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SUMMARY REPORT

WIT CLAIM GROUP

CHUCHI LAKE

OMINECA MINING DIVISION

TO

VANMETALS EXPLORATION LIMITED

213 - 678 Howe Street

Vancouver, B.C.

BY

A.F. REEVE, P. ENG.

GRANGER, REEVE & CO.

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INTRODUCTION

This Report has been compiled at the request of Mr. R.B. Stokes, P.Eng., Senior Mining Engineer of Vanmetals Exploration Limited. It is based on a brief inspection of the mineral occurences on the Wit Claim Group in late October 1964. The writer has made use of data supplied by R.B. Stokes, and G.A. Checklin, Field Geologist of Vanmetals.

LOCATION & ACCESS

Location (approx. 55° 13'N, 124° 25'W)

The property is reached by travelling 70 road miles north of Ft. St. James to the eastern end of Chuchi Lake, then 5 miles eastward by boat to a point on the north shore of the lake. Details of location, access, local resources & topography are described in a previous Report by R.B. Stokes.

PROPERTY

The following 8 claims are held under option by Vanmetals Exploration Limited from T. Taylor of Winfield, B.C.

Name	Record No.	Assessment Aniversary
WIT 1 - 8	26597 - 26604	Oct. 26, 1965

An additional 28 claims were staked by Vanmetals adjacent to the original group of 8.

Name	Record No.	Assessment Aniversary
Wag 1 - 28	59101 - 59128	Nov. 5, 1965

...2...

WORK TO DATE

Prior to 1964 nothing had been done to develop the mineral showings, to the writer's knowledge. During 1964 work consisted of trail cutting, localized rock trenching, sampling, 51,000' of line cutting and 30,000' of E.M. survey. Exploration operations were abruptly terminated in late October on account of snow and freezing conditions.

MINERAL SHOWINGS

The mineralization occurs in a Triassic-Jurassic volcanic complex known as the Takla group. Regionally these rocks trend E - W. Locally they are inclined at ± 45° to the south and consist of intermediate to basic aphanites and tuffaceous agglomerate. A tongue-like embayment of Omineca intrusive (granite, diorite) rock lies about $2\frac{1}{2}$ miles NW of the showings. Details of Geology are described on G.S.C. Map #876A and in G.S.C. Memoir #252.

The zone of interest is composed of volcanic rock and irregular injections of quartz-carbonate, mineralized with coarse disseminations of sphalerite and galena. Minor quantities of precious metals as well as a significant amount of barium are associated with the sulphides. The barium probably occurs in the carbonate form (barite) which is a common associate of lead--zinc deposits. Pyrite is also disseminated irregularly in the volcanic rocks but is apparently not associated with the lead-zinc mineralization.

A weighted average of metal content in samples taken by R.B. Stokes and G.A. Checklin is given below -

Zinc:	13 samples	3.3%
	excluding 2 high samples	2.5%
Lead:	14 samples	1.2%
Silver:	4 samples	.64 oz./ton
Gold:	5 samples	.01 oz./ton

Spectrographic analysis of a composite sample taken by Stokes indicated 0.1% cadmium and 5.0% barium.

The above mineralization is exposed intermitently over an area

...3...

some 800' long in the E - W direction. Limited exposure, at this point, made it difficult to define the mineralization precisely in terms of width and attitude. However, work to date suggests the possibility of two steeply inclined en echelon zones striking a little north of west.

In the western part of the area quartz and carbonate material is mineralized over exposed widths of $7\frac{1}{2}$' to $18\frac{1}{2}$'. A sub parallel basic dyke is associated with this quartz-carbonate zone.

East of this a section of volcanic aphanite and carbonatized agglomerate and quartz carbonate is mineralized over a horizontal width of about 50'.

SUMMARY AND CONCLUSIONS

1. Significant quantities of sulphide mineralization occur over an extensive area on the Wit claim group. Zinc is the principal metallic value, with silver, cadmium and lead being of secondary importance.

2. Local geological conditions suggest the possibility of stratigraphically controlled development of sulphide material in substantial quantity. On account of its high relative permeability the carbonatized agglomerate horizon would favour hydrothermal deposition of sulphide material; internally and in adjacent wall rocks. The structural "break" along which quartz-carbonate and basic dyke rock have been emplaced may represent a channel from which the favourable horizon received mineralizing solutions.

