PORPHYRY INTRUSIVE SYSTEM
WITH
COPPER-GOLD MINERAL POTENTIAL

HARVEY PROPERTY

TATLAYOKO LAKE, BRITISH COLUMBIA
EXPLORATION POTENTIAL
CONFIDENTIAL OVERVIEW

June, 1992

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NTS 92N/9W
92N/10E

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TABLE OF CONTENTS

FIGURE

APPENDIX

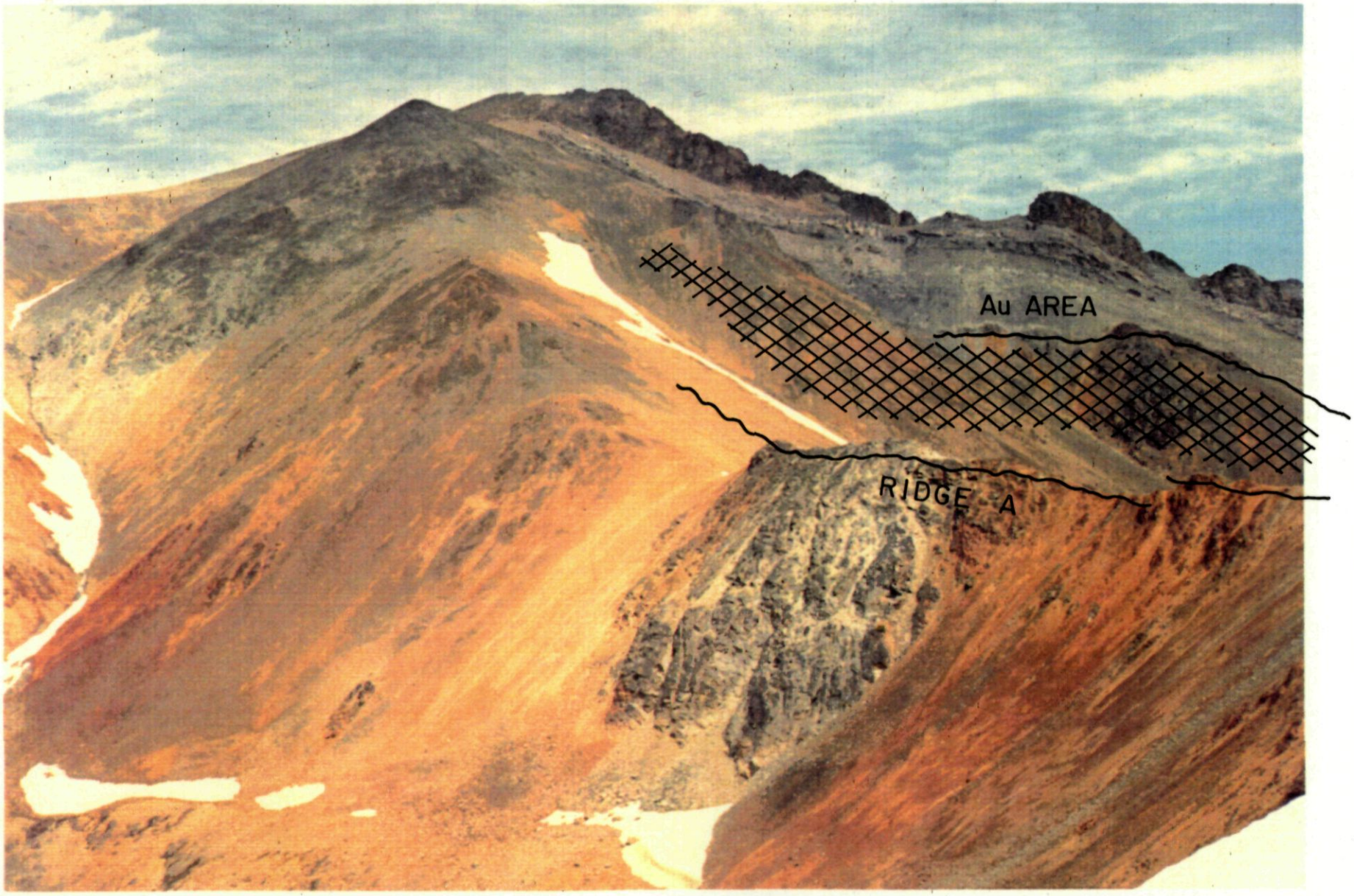

FIGURE 1 - PART OF GOSSAN ZONE SHOWING UNEXPLORED GOLD BEARING AREA

HARVEY GROUP MINERAL CLAIMS
EXPLORATION POTENTIAL
CONFIDENTIAL OVERVIEW

1.0 SUMMARY

The Harvey Group property has the potential for hosting a large porphyry type mineral deposit containing copper and gold, or copper. The potential appears to be at depth.

The property also has the potential for hosting both mesothermal and epithermal gold deposits in quartz veins and quartz carbonate veins within structurally prepared zones within the influence of an extremely large zone of intense propylitic alteration.

Part of the extensive gossan development formed as a results of a large and strong hydrothermal system that permeated this target area is exemplified by the reproduced photograph of Figure 1.

2.0 SALIENT GEOLOGICAL FEATURES AND PORPHYRY POTENTIAL

Pervasive, and in places intense, propylitization occurs throughout the Harvey Property and its immediate vicinity. The solution source for this classic phase of hydrothermal alteration was undoubtedly driven by a subcropping porphyry which was in all likelihood localized by the Tchaikazan Fault zone.

Thin section work by Simpson and Price (1982) from an extensive suite of surface rock samples from a large area of the property showed that the entire suite of samples were highly propylitized and contained abundant epidote followed by chlorite, leucoxene, carbonates, sericite, pyrite and other minerals common to this type of alteration.

Subsequent to the diamond drilling of five holes (1974) on a strong copper geochemical anomaly, within the zone of propylitization, and which defined a very low grade copper deposit, thin section work by Kremko (1974) on representative core samples showed that all samples were intensely altered and had been recrystallized obscuring their original mineralogy. Alteration was for the most part propylitic and is representative of that which commonly occurs around a mineralized porphyry as a zoning feature.

Original lithology appeared to be sedimentary; mostly arkosic greywacke, arkosic quartzite, arkosic conglomerate and quartzite and sedimentary material that had been so granitized that the original mineralogy was difficult to ascertain. Only one sample of a suite of 13 could be positively identified as quartz diorite porphyry.

According to Boyle (1976) most epigenetic gold deposits formed in rocks younger than Mesozoic are characterized by enormous irregular zones of pervasive proplyitization.

Bruneau (1974) describes an intrusive contact between quartz diorite and volcanic rocks of intermediate to basic composition and a sedimentary series. The quartz diorite occupies the southwest corner of the property. The quartz diorite, volcanics and sediments appear to be all intruded by a maze of quartz diorite porphyry dykes in orthogonal sets ENE and WNW. This entire assemblage is further intruded by feldspar quartz porphyry dykes which strike EW and dip steeply to the north. The quartz diorite porphyry dykes where sheared and brecciated are injected with carbonate. Similarly later feldspar quartz porphyry dykes are injected with carbonate veinlets.

Although Bruneau stated that the relationship between the batholith and the quartz diorite porphyry dykes is unknown he postulated that the tykes represented apophyses from the batholith. In terms of probabilities this may be a misinterpretation as the scenario is also reminiscent of the roof-zone of a large

porphyry system which is characterized by the classic propylitic alteration facies of chlorite, epidote, carbonate, albite along with quartz, biotite, sericite and some kaolinization of feldspars; all of which are demonstrably present in the surface rocks and near surface rocks of this large system.

The contact area is very close to the Tchaikazan Fault, a major structural break in the earths crust. It is along or near such structural breaks that large mineralized porphyry systems are most likely to be found.

Although the present evidence is meagre in quantity only, not quality, the quartz veins and quartz-carbonate veins recently sampled (July, 1991) which are located about 4,000 feet east of the Ridge Copper Zone appear to represent either transitional-mesothermal or mesothermal style mineralization rather than epithermal mineralization as the anomalous gold and silver lithogeochemistry is accompanied by geochemically significant copper, molybdenum, lead and zinc.

The target porphyry responsible for all of its geological indicators; eg. intense propylitization of the area, the maze of episodic intrusive dykes found on the surface and more recently the quartz and quartz carbonate vein system with mesothermal character; is in all likelihood closer to the present surface than originally thought, hence deeper drilling could result in its discovery.

Diamond drilling would necessarily be preceded by further and aggressive surface exploration.

3.0 GOLD POTENTIAL

The richest gold producing camp in the Canadian Cordillera came from the Bridge River area approximately 93 miles (150 km) southeast of the Harvey Claim area. Gold production here exceeded 4 million ounces.

The gold veins were characteristically Mesothermal with resultant quartz vein host rocks having been emplaced along fault zones. The heat and solution source was from a nearby intrusion. The mineralizing episode which caused the development of the rich gold quartz veins in this camp is believed to be contemporaneous with the emplacement of the Coast Plutonic Complex (Leitch & Godwin, 1988).

The Harvey property area and vicinity may be ideally structurally prepared to host a large mesothermal gold deposit in addition to the porphyry potential.

Major fault structures, the Tchaikazan Fault and the Niut Fault Zone essentially bracket the property from the southwest and northeast respectively. The Niut Fault splays from the Tchaikazan Fault about 5.6 miles south of the property and may be comprised of as many as four somewhat parallel structures. A number of transcurrent fault structure are believed to cross connect the Tchaikazan Fault with the Niut Fault Zone and with faulting believed to be contemporaneous with mineralizing intrusive activity the resultant dilatant zones provide the host structures for the deposit of quartz, sulphides and gold and silver.

The westerly striking gold bearing quartz veins and quartz-carbonate veins found in the gold zone provide evidence in support of this mechanism at work on this property as well as the geochemically anomalous Creek Zone where the gold appears to be hosted by intensely silicified breccia zones.

Boyle (1974) describes a mechanism for the formation of certain gold-silver epithermal deposits in which late faulting and fracturing probably coeval with propylitization caused by intrusive activity results in the mobilization and migration of silica from zones of propylitization. The consequence of this propylitization is contemporaneous mobilization, migration and concentration of gold, silver, and base metal sulphides into lodes. The source of the elements includes the metal components of volatiles from the igneous intrusions and the zones of propylitization.

Given the enormous zone of propylitization on the Harvey Claims and vicinity the resultant effect could be a large lode gold system, not unlike the Bralorne system, within the myriad of structurally prepared zones that should subcrop the Harvey Claim area.

