

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

W-3287
C-264

MAILING ADDRESS:

DIVISION OF MINERAL RESOURCES

OFFICE ADDRESS:

P. 3667
Charlottesville, VA 22903

JAMES L. CALVER, COMMISSIONER

McCormick Road
Charlottesville, Virginia

WATER WELL COMPLETION REPORT

OWNER: Mountain Run Development, Site #3 (Well #1) Mailing Address: Box 217, New Market, Va. 22844

TENANT: Ski Resort Mailing Address:

DRILLER: George F. Burner Well Drilling Mailing Address: Box 98, McGaheysville, VA 22840

WELL LOCATION: County Shenandoah Approx. 400 feet northwest (direction) of
State Rt. 730 and 50 feet southwest (direction) of U.S. Forestry Service & Mountain Run property line.

(GIVE DIRECTION AND DISTANCE IN FEET OR MILES FROM TWO REFERENCE POINTS - ROADS, TOWNS, RIVERS, ETC. - ON COUNTY HIGHWAY OR OTHER MAP.)

DATE STARTED: October 7, 1971 DATE COMPLETED: October 12, 1971

TYPE OF DRILL RIG USED: air rotary TOTAL DEPTH 710 feet

WATER LEVEL: Stands 160 feet below surface OR
has NATURAL flow of _____ gallons per minute.

YIELD TEST: Method air lift
Drawdown 540 feet
Rate 20 gal. per min.
Duration 2 hrs., 0 min.

HOLE SIZE: 10 inches from 0 to 104 feet
6 1/8 inches from 104 to 710 feet
_____ inches from _____ to _____ feet
SCREEN SIZE: _____ inches from _____ to _____ feet

WATER ZONES: from 99 to 100 * feet (1 GPM) _____ inches from _____ to _____ feet
from 187 to 188 feet (20 GPM) _____ inches from _____ to _____ feet
from _____ to _____ feet

CASE SIZE: 6 inches from 0 to 104 feet
_____ inches from _____ to _____ feet
_____ inches from _____ to _____ feet

WATER: Color _____ Taste _____
Odor None Temp. _____ °F

WELL TO SUPPLY: (check one) Home _____
Farm _____ Town _____ School _____
Industry _____ Other Ski Resort _____

GROUTING: Method pressure
Material cement Depth 100 feet

WATER ANALYSIS AVAILABLE: Yes _____ No

PUMP: Type _____
Capacity _____ gal per min
Depth of intake _____ feet

DRILL CUTTINGS SAVED: Yes No _____

(DRILL CUTTINGS SHOULD BE COLLECTED AT 10 FOOT INTERVALS. THESE SAMPLES MAY BE SHIPPED TO THIS OFFICE EXPRESS COLLECT. SAMPLE BAGS ARE FURNISHED FREE OF CHARGE UPON REQUEST.)

REMARKS: * Sealed off by casing and grouting.

Burner Well Drilling

October 12, 1971

FURNISHED BY:

DATE:

DEPTH (feet)		TYPE OF ROCK OR SOIL PENETRATED (gravel, clay, etc., hardness, color, etc.)	REMARKS (water, caving, shot, screen, sample, etc.)
FROM	TO		
0	21	Overburden & weathered shale	
21	710	Shale, blue-gray, medium hardness	water @ 99-100' and 187-188'

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Box 3667, Charlottesville, VA 22903

INTERVAL SHEET

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Date rec'd: 10/24/71 ; processed 11/5/71	Well Repository No: 3287
PROPERTY: Mountain Run Ski Resort Well #1	Sample Interval: from 0 to: 710'
COMPANY: G. F. Burner Well Drilling Co.	Number of samples: 71
COUNTY: Shenandoah (New Market)	Total Depth: 710'
	Oil or Gas: Water; x Exploratory:

From-To	From-To	From-To	From-To
0 - 10	250 - 260	500 - 510	-
10 - 20	260 - 270	510 - 520	-
20 - 30	270 - 280	520 - 530	-
30 - 40	280 - 290	530 - 540	-
40 - 50	290 - 300	540 - 550	-
50 - 60	300 - 310	550 - 560	-
60 - 70	310 - 320	560 - 570	-
70 - 80	320 - 330	570 - 580	-
80 - 90	330 - 340	580 - 590	-
90 - 100	340 - 350	590 - 600	-
100 - 110	350 - 360	600 - 610	-
110 - 120	360 - 370	610 - 620	-
120 - 130	370 - 380	620 - 630	-
130 - 140	380 - 390	630 - 640	-
140 - 150	390 - 400	640 - 650	-
150 - 160	400 - 410	650 - 660	-
160 - 170	410 - 420	660 - 670	-
170 - 180	420 - 430	670 - 680	-
180 - 190	430 - 440	680 - 690	-
190 - 200	440 - 450	690 - 700	-
200 - 210	450 - 460	700 - 710	-
210 - 220	460 - 470	-	-
220 - 230	470 - 480	-	-
230 - 240	480 - 490	-	-
240 - 250	490 - 500	-	-

All intervals have both washed and unwashed samples



OWNER: Mountain Run Ski Resort Well #1
DRILLER: George F. Burner Well Drilling
COUNTY: Shenandoah (New Market)

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T.D. - 710'

GEOLOGIC LOG

Depth
(in feet)

