#### VIRGINIA DIVISION OF MINERAL RESOURCES Box 3667, Charlottesville, VA 22903

#### INTERVAL SHEET

Page 1 of 1

Well Repository No.: W- 2207

Date rec'd: 6/68 Date Processed:

Sample Interval: from 0 to: 50

PROPERTY: Southampton State Correctional

Number of samples: 11

COUNTY: Southampton (Capron)

Total Depth: 50

COMPANY: Froehling & Robertson

Oil or Gas: Water: Exploratory: X

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(142)

Well: SSCF (Southampton State Correctional Farm)

Property: State road right-of-way Driller: Froehling and Robertson

Location: 0.2 mile E of Rte. 308, and 2.0 miles N of Rte. 58

Elevation: 42 feet Total Depth: 50 feet

Started drilling: June 1968 Completed drilling: June 1968 Sample description by: R. H. Teifke, Virginia Division of Mineral Resources, November 7, 1968

#### GEOLOGIC LOG

#### Depth in feet

0-3 No Sample

COLUMBIA GROUP (3-18')

Sand — yellowish-brown, clean, 10% poorly rounded granule gravel; fine to very coarse, poorly sorted, angular to subangular; iron-stained; weathered feld-spar common in coarser grades; traces of

muscovite and epidote

5-8 No sample

8-10 Sand and Gravel — tan, clean; 35% fine
(2-10 mm) gravel comprised of quartz,
quartzitic and granitic rock fragments,
and a few feldspars; 65% medium to very
coarse, rather poorly sorted, angular

sand; slightly feldspathic

10-13 No sample

Sand — light-gray, clean, with 10% carbonized plant fragments, 5% fine (2-10 mm) gravel; fine to coarse, rather poorly

sorted; moderately feldspathic

15-18 No sample

YORKTOWN FORMATION (18-25')

18-20 Shell and Sand — light-gray, moderately

clayey, locally a calditic fossiliferous—sandstone; 40% shell material, mostly pelecypods, with a few bryozoans, gastropods, echinoid spines, and corals; 40% fine to medium, fairly well-sorted, angular to subangular quartz sand with minor amount of black shell fragments and traces of glauconite and garnet; foraminifers rare

20-23 No sample

23-25 Sand and Shell — dark greenish-gray, slightly clayey; 75% medium, fairly well-sorted, subangular to subrounded clear to green-

#### Depth in feet

tinted quartz, sand, with minor amount of black shell fragments; 20% peleoypod shells and shell fragments, and a few scaphopods and gastropods; a very few foraminifera

25-28

No sample

MATTAPONI FORMATION (25-39')

28-30

Sand — greenish-gray, slightly clayey, a
few small pebbles and phorphonite nodules,
10% pelocypod shells and a few scaphopods;
fine, well-sorted, angular; clear and
green-tinted quartz, with 5-10% combined
fragmental glauconite and phosphorite, and
minor magnetite; foraminifera and
echinoid spines rate

30-33

33-35

No sample

Sand — dark-greenish-gray, a few decomposed pelecypod shells; fine, well-sorted, augentical clear and green-tinted quartz, with 5-10% combined fragmental glauconite and phorphorite, and minor magnetite; foraminifera and edinoid spines rare

35-38

No sample

TRANS. BEDS (37-39')

38-39

Sand — dark grayish-green, slightly clayey,
35% glauconite-pigmented quartzo-feldspathic coarse sand grading into granule
gravel, and a few small, rounded pebbles
up to 10 mm; 70% fine, well-sorted,
angular sand composed of clear and greenish quartz with 10% glauconite; phosphorite
fragments and pellets common; minor
garnet and coarse muscovite

PATUXENT FORMATION (39-40')

39-40

Sand — tan, very slightly clayey, trace of granule gravel; medium to coarse, moderately sorted; subangular to subrounded; abundant intensely decomposed (yellowish) feldspar; coarse muscovite common; minor glauconite in fine fraction

40-43

No sample

PATUXENT FORMATION (43-50')

43-45

Sand — tan, trace of clay; coarse to very coarse, well-sorted, subangular to sub-rounded; moderately feldspathic; coarse muscovite common

45-48

48-50

No sample
Sand — gray, slightly clayey; coarse, fairly
well-sorted, subangular; moderately feldspathic, abundant coarse muscovite