4.0 LITHOGEOCHEMICAL RESULTS FROM GOLD ZONE RECONNAISSANCE

Sample	ppm						ppb	
	CU	Pb	Zn	Mo	As	Ag	Hg	Au
H91-7	42	23	41	11	24	3.4	-	280
H91-8	69	55	230	8	65	5.2	-	430
H91-9	37	1032	442	8	74	6.3	-	290
H91-10	15	14	11	363	27	0.3	-	54
910724-5	762	2284	611	6	3	25.2	790	159
910724-7	302	87	103	5	66	1.8	9750	746
910724-8	92	195	340	7	26	1.5	20	11
910724-10	2132	4	39	1	4722	10.0	115	1782
109827	1011	2	53	18	45	0.8	715	400
109828	289	2	17	27	25	0.4	385	190
Average	475	370	189	45	*39		*405	434

* Extreme values not included

APPENDIX

LITHOGEOCHEMICAL & GEOLOGICAL RECONNAISSANCE ON THE HARVEY GROUP MINERAL CLAIMS

N.T.S. 92N/9W & 92N/10E
CLINTON MINING DIVISION

LATITUDE:	**51° 37' NORTH**
LONGITUDE:	**124° 30' WEST**
OWNER:	**S.E. APCHKRUM**
OPERATORS:	**808 EXPLORATION SERVICES LTD.**
	PLACER DOME INC.
	J.M. ASHTON
AUTHOR:	**J.M. ASHTON, P. ENG.**
CONSULTANT:	**B.G. RICHARDS, P. ENG.**
SUBMITTED:	**29 May 1992**

Prepared by:

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Suite 201
518 Beatty Street
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LITHOGEOCHEMICAL & GEOLOGICAL RECONNAISSANCE

ON THE

HARVEY GROUP MINERAL CLAIMS

TABLE OF CONTENTS

TABLE OF CONTENTS

MAPS

SECTION 1.0 INTRODUCTION

As has been reported by others and is obvious to anyone overflying or in the proximity of Niut Mountain near the northwest side of Tatlayoko Lake is the extensive gossan development that extends from its southern flanks. The several gossan zones display a host of characteristic colours including deep brown, reddish brown and yellowish brown caused by the products of oxidation (after pyrite) of subcropping and outcropping sulphide zones.

The gossans are produced from a variety of rock types most all of which contain variable amounts of disseminated and fracture filled pyrite and locally copper minerals. The geological relationship of the various rock types appears to be complex but includes intrusive diorite and granodiorite, of unknown age and quartz diorite porphyry and feldspar quartz porphyry of late Cretaceous or early Tertiary age (perhaps Eocene) which intrudes into a volcanic and sedimentary assemblage of Triassic to Cretaceous age.

The Harvey Group mineral claims cover the main locus of gossan development which has to this date received only a small amount of exploration attention.

The first recorded work on a portion of the gossan zone was by T.E. Lisle, P.Eng. in 1972 following its introduction by E. Scholtes, a prospector from Williams Lake. Mr. Scholtes had apparently prospected the area on several occasions over the preceding years. He had originally staked the property in 1968 on behalf of a syndicate made up of the companies Newconex and New Jersey Zinc.

The work conducted by Lisle in 1972 led to a five hole (2,230 feet) drilling program in the summer of 1973 designed to test the Ridge Copper Zone from which surface samples had yielded copper values between 0.10% Cu and 0.66% Cu across 1200 feet.

The drilling program was successful in delineating a very low grade copper deposit with some geochemically anomalous gold values within quartz diorite porphyry having a nominal dimension of at least 250 feet by 500 feet and possibly open to the northwest and northeast.

A thin section alteration study (Simpson and Price, 1982) which involved the collection, study and assay of 63 samples over a broad area which overlapped the 1973 drilling zone concluded that regionally the area is dominated by epidote alteration with some chlorite, sericite and carbonate development (propylitic alteration). Around the area of anomalous copper is more extensive chlorite and sericite alteration with the development of serpentine.

Although the area of gossan development is quite extensive, most of the recorded work appears to have been confined to the area of the Ridge Copper Zone, its vicinity and areas to its northwest and southeast.

Mr. E. Scholtes the prospector who staked the original claims in 1968 over the gossan area which included the Ridge Copper Zone described to this writer a system of quartz veins he had located several years later about 4,000 feet easterly from the Ridge Copper Zone. Upon assay several samples showed anomalous gold values between 200 ppb and 965 ppb. One sample assayed 4,220 ppb Au, 16.4 ppm Ag and 2,393 ppm Cu.

Following acquisition of the Harvey Group Mineral Claims in April 1991, Placer Dome Inc. was invited to re-examine the property with particular attention to be paid to the area of the gold bearing quartz veins.

The helicopter supported field examination took place over a three day period; 24,25 and 26 July 1991 and is the subject of this report.

The team leader Mr. Ron Wells, B.Sc., F.G.A.C Consulting Geologist was accompanied by field support staff Mr. Murray Rydman and Mr. Paul Watt. Mr. J.M. Ashton, P. Eng. provided initial field guidance and sampled the quartz vein area.

SECTION 2.0 LOCATION & ACCESS

The Harvey Group Mineral Claims are located approximately 175 air miles (282 km) in a north northwest (340° Azimuth) direction from Vancouver, British Columbia near the northwest side of Tatlayoko Lake.

The centre of the claim group is located about 8.6 miles (14 km) southwest from the north end of Tatlayoko Lake.

The north end of Tatlayoko Lake is located about 100 miles westerly from Williams Lake, British Columbia and is accessible on good grade secondary road from Williams Lake.

A rough logging road extends part way down the west side of Tatlayoko Lake. The east boundary of the Harvey Claims are located about 2.2 miles (3.5km) west of this road, and access to the claims is either on foot or by helicopter from this location.

Two helicopter companies presently service this area; Northern Mountain Helicopters at Williams Lake, and White Saddle Air Services Ltd. located at Tatla Lake about 22 miles (36 km) northerly. Northern Mountain Helicopters often has a summer base at the north end of Chilko Lake about 15 miles (24 km) to the east.

SECTION 3.0 PROPERTY & OWNERSHIP

The Harvey Group mineral claims are comprised of the following claims with expiry dates as shown subject to acceptance of this report:

Mineral Claim	Units	Record Number	Tenure Number	Expiry Date
Harvey 1	12	3633	209394	30 April 1995
Harvey 2	12	3634	209395	30 April 1996
Harvey 3	6	3635	209396	30 April 1995
Harvey 4	6	3636	209397	30 April 1995

The mineral claims are held by record in the name of S.E. Apchkrum of Vancouver, British Columbia.

SECTION 4.0 EXPLORATION HISTORY

1968 to 1969 — Mineral Claims were staked by E. Scholtes of Williams Lake for a syndicate comprised of Newconex and New Jersey Zinc. The claims were allowed to lapse following examination.

1972 — Noranda Exploration Company Ltd. conducted a regional silt sampling program which included the Niut Mountain gossan zone.

Vanco Explorations Limited (NPL) (Vanco) staked the Fly 1 to 14 mineral claims in August 1972, and conducted a limited program of rock sampling and geological mapping particularly focused on the ridge copper zone and cirques.

Assay results (Lisle, 1972) showed surface copper values between 0.10% and 0.66% along a 1200 foot strike length of the ridge copper zone. A limited (6,000 feet) magnetometer survey was completed.

1973/74 Vanco staked an additional 22 Fly claims in July and August bringing the total group to 36 claims.

Vanco Explorations Limited (Bruneau, 1974) completed 2,230 feet of BQ size core diamond drilling in five holes on the ridge copper zone between July 28 and September 9, 1973. Drill Hole VF-1 (492' TD) averaged an estimated 0.02% Cu. Drill Hole VF-2 (499' TD) averaged an estimated 0.08% Cu to 0.09% Cu. Drill Hole VF-3 (501' TD) averaged an estimated 0.07% Cu. Drill Hole VF-4 (482' TD) averaged an estimated 0.03% Cu. Drill Hole VF-5 (236' TD) averaged an estimated 0.015% Cu. Drilling for the most part intercepted quartz diorite porphyry. Some geochemically anomalous gold and silver values were found in drill holes VF-2, VF-3 and VF-4. The drilling report recommended further drilling.

1982 Vanco Explorations Limited conducted a small program of rock specimen collection and related geochemical and thin section study to evaluate the alteration facies present. (Simpson and Price, 1982).

1987/88 I.M. Watson & Associates Ltd. (Watson, 1988) conducted a geochemical reconnaissance over the Gossan 1 & 2 mineral claims (30 units) in August 1987. The Gossan claims were staked by P. Mooney in January 1987.

Most rock samples were taken along the 1,000 metre westerly striking ridge zone. Results correlated with earlier work that showed a moderate area of very low grade copper mineralization.

One significant gold assay (1,990 ppb Au) was obtained from a piece of rusty, angular quartz float in the westerly drainage feature located about 900 m northwest of the ridge copper zone.

SECTION 5.0 PHYSIOGRAPHY & OUTCROP

The Harvey Group mineral claims occupy a high ridge area that connects with Niut Mountain (el 8815 ft) about 2.5 miles (4.0 km) to the northwest. The ridge from Niut Mountain extends south easterly then southerly. It is along this southerly extension that the Harvey claims are located. The ridge which more or less bisects the claim group has two prominent elevations at 8700 feet at the north end and 7600 feet at the south end separated by a distance of about 1.5 miles (2.4 km).

Property elevation varies between 6000 feet (1830 m) and 8700 feet (2650 m) on the west side from Jamison Creek and 5500 feet (1680 m) and 8700 feet (2650 m) on the south east side so maximum relief is about 3200 feet (980 m). Mineralization can be traced along the ridge at about 6900 feet (2100 m) elevation. Slopes are moderate to steep.

Most locations on the property once snow cover has melted are accessible by foot with careful route planning from suitable helicopter landing zones however under snow conditions traverse attempts can be dangerous.

Outcrop is plentiful along the upper prominences and cirque walls however along slope and cirque bottoms talus obscures the underlying bedrock.

It is estimated that between five to fifteen percent of the property has exposed outcrop.

Drainage channels west of the ridge line flow westerly into a south trending tributary of Jamison Creek which then intercepts the southeasterly main branch to flow into Tatlayoko Lake. Drainage channels east of the ridge line flow southeasterly and directly into Tatlayoko Lake about 2.4 miles (3.9 km) to the east. Tatlayoko Lake is about 2700 feet (820 m) above sea level.

SECTION 6.0 REGIONAL GEOLOGY

The regional geology is depicted by the Geological Survey of Canada Open File 1163, Mount Waddington Map Sheet, (Roddick and Tipper, 1985). See Figure 3.

The claims are located about 10 miles (16 km) northeasterly from the eastern margin of the northwest-trending Coast Plutonic Complex. This intrusive complex consists of a number of distinct plutons and a Central Gneiss Complex as shown on the GSC map including granite, granodiorite, tonalite, quartz diorite and diorite and their variations.

