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(Esperanza) 103 P/126  
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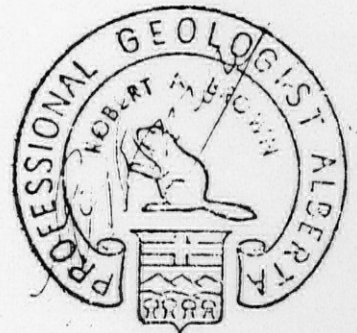
REPORT OF 1981 FIELDWORK  
ON THE CLAIMS OF ALDEBARAN SILVER MINES INC.,  
ALICE ARM AREA, B.C.

(revised and expanded)

By

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Victoria, B.C.  
November, 1981.



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(Revised and expanded, November 1981)

INTRODUCTION

Following a discussion between J-J. Treyvaud and R. Brown when the former visited Victoria two proposals were submitted by ABB Syndicate for assessment work to be done on the Aldebaran claims in the 1981 field season.

By registered letter dated May 18, 1981 J-J. Treyvaud acting for Aldebaran Silver Mines Inc. informed ABB that the proposal to map and sample the North dump and to examine the veins on Black Bear claim was accepted.

Accordingly, R. Brown accompanied by K. de Mill departed Victoria on June 12, 1981 for Prince Rupert. On June 13 Brown and de Mill arrived in Alice Arm and set up field headquarters. Work in the field was begun on the following day.

R. Brown remained in the field until July 9. G. Brown arrived in Alice Arm on July 7 and remained until July 18. K. de Mill assisted G. Brown and returned to Victoria with him. de Mill then carried out a literature search under the direction of R. Brown and assisted him with study and preparation of samples.

K. de Mill contracted his services as field and general assistant to ABB. He proved to be competent, resourceful, and industrious. His efforts greatly facilitated the work and are herewith acknowledged with thanks.

The results of the fieldwork and the studies deriving from it are discussed in the following pages.

## NORTH DUMP

Until the summer of 1981 the existence of this dump had been in question as it had not been seen by the Browns in 1975 or 1976, nor by the workers in 1980. It is shown on old maps of the claims but is not accurately located on them. It is reported in old unpublished reports to be an ore dump. It is now heavily overgrown with alder and other scrub growth whose dense foliage hides the dump from the road. Large trees growing up through the material in the lower part of the dump render it unnoticeable to a person passing along the hillside near the bottom of the dump.

It was finally located this summer and enough vegetation was cleared away to permit a chain and compass survey to tie in its location to the portal of adit 4 and to determine its outline and dimensions. Two trenches were dug across the surface of the dump, one about north-south and the other approximately east-west. Samples were then taken at regular intervals along the trenches. The steep slope of the dump ( $39^{\circ}$ ) precluded the digging of deep trenches so the samples are composed predominantly of rock placed on the dump during the latest stages of the previous mining operations. It is also apparent that when the trail passing just above the top of the dump was improved and widened in 1968 considerable scree and overburden was pushed down on top of ore from adits 2 and 3 which had been placed on the dump in earlier times. Some of this barren material was perforce included in our samples. Thus the value of the dump indicated by the 1981 sampling is probably considerably lower than the true value. This is also suggested by the estimate of 13 ounces of silver per ton which the dump is said to contain in old documents from the files of the B.C. Department of Mines. Another indication that the silver content of the north dump may be higher than the 1981 sampling shows is the assay of

selected mineralized rock picked from the bottom of the dump. This rock assayed 46.0 ounces of silver and 0.036 ounces of gold per ton.

It was impossible to determine the exact depth of material in the dump but it cannot be less than four feet. Assuming this depth, the dump contains at least 2782 tons of rock. The average silver content calculated from the 58 samples taken is 2.88 ounces per ton. With silver at \$10.00 per ounce the dump would contain \$80,120.00 worth of silver as well as some gold. I think it probable that both tonnage and grade will eventually prove to be in excess of these amounts.

#### DIAMOND DRILL HOLES (1969 drilling)

The core from the six diamond drill holes put down on Aldebaran in 1969 was thought to have been spilled from the core boxes by vandals. This was found not to be so and I therefore re-examined the core when weather made other work impractical. The split core from the former sampling was taken and assayed for confirmation of the values previously reported. In addition, sections that showed sulphide mineralization and/or closely spaced threads and stringers of quartz were selected and assayed. The values previously reported are confirmed by the 1981 sampling but no other significant values in silver or gold were found.

Graphic logs of the drill holes are given in Figures 10 and 11. These show the values intersected according to both the 1969 and 1981 sampling. Some of the relationships of ore intersections in the holes to known veins on surface or in adits are shown in cross sections A-B through K-L. (See Figures 1 to 6.)

Although lack of precise elevation information makes the geometry of the cross sections somewhat imprecise, I remain of the opinion that the 1969 drilling indicated the good possibility that there is ore comparable to that

opened up in adits 3 and 4 to be found in the area south of adit 4 as suggested in the report on the 1980 fieldwork.

#### OUTCROPS AND SAMPLING

The 1981 fieldwork was in part a re-examination of the showings revealed by the 1980 fieldwork. The latter was directed mainly towards finding outcrops of mineralized veins on Black Bear and I'll Chance It that were not previously known to us. Only grab sampling was done in 1980 to show whether or not the newly found showings carried silver or gold values.

In 1981 occurrences found in 1980 that had indications of ore were examined in more detail. Where there was any sign of wall rock mineralization channel samples were taken across both wall rock and vein to establish a better idea of mineable width. Samples were also taken at intervals along the exposed length of the veins. Additional observations of attitudes of veins and adjacent strata were made in order to elucidate structural relationships between veins and country rock. Chain and compass surveys were made to tie both old and new observations into the compilation map of the claims. In the course of this work a few new outcrops were found. The small dumps at adits 1, 7, and 8 were sampled to provide an indication of the quality of ore that had been found in these adits.

#### ASSAY RESULTS

Assay values and a list of sample localities and corresponding assays are to be found in Appendices I and II.

The sampling done in 1981 confirmed the presence of silver as indicated by the 1980 work. More importantly, the 1981 sampling showed that in some places silver values occur in the wall rock and in stringer zones adjacent to and parallel with the veins as well as in the veins themselves.

For example, at Discovery adit there is a vein varying in thickness from two to four feet. Immediately above it there is a zone of quartz stringers that is three feet thick, and below it is a one-foot thick zone of quartz stringers. A channel sample across the upper stringer zone assayed 18.12 ounces of silver and 0.02 ounces of gold per ton. The vein assayed 4.76 ounces of silver and 0.016 ounces of gold per ton. The lower stringer zone gave values of 0.68 ounces of silver and a trace of gold per ton. The average value, across a total width of seven feet is thus 9.90 ounces of silver and 0.015 ounces of gold per ton. Omitting the lower stringer zone the value is 11.44 ounces of silver and 0.018 ounces of gold across six feet.

At locality B-9-81 (K-6-81, 23) there is a zone of veins and stringers averaging five feet thick. Channel samples were taken across the zone at several places along its exposed length of 37 feet, 10 samples in all. The arithmetic average of the values given by the 10 samples is 3.26 ounces of silver and 1.258 ounces of gold per ton.

Besides the assay results at the two localities above, other localities in this part of Black Bear have silver and gold values ranging up to 159.46 ounces per ton and 0.732 ounces per ton respectively. All these localities lie within a belt 100 to 200 feet wide extending from the north to the south fork of Bear Creek, a length of some 500 feet. The highest gold values are at the north end of the belt.

It is of interest that some good assays were obtained from samples taken in the vicinity of Discovery adit and adits 1, 4a, 7, and 8. Samples at these localities were from veins outcropping at the portal or from rock mined in the adit and dumped at the portal or both. Almost no stoping was done in these adits nor were any of them driven further than a few tens of feet from the portal. It may not be unduly optimistic to suggest that ore remains to be developed in these workings.

Six cross veins that cut across beddingplane veins were sampled. These veins carry only very low silver values, from 0.16 to 0.38 ounces per ton, and only traces of gold even though the veins they cut carry substantial values.

The assays from the trenches on North dump show values ranging from 0.10 ounces of silver and traces of gold per ton to 34.25 ounces of silver and 0.026 ounces of gold per ton. Samples were taken from two, three, or five feet of trench depending on the apparent uniformity of the material. The values were weighted according to the length of the sample and an average value of 2.88 ounces of silver and 0.0038 ounces of gold per ton was calculated for the rock in the dump.

#### STRUCTURAL INTERPRETATION

The accompanying geologic compilation map and the cross sections show graphically the structural features discussed in this section of the report.

The 1981 observations give no cause to change the concept that the vein exposed in adits 3 and 4 has the form of a south-plunging anticline which does not accord with a structure of the same form in the enclosing country rocks. In reality the anticlinal shape may result from vein filling of a system of intersecting open fractures developed in the west limb of a regional anticline whose axis lies some distance east of the east boundary of the claims.

but the veins in adits 1, 2, 2a, 4a, and that at locality B-13-81 do not seem to have been emplaced under the same structural control. The veins at these localities and most of those on the two forks of Bear Creek as well as those at Discovery adit (localities K-7-81, B-9-81, B-12-81, B-22-81, B-32-81, and B-33-81) are nearly concordant with the dip of the bedding in the adjacent country rock; that is they beddingplane veins rather than discordant with the country rock like the veins in adits 3 and 4.

It appears that there are two vein systems of mineral-bearing veins in the Aldebaran Group; both are in the west limb of a regional anticline, the beddingplane veins having



been emplaced between beds that had arched and separated slightly during folding, and the discordant veins having been emplaced in intersecting fractures developed as the west limb of the major fold was dragfolded. A third and younger vein system was developed by some later stresses that provided openings of different orientation after the dissipation of the earlier mineralizing solutions.

The implication is that the beddingplane veins are likely to be the most numerous and the latest veins (the cross veins) are likely to be poorly mineralized.

A syncline, a drag fold on a larger structure probably, trends across Aldebaran and Black Bear in a northwesterly direction. A poorly defined anticline, also probably a drag fold, lies 150 to 200 feet west of and parallel to the syncline on the north fork of Bear Creek and in the south part of Aldebaran. These folds do not exercise any apparent influence on the shape of the known veins except insofar as they may have caused fracturing in the country rock, but if the beddingplane veins remain concordant with the bedding downdip from their outcrops they may follow the configuration of the folding. If this should be so then it follows that an adit driven far enough toward the west might encounter the same vein several times at a given elevation.

At several localities thicker veins traceable for some tens of feet along very steep rock faces were seen to split into a stringer zone. In some cases the stringers converge again into a single vein along a bedding plane; in others another vein is developed at a slightly higher or lower stratigraphic level as a vein or stringer zone pinches out. The result is a fairly continuous vein zone rather than a single continuous vein.

The beddingplane veins and the anticline-form veins dip at rather low angles, generally less than  $45^{\circ}$ . The younger cross veins dip more steeply, generally at angles in excess of  $45^{\circ}$ .

It is possible that the beddingplane veins at adit 4a and at B-13-81 intersect a southward extension of the adit 3 and 4 vein at depth. This raises the possibility that a thick rich oreshoot might occur at such an intersection.

