VANCOUVER
434-1197

WHITEHORSE
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ARCHER, CATHRO & ASSOCIATES LTD.

CONSULTING GEOLOGICAL ENGINEERS

P.O. BOX 1051
WHITEHORSE, YUKON

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WHITEHORSE, Y.T.

REPORT ON

AIRBORNE GEOPHYSICAL SURVEY

GEOCHEMICAL SURVEY

AND

GEOLOGICAL SURVEY

AC, DC, JET AND KD CLAIMS

Anvil-Vangorda District

Claim Sheet 105-K-6

for

GIANT YELLOWKNIFE MINES LTD.

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

D C Fridlay
RESIDENT GEOLOGIST

Approved as to assess the amount of: $ 43,969.45

R. G. Needham
RESIDENT MINING ENGINEER

Accepted as representation work under Section 53(4) Yukon Quartz Mining Act.

COMMISSIONER OF YUKON

GEOLOGICAL SURVEY
MAY 12 1967
Resident Geologist
Whitehorse, Y. T.

R.J. Cathro, P. Eng.

March 1, 1966- March 1, 1967

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AC, JET, DC, KD Claims

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Figure 13- Lead "
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INTRODUCTION

During the 1966 field season an airborne geophysical survey and combined geological and geochemical survey was conducted over the AC, DC and JET claim groups. Ground geophysical surveys and a combined geoogical and geochemical survey were conducted over the KD claim group. All surveys were done under the writer's supervision.

The AC 1-112, DC 1-13 and JET claims 1-138 form a contiguous block of 263 claims situated seven miles northeast of the Anvil Mining Corp's Faro airstrip. The 26 KD claims form a separate contiguous block ~~some~~ about 10 miles north of AC, JET and DC claims. All the claims are located on claim sheet 105-K-6 as shown on figure No. 1.

AIRBORNE GEOPHYSICAL SURVEY

A combined magnetometer (Mag) and electromagnetometer (EM) survey was conducted over the AC, DC, and JET claim areas under contract by Lockwood Survey Corp. Ltd. on July 4, 1966. The equipment was mounted in a Bell 204 B turbine helicopter on charter from Okanagan Helicopters Ltd. A total of 175 line miles was surveyed.

A preliminary plot of the Mag and EM data was made in the field, on contract by Explorations Geophysics (Yukon) Ltd., and interpreted by Dr. D.W. Smellie,

consulting geophysicist, of that firm. The preliminary plotting and interpretation, which was based on uncorrected data, was made to detect top priority anomalies which required immediate follow-up before the end of the summer. It was anticipated that final data reduction by Lockwood would take some time and it was not received until December. The results of this survey are shown in Figures 2 and 3.

GEOLOGICAL SURVEY

Geology of all claim groups is shown on Figure 2 and detailed geology of the KD group of claims is shown on Figure 11.

The AC, DC and JET claims are in an area of heavy Pleistocene valley glaciation. Most of the claims are above timberline (about 4000 feet) and vegetation consists of buckbrush with scattered clumps of stunted black spruce. Outcrop is scarce, particularly in the valley areas, and overburden is mainly glacial till of local origin capped with 6-12 inches of volcanic ash, muskeg and moss. The glacial till is probably 50'-100 feet thick in the low valley area on the JET claim group. The KD claim group lies well above timberline and is relatively unglaciated. Overburden is shallow and consists mainly of frost-riven country rocks with a thin capping of moss and lichen.

The AC, DC and JET claims are largely underlain by sericite schist of the Mississippian schist sequence

mapped by the Geological Survey of Canada (Map 13-1961). In certain areas the schists have been metamorphosed to a gneissic texture while in other areas the sericite schists are quite graphitic. These local variations are noted on Figure 2. Granitic rocks of the Anvil batholith are found immediately south of the JET group.

The geological setting of the KD group is more complex, consisting of a mixture of altered volcanic rocks, sericite schist and limestone. This area was mapped by the G.S.C. as volcanic rocks of Mississippian age that conformably overlie the sericite schist sequence. It is probable that the mixture of rock types found on the KD group represents a transition zone between the schist and volcanics.

The strike of the sedimentary and volcanic rocks is generally east-west with dips between 15°-60° north.

A number of major structures, interpreted on the basis of surface lineament and drainage pattern are shown in Figure 2. It is the writer's opinion that the strong northeast faulting provides one of the major ore controls in the district. Faulting appears to be more prevalent in the KD group area but this may be due to the fact that the shallow overburden cover allowed more detailed mapping in this area.

Mineralized float was found on the KD claim group in a well-developed gossan zone near the crest of a small

. . 4.

mountain. This zone, which is well above timerline, is well camouflaged by intense frost boiling and solifluction and light grass cover. Outcrop is present in a steep cliff on the north side of the gossan and scattered around the outer margins of the gossan zone and consists mainly of sericite schist. The gossan zone is composed of small fragments of quartz-carbonate gangue containing galena, sphalerite and some chalcopyrite. This material has been intensely oxidized and leached to honeycombed siderite with rare lenses of primary sulfide. A composite grab sample of the least oxidized material assayed trace gold, 8.6 ozs/ton silver, 8.8% lead, 1.2% zinc and 0.2% copper. This gossan material was found over a very extensive area, interspersed with frost-riven schist. To the south the hillsides are completely blanketed by a thin soil cover. It was not evident from field examination whether this mineralization originated from a bedded or vein-type deposit.

GEOCHEMICAL SURVEY

All claim base lines were sampled at 400 foot intervals. The KD claim group and part of the JET claim group was sampled at a closer spacing. A total of 978 samples were taken of which 388 were from the KD group, 331 from JET group, 42 from DC group and 217 from the AC group.

. . 5.

Control for the sampling was provided by aerial photographs, tape and compass. Sample locations were marked with plastic flagging. Sampling was done with a mattock grub-hoe and wherever possible the B 1 horizon was sampled. In a few cases permafrost prevented the taking of an ideal sample, free from organic matter or volcanic ash. However, since geochemical targets in this district are large and the spacing of the samples was fairly close, it is felt that nothing significant has been missed.

The samples were collected in individual Kraft sample bags and most were sent to the United Keno Hill geochemical laboratory for analysis. Some 190 samples were sent to the Falconbridge Nickle Mines Ltd. geochemical laboratory in Vancouver. Analysis consisted of hot aqua regia extraction of heavy ions from the dried and screened sample with the lead, zinc, and copper assays being determined in parts per million by dithizone color comparison method.

Figures 5, 6 and 7 show the plotted values for lead, zinc and copper on the AC, DC and JET groups. Values are uniformly low and nothing of significance is indicated.

Figures 12, 13 and 14 show the plotted values for lead, zinc and copper in the KD claim group. A large

. . 6.

area in centre of the KD claim group has strongly anomalous values for lead, zinc and copper.

GROUND GEOPHYSICS

Magnetometer, Ronka EM16 (Model 18-6KHZ) and Ronka MK4 (with 200' cable) surveys were made over part of the KD claim group as shown on figures 9, 10 and 11.

An Am-1 fluxgate magnetometer, adjusted to read 200 gammas for background level, was used. Readings were taken at 100' intervals. The Ronka EM16 utilized two ULF stations in the U.S.A.- Seattle (18.6) and Maryland (17.8). In-phase and quadrature readings were taken every 100 feet, with the direction of the tilt angle indicated on the maps. The Ronka Mark IV (horizontal loop) was run with a 200 foot cable and was checked with a 300 foot cable.

Both Ronka surveys located strong conducting zones just south of the gossan zone.

CONCLUSIONS & RECOMMENDATIONS

The mineralized float, geochemical and geophysical response found on the KD group all combine to indicate the possibility of significant quantities of mineralization. Further work in this area should consist of further detailed soils sampling followed by bulldozing, ~~or~~ & I.P.

. . 7.

survey, and possibly drilling to better define the mineralized areas.

Significant airborne anomalies on the AC, DC and JET groups should be soil sampled on a 400' x 400' pattern.

The airborne geophysical and geochemical response is low over the overburden area in the JET, probably because the overburden depth is in excess of 50 feet. This area is of interest because of the possibility that a major structure crosses it and four or five of the better airborne conductors should be further explored with a Ronka M-IV using a 300 foot cable for maximum depth penetration.

Respectfully submitted,
ARCHER, CATHRO & ASSOC. LTD.

R.J. Cathro

RJC:ps

Association of Professional Engineers of the Yukon Territory
R. J. CATHRO
GEOLOGICAL
ENGINEER

Appendix I

AFFIDAVIT

I, Robert J. Cathro, Consulting Geological Engineer, of Whitehorse, agent for Giant Yellowknife Mines Ltd., have compiled the statement of costs presented in Appendix II of this report, and do hereby make oath and say:

That to the best of my knowledge and belief, the statement of costs as presented is a true and accurate representation of expenditures, to be applied as assessment work on the AC, DC, JET and KD claims.

R.J. Cathro, P.Eng.

Association of Professional Engineers ... R. J. CATHRO GEOLOGICAL ENGINEER ... Yukon Territory

Sworn and subscribed to at Whitehorse this 21 day of March 1967.

A Commissioner for taking Affidavits in and for the Yukon Territory.

Appendix II

STATEMENT OF COSTS

A. Airborne Geophysical Survey- 175 line-miles (LM)

1. Helicopter rental & fuel	$1,814.80
2. Crew accomodation @ avg. cost/LM.	305.00
3. Prelim. plotting & interp. @ $3.00/LM plus drafting supplies	406.00
4. Air photos, mosaic preparation	135.60
5. Managemnt @ $3.00/claim	744.00
6. " expenses- travel, office	246.60
7. Equipment rental (Lockwood)	1,320.00
8. Data reduction (Lockwood)	2,655.00
Sub-total	$7,627.00

B. Geological Mapping, Soil Sampling & Ground Geophysical Survey

1. Camp supplies, incl. expediting	$8,041.18
2. Aircraft charter (Klondike, Okanagan, G.N.A. & Falconbridge)	7,311.63
3. Salaries and wages	9,993.79
4. Field equipment, incl. radio	2,959.41
5. Travel expenses	1,522.94
6. Management- Archer, Cathro	2,700.00
7. Assaying and analysis	1,813.50
Sub-total	34,342.45
Grant total	$43,969.45

Appendix III

PERSONNEL ENGAGED IN 1966 FIELD WORK

A. GEOPHYSICAL SURVEY- AIRBORNE

T.R. Gurr	pilot	Okanagan Helicopters, Vancouver
H. Sandau	operator	Lockwood Survey Corp., Toronto
D. Gamble	technician	Expl. Geophysics (Yukon) Ltd.
D. Smellie	geophysicist	" " " "
R. Cathro	geol. engineer	Archer, Cathro & Assoc. Ltd.

B. Geological & Geochemical Survey

K. Rebel	geologist	Falconbridge Nickel Mines Ltd. 1112 W. Pender St., Vancouver.
J. Rowse	soil sampler	" " " "
A. Philbrick	" "	" " " "
B. Findlay	" "	" " " "
R. Cathro	consul. eng.	Box 1051, Whitehorse
Dr. A. Smith	chief geol.	Falconbridge.
R. Spence	chief geol.	Giant Yellowknife Mines Ltd.

C. GROUND GEOPHYSICAL SURVEY

S. Presunka	geophysicist	Falconbridge Nickel Mines Ltd.
A. Smith	assistant	" " " "
J. McDougall	geologist	" " " "
R. Cathro	consult. eng.	Box"1051, Whitehorse.



FIGURE I

Key Map

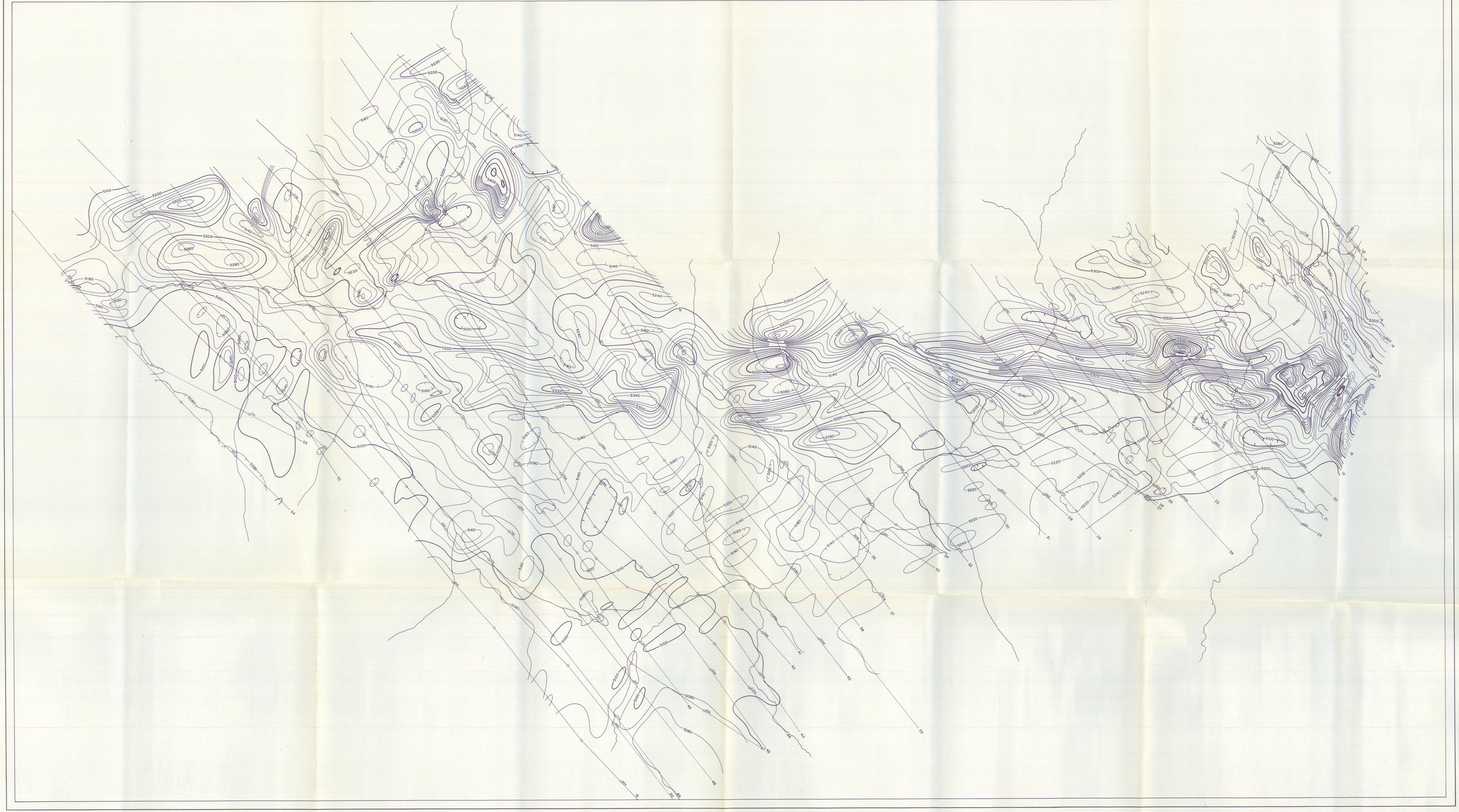
AC, JET, DC, & KD CLAIMS

GIANT YELLOWKNIFE MINES LTD.

Scale 1"= ½ mi. 105-K-6

GIANT YELLOWKNIFE MINES LIMITED

AIRBORNE GEOPHYSICAL SURVEY



CONTOUR INTERVAL ..... 20 GAMMA
MEAN FLIGHT LINE SPACING ..... 1000 FEET
MEAN TERRAIN CLEARANCE ..... 200 FEET
500 GAMMA CONTOUR .....
100 GAMMA CONTOUR .....
20 GAMMA CONTOUR .....
MAGNETIC LOW .....
FIDUCIAL POINTS 03690
FLIGHT LINES .....

