OWNER: Shenandoah National Park (Dickey Ridge No.2) VDMR # 864
DRILLER: Sydnor Pump & Well Co. WWCR # 53
COUNTY: Warren (Front Royal) TOTAL DEPTH: 250 feet

GEOLOGIC LOG

| 0~5 | Overburden - weathered and unweathered brown basalt fragments, some quartz, epidote, and calcite |
|-------|---|
| 5-10 | Overburden - weathered and unweathered basalt fragments with considerable epidote, traces of quartz |
| 10-15 | As above |
| 15-20 | Basalt - gray, hard, dense, veins of epidote and quartz (top of bedrock in this interval) |
| 20-25 | As above |
| 25-30 | Basalt - gray, hard, dense, some epidote, traces of tan silty clay |
| 30-35 | Basalt - gray to grayish purple, hard, dense, some epidote and quartz veins |
| 35-40 | Basalt - gray, hard, dense |
| 42 | Basalt - gray, hard, dense, traces of quartz, considerable calcite fragments |
| 45-50 | Basalt - gray to grayish purple, small quartz amygdales, epidote, quartz, and traces of calcite veins |
| 50-55 | Basalt - gray, hard, dense, traces of calcite, epidote, and quartz |
| 55-60 | Basalt - gray to red, hard, dense |
| 60-65 | As above |
| 65-70 | Basalt - gray, hard, dense, some weathered brown fragments |
| 70-75 | As above |
| 75-80 | Basalt - grayish green, hard, dense, traces of epidote and quartz |

| OWNER: Shenandoah I | National P | ark (Dickey Ridge No.2) - (continued) #864 |
|---------------------|------------|--|
| 80-85 | Basalt - | grayish green, gray and red, hard, dense, traces epidote, calcite, & quartz |
| 85-90 | As above | |
| 90-95 | As above | |
| 95-100 | As above | |
| 100-105 | Basalt - | grayish purple to gray, hard, dense, increase in amount of epidote and quartz, decrease in amount of calcite |
| 105-110 | Basalt - | gray, hard, dense, decrease in amount of epidote and quartz |
| 114 | Basalt - | gray, hard, dense, some brown weathered fragments |
| 120 | Basalt - | gray, hard, dense, traces of quartz and epidote |
| 125 | As above | |
| 130 | Basalt - | gray, hard, dense, increase in amount of epidote, trace of calcite |
| 135 | As above | |
| 140 | As above | |
| 145 | Basalt - | gray, hard, dense, trace of calcite seams |
| 150 | Basalt - | gray to red, hard, dense, trace of epidote and quartz |
| 155 | As above | |
| 160 | Basalt - | gray, hard, dense, trace of epidote, quartz, and calcite seams |
| 165 | As above | |
| 166 | Basalt - | gray to red, hard, dense, trace of epidote |
| 170 | As above | |

GEOLOGIC SUMMARY

Basalt - gray, hard, dense

AGE

As above

As above

As above

ROCK UNIT

Precambrian

230-235

235-240

240-245

245-250

Catoctin formation

#864

Division of Mineral Resources Lawrence H. Gardner II- Geologist August 1, 1963

INTERVAL SHEET

| Page1 | VDMR Well No.: | VDMR Well No.: 864 Sample Interval: from 0 to 250 | | | |
|---------------------------------------|------------------|---|-----------|--|--|
| Date7-22-63 | Sample Interva | | | | |
| PROP: Nat. Park Service | Total depth | Total depth 250 | | | |
| (Dickey Ridge #2) COMP: Sydnor | OilGas | Water_x_Explorat | ory | | |
| COUNTY: Warren | Cuttings_x | _CoreOther | | | |
| VDMR Well No: W-864 | | Washed samples-only | | | |
| From-To From-To | From-To | From-To | From-To | | |
| | 0.5 | 150 - | - | | |
| - | 5 10 | 155 _ | - | | |
| 3 — 3 | 10 15 | 160 - | (***) | | |
| (-) | 15 _20 | 165 - | = | | |
| - | 20 .25 | 166 - | - | | |
| | 25 -30 | 170 - | _ | | |
| _ | 30 -35 | 175 - | <u> </u> | | |
| <u>.</u> | 42 > 35 .40 | 180 - | = | | |
| · · · · · · · · · · · · · · · · · · · | 42 45 | 185 - | ~ | | |
|) | 45 .50 | 185 -190 | - | | |
| | 50 -55 | 190 -195 | 444 | | |
| - | 55 -60 | 195 -200 | | | |
| | 60 .65 | 200 -205 | - | | |
| | 65 <i>-</i> 70 | 205 -210 | _ | | |
| | 70 <i>-</i> 75 | 210 -215 | - | | |
| | 75.00 | 215 -220 | | | |
| - | 75 -80 80 -85 | 220 -225 | | | |
| | 85 <i>-</i> 90 | 225 -230 | _ | | |
| | 90 -95 | 230 -235 | = | | |
| | 95 -100 | 235 -240 | - | | |
| | 100 -105 | 240 <i>-</i> 245 | _ | | |
| | 105 -110 | 245 -250 | _ | | |
| | 114 - | 2-10 1 200 | - | | |
| | 120 - | | _ | | |
| - | 125 - | = | - | | |
| | | | | | |
| = | 130 - | - | - | | |
| | 135 - | - | - | | |
| <i>y</i> = - | 140 - | 700 700 | - | | |
| | 145 - | . | - | | |
| | | | | | |