VDMR: 1898 **OWNER:** Lewis Gardens Service Corporation DRILLER: Sydnor Hydrodynamics, Inc. COUNTY: Henrico (Richmond)

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WWCR: 195 TOTAL DEPTH: 300^t

GEOLOGIC LOG

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Depth in feet

COLUMBIA GROUP (0-80¹)

- Sand orange, trace of clay; medium- to coarse-grained, 0 - 10fairly well-sorted, subangular; iron-oxide-stained quartz; minor feldspar and magnetite Sand - orange-brown, slightly clayey, 10% very fine-grained 10 - 20gravel; medium grained, moderately sorted, subangular; clear and iron-oxide-stained quartz; minor feldspar, goethite, and magnetite
- 20-30 Sand - orange, very slightly clayey; fine- to coarse-grained, moderately sorted, angular to slightly subrounded; ironoxide-stained quartz, with minor feldspar, chert, and magnetite
- Gravel brown, matrix of poorly-sorted sand; fine grained, 30 - 40well sorted, rounded; 2-5 mm; stained quartz, with some sandstone, chert and goethite
- Gravel brown; rounded, well sorted; 5-20 mm.; quartz, sand-40 - 50stone and chert
- Sand brown, clean; coarse- to very coarse-grained, well 50-60 sorted, subangular to subrounded; iron-oxide-stained quartz, chert, rock fragments; minor feldspar; blue quartz common

60-70

70-80

NANJEMOY FORMATION (80-120")

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Silt - Sand dark greenish-gray, very clayey; coarse 80-90 silt to very fine-grained sand, composed of clear, angular quartz (80%) and black glauconite (20%)

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Sand - black, very clayey; fine- to very fine-grained, very 90-100 well-sorted, angular; 55% clear to greenish quartz, 35% black glauconite, 10% macerated shell material; trace of muscovite; a few foraminifers

0	OWNER: Lev	vis Gardens Service C	orporation	#1898		
	100-110	well-sorted 30% black g	 black, very clayey; fine- to very fine-grained, very well-sorted, angular; 50% clear to greenish quartz, 30% black glauconite, 20% small shell fragments; trace of muscovite; a few foraminifers 			
	110-120		11			
	PATUXENT I	FORMATION (120-300	MATION (120-300 [*])			
	120-130	coarse-gra about 5% gl	 light- to medium-gray, moderately clayey; fine- to coarse-grained, poorly sorted, angular to subangular; about 5% glauconite; slightly feldspathic; traces of garnet, muscovite, phosphorite, and shell fragments 			
	130-140	11	11			
	140-150	. 11	moderately feldsp	athic		
0	150-160	coarse, mo	- gray, very slightly clayey, trace of granule gravel; coarse, moderately sorted; angular clear quartz, abundant fresh feldspar; slightly glauconitic; minor garnet; trace of kyanite			
	160-170	"	ii			
	170-180	. 11 -	medium- to very coars	e-grained		
	180-190	11	II .			
	190-200	11	11			
	200-210 Sand - brownish-gray, abundant matrix of variegated clay fine gravel; fine- to very coarse-grained, poorly so poorly rounded; feldspathic; slightly glauconitic					
	210-220	11	11			
	220-230	subrounded moderately (orange) qua	and Gravel - matrix of brick-red clay; 30% subangular to subrounded granule gravel; medium- to very coarse-grained, moderately sorted, poorly rounded; clear and stained (orange) quartz; slightly to moderately feldspathic; very slightly glauconitic; trace of garnet			
\mathbf{C}	230-240	u	11			

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OWNER:	Lewis Gardens Service Corporation	#1898			
240 - 250	Sand and Gravel - light-gray, tan clay binder; 30-40% granule gravel (quartzo-feldspathic); sand (60-70%) is coarse- to very coarse-grained, fairly well-sorted, subangular to subrounded; feldspathic; quartz is clear, frosted in aspect; feldspar is flat, pure white (sand and gravel fractions)				
250 - 260	11 II				
260-270	11 U				
270-280	to very coarse-grained, moderatel clear, frosted quartz with abundant	- matrix of purplish clay, 5% fine-grained gravel; medium- to very coarse-grained, moderately sorted, subangular; clear, frosted quartz with abundant flat, pure-white feldspar; minor garnet and glauconite			
280-290	" matrix of reddish-	brown clay			
290 - 300	11 11				

