

INTERVAL SHEET

WWCR - 143

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VDMR Well No: 1857

Date rec'd: April 17, 1967

Sample Interval: from 0 to 458

PROP: William Clopton

Number of samples: 44

COMP: Douglas & Dickinson

Total Depth: 458

COUNTY: Essex (Brays Fork)

Oil or Gas: Water: ~~X~~Exploratory:

From-To	From-To	From-To	From-To
0 - 10	315 - 325	-	-
10 - 21	325 - 336*	-	-
21 - 31	336 - 346*	-	-
31 - 42	346 - 357	-	-
42 - 52	357 - 367	-	-
52 - 63	367 - 378	-	-
63 - 73	378 - 388*	-	-
73 - 84	388 - 397*	-	-
84 - 94	397 - 407*	-	-
94 - 105	407 - 417	-	-
105 - 115	417 - 427	-	-
115 - 126	427 - 437	-	-
126 - 136	437 - 448*	-	-
136 - 147	448 - 458	-	-
147 - 157	-	-	-
157 - 168	-	-	-
168 - 178	-	-	-
178 - 189*	-	-	-
189 - 199	-	-	-
199 - 210	-	-	-
210 - 220	-	-	-
220 - 231	-	-	-
231 - 241*	-	-	-
241 - 252*	-	-	-
252 - 262	-	-	-
262 - 273	-	-	-
273 - 283 *	-	-	-
283 - 294 *	-	-	-
294 - 304	-	-	-
304 - 315	-	-	-

*Unwashed samples only

OWNER: William Clopton (Louborn Acres)
DRILLER: Douglas & Dickinson, Inc. (B. Taylor)
COUNTY: Essex (Brays Fork)

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TOTAL DEPTH - 458'

GEOLOGIC LOG

Depth in feet

ST. MARY'S FORMATION (0-84)

- 0 - 10 Sand — brownish-gray, silty and clayey, trace fine-grained gravel; fine- to coarse-grained, poorly sorted, variably rounded; small amounts magnetite, partly decomposed potassic feldspar; traces of muscovite and decomposed glauconite.
- 10 - 21 Sand — grayish-brown, very slightly clayey, 10-20% very fine-grained gravel (2-5mm); medium- to coarse-grained, moderately sorted, subangular to rounded; small amounts feldspar, glauconite; traces of magnetite, pyrite and muscovite; trace of shell fragments.
- 21 - 31 "
- 31 - 42 "
- 42 - 52 Sand — brownish-gray, moderately silty and clayey; very fine- to coarse-grained, rather poorly-sorted, variably rounded; slightly feldspathic; very slightly glauconitic; traces of magnetite and brown epidote; trace of shell fragments.
- 52 - 63 "
- 63 - 73 " pelecypod shell fragments common but not abundant.
- 73 - 84 "

CALVERT FORMATION (84-115)

- 84 - 94 Clay — medium-gray, subtly mottled orange-brown, variably silty and sandy; sand is poorly sorted, poorly rounded; traces of feldspar, glauconite and phosphorite.
- 94 - 105 "
- 105 - 115 " bryozoans common.

NANJEMOY FORMATION (115 - 273)

- 115 - 126 Sand — gray, with greenish-cast, clayey; a few small, rounded pebbles and abundant fragments of highly-arenaceous (glaucinitic and pyritic) limestone; fine- to coarse-grained, rather poorly-sorted, angular to slightly subrounded; clear quartz, with small amounts of glauconite and phosphorite; 5% pelecypod shell debris; bone fragments and foraminifers common but not abundant.
- 126 - 136 "
- 136 - 147 "
- 147 - 157 "
- 157 - 168 Sand — brownish-gray, speckled, slightly to moderately clayey; medium- to coarse-grained, fairly well-sorted; 70% quartz, 30% fresh glauconite; a few pelecypod fragments, bryozoans, bone fragments and phosphate nodules; a very few foraminifers.
- 168 - 178 Sand — medium-gray, clayey, trace of very fine-grained, well-rounded gravel; fine- to very coarse-grained, moderately sorted (skewed fine), 90% clear to green-tinted, rounded to well-rounded and polished quartz, and 10% fine-grained, fresh glauconite; small amounts of phosphate, epidote, pyrite, garnet and muscovite; a few shell and bone fragments; foraminifers and ostracods common but not abundant.
- 178 - 189 Sand — dark greenish-gray, clayey to very clayey; fine-grained, well-sorted; glauconitic (about 35%), slightly micaceous; a few shell fragments, bone fragments, and foraminifers.
- 189 - 199 "
- 199 - 210 Sand — dark-gray, with greenish cast, clayey; medium grained, well sorted; 80-85% fresh glauconite, 15-20% medium- to coarse-grained, rounded quartz; slightly micaceous; a few shell and bone fragments, and a very few foraminifers.
- 210 - 220 "
- 220 - 231 "
- 231 - 241 " very clayey (medium- to light-gray clay).
- 241 - 252 "

