SPANISH CREEK PROPERTIES

MT. BREW GROUP

Heart, Hobson 1, 2, 3 claims

1999 Geochemistry Report

CARIBOO MINING DIVISION

NTS 93 A/11

Lat. 52° 36'
Long. 121° 18'

Owners: Sheran Paterson, Merle Matherly
Box 38, Likely, B.C.
V0L 1N0

Report by: Sheran Paterson
March 26, 2000

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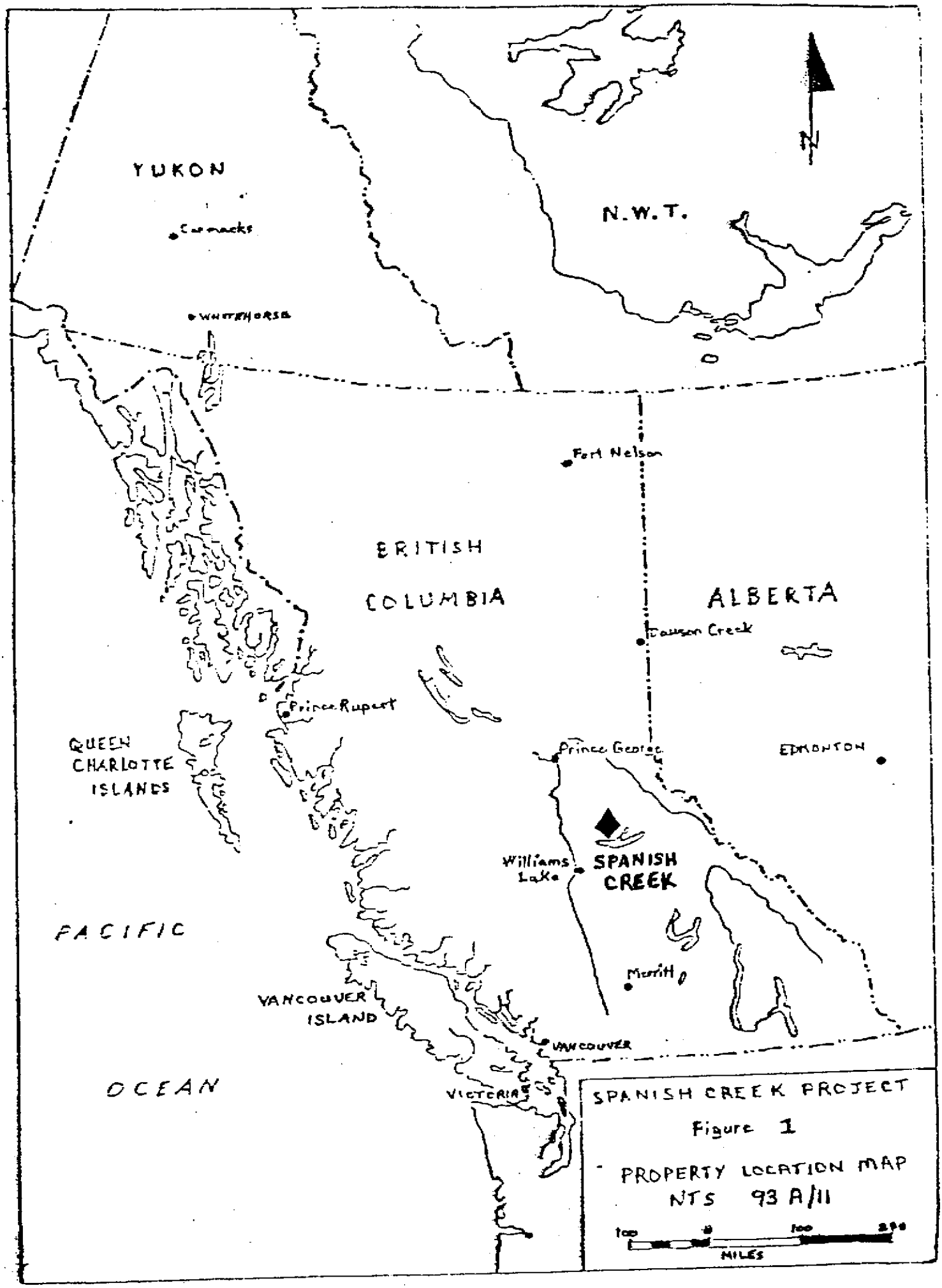
The Spanish Creek Properties is a 300 square hectare Gold-base metal prospect; focus claim, HEART, constitutes 225 hectares. Located in the Cariboo-Quesnel Gold Belt, 110 kilometers northeast from the city of Williams Lake in north-central British Columbia; four contiguous claims: HEART & Hobsons 1,2,3 - are road accessible and almost entirely clear-cut from logging activities.

Geologic setting, found along the tectonic boundary between Intermontane and Omenica belts, is identified by low angle southwest dipping Eureka Thrust Fault at the base of Quesnel Terrane. Overprinting relationships of structural elements suggest that at least three regional deformation events occurred involving: folds, thrust faults; folds; spaced cleavage and fracture sets with some normal faults in volcanics, and high-angle faults in metasediments (ref. M. A. Bloodgood, 1990).

Gold is the primary target on the HEART property with a very strong correlation to base metal mineralization. Large, mineralized quartz vein networks occur in mesothermal Ultramafic Assemblage rocks (ref. Geologic Fieldwork, 1989: Paper 1990-1, by: C.H. Ash & R.L. Arksey), and adjacent metasediments, along contact zones at or near the axis of a regional, northwest trending fold; and are well exposed at surface (Figures 4a, 4b, 4c). Reference: Assessment Reports: No. 17751, 17912-1988/ No. 19412-1989/ No. 21610-1991/ No. 22437-1992/ No. 23212-1993/ No.. 23735-1994/ No. 24254-1995/ No. 24839-1996.

Proposed exploration programs should be designed to reflect potential economic gold and base metal concentrations over a large surface area. Machine trenching with follow-up geochemistry, and drilling is recommended for HEART claim. Brew West cut block is a priority target for advanced exploration.

FIG. 1

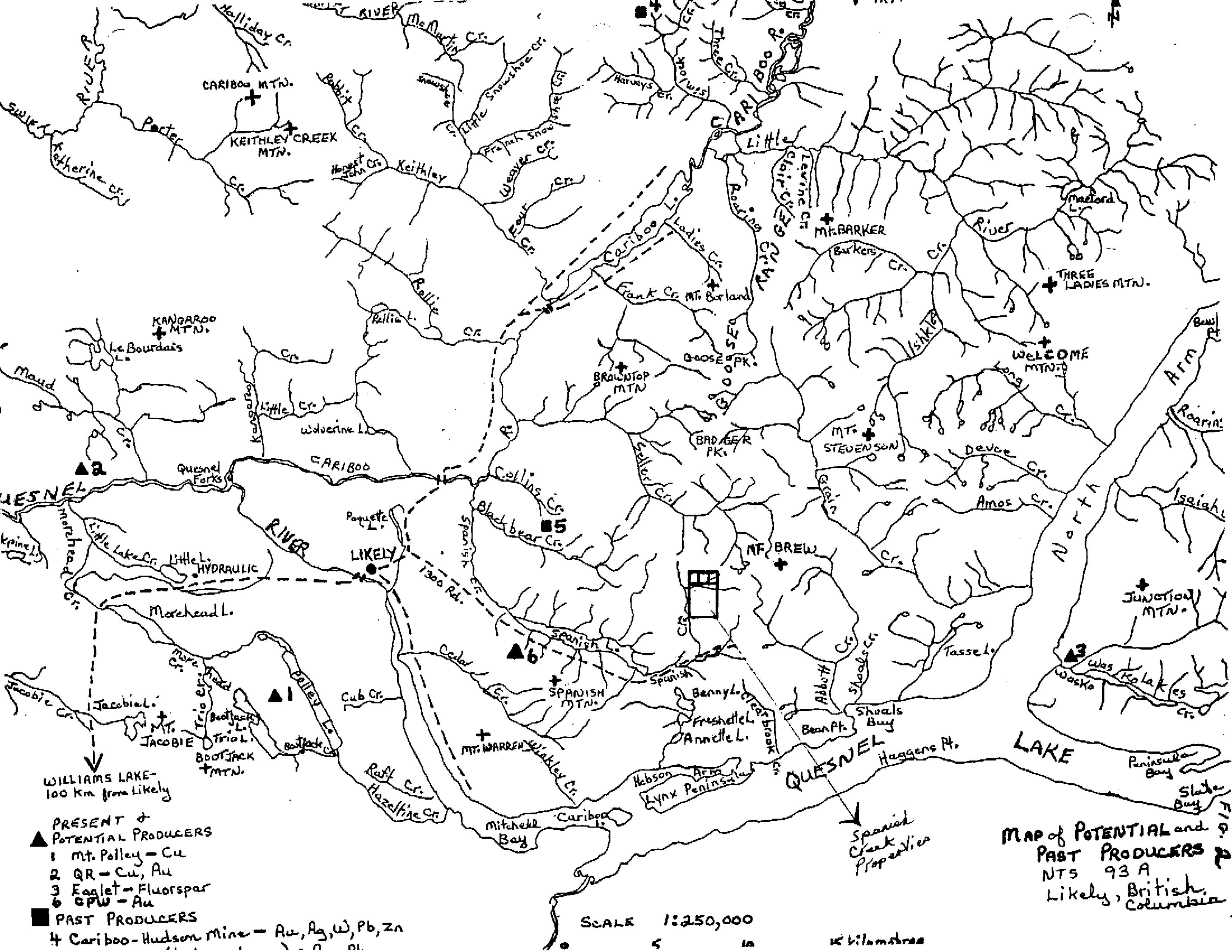

YUKON
Carmacks
WHITEHORSE
N.W.T.
N
Fort Nelson
BRITISH
COLUMBIA
ALBERTA
Dawson Creek
Prince Rupert
QUEEN
CHARLOTTE
ISLANDS
Prince George
EDMONTON
Williams
Lake
SPANISH
CREEK
PACIFIC
Merritt
VANCOUVER
ISLAND
VANCOUVER
OCEAN
VICTORIA
SPANISH CREEK PROJECT
Figure 1
PROPERTY LOCATION MAP
NTS 93 A/11
100
0
100
200
MILES

