## COMMONWEALTH OF VIRGINIA

VDMR: 2329 WWCR: 74

DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

MAILING ADDRESS:

DIVISION OF MINERAL RESOURCES

B 3667

JAMES L. CALVER, COMMISSIONER

OFFICE ADDRESS:

McCormick Road

C. lottesville, VA 22903

WATER WELL

COMPLETION REPORT

Charlottesville, Virginia

OWNER: Mr. Thomas M. Brooks	Mailing Address: R-1, Box 143, Quinton, VA 23141
TENANT: Five Lakes Subdivision	Mailing Address c/o Mr. T. M. Brooks
DRILLER: Mitchell's Well & Pump Company	Mailing Address: R-1, Box 110, Col. Hgts. Va.23834
	Approx. 1/2 *test below (direction) of
Bottoms Bridge and	feet on (direction) of U.S. Hwy. 60
(GIVE DIRECTION AND DISTANCE IN FEET OR MILES FROM T COUNTY HIGHWAY OR OTHER MAP.)	WO REFERENCE POINTS - ROADS, TOWNS, RIVERS, ETC ON
DATE STARTED: October 1968	DATE COMPLETED: October 1968
TYPE OF DRILL RIG USED: cable tool	TOTAL DEPTH 306 feet
WATER LEVEL: Stands 79 feet below	surface <u>OR</u>
has <u>NATURAL</u> flow of_	gallons per minute.
YIELD TEST: Methodpumped	HOLE SIZE: 10inches from 0to 40feet
Drawdown101_ feet	6 inches from 40 to 306 feet
Rate <u>240</u> gal. per min.	feet
Duration 44 hrs., 30 min. not continuous	SCREEN SIZE: 5 inches from 286 to 306 feet
WATER ZONES: from 286 to 306 feet	with 11'2" blank abovetofeet
fromtofeet	inches fromtofeet
fromfeet	CASE SIZE: 6 inches from 0 to 274'10' feet
WATER: Color_clearToste_good	inches fromtofeet
Odor <u>none</u> Temp°F	inches fromtofeet
WELL TO SUPPLY: (check one) Home	GROUTING: Method poured
Farm Town School	cement and water Depth 40 feet
IndustryOther_subdivision	PUMP: Type Submersible
WATER ANALYSIS AVAILABLE:YesNo_x_	Capacity10 HPgal per min
DRILL CUTTINGS SAVED: Yes_X_No	Depth of intakefeet
(DRILL CUTTINGS SHOULD BE COLLECTED AT 10 FOOT OFFICE EXPRESS COLLECT. SAMPLE BAGS ARE FURNISH	INTERVALS. THESE SAMPLES MAY BE SHIPPED TO THIS ED FREE OF CHARGE UPON REQUEST.)

FURNISHED BY: Mitchell's Well & Pump Co. DATE: October 24, 1968

DEPTH (feet)		TYPE OF ROCK OR SOIL PENETRATED	REMARKS	
FROM	ТО	( gravel, clay, etc., hardness, color, etc.)	(water, caving, shot, screen, sample, etc.	
0	10	red mud		
10 .	20	mud sand and shells		
20	30	ditto	And the state of t	
30	40	ditto	460 A 50 BL	
40	50	ditto		
50	60	sand and shells	and the second of the second o	
60	70	ditto	9 of 1 20 cm 20 cm 20	
70	80	ditto	1 19 7 7 7	
80	90	ditto	0.000	
90	100	ditto		
100	110	mud, sand and shell	to be a control of the second	
110	120	ditto		
120	130	ditto		
130	140	red marl and shell		
140	150	marl and shell		
150	160	marl, shell and sand	10. Tana 10. 1 11 15 15 15 15 15 15 15 15 15 15 15 1	
160	170	ditto		
170	180	ditto	474	
180	190	ditto		
190	200	ditto		
200	210	gray marl and mud	1.35%	
210	220	red marl and mud	Dist 500 search a re-	
220	230	mud and sand	Call the Cal	
230	240	sand		
240	250	sand		
250	260	sand		
260	270	sand		
270	280	sand	A Secretary and Maryley and Maryley	
280	290	sand		
290	300	sand		
300	306	sand		
		te di wila i di kalb		
		3.3	1 11 / 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
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		3. 98914 3.		
		4 4		

