ASSESSMENT REPORT
on
GEOLOGICAL AND GEOCHEMICAL STUDIES
on the
BLASTER, WAR EAGLE, and WAR EAGLE II MINERAL CLAIMS

Alberni Mining Division, B.C.
N.T.S. 92 F/3W
49°11'N, 125°25'W

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1.0 Introduction

1.1 Location and Access

The Blaster, War Eagle, and War Eagle II mineral claims, in the western part of Vancouver Island, are reached via Highway #4 (Figure 1.1). The access logging road from the highway is 57 kilometers west of Port Alberni and 43 kilometers east of Ucluelet, and is controlled by a locked gate owned by MacMillan Bloedel, Ltd. The logging road crosses Kennedy Creek and two kilometres south reaches the Blaster claim; an unmaintained logging road in very poor condition continues to rejoin Highway 4 about 6 kilometers further south. Spur logging roads to the west along Olympic Creek give good access to most of the Blaster Claim except the upper part of Devil's Club Canyon. The War Eagle and War Eagle II claims to the west have no road access, and are reached by foot from the road network on the Blaster claim.

1.2 Topography, Climate, and Physiography

The topography is rugged, with elevation ranging from 150 metres at the southeast corner to over 1000 metres on the ridge just north of the western part of the property. Major peaks in the region are Steamboat Mountain (1494 metres) three kilometres to the north and Hidden Peak (1465 metres) two kilometres to the southwest. The Blaster claim is drained by Olympic Creek and Devil's Club Creek which join Kennedy River 800 metres east of the property boundary. Both these creeks and their major tributaries have carved steep-walled canyons, which are difficult to access from the sides. They are difficult to traverse at anything but low water-level and impossible at high-water level during the rainy season and high-runoff seasons. Many of the canyons are along major fault and/or shear zones. The War Eagle and War Eagle II claims are drained by northwest flowing tributaries of Clayquot River. The climate is mild, with up to 275 centimetres of precipitation annually, mainly from October to April; this is rainfall except during the middle of winter when snowfall is significant, especially at higher elevations.

The area was covered by the Wisconsin ice-sheet, which flowed southwestward across Vancouver Island and carved much of the present topography. The lower parts of the property are covered by a mantle of unsorted gravel and clay averaging 2 to 4 metres thick. Partly decomposed organic matter sits on this material, or less commonly on broken or solid bedrock. Nowhere is developed a truly residual soil, which means that soil sampling is not an effective exploration tool on the property. Outcrop is almost continuous in canyons, abundant in other creek valleys and moderate on hillsides.

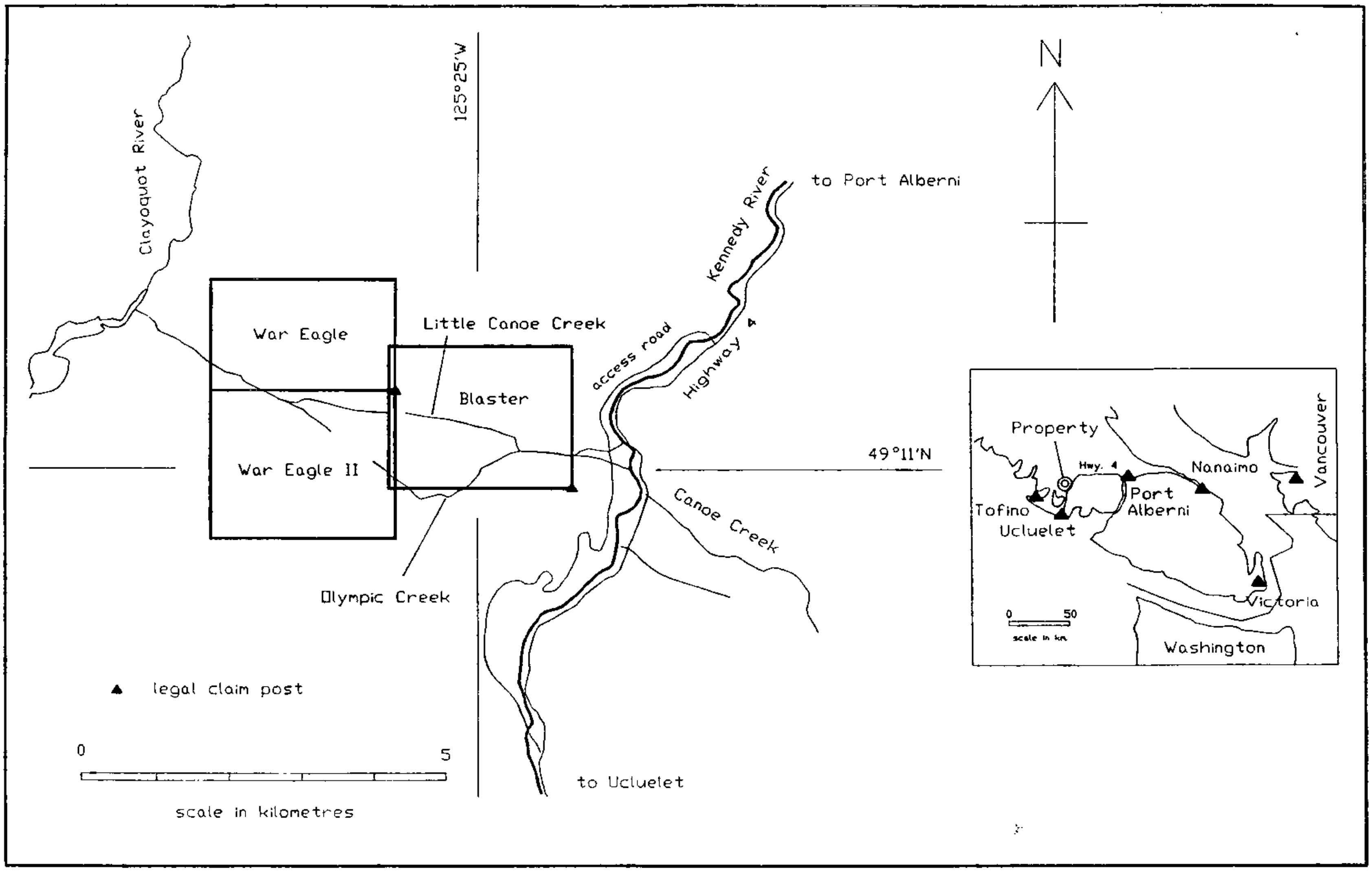

Figure 1.1 Location and Claim Map

The rain forest cover of cedar, spruce, and hemlock has been logged along much of the Olympic Creek basin. The canyon of Olympic Creek contains much timber debris including large logs which fell into the creek during logging and logging-induced and natural landslides from the adjacent steep slopes; this debris created dams in the creek, which blocked normal runoff and created thick patches of gravel and boulders upstream. One of these debris zones now covers the main outcrop zone of the Elite II zone.

1.3 Claim Status

The claims are shown on Figure 1.3. The Blaster claim (Tenure No. 200388) was sold by Ken Gourley to Britannic Mining Corporation on May 5, 1995. The War Eagle (Tenure No. 330212) and War Eagle II (Tenure No. 330211) claims were sold by Albert McKay to Britannic Mining Corporation on May 5, 1995. The claims were grouped for assessment purposes as the Gorge Group on May 5, 1995. Details of the claims are listed in Table 1.1

Table 1.1 Claim Data

Claim Name	Type	No. of Units	Tenure No.	Old Tenure	Tag No.
Blaster	4-post	20	200388	2899	124305
War Eagle	4-post	20	330212		209741
War Eagle II	4-post	20	330211		209739

1.4 Exploration History (mainly after Gonzalez, 1991 and Cremonese, 1993)

Placer gold deposits were worked along the west coast of Vancouver Island as early as the 1860s. In 1892, gold-bearing quartz veins were discovered on China Creek (40 kilometres to the east). In 1895, similar veins were discovered on Kennedy (Elk) River and Bedwell River. The first commercial production was on the Rose Marie claim, 4 kilometres south-southeast of the Blaster Claim, where, beginning in 1898, a 4-stamp mill operated for two seasons.

In 1913, the Olympic and Titanic veins were discovered just east of the Blaster claim. Intermittent discoveries and development continued in the region until the Second World War.

In 1986, Kelly Gourley staked the Blaster claim on the northwestern extension of the regional Canoe Creek Fault. In 1987, a geochemical silt survey along Olympic Creek produced anomalous gold values (up to 90 parts per billion). Prospecting led to the discovery of the Elite I quartz-pyrite-(pyrrhotite) vein and the Elite II vein and disseminated to semi-massive sulfide zone, which bear significant gold and silver.

