

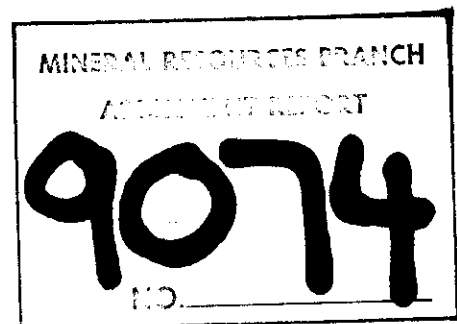
RECONNAISSANCE GEOLOGY & PROSPECTING REPORT
ON THE GOLD-SILVER POTENTIAL OF THE
BEAR GROUP CLAIMS (38 UNITS)
49°59' N, 119° 39'W: NTS 82E/13
Blue Grouse Mtn., 12Km Nw Kelowna, B.C.
VERNON MINING DIV., BRITISH COLUMBIA

by

N.C.Lenard, P.Geol., P.Eng.
Consulting Geologist, Westbank, B.C.
Dec.28, 1980

Work Done: Feb.19 - Nov.9, 1980

Owner: N.C.Lenard



50000'N

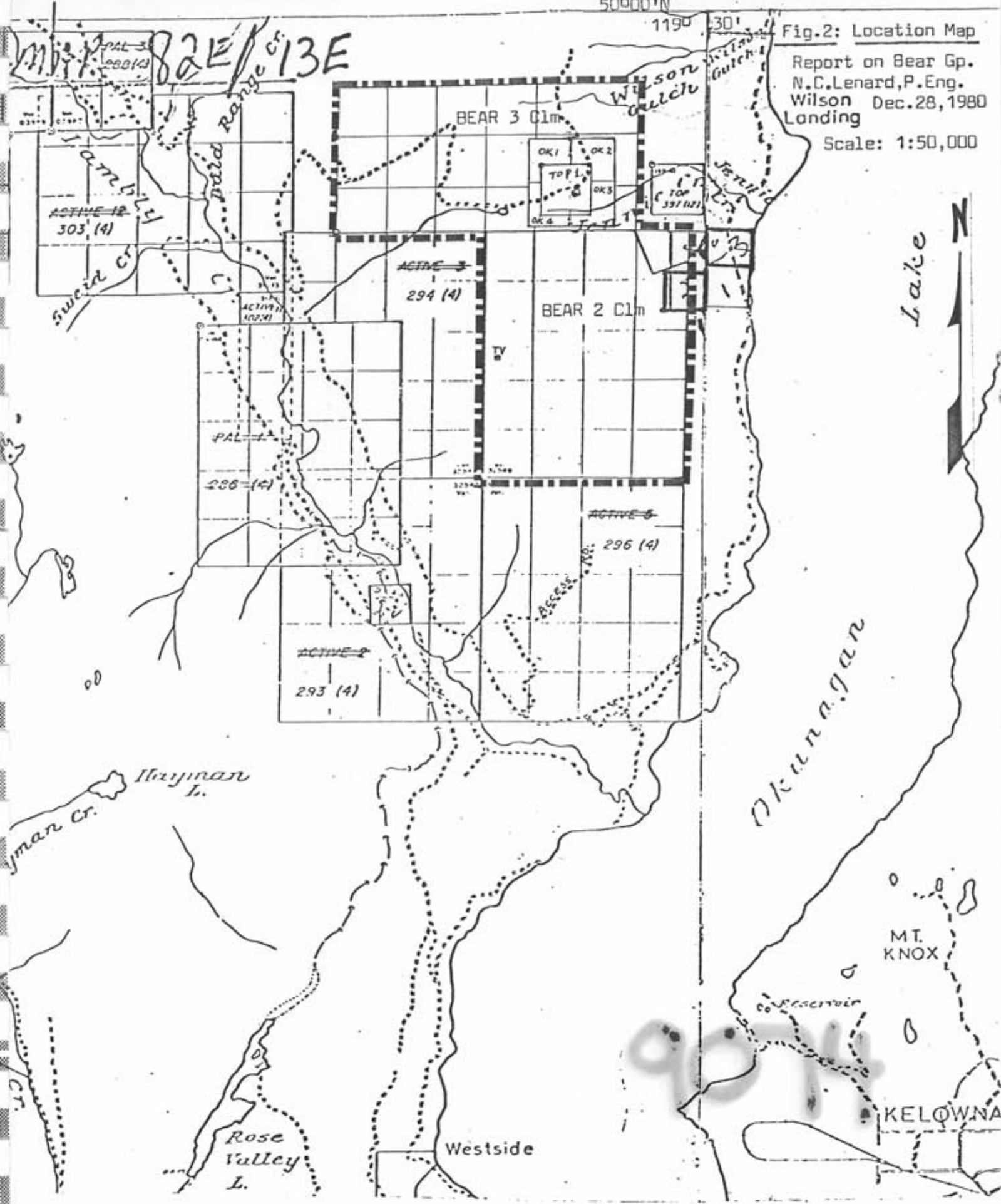
1190

30'

Fig.2: Location Map

Report on Bear Gp.
N.C.Lenard,P.Eng.
Wilson Dec.28,1980
Landing

Scale: 1:50,000



-CONTENTS-

	<u>PAGE</u>
LOCATION MAP	Frontispiece
INTRODUCTION	1
PURPOSE	1
LOCATION & ACCESS	2
PROPERTY & OWNERSHIP	2
WORK HISTORY	2
GEOLOGY, GENERAL, LOCAL	3
PROSPECTING REPORT	5
SUMMARY & CONCLUSIONS	
GEOLOGICAL	6
PROSPECTING	7
CERTIFICATE	10
REFERENCES	11
EXPENDITURES	12
APPENDICES	
ASSAY DATA	16
GEOCHEMICAL DATA	13
ILLUSTRATIONS	
FIG.1 PROPERTY, GEOLOGY & TOPOGRAPHY	POCKET
FIG.2 LOCATION INDEX MAP	FRONTISPIECE
FIG.3 SOIL SAMPLE GRID, SITE 10	14

INTRODUCTION:

This report is an evaluation of geological reconnaissance and prospecting done by the writer on the two-claim, 38-unit Bear Group claims. They cover the southern contact trend of a granodiorite batholith with Permian Cache Creek metasediments that are intruded by diorite satellites and Tertiary volcanics. An old gold-silver property, the Bluehawk Mine, is held by the one-unit TOP claim in the southeastern part of Bear 3 claim, and is the only known shipping deposit in the locale, producing five tons of quartz ore in 1935, grading 1.0 oz. gold and 3.6 oz. silver per ton. Unrecorded earlier shipments may have been made.

The study is based on data gathered in the field and on published and unpublished reports. Work was carried out by the writer using government maps and airphotos and reference to assessment reports on mineral claims in the locale. Surveys and mapping was accomplished via belt chain and compass tied to the roads spanning the property and to prominent outcrops and topographic features.

