

INTERVAL SHEET

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VDMR Well No: 1949

Date rec'd: 8/29/67

Sample Interval: from 0 to:578'6"

PROP: Fairfax Water Authority(Colonial Acres Sub. Well #2) Number of samples: 75

COMP: Sydnor Hydrodynamics, Inc.

Total Depth: 578'6"

COUNTY: Fairfax (Mt. Vernon)

Oil or Gas: Water:^X Exploratory:

From-To	From-To	From-To	From-To
0 - 3	-	483 - 493	-
3 - 8	233 - 240	493 - 503	-
8 - 9	240 - 247	503 - 513	-
9 - 13	247 - 257	513 - 515	-
13 - 15	257 - 267	-	-
15 - 20	267 - 275	520 - 525	-
20 - 30	275 - 285	525 - 530	-
30 - 35	285 - 295	530 - 534	-
35 - 40	295 - 305	534 - 535	-
40 - 50	305 - 312	535 - 540	-
50 - 55	312 - 315	540 - 545	-
55 - 65	315 - 325	545 - 550	-
65 - 70	325 - 335	550 - 555	-
70 - 80	335 - 345	555 - 560	-
80 - 90	345 - 355	560 - 565	-
90 - 100	355 - 365	565 - 572	-
100 - 105	365 - 375	572 - 576	-
105 - 115	375 - 385	576 - 578'6"	-
115 - 125	385 - 394	-	-
125 - 135	394 - 398	-	-
135 - 145	398 - 408	-	-
145 - 155	408 - 418	-	-
155 - 165	418 - 428	-	-
165 - 175	428 - 438	-	-
175 - 185	438 - 448	-	-
185 - 195	448 - 458	-	-
195 - 205	458 - 464	-	-
205 - 215	464 - 470	-	-
215 - 220	470 - 472	-	-
220 - 230	-	-	-

OWNER: Fairfax Water Authority
(Colonial Acres Subdivision, Well #2)
DRILLER: Sydnor Hydrodynamics, Inc.
COUNTY: Fairfax (Mt. Vernon)

VDMR: 1949
WWCR: 701
TOTAL DEPTH: 578 1/2'

GEOLOGIC LOG

Depth in feet

POTOMAC GROUP (0-578 1/2')

- 0-3 Clay - pale yellowish-brown, moderately silty, slightly to moderately sandy, a few granules and small pebbles; sand is fine- to coarse-grained, rather poorly-sorted, sub-angular to rounded; quartz, feldspar, goethite, chert, and carbonaceous material
- 3-8 Clay - variegated, with orange-brown aspect, slightly to moderately sandy; sand is very fine- to medium-grained, moderately sorted, angular to subrounded; quartzo-feldspathic, with some chert, and traces of muscovite, goethite, and carbonaceous material
- 8-9 Clay - mottled yellow and white, moderately sandy; sand is fine- to medium-grained, fairly well-sorted (skewed fine), angular to subrounded; slightly feldspathic; minor rock fragments, chert, micas, magnetite
- 9-13 " a few pebbles, up to 15 mm, of quartz and chert
- 13-15 Sand - very clayey (reddish-brown), a few rounded pebbles, up to 20 mm, of quartz, quartzite, and mudstone; fine- to medium-grained, moderately sorted, angular to subrounded; slightly feldspathic and micaceous; small amounts of chert, goethite and magnetite
- 15-20 "
- 20-30 Sand - light-brown, very clayey; fine- to medium-grained, fairly well-sorted, subangular; slightly feldspathic; trace of muscovite, chert, and carbonaceous material
- 30-35 "
- 35-40 "
- 40-50 Gravel and Sand - coarse-grained sand grading into granule gravel (0.5-4.0 mm), moderately sorted, subrounded to rounded; moderately feldspathic, slightly lithic (chert, sandstone, quartzite, and basic crystalline fragments)

50-55	Gravel - granular; well sorted, subrounded- to rounded; quartz and rock fragments (sandstone, quartzite, chert, micaceous metamorphic, and some granitic and basic igneous fragments); small amount of feldspar
55-65	" abundant rounded fragments of brown chert
65-70	Clay and Sand - variegated clay, with abundant poorly-sorted feldspathic sand and 5-10% fine, rounded gravel up to 10 mm; chert present in sand and gravel fractions; trace of muscovite; minor non-cherty rock fragments
70-80	"
80-90	"
90-100	" 30% lithic gravel, up to 20 mm
100-105	Sand - moderately abundant binder of gray white, and yellow clays, 10% fine gravel up to 10 mm; fine- to very-coarse-grained, poorly sorted, angular to subrounded; feldspathic; blue quartz common; chert common in coarser fractions; a few non-cherty rock fragments
105-115	"
115-125	" clay matrix is dominantly grayish-green
125-135	Clay - grayish-green, sandy, a few small pebbles; sand is coarse, moderately sorted, poorly rounded; feldspar and blue quartz common; some rose quartz, and fragments of chert and quartzite
135-145	Sand - greenish-gray, speckled, clean, a few rounded pebbles up to 15 mm; coarse- to very coarse-grained, moderately sorted, subangular to subrounded; very feldspathic; a very few rock fragments and magnetite grains
145-155	"
155-165	"
165-175	"
175-185	"