The Klinaklini Pluton is that member of the Coast Plutonic Complex which is located about 10 miles westerly from the property and in the intermediate area intrudes an assemblage of volcanic and sedimentary rocks from Triassic to Cretaceous and younger. The volcanic and sedimentary sequence which overlies the property area are shown as Cretaceous and younger, and are comprised mostly of andesitic and basaltic breccia and tuff of the Kingsvale Group.

The property lies within the western half of a 22 mile wide major northwest trending fault zone that borders the east side of the Klinaklini Pluton. About 11 miles (18 km) to the northwest of the property is found the most easterly of the major faults, the Yalakom Fault which is known to be more that 140 miles (225 km) long and may exceed 250 miles (400 km) in length.

To the southwest of the property almost at its southwest corner is the parallel Tchaikazan Fault located 12.5 miles (20 km) southwest of the Yalakom Fault. This fault has a strike length of more than 105 miles (170 km). Approximately 5.6 miles (9 km) south of the property the Niut Fault splays off from the Tchaikazan Fault, strikes north and passes through the northeast corner of the property. A variety of other sub-parallel fault structures, fault splays and transcurrent fault zones are found within the described 22 mile wide major north-west trending fault zone.

The structural evolution of this region can be best summarized by a direct quotation from G.P. McLaren's 'A Mineral Resource Assessment of the Chilko Lake Planning Area' which describes the geology of the Chilko-Taseko Lakes Area 25 miles (40 km) southeast of the Harvey Property.

> "The structural evolution of the area is related to Middle to Late Cretaceous uplift and closure of the Tyaughton trough in response to terrane collisions along the continental margin. Transcurrent fault displacements developed in the Albian or later, as the trough was compressed. Emplacement of Cretaceous intrusions in the Coast Complex led to northeasterly facing thrusting along some of these zones of weakness and the broad synformal warping of the area in general."

SECTION 7.0 ECONOMIC GEOLOGY

As described by McLaren, 1990, the region to the southeast of the Harvey Group mineral claims described as the Chilko Lake Planning Area has been interpreted as being a small segment of a convergent plate margin where two of the earth's major tectonic plates have collided.

The margin extends northwesterly and southeasterly for considerable distances and passes through the area of the Harvey claims. Along the margin during the Cretaceous Period convergence of the two terranes, the one arriving from the west and the other, the continent of North America, caused the subduction of oceanic crust from the Pacific beneath the continent. Convergent plate margins create volcanic island arcs in association with increased igneous activity through the partial melting of oceanic crust. Well defined belts of plutonic and volcanic rocks along extensive fault zones, as found here, result from this process.

Mineral deposits common to convergent plate margins include epithermal and mesothermal vein deposits and porphyry deposits, and where unique geological conditions prevail skarn and volcanogenic massive sulphide deposits can also occur.

Mineral deposits of economic significance or of potential economic significance associated with this environment and found in the region include:

Porphyry Types

Fish Lake Porphyry - Geological Reserves 600 million tons, 0.32% Cu, 0.016 oz/ton Au

Poison Mountain Porphyry - Geological Reserves 175 million tonnes, 0.33% Cu, 0.015% Mo, 0.3 g/tonne Au

Westpine Metals Porphyry - Geological Reserves 11,078,000 tons, 0.61% Cu, 0.023 oz/ton Au

Mesothermal Vein Deposits

Bridge River Area (including Bralorne gold deposit) - over 4 million ounces Au produced.

The area where the Harvey Group claims are located has the potential to host porphyry type mineral deposits and/or epithermal or mesothermal vein deposits

SECTION 8.0 LOCAL GEOLOGY & MINERALIZATION

Geological mapping by Y. Bruneau, 1974 describes a large quartz diorite intrusive underlying the southwest portion of the property. The intrusive was interpreted to be the southwest nose of the Klinaklini Pluton as shown on the Geological Survey of Canada Mount Waddington sheet. This pluton of uncertain age strikes northwesterly.

The northeast portion of the property is comprised of white rocks of unknown origin and intermediate to basic volcanic rocks consisting of agglomerates, breccias and tuffs.

The quartz diorite and the volcanic rocks are intruded by a maze of quartz diorite porphyry dykes in orthogonal sets striking west-northwest and east-northeast with steep dips to the north.

The quartz diorite porphyry dykes are themselves intruded by numerous small feldspar quartz porphyry dykes.

Thin section work by Price in 1982 showed that the volcanic rocks are comprised of acid to intermediate flows and related pyroclastics with intercalated siliceous sediments. The volcanic rocks have been intruded by several acid igneous phases causing varying degrees of alteration.

Regionally there is a dominance of epidote alteration with some chlorite, sericite and carbonate development. Alteration intensifies around the areas of copper mineralization within the claim group and includes a change in alteration facies to extensive chlorite and sericite development and the development of serpentine.

The northwesterly striking Tchaikazan Fault cuts across the southwest corner of the property and separates the quartz diorite intrusive from the Kingsvale Group volcanics to the south west. The northwesterly striking Niut Fault and a complex array of splays cut across the northeast section of the property. These major fault structures have in all likelihood influenced the emplacement of the quartz diorite porphyry dykes and the subsequent feldspar quartz porphyry dykes.

The porphyry intrusives are known to carry modest amounts of pyrite and chalcopyrite mainly on fractures but also as disseminations.

The intruded volcanics are known to contain upwards to 10% pyrite with 2% to 3% pyrite most common. Zones of pyritization are visually evident by the extensive and intensive gossan development on the property and beyond. Most gossans occur in close proximity to quartz saturated diorite sills and dykes.

According to Wells, 1991: the strongest copper mineralization appears to be the Ridge Copper Zone where there is widespread fracture controlled chalcopyrite, malachite, azurite and pyrite.

The 'gold zone' east of the main ridge exhibits generally weak but locally strong easterly trending quartz-carbonate vein stockworks in andesitic flows and fragmental units. Sulphides are sparse.

To the southeast of the Ridge Copper Zone about 2600 feet (800 m) along the Creek, the Creek Zone, another area with dioritic intrusions shows widespread silicification and argillic alteration with local development of hydrothermal breccias and much disseminated pyrite.

Large chip samples from the Ridge Copper Zone (Vanco, 1972, reported a wide zone averaging 0.66% Cu) returned copper values between 0.11% Cu and 0.29% Cu with barely anomalous gold. These results are comparable to the 1974 Vanco drilling results.

SECTION 9.0 LITHOGEOCHEMICAL SAMPLING & GEOLOGICAL MAPPING

General

The initial objective of this reconnaissance exploration of the Harvey Prospect was to confirm the existence and location of an unexplored gold bearing quartz-carbonate vein system reported to be located about 4,000 feet (1,200 m) easterly from the partially defined Ridge Copper Zone and sample and map the key geological features in reconnaissance fashion.

Secondary objectives included investigation of a well developed gossan along the creek area which separates the quartz-carbonate vein area from the Ridge Copper Zone and that area surrounding the Ridge Copper Zone of which little or no published data is available.

The gold bearing quartz vein area which is proximal to a partially defined very low grade porphyry copper deposit could in itself represent an associated precious metals mineralizing system of the epithermal or mesothermal type which may be recognized by a combination of geological features and unique indicator elements.

A total of 26 rock chip and/or grab samples representing a linear length of 320 feet (97.5 m) and 20 grab samples were obtained from three areas of the property over a three day period. Simultaneously an amount of geological mapping was completed. The sample locations, traverse routes and associated geology are shown on the maps included with this report.

Samples gathered by Placer Dome Inc. were described by Mr. Ron Wells, B.Sc., F.G.A.C. and samples gathered by J.M. Ashton were described by Dr. R.E. Gale, P.Eng.

SECTION 10.0 GEOLOGICAL DESCRIPTION OF ROCK SAMPLES

Sample Location	Lab. Number	Description	Sample Type
20	109812	Medium green, fine grained, feldspar porphyritic andesite. Sparse sulfides. Sample comes from a strong fracture zone with 75% fracture controlled pyrite (fine).	5m chip Az 280
21	109813	Silicified grey feldspar porphyritic, quartz-diorite-Dark chloritic groundmass, >1% disseminated pyrite (very fine).	3m chip Az 270
22	109814	Silicified coarse feldspar porphyritic diorite, chloritic xenoliths, fracture controlled sulfides (fm) local malachite.	grab
23	109815	Fractured and silicified quartz-diorite, >5% fm fracture controlled pyrite, chalcopyrite, malachite, strongly altered.	4m chip Az 270
24	109816	Mixed feldspar, porphyritic diorite and copper stained volcanics scree slope; variable silicification and sulfide content. (COPPER ZONE).	25m chip/ grab (horizontal)
25	109817	Mottled grey, white, medium coarse grained diorite, Fracture controlled fine sulfides, local malachite.	4m chip
26	109818 whole rock	Finer feldspar porphyry, weak to moderate, propylitic alteration with epidote veinlets. Spotty m/c magnetite, fine carbonate veinlets.	
27	109819	Northern edge of dyke - crowded feldspar porphyry local quartz eyes. Fracture controlled pyrite >1%	3m chip

Sample Location	Lab. Number	Description	Sample Type
29	109820	Strong silicification, brecciation, 1% fine fracture controlled pyrite.	grab
30	109821	Strongly silicified andesite, strong fracturing with fine fracture controlled pyrite.	3m chip
3.3	109822 whole rock 109823	Dark feldspar porphyry, white tabular to anhedral feldspar phenocrysts to 7mm. Dark speckled fine grained groundmass, very fine disseminated pyrite, weak fracturing.	6m chip
3.4	109824	Pervasive silicification, patchy clay alteration Original rock feldspar porphyry. Disseminated pyrite.	5m chip
3.5	109825	Breccia, Angular fragments to 2cm, silicified, local argillic alteration. Darker grey fine silified matrix. Fragments are matrix supported. Very fine disseminated pyrite.	5m chip
3.6	109826	As above but matrix is darker, less silicified Fragments are more angular with less silica and more argillic alteration. Disseminated pyrite.	3m chip
3.7	109827	Medium to light grey green, silicified andesite textures obscured. Sparse disseminated pyrite.	15m chip
3.8	109828	Brownish grey, silicified andesite. pervasive alteration, fine pyrite along fracture.	2.0m chip
3.9	109829	Strongly silicified, grey quartz diorite, 5-8% fine disseminated pyrite.	3.0m chip
3.1-01	109830	Fine feldspar porphyry-andesite, 3-5% fracture controlled pyrite, few specks of chalcopyrite, sphalerite, patchy carbonate.	2.5m chip
3.1-02	109831	Strong silicified feldspar porphyritic diorite >5% fm - disseminated pyrite.	1.5m - 2.0m chip