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R. J. CATALDO
GEOLOGICAL
ENGINEER

AC AND JET GROUPS
YUKON TERRITORY

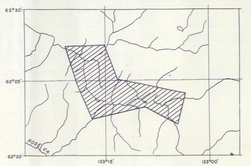
SCALE

1000 FEET 0 1000 2000 3000 4000 5000 FEET

1 Inch to 1320 Feet
(Approx.)

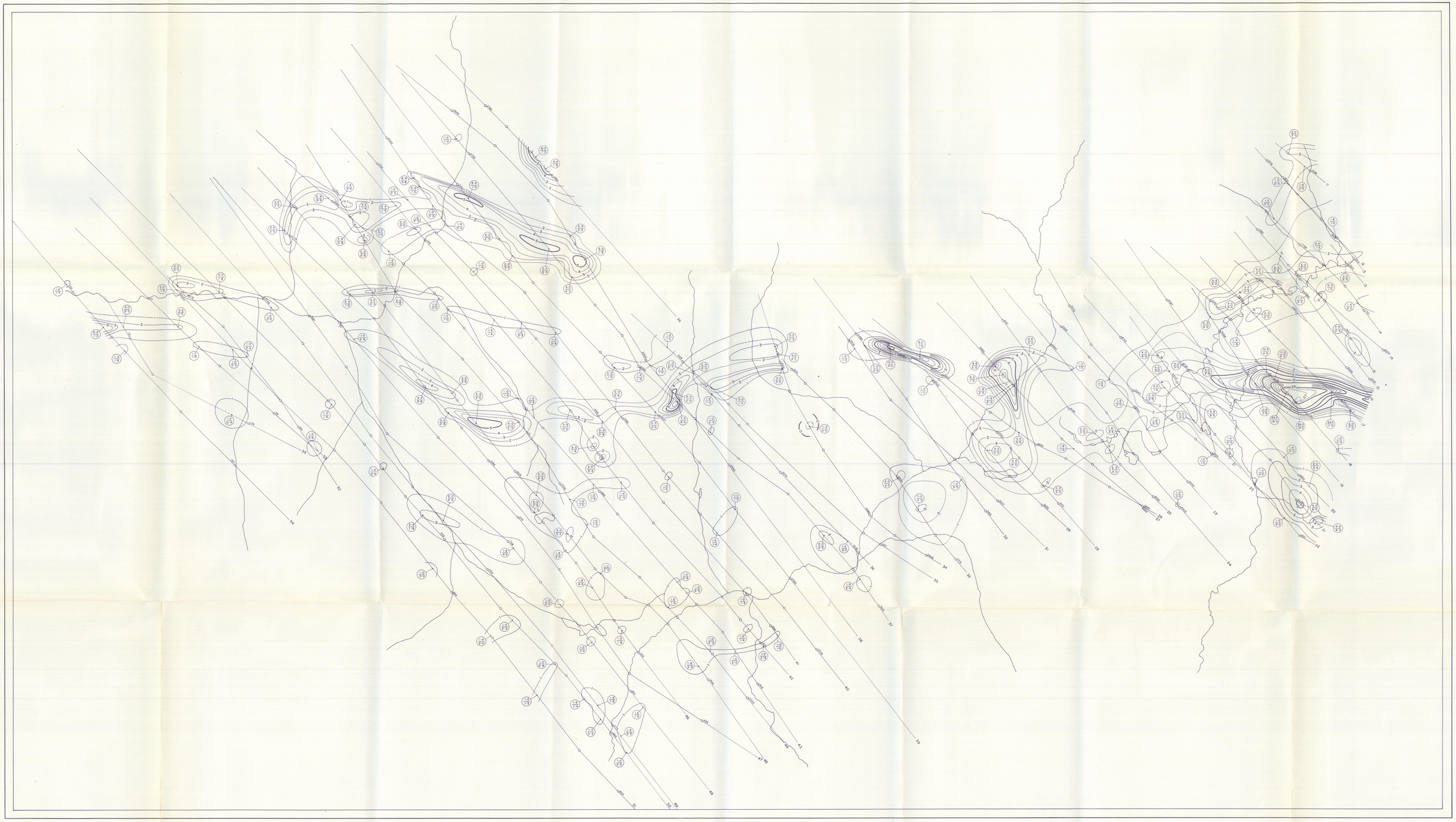
AEROMAGNETIC MAP
#2

Flown and Compiled by
LOCKWOOD SURVEY CORPORATION LIMITED
TORONTO, CANADA
1966



GIANT YELLOWKNIFE MINES LIMITED

AIRBORNE GEOPHYSICAL SURVEY



MEAN FLIGHT LINE SPACING ..... 1000 FEET

MEAN TERRAIN CLEARANCE ..... 200 FEET

ELECTROMAGNETIC CONTOURS 5, 10, 15 etc. ..... 1, 2, 3, 4 etc. .....

NEGATIVE CONTOURS -5, -10 etc. ..... -1, -2, -3, -4 etc. .....

FIDUCIAL POINTS 1690

FLIGHT LINES .....

The contours represent amplitude of in phase response of the resultant field expressed in parts per million of the primary.

The figures $\frac{5.2}{0.4}$ represent amplitude $\frac{\text{in phase component}}{\text{quadrature component}}$

The frequency of the primary current is 4000 cycles per second.

AC AND JET GROUPS

YUKON TERRITORY

SCALE

1000 FEET 0 1000 2000 3000 4000 5000 FEET

1 Inch to 1320 Feet

(Approx.)

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ELECTROMAGNETIC MAP

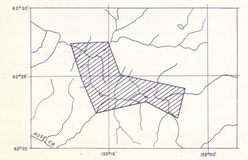
#3

Flown and Compiled by

LOCKWOOD SURVEY CORPORATION LIMITED

TORONTO, CANADA

1966



#3



Fig. 4
GIANT YELLOWKNIFE
ANVIL DISTRICT YUKON
AC, DC, JET, KD GROUPS
GEOLOGY

SCALE 1" = 1200' FEB 1967



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GEOLOGICAL
ENGINEER
Whitehorse

YELLOW 50-99

Fig. 5.

AC, JET, & KD GROUP
GIANT YELLOW KNIFE
ANVIL DISTRICT, YUKON

CU PARTS PER MILLION.

DATE Sept. 80
DRAWN
SCALE 1" = 1250'

KD GROUP

AC GROUP

DC GROUP

JET GROUP

N

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ENGINEER

Figure 6.

AC, JET & KD GROUP
GIANT YELLOW KNIFE
ANVIL DISTRICT, YUKON

PB PARTS PER MILLION.

DATE Sept. 86
DRAWN
SCALE 1" = 12.60'



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FIG. 7

AC, JET, & KD GROUP
GIANT YELLOWKNIFE
ANVIL DISTRICT, YUKON

ZN PARTS PER MILLION

DATE Sept. 66
DRAWN
SCALE 1" = 12.80'

MAGNETOMETER - A.M.P.I. FLUXGATE

ADJUSTED TO READ 500 GAMMAS FOR BACKGROUND

ALL READINGS IN GAMMAS

NEGATIVE READINGS

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Fig. 8.

GIANT YELLOWKNIFE
ANVIL DISTRICT YUKON
KD GROUP
MAGNETOMETER

SCALE 1"=500' FEB 1967

—·— IN PHASE CROSSOVERS

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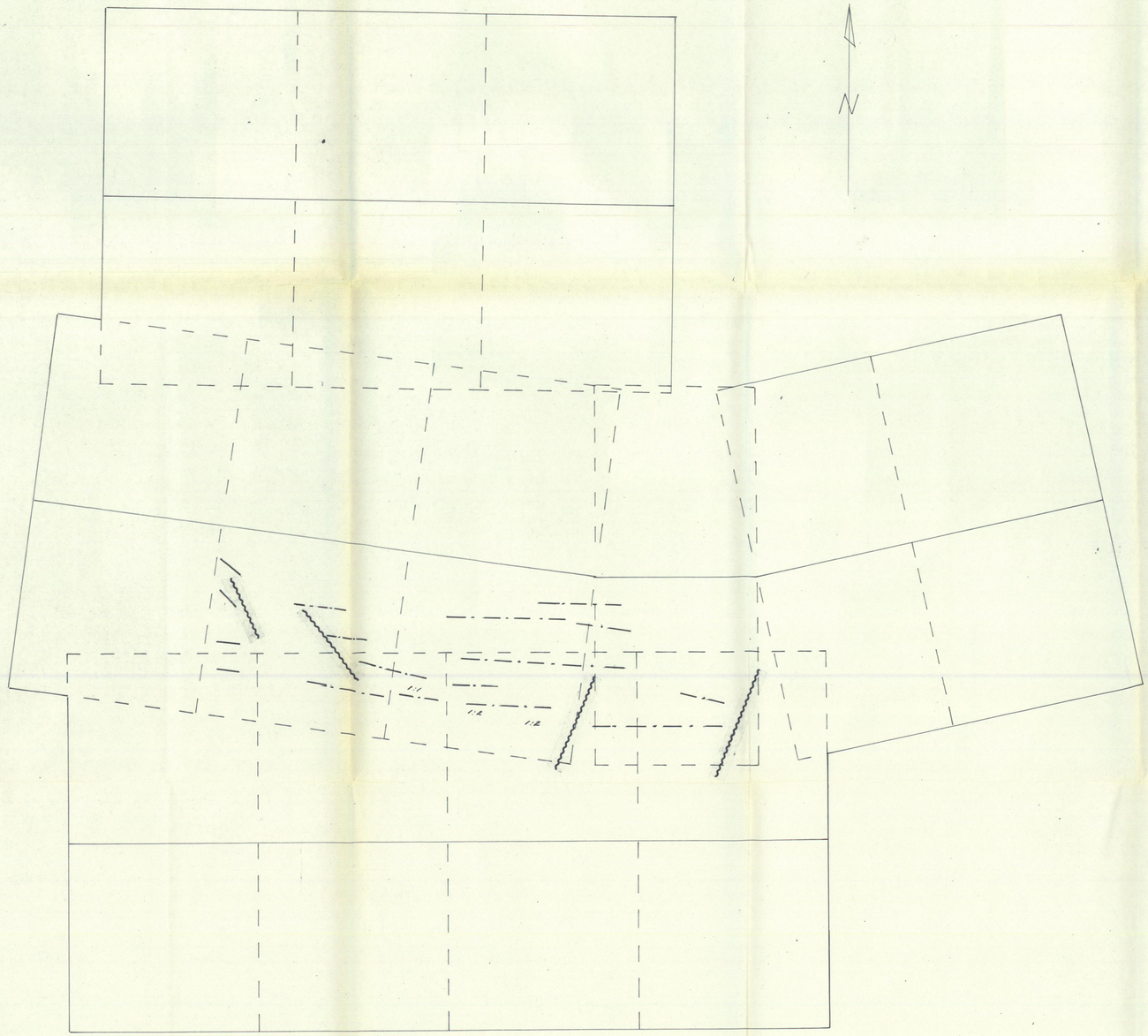
ENGINEER

Fig. 9

GIANT YELLOWKNIFE
ANVIL DISTRICT YUKON
KD GROUP
RONKA EM 16 (18·6 KHZ)
SCALE 1"=300' FEB 1967



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E.M. CONDUCTOR — - — RATIO 1:1, 1:2 ETC.

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GEOLOGICAL
ENGINEER

Fig. 10

GIANT YELLOWKNIFE
ANVIL DISTRICT YUKON
KD GROUP

RONKA MK IV 200' CABLE

SCALE 1"=500' FEB 1967

LEGEND

- GALENA SPHALERITE FLOAT
- LIMONITE FLOAT
- SERICITE SCHIST
- LIMESTONE
- GREENSTONE
- CHLORITE SCHIST
- BRECCIA
- OBSERVED FAULT
- POSSIBLE FAULT
- GLACIAL TILL

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ENGINEER

Fig. 11.

GIANT YELLOWKNIFE
ANVIL DISTRICT YUKON
KD GROUP
GEOLOGY

SCALE 1"=500' FEB 1967

ASSAYS

030 VANCOUVER LAB
-90 UNITED KENO HILL

200 + P.P.M.
100 - 199 P.P.M.
50 - 99 P.P.M.

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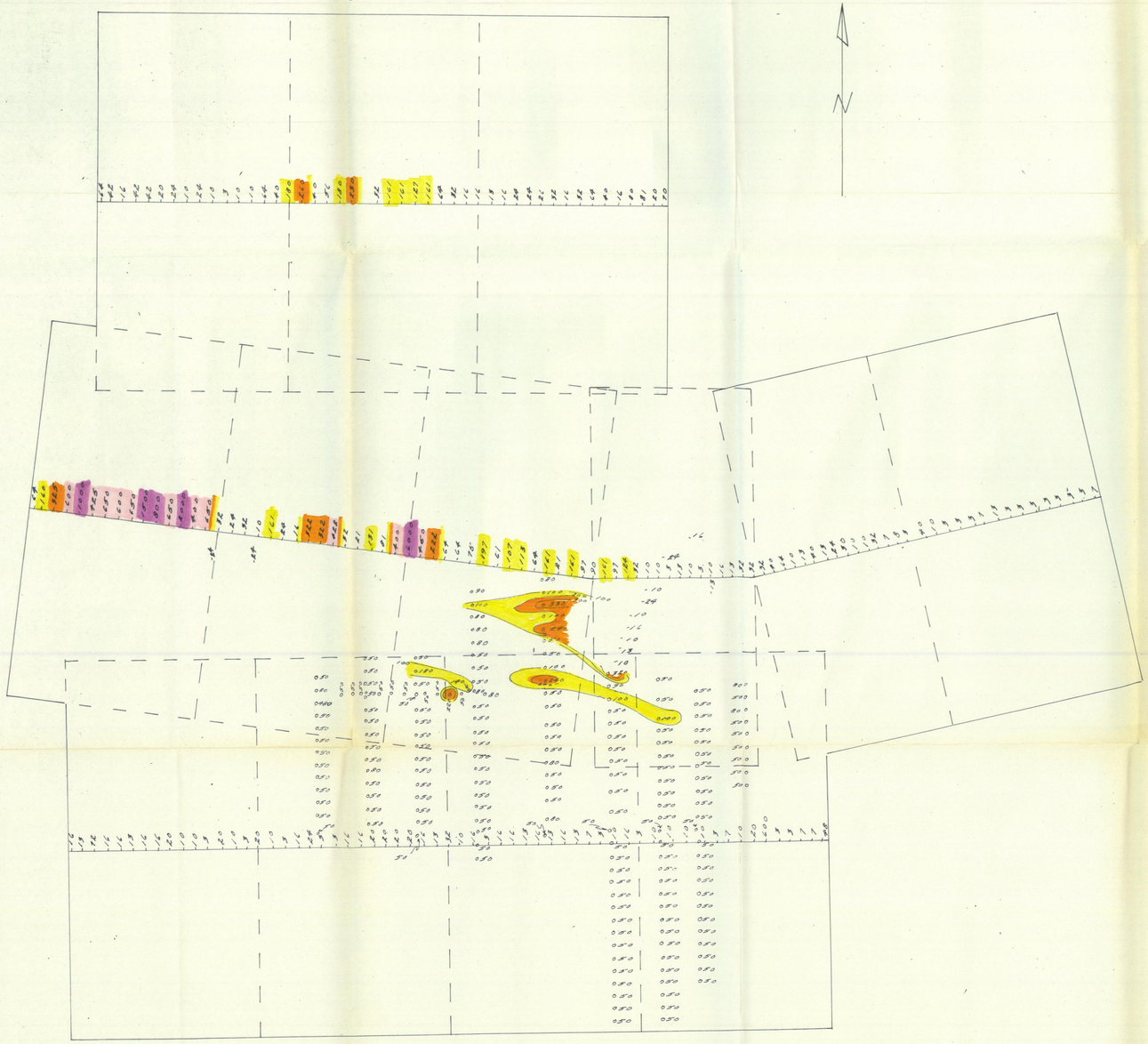
GEOLOGICAL
ENGINEER

Fig. 12

GIANT YELLOWKNIFE
ANVIL DISTRICT YUKON
KD GROUP

GEOCHEMICAL - COPPER (P.P.M.)

SCALE 1"=500' FEB 1967



ASSAYS
060 VANCOUVER LAB
-70 UNITED KENO HILL

651 +
351 - 650
201 - 350
100 - 200

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Fig. 13.

GIANT YELLOWKNIFE
ANVIL DISTRICT YUKON
KD GROUP
GEOCHEMICAL - LEAD (PPM)
SCALE 1"=500' FEB 1967

ASSAYS

030 VANCOUVER LAB

-40 UNITED KENO HILL

800 + P.P.M.
400 - 799 P.P.M.
200 - 399 P.P.M.
< 199 P.P.M.

Fig. 14

GIANT YELLOWKNIFE
ANVIL DISTRICT YUKON
KD GROUP

GEOCHEMICAL - ZINC (P.P.M.)

SCALE 1"=500' FEB 1967

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GEOLOGICAL
ENGINEER

018994
Vol. 2

REPORT

ON

GEOPHYSICAL WORK

VANGORDA CREEK AREA, YUKON

K.D. CLAIMS

E.M.16, MARK.IV - Soil Sampling and Magnetometer Survey

MINING DIVISION

Van., B.C.
Feb. 9, 1967 Steve Presunka

REPORT OF GEOPHYSICAL WORK

ON

VANGORDA CREEK AREA - - - - YUKON

K.D. CLAIMS

Vancouver, B.C.
February 9, 1967

Steve Presunka

The Mark IV anomalies were later tied in by compass and chain, so that the locations of M-IV as well as the geochem anomalies are located on the ground.

There were no M-IV anomalies north of B.L. 0 + 00 although the geochem and EM-16 showed it to be anomalous. The EM-16 conductors have a northwest strike.

The geochemical and the Mark IV results are closely related in the area south of the B.L. 0 + 00.

The M-IV conductors, having an East-West trend should be dipping to the North. At line 18W the trend is to the northwest and the last line west seems to be swung almost due north.

The geochem and M-IV anomalies on lines 4W and 95° W south of B.L. 0 + 00 are worth drilling or trenching.

B.L. No. 3 (South of Camp-Open Ground)

The pace and compass grid on B.L. No. 3 encountered both EM-16 and magnetometer anomalies. The soil assay on B.L. No. 3 itself was negative. Considerable schisty material is evident on the ground.

