



A REPORT

ON

A GROUND MAGNETIC SURVEY

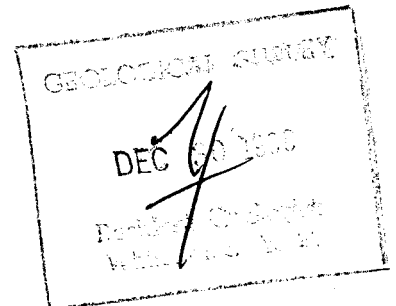
FOR

JERSEY CONSOLIDATED MINES LIMITED

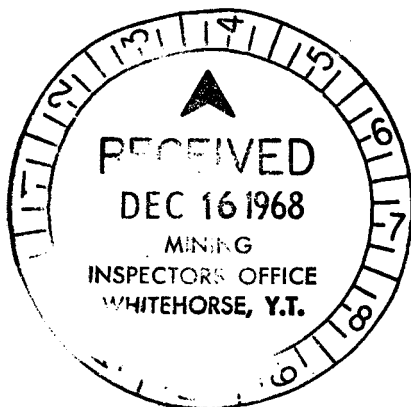
BY

EAGLE GEOPHYSICS LIMITED

VANCOUVER, BRITISH COLUMBIA



DECEMBER, 1968



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

D. C. Furlan
RESIDENT GEOLOGIST

Approved as to cost in the amount of: \$ *3230.00*

D. S. Neelken
RESIDENT METALLOGURIST

Noted as representation work under Section 33(4) Yukon Quartz Mining Act.

[Signature]
COMMISSIONER OF YUKON

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ACCOMPANYING MAP

MAP POCKET

GROUND MAGNETOMETER SURVEY MAP

E-142-1

SCALE: 1" = 200'

INTRODUCTION

BETWEEN OCTOBER 24th AND 31ST, 1968, EAGLE GEOPHYSICS LIMITED CARRIED OUT A COMBINED LINECUTTING AND GROUND MAGNETIC SURVEY PROGRAMME ON A PROPERTY LOCATED IN THE WHITE RIVER AREA OF THE YUKON TERRITORY, HELD BY JERSEY CONSOLIDATED MINES LIMITED.

THE SURVEY WAS CARRIED OUT OVER N 131° E HANDCUT LINES WHICH WERE TURNED OFF AT RIGHT ANGLES EVERY 400 FEET FROM A N 41° E BASELINE, AND WHICH WERE CHAINED AND PICKETED AT 100 FOOT INTERVALS

READINGS WERE TAKEN EVERY 100 FEET ALONG THE PICKET LINES USING A SHARPE M.F.1 FLUXGATE MAGNETOMETER.

THE RESULTS ARE SHOWN IN CONTOURED FORM ON A MAP OF THE LINE GRID, MAP E-142-1, AT A SCALE OF 1 INCH TO 200 FEET.

PROPERTY AND LOCATION

THE PROPERTY CONSISTS OF 28 UNPATENTED MINING CLAIMS REGISTERED IN WHITEHORSE, YUKON TERRITORY, AS FOLLOWS:

<u>CLAIM NAME</u>	<u>GRANT NUMBER</u>	<u>EXPIRY DATE</u>
KLU 1 TO 20	Y21718 TO Y21737	DECEMBER 16 th , 1968
KLU 41 TO 48	Y21758 TO Y21765	DECEMBER 16 th , 1968

THE CLAIMS ARE SITUATED AT THE JUNCTION OF THE WHITE AND GENERC RIVERS AT LATITUDE 61° 45'N AND LONGITUDE 140° 42'W. THEY LIE 15 MILES TO THE NORTH OF THE ICE FIELD RANGES OF THE ST. ELIAS MOUNTAINS AND 8 MILES TO THE EAST OF THE ALASKA-YUKON BORDER.

