

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

MAILING ADDRESS:

DIVISION OF MINERAL RESOURCES

OFFICE ADDRESS:

P. 3667
Charlottesville, VA 22903

JAMES L. CALVER, COMMISSIONER

McCormick Road
Charlottesville, Virginia

WATER WELL COMPLETION REPORT

Contractor: Hingley Well & Water System Glen Allen, Va. 23060

OWNER: _____ Mailing Address: _____

TENANT: Toto Potomoy Subdivision well #2 Mailing Address: Atlee Road, Hanover, Va.

DRILLER: Mitchell's Well & Pump Company Mailing Address: Route #1, Box 110, Col. Hgts.

WELL LOCATION: County Hanover Approx. _____ feet miles _____ (direction) of
corner Atlee Road & Rt #556 and _____ feet 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: October 1971 DATE COMPLETED: October 1971

TYPE OF DRILL RIG USED: Cable tool TOTAL DEPTH 300 feet

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

YIELD TEST: Method _____
Drawdown _____ feet
Rate _____ gal. per min.
Duration _____ hrs., _____ min.

HOLE SIZE: 12 inches from 0 to 50 feet
6 inches from _____ to 300 feet
_____ inches from _____ to _____ feet

WATER ZONES: from _____ to _____ feet
from _____ to _____ feet
from _____ to _____ feet

SCREEN SIZE: _____ inches from _____ to _____ feet
_____ inches from _____ to _____ feet
_____ inches from _____ to _____ feet

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

CASE SIZE: _____ inches from _____ to _____ feet
_____ inches from _____ to _____ feet
_____ inches from _____ to _____ feet

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

GROUTING: Method _____
Material _____ Depth _____ feet

WATER ANALYSIS AVAILABLE: Yes _____ No _____

PUMP: Type _____
Capacity _____ gal. per min.

DRILL CUTTINGS SAVED: Yes 30 No _____

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: All materials was removed from well for future use & well abandoned.

LOG

FURNISHED BY: Mitchell's Well & Pump Company DATE: October 20, 1971

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	red mud and sand	
10	20	"	
20	30	"	
30	40	red mud and sand, some gravel	
40	50	gray mud and sand, some shell	
50	60	gray mud and sand	
60	70	gray mud and sand, some shell	
70	80	"	
80	90	marl and shell	
90	100	marl	
100	110	marl and shell	
110	120	marl	
120	130	gray mud and sand	
130	140	"	
140	150	black and white sand	
150	160	"	
160	170	"	
170	180	sand, gravel and some shale	
180	190	"	
190	200	"	
200	210	rock	
210	220	"	
220	230	"	
230	240	"	
240	250	"	
250	260	"	
260	270	"	
270	280	"	
280	290	"	
290	300	" mica along with rock	
WELL ABANDONED AFTER REMOVAL OF MATERIAL			

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MARKS: All materials was removed from well for future use & well abandoned.

ELEV. : 190' 4/73

YELLOW TAVERN QUADRANGLE

REFER : W-2221

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

INTERVAL SHEET

C - 145

Page 1 of 1

Well Repository No: - 3367

Date rec'd: 11/18/71 ; processed 2/3/72

Sample Interval: from 0 to: 300'

PROPERTY: Toto Potomoy well #2

Number of samples: 30

COMPANY: Mitchell's W & P Co.

Total Depth: 300'

COUNTY: Hanover (Poindexter)

Oil or Gas: Water: Exploratory:

From-To	From-To	From-To	From-To
0 - 10	250 - 60	-	-
10 - 20	60 - 70	-	-
20 - 30	70 - 80	-	-
30 - 40	80 - 90	-	-
40 - 50	90 - 300	-	-
50 - 60	-	-	-
60 - 70	-	-	-
70 - 80	-	-	-
80 - 90	-	-	-
90 - 100	-	-	-
100 - 10	-	-	-
10 - 20	-	-	-
20 - 30	-	-	-
30 - 40	-	-	-
40 - 50	-	-	-
50 - 60	-	-	-
60 - 70	-	-	-
70 - 80	-	-	-
80 - 90	-	-	-
90 - 200	-	-	-
200 - 10	-	-	-
10 - 20	-	-	-
20 - 30	-	-	-
30 - 40	-	-	-
40 - 50	-	-	-

All intervals have both washed and unwashed samples

OWNER: Totopotomoy Subdivision #2
DRILLER: Mitchell's Well & Pump Co.
COUNTY: Hanover (Poindexter)

