

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

INTERVAL SHEET

Page 1 of 1

Well Repository No.: 5230

Date rec'd

Date Processed: 7/31/78

Sample Interval: from 45 to: 177

PROPERTY: VDHT

Number of samples: 24

COMPANY:

Total Depth: 177

COUNTY: James City Co L1

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

From-To	From-To	From-To	From-To
-	70 - 71	-	-
-	71 - 72	-	-
-	76 - 77	-	-
-	-	-	-
45 - 46	-	-	-
60 - 61	-	-	-
65 - 66	-	-	-
70 - 71	-	-	-
75 - 76	-	-	-
80 - 81	-	-	-
85 - 86	-	-	-
90 - 91	-	-	-
95 - 96	-	-	-
100 - 101	-	-	-
110 - 111	-	-	-
115 - 116	-	-	-
120 - 21	-	-	-
25 - 26	-	-	-
30 - 31	-	-	-
35 - 36	-	-	-
40 - 41	-	-	-
45 - 46	-	-	-
50 - 51	-	-	-
55 - 56	-	-	-
65 - 66	-	-	-

washed & unwashed samples

OWNER: Va. Dept. of Highways & Transportation Ll
DRILLER: Va. Dept. of Highways & Transportation
COUNTY: James City Co.

W#: 5230
TOTAL DEPTH: 177'
QUAD: Surry

GEOLOGIC LOG

Depth
(feet)

0-45 No sample.

45-46 Sand — white; slightly clayey; fine to medium grained; subangular to subrounded; moderately well sorted; quartz; feldspar; few opaques; muscovite.

46-60 No sample.

60-61 Clay — light olive brown, light olive gray; slightly sandy; very fine to fine grained; subangular to subrounded; well sorted; quartz; muscovite; vivianite.

61-65 No sample.

65-66 Sand — light olive brown; abundant clay — light olive brown, light olive gray, light reddish brown, black; very fine to fine grained; subangular to subrounded; well sorted; quartz; muscovite; vivianite; few black phosphatic fragments.

66-70 No sample.

70-71 Clay — light olive brown, light olive gray; silty; moderate sand; very fine grained; subangular to subrounded; well sorted; quartz; muscovite; vivianite.

71-75 No sample.

75-76 As (70-71)

76-80 No sample.

80-81 Clay — light olive brown, light olive gray, light brown; slightly sandy; very fine to fine grained; subangular to subrounded; well sorted; quartz; vivianite; muscovite.

81-85 No sample.

85-86 Clay — olive light gray, light brown; silty; some quartz; muscovite; vivianite.

86-90 No sample.

90-91 As (85-86).

91-95 No sample.

-2-

Depth
(feet)

- 95-96 Clay — olive light gray; silty; slightly sandy; very fine to fine grained; subangular to subrounded; moderately well sorted; quartz; muscovite; vivianite.
- 96-100 No sample.
- 100-101 Sand — white; slightly clayey; silty; very fine to coarse grained, some granules, some pebbles; subangular to subrounded; very poorly sorted; quartz; feldspar; few grains of glauconite; few grains of garnet.
- 101-110 No sample.
- 110-111 Sand — off white; coarse grained to granular, some medium grains, few pebbles; subrounded; moderately sorted; quartz; feldspar; few grains of glauconite. *clayey*
clayey
- 111-115 No sample.
- 115-116 Clay — olive light gray; some quartz; muscovite; few grains of feldspar.
- 116-120 No sample.
- 120-121 Clay — olive light gray; 2% shell fragments; some quartz; muscovite; forams scarce (inc. Buccella?).
- 121-125 No sample.
- 125-126 Clay — olive light gray; slightly sandy; very fine to fine grained; subangular to subrounded; moderately well sorted; quartz; muscovite; few shell fragments.
- 126-130 No sample.
- 130-131 As (125-126) plus few grains of glauconite; few black phosphatic fragments.
- 131-135 No sample.
- 135-136 Clay and sand — olive light gray, white; abundant clay; moderate sand; fine to medium grained; subangular to subrounded; moderately well sorted; quartz; some black phosphatic material inc. shark's teeth; few grains of glauconite.
- 136-140 No sample.

