PRELIMINARY INVESTIGATION (PROSPECTING) OF THE PARK MINERAL CLAIMS

SKEENA MINING DIVISION
93E/6W
LATITUDE 53°22'N - LONGITUDE 127°21'W

PREPARED FOR
RYAN EXPLORATION COMPANY, LTD.
BY
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SUMMARY

Moraine boulders hosting significant sulfide mineralization were discovered at the tongue of a small glacier near the northwest boundary of Tweedsmuir Provincial Park. These boulders were traced to their source and the 40 unit Park claims were staked. Mineralization occurs primarily as lenses of massive bornite interbedded with phyllites and calcite/wollastonite skarns. Evaluation of the property during August, 1982 involved a preliminary geological investigation of the property and rock chip sampling of mineralized outcrops. Future work will be devoted to detailed geological mapping and possibly an airborne geophysical survey.

INTRODUCTION

The Park mineral claims are located on the northwest border of Tweedsmuir Provincial Park in west-central British Columbia (FIGURE 1). This property is approximately 45 kilometers southeast of the village of Kemano. Elevation of these claims ranges from 1158 meters on the southeast boundary to 1800 meters at the northwest corner of the property.

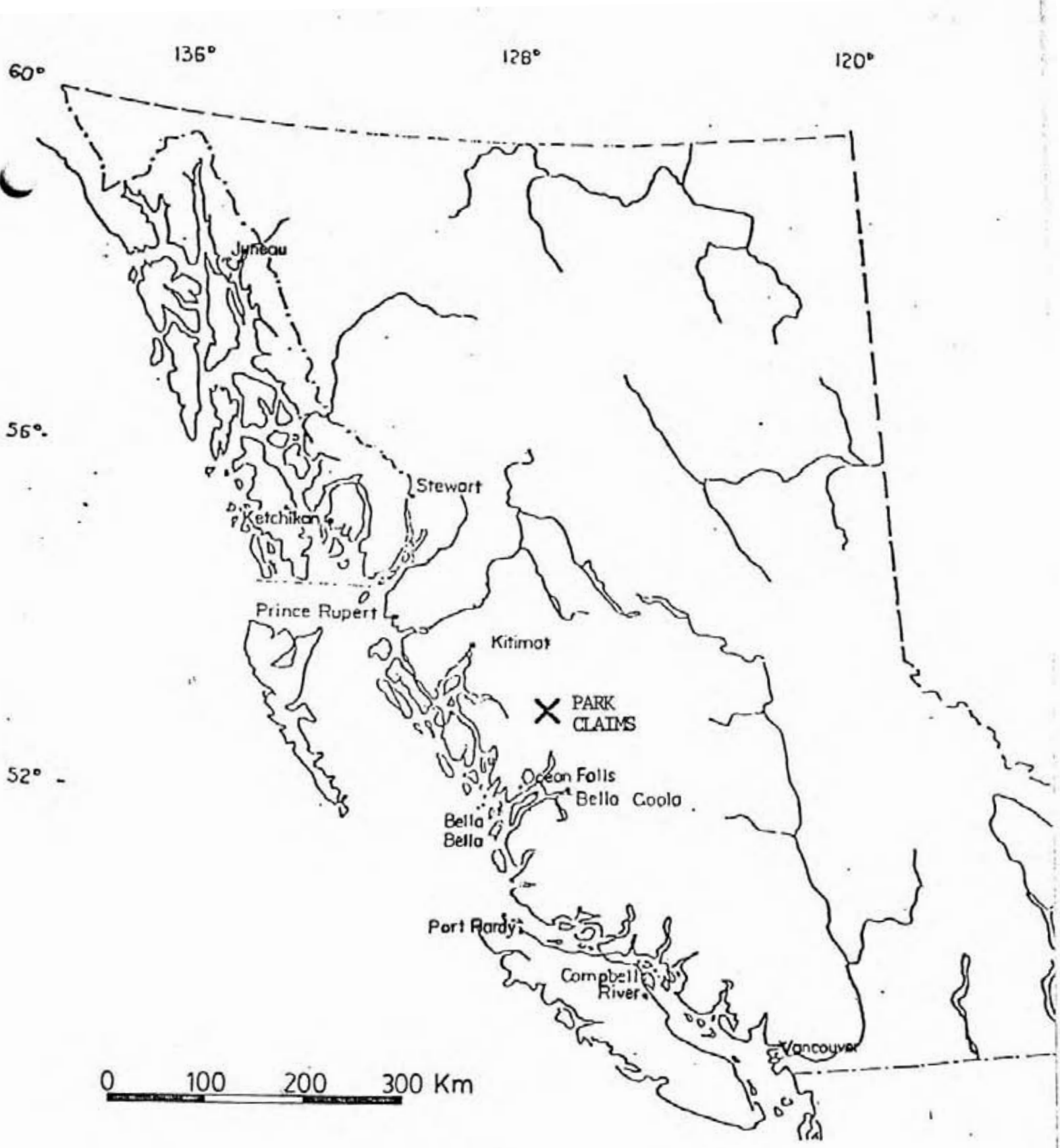
The property consists of 40 units in two claims as shown on the claim map (FIGURE 2).

