MAP No.			DOCUMENT NO.:	091959
105 D 3, 4	ASSESSMENT REPORT	☒	MINING DISTRICT:	WHITEHORSE
	PROSPECTUS	☐	TYPE OF WORK:	GEOLOGICAL, GEOCHEMICAL
	CONFIDENTIAL	☒		
	OPEN FILE	☐		

REPORT FILED UNDER: Kerr Addison Mines Ltd.

DATE PERFORMED: Aug. 9-10, 1987 **DATE FILED:** October 19, 1987

LOCATION		AREA:
LAT.	$60^{0}01'N$	
LONG.	$135^{0}29'W$	

CLAIM NAME & NO.

MAJ1 1-30 YA96020-96049

VALUE $ 3,000.00	
WORK DONE BY:	J. Pautler
WORK DONE FOR:	Kerr Addison Mines Ltd.

REMARKS:

#85 BOUDETTE

~~[illegible]~~

~~[illegible]~~

(ASSESSMENT)

GEOLOGICAL AND GEOCHEMICAL REPORT

ON THE

MAJI 1-30 CLAIMS

WHITEHORSE MINING DISTRICT

August 9, 10, 1987

Latitude: 60 01' Longitude: 135 29'

KERR ADDISON MINES LTD
703 - 1112 W. Pender St.,
Vancouver, B.C. V6E 2S1

J. Pautler
August 16, 1987

091959

This report has been examined by the Geological Evaluation Unit under Section 53 (4) Yukon Quartz Mining Act and is allowed as representation work in the amount of $ 3000.00 .

D.H. Emond

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

TABLE OF CONTENTS

SUMMARY (Figure 1)

The MAJI 1-30 Claims are located 30 km southwest of the Wheaton air strip which is approximately 70 km south of Whitehorse by road.

The property was staked in 1986 following the discovery of anomalous Au and Ag values in quartz veins, breccias and stringers.

The oldest rock type exposed on the property is gneiss of the Paleozoic metamorphic basement complex. This unit is intruded by a quartz monzonite batholith which contains numerous xenoliths of intermediate volcanics and locally rhyolitic xenoliths. A granite to rhyolite quartz feldspar porphyry pluton appears to intrude the above. Dacite to rhyodacite pyroclastics ± porphyritic, (of probable Tertiary age), overlie and are probably genetically related to the quartz monzonite. Tertiary rhyolite quartz feldspar porphyry dykes and late stage andesite dykes cut the above units. Quartz veins, breccias and stringers are hosted by all lithologies. Fluorite, pyrite, calcite and less commonly Cu minerals and galena occur in some of the veins. Veins range up to 1 m wide in zones up to 10 m wide x 30 m long. One zone may be 200 m long.

The highest Au value on the property was 62.05 g/t associated with 45.0 ppm Ag hosted by andesite porphyry boulders. It appears to be related to a northeast trending fault that transects the property. Values of 3050 ppb Au, 92.0 ppm Ag, from quartz stringers in rhyolite porphyry, and other values up to 295 ppb Au and 26.0 ppm Ag may also be related to the same fault zone. Creek float, (that appears to be local), of quartz veined granite with chalcopyrite and pyrite carried 211.89 g/t Ag. One km uphill from this, 29.0 ppm Ag was found in quartz veins in outcrop. Ag values up to 22.0 ppm are associated with quartz veins with minor galena + Au minerals in gneiss on the northern MAJI Claims.

LOCATION AND ACCESS (Figure 1)

The MAJI mineral claims, N.T.S. Map Sheet 105D/3, are located immediately north of Mt. MacAuley and lie 30 km southwest of the Wheaton air strip which is approximately 70 km south of Whitehorse by road. Latitude and longitude of property centre are 60 01': 135 29'.

Helicopter access is available from Whitehorse and from the Wheaton air strip where a temporary Frontier Helicopter base is seasonally located.

LEGAL DESCRIPTION: (Figure 2)

The MAJI property consists of 30 contiguous claims with record numbers YA 96020 to YA 96049. The claims were staked on August 8 and 19, 1986 and were recorded on August 22, 1986. Assessment work was conducted on August 8, 9, 1987.

TOPOGRAPHY AND VEGETATION: (Photos 1-5)

The MAJI claims lie within the Coast mountains of the southwestern Yukon. The topography is quite steep and rugged with elevations ranging from 4400' to 7000'. Almost the entire property is covered by outcrop, felsenmeer or talus. Only the very low elevations along the southern creek valley are covered by buckbrush.

