

GEOLOGICAL

REPORT OF WORK DONE ON REVERTED CROWN
GRANTED MINERAL CLAIMS BLACK BEAR,
ALDEBARAN, AND I'LL CHANCE IT; ALICE
ARM, SKEENA DIVISION, CASSIAR DISTRICT,
BRITISH COLUMBIA, IN 1980.

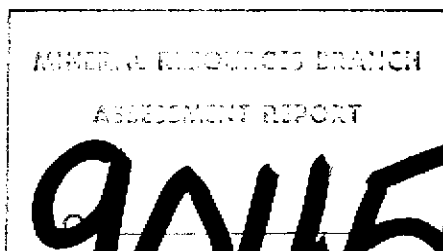
Claims located on NTS Aiyansh sheet, 103 P/6
Group centered on 54° 29' 30" N, 128° 29' 24" W.

Claims held by A. Lorinde for ABB Syndicate.
Work ordered and financed by J.-J. Treyvaud
and H. Bertschmann.

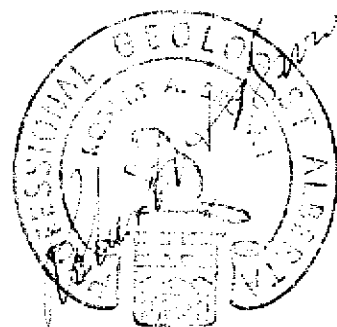
Consultant and Author

Robert A. Brown,
P. Geol.

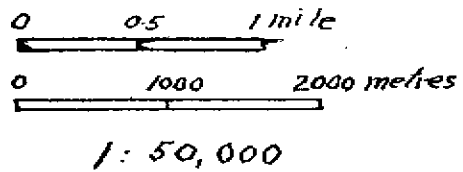
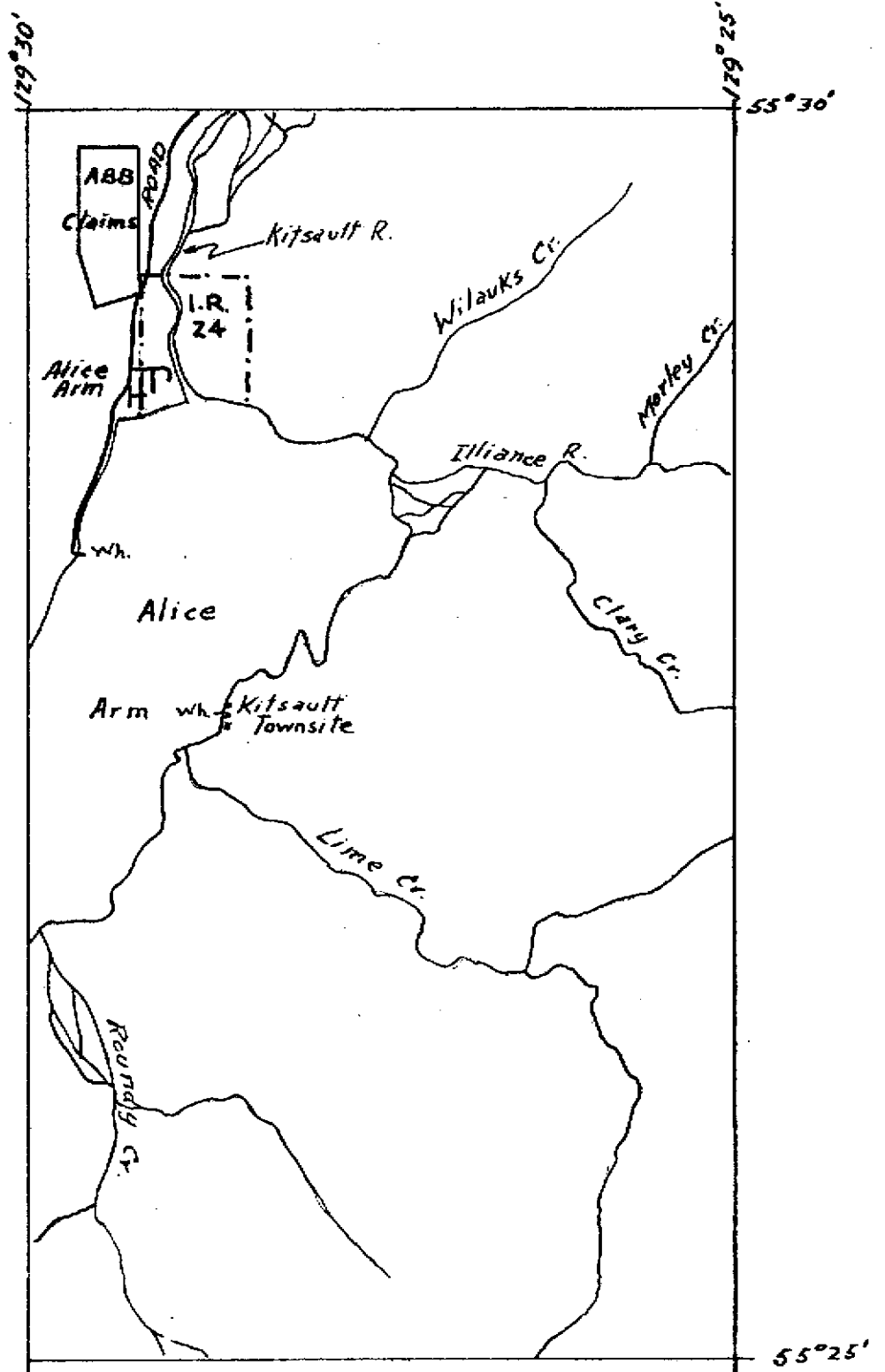
Victoria, B.C.
February 19, 1981.



