MR D.A. LOWRIE
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EXPLORATION PROPOSAL FOR THE MACMILLAN PASS AREA OF THE YUKON

Introduction

Two potentially important mineral occurrences, the Tom deposit and the Summit Lake deposit, have been located and explored near the Eastern margin of the Yukon Territory in the last decade. Both occur within the Ordovician-Mississippian sedimentary sequence associated with a black shale horizon.

The Ordovician-Mississippian sequence contains black shales, chert arenites, chert pebble conglomerates, argillite, argillaceous limestone, with minor mid Ordovician volcanic flows. These overly the Hadrynian "Grit" unit which consists of red and green slate, siltstone, feldspathic sandstone, conglomerate and minor grey dolomite and limestone.

Mineralisation on the Tom property consists of sphalerite and galena with barite near the base of a thickened section of the pyritic black shale horizon. The galena and sphalerite occur, for the most part, in cherty argillite and siliceous fragmented rocks of Mississippian age that lie immediately above a chert pebble conglomerate. This horizon is near the top of the Ordovician-Mississippian sequence. No intrusive rocks occur on the claim group, however, the property lies within the "intrusive line" (see map).

According to Archer and Cathro, mineralisation occurs on both limbs of a Northerly trending anticline with stratiform mineralisation on the West and fault controlled mineralisation on the East. Blusson feels that thickening in the pyritic shales occurred in a graben during sedimentation and that mineralisation may somehow be related to this graben. Mineral reserves are reported (1970) as 5.1 million tons grading 8%Pb, 8%Zn and 2.7 oz Ag.

The Summit Lake deposit at Howards Pass, 60 miles South Westerly from the Tom claims, is stratigraphically lower in the sequence than the Tom. Mineralisation consists of fine grained galena and sphalerite in graphitic shale of lower Ordovician age and lies about 200 ft. stratigraphically above the shale - Upper Cambrian limestone contact. Rocks are folded into a North Westerly trending anticline. There are no reported intrusive rocks. Reserves are said to be in the tens of millions, with values predominantly in zinc.

KERR ADDISON MINES LIMITED

MEMO

VANCOUVER OFFICE

DATE April 8/76

TO: Dave Lowrie

FROM: Bill Sirola

SUBJECT: MacMillan Pass Proposal

Dave,

We have shelved this exploration proposal in the light of our additional costs in the Rockstoke Area this year.

Bill

Exploration Proposal

This proposal is for a one month (maximum) exploration programme to cover an area immediately West of the Tom deposit. Crew required would be two men; one a geochemist, the other a geologist, using a helicopter for camp moves only every four or five days, or as required. It is anticipated that 2 men can cover 25 sq. km. in four days.

Object of the programme is to search for and locate stratiform type mineralisation similar to that at the Tom occurrence. Area to be explored is shown on the accompanying map.

Method to be used would emphasise geochemistry, using the expertise of Mr. John Hajek, geochemist, in conjunction with geological mapping. Samples would be tested for Pb, Zn, Cd and Ag.

An alternate approach would be to use the airborne VLF-EM to trace out the black shale horizon, then follow this up with geochemical sampling. A test flight over the Tom deposit and possibly the Howards Pass (summit) deposit would be necessary to first determine the effectiveness of the VLF-EM on the black shales.

Estimated Cost of a One Month Programme

1. Area to be covered = 200 sq. km.
   Assuming 2 men cover 25 sq. km. every four days.

2. Helicopter Time = 16 hrs. (min)
   Camp to be moved every 4 days - assuming nearest helicopter within one hour. This would mean two hours/move, return for 8 moves.

3. Helicopter Rate = $325/hour
   This figure is for a Bell 206 Jet Ranger

A. Geochemical Survey Only:

Helicopter, 16 hrs @ $325/hr =	$5,200
Transportation of Crews:	
Vancouver to Whitehorse & return	500
Whitehorse to site and return	1,000
Food and supplies	900
Est. $15/man day	
Salaries for two men	3,500
Sample Testing, $2.00/sample for 500 samples	1,000
Sub Total	$12,100
Plus 10% for contingencies	1,210
Total Cost	$13,310

B. Combined airborne VLF-EM and geochemical surveys:

Airborne Survey:	
(a) Flying time, est. @ 8 hrs. max at $325	$2,600
(b) Transportation for airborne survey crew from Vancouver to site & return	500
(c) Accommodation and Food	150
(d) Cost of Operator $120/day for 4 days	480
Total	$3,730
Geochemical Survey:	
Figure same as A	$13,310
	$17,040

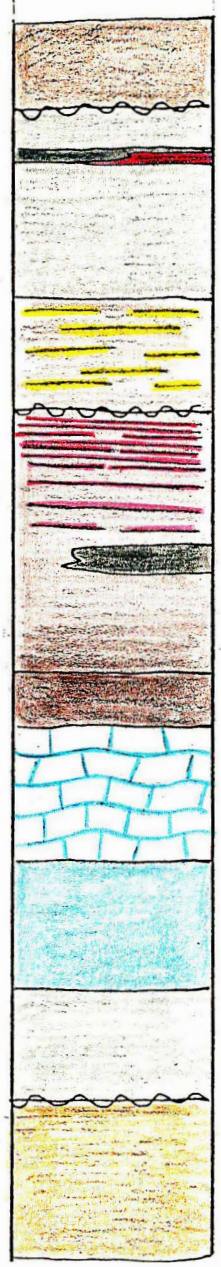
For the geochemical work, a reasonable contract figure would be $4,400 for the one month programme, including a report. Kerr Addison Mines would cover the helicopter costs and cost of mobilisation and demobilisation. John Hajek would cover cost of assistant, food and supplies. Kerr would also pay the cost of testing samples.