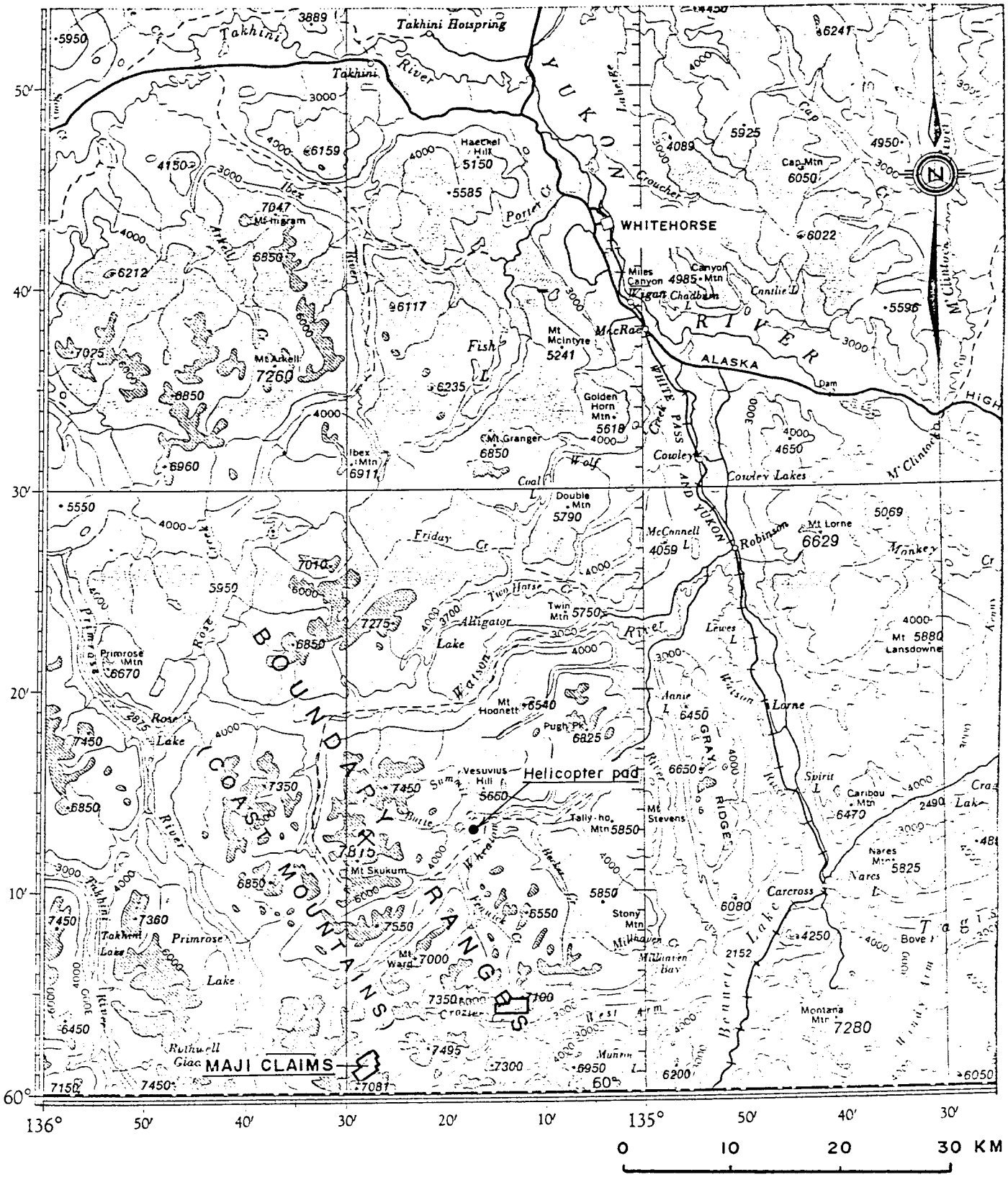

FIG. 1

KERR ADDISON MINES LTD	
MAJI CLAIMS	
SCALE - 1 : 500,000	DATE - OCT., 1986
DRAWN BY - L.G.	DATA - J.P.
NTS - 105 D	REVISED - AUG., 1987

FIG. 2

0 1 2 3 4 KM

KERR ADDISON MINES LTD	
MAJI CLAIMS	
CLAIM MAP	
SCALE - 1 : 50 000	DATE - OCT., 1986
DRAWN BY - L.G., P.H.	DATA - L.G., J.P.
NTS - 105D/3,4	REVISED -

