REPORT ON THE GEOLOGY AND
PROPOSAL FOR DEVELOPMENT OF
THE BIG 2 - 2 POST MINERAL CLAIM, REC. NO. 1889(6)
THE BIG 3 - 20 UNIT MINERAL CLAIM, REC. NO. 3170(2)

BLACKBEAR CREEK AREA

CARIBOO MINING DIVISION, BRITISH COLUMBIA

N.T.S. MAP AREA 93A/11W

LATITUDE: 520 36'N LONGITUDE: 1210 22'W

for

CLEARBROOK MINING LTD. #600 - 890 West Pender Street Vancouver, B.C. V6C 1J9 Phone - (604) 684-4431

GEOLOGICAL BRANCH ASSESSMENT REPORT

by

12,566

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Consulting & Exploration Geologist
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October 1983

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1 INTRODUCTION

This report describes what is known about the Big 2 and Big 3 mineral claims located in the Cariboo Mining Division of central B.C. The Big 2 mineral claim consists of a 2 Post M.C. and the Big 3 mineral claim consists of twenty (20) modified grid claim units, held by Clearbrook Mining Ltd. of Vancouver, B.C., whose President, Mr. Don M. Eslinger, requested this report. It is the intention of Clearbrook Mining Ltd. to explore for and develope gold, silver and lead mineralization on the Big 2 and Big 3 claims.

The geological setting is such that there is a potential for the occurrence of precious metal mineral deposits. To date only gold and silver bearing quartz veins have been explored throughout the area by surface workings, with historical records showing small amounts of silver, lead ores being removed at various times.

The purpose of this report is to review the history of the claims area, describe the geology and present a proposal for new exploration. The focus of the exploration, is targeted on areas of recently discovered outcroppings of bedded mineralized quartz veins.

1.1 LOCATION, ACCESS AND TOPOGRAPHY

The Big 2 and Big 3 mineral claims are located (eight miles) 12.87 km. due east of Likely, B.C. It is (eight miles) 12.87 km.due north of the entrance to Hobson Arm on the north shore of Quesnel Lake, and (2.5 miles) 4.02 km. north of Spanish Lake. It lies between the north and central creeks that join to form Blackbear Creek at approximate elevations varying between (3950 and 4950 feet) 1203.95 m. and 1508.76 m. above sea level.

From Likely it may be approached by one of two secondary good roads;

- (a) Spanish Lake road past Tattersall Oil and Mineral Exploration camp and the Flight Strip for (7.5 miles) 12.06 km., which brings one (.5 miles) .804 km. SE of a road fork on the north side of Blackbear Creek and opposite Tattersall Claim Group.
- (b) Main road to Keithley Creek as far as the garbage dump turnoff, then sharp east for (2.5 miles) 4.022 km. to cross Spanish River, ending the same place as (a).

From this point with elevation some (2500 ft.) 762 m., starts a poor trail, much overgrown with alder and willow, and crossed by many deadfalls, following an old wagon-truck road of the 1930's. It is almost (4 miles) 6.436 km. long and rises to a high point of (3950 ft.) 1203.96 m., dropping down to the north main fork of Blackbear Creek. After fording Blackbear Creek to the southside and bushwacking eastwards around the S.E. shoulder of the creek, the old wagon road reappears to follow the right bank (facing downstream) of the centre fork, then is finished after (200 yards) 182.88 m. At this terminus and facing S.W. down a 40° slope of green phyllite bedrock and "horses" of what appear to be "bull quartz", alongside the centre fork of Blackbear Creek lie the wreakage of a shack and old-time mining items. this route of (4.25 miles) 6.838 km. is rugged and took 1.5 hours of fast walking and climbing.

1.2 GEOLOGY AND MINERALIZATION

A study of the (1" = 4 mi.) 2.540 cm. = 6.436 km. geological inset (top left corner of accompanying map no 4), shows that the Big 2 & 3 M.C. lies in the purple-colored belt of rocks marked No. 5. This represents the Midas Formation of the Cariboo Group; probably of Lower Cambrian Period, the very earliest of the Palaeozoic Era, and some 395 million years in age. This Midas was originally laid down as shale

and siltstone sedimentaries in a great inland sea, but the grade of metamorphism in the Cariboo group reaches a peak of deformation (2miles) 3.218 km. south toward Spanish lake. To the N.E. of Blackbear Creek and for (1 mile) 1.609 km. south of it, the structure of the formations is characterized by N.W. trends of the folds and faults, with moderate N.E. dips of 10-35°. Further south however, many folds are isoclinal and overturned.

