ASSESSMENT REPORT FOR THE GRADIOMETER GEOPHYSICAL SURVEY CONDUCTED ON QUIGLEY GULCH BETWEEN JULY 6th AND 11th, 1988

Placer Lease: PL-7773
Tag Holder: Roger Garneau
Location: 7.5 km southeast of Dawson City, Yukon Territory
Latitude: 64 02'
Longitude: 139 17'

EIP 89-645?

On Behalf Of :

The property lease holder
Roger Garneau

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August, 1988

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ASSESSMENT REPORT ON
THE JULY, 1988, GRADIOMETER SURVEY
OF QUIGLEY GULCH, LEASE PL-7773

On Behalf Of

THE PROPERTY LEASE HOLDER
ROGER GARNEAU

1. INTRODUCTION

Between July 6th and July 11th, 1988, a gradiometer survey was conducted, by Mychelle Mollot and assistants, on behalf of the property lease holder, Roger Garneau, on Lease PL-7773 in Quigley Gulch.

The objective of the survey was to locate, on contour and profile maps, positive magnetic anomalies indicative of buried magnetite deposits.

The station and line spacings were 5 and 10 meters respectively. The baseline was 1000 meters long and the total line coverage was approximately 6.2 kilometers.

This report describes the survey logistics, theory, field procedures and office data processing. It also fulfills assessment requirements for lease PL-7773 under section 41 of the Placer Mining Act. The final presentation of the report includes contour and profile maps.

2. SURVEY LOCATION AND ACCESS

Quigley Gulch lease PL-7773, is located in the Klondike, approximately 7.5 km southeast of Dawson city, Yukon Territory.

Figure 1 shows the location of the survey area with respect to nearby population centers at a scale of 1:5,000,000.

Access to within 1 kilometre of the survey grid was gained by four wheel drive vehicle.

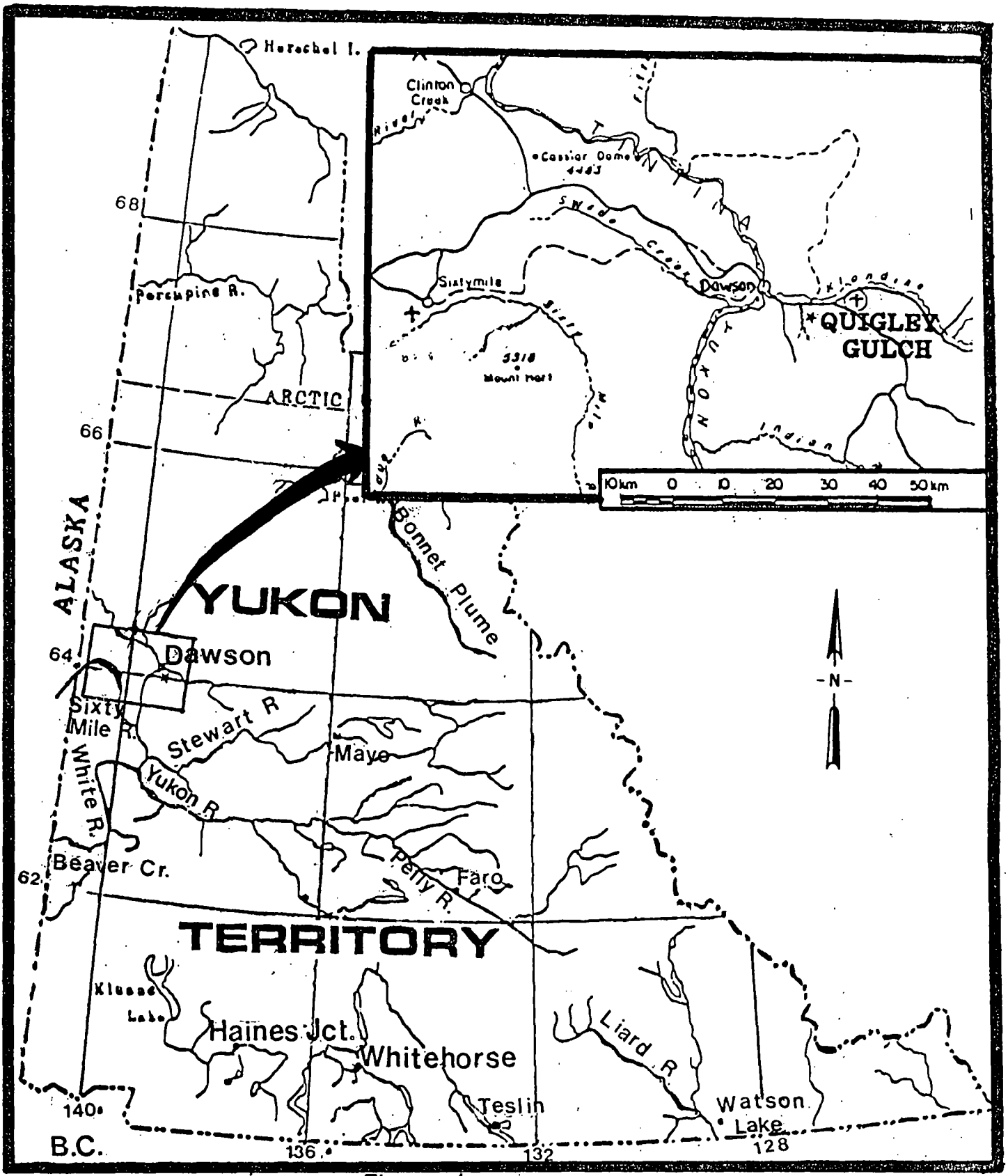
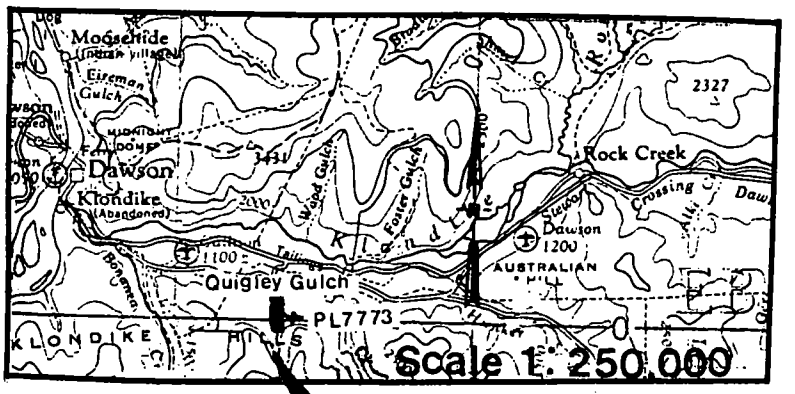
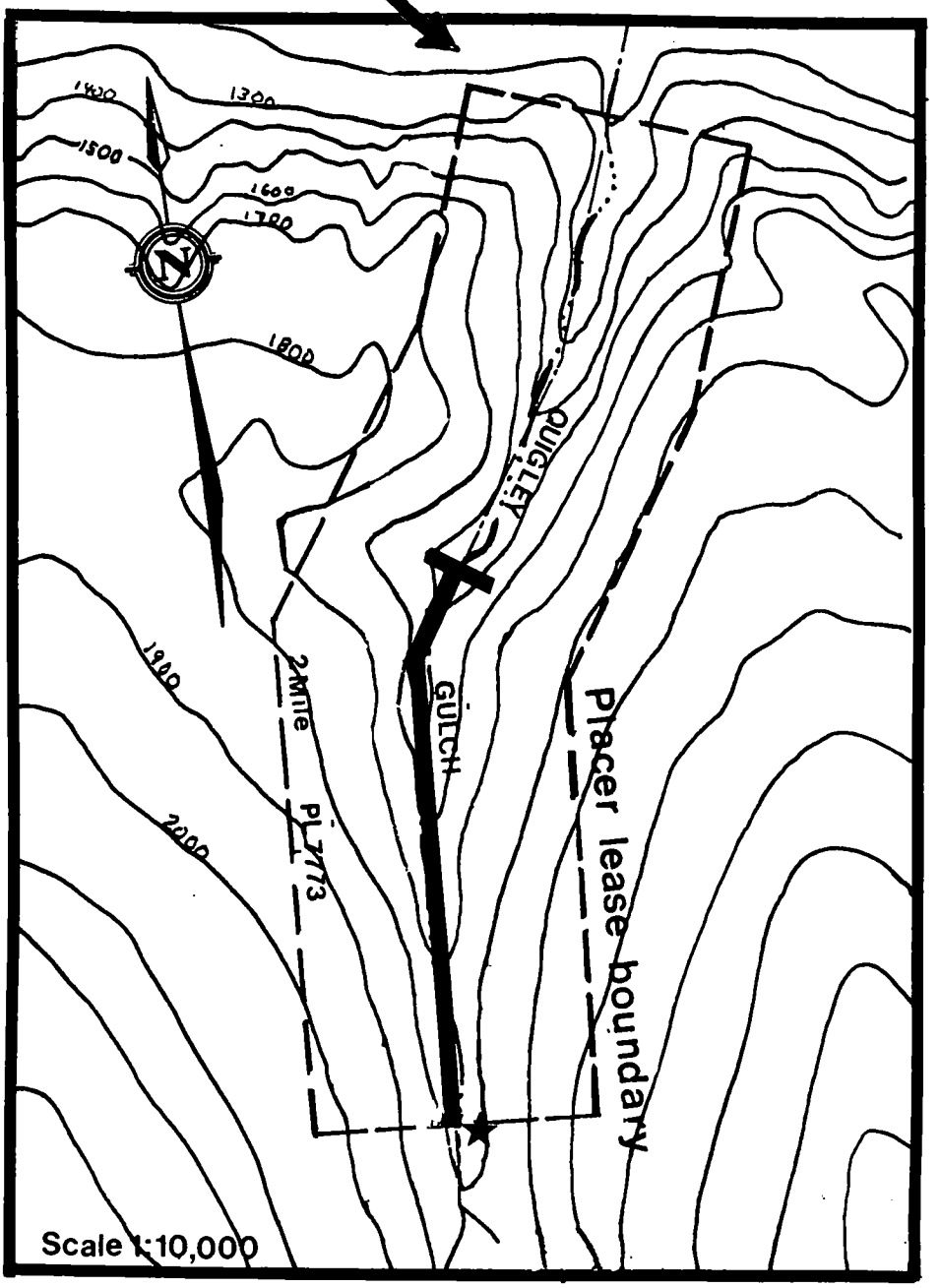


Figure 1

LOCATION MAP

Scale 1:5,000,000





★ Placer Lease Post

GRID LOCATION MAP

Figure 2

3. SURVEY GRID AND COVERAGE

The survey grid was constructed as follows:

A 1000 m baseline was measured, using a hip chain, and cut to a width of approximately 2 feet. The direction of the baseline changed often according to the general direction of the creek. These changes were measured with a Brunton compass and noted for map compilation. The baseline was flagged every 10 meters and survey lines were cut, with a few exceptions, at ninety degree angles from the baseline (the exceptions are indicated on the profile maps). The survey lines were flagged every five meters.

A property lease map and an outline of the survey grid baseline may be found in Figure 2. The baseline is oriented north-south and the survey lines run approximately east-west. The grid has a total of 100 survey lines.

A detailed breakdown of the survey coverage follows in Table 1.

