

Sample Interval: from 0 to: 350'

PROPERTY: VEPCO (Plant Well #1)

Number of samples: 35

COMPANY: Sydnor Hydrodyamics, Inc.

Total Depth: 350'

COUNTY: Louisa (Centreville)

Oil or Gas: Water: x Exploratory:

From-To	From-To	From-To	From-To
0 - 10	300 - 310	-	-
10 - 20	310 - 320	-	-
20 - 30	320 - 330	-	-
30 - 40	330 - 340	-	-
40 - 50	340 - 350	-	-
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	-	-	-
260 - 270	-	-	-
270 - 280	-	-	-
280 - 290	-	-	-
290 - 300	-	-	-

All intervals have both washed and unwashed samples.

OWNER: Virginia Electric and Power Company  
DRILLER: Sydnor Hydrodynamics, Inc.  
COUNTY: Louisa

(Plant well #1)

W-2830  
C-81  
TOTAL DEPTH: 350'

GEOLOGIC LOG

<u>Depth in feet</u>	
0 - 10	Soil - tan, mixture of granules, sand, silt and clay, composed of weathered lithic fragments kaolinitized feldspar, and quartz, slightly cemented predominantly with clay as a bonding agent
10 - 20	Saprolite - light-gray, granules of weathered lithic fragments, feldspars altered to kaolinite, fresh quartz, biotite and muscovite
20 - 30	Weathered rock of granitoid composition - light-tan, iron-stained, composed of quartz and feldspar, some biotite present
30 - 40	Biotite leucogneiss - pink biotite - quartz-feldspar gneiss, some opaque minerals
40 - 50	"
50 - 60	Leucogneiss - pale-pink, medium to fine grained slightly foliated, some iron staining
60 - 70	Biotite leucogneiss (granite?) - grayish-tan, fine-grained, contains some muscovite
70 - 80	Biotite leucogneiss - pale-pink, medium to fine grained, some manganese stains present
80 - 90	"
90 - 100	Biotite gneiss - medium-gray, fine-grained, some biotite-rich fragments, contain epidote
100 - 110	" light-gray, some granite (pegmatite?) fragments
110 - 120	Biotite leucogneiss - light-tan, fine-grained, contains pink microcline fragments
120 - 130	Biotite gneiss - light to medium gray, fine-grained, some biotite rich fragments and a few pink microcline grains

OWNER: Virginia Electric and Power Company (Plant wall #1)

W-2830

- 130 - 140 Hornblende-biotite gneiss - medium-gray, medium to fine grained, biotite content up to 40 percent, contains epidote
- 140 - 150 "
- 150 - 160 "
- 160 - 170 " contains gray dolomite fragments
- 170 - 180 Biotite schist?-melanocratic, fine-medium-grained biotite rock, contains chlorite
- 180 - 190 "
- 190 - 200 Biotite hornblende-chlorite schist?
- 200 - 210 " contains granite (pegmatite?) fragments
- 210 - 220 Mesocratic hornblende-biotite rock (schist?) - gray, medium-grained
- 220 - 230 " contains chlorite and quartz
- 230 - 240 " "
- 240 - 250 Biotite leucogneiss - light-gray, fine to medium grained, contains some pink microcline-muscovite-quartz-biotite chips that are possibly of pegmatite origin, a quartz-rich rock, epidote and chlorite are present in minor amounts
- 250 - 260 Mesocratic chloritic-biotite gneiss - medium-greenish-gray, medium to coarse grained, composed predominantly of biotite and quartz, biotite appears to be partially altered to chlorite, contains numerous epidote grains (alteration of feldspar?), several large (3 mm) chlorite and quartz grains contain masses of sericite and sulphides
- 260 - 270 " hornblendic
- 270 - 280 Biotite leucogneiss (or granite) - light-gray, fine-grained
- 280 - 290 " micas seem to be oriented, trace of chlorite

OWNER: Virginia Electric and Power Company (Plant wall #1)

W-2830

- 290 - 300 Biotite leucogneiss (or granite) - some iron cemented aggregates of quartz grains of unknown origin
- 300 - 310 " " , epidote present, some pink microcline grains (pegmatite?)
- 310 - 320 " "
- 320 - 330 " some iron cemented aggregates of quartz
- 330 - 340 " " , epidote present, black fine-grained calcite (marble?)
- 340 - 350 " contains fragments of garnetiferous biotite gneiss, iron-cemented quartz grains, sulphides black calcite (marble?)

GEOLOGIC SUMMARY

	<u>ROCK UNIT</u>	<u>AGE</u>
0 - 10	Soil	Plio-Pleistocene
10 - 20	Saprolite	Mesozoic-Cenozoic
20 - 30	Weathered rock	Paleozoic?
30 - 90	Biotite leucogneiss	"
90 - 110	Biotite gneiss	"
110 - 120	Biotite leucogneiss	"
120 - 130	Biotite gneiss	"
130 - 170	Hornblende-biotite gneiss (contains carbonate chips)	"
170 - 190	Biotite schist	"
190 - 240	Biotite-hornblende-chlorite schist	"
240 - 250	Biotite leucogneiss	"



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W-2830

250 - 270	Chloritic biotite gneiss	Paleozoic?
270 - 350	Biotite leucogneiss	"

Virginia Division of Mineral Resources  
James F. Conley, Geologist  
September 25, 1973

154-21

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DRILLER: Sydnor Hydrodynamics, Inc.  
COUNTY: Louisa

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