The zone 500 to 600 feet long running from the south to the north fork of Bear Creek includes two subzones of nearly parallel beddingplane veins at its north and south ends. These veins have westerly dips of  $30^{\circ}$  to  $40^{\circ}$ . The western subzone includes the veins at Discovery adit. If the veins extend for a few hundred feet downdip those that dip more steeply would intersect the veins with lesser dip at depth. In this case too the intersections might prove to be the sites of thicker veins and richer ore shoots. (See compilation map and cross section C-D.)

Several attempts were made to check the possibility that the vein zones extend across the terrain between the outcrops on the forks of Bear Creek. The depth of overburden defeated these attempts. But the strike of the exposed veins makes it probable that the zones are nearly continuous though individual veins pinch out or split into stringer zones to be replaced by overlapping veins at slightly higher or lower stratigraphic positions in the manner observed in the outcrops.

#### POSSIBLE ORE AREAS AND VALUES

If the veins in the two subzones described above are reasonably continuous across the interval between the forks they may constitute two belts of ore.

At the localities where the veins are exposed (see compilation map and Figure 12) both grab and channel samples have been taken. To gain some idea of the potential of the two subzones a simple arithmetic average of the values at the localities was calculated. It was assumed that if the veins could be mined the stopes would have to be three feet wide. It was also assumed that the veins along strike from

the exposures would carry the same silver and gold content as at the exposures. The western zone was assumed to be divisible into three portions with average vein width comparable to that of the veins at the north and south ends and at Discovery adit. The assumed grades are also based on averages determined from the outcrops. The eastern zone was assumed to be divisible into two portions with average values and vein widths comparable to those at the outcrops at each end of the zone.

The annual report of Teck Corporation for 1980 gives data concerning two of their properties where silver is mined on a fairly small scale. These data are given in Table 1.

TABLE 1

<u>Tons per day</u>		<u>Grade, Ozs Ag/ton</u>		<u>Ounces Ag produced</u>		<u>Operating cost per ton</u>	
1980	1979	1980	1979	1980	1979	1980	1979
* 226	232	5.8	9.23	435680	725722	\$30.99	26.89
** 117	107	10.0	10.01	367150	341126	49.16	44.77

\* Silverfields Mine

\*\* Beavercell Mine

On the assumption that recovery and operating cost at Aldebaran might be comparable to those at the Teck Silverfields and Beavercell Mines the possible value and profitability of the two Aldebaran zones was calculated using the assumptions, average values and costs given above.

The calculations are tabulated in Table 2. The resulting figures are admittedly imprecise being based on so many assumptions, few data, and arithmetic instead of weighted averages; but they do indicate the possibility that mineable ore may be present in the lightly explored central portion of Black Bear. Furthermore, the possibility tends to justify the proposed diamond drilling on the claim.

TABLE 2

Length of Portion	Stope Width	Vein Width	Average		Tons to be Mined	% of ore in Tons Mined
			Grade Ag	Au		
*200 ft.	3 ft.	0.5 ft.	5.408	0.388	5000	16.6%
**200 ft.	3 ft.	1.0 ft.	12.629	0.225	5000	33.3%
***200 ft.	3 ft.	1.0 ft.	18.812	0.046	5000	33.3%
#250 ft.	3 ft.	0.5 ft.	5.260	1.258	6250	16.6%
##250 ft.	3 ft.	0.5 ft.	34.060	0.163	6250	16.6%

\*West subzone, portion I

\*\*West subzone, portion II

\*\*\*West subzone, portion III

#East subzone, portion I

##East subzone, portion II

Using the data in Tables 1 and 2 and assuming mining to be carried to a depth of 100 feet downdip it can be calculated that the following amounts of silver and gold might be obtained:-

West subzone, portion I	4488 ozs. Ag	322 ozs. Au
portion II	21027	374
portion III	31321	76
East subzone, portion I	3382	1305
portion II	<u>35337</u>	<u>169</u>
Total from 27500 tons mined	95555 ozs. Ag	2246 ozs. Au

Assuming 100% recovery, silver at \$10.00 per ounce and gold at \$400.00 per ounce the total value would be \$1,853,950.00. At \$50.00 per ton operating cost the 27,500 tons mined would cost \$1,375,000.00. There would be an operating profit of \$478,950.00.

It must again be emphasized that this estimate is based on few data and unsophisticated averaging of values.

As noted in my report on the 1980 fieldwork there is an area south of adit 4 where the diamond drilling done in 1969 suggests the presence of ore comparable to that mined in adits 2, 3, and 4. The 1981 re-examination of the core and

the evidence of good values at adit 4a and locality B-13-81 support this view. But I am now of the opinion that a vein or vein zone extending southward from adit 4 is more likely to lie below adit 5 than above it.

Comparison of the accompanying geologic compilation map and the isometric diagram, Appendix IV, Figure IV-1 shows that not all the vein opened in the old underground work was mined. It may be that the former operators stoped only the sections of the vein that were thickest and richest in adits 3 and 4. Only small stopes were opened in adits 1, 2, 2a, and 8, and no stoping was done in Discovery adit, 4a, or 7. Yet sampling of the veins and dumps at these adits shows fair to good values in silver and some gold. It is impossible to estimate at present what, if any, ore remains to be mined from the old workings. In some cases veins may continue beyond the point where drifting was stopped as may be the case in adits 4, 4a, and Discovery. There is therefore the possibility that if the price of silver is high enough more production may eventually be obtained from the old workings. A conclusion must await the rehabilitation of the old workings to make them safe to enter.

#### MILLING

With the suspension of the Dolly Varden development the arrangement for the milling of Aldebaran ore in the Dolly Varden mill is inoperative. An alternative must therefore be considered.

There is a strong rumour that the custom smelter at Tacoma, Washington will be permanently shut down early in 1982, so the alternative of shipping ore to Tacoma is unlikely to be open. In any case the shipping costs would likely be prohibitive.

Although the road from Kitsault to Terrace, B.C. is scheduled to open in the fall of 1981 making possible the

trucking of ore to the smelter at Trail, B.C., there remains the problem of moving ore from Alice Arm to Kitsault. There is as yet no word of when the bridge across the Kitsault river to link the two settlements might be rebuilt. In the near future ore would either have to be barged across the water in bulk with significant loading/unloading costs or loaded trucks would have to be taken across Alice Arm in scows as tides and the availability of scows would occasionally permit.

To ship concentrates rather than ore would present lesser transportation problems, but this would require a simple mill on the property. The Sala Caravan mill was described at a recent technical meeting of CIM in Victoria. This mill is a self contained mobile package of crushing, grinding and concentrating equipment. The cost is said to be between \$1,000,000.00 and \$2,000,000.00. It is said to have a high resale value and to have a low installation cost. Second hand mill equipment can probably be bought in eastern Canada at a much lower figure but transportation and installation costs would be high.

To obtain the necessary permits to erect a mill is a time consuming procedure, but in the event that it was decided to put a mill on Aldebaran permission might be obtained to use the proposed Dolly Varden mill site for which the necessary government approval is believed to be already granted.

On-site concentrate production seems at the moment to be desirable when compared with shipping of ore in bulk. If a direct road link between Alice Arm and Terrace is completed and if a mine is brought into production in the Terrace area that would accept ore for custom milling then shipping ore to that mine would probably be the best route to production at Aldebaran. Unfortunately neither of these things is known to be likely to occur in the near future.

## SUMMARY AND CONCLUSIONS

The north dump contains at least 2782 tons of ore with an average silver content of 2.88 ounces per ton and minor gold. Both tonnage and grade are probably somewhat higher than the 1981 work indicates.

The possible ore bearing ore area south of adit 4 indicated by the 1969 drilling is more strongly indicated by the occurrence found at locality B-13-81 and the assays obtained from the veins at adit 4a.

There is a good possibility of considerable ore occurring in the two zones of beddingplane veins between the forks of Bear Creek. This might amount to 27,500 tons with a content of more than 95,000 ounces of silver and 2,000 ounces of gold.

There are three systems of veins recognized; one is concordant with the bedding planes, one is discordant, the third dips at steeper angles than the first two and is almost barren. The third system of veins is the youngest. There are a few other veins that do not belong to any recognizable system and which carry some silver and gold values in adits 7 and 8.

If veins belonging to the different systems intersect they might form thicker richer ore shoots at the intersection.

Some ore may remain to be mined in the old workings.

Production of a concentrate rather than shipping of raw ore or on-site production of bullion will probably be necessary if the property is to get into production in the near future.

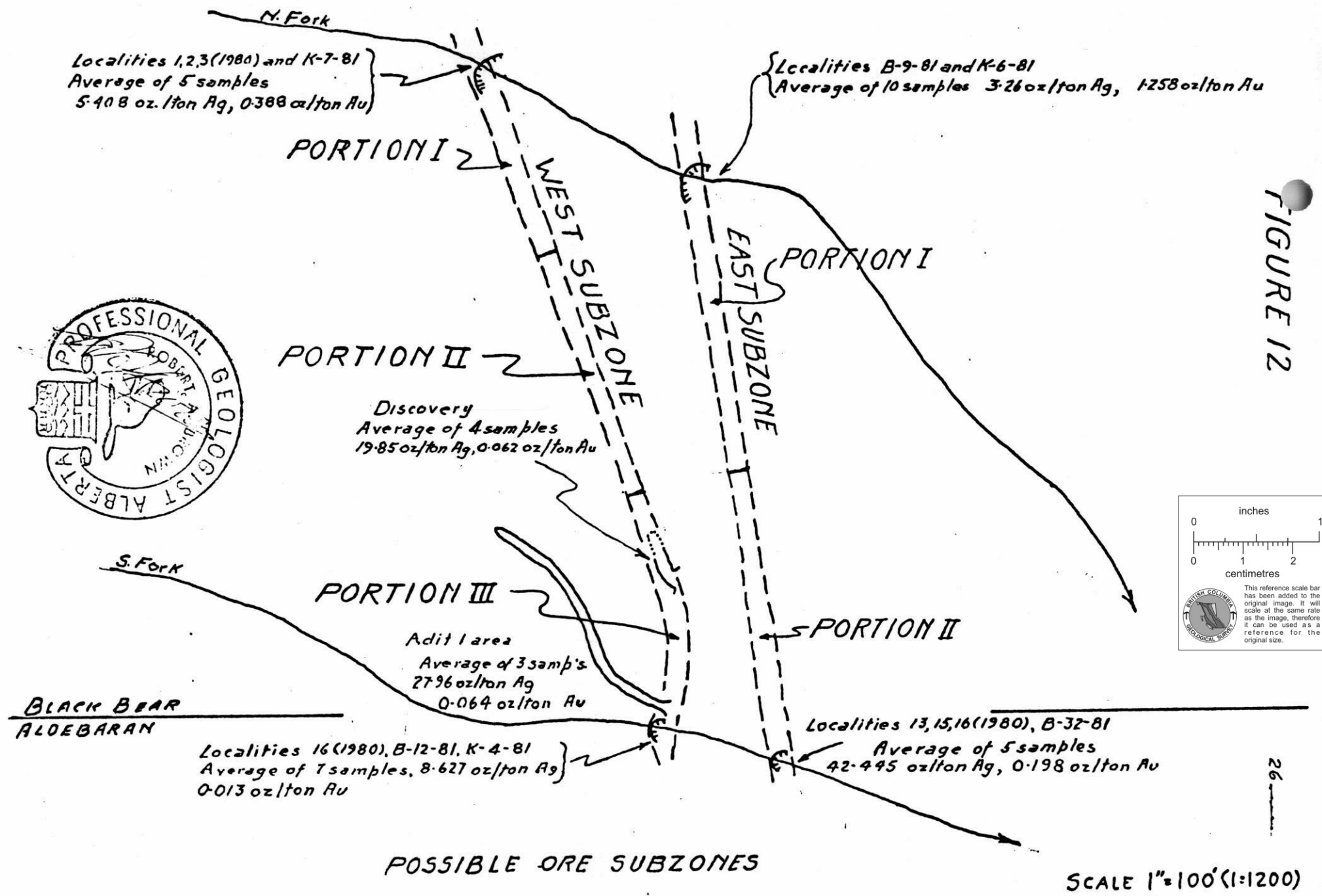
RECOMMENDATIONS  
(In Order of Priority)