TABLE 1

PRODUCTION SUMMARY: GRADIOMETER SURVEY

LINE	COVERAGE FROM	TO	LINE LENGTH (METRES)
L-1000N	40.0W	20.0E	60.0
L-990N	40.0W	20.0E	60.0
L-980N	45.0W	15.0E	60.0
L-970N	40.0W	20.0E	60.0
L-960N	55.0W	15.0E	70.0
L-950N	40.0W	15.0E	55.0
L-940N	45.0W	10.0E	55.0
L-930N	40.0W	15.0E	55.0
L-920N	40.0W	15.0E	55.0
L-910N	40.0W	15.0E	55.0
L-900N	40.0W	15.0E	55.0
L-890N	40.0W	15.0E	55.0
L-880N	40.0W	15.0E	55.0
L-870N	40.0W	20.0E	60.0
L-860N	40.0W	20.0E	60.0
L-850N	40.0W	15.0E	55.0
L-840N	40.0W	20.0E	60.0
L-830N	45.0W	25.0E	65.0
L-820N	40.0W	15.0E	55.0
Subtotal1:			1105.0m

LINE	COVERAGE FROM	TO	LINE LENGTH (METRES)
L-810N	40.0W	10.0E	50.0
L-800N	35.0W	20.0E	55.0
L-790N	40.0W	20.0E	60.0
L-780N	00.0W	15.0E	15.0
L-770N	15.0W	15.0E	30.0
L-760N	20.0W	00.0E	20.0
L-750S	40.0W	20.0E	60.0
L-740S	40.0W	20.0E	60.0
L-730S	40.0W	20.0E	60.0
L-720S	40.0W	20.0E	60.0
L-710S	40.0W	20.0E	60.0
L-700S	40.0W	15.0E	55.0
L-690S	40.0W	20.0E	60.0
L-680S	55.0W	20.0E	75.0
L-670S	40.0W	20.0E	60.0
L-660S	50.0W	20.0E	70.0
L-650S	40.0W	15.0E	55.0
L-640S	65.0W	10.0E	75.0
L-630S	40.0W	15.0E	55.0
L-620S	45.0W	15.0E	60.0
L-610S	40.0W	15.0E	55.0
L-600S	55.0W	15.0E	70.0
L-590S	45.0W	15.0E	60.0
L-580S	65.0W	10.0E	75.0
L-570S	40.0W	15.0E	55.0
L-560S	60.0W	20.0E	80.0
L-550N	40.0W	20.0E	60.0
L-540N	65.0W	15.0E	80.0
L-530N	65.0W	15.0E	80.0
L-520N	65.0W	15.0E	80.0
L-510N	60.0W	15.0E	75.0
L-500N	50.0W	65.0E	115.0
L-490N	35.0W	15.0E	50.0
L-480N	65.0W	10.0E	75.0
L-470N	60.0W	10.0E	70.0
L-460N	65.0W	20.0E	85.0
L-450N	50.0W	30.0E	80.0
L-440N	40.0W	30.0E	70.0
L-430N	35.0W	35.0E	70.0
L-420N	25.0W	40.0E	65.0
L-410N	30.0W	30.0E	60.0
L-400N	35.0W	35.0E	70.0
Subtotal2:			2675.0m

LINE	COVERAGE FROM	TO	LINE LENGTH (METRES)
L-390N	40.0W	30.0E	70.0
L-380N	45.0W	35.0E	80.0
L-370N	45.0W	30.0E	75.0
L-360N	45.0W	30.0E	75.0
L-350N	45.0W	30.0E	75.0
L-340N	35.0W	30.0E	65.0
L-330N	35.0W	30.0E	65.0
L-320N	35.0W	30.0E	65.0
L-310N	35.0W	30.0E	65.0
L-300N	40.0W	30.0E	70.0
L-290N	30.0W	20.0E	50.0
L-280N	30.0W	30.0E	60.0
L-270N	40.0W	30.0E	70.0
L-260N	35.0W	25.0E	60.0
L-250N	30.0W	25.0E	55.0
L-240N	40.0W	40.0E	80.0
L-230N	25.0W	45.0E	70.0
L-220N	20.0W	25.0E	45.0
L-210N	25.0W	25.0E	50.0
L-200N	25.0W	20.0E	45.0
L-190N	35.0W	20.0E	55.0
L-180N	35.0W	20.0E	55.0
L-170N	35.0W	20.0E	55.0
L-160N	30.0W	25.0E	55.0
L-150N	35.0W	25.0E	60.0
L-140N	35.0W	30.0E	65.0
L-130N	30.0W	30.0E	60.0
L-120N	25.0W	60.0E	85.0
L-110N	25.0W	20.0E	45.0
L-100N	25.0W	25.0E	50.0
L-090N	25.0W	25.0E	50.0
L-080N	25.0W	25.0E	50.0
L-070N	30.0W	25.0E	55.0
L-060N	35.0W	40.0E	75.0
L-050N	30.0W	25.0E	55.0
L-040N	30.0W	25.0E	55.0
L-030N	30.0W	15.0E	45.0
L-020N	30.0W	30.0E	60.0
L-010N	25.0W	25.0E	50.0
L-000N	25.0W	25.0E	50.0
Subtotal3			2520.0 m
+ Subtotal2			2675.0 m
+ Subtotal1			1205.0 m
Total			**6200.0 m**

4. PERSONNEL

	FROM	TO
Ms. Mychelle Mollot	July 6, 1988	July 11, 1988
Mr. Andrew Robinson	July 6, 1988	July 7, 1988
Mr. Doug Plant	July 6, 1988	July 11, 1988
Mr. Craig Dunham	July 8, 1988	July 11, 1988
Mr. Claude Turcotte	July 8, 1988	July 11, 1988
Mr. Doug Middleton	July 8, 1988	July 11, 1988
Mr. Mark Bergeron	July 6, 1988	July 9, 1988

Ms. Mychelle Mollot - Geophysicist. Ms. Mollot operated the EDA Omni IV Magnetometer and was responsible for data quality and the day-to-day operation and direction of the survey as well as the data processing and preparation of this report.

Andrew Robinson, Doug Plant, Mark Bergeron, Craig Dunham, Doug Middleton, Claude Turcotte - Assistants. They cut and flagged the survey lines.

Mr. Carson Austin - Consulting Engineer, JVX Ltd., Mr. Austin produced the profile and contour maps from the office of JVX Ltd., Toronto, Ontario.

5. INSTRUMENTATION

An EDA OMNI IV proton precession magnetometer, with a sensitivity of 0.1 gamma, was selected for the survey. It was used in the total field and gradient modes.

The instrument records: total field and gradient readings, time of reading and station locality as programmed prior to the survey.

Changes in the ambient magnetic field with time were monitored and recorded by a second fixed EDA OMNI IV. The base station took measurements at 30 second intervals. The base station magnetic data was used to automatically correct the survey magnetic data for diurnal variations to a datum of 57000 gammas.

The magnetometer (gradiometer and total field) survey data were archived in the field on a Cordata microcomputer. At the conclusion of each day's data collection, data resident in the OMNI IV memory was transferred, via serial communication link, to the computer - thereby facilitating editing, processing and presentation.

6.0 GEOLOGY

6.1 Geomorphic Setting

Quigley Gulch is located in the Yukon Plateau Division of the Cordilleran Region. The region is characterized by drainage divides at about 3300 ft locally and rising to about 4500 ft. These divides are formed of crooked ridges separated by dendritic valleys and are drained by master streams from 1000 to 1500 feet above sea level. A few summits, locally called domes, with altitudes of about 5000 ft occupy ridge intersections.

The Yukon Plateau geomorphic province occupies the central or interior Yukon Territory, on both sides of the Tintina Trench (see Figure 1). Ridge and upland altitudes from 3000 to 5000 feet are common in the Yukon Plateau Division. The Division is bound on the north by the Olgivie Mountains where numerous summits are as high as 7000 feet.

The Klondike Plateau, unglaciated subdivision of the Yukon Plateau Division, extends southeast from Alaska. It is bound in the northeast by the Tintina Trench and by glaciated plateau terrain in the south and east. In the north the upland surface is presumed to be defined by nearly horizontal accordant ridges; in the south remnants of it surround the Dawson Range which stands about 1000 feet higher. (Milner, 1980)

6.2 Regional Geology

Quigley Gulch is situated within the Yukon Crystalline Teheran which is the result of Triassic regional metamorphism, southwest of the Tintina Trench. The Tintina Trench is the topographic expression of a Mesozoic right lateral fault of some 250 miles displacement. (Milner, 1980)

6.2.1. Bedrock Geology

The Premesozoic basement rocks of the region consist of the Klondike and Nasina series as well as ultramafic rocks.

The Klondike series consists of the Klondike Schists and the Pelly Gneisses. The Klondike Schists are: quartz-sericite schist, quartz-eye schist, chlorite schist phase, quartz carbonate-chlorite schist, amphibole-quartz schist, and amphibolite rock

The Pelly Gneisses are gneissic granite and mylonite.

The Nasina series consists of graphitic phyllite, black quartzite, black carbonate phyllite, white marble, and banded quartz rock.

The ultramafic rocks are peridotite serpentite and steatite.

Covering the basement rocks are the post Mesozoic covering rocks. These consist of the lower Tertiary sedimentary rocks, lower Tertiary igneous rocks (basic dikes, basic to intermediate flows and pyroclastics, acidic igneous rocks and quartz veins) and upper, tertiary and quartenary sedimentary rocks. (Milner, 1980)

6.3 Local Geology

The majority of Quigley Gulch, is located within the QSd geological unit, which is a division of the quartzfeldspathic schistose rocks, as defined on the 1984, open file, Indian and Northern Affairs Map, Bedrock Geology and Mineralization of the Klondike Area (West) (See Figure 3). The remainder is located within the CSa geological unit, a division of the carbonaceous rocks.

The geological units are defined as follows:

QSd - buff weathering, well foliated, muscovite-feldspar-quartz schist.

CSa - massive to foliated dark grey to black carbonaceous quartzite and muscovite-quartz schist.

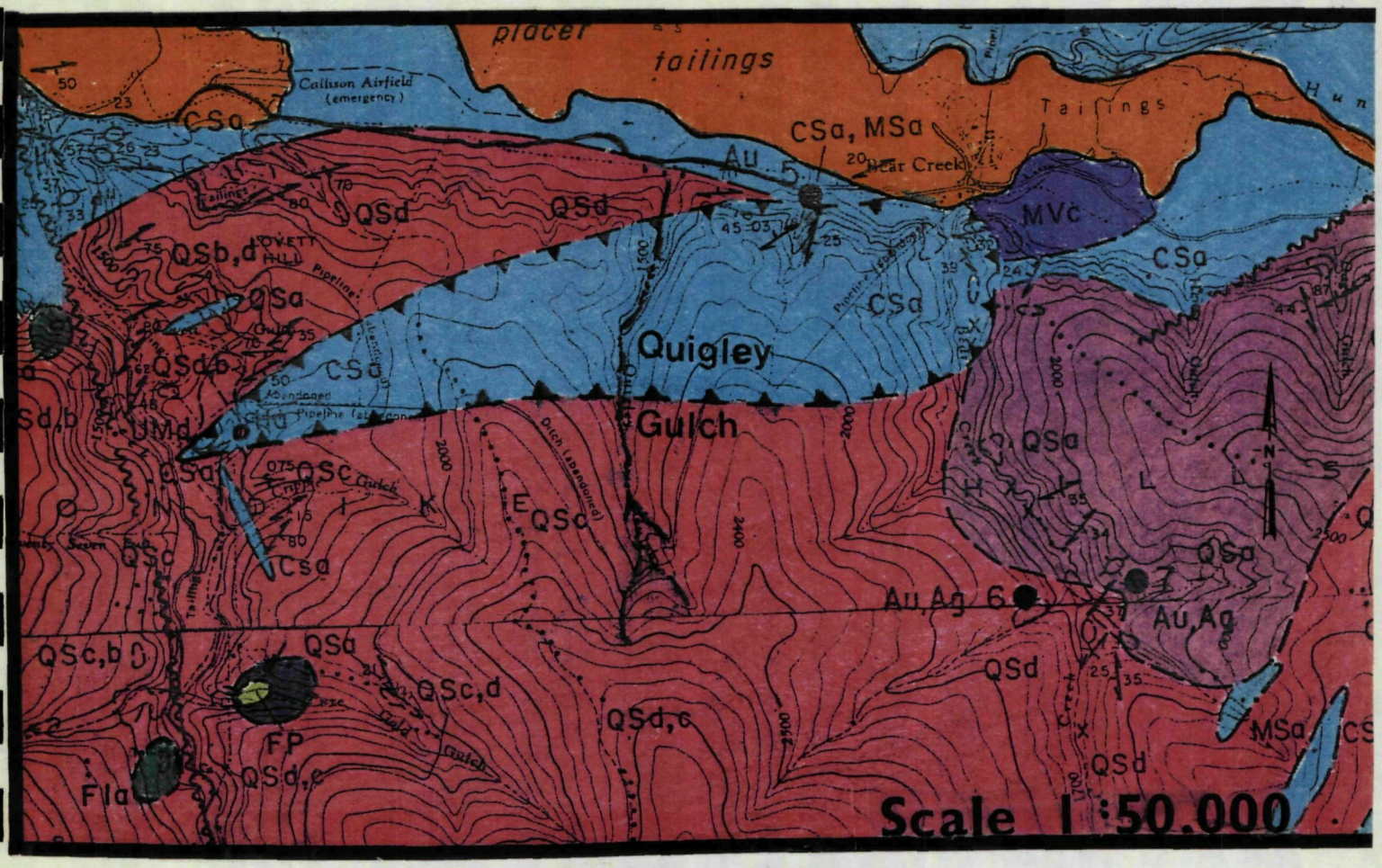
7. THEORY

7.1 Earth's Magnetic Field

The earth's magnetic field is similar in form to that of a bar magnet (see Figure 4). The origin of the field is not well understood, but thought to be due to currents in a fluid conductive core. The flux lines of the geomagnetic field are vertical at the north and south magnetic poles where the strength is approximately 60,000 gammas. In the equatorial region, the field is horizontal and its strength is approximately 30,000 gammas (see Figure 5).