This latter condition was observed in a pale green talcose, garnetiferous, phyllite schist on a small terrace (40 ft.) 12.192 m. higher than the quartz sample taken for assay. Here the strike of N60W followed the general trend, but the dip of 30° S.W. instead of N.E. indicated a reverse fault with accompanying shear zones. With the heavily-tree-covered slope and overburden, tracing such faults (which could account in part for the massive blocks and "horses" of quartz (10-15 ft.) 3.048 - 4.572 m. in thickness therein implanted) would be very difficult indeed.

The float quartz sample sent for assay was taken from a large block of vein (?) quartz (10ft.) 3.048 m. thick at elevation (3940 ft.) 1200.912 m. It had slithered down the 40° slope possibly from (100-200 ft.) 30.48 - 60.96 m. higher up at most, before being caught in evergreen thickets of closely-spaced trees. An earlier specimen taken by our guide Don Stephansson of Likely in 1980, was hand cobbed and ran 33oz. to the ton of silver. Our assay sample was also selective by virtue of hand cobbing to eliminate much of the surrounding barren quartz. It ran as No. 8106-0556, dated 16 June, 1982, Gold (oz/standard ton); 0.002; silver (oz/st); 3.78; Lead(Pb%); 3.27.

On the small terrace where the tote road ended, some (75ft.) 22.86 m., up the 40° slope from Blackbear Creek centre tributary and the prospector's shack remains, a small pocket of silver-lead mineralization was found in quartz embedded in the terrace. Nearby were massive "horses" of quartz, possibly barren, possibly mineralized as very thin dendritic stringers appear to have formed, in some specimens examined, throughout the quartz, without having the usual manganese oxide resemblence.

1.3 CONCLUSIONS

The present so-called "trail" of over (4 miles) 6.436 km. with an initial rise of (700 ft.) 213.36 m., followed by more ups and downs, all through dense undergrowth, may explain why few persons have prospected the Big 2 and Big 3 M.C. area since the late 1930's.

One would not expect to find long, continuous, clean mineralized quartz veins in country such as that north of Spanish Lake, loaded with overturned folds, faults, innumerable shear zones. Nevertheless these are the very structural conditions frequently conducive to later mineralizations, with siliceous magma forcing its ways up through the fractured and broken crust.

The writer does not know what to make of an extremely rich 33 oz/st. silver assay, which was taken from the quartz float. If correct, it may be small in area. A normal channel sample of uniform width, which has not favored any particular rich pocket, and gave a silver-lead assay of 3.78 oz/st. and 3.27 %, is extremely encouraging.

However, the fact that the float sample had such a limited distance to travel and the fact that another piece of quartz ore higher up also showed a pocket of silver-lead ore; the fact that amongst large "gobs" of apparently "bull quartz" there can be rich lumps of ore such as we sampled, all lead this consultant to the conclusion that the prospectors of the late 1930's didn't have correct machinery and instruments to do a thorough job of examination. Nor were there any signs of open cuts, trenching or tunnelling to inspect bedrock below overburden.

The dimensions of the Big 2 M.C. were (3200 ft.) 975.36 m. long bearing S 70E, (1500 ft.) 457.2 m. wide with (750 ft.) 228.6 m. thrown to either side of the centre line. The assay sample of float quartz was taken some(900 ft.) 274.32 m. NW (and 30' NE down the slope) of No. 2 Final Post 504221M located on the trail at elevation (3950 ft.) 1188.72 m.

1.4 LEGAL LOCATIONS, OWNERSHIP OF CLAIMS

The Big 2 - 2 post mineral claim, was located on the 12th day of May, 1980, by Mr. Don Stephensen of Box 1965, Likely, B.C. and was recorded at Quesnel, B.C. on the 9th day of June, 1980, under record no. 1889(6) N.T.S. Map no 93A/11W.