Sample Location	Lab. Number	Description	Sample Type
3.1-03	109832	Like 3.4 very black, fine grained matrix. Large angular volcanic and intrusive fragments. locally silicified.	grab
Fly-01	109804	Contact zone on south side of a large quartz diorite dyke. Moderate to strongly fractured silicified patchy dark chlorite, 1-5% disseminated and fractured controlled pyrite (fmc)	2m chip
Fly-02	109805	Heterolithic fragmental. Moderate to strong silicification obscuring textures, 1-5% disseminated and fractured controlled pyrite (fmc).	1.5m chip
Fly-03	109806	Strong silicification and chlorite alteration 1-5% pyrite (fmc) mainly fracture controlled.	2m chip
Fly-04	109807	Strongly silicified fragmental/breccia alteration obscures textures, 1-2% blebby pyrite (mk) fracture controlled.	grab
Fly-05	109808	Silicified fragmental unit, subangular clasts up to 1cm heterolithic, some clasts are clay altered most are silicified, sparse sulfides.	grab
Fly-06	109809	As above. 1-2% disseminated and fracture controlled pyrite.	2.0m chip
Fly-07	109810	Fragmental (in structure) silicified feldspar porphyry (diorite), 1-3% fracture controlled pyrite. (fm)	1.5m chip
Fly-08	109811	Feldspar porphyry, chlorite, patchy silicified sparse pyrite largely fracture controlled.	2.5m chip

Sample Location	Lab. Number	Description	Sample Type
9	109801	Chlorite, epidote altered andesite with numerous carbonate veins minor quartz veins. Vein density 50 p.m^2.	1.5m chip
10	109802	Numerous westerly trending quartz-carbonate veins and vein zones. Green carbonated andesitic volcanics.	3.0m chip
11	109803	Hornblende porphyry, silicified groundmass, sparse sulfides.	grab
2	not sent in	Medium to dark green chlorite andesite with epidote alteration feldspar phenocrysts to 3mm Non magnetic. Sparse sulfides.	grab
3	not sent in	Dark green, fine, feldspar porphyry. Phenocrysts to 2mm patchy medium grained magnetite. Probably a dioritic intrusive. Propylitic alteration.	grab
4	not sent in	Medium to dark green epidote altered. Andesite feldspar porphyry, epidote veinlets, weak magnetite, sparse sulfides.	grab
8	not sent in	Medium green, medium grained to coarse, equigranular andesite-diorite. Epidote veinlets magnetic.	grab
9	not sent in	Breccia, Conglomerate with mainly carbonate cement. This sample was taken above the quartz carbonate vein zone. (sample 109801)	grab

Location/ Lab #	Description	Sample Type
910724-1	**Silicified Andesite Porphyry;** Dark green fine to coarse grained andesite porphyry with white euhedral feldspar crystals set in a dense dark green matrix. Some of the rock is brecciated and silicified in patches and along very fine fractures filled with quartz and pyrite. Iron and manganese oxides coat some fractures Pyrite content approximately 1%. The ultraviolet lamp shows no fluorescence.	grab
910724-2	**Silica-Epidote-Kaolin Rock:** possibly a more highly silicified and altered andesite porphyry. No remnant feldspar crystals are visible as the feldspars are completely altered to kaolin and epidote and the dense groundmass is completely silicified. Less than 1% pyrite occurs as very fine disseminated grains. The ultraviolet lamp shown no fluorescence.	grab
910724-3	**Quartz Vein or Acid Dyke;** barren dense white quartz vein with numerous fractures coated with brown iron oxide. One fragment contains numerous rounded quartz eyes in a dense white groundmass and could be a rhyolite or dacite dyke-rock. Under the ultraviolet lamp both specimens show patches of light blue-white fluorescence which could be caused by scheelite or powellite. One specimen also shows a light green fluorescence in small spots on an oxidized surface.	grab
910724-4	**Silica-Epidote-Kaolin Rock;** This rock is quite similar to specimen number 910724-2 but shows a few remnant areas of less-altered dark green andesite and is less strongly silicified. Under the ultraviolet lamp, no fluorescence is emitted.	grab
910724-5	**Quartz Vein and Silica Rock;** Completely silicified rock containing <1% disseminated chalcopyrite. A one cm wide veinlet of vuggy quartz-chalcopyrite cuts the silicified rock. The sulphide in the veinlet is mostly converted to malachite. Several other fractures are coated with iron oxide. A small patch of white fluorescence is associated with one area of malachite when viewed under the ultraviolet lamp.	grab
910724-6	**Hornblende-Feldspar Porphyry;** Probable dyke or other type intrusive rock. Similar to sample number one, but less altered. White euhedral feldspar phenocrysts and anhedral hornblende crystals are set in a dark grey fine grained groundmass. The rock is relatively fresh and contains no sulphides. No fluorescence is visible under the ultraviolet lamp.	grab
910724-7	**Quartz and Quartz-Calcite Vein;** One specimen is dense white strongly fractured quartz with limonite coating. Under the ultraviolet lamp, a small area of the vein shows several fine spots of light blue-white fluorescence which may be scheelite or powellite. One specimen is vuggy and composed of 90% quartz 10% calcite crystals. The calcite shows an orange fluorescence under the ultraviolet lamp. Samples are barren of sulphides.	1.5m Az 180 grab

Location/ Lab #	Description	Sample Type
910724-8	**Quartz Vein and Quartz-Veined Andesite Porphyry;** The majority of the specimens are barren-looking vuggy quartz veins with coatings of iron and manganese oxides in vugs and along fractures. Two specimens are dark green weakly altered andesite porphyry which is cut by ¼ cm wide barren quartz veinlets. Neither type of rock shows any fluorescence under the ultraviolet lamp.	3.0m Az 180 grab
910724-9	**Silica-Pyrite Rock;** Strongly silicified-pyritized rock which may have originally been an andesitic volcanic rock, based on its extremely dense texture. The rock is 100% cryptosrystalline quartz with about 3% fine disseminated pyrite cubes. No fluoressence is visible under the ultraviolet lamp.	grab
910724-10	**Silica-Pyrite Rock;** Strongly silicified -pyritized rock. Abundant sulphides and sericite alteration. May have been a volcanic rock. No fluorescence is visible.	grab

SECTION 11.0 GEOCHEMICAL ANALYSIS

11.1 General

Rock samples gathered by Placer Dome Inc. were delivered to Eco-Tech Laboratories Ltd. (Eco-Tech) near Kamloops for sample preparation and analyses.

The pulps prepared by Eco-Tech were freighted to J.M. Ashton in Vancouver for furtherance to the International Plasma Laboratory Ltd. laboratory for mercury determinations.

The rock samples gathered by J.M. Ashton were delivered to Acme Analytical Laboratories Ltd. (Acme) for sample preparation and analyses.

The Eco-Tech and Acme samples were analyzed for 30 elements by means of the inductively coupled plasma (ICP) technique

11.2 Sample Preparation

At Eco-Tech rock samples were dried, crushed, riffled to pulp size and pulverized to approximately 100% passing minus 140 mesh.

At Acme rock samples were similarly prepared by pulverizing to 100% passing minus 100 mesh.

At IPL no further sample preparation was made to the Eco-Tech pulps.

11.3 ICP Analyses

At both Eco-Tech and Acme a 0.50 gram sample was digested with 3 ml of hot aqua regia in the ratio of 3-1-2, $HCl-HNO_3-H_2O$ at 95° for one (1) hour followed by dilution of the sample to 10 ml with water.

The diluted sample was aspirated by ICP (inductive coupled plasma) and the results printed in either percent or ppm. The digestion employed in the procedure is only partial for the elements Mn, Fe, Sr, Ca, P, La, Cr, Mg, Ba, Ti, B, W, and limited for Na, K, and Al. Au detection limit is 3 ppm.

11.4 Geochemical Gold Analysis

At Eco-Tech geochemical gold was determined by conventional fire assay of ½ assay ton sample size with Atomic Absorption Spectrophotometry (AA) finish. Detection limit using this procedure is 5 ppb.

At Acme, gold analysis was by the solvent extraction method.

In this process a 10 gram rock pulp sample was ignited at 600° for 4 hours followed by digestion with hot diluted aqua-regia. The solution obtained was extracted by Methyl Isobutyl Ketone (MIBK). Gold was determined in the MIBK extract by Atomic Absorption using graphite electrodes. Detection limit and resolution using this procedure is 1 ppb Au.

11.5 Mercury Determinations

Mercury content of the Eco-Tech pulps by IPL was carried out using the Cold Vapour Atomic Absorption analytical procedure.

In this procedure 0.50 grams of sample was digested with an aqua-regia acid solution in a hot water bath. After cooling, the sample was diluted with demineralized water to a fixed volume and shaken.

An aliquot of the digested sample was mixed with H_2SO_4 and NaCl. Hydroxylamine sulphate-stannous sulphate was added as the reductant. The vapour of the mixture was then drawn into the absorption cell. Concentrations of mercury are determined using an Atomic Absorption Spectrophotometer.

The results, in parts per billion, are calculated by comparison with a set of known mercury standards.

Minimum detection limit for this process is 5 ppb Hg.

Mercury content of the Acme analyzed samples was by the Cold Vapour Atomic Absorption procedure using an F & J Scientific Hg assembly. Following aqua regia digestion as described in section 11.3 an aliquot of the diluted solution is added to stannous chloride and hydrochloric acid solution. The reduced Hg vapour was then passed into the absorption cell where mercury concentration is determined by Atomic Absorption Spectrophotometer. Detection limit is 5ppb Hg.

SECTION 12.0 RESULTS

12.1 General

The primary mineral targets, all hydrothermal in nature, in order of priority, included the 'gold zone' consisting of quartz-carbonate veining and possible stockworks located about 4,000 feet (1,200 m) east of the copper porphyry zone and; zones of gossan development, brecciation and silicification between the copper porphyry and gold zone; and any new stockwork/porphyry zones that might be discovered along the reconnaissance traverses.

Assay results of primary interest are copper and gold. Assay results of secondary interest are those unique indicator elements that can often represent subcropping mineral deposits of the porphyry copper or copper-gold type or epithermal/mesothermal gold deposits found within the zone of influence around a mineralized porphyry system, and include:

Deposit type	Indicator Element
Epithermal/Mesothermal: carbonate, quartz-carbonate, & siliceous	Hg, As, Sb, Ag, Au, Cu, Pb, Zn, Fe
Porphyry style mineralization quartz veins and stockwork zones	Cu, Mo, Au, Ag, Hg, As, Pb, Zn

12.2 Copper Assays

Copper assays ranged between a low of 8 ppm to a high of 2,871 ppm. The mean value of 40 rock-chip and grab samples was found to be 342 ppm. One standard deviation is 633 ppm.

