

RESULTS OF 1986 TRENCHING AND DRILLING PROGRAMME

ON THE

FRASERGOLD PROPERTY

FILMED

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

15,715

PART 1 OF 3



Province of British Columbia

Ministry of Energy, Mines and Petroleum Resources

ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TYPE OF REPORT/SURVEY(S) <i>Drilling, Physical</i>	TOTAL COST <i>\$ 338 093.00</i>
---	------------------------------------

AUTHOR(S) *D. A. Leishman* SIGNATURE(S) *K. V. Campbell*

DATE STATEMENT OF EXPLORATION AND DEVELOPMENT FILED *30 Dec/86* YEAR OF WORK *1986*

PROPERTY NAME(S) *Frasergold*

COMMODITIES PRESENT *Au, Ag, Cu, Pb, Zn*

B.C. MINERAL INVENTORY NUMBER(S), IF KNOWN *93A-150*

MINING DIVISION *Cariboo* NTS *93A 7E*

LATITUDE *52° 17' 30"* LONGITUDE *120° 32' 30"*

NAMES and NUMBERS of all mineral tenures in good standing (when work was done) that form the property [Examples: TAX 1-4, FIRE 2 (12 units); PHOENIX (Lot 1706); Mineral Lease M 123; Mining or Certified Mining Lease ML 12 (claims involved)]:

Mac 1-12, Kay 1-12, Alpha 2

OWNER(S)
(1) *Eureka Resources Inc.* (2)

MAILING ADDRESS

OPERATOR(S) (that is, Company paying for the work)
(1) *Eureka Resources Inc.* (2)

MAILING ADDRESS

SUMMARY GEOLOGY (lithology, age, structure, alteration, mineralization, size, and attitude): *sedimentary*

Stratabound gold occurs in a specific horizon within a thick sequence of Triassic phyllites. The gold-bearing zone is classified as a remobilized syngenetic deposit over a potential strike length in excess of 10 km. Current reserve figures are:

1) 545 455 tonnes of 8.57 g Au/tonne; 2) 1 818 181 tonnes of 5.1 g Au/tonne; 3) 3 636 363 tonnes of 3.43 g Au/tonne; 4) 13 636 363 tonnes of 1.6 g Au/tonne

REFERENCES TO PREVIOUS WORK *A.R. 8325, 9751, 14022, 15636, 11833, 12880*



Province of
British Columbia
Ministry of
Energy, Mines and
Petroleum Resources



EXPLORATION BRITISH COLUMBIA

FINANCIAL ASSISTANCE FOR MINERAL EXPLORATION

FORM 3

APPLICATION FOR PAYMENT

Grant
Identification
No. 10962E-8

LOG NO: 1230

MGE-F 1

ACTION:

INSTRUCTIONS:

- Please type or print
- Please submit completed forms, with a copy of the final technical report, to:
Manager, EXPLORATION BRITISH COLUMBIA, Mineral Resources Division
Ministry of Energy, Mines and Petroleum Resources
Parliament Buildings, Victoria, B.C. V8V 1X4

FILE NO:

1. Date of this Application		
December 30, 1986		
2. Applicant's Identification and Location		
Name EUREKA RESOURCES, INC.		
Address — Street Number and Name, Apt. No. 837 EAST CORDOVA STREET		Telephone No. (604) 253-0222
City, Town, Village VANCOUVER	Province BRITISH COLUMBIA	Postal Code V 6 A 3 R 2
3. Head Office Location		Telephone No.
Address — Street Number and Name, Apt. No. AS ABOVE		
City, Town, Village	Province	Postal Code
4. Mailing Address (if different from above)		Telephone No.
Address — Street Number and Name, Apt. No. AS ABOVE		
City, Town, Village	Province	Postal Code
5. British Columbia Free Miner Certificate No.		
212454		
6. I/We, JOHN R. KERR, hereby apply for payment of a grant under the Exploration British Columbia Financial Assistance for Mineral Exploration Program and declare the information given above to be true and accurate.		
_____ Signature of Applicant or Signing Officer		_____ Name (please print)
_____ VICE PRESIDENT Title/Occupation (please print)		_____ FRASERGOLD Project Name (please print)
_____ EUREKA RESOURCES, INC. Company (please print)		_____ DECEMBER 29, 1986 Date

7. EXPENDITURES (N.B. Please provide actual all-inclusive costs, including salaries and wages, equipment and machinery rental, supplies, services, transportation and accommodation directly attributable to the field program.)

	Total Eligible Expenses
Geological Surveys, Map and Report Preparation and Related Costs	\$
Geophysical Surveys (line-kilometres)	
Ground	
Magnetic	\$
Electromagnetic	\$
Induced Polarization	\$
Radiometric	\$
Seismic	\$
Other	\$
Airborne	\$ _____
	\$
Geochemical Surveys (No. of samples analysed for _____)	
Soil	\$
Silt	\$
Rock	\$
Other	\$ _____
	\$
Drilling	
Surface 2427 m @ \$ 126.5/m = \$	306,162
Underground m @ \$ = \$	_____
	\$ 306,162
Related Technical Surveys	
Sampling/Assaying	\$
Petrographic	\$
Mineralogic	\$
Metallurgic	\$ _____
	\$
Preparatory/Physical	
Line/Grid (kilometres)	\$
Trenching (metres)	\$ _____
	\$
Other Exploration Costs (attach detailed schedules)	
Bulk Sampling & Metallurgy	\$ 25,631
Map Preparation	\$ 6,300
	\$ _____
	\$ 31,931
Total Eligible Expenses	\$ 338,093

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

Tunneling, Drifting, Other Lateral Excavation, Shaft Sinking (25% of total expenses are eligible)	
..... m @ \$ = \$ × 25% = \$	
..... m @ \$ = \$ × 25% = \$ _____	
	\$

(c) TOTAL ELIGIBLE EXPENDITURES: \$ 338,093

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

(a) **Employment, wages and salaries**

Type	No. Employed		No. Person-days		Salaries/Wages Paid	
	B.C.	Outside	B.C.	Outside	B.C.	Outside
Prospectors					\$	\$
Linecutters						
Technicians						
General Labourers	4		155		19,734	
Drillers/Helpers	4		148		on contract	
Equipment Operators						
Geologists	1		119		26,180	
Geophysicists						
Geochemists						
Engineers						
Supervisory	1		61		6,581	
Consulting	2		10		4,850	
Secretarial						
Managerial						
Legal						
Accounting						
Others (specify) Cook	1		53		5,085	
Others (specify)						
TOTALS	13		546		\$62,430	\$

(b) Goods and Services

Description	Expenditure	
	B.C.	Outside
Meals, Groceries, etc.)	\$20,054	\$
Camping Supplies, Equipment, etc.)		
Accommodation)		
Transportations — Scheduled Air)		
— Air Charter	1,600	
— Vehicle Rentals		
— Vehicle O and M Costs	8,026	
— Other (specify)		
Equipment Rentals —		
Bulk Sampling	9,020	
Equipment Rentals — Trenching, etc.		
— Geophysical, etc.		
— Other (specify)		
Contract Drilling	172,262	
Consultant Services Metallurgical Consulting & Services	121,135	
Assays and Analyses	21,709	
Communications and Purchases & Supplies	20,395	
Other (specify) Core Storage	10,462	

9. IMPACT OF FAME GRANT

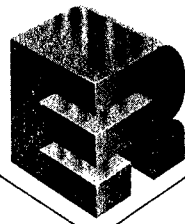
(a) Please indicate what level of **expansion** of your project was attributable to receiving a FAME grant.

\$ 35,000

55 person/days employment.

(b) Please indicate what you feel to be the main achievement of this FAME funded program.

Coupled with flow-through funding incentive of \$225,000, this grant (\$35,000) enabled us to complete very vital programme, oriented at establishing better sampling and drilling procedures at Frasersgold.



MQ Report #140
Ref: RM3002

RESULTS OF 1986 TRENCHING AND DRILLING PROGRAM

ON THE

FRASERGOLD PROPERTY

Cariboo Mining Division

N.T.S. 93A/7E

Latitude 52°19'N
Longitude 120°37'W

by

D.A. Leishman
and
K.V. Campbell

for

EUREKA RESOURCES, INC.
837 E. Cordova Street
Vancouver, B.C.
V6A 3R2

December, 1986

SUMMARY

In 1986 Eureka Resources Inc. embarked upon an ambitious exploration programme of the Frasergold Property. Surface trenching and bulk sampling has established grades much higher than previously announced. Reverse Circulation drilling in the area of the Jay Zone has demonstrated that the larger volume sample yields a much higher grade than the former NQ core drilled by Amoco (1983/84). Whereas previous drilling had been centred on 100 metre intervals and continuity of the mineralized horizons was suspect, Eureka has now clearly demonstrated continuity of high grade surface and underground mineralization in closely spaced drill holes. Larger volume samples (HQ core and Reverse Circulation holes) has resulted in an upgrading factor of the previously drilled intersections. Grades up to 0.5 oz/ton Au over 2-3 metre mining widths can now be expected where previous drilling indicated grades in the order of 0.2 to 0.3 oz/ton Au. Alternatively, wider zones of 30 metre widths with grades in the range of 0.06 oz/ton Au to 0.100 oz/ton Au may be outlined for possible open pit potential.

Previous work by Eureka and partners had been concentrated a 1.5 kilometre strike length of the geochemical anomaly. However, Eureka has now clearly demonstrated the existence of bedrock mineralization of potentially economic widths over a strike length of four kilometres. Geochemical data acquired by Eureka indicates that this same gold enriched horizon has a strike length of over 10 kilometres within the Frasergold Property.

Further exploration and development by Eureka Resources Inc. on the Frasergold Property is intended to lead to the establishment of a viable economic mineral deposit.

TABLE OF CONTENTS

	<u>Page</u>
SUMMARY	
1.0 INTRODUCTION	1
1.1 Location, Access and Terrain	4
1.2 Claim Status	4
1.3 Property Definition and History	8
1.4 Summary of 1986 Assessment Work	10
1.5 References	12
2.0 GEOLOGY	14
2.1 Regional	14
2.2 Property	15
2.2.1 Lithology	15
2.2.2 Structure	17
2.2.3 Controls of Mineralization	19
3.0 TRENCH SAMPLING	20
3.1 Introduction	20
3.2 Method	20
3.3 Analytical Technique	21
3.4 Results and Interpretation	21
4.0 REVERSE CIRCULATION DRILLING	27
4.1 Introduction	27
4.2 Sampling and Analytical Technique	29
4.3 Analytical Results and Interpretation	30
4.4 Conclusion	30
5.0 METALLURGICAL TESTS	32
6.0 DIAMOND DRILLING	33
6.1 Introduction	33
6.2 Technical Procedures	33
6.3 Sampling and Analytical Procedures	35
6.4 Analytical Results and Interpretation	35
7.0 DISCUSSION - 1986 PROGRAMME	49
7.1 Sampling	49
7.2 Reserve Potential	52

TABLE OF CONTENTS (Continued)

	<u>Page</u>
8.0 CONCLUSIONS	54
8.1 Mineralization	54
8.2 Trench and Bulk Sampling	54
8.3 Reverse Circulation Drilling	54
8.4 Diamond Drill Programme	54
9.0 RECOMMENDATIONS	55
9.1 Proposal	55
9.2 Estimated Cost	55
10.0 STATEMENTS OF QUALIFICATION	56

LIST OF ILLUSTRATION

<u>Figure</u>		<u>Page</u>
1	Location Plan (1:2,500,000)	2
2	Regional Location (1:500,000)	3
3	Claim Map (1:50,000)	7
4	Compilation (1:50,000)	13
5	Regional Geology	after page 14
6	Compilation Plan (East) 1:2,500	in pocket
7	Compilation Plan (West) 1:2,500	in pocket
8	Jay Zone Compilation 1:500	in pocket
9	Grouse Zone, Trench Locations	in pocket
10	Grouse Zone, Trench Assay Values	in pocket
11	Middle Zone, Trench Locations	in pocket
12	Middle Zone, Trench Assay Values	in pocket
13	Jay Zone, Trench Locations	in pocket
14	Jay Zone, Trench Assay Values	in pocket
15	Comparison "Reverse Circulation versus NQ Core Assays"	in pocket
16	Section 60+00E, DDH 86-21	in pocket
17	Section 59+50E, DDH 86-22	in pocket
18	Section 55+50E, DDH 86-16	in pocket
19	Section 55+00E, DDH 86-15	in pocket
20	Section 54+50E, DDH 86-17/18	in pocket
21	Section 54+25E, DDH 86-24	in pocket
22	Section 54+00E, DDH 86-19/23	in pocket
23	Section 53+75E, DDH 86-27	in pocket
24	Section 53+50E, DDH 86-20	in pocket
25	Section 53+25E, DDH 86-25/26	in pocket
26	Section 41+00E, DDH 86-28	in pocket
27	Section 35+00E, DDH 86-30	in pocket
28	Section 33+50E, DDH 86-31	in pocket
29	Section 31+50E, DDH 86-32/32A	in pocket
30	Section 30+00E, DDH 86-29/29A	in pocket

LIST OF TABLES

<u>Table</u>		<u>Page</u>
I	List of Claims	6
II	Summary Bulk Sampling Data	23
III	Summary Reverse Circulation Holes	28
IV	Summary Diamond Drill Holes	34
V	Summary Drill Hole Assays	37
VI	Visible Gold with Assay Intervals	44
VII	Metallics versus Standard Assays	51
VIII	Comparison 1983/84 Drill Data with 1986 Drill Data "Jay Zone"	52

LIST OF APPENDICES

Appendix I	Diamond Drill Logs
Appendix II	Report Coastech Research
Appendix III	List of Personnel
Appendix IV	Cost Statement