7.2 Time variations

The primary geomagnetic field is, for the purposes of normal mineral exploration surveys, constant in space and time. Magnetic field measurements may, however, vary considerably due to short term external magnetic influences. The magnitude of these variations is unpredictable. In the case of sudden magnetic storms, it may reach several hundred gammas over a few minutes. It is therefore necessary to take continuous readings of the geomagnetic field with a base station magnetometer for the duration of the survey.



Geology map

LEGEND

QS QUARTZOFELDSPATHIC SCHISTOSE ROCKS

QSa blocky weathering light grey to pinkish grey feldspar-quartz schist.

QSd buff weathering well foliated muscovite-feldspar-quartz schist.

QSb buff weathering well foliated muscovite-feldspar- quartz schist with quartz and feldspar porphyroclasts, and lithic fragments.

QSc buff weathering well foliated muscovite-feldspar-quartz-schist with quartz porphyroclasts.

CS CARBONACEOUS ROCKS

CSa massive to foliated dark grey to black carbonaceous quartzite and muscovite-quartz schist

FP FELSIC PLUTONIC ROCKS

MP foliated equigranular biotite granodiorite

MV MAFIC METAVOLCANIC ROCKS

MVc foliated andesitic greenstone

FL FELSIC INTRUSIVE AND VOLCANIC ROCKS

FLa light coloured quartz-feldspar rhyolite porphyry

Tailing Piles

Figure 3

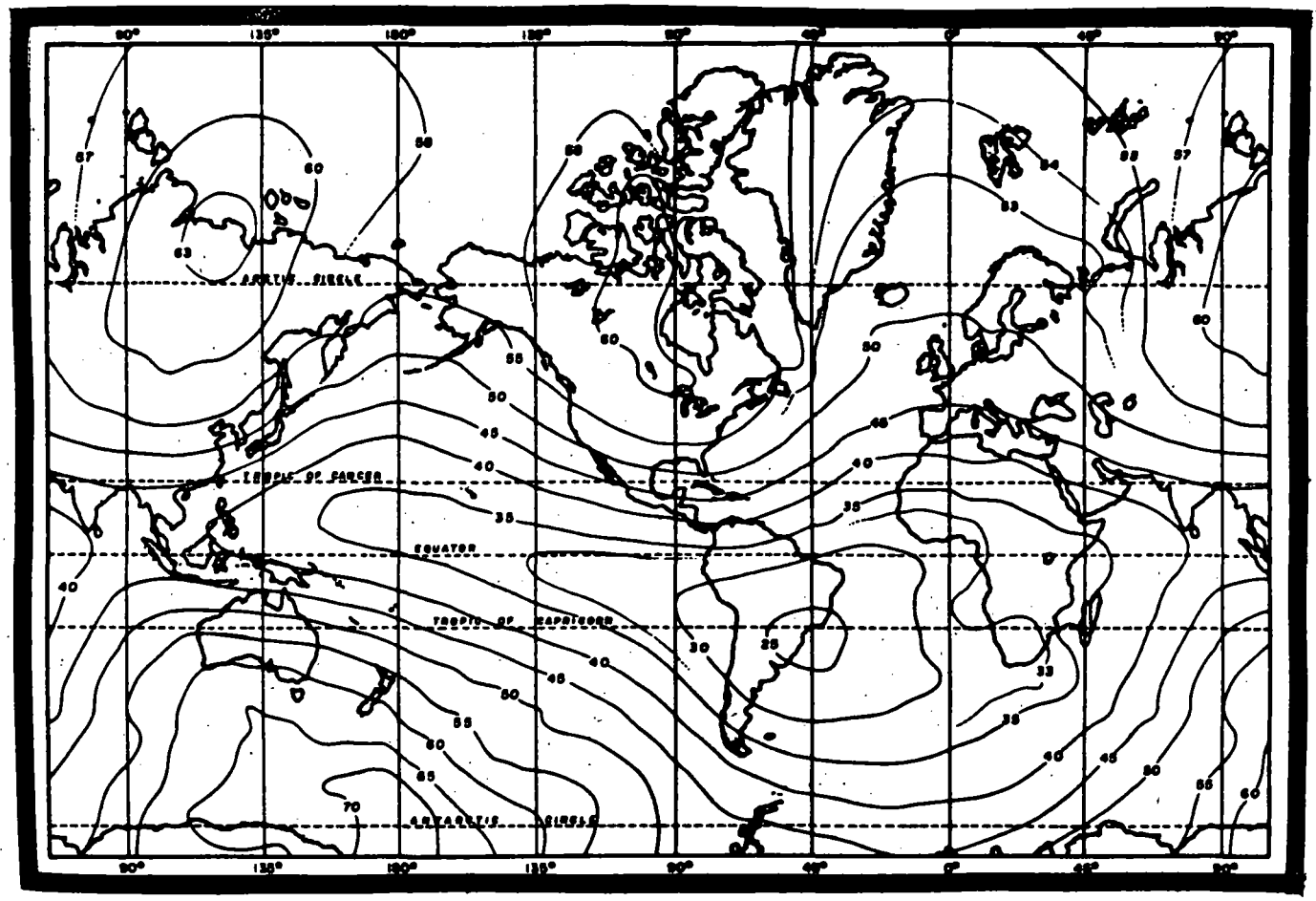


Figure 5

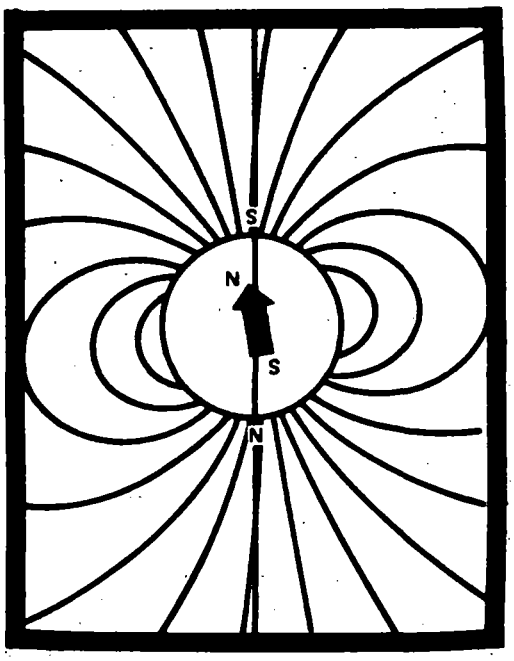


Figure 4

7.3 Magnetometer Method

The magnetometer method of exploration consists of measuring the magnetic field of the earth as influenced by rock formations having different magnetic properties and configurations (Schultz, 1987).

For this survey the vertical magnetic gradient was measured, as well as the total field, to provide information on the depth of the source. This information arises from the observation that long wavelength variations in gradient profiles follow the total field most closely, and from noting that long wave variations are due to deeper sources.

7.4 Measured Field

The measured field is the vector sum of primary, induced and remnant magnetic effects. Thus, there are three factors, excluding geometric factors, which determine the magnetic field. These are the strength of the earth's magnetic field, the magnetic susceptibilities of the rocks and minerals present and their remnant magnetism.

The intensity of magnetization induced in rocks by the geomagnetic field F is given by:

$$I = kH$$

where:

I is the intensity of magnetization
k is the volume magnetic susceptibility
H is the magnetic field intensity

The susceptibilities of rocks are determined primarily by their magnetite content since magnetite is strongly magnetic and widely distributed.

The remnant magnetization of rocks depend both on their composition and previous history. Whereas the induced magnetization is nearly always parallel to the direction of the geomagnetic field, the natural remnant magnetization may bear no relation to the present direction and intensity of the earth's field. The remnant magnetization is related to the direction of the earth's field at the time the rocks were last magnetized. Interpretation of most magnetometer surveys is normally done by assuming no remnant magnetic component.

7.5 Proton Magnetometer

The proton precession magnetometer is so named because it utilizes the precession of spinning protons or nuclei of the hydrogen atom in a sample of hydrocarbon rich fluid (Coleman fuel was used in this survey) to measure the total magnetic intensity. The spinning protons in the fluid behave as small, spinning magnetic dipoles, These magnets are temporarily aligned or polarized by application of a uniform magnetic field generated by a current in a coil of wire. When the current is removed, the spin of the protons causes them to precess about the direction of the ambient or earth's magnetic field, much as a spinning top precesses about the gravity field.

The precessing protons then generate a small signal in the same coil used to polarize them, a signal whose frequency is precisely proportional to the total magnetic field intensity and independent of the orientation of the coil, i.e., sensor of the magnetometer. The proportionality constant which relates frequency to field intensity is a well known atomic constant: the gyromagnetic ratio of the proton. The precession frequency, typically 2000 Hz, is measured by modern digital counters as the absolute value of the total magnetic field intensity with an accuracy of 0.1 gamma, in the earth's field of approximately 50,000 gammas.

8. DATA PROCESSING AND PRESENTATION

8.1 Data Processing

To allow for the computer processing of the magnetic data, the data resident in the OMNI IV's memory was transferred via a serial communication link to the Corona computer - thereby facilitating editing, processing and presentation operations. All the data was archived on floppy disk.

All data has been reviewed and the necessary editing has been performed. The corrected data have been ink-plotted in plan as contour and offset profiles on a Nicolet Zeta drum plotter, interfaced to an IBM PC/XT microcomputer.

8.2. Data Presentation

Contoured and offset profile plan maps of the corrected data were computer generated and fine-drafted on mylar, at a scale of 1:1000 with appropriate contour intervals.

The final presentation products are as follows:

Table 2: Presentation Plate Index

Plate 1: Total Field Magnetics and gradient Contour Maps, scale 1:1000
Total Field Magnetics, and Gradient, Offset Profiles, scale 1:1000

9.0 INTERPRETATION AND RECOMMENDATIONS:

9.1 Introduction

Although placer gold deposits cannot be located by a magnetometer survey, the common accessory mineral, magnetite, can. Alder and Alder (1985) demonstrate the correlation between positive magnetic total field anomalies with gold content in pay channels in the Keithley Creek and other areas in British Columbia and Alaska. (Schultz, 1987)

The aim of the interpretation is to locate areas, on the profile and contour maps, which contain placer deposits of magnetite. These areas would be considered the most promising in terms of potential gold content.

The most promising areas of the survey grid are where a local total field high and a vertical gradient high occur together. Line to line correlations between simultaneously occurring highs were made and zones were defined depending on their strike extent.

These zones were classified, using the guidelines below, as either high or medium priority exploration zones and marked on both profile and contour maps. Recommendations, as to the most promising targets for further exploration by shafting or drilling, were given.

High Priority Zone: Anomalies in high priority zones are well defined, with short wave lengths. They correlate over four lines or more.

Medium Priority Zone: Anomalies in medium priority zones are well defined, with short wave lengths. They correlate over two or three lines. The targets in these zones should be considered for further exploration after those in the high priority zones.

9.2 Interpretation

Please refer to Plate 1 (in the plastic pouch), which contains the contour and profile maps of the total field and vertical gradient data.

The mean total field values increase towards the north or the grid. The general trend of the anomalous zones is north-south while the trend of the regional magnetics is approximately east-west

Total field magnetic values range in amplitude from 56,931 gammas to a maximum value 56,993 gammas.

Following is a description of the high and medium priority zones.

Zone A:

Zone A is characterized, on the profile map, by well defined total field and vertical gradient anomalies which extend from line L-10N, Station 5W, to line L-40N, Station 5W.

The zone is striking approximately north-south as can be seen on the contour maps (Plate 1).

The most promising area of the zone is on line 20N between station 5W and 10W.

Recommendation: Medium Priority Zone, drill or shaft at Station 5W, line L-20N

Zone B:

This zone extends from line L-130N Station 5W to line L-200N station 10W. The first and last lines within the zone have the lowest amplitude anomalies.