In 1987 the property was optioned to Nationwide Gold Mines Corporation and Golden Spinnaker Minerals Corporation. Between October, 1987, and February, 1988, a program of trenching, VLF-EM surveying across the Elite I vein and the Elite II zone, petrographic analysis, and diamond drilling was done. The Elite I vein was stripped, hand-trenched, mapped, and sampled over a strike length of about 85 metres and a width of 0.3-0.8 metres. Other quartz veins (Elite II, Elite III, and Rachel) also were discovered, and the Elite II zone was sampled (Henneberry, 1987).

In 1988, ten bulk surface samples along the Elite I vein averaged 2.82 oz/ton gold (Epp, 1988). The Elite I vein and the Rachel vein were tested at depth by fourteen diamond-drill holes totaling 819 metres in length. Drill holes intersected the Elite I vein at depths up to 49 metres below the surface. The highest assay obtained was 0.39 oz/ton Au over a vein width of 32 centimetres.

In 1991, Kancana Ventures Limited optioned the property, but did not carry out a field program. After the property was returned to the owner, Kelly Gourley prospected and took rock-chip samples. He discovered 1) several auriferous quartz veins and copper-gold-bearing quartz veins in shear zones in altered Karmutsen volcanic rocks, 2) a contact metamorphic deposit of banded pyrrhotite-chalcopyrite skarn containing anomalous gold values at the contact of a dacitic volcanic rock and an inclusion(?) of Quatsino Limestone in the southwest corner of the claim block, and 3) sulfide-bearing calcite veins and quartz-calcite stringers in plutonic rocks of the Island Intrusions. Eight rock samples were submitted for petrographic analysis.

In 1993, fourteen rock-chip samples were taken from the Frog Lake zone, and seven rock samples were taken from a new discovery, the Kristen II vein, near the eastern boundary of the claim. The vein was not encountered along strike in six one-metre-deep hand trenches in overburden. A float sample of a pyritic quartz vein was taken from lower Devil's Club Creek. In 1993-1994 Kelly Gourley did prospecting on the War Eagle and War Eagle II claims.

Throughout all the previous work, no detailed geological map of the property was made, and except around the area of drilling in 1987-1988, no detailed location maps were made to show locations, widths, and grades of samples.

1.5 Work Done in This Study

All work reported in this study was done on the Blaster claim.

Detailed geological mapping and rock chip and channel sampling were done by John Payne during October and November, 1994, and by Alex Walus during April, 1995. The survey covered most of the Blaster claim at a scale of 1:5000 (area 5 km^2), with detailed mapping in the Elite II zone at a scale of 1:1000. The purpose of the program was to continue exploration of the known auriferous quartz veins and shear zones, to map pertinent parts of the property at a scale of 1:5,000, to sample newly discovered veins and shear zones for precious metals, and to develop an economic model to guide further exploration. The Frog Creek skarn zone at the southeast corner of the property also was examined briefly. Sixty-six (66) rock chip and channel samples were taken (see Appendix 1). All data were plotted on digital maps using the Autocad-R12 program.

2.0 Technical Data

2.1 Regional Geology

Most of Vancouver Island is underlain by rocks of the Insular Belt. Jones et al (1977, 1982) and Muller (1981) recognized that the lower part of the Insular Belt stratigraphy, including the Paleozoic Sicker Group and the Triassic Vancouver Group were part of an allochthonous terrain, named Wrangellia (Jones, 1977), which was derived from more southerly latitudes. Wrangellia "docked" with the North American Plate during the Early Jurassic, coincident with the deposition of the Bonanza Group andesitic volcanic rocks and contemporaneous intermediate Island Intrusions. Terrigenous sedimentary rocks overlie unconformably the volcanic rocks of the Bonanza Group.

The main members of the Vancouver Group are the Karmutsen and Quatsino Formations. The former is a thick (6000-metres) accumulation of submarine extrusive basalt (massive and pillow flows and flow breccia), related dikes and sills, and andesite to latite flows and pyroclastic rocks. In the upper part of the section are minor intercalations of limestone up to 1 metre thick. Regional metamorphism is in the greenschist facies.

The Quatsino Formation is dominated by massive to well banded, light grey to white limestone; it rests para-conformably on the Karmutsen Formation and is overlain by rocks of the Bonanza Group. It ranges in thickness from 25 metres in the northern half of Vancouver Island to 475 metres thick just north of Victoria.

The Bonanza Group volcanic rocks are mainly marine and continental andesite to latite flows, tuff, and breccia, with several interbedded clastic sedimentary sections containing Lower Jurassic fossils. The volcanic rocks are varied and heterogeneous, in contrast to the monotony of the section of Karmutsen volcanic rocks. The unit is estimated to be over 2500 metres thick.

The Jurassic Island Intrusions are mainly diorite to quartz diorite, but range from gabbro to quartz monzonite. More-mafic phases occur on margins and in deeper-seated bodies, whereas more felsic phases occur in small, high-level bodies and in cores of larger plutons. Contacts with rocks of the Karmutsen Group commonly are sharp and well defined. At contacts with the Island Intrusions, the Quatsino Limestone was contact metamorphosed to marble and numerous skarn deposits were formed. The latter are dominated by one or more of garnet, epidote, clinopyroxene, and magnetite, and some contain significant amounts of chalcopyrite and minor sphalerite and native gold.

Tertiary plutons are confined to narrow belts crossing Vancouver Island and radiating outwards from the Tofino area. These are mainly stocks less than two kilometres in diameter, dikes, and sills of medium grained, biotite quartz diorite. Carson (1969) considers that most gold-bearing quartz veins are associated with these intrusions. Outcrops are jointed conspicuously, with a bouldery or hummocky appearance due to exfoliation. Contacts with older rocks are sharp and in part sheared. Several small Tertiary stocks are present in the Kennedy River District, but none were identified on the Blaster claim.

West-northwest-trending faults of Tertiary age are prominent, and host much of the gold mineralization. In the Kennedy River area, Muller (1977) indicated several regional, divergent faults and cross faults, two of which (Mine Creek Fault and Canoe Creek Fault) cross the Blaster property.

Table 2.2.1 Legend of Geological Events

9	**Glacial and Colluvial/Alluvial Deposits**	
8v	**Late Veins, Veinlets** (probably of a few ages)	
Q *	1) Quartz-Pyrite-Pyrrhotite-(Chalcopyrite-Sphalerite-Arsenopyrite-Native Gold)	
Q *	2) Quartz-(Chlorite-Calcite)	
C *	3) Calcite	
7	**Tertiary Dikes**	
	7a	basalt/andesite, aphanitic, dark green
	7b	andesite, porphyritic, light to medium greyish green
	7c	abundant plagioclase phenocrysts (commonly in cores of large dikes)
	7d	felsite, slightly to moderately porphyritic, light grey, greyish green
	Jurassic Island Intrusions	
6v	**Associated Veins and Replacements**	
E *	epidote-(quartz-calcite) (in Units 1 and 2)	
Sk*	skarn (on contact of Unit 4 and Unit 3)	
6	**Main Stage**	
	6a	quartz diorite, diorite, granodiorite, medium grained, hornblende-biotite
	6b	same as 4a, fine to very fine grained, biotite > hornblende
	6d	aplite dikes (late stage)
5	**Early Stage (?)**	
	5a	diorite/gabbro, fine to medium grained
	5b	diorite, coarse grained to pegmatitic
4	**Triassic Quatsino Group**	
	4a	limestone, mainly recrystallized
	(Unit 4 may include interlayers of limestone in Karmutsen section)	
1-3	**Triassic Karmutsen Group Volcanic Rocks**	
3	**Andesite/Latite** (light greyish green)	
	3f	flow
	3p; 3px	porphyritic dome/intrusion; with abundant inclusions of Units 1 and 2.
2	**Andesite** (medium green)	
	2f	flow
	2Lt	lapilli tuff
	2t	tuff, tuffaceous sedimentary rocks
		2tm maroon
1	**Basalt, Andesite** (dark green)	
	1f	flow
	1fa	amygdaloidal flow
	1i	intrusion (very fine grained)
*****	indicates map symbol for veins	

2.2 Property Geology

2.2.1 Lithology and Stratigraphy

Previous geological studies were brief, and no detailed geological maps of the property had been made. During this study a tentative history of geological events was determined; this is outlined in Table 2.2.1, which also is the legend for the property geological map (Figure 2.2).

The **Karmutsen Group (Units 1 to 3)** consists of flows and pyroclastic rocks, which range in composition from basalt to latite. Insufficient stratigraphic data is available to determine an internal stratigraphy; bedding planes in thin tuffaceous and tuffaceous/sedimentary intervals commonly are steeply dipping and parallel to a weak to moderate foliation, suggesting a moderate to strong deformation and regional metamorphism in the greenschist facies. The rocks were divided in the field into three lithologic subdivisions, based mainly on color and hardness.

