



*PROSPECTUS*

*Sept. 1, 1987*

*121008*

**SUMMARY ASSESSMENT  
AND  
RECOMMENDED WORK PROGRAM  
BALLARAT CREEK PROJECT  
DAWSON MINING DISTRICT  
YUKON TERRITORY  
FOR  
TARA PACIFIC RESOURCES LTD.  
JANUARY 21, 1987  
T.G. HAWKINS, P.GEOL.**



## SUMMARY

Ballarat Creek in the Yukon Territory has been subjected to numerous periods of placer gold exploration and production in the 1950's and 1980's resulting in reported recoveries in excess of 9000 ounces of 855 fine gold. No well organized or engineered efforts appear to have been completed during this period. It is believed that if such efforts are included in a current program, a profitable reserve might be delineated. Past production suggests average grades of 0.015 ounces of 855 fine gold per bank cubic yard.

A program of reserve delineation by drilling and followup on past magnetometer surveys, accompanied by bulk testing in areas of expected reserves would assist in the determination of a production decision.

Such a program is recommended herein at an estimated cost of \$358,800 to be expended over a period of two months.

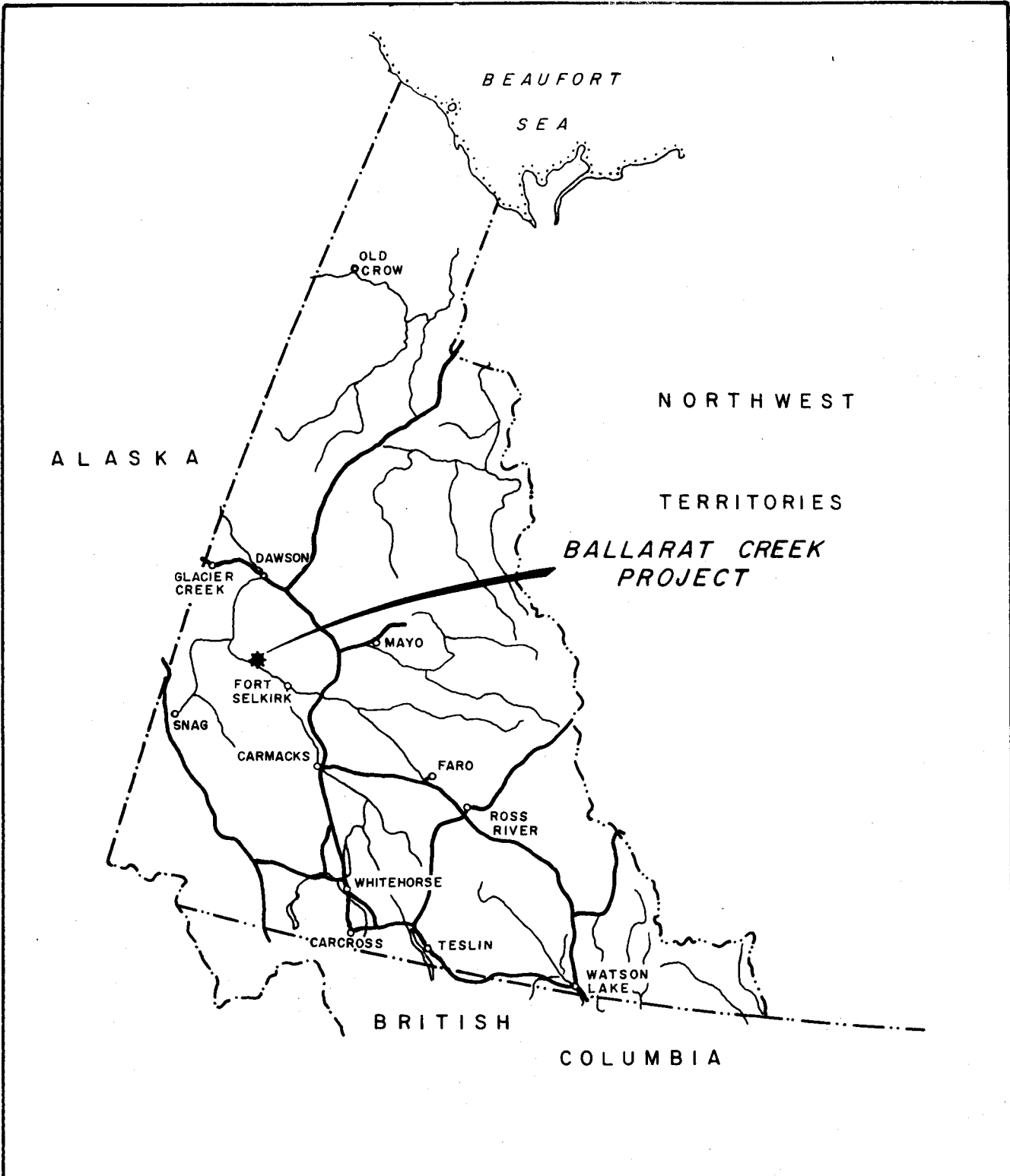



## TABLE OF CONTENTS

	page
SUMMARY	i
1.0 INTRODUCTION	2
2.0 PROPERTY LOCATION, ACCESS, TITLE	3
3.0 HISTORY	5
4.0 GEOLOGY	7
4.1 Bedrock and Surficial Geology	7
4.2 Reserves	9
5.0 SUMMARY OF WORK COMPLETED BY TARA PACIFIC 1985	10
5.1 Magnetic Surveys	10
5.2 Bulk Testing	11
6.0 PROPOSED PROGRAM 1987	12
5.1 Plan	12
5.2 Budget	13
7.0 RECOMMENDATIONS	16
8.0 CERTIFICATE - T.G. Hawkins, P.Geol.	17
BIBLIOGRAPHY	

## LIST OF ILLUSTRATIONS

Drawing 1	General Location Map	1:5,000,000	1
2	Detailed Claim Map	1:63,360	in pocket
3	Magnetic Survey and Exploration Plan		
	North Grid	1:2,000	in pocket
Table 1	Bulk Testing Summary	1985	11



TARA PACIFIC RESOURCES LTD.	
GENERAL LOCATION MAP	
BALLARAT CREEK PROJECT	
DAWSON MINING DISTRICT, Y.T.	
Project No:	V 203
By:	G. H.
Scale:	1 : 5 000 000
Drawn:	J. S.
Drawing No:	1
Date:	JANUARY 1987.
 <b>MPH Consulting Limited</b>	