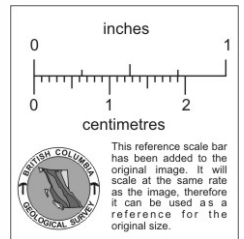
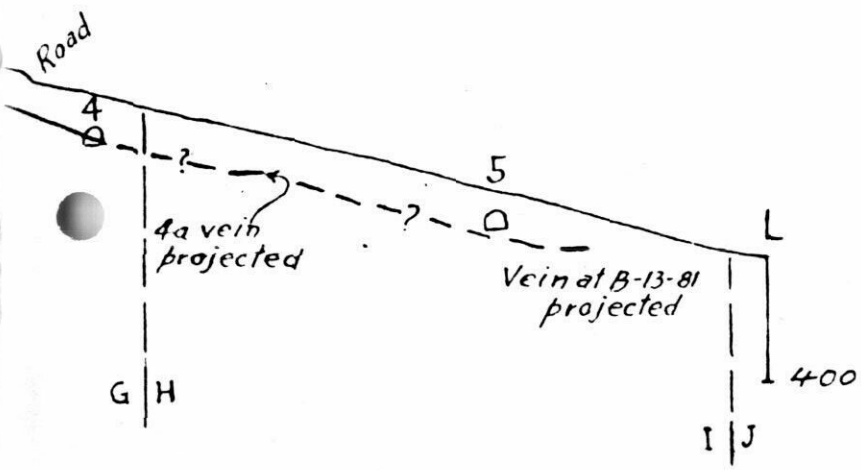
1. Improve the road on the claims sufficiently to make it passable for trucks at least as far as adit 4.
2. From near the portal of adit 5 construct a branch road to give access to the main and north dumps.
3. Construct a small concentrating mill of about 25 tons daily capacity and process the approximately 6000 tons of ore in the dumps to produce a concentrate that could profitably be shipped to a custom refinery.
4. Drill three holes each about 300 feet long to test the possible ore zones between the forks of Bear Creek. (See accompanying illustrations for details.)
5. If the drilling confirms the presence of ore in the zones extend the truck road into Black Bear and:-
6. Drive a 400-foot adit westward from the 650-foot level to explore the possible downdip extension of the veins at Discovery and Number 1 adits at a depth of 200 feet below surface. (See accompanying map and cross section C-D.)
7. Reopen the old adits, sample them, and if values and vein widths justify it, mine them.



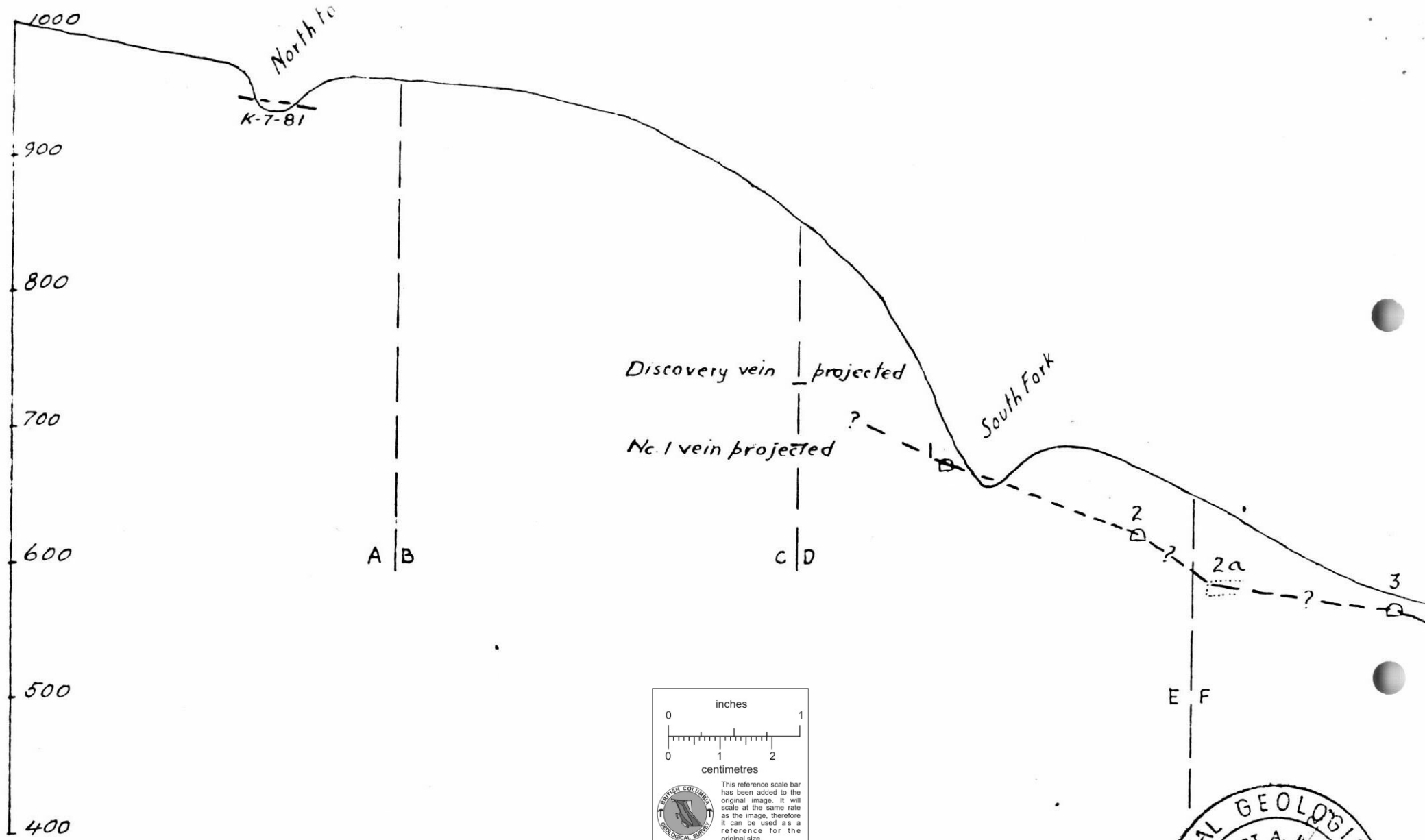


FIGURE 12

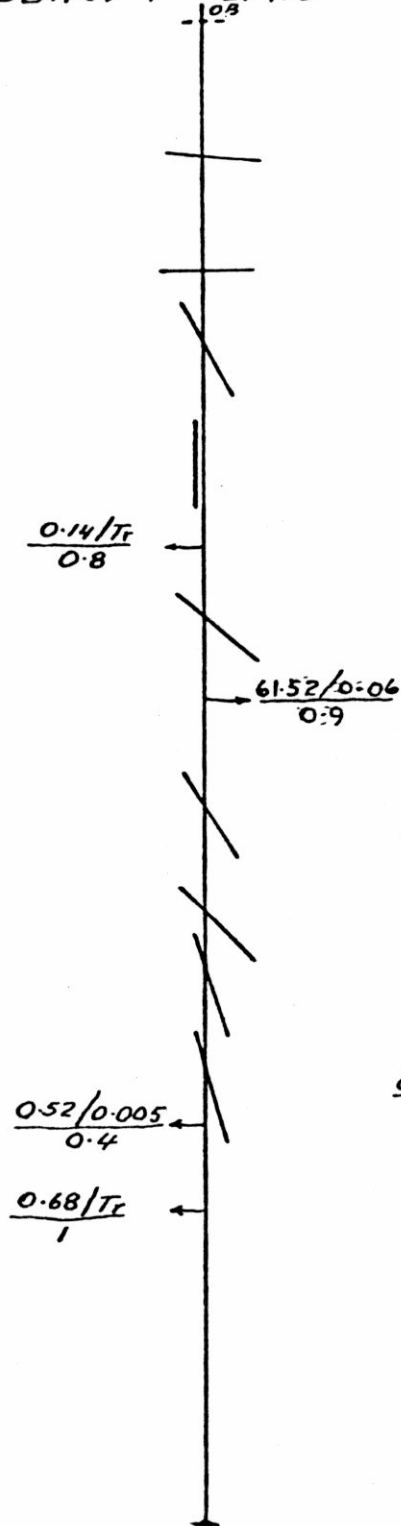




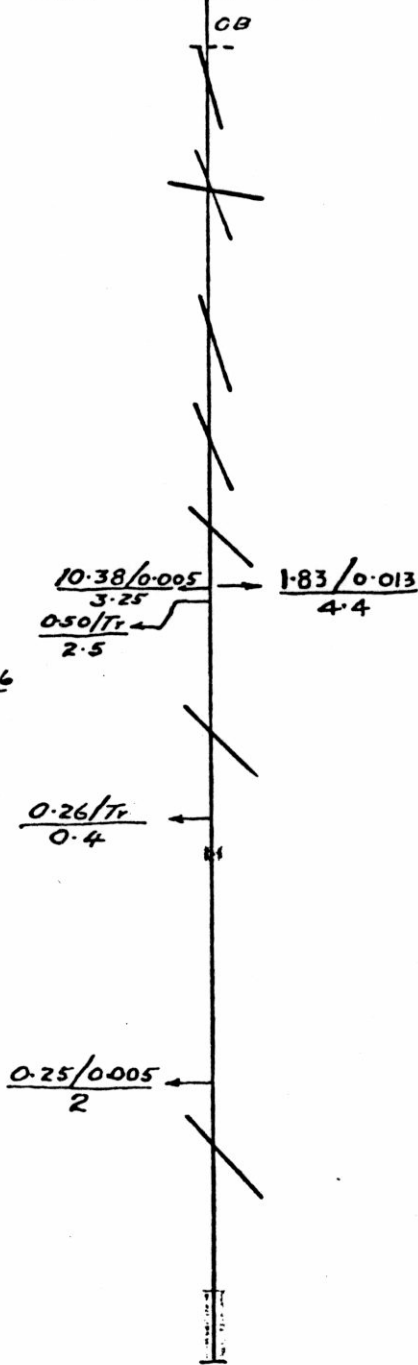
Longitudinal section KL  
 Scale 1" = 100' (1:1200) Fig. 1.....