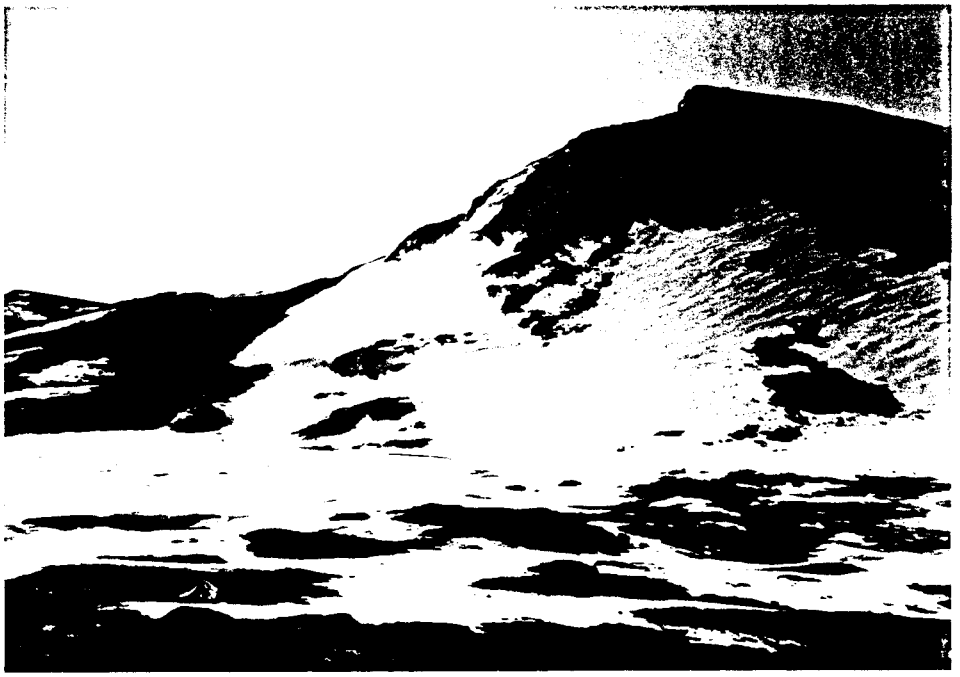

PHOTO 1: MAJI 6, 7; View from southeast.

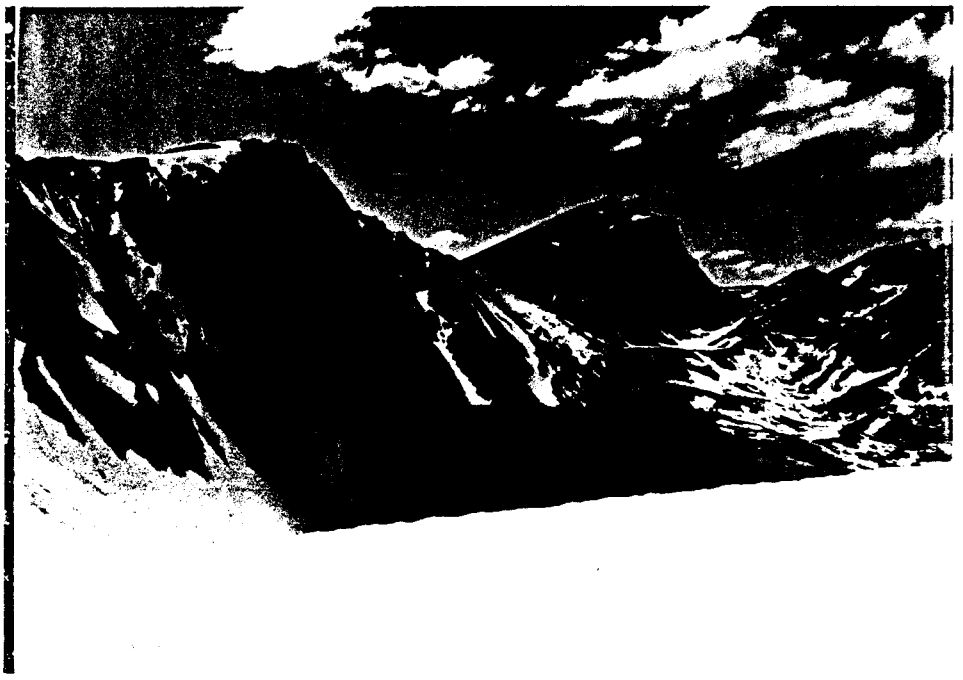

PHOTO 2: MAJI 18 and south of property;
View from east. (Mt. MacAuley is right of centre in photo).

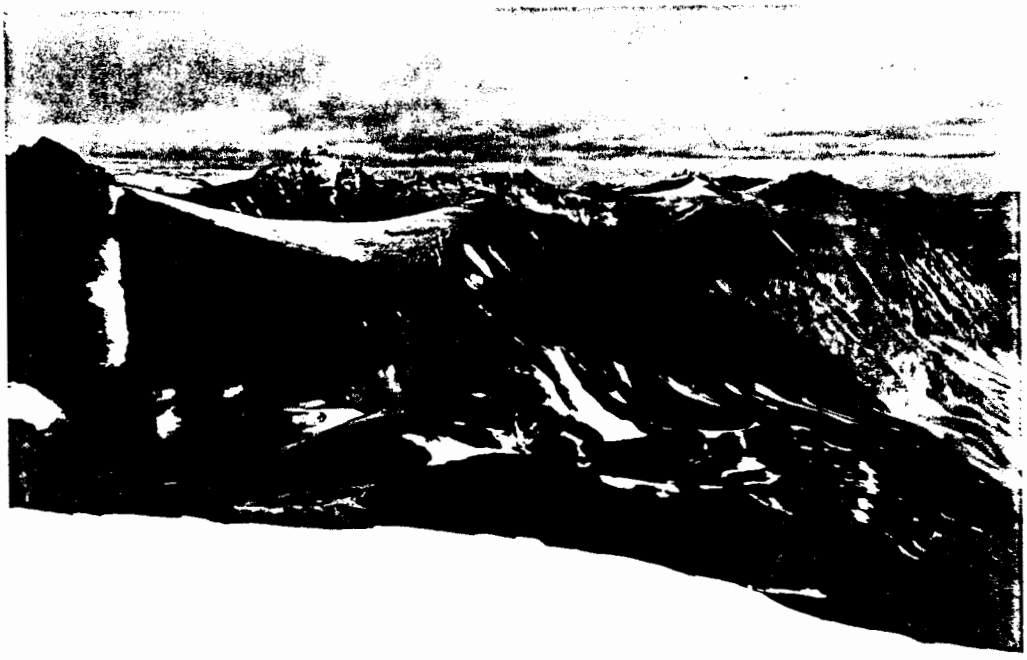

PHOTO 3: MAJI 6-13; View from southwest

PHOTO 4: MAJI 7, 9 and north of property; View from east. (This flat area corresponds to lightly snow covered saddle in Photo 3).

