Wolf 093F/03

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KEG TALK

GEOLOGY OF THE WOLF EPITHERMAL Au-Ag PROSPECT, OOTSA LAKE AREA, B.C.

INTRODUCTION: TITLE SLIDE (L1)

My presentation today is an overview of the geology of the Wolf Epithermal Au-Ag prospect.

I will briefly touch on the:

history of the Wolf property,
regional setting,
local geology
characteristics of the mineralization
geological model for the mineralization

LOCATION: LOCATION SLIDE (R1)

The wolf property consists of 198 units.

It is located on the Interior Plateau, about 220km west southwest of PG and 165 southwest of Vanderhoof.

The property is accessed via the Kluskas FSR and the Kluskas-Malaput from Vanderhoof and a 12km 4x4 road.

Travel time from Vanderhoof is about 2:40.

PROPERTY HISTORY: HISTORY SLIDE

Mineralization in the Wolf area was -

1982 Wolf claims staked by Rio Algom to cover a Ag-As-Zn-Mo lake sediment anomaly discovered. **POND SHOT (R2)**

1983 Follow up prospecting discovered three areas of silicification.

1984 Hand trenches on Ridge Zone produced highly anomalous Au values over a 40 by 20m area.

Best value **8.49g/t Au /7.5m**

Soil sampling, and property mapping

1985 Mag, VLF-EM and 6 hole 593.5m diamond drilling program over Ridge Zone area - drilling did not intersect mineralized zone.

1986 Claims acquired by Lornex Mining Corporation Ltd. and optioned to Lucero .

1987 Lucero carried out an extensive program of road building and geological mapping and soil sampling.

1988 Trenching program over Ridge Zone extended the mineralized area to 60x70m.

Found wide zone silicification west of Rio's Trench area that ran 2.69g/t Au / 26.5m.

Kathryn Andrews completed M.Sc. thesis on Wolf. & Capoose

1991 Minnova options property from Lucero

Airborne survey

1992 Gradient Array IP, Geological Mapping, Trenching, Biogeochemistry, drilling (2002m)

REGIONAL GEOLOGY: **REGIONAL SLIDE**

Geology of the Wolf area not well known.

Tipper's map (1963) is the only regional map available.

The area will be the subject of the MDA interiot plateau project this summer.

Much of the area is covered by quaternary glacial and glaciofluvial devosits.

Oldest rocks exposed are lower to midddle Jurassic volcanics and sediments that are correlated with Hazelton Gp based on fossil assemblages by Green and Diakow.

Hazelton rocks are intruded, hornfelsed and in places altered by late Cretaceous granitic plutons. Andrews dated Capoose Batholith 67 Ma by K-Ar on biotites.

Mesozoic rocks are unconformably overlain by Ootsa Lake Gp (Yellow)

Ootsa Lake Gp. rocks dated at early to middle Eocene.

Consist of intermediate to felsic volcanic rocks with minor sediments.

Wolf property lies in a northeast trending belt of Ootsa Rocks.

Youngest rocks are the Endako and Chilkotin Groups shown in brown. They consist of proxene phyric and amygdaloidal basalt flows.

Remainder of the talk will focus on the southwest part of the wolf property.

SCENERY SHOT (R4)

PROPERTY GEOLOGY: GEOLOGY MAP (L5)

LEGEND (R5)

Geological map of the southwest part of the property.

As with the regional picture, much of the area is covered by Quaternary sediments

Outcrop is mostly restricted to hill tops and south facing slopes.

Five main units exposed. Lowest (dark green) is a strange heterolithic breccia

Massive, Poorly sorted, rounded to angular, matrix supported, tuffaceous matrix (!), contains clasts of basement andesite, granitic intrusions and Ootsa rhyolite. Silicified clasts noted in drill core. Matrix is almost always hydrothermall altered.

Grades into 50m thick sequence of volcaniclastic sediments and fine quartz crystal ash tuffs (reworked). Lenses of conglomerate with similar clasts population as breccia. Bedded!!

Rhyolites over lie the seds. These are generally strongly quartz phyric (2 to 5mm). Complex facies variations between intrusive, flow banded, autobrecciated and pyroclastic.

Rhyolites are overlain and underlain by rhyolite crystal and crystal lithic tuff (light green).

