



Report on a Magnetometer Survey on  
the Jo 1 to 37 Mineral Claims of  
KIM EXPLORATIONS LTD.  
Dynasty Area, Y. T.

Jo 1 to 16	Record Numbers	95036 to	95051
Jo 17 to 24	Record Numbers	95456 to	95463
Jo 25 to 30	Record Numbers	95052 to	95057
Jo 31 to 37	Record Numbers	Y10535 to	Y10541

Map Sheet 105K-6, Whitehorse Mining Division,  
Yukon Territory

Latitude  $62^{\circ} 23'$ , Longitude  $133^{\circ} 30'$

Survey Carried Out From  
August 6, 1966 to September 20, 1966

Submitted by: J. Mackie  
E. Philp, P. Eng.

DOMINION OF CANADA:  
Yukon Territories  
~~PROVINCE OF BRITISH COLUMBIA~~

In the Matter of KIM EXPLORATIONS LTD. - Jo Group

To Wit:

I, **Rae G. Jury, Director**  
**Airae Exploration Ltd.**

of **846 W. Hastings Street, Vancouver 1, B. C.**

in the Province of British Columbia, do solemnly declare that **the following is Airae Exploration Ltd. statement regarding Kim Explorations Ltd. - Jo Group.**

The following charges represent that portion of the total billings to Kim Explorations Ltd., for the months of August and September, 1966, applicable to line cutting and a magnetometer survey carried out on the Jo claim group.

Labour	\$ 4,360.00
Transportation	2,165.00
Camp costs, misc. charges	<u>2,780.00</u>
TOTAL	\$ <u>9,305.00</u>

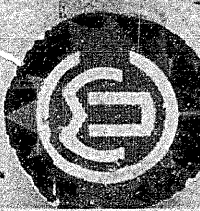
And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the **city**  
of **Vancouver**, in the  
Province of British Columbia, this **19**  
day of **January, 1967**, A.D.

*Rae G. Jury*

*M. H. De Meur*

A Commissioner for taking Affidavits within British Columbia or  
A Notary Public in and for the Province of British Columbia.



In the Matter of

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**Statutory Declaration**  
(CANADA EVIDENCE ACT)

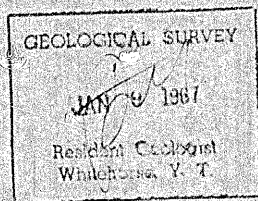
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Report on a Magnetometer Survey on  
the Jo 1 to 37 Mineral Claims of  
KIM EXPLORATIONS LTD.  
Dynasty Area, Y. T.

ALRAE EXPLORATION LTD.

November 21, 1966



This report has been examined by  
the Geological Institute Unit.  
Approved as to technical worth by:

RE: *[Signature]*  
DYNASTY AREA

Approved as to cost of the amount  
of \$ 9305.00

for *[Signature]*  
DYNASTY AREA  
Estimated as to exploration work  
near Spoken Gully in the Quartz  
Mining Area

*[Signature]*  
G.W. 154 1-5 Y.O.C.A.

TO PROTECT OUR CLIENTS, THE PUBLIC AND OURSELVES, ALL REPORTS ARE SUBMITTED AS THE CONFIDENTIAL PROPERTY OF CLIENTS AND  
AUTHORIZATION FOR PUBLICATION OF STATEMENTS, CONCLUSIONS AND EXTRACTS FROM OUR REPORTS MUST RECEIVE OUR WRITTEN APPROVAL

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MAPS

Location plan  
Plan and surface geology  
Magnetometer readings  
Magnetic contours

Scale

1" = 3 miles  
1" = 500 feet  
1" = 500 feet  
1" = 500 feet

Report on a Magnetometer Survey on  
the Jo 1 to 37 Mineral Claims of  
KIM EXPLORATIONS LTD.  
Dynasty Area, Y. T.

INTRODUCTION

The Jo group consists of 37 contiguous, full size mineral claims, situated in the Rose Creek Valley, 45 miles northwest of Ross River, Y.T.

Alrae Exploration Ltd. was engaged by Kim Explorations Ltd. to carry out a line cutting program and magnetometer survey on the group. This work was carried out from August 6, 1966 to September 20, 1966. All work was done by Alrae personnel under field supervision of J. Mackie.

