REPORT ON THE YELLOW GIANT PROJECT

BANKS ISLAND, BRITISH COLUMBIA

FEBRUARY 15, 1985

TRM ENGINEERING LTD.

GEOLOGICAL, GEOCHEMICAL AND DIAMOND DRILLING REPORT

ON THE

YELLOW GIANT PROJECT

BANKS ISLAND

N.T.S. 103G/8, 53° 23', 130° 08'

SKEENA MINING DIVISION

FOR

TRADER MINES LTD.

CLAIM OWNERS:

INTER GLOBE RESOURCES LTD.
FALCONBRIDGE LTD.
TRADER MINES LTD.

BY

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TRM ENGINEERING LTD.

February 15, 1985
Vancouver, B.C.

Field work done between June 16, 1984 to December 21, 1984.

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SUMMARY

1) The Yellow Giant Project is located on west central Banks Island, 53°23', 130°08', approximately 112 km south of Prince Rupert (103G/8). Access is by boat or aircraft. The claims are in the Skeena Mining Division.

2) This report summarizes all work done on the claims since 1960 with particular reference to surveys and diamond drilling done since June 16, 1984. Sufficient assessment work has been applied by 1984 credits to bring the expiry date for the property to 1995.

3) Important mineralization was first discovered on the claims during 1960 by Ventures Ltd. (later Falconbridge Nickel Mines Ltd.) prospectors M. Hepler and S. Bridcut. Banks Island exploration was directed by J.J. McDougall who placed emphasis on investigating major lineaments and their intersections with favourable lithologies.

4) Banks Island occurs on the western flank of the Coast Plutonic Complex and is characterized by northwest trending granitic bodies, mainly granodiorite-quartz monzonite and quartz diorite which are occasionally separated by narrow, but persistent belts of metasedimentray rocks. Duplicate Lithotheque boards have been prepared to maintain accurate classification and standarize nomenclature.

5) Exploration has consisted of surface prospecting, detail geological mapping, hand and backhoe trenching, Airborne geophysical surveys, ground geophysics - SP, IP and horizontal EM, surface diamond drilling, geochemistry, underground drifting and underground diamond drilling. Accurately surveyed grid points have been established.

6) Eleven important gold zones have been discovered to date. In addition, the current program has established several other high priority targets. The deposits are of two types; (1) disseminated bulk tonnage and (2) high grade gold veins.

7) Current ore reserves at the Yellow Giant Project are:

Deposit	Tons	Gold (oz/ton) Equivalent
Kim (Bulk tonnage)	1,100,000	.072
Bob (Vein)	50,000	1.17
Discovery (Vein)	100,000	.46
Tel (Vein)	24,000	.91

Note: gold equivalent gold = 0.035 silver.

The above deposits are open to reserve expansion and 7 other known deposits require drilling to establish reserves.

8) Surface diamond drilling in 1984 totalled 3575.30 meters (11,730 feet) in 19 holes on the Discovery, Englishman, Kim and Bob Zones. This brings drill footage on the property to about 42,000 feet on nine of eleven zones discovered.

9) Sulfide mineralogy is dominated by pyrite with lesser amounts of chalcopyrite. Local concentrations of sphalerite and galena occur in the gold-rich sections. No visible gold has been noted, however, gold along pyrite-quartz grain boundaries and up to 230 microns in size have been noted in polished sections. Arsenopyrite is most common in the Kim Zone.

10) Structure rather than host rock lithology is of prime importance in ore localization. The favourable structural environment involves well developed local and regional fault and fracture systems.

11) The Kim Zone is an altered, gold-bearing system within granitic rocks, which attains widths of 200 feet but averages about 60 feet. It is localized within a 4,000 foot east-west shear zone. Some 1,000 feet of the zone has been tested by 17,300 feet of diamond drilling in 73 holes. The deposit has been drilled to a vertical depth of 600 feet, and a length of 600 feet has been drilled to a sufficient degree that reserve calculations can be made. Drill core samples assay up to 1.2 ounces of gold per ton and average 0.072 ounces. The deposit is open at depth and along strike.

12) Englishman Zones, (Main Zone and North Zone) localized within a 1,250 foot long east-west shear zone in granitic rock, have been tested by 5,079 feet of drilling in 10 holes. Surface assay values range up to 4.0 ounces gold per ton and an 8.5 foot drill intersection assayed 0.22 ounces Au. The extremities of the zone and areas within the limits of known mineralization have not been tested. No reserves can as yet be calculated. A new section, the North Zone, was discovered by drilling in 1984. Important disseminated gold mineralization was found by 1984 drilling in the footwall of the Main Zone.

13) Quartz Hill is located near the intersection of a 500 foot long east-west shear and a 800 foot northeast-southwest structural lineament. A several hundred foot square area has been tested by 533 feet of drilling in 3 holes. Drill core assay values range up to 0.1 ounces gold, but flanking surface mineralization assays up to 2.0 ounces. The limits of mineralization have not been determined and no reserves can as yet be calculated.

14) Discovery Zone is localized within a northwest-trending fault zone that partially crosscuts metasedimentary rocks parallel to the margin of altered granitic rocks. A 850 foot length of the fault zone has been tested by 10,126 feet of drilling in 39 holes. The deposit has been drilled to a depth of 300 feet and averages 9 feet in width. Assay values range up to 1.55 ounces gold per ton and average 0.46 ounces over a central 250 foot length. The known deposit, believed to be a plunging shoot, is open at depth and detailed exploration remains to be conducted along the strike of the zone.

15) The Bob Deposit is hosted by an east-west trending fault which has developed in an unusual intrusive breccia. The intrusive breccia is composed of fresh biotite quartz diorite containing abundant metasedimentary fragments. An alteration assemblage of sericite and chlorite surround the fault zone. The -15% decline ramp on the main zone tested and confirmed results from 15 drill holes totalling 3818 feet (1163.73 m). The main shoot was shown to be over 150 feet (44 m) long with an average width of 5.5 feet (1.69 m).

16) Four additional surface showings containing gold values were also found in the immediate vicinity of the main Bob zone. All were trenched and sampled

and should be further investigated. Assays range up to several ounces gold per ton on selected samples. Showing A20 was also explored by 5 pack-sack diamond drill holes totalling 377.5 feet. An interesting gold showing in skarn associated with SP anomalies occurs 240 m southeast of the main zone. Gold-in-soil sampling has indicated a new area of interest northwest of the A20 area. Considerable potential exists for finding additional gold zones in the Bob area.

17) The Tel Zone is localized along a northwest-trending fault zone which has been tested along a 1,000 foot length by 3,980 feet of diamond drilling in 27 holes. A deposit 100 feet long and averaging 8.5 feet wide has been drilled to a vertical depth of 150 feet. Assays range up to 5.0 ounces gold per ton and average .91 ounces. The deposit is open at depth and there are indications of two additional ore shoots within the zone.

18) A new bedrock discovery, called the Midway Zone, was found in 1984 during Dighem survey follow-up. This zone will be a priority in future work.

19) Large portions of the Yellow Giant property have been covered by systematic soil geochemical surveys. Many significant anomalies warrant follow-up work.

20) Extensive geophysical surveys, mainly ground self potential and airborne electromagnetic (Dighem), have been completed. Anomalous response was detected over most known mineralization; and other anomalies require further investigation.

21) A major program of surface diamond drilling is recommended to increase drill indicated ore reserves on the Kim, Bob, Discovery and Tel Zones. A major mineralized zone at the Englishman Deposit is indicated by 1984 drilling and should be drilled in detail.

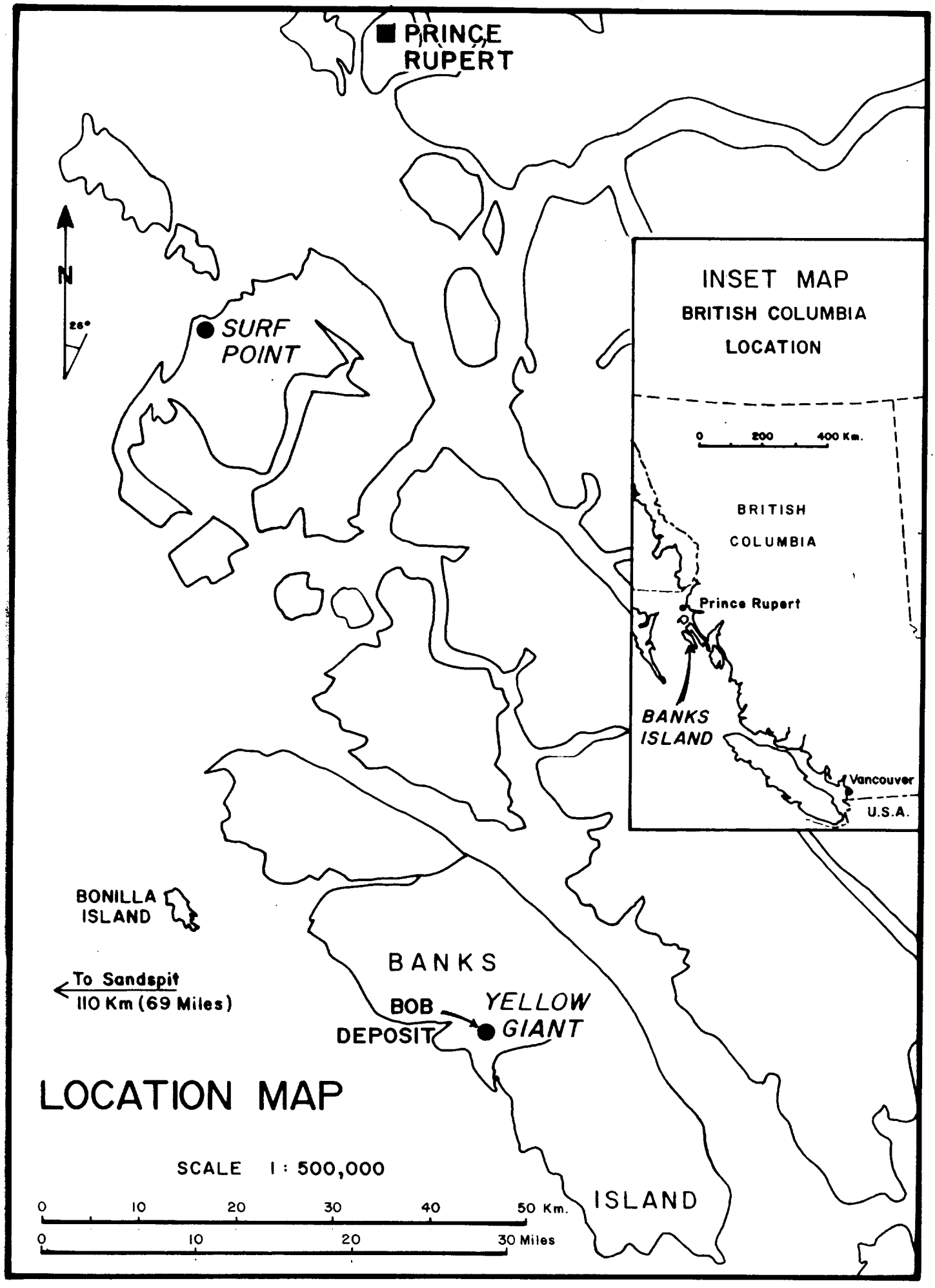
INTRODUCTION

The Yellow Giant Project on Banks Island includes a diverse combination of important gold occurrences in a wide variety of exploration stages. These range from the Bob Deposit underground trackless decline ramp and bulk tonnage Kim Zone which has been investigated by 73 diamond drill holes, to several unexplained high-grade float occurrences such as Ex Creek or southwest Banks Lake. Of the eleven major gold occurrences presently known, four are sufficiently tested to allow ore reserve calculation.

Since acquiring this large property in 1983, Trader Resource Corp. has completed a comprehensive review of previous work, mainly by Falconbridge Nickel Mines (1960-1977), and to a lesser extent McIntyre Porcupine Mines (1964-1967) and Sproatt Silver Mines -Hecate Gold Corp. (1975-1978). This review plus numerous independent studies on specific production concerns were used in compiling a "pre-feasibility report" which defined the general parameters of Trader Resource Corp's exploration program. A field program was initiated on February 16, 1984 consisting of backhoe trenching, soil sampling, induced polarization orientation, detail geological mapping, linecutting, prospecting, airborne electromagnetic (Dighem) and magnetic surveys, camp rehabilitation, self potential surveys, relogging old diamond drill core, legal survey of claim posts (LCP), metric survey hub establishment, accurate transit and chain surveys, BQ diamond drilling and dewatering the Bob Deposit decline. Field work was completed on December 21, 1984. Office work included orthophotographic base map construction at scales of 1:5000 and 1:2500, designing a computer format for diamond drill hole record storage, drafting and ore reserve calculation by geostatistical methods.

The field crew consisted of a Project co-ordinator, Project Geologist, Soil sampler -SP technician, Surveyor - technologist, Camp Manager, Cook, and Core Splitter. A consulting geologist was engaged on a short term basis to review and evaluate the Bank-Barge Lineament from Foul Bay to the Bob Deposit paying particular attention to Dighem EM anomalies.

Diamond drilling was carried out by Trader Resource Corp. between August 30th and November 1st, 1984. A total of 11,730 feet (3575.30 m) of drilling was completed in


PRINCE RUPERT
N
26°
SURF POINT
INSET MAP
BRITISH COLUMBIA
LOCATION
0 200 400 Km.
BRITISH COLUMBIA
Prince Rupert
BANKS ISLAND
Vancouver
U.S.A.
BONILLA ISLAND
To Sandspit
110 Km (69 Miles)
BANKS
BOB DEPOSIT
YELLOW GIANT
ISLAND
LOCATION MAP
SCALE 1 : 500,000
0 10 20 30 40 50 Km.
0 10 20 30 Miles

19 holes. The main objectives were to: (1) investigate continuity between old drill sections on the Kim Zone, (2) investigate the western extension of Kim Zone, (3) conduct preliminary drilling along the western part of the Englishman Zone, (4) test the Discovery Zone at relatively greater depth and (5) Bob Deposit to the west. No drilling was conducted on the Tel Zone or Quartz Hill Zones in 1984. The results of the drill program allowed a substantial increase in the drill-indicated ore reserves for the Kim and Bob deposits.

Several areas have attractive exploration potential utilizing detail prospecting and geological mapping. Preliminary work was done in 1984 in the Ex area and on the Discovery Extension - India, Crossbreak, Foul Bay (Gro Grid) and Crack Zones. Previous work was hampered by the relative thickness of overburden in these areas and the need to file assessment credits on the better exposed zones such as Kim, Discovery, Englishman, Tel and Bob Deposit. A new area of bedrock mineralization was found near the Waller-Arseno baseline, referred to as the Midway Zone, while following up Dighem anomalies along the Eastern Metasedimentary Belt.

To effectively test the property, an orderly and balanced assessment containing a reasonable blend of close-spaced diamond drilling of known showings and reconnaissance work defining new areas of interest is required. This resembles the type of program initiated by Trader Resource Corp. in 1984. Surface diamond drilling is recommended to investigate and increase the Bob Deposit reserves westward along the main fault and to depth below the deepest ore intersection known to date. This work should be done in conjunction with a detail evaluation of the Tel Zone (Shearer 1985a). Extensive surface diamond drilling is warranted on the Kim Zone to test the extent of disseminated mineralization found by the previous 73 drill holes. Similarly, detail drillIng on Englishman and Quartz HIll should be a priority.

This report documents all work done on the property between June 16 and December 21, 1984 for government assessment credit. It also serves as a comprehensive synthesis for the large volume of work done between 1960 and 1983. Considerable care has been exercised in construction of modern metric scale maps for most data. Work done by Trader previous to June 16, 1984 is documented in this report but not claimed for assessment credit. It will be entered for the portable assessment credit account. Only the 1984 Dighem Survey and trail construction were filed before June 16, 1984.

130.18° 130.16° 130.12°

130°10'

BANKS

LAKES

VK

BOB ZONE

KIM ZONE

TEL ZONE

ENGLISHMAN ZONE

DISCOVERY ZONE

QUARTZ HILL ZONE

EX ZONE

I S L A N D

WALLER

LAKES

Survey

Bay

WRECK

ISLANDS

Hart Rock

Foul Bay

Junk Ledge

Waller Ck

Kooryet Lake

53°38'

53°37'

53°37

53°20'

53°

20'

130°10'

130°00'

SCALE 1:50,000

1000 500 0 1000 2000 3000 Metres

TRADER RESOURCE CORP.

TOPOGRAPHIC MAP

PROJECT: YELLOW GIANT PROJECT

ENG.: TRM ENGINEERING LTD.

DWG. NUMBER : FIG. 2

CLAIM STATUS

The Yellow Giant Project is composed of 8 (120 units) Modified Grid System claims and 2 fractional claims, Figure 3, as tabulated below:

TABLE I

Claims, Yellow Giant Project

Name	Units	Record No.	Record Date	Expiry*
Yellow Giant 1	15	3887	June 15, 1983	1995
Yellow Giant 2	8	3888	"	"
Yellow Giant 3	20	3889	"	"
Yellow Giant 4	16	3890	"	"
Yellow Giant 5	20	3891	"	"
Yellow Giant 6	18	3892	"	"
Yellow Giant 7	15	3893	"	"
Yellow Giant 8	8	3894	"	"
Yellow Giant 9 FR	1	4443	May 8, 1984	"
Disco FR	1	4603	June 18, 1984	"

* by application of assessment work filed by this Report

Note:

Location of fractional claims are: (a) Yellow Giant 9 FR between Yellow Giant 3 and 4 and is 18.53 meters wide; (b) Disco FR between Yellow Giant 7 and 8 and is 188.81 m wide; (c) Yellow Giant 10 FR was staked between Yellow Giant 2 and 4 but no fraction exists.

Location of the Legal Corner Post for each claim as calculated by McElhanney Group Ltd. are: Yellow Giant 1, 2 and 3 - 32,297.89 N + 28,441.98 E, Yellow Giant 4, 5, 6 and 7 - 30,326.07 N + 30,460.51 E, and Yellow Giant 8 - 29,235.37 N + 35,149.32 E.

The original Falconbridge Nickel Mines and McIntyre Mines two-post claims were abandoned as provided by the Mineral Act and relocated under the Modified Grid System. This property consolidation eliminates the many problems with the two-post system regarding filing, grouping, anniversary dates and multiple fractions.

All claims are recorded in the names of Host Ventures (90%) and Falconbridge Nickel Mines Ltd. (10%). Host Ventures (which became Hot Resources Ltd. and is now Inter-Globe Resources Ltd. as of February 11, 1985) optioned the property to United Mineral Services Ltd. by agreement dated May 16, 1983. This agreement was assigned to Trader Resource Corp. (McClaren and McDougall 1983), who further assigned its wholly owned subsidiary Trader Mines Ltd. the agreement.

LEGEND

LCP
- ● Legal Corner Post
- 2S Identification Post
- —● Outline of Claims

Legal Corner Posts Surveyed by McElhanney April 1984

NOTE

WEST GROUP
- Yellow Giant 1
- Yellow Giant 3
- Yellow Giant 9 Fractions

EAST GROUP
- Yellow Giant 2
- Yellow Giant 4
- Yellow Giant 5
- Yellow Giant 6
- Yellow Giant 7
- Yellow Giant 8
- Disco Fraction

SCALE 1:50 000

0 500 1000 2000 METRES
0 3000 6000 FEET

TRADER RESOURCE CORP.

CLAIM MAP

Project: YELLOW GIANT PROJECT
Eng: TRM ENGINEERING LTD.
Date: December 1984 Figure: 3

LOCATION AND ACCESS

The Claim Group is situated on south central Banks Island, 112 km south of Prince Rupert, Figure 1. Banks Island is about 70 km long by 20 km wide. The nearest communities are Hartley Bay on the mainland 60 km to the east, Kitkatla, 52 km to the north and Trutch, 45 km southeast. Kitimat is 120 km northeast of the property. Directly west is Sandspit on the Queen Charlotte Islands, a distance of 110 km.

Bonilla Island weather station is located off the northwest side of Banks Island. B.C. Telephone maintains a close network of repeater stations to service the commercial fishing fleet. The best communicatoin is via the Noble Mountain FM channel.

Access is mainly by float-equipped, fixed-wing aircraft to the main camp on Hepler Lake, Figure 2. Heavy equipment is barged to Survey Bay. A 2.1 km tote road connects the barge site to Bob Zone where a 15% decline ramp was driven in 1977. Helicopter transportation has been important in the past and there are many natural open spots suitable for landing.

The area is characterized by coastal muskeg over the granitic rocks and lush cedar-hemlock forests over the narrow metasedimentary belts. The main claims are mostly undulating lowlands (Hecate lowland) with relief generally less than 50 m. To the east and north the terrain becomes progressively more rugged as the Carlo Range is approached whose high point, on Mount Grannell, is 676 m.

FIELD PROCEDURES

The legal corner posts (LCP) were surveyed by McElhanney Group Ltd. who also accurately established a number of designated points throughout the claims. A metric co-ordinate system was calculated based on station "Camp" (H-44), which was designated 30,480.00 N and 30,480.00 E (elevation 36.30 m) to facilitate correlation with work done since 1960. These points provided the database on which all 1984 transit and steel chain work is related.

Initially, for the Discovery, Englishman, Kim, Bob, Quartz Hill, Crack and Crossbreak areas, a transit and steel chain traverse was accurately closed which tied-in old

diamond drill holes, trenches and some surface contours. Transit and stadia measurements were used as a base for 1:500 geological mapping. All 1984 diamond drill hole collars were picked-up by chain and transit. Hole deviation during drilling, both dip and azimuth, was recorded with a Sperry-Sun single shot, type B instrument.

Soil grids, mainly along the Western Belt and between Discovery Zone and Quartz Hill, were established by accurate baselines with crosslines spaced 30 meters apart. Lines were run using a Topolite Belt chain calibrated in meters, for which the manufacturer claims a 0.1% accuracy. Only approximate slope corrections were made in this generally flat, muskeg terrain and line location were tied into the 1:2500 orthophoto base map. Soil lines were marked by blue flagging. Samples were generally collected at 10 meter and occasional 15 meter intervals. Sample media was an equal blend of "C" horizon, where present, and carefully collected "A" horizon material. The soil horizon development is discussed in the geochemistry section. Orientation studies show that both soil horizons give anomalous results via neutron activation analysis.