## 1.0 INTRODUCTION

The following report is prepared at the request of Dr. Gerry Wright, President, Tara Pacific Resources Ltd. as per correspondence dated January 20, 1987. The purpose of the third party assessment report is for inclusion in the company's prospectus. The report includes a brief summary of historical information based on material supplied by the principals of Tara Pacific and is also based on a visit to the property on April 20 and 21, 1983 and on work carried out by MPH for Tara Pacific, July 11 to 18, 1985.



## 2.0 PROPERTY LOCATION, ACCESS, TITLE

The Ballarat Creek property is located on the north side of the Yukon River at latitude 62°55'N, longitude 139°0'0W and in the Dawson Mining District, on NTS mapsheets 115J/14&15. The confluence of Ballarat Creek with the Yukon River is approximately 120 miles upstream from Dawson City, or 80 miles downstream from Minto, two locations that are accessible by all-weather road and by all-weather airstrip.

Access to Ballarat Creek is by helicopter service from Carmacks or from Dawson City, approximately 85 air miles from both locations or by fixed wing service from either location and on to the dry weather dirt strip on Ballarat Creek. River access is available from either Minto or Dawson City. Access within the property is provided by a dry weather road which traverses the northeasterly bank of Ballarat Creek from its confluence with the Yukon River, to the northwest, for a distance of approximately six miles.

The property is comprised of 54 placer claims, being the Tara #2 through 53 inclusive, plus the Jake and the Tara, (Figure 2, Appendix I) as follows:



<u>Claim Name</u>	<u>Claim No.</u>	<u>Grant No.</u>	<u>Owner</u>	<u>Expiry Date</u>
Tara	3-53	P27650 to P27700	Tara Pacific Resources Ltd.	Aug. 24, 1987
Tara	2	P24602	Tara Pacific Resources Ltd.	Sept. 6, 1987
Tara		P12273	Tara Pacific Resources Ltd.	May 14, 1988
Jake		P12274	Tara Pacific Resources Ltd.	May 14, 1988

The company reports that all interests in these claims were transferred from Leo Maynard Fuhre by agreement dated February 1, 1985 subject to a 4.0% royalty interest.



