

OWNER: Beechwood Development Corp. # 1
DRILLER: Sydnor Hydrodynamics, Inc.
COUNTY: Hanover (Poindexters)

VDMR: 1878
WWCR: 104
TOTAL DEPTH: 640'

GEOLOGIC LOG

Depth in feet

COLUMBIA GROUP (0-50')

0-10 Sand - yellowish-brown, clayey; very fine- to medium-grained, fairly well-sorted, angular to subangular; trace of feldspar; limonitic

10-20 Sand - light brownish-gray, slightly to moderately clayey, 10% granule gravel; medium- to very coarse-grained, moderately sorted, subrounded; moderately feldspathic

20-30 Sand - yellowish-brown, moderately clayey, 5-10% fine-grained gravel; medium-grained, moderately sorted; slightly feldspathic

30-40 " with about 25% fine-grained gravel

40-50 " "

CALVERT FORMATION (50-60')

50-60 Sand - medium-gray, clayey; fine-grained, well-sorted, angular; traces of muscovite, feldspar and shell material

MATTAPONI FORMATION (60-120')

60-70 Sand - light-gray, clean; fine- to medium-grained, well-sorted, subangular; traces of magnetite, feldspar, muscovite, black phosphatic material, and shell fragments

70-80 " very slightly clayey

80-90 " slightly clayey

90-100 " "

100-110 Sand - grayish-brown, moderately clayey; fine- to medium-grained, fairly well-sorted, angular; traces of shell and black, carbon-phosphatic material

110-120 Clay - brownish-gray, moderately sandy; sand is quartzose, poorly sorted; trace of shell fragments

PATUXENT FORMATION (120-170')

120-130 Gravel and Sand - grayish-brown, moderately clayey: gravel (60-70%) is fine-grained (2-10mm), angular (broken rounds?) to sub-rounded quartz, blue-gray quartzite and some chert sand

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Continued

- 120-130 Gravel and Sand - (30-40%) is fine- to coarse-grained, poorly sorted, poorly rounded; sediment is slightly feldspathic, with traces of phosphorite and glauconite
- 130-140 " 70% sand, 30% gravel
- 140-150 " 60% gravel, 40% sand
- 150-160 Sand - white, clean, 20% fine, lithic gravel (2-10 mm); medium- to very coarse-grained, moderately sorted, subrounded; moderately feldspathic; traces of glauconite, garnet, pyrite
- 160-170 " 5% granule gravel

PETERSBURG GRANITE (170-640')

- 170-180 Granite - pink; quartz, microcline and biotite
- 180-190 " with trace of epidote
- 190-200 " with vein quartz
- 200-210 " with trace of epidote
- 210-220 " "
- 220-230 " "
- 230-240 " "
- 240-250 Hornblende Gneiss - dark gray, coarse-grained; hornblende, pink and white feldspar, quartz, biotite, trace of pyrite
- 250-260 " "
- 260-270 " "
- 270-280 " with some granite chips
- 280-290 " "
- 290-300 " "
- 300-310 " "
- 310-320 Granite - pale-pink, coarse-grained; quartz, feldspar, biotite, muscovite and hornblende
- 320-330 " mostly white granite
- 330-340 " very pink granite
- 340-350 " with trace of pyrite

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350-360	Granite - pale pink, coarse-grained; quartz, feldspar, biotite, muscovite and hornblende
360-370	"
370-380	"
380-390	"
390-400	"
400-410	"
410-420	"
420-430	"
430-440	"
440-450	"
450-460	"
460-470	"
470-480	"
480-490	" with increase of hornblende
490-500	"
500-510	"
510-520	"
520-530	"
530-540	"
540-550	"
550-560	"
560-570	"
570-580	"
580-590	"
590-600	"
600-610	"
610-620	"
620-630	" with biotite-gneiss fragments
630-640	" "

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GEOLOGIC SUMMARY

	<u>Rock Unit</u>	<u>Age</u>
0-50	Columbia Group	Pleistocene
50-60	Calvert Formation	Miocene
60-120	Mattaponi Formation	Palocene-Late Cretaceous
120-170	Patuxent Formation	Early Cretaceous
170-640	Petersburg Granite	Paleozoic (?)

Virginia Division of Mineral Resources
R. Teifke and T. Gathright, Geologists
September 13, 1967
R. H. Teifke 3/3/1972

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YELLOW TAVERN QUADRANGLE

Revised 4/73

GEOLOGIC LOG

Depth in feet

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- 20-30 Sand - yellowish-brown, moderately clayey, 5-10% fine-grained gravel; medium-grained, moderately sorted; slightly feldspathic
- 30-40 " with about 25% fine-grained gravel
- 40-50 " "

+ / 35'
CALVERT FORMATION

(50-120')

~~(50-60')~~

- 50-60 Sand - medium-gray, clayey; fine-grained, well-sorted, angular; traces of muscovite, feldspar and shell material

~~WATSON FORMATION (60-120')~~

- 60-70 Sand - light-gray, clean; fine- to medium-grained, well-sorted, subangular; traces of magnetite, feldspar, muscovite, black phosphatic material, and shell fragments
- 70-80 " very slightly clayey
- Tc 80-90 " slightly clayey
- Tc 90-100 " "
- Tc 100-110 Sand - grayish-brown, moderately clayey; fine- to medium-grained, fairly well-sorted, angular; traces of shell and black, carbonophosphatic material

- Tc 110-120 Clay - brownish-gray, moderately sandy; sand is quartzose, poorly sorted; trace of shell fragments; diatomaceous.

+ 65'
+ 58'
Mattaponi Formation (120-127')

PATUXENT FORMATION (127-170') Top of formation defined on basis of other information.

Gravel:

- 120-130 Gravel and Sand Δ grayish-brown, moderately clayey: gravel (60-70%) is fine-grained (2-10mm), angular (broken rounds?) to sub-rounded quartz, blue-gray quartzite and some chert sand

~~ELEV = 185'~~

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120-130
(Continued)

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<i>120</i> 60-120 <i>127</i>	Mattaponi Formation	Palocene-Late Cretaceous
<i>127</i> 120-170	Patuxent Formation	Early Cretaceous
170-640	Petersburg Granite	Paleozoic (?)

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