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FREEGOLD VENTURE

FINAL REPORT

DECEMBER, 1987

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SUMMARY AND RECOMMENDATIONS

Freegold Venture (FV) was formed in spring 1985 by Chevron Minerals Ltd. to explore for precious metals in an unglaciated area of west-central Yukon where previous work by Nat Joint Venture (Chevron and Armco Minerals Exp. Ltd.) indicated potential for bulk tonnage deposits suitable for relatively inexpensive cyanide extraction using heap leach methods.

Prior to the 1985 field season, all available data for the area was reviewed and eleven exploration targets were identified. In May, a decision was made to stake the seven most promising targets and subsequent field work, which consisted of geological mapping, prospecting and grid soil geochemistry, was directed to those properties. The program was generally successful, locating favourable geology and large areas of anomalous geochemical response for gold and/or silver on the relatively remote Idaho Creek and Nit properties and on the road-accessible Stoddart property. Smaller and weaker, but possibly significant areas of interest, were also outlined on the Maloney, Nucleus Extension, Nitro Extension properties and only the Selwyn property returned negative results.

While FV was exploring its properties, work was also being conducted on the nearby Mt. Nansen (B.Y.G. Natural Resources Inc. optioned to Chevron) and Antoniuk (Discovery Mines Limited optioned to Nordac Mining Corporation and Permian Resources Ltd.) gold properties. When favourable results were reported from these, all land holdings in the area were again reviewed and two road-accessible (Tawa and Goldstar) were targeted for acquisition. In spring 1986, Chevron optioned the Tawa property from Consolidated BRX Mining and Petroleum Corporation and the Goldstar property from G. Harris and E. Wienecke, and assigned both to FV. Subsequently, a decision was made to option out the

Idaho Creek and Nit properties to Silverquest Resources Ltd. which explored both during summer 1986 with mixed results.

The 1986 FV exploration program consisted of geological mapping, prospecting, grid soil geochemistry, Ronka EM-16 surveys, bulldozer and excavator trenching (2717 m) and staking of additional claims at Tawa; geological mapping, prospecting, grid soil geochemistry and test EM-16 surveys at Goldstar; and, minor gold soil geochemistry and claim staking at Stoddart. None of the other FV properties received any work. On August 6, FV staked three additional properties consisting of the Bag 1-10, Field 1-8 which was later increased to 30 claims and Toast 1-36 claims to cover drainages that produced anomalous gold and/or arsenic values from reconnaissance stream sediment samples collected and analyzed by the Geological Survey of Canada (GSC Open Files 1219 and 1220).

Exploration at Tawa outlined a series of coincident, northwest-trending, multi-element soil anomalies and EM conductors, and showed that one of the anomalous trends is associated with a complex vein system (BRX Zone). The best trench assay (0.102 oz/ton Au and 0.44 oz/ton Ag over 4 m) was obtained directly above a 1980 drill hole that had returned an intersection grading 0.183 oz/ton Au and 0.44 oz/ton Ag across a true width of 8 m. Work on the Goldstar and Stoddart properties returned some anomalous soil values but their configuration was not indicative of a potential bulk tonnage target.

Changes in property status in 1987 includes the following: (1) the Idaho Creek property was returned to FV by Silverquest; (2) the Goldstar option was dropped; (3) the Selwyn and approximately half of the Nucleus Extension claims were allowed to lapse; (4) the Stoddart, Nitro Extension, Field, Toast and

remainder of the Nucleus Extension were optioned to Nordac Mining Corporation (now Big Creek Resources Ltd.) which explored them in a joint venture with Rexford Minerals Ltd; (5) the Bag claims were allowed to lapse; and, (6) the Field and Toast claims were returned to FV by Big Creek in November after exploration produced negative results. Although the Nit property is still held by Silverquest, no exploration was performed and the claims will revert to FV early in 1988.

The 1987 FV field program was confined to the Tawa property and included claim and trench surveys; construction of a 1.7 km long road from the Nansen Road to the centre of the property; 6385 m of bulldozer stripping on 28 proposed trench sites, of which 12 (totalling 1939 m) were excavated to bedrock; and, the staking of 16 more Tawa claims to cover projected extensions of the mineralized trends. The work has now traced the BRX Zone for a 750 m strike length and located a second vein system 1000 m to the northeast (Klaza Zone). Mineralization in both zones occurs in narrow veins normally comprised of a high grade, quartz-sulphide core surrounded by a lower grade, clay altered halo. The best 1987 assay (0.123 oz/ton Au and 1.38 oz/ton Ag across 8.0 m) came from the only trench excavated on the Klaza Zone. Most of the veins are primarily underground mining targets but, in some areas, they are relatively close together and may have open pit potential. Oxidation in the veins is relatively shallow and weak; thus, extracting of the metals would likely require flotation to produce a concentrate that would be smelted or pre-oxidized for treatment by cyanidization.

Exploration by FV in 1988 should consist of continued excavation trenching and road construction at Tawa and detailed prospecting and hand trenching at Maloney. All other properties, except Field and Toast, are currently optioned out or are in good standing for a few more years. Work on the relatively remote Idaho Creek and Nit properties should await further developments in the district including improved access resulting from construction of the Casino Trail. The Field and Toast claims should be allowed to expire.

Respectfully submitted,

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

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PART I - GENERAL

INTRODUCTION

Freegold Venture (FV) was formed by Chevron Minerals Ltd. in spring 1985 to explore a belt of rocks in west-central Yukon that has demonstrated potential for bulk tonnage gold deposits, some of which are amenable to cyanidization. The three most advanced properties in the belt are: Nucleus, a highly oxidized bulk tonnage prospect owned by Nat Joint Venture (Chevron and Armco); Mt. Nansen, a high grade, strongly oxidized, open pittable deposit optioned by Chevron from B.Y.G. Natural Resources Inc; and, Antoniuk, a bulk tonnage target containing oxidized and unoxidized material, both of which respond to cyanidization, that is optioned by Big Creek Resources Ltd., Permian Resources Ltd. and Rexford Minerals Ltd. from Discovery Mines Limited.

The 1985 FV program began with a thorough review of all data available for the area, from which seven targets were selected for immediate staking. Field work focused on the properties and consisted of geological mapping, prospecting, and multi-element grid soil geochemistry. Encouraging results were obtained from the Idaho Creek and Nit properties located in the logistically difficult, northern part of the belt, and the road-accessible Stoddart property at the south end of the belt. The other properties, Maloney, Nucleus Extension, Nitro Extension and Selwyn, produced mixed to discouraging results.

During the late summer and fall 1985, favourable results were reported from exploration at Mt. Nansen and Antoniuk which prompted FV to re-evaluate data for other properties located near the prospects. This re-evaluation resulted in Chevron optioning the Tawa property (24 claims located 10 km northwest of Mt. Nansen) from Consolidated BRX Mining and Petroleum Corporation

and the Goldstar property (70 claims located 2 km west of Antoniuk) from G. Harris and E. Wienecke and assigning them to FV. Once these properties were secured, FV elected to option the relatively remote Idaho Creek and Nit properties to Silverquest Resources Ltd.

