

Sheet No. 1

PROP: FORT MONROE
WELL NO: 283 YEAR: 1905
COUNTY: ELIZABETH CITY
VDMR WELL NO. 159

FROM: TO:
POSSIBLY #0158

VDMR WELL NO. 0159

Sample Interval 1020-2255

Total Depth ? (2)

Oil ___ Gas ___ Water Exploratory ___

Cuttings Core ___ Other ___

SEE WATER SUPPLY PAPER 1361 p. 227
AND BULLETIN #5 p. 302 AND CIRCULAR 3
p. 74 AND USGS ATLAS FOLIO 8.

From-To
UNWASHED
SAMPLES

From-To
WASHED &
FLOATED
SAMPLES

From-To

From-To

From-To

1185'-

1020-1030

1640-1800

1440'-

1040-1080

1840-1880

1820'-

1150'

1886

2250'-

1165-1180

1900-1980

2255'-

1200'

2000-2160

1220-1260

2178-2200

1280-

1300-1340

1320-

1386-

1400-1430

1435-

1440-

1460-1560

1570-

1580-1620

1630-

OWNER: Fort Monroe
DRILLER:
COUNTY: Elizabeth City Co.

VDMR # 0158 & 0159
WWCR # 2
Depth 2255'

SAMPLE EXAMINATION
(washed)

0-20	PLEISTOCENE Sand quartz, fine grained, subangular, argillaceous	COLUMBIA GROUP
20-160	MIOCENE Sand fine to coarse, argillaceous, abundant shell fragments, trace of coal.	CHESAPEAKE GROUP
160-180	Shell marl with abundant sand, fine to coarse, subangular-rounded. Trace of glauconite	
180-200	Sand, very fine to fine grained, slightly glauconitic.	
200-220	Shell marl with abundant sand, predominantly coarse grained, sub-angular to rounded.	
220-240	Sand, very fine to fine grained, argillaceous abundant shell fragments.	
240-250	Shell bed with subordinate quartz. Trace coal.	
250-255	The sample envelope for this interval contained 5 large shell fragments; one large fragment of yellow quartz; one large fragment of sandstone, dark gray, glauconitic, pyritic and calcareous; one fragment sandstone, white, hard with white, calcareous clay cement; and one large fragment of sandstone, white, quartzitic, non calcareous with many fossil (?) impressions.	
255-300	Sand medium grained, subangular, trace coal. With shell fragments.	
300-360	Clay gray silty to sandy, slightly calcareous, micaceous with shell fragments.	
360-380	Clay brown pink, sandy, soft, calcareous with shell fragment.	
380-400	Clay, gray, hard, silty with large quartz pebbles	
400-440	Clay, tan, calcareous, soft, sandy, soft with shell fragments.	
440-480	Clay, brown, firm, slightly sandy. Minor red-brown clay	

480-620	Clay, brown, soft, sandy to gravelly, slightly calcareous with shell fragments.
	EOCENE CHICKAHOMINY FM
620-640	Sand, very fine ranging to gravel, subangular, argillaceous, slightly glauconitic with shell fragments, foraminifera and abundant coal
640-940	Clay, dark brown to red, marly, soft, slightly glauconitic, sandy to very sandy, with shell fragments and foraminifera. Grades clayey sand in part. Scattered traces of coal.
	PALEOCENE-UPPER CRETACEOUS MATTAPONI FM
940-943	Sand and gravel, very argillaceous, glauconitic
943-962	No sample
962-1000	Sand as above with shell fragments. Traces coal and gray, dense limestone.
1000-1020	Sand and gravel, subangular, clean, arkosic, glauconitic with shell fragments and sharks teeth
1020-1140	No sample
1140-1150	Sand, fine to coarse grained, subangular, glauconitic, abundant coal
1150-1166	No sample
1166-1180	Sand and gravel, slightly glauconitic, arkosic
1180-1185	Pebble gravel
1185-1190	No sample
1190-1200	Sand and gravel, arkosic, slightly glauconitic
1200-1220	No sample
1220-1280	Sand and gravel, slightly glauconitic, arkosic, minor gray clay at base.
1280-1300	No sample
1300-1340	Sand and gravel, slightly glauconitic
1340-1380	No sample

CRETACEOUS

POTOMAC GROUP

1380-1385	Sand and gravel with abundant clay
1385-1400	No sample
1400-1430	Sand and gravel, slightly glauconitic
1430-1440	Limestone, white to gray, hard, glauconitic, sandy with shell fragments
1440-1460	No sample
1460-1560	Sand and gravel, arkosic, minor red clay, traces of coal
1560-1570	Clay red and gray, firm, abundant sand and gravel
1570-1580	No sample
1580-1620	Gravel and sand
1620-1630	Coarse sand and gravel
1630-1640	No sample
1640-1800	Sand and gravel with minor clay
1800-1810	No sample
1810-1820	Pebble gravel, quartz with minor feldspar
1820-1840	No sample
1840-1880	Sand and gravel
1880-1890	Sand fine to coarse grained, subangular, abundant red-brown clay
1890-1900	No sample
1900-1980	Sand and gravel with abundant gray clay
1980-2000	No sample
2000-2160	Gravel and sand
2160-2177	No sample
2177-2200	Sand and gravel
2200-2245	No sample
2245-2250	Clay pink-white, sandy to gravelly, soft to firm

2250-2255

Pebble gravel, quartz and feldspar, with abundant red and white clay.

