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VANCOUVER, B.C. GEOLOGICAL AND GEOCHEMICAL REPORT

ON THE

SILVERBOSS GROUP (S.B. 1-4; Peridot 2 mineral claims)

BIG TIMOTHY (TAKOMKANE) MOUNTAIN AREA, BC

CARIBOO MINING DIVISION

NTS 93A\2W

BY

DW RIDLEY P.O. BOX 77 EAGLE CREEK, BC V0K 1L0

DECEMBER 2000

GEOLOGICAL SURVEY BRANCH ASSESSMENT REPORT



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SUMMARY

The Silverboss claim group is situated about 2.5 kilometers northwest of the former Boss Mt. mine which produced molybdenum concentrate between 1962-1972 and 1974-1986. The mine orebodies were hosted within the Boss Breccias which are derived from the Cretaceous(?) Boss stock composed of biotite-quartz monzonite and granodiorite which intrudes the older Triassic-Jurassic Takomkane batholith (MINFILE #093A 001). A Tertiary olivine basalt cinder cone forms the summit of the mountain. Therefore the area has had many opportunites for mineralizing fluids to circulate through the underlying bedrock. This is likely reflected in the number and widespread locations of mineralized zones and structures over the mountain.

This work program was designed to check for additional mineralized structures which might contain "porphyry-style" gold mineralization. Drill core from the 1970's was also examined and found to contain copper-molybdenum porphyry-style mineralization from a narrow section. This has caused renewed interest in the **Silverboss** group and the surrounding area. Additional detailed rock sampling and geological mapping are highly recommended for the property.

LOCATION AND ACCESS

The Silverboss property is located approximately 80 kilometers northeast of 100 Mile House on BC highway 97 and is accessible via paved and gravel logging roads to the gate at the Boss Mt.minesite (FIG. 1). An old cat road, which is accessible by ATV only, leaves the road and climbs up the mountain to the Silverboss property. The distance is about 6 kilometers and takes roughly 1 hour from vehicle parking near the gate. The Silverboss shaft is located at UTM co-ordinates 5775200N: 641400E, as obtained from several Magellan GPS fixes. Future logging plans include clearcuts and roads further up the mountain and will greatly improve access to the claims.

The property is situated near timber-line between 6500-7000 feet elevation on the northwest flank of Big Timothy mountain and about 2.5 kilometers northwest of the Boss Mt. Mine orebodies. The lower slopes are densely forested with spruce, pine, and fir while higher elevations are covered by isolated stands of stunted sub-alpine fir. Topography on the property ranges from gentle to moderate slopes with many steep, cliffy areas particlarily to the east and northwest. The area receives abundant precipitation most of which falls in winter as snow. The effective field season is short with mid July to late September being the best time for exploration work.



GENERAL LOCATION SILVERBOSS 1-4, PERDOT 2 mineral claims BIG TIMOTHY MOUNTAIN AREA, BC NTS 93A|2W; CARIBOO MINING DIVISION DECEMBER, 2000; DW RIDLEY

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CLAIM STATUS

The Silverboss property consists of five two-post metric claim units situated in Cariboo Mining Division (FIG. 2). The property was staked in 1993 following a brief examination of the main showings. The claims are 100% owned by DW Ridley, P.O. Box 77, Eagle Creek, BC, V0K 1L0. Pertinent claim data is listed below.

<u>Claim Name</u>	Record Number	Date Staked	***Expiry Date**
Silverboss 1	321296	Sept. 22, 1993	Sept. 22, 2001
Silverboss 2	321297	Sept. 22, 1993	Sept. 22, 2001
Silverboss 3	321298	Sept. 22, 1993	Sept. 22, 2001
Silverboss 4	321299	Sept. 22, 1993	Sept. 22, 2001
Peridot 2	321306	Sept. 23, 1993	Sept. 23, 2001

pending assessment report approval

PROPERTY HISTORY

Mineralization was first discovered on the mountain by Ryan and associates prior to 1917 as attested to in Ministry of Mines Annual Report for that year (pgs. F134-F136). At that time several trenches, opencuts, a shaft of unknown depth, and a 20 meter long adit were completed on quartz veins within a northeasterly trending fault cutting quartz diorite of Takomkane batholith. Molybdenum showings, which later became the **Boss Mt. Mine**, were also discovered at this time. Sporadic work programs were conducted on the molybdenum showings during 1930-1950. In the early 1960's Noranda optioned the property and the **Boss Mt. Mine** was developed with production beginning in 1965 at a mill rate of 1000 tons per day.