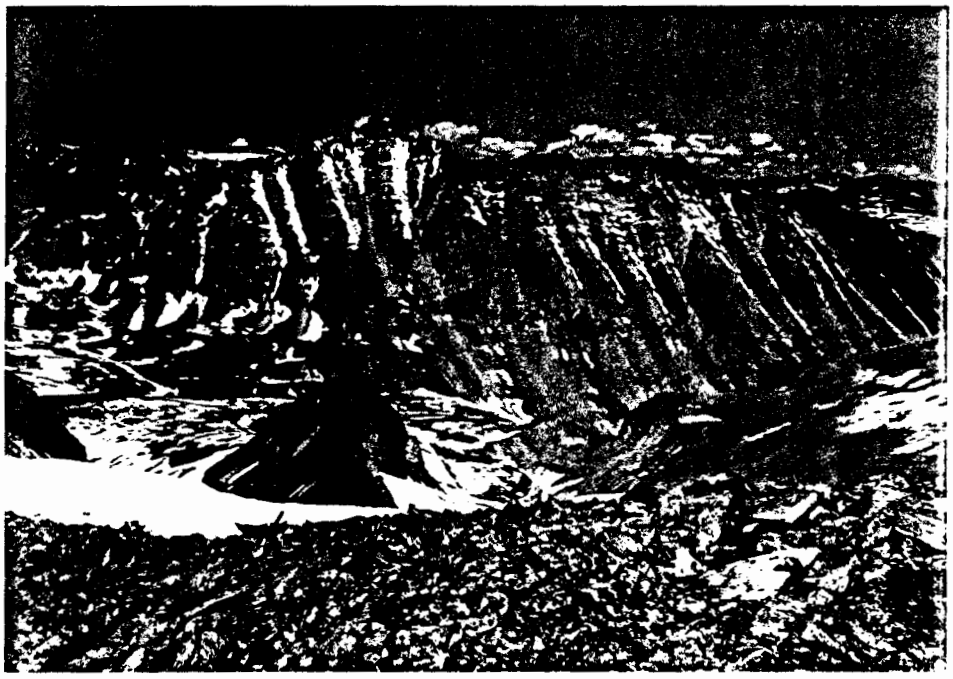

PHOTO 5: MAJI 11-13; View from south.
(Corresponds to right half of Photo 3.)

HISTORY:

The old NAIAD 1-16 claims overlap the MAJI 14, 16, 21-23 claims and continue further to the southeast. These claims were staked in 1981 by Archer Cathro and Associates Ltd. on the basis of anomalous Ag, Pb geochemistry. Follow up work in 1982 showed that the anomalies were associated with quartz vein float with a maximum of 569.8 g/t Ag. The property was subsequently dropped. Part of this area is now staked as the BOUD Claims held by Minequest.

The MAJI and vicinity, (including the old NAIAD property), were explored as targets Y110 and Y110A in 1986, resulting in the staking of the MAJI property.

1987 PROGRAM:

Four man days were spent on the property on August 9 and 10, 1987. Reconnaissance scale (1:25,000) mapping and geochemical sampling was conducted.

GEOLOGY: (Figure 3)

Regional:

The MAJI property lies along the western edge of the Bennett Lake Cauldron Subsidence complex. Eocene non welded to partially welded pyroclastics and minor andesite to dacite overlie a basement of probable genetically related Cretaceous quartz monzonite to granodiorite. The batholith intrudes Paleozoic gneisses of the Yukon Group Metamorphic Complex. Cretaceous to Tertiary granite to rhyolite and possibly related Tertiary rhyolite quartz feldspar porphyry ring dykes intrude the granodiorite. The dykes also intrude the volcanic rocks.

Refer to Lambert, 1974 and Wheeler, 1961 for a more thorough description.

Property:

Biotite feldspar quartz gneisses of the basement complex underlie the northeast corner of the property. These are intruded by a medium grained hornblende $\pm$ biotite quartz monzonite to granodiorite batholith which is exposed on the eastern half of the property as well as in the vicinity of the old NAIAD claims. The batholith contains numerous xenoliths of intermediate volcanics as well as xenoliths of rhyolite quartz feldspar porphyry in a localized area southeast of the claim block. Gneissic blocks predominate in the northeast corner of the property.