Ridge Copper Zone

The best copper assays were obtained from the central part of the Ridge Copper Zone. A weighted average of 4 unconnected rock-chip samples across 36m returned a weighted average copper grade of 1,302 ppm (0.13%) which is consistent with the 1973 drill results which resulted in the definition of a very low grade copper zone.

Creek Zone

The Creek Zone which is believed to have received little or no previous exploration appears to represent the contact area of an intensely altered feldspar porphyry with altered volcanics.

Three samples taken from the volcanic unit within 130 feet (40m) from each other produced the next best set of copper values at an average of 1,144 ppm copper.

Gold Zone
The Gold Zone also believed to have received little or no previous exploration appears to contain several westerly striking quartz and quartz-carbonate veins within a silicified, propylitized, and brecciated andesite volcanic unit. The largest of the quartz-carbonate veins assayed an average of 168 ppm Cu across 9.8 feet (3 m) from two samples.

12.3 Gold Assays

Gold assays ranged from 5 ppb to 1,782 ppb. The mean value of 40 rock-chip and rock samples was calculated at 100 ppb. One standard deviation is 303 ppb.

Ridge Copper Zone
The corresponding gold assays from 4 unconnected rock-chip samples across 36m of the central portion of the Ridge Copper Zone returned a weighted average of 11 ppb in gold corresponding with 1,302 ppm in copper.

Creek Zone
The average gold value from 10 rock-chip and grab samples taken from the Creek Zone contact area was 258 ppb. Four samples taken from the altered feldspar porphyry side of the contact had an average gold content of 24 ppb whereas the average of six samples taken from the silicified, propylitized and brecciated volcanic unit had and average gold content of 414 ppb.

Gold Zone
Gold assays from samples taken in the Gold Zone ranged from 7 ppb to 746 ppb Au. The average gold value from 12 rock samples taken from this area was 99 ppb Au.

Including only those 6 rock samples of quartz and quartz-carbonate vein material found in place the average gold content of this material was 175 ppb Au with the remaining 6 rock samples of host rock averaging 24 ppb Au. The quartz and quartz-carbonate vein material is clearly anomalous in gold content.

The 3 m chip sample taken by Wells across a prominent quartz-carbonate vein swarm assayed only 45 ppb Au. A similar chip/grab sample taken by Ashton assayed a corresponding 41 ppb Au.

12.4 Mercury Assays

Mercury assays from a total of 43 samples ranged between a low of 10 ppb to a high of 9,750 ppb Hg. Including the high value of 9,750 ppb Hg the mean value of 43 rock-chip and grab samples was found to be 375 ppb. One standard deviation was calculated at 1,482 ppb.

Excluding the unique high value of 9,750 ppb the mean value of 42 samples was found to be 152 ppb. One standard deviation was calculated at 231 ppb.

Ridge Copper Zone

Of 17 rock-chip and grab samples analyzed from the Ridge Copper Zone and vicinity the mean value of mercury analyses was found to be 126 ppb Hg. One standard deviation was calculated at 359 ppb Hg. Only one sample Fly-07 at 980 ppb Hg is anomalous.

Creek Zone

Of 10 rock-chip and grab samples analyzed for mercury from this area the mean value was found to be 162 ppb Hg. One standard deviation was calculated at 222 ppb Hg. Two samples, 3.8 and 3.9 at 385 ppb and 715 ppb Hg may be considered anomalous.

Gold Zone
Excluding the highest mercury assay obtained from sample 7, at 9,750 ppb Hg, which is clearly well outside of the range of the remaining population the mean value of the remaining 11 samples was found to be 220 ppb Hg. One standard deviation was calculated at 278 ppb Hg. Four samples, 910724-5,7,8 and 559-1 are considered anomalous.

12.5 Arsenic Assays

Arsenic assays from a total of 40 rock-chip and grab samples ranged from a low of 2 ppm to a high of 4,722 ppm As. Excluding the high value of 4,722 ppm and including 75 ppm as the highest value the mean value of 39 samples was found to be 24 ppm. One standard deviation was calculated at 17 ppm As. Seven samples are considered anomalous.

Ridge Copper Zone
Only one sample from the Ridge Copper Zone, Fly-07 at 45 ppm As is considered anomalous.

Creek Zone
The Creek Zone contains the highest arsenic value from grab sample 910724-10 at 4,722 ppm As which is extremely anomalous and unique in the sample population. Two other samples, 3.7 and 3.9 at 45 ppm and 75 ppm are slightly and moderately anomalous, respectively.

Gold Zone
The Gold Zone contains two slightly anomalous arsenic values, samples 10 and 11 at 45 ppm As each, and sample 910724-7 at 66 ppm As which is moderately anomalous.

12.6 Comparison With Chilko Lake Planning Area

McLaren, 1990 introduced a table of "Approximate Threshold Values" for Lithogeochemical Data that was developed somewhat arbitrarily through personal sense by scanning the data collected from this neighbouring region to the Harvey claims that is considered worthwhile repeating here; and included the following elements and their threshold concentrations:

Element	Chilko Lake Threshold	Harvey Claims Samples Exceeding Threshold
Au	300 ppb	3
Ag	7 ppm	2
Hg	800 ppb	2
As	100 ppm	1
Sb	100 ppm	-
Cu	500 ppm	8
Pb	120 ppm	3
Zn	400 ppm	2
Fe	10%	1
Mo	100 ppm	-
Mn	2200 ppm	-

* From Harvey Claims, sampling, this program

SECTION 13.0 SUMMARY

This geological and lithogeochemical reconnaissance completed over a portion of the Harvey Group claims integral with a review of both published and unpublished historical data indicates that there is very low probability for the discovery of a near surface copper or copper-gold style porphyry deposit within or proximal to the areas mapped and/or sampled.

However, much of the lithology over most of the claim area appears to have been pervasively modified by episodic hydrothermally introduced alteration, accompanied in some locations by anomalous mineralization, which indicates a large and strong hydrothermal system with a mineralizing component. Hence a porphyry type deposit at depth remains a possibility. A near surface porphyry system elsewhere on the property where mapping and sampling are outstanding also remains a possibility.

In general, the surface area of the Ridge Copper Zone and vicinity which is composed mainly of intrusive dyke swarms may represent the roof zone of a subcropping porphyry system, as according to Kremko, 1974, of all the drill core examined petrographically only one sample was definitely identified as quartz diorite porphyry. All other samples were granitized volcanic and sedimentary units.

The two anomalous gold bearing areas, the Gold Zone and the Creek Zone identified as a result of this reconnaissance program are both worthy of further exploration because their modes of occurrence and geochemistry fit the epithermal and /or mesothermal model. E.g. quartz and quartz-carbonate veins with gold and silver and associated copper, arsenic, antimony and mercury geochemistry and; silicification in fractured volcanics with gold and silver and, copper, arsenic, antimony and mercury geochemistry; respectively.

Representative surface chip-samples and grab samples taken from the Ridge Copper Zone assayed on average 0.13% Cu which appears to be consistent with the 1973 drill results which tested the most geochemical promising part of the Ridge Copper Zone. Gold assays of the same samples returned a corresponding 11 ppb in gold content which suggests that this section of the porphyry system contains only background gold values and is almost the mean value of 11.4 ppb reported for acid intrusive rocks (Boyle, 1979).

The central part of the Gold Zone contains a network of quartz veins and quartz-carbonate veins striking westerly, and quartz vein material dispersed with the talus down the south facing slope. The vein material is anomalous in gold, averaging 175 ppb Au from six samples. The highest assay obtained, 746 ppb Au, was from a grab of vein material across 1.5 m about 260 degrees azimuth and 220 feet (70 m) from a prominent quartz-carbonate vein swarm which itself showed only marginally anomalous gold with 40 ppb Au content. Of interest is that this highest assay, moderately anomalous in gold, contained the highest mercury content of all samples analyzed and may be considered extremely anomalous with a content of 9,750 ppb Hg. This sample also contained the highest arsenic content in the Gold Zone with an assay of 66 ppm As.

Three samples from the same lithology of variably silicified and argillized andesite and andesite breccia from the Creek Zone assayed, on average, geochemically significant gold (790 ppb Au), copper (1,114 ppm), and mercury (405 ppb). The trend of this mineralization may be northeasterly and could represent metal zonation along the pervasively altered feldspar porphyry (dyke) contact. This mineralization characterizes an epithermal or mesothermal mineralizing system.

SECTION 14.0 RECOMMENDATIONS

The recommendations of Bruneau, 1974, appear to have never been carried out and remain valid today because they are basic to any successful exploration program. His recommendations included geological mapping and rock and geochemical sampling of the entire property area and extending beyond the property particularly to the northwest, north and southeast. Gossan development predominates in these directions and undoubtedly reflects the effects of subcropping hydrothermal activity that may be of mineralogical significance.

As an adjunct to this basic exploration program an airborne aeromagnetic survey utilizing the vertical grandiometer technique could be of interest. The survey should cover the entire gossan zone and beyond within the influence of the Tchaikazan fault zone as this may be a key structural feature which controls the mineralization. According to Osborne, 1992, (personal communication) the Westpine Metals porphyry deposit is in contact with the Coast Plutonic Complex, is proximal to the Tchaikazan fault zone and contains a large zone of magnetite which is an integral phase of the copper and gold mineralization. A similar auriferous-magnetite-copper geochemistry could occur on the Harvey Claims or nearby.

Simultaneously with the airborne magnetometer survey a radiometric survey measuring the radioactive potassium 40 isotope could be useful for two reasons; gold deposits in basic and intermediate volcanic and intrusive rocks are often characterized by enrichments of potassium in their wall rocks, and; according to Kremko, 1974 mineralized veinlets in the copper porphyry zone contained orthoclase feldspar as well as other zones of potassic alteration. Potash rich zones of magnitude should be discernable with this method.

Locally, the anomalous gold bearing areas, the Gold Zone and the Creek Zone identified as the result of this work should be geologically mapped and sampled in detail as these occurrences could represent a mesothermal type gold mineralizing event.

