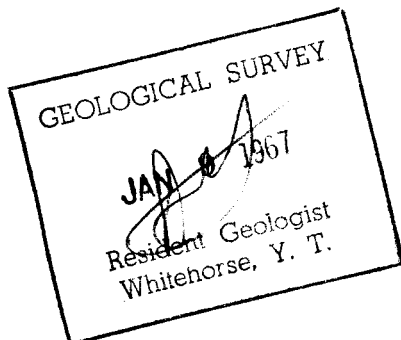


Report on a Magnetometer Survey on the  
Rae 1 to 23 Mineral Claims of  
KIM EXPLORATIONS LTD.  
Dynasty Area, Y. T.

ALRAE EXPLORATION LTD.

November 22, 1966



This report has been examined by  
the Geological Evaluation Unit.  
Approved as to technical worth by:  
*D. J. Gidley*  
RESIDENT GEOLOGIST

Approved as to cost in the amount  
of: \$ 5768.50  
*H. G. Hedden*  
RESIDENT MINING ENGINEER

Accepted as representation work  
under Section 80(4), Yukon Quartz  
Mining Act.  
*Amundson*  
COMMISSIONER OF MINES

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MAPS

Scale

Location plan	1" = 3 miles
Plan	1" = 400 feet
Magnetometer readings	1" = 400 feet
Magnetic Contours	1" = 400 feet

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Report on a Magnetometer Survey on the  
Rae 1 to 23 Mineral Claims of  
KIM EXPLORATIONS LTD.  
Dynasty Area, Y. T.

INTRODUCTION

The Rae group consists of 23 contiguous, full size mineral claims, situated in the Rose Creek Valley 36 miles northwest of Ross River, Y.T.

Alrae Exploration Ltd. was engaged by Kim Explorations Ltd. to carry out a line cutting program and a magnetometer survey on the claim group. This program was carried out during the summer of 1966. All work was done by Alrae personnel under the field supervision of J. Mackie.

ACCESS

The property straddles an all-weather road serving the Faro camp of Anvil Mining Ltd.

When there is neither a ferry nor an ice bridge across the Pelly River supplies have been flown from Watson Lake to the campsite. At other times, men and supplies are trucked from Watson Lake.

TOPOGRAPHY AND VEGETATION

The claim group occupies Rose Creek Valley floor and the adjacent hillsides. The valley is "U" shaped with valley sides seldom exceeding 10 degrees. Dense to open stands of spruce and balsam cover most of the hillsides, whereas buckbrush and willow are abundant along the creek.

GEOLOGY

Limited rock exposures confirm that most of the group is underlain by biotite schist and minor limestone. These rocks dip gently to the southwest. A highly siliceous hornfels outcrop has been observed in the northeastern portion of the group. Granitic

rocks occur within a short distance of the northeast corner, however, no granitic rocks have been found on the claim group. A Mississippian and Mid-Cretaceous age have been tentatively assigned to the metamorphic and granitic rocks, respectively, by the Geological Survey of Canada (Roddick and Green, Map 13-1961, Tay River, Yukon Territory).

Overburden is primarily a moderately impervious till in the order of 10 to 30 feet thick. Local deposits of gravel are apparent.

#### CLAIMS

Kim Explorations Ltd. owns the Rae 1 to 23 full size mineral claims, situated on claim sheet 105K-6, Whitehorse Mining Division, Y.T. Record numbers 94957 to 94978 have been assigned to Rae 1 to 23 mineral claims, respectively.

#### CONTROL GRID

A grid utilizing the northeast and southwest boundaries as baselines was cut. Crosslines were cut at 400 foot intervals. All lines were picketed at 100 foot intervals. Approximately 26.5 line-miles were cut, chained and picketed.

Line cutting was performed by either two 2-man crews or one 3-man crew using power saws and mechanical brushcutters. A staff-mounted Brunton compass and 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. The instrument is only slightly affected by orientation. Temperature compensations have been built into the instrument.

This instrument 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 meter in gammas. A high latitude adjustment permits zeroing of the magnetometer in all but the most unusual circumstances.