#### GEOLOGIC SUMMARY

	ROCK UNIT	Age	
0-3	No sample		
3-15	Columbia Group	Pleistocene	
15-18	No sample		
18-25	Yorktown Formation	Late Miocene	
25-28	No sample		
28-39	MaHaponi Formation	Paleocene -	
39-40	Tuscaloosa or Patuxent Formations	Late Crefaceous or	
40-43	No sample	Early Crefaceous	
43-50	Patuxent Formation	Early Cretaceous	
	IV Market		

Mattaponi

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cretaceous

OWNER: St. Road Rt-Of-Way DRILLER: Froehling & Robertson COUNTY: Sussex (Homeville)

W # 2207

TOTAL DEPTH - 140' QUAD. - Littleton

DEPTH (FEET)	WELL LOG
0-3	No sample.
3-5	Sand - light brown (5YR 5/6); moderate clay; very fine to very coarse with some granules, subangular, moderate sorting; mica.
5-8	No sample.
8-10	Sand - grayish orange (10YR 7/4); medium, subangular well sorted; mica 8% very fine phosphatic fragments.
10-13	No sample.
13-15	Sand - dark yellowish orange (10YR 6/6); moderate clay; very fine to medium, subangular; moderately well sorted; 3% weathered glauconite; echinoderm spines; mica; color banding in clay; graphite.
15-18	No sample.
18-20	Sand - pinkish gray (5YR 8/1); medium, subangular, well sorted; 3% very fine phosphatic fragments; biotite; muscovite; feldspar.
20-23	No sample.
23-25	Sand - pinkish gray (5YR 8/1); coarse, subangular, well sorted; 5% fine phosphate and weathered glauco- nite fragments; rose, smokey and amethyst quartz.
25-28	No samples.
28-30	Sand - yellowish gray (5Y 7/2); very fine to granule, subangular, poorly sorted; 5% phosphatic material; rose, smokey quartz; flat iron oxide fragments.
30-33	No sample.
33-40	Gravel - dark orange pink (5YR 8/4); sparse clay; fine to granule, angular to subrounded, poor sorting; rose and smokey quartz.
40-43	No sample.
43-45	Sand, Shelly - light and dark gray; 50% shell fragments; fine to coarse, subangular, moderate sorting; 35% glauconite; shell fragments - weathered; Mulinia; barnacles: Mucinid overters, postors, bayears

barnacles; Lucinid, oysters, pectens, bryozoa.

DEPTH (FEET)		WELL LOG
45-48	No sample	•
48-65	Coquina,	Broken - light and dark gray; fine to coarse, subangular and subrounded, moderately sorted; 70%+ shell fragments - many with calcium carbonate crystalization on surfaces; some weathered and reworked; echinoiderm spines and plates; bryozoa; coral at 53-55'; ostracods at 63-65'; phosphate fragments at 63-65'.
65-68	No sample	•
68-70	Sand -	light olive gray (5Y 6/1); fine to coarse, sub- angular, moderate sorting; 3% fine phosphate fragments; 25% shell fragments; echinoiderms; echinoderm spines; bryozoa.
70-73	No sample	•
73-75	Sand -	light olive gray (5Y 6/1); medium, subangular, well sorted; 10% fine phosphatic fragments/glauconite; 8% fine shell fragments; forams — Nonion, Textularia, Robulus, Eponides; ostracods; shark tooth; 5% mica.
75-88	No sample	•
88-95	Sand -	olive gray (5Y 4/1); moderate clay; fine to coarse, subangular, moderate sorting; 10% fine glauconite; 20% forams — Nonion ssp., Eponides, Pyrulina; diatoms - reworked?; ostracods; bone fragments; 10% shell fragments 93-95'; 10% mica.
95-98	No sample	
98-100	Sand -	olive gray (5Y 4/1); sparse clay; fine to coarse, subangular, moderate sorting; 3% glauconite; 15% shell fragments; 8% forams — as at 88-95'; ostracods; diatoms — reworked?; bone fragments; mica.
100-103	No sample	S.
103-120	Sand -	light and dark gray; fine and medium, subangular, well sorted; glauconite — 30% at 103-110', 15% at 113-115', 35% at 118-120' very sparse clay at 103-110'; 3% shell fragments at 103-105'; forams; phosphate fragments at 113-120'; mica at 103-115'.

