181-# 1 48942

Longitude 119047'W

## TWIN CLAIMS

# KAMLOOPS MINING DIVISION NTS 82M/4W

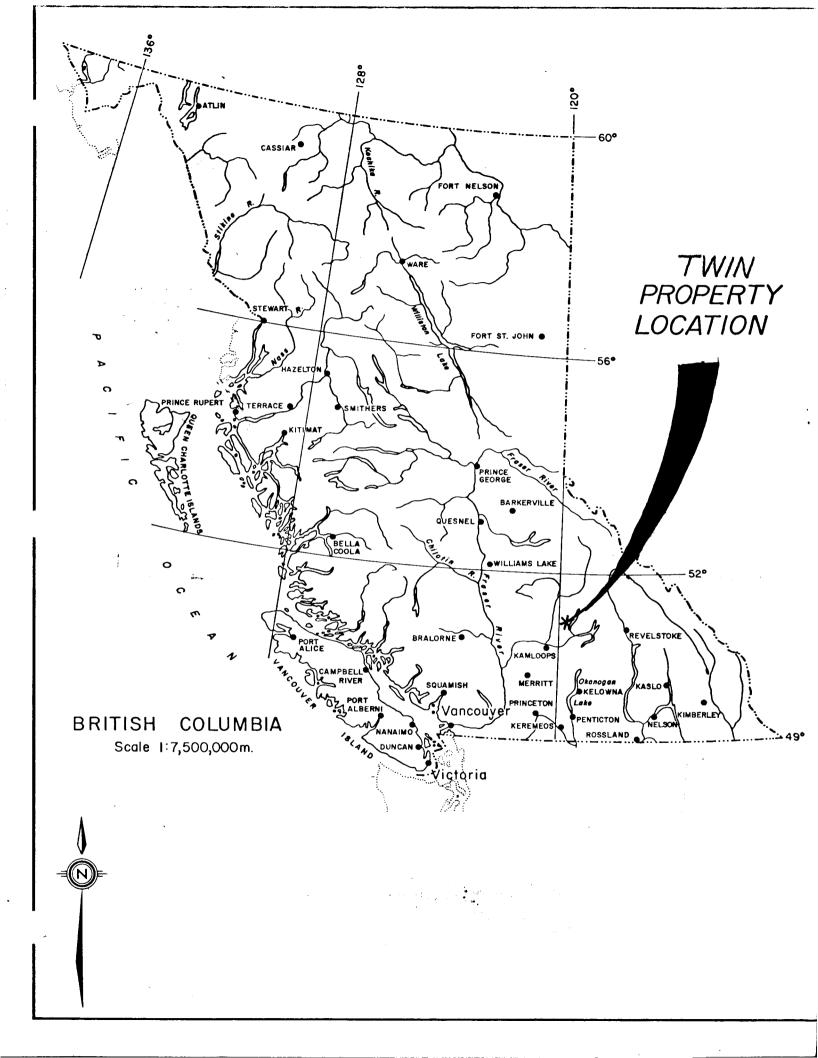
C. GRAF JANUARY 1981

	WORK PERFORMED ON:	RECORD NO.	DATE RECORDED
TWIN	1	2403	February 13, 1980
TWIN	2	2404	February 13, 1980
TWIN	3	2405	February 13, 1980

OPERATOR: C. Graf

Latitude 51008'N





## TWIN CLAIMS

KAMLOOPS MINING DIVISION

NTS 82M/4W

C. GRAF JANUARY 1981

## S U M M A R Y

The 1980 programme on the Twin Claims consisted of geological mapping, prospecting and locating old workings. The work was done to relocate an old soil sampling grid, two adits, and a series of trenches which follow and define the mineralized quartz-barite vein system which trends for 6 km. across the property. The geological mapping showed that the veins are contained in pyritic quartz-sericite schists in a thicker, more widespread sequence of greenstones and chlorite schists that belong to the Eagle Bay Formation.

#### INTRODUCTION

In the summer of 1979 the writer examined mineralization in a number of old trenches on what is now the Twin property. It was previously known as the Twin Mountain property and described as a barite, lead, zinc, copper, silver, gold deposit in the B.C.D.M. Mindep files.

The Homestake mine, which is a large barite, lead, zinc, silver, copper deposit, lies in similar rocks roughly 5 km. to the west, and since it was thought that the Twin Mountain property had similar potential to contain a large barite, lead, zinc, silver deposit, the Twin claims were staked to cover the favorable ground.

#### LOCATION AND ACCESS

The Twin claims are located 6 km. north of Skwaam Bay on the west side of Adams Lake, at an elevation of 5000 feet above sea level. They are halfway between Skwaam Bay to the south and Johnston Lake on the north. Latitude and longitude are approximately 51°08'N, 119°47'W; NTS quadrangle is 82M/4W.

The claims are accessible from Kamloops by road as follows: 36 miles from Kamloops to Louis Creek on Highway No. 5, 21 miles from Louis Creek to Skwaam Bay on a good gravel road, and then 12 miles by logging road to the property. Much of the claim block has been recently logged and is covered by numerous logging roads and skidding trails.

