062192

A·M exploration ltd. GEOLOGY · GEOPHYSICS MINING ENGINEERING

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PROSPECTUS
Feb. 7, 1985
062192

GEOLOGICAL REPORT

on the

LAZIER PROPERTY

Mayo Mining Division - Yukon Territory

Lat. 63° 55' N. Long 135° 50' W.

N.T.S. 105 M/13

for

MOSAIC RESOURCES LTD.

by

Donald G. Allen, P. Eng. (B. C.)

January 31, 1984 Vancouver, B. C.

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SUMMARY

Mosaic Resources Ltd. holds 10 claims, LAZIER 1-10, in the Mayo Mining Division of central Yukon Territory. The claims are situated 38 kilometres north of Mayo and 20 kilometres west of United Keno Hill Mines at Elsa. Access is by road to the south side of the river and thence by boat across the river.

The Mayo district is one of Canada's largest silver producers with recorded production up to 1982 of 4,141,647 tons containing 140,540,912 ounces of silver, 470,520,605 lb. lead and 329,844,185 lb. zinc mainly from mines on Keno and Galena Hills. Mineralization in the district occurs mainly in the south limb of the McQuesten anticline in northeast-trending vein-fault systems in a Central Quartzite unit overlain and underlain respectively by the Upper and Lower Schist formations.

The LAZIER property covers potential silver-lead-zinc mineralization in the relatively unexplored north limb of the McQuesten anticline. The property in part is underlain by the favourable Keno Hill quartzite unit and is cut by northeast-trending faults. Oxidized quartz veins containing anomalous lead and zinc values occur on the property. An exploration program consisting of geochemical soil sampling, geophysical surveys and prospecting, followed by diamond drilling is recommended to evaluate the property.

CONCLUSION

Exploration in the McQuesten district, including the LAZIER property, has been difficult and incomplete in part because much of the area has escaped glaciation. Outcrops are oxidized and leached, making surface showings of mineralized veins very unimpressive. Oxidation of veins ranging from depths of 20 to 600 feet is reported by Boyle (1965).

The property lies on the north limb of the McQuesten anticline which, although underlain by similar geology, has been relatively unexplored for the following reasons as outlined by Aho (1964):

1) Most work has been conducted on the eastern part of the main structure with little overall district exploration having been carried out until recently.
2) Because of high costs, efforts have been directed mainly to extraction of available ore and to intensified exploration in the immediate vicinity of the known deposits.
3) Residual or glacial overburden is extensive and forest cover, easily masking veins to casual exploration, has hindered discovery.
4) Discoveries in the past have been made by individuals using manual placer mining methods of ground sluicing and prospect-shaft sinking on Keno and Galena Hills. Little exploration by modern exploration methods has been undertaken.

Because of the magnitude of the overall structure and favourable geology (over 70 miles long and 30 miles wide) the McQuesten district is considered to have good exploration potential. Aho (1964) compares the district to the Coeur D'Alene district of Idaho in magnitude.

The LAZIER property is a good exploration target because of the presence of (1) a northeast-trending break parallel to the McQuesten anticline; (2) a favourable host rock (Keno Hill quartzite); (3) north to northeast-trending faults; and (4) quartz veins containing anomalous lead and zinc values.

RECOMMENDATION

A two-phase exploration program is recommended to test the property. Phase I will consist of prospecting, geochemical soil sampling and electromagnetic surveys. A Phase II program, contingent on results of Phase I, will consist of diamond drilling to test any targets generated. Estimated costs of Phase I and II are $27,000 and $145,000, respectively, for a grand total of $172,000. Budget estimates are based on helicopter access, but bulldozer access may be possible when the south McQuesten River is low.

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ESTIMATED COSTS OF RECOMMENDATIONS

PHASE I Prospecting, geochemical sampling, geophysical surveys.

