

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

W-4247
C-171

MAILING ADDRESS:
Box 3667
Charlottesville, VA 22903

DIVISION OF MINERAL RESOURCES
JAMES L. CALVER, COMMISSIONER
WATER WELL COMPLETION REPORT

OFFICE ADDRESS:
McCormick Road
Charlottesville, Virginia

OWNER: Ames & Webb, Inc. Mailing Address: P. O. Box 7040 Norfolk, Virginia 23509

TENANT: Ames & Webb, Inc. Mailing Address: 16815 Happy Hill Rd.

DRILLER: Mitchell's Well & Pump Co., Inc. Mailing Address: Colonial Heights, Va. 23834
Go east from Richmond on Rt. #64 and take

WELL LOCATION: County James City Approx. 1 1/2 miles (direction) of stoplight for 1 1/2 miles. Well on right side.
exit to Rt. #168. Take left at 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: July 1974 DATE COMPLETED: August 1974

TYPE OF DRILL RIG USED: Cable Tool TOTAL DEPTH 318' 10" feet

WATER LEVEL: Stands 123 feet below surface OR
has NATURAL flow of _____ gallons per minute.

YIELD TEST: Method Pumped
Drawdown 146 feet
Rate 300 gal. per min.
Duration 31 hrs., _____ min.
Not continuous

HOLE SIZE: 8 inches from 0 to 318' 10" feet
_____ inches from _____ to _____ feet
_____ inches from _____ to _____ feet
SCREEN SIZE: 8 inches from 278' 10" to 318' 10" feet
w/Blank above

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

_____ inches from _____ to _____ feet
_____ inches from _____ to _____ feet
CASE SIZE: 8 inches from 0 to 265' 11" feet
_____ inches from _____ to _____ feet
_____ inches from _____ to _____ feet

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

GROUTING: Method _____
Material _____ Depth _____ feet

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

PUMP: Type _____
Capacity _____ gal. per min.
Depth of intake _____ feet

WATER ANALYSIS AVAILABLE: Yes _____ No _____
DRILL CUTTINGS SAVED: 32 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.)

REMARKS: _____

LOG

FURNISHED BY: _____ DATE: _____

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	Tan dirt	
10	20	Light tan dirt	
20	30	Tan dirt	
30	40	Tan-orange dirt	
40	50	Ditto	
50	60	"	
60	70	"	
70	80	Orange dirt	
80	90	Ditto	
90	100	"	
100	110	"	
110	120	Dark tan dirt	
120	130	Dark gray & tan dirt	
130	140	Dark gray-shell fragments	
140	150	Ditto	
150	160	Dark gray dirt	
160	170	Ditto	
170	180	Dark gray dirt-shell fragments	
180	190	Dark gray mud	
190	200	Ditto	
200	210	"	
210	220	"	
220	230	"	
230	240	"	
240	250	"	
250	260	"	
260	270	Gray sand & shells	
270	280	Black & white sand	
280	290	Black & white & shells	
290	300	Black & white	
300	310	Ditto	
310	318	"	

(Use additional forms if necessary)

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

INTERVAL SHEET

C-171

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Well Repository No.: R- 4247

Date rec'd: 9/31/74 Date Processed: 9/3/75

Sample Interval: from 0 to: 318'

PROPERTY: Ames & Webb, Inc.

Number of samples: 32

COMPANY: Mitchell

Total Depth: 319'

COUNTY: James City (Toano)

Oil or Gas: Water: X Exploratory:

From-To	From-To	From-To	From-To
0 - 10	300 - 310	-	-
10 - 20	310 - 318	-	-
20 - 30	-	-	-
30 - 40	-	-	-
40 - 50	-	-	-
50 - 60	-	-	-
60 - 70	-	-	-
70 - 80	-	-	-
80 - 90	-	-	-
90 - 100	-	-	-
100 - 110	-	-	-
110 - 120	-	-	-
120 - 130	-	-	-
130 - 140	-	-	-
140 - 150	-	-	-
150 - 160	-	-	-
160 - 170	-	-	-
170 - 180	-	-	-
180 - 190	-	-	-
190 - 200	-	-	-
200 - 210	-	-	-
210 - 220	-	-	-
220 - 230	-	-	-
230 - 240	-	-	-
240 - 250	-	-	-
250 - 260	-	-	-
260 - 270	-	-	-
270 - 280	-	-	-
280 - 290	-	-	-
290 - 300	-	-	-

Both washed and unwashed samples.

OWNER: Ames & Webb, Inc.
DRILLER: Mitchell
COUNTY: James City

W#: 4247
C#: 171
TOTAL DEPTH: 319'

GEOLOGIC LOG

Depth
(feet)

COLUMBIA GROUP (0-50')

- 0-10 Silt-cream; abundant clay; abundant very fine to fine sand; subangular to rounded; moderately well sorted; quartz; some feldspar; some fine opaques; few grains of weathered glauconite.
- 10-20 Clay-white; abundant silt; abundant very fine sand; subangular to rounded; moderately well sorted; quartz; some fine opaques.
- 20-30 Sand-light tan; abundant clay; abundant silt; very fine to fine grained; subangular to subrounded; moderately sorted; quartz; some fine opaques.
- 30-40 Clay-tan; abundant silt; abundant fine sand; subangular to subrounded; moderately sorted; quartz; some feldspar; some fine opaques.
- 40-50 Sand and silt-yellow; moderate to abundant clay; clayey sand and (white) clayey silt interlayered; fine to medium grained; subrounded to rounded; well sorted; quartz; feldspar; fine opaques (inc. ilmenite).

