PROSPECTING REPORT

HW1, HW4, HW5 CLAIMS

CLINTON MINING DIVISION

NTS LOCATION 92N/10

LATITUDE 51° 33' LONGITUDE 124° 45'

OWNER/OPERATOR: LOUIS BERNIOLLES

AUTHOR OF REPORT: LOUIS BERNIOLLES

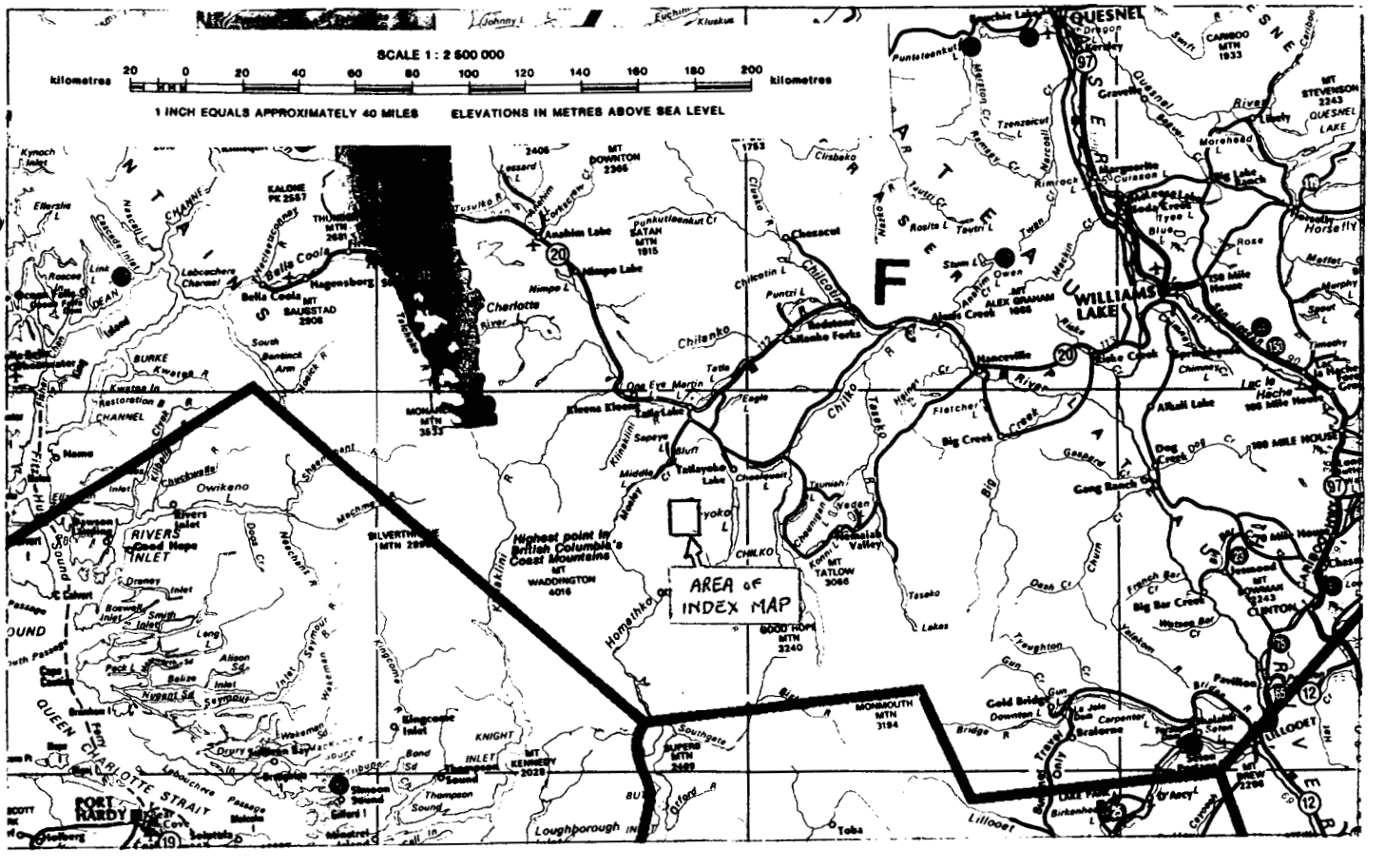
DATE SUBMITTED: NOVEMBER 23 1989

TABLE OF CONTENTS

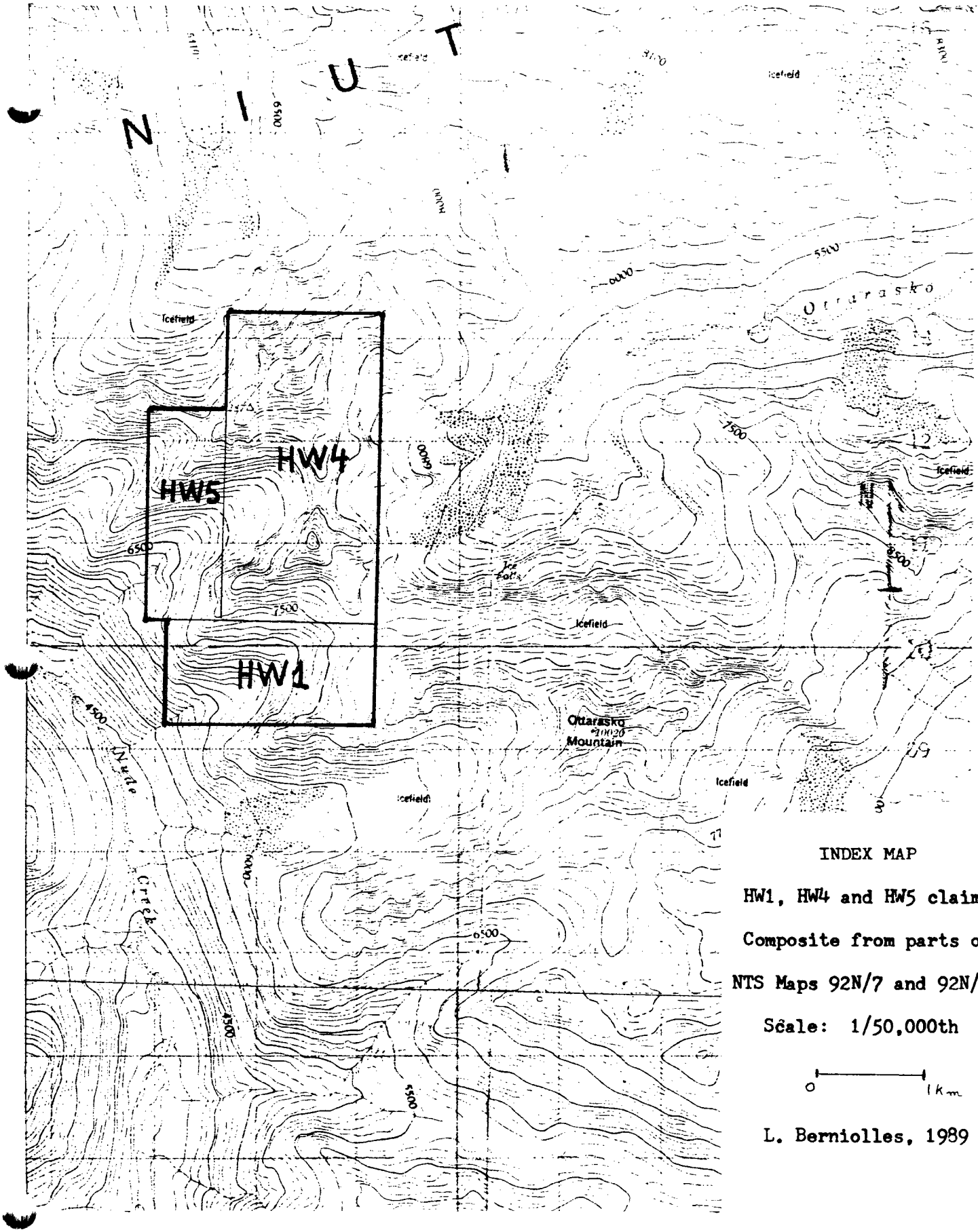
INTRODUCTION

Location of property. The HW1, HW4 and HW5 claims (group name HW) cover 850 hectares (34 units), and are located on the northwestern flank of Ottarasko Mountain, in the Niut Range of the Coast Mountains. The altitude on the claims varies between 5600 and 9900 feet, and the terrain which is extremely rugged, is partly overlain by several glaciers.

Access to the claims. The Niut Range is located in the West Chilcotin region; Tatla Lake, the local center for services, is situated 225 kms west of Williams Lake on Highway 20. In Tatla Lake meals and rooms can be had at the Graham Inn, and a helicopter charter service (Whitesaddle Air Services) operates locally. This is the most practical way to inspect the HW group which otherwise can only be accessed by four or five days of hard bushwacking via Tatlayoko Lake.



Section of B.C. Road Map showing location of Index Map area.



INDEX MAP

HW1, HW4 and HW5 claims

Composite from parts of

NTS Maps 92N/7 and 92N/10

Scale: 1/50,000th

0 1km

L. Berniolles, 1989

Property definition. The HW1 and HW4 claims (record numbers 2683 and 2686, Clinton Mining Division) were staked by the author on August 10 1988 under the Mineral Act then in force; the record and anniversary date is September 7 for both of these claims. The HW5 claim (record No. 3007) was staked on August 10 1989 under the new Mineral Tenure Act and therefore has an anniversary date of August 10. These claims represent a northern extension of a group of claims (AT2, AT3, AT4) which has been prospected by the author during the 1987 and 1988 seasons (AR16688, AR18022).