#### FIELD PROCEDURES

The magnetometer was zeroed at station '0' on the northerly baseline. Subsequent base stations were established at 400 foot intervals along both base lines. Two field readings were taken at each base station and the average used for calculations. At least ten minutes elapsed between the first and second readings at each base station. All loops ended at the base station at which they were started. Elapsed time in any loop establishing base stations seldom exceeded 30 minutes.

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

Tolerable diurnal variation in any loop was 1 gamma per minute elapsed up to a maximum of 50 gammas. All operators were stripped of metallic objects which may have biased the survey.

#### CORRECTIONS

Extensive temperature compensations built into the instrument eliminated any need for temperature corrections. Thus, diurnal corrections were the only adjustments necessary to the field readings. Diurnal variation is determined by the difference between

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the initial and final reading at the base station each loop was initiated. This variation is assumed to be linear. The correction, added to each station, is the diurnal variation of the loop multiplied by ratio: time elapsed in loop when reading taken over the 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.

Final station readings are determined by their relative value to the base station from which the loop was run. Base station values had previously been determined from the initial survey station. A value of 2,000 gammas was arbitrarily assigned to the original station to avoid the possibility of negative values.

Accuracy of all stations in the survey is in the order of plus or minus 10 gammas.

#### INTERPRETATION

Much of the claim group has very low magnetic relief. The only area of interest is a series of four small anomalies with residual magnetic values ranging from 50 to 1,300 gammas. The limited areal extent of each anomaly suggests that all are caused by near-surface concentration of magnetic minerals. The anomalies may be caused by concentrations of pyrrhotite and/or magnetite in favourable metamorphic beds or the intrusion of small basic plugs. Both features are common in the district. There is no surface evidence of the causative bodies. Partial alignment of the anomalies suggests they may be controlled by a structural weakness in a northwest - southeast direction.

#### RECOMMENDATIONS

In view of the success of finding economic sulphide ore bodies on adjoining properties and the apparent favourable geological

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setting of the Rae group, further surveys should be undertaken to thoroughly search this group for economic mineralization. It is recommended that a geochemical and an electromagnetic survey be undertaken. These surveys will supplement the information obtained to date and outline areas where further work is warranted.