GEOLOGIC SUMMARY

Pleistocene	Columbia Gp.	Surface-20'
Miocene	Chesapeake Gp.	20-620
Eocene	Chickahominy Fm.	620-940
Paleo-Cret	Mattaponi Fm.	940-1380 (?)
Cretaceous	Potomac Gp.	1380- ?

REMARKS

W. S. P. 1361 states that granite was encountered at 2246'. No granite was found in available samples. Samples to 1010 are filed under VDMR Well No. 0158, ones below 1010' are filed under VDMR Well No. 0159. There has apparently been a mix-up of samples in the past which probably accounts for the absence of the granite samples.

VIRGINIA DIVISION OF MINERAL RESOURCES
William Dudley, Geologist
September 1958

Prop: Fort Monroe

<u>Interval</u>	<u>Description</u>
0-20	PLEISTOCENE sand quartz, fine grained, subangular, argillaceous COLUMBIA GROUP
20-160	NEOGENE sand fine to coarse, argillaceous, abundant shell fragments, trace of coal CHESAPEAKE GROUP
160-180	shell marl with abundant sand, fine to coarse, subangular-rounded. Trace of glauconite
180-200	sand, very fine to fine grained, slightly glauconitic
200-220	shell marl with abundant sand, predominantly coarse grained, sub angular to rounded
220-240	sand, very fine to fine grained, argillaceous abundant shell fragments
240-250	shell bed with subordinate quartz. Trace coal
250-255	the sample envelop for this interval contained 5 large shell fragments; one large fragment of yellow quartz; one large fragment of sandstone, dark gray, glauconitic, pyritic and calcareous; one fragment sandstone, white, hard with white, calcareous clay cement; and one large fragment of sandstone, white, quartzitic, non calcareous with many fossil (?) impressions
255-300	sand medium grained, subangular, trace coal. With shell fragments
300-360	clay gray silty to sandy, slightly calcareous, micaceous with shell fragments
360-380	clay brown pink, sandy, soft, calcareous with shell fragment
380-400	clay, gray, hard, silty with large quartz pebbles
400-440	clay, tan, calcareous, soft, sandy, soft with shell fragments
440-480	clay brown, firm, slightly sandy. Minor red-brown clay
480-620	clay, brown, soft, sandy to gravelly, slightly calcareous with shell fragments
620-640	EOCENE sand very fine ranging to gravel, subangular, argillaceous, slightly glauconitic with shell fragments, foraminifera and abundant coal CHICKAHOMINY FM

Wells No. 158 and 159 (Cont'd)

640-940	clay dark brown to red, marly, soft, slightly glauconitic, sandy to very sandy, with shell fragments and foraminifera. Grades to clayey sand in part. Scattered traces of coal.
	PALEOCENE-UPPER CRETACEOUS
940-943	sand and gravel, very argillaceous, glauconitic
943-962	no sample
962-1000	sand as above with shell fragments. Traces coal and gray, dense limestone
1000-1020	sand and gravel, subangular, clean, arkosic, glauconitic with shell fragments and sharks teeth
1020-1140	no sample
1140-1150	sand, fine to coarse grained, subangular, glauconitic, abundant coal
1150-1166	no sample
1166-1180	sand and gravel, slightly glauconitic, arkosic
1180-1185	pebble gravel
1185-1190	no sample
1190-1200	sand and gravel, arkosic, slightly glauconitic
1200-1220	no sample
1220-1280	sand and gravel, slightly glauconitic, arkosic, minor gray clay at base.
1280-1300	no sample
1300-1340	sand and gravel, slightly glauconitic
1340-1380	no sample
	CRETACEOUS
1380-1385	sand and gravel with abundant clay
1385-1400	no sample
1400-1430	sand and gravel, slightly glauconitic
1430-1440	limestone, white to gray, hard, glauconitic, sandy with shell fragments
1440-1460	no sample

MATTAPONI FM

POTOMAC GROUP

Wells Nos. 158 and 159 (Cont'd)

1460-1560 sand and gravel, arkosic, minor red clay, traces of coal
1560-1570 clay red and gray, firm, abundant sand and gravel
1570-1580 no sample
1580-1620 gravel and sand
1620-1630 coarse sand and gravel
1630-1640 no sample
1640-1800 sand and gravel with minor clay
1800-1810 no sample
1810-1820 pebble gravel, quartz with minor feldspar
1820-1840 no sample
1840-1880 sand and gravel
1880-1890 sand fine to coarse grained, subangular, abundant red-brown clay
1890-1900 no sample
1900-1980 sand and gravel with abundant gray clay
1980-2000 no sample
2000-2160 gravel and sand
2160-2177 no sample
2177-2200 sand and gravel
2200-2245 no sample
2245-2250 clay pink-white, sandy to gravelly, soft to firm
2250-2255 pebble gravel, quartz and feldspar, with abundant red and white clay

SUMMARY

Pleistocene	Columbia Gp.	Surface - 20'
Miocene	Chesapeake Gp.	20- 620
Eocene	Chickahominy Fm.	620- 940
Paleo-Cret	Mattaponi Fm.	940- 1380 (?)
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