#### REPORT

for

SUMMIT PASS RESOURCES CORP.. 1020-800 West Pender Street, Vancouver, B.C. V6C 2V6 Tel. (604)688-7775

on the

DIVIDEND PROPERTY with the

Dividend Mineral Claims No. 1312 Keremeos Creek " " No. 1311 Elan No. 1 " No. 1309 Elan No. 2 " " No. 1310

On Dividend and Green Mountains just east of Apex Mountain Ski Resort and north of Keremeos, B.C.

N.T.S. 82 E 5 W

49 22' North Latitude

119 52' West Longitude

in the Osoyoos Mining Division

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AUGUST, 1981

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### INTRODUCTION

A series of mineral occurrences were recently recognized to be a linear zone of pyrrhotite lenses and disseminations with significant TUNGSTEN values as well as the previously known gold and copper values.

The several showings line up and appear to be part of a zone at least 2,400 metres (8,000 ft.) long that extends through a vertical extent of at least 300 metres (1,000 ft.) and maybe more than 450 metres (1,500 ft.) This is a significant and important mineral property with good potential for developing economic tonnages of open pit and maybe underground ore.

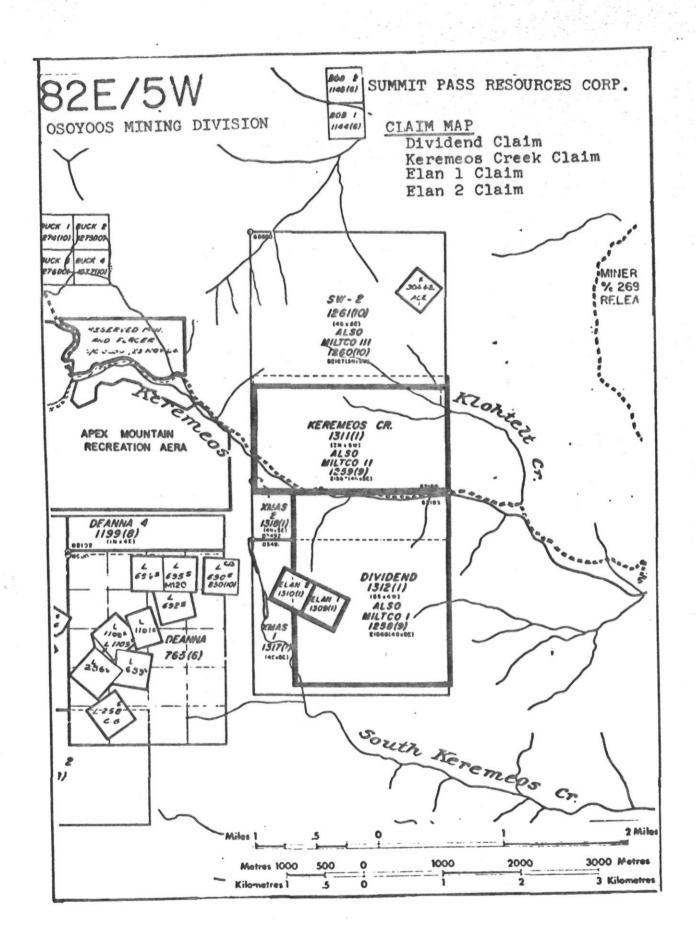
It warrants a thorough exploration program on the several surface showings as well as along strike extensions on the zone.

