

ARIS SUMMARY SHEET

District Geologist, Kamloops

Off Confidential: 92.09.24

ASSESSMENT REPORT 21926

MINING DIVISION: New Westminster

PROPERTY: Latch

LOCATION: LAT 50 01 30 LONG 121 36 00

UTM 10 5542130 600283

NTS 092I04E

CLAIM(S): Latch 1-2

OPERATOR(S): Cardinal Geoconsulting

AUTHOR(S): Cardinal, D.G.

REPORT YEAR: 1991, 17 Pages

COMMODITIES

SEARCHED FOR: Gold

KEYWORDS: Jurassic-Triassic, Argillite, Schist, Faults, Alteration, Quartz veins
Pyrite, Pyrrhotite, Arsenopyrite, Chalcopyrite, Gold

WORK

DONE: Geological, Physical, Geochemical

GEOL 50.0 ha

LINE 2.5 km

SAMP 6 sample(s) ;ME

MINFILE: 092I 090

LOG NO: DEC 18 1991 RD.
ACTION:
FILE NO:

Geological Assessment Report

on the

LATCH 1 and 2 MINERAL CLAIMS

Latch Gold Zone

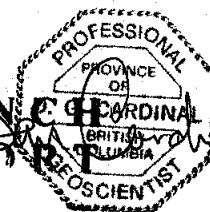
Located in the

New Westminster Mining Division
Latitude 50° 01' and Longitude 121° 36'
NTS 92I/4E

Report Prepared By

D.G. Cardinal, P.Geo., F.G.A.C.
Cardinal Geoconsulting Ltd.
Hope, B.C.
November 30, 1991

GEOLOGICAL BRANCH
ASSESSMENT REPORT



21,926

TABLE OF CONTENTS

A. TERMS OF REFERENCE	Page
A.1 INTRODUCTION	1. ✓
A.2 SUMMARY	1. ✓
A.3 LOCATION AND ACCESS	3. ✓
A.4 PROPERTY INFORMATION	3. ✓
A.5 PHYSIOGRAPHY AND INFRASTRUCTURE	3. ✓
A.6 BRIEF BACKGROUND	4. ✓
B. FIELD SURVEYS AND RESULTS ✓	
B.1 FIELD PROCEDURES	5. ✓
B.2 REGIONAL GEOLOGY	5. ✓
B.3 PROPERTY GEOLOGY	6. ✓
B.4 LATCH GOLD ZONE	6. ✓
B.5 SAMPLING AND DISCUSSION OF RESULTS	7. ✓
B.6 CONCLUSION	7. ✓
C. COST BREAKDOWN	8. ✓

FIGURES:

1. Location Map ✓
2. Claims Map ✓
3. General Geology (Roads and Drill Hole Locations) ✓
4. Latch Gold Zone - Latch Creek Section ✓

APPENDICES:

- APPENDIX I Professional Certificate ✓
- APPENDIX II Assay Certificate ✓
- APPENDIX III Bibliography ✓

A. TERMS OF REFERENCE

A.1 INTRODUCTION

In recent years the LATCH 1 and 2 MINERAL CLAIMS (the 'Property') have undergone a series of mineral exploration surveys from grassroots prospecting to limited diamond drill projects.

The surveys have demonstrated that the Property is of merit and hosts anomalous amounts of gold that is worthy of further examination. The Property's close proximity to major centres and its' geological setting, makes it an attractive prospect.

The Property's anomalous gold structure, referred to as the Latch Gold Zone, appears in part to represent "Mother Lode Gold" type environment with subsequent skarniferous alternation.

Previous exploratory drilling tested the zone for large skarniferous, Hedly Gold type deposit. The drilling achieved some limited success in which a number of gold-bearing skarn intercepts were indentified. However the zone may also host narrow, high grade ore-shoots as evident from the drilling and recent surface mapping and sampling.

A.2 SUMMARY

The Property is situated in southwestern B.C. within easy access to the communities of Boston Bar/North Bend and to the Trans Canada Highway. It is also conveniently located to the required amenities such as: electrical power, transportation, water and human resources.

The Property consists of 2 mineral claims, Latch 1 and 2. It contains 40 contiguous units covering some 2,471 hectares.

Topographic relief ranges between 305m to 1,608m AMSL. It is conducive to surface exploration for at least 7 months of the year.