The claims are located primarily on a mesozoic series of volcanic and sedimentary rocks situated between the upper cretaceous Coast Batholith (to the west) and the Tchaikazan fault, a northwest extension of the fault system in the Bridge River area (to the east). The geology of the area has been mapped by H.W. Tipper in 1968; a program of more detailed geological mapping, by M.E. Rusmore and G.J. Woodsworth, is still in progress.

The mineralization in evidence on the claims falls under two general headings:

1) Gold in association with copper; gold-copper mineralization, both in place and as float, occurs on the southern half of the claim group; this mineralization is often, but not always, associated with quartz; values of over one ounce per ton gold have been obtained.

2) Gold in association with arsenopyrite; in the central-northern part of the claim group, low gold values, of the order of 1 gr/tonne, have been found in various quartz structures, generally networks of sub-parallel veins and veinlets of white quartz with minor arsenopyrite. This type of mineralization may be related to a richer occurence of gold with arsenic documented by Homestake in 1983 (AR13150). Homestake's sample, from float, was taken approximately 800 m east of the northeast corner of HW4, and assayed 2.6 oz/t Au and 1540 PPM arsenic.

It appears that most occurences of economic mineralization on the claims, and on claims AT3 and AT4 to the south, are located at or near thrust faults, which juxtapose triassic and cretaceous volcanics and sediments.

Summary of work done. All accessible areas of the 850 ha. property were prospected systematically by a three-person team, for a total of 98 man/days, over the periods August 12 to August 21 1988, and July 27 to August 25 1989. The coverage of claim HW4 was very spotty due to the topography; further prospecting work in that area could be performed with more intensive helicopter support. Thirty-four rock samples were sent to the Bondar-Clegg laboratory for multielement geochemical analysis. Sampling locations will be found on Map No. 2 (in pocket) of the present report.

