

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

OWNER: United States Government

Mailing Address: _____

TENANT: A. P. Hill - Well #1

Mailing Address: _____

DRILLER: Douglas & Dickinson, Inc.

Mailing Address: _____

Box 498 - Warsaw, VA

WELL LOCATION: County Caroline

Approx. _____ feet miles _____

(direction) of _____

north of Bowling Green

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: _____ DATE COMPLETED: August 4, 1969

TYPE OF DRILL RIG USED: Rotary

TOTAL DEPTH 500 feet

(Pilot hole to 525')

WATER LEVEL: Stands 118 feet below surface OR

has NATURAL flow of _____ gallons per minute.

YIELD TEST: Method _____

Drawdown 144 feet

Rate 55 gal. per min.

Duration _____ hrs., _____ min.

HOLE SIZE: 8 inches from 0 to 480 feet

5 7/8 inches from 480 to 525 feet

_____ inches from _____ to _____ feet

SCREEN SIZE: 3 inches from 488 to 498 feet

_____ inches from _____ to _____ feet

_____ inches from _____ to _____ feet

WATER ZONES: from 488 to 498 feet

from _____ to _____ feet

from _____ to _____ feet

CASE SIZE: 6 inches from 0 to 480 feet

3 inches from 446 to 488 feet

3 inches from 498 to 500 feet

WATER: Color _____ Taste _____

Odor _____ Temp. _____ °F

GROUTING: Method _____

Material _____ Depth _____ feet

WELL TO SUPPLY: (check one) Home _____

Farm _____ Town _____ School _____

Industry _____ Other Army Camp

PUMP: Type _____

WATER ANALYSIS AVAILABLE: Yes _____ No _____

Capacity _____ gal. per min

DRILL CUTTINGS SAVED: Yes 50 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: _____

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

INTERVAL SHEET

C-87

Page 1 of 1

Well Repository No: 3054

Date rec'd: 3/24/70 ; processed 1/13/71

Sample Interval; from 0 to: 525'

PROPERTY: Camp A. P. Hill #1

Number of samples: 51

COMPANY: Douglas & Dickinson

Total Depth: 525'

COUNTY: Caroline (Bowling Green)

Oil or Gas: Water ~~x~~ Exploratory:

From-To	From-To	From-To	From-To
0 - 10	262 - 273	-	-
10 - 21	273 - 283	-	-
21 - 31	283 - 294	-	-
31 - 42	294 - 304	-	-
42 - 52	304 - 315	-	-
52 - 63	315 - 325	-	-
63 - 73	325 - 336	-	-
73 - 84	336 - 346	-	-
84 - 94	346 - 357	-	-
94 - 105	357 - 367	-	-
105 - 115	367 - 378	-	-
115 - 126	378 - 388	-	-
126 - 136	388 - 399	-	-
136 - 147	399 - 409	-	-
147 - 157	409 - 420	-	-
157 - 168	420 - 430	-	-
168 - 178	430 - 441	-	-
178 - 189	441 - 451	-	-
189 - 199	451 - 462	-	-
199 - 210	462 - 472	-	-
210 - 220	472 - 483	-	-
220 - 231	483 - 493	-	-
231 - 241	493 - 504	-	-
241 - 252	504 - 514	-	-
252 - 262	514 - 525	-	-

Unwashed only

Owner: Camp A. P. Hill #1
Driller: Douglas & Dickinson
County: Caroline

W# 3054
C# 87
Total Depth 525'
Quad:

Depth
(feet)

WELL LOG

0-10 Sand - dark yellowish orange (10YR 5/6); moderate clay in sand clasts; clay coated sand; medium to coarse, sub-angular; some very coarse; moderate sorting; quartz.

10-21 Sand - grayish orange (10YR 6/4); as above, except: medium to very coarse; rose quartz; feldspar; glauconite and phosphatic fragments; plant debris.

21-31 Sand - as above, except: abundant clay; additional clay clasts of pale red (5R 6/2); buff, white and above; fine to granule; 10% large granules.

31-42 Sand - as above, except: no pale red clay.

42-52 Clayey gravel - light olive gray (5Y 6/1) and grayish orange (10YR 6/4); as above, except: fine to very coarse; some granules; garnet.

52-63 Clay - light olive gray (5Y 6/1); abundant sand, very fine to medium; some coarse; well sorted; quartz.

63-73 Clay - as above.

73-84 Clay - light olive gray (5Y 7/1); abundant fine clay in clasts; kaolinite; sparse sand; medium to coarse; poor sorting; quartz.

84-94 Clay - as above.