The strike of the zone is, as Zone A, north-south. The most promising area within this High Priority zone is at station 10W on line L-190N where the total field and corresponding vertical gradient values are 56971.9 gammas, and 12.4 gammas/m, respectfully.

Recommendation: High Priority Zone, drill or shaft at station 10W line L-190N

Zone C:

This zone extends from line L-880N to line L-910N. The total field anomaly is not present on line L-900N, but as the vertical gradient anomaly is present, the line was included in the zone.

The most promising area of the zone is located on line L-880N at station 15W.

Recommendation: Medium Priority Zone, drill or shaft at station 25W on line L-580N.

Zone D:

Zone D begins at line L-560N and ends with line L-590N. The total field values range from 56970.5 to 56991.1 gammas. The vertical gradient values range from 1.5 gamma/m to 12.8 gamma/m.

The zone trends north-south. The most promising are in the zone is located at station 25W on line L-580N.

Recommendation: Medium Priority Zone, drill or shaft at station 25W on line L-580N.

Single Line Anomalies: Two single line anomalies worthy of mention are located on lines L-850N and L-580N at station 25W. Because no line to line correlation could be made from these anomalies they do not represent a drill or shaft target.

10.0 CONCLUSION

A Gradiometer survey was conducted on Quigley Gulch lease PL-7773 at the request of the property lease holder Roger Garneau between July 6th and July 11th, 1988.

The line and station spacings were ten meters and five meters respectively. These spacings were sufficiently small for accurate line to line correlations.

Line to line correlations of simultaneously occurring gradiometer and magnetometer high were made. Each correlation was called a zone and given a label. These zones are believed to be the magnetic response of placer deposits of magnetite. Since magnetite is a common accessory mineral of gold these zones may also contain placer deposits of gold.

Recommendations for drilling or shafting exploration were given as summarized below.

Summary of Recommendations:

Zone A: Medium Priority Zone, drill or shaft at Station 5W, line L-20N

Zone B: High Priority Zone, drill or shaft at station 10W line L-190N

Zone C: Medium Priority Zone, drill or shaft at station 25W on line L-580N.

Zone D: Medium Priority, drill or shaft at Station 15W on line L-880N.

Further detailed gradiometer exploration of the survey grid area is not recommended as the line and station spacings were adequate to delineate anomalies of small amplitude.

A gradiometer survey, at this survey's specifications, of the remaining 2.3 Kilometers of the lease property is recommended.

11.0 STATEMENT OF COSTS

For gradiometer survey conducted on Quigley Gulch, placer lease PL-7773

Line Cutters	
4 men, 5 days @ $125/day:	$2500.00
Geophysicist	
Mychelle Mollot, BSc.(Eng), 5 days @ $350/day:	1750.00
Equipment Rental	
EDA Magnetometer plus base station	410.00
Computer, printer and power surge protector	100.00
Report Preparation	
Report writing, drafting, computer consultant, map and figure preparation, binding and photocopying	1200.00
TOTAL COST OF 1988 ASSESSMENT WORK:	**$5560.00**

If there are any questions with regard to the survey please contact the undersigned.

Respectfully Submitted,

Mychelle A. Mollot, B.Sc.(Eng)
Consulting Geophysicist

12. REFERENCES

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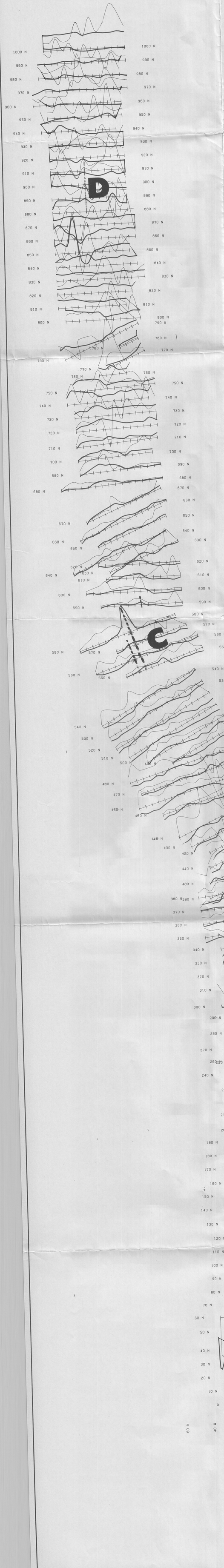
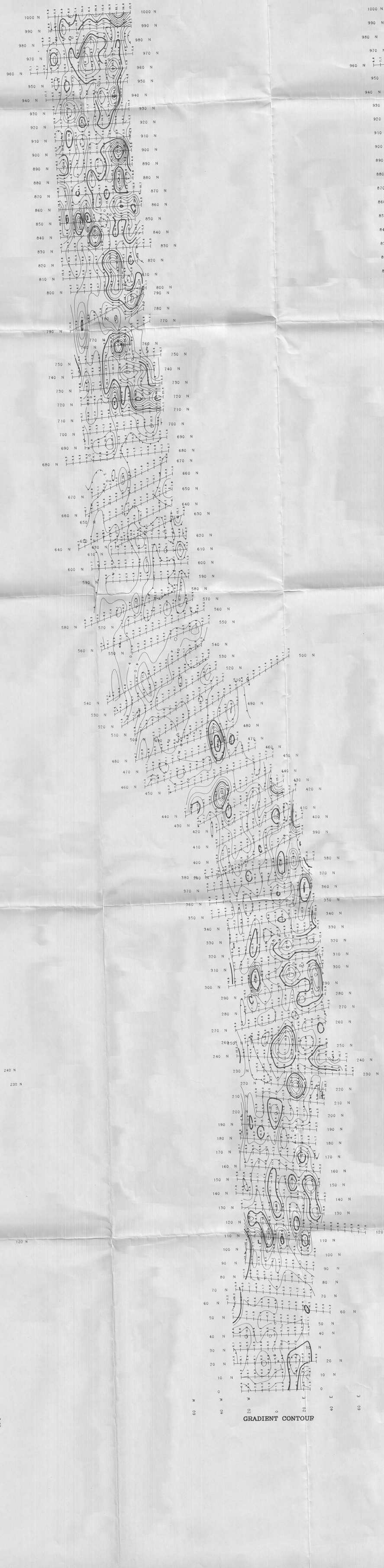
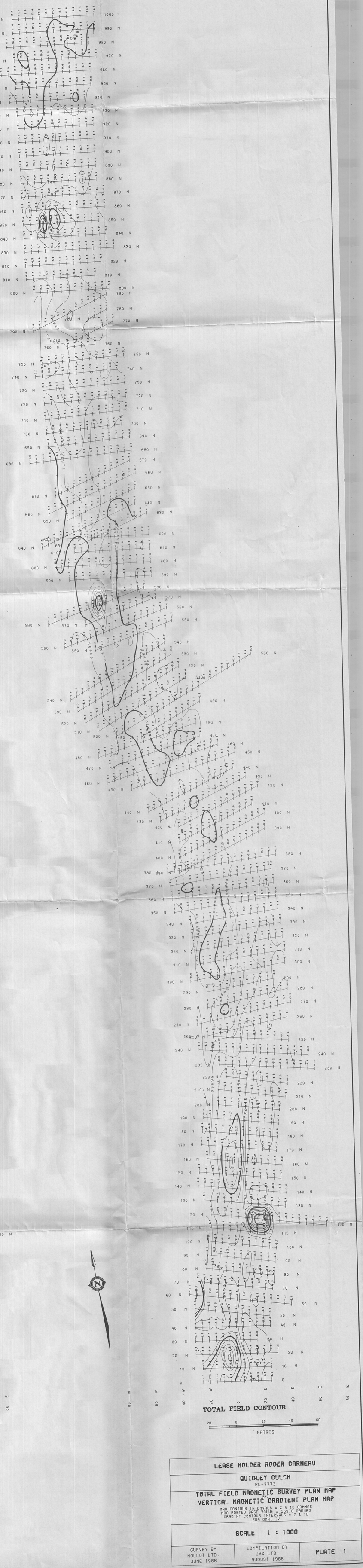


TOTAL FIELD PROFILE ——

GRADIENT PROFILE ——



GRADIENT CONTOUR



TOTAL FIELD CONTOUR

20 0 20 40 60

METRES

LEASE HOLDER ROGER DARNEAU		
QUIDLEY GULCH PL-7773		
TOTAL FIELD MAGNETIC SURVEY PLAN MAP AND VERTICAL MAGNETIC GRADIENT PLAN MAP MAG CONTOUR INTERVALS = 2 & 10 GAMMAS MAG POSTED BASE VALUE = 56970 GAMMAS GRADINT CONTOUR INTERVALS = 2 & 10 EDA OMNI IV		
SCALE 1 : 1000		
SURVEY BY MOLLOT LTD. JUNE 1988	COMPILATION BY JVX LTD. AUGUST 1988	PLATE 1

X- ZONE

EXPLORATION INCENTIVE PROGRAM

FILE: ED-89-2/89045

DRILL PROGRAM ON

QUIGLEY GULCH

LEASE #7773

PLACER SHEET 116-B-3b

LATITUDE 64° 00' TO 64° 05'

LONGITUDE 139° 10' TO 139° 20'

SUPERVISION WAS CONDUCTED BY

ROGER GARNEAU AND JACK RIVEST

FOR

RIVEST BROS. ENTERPRISES (1977) LTD.

FROM

JULY 1 - 31, 1989

EXPLORATION INCENTIVE PROGRAM

TABLE OF CONTENTS

January 8, 1990

The Department of Economic Development
Mines and Small Business
Box 2703
Whitehorse, Yukon
T6P 1N2

ATTN: MR. DAVID A. DOWNING
MINING DEVELOPMENT OFFICER
ENERGY AND MINES BRANCH

Dear Sir:

Re: Exploration Incentive Program
File ED-89-2/89045

Enclosed are our expenditures for the above Exploration Incentive Program that we conducted from July 1 - 31, 1989.

We thank you for your help with the program and the opportunity to drill in the Yukon Territory.

Yours truly,

Jack Rivest

JR/rr
Encl.

Yukon
Economic Development:
Mines & Small Business
Box 2703, Whitehorse, Yukon Y1A 2C6
(403) 667-5811 Telex 036-8-260

EXPLORATION INCENTIVES PROGRAM

FORM 2 - APPLICATION FOR PAYMENT

DESIGNATION NUMBER _____

1. NAME Rivest Bros. Enterprises (1977) Ltd.

3. MAILING ADDRESS 2430 - 80 Avenue

Edmonton, Alberta

Province Alberta Postal Code T6P 1N2

3. TELEPHONE (403) 440-6630

4. HEAD OFFICE ADDRESS Same as above

Province _____ Postal Code _____

5. PRINCIPAL BUSINESS ACTIVITY Non Destructive Testing

6. IF A CORPORATION - List names of all persons or corporations who own 10% or more of your outstanding shares (if insufficient space attach separate sheet)

Name	No. of Shares	% of total
Jack Rivest	50	50%
Simon Rivest	50	50%

7. MINERAL INCOME Do you expect to have any income from mineral production (prior to deduction of exploration expenses) during the year for which this application is made? (Yes/No) No If yes, state how much $ _____

8. SOURCES OF FUNDING (attach copies of agreements and proof of funding)

Rivest Bros. Enterprises (1977) Ltd.

9. EXPENDITURES (N.B. Please provide actual all-inclusive costs, including salaries & wages, equipment and machinery rental, supplies, services, transportation and accommodation directly attributable to the field program. All costs must be supported by original copy of all receipts).

(a) For the following the full cost (100% of expenditures) are eligible:

Preliminary Evaluation 3 days @ $350.00 /day = $1,050.00

Prospecting 3 days @ $ 250.00 /day = $ 750.00

Linecutting, chaining, picketting (4 Men for 5 Days:) 1 km @ $ 2,500.00/ km = $ 2,500.00

Geological Surveys _____ days @ $_____ /day = $_____

Geochemical Surveys _____ days @ $_____ /day = $_____

Sample analysis _____ soil samples @ $_____ /sample = $_____

_____ silt samples @ $_____ /sample = $_____

_____ rock geochem samples @ $_____ /sample = $_____

Other (specify)_____ = $_____

Geophysical Surveys

Method Gradiometer 1 km @ $ 3,060.00 / km = $ 3,060.00

Geophysical Survey _____ km @ $_____ / km = $_____

_____ _____ km @ $_____ / km = $_____

Stripping, Trenching _____ m^3 @ $_____ / m^3 = $_____

Surface drilling

Type Drilling Contract 642 Ft @ $25.00 /Ft = $ 16,050.00 ✓

_____ _____ m @ $_____ / m = $_____

Support Equipment for Drill _____ m @ $_____ / m = $ 17,326.17 ✓

See Attached

Dewatering and rehabilitation old underground workings

_____ days @ $_____ /day = $_____

Underground drilling

Type_____ _____ m @ $_____ / m = $_____

_____ _____ m @ $_____ / m = $_____

W/A 1988

Sampling costs Drill Core Samples = $_____

See Attached = $_____

Assays, petrographic analyses, X-ray analyses etc.