The lines 2600W, 2150W, 1600W and 1200W and ~~north~~ South of B.L. No. 3 showed a medium to strong conductor. Two small magnetometer anomalies seem to coincide with the conductors. These have a northwest strike and should be dipping to the northeast. There was no soil sampling done in this anomalous area.

The strong magnetometer anomaly on line 1200W and north of base line No. 3 indicates magnetite (most likely a dike). The EM-16 indicates only weak cross-over, a contact type of conductor associated with the high magnetics.

S. Presunka

Vancouver, B.C.
February 9, 1967

REPORT OF GEOPHYSICAL WORK

ON

VANGORDA CREEK AREA - YUKON. K.D. CLAIMS

EM 16, MARK IV (200' cable separation) Soil sampling and Magnetometer Survey (A-M F-1 Fluxgate)

The K.D. Group consisting of 26 claims was staked close to the end of the season after galena float was found by the prospector in this area.

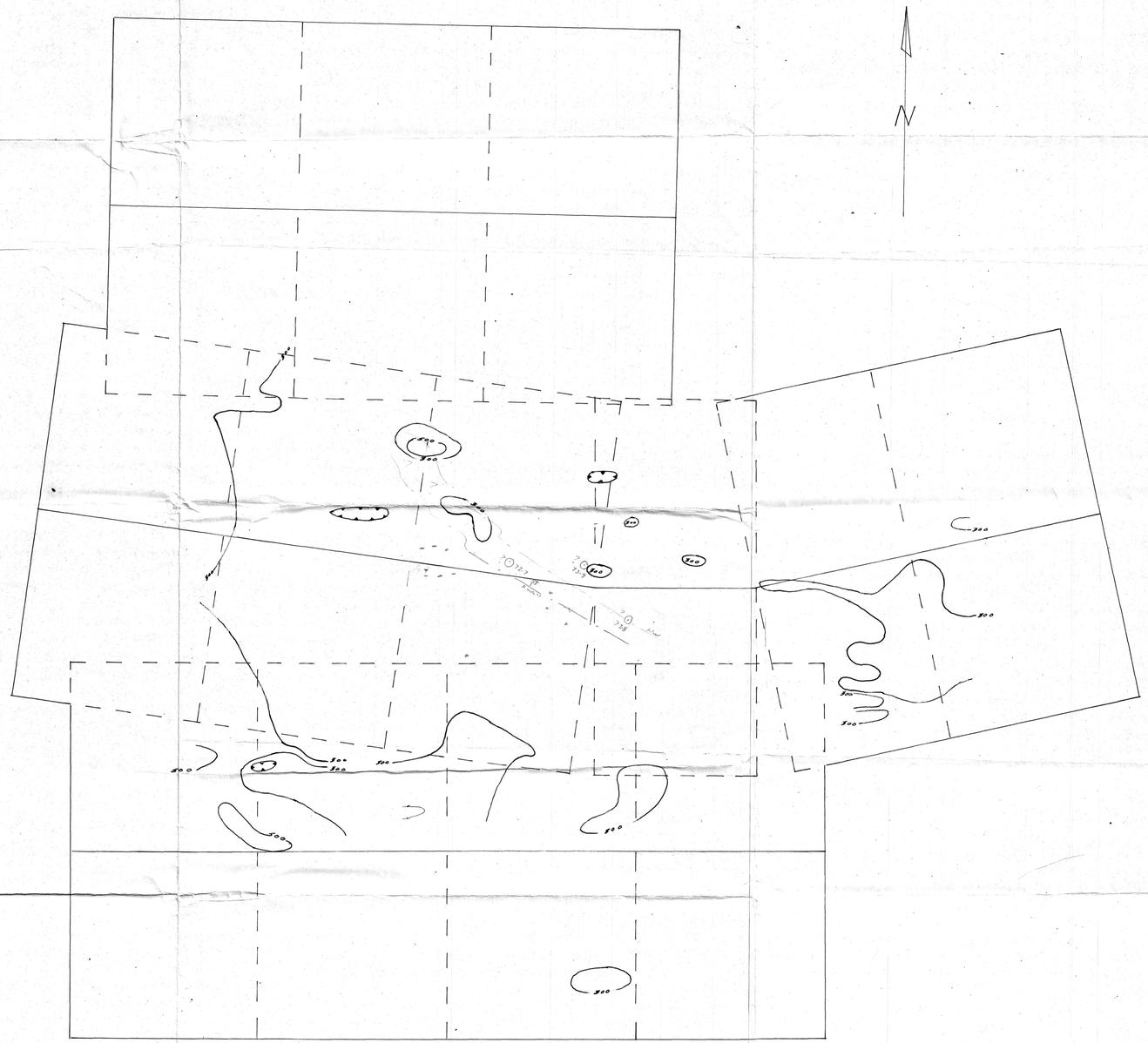
The EM 16 pace and compass survey was done on approximated 400' line intervals with readings every 100' on the lines. The magnetometer readings were taken at the same time and same place by another operator.

The EM 16 and magnetometer survey were not done at the same time as the Mark IV and geochem., so with pace and compass lines there may be minor disparities in comparing anomalies.

The EM 16 equipped with two crystals enables the operator to take two readings in two directions, at right angles. This was not possible in this area due to the southeast locations of the VLF transmissions,-being so far north. The actual angle was about 50°.

The readings were taken first in one direction then switched to another station and a second reading taken. In this situation the strike of the conductor could be determined from only one line when using the two station method.

The K.D. Group has several anomalies striking from East - West to northwest. These were checked out by Mark IV pace and compass using 200' cable separation. On Mark IV anomalies soil samples were taken. Also Mark IV anomaly readings were flagged and readings of Mark IV written on the flaggings.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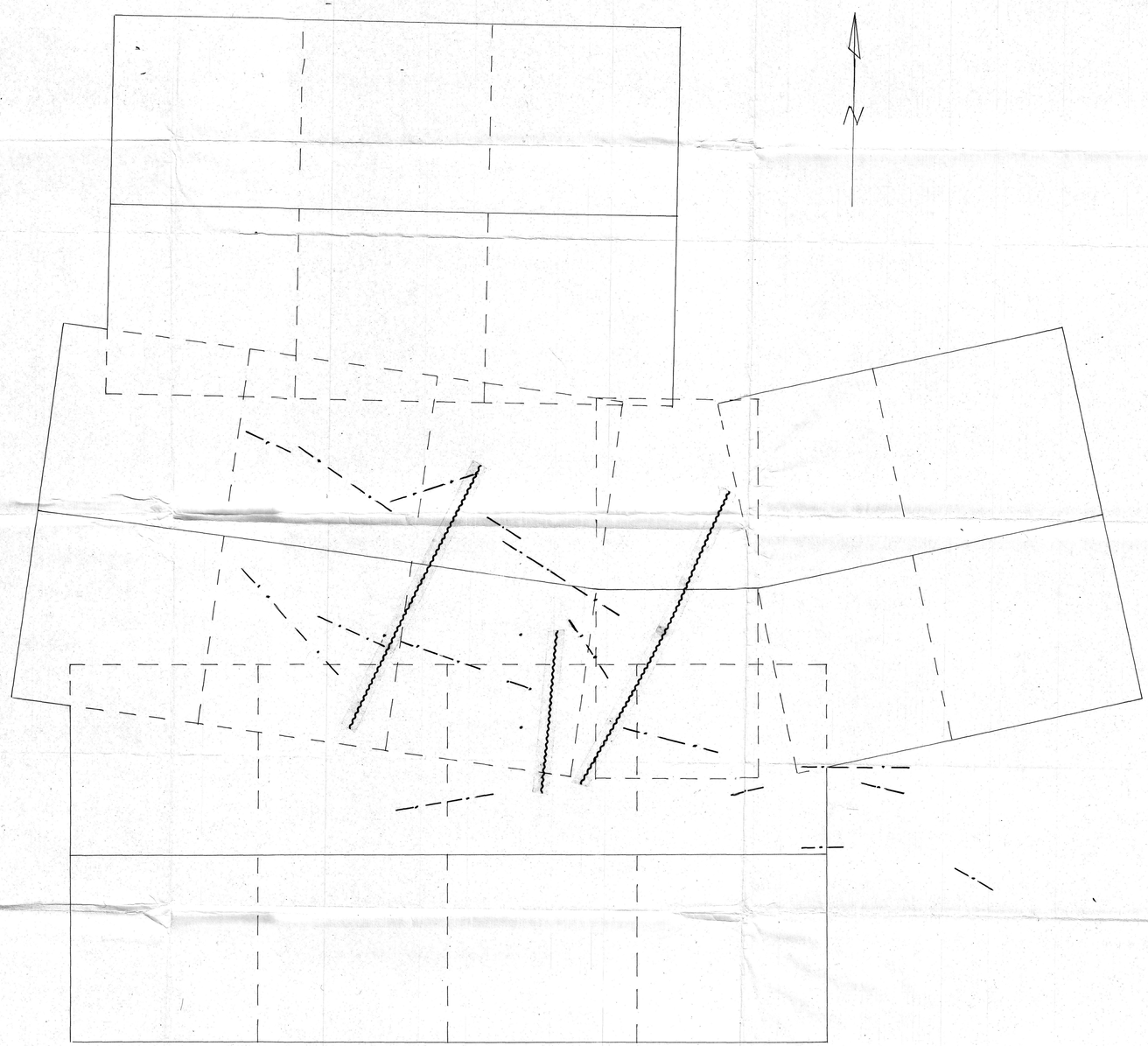
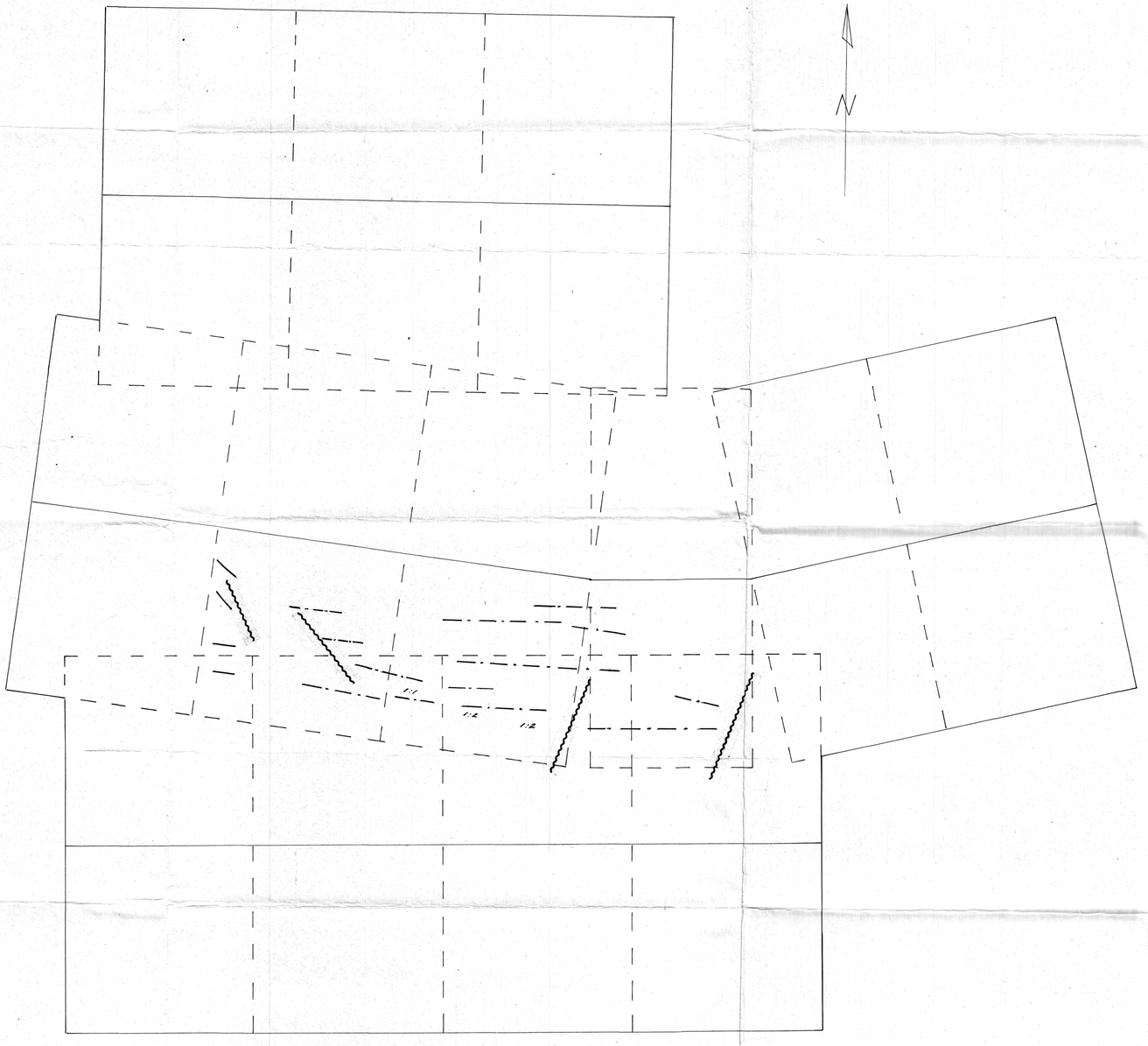
300
300
300



—·— IN PHASE CROSSOVERS

GIANT YELLOWKNIFE
ANVIL DISTRICT YUKON
KD GROUP
RONKA EM 16 (18·6 KHZ)
SCALE 1"=500' FEB 1967

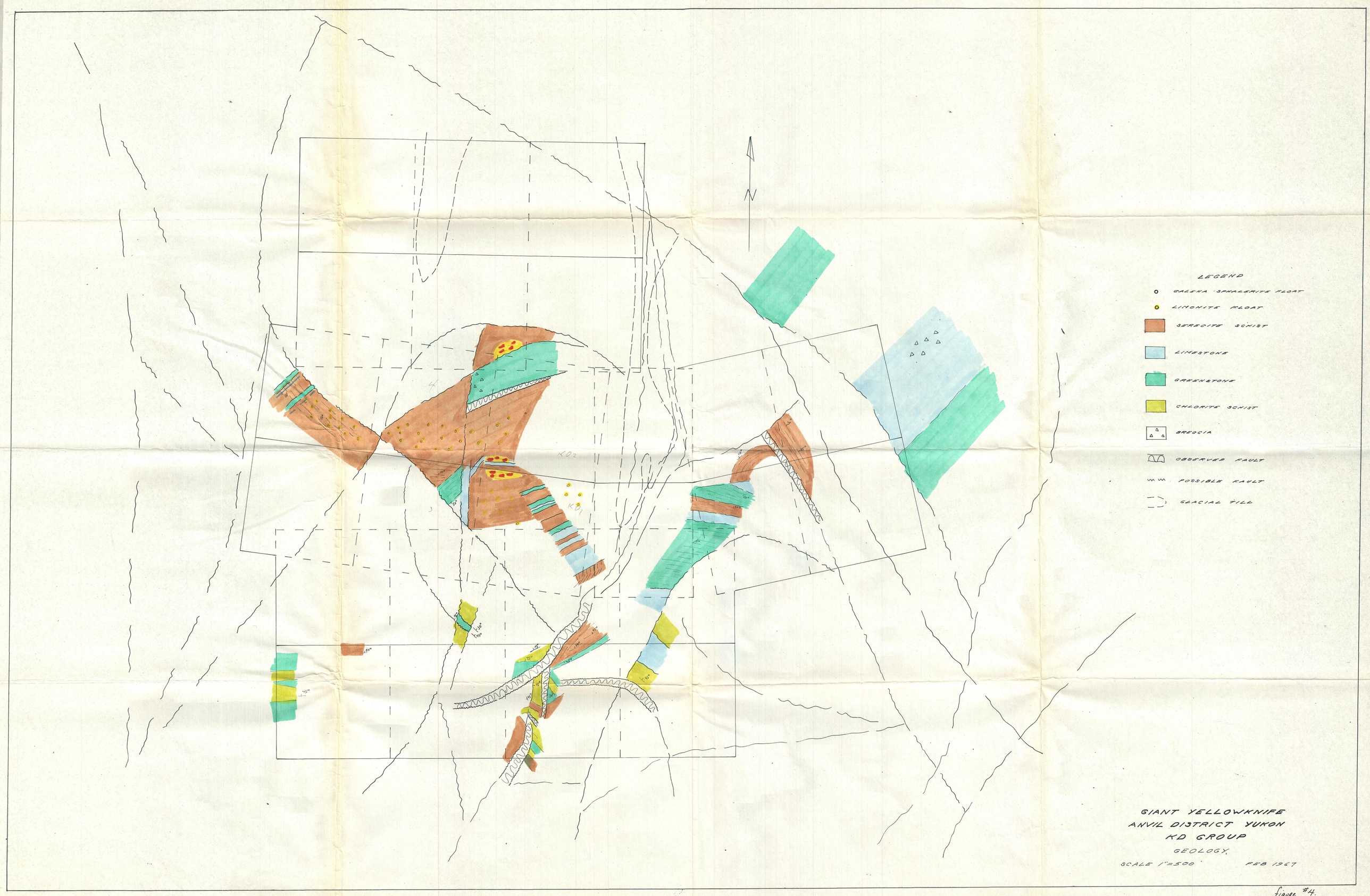
Figure #2.