#### HISTORY AND PREVIOUS WORK

The Twin Mountain property was first reported as being staked in December 1936. The claims were staked to cover showings containing galena, sphalerite and chalcopyrite in quartz lenses in a strong, continuous northwest-striking shear zone. Twelve hand trenches were dug that year to expose the mineralization.

No further work was recorded until 1952, when the property was optioned to Camoose Mines Ltd. by C.C. Keller of Louis Creek. A  $7\frac{1}{2}$  mile long access road was built from Skwaam Bay in the fall of 1952, and in 1953 two exploration tunnels (110 m. and 140 m.) were driven. In the west tunnel, a mineralized vein was encountered and drifted on for 33 m. to the northwest and 36 m. to the southeast.

Again, no further work was reported until the claims were re-staked by Mr. Keller in 1966 and optioned to Sinmax Mines Ltd. In 1967 and 1968, detailed exploration including line cutting, geochemical and geophysical surveys, and some underground mapping and sampling was carried out. The geochemical soil sampling outlined a zone 630 m. wide by 4500 m. long that is anomalous in lead ( > 100 ppm Pb) and zinc (>200 ppm Zn). Better defined anomalies occur within the broader anomalous zone, the largest of which is 1300 m. long by 100 m. wide and contains > 500 ppm Zn and > 200 ppm. Pb. Only a limited number of the soil samples taken were analyzed for copper, and none were analyzed for gold or silver despite the results

of an old BCDM chip sampling survey which showed one vein to contain .5 oz./ton gold across 2 feet.

#### CLAIMS

The claims listed below are shown in Figure 1.

CLAIM NAME	NO. OF UNITS	RECORD NO.	DATE RECORDED
TWIN 1	18	2403	February 13, 1980
TWIN 2	12	2404	February 13, 1980
TWIN 3	9	2405	February 13, 1980

#### WORK CARRIED OUT BY GRAF IN 1980

The work performed on the Twin claims in 1980 consisted of prospecting, geological mapping and re-locating previous workings such as adits, trenches and the soil sampling grid.

A 1:10,000 scale map was compiled showing the claims, geology, mineralization and old workings.

## RESULTS

The prospecting work located several new quartz-barite-dolomite veins with copper-lead mineralization that had apparently not been discovered previously. These showings are in a pyritic quartz-sericite schist zone parallel to the main trend which had been previously explored, and lies roughly 200 m. to the west. The showings were first recognized along a new

logging road, and likely would not have been visible in the early days. The average grade in selected grab samples was estimated at 2% copper, 1% lead, 1% zinc and 10% barite. The pyritic quartz-sericite schist zone is over 30 m. wide in places, and the mineralized quartzose bodies lie comformable within it.

Five old cat trenches were located as were the two adits after much difficulty. The soil sampling grid which was cut in 1968 is only partly recognizable, as much of the area has been logged and is cleared of trees. The location of the lead-zinc soil anomaly defined in the 1968 program can be estimated accurately by orienting it from the two adits. It follows the trend of the distinctive rusty weathering zone of pyritic, quartz-sericite schists with which the mineralized quartz lenses are associated.

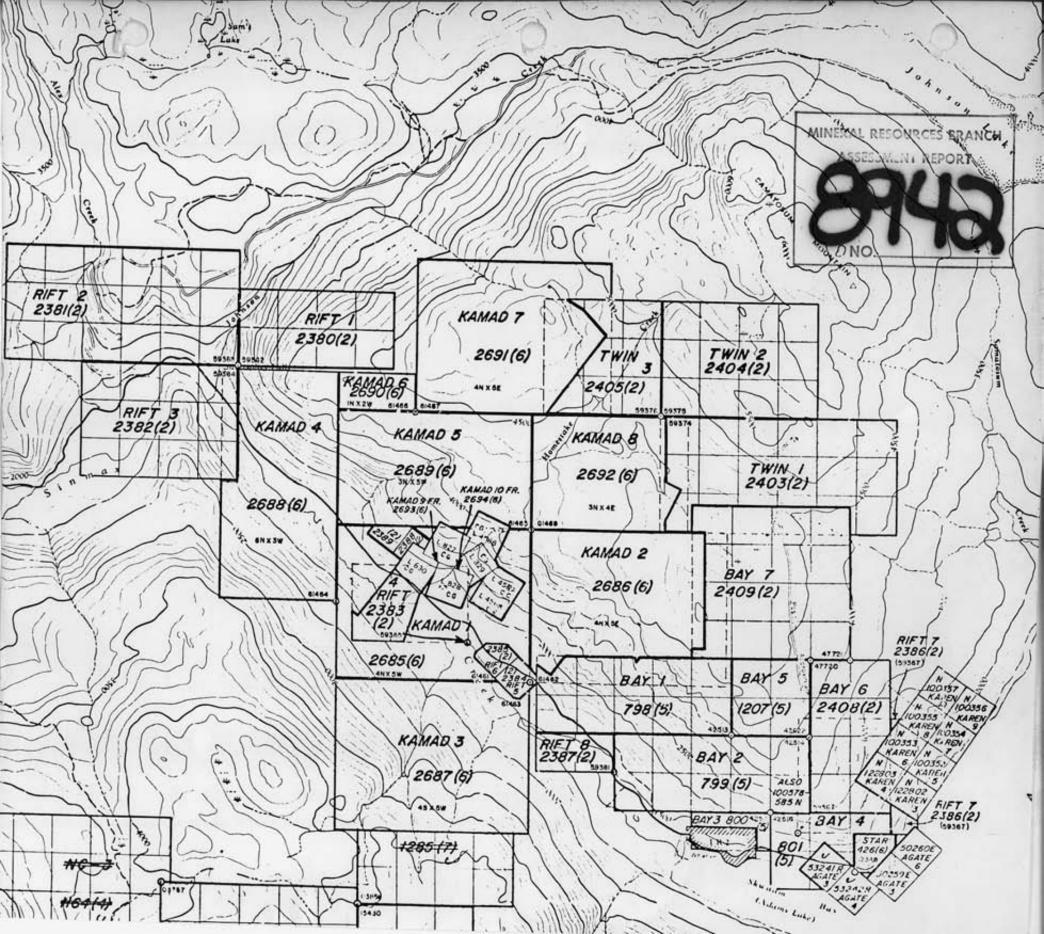
Geological mapping showed the claims to be underlain by greenstones and chlorite schists, within which lie narrower pyritic quartz-sericite schist units and the mineralized quartz-dolomite-barite zones. Samotosum Mountain on the east side of the claim block, is made of a thick, massive carbonate unit formally called the Tshinakin limestone. This area was likely a paleotopographic high during sedimentation and the rock units underlying the Twin claims were deposited in a deeper basin which flanked it on the west. The Homestake deposit in similar rocks 5 km. further west was formed as part of a submarine exhalative hotspring system, as the