Type _____ No._____ @ $_____/sample = $_____

_____ No._____ @ $_____/sample = $_____

_____ No._____ @ $_____/sample = $_____

Metallurgical or process studies (specify)_____

_____ = $_____

_____ = $_____

Other costs (specify) See Attached = $_____

_____ = $_____

Clean up from Samples = $ 2,200.00

(b) For the following activities only 25% of total costs are eligible:

On-property construction costs

Access roads 1.5 km @ $ 3725.00 / km = $ 3725.00 x 25% = $ 1,397.12

Camps_____ $_____x 25% = $_____

Other (specify)_____ $_____x 25% = $_____

_____ $_____x 25% = $_____

Shaft sinking, drifting, raising etc. required for underground drilling and sampling

Shaft sinking _____ m @ $_____/ m = $_____x 25% = $_____

Drifting _____ m @ $_____/ m = $_____x 25% = $_____

Raising _____ m @ $_____/ m = $_____x 25% = $_____

TOTAL $ 44,333.29

* Unpaid costs from River Bros. including labour + Management not properly invoiced but confirmed + are reasonable

Sampling Costs and Other Costs:

We had to supply the following to conduct the program:

#2	Fuel and Oil for Cats and Drill	$ 1,497.39
#3	Parts for Cats and Drill	288.78
#4	Air Compressor Parts and Repair	640.00
#5	D8K Cat Rental to pull the Drill	7,200.00
#6	941 Cat Loader Rental for 1 month	4,500.00
#7	Support Labor for Drilling, Collecting Samples, etc.	3,200.00
	TOTAL	$17,326.17

Clean Ups:

An arrangement was made with Bud Kenzie of Midas Concentrating of Dawson City. Whereby, we would drill 2 holes for him on his properity which was next to Quigley Gulch, in lieu of charge for conducting our clean ups. These holes were valued at $2,200.00.

SUPPLEMENTARY INFORMATION The following information is required in order to help us determine the contribution which mineral exploration activity makes to the Yukon economy, and relates to the utilization of Yukon vs outside labour and services. Only figures directly attributable to the field program should be included (approximate figures acceptable, but please be as accurate as possible).

(a) Employment, wages & salaries

Type	Number employed		No. Person-days		Salaries/wages paid	
	Yukon	Outside	Yukon	Outside	Yukon	Outside
Prospectors		1		3	$	$ 750.00
Linecutters	4		5		$2,500.00	$
Technicians					$	$
General labourers					$	$
Drillers/helpers	2		10		$ 3,200.00	$
Equip. operators					$	$
Geologists					$	$
Geophysicists					$	$
Geochemists		1		7	$	$ 3,060.00
Engineers					$	$
Supervisory		2		60	$	$ 5,500.00
Consulting					$	$
Secretarial		1		5	$	$ 500.00
Managerial					$	$
Legal					$	$
Accounting					$	$
Gold Cleaners Others (specify)	1			5	$2,200.00	$
Others (specify)					$	$
TOTALS					$	$

(b) Goods & Services

Description		Expenditure Yukon	Outside
Meals, Groceries etc.	2 Men @ $80.00/Day for 30 Days	$2,400.00	$
Camping Supplies, Equipment etc.		$	$
Accommodation	Motels @ $80.00/Day for 30 Days	$ 2,400.00	$
Transportation -	Scheduled Air	$	$
	Air Charter	$	$
	Vehicle Rentals Trucking	$ 425.00	$
	Vehicle O & M costs	$ 1000.00	$ (Approx)
	Other (specify)	$	$
Equipment Rentals	Trenching etc.	$	$
	Geophysical etc.	$	$
	Other (specify) D8K Cat	$ 7,200.00	$
	Other (specify) 941 Cat	$	$ 4,500.00
Contract Drilling		$ 16,050.00	$
Consultant Services		$	$
Assays and analyses	Gold Cleaning	$ 2,200.00	$
Communications		$	$
Other (specify) Phoning Head Office, etc.		$ 350.00	$ (Approx)
Other (specify)		$	$

10. DECLARATION. I hereby apply for a contribution for a designated exploration project under the Yukon Exploration Incentives Program, and declare the information given above to be true and accurate.

Name Jack Rivest Signature Jack Rivest Date Jan. 16/90

ENCLOSED ARE RECEIPTS OF EXPENSES OCCURRED ON THE DRILLING PROGRAM ON QUIGLEY GULCH

Schedule "A"

1.	Legal	
	a) Assessment Report for the Gradiometer Geophysical Survey on Quigley Gulch 1988	$ 5,560.00 N/A.
	b) Lease payment on three claims from Chris Weimert	1,000.00 N/A
2.	Fuel	
	Petro-Canada Products	1,497.39
3.	Parts from Finning Ltd., Northern Metallic and others	288.78
4.	Repair and parts for Air Compressor	640.00
5.	D8K Cat Rental from Hawk Mining	7,200.00
6.	941 Cat Track Loader	4,500.00
7.	Support Labor and Drilling Crew	3,200.00
8.	Trucking and Contract Drilling from Brad Callison	16,375.00
	TOTAL	$40,261.17

Don't Include all costs see ~~Sched. A~~ Claim Form

10.0 STATEMENT OF COSTS

For gradiometer survey conducted on Quigley Gulch, placer lease PL-7773

Line Cutters	
4 men, 5 days @ $125/day:	$2500.00
Geophysicist	
Mychelle Mollot, BSc.(Eng), 5 days @ $350/day:	1750.00
Equipment Rental	
EDA Magnetometer plus base station	410.00
Computer, printer and power surge protector	100.00
Report Preparation	
Report writing, drafting, computer consultant, map and figure preparation, binding and photocopying	1200.00
TOTAL COST OF 1988 ASSESSMENT WORK:	**$5560.00**

If there are any questions with regard to the survey please contact the undersigned.

Respectfully Submitted,

W/A 1988

Mychelle A. Mollot, B.Sc.(Eng)
Consulting Geophysicist

THE BANK OF NOVA SCOTIA
7460 82ND AVENUE AT 75TH STREET,
EDMONTON, ALBERTA
T6B 0G2

Scotiabank

DUPLICATE

NO. TR906390 14

DATE

PAY TO THE ORDER OF $

SUM OF /DOLLARS

MR JACK L RIVEST
2220-80TH AVE STN L
EDMONTON ALTA T6P 1N2

[redacted]

3493210 (9/87)

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FILLED BY	CHECKED BY	PACKED BY	BILLED BY	BILL OF LADING NO.	B
SHIPPING DEPARTMENT — NUMBER OF PIECES/WEIGHT					CARTAGE
1-Bag				524.10	AIR FREIGHT OR EXPRESS
				528.00	PREPAID FREIGHT
				528.20	INTER BRANCH FREIGHT

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Drilling

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FINNING

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ORT SALESMAN FOR DETAILS.

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and understand the Terms and Conditions appearing on the reverse hereof and in particular cla

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DAWSON CITY YT

SALE BR. DOCUMENT	ACCT./JOB SUB/SEG. BR.	BR. INVOICE NO.	CUSTOMER ORDER NO.
081-069879	63818-00	081-069879	
F.S.T. EXEMPT NO.	**P.S.T. EXEMPT NO.**	**SALESMAN**	
FOG	YT	PAT HAMSON	
PAGE	**ORDERED BY**	**TELEPHONE**	**UNIT NUM**
1		4034676630	
MAKE	**MODEL**	**SERIAL NUMBER**	**EU** / **SHIP VIA**
ALL	STOCK		ZX WILL CALL

**** CONFIRMATION COPY - 008-258809 ****

ITEM	SUB	ORDERED	SHIPPED	BACK ORDER	C X	UM	SUP	PART NUMBER/TYPE	DESCRIPTION	QT	CR	UNIT PRICE
								SHIPPING BR DOCUMENT:	008-258809			
								ORIGINAL INVOICE:	081-069878			
1		8	8				CAT	8H2046	NSEAL			400

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SHIPPING DEPARTMENT — NUMBER OF PIECES/WEIGHT				

Drilling

	CARTAGE
524.10	AIR FREIGHT OR EXPRESS
528.00	PREPAID FREIGHT
528.20	INTER BRANCH FREIGHT

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SALE BR. DOCUMENT	ACCT./JOB SUB/SEG. BR.	BR. INVOICE NO.	CUSTOMER ORDER NO.
081-068670	63818-00	081-068670	
F.S.T. EXEMPT NO.	P.S.T. EXEMPT NO.	SALESMAN	
POG	YT	ROYAL MARTIN	
PAGE	ORDERED BY	TELEPHONE	UNIT NU
1		4034676630	
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CAT	941		ZX WILL CALL

ITEM	SUB	ORDERED	SHIPPED	BACK ORDER	C X	UM	SUP	PART NUMBER/TYPE		DESCRIPTION	QT	CR	UNIT PRICE
1		2	2				CAT	4J0816	N	ELEMENT			87

TOTAL WEIGHT	ITEMS		GROSS	PROV. TAX
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0E504T

FROM:

BOX 569
DAWSON CITY

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YOUR ORDER NO. ▶

OUR INVOICE NO. ▶ 081-068670

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FILLED BY	CHECKED BY	PACKED BY	BILLED BY	BILL OF LADING NO. B
SHIPPING DEPARTMENT — NUMBER OF PIECES/WEIGHT				

	CARTAGE
524.10	AIR FREIGHT OR EXPRESS
528.00	PREPAID FREIGHT
528.20	INTER BRANCH FREIGHT

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081-069878	63818-00	081-069878	

F.S.T. EXEMPT NO.	P.S.T. EXEMPT NO.	SALESMAN
POG	YT	PAT HAMSON

PAGE	ORDERED BY	TELEPHONE	UNIT N
1		4034676630	

MAKE	MODEL	SERIAL NUMBER	EU	SHIP VIA
ALL	STOCK		ZX	WILL CALL

ITEM	SUB	ORDERED	SHIPPED	BACK ORDER	C	UM	SUP	PART NUMBER/TYPE	DESCRIPTION	QT	CR	UNIT PRICE
1		12	4	8			CAT	8H2046	NSEAL			40

TOTAL WEIGHT	ITEMS			GROSS	PROV. TAX
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FROM:

BOX 569

FINNING

FROM:

BOX 569
DAWSON CITY

FILLED BY	CHECKED BY	PACKED BY	BILLED BY	BILL OF LADING NO.	B
SHIPPING DEPARTMENT — NUMBER OF PIECES/WEIGHT					CARTAGE
				524.10	AIR FREIGHT OR EXPRESS
				528.00	PREPAID FREIGHT
				528.20	INTER BRANCH FREIGHT

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SALE BR. DOCUMENT	ACCT./JOB SUB/SEG. BR.	BR. INVOICE NO.	CUSTOMER ORDER NO.
081-069880	63818-00	081-069880	
F.S.T. EXEMPT NO.	P.S.T. EXEMPT NO.	SALESMAN	
POG	YT	PAT HAMSON	
PAGE	ORDERED BY	TELEPHONE	UNIT
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ITEM	SUB	ORDERED	SHIPPED	BACK ORDER	CX	UM	SUP	PART NUMBER/TYPE	DESCRIPTION	QT	CR	UNIT PRICE
1		2	2				CAT	5P3931	COMPOUND			32

TOTAL WEIGHT	ITEMS			GROSS	PROV. TAX
52	1	X	8 PH0099	64 76	00

0E504T

Jack Rivest

FROM:

BOX 569

FINNING

FROM:

BOX 569

DATE SHIPPED	FILLED BY	CHECKED BY	PACKED BY	BILLED BY	BILL OF LADING NO. B	
SHIPPING DEPARTMENT — NUMBER OF PIECES/WEIGHT						CARTAGE
					524.10	AIR FREIGHT OR EXPRESS
					528.00	PREPAID FREIGHT
					528.20	INTER BRANCH FREIGHT

PARTS SALES ORDER

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Head Office: 555 Great Northern Way, Vancouver, B.C. V5T 1E2 Phone: (604) 872-4444

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ORT SALESMAN FOR DETAILS.