During the turn of the century, placer gold activities occurred on creeks and rivers adjacent to the Property. Limited gold surface workings were first documented on the Property by the G.S.C. in 1935. Detail and reconnaissance exploration surveys were conducted over the old workings between 1983 and 1985. An anomalous gold-bearing structure was defined carrying economic and sub-economic gold.

The Property is underlain by phyllites and argillites that are in fault-contact with semi-continuous lenses of talc-serpentine schist. The phyllite-argillite unit hosts the anomalous Latch Gold Zone.

The author supervised geological surveys on the Property during the autumn of 1990. Detail mapping and sampling surveys were conducted over the anomalous gold zone.

The zone is about 30m wide and consists of number of sub-parallel shears and narrow quartz veins. It also hosts several chlorite-biotite and potassic altered lenses containing disseminated pyrite, pyrrhotite and lesser amounts of chalcopyrite and arsenopyrite.

The shear zones contain economic gold values which may represent ore-bearing shoots at depth and along strike. Further work is warranted to properly defined the shear zones.

A.3 LOCATION AND ACCESS

The Property is situated in southwestern B.C.. It is located some 19km northwest of the community of Boston Bar and 80km from the town of Hope. The Fraser River Canyon transportation corridor runs through Boston Bar which includes the Trans Canada Highway, CN and CP railways and the B.C. Hydro right-of-way.

Access to the Property is gained from the Boston Bar/North Bend communities. A well maintained year-round public access road leads from North Bend to the Nahatlatch River. The road follows the river and begins to parallel the south boundary of the Property about 19km from the North Bend. To gain access to the work site (Latch Gold Zone), a log haulage road is followed from the river and then onto a forestry tower lookout road for some 8km. A 4-wheel drive vehicle is needed for the lookout road since this section is not maintained.

A.4 PROPERTY INFORMATION

The Property consists of 40 contiguous claim-units covering 2,471 hectares. It lies within the New Westminster Mining Division on mapsheet NTS 92I/4E. The ownership of the claims is held privately by the writer and an associate.

Pertinent data is as follows:

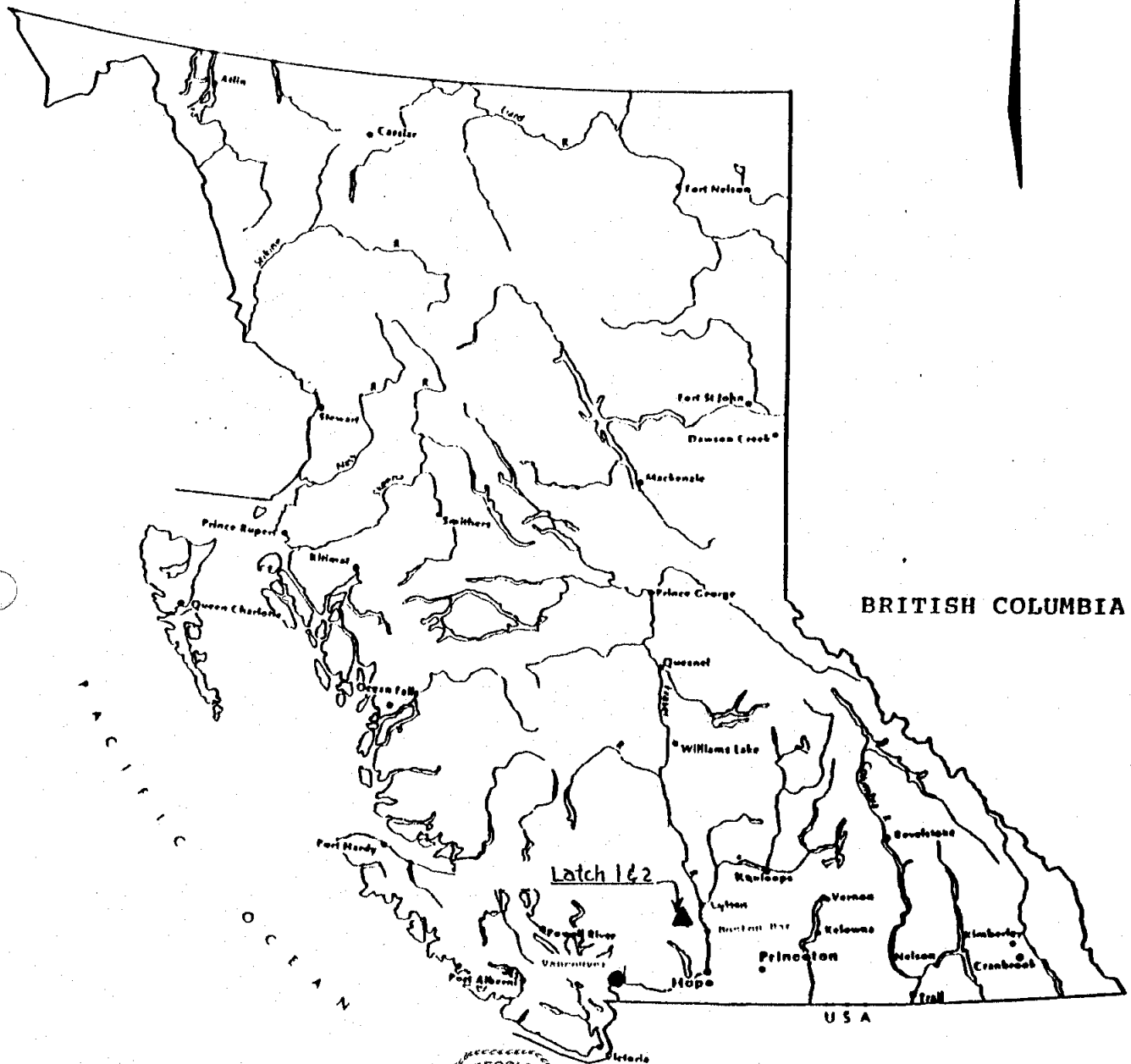
Claim Name	No. of Units	Record No.	Record Date	Expiry Date
Latch 1	20	3442	Sept.29/88	Sept.29/92
Latch 2	20	3443	Sept.29/88	Sept.29/92