ACCESS

Personnel and supplies were trucked from Watson Lake to a semi-permanent camp on the Rae group of Kim Explorations Ltd., thence by helicopter, approximately 10 miles northwest, to the Jo group.

TOPOGRAPHY AND VEGETATION

The claim group occupies a south-facing slope, extending from Rose Creek to timber line opposite Rose Mountain. The hillside has a uniform slope of ten degrees. Most of the group is covered by stands of spruce and balsam, commonly one to three feet in diameter. Buckbrush and willows are common in all open places and creek bottoms.

GEOLOGY

Rock outcrops are extremely scarce. Hornfels was the predominate rock observed with single outcrops of shale and chlorite schist also noted. Foliation generally dips gently to the southwest. A medium-grained quartz monzonite outcrops in the northwest corner of the claim group. Mississippian and Mid-Cretaceous ages have been tentatively assigned to the metamorphic and granitic

rocks, respectively, by the Geological Survey of Canada. (Reddick and Green, Map 13-1961, Tay River, Yukon Territory).

#### CLAIMS

Kim Explorations Ltd. owns the Jo 1 to 37 full size mineral claims, situated on claim sheet 105K-6, Whitehorse Mining Division, Y.T. Record numbers are as follows:

<u>Claims</u>	<u>Record Numbers</u>
Jo 1 to 16	95036 to 95051
Jo 17 to 24	95456 to 95463
Jo 25 to 30	95052 to 95057
Jo 31 to 37	Y10535 to Y10541

#### CONTROL GRID

Four base lines were cut in an east-west direction. Crosslines were cut at 400 foot intervals over the entire group. Approximately 40 line-miles were cut, chained and picketed. Pickets were placed at 100 foot intervals. Line cutting was performed by a three man crew using a powersaw and mechanical brushcutter. A staff-mounted Brunton compass and nylon chain were used for control.

#### TYPE OF MAGNETOMETER

A Sharpe, model MF-1, fluxgate magnetometer was employed. It is hand held and requires only coarse levelling. Extensive temperature compensations have been built into the instrument. Orientation has negligible affect on field readings.

The magnetometer is capable of measuring the earth's vertical magnetic field to 5 gammas on the lowest scale range. Full scale ranges vary progressively from a minimum of plus or minus 1,000 gammas to a maximum of plus or minus 100,000 gammas. Station values are read directly from an ammeter-type scale. A high latitude adjustment permits zeroing of the magnetometer in all but the most unusual circumstances.

### FIELD PROCEDURES

The magnetometer was zeroed for this property. Base stations were established at 400 foot intervals along baselines, where crosslines and baselines intersected. Two field readings were taken at each base station. The average at each base station was used in subsequent calculations. The elapsed time in loops establishing base stations seldom exceeded 30 minutes. As only one magnetometer was used, each loop ended at the same base station it began.

After base stations were established, magnetometer readings were taken at 100 foot intervals on all crosslines and baselines. Loops were limited to a maximum duration of one hour. Each loop was begun from an established base station. An overlap of at least one and commonly two or three stations of previous loops were incorporated in each loop. This procedure permitted a quick check of field work and survey accuracy.

Tolerable diurnal variation in any loop was one gamma per minute elapsed up to maximum of 50 gammas. All operators were stripped of metallic objects which may have biased the survey.

### CORRECTIONS

Temperature compensations built into the instrument eliminate any need for temperature corrections being applied to the field readings. Thus, diurnal corrections were the only adjustments applied to field readings. Diurnal variation is determined by the difference between the initial and final reading at the base station each loop was begun. This variation is assumed to be linear. The correction added to each reading in a loop is the diurnal variation multiplied by the ratio: time elapsed when reading taken divided by total time elapsed in the loop. Hence, the initial and final readings in a loop will be identical after diurnal corrections have been added. Because the instrument can be read to only five gammas, all corrections are rounded to the nearest five.

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### INTERPRETATION

Four intense, but small anomalies have been outlined in the northern portion of the claim group. Residual magnetic values of these anomalies ranges from 400 to 1,300 gammas. There is no apparent structural relationship between the anomalies. Adjacent to three of the anomalies there is a fifth, much larger anomalous zone with a residual magnetic value of 150 gammas.

