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FREEGOLD VENTURE

FINAL REPORT

DECEMBER, 1986

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SUMMARY AND RECOMMENDATIONS

Freegold Venture (FV) was formed in spring 1985 to explore for precious metals in an unglaciated area of west-central Yukon where previous work by Nat Joint Venture (Chevron and Armco) 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 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. Resources Inc. optioned to Chevron) and Antoniuk (Discovery Mines Limited optioned to Nordac Mining Corporation and Permian Resources Ltd.) properties. When favourable results were reported from these properties, all land holdings in the area were again reviewed and two road accessible properties (Tawa and Goldstar) were targeted for acquisition. In spring 1986, Chevron Minerals Ltd. 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. Results of the Silverquest work are reported separately.

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 and Toast 1-36 claims) to cover drainages that produced anomalous gold and/or arsenic stream sediment values reported in Geological Survey of Canada (GSC) Open Files 1219 and 1220. The GSC collected the samples in 1985 as part of an ongoing reconnaissance geochemical program and Open Files 1219 and 1220 covered the southeastern half of the FV project. During summer 1986, similar sampling was conducted over the northwestern half of the area and the results are expected to be released in summer 1987.

The Tawa property consists of 57 full and 4 fractional claims located 3 km north of the Mt. Nansen property. It is underlain by coarse-grained Mid-Cretaceous granodiorites that are overlain and cut by approximately coeval andesitic flows and tuffs and feldspar porphyry dykes. Gold and minor silver occur within a series of northwest-trending, west-dipping gougy fault zones and associated subparallel porphyry dykes. The faults and dykes typically contain 0.01 to 0.06 oz/ton Au over widths of up to 10 m. Higher values are

associated with up to 2 m wide quartz- and/or sulphide-rich bands in veins that yielded up to 0.962 oz/ton Au with 17.71 oz/ton Ag over 0.3 m from trench samples and 0.715 oz/ton Au and 1.46 oz/ton Ag over 1.5 m from drill core. Most rocks within the veins and dykes are strongly oxidized to a depth of about 20 m and below this arsenopyrite, pyrite and galena are common. The best drill intersection averaged 0.183 oz/ton Au with 0.44 oz/ton Ag across 8.9 m (true width 8 m).

Soil gold geochemical response is strong and has outlined several northwest-trending anomalies with strike lengths in the range of 200 to 1200 m. While some of the anomalies coincide with known mineralization, the best were not tested by previous operators. Less than half of the anomalies have been cut by even one trench and none has been thoroughly explored. The EM-16 surveys delineated a number of conductors that coincide the mineralized structures and geochemical anomalies.

This property has potential for hosting both bulk tonnage and high grade vein deposits and should be aggressively explored. The next stage should consist of systematic bulldozer and excavator trenching followed by diamond drilling.

The Goldstar property includes 66 full and 4 fractional claims and is located on Mt. Freegold, 2 km west of the Antoniuk deposit. It is underlain by Paleozoic or older gneiss, schists, quartzites and marbles, Jurassic syenites and Mid-Cretaceous granodiorites and feldspar porphyry dykes. Precious metal mineralization is found in three, up to 2 m wide, east-west trending zones (Augusta, Margareta and Vindicator) that have been explored by hand trenching, bulldozer trenching and diamond drilling intermittently since the 1930's. The Augusta Zone is a magnetite-rich skarn zone with geological

reserves of 78,000 tons grading 0.12 oz/ton Au and 3.03 oz/ton Ag to a depth of 20 m. The Margareta Zone, which lies 100 m due south of the Augusta, consists of a swarm of irregular quartz veinlets associated with a porphyry dyke and contains geological reserves of 101,000 tons grading 0.11 oz/ton Au with 1.97 oz/ton Ag to a depth of 20 m. The relatively untested Vindicator Zone is located 1000 m due west of the Margareta and appears to be geologically similar to it. Exposure is limited to a single limonite-stained outcrop, a chip sample from which assayed 0.110 oz/ton Au and 18.05 oz/ton Ag over 1.22 m. Limited drilling indicated that mineralized rocks are strongly oxidized to a depth of at least 60 m.

Soil geochemistry located numerous moderately anomalous clusters that are scattered across the property but samples taken in the immediate vicinity of the Augusta and Margareta Zones returned near background values. The two best geochemical targets are a 600 by 100 m area of moderately to strongly anomalous values centred on the Vindicator Zone and an irregular 500 by 150 m cluster surrounding an untested breccia zone near the summit of Mt. Freegold. Unfortunately, none of the soil geochemical anomalies exhibits the intensity, size or continuity of anomalies associated with nearby bulk tonnage deposits (Antoniuk and Nucleus). The EM-16 surveys were inconclusive because the transmitting station with the most favourable orientation was shut down for unscheduled maintenance during the test period.

The Goldstar property has potential for modest reserves of medium grade, oxidized ore that might be economic if nearby deposits were developed. While the property requires additional trenching and diamond drilling, the target is too small for FV and the property should be optioned out.

The Stoddart property adjoins the Goldstar to the west and consists of 124 claims. Bedrock exposure is poor but is believed to include Paleozoic or older metamorphic rocks, Jurassic syenites and Mid-Cretaceous granodiorites and porphyry dykes. Although no significant precious metal occurrences are known, the property is well situated with respect to nearby occurrences and 1985 and 1986 gold soil geochemistry has outlined three large, untested areas of weakly to strongly anomalous gold values. While the anomalies are not as intense or continuous as those associated with the Antoniuk and Nucleus deposits, they occur on heavily vegetated, frozen slopes where sampling is difficult.

Future work should consist of minor soil sampling to complete coverage of the property and bulldozer trenching to test the main anomalies.

The three new properties (Bag, Field and Toast) are unexplored and reconnaissance soil sampling and mapping traverses should be done around the headwaters of the streams that produced the anomalous values to determine whether or not grid soil sampling and detailed mapping are warranted.

Respectfully submitted,

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

M.J. Walls

W.D. Eaton

PART I - GENERAL

INTRODUCTION

Freegold Venture (FV) was formed by Chevron Canada Resources Limited 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 Permian Resources Ltd. and Nordac Mining Corporation from Discovery Mines Limited. The 1985 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 reevaluate data for other properties located near the prospects. This reevaluation resulted in Chevron optioning the Tawa property (24 claims located 3 km northwest of 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 field program consisted of 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.

FV also staked three new claim blocks 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.

PERSONNEL, CONTRACTORS AND PROJECT CHRONOLOGY

The FV crew was supervised by D. Eaton and normally consisted of crew chief M. Walls plus fieldmen T. Becker and D. Kohlhaas. In addition, fieldmen J. Gnucci, D. Hrycun, D. Lister and T. Knight and geologist J. Dennett were briefly assigned to the program at various times during the summer.

