REPORT

EXPLORATION PROGRAMME

McCONNEL LAKE PROPERTY

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# R E P O R T

on

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## McCONNEL LAKE PROPERTY

## OMINECA MINING DIVISION

for

BEN GINTER

VELOCITY SURVEYS LIMITED

September 1968.

## Introduction

McConnel Creek Copper prospect lies in the mountainous central part of the northern British Columbia between latitudes 56° and 57° and longitudes 126° and 127° and at the elevation of 4200' A.S.L.

During the period from July 16th to August 19th, 1968 an intensive exploration programme consisting of linecutting, detailed geological mapping, sampling and electromagnetic survey was carried out over the McConnel Creek property of Mr. Ben Ginter of Prince George, B.C. The programme was initiated in an attempt to trace any possible extensions of known mineralized zones on the property.

## Accessibility

The nearest railway station is at Vanderhoof on the Canadian National Railway line. It is about 160 air miles from Smithers and 268 air miles from Prince George by float plane. When the work was carried out on the property the plane was chartered from near Prince George - Six Mile Lake to McConnel Lake. In August, 1967 a D-6 caterpillar tractor was walked 120 miles from Germansan landing to the property along an old cat trail.

## Property

The property consists of eighty contiguous located mining claims as follows:

| Name | Record Number |
|---|---|
| DWG # 8 to 23 inclusive | 56131 - 56146 inclusive |

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Property cont'd

| Name | Record Number |
|---|---|
| Ben # 6 to 28 inclusive | 54619 - 54641 inclusive |
| Dell A-1 | 56129 |
| Dell A-2 | 56130 |
| Dell B-1 | 56147 |
| Dell B-2 | 56148 |
| B-3 to B-10 inclusive | 56149 - 56156 inclusive |
| E-1 to E-16 inclusive | 56841 - 56854 inclusive |
| E-17 to E-26 | 56157 - 56166 |

These claims occupy the McConnel Creek Valley and parts of eastern and western ridges up to the Ingenika River. The principal copper showings are located about two miles south of McConnell Lake in the creek Valley.

General Geology

The consolidated rocks examined in McConnel Lake area range in age from Permian to Paleocene. The group of claims under consideration mainly lie on the volcanics of Permian age and on the principal intrusive rocks of the Omineca batholith.

The eastern end of the property overlies volcanic rocks comprised mainly of Hornblende-schist and gneiss. These are fine to medium grained, dark green, foliated and marked by shearing and more or less completely recrystallized. The contact between this rock type and the intrusive rocks could not be seen because of the heavy talus overburden. No mineralization of any interest was noticed on the volcanic rock on the eastern side.

The Omineca Batholith of which the granite intrusions of McConnel Lake form a small part, is the major geological feature of this area. They are of light grey dioritic-monzonitic bodies and grey to pink granodiorite and quartz diorite. They range from medium grained equigranular rocks to coarse grained porphyritic types carrying pink orthoclase phenocrysts and free from inclusions of older sedimentary or volcanic strata. Pink pegmatite dykes are scattered throughout the granitic masses but are nowhere very abundant. At the border phase of the batholith they are medium grained, equigranular, with greenish feldspars and chloritized amphiboles with epidote and biotite.

The Omineca Batholith is very highly disturbed and faults and intensive shear zones are predominant. Faults are exposed at various locations, mainly in the creek, and their extensions are commonly indicated by the courses of the valleys and shallow depressions. Following the disturbance a great deal of erosion has also taken place along the valley. Because of these faults there is an abrupt structural discordance. Most of the faults strike northwesterly. In most places the inclination of the fault planes are not known but where observed were steep, and the topographic expression of all faults is such as to suggest that they are all steep. These fault and shear zones are characterized by various combinations of schistocity, fracturing, crumpling and carbonatization. Replacement by buff or rusty ferruginous carbonates characterizes many parts of these fault zones. Along the shear zones massive chalcopyrite, azurite, malachite and some bornite are found. This copper mineralization is definitely

of secondary origin, hydrothermal, and would appear to replace the surrounding quartz.

Work Performed

From July 16th to August 19th, 1968 an intensive exploration programme was carried out on this property.

There are several copper showings along the western ridge of the McConnel Creek Valley and all these showings were carefully examined. Most of them are of malachite formation with some disseminated chalcopyrite.

