

MAP NO.: ASSESSMENT REPORT X
115 G 6 PROSPECTUS X
CONFIDENTIAL X
OPEN FILE

DOCUMENT NO: 092483
MINING DISTRICT: WHITEHORSE
TYPE OF WORK: GEOCHEMICAL

REPORT FILED UNDER:	Archer, Cathro and Associates (1981) Ltd.		
DATE PERFORMED:	June 5-10, 1986	DATE FILED:	May 9, 1988
LOCATION:	LAT.: 61 ⁰ 21'N	AREA:	Linda Creek
	LONG.: 139 ⁰ 25'E	VALUE \$:	3,200.00
CLAIM NAME & NO.:	KLU 1-16 YA94404-YA94419		

WORK DONE BY: R.C. Carne

WORK DONE FOR: Kluane Joint Venture

DATE TO GOOD STANDING:

REMARKS: #17 LINDA

Initial reconnaissance in 1986 turned up a sample of mineralized gabbro from the LOWER showing which assayed 4.20% Ni, 0.68% Cu, 0.93 g/t Pt, 4.4 g/t Pd, 1.06 g/t Ir, 2.7 g/t Os, 3.29 g/t Ru and 0.99 g/t Rh.



Indian and Northern
Affairs-Canada

Affaires indiennes
et du Nord Canada

LINDA, #17 092483

TRANSMITTAL FORM



M.R. file no.
R.M.M.R. file no.
Date forwarded 9 May 1988

From ► Mining Recorder at: *Whitehorse*

To ► Regional Manager, Mineral Rights at Whitehorse, Y.T.

For action are:

<input type="checkbox"/> NEW APPLICATION FOR PLACER LEASE TO PROSPECT	Name	
<input type="checkbox"/> RENEWAL APPLICATION PLACER LEASE TO PROSPECT	Name	Lease no.
<input type="checkbox"/> AFFIDAVIT OF EXPENDITURE ON PLACER LEASE	Name	Lease no.
<input type="checkbox"/> SECURITY DEPOSIT		
<input type="checkbox"/> FINANCIAL ABILITY		
<input type="checkbox"/> ASSIGNMENT OF PLACER LEASE NO.	From	To
<input type="checkbox"/> GROUPING APPLICATION UNDER SEC. 52(2) PLACER MINING ACT.	Owner	
<input type="checkbox"/> DIAMOND DRILL LOGS	Claims	Claim sheet no.
<input type="checkbox"/> QUARTZ ASSESSMENT REPORT	Claims Type of report Cls. work performed on	Claim sheet no. Submitted by \$ req. for ren. application

KLU-16 YA94404-YA94419
Prospecting & geochemical.
KLU 1-16
115-G-6
Arthur Cothran
\$3200.00

[Signature]
Signature

REPLY ACTION

092483

Date returned

Please supply map showing ~~actual~~ locations of individual claims. 22 May 88

I am getting tired of xeroxing these!

SORRY Trevor the N.T.S was wrong.

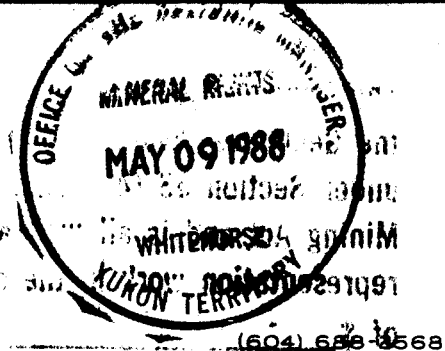
[Signature]
Signature

ARCHER, CATHRO

• ASSOCIATES (1981) LIMITED

CONSULTING GEOLOGICAL ENGINEERS

1016-510 WEST HASTINGS STREET
VANCOUVER, B. C. V6B 1L8



REPORT ON

1986 PROSPECTING AND GEOCHEMICAL PROGRAM

Klu 1-16	YA94404-YA94419
Klu 17-18	YA95012-YA95013
Klu 19-40	YA96451-YA96472

for

KLUANE JOINT VENTURE

NTS 115G/6

Latitude 61°21'N; Longitude 139°25'E

092483

R.C. Carne, M.Sc.