PURPOSE: The subject geological and prospecting work examined bedrock features of the property that markedly resemble settings of some major gold mining camps like Bridge River, British Columbia; Cadillac Belt, Quebec; and Treadwell, Alaska: auriferous quartz in or near intrusive albite veins and replacements in concert with differentiated basic to intermediate granitic intrusives. The property and the Bluehawk mine are characterized by a significant extent of such structure and petrology.

Work objectives consisted of three complementary phases:

1. Examined the Bluehawk mine deposit for geochemical and geological controls as pathfinders for extensions and for any trend of other quartz vein-oriented diorite structures along trend of the granodiorite contact, or of disseminated copper (chalcopyrite)-silver values in diorite as at the Bluehawk deposit.

2. Sought other prospective structural controls for mineralized breccias, lodes or replacements in minor acid igneous intrusives or in brittle members of the Permian or Tertiary volcanic intrusives.

3. Explored for Bridge River-type petrology, structures and wall-rock alteration genetically associated with gold values there: acid differentiates of basic to intermediate sodic granitics in or near albitic

intrusives and acidic diorite stocks; and searched for the 'soda granite' facies of Bridge River (Joubin) inferred to be a key source rock for quartz veins there and a genetic exploration lead to gold-bearing structures in such a geologic setting.

LOCATION & ACCESS:

The Bear Group claims are located on Blue Grouse Mountain on the west side of Okanagan Lake, about 12 km from Kelowna. Access is by auto or truck via fair logging roads north off the Lambly (Bear) Creek gravel road, which is reached from Highway 97 at the westside turnoff about one mile west of the Kelowna bridge. Fair to good logging roads span the property.

PROPERTY:

The Bear Group consists of two adjoining claims of 20 and 18 units each:

<u>Claim</u>	<u>Units</u>	<u>Record No.</u>	<u>Tag No.</u>	<u>Record Date</u>
BEAR 2	20	794	11763	Jan. 18, 1980
BEAR 3	18	795	11764	Jan. 18, 1980

Bear 2 claim is a restaking of recently lapsed Active 4 claim. Bear 3 claim surrounds the four-claim OK1-4 claims, which enclose the TOP claim and included Bluehawk mine workings.

OWNERSHIP:

The Bear Group claims were staked by and for the submittor, N.C.Lenard, and recorded on Jan.18,1980. Expiry Date of the TOP claim was Dec.9,1980. The OK 1-4 claims are held solely by N.C.Lenard; they represent the expired Jim 1-4 claims.

WORK HISTORY:

The Bear ³/_X claim area, formerly Active 4 claim, was explored for Uranium potential by previous owner Mountain Minerals Company Ltd. in 1978 as part of a larger reconnaissance program in the west Kelowna area (W.S.Read).

The southeast part of Bear ³/_X claim surrounds the only known economic mineralization on the property: trenches and underground workings of the old Bluehawk gold-silver mine, which shipped 5 tons of quartz ore yielding 5.0 oz. gold and 18 oz. silver. Earlier, unrecorded shipments

may have been made. Surface work in the 1930's around the pivotal Bluehawk deposit consisted of prospect trenches, pits and ground sluicing of quartz veins and shear zones southeast and northwest of the mine workings, some reported to be in granodiorite west of the mine. There is no published information on mineralization or values in neighboring older prospects.

The writer has no information on any work since the thirties. But, since 1965 the Bluehawk mine workings and surrounding terrain has been held and explored by Dawood Mines Ltd., held through 1980 by the one-unit TOP claim on the old workings. Assessment work done for Dawood Mines consisted of geological and geochemical-geophysical surveys, stripping, and tunnel scaling (Fox, 1974; Read, 1969). They indicated a fair potential for gold, silver and copper around the mine area, loosely related to mercury soil anomalies near the mine diorite but with no obvious orientation to ground magnetic anomalies.

GENERAL GEOLOGY:

The subject property is sited adjacent to the west edge of the Shuswap metamorphic terrane, a broad region of old sedimentary belts and granitic plutons. Precious metal prospects in quartz veins and shear zones are clustered near Vernon in the north Okanagan and sporadically southward along the west side of Okanagan Lake to the Bluehawk deposit. Bear (Lambly) Creek, which drains the southwest base of Blue Grouse Mountain, is an historic placer gold stream with only a modest yield recorded. Generally, the above precious metal prospects contain small amounts of base metal sulphides with spotty, occasionally rich pockets, such as at the White Elephant mine, about 20 km north of the Bear Group. Bismuth tellurides and free gold mark this deposit (Warren).

LOCAL GEOLOGY:

Bedrock of the subject property consists of the south edge of a Cretaceous granodiorite batholith, which has a northwesterly trending contact with invaded Permian Cache Creek metasediments. Later, Tertiary volcanics intruded and covered the Permian beds in the southwesterly part of Bear 2 claim. The pre-Tertiary erosional surface was one of considerable relief. Normal faulting has tilted some of

Tertiary volcanics.

The trace of an inferred normal fault mapped by previous explorationists (J.Gorham) on the Active 4 Claim (now Bear 2) trends northeasterly from linear Rose Valley Lake toward Wilson Landing. The writer terms this the Rose Valley Fault for discussion purposes, and has investigated its intersection with minor igneous intrusives of the granodiorite front for presence of ore-hosting structures.

Elements of the Bridge River, British Columbia gold camp setting are evident on the property and beyond: partly silicified albitic intrusives occupy faults and permeate and border dioritic satellites of the batholith. In this regard, it is interesting to note that the claims are on the north edge of a Cenozoic alkalic province, which overlaps an andesitic province (Church, 1973 p.73).

Glacial drift obscures much of Bear 3 claim except for the southeastern area around the Bluehawk minesite. Outcrops on Bear 2 claim are less limited but are still best along road cut and on ridges.

Immediately southwest of the granodiorite contact, a faulted stock of mafic diorite hosts gold-silver bearing quartz veins of the old Bluehawk mine and related disseminated chalcopryrite-silver values in crushed, pyritized diorite and in fractured albite pods.

As well as the Bluehawk mine area, the following list of intrusive rocks were examined for signs of differentiation, albitization, breccia and quartz veins, and especially for presence of albitite (quartz albite or quartz porphyry) and its intrusive family parent, the Bridge River 'soda granite'(Joubin). At exposures of the granodiorite contact along the lakeshore, the present writer noted a facies analog of the soda granite along with an intrusive sequence of albitite then quartz along the same fracture. In places, several generations of albite occur, yielding true quartz porphyry in part. None of several samples of this lakeshore area quartz-albite veining yielded more than a trace of gold on assay. Conversely, the site lacks signs of differentiation and hydrothermal alteration associated with gold deposits - sericitation and carbonates.

1. A major diorite dyke, 45-50m wide striking 310° az., on Bear2 claim, with disseminated and bordering masses of albitite is crossed by the trace of the Rose Valley fault. The dyke is walled on the westside by andesite, which is locally fractured or sheared on a small scale and hosts pyritic quartz veinlets.