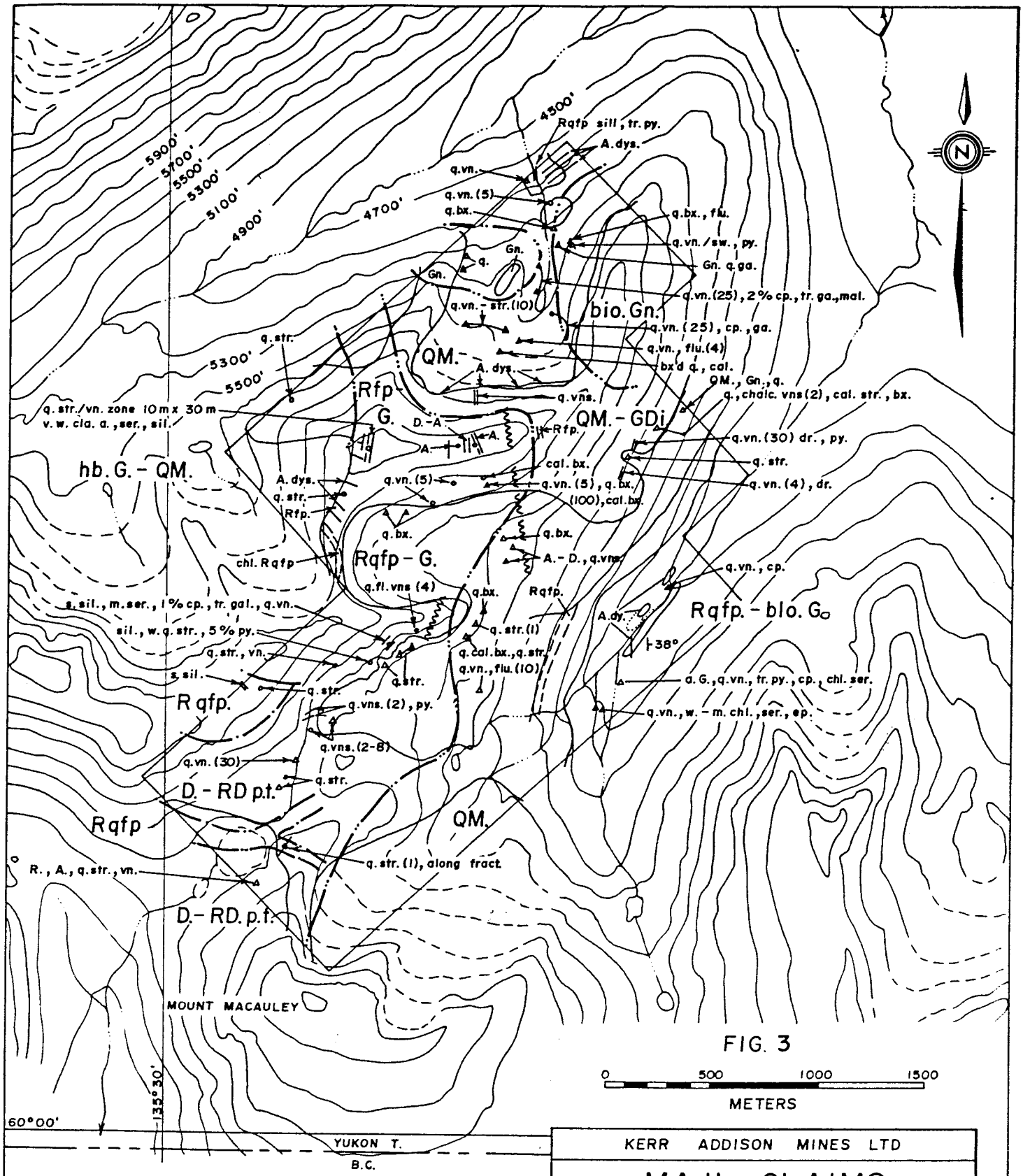

FIG. 3

0 500 1000 1500

METERS

For Legend see FIG. 3a

KERR ADDISON MINES LTD

MAJI CLAIMS

GEOLOGY

SCALE - 1 : 25,000	DATE - AUGUST, 1987
DRAWN BY - P.H.	DATA - J.P.
NTS - 105 D/3, 4	REVISED -

LEGEND

A	Andesite dykes
R, G, Al, QM	Rhyolite, Granite, Alaskite, Quartz Monzonite
A, D, RD, GDi, QM	Andesite, Dacite, Rhyodacite, Granodiorite, Quartz Monzonite
Gn, Msd	Gneiss, Metasediments

Subcrop, Outcrop

o , Δ — Rock - local, float

Vein or dyke

(5) — Width in cm

Altered zone

Geological contact - approximate, inferred

Fault

bio	Biotite	p	Porphry	m.g	Medium grained
hb	Hornblende	t	Tuff	c.g	Coarse grained
q	Quartz	lap	Lapilli tuff		
f	Feldspar	agg	Agglomerate	a	Altered
flu	Fluorite	sv	Subvolcanic	v	Very
chl	Chlorite			w	Weak
ser	Sericite	dy	Dyke(s)	m	Moderate
ep	Epidote	vn	Vein(s)	s	Strong
cal	Calcite	str	Stringer(s)	i	Intense
py	Pyrite	stwk	Stockwork	sil	Silicied
cp	Chalcopyrite	sw	Sweat	cl	Clay
cc	Chalcocite			tr	Trace
ga	Galena	bx	Structural breccia		
hem	Hematite	bx'd	Brecciated		
mal	Malachite	bx'n	Brecciation		
az	Azurite	bv	Volcanic breccia		
chalc	Chalcedoney (ic)				
carb	Carbonate				
calc	Calcareous				

FIG. 3a

Property - cont'd

A coarse grained biotite granite intrusion occurs to the west of the property. It grades to a fine grained granite to rhyolite quartz feldspar and feldspar porphyry on the northwestern MAJI claims where it appears to intrude the quartz monzonite to granodiorite. Hornblende granite to quartz monzonite, which grades locally to hornblende rhyolite quartz feldspar porphyry north of the property, occurs in the extreme northwest corner of the MAJI and continues to the north. This intrusion may be a phase of the aforementioned biotite granite.