January, 1987

Work done between June 5 and June 10, 1986



This report has been examined by
the Geological Evaluation Unit
under Section 53 (4) of the Quartz
Mining Act and is attested as
representation work in the amount
of \$ 3200.00.

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

*Cost statement inspected
at Whitehorse Mining
Recorder's office 6 June 1988*

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1	Location Map	Following Page 2
2	Summary Map	In Pocket
TABLE I	Analyses of Rock Samples	Following Page 3

APPENDICES

I	Author's Statement of Qualifications
II	Personnel

INTRODUCTION

The initial Klu claims were staked in May, 1986 to protect unstaked nickel-copper occurrences east of the Wellgreen Property. A brief reconnaissance of the area was carried out in June, 1986 and additional claims were staked in October.

The northwest-trending valley of Linda Creek cuts diagonally across the west part of the property. The southwest-facing valley wall is relatively gentle and is, for the most part, mantled with an unknown thickness of landslide debris and scree. The steeper northeast-facing valley wall contains numerous isolated exposures of bedrock separated by locally derived overburden. Lower Linda Creek valley, below the 4500 foot elevation, is vegetated with scattered clumps of spruce and fir with an understory of black birch and willows.

The east half of the property lies above 5500 feet along a ragged southeast-trending ridge crest. Overburden cover is thin, consisting primarily of locally derived scree. Some of the highest parts of the property lying above 6000 feet may have escaped the latest St. Elias ice advances.

PROPERTY, LOCATION AND ACCESS

The Linda Creek area adjoins the east end of the Wellgreen Property and the mine access road crosses the west end of the claims, about 10 km from the Alaska Highway (Figure 1). A bulldozer road built in 1972 crosses Quill Creek and carries up Linda Creek for about 2 km to the west-central part of the claim group. The road is not currently usable but it could be upgraded for four-wheel drive access with relatively little work.

The Kluane JV land position in the Linda Creek area consists of the following claims:

<u>Claim Name</u>	<u>Record No.</u>	<u>Expiry Date</u>
Klu 1-16	YA94404-YA94419	May 2, 1987
Klu 17-18	YA95012-YA95013	June 18, 1987
Klu 19-40	YA96451-YA96472	October 22, 1987