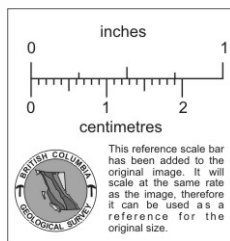
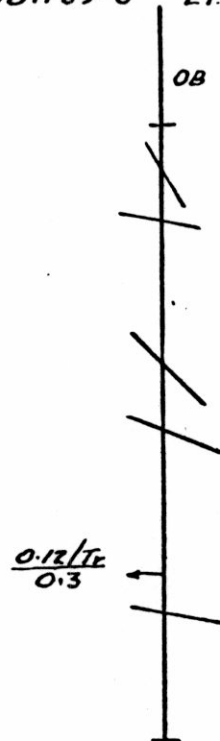
DDH 69-4 El. 710'



DDH 69-5 El. 650'

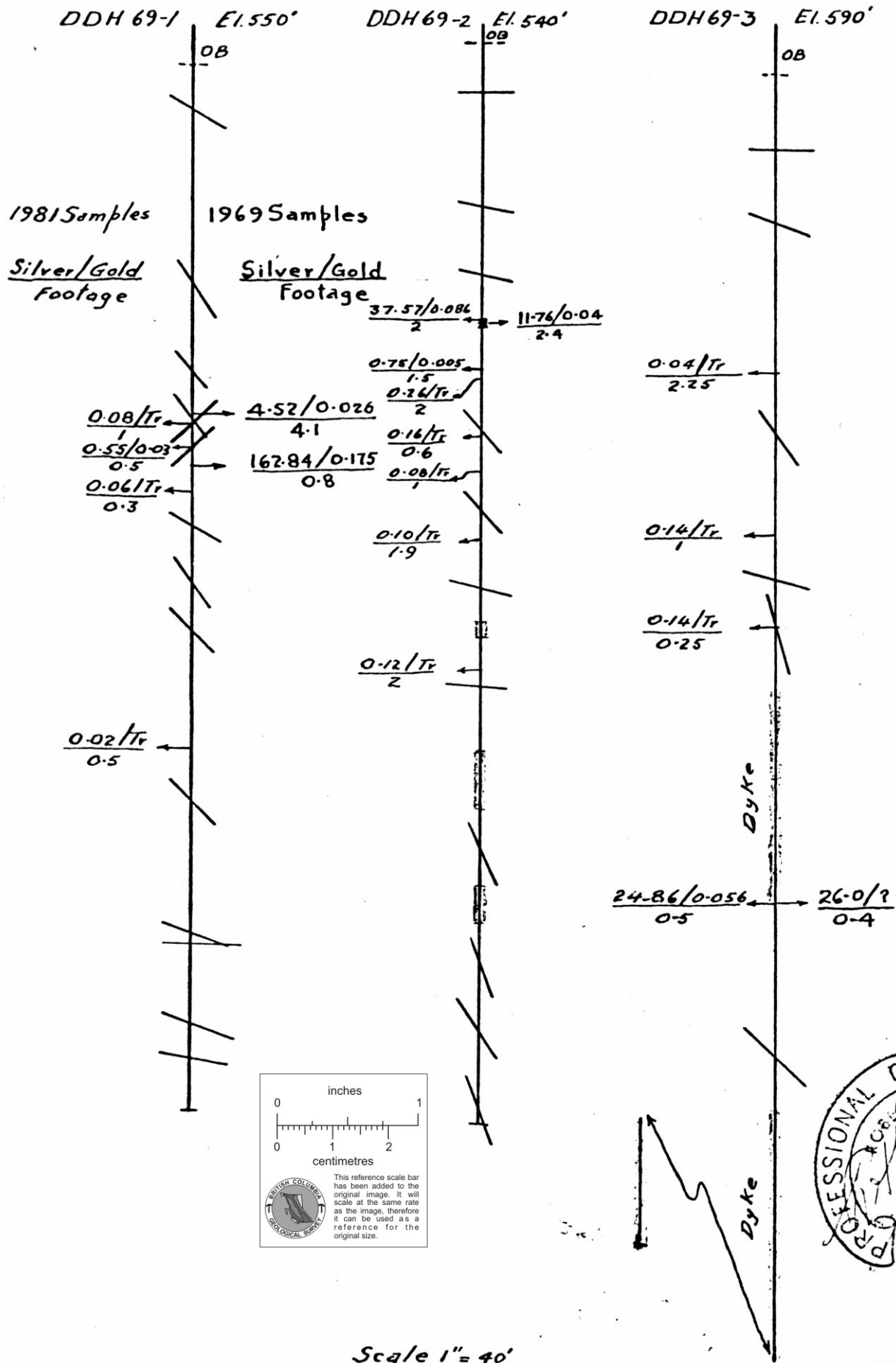


DDH 69-6 El. 470'



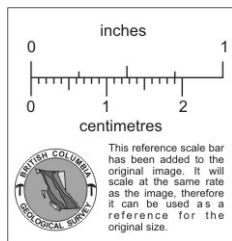
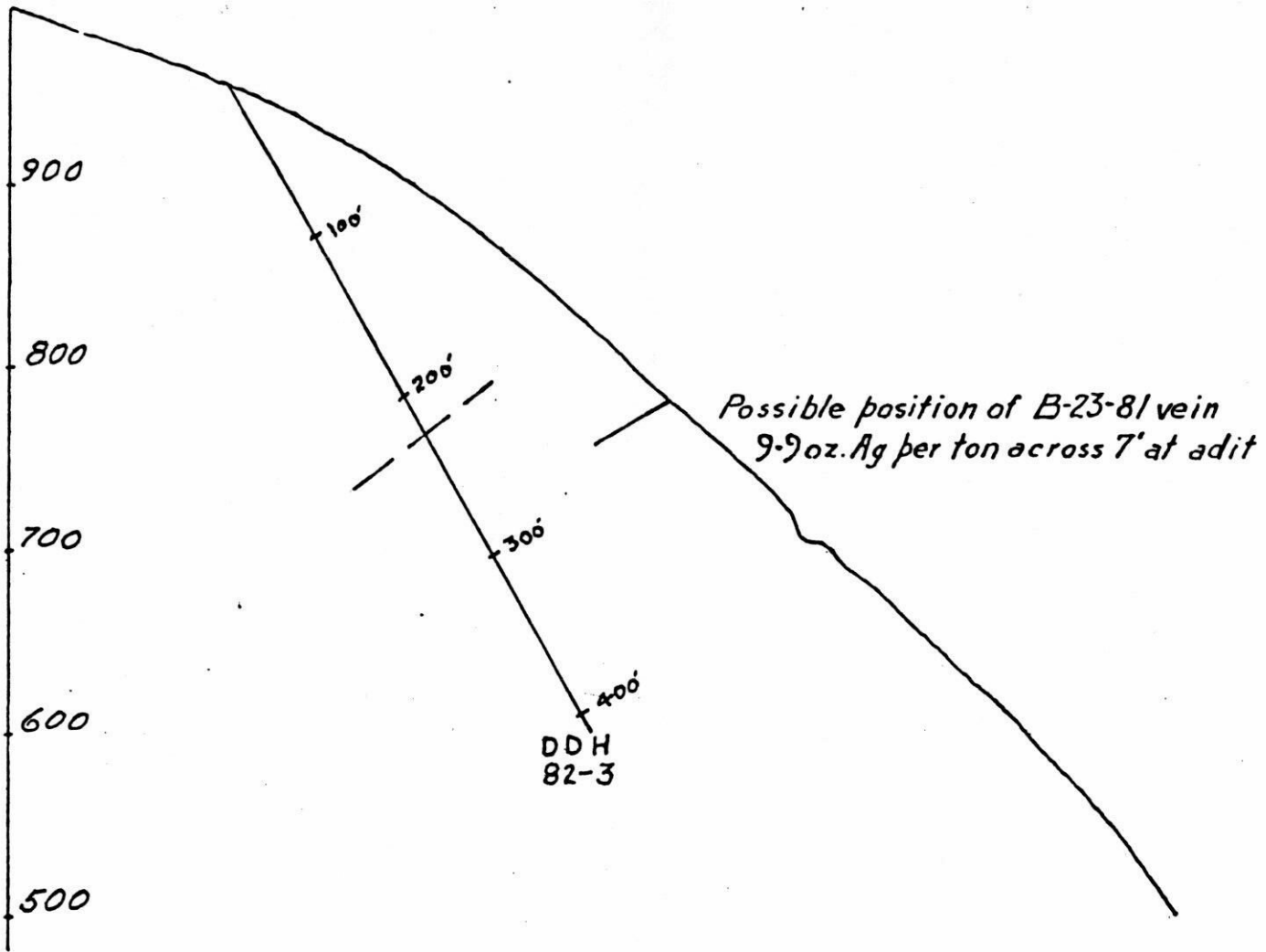
Scale etc. as Fig. 10

Fig 11



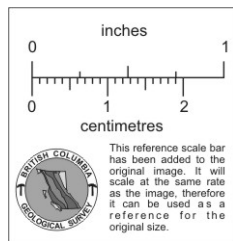
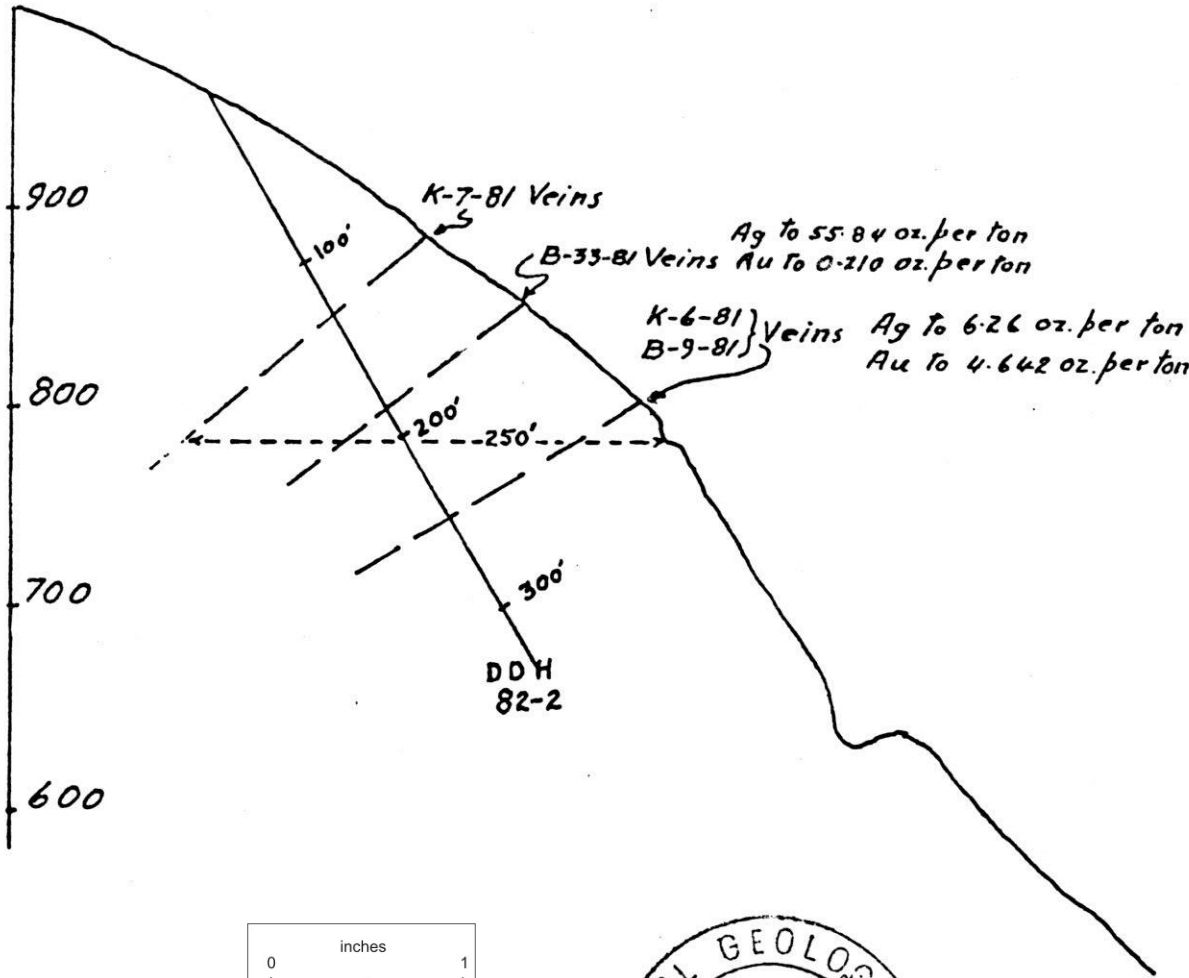
Scale 1" = 40'  
Dip angles measured  
from core axis.