The project area has an extensive mining and exploration history, boasting hardrock and placer activity as early as mid 1800's which still continues to this day..

Old nearby mining sites that existed in the area: Cariboo Hudson Mine (Au, Ag, W, Pb, Zn)/ Providence, Independence (Ag, Pb)/ Bullion Pit (Au)/ Cedar Creek (Au)/ Golden Horn (Au)/ Kitchener (Au).

Present-day local deposits in production or near-production: QR Property, alkali-porphyry-related gold deposit (Au, Cu)/ FRASERGOLD Property, basal-phyllite-hosted gold deposit, Quesnel Trough (Au, Ag, Cu, Zn, Pb)/ CPW Property, phyllite-hosted gold deposit (Au, Pb, Zn)/ MT. POLLEY MINE, porphyry copper deposit (Cu, Au)/ (ref. Exploration in British Columbia, 1987 - Part A - Overview of Exploration Activity).

Another recent deposit is the MIRACLE-MURPHY Property which is believed similar to Craigmont copper-iron skarn, near Merritt, B.C. (native Cu)/ (ref. Exploration in British Columbia, 1992; page 38, by: R.E. Meyers).


MAP of POTENTIAL and PAST PRODUCERS
NTS 93 A
Likely, British Columbia
PRESENT & POTENTIAL PRODUCERS
1 Mt. Polley – Cu
2 QR – Cu, Au
3 Eaglet – Fluorspar
6 CPW – Au
PAST PRODUCERS
4 Cariboo-Hudson mine – Au, Ag, W, Pb, Zn
SCALE 1:250,000
WILLIAMS LAKE- 100 Km from Likely
Spanish Creek Properties
QUESNEL LAKE
North Arm
CARIBOO RIVER
QUESNEL RIVER
LIKELY
Quesnel Forks
CARIBOO MTN.
KEITHLEY CREEK MTN.
KANGAROO MTN.
BROWNTOP MTN
GOOSE PK.
BADGER PK.
MT. BARKER
Mt. Borland
THREE LADIES MTN.
WELCOME MTN.
MT. STEVENSON
MT. BREW
JUNCTION MTN.
SPANISH MTN.
MT. WARREN
MT. JACOBIE
BOOTJACK MTN.
HYDRAULIC
Morehead L.
Polley L.
Spanish L.
Cariboo L.
Tasse L.
Mitchell Bay
Shoals Bay
Peninsula Bay
Slate Bay
Haggens Pt.
Bean Pt.
Lynx Peninsula
Hobson Arm
Wasko Lakes
1300 Rd.

Gold and base metals have been targeted as early as 1981-1983; when preliminary investigation showed anomalous silver, lead and gold from analyzed rock specimens. Extensive gold, silver, copper, lead and zinc in-soil anomalies were identified after completion of four-plus square kilometers of geochemistry, 1989 survey. Reconnaissance geophysics, self-potential method (1994, 1995), determined sulphide mineralization in underlying bedrock.

Rock geochemistry is the most common exploration method applied, as outcrop exposure is very abundant in the area.

The 1999 work program described in this report was conducted during the period between September 22, 1999 to November 30, 1999.

4.0 LOCATION & ACCESS :

Spanish Creek Properties, Mt. Brew Group, is located 110 kilometers from Williams Lake and is in north-central British Columbia (Fig. 1).

Access is provided by paved road to the community of Likely from Williams Lake, and remaining 20 kilometers by the 1300, Spanish Lake forestry road.

This property is cut by the Upper Spanish Creek drainage system that flows into east Spanish Lake. The claims lie on east and west flanks of Upper Spanish Creek between Mount Brew and Blackbear Mountains. This area is moderate relief and almost entirely logged providing excellent access to and through the properties by old and new roads.

5.0 PHYSIOGRAPHY & CLIMATE :

The properties are situated northwest from the north shore of Quesnel Lake. This region is fairly mountainous terrain of moderate relief with elevations averaging 1200 to 1600 metres; an exception is Mount Brew whose height reaches up to 2000 metres.

The local environment offers many water courses, lakes, and is well forested with fir, pine, spruce, cedar and poplar trees, and foliated with broadleaf vegetation. These properties are almost entirely clear cut from logging activities.

Reasonable weather conditions for exploration work may be expected from end of May to end of October. Winter snow pack can occasionally reach 3 to 5 metres.

6.0 CLAIM STATUS :

The Spanish Creek Properties, Mt. Brew Group of claims: presently consists of four contiguous claims, totalling 12 units, 300 squares hectares (Fig. 3).

Table 1 - Mineral Claim Schedule

CLAIM	UNITS	TENURE	YR. STAKED
HEART	9	368325	Mar. 28, 1999
Hobson 1	1	368327	Mar. 28, 1999
Hobson 2	1	368328	Mar. 28, 1999
Hobson 3	1	368329	Mar. 28, 1999