2. A small, roadside outcrop of gabbroic diorite (site 7), which is not albitic, may indicate differentiation as at the Bluehawk mine.

3. A northwest-trending, poorly exposed diorite dyke (site 8) is sheared on the north side, has albitic walls, is cut by quartz and albite lenticles and is lightly pyritized. It assayed only traces of gold in chip and grab sampling, and showed no sign of differentiation, folding nor sericitation.

4. An unexplored, 0.3 m - wide quartz vein with albitite walls at site 9 is sparsely mineralized with pyrite and galena in massive diorite host rock that is not noticeably altered nor crushed. Exposed for only about 10 m, it is drift-covered along strike in what appears to be a small stock of intermediate diorite. A chip sample of the quartz assayed only traces of gold and silver, and lacks late shock and alteration associated with gold deposition. Nearby topographic depressions that strike at an angle to the subject quartz vein suggest potential for structural intersections that may host mineral deposits may exist.

PROSPECTING REPORT:

The subject property was jointly prospected for precious and any associated base metals. The nature of the gold-silver mineralization at the Bluehawk mine was to be determined along with geochemical and geological controls. Also, the usefulness of the Bridge River gold-quartz model was checked as a prospecting guide in this setting.

To establish prospecting techniques for gold, known satellite elements arsenic and antimony were analyzed for in reconnaissance grids over earlier recorded soil geochemical anomalies at the Bluehawk mine area and at the small pond to the west at site 14, where a coincident magnetic linear occurs (Read, Fox).

Particularly sought were disseminated, low-grade types of gold-silver mineralization in breccias. One such breccia was found by the writer near Tertiary volcanic talus on the main access road to Bear 2 claim. It is brecciated and silicified diorite float that assayed 0.02 oz. gold and 0.02 oz. silver per ton, a grade of potential economic interest.

Also searched for were siliceous, competent rocks capable of maintaining strong fracture systems for economic reserves of auriferous quartz or carbonates, e.g., quartz diorite, quartz porphyry and silicified country rock. Especially noted were signs of folding, alteration,

vein intersections, and quartz veins rimming or crosscutting diorite bodies.

Since the gold-silver ratio in shipped and recently assayed vein material from the Bluehawk mine is about 1:3, the same as that associated by Warren (1936) with gold-silver tellurides, this potential was observed in mineral examinations.

SUMMARY & CONCLUSIONS:

Geological:

This field study has confirmed presence of a Bridge River gold camp setting, suggesting potential for deep-seated gold-quartz structures on the property. The Bluehawk veins seen lack Bridge River-type ribboning and intense alteration of the wall rocks, although late shock and sericitation is present in the quartz veins where auriferous. A detailed study of alteration was not made, however, and gold values may occur differently at the Bluehawk deposit: late auriferous and argentiferous pyrite rather than free gold as at Bridge River.

An example of the Bridge River 'soda granite', genetically related to gold structures there, was found as a plug intruding the quartz-albitized diorite dyke at site 4, closely associated with rusty albite wallrocks. Pyrite was the only sulphide noted at site 4, but there is some evidence of late shock effects in narrow quartz veinlets in the diorite.

The north end of the 2 km- long examined portion of the main dyke on the property (site 1) is quartz diorite which is in fault-contact with andesite wallrock there. Throughout its length, the andesite is locally sheared or fractured, developing narrow quartz veinlets. This is the only occurrence of quartz diorite met in the course of this project. At site 1, part of the diorite is heavily albitized, intruded by an albitite lens, and brecciated, with late calcite healing of fractured quartz veinlets. Carbonate as ankerite occurs there also in quartz veinlets of a small shear zone in adjacent greenstone. A trace of malachite in these veinlets was the only economic mineralization observed at site 1. Albitic intrusives occur along, and as satellites, west of this dyke as at sites 1-6.

Intersection of the Rose Valley fault with the above dyke at site 3 shows noticeable intensity of normal faulting and silicification but not of mineralization except for pyritization, which is not gold-bearing in samples assayed.

High degree of sodic (albitic) metasomatism and intrusion and crushing of the Bluehawk basic diorite stock, suggests this to be near a cupola projection or finger from the batholith, or along a major fracture trend from or along the granodiorite contact. It could be a potent trend for other small diorite stocks, especially where brittle, acid phases occur, that hold prospects for breccia pipes and gold-bearing quartz lodes.

It is tentatively concluded that the richness of gold-silver grade in the pyritic vein section assayed for this report indicates a remaining potential for a small scale, selective mining operation; and, an outlook for larger medium grade gold grades if larger, permeable quartz structures occur, possibly within the crushed diorite that holds low grade copper-silver values near the Bluehawk mine portal. At least one exploratory drill hole should clarify the relationship of this heavily pyritized crushed diorite exposure to trace of the Bluehawk vein system, and is recommended (site 13).

Prospecting:

The search for gold-silver minerals and associated elements in soils that was done over geophysical and geochemical anomalies outlined in earlier assessment work on the property area and along known diorite-albite intrusives revealed three main areas that warrant further prospecting for gold:

(a) The northwest, 'cupola' end (Emmons) of the quartz diorite phase of the main dyke examined (site 1) is brecciated and albitized and is permeated by carbonate sometimes associated with gold deposits. In a 0.76m wide shear in adjacent andesite with quartz veinlets, chip and grab samples assayed only traces and 0.005 oz.gold/ton and 0.01 oz. silver/ton. Several short prospecting drill holes are warranted at site 1 to clarify dimensions of diorite breccia in place, and to get unweathered sections of the andesite shear zone for study and assay.

(b) The soda granite plug on the above dyke at site 4 should be prospected further for quartz vein satellites as at Bridge River. The southeast end of this dyke, at a much lower elevation, could have an acid phase like the northwest end, meriting exploration for gold (Emmons; Moorhouse).

(c) The basic diorite outcrop at site 7 may signify differentiation and late gold-quartz vein potential as at the Bluehawk deposit. It could be related to a structural break that parallels the main diorite dyke of sites 1-4 situated about 322m to the west. Since the quartz albite dykes at site 5 & 6 lie a similar distance west of the main dyke, this hypothesis may have foundation and should be investigated.

Further to prospects like the Bluehawk mine, assessment reports on claims on the west side of the original 5-claim group of the 1930's described 50-foot wide shearing in granodiorite. The Bluehawk diorite body is on the southeast flank of a south-trending topographic ridge that is drift-blanketed. Another similar projection from the batholith strikes southwest into the corner of Bear 3 claim. Both may represent classic examples of batholith fingers 'pointing' to related sites of mineralized structural plumbing. The 3400 and 3500 ft. topographic contours illustrate these features well. This possibility plus early references to sheared granodiorite on the ridge west of the Bluehawk mine gives a high priority to prospect the two high features geochemically and geophysically along the axes and around the flanks for minor igneous intrusives, quartz veins and EM conductors. A gold reconnaissance method described by Boyle (1979) may be effective in this regard: sampling of A-horizon soils for humic acid-concentrated gold. Test pitting to bedrock could also be useful for geology mapping.