Basalt/andesite (Unit 1) is dark to medium/dark green in color and relatively soft, probably reflecting a high content of chlorite. Flows (Unit 1f) are massive and extremely fine grained to locally very fine grained. Some are amygdaloidal (Unit 1fa), with minor to abundant amygdules up to a few mm across of chlorite, quartz and less abundant calcite and epidote. Some rocks are very fine grained intrusions(?) or cores of thick flows (Unit 1i) and grade texturally into coarser grained diorite/gabbro, which, although mapped as Unit 5c, may be associated more closely with Unit 1. Intrusions of Unit 5c occur only in regions of rocks of Unit 1. Alteration is moderate to very strong and is dominated by epidote, chlorite, and sericite, with less abundant quartz and calcite. Many rocks of Unit 1 contain minor to very abundant veinlets and veins dominated by pale yellowish green epidote. Some larger veins also contain patches of quartz and of calcite. These veins were formed during metamorphism of the volcanic rocks during emplacement of the Island Intrusions (Unit 6).

Unit 2 is a medium green to greyish green, moderately hard andesite. Most rocks are massive flows (Unit 2f). Some of these grade into flow breccia (Unit 2fx) with fragments of aphanitic andesite in a slightly paler green groundmass. Thin interlayers are of banded tuff (Unit 2t) and lapilli tuff (Unit 2Lt) occur south of Canoe Creek Fault; these units are more abundant to the northwest. Unit 2t and 2Lt commonly have a moderately developed metamorphic foliation parallel to compositional banding. A few thin interlayers are of well bedded tuffaceous sedimentary rocks (Unit 2ts).

Unit 3 is a generally hard, light greyish green to bluish grey latite to dacite which is somewhat gradational into Unit 2. Unit 3f consists of massive, aphanitic to plagioclase-phyric flow/dome rocks. Unit 3t is a latite tuff to lapilli-tuff. Rocks contain up to 2% disseminated, extremely fine grained pyrite. In the Elite II shear zone, alteration of rocks of Units 2 and 3 is moderate to very strong to sericite with minor to locally abundant calcite and chlorite.

Unit 3p is a distinctive, massive strongly porphyritic latite to andesite intrusion, which commonly contains 5-15% fragments (Unit 3px) averaging 1-10 cm in size of dark green/grey andesite/basalt (Units 1 and 2) in an extremely fine grained, medium to dark greyish green groundmass containing very abundant plagioclase phenocrysts. In places the rock resembles a lapilli crystal tuff, but its very irregular contact with rocks of Unit 1 and the common presence of monolithic fragments of Unit 1 suggest an intrusive origin. It occurs on the upper road south of Little Canoe Creek and on the lowest switch back on the main road up the south side of Olympic Creek.

The **Quatsino Group** (Unit 4) is exposed locally in the southwest corner of the property. Although a large body was reported in previous studies, the only outcrop seen in this study was a body several metres across included in a zone of Unit 3a. The limestone has a moderate foliation (175,75 W) and is recrystallized to very fine grained marble. Along the eastern contact at the base of the cliff is a small banded skarn zone containing massive sulfide zones up to a few centimetres across of pyrrhotite and chalcopyrite. A few angular blocks of similar limestone up to 2 metres across occur in the upper stretch of Olympic Creek where it follows the regional Mine Creek Fault, and more extensive outcrop of this unit occurs further west on the War Eagle II claim (Kelly Gourley, pers.comm.).

The **Island Intrusions (Units 5 and 6)** represent a wide variety of intrusions of Late Jurassic to Early Cretaceous age.

Several small outcrop zones are of fine to coarse/pegmatitic diorite/gabbro (Unit 5). These mainly intrude rocks of Unit 1, and are tentatively interpreted as early phases of the Island Intrusions. Dominant, fine to medium grained phases are grouped as Unit 5a, and local, coarse to pegmatitic phases are grouped as Unit 5b. These rocks may be early intrusions, formed as a late-stage intrusive episode of the Karmutsen event.

The main stage of the Island Intrusions (Unit 6) is dominated by white to light grey, medium grained diorite to quartz diorite (Unit 6a) containing 7-10% hornblende and biotite, in part altered to chlorite. Near the northern margin of the main intrusion, the grain size commonly decreases to fine grained, (Unit 6b) and biotite commonly is much more abundant than hornblende. In a few localities, the intrusion (Unit 6ai) contains 5-15% subrounded andesite inclusions. In others it forms a more complex intrusive breccia (Unit 6ax) with angular to irregular fragments of Karmutsen Group andesite to basalt enclosed in and cut by quartz diorite. Near major faults, the plutonic rocks commonly are sheared moderately and bleached moderately to strongly; in these zones the altered intrusive rocks resemble similarly altered and deformed rocks of Unit 3. Along the main road, a few dikes averaging 5-7 centimetres wide are of pink aplite (Unit 6d). These generally dip gently to moderately to the south and occur in and near the quartz diorite of Unit 6; they probably are a late stage, magmatic product, derived from the same the magma chamber as the quartz diorite.

Tertiary dikes (Unit 7) averaging 1-2 metres in width and a few from 5-15 metres wide are very common in the quartz diorite but sparse elsewhere. Most are planar to locally irregular in outline and several are very irregular. Many follow fractures trending 130-160° and dipping 65-85°NE. Most are either of aphanitic, medium to dark green basalt-andesite (Unit 7, 7a) or slightly plagioclase-phyric, medium greyish green andesite (Unit 7b). These commonly are gradational; some larger dikes have a core of Unit 7b and a margin of Unit 7a. A few dikes of Unit 7b are strongly flow-banded parallel to walls of the dikes, especially near their margins. A few distinctive, wider dikes have margins of Unit 7b grading into broad cores of strongly plagioclase-phyric andesite/latite (Unit 7c). One dike is of light grey, hard, slightly plagioclase-phyric felsite (Unit 7d).

No outcrops were seen of the felsic Tertiary plutons, described by Carson (1969) as being genetically associated with the gold-bearing quartz veins. The nearest intrusion is about three kilometres to the southwest (Muller, 1977).

2.2.2 Structure

The property is cut by three major, steeply dipping zones of faulting and shearing (See Figure 2.2). The Mine Creek Fault Zone cuts across the southwest corner of the property and separates rocks of Units 1 and 5 to the southwest from those of Units 3 and 6 to the northeast. The Canoe Creek Fault Zone follows the upper part of Little Canoe Creek, then cuts overland to cross the lower part of Olympic Creek just east of the eastern margin of the Blaster claim. The Elite Fault Zone follows the east-west section of Olympic Creek and to the west up a prominent gully; in this part of the zone it separates Karmutsen Group rocks to the north from quartz diorite of the Island Intrusion to the south. To the southeast on the main road, the contact of the quartz diorite intrusion and the Karmutsen volcanic rocks is a fault, which may be a splay off the Elite Fault.

The fault zones are complex, and are best seen in the major creek valleys. In a few places discrete gouge-filled faults were seen, mainly in the Elite Fault Zone. The faults commonly range from 1 to 5 cm in width, but just above the junction of Olympic and Little Canoe Creeks the main zone widens to 20-40 cm. Enclosing the fault in Olympic Creek is a zone of moderately to strongly foliated rocks averaging 5-10 metres and locally up to 20 metres wide. This includes sheared and locally brecciated andesite, latite, and possibly quartz diorite (Units 2s, 3s, and 6s, respectively), which were altered to sericite, chlorite, carbonate, and quartz.

In much of the Elite Fault Zone the foliated zone occupies the entire width of the canyon of Olympic Creek. The foliation commonly trends 100-130° and dips steeply to the north-northeast. This is consistent with a dominantly left-lateral, strike-slip movement along the shear zone. Contortion of foliation is seen immediately adjacent to the fault, suggesting continued or repeated movement over a long period of time. In the Elite II zone, a splay of the shear zone trends into the north wall of the canyon, and may connect with a 1-metre-wide shear zone in the lower part of Little Canoe Creek just above the junction with Olympic Creek. In places along the canyons, shearing is minor to absent. To the southeast of the Kristen II vein, the Elite Fault zone trends into the south wall of the canyon and reappears on the logging road to the south, trending 110-120° and dipping steeply to the north.

The Canoe Creek Fault occurs in a regional topographic depression which extends along the upper stretch of Little Canoe Creek and continues southeastward through a shallow topographic depression just northeast of the Elite I vein. The fault probably truncates the Elite I vein, as no indication of the vein exists to the northeast of the fault in a zone of good outcrop. Northwest of the Elite I vein, within a few metres of the fault, the host rock is foliated moderately to strongly, whereas further from the fault, foliation is absent to very weak. To the southwest, the Canoe Creek Fault crosses the lower part of Olympic Creek in a major fault and shear zone 1 metre wide and continues to the southeast of Kennedy River up Canoe Creek.

Numerous smaller faults cut the rocks at a variety of angles, mainly striking 150-180°, and dipping steeply to the east. One well exposed fault striking south-southwest and dipping 60° northwest marks the southeastern boundary of the main quartz diorite intrusion.