### 3.0 HISTORY

Production from Ballarat Creek has been sporadically recorded since the original discovery year of 1898, as reported by Keirans, 1982. The most specific records begin in 1951 when 191 fine ounces of gold were produced from "Upper Ballarat" although no volume of material is mentioned in connection with this production. In 1952 Ballarat Mines Ltd. reported production of 2,650 ounces in three and a half months using two D8's and one TD35, from the "Lower Ballarat." Again, however, no volume of material processed is recorded in connection with this recovery. Although reference is made to Upper and Lower Ballarat, evidence for appreciable volumes of past production is only available on claims upstream from the proposed Tara Pacific operation.

In 1953 the same operators reported 113 ounces from the Upper Ballarat area following a four month sluicing season. Also, in 1953, Ballarat Mines Ltd. sluiced for approximately three and a half months on Lower Ballarat with two D8 cats, supported by drill prospecting. It is mentioned that approximately 38,000 cubic yards of gravel produced 998 fine ounces of gold.

In 1954 Ballarat Mines Ltd. again sluiced for just over three months using three D8 caterpillars and recorded 1,325 fine ounces of gold from an unspecified volume of material.

It would appear that in the latter 1950's, more specifically from 1957 to 1959, moderate amounts of gold were reported as recovered, being 217 ounces and 175 ounces from 80,000 cubic yards.

It was not until 1981 that the most recent recorded development took place, initiated by Maynard Fuhre and operated by Van Sea





Investments Ltd. in 1981 and 1982. In sluicing activities during a two and a half week period, 365 ounces of gold were recovered from an unspecified volume of gravel but calculations would indicate that it was in the order of 32,500 cubic yards. In the summer of 1982, Van Sea Investments Ltd. operated from mid-August to early October, or just under two months, during which time 710 ounces of fine gold were recovered from approximately 45,000 cubic yards. It is mentioned by Kierans (1982) that this grade represents the overall grade of all gravels, as all gravels were processed, not just the pay gravels.

During 1983 and '84 the ground was worked to a minor degree by the original property owner, Maynard Fuhre, following the default on the operating agreement by Van Sea Investments Ltd. In 1983 Fuhre produced 630 ounces from 24,500 cubic yards using a D8 cat and a 235 backhoe. The same equipment was used to produce 821 ounces from 44,900 yards in 1984.

During 1985 the property was operated by the present owners, Tara Pacific, under the site management of Maynard Fuhre. Tara Pacific carried out an exploration and development program which included magnetometer surveys and substantial bulk sampling. Reported production from bulk samples in seven cuts totalling 77,850 cubic yards was 1113 ounces of placer gold. MPH Consulting Limited completed the magnetic surveys totalling 17.5 km over four isolated grids. This work assisted in the determination of paleo stream channels and alluvial magnetite with which the gold is intimately associated.



## 4.0 GEOLOGY

### 4.1 Bedrock and Surface Geology

The property is underlain by steeply dipping schists and gneisses of the Pelly Gneiss Group, comprised of metamorphic volcanics and sediments of Lower Paleozoic age. These highly metamorphosed terrains are traditionally noted as favourable hosts and sources for placer gold in recent times due to the unglaciated terrains. The most famous bedrock source is the Klondike schist, which outcrops to the north of the Ballarat Creek region and in the area of Dawson City in the production area referred to as the Klondike.

Paleocene geology is comprised of well developed alluvial gravels and soils on well drained surfaces with residual soil and 'C' horizon developed to depths of six to eight feet. Due to a lack of recent glaciation, the development of well sedimented, poorly sorted gravel filled streams makes these drainage traps favourable for collection of placer gold.

The basin of the the main drainage of Ballarat Creek and two tributaries of Ballarat Creek to the north appear to be filled with approximately sixteen to twenty feet of overlying humus and underlying barren and pay gravels. These gravels are coarse, with boulders up to a maximum of three feet in diameter with an average in the order of 6-10 inches for coarse material. Pay gravels lie at the base and on bedrock and average between 5-8 feet in thickness. The overlying barren gravels average a similar thickness, with 4-8 ft of overlying black muck or humus, which is also barren.



