BC Geological Survey Assessment Report 30078

# VIKING MINERAL CLAIM Tenure 560948 Tenure 560954

Mining Division: Victoria, B.C. Lat: 48° 46' 29" N Long 124° 05' 09" W NTS 092C09E

Owners: D. Brouwer D. Herriott

# PROSPECTING REPORT

Submitted on June 30<sup>th</sup>, 2008 By D. Brouwer and D. Herriott

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#### 1. Introduction

Doug Herriott of 5968 Parkway Drive, Nanaimo B.C. and Doug Brouwer of 1686 Brierley Hill, Nanaimo, B.C. hold sole title of the Viking mineral claims located on Vancouver Island, near Cowichan Lake and north of the village of Youbou.

## 2. Property Description

The Viking claims consists of two mineral tenures totalling 32 units.

Claim Name	Tenure No.	Anniversary Date	<u>Units</u>
Viking	560948	June 22, 2007	20
	560954	June 22, 2007	12

The tenures cover a number of mineral showings known as the Viking showings (minfile O92C 035).

#### 3. Location and Access

The Viking claim and adjacent unnamed tenure (560954) are located on Vancouver Island in the Victoria Mining District (see map 1). The claims are approximately 89 kilometres by road southwest of Nanaimo and 16 kilometres south, southwest of the town of Lake Cowichan. Tenure 560948 lies to the north of the east fork of Robertson Creek and approximately one kilometre north of the Stag mineral claims and showings. Tenure 560954 lies between tenure 560948 to the north and tenure 518703 (Stag mineral claim) to the south.

Access is by road from the junction of highway number 1 and highway number 18, for approximately 16 kilometres to the community of Cowichan Lake. Proceed westerly for 5.6 km and past Mesachie for 1 km to the Port Renfrew turnoff. Take the Port Renfrew turnoff and continue south east for approximately 1.5 kilometres to a logging road that heads in an easterly direction off the Port Renfrew mainline road. From this turn off you can travel less 1.0 kilometre along the southern portion of the property. The logging road deteriorates and further travelling from this point must be made on foot.

