		INTERVAL S	SHEET	WWCR 148
Jage 1		VDMR	WELL NO .: Well No.	1178
Date11/6/64		Samp	le Interval: from	0 to 178
PROP: South Plai	ns, Inc.	Total Depth <u>178</u> Oil <u>Gas</u> Water <u>X</u> Exploratory		
COMP: Mitchell'	s Well & Pump Co.			
COUNTY: Prince	George (Petersburg)	Cutt	ings <u>X</u> Core	_Other
Enom-To	Erom-To	Erom-To	Enom-To	Erom-To
From-10	From-10	From-10	FTOM-10	FION-10
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	50 - 60	_		-
	70 - 80			_
	80 - 90	<u> </u>		_
-	90 - 100		-	-
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	100 - 110			
	110 - 120	<u>.</u>		-
	120 - 130		-	· · · · · · · · · · · ·
	130 - 140	-	-	-
	140 - 150		-	-
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	160 - 170		-	5
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OWNER: South Plains, Inc. DRILLER: Mitchell's Well & Pump Company COUNTY: Prince George (Petersburg) VDMR #1178 WWCR #148 TOTAL DEPTH: 178'

GEOLOGIC LOG

0-10	Clay - yellow, sandy to silty, abundant, very fine-grained sand and coarse silt, ferruginous.
10-20	Sand - buff, very fine to fine grained, well sorted, angular to subangular, slightly to moderately argillaceous, slightly micaceous (muscovite), moderately arkosic, very small amount of garnet and epidote.
20-30	Sand - buff, fine to medium grained, fairly well sorted, subangular, slightly to moderately argillaceous, slightly micaceous (muscovite), moderately arkosic, very small amount epidote, trace of biotite.
30-40	Sand - buff, very fine to medium grained, fairly well sorted, subangular to subrounded, slightly to moderately argillaceous, slightly micaceous (muscovite and a little biotite), moderately arkosic, very small amount epidote, trace kyanite.
40-50	Clay - grey, very slightly sandy, shell material, very abundant (pelecypods and gastropods).
50-60	As above - more sandy.
60-70	Sand - grey, fine to medium grained, very well sorted, subangular, argillaceous, trace of epidote, shell material extremely abundant (pelecypods, gastropods, scaphopods, oysters, echinoid spines, abundant chitino-phosphotic material).
70-80	Sand - grey, fine to medium grained, very well sorted, subangular, argillaceous, slightly ferruginous, shell material extremely abundant (pelecypods, gastropods, scaphopods, worm borings, echinoid spines, foraminifera, abundant chitino-phosphotic material).
80-90	Sand - grey, fine to medium grained, fairly well sorted, subangular, argillaceous, very slightly ferruginous, shell material extremely abundant, (pelecypods, gastropods,

OWNER: South Plains, Inc. (Continued)

90-100 Sand - dark grey, fine grained, very well sorted, angular to subangular, slightly argillaceous, small amount shell material.

- 100-110 Sand grey, very fine grained, very well sorted, subangular, very argillaceous, very small amount shell material, fairly abundant nodular and laminated phosphate.
- 110-120 Clay greenish grey, small amount granules and poorly sorted sand, small amount phosphate.
- 120-130 Sand greenish grey, very fine grained, very well sorted, very argillaceous.
- 130-140 Sand light grey, coarse to very coarse grained, angular to subangular, fairly well sorted, slightly silty, argillaceous, glauconitic, moderately arkosic, (mostly green microcline), trace of epidote and garnet.
- 140-150 Sand grey, poorly sorted, subangular to subrounded, abundant granules, moderately argillaceous, slightly glauconitic, small amounts garnet, phosphate, epidote and pyrite, moderately arkosic (abundant greenish microcline).
- 150-160 Clay greenish grey, sandy (coarse grained, poorly sorted, moderately arkosic), small amount of small gravel, abundant pyrite and garnet, trace of shell material.
- 160-170 Clay greenish grey, sandy (sand is arkosic, slightly micaceous), ferruginous.
- 170-178 Sand light grey, coarse to very coarse grained, well sorted, subangular to subrounded, very slightly argillaceous, slightly ferruginous, moderately arkosic, small amount of garnet, epidote, and shell material.