Logged By:

J. K. Polzin March 1981

### INTERVAL SHEET

Page 1 of 1

VDMR Well No: 2207

Date rec'd: 6/68

Sample Interval: from 0 to: 50

Number of samples: 11

PROP: State road right-of-way

Total Depth: 50

COMP: Froehling and Robertson

Oil or Gas: Water: Exploratory: X

UNTY: Southa	mpton (Capron) Drewryville Quad.		Oil or Gas: Water:	Exploratory:
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2 2000	28 - 30 33 - 35 38 - 40 (top) 38 - 40 (bottom) 43 - 45		28 - 30 33 - 35 38 - 40 (top) 38 - 40 (bottom) 43 - 45	
	48 - 50 53 - 55 no sample; u	voter.	48 - 50	
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#### INTERVAL SHEET

Page | of |

Date rec'd: 6/68

PROP:

FROP: SOUTHAMPTON STATE

CORRECTIONAL FARM

COMP:

COMP: FROEHLING & ROBERTSON COUNTY: SOUTHAMPTON (CAPRON)

COUNTY

FROM:

TO:

VDMR **WELL: NO. 2207...** 

Sample Interval: from

to: 50

Number of samples: ||

Total Depth: 50

Oil or Gas: Water: Exploratory

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Well:

SSCF (Southampton State Correctional Farm)

Property:

State road right-of-way Froehling and Robertson

THE REPORT OF THE PROPERTY OF

Driller: Location:

0.2 mile E of Rte. 735, and 2.0 miles N of Rte. 58  $\,$ 

Elevation:

42 feet

Total Depth:

50 feet

Started drilling: June 1968

Completed drilling: June 1968

Sample description by: R. H. Teifke, Virginia Division of Mineral

Resources, November 7, 1968

#### GEOLOGIC LOG

#### Depth in feet

0 - 3

No Sample

COLUMBIA GROUP (3-18')

3-5

Sand — yellowish-brown, clean, 10% poorly rounded granule gravel; fine to very coarse, poorly sorted, angular to subangular; iron-stained; weathered feld-spar common in coarser grades; traces of

muscovite and epidote

5-8

No sample

8-10

Sand and Gravel — tan, clean; 35% fine (2-10 mm) gravel comprised of quartz, quartzitic and granitic rock fragments, and a few feldspars; 65% medium to very coarse, rather poorly sorted, angular

sand; slightly feldspathic

10-13

13-15

No sample
Sand — light-gray, clean, with 10% carbonized plant fragments, 5% fine (2-10 mm)
gravel; fine to coarse, rather poorly
sorted; moderately feldspathic

15-18 No sample

YORKTOWN FORMATION (18-25')

18-20

Shell and Sand — light-gray, moderately clayey, locally a calcitic fossiliferous sandstone; 40% shell material, mostly pelecypods, with a few bryozoans, gastropods, echinoid spines, and corals; 40% fine to medium, fairly well-sorted, angular to subangular quartz sand with minor amount of black shell fragments and traces of glauconite and garnet; foraminifers rare

20-23

23-25

No sample
Sand and Shell — dark greenish-gray, slightly clayey; 75% medium, fairly well-sorted,

subangular to subrounded clear to green-

#### Depth in feet

tinted quartz, sand, with minor amount of black shell fragments; 20% peleoypod shells and shell fragments, and a few scaphopods and gastropods; a very few foraminifera

25-28 No sample

MATTAPONI FORMATION (25-39')

Sand — greenish-gray, slightly clayey, a
few small pebbles and phosphonite nodules,
low pelecypod shells and a few scaphopods;
fine, well-sorted, angular; clear and
green-tinted quartz, with 5-low combined
fragmental glauconite and phosphorite, and
minor magnetite; foraminifera and

echinoid spines rare

30-33 No sample

33-35

Sand — dark-greenish-gray, a few decomposed pelecypod shells; fine, well-sorted, angular; clear and green-tinted quartz, with 5-10% combined fragmental glauconite and phorphorite, and minor magnetite; for-

aminifera and edinoid spines rare

35-38 No sample

TRANS. BEDS (37-39')

38-39

Sand — dark grayish-green, slightly clayey, 35% glauconite-pigmented quartzo-feld-spathic coarse sand grading into granule gravel, and a few small, rounded pebbles up to 10 mm; 70% fine, well-sorted, angular sand composed of clear and greenish quartz with 10% glauconite; phosphorite fragments and pellets common; minor garnet and coarse muscovite

PATUXENT FORMATION (39-40')

39-40

Sand — tan, very slightly clayey, trace of granule gravel; medium to coarse, moderately sorted; subangular to subrounded; abundant intensely decomposed (yellowish) feldspar; coarse muscovite common; minor glauconite in fine fraction

40-43 No sample

PATUXENT FORMATION (43-50')