A.5 PHYSIOGRAPHY AND INFRASTRUCTURE

The Property is situated along the southeastern flank of the Coast Range Mountains in southwestern B.C.. The main physiographic features in the area include, the Nahatlatch River valley and the Fraser River Canyon which runs some 4km east of the Property.

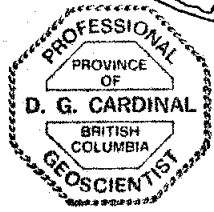
The Property covers a south-facing mountain slope. The topographic relief ranges from 305m AMSL along the valley to 1,680m AMSL at height-of-land near the north Property boundary. The centre of the Property where much of the exploration work has been carried out, is at 820 AMSL.

This region normally experiences relatively hot summers and is usually free of snow between April and November. Vegetation on the Property consists mainly of willow, small lodge pole pine, hemlock and minor cedar.



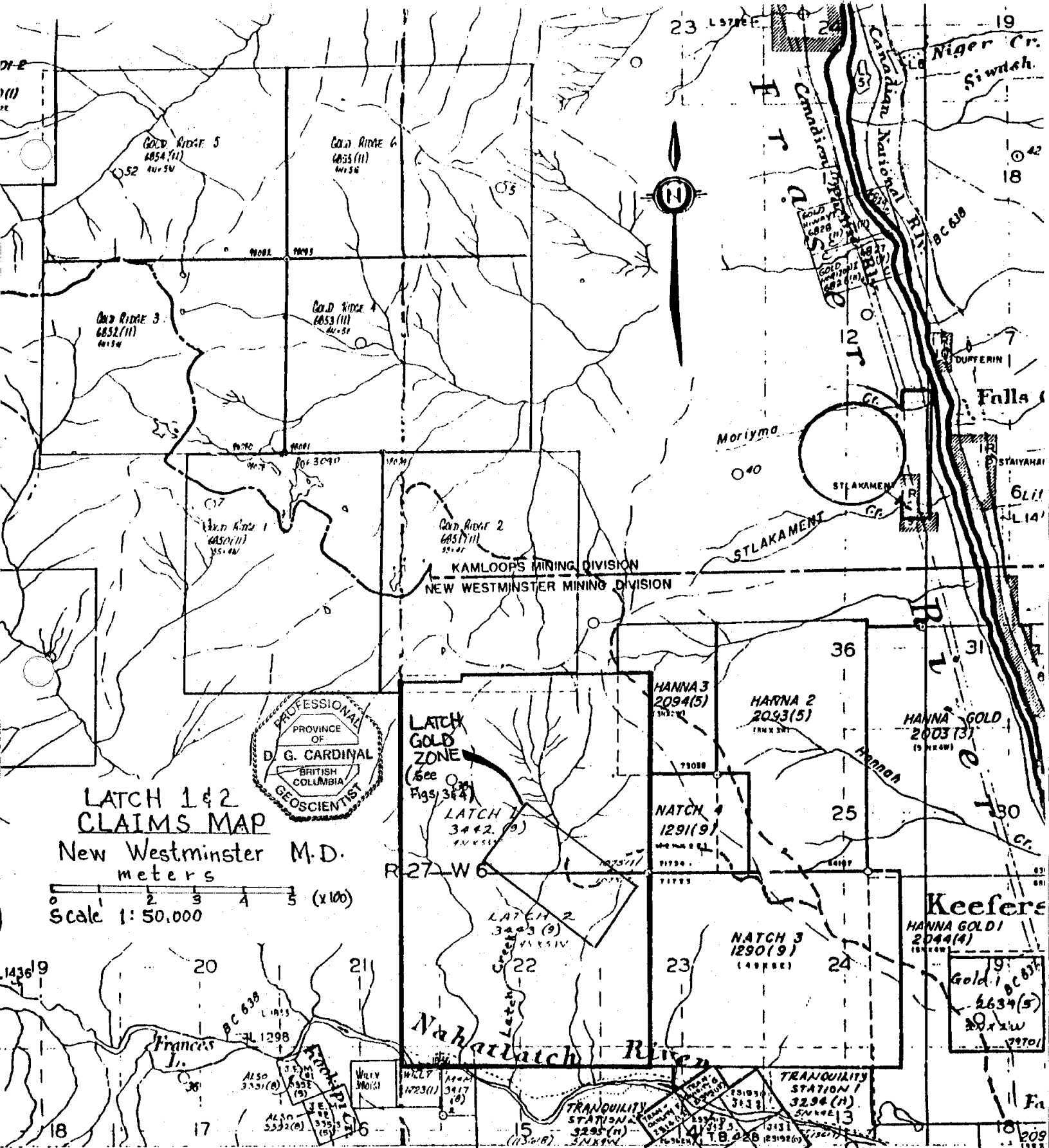
BRITISH COLUMBIA

USA



LATCH 1 & 2 CLAIMS
Location Map

Figure 1



LATCH 1 & 2 CLAIMS MAP

New Westminster M.D.
meters
Scale 1:50,000

TO SOUTH SEE MAP 92H/13E

MINERAL TITLES REFERENCE MAP 92 I/4E

DEPARTMENT OF MINES AND PETROLEUM RESOURCES VICTORIA

This map is prepared as a guide only to the location of mineral claims that have not been surveyed. Geographic position of a legal corner post has been verified if it is indicated with the symbol, Ver. Information with respect to the claims may be obtained at the Mining Division concerned.

Scale 1:31,000

- VISIONS
- Crown Granted
- Reverted CG Mineral Claim
- Forfeited Mineral Claim
- Verified Legal Corner Post
- Power Transmission Line
- Pipeline
- Stream... perennial
- indefinite
- intermittent/dry
- Boundary swamp flat water