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and understand the Terms and Conditions appearing on the reverse hereof and in particular cla

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AWSON CITY Y.T.

192.75

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081-069844	63818-00	081-069844	
F.S.T. EXEMPT NO.	P.S.T. EXEMPT NO.	SALESMAN	
POG	YT	ROYAL MARTIN	
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MAKE	MODEL	SERIAL NUMBER	EU
ALL	STOCK		ZX

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TOTAL WEIGHT 0 | ITEMS 1 X 8 RM0727 | GROSS 6251 | PROV. TAX 000

OE504I..

FROM:

BOX 569
DAWSON CITY

YOUR ORDER NO. ▶

FINNING

OUR INVOICE NO. ▶ 081-068670

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BOX 647

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Petro-Canada produits

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MacKENZIE PETROLEUM LTD.

DAWSON CITY, YUKON, Y0B 1G0

DATE July 198 9

NAME

ADDRESS RIVEST Bros.

POSTAL CODE

QUANTITY	DESCRIPTION	PRICE	AMOUNT
1	CASE STG. FLUID		
	12 x 325 g.		45 00
	Drilling		
	Total		1,497.39

CHECK	CASH	C.O.D.	CHARGE	ON ACCT.	MDSE. RET.	PAID OUT	TAX
			✓				

I HAVE RECEIVED THE ABOVE IN GOOD ORDER.

X Jack Rivest. TOTAL 45 00

MOORE FLATPAKIT 5001E 2

38790

IT IS UNDERSTOOD AND AGREED THAT PAST DUE ACCOUNTS ARE SUBJECT TO A SERVICE CHARGE OF 2% PER MONTH.

SEE REVERSE

51409

MONTH MOIS | YEAR ANNÉE

7 89

ORDER NO. MANDE DU CLIENT

AMOUNT MONTANT

© Petro-Canada Inc.

THE BANK OF NOVA SCOTIA
7460 82ND AVENUE AT 75TH STREET,
EDMONTON, ALBERTA
T6B 0G2

Scotiabank

DUPLICATE

NO. R90639 013

DATE Aug 3/89

PAY TO THE ORDER OF Jackson Hill Mining $ 650 00/xx

SUM OF Six Hundred + Fifty DOLLARS

MR JACK L RIVEST
2220-80TH AVE STN L
EDMONTON ALTA T6P 1N2

Item. Drilling

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RIVEST BROS. ENTERPRISES (1977) LTD.
2430-80 AVENUE
EDMONTON, ALBERTA T6P 1N2

THE BANK OF NOVA SCOTIA
104th STREET & 63rd AVENUE
EDMONTON, ALBERTA T6H 4N9

0000269

CHECK NO.

PAY — Seven Thousand + Two Hundred — DATE Aug. 9/89 AMOUNT 7200 00 XX

TO THE ORDER OF Hawk Mining Co.

RIVEST BROS. ENTERPRISES (1977) LTD.

NON-NEGOTIABLE

PER Jack Rivest

⑈000269⑈ ⑆80499⑈002⑆ 00396⑈86⑈

RIVEST BROS. ENTERPRISES (1977) LTD. CHECK NO. 0000269

Hawk Mining Co.
7200.00 D&K. 45th.

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8626500 89TO4447 For Service Phone: Roger Morris 459-6169

INVOICE

Hawk Mining Co.
P.O. Box 371
Dawson City, Y.T. Y0B 1G0

Drilling

072457

DATE Aug 9, 1989

SOLD TO RIVEST BROTHERS ENT. 1977 LTD.
2430 - 80 AVE. EDMONTON ALTA.

SHIP TO T6P 1N2

ADDRESS _____ VIA _____

ORDER NUMBER

REPRESENTATIVE

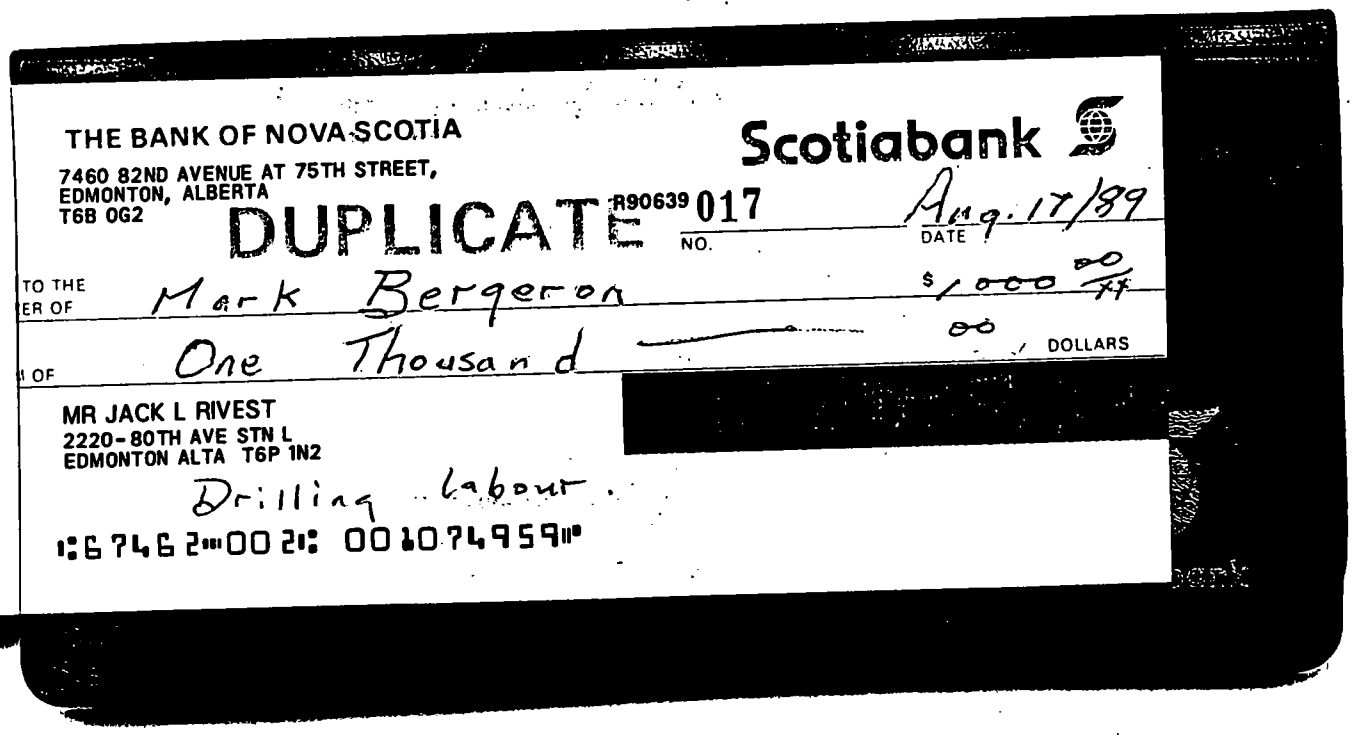
TERMS

F.O.B.

QUANTITY	DESCRIPTION	PRICE	AMOUNT
	45 HOURS RENTAL D8K		
	BUILDING ROADS BUILDING PADS		
	PULLING DRILL.		
45	HOUR @ $160.00 PER HOUR.		$7200.00
	PAID IN FULL		
	CHECK No. 0000269.		
	Royal Hamber. TOTAL		$7,200.00

REDIFORM® 7M32

Labour



THE BANK OF NOVA SCOTIA
7460 82ND AVENUE AT 75TH STREET,
EDMONTON, ALBERTA
T6B 0G2

Scotiabank

DUPLICATE

R90639 017
NO.

Aug. 17/89
DATE

TO THE ER OF Mark Bergeron

$ 1000 00/100

OF One Thousand — 00 / DOLLARS

MR JACK L RIVEST
2220-80TH AVE STN L
EDMONTON ALTA T6P 1N2

Drilling labour.

⑆6746⑆00 21⑆ 00107495911

Aug 4/89.

Received from Jack Rivest $2200 ~~00~~
For Contract Drilling as agreed upon.

DANNY. STEARNS

T.Tal $3200.00

INVOICE

21946

BRAD CALLISON

SOLD TO RALPH BROS

DATE JULY 27/84

ORDER NUMBER

REPRESENTATIVE

TERMS

F.O.B.

SHIP TO

ADDRESS VIA

QUANTITY	DESCRIPTION	PRICE	AMOUNT
	(DAWSON) LOAD D7. AT WHITE CHANNEL		
	HAUL TO QUIGLY. UNLOAD RE		
	YD LOAD DRILL HAUL QUIGLY,		
	KR TO COURTI. LOAD D8 HAUL		
	TO QUIGLY UNLOAD LOAD D7.		
	HAUL TO WHITE CHANNEL. UNLOAD		
	RE YD 4 HR. 85.		340 00
	DAWSON-QUIGLEY LOAD 941		
	HAUL TO DAWSON YD UNLOAD		85 00
	RE-CONTRACT DRILLING AT 25.00 PER		
	RE-642 FT		16050.00
			16475.00

EXPLORATION INCENTIVE PROGRAM

DRILLING TEST PROGRAM ON

QUIGLEY GULCH

TO VERIFY

PROTON PERCESSION MAGNETOMETER SURVEY

QUIGLEY GULCH, YUKON TERRITORY

116-B-3b

64° 02' N 139° 17' W

PL 7773
P35782 - Quigley #1
P35783 - Quigley #2
P28825 - Leslie

SUPERVISION WAS CONDUCTED BY

ROGER GARNEAU AND JACK RIVEST

FOR

RIVEST BROS. ENTERPRISES (1977) LTD.

FROM

JULY 1 - 31, 1989

SCHEDULE "B"

1. Quigley Gulch, Yukon Territory

Grant Number

PL 7773
P35782 - Quigley #1
P35783 - Quigley #2
P28825 - Leslie

Description:

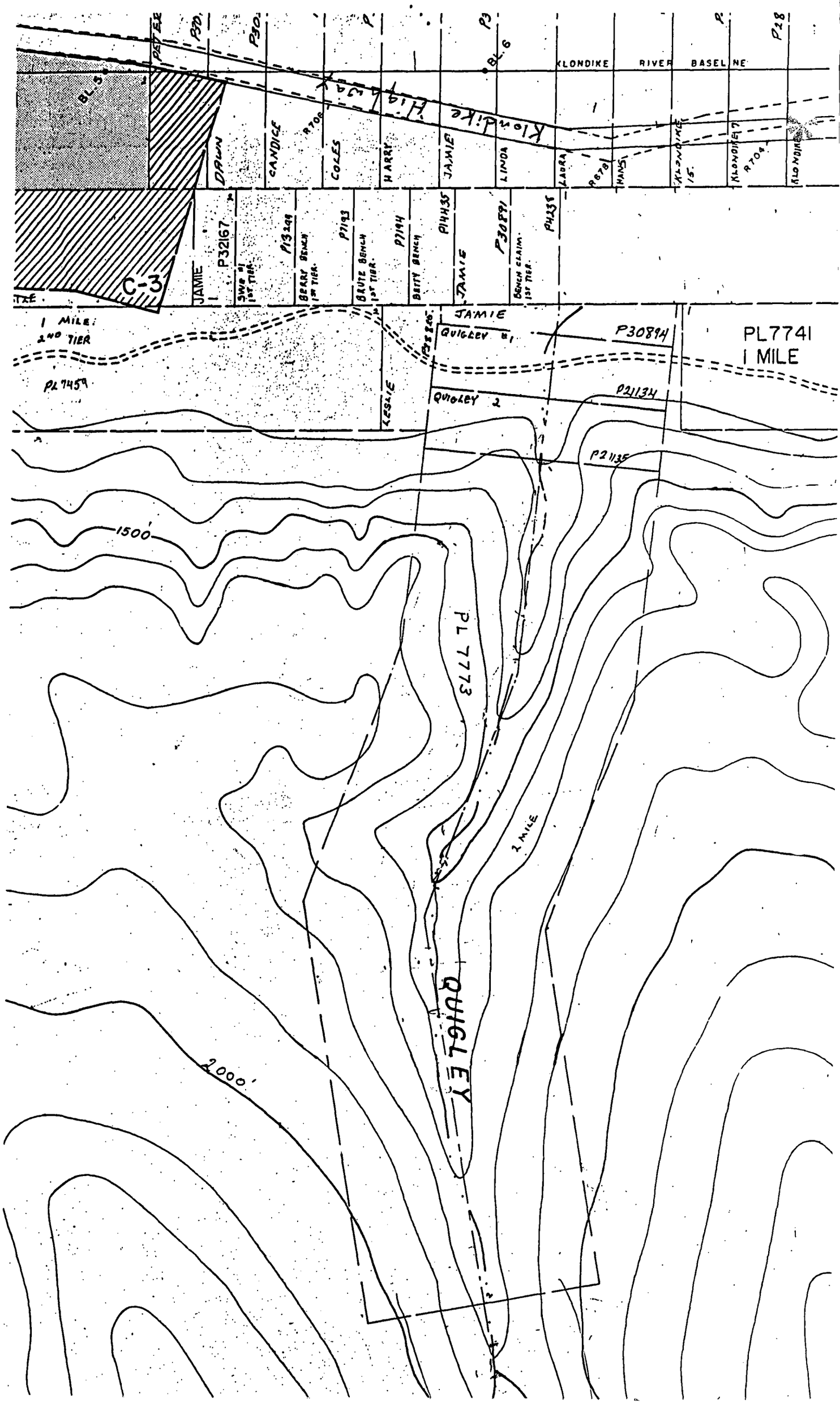
The claims are located in unglaciated terrain along Quigley Gulch, a tributary to the Klondike River near Dawson City. A few discontinuous patches and overlies several feet of frozen gravels. Bedrock consists of muscovite-feldspar-quartz schist and carbonaceous quartzite.