Salaries		
Geologist	1 month @ $6,000	$ 6,000
Assistant sampler	1 month @ $3,000	3,000
Geophysical crew	10 days @ $500 all incl.	5,000
Room and board	120 man days @ $45	5,400
Geochemical analyses		1,500
Vehicle rental and expenses		1,500
Travel		2,000
		$ 24,400
	Contingencies	2,600
		$ 27,000

PHASE II Diamond drilling

Drill site preparation		$ 5,000
Helicopter mobilization and drill moves	30 hours @ $500	15,000
Drilling	2000 ft. @ $50 all incl.	100,000
Engineering, assays, supervision	10% of subtotal of $120,000	12,000
		$132,000
	Contingencies	13,000
		$145,000
	Grand Total	$172,000

INTRODUCTION

Mosaic Resources Ltd. holds 10 claims, LAZIER 1-10, in the Mayo Mining District of central Yukon. The claims lie in the McQuesten mineral belt which contains one of Canada's largest silver producers. During the period 1947 to 1982, production from the nearby United Keno Hill Mines has amounted to 140,541,912 ounces of silver; 470,520,605 pounds of lead; and 329,844,185 pounds of zinc from 4,141,000 tons of ore (1982 United Keno Hill Mines' Annual Report). At current metal prices, this production has a gross value of 1.8 billion dollars.

The LAZIER claims cover potential silver-lead-zinc mineralization in host rocks similar to the United Keno Hill deposits. This report summarizes results of the property examination carried out by the writer on August 8, 1983.

LOCATION, ACCESS, PHYSIOGRAPHY

The LAZIER claims are situated 20 kilometres west of the United Keno Hill deposits at Elsa and 38 kilometres north of Mayo (Figures 1 and 2). The claims lie on the north side of the South McQuesten River. Access is by gravel road from Highway 2 to a point on the river immediately south of the claims. The property can be reached by crossing the river by light boat and proceeding by foot up a bulldozer trail. Al-