The southern part of the property is underlain by rhyodacite to dacite tuffs, lapilli tuffs agglomerates and local volcanic breccia. The pyroclastics are commonly feldspar porphyritic and include magnetic, partially welded varieties.

Massive andesite to dacite, which occurs in the central part of the claims, may be related to the above pyroclastics or more probably to late stage andesite to dacite dyking.

Structure:

The MAJI claims lie along the western edge of the Bennett Lake Cauldron Subsidence Complex within the outer ring fracture system. Northeast faults on the property may be related to the ring fractures.

Refer to Lambert, 1974 for a more thorough description.

Mineralization and Alteration:

Numerous quartz stringers, veins and quartz breccias occur across the property. They are predominantly hosted by clay altered, locally sericite altered and silicified biotite granite to rhyolite quartz feldspar porphyry and related dykes as well as the older quartz monzonite intrusion. The rhyodacite to andesite volcanics and the gneisses also host some veins.

Fluorite, pyrite, and less common malachite, chalcopyrite, azurite, chalcocite and galena occur in some of the veins. Possible trace sphalerite was also observed. Calcite, occasionally bladed occurs with some of the quartz veins and some stringers and breccias have been observed. Quartz and calcite breccias occur along the northeast trending fault separating the Rqfp-G unit from the A-D unit in the central part of the property. In one locality along the fault a quartz breccia vein with associated stringer zone is 7 m wide with a possible 200m+ strike length.

Mineralization and Alteration: cont'd.

Veins generally range up to 1m wide over zones up to 10 m wide x 30 m long. They may have greater strike lengths but are difficult to trace due to the rugged topography. More detailed mapping of the property should better delineate the veins and vein zones.

GEOCHEMISTRY: (Figures 4-6)

Procedure:

A total of 16 rock samples were collected from the property and surrounding area during reconnaissance 1:25,000 scale mapping in the area. All samples were sent to Chemex Labs and analyzed for Au, Ag, As and Sb using standard atomic absorption procedures, Au being first preconcentrated by fire assay. Sample locations are shown on Figure 4.

Results: (Figures 5,6)

The highest Au value on the property was 62.05 g/t associated with 45.0 ppm Ag. It was hosted by irregular quartz veins and stringers cutting andesite plagioclase porphyry boulders in a talus tongue in the central part of the property. Another sample of boulders in the immediate area ran 170 ppb Au, 6.6 pm Ag. The source of the boulders appears to be the northeast fault zone separating the A-D unit from the Rqfp-G intrusion. Other anomalous values proximal to and along this fault zone are 165 ppb Au, 26.0 ppm Ag, and 95 ppb Au, 13.0 ppm Ag, both within the adjacent rhyolite to felsite.

Values of 3250 ppb Au, 92 ppm Ag were returned from a sample of rhyolite quartz feldspar porphyry with abundant northeast trending quartz stringers. The mineralization here may be related to the same northeast trending fault mentioned above.

Four samples, just north of the 3250 ppb Au sample, with values of 50 to 295 ppb Au and a maximum of 12.8 ppm Ag may also be related to fractures associated with the same northeast trending fault mentioned above.

Results: - cont'd,

A value of 211.89 g/t Ag, 50 ppb Au was obtained from creek float of quartz veins with chalcopyrite and pyrite in possible granite. The host rock suggests that the float is local since a small Rqfp-G plug occurs in this area within the older quartz monzonite. Values of 29.0 ppm Ag, 50 ppm Au were obtained from quartz veins in quartz monzonite about 1 km north of and uphill from the creek float. It is possible, however, that the float is from the vicinity of the old NAIAD property where values of 569.82 g/t and 154.97 g/t Ag have been reported.

Ag values of 18.0, 20.0 and 22.0 ppm are associated with quartz veins with minor galena ± Cu minerals and hosted by gneiss in the northern part of the MAJI Claims.

Anomalous As and Sb values are not associated with the Au, Ag mineralization in the area.

CONCLUSION AND RECOMMENDATIONS:

Significant Au, Ag mineralization has been found on the MAJI claims during reconnaissance 1:25,000 scale mapping and prospecting of the area. The mineralization is related to quartz vein, stringer and breccia zones that cut all lithologies. The presence of fluorite and sulfides are not indicative of Au, Ag mineralization but anomalous Ag is often associated with Cu minerals and/or galena. Many anomalous values appear to be related to a north to northeast faults that transect the claim block.

The 1988 program should involve follow up of the anomalies during 1:10,000 or 1:5,000 scale mapping and sampling of the property. It may be necessary to map the fault zones in more detail.