The 1986 work included geological mapping, prospecting, grid soil geochemistry, EM-16 surveys, claim staking, bulldozer stripping and excavator trenching at Tawa; geological mapping, prospecting and grid soil geochemistry at Goldstar; and, grid soil geochemistry and claim staking at Stoddart. Exploration at Tawa outlined a series of subparallel multi-element soil anomalies and geophysical conductors and exposed several vein zones, the best of which assayed 0.102 oz/ton Au and 0.44 oz/ton Ag across 4 m. Sampling on the other properties yielded scattered anomalies but none exhibited the size or intensity expected from a significant bulk tonnage target. FV also staked three new claim blocks (Field, Toast and Bag) on August 6, 1986 immediately following the release of Geological Survey of Canada (GSC) Open File 1219 and 1220 which reported results of reconnaissance stream sediment sampling conducted by the GSC in the FV project area during summer 1985.

In spring 1987, Silverquest dropped its option on the Idaho Creek property while FV dropped its option on the Goldstar property, allowed all of the Selwyn and approximately half of the Nucleus Extension claims to lapse, and optioned the Stoddart, Nitro Extension, Field, Toast and remainder of the Nucleus Extension claims to Nordac Mining Corporation. Nordac subsequently changed its name to Big Creek Resources Ltd. and explored the properties later in the summer in a joint venture with Rexford Minerals Ltd. as described in the Activity by Others section of this report. FV allowed the Bag claims to expire

in August without receiving work and in November Big Creek Resources Ltd. dropped its option on the Field and Toast properties after prospecting and soil geochemistry yielded negative results.

The 1987 FV field program was restricted to the Tawa property and consisted of bulldozer stripping, excavator trenching, road construction and surveying. An additional 16 Tawa claims were staked in August to cover projected extensions of mineralized zones.

ACTIVITY BY OTHERS

During 1987, mineral exploration and development continued at a high level in the FV project area with work being done by a variety of major and junior mining companies, individuals, and government organizations. The most significant programs are briefly summarized below, while the location of the properties is shown on Figure FV-1 in the pocket.

Mt. Nansen (Chevron Canada Resources Limited under option from B.Y.G. Natural Resources Inc. and G. Dickson) - This program consisted principally of claim surveys, bulldozer and excavator trenching, and 1048.5 m of diamond drilling in 17 holes. Results were generally favourable and reported in the 1987 Nansen Project Final Report.

Goulter (Aurchem Ltd. under options from the Goulter family and G. Dickson) - Several diamond drill holes totalling about 1525 m tested a broad shear zone rumoured to contain wide intervals of low grade precious metal values with narrow high grade intersections associated with calcite $\pm$ quartz $\pm$ sulphide lenses.

Vic (Chesbar Resources Inc. and States Exploration farming-in on Kerr Addison Mines Limited's option from G. Dickson) - Work included minor bulldozer and excavator trenching plus approximately 1220 m of diamond drilling which tested narrow precious metal-bearing, quartz veins. Results were said to be negative.

Antoniuk (Big Creek Resources Ltd., Rexford Minerals Ltd., and Permian Resources Ltd. under option from Discovery Mines Limited) - Exploration consisted of bulldozer trenching and two deep test pits to determine whether or not supergene enrichment is present and, if so, to what depth. Assays from one

pit dropped off rapidly within 3 m of surface but those from the other were relatively consistent right to the bottom of the pit, about 8 m below surface.

Goldstar (Big Creek Resources Ltd. and Rexford Minerals Ltd. under option from G. Harris and E. Wienecke). Work included EM-16 surveys, 7256 m of bulldozer and excavator trenching and 741 m of diamond drilling in 17 holes. Results were encouraging and suggest that the Augusta and Margarete veins are fault offsets of a single structure. The best drill intersection averaged 0.09 oz/ton Au and 1.32 oz/ton Ag over 12.2 m, while one of the trenches cut high grade mineralization that assayed 10.67 oz/ton Au over 5 m.

Revenue (Big Creek Resources Ltd. and Rexford Minerals Ltd. under option from Yukon Revenue Mines Limited) - Over 4400 m of bulldozer and excavator trenching on the property yielded generally disappointing results with the best exposure grading 0.046 oz/ton Au over 70 m.

Nucleus (Big Creek Resources Ltd. and Rexford Minerals Ltd. under option from Chevron Minerals Ltd.) - A total of 524 m of excavator trenching was done on the Vest Pocket zone in the northeastern corner of the property while 3842 m of pre-stripping was done on proposed 1988 trench locations in the Main zone. The best intersection in the Vest Pocket zone assayed 0.05 oz/ton Au over 10 m.

Stoddart, Field and Toast (Big Creek Resources Ltd. and Rexford Minerals Ltd. under option from FV) - Reconnaissance soil sampling and prospecting done on the Field and Toast claims returned negative results, while grid soil geochemistry on the eastern part of the Stoddart property extended the known gold anomalies.

Goldy (Durham Res. Inc.) - Exploration consisted of soil geochemical surveys and excavator trenching but no results have been reported.

Emmons Hill (Noranda Inc.) - Work consisted of two diamond drill holes and bulldozer trenching but results are not known.

Caribou Creek (Doran Exploration) - Bulldozer trenching is rumoured to have exposed an intensely altered zone containing quartz veins but no assays are available.

Other smaller reconnaissance level programs included the following: Robert (G. Dickson), Dic (Chesbar Resources Inc. and States Exploration under option from Kerr Addison Mines Limited), Dows (E. Curley), Elephant (Noranda Inc. under option from G. Lee) and Rags (Durham Res. Inc).

The Federal Yukon Territorial Governments are currently sponsoring three programs in the FV project area that could have a positive effect on mineral exploration.

1. On July 22, results were released for reconnaissance stream sediment samples collected in 1986 from the Snag map sheet (115J&K) which covers the northwestern half of the project area. This work was jointly funded by the Geological Survey of Canada (GSC) and Department of Indian and Northern Affairs (DIAND) and was released as GSC Open File 1363. None of the results were sufficiently interesting to require additional staking by FV.
2. DIAND and the GSC are jointly sponsoring a Master's Thesis which describes various mineral occurrences on Mt. Freegold and a Ph.D. Thesis which will compare mineralization at the Lilypad property to volcanic-hosted precious metal deposits elsewhere in the Yukon.
3. Work is progressing well on the extension of the Freegold Road (Casino Trail). The construction is following the proposed route shown on Figure FV-1 and should reach the Cash property by early December.

CLAIM DATA

Freegold Venture currently holds 591 claims comprising eight properties and one option, as tabulated on the following page. All properties are registered with the Whitehorse Mining Recorder. Expiry dates do not include assessment credit still to be filed by FV for work done on the Tawa property and Big Creek Resources Ltd. on its options.