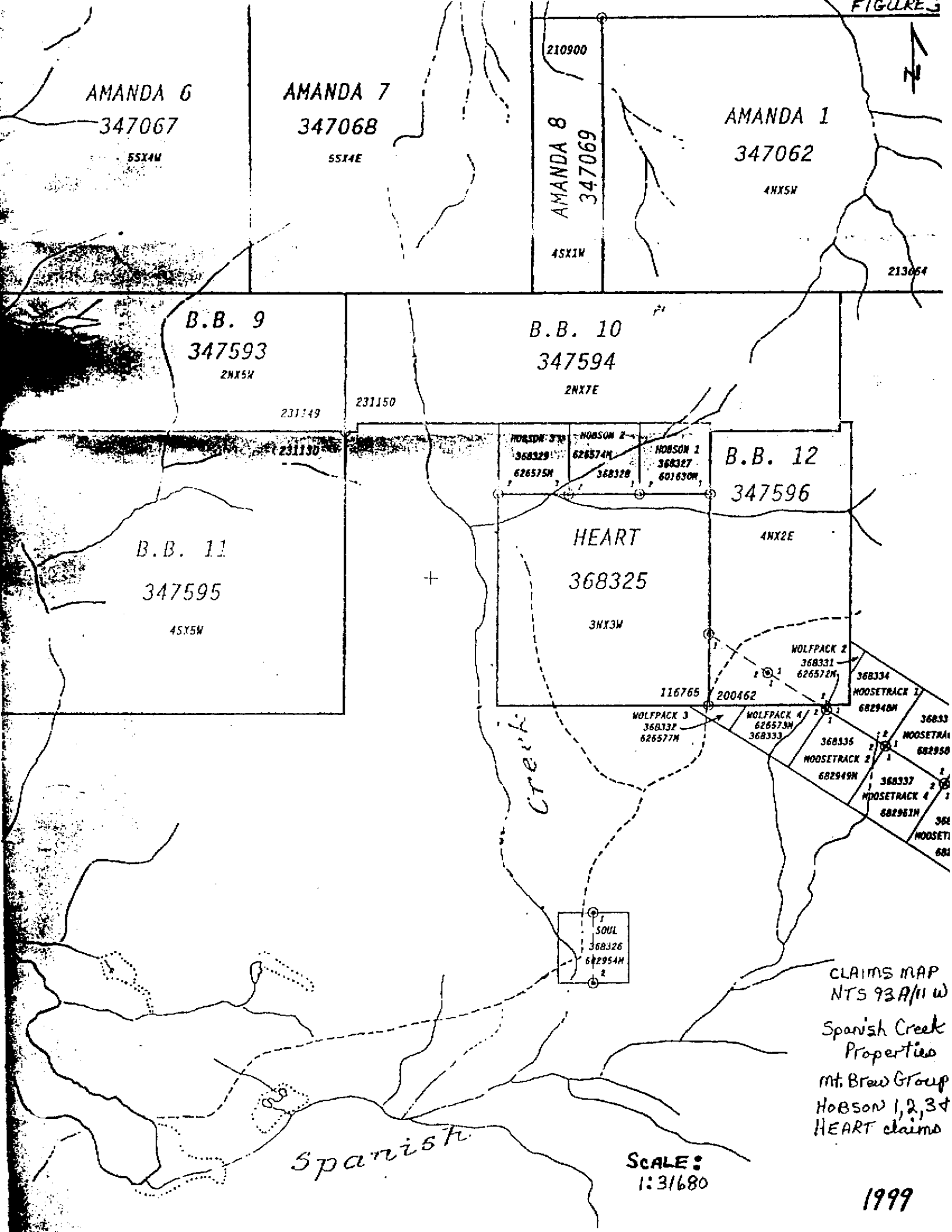


FIGURE 3
AMANDA 6
347067
5SX4W
AMANDA 7
347068
5SX4E
AMANDA 8
347069
4SX1W
AMANDA 1
347062
4NX5W
210900
213064
B.B. 9
347593
2NX5W
231149
231150
B.B. 10
347594
2NX7E
231130
B.B. 11
347595
4SX5W
HOBSON 3
368329
626575M
HOBSON 2
626574M
368328
HOBSON 1
368327
601630M
B.B. 12
347596
4NX2E
HEART
368325
3NX3W
WOLFPACK 2
368331
626572M
368334
MOOSETRACK 1
682948M
116765
200462
WOLFPACK 3
368332
626577M
WOLFPACK 4
626573M
368333
368335
MOOSETRACK 2
682949M
368337
MOOSETRACK 4
682961M
SOUL
368326
682954M
Creek
Spanish
SCALE:
1:31680
CLAIMS MAP
NTS 93A/11 W
Spanish Creek
Properties
Mt. Brew Group
HOBSON 1,2,3 &
HEART claims
1999

Spanish Creek Properties, Mt. Brew Group, is located in the Central Intermontane Belt along Quesnellia Tectonostratigraphic terrane. This tectonic boundary defined by the Eureka Thrust Fault, may represent a convergent zone between arc-related Quesnel terrane and parautochthonous Barkerville terrane, Omenica Belt, to the east. The project area is centrally situated within Quesnel terrane, an allochthonous belt of predominantly Upper Triassic - Lower Jurassic basic to intermediate volcanic rock that occurs along the eastern margin of the Intermontane Belt. Quesnel terrane is identified by a Crooked Amphibolite basal unit occurring discontinuously along the terrane boundary, and may be correlative to the Slide Mtn. terrane exposed further north. The base of Crooked Amphibolite defines the Eureka Thrust, which appears hook-like around the NAVER PLUTON (northeast Hixon, B.C.), along which mechanical intercalation of amphibolite with adjacent units is visible anywhere that contacts may be exposed. Overprinting relationships of structural elements (bedding, lineations, cleavage) suggest that two folding deformation events occurred regionally. Three major thrust faults recognized in the area and believed to be simultaneous to the first folding deformation, were later overprinted and deformed by second-phase folding structures. The Eureka Thrust is a low-angle, southwest dipping fault at the base of Quesnel terrane, where Crooked Amphibolite discontinues along the terrane boundary, and when absent the fault is immediately overlaid by Triassic metasediments. A third phase of deformation resulted in a spaced cleavage and fracture set overprinting all earlier fold forms. Many steeply-dipping northeast-trending normal faults post-dating regional folding, have been recognized in volcanic sequences somewhat to the west, and high-angle faults recognized in metasediments may also be related to Phase Three deformation (Fig. 4a, 4b, 4c). (ref. Geological Fieldwork, 1987; Paper 1988-1, page 139; by: M.A. Bloodgood).

FIGURE 4a

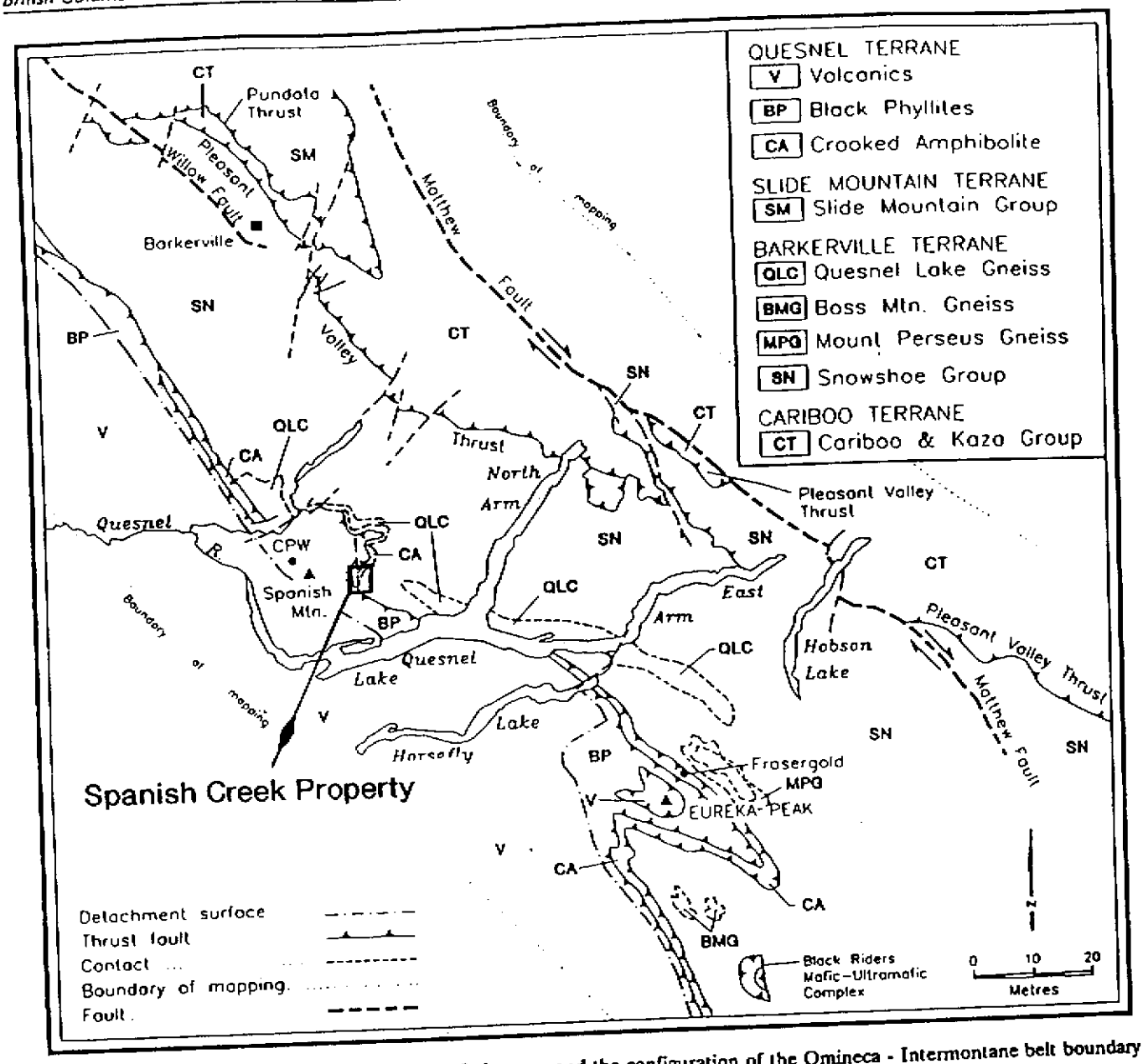
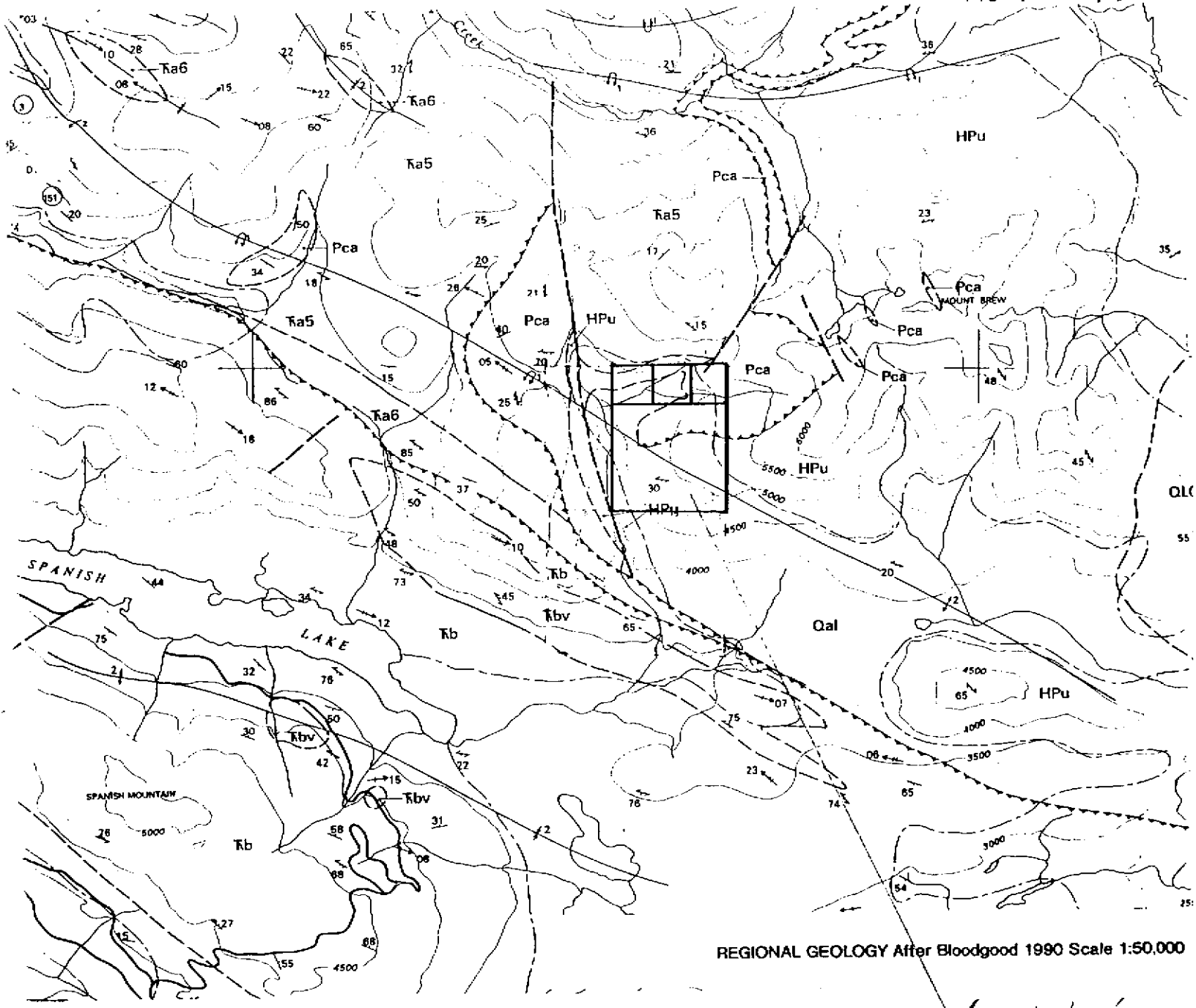