At the Bluehawk minesite, separate chip samples were taken (site 11) across a surface exposure of a 40 cm-wide quartz vein in an inferred air shaft for the tunnels. The vertical vein is sheared on the west side and strongly mineralized with dark, partly deformed pyrite cubes. Aim was to determine the source of high gold-silver values, whether in the sericitized, sheared 17 cm portion, or, across the full width. The pyritic part assayed 3.82 oz. gold and 13.92 oz. silver/ton while an assay across the full width assayed 0.46 oz. gold and 1.72 oz. silver / ton. Apparently, the pyrite is the carrier, perhaps as mentioned earlier, as tellurides. This also suggests that gold was deposited late in structural events, possibly after chalcopyrite and its associated silver generation. Although tellurium assays have not been completed, occurrence of tellurides on the west side of Okanagan Lake north of the Bear Group at White Elephant mine

and south of it at the Fairview gold camp near Oliver make this a valid premise.

Local soil geochemical sampling was done over the highest soil gold value mapped on an assessment survey on the Bluehawk mine property (Fox, 1974) to test for any arsenic and antimony values re their usefulness for gold exploration (0.56 ppm gold @ Fox grid site 800'+00N + 6E). Twenty-three B-horizon samples were taken at ¹⁵~~10~~-m spacing (site 10). Results are shown on page 14. They indicate that while antimony values range in amplitude moderately, there is no clear correlation with previous or current gold values. The earlier sampling was taken on a larger, 30-m grid, yielding spotty gold values.

Similarly, arsenic, copper and silver were analyzed for in soils from the pond site 14 to evaluate earlier recorded mercury-magnetic anomalies. The results, on page 15, are too low to suggest presence of any economic minerals associated with the anomalies. The B horizon was used at 14.

All soil samples were taken with a mattock from a depth of 25 cm. Mode of analysis is given on page 13.


Sampling interval at site 14 was 15 m

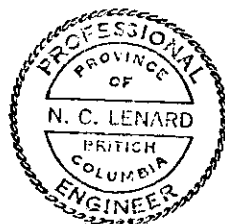
-CERTIFICATION-

I, Neall Curtis Lenard, of the settlement of Westbank in the Province of British Columbia do hereby certify:

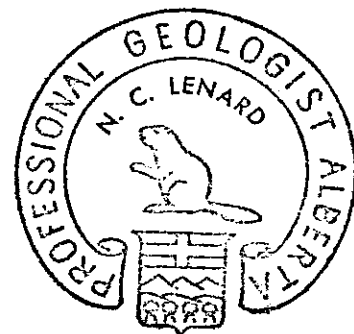
1. that I am a consulting geologist with an office mailing address of Box 863, Westbank, British Columbia V0B 2A0,
2. that I graduated from the University of British Columbia with a Bachelor of Arts Degree in 1949 (Honours Geology),
3. that I have practised my profession continuously for thirty-one years,
4. that I am the sole owner of the subject Bear Group mineral claims,
5. that the statements made in this report are based on personal examination of the claims over a net fifteen days from Feb.19 to Nov.9, 1980, and, on a study of published and unpublished reports on the property area,
6. that I am a member of the Associations of Professional Engineers of British Columbia and Alberta,
7. that no legal survey has been conducted over the subject mining properties, and, therefor, in accordance with the mining laws of the appropriate jurisdiction in which such properties are situate, the existence of and the area of such properties could be in doubt; and,
8. that I attended an extension short course on Exploration Geochemistry at the University of Calgary in 1970.

DATED AT: The Settlement of Westbank, in the Province of British Columbia, this 28th day of December, 1980


Neall Curtis Lenard, P.Eng., P.Geol.



Ex. Date Dec. 31/1980



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- * Addenda: Little, H.W. (1958, 1959) Geology of Kettle River (West Half), British Columbia; Geol. Surv. Can. Paper 67-42

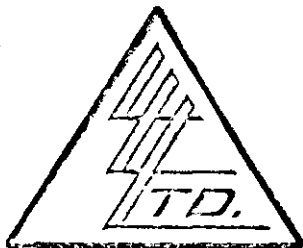
-EXPENDITURES-

1. <u>Personnel</u>		
	N.C.Lenard, P.Geol. 15 days @ \$350. (F. 19, J1.6, Sp. 3, 4, 8, 14, 16, 17, 20, Oct. 31, Nov. 2. 7-9, 1980)	\$5,250.00
	I.Sarama, 1 day @ \$72/day	72.00
2. <u>Transportation</u>		
	Auto: 15 days @ \$25.	375.00
3. <u>Assays, Geochemical analyses</u>		323.24
4. <u>Air photos, maps</u>		173.26
5. <u>Report Preparation</u>		
	N.C.Lenard, P.Geol. 1 day @ \$350.00	350.00
	Drafting - 6 hours @ \$15.	90.00
	Typing, Repro'n, binding	100.00
	Reproduction, map	158.02
6. <u>Field supplies</u>		21.53
7. <u>Express, Mail</u>		<u>13.80</u>
8. <u>Total Disbursements</u>		<u><u>\$6,926.85</u></u>

I certify that the above statement is an accurate representation of expenditures made for the geological and prospecting survey of the Bear Group claims conducted intermittently from Feb. 19 through Nov. 9, 1980.

N. C. Lenard

N.C.Lenard, P.Eng., P.Geol.



LORING LABORATORIES LTD.

Phone 274-2777

629 Beaverdam Rd. N.E.
Calgary 67, Alberta

Geochemical Analysis of Soils, Sediments and Silts.

FOR: Copper, Lead, Zinc, Nickel and Silver

Sample Preparation:

- Samples were placed in dryer overnight at 105°C.
- All samples are sieved through an 80 mesh nylon screen.
- The minus 80 is placed in pre-marked sample bag for analysis. The plus 80 portion is discarded.

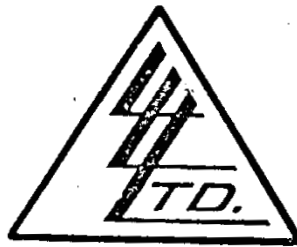
Sample Dissolution:

- 1/2 gram samples are weighed and transferred to test tubes.
- One ml water added, then three mls hydrochloric (concentrated), one ml nitric acid (concentrated) are added.
- Test tubes are then placed into hot water bath 100°C and digested for three hours with occasional shaking to ensure complete digestion.
- Test tubes are removed from water bath and allowed to cool.
- Test tubes are bulked to exactly 10 mls, corked and shook.
- All samples are then allowed to settle until clear.
- The clear solutions are then aspirated through the atomic absorption spectrophotometer with appropriate standards to obtain the metal content.