For infrastructure, the Property is within easy half hour drive from Boston Bar and the Trans Canada Highway. The town of Hope which services the Upper Valley and Fraser Canyon areas, is within 1.5 hours drive from the Property. Electrical power, major highways and roads, railways, water and, human resources are all conveniently accessible.

A.6 BRIEF BACKGROUND

Historically, placer gold was worked along the Fraser River Canyon near Boston Bar and along parts of the Nahatlatch and its' tributaries. Although little records exist, individual prospectors carried out small, seasonal placer workings along these areas up to the advent of the second world war.

In 1936, H.C. Horwood of the Geological Survey of Canada briefly examined the geology in this region. During his examination, Horwood reported of prospectors working a gold showing now covered by the Property. This area then remained dormant after the war.

In 1952, S. Dufell and K.C. McTaggart of the G.S.C., conducted geological surveys in this region as part of the Ashcroft Mapping project.

During the late 1970s' and early 80s', sporadic exploration work was conducted along this area by various junior resource companies. In 1983, the old gold showing noted above, was rediscovered on the Property. Between 1983 and 1985, Hudson Bay Exploration and Development Limited conducted a series of exploration surveys including, geo-chemical, geophysical surveys and limited diamond drilling.

An anomalous auriferous-bearing structure was outlined over the old gold showing. Six (6) holes were drilled which defined an altered structure carrying narrow sections of sub-economic to economic gold. The structure was drill tested for 310m along strike and to a depth of 160m. It is open to the north along strike and also to depth.