YORKTOWN FORMATION (50-110')

- 50-60 Sand-tan; abundant clay; medium grained; subrounded; moderately well sorted; quartz; some feldspar; glauconite.
- 60-70 Sand-orangish tan; moderate clay; between fine and medium grained; subangular; very well sorted; quartz; some fine opaques; few weathered glauconite grains.
- 70-80 As above - + iron stained gypsum grains; some weathered feldspar.
- 80-90 Sand-tan; moderate clay; fine grained; subangular to subrounded; well sorted; quartz; iron stained gypsum; some feldspar; fine opaques; some mica; few grains of weathered glauconite.
- 90-100 As above - more yellow; more mica (muscovite).

Depth
(feet)

- 100-110 Sand-yellowish tan; moderate clay; very fine grained; sub-angular; very well sorted; quartz; minor feldspar; gypsum fragments; opaques; weathered glauconite; muscovite.
- CALVERT FORMATION (110-270')
- 110-120 Sand-gray brown; slightly clayey; silty; very fine grained; subangular; well sorted; quartz; muscovite; opaques; weathered glauconite; gypsum fragments.
- 120-130 Sand-greenish gray; slightly clayey; silty; very fine grained; subangular; very well sorted; quartz; 7% glauconite (weathered); opaques; 2% muscovite.
- 130-140 As above except 10% glauconite.
- 140-150 As above except gray; moderately clayey.
- 150-160 As above except gray; moderately clayey.
- 160-170 As above except gray; moderately clayey.
- 170-180 Silt-gray; abundant clay; abundant fine sand; subangular; well sorted; quartz; 6% glauconite; 3% weathered shell fragments; some muscovite.
- 180-190 Clay-gray; silty; some fine and medium sands; rounded; quartz; 7% very fine opaque and weathered glauconite grains; few weathered shell fragments; few phosphate fragments; minor muscovite.
- 190-200 As above except no phosphatic fragments.
- 200-210 Clay-gray; silty; some fine and medium sands; rounded; quartz; phosphatic material inc. pebbles and teeth; 5% shell fragments; forams abundant (inc. Uvigerina; Nonion, Robulus and Textularia).
- 210-220 Clay-light gray; silty; minor fine and medium, rounded quartz sands; some black phosphate material; forams common (inc. Uvigerina, Nonion, Bulimina and Textularia) 2% shell fragments.
- 220-230 Clay-light gray; minor fine to coarse quartz sand grains; black phosphatic material; some large shell fragments; forams common (inc. Nonion, Uvigerina, Bulimina, Textularia and Robulus); bone fragments.

Depth
(feet)

- 230-240 Clay-light gray; scattered to abundant fine to medium, subangular to rounded quartz sands; black phosphatic material; 7% shell fragments; some limestone fragments; forams common (inc. Uvigerina, Nonion, Bulimina, and Robulus).
- 240-250 Sand-gray, abundant clay; silty; fine to coarse grained; subrounded; moderately sorted; quartz; 10% shell fragments; 2% black phosphatic material; forams (inc. Uvigerina.) spines .
- 250-260 Sand-gray; pockets of sandy clay; fine to medium grained; subangular to subrounded; moderately well sorted; quartz; 3% shell fragments; 2% black phosphatic material inc. sharks teeth frag.; spines.
- 260-270 Sand-light gray; clean; medium to coarse grained; subangular to subrounded; moderately well sorted; quartz; 10% sand sized rounded limestone fragments; 5% shell fragments; 2% black phosphatic material; forams rare (Uvigerina).

NANJEMOY FORMATION (270-318')

- 270-280 Limestone and sand-tan; sandy limestone; subrounded to rounded; moderately sorted; quartz; limestone fragments; 10% brown glauconite; shell fragments; pyrite; ~~shells~~ fragments.
- 280-290 Limestone-gray; contains rounded sand size grains of quartz and glauconite; pyrite; some shell fragments and casts.
- 290-300 Limestone and sand-salt and pepper, limestone contains quartz, glauconite, pyrite and shell casts, molds and fragments; somewhat cavernous and drussy; interlayered with medium grained sands, rounded, well sorted, 60% brown, green and black glauconite; 20% quartz, rounded limestone fragments, pyrite, shell fragments, phosphatic material, a gastropod internal cast.
- 300-310 As above.
- 310-318 As above.
- 318-319 No sample.

GEOLOGIC LOG

<u>Thickness</u> <u>(feet)</u>	<u>Rock Unit</u>	<u>Time Rock Unit</u>
50	Columbia Group	Pleistocene
60	Yorktown Formation	Pliocene-Miocene
160	Calvert Formation	Miocene-Eocene
48+	Nanjemoy Formation	Eocene

Virginia Division of Mineral Resources
David A. Hubbard, Jr., Geologist
May 17, 1978