

INTERVAL SHEET

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VDMR Well No: 2012

Date rec'd: 10-10-67

Sample Interval: from 0 to: 260

PROP: N and W RR. Well # 209

Number of samples: 20

COMP:

Total Depth: 277

COUNTY: Nansemond

Oil or Gas: Water: Exploratory: X

From-To	From-To	From-To	From-To
0 _ 10	-	-	-
10 _ 20	-	-	-
-	-	-	-
30 _ 40	-	-	-
40 _ 50	-	-	-
50 _ 60	-	-	-
-	-	-	-
73 _ 80	-	-	-
80 _ 90	-	-	-
90 _ 100	-	-	-
120 _ 130	-	-	-
130 _ 140	-	-	-
140 _ 150	-	-	-
-	-	-	-
-	-	-	-
160 _ 170	-	-	-
170 _ 180	-	-	-
180 _ 190	-	-	-
-	-	-	-
200 _ 210	-	-	-
210 _ 220	-	-	-
220 _ 230	-	-	-
230 _ 240	-	-	-
240 _ 250	-	-	-
250 _ 260	-	-	-
260.5 _ 268.5 Top	-	-	-
260.5 _ 268.5 Bottom	-	-	-
268.5 _ 276.5	-	-	-
276.5 _ 277.5	-	-	-
-	-	-	-

X - no slides

All intervals have both washed and unwashed samples

Collected 10/5/66

NAN-C-22

NW-209

VDMR 2012

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INTERVAL SHEET

ELEV. : 55'

Geologic Log ✓
Strip Log ✓

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VDMR Well No:

Date rec'd: 7/19/67

Sample Interval: from 0 to 260

PROP:



W. end of NW
switch-yard,
Suffolk, Va.
(SUFFOLK (7.5") SHEET)

Number of samples: 20 + 4 core sections

COMP:

Total Depth: 277'

COUNTY: Nansemond

Oil or Gas: Water: Exploratory: ✓

UNW From-To	LORE From-To	From-To	From-To
0 - 10	260.5 - 268.5 top	-	R-3433
10 - 20	260.5 - 268.5 bottom	-	R-3432
30 - 40	268.5 - 276.5	-	R-3430
40 - 50	276.5 - 277.5 - Tc/Tm	-	R-3427
50 - 60	-	-	-
73 - 80	-	-	-
80 - 90	-	-	-
90 - 100	-	-	-
120 - 130	-	-	-
130 - 140	-	-	-
140 - 150	-	-	-
160 - 170	-	-	-
170 - 180	-	-	-
180 - 190	-	-	-
200 - 210	-	-	-
210 - 220	-	-	-
220 - 230	-	-	-
230 - 240	-	-	-
240 - 250	-	-	-
250 - 260	-	-	-
260.5 - 268.5	core only	260.5 - 268.5	W & UnW
260.5 - 268.5	" "	260.5 - 268.5	W & UnW
268.5 - 276.5	" "	268.5 - 276.5	W & UnW
276.5 - 277.5	" "	276.5 - 277.5	UnW

bioclastic sands

glauconitic sands

P₂O₅ ←
Siphoniferina Zone ←
P₂O₅ ←
Foram Zone ←
Glauconite

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Notes on core (over)

Core — 260 - 268.5

268.5 - 276.5

276.5 - 277.5

TBe - PR contact 276.5 - 277.5

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VDMR Well No. 2012
County: Nansemond

Well: N. & W. R. R. Well # 209
Property: Norfolk and Western Railway
Driller: Norfolk and Western Railway
Location: Suffolk, at W end of Norfolk and Western switch-yard
76° 35' 30" W, 36° 43' 30" N
Elevation: 55 feet
Total Depth: 277.5 feet
Started drilling: October, 1966 Completed drilling: October, 1966
Sample description by: Robert H. Teifke, Virginia Division of Mineral
Resources, April, 1968

GEOLOGIC LOG *

Depth in
feet

✓
COLUMBIA GROUP (0-10')

0-10 Sand and gravel -- sparse matrix of tan clay; 65% fine-
-to coarse-grained, rather poorly sorted,
variably rounded, slightly feldspathic sand;
30% (2-10mm) quartzo-feldspathic gravel with
a few rock fragments

✓
YORKTOWN FORMATION (10-240')

10-20 Sand -- abundant matrix of gray, locally brown, clay;
10% shell fragments; fine--to coarse-grained,
rather poorly sorted, angular to subrounded;
very slightly glauconitic, feldspathic, and
gypsiferous; echinoid spines, bryozoans,
foraminifers and ostracods common

20-30 No sample

30-40 Sand and shell -- abundant matrix of greenish-gray clay;
40% pelecypod-gastropod shell debris; with a
few scaphopods and echinoid spines; 50% fine,
angular quartz sand, subordinately bioclastic;

