84-1162-13085

GEOPHYSICAL REPORT ON THE

BON 1 to 4 MINERAL CLAIMS

Cariboo Mining Division

NTS 93A/14

Latitude: 52 degrees 57 minutes north Longitude: 121 degrees 22 minutes west

Claim Owner: George Haywood-Farmer Administrator of the Estate of Wilfred E. Thompson Deceased.

Claim Record Numbers: 47807, 47808, 47809 and 47810.

Report by: R.M. Durfeld B.Sc.

DURFELD GEOLOGICAL MANAGEMENT LTD. 2029 South Lakeside Drive Williams Lake, B.C. V2G 2R1

OCTOBER 1984

GEOLOGICAL BRÀNCH Assessment report

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A. INTRODUCTION

i) Location and Access

The BON 1 to 4 mineral claims are located 22 kilometres southeast of the historic community of Barkerville on map sheet NTS 93 A/14. (Figure 1)

Access to the property is by all-weather gravel road from Barkerville via Antler Creek to Cunningham Pass and hence up Cunningham Creek to the property. Access on the property is best achieved by a cat trail that originates at the Cunningham Creek all-weather road and bisects the property.

The physiography of the BON claims is characterized by a northeast facing slope that overlooks and becomes steeper toward Cunningham Creek.

The vegetation is predominantly a mixed stand of fir and spruce forest with extensive undergrowth of alder, huckleberry, blueberry bushes and moss.

ii) Property Definition

The section of Cunningham Creek below the BON mineral claims has been the scene of gold mining from placer operations since 1885. Gold mining from quartz veins began in 1922 at the head of Peter's Gulch (later the Cariboo Hudson Mine) just south of the BON mineral claims. Minor quantities of scheelite have also been produced from this area.

Extensive base metal exploration was conducted in the area between 1971 and 1977, predominantly by way of soil sampling, trenching and minor diamond drilling.



On September 19, 1968 the BON 1 to 4 mineral claims were located by Wilfred E. Thompson to cover a quartz-carbonategalena vein with silver and gold values. The status of thes tlaims can be summarized as:

| CLAIM NAME | RECORD NUMBER | RECORD DATE |
|------------|---------------|--------------|
| BON 1 | 47807 | September 30 |
| BON 2 | 47808 | September 30 |
| BON 3 | 47809 | September 30 |
| BON 4 | 47810 | September 30 |

Claim Owner - George Haywood Farmer Administrator for the Estate of Wilfred E. Thompson, Deceased.

The recent programs on the BON claims have concentrated on defining the economic potential of the recognized vein structures that to date have yielded values of up to 21.0 ounces per ton silver and .03 ounces per ton gold. The recent VLFelectromagnetic survey that is documented in this report was conducted to help define the trends of these mineralized vein structures.

iii) Summary of Work

On September 16th and 17th, 1.6 kilometres of compass grid was established on the BON mineral claims. On this grid 10 metre survey stations were established and labelled with blue flagging.

A VLF-electromagnetic survey was conducted over 1.6 kilometres of this grid with a"RADEM VLF-EM RECEIVER" manufactured by Crone Geophysics. The instrument operator was R.M. Durfeld.

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B. ELECTROMAGNETIC SURVEY

Readings were taken at 20 metre intervals along approximately east-west lines using a Radem VLF-EM Receiver. The primary source for this survey was from a transmitter at Seattle Washington. The field of this station is roughly east-west in this area. The dip angle readings were measured in degrees and were reduced to contourable data using the method devised by Fraser. (Fraser, D.C., Geophysics, Vol. 34 pp 1958-1967, 1969) The dip angle and Fraser filtered data are documented as figure 2 of this report.

C. GEOLOGY

The most recent regional mapping in the BON area has been conducted by L.C. Struik during the period 1977 to 1981 and is documented by the Geological Survey of Canada, Open File 858.

Struik maps the area of the BON mineral claims as being underlain by the Mississippian Downey Creek Succession. The Downey Creek lithologies, as recognized on the BON mineral claims, are generally a section of northwest-trending light grey to brown siliceous, in part, micaceous phyllites. Parallel to this regional trend and bisecting the property is a massive grey limestone to marble lithology,

Within the BON area, there is a strong northwest structure developed that is characterized by parallel bedding, foliation, and shear trends. The quartz-carbonate-sulphide vein trends are also parallel to this major trend. One such vein is developed on the grid at 1+10 east and 32+20 north.

D. INTERPRETATION

From the Fraser Filtered data that is plotted on figure 2 several conductors with a north-northeast trend are recognized. Although the strongest portion of this conductor passes through the vein at 1+10 east and 32+20 north it does not conform to the regional vein trend. This suggests that the conductor may be due to a crosscutting regionally recognized north to northeast shear structure.

E. CONCLUSIONS

The VLF-Electromagnetic survey conducted on the BON mineral claims outlined several strong north-northeast trending conductors that may represent a north to northeast shear structure,

The survey area should be expanded to better define the above and any additional conductors.

APPENDIX I

ITEMIZED COST STATEMENT

Personal

| R.M.Durfeld - 2 days @ \$200/day | \$ 400,00 |
|--|------------------------|
| Transportation | |
| Truck Rental - 2 days @ \$40/day Truck Fuel - | 8 0.00 60.00 |
| <u>Board</u> - 2 days @ \$30/day | 60.00 |
| <u>Equipment Rental</u> - 2 days @ \$25/day | 50.00 |
| Report Preparation - | 200.00 |
| Total | \$ 850.00 |

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R.M. Durfeld B.\$c. Geologist

Durfeld Geological Management Ltd.

2029 SOUTH LAKESIDE DRIVE WILLIAMS LAKE, B.C. V2G 2RT

Telephone (604) 392-4691

APPENDIX II

STATEMENT OF QUALIFICATIONS

I Rudolf M. Durfeld of 2029 South Lakeside Drive, Williams Lake, British Columbia, hereby certify that:

- I am a graduate of the University of British Columbia Bachelor of Science (Geology Major) in 1972 and have practiced my profession as geologist since that time.
- 2) I am a Fellow of the Geological Association of Canada.
- 3) I am the author of this report which is based on work conducted on the BON 1 and 2 mineral claims during the period September 16 and 17, 1984.

R.M. Purfeld B.Sc. (Geologist)