SECTION 15.0 REFERENCES

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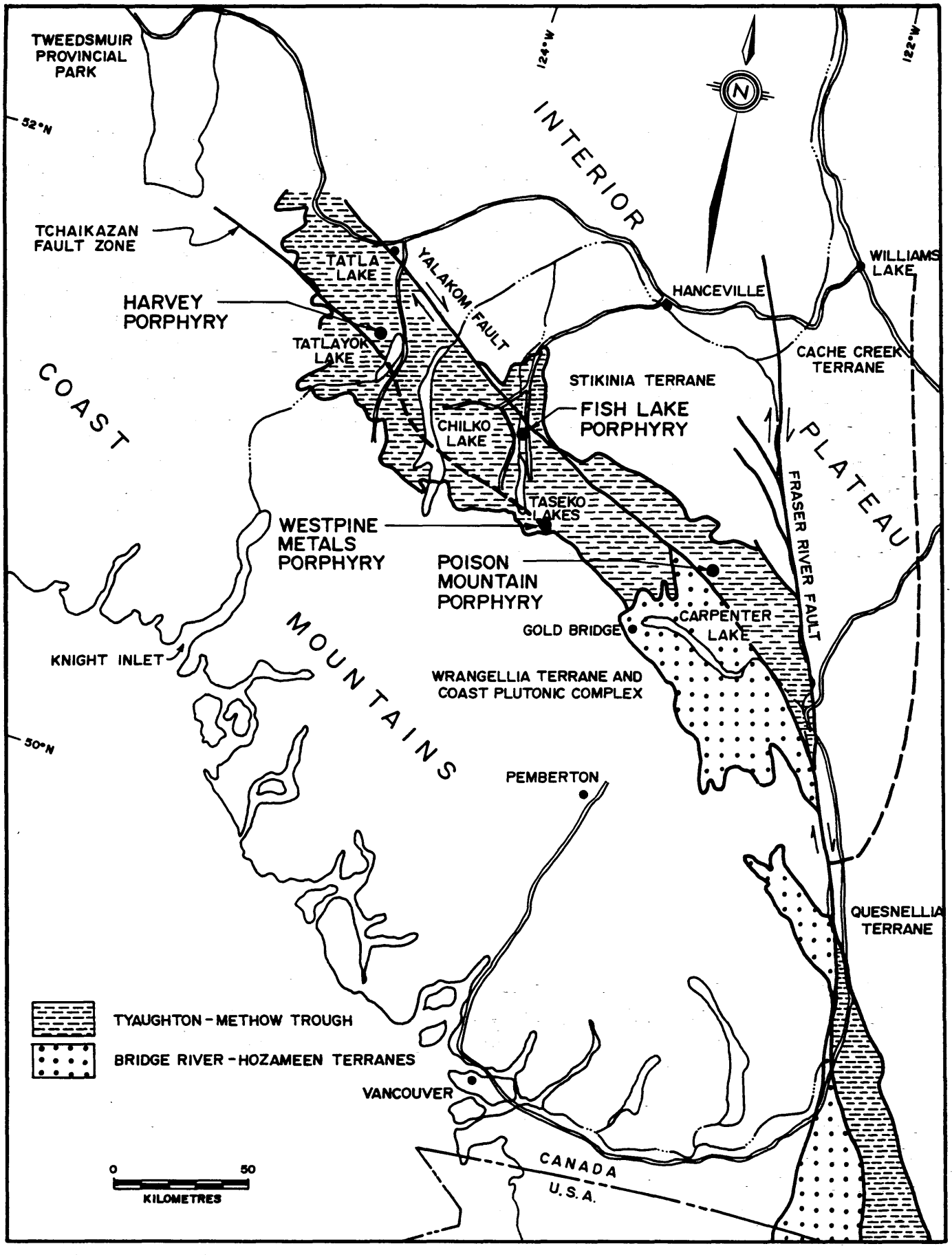
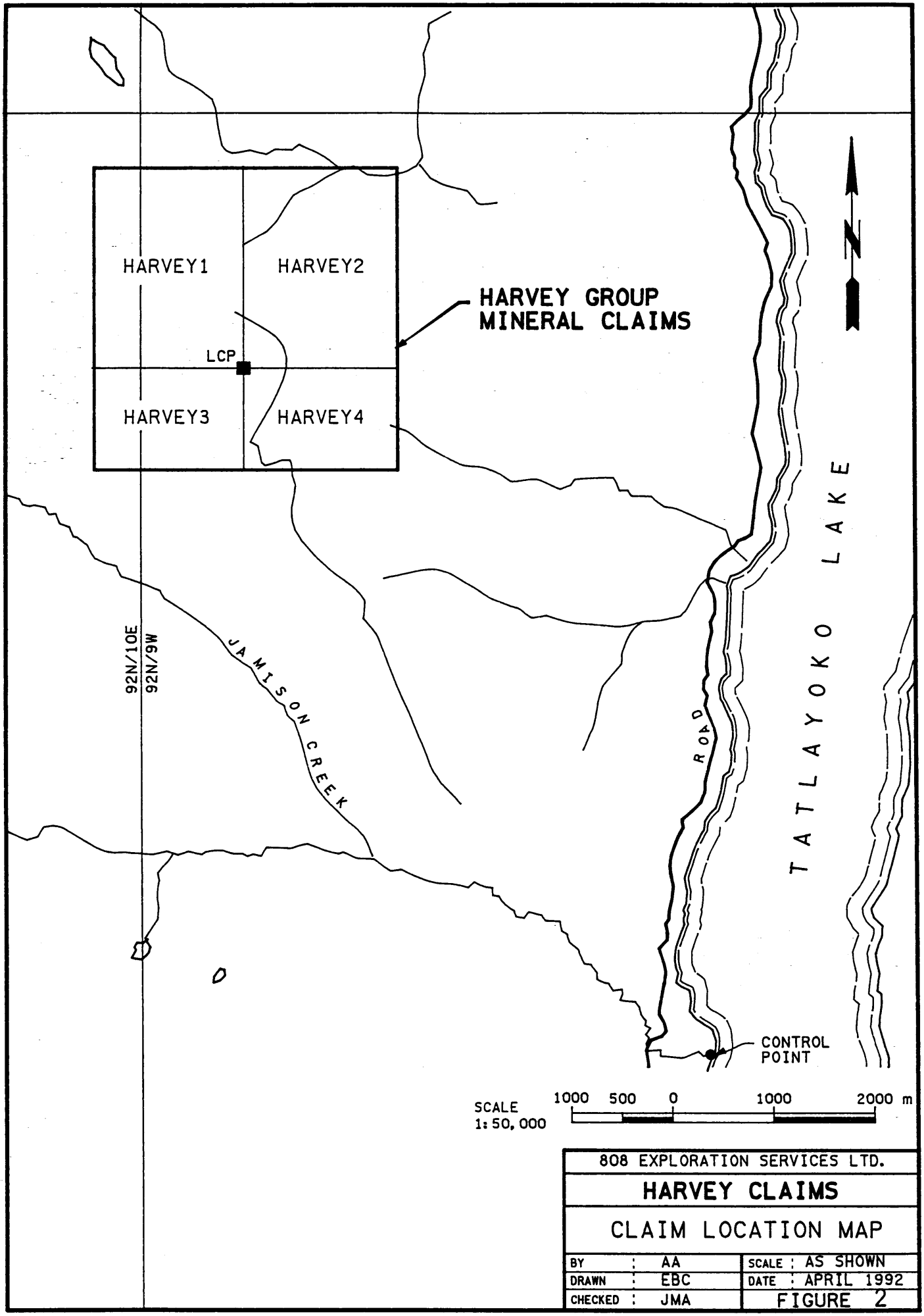
MAPS



MODIFIED AFTER G.P. McLAREN, 1990

FIGURE 1
LOCATION MAP


HARVEY1
HARVEY2
HARVEY3
HARVEY4
LCP
HARVEY GROUP
MINERAL CLAIMS
92N/10E
92N/9W
JAMISON CREEK
ROAD
TATLAYOKO LAKE
CONTROL
POINT
SCALE
1:50,000
1000 500 0 1000 2000 m
808 EXPLORATION SERVICES LTD.
HARVEY CLAIMS
CLAIM LOCATION MAP
BY : AA
DRAWN : EBC
CHECKED : JMA
SCALE : AS SHOWN
DATE : APRIL 1992
FIGURE 2

