W#: 5221 C#: 213

COMMONWEALTH OF VIRGINIA

DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

DIVISION OF MINERAL RESOURCES OFFICE ADDRESS: MAILING ADDRESS: JAMES L. CALVER, COMMISSIONER B 3667 McCormick Road C. rlottesville, VA 22903 WATER WELL COMPLETION REPORT Charlottesville, Virginia 3508 Oaklawn Boulevard George Christofferson OWNER: L. S. Building Contractor, Inc. Mailing Address: Hopewell, VA. 23860 Mailing Address 16815 Happy Hill Rd. TENANT: J. J. Mitchell, Jr. DRILLER: Mitchell's Well & Pump Co., Inc. Mailing Address: Colonial Heights, VA. 23834 WELL LOCATION: County Prince George Approx. Approx. ___(direction) of feet Newstead Farms Rt. 674 and miles (direction) of (GIVE DIRECTION AND DISTANCE IN FEET OR MILES FROM TWO REFERENCE POINTS - ROADS, TOWNS, RIVERS, ETC. - ON COUNTY HIGHWAY OR OTHER MAP.) DATE STARTED: Feb. 1978 DATE COMPLETED: Feb. 1978 TYPE OF DRILL RIG USED: Cable tool TOTAL DEPTH 170 feet Stands 80 feet below surface OR WATER LEVEL: has NATURAL flow of_____gallons per minute. YIELD TEST: Method Pumped HOLE SIZE: 75 inches from 0 to 15 feet Drawdown _____130 ____feet test pipe 4 inches from 15 to 170 feet used, took no air ____inches from _____to ____feet Rate 18-20 gal. per min. Duration ______ hrs..____min. SCREEN SIZE: inches from to _____feet WATER ZONES: from ______to _____feet __inches from _____to ___ from_____feet ____inches from ____to____feet CASE SIZE: 4 inches from +1 to149'4" feet from _____to____feet ____inches from____to___feet WATER: Color_____Taste___ ______Temp. ______°F ____inches from ____to___feet Odor GROUTING: Method WELL TO SUPPLY: (check one) Home X Material Cement, sand Depth 15 feet Farm_____Town____School____ and gravel PUMP: Industry____Other____ Туре _____ Capacity_____gal per min WATER ANALYSIS AVAILABLE: Yes _____No_X___ DRILL CUTTINGS SAVED: 17 Yes_X_No____ Depth of intake ____ (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.) R ARKS: Back-filled with gravel.

FURNISHED BY Mitchell's Well & Pump DATE:_ DEPTH TYPE OF ROCK OR SOIL PENETRATED REMARKS (feet) (gravel, clay, etc., hardness, color, etc.) (water, caving, shot, screen, sample, etc.) FROM TO 0 10 Tan earth Ditto 20 10 Orangeish Mitchell's Well & Pump Co., Inc. 20 30 Gray mud - shells 30 40 Prince George 40 50 Gray mud - shells 50 130 Gray mud 150 130 Gray 170 150 Gray sand & gravel used, took no air

(Use additional forms if necessary)

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

INTERVAL SHEET

Page 1 of 1

Well Repository No: W#: 5221

Date rec'd: 7/6/78 Date Processed: 7/18/78 Sample Interval: from:0 to:170

PROPERTY: George Christofferson (L. S. Bldg. Number of samples: 17

Contr. Inc.)

COMPANY: Mitchell

Total Depth: 170'

COUNTY: Prince George (Pr. George CH)

Oil or Gas: Water:X Exploratory:

From-To	From-To	From-To	From-To
0_10	_		_
10 _ 20	_	, <u> </u>	_
20 _ 30	_	-	<u></u> 7
30 _ 40	-		
40 _ 50	Α.	-	-
F0			
50 _ 60	-	-	-
60 _ 70	-	-	-
70 _ 80	-	-	-
80 _ 90	~	<u></u>	_
90 _ 100	-	-	-
100 _ 110			
110 _ 120	-	- ,	-
120 _ 130	-	-	-
	-	=	
130 140	-	=	-
140 _150	-	-	-
150 _160	_	_	· <u></u>
_	_	_	_
-	_	_	_
-	-	_	_
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-	<u>-</u>	<u>-</u>	-
-	-	=	-
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-	-	-	_
-	-	-	_

Washed and unwashed samples.

OWNER: George Christofferson

(L. S. Bldg. Conts., Inc.)

DRILLER: Mitchell W & P Co.

COUNTY: Prince George

W#: 5221 C#: 213

TOTAL DEPTH: 170'

QUAD: Hopewell

GEOLOGIC LOG

Depth (feet)

- 0-10 Sand grayish orange; moderate clay; medium grained to granular, some pebbles; subangular to subrounded; poorly sorted; quartz; feldspar.
- 10-20 Sand grayish orange; slightly clayey; medium to coarse grained, some fine grains, some granules, few pebbles; subangular to subrounded; moderately sorted; quartz; feldspar; few grains of glauconite.
- 20-30 Sand dark yellowish orange; moderately stained; moderate clay; fine grained, some medium grains; subangular to subrounded; well sorted; quartz; feldspar; some opaques; some glauconite.
- 30-40 No sample.
- 40-50 Clay olive light gray; moderate sand; medium to coarse grained; subangular to subrounded; moderately well sorted; quartz; 7% shell fragments; some black phosphatic material; some glauconite; few grains of feldspar.
- 50-60 As above except some shell fragments; few spines; no feldspar.
- 60-70 Sand olive light gray; moderate clay; fine to medium grained; subangular to subrounded; moderately well sorted; quartz; some black phosphatic material; some shell fragments; few spines.
- 70-80 As above except few shell fragments; few grains of glauconite.
- 80-90 As above except 2% black phosphatic material.
- 90-100 Sand dark greenish gray; moderate clay; very fine to medium grained; subangular to rounded; moderately sorted; 50% glauconite; quartz; muscovite; few shell fragments; foram.
- 100-110 As above
- 110-120 Sand light gray; abundant clay; fine to coarse grained, few granules; subangular to rounded; moderately sorted; quartz; 25% glauconite; some shell fragments; muscovite; few grains of garnet; few spines; pyrite; forams.
- 120-130 Clay and gravel yellowish gray; moderate coarse to very coarse grained sand, 20% granules; 40% gravel; angular to subrounded; moderately sorted; quartz; feldspar, few grains of glauconite; pyrite.

OWNER: George Christofferson -2- W#: 5221

Depth (feet)

130-140 Sand — off white; moderate clay; medium to very coarse grained, some granules; subrounded; moderately sorted; quartz; feldspar; 3% glauconite; few shell fragments.

140-150 As above except 2% glauconite.

150-160 Sand and gravel — pale yellow; coarse grained to granular, 35% pebbles; subrounded; poorly sorted; quartz; feldspar; large sandy limestone fragment.

160-170 No Sample.

Logged by: Michael T. Currie

GEOLOGIC SUMMARY

Depth (feet)	Thickness (feet)	Rock Unit	Time Rock Unit
0-30	30	Moorings "Unit"	Pleistocene
30-40	10	No Sample	
40-90	50	Calvert Formation	Miocene-Eocene
90-120	30	Nanjemoy-Mattaponi Formation	Eocene-Cretaceous
120-160	40+	Patuxent Formation	Cretaceous

VIRGINIA DIVISION OF MINERAL RESOURCES David A Hubbard, Jr., Geologist September 20, 1978