Trenching at Tawa was contracted to Ibex Contracting Ltd. of Whitehorse and utilized a ripper-equipped Cat D7G bulldozer for pre-stripping and an Insley 1000H excavator for trenching. The pre-stripping was completed without problems but frost was pervasive just below surface making trenching extremely difficult and slow. The program was terminated when the excavator suffered drive motor malfunctions and it became obvious that little additional progress could be made this season due to the slow rate of melting.

There were no injuries, and no time was lost due to unseasonable weather.

The following is a summary of the 1986 program.

March	Literature search and base map compilation.
June 3-4	Crew arrived in Whitehorse and assembled field gear.
June 5-6	Mobilization and camp construction at Tawa.
June 7-17	Surveying, mapping and sampling at Tawa.
June	EM-16 surveys started at Tawa by fieldmen working from the Mt. Nansen camp.
June 18	Camp moved to Goldstar.
June 19 - July 17	Surveying and soil sampling at Goldstar.
July	Oro 1-4 claims staked to fill gap between Goldstar and Stoddart.
July	Additional Tawa claims staked.

July 18-23	Soil sampling on ACK claims at Stoddart from Goldstar camp.
July 24-28	Test EM-16 surveys at Goldstar.
July	Bulldozer stripping at Tawa using equipment and personnel borrowed from Nansen Project.
July 29	Camp moved back to Tawa.
July 30 - August 1	EM-16 surveys completed at Tawa.
July 30 - August 12	Surveying and soil sampling of the Tawa claims that were staked in 1986.
August 6	Staked Field 1-8, Bag 1-10, Toast 1-36 claims following release of GSC Open File.
August 7 - September 28	Excavator trenching and sampling at Tawa.
August 13	M. Walls moved to Mt. Nansen camp.
September 9-11	J. Dennett and M. Walls moved to Goldstar and prospected geochemical anomalies resulting from 1986 soil grid.
September	Staked Field 9-30 claims.
Fall	Data compilation in preparation of final report.

ACTIVITY BY OTHERS

During 1986 mineral exploration and development were 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 major programs are briefly summarized below, while property locations are shown on Figure FV-1 in the pocket.

Mt. Nansen (Chevron Canada Resources Limited under options from B.Y.G. Natural Resources Inc. and G. Dickson) - This program principally consisted of geological mapping, EM-16 surveys, bulldozer and excavator trenching and 576.4 m of diamond drilling in 11 holes. Results were generally favourable as reported in the 1986 Nansen Project Final Report.

Goulter (Prochem Ltd. under options from the Goulter family and G. Dickson) - A series of bulldozer trenches traced a broad shear zone containing calcite $\pm$ quartz $\pm$ sulphide lenses up a frozen north-facing slope. Although results are said to be encouraging, exploration was slow and costly due to the frost.

Vic (Kerr Addison Mines Limited under option from G. Dickson) - Work included geological mapping, claim staking, minor excavator trenching and diamond drilling. No results have been reported.

Antoniuk (Nordac Mining Corporation and Permian Resources Ltd. under option from Discovery Mines Limited) - Exploration consisted of 2189.1 m of diamond drilling in 24 holes, plus metallurgical testing which was sponsored in part by the Canada Centre for Mineral and Energy Technology, a branch of the Department of Energy, Mines and Resources. Most of the work was fill-in drilling which yielded somewhat erratic results but generally supported earlier tonnages and grade estimates. Indicated reserves are now 4.1 million tons grading 0.033 oz/ton Au with a 0.85:1 stripping ratio.

Revenue (Nordac Mining Corporation under option from Yukon Revenue Mines Limited) - This program included grid soil geochemistry, claim surveys, bulldozer stripping and excavator trenching. Soil geochemical results were highly encouraging but excavator trenching was inconclusive as only a few results were obtained before the program was suspended due to financing problems.

Nucleus (Chevron Canada Resources Limited and Armco Mineral Exploration Ltd.) - Four excavator trenches were cut in the main area of interest along the Nucleus-Revenue property boundary. All intersected gold-bearing zones which appear to be extensions of, or subparallel to, zones within two previously defined blocks (see 1986 Nat Joint Venture Final Report).

Cockfield (Kerr Addison Mines Limited) - Diamond drilling was done but no details or results have been released.

Panther (Inco Limited) - Minor bulldozer trenching was done on precious metal veins but no results were reported.

Idaho Creek and Nit (Silverquest Resources Ltd. under option from FV) - Bulldozer trenches on both properties intersected broad gouge zones containing scattered quartz ± sulphide lenses. Assay results were disappointing; however, frost problems were severe and the most intense geochemical anomalies were poorly tested.

Other smaller reconnaissance level programs included the following: Hen (Nordac Mining Corporation), Robert (G. Dickson), Rag (Durham Resources Limited under option from Yukon Revenue Mines Limited), Etzel (Pearl Resources Ltd. under option from G. Dickson), and Dic (Kerr Addision Mines Limited).

The Yukon Territorial Government is currently sponsoring five programs in the FV project area that could have a strong positive affect on mineral exploration.

1. As previously mentioned, metallurgical tests are underway on material from the Antoniuk property. If results of the preliminary test are favourable, the government is expected to provide partial financing for test heap leach pads during the 1986 field season.
2. During the past summer reconnaissance stream sediment samples were collected from the Snag map sheet (115 J & K) which covers the northwestern half of the project area. This work is jointly sponsored by the Geological Society of Canada (GSC) and the Department of Indian and Northern Affairs (DIAND). Results are expected to be released in summer 1987 as GSC open file maps.

3. DIAND and the GSC are jointly sponsoring a master's thesis which is describing various mineral occurrences on Mt. Freegold; a Ph.D. thesis which will compare mineralization at the Lilypad property to volcanic hosted precious metal deposits elsewhere in the Yukon; and, a proposed Ph.D. thesis which will begin in 1987 and study mineralization at the Mt. Nansen property.
4. DIAND is funding two 1:50,000 scale geological mapping programs, one covering NTS map sheets 115I/3 and 6 and the other NTS map sheets 115J/9 and 10. Results are expected to be published in "Yukon Exploration and Geology 1986".
5. The Federal and Yukon Territorial Governments are financing upgrading and extension of the Freegold Road along the proposed route shown on Figure FV-1. Work began in September, 1986 and is scheduled to reach the Cash property by late fall.

CLAIM DATA AND PROJECT BOUNDARIES

Figure FV-1 illustrates the project boundaries, restricted areas surrounding properties held by Chevron or Archer, Cathro prior to the formation of FV, and the location of properties owned by FV and others.