Fig. 10



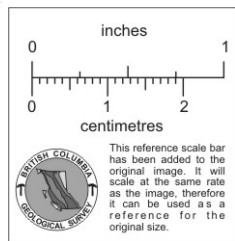
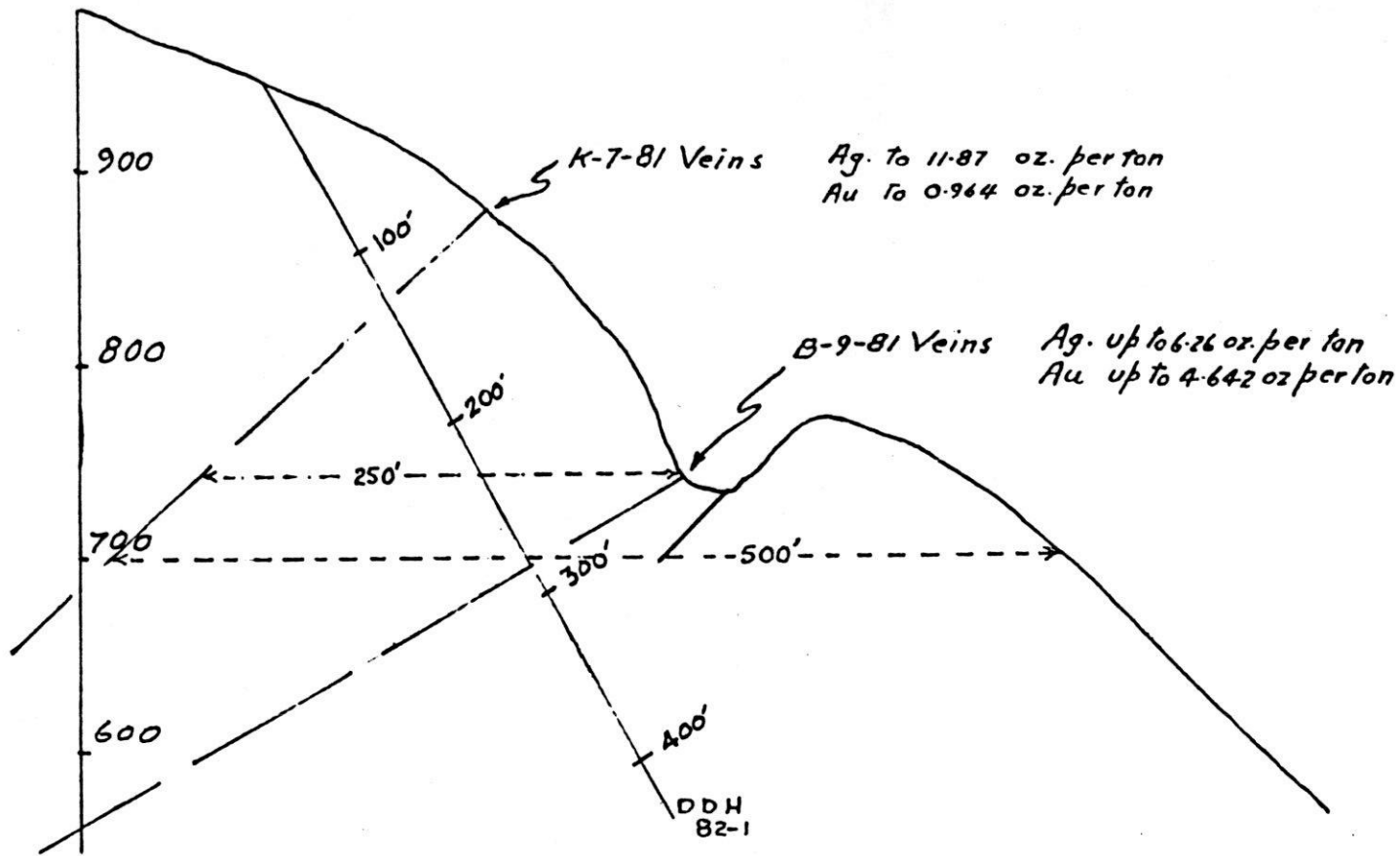
Section in plane of proposed DDH 82-3.  
Bng. of hole  $121^\circ$ , angle  $-60^\circ$   
Scale  $1'' = 100'$  Fig... 9.....





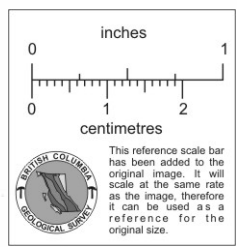
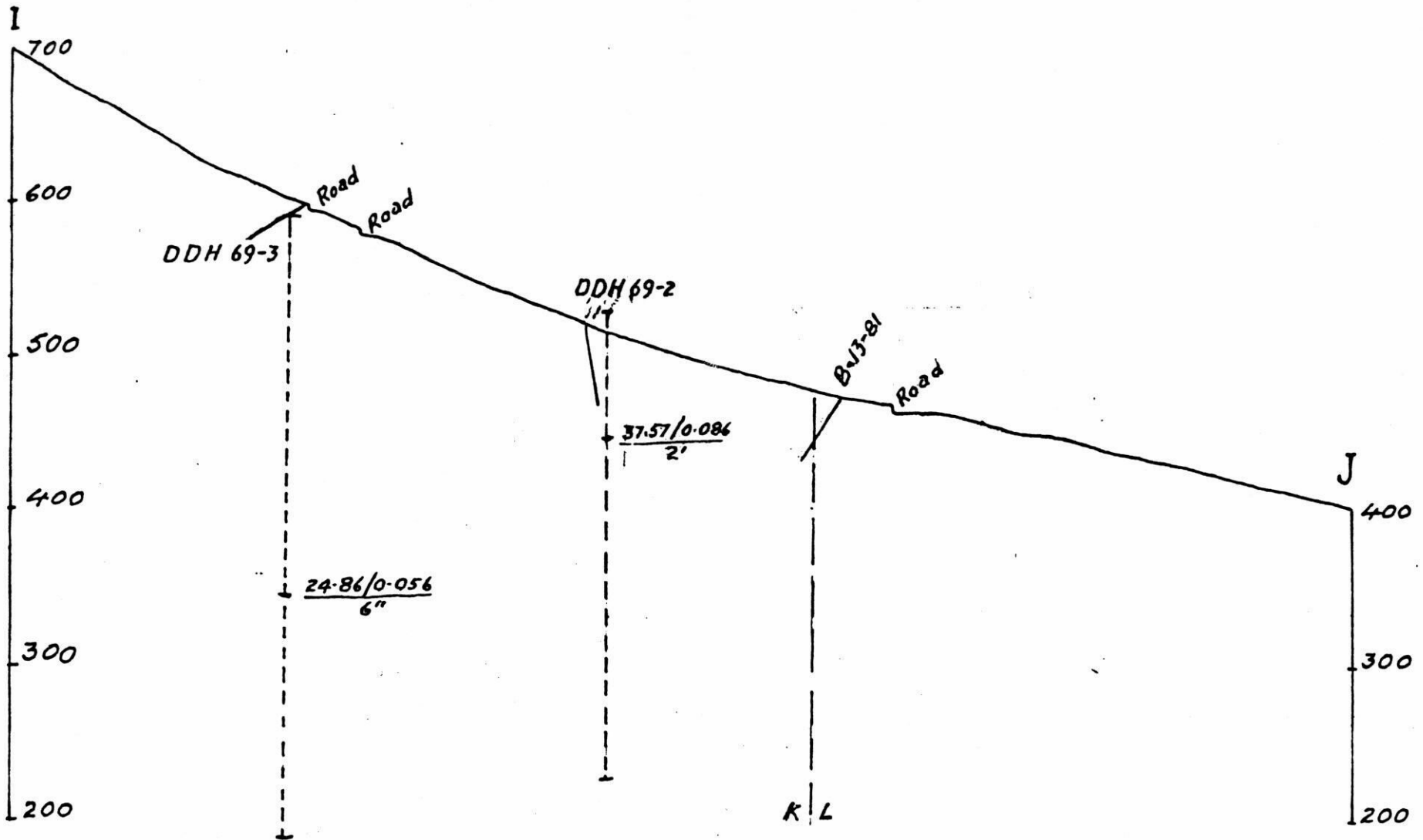
Section in plane of proposed DDH 82-2  
 Bng. of hole 87°, angle -60°  
 Scale 1" = 100' Fig. 8

22.....