0-10	Sandstone, siltstone, sandy saprolite, silty and/or clayey saprolite - sandstone is pinkish-white, purple or purple-brown, ferruginous, well sorted, subrounded, non-friable, with little porosity; siltstone is pinkish-brown and poorly indurated; sandy saprolite is buff colored, poorly sorted, well rounded and porous; silty and/or clayey saprolite is a mixture of buff, white, and reddish-purple porous material
10-20	Shale - gray-brown, fissile; with fragments of thinly-laminated siltstone
20-30	Shale - dark gray, fissile, sulphurous
30-40	Shale - dark gray, fissile, slightly calcareous; minor amount of light, brass-colored pyrite
40-50	Shale - dark gray, fissile, slightly calcareous
50-60	Shale - dark gray, fissile, slightly calcareous; minor amount of coarsely-crystalline white calcite
60-70	"
70-80	Shale - dark gray, fissile, slightly calcareous; small yellow-brown stains suggest former presence of pyrite
80-90	Shale - dark gray, fissile; slightly calcareous
90-100	"
100-110	Shale - dark gray, fissile, slightly calcareous; minor amount of coarsely-crystalline white calcite

OWNER: Mountain Run Ski Resort -2-
Well #1

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110-120	Shale — dark gray, fissile, slightly calcareous; a few thin veins or layers of coarsely-crystalline white calcite
120-130	"
130-140	" not calcareous
140-150	"
150-160	" less coarsely-crystalline white calcite; one fragment of coarsely-crystalline clear quartz
160-170	Shale — dark gray, fissile, slightly calcareous; a few small yellow-brown stains suggests former presence of pyrite
170-180	" not calcareous; one small grain of coarsely-crystalline quartz
180-190	Shale — dark gray, fissile; a few brown stains suggest former presence of pyrite; fragments of coarsely-crystalline calcite from thin veins or layers
190-200	Shale — dark gray, fissile, slightly calcareous
200-210	Shale — dark gray, fissile, slightly calcareous; traces of calcite and pyrite
210-220	Shale — dark gray, fissile, slightly calcareous
220-230	" with fragments of coarsely-crystalline white calcite
230-240	" not calcareous
240-250	Shale — dark gray, fissile; some coarsely-crystalline white calcite
250-260	Shale — dark gray, fissile
260-270	"
270-280	" with minor amount of coarsely-crystalline calcite and trace of pyrite

OWNER: Mountain Run Ski Resort -3-
Well #1

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- 280-290 Shale – dark gray, fissile, slightly calcareous; one large chip exhibited thin, alternating lighter and darker-gray laminations, the lighter gray being somewhat calcareous; some coarsely-crystalline white calcite
- 290-300 Shale – dark gray, fissile, slightly calcareous
- 300-310 Shale and sandstone – dark gray, fissile, slightly calcareous shale with some pyrite and coarsely-crystalline white calcite; some greenish-gray, medium-grained, well-sorted, sub-rounded, non-friable, low-porosity sandstone
- 310-320 Shale – dark gray, fissile, slightly calcareous, trace of coarsely-crystalline white calcite
- 320-330 "
- 330-340 Shale – dark gray, fissile, slightly calcareous; traces of thinly-laminated shale and coarsely-crystalline white calcite with pyrite
- 340-350 Shale – dark gray, fissile, slightly calcareous; small rust-brown stains suggest the former presence of pyrite
- 350-360 Shale – dark gray, fissile, slightly calcareous
- 360-370 Shale – dark gray, fissile, slightly calcareous; a few laminated fragments, the lighter laminae generally more calcareous than the darker; trace of pyrite
- 370-380 " and coarsely-crystalline white calcite
- 380-390 " no calcite
- 390-400 " "
- 400-410 Shale – mostly dark gray, fissile, slightly calcareous; considerable amount of lighter gray, more granular, and more calcareous shale; minor amount of thinly-laminated shale, and trace of pyrite

OWNER: Mountain Run Ski Resort -4-
Well #1

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410-420	Shale – mostly dark gray, fissile, slightly calcareous; considerable amount of lighter gray, more granular, and more calcareous shale; minor amount of thinly-laminated shale, and trace of pyrite; with fragments of coarsely-crystalline white calcite
420-430	"
430-440	Shale – dark gray, fissile, calcareous, somewhat granular; traces of pyrite and coarsely-crystalline white calcite
440-450	"
450-460	Shale – mostly dark-gray, fissile, calcareous, granular; minor amount of very dark-gray, non-granular, and slightly-calcareous shale; trace of weathered pyrite
460-470	" with trace of coarsely-crystalline white calcite
470-480	" no calcite
480-490	" "
490-500	Shale – dark gray, fissile, granular, calcareous; trace of weathered pyrite
500-510	"
510-520	Shale – dark gray fissile, granular, calcareous; with traces of pyrite and coarsely-crystalline white calcite
520-530	Shale – mostly dark gray, fissile, granular, calcareous; with trace of pyrite
530-540	"
540-550	"
550-560	"

OWNER: Mountain Run Ski Resort -5-
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560-570	Shale – mostly dark gray, fissile, granular, calcareous; with trace of pyrite
570-580	"
580-590	"
590-600	"
600-610	"
610-620	"
620-630	"
630-640	Shale – dark gray, fissile, somewhat granular, slightly calcareous; with traces of pyrite and coarsely-crystalline calcite
640-650	"
650-660	"
660-670	"
670-680	"
680-690	"
690-700	"
700-710	Shale – dark gray, fissile; somewhat granular, calcareous; with trace of pyrite

GEOLOGIC SUMMARY

<u>Rock Unit</u>	<u>Age</u>
Martinsburg Formation	Late Ordovician

Virginia Division of Mineral Resources
Paul G. Nystrom, Jr., Geologist
November 22, 1971