2.3 Au-Ag Mineralization

2.3.1. In Quartz Veins away from Major Fault/Shear Zones

The Elite I, Elite III, Rachel, and Kristen I veins occur in fractures in volcanic rocks near but not in major faults and shear zones. The Bald Eagle, Bald Eagle II, and Frog Creek veins occur in fractures well away from major faults. The fractures in which these veins occur probably were formed during movement on the fault zones, and the mineralization is considered to be genetically related to that in the fault/shear zones. Although no direct evidence is available, a heat source, probably provided by Tertiary plutons, was associated with the formation of the auriferous quartz veins and lenses.

The Elite I Vein is hosted in massive to weakly brecciated, Karmutsen latite of Unit 3. It occupies a curving easterly to northeasterly trending fracture zone, which filled a tension fracture developed in the narrow block of rock between the Elite and Canoe Creek Faults. The vein has been exposed partially and sampled extensively over a strike length of 85 metres, in which it has a width from 35 to 75 centimetres. It pinches and swells slightly along strike and down dip, and is narrower at its west end. Some contacts in drill holes are marked by clay gouge. Chlorite pods and seams up to 5 mm wide are parallel to the vein. Sulfides, mainly pyrite and pyrrhotite (ratio ≈ 3/1), with minor chalcopyrite, sphalerite, arsenopyrite and galena, range from 10-30%, and occurs as pods, seams, and fracture coatings. Sulfides are concentrated moderately to strongly along vein margins, mainly along the hangingwall. Limonite and chlorite coat vein fractures; limonite is abundant in zones of high sulfide content. Gangue minerals include minor sericite and calcite, and trace biotite and jarosite. A few veinlets up to a few cm wide are subparallel to the main vein, and a few veinlets up to 1 cm wide in the adjacent wall rock are sub-perpendicular to the main vein. More than one age of quartz vein may be present. Petrographic studies made by Ken Northcote and Jeff Harris (1992) described native gold as grains averaging 10-50 microns in size in pyrite and locally in pyrrhotite, and also free grains up to 150 microns in size in quartz and locally in lenses of sericite. In quartz and sericite native gold also forms wispy threads. A mineral suspected optically of being bismuth telluride occurs with native gold, was confirmed in this study by scanning electron microprobe (S.E.M) analysis to be bismuth telluride.

Below the western end of the Elite I vein is a small outcrop of another quartz vein (previously named Elite III vein). This is parallel to the Elite I vein (104,78°N) and is 10-15 cm in width. The shape and orientation of this vein have been misplotted on some previous maps. The Rachel Vein, which was intersected northwest of the Elite I vein in the upper parts of a few drill holes in the 1987-1988 program, is irregular and discontinuous. It locally contains up to 3% pyrite, 5% calcite, and 1% chlorite and generally contains only minor values in precious metals. Limonite is common in fractures and lining vugs.

The Kristen I Vein is exposed over a length of 8 metres and is up to 0.5 metres wide. It is dominated by quartz with patches of pyrite, pyrrhotite, and chalcopyrite. A petrographic study (this report) shows the sample to be a coarse grained quartz vein containing patches up to a few cm across of pyrite and much less abundant chalcopyrite (altered locally to covellite) and minor sericite. Electrum and native gold occur as minor grains averaging 10-30 microns in size intergrown with chalcopyrite in fractures in pyrite. Sphalerite forms a few grains up to 0.02 mm in size associated with chalcopyrite and contains blebby exsolution patches of chalcopyrite averaging 1-2 microns in size. Quartz commonly contains dusty inclusions and shows slightly strained extinction; a few grains are recrystallized slightly to extremely very fine grained patches. Quartz interstitial to pyrite clusters commonly is very fine grained and lacks dusty inclusions, suggesting that it was recrystallized.

Scattered throughout the Blaster claim are other veins of quartz or calcite from 5-60 centimetres thick. The largest of these, the Bald Eagle vein, occurs in quartz diorite along the upper, southwest-trending part of Olympic Creek. Locally it contains lenses of pyrite and pyrrhotite, a few of which are auriferous. The veins cut across two subparallel dikes of Unit 7a, and the dike is displaced a few centimetres along the veins. Calcite veins are later than quartz veins, and are barren of sulfides.

2.3.2 In Major Fault/Shear Zones

The Elite II Zone and Kristen II Vein occur in the Elite Fault Zone.

Detailed geological mapping, prospecting, and rock chip sampling were done by Alex Walus of a section 550 metres long in the Elite Fault zone between the junction of Little Canoe Creek and Olympic Creek to just below the easting of the Elite I vein. Alteration ranging from weak to very strong to sericite, chlorite, carbonate, and quartz. Carbonate (mainly iron-bearing calcite) commonly weathers a bright orange-brown color. Numerous carbonate veinlets from 1 to 5 mm wide are parallel to foliation. Sulfides are mainly fine grained, disseminated pyrite averaging 0.5-1.0% and, locally, a trace of pyrrhotite. West from the junction of Little Canoe and Olympic Creeks, the Elite Fault zone continues but is narrower and has no related sulfide or precious-metal mineralization.

The Elite II zone is a 40-metre-long section averaging 10-15 metres wide along the Elite Fault zone, about 100 metres east of the junction of Little Canoe and Olympic Creeks. The central and western parts of the zone are covered by a log jam and gravel debris. In the Elite II zone, foliation is stronger and sulfides more abundant than elsewhere along the Elite Fault zone. Towards the north side of the Elite II fault are three zones of very intense, late shearing several cm wide and up to 13 metres long. These are parallel or cut at low angle the foliation of the main zone. Pyrite content averages 1 to 2% and locally is from 4-5%. A few lenses up to 20 cm in width and a few tens of cm long are of quartz vein material with 2-20% sulfides (mainly pyrite and much less abundant pyrrhotite).

Grab samples reported to have been taken from the part of the canyon floor which now is beneath the log jam contain up to 20% disseminated pyrite (= semi-massive sulfide) with gold values up to 2-3 oz/ton (Ken Gourley, pers.comm.). However, unavailable are assays, sample locations, and detailed descriptions of the nature and width of these samples.

The Kristen II vein is a lensy quartz vein up to several metres long and 50 cm wide containing moderately abundant patches of sulfides, mainly pyrite (after pyrrhotite) with locally abundant chalcopyrite. Samples with the highest values in pyrite also contain the highest values in precious metals. A petrographic analysis (this study) shows this to be a medium to coarse grained quartz vein containing patches rich in pyrite and less abundant ones rich in chalcopyrite and in pyrrhotite. Minor sulfides are sphalerite and galena. No native gold or electrum were identified. Quartz shows moderately strained and recrystallized textures with a weak foliation, suggesting that it was deformed during the shearing which occurred in the host rock. Pyrrhotite is altered completely to secondary Fe-sulfide-(oxide) assemblages with typical replacement textures. Minor silicates include patches of montmorillonite and much fewer ones of biotite/muscovite.

2.4 Geochemistry

2.4.1 Summary of previous studies

A summary of previous assays of the veins, shear zones and altered rocks is given in Table 2.4.1. Those in the Elite I vein zone and drill holes are well documented with respect to location and width of sample, the others are not.

Table 2.4.1 Summary of Previous Assays

A: Surface

Location	No of samples	Length m	Width cm	Assay (oz/ton) Au	Ag	Reference
Elite I (East)	10		62	0.866		Henneberry (1987)
		27	54	1.28	≈1	Epp (1987,1988)
	10	bulk		2.82		Epp (1987,1988)
Elite I (West)	10	11	39	0.78	0.35	Henneberry (1987)
Elite I (composite)	3			1.12	1.09	Gonzalez (1991)
Elite I (composite)	6			1.38	1.24	Gourley (in Gonzalez, 1991)
Elite II						
sulfide-rich lens #1	1		30	0.064		Henneberry (1987)
sulfide rich lens #2	2		110	0.508		Henneberry (1987)
sulfide-rich lens	1		grab	3.57	2. 38	Henneberry (1987)
Grab A	1		grab	0.98	-	Gonzalez (1991)
Grab B	1		grab	2.53	2.98	Gonzalez (1991)
hangingwall composite				0.066	0.062	Gonzalez (1991)
Kristen II Vein	1		grab	0.46	0.55	Gonzalez (1991)

B: Drill Holes (Pawliuk, 1988)

Hole	Vein	Intersection	Width (cm)	Sulfides (%)	Au (oz/t)	Ag
EL-88-1	Elite I (E-ce)	34.54-35.18	64	5-10	**0.201**	**0.62**
EL-88-4	Elite I (E-w)	40.45-40.80	35	20	**0.227**	0.14
EL-88-5	Elite	43.80-44.08	35	20	**0.326**	**0.37**
EL-88-6	Elite I (W)	50.63-51.30	73	1	**0.280**	**0.33**
EL-88-9	Elite I (W)	43.88-44.22	1(a few)	-	0.087	**0.57**
EL-88-11	Elite I (W)	45.79-46.79	100 (of 105)	1	0.074	0.08
EL-88-12	Elite I (W)	34.43-34.98	55	1	0.108	0.12

Gold values and the width of the Elite I vein at depth are significantly lower than corresponding values at the surface. The few samples of altered wall rocks adjacent to the vein which were assayed generally show background values in gold (0.005 oz/t or less). Also some of the narrower quartz veins and some intervals of wider veins also are not anomalous. Two surface samples are slightly anomalous (20-30 ppm) in bismuth, one from each of the Elite I and Elite II zones.

