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 coarsegrained, 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 (100-2401)

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 slight decomposed glauconite); slightly arkosic (5-10% fresh potassic feldspar); traces of muscovite, brown phosphorite, garnet; a few shell fragments.	tly				
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 round 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	11					
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	11					
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.					

Sand — brownish-gray, slightly clayey, a few granules; coarseto very coarse-grained, well-sorted, rounded to subrounded; arkosic; accessory garnet.

220-230

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

	Rock Unit	Age		
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

143 vone # 1804 OWNER : BRENCO , INC. (WELL # Z) DRILLER: SYDNOR HYDRODYNAMICS, INC. wwer # 157 COUNTY: PRINCE GEORGE (Petersburg) TOTAL DEETH : 245' Depth (fort) GEOLOGIC LOG COLUMBIA GROUP (0-10') 0-10 Sand, - orange brown, elayey, slightly sitty; #HHHHH ful to case pained, poorly sorted, poorly wounded: brown souly day, and light-gray such free day. CHESAPEAKE GROUP (10-100') 10-20 E Clay, short, and thell - gray and benever; medium - to (20 30%) and come pelicopol shell deline (250%) in metric of ferrow and gruy clay. Shell, Clay, end Vand - gray; pelicyped shell debried a few gastropol shells and shell frequents. -/W " shell (50%), sand (40%), clay (10%). 40-50 Foul and Shell - gray, clean; meline graned, fairly well-sorted, poorly-rounded quarty sand (60-65%), and peleypool shell defried (35-40%); a few echemoid opines and gastropool fragments. \$50-60\$ Vand - grey, dean ; five-general, well-anted angular; clear quarty; with accessory magnetates mucovite, and green epidote; a very few peliages

90-100 E Silt - greenish-grey, clayey and sondy in sand fraction (bout 25%) is poorly soiled, poorly rounded, slightly feldepathie; about 5% pelsaypool shell POTOMAC GROUP (100-240') POTOMAC GROUP (100-240')
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GEOLOGIC SUMMARY 100-240' Poternac Group VDUR it so, they're very thin