

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: C & P Telephone Company Mailing Address: Seven Pines, VA

TENANT: Well #2 Mailing Address: "

DRILLER: Atlantic Pump & Equipment Co. Mailing Address: Richmond, VA

WELL LOCATION: County Henrico Approx. 800 ^{feet}/_{miles} northeast (direction) of
Cedar Fork Road and 300 ^{feet}/_{miles} north (direction) of Nine-Mile Road

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

DATE STARTED: _____ DATE COMPLETED: July 1972

TYPE OF DRILL RIG USED: hydraulic rotary TOTAL DEPTH 330 feet

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

YIELD TEST: Method Pump
Pumping level 268 feet
Drawdown _____ feet
Rate 7 1/2 gal. per min.
Duration 8 hrs., 0 min.

HOLE SIZE: 10 inches from 0 to 330 feet
_____ inches from _____ to _____ feet
_____ inches from _____ to _____ feet

WATER ZONES: from 95 to 105 feet
from 284 to 294 feet
from _____ to _____ feet

SCREEN SIZE: 4 inches from 95 to 105 feet
4 inches from 284 to 294 feet
_____ inches from _____ to _____ feet

WATER: Color _____ Taste _____
Odor _____ Temp. _____ °F

CASE SIZE: 5 inches from 0 to 7 feet
4 inches from 7 to 95 feet
4 inches from 105 to 284 feet
4 inches from 294 to 314 feet

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

GROUTING: Method Pressure
Material cement Depth 52 feet

WATER ANALYSIS AVAILABLE: Yes _____ No _____

PUMP: Type Submersible
Capacity 7 gpm gal per min
Depth of intake 268 feet

DRILL CUTTINGS SAVED: Yes 32 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: Geophysical logs by USGS

LOG

FURNISHED BY: Ronnie Wells

DATE: 9/15/72

DEPTH (feet)		TYPE OF ROCK OR SOIL PENETRATED (gravel, clay, etc., hardness, color, etc.)	REMARKS (water, caving, shot, screen, sample, etc.)
FROM	TO		
0	10	Yellow clay	
10	40	Gray clay w/yellow streaks	
40	60	Blue clay	
60	120	Gray clay	
120	130	Red clay	
130	170	Dark gray w/shells	
170	190	Lt. gray sand	
190	230	Lt. green sand w/shells	
230	330	Lt. gray sand w/gravel	

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W-3667

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REMARKS: Geophysical logs by USGS samples & driller's log don't

SEVEN PINES QUADRANGLE agree too well ...

ELEV. : 157'

REFER : W-1612

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

INTERVAL SHEET

Page 1 of 1
 Date rec'd: 9/18/72 ; processed 1/31/73
 PROPERTY: C & P Telephone Co. #2
 COMPANY: Atlantic P & E Company
 COUNTY: Henrico (Seven Pines)

C- 209
 Well Repository No: 3664
 Sample Interval; from 0 to:316
 Number of samples: 30
 Total Depth: 330'
 Oil or Gas: Water:X Exploratory:

From-To	From-To	From-To	From-To
0 - 10	250 - 260	-	-
10 - 20	260 - 270	-	-
20 - 30	270 - 280	-	-
30 - 40	280 - 290	-	-
40 - 50	290 - 300	-	-
50 - 60	300 - 310	-	-
60 - 70	310 - 316	-	-
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	-	-	-

All intervals have both washed and unwashed samples.

