

INTERVAL SHEET

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VDMR Well No: 2023

Date rec'd: 10-17-67

Sample Interval: from 0 to: 310

PROP: C-158

Number of samples: 31

COMP:

Total Depth: 310

COUNTY: Southampton

Oil or Gas: Water: Exploratory: X

From-To	From-To	From-To	From-To
0 - 10	-	-	-
10- 20	-	-	-
20- 30	-	-	-
30- 40	-	-	-
40- 50	-	-	-
50- 60	-	-	-
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	-	-	-
260- 270	-	-	-
270- 280	-	-	-
280- 290	-	-	-
290- 300	-	-	-

All intervals have both washed and unwashed samples

INTERVAL SHEET

Page 1 of 1

VDMR Well No. **WELL NO. 2023**

Date rec'd: 10-17-67

Sample Interval: from 0 to: 310'

PROP: PROP: C-158 - USGS-50-T-4?

Number of samples: 31

COMP: COMP:
COUNTY: SOUTHAMPTON

Total Depth: 310'

VDMR WELL NO. ~~W 2023~~
COUNTY: FROM: TO:

Oil or Gas: Water: Exploratory:

From-To	From-To	From-To	From-To
0-10	300-310	-	-
10-20	-	-	-
20-30	-	-	-
30-40	-	-	-
40-50	-	-	-
50-60	-	-	-
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	-	-	-
260-270	-	-	-
270-280	-	-	-
280-290	-	-	-
290-300	-	-	-

all intervals have both washed and unwashed samples

Drilled 5/66
Continental

CONFIDENTIAL

SOT-4
C-158

ELEV.: 45'
Geologic Log ✓
Strip Log

INTERVAL SHEET

Page 1 of 1

VDMR Well No: **WELL NO. 2023**

Date rec'd: 7/18/67

Sample Interval: from 0 to 310

PROP:



Branchville,
on SAL RR.

Number of samples: 31

COMP:

(ARRINGDALE (15") SHEET)

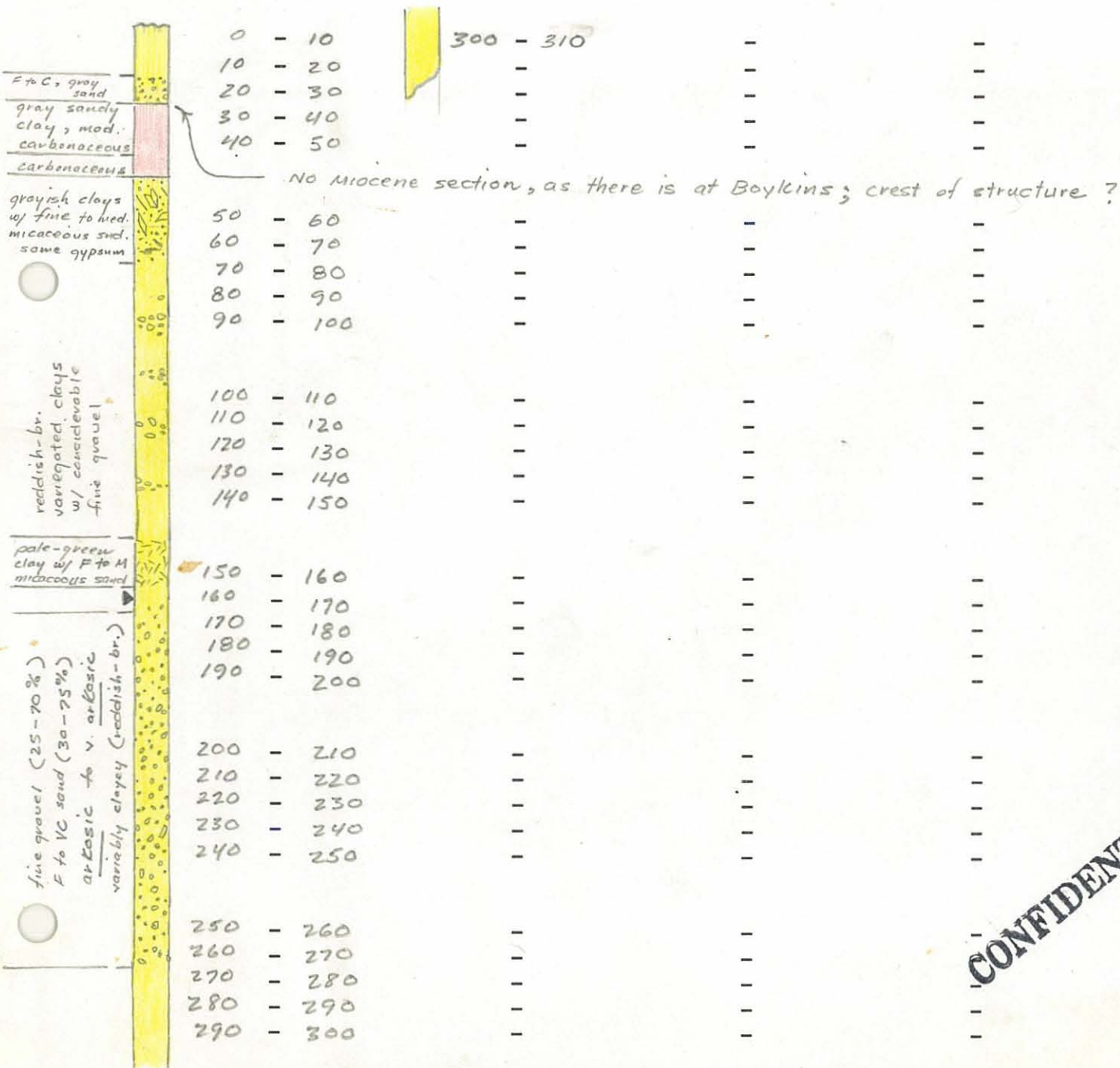
Total Depth: 310'