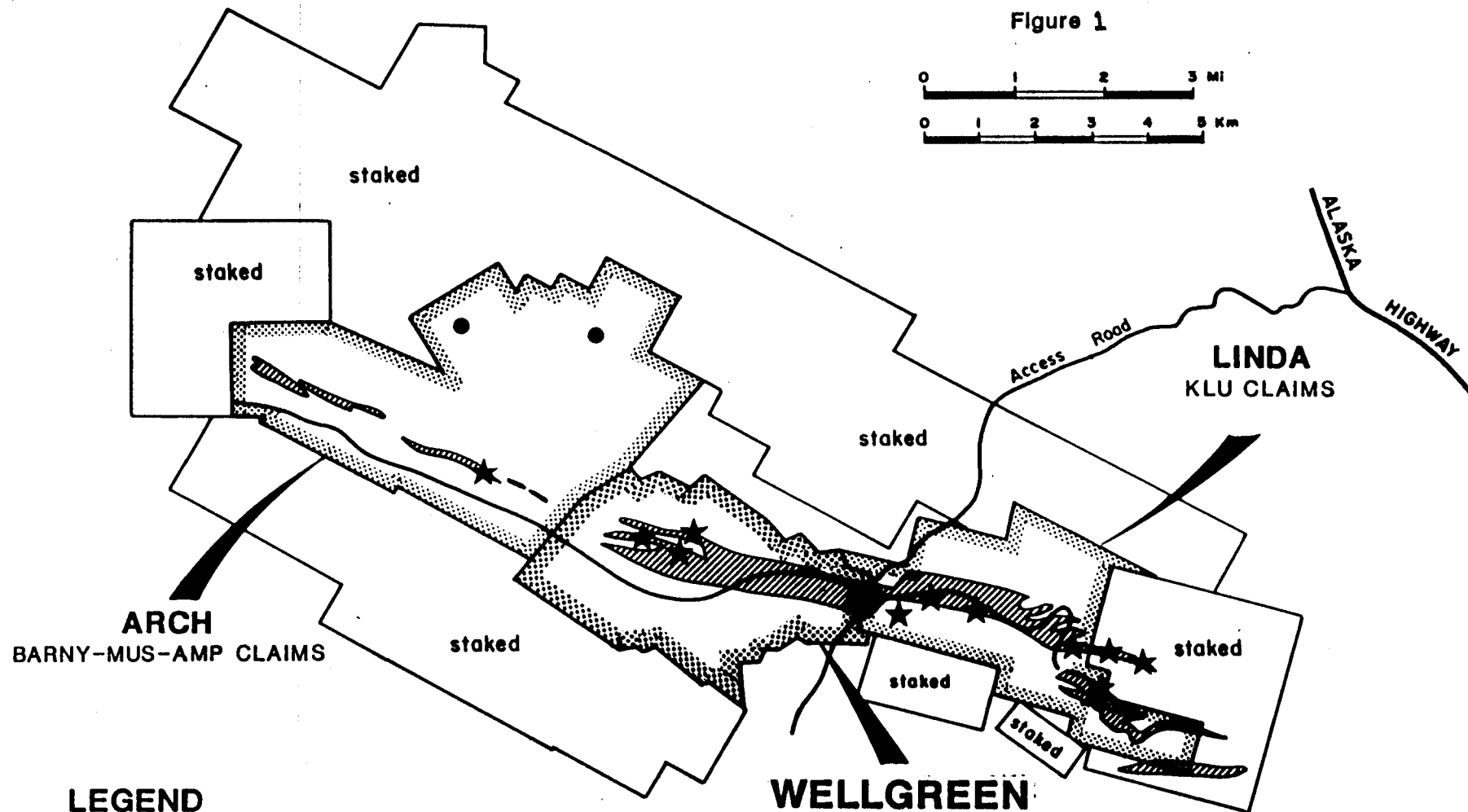
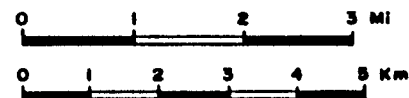
PROPERTY LOCATION MAP

QUILL CREEK AREA




YUKON, CANADA



Figure 1



LEGEND

-  Ultramafic rocks
-  Pt-Cu-Ni showing
-  Au showing

HISTORY AND PREVIOUS WORK

The Linda Creek drainage was originally staked as the Jeep group in October, 1952 by Yukon Mining Company Limited and optioned to Hudson Bay Mining and Smelting, which explored it in conjunction with the Wellgreen Property. After prospecting, geological and geophysical surveys were carried out during 1953, four holes were drilled in 1953-54 and the claims were allowed to lapse.

The area was restaked in October, 1965 by P. and H. Versluce who prospected and sampled. In 1966 a new company, Quill Creek Copper Mines Limited, was formed to develop the property in conjunction with a copper showing in Triassic volcanics on adjoining claims to the south. Quill Creek optioned the property to Newmont, which performed mapping and sampling in 1967-68. The claims were again optioned in 1972 by the Nickel Syndicate (Canadian Superior Exploration Ltd., Aquitaine Co. Canada Ltd., Home Oil Limited and Getty Mines, Limited) which carried out mapping, sampling and bulldozer trenching later in the year.

Several reconnaissance traverses were carried out over the Linda Creek property by Kluane JV in 1986. Rock sample analyses are given on the following page in Table I.