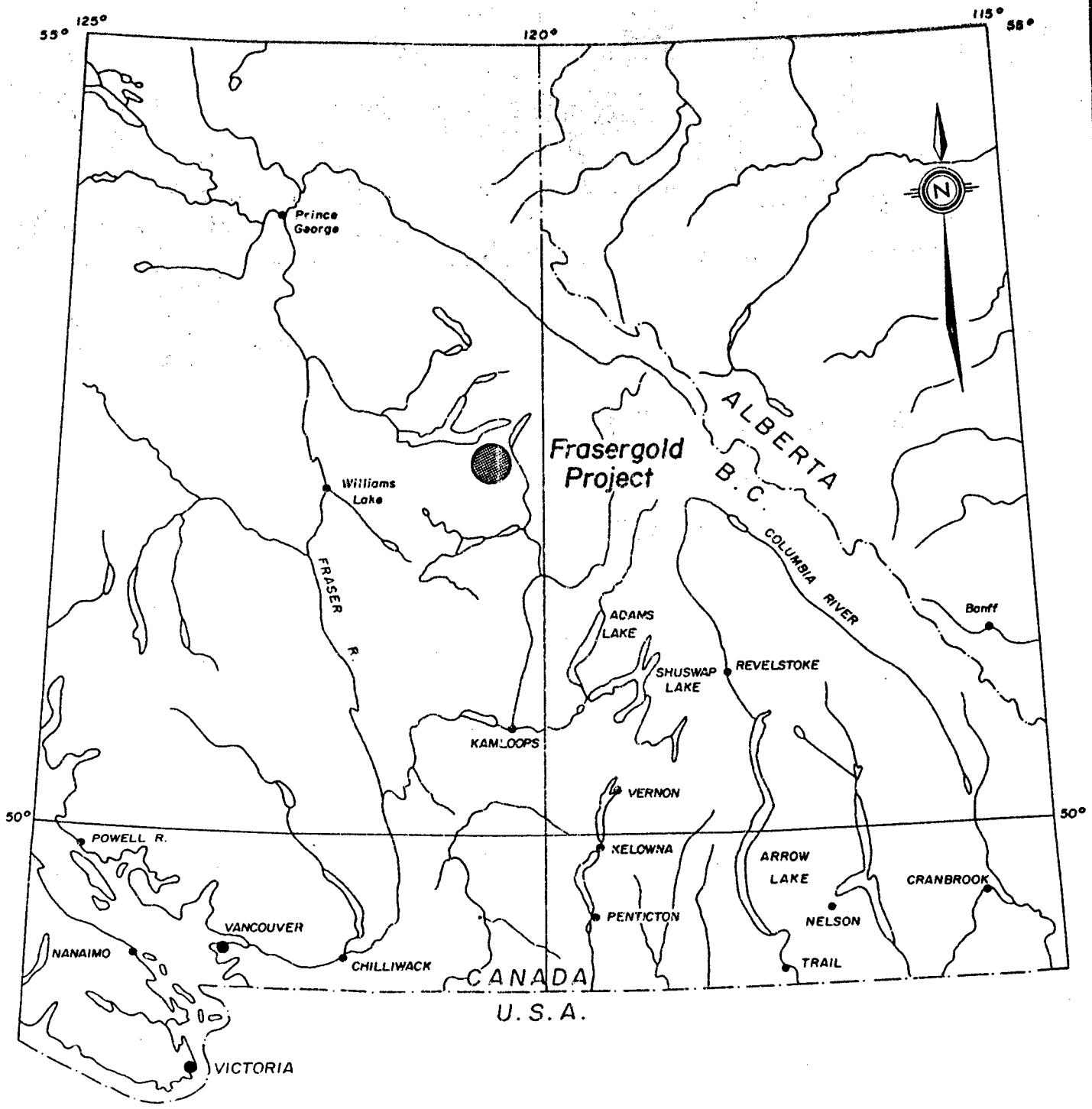
1.0

INTRODUCTION

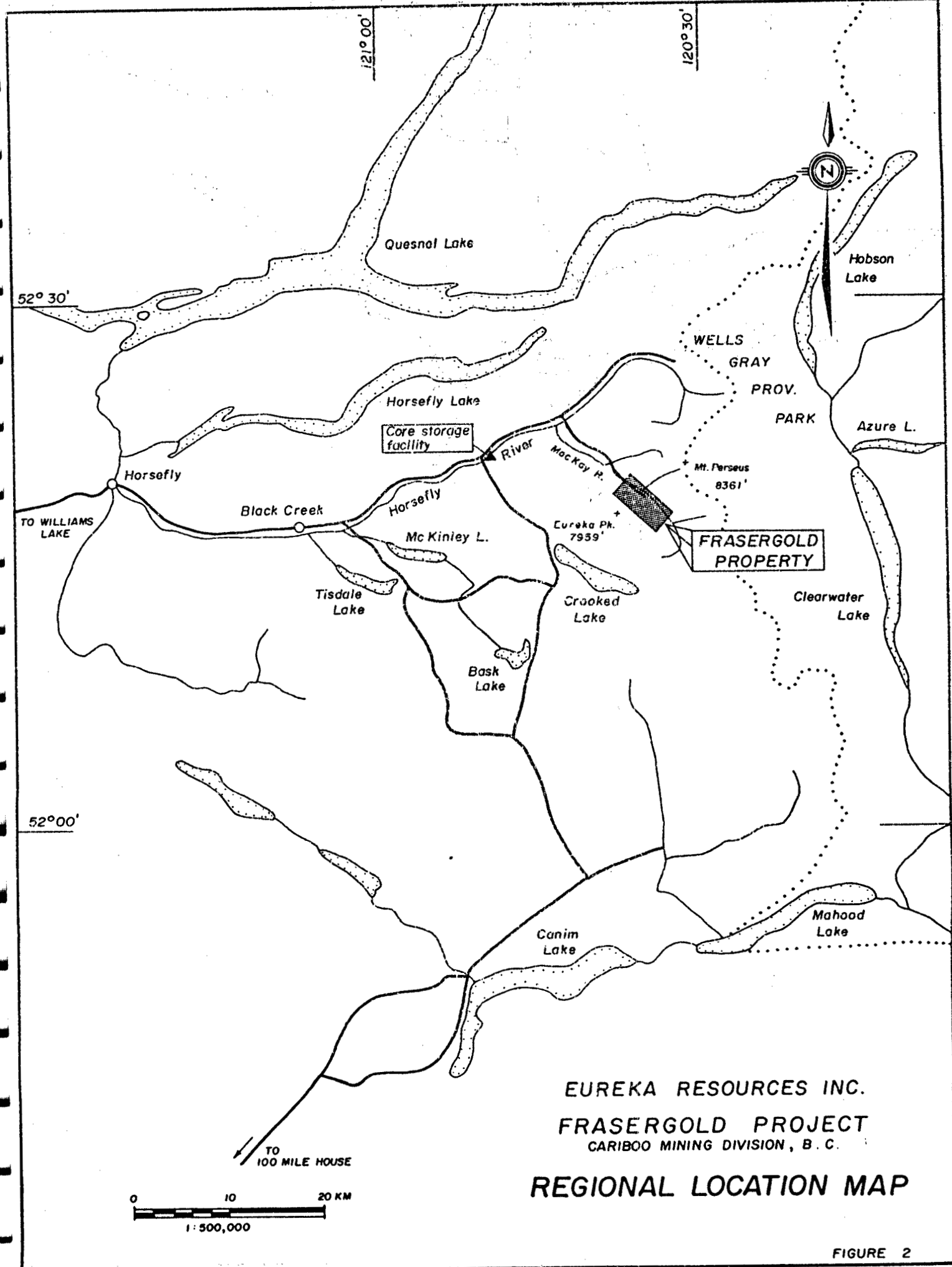
The Frasergold Property owned by Eureka Resources, Inc. of Vancouver, British Columbia was subject to a multi-phase programme of mineral exploration during the 1986 field season. The property lies in the Cariboo region of central British Columbia approximately 100 kilometres east of Williams Lake.

The first phase of this programme began in June and consisted of a trench and bulk sampling followed by a limited reverse circulation drilling. This phase was completed in mid-July and sample results were evaluated and the second phase of drilling (diamond drilling) began in mid-September. The diamond drilling was completed in late October.

The third phase was then commenced which includes a compilation of data for assessment purposes as well as a comprehensive evaluation of all previous data. The third phase of the 1986 programme will include both statistical evaluation of all assay data collected on the Frasergold property by Eureka and former participants as well as the inputting of all drill and relevant surface data into the Geocor (Geomin) package of software products with the purpose of outlining reserves expectations and the further enhancement of the Frasergold Property.



EUREKA RESOURCES INC.		
LOCATION MAP		
FRASERGOLD PROJECT		
CARIBOO MINING DIVISION, B. C.		
Technical Work By:	Scale: 1:2,500,000 (1cm=25km)	
Date: Nov., 1985	Drawn By: W.G.	Fig. No. 1



EUREKA RESOURCES INC.
 FRASERGOLD PROJECT
 CARIBOO MINING DIVISION, B. C.
REGIONAL LOCATION MAP

FIGURE 2

1.1 Location, Access and Terrain

The Frasergold Property lies in the central Cariboo region of British Columbia, approximately 100 kilometres east of Williams Lake. The claims straddle the Mackay River Valley. The geographic co-ordinates of the centre of the claims are 52°19'N and 120°37'W (N.T.S. 93A/7E), Figures 1 and 2.

The best access to the property is east along the paved Horsefly highway for 55 kilometres from 150 Mile House on Highway 97. An all-weather logging road is then followed along the Horsefly River to the northeast for approximately 55 kilometres where a branch road to the southeast enters the Mackay River Valley.

Approximately 10 kilometres along this road near the junction of Hawkley Creek and the Mackay River the western boundary of Frasergold property is traversed. Upon crossing the Mackay River the road continues for a further 10 kilometres within the central portion of the claim group. The final three kilometres are best travelled by 4-wheel drive vehicles. In the recent past the final 10 kilometres along the Mackay River were not open in the winter however it is expected that logging operations in the winter of 1986/87 will result in the road being kept open for logging vehicles (Figure 2).

The Frasergold property straddles the Mackay River valley which is located on the west flank of the Cariboo Mountain Range. Topography is moderately steep in the northwest portion of the claim group however it becomes steeper towards the southeast. Relief on parts of the property exceeds 1,000 metres. The area where most exploration work has been concentrated lies on the northfacing slope of the Mackay River valley between the elevations of 1,200 and 1,456 metres (Figures 2 and 3.)

The vegetation along the Mackay River valley consists of good stands of commercial spruce and balsam with thick underbrush. Forest cover is lighter above 1,600 metres and alpine vegetation is encountered at approximately the 1,800 metre elevation. Large areas of the claim group have undergone logging which has left a good network of access trails. It is expected that logging in the winter of 1986/87 will further enhance this accessibility.

1.2 Claim Status

The Frasergold Property consists of 26 mineral claims (163 units) all located and recorded in accordance with the mining laws of the Province of British Columbia.

Eight of the original claims are two-post claims, four are fractional claims while the remaining 14 claims are located by MGS methods. All claims are in good standing until 1989 - 1992. Table 1 lists the claims with record number and expiry dates.

In 1984 the Legal Corner Posts of all the claims were accurately surveyed, to legal survey standards, by McElhaney Associates Ltd. of Vancouver.

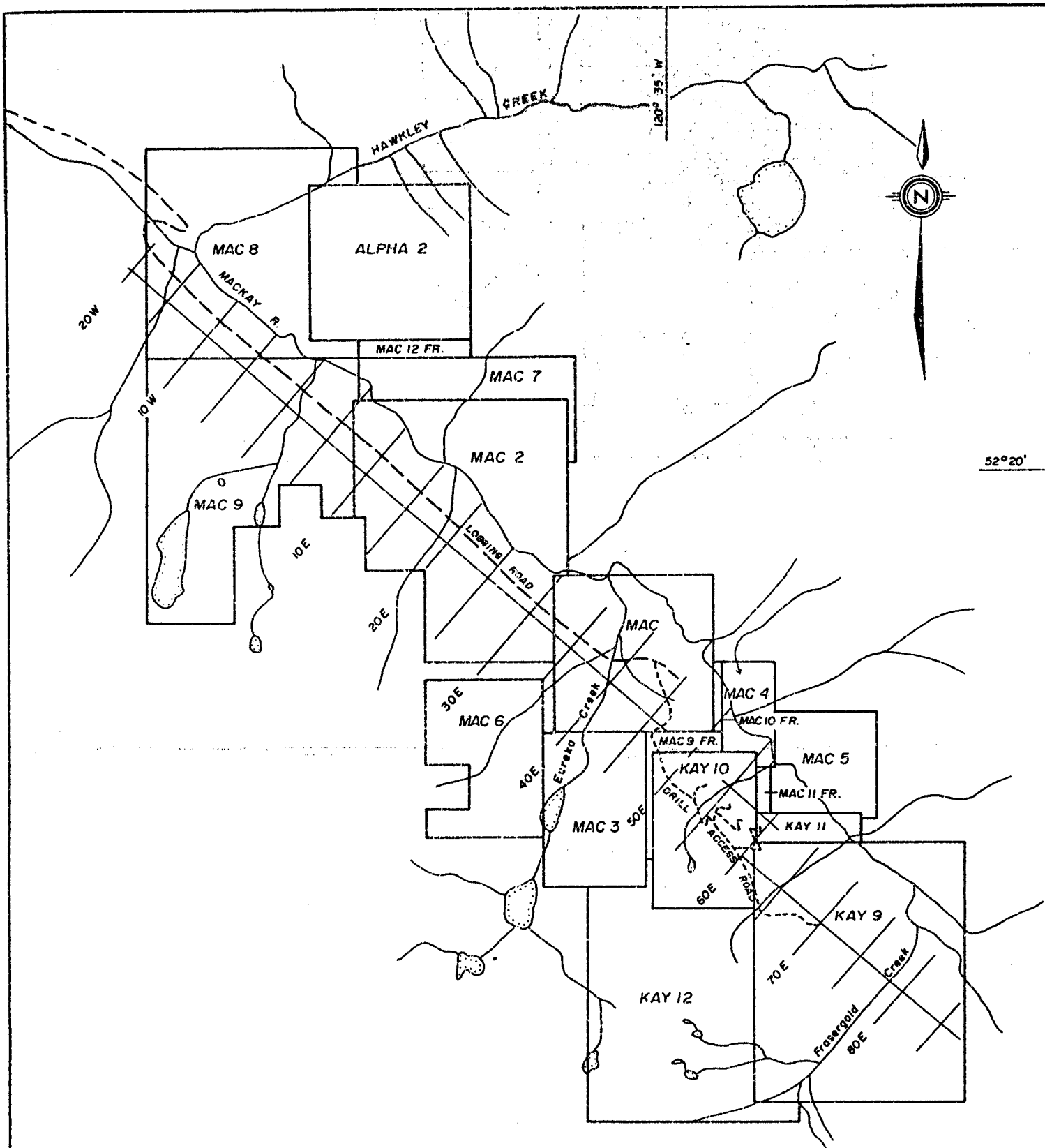
All claims are recorded in the name of Eureka Resources, Inc. The original claims staked by the vendor, Clifford E. Gunn have been transferred to Eureka and upon termination of the agreement with Amoco in 1985 all claims located by Amoco were transferred to Eureka.