In 1969 Exeter Mines Ltd. staked a large group of claims adjacent to the northwest boundary of the **Boss Mt. Mine** and included the **Silverboss** showings. An exploration program consisting of geological mapping, soil sampling, and a VLF-EM survey was completed during 1970 (Ass. Rpt. #2513, 2785). This work defined several VLF-EM conductors, which had co-incident copper and/or silver soil anomalies, similar to the signature over the **Silverboss** structure. An extensive follow-up program was recommended. Although no further work is recorded, a +4 kilometer long road, several bulldozer trenches, and drill core from three diamond drill holes have been completed onthe property. It is probable that Exeter Mines preformed this work in 1971 but abandoned the property by 1972 when the NDP came to power. The mine had shut down and there was an exodus of other workers in the area. The present property was staked in 1993 and limited exploration was conducted in 1994 and 1995 (Ass. Rpt. #23,677 #24,208). This work concentrated on sampling the Silverboss structure as well as prospecting around the periphery. Two of three drill collars have been located to date. Work in 2000 included examining the 1970's drill core and sampling of quartz veins southeast of the adit.

REGIONAL GEOLOGY

The Silverboss property is situated near the northeastern edge of Triassic-Jurassic Takomkane batholith which is composed of hornblende-biotite quartz diorite, granodiorite, hornblende diorite and monzonite. Border phases of the batholith may include gabbro and pegmatitic hornblendite which may contain appreciable primary magnetite. Takomkane batholith intrudes Triassic Nicola Group volcanics to the south and southwest in Eagle and Bradley Creek areas. Elsewhere it appears to be in fault contact with younger Jurassic volcanics and sediments. Several small stocks of Cretaceous(?) age more or less intrude all older rocks. Mineralization at the **Boss Mt**. **Mine** was hosted in a Cretaceous quartz diorite stock emplaced along the eastern margin of the batholith near the junction of Ten Mile and Molybdenite Creek faults. A Tertiary olivine basalt cinder cone forms the summit of the mountain and a small lava field covers the plateau to the west.

2000 WORK PROGRAM

The 2000 work program consisted of sampling quartz veins to determine whether the potential for porphyry-style gold mineralization exists on the property. Five rock samples were collected and analyzed during this program. Sample locations are presented on **Figure 4** whereas sample analysis certificates are included in the appendix. In addition, an examination of old drill core was undertaken. It is apparent that the entire area should be re-evaluated utilizing current knowledge and technology.

PROPERTY GEOLOGY

The local geology is described by D. E. Blann in **Ass. Rpt. #24208** as follows: "The *Silverboss property* is underlain by predominately granodiorite, with subordinate phases biotite, biotite-hornblende and hornblende granodiorite, and diorite that are cut by andesite dikes. Diorite occurs as intrusion breccia and heterolithic fragments locally. Quaternary olivine basalt flows, breccia, and tuff form a prominent cinder cone at the summit of Takomkane Mountain at the south side of the property. Major structures include the Ten Mile fault, a steeply dipping, 20-30 meter wide, east-west break that cuts through the property in the vicinity of the Silverboss vein. The fault cuts through the 500 metre long northeast trending Silverboss structure and the Silverboss structure feathers out to the south. The Silverboss shear strikes 030-040, dips steeply