PROPERTY (Claim Map)	CLAIM NAME	GRANT NUMBERS	NO. OF CLAIMS	EXPIRY DATE
FIELD	Field 1-8	YA95914-YA95921		February 15, 1989
(115I/2)	9-30	YA96233-YA96254	30	February 15, 1989
IDAHO CREEK	DAH 1-22	YA92012-YA92033		March 19, 1993
(115J/9 & 10)	25-47	YA92034-YA92056		March 19, 1993
	48-49	YA92744-YA92745		March 19, 1993
	50F-59F	YA93757-YA93766		March 19, 1993
	60-66	YA93767-YA93773		March 19, 1993
	68-70	YA93774-YA93776		March 19, 1993
	71-91	YA94887-YA94907	88	June 11, 1989
MALONEY	ALO 1-50	YA87228-YA87277	50	March 19, 1989
(115I/4 & 115H/13)				
NIT**	ITN 1-37	YA91875-YA91911		March 19, 1993
(115I/12 &	38-48	YA92627-YA92637		March 19, 1993
115J/9)	60-63	YA92649-YA92652	52	March 19, 1993
NITRO*	NITRO 25-50	YA87375-YA87400	26	March 1, 1988
EXTENSION				
(115I/5 & 6)				
NUCLEUS*	ERL 116	YA92451		April 2, 1988
EXTENSION	118	YA92453		April 2, 1988
(115I/5 & 6)	120	YA92455		April 2, 1988
	138-150	YA92473-YA92485		April 2, 1988
	164-178	YA92499-YA92513		April 2, 1988
	191-206	YA92524-YA92539		April 2, 1988
	216-234	YA92547-YA92565		April 2, 1988
	237-268	YA92568-YA92599		April 2, 1988
	269-274	YA93132-YA93137	104	April 2, 1988
(115J/6)	MEC 1-8	YA93679-YA93686	8	February 19, 1991

PROPERTY (Claim Map)	CLAIM NAME	GRANT NUMBERS	NO. OF CLAIMS	EXPIRY DATE
STODDART* (115I/6)	ACK 1-39	YA91836-YA91874	39	March 5, 1989
	EYM 1F	YA86872		March 5, 1989
	2-16	YA86873-YA86887		March 5, 1989
	17F-18F	YA86888-YA86889		March 5, 1989
	19-46	YA86890-YA86917		March 5, 1989
	47-81	YA91801-YA91835	81	March 5, 1989
	ORO 1-4	YA95202-YA95205	4	March 5, 1989
TAWA*** (115I/3)	Tawa 1-12	YA75263-YA75274		January 3, 1990
	15-24	YA75277-YA75286		January 3, 1990
	25F-26F	YA95051-YA95052		January 3, 1991
	27-34	YA95151-YA95158		January 3, 1991
	47-63	YA95163-YA95179		January 3, 1991
	64-71	YA95301-YA95308		January 3, 1991
	72-79	YB06963-YB06970		August 14, 1988
	83-90	YB06971-YB06978	73	August 14, 1988
TOAST (115I/3 & 4)	Toast 1-36	YA95932-YA95967	36	February 15, 1989
TOTAL			591	

* optioned to Big Creek Resources Ltd.
** optioned to Silverquest Resources Ltd.
*** optioned from Consolidated BRX Mining and Petroleum Corporation; note Tawa 13-14 were allowed to lapse on October 22, 1986 as they were invalid claims

PART II - TAWA PROPERTY REPORT

INTRODUCTION

Chevron Minerals Ltd. optioned the Tawa 1-24 claims from Consolidated BRX Mining and Petroleum Corporation in spring, 1986 on behalf of Freegold Venture (FV). The claims cover gold- and silver-bearing veins similar to those at the former Mt. Nansen Mine, located 10 km to the southeast, as shown on Figure 1 on the following page, which is under option to Chevron from B.Y.G. Natural Resources Ltd.

Geological mapping, prospecting, grid soil geochemistry and EM-16 surveys conducted in June, 1986 produced encouraging results and 37 additional Tawa claims were staked in late July to cover extensions of the anomalous trends. In August and early September, approximately 50% of the new claims were explored by grid soil geochemistry while several geochemical and geophysical anomalies on the core property were tested by bulldozer and excavator trenching. The best exposure graded 0.102 oz/ton Au and 0.44 oz/ton Ag over 4 m and came from a trench cut directly over a 1980 diamond drill intersection that averaged 0.183 oz/ton Au and 0.44 oz/ton Ag over 8.9 m (approximate true width 8.0 m). This and most other high assays came from a northwest-trending steeply south-dipping vein system (BRX Zone). Significant values (up to 0.062 oz/ton Au over 7.5 m) were also obtained about 200 m to the south from a weakly clay altered porphyry dyke trending subparallel to the veins.

The 1987 exploration program consisted of pre-stripping of new trench sites in June, claim surveys, excavator trenching and road construction in July and August, and pre-stripping of proposed 1988 trench sites in September. A further sixteen Tawa claims were added to the northwestern edge of the property in August after claim surveys showed that open ground was available along the

