THE MELA 1-52 CLAIMS

GEOLOGY, 1981

NTS: 106D/12 and 13

64°45'N; 135°58'W

MAYO MINING DISTRICT, YUKON TERRITORY

OWNER: MATTAGAMI LAKE EXPLORATION LIMITED

AUTHOR: J. BICZOK, H.B.Sc.

DATE: MARCH 1982

This report [illegible] accepted by the Yukon Prospector Exploration Unit under section 53 (4) Yukon Quartz Mining Act and is allowed as representation work in the amount of $ 26,000.

P Watson

for Regional Manager, Exploration and Geological Services for Commissioner of Yukon Territory.

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CHAPTER ONE: INTRODUCTION

1-1: Location and Access

The MELA 1-52 claims are located 130km north of Mayo, Y.T. at latitude 64°45'N, longitude 135°58'W in the Mayo Mining District (Figure 1). A trail from Keno Hill leads to within 60km of the property. Access has been by helicopter from either the Dempster Highway, 110km to the west, or McQuesten Lakes, 77km to the southeast. Helicopter fuel was flown in by ski-equipped plane during the winter and landed at several sites near the claims.

1-2: History of the Claims

Initial work in the area was prompted by a Mo-Zn anomaly detected during a GSC regional stream survey (GSC Open File 519). Following the discovery of trace galena-chalcopyrite mineralization, the DALE 1-14 claims were staked on July 31, 1978 and recorded on August 8th. Geological mapping, geochemical sampling and prospecting were carried out by a four man crew during the summer of 1979. In 1980 a five person crew spent several weeks in the area and subsequently staked the MELA 1-52 claims (Figure 2) on August 8, 1980 (Metcalfe, 1980). The claims were recorded in Mayo on August 20th and assigned grant numbers YA42362-42413.

In 1981 a crew of six geologists worked on the claims from August 10 to 24th. The following personnel were involved in the work:

J. Biczok	Project Geologist
S. Wiecek	Temporary Party Chief
P. Wagner	Senior Assistant
B. Lockhart	Junior Assistant
K. Tomlinson	Junior Assistant
K. Hyndman	Junior Assistant
K. Anderson	Junior Assistant
M.A. Annable	Cook