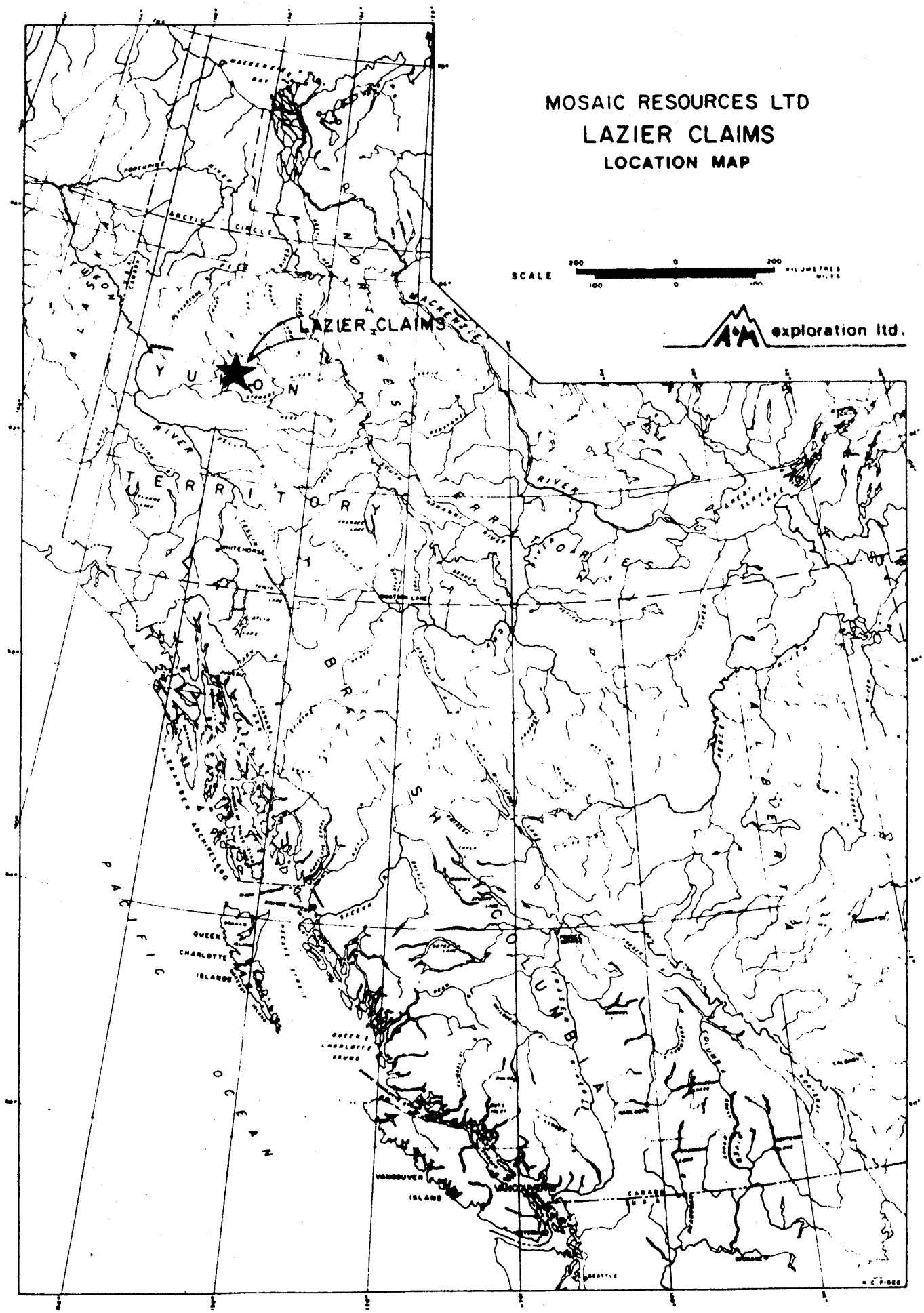
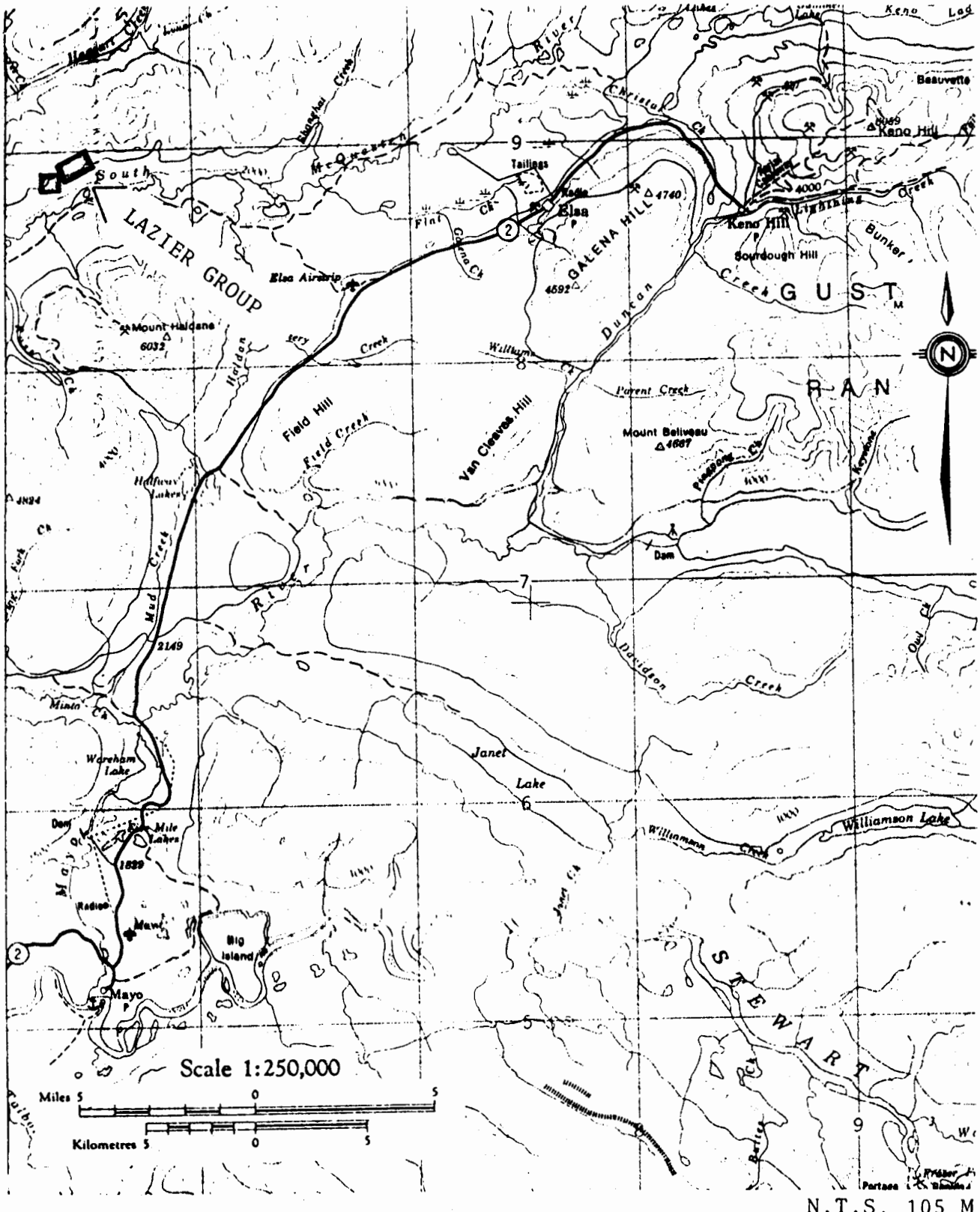