It is also apparent that higher grade sections or zones occur along the drainage, some of which have been mined in the past and have yielded extremely good recoveries in gold. These high-grade zones are attributed to improved source material as well as changes in the nature of the stream bed, being changes in slope and changes in the depositional character of the stream bed. Increased gold content has also been attributed to the confluence of side-feeding streams which increase the volume of sediment and, therefore, gold being deposited in the stream channel.

The base of the bedrock and the foliation that is characteristic of the gneisses and schists has a regional strike of northeast-southwest and dips to the north from 45-85°. However, it is evident that the very existence of Ballarat Creek crosscutting this characteristic foliation is indicative of a major cross-cutting structure which has created weaknesses in the bedrock, facilitating the development of the drainage system. This structure may in itself be a source for some of the gold. The crosscutting nature of the stream on the foliation creates, to some degree, a natural riffle effect which traps gold, particularly in low-energy environments that may have existed during the deposition of the stream gravels.

Heavy minerals concentrate typically consists of red garnets, magnetite being 50-75%, sulphides and titanium minerals being 50-24%, and equal percentages of coarse to fine gold. The coarsest nugget seen in recent times is approximately 3/8 inch.



#### 4.2 Reserves

No proven reserves presently exist on the drainage. Historical records would indicate that reported production has been highly variable although methods of reporting are also highly variable. The following average grades have been calculated from available historical data (Kierans, 1982).

<u>Date</u>	<u>Volume</u> bcy	<u>Recovery</u> oz	<u>Calculated</u> <u>Average ounces</u> <u>recovered/bcy</u>
1953	38,000	998	0.026
1957-59	80,000	392	0.005
1981	32,500	365	0.011
1982	45,000	710	0.016
1983	24,500	630	0.026
1984	44,900	821	0.018
1985	77,850	1113	0.014

It would appear, therefore, that the assumed grade of 0.015 ounces/bcy is not unrealistic.

In addition to the above, 2650 ounces (1952) and 1325 ounces (1954) were recovered from unspecified yardages, bringing the total recovery to over 9000 ounces.

The present unmined drainage of Ballarat includes 54 claims or approximately 5.0 miles of potentially productive stream channel reserves.



## 5.0 SUMMARY OF WORK COMPLETED BY TARA PACIFIC 1985

### 5.1 Magnetic Surveys

Magnetic surveys were carried out by MPH Consulting Limited for Tara Pacific in order to assist in the delineation of paleo stream channels within which magnetite and associated gold have been concentrated.

Surveys were completed over 17.5 line kilometres with standard spacing at 60 m by 10 m and detailed spacing at 30 m by 5 m. Four isolated grids were completed as follows:

Name	Description	Length
North Grid	Ballarat stream extension of present level of workings	13.0 line km
South Grid	Ballarat stream at confluence of Dianne and Ballarat 3 km S.E. of past production limits	2.5 line km
Dianne Creek Grid	Pup stream	14.0 line km
Bedrock Drain Grid	Ballarat stream previously mined	0.5 line km

These surveys appear to have successfully demonstrated paleo channels reflecting high magnetite signatures and therefore high concentrations of alluvial magnetite.

Results of most immediate interest, being those of the North Grid, are presented in the enclosed Drawing No. 3.



5.2 Bulk Testing

Seven cuts were mined from the (Ballarat, Ballarat 56, 57, 58) Tara 2, Tara 53 and Tara 52 claims, see Drawings Nos. 2 and 3, and the gravels from those seven cuts were sluiced to produce the following results as reported by Tara Pacific:

Claim / Name / Number	Cut	Approx. Dimen. (yd)	Bedrock feet	Over-burden (cu yd)	Pay Gravels (cu yd)	Total Gravels (cu yd)	Gold Recov. (raw oz)	Est. Grade
Tara 2	1	160 80	12,800	6,150	1,450	7,600	113	.015
Tara 2 & Ballarat 58*	2	60 140	8,400	4,050	900	5,300	73	.015
Ballarat 56*	3	270 100	27,000	14,000	4,000	18,000	451	.025
Ballarat * Ballarat 56*	4	260 75	19,500	10,200	2,900	13,100	109	.008
Tara 53	5	220 90	19,800	8,800	2,600	11,400)	367	.011
53	6	200 110	22,000	9,800	2,700	12,500)		
Tara 52	7	190 90	17,100	7,600	2,350	9,950)		
Totals			126,600	60,600	16,900	77,850	1,113	.0143

\* not owned by Tara Pacific

TABLE 1 - BULK TESTING SUMMARY 1985

The results of the program clearly demonstrate the existence of gold in the main drainage and speak of the need for determining an economic cut off and mine grade.

The total cost of Tara Pacific's 1985 exploration and testing program plus air strip, road, camp and equipment rehabilitation was approximately \$609,825.



## 6.0 PROPOSED PROGRAM 1987

### 6.1 Plan

A detailed bulk and exploration sampling program is required prior to a production decision. A detailed drilling program would consist of approximately 125 drill sample locations on some 15 claims moving downstream from past production and testing efforts.

Documentation on past attempts at sampling is not readily available, although some churn drilling done in the 50's by Ballarat Mines Ltd. is said to have provided reliable results. Since there is no doubt that there is, in fact, recoverable gold in the Ballarat drainage, it is now a matter of determining the economics of that recovery and the desirability of a long-term project to produce the gold.

The sampling program will provide information on:

- 1) the yardage and grade,
- 2) the variability of the grade in the pay zone,
- 3) the location of the pay zone,
- 4) the type of materials that will be mined,
- 5) the characteristics of materials (gold) that will be recovered.

The development of a viable mine operating plan will be completed through a bulk testing program and will include the recommendation of optimum equipment, the scheduling of appropriate equipment, the development of optimum blocks and the optimum schedule for the mining of those blocks. A feasibility study will indicate a



minimum cut-off grade and therefore provide the limits for mining operations. Recovery tests should also be completed during the bulk testing exercise.

## 6.2 Budget

### **Proposed Drilling Program**

Mob/Demob			
Drill, crew and sample team			\$ 20,000
Project Supervisor			
20 days @ \$450			9,000
Cook			
30 days @ 100			3,000
Drilling			
2000 feet @ \$20/ft			40,000
Sample Preparation			
250 @ \$45			11,250
Analyses			
250 @ 8.50		\$2,125	
placer sizing		2,500	
gold sizing		<u>1,500</u>	
Room and Board			6,125
150 mandays @ \$60			9,000
Freight and Expediting			<u>5,000</u>
		<b>Total Field Costs</b>	<b>103,400</b>
Consulting and			
Report Preparation			
15 days @ 450		6,750	
expenses		<u>2,000</u>	
			8,750
Administration (15% on \$93,400)			14,000
Contingency @ 10%			<u>12,600</u>
		<b>Drilling Total, say</b>	<b><u>\$138,800</u></b>





The foregoing budget is designed to evaluate 125 placer test holes for:

- a) depth of overburden
- b) waste and ore horizons
- c) yardage and grade forecasts.

The drilling and analyses program will take approximately 30 days from arrival at the mine site. A report on the drill results should follow about two weeks after the field program.

### Proposed Bulk Testing Program

Mob/Demob		\$ 40,000
Personnel:		
Project Supervisor/Mechanic		
45 days @ \$250	\$11,250	
Operators (4)		
45 days @ 700	31,500	
Swampers (3)		
45 days @ 225	10,125	
Cook		
45 days @ 100	<u>4,500</u>	
		57,375
Caterpillar	1.5 mos @ \$6000/mo	9,000
Loader	1.5 mos @ 4000/mo	6,000
Box	1.5 mos @ 2000/mo	3,000
Spares (on site - plus \$5000)		5,000
Fuel (landed)	20,000 litres @ 1.50	30,000
Room & Board	405 days @ 60	24,300
Freight & Expediting		10,000
Consulting, and		
Report Preparation	20 days @ 500	10,000
Costs		<u>5,000</u>
		199,675
Contingency @ 10%		<u>19,968</u>
	Bulk Testing Total, say	<u>\$220,000</u>
	1987 Program Total, say	<u>\$358,800</u>
		-----



The foregoing budget is designed to cover the cost of set up and operation of one caterpillar tractor and one loader on prestripped and thawed ground (1985) for a period of 45 days. This bulk testing exercise will follow expected channels as outlined by magnetometer surveys and the initial results from drilling in order to correlate indicated and suggested yardage with bulk testing results.