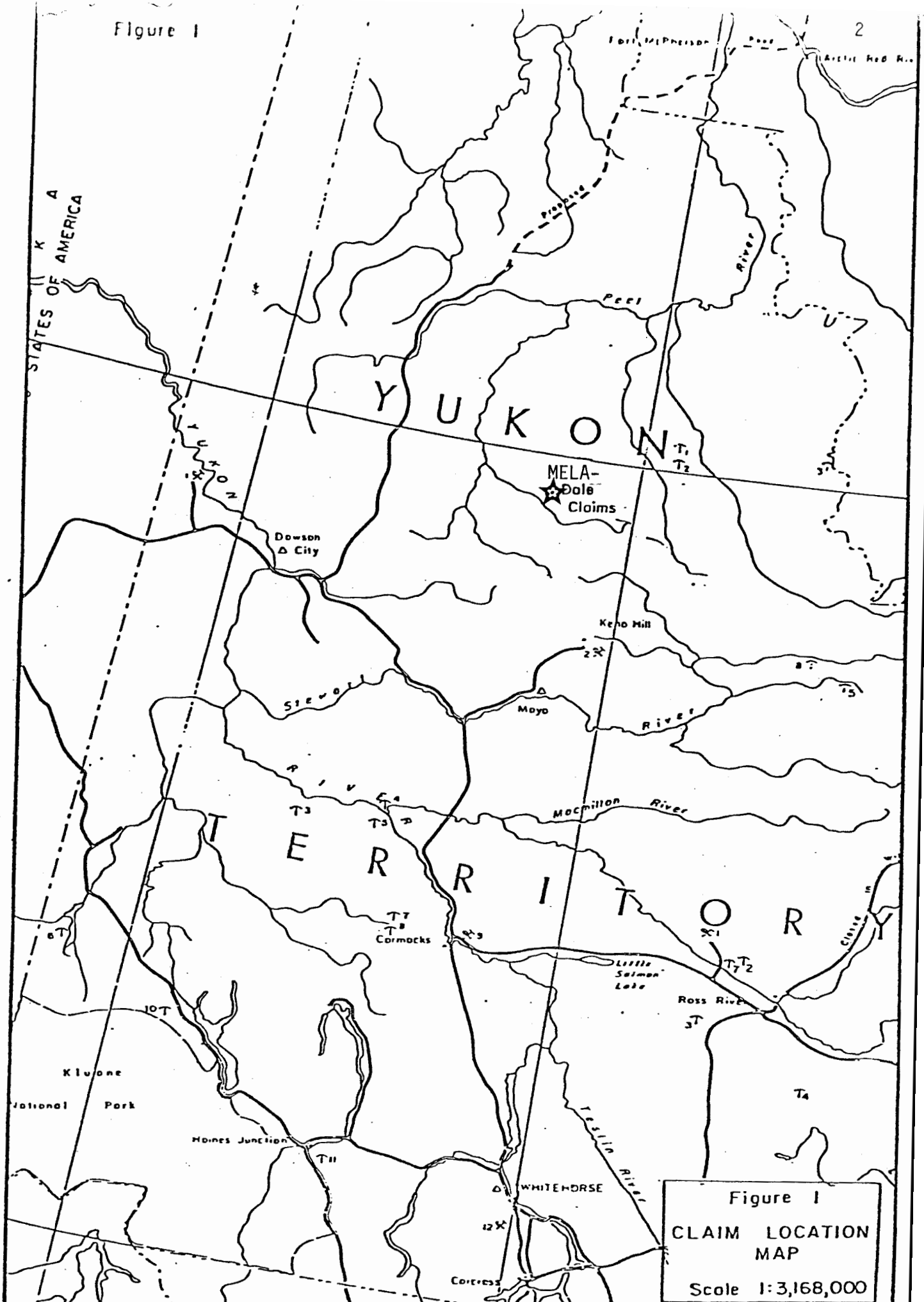

Figure 1

CLAIM LOCATION MAP

Scale 1:3,168,000

FIGURE 2: CLAIM MAP, MELA 1-52

1-3: Physiography and Surficial Geology

The eastern DALE claims are typical of the physiography described by Biczok (1980). Elevation varies from 1,300m to 2,000m. The steep aretes developed in the Helikian terrain contrast sharply with the gentler slopes of the Paleozoic carbonates to the north.

The area was glaciated in the Late Wisconsin (Biczok, 1980); glacial striae show a northward movement of an alpine glacier along the Lake Fleming valley and Lake Fleming itself has formed behind a terminal moraine. Two rock glaciers are preserved in the forked valley above Lake Fleming, on either side of Mt. Widmeyer. Trough ends, lateral and terminal moraines, cirques, hanging valleys and tarns are numerous and well-developed in the Helikian terrain.

1-4: Flora and Fauna

The average elevation of the MELA claims and the steepness of the slopes precluded the development of all but sparse arctic grasses and wildflowers. This sparsity of vegetation contributes to slope instability. In the valley bottoms glacial features have, in places, caused poor drainage and consequent development of swampy areas where stunted alder and buckbrush may be observed.

Lake Fleming was found, unexpectedly, to contain appreciable numbers of lake trout. The margins of the lake are inhabited by numerous marmots and ground squirrels. Two caribou were observed up-valley from Lake Fleming. No large carnivores were seen.

1-5: 1981 Work Program

During the 1981 claim year (i.e. prior to August 20th) a total of 80 mandays were expended on the property. Due to the extreme weather conditions, relatively little of this time was spent actually performing geological work. The camp was subjected to frequent snowstorms and three days of 100km/hour winds. The wind paritally damaged most of the tents and totally destroyed one tent, subsequently injuring one crew member who had to be hospitalized for the remainder of the summer. A breakdown of the mandays is as follows:

Geological mapping	22 mandays
Weather days	19 mandays
Mobilization	15 mandays
Injury days	5 mandays
Cooking	11 mandays
Drafing	2 mandays

Mapping was conducted at a scale of 1:10,000. Since the area was previously mapped in some detail by Biczok (1979) and Metcalfe (1980), emphasis in 1981 was placed on examination of known mineral occurrences.