94-105 Sand - clay - light olive gray (5Y 5/2); as above, except: abundant clay in clasts; sand, fine to medium; well sorted.

105-115 Sand - clay - as above, except: fine to coarse; moderate sorting.

115-126 Clay - as above, except: light olive gray (5Y 6/1); abundant sand in clay clasts.

126-136 Clay - as above, except: (5Y 5/2) wood; bone fragments.

136-147 Clayey-sand - moderate olive gray (5Y 5/1); as above, except: abundant granular clay; fine to very coarse; some granular; moderate sorting; 15% glauconite; phosphatic fragments; mica.

Depth
(feet)

147-157 Clayey-sand - as above, except: shell fragments.

157-168 Sandy-clay - as above, except: 1% mica.

168-178 Sandy-clay - as above, except: 1% shell fragments.

178-189 Sandy-clay - olive gray (5Y 4/1); as above, except: sparse shell fragments.

189-199 Sandy-clay - as above, except: 2% shell fragments - Trachy - Cardium Muricatum.

199-210 Clay - as above, except: sparse shell fragments.

210-220 Clay - as above, except: 2% shell fragments.

220-230 Clay - as above, except: medium olive gray (5Y 4/2); some clasts showing bands of light gray; sparse shell bits; Turritella; plant debris; iron oxide.

230-240 Clay - as at 210-220.

240-252 Clay - as above.

252-262 Clay - as above, except: light olive gray (5Y 5/1); 6% shell fragments; wood.

262-273 Clay - as above.

273-283 Clay - as above, except: light olive gray (5Y 5/2); yellow and gray clasts; 2% shell fragments.

283-294 Clay - as above.

294-304 Clay - as above, except: sparse shell fragments.

304-315 Clay - as above, except: pebble.

315-325 Sand - light olive gray (5Y 6/1); fine to granule; sub-angular; some angular in granule size; poor sorting; quartz; iron oxide?

325-336 Clay - pale yellowish brown (10YR 6/2) - abundant clay clasts; moderate sand as above.

336-346 Sand - as above, except: moderate clay, some in sand clasts; sand, fine to very coarse; some granular; quartz; shell fragments.

Depth
(feet)

346-357 Sand - as above, except: feldspar.

357-367 Sand - as above, except: coarse to granular.

367-378 Clay - as at 325-336.

378-388 Clay - as above, except: very pale yellow brown (10YR 7/2).

388-399 Clay - as above.

399-409 Clay - as above.

409-420 Clay - as above, except: (10YR 6/2).

420-430 Clay - as above.

430-441 Clay - as above, except: (10YR 7/2); some white, buff, tan coloration to clays.

441-451 Sand - pale yellowish brown (10YR 6/2); sparse clay in sand clasts; coarse, sub-angular; well sorted; quartz.

451-462 Sand - grayish yellow (5Y 7/2); abundant white and buff clays in sand clasts; fine to granule; sub-angular; poorly sorted; quartz.

462-472 Sand - pale yellowish brown (10YR 6/4); clay coated sand as above (large granules).

472-483 Sand - as above.

483-493 Sand - as above, except: medium to large granules.

493-504 Clayey-sand - as above, except: striated clay clast - white, tan, gray, buff; very fine to granule; poorly sorted; quartz.

504-514 Clayey sand - pale yellowish brown (10YR 7/2); abundant clay; medium to very coarse sand - as above.

514-525 Clayey sand - as above, except: (10YR 6/2); clay in clasts; very fine to coarse; some very coarse; sand; glauconite grains.

Logged by: J. K. Polzin
July 2, 1980

OWNER: Camp A. P. Hill #1
DRILLER: Douglas & Dickinson, Inc.
COUNTY: Caroline (Bowling Green)

VDMR # 3054
WWCR # 87
TOTAL DEPTH : 525'

GEOLOGIC SUMMARY

<u>Depth (feet)</u>	<u>Rock Unit</u>	<u>Age</u>
0-42	Columbia Group	Pleistocene
42-132 *	Calvert Formation	Middle Miocene
132-315 **	Nanjemoy and Mattaponi Formations	Middle Eocene - Paleocene
315-525	Mattaponi (?) and Patuxent Formations	Paleocene - Early Cretaceous

* P_2O_5 accumulation at very base of Calvert; immediately underlain by glauconitic sand.

** Nanjemoy - Mattaponi contact not determinable; basal (Marlboro) clay of Nanjemoy not represented in this set of samples.

Virginia Division of Mineral Resources
Robert H. Teifke - Geologist
January 18, 1971