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Robert A. Brown

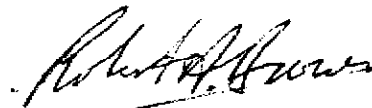
GEOLOGIST

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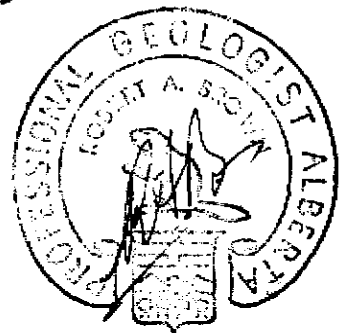
DECLARATION

I, Robert A. Brown, declare the following:

1. I am a professional geologist, a member of the Association of professional Engineers, Geologists, and Geophysicists of Alberta since July 1971.
2. I hold the degree of Ph. D. from McGill University.
3. I have actively practised the profession of geology since 1939, as a mine geologist from 1939 to 1945, and as a petroleum geologist from 1945 to 1970. From 1970 to the present I have been an instructor in Geology at University of Victoria and have engaged in consulting work.
4. As a member of ABB syndicate I have a one-third interest in the claims reported upon herein.
5. At the request of those who took an option on the claims in 1980, ABB contracted to do the assessment work reported herewith with the stipulation that I should plan, report on, and exercise general supervision over the work through Syndicate member G.S. Brown who exercised direct supervision in the field.
6. I have personal knowledge of the claims from work done on them in 1975 and 1976 by G.S. Brown and myself as noted in reports filed with the B.C. Department of Energy, Mines, and Petroleum Resources for the work done in each of those years.



Robert A. Brown,
P. Geol.



REPORT ON WORK DONE ON REVERTED CROWN GRANTED
MINERAL CLAIMS BLACK BEAR, ALDEBARAN, AND I'LL
CHANCE IT; ALICE ARM, SKETCHA MINING DIVISION,
BRITISH COLUMBIA, IN 1980.

INTRODUCTION

The subject claims are held in the name of Angelo Lorinde for ABB Synaicate, a registered organization of which the members are A. Lorinde, G.S. Brown, and R.A. Brown. Each member holds a one-third interest in the claims.