MARLBORO CLAY MEMBER (252-273)

252 - 262 Clay — orange-pink, slightly sandy, slightly glauconitic.

262 - 273 "

AQUIA FORMATION (273-357)

273 - 283 Sand — dark-gray, clayey; medium-grained, fairly well-sorted; 65% fresh glauconite, 35% variably rounded quartz; traces of epidote, muscovite, and phosphorite; a few shell, plant, bone and limestone fragments.

283 - 294 "

294 - 304 Sand — medium greenish-gray, slightly silty and clayey; medium- to coarse-grained, well-sorted; 50% quartz, 50% fresh glauconite; trace of shell fragments.

304 - 315 "

315 - 325 " some glauconite-bearing limestone.

325 - 336 Sand — medium-gray, speckled, moderately clayey; medium-grained, fairly well-sorted; 50% quartz, 50% glauconite; small amount goethite after glauconite (brown "glauconite"); a very few foraminifers, mostly Nodosaria.

336 - 346 Sand — medium-gray, speckled, moderately clayey (skewed coarse); 50% clear to yellow-tinted quartz, 50% glauconite, including abundant brown "glauconite"; traces of phosphorite and arenaceous (glauconitic) limestone; foraminifers abundant in finest fraction; a few Robulus, Dentalina, Nodosaria; a few bone fragments.

346 - 357 " yellow-tinted quartz and brown "glauconite" very abundant.

POTOMAC GROUP (357 - 458)

357 - 367 Sand — brownish-gray, very slightly clayey and pebbly; fine- to very coarse-grained, fairly well-sorted (skewed coarse), subrounded to well-rounded; abundant fresh, gray potassic feldspar; slightly glauconitic (fine-fraction); pink and salmon garnet fragments relatively abundant; some brown epidote.

367 - 378	Clay	— brownish-gray, with green cast, very sandy, a few small pebbles (2-12 mm); sand is fine- to coarse-grained, moderately sorted (skewed fine), angular to subangular; coarse fraction is feldspathic, fine fraction is moderately glauconitic; garnet common; traces of pyrite and phosphorite (bone fragments).
378 - 388	Clay	— gray, very sandy; sand is fine- to medium-grained, fairly well-sorted; moderately glauconitic; some garnet and muscovite; slightly feldspathic.
388 - 397	"	"
397 - 407	Sand	— gray, moderately clayey to clayey; medium-grained, fairly well-sorted, subangular to subrounded; slightly feldspathic, very slightly glauconitic; traces of garnet, pyrite and muscovite.
407 - 417	"	"
417 - 427	Sand	— gray, trace of clay, a few very small pebbles; coarse- to very coarse-grained, fairly well-sorted, subrounded; moderately feldspathic; trace of glauconite.
427 - 437	"	"
437 - 448	"	"
448 - 458	"	medium-to coarse-grained

GEOLOGIC SUMMARY

	<u>Rock Unit</u>	<u>Age</u>
0 - 84	St. Mary's Formation	Miocene
84 - 115	Calvert Formation	Miocene
115 - 273	Nanjemoy Formation	Eocene
	(252-273 Marlboro Clay)	
273 - 357	Aquia Formation	Eocene
357 - 458	Potomac Group	Early Cretaceous

Virginia Division of Mineral Resources
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