Park 1 - staked August 3, 1982, tag no. 63784

Park 2 - staked August 3, 1982, tag no. 63783

Both of these claims are located within the Skeena Mining Division. The coordinates are approximately 53°22'N and 127°21'W.

Access to the property is best accomplished by helicopter from Bella Coola, British Columbia, 115 kilometers to the southeast. Another possible alternative for close access to these claims is a newly constructed logging road up the Kimsquit River, 25 kilometers due south. There is also an unused mining road, 2 kilometers to the east, which extends 7 kilometers up from Whitesail Lake through Tweedsmuir Provincial Park. This road could serve as another alternative



RYAN EXPLORATION

FIGURE 1
LOCATION OF THE
PARK CLAIMS

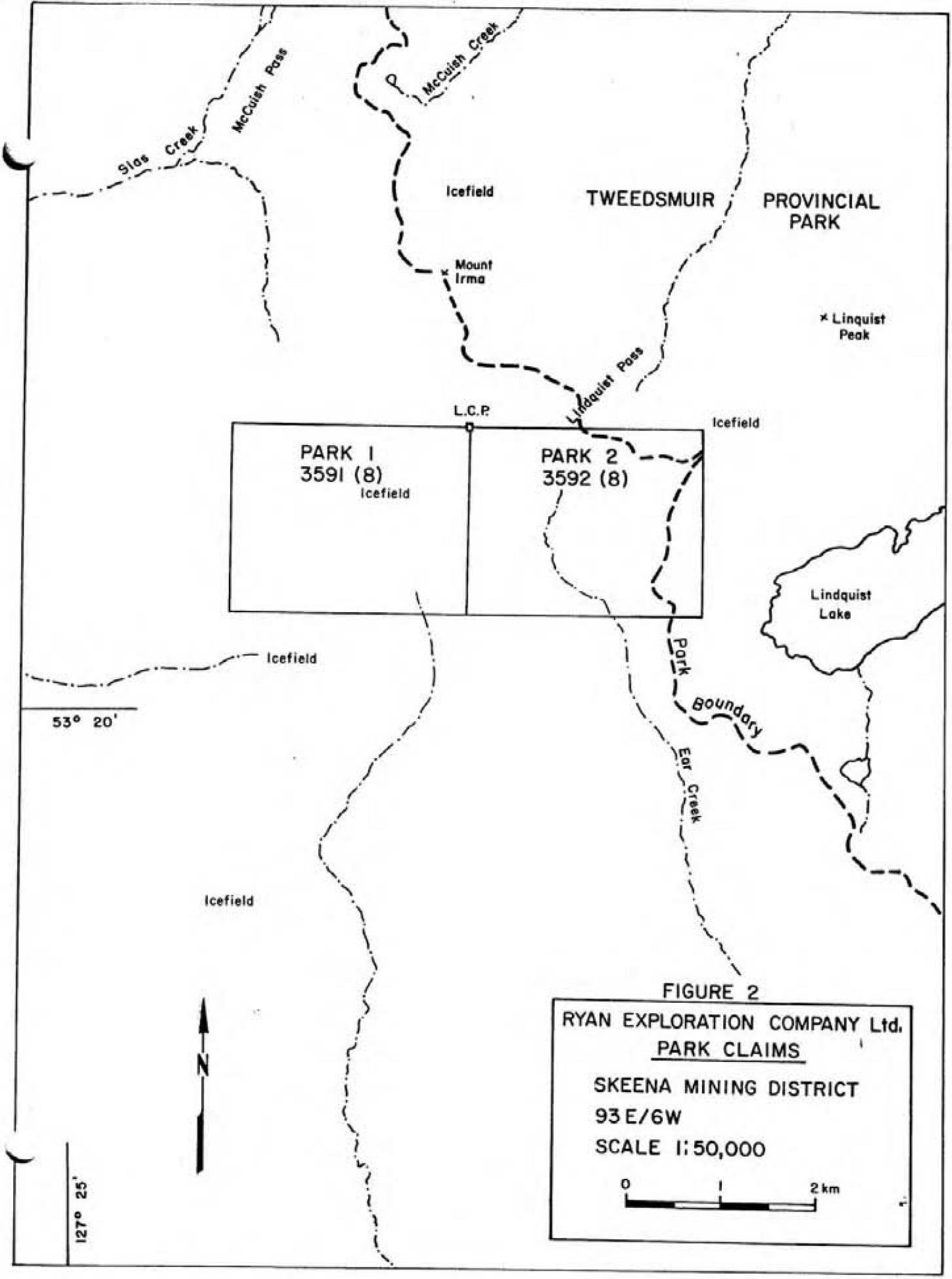


FIGURE 2

RYAN EXPLORATION COMPANY Ltd.

PARK CLAIMS

SKEENA MINING DISTRICT

93 E/6W

SCALE 1:50,000

provided permission could be obtained from the Ministry of Lands, Parks and Housing.

The property was investigated by Barry Devlin from August 18, 1982 to August 21, 1982. Samples were collected and shipped for analysis at U.S. Borax Research Corporation in Anaheim, California.

REGIONAL GEOLOGY

