

INTERVAL SHEET

WWCR 317

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VDMR WELL NO.: Well No. 1137

Date 9/18/64

Sample Interval: from 0 to 530

PROP: Shenandoah National Park
(Rockfish Gap #1)

Total Depth 535

COMP: Martin Drilling

Oil Gas Water X Exploratory

COUNTY: Augusta (Waynesboro)

Cuttings X Core Other

VDMR WELL NO: W-1137

Washed samples

From-To	From-To	From-To	From-To	From-To
-	0 - 5	150 - 155	300 - 305	450 - 455
-	5 - 10	155 - 160	305 - 310	455 - 460
-	10 - 15	160 - 165	310 - 315	460 - 465
-	15 - 20	165 - 170	315 - 320	465 - 470
-	20 - 25	170 - 175	320 - 325	470 - 475
-	25 - 30	175 - 180	325 - 330 *	475 - 480
-	30 - 35	180 - 185	330 - 335	480 - 485
-	35 - 40	185 - 190	335 - 340	485 - 490
-	40 - 45	190 - 195	340 - 345	490 - 495
-	45 - 50	195 - 200	345 - 350	495 - 500
-	50 - 55	200 - 205	350 - 355	500 - 505
-	55 - 60	205 - 210	355 - 360	505 - 510
-	60 - 65	210 - 215	360 - 365	510 - 515
-	65 - 70	215 - 220	365 - 370	515 - 520
-	70 - 75	220 - 225	370 - 375	520 - 525
-	75 - 80	225 - 230	375 - 380	525 - 530
-	80 - 85	230 - 235	380 - 385	530 - 535 *
-	85 - 90	235 - 240	385 - 390	-
-	90 - 95	240 - 245	390 - 395	-
-	95 - 100	245 - 250	395 - 400	-
-	100 - 105	250 - 255	400 - 405	-
-	105 - 110	255 - 260	405 - 410	-
-	110 - 115	260 - 265	410 - 415	-
-	115 - 120	265 - 270	415 - 420	-
-	120 - 125	270 - 275	420 - 425	-
-	125 - 130	275 - 280	425 - 430	-
-	130 - 135	280 - 285	430 - 435	-
-	135 - 140	285 - 290	435 - 440	-
-	140 - 145	290 - 295	440 - 445	-
-	145 - 150	295 - 300	445 - 450	-

* No sample

OWNER: National Park Service (Shenandoah
National Park - Rockfish Gap, well No. 1)
DRILLER: Frank W. Martin Drilling Company
COUNTY: Augusta (Waynesboro)

VDMR: 1137
WWCR: 317
TOTAL DEPTH: 535'

GEOLOGIC LOG

0 - 5	Weathered zone — quartz-biotite schist, black phyllite, biotite, quartz, epidote.
5 - 10	As above.
10 - 15	As above.
15 - 20	Weathered zone — small pieces of arkose or quartzite, quartz, feldspar, epidote, biotite, chlorite.
20 - 25	As above.
25 - 30	As above.
30 - 35	As above.
35 - 40	Greenstone — greenish-blue, fine grain (X-ray analysis; 40% plagioclase, 40% chlorite, 15% quartz, 5% epidote, and biotite).
40 - 45	As above.
45 - 50	As above.
50 - 55	Greenstone — greenish-blue, fine grain, quartz, epidote, calcite, feldspar, chlorite, biotite, good quartz and calcite crystals indicating openings, vein quartz, good cleavage surfaces, many with oxidation stains.
55 - 60	As above, but no quartz or calcite crystals.
60 - 65	As above.
65 - 70	As above - with jasper.
70 - 75	As above.
75 - 80	As above.
80 - 85	Greenstone — greenish-blue, fine grain, quartz, epidote, calcite, feldspar, chlorite, biotite, fracture or cleavage surfaces, good quartz and calcite crystals.