Current Work and Results:

A proton precession magnetometer survey measured total magnetic field and magnetic gradient on the claims in 1988. Grid lines with stations spaced at 5 meters were located 10 meters apart perpendicular to a 1000 meter baseline. Several zones of high magnetic gradient and anomalous total magnetic field were detected. In 1989 some of the magnetic anomalies were drilled with a Becker drill. Drill cuttings contained fine gold and some nuggets but very little magnetite.

Location:

Quigley Gulch is located between Bear Creek and Bonanza Creek. The creek flows in a easternly direction and is a tributary of the Klondike River. Quigley Gulch is only 4 - 5 kilometers in length. The creek drops from an elevation of approximately 2400 feet to 1200 feet during this 4 - 5 kilometers.


KLONDIKE RIVER BASELINE
Klondike Highway
DAWN
CANDICE
COLES
HARRY
JAMIE
LINDA
LAURA
HANSI
KLONDIKE 15
KLONDIKE 17
C-3
JAMIE
P32167
P13249
BERRY BENCH 1ST TIER
P1193
BRUTE BENCH 1ST TIER
P1194
BETTY BENCH
P11435
P30891
BENCH CLAIM 1ST TIER
P11435
1 MILE 2ND TIER
PL7459
JAMIE
QUIGLEY #1
P30894
PL7741
1 MILE
KESLIE
QUIGLEY 2
P21134
P21135
1500'
PL7773
2 MILE
QUIGLEY
2000'

Interpretation and Recommendations:

Introduction

Although placer gold deposits connot be located by a magnetometer survey, the common accessory mineral, magnetite, can. Alder and Alder (1985) demonstrate the correlation between positive magnetic total field anomalies with gold content in pay channels in the Keithley Creek and other areas in British Columbia and Alaska. (Schultz, 1987)

The aim of the interpretation is to locate areas, on the profile and contour maps, which contain placer deposits of magnetite. These areas would be considered the most promising in terms of potential gold content.

The most promision areas of the survey grid are where a local total field high and a vertical gradient high occur together. Line to line correlations between simultaneously occurring highs were made and zones were defined depending on their strike extent.

These zones were classified, using the guidelines below, as either high or medium priority exploration zones and marked on both profile and contour maps. Recommendations, as to the most promising targets for further exploration by shafting or drilling, were given.

High Priority Zone: Anomalies in high priority zones are well defined, with short wave lengths. They correlate over four lines or more. The targets within these zones should be considered first for further exploration.

Medium Priority Zone: Anomalies in medium priority zones are well defined, with short wave lengths. They correlate over two or three lines. The targets in these zones should be considered for further exploration after those in the high priority zones.

The vertical gradient data is not as smooth as the total field data because it reponds more sensitively to near surface sources.

Interpretation

Please refer to Plate 1, which contains the contour and profile maps of the total field and vertical gradient data.

The mean total field values increase towards the north or the grid. The general trend of the anomalous zones is north-south while the trend of the regional magnetics is approximately east-west.

Total field magnetic values range in amplitude from 56,931 gammas to a maximum value 56,993 gammas.

Following is a description of the high and medium priority zones.

Zone A:

Zone A is characterized, on the profile map, by well defined total field and vertical gradient anomalies which extend from line L-10N, Station 5W, to line L-40N, Station 5W.

The zone is striking approximately north-south as can be seen on the contour maps (Plate 1).

The most promising area of the zone is on line 20N between station 5W and 10W.

Recommendation: Medium Priority Zone, drill or shaft at Station 5W, line L-20N.

Zone B:

This zone extends from line L-130N Station 5W to line L-200N station 10W. The first and last lines within the zone have the lowest amplitude anomalies.

The strike of the zone is, as Zone A, north-south. The most promising area within this High Priority zone is at station 10W on line L-190N where the total field and corresponding vertical gradient values are 56971.9 gammas, and 12.4 gammas/m, respectfully.

Recommendation: High Priority Zone, drill or shaft at station 10W line L-190N.

Zone C:

This zone extends from line L-880N to line L-910N. The total field anomaly is not present on line L-900N, but as the vertical gradient anomaly is present, the line was included in the zone.

The most promising area of the zone is located on line L-880N at station Stn. 15W.

Recommendation: Medium Priority Zone, drill or shaft at station 25W on line L-580N.

Zone D:

Zone D begins at line L-560N and ends with line L-590N. The total field values range from 56970.5 to 56991.1 gammas. The vertical gradient values range from 1.5 gamma/m to 12.8 gamma/m.

The zone trends north-south. The most promising are in the zone located at station 25W on line L-580N.

Recommendation: Medium Priority Zone, drill or shaft at station 25W on line L-580N.

Single Line Anomalies: Two single line anomalies worthy of mention are located on lines L-850N and L-580N at station 25W. Because no line to line correlation could be made from these anomalies they do not represent a drill or shaft target.

Summary of Recommendations:

Zone A: Medium Priority Zone, drill or shaft at Station 5W, line L-20N.

Zone B: High Priority Zone, drill or shaft at station 10W line L-190N.

Zone C: Medium Priority Zone, drill or shaft at station 25W on line L-580N.

Zone D: Medium Priority, drill or shaft at Station 15W on line L-880N.

MOBILIZATION:

2. On July 1, 1989, we commenced to mobilize our equipment to Quigley Gulch. We first overhauled the Becker Downhole Hammer Drill in Brad Callisons' yard in Dawson City. (See photo captions) We then contracted Brad Callison to haul the equipment to Quigley Gulch and to drill the required holes at $25.00 per feet.

We contracted Hawk Mining (Wayne Hawk) to build a road on Quigley Gulch and to pull the Becker Drill with his D8K Cat. We found a D8K was the required size to pull the heavy Becker Drill on the rough hills of Quigley Gulch. (See map and photo captions)

The following equipment was used on the Quigley Gulch project:

1) Becker Downhole Hammer Drill
2) 600 CFM Gardner Denver Air Compressor
3) D8K Cat
4) 941 Cat Track Loader to pull the Air Compressor
5) 1984 G.M.C. 4x4 3/4 Ton Truck

Once the equipment was located on Quigley Gulch and positioned, all drilling was conducted according to recommendations from the Proton Precession Magnetometer Survey. (See Map number for locations) Please note that all drilling was conducted on Medium Priority Zones. (C & D) Due to the rough terrain it was impossible to locate the drill on Zone B, High Priority Zone. (See map for Location)

DRILLING PRECEDURE:

A Becker Downhole Hammer Drill was used to conduct the drilling program. It was towed on the site by a D8K Caterpillar Tractor. This drill drilled a 6" diameter hole and the gravel cuttings were recovered at intervals through an air centifugal trap. Air was used to blow the gravel cuttings up to the trap, this air was supplied by a 600 CFM Gardner Denver Compressor through a 2½" diameter hose. This unit was towed and positioned on the site by a 941 Caterpillar Track Loader. See Photo Captions.

DRILLING RESULTS:

As shown on the "Drilling Reports and Summary", gravel cuttings were recovered in plastic bags from the trap. Each bag was taken from a 5 ft. interval. See Photo Caption.

The material was first screen to 1/8" minus. The concentrates were than processed on a Denver Concentrator Table by Midas Concentrators Ltd. of Dawson City. Cuttings were than examined and interpreted as shown in summary.

CONCLUSION:

Results were unsatisfactory in medium priority zones as recommended by Gradiometer Survey, did not produce black sands or enough gold samples of significant amounts.

This indicates the following:

1. The Gradometer survey is not accurate enough and does not help in locating gold and black sand hot spots.

2. The drilling did not reach actual bedrock or because of the wet samples, heavy materials such as black sand or gold did not flow with the cuttings into the "trap".

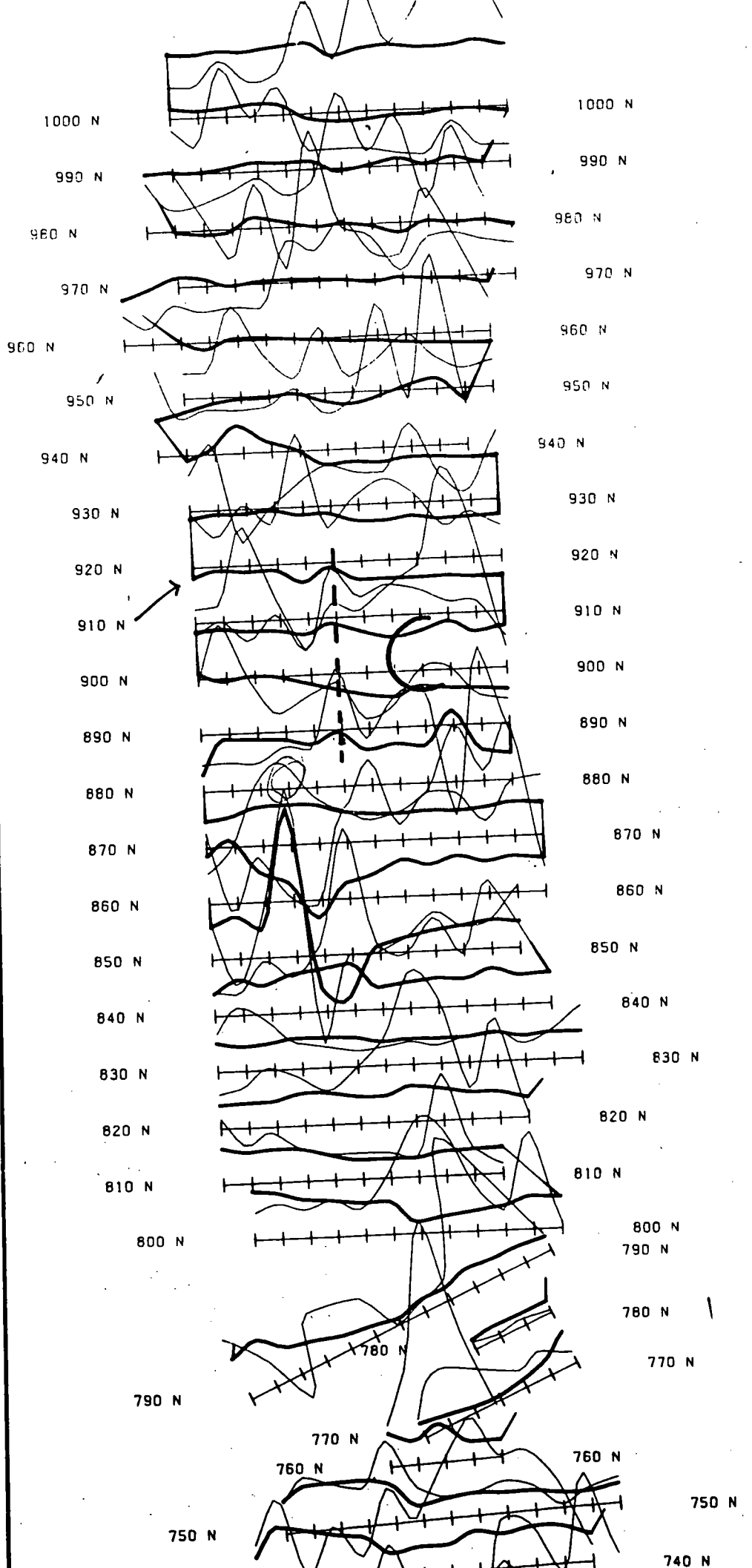
HOWEVER:

The results seen from the shallow holes indicates a bench could be worthwhile mining or further investigating by bulk testing.