John C. Lund

J. C. Lund

JCL:lmp

STRATIGRAPHIC SECTION HOWARDS PASS AREA, Y.T.



Flyshe environ.

Black shales(?)

Groove casts, turbidites

Pb Zn

Yarow PK. Seds

Ba Pb Zn (Tom deposit)

Iron Cr. Formation

Backside siliceous mudstone

Howards Pass Formation (Summit Lake deposite)

Black shale

Transition

Wavey bedded lst

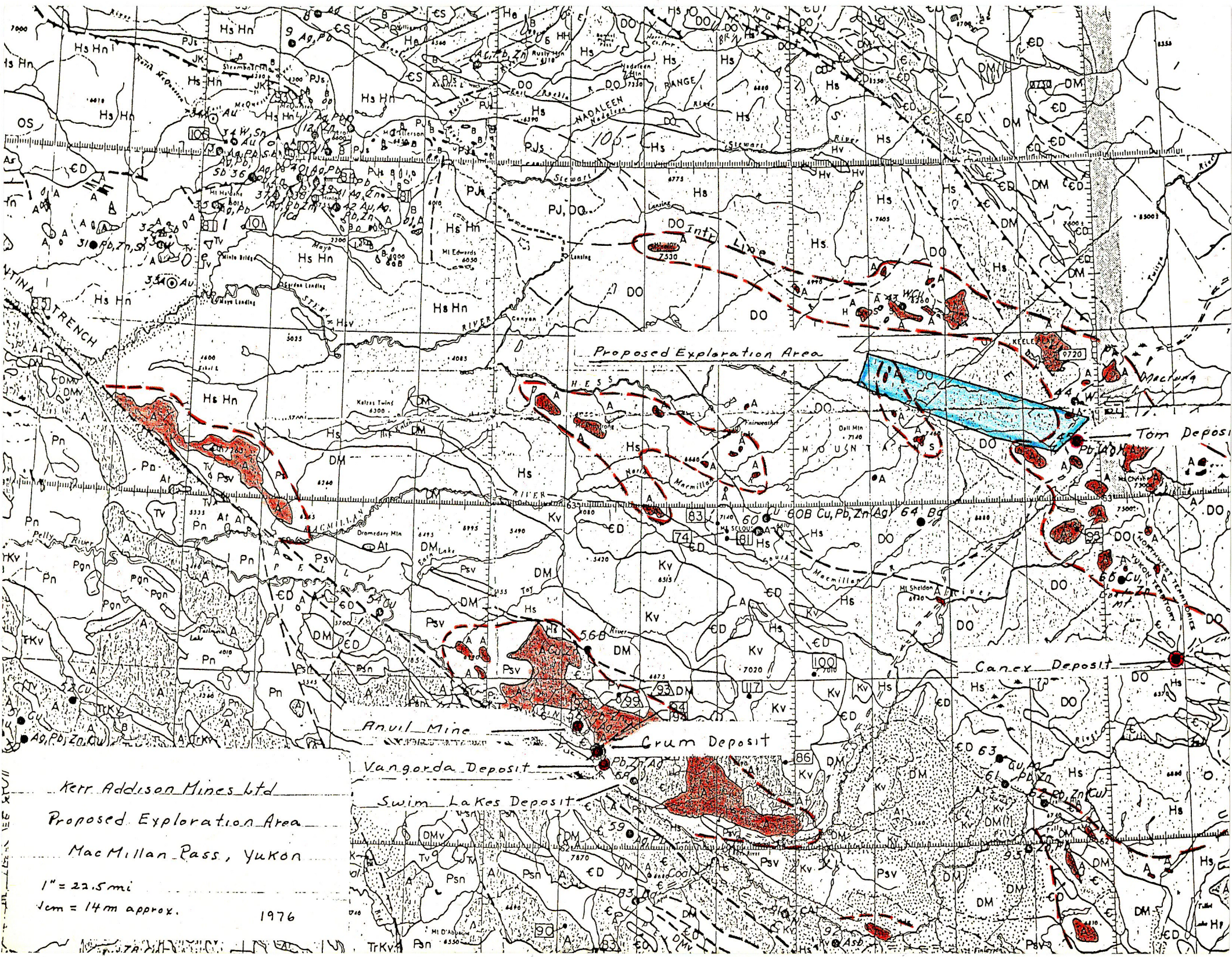
Massive lst

Lower siltstone

Pre Cambrian

Howards Pass Fmt.

up to 30% Pb Zn	Mudstone
3 - 15% Pb Zn	Cherty mudstone
6 - 8% Pb Zn	Cherty
1 - 3% Pb Zn	Calcareous mudstone
< 1% Pb Zn (?)	Limestone and mudstone
	Black shale (?)


Proposed Exploration Area
Tom Deposit
Canex Deposit
Anvil Mine
Crum Deposit
Vangorda Deposit
Swim Lakes Deposit
Intl Line
TRENCH
RANGE
RIVER
Kerr Addison Mines Ltd
Proposed Exploration Area
MacMillan Pass, Yukon
1" = 22.5 mi
1cm = 14 km approx.
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