

REPORT ON
DIAMOND DRILLING

by
I. G. Sutherland, B.Sc.

on the

Al 2 Mineral Claims

situated north of Metsantan Lake
in the Liard Mining Division

57°28[±]N, 127°24[±]W
NTS 94E/6W

owned by
KIDD CREEK MINES LTD.

work by
KIDD CREEK MINES LTD.

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

November, 1982

Vancouver, B.C.

10,709
PART 1 of 2

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INTRODUCTION

Location, Access and Terrain

The A1 property is located east of the Stikine River and directly north of Metsantan Lake, in north-central British Columbia (Figure 1). The nearest supply and transportation centres are Smithers, some 300 km due south, and Watson Lake in the Yukon, some 300 km to the north.

Access to the claims is by a combination of fixed wing aircraft from Smithers or Watson Lake to the Sturdee Valley airstrip 30 km south-east of the property, and local helicopter charter thereafter. Float equipped aircraft can also land at Metsantan Lake. There is no road access although it has been suggested that the Omineca mining road to the south may be extended into the Toodoggone River area in the future.

The claims are located near the eastern margin of the Spatsizi Plateau and cover a subdued ridge of gentle to moderate relief with elevations ranging from 1400 m to 1690 m (Figure 2). The lowermost parts of the property are covered by an intermixed growth of spruce, and scrub willow (below 1500 m). Extensive areas of alpine grassland, occurring above 1600 m, make for easy foot travel. Water supplies may become scarce and all but the lowest elevations during midsummer.

Property History and Definition

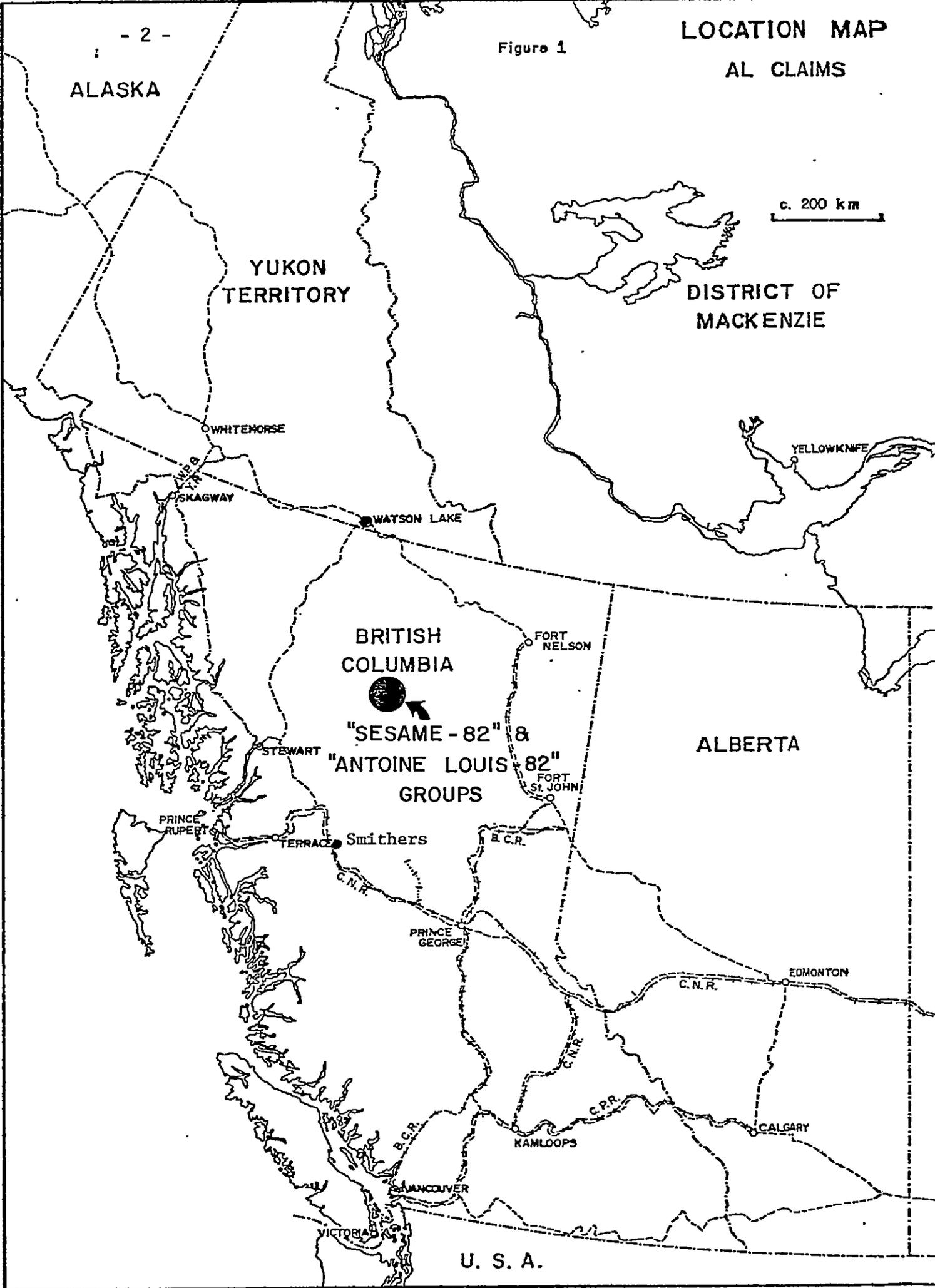
The area was originally staked by Sumac Mines Ltd. in 1971 for its porphyry copper potential. The claims were allowed to lapse after several seasons fieldwork. Rising prices for both gold and silver and close proximity to the Chapelle and Lawyers deposits prompted Energex Minerals Ltd. to stake the A1 1-4 claims in 1979. In 1980 these claims were optioned to Texasgulf Canada Ltd. (now Kidd Creek Mines Ltd.). Work described in this report was undertaken by Kidd Creek Mines Ltd., the registered owner of the claims.