3. In view of the fact that this is a recent undeveloped discovery, the local and regional exploration potential is strong.

DISCUSSION OF EXPLORATION POSSIBILITIES

In considering further exploration work primary attention should be directed to defining lateral dimensions and grade in the discovery area.

...4...

In terms of a broader programme, most of the property is swamp and drift covered. The resultant lack of extensive rock exposure would limit the effectiveness of surface mapping and prospecting. Therefore, it would be necessary to augment this type of work with an effective geophysical method. The writer does not consider that geochemistry would be very useful on this type of swamp covered glacial terrain.

Assuming that important mineralization is stratigraphically controlled, the control horizon may be traceable by the magnetic method. In this respect test measurements over the exposed zone would be required to determine whether the mineralized stratum can be discriminated magnetically. In addition magnetic work on a broad basis would give a general indication of structural fabric.

Presuming that the above work is successful, magnetic indications could be checked either by the induced polarization method or by mechanical stripping depending upon surface conditions (i.e. swamp, depth of overburden). Coincident magnetic and I.P. anomalies covered by swamp or deep overburden would require checking by diamond drilling holes.

With regard to the induced polarization method; it is capable of detecting disseminated sphalerite, in spite of its poor conductivity, but is also subject to the extraneous effects of other conductive minerals such as pyrite.

RECOMMENDATIONS

PHASE 1.

A. Continuation of trenching, sampling and mapping in the discovery area.
B. Surface mapping and prospecting over the entire property.
C. Magnetic survey.

PHASE 2. (Projected)

A. Induced polarization survey.
B. Mechanical stripping and road work (bulldozer).
C. Diamond drilling.

...5...

ESTIMATE OF COST

CONDITIONS

- 4 man field crew, 40 days
- bulldozing, drilling and geophysics contracted

PHASE 1.

Mobilization and demobilization	$ 500.00
Salaries - 160 man days @ 20.00	3,200.00
Crew Maintenance - 3.00/man day	480.00
Assaying 50 samples @ 8.00	400.00
Misc. Field Supplies	100.00
Magnetic survey - 15 miles @ 50.00 plus 200.00 mobilization	950.00
Sub total	5,630.00
Contingency ± 10%	570.00
TOTAL	$ 6,200.00

Say $6,000.00

PHASE 2.

I.P. Survey - 5 miles @ 600.00 plus 500.00 mobilization	$ 3,500.00
Drilling - 3,000' @ 5.00	15,000.00
Bulldozer - 300 hours @ 20.00	6,000.00
Supervision	1,200.00
Assaying 50 samples @ 8.00	400.00
Transportation	300.00
Misc. Expenses	500.00
Sub total	26,900.00
Contingency ± 10%	2,600.00
TOTAL	$ 29,500.00

Say $30,000.00

FACTOR		% Zn		% Pb		oz. Ag		oz. Au	
	12	2.44	29.3	.77	9.25	.6	7.2	.01	.12
	41	4.38	179.5	2.45	100.5	.6	24.6	.01	.41
	40	3.16	126.5	.82	32.6	.7	28.0	.01	.40
	1	9.16	9.16	1.17	1.17	.3	.3	.03	.03
94	7.5	1.19	8.93	.36	2.7		60.1 Ag		.96
4.5	7	2.32	16.25	1.07	7.5				
4.0	3	.61	1.83	.10	.3				
102.5 Au	6	1.79	10.75	.10	.6				
	5	2.40	12.00	.77	3.85				
	4.5	.58	2.65	0	0				
	4.5			0	0			0	0
	10	1.86	18.60	.10	1.0				
	6	2.83	17.00	.77	4.62				
	6	3.29	19.70	1.48	8.90				
	4							0	0
Total			452.17		171.59				

Silver 4 samples $\frac{60.1}{94}$ = .64 oz.

Gold 5 samples $\frac{.96}{102.5}$ = .009 oz./ .01 oz.

Zinc 13 samples $\frac{452.17}{139.0}$ = 3.25%

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Lead 14 samples $\frac{171.59}{143.5}$ = 1.19%

Zinc $\frac{146.17}{58}$ = 2.52% - excluding 2 high samples