TABLE 1C L A I M D A T A**EUREKA NORTH GROUP - 90 UNITS**

<u>Claim Name</u>	<u>Units</u>	<u>Record No.</u>	<u>Expiry Date</u>
Mac	9	1286	Oct. 19, 1991
Mac 2	20	2078	Oct. 22, 1990
Mac 7	8	6249	July 27, 1990
Mac 8	16	6250	July 27, 1990
Mac 9	20	6251	July 27, 1990
Mac 9Fr.	1	6204	July 16, 1990
Mac 12Fr.	1	6253	July 27, 1990
Kay 10	6	1961	Sept. 25, 1992
Alpha 2	9	5159	Sept. 23, 1989

EUREKA SOUTH GROUP - 73 UNITS

<u>Claim Name</u>	<u>Units</u>	<u>Record No.</u>	<u>Expiry Date</u>
Kay 1-8	8	1182/89	Sept. 04, 1990
Kay 9	20	1810	Aug. 11, 1992
Kay 11	2	1962	Sept. 25, 1990
Kay 12	20	4631	Jan. 26, 1992
Mac 3	6	3074	Dec. 23, 1991
Mac 4	2	3075	Dec. 23, 1990
Mac 5	4	6248	July 27, 1990
Mac 6	9	3077	Dec. 23, 1991
Mac 10Fr.	1	6231	July 19, 1990
Mac 11Fr.	1	6252	July 27, 1991



EUREKA RESOURCES INC.
 FRASERGOLD PROJECT
 CARIBOO MINING DIVISION, B. C.

CLAIM MAP

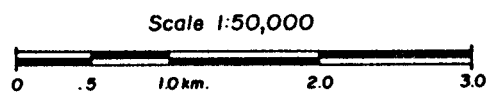


FIGURE 3

In mid July a 20 unit block of claims was staked to tie on to the northwest portion of the Frasergold property. This block of ground was staked to cover the projected strike extension of the geochemical anomaly on the Frasergold Property. Work performed on this property is covered under a separate assessment report.

1.3 Property Definition and History

The original claims for the Frasergold Property were staked by Clifford E. Gunn of White Rock, British Columbia, to cover a stream anomaly (panned gold in Frasergold Creek). Subsequent work by a private company (Eureka's predecessor) revealed the existence of a large (soil) geochemical anomaly apparently with a possible stratigraphic control. This feature, together with the history of gold mining in the Cariboo, led to the formation of Eureka Resources, Inc. whose purpose was to systematically explore and develop the potential of the Frasergold Property.

In the late 70's Mr. C.E. Gunn was attracted to the Mackay River Valley on the basis of references in BCDM reports near the turn of the century which referred to the testing of placer potential in the Mackay River Valley in the vicinity of Frasergold Creek. Prior to that the only documented reports of exploration in the area were on the adjacent Eureka Peak property which was explored for porphyry copper potential by both Amax and Rio Tinto (Figure 4). This property is presently under option to Union Miniere. Although some gold values have been reported the mineralization on this property is within a different geological setting than that encountered on the Frasergold Property.

Below is a brief summary of all documented work performed on the Frasergold Property subsequent to the acquisition of the original claims by Mr. C.E. Gunn.

1978-1979: Prospecting and staking of the original ground (Alpha, Mac and Kay 1-6 mineral claims) by Clifford E. Gunn.

1980-1982: The ground was optioned by Keron Holdings Ltd. and NCL Resources Ltd. and the claim block was expanded to include the Kay 9-12 and Mac 2-9 claims. A preliminary geochemical survey was made over the entire claim block with a total of 3,000 soils and 150 rock chip samples collected. Soil profiles were also taken to study the nature of gold in soil (250 samples). At the same

time the property was geologically mapped on a scale of 1:10,000.

1983: Eureka Resources, Inc. acquired the property in 1983 and optioned it to Amoco Canada Petroleum Co. Ltd.

Amoco completed seven kilometres of drill access road and 1.2 kilometres of hand trenches where bedrock was exposed with a total of 1,070 rock samples collected. An additional 820 soil samples were collected from a detailed grid over the anomalous portion of the original survey. Limited electromagnetic and magnetic surveys were also completed. A five hole diamond drill programme totalling 1,644 metres was completed over a 0.8 kilometre portion of the geochemical anomaly.

A total of 20 intervals of anomalous gold intersections were encountered with a range of values from 0.028 oz/t Au over 3.0 metres to 0.180 oz/t Au over 4.5 metres. Coarse visible gold was noted in the first three drill holes.

1984: Amoco continued their evaluation in 1984. This work consisted of the collection of an additional 1,950 soil samples and 190 rock chip samples. Radem-Electromagnetic and magnetometer surveys were performed over the main part of the gold anomaly. A survey of the legal claim posts was also completed.

In addition, a further nine diamond drill holes (NQ core) were drilled along the strike of the soil geochemical anomaly. These holes confirmed the existence of sub-economic to economic grade mineralization for 1.5 kilometres along the strike of the soil anomaly.

As in previous drilling, gold values were encountered in every hole with values ranging from 0.098 oz/t Au over 1.5 metres in DDH-84-6A, up to 0.342 oz/t Au over 1.5 metres in DDH-84-9 and 0.144 oz/t Au over 4.5 metres in DDH-84-11. In addition, numerous intersections were made where values ranged from 0.023 oz/t Au over 7.5 metres to the values quoted above. Visible gold was noted in all nine drill holes.

1985: Upon termination of the option agreement with Amoco, Eureka Resources, Inc. embarked upon a further evaluation of the Frasersgold Property.

A total of 1,020 soil samples were collected over the northwest portion of the claim group. This confirmed the continuity of the anomalous soil geochemistry for approximately six kilometres northwest of the area drilled. Overburden trenching along this extension was attempted with a Caterpillar 225 Excavator. Trenches up to 10 metres in depth failed to expose bedrock. However values in soil samples collected from the bottom of these trenches ranged up to 1250 ppb Au.

A test I.P. survey of six line kilometres was completed on very widely spaced lines over the mineralized horizon and its projected extension. A sharp change in resistivity was noted along the contact of the knotted phyllites and the underlying black banded phyllites. It was assumed that this resistivity difference was due to the graphitic content variation between the two major rock types. This contact also forms the footwall of the gold enriched horizons on the Frasersgold Property.

Bulk sampling was completed on the property. One of the samples was subjected to milling and cyanidation (COASTECH RESEARCH INC.). This particular sample was also subject to conventional Fire Assay techniques. The sample was split with a total of 56 individual assays obtained from three different laboratories. The mean values obtained varied from 0.06 oz/t Au to 0.128 oz/t Au. Upon being subjected to a milling and cyanidation process by Coastech Research Inc. a value of 0.137 oz/t Au recoverable gold was obtained. It was thus determined that conventional Fire Assay techniques might not be adequate for determining true gold content in samples taken from the Frasersgold Property.

1.4 Summary of 1986 Assessment Work

In the 1986 field season Eureka Resources embarked upon a very comprehensive evaluation of the Frasersgold Property. This took the form of a three phase programme

with the first phase consisting of Trench (chip) sampling followed by a Bulk surface sampling programme with further chip sampling. Finally a limited but significant programme of Reverse Circulation Drilling was completed in the area of two former diamond drill holes (DDH-83-2 and DDH-84-9).

The second phase of the exploration programme consisted of drilling three areas within the Frasergold Property. A total of 18 holes were completed with two abandoned for a total "footage" of 2,021 metres. The three areas drilled were (1) the Jay Zone, (2) the Grouse Zone and (3) step-outs to the northwest along strike with the previously determined geochemical anomaly.

As part of the development of the Frasergold Property, Eureka has established a permanent core storage facility near the property. This facility is accessible year round and fully secure. This storage building is located at a logging camp on the Horsefly River at the junction of the Horsefly River and the road to Crooked Lake (Figure 2). All core from Amoco's previous drilling and that of Eureka is stored in racks at this location.

The third phase of the 1985 programme is still in progress and includes this report for assessment purposes. A very comprehensive analysis of all of the data obtained this year as well as drill results from previous years is presently being compiled. Computer modeling and geostatistical packages will be used to aid in the further economic and geologic evaluation of the Frasergold Project. Sections and some plans presented with this report are the first product of this compilation.

The software package selected by Eureka Resources Inc. to aid in this compilation is the GEOMIN/150 System of integrated software which has the capability of geostatistical analysis and creation of geological and numeric models and ore reserve reports. This package has 10 major modules and is fully integrated with the GEOMIN MINING SYSTEM. This database is designed to carry a project forward from the initial soil sample into actual mine operations. This package is presently being used at over 75 locations throughout the world and is expected to be a significant aid to Eureka Resources, Inc. in the economic and geologic evaluation of the Frasergold Project.

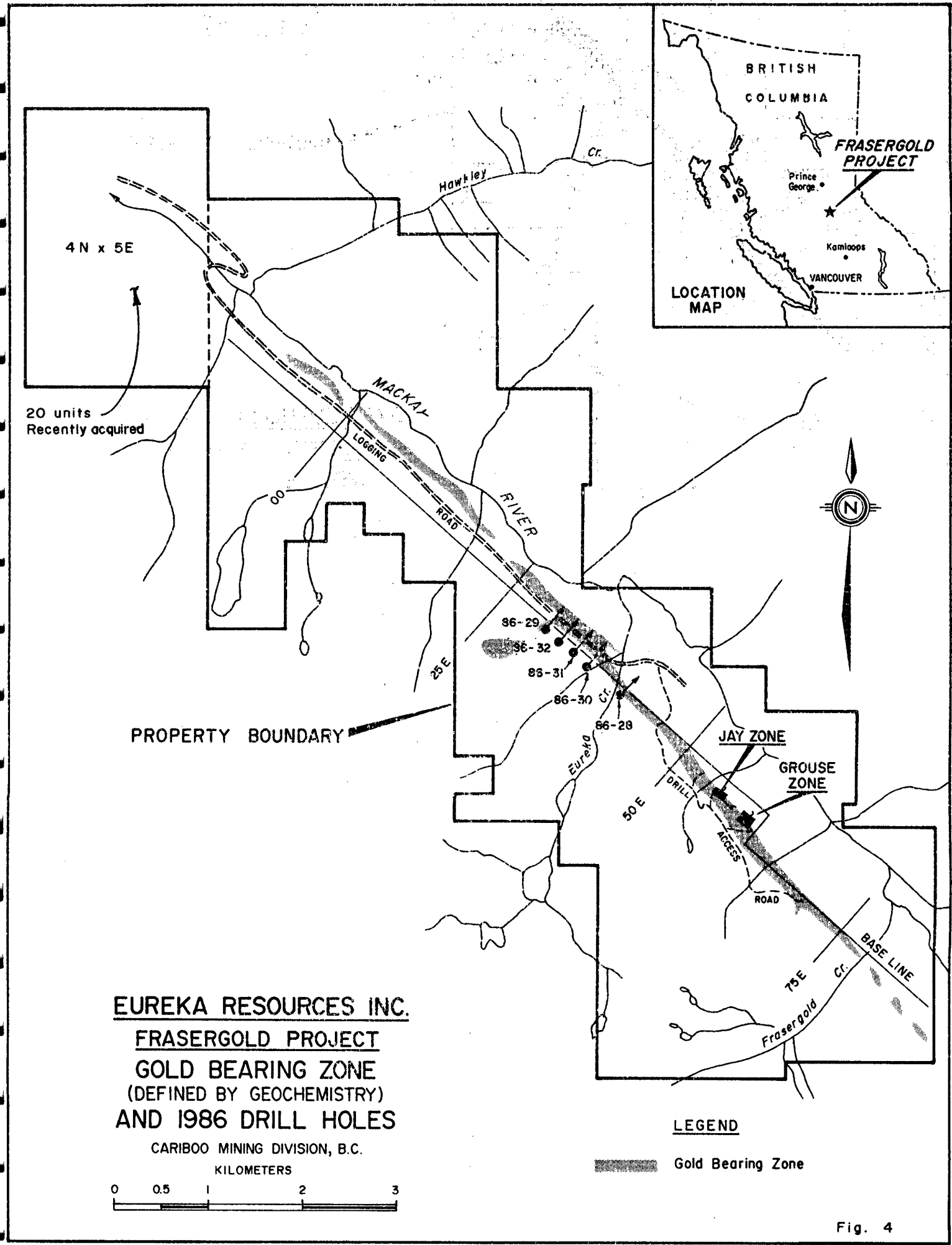
Significant thought was given to the selection of this system over others reviewed. The strong points of the GEOMIN System are its users friendly design, the graphic capabilities of the Hewlett Packard hardware

utilized and its widespread use on a worldwide basis. GEOMIN Computer Services Corporation has the capability of altering various functions to suite individual users needs.

A full description of the work completed on the Fraser-gold Property during the 1986 field season follows.

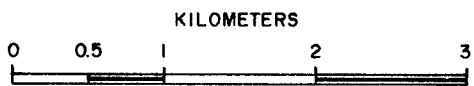
1.5 References

- Belik, G. 1981: Frasersgold Property, Property Evaluation Report (unpublished report by Kerr-Dawson & Associates)
- Brown, Paul: Frasersgold Project, British Columbia Amoco Canada Petroleum Co. Ltd.
1983 - Summary Report
1984 - Summary Report
- Campbell, R.B. et al, 1974: Map 142 A, Parsnip River, B.C. 1:1,000,000
- Campbell, K.V. 1971: Metamorphic Petrology and Structural Geology of the Crooked Lake Area, Cariboo Mountains, B.C. (unpublished Ph.D. Thesis, U. of W.)
- Rees, C.J. 1981: Western Margin of the Omineca Belt at Quesnel Lake, B.C. G.S.C. Paper 81-1A, p.223-226
- Kerr, John R. 1985: Geochemical Report on the Frasersgold Property, Eureka Resources Inc.
- Kerr, John R. 1985: Summary Report on the Frasersgold Property, Eureka Resources Inc.
- Cartwright, Paul 1985: Report on the Induced Polarization and Resistivity Surveys on the Frasersgold Property, Cariboo Mining Division, B.C.
- Ross, J.V., Bloodgood, M., et al, Geometry of a Convergent Zone, Central British Columbia, Tectonophysics, 119 (1985) 285-297, Elsevier Science Publishers B.V. Amsterdam



EUREKA RESOURCES INC.
FRASERGOLD PROJECT
GOLD BEARING ZONE
(DEFINED BY GEOCHEMISTRY)
AND 1986 DRILL HOLES

CARIBOO MINING DIVISION, B.C.