GEOLOGIC SUMMARY

ROCK UNIT

AGE

Potomac group

Lower Cretaceous

Virginia Division of Mineral Resources Robert H. Teifke, Geologist November 17, 1964 OWNER: South Plains, Inc. DRILLER: Mitchell's Well & Pump Company COUNTY: Prince George (Petersburg) VDMR #1178 WWCR #148 TOTAL DEPTH: 178'

GEOLOGIC LOG

0-10	Clay - yellow, sandy to silty; abundant, very fine-grained sand and coarse silt; ferruginous.	
10-20	 Sand - buff, very fine to fine grained, well sorted, angular to subangular, slightly to moderately argillaceous, slightly micaceous (muscovite), moderately arkosic, very small amount of gårnet and epidote.	
20-30	Sand - buff, fine to medium grained, fairly well sorted, subangular, slightly to moderately argillaceous, slightly micaceous (muscovite), moderately arkosic, very small amount epidote, trace of biotite.	
30-40	Sand - buff, very fine to medium grained, fairly well sorted, subangular to subrounded, slightly to moderately argillaceous, slightly micaceous (muscovite and a little biotite), moderately arkosic, very small amount epidote, trace kyanite.	
40-50	Clay - grey, very slightly sandy, shell material, very abundant (pelecypods and gastropods).	
50-60	As above - more sandy.	
60-70	Sand - grey, fine to medium grained, very well sorted, subangular, argillaceous, trace of epidote, shell material extremely abundant (pelecypods, gastropods, scaphopods, oysters, echinoid spines, abundant chitino-phosphotic material).	
70-80	Sand - grey, fine to medium grained, very well sorted, subangular, argillaceous, slightly ferruginous, shell material extremely abundant (pelecypods, gastropods, scaphopods, worm borings, echinoid spines, foraminifera, abundant chitino-phosphotic material).	
80-90	Sand - grey, fine to medium grained, fairly well sorted, subangular, argillaceous, very slightly ferruginous, shell material extremely abundant, (pelecypods, gastropods, scaphopods, echinoid spines, worm borings, foraminifera, abundant chitino-phosphotic shell material).	

OWNER: South Plains, Inc. (Continued)

90-100

Sand - dark grey, fine grained, very well sorted, angular to subangular, slightly argillaceous, small amount shell material.

100-110 Sand - grey, very fine grained, very well sorted, subangular, very argillaceous, very small amount shell material, fairly abundant nodular and laminated phosphate.

110-120 Clay - greenish grey, small amount granules and poorly sorted sand, small amount phosphate.

120-130

Sand - greenish grey, very fine grained, very well sorted, very argillaceous.

130-140

135 ~~~~~

120 ~~~

140-150

glauconitic, moderately arkosic, (mostly green microcline), trace of epidote and garnet. Sand - grey, poorly sorted, subangular to subrounded, abundant granules, moderately argillaceous, slightly glauconitic, small

Sand - light grey, coarse to very coarse grained, angular to subangular, fairly well sorted, slightly silty, argillaceous,

150-160

Clay - greenish grey, sandy (coarse grained, poorly sorted, moderately arkosic), small amount of small gravel, abundant pyrite and garnet, trace of shell material.

amounts garnet, phosphate, epidote and pyrite, moderately

Clay - greenish grey, sandy (sand is arkosic, slightly micaceous), ferruginous.

arkosic (abundant greenish microcline).

170-178

160-170

Sand - light grey, coarse to very coarse grained, well sorted, subangular to subrounded, very slightly argillaceous, slightly ferruginous, moderately arkosic, small amount of garnet, epidote, and shell material.

GEOLOGIC SUMMARY

ROCK UNIT

Popopad group

AGE

Lower Cretaceous

Virginia Division of Mineral Resources Robert H. Teifke, Geologist November 17, 1964