P.M. CONDUCTOR — - — RATIO 1:1, 1:2 ETC.

GIANT YELLOWKNIFE
ANVIL DISTRICT YUKON
KD GROUP
RONKA MK IV 200' CABLE
SCALE 1"=300' FEB 1967

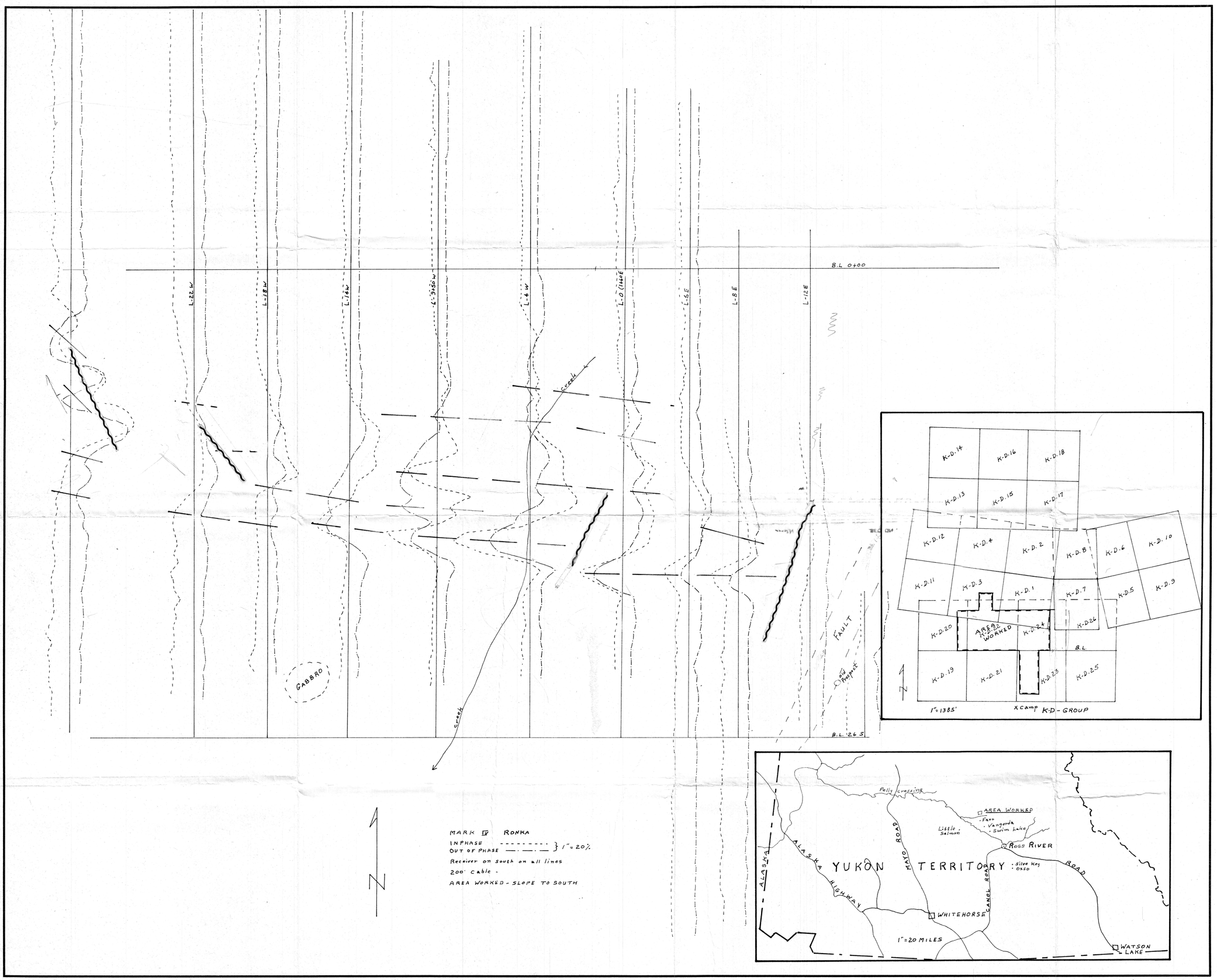
No. 3



GIANT YELLOWKNIFE
ANVIL DISTRICT YUKON
KD GROUP
GEOLOGY.
SCALE 1"=500' FEB 1967

Figure #4.

MAP REF. NO.: M-IV



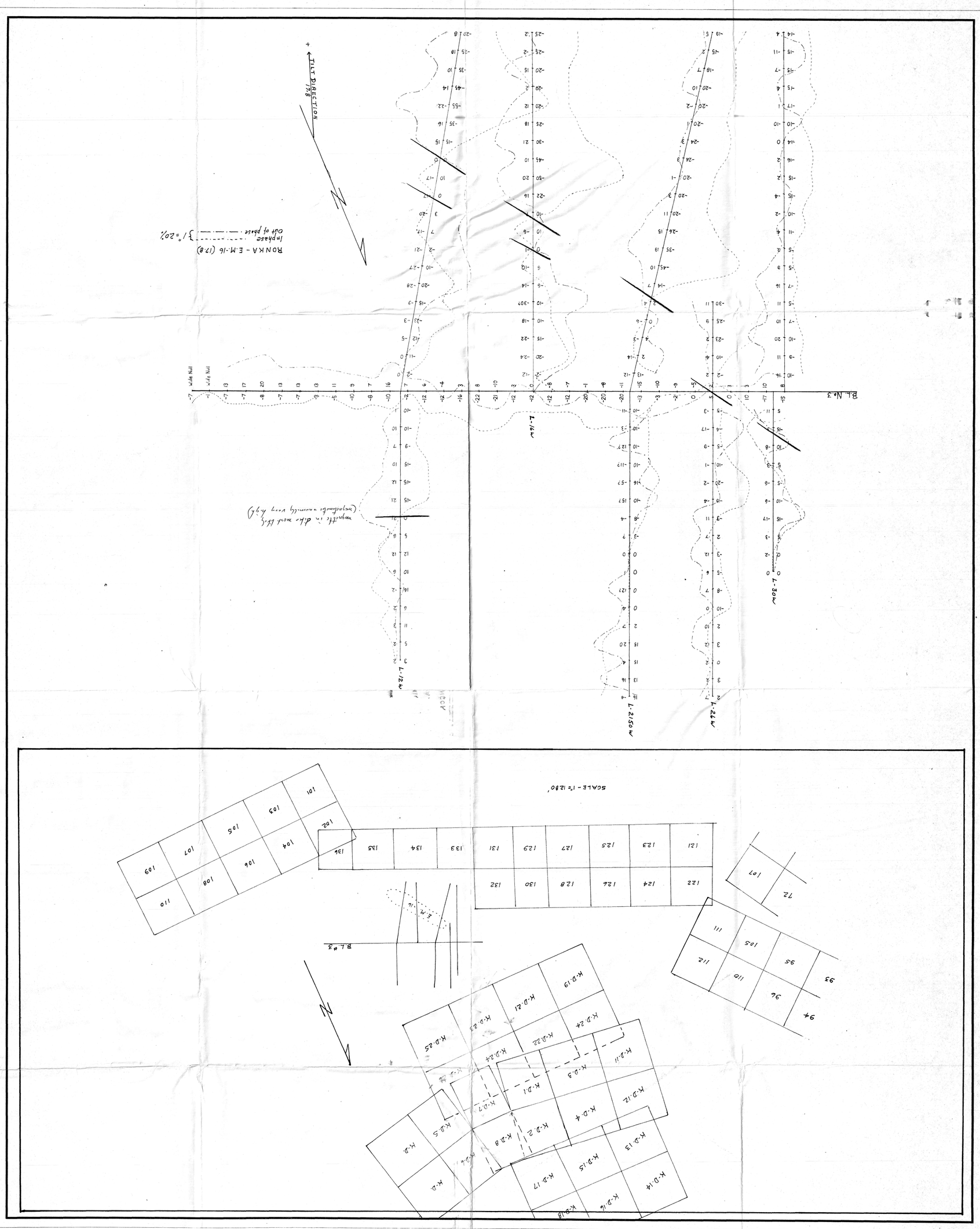
200' 0 200' 400' 600' 800' 1000' 1200' 1400' 1600'

SCALE: 1 INCH TO 200'

COMPANY . . FALCONBRIDGE NICKEL MINES LTD.
PROPERTY . . GIANT YELLOWKNIFE K D-GROUP
LOCATION . . VANGORDA CREEK – YUKON

WORKING PLACE . .
TYPE OF MAP . . RONKA M-IV – 200' CABLE
BASED ON . . PACE AND COMPASS

DATE . . OCT. 1966
DRAWN BY . . S. P.
DATE OF WORK . . AUG 1966



SCALE 1 INCH TO 200'

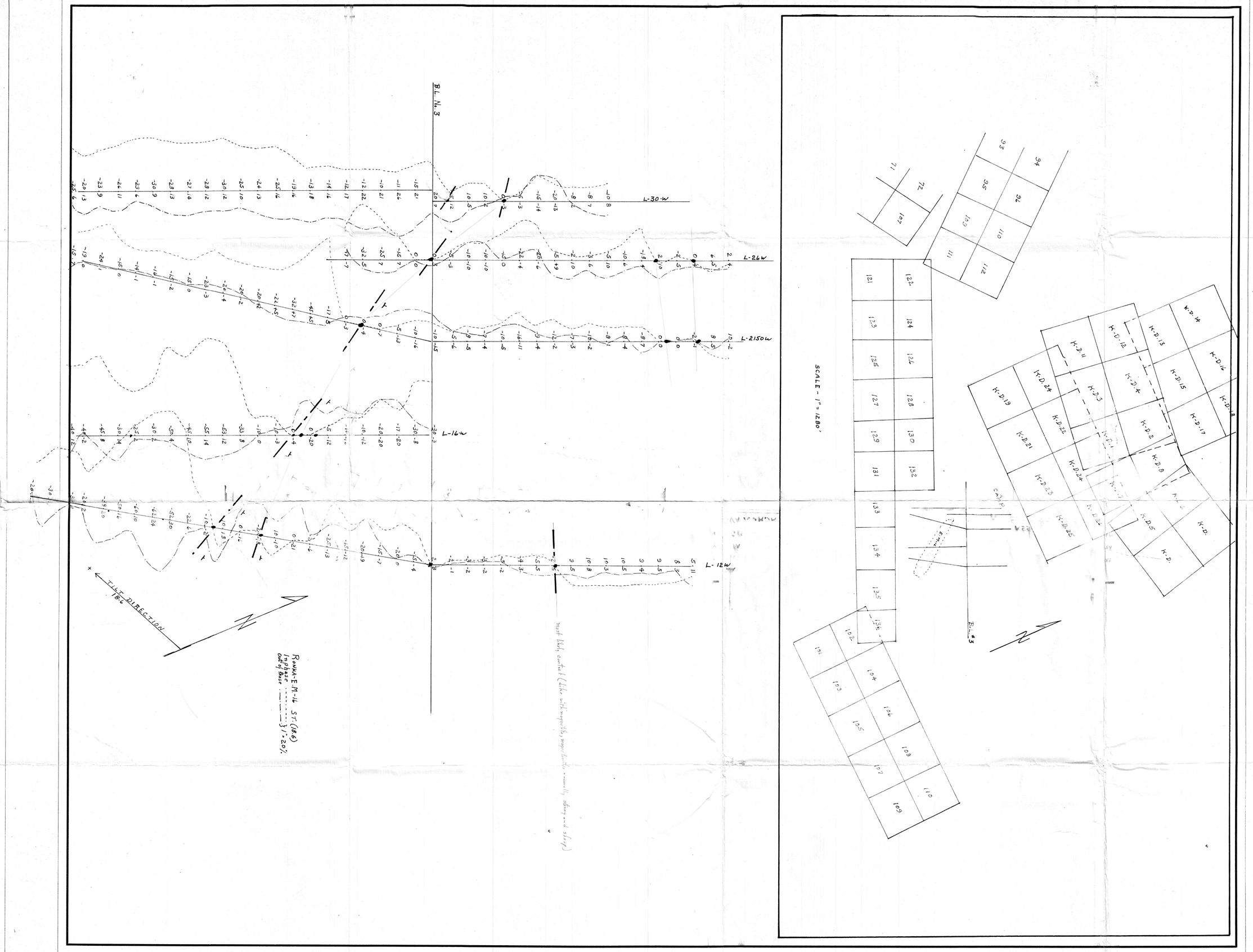
COMPANY . . FALCONBRIDGE NICKEL MINES LTD.
PROPERTY . . GIANT YELLOWKNIFE
LOCATION . . VANGORDA AREA — YUKON

WORKING PLACE . .
TYPE OF MAP . . E.M. - RONK-16 (Pace and Compass) ST. 17.8 (MAINE)
BASED ON . .

DATE . .
DRAWN BY . .
DATE OF WORK . .

MAP REF. NO.:

MAP REF. NO.:



200' 0 200' 400' 600' 800' 1000' 1200' 1400' 1600'

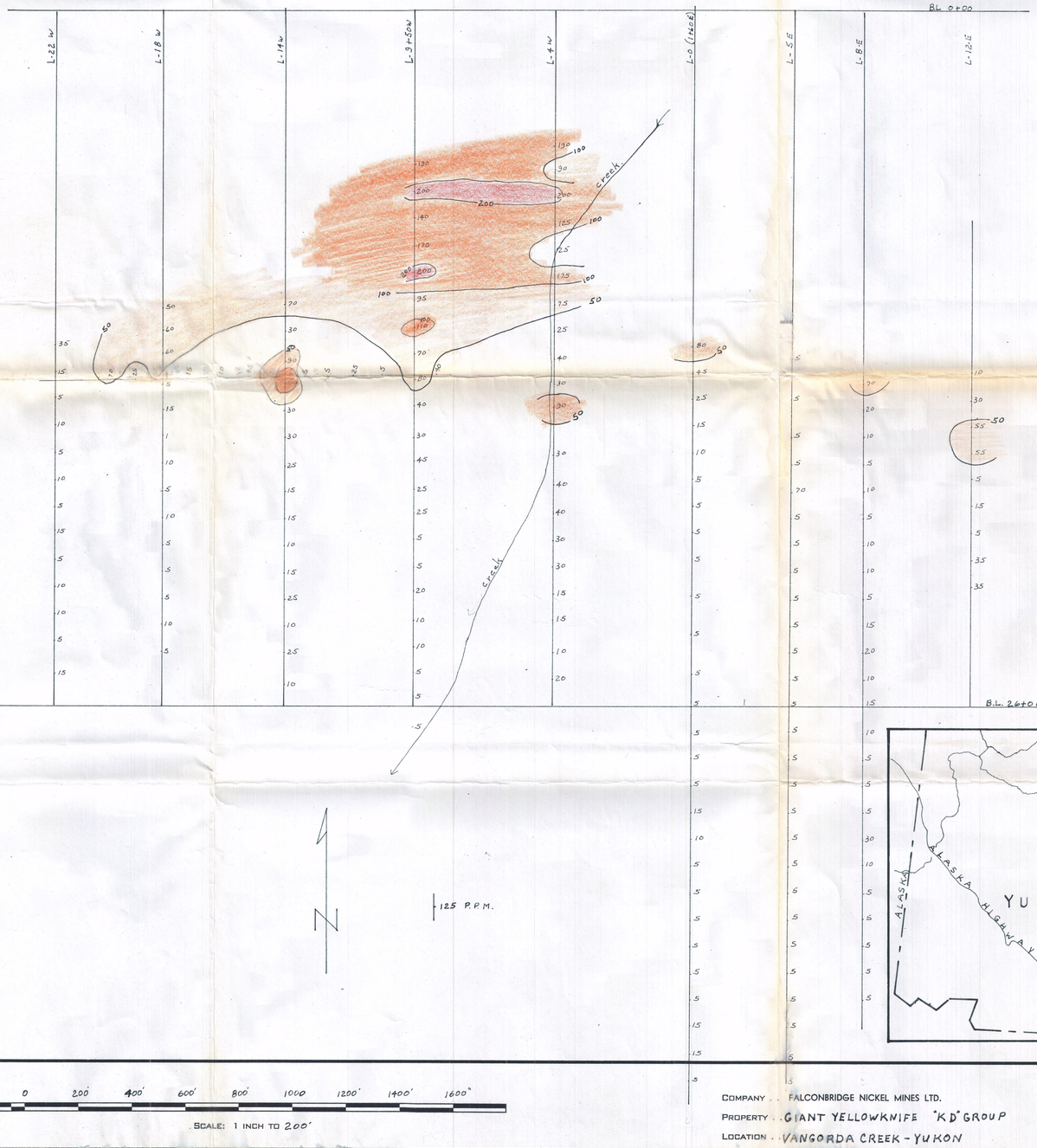
SCALE: 1 INCH TO 200'

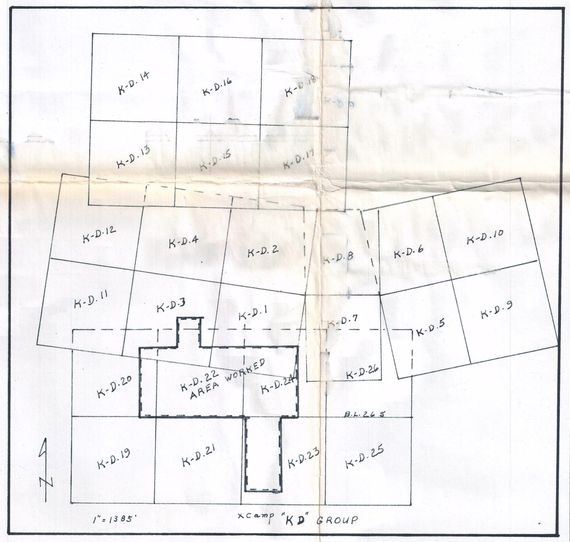
COMPANY . . FALCONBRIDGE NICKEL MINES LTD.,
PROPERTY . . GIANT YELLOWKNIFE
LOCATION . . VANGORDA AREA – YUKON

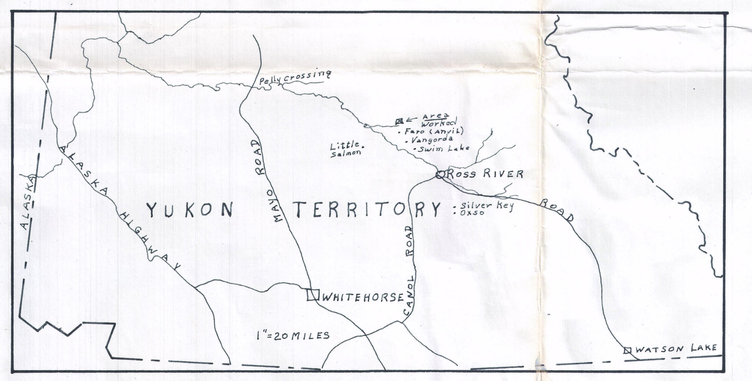
WORKING PLACE . .
TYPE OF MAP . . E.M. RONKA-16 SURVEY (Pace and Compass) ST. 18.6 (SEATTLE)
BASED ON . .