All mineralized drill core was split on the property and one-half sent to Chemex Labs Ltd., 212 Brooksbank Avenue, North Vancouver, B.C. for gold determination by fire assay. Analytical procedures are outlined in Appendix IV.

Drill logs are contained in Appendix VI. Each hole was logged in a preliminary fashion before splitting and percentage of core recovery calculated against the drilling interval, marked on wooden blocks. Final logging was carried out after the core was split. Drilling was done in feet and converted to meters for logging and sampling using the conversion 1 foot = 0.3048 meters. Core recovery was consistently high except for the initial 3 to 4 meters of most holes and some mineralized zones.

Each wooden core box was labelled with a metal Dynmo strip showing hole number, box number and contained interval. All 1984 core is stored at the main core handling facility in steel racks inside a Weather Port building connected to the camp on Hepler Lake by a good trail. The grid co-ordinates of the core storage building are 30,650 N + 30,450 E.

The distinctive elements of the drill logs (Appendix VI) include a visual pattern log with symbols for rock type and other columns for (1) Alteration such as silica, sericite,

chlorite and calcite, (2) Fracturing, (3) Sulfide content, (4) Box number, (5) Drilling interval and (6) Associated core recovery for each interval. A normal written log accompanies the appropriate part of the visual log. Gold values are shown on the far right column.

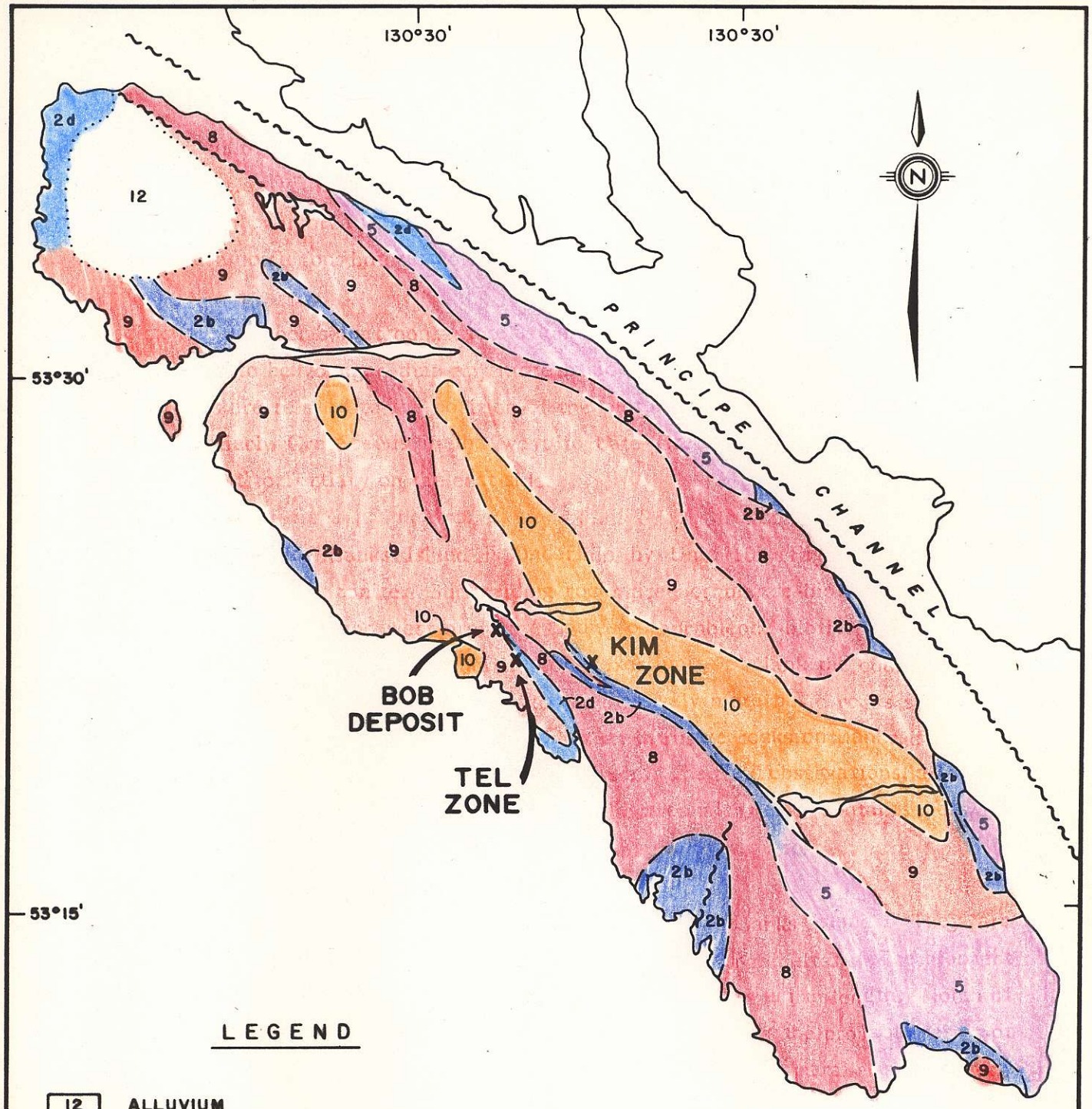
GEOLOGY

I. Regional Geology

Regional geological features have been compiled by Roddick (1970) as Map 23-1970, Figure 4, mainly from field work conducted by the Geological Survey of Canada in 1963 along coastal exposures and in 1964 by very wide spaced landings with a helicopter on interior sites.

Banks Island lies along the western edge of a long, relatively narrow belt of plutonic and metamorphic rocks called the Coast Plutonic Complex. This forms one of the major geological components of British Columbia, extending from Northern Washington through the Coast Mountains into southeast Alaska and Yukon Territory. General descriptions of the Complex have been given by Roddick and Hutchinson (1974) and Woodsworth and Roddick (1977). The following overview is taken mainly from these sources.

The Coast Plutonic Complex consists largely of intermediate and basic discrete and coalescing granitoid plutons, bodies of gneiss - migmatite and pendants (septa) of metasediments and volcanics. It is an asymmetric array, with a central gneiss core flanked by diorite and dioritic migmatites, most plentiful in the west, and granodiorite and quartz monzonite, most common on the east. Metamorphic intensity increases from greenschist facies in the eastern part of the belt to amphibolite (locally granulite) facies in the central and east-central parts. Woodsworth and Roddick (1977) suggest that most of the plutons in the Coast Mountains have been emplaced as diapiric solids, analogous to glacier flow and salt domes. Many contacts between plutons and pendants are faults or drag folds formed during formation of the igneous bodies. Some faults have been healed by re-crystallization. The clearest examples of "solid" movement of plutons are the several "tadpole"-shaped intrusions that have gradational to intricate contacts along their "tails". When the rock was more solid,



TRADER RESOURCE CORP.

GENERAL GEOLOGICAL MAP OF BANKS ISLAND

PROJECT: YELLOW GIANT PROJECT

ENG.: TRM ENGINEERING LTD

DWG. NUMBER: FIG. 4

movement could only take place by re-crystallization flowage, and this gave rise to internal foliation within the pluton. Commonly the quartz diorite and granodiorite are rarely uniform over broad areas. Zones of migmatite and small, lensoid amphibolitic inclusions are ubiquitous but variable in abundance.

Roddick (1970) reports that contact relationships everywhere indicate the more acid plutonic rock to be younger than any more basic plutonic rock in contact with it, but isotopic ages are related to the position of the plutons across the belt. Isotopic ages range from Early Cretaceous in the west to Late Cretaceous near the axis of the crystalline belt to Tertiary on the east side.

The central part of Banks Island is underlain by Unit 10b, Figure 4, a biotite-hornblende quartz monzonite. Surrounding rocks are hornblende-biotite granodiorite (unit 9c). To the east and west are large bodies of hornblende-biotite quartz diorite (unit 8b). Basic, gneiss-diorite-migmatite complexes (unit 5b) flank the quartz diorite. This outward zoning from a felsic core to progressively more basic rocks supports a conclusion from the detail petrographic work that intrusive rocks on Banks Island are inter-related and are part of the same zoned pluton. The field observations, discussed under Local Geology, simply reflect the complexities along the contacts between major phases.

Metasedimentary rocks are exposed over about 7% of Banks Island. They are contained mainly in long, narrow northwesterly trending belts. The longest metasedimentary belt, from Banks Lake to Keecha Lake is 18 km in length. North of Waller Lake this Banks-Keecha belt splits into two arms which is the probable result of large scale folding. It is this area of the Island together with the parallel sedimentary belt from Foul Bay (Waller Bay) to Bob Zone that the attention has focused in the Yellow Giant Project.

The discovery of mineralization resulted from an aircraft assisted prospecting program designed to investigate north coast lineaments (McDougall 1972). Banks Island has an unusual density of faults, fractures and lineaments. The Island is bounded by deep seated, major faults that are assumed to have right-lateral displacement.

Blanchet (1983) has carried out a preliminary analysis of airphoto linears. Two major, right lateral faults with an average trend of 310° are recognized: (1) Arseno Fault which passes through Arseno Lake and (2) Hepler Fault which passes through Hepler Lake. A very common direction for linears is 045°, due according to Blanchet, to the movement along the 310° trending faults. Left lateral faults trend 090° with important examples being the Survey Bay linear and Crossbreak. At the Kim Zone Area the 045° linears are seen to offset the older 090° faults.

II. Local Geology

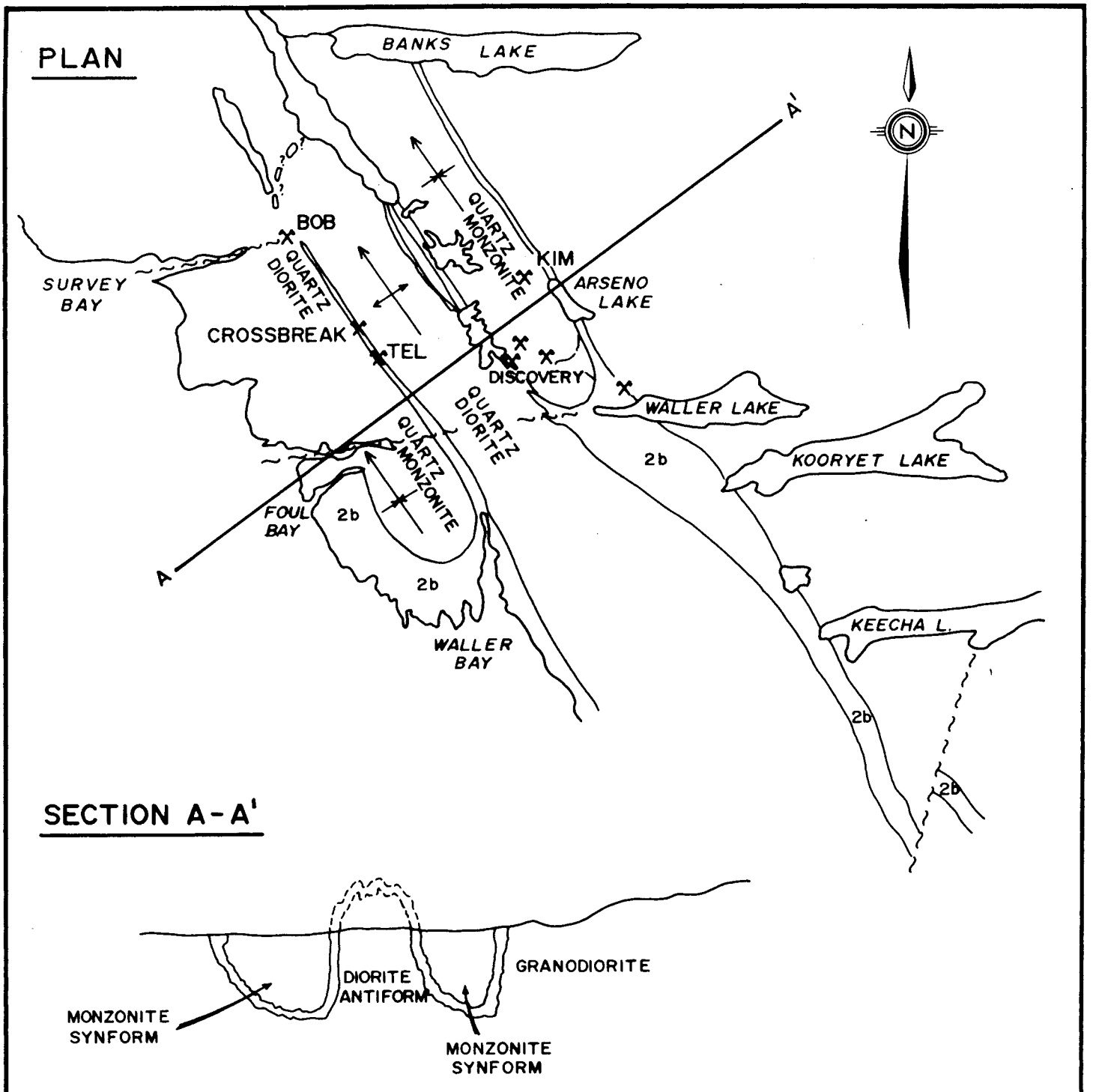
Geological descriptions of the immediate Claim Group are contained in McDougall (1963 & 1964) and Manchuk (1976 & 1977). The early descriptions by McDougall (1963) place emphasis on the metasedimentary rocks important around the Discovery Zone. After the Kim Zone was discovered in 1963, detail descriptions of the host quartz monzonite (McDougall 1964) were made.

An admirable synthesis of previous work plus overall property mapping was done by Manchuk in 1976, Figure 5. He concurred with the G.S.C. mapping (Roddick 1970) that a hornblende quartz diorite occupies the area between Hepler Lake and the Bank-Barge linear. To the north of the Waller-Arseno sedimentary belt Manchuk mapped quartz monzonite-granodiorite phases.

Unfortunately, Manchuk decided to call the rocks at the Kim Zone, which also are found near most of the other mineralized showings, "Kim Zone granite". In Manchuk 1976, page 7, the "Kim Zone granite" is defined as:

> "In hand specimen the Kim Zone granite is a leucocratic, pinkish rock with a colour index of about 15. It is generally medium grained with crystals of the order 2-4 mm. A stained section shows about 15% K-spar, with generally 25-35% quartz, 40% plagioclase and 15-20% biotite".

This is not a granite. In fact, from work conducted in 1984, it is apparent that what Manchuk refers to as Kim Zone granite is actually a highly variable intrusive assemblage that is mainly a biotite quartz monzonite to granodiorite but ranges from true granite to hornblende diorite. A preliminary description of the Kim rocks is included in the petrology-lithotheque section.



SCALE 1:100,000

2 1 0 2 4 Km.

2b Metasedimentary Rocks
Marble, Skarn, Siltstone

Drawn by : J.S.

Date: JUNE 1984

TRADER RESOURCE CORP.
SKETCH OF REGIONAL FOLD STRUCTURE BANKS ISLAND
Project: YELLOW GIANT PROJECT
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Figure: 5

Manchuk (1976) also mentions, Pg. 9, that drag folds almost always plunge to the south. However, the mapping undertaken to date in 1984 suggests that northerly plunging minor folds are common, especially in the area between Hepler and Gladys Lakes. Detail measurements of flow layering or foliation in the instrusives may indicate fold structures. Figure 6 demonstrates only one main foliation direction but future mapping will check these data. In some areas foliation is absent whereas nearby, foliation is strongly developed.

The writer favours the initial general interpretation of McDougall and Charteris regarding the mega-folds in the metasedimentary package at the time of semi-solid intrusion of the granitoid rocks as illustrated on Figure 5. Some large blocks have been rafted away from the main sediment band (in such cases as the Bob Zone).

III. Petrology-Lithotheque

A petrographic analysis was initiated with the objectives of (1) defining accurate rock names for the diverse assemblage of Kim-type intrusives (2) quantifying alteration facies around mineralization and (3) establishing a lithotheque library of representative specimens to maintain uniformity of nomenclature among all personnel involved in the details of the Project and facilitate communication between the field and Vancouver office.

Three lithotheque boards have been constructed (Laznicka 1974, 1975) in duplicate. One set will be stored in the Vancouver office and the other is stored at Banks Island Camp. There is also a third set composed of the section off-cut blocks (the mirror image of each thin section) which have been stained for potassium feldspars, presently stored in Vancouver. The lithotheque library is designed to be clean and portable and can be used in conjunction with maps and other office materials. This system is ideally suited for the Yellow Giant Project which has a number of geologists working on mapping and also has subtle differences between the major granitoid suites. A total of 36 rocks were cut for thin section and summary descriptions are contained in Shearer 1984a.

Several important observations resulted from the petrographic examination which can be summarized as:

(1) Precise documentation of the range in Kim-type intrusives from leucocratic granite through biotite quartz monzonite to hornblende diorite.

(2) Suggestion that the potassium feldspar content and mafic constituents (augite-hornblende-biotite) are part of a discontinuous series and that Banks Island intrusives are part of a zoned pluton with a felsic core grading outward to a basic fringe.

(3) Sericite and calcite are much more important alteration products in the Kim Zone than is apparent in hand specimens. The main chlorite mineral is clinochlore (Mg Fe-chlorite).

(4) Bob Zone rocks are in the quartz diorite field. Dyke-like "granite" is actually altered quartz diorite. Re-mapping of the Bob Zone was controlled by staining slabs and petrographic information.

(5) Metasedimentary rocks, such as those at Crossbreak, are intensely altered and should be termed hornfels. For example, C-3, in hand specimen termed argillaceous quartzite, is actually an albite-quartz-hypersthene-calcite hornfels.

Kim-type intrusives have two end members: (a) a felsic, leucocratic granite and (b) a mafic-rich hornblende-biotite diorite. These do not appear to be a continuous variation. The felsic end members are mainly quartz monzonite (lithotheque No. B23-555, BL 140E, QH-1, C-1, QH 180E & 120S, E-1, LY5-53') but also vary between granite and granodiorite. The mafic-rich end members vary between quartz diorite and diorite. However, this wide range of rock types is genetically related as indicated by the mafic constituents. Augite is present in the most mafic-rich in minor amount but is mainly replaced by hornblende. Minor biotite has developed at the expense of hornblende. On the felsic side, biotite is the dominate mafic mineral and is clearly replaces hornblende. Only occasional relict grains of augite were noted in the quartz monzonite. Small rounded inclusions of the mafic-rich end members are commonly seen on the outcrop scale within the quartz monzonite.

It is clear that the "Kim Zone Granite" is not the homogeneous unit defined by Manchuk (1976). It is proposed that the term Kim biotite quartz monzonite (KBQM) be

used instead of "Kim Granite". When the mafic-rich end members predominate, such as in the lower part of drill hole LY-5, the term Kim hornblende quartz diorite (KHQD) could be used. Other variations will be named in like fashion for example; KHBD = Kim hornblende-biotite diorite. This recognizes that the Kim intrusives are a complex series of rocks grading from leucocratic granite to hornblende-biotite diorite but keeping the notion of an inter-related group which is very important for its associated mineralization.

A well defined alteration pattern exists within the Kim lode. Generally, the following symmetrical alteration facies can be described.

Area	Alteration Assemblage	Lithotheque Example
Outward	1) Fresh unaltered rock	B23-555'
Hangingwall	2) Sericite-quartz development along fractures	B23-81'
	3) Sericite-quartz-minor clinochlore and calcite along fractures and pervasive	LY5-126'
	4) Intense sericite-quartz pervasive alteration, minor chinochlore and calcite	B23-209' B22-135' B36-167'
Mineralized Zone Central "Shear Zone"	5) Intense sericite-quartz minor calcite ore zone, associated with disseminated sulfides - pyrite, arsenopyrite, sphalerite and galena	B22-156' B22-281' B22-282' B22-292' B36-210'
	6) Quartz-pyrite (includes arsenopyrite) ore zone, minor sericite	B36-238'
Footwall	Less intense sequence as above cut to fresh unaltered rock, MoS_2 halo in quartz veins	
	Pattern of alteration unknown or irregular: a) Potassium feldspar flooding	B21-160' LY5-86'

The alteration distribution is also discussed in the following section on the Kim Zone. Particular attention was given to alteration during logging of the Kim diamond drilling.

Petrographic work from the Bob Zone indicates that all of the specimens collected are within the quartz diorite field. The "granite dykes" mapped by Manchuk on surface were not recognized. Underground mapping by Hecate Gold Corp. does not show any of these "granite" dykes passing through the decline area, except as small alteration features. Kim-type rocks are exposed east of the Bob Zone near the Bank-Barge Lineament. Microscopic observations indicate that the "granite" is slightly altered, silicified-sericite quartz diorite. A myrmekitic texture (an intergrowth of plagioclase and vermicular quartz) suggests that a small amount of potassium feldspar has been replaced during final cooling of the rock. This may have taken place after the marble blocks were rafted away from the Bank-Barge linear. An inspection of the lithotheque board shows that there is a considerable visual variation between the Bob Zone specimens, yet they are all quartz diorite. Over 70 hand specimens from outcrops throughout the Bob Zone area were stained for potassium feldspar in the field. Results show no mappable distribution of potassium feldspar alteration with the possible exception of increasing K-spar near the Bank-Barge Lineament.

Altered metasedimentary rocks exhibit a wide range of granitization effects and contact metasomatism. The present petrographic study did not concentrate on these lithologies since hand specimen features give a greater impression of primary sedimentary structures. Classification of the metasedimentary rocks should place the greatest emphasis on what the original parent rock was instead of the hornfels it has become. A specimen of argillaceous quartzite (lithotheque C-3) has been completely altered to albite-quartz-hypersthene-calcite and has no discernable micro features remaining from its sedimentary parentage.

IV. Detail Geology

(a) Kim Zone

The Kim Zone was discovered in 1963. It was investigated by mapping, trenching and diamond drilling in 1963 and 1964. A total of 63 holes were drilled for an aggregate

length of 3,476 m. The main discussion of the Kim Zone results is contained in McDougall's 1964 report pages 8-19. The zone has been mapped in 1984, Figure 8, at a scale of 1:500 using accurate reference points established with a transit and chain. A few key drill holes from 1964 were re-logged. In March 1984 the zone was exposed by nine major backhoe trenches. These trenches give valuable information on the orientation of individual mineralized veins. Petrographic examination of Kim specimens has established a coherent alteration sequence for the zone.