Report submitted by

  
J. Mackie

Endorsed by

  
R. Philp, P. Eng.

TIME AND COST DISTRIBUTION

LABOUR

Line cutting

C. Pete  
Lower Post, B.C.  
June 13 to July 4, 1966  
23 days @ \$20.00/day \$ 460.00

F. McMillan  
Lower Post, B.C.  
June 13 to July 4, 1966  
23 days @ \$20.00/day 460.00

E. Cheseeger  
Lower Post, B.C.  
June 13 to July 4, 1966  
23 days @ \$20.00/day 460.00

T. Allan  
Watson Lake, Y.T.  
June 29 to July 4, 1966  
6 days @ \$20.00/day 120.00

Magnetometer Survey

B. MacBean  
Vancouver, B.C.  
June 29 to July 3, 1966  
5 days @ \$15.00/day 75.00

T. Flint  
Watson Lake, Y.T.  
August 6 to 10, 1966  
5 days @ \$13.50/day 66.50

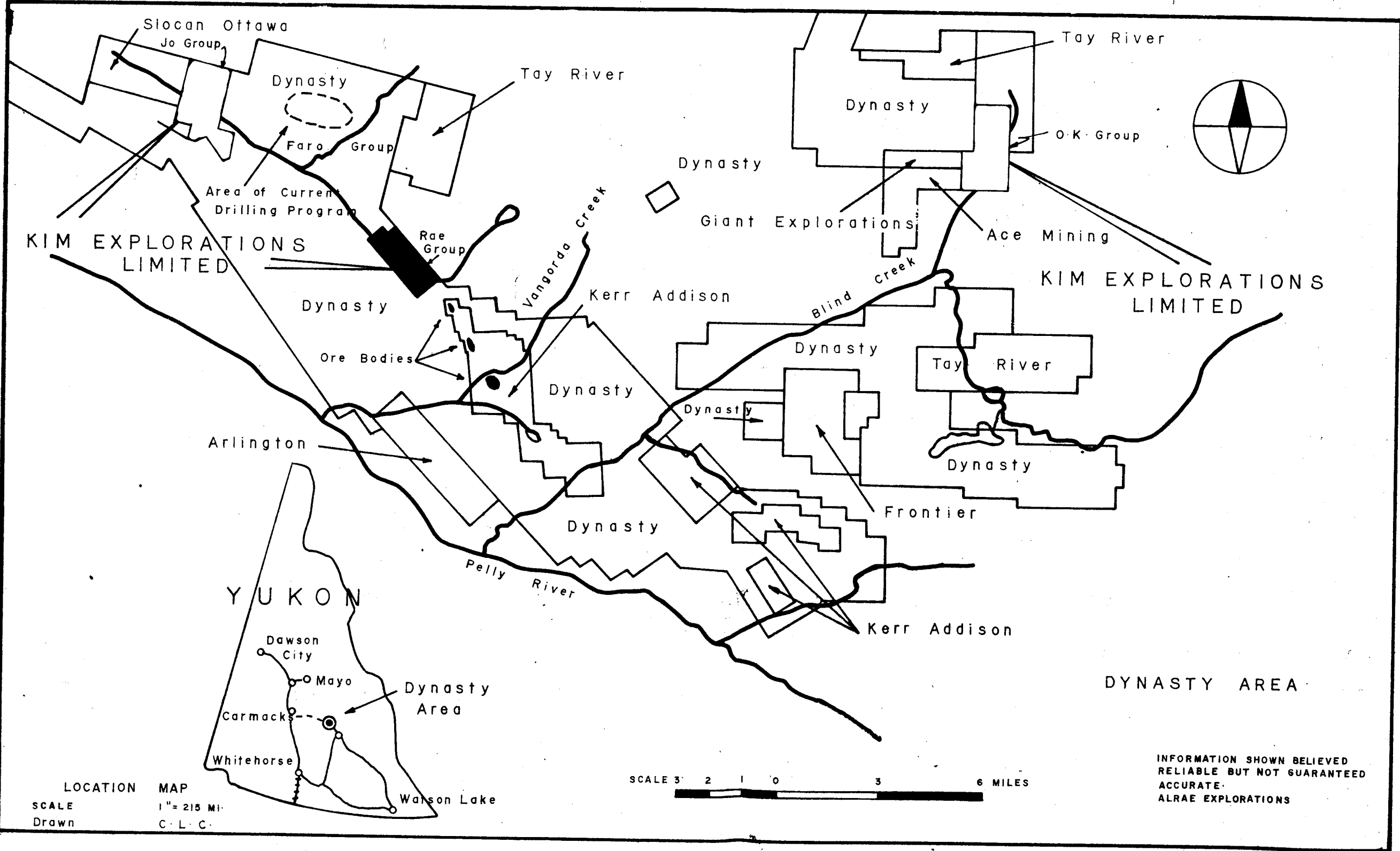
J. Mackie  
Vancouver, B.C.  
June 13 to July 4, 1966  
September 20 to 28, 1966  
32 days @ \$23.50/day 752.00

TRANSPORTATION

Helicopter \$ 942.00  
Fixed Wing 873.30

Time and Cost Distribution (Cont.)

BALANCE FORWARD --	\$4,208.80
Camp costs, ground transportation, miscellaneous	<u>1,560.00</u>
TOTAL	<u>\$5,768.80</u>



Slocan Ottawa  
Jo Group

Dynasty

Tay River

Tay River

Faro Group

Area of Current  
Drilling Program

Rae Group

Dynasty

Giant Explorations

O.K. Group

KIM EXPLORATIONS  
LIMITED

Ace Mining

KIM EXPLORATIONS  
LIMITED

Dynasty

Vangorda Creek

Kerr Addison

Blind Creek

Ore Bodies

Dynasty

Dynasty

Tay River

Arlington

Dynasty

Dynasty

YUKON

Pelly River

Dynasty

Frontier

Dawson  
City

Mayo

Carmack

Whitehorse

Dynasty  
Area

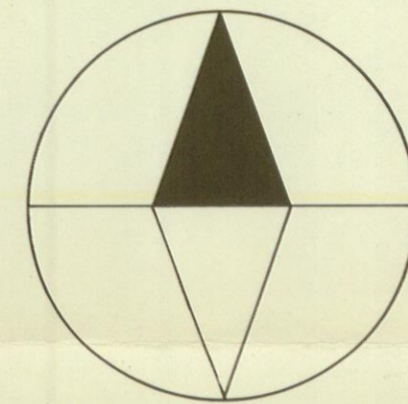
Kerr Addison

DYNASTY AREA

LOCATION MAP  
SCALE Drawn 1" = 215 MI.  
C.L.C.