DATE . . Aug - 1966
DRAWN BY . . S.P. and A.S.
DATE OF WORK . . Jan. 1967

MAP REF. NO.:







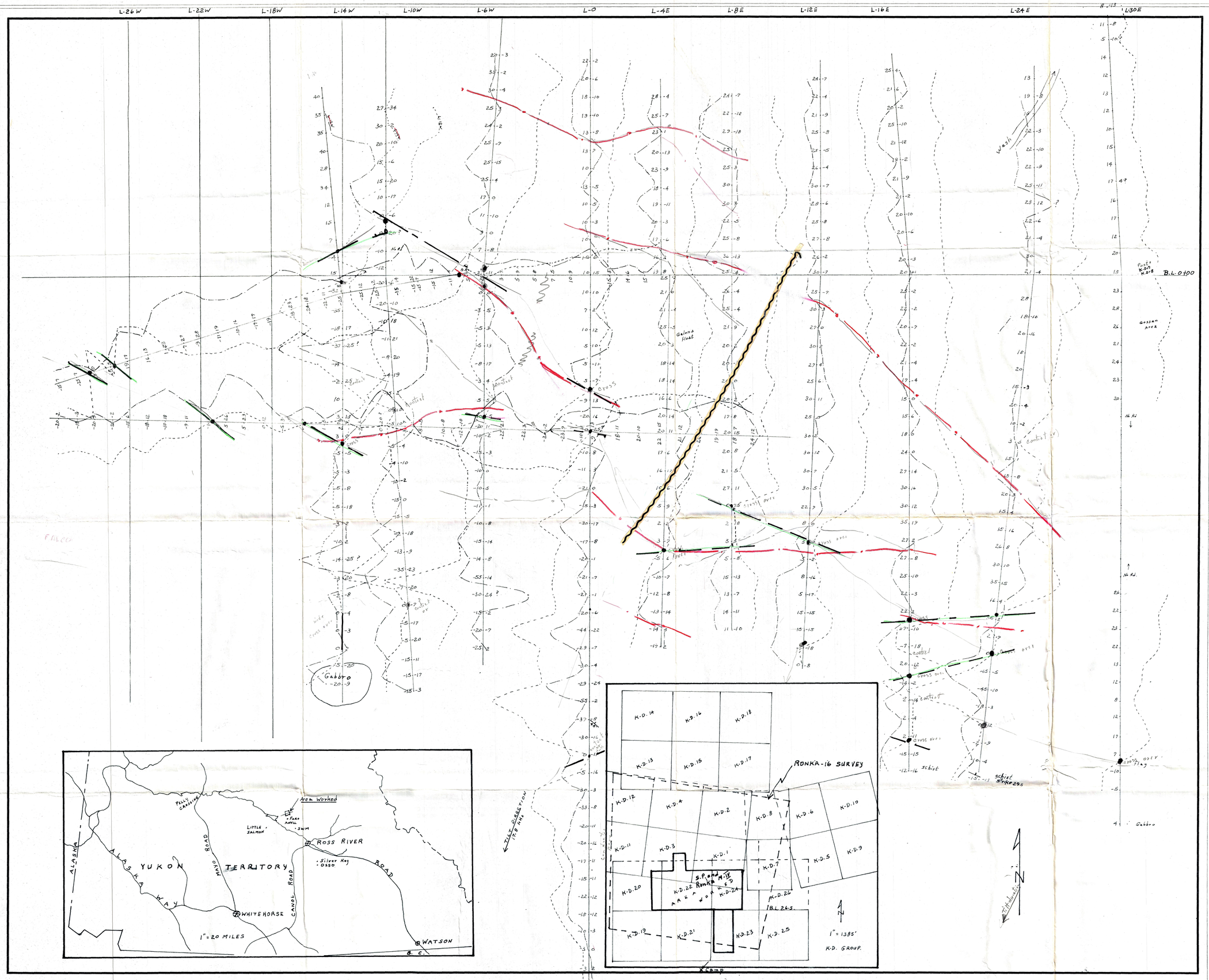
200' 0 200' 400' 600' 800' 1000 1200' 1400' 1600'

SCALE: 1 INCH TO 200'

COMPANY . . FALCONBRIDGE NICKEL MINES LTD.
PROPERTY . . GIANT YELLOWKNIFE "KD" GROUP
LOCATION . . VANGORDA CREEK - YUKON

WORKING PLACE . .
TYPE OF MAP . . GEOCHEM — COPPER
BASED ON . . PACE AND COMPASS

DATE . . OCT. 1966
DRAWN BY . . S.P.
DATE OF WORK . . AUG 1966



MAP REF. NO.:

200' 0 200' 400' 600' 800' 1000' 1200' 1400' 1600'

SCALE: 1 INCH TO

In phase Cross over

Out of Phase Contour

(Cross Over) In phase Contour

COMPANY . . FALCONBRIDGE NICKEL MINES LTD.

PROPERTY . . GIANT YELLOWKNIFE — K-D GROUP

LOCATION . . VANGORDA CREEK — YUKON

WORKING PLACE . .

TYPE OF MAP . . E.M. RONKA-16 [MAINE FREQ. 17.8]

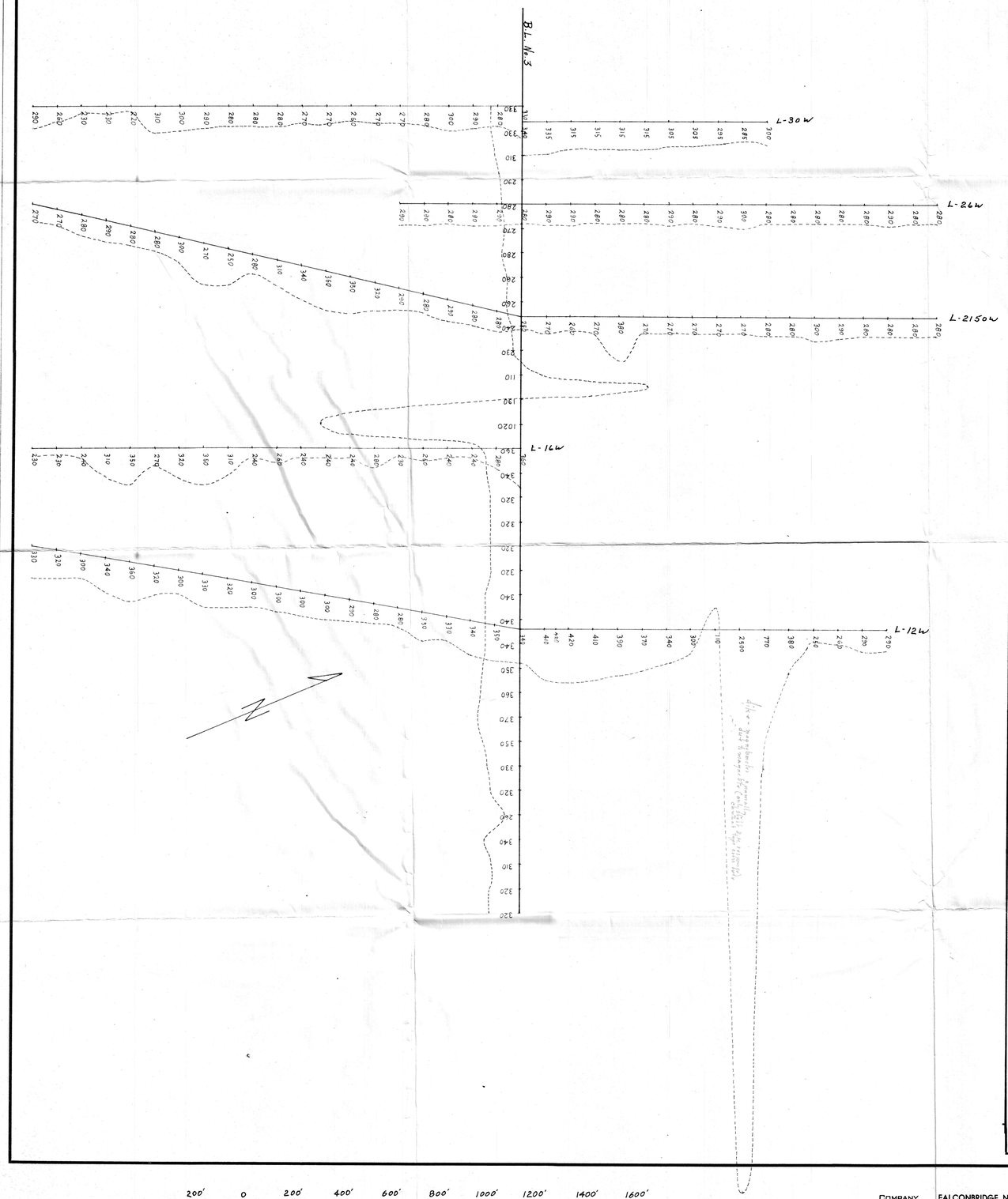
BASED ON . . PACE AND COMPASS

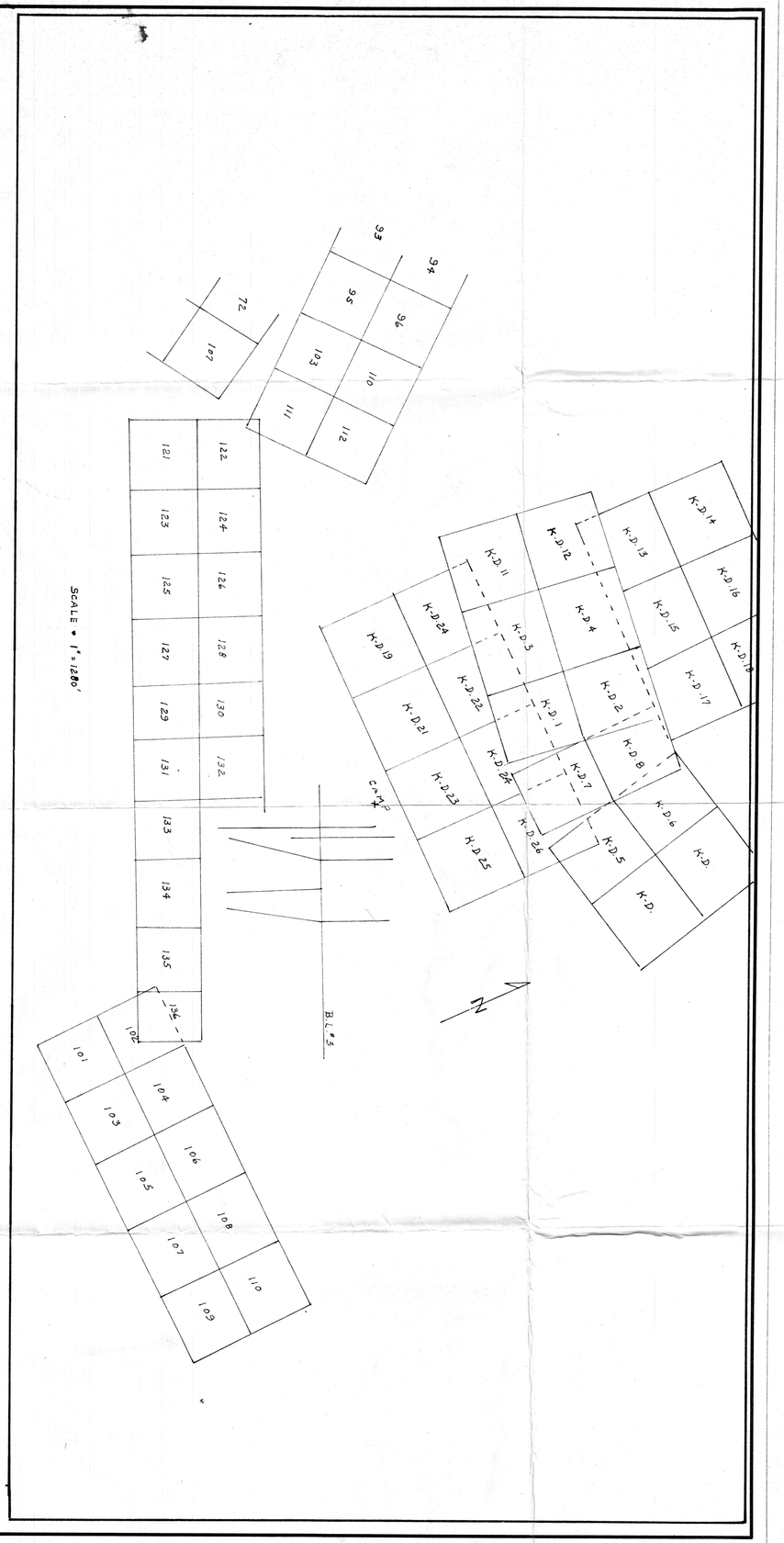
DATE . . Field work Aug. 1966

DRAWN BY . . S.P.

