



WELCOME NORTH MINES LTD. (N.P.L.)
1027 - 470 Granville St., Vancouver, B.C. V6C 1V5 Telephone (604) 687-1658

*Dec
31
1977*

DIAMOND DRILLING REPORT

ON THE

REP 1-48 MINERAL CLAIMS

Latitude 64°20'N

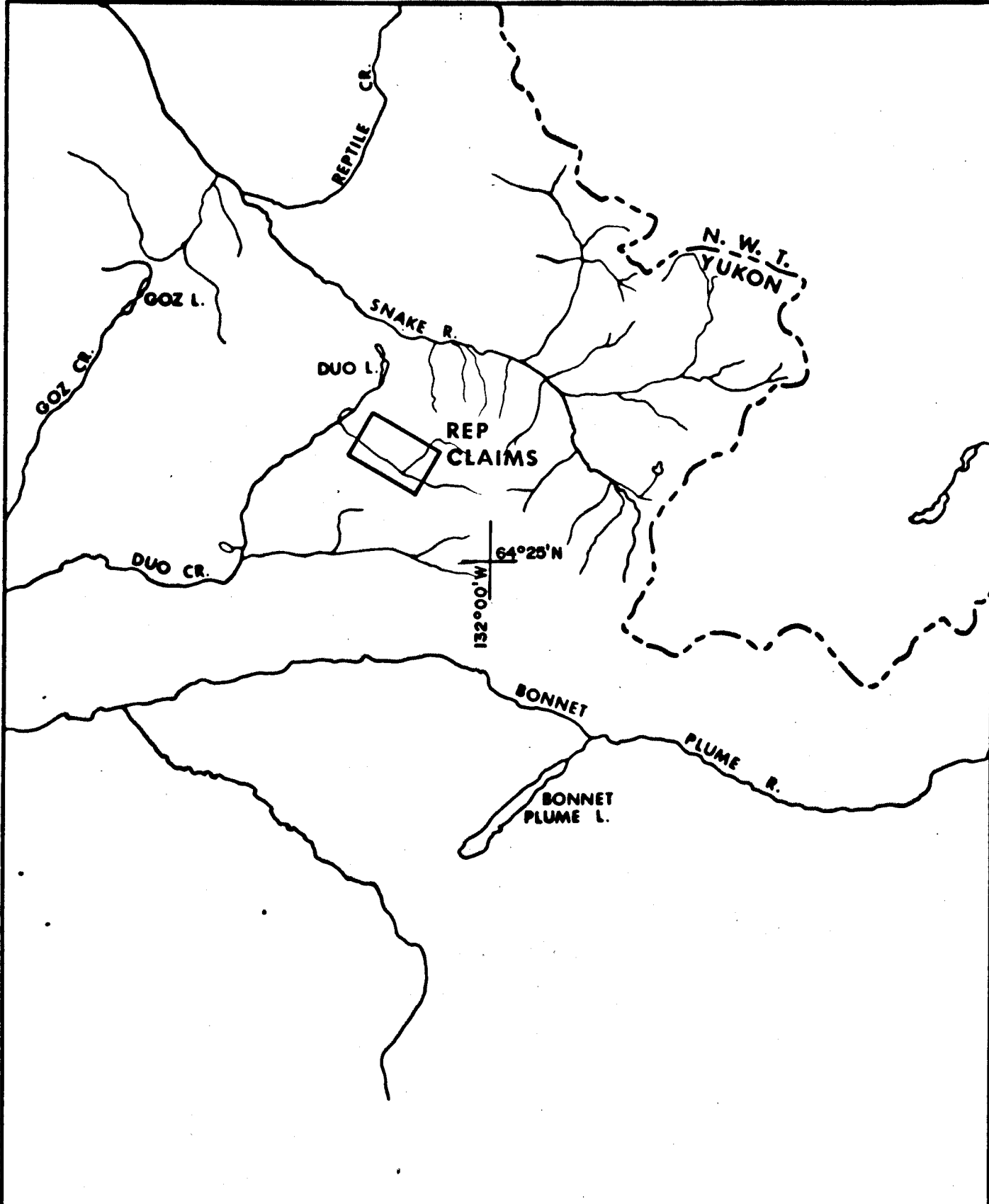
Longitude 132°05'W


MAYO MINING DISTRICT
YUKON TERRITORY
N.T.S. 106C/8

Work performed during period June 1 - July 31, 1977

G.F. McArthur
M.L. McArthur

091297




WELCOME NORTH MINES LTD.
ARCTIC RED PROJECT
REP 1-48 CLAIMS
CLAIM LOCATION MAP

Scale <i>1:250,000</i>	Date <i>SEPT 1976</i>	NTS <i>106C/R</i>
Revised _____	By <i>G. MCA.</i>	Pl. <i>1</i>

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INTRODUCTION

The REP 1-48 mineral claims were staked on August 17, 1976 to cover several occurrences of lead and zinc in carbonaceous limestone of the Road River Formation and older dolomites equivalent to the Franklin Mountain Formation.

SUMMARY

- 1) In 1976, prospecting discovered several occurrences of zinc and minor lead in Road River limestone and in underlying dolomites.
- 2) A geochemical grid was completed over mineralized areas on the claim group in order to delineate overburden-covered mineralization.
- 3) In 1977, geological mapping and chip sampling were done.
- 4) Anomalous areas within the 1976 geochemical grid were extended.
- 5) A 100-foot BQ diamond drill hole was completed on the A-Zone in July, 1977.

LOCATION AND ACCESS

The REP 1-48 mineral claims are located on Map Sheet N.T.S. 106C/8 in the Selwyn Mountains south of Duo Lakes on a branch of Duo Creek (Fig. 1 and 2).

Access to the property can be obtained by helicopter from Mayo, 128 miles to the west, or from Norman Wells, 168 miles to the east. Float-equipped aircraft can land at Duo Lake 3 miles to the north. The lake was free of ice by June 14 in 1977.

Distances to the nearest supply points are:

