

Sheet No. 1

PROP: V. R. SHEPHERD  
COMP: O. C. BRENNEMAN  
COUNTY: HENRICO  
VDMR WELL NO: 0178  
FROM: TO:

VDMR WELL NO. 0178 (85)

Sample Interval 90-236

Total Depth 268

Oil \_\_\_ Gas \_\_\_ Water  Exploratory \_\_\_

Cuttings  Core \_\_\_ Other \_\_\_

See Water Supply Paper 1361  
pp. 69 + 73

From-To	From-To	From-To <u>WASHED SAMPLES</u>	From-To	From-To
90 -	233 -		-	-
100 -	236 -	90 -	-	-
110 -	-	100 -	-	-
115 -	-	110 -	-	-
120 -	-	115 -	-	-
132 -	-	120 -	-	-
140 -	-	132 -	-	-
148 -	-	140 -	-	-
154 -	-	148 -	-	-
162 -	-	154 -	-	-
175 -	-	162 -	-	-
180 -	-	175 -	-	-
190 -	-	180 -	-	-
196 -	-	190 -	-	-
202 -	-	202 -	-	-
207 -	-	212 -	-	-
212 -	-	217 -	-	-
217 -	-	222 -	-	-
222 -	-	236 -	-	-

OWNER: V. R. Shepherd  
DRILLER: O. C. Brenneman  
COUNTY: Henrico Co.

VDMR # 0178  
WWCR # 85  
Depth: 268'  
Elev: 155'

SAMPLE EXAMINATION  
(washed)

	MIOCENE	CHESAPEAKE GP.
78-100	Clay, tan, soft, sandy, slightly glauconitic	
100-110	Sand, quartz, fine to medium grained, angular, partly cemented with tan clay	
	EOCENE	NANJEMOY FM.
110-175	Clay, brown, marly, glauconitic, sandy, with abundant shell fragments	
175-190	Clay, red pink, mottled with gray, firm, glauconitic with shell fragments	
	EOCENE	AQUIA FM
190-212	Clay, gray brown, glauconitic, micaceous, soft with abundant shell fragments	
212-223	Sand, predominantly glauconite, with sand, clay and shell fragments	
223-230	Clay, gray brown, glauconitic, soft with shell fragments	
230-236	Sand, quartz, medium to coarse grained, abundant clay and green quartz.	

GEOLOGIC SUMMARY

Pleistocene	Colombia Gp.	Surface - 78'
Miocene	Chesapeake Gp.	78 - 110'
Eocene	Pamunkey Gp. (Nanjemoy)	110 - 190'
	(Aquia)	190 - T. D.

Tops from W.S.P. 1361

VIRGINIA DIVISION OF MINERAL RESOURCES  
WILLIAM DUDLEY, GEOLOGIST  
September 1958

Owner: V. R. Shepherd  
Driller: O. C. Brenneman  
County: Henrico

W# 178  
C# 85  
Total Depth: 236'  
Quad.: Quinton

Depth  
(feet)

GEOLOGIC LOG

- 0-90 No sample.
- 90 Sand - olive light gray; moderate clay; slightly silty; very fine to medium grained, some coarse grains; subangular to subrounded; poorly sorted; quartz; some muscovite; some black phosphatic material; few grains of glauconite; feldspar.
- 100 As above plus few granules; some glauconite.
- 110 Sand - light olive gray; slightly clayey; medium to coarse grained, some fine grains, some granules; subangular to rounded; moderately sorted; quartz; 10% glauconite (black, green); 3% black phosphatic material.
- 115 Sand - light olive gray; slightly clayey; medium grained, some coarse grains; subangular to rounded; moderately well sorted; quartz; 30% glauconite (black, green); 3% shell fragments; 2% black phosphatic material; forams common (inc. Robulus, Buccella, Cibicides, and Discorbis?); ostracodes.
- 120 Sand - light olive gray; slightly clayey; coarse to very coarse grained, some medium grains, 10% granules; subrounded; moderately sorted; quartz; 10% shell fragments; 7% black phosphatic material; 5% glauconite; some garnet; forams (inc. Robulus, Buccella, and Quinqueloculina; few spines; ostracode.
- 132 As above except 15% shell fragments; 15% glauconite; no Quinqueloculina.
- 140 Sand - olive light gray; slightly clayey; medium to very coarse grained, 15% granules; subrounded to rounded; moderately sorted; quartz; 40% glauconite; 10% shell fragments; some black phosphatic material; few spines.
- 148 Sand - olive light gray; moderate clay; medium grained, some granules; subangular to rounded; moderately well sorted; 65% glauconite; quartz; 15% shell fragments; muscovite; bone fragments.
- 154 Clay - olive light gray; abundant sand; medium to coarse grained; subangular to rounded; moderately well sorted; 50% glauconite; 30% shell fragments; quartz; 2% muscovite; some black phosphatic material; few spines; forams scarce (inc. Robulus and Nodosaria); ostracode.