B. FIELD SURVEYS AND RESULTS

B.1 FIELD PROCEDURES

Firstly, 2km of access road to the work site had to be up graded because of previous years washouts and tree blow-downs.

A crew was employed to construct a baseline and lay out a detail grid over the site. Stations were established at every 50m along the baseline and 25m intervals along crosslines. Over the main target (Latch Zone) area, 12.5m stations were established along crosslines.

Mapping surveys were conducted at 2 different scales. One survey was at a scale of 1:2,500. At this scale all existing roads and former drill holes (eg. GL 84-1, etc.) were surveyed and tied to the grid system. All major rock outcrops, streams (ie. Latch Creek) and the mineralized zone were also tied to the grid (Fig. 3).

The other survey which was more detail at a scale of 1:500, was conducted over the altered and mineralized zone (Fig. 4). At this scale all quartz veins, mineralized structures and sample sites were mapped and tied to the detail grid.

Six (6) continuous chip samples and one grab sample were collected over the zone and numbered (LG 90-1c, etc.). Each continuous chip sample was taken across sheared, mineralized quartz structures varying in widths from 0.5m to 1.5m. All samples were then shipped to the laboratory for a multi-30 element, ICP geochemical analysis.

B.2 REGIONAL GEOLOGY

The regional geologic setting consists of a 32km long northwest - southeast trending structural break which is represented by a semi-continuous ultramafic serpentine belt.

The belt is interpreted as an alpine ultramafic terrane believed to be of oceanic origin. The northern portion is intruded by the Cantilever Range granites of the Coast Range complex. In the southeastern section, the belt is in juxtaposition with the Hope-Fraser Fault system.

Typically, the belt is composed of sheared, semi-continuous lenses of serpentine. The serpentine is fault-contact with metamorphosed sediments and volcanics of lower greenschist facies which are believed to be Triassic-Jurassic in age.

Along the southern section of the belt and near the Property, are locally intruded granitic plugs. The plugs would appear to be in part related to the surrounding Coast Range granites which are of Cretaceous age.

B.3 PROPERTY GEOLOGY

The Property is underlain predominately by a thick sequence of monotonous phyllite and argillite schist. Typically, the sequence is steeply dipping and foliated in a north-northwest direction.

The phyllite-argillite schist is in fault-contact with a band of sheared talc and talcose serpentine. The talcose schist bodies tend to be lensoidal in shape and up to 50m wide. They are enclosed in the sedimentary schist sequence.

Structurally, the phyllite and argillite host a number of sub-parallel shears which also trend in a northwesterly direction. The shears are offset by major northeast-southwest trending faults. One such fault occurs at the mineralized zone and has offset or cut off the southern extension of the zone. Because of the faulting and the Latch Creek which now follows the fault line, a section of the mineralized zone has been exposed.

Other than the mineralized zone, the schist do not appear to host additional mineralization except for the occasional quartzite lense carrying minor pyrite.