The project area encompasses some 3,000 sq km, including 319 sq km that fall within four restricted areas. Two of these restricted areas surround old Archer, Cathro properties and were defined in the Nat Joint Venture agreement as encompassing all land situated within a radius of 4 km (2.5 miles) of the property perimeters. The third consists of a 1.6 km (1 mile) radius around a property optioned by Archer, Cathro on Mt. Freegold, while the last is a 3.2 km (2 miles) radius around the B.Y.G. Natural Resources Inc.'s Mt. Nansen property which Chevron has optioned.

FV currently holds 817 claims comprising 9 properties and two options, as shown on Table 1 on the following page. All properties are registered with the Whitehorse Mining Recorder. Expiry dates shown in Table 1 do not include assessment credit still to be filed for 1986 work on the Idaho Creek, Nit, Nucleus Extension, and Stoddart and Goldstar properties.

TABLE 1
CLAIM STATUS
FREEGOLD VENTURE
DECEMBER, 1986

PROPERTY (Claim Map)	CLAIM NAME	GRANT NUMBERS	NO. OF CLAIMS	EXPIRY DATE
BAG (115I/4)	Bag 1-10	YA95922-YA95931	10	August 15, 1987
FIELD (115I/2)	Field 1-8	YA95914-YA95921		August 15, 1987
	9-30	YA96233-YA96254	30	September 16, 1987
GOLDSTAR* (115I/3)	Augusta	15494		December 12, 1987
	Margareta	15505		December 12, 1987
	Gold Star	15519		December 12, 1987
	Peerless	15549		December 12, 1987
	Protection Fr	15677		December 12, 1987
	Shear Zone 1-2	60420-60421		December 12, 1987
	Vindicator 1-2	60422-60423		December 12, 1987
	Liberty	63638		December 12, 1987
	Excelsior 1-3	63639-63641		December 12, 1987
	Progress 1-2	73464-73465		December 12, 1987
	Goldstar Fr	Y80600	22	December 12, 1987
	Greenstone 1-4	90465-90468		December 12, 1987
	5	91056		December 12, 1987
	6F	Y21094		December 12, 1987
	7-9	YA92778-YA92780		January 29, 1989
	10	YA92869	4	January 29, 1989
	Rick 1-14	YA92082-YA92095		June 24, 1987
	15-23	YA92748-YA92756	23	January 29, 1989
	Cabage 1-11	YA92757-YA92767		January 29, 1989
	13-14	YA92768-YA92769		January 29, 1989
	17-24	YA92770-YA92777	21	January 29, 1989
IDAHO CREEK** (115J/9 & 10)	DAH 1-22	YA92012-YA92033		March 19, 1993
	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 (115I/4 & 115H/13)	ALO 1-50	YA87228-YA87277	50	March 19, 1989
NIT** (115I/12 & 115J/9)	ITN 1-37	YA91875-YA91911		March 19, 1993
	38-48	YA92627-YA92637		March 19, 1993
	60-63	YA92649-YA92652	52	March 19, 1993

PROPERTY (Claim Map)	CLAIM NAME	GRANT NUMBERS	NO. OF CLAIMS	EXPIRY DATE
NITRO EXTENSION (115I/5 & 6)	NITRO 25-50	YA87375-YA87400	26	March 1, 1988
NUCLEUS EXTENSION (115I/5 & 6)	ERL 1-40	YA92344-YA92383		April 2, 1987
	43-66	YA92384-YA92407		April 2, 1987
	69-90	YA92408-YA92429		April 2, 1987
	95-178	YA92430-YA92513		April 2, 1987
	181-206	YA92514-YA92539		April 2, 1987
	209-268	YA92540-YA92599		April 2, 1987
	269-274	YA93132-YA93137	262	April 2, 1987
(115J/6)	MEC 1-8	YA93679-YA93686	8	February 19, 1987
STODDART (115I/6)	ACK 1-39	YA91836-YA91874	39	March 5, 1988
	EYM 1F	YA86872		March 5, 1988
	2-16	YA86873-YA86887		March 5, 1988
	17F-18F	YA86888-YA86889		March 5, 1988
	19-46	YA86890-YA86917		March 5, 1988
	47-81	YA91801-YA91835	81	March 5, 1988
	ORO 1-4	YA95202-YA95205	4	July 23, 1987
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
	35F-36F	YA95159-YA95160		July 16, 1987
	37-38	YA95161-YA95162		July 16, 1987
	47-63	YA95163-YA95179		January 3, 1991
	64-71	YA95301-YA95308	61	January 3, 1991
TOAST (115I/3 & 4)	Toast 1-36	YA95932-YA95967	36	August 15, 1987
TOTAL			817	

* optioned from G. Harris and E. Wienecke
** 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

PROPERTIES

TAWA PROPERTY

(Tawa 1-12, 15-24, 25F, 26F, 27-34, 35F, 36F, 37-38, 47-71 Claims)

DECEMBER, 1986

NTS 115I/3

Latitude 62°07'N; Longitude 137°15'W

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). Geological mapping, prospecting, grid soil geochemistry and EM-16 surveys conducted in June 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 selected geochemical and geophysical anomalies on the core property were tested by bulldozer and excavator trenching.

PROPERTY, LOCATION AND ACCESS

The Tawa property consists of 57 full and 4 fractional claims as shown on Figure T-1 in the pocket. During field claims surveys it was found that the Tawa 13-14 optioned by Chevron did not exist on the ground, and, therefore, they were allowed to expire. The Tawa 1-12 and 15-24 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
	35F-36F	YA95159-YA95160	July 16, 1987
	37-38	YA95161-YA95162	July 16, 1987
	47-63	YA95163-YA95179	January 3, 1991
	64-71	YA95301-YA95308	January 3, 1991

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. 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.

HISTORY

The first report of lode mineralization on what is now the Tawa property came in 1937 when Karl Paulson, a placer miner, was rumored 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. conducted geological mapping, geochemical and geophysical surveys and bulldozer trenching, and built a 14 km tote road from the Mt. Nansen millsite to the property.

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.

PHYSIOGRAPHY AND GEOMORPHOLOGY

The property covers a broad rounded ridge which lies on the eastern flank of Mt. Nansen and separates Nansen Creek from the Klaza River. Local elevations range from 1200 to 1500 m above sea level. The area escaped Pleistocene continental glaciation and 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 deeply 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 tops.