2.4.2 Results from this study

Sixty six (66) samples were collected for analysis for gold and silver from veins, shear zones, faults, and altered rocks (see Figures 2.4.1, 2.4.2, and 2.4.3 and Appendix 1). The JK series are from mapping by Payne, and the AW samples are from mapping by Alex Walus, which focussed strongly on the Elite Fault zone. All outcrops in the Elite Fault zone from the junction of Canoe and Olympic Creeks to a point 550 metres to the east were sampled, and two chip samples were collected from the extension of the fault west of the junction. The AW series of samples also was analyzed for tellurium.

Of the 16 chip samples taken from the main part of the Elite II zone, 8 samples returned over 100 ppb gold and up to 3.3 ppm silver. The chip samples with the highest values contain lensy quartz veins up to 10 cm thick with 10-20% pyrite. Two samples from these veins confirm that much of the precious metals and tellurium occur in the vein material. Almost all samples from the Elite Fault zone outside the Elite II zone returned background values in gold and silver.

Of the 33 samples collected elsewhere on the property, most anomalous samples come from auriferous veins. These include the known Kristen I and Kristen II veins and new showings in the Bald Eagle II and Frog Creek veins. Sample AW-45, a float sample of silicified breccia with 1-2 % pyrite assayed 278 ppb gold and 3.5 ppm silver. Two anomalous samples were taken of boulders in Olympic Creek just east of the border of the Blaster claim. Sample AW-53 of quartz float with 1-2 % pyrite assayed 5333 ppb gold and 1.2 ppm silver, and Sample AW-54 of float with 2-3 % chalcopyrite returned 0.8 % copper, 18 ppb gold and 2.5 ppm silver. Sample AW-53 may have come from the Elite I or similar vein. Sample AW-54 may have come from the Kristen II vein.

