

ASSESSMENT REPORT  
OF  
SOIL GEOCHEMISTRY AND SURVEYING  
*1/89*  
BRE CLAIMS  
SKEENA MINING DIVISION  
NTS 103F/9E

MUTUAL RESOURCES LIMITED  
M. HOLTBY FEB. 5/88

GLOW

LOG NO: 0212

RD.

## ACTION:

FILE NO:

**AN ASSESSMENT REPORT  
of  
SOIL GEOCHEMICAL SAMPLING  
and  
SURVEYING  
on the**

## BRE CLAIMS

## SKEENA MINING DIVISION, B.C.

N.T.S. 103F/9E  
Lat./Long. 53°30' 132°11'

by

MAX H. HOLTBY  
MUTUAL RESOURCES LTD.

**1100 - 1199 West Hastings Street  
Vancouver, B.C.  
V6E 3V4**

February 5, 1988

FILMED

## LOCAL BRANCH GOVERNMENT REPORT

ARIS SUMMARY SHEET

District Geologist, Victoria

Off Confidential: 89.01.27

ASSESSMENT REPORT 17015

MINING DIVISION: Skeena

PROPERTY: Bre

LOCATION: LAT 53 32 30 LONG 132 13 00  
UTM 08 5935916 684429  
NTS 103F09E

CLAIM(S): Bre 1-50,Bre 1 Fr.,Woof 1 Fr.

OPERATOR(S): Mutual Res.

AUTHOR(S): Holtby, M.H.

REPORT YEAR: 1988, 69 Pages

COMMODITIES

SEARCHED FOR: Gold

GEOLOGICAL

SUMMARY: The property is underlain by felsic volcanics and sediments including tuff and quartz-eye rhyolite. The volcanics are sheared and kaolinized. Much of the property is overlain by thick fluvial and glacial deposits. Mineralization discovered to date consists of disseminated pyrite.

WORK

DONE: Geochemical, Physical

LSUR 55.3 km

Map(s) - 2; Scale(s) - 1:5000

SOIL 448 sample(s) ;AU,AG,AS,HG  
Map(s) - 2; Scale(s) - 1:2500

RELATED

REPORTS:

15647

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2. Analysis and Analytical Methodology
3. Soil Sample Collection Records

MAPS

Location Map	after page 1
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Claim Map	after page 2
Survey of Bre 1-32 and Woof Fr, Figure 87-1	in pocket
Survey of Bre 33-50 and Bre 1 Fr, Figure 87-2	in pocket
Soil Sampling - Hg & Au in ppb, Figure 87-3	in pocket
As & Ag in ppm, Figure 87-4	in pocket

## **1. INTRODUCTION**

This assessment report covers a claim location line and post survey of all two-post claims comprising the BRE property and a 448 sample soil geochemical survey on 10.9 line-km of grid on the Bre 42 and 44 to 48 claims. The 1987 field programme was carried out from September 15 to November 23, 1987 with soil sample analysis carried out in December 1987.

### **1.1 Location and Access**

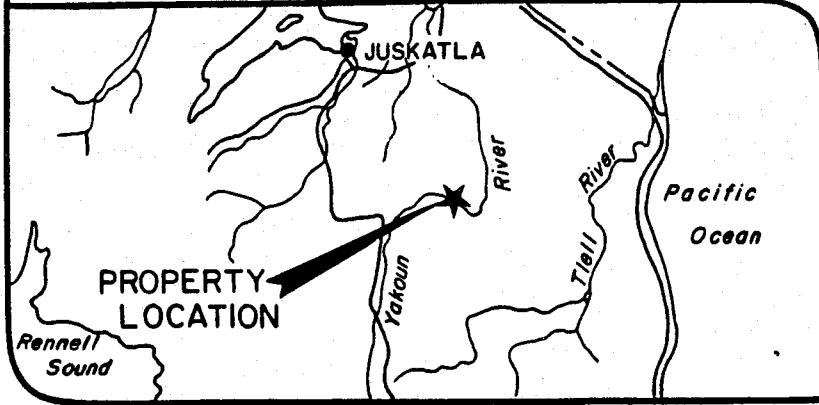
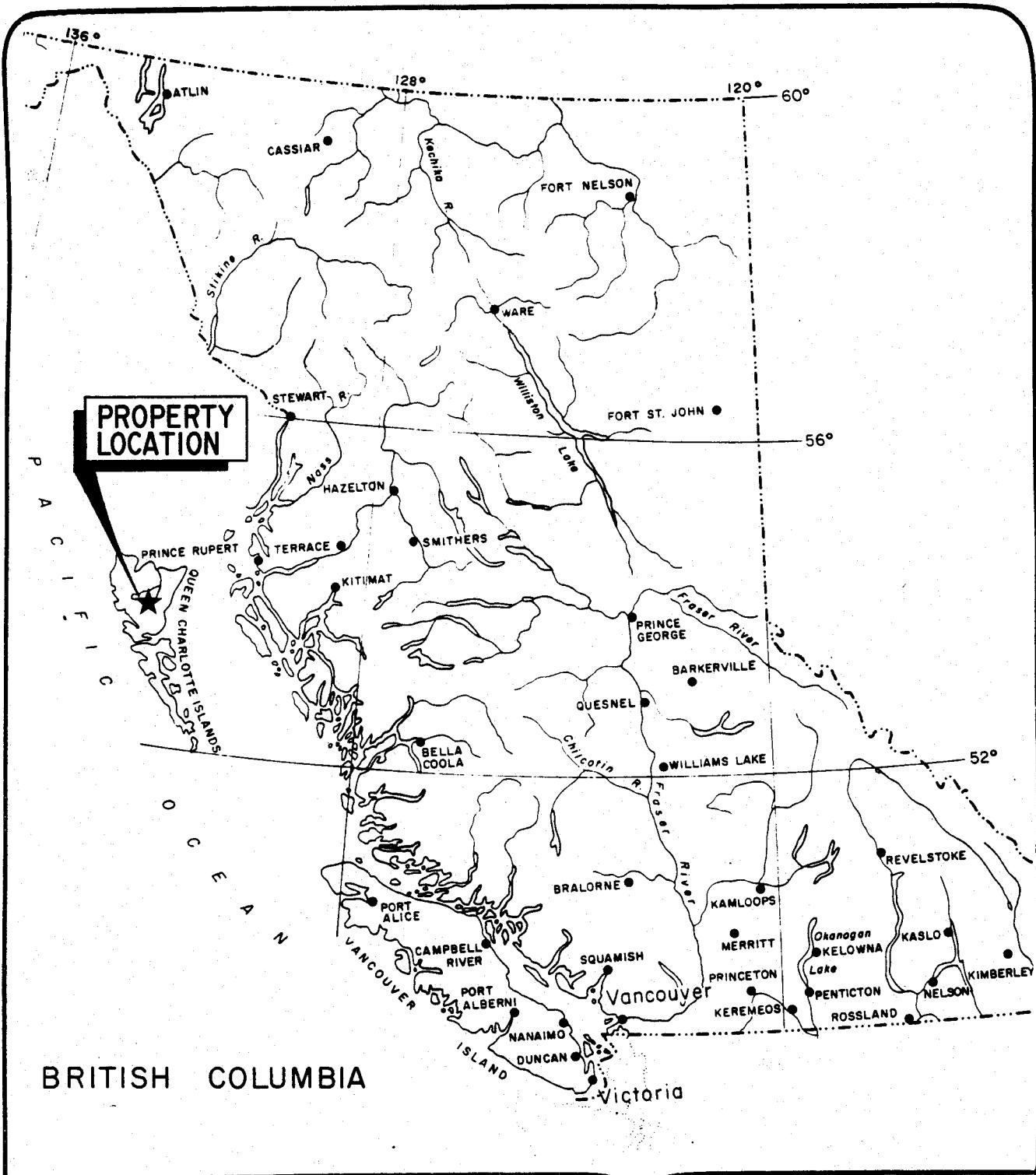
The BRE property comprises two claim blocks on Graham Island of the Queen Charlotte Islands. The two claim blocks, adjoining the Cinola gold deposit to the south, north and east, are centered 15 km and 20 km south of Port Clements.

Access is via a well maintained MacMillan Bloedel mainline logging road from Port Clements. The northern claim block is accessible from the mainline road by branch line 42 which is gated and controlled by Consolidated Cinola Gold Mines. Branch 42 cuts across the Bre 46 and 48 claims. The southern claim block is accessible via branch lines 40 and 43 located on either side of the Yakoun River. Total distance by road from Port Clements is 32 km.

### **1.2 Topography and Vegetation**

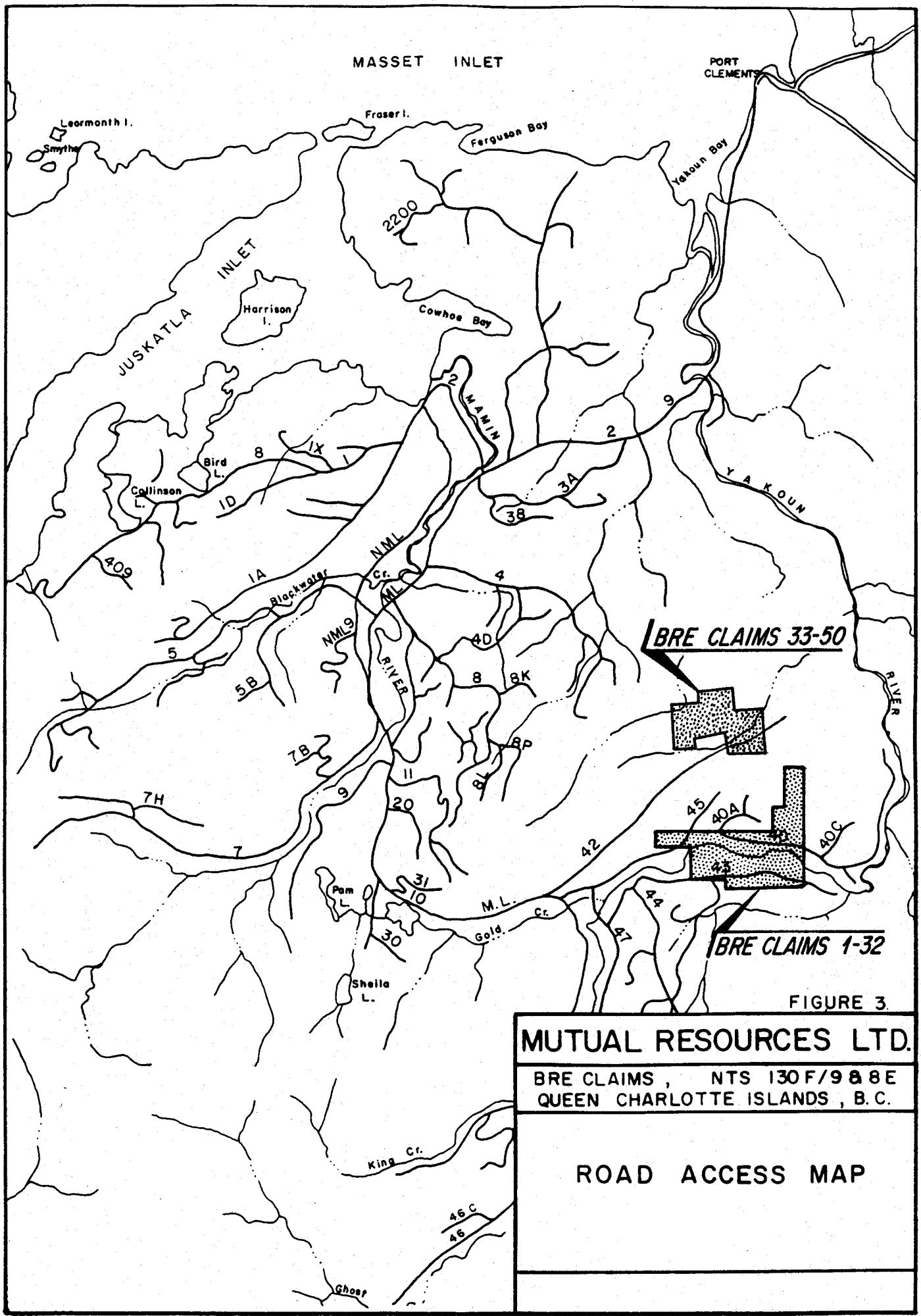
Topographic relief on the property is moderate with elevations ranging from less than 30 m along the Yakoun River to a high of about 200 m on the northern claim block. The only steep relief is along the banks of the incised Canoe Creek on the northern claim block.

Vegetation on most of the northern claim block is a mature cedar forest with little undergrowth. Portions of the BRE 48 and 49 claims in the southeast corner of the northern claim block have been clear-cut logged recently. The southern claim block is covered by a dense secondary forest with logging debris hampering travel.