DETAILED TECHNICAL DATA AND INTERPRETATION

Purpose of investigation. During the summer of 1988 a prospecting program on the AT3 claim (just south of HW1) led to the discovery of gold mineralization, in association with copper and quartz, near the northern boundary of that claim. The ground to the north was therefore staked and prospected briefly to see if there was any northward extension to the known mineralization. Good values in float samples justified a much more intensive prospecting program during the summer of 1989, to try to locate the origin of these float samples. All the work done to date on the HW1, HW4 and HW5 claims is documented in the present prospecting report.

Description of observations made during investigation. The claims prospected are located just to the east of the contact between the upper cretaceous Coast Batholith and a series of mesozoic volcanic and sedimentary rocks. These triassic and cretaceous rocks have been intruded by numerous northwest-trending felsic dykes and stacked in a complex imbricate series by thrust faulting. On the claims, the thrust fault juxtaposes triassic volcanics over beds of shale and limestone a few hundred feet thick at most. Locally the sedimentary beds are intensely deformed and the overlying volcanics exhibit book structures of quartz veining and quartz-filled tension cracks in areas of folding related to the thrust. Sulfides and gold mineralization are sometimes associated with the quartz in these structural traps. The major control to the east of the claims is the Tchaikazan transcurrent fault, which is the northwest-trending extension of the fault system in the Bridge River gold camp.

Map No. 2, scale 1/5000th, shows the surficial geology of the claims and the location of the samples which were sent for analysis, as well as the nature of these samples (bedrock outcrop, sub-outcrop or localized float, glacier transported float).

Moving from the south to the north on the claim group we have, first, to the southwest, a section of shale and limestone beds which has been intensely folded and intruded by a massive north-northwest-trending light-grey dyke and by a narrower (1 to 2 metres) brownish coloured dyke, strike 80°, dip vertical. The limey shales contain widely disseminated pyrites, with occasional fist-sized aggregates of crystals.

Samples HW88-1, HW88-2, HW88-3

To the east of the above, we find large blocks of white quartz (vein remnants?) aligned in a north-south direction. No mineralization is visible.

Sample HW88-5

Further east, still on claim HW1, several parallel quartz carbonate veins were sampled. Strike approximately 340°, dip vertical.
Sample HW88-5

Near the southeastern corner of claim HW1, several small quartz veinlets contain minor sulfides. Some float with a similar appearance was found 200 metres west of, and uphill from these veinlets.
Samples HW88-4, HW88-30

Moving north, on either side of the ridge located near the boundary of claims HW1 and HW4, we find large blocks of grey volcanic rock with mottled quartz indurations. Sulfides are present in thin sheets which tend to provide cleavage planes for the rock.
Samples HW89-23, HW89-29

Further north, on claim HW5, we have a group of float samples found at the foot of a glacier, and which could originate almost anywhere within the cirque of this glacier. Almost all of these samples are anomalous in gold and copper. Values range up to 1.73 oz/ton Au, 3.54 oz/ton Ag and 1.28% Cu. The samples are dissimilar in aspect, and may represent different mineral occurences (see sample descriptions below).
Samples HW88-7, HW88-8, HW88-10, HW88-11, HW88-13, HW88-14

Still on the southern half of claim HW5, several samples were taken on the talus slope and on the lateral moraine where metallic mineralization was indicated. No anomalous values in precious metals were detected.
Samples HW88-9, HW88-12, HW89-31, HW89-32, HW89-33, HW89-34

Moving to the north, in the central part of claim HW5, we have a group of samples taken from subparallel quartz veins and veinlets located in Triassic volcanics close to the thrust fault. The samples are anomalous in gold, but the values are very low (398 PPB maximum). A good correlation exists between gold and copper contents.
Samples HW89-15, HW89-16, HW89-17, HW89-18

Moving to the northwest, onto claim HW4, several samples were taken near the highest point that could be reached on the glacier. At 7600' elevation, a block of quartz float with minor galena was sampled on the talus slope. At 7700', a sample was taken from a small horizontal quartz vein containing arsenopyrite. Just above that a large (100+ m^2) exposure of reddish weathering quartz arranged in parallel sheets was also sampled. No significant mineral values are associated with the occurences in this group.
Samples HW89-19, HW89-20, HW89-21

Further north and to the west, near the upper reaches of claim HW5, we have one quartz sample from float situated on a small glacier and four samples from quartz structures reminiscent of those seen further south (i.e. networks of sub-parallel veins located in proximity to the thrust fault). In this area, the two regional modes of occurence for gold can be seen: two samples have gold in association with copper, and two contain gold in association with arsenopyrite. The values in gold are, however, quite low, with a maximum of 1261 PPB for sample -24.

Samples HW89-22, HW89-24, HW89-25, HW89-26, HW89-28

To the northeast of the last group of samples, at approximately 8700' elevation, a large rusty zone of quartz carbonates was sampled.

Sample HW89-27

Sample description:

HW88-1 sample from fractured and distorted limey shale bed with fairly abundant disseminated pyrites.- the sediments have been intruded by a massive N-NW trending felsic dyke, and by a smaller dun-coloured basalt dyke, strike 80°, dip vertical

HW88-2 similar to -1, but pyrites form larger aggregates, and white mica is present - this sample comes from higher up in the shale and limestone beds

HW88-3 similar to -1, source location 100 metres south in the shale beds

HW88-4 composite sample of several small northwest-trending quartz veinlets and fracture fillings, a few centimeters wide at most, situated next to small bedrock lake and above ice falls

HW88-5 composite sample of 3 parallel quartz-carbonate veins, strike approximately 340°, dip near-vertical

HW88-6 sample from several large boulders of white quartz aligned north-south - sericite and limey inclusions

HW88-7 quartz float from outwash area at foot of glacier - blebs of pyrite and chalcopyrite - host rock is a grey limestone

HW88-8 float sample - limey shale, minor sulfides and sericite - from outwash at foot of glacier