In 1980 the claims were optioned to a group represented by messers J-J. Treyvaud and H. Bertschmann who contracted with ABB to conduct an examination and evaluation of the property. This report deals with the work done, its results, and its costs. *

OBJECTIVES

The principal effort was to examine the Black Bear and I'll Chance It claims because the present owners had no first hand knowledge of the geology and prospects of these claims. Search of old records failed to turn up definite information about former evaluation work on these two claims although it was known from personal communications from A. Lorinde and I. Fiva that some prospecting had been done on them. It was not an objective of the 1980 work to do further evaluation of Aldebaran as this claim had been well evaluated by work done by mining between the 1920's and 1960, by various examinations by officers of the B.C. Department of Mines as reported in successive Annual Reports of the Department, by a report made by McDonald Consultants Ltd., and by the work done by Messers Brown and Brown in 1975 and 1976. (See "References".) *

* The annotated references give an outline of the history of the property.

WORK DONE AND METHODS OF WORK

A contract was made between ABB and two individuals to run a net of traverses east-west across the claims at intervals of 250 feet (76 metres), these to be tied by north-south traverses approximately along the east and west claim boundaries and the center lines. Direction and distance along the traverses was determined by Brunton Compass and chain. In addition elevation observations were made at intervals along the traverses by aneroid altimeter.

All outcrops found along the traverses were examined and most of them were sampled. Their location was plotted. The result was a reconnaissance geological map of the claims. The elevation observations allowed the construction of an approximate topographic map of each claim. (See Illustrations accompanying.)

At the beginning of the survey an attempt was made to locate the exact claim boundaries which had been surveyed and marked out in 1911. This was unsuccessful so the approximate position of a corner of each claim was located by chain and compass traverse from points identifiable on the old survey plats and NTS Sheet 103/P6, Edition 1. The traversing on each claim was then tied to the approximate claim corners so established.

The traverse lines were marked at intervals with plastic flagging tape to aid in the later relocation of features of interest.

Approximately 5 miles (7.9 km) of traverses were run and some 100 outcrops were found and examined.

Thirty-nine of the outcrops showed indications of veins and or mineralization. Visual examination of the samples from these outcrops by the writer revealed

18 which appeared to have sufficient mineralization to warrant assaying. Besides these three grab samples were taken from Aldebaran (GSB 2/80, 3/80 & 4/80) and these were also assayed. The sample locations are shown on the accompanying illustrations. The assay results are listed in Table 1.

TABLE 1

Sample No.	Ounces Ag per ton	Ounces Au per ton
1/80	0.44	0.064
2/80	9.68	0.398
3/80	4.28	0.964
9/80	0.16	0.003
10/80	0.12	Trace
13/80	159.46	0.732
15/80	9.84	0.062
16/80	0.88	0.024
18/80	0.94	0.026
19/80	25.32	0.038
20/80	0.36	Trace
23/80	6.26	4.462
24/80	0.22	0.003
28/80	2.80	0.010
35/80	6.74	0.226
36/80	0.26	0.014
38/80	0.14	Trace
39/80	55.84	0.210
GSB 2/80	3.60	0.020
GSB 3/80	34.40	0.150
GSB 4/80	145.90	0.410

G.S. Brown provided direct supervision and logistic management in the field, making two visits totalling 21 days. R.A. Brown, P. Geol. planned the work, compiled and evaluated its results, and made reports thereon for the optionees. He also made this report for the department of Energy, Mines, and Petroleum Resources.

GEOLOGY AND INTERPRETATION

The country rock in Black Bear and 1'11 Chance It is predominantly the same as in Aldebaran, i.e. argillite. There are some dykes also such as are common in this area.

More veins were found on Black Bear than on the

other claim. In both cases the veins are thin, few exceeding five inches (12 cm) in thickness. Exposed length of vein is as much as 55 feet (16.5 m), but most are exposed for shorter lengths. No stripping was done, measurements were made only on natural exposures, so it is possible that many veins have greater strike length than is apparent from the 1980 fieldwork.