Detection Limits and Precision:

<u>Element</u>	<u>Detection Limit</u>	<u>Precision at 100 ppm level</u>
Copper	1 ppm	+ - 2 ppm
Lead	2 ppm	+ - 4 ppm
Zinc	1 ppm	+ - 2 ppm
Nickel	1 ppm	+ - 2 ppm
Silver	0.2 ppm	+ - 1 ppm

To: Mr. N.C. Lenard,
 Box 863,
 Westbank, B.C. VOH 2A0



File No. 20801
 Date December 19, 1980
 Samples Soil
 Continuation of File # 20621

**Certificate of
 ASSAY of
 LORING LABORATORIES LTD.**

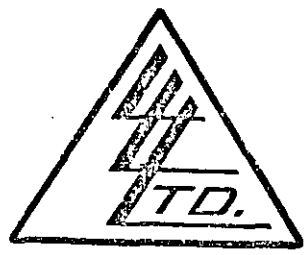
SAMPLE No.	PPM As	PPB Au	
<p>"Soil Samples"</p> <p>3</p> <p>8</p> <p>11</p> <p>14</p> <p>19</p> <p>22</p>	<p>MAP SITE NO. 10</p> <p>Lenard 1980 Soil Grid 15m stations</p> <p>#23 20 14 11 19</p> <p>13 300+00N+600E (FOX) 0.52 PPM Au</p> <p>FOX, REAR grid</p> <p>ROAD</p> <p>(-) = Less Than</p> <p>I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES</p>	<p>-10</p> <p>-10</p> <p>-10</p> <p>-10</p> <p>-10</p> <p>-10</p>	
		7.5	-10
		7.2	-10
		2.3	-10
		2.7	-10
		13.1	-10
		4.1	-10

Rejects Retained one month.
 Pulps Retained one month
 unless specific arrangements
 made in advance.

D. [Signature]
 Assayer

To: Mr. N.C. Lenard,
Box 863,
Westbank, B.C. VOH 2A0

File No. 20197
Date September 22, 1980
Samples Soil



Certificate of
ASSAY OF

LORING LABORATORIES LTD.

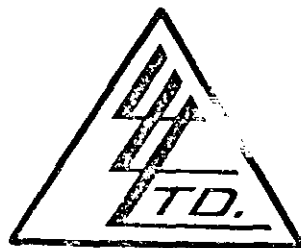
cc: Whitecourt

SAMPLE No.	PPM Cu	PPM Ag	PPM As
<u>"Soil Samples"</u>	MAP SITE		
	NO.		
Pond-1	14	0.8	1.9
2	20	0.5	2.5
3	16	0.5	2.9
4	16	0.5	2.1
5	40	2.0	2.8
<p>I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES</p>			

Rejects Retained one month.
Pulps Retained one month
unless specific arrangements
made in advance.

E. L. M. J. A. A. C.
Licensed Assayer of British Columbia

To: Mr. N.C. Lenard,
 Box 863,
 Westbank, B.C. VOH 2A0
 cc: Whitecourt, Alta.



File No. 20199
 Date September 22, 1980
 Samples Rock

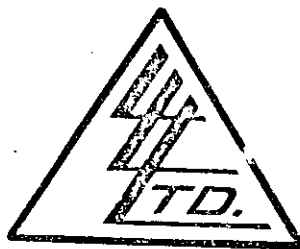
Certificate of
 ASSAY of
LORING LABORATORIES LTD.

SAMPLE No.		OZ./TON GOLD		OZ./TON SILVER
<u>"Rock Samples"</u>			MAP SITE NO.	
10801	8	Trace		.02
10802	4	Trace		.02
10803	1	.020		.02
10804	1	.005		.16
10805	1	Trace		.12
10806	1	Trace		.02
10807	2	Trace		.02
10808	2	Trace		.02
10809	3	Trace		.16
<p>I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES</p>				

Rejects Retained one month.
 Pulp Retained one month
 unless specific arrangements
 made in advance.

Ed McFarlane
 Licensed Assayer of British Columbia

To: Mr. Neall Lenard,
 Box 863,
 Westbank, B.C. VOH 2A0
 cc: Whitecourt

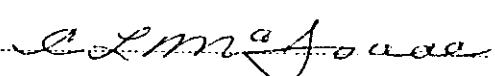


File No. 20257
 Date September 30, 1980
 Samples Rock

Certificate of
 ASSAY of
 LORING LABORATORIES LTD.

SAMPLE No.	OZ./TON GOLD	OZ./TON SILVER	%
<u>"Rock Samples"</u>	MAP LOC. NO.		
10810-A	13 Trace	.32	.10
10811-A	11 3.820	13.92	-
10812-A	12 .050	.18	-
<p>I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES</p>			

Rejects Retained one month.
 Pulps Retained one month
 unless specific arrangements
 made in advance.


 Licensed Assayer of British Columbia



To: N.C. LENARD,
863 West Bank, B.C.
VOH 2A0

File No. 80-1429

Type of Samples Rock

Disposition _____

ASSAY CERTIFICATE

No.	Sample	Ag oz/ton	Au oz/ton			MAP SITE NO.		No.
1	Sample # 1	.02	.001			1		1
2	2	.01	.001			1		2
3	3	.01	.001			1		3
4	Sample # 4	.02	.001			2		4
5								5
6								6
7								7
8								8
9								9
10								10
11								11
12								12
13								13
14								14
15								15
16								16
17								17
18								18
19								19
20								20

All reports are the confidential property of clients.

DATE SAMPLES RECEIVED NOV. 13, 1980

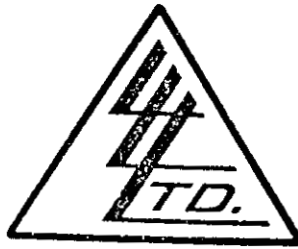
DATE REPORTS MAILED NOV. 18, 1980

ASSAYER

Dean Toye

DEAN TOYE, B.Sc.
CHIEF CHEMIST
CERTIFIED B.C. ASSAYER

To: Mr. N.C. Lenard,
 Box 863,
 Westbank, B.C. VOH 2A0



File No. 20621
 Date November 17, 1980
 Samples Soil

Certificate of
 ASSAY of
LORING LABORATORIES LTD.

SAMPLE No.	PPM Sb
<u>"Soil Samples"</u>	
	MAP SITE NO. 10
1	14
2	12
3	22
4	20
5	12
6	20
7	10
8	20
9	10
10	16
11	22
12	18
13	20
14	24
15	7
16	16
17	10
18	14
19	4
20	2
21	14
22	13
23	4

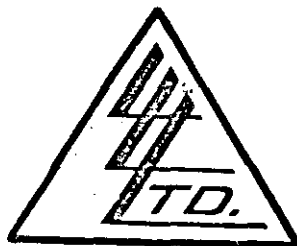
I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE
 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

Rejects Retained one month.
 Pulps Retained one month
 unless specific arrangements
 made in advance.