LEGEND

Gold Bearing Zone

Fig. 4

2.0

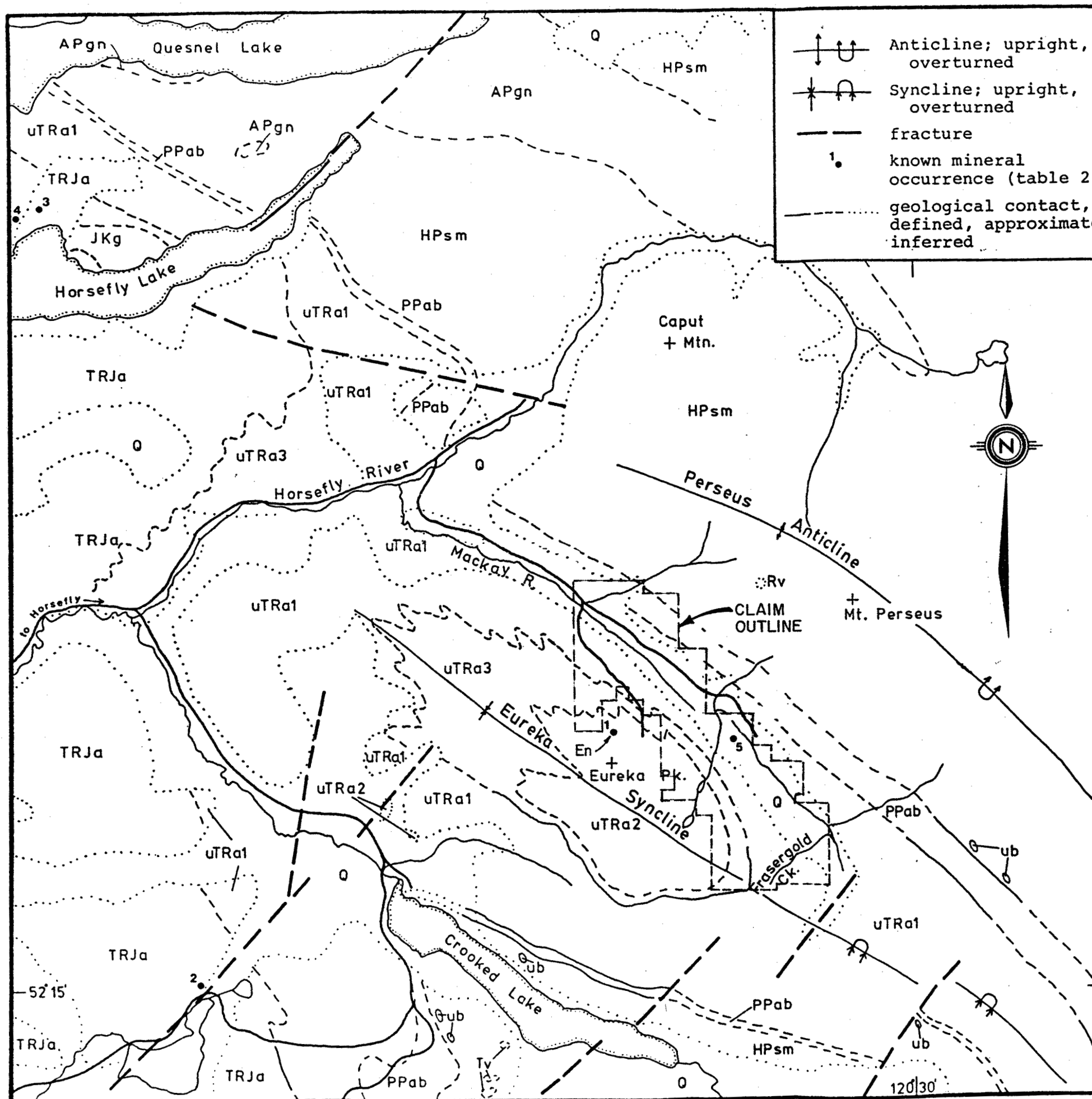
GEOLOGY2.1 Regional

Figure 5 illustrates the regional geology of the Mackay River area (Campbell, 1978). The property straddles the boundary between two major tectonic belts of the Canadian Cordillera; the Omineca Tectonic Belt on the east and the Quesnel Trough of the Intermontane Belt on the west. Three regional tectonostratigraphic sequences are shown in Figure 5.

- 1) On the east side of the area shown in Figure 5 Hadrynian to Paleozoic and Archean schists and gneisses (units APgn and HPsm) comprise the Omineca Tectonic Belt. This belt is known for its prevalence of gold and tungsten mineral occurrences such as in the Barkerville gold mining camp to the north.
- 2) In the western part of Figure 5 are a variety of Mesozoic volcanic and sedimentary rocks with a subordinate amount of intrusives that belong to the Quesnel Trough. This term applies to the long narrow strip of Triassic and Jurassic eugeosynclinal rocks lying between the Omineca Belt and the Pinchi Geanticline to the west. The Quesnel Trough is known for its copper, gold and molybdenum mines and showings, such as those at Highland Valley, Boss Mountain, and Cariboo Bell.
- 3) Pennsylvanian and Permian basalt and its metamorphosed equivalent, amphibolite (PPab), extend the length of the region between metasedimentary rocks of the Omineca Belt and volcanic and sedimentary rocks the Quesnel Trough. These rocks, making up the Antler Formation, were thrust from the west over the underlying rocks in post-Permian time.

Jurassic and Cretaceous granodiorite, quartz diorite, quartz monzonite, amphibolite, syenodiorite and augite porphyry have been reported in a few locations. These rocks intrude the Triassic and Jurassic sedimentary and volcanic rocks, such as at the EN copper prospect north of Eureka Peak operated by UMEX.

Small exposures of Tertiary and recent olivine basalt are present in the region, as observed south of Crooked Lake and on the ridge west of Mt. Perseus.



- Anticline; upright, overturned
- Syncline; upright, overturned
- fracture
- known mineral occurrence (table 2)
- geological contact, defined, approximate, inferred

ROCK UNITS (after Campbell, 1978)

Recent	
Q	alluvium
Rv	olivine basalt flow
Tertiary	
Tv	olivine basalt
Jurassic and Cretaceous	
JKg	granodiorite, monzonite, quartz diorite
Triassic and Jurassic	
TRJa	basaltic tuff and breccia
Upper Triassic	
uTRa1	phyllite, argillite, quartzite, schist, minor greenstone
uTRa2	greenstone, augite, porphyry breccia, tuff
uTRa3	undivided uTRa1 and uTRa2
Pennsylvanian (?) and Permian (?)	
PPab	Antler Formation - amphibolite, hornblende - chlorite schist
ub	serpentine
Paleozoic	
HPsm	Snowshoe Formation - phyllite, schist and gneiss
Archean	
APgn	Quesnel Lake gneiss

EUREKA RESOURCES INC.

FRASERGOLD PROPERTY
REGIONAL GEOLOGY

Scale 1:125,000 	Date: DEC. 1986	Fig. 5
---------------------	-----------------	--------

The dominant structures in the region are the northwest trending Eureka Syncline and Perseus Anticline (Campbell, 1971). The intervening limb of this structure is overturned to the southwest and contains the contact between the Quesnel Trough and Omineca Tectonic Belt; i.e. the contact between the Antler Formation and rocks of the Upper Triassic unit. These large folds display a change in attitude along their trend. Southeast of the project area the folds are overturned to the southwest (axial planes dip steeply northeast) whereas to the northwest the folds are upright.

Regional dynamothermal metamorphism affected all the pre-Tertiary rocks in the area. The lowest grades are seen along the Horsefly River road where clastic textures are preserved. In the Eureka Syncline the metamorphic grade of all units increases towards the Perseus and Boss Mountain Anticlines (the latter is south of the area shown in Figure 5). Large areas reached medium grades of metamorphism (amphibolite facies) and some rocks in the core of the anticlines reached the kyanite-staurolite-fibrolite zone and are associated with pegmatites (Campbell, 1971). The metamorphism largely accompanied the regional folding but outlasted it to some degree. The age of the folding and metamorphism is considered to be Jurassic to early Cretaceous.

The Mackay River valley marks a major zone of vertical or near vertical fracturing. The Upper Triassic black phyllite unit is sandwiched here between two more competent units; younger intrusives and volcanoclastics above and to the southwest and older amphibolites to the northeast. In order to accommodate the transition of fold form i.e. the change from upright to overturned limb, structural adjustments such as shearing would be concentrated in the incompetent phyllitic unit.

2.2 Property

2.2.1 Lithology

The property is underlain by a thick sequence of dark grey to black, lustrous phyllites with minor intercalations of limestone, calcareous siltite, light grey siltite and greenish grey carbonate-quartz-sericite schist. Within the phyllite sequence is a 200-300 metre wide zone of porphyroblastic phyllite, locally referred to as the "knotted phyllite". Figures 6 & 7 shows the bedrock geology of the property, based on outcrops, exposures in trenches and projection of drill

intersections. A brief description of lithologies follows:

1) Black-banded, graphitic phyllites

Foliation and original bedding planes are very distinct within this rock unit. Black, graphitic smears are common along the foliation planes. Original grain size of the sediments are of mud-silt grain size, however thin sand-sized horizons are common.

2) Dark grey knotted phyllite

Surface weathering gives this rock unit a distinct brown mottling texture. In fresh rock, the texture is recognized, however is not as easily distinguished. The knots are porphyroblastic, a product of regional metamorphism, and have been identified as an iron-rich carbonate (siderite/ankerite). The knots are elongated within the foliation planes and vary in diameter from 2 mm. - 2 cm. The original bedding features are not as discernible as in the black banded phyllite. The unit is approximately 200 metres thick and is located in the central portion of the sedimentary unit.

3) Calcareous banded phyllite

In hand specimen, this unit is not easily distinguished from the black banded phyllite, however is generally of lighter grey colour. The rock has a relatively significant content of calcite and reacts to acid. The calcareous sediments occur as irregular horizons over thicknesses of 30-50 metres.

4) Light grey siliceous metasediment

These rocks are distinguished from other units by its light grey colour and coarse sandy texture. Thin sections have identified the rock to have originally been a quartz-rich sandstone or quartzite, and has eliminated the possibility of having a volcanogenic origin. The original bedding features are distinct, however foliation is not as well developed as in the phyllites. The main horizons occur as erratic lenses with thicknesses ranging from 1-25 metres.

5) Light green carbonate-quartz-sericite
-chlorite schist

The colour and coarse granular aspect of this rock caused it to be identified in the field as a volcanic tuff. This is not substantiated by the petrography. The white, medium to coarse grained clasts are carbonate, probably dolomite, which occur as porphyroblasts in some places. The matrix of the rock is a mixture of varying amounts of sericite and clinocllore. Fine grained quartz occurs as inclusions in the carbonate grains and in fine laminations. The overall texture of the rock is finely laminated to streaked. This texture is unlike that of a volcanoclastic rock and one author (Campbell) considers these rocks to be the product of greenschist facies metamorphism of impure calcareous sediments with excess SiO_2 and K_2O .

2.2.2 Structure

The knotted phyllites occur on the northeastern limb of the northwest trending Eureka Syncline. Foliation, lineations and folds identified are as follows:

- 1) Compositional layering of bedding (S_0); general attitude striking southeast (133°), dipping $30-45^\circ$ to the southwest.
- 2) Penetrative foliation, axial plane schistosity (S_1); general attitude striking southeast (130°), dipping $35-85^\circ$ to the southwest.
- 3) Crenulation cleavage (S_2); less commonly seen than S_1 , attitudes observed dipped 32° and 50° to the northwest. This cleavage formed the axial planes of coarse, widely spaced crenulations (5-10 cm spacing).

In all cases where S_0 and S_1 could be determined together, the vergence (the direction of movement and rotation during deformation) was to the northeast in the direction of the major anticlinal axis. The bedding and cleavage relations seen south of the Mackay River indicate the rocks are right-side-up. No outcrops were seen on the property where structural inversion could be demonstrated.

In many places bedding is not discernible and the only foliation developed is the schistosity.

- 4) Mineral lineations produced by the intersections of S_0 on S_1 plunge at low angles ($05-10^\circ$) to the northwest. These parallel the plunge of the larger fold structure.
- 5) Crenulations produced by the intersection of the schistosity on bedding. These have a similar orientation to the mineral lineations.
- 6) Coarse crenulations produced by the intersection of the crenulation cleavage (S_2) on the schistosity (S_1). These are a later development than the northwest plunging folds. They plunge 10° to 20° to the west-northwest (about 300°).

Two instances were noted where visible gold occurred as disseminations or as smears on foliation.

- 7) Larger folds all had similar features, namely:
 - amplitude $1/2$ to 2 m, wavelength 1 to 10 m.
 - fold axes plunge at low angles to the northwest, average $5-10^\circ$ to $310-315^\circ$
 - vein quartz rolls, and boudins in hinge areas
 - parasitic folds developed on southwesterly limbs display vergence to northeast
 - the folds had either a broad, open style or a tight, similar style
 - the southwesterly limbs of these folds had dips of 30° to 45° whereas the northeasterly limbs were nearly vertical. This indicates a vergence to the northeast, concurring with that of the bedding to cleavage (schistosity) relation and the sense of transport indicated by smaller parasitic folds.

Quartz veins, boudins and rolls are a common occurrence in the knotted phyllite unit. Many veins are distributed in discontinuous swarms. The great majority of veins are parallel to the schistosity where only S_1 is visible. In places where bedding can be identified the veins are subparallel to the bedding. This is particularly apparent at the zones of folding. A very few, thin (less than 2 cm thick) stringers occupy south dipping joints. The quartz is commonly milky white, compact yet often has vugs and small pockets filled with limonite. No sulphides were noted.

The veins are in most cases 2-20 cm in width and extend along strike 5-10 metres. These are often disrupted, truncated or attenuated by the axial plane schistosity.

Quartz veining in surface outcrop is shown in Figures 6 and 7, drawn from detailed trench maps. Veins, rolls (small boudins, cm in scale) and boudins are best developed and most numerous in one of three folded "zones".

- 1) lowermost zone; near base of knotted phyllite unit,
- 2) middle zone; between main road and contact, and
- 3) upper zone; along and above main road.

These three zones are shown in Figures 6 and 7.

2.2.3 Control of Mineralization

There are definite stratigraphic and structural controls on gold mineralization at the Frasergold property. On a regional scale it is clearly evident that gold occurs near the base of the porphyroblastic ("knotted") phyllite. The zone with anomalous gold values extends along strike at least 10 kilometres.

The structural controls are not as simple or as easy to elucidate as the lithologic controls. Primarily, gold mineralization is found in quartz segregations, be they stringers, veins, boudins or limbless rolls. The origin of the quartz has been through secretions (mobilized "sweats") and differentiation during the metamorphism.