43-45 Sand — tan, trace of clay; coarse to very coarse, well-sorted, subangular to subrounded; moderately feldspathic; coarse

muscovite common

45-48 No sample

48-50 Sand — gray, slightly clayey; coarse, fairly well-sorted, subangular; moderately feld-

spathic, abundant coarse muscovite

### GEOLOGIC SUMMARY

	Rock Unit	Age
0-3	No sample	
3-15	Columbia Group	Pleistocene
15-18	No sample	
18-25	Yorktown Formation	Late Miocene
25-28	No sample	
28-39	Mattaponi Formation	Paleccene
39-40	Tuscaloosa or Patuxent Formations	Late Cretaceous or
40-43	No sample	Early Cretaceous
43-50	Patuxent Formation	Early Cretaceous

County: SUSSEX VDMR Well # 2207

Property: State of Virginia, Highway right-a-way
Driller: Froehling and Robertson
Location: Littleton 7.5' Quadrangle; 0.5 mile south of junction of
State Highway 40 and State Road 665; east side of road.

Elevation: 100' Total Depth: 120'

Started drilling: June, 1968 Started drilling: June, 1968 Finished drilling: June, 1968 Sample description by: J. K. Polzin, Virginia Division of Mineral Resources

GEOLOGIC SUMMARY

OWNER: St. Road Rt-Of-Way DRILLER: Froehling & Robertson COUNTY: Sussex (Homeville)

ehling & Robertson TOTAL DEPTH - 140' ex (Homeville) QUAD. - Littleton

W # 2207

DEPTH (FEET)		WELL LOG
0-3	No sample	
3-5	Sand -	light brown (5YR 5/6); moderate clay; very fine to very coarse with some granules, subangular, moderate sorting; mica.
5-8	No sample.	
8-10		grayish orange (10YR 7/4); medium, subangular well sorted; mica 8% very fine phosphatic fragments.
10-13	No sample.	and the first of the control of the second o
13-15		dark yellowish orange (10YR 6/6); moderate clay; very fine to medium, subangular; moderately well sorted; 3% weathered glauconite; echinoderm spines; mica; color banding in clay; graphite.
15-18	No sample.	
18-20	,	pinkish gray (5YR 8/1); medium, subangular, well sorted; 3% very fine phosphatic fragments; biotite; muscovite; feldspar.
20-23	No sample.	
23-25		pinkish gray (5YR 8/1); coarse, subangular, well sorted; 5% fine phosphate and weathered glauco-nite fragments; rose, smokey and amethyst quartz.
25-28	No samples	
28-30		yellowish gray (5Y 7/2); very fine to granule, subangular, poorly sorted; 5% phosphatic material; rose, smokey quartz; flat iron oxide fragments.
30-33	No sample.	
33-40	÷ .	dark orange pink (5YR 8/4); sparse clay; fine to granule, angular to subrounded, poor sorting; rose and smokey quartz.
40-43	No sample.	
43-45		ly - light and dark gray; 50% shell fragments; fine to coarse, subangular, moderate sorting; 35% glauconite; shell fragments - weathered; Mulinia; barnacles: Lucinid, oysters, pectens, bryozoa

barnacles; Lucinid, oysters, pectens, bryozoa.

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#### WELL LOG

45-48 No sample.

Coquina, Broken - light and dark gray; fine to coarse, subangular and subrounded, moderately sorted;

70%+ shell fragments - many with calcium carbonate crystalization on surfaces; some weathered and reworked; echinoiderm spines and plates; bryozoa; coral at 53-55'; ostracods at 63-65; phosphate fragments at 63-65'.

65-68 No sample.

Sand - light olive gray (5Y 6/1); fine to coarse, subangular, moderate sorting; 3% fine phosphate fragments; 25% shell fragments; echinoiderms; echinoderm spines; bryozoa.

70-73 No sample.

73-75 Sand - light olive gray (5Y 6/1); medium, subangular, well sorted; 10% fine phosphatic fragments/ glauconite; 8% fine shell fragments; forams - Nonion, Textularia, Robulus, Eponides; ostracods; shark tooth; 5% mica.

75-88 No sample.

Sand - olive gray (5Y 4/1); moderate clay; fine to coarse, subangular, moderate sorting; 10% fine glauconite; 20% forams - Nonion ssp., Eponides, Pyrulina; diatoms - reworked?; ostracods; bone fragments; 10% shell fragments 93-95'; 10% mica.

95-98 No sample.