D. Erdley

Assayer

To: Mr. N.C. Lenard,
 Box 863,
 Westbank, B.C. VOH 2A0



File No. 20772
 Date December 22, 1980
 Samples Rock

**Certificate of
 ASSAY of
 LORING LABORATORIES LTD.**

SAMPLE No.	OZ./TON GOLD	OZ./TON SILVER
<p><u>"Rock Sample"</u></p> <p>16" Chip Top Claim</p>	<p>MAP SITE NO.</p> <p>11 .460</p>	<p>1.72</p>
<p>I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES</p>		

Rejects Retained one month.
 Pulps Retained one month
 unless specific arrangements
 made in advance.

[Signature]
 Assayer



LORING LABORATORIES LTD.

598-BAYVIEW RD. N.E. GRASSBURY, ALTA. T2K 4W2

TO Mr. N.C. Board

INVOICE N° 20621

Box 868,

Westbank, B.C. V0H 2A0

DATE November 17, 1980

*Soil samples from Blue Creek
Wedge Top' Clin. To big near rd.
Box 3* Soil SAMPLES

23	Antimony Geochems	@	1.55	35.65
23	Soil Sample Preparations	@	0.50	11.50
		@		
		@		
		@		
		@		
		@		
			TOTAL	\$ 147.15

*BN (No. 301)
Nov 28/80*

THIS IS YOUR INVOICE

PLEASE PAY THE AMOUNT SHOWN

TERMS - 30 DAYS



LORING LABORATORIES LTD.

629 BEAVERDAM RD. N.E. CALGARY, ALTA. T2K 4W2

TO Mr. N.C. Lenard,
Box 863,
Westbank, B.C. VOH 2A0

INVOICE No 20772

DATE December 22, 1980

Rock SAMPLES

1	Gold & Silver Assay	@	9.75
		@	
		@	
		@	
		@	
		@	
		TOTAL	\$ 9.75

THIS IS YOUR INVOICE

PLEASE PAY THE AMOUNT SHOWN

TERMS — 30 DAYS



LORING LABORATORIES LTD.

629 BEAVERDAM RD. N.E. CALGARY, ALTA. T2K 4W2

TO Mr. N.C. Lenard,
Box 863,
Westbank, B.C. VOH 2A0

INVOICE No 20801

DATE December 19, 1980

Continuation of File # 20621

Soil SAMPLES

6	Gold Geochems	@ 4.25	25.50
6	Arsenic Geochems	@ 3.70	22.20
		@	
		@	
		@	
		@	
		TOTAL	\$ 47.70

THIS IS YOUR INVOICE

PLEASE PAY THE AMOUNT SHOWN

TERMS — 30 DAYS



LORING LABORATORIES LTD.

629 BEAVERDAM RD. N.E. CALGARY, ALTA. T2K 4W2

TO Mr. N.C. Lenard,
Box 863,
Westbank, B.C. VOH 2A0

INVOICE N° 20199

DATE ... September 22, 1980 ..

Rock..... SAMPLES

9	Gold & Silver Assays	@	9.75	87.75
		@		
		@		
		@		
		@		
		@		
			TOTAL	\$ 87.75

THIS IS YOUR INVOICE

PLEASE PAY THE AMOUNT SHOWN

Beau 2-3 showing

TERMS — 30 DAYS



LORING LABORATORIES LTD.

629 BEAVERDAM RD. N.E. CALGARY, ALTA. T2K 4W2

TO Mr. Neall Lenard,

INVOICE N^o 20257

Box 863,

DATE September 30, 1980

Westbank, B.C. VOH 2A0

Rock SAMPLES

3	Gold & Silver Assays	@ 9.75	29.25
1	Copper Assay	@	4.75
		@	
		@	
		@	
		@	
		TOTAL	\$ 34.00

Bank = TOP

THIS IS YOUR INVOICE

PLEASE PAY THE AMOUNT SHOWN

TERMS — 30 DAYS



LORING LABORATORIES LTD.

629 BEAVERDAM RD. N.E. CALGARY, ALTA. T2K 4W2

TO Mr. N.C. Lenard,
Box 863,
Westbank, B.C. VOH 2A0

INVOICE N° 20197

DATE September 22, 1980

Soil SAMPLES

5	As Geochems	@	3.70	18.50
5	Soil Sample Preparations	@	0.50	2.50
5	Cu, Ag Geochems	@	1.90	9.50
		@		
		@		
		@		
			TOTAL	\$ 30.50

*Bear 3
Top 1/2 in.*

THIS IS YOUR INVOICE

PLEASE PAY THE AMOUNT SHOWN

TERMS — 30 DAYS



Province of
BRITISH COLUMBIA

SURVEYS and MAPPING BRANCH

MINISTRY OF ENVIRONMENT

LAB NUMBER
FINISH

DATE _____ 19____

MINISTRY _____

NAME _____

BRANCH _____

ADDRESS _____

PHONE _____ AUTHORIZED BY _____

SHIP TO

NAME _____

ADDRESS _____

Present Scale _____

Required Scale _____

AERIAL PRINTING

23cm X 23cm Paper

Enlargement Paper

Enlargement Film Pos.

Mosaic

Diapositive

Colour

DIAZO

Paper

Sepia

Film - Transparent

Film Opaque

Mounting Film (Clear)

PHOTO/CONTACT & CAMERA

Paper

Clear Film

Matte Film

105mm

35mm Cards

Water-Proof Paper

OFFSET PRINTING

20 lb Paper (Standard)

Special Paper

INK

Master

DESCRIBE ORIGINAL(S) AND REQUIREMENTS FULLY:

THIS IS NOT AN INVOICE

INVOICE No _____

TOTAL NUMBER PRINTS _____

TOTAL COST \$

TAX \$

TOTAL \$

RECEIPT No _____

CUSTOMER'S COPY

CALGARY PHONE
(403) 266-6051

RILEY'S REPRODUCTIONS & PRINTING LTD.
631 - 8TH AVENUE SOUTH WEST, CALGARY, ALBERTA T2P 0W9
10180 - 108 STREET, EDMONTON, ALBERTA T5J 1L3

CALGARY
EDMONTON

INVOICE NUMBER **CD19110**

RECEIVED BY	TIME RECEIVED	PROMISED	REQUESTED	DUE OUT	WILL CALL	WAIT	WAIT DELIVERY	CUSTOMER P.O. NO.	OR NO.	REQ NO.
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			

- CHARGE
- C.O.D.
- CASH
- CUSTOMER NUMBER

HILLS ALTA

DATE **10 JAN 81**
SUBJECT TITLE **JAN 81**

SHIPPING INSTRUCTIONS

<input type="checkbox"/> MAIL	<input type="checkbox"/> COLLECT
<input type="checkbox"/> MAIL EXPRESS	<input type="checkbox"/> PREPAID
<input type="checkbox"/> AIR MAIL	<input type="checkbox"/> AIR EXPRESS
<input type="checkbox"/> BUS	

