COMMONWEALTH OF VIRGINIA

DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT DIVISION OF MINERAL RESOURCES MAILING ADDRESS: OFFICE ADDRESS: JAMES L. CALVER, COMMISSIONER F 3667 McCormick Road C. lottesville, VA 22903 WATER WELL COMPLETION REPORT Charlottesville, Virginia 215 Boswell St. Mailing Address: Hampton, VA 23669 OWNER: Mr. Thomas W. Harris Mailing Address. 16815 Happy Hill Rd. TENANT: _____ DRILLER: J. J. Mitchell, III Mailing Address Colonial Heights, VA 23834 1/2 miles mas some S WELL LOCATION: County Surry Approx. (direction) of Levern ner feet Claremont on St. Road 654 ______ and ____ miles del a vasta (direction) of ... (GIVE DIRECTION AND DISTANCE IN FEET OR MILES FROM TWO REFERENCE POINTS - ROADS, TOWNS, RIVERS, ETC. - ON COUNTY HIGHWAY OR OTHER MAP.) ellede 2 bim epasto 2 vetl DATE STARTED: Sept. 1976 DATE COMPLETED: Sept. 1976 FOF TYPE OF DRILL RIG USED: Combination 307 TOTAL DEPTH_ _feet Stands 148 2 feet below surface OR base ast 3 years WATER LEVEL: has NATURAL flow of_____gallons per minute. HOLE SIZE: 73 inches from 0 to 18 feet Pump YIELD TEST: Method ___ __inches from 18 to 289 Drawdown _____ feet ___feet Rate 15* gal. per min. 4 inches from 289 to 307 feet SCREEN SIZE: 4 inches from 302 to 307 feet Duration _____hrs., ____min. WATER ZONES: from 302 to 307 feet _____inches from _____to ____feet from_____feet ____inches from ____to____feet CASE SIZE: 4 inches from +1 to 299 feet from ______feet 4" blank xxxxx from 299 1 to 302 feet WATER: Color_____Taste____ Odor_________°F ____inches from ____to____feet WELL TO SUPPLY: (check one) Home X GROUTING: Method _____ Material Cement, sand Depth feet Farm ____ Town ___ School ____ and gravel Industry____Other___ PUMP: Туре _____ Capacity_____gal per min

Depth of intake ___***195** 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.) RL. ARKS:____

WATER ANALYSIS AVAILABLE:Yes _____No ____

ALOGETAN WEOM MON MOO FURNISHED BY: _DATE:_

DEPTH (feet)		TYPE OF ROCK OR SOIL PENET			
FROM	то	L(gravel clay, etc., hardness, color Hampton, VA 2366	, etc.) (water, caving, shot, screen, sample, e		
	0.51	[[Light gray top soil	SNANT		
834	20 AV .	Rust colored earth	RILLER_ J. J. Mitchell, III		
30	40	Orange earth	T. Azzng Servec Molavoon TT3		
	50 60	Tan gravel Mixture of gray & tan earth	Laremont on St. Road 654		
110	100 140	Gray earth & shells Dark gray earth & shells	T WAR SHEET ON AND DETERMINED WE FEET ON WELEN WAS TO THE WAR T		
160	150 190	Gray & orange mud & shells Gray earth & shells	OTE STARTED Sept. 1976		
174 TOTAL APP	270 280	Dark gray earth & shells Black earth	VPE OF CALUE RIGUES Confination		
	300 307	Gray earth & shells Gray & tan sand	ATER LEVEL: Stunde 148 % ear acrow		
		arona iyo enollog			
y 81	a) (HOLE SIZE 72 works from	ELD TEST Manned Pump		
	3 2	I god solve 45	iou overand		
7	ε	428	*31		
		SCREEN SIZE A LONG WAR	Dyration		
		most sudan	ATER ZONES: 100m 302 10 307 1661		
		mont reason	198101		
		GASE SIZE: 4trong: from	1 3 0 P		
(02	194 1 2	4" blank xxxxxx 110m 2	ATER Color		
207		drant	3° 3000		
		BROUTING Westerd	ELL TO SUPPLY: (crest over home		
AUT.		Manual Cement, sand Del	FormTrentSchool		
		PURP: Type	Industry0*Fee		
num raq		**************************************	WER ANALYSIS AVAILABLE YOU		
9.01,		OI* nach as afasi	TEL CUTTINGS SAVED YELL CUTTINGS		
EUH7 (1)		36 KAM REJEWAY ERSKY REQUIST	RILL CYSTUMES SMOUNT OF COLLECTED AT 10 FOCT : FRICE EXPRESS COLLECT SAMPLE BACK AFT FURNISH		
			,		
		(Use additional form	s if necessary)		