The limited areal extent of each anomaly suggests that they are all caused by near-surface concentrations of magnetic minerals. The anomalies may be caused by concentrations of pyrrhotite and/or magnetite in favourable metamorphic rocks or the intrusion of small basic plugs. Both are common in the district.

### RECOMMENDATIONS

In view of the success of finding economic sulphide ore bodies on the adjoining claims of Anvil Mining Corporation and the apparently favourable geological setting of the Jo group, it is recommended that further surveys be undertaken to thoroughly investigate this group for economic mineralization. A geochemical survey and electromagnetic survey should be carried out. These surveys should indicate the significance of the magnetic anomalies and outline other areas of economic importance.

Report submitted by



J. Mackie

Endorsed by



P. Philp, P. Eng.

TIME AND COST DISTRIBUTION

LABOUR

Linecutting

C. Pete  
Lower Post, B.C.  
Aug. 6 to September 20, 1966  
46 days @ \$22.00 day \$1,012.00

F. McMillan  
Lower Post, B.C.  
August 6 to September 20, 1966  
46 days @ \$22.00 day \$1,012.00

T. Allan  
Watson Lake, Y.T.  
August 6 to September 20, 1966  
46 days @ \$22.00 day \$1,012.00

Magnetometer Surveying

T. Flint  
Watson Lake, Y.T.  
August 12 to 25, 1966  
14 days @ \$13.50 day \$ 189.00

M. Bocking  
Victoria, B.C.  
September 4 to 7, 1966  
4 days @ \$13.50 day \$ 54.00

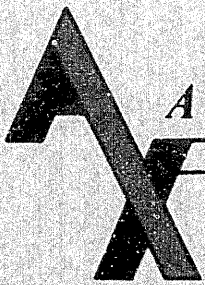
J. Mackie  
Vancouver, B.C.  
August 6 to September 20, 1966  
46 days @ \$23.50 day \$1,081.00

TRANSPORTATION

Helicopter \$2,040.00  
Fixed wing 117.00

Camp costs, ground transportation, miscellaneous \$2,790.00

TOTAL \$9,305.00



# ALRAE EXPLORATION LTD.

202 - 846 WEST HASTINGS STREET, VANCOUVER 1, B.C. TELEPHONE 681-9381

## STATEMENT REGARDING KIM EXPLORATIONS LTD. - JO GROUP

The following charges represent that portion of the total billings to Kim Explorations Ltd., for the months of August and September, 1966, applicable to line cutting and a magnetometer survey carried out on the Jo claim group.

Labour	\$ 4,360.00
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ALRAE EXPLORATION LTD.  
846 W. HASTINGS ST.  
VANCOUVER 1, B. C.