MOSAIC RESOURCES LTD
LAZIER CLAIMS
LOCATION MAP
SCALE
200 0 200 KILOMETRES
100 0 100 MILES
exploration ltd.
LAZIER CLAIMS
YUKON
TERRITORY
NORTHWEST TERRITORIES
BRITISH COLUMBIA
ALBERTA
PACIFIC OCEAN
QUEEN CHARLOTTE ISLANDS
VANCOUVER ISLAND
ARCTIC CIRCLE
MACKENZIE RIVER
LIARD RIVER
PEACE RIVER
WHITEHORSE
SEATTLE

FIGURE - 1



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ACCESS MAP

LAZIER CLAIMS

Mayo Mining Division - Yukon Territory

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Figure 2

ternatively, charter helicopter service is available in Mayo.

The claims lie on a south facing slope between elevations 2,300 and 3,100 feet (700 and 950 metres). Slopes are gentle to moderately steep and are covered with a growth of spruce and birch with a heavy undergrowth of buckbrush.

CLAIMS

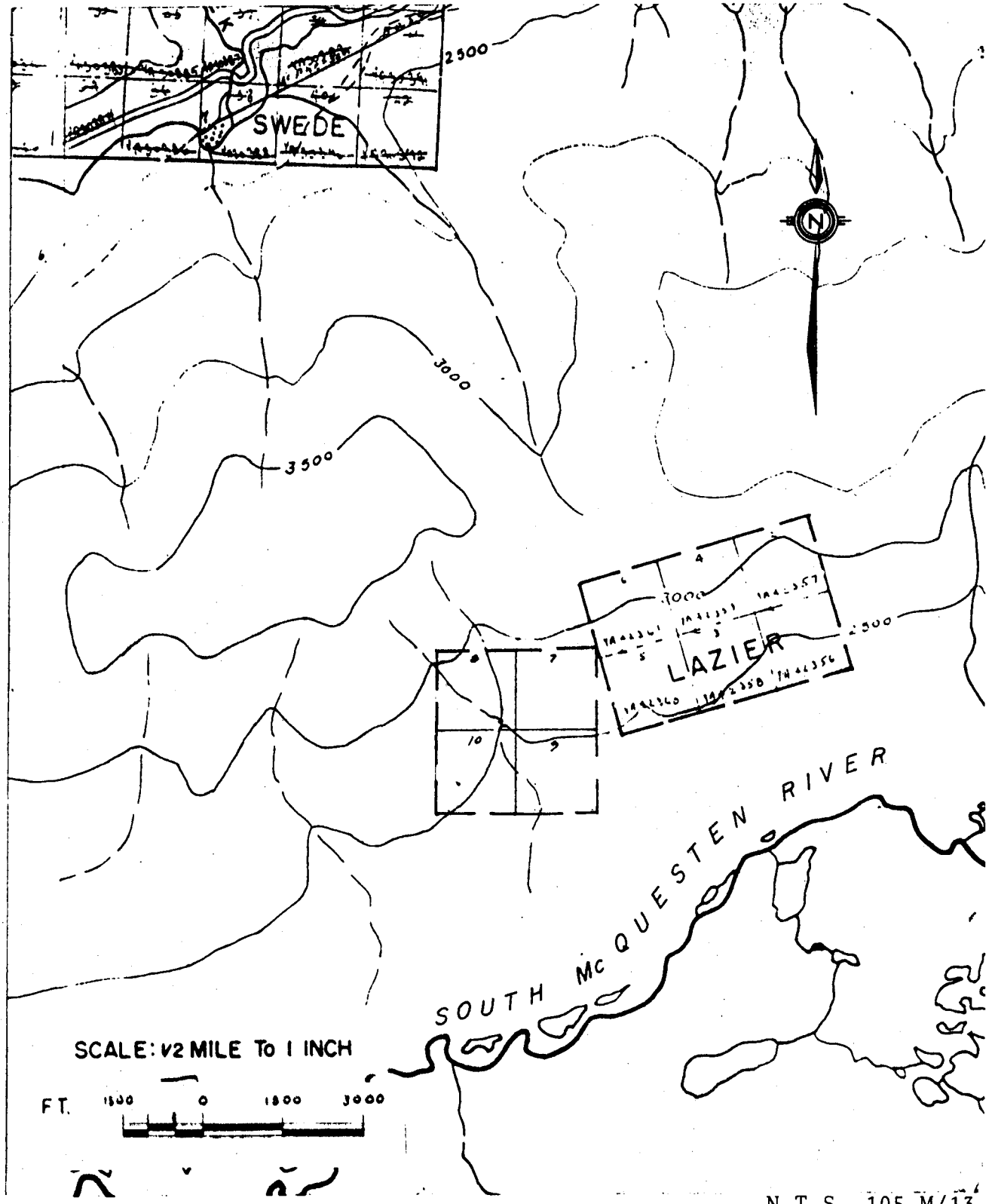
The property comprises 10 claims, LAZIER 1-10. They are registered in the name of D. Stewart but are being transferred to Mosaic Resources Ltd. Claims are plotted on Figure 3. Claim data are as follows:

Claim Name	Record Number	Expiry Date
LAZIER 1-6	YA 42356-42361	August 16, 1984
LAZIER 7-10	YA 77328-77331	August 24, 1984

HISTORY

The property was originally staked as the LAYSIER claims in 1963 by C. Poli who carried out hand and bulldozer trenching in 1964.

History of the nearby Keno and Galena Hills area dates back to the discovery of the Silver King vein in the canyon of Galena Creek. Production followed in the period 1913 to 1917. Veins on Keno Hill were discovered in 1919. Production by Treadwell Yukon Corp., Keno Hill Ltd., and United Keno Hill Mines has continued intermittently until present day. Current



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N.T.S. 105 M/13

CLAIM MAP

LAZIER CLAIMS

Mayo Mining Division - Yukon Territory

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Figure 3

mine capacity is 110,000 to 120,000 tons per year from open pit and underground workings.

GEOLOGY

Regional Geology

The LAZIER property is in the Mayo map area of Bostock (1947). Studies of the Keno Hill area and vicinity have been made by Aho (1962, 1964), Boyle (1957, 1965), McTaggart (1960), and Green and McTaggart (1960).

The McQuesten mineral belt, as defined by Aho, is a mineral belt 120 to 150 kilometres long and at least 30 to 50 kilometres wide. It includes the well known United Keno Hill deposits, as well as the LAZIER property.

The basic structure of the belt is a N70°E arch of quartzite and phyllite of probable Proterozoic or Early Cambrian age which trends transverse to the regional trend of the Cordillera. The main structure which dominates the northern half of this arch is the N70°E McQuesten anticline (Figure 4) which is intruded by two belts of granitic stocks, one along its axial region and another along its north flank.

The main sedimentary rocks in the area are phyllite and quartzite, of several varieties, which are so intensely deformed that stratigraphic relationships are uncertain. The phyllite which is termed the Lower Schist in the Keno Hill area