Primary attention was given to three main showings consisting of massive chalcopyrite, and they have been named as A, B, and C.

A base line has been laid out for 1000' across the valley and detailed geological mapping conducted on the scale of 1" - 50', covering the area of the three important showings.

Using the D6 caterpillar, the overburden on all these showings was removed in order to delineate the mineralized structures. Due to the fact that "A" showing lies below the water table only minimal stripping could be done.

About 16,000 cu. ft. of overburden was removed to expose the "B" showing 53' along the strike direction and an average width of 9'. The mineralization, mostly massive chalcopyrite, is intercalated with the country rock. At plaees the chalcopyrite is very rusty. Because of heavy overburden further stripping was precluded in the absence of heavier equipment.

About 10,000 cu. ft. of overburden was removed from the "C" showing and the mineralized zone was exposed for a length of 56'

along the strike and an average width of 8'. This zone is mainly consisting of rusty chalcopyrite, azurite and great amounts of malachite. The shearing has been quite intensive and the country rock has been completely altered. A great deal of kaolinization has taken place.

Showings "B" and "C" were sampled across the width of the vein. The results of this sampling are shown on the accompanying sketch.

A reconnaissance electro-magnetic survey was carried out over the area of the mineralized structures observed on surface. A dual frequency vertical loop unit utilizing frequencies of 400 and 1600 c.p.s. was used during the course of the survey. The unit is known as the SE 300 model, manufactured by Sharpe Instruments Limited of Downsview, Ontario.

The method of survey is concerned with setting up an alternating electro-magnetic field of known frequency by means of transmitting coil oriented with its axis in a horizontal attitude. When alternating current is passed through the transmitting coil, an electromagnetic field is set up in the vicinity of the transmitter. This field is detected by a search coil or receiver and any distortion in the primary field caused by the presence of an electrical conductor may be measured and the position and attitude of the conductor may thus be derived.

The results of the electromagnetic investigations are plotted on the sketch attached to this report.

Conclusions

Surface channel sampling along the three exposed mineralized structures yielded significant values in copper. Zone "A"

could not be sampled since it occurs below the water level of McConnel Creek, however, a lens of massive chalcopyrite at least one foot in width was observed. Zone B was sampled over a length of 56 feet. Four channel samples taken across the structure averaged 5.22% Cu. over an average width of 7.25 feet. Two channel samples taken across the oxidized shear zone labeled Zone C yielded 0.96% Cu. over an average sampled width of 9 feet. This zone has been exposed for a length of 53 feet. The mineralized material derived from Zones A and B is obviously of ore grade.

The electro-magnetic survey did not detect any lineal extensions of the mineralized zones observed at surface as shown on the enclosed plan. It is suggested then that the mineralized structures are discontinuous in the horizontal sense. Examination of fault structures in the area indicate movement in both the horizontal and vertical direction. Voids resulting from the relative movement of rock masses would then have steep attitudes. Upon entry of and deposition out of mineralized solutions, the mineralized structures would have similarly steep attitudes i.e. following the steep attitudes of the fault planes and with very steep rakes along the strike of the faults.

## Recommendations

Conditions of heavy overburden and steep attitudes of the mineralized structures encountered dictate that further exploration on the property follow particular lines. In view of these conditions it is recommended that the mineralized structures be further stripped with heavier equipment to fully delineate the bed rock surface expressions of these and that they be investigated at depth by means of diamond drilling. A feasible programme to

to accomplish these immediate ends and to facilitate further assessment of the economic potential of the property should proceed as follows:

A. 500 hours stripping with a bulldozer of at least the capacity of a D-8, preferrably a D-9, equipped with hydraulically controlled twin rear-mounted rippers.

