

GEOLOGICAL REPORT

ON THE

SUZANNE CLAIM GROUP

FRANCES LAKE MAP AREA

MAP 105-H-2

LATITUDE 61° 14'N

LONGITUDE 128° 43'W

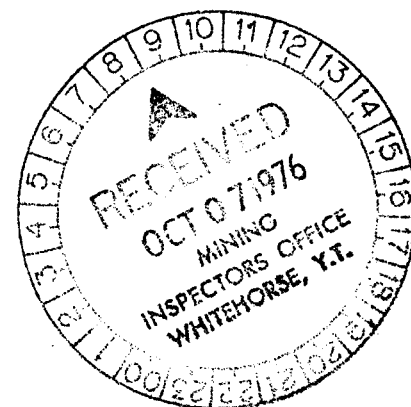
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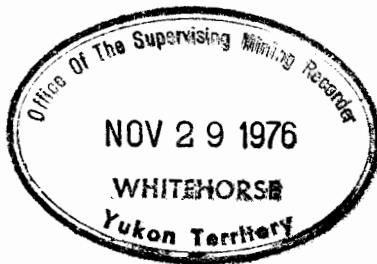
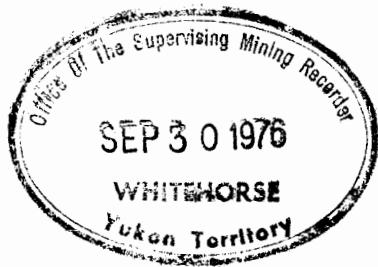
DUAL RESOURCES LTD.

AUGUST 25, 1976 to SEPTEMBER 7, 1976

by

JAMES W. McLEOD, GEOLOGIST





This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of \$ 3200⁰⁰

3200

W. Sinclair

Resident Geologist or
Resident Mining Engineer

Considered as representation work under Section 53 (4) Yukon Quartz Mining Act.

[Signature]
W.R. BAXTER
Supervising Mining Recorder

[Signature]
Commissioner of Yukon Territory

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FIGURES

1. GENERAL LOCATION MAP	In Front
2. GEOLOGY MAP	In Back

SUMMARY

The geological mapping program just completed has revealed a zone of Pb-Zn mineralization which requires further investigation.

The recommended follow-up program is diamond core drilling.

INTRODUCTION

The writer supervised a program of geological mapping and prospecting on the Suzanne claim group from August 27, 1976 to September 7, 1976.

This report is being prepared at the request of Mr. L. Sostad of Newcastle Explorations Ltd. for Dual Resources Ltd. of Vancouver, B. C.

LOCATION AND ACCESS

The Suzanne claim group is located approximately 85 airmiles north of the town of Watson Lake in the Yukon Territory.

Access to the property is gained by travelling northerly for 68 miles on the Robert Campbell Highway and north-easterly for 48 miles on the Nahanni Range (Cantung) road and west for 15.5 miles on the Conglomerate Creek road and then south-westerly by pack trail for three miles to the property.

PROPERTY AND OWNERSHIP

The Suzanne claim group consists of a located 4 x 4 block comprising a total of 16 contiguous mineral claims, Suzanne 1 to 16.

The Suzanne claim group is owned by Dual Resources Ltd. of Vancouver, B. C.

TOPOGRAPHICAL AND PHYSICAL ENVIRONMENT

The Suzanne claim group lies in rolling to moderately steep alpine terrain at an elevation of from 4500' to 6000' M.S.L.

The area is covered by small spruce trees to timberline at approximately 5000 feet. The area receives moderately heavy precipitation.

REGIONAL GEOLOGY

The regional geology of the area covered by the claim group has been described by members of the Geological Survey of Canada, Frances Lake, Map 6 - 1966, 105-H as being underlain by the Cambrian or older schist - gneiss belt which is overlain by Devonian and Mississippian meta-sediments.