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, some 6 km to the southeast. 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 by a few cm to 3 m wide, pitted, light green quartz bands. In a few 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 zonation 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 gave poor recovery and some were drilled subparallel to the veins never getting out of the footwall rocks. Three specimens of nearby massive galena (one collected by previous operators and the others by FV) returned 50 to 55% Pb with 70.10 to 145.42 oz/ton Ag and 0.048 to 1.702 oz/ton Au. Previous drilling has shown that moderate to strong oxidation is present to a depth of about 20 m in mineralized structures.

GEOCHEMISTRY

Soil samples were collected at 50 m intervals on lines spaced 100 m apart using four northwest-trending baselines for grid control. The two northerly baselines are approximately 800 m apart while the others are 1000 m apart. The baselines are marked with 1 m high wooden lath at 50 m intervals and sample locations are indicated by 0.5 m high lath bearing aluminium tags inscribed with the grid coordinates and sample number. Sampling was easy except for an area of near surface permafrost in the north-central portion of the grid. A total of 1405 samples was collected and sent to Chemex Labs of North Vancouver where they were dry sieved through a -35 mesh screen and ring pulverized to approximately -100 mesh before being analyzed for gold by neutron activation. ICP analyses will be ordered for all soil samples in early December and results will be reported upon separately.

Figure T-2 in the pocket illustrates gold soil values. Background values on the property and elsewhere in the Dawson Range are in the range of 1 to 5 ppb Au and the weak, moderate and strong anomalous thresholds are 25, 50 and 100 ppb Au, respectively. The samples returned an unusually high proportion of moderate and strongly anomalous values (up to 6258 ppb Au) that collectively form a series of northwest-trending clusters. Individual clusters are strikingly linear and are continuous for lengths up to 2000 m. The strongest areas of anomalous response were not tested by previous operators.

GEOPHYSICS

During June and July a Ronka EM-16 geophysical survey was conducted over the Tawa core property in an attempt to delineate the mineralized structures. The survey totalled 43.2 linear kms and consisted of readings taken at 15 m intervals on soil sample lines spaced 100 m apart. At each station, readings were taken for the Seattle and Hawaii stations and all data was Fraser filtered. Figure T-3 in the pocket illustrates results for the Seattle station which indicates a series of northwest-trending conductors that are continuous over strike lengths of up to 1900 m and coincide with known mineralized structures and geochemical anomalies. Results from the Hawaii station were not contourable and are not shown.

TRENCHING

Trenching was done with a ripper-equipped Caterpillar D7G bulldozer and Insley 1000H excavator contracted from Ibex Contracting Ltd. of Whitehorse. The bulldozer stripped vegetation from proposed trenches while the excavator was used to finish them. Although 4,772 m of pre-stripping was done, the frozen ground made progress slow and only 2,055 m were completed to bedrock, including 6 pre-existing trenches which were deepened and 4 new trenches which were wholly or partially finished. The program was terminated when the excavator suffered major drive motor problems.

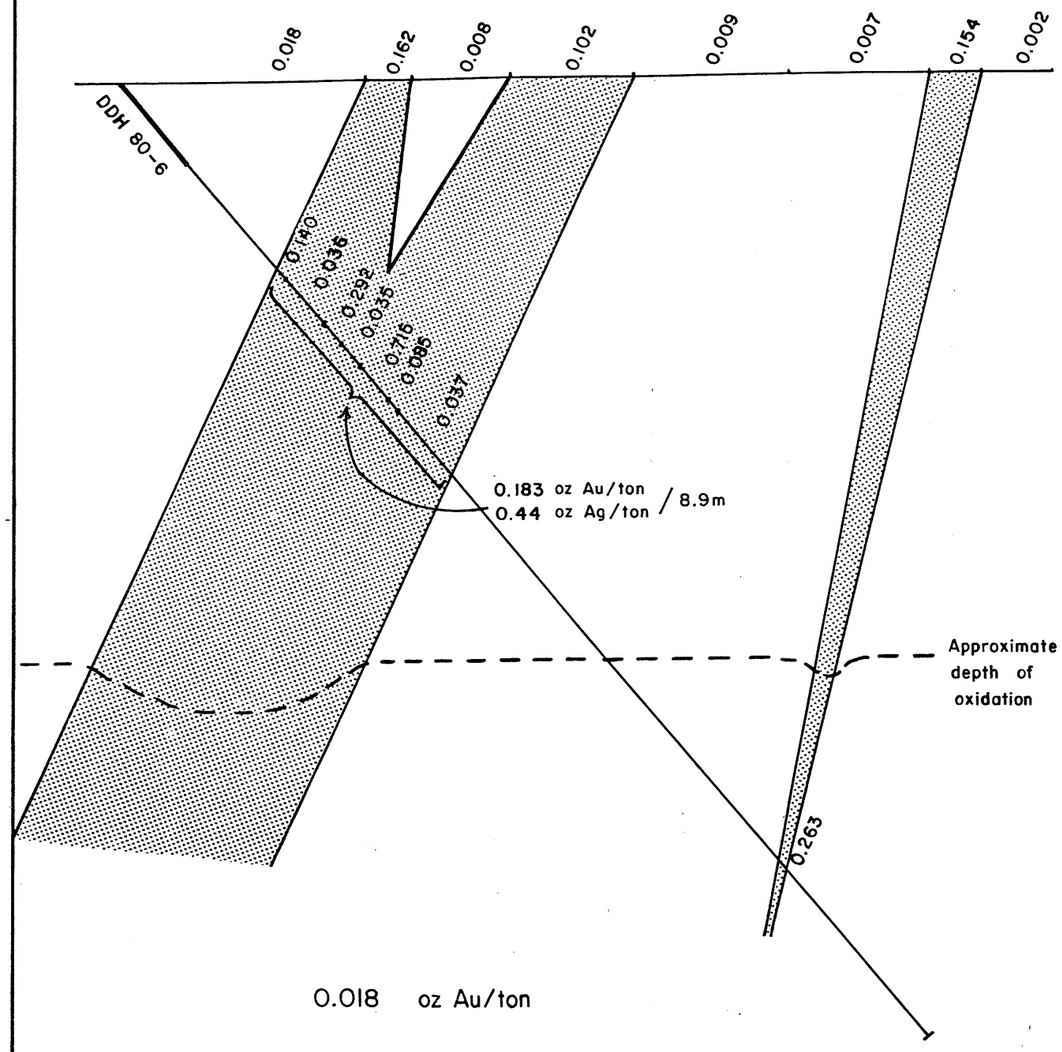
Pre-existing trenches were easily recut and good exposures were obtained. Samples from these trenches were taken at 1 to 10 m intervals depending on the intensity of alteration and mineralization. The four new trenches were often extremely wet and prone to slumping. Thus, they had to be

sampled immediately after digging at standard 5 to 10 m intervals before being mapped. Continuous 7 kg chip samples were taken from the rib as close to the floor of the trench as slumping would allow. A total of 231 samples was collected and sent to Chemex Labs where they were fire assayed for gold and silver.

