

INTERVAL SHEET

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WWCR : 71  
VDMR Well No: 2245

Date rec'd: 9/24/68

Sample Interval: from 1 to: 571'

PROP: Sol Construction Co.

Number of samples: 54

COMP: Douglas & Dickinson Inc.

Total Depth: 571'

COUNTY: King George (Osso)

Oil or Gas: Water: X Exploratory:

From-To	From-To	From-To	From-To
1 - 10	317 - 328	-	-
10 - 21	328 - 338	-	-
21 - 31	338 - 349	-	-
31 - 42	349 - 359	-	-
42 - 52	359 - 360	-	-
52 - 63	-	-	-
63 - 73	371 - 381	-	-
73 - 84	381 - 392	-	-
84 - 94	392 - 402	-	-
94 - 105	-	-	-
105 - 115	405 - 415	-	-
115 - 126	415 - 426	-	-
126 - 136	426 - 436	-	-
136 - 147	436 - 446	-	-
147 - 157	446 - 457	-	-
157 - 168	457 - 468	-	-
168 - 178	468 - 478	-	-
178 - 189	478 - 488	-	-
189 - 199	488 - 498	-	-
199 - 210	498 - 508	-	-
210 - 220	508 - 518	-	-
220 - 231	518 - 529	-	-
231 - 242	529 - 539	-	-
242 - 253	539 - 550	-	-
253 - 264	550 - 561	-	-
264 - 274	561 - 571	-	-
274 - 285	-	-	-
285 - 296	-	-	-
296 - 307	-	-	-
307 - 317	-	-	-

} pilot hole

Unwashed samples only: insufficient quantity to split

OWNER: Sol Construction Company  
DRILLER: Douglas & Dickinson, Inc.  
COUNTY: King George (Osso)

VDMR: 2245  
WWCR: 71  
TOTAL DEPTH: 571'

GEOLOGIC LOG

Depth in  
feet

COLUMBIA GROUP (0-63')

- |       |  |
|-------|--|
| 1-10  | Sand — orange-brown, very-slightly clayey; fine to coarse, fairly well-sorted, subrounded; minor amounts of feldspar and weathered glauconite                                |
| 10-21 | Sand — orange-brown, very-slightly clayey, 15% subrounded-to-rounded granule gravel; coarse, well-sorted, subrounded; feldspar and blue quartz common                        |
| 21-31 | Sand — orange-brown, very-slightly clayey, trace of granule gravel; coarse, fairly well-sorted, subrounded; feldspar common, some blue quartz; trace of weathered glauconite |
| 31-42 | Sand — orange-brown, trace of clay, 5% subrounded granule gravel; fine to coarse, moderately sorted, subangular to rounded; minor amounts of feldspar and blue quartz        |
| 42-52 | " with lenses of limonitic clay  |
| 52-63 | " "  |

CALVERT FORMATION (63-136')

- |         |  |
|---------|--|
| 63-73   | Clay — brownish-gray, silty, slightly sandy  |
| 73-84   | Clay — gray, locally orange-brown, sandy; sand is fine, well-sorted; diatomaceous  |
| 84-94   | Clay — gray, with greenish cast, sandy; sand is fine to coarse, rather poorly-sorted; a few echinoid spines  |
| 94-105  | Clay — gray, with greenish cast, silty and sandy; a few echinoid spines; diatomaceous  |
| 105-115 | Clay — brownish-gray, very-slightly silty and sandy  |
| 115-126 | Clay — brownish-gray, slightly silty and sandy, including small amount of coarse sand and a few fragments and pellets of phosphorite; diatomaceous |

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126-136 Sand — brown, trace of clay; fine to coarse, rather poorly-sorted; 15% brown and black fragmental phosphorite

NANJEMOY FORMATION (136-242')

136-147 Sand — gray, slightly-to-moderately clayey; very fine, very well-sorted; slightly micaceous; small amounts of fragmental and nodular phosphorite; a few decomposed shell fragments; trace of glauconite

147-157 Sand — gray, slightly clayey, a few decomposed shell fragments; fine-to very-fine, well-sorted; moderately glauconitic; small amounts of muscovite, and fragmental bone and shell phosphorite

157-168 " moderately clayey

168-178 Sand — gray, slightly clayey, 10% rounded quartz, very-coarse sand and granule gravel; a few decomposed shell fragments; very-fine to medium, fairly well-sorted; moderately glauconitic; small amounts of muscovite and nodular and bone phosphorite