- 185-195 Sand - greenish-gray, speckled, clean, a few rounded pebbles up to 15 mm; coarse- to very coarse-grained, moderately sorted, subangular to subrounded; very feldspathic; a very few rock fragments and magnetite grains; medium- to coarse-grained, no gravel
- 195-205 "
- 205-215 "
- 215-220 Clay - brown, mottled gray, slightly sandy; sand is generally coarse, feldspathic; goethite and hematite common; a few grains of glauconite
- 220-230 Sand - brown, slightly clayey; medium- to coarse-grained, moderately sorted, angular to subangular; feldspathic; slightly lithic; accessory magnetite
- 230-233 No sample
- 233-240 Sand - brown, moderately clayey; fine- to medium-grained, fairly well-sorted, angular; feldspathic; minor chert; accessory magnetite
- 240-247 "
- 247-257 " very clayey (variegated clay, with brown aspect)
- 257-267 Clay - reddish-brown and mottled greenish-gray, sandy; sand is fine- to coarse-grained, poorly sorted, angular to subangular; feldspathic; accessory magnetite; traces of muscovite, glauconite, and carbonaceous material
- 267-275 "
- 275-285 "
- 285-295 "
- 295-305 Clay - variegated, with reddish-brown aspect, sandy; sand is fine- to medium-grained, rather poorly-sorted, angular; moderately feldspathic; minor magnetite; traces of muscovite, biotite, and pyrite

305-312	Clay - variegated, with reddish-brown aspect, sandy; sand is fine- to medium-grained, rather poorly-sorted, angular; moderately feldspathic; minor magnetite; traces of muscovite, biotite, and pyrite
312-315	"
315-325	"
325-335	"
335-345	"
345-355	"
355-365	"
365-375	"
375-385	"
385-395	"
395-398	Sand - gray, speckled, clean; coarse- to very coarse-grained, well sorted, subrounded; very feldspathic; blue quartz abundant
398-408	Sand - abundant matrix of brownish clay; fine- to very coarse-grained, poorly sorted, angular to slightly subrounded; moderately feldspathic; abundant blue quartz; traces of weathered mica, magnetite, carbonaceous material, and pyrite
408-418	"
418-428	Sand - abundant matrix of orange-brown clay; fine- to very coarse-grained, moderately sorted (skewed fine), angular to subangular; moderately feldspathic; abundant blue quartz in coarse fraction; minor pyrite and magnetite; traces of mica and carbonaceous material
428-438	"
438-448	"
448-458	"

458-464	Sand - abundant matrix of variegated clay with brown aspect; fine- to medium-grained, fairly well-sorted, angular to subangular; feldspathic; trace of magnetite
464-470	" fine- to coarse-grained, moderately sorted
470-472	" "
472-483	No sample
483-493	Sand - abundant matrix of variegated clay with brown aspect; medium- to coarse-grained, fairly well-sorted, sub-angular to subrounded; very feldspathic; blue quartz common; traces of magnetite and muscovite
493-503	"
503-513	"
513-515	"
515-520	No sample
520-525	Sand - sparse binder of variegated clay; coarse- to very coarse-grained, well sorted, subrounded; moderately feldspathic; a few micaceous metamorphic rock fragments; minor garnet and pyrite; trace of kyanite
525-530	Sand - moderately abundant matrix of reddish-brown clay; medium- to very coarse-grained, rather poorly-sorted, angular to subrounded; feldspathic; blue quartz common; a few metamorphic rock fragments and grains of garnet; traces of magnetite and muscovite
530-535	" coarse- to very coarse-grained, moderately sorted
534-535	Sand - brown, trace of clay; very coarse-grained, well sorted, subrounded to rounded; moderately feldspathic; blue quartz common; a few rock fragments and grains of garnet
535-540	"
540-545	"
545-550	" coarse- to very coarse-grained, fairly well-sorted; garnet common

OWNER: Fairfax Water Authority - 6 -
(Colonial Acres Subdivision, Well #2)

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550-555	Sand - moderately clayey (variegated clay), trace of granule gravel; fine- to coarse-grained, moderately sorted, angular to subrounded; feldspathic; trace of magnetite
555-560	" 15% granule gravel
560-565	" 20% granule gravel
565-572	Sand - brownish-gray, trace of clay, 5% granule gravel; medium- to very coarse-grained, fairly well-sorted, subrounded to rounded; very feldspathic, slightly lithic; minor garnet
572-576	" basic volcanic rock fragments common
576-578-1/2	" "

GEOLOGIC SUMMARY

	<u>Rock Unit</u>	<u>Age</u>
0-578-1/2	Potomac Group	Early Cretaceous

Virginia Division of Mineral Resources
Robert H. Teifke - Geologist
January 12, 1968