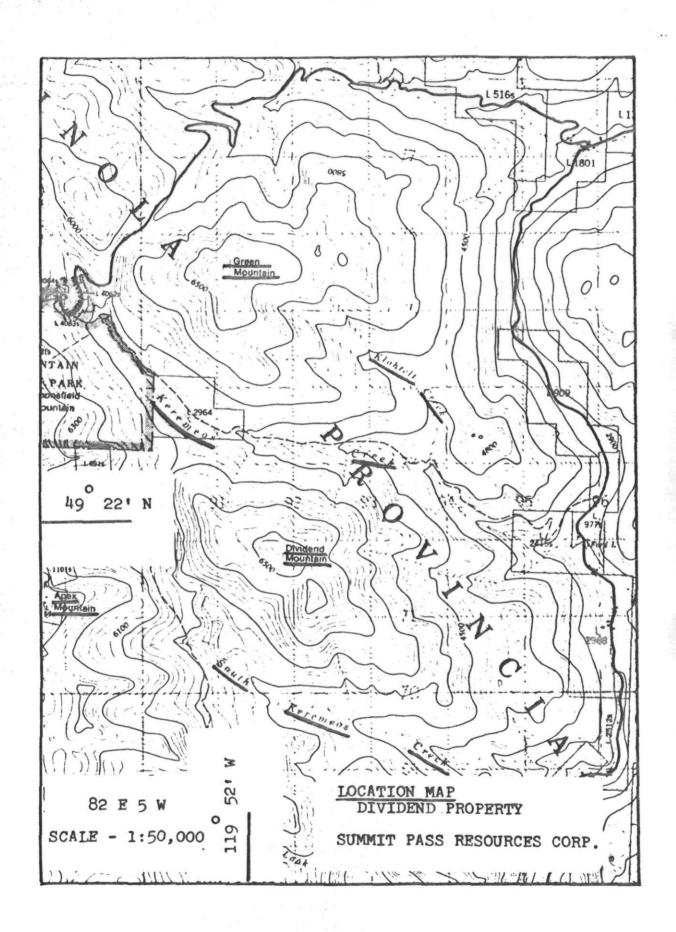
A program of exploration and a budget for the work is recommended.

The property was examined by Mr. Sam Craig and myself on August 8th and 9th, 1981 with the vendors, Messers Leo Reichert and Keith George as guides.

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## **HISTORY**

The first recorded claims in the area were on the 7th of July, 1899 on up to August 13th, 1904.

Exploration was centered on bodies of massive pyrrhotite carrying values in copper and gold. Most of the known pits, trenches, adits and shafts date from that time. Records are incomplete. Very little work was done from then until the early 1970's when larger claim blocks were explored with a combination of geology, geophysics and geochemistry. Several assessment reports are available for reference. No known work has been done since then until now, when the present owners recognized the presence of scheelite in the copper gold mineralization, acquired the claims and optioned them to Summit Pass Resources Corp.

### **ACCESS**

Access is by 4 x 4 vehicle on bulldozed roads from any of the South Fork of the Keremeos River, the main Keremeos River, or the Apex Ski Resort Road, Apex is 35 km. (22 miles) west of Penticton, B.C., which is the district commercial

center. Some maintenance and upgrading work, including better drainage is required on the property roads.

#### CLAIMS

There are two metric claims and two - two post claims.

The metric claims are:

Dividend (20 units) Record 1312 Keremeos (15 units) Record 1311

The two post claims are:

Elan No. 1 Record 1309 Elan No. 2 Record 1310

From my personal observation in the field the claims appear to be satisfactorily staked and plotted in their correct location.

#### **PHYSIOGRAPHY**

The claims are in the Okanagan of the Interior of B.C. They are on Dividend and Green Mountains with the valley of Keremeos Creek between. Slopes are steep with valley floor and lower slopes covered with evergreens with upper southern slopes in bare alpine growth. The claims are just east of

the Apex Mountain Ski Resort and although they are in the weather shadow of Apex Mountain, do have considerable snowfall in the winter. The climate is pleasant with relatively dry winters and summers.

## REGIONAL GEOLOGY

Mapping by H.S. Bostock in 1927 for the G.S.C. at a scale of one mile to the inch was printed as Map 628A, Ollala. In the area of the claims Triassic sediments and lesser amounts of volcanics were mapped as the Old Tom, Shoemaker and Independence Formations. These Formations are cut by post Triassic granodiorite.