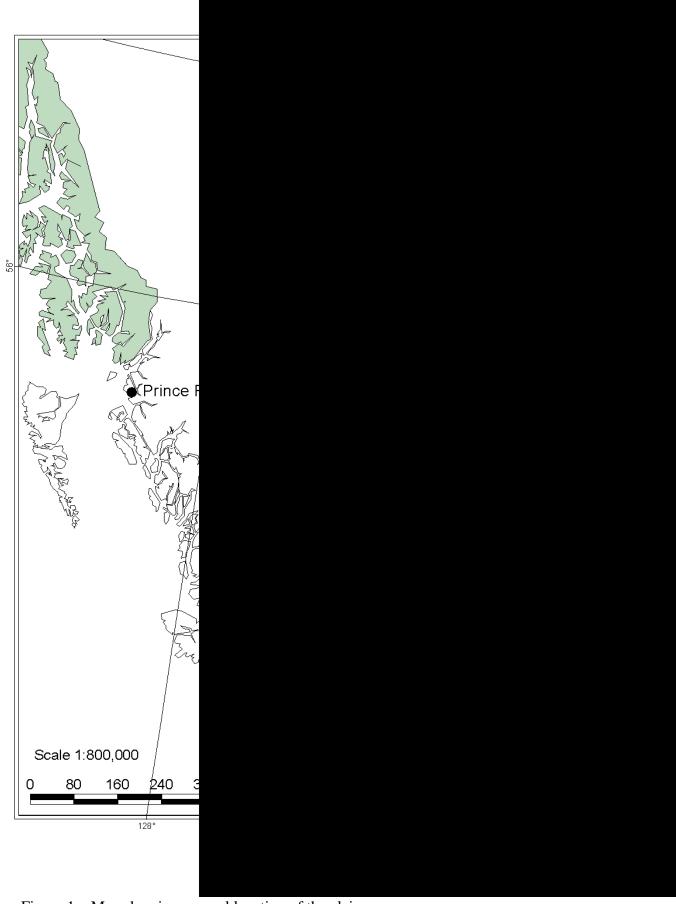


Figure 1. Map showing general location of the claim

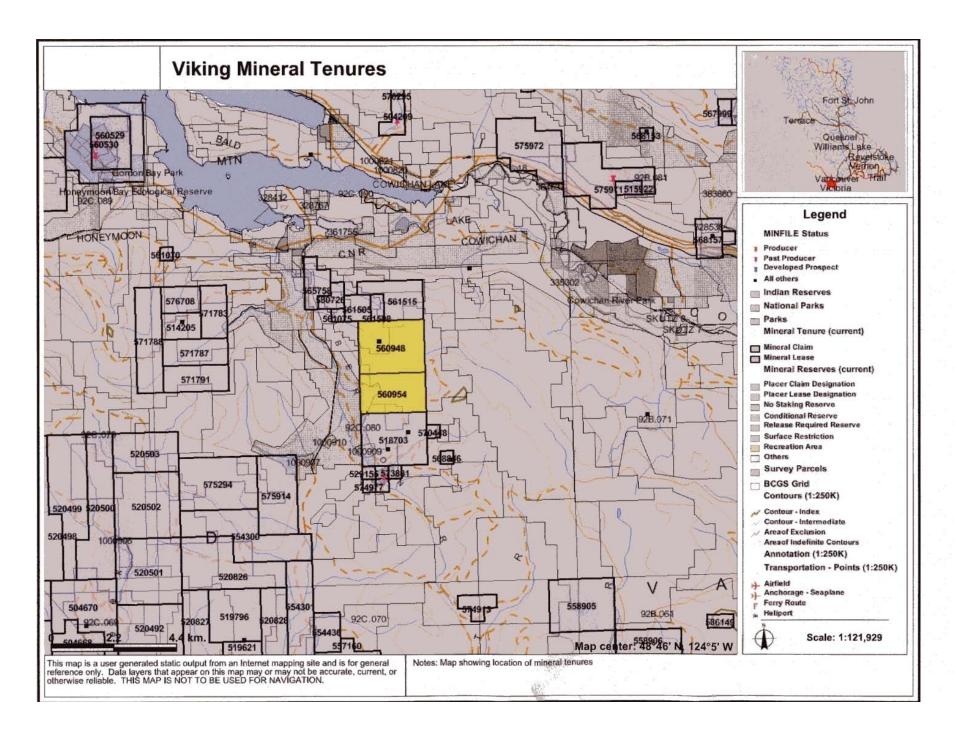


Figure 2. Map showing the claim location (Mineral Titles Online)

## 4. History

The Viking property is composed of a number of showings that are locally called the Viking showings.

### **Viking**

The Viking showings are located east of the Robertson River, approximately 5 kilometres south of Mesachie Lake. There are remains of an old cabin at the 610 metre level and an opencut was developed on a quartz vein in the early 1900's.

The area is underlain by volcanic rocks of the Upper Triassic Karmutsen Formation (Vancouver Group) and diorite, granodiorite and quartz diorite of the Early to Middle Jurassic Island Plutonic Suite. The showing is underlain by basalt which is cut by an irregular body of feldspar porphyry (probably Jurassic in age). Both have been cut by several tight shear zones which have been locally silicified and weakly mineralized with quartz and disseminated chalcopyrite.

The main showing consists of a high grade chalcopyrite shoot in a quartz vein structure about 1.8 metres in width. An adit was driven, on Viking 2 claim, on the shoot at the 762 metre level for 82.3 metres. The adit was cleared and examined in 1967 (Property File - Elwell, J.P.). A mineralized fault/shear hosts a sinuous quartz vein, averaging 10 centimetres in width, which is heavily mineralized at intervals with chalcopyrite. It was reported that the vein was widening and mineralization improving below the level, but this could not be checked as the cut was filled with water.

Five zones of mineralization have been outlined on the Viking property. These consist of two types of mineralization: 1) vein in shear zones hosted in volcanics and 2) disseminated mineralization in basalts and related rocks.

A mineralized fault zone, striking northwest and dipping at about 60 degrees east, comprises Zone 1. The hanging wall of the fault can be traced by a steep rocky bluff with malachite-stained and copper mineralized float found downslope. Above the adit, near the post of Viking 1 and 2 claims, trenching revealed fractured volcanics with veins and masses of quartz and chalcopyrite. This zone may be part of a shear zone parallel to that found in the adit. A grab sample assayed 7.65 per cent copper with 30.852 grams per tonne silver (Property File - Elwell, 1967).

Zone 2 is located 106 metres northeast of the adit, at 542 metres elevation. The zone consists of a shear in basaltic rocks which outcrop on a steep bluff. Blasting of the bluff has exposed a well-fractured shear zone containing quartz stringers with pyrite, chalcopyrite and bornite as disseminations, small blebs and fracture-fillings. Malachite is present as surface alteration. Two samples, taken across 1.83 metres, assayed 4.6 and 1.05 per cent copper respectively, with 33.78 grams per tonne silver (Property File - Elwell, 1967).