The legal No. 1 Post, bearing metal tag No. 504221M is located (13,124 ft.) 4,000 m. due north of Spanish Lake Island.

The compass bearing to the No. 2 Post is 2700 west.

Distance to the No. 2 Post is (1,500 ft.) 457.2 m.

No. of meters to the right is 228.6 m. (750 ft.)

No. of meters to the left is 228.6 m. (750 ft.)

No. 2 post metal tag no. 504221M.

Clearbrook Mining Ltd. purchased a full 100% interest of the Big 2 - 2 post mineral claim on June 29, 1981, from Fred Sims and Wayne Rahnell of Clearbrook, B.C.

The Big 3 - 20 unit mineral claim, was located on the 30th day of January, 1981, by Mr. Rick Mathews of Box 53, Likely, B.C. and was recorded at Quesnel on the 6th day of February, 1981, under record no. 3170 (2). N.T.S. Map no. 93A/11W.

The legal corner post, bearing metal tags no. 16808 is located 3500 m. northwest of the east end of Spanish Lake and 50 m. from No Name Creek, on the right bank.

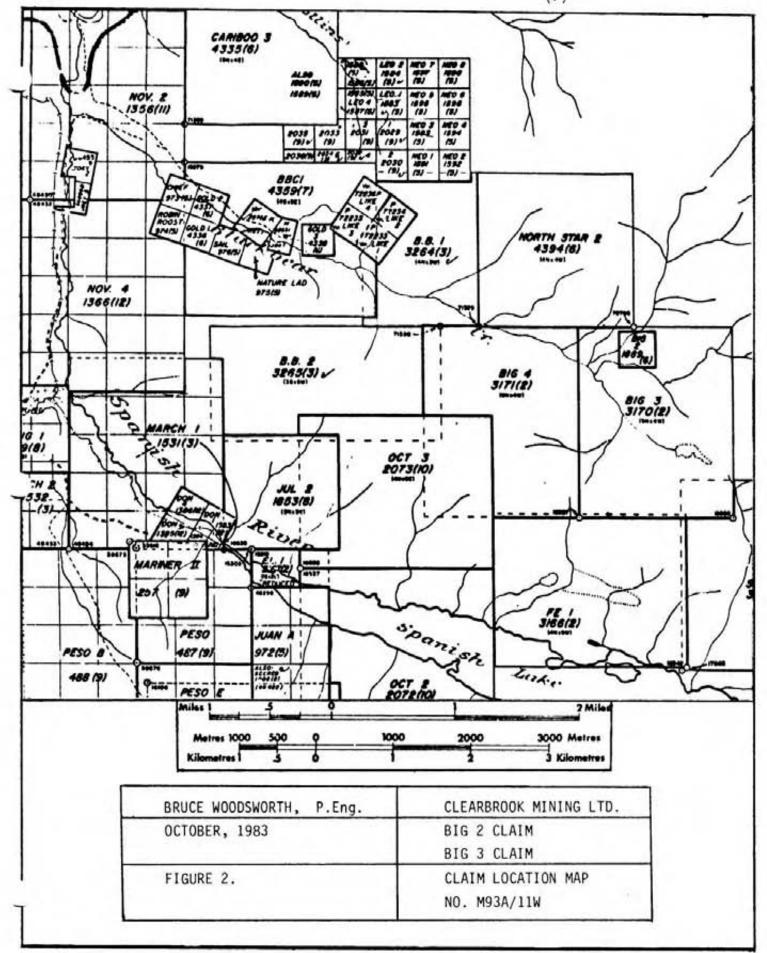
The 20 unit claim block lies as 5 units north and 4 units west.