**FIGURE 1**  
MUTUAL RESOURCES LTD.  
**LOCATION MAP**  
BRE CLAIMS

FEB. 1987



### 1.3 History

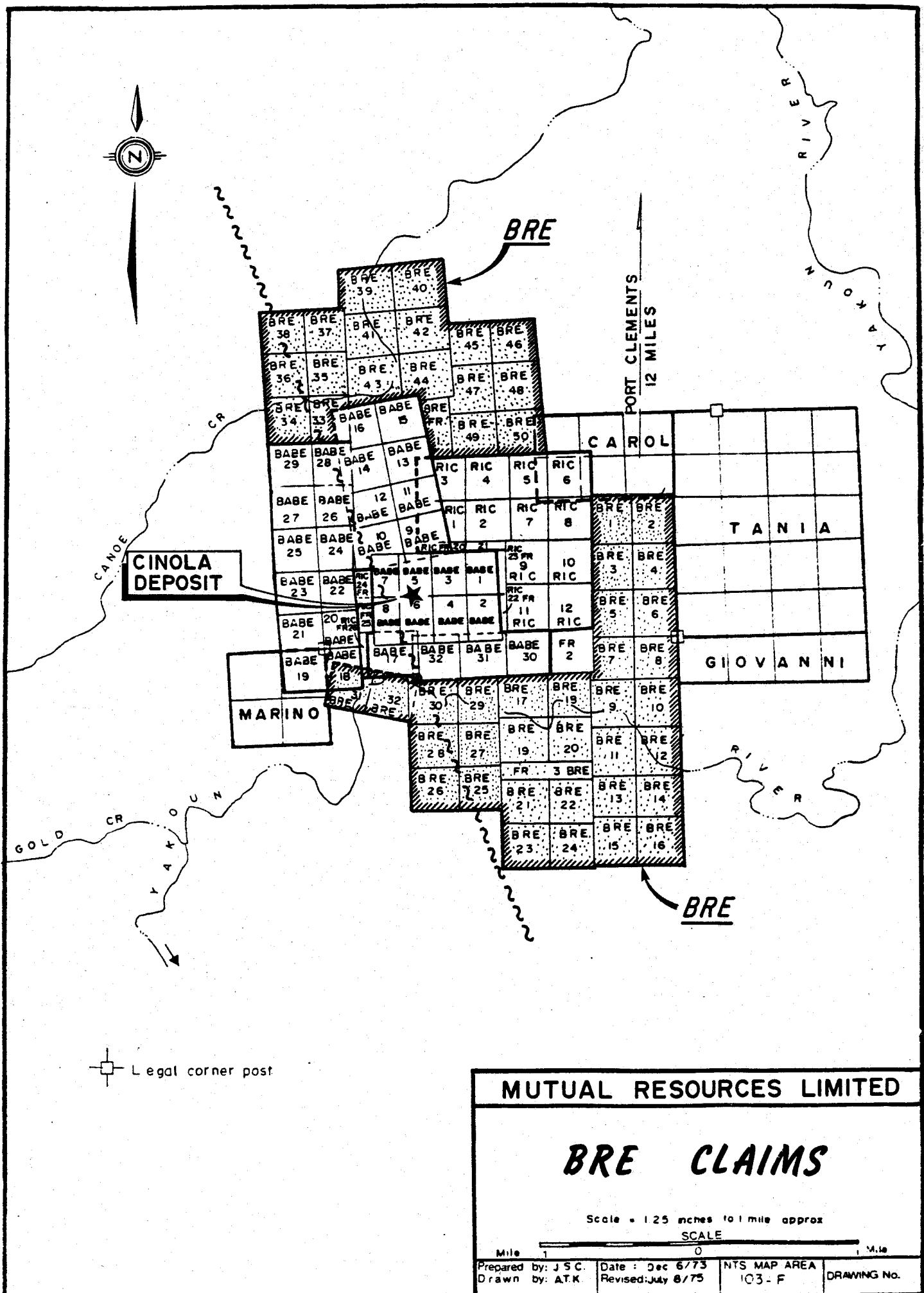
The BRE claims were staked along with Efrem Specogna's RIC and BABE claims which cover the Cinola gold deposit of City Resources (Canada) Ltd. In the past, these claims have been optioned to Kennco (1971), Cominco (1972), Silver Standard (1973) and Quintana (1974-76). The BRE claims were retained by Silver Standard Mines in 1973 and optioned to Mutual Resources in 1979. A soil geochemical survey was carried out over the property in 1980 and an I.P. geophysical survey conducted over the BRE 1-32 claims (southern claim block) in 1985. In 1986 a reconnaissance geological mapping and rock sampling programme was carried out on portions of the northern claim block.

### 1.4 Claims

The property includes 50 full-size two-post claims and 8 fractional claims in two groups. They are located in the Skeena Mining Division.

Claim Name	Record No.	Record Date	Expiry*
<b>**(Group BRE A)</b>			
BRE 1 to 32	38093-38124	November 23	1993
Woof Fr.	1261	April 1	1994
MRS #3 Fr.	6511	November 2	1988
MRS #4 Fr.	6512	November 2	1988
DOUG Fr.	6513	November 2	1988
PAT Fr.	6514	November 2	1988
PAUL Fr.	6515	November 2	1988
<b>**(Group BRE B)</b>			
BRE 33 to 50	38125-38142	November 23	1998
MRS #1 Fr.	6510	November 2	1998
<b>**(Not Grouped)</b>			
BRE #1 Fr.	38090	November 23	1988

\*Expiry date - includes assessment credits for 1987 work.



**MUTUAL RESOURCES LIMITED**

## BRE CLAIMS

Scale = 1.25 inches to 1 mile 888583

**SCALE**

Mile 1  
Prepared by: J S C

8

NTS MAP AREA  
35 E

1 M.10

\*\* Grouping is as of January 27, 1988.

Previous to January 27, 1988 Group BRE A consisted of BRE 1-32 and Woof Fr. and Group BRE B consisted of BRE 33-50 and BRE 1 Fr.

During surveying several open fractions were discovered and subsequently the MRS #3, MRS #4, Doug, Pat and Paul Fractional claims were staked to cover these open areas. The MRS #1 Fractional claim was staked to cover the same ground held as the BRE #1 Fractional claim.

### 1.5 1987 Work Programme

The 1987 programme consisted of a location line and post survey of all claims by McElhanney Associates and the collection of 448 soil samples on 10.9 line-km of grid on the BRE 42 and 44 to 48 claims by Fairbank Engineering Ltd. McElhanney Associates surveyed the claims between September 15 and October 18, 1987. Fairbank Engineering soil sampled from November 10 to November 23, 1987. Sample analysis were carried out in December 1987.

## 2. GEOLOGY

### 2.1 Regional Geology

The BRE claims lie on the Skidegate Plateau, to the west of the Sandspit fault. On the west the area is underlain by west-dipping rhyolite ash flows of the Early Tertiary Masset Formation, which unconformably overlie folded argillites of the Cretaceous Queen Charlotte Group. Between the Masset Formation rhyolites and the Sandspit fault, to the east, lie Mio-Pliocene silicified conglomerates and sandstones of the Skonun Formation and quartz-feldspar porphyry of uncertain affinity.

Between and adjoining the two BRE claim groups lies the Cinola gold deposit (27.3 million tons grading 0.062 ounces of gold per ton) of City Resources (Canada) Ltd. The Cinola deposit is an epithermal gold deposit marked by a large zone of silicification adjacent to the

Specogna fault. The Specogna fault strikes parallel and dips eastward towards the Sandspit fault and forms the footwall to the gold deposit. Geochemical surveys have shown that the gold mineralization is accompanied by mercury and to a lesser extent arsenic.

## 2.2 Property Geology

For the most part, the property is covered by thick overburden which may be in excess of 30m in thickness. The overburden consists of seven well-developed distinct horizons: a surface organic layer, a black organic layer, a red-brown coarse till, a bright orange loamy horizon, a thin white bleached horizon, a grey clay horizon, and a thick lower till horizon of poorly-sorted conglomerate with 5% wood bark (Quartermain 1986). No outcrop was found on the grid soil-sampled during this programme.

Outcrops are found along Canoe Creek in the northern BRE claim block. These outcrops are dominantly a homogeneous fine-grained felsic tuff with lesser amounts (10%) of quartz-eye rhyolite. The felsic volcanics have been argillic altered throughout. Both rock types are probably members of the Early Tertiary Masset Formation. North trending faults of 0.1 to 1.5m width have been found in outcrops along Canoe Creek.

The strike of the Specogna fault indicates that, while not observed in outcrop, it would strike through the BRE claim groups.

## 3. SURVEYING

McElhanney Associates was contracted to carry out a claim location line and post survey of all claims forming the BRE property. A surveyor and 2 assistants performed this survey in 34 days from September 15 to October 18, 1987.

Maps 87-1 and 87-2, included in this report, show the surveyed claims.

#### 4. SOIL GEOCHEMICAL SURVEY

Fairbank Engineering Ltd. was contracted to measure and flag a 10.9 km grid on the BRE 42 and 44-48 claims and collect soil samples on that grid. A 2-man crew collected 448 samples between November 10 and November 23, 1987.

Grid lines were established with the use of a compass and hip chain. Tie lines at the ends of the grid lines were run to check the accuracy of the grid lines. Ten grid-lines with 100m spacing were turned-off a north-south baseline. Samples were collected at 25m intervals on all lines with ten duplicate check samples.

The organic A horizon varied from 20cm to more than 100cm. One metre soil-sample augers and grub-hoes were used to access the B horizon. B horizon samples were collected except at a few locations where, due to unpenetrable tree roots or an extra thick organic horizon, the A horizon was sampled. A record was kept of each sample stating whether the sample was organic or not, the colour of the sample and its depth. The average depth of sampling was approximately 50 cm. Each sample was placed in Kraft paper envelopes, marked with the grid location and sent to Chemex Labs Ltd. in North Vancouver for analysis. Samples were analysed for gold, silver, arsenic and mercury.

Results are plotted on figures 87-3 and 87-4, in pocket. Duplicate samples were found to correlate well within variations expected in trace element analysis.

In a 1980 soil sampling programme on the eastern half of the BRE group A 458 soil samples were collected and analysed for gold, silver, arsenic and mercury by Chemex Labs. Gold and silver values from both surveys are similar although improvements in analytical techniques have lowered the detection limit for gold. On average arsenic values from the 1980 survey are a little higher than values for the 1987 survey and mercury values are a little lower for the 1980 survey compared to the 1987 survey.

Beaton in his report on the 1980 soil sampling programme calculated background, threshold and anomalous levels for gold, arsenic and mercury based upon data from that survey and data from the adjoining claims covering the Cinola gold deposit. Statistical determinations by the author on the 1987 analysis result in threshold and anomalous levels lower for gold and arsenic and higher for mercury when compared to the values determined by Beaton. As Beaton used a larger population that included results over the Cinola gold deposit his statistical levels have been used herein.

	Au ppb	AS ppm	Hg ppb
Background	<30	<30	<200
Threshold	30-60	30-60	200-500
Anomalous	>60	>60	>500
Strongly Anomalous	100-300		1000-8500

Silver values in this programmes samples are uniformly low and silver was only detected in 54 samples. Values range from 0.1 to 1.2 ppm.

Gold values are all less than anomalous and gold was only detected in 19 samples. Two samples of 50 ppb each are within the threshold limits but are not considered significant.

Arsenic values are also low with only 1 sample anomalous at 63 ppm.

Anomalous mercury values occur as twenty separate anomalies with values up to 1900 ppb. Most of these are only one or two-sample weak anomalies with no pattern other than that they are clustered in the southern half of the grid area. The most prominent mercury anomalies form four north-south trending zones of 25 m to 75 m in width and 150 m to 350 m in length that extend from line 0+00 N north past line 3+00 N. These four zones are open to the south and contain values ranging from 520 ppb to 900 ppb.

A small two-sample mercury anomaly at the west end of lines 4+00 N and 5+00 N contains values of 520 ppb and 1300 ppb and is open to the west. Conglomerate float collected in 1986 downslope of this anomaly contained 200 to 420 ppb gold.

Given that till cover on the Bre claims may be in excess of 30 m, the soil geochemical results other than mercury could be considered to have little relationship to bedrock mineralogy. Mercury has unique properties that allow its migration through what would be barriers to migration of other elements. Movement of mercury into soils from considerable depths as mercury vapour has been documented. As mercury is continuously lost from the soil to the atmosphere the total mercury content depends upon renewal from below, suggesting that anomalous mercury values in soils should reflect bedrock mineralization more accurately than other elements could.

## 5. CONCLUSIONS AND RECOMMENDATIONS

It is concluded that in the search for epithermal gold deposits, in thick overburden covered area, the best pathfinder element is mercury.

Anomalous mercury values are associated with the adjacent Cinola gold deposit and zones of anomalous mercury values have been found in soil sampled on BRE 47 and 48 claims and at the junction of BRE 45 to 48 claims.

It is recommended that two additional lines be soil sampled to the south of the present grid on BRE 49, BRE 50 and MRS #1 Fr. (BRE #1 Fr.). The present grid should also be extended westward to cover BRE 42 and BRE 44 claims as they have not been soil sampled. Soil sampling in these two areas would define the extent of the open mercury anomalies on the current grid. Samples should be analysed for mercury and if during the survey the overburden in the Canoe Creek area is found to be thin then samples in that area could be analysed for gold.

**6. COST STATEMENT**

**Total Expenditures**

Surveying: McElhanney invoice \$ 32,000.00

**Soil Sampling:**

Fairbank Invoices: 9,668.38

A. Pratt 14 days, Nov. 10-23, @ \$207 \$2898.00

T. Holgate 14 days, Nov. 10-23, @ \$180 2520.00

Food & Accommodation; 2 men for 14 days

@ \$50/man-day 1400.00

Meals 60.49

Transport - Airfares Vancouver-Sandspit

return - 2 men 791.20

- Truck rental 1052.38

- Fuel 72.44

Communication/Freight 266.31

Supplies 214.91

Printing 6.25

10% on disbursements 386.40

Chemex Invoices: 8,037.50

Analysis of 448 soil samples for

Ag, Au, As, Hg @ \$17.94

Report Preparation: 1,147.00

M. Holtby, Geologist - 3 days @ \$250 750.00

Drafting - 14 hrs. @ \$23 322.00

Supplies 75.00

**TOTAL \$ 50,852.88**

Apportioned Costs:

Costs have been divided between BRE Groups A and B and by work performed before and after the November 23 anniversary date.