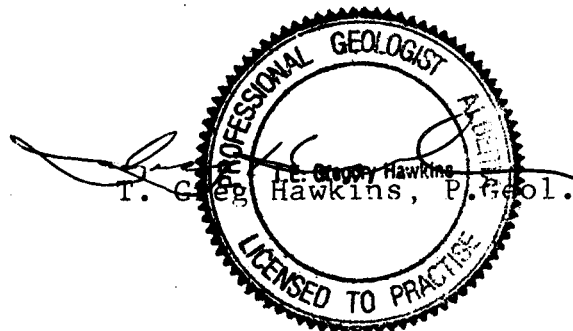


## 7.0 RECOMMENDATIONS

1. A drilling and bulk testing exploration and assessment program is recommended for implementation on the Ballarat Creek project site.
2. The drilling program, to consist of drill testing and exploration, along the delineated magnetic and geomorphological trend, is recommended at a cost of \$138,800 to be spent over a period of one month.
3. The bulk testing program is recommended for implementation following analysis of preliminary drilling results, at an estimated cost of \$220,000 to be expended over a period of 45 days.

These two overlapping programs will produce reserve information and bulk testing results, particularly relating to operating costs and recovery, suitable for the completion of feasibility studies.

Respectfully submitted



Vancouver, B.C.

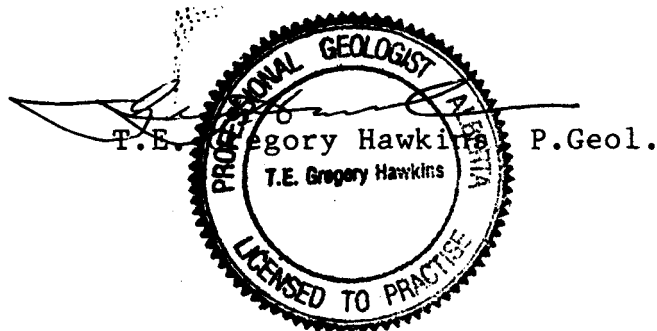
January 21, 1987



CERTIFICATE

I, T.E. Gregory Hawkins, do hereby certify:

1. That I am a Consulting Geologist with business offices at 301-409 Granville St., Vancouver, B.C. V6C 1T2.
2. That I am a graduate in geology of The University of Alberta, Edmonton (B.Sc. 1973), and of McGill University, Montreal, (M.Sc. 1979).
3. That I have practised within the geological profession for the past sixteen years.
4. That I am a Fellow of the Geological Association of Canada and a Professional Geologist registered in the Province of Alberta.
5. That the opinions, conclusions and recommendations contained herein are based on a property visit in April of 1983 and on subsequent research and project review in 1985 and 1987.
6. That I own no direct, indirect, or contingent interests in the area, the subject property, or shares or securities of Tara Pacific Resources Ltd. or associated companies.