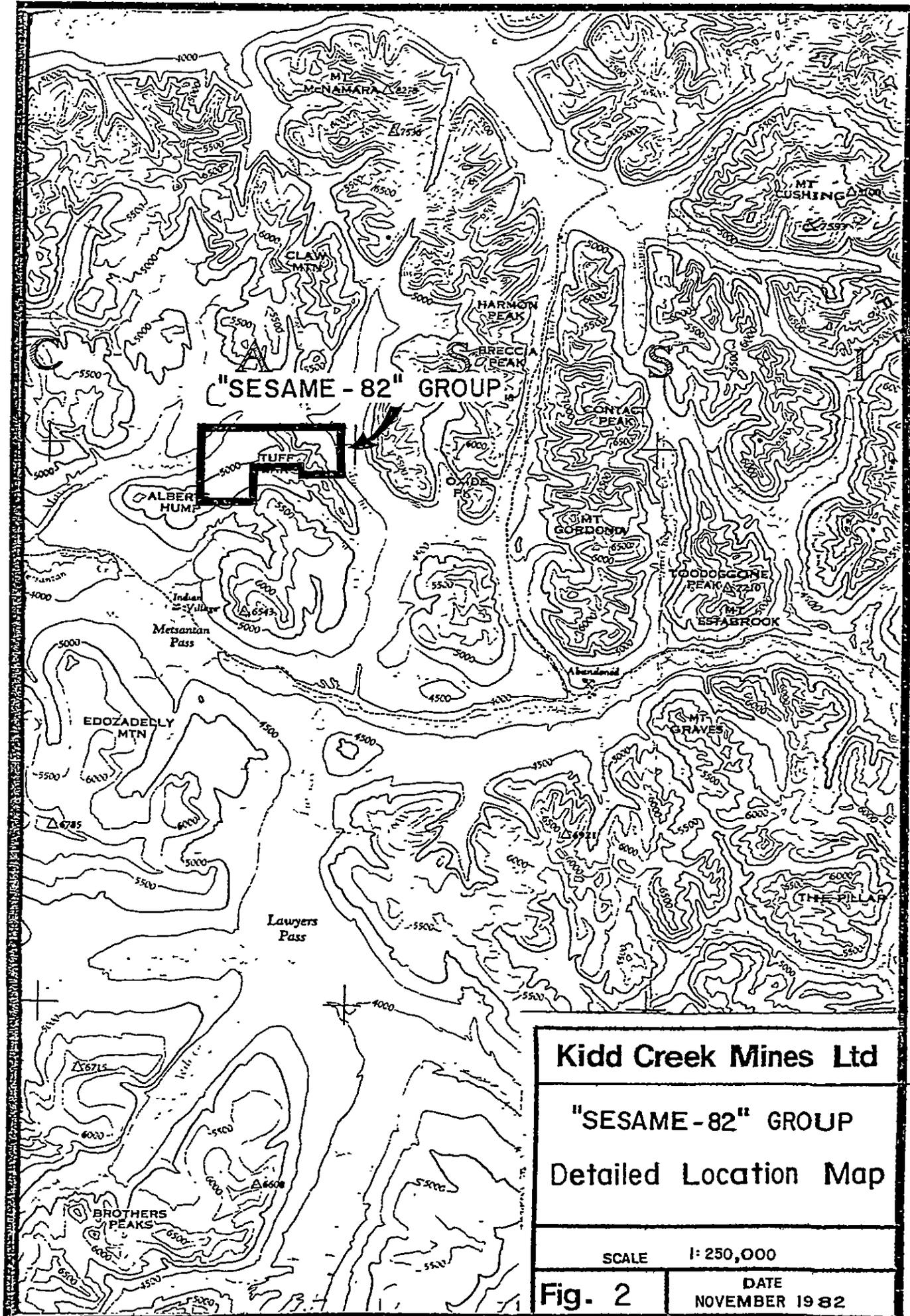
LOCATION MAP

AL CLAIMS

Figure 1

c. 200 km





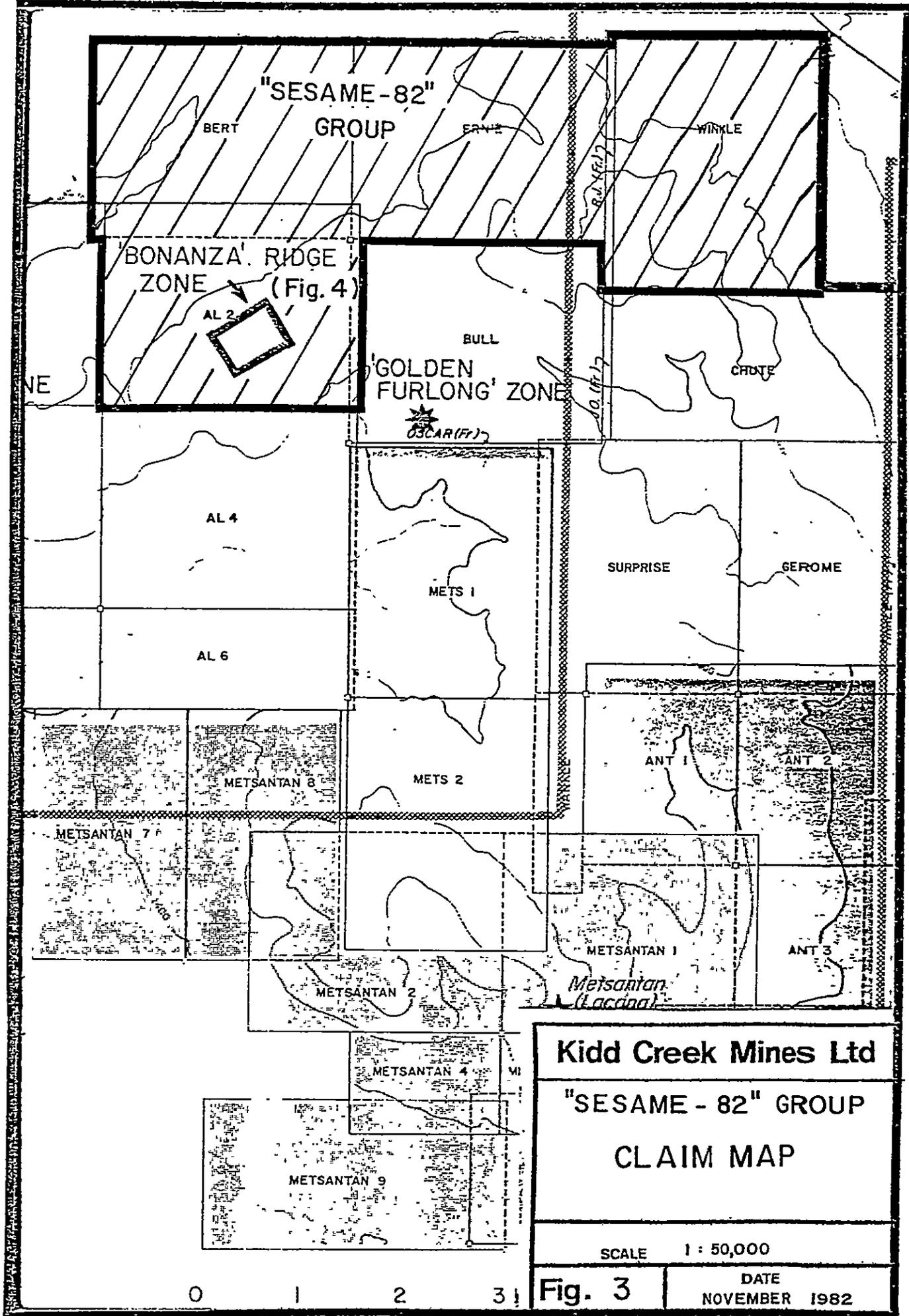