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WATER WELL COMPLETION REPORT w Charles ville, Virginia

McCormick Road

OWNER: Mr. Thomas M. Brooks	Mailing Address: R-1, Box 143, Quinton, VA 23141
	Mailing Address: c/o Mr. T. M. Brooks
DRILLER: Mitchell's Well & Pump Company	
WELL LOCATION: County New Kent	Approx
Bottoms Bridgeand	feet on (direction) of U.S. Hwy. 60
(GIVE DIRECTION AND DISTANCE IN FEET OR MILES FROM TO COUNTY HIGHWAY OR OTHER MAP.)	WO REFERENCE POINTS - ROADS, TOWNS, RIVERS, ETC ON
DATE STARTED: October 1963	DATE COMPLETED: October 1968
TYPE OF DRILL RIG USED: cable tool	TOTAL DEPTH 306 feet
WATER LEVEL: Stands 79 feet below	surface <u>OR</u>
has <u>NATURAL</u> flow of_	gallons per minute.
YIELD TEST: Methodpumped	HOLE SIZE: 10 Inches from 0 to 40 feet
Drawdown 101 feet	
Rate <u>240</u> gal. per min.	inches fromtofeet
Duration 44 hrs., 30 min.	SCREEN SIZE: 5 inches from 286 to 306 feet with 11'2" blank above
WATER ZONES: from 286 to 306 feet	inches fromtofeet
fromfeet	inches fromtofeet
fromfeet	CASE SIZE: 6 inches from 0 to 274'10' feet
WATER: Color clear Toste good	inches fromtofeet
Odor <u>none</u> Temp°F	inches fromtofeet
WELL TO SUPPLY: (check one) Home	GROUTING: Method poured
Farm Town School	Material <u>water</u> Depth 40 feet
IndustryOther_subdivision	PUMP: Type Submersible
WATER ANALYSIS AVAILABLE:YesNo_X_	Capacity 10 HP gal per min
DRILL CUTTINGS SAVED: Yes X No	Depth of intakefeet
(DRILL CUTTINGS SHOULD BE COLLECTED AT 10 FOOT II OFFICE EXPRESS COLLECT. SAMPLE BAGS ARE FURNISHE	
R ARKS: QUINTON QUADRANGLE	
ELEV.:	

## INTERVAL SHEET

WWCR: 74
Pa~~ 1 of 1 VDMR Well No: 2329

Date rec'd: 11/25/68 Sample Interval: from 10 to: 306'

PROP: Thomas M. Brooks (Five Lakes Subdivision) Number of samples: 30

COMP: Mitchell's Well and Pump Co. Total Depth: 306'

COUNTY: New Kent (Bottoms Bridge) Oil or Gas: Water: X Exploratory:

From-To	From-To	From-To	From-To
y <del>-</del>	300 - 306	-	<b>-</b> > 0.0
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20 - 30	<del>.</del>	s <del></del>	
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110 - 120	-	_	-
120 - 130	, = 12	-	-
130 - 140	122	-	-
140 - 150	~	-	36
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160 - 170	<u>199</u> 7	₩	
170 - 180	<b>=</b>	i <del>a</del>	· ·
180 - 190	-	New C	<u> </u>
190 - 200		(3 <b>=</b> 0)	_
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210 - 220	:-	Views	
220 - 230	-	(-)	=
230 - 240	-	85	=
240 - 250	, <del>-</del>		
250 - 260			
260 - 270	3 <b>20</b> 885	-	-
270 - 280	1 <del>5</del>	P.S.	
280 - 290	in the state of th		<b>=</b> 3
290 - 300	-	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	=
270 - 300	-	:	

All intervals have both washed and unwashed samples.