The dynamo-thermal metamorphism producing the host phyllites was not as simple, single stage event, but rather a series of crystallizations, cleavage developments recrystallizations and metamorphic differentiations attendant to large scale folding. As a result, quartz emplacement parallels various foliations (bedding, axial plane foliation and crenulation cleavage). Quartz also moved into hinge zones of small folds developed at the intersection of S_0 by S_1 and S_1 by S_2 . It is quartz rolls and fold hinges of the latter intersection that carried the spectacular gold seen in surface specimens. These features plunge 10-20° to the northwest of the strike of the knotted phyllite zone. It is noteworthy that similar transverse trends can be distinguished on the contoured geochemical map of gold in soils. It is considered likely that the youngest quartz emplacements contain the most gold, having crystallized last. Therefore richer shoots or pencil-shaped zones should be sought along zones of folded quartz veins or hinge remnants having the more northwesterly plunge direction.

3.0 TRENCH SAMPLING

3.1 Introduction

A total of 230 rock chip samples (including duplicates) were collected in 14 trenches in and near the Jay and the Grouse Zones during the 1986 field season (Figure 9 to 14). The initial sampling took place in June and consisted of resampling many of the former drill access roads cleared by Amoco. Previous work by Amoco had delineated many zones of anomalous results however these results were never properly utilized in any of their evaluation of the Frasergold property particularly in their interpretation of their drill results. As a programme of bulk sampling was also planned it was considered prudent to confirm the location of anomalous gold values by resampling and analyses by Fire Assay techniques prior to collecting the bulk samples.

The first phase of this sampling took place in late June, results were then tabulated and as a result of locating spectacular visible gold during the bulk sampling further trench sampling was completed in more detail in the early and mid-part of July.

3.2 Method

All samples were taken along roads cut-out by Amoco. Minor extensions were made by Eureka using a cat that was on the property for road repair and hauling of bulk samples from the lower part of the trenches to the main road.

The field technique of sampling was as follows: Sample sites were laid out with a tape and small wire survey flags were marked indicating the sample number. Sample lengths were measured along the slope of the outcrops with survey flags (fluorescent orange) marking each end of the sample. Samples were generally two to three metres in length though in some cases as small as 0.5 metres or as long as five metres. The sample line was then cleared of rubble and earth with a small mattock and shovel where necessary and swept. Continuous chip samples were then taken utilizing a small three pound sledge hammer with a rock chisel. Sample size would vary from three to ten pounds depending on the length of sample. Although these samples were not the desired "channel" samples sometimes expected in a programme of this nature, they were considered to be geologically very representative of the nature of the units being sampled.

Sample sites were plotted on base plans at a scale of 1:500. A series of plans (Figures 9 to 14) showing the three areas of trenches is presented (Grouse Zone, Middle Zone & Jay Zone). Corresponding plans with assay values are also presented. Trench 14 (Samples 861401 thru 861407) are plotted on the 1:2,500 scale compilation plan as they fall outside the areas outlined by the 1:500 scale plans.

Once the first set of assay results became available from the trench sampling a number of sites were outlined for bulk sampling. A total of eight sample sites were selected. A small plugger was used to drill blast holes, the blasted sample was "mucked" out and from 150 to 500 kilograms of blasted rock was loaded into 5 gallon plastic buckets. The sample was then hauled by cat to the main drill road where it was transported off the property. All samples were then transported to Min-En laboratories Ltd. where individual assays were made of each bucket.

A tabulation of assay values (bulk samples) compared to the original trench values (rock chips) is made in Table II. One bulk sample 86-12-2A was then selected for metallurgical assay. Where this sample had averaged 0.481 oz/ton Au in the original assay, metallurgical tests returned a value 0.347 oz/ton Au (recoverable).

3.3 Analytical Techniques:

All rock chip samples were sent to Min-En Laboratories Ltd. in Vancouver, where they were analysed by Fire Assay Techniques. In addition, one sample (Bulk) 86-12-2A was sent to Coastech Research Inc. where it underwent metallurgical tests. A summary of this data is presented later in the report.

3.4 Results and Interpretation

A brief description of the three trench areas follows:

1) Grouse Zone (Figures 9 & 10)

A total of 88 samples were taken within the area of this plan (Trenches 1 thru 8 and 13). Samples with the prefix 8607 and 8608 lie in what is considered the Grouse Zone (Trenches 7 & 8).

Initially a suite of 20 samples was collected in this zone to cover an area of anomalous values in rock as outlined by Amoco. Two samples came back with interesting values (Samples 860816 & 860702, 0.088 oz/ton Au and 0.252 oz/ton Au, respectively). Three bulk samples were taken (86-7-1, 86-7-2, 86-8-16). During the course of bulk sampling, spectacular visible gold was found as float near the end of a road-cut made by Amoco (Figure 10). Further rock chips were taken in this area (Sample No's 860818 thru to 860848). Several values up to 0.129 oz/ton Au over a maximum width of 2 metres were noted along a narrow vein zone (highly sheared). Due to a sharp increase in overburden thickness along this zone, it was not considered environmentally sound to continue trenching along strike or in the footwall of this zone. Traces of visible gold were found within the shear which is the likely source of the "spectacular" visible gold. Numerous other anomalous values were obtained in the area covered by Trenches 7 and 8. Two bulk samples higher in the section (86-7-1, 86-7-2) returned values of 0.104 oz/ton Au and 0.061 oz/ton Au, respectively (Table 11).

Rock chip samples taken in the area of the collar of DDH 86-21 (Trenches 1 thru 6) returned several samples greater than 0.01 oz/ton Au. However, the highest value was 0.026 oz/ton Au and has not been followed up at this time.

Trench 13 was cut in an area where a previous bulk sample (metallurgical test in 1985) had returned a value of 0.137 oz/ton Au. A repeat sample (rock chip) on this same sample returned a value of 0.945 oz/ton Au. This was sufficient encouragement to resample along strike of the same strata.

TABLE II
COMPARISON OF ASSAYS OF BULK
SAMPLES WITH ORIGINAL TRENCH ASSAYS

<u>Sample Number</u>	<u>Au G/Tonne</u>	<u>Au oz/Ton</u>	<u>Average value of 8 Assays oz/ton</u>	<u>Original Assay Trench Sample Au oz/ton</u>
EUK BULK 86-7-2 A1	1.22	0.036		
EUK BULK 86-7-2 A2	1.30	0.038		
EUK BULK 86-7-2 A3	1.28	0.037		
EUK BULK 86-7-2 A4	4.95	0.144		
EUK BULK 86-7-2 A5	1.50	0.044		
EUK BULK 86-7-2 A6	2.35	0.069		
EUK BULK 86-7-2 A7	1.50	0.044		
EUK BULK 86-7-2 A8	2.55	0.074		
			0.061	0.252
EUK BULK 86-13-5 A1	0.05	0.001		
EUK BULK 86-13-5 A2	0.04	0.001		
EUK BULK 86-13-5 A3	0.01	0.001		
EUK BULK 86-13-5 A4	0.03	0.001		
EUK BULK 86-13-5 A5	0.05	0.001		
EUK BULK 86-13-5 A6	0.02	0.001		
EUK BULK 86-13-5 A7	0.05	0.001		
EUK BULK 86-13-5 A8	0.04	0.001		
				0.001
EUK BULK 86-9-17 A1	0.76	0.022		
EUK BULK 86-9-17 A2	1.35	0.039		
EUK BULK 86-9-17 A3	0.87	0.025		
EUK BULK 86-9-17 A4	1.06	0.031		
EUK BULK 86-9-17 A5	1.55	0.045		
EUK BULK 86-9-17 A6	0.70	0.020		
EUK BULK 86-9-17 A7	0.89	0.026		
EUK BULK 86-9-17 A8	1.20	0.035		
			0.031	0.180
EUK BULK 86-9-19 A1	0.75	0.022		
EUK BULK 86-9-19 A2	6.20	0.181		
EUK BULK 86-9-19 A3	1.65	0.048		
EUK BULK 86-9-19 A4	1.95	0.056		
EUK BULK 86-9-19 A5	2.30	0.067		
EUK BULK 86-9-19 A6	4.70	0.137		
EUK BULK 86-9-19 A7	0.82	0.024		
EUK BULK 86-9-19 A8	3.38	0.099		
			0.079	0.068

TABLE II (Continued)

**COMPARISON OF ASSAYS OF BULK
SAMPLES WITH ORIGINAL TRENCH ASSAYS**

Sample Number	Au G/Tonne	Au oz/Ton	Average value of 8 Assays oz/ton	Original Assay Trench Sample Au oz/ton
EUK BULK 86-10-24 A1	0.09	0.003		
EUK BULK 86-10-24 A2	0.06	0.002		
EUK BULK 86-10-24 A3	0.03	0.001		
EUK BULK 86-10-24 A4	0.06	0.002		
EUK BULK 86-10-24 A5	0.02	0.001		
EUK BULK 86-10-24 A6	0.21	0.006		
EUK BULK 86-10-24 A7	0.08	0.002		
EUK BULK 86-10-24 A8	0.12	0.004		
			0.003	0.054
EUK 86 BULK 86-12-2 A1	21.00	0.613		
EUK 86 BULK 86-12-2 A2	1.83	0.053		
EUK 86 BULK 86-12-2 A3	3.10	0.090		
EUK 86 BULK 86-12-2 A4	1.38	0.040		
EUK 86 BULK 86-12-2 A5	1.95	0.057		
EUK 86 BULK 86-12-2 A6	3.06	0.089		
EUK 86 BULK 86-12-2 A7	2.20	0.064		
EUK 86 BULK 86-12-2 A8	3.15	0.092		
			0.137	0.072
EUK BULK 86-12-2A A1	14.90	0.435		
EUK BULK 86-12-2A A2	32.70	0.954		
EUK BULK 86-12-2A A3	6.40	0.187		
EUK BULK 86-12-2A A4	14.30	0.446		
EUK BULK 86-12-2A A5	5.80	0.169		
EUK BULK 86-12-2A A6	29.00	0.846		
EUK BULK 86-12-2A A7	17.40	0.508		
EUK BULK 86-12-2A A8	10.40	0.303		
			0.481	0.075
EUK BULK 86-7-1 A1	2.75	0.080		
EUK BULK 86-7-1 A2	2.63	0.077		
EUK BULK 86-7-1 A3	1.98	0.058		
EUK BULK 86-7-1 A4	2.87	0.084		
EUK BULK 86-7-1 A5	6.00	0.175		
EUK BULK 86-7-1 A6	4.35	0.127		
EUK BULK 86-7-1 A7	2.03	0.059		
EUK BULK 86-7-1 A8	5.85	0.171		
			0.104	0.010

However none of the samples taken along this trench system (Trench 13, Samples 861301 thru to 861311) returned significant values. One bulk sample was taken from this area (86-13-5) however it too returned insignificant values (Table 11).

2) Middle Zone

This zone lies between the Grouse and Jay Zones and again was selected for sampling because of previous anomalous results obtained by Amoco. This data would have been plotted with that of the Jay Zone however limitations of the plotter utilized made it necessary to plot this data separately. The designation "Middle Zone" indicates the area lies between the Jay and Grouse Zones. No geological inference should be attached to the name "Middle Zone". A total of 59 samples (including duplicates) and three bulk samples were taken in the area covered by Figures 11 & 12. Four samples returned values greater than 0.050 oz/ton Au. Three of these samples were sampled by bulk methods (Sample No. 860917, 860919 and 861024) with the first two returning significant assay results (0.031 and 0.079 oz/ton Au) when bulk sampled. A second chip sample taken within the area of Sample 860919 (2 metre width) over a width of 0.2 metres as opposed to 2 metres returned a value of 2.406 oz/ton Au. Visible gold was noted in a narrow (5cm) quartz-carbonate sulphide-rich vein within the sample width.

Near the end of the seasons exploration program two samples (862701, 862702) were taken on a fresh road cut southeast of DDH 86-16 (Figures 11 and 12). Both samples were taken over an area approximately 1 by 1 metres. These samples returned assay values of 0.077 and 2.683 oz/ton Au respectively. This is significant as this shear appears to fall in line with the projected strike of the Hangingwall of the Jay Zone. Both samples appear to lie stratigraphically above the samples from Trenches 10 and 11.

Numerous anomalous values of gold (greater than 0.01 oz/ton) are noted in this Middle Zone, however, further ground work is necessary to determine the significance of these values and their relationship with those of the Jay Zone.

3) Jay Zone

Trenches number 11 and 12 are displayed on Figures 13 and 14 however the Jay Zone seems to outcrop within the area underlain by Trench 12 only. Figure 8 is a compilation of the Jay Zone and shows the outline of this mineralized zone in more detail than the trench plans.

Again anomalous values in rocks which appeared not to have been followed up by Amoco led Eureka to resample this area. A total of 66 samples (including duplicates) were taken in the area covered by Figures 13 and 14. Trench 11 returned several anomalous values up to 0.023 oz/ton Au. However none of these samples were selected for immediate follow-up.

Trench 12 returned several significant assay values and as a consequence 3 bulk samples were taken. One sample (86-12-2A) was subjected to mill tests and returned a value of 0.347 oz/ton Au (metallic). Further stripping of overburden in the area of this sample revealed the continuity of this particular vein as well as several en-echelon vein structures with widths of individual veins up to 1.5 metres. A second (parallel) vein (Sample No. 861213) lying several metres stratigraphically above 861202 returned a value of 0.998 oz/ton Au over a width of 1.5 metres.

It was in this area that values of 0.061 oz/ton Au over 33 metres width can be calculated (Figure 21). Previous drilling by Amoco (DDH 83-2) and later by Eureka (Reverse Circulation R 86-2) confirmed the continuity of this zone at depth.

It was on the basis of these trench values combined with previous drilling that Eureka embarked upon a programme of drilling to outline this mineralized zone (Jay Zone).

4.0

REVERSE CIRCULATION DRILLING

4.1

Introduction

Immediately following the completion of the Bulk Sampling a reverse circulation drill rig was brought onto the property to drill test three target areas. The purpose of the reverse circulation drilling was to obtain large bulk samples through mineralized zones previously tested by Amoco. The objective was to "twin" selected diamond drill holes and compare results of the larger volume samples (80-90 pounds rock chips over a 1.5 metre sample interval) of a 4 1/2 inch diameter hole (reverse circulation) with those of a smaller 1 7/8 inch diameter hole (NQ core) as drilled by Amoco. Northspan Explorations Ltd. of Kelowna, B.C. was contracted to complete the above described programme.

Three targets were selected from Amoco's previous drilling, two of which were within the Jay Zone and all within 150 metres of the surface (50 degree holes). However, due to mobility problems of the drill rig, only two targets could be attempted (Jay Zone; DDH 83-2 and DDH 84-9). Problems encountered during drilling allowed for the completion of only 1 of the 4 attempted holes to the desired depth. A total of 405.7 metres were drilled. Table III summarizes the drill data.