Depth  
(feet)

- 162 Sand - olive light gray; moderate clay; medium grained, some coarse grains, some granules; rounded; moderately well sorted; 75% glauconite; 15% shell fragments; quartz; muscovite; shark's tooth.
- 175 As above except 85% glauconite; 10% shell fragments, no sharks tooth.
- 180 Clay - moderate orange pink; moderate sand; medium to coarse grained; some fine grains, few granules; subangular to rounded; moderately sorted; quartz; glauconite 40% of sand sized fraction; 5% shell fragments; 2% black phosphatic material; some muscovite; forams rare (inc. Buccella); shark's tooth.
- 190 Clay - moderate orange pink, light olive brown; abundant sand; medium to coarse grained; subrounded to rounded; moderately well sorted; glauconite 65% of sand sized fraction; quartz; 15% shell fragments; ostracodes common; forams (inc. Cibicides and Buccella).
- 196 Sand - olive light gray; abundant clay - olive light gray, moderate orange pink; medium to coarse grained; subrounded to rounded; moderately well sorted; 75% glauconite; quartz; 10% shell fragments; muscovite (unwashed sample only).
- 202 Sand - olive light gray; abundant clay - olive light gray, moderate orange pink; fine to medium grained, some coarse grains; subangular to rounded; moderately well sorted; 50% glauconite; quartz; 20% shell fragments; forams abundant (inc. Robulus, Nodosaria, and Buccella); some muscovite; few black phosphatic fragments inc. fish tooth; ostracodes.
- 207 As above except forams (inc. Robulus and Nodosaria); no fish tooth, (unwashed sample only).
- 212 As above except 10% shell fragments.
- 217 Sand - dark olive gray; slightly clayey; medium grained; rounded; well sorted; 90% glauconite; quartz; 5% shell fragments; ostracode.
- 222 Sand - olive light gray; slightly clayey; fine to medium grained; subangular to rounded; moderately well sorted; 50% glauconite; quartz; 25% shell fragments; muscovite.
- 223 Sand - light olive gray; abundant clay; medium grained; subangular to subrounded; well sorted; 55% glauconite; quartz; 15% shell fragments; muscovite; forams rare (inc. Robulus). (unwashed sample only).
- 236 Sand - light olive gray; slightly clayey; medium to very coarse grained, some granules; subrounded to rounded; moderately sorted; quartz; 35% glauconite; 7% shell fragments; some feldspar; some garnet; forams rare (inc. Buccella).

VDMR Well No. 0178

Henrico Co.

Prop: V. R. Shepherd

Contractor: O. C. Brenneman

<u>Interval</u>	<u>Description</u>
78-100	MIocene clay, tan, soft, sandy, slightly glauconitic CHESAPEAKE GP.
100-110	sand, quartz, fine to medium grained, angular, partly cemented with tan clay
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175-190	clay, red pink, mottled with gray, firm, glauconitic with shell fragments
190-212	EOCENE clay, gray brown, glauconitic, micaceous, soft with abundant shell fragments AQUIA FM
212-223	sand, predominantly glauconite with sand, clay and shell fragments
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	(Aquia)	190- T. D.

Tops from W.S.P. 1361