

PRELIMINARY REPORT: STORMY MOUNTAIN MOLYBDENUM PROPERTY

LOCATION AND ACCESS

The property consisting of four located mineral claims is situated in the Yukon Territory at $61^{\circ} 31'$ north latitude and $132^{\circ} 50'$ west longitude, approximately 12 miles east of the Canal Road at a point 92 miles north of Johnson's Crossing. The mineralized zone outcrops at an elevation of 6400 feet above sea level. Additional claims are being staked.

Access is by a rough tractor road from the turnoff on the Canal Road at mile 92 along the valley of upper Sheep Creek. The road is good and can be made into a truck road for a reasonable expenditure.

HISTORY

The discovery of molybdenum mineralization was made by Arnold C. Roelast in 1936. Trenching was undertaken in 1938 and 1939. The property was taken over by Canal Metals Ltd., a Toronto financed company, in 1938. Camp was established and an underground development program was completed in 1939 and 1940. This work was largely confined to the discovery zone. Little surface exploration was undertaken.

GEOLOGICAL ENVIRONMENT

The deposit is of the contact metamorphic type, located along the north contact between the Rose Lake batholith and series of limy sediments of Cambrian age. The contact area is extremely irregular on strike and dip and has been dissected by numerous fault zones.

Alteration is intense. The granitic rocks are soft and sericitized. Skarn and hornfels have been developed along the granitic limestone contact. Secondary silicate mineralization is widespread.

Both molybdenite and scheelite occur. The molybdenite occurs both in the skarn and in the altered dioritic rock phase, the highgrade ore seems to favour the latter. The scheelite occurs most commonly in the skarn zone either alone or associated with molybdenite. Pyrite and pyrrhotite usually make up about 2% of the gangue associated in the ore zone.

ORE ZONE DESCRIPTION AND RESERVES

Surface trenching along the diorite skarn contact exposed a zone 350' long and approximately 6 to 10' wide of highgrade molybdenum ore with minor scheelite. Assays in the trenches varied from 4 to 9% MoS_2 . The overall grade was estimated by various engineers at approximately 4% molybdenum.

The extensive underground development program undertaken by Canal Metals Ltd., consisting of a thousand feet of drifting and cross cutting and 3,400' of underground drilling, showed this deposit to be very irregular and discontinuous. A highgrade pipe like ore body some 25' in diameter was cut in the initial drift.

Most of the drilling was done to ascertain the position and attitude of the skarn-granite contact. However, a number of holes did intersect significant molybdenum and tungsten mineralization over mining widths.

TABULATION OF D.D. HOLES SHOWING BETTER THAN 0.10% Mo & WO₃

<u>Hole No.</u>	<u>MOLYBDENUM %</u>	<u>Core Length</u>	<u>Hole No.</u>	<u>MOLYBDENUM %</u>	<u>Core Length</u>
U3	0.44	12.5	U15	0.75	2.5
U7	2.08	8.6	U21	0.15	5.3
U8	1.15	19.1	U31	0.15	17.5
U9	1.52	0.4	U32	0.25	6.0
U10	0.52	2.0	U35	0.48	7.5
U13	0.46	10.0			

<u>Hole No.</u>	<u>TUNGSTEN %</u>	<u>Core Length</u>	<u>Hole No.</u>	<u>TUNGSTEN %</u>	<u>Core Length</u>
U3	0.58	8.5	U2	1.00	9.00
U7	2.44	8.2	U6	0.37	2.3
U8	4.46	8.4			
U9	0.24	4.5	U12	1.29	3.3
U21	0.86	14.3	U18	0.67	4.0
U31	0.19	18.5	U20	0.98	4.5
U32	0.21	6.0	U36	0.56	2.0

The drill holes show that the molybdenum and tungsten do not always occur together. The tungsten seems to favour the skarn zones.

The Canal Metal engineers arrived at an average grade of 0.73% Mo over a thickness of 8.2' for a possible reserve of 15,000 tons. For the tungsten ore they give a reserve of 17,000 tons grading 1.05% WO₃ with an average thickness of 7.0 feet. Their reports state that the grade arrived at by the diamond drilling must be considered as being unreliable due to poor core and sludge recovery.