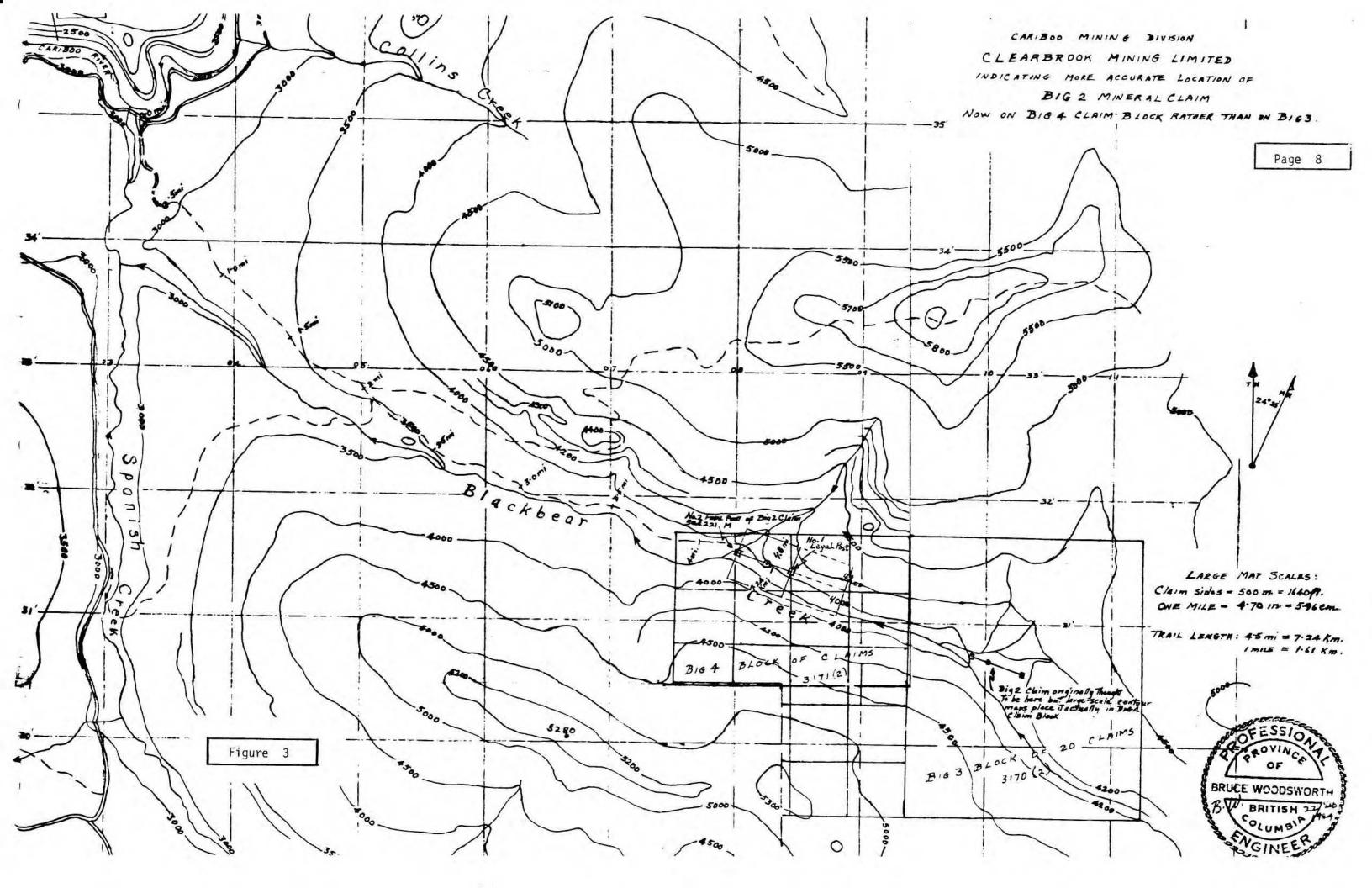
Clearbrook Mining Ltd. purchased a full 100° interest in the Big 3 20 unit M.C. and the Big 2-2 Post claim on June 29, 1981 from Fred Sims and Wayne Rahnell of Clearbrook, B.C.

Figure (2) page 7, is a recent claim plan of the area, opind it the Vancouver sub-recorders office in October, 1983.

Figure (3) page 8, is a revised plotting, showing the form of the Big 2 and Big 3 mineral claims.