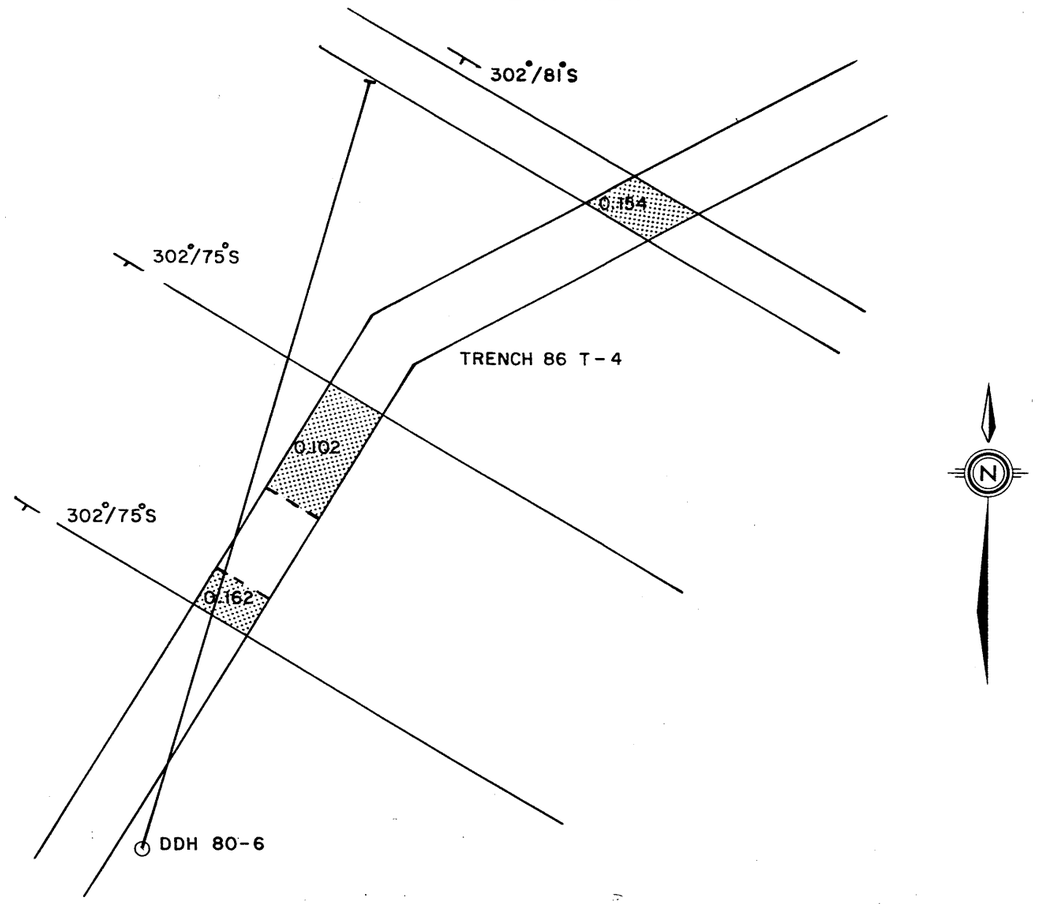
Most trench assays were in the range of 0.001 to 0.015 oz/ton Au. Twenty-two assays exceeded 0.03 oz/ton Au and all were from either northwest-trending vein faults or porphyry dykes, as shown on Figure T-4. The best results were obtained from Trench T-4 where one vein fault returned assays of 0.162 oz/ton Au with 0.91 oz/ton Ag over 1.4 m and 0.102 oz/ton Au with 0.44 oz/ton Ag over 4 m, while a second yielded 0.154 oz/ton Au with 3.85 oz/ton Ag over 2 m. This trench overlies 1980 BRX drill hole 80-6 which produced a 8.9 m intersection grading 0.183 oz/ton Au with 0.44 oz/ton Ag and a second 0.3 m intersection grading 0.263 oz/ton Ag with 0.70 oz/ton Ag. Figure T-5 on the following page illustrates the relationship between the trench and drill assays which confirms the steep southwest dips observed on mineralized structures in the trench. The structures appear to be faulted off to the southwest but were intersected in Trenches T-6 and T-7, 250 and 650 m to the northwest, respectively, where they returned values up to 0.154 oz/ton Au with 7.07 oz/ton Ag over 2.5 m. None of the other drill holes properly tested these structures.

The best assays from new trenches came from Trench T-5 where three samples taken from a porphyry dyke returned 0.062, 0.058 and 0.032 oz/ton Au over 7.5, 5.0 and 10.0 m, respectively, and Trench T-8 where a 5 m sample from a quartz vein produced 0.068 oz/ton Au with 0.11 oz/ton Ag.

CROSS SECTION LOOKING NW



PLAN VIEW



Chevron Canada Resources Limited
Minerals Staff

SECTION DDH 80-6
TAWA PROPERTY

FIGURE No. T-5		PROJECT No. FV	
DATE DEC 86	REVISIONS		SCALE 1:200
NTS No.			FILE No.
COMPILED BY	ARCHER, CATHRO & ASSOCIATES (1981) LIMITED		

CONCLUSION

Results of 1986 exploration at the Tawa property are highly encouraging and it appears to be the most significant FV property. Soil gold geochemistry and EM-16 surveys have outlined a series of coincident, northwest-trending anomalies and conductors that have up to 2 km strike lengths and parallel the trend of mineralized structures intersected in bulldozer trenches and old drill holes. Considering the width and grade of some mineralization intersections and the size, intensity and continuity of the relatively untested geochemical and geophysical anomalies, there is good potential for significant, medium to high grade, open pittable reserves, some of which will be strongly oxidized and presumably amenable to cyanidization. The potential of the property is further enhanced by its proximity to the mineralization and infrastructure at the nearby Mt. Nansen property.

GOLDSTAR PROPERTY

(Augusta; Margareta; Gold Star;
Peerless; Protection Fr;
Shear Zone 1-2; Vindicator 1-2;
Liberty; Excelsior 1-3; Progress 1-2
Greenstone 1-5,6F,7-10; Goldstar Fr;
Rick 1-23; Cabage 1-11, 1314, 17-24)

DECEMBER, 1986

NTS 115I/6

Latitude 62°17'N; Longitude 137°09'W

INTRODUCTION

Chevron Minerals Ltd. optioned 70 claims (collectively called the Goldstar property) from G. Harris and E. Wienecke in the spring of 1986 and assigned them to Freegold Venture (FV). The 1986 field program was conducted in late July and included geological mapping, prospecting, grid soil geochemistry and test EM-16 surveys.