Later mapping at 1 inch to 4 miles by C.E. Cairnes in Map 538A Kettle River (West Half) shows only two Triassic sequences, the Andesite, Basalt and related intrusives which is equivalent to the Old Tom Formation: and a sedimentary unit composed of Chert, Argillite, Limestone, tuffaceous sediments which is the equivalent of the combined Shoemaker and Independence Formations. Superficial field examination shows no recognizable differences between the sediments. Cherts with occasional small lenses of limestone and tuffaceous beds seem the common

rock types. Revision of the map in 1961 illustrates the difficulty in separating the Independence, Old Tom and Shoemaker Formations.

# PROPERTY GEOLOGY

Cherts, plus silliceous and also argillaceous cherts, with occasional lenses of recrystallized limestone are host rocks for the pyrrhotite, gold, chalcopyrite and scheelite mineralization. Mineralization consists of massive pyrrhotite lenses and of disseminated sulphides. Scheelite occurs in both the massive pyrrhotite and disseminated. Faulting is common both along the sulphide lenses and probably as cross faults. The Pyrrhotite lenses range from a few centimetres to at least three metres wide and 15 metres long. Commonly they occur as discontinuous sub parallel series of lenses across the 30 or 50 metres of exposure across the zone in bands of mineralization. Dips are close to vertical and while strikes vary from N3OE to N6OW the trend is magnetic north. The zones of mineralization appear to line up and can be traced for more than 2,400 metres (8,000 ft.) of length, and maybe more than 450 metres vertically. The direction the zones trend is sub-parallel to the trend of the contact

between Formations.

At one place the zone of massive pyrrhotite is in a lense of cherts within a tongue of the granodiorite.

#### SPECULATION

Visually the granodiorite is not dissimilar to other known "tungsten granites." The preference of the sulphides for what appears to be preferred formational horizon and along a major structural trend bode well for the possibility of there being enough economic tonnage for a mining operation.

Narrow high grade lenses are likely to occur as well as lower grade disseminated mineralization. The possibility of mining the whole width of the zone in a large tonnage lower grade open pit operation with values in gold, copper and tungsten is attractive.

A large tonnage with reasonable widths over a long length and for an extensive vertical depth is a reasonable exploration target on this property, as there is such a long unexplored strike length of mineralization.

#### MAGNETICS

Airborne and ground magnetic surveys have been done by at least three sets of previous workers over portions of the property. The magnetics outlined areas and linear trends of magnetically high anomalies. It was assumed that the anomalies coincided with the pyrrhotite rich gold-copper zones. Detailed ground work shows the magnetically high anomalies to be more complex. Full interpretation of the anomalies will need correlation with the geology, mineralization and geochemical surveys.

Further magnetic surveys are needed both to cover the rest of the property and for detailed work within specific areas of sulphide mineralization.

#### GEOCHEMISTRY

Various workers have made copper and copper plus gold analyses on soil samples collected from grids on portions of the claims. No analyses were made for tungsten. In general the copper soil values and the magnetic highs coincide on ground magnetic surveys better than with airborne magnetic surveys.

Relationships between soil gold and soil copper values probably show the fact that some of the copper in soils is related to rock type rather than to mineralization, plus the fact that gold mineralization and weathering cycle may be more restricted than for copper.

Soil sampling for copper, gold and tungsten will have to be extended greatly and redone for check analyses plus tungsten in previously soil sampled areas.

## TRENCHING

Some modern bulldozer trenching was done, but most exposures of mineralization are from old turn of the century hand dug trenches, pits, shafts and the occasional adit. On one showing there is stuck rod from two diamond drill holes, but no record of this work is available. At the turn of the century assays in gold and copper were reported ranging from trace to high grade.

Two recent samples taken by the vendors ran:

Mark	Au oz/T	Ag oz/T	Cu %	<u>w03%</u>
B.S.	0.024	0.10	0.32	0.33
G M	0.020	0.10	0.09	tr.

## CONCLUSIONS

Cherty sediments for 2,400 metres length and at least 450 metres vertically carry lenses and disseminations of pyrrhotite with gold, chalcopyrite and visible scheelite. The tungsten content of the mineralized zones was not previously recognized.