OWNER: C and P Telephone # 2
DRILLER: Atlantic Pump and Equipment Co.
COUNTY: Henrico (Seven Pines)

W- 3664
C- 209
TOTAL DEPTH: 330'

GEOLOGIC LOG

Depth in
feet

COLUMBIA GROUP (0-50')

- 0-10 Sand - yellowish-brown, slightly clayey; medium- to very fine-grained, fairly well sorted; mainly quartz, with some decomposed feldspar
- 10-20 Clay - brightly variegated (red, orange, yellow, bluish-white, brown), very sandy; sand is fine- to medium-grained, fairly well sorted, evenly distributed throughout clay; mainly angular to subangular quartz
- 20-30 Sand - brownish-yellow, slightly clayey; very fine- to medium-grained, fairly well sorted; mainly angular to subangular quartz
- 30-40 Sand and Gravel - sparse matrix of variegated clay; sand (60 percent) in very fine- to coarse-grained, moderately sorted (skewed positive), angular to subangular, slightly feldspathic; gravel (40 percent) consists of rounded quartz up to 10 mm and a few fragments of ferricrete
- 40-50 As above, except: with 70-80 percent rounded to well rounded gravel up to 30 mm

CALVERT FORMATION (50-95')

- 50-60 Clay - bluish-gray, mottled orange, silty, compact; streaks and films of carbonaceous material are common
- 60-70 As above
- 70-80 As above
- 80-90 As above

NANJEMOY FORMATION (95-145') Top of formation defined on basis of other information.

- 90-100 Clay - dark-brownish-gray, silty to sandy, micaceous (muscovite), slightly to moderately glauconitic (medium-green glauconite); complexly interlaminated with bluish-gray clay described above

100-110 As 90-100

110-120 Clay - interlaminations of pinkish-orange sand-free clay and grayish-white sand-free clay; subordinate laminae of gray to brownish-gray, clayey, glauconite silt and fine-grained sand; white clay is more silty (less sectile) than the orange clay; silty laminae (brown) contain abundant glauconite, epidote, hornblende, zircon

120-130 As above

130-140 As above

140-150 As above

MATTAPONI FORMATION (145 - 185') Top of formation defined on basis of other information.

150-160 Sand and Silt - dark-greenish-gray, clayey, with about 10 percent pinkish-white chalky shell material; well-sorted, coarse-grained silt to fine-grained sand consisting of 60 percent clear to greenish angular quartz and 30 percent dark-green glauconite; glauconite is somewhat coarser than quartz, including many lobate grains as large as 3 mm; accessory muscovite authigenic pyrite, and reworked phosphorite; a few vertebrate remains; Nodosaria, Dentalina, and Robulus present

160-170 Sand and Silt - dark-greenish-gray, clayey, with 20 percent pinkish-white chalky shell material including Turritella and corals; well-sorted coarse-grained silt to fine-grained sand consisting of 40 percent clear to greenish quartz and 40 percent dark-green glauconite; accessory muscovite and bone phosphorite; small amount of fine-grained glauconite-pigmented gravel

170-180 As above, except: with more fine-grained, glauconite-pigmented, quartz - feldspar - phosphorite gravel

PATUXENT FORMATION (185-316') Top of formation defined on basis of other information.

180-190 Sand and Gravel - matrix of pale-yellow clay; medium-grained sand to granule gravel, with a few rounded pebbles, up to 30 mm, of quartz, sandstone, and quartzite; feldspathic; many fragments of yellowish-green biotitic saprolite or transported saprolite

190-200 Gravel and Sand - sparse matrix of silty gray clay; mainly very coarse-grained sand to 30 mm gravel; poorly sorted, rounded to well-rounded; moderately feldspathic, slightly lithic

200-316 This interval, represented by 12 samples, consists predominantly of poorly sorted quartzo-feldspathic sands and rounded 2 to 20 mm quartz gravels with some feldspar and rock fragments (mainly quartzose types). The relative proportions of sand and gravel vary, but gravel is volumetrically dominant in most samples. A sparse matrix of gray as yellowish gray silty clay is commonly present.

316-330 *No samples*

GEOLOGIC SUMMARY

	<u>Rock Unit</u>	<u>Age</u>
0-50	Columbia Group	post-Miocene
50-95	Calvert Formation	Miocene
95-145	Nanjemoy Formation	Eocene
145-185	Mattaponi Formation	Paleocene - Late Cretaceous
185-316	Patuxent Formation	Early Cretaceous

Virginia Division of Mineral Resources
Robert H. Teifke - Geologist
April 23, 1973