DATE OF WORK . . Jan. 1967

MAP REF. NO.:





200' 0 200' 400' 600' 800' 1000' 1200' 1400' 1600'

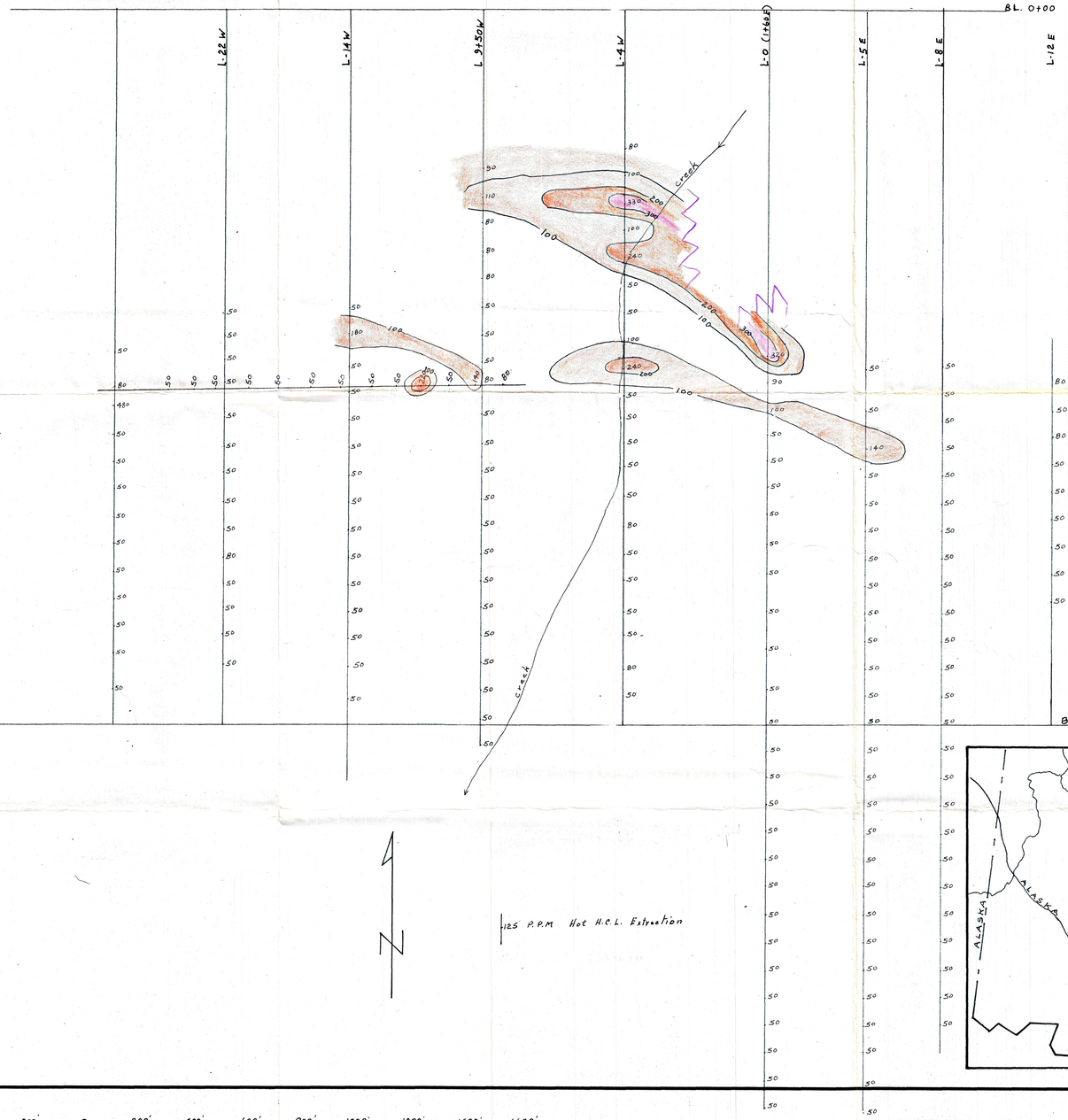
SCALE: 1 INCH TO 200'

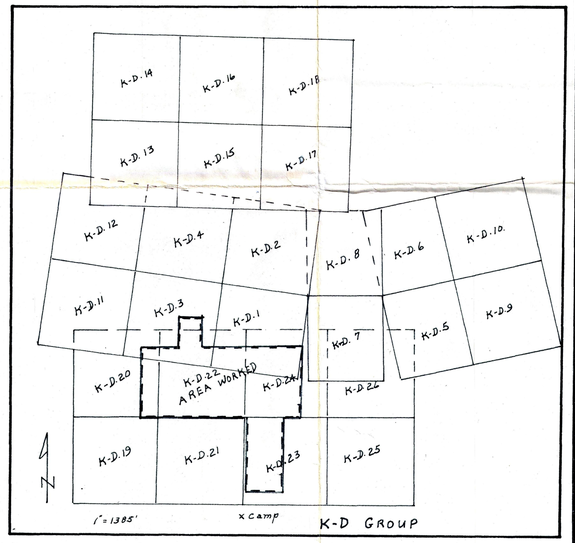
COMPANY . . FALCONBRIDGE NICKEL MINES LTD.
PROPERTY . . GIANT YELLOWKNIFE
LOCATION . . YANGORDA AREA — YUKON

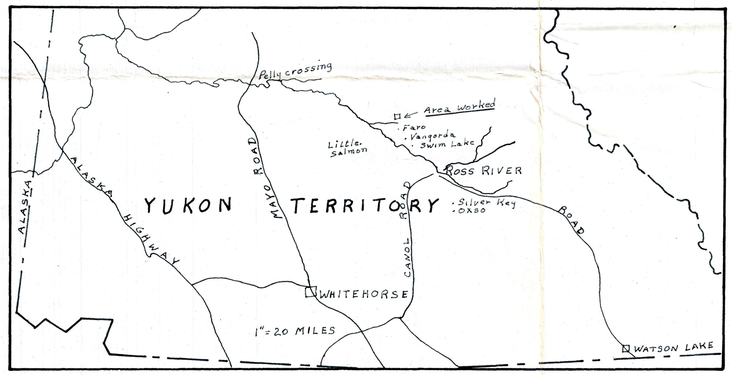
WORKING PLACE . .
TYPE OF MAP . . MAGNETOMETER SURVEY - FLUX GATE
BASED ON . . Readings in Gammas

DATE . . Aug. 1966
DRAWN BY . . S.P. and A.S.
DATE OF WORK . . JAN. 1967

MAP REF. NO.:







200' 0 200' 400' 600' 800' 1000' 1200' 1400' 1600'

SCALE: 1 INCH TO 200'

COMPANY . . FALCONBRIDGE NICKEL MINES LTD.
PROPERTY . . GIANT YELLOWKNIFE K-D GROUP
LOCATION . . VANGORDA CREEK-YUKON

WORKING PLACE . .
TYPE OF MAP . . GEOCHEM – LEAD
BASED ON . . PACE AND COMPASS

DATE . . OCT. 1966
DRAWN BY . . S. P.
DATE OF WORK . . AUG. 1966

L-26W L-22W L-18W L-14W L-10W L-6W L-0 L-4E L-8E L-12E L-16E L-18E L-24E

B.L. 0

Gabbro

Contact

Gabbro

schist

schist

Gabbro

Cross over

Cross over

Cross over

MAP REF. NO.:

B.L. 0+00

L.28W L.8W L.12W L.9+50W L.4W L.0 (LINE) L.5E L.8E L.12E

>800 >800 >800 >800 >800 >800 800 700 720 800 440 520 540 260 240 230 90 60 40 20 20 15 15 10 20 15 10 20 10 10 15 10 20 20 15 20 15 10 15 20 20 10 20 15 20 25 20 10

800 900 600 560 640 600 500 500 420 400 520 300 280 200 280 200 110 150 120 150 200 280 240 220 70 28 200 130 60 30 15 30 60 100 120 40 60 70 50 30 30 20 30 20 30 20 15 10 10 30 20 15 10 10 20 15 20 30 30 20 30 20 15 10 10 10 10 40 25 30 50 80 15 10 30 15 30 30 20

CREEK

300 200 100 50 100 50 50 100 220 200 135 70 70 80 60 50 40 30 20 30 20 15 10 10 10 40 25 10 10 40 40 30 2.5 10 70 80 15 10 10 10 20 15 10 10 10 10

L-0

B.L. 0+00

-3	+5
+3	+5
-5	+6
-6	+6
-5	+5
-5	+5
-5	+5
-5	+6
-5	+6
-5	+7
-5	+6
-5	+6
-5	+6
-1	+7
-2	+4
+5	+8
+2	+5
-2	0
-3	+2
-1	+2
+8	+7
+13	+3
+17	+3
+20	+3
+15	-7
+10	-8
+11	-9
+11	-10
+10	-8
0	-8
-17	-14
-35	-19
-40	-19
-38	-19
-30	-21
-3	-15
0	-1
+2	+8
-1	+6
-2	+6
-4	+6
+3	+5

Cairn

L-1

-4	+4
-4	+5
-4	+5
-3	+4
-3	+5
-6	+5
-1	+6
-2	+6
-3	+6
-5	+6
-5	+6
-5	+6
-4	+6
-4	+6
0	+6
+1	+6
+3	+6
+3	+4
+4	+3
+6	+3
+9	+3
+10	+2
+12	+3
+12	+4
+10	+2
+8	-2
+8	-4
+8	-5
0	-9
-9	-10
-22	-13
-27	-14
-27	-14
-25	-15
-18	-10
-1	+6
-2	+7
-2	+7
-5	+6
-5	+5
-4	+5
-5	+4
-5	+3

Lines done for purpose of checking for dip and conductivity.

Inphase profile nearly doubled while the out of phase increased by ¼.

Please refer to Ranka M-IV plan envelope No. 6

FALCONBRIDGE NICKEL MINES LTD.,
GIANT YELLOWKNIFE - YUKON - VANGORDA AREA.

MARK IV 300' CABLE - K-D. GROUP.

Receiver on South end.

Inphase .....
Out of Phase .—.—.— } 1" = 20%

Scale - 1" = 200' Aug./1966 S.P.

L-5-S

D.D.H
-45

M-IV Location Post

M-IV Location Post

M-IV Location Post

M-IV Location Post

M-IV Location Post

M-IV Location Post

No M-IV Anomaly

FAULT

old trenching
Little zn and galena

Gabbro

L-14W

L-9+50W

L-4W

L-4E

L-8E (675E)

N

The peaks of conductors are located by posts on the ground. These were tied by chain and compass, so that their location is as shown on this plan. S.P.

FALCONBRIDGE NICKEL MINES
GIANT YELLOW KNIFE
VANGORDA CREEK - YUKON
K.D. GROUP

RONKA - MARK IV SURVEY
200' CABLE SEPARATION
INPHASE .....
out of phase — · — · — } 1" = 20%
Scale - 1" = 200' August 1966 S.P.

↓ 1600'S to Camp

GIANT YELLOWKNIFE MINES LTD.

1966 FIELDWORK

ANVIL-VANGORDA, Y.T.

018994 Vol.3

GIANT YELLOWKNIFE MINES LTD.

REPORT ON 1966 FIELDWORK

ON THE

AC, JET, DC AND KD CLAIMS

ANVIL-VANGORDA DISTRICT.

YUKON

APRIL 1967

Alan R. Archer Consultant Vancouver, B.C.

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General	4
Property	6
GEOCHEMICAL SURVEY	
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APPENDIX

1. CLAIM LOCATION MAP
2. REPORT ON AIRBORNE GEOPHYSICAL SURVEY;
   DR. D.W. SMELLIE.

MAPS

KD CLAIMS

	Scale
ENVELOPE 1.	
FIGURE 1 - GROUND MAG. SURVEY	1 inch equals 500 ft.
FIGURE 2 - RONKA EM 16 SURVEY	1 inch equals 500 ft.
FIGURE 3 - RONKA MK 4 SURVEY	1 inch equals 500 ft.
FIGURE 4 - GEOLOGY	1 inch equals 500 ft.
FIGURE 5 - COPPER GEOCHEMISTRY	1 inch equals 500 ft.
FIGURE 6 - LEAD GEOCHEMISTRY	1 inch equals 500 ft.
FIGURE 7 - ZINC GEOCHEMISTRY	1 inch equals 500 ft.

AC, DC, KD, JET CLAIMS

ENVELOPE 2.	
FIGURE 8 - AIRBORNE MAG.	1 inch equals 1,280 ft.
FIGURE 9 - AIRBORNE EM	1 inch equals 1,280 ft.
FIGURE 10 - GEOLOGY	1 inch equals 1,280 ft.
ENVELOPE 3.	
FIGURE 11 - COPPER GEOCHEMISTRY	1 inch equals 1,280 ft.
FIGURE 12 - ZINC GEOCHEMISTRY	1 inch equals 1,280 ft.
FIGURE 13 - LEAD GEOCHEMISTRY	1 inch equals 1,280 ft.

INTRODUCTION

A block of 250 mineral claims(AC 1 - 112 and Jet 1 - 138) were staked in the Anvil-Vangorda district during March 1966 to cover an area that is stratigraphically and structually similar to the setting of Anvil Mining Corp.'s Faro orebody. In May 1966, an airborne geophysical survey was flown over the property and a rough field interpretation prepared. During the summer field season an additional 39 claims were staked, primarily to cover an area of mineralized float.

The entire property (289 claims) was explored by reconnaissance silt and soil sampling and most of the major outcrop areas were mapped by a field crew under the supervision of the writer. Ground geophysical surveys were conducted over several select areas by S. Presunka.

PROPERTY AND LOCATION

The AC 1 - 112; DC 1 - 13 and Jet 1 - 138 form a contiguous block of 263 claims situated seven miles north-east of Anvil Mining Corp.'s Faro airstrip. This airstrip, located 125 air miles north-east of Whitehorse, is accessible by secondary road via Ross River Settlement.

112
13
138
263
- 1
232

The 26 claim KO group form a separate contiguous block, the centre of which lies about 1.5 miles north of the Jet claims.

...2

Assessment work was filed in March 1967 (see copy of report by R.J. Cathro) and the AC 9, 11 - 24, 35, 37, 39, 41, 43, 45, 47, 101 - 107, 109 and DC 1, 3, 5 - 8 and Jet 17, 19, 21, 23, 25 - 40 claims were dropped. Of the remaining 233 claims, the most favourably located claims were kept in good standing for 3 years and the remainder for 1 year. 231?

AIRBORNE GEOPHYSICAL SURVEY

General

A combined magnetometer (Mag.) and electromagnetometer (EM) survey was conducted over the AC, DC and Jet claim areas under contract by Lockwood Survey Corp. Ltd. on July 4, 1966. The equipment was mounted in a Bell 204B turbine helicopter on charter from Okanagan Helicopters Ltd. The survey equipment consisted of a continuous-reading Gulf magnetometer and EM coil, with a primary current of 400 cycles per second, which were mounted in a bird towed beneath the aircraft by a 100 foot cable. An airphoto mosaic of the claim group was used for navigation and a continuous strip photo record of the flight path was made during the survey. The aircraft was flown as close as possible to a mean terrain clearance of 200 feet by use of a radio altimeter. The distance from the ground surface was recorded on an APN tape for all flight lines. The survey recording equipment and camera were mounted

...3

in the cabin of the helicopter and produced graphical tape records of the Mag, EM and elevation profiles. Flight lines were spaced at 1,000 foot intervals and a total of 175 line-miles were surveyed.

A preliminary plot of the Mag. and EM data was made in the field, on contract by Explorations Geophysics (Yukon) Ltd., and interpreted by Dr. D.W. Smellie, consulting geophsicist, of that firm. The preliminary plotting and interpretation, which was based on uncorrected data, was made to detect top priority anomalies which required immediate follow-up before the end of the summer. It was anticipated that final data reduction by Lockwood would take some time and it was not received until December.

Results

The results of this survey are shown on Figures 8 and 9 in Envelope 2. A copy of Dr. Smellies final report is included in the Appendix. The good quality coincident Mag. and EM anomaly on L 19 (5054) has been explored by detailed geochemistry and prospecting and appears to be caused by a local horizon of graphite schist.

Several additional EM anomalies, not mentioned by Dr. Smellie, but considered by the writer of being worthy of

...4

further exploration have been outlined on Figure 9.

The low geophysical response of the south-central portion of the Jet group is likely due to the very thick overburden cover in this area.

GROUND GEOPHYSICS

Magnetometer, Ronka EM 16 (Model 18-6KHZ) and Ronka MK 4 (with 200 foot cable) surveys were made over part of the KD claim group as shown on Figures 1, 2 and 3.

An AM 1 fluxgate magnetometer, adjusted to read 200 gammas for background level, was used. Readings were taken at 100 foot intervals. The Ronka EM 16 utilized two ULF stations in the U.S.A., Seattle (1816) and Maryland (17.8). In-phase and quadrature readings were taken every 100 feet, with the direction of the tilt angle indicated on the maps. The Ronka Mark IV (horizontal loop) was run with a 200 foot cable and was checked with a 300 foot cable.

Both Ronka surveys located strong conducting zones more or less parallel to the bedding just south of the area of mineralized float. There was no significant magnetic response.

GEOLOGY

General

The Anvil-Vangorda district lies within the eastern

...5

crystalline belt of the Yukon Territory - a zone of more or less metamorphosed sediments and volcanics intruded by medium-grained quartz-monzonite and granodiorite batholiths of Cretaceous age. The ore deposits found to date occur in a Mississippian (or older) schist formation that has been domed up and intruded by the Anvil batholith and now forms a halo around it and pendants within it.

The main structural feature of the district is the Tintina Fault that generally follows the Pelly River valley and is probably related to the Rocky Mountain Trench. A complex subsidiary fault pattern can be recognized within the district and is probably related to the Tintina Fault and the regional folding. One set of faults, called longitudinal faults, strike more or less parallel to the Tintina Fault. Another set, called transverse faults, strike approximately N 60° E between the Tintina and longitudinal faults.

Mineralization appears to occur in siliceous units within the schists and ore bodies occur where these mineralized units are structurally complex or in proximity to transverse faulting. The known deposits of economic interest average 3 - 5% lead, 5 - 7% zinc, 0.25% copper, 1 - 2 ounces silver per ton and a trace of gold. The ore minerals are associated with pyrite, arsenopyrite, pyrrhotite, magnetite and quartz. Exploration techniques depend chiefly on the

...6

geophysical response of the massive mineralization and the geochemical dispersion of the lead, zinc and copper.

Property

Geological mapping was done in a reconnaissance fashion over the entire property using airphoto mosaic blow-ups on a scale of 1 inch equals $\frac{1}{4}$ mile for control. A number of specimens were collected from each rock type encountered and these have been stored for reference purpose in the Archer, Cathro and Associates Ltd. Whitehorse office. Geology of all claims groups is shown on Figure 10 and detailed geology of the KD group is shown on Figure 4. The AC and Jet claim groups were staked to cover an area of Mississippian schists, traversed by longitudinal faulting, on the north side of the Anvil batholith in anticipation of a duplication of the geological setting of the Faro ore body. The KD group of claims was staked to cover an area of mineralized float located by the field crew during the summer season.

The AC, DC and Jet claims are in an area of heavy Pleistocene valley glaciation. Most of the claims are above timberline (about 4,000 feet) and vegetation consists of buckbrush with scattered clumps of stunted black spruce. Outcrop is scarce, particularly in the valley areas, and overburden is mainly glacial till of local origin capped with 6 - 12 inches of volcanic ash, muskeg and moss. The glacial till may exceed 100 feet thick in the low valley areas on the

...7

Jet claim group. The KD claim group lies well above timberline and is relatively unglaciated. Overburden is shallow and consists mainly of frost-riven country rocks with a thin capping of moss and lichen.