LOCAL GEOLOGY

Locally the writer observed occurrences of sediments and metamorphosed sediments on the north, east and south-west of the Suzanne claim group. The actual rock types observed were dark grey, highly fractured slate, coarse to fine grained granular limestone and medium to fine grained, sugary textured quartzite which is calcareous in some occurrences. The western portion of the claim group is underlain by intrusive rocks which all exhibit varying degrees of foliation. The intrusive rocks examined ranged from light, buff coloured, fine to medium grained granite to quartz monzonites.

Occurrences of light to dark coloured aphanitic, highly siliceous rock, which is possibly of volcanic origin was found interspersed with some of the meta-sediments. The structural relationship between the various rock types is not entirely clear but some observations made are as follows: on the northern side of the claim group an outcrop of limestone is overlain by a fine grained, buff coloured, biotite-rich gneissic rock which is possibly volcanic in origin; the underlying limestone is angularly unconformable to the foliation planes of the overlying gneissic rock; the granitic rocks on the west side of the claim group appear to intrude the overlying sediments and it is near this assumed contact

that the sulphide showings occur, i.e., as contact replacement occurrences in calcareous sediments.

ALTERATION AND MINERALIZATION

The alteration minerals observed (see Figure 2, showing 'B') were as epidote, chlorite and some calcite in a highly altered rock (skarn) near the foliated intrusive contact. Sericite was observed on the foliation planes in many places in the intrusive rocks.

Mineralization observed by the writer was as disseminated pyrrhotite and chalcopyrite in an aphanitic quartzite or as very fine grained volcanic rock, possibly a rhyolite (see Figure 2, showing 'A'). The second, and major occurrence of massive sulphide mineralization observed occurs in five closely related locations (see Figure 2, showing 'B'). The mineralization is as massive galena, sphalerite, minor pyrite, minor chalcopyrite and minor pyrrhotite in a highly altered (skarn) limestone.

OBSERVATIONS AND CONCLUSIONS

Six areas of sulphide mineralization were encountered. Five of the mineralized areas, although in close proximity to one another, show promise of being the part of a strongly mineralized zone. The general tenor of the mineralization present is as follows:

	<u>Width</u>	<u>Percentage</u>			<u>Troy oz/Ton</u>	
		<u>Cu</u>	<u>Zn</u>	<u>Pb</u>	<u>Au</u>	<u>Ag</u>
9776	4'	0.01	12.75	11.55	0.004	0.45
9777	2'	0.01	7.23	6.30	0.003	1.02

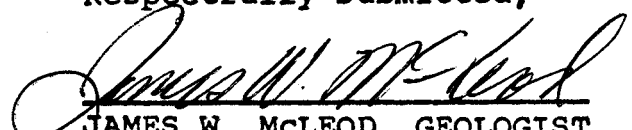
The writer concludes that there is a good chance that the size of the known showings can be increased and that further mineralized areas can be discovered on the claim group.