A. Pre-November 24, 1987 Costs (Statement of Exploration and Development filed November 20, 1987).

i. Group BRE A. (grouping as of November 23, 1987).

Surveying (35% of invoiced costs)	\$ 11,200.00
Soil Sampling (100% of Fairbank invoices)	<u>9,668.38</u>
	\$ 20,868.38

ii. Group BRE B.

Surveying (65% of invoiced costs)	\$ 20,800.00
-----------------------------------	--------------

B. Post-November 23, 1987 Costs (Statement of Exploration and Development filed January 27, 1988).

i. Group Bre A. (grouping as of January 27, 1988).

Analysis costs	\$ 8,037.50
Report Preparation	<u>1,147.00</u>
	\$ 9,184.50

ii. Group BRE B. Nil

TOTAL \$ 50,852.88

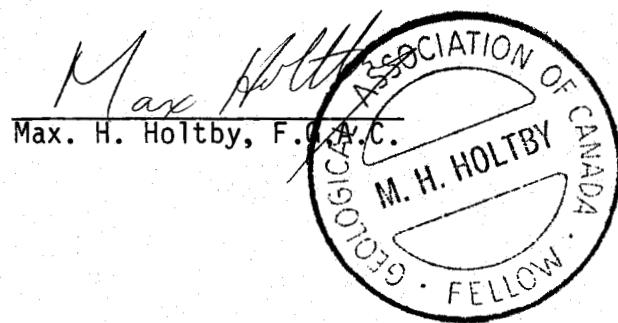
**7. REFERENCES**

- Beaton, R.H.  
1980: Soil Geochemistry Survey, BRE project, Queen Charlotte Islands, unpub. report for Mutual Resources Ltd.
- Jonasson, I.R.  
1970: Mercury in the Natural Environment: A Review of Recent Work, Geol. Surv. Canada, Paper No. 70-57, 39 pp.
- Jonasson, I.R. and Boyle, R.W.  
1972: Geochemistry of Mercury and Origins of Natural Contamination of the Environment, CIMM Bull. 65, No. 717, p. 32-36.
- Quartermain, R.A.  
1987: Reconnaissance Geological and Geochemical Survey on the BRE Property, Skeena Mining Division, unpub. report for Mutual Resources Ltd.
- Richards, G.G.  
1974: Specogna Gold Property, Graham Island, Queen Charlotte Islands, B.C., unpub. report for Quintana Minerals Corp.

## 8. STATEMENT OF QUALIFICATIONS

I, Max H. Holtby, residing at 103 - 1026 Queens Avenue, New Westminster, B.C., hereby certify that:

1. I graduated from the University of British Columbia in 1972 with a B.Sc. in Honours Geology.
2. I am a Geological Association of Canada Fellow and Geological Society of Malaysia Member in good standing.
3. I have a personal knowledge of the facts in this report, having worked in the area and having witnessed the work after its completion.
4. I have worked since graduation as an exploration geologist and in mine management in Canada, Malaysia and Liberia, West Africa.



**APPENDIX 1**

**Cost Statement - Invoices**

**McElhanney Associates**  
Professional Land Surveyors  
13160 - 88th Ave.,  
Surrey, B.C. V3W 3K3

INVOICE



**McElhanney**

Please remit to:

13160 - 88th Ave.,  
Surrey, B.C. V3W 3K3

In Account with : Mutual Resources Ltd.  
11th Floor, 1199 West Hastings Street  
Vancouver, B.C.  
V6E 3V4

Attention : Mr. Robert Quartermain

Invoice No.

5021958

Client No.

Date. November 18, 1987

Your Order No.

Our Work Order No.

502-00656

FOR PROFESSIONAL SERVICES IN RESPECT TO:

LOCATION LINE SURVEY AND REFERENCING OF BRE CLAIMS,  
SKEENA MINING DISTRICT

Surveyor and 2 man crew, 34 days	\$ 29,512.00
Electronic Distance Meter, 32 days	1,280.00
4 W.D. Vehicle, 34 days, including gas, oil, etc.	2,040.00
Materials	421.92
Government fees, plans, etc.	162.73
Freight	211.75
Board and Lodging	3,366.00
Transportation to and from Vancouver	<u>1,065.00</u>
TOTAL	\$ 38,059.40

Agreed upon deduction

- 6,059.40

\$ 32 000.00

R. Globefar  
Nov. 19/87

Extensions okay: J

Credit to come?

Charge: C8003 -

OKAY TO PAY: ff

PAID DEC 31 1987

Terms: Net 30 days. Interest at 1 1/2% per month will be charged on overdue accounts

CLIENT'S COPY



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
 212 BROOKSBANK AVE., NORTH VANCOUVER,  
 BRITISH COLUMBIA, CANADA V7J-2C1  
 PHONE (604) 984-0221

## BILLING INFORMATION

Date : 17-DEC-87  
 Project :  
 P.O. # :  
 Account : EB

Billing : For services regarding  
 Re: A8727060

Terms : Net payment in 30 Days  
 1.5% per month (18% per annum)  
 charged on overdue accounts.

Please remit payments to:

CHEMEX LABS LTD.  
 212 Brooksbank Ave.,  
 North Vancouver, B.C.  
 Canada V7J-2C1

## MUTUAL RESOURCES LIMITED

11TH FLOOR 1199 W. HASTINGS ST.  
 VANCOUVER, B.C.  
 V6E 3V4

\* INVOICE NUMBER I 8781916 \*

## DESCRIPTION OF SERVICES

Re: Certificate A8727060

6 - Ag ppm Aqua R  
 13 - As ppm  
 20 - Hg ppb  
 100 - Au ppb FA+AA

208 samples @ \$16.75 3484.00

## Sample preparation and other charges:

201 - Soil + sediment -80 mesh	196 samples @ \$ 1.00	196.00
217 - Ring Only - no crushing	12 samples @ \$ 2.50	30.00

Total Cost \$ 3710.00

AMOUNT PAYABLE \$ 3710.00

G Extensions okay:

Credit to come?

Charge: C8003 (BRE)-76

OKAY TO PAY: \_\_\_\_\_

DEC 21 1987



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers

212 BROOKSBANK AVE., NORTH VANCOUVER,  
BRITISH COLUMBIA, CANADA V7J-2C1

PHONE (604) 984-0221

MUTUAL RESOURCES LIMITED

11TH FLOOR 1199 W. HASTINGS ST.  
VANCOUVER, B.C.  
V6E 3V4

\* INVOICE NUMBER 18781914 \*

## BILLING INFORMATION

Date : 17-DEC-87  
Project : M 2001-65  
P.O. # :  
Account : EB

Billing : For services regarding  
Re: A8727059

Terms : Net payment in 30 Days  
1.5% per month (18% per annum)  
charged on overdue accounts.

Please remit payments to:

CHEMEX LABS LTD.  
212 Brooksbank Ave.,  
North Vancouver, B.C.  
Canada V7J-2C1

## DESCRIPTION OF SERVICES

Re: Certificate A8727059

6 - Ag ppm Aqua R  
13 - As ppm  
20 - Hg ppb  
100 - Au ppb FA+AA

240 samples @ \$16.75 4020.00

### Sample preparation and other charges:

201 - Soil + sediment -80 mesh	195 samples @ \$ 1.00	195.00
203 - -35 mesh sieve + ring	4 samples @ \$ 2.50	10.00
217 - Ring Only - no crushing	41 samples @ \$ 2.50	102.50

Total Cost \$ 4327.50

AMOUNT PAYABLE \$ 4327.50

Extensions okay:

Credit to come?

Charge:

OKAY TO PAY:



Ste 1201-675 W. Hastings St.  
Vancouver, B.C.  
Canada V6B 1N2  
(604) 688-1553

# Invoice

Consulting  
Geologists  
and  
Engineers

To

Date

Number

Mutual Resources Ltd.  
#1100 - 1199 W. Hastings St.  
Vancouver, B.C. V6E 3V4

Nov. 30/87

1636

Attn: Mr. B. Quartermain

Professional Services

Re: Project #145-87, BRE CLAIMS, Q.C.I.

## FEES

A. Pratt, November 10-23	\$ 2,898.00
T. Holgate, November 10-23	<u>2,520.00</u>
	\$ 5,418.00

## DISBURSEMENTS

Meals	\$ 60.49	No receipts
X Airfares - 2 return *	791.20	to follow
Consumable Field Supplies	214.91	\$ 152.91 only att
Communications/Freight	235.06	\$ 187.30 ✓
Fuel	72.44	No receipts
Room & Board, \$50/m/d x 14 days (Attached) (City Resources' camp)	<u>1,400.00</u>	2,774.10 ✓
10% on disbursements		<u>277.41</u>

Extensions okay:

Credit to come?

Charge: 44001-65 C8003-65

OKAY TO PAY: f.

X \* receipts to follow PAID DEC 31 1987

NOTE: truck rental charges to follow. 11391

Total Amount ►

\$ 8,469.51

Terms: Due 15 days following invoice date

Interest at the rate of 1½% per month  
(18% per annum charged on overdue portions).

DEC - 4 1987



**FAIRBANK**

## Rental Report

Ste 1201-675 W Hastings St  
Vancouver, B.C.  
Canada V6B 1N2  
(604) 683-1550

Name Alan Pratt  
Client Mutual Resources Ltd  
Period Nov. 1987

BRE soil samplings.  
Cinola

DATE	CLASS HRS.	WEEK	
Nov. 10	1 day	E	Travel to Q.C.I.
11	"	E	
12	"	E	
13	"	E	
14	"	EE	
15	"	EE	
16	"	EE	
17	"	EE	
18	"	EE	
19	"	EE	
20	"	EE	
21	"	EE	
22	"	EE	
23	"	EE	

## Shipping Packaging of Shipping samples

TOTALS 14 days

## RENTAL REPORT

**Signature**

Date

M. Hatt

Dec-1 /81

Approved  
POSTED



# Time and Rental Report

Ste 1201-675 W Hastings St  
Vancouver, B.C.  
Canada V6B 1N2  
(604) 688-1553

Consulting  
Geologists  
and  
Engineers

Name TERRY Holgate  
Client Mutual Resources LTD.  
Period Nov 10-23

Project No. 145-87  
Project Name BRE CLAIMS  
Location Queen Charlotte Is. Ltd.  
CHARLOTTE

DATE	DAYS/HRS.	WORK CODE	DESCRIPTION
Tues 10/87	1		
MON 11/87	1	I	
12/87	1	I	
13/87	1	E	
14/87	1	E I	
15/87	1	E I	
16/87	1	E / I	
17/87	1	E / I	
18/87	1	E / I	
19/87	1	E / I	
20/87	1	I	
21/87	1	E	
22/87	1	E	
23/87	1		
24/87	1		
TOTALS	14		

TRAVEL  
 Line 0400N, 5100E, 3100W /  
 Line 0400N, 500E, 500W  
 L 1400E  
 Sampled L 2100 N. 5100 E  
L 2100 N. 5100 N. EAST SIDE  
L 3100N 500E / L 4100N 000-500E  
L 4100N 500E / L 5100N 000-500E  
L 5100N 500E 000-500E / 6100N 000-500E  
L 6100N 000-500E / 7100N 000-500E  
L 9100N 000-500E / L 5100N 000-500E / L 7100N 000-500E  
L 7100N 000-500E - 8100N 000-500E  
L 8100N 000-500E, L 9100N 000-500E Finished  
Ship samples

WORK CODE:

- A - Examination E - Geochim
- B - Acquisition F - Hydrology
- C - Geology G - Drilling/Testing
- D - Geophysics H - Roads/Trenches
- I - Line Cutting/Surveying
- J - Consultation
- K - Report
- L - Admin

RENTAL REPORT

Item	From	Days Hrs.	Rate	Amount

Signature \_\_\_\_\_

Approved He

POSTED

Nov 16 1987



325 W. 6th AVENUE, VANCOUVER, B.C. V5Y 1L1  
TELEPHONE USE-4343 TELEX 04-507762

## **MINING & FORESTRY SUPPLIES**

FAIRBANK ENGINEERING LTD.  
1201-675 W. HASTINGS ST.  
VANCOUVER, BC  
V6B 1N2

S  
H  
I  
P  
  
T  
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RECEIVED NOV 16 1987

DATE: NOV. 9/87

**REG.  
NO. H 1238**

**CUSTOMER P.O. NUMBER**

---

**INVOICE**

56918

#### Current Accounts subject to interest

**TERMS:** Sales Net 30 Days / Rentals in Advance.

**TERMS:** Sales Net 30 Days / Rentals in Advance.

**PLEASE PAY  
THIS AMOUNT**

**TOTAL**

220 64

*Thank You*

**INVOICE**





RECEIVED DEC - 8 1987

812 - 602 WEST HASTINGS STREET, VANCOUVER, BRITISH COLUMBIA, CANADA V6B 1P2

• (604) 685-5613

December 8, 1987

Fairbank Engineering Ltd.,  
1201 - 675 West Hastings Street,  
Vancouver, B.C.

Re: Your sampling project at Cinola in November.

Dear Mr. Fairbank;

The following statement is for room & board charges incurred by Marloch, while your crew was staying at the Cinola camp during November, 1987.

These charges are based on a rate of \$50.00/man/day. These charges are inclusive of November 10th, the day of arrival, thru November 28th.