The AC, DC and Jet claims are largely underlain by sericite schist of the Mississippian schist sequence.mapped by the Geological Survey of Canada (Map 13 - 1961). In certain areas the schists have been metamorphosed to a gneissic texture while in other areas the sericite schists are quite graphitic. These local variations are noted on Figure 2. Granitic rocks of the Anvil batholith are found immediately south of the Jet group.

The geological setting of the KD group is more complex, consisting of a mixture of altered volcanic rocks, sericite schist and limestone. This area was mapped by the G.S.C. as volcanic rocks of Mississippian age that conformably overlie the sericite schist sequence. It is probable that the mixture of rock types found on the KD group represents a transition zone between the schist and volcanics.

The strike of the sedimentary and volcanic rocks is generally east-west with dips between 15 - 60 north.

A number of major structures, interpreted on the basis of surface lineament and drainage pattern are shown in Figure 2. Faulting appears to be more prevalent in the KD

...8

group area but this may be due to the fact that the shallow overburden cover allowed more detailed mapping in this area.

Mineralized float was found on the KD claim group in a well-developed gossan zone near the crest of a small mountain. This zone, although above timberline, is well camouflaged by intense frost boiling and solifluction and light grass cover. Outcrop is present in a steep cliff on the north side of the gossan and scattered around the outer margins of the gossan zone and consists mainly of sericite schist. The gossan zone is composed of small fragments of quartz-carbonate gangue containing galena, sphalerite and some chalcopyrite. This material has been intensely oxidized and leached to honeycombed siderite with rare lenses of primary sulfide. A composite grab sample of the least oxidized material assayed trace gold, 8.6 ounces per ton silver, 8.8% lead, 1.2% zinc and o.2% copper. This gossan material was found over an extensive area, interspersed with frost riven schist. To the south, the hillsides are completely blanketed by a thin soil cover. It was not evident from field examination whether this mineralization originated from a bedded or a series of vein-type deposits.

GEOCHEMICAL SURVEY

General

All claim base-lines were soil sampled at 400 foot

intervals and each stream or seepage crossed by a base-line was silt sampled. The KD claim group and part of the Jet claim group, in the vicinity of a major airborne anomaly, was sampled at a closer spacing. A total of 978 samples were collected and analysed.

Control for the sampling was provided by aerial photographs, tape and compass. Sample locations were marked with plastic flagging. Sampling was done with a mattock grub-hoe and wherever possible the B 1 horizon was sampled. In a few cases permafrost prevented the taking of an ideal sample, free from organic matter or volcanic ash.

The samples were collected in individual Kraft sample bags and most were sent to the United Keno Hill geochemical laboratory for analysis. Some 190 smaples were sent to the Falconbridge Nickel Mines Ltd. geochemical laboratory in Vancouver. Analysis consisted of hot aqua regia extraction of heavy ions from the dried and screened sample with lead, zinc, and copper assays being determined in parts per million by dithizone color comparison methods.

Results

Figures 11, 12, and 13 show the plotted values for lead, zinc and copper on the AC, DC, and Jet groups. Except for several erratic high zinc values, the metal values are uniformly low and nothing of significance is indicated.

Figures 5, 6 and 7 show the plotted values for lead, zinc and copper on the KD claim groups. Anomalous

...10

values for all three metals are found in the central and northwest part of the claim group. Lead, the best indicator metal, is highly anomalous along the centre claim line and weakly anomalous in the northern part of the area sampled in detail and along the northern most claim line. The most consistent area of high lead values is found on the west end of the central base-line. An arithmetic average of lead values along a 3,000 foot length of this base-line is 600 p.p.m. or some 30 times normal background for the district.

CONCLUSIONS AND RECOMMENDATIONS

KD Claim Group

The mineralized float and geochemical response indicate the possibility of significant quantities of mineralization. The electromagnetic response could be caused by graphitic horizons within the schists or graphitic shears. Although the character of the float would appear to indicate vein-type mineralization rather than massive replacement, the possibility of a replacement type deposit can not be overlooked. Further work on this claim group should consist of soil sampling the anomalous zone (roughly 60% of the claim group) on a 200 foot by 200 foot pattern to better define the mineralized areas. Areas so defined

...11

should be further explored by bulldozer trenching or drilling to determine the characteristic and grade of the mineralization. Reconnaissance prospecting and geochemical sampling should be done to the north and east of the KD claims in case unstaked, mineralized areas exist in the immediate vicinity.

AC, DC, Jet Group

Although preliminary ground work on this group produced no significant results, certain areas definately require further exploration. Interesting EM linears located by the airborne survey (see Figure 9) that have not already been investigated should be explored by soil sampling at 400 foot by 400 foot intervals and with a Ronka MK 4 using a 300 foot cable for maximum penetration. A number of these linears occur near the edges of the claim group ~~are~~ on crown land.

Several transverse faults, postulated on the basis of airphoto linears, are shown on Figure 10. The fault postulated under the deep glacial overburden area on the Jet claims is an extension of the major transverse fault found immediately east of the Faro deposit where it appears to provide a significant ore control. This deep overburden area, which showed only weak response to the airborne survey, should be further explored as the geological setting is very similar to the Faro deposit. A Ronka MK4 survey

...12

using a 300 foot cable, to provide better penetration, is recommended.

Exploration of significant electromagnetic anomalies found or confirmed by Ronka MK4 surveys will be best accomplished by overburden drilling during the winter months. If the anomalies are extensive, gravity surveys may be required to better define overburden drill targets. The overburden drilling is only expected to detect areas with interesting quantities of sulfide mineralization. Such areas, if discovered, will have to be evaluated by diamond drilling.

SCHEDULE

1. Hire a 4 man crew headed by a senior student with surveying experience, to cut lines on AC, DC and Jet claims in preparation for Ronka EM surveys. Lines should be cut at 400 foot intervals, using Brunton compass and tape for control, over the areas outlined on Figure 9. Additional staking and soil sampling can be done while line cutting. A total of 38 line miles, of which 21 line miles require soil sampling, will have to be cut. At least 6 separate camp sites will have to be established. Students can be mobilized to the area on June 1 and work should be completed by July 15.

2. Move the 4 man crew to KD group, picket lines and soil sample recommended area. Contract a Ronka MK4

survey over the 38 miles of cut line starting July 15. Spend 1 to 2 weeks reconnaissance prospecting and geochemical sampling in unstaked area to the north and east.

3. Ronka surveys and geochemical surveys should be completed by August 15. Bring crews out of the bush and retain several students to draft final maps.

BUDGET

The following costs are derived assuming crews and services are provided separate from those of the Falconbridge exploration department. Costs of possible follow-up overburden drilling, bulldozing or gravity work are not included.

Labour

1 senior student (4 months at $700.00 per month)	$2,800.00
3 junior students (3 months at $500.00 per month)	4,500.00
Airfares to Whitehorse	600.00
Plus 15% salaries c.p.p., holiday pay, etc	700.00
	$8,600.00

Geophysics

Contract 38 line miles at $120.00 per line miles	$4,600.00

...14

Aircraft charter

Fixed wing (mainly Whitehorse to Ross River)	$ 500.00
Helicopter (assume casual charter available from Anvil camp) 50 hours at $135.00	6,800.00
	$7,300.00

Camp costs

Consumable supplies	$2,000.00
Camp equipment	2,000.00
	$4,000.00

Geochemical sampling

Analysis (280 samples for lead, zinc and copper, 700 samples for lead and zinc)	$ 700.00
	1,100.00
Supplies (bags, tags, etc)	500.00
	$2,300.00

Miscellaneous

Truck rental	$ 250.00
Drafting, blue printing	500.00
Room and board in Whitehorse	700.00

...15

Supervision, reports.....	$2,500.00
Communication, expediting.....	900.00
	$4,850.00

Total.....	$31,650.00
Contingencies..	3,350.00
	$35,000.00

Respectfully submitted,

ARCHER, CATHRO & ASSOC. LTD.

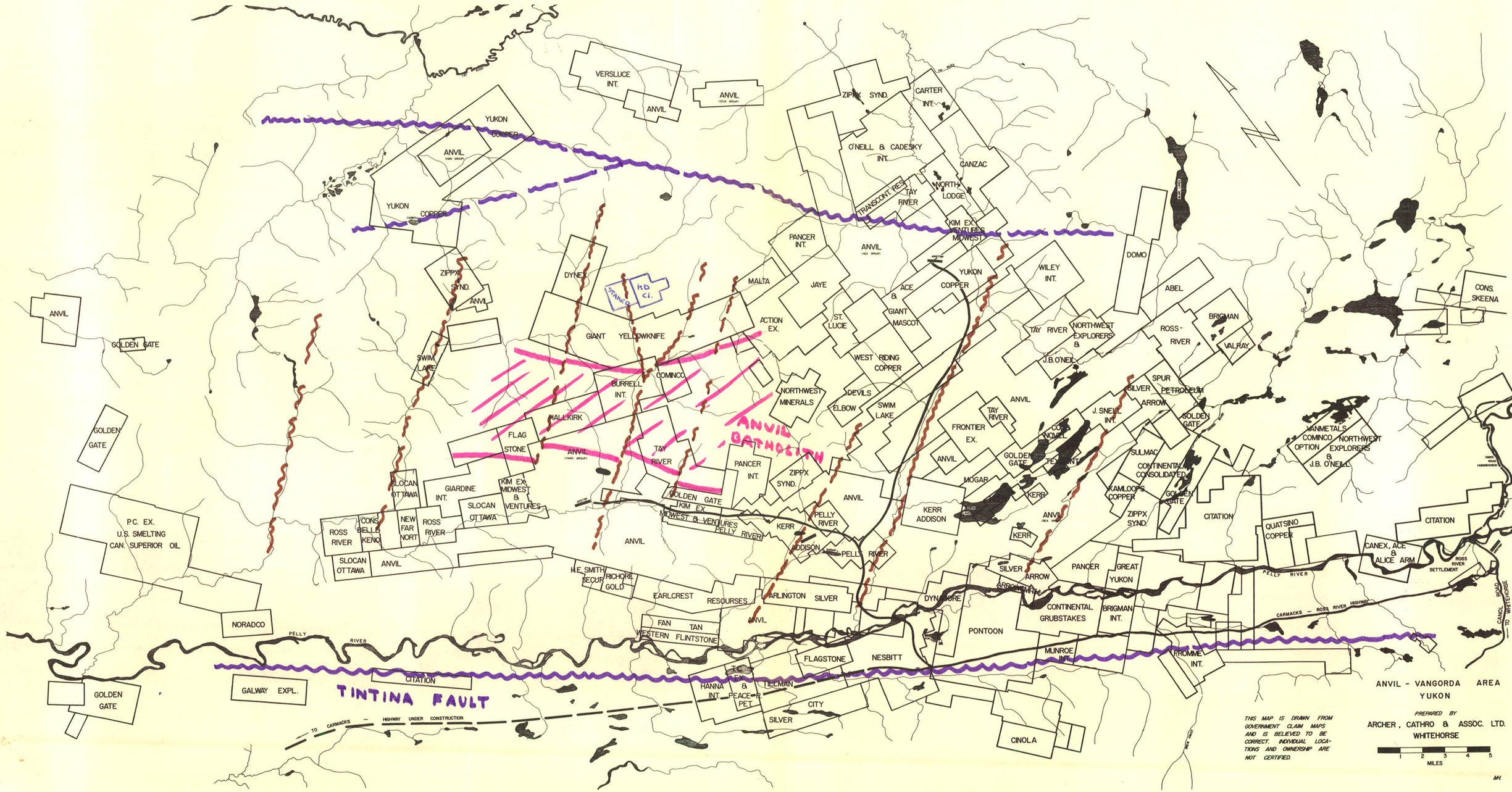
Alan R Archer

Alan R. Archer.

A.R.A:m.a.

ANVIL - VANGORDA CREEK —— ROSS RIVER DISTRICT

Additional copies of this map may be obtained on application to Archer, Cathro & Associates Ltd., Box 1051, Whitehorse, Y.T.



ANVIL - VANGORDA AREA
YUKON

PREPARED BY
ARCHER, CATHRO & ASSOC. LTD.
WHITEHORSE

1 2 3 4 5
MILES

THIS MAP IS DRAWN FROM GOVERNMENT CLAIM MAPS AND IS BELIEVED TO BE CORRECT. INDIVIDUAL LOCATIONS AND OWNERSHIP ARE NOT CERTIFIED.

MH

DONALD W. SMELLIE, P.ENG.
CONSULTING GEOPHYSICIST
1666 WEST BROADWAY
VANCOUVER 9, B.C.
REGENT 1-6584

HELICOPTER MAGNETIC AND ELECTROMAGNETIC SURVEY

ANVIL-VANGORDA AREA, Y.T.

GIANT YELLOWKNIFE MINES LTD.

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INTRODUCTION

A combined helicopter magnetic and electromagnetic survey has been carried out by Lockwood Survey Corporation Limited for Giant Yellowknife Mines Limited on the AC and JET groups. These are located in the Anvil-Vangorda area of the Yukon Territory. The survey was flown during July 1966.

INSTRUMENTATION

The combined helicopter magnetic and electromagnetic installation consists of the Gulf Model III airborne magnetometer and the E.M. system developed by Hunting Survey Corporation (now Lockwood).

The E.M. system consists of coaxial transmitter and receiver coils mounted 30 feet apart in a "bird" that is suspended 100 feet below the helicopter when in operation. The instrument records the in-phase and quadrature components of the secondary field relative to the primary field at the receiver coil. The operating frequency is 4000 cycles per second.

FIELD PROCEDURE

The survey was flown at an average line spacing of 1000 feet and at 200 feet mean terrain clearance.

The flight path was recovered by plotting positions on the ground determined by a positioning camera that takes a sequence of exposures while the survey is in progress. The magnetic data were corrected for diurnal variation and plotted in the form of contours of equal magnetic intensity. The E.M. data were plotted as contours of in-phase amplitude in parts per million with respect to the primary. Anomalies are shown by circled figures representing the amplitudes of the in-phase and quadrature components.

RESULTS

The results are shown on magnetic and electromagnetic contour maps at a scale of one inch equals 1,320 feet.

The magnetic pattern is of low relief and no particular significance is attached to it.

Good electromagnetic anomalies occur at L19 (5054), L27 (3810) and L42 (1472), the first two showing magnetic correlation. A complex anomaly centered at L26 (4000) is of good quality. All four areas are recommended for ground magnetic, electromagnetic and geochemical investigation.

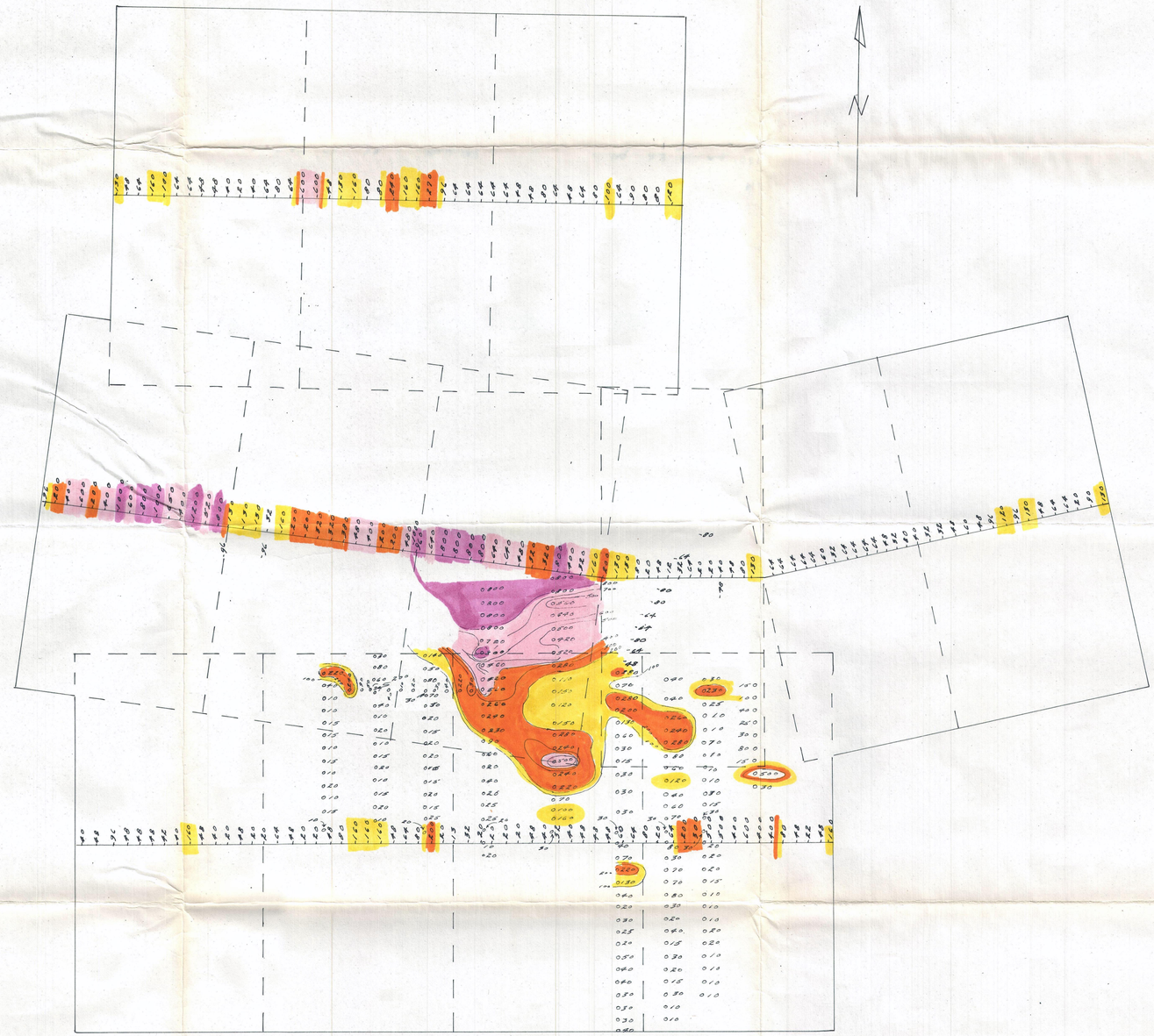
Not checked out

All checked out.