GEOLOGIC SUMMARY

Rock Unit

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Age

0-80	Columbia Group	Pleistocene
80-120	Nanjemoy Formation	Middle Eocene
120-300	Patuxent Formation	Early Cretaceous

Virginia Division of Mineral Resources Robert H. Teifke, Geologist October 13, 1967

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1+3 Eleva 155 topo VDUR 1 1898 OWNER : Lewis Gardens Sarvice Corporation wwca 195 Dances 3 Sydner Hydrodynamics , Inc. (Richmond) (Richmond) TOTHL DEPTH : 300 GEOLOGIC LOG Depth fect COLUMBIA GROUP (0-80') Sand - orange, trace of clay; medun to come - grained, fairly well - sorted fildspar and magnetite , _(` Sand - oringe- from, slightly clayey, 10% very fine-panel grovel; medium grand, and in stand subangular; clear goethite, and magnetite Send - name, very slightly cloyey; five-to coace-granied, moderately coated, angu-low to slightly subwunded; non to and guesty, with minor fullepar, chest, and magnetite; J. Seavel - brown, matrix of poorly-wild sond; fuice grained, well sorted, rounded; 2-5 mm, stained quarty, with some sandstone, cheel grathite ; 30-40 10-50 Gravel - hown; rounded, well sorted ; . 5-20 mm; quarty, soudetone and chite F . Port

hand - how , clean ; very conce- to well conted , when to be inour fating quarte, chut, soch progenents; min 60-70 <u> 20 - 80</u> - 2 NANJEMOY FORMATION (80-120') Silt - Land - dont queened - gray, very clopery; 80-90 course it to very fine ground sand; composed of clean, angular growty (802) and black glauconite (202) j Sand - black, very clayry; any fine to nen well-sorted, orgulor; 55% clear to greenick quoity, 35% flack glacks-nite, 10% macciated shell material; hace of muscovite; a few foromunifers; 14 " 20 % mult shell frequents; 50% Junty, 30% fleck glandenite / 100-110 PATUXENT FORMATION (120-300') 1 120-130 Sand - light - to meline - gray, moderately clayey; fine - to come-gamed, poorly sorted, orgular to subangular; dout 5% glancomite; slightly feldipathic; haces of gamet, muccovite, playphonte, and shell fraqmente 1

(m. 7 1 130-140 Im? 10-150 " moderately feldspathic (150-160 band - query slightly clayey, trace of growels growel; course, moderately norted; angular clean quorty, abundant first filldagor; digitly gloreconitic; minor gamet; have of kyonite 11 medicin to very soone grained 180-190 11 Land - hownish - gray, abundant matrix of variegated clay ; 5 % fine novel; fine - to very correct point, poorly sorted, poorly rounded; feldepathic; slightly glacemetic 1 and Gravel -(Vandy - matrix of brick - ud clay ; 30% subangulor to subrounded growle grovel; medicin - to very course-grand, malar attely sorted ; poorly rounded ; clean and stained (orange) quarty ; slightly to moderately feldspathic; very slight ly glammitic; trace of gamet i 11 130-240

est i it and Gravel and - light - gray, taw day bunders 240-250 30-40% granule gravel (quartyo-feldspattic); sand (60-70%) is come-to very course-grained, faily well-sorted, subangular to subrounded 3 quarty in clear, frasted in aspect ; feldepor in flat, pure white (sand and gravel fractions) gamet is about 1-11 250-260 11 // Y____ 760-270 \sim Sand - matrix of purplesh clay, 5% fine -270-280 gramed gravel ; melum to very comegrained, modewith sorted, subangula; class, ported quarts with abundant flat, pure-white feldspar; min gamet and glauconite " metric of reddick - brown day 280-290 11 290-300 GEOLOGIC SUMMARY -(]----Rock Name Age 1760 18 0-80' Columbia Group Pleistacene Nanjemany Formation Middle Eocene 136 80-110 120-300 Patuxent Formation Early Pretaceous VDMR Robert H. Teifke - Geologist $\overline{}$ October 13, 1967