1989 DRILLING SUMMARY
QUIGLEY GULCH

DATE	HOLE#	LOCATION	TOTAL DEPTH	BEDROCK DEPTH	FORMATION DESCRIPTION	CUTTINGS EXAMINED	RESULTS
7-27	1	880N-W35	34'	30'	1 Ft. of moss, frozen gravel to bedrock, 2' of unconsolidated & 2' hard bedrock	All	Top 20' showed nothing (3 cu.ft.) Bottom 15' indicated a gold value of approx. 18.00 per yd. and 5.1 oz.'s of black sands Considerable pyrite
7-27	2	880N-W25	54'	53'	Moss - Frozen gravel to bedrock	30'-54'	6 fine colours negligible black sands
7-28	3	870N-W25	50'	48'	Moss - Frozen gravel to bedrock	All	0 - 35' 8 fine colours 35'-50' 12 fine colours negligible amount of black sand
7-28	4	860N-W35	47'	45'	Moss - Frozen gravel to bedrock	25'-47'	6 fine colours Negligible black sands
7-29	5	790N-W40	26'	24'	Moss - Frozen gravel to bedrock	All	7 fine colours - no black sands
7-31	6	570N-W20	34'	33'	Moss - Frozen gravel to bedrock	20'-34'	No colours - No black sand
8-1	7	580N-W25	44'	43'	Moss - Frozen gravel to bedrock	All	No showings to 30' 30' to 44' - 20 fine colours Considerable pyrite Little black sand
8-2	8	590N-W25	44'	42'	Moss - Frozen gravel to bedrock	35'-44'	6 fine colours - No black sand
8-3	9	570N-W25	38'	36'	Moss - Frozen gravel to bedrock	30'-38'	8 fine colours Negligible black sands
8-3	10	570N-W30	33'	30'	Moss - Frozen gravel to bedrock 2' unconsolidated and 1' hard bedrock	All	No colours or black sand. Some pyrite
8-4	1A	P35783 200' N of Baseline 100' N of S. Boundary	85'	85'	Frozen gravel to bedrock Ground is approx 70' above cr.	All	Last 10 ft. 30 colours and 8 oz. black sands
8-5	2A	P35783 Baseline 100' N of S. Boundary	38'	35'	Moss - Frozen gravel top 8 Ft. Pea gravel to 33' underground stream to 35' bedrock	All	2 coarse & 8 fine colours very little black sands

DATE	HOLE#	LOCATION	TOTAL DEPTH	BEDROCK DEPTH	FORMATION DESCRIPTION	CUTTINGS EXAMINED	RESULTS
8-5	3A	P35782 Baseline 100' N of S. Boundary	35'	34'	Frozen gravel to 25' Pea gravel to 33' Underground stream to bedrock	25'-35'	2 fine colours No black sand
8-6	4A	P35782 Baseline 200' N of S. Boundary	36'	35'	Frozen gravel to 25' Pea gravel to 34' Underground stream to bedrock	30'-36'	3 fine colours No black sand
8-6	5A	P35782 Baseline 200' N of S. Boundary	27'	26'	Bush - thawed gravel to bedrock	20'-27'	3 fine colours No black sand
8-6	6A	P28825 East boundary N. of Bear Cr. Rd	17'	16'	Frozen gravel to bedrock	All	6 fine colours Negligible black sands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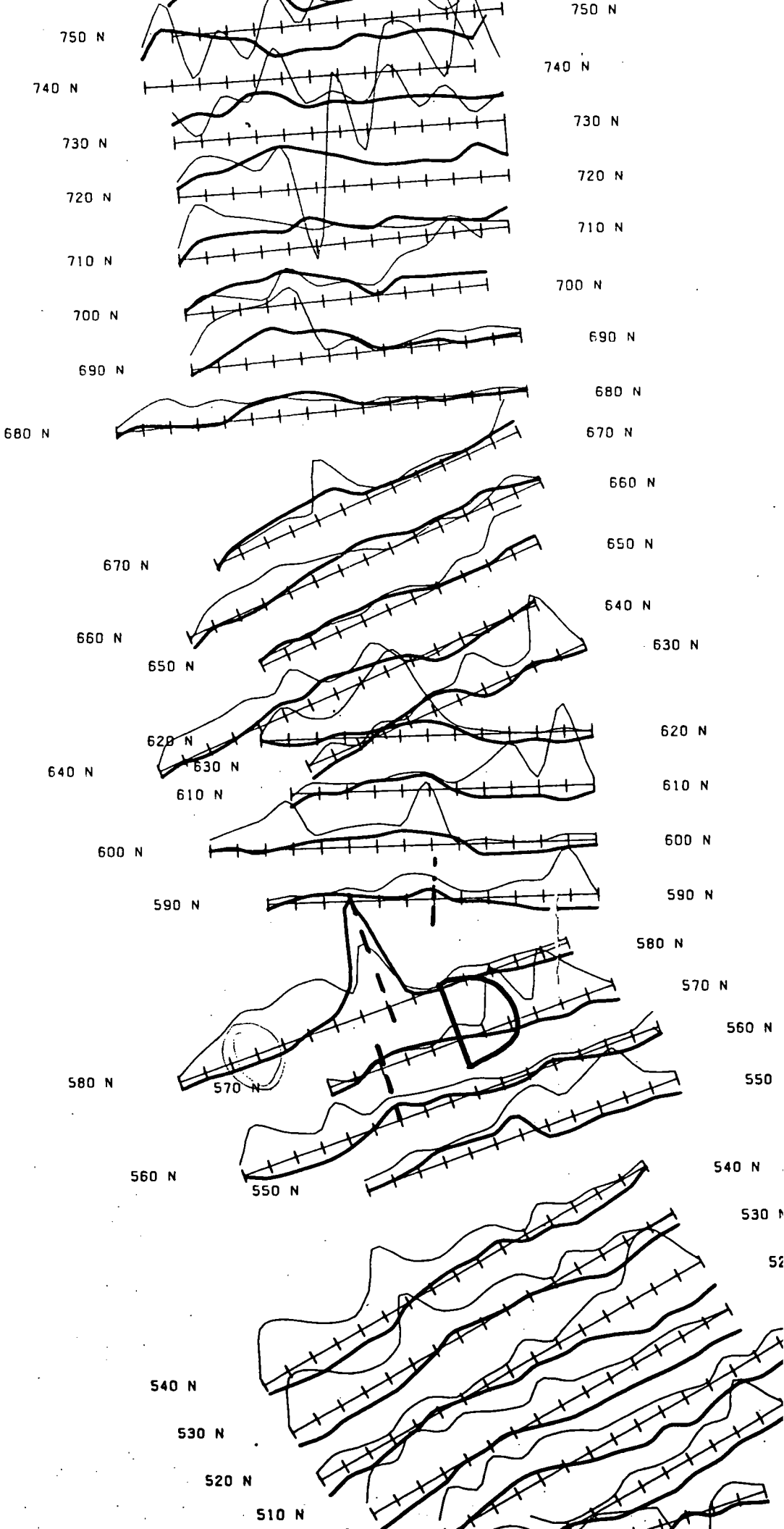
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OLD BEAR CK RD.

P25782

P25783

P26925

PL 7773

2 MILE

GRID 1DM N15 SM E&W
FOR GRADIOMETER GEOPHYSICAL SURVEY

N

439 M

ADDITIONAL HOLES 1A to 5A

BULLDOZED TRAIL

DRILLING LOCATION-1
HOLES 1 to 5

LOCATION-2
HOLES 6 to 13

1000 900 800 700 600 500 400 300 200 100 0

— QUIGLEY GULCH —
LATITUDE 64° 02'
LONGITUDE 139° 17'

1989 - DRILLING PROGRAM LOCATIONS

RIVEST BROS. ENT. LTD.

PHOTO CAPTIONS

The following is a photo report of the mobilization, drilling and Cat work on Quigley Gulch. Our equipment was located in Brad Callisons' yard in Dawson City, Yukon.

1. Mobilization from Dawson City

   Photo's 1, 2, 3

   These pictures show the Becker Drill being over-hauled and mobilized to Quigley Gulch.

2. Road Building

   Photo's 4, 5, 6, 7

   These photos show the work the D8K Cat did on Quigley Gulch.

3. Becker Drill

   Photo's 8, 9, 10

   These photos show the Becker Drill being set up to commence drilling.

4. Gravel Samples

   Photo's 11, 12

   Here the gravel cuttings are being blown up by the air compressor and bagged in plastic sample bags.

5. Sample Bags

   Photo 12

   Here Bud Kenzie, left, and Roger Garneau, right, are checking the sample bags.

6. Drilling

   Photo's 13 - 20

   These photos are all showing different locations being drilled.

Photo's 13 - 20

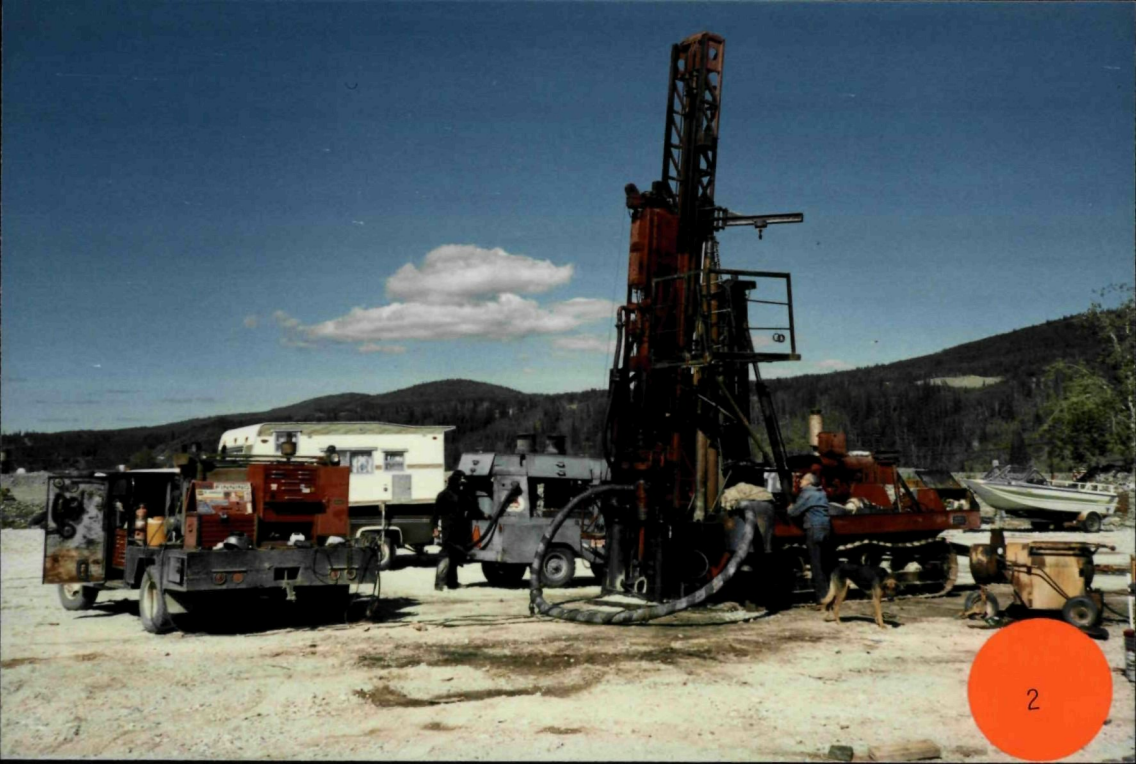
These photos also show:

a) The D8K Cat
b) The Gardiner Denver Air Compressor
c) The 941 Track Loader
d) 3/4 Ton 4x4. This truck was used to haul fuel for the Cats' and Drill.

7. Demobilization

Photo's 21, 22, 23

These all show the equipment being demobilized from Quigley Gulch.



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8


CATERPILLAR


becker


CKC 63


20


23