OWNER: Mr. Thomas M. Brooks

(Five Lakes Subdivision)

VDMR: 2329

WWCR: 74

DRILLER: Mitchell's Well and Pump Company

TOTAL DEPTH: 306'

COUNTY: New Kent (Bottoms Bridge)

## GEOLOGIC LOG

Depth in feet		
0-10	No sample	
COLUMBIA GROUP (10-20')		
10-20	Sand — orange-brown, moderately clayey (15%); fine to medium, well-sorted, angular to subangular; traces of feldspar and magnetite	
CHESAPEAKE GROUP (20-60')		
20-30	Sand and clay — dark-gray; 35% dark-gray clay; 65% fine to medium, well-sorted, angular sand; slightly micaceous	
30-40	with a few pelecypod shells and shell fragments, small pebbles, and phosphatic nodules and bone fragments	
40-50	Clay, silt, and sand — dark greenish-gray; subequal amounts of clay, coarse silt, and very fine grained, well-sorted, angular sand; 5% shell fragments; trace of glauconite	
50-60	Sand and shell — gray, moderately clayey (15%); 50% fine to medium, well-sorted, angular sand; 35% pelecypod shell fragments; pelletal and fragmental phosphorite are common	
NANJEMOY FORMATION (60-140')		
60-70	Sand — greenish-gray, very slightly clayey; fine to medium, well-sorted, 55% angular quartz, 40% glauconite	
70-80	5% shell fragments, 5% coarse, well-rounded quartz sand, 55% angular quartz,	

30% glauconite

OWNER: Mr.	Thomas M. Brooks (Five Lakes Subdivision) #2329
80-90	Sand and shell — gray, clayey (20%); 40% pelecypod shell fragments; 30% fine, well-sorted, slightly to moderately glauconitic sand; 10% coarse, well-rounded quartz sand
90-100	Sand, clay, shells, and limestone — 30% dark-gray clay, 35% fine, well-sorted, very glauconitic sand, 20% shells and shell fragments, 15% brownish-gray, sandy limestone
100-110	Sand and clay — 35% dark-gray clay; 60% very fine to medium, well-sorted, very glauconitic sand; 5% shell fragments
110-120	Clay and sand — medium-gray, silty, 5% shell fragments; sand (35%) is fine to medium, well-sorted, moderately glauconitic, slightly micaceous
120-130	sand is very glauconitic
130-140	Clay — pinkish-orange, subordinately light-gray; slightly glauconitic
MATTAPONI F	ORMATION (140-200')
140-150	Sand — dark-gray, moderately clayey (15-20%), 5% shell fragments; fine to very fine, well-sorted, glauconitic; foraminifers and ostracods common
150-160	Sand — dark-gray, moderately clayey (20%), 10% shell fragments; very fine to medium, well-sorted, very glauconitic; a few foraminifers and ostracods
160-170	with 10% clay and 20% shells, mostly gastropods
170-180	ш
180-190	п
190-200	Sand — gray, moderately clayey (10-15%), 5% fine (2-12 mm), rounded, quartz gravel; fine to very coarse, poorly sorted, glauconitic in fine grades, slightly feldspathic in coarse grades

OWNER: Mr. Thomas M. Brooks (Five Lakes Subdivision) #2329

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PATUXENT FORMATION (200-306')		
200-210	Clay — variegated, slightly sandy; sand is very fine to coarse, poorly sorted, moderately glauconitic	
210-220	" moderately sandy; sand is fine to very fine, well-sorted, angular, slightly glauconitic and micaceous	
220-230	Sand — tan, moderately clayey (15%); very fine to medium, well-sorted, angular; moderately feldspathic, slightly micaceous, trace of glauconite	
230-240	Sand — gray; medium to very coarse, moderately sorted, angular to subangular; moderately feldspathic	
240-250	Sand — gray; with 5-10% granule gravel; coarse to very coarse, fairly well-sorted, subangular to subrounded; feldspathic	
250-260	trace of granule gravel	
260-270	Sand — gray, with 5-10% granule gravel; fine to very coarse, rather poorly sorted, angular to subrounded; feldspathic; slightly glauconitic in fine grades	
270-280	11	
280-290	Sand and gravel — gray; 25% feldspathic granule gravel; 75% medium to very coarse, moderately sorted, feldspathic sand	
290-300	TT .	
300-306	" with 5% granule gravel	