The Kim Zone is best described as a complex combination of several differing groups of mineralized quartz veins plus disseminated sulfide lenses within the confines of an intensely altered fracture system (trending 288°) hosted by biotite quartz monzonite. Recent work, Figure 8, on the Kim Zone suggests several important points:

(1) The alteration zone is offset by numerous strong faults trending 045° (northeast-southwest) with suggestion of apparent left lateral movement up to 15 meters.

(2) Alteration is progressive from weakly sericitic on the margins of the deposit into intense quartz-sericite (minor clinochlore and calcite) near the higher-grade gold mineralization.

(3) Kim Zone varies in composition and vein direction from east to west.

East Subzone:	characterized by erratic distribution of gold (by present drill pattern). mineralized vein systems mainly 012°-031°/west dipping.
Central Subzone:	Higher gold values, 063°-084°/north dipping.
West Subzone:	vein orientation poorly understood because of limited drilling, 062°/north dipping.

The prominent change of mineralized vein orientation in the East Subzone could be due to drag folding along the 045° faults, however, there is also a strong possibility that the Kim Zone rocks represent a semi-solid intrusion of biotite quartz monzonite that has domed or folded the metasedimentary package and in this case, the vein directions are related to their relative axial planar position along the domal structure, (refer to sketch below, Figure 9). Foliation in the quartz monzonite around the Kim Zone is erratic. Commonly foliation is not well developed. A systematic effort to measure foliation may be worthwhile and would entail blasting fresh exposures.

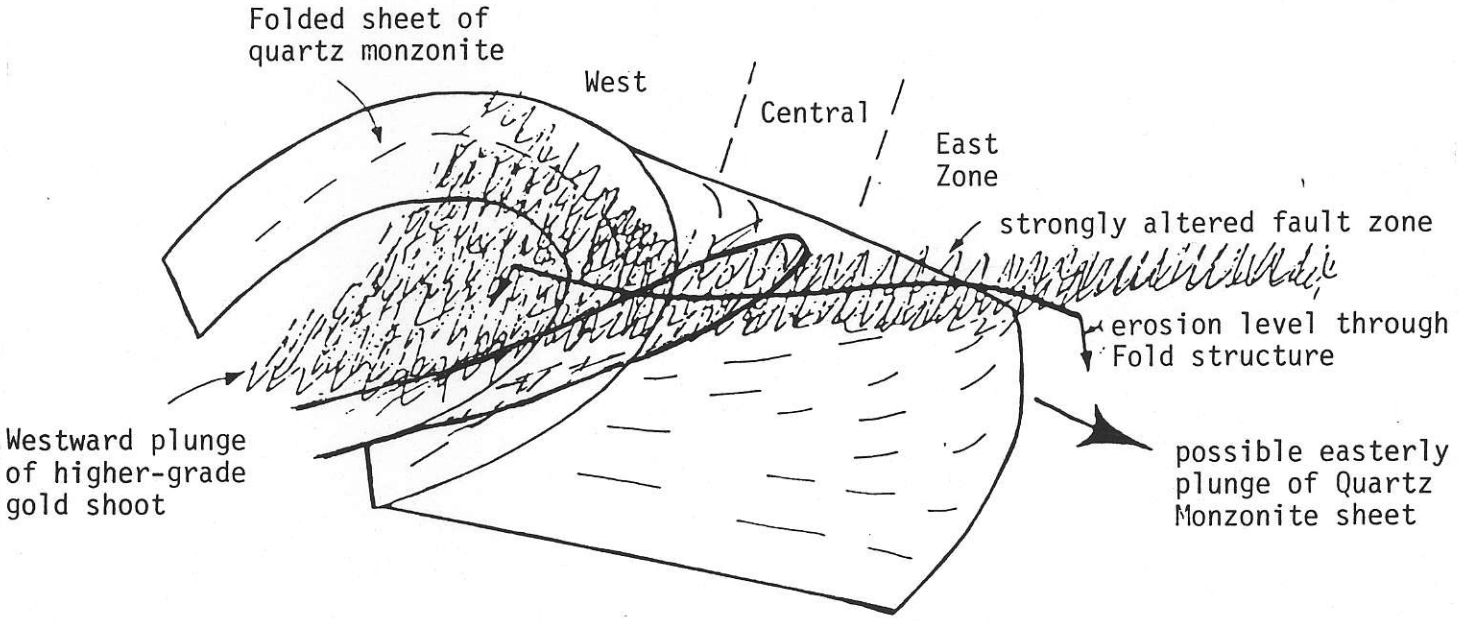


FIGURE 9 Model of Folded Intrusion, Kim Zone

Mineralized vein directions are not found strictly parallel to the trend of the altered zone. McDougall (1964) page 14-15 describes the following vein orientations:

(1) 280°/60°-70°N ("simplest series")
(2) 260°-250°/55°-75°S (Probably most important in lode makeup")
(3) 345°-325°/55°-75°N ("limited group, approximately the attitude")
(4) 270°/30°-60°N ("of less importance, believed to be a wallrock feature")

Very few south dipping mineralized veins were observed. The important mineralized vein orientation, recorded in 1984 mapping, are:

(A) 012° to 031°/32° to 68°W these veins are common in the east subzone and are usually curved (folded) with an undulating hanging wall and a smooth joint-fracture surface footwall.

(B) 044°-046°/80°-85°W with occasional high-angle southerly dips represents 045° cross faults.

(C) 063°-084°/45°-81°N main vein trend in central subzone.

(D) 240°-245°/46°-68°N less common occurring in central subzone.

McDougall (1964 pg. 15, 17) comments that:

Page 15 "In all, the various veins make up a not-too-clearly defined lode-type deposit in which the economic sections are determined by the frequency of flexures and cross fractures."

Page 17 "As we are dealing with a lode type deposit in which the vein clusters appear to occupy as yet unpredictable intervals, intersections are erratic. The mineralized central portion of the northerly dipping zone appears the most continuous."

The erratic nature of mineralized drill intersections east of 30,440E (East Subzone) appears to be partly a function of the drill pattern (Holes B30, 31, 33, 40 and B35, 36, 37 and 40) being oriented subparallel to the main mineralized vein direction. The close relationship between the frequency of mineralized veins and the degree of alteration is striking. An unusual feature of the Kim area is that small pods of fresh unaltered rock, which appear to be fracture controlled, occur within, and alternate with, intensely altered sequences.

A geostatistical ore reserve estimate was performed by International Geosystems Corporation based on the 1963 and 1964 diamond drilling employing an inverse distance method (to the 4th Power) using an octant search for the closest data points to interpolate the block grades. A geological model was constructed separating the main

mineralization from the lower grade "hangingwall" and "footwall" material. Each "zone" was calculated separately using a tonnage factor of 11.0. The results are tabulated below:

TABLE II

Kim Zone Ore Reserve 1983

Hangingwall, north	262,000	short tons @ 0.040 oz/ton Au equivalent
Main Zone, center	126,000	short tons @ 0.282 oz/ton Au equivalent
Footwall, south	79,000	short tons @ 0.045 oz/ton Au equivalent
Total	467,000	short tons @ 0.106 oz/ton gold.

Note: Gold equivalent was used as gold = 0.035 silver. (June 83)

The inverse distance method used the formula:

$$G = SUM (Gj \times Lj) / (Dj)^{**4}) / SUM (Lj / (Dj)^{**4}) \quad j = 1, 8$$

where:

Gj is the weighted average of the ore intercept
Lj is the length of the ore intercept
Dj is the distance from the block to the center of the ore intercept
G is the grade of the block to be interpreted using an octant search method to pick up the surrounding ore intercepts

A simple sectional plexiglas model has been constructed of the 1963 - 1964 drilling at Kim to attempt a conceptual understanding of the deposit. Pre-1984 drill hole information is plotted on Figures 9 to 16 at a scale of 1:480. These data should be converted with all assay values and detail geology to 1:500 for compatability with 1984 information. A plan map at 1:250, Figure 24, has been prepared for the western portion of Kim Zone. A complete set of 1:250 scale drawings will be needed for the Kim Zone before additional drilling is done. Geological mapping, Figure 8, at Kim Zone should be updated to include all surface exposures when 1:250 scale plans are constructed.

McDougall (1965), page 15, summarizes the early drilling as follows:

> "About 1000 feet of the Kim Zone has been tested by diamond drilling. Test pits and rock cuts in mineralized material extend an additional 250 feet easterly and about 150 feet westerly for a total partially tested length of 1300 feet. Twenty-two AX drill holes totalling 7,917 feet (B.19-B.44, excluding B.32, 34, 39) have been completed through a central 750-foot length, generally on 100-foot sections. Most of the drilling was done from the more accessible south or footwall side of the zone as in this case the more substantial southerly dipping series of veins could, from an easier set-up, be cut at a higher angle. The last three holes completed were collared uphill on the hangingwall side cutting the zone itself at a better angle.
>
> A few packsack holes were put in at shallow depths directly across the zone from south to north but their limited length made too much of such work inadvisable. Instead this drill was used to sample given portions in detail. Twenty-two radially arranged, low-dip "spray" holes (A.25 - A.47) with lengths of up to 171 feet were put in from 3 suitable locations at the south and central portions. As core recovery was good, results can be used to predict, within obvious limits, the best average grade to be expected treating the deposit as a lode. A total of 38 packsack holes, including the above, were completed in 1964 (3023 feet of drilling) bringing the total packsack work to date to 43 holes at 3607 feet and the total drilling to 11,974 feet."

The best grade mineralization encountered in the 1963-1964 drilling was along 30,365 E, (holes B-25, B-26), Figure 14 and 30,335 E (holes A-5, B-21, B22 and B23), Figure 12. Hole B-25 at -40°, which was relogged during 1984, averaged 0.371 oz/ton gold and 3.16 oz/ton silver over 6.10 meters (20 feet) between 63.40 m to 69.44 m depth. The mineralized zone is contained within an intense sericite-chlorite alteration envelope approximately 12 meters wide. The B-25 intersection contains short massive sulfide intervals of galena, pyrite, sphalerite and arsenopyrite. The longest of these occurs between 65.10 m and 65.30 m. Several generations of quartz veining are present. The most prominent are greyish-blue quartz cut by white quartz. Hole B-22 at -50°, Figure 12, intersected a similar zone averaging 0.298 oz/ton gold and 0.77 oz/ton silver over 7.92 meters (26 feet) within an intense alteration system about 21 meters in true thickness.

The "spray" packsack hole drilling is mainly centered in two localities: (1) 31,080 N + 30,345 E and (2) 31,067 N + 30,401 E. The first spray locality indicates the tenor of mineralization through the near surface Central Subzone as tabulated below:

TABLE III

"Spray" Packsack Diamond Drill Holes, Kim Zone

Assay Values

Hole Number	Dip	Length of Intersection	Assay Gold (oz/ton)	Value Silver (oz/ton)	Approximate Orientation of Hole to Trend of Alteration System
A5	-40°	17.5 feet	0.5	1.4	70° NW
A25	-33°	125 feet	0.145	0.19	40° NE
A28	-30°	16 feet	0.88	1.10	45° SW
30	-35°	50 feet	0.162	0.3	70° NE
31	-57°	90 feet	0.15	0.12	80° NW
33	-35°	68.5 feet	0.173	0.49	65° NE
34	-35°	170 feet	0.09	0.47	10° NW
36	-35°	75 feet	0.21	0.43	40° W

This can be considered to represent a cone averaging 0.12 oz/ton Au for the altered zone over a width of about 30 feet (Charteris 1965).

Past interpretation of Kim Zone drilling and exploration strategy has essentially considered the Central Subzone, from 30,315 E to 30,390 E, as a relatively homogeneous mineralized unit composed of poorly defined individual veins, disseminations and lenses. In 1984 this strategy was modified to recognize the likelihood of substantially higher-grade mineralized shoots plunging westerly at low angles within the alteration system. Hole number YGKM-84-006, Figures 8 and 24, demonstrates continuity of mineralization between 30,335 E and 30,365 E. Future exploration should be designed to test the extent of this shoot. The mineralization found by B-42, Figure 13, middway between B-22 and B-25 at 0.13 oz/ton Au and 2.43 oz/ton Ag over 3.05 m (10 ft), may be slightly above the main higher-grade shoot. A well mineralized zone was encountered by YGKM-84-008, Figure 20, but the higher-grade gold was restricted to .112 oz/ton Au and 0.37 oz/ton Ag over 6.18 meters (20 feet). Only small, narrow gold-rich lenses were found in holes B-19, 20 at 30,305 E, Figure 11, and YGKM-84-010, 011 and 012, at 30,280 E, Figure 21. These holes appear to have cut the alteration - fault system at too high an elevation above a fault displaced westward extension of the mineralized shoot. Deeper drilling will be necessary, as indicated by YGKM-84-013 which intersected 0.113 oz/ton gold and 0.24

oz/ton silver over 6.18 m (20 feet), Figure 22. This gold zone is not along a strict linear -40° plunge of the B-22, B-25 mineralized shoot, suggesting that important displacement has taken place along the 045° cross faults in the order of at least 30 meters of dip-slip movement. Some lithological variation was noted in the West Subzone primarily by the occurrence of hornblende diorite and hornblende porphyry. The 1963 - 1964 drill core should be relogged for correlation purposes of these hornblende rich intervals. Preliminary interpretation suggests that the hornblende diorite reflect digested metasedimentary units. The priority holes listed in Table IV are required to follow the mineralized shoot to depth and test westward continuity.

TABLE IV

Proposed Diamond Drill Holes, Kim Zone, West Subzone

Hole Number	Location Grid 1984 Northing	Easting	Approx. Length in ft.	Relative Position	Azimuth	Approx. Dip
KM 1	31,140	30,284	850'	below 84-013	189°	-85°
KM 2	31,150	30,254	700'	east & down plunge from 84-0013	189°	-70
KM 3	31,150	30,254	900'	below KM 2	189°	-82°
KM 4	31,165	30,224	900'	west of 84-011	189°	-70°
KM 5	31,165	30,224	1,000'	west of & along plunge of 84-013	189°	-77°
KM 6	31,165	30,224	1,200'	below KM 5	189°	-82°
KM 7	31,185	30,190	400'	shallow hole west of 84-010	189°	-55°
KM 8	31,185	30,190	600'	below KM 7	189°	-60°
Km 9	31,185	30,190	900'	below KM 8	189°	-70°
KM 10	31,185	30,160	1,000'	west of KM 9	189°	-70°

Minimum Total Length - 8,450 feet for West Subzone.

The East Subzone, east of 30,400 E, is characterized by north-south trending sulfide-quartz veins and narrow, high-grade but erratic gold values in drilling that has been directed mainly from the south. The surface exposure of the main east-west alteration system shows intense development of secondary quartz, sericite and chlorite, traceable to 30,630 E along Arseno Lake. Pyritic, sericite-chlorite alteration specimens were noted farther east along the lakeshore. Although the 1963-1964 drilling in the East Subzone intersected several mineralized intervals, there is a lack of continuity between holes on the same section and also between sections.

Interestingly, a short packsack hole collared at 31,067 N + 30,401 E intersected a subsidiary mineralized zone separated from the main alteration package which averaged 0.10 oz/ton Au over 17 feet. The cross section that exhibits the most continuity is 30,508 E which includes, Figure 16, A-13, A-15, B-35, B-36 and B-37. Sulfide-rich quartz in B-37 between 131.06 m and 132.89 at a depth below surface of 104 m (340 ft), averaged 1.21 oz/ton gold and 1.0 oz/ton silver over 1.83 m (6 ft). The only 1984 drilling in the East Subzone was YGKM-84-015 which investigated the continuity at depth along strike of the alteration-shear system, Figure 23 and 25. The repetition of mineralized, intensely altered rock with fresh Kim biotite quartz monzonite suggests displacement of the alteration-shear system along the 045° faults. Metasediments and skarn enclose the mineralized alteration-fault system east of Arseno Lake. Minor folds in the metasediments plunge toward the east. Exploration of the East Subzone is complicated by these displacements along 045° faults, but also a fundamental change in mineralized vein orientation may indicate considerable difference in "stratigraphic" position within the folded Kim quartz monzonite, as outlined in Figure 9 on page 14. The East Subzone should be investigated at depth for changes in vein direction and for continuity of structure toward the east under Arseno Lake. Possible drill sites are tabulated below:

TABLE V

Proposed Diamond Drill Holes, Kim Zone, East Subzone

Hole Number	Location Grid 1984 Northing	Easting	Approx. Length in ft.	Relative Position	Azimuth	Approx. Dip
KM 11	31,150	30,460 E	800'	below B-31	189°	-75°
KM 12	31,150	30,460 E	1,000'	below KM 11	189°	-85°
KM 13	31,150	30,520 E	1,000'	below B-37	189°	-85°
KM 14	31,120	30,595 E	700'	east of B-40	189°	-70°
KM 15	31,120	30,595 E	1,000'	below KM 15	189°	-85°
KM 16	31,110	30,630 E	1,000'	east of KM 16	189°	-85°
KM 17	31,110	30,660 E	1,000'	east end of subzone	189°	-80°

Minimum Total Length - 6,550' for East Subzone.

The crosscutting 045° younger faults were found to contain veins of interest at 30,970 N + 30,478 E. An area of float samples running 3 oz/ton was tested in 1964 by drilling easterly under B-33, with the best intersection obtained running 0.8 oz/ton gold across 1.5 feet.

Kim Zone ore reserves were recalculated by International Geosystems Corp. to include 5 diamond drill holes completed in 1984. This ore reserve estimate was done using the kriging method (Champigny 1984a) based on a geological outline of the deposit illustrated on Figure 24. Gold equivalent values were used for the pre-1984 drill holes where gold = 0.035 silver, and gold values only for the 1984 drill holes. The reserves are given with a 95 percent confidence level, assuming normal error distribution, as shown in Table VI below:

TABLE VI

Kim Zone Ore Reserve 1984

D1	-	Hangingwall, North	314,000 ± 7,000 tons @ 0.050 ± 0.008 oz/ton Au equivalent
R	-	High grade, Center	452,000 ± 2,000 tons @ 0.104 ± 0.005 oz/ton Au equivalent
D2	-	Footwall, South	303,000 ± 6,000 tons @ 0.046 ± 0.002 oz/ton Au equivalent
ALL ZONES			1,069,000 ± 15,000 short tons @ 0.072 ± 0.015 oz/short ton gold equivalent

Additional ore reserve estimates should be made with variations in deposit outlines and configuration of lower-grade zones.

(b) Englishman

The Englishman Zone has many similarities to the Kim Zone. It lies along a major east-west fracture-shear system and is characterized by intense sericite-chlorite-quartz alteration, Figure 28, hosted by Kim biotite quartz monzonite. The Englishman Zone is poorly exposed. It is known primarily from float specimens, a few scattered pits or trenches and 10 diamond drill holes totalling 1548.08 meters (5,079 feet). Drilling in 1984 resulted in the discovery of a new subsidiary zone, called the North Zone, which occurs in the hanging wall of the Main Zone discovered in 1963. The North Zone does not outcrop.

K Ar date

Float specimens were found along the southeast shoreline of Englishman slough in 1963 which assayed up to 4.0 oz/ton Au. Drill hole LY-5 in 1963 cut an 8.0 foot (2.44 m) section assaying 0.22 oz/ton Au and 0.30 oz/ton Ag. After soil sampling, detail geology and SP surveys were completed. A drill program was undertaken in 1976 to test the zone east of LY-5 outlined by a 300 m long polymetallic geochemical anomaly. Results of this drilling are plotted on Figure 31. Manchuk (1976) comments on Page 5:

> "Significant widths of AG1 were encountered within a moderately developed quartz stockwork but unfortunately assays were disappointingly low. All of these holes were assayed in their entirety and except for 3.5 feet of 0.140 oz. Au in DDH 7-76, the rest were in the 0.01 - 0.002 Au range with the latter far more prevalent."

In 1984, the exploration strategy developed at the Kim Zone of searching for higher-grade, plunging mineralized shoots was applied to the Englishman Zone. Hole YGEN-84-001, Figure 29, was directed under the previous intersection in LY-5 to verify gold values since recoveries in 1963 were only about 25%. The Englishman Zone in YGEN-84-001 assayed 0.279 oz/ton gold over 2.0 meters (6.56 ft) with a core recovery in the mineralized zone of 65%. There are substantially greater widths of mineralization in YGEN-84-001, 002 and 003, Figure 29, than in the adjacent 1976 hole (7-76) to the west, Figure 31. The zone continues to widen to the west as demonstrated by hole YGEN-84-004, Figure 30. Important drill intersections along the Englishman Zone are summarized in Table VII.

TABLE VII

Drill Intersections, Englishman Zone

Hole Number	Dip	From	To	Length Meters / Feet	Gold oz/ton	Zone	Relative Position
YGEN-84-004	-45°	60.0m	64.00	4.00m (13.1)	0.140	North Zone	Westernmost hole to date
"	"	118.47	128.00	9.53m (31.3)	0.064	Main Zone	" "
"	"	118.47	143.00	24.53m (80.5)	0.036	Main Zone including footwall	" "
"	"	151.00	158.50	7.50m (24.6)	0.051	Main Zone in footwall	" "
YGEN-84-001	-40°	27.82	29.15	1.33m (4.4)	0.030	North Zone	22.5 meters SE of hole 84-004
"	"	57.00	59.00	2.00m (6.7)	0.279	Main Zone	" "
YGEN-84-002	-70°	29.00	32.50	3.50m (11.5)	0.023	North Zone	Steeper hole at same location as 84-001
"	"	36.50	37.00	0.50m (1.6)	0.204	North Zone subsidary	" "
"	"	90.00	94.00	4.00m (13.1)	0.024	Main Zone	" "
"	"	123.00	131.00	8.00m (26.3)	0.045	Main Zone footwall	mineralized to 138.00m
"	"	112.14	131.00	18.86m (61.9)	0.037	Main Zone footwall	
YGEN-84-03	-40°	58.00	59.00	1.00m (3.3)	0.027	Main Zone	at same location as 001
7-76	59.5°	17.68	18.29	0.61m (2.0)	0.053	North Zone	68.5 meters SE of 84-004
"	"	59.59	60.66	1.07m (3.5)	0.14	Main Zone	" "
"	"	59.58	61.87	2.29m (7.5)	0.07	Main Zone	" "
"	"	59.58	65.38	5.79m (19.0)	0.043	Main Zone	" "
8-76	-40.5°	96.32	97.84	1.52m (5.0)	0.012	North Zone ?	98.0 meters SE of 84-004
(rest of hole poorly sampled, mainly 20' intervals)							
9-76	-40.5°	32.00	33.53	1.52m (5.0)	0.30	Correlation unknown	
"	"	32.00	35.51	3.51m (11.5)	0.17	"	Apprx 191 m SE along faulted structure
10-76	-39.75°	24.69	32.00	7.32m (24.0)	0.015	"	Similar location along structure as 9-76
11-76	-41°	71.93	73.46	1.52m (5.0)	Sample misplaced	"	Apprx 246 m SE along faulted structure from 84-004
"	"	73.46	77.11	3.66m (12.0)	0.017	"	

The Main Englishman Zone strikes approximately 295° and dips 80° north. This compares with the better known Kim Zone of 288°/80°N. The North Zone, as presently known, strikes approximately 315° and is close to vertical (88°N).