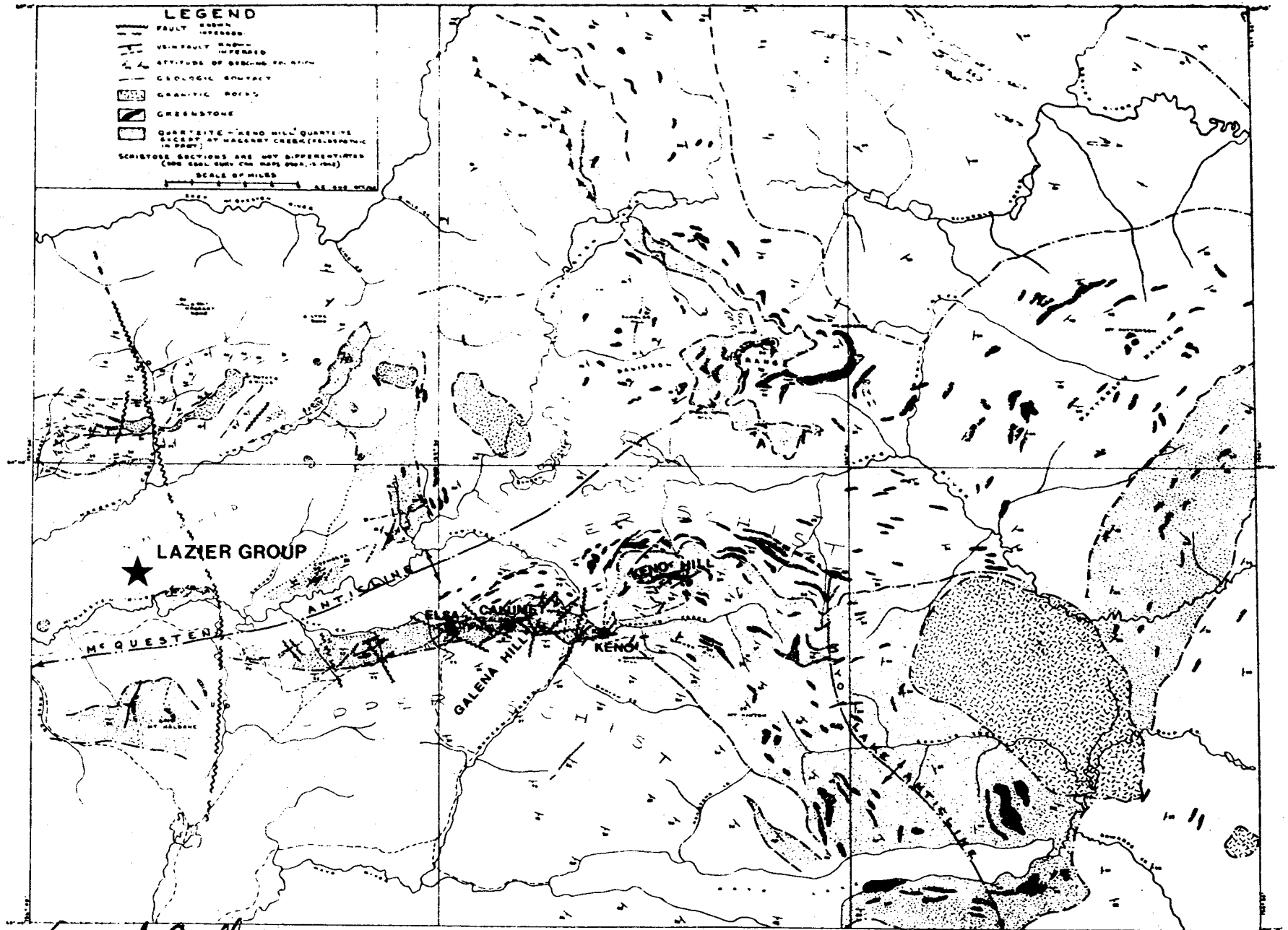

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FIGURE 4 : REGIONAL GEOLOGY - MAYO DISTRICT (After Aho, 1964)

contains numerous sills and dikes of greenstone and beds of quartzite. Above the Lower Schist is 2,500 to 14,000 feet of quartzite and associated greenstone lenses known as the Central Quartzite. Overlying the Central Quartzite is an assemblage of several thousands of feet of brown to grey phyllite, termed the Upper Schist.

All rocks have been affected by intense large scale deformation.

Mineralization in the Mayo District

The Mayo District (eastern part of the McQuesten mineral belt) is well known because of the rich silver-lead-zinc lode deposits of Keno and Galena Hills. In addition, placer gold and tungsten deposits have been explored and worked in the Potato Hills area to the north of the LAZIER; and tin and tungsten mineralization explored for in the Mount Haldane area immediately to the south of the LAZIER property.

The main control for silver-lead-zinc mineralization of the Keno Hill type is the N70^{o}E McQuesten anticline. Ore is locallized in northeast-striking, southwest-dipping vein-fault systems where they intersect more massive greenstones and quartzite of the Central Quartzite formation. Ore is best developed where vein-faults intersect or branch (dilation effect), where they pass upward into less competent schists

(damming effect), and often near minor or major cross-faults. The fault systems parallel the axis of the McQuesten anticline and are probably related to tensional conditions associated with uplift and development of the McQuesten anticline. The LAZIER property contains some of these northeast fault structures in north-dipping quartzites on the north limb of the anticline.