PLEASE QUOTE CUSTOMER NUMBER ON PAYMENT

PRINTS TO:	NO. OF ORIG.	NO. PRINTS OF EACH	SIZE	SQ. FT.	TOTAL SQ. FT.	COE	DESCRIPTION	UNIT PRICE	AMOUNT
						01	BLACK BLUE PLASTIC PREFOLD FRAME FOLD		
ORIGINALS TO:						01	SEPIA SC. ALB. ERASABLE REV. FACE UP		
						01	0015 MYL. 002 MYL. 002 MYL. SEPIA BLACK FACE UP REV.		
						22	1224 BOND VELLUM		
						18	1360 BOND VELLUM		
						19	700 BOND VELLUM		
						20	6600 FULL COLOR SINGLE COLOR		
						17	2800X 3107 BOND VELLUM TRANSP. 8 1/2 x 11 8 1/2 x 14 11 x 17		

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- FILM

Pick-up & Delivery _____
Radio Dispatched _____



DESCRIPTION

1 opti nes (31%)
1 KP5

117 45

SUB TOTAL	117 45
FEDERAL TAX NO.	F.S.T. 10 57
PROV TAX NO.	P.S.T.

BILLED BY M-15	DATE Jan 3	TIME 10 35	DELIVERED BY	DATE	OUT TIME	QUOTED PRICE <input type="checkbox"/>	HANDLING DELIVERY	5 00
INVOICE NUMBER CD19110							TOTAL AMOUNT 133 02	
This invoice must be returned with all claims and claims must be made within 24 hours of delivery date. TERMS NET 30 DAYS SERVICE CHARGE OF 1% PER MONTH (18% PER ANNUM) ON OVERDUE ACCOUNTS								

Kamloops Research
&
Assay Laboratory
LTD.



B.C. CERTIFIED ASSAYERS

2095 West Trans Canada Highway — Kamloops, B.C. V1S 1A7

Phone: 372-2784

Telex: 048-8320

Mr. N. C. Lenard,
Box 863,
WESTBANK, B. C.
VOH 2Z0

INVOICE: 2528
DATE: January 10, 1980.
FILE No. K-2507

REVISED

3 Gold & Silver Assays @ \$8.50

\$25.50

PAID by cheque. Thank you.

(Please note that on our invoice of January 7, 1980 we neglected to mark "Paid". We apologize for the error.)



BONDAR-CLEGG & COMPANY LTD.

764 BELFAST ROAD. OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110 TELEX: 053-3548

Mr. N. C. Lenard
Box 863
Westbank, B.C.
VOH 2A0

INVOICE: C ^{C 9104} 9104

DATE: January 22, 1980

REPORT NO: A20 - 47

PROJECT:

W.O. No. C 10858

2	Silver	Assays	@ \$ 6.00	\$ <u>12.00</u>
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mee

THIS IS A PROFESSIONAL SERVICE
ACCOUNTS DUE WHEN RENDERED



BONDAR-CLEGG & COMPANY LTD.

764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110 TELEX: 053-3548

Mr. M. C. Lenard
Box 863
Westbank, B.C.
VOB 2A0

INVOICE: **C 4081**
DATE: October 2/79
REPORT NO: 29 - 2032
PROJECT:

W. O. No. C 7376

*Pd. Feb 16/80
KOT #216*

Bear Cap

4	Silver	Analyses	@ \$ 1.65	\$ 6.60
4	Gold	Analyses	@ \$ 3.75	15.00
4	Sample Preparations		@ \$ 0.45	<u>1.80</u>
				<u>\$ 23.40</u>

NO DOUBT THIS HAS DRAWN YOUR ATTENTION
PLEASE LET US HAVE YOUR REMITTANCE

ENTERED OCT 25 1979

eja

THIS IS A PROFESSIONAL SERVICE
ACCOUNTS DUE WHEN RENDERED

114

ACME ANALYTICAL LABORATORIES LTD.

PHONE: 253-3158

~~PHONE: 253-3158~~

~~PHONE: 253-3158~~

852 East Hastings St., Vancouver, B.C. V6A 1R6

Nov. 18, 1980
File # 80-1429

N.C. LENARD,
863 West Bank, B.C.
VOH 2A0

TERMS.
NET TWO WEEKS INTEREST AT
1% PER MONTH CHARGED ON
OVERDUE ACCOUNTS.

NUMBER	ASSAY	PRICE	AMOUNT
4	Ag and Au assays @ C.O.D. Charge	\$8.75	\$35.00
			1.30
			<hr/> \$36.30

Ben's plus

C.O.D.
Envol C.R.

No 80-1429

Due Sender \$ 36

Dû à l'expéditeur \$ 30

SHIPPING CHARGES:

PLEASE PAY LAST AMOUNT →



BONDAR-CLEGG & COMPANY LTD.

764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110 TELEX: 053-3548

C 10898

INVOICE: **C 10898**

DATE: February 11/80

REPORT NO: 20 - 138

PROJECT:

Mr. N. C. Lenard
Box 863
Westbank, B.C.
VOH 2A0

W. O. No. C 11267

10	Copper, Silver	Analyses	@ \$ 2.30	\$ 23.00
5	Arsenic	Analyses	@ \$ 2.75	13.75
5	Antimony	Analyses	@ \$ 3.25	16.25
10	Sample Preparations		@ \$ 0.45	<u>4.50</u>
				<u>\$ 57.50</u>

Pl. Fed 14/80. BNS ch. 254

sj a

**THIS IS A PROFESSIONAL SERVICE
ACCOUNTS DUE WHEN RENDERED**



BONDAR-CLEGG & COMPANY LTD.

764 BELFAST ROAD. OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110 TELEX: 053-3548

Mr. N. C. Lenard
Box 863
Westbank, B.C.
VOH 2A0

C 10841
INVOICE: **C 10841**
DATE: February 6, 1980
REPORT NO: A20 - 93
PROJECT:

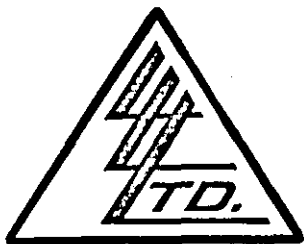
W.O. No. C 10904

2	Gold	Assays	@ \$ 6.00	<u>\$ 12.00</u>
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Keeloc # 211 Feb 1980

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**THIS IS A PROFESSIONAL SERVICE
ACCOUNTS DUE WHEN RENDERED**



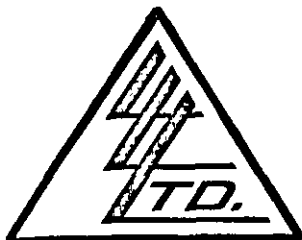
LORING LABORATORIES LTD.

Phone 274-2777

629 Beaverdam Rd. N.E.
Calgary 67, Alberta

Sb ANTIMONY GEOCHEMS

- 0.5 gm sample into test tube.
- Put approx. 0.5 gm tartaric acid.
- Wet with 1 ml. H₂O.
- 1 ml HNO₃ + 3 ml HCl.
- Put on water bath for three hours at less than 90° C.
- Bulk up with 5 ml H₂O.
- Read on A.A.