On Black Bear many of the veins, especially those that carry good values in silver, strike in a north-northwesterly direction. Dip of the veins is towards the southwest or northeast, the former being more usual. Dips are moderate, 30° to 50° being the general range. The joints, dykes and one possible fault noted on this claim strike northwesterly. This suggests that many of the veins may be emplaced in tension fractures along the crestal portion of an anticlinal fold.

The veins on Black Bear are of two types. One is composed of massive crystalline quartz mineralized with sulphides and ruby silver. The other type is somewhat vuggy with pyramidally terminated quartz crystals projecting into the vugs; the associated mineral is predominantly limonite. The former type of vein carries the best silver values. Gold values higher than 0.100 ounces per ton are usually associated with veins that have silver content in the range of ounces per ton, but there is not a close correspondence between high silver content and high gold content in the same vein.

The veins found on I'll Chance It are too few and the outcrops are too widely separated to show a pattern suggesting structural control. Both the massive and vuggy types of vein occur here also, and the mineralization corresponds to that of the Black Bear veins.

If it is assumed that there is a zone extending across Black Bear from localities 13 and 14 southward to localities 13 and 15 and that this zone contains silver and gold values at least equal to those in the four localities, and if it is further assumed assumed that the zone were mined to a width of three feet and a depth of 10 feet, then the 1125 tons of ore mined might contain 4265.2 ounces of silver and 47.81 ounces of gold for a gross value of \$96,897.20 with silver valued at \$16.00 and gold at \$600.00 per ounce. Such a calculation is, of course, very highly speculative given the amount of data on which it is based. It does however lend good encouragement for further more detailed prospecting of the Black Bear claim.

COSTS

2 contractors, prospecting;	
6 weeks at \$300.00/man/week	\$3600.00
Liability and accident insurance	40.00
Transportation; men, equipment and luggage, Victoria to Alice Arm and return: \$1526.30 ÷ 2 =	763.15
Food supplies	224.00
Supervision;	
G.S. Brown, 21 days at \$200.00/day	4200.00
R.A. Brown 13 days at \$400.00/day	5200.00
Assays	171.00
Drafting services	40.00
Evaluation of results and report writing;	
R.A. Brown, 4 days at \$400.00/day	1600.00
Management fee;	
10% of gross cost to optionee *	1576.99
TOTAL	17415.14

*The gross cost included some items of surveying equipment etc. so is somewhat greater than the total of the above items.

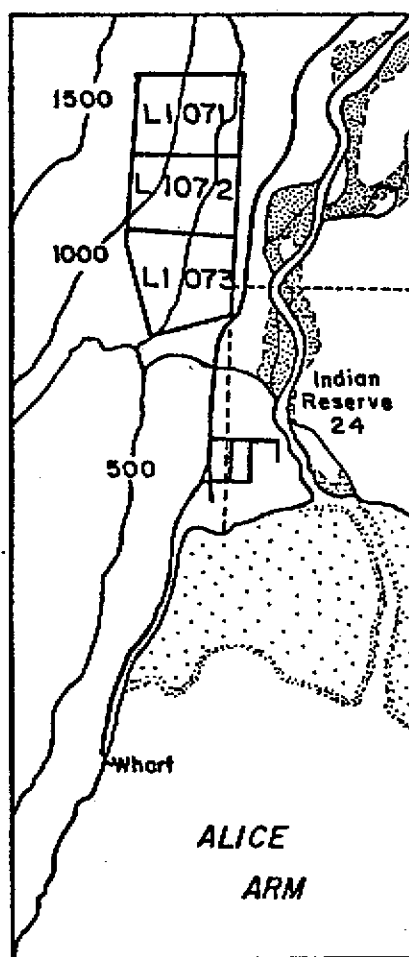


A handwritten signature in cursive script that reads "Robert A. Brown".

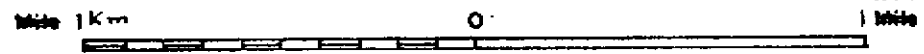
Robert A. Brown, P. Geol.