TABLE I
ANALYSES OF ROCK SAMPLES

KLU CLAIMS

<u>Sample No</u>	<u>Description</u>	<u>Ni</u>	<u>Cu</u> (%)	<u>Co</u>	<u>Au</u>	<u>Pt</u>	<u>Pd</u>	<u>Ir</u> oz/ton	<u>Os</u>	<u>Ru</u>	<u>Rn</u>
P28343	Heavily dissem. po-cp in gabbro (Lower Showing)	4.20	0.68	0.077	0.001	0.027	0.128	0.031	0.079	0.096	0.029
P28344	Composite sample of perid. with diss. minor sulphides above 343	0.13	0.01	0.009	---	0.002	0.003	---	---	---	---
P28345	as above, moderate diss. sulphides	0.22	0.05	0.013	---	0.005	0.007	---	---	---	---
P28462	altered and fractured gabbro(?)	0.24	0.33	0.009	---	0.021	0.057	0.003	0.009	0.011	0.003
P28463	rusty fault gouge	0.10	0.50	0.004	0.002	0.016	0.034	---	---	---	---

GEOLOGY AND MINERALIZATION

The best available mapping is that shown on GSC Open File 381 and this is the interpretation shown on Figure 2. S. Campbell also mapped a small area around the main showing on Linda Creek as part of her doctoral dissertation.

The west half of the Linda Creek Property covers the easterly extension of the Quill Creek Ultramafic Complex, the host for nickel-copper-PGE mineralization on the Wellgreen Property. This roughly conformable sill-like body intrudes Pennsylvanian to Lower Permian Station Creek Fm shale, chert, limestone, volcanic tuffs and volcanic breccias at a slightly higher apparent stratigraphic interval than the ultramafic series on the adjacent Wellgreen Property. GSC mapping shows the sill to be continuous with an interdigitated eastern termination. Detailed mapping carried out in 1953 by Hudson Bay is unfortunately too poorly located to be integrated on Figure 2 but the results suggest that the body is actually composed of a number of subparallel strands separated by country rock.

The eastern half of the property covers two large southeast-trending elongate gabbro bodies. These may be subvolcanic equivalents of the Upper Triassic Nikolai basalts.

Four areas of nickel-copper (PGE) mineralization are known on the Linda Creek Property:

- i) the Lower Showing outcrops on the south bank of Linda Creek where heavily disseminated sulphides occur in a 10 m wide olivine gabbro dyke that cuts a large hornfelsed country rock xenolith near the south edge of the peridotite body. In detail, the showing area is a complex, sheared mixture of altered tuff, olivine gabbro and peridotite. A specimen of

heavily disseminated mineralization in gabbro collected in 1986 returned values of 4.20% nickel, 0.68% copper, 0.027 oz/ton platinum, 0.128 oz/ton palladium, 0.031 oz/ton iridium, 0.079 oz/ton osmium, 0.096 oz/ton ruthenium and 0.029 oz/ton rhodium (0.390 oz/ton total PGE). A narrow lense of massive sulphide mineralization reportedly occurs at the gabbro-tuff contact although this was not relocated in 1986. A composite chip sample of nearby peridotite containing a moderate amount of disseminated sulphides returned values of 0.22% nickel, 0.05% copper, 160 ppb platinum and 245 ppb palladium.

- ii) the Upper Showing is located on the south bank of Linda Creek about 300 m upstream from the Lower Showing. A poorly exposed outcrop of altered and fractured rock, tentatively identified as gabbro, occurs adjacent to a narrow fault zone. A grab sample taken in 1986 returned values of 0.24% nickel, 0.33% copper, 0.021 oz/ton platinum, 0.057 oz/ton palladium, 0.003 oz/ton iridium, 0.009 oz/ton osmium, 0.011 oz/ton ruthenium and 0.003 oz/ton rhodium (0.104 oz/ton total PGE).
- iii) Holes W-1 and W-2 were drilled 250 m south of the Upper Showing in 1953 to test surface mineralization apparently related to gabbro. Hole W-1 was collared in country rock and intersected 21 m of peridotite on the north edge of a 30 m wide gabbro dyke containing disseminated sulphides. A 36 cm wide massive sulphide zone at the south edge of the gabbro body returned an assay of 4.19% nickel, 1.80% copper, 0.12 oz/ton platinum and 0.14 oz/ton palladium. The disseminated mineralization was not assayed. Hole W-2 intersected a similar section but no massive sulphide zones were present and no samples were assayed; and,

- iv) disseminated sulphides were noted by Hudson Bay geologists in a 75 m wide gabbro body located about 300 m southwest of the Lower Showing. No mention is made of any assays from this area.

