

PROSPECTUS

MARCH 5, 1980.

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SUMMARY REPORT

on the

BARB GROUP

Watson Lake M. D., Y. T.

NTS 105 H/6

for

SOVEREIGN METALS CORPORATION (N.P.L.)

by

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PAMICON DEVELOPMENTS LTD.

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1.0 INTRODUCTION

The Barb Group of mineral claims, as described below, cover an occurrence of sulphide mineralization now considered to be strata controlled. The deposit is located on the East shore of the East arm of Frances Lake in the Yukon Territory and was previously known as the Matt Berry Prospect.

Sovereign Metals Corporation (N.P.L.) is the recorded owner of an undivided 100% interest, subject to terms of an option agreement which remains in good standing.

This Report is intended to summarize the available information on the property, to report on the results of a program carried out in 1979 as recommended in the author's Report of July 8th, 1977 (Stage I less drilling) and recommends an aggressive drilling program for 1980.

The basis of this Report is data made available by Sovereign Metals Corporation, on information obtained during a personal examination on June 12th, 1977, on the Report by J. Ostler, M. Sc.¹² on the 1979 program and on personal discussion with D. Yeager, Geologist of our firm, following his examination of the property in September, 1979.

2.0 LIST OF CLAIMS

<u>Claim Name</u>	<u>Record No.</u>	<u>Expiry Date</u>
Barb 9	YA 20216	June 13, 1984
Barb 10	YA 20217	June 13, 1985
Barb 11-15	YA 20234-38	June 27, 1984
Barb 17-32	YA 36636-51	May 23, 1980

The author is advised that additional assessment credits are available for filing and will result in an extension of the above expiry dates.

3.0 LOCATION and ACCESS

The Barb Claims are located on the East shore of the East arm of Frances Lake and centered on Thompson Creek. Approximate co-ordinates are Latitude $61^{\circ} 27\frac{1}{2}'$ North and Longitude $129^{\circ} 25'$ West. Elevations on the property range from 2540 (Lake datum) to about 3000 A.S.L. along a gentle to moderate West facing slope. Thompson Creek has caused a steeply incised valley which cuts the area of interest.

Access to the property is by float place from the village of Watson Lake some 100 miles to the South or by highway to Frances Lake and thence some 35 miles by boat to the site. Road access would require the construction of some 18 miles of highway to link with the Campbell Highway at a point North of Frances Lake.

During the Spring of 1979 a winter cat road was constructed into the property around the North end of Frances Lake from the Campbell Highway.

4.0 HISTORY

The original discovery of silver-lead-zinc was made on the claims in the late 1930's and was prospected for Cominco in 1943. The property was later hand trenched and sampled by Datlaska Mines Ltd. in the early 1960's. In 1966 Matt Berry Mines Ltd. was formed to develop the showing. A program of hand trenching and prospecting was undertaken in the vicinity of a mineralized outcrop

in the Thompson Creek Canyon, followed by a drilling program of 2,120 feet. During July, 1968 an EM 16 survey and a geochemical survey were conducted. From November, 1968 to May, 1969 an additional 4,200 feet were drilled. In June, 1969 a geophysical turam electromagnetic survey was conducted over about 500 acres which included the area previously drilled and surveyed. During late 1969 and early 1970 there was an additional 1,349 feet drilled.

Under a working agreement with Canadian Nickel Company Limited and Metallgesellschaft Canada Limited in 1970, an additional 1,282 feet of diamond drilling was done on the Northwesterly extension of the zone.

A total of 8,823 feet of diamond drilling has been completed on the zone.

New Joburke Explorations held an option on the property in 1973 and in 1974 Cyprus Anvil Mining Corporation, under an option agreement completed a gravity survey over the area.

The property came open in the Spring of 1977 and was staked by the present vendors.

In 1978, under an option agreement with New Frontier (N.P.L.) a Pulse Electromagnetic Survey was conducted on the ground with indeterminate results and the property subsequently reverted to Sovereign who conducted the trenching program reported herein and by J. Ostler, M. Sc.¹²

5.0 GEOLOGY

5.1 Regional Geology

The area has been mapped by the Geological Survey of Canada and is presented on Map 6-1966 Frances Lake N.T.S. 105 H at a scale of 1 inch to 4 miles and on Map 1948 A Department of Mines and Technical Surveys at a scale of 1 inch to 6,000 feet.

The geology in the region consists of a series of phyllites, quartz-sericite schists, hornfels and calc-phyllites, of probable Devonian/Mississippian age.

To the East of Frances Lake these rocks define a North-Northwest trending syncline with a gently dipping Western limb. This has been intruded to the East by acid intrusives of possible cretaceous age.

Regional faulting in the area is extensive with major East/West striking faults dipping steeply to the North and showing horizontal movement, South section East. Less pronounced is a possible set of Northwest/Southeast trending faults which are presumed to be also steeply dipping.

5.2 Property Lithology

The Barb Group is underlain by two phyllitic units. A dark green to black phyllite conformably overlays a homogeneous light grey, fine grained unit.

The overlying darker phyllites contain fine silt and cherty beds grading upwards into pelites. At or

near the contact with the lighter unit; cherty - tuffaceous beds become more prevalent.

It is within this lower or contact zone of the darker phyllites that bedded massive sulphides are located. These appear to be intimately associated with cherty tuffaceous beds. Within the exposed surface trace of this zone the massive sulphide beds are laterally quite continuous.

Some quartz veining has been recognized on the group. These sometimes carry minor sulphide mineralization.

5.3 Structure

The Barb Group is located on the gently dipping Western limb of a North-Northwest trending syncline which locally exhibits extensive deformation within the units.