178-189 " 5% very-coarse quartz sand and granule gravel; trace of lignite

189-199 " very few coarse grains, slightly-to-moderately clayey

199-210 Sand — gray, slightly-to-moderately clayey, trace of granule gravel, a few pelecypod and gastropod shell fragments; very-fine to coarse, rather poorly-sorted; moderately glauconitic, traces of muscovite and phosphorite

210-220 Clay — black, with greenish cast, very sandy; sand is fine-to-medium, fairly well-sorted, angular; slightly glauconitic and micaceous; decomposed shell fragments are common

220-231 " sand is fine-to-coarse, moderately sorted; minor amounts of lignite and pyrite

231-242 Clay — pinkish-orange and slightly glauconitic, with lenses of light-gray, sand-free clay, and lenses of dark-gray, clayey, glauconitic silt to fine sand (X-ray analysis identified pink clay as kaolinite and illite)

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MATTAPONI FORMATION (242-296')

- 242-253 Sand — dark-gray, slightly-to-moderately clayey; very-fine to medium, well-sorted; slightly-to-moderately glauconitic; slightly micaceous; a few shell fragments
- 253-264 " locally light- to medium-gray
- 264-274 Silt-sand — gray, slightly clayey; silt-to fine-sand, well-sorted; slightly glauconitic and micaceous
- 274-285 Sand — black, slightly-to-moderately clayey, 5-10% decomposed shell fragments; fine to coarse, moderately sorted; moderately glauconitic; trace of muscovite; a very few small foraminifers
- 285-296 " medium to coarse, fairly well-sorted; glauconitic

PATAPSCO FORMATION (296-498')

- 296-307 Sand — speckled, trace of limonitic clay; fine to coarse, moderately sorted, subrounded; slightly feldspathic in coarse fraction, glauconitic (20% of sand, concentrated in fine and medium fractions)
- 307-317 Sand — tan, slightly clayey, with a few clay lenses; fine to coarse, rather poorly-sorted, subangular; slightly feldspathic
- 317-328 "
- 328-338 " moderately clayey
- 338-349 Clay — variegated (brick-red, grays, and yellow); a few plant fragments
- 349-359 Clay — variegated (brick-red dominant); silty, slightly sandy
- 359-360 " with a few plant fragments and hematite pellets and nodules
- 360-371 No sample

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- 371-381 Clay — variegated (reds, grays, and brown), sandy; sand is fine to medium, fairly well-sorted; trace of plant material
- 381-392 " dominantly brown to reddish-brown
- 392-402 Clay — reddish-brown, mottled pale-greenish-gray, slightly sandy
- 402-405 No sample
- 405-415 Clay — brownish-red, sandy, a few small rounded quartz pebbles, plant fragments common; sand is fine to very fine, well-sorted
- 415-426 " sand is fine to coarse, moderately sorted
- 426-436 Clay — variegated, with brick-red aspect, a few plant fragments, sandy; sand is fine to coarse, moderately sorted; trace of feldspar
- 436-446 Sand — moderately-abundant matrix of variegated clay; fine to medium, well-sorted; trace of muscovite
- 446-457 "
- 457-468 Clay — variegated, dominantly yellowish-brown, contains abundant, well-sorted silt to fine sand
- 468-478 Clay — variegated (brick-red, gray, white, and yellow), a few plant fragments
- 478-488 "
- 488-498 Clay — light-gray, brown, white, and brownish-yellow
- PATUXENT FORMATION (498-571')
- 498-508 Sand — tan and light-gray, slightly clayey, silty; medium, fairly well-sorted, subrounded; moderately feldspathic; abundant magnetite
- 508-518 Sand — light-brown, slightly clayey; medium to coarse, well-sorted, subrounded; moderately feldspathic; magnetite common

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- 518-529 Sand -- light-brown, clean; coarse-to very-coarse, well-sorted, subrounded; moderately feldspathic; very abundant blue quartz; locally clayey, orange, limonitic; a few plant fragments
- 529-539 "
- 539-550 " with 5% granule gravel
- 550-561 " with trace of granule gravel
- 561-571 Sand and clay -- 50% coarse-to very-coarse, well-sorted, subrounded, moderately-feldspathic sand with abundant blue quartz; 50% variegated, sand-free to sandy clays

GEOLOGIC SUMMARY

	<u>Rock Unit</u>	<u>Age</u>
0-63'	Columbia Group	Pleistocene
63-136'	Calvert Formation	Middle Miocene
136-242'	Nanjemoy Formation	Middle Eocene
242-296'	Mattaponi Formation	Paleocene
296-498'	Patapsco Formation	Early Cretaceous
498-571'	Patuxent Formation	Early Cretaceous

Virginia Division of Mineral Resources  
Robert H. Teifke, Geologist  
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