An important feature of the Englishman area is the presence of a distinctive intrusive assemblage between the North Zone and Main Zone, thereby forming the hangingwall of the Main Zone. This assemblage is characterized by an abundance of hornblende as mainly hornblende quartz diorite. The unit has many intrusive breccia features. Very dark, mafic rich intervals alternate with light grey (plagioclase-rich) sections having several different types of fragments. Rocks containing abundant hornblende are often found throughout the Eastern Belt near contacts between altered metasedimentary or skarnified units and Kim biotite quartz monzonite. The unit between the North and Main Zones is likely a partially digested fault wedge or horst of metasedimentary material. The Englishman Zone can be considered to have some features of the relatively narrow "Lode-type" gold deposits such as Discovery or Tel but in addition has many aspects similar to the disseminated Kim Deposit. KAr date

The east-west trend of the Englishman Zone is apparently displaced by 045° cross faults for as much as to 50 m, left-lateral. Holes 9-76 and 10-76, Figure 31, cut across a very faulted intersection between the main alteration-shear system and strong 045° faults. Likewise, hole 11-76 is aligned subparallel to another 045° fault within the marginal metasedimentary cover. Hornblende-rich rocks are not seen in holes 8-76 or 9-76, and are present only in the last 2 meters of hole 10-76.

As presently known the length of the Englishman structure, from hole 11-76 in the east to the western shore of Englishman Slough, is 1250 feet, and it is open in both directions. Priority drill targets are outlined in Table VIII.

TABLE VIII

Proposed Diamond Drill Holes, Englishman Zone

Hole Number	Location - Grid 1984 Northing	Easting	Approximate Length in Ft	Relative Position	Azimuth	Approx. Dip
EN-1	30,561 N	30,733 E	700	below 84-004	220°	-55°
EN-2	30,561 N	30,733 E	850	below EN-1	220°	-70°
EN-3	30,584 N	30,711 E	550	30 m west of 84-004	220°	-40°
EN-4	30,584 N	30,711 E	750	below EN-3	220°	-55°
EN-5	30,584 N	30,711 E	850	below EN-4	220°	-70°
EN-6	30,588 N	30,676 E	600	60 m west of 84-004	220°	-40°
EN-7	30,588 N	30,676 E	750	below EN-6	220°	-55°
EN-8	30,588 N	30,676 E	850	below EN-7	220°	-70°
EN-9	30,602 N	30,649 E	700	90 m west of 84-004	220°	-45°
EN-10	30,602 N	30,649 E	900	below EN-9	220°	-60°

Minimum Total Length - 7,500 feet for Western Portion Englishman Zone.

Additional exploratory drilling may be required in the eastern portion of the Englishman Zone to investigate the structure below the short 1976 drill holes.

(c) Discovery Zone

The first important mineralized showing found by Falconbridge on Banks Island was the Discovery Zone in 1960. The area was subsequently tested by 35 holes totalling 1,856.84 m (6092 feet) including packsack drilling mainly in 1960 and 1963. The main references are contained in McDougall 1961 and 1963. The zone is not well exposed at surface. Recent geological mapping, Figure 28, shows the mineralized zone occurring between coarsely crystalline grey marble to the south and zoisite-actinolite-quartz (green compact) skarn to the north. Intrusive dykes of hornblende quartz diorite were noted in both the skarn and marble units. Locally a green, compact skarn has developed within the marble package adajcent to the narrow quartz diorite dykes.

Drilling has indicated, Figures 33, 34, 35*, 36, 37*, 38 and 39, a mineralized zone averaging 9 feet wide present through a minimum length of 250 feet horizontal and

* key cross sections

300 feet vertical. Drill-indicated limits in plan correspond to 045° and 360° linear depressions which may reflect bounding faults. Ore reserves calculated by International Geosystems Corporation in 1983 and based on 1960 and 1963 diamond drill holes, using the geostatistical inverse distance method, are:

TABLE IX

Discovery Zone, Ore Reserve 1983

Tonnage	Average Grade
100,000 short tons	0.461 oz/ton gold equivalent
	Note: gold = 0.035 silver

An early ore reserve estimate by J.J. McDougall (1963) gave 63,000 tons averaging 0.54 oz/ton Au and 0.997 oz/ton Ag. The presently known mineralized lens occupies a 315°-320° trending fault structure which dips steeply (-80°) northeastward. The mineralization appears to dip less steeply near surface (55°-65° NE).

Pb isotopes

Sulphide mineralization consists of pyrite, pyrrhotite, arsenopyrite, spalerite, and chalcopyrite which replaces grey marble and brecciated skarn. The presence of bismuth tellurides is suspected. Gold:silver ratios approximate 0.6:1.0 and minimal zinc assays show a gold:zinc ratio of 0.55:1.0, considerably higher than at the Kim Deposit.

Should also calculated As, Cu, Pb/Au ratios

A pronounced thickening of the sulfide lens was found in hole LY-2 and LY-4. Within a core length of 50 feet, LY-2 returned 15 feet averaging 1.55 oz/ton Au and 25 feet averaging 0.50 oz/ton Au. The 50 feet averages 0.72 oz/ton Au and 1.86 oz/ton Ag. In LY-4 a 15 foot intersection averaged 1.01 oz/ton Au and 0.56 oz/ton Ag. This thickening may represent a gently (30°) southeasterly plunging pipe-like shoot although additional drilling is required to confirm the precise attitude of the deposit. The easterly continuity of the Discovery Zone has not been tested in sufficient detail. Proposed, priority drill holes are outlined in Table X.

TABLE X

Proposed Diamond Drill Holes, Discovery Zone

Hole Number	Location - Grid 1984 Northing	Easting	Approximate Length in Ft	Relative Position	Azimuth	Approx. Dip
DY-1	30,387 N	30,712 E	450'	below B-11	220°	-55°
DY-2	30,387 N	30,712 E	500'	below DY-1	220°	-70°
DY-3	30,403 N	30,620 E	300'	15m southeast of LY-2	220°	-40°
DY-4	30,403 N	30,620 E	350'	below DY-3	220°	-60°
DY-5	30,403 N	30,620 E	400'	below DY-4	220°	-75°

Minimum Total Length - 2,000 feet.

Additional drilling may be warranted to the southeast depending on the results of DY 1-5, especially if an accurate plunge of the ore shoot is determined. Hole B-7 should be deepened. The widely spaced drill holes to the northwest (B-15, B-16, B-17 and B-18) should be relogged in detail with emphasis on recognition of marker horizons.

Relogging in 1984 of the most important old drill holes, such as LY-2, LY-3 and B-5, was hampered by the fact that the mineralized sections are missing. All remaining core, which was stored in small outdoor racks, has been transferred to the core shack.

In 1984, the Discovery Zone was investigated at depth by 4 drill holes, YGEN-84-002, 003, 004 and YGDY-84-005, Figures 29, 30 and 32. The Discovery structure was intersected in YGEN-84-003 at a depth of 120 m below surface. Several major faults were found cutting garnet-actinolite skarn. Light grey, slightly pyritic quartz breccia occurs between the skarn and white marble. This interval assayed 0.003 oz/ton gold. A second siliceous breccia zone has developed at the footwall contact between marble and hornblende quartz diorite. In hole YGEN-84-002 the Discovery structure was intersected at a depth of 330 m below surface. Several "blocks" of hornfels and marble were noted within the Kim quartz monzonite, which suggests that subsidiary fault duplication of the main structure has occurred. There is also evidence in LY-2 that the mineralized zone is duplicated by faulting. Typical appearing poorly mineralized Kim biotite quartz monzonite between 375.00 to 378.00 m in Hole YGEN-84-002 assayed an average over 3 m of 0.336 oz/ton gold. Check assays gave similar gold values. This section was later quarter sampled with a diamond saw and assayed 0.007 oz/ton gold over the same 3 meters. Small quartz veins evident in this section

may have contributed to a "nugget effect". To the northwest, the Discovery structure was cut by hole YGEN-84-004 at a depth of 175 m below surface, Figure 30. The fault system was found to be very strong and well developed, but all assay values were less than 0.003 oz/ton gold. Several extremely chloritized dykes have intruded the grey marble package in hole 84-004.

Vertical continuity was investigated by hole YGDY-84-005, Figure 32, slightly southeast of the cross section containing holes PS 10, B6, LY-4, B-12 and B-7, Figure 37. The Discovery structure was intersected 194 meters below surface in hole YGDY-84-005. The fault structure at this point was characterized by a banded hornfels between zoisite-actinolite-quartz skarn and white marble. An extremely chloritic fault zone breccia found 15.56 m below the first fault also separated skarn from silicified and sheared white marble.

In summary, 1984 diamond drilling of the Discovery Zone demonstrated continuity of structure and alteration at depth, but no corresponding sulfide mineralization. Future drilling should concentrate on defining the orientation of the known ore shoot. This is best done by short close-spaced holes.

(d) Quartz Hill

The very large, white weathering quartz masses at a structural intersection along Quartz Hill were one of the favourable features of Banks Island that attracted the attention of Ventures (Falconbridge Nickel Mines Ltd.) prospectors during routine Supercub recce flights in 1960.

The Quartz Hill area was mapped in detail during 1984, Figure 41. Large, irregular quartz veins and masses are abundant throughout a 250 x 100 meter area. Quartz is often associated with a major bulge or nose of metasedimentary rocks that enters the Quartz Hill area from the northeast. The area is marked by an easterly-trending structural lineament that is intersected by a northeasterly-trending major linear.

Disseminated sulfide mineralization occurs through the area in the form of sparse molybdenite and pyrite. Galena containing up to 10 oz/ton silver is occasionally present in small amounts near vein contacts. McDougall (1964, page 20) notes:

"Fair pyrite mineralization occurs within a 200-foot wide zone whose south boundary appears to be an E-W fault which also brings in a more mafic rock to the south. A drill hole was layed out to intersect this sulphide zone at depth as well as to test the immediate but unexposed fault contact area.

Hole #B-39 (northerly at -39°) driven from a point 100 feet south of the fault, cut 37 feet of healthy quartz-pyrite mineralization at about 300 feet. A few feet of pyrite and sphalerite was intersected in the fault contact area between 130 and 150 feet. The best of both sections assayed only 0.02 oz gold, Tr silver with up to 0.23% lead and 0.5% zinc. Composites showed only 0.005% MoS_2."

Drill hole B-39 is plotted on Figure 43. Two short packsack holes, PS-10 and PS-9 were collared in 1976 to test intensely altered and pyritic zones, but returned uniformly low gold assays. Trenching and stripping in 1984 exposed several narrow pyritic veins. A diamond drill hole is proposed 30 meters southwest of the B-39 section line to test IP, gold-in-soil anomalies and high gold in rock grab samples, Figure 41 and 43.

TABLE XI

Proposed Diamond Drill Holes, Quartz Hill

Hole Number	Location - Grid 1984 Northing	Easting	Approximate Length in Ft	Relative Position	Azimuth	Approx. Dip
QH-1	30,322 N	31,006 E	800'	SW and below B-39	160°	-40°
QH-2	30,300 N	31,112 E	600'	along contact	200°	-45°
QH-3	30,350 N	31,179 E	600'	along contact	200°	-45°
QH-4	30,200 N	31,191 E	500'	under cliff zone	160°	-45°

Minimum (Preliminary) Total Length - 2,500 feet.

If important gold zones are found by this preliminary drill program, then more closely spaced drilling will be required. Several small pits have been blasted along the quartz monzonite - metasediment contact, Figure 41. A prominent scarp at 30,185 N + 31,211 E was trenched in 1984. Initial grab samples of siliceous breccia ran 0.1 oz/ton gold. Trenching exposed a heavily manganese oxide-stained contact between hornblende-biotite quartz monzonite and garnet-actinolite skarn. This zone was apparently found in 1964 also and was called the "Cliff Zone". McDougall (1964) reports:

Mn-rich garnet ± actinolite

"However, despite 4' - 6' widths of 50% massive pyrite and fair sphalerite, gold values reached 0.10 oz and silver assayed up to 0.8 oz with zinc 2.0% and lead 0.71%."

Continuous chip samples taken across the zone averaged 0.045 oz/ton gold over 3.00 meters. The Meade vein, located at 31,170 N + 31,111 E, returned assays in the order of 1.0 oz/ton gold from a 2-5 inch width over a length of 20 feet.

(e) Eastern Belt General

The Eastern Belt consists of the main body of Kim biotite quartz monzonite and two flanking metasedimentary septa. Several prospecting targets were defined during previous work and one new mineralized showing, the Midway, was found in 1984. Priority areas are:

TABLE XII

Priority Prospecting Areas, Eastern Belt General

Area	Available Data	Recommendations
Midway	soils, SP, trenching	additional trenching and diamond drilling
India Area	soils, SP, geological mapping	detail soil grid
Extension of Discovery - QH	soils, SP, IP	trenching of anomalous areas, (partially done)
Ex Creek	soils, SP, packsack drilling geological mapping, stream sediment	detail geological mapping
Banks Lake	trenching, packsack drilling	detail SP and geological mapping
Island Showing	SP, geological mapping, trenching	no further work at this time
Gladys Lake Area	soils, prospecting	detail geology, follow up soils
Beaver Lakes Linear	soils, prospecting	detail SP
North Kim Linear	prospecting	soils, SP

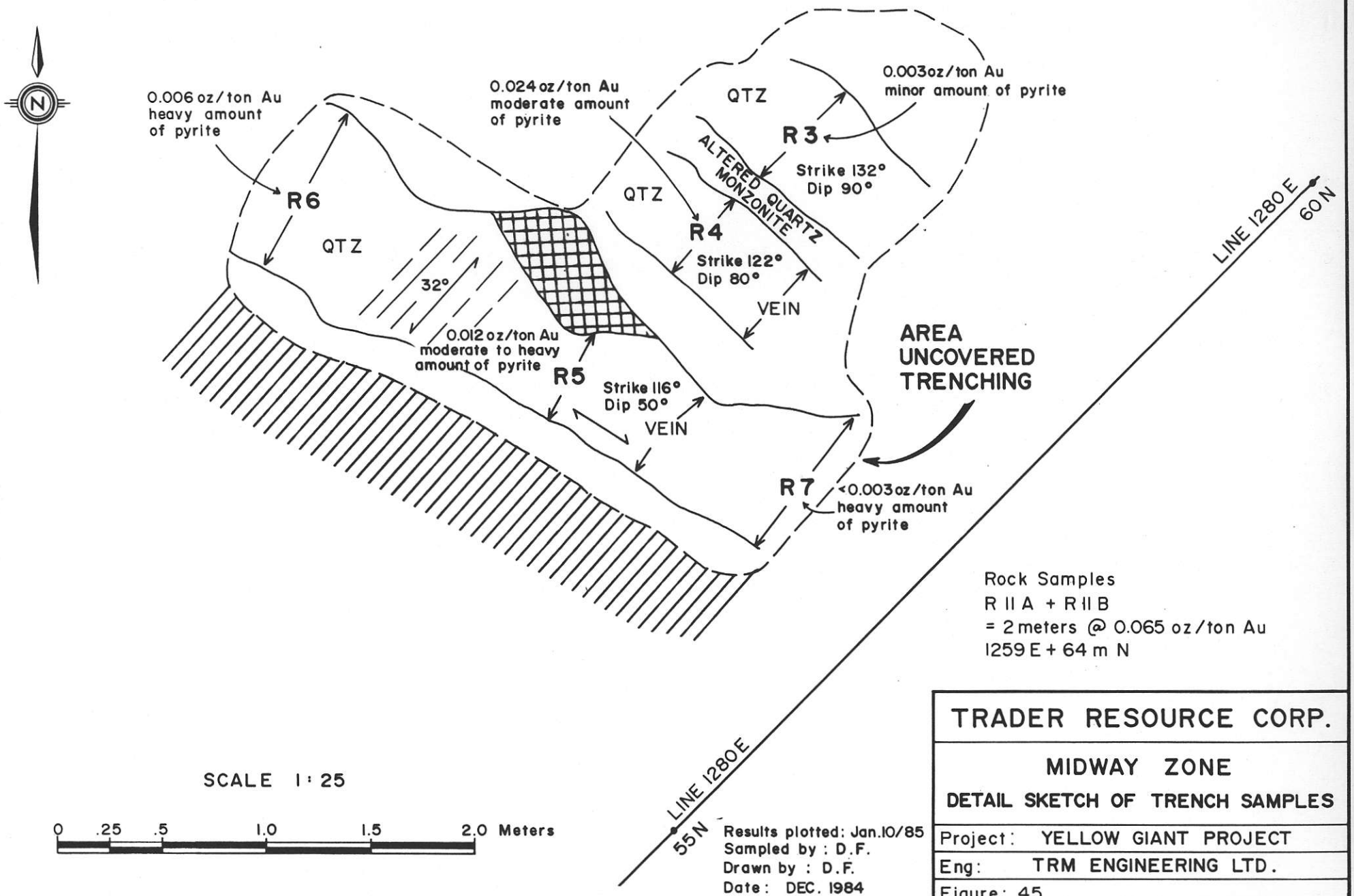
The Midway Zone, Figure 40 and 44, was found in 1984 as a result of prospecting around strong Dighem EM anomalies southeast of Arseno Lake. The area is

characterized by siliceous, sericite-chlorite altered Kim quartz monzonite in contact with metagreywacke. Limited hand trenching, Figure 45, uncovered highly pyritic quartz veins of which the highest values consisted of 2 meters averaging 0.065 oz/ton gold. This showing warrants diamond drilling subsequent to additional trenching and soil sampling. At the India Area southeast of the Discovery Deposit, sulfide-rich skarn has developed along the margins of several large marble lenses in contact with coarse hornblende diorite, Figure 48. Despite sampling of specimens containing abundant pyrrhotite with visible chalcopyrite, only trace gold has been obtained in assays.

Deep overburden underlain by Kim biotite quartz monzonite between Englishman Zone and Quartz Hill and also southeast of Quartz Hill was soil sampled in 1984. Anomalous values occurring near structural intersections should be trenched. The results of all soil sampling is discussed in the geochemistry section.

Considerable work was carried out in the Ex Creek area during 1984, Figures 46, 47. Previously, numerous mineralized float specimens were collected (McDougall, 1963) that assayed up to 0.5 oz/ton gold. Random packsack drilling around SP anomalies failed to locate the source of the mineralized float. The creek flows southerly through a relatively flat, swampy terrain to where the float specimens were found by tracing upstream. Packsack core at this point contains thin bedded siltstone, white, medium crystalline marble and abundant garnet-actinolite skarn. Outcrop in the creek bed is mainly rusty, quartz-rich silty hornfels. Approximately 500 meters downstream several thin skarn horizons occur in thin-bedded marble. All rock samples collected during 1984 in the Ex area gave very low gold values despite the presence of pyrite in many specimens. Much of the Ex area is covered with dense underbrush making direct observations difficult. McIntyre Porcupine Mines Ltd. drilled several packsack holes around Crazy Lake on high-grade gold in narrow quartz stringers. No data from this work have survived. Additional geological mapping, Figures 51 and 52, is needed to assess the complex area between Ex Creek and Arseno Lake.

The Beaver Lakes Lineament occurs 130 m south of and parallels the Kim Deposit zone. It has a similar strike length of approximately 1300 m and is cut by the same 045° tension fractures found at the Kim Deposit. Intense sericite-chlorite alteration was noted near the 1984 core-handling facility, Figure 8. Within this overburdened lineament, float samples yielded gold values ranging from 0.1 to 0.5 ounces of gold per ton.



TRADER RESOURCE CORP.

MIDWAY ZONE

DETAIL SKETCH OF TRENCH SAMPLES

Project:	YELLOW GIANT PROJECT
Eng:	TRM ENGINEERING LTD.
Figure:	45

check Mn source
pyrite
carbonates
calc-silicates

Several hundred feet north of the Kim Deposit, easterly trending quartz veins and veinlets with accompanying pyrite and unidentified manganese mineralization (assays to 2.12% MnO_2) near metasediments have been located. Sampling of this area and its western continuation for gold mineralization was initiated in 1984 but additional, systematic soil lines and SP surveys are warranted.

Gold values ranging up to 2.5 oz/ton were obtained from quartz-rich, altered quartz diorite float boulders on the southwest short of West Banks Lake. The area was tested by 913 feet of surface diamond drilling in five holes, but mineralization was not encountered in the core although a shallow trench in the drilled area, but below water level in the lake, returned specimen assays reaching 2.92 oz/ton gold and 2.2 oz/ton silver. McDougall (1964 page 22) mentions:

> "A narrow gold-bearing vein was also found about 100 feet on the mafic monzonite side of what appears to be the Discovery Zone sediment extension."

Sample

In Hepler Lake, the Island showing, Figure 49, consists of pyrrhotite-chalcopyrite lenses in skarn and limey argillite at the west contact of the Discovery metasedimentary septa. The best values obtained from 1964 sampling over 4 feet were 0.06 oz/ton Au, trace Ag, 0.37% Zn and 1.73% copper. The area is of continued interest due to a strong Dighem EM anomaly just offshore from the island.

A wide expanse of Kim biotite quartz monzonite cut by several East-West Lineaments is found around Gladys Lake, Figure 50. Previous prospecting, geological mapping and soil sampling did not define any local targets except for erratic high silver results. Systematic soil sampling for gold may be warranted.

(f) Bob Zone

The Bob area occurs near the intersection of the Bank-Barge Lineament and the Survey Bay Fault, Figures 6 and 53, at the north end of the Western Metasedimentary Belt (Shearer 1985a).

xenoliths

An unusual quartz diorite breccia underlies most of the immediate Bob deposit. The breccia is characterized by many small to very large marble and greywacke fragments.