LORING LABORATORIES LTD.

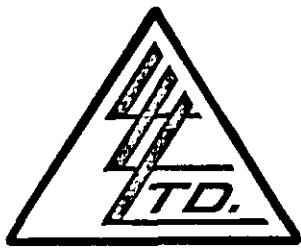
Phone 274-2777

629 Beaverdam Rd. N.E.
Calgary 67, Alberta

AA GOLD (GEOCHEM)

- Fuse and cupel a 10 gm. sample as a normal fire assay.
- Transfer bead to a 25 ml test tube.
- Add HNO₃ to take bead into soln.
- Adjust pH with NH₄OH.
- Add 2 mls Na CN soln.
- Add 3 to 4 drops NH₄OH.
- Add 3 to 4 drops H₂O₂.
- When Au is all in soln., bulk to proper volume and read on AA.

$$\text{PPM Au} = \frac{(\text{Reading}) \times (1.00 \text{ or } 5.00 \text{ etc.}) \times (\text{Volume})}{\text{Wt. of Sample}}$$



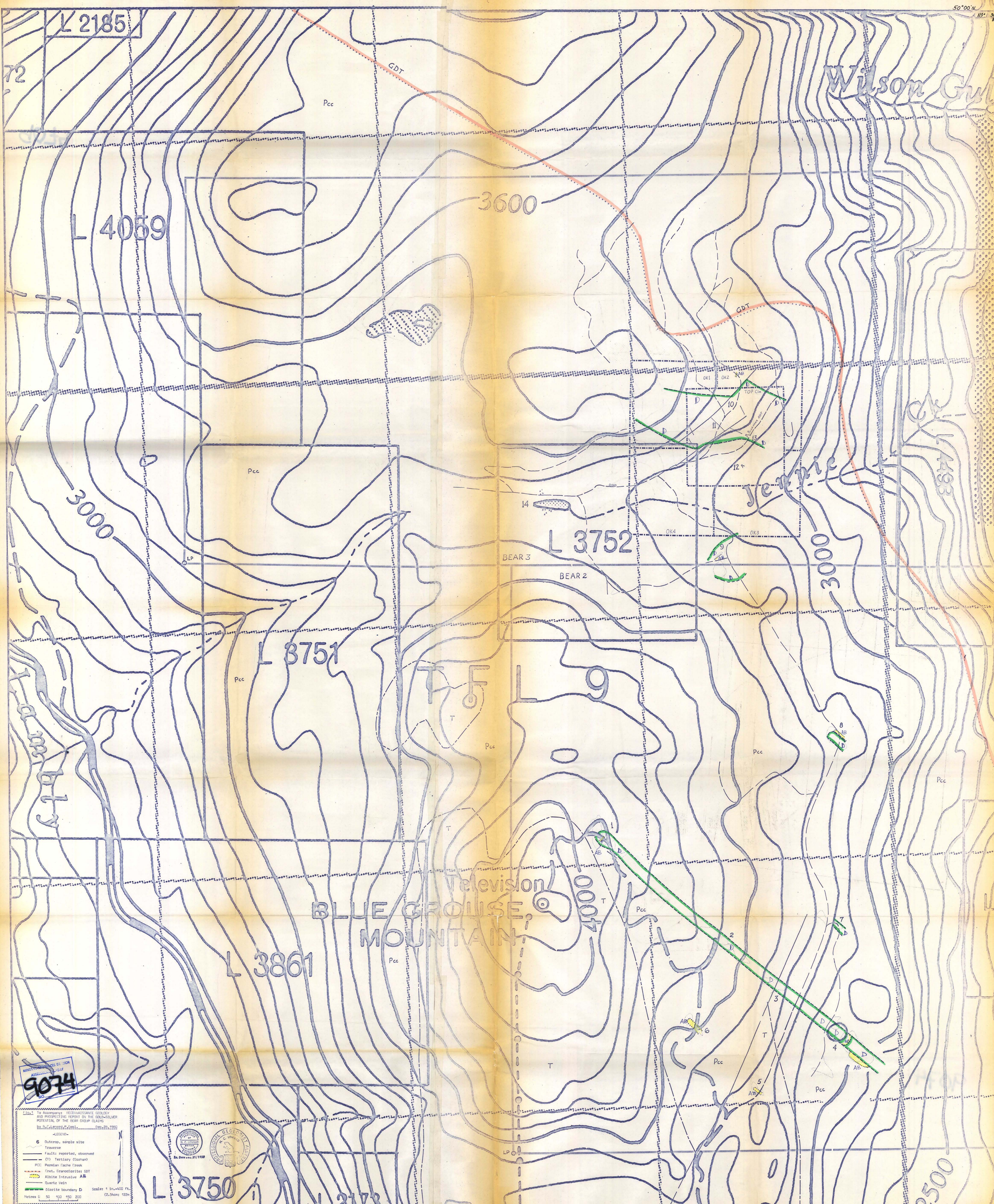
LORING LABORATORIES LTD.

Phone 274-2777

629 Beaverdam Rd. N.E.
Calgary 67, Alberta

As GEOCHEMS (silver diethyldithiocarbamate method)

- .5 gm sample into 150 ml beaker.
- add .5 gm HClO₃.
- add 10 ml water and 15 ml HNO₃.
- dry over night on one switch hot plate.
- add a little HCl twice and dry.
- bring up the sample into 100 ml flask with 20 ml HCl.
- take 50 ml sample into 125 ml erlenmeyer.
- add 3 ml KI (15%) solution and 12 drops 40% SnCl₂.
- allow 15 min. for reduction of As to the trivalent state.
- prepare scrubber-absorber assembly.
- add 3 gm zinc to the generator and connect scrubber-absorber assembly immediately.
- allow 30 min for complete evolution of arsine.
- read absorbance at 535 mu using reagent blank reference and standards.



72

L 2185

L 4059

3600

3000

L 3752

3000

L 3751

L 9

Television BLUE GROUSE MOUNTAIN

L 3861

4000

L 3750

L 2173

2500

9074

MINERAL RIGHTS TO THE
ASSIGNMENT OF
9074

BLUE GROUSE MOUNTAIN
AND PROSPECTING REPORT ON THE GOLD-SILVER
POTENTIAL OF THE BEAR GROUP CLADES
By S. C. LAMONT, Geol. (1982-83, 1983)

LEGEND

- 6 Outcrop, sample site
- Traverse
- Fault: reported, observed
- (T) Tertiary (Gorham)
- PCC: Pappan Tuff Creek
- Red: Granodiorite GDT
- AB: Albitic Intrusive
- Quartz Vein
- D: Diorite boundary

Scale: 1 in. = 400 ft.
Metres 0 50 100 150 200
(2.5cm: 12m)