PROPERTY, LOCATION AND ACCESS

The property consists of 67 full and 3 fractional claims that are registered in the name of Chevron Minerals Ltd. with the Whitehorse Mining Recorder as follows:

CLAIM NAME	GRANT NUMBERS	EXPIRY DATE
Augusta	15494	December 12, 1987
Margareta	15505	December 12, 1987
Gold Star	15519	December 12, 1987
Peerless	15549	December 12, 1987
Protection Fr	15677	December 12, 1987
Shear Zone 1-2	60420-60421	December 12, 1987
Vindicator 1-2	60422-60423	December 12, 1987
Liberty	63638	December 12, 1987
Excelsior 1-3	63639-63641	December 12, 1987
Progress 1-2	73464-73465	December 12, 1987
Goldstar Fr	Y80600	December 12, 1987
Greenstone 1-4	90465-90468	December 12, 1987
5	91056	December 12, 1987
6F	Y21094	December 12, 1987
7-9	YA92778-YA92780	January 29, 1989
10	YA92869	January 29, 1989
Rick 1-14	YA92082-YA92095	June 24, 1987
15-23	YA92748-YA92756	January 29, 1989
Cabage 1-11	YA92757-YA92767	January 29, 1989
13-14	YA92768-YA92769	January 29, 1989
17-24	YA92770-YA92777	January 29, 1989

The claims are located 53 km northwest of Carmacks on NTS map sheet 115I/6 at latitude 62°17' and longitude 137°09'W. Direct access is available during the summer and fall using the Yukon Territorial Government maintained Freegold Road and 4-wheel drive bush trails maintained by local placer miners.

HISTORY AND PREVIOUS WORK

Gold-bearing magnetite was discovered near the summit of Mt. Freegold on what is now the Goldstar property by F. Guder in 1930. A small staking rush occurred in the spring of 1931 but few of the claims were systematically worked and most were allowed to lapse. In 1959, Conwest optioned Guder's claims and drilled five diamond drill holes totalling 309 m. Recoveries were poor but four intervals returned significant assays, averaging 0.14 oz/ton Au over 2.1 m.

During 1965-66, Ormsby Mines Ltd. mined a high grade precious metal-bearing quartz vein and operated a 125 ton per day mill on the adjacent LaForma property. The operation was abandoned in early 1966 due to excessive dilution and poor recovery.

In 1969, Yukon Revenue ML optioned Guder's claims and performed bulldozer trenching and geological mapping. This work outlined an intensely bleached zone (Cabin Zone) on the south slope of Mt. Freegold but precious metal values were low. In 1973, Prism Res L optioned the core of the Goldstar property, staked additional fringe claims and conducted geological mapping and a ground magnetic survey. Prism transferred the option to Dynasty EL in early 1974 and the following field season Dynasty performed detailed geological mapping, linecutting, soil geochemistry, a magnetometer survey, bulldozer trenching and 8 diamond drill holes totalling 653 m. Results were mixed and the claims reverted to F. Guder who reoptioned them to Arctic Red Res Corp from 1980 to 1982. Following Guder's death in 1982, the claims were transferred to Guder Mg EL (controlled by E. Wienecke) which performed bulldozer trenching in 1982 and 1983. Some of the fringe claims on the south side of the property lapsed in early 1984 and were restaked in June 1984 by D. Dodge and again in July 1985 by G. Harris.

PHYSIOGRAPHY AND GEOMORPHOLOGY

The property covers the summit of Mt. Freegold and a broad, rounded ridge extending west from it. Seymour Creek marks the southern boundary of the property while Stoddart Creek forms the northern boundary. Local elevations range from 1450 m at the summit to 790 m on the valley floors. Soils are locally derived except for a 2000 year old, up to 30 cm thick, volcanic ash layer that lies immediately below the organics. South- and east-facing slopes are generally steep and well drained with 0 to 3 cm of A horizon organics, 0 to 20 cm of ash, 10 to 30 cm of B horizon soil and greater than 100 cm of C horizon decomposed bedrock. North- and west-facing slopes are gentle and permanently frozen with 10 to 30 cm of A horizon organics, 0 to 30 cm of ash, 10 to 30 cm of B horizon soil and over 100 cm of C horizon decomposed bedrock.

Most of the property is below treeline and typical vegetation consists of spruce, poplar and grasses on south- and east-facing slopes with stunted black spruce and thick moss on north- and west-facing slopes.

GEOLOGY

The Goldstar property is situated within the Yukon Crystalline Terrane which consists of Paleozoic or older metamorphic basement rocks that are intruded and overlain by a variety of igneous rocks related to the Coast Plutonic Complex. Property geology is shown on Figure G-1 in the pocket.

The basement schists, gneisses, quartzites and marbles are exposed in a broad band in the central and western portion of the property. Limy units are often altered to calc-silicate minerals and form narrow magnetite-rich skarn horizons.

The oldest igneous rocks are the Jurassic Big Creek syenites which are seen as scattered outcrops in the central portion of the property. This unit contains orthoclase phenocrysts up to 3 cm in length that are crudely aligned in a northwest direction. The matrix consists of medium- to coarse-grained, black hornblende with finer-grained orthoclase and plagioclase. These rocks are relatively unaltered.

The second igneous unit is Mid-Cretaceous hornblende-biotite granodiorite that outcrops primarily on the southern slopes of Mt. Freegold. Alteration of this unit ranges from weak quartz and epidote veining on fractures to locally intense kaolinization.

The youngest intrusions are widely distributed, grey to cream coloured quartz-feldspar porphyry dykes that vary from a few centimetres to 15 m in width. Several are easily traceable over strike lengths of 200 to 300 metres. Some of the dykes are strongly argillically altered but most are relatively fresh.

MINERALIZATION

Precious metal mineralization occurs in elongate east-west trending magnetite-rich skarns and narrow quartz veins within and adjacent to porphyry dykes, as shown on Figure G-1 in the pocket.

F. Guder, in the early 1930's, traced the Augusta Zone magnetite skarn through a series of hand pits and trenches for a strike length of 100 m. Magnetic surveys and a series of later bulldozer trenches have traced the magnetite for a strike length of at least 1000 m. The near vertical, west-trending magnetite body appears to have formed through skarnification of limy beds in quartz-chlorite gneiss and amphibolite. The skarns consist of 40 to 70% magnetite with lesser chlorite, epidote, quartz, limonite, actinolite and garnet plus minor specular hematite, pyrite, chalcopyrite and native gold. Gold mineralization is strongest in the eastern portion of the zone where trench samples returned up to 0.89 oz/ton Au over 1.4 m. Only the 1959 Conwest drill holes tested this zone and they produced four intervals that averaged 0.14 oz/ton Au over 2.1 m.