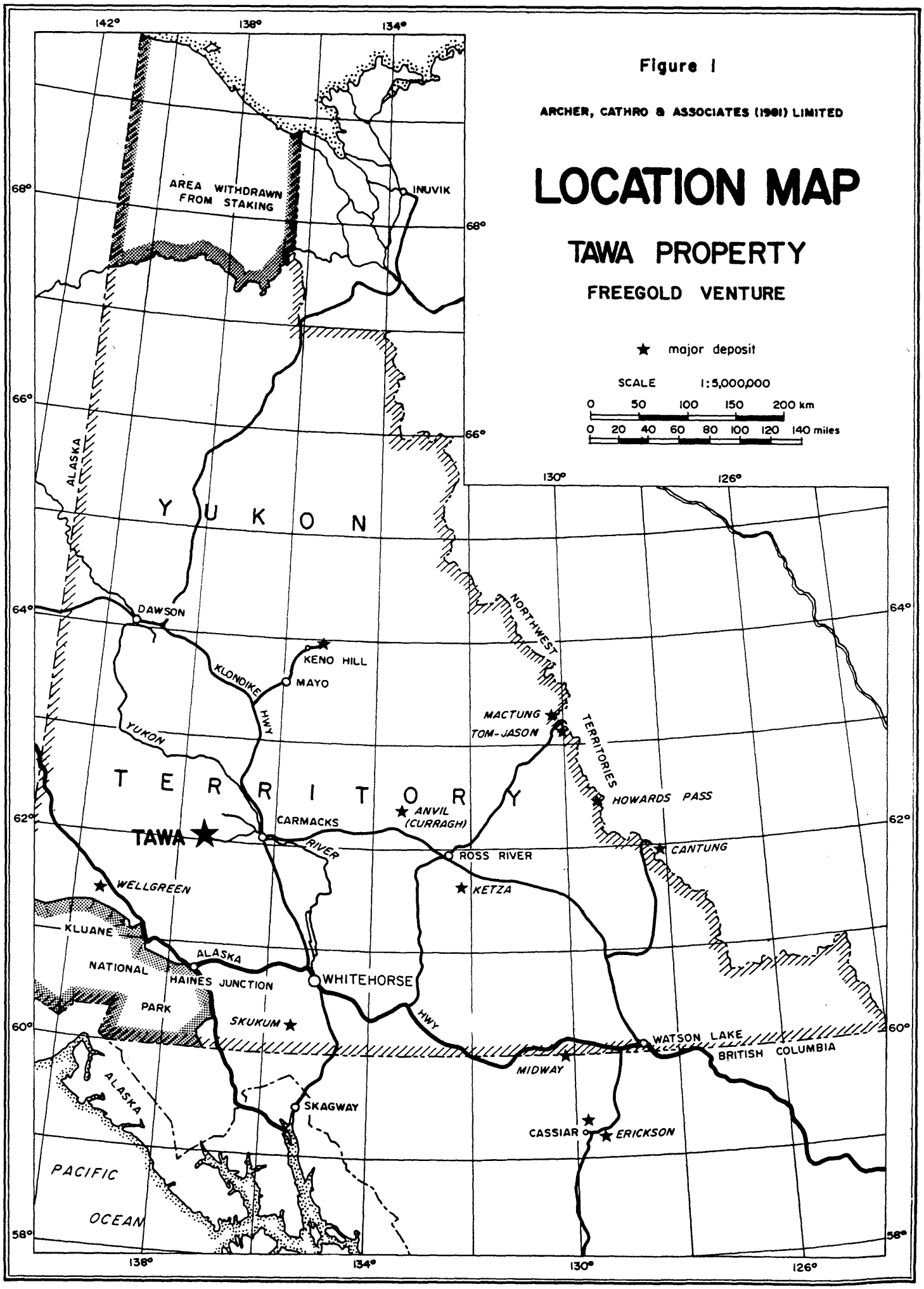


Figure 1
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
LOCATION MAP
TAWA PROPERTY
FREEGOLD VENTURE
★ major deposit
SCALE 1:5,000,000
0 50 100 150 200 km
0 20 40 60 80 100 120 140 miles
142°
138°
134°
130°
126°
68°
66°
64°
62°
60°
58°
AREA WITHDRAWN FROM STAKING
INUVIK
ALASKA
YUKON
TERRITORY
NORTHWEST TERRITORIES
DAWSON
KENO HILL
MAYO
KLONDIKE HWY
YUKON
MACTUNG
TOM-JASON
HOWARDS PASS
ANVIL (CURRAGH)
CARMACKS
TAWA
RIVER
ROSS RIVER
CANTUNG
KETZA
WELLGREEN
KLUANE
ALASKA NATIONAL PARK
HAINES JUNCTION
WHITEHORSE
SKUKUM
HWY
WATSON LAKE
BRITISH COLUMBIA
MIDWAY
SKAGWAY
CASSIAR
ERICKSON
PACIFIC OCEAN

favourable trend. The work was done under the authors' supervision by a two to three man crew operating from a camp on the Mt. Nansen property.

PROPERTY, LOCATION AND ACCESS

The Tawa property consists of 71 full and 2 fractional claims as shown on Figure 2 in the pocket. During 1986, surveys established that the Tawa 13 and 14 claims optioned by Chevron did not exist on the ground; therefore, they were allowed to expire. The Tawa 1-12 and 15-24 claims are registered in the name of Chevron Minerals Ltd., while the remainder are registered in the name of Archer, Cathro & Associates (1981) Limited with the Whitehorse Mining Recorder as follows:

PROPERTY (Claim Map)	CLAIM NAME	GRANT NUMBERS	EXPIRY DATE
TAWA (115I/3)	Tawa 1-12	YA75263-YA75274	January 3, 1990
	15-24	YA75277-YA75286	January 3, 1990
	25F-26F	YA95051-YA95052	January 3, 1991
	27-34	YA95151-YA95158	January 3, 1991
	47-63	YA95163-YA95179	January 3, 1991
	64-71	YA95301-YA95308	January 3, 1991
	72-79	YB06963-YB06970	August 14, 1988
	83-90	YB06971-YB06978	August 14, 1988

Expiry dates shown above do not include assessment credits for work performed in 1987.

The claims are located 50 km west of Carmacks on NTS map sheet 115I/3 at latitude 62°07'N and longitude 137°15'W. Two-wheel drive road access is available to within 0.5 km of the property during summer and fall using the gravel Nansen Road which is maintained by the Yukon Territorial Government. During 1987, a 1.7 km four-wheel drive road was constructed from the Nansen Road to the centre of the property.

HISTORY

The first report of lode mineralization on what is now the Tawa property came in 1937 when Karl Paulson, a placer miner, was rumoured to have discovered high grade silver-lead float. The first claims were staked in October, 1947 by G. Dickson who optioned them to Conwest Exploration Limited which performed minor bulldozer trenching in 1948. From then until the late 1960's the property was dormant.

In 1967, J. Smith and associates of Whitehorse staked the May 1-8 claims and collected reconnaissance soil samples that yielded anomalous lead and silver values. This group also dug one bulldozer trench but no mineralization was intersected. In 1968 and 1969 Esansee Explorations Ltd. built a 14 km tote road from the Mt. Nansen millsite to the edge of the property and conducted geological mapping, geochemical and geophysical surveys and bulldozer trenching.

No further work was done until 1980 when BRX Mining and Petroleum Corporation restaked the property as the Tawa claims and explored with a soil geochemical survey, three short bulldozer trenches (two of which deepened 1968 trenches) and seven diamond drill holes totalling 447.3 m. BRX later changed its name to Consolidated BRX Mining and Petroleum Corporation.

PHYSIOGRAPHY AND GEOMORPHOLOGY

The property covers a broad rounded ridge that lies on the eastern flank of Mt. Nansen between Nansen Creek and the Klaza River. Local elevations range from 1200 to 1500 m above sea level. The area escaped Pleistocene continental glaciation; thus, overburden consists of a few centimetres of organics, 0 to 5 cm of volcanic ash and up to 200 cm of immature soil mixed with locally derived rock fragments over weathered bedrock. Outcrops are rare and talus is restricted to the ridge crest. Permafrost is extensive, particularly on the north- and west-facing slopes. Vegetation ranges from stunted black spruce, buckbrush and moss on the low slopes to lichens and grasses near the ridge top.

GEOLOGY

The Tawa property is situated within the Yukon Crystalline Terrane which consists of Paleozoic or older metamorphic basement rocks intruded and overlain by a variety of igneous rocks related to the Coast Plutonic Complex. The basement schist and gneisses are not exposed on the property and the igneous suite is limited to a granodiorite stock with lesser volcanic and hypabyssal dyke rocks, all of which are believed to be Mid-Cretaceous in age, as shown on Figure T-1 in the pocket. The granodiorite contains up to 30% hornblende plus biotite and is massive, coarse grained and non-foliated. Northwest-trending feldspar porphyry dykes (up to 30 m wide) cut the granodiorite in the main area of interest. These felsic rocks are strongly fractured and contain up to 15%, 1 to 2 mm orthoclase phenocrysts plus rare biotite and quartz phenocrysts in a buff aphanitic groundmass. Volcanic rocks are found peripheral to the main area of interest and include medium green-grey andesite flows and pyroclastic rocks with occasional buff to tan rhyolitic tuff horizons.

