

Location/Identification

MINFILE Number:	092F 271	National Mineral Inventory Number:	092F15 Cu2
Name(s):	<u>COPPER QUEEN (L.40)</u> COPPER QUEEN, VAN ANDA, VANANDA		
Status:	Past Producer	Mining Division:	Nanaimo
Mining Method	Underground	Electoral District:	Powell River-Sunshine Coast
Regions:	British Columbia, Vancouver Island, Texada Island	Resource District:	Sunshine Coast Forest District
BCGS Map:	092F078		
NTS Map:	092F15E	UTM Zone:	10 (NAD 83)
Latitude:	49 45 11 N	Northing:	5512322
Longitude:	124 32 47 W	Easting:	388610
Elevation:	84 metres		
Location Accuracy:	Within 500M		
Comments:	Shaft on Lot 40, 500 metres south-southeast of the community of Vananda on Texada Island, east of Vananda Creek (Open File 1990-3).		

Mineral Occurrence

Commodities: Copper, Gold, Silver, Molybdenum, Tungsten

Minerals	Significant:	Scheelite, Bornite, Chalcopyrite, Tetrahedrite, Molybdenite, Silver, Gold
	Significant Comments:	Minor amounts of tetrahedrite, molybdenite, native silver, and native gold.
	Associated:	Pyroxene, Garnet, Diopside, Calcite, Epidote
	Alteration:	Garnet, Diopside, Calcite, Epidote
	Alteration Type:	Skarn
	Mineralization Age:	Unknown

Deposit	Character:	Massive, Disseminated
	Classification:	Skarn
	Type:	K01: Cu skarn

Host Rock

Dominant Host Rock:	Sedimentary		
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Stratigraphic Age	Group	Formation	Igneous/Metamorphic/Other
Upper Triassic	Vancouver	Quatsino	-----
Jurassic	-----	-----	Unnamed/Unknown Informal

Isotopic Age	Dating Method	Material Dated
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Lithology: Limestone, Porphyritic Diorite Dike, Diorite, Skarn

Geological Setting

Tectonic Belt:	Insular	Physiographic Area:	Georgia Depression
Terrane:	Wrangell		
Metamorphic Type:	Contact		

Inventory

No inventory data

Summary Production

		Metric	Imperial
Mined:		749 tonnes	825 tons
Milled:		0 tonnes	0 tons
Recovery	Silver	75,238 grams	2,419 ounces
	Gold	9,891 grams	318 ounces
	Copper	32,417 kilograms	71,467 pounds

Capsule Geology

Northern Texada Island is underlain by Karmutsen Formation pillowed and massive basaltic flows with thick units of pillowed breccias conformably overlain by massive limestone of the Quatsino Formation, both formations of the Upper Triassic Vancouver Group. Various stocks and minor intrusions (Middle Jurassic) ranging in composition from gabbro through diorite to quartz monzonite, intrude the volcanics and limestones, and are locally associated with iron and copper-gold skarn mineralization. A major episode of folding (F1) has resulted in the limestones and, to a lesser extent, the underlying volcanics, being deformed into a series of broad, northwest trending open folds that plunge northwards. Three subparallel northwest striking lineaments are also recognized and coincide with the Ideal, Holly and Marble Bay faults. These faults cut a set of northeast striking faults. The Marble Bay fault, and to a lesser extent the Ideal fault, have apparently controlled the emplacement of some of the Jurassic intrusions and their associated skarn mineralization.

The Copper Queen occurrence area is underlain by massive, recrystallized limestone of the Quatsino Formation intruded by several porphyritic diorite dykes and an occasional quartz diorite dyke. The Marble Bay fault occurs nearby to the southwest.

Mineralization at the Copper Queen mine consists of irregular pipe-like skarn bodies that plunge moderately, subparallel to the contacts between limestone and intrusive rocks. Two orebodies have been historically exploited by underground development and occur along the contacts of porphyritic diorite dykes and limestone. Mineralization consisting predominantly of bornite and chalcopyrite occurs in a gangue of garnet-diopside-calcite-epidote skarn and within cavities in limestone. The mineralized skarn is also observed to extend into the dykes. Less common minerals include tetrahedrite, molybdenite, native silver and native gold (Geological Survey of Canada Memoir 58, page 61).

The property produced intermittently between 1907 and 1917 during which 749 tonnes of ore yielded 32,417 kilograms of copper, 75,238 grams of silver and 9,891 grams of gold (Mineral Policy Data).

Production from 1902 to 1904 is included with Cornell (092F 112). The property is held by Consolidated Van Anda Gold Ltd.

Bibliography

EMPR AR 1896-553; *1897-463,560-562; *1898-1135,1136,1144,1160; *1899-607,800-806,816; 1900-925,943; 1901-1102,1105,1109; 1902-H23; 1903-H26,H204; 1904-G27,G246,G247; 1905-J25,J214,J221; 1906- H26; 1907-L164,L215; 1908-J153,J154; 1910-K166; 1913-K324; 1914- K378,K381,K420,K511; 1915-K368; 1916-K353,K431,K519; 1917-F258; 1918-K306; 1919-N254; 1922-N235; 1925-A284,A288-A290; 1928-C384; 1929-C393; 1944-A66,G163,G164

EMPR ASS RPT 5077, 6770

EMPR BC METAL MM00154

EMPR BULL 101, p. 166, Appendix 6

EMPR EXPL 1974-180; 1975-E101,E102

EMPR FIELDWORK 1989, pp. 257-270

EMPR INDEX 3-193

EMPR OF 1988-28; 1990-3

EMPR PF (*Plan maps of underground workings; Consolidated Van Anda Gold Ltd. Website (Apr. 1998): Texada Island Mines History, 3 p.)

GSC EC GEOL 3, pp. 86-102

GSC MAP 1386A; 17-1968

GSC MEM *58, pp. 60-62

GSC OF 463

GSC P 68-50

GSC SUM RPT 1924 Part A, pp. 106-144

WWW <http://www.infomine.com/>

EMPR PFD 650385, 7515, 7516, 7517, 7518, 903250, 903394, 904077, 810006, 750144, 750149, 750150, 882013, 888667, 888672, 888679, 888681, 888682, 888683, 888673, 888670, 888671, 600197, 600198, 802368, 675373, 675374, 675375, 680578, 680579, 680581, 680582

Date Coded:	1985/07/24	Coded By:	BC Geological Survey (BCGS)	Field Check:	N
Date Revised:	1990/03/06	Revised By:	George Owsiacki (GO)	Field Check:	N