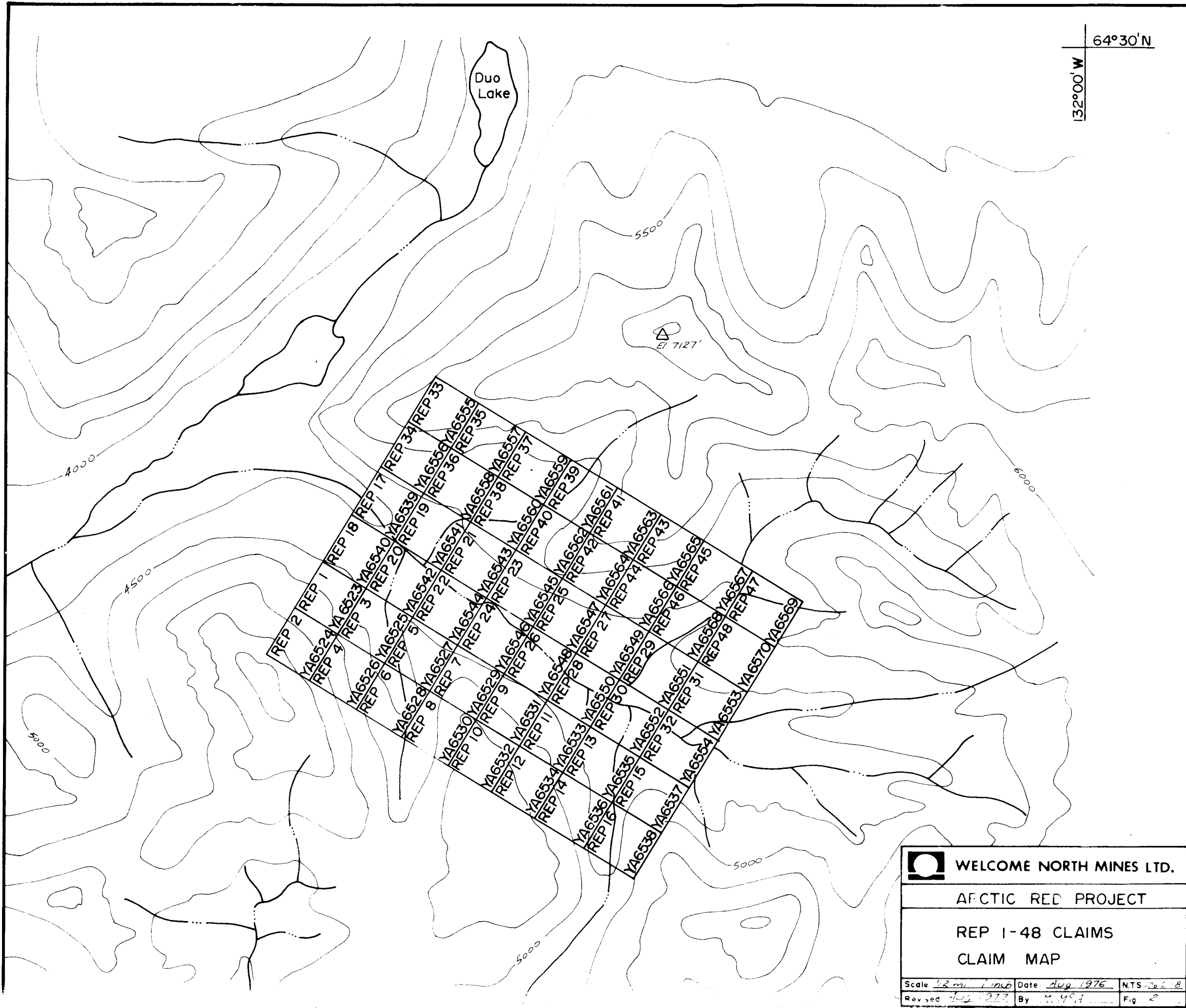
Ross River	176 miles
Mayo	128 miles
Norman Wells	168 miles


CLAIMS

The REP property is composed of 48 contiguous claims as listed below:

<u>Name of Claims</u>	<u>Tag Numbers</u>	<u>Recording Date</u>
REP 1-48	YA6523-YA6570	August 30, 1976

64°30'N
132°00'W



 WELCOME NORTH MINES LTD.		
ARCTIC RED PROJECT		
REP 1-48 CLAIMS		
CLAIM MAP		
Scale 1/2 mi. 1:50,000	Date: Aug 1976	N.T.S. 202-8
Revised Aug 1977	By: M. G. H.	Fig 2

DIAMOND DRILLING

On July 26, 1977, one BQ-sized diamond drill hole was completed on mineral claim REP 17 (HA6539). The particulars are as follows:

