

INTERVAL SHEET

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VDMR Well No: 2050

Date rec'd: 11-22-67

Sample Interval: from 0 to: 350

PROP: C-169

Number of samples: 33

COMP:

Total Depth: 350

COUNTY: Nansemond

Oil or Gas: Water: Exploratory: x

From-To	From-To	From-To	From-To
0 - 10	300 - 310	-	-
10 - 20	310 - 320	-	-
20 - 30	320 - 330	-	-
30 - 40	330 - 340	-	-
40 - 50	340 - 350	-	-
60 - 70	-	-	-
70 - 80	-	-	-
80 - 90	-	-	-
90 - 100	-	-	-
-	-	-	-
100 - 110	-	-	-
110 - 120	-	-	-
120 - 130	-	-	-
130 - 140	-	-	-
140 - 150	-	-	-
150 - 160	-	-	-
160 - 170	-	-	-
170 - 180	-	-	-
180 - 190	-	-	-
190 - 200	-	-	-
200 - 210	-	-	-
210 - 220	-	-	-
220 - 230	-	-	-
230 - 240	-	-	-
240 - 250	-	-	-
250 - 260	-	-	-
-	-	-	-
270 - 280	-	-	-
280 - 290	-	-	-
290 - 300	-	-	-

All intervals have both washed and unwashed samples

Drilled 6/66
Continental

CONFIDENTIAL

NAN-T-16
C-169

INTERVAL SHEET

Page 1 of 1

VDMR Well No: **WELL NO. 2050**

Date rec'd: 7/19/67

Sample Interval: from 0 to 350

PROP:



0.5 Mile E.
of Whaleyville;
ACL RR

Number of samples: 33

COMP:

Total Depth: 350'

COUNTY:

Nansemond

(SUFFOLK (15') SHEET)

Oil or Gas: Water: Exploratory:

	LINW From-To		From-To		From-To		From-To
	0 - 10		300 - 310		-		-
	10 - 20		310 - 320		-		-
	20 - 30	320 RS	320 - 330		-		-
	30 - 40		330 - 340		-		-
	40 - 50	KE	340 - 350		-		-
	60 - 70		-		-		-
	70 - 80		-		-		-
	80 - 90		-		-		-
	90 - 100		-		-		-
	100 - 110		-		-		-
	110 - 120		-		-		-
	120 - 130		-		-		-
	130 - 140		-		-		-
	140 - 150		-		-		-
	150 - 160		-		-		-
	160 - 170		-		-		-
	170 - 180		-		-		-
	180 - 190		-		-		-
	190 - 200		-		-		-
	200 - 210		-		-		-
	210 - 220		-		-		-
	220 - 230		-		-		-
235BS	230 - 240		-		-		-
	240 - 250		-		-		-
260BS	250 - 260		-		-		-
270BS	270 - 280		-		-		-
	280 - 290		-		-		-
	290 - 300		-		-		-

CONFIDENTIAL

VDMR Well No. 2050
County: Nansemond

Well: C-169
Property: Atlantic Coast Line Railway
Driller: Norfolk and Western Railway
Location: 0.5 mile E of Whaleyville, on railroad right-of-way;
76° 40' 30" W, 36° 35' 00" N
Elevation: 50 feet
Total Depth: 350 feet
Started drilling: June, 1966 Completed drilling: June, 1966
Sample description by: R. H. Teifke, Virginia Division of Mineral
Resources, April, 1968

GEOLOGIC LOG*

Depth in
feet

✓ COLUMBIA GROUP (0-30')

0-10 Clay — white and orange-brown, very sandy; sand is medium-grained, fairly well-sorted, subangular to rounded; slightly feldspathic; traces of muscovite and glauconite

10-20 "

20-30 Sand — abundant matrix of gray clay, locally orange-brown; fine- to medium-grained, very well-sorted, subangular; traces of muscovite and glauconite

✓ YORKTOWN FORMATION (30-^{190'}~~240'~~)

30-40 Sand and shell — moderately abundant matrix of dark-gray and orange-brown clays; 30% coarse, weathered, pelecypod shell debris; 60% medium-grained, fairly well-sorted, subangular to rounded quartz sand; minor gypsum and weathered glauconite; a few foraminifers