DISCUSSION

Style and setting of the PGE-rich, olivine gabbro-hosted disseminated and massive sulphide mineralization in the Linda Creek area is similar to that on the adjoining Wellgreen Property. Early work on the claims consisted of geophysical surveys and geological mapping. Further exploration should comprise an initial phase of detailed grid geochemical sampling and geophysical surveys followed-up with trenching and diamond drilling.

Respectfully submitted,

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

A handwritten signature in black ink, appearing to be 'R.C. Carne', with a long horizontal stroke extending to the right.

R.C. Carne.

/mc

APPENDIX I

AUTHOR'S STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, Robert C. Carne, geologist, with business addresses in Whitehorse, Yukon Territory and Vancouver, British Columbia and residential address in Burnaby, British Columbia, hereby certify that:

1. I graduated from the University of British Columbia in 1974 with a B.Sc. and in 1979 with an M.Sc. majoring in Geological Sciences.
2. I am a member of the Geological Association of Canada.
3. From 1974 to the present, I have been actively engaged as a geologist in mineral exploration in British Columbia and Yukon Territory and on June 1, 1981 became a partner of Archer, Cathro & Associates (1981) Limited.
4. I have personally participated in or supervised the field work reported herein and have interpreted all data resulting from this work.

A handwritten signature in black ink, consisting of a large, stylized 'R' followed by a horizontal line extending to the right.

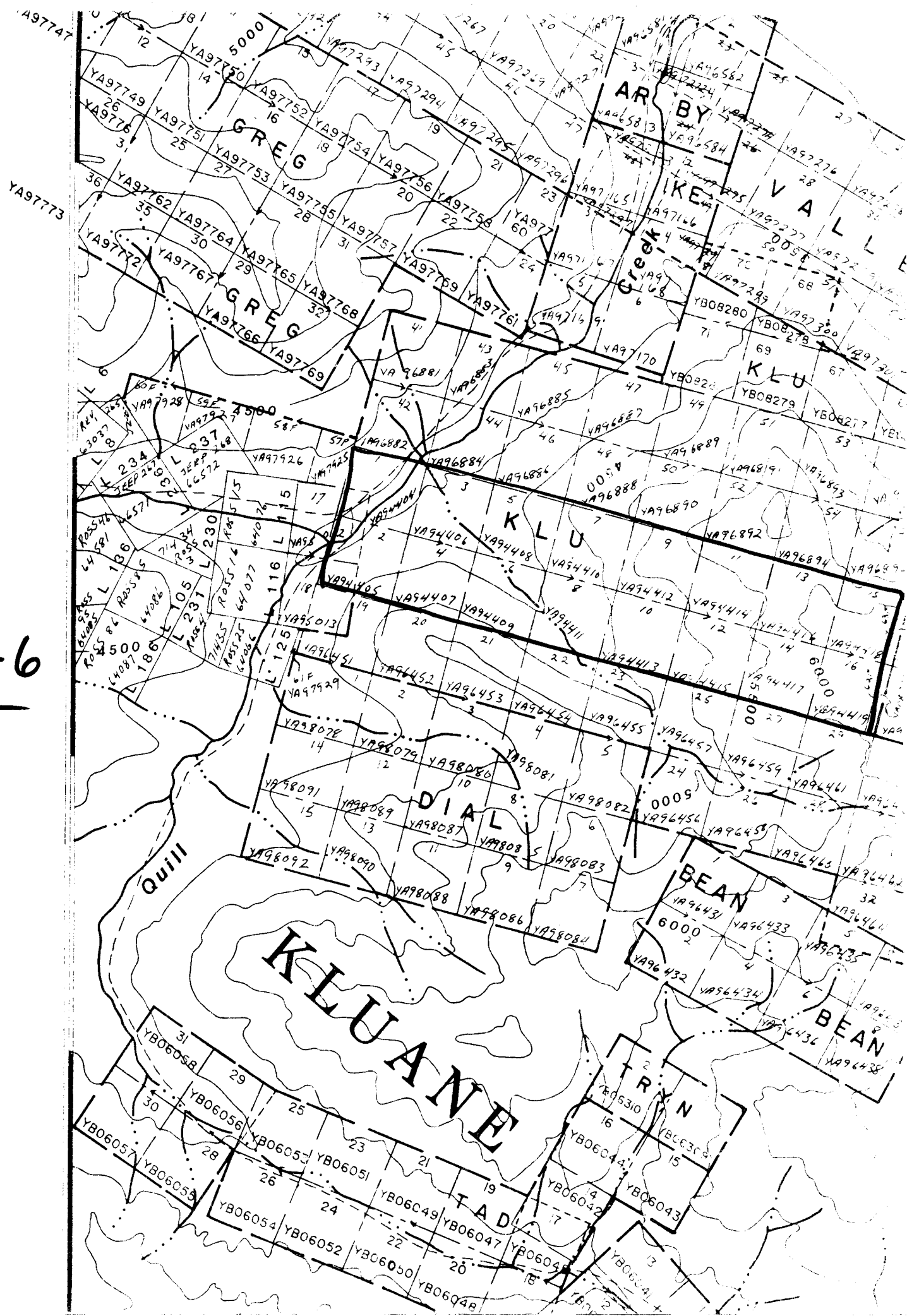
Robert C. Carne, B.Sc., M.Sc.