Particular care was taken by R. Kidlark (1984), Figure 53, during detail geological mapping to quantify potassium feldspar content of each exposure by in-field testing with sodium cobaltinitrite staining on HF etched samples. Petrographic examination of 8 specimens indicates that the main unit is a coarse grained, generally unaltered quartz diorite containing secondary biotite after hornblende. Locally, development of postassium feldspar alteration is usually associated with quartz veining and the presence of sericite near faults. A marked increase in barren quartz stockwork veinlets occurs in the immediate hanging wall of mineralized faults in the Bob Zone area. Hand specimens of Bob deposit quartz diorite exhibit considerable variation but thin sections demonstrate that all are within the quartz diorite field. The "granite dykes" mapped in 1976 do not exist. Recent observations indicate that the "granite" is slightly altered, silicified-sericitic quartz diorite. A myrmekitic texture (an intergrowth of plagioclase and vermicular quartz) suggests that a small amount of potassium feldspar has been replaced during final cooling of the rock. Lithotheque boards (Laznicka 1974, 1975) were constructed in duplicate for rock types found at the Bob deposit to facilitate communication between all workers associated with project.

Range of composition in the Bob quartz diorite is: Quartz 10 - 40%, Biotite 5 - 22%, Hornblende 2 - 18%, Potassium feldspar 0 - 10%, Chlorite 0 - 4%, Sericite 0 - 2%, Plagioclase 45 - 65%.

The metasedimentary fragments appear to have been rafted away from the vicinity of the Bank-Barge Lineament. Their abundance may reflect dynamic intrusion of the metasedimentary septa by diorite along a regional antiformal fold closure. A wedge of hornblende-biotite quartz diorite has traversed the Bank-Barge structure and is in contact with quartz monzonite south of the Bob Zone.

The marble block or horst associated with the high grade gold mineralization averages 12 m wide. The distribution of large marble blocks may be related to disrupted dragfolding. Most marble fragments have been subjected to skarnification along their margins. The outermost phase is a white bull quartz which occurs as isolated, irregular pods along fractures near marble concentrations. Marginal skarn development commonly has the following sequence:

1) Outer:
   yellow epidote - quartz
2) brown to red massive to coarsely crystalline garnet
3) Proximal:
   Green fine grained actinolite - zoizite - diopside
   usually with 1 - 5% pyrite.

Often the garnet and actinolite phases are interbanded on a small scale. Minor open space filling textures were noted as drusy, quartz-lined vugs.

A large, steeply south-dipping marble block associated with sporadic sulfides occurs 70 meters north of the Main Bob deposit. This showing, called the A-20 zone, was tested by 5 short packsack drill holes in 1964 totalling 377.5 feet, Figure 65. Proposed drill holes to investigate the Main Bob deposit will also pass through the West Bank Fault hosting the A-20 showing at higher elevations.

The fault-controlled Bob Deposit occurs partially in calcareous pelites, marble and skarn in its upper levels but is predominantly developed within altered quartz diorite at the lower explored level, Figures 59, 60, 61, 62 and 63.

The known geometry of the Bob Deposit indicates a sulphide lens that dips steeply (75 - 80^{o}) north and strikes east-westerly. Mineralization is controlled by a well-defined, steep, north dipping, east-northeasterly trending fault which cuts both metasediments and altered quartz diorite.

Faulting along the Bob and West Bank Faults has resulted in complementary left-lateral and right lateral displacement accompanied by zones of intense brecciation.

Systematic geological observations were made throughout most of the underground program by D. Peel for Hecate Gold Corp. Unforunately, none of Peel's daily face sketches or written records have survived. G. Nordin was involved with logging underground diamond core and mapping the last crosscut on 3 Level. The decline was remapped by J. Shearer in 1984 down to the caved area near survey station D-7, Figures 55, 56, 57 and 58. The geological data plotted on Figures 56, 57 and 58 have been taken from a re-drafted copy done by Moneca Mines Ltd., who briefly optioned

the property in 1981, but failed to do any field work. The original geology maps have not been found to date.

The portal was collared in the "A-20" zone marble block. Several other substantial marble blocks are exposed in the first 60 meters. The main Bob Fault was intersected at 62 meters from the portal and is oriented Az 064 / 51° N. The footwall marble mass was encountered south of the Bob Fault and a sump-remuck station was excavated in associated skarn. A decision to turn and follow along the main fault was made. The fault trace shows considerable undulations and pinches and swells along its course. Diamond drill hole BL-22 was encountered shortly after the first corner.

Short test holes, apparently drilled with jack-legs, are collared along 2 Level and 3 Level. Test holes at faces 21, 22 and 23 suggest that the marble unit trends toward the southeast. The orientation of the associated mineralization is not clearly shown and may warrant investigation for possible mineralization following the marble contact.

The Bob deposit is characterized by an abundance of auriferous pyrite with lesser amounts of chalcopyrite. Minor amounts of sphalerite, galena and arsenopyrite are present. Sulfide mineralization which cuts across marble, skarn and intrusive lithologies and also occupies brecciated metasediments as massive sulfide replacements, has an average gold:silver ratio approximately 0.70:1.0 ranging from 0.01:1.0 to 3.6:1. Sampling from underground work averaged gold:silver ratio of 0.55:1.0. Gold:zinc ratios are 0.08:1 on sulfide-rich surface material. Microscopic work on a specimen with high gold content (Harris, 1983) gave the following sulfide composition:

Pyrite - 88
Chalcopyrite - 10
Sphalerite - 1
Arsenopyrite - 1

In addition, there are traces of several mineral phases which can not be identified without scanning electron microscope analysis, but Harris (1983) suggested that these are Bi or Ag sulfosalts. Gold occurs as grains from a few microns up to 230 microns in a number of settings. It is seen as small grains completely enclosed in chalcopyrite and pyrite; on chalcopyrite/arsenopyrite and pyrite/quartz contacts; and associated with chlorite in the quartz gangue.

High grade gold values appear in the main zone near and directly below the marble mass. Toward the west the gold values are much less. Eastward the mineralized fault is very narrow and the gold content is relatively low.

Underground drifting on 2 Level exposed mineralization from Station D20 + 50 m east to Station D-23 + 14 m east, a horizontal distance of 44.0 meters. This zone, (presumably from face sampling), averaged 0.925 oz/ton Au and 2.83 oz/ton Ag across an average width of 1.69 meters. The zone elevation is approximately 40 m below surface. Sampling from the underground program is illustrated on Figures 66, 69 and 68.

A well mineralized quartz vein-stockwork was cut by the decline about 25 meters from the portal, Figure 69. Channel sampling of part of this vein gave results ranging from 3.056 oz/ton gold over 19 cm to less than 0.003 oz/ton Au over 23 cm. This zone was investigated by two underground diamond drill holes 78-3 and 78-4, which demonstrated that the vein system pinches down to narrow widths in a very short distance.

Other mineralized zones have been found in the immediate hangingwall of the main zone, particularly in drill holes BL23 and YGBB-84-017, Figure 59. Drill hole 84-017 intersected a 2 meter wide zone, 5 meters above the main deposit, which averaged 0.195 oz/ton gold and 4.88 oz/ton Ag. The hangingwall subsidiary mineralization in hole BL 23 is approximately 10 meters above the main zone and ran 3.42 oz/ton gold and 1.6 oz/ton silver over 0.61 meters. Similar lower grade hangingwall mineralization was found in holes 1 - 76 and 4 - 76. Within the footwall, hole 84-017 indicates a weak mineralized fault structure, 20 meters south of the main deposit, which averages 0.04 oz/ton Au over 5 meters.

Average grade of 21 surface samples at the poorly exposed Bob Zone is 0.90 oz/ton Au and 4.83 oz/ton Ag. The 1964 drill program resulted in 22 diamond drill core and sludge samples (3.2 ft in length) which averaged, uncut, 2.14 oz/ton Au and 3.06 oz/ton Ag. The surface exposure is considerably lower grade than parts of the zone down dip. The Bob deposit is characterized by pinching and swelling in both vertical and horizontal dimension. Gold content also varies considerably.

A geostatistical ore reserve estimate was performed by International Geosystems Corporation (IGC) using all surface and underground drill hole information. Assay data was calculated from 11 drill holes including the three 1984 holes. The zone was divided into two parts, Figure 64, and reserves calculated using the kriging method as tabulated below (Champigny, 1984):

TABLE XIV

Bob Zone, Ore Reserve 1984

High Grade	25,000 ± 3,000 st	(st = short ton)	where gold
	@ 1.77 ± 0.01 oz/st	Au equivalent	= 0.035 silver
Low Grade	25,000 ± 4,000 st		
	@ 0.56 ± 0.02 oz/st	Au equivalent	
Combined	50,000 ± 7,000 st		
	@ 1.17 ± 0.03 oz/st	Au equivalent	

(tonnage factor used is 11 cubic feet per short ton)

Gold equivalent values were used for the pre-1984 drill holes and for hole 84-17, and gold values only for drill holes 84-18 and 84-19. The ratio used by IGC for gold equivalent is gold = 0.035 silver. The reserves are given with a 95 percent confidence level assuming normal error distribution (Champigny, 1984) and do not allow for dilution.

Additional drilling will be necessary at closer spacing and at depth to define mineable ore reserves on the main zone. Parallel mineralized zones should be investigated in conjunction with exploratory drilling west of the main zone.

Future work should be directed toward extending the Main Bob deposit to depth along Sections 27005 E and 26975 E by surface diamond drilling. Additional drilling is recommended west of the main high grade lense to investigate the fault zone, especially in the vicinity of the West Bank Fault and Bob Fault intersection. Suggested drill sites are listed in Shearer 1985a, Page 18. Some minor drill footage should be allocated to the eastern part of the Bob Fault near the Bank-Barge Lineament and also for testing subsidiary showings subject to ground geophysical surveys.

(g) Tel Zone

The Tel claims were located by J.W. MacLeod in 1963 for McIntyre Porcupine Mines Ltd. During the late summer of 1963, McIntyre prospector A.E. Angus discovered some good grade 1 to 2½ oz gold in place within a lightly overburdened area near the shoreline of what is now called Sproatt Lake. Unfortunately, except for one short, 5 page review (MacLeod 1964) and abbreviated diamond drill logs, the McIntyre work has not survived. Apparently extensive SP and geological mapping was conducted. The Tel Zone was initially tested in 1964 over a strike length of 300 meters by 26 packsack holes totalling 1,761 feet (536.75 m), and by test pitting.

McIntyre sold the Tel claims to Sproatt Silver Mines Ltd. in 1975. In October, 1975, an additional 3,275 feet (998.22 m) of deeper drilling in 16 holes was completed for a total footage of 5,036 (1,534.97 m). Unfortunately no comprehensive drilling report or interpretation of results has survived from this work. Summary engineering reports (Seraphim 1975a and 1975b) have been written and are available.

The packsack drill core is no longer at the showings, but was taken to Indian Bay campsite. However, the 1975 core was stacked close to the original drill sites and in 1984 was moved to the main core handling facilities at Beaver Lakes. All of the 1975 drill core was relogged for a better understanding of the local stratigraphy and to guide surface geological mapping, Figure 70.

The Tel area is underlain by a northwest trending metasedimentary assemblage which dips moderately to steeply (55°-80°) northeasterly. Minor siltstone-biotite hornfels is found west of the Main Tel showing. The 1975 drilling revealed the following general stratigraphic sequence:

Relative Position	Map Unit	Rock Type	Remarks
Easterly	Unit 2	Massive coarse crystalline marble (commonly graphitic and sheared near main fault)	Faint relict bedding Light grey to dark grey
	Unit 2a	Wispy banded marble	Very well bedded in wispy layers
	Unit 2d	Silty marble	Light brown, mottled appearance
Westerly	Unit 2	Marble, medium crystalline	Light grey

Note: The entire section is cut by many faults and shears that produce abundant chloritic slickensides, graphitic zones, and gouge. All units have variable development of garnet-actinolite skarn and have been intruded by quartz diorite dykes.

Multi-compositional quartz felsite sills are present within the sequence. They are generally quartz rich, fine grained to aphanitic, and contain disseminated pyrite and pyrrhotite. Sill density increases toward the Bank-Barge Linear. Drilling indicates subsurface quartz diorite to granodiorite dykes along some fault directions.

Discontinuity between drill sections, Figures 71, 72, 73, 74, 75, 76, 77 and 78, suggest complex folding and faulting in conjunction with intrusion of narrow dykes and sills. Mineralization in B-13, Figure 76, is enveloped by quartz diorite-sheared marble above and wispy banded marble - silty marble below. A similar sequence was found in holes P1, P3, P4, B11 and B12. Wispy banded marble and silty marble occurs in the footwall of the zone. An important sulfide zone has not developed in B-12 but stratigraphic correlation shows little if any dip-slip movement. Northwestward, Figure 74, the mineralized fault has shifted farther into the upper massive marble unit in hole B-5. In hole B-6, where the zone assayed 1.49 oz/ton gold over 47 feet (14.33 m), a similar shift has taken place although the hole appears to have followed a course subparallel to the mineralized fault structure. Cutting the zone at a higher angle are Holes P6, B9 and B7, Figure 72. Wispy banded marble was noted on the east of the main fault which may represent a disrupted fold limb.

The Main Tel Zone is the best tested and most southerly of three separate but apparently related shoots along a strike length of 300 meters. Massive sulphide and quartz sulphide vein mineralization contains, in approximate order of abundance,

pyrite, pyrrhotite, sphalerite and chalcopyrite. Gangue minerals present include calcite and brecciated quartz, which may be vuggy and have a occasional blue colouration. Gold:silver ratios average about 0.84:1.0 while a greater than normal sphalerite content suggests a gold:zinc ratio of about 0.152:1.0.

Important gold zones intersected by diamond drilling at the Tel Zone, as summarized by Seraphim (1975a, 1975b), are:

TABLE XIV

Important Drill Intersections, Tel Zone

(From Seraphim 1975a, 1975b)

I. Main Tel Zone

Drill Number	Dip	Length (in ft)	Gold oz/ton	Silver oz/ton	Copper %	Zinc %
Shoot "A"						
P1	-38	4	1.52	1.2		13.3
P2	-37	15.5	1.40	1.1		6.6
P3	-45	14.8	0.88	0.7		8.6
P4	-48	7.5	1.16	1.2		14.5
P5	-49	1.0	1.24	1.6		20.8

Average 1.2 oz/ton gold over 8.5 feet

Note: True widths are about 75% of intercept length.

Shoot "B"						
P6	-49	4.5	0.66	1.5		4.1
P26	?	2.0	0.20	1.1		-
Shoot "C"						
P25	?	1.5	0.36	0.8		
P14	?	1.9	1.56	3.0	3.5	
Trench		-	1.16	-		

1975 Drilling:

	Dip	Length				
B-5	-45	108.5 - 109.5 = 1'	5.04	2.80		
		100.0 - 110.0-10' sludge	1.45			
		115.0 - 117.5 = 2'	0.25			
B-6	-58	19.0 - 23.0 = 4'	Tr	Tr	0.01	10.05
		103.5 - 108.5 = 2'	Tr	0.04	-	-
		108.5 - 111.0 = 2.5'	0.005	0.06	-	-
		111.0 - 116.0 = 5'	0.36	0.51	0.10	3.50

I. Main Tel Zone Continued

	Dip	Length	Gold oz/ton	Silver oz/ton	Copper %	Zinc %
B-6	-58	116.0 - 121.0 = 5'	1.72	1.40	0.15	2.85
		121.0 - 126.0 = 5'	2.30	2.00	0.52	3.25
		126.0 - 131.0 = 5'	0.44	0.61	0.19	6.15
		131.0 - 136.0 = 5'	4.94	2.40	0.23	3.50
		136.0 - 139.2 = 3.4'	3.78	1.70	0.17	0.55
		139.4 - 142.0 = 2.6'	0.50	0.51	0.17	2.50
		142.0 - 148.0 = 6'	0.04	0.02	0.01	0.30
		148.0 - 153.0 = 5'	0.16	0.14	0.01	1.05
		153.0 - 158.0 = 5'	1.01	0.76	0.07	3.35
Total B-6		111.0 - 158.0 = 47'	1.47	1.00	0.15	2.73
		110.0 - 159.0 = 49' sludge	2.10			
B-7	-61.5	146.9 - 148.0 = 2.1'	0.39	0.43	0.14	5.65
B-8	-57	170.5 - 172.5= 2.0	0.55	0.83	0.14	3.74
B-9	-47	121.5 - 125.0 = 3.5'	0.48	0.40	0.17	3.19
B-11	-70	83.3 - 102.5 = 19.2'	1.01	1.23	0.18	4.59
B-12	-85	No significant intersections				
B-13	-85	85.5 - 110.0 = 24.5'	1.15	2.07	-	-
		5 - 10% recovery - 100' - 108', 1.15 oz/ton Au in sludge				
B-15	-45	201.5 - 201.9 = 0.4	0.28	0.14	-	0.25

II. Central Tel Zone

P-11	-43	42.4 - 49.0 = 6.8'	0.27	0.8	2.65	
P-10	-45	54..5 - 55.0 = 0.5'	1.16	1.8	50% recovery	
Trench			2.16	(poor core recovery in P-19)		
B-3	-45	240.0 - 250.0 (10' sludge)	0.06			
B-4	-57	90.0 - 100.0 (10' sludge)	1.54			
		100.0 - 115.0 (15' sludge)	0.36			

III. West Tel

B-1	-45	65.5 - 71.5 = 6'	0.018			
B-2	-45	95.0 - 99.0 = 4'	Tr			

The West Tel Zone has gold in both quartz vein and skarn exposed in surface trenches. Two of the largest 045° cross faults have been termed the "Tel Fault" which cuts through the Main Tel area and the "Sproatt Fault" which is situated along the West Tel Zone.

Ore reserves calculated by International Geosystems Corporation for the Main Tel Zone by the inverse distance method are listed in Table XV:

TABLE XV

Tel Zone, Ore Reserve 1983

Tonnage	Average Grade
24,000 short tons	0.914 oz/ton gold equivalent
	Note: gold = 0.035 silver

Comparison between drill hole locations plotted by Moneca Mines Ltd. and the computer-generated plan show substantial variation. In particular, holes B-15 and B-16 are plotted on the computer plan northwest of hole B-13. The horizontal length of the mineralized zone appears to have been increased by 30% on the computer-generated plan. Priority future work will be an accurate transit and chain survey of all drill collars in the Main Tel Zone so that detail drawings can be constructed. Some of the pyritic sills or dykes contain ore grade gold values, but were not included in reserve calculations.

Although the precise locations of future surface drilling can not be determined until more accurate survey data is collected, the general strategy of further drilling will be; (1) to test the continuity of mineralization at depth, (2) explore the relatively untested area southeast of the Main Tel Zone and (3) investigate the area north of the known mineralization.

(h) West Belt General

The Western Metasedimentary Belt was the focus of detail geological mapping, soil geochemistry and self potential surveys in 1984, (Kidlark 1984a, 1984b). This work was concentrated along the Bank-Barge Lineament with emphasis on locating and defining the source of airborne geophysical anomalies indicated by the Dighem survey.

A northwesterly trending belt of metamorphosed calcareous and pelitic sediments of probable Paleozoic age occurs along the Bank-Barge Linear. The metamorphic sequence is persistent over a strike length of greater than 3 km and varies in width from less than 30 m to greater than 1 km, Figures 79, 80 and 81. Rock types consist of pyritic argillaceous quartzite, massive to finely banded marble, siltstones, calcareous siltstones and pyritic, graphitic shales. Regional metamorphism has produced a pronounced schistosity and calc-silicate hornfels. Local contact metamorphic effects include skarn in calcareous units and hornblende/biotite hornfels in more pelitic units. Bedding is apparent in most pelitic members and strikes parallel to the regional foliation. The main structural feature is the northwest trending Banks-Barge Linear which parallels both the regional foliation and the bedding. In addition, complementary strike slip faulting occurs in two directions; 045°-055° and 090°. Structural plots and field observations suggest that the east-west faulting is older and more intense, is often accompanied by zones of brecciation and has left lateral displacement up to 200 m.

Sparse structural field data from the sediments indicate at least two periods of folding. The earliest is represented by tight, small scale isoclinal folds that have hinges trending parallel to the regional foliation. Plunges are flat and are generally to the south. Later drag folding in areas of intense faulting has resulted in the development of larger scale curvilinear folds.

Priority areas for future exploration are summarized in Table XVI.

TABLE XVI

Priority Prospecting Areas, Western Belt General

Area	Available Data	Recommendations
Crack Zone	Geology, soil, SP, transit survey, soil profiles, trencing	Trenching
Foul Bay (Dighem)	Geology, EM	Waterborne, VLF, shoreline SP
Crossbreak Zone	Geology, soils, trenching, transit survey, diamond drilling	Finish transit survey, detail geological mapping, diamond drilling
GRO Grid	VLF, Magnetics, limited soils	Complete gold-in-soil survey

The northern portion of the Belt hosts the Bob Deposit and is an area of intense faulting and brecciation. The metasedimentary units are less than 50 m wide, but thicken rapidly to the south. The skarn unit has been mapped over a strike length of 250 m and contains gold values at the northern end (Kidlark 1984b). South of Long Lake, Figure 79, the appearance of thick argillaceous quartzite suggests large scale faulting and fold duplication.