Two main areas of silicification and several Au showings occur in the area.

AERIAL SHOT OF RIDGE ZONE (R6)

Point out major features - silicified zones, surface trace of Ridge Zone mineralization. - Black Fly Zone etc.

STRATIGRAPHIC SECTION (L7)

Go through lithologies again showing pictures of eac lithology on right screen

HAZELTON ANDESITE BRECCIA (R7)

HETEROLITHIC BRECCIA (R8) Het Br 1

Large unsorted rounded to angular blocks of granitic material

SED/RHYOLITE CONTACT (R9)

Note sharp contact. It has been interpreted as a shallow angle structure in the past. Intrusive or bulldozing flow contact

FLOW BANDED RHYOLITE (R10)

Note abundant black quartz phenocrysts

RHYOLITE BRECCIA (R 11)

RIDGE ZONE GEOLOGY (L 8)

A Close up of the Ridge Zone showing the surface trace of the silicified zone and the the distribution of breccias and bladed veins.

The mineralization occurs along a notherly trending zone.

Au bearing hydrothermal breccia bodies and epithermal veins occur as discontinuous lenses within a larger silicified zone. Breccia bodies typically run > 3.0 g.t Au

Rocks between breccia bodies run from 1 to 3.0 g/t Au.

Rocks within the silicified halo are generally anomalous for Au and Ag. - 100 to 500 ppb Au

I have not mentioned Ag values. Ag grades are not economically significant. In general there is a 10:1 ratio between Ag / Au. i.e. 1 a rock having 1 ppm Au will run about 10 ppm Ag.

Mineralogy - Visible mineralization is very rare.

Py, Native Au, Native Ag, electrum, naumannite, aguilerite, galena, sphalerite, chalcopyrite.

Sulphides in trace amounts. - Total sulphide <0.5%.

No As, Sb, or Hg detected !

RIDGE ZONE SECTION (R 8)

In cross section the semi conformable nature of the mineralized zone can be seen

Mineralization occurs primarily in the volcaniclastic sediment sequence and in the rhyolites at the base of the QFP sill.

Alteration asymmetrical - tightly constrained in the footwall. It extends up to30m into the hangingwall.

In the overlying porphyry bladed quartz and banded chalcedony stringers are abundant.

The mineralization forms a coherent body that feathers and horse tails towards the surface.

ARGILLIC Beneath #7 & Rio Hdes -

INCLINED LONGITUDINAL SECTION (L9)

Inclined section in the plane of the mineralization showing thdrill intercepts.

Note squares are 100m; values are g/t / m

Note core zone thicknesses generally exceed 9m and grades are consistently over 1.50 g/t Au.

The zone seems to be thinning to the north and thickening to the southwest.

It remains open to the south as well. Note position of surface trenches.

Dimensions of the zone at present are about 300x300m in area with an average thickness of 8.6m.

SURFACE EXPRESSION (R 15)

Identify the trace of the mineralized breccia vein.

Note shallow dip (~15°)

Rhyolite in the footwall.

Channel sample across the outcrop ran 21.65 g/t Au over 2.1m

BANDED VEIN TEXTURES (R 16)

Close up of outcrop showing banded quartz and chalcedony textures.

Banded material in upper part of slide ran 78 g/t Au

BLADED QUARTZ - BOILING TEXTURE (R17)

Sample runs about 3 g/t Au

HIGH GRADE BANDED VEIN IN CORE (R18)

Note dark band - containd fine grained sulphides and pm's.

HYDROTHERMAL ERUPTION BRECCIA (R19)

Note the episodically silicified rhyolite fragments.

Matrix is a silty tuffaceous sediment.

Unit shows that the hydrothermal system was active during the deposition of the rhyolites and sediments. i.e synvolcanic.

SILICIFIED SED BRECCIA (R20)

Variably silicified angular clasts in a silicified matrix

CHALCEDONY STOCKWORK(R21)

Typical hangind wall silicification in QFP.

Note strong banded chalcedony and quartz.

Rock only moderately anomalous for Au

GAS PHASE BRECCIA (R22)

Cross cutting veins of loosely cemented breccia

Interpreted to be formed by gas streaming.

Sample runs 1.89 g.t Au - Gold probably in clasts