Property Geology

The former LAYSIER 1 to 4 claims were mapped by Tempelman-Kluit (1963 unpublished map for Silver Titan Mines). The old claim posts were not located but the new LAZIER claims are considered to be approximately coincident with the former. An examination of the geology by the writer confirmed the presence of Keno Hill quartzite and areas trenched by C. Poli in 1963. The property was originally staked to cover a possible east-northeast-trending break which parallels the McQuesten anticline and which is visible on air photos.

Mapping by Tempelman-Kluit outlined an east-west trending band of quartzite (Unit 1, Figure 5) containing lenses of schist (Unit 2) and greenstone (Unit 3). Several north to northeast-trending faults were mapped. The quartzite unit is bounded to the north by schist. Overburden covers the southern part of the claim group. Also mapped is a small biotite porphyry dike (Unit 4).

GEOLOGIC MAP OF THE LAYSIER GROUP

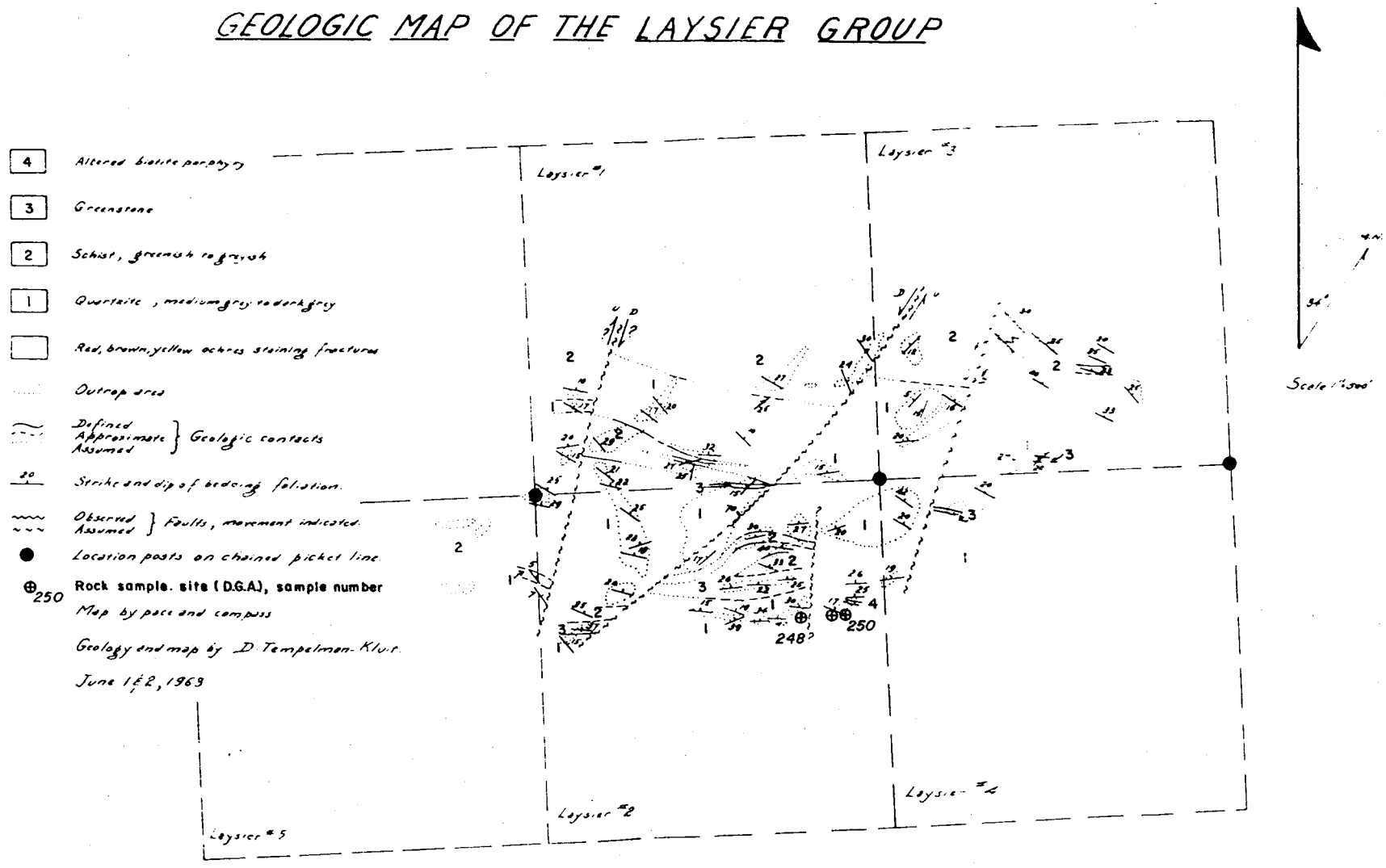

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Figure 5

Mineralization on the Property

Results of past work indicated the presence of two or more vein-fault zones with signs of silver-lead mineralization (Aho, 1964). Quartz veins observed by the writer occur in rubbly suboutcrop. They may be related to northeast-trending faults and north-trending rusty fractures observed in nearby outcrops. Since the area has escaped glaciation, surface exposures of veins can be expected to be oxidized, leached, and difficult to evaluate. Three samples of quartz-veined and rusty weathering quartzite were selected for geochemical analysis. Sample sites are plotted on Tempelman-Kluit's map (Figure 5) and sample descriptions and results are presented in Table I and Appendix I, respectively. Anomalous zinc (> 200 ppm) and/or lead values (> 30 ppm) were obtained on all samples.

TABLE I

SAMPLE DESCRIPTIONS

Sample No.	Descriptions	ppm Zn	ppm Pb	ppm Ag
3MAT 248	Quartz-veined quartzite rubble at base of quartzite outcrop.	312	64	0.6
3MAT 249	Quartz-veined fine grained quartzite - rusty weathering material from shallow pit.	82	34	0.8
3MAT 250	Rusty weathering fractured quartzite	276	22	1.0