Zone 3 occurs on the Viking 3 claim, 366 metres to the northwest of Zone 1. Stripping has revealed a pod of magnetic basalt, mineralized with chalcopyrite. Copper-stained and

mineralized volcanics have also been noted. Zones 4 and 5 comprise pyrite, chalcopyrite and bornite as fracture-fillings and disseminations in basaltic rocks. These have not been located, but occur in this area.

There do not appear to be any recent assessment reports on the Viking showings.

## 5. Economic Setting

There are a number of noteworthy showings and deposits in the vicinity of the property and the Cowichan Lake area.

## The Alpha-Beta

The original showings were located in 1904 at the confluence of the Robertson River and "Long" Creek. In 1928, an adit was collared in Long Creek and work continued until about 1930. The property was acquired in the early 1960's by Albeta Mines Limited and work continued. By the end of 1963, several hundred metres of diamond drilling and at least 233 metres of underground development had occurred as well as substantial stripping, trenching and geophysical work.

Ore sections opened up in the mineralized area shows some continuity for nearly 120 metres underground, averaging 1.4 to 3.0 per cent copper over widths averaging 1.5 to 1.8 metres. The host skarn is known to attain widths in excess of 27 metres. A high grade series of ore shoots on a parallel zone averaged 8.60 per cent copper over a 1.4 metre true width, as ascertained from 5 diamond-drill holes.

A combined ore reserve figure calculated in April 1963, from 9 zones above the 920 footlevel, was reported to total 11,482 tonnes grading an average of 2.20 per cent copper. Another 2700 tonnes in the probable and possible category were estimated below the 920 level; and 3,600 tonnes were estimated in the possible category above the 920 level (Progress Report for Sept., Oct., and Nov., 1963, Albeta Mines Ltd.).

In 1963, a total of 535 tonnes of ore with a grade of 4 per cent was mined and shipped from the Alpha-Beta property (Minister of Mines Annual Report 1963, page 122). From this ore, a total of 10,264 grams of silver, 187 grams of gold and 23,390 kilograms of copper were produced (Mineral Policy data). By November 1963, shipping- grade ore had been depleted and the mining operations were terminated.

#### The Blue Grouse Mine

The Blue Grouse mine is located on the south side of Cowichan Lake, 4.8 kilometres northeast of Honeymoon Bay. Mineralized outcrops on the property were first located between 1900 and 1910. The mine was abandoned in 1960, reportedly leaving some reserves. The workings were rehabilitated in 1979 by Corrie Copper Ltd. Copper mineralization of mineable grade was reported to be present at the 1100 foot level. The

workings were backfilled sometime between 1987 and 1989. The Sunnyside workings (092C 108) are located 800 metres to the south.

Mineralization was present in ten small tabular sulphide zones and consisted of chalcopyrite, pyrrhotite, pyrite and lesser magnetite and sphalerite.

The main orebody, hosted in volcanic rocks, was the G-H. The ore consisted of a skarn zone which formed a southwest plunging pipe-like body extending from the surface to the 335 metre level. The mineralization comprised chalcopyrite, pyrite and pyrrhotite irregularly occurring as stringers and small masses. The orebody was displaced to the northeast; the top block moved 305 metres to the north and 46 to 61 metres to the east in relation to the lower block.

The E ore body, 300 metres due south of the G-H, was a 3 to 4 metre wide tuffaceous horizon mineralized with pyrrhotite. The pyrrhotite almost completely replaced the bedded rock and was veined with small stringers and irregular masses of chalcopyrite and pyrite. Small grains of hematite were noted locally.

The mine was in production from 1917 to 1919 and from 1956 to 1960. From 249,298 tonnes of rock, 6,814,623 kilograms of copper, 2,508,644 grams of silver and 218 grams of gold were produced. Exploration in 1989 located several gossanous zones in the southwest portion of the property. A 1-metre chip sample (109075) of intermediate tuff with copper staining from the BGN-4 site assayed 0.7 per cent copper and 0.043 gram per tonne gold (Assessment Report 19387). Sampling results ranged from 0.0007 to 1.1824 per cent copper and 0.001 to 0.043 gram per tonne gold (Assessment Report 19387).

### Reko

The area of the Reko occurrences is mapped by Muller (Geological Survey of Canada Open File 821) as primarily diorite of the Mesozoic and/or Paleozoic Westcoast Complex. An east trending band of limestone is also mapped. Volcanics of the Lower Jurassic Bonanza Group lie to the north.