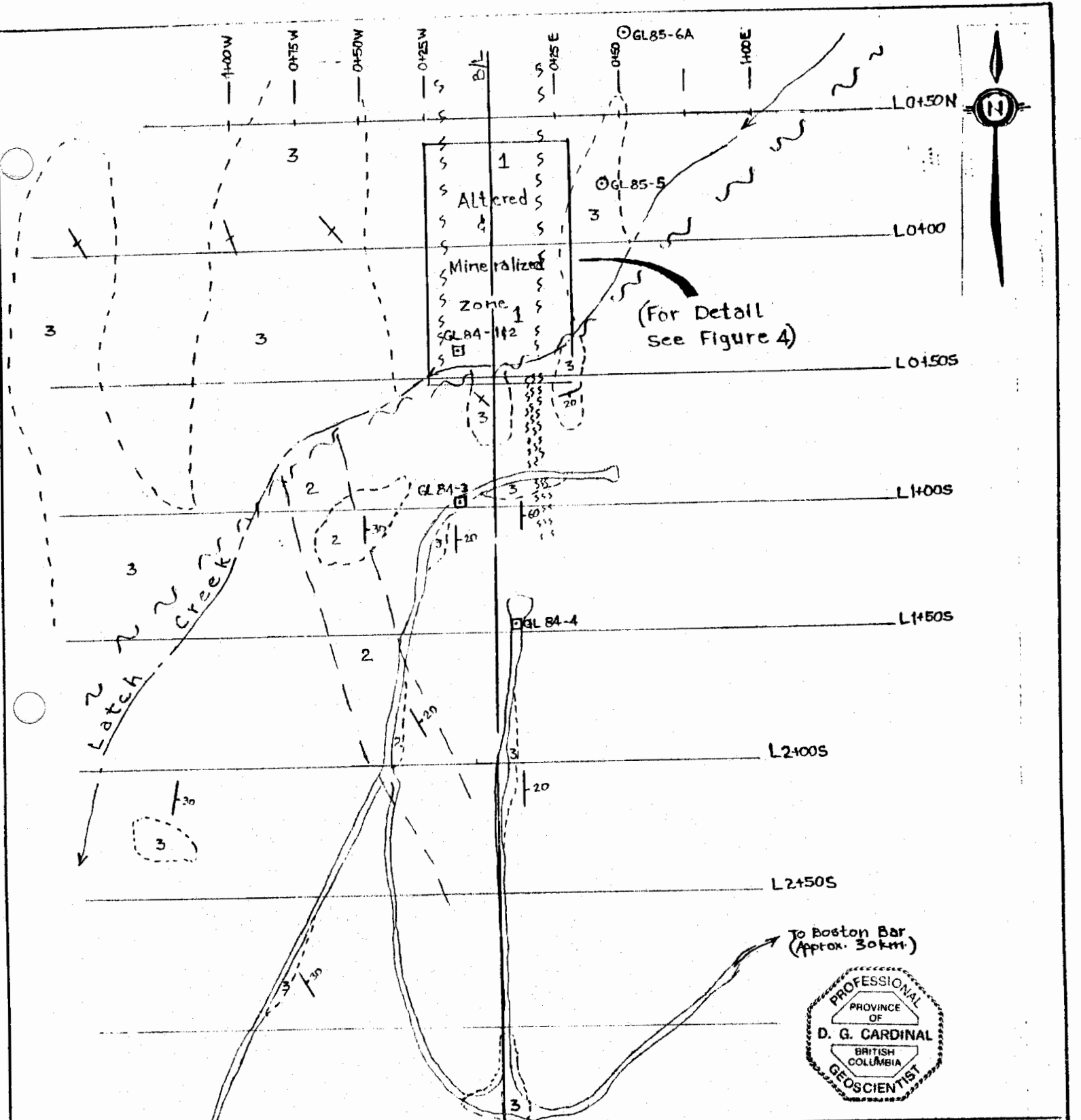
B.4 LATCH GOLD ZONE

The north trending Latch Gold Zone section occurs along a steep gully exposed by the fast flowing Latch Creek (Fig.4).

The zone is an auriferous-bearing mineralized and altered structure represented by a series of sub-parallel narrow shears and quartz veins. The zone is some 30m wide. It is semi-concordant and hosted in phyllite-argillite schist.

The narrow (0.5m-1.5m) shears and veins are highly oxidized and weathered. The shears tend to carry higher gold values than the veins which in most cases carry only minor amounts of pyrite and arsenopyrite. Between the veins and shears are altered and sulphide bearing lenses. The lenses are up to 3m wide and consist of disseminated pyrite, pyrrhotite with minor chalcopyrite and arsenopyrite. Chlorite and biotite with pink potassic mineral and minor albite stringers are the main alteration products making up the lenses.

The Latch Gold Zone appears to be in part a mesothermal - hydrothermal alteration product, structurally controlled with a late stage skarniferous overprint.



LEGEND:

- 1 Chlorite/Biotite schist
Altered / Mineralized shear Zone
- 2 Iron-Siliceous skarn
Minor Chlorite, K-spar & Qtz Alteration
- 3 Phyllite, Argillite
- sss Talcose schist
- ~ ~ ~ ~ ~ Probable Fault
- ⊥ strike & Dip of Bedding
- ⊥ strike & Vertical
- Hudson Bay Expl^o Drill Hole (1984) (GL 84-1)
- (GL 85-5)
- Bedrock

GENERAL GEOLOGY

LATCH CLAIMS

New Westminister M.D.
NTS 92/4E
(Boston Bar Area)

Scale 1:2500

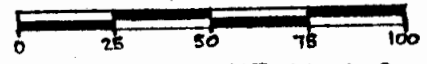


Fig. 3

CARDINAL GEOCONSULTING, LTD.