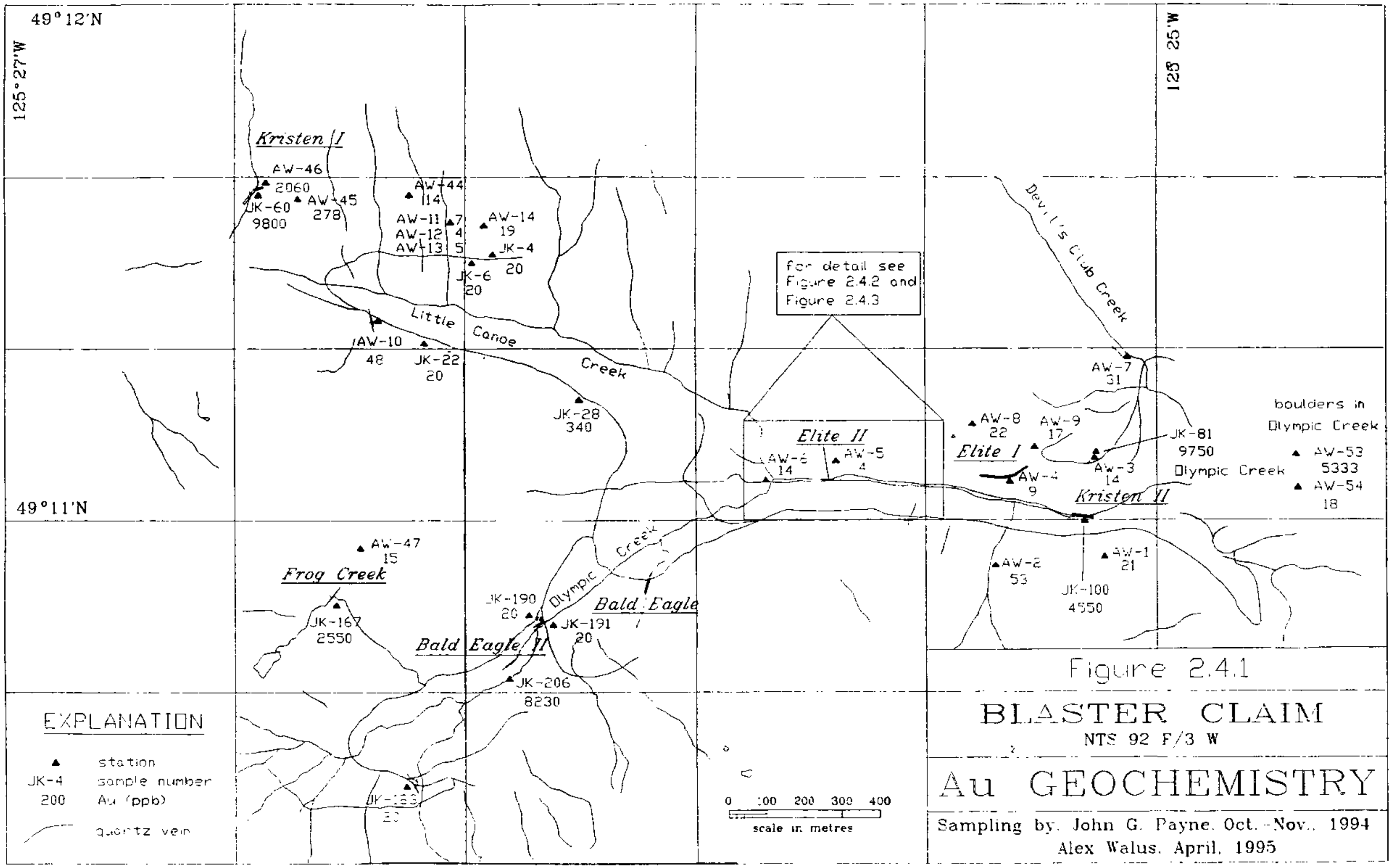

Figure 2.4.1

BLASTER CLAIM

NTS 92 F/3 W

Au GEOCHEMISTRY

Sampling by. John G. Payne. Oct.-Nov., 1994
Alex Walus. April, 1995

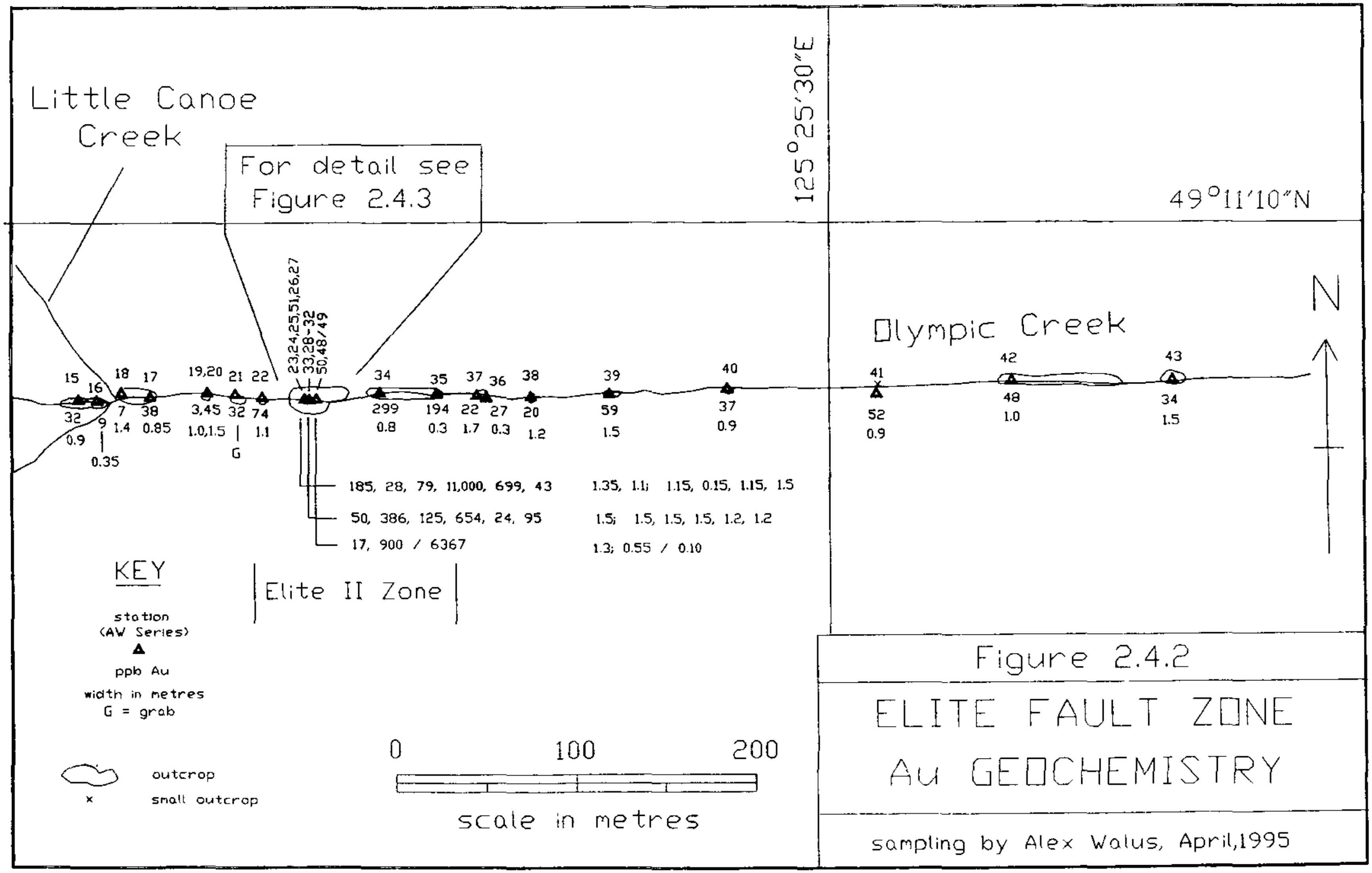

Figure 2.4.2
ELITE FAULT ZONE
Au GEOCHEMISTRY

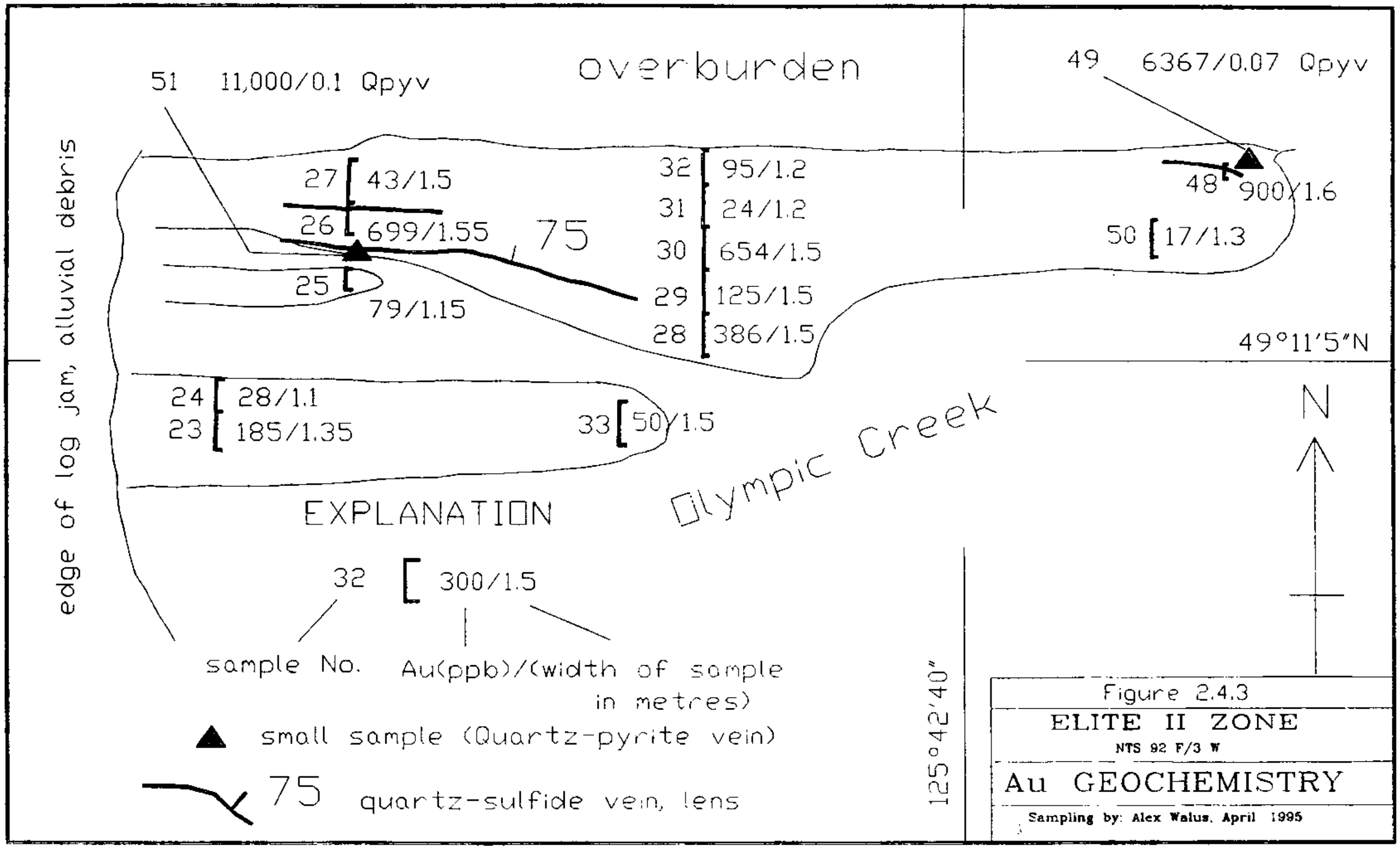

Figure 2.4.3
ELITE II ZONE
NTS 92 F/3 W
Au GEOCHEMISTRY
Sampling by: Alex Walus, April 1995

2.5 Conclusions

1. The major regional structures which cross the property are complex zones of faulting and shearing, and are in part en-echelon and braided in nature. Shearing occurred before, during, and after emplacement of the auriferous quartz veins.

2. Two types of targets exist for precious-metal mineralization, typified by the Elite I and Elite II zones, respectively. In the former, native gold and electrum occur with sulfides in quartz veins which occupy tension fractures in unsheared host rock between zones of strong shearing along the regional and sub-regional faults. In the latter, native gold and electrum occurs with sulfides in quartz lenses subparallel to foliation in the sheared rocks within major fault zones, and to a much lesser extent in the sheared rocks.

3. The economic potential of lensy zones of the Elite II type depends on the possibility that parts of the shear zones contain economic mineralization over a width of at least a few metres, and a strike length and depth of the order of 100-200 metres. In order for such a zone to be economic, it would have to contain a large number of quartz-sulfide lenses, and probably an elevated level of precious metals in the sheared rocks as well. The Elite II Zone is the best target of this type on the Blaster claim. Similar targets are expected in the War Eagle and War Eagle II claims along the three major faults which cross those claims.

4. Targets outside the shear/fault zones are the blocks of rocks between and near the major fault/shear zones, especially the block between the Canoe Creek and Elite Fault Zones, and further to the west near the junction of the Mine Creek Fault and Canoe Creek Faults (The Elite Fault probably extends into this zone as well). These blocks are expected to contain other veins of the Elite I type. Previous VLF-EM geophysical surveys indicated a series of weak anomalies just northwest of the Elite I vein. Preliminary data from previous drilling indicates that the unsheared host rock in this region does not contain anomalous gold. For such zones to be economic, veins would need to be closely spaced, or larger and more continuous than the Elite I vein. The grades of the bulk surface samples in the Elite I vein are moderate to very high, but without sufficient width, depth, and lateral continuity, such veins in themselves would not be economic except for very small-scale mining.

5. Other parts of the property are considered to have much lower potential for economic precious-metal mineralization. However, it is possible that other veins may be present, and in future exploration work, all new ones found which contain significant sulfides should be assayed. As well, limonitic faults should be sampled, and if auriferous, should be considered targets for diamond drilling to determine if they widen at depth.

2.6 Recommendations

1. A preliminary diamond drilling program should be carried out to test the Elite II zone at a depth of about 50 metres below the level of the canyon floor. Although it is not an ideal location because the Elite II zone is suspected to dip steeply to the north, financial constraints require that the preliminary drilling be done from the main road south of the Elite II zone. One or two holes will be drilled to test the zone. Further drilling of this zone would be conditional on positive results from this preliminary study.

2. Trenching should be done along the northeastern extension of the Elite I vein zone, to uncover this zone to the northeast of the end of the known showing and to determine what occurs where the Elite I vein reaches the Canoe Creek Fault.

3. Prospecting should continue on the War Eagle and War Eagle II claims. Geological mapping and sampling of veins, shear zones, and altered rocks should be done on the claims.

4. Detailed geological mapping should continue in the zone between the Elite and Canoe Creek Faults to test for the possibility of more veins of the Elite I type. Any veins containing over 2% sulfides should be sampled and trenched if preliminary samples are anomalous.