98-100 Sand - olive gray (5Y 4/1); sparse clay; fine to coarse, subangular, moderate sorting; 3% glauconite; 15% shell fragments; 8% forams - as at 88-95'; ostracods; diatoms - reworked?; bone fragments; mica.

100-103 No samples.

103-120 Sand - light and dark gray; fine and medium, subangular, well sorted; glauconite — 30% at 103-110', 15% at 113-115', 35% at 118-120' very sparse clay at 103-110'; 3% shell fragments at 103-105'; forams; phosphate fragments at 113-120'; mica at 103-115'.

## Logged By:

J. K. Polzin March 1981

vouse well No. 2207

Well : SSCF (Southampton State Correctional Form)

Property : State rood right of - way

Dritter : Freehling and Robertson

Location : 0.2 unla E of Rie 308, and 2.0 wikes N of Rie 58

Elevation : 42 feet

Tatal Depth: 50 feet

Storted drilling: June 1968 : Completed drilling: June 1968

Sample description by i B. H. Teifke , Virginia Division of

Mineral Resources, November 7, 1968.

## GEOLOGIC SUMMARY

	Rock Writ	Age
0-15	Columbia Group	Pleistocene
15-18	No suple	
18-29	Yorkhown Formolien	Lote Hiosene
25 - ES	No sample	
28 - 39	Motteponi Formation.	Palageene
19-50	Petusent Formation	Early Creforeous

# GEOLOGIC LOG

Depth in feat

- COLUMBIA GROWP (83-15')

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rounded grenule growth; fine to very coarse , poorly sorted, angular to real augular; wenthered feld
spor common in warrer grades; troces

of muscovete and spidete.

5-8 No sample

8-10 Send and Bravel - tan, clean; 35 %.

fine (2-10 mm) gravel compared of grants,

a few feldeposes; 65 % medium to very

soul i slightly felds pathic

10-13 He sample

18-15 Land - light- zery, clear, with 10%

(2-10 mm) gravel ; fine to course, rather poorly world; moderately feldspathies

15-18 No semple

YORKTOWN FORMATION (18-25')

18-20 Abill and Sweet Telephone Gray andwately 2000 1000 My a coloite Hissinfrond Syndropode gale - colonge 12 to thele material, mostly pele - cupodes, with a few bujogoods, schinoid againes and cocales; 30% fail to medium, fairly well

sorted, angular to sulmigular quarty soul with inner amount of black abill fragments and traces of glamorate and games; for animples sall No sample stand and shell - dash quench gray, elightly subsugular to subscounded eleas to green texted quarte saul, with more amount of black shell frogment ; 20% pelesypod shells and shell fragments, and a few reaphopods and gastropods; a very few No sapple MATTAPONI FORMATION (28-39) Soul - greenshinging, slightly clayey, a 10% peleggod shells is fine, well-sorted angular ; clear and green truled greats ; and shoeshortle and more magnetite. no rample. Stand - Lack grund gray , a few decomposed pelicypod shelled; fine, well-world, organ lose; clear and green - tented greenty , with 5-10% combined fragmental glance mite and phosphoreter, and menor maynetater; formunifus and edunoid spines no sample

Hard - dark groupeh - june, slightly clayers, spatrus growned grand grading hito fellsmall, winded problem up to 90 mm; 70% fine MIMINAM, well-sorted, angular sand composed of elear and greensh generaly with 10% glancoute; phosphorile fragmenter and pellets common; minor games and course numeroute num Either Upper Cretacous FUSCALOOSI OF PATULENT FORMATION (39-40') sand - tax , very slightly clayer, here of granule gravel; median to course, moderately sorted; subscriber to subscribed; alundant internity decemposed (yellowich) feldepar; course mucovite common; minor glaceonets in fine fraction No sample PATUXENT FORMATION (43-50') Sand - tan, trace of clay; course to my crace, well- sorted - suborquier to subrounded : moderately feldigathie ; We sample 48-50 Sand - gray, slightly clayey; coarse, fairly peldspether, abundant course moreowites

## GEOLOGIC SUMMARY

190 Rock Unit ab eaugle 013 Pleistoceue Columbia Group 8-15 No semple Yorktown Formation Late Miscene 18-25 No sample 25 - 28 Mattapani Formations
Patuxent Formations Paleoceus in Early Commons 28 - 39 39 - 40 40 - 43 439 - 50 Early Cretaceoux Columbia Gp Julkton Fin My Haponi Fm. 26 = 39 34-45

39-50 Pataxent Fin