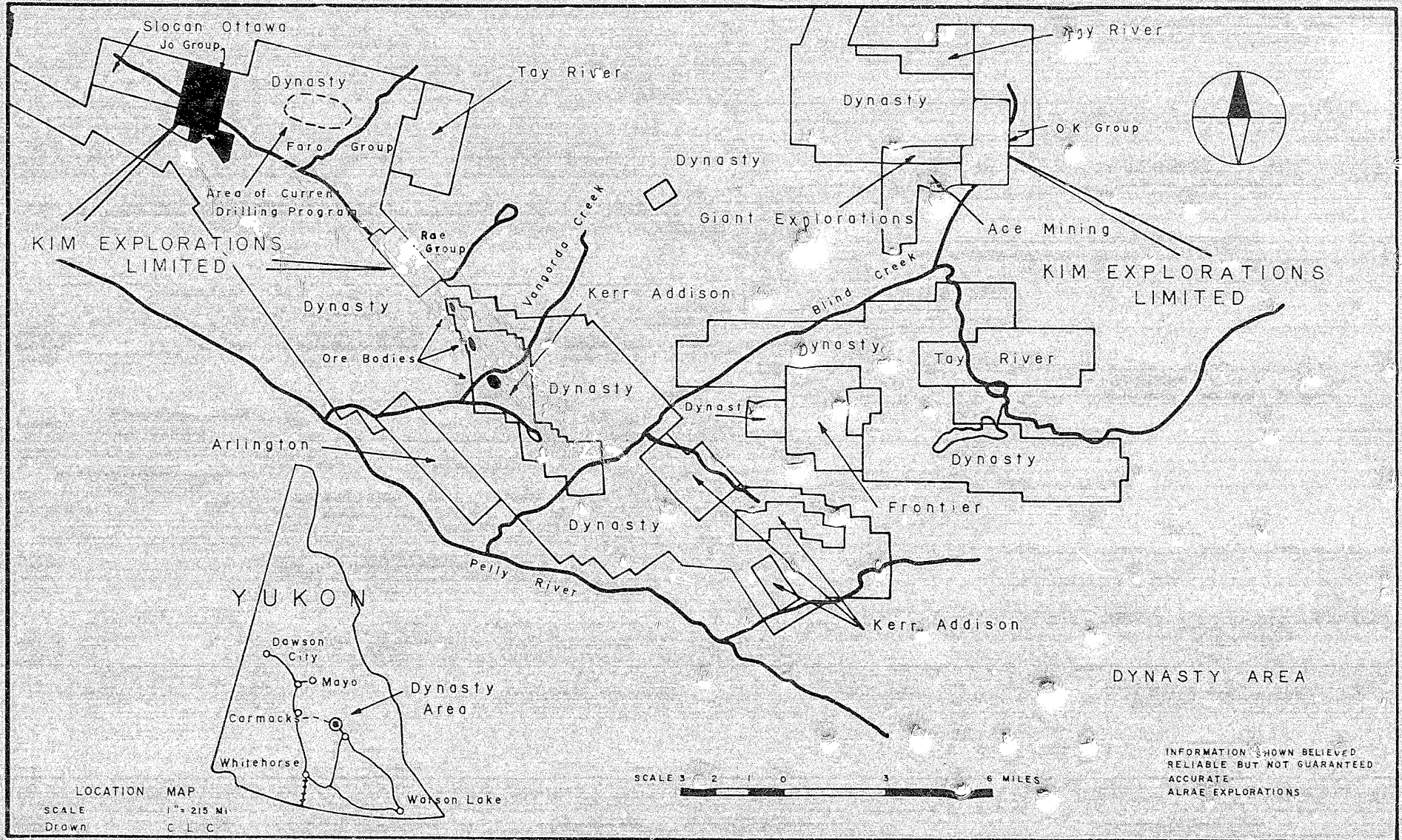
ALRAE EXPLORATION LTD.