Figure 3. Regional geology of the Quesnel Lake area and the configuration of the Omineca - Intermontane belt boundary defined by the Eureka thrust.

FIGURE 4b



REGIONAL GEOLOGY After Bloodgood 1990 Scale 1:50,000

Revised 99'

SPANISH CREEK PROPERTIES

SCALE
1: 300,000

0 1 2 kilometres

FIGURE 4c

BC Ministry of Energy, Mines and Petroleum Resources

BRITISH COLUMBIA GEOLOGICAL SURVEY

FIGURE 5

PAPER 1990-3

GEOLOGY OF THE EUREKA PEAK - MacKAY RIVER AREA AND THE SPANISH LAKE AREA CENTRAL BRITISH COLUMBIA

NTS 93A/7, 11

BY MARY ANNE BLOODGOOD

(SEE BELOW FOR ADDITIONAL SOURCES OF DATA)

0 1 2 3 4

KILOMETRES KILOMETRES

SCALE 1 : 50 000

LEGEND

RECENT

QUATERNARY

Qal — Till, alluvium, colluvium

INTERMONTANE BELT

MESOZOIC

LATE TRIASSIC - EARLY JURASSIC

NICOLA GROUP

JTkb — Massive porphyritic flows, breccia and tuff

JTka — Massive flows, agglomerates, ashflow tuffs, pillow basalts, mafic dikes and minor limestone

MIDDLE - LATE TRIASSIC

NICOLA GROUP

Tkd — Volcanic sandstone and wacke

Tkc — Volcaniclastic

Tkb — Banded slates and tuffs, minor fissile phyllites and limestone
V. = volcanic flows and tuffs

Tka — Black phyllites
- Tka6 Graphitic black phyllites, with interbedded quartz sandstone and limestone
- Tka5 Silty slates
- Tka4 Laminated phyllite and porphyroblastic phyllite
- Tka3 Phyllitic siltstone
- Tka2 Micaceous black phyllite and tuff
- Tka1 Micaceous quartzite

PALEOZOIC

MISSISSIPPIAN - EARLY PERMIAN (?)

Pca — Crooked Amphibolite: amphibole - chlorite schist, chlorite - epidote schist, ultramafic nodules

OMINECA BELT

PALEOZOIC

LATE DEVONIAN TO MIDDLE MISSISSIPPIAN

QUESNEL LAKE GNEISS

QLG — Quartz feldspar gneiss, augen gneiss

PROTEROZOIC - E. PALEOZOIC

HADRYNIAN AND YOUNGER

SNOWSHOE FM

HPa — Alkali feldspar augen gneiss

HPs — Pelitic schist, minor quartzite

HPsm — Sandy marbles layers and lenses

HPu — Undifferentiated

SYMBOLS

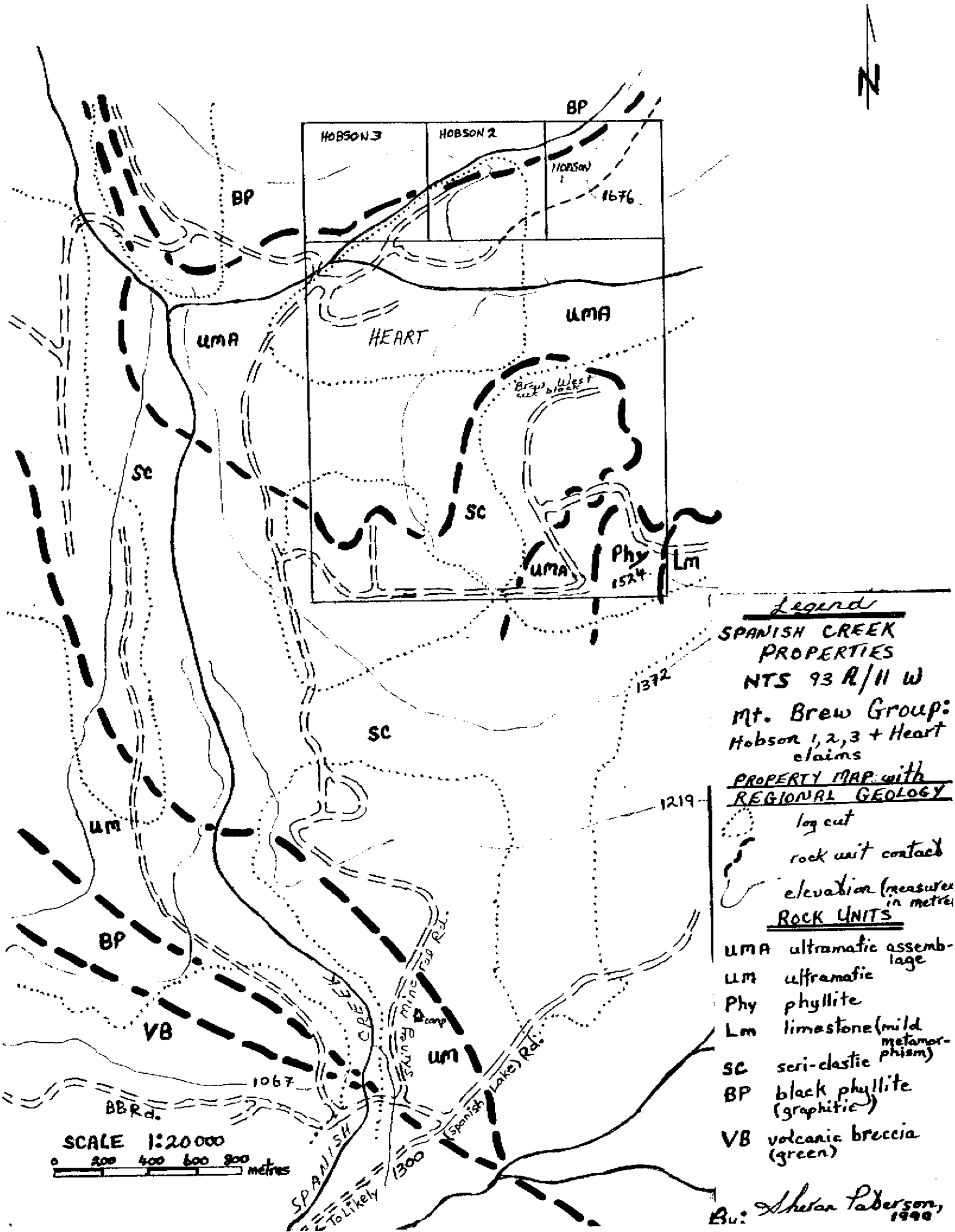
8.0 PROPERTY GEOLOGY :

Project properties are situated along the Eureka Thrust Fault boundary, at or near the axis of a regional fold, trend 300° (ref. M.A. Bloodgood, 1990). An ultramafic assemblage of mesothermal origin occurs over most of the ground and locally is in contact with adjacent seri-clastics and metasediments (phyllites to limestones; only mildly metamorphosed). Gold is a primary target on this property and is strongly correlated to base metal mineralization. Local mineralization appears to be associated with sulphides and occurs disseminated, massive and in quartz veins (Fig. 5).