ACCESS TO THE PROPERTY CAN BE OBTAINED BY SEVERAL ALTERNATE MEANS: (1) DIRECTLY BY HELICOPTER, 220 AIRMILES FROM WHITEHORSE OR 15 MILES FROM MILE 1168 ON THE ALASKA HIGHWAY. (2) BY FIXED WING AIRCRAFT WHICH CAN LAND ON RIFLE LAKE, APPROXIMATELY 3 MILES SOUTHWEST OF THE PROPERTY. (3) BY AN 18 MILE WINTER TOTE ROAD, IMPASSABLE IN SUMMER, FROM THE ALASKA HIGHWAY TO THE UNITED PEMETEX CAMP AND THENCE BY A 3 MILE TREK FROM THE LATTER TO THE PROPERTY.

ON THIS OCTOBER SURVEY ACCESS WAS OBTAINED BY HELICOPTER.

PURPOSE

THE PURPOSE OF THE SURVEY WAS TO LOCATE MAGNETIC FEATURES THAT COULD BE ASSOCIATED WITH ECONOMIC MINERALIZATION (MAGNETIC HIGHS ARE KNOWN TO BE ASSOCIATED WITH MINERALIZATION ON THE ADJOINING UNITED PEMETEX PROPERTY) WITH A VIEW TO DETECTING THIS MINERALIZATION BY THE INDUCED POLARIZATION TECHNIQUE DURING THE FOLLOWING SUMMER.

GEOLOGY

GENERAL

GLACIAL DRIFT, A RECENT LAYER OF THICK VOLCANIC ASH AND A VEGETIVE COVER EFFECTIVELY BLANKETS MOST OF THE REGION WITH THE EXCEPTION OF THE EDGES OF THE HIGHER HILLS AND RIDGES.

SPORADIC OUTCROPPINGS OF TWO ROCK UNITS OCCUR IN THE GENERAL VICINITY OF THE KLU AND SURROUNDING CLAIM GROUPS. THERE ARE THE PERMIAN CACHE CREEK GROUP OF ALTERED ANDESITE TUFFS AND BRECCIAS OVERLAIN IN PLACES BY CRINOIDAL LIMESTONE, AND THE UPPER TRIASSIC MUSH LAKE GROUP OF PORPHYRITIC AND AMYGDALOIDAL ANDESITE.

THE PRESENCE OF A NORTHWEST TRENDING THRUST FAULT AT THE EASTERN BASE OF SLAGGARD RIDGE, THREE MILES TO THE SOUTH, IS INDICATED BY REGIONAL GEOLOGICAL MAPPING (G.S.C. MAP 1177A).

ECONOMIC

NATIVE COPPER AND CHALCOCITE MINERALIZATION OCCUR IN A COMPLEX FRACTURE ZONE IN DARK GREEN FLOWS OF THE MUSH LAKE GROUP AT THE UNITED PEMETEX PROPERTY, APPROXIMATELY THREE MILES TO THE WEST OF THE KLU CLAIM GROUP. THIS MINERALIZATION WAS TESTED BY DIAMOND DRILLING WITH INCONCLUSIVE RESULTS, WITH THE RESULT THAT MAGNETIC AND INDUCED POLARIZATION SURVEYS WERE UNDERTAKEN THIS LAST SUMMER TO DEFINE THE EXTENT OF POSSIBLE MINERALIZATION, AND A FURTHER DRILLING PROGRAMME, BASED ON THESE LATER RESULTS, IS NOW BEING INITIATED.

AN OCCURRENCE OF CHALCOPYRITE MINERALIZATION IS FOUND IN THE CACHE CREEK GROUP ON THE PROPERTY OF CANYON CITY MINES LIMITED, NINE MILES TO THE NORTHWEST OF THE KLU CLAIMS.

PROPERTY

GLACIAL DRIFT, VOLCANIC ASH AND VEGETATION COVER THE ENTIRE PROPERTY. NO OUTCROPPINGS WERE OBSERVED DURING THE SURVEY WHICH WAS CARRIED OUT WITH SIX INCHES OF SNOW ON THE GROUND. HOWEVER, IN THE WRITER'S OPINION, THE GEOLOGY IS EXPECTED TO BE SIMILAR TO THAT OF THE GENERAL AREA.