HW88-9 float - rusty weathering, slaty shale with disseminated sulfides and limey inclusions - talus sample

HW88-10 orange weathering quartz float with sericite - from glacial outwash

HW88-11 float - limestone with massive aggregates of pyrite - from glacial outwash

HW88-12 sample from surface of the glacier - orange weathering quartz with sericite and inclusions of shale fragments

HW88-13 orange quartz with blebs of chalcopyrite - from outwash at foot of glacier

HW88-14 dark grey volcanic rock with blebs and clusters of chalcopyrite - from outwash at foot of glacier

HW89-15 mottled quartz, minor calcite and sulfides, from small outcrop at 7100' elevation

HW89-16 rusty quartz with calcite and minor sulfides from outcrop at 7250'

HW89-17 quartz fragments from large exposure of veins and veinlets forming a book structure in folded volcanic rocks - small amounts of calcite, sericite and sulfides

HW89-18 composite sample from talus - quartz fragments with minor chalcopyrite

HW89-19 talus sample - fractured beige quartz with a few crystals of galena - 7600' elevation

HW89-20 sample from narrow horizontal quartz vein in limey dark shale - minor sulfides including arsenopyrite

HW89-21 drusy rusty quartz from a large exposure (probably over 100 m^2) between 7850' and 7900' elevation on a cliff face - structure unclear, but probably consists of parallel veins with a vertical dip, strike unknown - the sample was collected at the foot of the vertical cliff

HW89-22 quartz sample taken from the surface of the glacier - massive quartz with a few beige limestone inclusions and sizeable clusters of sulfides, with bornite and chalcopyrite

HW89-23 grey volcanic rock with quartz inclusions - stringers and sheets of sulfides tend to provide cleavage planes for the rock - these rocks are freshly broken talus forming a lateral moraine on the glacier

HW89-24 rusty mottled quartz sample, from outcrop - several near-horizontal, sub-parallel quartz veins are to be seen in the area, from 7750' elevation on up - the sample comes from the lowest vein in the stack

HW89-25 rusty zone with quartz stringers just above shaley limestone bed - minor sulfides - 7600' elevation

HW89-26 composite sample from several quartz veinlets - small amounts of sulfides and calcite are present

HW89-27 sample from quartz carbonate zone on west flank of Hwang Wan Mountain - between 8600' and 8700' elevation - bright gossan - the quartz carbonate material makes up a 10 to 15 metre thick layer, strike 105°, dip vertical

HW89-28 composite sample from talus, made up of several fragments of quartz and shaley rock with small amounts of chalcopyrite and traces of malachite

HW89-29 grey volcanic rock with small quartz lenses and inclusions - sericite and pyrite associated with the quartz

HW89-30 quartz float with small amount of copper sulfides

HW89-31 orange coloured drusy quartz with sulfide clusters - originates from a lens which can be seen on the rock face above

HW89-32 schistose grey rock with small amount of fine disseminated sulfides

HW89-33 black slate with thin layer of pyrite - from freshly broken float found on glacier

HW89-34 sulfide clusters with quartz in a light grey rock - from surface of glacier - the area where samples -12, -33 and -34 were taken should be considered dangerous because of numerous rock slides with unpredictable trajectories on the glacier

Signature of the prospector who performed the work:

Louis M. Berniolles

Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
V7P 2R5
(604) 985-0681 Telex 04-352667

BONDAR-CLEGG

Geochemical Lab Report

REPORT: V88-09325.0 (COMPLETE)

REFERENCE INFO:

CLIENT: TCHAIKAZAN EXPLORATIONS
PROJECT: HW88

SUBMITTED BY: L. BERNIOLLES
DATE PRINTED: 18-NOV-88

ORDER		ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Au	Gold	14	1 PPB	FIRE-ASSAY	FIRE ASSAY DCP
2	Ag	Silver	14	0.2 PPM	MULT ACID TOT DIG	PLASMA EMISSION SPEC
3	As	Arsenic	14	5 PPM	MULT ACID TOT DIG	PLASMA EMISSION SPEC
4	B	Boron	14	2 PPM	MULT ACID TOT DIG	PLASMA EMISSION SPEC
5	Ba	Barium	14	1 PPM	MULT ACID TOT DIG	PLASMA EMISSION SPEC
6	Be	Beryllium	14	0.5 PPM	MULT ACID TOT DIG	PLASMA EMISSION SPEC
7	Bi	Bismuth	14	2 PPM	MULT ACID TOT DIG	PLASMA EMISSION SPEC
8	Cd	Cadmium	14	1 PPM	MULT ACID TOT DIG	PLASMA EMISSION SPEC
9	Ce	Cerium	14	5 PPM	MULT ACID TOT DIG	PLASMA EMISSION SPEC
10	Co	Cobalt	14	1 PPM	MULT ACID TOT DIG	PLASMA EMISSION SPEC
11	Cr	Chromium	14	1 PPM	MULT ACID TOT DIG	PLASMA EMISSION SPEC
12	Cu	Copper	14	1 PPM	MULT ACID TOT DIG	PLASMA EMISSION SPEC
13	Ga	Gallium	14	2 PPM	MULT ACID TOT DIG	PLASMA EMISSION SPEC
14	La	Lanthanum	14	1 PPM	MULT ACID TOT DIG	PLASMA EMISSION SPEC
15	Li	Lithium	14	1 PPM	MULT ACID TOT DIG	PLASMA EMISSION SPEC
16	Mo	Molybdenum	14	1 PPM	MULT ACID TOT DIG	PLASMA EMISSION SPEC
17	Nb	Niobium	14	1 PPM	MULT ACID TOT DIG	PLASMA EMISSION SPEC
18	Ni	Nickel	14	1 PPM	MULT ACID TOT DIG	PLASMA EMISSION SPEC
19	Pb	Lead	14	2 PPM	MULT ACID TOT DIG	PLASMA EMISSION SPEC
20	Rb	Rubidium	14	20 PPM	MULT ACID TOT DIG	PLASMA EMISSION SPEC
21	Sb	Antimony	14	5 PPM	MULT ACID TOT DIG	PLASMA EMISSION SPEC
22	Sc	Scandium	14	1 PPM	MULT ACID TOT DIG	PLASMA EMISSION SPEC
23	Sn	Tin	14	20 PPM	MULT ACID TOT DIG	PLASMA EMISSION SPEC
24	Sr	Strontium	14	1 PPM	MULT ACID TOT DIG	PLASMA EMISSION SPEC
25	Ta	Tantalum	14	10 PPM	MULT ACID TOT DIG	PLASMA EMISSION SPEC
26	Te	Tellurium	14	10 PPM	MULT ACID TOT DIG	PLASMA EMISSION SPEC
27	Tl	Thallium	14	10 PPM	MULT ACID TOT DIG	PLASMA EMISSION SPEC
28	V	Vanadium	14	1 PPM	MULT ACID TOT DIG	PLASMA EMISSION SPEC
29	W	Tungsten	14	10 PPM	MULT ACID TOT DIG	PLASMA EMISSION SPEC
30	Y	Yttrium	14	1 PPM	MULT ACID TOT DIG	PLASMA EMISSION SPEC
31	Zn	Zinc	14	1 PPM	MULT ACID TOT DIG	PLASMA EMISSION SPEC
32	Zr	Zirconium	14	1 PPM	MULT ACID TOT DIG	PLASMA EMISSION SPEC

Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
V7P 2R5
(604) 985-0681 Telex 04-352667

BONDAR-CLEGG

Geochemical Lab Report

REPORT: V88-09325.0 | PROJECT: HW88 | PAGE 1A

SAMPLE NUMBER	ELEMENT UNITS	Au PPB	Ag PPM	As PPM	B PPM	Ba PPM	Be PPM	Bi PPM	Cd PPM	Ce PPM	Co PPM	Cr PPM
R2 HW88-1		26	1.3	132	<2	79	<4.0	<5	<1	15	40	46
R2 HW88-2		19	2.9	57	<2	229	<4.0	<5	2	9	157	76
R2 HW88-3		2	1.1	<50	<2	86	<4.0	<5	<1	10	20	67
R2 HW88-4		1033	7.2	<50	<2	23	<4.0	<5	4	20	178	220
R2 HW88-5		1	<0.5	<50	<2	191	<4.0	<5	<1	20	14	68
R2 HW88-6		3	0.8	<50	2	49	<4.0	<5	<1	6	2	296
R2 HW88-7		316	3.4	60	<2	15	<4.0	<5	2	5	68	278
R2 HW88-8		217	1.2	<50	<2	249	<4.0	<5	<1	23	34	94
R2 HW88-9		9	<0.5	<50	<2	183	<4.0	<5	<1	11	25	89
R2 HW88-10		4	0.8	<50	<2	139	<4.0	<5	<1	6	3	149
R2 HW88-11		571	1.3	319	<2	41	<4.0	<5	<1	7	55	163
R2 HW88-12		9	0.7	<50	<2	82	<4.0	<5	<1	8	6	177
R2 HW88-13		>10000	>50.0	<50	<2	13	<4.0	14	3	6	3	279
R2 HW88-14		>10000	37.9	<50	<2	304	<4.0	7	5	24	50	69

Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
V7P 2R5
(604) 985-0681 Telex 04-352667

BONDAR-CLEGG

Geochemical Lab Report

REPORT: V88-09325.0 | PROJECT: HW88 | PAGE 1B

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Ga PPM	La PPM	Li PPM	Mo PPM	Nb PPM	Ni PPM	Pb PPM	Rb PPM	Sb PPM	Sc PPM
R2 HW88-1		204	15	<1	20	<5	3	11	27	<50	7	15
R2 HW88-2		1609	13	<1	24	<5	4	9	13	<50	<5	18
R2 HW88-3		117	16	<1	18	<5	4	8	21	<50	<5	16
R2 HW88-4		5935	4	<1	2	<5	2	5	<10	<50	<5	5
R2 HW88-5		88	9	<1	43	<5	<1	9	12	<50	6	12
R2 HW88-6		35	6	<1	2	<5	2	6	<10	<50	<5	2
R2 HW88-7		2706	4	<1	<1	<5	2	24	<10	<50	<5	1
R2 HW88-8		919	14	3	12	<5	4	33	11	<50	<5	8
R2 HW88-9		132	13	<1	11	<5	4	6	12	<50	<5	23
R2 HW88-10		33	7	<1	1	<5	2	7	<10	<50	<5	5
R2 HW88-11		313	3	<1	3	<5	1	7	<10	<50	<5	9
R2 HW88-12		64	11	1	12	<5	3	3	<10	<50	<5	3
R2 HW88-13		12841	6	<1	<1	<5	2	5	<10	<50	<5	<1
R2 HW88-14		4186	19	4	8	<5	6	20	11	<50	<5	9

Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
V7P 2R5
(604) 985-0681 Telex 04-352667