There are 4 zones included in the Reko 10 occurrence. Zone 1 (South Pit A) is exposed for 12 metres and a width of about 5 metres. Drilling has indicated that it is not much larger than the surface exposure. It consists of 35 per cent magnetite, 35 per cent garnet and 30 per cent pyrrhotite. Chalcopyrite occurs as small blebs, minute veinlets and fine disseminations. Rocks in the drill holes include limestone and andesite. An estimated 41,000 tonnes of ore occurs in Zone 1 (Geology and Exploration in B.C., 1974, page 170). No grade was given.

Zone 2 (South Pit B) is located about 200 metres southwest of Zone 1. A drill hole put down on the centre of the zone shows magnetite disseminated in epidote-pyroxene-garnet skarn from 2.4 to 25 metres. Pyrite and chalcopyrite occur locally. Rock types found

include garnetite and andesite. An estimated 970,000 tonnes of ore were calculated for Zone 2 (Geology and Exploration in B.C, 1974, page 170. No grade was given. Zone 3 (South Pit C) is located about 425 metres northwest of Zone 2. The zone is not exposed and is known only from the drilling of a magnetic anomaly. A hole put down on the centre of the zone shows, from 19 to 24 metres, magnetite, pyrrhotite and pyrite, both disseminated and as veins or veinlets. Below 24 metres the rock is predominantly diorite. Zone 3 has an estimated 32,000 tonnes or ore (Geology and Exploration in B.C., 1974, page 170). No grade was given.

### The Twin J Mine

Volcanogenic massive sulphides were discovered on Mount Sicker in the late 1800's with production from one main orebody issuing from three independent underground mines (Lenora - 092B 001, Tyee - 092B 002 and Richard III - 092B 003) for several years. These mines were later amalgamated and operated as the Twin J mine (1942-1952). The massive sulphides are hosted within rhyolitic tuffs and associated sediments of the McLaughlin Ridge Formation, Sicker Group. The rocks in the mine include cherty tuffs and graphitic schists which together form a band of folded and/or sheared sediments 30 to 45 metres wide that near the workings are at least 640 metres long. The trend of the band and the strike of the sediments are 110 degrees. The dip of the sediments is 50 degrees southwest.

Two types of ore are found in association with the cherty tuffs and graphitic schists: a barite ore consisting of a fine grained mixture of pyrite, chalcopyrite, sphalerite and a little galena in a gangue of barite, quartz and calcite; and a quartz ore consisting of mainly quartz and chalcopyrite.

The two main orebodies, known as the North orebody and the South orebody, are long, lenticular bodies lying along two main dragfolds in the band of sediments. The North orebody measures about 500 metres along strike, 37 metres downdip and from 0.3 to 3 metres in thickness. The South orebody, which is 46 metres from the North, and has its upper limit 45 metres higher, measures 640 metres along the strike, 45 metres downdip and is about 6 metres in thickness. Two main faults, striking east and nearly vertical, displace the orebodies. A fracture zone is manifested by vertical silicified zones on the south sides of both the North and South orebodies.

Historic reports on the property report two parallel ore bodies, 46 metres apart, containing pyrite, chalcopyrite, sphalerite, and minor galena in a barite quartz-calcite gangue and chacolpyrite in quartz which are thought to be derived form acidic volcanics (Myra Formation). Total production from 1898 to 1964 was 277,400 tons producing 1,383,893 g (944,491 oz) of gold, 298,066,440 g (934,522 oz) of silver, 9,549,590 kilograms of copper and 20,803,750 kilograms of zinc and approximately 164,590 kilograms of lead.

#### The Lara Property

The Lara property is a polymetallic VMS deposit with a reported strike length of 1500 metres and a depth of 245 metres. Average grades are 5.1 g/ton gold, 111.4 g/ton silver, 0.81%copper, 1.32% lead, and 5.79% zinc over an average width of 3.9 metres. Mineralization is hosted by felsic volcanics of the Myra Formation.

The Lara deposits include 3 polymetallic zones known as the Coronation zone, the Coronation Extension zone and the Hanging Wall zone. The deposits are classified as Kuroko-type massive sulphides and are volcanic-hosted, stratiform accumulations of copper, lead, zinc, silver and gold. Although classified as massive sulphides, the predominant facies actually consists of bands, laminae and stringers of sulphide minerals in a strongly silicified rhyolite host. The massive sulphide facies makes up about 20 per cent of the reserve.

