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GEOLOGIC FRAMEWORK, HYDROGEOLOGY, AND GROUND-WATER QUALITY OF THE POTOMAC GROUP AQUIFER SYSTEM, NORTHWESTERN CHARLES COUNTY, MARYLAND

U.S. GEOLOGICAL SURVEY

Water-Resources Investigations Report 91-4059

Prepared in cooperation with the

TOWN OF INDIAN HEAD, MARYLAND and the
UNITED STATES NAVY, NAVAL ORDNANCE STATION

Table 5. *Lithologic description of continuous core from well CH Bb 22*

[Land surface elevation is 98 feet above sea level]

Depth below land surface, in feet	Description of material	Geologic unit
0 - 29	Clay, red, sandy; hard, gravel and cobble at base	*Park Hall Formation, Tertiary, Upper Pliocene*
29 - 49	Clay, gray, silty; hard, marbled with (red) oxidized stain	*Patapsco Formation, Lower Cretaceous*
49 - 64	Silt, gray, clayey; hard, cobble bed at base	
64 - 72	Sand, blue-gray, silty; cemented	
72 - 90	Clay, red and blue; hard	
90 - 104	Sand, gray and brown, very fine	
104 - 109	Silt, gray and brown, sandy; cemented, oxidized stain	
109 - 119	Sand, blue-gray, silty; very soft, carbonaceous, visible plant remains	
119 - 156	Sand, blue-gray, silty; cemented, marbled with (red) oxidized stain	
156 - 165	Sand, blue-gray, coarse; very soft	
165 - 188	Clay and silt, blue-gray; firm, carbonaceous	
188 - 195	Sand, gray, fine to coarse; soft, carbonaceous, visible plant remains	
195 - 200	Clay, gray and black; carbonaceous, pyrite crystals	
200 - 217	Sand, white, coarse with pebbles; very soft	
217 - 225	Silt, blue and green, sandy; firm	
225 - 245	Sand, blue-gray, silty; cemented	
245 - 260	Sand, green, silty; bedding planes evident, cemented	
260 - 285	Sand, blue-gray, silty; soft	
285 - 310	Sand, blue gray, coarse; very soft	
310 - 326	Sand, blue-gray, coarse with gravel; soft, visible plant remains	
326 - 335	Sand, blue-gray, coarse with pebbles; soft, intact clay balls	
335 - 355	Sand, gray-white, coarse; very soft	
355 - 371	Clay, gray-black, sandy; hard	
371 - 385	Silt, blue-gray, sandy; carbonaceous	
385 - 415	Clay, red and blue, silty; very hard, fractured	*Arundel Formation, Lower Cretaceous*
415 - 438	Sand, green, silty; hard	
438 - 450	Clay, blue and brown, silty; marbled	
450 - 460	Sand, green and brown, silty	*Patuxent Formation, Lower Cretaceous*
460 - 477	Sand, blue-gray, coarse; soft	
477 - 505	Clay, red and blue; hard, fractured	
505 - 520	Sand, blue and brown, silty; hard	
520 - 555	Sand, blue-gray, coarse; soft, intact clay balls	
555 - 565	Clay, gray and black, silty; carbonaceous, visible plant remains, rounded pebbles and gravel	
565 - 570	Clay, blue-green, silty; hard	
570 - 600	Sand, green, silty; very soft	
600 - 615	Sand, white, silty; carbonaceous	
615 - 630	Clay, blue-gray, silty; very hard, fractured	
630 - 643	Clay, red and blue, silty; marbled, very hard, fractured	
643 - 663	Sand, blue-gray, coarse; soft, mica flakes evident, pebbles with angular edges	
663 - 670	Sand, white-gray, coarse; soft, rounded gravel and pebble beds	
670 - 687	Sand, blue-green, fine; soft, rounded gravel and pebbles, mica flakes intact clay balls	
687 - 700	Schist, black and green, micaceous; weathered	*Crystalline "Basement" pre-Cretaceous*