APPENDIX II
LIST OF PERSONNEL

<u>NAME</u>	<u>POSITION</u>
R. Carne	Geologist and Supervisor
D. Lister	Prospector
K. Sax	Prospector



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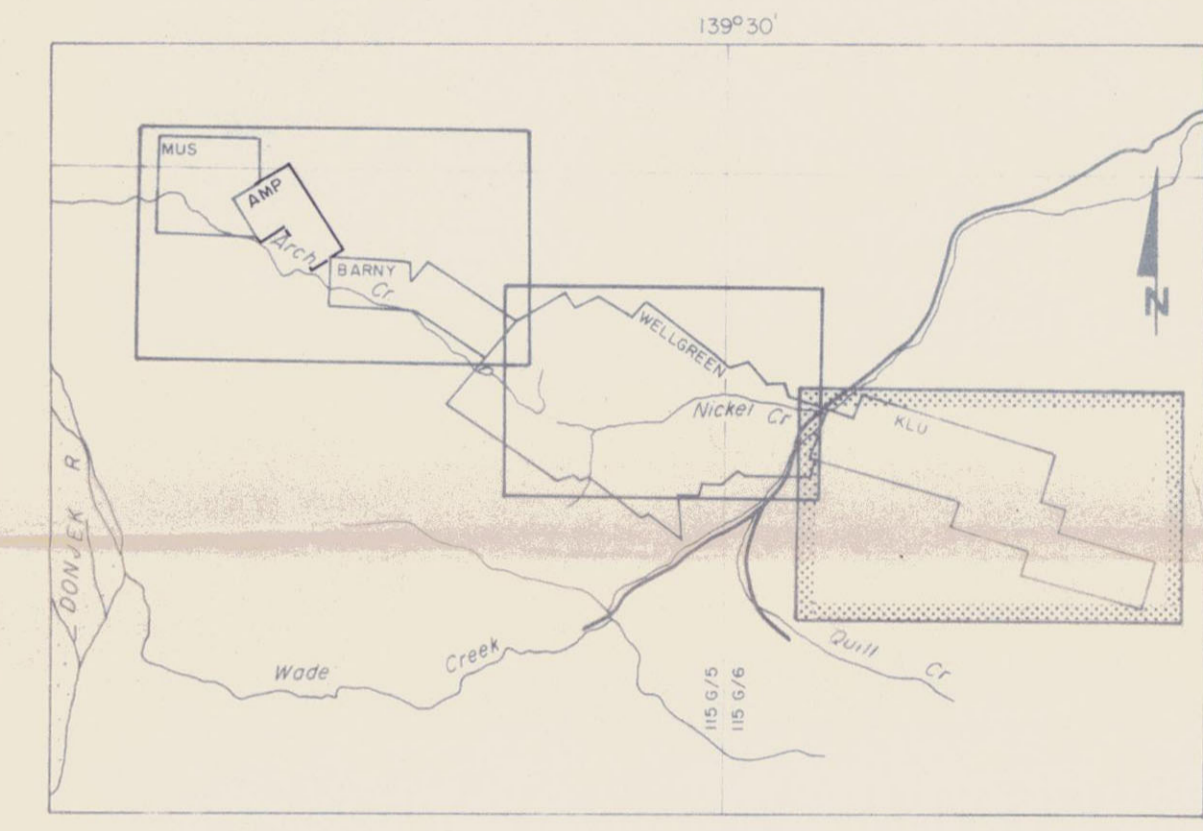
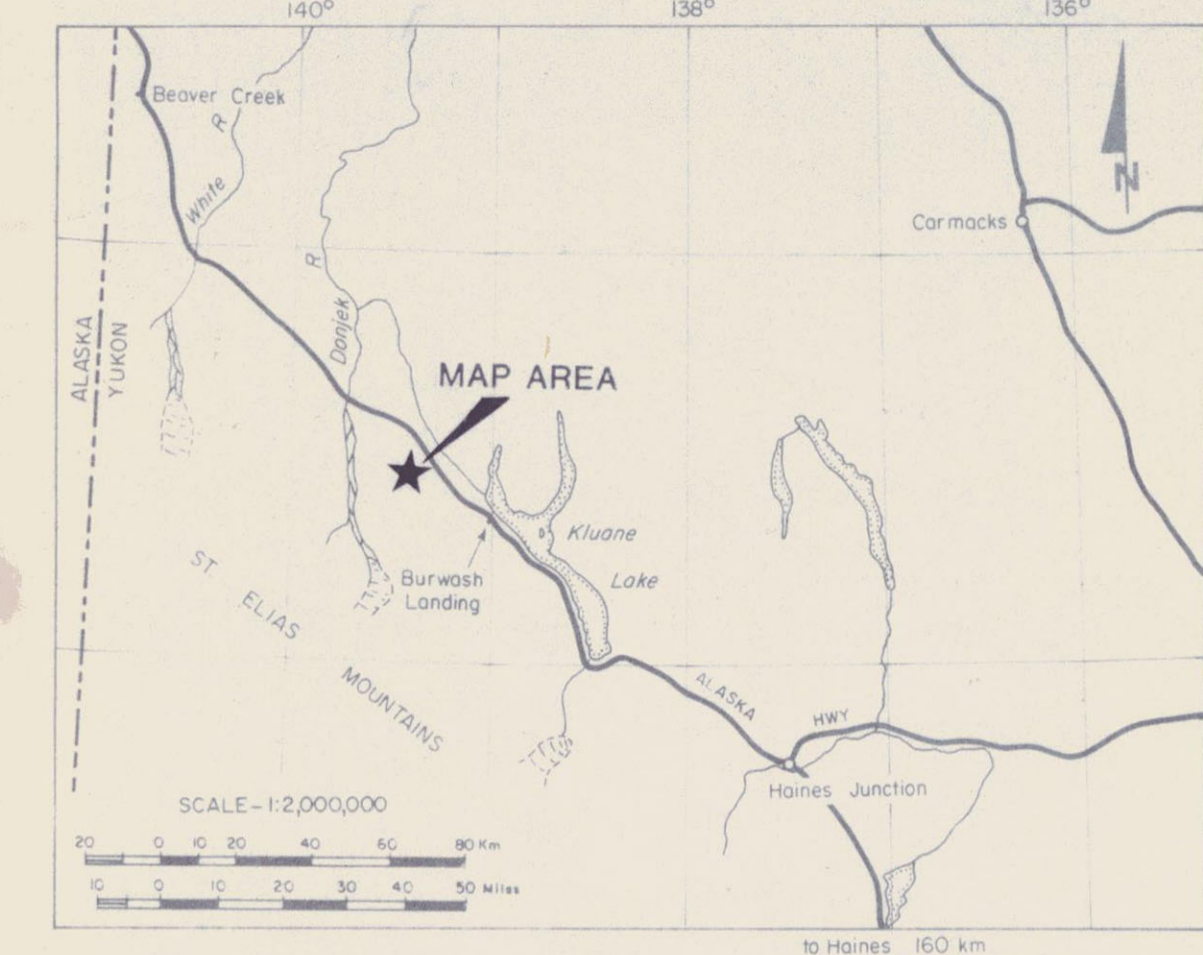
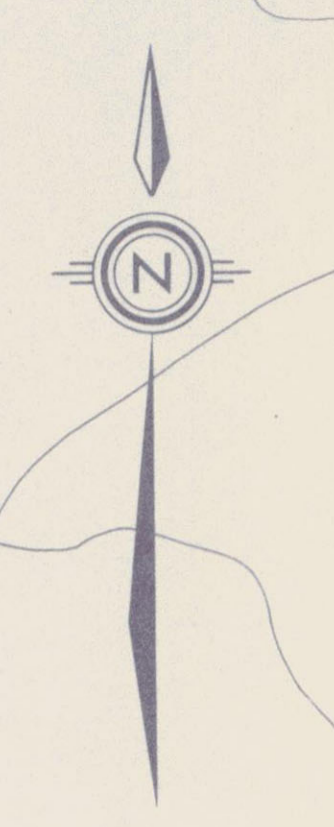