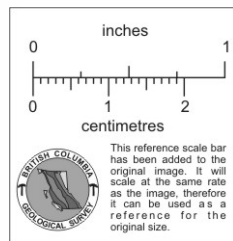
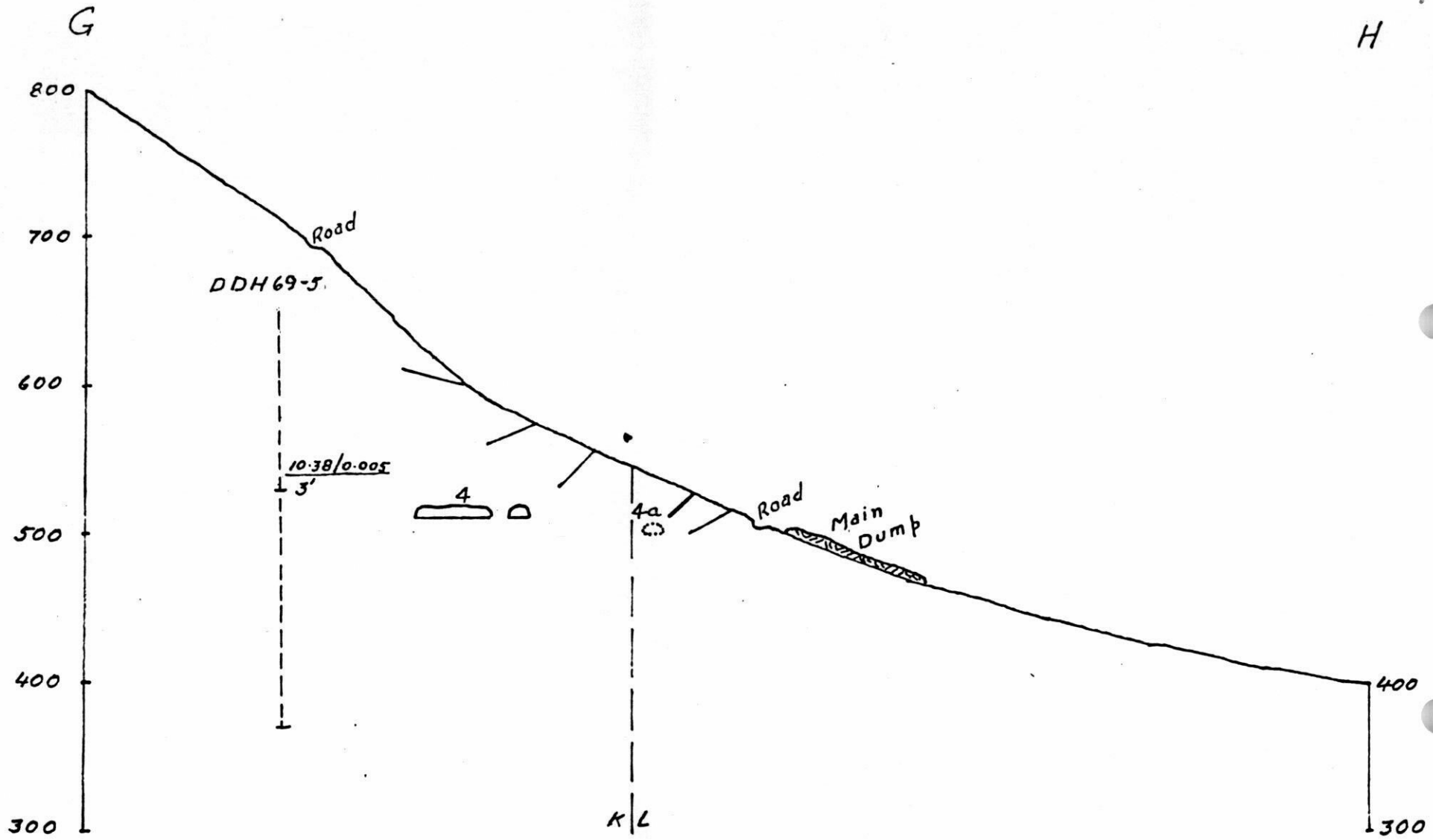


Section in plane of proposed  
 DDH 82-1. Bng. of hole 58°, angle -60°  
 Fig. 7.....  
 Scale 1" = 100'





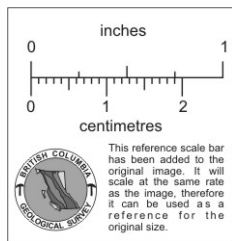
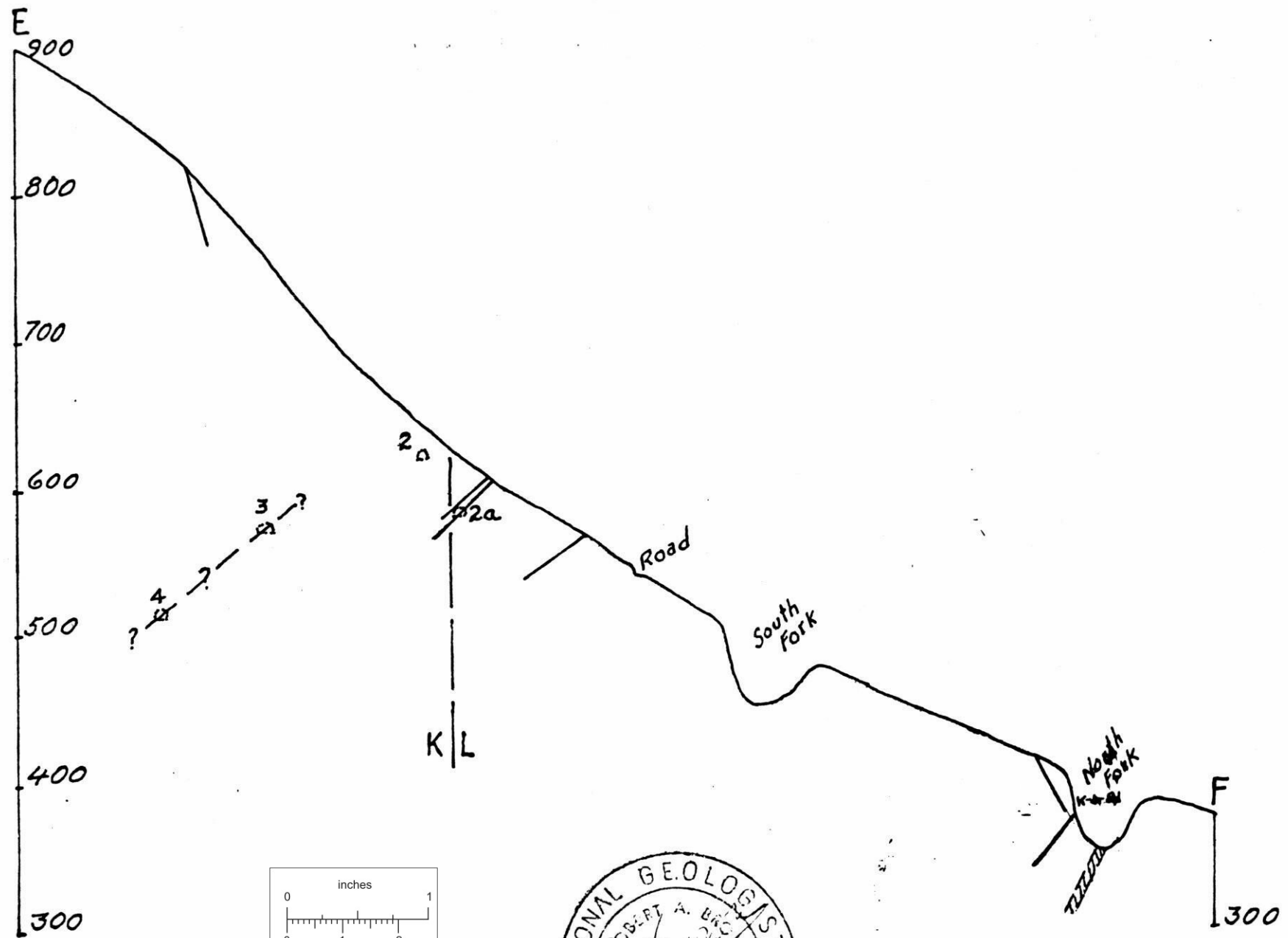
Cross section IJ  
 Scale 1"=100' (1:1200) Fig. 6



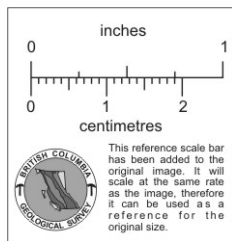
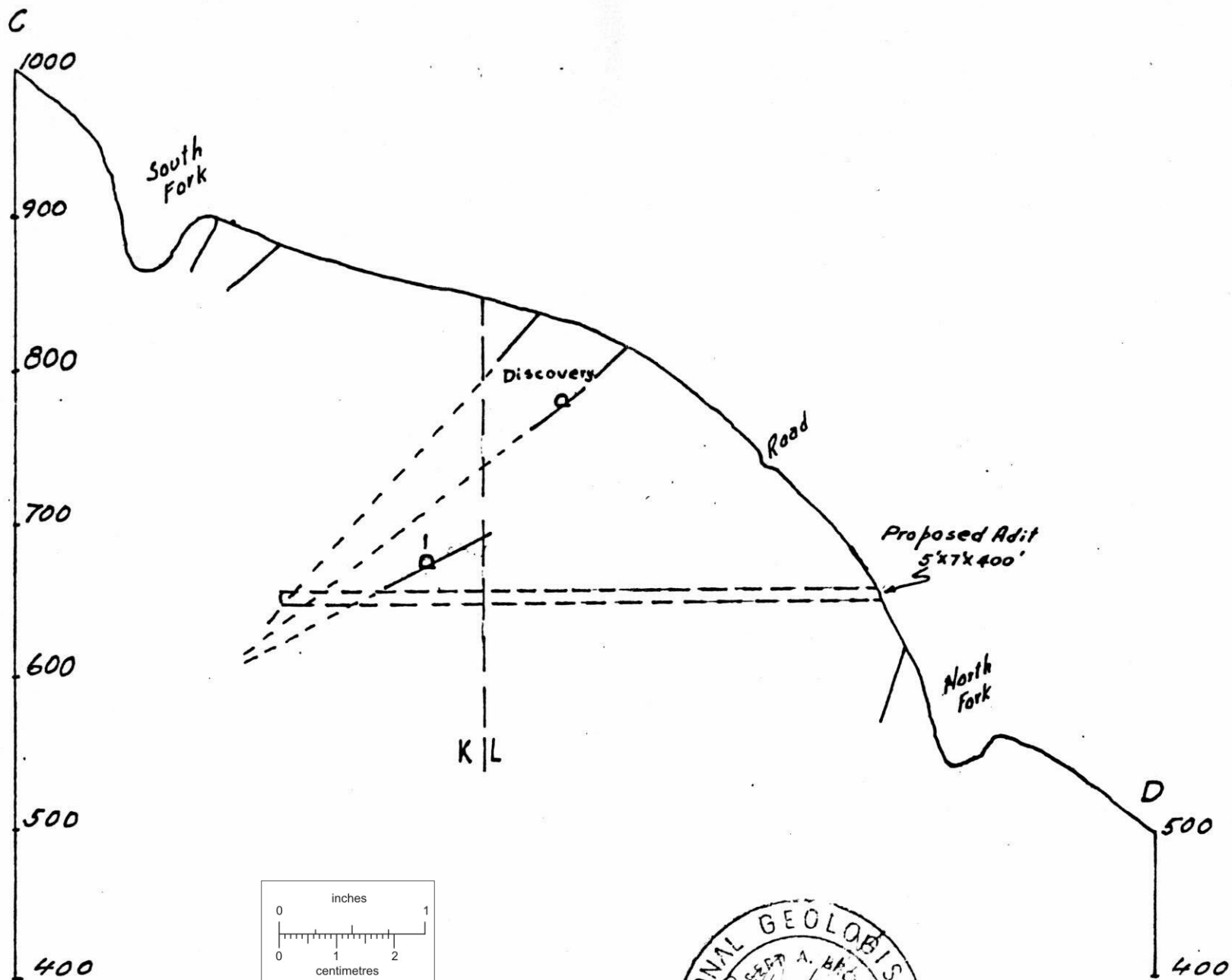
Cross section GH  
 Scale 1" = 100' (1:1200)