occurrence of strataform barite ore, and its associated quartz-sericite schist units indicate.

The association of the mineralization with quartzsericite schists on the Twin claims, and the usual occurrence
of barite in the gangue, indicate that these deposits may also
have formed through an exhalative submarine hotspring system.
The mineralized zones discovered on the claims to date
may have been crosscutting stockwork root zones of such a
system, and larger strataform type deposits may exist in the
immediate vicinity. Silver is a common element in both
stockwork and strataform ore in other exhalative deposits; therefore, the silver potential of the Twin claims should be evaluated.

#### CONCLUSIONS

- 1. The claims contain at least two mineralized quartz-barite-dolomite vein systems, one of which averages over 3 m. wide and has been traced for 6 km. on the surface.
- 2. The sulfide mineralization, though generally low grade, is continuous along the entire 6 km. length of the vein system, and is reflected by a large continuous lead-zinc soil anomaly.
- 3. The system has similarities to other exhalative, volcanogenic type deposits, due to the occurrence of barite and the association of the mineralized zone with pyritic quartz-sericite schists. The



potential for buried stratiform massive sulfide bodies should be explored. The silver content of the vein system should also be evaluated by soil sampling and assaying. A number of soil sampling lines should be run through the area containing the previously located lead-zinc soil anomaly. Samples should be taken 100 m. apart and analyzed for lead, zinc, copper, silver and gold.

4. A ground electromagnetic survey should be carried out along the trend of the soil anomaly to locate any buried massive sulfide bodies that may exist. The quartz-sericite schists contain abundant disseminated pyrite over wide areas; therefore, it is reasonable to assume that if any massive sulfides occur, they should contain a large proportion of massive pyrite, and be electrically conductive.

The Homestake Mine which occurs in similar rocks approximately 5 km. west, is a classic example of an exhalative volcanogenic massive sulfide deposit. It contains proven reserves of roughly 1 million tons grading 7 oz/T Ag, .28% Cu, 1.47% Pb, 2.54% Zn and 27.25% Ba. Potential exists on the property for many times that amount of ore, and therefore this is a significant type of deposit well worth exploring for.

APPENDIX I

COST STATEMENT

# COST STATEMENT

# TWIN CLAIMS

# June 1st-11th, 1980

10 mandays at \$ 200/manday	\$ 2,000.00			
Food				
10 mandays at \$ 20/manday	200.00			
Accommodation				
10 days at \$ 25/day	250.00			
Gasoline	100.00			
Supplies	75.00			
Report Preparation				
2 mandays at \$ 200/manday	400.00			
Typing and Photocopying	75.00			
P.A.C. Account withdrawal	800.00			
TOTAL	\$ 3,900.00			

# APPENDIX II

STATEMENT OF QUALIFICATIONS

### STATEMENT OF QUALIFICATIONS

#### I, CHRIS GRAF, DO HEREBY DECLARE THAT:

I graduated from the University of British
Columbia, Vancouver, British Columbia, in 1974, with a
B.Ap.Sc. Degree in Geological Engineering, and that I am a
registered Professional Engineer in the Province of British
Columbia.

From 1975 through 1980 I have actively worked in mineral exploration in British Columbia with numerous mining companies.

C. Graf,

1015 - 837 W. Hastings Street,

Vancouver, B.C.

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