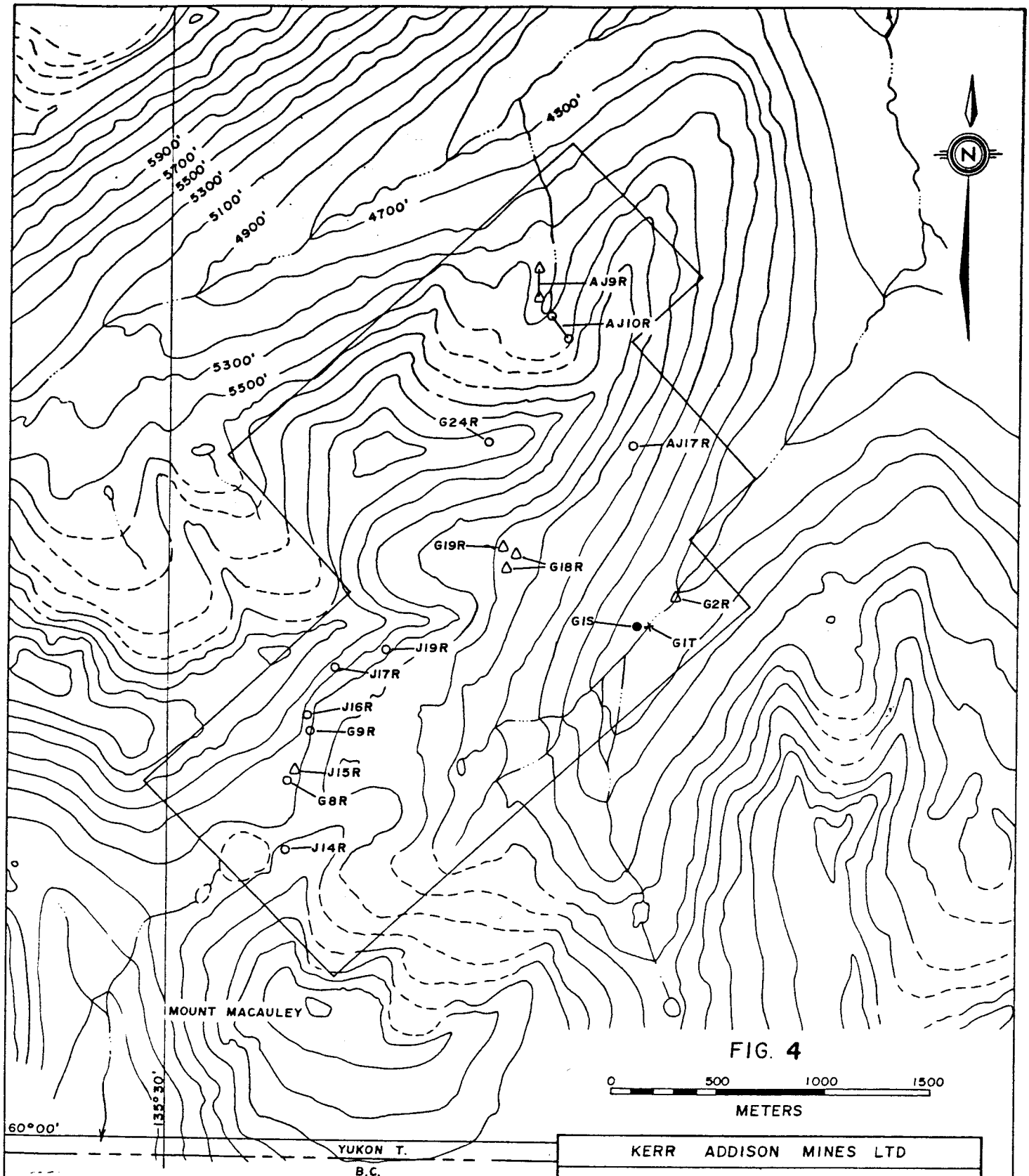

FIG. 4

X Silt sample.

● Soil sample.

○ , △ Rock sample - local , float.

△—△ Composite samples.