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

INTERVAL SHEET

Page 1 of 1 Well Repository No.: W-4782

Date rec'd 2/7/77 Date Processed: 7/7/77 Sample Interval: from 0 to: 307'

PROPERTY: Thomas W. Harris Number of samples: 31

COMPANY: Mitchell P & W Co. Total Depth: 307'

COUNTY: Surry (Claremont) Oil or Gas: Water: Exploratory

From-To	From-To	From-To	From-To
0 - 10	250 - 260	-	=
10 - 20	260 - 270	177	<u>=</u>
20 - 30	270 - 280	-	-
30 - 40	280 - 290	-	::
40 - 50	290 - 300	-	, -
50 - 60	300 - 307		
60 - 70	-	-	-
70 - 80	-	-	-
80 - 90	-	-	77
90 - 100	=	-	-
100 - 110	-	-	-
110 - 120	-	-	-
120 - 130	-	-	-
130 - 140	-	· ·	1=
140 ~ 150	-	-	.
150 - 160	_	-	_
160 - 170	-	_	-
170 - 180	-	-	
180 - 190	(=)		.=
190 - 200	-	-	-
200 - 210	-	:-	_
210 - 220	_	_	-
220 - 230	-	-	
230 - 240	-	-	T
240 - 250) = /	/ =	

Washed & unwashed samples.

OWNER: Thomas W. Harris

DRILLER: Mitchell P & W Company

COUNTY: Surry (Claremont)

W#: 4782 C#: 136

TOTAL DEPTH: 307'

GEOLOGIC LOG

Depth (feet)

MOORINGS "UNIT" (0-60)

- O-10 Clay very light gray; abundant sand; fine medium grained; subangular to subrounded; quartz; some opaques.
- 10-20 Clay generally reddish orange with gray and red blebs; slightly sandy; fine to medium grained; some quartz; few opaques.
- 20-30 Clay light reddish orange with gray and red blebs; slightly sandy; fine to medium grained; few opaques.
- 30-40 Sand pale yellowish orange; slightly clayey; silty; fine to medium grained; subangular to subrounded; well sorted; quartz; feldspar; some opaques.
- 40-50 Sand pale yellowish orange; slightly clayey; medium to coarse grained; subangular to subrounded; moderately well sorted; quartz; feldspar.
- 50-60 Sand grayish orange; moderately clayey; very coarse with some medium grains and some granules; subangular to subrounded; moderate sorting; quartz; feldspar.

YORKTOWN FORMATION (60-110)

- 60-70 Sand light brownish gray; slightly clayey; medium to coarse grains; subangular to subrounded; moderate sorting; quartz; 25% coquina fragments; 2% ferricrete; spines; some feldspar; ostracodes common; forams common (inc. <u>Textularia</u>); few glauconite grains.
- 70-80 Sand light gray; moderately clayey; medium to coarse grains; subangular; moderate sorting; quartz; 25% coquina fragments; spines abundant; ostracodes; forams (inc. Quinqueloculina and Textularia); few black phosphatic fragments.
- Shell hash light gray; moderately clayey; abundant sand; hash is gravel size (4-6 mm); sand is fine-grained, subangular, and well sorted; quartz; some granules.

Depth (feet)

- 90-100 Shell hash light gray; moderately clayey; abundant sand; hash is granule size (2-4 mm); sand is fine to medium grained; subangular to subrounded; moderately well sorted; quartz; forams; some black phosphatic fragments; spines.
- Shell hash and sand light gray; abundant clay; hash 60%; sand 40%; hash is gravel size; sand is medium grained, subangular to subrounded, and well sorted; quartz; shell fragments; black phosphatic fragments; granules.

