

# **PICTOU PROPERTY : ATLIN GOLD CAMP**

## **EXECUTIVE SUMMARY**

The Pictou Property in the Atlin Gold Camp ( AGC ) is an example of a Motherlode-Bonanza, lode gold, quartz vein exploration target in the northern Cache Creek ( Atlin ) Terrane. It is hosted in a tectonically dismembered ophiolitic assemblage of rocks dominated by listwanite altered ultramafic and meta-igneous units. Both structure and contact relationships are important factors in confining the alteration and mineralized zones.

The DINA 1 to DINA 6 Mineral Claims comprise a 6 unit north-northeasterly trending block of claims covering an area surrounding B.C. Minfile mineral occurrence 104N 044 known as the Pictou prospect. The claims are solely owned by Mr. Lenard Diduck (Mineral Titles Map M104N052 ).

The claims are located in topographic map NTS 104N 012, in the ATLIN MINING DISTRICT near the historic town of Atlin located in Northwestern British Columbia approximately 182 kilometers by road south from Whitehorse, Yukon. The prospect is easily reached by traveling on gravel road approximately 2.5 kilometers east- southeast of the town of Atlin. It is on the west side of placer gold- producing Pine Creek on bench-lands near the southern end of the active Atlin airstrip. Outcrop is sparse on the property.

Like most AGC prospects , it was discovered in 1900 and a 20 meter adit and 7 meter shaft were developed on the mineralized outcropping. In 1933 the B.C. Minister of Mines reported that they sampled two narrow lode- gold quartz veins. Channel samples assayed 0.10 and 0.60 ounces per ton gold ( Au ) and 0.4 and 5.0 ounces per ton( opt ) silver ( Ag ).

The property has a reported history of production. One shipment of a crude ton of material collected from the old workings and dumps was sent to the Trail smelter. This

shipment returned values of 342 grams per tonne ( g/t ) silver, 0.33% lead ( Pb ) and 0.16% zinc (Zn ). No gold was reported for the 11ounce Ag, 6 lb. Pb and 3 lb. of Zn recovered from the crude ton shipped which is odd considering the known gold content assayed from the Pictou mineralization.

No further exploration work was reported until Homestake Mineral Development Company ( HMDC ) conducted detailed exploration in 1987 and 1988 as part of their AGC lode- gold vein resource evaluation. The Pictou zone was reported to be near vertical and strike 100 degrees with an assay of 20.57 g/t Au and 171.43 g/t Ag across 0.61 metres (BCMM ,1933 ) .

The British Columbia Ministry of Energy , Mines and Petroleum Resources collected mineralized samples during their 1988 investigation of the Pictou prospect which assayed 5.7 and 6.78 g/t Au and 445 and 368 g/t Ag respectively.

HMDC's exploration activities during 1987 and 1988 included geophysical and geochemical surveys, trenching and stripping and drilling at the old workings and at new interpreted exploration targets.

Ten holes were drilled to investigate a north-northeast-trending linear aeromagnetic low anomaly. The target corresponded to the exposed carbonate-altered ultramafics, tectonic breccia and intensely fractured zone which hosted several generations of quartz and carbonate veining and fractures. The drilling also identified the ultramafic interpreted hanging wall of the Monarch Mountain Thrust in basal contact with carbonate altered metabasalts, cherts and argillites. This relatively flat-lying fault was reached at approximately 25 plus metres vertically from the surface.

Alteration is dominated by well developed hydrothermal listwanitization including mariposite ( Chromium-mica ), carbonate-sericite, and quartz-pyrite.

Mineralization associated with silicification, brecciation and quartz veins and veinlets includes freibergite-tetrahedrite, chalcopyrite, pyrite, gersdorffite, rammelsbergite, sphalerite, galena and millerite. The high silver assay values and the very high Ag / Au ratios ( plus 50 : 1 ) for this AGC prospect are directly caused by the presence of the mineral freibergite. Geochemical arsenic ( As ) anomalies are caused by the minerals gersdorffite and rammelsbergite.

Ar-Ar isotopic age dating methods have recently yielded a Middle Jurassic preferred age of 165 Ma for mariposite collected from the Pictou listwanitized- mineralized zone. The date is consistent with other recent AGC age dating . These dates appear to imply that AGC

mariposite alteration +/- gold mineralization may be related to the Middle Jurassic emplacement into the northern Cache Creek AGC Terrane rocks of the syn-orogenic Fourth of July batholith ,intrusions and related dykes of Middle Jurassic age.

No other exploration work has been conducted on the property since 1988. Mr. Lenard Diduck staked the DINA claim block to further exploration of this prospective AGC lode-gold, quartz vein showing.

The historic known lode gold mineralization and the mid-1980's recognition and exploration for listwanite-hosted, Motherlode-Bonanza or " pocket" gold-type quartz veins in the Atlin Gold Camp has been only partially successful. The Yellowjacket resource on Pine Creek now owned by Mr. Lenard Diduck is reported after HMDC's exploration drilling to contain over 150,000 ounces of gold (4,664,474 grams). The BC Ministry of Mines ( 2000 ) reported a resource of 453,500 tonnes grading 10.26 grams per tonne gold for the Yellowjacket deposit. However , the known lode -gold prospects in the AGC do not account for the great disparity between the still active placer gold

production ( estimated at well over 1 million ounces ) and the distinct lack of lode-gold, hard-rock mining in the camp. Clearly new ideas and modern exploration is warranted in the AGC and on the PICTOU PROPERTY.

At Pictou gold-bearing quartz veinlets and breccia are poorly to erratically developed in the intensely altered ultramafic hanging-wall rocks exposed at surface.

In the Motherlode District of California and elsewhere in the AGC wider and more continuous higher grade to Bonanza-grade, lode-gold veins are best developed as tabular-fissure type veins in more competent oceanic igneous crustal rocks such as metabasalts and andesites.

Drilling at Pictou found that these types of rocks occur in the footwall of the relatively flat-lying Monarch Mountain Thrust Fault. Carbonate alteration was introduced along the base of the overlying ultramafic thrust sheet and presumably hydrothermal silica and accompanying gold mineralization was also deposited at certain locals. It is recommended that future exploration specifically focus on the more prospective for vein development footwall basaltic rocks lying below the blind flat- lying contact and thrust zone and the over-lying listwanitized ultramafics.

Modern deep penetrating soil geochemical techniques using the elemental suite of Au, Ag, As, Sb, Bi, and in particular Te (tellurium ) may assist in tracking the fault and any blind auriferous zones adjacent to it.

Detailed ground magnetometer and ground penetrating radar could be used to delineate blind targets or to better characterize the potential of geochemical anomalies.

It is recommended that geochemical orientation surveys be conducted at the exposed lode-gold showings and at specific drill holes. The resultant data could be used to design and implement an expanded grid if results were positive.

Ground penetrating radar has been shown to map overburden characteristics and the bedrock contact, lithologies in the bedrock and often fracture development and faults within the bedrock. These data allied with anomalous magnetic data such as abrupt low to high magnetic responses could provide an excellent sub-surface blind exploration map and provide the drill target definition required for future blind drilling.

The Pictou Property is wooded and relatively flat covered by sand and gravel delta and outwash deposits. Access is provided along drill trails and roads created during HMDC's trenching and drilling during 1987-88. Permitting for exploration work should not present any problems.

Mr. Lenard Diduck has assembled the DINA 1-6 mineral claims at the PICTOU PROPERTY to further modern detailed exploration for Motherlode-Bonanza, lode-gold, quartz vein deposits in the Atlin Gold Camp.