The ore as exposed in the surface trenches and in the drift would suggest a grade considerably higher than the above. It would seem reasonable to expect that an ore sheet containing 10 - 15,000 tons grading from 2% to 4% could be extracted in the area explored to date.

This small tonnage of highgrade ore would not warrant the construction of a mill for its recovery. However, if several more such zones can be found along the contact zone then its extraction could be a very profitable undertaking at the prevailing high price of molybdenum.

EXPLORATION POTENTIAL

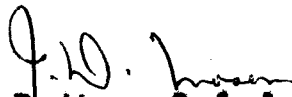
Although bed rock is heavily covered by talus and overburden and the topography is precipitous along the strike of the limestone-granite contact, skarn material containing both molybdenum and tungsten can be picked up for over a mile north and south of the known deposit. The contact area is folded and faulted and hence offers good structural traps for ore deposition. Detailed exploration is warranted.

The ore material is associated with some pyrite and pyrrhotite and may show up as an anomaly in a self-potential survey. It is slightly radio active also so that a Geiger counter may locate ore concentrations. The ultra-violet lamp will indicate areas of tungsten concentrations. Soil sampling will indicate high molybdenum areas.

Further exploration is warranted and a two phase program is recommended. First, surface geological mapping, technical prospecting and trenching followed by stage two of underground edits to develop any mineralized areas found in the surface exploration. Diamond drilling is not recommended for ore evaluation although some holes may be helpful in ascertaining the geological structure.

The following estimate covers the expenditures anticipated.

Respectfully submitted,


J.D. Mason, Professional Engineer

June 15, 1967

PRELIMINARY EXPLORATION STAGE #1

x see letter of Aug. 25/67,
point 5; this can be
deleted. *2-3*
30 JMI

Road Construction and Camp Construction

13 miles of road rehabilitation, culverts, etc.	6,000.00*	
Tent camp construction and equipment	3,000.00	
	<u>9,000.00</u>	9,000.00*
sub total		

Surface Exploration - Direct

Surveying and geological mapping	1,500.00	
Soil sampling and assaying	4,000.00	
Other geophysical, radiometric & ultra-violet surveys	3,000.00	
Prospecting	1,500.00	
Bulldozer trenching - allow 60 cut hours @ \$20.00	1,200.00	
Surface trenching (hand)	3,500.00	
Assaying - allow	500.00	
Engineering & consulting services	2,500.00	
	<u>17,500.00</u>	17,500.00
sub total		

Surface Exploration - Indirect

Head office and accounting	1,200.00	
Comperation, insurance, board fees, etc.	2,500.00	
Travel & camp service	1,500.00	
Miscellaneous including communications, supplies, equipment		
rental	1,500.00	
sub total	<u>6,700.00</u>	6,700.00