Kidd Creek Mines Ltd

**"SESAME - 82" GROUP
Detailed Location Map**

SCALE 1: 250,000

Fig. 2

DATE
NOVEMBER 1982



"SESAME - 82"
GROUP

'BONANZA' RIDGE
ZONE (Fig. 4)

'GOLDEN
FURLONG' ZONE

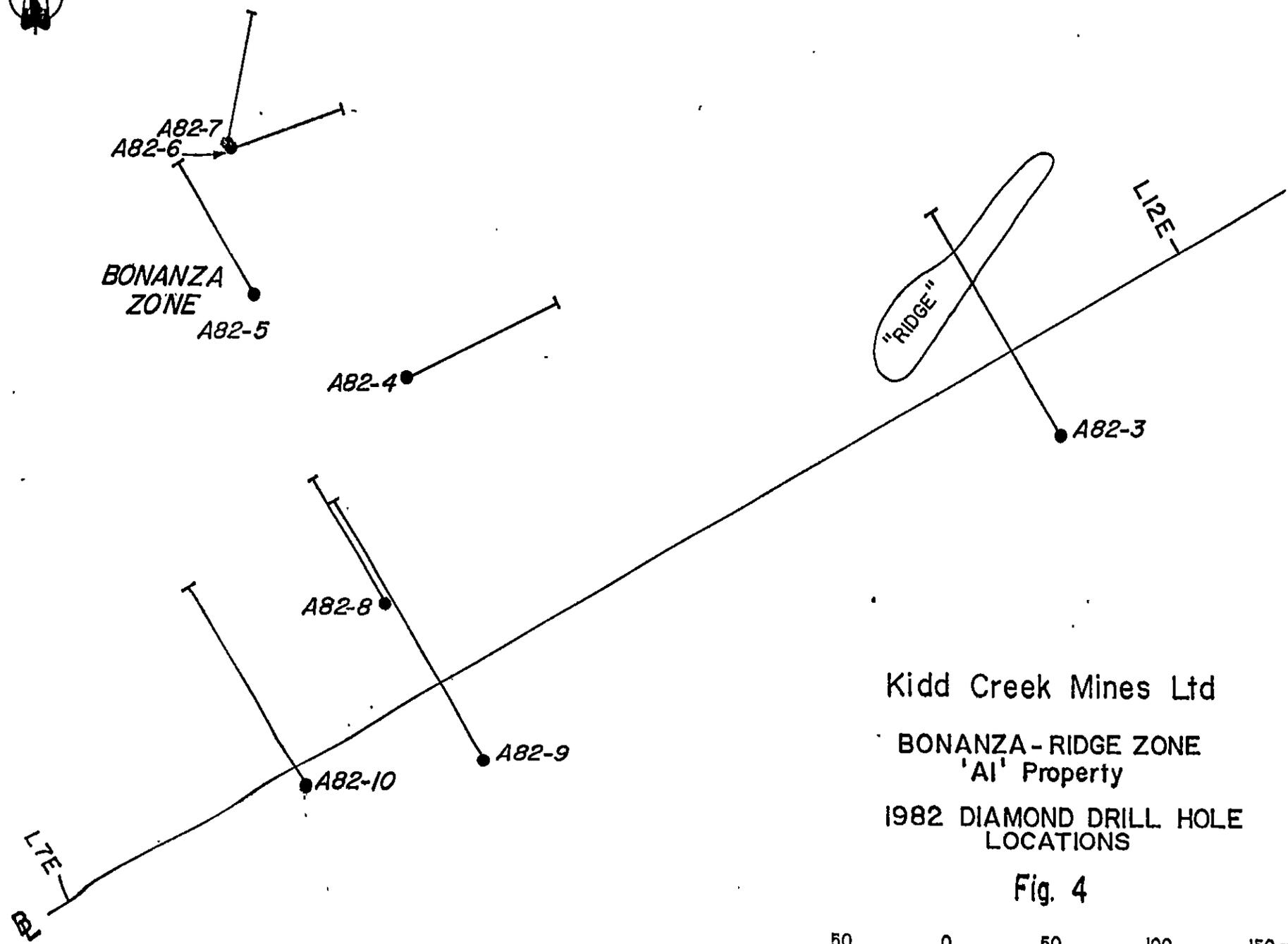
Kidd Creek Mines Ltd
"SESAME - 82" GROUP
CLAIM MAP