<u>Hole No.</u>	<u>Depth</u>	<u>Dip</u>	<u>Azimuth</u>
REP 77-1	100'	-75°	004°

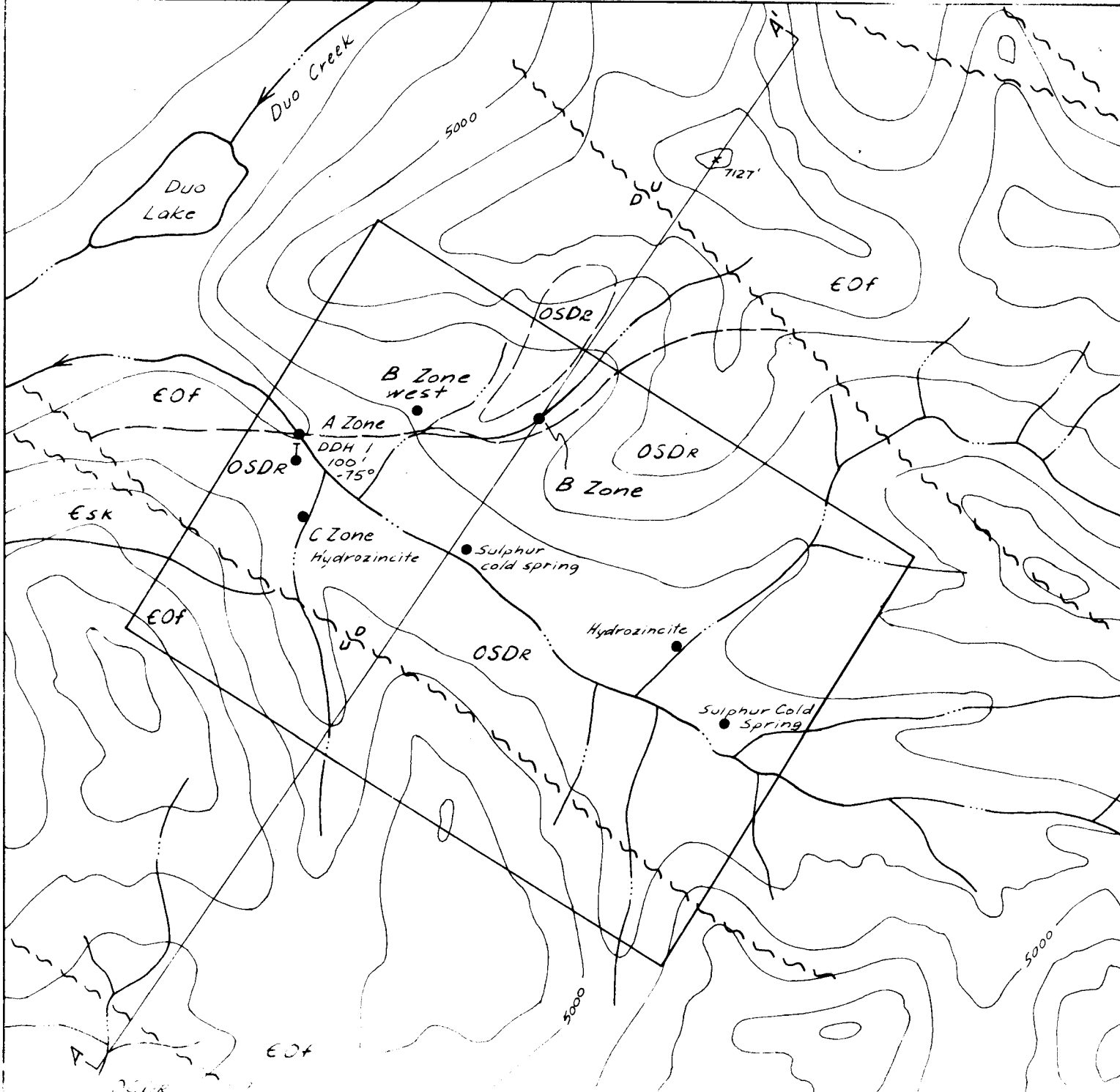
The diamond drill log and accompanying list of abbreviations can be found in APPENDIX A. The drill core is stored at the warehouse of Welcome North Mines Ltd. in Ross River, Yukon Territory.

The purpose of the hole was to test sphalerite mineralization found at the contact between the Franklin Mountain and Road River Formations on the A Zone. Bedding unexpectedly steepened in the rocks cored and consequently the contact was not intersected in the hole. The entire 100 feet of cored section consists of black, graphitic limestone with occasional crinoidal limestone interbeds. No mineralization was found.

CONCLUSIONS

Sphalerite mineralization on the REP property occurs near the contact of Upper Cambrian to Lower Ordovician (60f) Franklin Mountain Formation and younger Road River Formation (OSDr) carbonates, where it appears to favour black chert breccia. The mineralization is sparsely disseminated in the underlying 60f (Franklin Mountain Formation) dolomite except where honey-yellow sphalerite is disseminated in the matrix of the black chert breccia, which breccia may represent an unconformity. In the Road River Formation red sphalerite is the predominant type of mineralization. The sphalerite occurs in cross-fracture breccias and along bedding plane laminations in black, platy limestones. Hydrozincite occurs on bedding plane partings higher in the section.