The charges are for nineteen days at \$100.00/day.

Total charges and balance due: \$ 1900.00

#145-87  
Nov 10 - 23/87  
14 days @ \$50/m/d  
=\$1400\*\*/

MARLOCH RESOURCES LTD.,  
Malcolm MacKillop



**FAIRBANK**  
ENGINEERING LTD

Ste 1201-675 W. Hastings St.  
Vancouver, B.C.  
Canada V6B 1N2  
(604) 688-1553

**Invoice**

Consulting  
Geologists  
and  
Engineers

Date

Dec. 15/87

Number

1653

Mutual Resources Ltd.  
#1100 - 1199 W. Hastings St.  
Vancouver, B.C.  
V6E 3V4

Professional Services

Re: Project #145-87, BRE CLAIMS, Q.C.I.

**DISBURSEMENTS**

Truck Rental (Nov.10-23, 1987)	\$ 1,052.38
Printing	6.25
	<u>\$ 1,058.63</u>

10% on disbursements	<u>105.86</u>
----------------------	---------------

Extensions okay? Q

Credit to come?

G Charge: C8003-80

OKAY TO PAY: Q

PAID DEC 31 1987,

(receipt for room & board included)

Total Amount ► \$ 1,164.49

**Terms:** Due 15 days following invoice date

Interest at the rate of 1½% per month  
(18% per annum charged on overdue portions).

**DEC 21 1987**





# Invoice

Ste 1201-675 W. Hastings St.  
Vancouver, B.C.  
Canada V6B 1N2  
(604) 688-1553

Consulting  
Geologists  
and  
Engineers

To	Date	Number
Mutual Resources Ltd. #1100 - 1199 W. Hastings St. Vancouver, B.C. V6E 3V4	Jan.15/88	1668

Professional Services

Re: Project #145-87, BRE CLAIMS, QUEEN CHARLOTTE ISLANDS, B.C.

## DISBURSEMENTS

Telephone, Nov.16-23, 1987	\$ 31.25
10% on disbursements	<u>3.13</u> \$ 34.38

JAN 19 1988

Total Amount ► \$ 34.38

**Terms:** Due 15 days following invoice date.

Interest at the rate of 1½% per month  
(18% per annum charged on overdue portions).

## APPENDIX 2

## Analysis and Analytical Methodology



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers

212 BROOKSBANK AVE., NORTH VANCOUVER,

BRITISH COLUMBIA, CANADA V7J-2C1

PHONE (604) 984-0221

To AIRBANK ENGINEERING LTD.

1201 - 675 W. HASTINGS ST.

VANCOUVER, BC

V6B 1N2

Project : 145 BRE

Comments: CC: MUTUAL RESOURCES

Page No. 1

Tot. Pages: 6

Date : 06-DEC-87

Invoice #: I-8727059

P.O. # :

## CERTIFICATE OF ANALYSIS A8727059

SAMPLE DESCRIPTION	PREP CODE	Ag ppm Aqua R	As ppm	Hg ppb	Au ppb FA+AA							
0+00N 0+25E	201	--	0.1	6	80	< 5						
0+00N 0+50E	201	--	0.1	11	400	< 5						
0+00N 0+75E	201	--	0.1	9	380	< 5						
0+00N 1+00E	217	--	0.3	3	260	< 5						
0+00N 1+25E	201	--	0.1	3	280	< 5						
0+00N 1+50E	217	--	0.1	3	330	< 5						
0+00N 1+75E	201	--	0.1	9	290	< 5						
0+00N 2+00E	201	--	0.1	9	810	< 5						
0+00N 2+25E	201	--	0.1	10	520	< 5						
0+00N 2+50E	201	--	0.1	10	500	< 5						
0+00N 2+75E	201	--	0.1	6	360	< 5						
0+00N 3+00E	203	--	0.8	22	590	< 5						
0+00N 3+25E	201	--	0.1	11	350	< 5						
0+00N 3+50E	203	--	0.1	20	290	< 5						
0+00N 3+75E	201	--	0.2	11	630	< 5						
0+00N 4+00E	201	--	1.2	5	330	< 5						
0+00N 4+25E	201	--	0.1	7	230	< 5						
0+00N 4+50E	217	--	0.1	17	300	< 5						
0+00N 4+75E	217	--	0.1	25	350	< 5						
0+00N 5+00E	217	--	0.1	9	230	< 5						
0+00N 5+25E	201	--	0.3	4	460	< 5						
0+00N 0+25W	201	--	0.1	5	170	< 5						
0+00N 0+50W	201	--	0.1	4	340	< 5						
0+00N 0+75W	201	--	0.1	3	280	< 5						
0+00N 1+00W	201	--	0.1	6	360	< 5						
0+00N 1+25W	201	--	0.1	3	270	< 5						
0+00N 1+50W	201	--	0.1	3	260	< 5						
0+00N 1+75W	201	--	0.1	3	310	< 5						
0+00N 2+00W	201	--	0.1	5	450	< 5						
0+00N 2+25W	201	--	0.1	4	340	< 5						
0+00N 2+50W	201	--	0.1	9	630	< 5						
0+00N 2+75W	201	--	0.1	3	170	< 5						
0+00N 3+00W	201	--	0.1	3	490	< 5						
0+00N 3+25W	201	--	0.1	4	900	< 5						
0+00N 3+50W	201	--	0.1	3	280	< 5						
0+00N 3+75W	217	--	0.1	3	200	< 5						
0+00N 4+00W	217	--	0.1	3	170	< 5						
0+00N 4+25W	201	--	0.1	3	360	< 5						
0+00N 4+50W	201	--	0.1	3	180	< 5						
0+00N 4+75W	201	--	0.1	5	290	< 5						

CERTIFICATION :

*Barth Bechler*



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers

212 BROOKSBANK AVE., NORTH VANCOUVER,  
BRITISH COLUMBIA, CANADA V7J-2C1

PHONE (604) 984-0221

To MIRBANK ENGINEERING LTD.

1201 - 675 W. HASTINGS ST.  
VANCOUVER, BC  
V6B 1N2

Project : 145 BRE

Comments: CC: MUTUAL RESOURCES

Page No. \_\_\_\_\_  
Tot. Pages: 6  
Date : 06-DEC-87  
Invoice #: I-8727059  
P.O. # :

## CERTIFICATE OF ANALYSIS A8727059

SAMPLE DESCRIPTION	PREP CODE	Ag ppm Aqua R	As ppm	Hg ppb	Au ppb FA+AA							
0+00N 5+00W	201	---	0.1	3	200	< 5						
1+00W 0+25E	201	---	0.1	5	440	10						
1+00W 0+50E	201	---	0.1	3	100	5						
1+00W 0+75E	201	---	0.1	3	250	5						
1+00W 1+00E	201	---	0.1	3	220	< 5						
1+00W 1+25E	201	---	0.1	9	280	< 5						
1+00W 1+50E	201	---	0.2	10	550	< 5						
1+00W 1+75E	201	---	0.1	11	430	15						
1+00W 2+00E	201	---	0.1	6	500	< 5						
1+00W 2+25E	201	---	0.1	9	770	< 5						
1+00W 2+50E	201	---	0.1	6	250	< 5						
1+00W 2+75E	201	---	0.1	4	290	<< 5						
1+00W 3+00E	201	---	0.1	4	430	<< 5						
1+00W 3+25E	201	---	0.1	6	200	<< 5						
1+00W 3+50E	201	---	0.2	11	790	<< 5						
1+00W 3+75E	201	---	0.1	11	270	< 5						
1+00W 4+00E	201	---	0.1	4	340	<< 5						
1+00W 4+25E	217	---	0.2	63	270	<< 5						
1+00W 4+50E	201	---	0.1	10	170	<< 5						
1+00W 4+75E	201	---	0.1	22	240	< 5						
1+00W 5+00E	201	---	0.1	5	120	< 5						
1+00N 0+25W	201	---	0.1	4	240	<< 5						
1+00N 0+50W	201	---	0.1	24	570	<< 5						
1+00N 0+75W	201	---	0.1	11	550	<< 5						
1+00N 1+00W	201	---	0.1	15	900	<< 5						
1+00N 1+25W	201	---	0.1	6	490	< 5						
1+00N 1+50W	201	---	0.1	6	190	<< 5						
1+00N 1+75W	201	---	0.1	3	140	<< 5						
1+00N 2+00W	201	---	0.1	5	230	<< 5						
1+00N 2+25W	201	---	0.1	23	550	<< 5						
1+00N 2+50W	201	---	0.1	5	600	< 5						
1+00N 2+75W	201	---	0.1	3	410	<< 5						
1+00N 3+00W	201	---	0.1	17	650	<< 5						
1+00N 3+25W	201	---	0.1	12	630	<< 5						
1+00N 3+50W	201	---	0.1	29	720	< 5						
1+00N 3+75W	201	---	0.1	3	290	< 5						
1+00N 4+00W	201	---	0.1	3	420	<< 5						
1+00N 4+25W	201	---	0.1	3	380	<< 5						
1+00N 4+50W	201	---	0.1	5	350	<< 5						
1+00N 4+75W	201	---	0.1	3	420	<< 5						

CERTIFICATION : *Hart Bichler*



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers

212 BROOKSBANK AVE., NORTH VANCOUVER,

BRITISH COLUMBIA, CANADA V7J-2C1

PHONE (604) 984-0221

To MIRBANK ENGINEERING LTD.

1201 - 675 W. HASTINGS ST.

VANCOUVER, BC

V6B 1N2

Project : 145 BRE

Comments: CC: MUTUAL RESOURCES

Page No.

Tot. Pages: 6

Date : 06-DEC-87

Invoice # : I-8727059

P.O. # :

## CERTIFICATE OF ANALYSIS A8727059

SAMPLE DESCRIPTION	PREP CODE	Ag ppm Aqua R	As ppm	Hg ppb	Au ppb FA+AA						
1+00N 5+00W	201	--	0.1	5	330	< 5					
2+00N 0+25E	201	--	0.1	3	390	<< 5					
2+00N 0+50E	201	--	0.1	3	370	<< 5					
2+00N 0+75E	201	--	0.1	3	400	<< 5					
2+00N 1+00E	201	--	0.1	3	270	< 5					
2+00N 1+25E	201	--	0.1	3	160	< 5					
2+00N 1+50E	201	--	0.1	3	230	<< 5					
2+00N 1+75E	201	--	0.1	4	430	<< 5					
2+00N 2+00E	201	--	0.1	3	470	<< 5					
2+00N 2+25E	201	--	0.1	3	470	<< 5					
2+00N 2+50E	217	--	0.1	6	430	< 5					
2+00N 2+75E	201	--	0.1	9	410	<< 5					
2+00N 3+00E	217	--	0.1	3	630	<< 5					
2+00N 3+25E	201	--	0.1	7	340	<< 5					
2+00N 3+50E	201	--	0.1	3	110	< 5					
2+00N 3+75E	201	--	0.1	3	110	< 5					
2+00N 4+00E	201	--	0.1	3	100	<< 5					
2+00N 4+25E	201	--	0.1	5	140	<< 5					
2+00N 4+50E	217	--	0.6	4	210	<< 5					
2+00N 4+75E	201	--	0.4	24	450	< 5					
2+00N 5+00E	201	--	0.3	5	170	< 5					
2+00N 0+25W	201	--	0.1	3	390	<< 5					
2+00N 0+50W	201	--	0.1	4	340	<< 5					
2+00N 0+75W	201	--	0.1	3	300	<< 5					
2+00N 1+00W	201	--	0.1	3	190	< 5					
2+00N 1+25W	201	--	0.1	3	450	< 5					
2+00N 1+50W	201	--	0.1	3	300	<< 5					
2+00N 1+75W	217	--	0.1	3	390	<< 5					
2+00N 2+00W	201	--	0.1	15	720	<< 5					
2+00N 2+25W	201	--	0.1	15	730	< 5					
2+00N 2+50W	201	--	0.1	4	230	< 5					
2+00N 2+75W	201	--	0.1	3	600	<< 5					
2+00N 3+00W	201	--	0.1	4	330	<< 5					
2+00N 3+25W	201	--	0.1	3	350	<< 5					
2+00N 3+50W	201	--	0.1	3	270	< 5					
2+00N 3+75W	201	--	0.1	4	350	< 5					
2+00N 4+00W	201	--	0.1	3	270	< 5					
2+00N 4+25W	201	--	0.1	4	470	<< 5					
2+00N 4+50W	201	--	0.1	4	450	<< 5					
2+00N 4+75W	201	--	0.1	3	350	< 5					

CERTIFICATION : *Burt Biehler*



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers

212 BROOKSBANK AVE., NORTH VANCOUVER,  
BRITISH COLUMBIA, CANADA V7J-2C1

PHONE (604) 984-0221

To : RBANK ENGINEERING LTD.