0+25W

B/L

0+25E

Limit of Exposure

- 60m

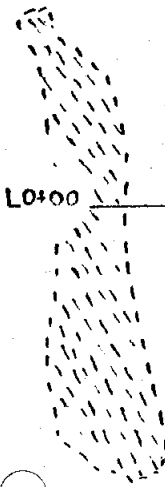
L0+00

- 30m

ELEVATION (meters)

- 20m

0m



LG 90-4
0.5
18115/118

TALUS COVER

LG 90-2
X 11737/2

Limit of Talus

LG 90-3A
1.0
2845/ND

LG 90-3B
1.5
409/ND



(Latch Creek)

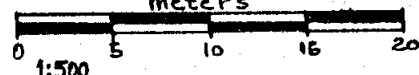
LATCH CREEK SECTION

L0+50S

Scale:

meters

Fig 4.



LEGEND:

- Altered & Generalized Zone
- Potassic (K-spar) Potassic, Chlorite & Biotite Minor Albite stringers.
- Chlorite, Phyllite, minor Biotite.
- ▨ Quartz Veins, Albite stringers. Silicification.
- ▩ Grey Phyllite.

Shear Zone

Continuous Chip
Samples: $\frac{\text{meters}}{\text{AS (ppm) / AU (ppm)}}$
(ND - Not Detected)
X Grab Sample

LATCH CLAIMS

NEW WESTMINSTER M.D.
NTS 92/4E
(Nahatlatch River)
CARDINAL GEOCONSULTING

B.5 SAMPLING AND DISCUSSION OF RESULTS

Six (6) continuous chip samples and 1 grab sample were collected from the zone. The chip sample lengths range from 0.5m to 1.5m (Fig.4).

Chip samples, LG 90-1A to LG90-1C were taken across oxidized, limonite shears and narrow quartz veins. LG 90-2 is a grab sample of talus containing silicified quartz breccia with disseminated arsenopyrite. LG90-3A and 3B were collected from sulphide altered lenses carrying pyrite, pyrrhotite, chlorite, biotite and albite and potassic alteration. LG 90-4 was from a highly oxidized narrow shear zone containing narrow (2cm-4cm) seams of massive arsenopyrite.

Some of the better values were obtained from samples: LG90-1C, Ag 9.0ppm, As 12312ppm, Au 3ppm and; LG 90-4, Ag 56.8ppm, As 18975ppm, Au 118ppm. Assay gold equivalent for LG 90-4 is 3.4 oz/ton.

The altered-mineralized lenses although geochemically anomalous in gold, tend to carry lower gold and arsenic values as compared to the shear zones.

B.6 CONCLUSION

Based on the analyses, gold appears to be closely related to arsenopyrite. High arsenic values tend to give higher gold values.

From the mapping surveys, at least to important shear zones where identified carrying anomalous gold/arsenic. Samples LG90-1A to 1C are from a shear zone which occurs near the east contact of the zone. Sample LG90-4 is from a shear zone that parallels the west contact.

These east and west contact-shear zones may represent ore-bearing shoots along strike and at depth. Future exploration surveys such as diamond drilling should be designed to test the shear zones that potentially could host economic gold versus searching for large tonnage but sub-economic gold.

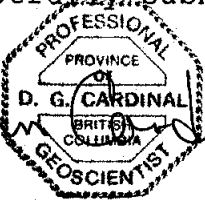
Future surveys should be concentrated along the west and east contacts of the anomalous auriferous-bearing Latch Gold Zone.

C. COST BREAKDOWN

The detail geological mapping, sampling and gridline surveys were conducted between the weeks of September 30th and November 3rd, 1990.

FIELD WORK:	Field Cost
1. Gridline Surveys; 2 linecutters, 12 days @ \$250/d (includes chainsaw + fuel & oil)	\$ 3,000.00
2. Geological Surveys; Geologist and Field Assistant, mapping @ 1:500 and @ 1:2500, 10 days @ \$450/d	4,500.00
3. Sampling; Geologist, 1 day	300.00
4. Repair and upgrade road; 2 men, 3 days @ \$250/d	750.00
FIELD SUPPORT:	
4-man field camp and related expenses; 15 days @ \$80/d (includes: groceries, fuel, propane, field telephone & misc.)	1,200.00
4x4 Truck; 15 days @ \$50/d	<u>750.00</u>
Total Field Expenses Incurred	<u><u>\$10,500.00</u></u>

Respectfully submitted;



A circular professional seal for a geoscientist. The outer ring contains the text 'PROFESSIONAL' at the top and 'GEOSCIENTIST' at the bottom. Inside the ring, it says 'PROVINCE OF' at the top and 'BRITISH COLUMBIA' at the bottom. In the center, the name 'D. G. CARDINAL' is printed. A handwritten signature is written across the seal.