Using surface assays obtained from the 1974 bulldozer trenches, geological reserves for the Augusta Zone are estimated to be 78,000 tons grading 0.12 oz/ton Au with 3.03 oz/ton Ag to a depth of 20 m with a waste to ore ratio of about 10 to 1.

The Margareta Zone parallels the Augusta Zone 100 m to the south and is a near vertical, east-west striking swarm of irregular quartz veinlets associated with a narrow, argillically altered quartz feldspar porphyry dyke. The zone lacks sharp boundaries and is between 0.5 and 2.0 m wide. Previous workers report gold values as high as 60 oz/ton from hand specimens taken from

an old dump beside a shallow shaft dug by Guder near the discovery outcrop. Samples from two hand trenches 45 and 30 m east of the shaft assay 2.6 oz/ton Au with 10.6 oz/ton Ag over 45 cm and 4.46 oz/ton Au with 19.4 oz/ton Ag over 30 cm, respectively. Samples from bulldozer trenches returned up to 1.22 oz/ton Au with 25.82 oz/ton Ag over 1.13 m, while drilling yielded intersections grading up to 0.13 oz/ton Au with 1.16 oz/ton Ag over 1.21 m. The quartz veins contain pyrite, chalcopyrite with minor arsenopyrite, but at surface nearly all sulphides have been oxidized leaving limonite and minor malachite in boxworks and on fractures. Drilling indicates that the rocks are strongly oxidized to a depth of greater than 60 m.

Using 1974 trench sample results and assuming a mining depth of 20 m, geological reserves for the Margareta Zone are estimated to be 101,000 tons grading 0.11 oz/ton Au and 1.97 oz/ton Ag with a waste to ore ratio of approximately 10 to 1.

The Vindicator Zone is located 1000 m west along strike from the Margareta Zone. Old bulldozer trenches in the area did not reach bedrock and exposure is limited to one small outcrop which returned 0.11 oz/ton Au and 18.05 oz/ton Ag over 1.22 m. A specimen of limonite stained quartz vein float collected nearby assayed 0.112 oz/ton Au.

GEOCHEMISTRY

Four baselines (called A,B,D and E) totalling 12.7 kms were established at an orientation of 030° and 1986 soil samples were collected at 50 m intervals on compass and topofil controlled lines spaced 100 m apart. The baselines are marked by 1 m wooden lath every 100 m while sample locations are indicated by 0.5 m lath bearing aluminium tags inscribed with the sample number and grid coordinates. Even numbered samples were sent to Chemex Labs of North Vancouver where they were dry sieved through a -35 mesh screen and ring pulverized to approximately -100 mesh before being analyzed for gold by neutron activation. Three hundred and fifty-nine of the remaining 943 odd numbered samples were later analyzed to provide greater detail in selected areas of interest.

The results are plotted on Figure G-2 in the pocket and contouring has outlined several anomalous clusters, the strongest of which lies on the extreme west-central portion of the property. The anomaly is in the vicinity of the Vindicator Zone and probably represents an extension of the Margareta Zone.

A second strong anomaly is located on the east flank of Mt. Freegold where a wide, brecciated porphyry dyke intrudes along a contact between altered granodiorite and metamorphic rocks. Aside from a few wide spaced hand trenches, this target is untested.

Other anomalous clusters are scattered across the property but generally lack continuity and intensity. Surprisingly, soil geochemical response directly over and adjacent to the Augusta and Margareta Zones is weak and all but a few samples returned background values even though sampling conditions are good.

GEOPHYSICS

A test Ronka EM-16 survey was conducted on the property during late July. However, the work was of little value as the Seattle transmitter was shut down for unscheduled maintenance during the test period and the signal from the other crystal (Hawaii station) is at a poor angle to the east-west trending mineralized structures and did not outline any conductors.

CONCLUSIONS

Although the Goldstar property exhibits modest geological reserves of medium grade, open-pittable oxidized ore in two zones (Augusta and Margareta), there is little potential for a sizeable bulk tonnage gold deposit. Relatively untested mineralization and soil geochemical targets along strike from these zones may increase reserves but they will likely be confined to similar, well mineralized but narrow structures.

The most favourable bulk tonnage target is the soil geochemical anomaly associated with a brecciated feldspar porphyry dyke near the summit of Mt. Freegold. Similar rocks host disseminated and stockwork mineralization at the Antoniuk deposit (drill indicated 4 million tons grading 0.033 oz/ton Au) 2 km to the east; however, the soil geochemical response over that deposit is much more intense.

If a deposit is brought into production elsewhere on Mt. Freegold, the Goldstar property might contribute some ore but it is unlikely that the Goldstar mineralization could be developed on its own.

STODDART PROPERTY

(EYM 1F, 2-16, 17F-18F, 19-81; ACK 1-39; and, ORO 1-4 Claims)

DECEMBER, 1986

NTS 115I/6

Latitude 62°20'N; Longitude 137°10'W

INTRODUCTION

The Stoddart property is located between the Big Creek properties (Revenue and Nucleus) to the west and the Mt. Freegold properties (Antoniuk, LaForma and Goldstar) to the east and was staked by Freegold Venture (FV) in 1985 to protect an area of favourable geology plus two previously identified soil gold anomalies. Work in 1985 consisted of geological mapping, grid soil sampling and minor reconnaissance chip sampling, which expanded and better defined the known geochemical anomalies on the east side of Seymour Creek and located a third weaker anomaly on the west side of the creek.

The 1986 program was limited to baseline surveys and minor soil sampling on the west side of Seymour Creek, plus tagging of 1985 claim posts during which four additional claims were staked to cover a small gap discovered between the Stoddart claims and the adjacent Goldstar property.

PROPERTY, LOCATION AND ACCESS

The Stoddart property consists of 81 EYM, 39 ACK, and 4 ORO mineral claims which form an irregular contiguous block as shown on Figure F-1 in the pocket. The claims are registered in the name of Archer, Cathro & Associates (1981) Limited with the Whitehorse Mining Recorder as follows.

Claim Name	Grant Number	Expiry Date
ACK 1-39	YA91836-YA91874	March 5, 1988
EYM 1F	YA86872	March 5, 1988
EYM 2-16	YA86873-YA86887	March 5, 1988
EYM 17F-18F	YA86888-YA86889	March 5, 1988
EYM 19-46	YA86890-YA86917	March 5, 1988
EYM 47-81	YA91801-YA91835	March 5, 1988
ORO 1-4	YA95202-YA95205	July 23, 1987

The western half of the ACK claims fall within the Nat Joint Venture (Nat) area of interest. Four claims held by an individual from Whitehorse are situated near the centre of the Stoddart property and have precedence over the FV claims.