1201 - 675 W. HASTINGS ST.  
VANCOUVER, BC  
V6B 1N2

Project : 145 BRE

Comments: CC: MUTUAL RESOURCES

Page No. :  
Tot. Pages: 6  
Date : 06-DEC-87  
Invoice #: I-8727059  
P.O. #: :

## CERTIFICATE OF ANALYSIS A8727059

SAMPLE DESCRIPTION	PREP CODE		Ag ppm Aqua R	As ppm	Hg ppb	Au ppb FA+AA						
2+00N 5+00W	201	--	0.1		3	400	< 5					
3+00N 0+25E	201	--	0.1		3	250	< 5					
3+00N 0+50E	203	--	0.1		3	440	< 5					
3+00N 0+75E	201	--	0.1		3	390	< 5					
3+00N 1+00E	201	--	0.1		3	150	< 5					
3+00N 1+25E	201	--	0.1		3	280	< 5					
3+00N 1+50E	201	--	0.1		3	170	< 5					
3+00N 1+75E	201	--	0.1		3	260	< 5					
3+00N 2+00E	201	--	0.1		3	330	< 5					
3+00N 2+25E	201	--	0.1		4	260	< 5					
3+00N 2+50E	201	--	0.1		3	350	< 5					
3+00N 2+75E	201	--	0.1		3	250	< 5					
3+00N 3+00E	201	--	0.1		3	270	< 5					
3+00N 3+25E	201	--	0.1		3	330	< 5					
3+00N 3+50E	201	--	0.1		3	120	< 5					
3+00N 3+75E	203	--	0.2		3	180	< 5					
3+00N 4+00E	201	--	0.3		4	120	< 5					
3+00N 4+25E	201	--	0.3		3	240	< 5					
3+00N 4+50E	201	--	0.1		3	110	< 5					
3+00N 4+75E	201	--	0.2		3	110	< 5					
3+00N 5+00E	201	--	0.3		3	570	< 5					
3+00N 0+25W	201	--	0.3		4	620	< 5					
3+00N 0+50W	201	--	0.1		4	420	< 5					
3+00N 0+75W	201	--	0.1		3	130	< 5					
3+00N 1+00W	201	--	0.1		3	130	< 5					
3+00N 1+25W	201	--	0.2		10	690	< 5					
3+00N 1+50W	201	--	0.3		10	530	< 5					
3+00N 1+75W	201	--	0.3		4	400	< 5					
3+00N 2+00W	201	--	0.4		4	550	< 5					
3+00N 2+25W	201	--	0.1		3	540	< 5					
3+00N 2+50W	201	--	0.3		3	530	< 5					
3+00N 2+75W	201	--	0.1		3	480	< 5					
3+00N 3+00W	201	--	0.3		3	760	< 5					
3+00N 3+25W	217	--	0.4		3	240	< 5					
3+00N 3+50W	217	--	0.3		3	300	< 5					
3+00N 3+75W	217	--	0.1		3	240	< 5					
3+00N 4+00W	217	--	0.1		3	100	< 5					
3+00N 4+25W	201	--	0.1		9	520	< 5					
3+00N 4+50W	201	--	0.3		14	340	< 5					
3+00N 4+75W	201	--	0.1		5	400	< 5					

CERTIFICATION :

*Hart Becker*



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers

212 BROOKSBANK AVE., NORTH VANCOUVER,  
BRITISH COLUMBIA, CANADA V7J-2C1

PHONE (604) 984-0221

AIRBANK ENGINEERING LTD.

1201 - 675 W. HASTINGS ST.  
VANCOUVER, BC  
V6B 1N2

Project : 145 BRE

Comments: CC: MUTUAL RESOURCES

Page No. 3  
Tot. Pages: 6  
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P.O. # :

## CERTIFICATE OF ANALYSIS A8727059

SAMPLE DESCRIPTION	PREP CODE	Ag ppm Aqua R	As ppm	Hg ppb	Au ppb FA+AA						
4+00N 5+00W	201	—	0.1	4	180	< 5					
4+00N 0+25E	217	—	0.1	3	100	< 5					
4+00N 0+50E	217	—	0.1	3	80	< 5					
4+00N 0+75E	217	—	0.1	3	80	< 5					
4+00N 1+00E	217	—	0.1	2	70	< 5					
4+00N 1+25E	217	—	0.1	2	60	< 5					
4+00N 1+50E	217	—	0.1	3	50	< 5					
4+00N 1+75E	217	—	0.1	3	60	< 5					
4+00N 2+00E	217	—	0.1	2	50	< 5					
4+00N 2+25E	217	—	0.1	3	50	< 5					
4+00N 2+50E	201	—	0.2	9	120	< 5					
4+00N 2+75E	201	—	0.1	3	260	< 5					
4+00N 3+00E	201	—	0.1	3	210	< 5					
4+00N 3+25E	201	—	0.1	3	420	< 5					
4+00N 3+50E	201	—	0.3	9	480	< 5					
4+00N 3+75E	201	—	0.1	3	210	< 5					
4+00N 4+00E	201	—	0.1	6	340	< 5					
4+00N 4+25E	201	—	0.1	3	200	< 5					
4+00N 4+50E	201	—	0.1	3	200	< 5					
4+00N 4+75E	201	—	0.1	5	470	< 5					
4+00N 5+00E	201	—	0.1	3	240	< 5					
4+00N 0+25W	217	—	0.1	2	90	< 5					
4+00N 0+50W	217	—	0.3	2	110	< 5					
4+00N 0+75W	201	—	0.5	3	170	< 5					
4+00N 1+00W	201	—	0.2	3	150	< 5					
4+00N 1+25W	201	—	0.3	3	180	< 5					
4+00N 1+50W	201	—	0.2	5	270	< 5					
4+00N 1+75W	201	—	0.2	12	310	< 5					
4+00N 2+00W	201	—	0.4	4	140	< 5					
4+00N 2+25W	201	—	0.1	22	410	< 5					
4+00N 2+50W	201	—	0.1	3	330	< 5					
4+00N 2+75W	201	—	0.1	5	400	< 5					
4+00N 3+00W	201	—	0.1	4	360	< 5					
4+00N 3+25W	201	—	0.1	4	410	< 5					
4+00N 3+50W	201	—	0.1	3	280	< 5					
4+00N 3+75W	201	—	0.1	3	340	< 5					
4+00N 4+00W	201	—	0.2	6	370	< 5					
4+00N 4+25W	201	—	0.1	6	420	< 5					
4+00N 4+50W	201	—	0.1	3	240	< 5					
4+00N 4+75W	201	—	0.3	19	520	< 5					

CERTIFICATION : *Barry Fischer*



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers

212 BROOKSBANK AVE., NORTH VANCOUVER,

BRITISH COLUMBIA, CANADA V7J-2C1

PHONE (604) 984-0221

FAIRBANK ENGINEERING LTD.

1201 - 675 W. HASTINGS ST.

VANCOUVER, BC

V6B 1N2

Project : 145 BRE

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SAMPLE DESCRIPTION	PREP CODE	Ag ppm Aqua R	As ppm	Hg ppb	Au ppb FA+AA							
4+00N 5+00W	201	--	0.1	6	320	< 5						
5+00N 0+2SE	201	--	0.1	3	210	<< 5						
5+00N 0+50E	201	--	0.2	3	360	<< 5						
5+00N 0+75E	201	--	0.1	4	410	<< 5						
5+00N 1+00E	201	--	0.1	3	350	< 5						
5+00N 1+2SE	217	--	0.1	3	110	< 5						
5+00N 1+50E	217	--	0.1	3	60	<< 5						
5+00N 1+75E	217	--	0.1	2	50	<< 5						
5+00N 2+00E	217	--	0.1	2	30	<< 5						
5+00N 2+2SE	217	--	0.1	2	50	< 5						
5+00N 2+50E	217	--	0.1	3	70	< 5						
5+00N 2+75E	217	--	0.1	3	50	<< 5						
5+00N 3+00E	217	--	0.1	2	90	<< 5						
5+00N 3+2SE	217	--	0.2	2	100	<< 5						
5+00N 3+50E	201	--	0.2	2	380	< 5						
5+00N 3+75E	217	--	0.3	3	220	< 5						
5+00N 4+00E	217	--	0.2	3	420	<< 5						
5+00N 4+2SE	217	--	0.1	3	250	<< 5						
5+00N 4+50E	217	--	0.3	3	260	<< 5						
5+00N 4+75E	201	--	0.1	3	240	< 5						
5+00N 5+00E	201	--	0.1	3	220	< 5						
5+00N 0+2SW	201	--	0.1	3	590	<< 5						
5+00N 0+50W	201	--	0.2	4	160	<< 5						
5+00N 0+75W	201	--	0.2	16	110	<< 5						
5+00N 1+00W	201	--	0.1	4	140	< 5						
5+00N 1+2SW	201	--	0.1	9	200	< 5						
5+00N 1+50W	201	--	0.1	7	370	<< 5						
5+00N 1+75W	201	--	0.1	5	270	<< 5						
5+00N 2+00W	201	--	0.2	4	270	<< 5						
5+00N 2+2SW	201	--	0.1	5	420	< 5						
5+00N 2+50W	201	--	0.1	6	190	< 5						
5+00N 2+75W	201	--	0.1	3	260	<< 5						
5+00N 3+00W	201	--	0.1	3	140	<< 5						
5+00N 3+2SW	201	--	0.2	3	200	<< 5						
5+00N 3+50W	201	--	0.1	6	140	<< 5						
5+00N 3+75W	201	--	0.1	5	140	< 5						
5+00N 4+00W	201	--	0.1	9	290	<< 5						
5+00N 4+2SW	201	--	0.1	1	190	<< 5						
5+00N 4+50W	217	--	0.2	2	280	<< 5						
5+00N 4+75W	201	--	0.1	2	470	<< 5						

CERTIFICATION : *Barb Bunker*



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1201 - 675 W. HASTINGS ST.  
VANCOUVER, BC  
V6B 1N2

Project : 145 BRE  
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## CERTIFICATE OF ANALYSIS A8727060

SAMPLE DESCRIPTION	PREP CODE	Ag ppm Aqua R	As ppm	Hg ppb	Au ppb FA+AA							
5+00N 5+00W	201	--	0.1	3	1300	< 5						
6+00N 0+25E	201	--	0.1	6	320	<< 5						
6+00N 0+50E	201	--	0.1	4	120	<< 5						
6+00N 0+75E	201	--	0.1	3	310	<< 5						
6+00N 1+00E	201	--	0.1	3	300	< 5						
6+00N 1+25E	201	--	0.1	5	380	< 5						
6+00N 1+50E	201	--	0.1	3	300	<< 5						
6+00N 1+75E	201	--	0.1	9	350	<< 5						
6+00N 2+00E	201	--	0.1	7	390	<< 5						
6+00N 2+25E	201	--	0.1	3	210	< 5						
6+00N 2+50E	201	--	0.1	3	560	<< 5						
6+00N 2+75E	201	--	0.1	4	490	<< 5						
6+00N 3+00E	201	--	0.1	3	330	<< 5						
6+00N 3+25E	201	--	0.2	5	540	<< 5						
6+00N 3+50E	201	--	0.1	5	480	< 5						
6+00N 3+75E	201	--	0.2	3	560	< 5						
6+00N 4+00E	217	--	0.3	3	370	<< 5						
6+00N 4+25E	217	--	0.1	3	150	<< 5						
6+00N 4+50E	217	--	0.2	2	200	<< 5						
6+00N 4+75E	201	--	0.1	2	120	< 5						
6+00N 5+00E	201	--	0.1	2	100	< 5						
6+00N 0+25W	201	--	0.1	11	180	<< 5						
6+00N 0+50W	201	--	0.1	5	160	<< 5						
6+00N 0+75W	217	--	0.2	3	180	<< 5						
6+00N 1+00W	201	--	0.1	3	250	< 5						
6+00N 1+25W	201	--	0.1	9	320	< 5						
6+00N 1+50W	201	--	0.1	5	350	<< 5						
6+00N 1+75W	201	--	0.1	11	360	<< 5						
6+00N 2+00W	201	--	0.1	14	350	<< 5						
6+00N 2+25W	201	--	0.1	14	180	< 5						
6+00N 2+50W	201	--	0.1	3	150	< 5						
6+00N 2+75W	201	--	0.1	6	170	<< 5						
6+00N 3+00W	201	--	0.1	3	170	<< 5						
6+00N 3+25W	201	--	0.1	5	350	<< 5						
6+00N 3+50W	201	--	0.1	5	190	< 5						
6+00N 3+75W	201	--	0.1	3	190	< 5						
6+00N 4+00W	201	--	0.1	5	180	< 5						
6+00N 4+25W	201	--	0.1	7	130	< 5						
6+00N 4+50W	201	--	0.1	3	110	<< 5						
6+00N 4+75W	201	--	0.1	3	260	< 5						

CERTIFICATION :

*Nate Bichler*



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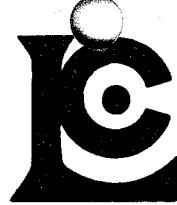
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## CERTIFICATE OF ANALYSIS A8727060