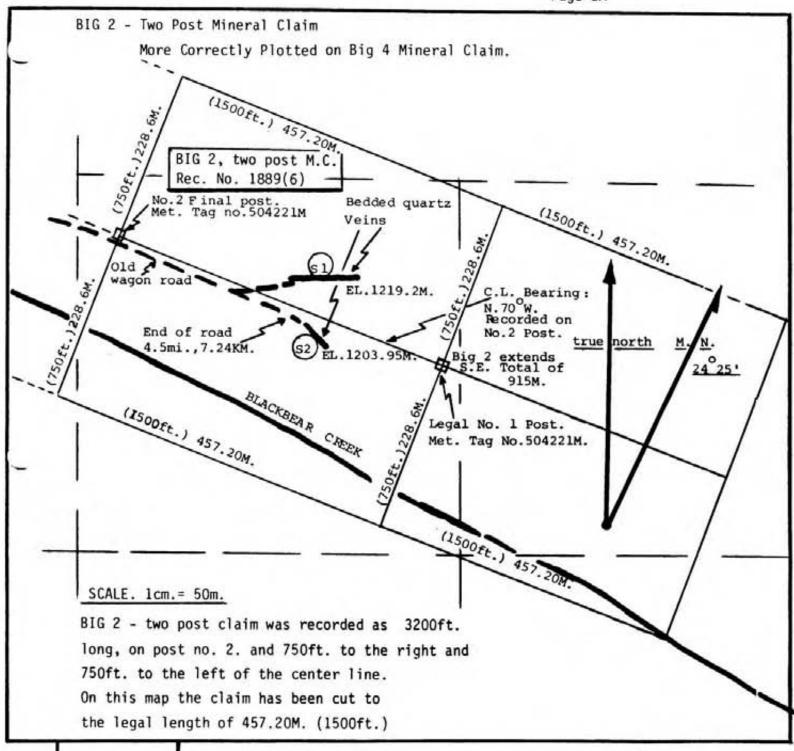


Figure 3A

1.5 REFERENCES AND HISTORY

An excerpt from a copy of the Report on the Geology of the Mining District of Cariboo, British Columbia by Amos Bowman M.E., Annual Report for the year of 1887 states:

SPANISH CREEK

Numerous ledges.

On Spanish Creek there are seven or eight known ledges, reported by Mr. Moore. A mile above its mouth there is a ledge two feet wide, not containing any suplhurets. There is a ledge from five to seven feet in width at the meadows, near the outlet of Black Bear Creek. It contains galena in streaks about an inch wide, and strikes N.N.E. Another, a mile up Black Bear Creek, is six inches wide, and consists of decomposed quartz. Above that, one mile and a half is a ledge four feet wide containing iron pyrites. These ledges run in the same general direction.

While working placers on Black Bear Creek, Mr. Moore frequently found pieces of pure galena weighing from one ounce to ten pounds, and many quartz boulders containing galena.

Minister of Mines Report - 1950

SPANISH CREEK - 520 1210 N.E.

The Rae, Bear and Cariboo groups, near the head of Black Bear Creek are held by H.C. Millar, D.A. Millar and W. Eop of Likely, B.C. A shipment of 8 tons was made to Trail smelter. Gross content, Silver - 746 oz., Lead - 6907 lbs., Zinc - 32 lbs.

Minister of Mines Report - 1929

SPANISH CREEK - Leases of Alex Sutherland and A. Sutherland

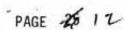
Obtained indications of an old gold-bearing channel in the left bank of Spanish Creek, about 85 ft. vertically above the present creek, at a point 3 miles above the mouth of Black Bear Creek. At this point a tunnel has been run a distance of 30 ft. into the bank, preceded by 20 ft. of open cut. In the near vicinity of the face of the tunnel, pits have been sunk a few feet in depth, and 50 feet from the portal of the tunnel, between the latter and Spanish Creek, a shaft has been sunk to a depth of 18 ft. The face of the tunnel shows rim-rock up to a height of 3 ft., and above that, gravel. Encouraging values are being found. A cabin was built.

On the Sept. 1982 property visit, the writer <u>did</u> find two <u>mineralized</u>, massive quartz occurrences (not outcrops because one foot of overburden had to be removed). <u>in place</u> instead of merely float rock, and separated by a horizontal distance of (150ft.) 45.72 m. and a vertical elevation of (50ft.) 15.24 m.