BONDAR-CLEGG

Geochemical Lab Report

REPORT: V88-09325.0 | PROJECT: HW88 | PAGE 1C

SAMPLE NUMBER	ELEMENT UNITS	Sn PPM	Sr PPM	Ta PPM	Te PPM	Tl PPM	V PPM	W PPM	Y PPM	Zn PPM	Zr PPM
R2 HW88-1		<30	255	<10	<20	<20	89	<10	13	50	8
R2 HW88-2		<30	126	<10	<20	<20	134	<10	12	64	12
R2 HW88-3		<30	333	<10	<20	<20	87	<10	13	51	14
R2 HW88-4		<30	18	<10	<20	<20	18	<10	18	76	2
R2 HW88-5		<30	124	<10	<20	<20	81	<10	17	91	25
R2 HW88-6		<30	8	<10	<20	<20	22	<10	1	9	<1
R2 HW88-7		<30	8	<10	<20	<20	9	<10	1	74	<1
R2 HW88-8		<30	331	<10	<20	<20	55	<10	9	59	15
R2 HW88-9		<30	136	<10	<20	<20	193	<10	18	81	8
R2 HW88-10		<30	24	<10	<20	<20	35	<10	2	40	12
R2 HW88-11		<30	47	<10	<20	<20	46	16	5	11	12
R2 HW88-12		<30	102	<10	<20	<20	28	<10	9	31	9
R2 HW88-13		<30	8	<10	109	<20	4	<10	<1	85	2
R2 HW88-14		<30	264	<10	52	<20	82	<10	7	239	25

Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
Canada V7P 2R5
Phone: (604) 985-0681
Telex: 04-352667

BONDAR-CLEGG

Certificate of Analysis

REPORT: V88-09325.6 (COMPLETE)

REFERENCE INFO:

CLIENT: TCHAIKAZAN EXPLORATIONS
PROJECT: HW88

SUBMITTED BY: L. BERNIOLLES
DATE PRINTED: 23-NOV-88

ORDER	ELEMENT		NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Au	Gold	2	0.002 OPT		Fire Assay
2	Ag	Silver	1	0.02 OPT		Fire Assay

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
R ROCK OR BED ROCK	2	2 -150	2	AS RECEIVED, NO SP	2

NOTES: # indicates ERRATIC RESULTS

REPORT COPIES TO: MR. LOUIS BERNIOLLES

INVOICE TO: MR. LOUIS BERNIOLLES

Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
Canada V7P 2R5
Phone: (604) 985-0681
Telex: 04-352667

BONDAR-CLEGG

Certificate of Analysis

REPORT: V88-09325.6 | PROJECT: HW88 | PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Ag OPT
R2 HW88-13		1.730#	3.54
R2 HW88-14		0.704	

Registered Assayer, Province of British Columbia

Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
V7P 2R5
(604) 985-0681 Telex 04-352667

BONDAR-CLEGG

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

Geochemical Lab Report

REPORT: V89-06030.0 (COMPLETE)

REFERENCE INFO:

CLIENT: TCHAIKAZAN EXPLORATIONS
PROJECT: HW89

SUBMITTED BY: L. BERNIOLLES
DATE PRINTED: 8-SEP-89

ORDER		ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Au	Gold	20	1 PPB	FIRE-ASSAY	Fire Assay - DCP
2	Ag	Silver	20	0.2 PPM	HF-HNO3-HClO4-HCl	Ind. Coupled Plasma
3	As	Arsenic	20	5 PPM	HF-HNO3-HClO4-HCl	Ind. Coupled Plasma
4	Ba	Barium	20	1 PPM	HF-HNO3-HClO4-HCl	Ind. Coupled Plasma
5	Be	Beryllium	20	0.5 PPM	HF-HNO3-HClO4-HCl	Ind. Coupled Plasma
6	Bi	Bismuth	20	2 PPM	HF-HNO3-HClO4-HCl	Ind. Coupled Plasma
7	Cd	Cadmium	20	1 PPM	HF-HNO3-HClO4-HCl	Ind. Coupled Plasma
8	Ce	Cerium	20	5 PPM	HF-HNO3-HClO4-HCl	Ind. Coupled Plasma
9	Co	Cobalt	20	1 PPM	HF-HNO3-HClO4-HCl	Ind. Coupled Plasma
10	Cr	Chromium	20	1 PPM	HF-HNO3-HClO4-HCl	Ind. Coupled Plasma
11	Cu	Copper	20	1 PPM	HF-HNO3-HClO4-HCl	Ind. Coupled Plasma
12	Ga	Gallium	20	2 PPM	HF-HNO3-HClO4-HCl	Ind. Coupled Plasma
13	La	Lanthanum	20	1 PPM	HF-HNO3-HClO4-HCl	Ind. Coupled Plasma
14	Li	Lithium	20	1 PPM	HF-HNO3-HClO4-HCl	Ind. Coupled Plasma
15	Mo	Molybdenum	20	1 PPM	HF-HNO3-HClO4-HCl	Ind. Coupled Plasma
16	Nb	Niobium	20	1 PPM	HF-HNO3-HClO4-HCl	Ind. Coupled Plasma
17	Ni	Nickel	20	1 PPM	HF-HNO3-HClO4-HCl	Ind. Coupled Plasma
18	Pb	Lead	20	2 PPM	HF-HNO3-HClO4-HCl	Ind. Coupled Plasma
19	Rb	Rubidium	20	20 PPM	HF-HNO3-HClO4-HCl	Ind. Coupled Plasma
20	Sb	Antimony	20	5 PPM	HF-HNO3-HClO4-HCl	Ind. Coupled Plasma
21	Sc	Scandium	20	1 PPM	HF-HNO3-HClO4-HCl	Ind. Coupled Plasma
22	Sn	Tin	20	20 PPM	HF-HNO3-HClO4-HCl	Ind. Coupled Plasma
23	Sr	Strontium	20	1 PPM	HF-HNO3-HClO4-HCl	Ind. Coupled Plasma
24	Ta	Tantalum	20	10 PPM	HF-HNO3-HClO4-HCl	Ind. Coupled Plasma
25	Te	Tellurium	20	10 PPM	HF-HNO3-HClO4-HCl	Ind. Coupled Plasma
26	V	Vanadium	20	1 PPM	HF-HNO3-HClO4-HCl	Ind. Coupled Plasma
27	W	Tungsten	20	10 PPM	HF-HNO3-HClO4-HCl	Ind. Coupled Plasma
28	Y	Yttrium	20	1 PPM	HF-HNO3-HClO4-HCl	Ind. Coupled Plasma
29	Zn	Zinc	20	1 PPM	HF-HNO3-HClO4-HCl	Ind. Coupled Plasma
30	Zr	Zirconium	20	1 PPM	HF-HNO3-HClO4-HCl	Ind. Coupled Plasma

Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
V7P 2R5
(604) 985-0681 Telex 04-352667

BONDAR-CLEGG

Geochemical Lab Report

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

DATE PRINTED: 8-SEP-89

REPORT: V89-06030.0 | PROJECT: HW89 | PAGE 1A

SAMPLE NUMBER	ELEMENT UNITS	Au PPB	Ag PPM	As PPM	Ba PPM	Be PPM	Bi PPM	Cd PPM	Ce PPM	Co PPM	Cr PPM	Cu PPM
R2 HW89-15		35	0.2	30	65	<0.5	<2	<1	<5	3	289	14
R2 HW89-16		388	1.2	104	228	4.4	<2	<1	6	109	199	918
R2 HW89-17		77	<0.2	33	56	0.8	<2	<1	<5	8	304	91
R2 HW89-18		393	1.4	72	131	3.3	<2	<1	<5	25	273	596
R2 HW89-19		12	6.2	21	39	<0.5	10	7	<5	2	303	37
R2 HW89-20		144	2.2	>2000	105	2.2	<2	<1	<5	6	216	38
R2 HW89-21		6	0.4	122	335	4.5	<2	<1	<5	20	213	251
R2 HW89-22		652	1.2	178	6	5.0	<2	7	<5	44	374	1694
R2 HW89-23		41	0.4	119	192	7.8	<2	<1	<5	52	97	647
R2 HW89-24		1261	0.2	>2000	111	6.0	<2	<1	<5	17	234	63
R2 HW89-25		32	0.2	93	138	3.8	<2	<1	<5	10	215	242
R2 HW89-26		1084	0.4	>2000	91	6.5	<2	<1	<5	12	214	86
R2 HW89-27		7	0.2	79	144	9.5	<2	<1	<5	31	42	37
R2 HW89-28		175	1.8	82	209	7.0	<2	<1	<5	22	145	3420
R2 HW89-29		51	0.2	293	197	12.0	<2	<1	17	124	146	80
R2 HW89-30		47	0.4	96	101	9.7	<2	<1	7	25	169	538
R2 HW89-31		45	0.4	54	13	4.9	<2	<1	<5	74	246	274
R2 HW89-32		3	<0.2	106	230	4.9	<2	<1	5	10	110	56
R2 HW89-33		5	0.8	104	273	7.4	3	14	<5	18	169	63
R2 HW89-34		5	0.2	54	175	4.0	3	<1	12	12	118	158

Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
V7P 2R5
(604) 985-0681 Telex 04-352667

BONDAR-CLEGG

Geochemical Lab Report

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

DATE PRINTED: 8-SEP-89

REPORT: V89-06030.0 | PROJECT: HW89 | PAGE 1R

SAMPLE NUMBER	ELEMENT UNITS	Ga PPM	La PPM	Li PPM	Mo PPM	Nb PPM	Ni PPM	Pb PPM	Rb PPM	Sb PPM	Sc PPM	Sn PPM
R2 HW89-15		2	<1	2	1	<1	9	<2	93	<5	2	<20
R2 HW89-16		13	<1	11	6	2	48	<2	133	7	7	<20
R2 HW89-17		4	<1	4	2	<1	6	2	85	<5	4	<20
R2 HW89-18		6	<1	7	16	<1	18	12	141	<5	4	<20
R2 HW89-19		5	<1	1	2	2	6	1864	56	<5	<1	<20
R2 HW89-20		15	<1	3	27	10	5	109	96	15	3	<20
R2 HW89-21		13	<1	16	2	1	5	<2	159	<5	9	<20
R2 HW89-22		4	<1	1	5	<1	10	11	29	<5	<1	<20
R2 HW89-23		27	<1	22	3	9	23	<2	95	<5	26	<20
R2 HW89-24		9	<1	3	4	2	4	4	<20	17	8	<20
R2 HW89-25		12	<1	7	3	4	5	4	<20	7	3	<20
R2 HW89-26		30	<1	8	2	9	4	<2	<20	<5	12	<20
R2 HW89-27		19	<1	23	1	21	13	<2	33	20	12	<20
R2 HW89-28		29	<1	13	3	8	4	<2	51	<5	30	<20
R2 HW89-29		84	<1	28	12	27	8	25	<20	17	27	<20
R2 HW89-30		15	<1	4	4	3	5	7	<20	6	1	<20
R2 HW89-31		9	<1	5	4	3	18	9	<20	<5	2	<20
R2 HW89-32		27	<1	12	13	13	4	<2	<20	8	11	<20
R2 HW89-33		26	<1	17	74	16	84	3	81	12	16	<20
R2 HW89-34		12	4	7	2	4	3	<2	<20	<5	2	<20

Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
V7P 2R5
(604) 985-0681 Telex 04-352667