The Crossbreak Zone, Figure 82, occurs along a major East-West structure near its intersection with the Bank-Barge Lineament. It is about 1400 m southeast of Bob Deposit and 600 m northwest of Tel Zone. The Crossbreak showings are described by McDougall (1964 page 29) as follows:

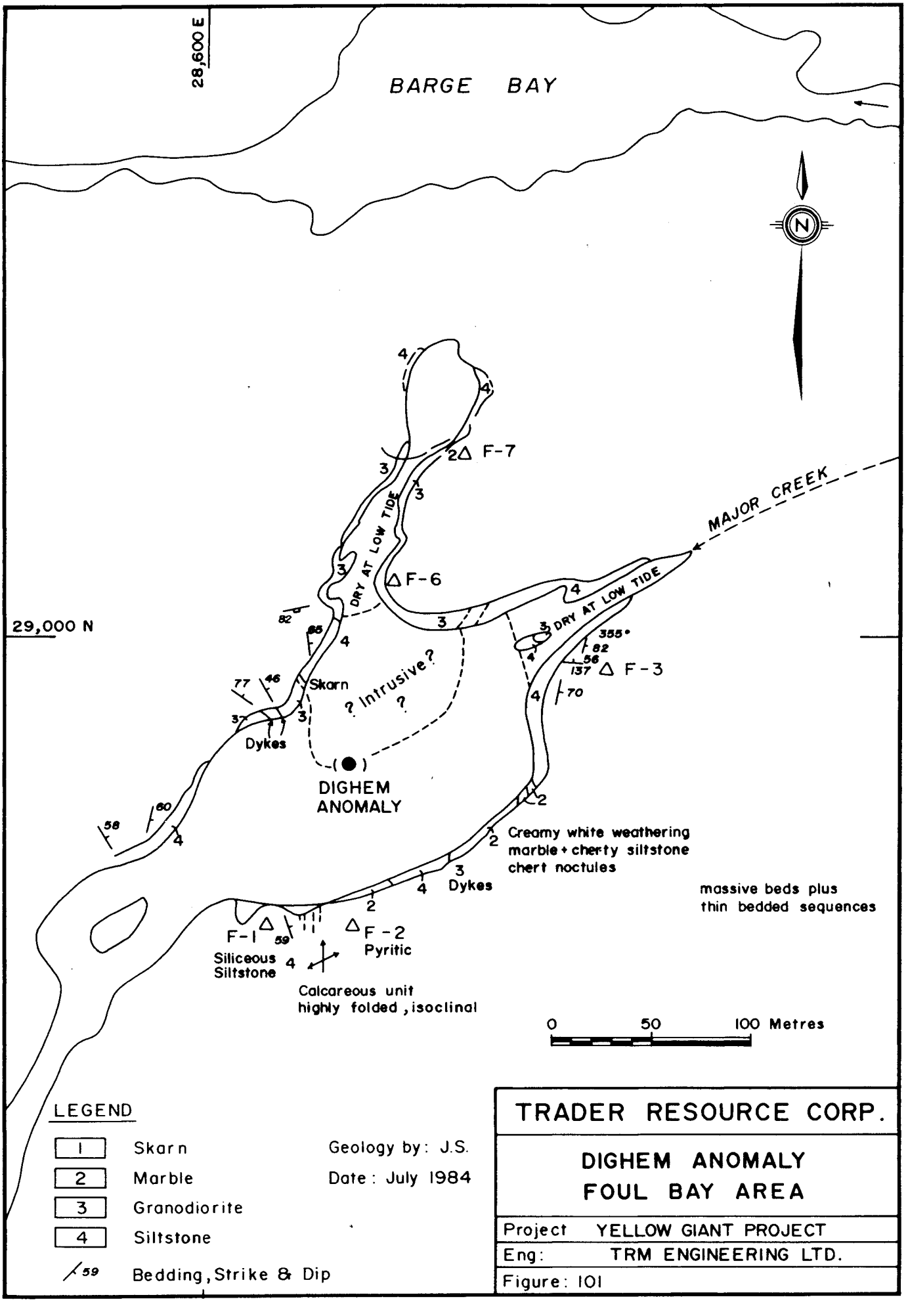
> "Mineralization discovered to date occurs a few hundred feet north of the fault along the limestone band near its contact with schistose metasediments. Any evidence of local control is completely concealed by overburden. Fine grained disseminated arsenopyrite and pyrite replacement of well-defined shale and limestone breccia of unknown orientation and distribution constitutes the main showing, which, in a mud hole, measures only a few feet square. There is a suggestion of dip to the west but surface slumping may have occurred. All other indications, however, point to a conformable easterly dip and north 30° - 40° west regional strike. A fold is suspected.
>
> Samples of material containing 10-15% sulphides, mainly fine grained arsenopyrite replacing brecciated limey metasediments, ran 0.58 oz gold, 1.0 silver."

Argillaceous quartzite, marble and siltstone with graphitic horizons strike northwesterly across the map area. The south end is displaced left laterally by the Crossbreak Fault. A distinctive, pyritic, argillaceous quartzite member occurs within the thick marble unit. It grades into biotite-feldspar hornfels toward the Crossbreak Fault.

Recent preliminary mapping at the Crossbreak Zone indicates that the area has undergone complex folding. The zone has not been fully assessed by the 6 shallow packsack holes (271 ft) and one relatively deep hole (5-76, 397'). The best drill results encountered were 7.5 feet of 0.11 oz/ton gold and 0.52 oz/ton silver.

The Crack Zone Area, Figure 83, southeast of Tel Zone had received attention in the early 1960's, but not all records of this work are presently available. A new discovery was made in 1984 of important gold values in stratabound felsite sills. These sills have been folded along with the enclosing metasediments. Rocks mapped as pyritic quartz felsite sills have assayed up to 0.46 oz/ton gold. Petrographic examination of six typical specimens show that the "sills" are a mixture of several plutonic types and at least one metasedimentary hornfels. Granodiorite is the most common rock type (Shearer 1984b) with representatives of quartz monzonite, quartz diorite and hornblende-tremolite hornfels. Two specimens exhibited strongly developed cataclastic textures. Quartz granulation is common. Graphitic metasediments occur north of Crack Creek and give rise to well defined SP and EM anomalies, Figure 84. In 1976, drill hole 6-76 was collared 35 m south of where the 0.46 oz/ton felsite sills was collected. Although several narrow intrusive sills were intersected in hole 6-76, the highest gold value was 0.026 oz/ton gold over 20 feet.

One of the strongest Dighem anomalies was found under shallow salt water near the head of Foul Bay, Figure 101. The shoreline exposes a highly folded, hornfelsic siltstone - minor marble sequence that has been intruded by granodiorite. Limited skarn has developed along the northwestern intrusive contact. Although no evidence of sulfide or graphite concentrations are apparent, an important mineralized zone may be concealed under the 100 m wide lagoon. A waterborne VLF and magnetic survey is recommended to further define the anomaly.


28,600 E
BARGE BAY
N
MAJOR CREEK
29,000 N
DRY AT LOW TIDE
DRY AT LOW TIDE
F-7
F-6
F-3
F-1
F-2
Pyritic
Siliceous Siltstone
Skarn
? Intrusive ?
Dykes
DIGHEM ANOMALY
Creamy white weathering marble + cherty siltstone chert noctules
massive beds plus thin bedded sequences
Dykes
Calcareous unit highly folded, isoclinal
0 50 100 Metres
LEGEND
1 Skarn
2 Marble
3 Granodiorite
4 Siltstone
59 Bedding, Strike & Dip
Geology by: J.S.
Date: July 1984
TRADER RESOURCE CORP.
DIGHEM ANOMALY
FOUL BAY AREA
Project YELLOW GIANT PROJECT
Eng: TRM ENGINEERING LTD.
Figure: 101

The GRO Grid, Figure 91, is situated immediately southeast of the Dighem anomaly at the head of Foul Bay. In 1973 the area was tested by soil sampling for Ag, As, Zn, ground magnetometer and EM16 surveys. Limited soil sampling with analysis for gold was carried out in 1984. The area is lightly but extensive overburden-covered. The relatively dense underbrush has hampered work in the past. Several significant coincident VLF conductors, magnetic and arsenic anomalies should be further checked with gold-in-soil sampling and hand trenching.

Float specimens which assay significant gold values were found along the shore of Witness Lake, north of the GRO Grid. Careful detail prospecting is needed to trace this float to its source.

GEOCHEMISTRY

A. Eastern Belt

The geochemical expression of the Kim-type disseminated gold mineralization and Discovery-type lode gold deposits in soil gives a wide and easily detectable anomaly for gold, arsenic, silver, zinc and copper, (Harris 1984a, 1984b, 1984c). Comprehensive detail orientation soil surveys were conducted over the Kim and Discovery Zones to establish optimum parameters for the geochemical detection of gold mineralization. Parts of what is now the Yellow Giant property were covered with grid soil geochemistry by Falconbridge in 1975. Regional reconnaissance with samples at 25 foot intervals on lines 400 feet apart was carried out over a total area of about 9 square km. These samples were analyzed only for indicator elements (Zn, Ag and As) and not for Au.

Many anomaous values were obtained. Three areas showing a particularly high concentration of anomalies received follow-up sampling on lines 200 feet apart.

Harris (1984c, page 3) describes the soil cover as follows:

> "Soils in the granitic areas consisted generally of a thin, patchy cover on the rocky slopes of small hillocks. Soil thickness ranged from 3 to 12 inches.

> The upper few inches of such soils consist of A horizon, in the form of dark-coloured decomposed organic compost or loam. This is usually intimately intermingled with roots and moss, from which it had to be physically separated by scraping with a kitchen spoon or small trowel. Considerable care was taken to exclude undecomposed roots, twigs, leaves, etc. from the sample.
>
> The C horizon usually occurred directly beneath the A horizon and sharply separated from it. A transitional zone (B horizon) was seldom present. The C horizon most often consisted of no more than an inch or two of sticky, buff-coloured or orange clay on top of rubbly or solid bedrock. Less commonly it was thicker and somewhat sandy. Sometimes it contained numerous small rock fragments, which, as far as possible, were excluded from the sample. Wherever possible a sample of A horizon and another of C horizon were collected at each site.
>
> Locally, in elongate, swampy, seepage areas, patches of cedar swamp, and on the fringes of shallow ponds or sloughs, the soil character changes to a thick, more or less undifferentiated, partially decomposed peat with water level close to surface. Such sites constituted about 14% of the total in the test areas. C horizon was seldom at an accessible depth in such situations and samples collected were of well-rotted organic mud from a depth of about 12 inches. These were designated A horizon."

Threshold values for gold were determined by Harris (1984a) to be 10 ppb for both "A" and "C" horizon samples taken from granitic terrain and 10 ppb for "A" horizon and 25 ppb for "C" horizon samples underlain by metasediments. All soil samples were analyzed by fire assay pre-concentration of a 10 gram sample, followed by neutron activation determination, Appendix 4. This technique yields anomalies with excellent constrast over a very low background. Sample turnaround was approximately 2 weeks.

The existing Falconbridge geochemical data can be grouped in to priority areas as outlined below:

TABLE XVII

Geochemistry, Priority Areas, Eastern Belt

(after Harris 1984b)

Area		Results from Previous Work	Remarks
1)	Quartz Creek - Quartz Hill	Detail sampling done in 1984 Refer to Figure 87	Follow-up required by profiles, trenching & SP
2)	Eastern Contact of Kim Intrusive (SE from Quartz Hill)	Zn, Ag anomalies, weak As wide line spacing	Extension of Area 1 requires 350 samples
3)	Ex Creek Area	In metasediments Zn, Ag, rare As. Anomalies open to south	800 samples required some sampling done in 1984
4)	Gorge Creek Area	Anomalous Ag, Zn & As trend not defined	1,000 samples required
5)	Peninsula Zone (Northshore of Hepler Lake)	Ag, Zn anomalies and areas areas of no previous coverage	600 samples required
6)	Gladys-Hepler Belt	Zn, Ag and As concentration Discovery Zone type mineralization environment	750 samples required
7)	Area surrounding Kim Deposit	Not previously sampled 0.35 sq. km.	May define concealed subzones - 350 samples required
8)	East of Gladys Lake	Not previously sampled 0.15 sq. km.	Kim type environment 150 samples required
9)	North of Gladys Lake	Not previously sampled 0.05 sq. km.	Kim type environment 50 samples required
10)	Northwestern end of Belt between east & west arms of Banks Lake	Not previously sampled 0.55 sq. km.	Kim intrusive area 550 samples required

At the Discovery Deposit, geochemistry gave very high gold-in-soil values around the mineralized zone in the "A" horizon of up to 4900 ppb Au. The "C" horizon was definitely anomalous (up to 530 ppb Au) but far less than the A horizon. To the east of the main

zone the higher gold-in-soil samples are very much restricted. An interesting high (x + 18N) northeast of B-12 returned over 8600 ppb Au in the C horizon.

Anomalous gold values were found in an arcuate pattern along the south slope of Quartz Hill. Drill holes are proposed, Figure 43, to test the IP and high soil results on line 150 W. Other highly anomalous results, such as on line 0 + 75 E and 100 E, require further follow-up sampling.

The known extent of the Discovery deposit and Englishman Zone exhibit high gold values in overlying and adjacent soil cover (line 675 W to 525 W). Possible westward extension of the Englishman Zone may be indicated by weakly anomalous values on lines 700 W to 850 W.

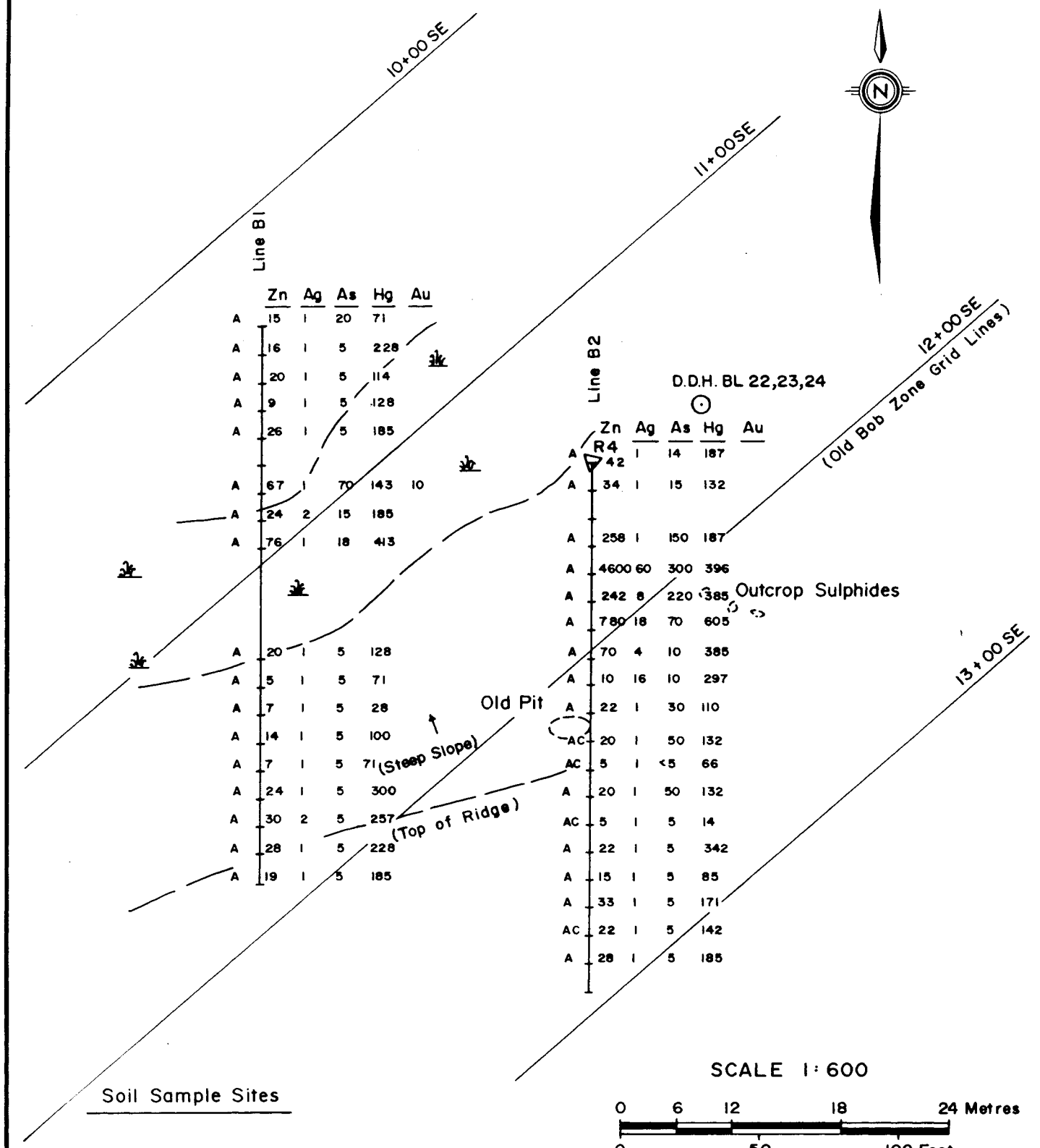
Highly anomalous gold-in-soil was discovered around the new Midway Zone, Figure 44. Additional hand trenching and limited diamond drilling are proposed. Geochemical response in the Ex Area, Figure 47, was uniformly low.

(b) Western Belt

The Western Belt has a distinctly different geochemical expression than the Eastern Belt. Generally, the background values in the Western Belt soils are extremely low and gold dispersion around the known mineralized zones is much more restricted than along the Eastern Belt.

Orientation soil sampling was conducted over the Bob deposit in 1977, Figures 85, 86. Analytical and sample preparation techniques for geochemical gold were not as advanced as today so that gold results were not considered reliable. Slightly anomalous values in "B" and "C" horizon samples were found for arsenic and mercury, Figure 85. The "A" horizon gave highly anomalous results for zinc, silver, arsenic and mercury, Figure 86. With special care to eliminate as much obviously undecomposed organic material as possible, the organic "A" horizon regularly contained higher element concentration levels than in inorganic soils (Elliott 1975).

Widely spaced lines were established in 1975, 400 feet apart, and samples taken at 25 ft. intervals, Figure 92. The spacing of these lines was far too wide and parallel to the



SCALE 1:600

0 6 12 18 24 Metres

0 50 100 Feet

Soil Sample Sites

Soil Horizon	Zn	Ag	As	Hg	Au
	(in p.p.m.)				(in ppb)
A	53	3	5	356	100

R4 △ Survey Station

Survey stations and control established by chain and transit.

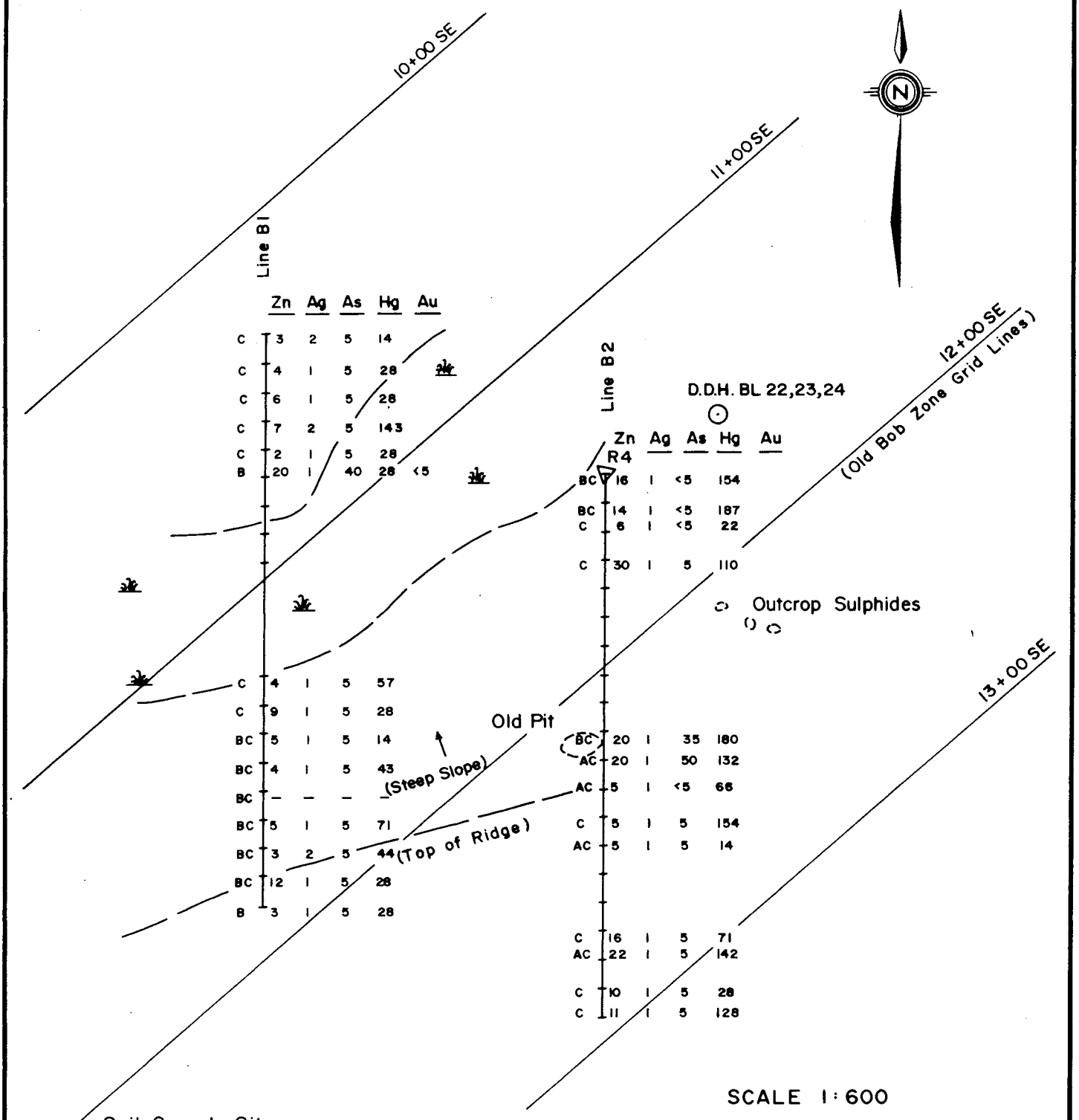
TRADER RESOURCE CORP.

BOB DEPOSIT
ORIENTATION SOIL SAMPLING "A" HORIZON

Project: YELLOW GIANT PROJECT

Eng: TRM ENGINEERING LTD.

Figure: 85 Sampling by: S.Z. JUNE/74



SCALE 1:600

0 6 12 18 24 Metres

0 50 100 Feet

Soil Sample Sites

Soil Horizon → A

Zn	Ag	As	Hg	Au
(in p.p.m.)				(in ppb)
53	3	5	356	100

R4 △ Survey Station

Survey stations and control established by chain and transit.

TRADER RESOURCE CORP.

BOB DEPOSIT
ORIENTATION SOIL SAMPLING "B" + "C" HORIZON

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Figure: 86 Sampling by: S.Z. JUNE/74

known zones to reflect the relatively small horizontal extent of the Bob Zone and other possible showings. Anomalous arsenic values were found along the Bank-Barge Lineament directly east of Bob deposit. A full scale soil program over the Bob deposit was conducted on lines 30 meters apart and samples at 10 meter intervals, Figure 89.

Several significant soil anomalies were found, Figure 89. Over the main Bob deposit surface exposure a high of 3900 ppb Au was found. Values drop off rapidly and samples greater than 20m away from the mineralization have returned to background. A 2320 ppb Au sample indicates continuity of the Main Bob structure, a distance of 60m to the southwest at BL240E + 40N.