OWNER: Mr. Thomas M. Brooks (Five Lakes Subdivision)

#2329

## GEOLOGIC SUMMARY

	Rock Unit	Age
0-101	No sample	-
10-20	Columbia Group	Pleistocene
20-601	Chesapeake Group	Miocene
60-1401	Nanjemoy Formation	Middle Eocene
140-2001	Mattaponi Formation	Paleocene
200-3061	Patuxent Formation	Early Cretaceous

Virginia Division of Mineral Resources Robert H. Teifke, Geologist December 10, 1968

50% frue to medicine, well-sorted, engalor soul;
35% policypod shell frogmente; pelletal and

fraquental phosphorite are common NANTEMOY FORMATION (60-140') Sand - greenich - gray, very slightly elayery ;
fruit to medium, well-sorted; 55% angulor
guesty, 40% gloveronite 11 5% shell frequents, 5% coarse, will round-ed quorte, sand, 55% augulor quoty, 30% glaveonite 70-80 Page 2 stand and shell - groy, clayey (20%); 40°76

pelecypal shell fragments; 30°76 five, wellsorted, slightly to moderately glanconitie sand;

10°70 coarse, well-rounded guarte, sand 80-90 Sand, clay, shells, and limitatione - 30% dack gray alay, 35% fine, well-sooted, very
glanconitie sand, 20% shells and shelffrag ments, 15% brownish-gray, sendy limentone 90-100 foud and clay - 35% dark-goy clay; 60% very fine to medicin, well-sorted a very glancoutie soul; 5% shell fragments Clay, - medium-gay, silly , 5% shell forments; sand (35%) is fine to medium, well-sorted, mediately glancomitie, slightly misoreous " sand is very glaveoutie

Clay - penkish - orange of subordenalely light gray; slightly glammitie MATTAPONI FORMATION (140-200') Sand - dack-gray, moderately elayey (15-20%);
5% shell frogments; fine to very fine,
well-sorted, gloweritie); forswinifers and
ostracode common IM Hand - Lock-gray, moderately clayey (20%), WH 10 8 skell fragments; very fine to medeum, well-sorted, very gloveonitie; a few foraminifers and outracods with 10% clay and with 20% shells, mostly gastropodes 160-170 170-180 180-190 hand - gray, moderately clayey (10-15%), 190-200 5 % fine (2-12 mm), rounded, quoity gravel ; fent le course, poorly sorted, floucoutic in fine grader, slightly feld spatkie in coarse grades Page 3 PATUXENT FORMATION (200-306') 200-210 May - variegated, slightly sandy; soul is very fine to coasse, poorly sorted, moderably glaceoutie

I moderately sandy; sand a fine & very fine, well-sorted, orgalor, slightly glamonitie and micaccount Kand - tom, moderately clayey (15 %); mederally feldapathie, slightly misseous, trace of gloveonite land - gray; medicine to very coarse, moder-atily sorted, orgalor to subangular; moderately feldspathie Land - gray : with 5-10% granule grovel; coarse to very coarse, facily well-sorted, subangular to subnounded; feldepathic " trace of granule gravel 250-260 Land - gray, with 5-10% growle grovel;
frue to very coarse, rather poorly rostel,
angulor to subsounded; feldspathie;
slightly glaucouitie in fine grades band and gravel - gray , 25% feldepathie grounde granel; 75 % medien to very coarse, moderately soited, feldepathie " with 5 % grande grand 300-306

GEOLOGIC SUMMARY Age Rock Unit no somple el 50 6-10' Columbia Scoup Phristocene 10-20 Charpenhe Sroupe Moine Ta 30 20 - 60 Mary ewoy Formation Juddle Seeme Tn -10 60-140 Jesattapour Jouration Paleochus Tm -90 140-200 Patukent Formation Farly Cretaceous LIC-150 200-306 VOUR Robert H. Tefho - Geologist December 10, 1968