Lower grade open pit tonnage potential is impressive.

There is no knowledge of grades across the width of the massive plus disseminated mineralization.

This property is an excellent exploration bet and extensive detailed exploration work on it, is certainly justified.

#### RECOMMENDATIONS

### Stage One

Previous exploration work needs to be tied together and all plotted on the same base map at the same scale. Some of the grids on the ground may be recoverable and should be integrated with new grids running along the trend of the mineralized zones.

The roads should be upgraded and improved for easier access to all parts of the property.

Geochemical soil sampling and ground magnetometer surveys should be done on a grid basis. Soil samples should be run for copper, gold and tungsten. Ground magnetometer should be used within the grid system as a pyrrhotite prospecting tool with special flagging to outline zones on the surface to guide later geochemical profile sampling and backhoe trenching.

Geological mapping on a property grid basis and on a detailed basis over showings and anomalies is needed.

Once zones of interest are established a program of work to test grades across the zones will

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be required. This will entail backhoe pitting and bulldozer trenching.

## Stage Two

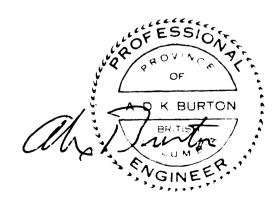
It is expected that because of the long length of the known mineralization that certain sections will have reached Stage Two point before others. The sections that are explored to this Stage, if favourable, can then be drilled across the zone for geology and grade.

Stage One exploration will continue on the remainder of the property while drilling of Stage
Two is being done on the first portion.

Further drilling can then be done on the remainder of the property provided the Stage One results warrant it.

BU	ID	G	E	T

First Portion	Second Portion		Stage One	Stage Two
\$ 50,000		Compilation Grid, geology, magnetics, geochemistry, road upgrading, backhoe pitting and bulldozer trenching	\$ 50,000	
120,000		Diamond drilling, assays, engineering 10 holes - 100 m each @ \$120/m		\$120,000
	\$ 50,000		50,000	
	120,000			120,000
170,000	170,000	Sum	100,000	240,000
34,000	34,000	Contingency 20%	20,000	48,000
204,000	204,000	Totals	120,000	288,000
\$408	000	GRAND TOTAL	\$408,00	<u>o</u>



#### REFERENCES

B.C. Minister of Mines, Annual Reports 1899, 1901, 1902, 1903, 1904, 1905, 1907, 1908.

# B.C. Minister of Mines, Assessment Reports

Geophysical Report 1966
Magnetometer, Electromagnetic
Cominco Ltd.

Airborne Magnetometer Survey, 1968
Loak Crk Property
Apex Exploration and Mining Co. Ltd.

3918 Geophysical and Geochemical Report, 1972 Karen Group, Klohtelt Creek Lantern Gas and Oil Ltd.

5199 Airborne Magnetometer Survey, 1974 Dividend Project, Dividend Mtn. Southcan Mining Limited.

5574 Geochemical Report, 1975
Dividend Project, Dividend Mtn.
Southcan Mining Limited.

## Geological Survey of Canada, Maps

Map 628A Olalla

Map 538A Kettle River, W. Half

Map 15-1961 Revision of Map 538A

# CERTIFICATE

I, Alex Burton do hereby certify that I am an independent consulting geologist with offices at 810-626 West Pender Street, Vancouver, B.C. V6B 1V9.

- I certify that I am a geology graduate of the University of British Columbia and am a Registered Professional Engineer in B.C. with Certificate No. 6262.
- 2) I have practised my profession for 25 years both as an independent consultant and in senior managerial capacity for major mining companies in Canada and other countries.
- I have no interest or holdings of any sort in 3) Summit Pass Resources Corp., or the Dividend Property, nor do I expect to receive any.
- 4) I consent to the use of this report by Summit Pass Resources Corp. in any prospectus or statement of material facts.

Dated in Vancouver this 1st day of September, 1981.

ALEX BURTON, P. Eng.

Consulting Geologist