Fuel problems for the Drott Excavator precluded further backhoe exploration after Tue 21 Sept. 1982 and the mineralized quartz findings. However consider the following facts, assumptions, and observations;

- Gold-silver-lead mineralization was discovered in situ in two separate places (150ft.) 45.72 m. apart, with a difference of (50ft.) 15.24 m. elevation.
- Sample 1 with only 0.04% zinc, nevertheless contained (several feet) .609 m. of a dull, chocolate-colored to light rust, rotted rock. It brought to mind both decomposed ferrous material, and Sphalerite (ZnS) - Zincblende.
- The June 1981 float sample had only 0.002 oz Au, while the Sept. 1982 Sample 1 had three times that at 0.006 and Sample 2 had ten times that at 0.020; makes one wonder what next and deeper samples might contain.
- Similarly with silver; S1 has 1.74 oz; float of June 1981 had
 3.78 oz.; S2 has 6.48 oz/st. Ag is now getting to be quite valuable again.
- 5. After carefully reading the June 1981 Report on the Mt. Tom Property for Clearbrook Mining Ltd., especially the extensive assay results and development recommendations, the writer feels that so many variations exist on the Big 2 and Big 3 block of claims without correct answers to any of them, that an extensive 3-stage development program is fully justified.

It may be that the good silver and fair gold and lead values are limited to a few surfaces only, and are too few in numbers and too irregular in size, distribution and value to mine profitably. But only after a number of deep cuts some (500ft.) 152.4 m. long into quartz bedrock, followed by trenches at right angles, followed by churn drilling to ascertain depth and underground values, could anyone - expert or otherwise - accurately predict whether a profitable mine be developed. This consultant has seen too many good properties wither away for lack of sufficient development money up front, aggressive management, and a combination of vision and plain horse sense...;



General Testing Laboratories A Division of SGS Supervision Services Inc.

1001 EAST PENDER ST., VANCOUVER, B.C., CANADA, VBA 1W2 PHONE (604) 254-1647 TELEX 04-607514 CABLE SUPERVISE

Clearbrook Mines Ltd.



604-890 West Pender Str. Vancouver

V6C 1J9 B.C.

CERTIFICATE OF ASSAY

No.: 8106-0556

CATE: June 16/82

TO:

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EJECTS RETAINED ONE MONTH, PULPS RETAINED THREE MONTHS, ON REQUEST PULPS AND REJECTS WILL BE STORE FOR A MAXIMUM OF ONE YEAR.

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L. Wong

PROVINCIAL ASSAYER

PAGE 25 13

General Testing Laboratories

A Division of SGS Supervision Services Inc.

1001 EAST PENDER ST., VANCOUVER, B.C., CANADA, VSA IWZ PHONE (804) 254-1647 TELEX 04-507514 CABLE SUPERVISE



No.: 8209-2457

DATE: Sept. 28/82



TO: CLEARROOK KINES LTD. C/O Mr. D. Restaurant Yest Tale Road Chilliwack, B.C.

Attn: Mr. Don Eslinger

	GOLD	SALVER	Lead	Zine	133	-	TTT	-
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3 4-	tr. B. Woods				<u>.</u>	-		

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L. Wong

PROVINCIAL ASSAYER

(wayna)

TO:

PAGE 20 14

General Testing Laboratorie A Division of SGS Supervision Services Inc.

1001 EAST PENDER ST., VANCOUVER, B.C., CANADA, VBA 11 PHONE (804) 254-1647 TELEX 04-607514 CABLE SUPERVI

CERTIFICATE OF ASSA

No.: 8210-0651

DATE: 0ct. 12/82

CLEARSTOOK MINING LTD. 316 West Yale Road Chilliwack, B.C.

Attn: Mr. Don Eslinger

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PROVINCIAL ASSAYER

2.5 RECOMMENDATIONS FOR EXPLORATION

STAGE 1

1.	Upgrading old wagon tote road for (4mi.) 6.43 km.,	
	to be passable with a 4 wheel drive truck and other	
	heavy equipment. Using the same tracked machine to	
	cut trenches and to restore all disturbed terrain.	
	D6 Cat (or equal) at \$60.00/hr. X 60 hrs.	\$ 3.900.00
	(including cost of moving machine to work site)	\$ 3,900.00
2.	Hydraulic, tracked excavator for cutting deep trenches,	
	including cost of moving machine to work site.	
	\$80.00/hr. X 60 hrs	\$ 5,300.00
3.	Geologist; prospecting, supervising, sampling,	
	mapping.	
	\$300.00/day X 8 days	\$ 2,400.00
4.	Two men to aid the Geologist to carry out a program	
	of soil sampling.	
	2 men X 8 days @ \$150.00/day each	\$ 2,400.00
5.	Cost per assay, for Gold, Silver - \$10.00 each	
	500 samples	\$ 5,000.00
	Cost per assay, for Lead, Zinc - \$10.00 each	
	300 samples	\$ 3,000.00
6.	Cost of lodging men and supply of consumable	
	equipment	\$ 6,000.00
	Total - Stage 1	\$ 28,000.00