9.0 MINERALIZED ZONE DESCRIPTION :

Brew West cut block is about one square kilometer in size: has previously been logged and burned, is well accessed by forestry roads, and also offers much surface rock exposure. The project area depicts a central package of seri-clastic material, surrounded by an ultramafic body which contacts mildly metamorphosed metasediments to the east. This log cut hosts large, Gold-base metal quartz veins: hundreds of metres long, many two-plus metres wide, often within iron-carbonate envelopes, and which have distinct mineralization and zoning characteristics: gold-arsenopyrite, gold-chalcopyrite, gold-galena. The system favours the ultramafic assemblage, and quartz networks anomalous in gold, silver, copper, lead and bismuth occur in clusters along contact zones between ultramafic, seri-clastic; and ultramafic, metasediment. Iron-carbonate pods occur in various places within the ultramafics along with some local granite float. Occasional feldspar-quartz-porphyry bodies are found along contact zones and can occur in any rock unit.

FIGURE 5


N
HOBSON 3
HOBSON 2
HOBSON 1
1676
BP
UMA
HEART
Brew West
Sc
Phy
Lm
1524
1372
1219
UM
VB
1067
BB Rd.
SPANISH CREEK
Mine Road
Camp
(Spanish Lake) Rd.
To Likely
1300
SCALE 1:20000
0 200 400 600 800 metres
Legend
SPANISH CREEK PROPERTIES
NTS 93 A/11 W
Mt. Brew Group:
Hobson 1, 2, 3 + Heart claims
PROPERTY MAP with REGIONAL GEOLOGY
log cut
rock unit contact
elevation (measured in metres)
ROCK UNITS
UMA ultramafic assemblage
UM ultramafic
Phy phyllite
Lm limestone (mild metamorphism)
Sc seri-clastic
BP black phyllite (graphitic)
VB volcanic breccia (green)
By: Sheldon Paterson, 1990

10.1 Work Program

Two persons using hip chain and compass, applied seventy man hours in the field, conducting rock geochemistry and mapping; recording GPS (Eagle) data and seperate Altimeter (Thommen) readings over Brew West cut block, about one square kilometer, The program was designed to indicate patterns of mineralized quartz systems and their relationship to distinct contacts between mesothermal ultramafics and seri-clastics, metasediments; which occur at or near the axis of a regional fold (ref. M.A. Bloodgood, 1990).

10.2 Field Procedures

Two persons drove daily by 4x4 pickup truck to designated work sites. Regular GPS and altimeter readings were first recorded at camp each morning and lastly each afternoon. Readings were also recorded regularly at an established base station, each morning and afternoon, a total of sixty-seven readings for each instrument in total. A total of thirty-three rock samples were collected for identification and subsequent 32 element ICP analysis, with follow up fire assay, at ECO-TECH Laboratories, Kamloops, B.C. All sample locations were tagged, marked and described.

11.0 RESULTS & INTERPRETATION :

The survey area with geology and rock sample sites with corresponding assay reference numbers, shown on Fig. 6. Assay results and associated rock description, referenced in Tables 2 & 3.

The rock geochemistry conducted over Brew West cut block outlined specific patterns to mineralized quartz veins occurring in linear paths along contacts, indicating their relationship to an extensive ultramafic assemblage in contact with seri-clastics to the west, and metasediments to the east. Most of the quartz veins occur in ultramafics and are arsenopyrite-gold, or chalcopyrite-gold; seri-clastics and metasediments contain galena-gold veins.

Targeted areas continue to provide encouraging results and remain priority for further exploration.

12.0 CONCLUSIONS :

1. Spanish Creek Properties are almost entirely underlain by middle triassic to early jurassic sedimentary and volcanic rocks of the Quesnel terrane.

2. At least three regional deformation events overprinted area: folds, thrust faults; folds; spaced cleavage and fracture sets, normal & high-angle faults (ref. M.A. Bloodgood, 1990).

3. Mineralization and alteration (listwanite) is likely associated with mesothermal metamorphism (ref. Geologic Fieldwork, 1989: Ash & Arksey).

4. The ultramafic assemblage occurs as an extensive body covering most of the project ground and is sandwiched between seri-clastics and metasediments; also hosts arsenopyrite-gold and chalcopyrite-gold quartz veins.

5. Gold remains a priority target with strong association to base metal mineralization, in potentially large tonnage, high grade deposits (open pit & underground).

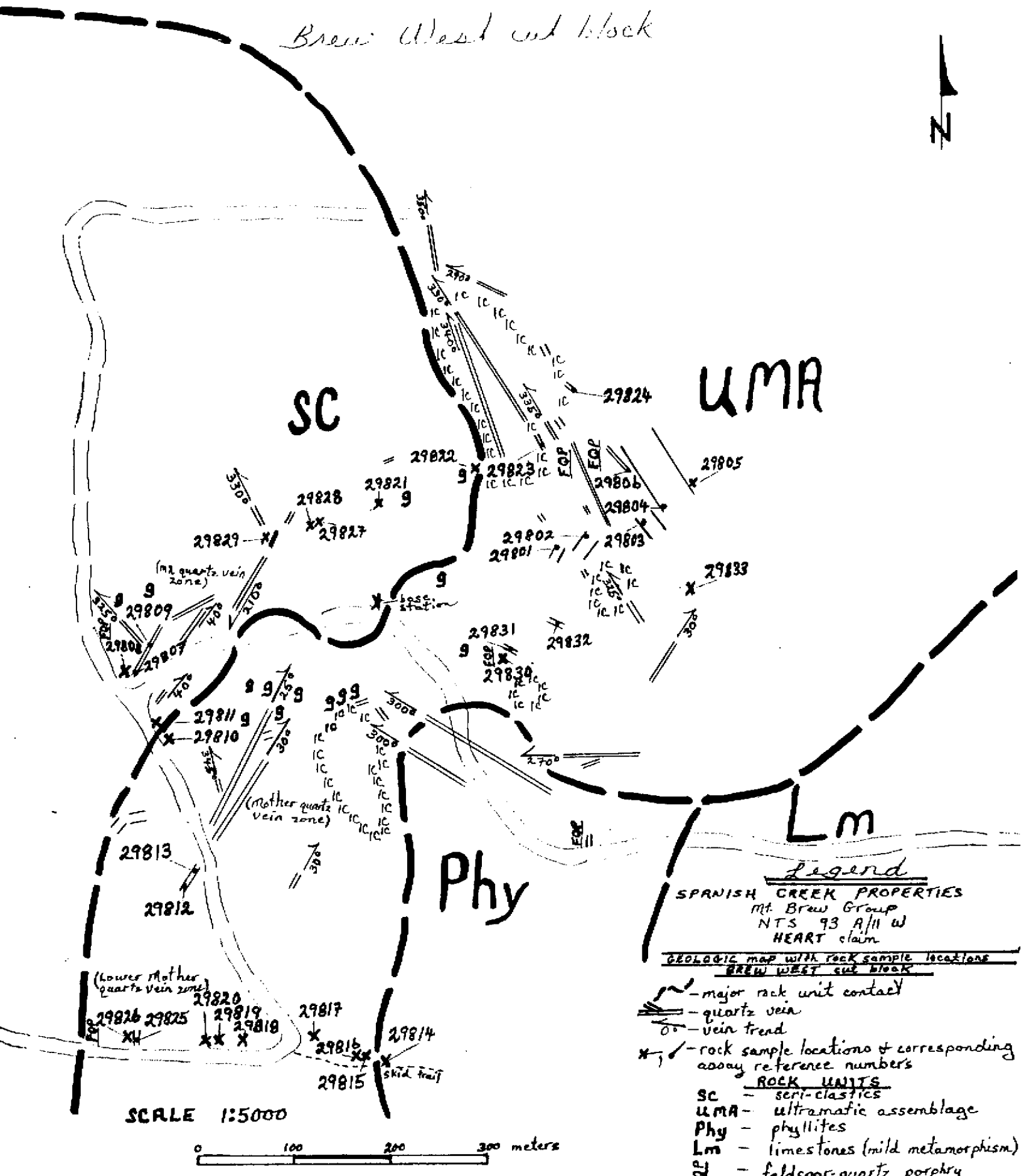
6. The present targeted zones are open in all directions and are considered more than adequate for further, advanced exploration.

7. Outcrop exposure is extensive over Brew West and many huge quartz vein systems are very visible at surface (Fig. 6).

13.0 RECOMMENDATIONS :

Geology, machine trenching and geochemistry (early target: Mother zone), followed by drilling; and ground geophysical surveys with geological work over Brew West Block to outline further surface and subsurface targets.