SAMPLE DESCRIPTION	PREP CODE	Ag ppm Aqua R	As ppm	Hg ppb	Au ppb FA+AA							
6+00N 5+00W	201	---	0.1	3	230	<5						
7+00N 0+25E	201	---	0.1	3	180	<<5						
7+00N 0+50E	201	---	0.1	3	150	<<5						
7+00N 0+75E	201	---	0.1	4	250	<<5						
7+00N 1+00E	201	---	0.1	3	140	<5						
7+00N 1+25E	201	---	0.1	3	90	<5						
7+00N 1+50E	201	---	0.1	5	270	<<5						
7+00N 1+75E	201	---	0.1	3	410	<<5						
7+00N 2+00E	201	---	0.1	4	360	<<5						
7+00N 2+25E	201	---	0.1	5	290	<<5						
7+00N 2+50E	201	---	0.1	3	310	<5						
7+00N 2+75E	201	---	0.1	3	230	<<5						
7+00N 3+00E	201	---	0.1	3	200	<<5						
7+00N 3+25E	201	---	0.1	9	370	<<5						
7+00N 3+50E	201	---	0.1	3	410	<<5						
7+00N 3+75E	201	---	0.1	4	360	<5						
7+00N 4+00E	201	---	0.1	4	200	<<5						
7+00N 4+25E	201	---	0.1	5	170	<<5						
7+00N 4+50E	201	---	0.1	4	390	<<5						
7+00N 4+75E	201	---	0.1	9	170	<<5						
7+00N 5+00E	201	---	0.1	4	290	<5						
7+00N 0+25W	201	---	0.1	3	230	<<5						
7+00N 0+50W	201	---	0.1	3	260	<<5						
7+00N 0+75W	201	---	0.1	3	200	<<5						
7+00N 1+00W	201	---	0.1	6	290	<<5						
7+00N 1+25W	201	---	0.1	5	210	<5						
7+00N 1+50W	201	---	0.1	3	240	<<5						
7+00N 1+75W	201	---	0.1	12	610	<<5						
7+00N 2+00W	201	---	0.1	3	370	<<5						
7+00N 2+25W	201	---	0.1	3	370	50						
7+00N 2+50W	201	---	0.1	12	350	<5						
7+00N 2+75W	201	---	0.1	15	450	<5						
7+00N 3+00W	201	---	0.1	11	370	<5						
7+00N 3+25W	201	---	0.1	3	170	<5						
7+00N 3+50W	201	---	0.1	3	400	<5						
7+00N 3+75W	201	---	0.1	12	270	<5						
7+00N 4+00W	201	---	0.1	16	240	<5						
7+00N 4+25W	201	---	0.1	12	310	<5						
7+00N 4+50W	201	---	0.1	5	100	<5						
7+00N 4+75W	217	---	0.2	2	380	<5						

CERTIFICATION : *[Signature]*



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## CERTIFICATE OF ANALYSIS A8727060

SAMPLE DESCRIPTION	PREP CODE	Ag ppm Aqua R	As ppm	Hg ppb	Au ppb FA+AA							
7+00N 5+00W	217	--	0.1	3	200	< S						
8+00N 0+25E	201	--	0.1	3	370	<< S						
8+00N 0+50E	201	--	0.1	3	130	<< S						
8+00N 0+75E	201	--	0.1	2	290	<< S						
8+00N 1+00E	201	--	0.1	2	160	< S						
8+00N 1+25E	201	--	0.1	4	250	< S						
8+00N 1+50E	217	--	0.2	2	180	<< S						
8+00N 1+75E	201	--	0.1	3	180	<< S						
8+00N 2+00E	201	--	0.1	2	360	10						
8+00N 2+25E	201	--	0.1	2	270	< S						
8+00N 2+50E	201	--	0.1	2	300	< S						
8+00N 2+75E	201	--	0.1	2	300	<< S						
8+00N 3+00E	201	--	0.1	4	190	<< S						
8+00N 3+25E	201	--	0.1	2	180	<< S						
8+00N 3+50E	201	--	0.1	3	280	< S						
8+00N 3+75E	201	--	0.1	3	400	< S						
8+00N 4+00E	201	--	0.1	15	560	<< S						
8+00N 4+25E	201	--	0.1	3	290	<< S						
8+00N 4+50E	201	--	0.1	5	290	<< S						
8+00N 4+75E	201	--	0.1	3	330	< S						
8+00N 5+00E	201	--	0.1	3	180	< S						
8+00N 0+25W	201	--	0.1	10	310	<< S						
8+00N 0+50W	201	--	0.1	3	430	<< S						
8+00N 0+75W	201	--	0.1	3	160	<< S						
8+00N 1+00W	201	--	0.1	3	200	< S						
8+00N 1+25W	201	--	0.1	3	170	< S						
8+00N 1+50W	201	--	0.1	3	130	<< S						
8+00N 1+75W	201	--	0.1	4	280	<< S						
8+00N 2+00W	201	--	0.1	4	260	<< S						
8+00N 2+25W	201	--	0.1	5	340	< S						
8+00N 2+50W	201	--	0.1	3	280	< S						
8+00N 2+75W	201	--	0.1	5	360	< S						
8+00N 3+00W	201	--	0.1	7	420	< S						
8+00N 3+25W	201	--	0.1	3	280	< S						
8+00N 3+50W	201	--	0.1	22	240	< S						
8+00N 3+75W	201	--	0.1	3	460	< S						
8+00N 4+00W	201	--	0.1	4	180	< S						
8+00N 4+25W	201	--	0.1	6	350	< S						
8+00N 4+50W	201	--	0.1	14	340	< S						
8+00N 4+75W	201	--	0.1	4	510	< S						

CERTIFICATION :

*Mark Bechler*



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## CERTIFICATE OF ANALYSIS A8727060

SAMPLE DESCRIPTION	PREP CODE	Ag ppm Aqua R	As ppm	Hg ppb	Au ppb FA+AA							
8+00N 5+00W	201	--	0.1	3	250	< 5						
9+00N 0+2SE	201	--	0.1	14	640	< 5						
9+00N 0+50E	201	--	0.1	4	280	< 5						
9+00N 0+75E	201	--	0.1	3	170	< 5						
9+00N 1+00E	201	--	0.1	4	200	50						
9+00N 1+25E	201	--	0.1	3	440	< 5						
9+00N 1+50E	201	--	0.1	5	590	< 5						
9+00N 1+75E	201	--	0.1	3	170	< 5						
9+00N 2+00E	201	--	0.1	3	250	< 5						
9+00N 2+25E	201	--	0.1	3	360	< 5						
9+00N 2+50E	201	--	0.1	3	330	10						
9+00N 2+75E	201	--	0.1	3	330	< 5						
9+00N 3+00E	201	--	0.1	5	200	< 5						
9+00N 3+25E	217	--	0.1	5	410	< 5						
9+00N 3+50E	201	--	0.1	3	330	< 5						
9+00N 3+75E	201	--	0.1	4	430	< 5						
9+00N 4+00E	201	--	0.1	9	380	< 5						
9+00N 4+25E	217	--	0.1	3	430	< 5						
9+00N 4+50E	217	--	0.1	3	340	< 5						
9+00N 4+75E	201	--	0.1	3	340	5						
9+00N 5+00E	201	--	0.1	3	370	10						
9+00N 0+2SW	201	--	0.1	9	250	< 5						
9+00N 0+50W	201	--	0.1	4	450	< 5						
9+00N 0+75W	201	--	0.1	3	200	< 5						
9+00N 1+00W	201	--	0.1	7	220	< 5						
9+00N 1+25W	201	--	0.1	3	110	< 5						
9+00N 1+50W	201	--	0.1	5	170	< 5						
9+00N 1+75W	201	--	0.1	3	200	< 5						
9+00N 2+00W	201	--	0.1	3	300	< 5						
9+00N 2+25W	201	--	0.1	3	200	< 5						
9+00N 2+50W	201	--	0.1	9	300	< 5						
9+00N 2+75W	201	--	0.1	9	190	< 5						
9+00N 3+00W	201	--	0.1	5	450	< 5						
9+00N 3+25W	201	--	0.1	3	470	< 5						
9+00N 3+50W	201	--	0.1	5	320	< 5						
9+00N 3+75W	201	--	0.1	9	260	< 5						
9+00N 4+00W	201	--	0.1	3	450	< 5						
9+00N 4+25W	201	--	0.1	11	580	< 5						
9+00N 4+50W	201	--	0.1	5	320	< 5						
9+00N 4+75W	201	--	0.1	9	260	< 5						

CERTIFICATION :

*Mark Bechler*



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## CERTIFICATE OF ANALYSIS A8727060

SAMPLE DESCRIPTION	PREP CODE		Ag ppm Aqua R	As ppm	Hg ppb	Au ppb FA+AA						
0+00W 7+25N	201	--	0.1	3	160	< 5						
0+00W 7+50N	201	--	0.1	3	140	< 5						
0+00W 7+75N	201	--	0.1	5	260	<< 5						
0+00W 8+00N	201	--	0.1	3	130	<< 5						
0+00W 8+25N	201	--	0.1	4	320	< 5						
0+00W 8+50N	201	--	0.1	10	250	< 5						
0+00W 8+75N	201	--	0.1	6	250	<< 5						
0+00W 9+00N	201	--	0.1	5	170	< 5						

CERTIFICATION :

Hart Bichler



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## CERTIFICATE OF ANALYSIS A8727060

SAMPLE DESCRIPTION	PREP CODE	Ag ppm Aqua R	As ppm	Hg ppb	Au ppb FA+AA							
9+00N 5+00W	217	--	0.1	9	230	<5						
10+00N 0+25E	201	--	0.1	15	620	<<5	0 + 00 N	3 + 75 E				
10+00N 0+50E	201	--	0.1	7	420	<<5	1 + 00 N	0 + 25 E				
10+00N 0+75E	201	--	0.1	5	140	<<5	3 + 00 N	5 + 00 W				
10+00N 1+00E	201	--	0.1	6	220	<5	4 + 00 N	1 + 25 W				
10+00N 1+25E	201	--	0.1	3	650	<5	5 + 00 N	5 + 00 W				
10+00N 1+50E	201	--	0.1	14	310	<<5	6 + 00 N	2 + 00 W				
10+00N 1+75E	201	--	0.1	15	480	<<5	7 + 00 N	2 + 75 W				
10+00N 2+00E	201	--	0.1	9	390	<<5	7 + 00 N	1 + 25 E				
10+00N 2+25E	201	--	0.1	5	250	<<5	8 + 00 N	1 + 25 E				
10+00N 2+50E	201	--	0.1	7	290	<5	9 + 00 N	1 + 00 W				
0+00W 0+00N	201	--	0.1	6	190	<<5						
0+00W 0+25N	201	--	0.1	4	300	<<5						
0+00W 0+50N	201	--	0.1	3	120	<<5						
0+00W 0+75N	201	--	0.1	3	60	<5						
0+00W 1+00N	201	--	0.1	3	190	<<5						
0+00W 1+25N	201	--	0.1	12	520	<<5						
0+00W 1+50N	201	--	0.1	3	470	<<5						
0+00W 1+75N	201	--	0.1	9	510	<<5						
0+00W 2+00N	201	--	0.1	3	1900	<<5						
0+00W 2+25N	201	--	0.1	3	160	<<5						
0+00W 2+50N	201	--	0.1	3	390	<<5						
0+00W 2+75N	201	--	0.1	2	280	<<5						
0+00W 3+00N	201	--	0.1	4	450	<<5						
0+00W 3+25N	201	--	0.1	3	310	<<5						
0+00W 3+50N	201	--	0.1	3	200	<5						
0+00W 3+75N	201	--	0.1	3	400	<<5						
0+00W 4+00N	217	--	0.1	3	160	<<5						
0+00W 4+25N	201	--	0.1	7	210	<<5						
0+00W 4+50N	201	--	0.1	4	210	<<5						
0+00W 4+75N	201	--	0.1	3	360	<5						
0+00W 5+00N	201	--	0.1	3	190	<<5						
0+00W 5+25N	201	--	0.1	9	390	<<5						
0+00W 5+50N	201	--	0.1	10	400	<<5						
0+00W 5+75N	201	--	0.1	9	260	<5						
0+00W 6+00N	201	--	0.1	4	330	<5						
0+00W 6+25N	201	--	0.1	3	230	<<5						
0+00W 6+50N	201	--	0.1	3	130	<<5						
0+00W 6+75N	201	--	0.1	5	240	<<5						
0+00W 7+00N	201	--	0.1	5	100	<5						

CERTIFICATION : *[Signature]*



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VANCOUVER, BC  
V6B 1N2

A8727059

Comments: CC: MUTUAL RESOURCES

## CERTIFICATE A8727059

FAIRBANK ENGINEERING LTD.

PROJECT : 145 BRE

P.O. # :

Samples submitted to our lab in Vancouver, BC.  
This report was printed on 17-DEC-87.

## SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
201	195	Dry, sieve -80 mesh; soil, sed.
203	4	Dry, sieve -35 mesh and ring
217	41	Soil, rock, core: Ring-no crush

## ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
6	240	Ag ppm: HNO <sub>3</sub> -aqua regia digest	AAS-BKGD CORR	0.1	200
13	240	As ppm: HNO <sub>3</sub> -aqua regia digest	AAS-HYDRIDE/EDL	1	10000
20	240	Hg ppb: HNO <sub>3</sub> -HCl digestion	AAS-FLAMELESS	5	100
100	240	Au ppb: Fuse 10 g sample	FA-AAS	5	10000



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PHONE (604) 984-0221

TO: FAIRBANK ENGINEERING LTD.

1201 - 675 W. HASTINGS ST.  
VANCOUVER, BC  
V6B 1N2

A8727060

Comments: CC: MUTUAL RESOURCES

## CERTIFICATE A8727060

FAIRBANK ENGINEERING LTD.

PROJECT : 145 BRE

P.O. # :

Samples submitted to our lab in Vancouver, BC.  
This report was printed on 17-DEC-87.

## SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
201	196	Dry, sieve -80 mesh; soil, sed.
217	12	Soil, rock, core: Ring-no crush

## ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
6	208	Ag ppm: HNO <sub>3</sub> -aqua regia digest	AAS-BKGD CORR	0.1	200
13	208	As ppm: HNO <sub>3</sub> -aqua regia digest	AAS-HYDRIDE/EDL	1	10000
20	208	Hg ppb: HNO <sub>3</sub> -HCl digestion	AAS-FLAMELESS	5	100
100	208	Au ppb: Fuse 10 g sample	FA-AAS	5	10000

### ASSAY PREPARATION

- 1.) Samples are sorted, then listed on assay sheets.
- 2.) The entire sample is crushed first in a primary jaw crusher, then in a secondary cone crusher.
- 3.) The crushed sample is reduced to a 200-400 gram sub-sample in a Jones Riffler, then dried.
- 4.) The dried material is pulverized to pass a 100 mesh screen, then rolled to homogenize.

