



OWNER: Southern Material (Ferncliff Plant)  
DRILLER: Sydnor Hydrodynamics, Inc.  
COUNTY: Louisa (Ferncliff)

VDMR: 2194  
WWCR: 74  
TOTAL DEPTH: 300'

GEOLOGIC LOG

Depth in feet

0-15	Saprolite -- brown; clay and weathered and iron-oxide-stained phyllite
15-30	" tan
30-45	Quartz-sericite phyllite -- tannish-gray, slightly weathered, schistose; sericite, and quartz, with minor amounts of biotite and feldspar
45-60	"
60-75	"
75-90	" brown; considerable amount of iron-oxide staining
90-105	" gray; un-weathered; trace of pyrite
105-120	Quartz -- white; vein: quartz with minor amounts of quartz-sericite schist
120-135	Quartzite -- light gray, aphanitic, slightly micaceous, sheared, schistose; quartz, sericite, biotite, and trace of pyrite
135-150	"
150-165	"
165-180	Biotite-quartz schist -- dark brownish-gray, phyllitic, slightly crenulated, foliated; biotite, quartz, muscovite, and trace of feldspar
180-195	"
195-210	Quartzite -- gray, fine-grained to aphanitic, sheared, slightly micaceous; quartz, biotite, sericite, and trace of feldspar
210-225	" light gray; some fragments of sericite-quartz schist

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#2194

- 225-240      Phyllite — purplish-gray, aphanitic, foliated, schistose;  
                 quartz, sericite, biotite, and feldspar
- 240-255      Micaceous quartzite — gray, aphanitic to very fine-grained,  
                 foliated; quartz, sericite, biotite, and trace of  
                 feldspar
- 255-270      "
- 270-285      "
- 285-300      Quartz-sericite phyllite — purplish-gray, aphanitic,  
                 foliated, schistose; quartz, sericite, biotite,  
                 and feldspar

GEOLOGIC SUMMARY

	<u>ROCK UNIT</u>	<u>AGE</u>
0-30'	Saprolite	
30-300'	Metamorphosed sedimentary rocks	Early Paleozoic (?)

Virginia Division of Mineral Resources  
Robert G. Willson, Geologist  
July 17, 1968

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VDMA-2194  
WWCR-74

COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

MAILING ADDRESS:  
Box 3667  
Charlottesville, VA 22903

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

OFFICE ADDRESS:  
McCormick Road  
Charlottesville, Virginia

OWNER: Southern Material Mailing Address: PO Box 1-J, Richmond, Va.

TENANT: Southern Material - Ferncliff Plant Mailing Address: \_\_\_\_\_

DRILLER: Sydnor Hydrodynamics, Inc. Mailing Address: 1305 Brook Rd., Richmond, Va.

WELL LOCATION: County Louisa Approx. 1 <sup>beak</sup> miles northeast (direction) of  
U.S. Highway  
Route 250 and 50 feet northwest (direction) of state Road  
 Rt. 659

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

DATE STARTED: 4-17-68 DATE COMPLETED: 4-29-68

TYPE OF DRILL RIG USED: Air Rotary TOTAL DEPTH 300 feet

WATER LEVEL: Stands 20 feet below surface OR  
has NATURAL flow of \_\_\_\_\_ gallons per minute.

YIELD TEST: Method Submersible  
Drawdown 129 feet  
Rate 17 gal. per min.  
Duration 9 hrs., 0 min.

HOLE SIZE: 11 inches from 0 to 64 feet  
6 1/2 inches from 64 to 300 feet  
\_\_\_\_\_ inches from \_\_\_\_\_ to \_\_\_\_\_ feet

WATER ZONES: from 77 to 78 feet  
from 147 to 147 1/2 feet  
from \_\_\_\_\_ to \_\_\_\_\_ feet

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

WATER: Color Clear Taste OK  
Odor None Temp. \_\_\_\_\_ °F

CASE SIZE: 7 inches from +1'6" to 64 feet  
\_\_\_\_\_ inches from \_\_\_\_\_ to \_\_\_\_\_ feet  
\_\_\_\_\_ inches from \_\_\_\_\_ to \_\_\_\_\_ feet

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

GROUTING: Method Gravity  
Material Cement & water Depth 64 feet

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

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: 20 samples

# LOG

FURNISHED BY: Sydnor Hydrodynamics, Inc.

DATE: 4-29-68

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	15	Red clay	
15	62	Rotten granite and boulders	
62	66	Slate	
66	77	Weathered rock	
77	78	Weathered rock (water)	
78	89	Weathered rock	
89	147	Gray slate	
147	147 $\frac{1}{2}$	Water zone	
147 $\frac{1}{2}$	300	Gray slate	

(Use additional forms if necessary)