FIGURE 6



Legend

SPANISH CREEK PROPERTIES
Mt. Brew Group
NTS 93 A/11 W
HEART claim

GEOLOGIC map with rock sample locations
BREW WEST cut block

- major rock unit contact
- quartz vein
- vein trend
- rock sample locations & corresponding assay reference numbers

ROCK UNITS

- SC – semi-clastics
- UMA – ultramafic assemblage
- Phy – phyllites
- Lm – limestones (mild metamorphism)
- EQP – feldspar-quartz porphry
- IC – iron-carbonates
- g – granite float (local)

By: Kheran Paterson, 1999

14.0 STATEMENT of EXPENDITURES :

The following statement outlines 1999 expenditures incurred on the claims.

Statement of Expenditures

Salaries (mapping, rock geochemistry/ GPS & altimeter)		
M. Matherly 7days (38 hr.) @ $200/day x 1 person	$950	
S. Paterson 6days (32 hr.) @ $200/day x 1 person	800	
		$1750
Analytical costs: 33 rock: 32 element ICP, fire assay		
33 rock samples	$765.59	
		$ 765.59
Camp costs		
6 days @ $60/day x 2 persons	$720	
		$ 720
Vehicle costs		
6 days x $40/day	$240	
		$ 240
Equipment & supplies (Eagle GPS, Thommen altimeter, misc.)		
6 days	$ 84.41	
		$ 84.41
Report preparation & mapping		
Sheran Paterson 1 day @ $200/day	$200	
		$ 200
Total		**$3760**

15.0 STATEMENT of QUALIFICATIONS :

We, Sheran Paterson and Merle Matherly, Likely, B.C. do certify that:

1. We are propectors and maintain valid free miner's permits.

2. We attended a Prospector's Course, Cariboo College, 1979 (instructor: Gary Bysouth, Sr. Geologist, Gibralter Mines Ltd.).

3. We completed the Advanced Mineral Exploration Course for Prospectors: Ministry of Energy, Mines & Petroleum Resources, B.C.

4. From 1978 to the present, we have been actively engaged in field exploration.

5. We personally executed and supervised the work program as described, and compiled and analyzed resulting data.

Eco-Tech
LABORATORIES LTD.

ASSAYING
GEOCHEMISTRY
ANALYTICAL CHEMISTRY
ENVIRONMENTAL TESTING

10041 E. Trans Canada Hwy., R.R. #2, Kamloops, B.C. V2C 6T4
Phone (250) 573-5700 Fax (250) 573-4557
email: ecotech@direct.ca

CERTIFICATE OF ASSAY AK 2000-011

MERLE MATHERLY
BOX 38
LIKELY, BC
V0L 1N0

18-Apr-00

ATTENTION: MERLE MATHERLY/SHERAN PATERSON

No. of samples received: 33
Sample type: Rock
Project #: None Given
Shipment #: None Given
Samples submitted by: M. Matherly

ET #.	Tag #	Au (g/t)	Au (oz/t)	Ag (g/t)	Ag (oz/t)
25	29825	6.08	0.177	-	-
32	29832	-	-	103.4	3.02

QC DATA:

Repeat:

32	29832	-	-	107.0	3.12

Standard:

STD-M	1.24	0.036		
MPla	-	-	70.0	2.04

ECO-TECH LABORATORIES LTD.
Frank J. Pezzotti, A.Sc.T.
B.C. Certified Assayer

XLS/00

18-Apr-00

ECO-TECH LABORATORIES LTD.
10041 East Trans Canada Highway
KAMLOOPS, B.C.
V2C 6T4

Phone: 250-573-5700
Fax : 250-573-4557

ICP CERTIFICATE OF ANALYSIS AK 2000-011

MERLE MATHERLY
BOX 38
LIKELY, BC
V0L 1N0

ATTENTION: MERLE MATHERLY/SHERAN PATERSON

No. of samples received: 33
Sample type: Rock
Project #: None Given
Shipment #: None Given
Samples submitted by: M. Matherly

Values in ppm unless otherwise reported

Et #.	Tag #	Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
1	29801	40	<0.2	0.07	<5	25	<5	0.45	<1	7	158	58	1.33	<10	0.09	426	6	0.01	10	90	2	<5	<20	12	<0.01	<10	12	<10	<1	9
2	29802	25	<0.2	0.04	<5	20	<5	0.22	<1	12	127	10	1.49	<10	0.07	381	5	0.01	8	110	<2	<5	<20	7	<0.01	<10	4	<10	<1	6
3	29803	155	1.6	0.07	<5	15	<5	<0.01	<1	15	137	4734	2.05	<10	0.01	277	5	<0.01	25	10	<2	<5	<20	<1	<0.01	<10	8	<10	<1	7
4	29804	65	0.2	0.04	<5	5	<5	1.11	<1	6	146	2300	1.26	<10	0.16	304	2	<0.01	12	20	<2	<5	<20	11	<0.01	<10	6	<10	<1	4
5	29805	<5	<0.2	3.95	<5	20	10	5.56	3	40	133	57	6.63	<10	3.64	1277	10	0.02	46	620	4	40	<20	97	0.01	<10	242	<10	<1	72
6	29806	100	0.2	0.11	<5	10	<5	0.01	<1	4	169	2679	1.23	<10	0.06	199	5	<0.01	9	50	<2	<5	<20	<1	<0.01	<10	8	<10	<1	2
7	29807	185	<0.2	0.08	100	20	10	0.01	<1	10	148	18	4.47	<10	<0.01	153	8	<0.01	18	160	10	<5	<20	<1	<0.01	<10	2	<10	<1	10
8	29808	5	<0.2	0.47	10	35	<5	0.04	<1	5	156	28	1.75	20	0.18	185	7	0.01	13	220	4	<5	<20	<1	<0.01	<10	4	<10	4	24
9	29809	55	<0.2	<0.01	50	<5	<5	<0.01	<1	1	176	7	0.62	<10	<0.01	87	4	<0.01	4	<10	<2	<5	<20	<1	<0.01	<10	<1	<10	<1	<1
10	29810	15	<0.2	4.09	<5	55	<5	0.07	1	43	356	105	5.72	<10	3.61	978	6	<0.01	109	150	12	15	<20	<1	<0.01	<10	166	<10	<1	46
11	29811	5	<0.2	0.79	<5	35	<5	0.09	<1	9	111	19	2.21	10	0.25	325	5	<0.01	24	290	22	5	<20	3	<0.01	<10	10	<10	9	47
12	29812	5	<0.2	0.57	<5	<5	<5	0.07	<1	9	154	49	1.21	<10	0.49	469	4	0.02	9	100	<2	10	<20	<1	0.03	<10	29	<10	5	4
13	29813	40	<0.2	0.01	20	<5	<5	<0.01	<1	1	193	5	0.62	<10	<0.01	60	5	<0.01	3	20	<2	<5	<20	<1	<0.01	<10	2	<10	<1	<1
14	29814	5	<0.2	1.82	<5	20	<5	0.05	<1	12	130	6	2.52	70	1.89	223	4	<0.01	46	360	8	5	<20	<1	<0.01	<10	24	<10	4	42
15	29815	<5	<0.2	3.59	<5	45	5	4.03	2	43	173	47	5.76	<10	3.72	1071	7	0.01	68	470	<2	35	<20	49	0.03	<10	110	<10	<1	45
16	29816	<5	<0.2	2.58	<5	20	15	0.66	2	36	74	55	4.73	<10	2.10	706	2	0.02	28	640	4	35	<20	10	0.19	<10	88	<10	2	55
17	29817		0.6	0.60	<5	5	<5	0.01	<1	14	160	5355	1.79	<10	0.68	161	4	0.01	22	<10	<2	<5	<20	<1	<0.01	<10	21	<10	<1	5
18	29818	5	<0.2	2.21	<5	20	10	>10	1	20	58	24	5.02	<10	4.53	1711	5	0.01	11	430	<2	30	<20	80	<0.01	<10	91	<10	2	24
19	29819	10	<0.2	2.09	<5	20	15	0.52	1	39	66	102	5.90	<10	1.42	442	6	<0.01	11	340	2	10	<20	17	0.18	<10	67	<10	<1	17
20	29820	50	<0.2	2.28	<5	40	<5	0.85	2	47	75	352	9.18	<10	1.52	454	11	<0.01	22	410	<2	25	<20	33	0.25	<10	90	<10	<1	18

MERLE MATHERLY

ICP CERTIFICATE OF ANALYSIS AK 2000-011

ECO-TECH LABORATORIES LTD.