The Park claims lie on the eastern flank of the Coast Mountains. Geological mapping of the Whitesail Lake (NTS 93E) map area was originally carried out by Duffell (1959) and then remapped by Woodsworth (1979). Woodsworth describes the area as being underlain by the Coast Plutonic Complex on the west, the Intermontane Belt on the east, and by a narrow, intensely faulted transition zone in the center. The Coast Plutonic Complex consists of an isoclinally folded Central Gneiss Complex, plutonic rocks and the felsic and mafic tuffs of the Gamsby Group. The Intermontane Belt is underlain by the volcanic Lower Jurassic Hazelton Groups, the sedimentary Lower Cretaceous Skeena Group and Upper Cretaceous to Miocene(?) non-marine volcanics. Block faulting is the most dominant structure in the area.

PROPERTY GEOLOGY

A preliminary investigation of this property indicated that the area is primarily underlain by the metamorphic rocks of the Paleozoic(?), Gamsby Group. According to Woodsworth (1980), this group is represented by the following: "felsic and mafic tuff and volcanogenic sandstone, phyllite, amphibolite, lesser marble, skarn, flaser gneiss, mylonite and schist, all metamorphosed to greenschist and (?) amphibolite facies." Woodsworth also described a Mesozoic and/or Cenozoic chloritized quartz diorite which was observed along the northern boundary of the Park 1 claim.

