

823298

SUMMARY OF
THE STUMP LAKE OPTION

NIS 92I/8W

Lat. $50^{\circ} 20' N$ Long. $120^{\circ} 22' W$

Kamloops Mining District

Sept 21, 1988
Minnova Inc.
Graeme Evans

Location and Access

The Stump Lake Property is located between Kamloops and Merritt at the SE end of Stump Lake. Access is via Highway 5 and then various logging roads and mining roads. The property has rolling grasslands of the Nicola Valley at elevations between 750 and 900 m.

Claims and Ownership

In the spring of 1988, Minnova Inc. entered an option agreement with Celebrity Energy Corp. This option allow Minnova to earn up to 70% interest in the property.

<u>Claim Name</u>	<u>Record No.</u>	<u># of Units</u>	<u>Expiry Date</u>
Dot	803	8	Feb 13/95
Au No. 100	1338	8	Feb 02/95
Au No. 200	1339	20	Feb 02/95
Au No. 300	1340	20	Feb 02/93
Au No. 400	1341	8	Feb 02/93

Two Post Claims

L.A. #1	1237	1	Mar 24/95
L.A. #2	1238	1	Mar 24/95

The property consists of 5 MGS claims (64 units), 2 two post claims and 55 reverted Crown granted claims. This comes to a total of 118 units covering 6074.43 acres. All crown grants are in good standing till either 1994 or 1995.

History and Work Done

1882-1885	Claims were staked
1885-1890	Nicola Mining and Milling Company developed Joshua, Tubal Cain and King William. Star Company developed Enterprise and Planet
1925-1931	Planet Mines and Reduction Co. Ltd. developed the Enterprise and built a mill. Nicola Mines and Metals Co. developed Joshua, Tubal Cain and Enterprise further.
1937-1942	Consolidated Nicola Goldfields Ltd. rebuilt the mill and carried on development.
1974	Juniper Mines Ltd. mapped the property
1983-1987	Celebrity Energy Corp. consolidated the property. Mapping, sampling and drilled 8 diamond drill holes for a total of 741.5 m.
1988	Minnova optioned property (Summary of Spring Report attached)

Regional and Property Geology

The basement rocks consist of Triassic Nicola volcanics. These strike N-NW and generally dip to the west and consist dominantly of alkaline mafic flow and tuffs with interbedded chert, argillite and limestones. Some felsic volcanic flows exist in the SW corner of the property. Monger believes the Nicola Valley is a Tertiary graben structure striking N-S which may be a reactivated Mesozoic fault system.

To the north end of Stump Lake lies a sequence of rocks of the Eocene Kamloops Group. These consist of rhyolite domes, sedimentary basins all overlain by basalt flows.

On the property, Tertiary basalt dyke swarms follow NW, N and NE trending faults and are closely related to quartz veins and alteration zones.

Mineralization and Alteration

Production figures are only available from the Enterprise workings and are 77,605 tons grading .109 oz/t Au, 3.26 oz/t Ag, 0.26% Cu, 1.42% Pb and .24% Zn. The ore was only extracted from quartz veins with recovery often only 50%. A brief summary of individual veins as follows.

The Enterprise - King William System has extensive working over 500 m strike length and on seven levels. The veins pinch and swell varying in width from .15 m up to 2.00 m and averaging .8 m. Mineralization is erratic and consists of sphalerite, galena, chalcopryrite, tetrahedrite and pyrite. Grades are erratic with zones up to 1.0 oz/t Au.

The Tubal Cain vein to the NE of the Enterprise was also drifted on. Mainly a shear zone with erratic quartz veins, it has up to 1% WO₃ as scheelite present. Widths average only .3 m and up to 1 m, with grades of .03 - .09 oz/t Au. Joshua Vein lies to the east of Tubal Cain and averages .3 m up to 1.1 m in width. 300 m of stike length drifted on with values reported of up to .2 oz/t Au and 18 oz/t Ag.

Emulator vein lies to the east of the King William vein and may be an extension of the Joshua system. Reported grades are up to .60 oz/t Au and 3.0 oz/t Ag.

The Azela or Johannesburg System lies in the SE corner of the property and consists of workings on another vein. Widths average .8 m on the veins but are reported up to .2 m. Values are reported up to .1 oz/t Au and 8.0 oz/t Ag.

The Jenny Long vein system lies to the west of the Azela. A 35 tpd mill operated on the site with no production numbers available. Vein widths average .6 m but are up te 2.0 m with gold values up to 2.0+ oz/t and silver up to 10.0 oz/t.

Fourteen other vein systems exist but little information is known. In general the veins formed in NW trending faults, possibly tensional faults. Nearby Tertiary olivine basalt dykes can be found following these same structures.

Alteration has been previously ignored but the 1988 program found these structures have strong quartz-clay altered zones with up to 10%

disseminated pyrite and sometimes green micas present . These zones are up to 10 m wide and are anomalous in both base metals and precious metals.

These relationships as well as the presence of chalcedony indicate this system may be a base metal rich deeper section of an epithermal system. As well as existing showings, several large structures exist in areas of overburden and have not been tested.