Bedding in diamond drill hole REP 77-1 was unexpectedly steep and the contact between formations was consequently not intersected. This could be a result of simply folding of faulting associated with vertical movement along the breccia zone exposed in the creek at the A-Zone.



Cambro-Ordovician, Franklin Mtn. Fm.

EOF Carbonates, in part silicified

Lower Cambrian, Sekwi Fm.

ESK Sandstones and carbonates

Geologic contact..... - - - - -
(defined, approx.)

Fault, showing relative movement..... ~ ~ ~ ~ ~

Creek..... —————

Outcrop..... - - - - -

Creek bank..... ————|———|———|———|———|———

Syncline..... ————|———|———|———|———|———

Anticline..... ————|———|———|———|———|———

Bedding, inclined..... /

Joint, inclined..... /

Chip sample..... ————|———|———|———|———|———

Drill hole..... ————|———|———|———|———|———

Mineralized float..... *

Fossil location..... (f)

WELCOME NORTH MINES LTD.

ARCTIC RED PROJECT

REP CLAIMS

Drill Hole Location

Scale	1 inch = 1/2 mile	Date	Sept 1976	NTS	106C/B
					3

RECOMMENDATIONS

No further work is recommended.

STATEMENT OF COSTS
REP 1-48 MINERAL CLAIMS

For the Period January 1 - August 31, 1977

ASSAYS AND ANALYSES	\$ 528.40
CAMP MAINTENANCE	1,045.59
DISTRICT EXPENSES	320.51
DIAMOND DRILLING	1,985.36
FIELD EQUIPMENT & SUPPLIES	554.37
FIXED WING	3,000.97
FUEL	790.28
PROPERTY ACQUISITION & OPTION PAYMENTS	4.41
PROPERTY MAINTENANCE	885.00
ROTARY WING	6,424.20
SALARIES & WAGES	6,648.61
TRANSPORTATION - MISC.	287.49
OVERHEAD	<u>2,113.44</u>
	<u>\$24,588.63</u>



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AFFIDAVIT SUPPORTING SUMMARY OF COSTS

I, Irene Wilson, Corporate Secretary, Welcome North Mines Ltd. (N.P.L.) of Vancouver, British Columbia, do hereby state that, to the best of my knowledge and belief, the statement of costs presented in this report (Diamond Drilling Report on the REP 1-48 Mineral Claims) is both correct and true.

Irene Wilson

SWORN BEFORE ME at the City of
Vancouver, in the Province of
British Columbia, this 29 day
of September, 1977.

A Notary Public in and for the
Province of British Columbia.

APPENDIX A

DIAMOND DRILL LOG FOR DIAMOND DRILL HOLE REP 77-1
WITH LIST OF ABBREVIATIONS ATTACHED.

ABBREVIATIONS USED IN DIAMOND DRILL LOGS

a) MINERALIZATION

SL	sphalerite	
GN	galena	Brackets mean "minor"
PY	pyrite	
DL	dolomite	i.e.
CA	calcite	
MK	marcasite	(SL) is minor sphalerite
SU	sulphide	

b) MODE OF OCCURRENCE

D	disseminated
V	vein
μ V	small vein

c) ROCK TYPES

DLST	dolostone
BRXX	breccia
BRXC	vein breccia or crackle breccia

d) OTHER ABBREVIATIONS

f xaln	fine crystalline
dkgy	dark grey
crser	coarser
v.f.	very fine
bit.	bituminous
mdum	medium
xal	crystal
ltgy	light grey
vert.	vertical
frax	fracture

- e) SL column - line denotes merely the presence of sphalerite or galena in core.
- PY column - thickness of line proportional to relative abundance of pyrite in core.
- MIN. column - pink <1% Zn+Pb
 red 1-5% Zn+Pb
 purple >5% Zn+Pb