D.G. Cardinal, P.Ge.
Geologist

APPENDIX I Professional Certificate

I, Daniel G. Cardinal of the municipality of Hope, British Columbia, do hereby certify that:

I'am a professional geoscientist residing in Hope, B.C., mailing address - P.O. Box 594, Hope, B.C., VOX 1L0.

I'am a graduate of the University of Alberta (1978) and hold a BSc. degree in Geology.

I'am registered as a Fellow of the Geological Association of Canada (F.G.A.C.); a member in good standing with the Association of Professional Engineers, Geologist and Geophysicists of Alberta (P.Geol.) and; a member in good standing with the Professional Engineers and Geoscientists of B.C. (P.Geol.).

I have been practicing my profession for the past thirteen years.

I'am the principle owner of the mineral property described in this report.

I have supervised the geological field surveys and sampling conducted in 1990.

I'am the author of this report.



D.G. Cardinal, P.Geol., F.G.A.C.

APPENDIX II

GEOCHEMICAL ANALYSIS CERTIFICATE

Cardinal Geoconsulting Ltd. File # 90-4886

P.O. Box 594, Hope BC V0X 1L0

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
LG90-1A	8	1481	10	55	13.9	105	17	3038	5.34	22496	5	2	1	90	.3	37	2	45	.94	.123	5	60	.40	38	.02	9	.41	.01	.15	1
LG90-1B	5	233	2	54	3.5	21	5	6854	12.33	2225	5	ND	4	37	.7	5	5	190	.93	.447	25	83	.63	185	.07	2	1.94	.01	.49	1
LG90-1C	32	201	13	89	9.0	77	22	3774	7.93	12312	5	3	2	17	.4	11	6	139	.43	.173	9	102	.85	69	.06	5	1.60	.01	.48	1
LG90-2	3	740	8	95	2.0	155	36	6681	6.65	11737	5	2	2	101	.5	8	2	82	1.55	.180	10	17	.72	55	.02	4	1.03	.01	.18	1
LG90-3A	8	334	8	98	2.9	80	23	3924	7.73	2845	5	ND	1	25	.4	3	2	134	.56	.134	9	99	.86	52	.08	5	1.43	.01	.45	1
LG90-3B	6	395	2	55	1.3	30	9	4639	10.19	409	5	ND	2	30	.6	2	4	130	1.00	.312	12	32	.79	82	.06	2	1.68	.02	.36	1
LG90-4	5	110	39	22	56.8	35	12	810	5.96	18975	5	118	2	12	.2	19	2	23	.07	.071	15	35	.07	47	.01	7	.33	.01	.19	1
STANDARD C	18	58	36	131	7.2	71	32	1049	3.94	41	24	7	40	53	19.3	15	18	58	.45	.092	38	58	.89	182	.08	40	1.89	.06	.13	12

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
 THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
 - SAMPLE TYPE: ROCK

DATE RECEIVED: *Oct 8* DATE REPORT MAILED: *Oct 23/90* SIGNED BY: *C. Leong* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

✓ ASSAY RECOMMENDED

APPENDIX III Bibliography

Cardinal, D.G. (1986), Reconnaissance Geological and Geophysical Assessment Report on the Rawhide Group.

Cardinal, D.G. (1987), The Gold Ridge Claim Group, A Geological and Precious Metal Overview (Private In-House Report).

Cardinal, D.G. (1987), The Economic Geology - Gold, Silver and Talc Potentials on the Rawhide Group (Private In-House Report).

Chamberlain, J.A. (1973), Geological Report, "H" Claims, Nahatlatch Area, B.C., B.C. Dept. of Mines and Petroleum Resources Assessment Report No. 4985.

Duffel, S. and McTaggart, K.C. (1952), Ashcroft Map Area, Geological Survey of Canada, Memoir 262.

Ford, W.E. (1955), DANA'S Textbook of Mineralogy.

Maclean, M (1988), Talc and Prophyllite in British Columbia, B.C. Ministry of Energy, Mines and Petroleum Resources, Mineral Resources Division, Geological Survey Branch.

Monger, J.W.H. (1980-82), Bedrock Geology of Ashcroft (92I) Map Area, Scale 1:125,000, Geological Survey of Canada.