Two main fault trends (NW and NE) are present on the property. Northwesterly faults generally lack strong topographic expression but are highly significant as they host vein mineralization and appear to control the distribution of the porphyry dykes. Faults and porphyry dykes with the same orientation are associated with vein and stockwork mineralization at the Brown-McDade, Huestis and Webber Zones on the Mt. Nansen property. Northeasterly faults usually form prominent topographic linears but appear to be unmineralized cross faults. These structures commonly produce 5 to 50 m offsets on northwest-trending faults.

MINERALIZATION

Precious metal mineralization occurs in a series of northwest-trending veins and associated feldspar porphyry dykes that dip moderately to the southwest within the granodiorite host rocks. The veins typically consist of 1 to 10 m wide gouge zones containing a few cm to 3 m wide, pitted, light green quartz bands. In some areas, up to 30 cm wide lenses of relatively massive arsenopyrite, pyrite and/or galena are developed alongside the quartz. The footwall contacts are generally sharp while the hanging wall contacts show a gradual decrease in fracture density and alteration intensity. Typical alteration grades from quartz, sericite and kaolinite in the core of the vein, to strongly montmorillonite altered gouge containing orange limonite, to highly fractured, weakly montmorillonite altered and manganese stained wallrocks on the periphery.

Previous operators reported trench assays as high as 0.962 oz/ton Au with 17.72 oz/ton Ag over 30 cm (from a trench that was deepened in 1986 and renamed T-4) and drill intersections grading up to 0.183 oz/ton Au with 0.44 oz/ton Ag over 8.9 m, including 0.715 oz/ton Au with 1.46 oz/ton Ag over 1.5 m (from Hole 80-6 which was drilled beneath T-4). The other holes returned low values or were unmineralized, however many had poor recovery and some were drilled subparallel to the veins, never getting out of the footwall rocks. Three specimens of nearly massive galena (one collected by previous operators and the others by FV) returned 50 to 55% Pb with 0.048 to 1.702 oz/ton Au and 70.10 to 145.42 oz/ton Ag. Drilling by previous operators has shown that weak to moderate oxidation is present to a depth of about 20 m in mineralized structures.

TRENCHING

General

Trenching was done by Ibex Contracting Limited of Whitehorse using a ripper-equipped Caterpillar D7G bulldozer to strip vegetation and till from proposed trench sites and a Caterpillar 225 excavator to finish them. Twenty-eight trenches totalling 6385 m were pre-stripped, of which twelve totalling 1939 m were wholly or partially excavated, as shown on Figure T-1. Frozen ground and slumping which occurred when the frost thawed limited the speed of trenching and in some instances severely hindered mapping and sampling. Continuous 7 kg chip samples were normally collected over 1 to 5 m intervals from the trench ribs across all mineralized or strongly altered exposures. Soil samples were taken at 10 m along the floors of three of the stripped, but not completed, trenches to better define the probable source of the metals. A total of 227 chip and 43 soil samples was sent to Chemex Labs in North Vancouver where the chip samples were fire assayed for gold and silver while the soils were geochemically analyzed using a fire assay preparation and neutron activation finish.

Results

Significant assays are listed on Table 1 on the following page and shown with geology, gold geochemistry and EM-16 conductors on Figure T-1. Results from 1987 better defined the vein system that received most of the previous exploration (BRX Zone) and located a second parallel vein system 1000 m to the northeast (Klaza Zone).

Work on the BRX Zone has traced the veins 750 m along strike and shown that the intensity of mineralization and alteration is highly variable. The

TABLE 1:
1987 TRENCH ASSAY DATA, TAWA PROPERTY

Trench	Zone	From (m)	To (m)	Width (m)	oz/ton Au	oz/ton Ag
T-3X	BRX	74.0	77.0	3.0	0.069	0.48
		165.0	167.0	2.0	0.045	1.03
T-10X	BRX	---	---	---	---	---
T-11	Klaza	136.5	144.5	8.0	0.123	1.38
including		136.5	137.5	1.0	0.212	2.53
		143.5	144.5	1.0	0.326	6.30
		217.0	218.0	1.0	0.130	12.80
T-14	BRX	31.5	38.5	7.0	0.091	1.35
including		33.0	34.5	1.5	0.204	1.20
T-15	---	126.5	127.5	1.0	0.119	0.50
T-16	BRX	45.5	48.0	2.5	0.200	4.67
		55.5	57.0	1.5	0.255	0.83
T-17	BRX	39.0	43.0	4.0	0.063	1.83
T-18	BRX	25.5	28.5	3.0	0.052	0.71

best assays obtained from this zone in 1987 were from trench T-16, located 135 m northwest of T-4, where two veins located 7.5 m apart returned 0.200 and 0.255 oz/ton Au with 4.67 and 0.83 oz/ton Ag over 2.5 and 1.5 m, respectively. Samples taken from the interval between the two veins averaged only 0.013 oz/ton Au and 0.21 oz/ton Ag. The erratic nature of the mineralization in this zone is demonstrated by the fact that trench T-3X, located halfway between trenches T-4 and 16, yielded only one intersection (0.069 oz/ton Au and 0.48 oz/ton Ag over 3 m) on the main trend. Mineralization in the BRX Zone is still open in both directions but appears to be weakening to the southeast.

Trench T-11 was the only trench completed on the Klaza Zone, which is located on a moss covered, frozen north-facing hillside where soil sampling produced moderate to strongly anomalous values. The best assay averaged 0.123 oz/ton Au and 1.38 oz/ton Ag across 8.0 m including a 1 m interval that graded 0.326 oz/ton Au and 6.30 oz/ton Ag over 1 m. A second vein located 72.5 m to the southwest returned 0.130 oz/ton Au and 12.80 oz/ton Ag across 1 m. A third vein at the northeast end of the trench was only partially exposed, suggesting that other parallel structures may exist.