John G. Payne, PhD
May, 1995

2.7 References

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2.8 Appendix 1 Sample Descriptions and Assays

Sample No.	width (cm)	Assay Au (ppb)	Assay Ag (ppm)	Description
AW-1	G	21	0.1	moderately sericite-chlorite altered andesite lapilli tuff with 1-2% disseminated pyrite.
AW-2	G	53	0.1	strongly sericite altered latite tuff with 5-7% disseminated pyrite.
AW-3	G	14	<0.1	2-3 cm wide calcite vein.
AW-4	G	9	0.1	5 cm wide, weakly limonitic quartz vein.
AW-5	G	4	<0.1	2-5 cm wide, brecciated quartz vein with some limonite .
AW-6	G	14	<0.1	angular float of andesite lapilli-tuff with 10% pyrite.
AW-7	10	31	<0.1	shear zone partly replaced by quartz with minor limonite.
AW-8	G	22	0.1	5 cm wide quartz-calcite vein with minor chlorite and limonite.
AW-9	G	17	0.1	5 cm wide quartz vein with trace limonite.
AW-10	280	48	0.1	silicified andesite tuff with 3-5 % pyrite.
AW-11	80	7	0.1	quartz vein with minor chlorite and limonite.
AW-12	80	4	0.1	same vein as Sample AW-11.
AW-13	20	5	0.1	quartz vein with minor chlorite and limonite.
AW-14	10	19	0.2	quartz vein with minor chlorite and limonite.
AW-15	90	32	0.1	sheared sericite-carbonate altered rock with 1-2 % pyrite.
AW-16	35	9	0.1	sericite-clay fault gouge.
AW-17	85	38	<0.1	moderately sheared and sericite-carbonate altered diorite with up to 3% disseminated pyrite.
AW-18	140	7	0.1	sheared andesite (?) with 1-3 % pyrite. Strong sericite-chlorite alteration.
AW-19	100	3	0.1	moderately sheared sericite-carbonate altered rock with <1% pyrite.
AW-20	150	45	0.1	moderately sericite-chlorite altered andesite tuff with <1% pyrite.
AW-21	G	32	0.1	Same locality as Sample AW-19
AW-22	110	74	0.3	strongly sericite-carbonate altered latite tuff (?) with 2-3% pyrite.
AW-23	135	**185**	0.2	strongly sericite-carbonate altered rock with 1-2 % disseminated pyrite.
AW-24	110	28	<0.1	sericite-carbonate altered rock with 2-3% pyrite cut by ankerite veinlets 1-5 mm wide.
AW-25	70	79	<0.1	strongly sericite-carbonate altered rock, with trace pyrite.
AW-26	115	**699**	**3.3**	strongly sericite-carbonate-(chlorite)- altered rock with minor pyrite and limonite; includes a 5-cm-wide quartz vein with 15-20% pyrite.
AW-27	90	43	1.4	strongly sericite-carbonate altered rock with minor pyrite and limonite.
AW-28	50	**386**	**2.1**	very strongly sericite-carbonate altered rock with 2-5% pyrite; cut by a few 2-4 mm wide carbonate veinlets.
AW-29	150	**125**	1.5	sericite-carbonate altered rock with 5-7% pyrite as disseminations and streaks along schistosity planes.
AW-30	150	**654**	**2.8**	sericite-carbonate-(chlorite) altered rock with 1% pyrite.
AW-31	150	24	1.7	sericite-carbonate-(chlorite) altered rock with 1% pyrite.
AW-32	120	95	0.3	sericite-carbonate-(chlorite) altered rock with 1% pyrite.
AW-33	150	50	0.1	sericite-carbonate altered quartz diorite (?) with <1% pyrite; cut by 2-4 mm wide carbonate veinlets.
AW-34	80	**299**	1.3	strongly sericite-quartz-carbonate altered rock with <1% pyrite.
AW-35	30	**194**	0.2	strongly sericite-quartz-carbonate altered rock with <1% pyrite.

(continued)

Appendix 1 (continued)

Sample No.	width (cm)	Assay Au (ppb)	Assay Ag (ppm)	Description
AW-36	30	27	0.2	strongly sericite-carbonate altered quartz diorite(?) with 2-3% pyrite; cut by carbonate veinlets.
AW-37	170	22	<0.1.	strongly sericite-carbonate altered quartz diorite(?) with 2-3% pyrite; cut by carbonate veinlets.
AW-38	120	20	0.8	sericite-(chlorite) altered rock, 1-2% pyrite, cut by carbonate veinlets.
AW-39	150	59	0.4	strongly sericite-carbonate-(chlorite) altered andesite(?) with 1% pyrite.
AW-40	90	37	<0.1	moderately sheared and carbonate-sericite altered quartz diorite with minor limonite.
AW-41	90	52	0.1	strongly sericite-carbonate-quartz altered rock with 2-3 % pyrite and trace pyrrhotite.
AW-42	100	48	<0.1	sericite-chlorite schist, 2-3% pyrite; several 1-3 mm carbonate-quartz veinlets along schistosity.
AW-43	190	34	<0.1	strongly, silicified feldspar-phyric andesite with 1-2% disseminated pyrite.
AW-44	20	14	<0.1	weakly limonitic quartz vein.
AW-45	G	**278**	**3.5**	angular float of silicified breccia with a few vugs filled with pyrite, 1-2% pyrite overall.
AW-46	20	**2060**	**4.8**	Kristen I quartz vein with 15-20% semi-massive pyrite
AW-47	G	15	<0.1	float of vein quartz with minor limonite + wad.
AW-48	55	**900**	1.6	sheared latite, moderately sericite-carbonate altered; contains a 7-cm-wide quartz vein with 10% pyrite.
AW-49	7	**6367**	**8.1**	7-cm-wide quartz vein with 10 % pyrite included in Sample AW-48.
AW-50	130	17	1.1	sericite-carbonate altered rock, with 0.5% pyrite.
AW-51	10	**11000**	**28.5**	10-cm-wide quartz vein with 20 % pyrite and trace scorodite.
AW-52	15	15	0.3	sericite-dominated fault gouge.
AW-53	G	**5333**	1.2	50-cm boulder of vein quartz with 1-2 % pyrite in Lower Olympic Creek.
AW-54	G	18	2.5	30-cm boulder of carbonate-quartz-(chlorite) rock with 2-3% chalcopyrite.

Samples AW-1-54 also were analyzed for Te, and Sample AW-54 was analyzed for Cu. Significant results from these analyses are: AW-49: 8 ppm Te, AW-51- 37 ppm Te (background is <5 ppm Te); AW-54: 0.80% Cu.

Sample No.	width (cm)	Assay Au oz/T	Assay Ag oz/T	Description
JK-4	30	<0.001	0.01	shear zone with minor quartz veinlets and limonite
JK-6	6	<0.001	0.01	fault, abundant limonite
JK-22	20	<0.001	0.01	shear zone, minor limonite
JK-28	30	0.010	1.07	gouge, minor limonite
JK-60	20	**0.288**	**0.92**	Kristen I vein (quartz-pyrite)
JK-81	5	**0.280**	**0.73**	curved fault zone, abundant limonite, quartz veinlet
JK-100	10	**0.134**	**1.09**	Kristen II vein (quartz-pyrrhotite-chalcopyrite)
JK-167	20	0.075	0.08	Frog Creek vein (quartz-pyrite)
JK-183	10	<0.001	0.01	quartz-chlorite-pyrite vein in granodiorite
JK-190	5	<0.001	0.02	Bald Eagle II vein (quartz-pyrite)
JK-191	10	<0.001	0.01	Bald Eagle II Vein (quartz)
JK-206	10	**0.242**	**1.03**	Bald Eagle Vein II (rubble from upper showing)

3.0 Cost Statement

Salaries

John Payne	20 days @ 450	$9,000	
Alex Walus	15 days @ 250	3,750	
Kelly Gourley	12 days @ 200	2,400	
subtotal		**15,150**	
GST		**1,060.50**	
Total		**16,210.50**	**$16,210.50**

John Payne, 1994: October 13-15, 18-20 field, October 21-25 office, November 10-11 field)
1995: March 24, April 28 field: April 29, May 3-12 (4 days total - office)
Alex Walus 1995: March 24, April 4-14, April 28 field; April 15-17 office)
Kelly Gourley 1994: October 13-15, 18-20, November 4-8, April 28 field)

Food and Accommodation (variable rates per day)

	food	**accommodation**	**transport**	
October 13-15, 1994	100.08	169.30	333.21	
October 18-20	120.86	126.50	346.10	
November 4-8	31.30	45.81	231.01	
November 10-11	39.61	100.00	257.94	
March 24, 1995	-	-	137.25	
April 4-14	153.24	155.00	154.00	
April 28	32.49	-	247.55	
Totals	**477.58**	**596.61**	**1707.06**	**$ 2,781.25**

Analyses

Petrographic Analyses		
Vancouver Petrographics	$ 927.09	
S.E.M. Analysis (Cominco Exploration)	144.45	
Chemical Analyses		
Chemex (12 samples @ ≈$21 per sample)	250.38	
IPL (47 samples @ ≈$23 per sample)	1083.64	
IPL (5 samples @ ≈$23 per sample)	115.05	
Total	**$ 2520.52**	**$ 2,520.52**

Other Costs

Eagle Mapping (air photos)	126.54	
Map reproduction: Accu-Scan	44.40	
Field Supplies Deakin	15.69	
Report binders, paper, reproduction	25.00	
Saw Rental (Vancouver Petrographics, April 28, 1995)	50.00	
Total	**239.43**	**$ 239.43**

TOTAL	**$24,541.62**

4.0 Certificate of Engineer

I, **John G. Payne**, do hereby certify,

1. I live at 877 Old Lillooet Road, North Vancouver, B.C., V7J 2H6

2. In 1961, I received a B.Sc. in Geological Engineering at Queen's University, Kingston Ontario.

3. In 1966, I received a Ph.D. in Geochemistry at McMaster University, Hamilton, Ontario.

4. I have been a Fellow of the Geological Association of Canada since 1970.

5. I have practiced the profession of geology continually since graduation, based in British Columbia, and focussed mainly in mineral exploration in the North American Cordillera.