The thickest, most extensive of these deposits is the Coronation zone which occurs primarily to the west of Solly Creek. The Coronation Extension zone which occurs to the east of Solly Creek is generally narrower and less continuous, but typically consists of high-grade massive sulphides. The Hanging Wall zone has only been recognized to the west of Solly Creek and is clearly at a different stratigraphic level than the other two. Although the zone locally attains ore-grade it is somewhat sporadic. The Coronation deposits occur in the Rhyolite Sequence immediately north of the Fulford fault. The deposits strike west-northwest, dip to the north at 60 degrees and exhibit considerable variation in both thickness and grade. Intercepts are up to 16 metres thick and average about 6 metres. One massive sulphide lens exposed by trenching in the Coronation zone graded 24.58 grams per tonne gold, 513.60 grams per tonne silver, 3.04 per cent copper, 43.01 per cent zinc and 8.30 per cent lead over 3.51 metres (Bailes et al., 1987).

The Lara property contains a drill indicated resource of 528,839 tonnes averaging 1.01 per cent copper, 1.22 per cent lead, 5,87 per cent zinc, 100.09 grams per tonne silver and 4.73 grams per tonne gold (George Cross News Letter No.188 (September 29, 1992)). Nucanolan Resources planned to drill 8 holes on the 262 zone, its down-plunge eastern extensions across Silver Creek, and the area between the 262 zone and the Coronation extension (Northern Miner, November 30, 1998). The Coronation Zone is likely overturned and disrupted by numerous faults that apparently move the zone northward.

The three mines were amalgamated and operated intermittently between 1942 and 1952 as the Twin J mine. From a total of 48,082 tonnes mined, the operation produced 63,730 grams of gold, 2,002,971 grams of silver, 364,755 kilograms of copper, 164,587 kilograms of lead, 1,926,111 kilograms of zinc and 4,546 kilograms of cadmium (Mineral Policy data). The property has undergone steady exploration by various companies from 1964 to present. Based on mapping, geochemical and geophysical surveys, trenching and diamond drilling from 1967 to 1970, ore reserves were estimated at 317,485 tonnes grading 1.6 per cent copper, 4.11 grams per tonne gold, 140.54 grams per tonne silver, 0.65 per cent lead and 6.6 per cent zinc (Northern Miner - September 25, 1969).

## 6. 2007 Field Season

During the 2007 season, field work concentrated on finding access to the main Viking showing and prospecting for additional mineral showings.

Viking Showing Coordinates 10u 5403204 Northing 419797 Easting

Property access proved to be much more difficult than anticipated and as a result the main Viking showing was not found. A trail was opened and searches in the general area of the GPS location as noted in Ministry of Mines information yielded nothing.

There were no new showings discovered along the southern portion of tenure 560948 lying along the east fork of Robertson creek and none found on the northern portion of tenure 560954.

### 7. Proposed Field Work for 2008

Future exploration will concentrate on locating the Viking showings near the summit of the property and will include mapping and sampling of the showings. Some effort may be directed to finding an alternate route to the showings. Work may be required to clear more of the trail to the summit to facilitate access to the showings.

# 8. Record of expenses for 2006 field season

Prospecting	
(10 days x 2 man days x \$250.00)\$5000	.00
Vehicle	
	00
10 days @ \$50.00/day\$500.0	UU
Quad	
10 days @ \$25.00/day\$250.	.00
Fuel\$250.	00
Total\$6000.	$\Omega$
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## 9. Statement of Qualifications

- I, Doug Brouwer of 1686 Brierley Hill, Nanaimo, B.C. do hereby declare the following:
- I hold a valid Free Miner's Certificate (144334)
- Have prospected in British Columbia for 5 years
- Have completed the Mineral Titles Online course
- I, Doug Herriott of 5968 Parkway Drive, Nanaimo B.C. do hereby declare the following:
- I hold a valid Free Miner's Certificate (111702)
- I worked as an Exploration Technician in British Columbia for 5 years (1980 1984)
- I have prospected in British Columbia for approximately 6 years since 2001
- I am certified Blaster in both British Columbia and the Yukon Territory

Figure 3. Cowichan Lake 92C16.png NAD27 Canada 1:50,000 **Viking Showing** 09 Honeymoon Bay McKenzie Hone moon Bay Lake Cowichan BayBear Lake Mesachie Lake Beaver Lake Mesachie Lake RAN G VIKING

Figure 4.

Cowichan Lake 92C16.png NAD27 Canada 1:10,000

Trail to the Viking Showing