SCALE 1 : 50,000

DATE
NOVEMBER 1982

0 1 2 3

Fig. 3



Kidd Creek Mines Ltd
BONANZA - RIDGE ZONE
'A1' Property
1982 DIAMOND DRILL HOLE
LOCATIONS

Fig. 4



The "Sesame-82" Group consists of 4 MGS claims of 20 units each and 1 fractional claim (81 units). A1 2 was recorded in June, 1979; Bert, Ernie and Winkle in August, 1981; and J.R. Fr. in September, 1981. Figure 3 indicates the claim positions and group boundaries.

Summary of Work Completed

Diamond Drilling

During the period July 29 to August 12, a total of 8 diamond drill holes, totalling 1097.7 m, were completed on the A1 2 M.C. All cores were split and sampled then analysed geochemically for Au, Ag, Cu, Pb and Zn.

Work Distribution

All work was done on the A1 2 M.C., part of the "Sesame-82" group.

GEOLOGY

The property is underlain by a thick succession of primarily andesitic crystal and crystal-lapilli tuffs, tuff-breccias, flows and associated hypabyssal phases. These rocks belong to the "Toodoggone Volcanics" of Jurassic age. A more complete description of the geology can be found in previously submitted assessment reports (Sutherland, 1982; Sutherland and Clark, 1982). The relevant portion of the property showing the approximate drill hole locations, is illustrated in Figure 4.

DIAMOND DRILLING

This report presents the results of a preliminary diamond drilling programme undertaken in 1982 on the A1 2 M.C. The eight NQ holes are considered as follows (see Figure 4):

<u>D.D.H.</u>	<u>Azimuth</u>	<u>Dip</u>	<u>Depth</u>
A82-3	330°	-50°	185.0 m
A82-4	065°	-50°	124.1 m
A82-5	330°	-50°	111.9 m
A82-6	070°	-47°	84.4 m
A82-7	010°	-50°	93.6 m
A82-8	330°	-50°	108.8 m
A82-9	330°	-50°	220.1 m
A82-10	330°	-50°	169.8 m

Detailed logs and geochemical results are included together in Appendix C. The core is stored in camp on the Moose 3 M.C.

The holes were drilled to test known surface rock and soil geochemical anomalies and to test existing concepts regarding the nature and distribution of the many alteration/mineralization zones.