### ASSAY ANALYTICAL METHODS

- 1.) Cu (%)  
A 2 gram sub-sample is digested in a hot perchloric-nitric acid mixture for two hours, cooled, then transferred into a 250 ml. volumetric flask. Aluminum Chloride is added as an ionization suppressant for Mo. The solutions are then analyzed on an atomic absorption instrument.
- 2.) Pb, Zn (%)  
These elements are analyzed as above with the addition of nitric acid to the final sample and standard solutions.
- 3.) Ag, Au (oz/ton)  
Silver and gold analyses are done by standard fire assay techniques. In the sample preparation stage the screens are checked for metallics which, if present, are assayed separately and calculated into the results obtained from the pulp assay.

**Geochem:**

**Copper, Lead, Zinc, Silver ppm:**

1.0 gm sample is digested with perchloric-nitric acid (HClO<sub>4</sub>-HNO<sub>3</sub>) for approximately 2 hours. The digested sample is cooled and made up to 25 mls with distilled water. The solution is mixed and solids are allowed to settle. Copper, lead, zinc and silver are determined by atomic absorption techniques. Silver and lead are corrected for background absorption.

**Detection limit:** Copper, Zinc - 1 ppm  
Silver - 0.2 ppm  
Lead - 2 ppm

**Gold F.A.-A.A. Combo Method ppb:**

For low grade samples and geochemical materials, 10 gram samples are fused in litharge, carbonate and siliceous flux with the addition of 10 mg of Au-free Ag metal and cupelled. The silver bead is parted with dilute HNO<sub>3</sub> and then treated with aqua regia. The salts are dissolved in dilute HCl and analyzed for Au on an atomic absorption spectrophotometer.

**Detection limit:** 5 ppb

**Mercury ppb:**

The sample is digested with nitric acid plus a small amount of hydrochloric acid. Following digestion the resulting clear solution is transferred to a reaction flask connected to a closed system absorption cell. Stannous sulfate is rapidly added to reduce mercury to its elemental state. The mercury is then flushed out of the reaction vessel into the absorption cell where it is measured by cold vapour atomic absorption methods with a Varian Spectrophotometer. The absorbance of samples is compared with the absorbance of freshly prepared mercury standard solutions carried through the same procedure.

**Detection limit: 5 ppb**

**Arsenic ppm:**

A 1.0 gm sample is digested with acids for approximately 2 hours. The digested solution is diluted to volume and mixed. An aliquot of the digest is acidified, reduced with KI and mixed. A portion of the reduced solution is converted to arsine with NaBH4 and the arsenic content determined using flameless atomic absorption.

**Detection limit: 1 ppm**

JAN 15 1982

## **APPENDIX 3**

### **Soil Sample Collection Records**

L4toon, west side

**AREA:** \_\_\_\_\_  
**COLLECTOR:** \_\_\_\_\_  
**DATE:** \_\_\_\_\_

**CLIENT:** \_\_\_\_\_  
**PROJECT:** \_\_\_\_\_  
**MAP:** \_\_\_\_\_



**FAIRBANK**  
**ENGINEERING LTD.**

## SAMPLE SUMMARY

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7

9.8.1

L 4400 EASTSIDE

**AREA:** \_\_\_\_\_  
**COLLECTOR:** \_\_\_\_\_  
**DATE:** \_\_\_\_\_

**CLIENT:** \_\_\_\_\_  
**PROJECT:** \_\_\_\_\_  
**MAP:** \_\_\_\_\_



**FAIRBANK**  
**ENGINEERING LTD**

## SAMPLE SUMMARY

L5100 N, west side.

AREA: \_\_\_\_\_  
 COLLECTOR: \_\_\_\_\_  
 DATE: \_\_\_\_\_

CLIENT: \_\_\_\_\_  
 PROJECT: \_\_\_\_\_  
 MAP: \_\_\_\_\_



SAMPLE SUMMARY

SAMPLE NUMBER	LOCATION	depth	REMARKS	TYPE	LAB. ANALYSIS											
	5+00N, 5+00W	50	black-brown, sandy mud													
	4+75	50	" " " "													
	4+50	75	brown mud, organic rich													
	4+25	40	brown mud													
	4+00	50	orangey brown & grey clay													
	3+75	100	orange & grey clay													
	3+50	50	orangey brown, muddy clay													
	3+25	100	brown mud													
	3+00	50	grey sandy mud													
	2+75	50	brown mud													
	2+50	50	grey-brown mud													
	2+25	50	brown mud													
	2+00	75	grey clay													
	1+75	50	grey mud													
	1+50	75	brown mud													
	1+25	50	Grey little orangey													
	1+00	70	Brownish grey, little organic													
	0+75	60	" "													
	0+50	30	greyish Brown hit rock													
	0+25	30	" " " "													
	0+00	50	Grey little organic													
DUPPLICATE	5+00	50	black-brown, sandy mud													

AN 21

L 5700 EASTSIDE

**AREA:** \_\_\_\_\_  
**COLLECTOR:** \_\_\_\_\_  
**DATE:** \_\_\_\_\_

**CLIENT:** \_\_\_\_\_  
**PROJECT:** \_\_\_\_\_  
**MAP:** \_\_\_\_\_



**FAIRBANK**  
ENGINEERING INC.

## SAMPLE SUMMARY

SAMPLE NUMBER	LOCATION	REMARKS	TYPE	LAB. ANALYSIS					
				1	2	3	4	5	6
MUTF	L5+00	500E	50cm	Black	grey	little organic			
	4+75	40		"	"	"			
	4+50	1m	Brown, organic rich, swamp						
	4+25	1		"	"	"			
	4+00	1	Black	"	"	"			
	3+75	1	Brown	"	"	"			
	3+50	70	hit rock, Black organic	"					
	3+25	1	Brown organic rich	"					
	3+00	1	"	"	"	"			
	2+75	1	"	"	"	"			
	2+50	1	"	"	"	"			
	2+25	1	"	"	"	"			
	2+00	1	"	"	"	"			
	1+75	1	"	"	"	"			
	1+50	1	Black	"	"	"			
	1+25	1	Brown	"	"	"			
	1+00	1	Grey clay						
	0+75	50	Grey Brown mud						
	0+50	60	BLACK, Brown, little organic						
	0+25	30	hit rock, Grey, Brown, little organic						

# Baseline (0+00W)

AREA: BRE 45, 46, 47, 48  
 COLLECTOR: A. Patti / T. H. Gale  
 DATE: Nov. 12

CLIENT: Mutual Resources  
 PROJECT:  
 MAP:



## SAMPLE SUMMARY

SAMPLE NUMBER	LOCATION	DEPTH	REMARKS	TYPE	LAB. ANALYSIS											
					1	2	3	4	5	6	7	8	9	10	11	12
MUTF	0+00W, 0+00N	50 cm	gray, above bedrock.													
	0+25N	40	grey-brown, organic rich													
	0+50	40	Brown gravelly mud.													
	0+75	50	grey mud.													
	1+00	20	Grey, hit rock													
	1+25	80	grey clay													
	1+50	50	brown, dryish mud													
	1+75	50	grey, brown clay													
	2+00	40	grey, brown, hit rock													
	2+25	30	grey brown mud													
	2+50	40	BLACK, Brown hit rock													
	2+75	50	Grey Brown "													
	3+00	-30	grey mud													
	3+25	30	grey, Black, little organic, hit rock													
	3+50	80	hit rock Blackish grey													
	3+75	50	Black organic rich													
	4+00	1m	Brown organic rich swamp													
	4+25	1m	Brown organic Rich swamp													
	4+50	75	brown + orange - brown mud.													
	4+75	60	Black grey little organic													
	5+00	50	Grey, little organic													
	5+25	60	Grey mud													
	5+50	50	green-brown dry mud													
	5+75	50	brown mud + some orange-brown													
	6+00	50	Brownish grey													
	6+25	30	grey-brown mud													
	6+50	50	brown mud													
	6+75	100	brown muddy clay													
	7+00	50	brown + orange mud													
	7+25	50	brown mud													
	7+50	30	grey mud													
	7+75	50	brown mud													
	8+00	75	brown sandy mud													
	8+25	50	black sandy mud													
	8+50	100	orange-brown dirt													
	8+75	75	brown mud													
	9+00	50	brown mud													

L 0f00N, west side

**AREA:** \_\_\_\_\_  
**COLLECTOR:** \_\_\_\_\_  
**DATE:** \_\_\_\_\_

**CLIENT:** \_\_\_\_\_  
**PROJECT:** \_\_\_\_\_  
**MAP:** \_\_\_\_\_



## **SAMPLE SUMMARY**

Looton, east side

AREA: BRE, 45, 46, 47, 48  
COLLECTOR: A. Pratt  
DATE: NOV. 12 / 81

**CLIENT:** Mutual Resources  
**PROJECT:** \_\_\_\_\_  
**MAP:** \_\_\_\_\_



## SAMPLE SUMMARY

L1400 west side

**AREA:** \_\_\_\_\_  
**COLLECTOR:** \_\_\_\_\_  
**DATE:** Nov. 14

**CLIENT:** \_\_\_\_\_  
**PROJECT:** \_\_\_\_\_  
**MAP:** \_\_\_\_\_



**FAIRBANK**  
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## SAMPLE SUMMARY

L 1400 EAST side

**AREA:** \_\_\_\_\_  
**COLLECTOR:** \_\_\_\_\_  
**DATE:** Nov. 13, 14

**CLIENT:** \_\_\_\_\_  
**PROJECT:** \_\_\_\_\_  
**MAP:** \_\_\_\_\_



# **FAIRBANK** ENGINEERING LTD.

## SAMPLE SUMMARY

L 2+00 N, WEST side

**AREA:** \_\_\_\_\_  
**COLLECTOR:** \_\_\_\_\_  
**DATE:** \_\_\_\_\_

**CLIENT:** \_\_\_\_\_  
**PROJECT:** \_\_\_\_\_  
**MAP:** \_\_\_\_\_



## SAMPLE SUMMARY

L2+CON, EAST SIDE

**AREA:** \_\_\_\_\_  
**COLLECTOR:** \_\_\_\_\_  
**DATE:** \_\_\_\_\_

**CLIENT:** \_\_\_\_\_  
**PROJECT:** \_\_\_\_\_  
**MAP:** \_\_\_\_\_



## SAMPLE SUMMARY

L 3+00N, west side.

AREA: \_\_\_\_\_  
COLLECTOR: \_\_\_\_\_  
DATE: \_\_\_\_\_

CLIENT: \_\_\_\_\_  
PROJECT: \_\_\_\_\_  
MAP: \_\_\_\_\_



SAMPLE SUMMARY

SAMPLE NUMBER	LOCATION	depth (cm)	REMARKS	TYPE	LAB. ANALYSIS												
	3+00N, 5+00W	60	gray mud														
	4+75	50	grey-brown mud														
	4+50	75	orange-brown, B														
	4+25	50	brown mud														
	4+00	100	brown, organic														
	3+75	100	" "														
	3+50	100	" "														
	3+25	100	" "														
	3+00	100	" "														
	2+75	50	brown mud, organic rich														
	2+50	50	" "														
	2+25	50	" "														
	2+00	100	" "														
	1+75	30	brown mud.														
	1+50	50	orange-brown mud														
	1+25	75	brown mud														
	1+00	50	grey mud														
	0+75	75	" "														
	0+50	50	green-brown sandy mud														
	0+25	50	grey mud														
DUPLICATE	5+00	60	grey mud.														