and is traceable on surface for approximately 500 metres. Mineralized quartz vein and sheared, altered wallrock are cut by structures trending northwest to east-west that affect the vein-shear attitude and continuity. At the intersection between the Silverboss vein and the weakly altered 10 Mile fault, several mineralized veins with different orientations occur. Light to dark coloured, fine grained andesite-diorite dikes occur in proximity to the Silverboss structure. These intrusions are propylitic, and locally have vuggy quartz with traces of pyrite and chalcopyrite at the contacts. Dark, angular, magnetic diorite fragments and increased fracturing occurs near the Silverboss shaft and Trench 8, 9, and 10. Hairline fractures are filled by chlorite, epidote, calcite, sericite, quartz, clay, and limonite. The Silverboss vein consists of 1-2 stage, vuggy, quartz vein(s) between 2 and 20 cm in width that is hosted by a one meterwide zone of sheared, chloriteepidote-sericite-clay altered andesite and granodiorite. Fractured wallrock and quartz veins contain limonite, pyrite, chalcopyrite, and geochemically elevated values of manganese, lead, arsenic, and antimony occur. Gold and silver values vary. In Trench 4, a sample of a 0.50 metre wide shear containing a 5 cm vuggy quartz vein returned 240 ppm copper, 64.6 g\t silver, and 4.26 ght gold. In Trench 8, a 0.25 metre sample returned 1.34% copper, 514.8 ght silver, and 9.41 g\t gold. In Trench 10, a sample returned 0.5 metres grading 3.18% copper, 390.4 g\t silver, and 215 ppb gold."

2000 ROCK SAMPLING

Five rock samples were taken along a compass and hip-chain line run for 250 meters on bearing 140 degrees from the initial post for Silverboss 1-4 claims. This line is halfway between two soil sample lines established in 1995 (Ass. Rpt. #24,208). This work indicated a weak copper (gold) soil anomaly. The present sampling was designed to test the gold-bearing potential of quartz vein systems occuring between the anomalous soil anomalies. Where possible a grab of outcrop was obtained at 50 meter intervals. An old, circa 1917, hand trench is situated at the initial post and was found to contain quartz in fault gouge. This is the northeast trending Silverboss structure. No quartz veining and little outcrop was found at 150 meters and no sample was taken here. The remainder of the line was rock sampled at 50 meter intervals. A brief description of rock samples and analytical results obtained follows. Sample locations are presented on Figure 4 and complete analysis certificates appear in the appendix.

SB00 DR1: bearing 140 @ 50 meters from claim post; grab over +4 meter exposed outcrop with narrow (1-20 mm.) quartz veinlets in weakly chloritized, hornblende-biotite diorite; later stockwork-style veinlets and fracture sets contain epidote and chlorite; quartz veinlets contain trace amounts of chalcopyrite and pyrite, and are generally well weathered; analysis returned 118 ppb gold and 109 ppm arsenic.

SB00 DR2: bearing 140 @ 100 meters from claim post; grab over 3.5 meters of exposure; quartz veinlets up to 2 cms. wide, trending 040\50S, in hornblende diorite; crosscutting hairline fractures contain epidote; quartz veinlets contain minor pyrite and trace chalcopyrite; analysis returned only **8 ppb gold.**



SB00 DR3: bearing 140 @ 200 meters from claim post; grab from quartz float; no outcrop in area; quartz at least 25 cms. wide and contains up to 1% pyrite and trace chalcopyrite; mineralization follows late hairline fractures parallel to vein's assumed strike (ie longest dimension); analysis returned 1627 ppb gold, 8.5 ppm silver, 191 ppm copper, 132 ppm arsenic.

SB00 DR4: bearing 140 @ 250 meters from claim post; grab across +5 meters of exposed outcrop; quartz veinlets, 1-5 mm wide, in moderately chloritized hornblendebiotite diorite; selvage of epidote along quartz veinlets; cut by pyrite-rich, hairline fractures; analysis returned **28 ppb gold**.

SB00 DR5: 20 meters north of DR4; float (possible subcrop); epidote-quartz vein material up to 35 cm diameter; minor pyrite, trace chalcopyrite; minor scheelite visible under short wave ultra-violet light; analysis returned 10 ppb gold, 68 ppm copper, and 243 ppm tungsten.

DRILL CORE EXAMINATION

A collapsed stack of core boxes was found stored at an old camp near the west end of the cat road and approximately 800 meters west-southwest of the Silverboss shaft. One and a half days were spent uncovering, sorting, and examining several dozen boxes. This core is believed to have been from 1971-72 as the some of the boxes have rotted through. The core was taken from three holes of which two collars have been found to date. The first is situated immediately north of the junction of Ten Mile and Silverboss faults while the second is located just north of the old campsite (Fig. 4). Many boxes were found to be in good shape with labels and footage markers clearly legible, although many others were more or less destroyed with core lying loose on the ground. It is highly recommended that portions of the core be re-split and sent for analysis. Quartz veins associated with pyritic andesite dykes could contain gold values and one section was found to contain chalcopyrite and molybdenum in fracture fillings. Following is a summary of some of the core locate the final drill collar.