85-90	As above - but no quartz or calcite crystals.
90-95	As above.
95-100	As above.
100-105	Greenstone - greenish-blue, fine grain, quartz, epidote, calcite, feldspar, chlorite, biotite, good quartz and calcite crystals.
105-110	As above.
110-115	As above.
115-120	As above - but no quartz or calcite crystals.
120-125	As above - increase of jasper and epidote.
125-130	As above.
130-135	Greenstone - greenish-blue, fine grain, quartz, epidote, jasper, feldspar, chlorite, biotite.
135-140	As above.
140-145	As above.
145-150	As above, large increase of jasper and epidote, vein quartz.
150-155	As above.
155-160	As above.
160-165	Greenstone - greenish-blue, fine grain, quartz, biotite, epidote, chlorite, feldspar.
165-170	As above.
170-175	Greenstone - light green, increase of epidote.
175-180	Greenstone - 50% light green, 50% greenish-blue.
180-185	As above.
185-190	As above.
190-195	As above.

OWNER: National Park Service - Rockfish Gap #1 (Continued) #1137

195-200	As above - but less epidote.
200-205	Greenstone - greenish-blue, fine grain, quartz, feldspar, biotite, chlorite, epidote, minor pyrite.
205-210	As above.
210-215	As above - no pyrite.
215-220	As above.
220-225	As above.
225-230	Greenstone - greenish-blue, fine grain, quartz, biotite, chlorite, feldspar, epidote.
230-235	As above.
235-240	As above.
240-245	As above.
245-250	As above.
250-255	As above.
255-260	Greenstone-greenish-blue, fine grain, quartz, biotite, chlorite, feldspar, epidote.
260-265	As above.
265-270	As above.
270-275	As above.
275-280	As above.
280-285	Greenstone - greenish-blue, fine grain, quartz, biotite, chlorite, feldspar, epidote.
285-290	As above.
290-295	As above.
295-300	As above.
300-305	As above.

- 305-310 As above.
- 310-315 Greenstone - greenish-blue, fine grain, quartz, chlorite, feldspar, epidote, large plagioclase crystals.
- 315-320 As above - but no plagioclase crystals.
- 320-325 As above.
- 325-330 No sample.
- 330-335 Greenstone - greenish-blue, fine grain, quartz, biotite, feldspar, chlorite, epidote, jasper, minor pyrite.
- 335-340 As above, but no pyrite.
- 340-345 As above.
- 345-350 As above.
- 350-355 As above.
- 355-360 Greenstone - greenish-blue, fine grain, quartz, biotite, feldspar, chlorite, epidote, jasper.
- 360-365 As above.
- 365-370 As above - increase of epidote and jasper.
- 370-375 As above.
- 375-380 As above.
- 380-385 Greenstone - greenish-blue, fine grain, quartz, biotite, feldspar, chlorite, epidote, jasper, vein quartz.
- 385-390 As above - but no vein quartz.
- 390-395 As above.
- 395-400 As above.
- 400-405 Greenstone - greenish-blue, fine grain, quartz, biotite, feldspar, chlorite, epidote, jasper.
- 405-410 As above.

410-415	As above.
415-420	As above.
420-425	As above.
425-430	Greenstone, greenish-blue, fine grain, quartz, biotite, feldspar, chlorite, epidote, jasper.
430-435	As above.
435-440	As above.
440-445	As above.
445-450	As above.
450-455	As above.
455-460	Greenstone - greenish-blue, fine grain, quartz, feldspar, biotite, chlorite, epidote, jasper.
460-465	As above.
465-470	As above.
470-475	As above.
475-480	As above.
480-485	Greenstone and Meta-Arkose - greenstone as above, meta-arkose, fine to medium grain, quartz, feldspar, minor sericite, clay, or mica.
485-490	As above.
490-495	As above.
495-500	As above - mostly greenstone.
500-505	As above - mostly meta-arkose.
505-510	Meta-Arkose - fine to medium grain, quartz, feldspar, mica or clay, minor greenstone.
510-515	As above.
515-520	As above.

OWNER: National Park Service - Rockfish Gap #1 (Continued) #1137

520 - 525 As above - increase of greenstone.
525 - 530 Meta-Arkose — fine- to medium-grain, quartz, minor
feldspar and mica, may be a meta-quartzite.
530 - 535 No sample.

GEOLOGIC SUMMARY

<u>Depth</u>	<u>Rock Unit</u>	<u>Age</u>
0 - 35	Weathered zone	Quaternary
35 - 530	Catoctin Formation	Precambrian

Virginia Division of Mineral Resources
Garnett Gatlin, Geologist
November 4, 1964