LOCATION MAP : ABB CLAIMS

Cassiar, Alice Arm



Scale 1:20,000



- L 1071. Black Bear
- L 1072. Aldebaran
- L 1073. I'll Chance It

Figure 1

ANNOTATED REFERENCES

Annual Reports: Minister of Mines, B.C. 1911 and later.

From the 1911 report onwards to the present numerous reports have been published dealing with the claims on which the fieldwork was done in 1980. These show that Black Bear, Aldebaran, and I'll Chance it have at times been part of larger groups of claims known as the Esperanza or Lori properties. The Annual Reports trace the gradual development of the property from a prospect to a mine which intermittently produced and shipped ore. They also make it clear that the greatest amount of work was done on Aldebaran where, by 1968, 10 adits had been driven. For several years small amounts of ore were shipped for custom refining, this was selected highgrade ore such as that shipped in 1911 which yielded 7 ounces of gold and 7140 ounces of silver from 61 tons of ore; or the 1924 shipment which contained 28 ounces of gold and 17,501 ounces of silver.

Brown, R.A.; Reports of work done in 1975 and 1976 are on file with the Mines Department. This work involved a general examination of the claims, some work on the Jeep trail and a chain and compass survey of it, and sampling of four dumps found on the property. The work was concentrated on Aldebaran.

Bush, James; July 12, 1958.

A letter from Bush, Vicepresident (? of Esperanza) to a Mr. Harris mentions the purchase of drills and steel and an examination of the property by "an engineer". Also mentioned is a 150-foot diamond drill hole collared in No. 4 adit near the entrance. The writer states that "slush" (?sludge) from this hole ran 90 ounces of silver per ton. The drilling referred to seems to have been done in 1948 or 1949. He also says that in the vicinity of No. 1 adit five trenches exposed veins assaying 180 ounces of silver per ton and that five sacks of material from this showing were sent to the Tacoma smelter; but there is no mention of returns from this shipment.

Carter, N.; Personal communication and Annual Reports.

Carter worked in the Alice Arm area for several seasons in the 1960's. His report in the Annual Report for 1969 shows that after Wober's work in 1968 the old foot trail to the claims had been bulldozed to a Jeep trail and that 6 diamond drill holes had been drilled in the vicinity of the adits on Aldebaran. Several holes intersected veins carrying significant silver values.

Fiva, I.; Personal communication.

Fiva states that he worked as a miner on Aldebaran about 1968 or 1969. He started to drive a raise from No. 5 adit to intersect the possible southward extension of the vein in No. 4 adit but the work was stopped after only a few feet of advance.

Macdonald Consultants Ltd.(?);

From Xerox copies of maps and cross sections in the Mines Department files it appears that this firm examined the cores from the drilling mentioned in the Carter report and correlated some of the vein intersections with the veins developed in the adits.

Mathews, W.H.; September, 1942.

This is an unpublished report from the Mines Department files dealing with the possibility of recovering tungsten ore (scheelite) from the Aldebaran workings. It appears that Mathew's work was part of the Canada-wide effort to discover sources of tungsten for the needs of world War II. The report deals in considerable detail with the structural geology of the Aldebaran claim. It mentions that by the time of the examination a small mill had been built but was not then in use. Mathews mentions dumps thus indicating that ore had been mined over the years which had not been shipped or milled on the property. He concludes that the scheelite content of both mine and dumps was too low to be of interest.

"Resident Engineer"; Feb. 3, 1925.

An unsigned copy of a letter to R. Armour, Secretary-Treasurer, Esperanza Mines, recommends the building of a 10-ton-per-day mill. The letter mentions two dumps which the writer estimates to contain 2000 tons averageing "about 16.0 ozs. silver per ton."

Wober, H.; October 29, 1968. "Report on the Mineral Claims and Mineral Leases Held by Lori Exploration Ltd. (N.P.L.) in the Area of Alice Arm, B.C. by Macdonald Consultants Ltd!"

This report deals with the examination of the property made by Wober from Sept, 23 to 26, 1968, and with his extensive study of the previously published reports, maps, and other "bibliographical references" available at that time. His field examination was apparently concentrated on the Aldebaran claim and adits 1 to 6.