TABLE IIISummary Reverse Circulation Drilling

<u>Hole No.</u>	<u>Location</u>	<u>Length</u> (m)	<u>Direction</u>	<u>Dip</u>	<u>Target</u>
R 86-2	Section 55E,2+75S	148.5	045 NE	50	Jay Zone
R 86-2B	as above	99.5	045 NE	60	Jay Zone
R 86-9	Section 54+14E,2+50S	70.5	045 NE	50	Jay Zone
R 86-9B	as above	88.0	045 NE	60	Jay Zone

4.2 Sampling and Analytical Techniques

The purpose of testing the reverse circulation drill was to acquire large bulk (90 pounds) samples through known mineralized horizons as outlined by previous drilling. All sampling of the Reverse Circulation drill cuttings was done by employees or consultants of Eureka Resources Inc. The sample interval was always 1.5 metres (5 feet).

With the Reverse Circulation drill all the cuttings are brought to the surface and directed through a cyclone which then exits the cuttings through the bottom and into a splitter. The hole was then cleaned out by air pressure every 5 feet to prevent the contamination of the next sample. In theory, a reverse circulation sample should give a very clean and uncontaminated sample of the drilled interval.

Upon exiting the cyclone the drill cuttings were directed into a splitter (Jones Riffle splitter for dry samples, or a Tyler splitter for wet samples). For the majority of the samples, a sample of 5 to 10 pounds was required. This necessitated several splits of the exiting sample (whose original weight would be approximately 80 to 90 pounds). However when the drill hole intersected a potential mineralized section the entire sample was collected. Several splits were still made, however all the sample was kept. The smaller split portion was sent for assay (5-10 pounds) as previously, however the larger portion was collected and stored in a large webbed plastic bag.

Four of these larger samples from drill hole R 86-2 were sent to Coastech Research Inc. where they were subjected to metallurgical tests. The remainder were stored at Eureka's storage site near the Frasergold Property.

All of the split samples were sent to Min-En Laboratories where they were Fire Assayed under normal laboratory procedures. Results are plotted on the appropriate sections (Figures 19 and 21). Geological notes were made of the drill cuttings as they came out of the hole. Percentage quartz, sulphide content, alteration (i.e. limonitic) and reaction to HCl were the most easily identifiable features. However since all the reverse circulation drilling was near previously cored holes the geological features of the core are a more reliable description.

4.3 Analytical Results and Interpretation

Only one of the reverse circulation drill holes was completed to the desired depth (R 86-2) of 148.5 metres which was sufficient to intersect the mineralized Jay Zone. Figure 15 graphically illustrates a comparison of the Reverse Circulation assay results with those of the original diamond drill holes (Amoco, 1983, 1984). The assay results obtained from the reverse circulation "chip sample" clearly indicate the larger sample upgrades assay results significantly. Whereas the Hangingwall portion of the Jay Zone originally assayed 0.175 oz/ton Au over 3 metres (DDH 83-2), the results obtained in the reverse circulation hole returned values of 0.526 oz/ton Au over 3 metres. This is an upgrading of almost 3 times. Similarly the entire Jay Zone in the original drill hole (DDH 83-2) ran 0.026 oz/ton Au over 39 metres. The assay results obtained in the reverse circulation drilling were 0.057 oz/ton Au over the same 39 metre interval (106.5 to 145.5 metres).

Drill hole R 86-2B was an attempt to intersect the Jay Zone at a slightly greater depth than that of R 86-2 however the drill rods became stuck and it was not possible to complete the drill hole.

Reverse circulation holes R 86-9 and R 86-9B were attempts to "twin" DDH 84-9 however both holes had to be terminated well before the Jay Zone was intersected. Drill hole R 86-9 was stopped at 70 metres and returned no significant assay results (as expected). Drill hole R 86-9B did return assay values of 0.037 oz/ton Au over 4.5 metres from 67.5 to 72.0 metres that corresponded to a value of 0.027 oz/ton Au over a similar interval in DDH 84-9, however this zone is well above the projected intersection of the Jay Zone. Figure 15 shows this graphically.

4.4 Conclusion

Despite only completing 1 of the 4 reverse circulation holes to the desired depth the results obtained were very satisfactory in that they illustrate the larger volume samples obtained in this drilling tend to upgrade the expected assay results significantly. This is related directly to the nature of the "coarse visible gold" as had been indicated by Amoco's previous drilling and also by the coarse particulate gold discovered during the bulk sampling programme.

It was on the basis of these results that Eureka Resource Inc. decided to utilize larger diameter HQ core in the diamond drill programme planned for Phase II of the 1986 exploration programme on the Frasergold property.

5.0

METALLURGICAL TESTS

In conjunction with the above described Bulk sampling and Reverse Circulation drilling metallurgical tests were made on three samples submitted to Coastech Research Inc.

The bulk sample 86-12-2A from the surface trench of the Jay Zone and two composites from the Reverse Circulation Drilling were submitted. The samples from hole R 86-2 were designated EUK 109.5 which was a composite of the samples from the 109.5 to 112.5 metre interval and EUK 133.5 which was a composite of the samples from the 133.5 to 136.5 metre interval.

Coastech Research Inc. subjected the samples to a gravity and cyanidation recovery process. The samples (composites) were also subject to a number of check assays (including metallics) for comparison purposes. (All assays by Min-En Laboratories Ltd.)

Sample 86-12-2A was subject to 24 assays (including 4 metallic) with a range of values from 0.150 to 1.021 oz/ton Au and averaging out as 0.479 oz/ton Au. The recoverable gold in the sample milled and treated by Coastech was 0.347 oz/ton Au. The sample designated as EUK 109.5 was subject to 8 assays which ranged in value from 0.318 to 0.782 oz/ton Au and averaged as 0.478 oz/ton. The recoverable gold in this sample was calculated to be 0.392 oz/ton as determined by Coastech Research Inc. The final sample submitted was EUK 133.5 and again 8 assays were made of the sample with a range in values from 0.036 to 0.090 oz/ton Au with the average being 0.070 oz/ton Au. The recoverable gold as determined by Coastech was 0.075 oz/ton.

Appendix II describes the above recovery process in detail.

6.0 DIAMOND DRILLING

6.1 Introduction

The second phase of the 1986 exploration programme commenced in mid-September and finished in late October. A total of 18 holes (HQ core) were drilled (plus two abandoned) for a total footage of 2,021 metres. J. T. Thomas Diamond Drilling (1980) Ltd. of Smithers, B.C. were contracted to complete the job.

Figures 6 and 7 show the location of all the drill holes on the Frasergold Property. Diamond drill holes with the prefix 86 indicate the location of all of the 1986 drilling. Table IV summarizes the numerical data related to these drill holes and finally all drill holes are illustrated in cross sectional plots in Figures 16 through to 30. Table V lists all of the significant assay intervals encountered in the 1986 diamond drill programme.

The diamond drill programme was concentrated in 3 distinct areas on the Frasergold property. These were (in the order of discussion) the Grouse Zone, the Jay Zone and the Northwest Extension.

6.2 Technical Procedures

J.T. Thomas Diamond Drilling of Smithers, B.C. was contracted to complete the diamond drilling on the

TABLE IV

SUMMARY DIAMOND DRILLING PROGRAMME 1986

Hole Number	Section	UTM Co-ordinates		Length (metres)	Direction	Dip	Zone
		North	East				
86-15	55+00E	97423.5	65342.0	78.6	045°	-50°	Jay
86-16	55+50E	97390.0	65377.0	72.5	045°	-70°	Jay
86-17	54+50E	97454.5	65306.5	106.3	-	-90°	Jay
86-18	54+50E	97454.5	65306.5	69.5	045°	-50°	Jay
86-19	54+00E	97497.0	65273.5	75.5	045°	-50°	Jay
86-20	53+50E	97528.0	65234.0	72.5	045°	-70°	Jay
86-21	60+00E	97114.5	65717.5	87.8	045°	-50°	Grouse
86-22	59+50E	97160.0	65683.0	69.4	045°	-50°	Grouse
86-23	54+00E	97497.0	65273.5	90.8	045°	-75°	Jay
86-24	54+25E	97478.0	65292.5	69.4	045°	-50°	Jay
86-25	53+25E	97544.0	65215.0	42.0	045°	-50°	Jay
86-26	53+25E	97544.0	65215.0	102.1	-	-90°	Jay
86-27	53+75E	97510.0	65252.0	69.4	045°	-50°	Jay
86-28	41+00E 108.55	98434.0	64287.0	185.9	045°	-50°	NW Extension
86-29	30+00E 0+70S	99087.5	63553.5	19.2	045°	-50°	NW Extension
86-29A	30+00E 0+70S	99087.5	63553.5	200.2	045°	-63°	NW Extension
86-30	35+00E 0+25S	98814.0	63978.0	163.7	045°	-50°	NW Extension
86-31	33+50E 0+72S	98866.0	63826.0	185.3	045°	-50°	NW Extension
86-32	31+50E 0+70S	98993.5	63672.0	45.2	045°	-55°	NW Extension
86-32A	31+50E 0+70S	98993.5	63672.0	212.7	045°	-70°	NW Extension

Frasergold Property. The company supplied a skid mounted Acker Drill with sufficient rods to drill to 250 metres. It had been decided to drill HQ core which has a diameter of approximately 2 1/2 inches. This resulted in a sample size increase of approximately 67% over NQ core. A D-6 cat supplied by the contractor was used to move the drill. Core was delivered to the core shack by the contractor.

6.3 Sampling and Analytical Techniques

All of the core drilled was split and Fire Assayed. Because of the need to have even and unbiased samples it was decided to cut the core with a diamond saw. Approximately 90% of the core was sawn with the remainder split with a conventional hand splitter. The advantage of the diamond saw was that it gave a very even split, could cut perpendicular to the major foliation and the smooth surface made logging easier (particularly for structural measurements). The disadvantages of the saw was it was slower and part of the sample was lost (3 mm thick cut). On numerous occasions visible gold was seen on the cut section of core and several times the same particle of visible gold was seen on both sides of the cut core. The significance of this is it indicated that some coarse gold particles were greater than 3mm in thickness.

A sample interval of 1.5 metres was utilized whenever possible. The only exception was when individual veins of greater than 0.5 metre thickness were encountered or when significant geological contacts were crossed. Assay intervals were laid out by the geologist and the core was logged subsequent to sampling. All samples were bagged in plastic bags and sent to Min-En Laboratories Ltd. in North Vancouver where they were Fire Assayed by conventional Fire Assay techniques. Selected samples (with visible gold) were re-assayed by metallics.

6.4 Analytical Results & Interpretation

1) Grouse Zone

Introduction: Two holes (DDH 86-21, DDH 86-22) were spotted to drill test the Grouse Zone. Surface trenches sampled by Eureka gave values of 0.037 oz/ton gold over 20 metres with individual assays up to 0.252 oz/ton gold over 2 metres. The discovery of spectacular visible gold in float samples with the later confirmation of visible gold along a vein-shear system in-situ made this zone a

drill target (Figure 10). Previous drilling by Amoco had encountered values up to 0.066 oz/ton Au over 3 metres deeper in the section. The target zone was along the basal contact of the knotted phyllites with the underlying black banded phyllites.

Section 60+00E (Figure 16): DDH 86-21 was drilled north 45 degrees east along Section 60+00E at a 50 degree dip to a depth of 87.8 metres. One sighting of visible gold was made in the sample interval from 30.1-31.5 and returned an assay value of 0.080 oz/ton gold. A zone of high but sub-economic values was encountered from 30.1 to 51.0 metres (0.019 oz/ton gold). This zone corresponded with the surface zone outlined during the trenching programme and with Amoco's previous drilling (DDH 83-1) at depth.

The knotted phyllite - black banded phyllite contact was encountered at a depth of 61 metres. Gold values below this contact were visibly absent.

Section 59+50E (Figure 17): DDH 86-22 was drilled to test the same target along strike of the projected zone. This hole was collared on Section 59+50E with the same bearing and dip as DDH 86-21. A zone of anomalous values (up to 0.020 oz/ton gold) was encountered from 42.0 to 52.5 metres. No visible gold was seen in this section. The knotted phyllite - black banded phyllite contact was encountered at approximately 60 metres.

Conclusions: A zone of sub-economic gold values is associated with the basal contact of the knotted phyllites and the black banded phyllites. However due to the numerous other untested targets within the Frasergold property it was decided to discontinue work on this target area.

2) Jay Zone

Introduction: A total of 11 diamond drill holes were spotted to test the Jay Zone. Table IV summarizes the hole information and Table V lists the more significant intersections encountered. The compilation plan, Figure 8 gives the most accurate depiction of the surface projection of the Jay Zone. Drill sections from 55+50E through to 53+25E (Figures 18 through 25) illustrate the geology and assay data clearly.