SCALE 3 2 1 0 3 6 MILES

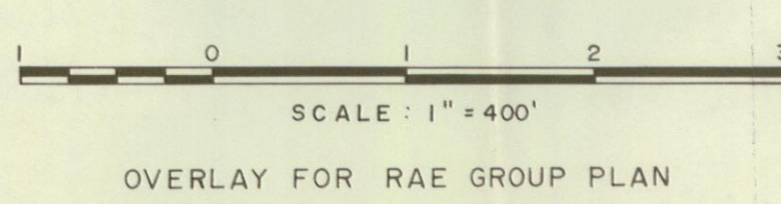
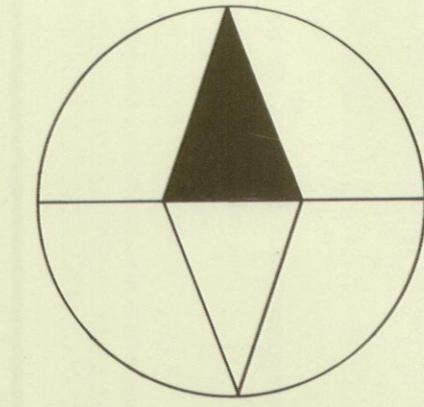
INFORMATION SHOWN BELIEVED  
RELIABLE BUT NOT GUARANTEED  
ACCURATE.  
ALRAE EXPLORATIONS



LEGEND  
Road  
Creek  
Claim Post(s)

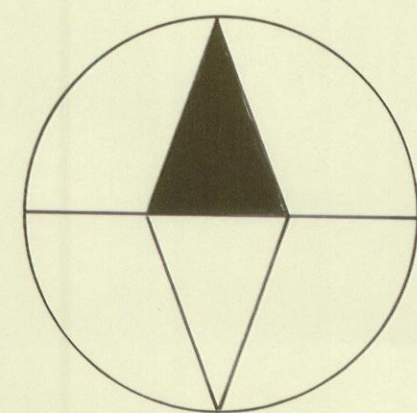
KIM EXPLORATIONS LTD.	
DYNASTY AREA - RAE GROUP PLAN	
<b>ALRAE EXPLORATION LTD.</b> GEOLOGISTS AND ENGINEERS VANCOUVER, B.C.	
DESIGNED: J. MACKIE	SCALE: 1" = 400'
DRAWN: M. R. L.	VERT:
CHECKED: R. PHILIP	DATE: OCTOBER 1966
ALRAE EXP. LTD. DWG. No.	JOB No.

SCALE: 1" = 400'



KIM EXPLORATIONS LTD.	
DYNASTY AREA-RAE GROUP	
Magnetometer Readings	
<b>ALRAE EXPLORATION LTD.</b>	
GEOLOGISTS AND ENGINEERS	
VANCOUVER, B. C.	
DESIGNED: J. MACKIE	SCALE: HOR: 1" = 400'
DRAWN: M. R. L.	VERT:
CHECKED: R. PHILIP	DATE: OCTOBER 1966
ALRAE EXP. LTD. DWG. No.	JOB No.

OVERLAY FOR RAE GROUP PLAN



SCALE: 1" = 400'  
OVERLAY FOR RAE GROUP PLAN

KIM EXPLORATIONS LTD.	
DYNASTY AREA-RAE GROUP	
Magnetic Contours	
<b>ALRAE EXPLORATION LTD.</b>	
GEOLOGISTS AND ENGINEERS	
VANCOUVER, B. C.	
DESIGNED: J. MACKIE	SCALE: 1" = 400'
DRAWN: M.R.L.	VERT:
CHECKED: J.M.	DATE: NOVEMBER 1966
ALRAE EXP. LTD. DWG. No. 208	REV.
CONTOUR INTERVAL: 50 GAMMAS	