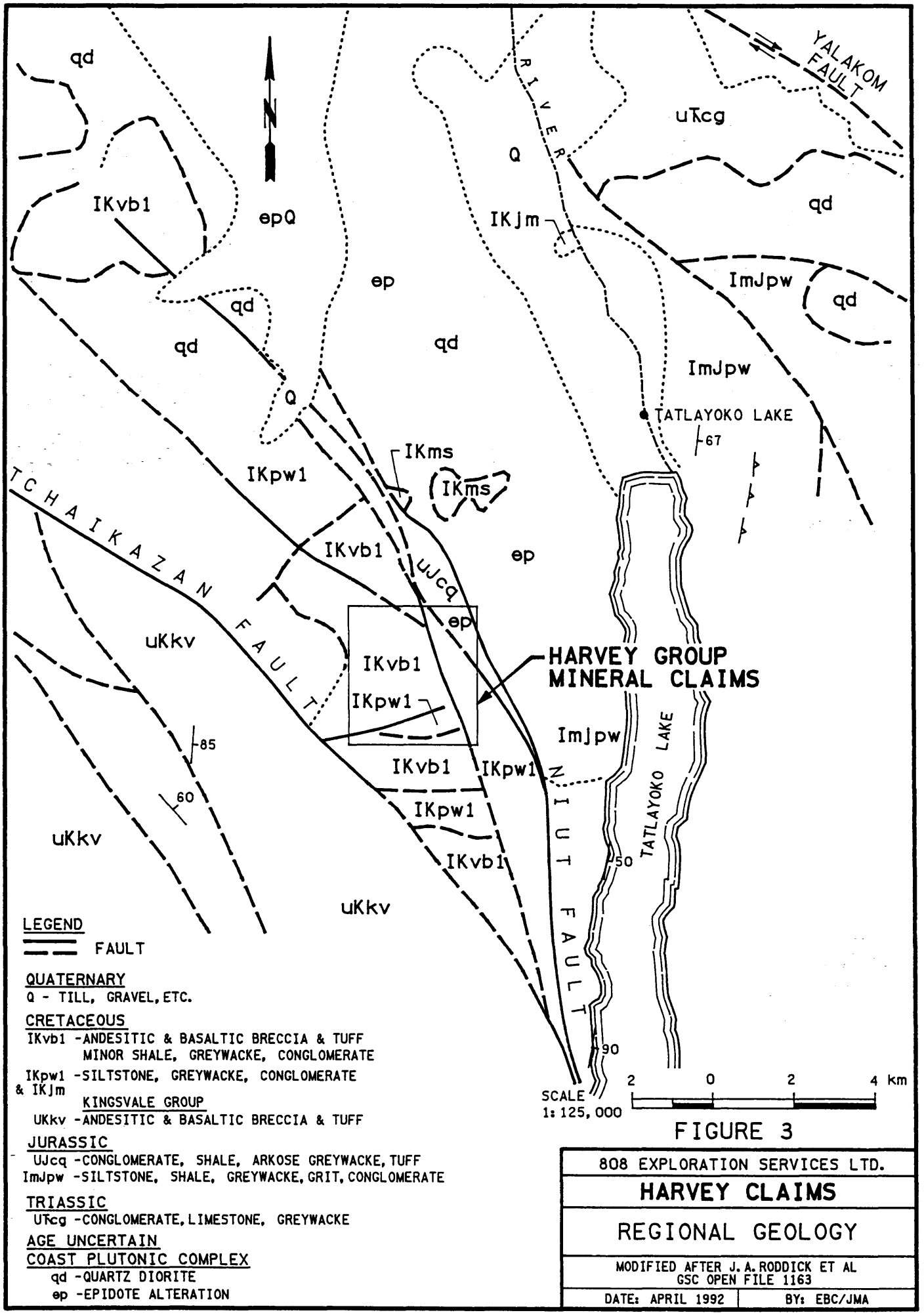


FIGURE 3

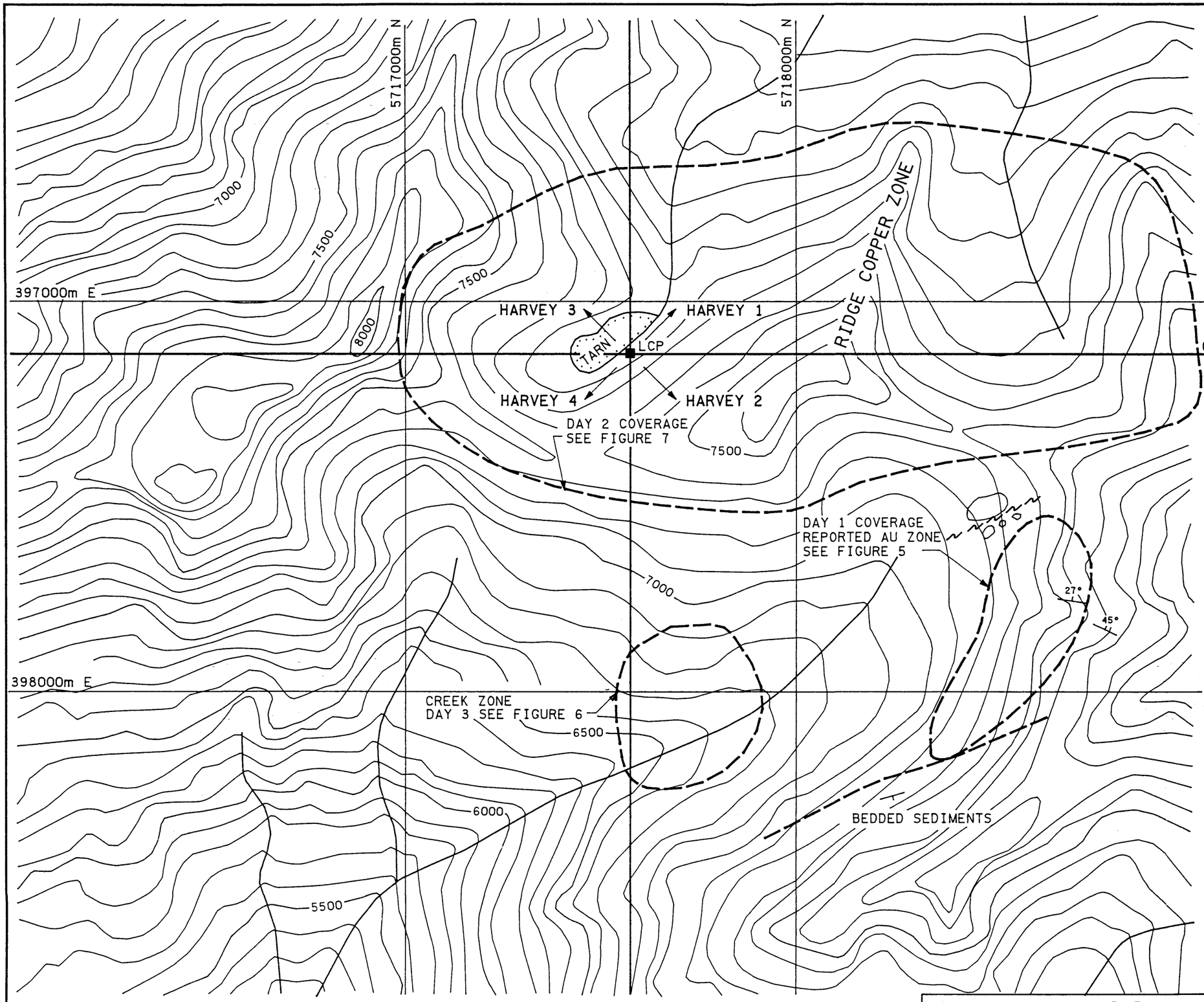
808 EXPLORATION SERVICES LTD.

HARVEY CLAIMS

REGIONAL GEOLOGY

MODIFIED AFTER J. A. RODDICK ET AL
GSC OPEN FILE 1163

DATE: APRIL 1992 | BY: EBC/JMA



LEGEND

1. GRID SHOWN IS ONE THOUSAND METRE UNIVERSAL TRAVERSE MERCATOR ZONE 10.
2. CONTOUR ELEVATIONS IN FEET ASL.

100 0 200 400 600 METRES

SCALE 1: 10000

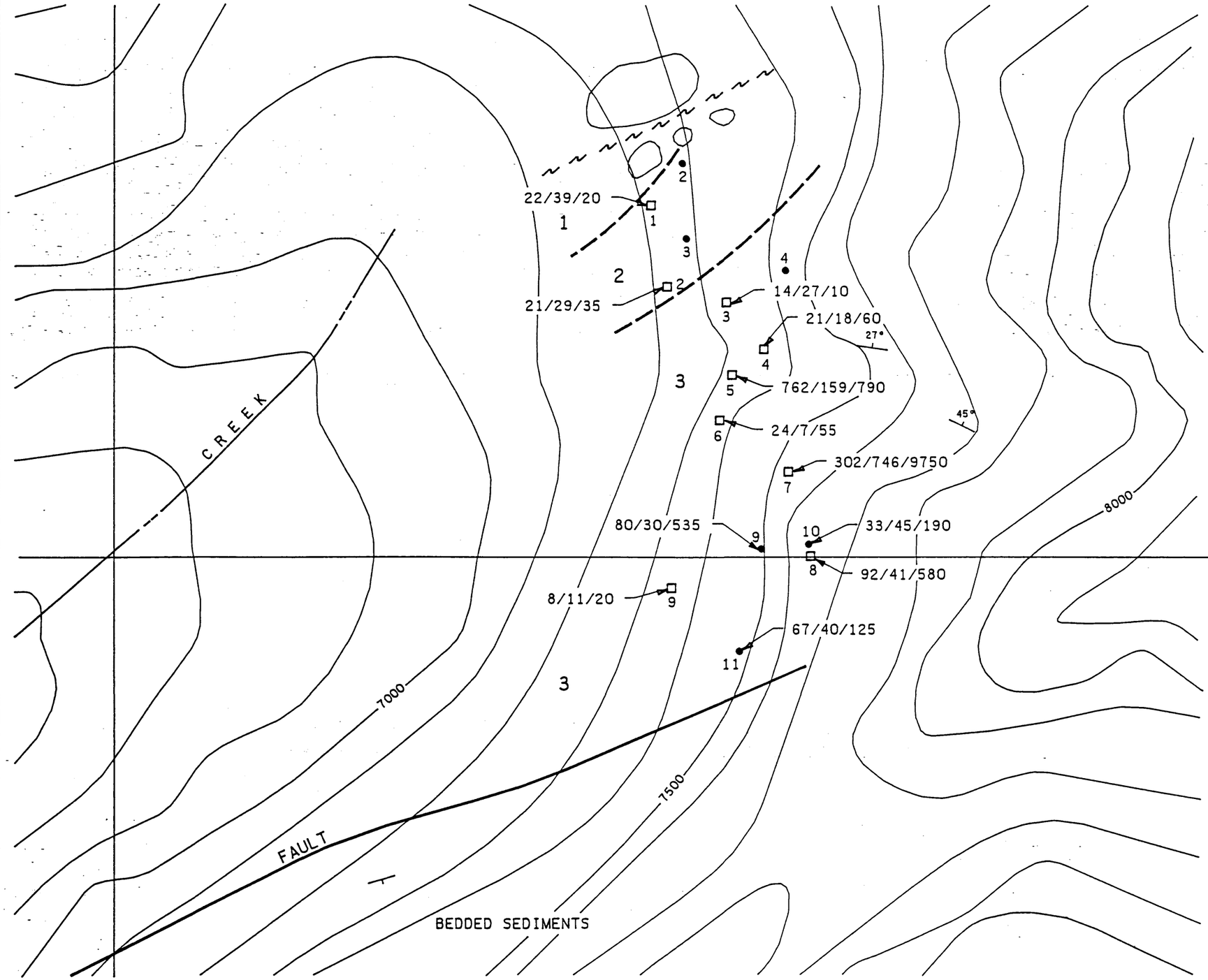
REF. MAP: TATLAYOKO LAKE, NTS92N
MODIFIED AFTER R. WELLS, F. G. A. C.

808 EXPLORATION SERVICES LTD.

HARVEY CLAIMS

TRAVERSE PLAN

GEOLOGIST	RW	SCALE	AS SHOWN
DRAWN	EBC	DATE	APRIL 1992
CHECKED	JMA		FIGURE 4



LEGEND

1 PREDOMINATLY SEDIMENTS

A) MED TO COARSE HETEROLITHIC (SED FRAG) BRECCIA, SILICEOUS MATRIX. CHERT, FINE SED LOCALLY HEMATITIC FRAGMENTS.

B) MEDIUM GRAINED GRITTY SANDSTONE LOCAL CLASTS.