Vancouver, B.C.  
January 21, 1987



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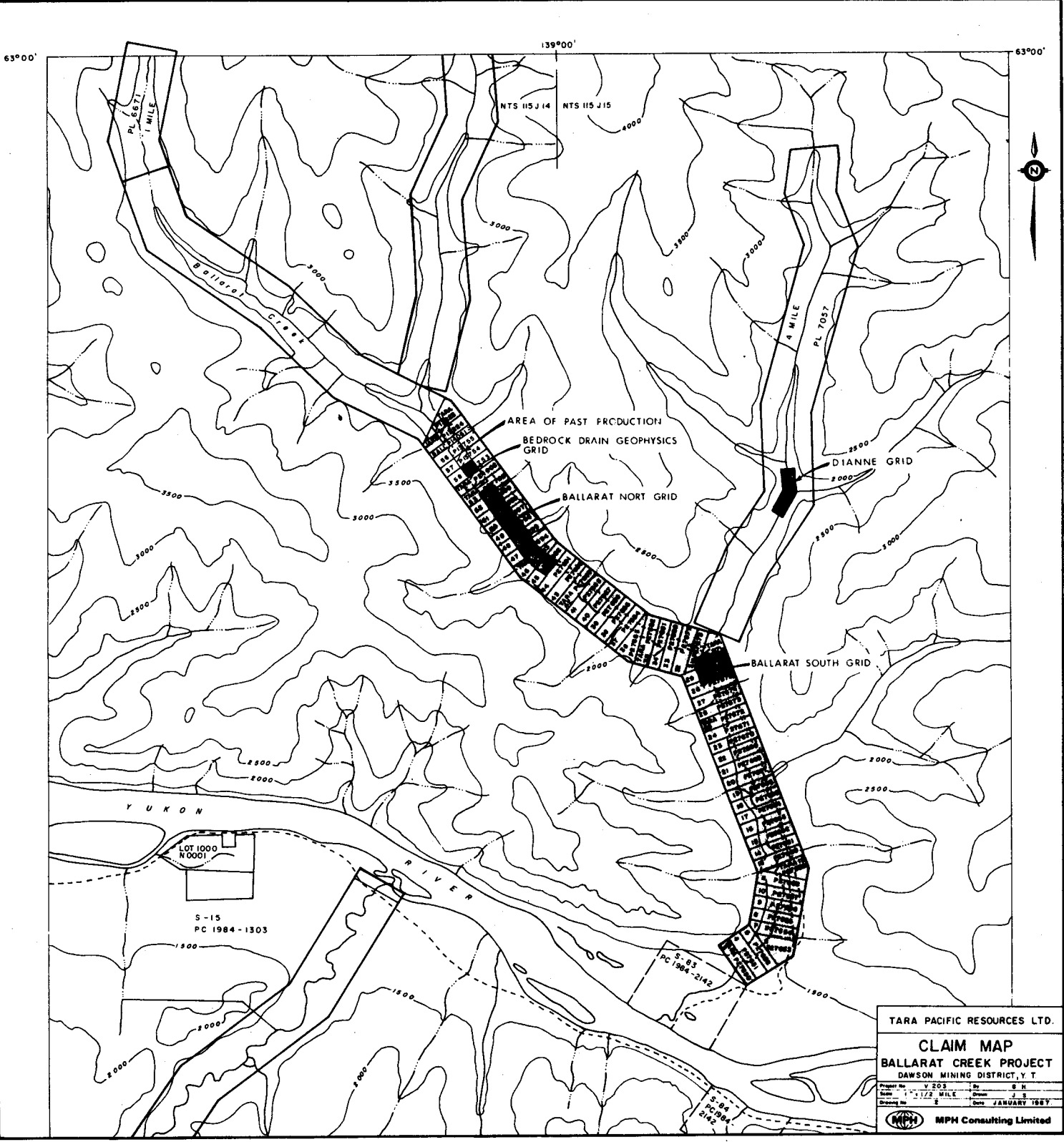
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63°00'

139°00'

63°00'