Also indicative of mineralization on the property is a silt geochemical anomaly reported in a government survey (Gleeson et al, 1965) on the western part of the claim group (+20 ppm total heavy metals).

Donald G. Allen

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Gleeson, C. F. et al (1965). Heavy Metal Content of Stream and Spring Sediments, Keno Hill, Yukon Territory. Geol. Survey Canada Map 21-1964.

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CERTIFICATE

I, Donald G. Allen, certify that:

1. I am a Consulting Geological Engineer, resident at 4570 Hoskins Road, North Vancouver, B. C.

2. I am a graduate of the University of British Columbia with degrees in Geological Engineering (B.A.Sc., 1964; M.A.Sc., 1966).

3. I have been practising my profession since 1964.

4. I am a member in good standing of the Association of Professional Engineers of British Columbia.

5. This report is based upon fieldwork carried out personally on August 8, 1983 and on information listed under References.

6. I hold no interest, nor do I expect to receive any, in the LAZIER claims or in Mosaic Resources Ltd.

7. I consent to the use of this report in a Statement of Material Facts or in a Prospectus in connection with raising of funds for the project covered by this report.

Donald G. Allen

Donald G. Allen
P. Eng.

APPENDIX I

ANALYTICAL RESULTS

Kossbacher Laboratory Ltd.

BURNABY, B.C.
CANADA
TELEPHONE: 299-6910

GEOCHEMICAL ANALYSTS & ASSAYERS

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 83348
INVOICE NO. 3265
DATE ANALYSED 83/08/26
PROJECT

TO: **A & M EXPLORATION LTD.**
4570 HOSKINS ROAD
NORTH VANCOUVER, B.C. V7K 2R1

No.	Sample	pH	Mo	Cu	Ag	Zn	Pb	PPB Au						No.
01	83MAT 241			10	2.2	106	48	10						01
02	83MAT 248			14	0.6	312	64	10						02
03	83MAT 249			24	0.8	82	34	10						03
04	83MAT 250			74	1.0	276	22	10						04
05	83MAL 243			28	1.0	100	36	10						05
06	83MAT 244			28	0.6	126	144	10						06
07	83MAT 245			16	0.2	66	22	10						07
08	83MAT 246			18	2.2	84	36	10						08
09	83MAT 247			14	0.4	40	14	10						09
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VALUES IN PPM, UNLESS NOTED OTHERWISE.

Certified by U. Kossbacher