Between the West Bank Fault and the main Bob deposit there are several high soils up to 515 ppb Au. One group correlates closely to the expected trace of the West Bank Fault whereas others are probably due to pyritic quartz veins noted on surface near sample SDBO-84-060 and at the Portal to the underground workings.

Values up to 453 ppb Au north of the waste dump suggest the presence of a new mineralized zone. This area is characterized by dry muskeg vegetation but the anomalous gold values extend into the adjacent woodlands.

Significant gold-in-soil anomalies were discovered southeast of the main Bob deposit near the northend of the skarn and metasedimentary belt, Figure 88. High SP response has been noted in this area during 1964. Surface trenching and ground EM surveys are required to evaluate this interesting occurrence.

Soil sampling around the Tel Deposit, Figure 90, showed four areas of anomalous values. The Main Tel Zone is indicated by values up to 10,000 ppb Au. A 1600 ppb Au sample located 60 m south of the known zone may suggest a continuity of structure. The Central Tel showing has responded with a low order, two sample anomaly up to 45 ppb Au. Higher values, up to 640 ppb, are associated with the West Tel showing. Also a three sample anomaly up to 35 ppb Au is centered on BL 6 + 30 S. Limited soil sampling done in 1976 for As, Ag, Zn on five lines also shows an anomalous response over the known Tel Zones. Isolated high arsenic values were found immediately west of the small pond south of Central Tel Zone.

The Crossbreak Zone, Figure 96, shows only weak response of a single point anomaly (166 ppb Au) to detail 10 meter sample interval soil coverage. Minor follow-up soil sampling was done in 1984 with inconclusive results. All data, such as SP, geology, geochemistry and drilling, should be compiled before further work is attempted. A float sample of pyritic hornfels from the Crossbreak Area assayed 0.22 oz/ton gold but its source was not found.

Isolated high gold-in-soil values up to 351 ppb along the Crack Zone, Figure 84, require field checks. Soil profiles were dug at 9 locations and sampled at 15cm intervals down the hole. They were analyzed for Cu, Pb, Zn, As and gold. Pits 3 and 6 directly over the felsite sills showed marked increases in gold content with depth.

GEOPHYSICS

Geophysical surveys conducted on the Yellow Giant Project include self potential, EM-16 (VLF), induced polarization, horizontal and vertical loop electromagnetics, magnetometer and Airborne Dighem EM and magnetics (Lloyd, 1983).

(a) Self Potential (SP) Surveys

Extensive self-potential (SP) surveys were conducted in 1964 around most of the known mineralized zones and along the belt of favourable geology. Unfortunately only the results of the Falconbridge work is presently available since McIntyre surveys have apparently been lost. The available SP maps should be transferred to the general 1:2500 base map series. McDougall (1964, page 37) comments:

> "Self potential (S.P.) or Spontaneous Polarization equipment was used exclusively as earlier test work had shown this method to work at least part time where the more expensive EM methods failed. It was realized at the start that any graphite present would produce a high, overshadowing background and that cancelling-out would occcur in the wet swampy areas so common on Banks Island. Also that only weak, if any, indications would be recovered over many of the deposits because the necessary oxidation was shallow or non-existent.

Additional SP surveys were conducted in 1984 on the Bob Zone and the Crack Area. Summary interpretations and recommendations for further work based on the 1964 SP are outlined by Salt (1965). In light of recent mapping, Table XVIII summaries SP work done to date.

TABLE XVIII

SELF POTENTIAL ANOMALIES, YELLOW GIANT PROJECT

(after Salt 1965)

	Area	Response	Remarks
1)	Kim Zone	Anomaly to -186 mv over Central Zone surface exposure. Anomaly to -231 mv near collar of YGKM-84-006 weak conductors parallel to both edges of altered zone subsidiary anomaly to northeast	sulfides fault intersection faults skarn and graphite
2)	Discovery Zone	Well defined but local anomaly to -238 mv subsidary anomalies to south and east	drilled and backhoe trenched
3)	Englishman Zone	-115 mv near Main Zone anomaly trend along North Zone SP response may be useful in defining covered fault and offsets of sulfide zones	sulfides sulfides in fault
4)	Quartz Hill	Strong east-west anomaly -400 mv N-S anomally near west and end	drilling required to be trenched
5)	Midway (1984)	At intersection of Quartz Hill Linear and Waller-Aseno trend, to -800 mv	New Midway showing
6)	Arseno Lake	Long narrow SP anomalies	graphitic metasediments
7)	Lily Pond	Irregular SP anomalies moderate values	covered area should be geochemed
8)	Ex	Short high anomalies	trenching required
9)	India	Two major anomalies in marble	trenching required
10)	Hepler-Gladys	1 major and several lower priority anomalies	along metasediment contact.
11)	Peninsula, Hepler	Two well defined anomalies	skarnified metasediments?
12)	Island grid	One small zone of second priority	correlate with Airborne EM

Two self-potential surveys have been run over the Bob Area, one in 1964 by S. Presunka on grid lines oriented NE-SW, and one in 1984 by L. Demczuk on Lines N-S.

The Bob showings, although in somewhat swampy and unpredictable ground, registered (in the 1964 survey) several large lows which coincide with the strike of known mineralization. McDougall (1965) discusses the results of the 1964 survey on Page 28:

> "Self potential work in the Bob Zone, as well as showing a broad anomaly occurring westerly from A19, outlined an energetic area about 800 feet southeast of A19. This was caused mainly by graphite but a build-up in adjoining normal easterly dipping limestone turned out to be sulphides, grab samples of which ran about 0.25 oz. Au."

SP response to the Main Bob deposit, just south of L12S, Figure 99, gives readings over -284mv but only with very close 25 ft. line spacing and station every 25 feet.

The 1984 survey, Figure 100, produced similar results over the Main Bob deposit. Station 180E to 50N gave a result of -62mv, the lowest in the surveyed area. The difference in absolute value can be attributed to the relatively higher reading at the origin when starting the 1984 survey and lack of detail profiling. If more detailed readings around the known showings were taken in the 1984 survey the resulting pattern would probably be very similar to the 1964 survey. Thus the anomalies can be found with a grid consisting of 30 meter lines with readings 10m apart but detail work around the isolated one or two reading anomalies is needed to properly define the anomaly trend.

Graphitic metasediments have been noted along the well defined linear SP anomaly in the Crack Area, Figure 84. The Crossbreak SP anomaly is unusually sharp and was considered by Salt (1965) that:

> "This self-potential high is most likely caused by a stockwork of fractures containing sulfides."

SP has proven to be an effective, rapid and low cost method to locate sulfide zones and elucidate structure on the Yellow Giant Property.

(b) Induced Polarization (IP) and Electromagnetic (EM) Surveys

Orientation Induced Polarization (IP) was conducted over the Kim, Discovery-Englishman and Quartz Hill Areas in early 1984. The results are still available only in preliminary field map format. Final drawings are scheduled to be completed shortly. In 1975, limited IP was carried out at the Tel Zone.

The Discovery Zone does not have any appreciable IP response.

A well defined chargeability anomaly was detected on line 60 E and 90 E which is a considerable distance east of where the quartz diorite cuts past the deposit. Backhoe trenching on line 90 E uncovered slightly pyritic siltstone inclusions enclosed by very mafic-rich diorite. This does not adequately explain the strong IP effect. A concident SP anomaly occurs in the line 60 E - 90 E area.

Induced polarization only reached the south edge of the Englishman zone on line 00 and 30 E. There are low amplitude, broad anomalous readings on both lines in chargeability and resistivity.

IP was conducted over the Kim Area on lines spaced 30 m apart. Initial results show a well defined chargeability anomaly over the Central Subzone. Detail interpretation will require that pseudosections for each line be plotted at 1:500 and correlated with surface and drill hole data.

A relatively well defined IP anomaly occurs at Quartz Hill near 30,300 N + 31,040 E coincident with high gold-in-soil values, Figure 41. This area should be drilled in the future.

The Tel deposit, White 1975, was tested using a dipole spacing of 50 feet. Although a stronger response may have been detected with a shorter dipole interval the surrounding graphitic lithologies give a high background. White (1975), comments that:

> "Each of the chargeability profiles located a strong chargeability source near 12 + OOE which is associated with low resistivity values. This correlation likely reflects a zone of argillites known to exist beneath the lake in this area. In general the chargeability background values were relatively high

> which would suggest 1% to 2% chargeable materials within the country rock. The highest chargeability values were detected around 95 + 00E from 100 N to 104 N. This zone occurs in an area of moderate to high resistivity values and may possibly be caused by sulphide mineralization."

A conventional, horizontal-loop ground electromagnetic survey was conducted at the Bob Zone in 1978. A transmitter-receiver spacing of 60m was used. The main Bob deposit resulted in a strong response characteristic of a pod-like body giving the geophysical expression of a flat lying, very good conductor (Candy and White 1978). The horizontal-loop anomalies were tested using the vertical-loop method. The main zone under the vertical loop survey indicated the top of the conductive zone at a depth of about 15 meters.

From diamond drilling, the configuration of the main Bob deposit is known to be several sulfide lenses along a relatively steep north dipping fault. Apparently the ground EM is only picking up the upper most sulfide lense which gives a flat lying geophysical expression and the deeper sulfide lenses do not give a strong enough response to be identified.

(c) Airborne EM, Magnetics and VLF Surveys

Airborne EM (Dighem), VLF-EM and magnetic surveys were flown over the entire property in early 1984. This work was filed for assessment credit in June 1984, (Smith 1984), refer to the filed report for map details. Compilation of airborne geophysical features in the Western Belt are shown on Figures 93, 97 and 98. Similar maps should be prepared for the Eastern Belt. Although Smith (1984) summarized the general method and results, McDougall, Shearer and McClaren each gave separate interpretation of the important anomalies.

Table XIX shows the areas of most favourable response grouped in roughly decreasing order of importance, although each is a high priority and was field checked on the ground. Anomalous results are decidedly lacking over the Kim, Englishman, Quartz Hill or Discovery Zones. Subtle total field magnetics anomalies are situated near the Discovery Zone, north of the Kim Zone and east of Quartz Hill. These magnetic features are more prominantly illustrated on the enhanced magnetics map.

TABLE XIX

Airborne Geophysical Anomalies, Dighem Survey

	Priority	Area	Remarks
1.	(1)	Crossbreak-Tel Flight Lines 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, Northeast dip anomalies 10B, 11C, 12A, 13C	multi line EM anomalies along photo linear high VLF, low resistivity, situated at magnetic boundary. Prospect along Doug Lake Linear, may relate to Island showing. Geological: contact with sediments-diorite-Kim granite.
2.	(1)	Bob Area, 3A, 5xA', 5D	several scattered EM anomalies which may be repressed by high magentics.
3.	(1)	North of Barge Bay Flight Lines 31, 32, 33, 34, anomalies 31A, 32A check 35mm Flight path for anomaly position	scattered weak EM anomalies associated with VLF Linear higher resistivity, coincident magnetic Linear. Geological: some sediments and Kim-type intrusives.
4.	(1)	Foul Bay - Barge Bay check 35mm Flight path	6 EM anomalies in area of complex intrusions and metasediments
5.	(1)	Waller-Arseno Contact	series of EM anomalies, probably due to graphitic sediments. Geological: Within metasedimentary package
6.	(1)	Ex Area	east-west VLF Linear, complex magnetics weak EM response, related to Nose of Kim Granite
7.	(1)	Waller Lake	weak EM along east-west VLF and adjacent magentic Linears, parallel to EX structure.
8.	(1)	Gladys Lake	the strongest of several north-west-southwest VLF and subtle response. Geological: Cross cutting Kim-type intrusives.

8 First Priority Areas

	Priority	Area	Remarks
	LOWER PRIORITY		
1.	(2)	Northwest of Arseno Lake	magnetic anomalies associated with weak EM conductors
2.	(3)	West Banks Lake anomaly 3C to 14A	anomalies under lake, lower VLF, no coincident magnetic expression
Colour Code			
3.	(3)	Central Banks Lake	multi-line EM anomalies, mainly under lake, west side has higher VLF - should be checked on the ground to assess conditions
4.	(3)	Hepler Lake	weak multi-line EM anomalies probably due to conductive lake bottom muds.

4 Lower Priority Areas

Overall, the strongest response to the Dighem surveys appears to be at or near contacts between metasedimentary units and the margins of Kim-type intrusives. Based on present knowledge of the property, the most significant anomalies are in the vicinity of Crossbreak-Tel. Other areas such as the Foul Bay conductor or the linears near Waller Lake also should be subject to detail examination on a priority basis.

The main grid area was flown using two overlapping line orientations totalling 265 km. Geological mapping will benefit from a detailed appraisal of the total field mangetometer results. Unit 4 (diorite) on Manchuk's map, Figure 6, is shown to have a distinctive magnetic signature in sharp contrast to the low response from Kim-type intrusives. Two separate, but parallel magnetic units are suggested for parts of the diorite area. These may reflect dyke intrusions. A probable major fault truncates the diorite mass halfway between Bob Zone and Crossbreak. Apparently Kim-like intrusives are found north of this fault.

A lobe of low resistivity swings toward the southwest to cover the Foul Bay Area. This is a high priority region for future detail work.

The majority of Dighem EM anomalies are located within the 8 High Priority Areas. The ground location of each anomaly have been examined in the field and notes taken emphasizing surface conditions, such as alteration and rock type. Soil samples were collected on an individual EM anomaly basis.

Most of the remaining Dighem EM anomalies occur under Hepler and Banks Lake. More information concerning the detail geological environment around the lake shore near these anomalies should be gathered before more expensive follow-up methods are used.

A few miscellaneous Dighem Anomalies were found outside the two main area types discussed above, these are:

(1) Island grid area
(2) north of Crossbreak
(3) southwest of Crossbreak
(4) India Area
(5) West of Waller
(6) north of Arseno Lake
(7) north of Gladys Lake

With the exception of (1) and (4), these anomalies are of lower priority. The easy access of Island grid area and India allowed these anomalies to be examined during the initial stage follow-up.

A very weak Dighem anomaly, grade 1, occurs over the Bob Deposit. The strongest Dighem anomaly in the general area is found near the northeast end of Long Lake at the contact between a moderately graphitic metasedimentary unit and quartz diorite. The Bob deposit is situated on the eastern flank of a distinct magnetic anomaly which reflects the presence of quartz diorite on the west side of the Bank-Barge Lineament. In addition, several small magnetic anomalies occur within areas of metasediments. They may represent buried intrusives. VLF anomalies are associated with major lineaments and faults and do not appear to be caused by sulfide mineralization. Resistivity anomalies are associated with metasedimentary rocks and several but not all are caused by pyritiferous graphitic units.

DIAMOND DRILLING AND MINERALIZATION 1984

Diamond drilling was carried out between August 29 and November 1984 on both the West and East Groups in 19 holes using 10 drill sites for a total of 3575.30 meters (11,730 feet) as summarized in Table XX.

TABLE XX

Diamond Drilling Summary, 1984 Yellow Giant Project

Area	Hole Numbers	Drill Sites	Total Drilled
EAST GROUP			
Englishman - Discovery	YGEN-84-001, 002, 003, 004 (4)	2	1035 m (3396')
Discovery	TGDY-84-005 (1)	1	278.59m (914')
Kim	YGKM-84-006, 007, 008, 009, 010, 011, 012, 013, 014, 015 (10)	6	1796.80m (5895')
WEST GROUP			
Bob	YGBB-84-016, 017, 018, 019 (4)	1	464.52m (1524')

Drilling was done using a Longyear 38 wire-line rig recovering BQ size core. A well equipped core handling facility was erected near Beaver Pond Lakes, 1984 Grid 30,650 N + 30,450 E. Drill logs are contained in Appendix VI (in map folder).

The strategy of 1984 drilling was to search for plunging mineralized shoots and expand drill-indicated ore reserves as outlined in the Detail Geology section. Hole YGKM-84-006 demonstrated continuity of mineralization in the Kim Zone between previously drilled sections and assayed 0.05 oz/ton gold over 315 feet (96m) between 98 to 413 feet with local higher grade intervals. Hole YGKM-84-013 intersected the Kim deposit 425 feet (129.54 m) below surface averaging 0.11 oz/ton gold over 20 feet which confirmed that mineralization extends below previous drilling.

Sulfide minerals within the Kim Zone, in order of abundance, include pyrite, arsenopyrite, sphalterite, galena, molybdenite and chalcopyrite. Pyrite, generally coarsely crystalline, is common throughout the deposit.

The central quartz-sericite-chlorite alteration zone is characterized by disseminated galena and sphalerite. An average content of about 1% sphalerite and 0.25% galena is indicated. Molybdenite, is sparsely distributed as a halo through all surrounding less altered siliceous granitic rocks in the area where it is associated with quartz veins. Actinolite skarn near the Kim Zone locally contains up to 3% molybdenite.

Englishman Zone is mainly composed of pyrite (up to 40%) with traces of molybdenite. Occasionally, for example, in YGEN-84-002 at 87.65 m to 88.00 m, quartz veins containing pyrite with abundant sphalerite and chalcopyrite assayed up to 2.386 oz/ton gold.

The high grade Bob Zone intersected in Hole YGBB-84-017 between 88.94 m to 91.00 m consisted of massive pyrite and chalcopyrite as irregular lenses of sulfide in a siliceous dark grey, quartz rich gangue. Pyrite is relatively coarse crystalline with the largest grains brecciated by a quartz stockwork at 58° to core axis. There appears to be two generations of pyrite at Bob Zone, one very fine grained while the other is coarser grained. Chalcopyrite commonly has pyrite inclusions. A sphalerite pod was noted with a ring of pyrite and galena.

CONCLUSIONS

The Yellow Giant Project on Banks Island consists of a large number of important gold deposits, four of which are known in sufficient detail for ore reserves to be calculated. Current reserves are:

Deposit	Tons	Gold (oz/ton) Equivalent
Kim (Bulk tonnage)	1,100,000	.072
Bob (Vein)	50,000	1.17
Discovery (Vein)	100,000	.46
Tel (Vein)	24,000	.91

Note: gold equivalent gold = 0.035 silver.

A large volume of geological, geophysical, geochemical and drilling data assembled by a number of operators since 1960 has been correlated and assessed in 1984 and plotted at convenient metric scales. Transit and chain survey points were established throughout the property to provide a base for all field work and drill locations. A legal survey of claim posts was completed and one fractional claim was located.

The 1984 exploration program was successful in expanding reserves of known deposits by close spaced surface diamond drilling and also in discovery of previously unknown gold mineralization. The highlights of the 1984 field and diamond drilling can be summarized as follows:

(1) "Kim Deposit: Ore Reserve expansion by 50%, (deposit open to depth and along strike), Demonstration of continuity of gold values between drill sections, Continuity at depth in YGKM-84-013. Definition of mineralized shoot, plunge and width, Detail geological mapping and backhoe trenching.

(2) Main Englishman Zone: Establish continuity of mineralization to the west. Discovery of North Englishman Zone. Discovery of wide disseminated-type mineralization in footwall of Main Zone.

(3) Bob Zone: Definition of low grade gold zone to west. Anomalous soil anomaly to north of Portal. Establish accurate survey data base and partial dewatering of ramp.

(4) Discovery Zone: Fault structure and carbonate-skarn sequence intersected over 350 meters below surface. Detail drilling required to define plunge of ore shoot.

(5) Tel Zone: Stratigraphic sequence defined, surface mapping completed, transit survey required.

(6) Midway Zone: Discovered in 1984 as a result of Airborne EM follow-up, hand trenched, soil coverage.

(7) Quartz Hill: Detail geology done, soil sampled, IP anomalies defined.

(8) Crack Zone: Stratabound pyritic felsite sills discovered in 1984, preliminary follow-up work completed.

(9) Systematic gold-in-soil sampling completed over priority areas. Numerous anomalous values obtained, detail follow-up required.

(10) Numerous airborne EM conductors defined, many investigated in 1984 by ground SP, geochemistry and geological mapping. Additional follow-up required.

The 1984 program was the first work on the Kim Zone disseminated gold mineralization since 1964. Considerable potential exists at the Kim to expand drill-indicated ore reserves to the west and at depth. The Kim Eastern Subzone is more complex geologically and more correlation studies are necessary to determine if similar mineralized shoots, like the Central Subzone, are present at depth to the east.

Two important, new mineralized zones were discovered by the 1984 drilling at Englishman Slough. These zones appear to widen westward from the initial intersection obtained in 1963 by LY-5. The Englishman Zones have many similar characteristics to Kim Zone.

Alteration patterns of sericite-chlorite, highly anomalous gold-in-soil surveys and limited diamond drilling indicate that disseminated gold mineralization may occur within the Quartz Hill Area. Drill targets have been defined.

The Bob Deposit and adjacent structures have been tested over a 200 foot horizontal length by 3,807 feet of surface diamond drilling in 25 holes. This drilling has indicated a mineralized zone present through minimum distances of 150 feet horizontal and 400 feet vertical. Gold and silver values encountered in this drilling were occasionally very high reaching a maximum of 14.76 ounces of gold and 13.3 ounces of silver per ton over a 5.0 foot core interval length in structurally complex zones. A decline was driven by Hecate Gold Corp. to a vertical depth of 175 feet through a horizontal distance of 1,300 feet and confirmed the presence of a continuous ore shoot 150 feet in length averaging 5.5 feet in width. Assay averages from face samples in the decline closely matched surface drill hole assays. Gold mineralization is continuous to the deepest level tested and the deposit is thus open at depth. Parallel zones indicated by initial drilling have not been further tested. Assays of up to 0.5 oz. gold were obtained during limited testing of a geophysically anomalous zone in graphitic shales less than 800 feet east of the Bob Deposit. Numerous mineralized boulders similar to Bob Deposit material occur in creeks northeast of the Bob occurrence and these may be more locally derived than earlier believed when the distance and amount of glacial transport was overestimated.

Several large areas of favourable geology have not been covered by soil geochemistry and some zones have been tested only by preliminary prospecting and limited geophysics.

Assessment credit has been claimed only from June 16, 1984. Work completed before June 16, 1984 has been included in this report for completeness. Some of this previous work is eligible for PAC account credit as outlined in Appendx I.