VDMR Well No. 2012

		slightly gypsiferous; foraminifers moderately abundant
40-50	"	70% sand, 20% shell, echinoid spines abundant
50-60	Clay-	bluish-gray, locally grayish-brown, very sandy; sand is fine--to very fine-grained, well-sorted, angular; clear quartz, with abundant echinoid spines, foraminifers, and ostracods; traces of glauconite and gypsum
60-73	No sample	
73-80	Clay -	bluish-gray, locally grayish-brown, very sandy, 5-10% coarse shell fragments; sand is fine--to very fine-grained, well-sorted, angular; clear quartz, with abundant bioclasts and echinoid spines; foraminifers and ostracods moderately abundant; very slightly diatomaceous; slightly gypsiferous and micaceous; trace of glauconite
80-90	"	moderately sandy, trace of coarse shell material
90-100	Clay--	greenish-gray, sandy, 5% coarse shell, including <u>Turritella</u> ; sand is fine--to very fine-grained, well-sorted, angular; clear quartz, subordinately bioclastic; foraminifers abundant, echinoid spines common, very slightly diatomaceous; very slightly glauconitic and gypsiferous
100-120	No sample	
120-130	Sand--	abundant matrix of greenish-brown clay, 10% coarse shell material; fine--to very fine-grained, well-sorted, angular; 10-15% of sand is glauconite; slightly micaceous and bioclastic, foraminifers and echinoid spines common; very slightly diatomaceous

VDMR Well No. 2012

- 130-140 Clay -- gray and tan, moderately sandy, 5% coarse shell material; sand is fine--to medium-grained, moderately sorted; sand consists of 50% dark--to medium-green, medium-grained glauconite and 50% fine -to very fine-grained, poorly rounded clear quartz; gypsum common; foraminifers rare
- 140-150 " 25% coarse shell material
- 150-160 No sample
- 160-170 Clay -- greenish-gray, silty, sandy, 15-20% coarse shell material; sand consists of 70% fine, angular quartz and 25% medium glauconite; gypsum common, minor muscovite and feldspar; foraminifers and ostracods moderately abundant
- 170-180 Clay -- gray, locally orange-brown, moderately sandy, 5% coarse shell material; sand consists of 65% fine, well-sorted, angular quartz, and 30% green glauconite; selenite and concretionary pyrite common; minor muscovite, feldspar, and phosphorite; a very few foraminifers
- 180-190 "
- 190-200 No sample
- 200-210 Clay -- dark grayish-green, silty and sandy; sand consists of fine, well-sorted, angular, clear to greenish quartz (70%), medium glauconite (20%), and shell fragments (5%); minor amounts of gypsum, pyrite, feldspar, and muscovite; a few foraminifers
- 210-220 Sand & silt --- abundant matrix of grayish-green clay; coarse-grained silt to very fine-grained sand; very well-sorted, angular; clear to greenish quartz, with 2-3% glauconite; gypsum common; traces of phosphorite and muscovite

VDMR Well No. 2012

220-230 Clay — grayish-green, silty and sandy, 5% small shell fragments, 2-3% granule gravel; sand consists of 85% fine- to very fine-grained, well-sorted, angular quartz; and 10% medium-grained glauconite; minor muscovite and phosphorite; gypsum common; a very few foraminifers

230-240 " trace of shell; gypsum abundant, pyrite common

CALVERT FORMATION (240-276.5)

240-250 Clay — greenish-gray, sandy; sand is fine- to coarse-grained, rather poorly sorted, subangular; clear quartz with 5% phosphorite and a trace of glauconite; gypsum abundant

250-260 Sand — moderately abundant matrix of dark-brown clay, 10% shell fragments; fine- to medium-grained, well-sorted, angular to subrounded; clear quartz with 5% bone phosphorite and traces of gypsum and glauconite; foraminifers common — Robulus, Dentalina, Textularia, Nonion, Cibicides, and a few Siphogenerina and Uvigerina

260-260.5 No sample

260.5-268.5 Sand (top of core) — moderately abundant matrix of dark-brown clay; fine- to coarse-grained, rather poorly sorted, angular to rounded; clear quartz, with 15-20% fine to coarse bone and pelletal phosphorite; very foraminiferal, with many Siphogenerina

" (bottom of core) small amount of leached shell; a few foraminifers, mostly small planktonic forms

²⁷⁶
~~268.5-276.5~~ Sandstone — brown, with greenish cast; cement-matrix consists of finely crystalline (about 1/32mm) rhomb-shaped dolomite and subordinate clay; framework consists of medium--to coarse-grained, well-sorted, subangular to sub-rounded clear quartz with 5-10% bone phosphorite; very foraminiferal, with Uvigerina and planktonic forms dominant

^{276 - 278}
MATTAPONI FORMATION (~~276.5-277.5~~)

~~276.5-277.5~~ Sandstone— green; cement-matrix consists of finely crystalline (about 1/32mm) rhomb-shaped dolomite and subordinate clay, and grades downward into green, glauconitic clay; framework consists of medium--to coarse-grained, dark--to light-green glauconite; unfossiliferous
^{276 - 278}

GEOLOGIC SUMMARY

	<u>Rock Unit</u>	<u>Age</u>
0-10'	Columbia Group	Pleistocene
10-240'	Yorktown Formation	Late Miocene
240 - ²⁷⁶ 276.5	Calvert Formation	Middle Miocene
276.5-277.5 276 - 278	Mattaponi Formation	Paleocene - Late Cretaceous

R.H. Teufel
3/3/72

* The use of the lithologic term, "clay" includes all size ranges of particles less than 1/32 mm.

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YORKTOWN FORMATION (10-240')

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