Ostler¹² attributes this to three stages of deformation:

- I - Formation of large near isoclinal folds with North-Northwest trending fold axis;
- II - Intrusion of granitic plutons to the East resulting in moderate Southwestward dipping cleavage and minor kink folds;
- III - Deformation resulting in broad upright warps and minor kink folds with near vertical axial planes trending North-Northeast.

An understanding of the complexities in structure imposed by these deformations will be important in

developing the Barb Group to it's fullest potential.

5.4 Mineralization

Trenching during the 1979 program has exposed the surface trace of the mineralized zones discontinuously for some 700 feet of strike length (Figure 3). Limitations on depth of trenching prevented the mineralization from being exposed continuously for this length. The surface trace, including "veeing" into Thompson Creek Canyon, is fully compatible with a North-Northwesterly trending unit dipping gently to the Northeast. Reference is made to Figures 4 and 5, this Report (vertical cross sections from drilling) for further confirmation of this.

Drill results and surface exposures of the mineralization indicate that the zone favourable for the occurrence of massive sulphides is some 30 to 40 feet in thickness. Lithologically this zone is located just above the green-black phyllite and light grey phyllite contact where the green-black phyllite is more cherty and tuffaceous. Within this zone are located a number of massive sulphide beds which have been affected by minor folds causing local changes in attitudes and thicknesses.

The best illustration of this is in trench number 3 (Figure 3) where two mineralized zones are exposed, an upper thinly bedded sulphide zone and a lower massive sulphide zone, separated by some 15 feet.

The upper zone is composed of up to ten bands of massive galena and sphalerite ranging in thickness from 0.25 inch to 1.25 inch across a true thickness of 3.0 feet. Some individual sulphide bands may be traced laterally for up to 5 feet but the thinner ones were seen to pinch out completely within 1 or 2 feet. Regardless of the pinching and swelling of individual sulphide bands, the entire thinly banded zone was seen to be continuous, more or less as described above, along a strike length of 35 feet in trench 3.

The lower or massive sulphide zone is composed of two main sulphide bands occurring within a true thickness of approximately 9 feet. The lower band ranges in thickness from 8.0 to 12.0 inches while the maximum thickness of the upper band is approximately 18.0 to 20.0 inches. Both bands split as well as pinch and swell, but despite the irregular nature of individual sulphide bands, this zone was continuous along a strike length of 40 feet in trench 3.

Assay results from this year's trenching program, as presented by Ostler, are included in Appendix II of this Report.

6.0 POTENTIAL RESERVES

Preliminary tonnage and grade estimates from previous drilling were presented in the author's Report of July 8th, 1977.¹¹
A summary of these is show below:

Summary of Tonnage and Grade Estimates

	<u>Tons</u>	<u>Oz. Ag./T.</u>	<u>% Pb.</u>	<u>% Zn.</u>	<u>Classification</u>
Block 1	193,000	4.7	8.9	8.0	Drill Indicated
Block 2	138,000	2.0	4.3	3.2	Inferred
Block 3	257,000	2.3	5.0	2.9	Inferred
TOTAL - all Classifications	588,000	3.0	6.1	4.6	

Planar areas of the above Blocks are shown on Figure 3 with Figures 4 and 5 (cross sections) presented to illustrate down dip continuity.

The trenching program has enhanced the above reserve picture by providing evidence of good lateral continuity of mineralization. However, additional drilling and possibly some underground work will be required prior to these reserves being considered as "proven".

The mineralized zone has not been delimited along strike nor at depth. Consequently, the possibility of increasing the presently inferred tonnage by several orders of magnitude is not unlikely.

Ostler also presents the argument that the known mineralization can be expected to increase in thickness down dip to the East as it approaches the axis of the synclinal structure. If this is indeed the case, the potential of the Barb Group to generate much larger tonnages becomes excellent.

7.0 CONCLUSIONS and RECOMMENDATIONS

The deposit on the Barb Group has attributes typical of shale-hosted massive sulphide bodies. At present it contains drill indicated and inferred reserves of up to one half million

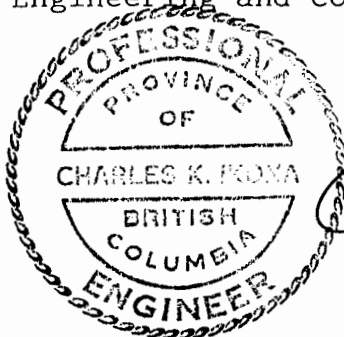
tons of possible ore grade mineralization. There is an excellent possibility of substantially increasing these reserves should the tenure of the ore remain the same throughout the area, or of spectacularly increasing the reserves should any thickening take place in the unexplored down dip extensions.

A 4,000 foot diamond drill program is recommended for the property. Of this, 2,000 feet should be used in 5 holes of approximately 400 feet each to fill in and develop the existing sections and reserves. The other 2,000 feet should be used for deeper drilling to explore the down dip potential of the zone.

8.0 RECOMMENDED BUDGET

The following is a recommended program and cost estimate for the Barb Group:

Program preparation	\$ 5,000
Preparation of orthophotos	5,000
Wage and salary allowance (Geologist and two assistants for two months)	14,000
Mobilization and demobilization	10,000
Assaying	3,250
Field support (technical personnel)	5,000
Fixed wing support	5,000
Equipment rental (includes down the hole survey instrument)	5,000
Diamond drilling - 4,000 feet @ \$30/ft. incl. (2,000 ft. fill in, 2,000 ft. down dip)	120,000
Dozer work, 150 hrs. @ \$65/hr. (Site preparation, drill moves, trenching)	9,750
Reserve for helicopter support, 10 hrs. @ \$500/hr. incl. fuel and ferry time	5,000
Engineering and contingencies	<u>13,000</u>
TOTAL	<u>\$200,000</u>



RESPECTFULLY SUBMITTED,

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