KERR ADDISON MINES LTD

MAJI CLAIMS

SAMPLE LOCATIONS

SCALE - 1 : 25,000	DATE - AUGUST, 1987
DRAWN BY - P.H.	DATA - J.P.
NTS - 105 D/3, 4	REVISED -

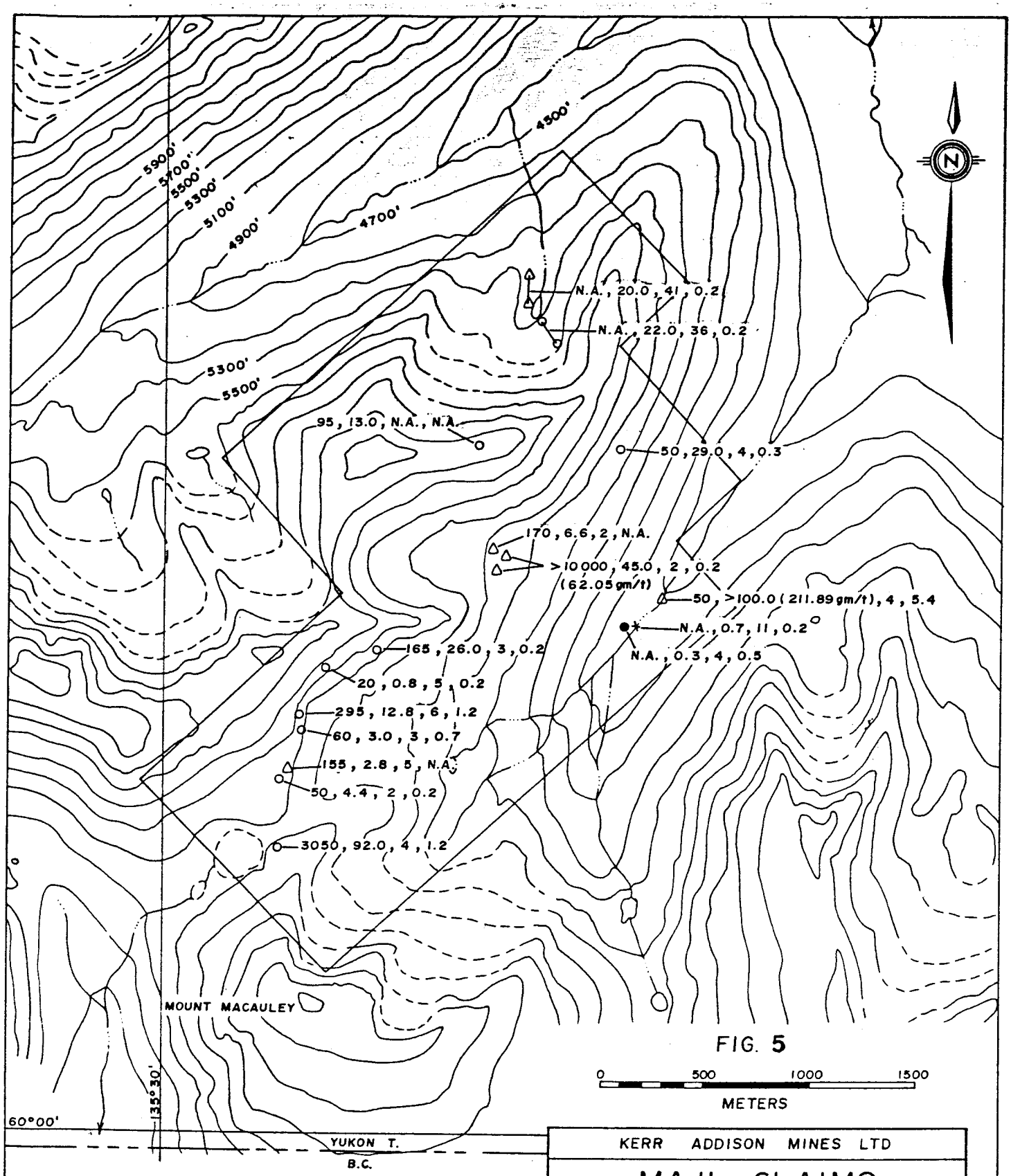

FIG. 5

50 , 4.4 , 2 , 0.2

Au (ppb) , Ag (ppm) , As (ppm) , Sb (ppm).

N.A. – No Assay

KERR ADDISON MINES LTD

MAJI CLAIMS
GEOCHEMISTRY
Au, Ag, As, Sb

SCALE – 1 : 25,000	DATE – AUGUST, 1987
DRAWN BY – P.H.	DATA – J.P.
NTS – 105 D/3, 4	REVISED –

APPENDIX I

REFERENCES

EATON,D., 1982; Geological and Geochemical Report on the NAIAD 1-16 claims. Assessment Report.

LAMBERT, M.B., 1974; The Bennett Lake Cauldron Subsidence Complex, British Columbia and Yukon Territory; Geol. Survey of Canada, Bulletin 227.

WHEELER, J.O., 1961; Whitehorse Map Area, Yukon Territory, 105 D; Geol. Survey of Canada.

APPENDIX II

Statement of Expenses

Wages: Field Days		
J. Pautler	August 9, 10, 1987	
F. Chow	August 9, 10, 1987	
report preparation, compilation August 16, 1987		
5 man days @ $150/day + 10%		$825
Groceries: lunch, emergency rations		
4 man days @ $10/man day		$ 40.
Hotel: 4 man days @$56/man day		$224.
Meals: 4 man days @$33/man day		$132.
Field Supplies: (topofil, flagging, sample bags,etc)		
4 man days @$20/man day		$ 80.
Truck: 2 days @ $50/day + gas		$150.
Geochemical Analyses:		
16 rocks @ 21.00 each	$336.	
Shipping @ $1.50/rock	$ 24.	$360.
Air Charter:		
Frontier Helicopters Ltd.		
August 9	0.9 hrs	
August 10	1.1 hrs	
	2.0 hrs @ $585/hr .	$1,170.
Maps, Reproduction, Drafting		$300.
	TOTAL	$3281.

APPENDIX III

STATEMENT OF QUALIFICATIONS

I, Jean Marie Pautler, graduated from Laurentian University, Sudbury, Ontario in May, 1980 with an Honours Bachelor of Science degree in geology. I have worked as a geologist in the Canadian Cordillera over the past eight years.

I was actively involved in the 1987 field program on the MAJI property.

Jean Pautler
Geologist.