

OWNER: Brenco, Inc. (Well #2)
DRILLER: Sydnor Hydrodynamics, Inc.
COUNTY: Prince George (Petersburg)

VDMR: 1804
WWCR: 157
TOTAL DEPTH: 245'

GEOLOGIC LOG

Depth (feet)

COLUMBIA GROUP (0-10')

0- 10 Sand — orange-brown, clayey, slightly silty; fine- to coarse-grained, poorly sorted, poorly rounded; brown sandy clay, and light-gray sand-free clay.

CHESAPEAKE GROUP (10-100')

10- 20 Clay, Sand, and Shell — gray and brown; medium- to moderately-sorted, poorly-rounded quartz sand (about 30%) and coarse pelecypod shell debris (about 30%) in matrix of brown and gray clay.

20- 30 Shell, Clay, and Sand — gray; pelecypod shell debris (65-70%) in matrix of medium-grained quartz sand (about 20%) and gray clay (10-15%); a few gastropod shells and shell fragments.

30- 40 " shell (50%), sand (40%), clay (10%).

40- 50 Sand and Shell — gray, clean; medium-grained, fairly well-sorted, poorly-rounded quartz sand (60-65%), and pelecypod shell debris (35-40%); a few echinoid spines and gastropod fragments.

50- 60 "

60- 70 Sand — gray, clean; fine-grained, well-sorted, angular; clear quartz, with accessory magnetite, muscovite, and green epidote; a very few pelecypod shell fragments.

70- 80 "

80- 90 "

90-100 Silt — greenish-gray, clayey and sandy; well-sorted, angular; sand fraction (about 25%) is poorly sorted, poorly rounded, slightly feldspathic; about 5% pelecypod shell debris.

POTOMAC GROUP (100-240')

- 100-110 Sand — dark gray, moderately clayey, moderately pebbly (about 15% granule gravels); fine- to very coarse-grained, poorly sorted, variably rounded; slightly glauconitic (about 10% fine- to medium-grained, fresh- to slightly decomposed glauconite); slightly arkosic (5-10% fresh potassic feldspar); traces of muscovite, brown phosphorite, garnet; a few shell fragments.
- 110-120 " 15-20% feldspar.
- 120-130 Sand and Gravel — gray; sand (60%) is very coarse-grained, well sorted, rounded to subrounded; gravel (40%) is fine grained, well sorted (2-4 mm), subrounded to rounded; both fractions are arkosic; sand fraction is slightly glauconitic; trace of shell fragments.
- 130-140 "
- 140-150 Gravel, Clay, and Sand — gravel (50%) is fine-grained, fairly well sorted (2-10 mm), rounded to subrounded; clay (30%) is mottled brown, gray, and green; sand (20%) is medium- to very coarse-grained, moderately sorted, rounded to subrounded; gravel and sand are arkosic (fresh potassic feldspar); slightly pyritic; trace of glauconite; trace of shell fragments.
- 150-160 " gravel (80%), sand-clay (20%).
- 160-170 " "
- 170-180 Sand and Gravel — gray, very slightly clayey; sand (60%) is coarse- to very coarse-grained, fairly well-sorted, subrounded; gravel (40%) is fine-grained, fairly well sorted (5-10 mm), rounded; both fractions very arkosic (fresh potassic feldspar); trace of garnet, glauconite, and shell fragments.
- 180-190 Sand — gray, very slightly silty and clayey; medium- to very coarse-grained, fairly well sorted, subrounded; very arkosic; accessory garnet.
- 190-200 "
- 200-210 Sand — gray, trace of clay, 15% granule gravel; medium- to very coarse-grained, moderately sorted, sub-angular to rounded; very arkosic; trace of garnet.

- 210-220 Sand — brownish-gray, slightly clayey, a few granules; coarse-
to very coarse-grained, well-sorted, rounded to
subrounded; arkosic; accessory garnet.
- 220-230 "
- 230-240 Gravel and Sand — brownish-gray; gravel (50%) is fine-grained,
well sorted (2-5 mm), poorly rounded; sand (50%)
is medium- to very coarse-grained, well sorted
(skewed coarse), poorly rounded; arkosic; moderately
lithic (granitic fragments). Slightly worked granitic
debris.
- 240-245 No Sample.

GEOLOGIC SUMMARY

	<u>Rock Unit</u>	<u>Age</u>
0- 10	Columbia Group	Pleistocene
10-100	Chesapeake Group	Miocene
100-240	Potomac Group	Early Cretaceous

Virginia Division of Mineral Resources
Robert H. Teifke - Geologist
March 8, 1967

OWNER : BRESCO, INC. (WELL #2)

WDMR # 1804

DRILLER : SYDOR HYDRODYNAMICS, INC.