Et #.	Tag #	Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
21	29821	5	<0.2	0.85	<5	40	<5	0.07	<1	11	123	18	2.51	10	0.32	368	2	<0.01	21	350	4	<5	<20	2	0.02	<10	8	<10	6	40
22	29822	10	<0.2	3.61	<5	375	25	1.36	3	42	82	38	5.90	<10	3.30	1115	7	<0.01	39	710	6	55	<20	36	0.16	<10	124	<10	1	79
23	29823	10	<0.2	0.01	5	<5	<5	<0.01	<1	2	216	5	0.44	<10	<0.01	42	4	<0.01	5	10	<2	<5	<20	<1	<0.01	<10	<1	<10	<1	<1
24	29824	740	17.6	0.01	105	10	35	<0.01	<1	9	184	5	2.47	<10	<0.01	202	7	<0.01	7	170	1686	<5	<20	<1	<0.01	<10	<1	<10	<1	10
25	29825	>1000	3.4	0.08	540	40	15	0.02	<1	30	146	147	>10	<10	<0.01	46	15	<0.01	33	<10	60	<5	<20	<1	<0.01	<10	39	<10	<1	74
26	29826	45	<0.2	0.74	20	85	<5	0.07	2	58	68	381	7.51	<10	0.20	1430	8	0.02	70	270	<2	10	<20	3	<0.01	<10	51	<10	4	89
27	29827	10	<0.2	1.56	<5	50	10	0.06	<1	15	130	28	3.45	20	0.83	415	4	<0.01	29	270	10	<5	<20	2	0.06	<10	14	<10	4	61
28	29828	5	<0.2	0.58	<5	20	5	0.07	<1	5	134	9	1.36	<10	0.25	256	4	0.01	11	130	10	<5	<20	3	0.02	<10	5	<10	3	15
29	29829	15	<0.2	0.11	55	20	<5	<0.01	<1	4	157	4	1.73	<10	<0.01	72	4	<0.01	9	110	<2	<5	<20	<1	<0.01	<10	1	<10	<1	<1
30	29830	5	<0.2	2.20	<5	25	<5	1.25	<1	31	268	85	2.07	<10	2.52	605	<1	<0.01	81	40	<2	25	<20	9	0.10	<10	32	<10	<1	22
31	29831	5	<0.2	1.46	<5	75	5	0.11	<1	11	126	6	2.82	<10	0.82	259	5	0.01	24	360	8	20	<20	7	0.07	<10	16	<10	3	58
32	29832	550	>30	0.01	180	5	<5	<0.01	<1	<1	180	56	0.26	<10	<0.01	38	3	<0.01	<1	10	2712	620	<20	<1	<0.01	<10	<1	<10	<1	7
33	29833	15	0.2	0.36	<5	15	20	>10	4	44	78	10	6.55	<10	5.79	1738	8	0.02	88	<10	26	65	<20	818	0.01	<10	60	<10	<1	44
QC DATA:																														
Resplit:																														
1	29801	25	<0.2	0.06	<5	25	<5	0.46	<1	8	165	58	1.34	<10	0.08	423	4	0.01	9	100	<2	<5	<20	13	<0.01	<10	11	<10	<1	6
Repeat:																														
1	29801	30	<0.2	0.06	<5	20	<5	0.45	<1	7	158	59	1.41	<10	0.09	562	4	0.01	9	100	<2	<5	<20	8	<0.01	<10	12	<10	<1	8
10	29810	5	<0.2	4.13	<5	55	<5	0.07	2	43	350	109	5.68	<10	3.64	988	8	<0.01	106	130	6	30	<20	1	0.02	<10	167	<10	<1	45
19	29819	10	<0.2	2.05	<5	20	10	0.50	2	40	66	98	5.96	<10	1.39	442	7	<0.01	12	320	4	15	<20	17	0.17	<10	67	<10	<1	16
Standard:																														
GEO'00		130	1.1	1.63	55	145	<5	1.57	2	19	56	83	3.53	<10	0.87	672	5	0.02	24	700	20	<5	<20	53	0.08	<10	73	<10	9	76

df/A011
XLS/00

ECO-TECH LABORATORIES LTD.
Frank J. Pezzotti, A.Sc.T.
B.C. Certified Assayer

Rock Sample Description, 1999

HEART claim
Braw West cut block
NTS 93 A/11 W
(ref. Table 2)

Assay Numbers

29801 weathered glassy quartz, much iron-carbonate vugs & lens & some platy schist; 191 metres @ 70° from base station

29802 glassy quartz with weathered iron-carbonate vugs & lens, some metal disseminations & blebs; 220 metres @ 70° from base station

29803 weathered quartz with some platy sericite, iron-carbonate rich, much chalcopyrite blebs & malachite stain; 279 metres @ 70° from base station

29804 somewhat weathered quartz in platy ultramafics, with epidote, iron-carbonate vugs & very chalcopyrite-rich, malachite stain; 305 metres @ 70° from base station

29805 brittle ultramafics (chlorite schist), platy look, quartz-iron carbonate lens with iron cubes & disseminations; 330 metres @ 70° from base station

29806 brittle quartz with weathered iron-carbonate & metal blebs, malachite staining; 305 metres @ 70° from base station, then 50 metres @ 320°

29807 very weathered quartz, much iron-carbonate mass & much metal; M2 quartz vein at road

29808 country rock from M2 area, at road; very weathered, somewhat schisty appearance, much weathered iron; one piece appears to be a siliceous dolomitic rock

29809 brittle, much weathered iron-carbonate-rich quartz from M2 quartz vein; 20 metres north & 10 metres east from road junction

29810 very greasy & rotten ultramafic rock from main Mother zone contact, ultramafics & seri-clastics, along road, just north of Mother quartz veins

29811 same contact zone as sample 29810: very weathered iron-carbonate seri-clastic rock

29812 from mid Mother quartz vein, west, below road: very weathered with metal blebs, rock has epidote in ultramafics & also some Vale-like portions with the quartz

29813 sort of milky quartz, rusty, some disseminated metal, some vugs; mid Mother quartz vein, 20 metres north @ 30° from sample 29812

29814 weathered iron-rich sericitic rock, quartz lens with iron-carbonates; 20 metres east along skid trail, Lower Mother switchback, ultramafic-metasediment contact

29815 same contact zone as sample 29814, flow rock, pyritic ultramafic, somewhat weathered, some quartz lens, very weathered vugs, micaceous, much iron leach

29816 heavy dense ultramafics, flow rock, just west from samples 29814 & 29815

29817 from chalcopyrite zone at Lower Mother switchback, chalcopyrite & malachite rich, somewhat weathered, quartz-iron-carbonate lens in ultramafics, quite vuggy

29818 massive, layered looking ultramafic with much iron & quartz ankerite lens; 50 metres west from Lower Mother switchback

29819 from Lower Mother switchback, just west from sample 29818 at tree line; massive iron-rich, epidote-rich ultramafics with much disseminated iron

29820 from 10 metres further west of 29819; very weathered vein rock rich in sulphide metals, very massive ultramafics with massive iron disseminations, rock is epidote-rich

29821 from 100 metres north of Brew West base station; very weathered seri-clastic rock, quartz nodules + lens, rusty, some iron disseminations

29822 limy, dense ultramafic, good fizz with acid, also much epidote; from 106 metres @ 70° from 100 metre north station

29823 rose coloured quartz, weathered with much leaching iron, brittle with some iron carbonate; 177 metres @ 70° from 100 metre north station

29824 very rusty quartz, quartz crystals, honeycomb vugs with much iron + some galena; 215 metres @ 70° from 100 metre north station, then 40 metres north

29825 very rusty iron-rich, arsenopyrite in quartz; lower Mother quartz vein at road

29826 very weathered rusty sericitic wallrock from west side of Lower Mother quartz vein

29827 seri-clastic rock with grey-blue quartz sweats, weathered, minor iron leach; 68 metres @ 250° from 100 metre north station

29828 just west of sample 29827, massive rock, light coloured, dolomitic + siliceous 68 metres @ 250° from 100 metre north station, then 7 metres west

29829 from northernmost tip of M2 quartz vein, mixed sample of sericitic country rock + quartz. Quartz is somewhat druggy, some iron leach; 118.6 metres @ 250° from 100 metre north station

29830 heavy dense ultramafic, no fizz (almost granite looking), quartz inclusions + lens, hornblend rich; 142 metres @ 70° from 100 metre south station

29831 same area as sample 29830, heavy dense greyish mass with muscovite & biotite micas, much metal

29832 crystalline quartz, some vugs, minor galena + very minor chalcopyrite; 200 metres @ 70° from 100 metre south station

29833 carbonated ultramafic, quartz lensed with iron carbonate, very rusty + weathered; 345 metres @ 70° from 100 metre south station

HEART claim, NTS 93 A/11W
Brew West cut block : GPS (Eagle) + ALTIMETER (Thommen)

Sept. 22, 1999

- Camp : windy, sunny / 9:40 am / 52°34.788 / 121°17.487 / ALT. 1090
- Brew West base station : windy, sunny / 10:17 am / 52°35.888 / 121°16.882 / ALT. 1582
- 191 metres @ 70° from base station : windy, sunny / 11:12 am / 52°35.921 / 121°16.752 / ALT. 1610
- 220 metres @ 70° from base station : windy, sunny / 11:50 am / 52°35.898 / 121°16.708 / ALT. 1612
- 254 metres @ 70° from base station : windy, sunny / 12:32 pm / 52°35.916 / 121°16.669 / ALT. 1620
- 279 metres @ 70° from base station : windy, sunny / 12:52 pm / 52°35.940 / 121°16.652 / ALT. 1624
- 305 metres @ 70° from base station : windy, sunny / 1:40 pm / 52°35.951 / 121°16.651 / ALT. 1630
- 330 metres @ 70° from base station : windy, sunny / 1:45 pm / 52°35.958 / 121°16.645 / ALT. 1630
- 305 metres @ 70° from base station, then another 50 metres @ 320° : windy, sunny / 2:04 pm / 52°35.980 / 121°16.668 / ALT. 1625
- Brew West base station : windy, sunny / 2:25 pm / 52°35.886 / 121°16.882 / ALT. 1613
- Camp : sunny / 4:26 pm / 52° 34.812 / 121°17.537 / ALT. 1122