L3+00N EAST SIDE

**AREA:** \_\_\_\_\_  
**COLLECTOR:** \_\_\_\_\_  
**DATE:** \_\_\_\_\_

**CLIENT:** \_\_\_\_\_  
**PROJECT:** \_\_\_\_\_  
**MAP:** \_\_\_\_\_



## SAMPLE SUMMARY

L 7+00 N EASTSIDE

AREA:  
COLLECTOR:  
DATE:CLIENT:  
PROJECT:  
MAP:

## SAMPLE SUMMARY

SAMPLE NUMBER	LOCATION	REMARKS	TYPE	LAB. ANALYSIS											
				1	2	3	4	5	6	7	8	9	10	11	12
MUT F	L 7+00 N 1#25 E	40	Grey Brown												
	0+50	30	bit rock Brown mud												
	0+75	10	" " " GREY												
	1+00	40	Grey Brown												
	1+25	60	" "												
	1+50	70	Green clay												
	1+75	70	" "												
	2+00	60	Greenish grey mud												
	2+25	50	bit rock Brown organic												
	2+50	60	" " " "												
	2+75	50	Brownish grey												
	3+00	60	bit rock Brownish grey												
	3+25	70	" " Black little organic												
	3+50	20	" " Brown gray mud												
	3+75	40	" "												
	4+00	10	" " "												
	4+25	20	" " "												
	4+50	60	Brown little orange												
	4+75	50	Orangey Brown												
	5+00	20	bit rock Black organic.												
DUPLICATE 1+75 70 green clay															

L 8FOON, west side

**AREA:** \_\_\_\_\_  
**COLLECTOR:** \_\_\_\_\_  
**DATE:** \_\_\_\_\_

**CLIENT:** \_\_\_\_\_  
**PROJECT:** \_\_\_\_\_  
**MAP:** \_\_\_\_\_



## SAMPLE SUMMARY

L 8+00 EAST side

**AREA:** \_\_\_\_\_  
**COLLECTOR:** \_\_\_\_\_  
**DATE:** \_\_\_\_\_

**CLIENT:** \_\_\_\_\_  
**PROJECT:** \_\_\_\_\_  
**MAP:** \_\_\_\_\_



**FAIRBANK**  
ENGINEERING LTD.

## SAMPLE SUMMARY

Lagoon, west side

**AREA:** \_\_\_\_\_  
**COLLECTOR:** \_\_\_\_\_  
**DATE:** \_\_\_\_\_

**CLIENT:** \_\_\_\_\_  
**PROJECT:** \_\_\_\_\_  
**MAP:** \_\_\_\_\_



# **FAIRBANK** ENGINEERING LTD.

## **SAMPLE SUMMARY**

L 9+00 N, east side

AREA: \_\_\_\_\_  
 COLLECTOR: \_\_\_\_\_  
 DATE: \_\_\_\_\_

CLIENT: \_\_\_\_\_  
 PROJECT: \_\_\_\_\_  
 MAP: \_\_\_\_\_



### SAMPLE SUMMARY

SAMPLE NUMBER	LOCATION	REMARKS	TYPE	LAB. ANALYSIS														
				TEST 1			TEST 2			TEST 3			TEST 4			TEST 5		
M/m	0+25	30	Orange Brown dirt															

L 6toon, west side

**AREA:** \_\_\_\_\_  
**COLLECTOR:** \_\_\_\_\_  
**DATE:** \_\_\_\_\_

**CLIENT:** \_\_\_\_\_  
**PROJECT:** \_\_\_\_\_  
**MAP:** \_\_\_\_\_



**FAIRBANK**  
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## SAMPLE SUMMARY

L 6+00 EAST SIDE

**AREA:** \_\_\_\_\_  
**COLLECTOR:** \_\_\_\_\_  
**DATE:** \_\_\_\_\_

**CLIENT:** \_\_\_\_\_  
**PROJECT:** \_\_\_\_\_  
**MAP:** \_\_\_\_\_



**FAIRBANK**  
**ENGINEERING LTD**

## SAMPLE SUMMARY

L7TOON, west side

**AREA:** \_\_\_\_\_  
**COLLECTOR:** \_\_\_\_\_  
**DATE:** \_\_\_\_\_

**CLIENT:** \_\_\_\_\_  
**PROJECT:** \_\_\_\_\_  
**MAP:** \_\_\_\_\_



**FAIRBANK**  
ENGINEERING LTD

## **SAMPLE SUMMARY**



LOCATION LINE SURVEY OF 2 POST MINERAL CLAIMS BRE #33 TO BRE #50 INCLUSIVE  
AND BRE #1 FRACTION  
SKEENA MINING DIVISION  
QUEEN CHARLOTTE DISTRICT

B.C.G.S. 103 F.059

SCALE, 1:5000  
0 50 100 200 300 400 500 m  
(ALL DIMENSIONS ARE IN METRES AND DECIMALS THEREOF)

LEGEND

BEARINGS ARE ASTRONOMIC DERIVED FROM  
THE EAST BOUNDARY OF MINERAL CLAIM BABE #15  
AND REFERRED TO THE S.E. CORNER BABE #3

BEARINGS TO BEARING TREES ARE MAGNETIC

- LOC. POST DENOTES LOCATION POST
- L.C.P. DENOTES LEGAL CORNER POST
- O.C.P. DENOTES OLD CAPPED IRON POST FOUND
- O.I.P. DENOTES OLD IRON POST FOUND
- IP. DENOTES IRON POST SET
- R.D. DENOTES REFERENCE POST
- O. DENOTES OLD
- (C) DENOTES CALCULATED
- B.T. DENOTES BEARING TREE
- T.H. DENOTES TRANSVERSE HUB
- WT. DENOTES WITNESS
- m. DENOTES SQUARE METRES
- ha. DENOTES HECTARES

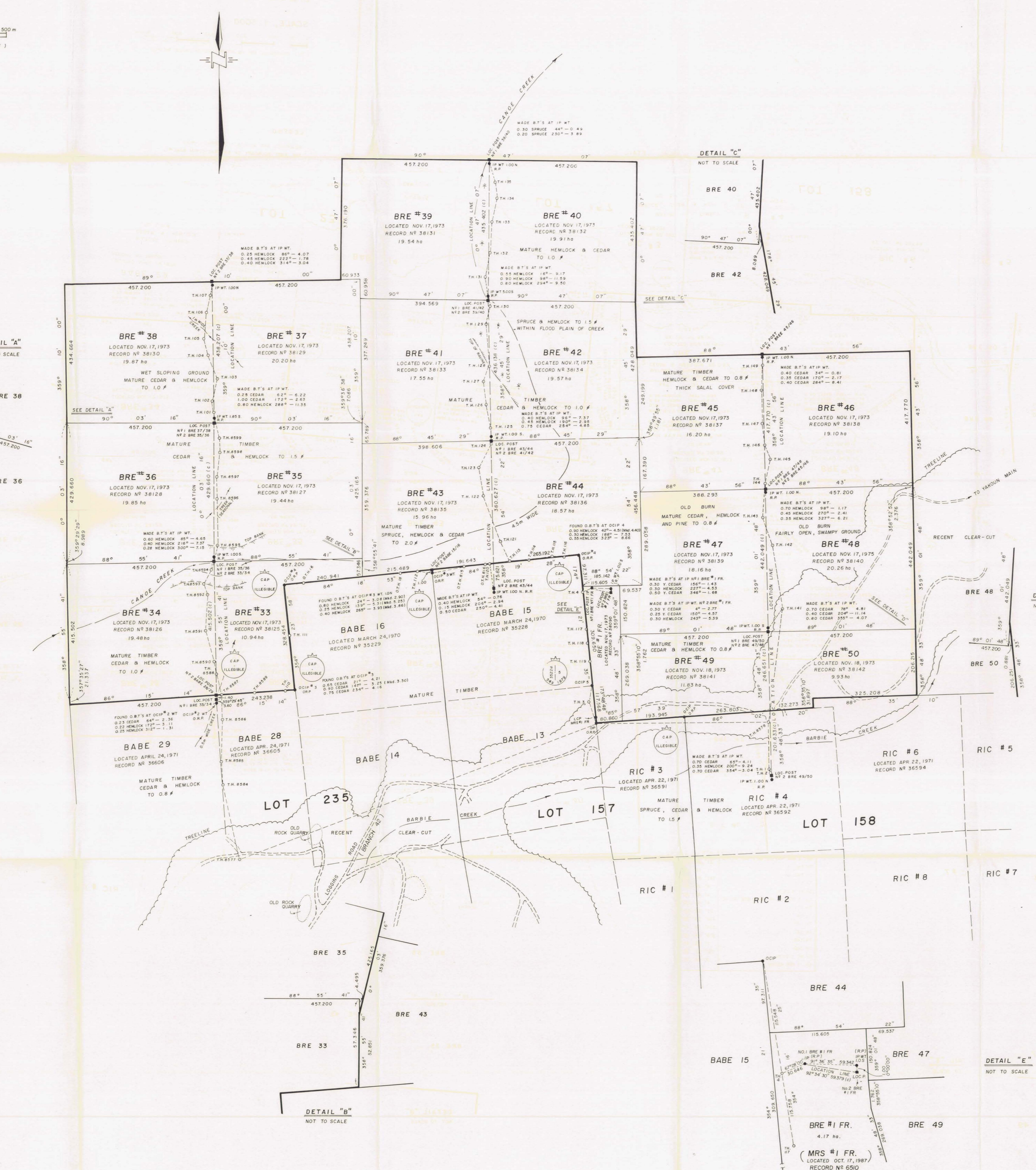


TABLE		
TRaverse		
Location Lines BRE 33/34, BRE 35/36, BRE 37/38		
STATION	BEARING	DISTANCE
TH 857	175° 29' 45"	5.000
TH 858	66° 17' 45"	16.808
TH 859	347° 37' 45"	67.035
TH 860	347° 21' 45"	40.226
TH 861	345° 14' 45"	98.870
OCIP (4)	354° 25' 30"	159.248
TH 16	84° 18' 15"	59.528
TH 18	84° 23' 45"	299.538
TH 852	83° 27' 15"	53.173
TH 853	86° 45' 20"	44.239
TH 854	86° 45' 20"	99.976
IP 1 BRE 35/34	180° 00' 00"	1.000
TH 855	180° 00' 00"	24.424
TH 856	14° 13' 05"	78.275
TH 857	359° 09' 05"	144.326
TH 858	7° 37' 05"	67.463
TH 859	351° 34' 50"	42.866
TH 860	344° 27' 50"	49.723
IP 1 BRE 35/36, No 1 BRE 37/38	180° 00' 00"	1.850
TH 101	359° 45' 55"	34.151
TH 102	359° 42' 10"	35.559
TH 103	15° 59' 00"	69.061
TH 104	338° 25' 45"	79.142
TH 105	346° 36' 45"	52.738
TH 106	13° 37' 05"	55.045
IP 1 BRE 37/38	2° 45' 55"	39.874
TH 857	0° 00' 00"	1.000
No 2 BRE 35/36, No 1 BRE 37/38	174° 16' 25"	115.548
TH 4	174° 16' 25"	112.708
TH 117	275° 45' 00"	32.668
TH 118	172° 44' 10"	57.418
TH 119	175° 04' 10"	75.610
OCIP (5)	191° 10' 30"	49.973
TH 3	161° 49' 55"	71.445
IP 6	249° 07' 25"	178.377
TH 854	347° 32' 20"	238.868
TH 855	356° 04' 30"	71.323
TH 856	1° 49' 40"	130.630
TH 857	357° 40' 45"	75.945

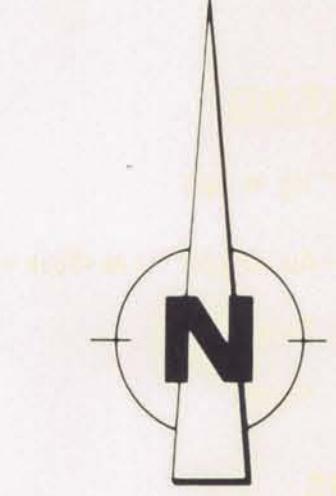
  

Location Lines BRE 39/40, BRE 41/42, BRE 43/44		
No 2 BRE 43/44	180° 00' 00"	1.000
IP 1 BRE 43/44	340° 50' 18"	76.893
TH 120	82° 26' 45"	63.390
TH 121	339° 23' 30"	67.293
TH 122	25° 33' 35"	82.719
TH 123	9° 25' 35"	8.427
TH 124	180° 00' 00"	1.000
No 1 BRE 43/44, No 2 BRE 41/42	180° 41' 00"	7.446
TH 124	1° 45' 00"	46.916
TH 125	349° 17' 45"	74.342
TH 126	263° 38' 40"	74.567
TH 127	20° 17' 55"	50.163
TH 128	356° 27' 10"	130.291
TH 129	6° 50' 10"	52.941
TH 130	353° 39' 40"	26.475
IP 1 BRE 43/44, No 2 BRE 39/40	180° 00' 00"	5.000
TH 130	172° 11' 45"	21.512
TH 131	354° 37' 45"	93.840
TH 132	11° 02' 20"	76.846
TH 133	12° 40' 35"	78.023
TH 134	353° 15' 45"	51.225
TH 135	343° 44' 35"	70.380
No 1 BRE 39/40	0° 00' 00"	1.000
Location Lines BRE 49/50, BRE 47/48, BRE 45/46		
No 2 BRE 49/50	180° 00' 00"	1.000
IP 1 BRE 49/50	329° 05' 45"	8.587
TH 2	347° 39' 10"	14.545
TH 1	359° 40' 50"	144.840
TH 857	7° 10' 45"	353.912
TH 141	213° 49' 45"	81.000
IP 1 BRE 49/50	180° 00' 00"	1.000
No 1 BRE 49/50, No 2 BRE 47/48	33° 26' 20"	81.832
TH 141	351° 18' 15"	199.639
TH 142	341° 02' 50"	91.875
TH 143	4° 45' 20"	88.0
IP 1 BRE 49/50	180° 00' 00"	1.000
No 1 BRE 47/48, No 2 BRE 45/46	4° 45' 20"	18.187
TH 144	11° 04' 50"	74.686
TH 145	339° 39' 35"	48.405
TH 146	354° 10' 45"	66.877
TH 147	358° 44' 35"	103.561
TH 148	1° 59' 45"	77.643
IP 1 BRE 49/50	357° 02' 35"	34.237
No 1 BRE 45/46	0° 00' 00"	1.000

GEOLOGICAL BRANCH ASSESSMENT REPORT  
17.015 FIG. 87-2

I, PAUL BARTLETT A BRITISH COLUMBIA LAND SURVEYOR OF SURREY IN BRITISH COLUMBIA, CERTIFY THAT I WAS PRESENT AT AND PERSONALLY SUPERINTENDED THE SURVEY REPRESENTED BY THIS PLAN AND THAT THE SURVEY AND PLAN ARE CORRECT. THE SURVEY WAS COMPLETED ON THE 18th DAY OF OCTOBER, 1987

Paul Bartlett  
B.C.L.S.



**LEGEND**

Hg in ppb

Au in ppb (Au<5ppb not plotted)

Stream

Road

**CONTOURS**

750 ppb Hg

500 ppb Hg