RECOMMENDATIONS

Detail recommendations of continued diamond drilling with collar coordinates have been given in this report. Table XXI summarizes these proposed holes:

TABLE XXI

Summary of Recommended Priority Drill Holes

Zone	Total Proposed Drilling		Remarks
KIM			
West Subzone	8,450'	(2,576 m)	Table IV (page 19) 10 holes minimum
East Subzone	6,550'	(1,996 m)	Table V (page 20) 7 holes minimum
Englishman	7,500'	(2,286 m)	Table VIII, (page 25) 10 holes minimum
Discovery	2,000'	(610 m)	Table X, (page 27) 5 holes
Quartz Hill	2,500'	(762 m)	Table XI (page 29) 4 holes
Bob	7,000'	(2,134 m)	Shearer 1985a, (page 19) Partial proposal (allowing only limited step out to west)
Tel	2,500'	(approximately)	Transit survey required before collar locations can be determined.
Other targets: (example Midway Zone, Crossbreak, etc.)	3,500'	(approximately)	
TOTAL	40,000'	(12,192.15 m)	

Before such a major drilling program can be undertaken, a small amount of drafting is required to bring all drawings to standard metric scales. These priority drawings are:

1) 1963 - 1964 drilling at Kim Zone, 1:500
2) 1:250 series for Kim data
3) 1963 Discovery drill data, 1:500
4) 1964 and 1975 Tel Zone data, 1:250
5) 1984 IP Survey, 1:500

In conjunction with diamond drilling, detail prospecting is warranted throughout the property to search for new mineralization and bring some of the presently known showings to the drill stage. Several areas, including the GRO grid, Gladys Lake, Ex and India, are in very preliminary state of assessment and they have excellent potential for discovery of new mineralization. Similarly, continued follow-up of the airborne Dighem survey may result in new discoveries south of Tel Zone and southeast of Arseno Lake. Known showings that could be readied for drilling by additional detail geological mapping, trenching and geophysical surveys are Midway, Crossbreak, Cliff Zone and Banks Lake.

Respectfully submitted,

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APPENDIX I

STATEMENT OF COSTS AND CLAIM GROUPINGS
FOR ASSESSMENT PURPOSES
FIELD DATES WORKED: JUNE 16, 1984 TO DECEMBER 21, 1984

(a) West Group

(b) East Group

APPENDIX I-A

STATEMENT OF COSTS

(For Assessment Work on Claim)

At Cost to Trader Mines Ltd.
as Reported by T. van Wollen, P. Eng., Vice-President, Engineering

(A) WEST GROUP

Wages: (Refer to Appendix III for details on days worked by each worker.)

Name	Days Worked	Rate Per Day	Total
J. Shearer	29	$ 250	$ 7,250.00
L. Tanguay	7	220	1,540.00
L. Demczuk	48	200	9,600.00
R. Kidlark	67.5	230	15,525.00
R. Burton	29	200	5,800.00
A. Straw	4	120	480.00
S. Ritching	7	120	840.00
J. Burton	11	150	1,650.00
J. Watters	7	250	1,750.00
D. Anderson	6	120	720.00
Total Wages			$ 45,155.00

Camp Costs: (before start of drilling June 16 - August 29, 1984)
For work performed on West Group based on percentage of total man days.

Food - June 16 - August 29, 1984 for 6 men (21.7% of 4951.89)	$ 1,074.56
Propane	304.49
Stove Oil	400.00
J. Hugi - 50 days (21.7% @ $200 per day)	2,170.00
E. Hugi - 50 days (21.7% @ $150 per day)	1,627.50
Total Camp before drilling	$ 5,576.55

Drilling on Bob Zone: (October 23 to November 1, 1984)
Meters drilled BB-016 - 79.25 m, BB-017 - 137.46 m, BB-018 - 102.41 m, BB-019 -145.39 m
Total = 464.51 m (1,524 ft)

Cost of meters drilled (76' @ $17 per ft easing)	$ 1,292.00
Cost of meters drilled (1,448 @ $16.50 per ft coring)	23,892
	25,184.00
Cost of moves, machine time and materials consumed	5,778,50
12.99% of mobilization and demob of drilling (% of drilling)	779.40
Camp costs - October 23 to November 1, 1984:	
Food	657.53
Room and camp (7 men x 8 days x $20/dy per man)	1,120.00
Sperry Sun borehole survey rental	393.75
Total Drilling	$ 33,883.18

Transportation:

Helicopter time (Bob Zone drilling - 12 hours @ $425/hr)	$ 5,100.00
Helicopter prior to drilling (21.7% of 8 hours)	737.80
Fixed wing transportation costs prior to driling (21.7% of man days x $5,606.28 total)	1,216.56
Fixed wing transportation during drilling	820.00
Boat transportation (cost of 2 outboard and one boat)	800.00
Mobilization from Vancouer (18 round trips @ $295.90)	5,326.20
Total Transportation	$ 14,000.56

Core Storage:

Beaver Lakes Core Shack (12.99% of $6,000) - cost of 20 x 30' structure	$ 779.40

Drafting: (Vancouver office)

108 hours @ $10/hour	$ 1,080.00

Bob Zone Dewatering, Geological Mapping & Channel Sampling
(December 10 - December 16, 1984)

Mobilization	
Fixed Wing (one otter load and one beaver load)	$ 734.40
Helicopter (4 hours @ $425/hr)	1,700.00
4 Persons to Prince Rupert from Vancouver via CP @ $306.70	1,226.80
Rental of Fan	128.40
Purchase of Fan Ducting (restocking fee:)	848.34
Purchase of Underground Lamps	880.00
Supplies from Deakin	189.63
Supplies from TYEE Building	
Rental of submersible pumps, hose, cable & generator (2 wks)	2,699.99
Groceries for 4 men (6 days)	426.38
Demobilization	
Fixed Wing (two otter loads, 288 miles @ $2.55/mi plus fuel)	985.00
Helicopter (3 hours @ $425/hr)	1,275.00
Rental of two radios (6 days @ $10/day)	120.00
Total Dewatering	$ 11,213.94

Reproduction and Typing	$ 100.00
GRAND TOTAL	$ 111,318.63

APPENDIX I-B

STATEMENT OF COSTS

(For Assessment Work on Claim)

At Cost to Trader Mines Ltd.
as Reported by T. van Wollen, P. Eng., Vice-President, Engineering

(B) EAST GROUP

Wages: (Refer to Appendix III for details on days worked by each worker.)

Name	Days Worked	Rate Per Day	Total
J. Shearer	138	$ 250	$ 34,500.00
L. Tanguay	122	220	26,840.00
L. Demczuk	72	200	14,400.00
R. Burton	124	200	24,800.00
R. Logan	8	150	1,200.00
D. McConaghy	29	150	4,350.00
J. Burton	33	150	4,950.00
L. Shearer	31	120	3,720.00
M. Carson	17	120	2,040.00
D. Anderson	8	120	960.00
J. Hugi	28 (from Aug 29)	200	5,600.00
E. Hugi	28 (from Aug 29)	150	4,200.00
R. Kidlark	25	230	5,750.00
Total Wages			$ 133,310.00

Camp Costs: (before start of drilling June 16 - August 29, 1984)
Man Days for work performed on East Group

Food, Accommodation, Cooking, Camp Supervisor, repairs, refitting	
Food June 16 - Aug 29 for 6 men x 87.01% of 4951.89	$ 4,308.64
Propane	298.14
Stove Oil	250.00
J. Hugi - Camp Supervisor (50 days @ 87.01% @ $$200/day)	8,701.00
E. Hugi - Camp Cook (50 days @ 87.01% @ $150/day)	6,525.75
Total Camp before drilling	$ 20,083.53

Drilling on Kim, Englishman and Discovery Zones: (Aug 30 - Oct 22, 1984)

Meters drilled 001-015 = 3110.79 m (10,206 ft)	
Cost of meters drilled (10,206 ft @ $18.62/ft)	$ 189,997.55
(includes cost of moves, machine time and materials consumed)	
87.01% of mobilization and demob of drilling	5,220.60
Camp costs - August 29 to October 22, 1984:	
Food	5,551.85
Room and camp (7 men x 53 days x $20/dy per man)	7,420.00
Total Drilling	$ 211,190.00

Transportation:	
Helicopter time (Kim-Englishman drilling - 51 hours @ $425/hr)	$ 21,675.00
Helicopter prior to drilling (78.3% of 8 hours @ $425)	2,662.20
Fixed wing transportation costs prior to driling (78.3% of total man days	4,389.72
Fixed wing transportation during drilling	5,328.79
Mobilization from Vancouer (3 persons at $306.70)	910.10
Total Transportation	$ 34,975.81
Core Storage: (87.01% of 6,000 - cost of 20 x 30' structure)	
Beaver Lakes Core Shack	$ 5,220.60
Drafting: (Vancouver office)	
160 hours @ $10/hour	$ 1,600.00
Typing and Reproduction	$ 550.00
GRAND TOTAL	$ 406,929.94

APPENDIX II

STATEMENT OF QUALIFICATIONS

J.T. SHEARER, M.Sc., F.G.A.C.

STATEMENT OF QUALIFICATIONS

I, Johan T. Shearer of the City of Port Coquitlam, in the Province of British Columbia, do hereby certify:

1. I graduated in Honours Geology (B.Sc. 1973) from the University of British Columbia and the University of London, Imperial College, (M.Sc. 1977).

2. I have practised by profession as an Exploration Geologist continuously since graduation and have been employed by such mining companies as McIntyre Mines Ltd., J.C. Stephen Explorations Ltd. and Carolin Mines Ltd. I am presently employed by TRM Engineering Ltd.

3. I am a fellow of the Geological Association of Canada. I am also a member of the Canadian Institute of Mining and Metallurgy, the Geological Society of London and the Mineralogical Association of Canada.

4. I have personally conducted detail geological mapping, logged diamond core and supervised general exploration field work on the Bob Deposit, Banks Island. This report is an interpretation of the data obtained.

J. Shearer

J.T. Shearer, M.Sc., F.G.A.C.

Vancouver, B.C.
February 15, 1985

APPENDIX IV

ANALYTICAL PROCEDURES
(NAA, FIRE ASSAY, COMBO AND COLD EXTRACTION)

Au

Gold is analysed by two different methods.

1. Fire-assay - atomic absorption method. (Combo)

A 10.0 gram sample is fused in litharge carbonate and silicious flux with silver inquarts and cupelled. The bead is parted with nitric acid, any Gold is dissolved in aqua regia, and subsequent analysed by atomic absorption in dilute hydrochloric acid.

2. Fire-assay - neutron activation analysis method.

A 10.0 gram sample is fused and cupelled as above. The bead is irradiated in a thermal neutron flux. The gamma emissions of the irradiated bead are measured utilizing a Ge(Li) detector and quantified for gold.

COLD EXTRACTION METHOD USING 0.5M HCl

A 1.00 gm sample is weighed into a calibrated test tube to which is added 25 ml of 0.5M HCl. The sample is shaken intermittently over a period of two hours and then analyzed by AAS techniques for the metals of interest.

APPENDIX V

DRILL CONTRACT
FOR
YELLOW GIANT PROJECT
BETWEEN
TRADER MINES LTD.
AND
J.T. THOMAS DIAMOND DRILLING (1980) LTD.

THIS AGREEMENT made this ~~first~~ 21 day of ~~February,~~ AUGUST 1984.

BETWEEN: TRM ENGINEERING LTD. MINED LTD.
(agent for TRADER ~~RESOURCES CORPORATION~~)
701 - 744 West Hastings Street
Vancouver, B.C.
V6C 1A5

(hereinafter referred to as "The COMPANY"
of the first part)

AND: J.T. THOMAS DIAMOND DRILLING (1980) LTD.
P.O. Box 394
Smithers, B.C.
V0J 2N0

(hereinafter referred to as "The CONTRACTOR"
of the second part)

WHEREAS the Company has requested the Contractor to complete a minimum of 7500 feet of drilling and other services as set forth herein, on the property of the Company on Banks Island, B.C.

AND WHEREAS the Contractor has agreed to do the said diamond drilling and to perform the other services requested upon the terms, conditions, and provisos herein contained.

NOW THEREFORE this agreement witnesseth that in consideration of the payment of the amounts herein stipulated and of the covenants hereinafter contained, the parties hereto agree as follows:

AGREEMENT AND SCHEDULE OF RATES

THAT the Contractor agrees at its sole risk and costs for the consideration and upon the terms and conditions herein set forth to drill on the said property a series of bore holes using a BQ core barrel producing a core of approximately 1 7/16 inches. The Company agrees to pay the Contractor on a footage basis for all drilling according to the following schedule of rates.

From	To		0 - 7500' total BQ Price/Foot	7500 - 12,500' total BQ Price/Foot	12,500'+ BQ Price/Ft
0	1000	feet in depth	$18.00	17.00	16.50
1000	1500	feet in depth	19.00	18.00	17.50

16.20

It is understood that measurement of all bore holes shall be from the top of the casing or stand pipe as the case may be.

Except as herein specifically provided, the Contractor agrees to furnish all necessary labour, tools, equipment, materials and supplies to complete said drilling, and diligently to drill on said property in an efficient and workmanlike manner.

Whenever pipe or material is left in a hole on the instructions of The Company's engineer or due to cave-in, the Company agrees to pay for said material or pipe at price F.O.B. drill site, with the exception of casing in overburden which shall be at no cost to the Company.

OVERBURDEN

THAT the Company agrees to pay for casing or stand pipe for the first 100 feet in any hole according to the following schedule of rates:

From	To	BW Price/Foot
0'	100' in depth	$17.00

WATER SUPPLY

THAT the Contractor agrees to supply all necessary water to the drill sites at no cost to the Company.

MOVING

THAT the Contractor agrees to move his men, equipment and supplies from his base to the barge load point and return from the barge unload point to base at no cost to the Company. ALL OTHER MOVING AND MOVING BETWEEN HOLES, AT PER SHIFT BE AT $22 PER HR.

THAT the Contractor agrees to provide a drill capable of 2000 feet BQ depth, suitable for moving with ~~either a Bombardier/small tractor or~~ A helicopter, ~~whichever is specified by the Company.~~

~~TRACTOR / HELICOPTER~~ * OR HELICOPTER F.O.B SITE

~~THAT the Contractor agrees to provide a tractor suitable for moving the drill at a cost of $30.00/hour when in use.~~ ~~OR~~ $378.00

ACID TESTS

THAT the Contractor agrees to take acid or Tropari tests as requested by the Company. All tests will be charged at nil each to the Company.

COREBOXES

THAT the Contractor agrees to provide coreboxes at no cost to the Company.

DRILLING WITH MUD

THAT it is mutually agreed that should mud be required to penetrate the overburden and/or aid in core recovery while core drilling, such mud employed will be at no charge to the Company.
Time employed for mixing mud and stabilizing the drill hole will be charged at a rate of nil per man hour.

CEMENTING

THAT the Company agrees to pay the Contractor for the cementing of bore holes to stop cave-ins at a rate of nil per man hour.

CAVED OR BROKEN GROUND

THAT in the event cavities or loose and caving materials are encountered of a nature as to prevent the successful completion of any hole; the Contractor does not, under such conditions, guarantee to drill to a predetermined depth; and in the event that it becomes necessary to abandon the hole, the Company agrees to pay for such incompleted holes at the rates herein specified for all footage completed.

THAT in the event the Company requests the Contractor to attempt to continue the hole, all related costs in reducing size, reaming, etc. shall be borne by the Company at Field Cost rates.

SECURITY

THAT the Contractor will not give out any information regarding drill results or access to core to any person other than to the Company's representative. Such security of information shall be deemed a continuing obligation and will survive the completion of the job and termination of the agreement.

BOARD AND LODGING

THAT the Company agrees to provide the lodging and board for the Contractor's personnel at no cost to the Contractor.

FUEL ~~AND LUBRICANTS~~

THAT the Company agrees to supply the fuel ~~and lubricants~~ at no cost to the Contractor.

DRILLING SITES

THAT the Contractor agrees to case and drill on the sites and at angles and azimuths selected by the Company representatives and to follow the instructions of the said representatives relating to place and time of drilling.

THAT the Company agrees to provide ~~access roads and~~ drillsites.

FIELD COSTS/STANDBY RATES

THAT the Company agrees that the following rates shall apply when certain work as defined in this contract is performed on a field cost basis. "Field Cost" is defined as all direct labour, including supervision, drill and support equipment per hour, and cost of pipe or casing lost, diamond loss and materials and supplies consumed in this work. Standby rates shall apply to delays beyond the Contractor's control up to a maximum of 8 hours per shift.

OPERATING FIELD COSTS/STANDBY RATES

Labour	$22.00 per man hour
Drill	$22.00 per hour
Pump	nil per hour
Mud Mixer	nil per hour
Materials consumed	Cost plus 10 percent

NOTE: No charge is made for drill and pumps when mobbing or demobbing and moving between holes.

PAYMENTS

THAT the Company agrees to make payments at the rates hereinbefore specified in accordance with the terms hereinafter set out, that is:

For all work done hereunder, invoices shall be rendered promptly to the Company, and such invoices shall be due and payable within 30 days of receipt of an invoice by the Company.

Overdue accounts shall be subject to an interest charge of 2% per month.

THAT the Company agrees to deposit funds in trust sufficient to cover payments under the terms of this contract, if requested to do so by the Contractor.

ENVIRONMENT

THAT during the course of the work, the Contractor shall at all times keep the client's premises free from accumulation of waste material or rubbish and upon completion of the work shall remove all tools, scaffolding and surplus material and leave the premises in a clean condition. The Contractor shall observe and comply with all applicable Federal and Provincial laws, regulations and orders relating to prevention of forest fires and sanitation in the bush.

The Company shall be entitled to hold back the sum of $2,000.00 from the payments to the Contractor for a period of 15 days after completion of the drilling program. Within said period, the drill sites herein will be inspected by a representative of the Company, and if the sites are not found in a clean condition to the satisfaction of said representatives the cost of putting the drill sites in a clean condition shall be deducted from the said $2,000.00 and the balance paid to the Contractor.

WORKERS' COMPENSATION

THAT the Contractor agrees that the men employed by him in the performance of this contract shall be fully covered under the Workers Compensation laws according to the Government of Canada and the Province of B.C. and will keep such men covered and will pay the assessment required and will indemnify and save harmless the Company from any actions, claims and losses arising therefrom, excluding however, claims arising out of any negligent act or omission of the Company, its servants or agents. The Company may deduct the amount of any such actions, claims and losses from payments made to the Contractor hereunder.

The Contractor further agrees to comply with and observe all other laws of the Province of British Columbia or CAnada applicable to this operation and to indemnify and save harmless the Company from any action, claim or loss arising from the Contractor's failure to do so.

INSURANCE

THAT the Contractor shall procure and maintain with reputable insurance companies , duly licensed to do business in the province of British Columbia, the insurance set forth below during the performance of this agreement. The Contractor shall furnish certificates from his Insurer showing terms of such insurance and that the Insurer will provide thirty (30) days advance notice to the Company in the event of material change or cancellation of such insurance.

CLIENT? — WATERBORNE TRANSPORT INSURANCE

a. Comprehensive General Liability insurance covering all operations from Property damage and bodily injury, endorsed to include Employer's Liability for Bodily Injury sustained by any employee arising out of and in the course of his employment and endorsed to include liability assumed in this Agreement with a combined single limit of $500,000.00

b. Automobile liability insurance for Bodily Injury and Property Damage including owned, non-owned and hired automotive equipment used in the performance of this agreemtn with a combined single limit of $500,000.00

c All insurance policies required hereunder shall contain waiver of subrogation in favour of the Company.

d. Contractor shall require that all subcontractors engaged by him in the performance of this agreement shall secure and maintain insurance similar to the types mentioned above and with limits or amounts as specified by Contractor.

INDEPENDENT CONTRACTOR

THAT the Contractor specifically represents and agrees that in performing its obligations under this Contract, its status is that of an independent Contractor, and that its employees and the employees of its sub-contractors are not the employees of the Company for any purpose whatsoever.

The Contractor agrees to defend, protect, indemnify and hold harmless the Company, its officers, agents, employees, and other parties who may have an interest in the work from and against any and all claims, liability, loss and expense, including attorney's fees in connection therewith, demands or causes of action made against the Company for or on account of any debt, claims liability, loss and expense incurred by the Contractor or Contractor's sub-contractors and their respective employees and agents and for any claims for injury to or death of any person or damage to any property by reason of any act or omission of the Contractor's sub-contractor, and their respective employees and agents.

RIGHT OF CANCELLATION

THAT the Contractor and the Company each individually reserve the right to cancel this contract should its performance be rendered impossible by:

a. War, invasion, insurrection, riot, the order or regulations of any civil or military authority or by strikes, lockouts, or labour disputes, whether affecting the Company or in the neightbourhood of the Contractor's plant or of that of any supplies of materials necessary for the completion.

b. The inability to obtain essential materials and supplies due to priority restriction.

c. The inability to secure labour due to restrictions or causes beyond the cancelling party's control, and the cancelling party shall not be liable for any loss or damage directly or indirectly suffered by the other party by reason of exercise of such right or cancellation.

TERMINATION FOR OWNER'S CONVENIENCE

In the event of such termination, the Company will pay for the completed portion of any work in progress and actual costs to J.T. Thomas Diamond Drilling (1980) Ltd. necessarily incurred in removing personnel and equipment from the site and transporting them and such other amounts, if any, as will afford to J.T. Thomas Diamond Drilling (1980) Ltd, fair and equitable compensation for such termination.

THAT it is mutually agreed that this agreement shall be binding upon and enure to the benefit of the parties hereto, their respective successors and permitted assigns, but shall not be assignable by either party without the consent in writing of the other party first had and obtained.

THAT it is further agreed that this agreement and any dispute arising hereunder shall be interpreted and determined in accordance with the laws of the province of British Columbia.

THAT any notice required to be given hereunder shall be properly given if mailed by registered letter addressed to the Company as follows:

TRM Engineering Ltd.
701 - 744 West Hastings Street
Vancouver, B.C.
V6C 1A5

or to the Contractor by registered letter addressed as follows:

J.T. Thomas Diamond Drilling (1980) Ltd.
P.O. Box 394
Smithers, B.C.
V0J 2N0

IN WITNESS THEREOF these presents have been executed by the parties hereto the day and year first above written.

SIGNED AND DELIVERED
in the presence of:

C McDougall

J.T. THOMAS DIAMOND DRILLING
(1980) LTD.

[illegible]

TRM ENGINEERING LTD

[illegible]

[illegible]

AUG 21, 1984

APPENDIX VI

DIAMOND DRILL RECORDS
1984 DRILLING
YELLOW GIANT PROJECT
IN MAP FILE