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(see Dave H)*

MINNOVA INC.

DATE: August 22, 1989  
TO: Ian Pirie  
COPIES TO: Alex Davidson, Dave Heberlein  
FROM: Chris Wild  
SUBJECT: MOWICH LAKE PROPERTY EXAMINATION

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A property examination of the Mer, Mer 2, Mow 1, and Mow 3 claims was made on August 12, 1989.

Location and Access

The property is located approximately 60kms northwest of Kamloops, B.C., in the Mowich Lake area of the Deadman River Valley. Excellent year round access is by 29kms of paved and gravel road north from the Trans Canada highway 5kms west of Savona, B.C.

Topography and Climate

The Deadman River Valley is relatively narrow and moderately steeply incised. Elevations range between 650m and 1200m. Vegetation consists of lodgepole pine and scrub grasses typical of dry warm summers and cold winters. Outcrop is limited to creeks, cliffs, ridgelines and roadcuts.

Claims

Claim information is as follows:

<u>Claim</u>	<u>Record No.</u>	<u>Units</u>	<u>Due Date</u>
Mow 1	4383	20	?
Mow 3	5921	20	?
Mer	4382	12	?
Mer 2	7620	20	?

The claims are currently held by:  
Iron River Resources Ltd.,  
600-890 W. Pender St.,  
Vancouver, B.C.,  
V6C 1J9

*Covered off.*

The claims are optioned from:  
Michael and Merie Dickens  
Box 116,  
Savona, B.C.,  
V0K 2J0

As of August 12, Iron River was in a default position on a cash payment of \$12, 000.00 to Mike Dickens due May 5, 1989. The contract calls for the Vendors to give Notice of Default to Iron River who then have 30 days to cure the default.

### Property History

This property has been worked sporadically since 1980. Michael Dickens performed prospecting, soil and rock geochemistry, and limited trenching in 1980. In 1983, N.L. Tribe made a one day evaluation over one of the copper showings. The property was subsequently acquired by Canamax and soil geochemistry, ground magnetometer, 1P and resistivity surveys were run. A year later, Kerr, Dawson and Associates ran a program of trenching and mapping for Northair Mines. Finally, in 1988, Iron River Resources acquired the property and ran VLF and magnetometer surveys over a limited grid.

### Geology

The Mowich Lake property is underlain by Nicola Group (Triassic) volcanic and sedimentary rocks within the Quesnel Trough. Numerous intrusions related to the Triassic/Jurassic Thuya and Takomkane batholiths and later Cretaceous alkaline to calc-alkaline stocks. The claims are also covered by a capping of Miocene Deadman River Formation ashes and tuffs and Eocene plateau basalt.

### Mineralization

The first showing examined is located on the west bank of the Deadman River 300 meters south-southwest of Mowich Lake. The showing consists of massive chalcocite and bornite fragments\* weathered to malachite in a slump or debris flow on till. Other rock fragments consist of extremely altered and sheared mafic volcanics and possible ultrabasic rocks. Mineralized fragments appear to be limited to an exposure 3m horizontally by 2m vertically. A slump or debris flow interpretation suggests a nearby source. The showing is located near the base of two coalescing gullies. The area of the gullies several hundred meters uphill is underlain by highly sheared argillically altered mafics hosting epithermal style quartz-carbonate veining and stockworks. One quartz vein hosting minor amounts of pyrite and chalcopyrite is exposed by a small pit. Higher grade samples were reported to run .50pT Au. An altered syenite intrusion is found locally.

\*selected high grade samples averaged 58% Cu, 8.47opt Ag & .25opt Au

Below the chalcocite showing in the river, the Deadman River Fault is marked by many boulders up to 3m in size of "listwaenite" or fuchsite/mariposite-quartz-carbonate altered mafic or ultramafic. Slickensides are pervasive in this unit. Another interesting rock type observed outcropping in the river is a quartz-albite-riebeckite porphyry. The significance of this sodium rich flow or hypabyssal intrusion is uncertain but it is unique to the Nicola Group.

A second area of interest on the claims lies immediately north of Mowich Lake. This target is a well developed epithermal quartz-calcite stockwork in an intensely silicified host-possibly Nicola volcanics. Outcrop is exposed over at least 200m in the Deadman River road cut. Few sulphides are present and sampling by Michael Dickens has turned up weakly to moderately anomolous values of gold and arsenic. The extent and intensity of veining and alteration makes this an inviting epithermal gold target. Six samples were collected at several unnoted locations along the 200m exposure.

A third area of interest is the initial copper showing that led to the claims being staked and later acquired by Canamax and Northair. The author did not visit this showing due to time restraints, quantity of previous work, and lower priority set for this target. Mineralization consists of coarse blebs of chalcopyrite with minor amounts of bornite and chalcocite. Cuprite, native copper and crystalline azurite are also reported in fractures. The showing is exposed in shallow pits and trenches over an area of 130m x 45m assays range to 2% Cu with ne significant precious metals. Chalcopyrite has infilled amygdules in an augite porphyry flow and breccia. The showing resembles well known copper deposits found in the Keweenaw Peninsula in northern Michigan. Work by Kerr, Dawson however, suggests that the mineralization occurs in boulders of vesicular basalt sitting on unmineralized augite porphyry. An uphill source of these boulders would be under the Tertiary volcanic cover.

### Conclusions and Recommendations

The Mowich Lake property contains three distinct exploration targets, two of which, the chalcocite showing and northerly epithermal system deserve serious attention. The chalcocite fragments represent a possible massive sulphide with strong precious metals. A VLF-EM and magnetometer survey on a small grid covering the showing revealed an east-trending conductor and coincident magnitic low less than 50m uphill from the pit. The conductor lies between and under the Deadman River Road and extends uphill ending at a logging road 100m east of the main road. Drill access is very simple.

The epithermal target has not been rigorously examined or sampled and a first stage program should include intensive rock and soil sampling. Drilling should be based on geochemical results and an appropriate epithermal model. This target also

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straddles the main access road.

In conclusion, the property warrants serious mining exploration. The status of the current option agreement should be investigated with a view toward acquiring the property from either party.