W - 3367
C - 145
TOTAL DEPTH: 300'

GEOLOGIC LOG

Depth
(Feet)

COLUMBIA GROUP (0-40')

- 0-10 Sand - abundant matrix of yellow clay; very fine- to coarse-grained, fairly well sorted (positively skewed), angular to subangular; mainly quartz, some feldspar
- 10-20 Silt-Sand - very abundant matrix of bright orange-brown clay, locally light-gray; coarse-grained silt to fine-grained sand, well sorted, angular; quartzose; traces of magnetite, muscovite, feldspar (?)
- 20-30 Sand - orange-brown, slightly clayey, 5 to 10 percent granule gravel; fine- to very coarse-grained, poorly sorted, poorly rounded; less than 5 percent each of feldspar and blue quartz.
- 30-40 Sand - orange-brown, slightly clayey, 15 to 20 percent fine-grained, rounded gravel (2 to 8 mm); very fine- to coarse-grained, fairly well sorted (positively skewed), angular; quartzose; traces of magnetite, garnet; some feldspar (mainly in gravel fraction).

CALVERT FORMATION (40-140')

- 40-50 Sand - gray, moderately clayey; fine- to medium-grained, moderately sorted, angular; quartz, with traces of magnetite, muscovite, feldspar.
- 50-60 Silt-Sand - gray to greenish-gray, very locally tan or light-gray; very clayey; coarse-grained silt to very fine-grained sand, very well sorted, angular; very slightly micaceous and carbonaceous.

- 60-70 Sand - gray, moderately clayey, 10 to 15 percent pelecypod shells and shell fragments and a few Turritella; fine- to very fine-grained, very well sorted, angular; trace of muscovite.
- 70-80 Clay and Shell - gray, compact clay with laminae or pockets of silty to sandy clay, and about 25 percent pelecypod shell fragments up to 15 mm; sand is generally fine-grained, well sorted, comprises quartz with traces of magnetite and muscovite
- 80-90 "
- 90-100 Silt-Sand - greenish-gray, abundantly and uniformly clayey, a very few fragments of chalky shell and bone phosphorite; coarse-grained silt to fine-grained sand, well sorted
- 100-110 Clay - gray to greenish-gray, compact, locally silty or sandy; about 5 percent shell fragments, some of them iron-stained
- 110-12- Clay - light-gray, moderately pulverulent; slightly diatomaceous
- 120-130 " except: pulverulent, moderately diatomaceous
- 130-140 " except: moderately diatomaceous to diatomaceous.

MATTAPONI (?) FORMATION (140-150')

- 140-150 Shattered Gravel (?) - mainly sand-size shards of quartz -- clear, pale-yellow, and glauconite-pigmented; glauconite-pigmented cleavage fragments of feldspar fairly common; medium-grained glauconite and garnet, rounded fragments and splinters of phosphorite, and fragments of pea-green glauconitic clay present in small amounts; some evidence of re-angulation (broken rounds)

PATUXENT FORMATION (150-170')

- 150-160 Sand - light-gray, clean; 5 to 10 percent discrete fragments of pale-green sectile clay; sand is medium- to very coarse-grained, moderately sorted, subangular; about 5 percent feldspar; trace of authigenic pyrite
- 160-170 " except: medium- to coarse-grained, fairly well sorted; without pale-green clay

PETERSBURG GRANITE (170-300')

- 170-180 Biotite-microcline-granite saprolite - gray, gneissic; biotite partly decomposed; feldspar almost completely decomposed
- 180-190 "
- 190-200 " except: slightly less decomposed
- 200-210 Biotite-microcline granite - gray; feldspars altered, for the most part, to chalky white clay; biotite relatively unaltered
- 210-300 Biotite-microcline granite; except for appreciable muscovite in 250-260' interval, and downhole decrease in degree of decomposition only minor variations in relative proportions of biotite, feldspar, and quartz to bottom of well

GEOLOGIC SUMMARY

<u>Depth</u> <u>(feet)</u>	<u>Rock Unit</u>	<u>Age</u>
0-40	Columbia Group	post-Miocene
40-140	Calvert Formation	Miocene
140-150	Mattaponi Formation	Paleocene - Late Cretaceous
150-170	Patuxent Formation	Early Cretaceous
170-300	Petersburg Granite	Paleozoic (?)

VIRGINIA DIVISION OF MINERAL RESOURCES
 Robert H. Teifke - Geologist
 April 18, 1972