Depth
(feet)

- 95-96 Clay — olive light gray; silty; slightly sandy; very fine to fine grained; subangular to subrounded; moderately well sorted; quartz; muscovite; vivianite.
- 96-100 No sample.
- 100-101 Sand — white; slightly clayey; silty; very fine to coarse grained, some granules, some pebbles; subangular to subrounded; very poorly sorted; quartz; feldspar; few grains of glauconite; few grains of garnet.
- 101-110 No sample.
- 110-111 Sand — off white; coarse grained to granular, some medium grains, few pebbles; subrounded; moderately sorted; quartz; feldspar; few grains of glauconite.
- 111-115 No sample.
- 115-116 Clay — olive light gray; some quartz; muscovite; few grains of feldspar.
- 116-120 No sample.
- 120-121 Clay — olive light gray; 2% shell fragments; some quartz; muscovite; forams scarce (inc. Buccella?).
- 121-125 No sample.
- 125-126 Clay — olive light gray; slightly sandy; very fine to fine grained; subangular to subrounded; moderately well sorted; quartz; muscovite; few shell fragments.
- 126-130 No sample.
- 130-131 As (125-126) plus few grains of glauconite; few black phosphatic fragments.
- 131-135 No sample.
- 135-136 Clay and sand — olive light gray, white; abundant clay; moderate sand; fine to medium grained; subangular to subrounded; moderately well sorted; quartz; some black phosphatic material inc. shark's teeth; few grains of glauconite.
- 136-140 No sample.

Depth
(feet)

- 140-141 Sand — olive light gray; abundant clay — olive light gray, white; medium grained, some coarse grains; subangular to subrounded; well sorted; quartz; 3% black phosphatic material inc. shark's tooth; 2% glauconite; forams (inc. Siphogenerina, Dentalina, Marginulina, and Robulus); few spines.
- 141-145 No sample.
- 145-146 Sand — light olive gray; moderate clay — light olive gray, white; medium to coarse grained; subangular to subrounded; moderately well sorted; quartz; some black phosphatic material; some spines; few grains of glauconite.
- 146-150 No sample.
- 150-151 Sand — light olive gray; moderate clay; medium to coarse grained, some fine grains, few granules; subangular to subrounded; moderately sorted; quartz; 10% shell fragments; some black phosphatic material; few spines.
- 151-155 No sample.
- 155-156 Sand — olive light gray; slightly clayey; medium to coarse grained; subangular to subrounded; moderately well sorted; quartz; some black phosphatic material; few spines; few shell fragments.
- 156-165 No sample.
- 165-166 Sand — light olive gray; slightly clayey; coarse grained, some medium grains; subrounded; moderately well sorted; quartz; 10% shell fragments; some black phosphatic material.
- 166-170 No sample.
- 170-171 Sand and limestone fragments — yellowish gray; fine to coarse grained; angular to subrounded; moderately sorted; 50% sandy limestone fragments; quartz; 3% glauconite; few shell fragments.
- 171-172 Sandy limestone — yellowish gray; glauconite (brown, black, green); quartz.
- 172-176 No sample.
- 176-177 Sandy limestone — salt and pepper; glauconite (black, green); quartz; pyrite.

GEOLOGIC SUMMARY

<u>Depth</u> <u>(feet)</u>	<u>Thickness</u> <u>(feet)</u>	<u>Rock Unit</u>	<u>Time Rock Unit</u>
0-45	45	No Sample	
45-46	1+	Norfolk Formation	Pleistocene
46-60	14	No Sample	
60-166	106+	Calvert Formation	Miocene-Eocene
166-170	4	No Sample	
170-177	7+	Nanjemoy Formation	Eocene

VIRGINIA DIVISION OF MINERAL RESOURCES
David A. Hubbard, Jr., Geologist
September 22, 1978

Recorded by W.V. Daniels, Jr

U.S. DEPT. OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES DIVISION
GROUND WATER SITE INVENTORY
SITE SCHEDULE

Date 5-11-78

Check One English Metric Units

GENERAL SITE DATA (0)

Site Ident No 371354076470001 RG Number R-0* Transaction T- @ D M V *
 Site-Type 2- C D H I M P T (W) * Reliability 3- (C) U L M * Reporting Agency 4- USGS *
 Project No. 5- 445104600 * District 6- 51 * State 7- 51 * County (or town) Jamascity 8- 09.5 *
 Latitude 9- 37 11 35.4 * Longitude 10- 107 6 47.00 * Lat-Long Accuracy 11- (S) F T M *
 Local Number 12- 56 F 30 * Land Net Loc. 13- S T R *
 Location Map 14- 6 U R R Y * Scale 15- 24000 *
 Altitude 16- 25 * Method of Measurement 17- A L (M) * Accuracy 18- 5 *
 Topo Setting 19- D C E F H K L Ø P S (O) U V W * Hydrologic Unit (OWDC) 20- 02080206 *
 Date of First Construction/Completion 21- 10/00/1977 * Use of Site 23- A D E G H Ø M P R S (O) U W X Z *
 Use of Water 24- A B C D E F H I M N P R S T (U) Y Z *
 Secondary Water Use 25- * * Tertiary Use of Water 26- * * Depth of Hole 27- 172 * Depth of Well 28- 172 * Source of Depth Data 29- S *
 Water Level 30- * * Date Measured 31- / / * Source 33- * *
 Method of Measurement 34- A C E G H L M R S T V Z *
 Site Status 37- D F G H Ø P R S T V X Z *
 Source of Geohydrologic Data 36- * * Pump Used 35- * * Measuring Point 266- * * Measuring Point Date 267- / / *

