COMMONWEALTH OF VIRGINIA W# 4257
C# 134
DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

MAILING ADDRESS: B[illegible]3667 C[illegible]ottesville, VA 22903

DIVISION OF MINERAL RESOURCES

JAMES L. CALVER, COMMISSIONER

WATER WELL COMPLETION REPORT

OFFICE ADDRESS: McCormick Road Charlottesville, Virginia

OWNER: Town of Dendron Mailing Address: Dendron, Virginia

TENANT: Contractor: Norcarva Const. Co. Mailing Address P.O.Box 698, Clarksville, Va.

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

WELL LOCATION: County Surry Approx. 72 ~~feet miles~~ West (direction) of Rt. 1107 (Liberty St.) and 182 ~~feet miles~~ North (direction) of Rt. 31 (Main St

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

DATE STARTED: 8/1/74 DATE COMPLETED: 9/3/74

TYPE OF DRILL RIG USED: Rotary 6" TOTAL DEPTH 510 feet

WATER LEVEL: Stands 135' feet below surface OR has NATURAL flow of _____ gallons per minute.

YIELD TEST: Method Submersible
Drawdown 32 feet
Rate 320 gal. per min.
Duration 24 hrs., _____ min.

WATER ZONES: from 318 to 338 feet
from 450 to 470 feet
from 480 to 500 feet

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

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

WATER ANALYSIS AVAILABLE: Yes XX No _____

DRILL CUTTINGS SAVED: ~~51~~ Yes XX No _____

HOLE SIZE: 22 inches from 0 to 50 feet
17¼ inches from 50 to 510 feet
_____ inches from _____ to _____ feet

SCREEN SIZE: 6 inches from 318 to 338 feet
6 inches from 450 to 470 feet
6 inches from 480 to 500 feet

CASE SIZE: 8 inches from +2 to 300 feet
6 inches from 300 to 318 feet
6 338 450
6 inches from 470 to 480 feet
6 500 505

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: _____

(LOG OF WELL) OVER

MS 9/30/74

LOG

FURNISHED BY: _____ DATE: _____

DEPTH (feet) FROM	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	25	Yellow and brown clay.	
25	35	Brown sand.	
35	60	Gray clay and shells.	
60	70	Gray clay, shells, and black sand	
70	90	Shells and gray sand.	
90	110	Green clay, sand, shells.	
110	170	Green clay and shells.	
170	180	Gray clay, shells and black sand.	
180	200	Green clay, sand, shells.	
200	210	Gray clay, black sand, shells	
210	235	Black sand, some clay and shells.	
235	270	Black sand.	
270	273	Black sand, gravel, shells.	
273	280	Black sand, shells, clay	
280	290	Black sand, gravel, shells, clay.	
290	305	Hard gray clay with streaks of shells.	
305	320	Green sand clay, some black sand.	
320	330	Sand, streaks of green and white clay.	
330	340	Green, white sand clay.	
340	350	Sand, gravel, some clay.	
350	370	Sand, gravel, streaks of white and green clay.	
370	380	Sand, streaks of clay.	
380	390	Gray and black sans with streaks of clay.	
390	400	Green sand, clay and gravel.	
400	420	White and green clay with streaks of rock.	
420	430	Sand clay, streaks of rock.	
430	440	Sand, streaks of clay.	
440	450	Gray sand, clay and gravel.	
450	460	Sand and white clay.	
460	470	Coarse sand.	
470	485	Coarse sand, streaks of clay.	
485	500	Sand and white clay.	
500	510	Hard white clay.	

(Use additional forms if necessary)

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

INTERVAL SHEET

W# 4257
C# 134

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Well Repository No:

Date rec'd: 9/30/74 Date Processed: 9/23/75

Sample Interval: from: 0 to: 510

PROPERTY: Town of Dendron

Number of samples: 51

COMPANY: Sydnor

Total Depth: 510'

COUNTY: Surry (Dendron)

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	350 - 360		
60 - 70	360 - 370	-	-
- 80	370 - 380	-	-
80 - 90	380 - 390	-	-
90 - 100	390 - 400	-	-
-	-	-	-
100 - 110	400 - 410		
110 - 120	410 - 420	-	-
120 - 130	420 - 430	-	-
130 - 140	430 - 440	-	-
140 - 150	440 - 450	-	-
-	-	-	-
150 - 160	450 - 460		
160 - 170	460 - 470	-	-
170 - 180	470 - 480	-	-
180 - 190	480 - 490	-	-
190 - 200	490 - 500	-	-
-	-	-	-
200 - 210	500 - 510		
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: Town of Dendron
DRILLER: Sydnor
COUNTY: Surry (Dendron)

W# 4257
C# 134
Total Depth: 510'