B. 3000 feet B.Q. Wireline diamond drilling.

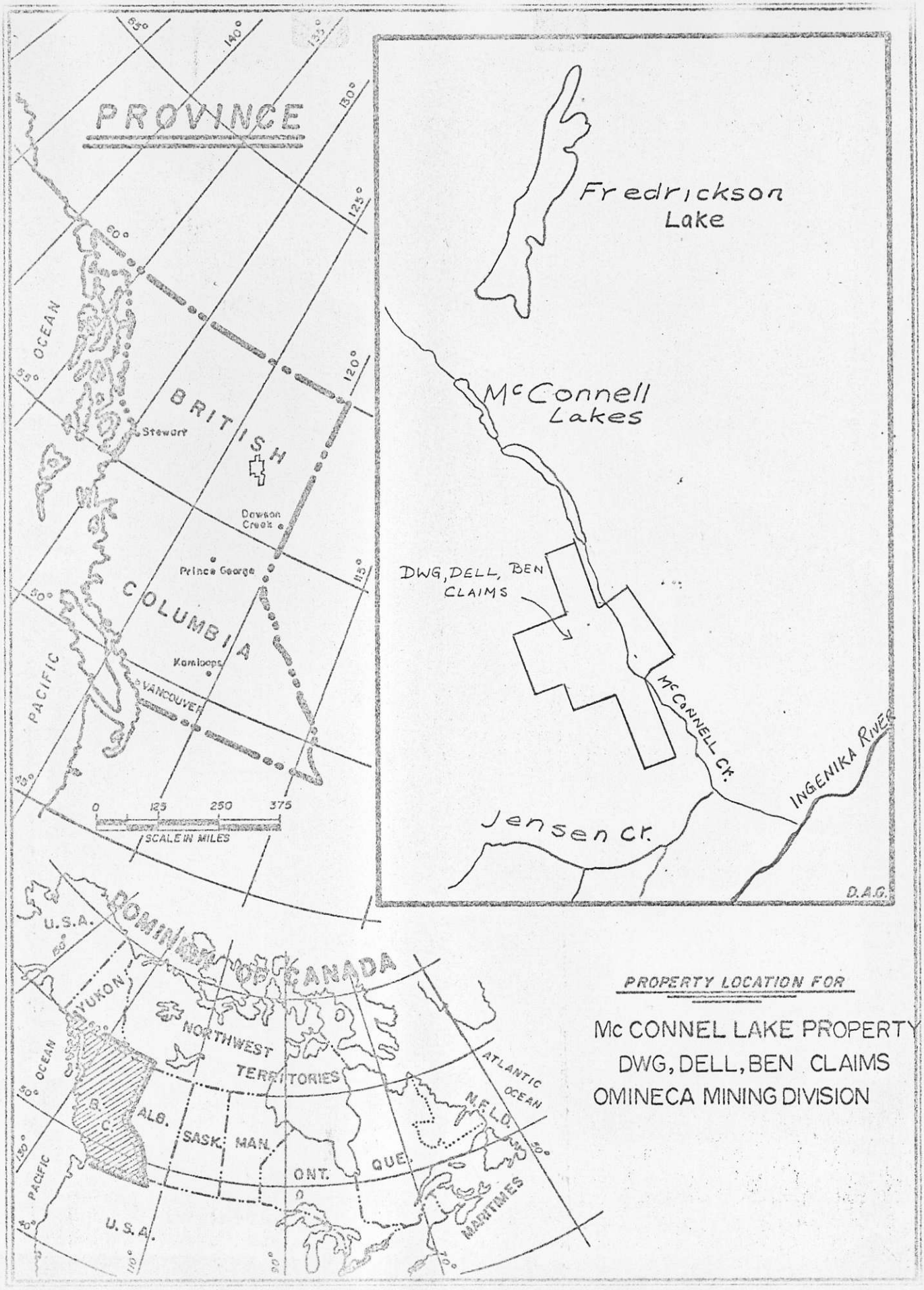
The estimated costs entailed in such a programme would be as follows:

| | | |
|---|---|---|
| 1. | Bulldozer Stripping D-8 tractor 500 hours @ $ 35.00 per hour | $ 17,500.00 |
| 2. | Diamond Drilling 3000' @ $ 10.00/ft. | 30,000.00 |
| 3. | Assays | 1,500.00 |
| 4. | Engineering Supervision | 4,000.00 |
| 5. | Transportation, communication | 6,000.00 |
| 6. | Camp and Supplies | 7,000.00 |
| 7. | Contingency | 7,000.00 |
| | Total | $ 73,000.00 |

Respectfully submitted,

VELOCITY SURVEYS LIMITED,

S. V. Ramani, M.Sc.,
Geologist.




PROPERTY LOCATION FOR

Mc CONNEL LAKE PROPERTY
DWG, DELL, BEN CLAIMS
OMINECA MINING DIVISION