WDMR # 159

COUNTY : PRINCE GEORGE (Petersburg)

TOTAL DEPTH : 295'

Depth (feet) GEOLOGIC LOG

COLUMBIA GROUP (0-10')

0-10[±] Sand, - orange-brown, clayey, slightly silty; ~~fine to coarse grained~~ fine to coarse grained, poorly sorted, poorly rounded; brown sandy clay, and light-gray sand-fine clay.

CHESAPEAKE GROUP (10-100')

10-20[±] Clay, sand, and shell - gray and brown; medium- to moderately-sorted, poorly-rounded quartz sand (about 30%) and coarse pelecypod shell debris (about 30%) in matrix of brown and gray clay.

M

20-30[±] Shell, Clay, and Sand - gray; pelecypod shell debris (65-70%) in matrix of medium-grained quartz sand (about 20%) and gray clay (10-15%); a few gastropod shells and shell fragments.

M

30-40[±] " shell (50%), sand (40%), clay (10%).

M

40-50[±] Sand and shells - gray, clean; medium grained, fairly well-sorted, poorly-rounded quartz sand (60-65%), and pelecypod shell debris (35-40%); a few echinoid spines and gastropod fragments.

M

50-60[±] " "

M

60-70[±] Sand - gray, clean; fine-grained, well-sorted, angular; clear quartz, with accessory magnetite, muscovite, and green epidote; a very few pelecypod shell fragments.

M

70-80'

" "

70-90'

" "

70-100'

Silt - greenish-gray, clayey and sandy; sand fraction (about 25%) is poorly sorted, poorly rounded, slightly feldspathic; about 5% pebbles of shell debris. ^{well sorted, angular;}

POTOMAC GROUP (100-240')

100-110'

Sand - dark gray, moderately clayey, ^{moderately} slightly pebbly (about 15% granule gravel); fine- to very coarse-grained, poorly sorted, variably rounded; slightly glauconitic (about 10% fine- to medium-grained, fresh to slightly decomposed glauconite); slightly arkosic (5-10% fresh potassic feldspar); traces of muscovite, brown phosphorite, garnet; a few shell fragments.

110-120'

" 15-20% feldspar.

120-130'

Sand and Gravel - gray; sand (60%) is very coarse-grained, well sorted, rounded to subrounded; gravel (40%) is fine grained, well sorted (2-4 mm), subrounded to rounded; both fractions are arkosic; sand fraction is slightly glauconitic; trace of shell fragments.

130-140'

" "

140-150'

Gravel, Clay, and Sand - gravel (50%) is fine grained, fairly well sorted (2-10 mm), rounded to subrounded; clay (30%) is mottled brown, gray, and green; sand (20%) is medium- to very coarse-grained, moderately sorted, rounded to subrounded; gravel and sand are arkosic (fresh potassic feldspar); slightly pebbly; trace of glauconite; trace of shell fragments.

150-160^{FE} " gravel (80%), sand-clay (20%).

160-170^{FE} " "

170-180^{FE} Sand and Gravel - gray, very slightly clayey; sand (60%) is coarse- to very coarse-grained, fairly well-sorted, subrounded; gravel (40%) is fine-grained, fairly well-sorted (5-10 mm), rounded; both fractions very arkosic (fresh potassic feldspar); trace of garnet, glauconite, and shell fragments.

180-190^{FE} Sand - gray, very slightly silty and clayey; medium- to very coarse-grained, fairly well-sorted, subrounded; very arkosic; accessory garnet.

190-200^{FE} " "

200-210^{FE} Sand - gray, trace of clay, 15% granule gravel; medium- to very coarse-grained, moderately sorted, subangular to rounded; very arkosic; trace of garnet.

210-220^{FE} Sand - brownish-gray, slightly clayey, a few granules; coarse- to very coarse-grained, well-sorted, rounded to subrounded; arkosic; accessory garnet.

220-230^{FE} " "

230-240^{FE} Gravel and Sand - brownish-gray; gravel (50%) is fine-grained, well sorted (2-5 mm), poorly rounded; sand (50%) is medium- to very coarse-grained, well sorted (shewed coarse), poorly rounded; arkosic; moderately lithic (granitic fragments). Slightly washed granitic debris.

240-245 No Sample

GEOLOGIC SUMMARY

	<u>UNIT</u> <u>Rock Name</u>	<u>AGE</u>
0-10'	Columbia Group	Plistocene
10-100'	Chesapeake Group	Miocene
100-240'	Potomac Group	Early Cretaceous

VDMR

Robert H. Teipke - Geologist
March 8, 1967

e1 + 140

Ty + 130

$\left\{ \begin{array}{l} Tc \text{ and } Tm \text{ may be present} \\ \text{if so, } \text{or} \text{ they're very thin} \end{array} \right.$

LK + 40

TD - 100