CHAPTER TWO: GEOLOGY

The geology of the area has been described previously in some detail (Biczok, 1980; Metcalfe, 1981). The claims straddle the faulted, unconformable(?) contact of east-trending Helikian phyllites, shale and dolomite with Lower Paleozoic limestone. The phyllites are intruded by numerous porphyritic dacite and amphibolitized gabbro dykes and are disected by numerous faults up to 40km long. A Table of Formations after Metcalfe (1980) is presented in Table 1. Geological work in 1981 was directed primarily at extending the area of detailed mapping to the east (Map 1) and studying the known occurrences of mineralization. Traverses and sample locations are plotted on Map 2. Unfortunately most samples collected for analysis were lost in transit.

TABLE 1: TABLE OF FORMATIONS

Age	Formation	Correlative Units of Green and Roddick	Correlative Units of Norris	Units on Fig. 3
Quaternary	Glacial Deposits	26	Qmm	-
	UNCONFORMITY			
?Upper Mesozoic	Amphibolitic gabbro	20a	-	4
?	Buff weathering chlorite- and hornblende-bearing porphyritic dacite	-	-	-
	UNCONFORMITY			
Lower Paleozoic	Grey and while crystalline limestone with minor dolomite and rare interbedded maroon shales	8	E?Db	8
	UNCONFORMITY			
Helikian	2c Grey dolomite not observed 2b Orange and buff weathering dolomite 2a Black shale not observed	2	H_1	2
	UNCONFORMITY			
	1e Buff to grey siliceous phyllite siltstone, minor dolomite		IS	1
	1d Black shaley phyllite interbedded with sandy siltstone		uZm	
	1c Green siliceous argillite			
	1b Black shaley phyllite, argillite, siltstone		H_o	
	1a Thinly bedded dark grey-black phyllite siltstone			

CHAPTER THREE: MINERALIZATION

Narrow chalcopyrite bearing quartz veinlets are found throughout the area. Although chalcopyrite concentrations may locally reach 30-40%, the veins themselves are widely spaced, narrow (<0.5m) and discontinuous. They are considered to have very little potential.

Chalcopyrite has also been found within a unique siderite vein. The vein is vertical, 4km long and up to 6m wide. It consists of 90-95% dark rusty-brown colored siderite, generally as coarse-grained, subhedral crystals, with minor amounts of chalcopyrite, calcite and quartz. Although small pods of chalcopyrite occur locally these are too discontinuous to be of significance.

Specular hematite has been found at numerous locations on the claims, genreally occurring in quartz veins associated with amphilotized gabbro dykes. It occurs as thin flakes up to 2cm across which form books several millimetres thick. Their host quartz veins often carry significant amounts of fine-grained epidote and minor chalcopyrite. No other economic minerals were discovered in these veins and their overall Cu content is low. Six samples of the host amphibolitized gabbro were analyzed for ten metals but all returned very low values (Table 2).

TABLE 2: Analyses of Amphibolitized Gabbro Samples (results in ppm, except Au in ppb)

Sample Number	Cu	Pb	Zn	Mo	Ag	Ni	Co	As	Au	Sb
R1	36	3	57	2	0.2	40	19	12	5	5
R2	356	2	53	1	0.2	49	25	3	10	4
R3	57	4	178	1	0.2	20	33	5	ND	ND
R4	240	15	62	2	0.2	68	30	7	25	7
R5	113	ND	60	1	0.2	40	18	4	ND	5
R6	225	2	50	1	0.2	38	21	4	ND	ND

ND - Not Detectable

CHAPTER FOUR: RECOMMENDATIONS

Due to the severity of the weather during the summer of 1981, very little of the proposed work program was completed. Therefore it is recommended that a detailed exploration of the claims area be continued in 1982. This should include more detailed mapping and prospecting on the eastern claims and the surrounding area. A crew of five geologists with helicopter support will be required for approximately three weeks on the property. If weather conditions are more favorable than they were in 1981, the work could be completed in a shorter period.

CERTIFICATE

I, John Biczok, of Edmonton, Province of Alberta, do hereby certify that:

1. I am a geologist at 8615 - 64 Avenue, Edmonton, Province of Alberta.
2. I am a graduate of Lakehead University, Ontario with a H.B.Sc. (1976) in geology and am presently completing an M.Sc. at the University of Manitoba, Winnipeg.
3. I have been practising my profession since 1973 and am at present Exploration Geologist with Mattagami Lake Exploration in Edmonton.
4. I was party chief for the crew that conducted the work in this report and the report is correct to the best of my knowledge and ability.