Phyllite is the most predominant rock type on the property. This unit is typified by a well-developed banding or foliation, with characteristic light green and dark green patches. The phyllites are bluish to steel grey in color, fine-grained and display a waxy texture. Local rusty orange weathering was observed. Interbedded with the phyllites are minor beds of calcite/wollastonite skarn. The skarn beds are more resistant and display a lesser degree of banding. However, this banding continues to parallel the banding of the phyllites. This skarn unit is fine-grained and crystalline with obvious radiating crystals of wollastonite. Epidote

alteration is pervasive in both the phyllites and skarns along with local silicification and minor randomly oriented milky quartz veins. In places, garnet and magnetite mineralization was found to be associated with the skarn beds.

Crosscutting the entire property is a prominent pink-orange unit, which is conformable with the surrounding phyllites and may represent a dike or sill. The composition is similar to that of a rhyolite or a quartz latite and consists of well-developed, rounded, quartz-eye phenocrysts in a fine-grained siliceous matrix. The characteristic pink-orange color is probably a result of potassium feldspar weathering.

Although the map area has been metamorphosed, the foliation continues to parallel the original stratification. The beds have a general east-west strike, trending from 045^{o} to 120^{o} with a dip direction approximately 56^{o} to the south.

MINERALIZATION

The most significant mineralization occurs as lenses of massive bornite interbedded with the phyllite and calcite/wollastonite skarn units. These mineralized lenses are generally small and average approximately 5 meters long and 1 meter across. However, one skarn lense hosting bornite mineralization was discovered and measured 25 meters in length and 7.5 meters in width. This particular lense averaged 4.0% copper, 0.1% lead, 0.9% zinc, 0.010 oz/ton gold and 11.25 oz/ton silver. The other smaller lenses were usually richer and samples ran as high as 9.2% copper, 0.4% lead, 1.7% zinc, 0.034 oz/ton gold and 30.56 oz/ton silver.

Bornite mineralization is inevitably associated with epidote. However, in places either garnet or magnetite, or both, were present with the bornite and epidote. A pervasive malachite and minor azurite stain is also associated with the bornite mineralization. In addition, minor chalcopyrite occurs with the bornite and is usually associated with intense silicification within the calcite/wollastonite skarn unit. The skarn beds may also host small bands of amber or green colored sphalerite. The phyllites contained disseminated pyrite up to 1 percent and minor sulfide mineralization was observed in the randomly oriented quartz veins.

The location of rock chip samples and corresponding assay values are shown on the accompanying geologic map (FIGURE 3, in pocket).

DISCUSSION AND CONCLUSIONS

Only a minimum amount of study has been carried out on the Park claims, but this work has indicated the presence of very significant mineralization scattered throughout the property. Much of the claim is still relatively unexplored and the main reason being an extensive glacial covering. This includes varying thicknesses of ice cover as well as the presence of extensive glacial moraines. Despite the restrictions caused by the glaciers, the strongest mineralization was discovered on a mountain peak which protrudes through the glaciers in the center of the claim group. It is possible additional mineralized showings extend beneath the glaciers and might be discovered later in the season.

There are no identical mineral occurrences of this type in the immediate area surrounding the Park claims. However, to the east and along strike, are the Deerhorn (Harrison) gold and scheelite deposits. These occurrences are presently unexploitable because they lie within the boundaries of Tweedsmuir Provincial Park. The abandoned Deerhorn gold mine occurs within a faulted quartz vein which outcrops in batholithic rocks near the contact between the coast intrusions and the rocks of the Hazelton Group. Mineralization at the Deerhorn scheelite deposit, which lies about 1 kilometer to

the east of the Park claims, bears the closest resemblance to the mineralization on the Park claims. It appears that on this deposit, contact metamorphism has probably formed the scheelite mineralization which occurs within the following: minute fractures, a stockwork of quartz stringers, as small grains in diorite and as large crystals within volcanics.