2.5 Cont.

STAGE 2

1.	Churn (percussion) Drilling. Estimate 3 weeks. Estim. 10 holes, each 60.96 m. deep @ \$45.90/meter	
	600 m. 0 \$45.90 per meter	\$ 27,540.00
2.	Sludge samples taken at 3 meter, continuous intervals.	
	Estim. 300 samples at \$20.00 p.s	\$ 6,000.00
3.	Geologist: Drill supervision, sample collecting, prospecting, One week data analysis, report, maps,	
	30 days at \$300.00 per day	\$ 9,000.00
4.	Preparation of drill sites, supply of lodging for	
	men and water supply for drilling etc	\$ 10,000.00
	Total - Stage 2	\$ 52,540.00

Stage 1 - \$ 28,000.00

Stage 2 - \$ 52,540.00

Total - \$ 80,540.00

CERTIFICATE

- I, Bruce Woodsworth, of Silver Sands, Halfmoon Bay, B.C. certify that I:
- Am a 1936 Graduate of the University of British Columbia, with an Honors B.A. in Geology.
- Have completed two years of Undergraduate Honors Science at the University of Manitoba, and a year of Postgraduate M.Sc. studies at both McGill University (1939-40) and U.B.C. (1961-62) in Geology.
- Having passed a number of Engineering courses, became a Professional Engineer of the Province of B.C. in 1972, and have been a Consulting Geologist for the past 10 years.
- 4. Have practiced my profession of Field and Exploration Geology for 45 years in British Columbia; the Yukon and Northwest Territories; States of Washington, Oregon, Montana; and Northern Rhodesia (now Zambia), Africa.
- 5. Have no financial interest in Clearbrook Mines Limited; Big 2 or Big 3 block of claims; or any other properties owned by this company.
- 6. Base this report on wagon road reconstruction with: (a) 1,000 feet with Ed Procknow's rubber-tired backhoe Fri 10 Sep; (b) 3.5 mi with Merv McIvor's Drott 40 Excavator Mon and Tue, Sep 20-21; on a long day of 4-wheel drive tote rd possible extension routes bushwhacking through swamps, timber and creeks with Don Stephenson Sat 18 Sep; prospecting and directing quartz cuts with Drott 40 Tue 21 Sep; brief examination of Big 2 claim 4 Jun 81; various government reports on Eastern Cariboo; Reports for Clearbrook dated 22 Jul 81 and 7 Feb 82.
- The Author does herein give Clearbrook Mining Ltd. consent to use this report in the Company's Prospectus.

Certified this 6th day of October 1983 at Silver Sands, Halfmoon Bay, B.C.

Bruce Woodsworth, P. Eng.

Consulting and Exploration Geologist

August 22, 1983 to August 30, 1983

Travel costs - Vancouver to Williams Lake to 9 miles east of Likely, B.C. to the Big 3 claim - total of 1,486 Km.

Total - \$ 417.26

Meal and Lodgings - seven days at \$55.00 per day - Total - \$ 385.00

Wages - seven days at \$90.00 per day -

Total - \$ 630.00

Cost to bring Geological Consultant from Wells, B.C. to Likely, B.C. for two days to confirm work done in Aug. 1982, and aquire more samples of mineralization plus aquire second opinion of the claims potential.

Total - \$ 500.00

Three more days were spent prospecting the claim to determine if more outcroping could be located. More quartz showings were located that showed silver lead mineralization with a trace of gold.

Samples taken along Black Bear Creek carried showings of placer, free gold and gold in broken quartz.

Assay costs of samples taken -

Total - \$ 286.00

Total Costs - \$2,218.26

