HEART PEAK 883846

RUN DATE: 08/26/96
RUN TIME: 16:41:12

MINFILE / pc
MASTER REPORT
GEOLOGICAL SURVEY BRANCH - MINERAL RESOURCES DIVISION
MINISTRY OF ENERGY, MINES AND PETROLEUM RESOURCES

MINFILE NUMBER: 104K 084

NATIONAL MINERAL INVENTORY:

NAME(S): HART, HEART PEAKS

STATUS: Prospect
NTS MAP: 104K09E
LATITUDE: 58 35 20
LONGITUDE: 132 03 48
ELEVATION: 1480 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Centre of Top Zone (Assessment Report 12141).

MINING DIVISION: Atlin
UTM ZONE: 08
NORTHING: 6497800
EASTING: 670700

COMMODITIES:	Silver	Gold	Arsenic	Gemstones	
MINERALS					
SIGNIFICANT:	Pyrite Opal	Arsenopyrite Stibnite	Ruby Silver	Pyrargyrite	Proustite
ASSOCIATED:	Quartz	Amethyst			
ALTERATION:	Kaolinite Melanterite	Illite Scorodite	Opal Rozenite	Tridymite	Jarosite
ALTERATION TYPE:	Silicification	Pyrite	Argillic		
MINERALIZATION AGE:	Unknown				
ISOTOPIC AGE:		DATING METHOD: Unknown		MATERIAL DATED:	
DEPOSIT					
CHARACTER:	Vein	Stockwork	Breccia	Disseminated	
CLASSIFICATION:	Epigenetic	Hydrothermal	Epithermal	Industrial Min.	
DIMENSION:	2000	Metres	STRIKE/DIP:	TREND/PLUNGE:	

COMMENTS: Length of north-northeast trending mineralized zone.

HOST ROCK
DOMINANT HOST ROCK: Volcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Pliocene-Pleistocene	Level Mountain	Heart Peaks	

LITHOLOGY: Siliceous Trachyte
Rhyolite
Tuff
Polymictic Breccia
Basalt

GEOLOGICAL SETTING
TECTONIC BELT: Intermontane
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Taku Plateau

Stikine

INVENTORY

ORE ZONE: TOP

CATEGORY: Assay/analysis
SAMPLE TYPE: Grab
YEAR: 1983

COMMODITY	GRADE	
Silver	1345.0000	Grams per tonne
Gold	2.7400	Grams per tonne

REFERENCE: Assessment Report 12141

CAPSULE GEOLOGY

Trachyte, basalt and rhyolite of the Pliocene Heart Peaks Formation are conformably overlain by alkaline basalt flows of the Plio-Pleistocene Level Mountain Group. To the west, are shale, siltstone and sandstone of the Lower Jurassic Takwahoni Formation.

The Heart Peaks basalt is part of an inferred 030 degree trending line of centres which includes Mount Edziza. Locally, trachyte domes, with associated late phreatic explosion breccias and vein mineralization, lie along a suspected old north-northeast trending fracture system.

Three styles of alteration occur. Pervasive silicified zones in the trachyte and breccia are the main hosts to the mineralized veins. The silicified trachytes contain rozenite, melanterite, scorodite and jarosite. Minerals resulting from argillation and opalization include illite, kaolinite, tridymite and grey opal.

Mineralization, associated with banded and/or vuggy quartz and rare amethyst veins, occurs along a north to north-east trend and includes, from south to north for 2 kilometres, the Top, Quartz Hill, Steep, End and Mogul zones. With the exception of the Top Zone, the quartz veining is intimately associated with the phreatic explosion breccias, cutting either it or adjacent silicified trachytes. Precious metals occur in quartz veins, silicified trachytes and open spaces. Pyrite is locally abundant and arsenopyrite is rare. Minor stibnite-opal veining occurs near the Mogul Zone.

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CAPSULE GEOLOGY

The Top Zone is a 100 by 200 metre area of intensely silicified trachyte with cross-cutting banded and vuggy quartz and minor amethyst veins. Visible ruby silver (pyrargyrite or proustite) occurs as disseminations in very fine-grained clay-layers within well-banded quartz veins up to 1 metre in width. A grab sample assayed 2.74 grams per tonne gold and 1345 grams per tonne silver (Assessment Report 12141).

The Quartz Hill Zone consists of open space filling, coarsely crystalline quartz veins within polymictic breccias and silicified trachytes. A grab sample assayed 1.4 grams per tonne gold, 502 grams per tonne silver and 0.49 per cent arsenic (Fieldwork 1984).

The Steep Zone is hosted by a pyritic, silicified explosion breccia and blocks of trachyte. Quartz veins up to 1 metre across trend north-northeast and north-northwest and exhibit platy replacement textures and cockscomb textures, with large (5 centimetres) euhedral quartz crystals. A 75 centimetre sample assayed 12.8 grams per tonne silver (Assessment Report 12141).

The Mogul Zone contains several white to black, massive to drusy quartz veins within siliceous rhyolite-trachyte breccia, which contains kaolinized trachyte, trachyte, rhyolite, shale and chert fragments, and abundant disseminated pyrite. A 24 centimetre channel sample assayed 9.9 grams per tonne gold and 17.5 grams per tonne silver (Assessment Report 9859).

The alteration and mineralization likely occurred at a very high level within an epithermal system.

BIBLIOGRAPHY

EMPR ASS RPT 7610, 9859, 11233, *12141, 13811
EMPR FIELDWORK *1984-358-364
EMPR EXPL 1981-138; 1982-396; 1983-544; 1985-395-396
GSC MAP 6-1960; 1262A
GSC MEM 362
EMPR PF (RPTS by Lefebure, D. (1987))

DATE CODED: 860218 CODED BY: AFW FIELD CHECK: N
DATE REVISED: ~~880519~~ 960805 REVISED BY: LDJ TCG FIELD CHECK: N Y

1996 Work

2 diamond drill holes totalling approx. 790m; one in Camp Creek between the Top and Steep Zone area and Mogul Dome — the other located on the top of a ridge on the east side of the property.

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