GEOLOGIC LOG

Depth (feet)	
MOORINGS "UNIT" (0-40')	
0-10	Clay - dark yellowish orange; moderate sand; very fine to medium grained; subangular to subrounded; moderately sorted; quartz; feldspar; glauconite; opaques.
10-20	Clay - moderate orange pink; moderate sand; very fine to fine grained with some medium grains; subangular to subrounded; moderately sorted; quartz; feldspar; opaques; muscovite.
20-30	Sand - grayish orange; moderate clay; medium to coarse grained; subangular to subrounded; moderately well sorted; quartz; feldspar; opaques.
30-40	Sand - dark yellowish orange; abundant clay; medium to coarse grained, few granules; subangular to subrounded; moderately sorted; quartz; feldspar; opaques.
YORKTOWN FORMATION (40-90')	
40-50	Clay - olive light gray; slightly sandy; medium grained; subrounded to rounded; moderately well sorted; quartz; glauconite 40% of sand fraction; 35% shell fragments; few opaques; spines; forams (inc. Buccella, Quinqueloculina, and Textularia).
50-60	Clay and shell hash - olive light gray; slightly sandy; medium grained; subangular to rounded; moderately well sorted; 50% shell fragments; quartz; glauconite; spines; forams (inc. Textularia); bone fragment.
60-70	Shell hash-olive light gray; moderate clay; moderate sand; medium grained; subangular to rounded; moderately well sorted; quartz; glauconite 25% of sand fraction; spines; few black phosphatic fragments; forams (inc. Amphistegina); ostrocode.
70-80	Shell hash - olive light gray; slightly clayey; moderate sand; fine to medium grained; subangular to subrounded; moderately well sorted; quartz; glauconite; spines; black phosphatic material; forams (inc. Quinqueloculina and Textularia); ostrocodes.

Depth (feet)

80-90 Shell - hash - olive light gray; slightly clayey; 95% shell fragments; black phosphatic material; few grains of glauconite.

CALVERT FORMATION (90-170')

90-100 Sand - olive light gray; slightly clayey; very fine to fine grained; subangular to subrounded; well sorted; quartz; 30% shell fragments; black phosphatic material inc. shark's tooth; glauconite; sandy limestone fragments; spines; muscovite; forams scarce (inc. Nonion).

100-110 Sand - olive light gray; abundant clay; very fine to fine grained; subangular to subrounded; well sorted; quartz; 15% shell fragments; spines; black phosphatic material; sandy limestone fragments; muscovite; glauconite; few bone fragments; forams rare(inc. Nonion); ostracode.

110-120 Sand and clay - olive light gray; abundant clay; moderate sand; very fine to fine grained; subangular to subrounded; well sorted; quartz; 10% shell fragments; spines; black phosphatic material inc. fish tooth; muscovite; glauconite; sandy limestone fragments; forams (inc. Nonion and Textularia): ostracode; fish vertebra

120-130 As above except 7% shell fragments; no Textularia.

130-140 Clay - olive light gray; 3% shell fragments; muscovite; few sandy limestone fragments; few black phosphatic fragments; bone fragment.

140-150 Clay - olive light gray; moderate sand; very fine to fine grained; subangular to subrounded; well sorted; quartz; 7% shell fragments; black phosphatic material inc. shark's tooth; muscovite; bone fragments; few grains of glauconite; fish vertebra.

150-160 Clay - light gray; shell fragments; black phosphatic material; few grains of glauconite; forams (inc. Nonion, Textularia, and Uvigerina);

160-170 As above except no Uvigerina; bone fragments.

NANJEMOY FORMATION (170-210')

170-180 Sand - olive light gray; abundant clay; fine to coarse grained; subangular to rounded; poorly sorted; quartz; 20% glauconite; 3% black phosphatic material; shell fragments; few bone fragments; forams (inc. Uvigerina, Nonion, and Bulimina); few grains of garnet; pyrite; few sandy limestone fragments.

180-190 Clay - olive light gray; abundant sand; fine to coarse grained; subangular to rounded; poorly sorted; quartz; 25% glauconite; black phosphatic material; fone fragments; muscovite; forams (inc. Nonion); ostracode.

190-200 Sand - olive light gray; abundant clay; very fine to fine grained; subangular to rounded; well sorted; quartz; 40% glauconite; 7% muscovite; shell fragments; forams common (inc. Robulus, Buccella, Nonion, and Textularia); ostracodes common.

Depth (feet)

200-210 Sand - grayish olive; abundant clay; fine to medium grained; sub-angular to rounded; moderately sorted; 60% glauconite; quartz; 3% muscovite; spines; forams (inc. Robulus, Buccella and Globigerina); ostracodes; shell fragments; pyrite.

MATTAPONI FORAMTION (210-270')

210-220 Sand - olive gray; slightly clayey; medium grained; rounded; well sorted; 90% brown and dark green glauconite; quartz; pyrite; shell fragments; sandy limestone fragment; muscovite.

