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PYRO CLAIMS NTS 92F/3W
OWNER:SAM CRAIG, TOFINO

J.C.S. impressions of property.

Rough logging road can be made serviceable but installation of culvents or small bridges will be costly.
Topography is rugged but not impractical.
Main rock types appear to be andesite , ardesitic pillow? flows, andesitic breccia, rhyodacite? andesitic or dacitic dykes.
Trend of formations is uncertain, dip unknown
Mineralization - Pyrite on fractures - common in andesitic rocks. Some in Rhyodacite.
Fine to coarse cubic disseminated pyrite fairly common. Fine (dust) dissem in some siliceous (dacitic?) zones. Coarse cubic on some fractures in dark andesitic rocks, as massive lenses in rhyodacite to andesitic and as lenses in bleached, leached, fractured rhyodacite fault zone on west side of creek 200'?? west of drill hole.
Chalcopyrite- occasional with some py in andesites
-massive small pods in possible flow top cavities
-stringer and dissem with pyrrhotite in zone 60' east of drill hole
Minor malachite on some fractures
Pyrrhotite - in trenched showing 60' east of drill hole. Local zones represented by large fragments contain near massive pyrr strongly magnetic.
Pyrr with pyrite in some fractures in andesite
Some very pale pyrite maybe arsenical.
I did not identify bornite, sphalerite or arsenopyrite.

Style of Mineralization

Sulphide mineralization is very widely distributed in this region. The most common sulphide mineral occurrences consist of fine to coarse cubic pyrite on fractures in andesitic rocks. This mineralization occurred after formation of these volcanics and could be a pyritic halo of large size around an intrusive or mineralized center. Pyrite also occurs as pods of massive, fairly coarse, cubic pyrite and as heavy disseminations in portions of an apparently east trending structure outcropping on the west wall of the creek 200'? west of the drill hole casing. This sheared, fractured, bleached, leached, siliceous zone may represent a fault or a shear zone, It might well occur near the contact of the andesites withoverlying rhyodacites. This zone appears to extend along the face of the bluffs above the dirll hole and to the west to intersect the road about 3 creeks to the west. Local zones of near massive pyrite, pyrrhotite, chalcopyrite occur east of the located drill hole. In part the mineralization is filling fractures or is disseminated but the most interesting possibilities, suggested by lenses of near massive sulphides, is that the sulphides occupy lens like spaces between large fragments or pillows of andesite and may therefore be syngenetic. This style of mineralization carries the greater part of the chalcopyrite observed.

An attempt was made to collect specimens with a semblance of apparent bedding. Alignment of small siliceous partings within sulphides (pyrrhotite), apparent banding of pyrite, specimens showing sharp transitions from rock to sulphides suggest, but do not prove, syngenetic origin. One suggestive specimen shows a 1/2" thick "bed" of pyrite-coarse in the upslope position and fining "offshore" in a mini basin. "Overlying" rock shows cross bedding??

Geophysics

Placer conducted EM-16 and magnetometer surveys. Both are presented as stacked profiles. The EM 16 data shows no readily apparent anomalies. The magnetic pattern shows a two step increase in readings in the north east corner of the grid leading to a highly erratic high-low pattern. Doug Paterson reports magnetite with copper to the north east beyond the ridge top (Marion Creek drainage).

The northeast corner of the Placer grid covers part of the southwest and south slopes of the local ridge top. The only outcrops indicated (limit of mapping) are of rhyodacite. No adequate mapping or prospecting has been conducted to investigate the origins of this anomaly.

Geochemistry

The geochemical survey results are described in the Placer assessment report M.B. Gareau Sept. 1984. Preliminary examination of the geochemical maps indicates that the main copper anomaly within the grid area adjoins the magnetic high on the south west slopes of the ridge top. This copper anomaly is larger and more intense than any other.

Extending southerly from the copper anomaly is a linear and coincident lead, arsenic, gold anomaly leading downhill to the creek valley.

This linear anomaly may be topography controlled in part but is suggestive of zoning outward from the mag high- copper anomaly.

Zinc values for soil samples and rock samples are uniformly low.

Ferricrete, consisting of iron oxide cemented rock fragments overlies, and is cemented to, rock outcrops in some areas. It is likely, though not documented on this visit, that there are horizons of ferricrete within the overburden possibly some distance above bed rock surface.

Rock fragements in the ferricrete vary in size from coarse sand to about 3" diameter. It is probable that larger fragments are incorporated in places. Most small rock fragments are sharply angular with rounded to angular fragments of pyrite having been

observed in one area. The Placer report includes analyses of two samples of ferricrete with the values reported being surprisingly low. Moving surface and groundwater appears to have access to considerable iron (pyrite) providing acid solutions which, when neutralized, precipitates iron oxides to cement shallow overburden forming ferricrete horizons. Where observed on float and bedrock this ferricrete is tightly cemented to rock surfaces and almost certainly would mask the bedrock from producing geochemical anomalies.

Geology

Placer reports that Phelps Dodge explored for copper molybdenum porphyry type mineralization in granodiorite on the south side of the valley. Samples taken by -- at various angles from (or to?) the identified drill hole are reported to be of "granodiorite". I did not see any granodiorite or other granitic intrusive bodies during my visit. The south side of the valley was not visited.

Potential

Uncertainty as to the origin of some of the mineralization observed makes conjecture as to potential of the property most dangerous. If there are indeed granodiorite or monzonite intrusives on the south side of the valley, especially if mineralized, interpretation of the fracture controlled pyrite would suggest an extensive pyrite halo.

Investigation of the Placer magnetometer anomaly with its associated copper geochem anomaly might also reveal a mineralized centre and, again, the fracture controlled pyrite could be considered a halo around such a zone.

Most of the chalcopyrite observed however occured in more massive, sometimes quite siliceous, lenses. These suggest deposition in cavities between pillows, flow tops and fragments of andesitic volcanics during deposition. This chalcopyrite is generally accompanied by pyrite and in a few cases with relatively massive pyrrhotite.

If such contemporaneous mineralization is in fact present it raises the possibility of finding occurrences of true massive sulphide mineralization, a very attractive target. The presence of rhyodacite horizons may be encouraging in this regard. Rhyolitic, and possible argillitic, horizons should be sought.

On the other hand the apparent lack of significant zinc in the area explored is a negative factor since a good many massive sulphide occurrences are rich in zinc. The host rocks are thought to be part of the Triassic Karmutsen series whichis another negative factor.

Cyprus type volcanic hosted massive sulphide (copper) ore bodies which carry little zinc would be the likely model.

Recommendations

The following steps should be taken to document data on the property

1) Occurrences of mineralization should be documented as to (a) fracture controlled , (b) fine or coarse disseminated (c) massive, and teh association of pyrite only, pryite-chalcopyrite or pyrite-chalcopyrite-pyrrhotite should be noted. If magnetite is found it should be described in the same way. Skarns may occur in the area. No galena was observed on this visit but if found it too should be documented in the same way. Quartz vein hosted mineralization may be added to the list. The late fracture controlled pyrite may prove to be barren.

2) Prospecting of the north side of the ridge should be continued and, if possible, extended over the top to join the north east corner of the Placer grid.

3) Any company planning exploration on the property should plan on extending the Placer soil sample and magnetometer survey to the north and east.

4) Geological mapping using the best available air photos enlarged should be conducted over a larger area. The reported granodiorite intrusive to the south (reported fault contact) should be confirmed. The cause of teh magnetic anomaly needs to be determined.