In conclusion, on the Park claims, phyllites and skarns host numerous small lenses of massive sulfides, principally bornite. This sulfide mineralization is skarn-type and has a probable contact metamorphic origin. Since many copper skarn deposits are spatially and genetically related to porphyry copper deposits, mineralization on the Park claims may be an indication of a porphyry copper deposit nearby.

RECOMMENDATIONS

Further work done on the property should include detailed geological mapping of the entire property, along with prospecting for additional mineralized showings. Because of the substantial elevations on this property, this work must be carried out late in the field season, when most of the snow has gone. Access to certain areas on the property is restricted by glaciers which have a number of large crevasses. Therefore, ground geophysical surveys cannot be carried out and an airborne geophysical survey is suggested for locating additional mineralized bodies.

ITEMIZED COST STATEMENT

WAGES:

Name	Nature of Work	Days Worked	Total Days	Rate Per Day	Total
Barry Devlin	Field work	Aug. 18-21	4	$84.00	$ 336.00
	Report writing	Mar. 01	1	84.00	84.00
Troy Milinkovich	Field work	Aug. 18-21	4	65.00	260.00
				Total Wages	$ 680.00

FOOD & SUPPLIES:

Aug. 18-21	4 days	8 man-days @ $20.00/day	$ 160.00

TRANSPORTATION:

Helicopter	2 hours @ $425.00/hour	$ 850.00
Fuel	45 gallons @ $2.25/gallon	$ 101.25

REPORT PREPARATION:

Map blow-up	$ 180.00
Drafting, typing, reproduction	100.00

ANALYSES:

33 rock chip samples analyzed for: Cu, Pb, Zn, Ag, Au @ $17.00/sample	$ 561.00

Total Costs $2,632.25

STATEMENT OF QUALIFICATIONS

I, Barry D. Devlin of #24-3039 East 56th Avenue, Vancouver in the Province of British Columbia, hereby certify that:

1. I obtained a Bachelor of Science in Honours Geology from the University of British Columbia in 1981.
2. I have worked summers in mineral exploration since 1978.
3. I have been permanently employed by Ryan Exploration Company, Ltd. since May 4, 1981.
4. This report is based on personally working on the Park claims during August, 1982.

Barry D. Devlin.

REFERENCES

Duffell, S. (1959) - Whitesail Lake map area, B.C., G.S.C. Memoir 299, Map 1064A.

Woodsworth, G.J. (1979) - Geology of Whitesail Lake map area, B.C., G.S.C. Current Research, Paper 79-1A.

Woodsworth, G.J. (1980) - Geology of Whitesail Lake map area, B.C., G.S.C. Open-File 708, 1:250,000.

TWEEDSMUIR PROVINCIAL PARK

Icefield

PARK-1
3591 (8)

PARK-2
3592 (6)

LINDQUIST

PASS

EAR CREEK

chloritized Quartz Diorite

felsic, black argillaceous shale
25306

25307-308
massive Barrett lense - 13m X 1m
in banded phyllite,
(almandite-epidote,
minor magnetite, garnet

PHYLLITE

25294-295
small Barrite lenses
in banded phyllite (epidote) / quasso. calcite / wollastonite veins
malachite stain

ove. 3 cm X 50 m.

massive Barrite lense - 25 m. X 7.5 m.
interbedded with banded phyllite
and calcite-wollastonite veins
(malachite stain
Barrite)

25456-459

25296

25646
silicified phyllite (banded)
(Barrite with malachite stain)

25643
calcite - wollastonite skarn, small lense of Barrite, and chalcopyrite)
malachite stain

25455
banded calcite - wollastonite skarn within phyllite

25460
Small Barrite lense - 2m. X 20 m.
in epidotized phyllite

25446
silicified skarn (epidote)

25447
surficial skarn lenses
ove. 15 meters thick

25448
dark green phyllite
(disseminated pyrite)

Quartz vein with epidote and barrite / malachite in banded phyllite
25645

25438-439
bands of calcite / wollastonite skarns in banded phyllite
(contains 3 cm thick bed of diopsidite)