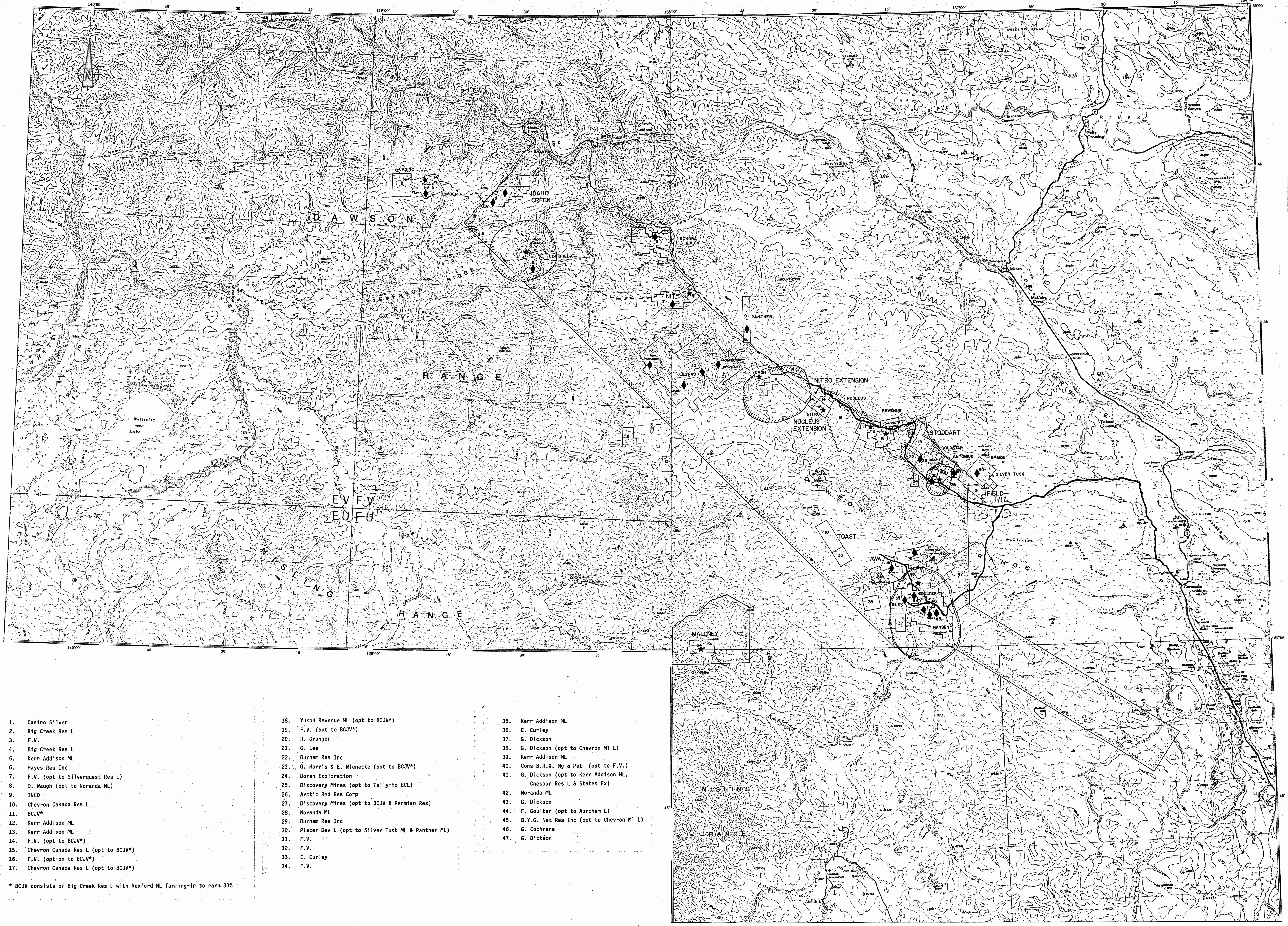
Only one trench (T-15) was cut off the trend of the two main zones. It tested a strong soil geochemical anomaly in the northeastern part of the property and exposed numerous 1 to 10 m wide gougy shear zones, most of which contained little or no quartz veining and returned values less than 0.03 oz/ton Au. The best assay (0.199 oz/ton Au and 0.50 oz/ton Ag across 1 m) came from an interval containing a 1 to 4 cm wide quartz vein in a 30 cm wide, limonitic and clay altered shear.

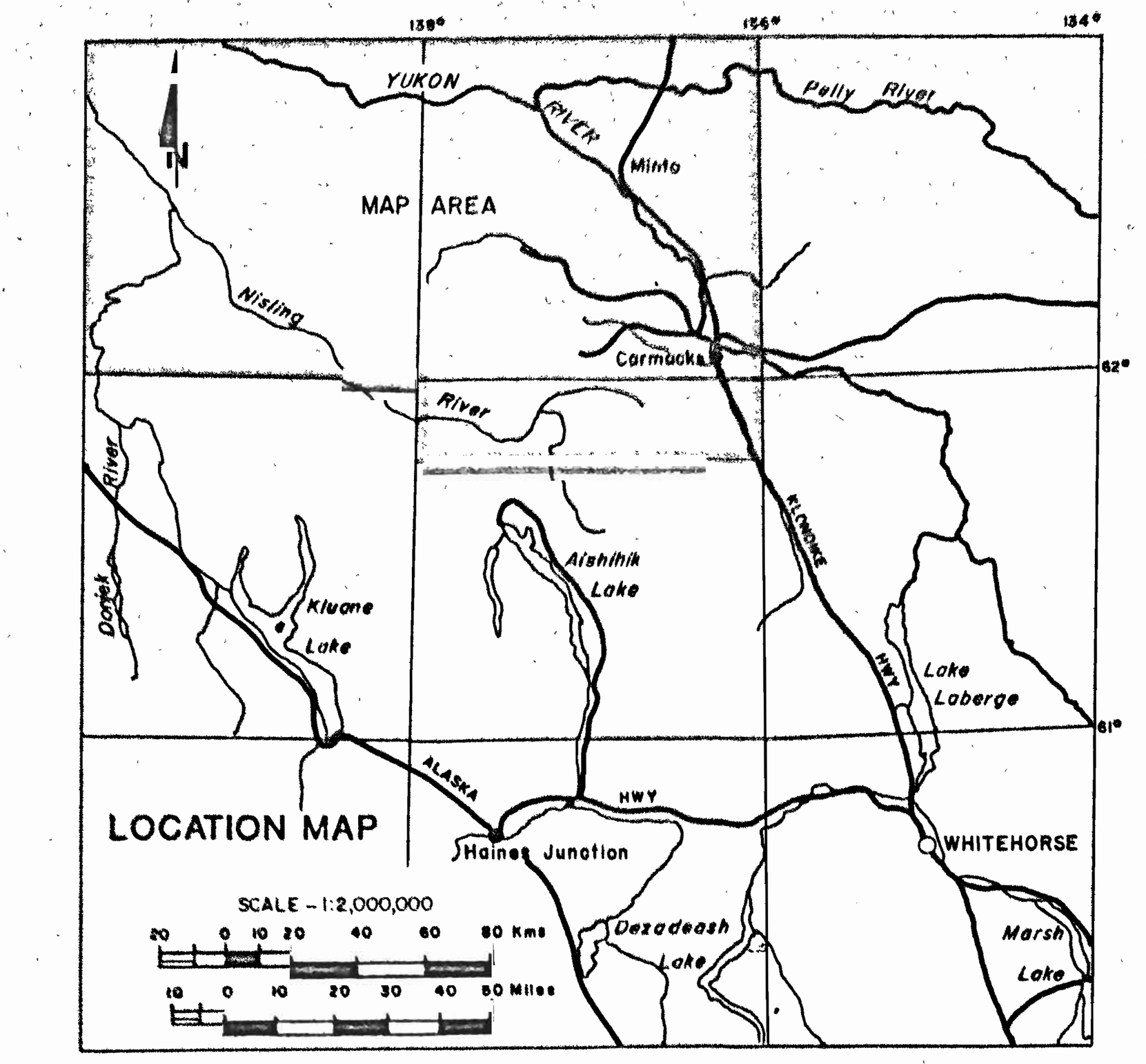
None of the trenches begun in the vicinity of the mineralized porphyry dyke exposed in trench T-5 southeast of the BRX Zone were completed; thus, its orientation and extent are uncertain.

