

INTERVAL SHEET

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VDMR Well No: 1858

Date rec'd: 4/17/67

Sample Interval: from 0 to: 804

PROP: Burgess-Midway Water System

Number of samples: 78

COMP: Douglas & Dickinson

Total Depth: 804

COUNTY: Northumberland (Blackwell Wharf)

Oil or Gas: Water^X Exploratory:

From-To	From-To	From-To	From-To
0 - 10	315 - 325	624 - 634	-
10 - 21	325 - 336	634 - 645	-
21 - 31	336 - 346	645 - 655	-
31 - 42	346 - 357	655 - 660	-
42 - 52	357 - 367	660 - 666	-
52 - 63	367 - 378	666 - 676	-
63 - 73	378 - 388	676 - 686	-
73 - 84	388 - 399	686 - 697	-
84 - 94	399 - 409	697 - 708	-
94 - 105	409 - 419	708 - 719	-
105 - 115	419 - 429	719 - 729	-
115 - 126	429 - 440	729 - 737	-
126 - 136	440 - 450	737 - 747	-
136 - 147	450 - 461	747 - 758	-
147 - 157	461 - 471	758 - 768	-
157 - 168	471 - 482	768 - 788	-
168 - 178	482 - 492	788 - 798	-
178 - 189	492 - 502	798 - 804	-
189 - 199	502 - 513	-	-
199 - 210	513 - 524	-	-
210 - 220	524 - 534	-	-
220 - 231	534 - 544	-	-
231 - 241	544 - 555	-	-
241 - 252	555 - 565	-	-
252 - 262	565 - 575	-	-
262 - 273	575 - 586	-	-
273 - 283	586 - 596	-	-
283 - 294	596 - 607	-	-
294 - 310	607 - 614	-	-
310 - 315	614 - 624	-	-

No washed samples

OWNER: Douglas & Dickinson, Inc.
DRILLER: Douglas & Dickinson, Inc.
COUNTY: Northumberland (Blackwells Wharf)

VDMR: 1858
WWCR: 138
TOTAL DEPTH: 804

GEOLOGIC LOG

Depth in feet

COLUMBIA GROUP (0-52)

- 0-10 Sand - orange-brown, slightly clayey, a few granules; medium-grained, fairly well-sorted, subangular to subrounded; traces of glauconite, feldspar, and muscovite.
- 10-21 " "
- 21-31 Sand - orange-brown, clean; fine- to medium-grained, well sorted (skewed fine), angular to subrounded; traces of feldspar and glauconite.
- 31-42 " "
- 42-52 " local cementation by ferro-manganous material.

YORKTOWN FORMATION (52-168)

- 52-63 Sand - orange-brown, clean; fine- to coarse-grained, moderately sorted; 10% moderately-decomposed glauconite; minor ferricrete; traces of feldspar and muscovite; a few shell and plant fragments.
- 63-73 Sand - orange-brown, clean; fine- to coarse-grained, fairly well-sorted; about 5% glauconite; small amounts of ferricrete, feldspar, and yellow-brown phosphorite (bone and shell fragments); pelecypod and scaphopod shell fragments common but not abundant.
- 73-84 " 2-3% glauconite; small amount of medium-gray, sand-free clay.
- 84-94 Clay - medium-gray to light greenish-gray, locally limonitic, slightly sandy to sand-free; admixture of orange-brown sand (caving?); a very few plant fragments.
- 94-105 " "
- 105-115 Clay - gray and tan, moderately sandy; plant fragments common, a very few shell fragments.
- 115-126 " "
- 126-136 Clay - grayish-brown, sand-free.

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- 136-147 Clay - grayish-brown, sand-free; a few pelecypod shell fragments.
- 147-157 Sand - brownish-gray, slightly clayey; very fine-grained, well-sorted; about 10% shell fragments.
- 157-168 Sand - brownish-gray, moderately clayey; very fine-grained, well sorted; trace of glauconite; about 10% shell fragments.

CALVERT FORMATION (168-399')

- 168-178 Clay - gray, very silty; a few shell fragments; a very few foraminifers.
- 178-189 " " "
- 189-199 " " "
- 199-210 Clay - gray, slightly silty and sandy; trace of glauconite; trace of shell fragments.
- 210-220 Clay - light-gray, trace of sand; traces of shell fragments and glauconite.
- 220-231 Clay - light-gray, slightly silty; traces of shell and phosphorite.
- 231-241 Clay - gray to greenish-gray, slightly silty and sandy; trace of shell.
- 241-252 " " "
- 252-262 Clay - greenish-gray, silty; trace of shell; slightly diatomaceous.
- 262-273 " " "
- 273-283 " trace of phosphorite.
- 283-294 " " "
- 294-310 Clay - greenish-gray, very silty; traces of phosphorite, plant fragments, and shell fragments; moderately diatomaceous.
- 310-315 " " "
- 315-325 Clay - light-greenish-gray, trace of sand; traces of glauconite, phosphorite, and plant debris.
- 325-336 " " "
- 336-346 " " a few foraminifers.
- 346-357 " " "

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- 357-367 Clay - light-greenish-gray, trace of sand; traces of glauconite, phosphorite, and plant debris; a few foraminifers.
- 367-378 Clay - light-greenish-gray, trace of sand; traces of glauconite, phosphorite; a few plant fragments, shell fragments, and foraminifers (Siphogenerina); moderately diatomaceous.
- 378-388 " "
- 388-399 " "

CHICKAHOMINY FORMATION (399-440')

- 399-409 Sand - gray, very slightly clayey; medium- to coarse-grained, fairly well-sorted, subangular to subrounded; trace of glauconite; 10-15% shell fragments; small amount phosphorite (nodules and bone and shell fragments.)
- 409-419 " "
- 419-429 " "
- 429-440 Sand - gray, very slightly clayey; coarse-grained, fairly well-sorted, subrounded; 2-3% black phosphatic grains and fragments, including a few large (up to 20 mm) nodules; traces of garnet and glauconite; 5-10% shell fragments, and a very few ostracods and foraminifers.