Quartz - Aplite dyke or sill
red or pink color with
rounded Quartz - eye phenocrysts

23701-702

25450-453
banded phyllite with
epidote / garnet skarn
(small bands of chalcopyrite,
Barrite with malachite / azurite stain)

old trenches and drill holes

23564
23565
morraine boulders
banded phyllite and
calcite / wollastonite skarns
(Specimen, Barrite, chalcopyrite
malachite stain)

23567
creek float - volcanic breccia
(disseminated pyrite & phlcopyrite)

23568
morraine boulder
(massive Barrite)

25449
talus boulders
Quartz with abundant pyrite (10%)

23585-586
morraine boulders
banded phyllite with epidote
& garnet (chalcopyrite, pyrite, & malachite)

5000
5500
5800
4500
6000
4000

SAMPLE RESULTS (values in ppm)

SAMPLE #	Cu	Pb	Zn	Au	Ag	Sample Width
23564	31,700	128	124,000	0.36	362.0	morgine boulder
23565	8790	27	2480	0.08	92.5	morgine boulder
23567	113	12	120	0.03	3.0	creek float
23568	123	14	171	0.03	2.4	morgine boulder
23585	655	13	64	0.03	1.7	morgine boulder
23586	14,700	90	35	0.06	198.0	morgine boulder
23648	81,300	114	563	0.66	980.6	grab sample
23649	19,200	951	163	0.15	180.3	grab sample
23701	57,000	130	207	0.11	99.1	grab sample
23702	87,500	499	207	0.14	425.1	grab sample
25294	54,800	121	218	0.15	1038.9	3 meters X 1 meter
25295	91,500	77	182	0.26	915.4	4 meters X 0.30 meters
25296	78,000	74	455	0.12	980.6	3 meters X 0.25 meters
25306	52	44	36	<0.02	1.4	grab sample
25307	55,700	59	88	1.14	234.5	7 meters X 1 meter
25308	34,600	68	103	0.90	136.1	6 meters X 0.80 meter
25438	216	247	202	<0.02	6.6	50 meters X 3 meters
25439	48	3730	16,600	0.08	18.7	6 meters X 0.36 meter
25446	530	45	35	<0.02	1.3	grab sample
25447	162	16	<5	<0.02	1.3	grab sample
25448	66	102	<5	0.03	2.0	5 meters X 2 meters
25449	19	105	34	0.26	1.5	talus boulder
25450	11,600	197	850	0.08	161.5	1 meter X 0.30 meter
25451	3040	30	1900	0.08	25.3	3 meters X 1 meter
25452	22,900	83	5740	0.06	128.5	10 meters X 5 meters
25453	63,700	130	740	0.08	747.4	HIGH GRADE
25454	9020	40	146	0.06	33.8	2 meters X 0.15 meter
25455	390	160	114	0.03	9.1	5 meters X 1 meter
25456	245,000	764	5020	0.59	1190.0	HIGH GRADE
25457	29,700	72	6040	0.38	271.0	TOTAL WIDTH
25458	19,800	2850	16,600	0.20	269.5	25 meters X 7.5 meters
25459	71,900	393	5600	0.39	606.9	
25460	37,800	584	396	0.20	582.9	2 meters X 0.20 meter

LEGEND

- Outcrop
- Geological Contact (Actual, approximate, assumed)
- Probable fault
- Bedding
- Foliation
- Fracture or vein
- Claim post
- Rock chip sample location

GEOLOGICAL BRANCH
ASSESSMENT REPORT
11,172

RYAN EXPLORATION COMPANY, LTD.
PARK CLAIMS
GEOLOGIC SKETCH
&
SAMPLE LOCATION MAP
NTS 93E/6W
SKEENA M.D.
British Columbia
SCALE 1:5000
0 50 100 150 200 meters
By: Barry Devlin
FEBRUARY 1983