CONCLUSIONS

The 1987 results are encouraging and indicate that at least two large vein systems are present on the property. Although individual veins tend to be relatively narrow, in some areas they are sufficiently high grade to be potential underground mining targets or close enough together to be mined as a small open pit operation. The mineralization is largely unoxidized and would require flotation to produce a sulphide concentrate that could then be shipped to a smelter or pre-oxidized and treated by cyanidization on site.

The next phase of exploration should focus on excavation of the more than 6 km of pre-stripped trenches plus completion of the access road in preparation for diamond drilling.





★ Cu ± Au porphyry deposit

♦ Epithermal vein

Property outline and ownership

Road, existing and proposed

Project boundary

Restricted area around Archer Cathro property

Restricted area around Chevron's Mt. Nansen option

1. Casino Silver
2. Big Creek Res L
3. F.V.
4. Big Creek Res L
5. Kerr Addison ML
6. Hayes Res Inc
7. F.V. (opt to Silverquest Res L)
8. D. Waugh (opt to Noranda ML)
9. INCO
10. Chevron Canada Res L
11. BCJV*
12. Kerr Addison ML
13. Kerr Addison ML
14. F.V. (opt to BCJV*)
15. Chevron Canada Res L (opt to BCJV*)
16. F.V. (option to BCJV*)
17. Chevron Canada Res L (opt to BCJV*)
18. Yukon Revenue ML (opt to BCJV*)
19. F.V. (opt to BCJV*)
20. R. Granger
21. G. Lee
22. Durham Res Inc
23. G. Harris & E. Wienecke (opt to BCJV*)
24. Doran Exploration
25. Discovery Mines (opt to Tally-Ho ECL)
26. Arctic Red Res Corp
27. Discovery Mines (opt to BCJV & Permian Res)
28. Noranda ML
29. Durham Res Inc
30. Placer Dev L (opt to Silver Tusk ML & Panther ML)
31. F.V.
32. F.V.
33. E. Curley
34. F.V.
35. Kerr Addison ML
36. E. Curley
37. G. Dickson
38. G. Dickson (opt to Chevron Ml L)
39. Kerr Addison ML
40. Cons B.R.X. Mg & Pet (opt to F.V.)
41. G. Dickson (opt to Kerr Addison ML, Chesbar Res L & States Ex)
42. Noranda ML
43. G. Dickson
44. F. Goulter (opt to Aurchem L)
45. B.Y.G. Nat Res Inc (opt to Chevron Ml L)
46. G. Cochrane
47. G. Dickson