Respectfully submitted

D.W. SMELLIE, P.Eng.
for: Exploration Geophysics (Yukon) Ltd.

February 15, 1967



ASSAYS

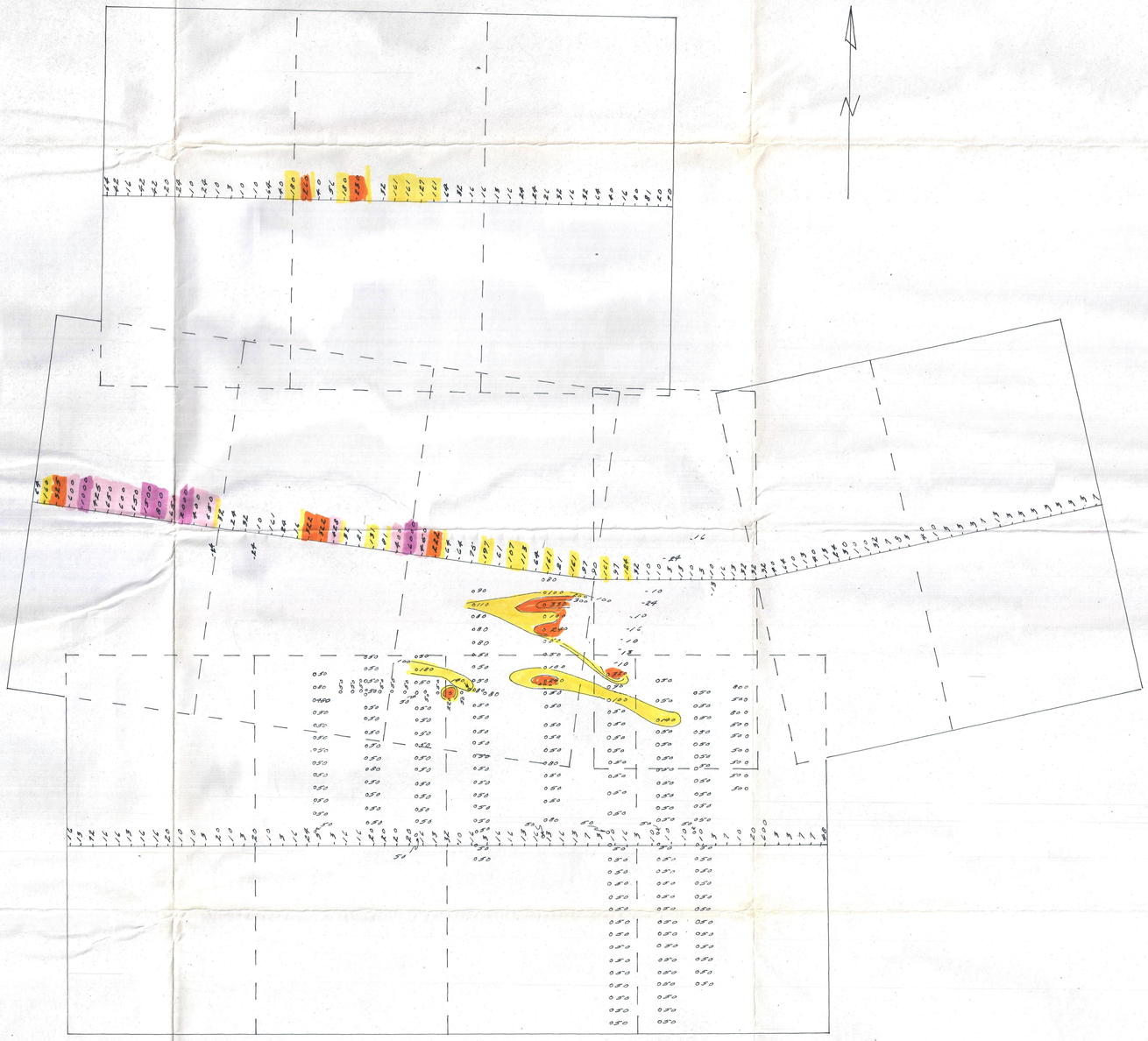
030 VANCOUVER LAB

-40 UNITED KENO HILL

GIANT YELLOWKNIFE
ANVIL DISTRICT YUKON
KD GROUP
GEOCHEMICAL - ZINC (P.P.M)

SCALE 1"=500' FEB. 1967

figure #7



ASSAYS
050 VANCOUVER LAB
-70 UNITED KENO HILL

GIANT YELLOWKNIFE
ANVIL DISTRICT YUKON
KD GROUP
GEOCHEMICAL – LEAD (PPM)
SCALE 1"=500' FEB 1967

figure #6.

ASSAYS

.030 VANCOUVER LAB

-.90 UNITED KENO HILL

GIANT YELLOWKNIFE
ANVIL DISTRICT YUKON
KD GROUP

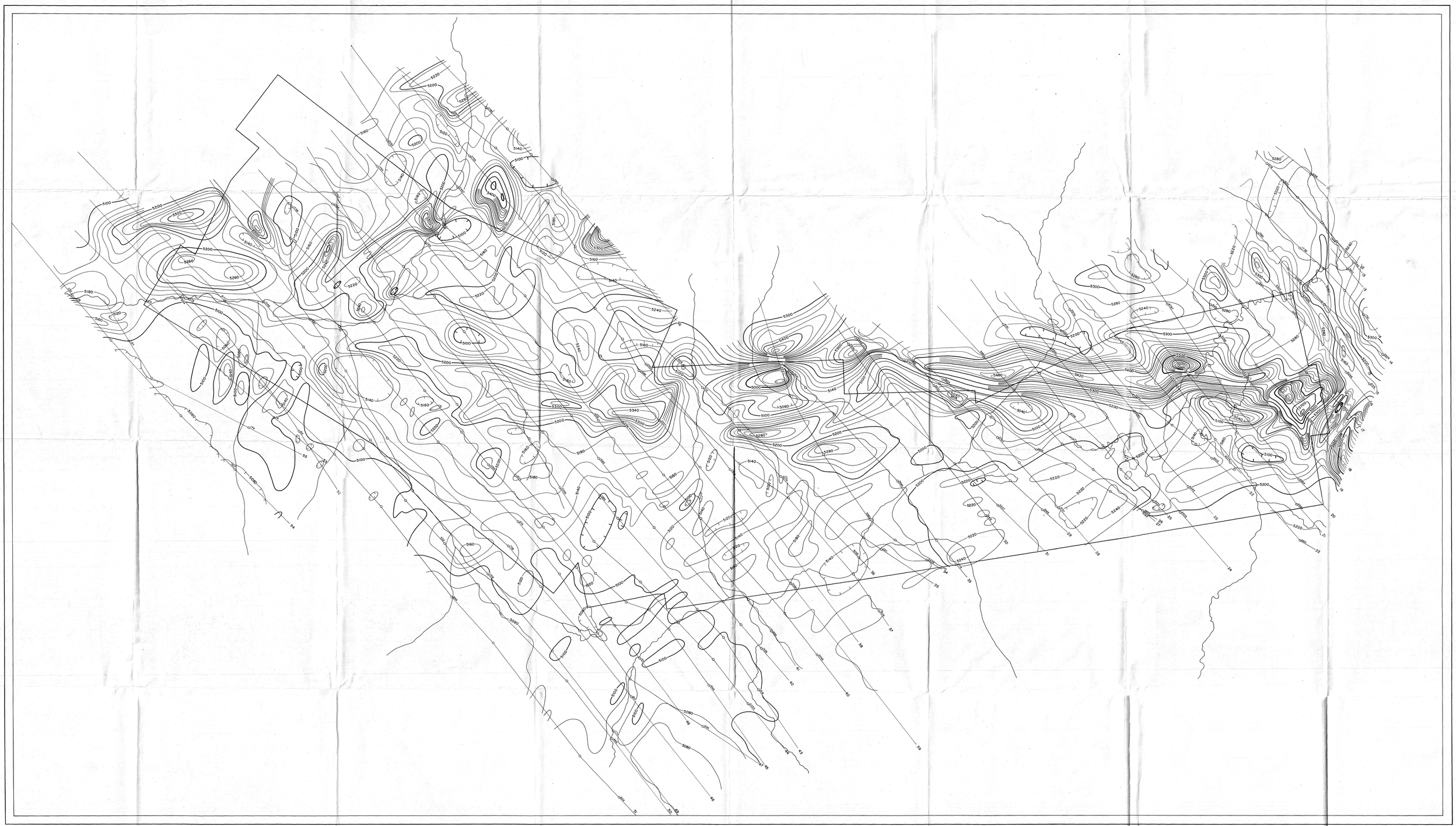
GEOCHEMICAL – COPPER (P.P.M)

SCALE 1"=300' FEB 1967

figure #5

GIANT YELLOWKNIFE MINES LIMITED

AIRBORNE GEOPHYSICAL SURVEY



CONTOUR INTERVAL ..... 20 GAMMA
MEAN FLIGHT LINE SPACING ..... 1000 FEET
MEAN TERRAIN CLEARANCE ..... 200 FEET
500 GAMMA CONTOUR .....
100 GAMMA CONTOUR .....
20 GAMMA CONTOUR .....
MAGNETIC LOW .....
FIDUCIAL POINTS 0.1490
FLIGHT LINES .....

AC AND JET GROUPS

YUKON TERRITORY

SCALE

1000 FEET 0 1000 2000 3000 4000 5000 FEET

1 Inch to 1320 Feet
(Approx.)

AEROMAGNETIC MAP

Flown and Compiled by
LOCKWOOD SURVEY CORPORATION, LIMITED
TORONTO, CANADA
1966

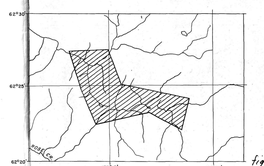
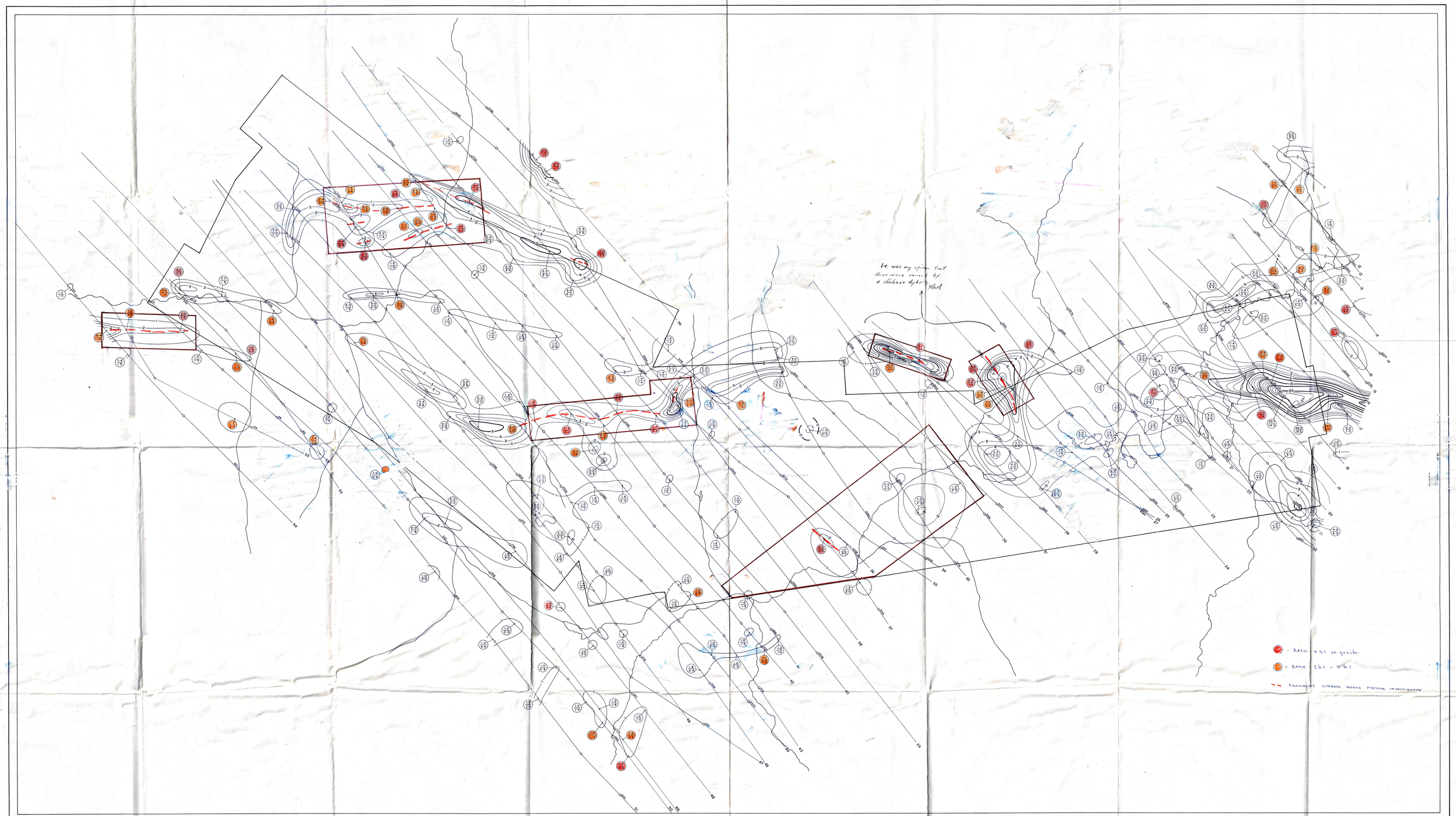


figure #8

GIANT YELLOWKNIFE MINES LIMITED

AIRBORNE GEOPHYSICAL SURVEY



MEAN FLIGHT LINE SPACING ..... 1000 FEET
MEAN TERRAIN CLEARANCE ..... 200 FEET
ELECTROMAGNETIC CONTOURS 5, 10, 15 etc.
1, 2, 3, 4 etc.
NEGATIVE CONTOURS -5, -10 etc.
-1, -2, -3, -4 etc.
FIDUCIAL POINTS 3690
FLIGHT LINES .....

The contours represent amplitude of in phase response of the resultant field expressed in parts per million of the primary. The figures $\frac{2\cdot3}{0\cdot2}$ represent amplitude $\frac{\text{in phase component}}{\text{quadrature component}}$ The frequency of the primary current is 4000 cycles per second.

AC AND JET GROUPS

YUKON TERRITORY

SCALE

1000 FEET 0 1000 2000 3000 4000 5000 FEET

1 Inch to 1320 Feet
(Approx.)

ELECTROMAGNETIC MAP

Flown and Compiled by
LOCKWOOD SURVEY CORPORATION LIMITED
TORONTO, CANADA
1966

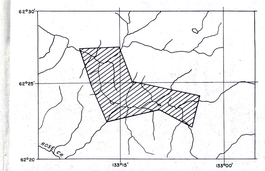


figure #9.



GIANT YELLOWKNIFE
ANVIL DISTRICT YUKON
AC, DC, JET, KD GROUPS
GEOLOGY

SCALE 1"=1250' FEB 1967

Figure 7-10

KD GROUP

AC GROUP

DC GROUP

JET GROUP

N

AC, JET, & KD, GROUP
GIANT YELLOWKNIFE
ANVIL DISTRICT, YUKON

CU PARTS PER MILLION.

DATE	Sept. 66
DRAWN	
SCALE	1" = 1320'

#11



AC, JET, & K.D. GROUP
GIANT YELLOWKNIFE
ANVIL DISTRICT, YUKON

ZN PARTS PER MILLION

DATE Sept. 66
DRAWN
SCALE 1" = 1200'

#12



AC, JET, & KD, GROUP.
GIANT YELLOW KNIFE
ANVIL DISTRICT, YUKON

PB PARTS PER MILLION.

DATE Sept. 66	#13
DRAWN	
SCALE 1" = 1280'	