Dated: Mar 23, 1982

John Biczok

John Biczok, H.B.Sc.

STATEMENT OF COSTS

Wages:	S. Wiecek	$ 56.37/day x 11 days =	$ 620.07
	P. Wagner	79.33/day x 11 days =	872.63
	B. Lockhart	52.19/day x 10 days =	521.90
	K. Tomlinson	45.93/day x 12 days =	551.16
	K. Anderson	50.10/day x 12 days =	601.20
	K. Hyndman	42.17/day x 12 days =	506.04
	M.A. Annable	65.75/day x 12 days =	789.00
			$ 4,462.00

Aircraft Charter (see following page)*		17,101.82
Assays		125.54
Drafting		412.54
Expeditor's Fees		548.30
Groceries		855.59
Propane		150.00
Radio Rental		150.00
Telephone, Postage & Freight		57.22
Truck Rental		1,015.74
Depositioning Charges		3,000.00
Report Writing	3 days x $ 115.00/day	345.00
		$ 28,223.75

* This total does not include camp demobilization as this occurred after the expiry of the 1981 claim year. If a portion of this cost is applied on a pro rata basis it would increase the total by about $ 3,000.00.

SUMMARY OF AIRCRAFT CHARTERS

Company	Hours	Invoice Number	Remarks	Amount
Air North		7526	Flying fuel to camp area	$ 612.00
		7529	Flying fuel to camp area	824.38
Buffalo	9.2	20728	Slinging in camp	3,624.80
	2.1	20729	Return to base	827.40
	3.7	20735	Trip to camp	1,457.80
Canwest	5.1	3923	Setouts in MELA area	1,912.50
	2.0	3924	Setouts in MELA area	750.00
Transwest	5.4	0989	Slinging in camp	2,534.50
(Century)	1.8	1126	Medevac flight	895.50
	1.6	1126	Supply flight	796.00
Fuel (JP-4) flown to camp area by Air North (Invoice numbers 264250 and 264269)				2,866.94
				$ 17,101.82

MELA I-52 CLAIMS

LAKE FLEMING

64° 45' N LAT

64° 45' N LAT

LONG 135° 00' W

LONG 135° 30' W

LEGEND

- 5 SIDERITE VEIN
- 4 GABBRO-DIORITE
- 2a BLACK SHALE
- 2b ORANGE, CALCAREOUS DOLOMITE
- 2c LIGHT GREY, CALCAREOUS DOLOMITE
- 1a GREY-BLACK PHYLLITE
- 1b BLACK, SHALEY PHYLLITE
- 1c GREEN PHYLLITE
- 1d BLACK, THINLY BEDDED PHYLLITE
- 1e LIGHT BROWN, SILICEOUS PHYLLITE, SILTSTONE, MINOR DOLOMITIC LIMESTONE

- GEOLOGICAL CONTACT, (defined, assumed)
- BEDDING; (inclined, vertical)
- FOLIATION; (inclined, vertical)
- FAULT
- CLAIM BOUNDARY.

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MATTAGAMI LAKE EXPLORATION LIMITED.
WESTERN FIELD OFFICE
EDMONTON, ALBERTA.

091006

YUKON MELADALE PROJECT
MAP I
GEOLOGY MAP - MELA CLAIMS I-52

NTS: 106 D/12 & 13

DRAWN BY: D.R. BULL.

DATE: MARCH 1982

SCALE OF METRES
0 100 500 1000 metres.

64° 45' N

64°45' N LAT

LONG. 136° 00' W

LONG. 135° 50' W

LAKE FLEMING

CAMP

MELA 1-52 CLAIMS

R-1 to 6

LEGEND

- TRAVERSE ROUTE
- × SAMPLE TAKEN FROM OUTCROP
- ✱ TALUS SAMPLE
- (H) HELICOPTER DROP-OFF POINT

N

MATTAGAMI LAKE EXPLORATION LIMITED.

WESTERN FIELD OFFICE

EDMONTON, ALBERTA.

09100c

YUKON MELADALE PROJECT

MAP 2

MELA CLAIMS 1-52

TRAVERSE & SAMPLE LOCATION MAP.

NTS: 106 D/12 & 13

DRAWN BY : D.R. BULL.

DATE : MARCH 1982

SCALE OF METRES

0 100 500 1000 metres.