2 TALUS WITH FELDSPAR PORPHYRY AND HBL. ANDESITE/DIORITE. PROPYLITIC ALTERATION. CHL + EP ± MGT ± CARB MOD. STRONG.

3 HBL ANDESITE, BRECCIA (AGGLOMERATE ?) COURSE ANGULAR CLAST SOME ARE PROPYLITICALLY (EP.) ALTERED.

FAULT

GEOLOGICAL CONTACT

ASHTON SAMPLES

WELLS SAMPLES

289/190/385
SAMPLE
Cu ppm
Au ppb
Hg ppb

40 0 80 160 240 METRES

SCALE 1:2500

808 EXPLORATION SERVICES LTD.

HARVEY CLAIMS

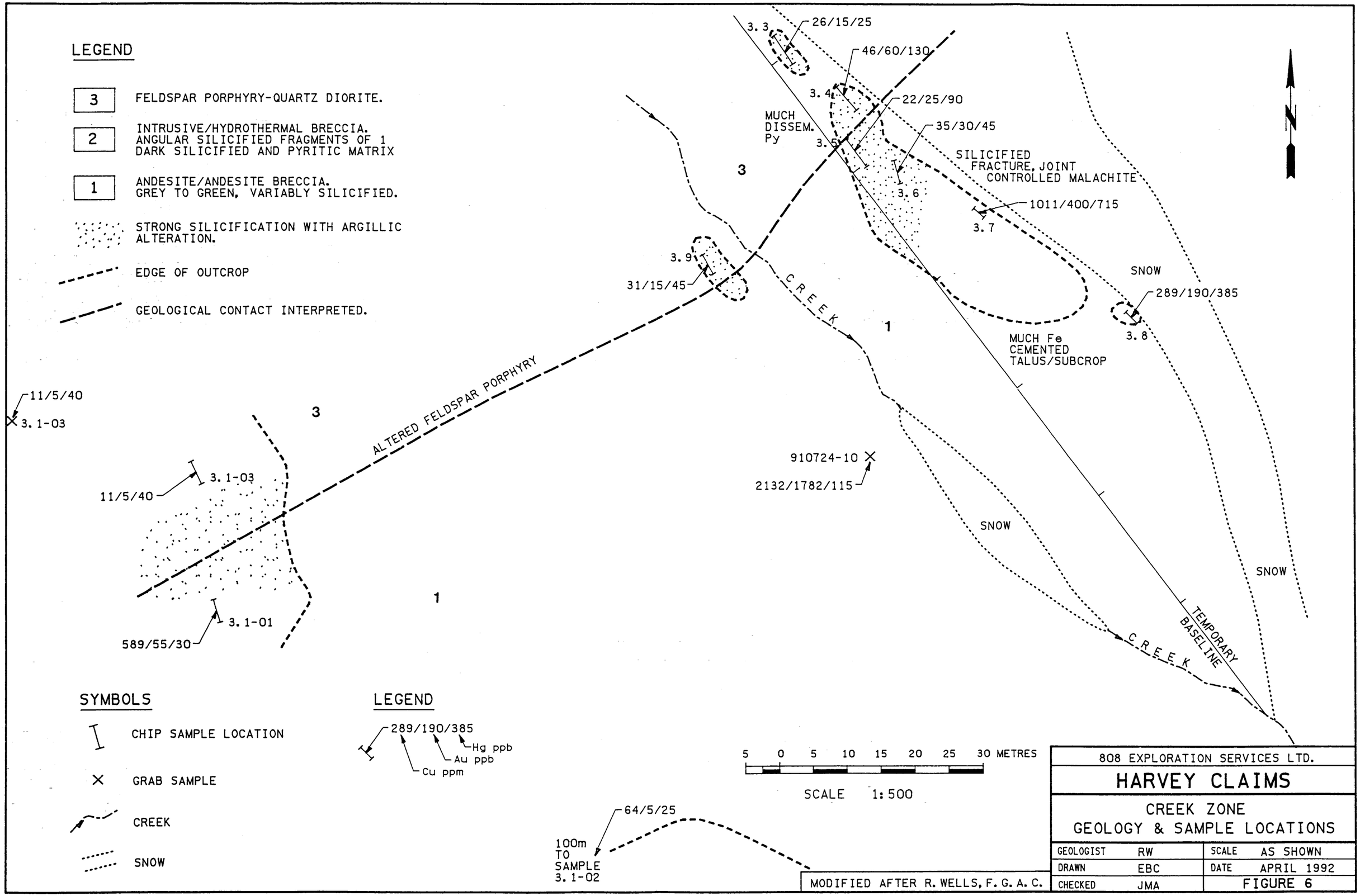
GOLD ZONE GEOLOGY & SAMPLE LOCATIONS

GEOLOGIST	RW	SCALE	AS SHOWN
DRAWN	EBC	DATE	APRIL 1992
CHECKED	JMA		FIGURE 5

REF. MAP: TATLAYOKO LAKE, NTS92N/9
MODIFIED AFTER R. WELLS, F. G. A. C.

LEGEND

- 3 — FELDSPAR PORPHYRY-QUARTZ DIORITE.
- 2 — INTRUSIVE/HYDROTHERMAL BRECCIA. ANGULAR SILICIFIED FRAGMENTS OF 1 DARK SILICIFIED AND PYRITIC MATRIX
- 1 — ANDESITE/ANDESITE BRECCIA. GREY TO GREEN, VARIABLY SILICIFIED.
- STRONG SILICIFICATION WITH ARGILLIC ALTERATION.
- EDGE OF OUTCROP
- GEOLOGICAL CONTACT INTERPRETED.



SYMBOLS

- CHIP SAMPLE LOCATION
- GRAB SAMPLE
- CREEK
- SNOW

LEGEND

289/190/385 — Hg ppb; Au ppb; Cu ppm

64/5/25 — 100m TO SAMPLE 3.1-02

5 0 5 10 15 20 25 30 METRES

SCALE 1:500

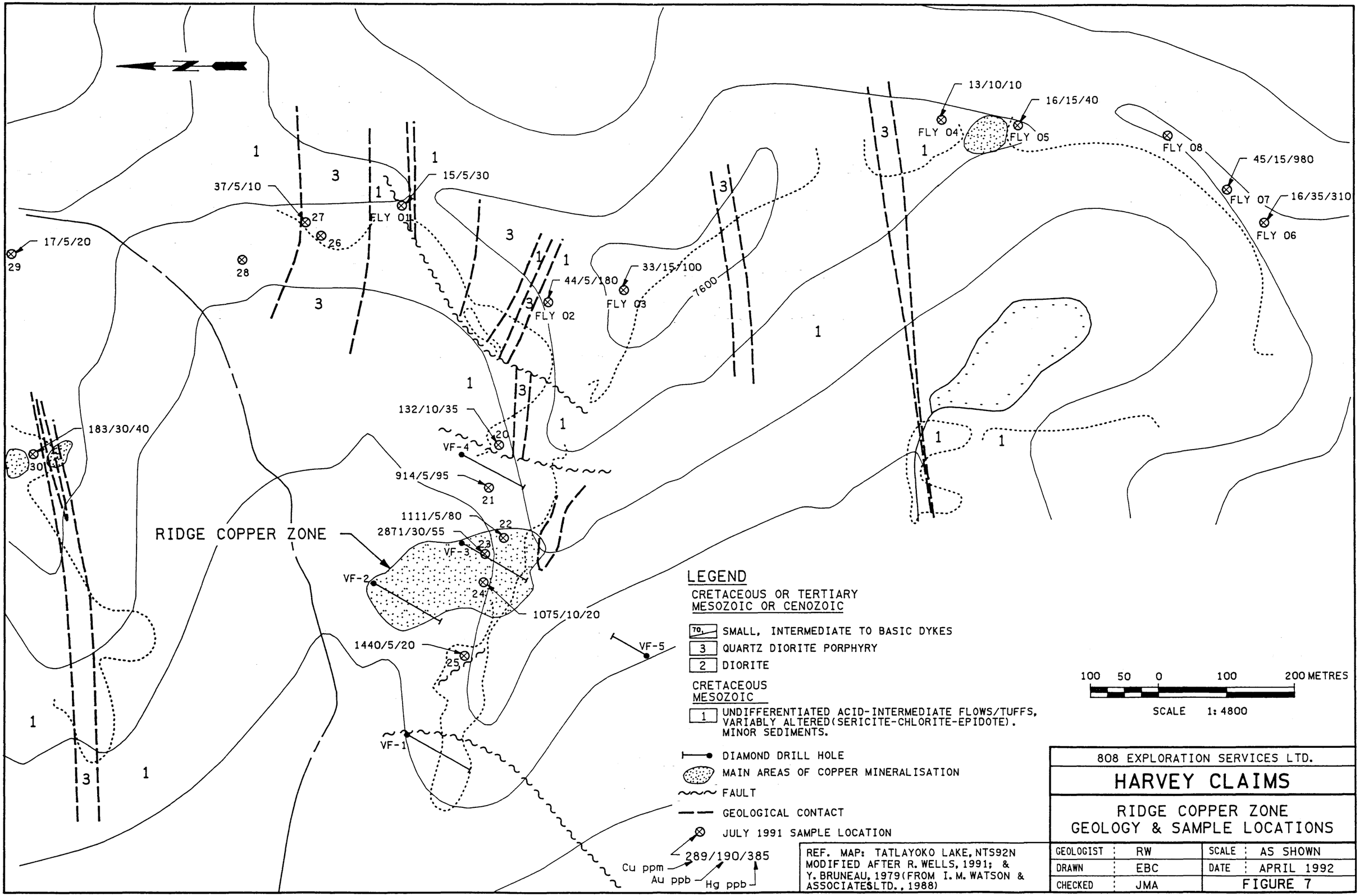
MODIFIED AFTER R. WELLS, F. G. A. C.

808 EXPLORATION SERVICES LTD.

HARVEY CLAIMS

CREEK ZONE GEOLOGY & SAMPLE LOCATIONS

GEOLOGIST	RW	SCALE	AS SHOWN
DRAWN	EBC	DATE	APRIL 1992
CHECKED	JMA		FIGURE 6


N
13/10/10
16/15/40
FLY 04
FLY 05
FLY 08
45/15/980
FLY 07
16/35/310
FLY 06
37/5/10
15/5/30
27
FLY 01
26
17/5/20
29
28
44/5/180
33/15/100
FLY 02
FLY 03
7600
132/10/35
20
VF-4
183/30/40
30
914/5/95
21
1111/5/80
22
2871/30/55
23
VF-3
RIDGE COPPER ZONE
VF-2
24
1075/10/20
1440/5/20
25
VF-5
VF-1
1
3
LEGEND
CRETACEOUS OR TERTIARY
MESOZOIC OR CENOZOIC
70 SMALL, INTERMEDIATE TO BASIC DYKES
3 QUARTZ DIORITE PORPHYRY
2 DIORITE
CRETACEOUS
MESOZOIC
1 UNDIFFERENTIATED ACID-INTERMEDIATE FLOWS/TUFFS, VARIABLY ALTERED(SERICITE-CHLORITE-EPIDOTE). MINOR SEDIMENTS.
DIAMOND DRILL HOLE
MAIN AREAS OF COPPER MINERALISATION
FAULT
GEOLOGICAL CONTACT
JULY 1991 SAMPLE LOCATION
289/190/385
Cu ppm
Au ppb
Hg ppb
100 50 0 100 200 METRES
SCALE 1:4800
808 EXPLORATION SERVICES LTD.
HARVEY CLAIMS
RIDGE COPPER ZONE
GEOLOGY & SAMPLE LOCATIONS
REF. MAP: TATLAYOKO LAKE, NTS92N
MODIFIED AFTER R. WELLS, 1991; &
Y. BRUNEAU, 1979(FROM I. M. WATSON &
ASSOCIATES LTD., 1988)
GEOLOGIST RW
DRAWN EBC
CHECKED JMA
SCALE AS SHOWN
DATE APRIL 1992
FIGURE 7