COUNTY:

Southampton

Oil or Gas: Water: Exploratory: ✓

UNW
From-To From-To From-To From-To



CONFIDENTIAL

Well: C-158
Property: Seaboard Air Line Railway
Driller: Norfolk and Western Railway
Location: At Branchville, on railroad right-of-way
77°15'35" W, 36°32'30" N
Elevation: 45 feet
Total Depth: 310 feet
Started drilling: May, 1966 Completed drilling: May, 1966
Sample description by: R. H. Teifke, Virginia Division of Mineral
Resources, August, 1968

GEOLOGIC LOG*

Depth in
feet

✓
COLUMBIA GROUP (0-30')

- | | |
|-------|---|
| 0-10 | Clay — orange-brown and white, sandy; sand is very fine- to medium-grained, fairly well-sorted, angular; clear and iron-stained quartz, with accessory muscovite and magnetite; minor amount of decomposed feldspar among the coarsest grains |
| 10-20 | Gravel and sand — tan, trace of clay; 60-65% fine-grained (2-12 mm) quartzo-feldspathic gravel; 30-35% coarse- to very coarse-grained, moderately sorted, angular, quartzo-feldspathic sand |
| 20-30 | Sand — gray, very-slightly clayey, 5-10% granule gravel; fine- to very coarse-grained, moderately sorted (skewed coarse), subangular to subrounded; moderately feldspathic; traces of muscovite, hornblende and rock fragments |

~~TUSCALOOSA FORMATION (30-50')~~
~~TRANSITIONAL BEDS (30-165')~~

- 30-40 Clay — gray, mottled orange-brown, 10% very fine-grained (2-8 mm) quartzo-feldspathic gravel, locally silty and sandy; sand is fine, angular; carbonaceous and micaceous
- 40-50 " very carbonaceous

~~PATUXENT FORMATION (50-310')~~

- 50-60 Clay — gray, mottled orange-brown, 10% fine-grained (2-10 mm) quartzo-feldspathic gravel, very silty and sandy; silt-sand fraction consists of coarse-grained silt to fine-grained sand, well-sorted, angular; abundant muscovite, biotite, and chloritized biotite; abundant selenite and anhydrite pseudomorphs after selenite; minor glauconite
- 60-70 Clay — dark-gray, light-gray, and yellowish-brown, 15% fine-grained (5-15 mm), rounded gravel, including a few pebbles of feldspar and a few phosphate nodules; silty and sandy; sand fraction is very fine- to medium-grained, fairly well-sorted, angular to subangular; micaceous; feldspar and selenite common; traces of glauconite and garnet
- 70-80 " brightly variegated with reddish-brown aspect, 5% gravel, moderately silty and sandy
- 80-90 Clay — brightly variegated, with reddish-brown aspect, a very few small pebbles, slightly sandy; sand fraction is fine- to very fine-grained, well-sorted, angular; appreciable muscovite and chloritized biotite; minor amount of feldspar
- 90-100 Clay and gravel — moderately silty and sandy; brightly variegated clay with reddish-brown aspect, and fine-grained (2-12 mm) arkosic gravel; silt and fine sand is angular, quartzose, moderately micaceous (muscovite, and some biotite); abundant hematite and goethite
- 100-110 "

