Location/Identification

MINFILE Number: 092L 008
National Mineral Inventory Number: 092L2 Au1
Name(s): **PRIVATEER (L.1040)**
PRIVATEER MINE, NEW PRIVATEER, PRIDENT, PRIVATEER NO. 3 (L.1041), PRIVATEER NO. 7 (L.1042), ZEBALLOS

Status: Past Producer
Mining Method Underground
Regions: British Columbia
BCGS Map: 092L006
NTS Map: 092L02W
Latitude: 50 01 49 N
Longitude: 126 49 08 W
Elevation: 118 metres
Location Accuracy: Within 500M

Mining Division: Alberni
Electoral District: North Island
Resource District: Campbell River Natural Resource District

UTM Zone: 09 (NAD 83)
Northing: 5544276
Easting: 656209

Comments: Main adit, in the west corner of Lot 1040 on Spud Creek, 0.5 kilometres south of Zeballos River, 5.5 kilometres northeast of Zeballos (Bulletin 27). See also Prident (092L 009), Van Isle (092L 038) and Fern Hill (092L 155).

Mineral Occurrence

Commodities: Gold, Silver, Lead, Copper, Zinc, Arsenic

Minerals
Significant: Pyrite, Gold, Sphalerite, Galena, Chalcopyrite, Arsenopyrite, Pyrrhotite
Associated: Quartz, Pyroxene, Garnet, Calcite
Alteration: Diopside, Wollastonite, Garnet, Plagioclase, Quartz, Biotite, Ankerite
Alteration Comments: Numerous gold and sulphide-bearing quartz veins are locally associated with skarn wallrock alteration.
Alteration Type: Skarn, Carbonate
Mineralization Age: Unknown

Deposit
Character: Vein, Shear
Classification: Hydrothermal, Epigenetic, Skarn
Type: I01: Au-quartz veins, I06: Cu+/-Ag quartz veins, K04: Au skarn
Shape: Tabular
Dimension: 442x305x1 metres **Strike/Dip:** 075/80N
Comments: No. 1 vein strikes 066 to 083 degrees and dips 65 to 90 degrees north. Its width varies from hairline to 1.2 metres, but averages 28 centimetres.

Host Rock

Dominant Host Rock: Volcanic

Stratigraphic Age	Group	Formation	Igneous/Metamorphic/Other
Lower Jurassic	Bonanza	Undefined Formation	------
Tertiary	------	------	Catface Intrusions

Isotopic Age	Dating Method	Material Dated
200 Ma	Fossil	200 Ma
38 +/- 14 Ma	Potassium/Argon	Biotite

Lithology: Andesite Tuff, Calc-silicate Skarn, Quartz Diorite, Andesite, Granodiorite, Granodiorite Dike, Porphyritic Dacite, Porphyritic Dacite Dike
Comments: Age dates from Geological Survey of Canada Paper 74-8.

Geological Setting

Tectonic Belt: Insular
Physiographic Area: Vancouver Island Ranges

Terrane: Wrangell

Metamorphic Type: Contact
Grade: Amphibolite

Inventory

Ore Zone: DUMP
Category: Assay/analysis
Year: 2013
Report On: N
NI 43-101: N

Sample Type: Grab

Commodity	Grade
Silver	65.3 grams per tonne
Gold	95.55 grams per tonne

Comments: A dump sample (032985).
Reference: Assessment Report 34206

Ore Zone: PRIVATEER
Category: Combined
Quantity: 122,470 tonnes
Year: 1988
Report On: Y
NI 43-101: N

Commodity	Grade
Gold	17.0000 grams per tonne

Comments: Indicated and inferred reserves situated both on the Privateer and Prident (092L 009) properties.
Reference: Canadian Mines Handbook 1988-89, page 333.

Summary Production

		Metric		Imperial	
Mined:		282,528	tonnes	311,433	tons
Milled:		146,851	tonnes	161,875	tons
Recovery	Gold	5,301,992	grams	170,463	ounces
	Silver	2,160,196	grams	69,452	ounces
	Lead	10,093	kilograms	22,251	pounds
	Copper	4,063	kilograms	8,957	pounds

Capsule Geology

The Privateer (L.1040) mine is located on the east of Spud Creek near its junction with the Zeballos River and approximately 5.5 kilometre north-northeast of the community of Zeballos.

The mine lies in the Zeballos gold camp, an area underlain by an island arc sequence of basaltic to rhyolitic volcanic rocks of the Lower Jurassic Bonanza Group. Conformably underlying the Bonanza rocks are limestones and limy clastics of the Quatsino and Parson Bay formations, and tholeiitic basalts of the Karmutsen Formation, all belonging to the Upper Triassic Vancouver Group. Dioritic to granodioritic Early-Middle Jurassic plutons of the Zeballos intrusion phase of the Island Plutonic Suite have intruded all older rocks. The Eocene Zeballos stock, a quartz diorite phase of the Tertiary Catface Intrusions, is spatially related to the area's gold-quartz veins. Bedded rocks are predominantly northwest striking, southwest dipping, and anticlinally folded about a northwest axis.