Fig. 5

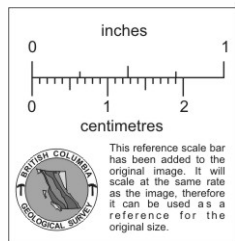
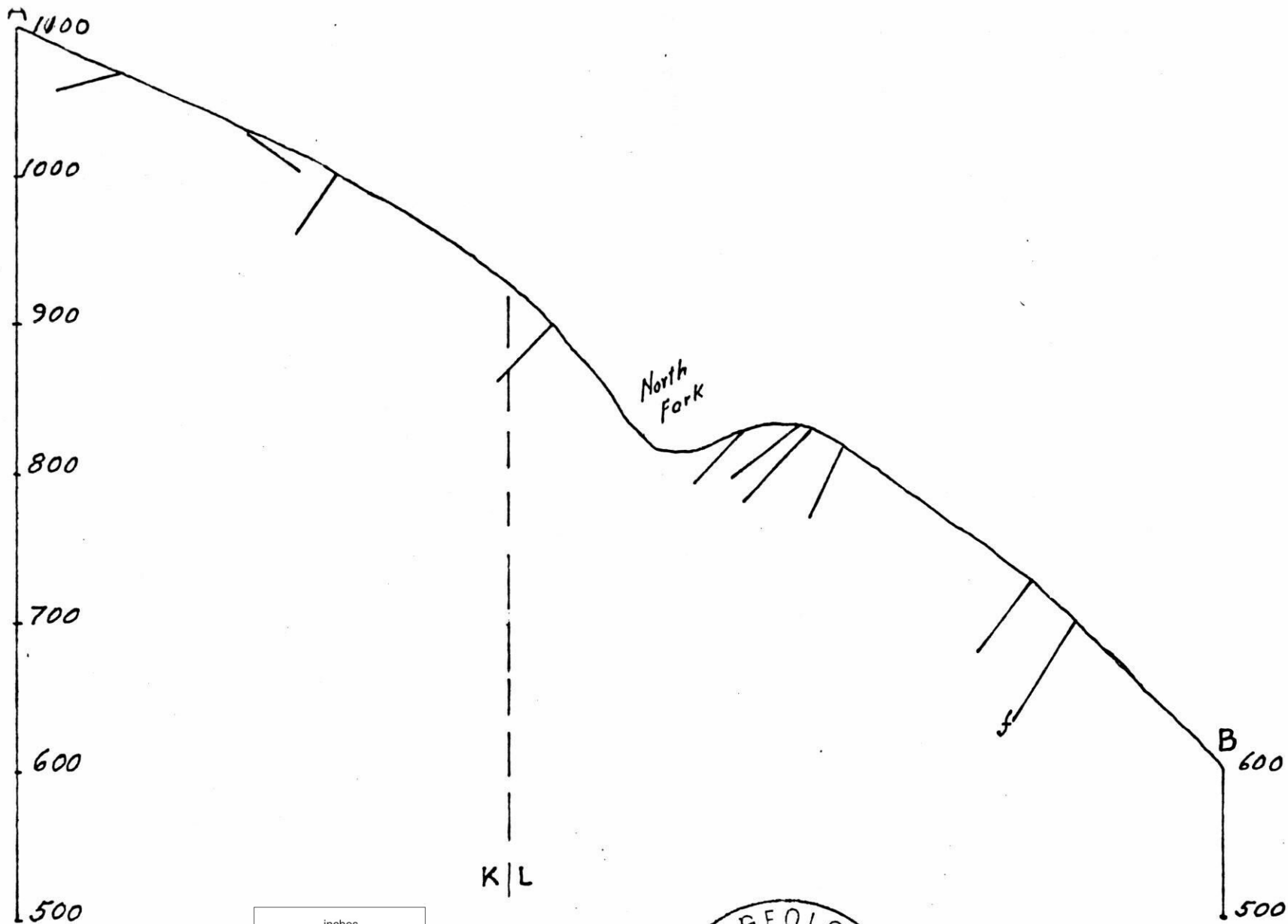
19.....



Cross section EF  
Scale 1"=100' (1:1200) Fig...4.....



Cross section CD  
Scale 1"=100' (1:1200) Fig. 3...



Cross section AB  
Scale 1"=100' (1:1200) Fig. 2.....

<u>Locality</u>	<u>Sample Number</u>	<u>Oz/ton Ag.</u>	<u>Oz/ton Au</u>	<u>Vein Width (feet)</u>	<u>Remarks</u>	
420	420	0.200	0.010	0.67	Samples 420 to 805 are channel samples reported in 1947 B.C. Minister of Mines Annual Report.	
421	421	2.300	0.010	0.75		
422	422	<u>9.300</u>	Tr	0.92		
423	423	<u>30.100</u>	<u>0.100</u>	0.75		
424	424	<u>42.800</u>	0.080	0.50		
425	425	<u>80.800</u>	Tr	0.92	Samples taken in adits and stopes	
426	426	<u>27.300</u>	Tr	1.33		
427	427	<u>17.100</u>	0.030	0.75		
428	428	<u>75.300</u>	<u>0.150</u>	0.33		
429	429	0.600	Tr	0.33		
802	802	Tr	Tr	0.75		
803	803	1.200	0.050	0.58		
804	804	1.000	0.010	0.42		
805	805	Tr	0.000	0.58		
966	966	<u>10.650</u>	0.030	1.30		Samples 966 to 972 are chip samples taken by H. Wober in 1968
967	967	<u>16.700</u>	0.030	0.40		
968	968	<u>23.050</u>	0.075	0.70		
969	969	3.550	0.040	0.60	Samples taken in adits and stopes	
970	970	0.250	0.005	1.00		
971	971	<u>24.600</u>	0.055	1.00		
972	972	<u>385.400</u>	<u>0.510</u>	0.20		
977	977	<u>10.900</u>	0.090			Loose block in S. fork
1	1	0.440	0.064	0.25	Samples 1 to 39 were taken in 1980. All are grab samples.	
2	2	9.680	0.398	0.25		
3	3	4.280	0.964	0.17		
9	9	0.160	Tr	0.42		
10	10	0.120	Tr	0.67		
13	13	<u>159.460</u>	<u>0.732</u>	0.29		
15	15	9.840	0.062	0.29		
16	16	0.880	0.024	0.54		
18	18	0.940	0.026			
19	19	<u>25.320</u>	0.038	0.13		
20	20	0.360	Tr	0.25		Same locality as K-1-81

<u>Locality</u>	<u>Sample Number</u>	<u>Oz/Ton Ag.</u>	<u>Oz/Ton Au</u>	<u>Vein Width (feet)</u>	<u>Remarks</u>
23	23	6.260	<u>4.642</u>	0.25	Same locality as B-9 & K-6-81
24	24	0.020	Tr	0.25	
28	28	2.800	0.010	0.38	
35	35	6.740	<u>0.226</u>	0.29	
36	36	0.260	0.014	0.13	Same locality as B-11-81
38	38	0.140	Tr	0.58	Same locality as B-33-81
39	39	55.840	<u>0.210</u>	2.00	Same locality as B-22-81
B-3-81	ABB-26-81	<u>46.00</u>	0.036		Selected ore from North dump
B-7-81	-27-	1.63	0.008		Random samples, Adit 7 dump
B-7-81	-28-	0.10	Tr		Qtz. stringer in Adit 7
B-8-81	-29-	<u>14.74</u>	0.003		Random samples, Adit 8 dump
B-8-81	-30-	1.25	0.008		Vein, Adit 8
B-9-81	-31-	7.96	<u>0.834</u>	0.25	
B-10-81	-32-	0.20	Tr	1.10	Shear zone
B-11-81	-33-	0.14	Tr	0.25	Shear zone
B-12-81	-34-	<u>14.54</u>	0.020	0.83	Channel sple across vein at 2 points 7 feet apart
B-12-81	-35-	<u>13.92</u>	0.020	0.83	
B-12-81	-36-	<u>11.39</u>	0.050		Random samples, Adit 1 dump
B-12-81	-37-	0.92	Tr	1.0	Vein divides into 2 veins 50 ft. S of sample 35.
B-12-81	-38-	<u>28.09</u>	0.030	0.29	
B-12-81	-39-	<u>29.69</u>	0.062		Random samples, Adit 1 dump
B-13-81	-40-	<u>32.99</u>	0.028	3.0(?)	Qtz. stringers cutting bedding
B-13-81	-41-	1.38	0.014	1.0	Shear zone, qtz. impregnated
B-23-81	-42-	<u>18.12</u>	0.020	3.0	Hanging wall stringer zone
B-23-81	-43-	4.76	0.016	3.0	Vein
B-23-81	-44-	0.68	0.003	1.0	Footwall stringer zone
B-23-81	-45-	0.34	Tr	0.25	Cross vein intersecting main vein
B-23-81	-46-	0.16	Tr	0.25	Cross vein intersecting main vein
B-25-81	-47-	0.34	Tr	0.33	Cross vein cutting main vein
B-25-81	-48-	<u>34.42</u>	0.102	2.0	Hanging wall stringer zone
B-25-81	-49-	8.83	0.028	0.5	Main vein
B-25-81	-50-	0.38	Tr	0.33	Cross vein cutting stringer zone
B-25-81	-51-	0.34	Tr	0.33	Cross vein cutting stringer zone

<u>Locality</u>	<u>Sample Number</u>	<u>Oz/Ton Ag.</u>	<u>Oz/Ton Au</u>	<u>Vein Width (feet)</u>	<u>Remarks</u>
B-26-81	-52-	0.14	Tr		Grab sample of stringers
B-32-81	-53-	0.14	Tr	3.0	Shear zone, 50% qtz. stringers
B-32-81	-54-	0.34	Tr	0.08	Cross vein cutting shear zone
B-33-81	-55-	0.20	Tr	0.75	Channel across 7" vein + 2" wall roc
K-1-81	ABB-56-81	0.10	0.034	1.0	Channel across shear zone, 30% qtz.
K-3-81	-60-	0.24	Tr		Grab spls. of qtz. from stringer
K-3-81	-61-	0.02	Tr	7.0	zone that is 20% vein material
K-4-81	-62-	0.40	Tr	4.0	Channel sple. stringer zone 20% qtz.
K-4-81	-63-	1.64	Tr	0.25	Vein 5' above stringer zone
K-5-81	-64-	1.43	0.050	2.0	Channel across vein
K-6-81	-65-	0.04	Tr	1.4	Channel across vein
K-6-81	-66-	1.62	<u>0.918</u>	0.25	Channel across vein
K-6-81	-67-	1.79	<u>0.730</u>	0.25	Channel across vein } Same vein
K-6-81	-68-	0.06	0.003	5.0	Channel across vein-stringer zone
K-6-81	-69-	6.52	<u>2.352</u>	0.5	Above vein 20' N of -66-
K-6-81	-70-	6.83	<u>3.008</u>	0.5	Above vein 5' N of -69-
K-6-81	-71-	0.31	0.066	0.06	Stringer in hanging wall
K-6-81	-72-	0.21	0.030	0.06	Same stringer 10' to S. of -71-
K-7-81	-73-	<u>11.87</u>	<u>0.450</u>	0.5	Qtz. vein, N. wall of creek
K-7-81	-74-	0.77	0.068	0.5	Same vein, 30' S of previous sple.
B-6-81	ABB-134-81	0.34	Tr		Loose qtz. beside D.D.H. 69-1