SURVEY SPECIFICATIONS

THE MAGNETIC SURVEY WAS CARRIED OUT USING A SHARPE M.F.1 FLUXGATE MAGNETOMETER. THIS INSTRUMENT MEASURES VARIATIONS IN THE VERTICAL COMPONENT OF THE EARTH'S MAGNETIC FIELD TO AN ACCURACY OF ± 10 GAMMAS. CORRECTIONS FOR DIURNAL VARIATIONS WERE MADE BY TRING- IN TO PREVIOUSLY ESTABLISHED BASE STATIONS AT INTERVALS NOT EXCEEDING TWO HOURS.

READINGS WITH THE MAGNETOMETER WERE TAKEN EVERY 100 FEET ALONG THE PICKET LINE FOR A TOTAL OF 15.7 MILES OF MAGNETIC SURVEYING.

DISCUSSION OF RESULTS

THE RESULTS OF THE MAGNETOMETER SURVEY SHOW THE PROPERTY SURVEYED TO EXHIBIT VERY LITTLE MAGNETIC RELIEF (MAP E-142-1), WITH THE EXCEPTION OF A LOW-INTENSITY MAGNETIC GRADIENT IN THE NORTHWEST SECTION.

THEY INDICATE, IN THE WRITER'S OPINION, THAT THE PROPERTY IS UNDERLAIN BY ONE MAGNETIC ROCK TYPE AND COVERED BY A FAIRLY UNIFORM LAYER OF OVERBURDEN.

THE LOW INTENSITY MAGNETIC HIGH IS THOUGHT TO BE CAUSED BY A GRADUAL DIMINISHING THICKNESS OF THE OVERBURDEN COVER, BUT COULD BE CAUSED BY AN INCREASE IN THE MAGNETIC CONTENT OF THE SUPPOSEDLY UNDERLYING VOLCANICS. HOWEVER, AS THE FEATURE IS OPEN ON TWO SIDES, THE CAUSE WOULD BE BEST DETERMINED IF AND WHEN FURTHER MAGNETIC MEASUREMENTS ARE MADE.

NO SHEARING AND/OR MAGNETIC HIGHS OF THE TYPE ASSOCIATED WITH MINERALIZATION AND I.P. ANOMALIES AT THE UNITED PEMETEX PROPERTY, OR MAGNETIC LOWS OF THE TYPE ASSOCIATED WITH I.P. ANOMALIES AT THE SHARE SYNDICATE PROPERTY CAN BE OBSERVED ON THE PROPERTY TO DATE FROM THE MAGNETOMETER SURVEY RESULTS. HOWEVER, MAGNETIC HIGHS OR LOWS, GENERALLY CAUSED BY MAGNETITE AND/OR PYRRHOTITE, DO NOT NECESSARILY OCCUR WITH CHALCOCITE AND/OR CHALCOPYRITE MINERALIZATION.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

BETWEEN OCTOBER 24th AND 31ST, 1968, EAGLE GEOPHYSICS LIMITED CARRIED OUT A COMBINED LINECUTTING AND GROUND MAGNETIC SURVEY PROGRAMME OVER PART OF THE KLU CLAIM GROUP HELD BY JERSEY CONSOLIDATED MINES LIMITED.

THE KLU CLAIMS ARE LOCATED IN THE WHITEHORSE MINING DIVISION OF THE YUKON TERRITORY, AND ARE SITUATED AT THE JUNCTION OF THE WHITE AND GENERC RIVERS, 8 MILES TO THE EAST OF THE ALASKA-YUKON BORDER.

THE MAGNETIC SURVEY SHOWED THE PROPERTY TO EXHIBIT VERY LITTLE MAGNETIC RELIEF, AND IS INDICATIVE OF ONE UNDERLYING MAGNETIC ROCK TYPE WITH A FAIRLY UNIFORM THICKNESS OF OVERBURDEN COVER.

NO SHEARING AND/OR MAGNETIC HIGHS OR LOWS WERE OBSERVED. HOWEVER, MAGNETIC HIGHS OR LOWS DO NOT NECESSARILY OCCUR WITH COPPER MINERALIZATION.

IT IS, THEREFORE, RECOMMENDED THAT THE REST OF THE CLAIM GROUP BE COVERED BY MAGNETOMETER SURVEYING TO BE FOLLOWED BY INDUCED POLARIZATION SURVEYING, PARTICULARLY OVER MAGNETIC HIGH OR LOWS (IF ANY).