Oct. 1, 1999

- Camp: sun, cloud, very windy, cold, some snow/10:54 am/ 52°34.820/121°17.499/ALT. 1020
- Brew West base station: sun, cloud, very windy, cold, some snow/12:02 pm/52°35.885/121°16.867/ALT. 1560
- M2 quartz vein: sun, cloud, very windy, cold, some snow/12:15 pm/ 52°35.861/121°17.048/ALT. 1545
- M2 quartz vein, 20 metres north & 10 metres east from road junction: sun, cloud, very windy, cold, some snow/12:45 pm/52°35.845/121°17.171/ ALT. 1502
- M2 road junction: sun, cloud, very windy, cold, some snow/12:51 pm/ 52°35.829/121°17.143/ALT. 1500
- sedi-clastic & ultramafic contact just north of Mother quartz vein, along road: sun, cloud, very windy, cold, some snow/1:07 pm/52°35.811/ 121°17.025/ALT. 1488
- M3 quartz vein: sun, cloud, very windy, cold, some snow/1:14 pm/ 52°35.746/121°17.069/ALT. 1480
- Mother quartz vein, at road: sun, cloud, very windy, cold, some snow/ 1:33 pm/52°35.877/121°16.488/ALT. 1498
- Mother quartz vein, 10 metres north @ 30°: sun, cloud, very windy, cold, some snow/1:36 pm/52°35.877/121°16.508/ALT. 1500
- Mother quartz vein, 20 metres north @ 30°: sun, cloud, very windy, cold, some snow/1:38 pm/52°35.877/121°16.508/ALT. 1500

- Mother quartz vein, 30 metres north @ 30°: sun, cloud, very windy, cold, some snow/1:41 pm/52°35.892/121°16.578/ALT. 1502

- Mother ultramafics, 60 metres north from road @ 30°, then 10 metres east: sun, cloud, very windy, cold, some snow/1:45 pm/52°35.789/121°16.964/ALT. 1501

- mid Mother quartz vein: sun, cloud, very windy, cold, some snow/1:56 pm/52°35.730/121°16.995/ALT. 1480

- mid Mother quartz vein, 20 metres north @ 30°: sun, cloud, very windy, cold, some snow/1:59 pm/52°35.737/121°16.986/ALT. 1480

- metasediment, ultramafic contact, 20 metres east along skid trail from Lower Mother switchback: sun, cloud, very windy, cold, some snow/2:14 pm/52°35.599/121°16.824/ALT. 1460

- ultramafic flow rock, just west of contact, along skid trail: sun, cloud, very windy, cold, some snow/2:30 pm/52°35.584/121°16.852/ALT. 1460

- copper, malachite zone at Lower Mother road junction: sun, cloud, very windy, cold, some snow/2:38 pm/52°35.623/121°16.855/ALT. 1466

- ultramafics, Lower Mother switchback, before tree line: sun, cloud, very windy, cold, some snow/2:50 pm/52°35.622/121°16.897/ALT. 1462

- iron-rich (ore) ultramafics, Lower Mother switchback at tree line: sun, cloud, very windy, cold, some snow/3:09 pm/52°35.646/121°16.967/ALT. 1459

- Brew West base station: sun, cloud, very windy, cold, some snow/ 3:30 pm/ 52° 35.905/ 121° 16.892 /ALT. 1540

- Camp: sun, cloud, very windy, cold, some snow/ 3:48 pm/ 52° 34.717/ 121° 17.667 /ALT. 1000

Oct. 2, 1999

- Camp: high thin cloud, cool/ 11:31 am/ 52° 34.770/ 121° 17.512/ ALT. 1029

- Brew West base station: high thin cloud, cool/ 11:58 am/ 52° 35.948/ 121° 16.833/ ALT. 1568

- 100 metre station due north of Brew West base station: high thin cloud, cool/ 12:18 pm/ 52° 35.985/ 121° 16.894/ ALT. 1560

- 106 metres @ 70° from 100 metre north station: high thin cloud, cool/ 12:56 pm/ 52° 35.965/ 121° 16.782/ ALT. 1565

- 145 metres @ 70° from 100 metre north station: high thin cloud, cool/ 1:06 pm/ 52° 35.946/ 121° 16.746/ ALT. 1570

- 177 metres @ 70° from 100 metre north station: high thin cloud, cool/ 1:20 pm/ 52° 36.006/ 121° 16.749/ ALT. 1572

- 215 metres @ 70° from 100 metre north station, then 40 metres north: high thin clouds, cool/ 1:44 pm/ 52° 36.008/ 121° 16.720/ ALT. 1571

- 293 metres @ 70° from 100 metre north station: high thin cloud, cool/ 1:53 pm/ 52° 36.004/ 121° 16.653/ ALT. 1599

- Brew West base station: high thin cloud, cool/ 2:22 pm/ 52° 35.942/ 121° 16.890/ ALT. 1557

— Lower Mother quartz vein: high thin cloud, cool/2:45pm/ 52° 35. 647/121° 17.066/ALT. 1472

— Lower Mother road, seri-clastic & feldspar-quartz-porphyry contact: high thin cloud, cool/2:52pm/52° 35.629/ 121° 17.091/ALT. 1465

— Camp: high thin cloud, cool/3:09pm/52° 34. 770/121° 17. 502/ ALT. 1030

Oct. 4, 1999

— Camp: sunny, fairly warm, some wind/11:18 am/52° 34. 780/ 121° 17. 506/ ALT. 1043

— Brew West base station: sunny, fairly warm, some wind/ 12:29pm/52° 35. 943/121° 16. 914/ALT. 1570

— 100 metres north from base station: sunny, fairly warm, some wind/12:38pm/52° 35. 978/121° 16. 890/ALT. 1568

— 68 metres @ 250° from 100 metre north station: sunny, fairly warm, some wind/12:53 pm/52° 35. 956/121° 16. 960/ALT. 1561

— 118.6 metres @ 250° from 100 metre north station: sunny, fairly warm, some wind/1:11 pm/52° 35. 942/121° 16. 993/ALT. 1560

— 304 metres @ 250° from 100 metre north station: sunny, fairly warm, some wind/1:38 pm/52° 35. 869/121° 17. 085/ALT. 1538

— Brew West base station: sunny, fairly warm, some wind/2:05pm/ 52° 35. 896/121° 16. 832/ALT. 1570

— Camp: sunny, fairly warm, some wind/2:35 pm/52° 34. 803/121° 17. 458/ALT. nil

Oct. 11, 1999

- Camp: sunny, windy / 11:05 am / 52°34.765 / 121°17.515 / ALT. 1042
- Brew West base station: sunny, windy / 11:22 am / 52°35.748 / 121°16.648 / ALT. 1580
- 100 metres south from base station: sunny, windy / 11:43 am / 52°35.858 / 121°16.871 / ALT. 1580
- 65 metres @ 70° from 100 metre south station: sunny, windy / 11:59 am / 52°35.847 / 121°16.850 / ALT. 1582
- 142 metres @ 70° from 100 metre south station: sunny, windy / 12:30 pm / 52°35.919 / 121°16.738 / ALT. 1591
- 210 metres @ 70° from 100 metre south station: sunny, windy / 12:53 pm / 52°35.923 / 121°16.734 / ALT. 1610
- 351 metres @ 70° from 100 metre south station: sunny, windy / 1:40 pm / 52°35.937 / 121°16.631 / ALT. 1640
- 100 metres south from base station: sunny, windy / 2:20 pm / 52°35.794 / 121°16.957 / ALT. 1580
- 26 metres @ 250° from 100 metre south station: sunny, windy / 2:28 pm / 52°35.744 / 121°16.932 / ALT. 1570
- 126 metres @ 250° from 100 metre south station: sunny, windy / 2:34 pm / 52°35.772 / 121°17.013 / ALT. 1560
- 149 metres @ 250° from 100 metre south station: sunny, windy / 2:43 pm / 52°35.788 / 121°17.036 / ALT. 1559

- 196 metres @ 250° from 100 metre south station: sunny, windy / 2:47 pm / 52° 35.770 / 121° 17.057 / ALT. 1542
- 224 metres @ 250° from 100 metre south station: sunny, windy / 2:51 pm / 52° 35.777 / 121° 17.066 / ALT. 1540
- Brew West base station: sunny, windy / 3:02 pm / 52° 35.896 / 121° 16.916 / ALT. 1588
- Camp: sunny, windy / 3:30 pm / 52° 34.815 / 121° 17.509 / ALT. 1060