TABLE OF FORMATIONS

INTRUSIVE ROCKS	
uRg	Upper Triassic medium-grained diabasic gabbro dykes and small stocks, probably feeder for Ngaloo Group basalts
IRp	Lower to Middle Triassic siliceous gabbro dykes; probably late phase differentiates of Lower Triassic ultramafics
IRub	Lower Triassic differentiated komatiitic sills consisting mainly of peridotite (IRp) with lesser dunite (IRu) and anorthositic gabbro
IRp	Lower to Middle Triassic (?) massive sulphide mineralization - (pyrrhotite, chalcocite, pentlandite)
LAYERED ROCKS	
uRnv	Upper Triassic Nikaloo Group - dark green and maroon omphacitoid basalt, volcanic breccia and conglomerate; minor thin-bedded limestone, chert and argillite
IPhv	Lower Permian Hazen Creek Formation - siliceous argillite, sandstone, omphacitoid pillow basalt, limestone and conglomerate
Psv	Permian and (?) Permian Station Creek Formation - "soft" volcanic breccia, siliceous argillite, andesite and basalt flows

Geology compiled from mapping by Hudson - Yukan, S Campbell, G.S.C. and Klumbe J.V.

LEGEND

- area of outcrop
- diamond drill hole
- bulldozer trench
- bedding attitude
- cleavage attitude
- geological contact (known, assumed)
- fault (known, assumed)

GEOCHEMISTRY

- soil sample
- rock sample
- pan sample

analyses: ppm Cu, ppm Ni, ppm Pt, ppm Pd, ppm Au (unless otherwise stated)

092483

Figure 2
ARCHER, CAYRO & ASSOCIATES (1981) LIMITED

SUMMARY MAP

LINDA CREEK AREA
KLUANE JOINT VENTURE