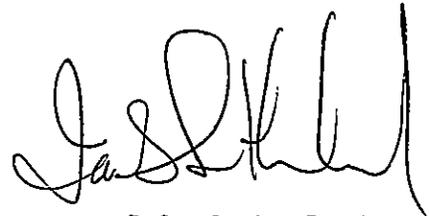
GEOCHEMISTRY

Drill core was routinely split and sampled, the standard sample interval being approximately 1.0 m. Changes in alteration and/or lithology also influenced this sample interval considerably. A total of 1,332 samples were shipped to Min-En Laboratories Ltd. in North Vancouver where they were analysed geochemically for Au, Ag, Cu, Pb and Zn. A summary of the extraction and analytical techniques for these metals follows:

<u>Element</u>	<u>Extraction</u>	<u>Analysis</u>
Ag, Pb, Zn, Cu	Nitric, perchloric digestion	Atomic Absorption
Au	Hot Aqua Regia	Atomic Absorption

CONCLUSIONS

The results shown in the logs indicate a high degree of variation in the nature of the alteration assemblages and in the distribution of the associated precious metals values. Grades encountered are, for the most part, sub-economic though of sufficient interest to encourage further work.

A handwritten signature in black ink, appearing to read 'I.G. Sutherland', written in a cursive style.

I.G. Sutherland

BIBLIOGRAPHY

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APPENDIX A

Statements of Qualifications

APPENDIX A

Statements of Qualifications

I.G. Sutherland - Geologist

I.G. Sutherland holds a B.Sc. (Hons) Degree in Geology from the University of Western Ontario, granted in 1976. Since that time he has held several positions in Industry and Government, and has been employed by Kidd Creek Mines Ltd. in Vancouver since March 1981.

D.W. Piroshco - Geologist

Darwin Piroshco obtained his B.Sc. degree in Geology from the University of Calgary in 1981. He joined Kidd Creek Mines Ltd. as a temporary employee in Vancouver, in May 1981, immediately after graduation.

S.C. James - Geologist

S.C. James holds a B.Sc. (Hon.) degree in Geology from the University of Witwatersrand, South Africa, which was granted in 1971. Since that time she held various positions in mineral exploration and related geological work prior to joining Kidd Creek Mines Ltd. in March of 1982.

Statements of Qualifications - Cont'd.

J.R. Clark - Geologist

J.R. Clark holds a B.Sc. (Hons) Degree in Geology from McGill University, granted in 1979. He has wide exploration experience and was employed by Kidd Creek Mines Ltd. for the 1981 and 1982 field seasons. He is presently enrolled in a M.Sc. program at McGill, where his research will concern aspects of the geology of properties in this region.

P.R. Leriche - Geologist

P.R. Leriche holds a B.Sc. Degree in Geology from McMaster University, granted in 1980. He has considerable experience in Industry and has held his present position with Kidd Creek Mines Ltd. since March 1982.

APPENDIX B

Statement of Expenditures

APPENDIX B

Statement of Expenditures

A. DIAMOND DRILLING AND SUPPORT

DIAMOND DRILLING

D.W. Coates invoice charges for drilling, survey, core boxes, supplies and equipment, moving time, etc. applicable to the holes covered in this report. \$79,064.13

Mobilization costs (29% pro-rate of \$11,915.50) 3,455.50

\$82,519.63. \$82,519.63

ROOM AND BOARD

D.W. Coates personnel 60 days @ \$80/day 4,800.00

HELICOPTER

ALC Hughes 500D 41 hrs @ \$492/hour (incl. fuel) 20,172.00

\$107,491.63

(Note: Of this total only \$70,800 was claimed for assessment.)

APPENDIX B
Statement of Expenditures

B. FIELD REPORTING ON DIAMOND DRILL CORE

EXAMINATIONS AND ANALYTICAL WORK

SALARIES AND FRINGE BENEFITS, KIDD CREEK MINES LTD.

S.C. James - Geologist Period: Aug 5-9, 1982	5 days @ \$160/day	800.00	
J.R. Clark - Geologist Period: Aug 25-28	4 days @ \$105/day	420.00	
P.R. Leriche - Geologist Period: Aug 13-27	15 days @ \$ 95/day	1,470.00	
D.W. Piroshco - Geologist Period: Aug 10-15	5 days @ \$ 85/day	<u>425.00</u>	
		3,115.00	3,115.00

ROOM AND BOARD

Kidd Creek personnel 29 days @ \$ 80/day 2,320.00

ANALYTICAL COSTS

1,332 Au, Ag, Cu, Pb and Zn analyses @ \$12.20 16,250.40

~~4~~21,685.40

(Note: Of this total only \$16,500 was claimed for assessment)

Total expenditures	\$129,177.03
Total assessment claimed	87,300.00