THE ESTIMATED COST OF THIS PROGRAMME WOULD BE AS FOLLOWS:

LINECUTTING, ADDITIONAL 14 MILES	\$ 1,750.00
MAGNETIC SURVEYING 14 MILES	1,050.00
I.P. SURVEYING 28 MILES (MAXIMUM)	7,000.00
HELICOPTER TRANSPORTATION: 3 TRIPS FROM WHITEHORSE	
PLUS LOCAL FLYING	<u>3,500.00</u>
	<u>\$13,300.00</u>

THE COMPANY SHOULD NOT COMMIT ITSELF TO THE ABOVE PROGRAMME

UNTIL NEXT SUMMER SO THAT IT CAN BE AMENDED BY THE RESULTS OF DRILLING
THIS WINTER ON THE PROPERTIES OF UNITED PEMETEX LIMITED AND THE SHARE
SYNDICATE.

RESPECTFULLY SUBMITTED

EAGLE GEOPHYSICS LIMITED



PETER E. WALCOTT, P.ENG.
GEOPHYSICIST

VANCOUVER, B.C.

DECEMBER 5, 1968.

A P P E N D I X

(1)

COST OF SURVEYS

EAGLE GEOPHYSICS LIMITED UNDERTOOK THE SURVEY AT A COST OF \$200.00 PER LINE MILE FOR LINECUTTING AND MAGNETOMETER WORK. THEREFORE, THE TOTAL COST OF SERVICES PROVIDED BY EAGLE GEOPHYSICS LIMITED WAS \$3,140.00.

PERSONNEL EMPLOYED ON SURVEY

<u>NAME</u>	<u>OCCUPATION</u>	<u>ADDRESS</u>	<u>DATES</u>
PETER E. WALCOTT	GEOPHYSICIST	EAGLE GEOPHYSICS LTD. 815-736 GRANVILLE ST. VANCOUVER 2, B.C.	Nov. 25, 1968
G. M. MACMILLAN	GEOPHYSICAL OPERATOR	"	Oct. 24-31/68
E. SCURVIE	HELPER	GENERAL DELIVERY WHITEHORSE, Y.T.	"
S. SCURVIE	HELPER	"	"
P. STEWART	TYPING	311-736 GRANVILLE ST.	DECEMBER 5, 1968
W. WADMAN	DRAUGHTING	EAGLE GEOPHYSICS LTD. 815-736 GRANVILLE ST. VANCOUVER 2, B.C.	DECEMBER 3, 1968

CERTIFICATION

I, PETER E. WALCOTT, OF THE MUNICIPALITY OF COQUITLAM,
BRITISH COLUMBIA, HEREBY CERTIFY THAT:

1. I AM A GRADUATE OF THE UNIVERSITY OF TORONTO IN 1962
WITH A B.A.Sc. IN ENGINEERING PHYSICS, GEOPHYSICS OPTION;
2. I HAVE BEEN PRACTISING MY PROFESSION FOR THE LAST SIX
YEARS;
3. I AM A MEMBER OF THE ASSOCIATION OF PROFESSIONAL ENGINEERS
OF BRITISH COLUMBIA, ONTARIO AND THE YUKON TERRITORY.
4. I HOLD NO INTEREST, DIRECT OR INDIRECT, IN THE SECURITIES
OR PROPERTIES OF JERSEY CONSOLIDATED MINES LIMITED, NOR
DO I EXPECT TO RECEIVE ANY.