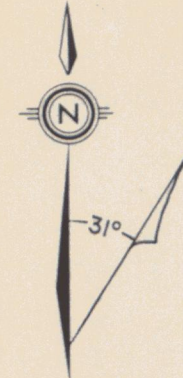
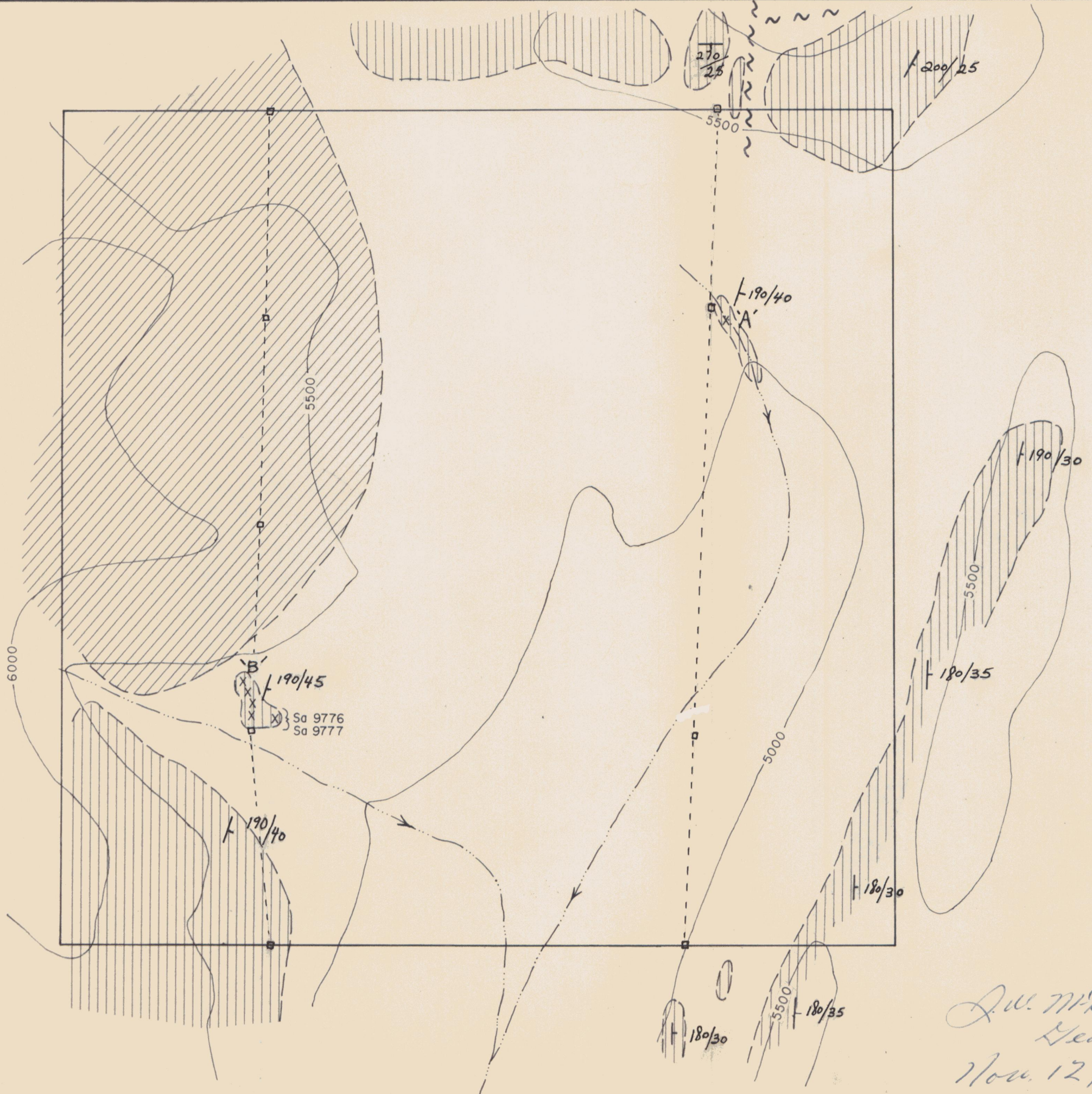
RECOMMENDATIONS

The writer recommends that the main area of exposed mineralization be explored by diamond core drilling, utilizing a small x-ray drill.

The covered areas having geochemical soil anomalies from a previous survey should be hand trenched and/or diamond drilled if the overburden is not too deep.

Respectfully Submitted,


 JAMES W. MCLEOD, GEOLOGIST



LEGEND







-  META-INTRUSIVE AND VOLCANIC PHASE
-  META-SEDIMENTS AND SEDIMENTS
- X - MINERAL SHOWING
- Sa - SAMPLE NUMBER
-  CREEK
-  FAULT
-  CLAIM GROUP OUTLINE
- - CLAIM POSTS LOCATED
-  STRIKE AND DIP OF BEDDING AND/OR FOLIATION PLANES.

FIG. 2
DUAL RESOURCES LTD.
GEOLOGY MAP
 SUZANNE CLAIM GROUP
 FRANCES LAKE AREA, Y.T.
 MAP 105H-Z FIG. 2

LAT. 61° 13' N
 LONG. 128° 44' W



*D.W. McLeod
 Geologist
 Nov. 12, 1976*