Wober's historical summary mentions that the discovery was made in 1911, that the property was worked intermittently by a number of operators until 1948, that a 20-ton mill was operated in 1936 and 1937, and that as of 1955 a total of 4987 tons was "treated or shipped" from which was recovered a total of 257 ounces of gold, 143,115 ounces of silver, 2623 lbs. of copper, and 13,303 lbs. of lead. (All, or almost all of this production must have been from Aldebaran.)

Summary and Commentary;

The documents listed above show clearly that over the years from 1911 to the present the work done on the three claims now held by ABB was concentrated almost entirely on one claim, Aldebaran. Although nearly 5000 tons of ore has been mined on this claim and milled, it is the writer's opinion that more ore may be found south of No. 4 adit and north of No. 1. Several thousand tons of ore worth processing remain on the dumps according to the "Resident Engineer's" report and the examination of them made by Brown in 1975 and 1976. The potential of the showings in adits 7 and 8 has not been seriously evaluated and ore may be present in this area also. The other two claims do not seem to have been critically examined prior to the work reported upon herewith, and this shows that Black Bear at least has interesting potential.

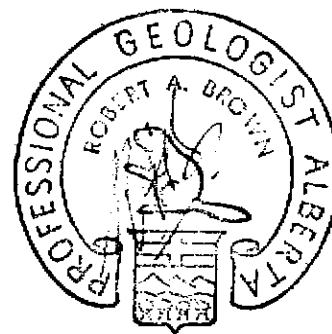


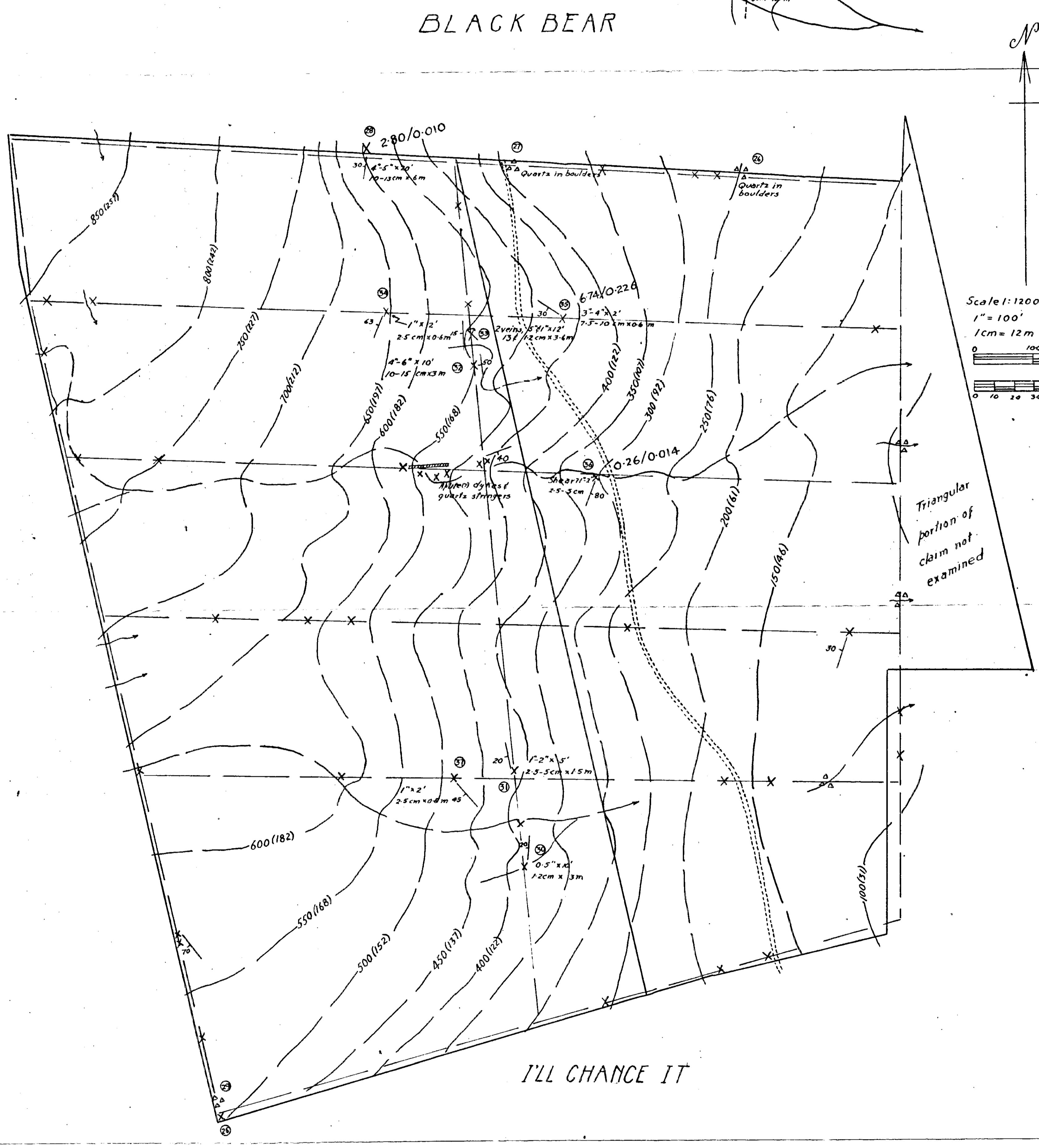
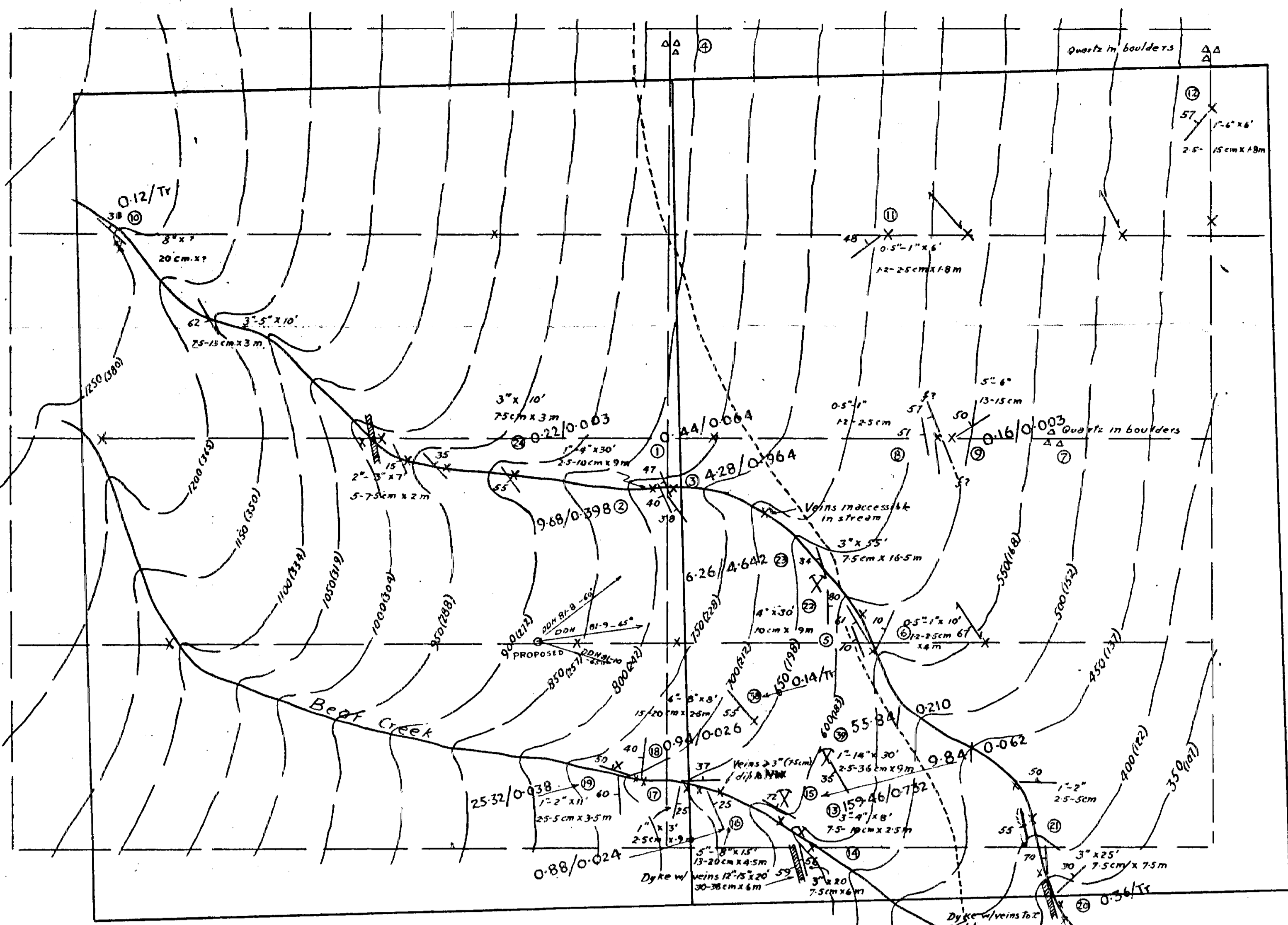
Robert A. Brown,
P. Geol.