NANJEMOY FORMATION (440-586')

- 440-450 Sand - brownish-gray, slightly clayey; medium- to very coarse-grained, moderately sorted, subrounded; 5% glauconite; a few phosphatic bone and shell fragments; foraminifers common, but not abundant; about 10% shell fragments.
- 450-461 " "
- 461-471 " 20% glauconite and goethite after glauconite; a few fragments of arenaceous (glauconitic) limestone.
- 471-482 " "
- 482-492 Sand - gray, clean, a few granules; very fine- to very coarse-grained, poorly sorted, variably rounded; 20-25% glauconite, 10-15% arenaceous (glauconitic) limestone; about 5% shell fragments - pelecypods and bryozoans; foraminifers and ostracods moderately abundant.
- 492-502 " "

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- 502-513 Sand - dark-gray, very slightly clayey; medium- to coarse-grained, fairly well-sorted; 40% glauconite, 60% clear to yellowish, sub-angular to rounded quartz; a few fragments of shell and arenaceous limestone; foraminifers common.
- 513-524 Sand - speckled, slightly clayey; medium-grained, fairly well-sorted; 65% glauconite and goethite after glauconite, and 35% medium- to very coarse-grained, clear to yellow-stained, variably rounded quartz; a few pelecypod and bryozoan fragments; a few foraminifers.
- 524-534 " moderately clayey.
- 534-544 " "
- 544-555 Sand - dark greenish-gray, moderately clayey; medium- to coarse-grained, fairly well-sorted; dominantly glauconite; traces of muscovite, shell fragments; a few foraminifers and bone fragments.
- 555-565 " "
- 565-575 " trace of arenaceous (glauconitic) limestone.
- 575-586 Sand - dark-gray, moderately clayey; medium- to coarse-grained, fairly well-sorted; predominantly glauconite; clay predominantly gray to green, with some orange; plant and shell fragments, and foraminifers common.

MATTAPONI FORMATION (586-614[†])

- 586-596 Clay - greenish-gray to olive-green, compact; locally sandy; sand is very glauconitic; a few shell fragments and foraminifers, including lenticulinids and Nodosaria.
- 596-607 " "
- 607-614 " a few ostracods and pyrite nodules.

PATUXENT FORMATION (614-804[†])

- 614-624 Sand - gray, clean, trace of granule gravel; coarse-grained, fairly well-sorted, subrounded to rounded; about 10% glauconite, 5-10% feldspar; a few shell fragments and foraminifers; traces of hematite, limonite, and garnet.
- 624-634 " coarse- to very coarse-grained.

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- 634-645 Sand - gray, moderately clayey (variegated); medium- to very coarse-grained, poorly sorted, variably rounded; 15% glauconite; slightly to moderately feldspathic; traces of muscovite, ferric oxides, and shell debris.
- 645-655 " "
- 655-660 Sand - light-gray, clean; coarse-grained, well sorted, subrounded to rounded; feldspathic; 5% glauconite; traces of pyrite and garnet.
- 660-666 Sand - brownish-gray, slightly to moderately clayey (variegated); coarse-grained, moderately sorted; 20% glauconite; moderately feldspathic; small amounts of hematite, muscovite, garnet and pyrite; a few spores and plant fragments.
- 666-676 " "
- 676-686 Sand - grayish-brown, clayey; medium-grained, moderately sorted; about 5% glauconite; slightly feldspathic; trace of muscovite; a few plant fragments.
- 686-697 " "
- 697-708 Clay - variegated, sandy; sand is coarse, poorly sorted, glauconitic; locally pyritic.
- 708-719 " very sandy; a few shell fragments.
- 719-729 Sand - dark-gray, slightly clayey; coarse-grained, well sorted; fresh glauconite (80%) and quartz (20%); a few shell fragments.
- 729-737 " "
- 737-747 Sand - light-gray, slightly clayey; medium- to coarse-grained, well sorted, subrounded; 5% glauconite; slightly feldspathic; traces of garnet, and shell and plant debris.
- 747-758 " "
- 758-768 " moderately feldspathic.
- 768-788 " "
- 788-798 Sand - brownish-gray, very slightly clayey, a few granules; medium- to very coarse-grained, moderately sorted (skewed coarse), subrounded to rounded; very feldspathic, slightly glauconitic; trace of hematite.
- 798-804 " "

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GEOLOGIC SUMMARY

	<u>Rock Unit</u>	<u>Age</u>
0-52	Columbia Group	Pliocene - Pleistocene
52-168	Yorktown Formation	Late Miocene
168-399	Calvert Formation	Middle Miocene
399-440	Chickahominy Formation	Late Eocene
440-586	Nanjemoy Formation	Middle Eocene
586-614	Mattaponi Formation	Paleocene
614-804	Patuxent Formation	Early Cretaceous

Virginia Division of Mineral Resources
Robert H. Teifke, Geologist
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