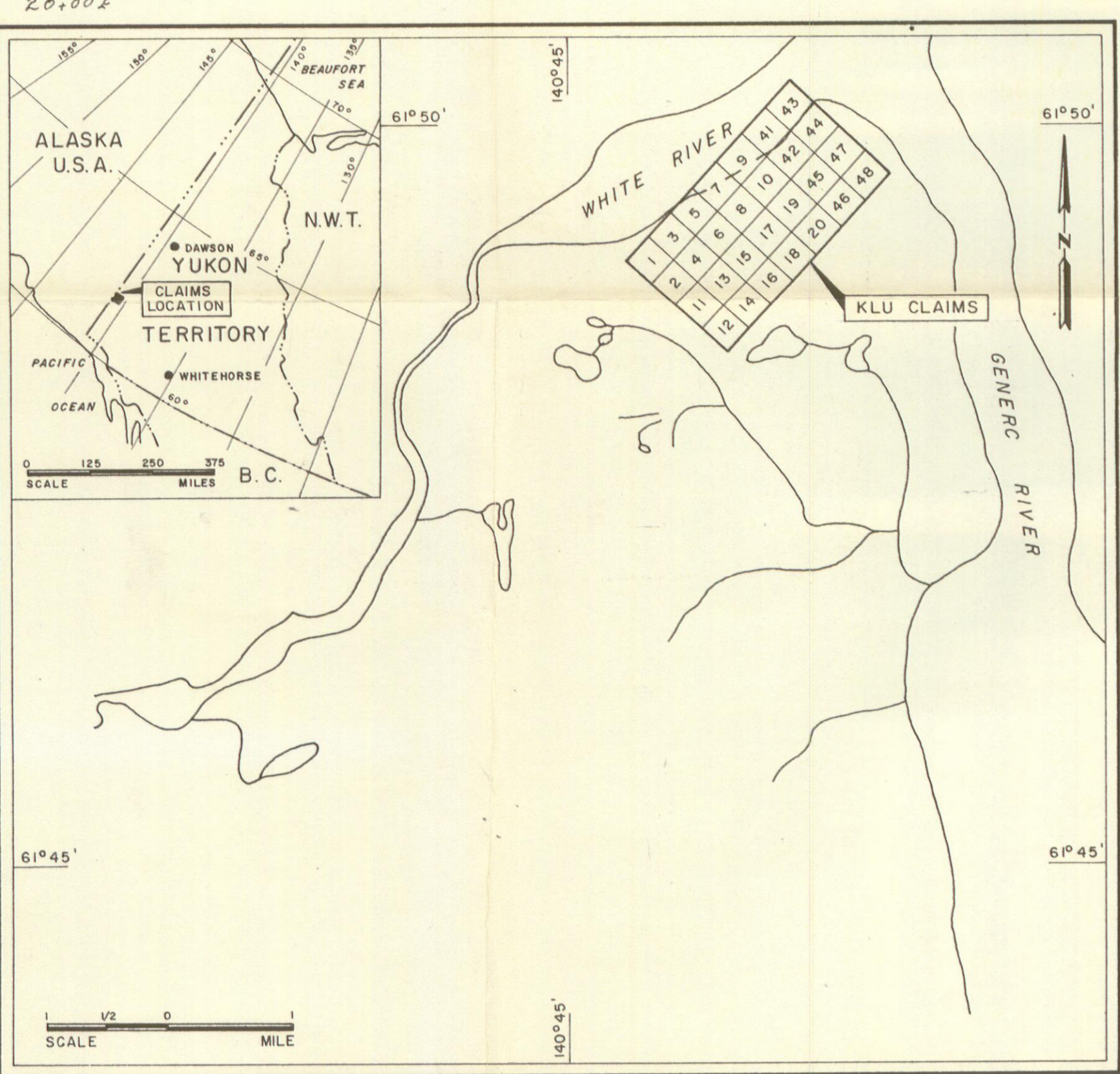
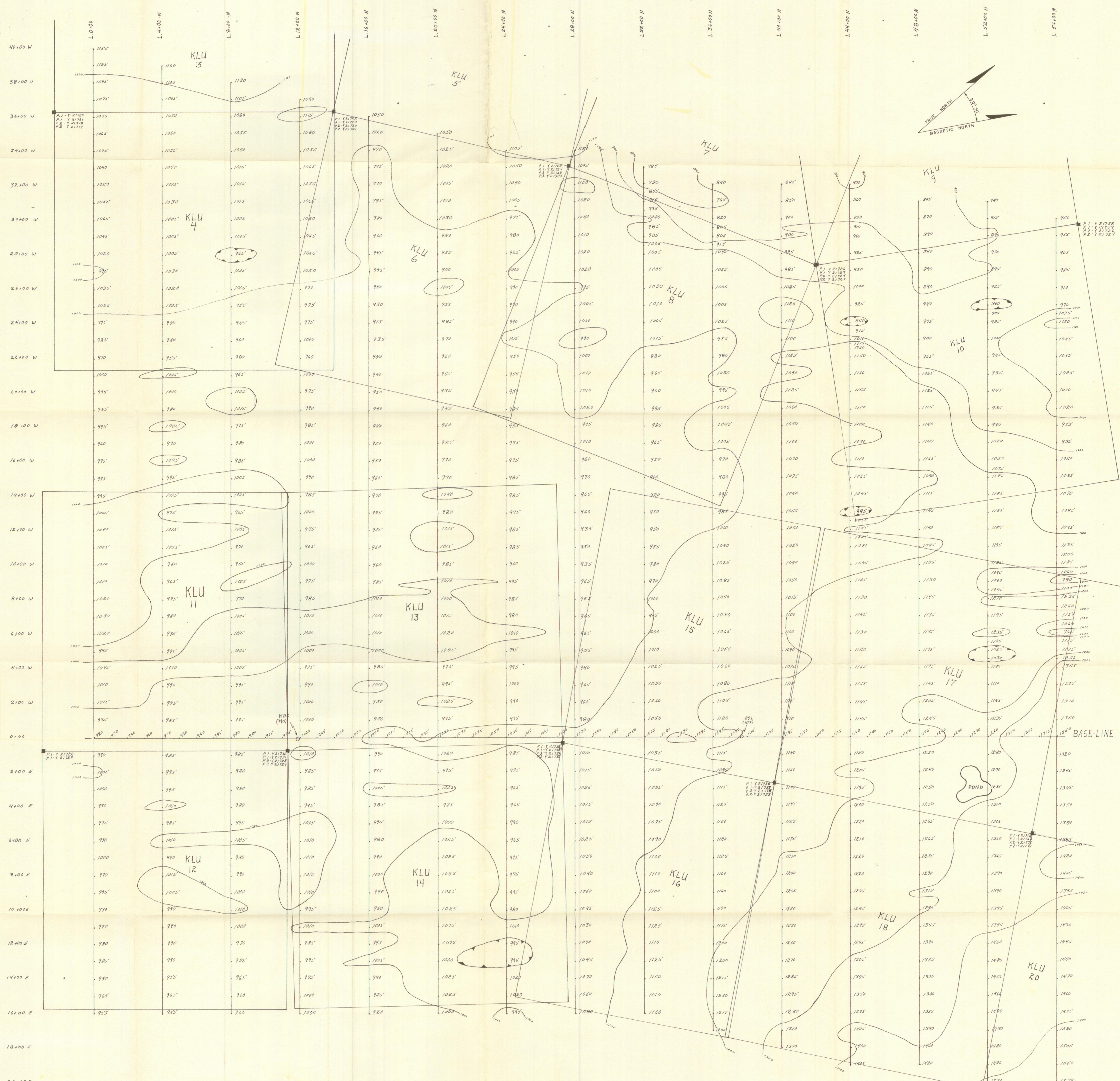
PETER E. WALCOTT, P.ENG.

VANCOUVER, B.C.

DECEMBER, 1968.

REFERENCES

- BOSTOCK, H. S. 1952: GEOLOGY OF NORTHWEST STAKWAK VALLEY
YUKON TERRITORY, G.S.C. MEM. 267
- CAIRNED, D. D. 1915: UPPER WHITE RIVER DISTRICT
YUKON, G.S.C. MEM. 50, PP. 133-141
- MULLER, J. E. 1967: KLUANE LAKE MAP AREA, YUKON TERRITORY
G.S.C. MEM. 340.



LEGEND
 ——— CONTOUR INTERVAL 100 GAMMAS
 —●— CLAIM POST AND BOUNDARY

JERSEY CONSOLIDATED MINES LIMITED
 KLU CLAIMS, WHITE RIVER AREA, WHITEHORSE MINING DIVISION, YUKON TERRITORY

MAGNETOMETER SURVEY

SCALE: 1 INCH = 200 FEET
 200 0 200 400 600
 FEET FEET

MAP No. E 142-1
 TO ACCOMPANY A REPORT BY
 PETER E. WALCOTT P. Eng.
 DATED DECEMBER, 1968

Peter E. Walcott

EAGLE GEOPHYSICS LIMITED
 OCTOBER, 1968