APPENDIX I
Detailed and Itemized costs

Contract geological surveying & prospecting: 2 men, July 16 to Aug. 26/80; 6 weeks at \$300/man/week	\$3600.00
Liability insurance covering contractors	40.00
Air fares, July 16, Aug. 27, July 26, Aug. 23/80; 4 return fares	1107.00
Excess baggage, July 18;	64.50
" " July 26;	10.80
Food supplies	224.41
Meals en route	22.15
Supervision and consulting:	
G.S. Brown, July 15 - 27, 13 days	
Aug. 20 - 27, 8 days	
21 days @ \$200.00/day	4200.00
R.A. Brown, between June 30/80 and Feb. 19/81, total of 17 days @ \$400.00/day	6800.00
Assays, Chemex Ltd.:	
18 assays for Au & Ag @ \$9.50	171.00
Drafting service: 4 hrs. @ \$10.00/hr.	40.00
Management fee	1576.94
TOTAL	<u>17,856.85</u>





Scale 1:1200
 1" = 100'
 1cm = 12m

- LEGEND**
- Claim boundary as surveyed by H.C. Black, B.C.L.S., 1911
 - Traverse line, 1980 fieldwork
 - 500(182) Approximate contour, elevation in feet & (metres)
 - ⊙ sample locality
 - 1"-3"x6' Thickness of vein in inches & length exposed, in feet
 - 12-75cm x 1.8m " " " " centimetres & length exposed, in metres
 - 0.26/0.040 Value, ounces Au per ton/ounces Au per ton
 - Stream
 - - - Intermittent stream
 - x outcrop
 - ⊗ old prospect pit
 - 20 Attitude of vein
 - 16 Attitude of joint
 - 30 Fault
 - ▬ Dyke
 - △△ Loose rock
 - - - Foot trail
 - - - Bulldozed trail
 - DDH B1-2 Proposed drill location

MINERAL RESOURCES BRANCH
 ASSESSMENT REPORT
 NO. **9045**

SKETCH MAP
 ABB Claims, Black Bear & I'll
 Chance It, Alice Arm Area, B.C.
 Showing 1980 prospecting with
 vein dimensions & values

R.A. Brown,
 Prof. Geol.
 Oct. 1980

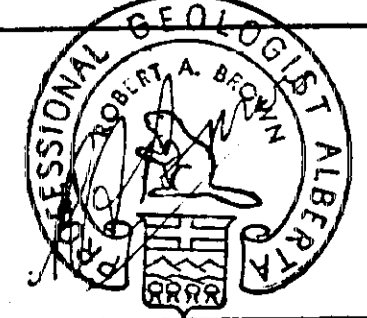


Figure 2