<u>DDH-1</u>: @ 75 feet six inch(?) chalcopyrite-quartz vein (probably the Silverboss structure); @ 149 feet pyritic andesite dyke (1 meter wide) cut by chalcedonic quartz stockwork (not split).

DDH-3: @ 60 feet pyritic andesite dyke 50 cms wide cut by hair-line veinlets of quartz and epidote; @ 65 feet moderately chloritized hornblende diorite cut by epidote veinlets; @ 122 feet 1 meter wide coarse-grained syenite dyke; @ 130 feet moderately chloritized hornblende diorite cut by quartz-K-spar-epidote veinlets that carry chalcopyrite and blebs of molybdenite.

CONCLUSIONS AND RECOMMENDATIONS

These results coupled with the past history of the property indicates it has excellent potential to host either a copper-molybdenum or copper-gold porphyry deposit as well as epithermal gold-silver-copper mineralization. A short section in **DDH-1** is likely the Silverboss structure which proves its existence at about 35-40 feet below the surface at the junction with Ten Mile fault. Copper-molybdenum mineralization in **DDH-3** is very interesting particularly in light of economic and political circumstances at the time of its discovery (circa 1972). Limited rock sampling during this program has produced anomalous gold values associated with quartz veining in the diorite country rock. This indicates some potential for "intrusion-related gold" style mineralization. The recognition of tungsten in **SB00 DR5** is particularly interesting as it bears similarities to **Type 4 veins** in the **Boss Mt orebodies** (MINFILE 093A 001).

Further work is recommended in the form of grid establishment followed by geological mapping, soil and rock sampling, VLF-EM and magnetometer surveys. Re-logging and sampling of the old core is highly recommended, as is locating the third and final drill collar.

A detailed MaxMin survey should be carried out over the Silverboss structure. The high sulphide content of the veins should show up well with EM geophysics. It may be possible to detail the conductor strength down dip and extrapolate approximate sulphide contents. This would ensure targeting the best mineralization in the Silverboss structure with subsequent diamond drilling.

FINANCIAL STATEMENT ON THE SILVERBOSS 1-4; PERIDOT 2 mineral claims CARIBOO MINING DIVISION DECEMBER 2000

SAMPLE ANALYSIS: 5 ROCKS @ \$ 19.00 each	\$	95 .00
SHIPPING:	\$	15.00
FIELD SUPPLIES:	\$	15.00
REPORT PREPARATION:	¢	300.00

TOTAL EXPENDITURES FOR 2000 WORK PROGRAM...... \$1295.00

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Soregaroli, AE, Nelson, WI; 1976; Boss Mountain Mine in Porphyry Deposits of the Canadian Cordillera; CIMM Special Volume 15

STATEMENT OF QUALIFICATIONS

I, David Wayne Ridley, P.O. Box 77, Eagle Creek, BC, VOK 1LO, do hereby certify that;

- 1) I completed the "Mineral Exploration for Prospectors" course, hosted by the BC Ministry of Mines at Mesachie Lake, BC in 1984.
- I completed the short course entitled "Petrology for Prospectors" held in Smithers BC and hosted by the Smithers Exploration Group in 1990 and 1994.
- 3) I have prospected independently since 1982 and have been employed as a prospector by various exploration companies in BC, Alaska, and Yukon Territory since 1984.
- 4) I conducted the work set out in this report.
- 5) I currently own an interest in the property

Dated at Hawkins Lake, BC, December 4, 2000

David Wayne Ridley

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GROUP 1DX - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY OPTIMA ICP-ES. UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM. ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB - SAMPLE TYPE: ROCK R150 60C AU* BY ACID LEACHED, ANALYZE BY ICP-MS. (10 gm) Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

liabilities for actual cost of the analysis only. are considered the confidential property of the client. Acme assumes All resu