TABLE V
 SUMMARY DRILL HOLE RESULTS
 FRASERGOLD PROJECT - 1986 DRILL PROGRAMME

ZONE	DRILL HOLE	INTERVAL	WIDTH (metres)	ASSAY oz/ton Au
Jay	R 86-2 inc. inc.	105.0-144.0	39.0	0.057
		105.0-117.0	12.0	0.181
		109.5-112.5	3.0*	0.526
		133.5-136.5	3.0	0.099
Jay	R 86-98	62.5- 65.5	3.0	0.056
Jay	86-15	21.8- 25.5	3.7*	0.039
		34.5- 39.0	4.5	0.020
		52.0- 65.0	13.0	anomalous to 0.32
Jay	86-16	24.0- 42.0	18.0	anomalous to .022
		49.0- 63.0	14.0	anomalous
Jay	86-17	76.5-106.3	29.8	anomalous
		48.5- 62.0	13.5	anomalous
Jay	86-18 inc. inc.	28.5- 66.0	37.5	0.072
		28.5- 51.0	22.5	0.107
		30.0- 31.5	1.5*	1.311
Jay	86-19 inc. inc.	38.9- 60.0	21.1	0.028
		38.9- 47.9	9.0	0.035
		38.9- 39.5	0.6*	0.073
Jay	86-20	53.0- 61.0	8.0	anomalous
		68.1- 68.7	0.6*	0.095
Jay	86-23 inc. inc.	28.0- 64.5	36.5	0.047
		28.0- 48.6	20.6	0.072
		47.6- 48.6	1.0*	1.02
Jay	86-24 inc.	41.6- 60.0	18.4	0.068
		41.6- 43.7	2.1*	0.223
Jay	86-25	Hole terminated before mineralized zone		
Jay	86-26 inc.	60.0- 63.5	3.5	0.061
		91.5-102.2 (end of hole)	10.7	0.026
		99.0-101.5	1.5*	0.083

.../ continued

TABLE V (Continued)

SUMMARY DRILL HOLE RESULTS
FRASERGOLD PROJECT - 1986 DRILL PROGRAMME

ZONE	DRILL HOLE	INTERVAL	WIDTH (metres)	ASSAY oz/ton Au
Jay	86-27 inc.	22.5- 30.0	7.5	0.040
		46.0- 57.0	11.0	0.068
		46.0- 47.0	1.0*	0.302
Grouse	86-21	30.1- 31.5	1.4	0.080
		30.1- 51.0	20.9	0.019
Grouse	86-22	42.0- 53.0	11.0	anomalous
N.W. Extension	86-28	49.5- 51.0	1.5	0.057
		108.0-109.1	1.1	0.071
		123.0-127.5	4.5	0.023
		107.0-130.0	23.0	anomalous to .071
N.W. Extension	86-29	115.5-121.5	6.0	0.19
		138.0-158.0	20.0	anomalous to .039
N.W. Extension	86-30 inc.	29.3- 31.5	2.2	0.065
		52.5- 79.5	27.0	0.021 values to .074
		55.5- 61.5	6.0	0.065
N.W. Extension	86-31	107.0-128.0	21.0	anomalous to .020
N.W. Extension	86-32 inc. inc.	129.0-153.0	24.0	0.028
		146.0-153.0	7.0	0.054
		193.5-201.0	7.5	0.062
		195.0-196.5	1.5	0.223
		129.0-162.0	33.0	values to 0.039

* indicates Hangingwall. at Jay Zone

As indicated earlier in the report the Jay Zone has been exposed at surface from samples taken in Trench 12 and had been tested by at least two diamond drill holes (DDH 83-2 and DDH 84-9) in previous years. The drill values encountered by the diamond drilling have been confirmed and upgraded by the one reverse circulation hole (R 86-2) drilled by Eureka Resources Inc. during Phase I of this exploration programme. It was based upon this surface and underground data that Eureka embarked upon a systematic and closely spaced drill programme to outline the dimensions of the Jay Zone. A total of 11 holes were drilled for a total of 848.6 metres.

A section by section discussion outlines the results obtained. All holes (except those of 90 degree dip) were drilled along an azimuth of 045 degrees to the northeast.

Section 55+50E (Figure 18): DDH 86-16 was drilled at an angle of 70 degrees. Two zones of anomalous values were obtained and are illustrated on the sections and plan. Values up to 0.012 oz/ton gold over 1.5 metre intervals were obtained within these two intersections (24.0 - 42.0 metres and 49.0 - 63.0 metres). The top of the uppermost intersection is well veined. The initial interpretation of this section was that the lack of values and significant quartz veining might have indicated the lensing out of the Jay Zone. However trench samples (862701, 862702) taken approximately 50 metres southeast of this drill hole indicate this is not the case.

Most of this hole is drilled through knotted phyllites however in the area of the anomalous values increasing amounts of black banded phyllites are encountered. It is now interpreted that although the Hangingwall values in this section may not be equal to other sections with the problem of sampling coarse gold these low values should not be unexpected nor considered disappointing.

Section 55+00E (Figure 19): DDH 86-15 was spotted along this section and lies above previously encountered values in drill hole DDH 83-2 and R 86-2. Although initial assay results were disappointing, there is a significant amount of quartz veining within this drill hole. The Hangingwall of the Jay Zone is distinct and although carrying low values (0.039 oz/ton gold over 3.7 metres) again as in DDH 86-16 the nature of the gold mineralization on this property would

statistically favour lower values even in areas of economic mineralization. Below this upper section (21.8 - 25.5 metres) are two other sub-economic intervals of mineralization. Values of 0.028 oz/ton gold over 4.5 metres from 34.5 to 39.0 metres and a zone from 52.0 to 65.0 metres with values to 0.015 oz/ton gold are encountered.

Section 54+50E (Figure 20): Two drill holes were spotted on this section. DDH 86-17 was drilled at a 90 degree dip to a depth 106.3 metres. A considerable amount of quartz veining was encountered in this hole with the Hangingwall of the Jay Zone quite distinct (47.5 to 51.5 metres). Visible gold was noted within the Hangingwall but assay values were very low. A second zone of anomalous values was encountered in the drill hole from 76.0 metres to the end of the hole and it appears they could continue at depth. The highest assay value encountered in DDH 86-17 was only 0.020 oz/ton gold. However the amount of quartz veining and the first sighting of visible gold in Eureka core was sufficient encouragement to spot a second hole on this section DDH 86-18, to drill test the Jay Zone at a shallower angle.

DDH 86-18 was drilled at a dip of 50 degrees. The Hangingwall of the Jay Zone was encountered and visible gold was sighted in the 60.0 to 61.5 metre interval. This hole returned the most spectacular assay value yet in the drilling of the Frasergold Property. A value of 1.311 oz/ton gold (30.0 - 31.5 metre interval) was obtained in the Hangingwall of the Jay Zone. A considerable width from 28.5 through to 51.0 metres assayed 0.107 oz/ton gold over an interval of 22.5 metres. This section corresponds very closely to the values obtained in the trenching programme (Trench 12). Anomalous assay values are found to the bottom of this hole.

Section 54+25E (Figure 21): One drill hole (DDH 86-24) was drilled along this section to confirm values previously obtained in the surface trenches and the previous drilling by Amoco and Eureka (Phase I). The Hangingwall of the Jay Zone was encountered with assay values of 0.223 oz/ton gold obtained over an interval from 41.6 to 43.7 metres. The footwall mineralized zone also corresponds very well to the surface showings with an assay interval of 16.4 metres returning a grade of 0.068 oz/ton Gold from 41.6 to 60.0 metres. No visible gold was sighted in this hole.

Section 54+00E (Figure 22): Two drill holes were spotted along this section (DDH 86-19, DDH 86-23). A mineralized zone was indicated in the assay values in the upper part of DDH 86-19. This zone was not seen in previous drilling. An average assay value of 0.024 oz/ton gold over an interval of 7.5 metres was obtained from 18.0 to 25.5 metres.

The Hangingwall of the Jay Zone was intersected at 38.9 metres and a value of 0.073 oz/ton gold was obtained over a 0.6 metre interval. Again as in previous holes the Hangingwall Zone was underlain by a lower grade horizon with assay values of 0.035 oz/ton gold over a 9 metre interval from 38.9 to 47.9 metres. Visible gold was sighted in the footwall interval of this hole (58.5 - 60.0 metres). The considerable amount of veining in this hole provided encouragement to locate a second hole on this section.

DDH 86-23 was drilled with a 90 degree dip. Initial visual examination of the core was quite encouraging and later assay results confirmed this. The upper mineralized interval outlined in DDH 86-19 was encountered in this drill hole and has been interpreted to form part of the Hangingwall Zone of the Jay Zone (see Section 54+00). The Hangingwall has been interpreted as going through the 47 metre mark in this hole which corresponds to a spectacular assay value of slightly greater than 1 ounce per ton gold over an interval of 1 metre from 47.6 to 48.6 metres. The mineralized zone from 28.0 to 64.5 returned a value of 0.047 oz/ton gold over an interval of 36.5 metres. Visible gold was identified twice in this hole.

A series of sludge samples were taken in this hole from 51.2 to 81.7 metres. All returned anomalous to economic grade values. The assay value of the sludge samples in the interval from 66.4 to 75.6 metres averaged out to 0.132 oz/ton gold over the 9.2 metre interval. These values did correspond to anomalous values in the core however they were of a magnitude greater than the core assays.

Section 53+75E (Figure 23): One hole DDH 86-27 was spotted on this section. A total of 4 sightings of visible gold were made in this hole. Again, as in the previous section two mineralized intersections were interpreted. The Hangingwall of the Jay Zone was interpreted to be the lower mineralized

horizon. This interpretation seems to fit from section to section. The upper mineralized horizon is illustrated on both the section and plan map. An average value of 0.040 oz/ton gold over an interval of 7.5 metres from 22.5 to 30.0 was obtained for this intersection.

A value of 0.302 oz/ton gold from 46.0 to 47.0 metres was obtained in the Hangingwall Zone. Combined with the footwall, assays of 0.068 oz/ton gold were obtained over an interval of 11 metres from 46.0 to 57.0 metres. The significance of this section is that it seems to indicate that the Jay Zone is plunging towards the northwest. This corresponds with the trend of the regional geology.

Section 53+50E (Figure 24): DDH 86-20 was a disappointing hole. However, there is ample evidence to indicate that it wasn't drilled deep enough. The upper mineralized horizon was clearly encountered. Here values up to 0.025 oz/ton gold were found in the interval from 53 to 61 metres. However, one interval near the end of the hole might be interpreted as being part of the Hangingwall of the Jay Zone. Here a value of 0.095 oz/ton gold was obtained in a narrow but steeply dipping vein.

Section 53+25E (Figure 25): Two holes were drilled on this section. DDH 86-25 was drilled at a 50 degree dip but due to drilling problems it could not be continued beyond 42 metres. Although significant veining was encountered in this hole neither the upper mineralized horizon nor the Jay Zone appear to have been intersected. Sludge samples were collected in this hole from 5.2 to 29.9 metres in 3.1 metre intervals. The interval from 11.3 to 20.7 metres returned a value of 0.040 oz/ton gold in the sludge. This is significant in the fact that the highest value in the assayed core was only 0.011 oz/ton gold over an interval of 1.5 metres.

Upon abandoning this drill hole, a second hole (DDH 86-26) was drilled from the same location at a 90 degree dip to a depth of 102.1 metres. Unlike the previous hole visible gold was encountered and it appears the first mineralized horizon was intersected from 60.0 to 63.5 metres where an assay value of 0.061 oz/ton gold was obtained over the 3.5 metre interval. Two sludge samples taken in the upper part of the hole returned insignificant values.

Visible gold was seen at the 92 metre mark and it has been interpreted that this is the top (Hangingwall) of the Jay Zone. An average assay value of 0.026 oz/ton Au over 10.7 metres from 91.5 to the end of the hole was obtained. Again it should be stressed that this interpreted plunge of the Jay Zone corresponds to the regional geology.

Conclusions: The mineralized Jay Zone (strike of 30 degrees to the northwest) has been drill tested over a strike length of 225 metres (Figure 8). There is strong geological evidence that the zone extends to the southeast as indicated by the 2 rock chip samples (862701, 862702). Drill intersections also indicate the ore horizon has a plunge along its strike (probably in the order of 10 degrees to the northwest).

There appears to be consistency to a high grade Hangingwall zone associated with this mineral horizon. This high grade Hangingwall grades up to 1.3 oz/ton gold over 1.5 metre widths. The Hangingwall is underlain by a thicker but lower grade mineral zone which has shown a thickness up to 30 metres. Grades of greater than 0.1 oz/ton gold have been composited across this horizon.

Large particles of "free gold" (up to 3x4x5 mm) have been identified in some of the drill core within the Jay Zone (Table VI). There are significant problems encountered in trying to evaluate deposits with coarse "free gold". Estimates must be made of particle size and frequency distribution in order to properly estimate the true grade of such mineral bodies.

TABLE VI
VISIBLE GOLD INTERSECTIONS

Hole No.	Interval	Sample No.	Assay Value oz/ton Au
86-17	57.0 - 58.5	31136	0.005
86-18	60.0 - 61.5	31237	0.046
86-19	58.5 - 60.0	31291	0.035
86-21	30.1 - 31.5	31418	0.080
86-23	28.0 - 29.5	31467	0.043
86-23	31.8 - 32.4	31470	0.164
86-24	46.5 - 48.0	31581	0.047
86-26	91.5 - 93.0	31327	0.038
86-27	28.5 - 30.0	31718	0.069
86-27	46.0 - 42.0	31730	0.302
86-27	47.0 - 48.0	31731	0.019
86-27	49.5 - 51.0	31377	0.100
86-29A	153.0 - 154.5	31968	0.001
86-30	37.5 - 39.0	32022	0.041
86-30	55.5 - 57.0	32034	0.078
86-31	108.0 - 109.5	32155	0.003
86-31	123.0 - 124.5	32165	0.020
86-32A	146.0 - 147.6	32301	0.031

All work on the Frasergold Property by Eureka and others has indicated the larger the sample (core or chips) seems to have resulted in the increased grade of the area being sampled.

3) Northwest Extension

Introduction: Because of the success encountered in drilling within the Jay and Grouse Zones, Eureka decided to step out to the Northwest of Amoco's previous drilling and to drill test the geochemical anomaly as indicated on the 1:2,500 compilation plans. Attempts had been made by Eureka to test parts of this anomaly by trenching in the 1985 field season, however, overburden thickness (greater than 10 metres) prevented bedrock from being reached. Anomalous values were found in soil samples at the bottom of some of the trenches.

A total of 5 holes were planned with an estimated depth from 200 to 250 metres each. The objective was to drill through the geochemical anomaly and to penetrate the knotted phyllite - black banded phyllite contact to insure some stratigraphic control. There was no surface geologic control. All drill holes were tied to the baseline established during the original geochemical survey.

Section 41+00E (Figure 26): This hole (DDH 86-28) was spotted approximately 110 metres south of the baseline and drilled at a 50 degree angle towards the northeast (045 degree azimuth). The hole penetrated highly veined, alternating knotted - black banded phyllites prior to entering what was originally identified as a felsic pyroclastic unit. This particular unit had a high quartz content and was sulphide-rich (to 10%). Later petrographical work determined this unit to be a carbonate-quartz-sericite-chlorite schist of sedimentary origin. This unit seems to mark the knotted phyllite - black banded phyllite contact.

No visible gold was identified in this hole. One section of anomalous values was found from 106 through to the 126 metre interval which lies directly above the carbonate-quartz-sericite-chlorite schist. Within this zone is one intersection of 4.5 metres that grades 0.023 oz/ton gold. This horizon is very close to the stratigraphic level where the Jay Zone is situated.

Section 35+00E (Figure 27): DDH 86-30 was spotted 25 metres south of the baseline along Section 35+00E drilled at a 50 degree dip towards the northeast. It was collared in knotted phyllites. Black banded phyllite was entered near the 111 metre mark. The carbonate-quartz-sericite-chlorite schist was cored at the 129 metre interval. The

entire hole was well veined particularly in the upper sections and visible gold was sighted twice.

Assay values were low but not disappointing. A mineralized zone from 52.5 to 79.5 metres returned values of 0.021 oz/ton gold over 27 metres. Within this section was one interval of 6 metres that ran 0.065 oz/ton gold. Again this gold enriched horizon seems to have a similar stratigraphic level as that of the Jay Zone.