BONDAR-CLEGG

Geochemical Lab Report

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

DATE PRINTED: 8-SEP-89

REPORT: V89-06030.0 | PROJECT: HW89 | PAGE 1C

SAMPLE NUMBER	ELEMENT UNITS	Sr PPM	Ta PPM	Te PPM	V PPM	W PPM	Y PPM	Zn PPM	Zr PPM
R2 HW89-15		15	<10	<10	21	<10	2	23	2
R2 HW89-16		191	12	<10	62	<10	4	67	19
R2 HW89-17		41	<10	<10	30	<10	2	25	4
R2 HW89-18		91	<10	<10	46	<10	3	36	9
R2 HW89-19		58	<10	<10	6	<10	<1	587	2
R2 HW89-20		397	<10	<10	16	<10	6	152	6
R2 HW89-21		139	11	<10	93	<10	7	81	8
R2 HW89-22		7	<10	<10	3	<10	<1	200	1
R2 HW89-23		105	<10	<10	144	<10	11	85	25
R2 HW89-24		17	<10	<10	27	<10	5	71	5
R2 HW89-25		103	<10	<10	22	<10	6	43	6
R2 HW89-26		88	<10	<10	36	<10	9	54	6
R2 HW89-27		117	<10	<10	86	<10	8	199	6
R2 HW89-28		182	<10	<10	136	<10	20	109	19
R2 HW89-29		128	<10	51	214	34	9	119	28
R2 HW89-30		116	<10	<10	11	<10	6	42	14
R2 HW89-31		5	<10	<10	31	<10	<1	31	1
R2 HW89-32		333	<10	<10	84	<10	9	52	29
R2 HW89-33		274	<10	<10	387	<10	12	441	35
R2 HW89-34		356	<10	<10	16	<10	10	31	14

Interpretation and Conclusions. Most in-situ occurrences of mineralization on the property are located near a fairly conspicuous thrust fault which juxtaposes volcanic rocks over a limey shale bed a few hundred feet thick at most. Until recently both sequences were thought to be Triassic; however recent work by M.E. Rusmore and G.J. Woodsworth (GSC Paper 88-1E, p. 185-190) points to a possible Cretaceous age for the upper series. It appears that certain structural traps were created in the vicinity of the fault; since one of the thrusts was intruded by a pluton of the Coast Plutonic Complex just south of Ottarasko Mountain (2 kilometers south of the HW1 claim) we may be sure that the thrusting event antedates plutonic activity; conceivably, a hydrothermal system driven by intrusive activity would have brought about the mineralization in evidence on the property, with deposition taking place in the preexisting structural traps.

According to Rusmore and Woodsworth (previously cited) the thrust faulting was not limited to the one fairly conspicuous fault, but created a complex imbricate zone of volcanic rocks, limestone and clastic rocks. Because of the considerable amount of overburden present on the claims, exposures supporting this view would be more evident a few kilometres north-east of the property, in the upper valley of Ottarasko Creek, than on the area covered by the present report. In any case the possibility of additional faults, shear zones and other areas of structural weakness at depth definitely exists.

The mineralization found on the HW1, HW4 and HW5 claims falls under two headings, gold-copper and gold-arsenic. The gold-copper occurrences are located on the southern part of the claims; the most interesting values, which exceed 1 oz/t Au and 1% Cu come, however, from a float sample whose origin could not be traced by systematic prospecting of the southern and northern boundaries of the westward oriented glacial cirque in which it occurs. Presumably, the actual occurrence is situated under the ice or in the precipitous bluffs which form the easternmost boundary at the head of the glacier. Additional prospecting by a mountaineering crew with helicopter support would be indicated in that area.

The gold-arsenic occurrences are located towards the northern end of the claim group. While the values are low, of the order of 1 gr/tonne Au, there is evidence that this mineralization extends to the northeast, since a rich float sample with gold and arsenic (2.6 oz/t Au and 1540 PPM As) was found previously 800 metres east of the N.E. corner of claim HW4, in what is now claim HW3, also owned by this writer. The discovery was made by Homestake in 1983, and documented in AR13150.

All the results from the present program point to the desirability of a detailed prospecting program on claim HW3 to the east, with a renewed effort on the eastern part of claim HW4. These conclusions tally interestingly with those expressed by the consultants for Equinox Resources Ltd., the current owner of the ground just east of HW3, in their report AR17392. The difficulties involved in that venture should not be understated, however, because of the precipitous nature of the terrain as well as the presence of several glaciers and icefields.

ITEMIZED COST STATEMENT - HW PROJECT - (HW1, HW4, HW5 CLAIMS)

Field personnel	98 man/days @ $100	$ 9,800
Food and accomodations		1,960
Aircraft support (Bell 206B)	2.9 hrs. @ $580	1,682
" " fuel	2.9 hrs. @ $70	203
Ground transport (P.U.)	3100 km @ 15¢	465
Equipment and supplies		2,079
Laboratory analysis	34 samples, multielement @ $23	782
	2 Au/Ag assays @ $11	22
Mobilization/demobilization	8 man/days @ $100	800
Report preparation		
writing	2 man/days @ $100	200
typing, drafting	2 man/days @ $100	200
office supplies, reproduction		58
	Total	$ 18,251

AUTHOR'S QUALIFICATIONS

- Twelve years experience as an independent prospector in France, Northern Saskatchewan and Central British Columbia.

- Attended the Third Annual Mineral Exploration Course for Prospectors, sponsored by the B.C. Ministry of Energy, Mines & Petroleum Resources, at Selkirk College, Castlegar, B.C., from April 29 to May 12, 1979.

- The author holds a B.A. in Mathematics from the University of Lyon, France, and a B.A. in Economics from the University of British Columbia.

HWANG WAN MOUNTAIN

HW5 BOUNDARY

HW4 BOUNDARY

9000

7500

8000

7000

6500

6000

PLAN MAP (MAP NO. 2)

HW1, HW4, HW5 CLAIMS

Scale: 1/5000th
Elevations in feet

Author: L. Berniolles, 1989

LEGEND

- Lithological and surficial boundaries
- 1 Triassic volcanics, minor shale and limestone
- 2 Triassic shale and limestone
- 3 Glacier
- 4 Till and moraine
- Mineralized zones or structures
- ▲ Cairn
- □ Outcrop sample
- ⊿ Sub-outcrop or localized float sample
- ○ Glacier-borne float sample

The number next to each sample location refers to the suffix n in the sample numbering system used in the text and in the geochemical analysis reports (i.e. HW88-n or HW89-n)

0 100m 200m 300m 400m 500m

Survey by Topographic Map and Air Photography