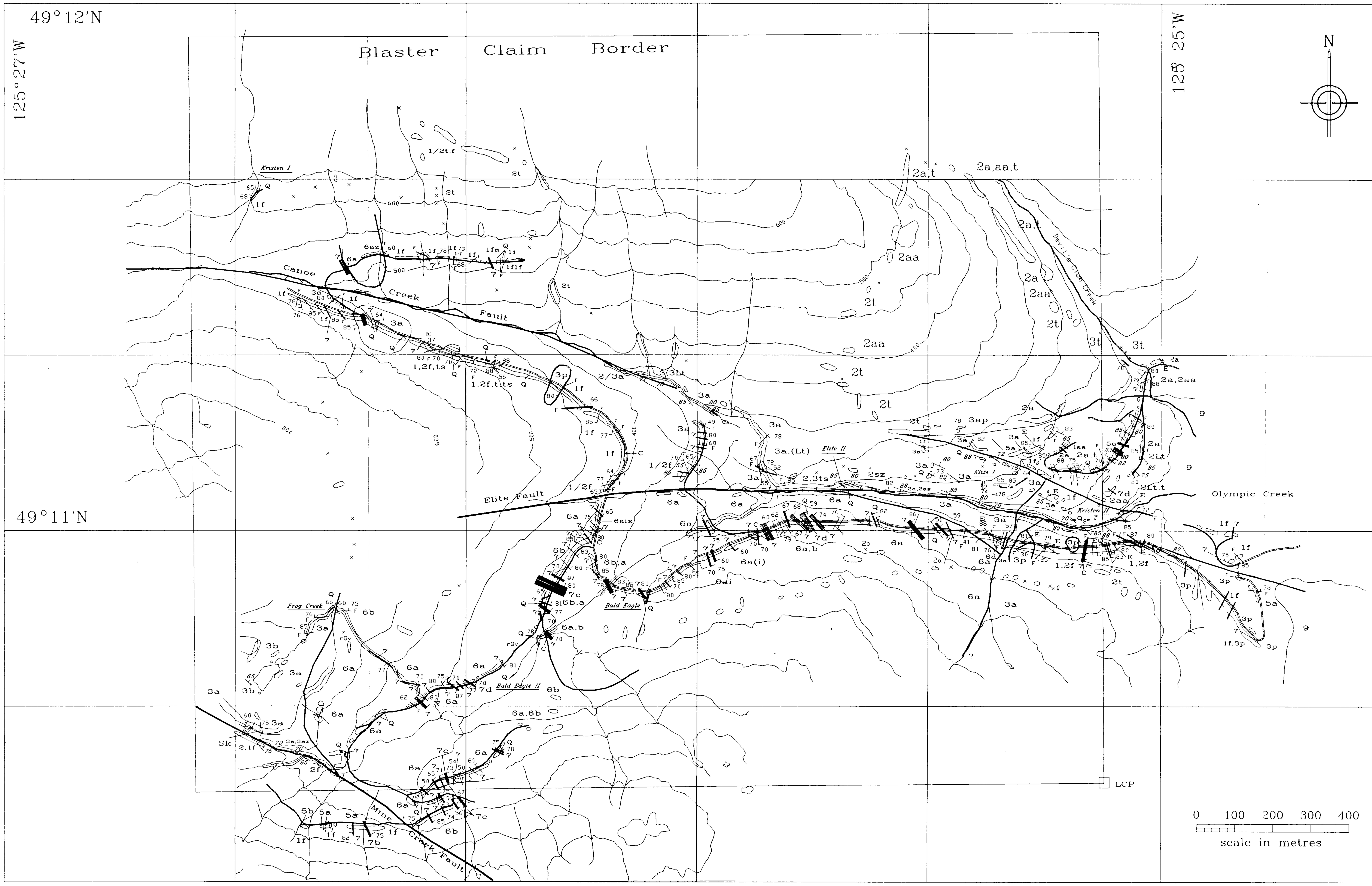
6. This report is based on field work I did on the Blaster claim in October to November, 1994, and on work which I supervised by Alex Walus in April, 1995.

7. I have no financial interest in the Blaster Claim Group or in Britannic Mining Corporation, nor do I intend to acquire any such interest.

Dated in North Vancouver, May 12, 1995

John G Payne

John G. Payne, Ph.D.
(604)-986-2928



Legend of Geological Events

9 **Glacial and Colluvial/Alluvial Deposits**

8v **Late Veins, Veinlets** (probably of a few ages)
Q * 1) Quartz-Pyrite-Pyrrhotite-(Chalcopyrite-Sphalerite-Arsenopyrite-Native Gold)
Q * 2) Quartz-(Chlorite-Calcite)
C * 3) Calcite

7 **Tertiary Dikes**
- 7a basalt/andesite, aphanitic, dark green
- 7b andesite, porphyritic, light to medium greyish green
- 7c abundant plagioclase phenocrysts (in cores of large dikes)
- 7d felsite, slightly to moderately porphyritic

Jurassic Island Intrusions

6v,sk **Associated Veins and Replacement Deposits**
E * epidote-(quartz-calcite) (in Units 1 and 2)
Sk* skarn (on contact of Unit 4 and Unit 3): pyrrhotite-(chalcopyrite)

6 **Main Stage**
- 6a quartz diorite, diorite, granodiorite, medium grained, hornblende-biotite
- 6b same as 4a, fine to very fine grained, biotite > hornblende
- 6d aplite dikes (late stage)

5 **Early Stage (?)**
- 5a diorite/gabbro, fine to medium grained
- 5b diorite, coarse grained to pegmatitic

4 **Triassic Quatsino Group**
- 4 limestone, mainly recrystallized

(Unit 4 may include interlayers of limestone in Karmutsen section)

1-3 **Triassic Karmutsen Group Volcanic Rocks**

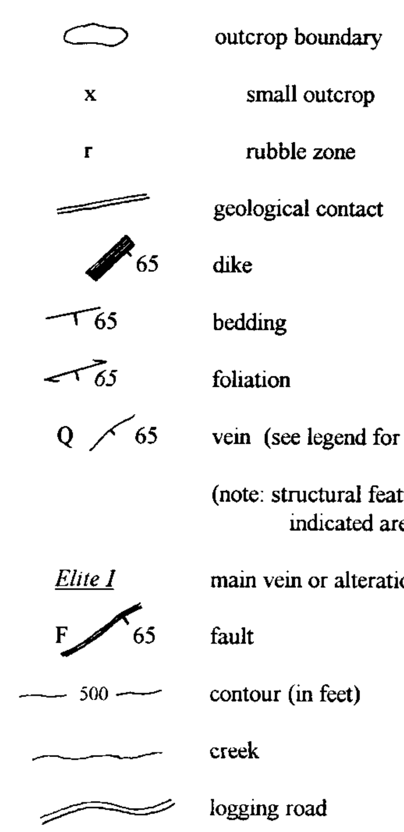
3 **Andesite/Latite** (light greyish green)
- 3f flow
- 3p porphyritic dome/intrusion, inclusions of Units 1 and 2.

2 **Andesite** (medium green)
- 2f flow
- 2Lt lapilli tuff
- 2t tuff, tuffaceous sedimentary rocks
- 2tm maroon

1 **Basalt, Andesite** (dark green)
- 1f flow
- 1fa amygdaloidal flow
- 1i intrusion (very fine grained)

* indicates map symbol for veins

Symbols



GEOLOGICAL BRANCH
ASSESSMENT REPORT

23,931

Figure 2.2.1

BLASTER CLAIM

NTS 92 F/3 W

GEOLOGY

Geology by: John G. Payne, Oct.-Nov., 1994
Alex Walus, April, 1995