* BCJV consists of Big Creek Res L with Rexford ML farming-in to earn 33%

Figure FV-1

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

PROPERTY OWNERSHIP, PROJECT BOUNDARIES AND RESTRICTED AREAS

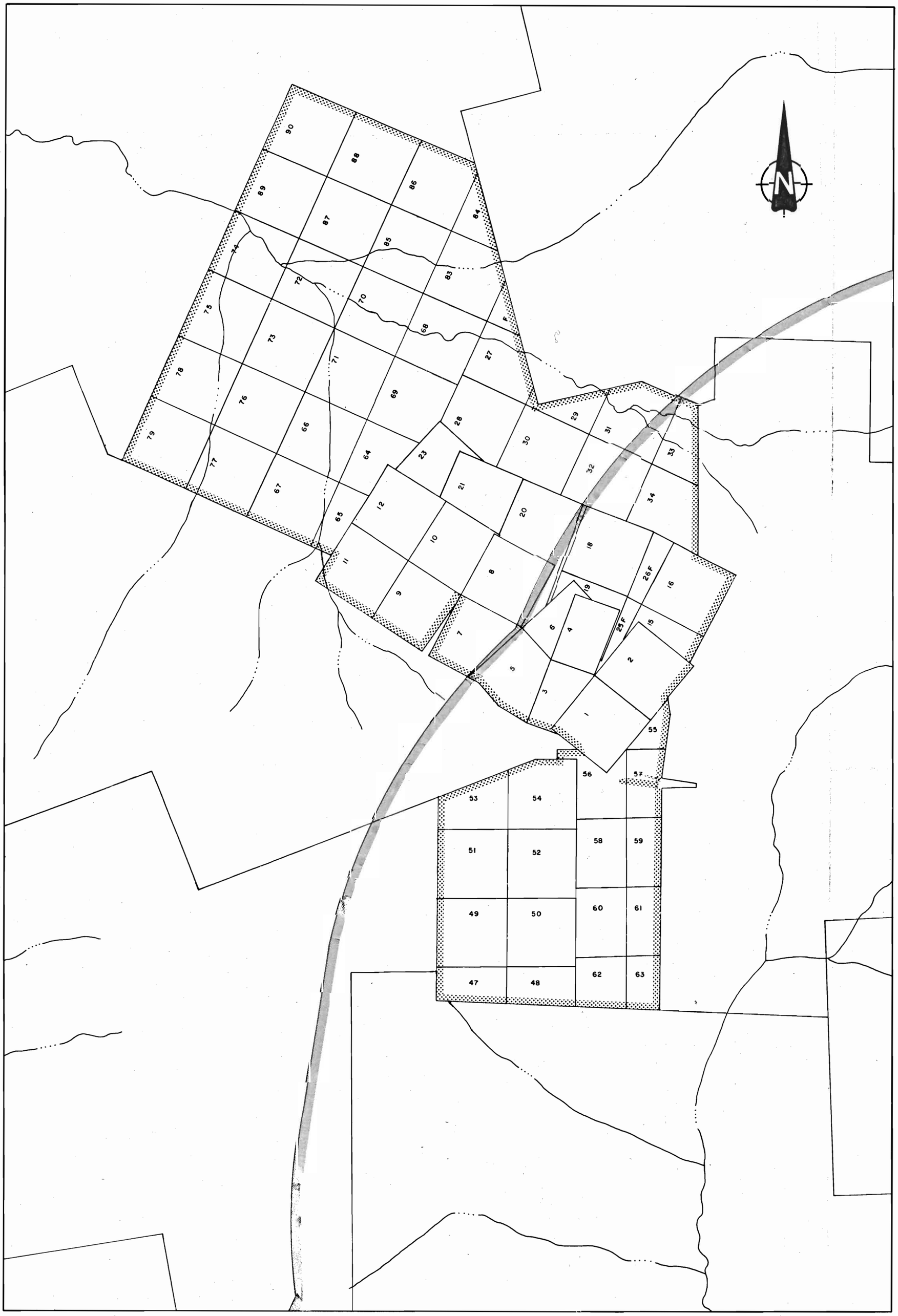
FREEGOLD VENTURE

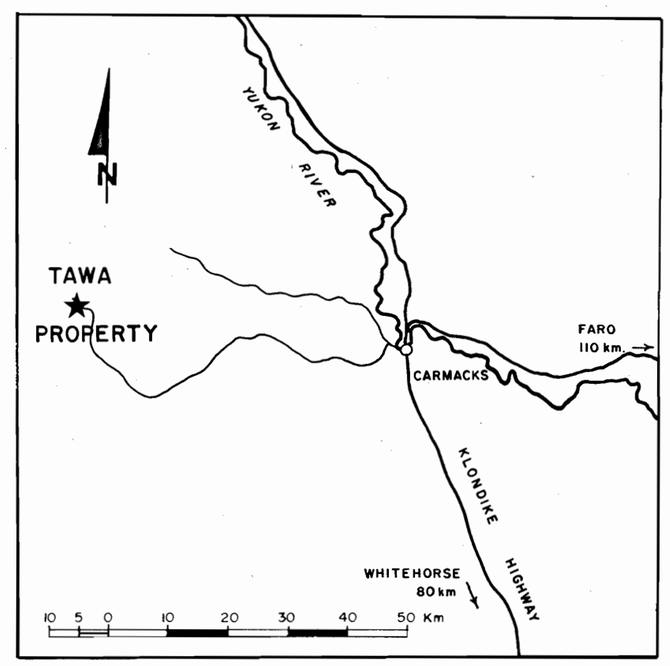
SCALE 1:250,000

0 5 10 15 20 Km

0 5 10 15 miles

To accompany report dated December, 1987





Tawa property boundary

Mt. Nansen area of influence

0123-75160
TN27.48
C4
F74
C.1

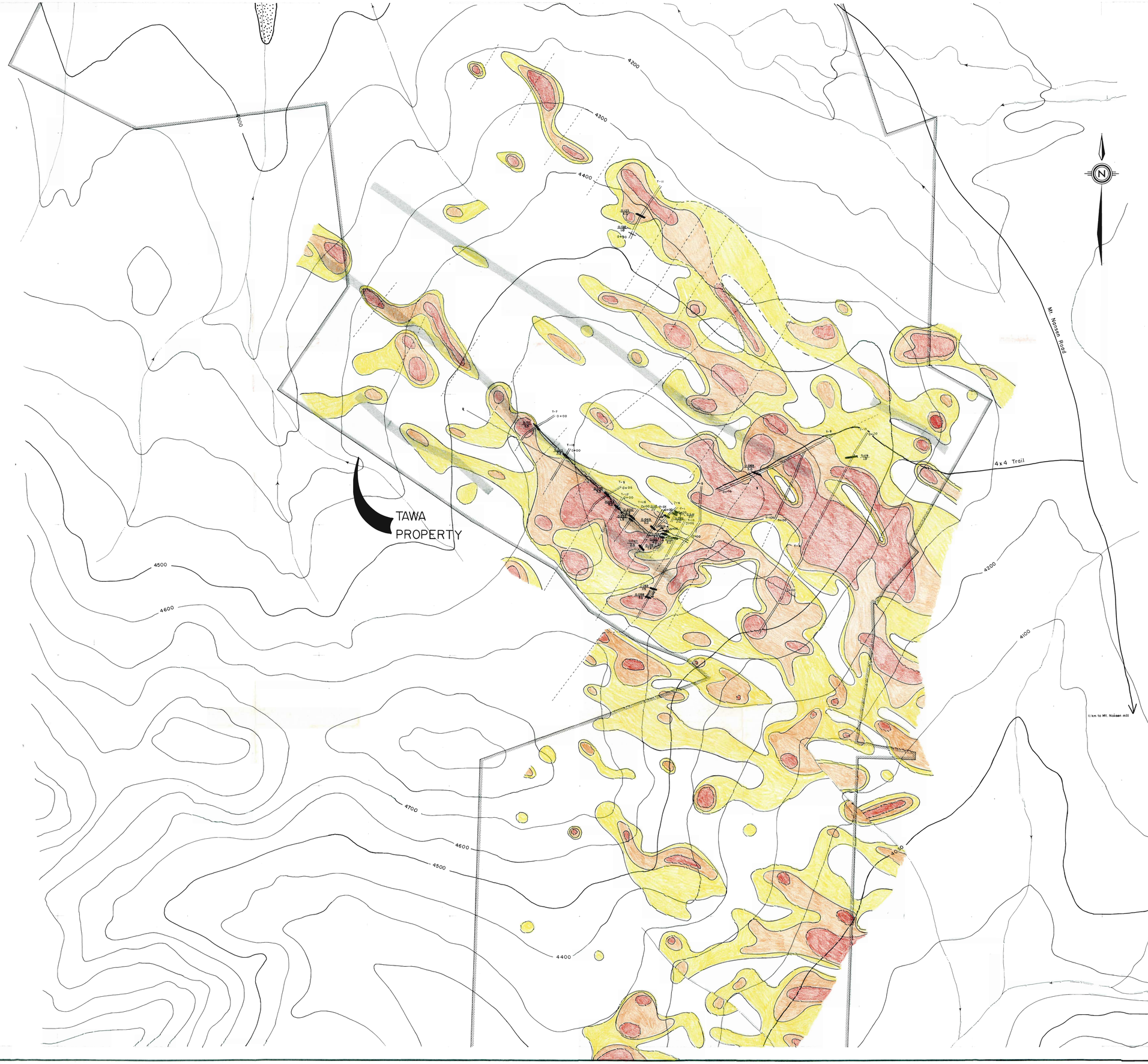
Chevron Canada Resources Limited
Minerals Staff

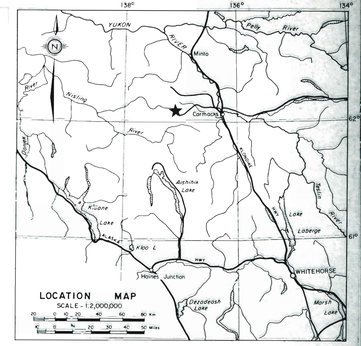
CLAIM DATA

TAWA PROPERTY

FIGURE No. 2		PROJECT FREEGOLD VENTURE	
DATE DEC. 1987	REVISIONS		SCALE 1:20000
NTS No. 115 I-3			FILE No.
COMPILED BY ARCHER, CATHRO & ASSOCIATES (1981) LTD.			

10005600 51





0105-75/60
TM93 YB
64 F 7W

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Minerals Staff

COMPILATION MAP

TAWA PROPERTY

FIGURE No. 3		PROJECT FREEGOLD VENTURE	
DATE DEC. 1987	REVISIONS		SCALE 1:5000
NTS No. 115 I-3			FILE No.
COMPILED BY ARCHER, CATHRO & ASSOCIATES (1981) LIMITED			

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