- 40-50 Shell and sand — gray, slightly to moderately clayey; 70% coarse pelecypod shell debris; 30% fine- to medium-grained, fairly well-sorted quartz sand; foraminifers common, but not abundant
- 50-60 No Sample
- 60-70 Clay — light-gray, silty and sandy, 20% coarse pelecypod shell debris; non-clay fraction consists of coarse-grained silt to fine-grained sand, well-sorted, angular, moderately bioclastic; foraminifers abundant, a few ostracods and echinoid spines
- 70-80 "
- 80-90 Sand — very clayey (light-gray with greenish cast), 15% coarse pelecypod shell debris; fine- to very fine-grained, well-sorted, angular; slightly bioclastic; minor magnetite and muscovite; gypsum and anhydrite pseudomorphs after gypsum are common; foraminifers and echinoid spines abundant; a few ostracods
- 90-100 " foraminifers very abundant
- 100-110 " 25% coarse pelecypod shell debris; foraminifers very abundant
- 110-120 Clay — greenish-gray, slightly sandy, 5% shell fragments; sand is fine- to very fine-grained, well-sorted, angular; abundant anhydrite pseudomorphs after gypsum; foraminifers and echinoid spines moderately abundant
- 120-130 Clay — greenish-gray, silty, trace of sand; abundant gypsum and anhydrite after gypsum; a few foraminifers
- 130-140 "
- 140-150 " foraminifers moderately abundant
- 150-160 " " trace of fresh glauconite

- 160-170 Clay — greenish-gray, silty, slightly sandy; sand is very fine- to medium-grained, moderately sorted; and consists of 80% angular, greenish quartz, and 20% fresh glauconite; abundant anhydrite pseudomorphs after gypsum; a few shell fragments, echinoid spines and foraminifers
- 170-180 "
- 180-190 Clay — gray, locally orange-brown, silty, slightly sandy, trace of shell; sand is fine- to very fine-grained, well-sorted, and consists of 80% quartz, 20% fresh glauconite; abundant gypsum and anhydrite pseudomorphs after gypsum; foraminifers rare
- CALVERT FORMATION (190-265')*
- 190-200 Sand — brown, clayey, silty; fine- to very fine-grained, well-sorted, 85% very fine-grained, very well-sorted, angular quartz, 15% fine-grained fresh glauconite; gypsum common
- 200-210 "
- 210-220 Silt — greenish-brown, clayey (locally yellow); coarse-grained, very well-sorted; angular quartz silt, with 5% glauconite, and 5% gypsum, trace of muscovite
- 220-230 "
- 230-240 " locally white, sand-free clay

~~CALVERT FORMATION (240-260')~~

- 240-250 Sand — moderately abundant matrix of brown and green slightly dolomitic silty clays; a very few decomposed shell fragments; fine- to coarse-grained, moderately sorted; 65% dark- to medium-green glauconite, 35% clear quartz; gypsum, and nodular bone and shell phosphorite are common; trace of muscovite; a very few planktonic foraminifers

250-260 Sand — moderately abundant matrix of brown, silty, dolomitic clay; a few large shell fragments; fine- to very coarse-grained, poorly sorted, variably rounded; clear quartz, with 5% bone and pelletal phosphorite; a few foraminifers (Siphogenerina, Nonion, Robulus, Uvigerina)

²⁶⁵
260-270 No Sample

²⁶⁵
MATTAPONI FORMATION (270-320')

~~270-280~~
²⁶⁵ Clay — gray and brown sand-free clays, with lenses of dark-brown, green, and yellow sandy clays; sand is fine- to coarse-grained, poorly sorted; 50% quartz, 50% glauconite; abundant anhydrite pseudomorphs after gypsum; bone and pelletal phosphorite common

280-290 Sand — moderately abundant matrix of light-green clay, abundant fragments of white, glauconitic shell limestone; fine- to coarse-grained, moderately sorted; 50% medium-green glauconite, 50% quartz; nodular, pelletal, and bone phosphorite common; traces of feldspar, garnet, and pyrite

290-300 " shell and limestone fragments very abundant

300-310 " shell and limestone fragments very abundant; 70% quartz, 30% glauconite; a few Nodosaria

310-320 " shell and limestone fragments moderately abundant

TRANSITIONAL BEDS
[TUSCALOOSA FORMATION] (320-350')

320-330 Clay — brightly variegated, a few shell fragments, limestone fragments, and small rounded pebbles; sandy; sand is very fine- to very coarse-grained, poorly sorted, 70% clear quartz, 20% medium-green glauconite, 10% fresh feldspar; minor amounts of muscovite, garnet, and phosphorite

- 330-340 Clay -- brightly variegated, with red and yellow clays dominant, a few shell fragments, silty and sandy; sand is fine- to very fine-grained, fairly well-sorted; clear and yellowish quartz, with 10% medium-green glauconite, 5% muscovite, and minor amounts of phosphorite and feldspar
- 340-350 "

GEOLOGIC SUMMARY

	<u>Rock Unit</u>	<u>Age</u>
	0-30'	Columbia Group
	30-240' ¹⁹⁰	Yorktown Formation
190	240-260' ²⁶⁵	Calvert Formation
	260-270'	No Sample
265	270-320'	Mattaponi Formation
	320-350'	Fuscaloosa Formation → Late Cretaceous
		<i>transitional beds</i>
		Pleistocene
		Late Miocene
		Middle Miocene
		Paleocene - <i>Late Cretaceous</i>

*The use of the lithologic term, "clay" includes all size ranges of particles less than 1/16 mm.

*R. H. Geifhe
3/7/72*

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Well: C-169

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