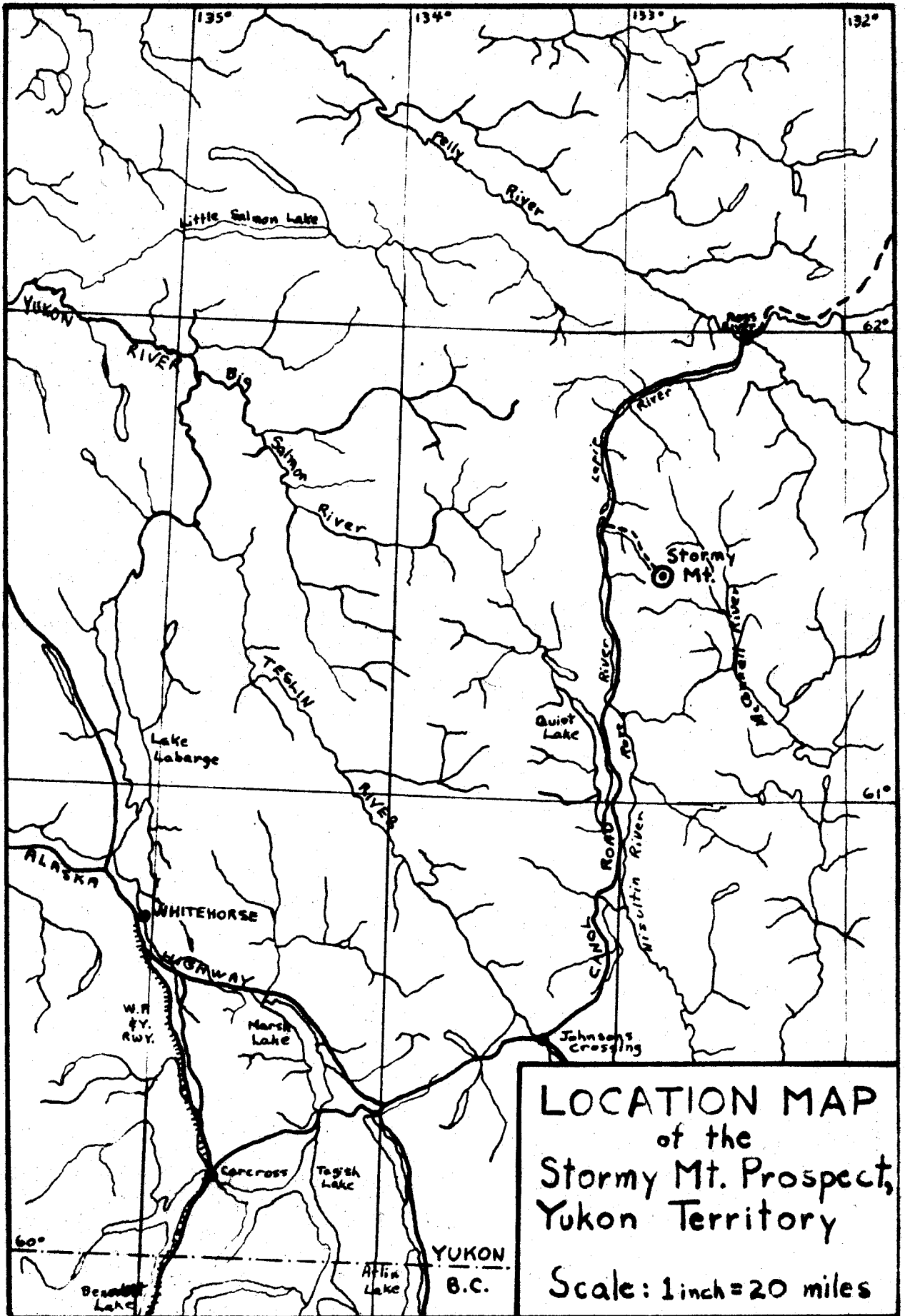
TOTAL Stage One - Preliminary Exploration \$33,200.00

PRELIMINARY EXPLORATION STAGE #2

Underground Exploration & Development

Camp construction	5,000.00	
Road improvements and maintenance	3,000.00	
Equipment rental, compressor, power unit, etc.	6,000.00	
Allow 600' of edit & drifting @ \$70.00 per foot	42,000.00	
Camp service & transportation of men - allow	4,000.00	
Diamond drilling 1,000' @ \$10.00	10,000.00	
Assaying & sampling - allow	1,000.00	
Engineering & supervision - allow	5,000.00	
Indirect costs - 20% of the above	15,000.00	
	<u>91,000.00</u>	
TOTAL Stage Two - Preliminary Exploration	91,000.00	<u>\$91,000.00</u>
TOTAL COST OF EXPLORATION PROGRAM		<u>\$124,200.00</u>

The above program would commence by the 15th of June and be completed by December 1, 1967.



2 Mo

SUMMARY

Previous exploration has disclosed a highgrade ore pod along a favourable metamorphic contact skarn zone between limestones and granites. Probable reserve is estimated at 10 - 15,000 tons, 2 - 4% Mo with approximately 1% WO_3 .

Little exploration has been undertaken along the contact zone known to extend for several miles from the known highgrade body. Geological conditions are favourable for finding additional ore pods.

If probable highgrade reserves can be tripled then mill construction would be warranted.

The molybdenite-tungsten mineralization would respond to a number of scientific prospecting methods.

Further detailed prospecting is warranted. A two stage development program which could cost \$124,000 is recommended for 1967.