Recorded production for the camp totals 9465 kilograms of gold and 4119 kilograms of silver from 652,000 tonnes of ore mined (Fieldwork 1982, page 291). Most production came from the Spud Valley deposits (092L 211 and 092L 013) and the Privateer.

The Privateer mine, with variable production recorded between 1934 and 1975, consists of 3 roughly parallel main veins from which ore was produced, and more than 12 lesser, subsidiary veins. All veins follow shear zones. The veins are located in drag-folded andesitic tuff that is locally

diopside-altered, and hosts calc- silicate skarn, consisting of a diopside-wollastonite-garnet- plagioclase-quartz-biotite assemblage interbanded with thin layers of fragmental volcanics. All rocks belong to the Bonanza Group. Intruding these rocks is a lenticular quartz diorite stock of the Tertiary Catface Intrusions which is related to the main quartz diorite intrusion of similar composition lying several hundred metres to the east. The quartz diorite is cut by granodiorite dykes up to 0.6 metre wide. Diabase dykes to 6 metres wide cut the layered rocks but not the quartz diorite. Porphyritic dacite dykes, up to 3 metres wide, cut all other rock types, but occur mostly east of the quartz diorite lens.

The three veins from which most of the production was recorded contain alternating bands of quartz and sulphides. Locally comb textures and quartz-lined vugs up to 30 centimetres are present. Where sulphides are absent, variably altered wallrock inclusions are common. Coarse ankerite is often present. The productive parts of the veins contain abundant sulphides, including, in order of abundance, pyrite, sphalerite and galena, chalcopyrite, arsenopyrite and pyrrhotite. Late calcite veinlets, overprinting the main veins, are often present.

The No. 1 vein strikes between 066 and 083 degrees, dipping 65 to 90 degrees north. The vein has been developed over a horizontal distance of 442 metres and a depth of 305 metres. Widths range from hairline to 1.2 metres, averaging 28 centimetres. Where in quartz diorite, the vein commonly passes into a sheeted zone along strike, with the vein following one or more of the joints.

The No. 2 vein lies 80 metres north of the No. 1 vein and is more or less parallel at a strike of 083 degrees and 86-degree southward dip. Development has traced the 5- to 35-centimetre-wide vein for a strike length of 207 metres and a downdip depth of 256 metres.

Both the No. 1 and 2 veins appear to pinch out to very narrow widths at their on-strike extremities, and both veins have associated narrow gash veins up to 9 metres long and striking 057 to 067 degrees.

The No. 3 vein strikes 067 degrees and branches from No. 2 vein. It has been traced underground for 70 metres. It is 5 to 10 centimetres wide and, like the No. 1 vein, has a sheeted style in quartz diorite.

The Privateer occurrence includes a number of nearby additional veins: the No. 4 and 5 veins are located 14 metres and 120 metres north of the No. 3 vein, respectively. The No. 4 vein, actually a zone of closely-spaced quartz stringers in quartz diorite, is poorly developed. The vein strikes northeast and dips vertically. The 090 degree striking No. 5 vein consists of narrow quartz stringers containing coarse carbonate but no sulphides.

An additional 11 veins were intersected in the "600 Crosscut" that leads to the Prident mine (092L 009). These veins, named A to L, are usually less than 5 centimetres wide, steeply dipping and strike northeast. The veins occur at irregular intervals over a distance of 365 metres and are weakly mineralized with combinations of calcite, pyrite, sphalerite or arsenopyrite.

Indicated and inferred reserves situated both on the Privateer and Prident (092L 009) properties total 122,470 tonnes grading 17 grams per tonne gold (Canadian Mines Handbook 1988-89, page 333).

New Privateer Mines Ltd. reopened the mine in 1983 and rehabilitated the workings. It processed about 2000 tonnes before closing in 1991.

Newmex Minerals Inc. (formerly Kilo Gold Mines Ltd.) reopened the 1100-level portal and mined a 200-tonne sample in 1998. Of this ore, 16.3 tonnes was milled (Roberts mill near Greenwood), producing a 703 gram bar. A 900-tonne bulk sample in planned for 1999.

Jacques Houle, Regional Geologist visited the area in May 2000; he reports that the Zeballos Iron mine waste pit stockpile contains about 243,000 tonnes of 5 per cent magnetite, 5 per cent garnetite and 5 per cent limestone.

In 2005, Newmex Minerals Inc. prospected the area as part of the regionally extensive Zeballos property.

In 2013, A25 Gold Producers Corp. prospected and rock sampled the area as the Pillars of Boaz claim. A dump samples (032985) assayed 95.55 grams per tonne gold and 65.3 grams per tonne silver (Assessment Report 34206).

In 2017, the area immediately west of the occurrence was prospected as the Zeballos property.

Bibliography

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Date Coded:	1985/07/24	**Coded By:**	BC Geological Survey (BCGS)	**Field Check:**	N
Date Revised:	2022/06/09	**Revised By:**	Karl A. Flower (KAF)	**Field Check:**	N