per: R.J. Coma

GEOLOGY  
Exploration

CONSULTANTS  
Development

MINING  
Production



KIM EXPLORATIONS LIMITED

KIM EXPLORATIONS LIMITED

YUKON

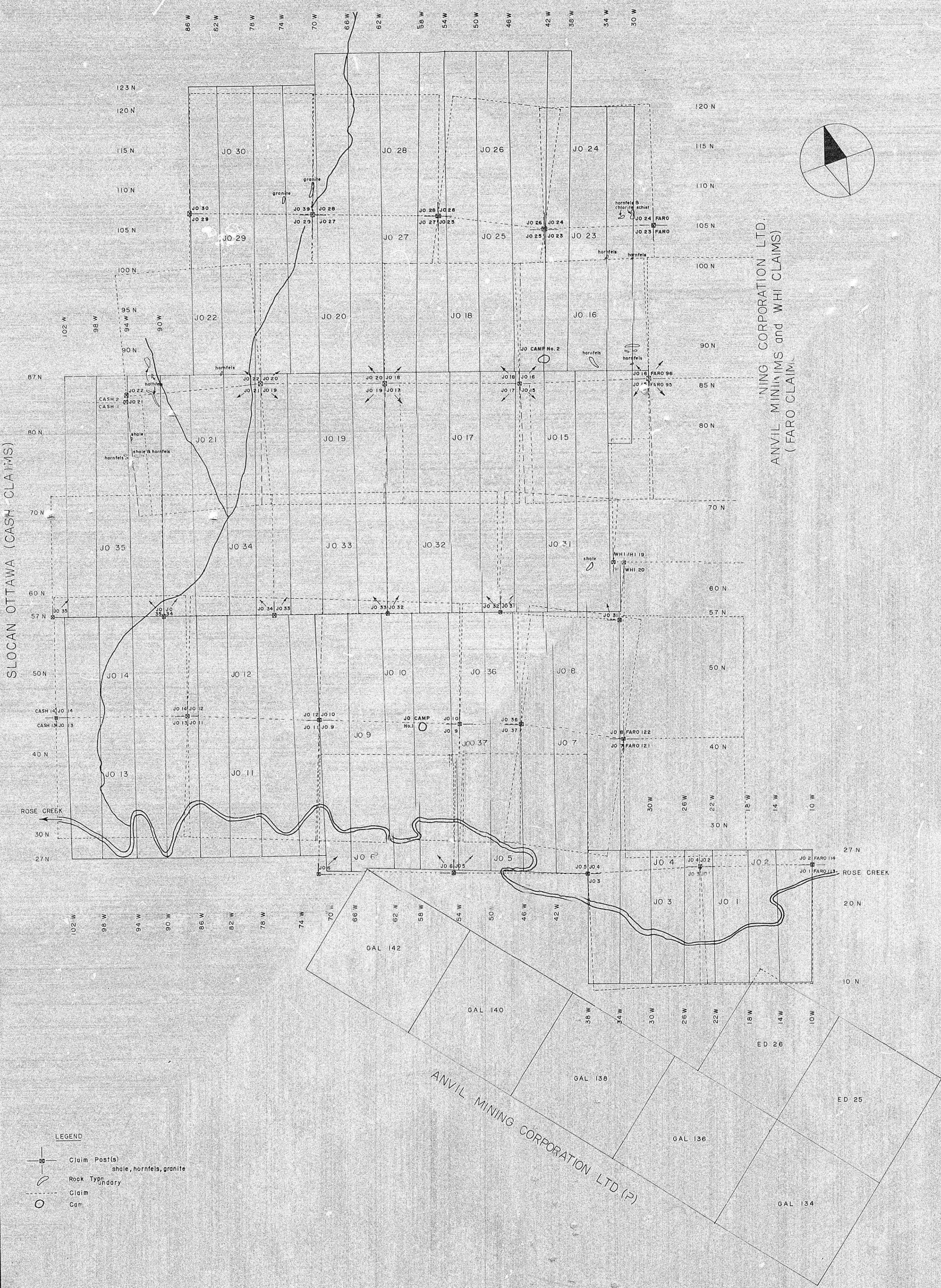
DYNASTY AREA

LOCATION MAP  
 SCALE 1" = 215 Mi  
 Drawn C L C



INFORMATION SHOWN BELIEVED  
 RELIABLE BUT NOT GUARANTEED  
 ACCURATE  
 ALRAE EXPLORATIONS

FLAGSTONE (LEE CLAIMS)

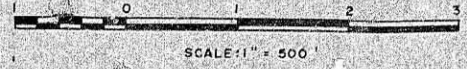


SLOCAN OTTAWA (CASH CLAIMS)

ANVIL MINING CORPORATION LTD.  
ANVIL MINIMUMS and WHI CLAIMS  
(FARO CLAIM)

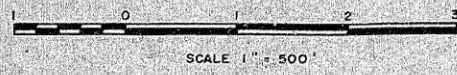
- LEGEND
- Claim Post(s)
  - shale, hornfels, granite
  - Rock Type Boundary
  - Claim
  - Camp

ANVIL MINING CORPORATION LTD. (P)



KIM EXPLORATIONS LTD.	
DYNASTY AREA-JO CLAIM GROUP Plan and Surface Geology	
<b>ALRAE EXPLORATION LTD.</b> GEOLOGISTS AND ENGINEERS VANCOUVER, B. C.	
DESIGNED: R. MACBEAN	SCALES
DRAWN: M. R. L.	HOR: 1" = 500'
CHECKED: J. M.	DATE: OCTOBER 1988
ALRAE EXP. LTD. DWG. No.	JOB No.





OVERLAY FOR JO CLAIM GROUP  
PLAN AND SURFACE GEOLOGY

KIM EXPLORATIONS LTD.	
DYNASTY AREA - JO CLAIM GROUP Magnetic Contours	
<b>ALRAE EXPLORATION LTD.</b> GEOLOGISTS AND ENGINEERS VANCOUVER, B. C.	
DESIGNED: J. MACKIE	SCALE: 1" = 500'
DRAWN: M. R. L.	HOR: 1" = 500'
CHECKED: J. M.	VERT: 1" = 500'
ALRAE EXP. LTD. DWG. No.	DATE: NOVEMBER 1966
CONTOUR INTERVAL - 100 gamma	REV.
	JOB No.