CALVERT FORMATION (110-170)

- Sand light gray; abundant clay; 25% shell fragments; sand is fine to medium grained, subangular to rounded, and moderately sorted; quartz; black phosphate fragments; forams (inc. Textularia and Nonion); few pebbles; spines.
- Clay and sand light gray; abundant clay; moderate sand; silty; fine to medium grained; subangular to rounded; moderately sorted; quartz; 20% shell fragments; black phosphatic fragments; forams (inc. <u>Buccella</u> and <u>Nonion</u>); spines.
- Clay and sand light gray; abundant clay; moderate sand; silty; fine to medium grained; subangular to rounded; moderately sorted; few pebbles; quartz; 15% shell fragments; teeth; black phosphatic fragments; forams (inc. Nonion); few bone fragments; spines.
- Clay and sand light gray; abundant clay; moderate sand; silty; fine to medium grained; pebbles; few granules; subangular to rounded; moderately sorted; quartz; 10% shell fragments; bone fragments; few black phosphatic fragments; foram (inc. Nonion); spines; ostracode.
- 150-160 Clay greenish gray with red and yellow blebs; silty; abundant sand; fine to medium grained; few pebbles; few granules; subangular to rounded; moderately sorted; quartz; 5% shell fragments; black phosphatic fragments; teeth; forams (inc. Nonion and Buccella); spines; few glauconite grains.
- 160-170 Clay greenish gray; silty; sandy; medium grained; subrounded; moderately well sorted; quartz; 10% shell fragments inc. gastropod; black phosphatic fragments; teeth; few glauconite grains; spines.

Depth (feet)

NANJEMOY FORMATION (170-210)

- 170-180 Sand and limestone light gray; abundant clay; silty; fine to coarse grained; subangular to rounded; poorly sorted; quartz; 35% limestone and shell fragments; some glauconite; some black phosphatic fragments; spines; forams (inc. Buccella and Textularia); ostracodes.
- 180-190 As above, no Textularia.
- 190-200 Clay and sand light gray; abundant clay; moderate sand; silty; fine to coarse grained; subangular to rounded; poorly sorted; quartz; 25% sandy limestone and shell fragments; 25% glauconite; spines; few bone fragments; foram (inc. Buccella); some pyrite.
- 200-210 Clay medium light gray; silty; sand moderate; medium to coarse grained; subrounded to rounded; moderately well sorted; quartz; 5% glauconite; spines; few bone fragments; ostracode.

MATTIPONI FORMATION (210-290)

- 210-220 Sand medium light gray; clay abundant; medium to coarse grained; subrounded to rounded; well sorted; quartz; 50% glauconite; some pyrite; few spines; shell fragments; bone fragment.
- 220-230 Sand light olive; clay abundant; medium to coarse grained; subrounded to rounded; well sorted; quartz; 70% glauconite; some pyrite; sandy limestone and shell fragments.
- 230-240 Sand olive gray; clay abundant; fine to medium grained; subrounded to rounded; moderately well sorted; quartz; 80% glauconite; some pyrite; shell fragments; few spines.
- 240-250 Sand grayish olive; clay abundant; fine to medium grained; subangular to rounded; well sorted; quartz; 70% glauconite; shell fragments; some pyrite; few limestone fragments; spines; forams (inc. Robulus).

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250-260 Sand - grayish olive green; clay abundant; fine to medium grained; few granules; subangular to rounded; well sorted; quartz; 80% glauconite; shell fragments; some pyrite; forams (inc. Nodosaria); spines.

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260-270 Sand - grayish olive; clay abundant, some red and yellow clay; fine to medium grained; subangular to rounded; well sorted; few granules; few pebbles; quartz; 80% glauconite; shell fragments; some pyrite; limestone fragment.

270-280 As above, but 90% glauconite.

Sand - grayish olive; clay abundant; fine to medium 280-290 grained; subangular to rounded; well sorted; quartz; 90% glauconite; few shell fragments; bone fragments; spines.

PATUXENT FORMATION (290-307)

290-300 Sand -light brownish gray; medium to coarse grained; subangular to subrounded; moderately well sorted; quartz; some feldspar; some glauconite; few limestone and shell fragments; few garnet grains; few bone fragments.

300-307 Sand - white; medium to very coarse grained; subangular to subrounded; moderately well sorted; quartz; some feldspar; garnet grains; few grains of glauconite.

Logged by: Michael T. Currie

GEOLOGIC SUMMARY

(feet)		
60	Moorings "Unit"	Pleistocene
50	Yorktown Formation	Pliocene-Miocene
60	Calvert Formation	Miocene-Eocene
40	Nanjemoy Formation	Eocene
80	Mattiponi Formation	Eocene-Cretaceous
17+	Patuxent Formation	Cretaceous

Virginia Division of Mineral Resources David A. Hubbard, Jr., Geologist June 30, 1978