220-230 As above except moderate olive brown; moderate clay.

230-240 As above.

240-250 Sand - olive gray; abundant clay; medium grained; rounded; moderately well sorted; 70% glauconite; quartz; 15% limestone and shell fragments; muscovite; forams rare (inc. Buccella); ostracode.

250-260 Sand - grayish olive; moderate clay; medium grained, few granules; rounded; moderately well sorted; 80% glauconite; quartz; sandy lime-stone and shell fragments.

260-270 Sand - olive light gray; moderate clay; medium to very coarse grained, some granules; subangular to rounded; moderately sorted; 70% glauconite; quartz; sandy limestone and shell fragments; few grains of garnet.

PATUXENT FORMATION (270-510')

270-280 Sand and gravel - salt and pepper; moderate clay; medium grained to granular, 15% pebbles; subangular to rounded; poorly sorted; quartz; 40% glauconite; sandy limestone and shell fragments; few grains of garnet.

280-290 Sand and clay - dusky yellow; moderate clay; medium grained, few granules, few pebbles; subangular to rounded; moderately sorted; quartz; 35% glauconite; feldspar; muscovite.

290-300 As above plus sandy limestone fragments and pyrite.

300-310 As above except no pebbles.

310-320 Sand - salt and pepper; abundant clay; medium to very coarse grained, granules; subangular to subrounded; moderately sorted; quartz; feld-spar; 3% glauconite; few grains of garnet.

320-330 Sand - salt and pepper; abundant clay, medium to very coarse grain, granule; subangular to subrounded; poorly sorted; quartz; feldspar; 7% glauconite; few grains garnet.

330-340 As above except some fine grains.

Depth (feet)	
340-350	Sand and clay - light gray; fine to medium grained with some coarse grains, some granules; subangular to subrounded; moderately sorted; quartz; feldspar; 3% glauconite; 3% muscovite; forams rare (inc. Globigerina).
350-360	Sand and clay - grayish orange; abundant clay; moderate sand; medium to coarse grained, some granules; subangular to subrounded; moderately sorted; quartz; feldspar; 5% glauconite; muscovite.
360-370	Sand and clay- grayish orange; abundant clay; moderate sand; medium to very coarse grained, few granules, few pebbles; subangular to subrounded; moderately sorted; quartz; feldspar; 10% glauconite; muscovite; few grains of garnet.
370-380	Sand - white; moderate clay; medium to very coarse grained; granules; few pebbles; subangular to subrounded; moderately well sorted; quartz; feldspar; 7% glauconite; garnet.
380-390	Sand - white; moderate clay; medium grained to granular, few pebbles; subangular to subrounded; moderately sorted; quartz; feldspar; 7% glauconite; garnet.
390-400	Sand - yellowish gray; abundant clay; medium to coarse grained, granules; subangular to subrounded; moderately sorted; quartz; feldspar; some glauconite; muscovite.
400-410	Sand and clay - yellowish gray; moderate clay; abundant sand; medium to very coarse grained, granules, few pebbles; subangular to subrounded; moderately sorted; quartz; feldspar; some glauconite; garnet.
410-420	Sand and clay - olive light gray; abundant clay; moderate sand; medium to coarse with some very coarse grains, some granules; subangular to subrounded; moderately sorted; quartz; feldspar; glauconite; muscovite; garnet.
420-430	Clay - yellowish gray; abundant sand; medium to coarse grained, some granules; subangular to subrounded; moderately sorted; quartz; feldspar; glauconite; muscovite; garnet.
430-440	Sand and clay - grayish yellow; moderate clay; abundant sand; medium to coarse grained, few granules; subangular to subrounded; moderately sorted; quartz; feldspar; 2% glauconite; muscovite.
440-450	As above.

Depth (feet)	
450-460	Sand and clay - yellowish gray; moderate clay; abundant sand; medium to coarse grained, some granules; subangular to subrounded; moderately sorted; quartz; feldspar; some glauconite; muscovite.
460-470	Sand - olive light gray; moderate clay; coarse grained to granular, some pebbles; subangular to subrounded; moderately sorted; quartz; feldspar; some glauconite; few grains of garnet.
470-480	As above except 2% glauconite.
480-490	As above except abundant clay and only some glauconite.
490-500	As above.
500-510	As above.

Logged by: Michael T. Currie

GEOLOGIC SUMMARY

Thickness (feet)	Rock Unit	Time Rock Unit
40	Moorings "Unit"	Pleistocene
50	Yorktown Formation	Pliocene - Miocene
80	Calvert Foramtion	Miocene - Eocene
40	Nanjemoy Formation	Eocene
60	Mattaponi Foramtion	Eocene - Cretaceous
240 +	Patuxent Foramtion	Cretaceous

VIRGINIA DIVISION OF MINERAL RESOURCES
David A. Hubbard, Jr., Geologist
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