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TELEX: 043-52597

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## CERTIFICATE OF ASSAY

ABB SYNDICATE  
798 LANGHAM CRT.  
VICTORIA, B.C.  
V8V 4J2

CERT. # : A8113111-001-1  
INVOICE # : 18113111  
DATE : 31-AUG-81  
P.C. # : NONE

### APPENDIX II

Sample description	Prep code	Ag (FA) oz/t	Au (FA) oz/t				
BB 01-81	207	0.08	<0.003	--	--	--	--
BB 02-81	207	0.55	0.030	--	--	--	--
BB 03-81 <i>DDH 69-1</i>	207	0.06	<0.003	--	--	--	--
BB 04-81	207	0.02	<0.003	--	--	--	--
BB 05-81	207	37.57	0.086	--	--	--	--
BB 06-81	207	0.75	0.005	--	--	--	--
BB 07-81	207	0.26	<0.003	--	--	--	--
BB 08-81 <i>DDH 69-2</i>	207	0.16	<0.003	--	--	--	--
BB 09-81	207	0.08	<0.003	--	--	--	--
BB 10-81	207	0.10	<0.003	--	--	--	--
BB 11-81	207	0.12	<0.003	--	--	--	--
BB 12-81	207	0.04	<0.003	--	--	--	--
BB 13-81	207	0.14	0.003	--	--	--	--
BB 14-81 <i>DDH 69-3</i>	207	0.14	<0.003	--	--	--	--
BB 15-81	207	24.86	0.056	--	--	--	--
BB 16-81	207	0.34	<0.003	--	--	--	--
BB 17-81	207	0.14	<0.003	--	--	--	--
BB 18-81 <i>DDH 69-4</i>	207	0.52	0.005	--	--	--	--
BB 19-81	207	0.68	0.003	--	--	--	--
BB 20-81 <i>£21-81</i>	207	10.38	0.005	--	--	--	--
BB 22-81	207	0.50	0.003	--	--	--	--
BB 23-81 <i>DDH 69-5</i>	207	0.26	<0.003	--	--	--	--
BB 24-81	207	0.25	0.008	--	--	--	--
BB 25-81 <i>DDH 69-6</i>	207	0.12	<0.003	--	--	--	--
BB 26-81	207	46.00	0.036	--	--	--	--
BB 27-81	207	1.63	0.008	--	--	--	--
BB 28-81	207	0.10	<0.003	--	--	--	--
BB 29-81	207	14.74	0.003	--	--	--	--
BB 30-81	207	1.25	0.008	--	--	--	--
BB 31-81	207	2.96	0.834	--	--	--	--
BB 32-81	207	0.20	<0.003	--	--	--	--
BB 33-81	207	0.14	<0.003	--	--	--	--
BB 34-81	207	14.54	0.020	--	--	--	--
BB 35-81	207	13.92	0.020	--	--	--	--
BB 36-81	207	11.39	0.050	--	--	--	--
BB 37-81	207	0.92	<0.003	--	--	--	--
BB 38-81	207	28.09	0.030	--	--	--	--
BB 39-81	207	29.69	0.062	--	--	--	--
BB 40-81	207	32.99	0.028	--	--	--	--
BB 41-81	207	1.38	0.014	--	--	--	--

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ABB SYNDICATE  
798 LANGHAM CRT.  
VICTORIA, B.C.  
V8V 4J2

CERT. # : A8113111-002-A  
INVOICE # : I8113111  
DATE : 31-AUG-81  
P.C. # : NONE

Sample description	Prep code	Ag (FA) oz/t	Au (FA) oz/t				
BB 42-81	207	18.12	0.020	--	--	--	--
BB 43-81	207	4.76	0.016	--	--	--	--
BB 44-81	207	0.68	0.003	--	--	--	--
BB 45-81	207	0.34	<0.003	--	--	--	--
BB 46-81	207	0.16	<0.003	--	--	--	--
BB 47-81	207	0.34	<0.003	--	--	--	--
BB 48-81	207	34.42	0.102	--	--	--	--
BB 49-81	207	8.83	0.028	--	--	--	--
BB 50-81	207	0.38	<0.003	--	--	--	--
BB 51-81	207	0.34	<0.003	--	--	--	--
BB 52-81	207	0.14	<0.003	--	--	--	--
BB 53-81	207	0.14	<0.003	--	--	--	--
BB 54-81	207	0.34	<0.003	--	--	--	--
BB 55-81	207	0.20	<0.003	--	--	--	--
BB 56-81	207	0.10	0.034	--	--	--	--
BB 57-81	207	5.14	0.003	--	--	--	--
BB 58-81	207	0.28	<0.003	--	--	--	--
BB 59-81	207	8.23	0.008	--	--	--	--
BB 60-81	207	0.24	<0.003	--	--	--	--
BB 61-81	207	0.02	<0.003	--	--	--	--
BB 62-81	207	0.40	<0.003	--	--	--	--
BB 63-81	207	1.64	<0.003	--	--	--	--
BB 64-81	207	1.43	0.050	--	--	--	--
BB 65-81	207	0.04	<0.003	--	--	--	--
BB 66-81	207	1.62	0.918	--	--	--	--
BB 67-81	207	1.79	0.730	--	--	--	--
BB 68-81	207	0.06	0.003	--	--	--	--
BB 69-81	207	6.52	2.352	--	--	--	--
BB 70-81	207	6.83	3.008	--	--	--	--
BB 71-81	207	0.31	0.066	--	--	--	--
BB 72-81	207	0.21	0.030	--	--	--	--
BB 73-81	207	11.87	0.450	--	--	--	--
BB 74-81	207	0.77	0.068	--	--	--	--
BB 75-81	207	0.48	<0.003	--	--	--	--
BB 76-81 NORTH	207	1.93	0.005	--	--	--	--
BB 77-81	207	0.30	<0.003	--	--	--	--
BB 78-81 DUMP	207	0.22	<0.003	--	--	--	--
BB 79-81	207	0.42	0.003	--	--	--	--
BB 80-81	207	0.58	0.003	--	--	--	--
BB 081-81	207	1.54	0.003	--	--	--	--

*B. Swales*

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ABB SYNDICATE  
 798 LANGHAM CRT.  
 VICTORIA, B.C.  
 V8V 4J2

CERT. # : A8113111-003-A  
 INVOICE # : I8113111  
 DATE : 31-AUG-81  
 P.O. # : NONE

Sample description	Prep code	Ag (FA) oz/t	Au (FA) oz/t				
BB 082-81	207	1.32	<0.003	--	--	--	--
BB 083-81	207	2.00	0.005	--	--	--	--
BB 084-81	207	1.70	<0.003	--	--	--	--
BB 085-81	207	34.25	0.026	--	--	--	--
BB 086-81	207	1.24	<0.003	--	--	--	--
BB 087-81	207	2.76	<0.003	--	--	--	--
BB 088-81	207	5.54	0.005	--	--	--	--
BB 089-81	207	30.94	0.026	--	--	--	--
BB 090-81	207	1.42	0.003	--	--	--	--
BB 091-81	207	0.84	<0.003	--	--	--	--
BB 092-81	207	0.30	<0.003	--	--	--	--
BB 093-81	207	0.68	0.018	--	--	--	--
BB 094-81	<i>NORTH</i> 207	0.34	0.005	--	--	--	--
BB 095-81	207	1.02	<0.003	--	--	--	--
BB 096-81	207	15.11	0.024	--	--	--	--
BB 097-81	207	5.51	0.006	--	--	--	--
BB 098-81	207	0.36	<0.003	--	--	--	--
BB 099-81	207	1.22	0.003	--	--	--	--
BB 100-81	207	10.08	0.016	--	--	--	--
BB 101-81	<i>DUMP</i> 207	0.16	<0.003	--	--	--	--
BB 102-81	207	0.16	0.005	--	--	--	--
BB 103-81	207	2.16	0.003	--	--	--	--
BB 104-81	207	0.18	<0.003	--	--	--	--
BB 105-81	207	14.59	0.010	--	--	--	--
BB 106-81	207	0.28	0.005	--	--	--	--
BB 107-81	207	0.32	<0.003	--	--	--	--
BB 108-81	207	0.42	<0.003	--	--	--	--
BB 109-81	207	18.37	0.010	--	--	--	--
BB 110-81	207	3.54	0.003	--	--	--	--
BB 111-81	207	15.25	0.008	--	--	--	--
BB 112-81	207	0.92	0.005	--	--	--	--
BB 113-81	207	0.56	<0.003	--	--	--	--
BB 114-81	207	1.50	<0.003	--	--	--	--
BB 115-81	207	0.07	<0.003	--	--	--	--
BB 116-81	207	0.18	0.014	--	--	--	--
BB 117-81	207	1.30	<0.003	--	--	--	--
BB 118-81	207	0.40	0.003	--	--	--	--
BB 119-81	207	1.10	<0.003	--	--	--	--
BB 120-81	207	0.40	0.005	--	--	--	--
BB 121-81	207	0.36	<0.003	--	--	--	--

*[Handwritten Signature]*

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ABB SYNDICATE  
 798 LANGHAM CRT.  
 VICTORIA, B.C.  
 V8V 4J2

CERT. # : A8113111-004-A  
 INVOICE # : I8113111  
 DATE : 31-AUG-81  
 P.O. # : NONE

Sample description	Prep code	Ag (FA) oz/t	Au (FA) oz/t				
ABB 122-81	207	0.10	0.005	--	--	--	--
ABB 123-81	207	0.24	0.003	--	--	--	--
ABB 124-81	207	0.39	0.008	--	--	--	--
ABB 125-81	207	3.44	0.003	--	--	--	--
ABB 126-81 <i>NORTH</i>	207	2.70	<0.003	--	--	--	--
ABB 127-81	207	1.14	<0.003	--	--	--	--
ABB 128-81	207	0.68	<0.003	--	--	--	--
ABB 129-81 <i>DUMP</i>	207	1.18	<0.003	--	--	--	--
ABB 130-81	207	1.06	0.005	--	--	--	--
ABB 131-81	207	0.48	0.005	--	--	--	--
ABB 132-81	207	4.65	0.008	--	--	--	--
ABB 133-81	207	0.56	<0.003	--	--	--	--
ABB 134-81	207	0.34	<0.003	--	--	--	--

*B. Swate*

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