- 110-120 Clay and gravel — moderately silty and sandy; brightly variegated clay with reddish-brown aspect, and fine-grained (2-12 mm) arkosic gravel; silt and fine sand is angular, quartzose, moderately micaceous (muscovite, and some biotite); abundant hematite and goethite
- 120-130 " very slightly pebbly
- 130-140 Sand — abundant matrix of variegated clay, about 5% arkosic granule gravel; fine- to coarse-grained, fairly well-sorted, angular to subangular; moderately feldspathic; muscovite, biotite, and hematite are common
- 140-150 Clay — variegated, with reddish-brown aspect, silty, slightly sandy, trace of granule gravel; sand is fine- to coarse-grained, rather poorly sorted, angular to subangular; feldspar, muscovite, biotite, and hematite are common; trace of garnet
- ¹⁶⁵
150-~~160~~ Clay — light greenish-gray, moderately sandy; sand is fine- to medium-grained, fairly well-sorted, angular to subangular; micaceous (muscovite and biotite), slightly feldspathic
- PATUXENT FORMATION (165 - 310')
¹⁶⁵
~~160~~-170 Sand — abundant matrix of variegated clay with light-brown aspect, trace of granule gravel; fine- to coarse-grained, moderately sorted, angular to subrounded; feldspathic; moderately micaceous (muscovite and biotite)
- 170-180 Sand and gravel — light reddish-brown, clayey; 20% quartzo-feldspathic gravel (2-10 mm); 65% fine- to coarse-grained, rather poorly sorted, angular to rounded sand; feldspathic; slightly to moderately micaceous
- 180-190 " 25% gravel, 60% sand; garnet common
- 190-200 " 40% gravel, 40% sand; garnet common

- 200-210 Gravel and sand — brown, slightly clayey; 65% fine-grained (2-12 mm) quartzo-feldspathic gravel; 25% fine- to very coarse-grained moderately sorted (skewed coarse), subangular to rounded sand; very feldspathic; minor garnet and brown epidote
- 210-220 " 30% gravel, 60% sand
- 220-230 Gravel and sand — light-brown, slightly clayey; 50% fine-grained (2-15 mm) quartzo-feldspathic gravel; 40% coarse- to very coarse-grained, fairly well-sorted feldspathic sand; accessory garnet
- 230-240 "
- 240-250 Sand and gravel — light reddish-brown, slightly to moderately clayey; 25% quartzo-feldspathic granule gravel, and a few pebbles up to 8 mm; 60% medium- to very coarse-grained, moderately sorted, subangular to rounded sand; very feldspathic; accessory garnet
- 250-260 Sand — light reddish-brown, slightly clayey, 10% quartzo-feldspathic granule gravel; medium- to very coarse-grained, moderately sorted, subangular to rounded; very feldspathic; accessory garnet
- 260-270 "
- 270-280 Sand — moderately abundant matrix of variegated clay with reddish-brown aspect, 5% granules and a few pebbles up to 12 mm; medium- to coarse-grained, well-sorted, angular to subangular; feldspathic minor garnet
- 280-290 Clay — brightly variegated, with reddish-brown aspect, sandy; sand is fine- to coarse-grained, rather poorly sorted, angular to subangular; moderately feldspathic; hematite, magnetite, and muscovite are common accessories

- 290-300 Sand — brown, slightly clayey; fine- to coarse-grained, rather poorly sorted, angular to subangular; clear, yellow-stained, and orange-stained quartz; moderately feldspathic
- 300-310 Clay — brightly variegated, with reddish-brown aspect, sandy; sand is fine- to very fine-grained, well-sorted, angular; slightly to moderately feldspathic and micaceous

GEOLOGIC SUMMARY

	<u>Rock Unit</u>	<u>Age</u>
0-30'	Columbia Group	Pleistocene
30-50' / 65	Euscaloosa Formation Transitional beds	Late Cretaceous
165-50-310'	Patuxent Formation	Early Cretaceous

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

R. H. Terfhe
3/3/72

VDMR Well No. 2023
County: Southampton

Well: C-158
Property: Seaboard Air Line Railway 50-T-4
Driller: Norfolk and Western Railway
Location: At Branchville, on railroad right-of-way
77°15'35" W, 36°32'30" N
Elevation: 45 feet
Total Depth: 310 feet
Started drilling: May, 1966 Completed drilling: May, 1966
Sample description by: R. H. Teifke, Virginia Division of Mineral
Resources, August, 1968

GEOLOGIC LOG*

Depth in
feet

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- 150-160 Clay — light greenish-gray, moderately sandy; sand is fine- to medium-grained, fairly well-sorted, angular to subangular; micaceous (muscovite and biotite), slightly feldspathic
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accessory minerals

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