OWNER IDENTIFICATION (1)

R-158 * T- @ D M * Date of Ownership 159 # 10/00/1977 *
 Name: Last 161- VA DEPT * First 162- HIGHWAYS * Middle Initial 163- * *

OTHER SITE IDENTIFICATION NUMBERS (1)

R-189 * T- @ D M * Ident 190 # L N O 2 * Assigner 191- VA DEPT HWYS *
 New Card Same R & T Ident 190 # * Assigner 191- *

SITE VISIT DATA (1)

R-186 * T- @ D M * Date of Visit 187 # 10/00/1977 * Name of Person 188- REID C E *

FIELD WATER QUALITY MEASUREMENTS (1)

R-192 * T- A D M * Date 193 # / / * Geohydrologic Unit 195 # *
 New Card Same R thru 195 Temperature 196 # 00010 * Degrees C 197- * *
 Conductance 196 # 00095 * µMhos 197- * *
 Other (STORET) Parameter 196 # * * Value 197- * *
 Other (STORET) Parameter 196 # * * Value 197- * *

FOOT NOTES:

① Source of Data Codes:

S D Ø A R L G Z

Lithologic description of samples from VDHT Test Bore L1
 Jamestown Ferry Improvement Project

Location: Whites Farm, Williamsburg, Va. Well number: L1
 NW corner of intersection of 371354N764700-1
 Va. State Highways 614 & 680 Altitude: 25 feet

Owner: Virginia Dept. of Highways
 and Transportation

Driller: VDHT

Log by: Charles Reid

Lithology

	Depth in feet	
	From	To
Sandy clay, light brown, soft	5	6
Silty sand, very fine grained, quartzitic light brown	10	11
Silty sand, as above	15	16
Silty sand, very fine grained, quartzitic light brown, very wet	20	21
Sand, very fine grained very light brown quartzitic, wet	25	26
Silt, light brown, soft	30	31
Silty sand, fine grained gray quartzitic grains	35	36
Sand, medium and very fine grained quartzitic, pebble size quartz clasts, gray	40	41
Sand, coarse grained quartzitic with large quartz pebbles	45	46
No sample	50	51
No sample	55	56
Sand, very fine grained, layered with silty sand, gray, hard	60	61
Silty sand, very fine grained	65	66
Silty sand, fine grained hard gray	70	71

Lithology

	Depth in feet	
	From	To
Sand, fine grained, layered with silty sand, gray, hard	75	76
Sand, fine grained layered with silty sand, narrow zone of limy mud (ash white), gray dry	80	81
Silt, hard, gray slightly calcareous	85	86
Silt, hard, gray, slightly calcareous	90	91
Silt & clay very slightly calcareous	95	96
Sand, pebble & granule sized grains, quartz very wet	100	101
No sample recovered, W.L.* 22 ft	105	106
Sand, very coarse, poorly sorted quartzitic W.L. 14 ft	110	111
Marl, highly calcareous, gray, W.L. 19 ft	115	116
Marl, as above, shell fragments, gray, W.L. 13'	120	121
Silt, calcareous pebbles large shell fragments, gray, W.L. 13 ft	125	126
Silty sand, very fine grained, very little calcareous matter, W.L. 7 ft	130	131
Sand, very fine laminated with marl, W.L. 20 ft	135	136
Marl, some fine sand ash white, W.L. 30 ft	140	141
Sandy marl with shell fragments, W.L. 12 ft	145	146
Sand, coarse to granule size very calcareous, W.L. 15 feet	150	151
Sand, medium grained with calcareous matrix W.L. 22 ft	155	156
No sample recovered, W.L. 22 ft	160	161
Sand, coarse grained with shell fragments W.L. 5 ft	165	166

Lithology

	Depth in feet	
	From	To
Sand, coarse, pebbles of sand & shell fragments, some glauconitic sand semi consolidated, W.L. 12 ft	170	171
Consolidated glauconitic sand & shell fragments in limy matrix. Iron pyrite evident, some qtz fragments, W.L. 15 ft	171	172

W.L. after casing removed 11.25 feet

* Water level relative to land surface datum