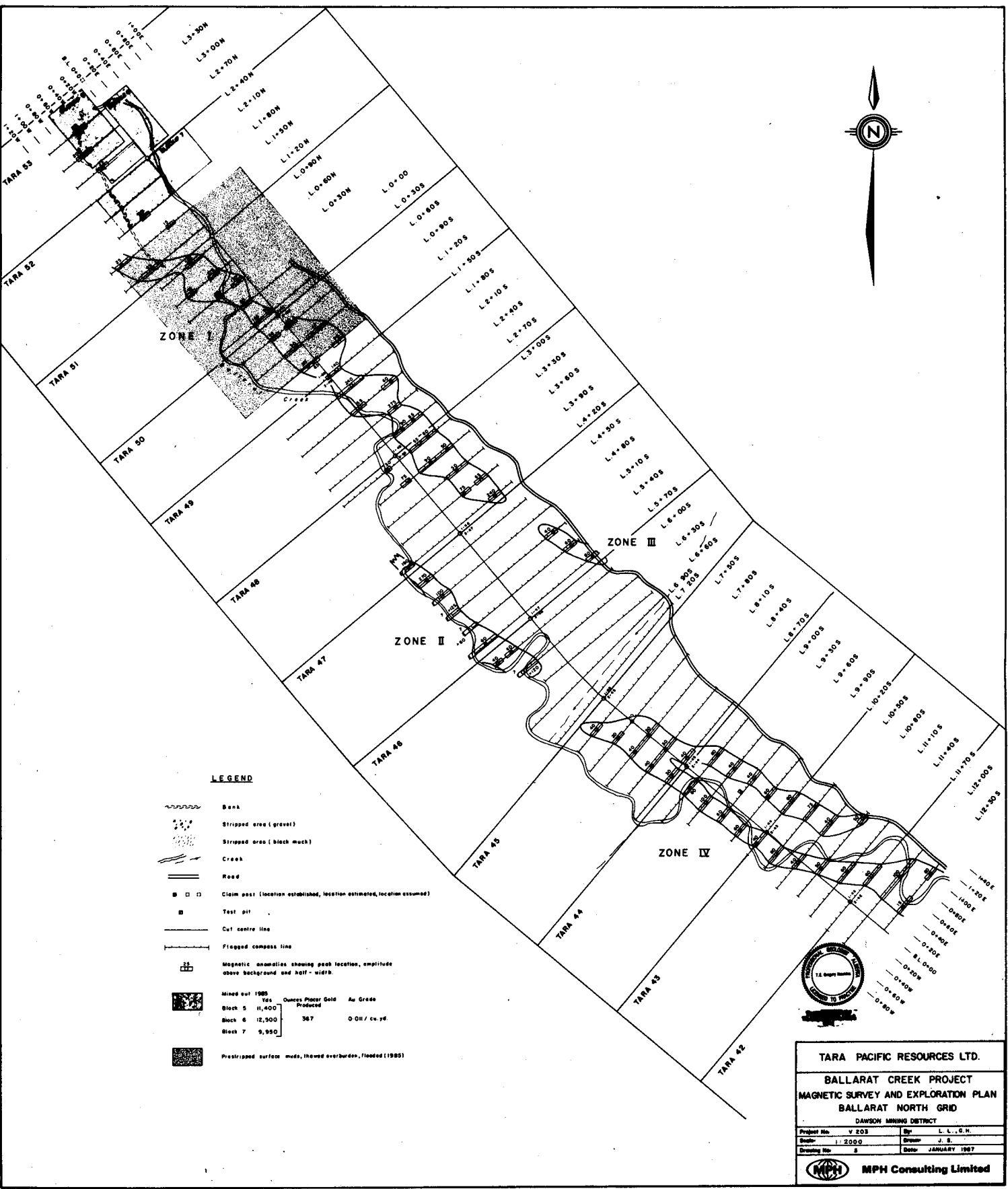


TARA PACIFIC RESOURCES LTD.

**CLAIM MAP**  
**BALLARAT CREEK PROJECT**  
 DAWSON MINING DISTRICT, Y.T.

Project No. Y 203      Drawn by S.H.  
 Scale: 1" = 1/2 MILE      Date: J.E.  
 Drawing No. 2      Date: JANUARY 1987





**LEGEND**

- Bank
- Stripped area (gravel)
- Stripped area (black muck)
- Creek
- Road
- Claim post (location established, location estimated, location assumed)
- Test pit
- Cut centre line
- Flagged compass line
- Magnetic anomalies showing peak location, amplitude above background and half-width
- Mined out 1985
- Prestripped surface muck, throwed overburden, flooded (1985)

Block	Yds	Ounces Flavour Gold	Au Grade
Block 5	11,400	Produced	
Block 6	12,900	367	0.01 / cu yd
Block 7	9,950		



**TARA PACIFIC RESOURCES LTD.**

**BALLARAT CREEK PROJECT**  
**MAGNETIC SURVEY AND EXPLORATION PLAN**  
**BALLARAT NORTH GRID**

DAMSON MINING DISTRICT

Project No. V 203	By: L. L. C.H.
Scale: 1:2000	Drawn: J. S.
Drawing No. 2	Date: JANUARY 1987

**MPH Consulting Limited**