Section 33+50E (Figure 28): This hole (DDH 86-31) was spotted to test the continuity of the surface geochemical expression. The hole bottomed at just over 185 metres in a black banded phyllite after penetrating knotted phyllite in the upper section of the hole. Overburden was in the order of 20 metres thick. The units in this hole were highly veined. Again the carbonate-quartz-sericite-chlorite schist was encountered (2 horizons). The first narrow horizon of this unit was located in the centre of a zone of anomalous gold values where individual assays ranged up to 0.020 oz/ton gold. This zone, from 105 to 126 metres was located in the hangingwall contact of the knotted phyllites and the black banded phyllites.

Visible gold was noted twice within this section. Despite the lack of high assay values, the continuity of the mineralized horizon is clearly indicated along this section. Some sludge samples were taken in this hole from 115.2 through to 142.7 metres. The upper 7 intervals (21 metres) all returned anomalous assay results (0.003 to 0.012 oz/ton gold over 3 metre intervals). These high values correspond to the upper mineralized horizon and indicate some down hole dispersion of gold in the sludge samples.

Section 31+50E (Figure 29): This hole DDH 86-32A was the last hole drilled in the 1986 programme and presented the most technical problems due to the extreme overburden thickness. The hole was initially collared with a 55 degree dip however it was not possible to ream the casing to bedrock so the initial hole (DDH 86-32) was abandoned and another hole was redrilled with a 70 degree dip. Bedrock was encountered at 39.5 metres and the hole continued to a depth of 212.7 metres. It was the last run of this hole that a calcareous phyllite was cored which was considered to be an interval within the black banded phyllite.

Despite the technical problems in completing this hole the assay values were the best encountered in the drilling of the northwest extension. Values up to 0.223 oz/ton gold over 1.5 metres were encountered. Geologically this hole has a very high percentage of quartz veining which is shown on the sections. Two zones of mineralization were encountered as well as one identification of visible gold. The first intersection was encountered from 129 to 153 metres where the 24 metre interval assayed 0.028 oz/ton gold. The second intersection from 193.5 metres to 201 metres assayed 0.062 oz/ton gold and included the 0.223 oz/ton assay.

Sludge samples were collected from this hole where possible and as seen on the section the interval from 157.2 through to 194.5 metres which corresponded to a non-mineralized horizon in the drill core returned very anomalous results in the sludge assays. Values in the sludge samples ranged from 0.015 to 0.049 oz/ton gold over 3 metre intervals. Core recovery in this section of the hole was excellent. The initial conclusion is that the upper mineralized horizon is enriching the water return in these samples.

Section 30+ 00E (Figure 30): Hole DDH 86-29A was the most northwesterly hole drilled in the series of step-outs. This step out (from DDH 86-28) was approximately 1.1 kilometres along the strike of the geochemical anomaly. Ore grade mineralization was not encountered but two sub-economic horizons of mineralization were outlined. With this in mind, this hole effectively extended the mineralized zone(s) from Section 67+00E (DDH 84-12) to 30+00E which represents a target length of 3.7 kilometres.

Deep overburden forced the abandonment of DDH 86-29 at a depth of 19 metres. DDH 86-29A was drilled at a steeper angle of 63 degrees and penetrated 55 metres of overburden before entering bedrock of knotted phyllite. The entire hole was well veined with one sighting of visible gold at the 154 metre interval.

As in DDH 86-32A two mineralized horizons were noted however the assay values were not of the same magnitude. The uppermost mineral horizon assayed 0.019 oz/ton gold over an interval of six metres from 115.5 to 121.5. A second horizon was located from 140.1 to 160.0 where the highest assay value

was 0.039 oz/ton gold over a 1.5 metre interval. Again, as in previous holes in the step-out program, the carbonate-quartz-sericite-chlorite schist was encountered prior to the intersection of the basal section of the drill target (the knotted phyllite -banded phyllite contact).

The assay and geological results obtained from the drilling of the northwest extension of the geochemical anomaly clearly indicate the gold enriched horizons located by Amoco during the initial drill programmes do extend along the projected strike of the underlying phyllite. The grades obtained are not the same magnitude as those found in the Jay Zone however they compare quite favourably to the results obtained in Amoco's initial drilling.

The variation of thickness of overburden was a surprise. It appears that the northwesternmost holes have been spotted on a relic avalanche slope as seen by the size, type and distribution of boulders (volcanics) in the overburden. The geochemical anomaly in this area was never as well delineated as in the Jay and Grouse Zones, however with the discovery of very significant gold values in the core it is hard to dispute the validity of the geochemical survey results.

The location of significant gold mineralization in the Northwest extension (up to 0.223 oz/ton gold over 1.5 metres) has extended the target area for the discovery of economic gold deposits on the Frasergold property significantly. Mineralization has now been located over a strike length of greater than four kilometres. As these holes were essentially "wildcats" the results obtained in drilling of this extension should be looked upon very favourably.

7.0

DISCUSSION - 1986 PROGRAMME

The advances made by Eureka during the 1986 exploration program have been quite substantial.

Attempts were made to address the sampling problem that was recognized in the early work by Amoco. A zone of potentially economic mineralization has been identified and finally it has been firmly established that the geochemical anomaly outlined in earlier work is related to bedrock mineralization. This data provides strong evidence that the full extent of the geochemical anomaly striking northwest through the claims is related to bedrock mineralization. Consequently an additional four kilometres of strike length has the potential for hosting economic mineralization. Preliminary geochemical information on a new claim block (Mac 10) that ties on to the northwest boundary of the Frasergold Property indicates that it too is underlain by the same gold enriched horizon(s).

7.1

Sampling

During the course of the 1986 programme, Eureka Resources Inc. established some important facts relating to the sampling problems of the Frasergold Property.

As in previous drilling by Amoco, numerous sightings of coarse visible gold were reported in the core. However, more often than not, the assay results returned for the samples in question did not seem to fairly represent the true grades of the mineralization. Tables VI and VII illustrate this.

Metallic assays were run on eight of the most impressive samples containing "spectacular" visible gold. The results obtained by metallic assay are impressive. The original assay value has been virtually doubled (Table VII). Metallics are more accurate simply because the entire sample is ground with the oversize fired in total and the undersized fired by normal assay techniques. It should be noted that none of the more impressive assays returned in the drilling programme were related to visible gold.

The reverse circulation drilling was designed to specifically compare assay values from a large "bulk" sample (i.e. the chips from the 4 1/2" hole) with those values obtained in diamond drilling with NQ core. Figure 15 illustrates this comparison quite adequately.

Finally, the bulk sampling programme was able to demonstrate very conclusively the wide variation in assay results that can be expected from a single supposedly "homogenous" sample (Table II).

All the above information points to the conclusion that drilling should be with the largest diameter core feasible or by simply taking the largest samples possible. The grades encountered in the 1986 drilling by Eureka (HQ core) have been much more impressive than those encountered during the drilling campaign by Amoco (NQ core).

TABLE VII

Comparison of Fire Assay Values with Metallic Assays in
Visible Gold Intersections

<u>Hole No.</u>	<u>Intersection</u>	<u>Sample No.</u>	<u>Original Assay oz/ton</u>	<u>Metallic Assay oz/ton</u>
17	58.5-60.0	31137	.005	.020
	58.5-60.0	31596	.006	.010
18	60.0-61.5	31237	.046	.055
19	58.5-60.0	31291	.035	.106
24	46.5-48.0	31581	.047	.123
27	47.0-48.0	31731	.010	.046
"	48.0-49.5	31732	.006	.010
"	49.5-51.0	31733	.100	.140
		Average	.033	0.064

7.2 Reserve Potential

Ore reserves have not been calculated as part of this report however potential "mineral reserves" can be determined very quickly from data available from the Jay Zone. This information is meant to illustrate the reserve potential of the Frasergold Property.

The Table below illustrates the comparison between drill hole data established in the 1983/1984 programme and that of the 1986 drilling programme. Data from the Jay Zone is taken to illustrate this comparison

TABLE VIII

JAY ZONE

Comparison 1983/84 Drill Data
with 1986 Drill Data

<u>Cut-off Grade</u>	<u>1983/84 Programme</u>		<u>1986 Programme</u>	
	<u>Width</u>	<u>Grade Au</u>	<u>Width</u>	<u>Grade Au</u>
Hangingwall (0.05 oz/t)	2.2m	.205 oz/t	1.7m	.441 oz/t
Entire Zone (0.03 oz/t)	23m	.035 oz/t	22m	.060 oz/t
(0.01 oz/t)	32m	.023 oz/t	32m	.040 oz/t

If a two metre mining width is projected the full length of the drilled area (1.5 kilometres) to a depth of 140 metres we could expect a tonnage in the neighbourhood of 1.2 million tons with a grade of 0.4 oz/ton Au for potential underground reserves.

Alternatively, if a mining width of 30 metres was projected in the same dimensions, a reserve potential in the range of 20 million tons with a grade in the vicinity of 0.060 oz/ton Au could be calculated. A zone of these dimensions could be mined by open pit methods.

It should be stressed that these reserve predictions are based on data acquired within the Jay Zone. However Amoco did establish mineral intersections throughout the drilled length of the geochemical anomaly. Work by

Eureka has demonstrated the existence of mineralized horizons over the four kilometres of the total strike length of 10 kilometres (ground held by Eureka). Further testing along the strike of the geochemical target is necessary to fully outline the tonnage potential of the Frasergold Property.

8.0

CONCLUSIONS8.1 Mineralization

Fine to coarse particles of gold are mostly associated with quartz veins and segregations formed during regional metamorphism. The gold is considered to have originated from the fine-grained black clastics that gave rise to the knotted phyllites. No "external" sources of gold or silica are thought necessary.

Mobilization of quartz, along with particulate gold, occurred along various foliation planes, producing both "bedded" and tranverse veins. Extreme attenuation of fold limbs and shearing along foliations have resulted in quartz boudins, rolls and disrupted hinges. In the last stage of the largely synchronous metamorphism and deformation, quartz rolls and mullions developed along the northwest plunging intersection of the crenulation cleavage and the older axial plane schistosity. This trend is slightly to the west of the northwest regional lithological trend.

8.2 Trench and Bulk Sampling

The trench and bulk sampling has confirmed the location of surface mineralization that has a relationship to mineralized zones previously defined by diamond drilling. The bulk sampling has also confirmed the need to take as large a sample as possible to insure the assay values are reasonably representative of the true grades.

8.3 Reverse Circulation Drilling

The reverse circulation drilling has highlighted the importance of taking larger samples to represent the true grades of mineralization. In addition the costs of drilling in areas of known mineralization can be greatly reduced providing accurate geologic control is not necessary.

8.4 Diamond Drill Programme

The diamond drilling programme has demonstrated the mineralized horizons exist at least 1.5 kilometres along strike (to the northwest) from any previous drilling by Amoco. This drilling programme has also demonstrated the validity of the geochemical surveys and their relationship to bedrock source of gold mineralization.

9.0

RECOMMENDATIONS9.1 Proposal

Based on the above conclusions a very comprehensive exploration and development programme is proposed for the Frasergold Property. This programme would include trenching, drilling (core drilling and reverse circulation) as well as a limited amount of underground development.

This programme would include the establishment of a small mill facility to process the bulk samples taken in the underground programme. This would be to help establish true recoverable grades of any ore mined.

A preliminary budget based on the above proposal is presented to carry out the 1987 evaluation of the Frasergold Property.

9.2 Estimated Cost**Drilling**

2,000 metres of HQ diamond drilling at \$130/metre	\$ 260,000
---	------------

3,000 metres of Reverse Circulation drilling at \$70/metre	210,000
---	---------

Mining 500' Adit at \$425/foot (all inclusive)	212,500
--	---------

Mill 20 tons/day (rental \$65,000/month)	195,000
---	---------

Operating Costs \$750/day; 50 days	37,500
---	--------

Site Preparation	25,000
-------------------------	--------

Trenching	50,000
------------------	--------

Total Estimated Costs	\$ 990,000
Contingency 10%	100,000

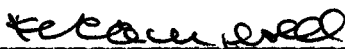
Total Proposed Budget	<u><u>\$1,090,000</u></u>
------------------------------	---------------------------

10.0

STATEMENT OF QUALIFICATIONS

I, KENNETH VINCENT CAMPBELL, resident of Vancouver, Province of British Columbia, hereby certify as follows:

- 1) I am a Consulting Geologist with MineQuest Exploration Associates Ltd. at 201-311 Water Street, Vancouver, British Columbia, V6B 1B8.
- 2) I graduated with a degree of Bachelor of Science, Honours Geology, from the University of British Columbia in 1966, a degree of Master of Science, Geology, from the University of Washington in 1969, and a degree of Doctor of Philosophy, Geology, from the University of Washington in 1971.
- 3) I have practiced my profession for 20 years. I am a Fellow of the Geological Association of Canada (F0078).
- 4) I am a member of good standing with the following professional societies; The American Society of Photogrammetry and Remote Sensing and the International Association of Engineering Geologists.
- 5) This work is based on my geological field examination of the Frasergold Property throughout the 1986 work programme.
- 6) I have no interest in shares or business of Eureka Resources Inc. nor do I intend to have any such interest.



K.V. Campbell, Ph.D.
Geologist

Dated at Vancouver, B.C.,
this 19th day of December, 1986

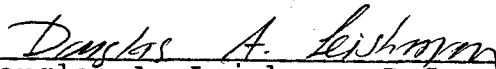
Douglas A. Leishman, B.Sc., A.R.S.M.
Consulting Geologist

#74-1750 Summit Drive, Kamloops, B. C.

Mailing Address: P. O. Box 1288 M.P.S., Kamloops, B. C. V2C 6H3
Telephone 604-374-4788

I, DOUGLAS A. LEISHMAN, of Kamloops, British Columbia,
Do Hereby Certify That:

- 1) I am a self employed consulting geologist with an office at the above address and was employed by Eureka Resources Inc. to supervise the programme described within this report.
- 2) I am a graduate of the Northern Alberta Institute of Technology, Exploration Technology (Minerals Option), 1971, Edmonton, Alberta.
- 3) I am a graduate of the Imperial College of Science and Technology, Royal School of Mines, London, England, B.Sc. (Hons.) Mining Geology, 1981. I have been actively involved in mineral exploration since 1971.
- 4) I am the co-author of this report which is based on an exploration programme carried out by myself with the assistance of field technicians.



Douglas A. Leishman, B.Sc. (Hons).
Geologist

Dated at Vancouver, B.C.,
this 19th day of December, 1986