The property is located at latitude 62°20'N and longitude 137°10'W on NTS map sheet 115I/6, some 54 km northwest of Carmacks. Access in 1986 was by truck using the Freegold Road and a network of four-wheel drive trails on the property.

PREVIOUS WORK

Exploration has been done in this area since the early 1900's when placer gold was discovered in Seymour Creek. Hardrock exploration has been conducted by many individuals and companies since 1930 when F. Guder discovered gold in veins on Mt. Freegold, 1 km southeast of the Stoddart property. Mineral occurrences on adjacent properties east of Seymour Creek include gold-bearing quartz veins (the most significant of which is the LaForma Vein which was briefly mined in 1939-40 and 1965-66); silver-lead veins; a gold-bearing stockwork on the Antoniuk property which Permian Resources Ltd. and Nordac Mining Corporation optioned and explored in 1985 and 1986; and, a low grade porphyry copper deposit with associated gold values which Yukon Revenue Mines Ltd. acquired in 1985. The major occurrences on the west side of Seymour Creek are gold zones on the Revenue and Nucleus properties. A silver-lead vein is rumoured to occur on the four Ken claims which are surrounded by EYM claims.

The southwestern portion of the EYM claims covers ground previously staked as the Seymour claims by Arctic Red Resources in 1981. Soil geochemistry conducted that year outlined a series of linear gold anomalies, called the Northwest Zone.

The northeastern part of the EYM claim block was previously staked by Montana Minerals as the Son claims in 1970 and by the Carmacks Syndicate (Castlemaine, Welcome North, W.M. Bath and Ventures West Capital) in 1974. Both groups explored for porphyry copper deposits using grid soil geochemistry and magnetic surveys. Their work outlined the Castle Zone which consists of weak copper mineralization associated with argillically altered intrusive rocks.

Archer, Cathro managed the Dawson Range and Klotassin Joint Ventures which conducted reconnaissance exploration in the area during the early to mid-1970's. Dawson Range JV stream sediment samples returned strongly anomalous arsenic values (exceeding 500 ppm) and scattered high gold values (up to 170 ppb) from tributaries on the east side of Seymour Creek. Several Klotassin JV soil sample splits were analyzed for gold by FV prior to the 1985 field season. Most returned background values but three samples from the Castle Zone returned moderate to strongly anomalous values up to 110 ppb.

The ACK claims on the west side of Seymour Creek were staked in June, 1985 when claims held by Shakwak Exploration Company Limited lapsed. There is no reported mineralization on the claims but they occupy strategically located ground between the EYM claims and the Revenue property.

PHYSIOGRAPHY AND GEOMORPHOLOGY

The property straddles Seymour Creek and is bounded on the east by Stoddart Creek. It covers gentle north- and west-facing slopes on a ridge extending west from Mt. Freegold and south-, east- and north-facing slopes on a ridge separating the Seymour Creek and Big Creek drainages. Local elevations range from 640 m in the Seymour Creek Valley to 1220 m on the crest of the western ridge.

Although the area escaped Pleistocene continental glaciation, a glaciofluvial outwash terrace blankets the northern half of the low ridge separating Seymour and Stoddart Creeks. Soils elsewhere on the property are locally derived except for a volcanic ash layer which ranges from a few centimetres to 2 m in thickness. South- and east-facing slopes are generally steep and well drained with 0 to 3 cm of A horizon organics, 0 to 20 cm of ash, 10 to 30 cm of B horizon soil and greater than 100 cm of C horizon decomposed bedrock. North- and west-facing slopes are gentle and permanently frozen with 10 to 30 cm of A horizon organics, 0 to 20 cm of ash, 10 to 30 cm of B horizon soil and over 100 cm of C horizon decomposed bedrock.

Most of the property is below treeline and typical vegetation consists of spruce, poplar and grasses on south- and east-facing slopes with stunted black spruce and thick moss on north- and west-facing slopes.

GEOLOGY AND MINERALIZATION

Figure F-1 in the pocket illustrates the geology of the entire property while Figure F-2, also in the pocket, is an outcrop map of the area on the east side of Seymour Creek.

The oldest rocks are Paleozoic or older Pelly Gneiss (Psn) schist and gneiss that are scattered across the property and occur as large rafts or roof pendants in younger plutons. Two phases of plutonic rocks are present, Jurassic Big Creek Syenite (Jy) and Mid-Cretaceous Casino Granodiorite (Kgd). The syenites are coarse grained and often porphyritic containing orthoclase and hornblende phenocrysts which are up to 3 cm long and occasionally display strong alignment. Granodiorites are typically equigranular and coarse grained, and contain biotite as well as hornblende. Mid-Cretaceous, light grey to cream weathering quartz porphyry and quartz-feldspar porphyry dykes (Kqp and Kqfp) cut all of the older rocks.

Alteration and/or mineralization occurs locally in all units except the syenite.

The schists are often pyritic, commonly exhibit manganese, hematite or limonite stain and contain grey, vuggy quartz veins up to 45 cm wide which parallel foliation. Two specimens of limonitic schist and vein float collected from old hand trenches in the vicinity of the Northwest Zone on the east side of Seymour Creek returned 0.022 and 0.030 oz/ton Au, as shown on Figure F-2.

Granodiorite is usually unaltered but two areas of interest do occur within it. At the Castle Zone a 400 m diameter area exhibits pervasive kaolinization and silicification which grades outward into propylitic

alteration. Quartz veins with traces of chalcopyrite occur in a halo surrounding the intensely altered core. The altered rocks are bounded on the east and west by north-flowing creeks which may be fault zones. The second area of interest is a 3 m wide pyritic and limonitic shear zone exposed in an isolated outcrop on the floor of the Seymour Creek Valley near the northern edge of the property. The zone tends 080° and dips 85° toward the south. A chip sample taken across it in 1985 assayed 103 ppb gold and a sample taken in 1986 assayed .016 oz/ton gold.

Most porphyry dykes are relatively unaltered except for one brecciated and quartz-veined outcrop on the south edge of the claim block. Several specimens of brecciated and unbrecciated porphyry from various parts of the property were analyzed for gold but all returned less than 10 ppb.

The Big Creek Fault projects onto the property from the west and appears to be offset to the north by two subparallel north-trending faults, one running down Seymour Creek and the other 1500 m to the west. If this interpretation is correct, the Big Creek Fault extends up Stoddart Creek rather than crossing Mt. Freegold. The fault traces are recessive and can only be inferred by connecting lineations and drainages.

GEOCHEMISTRY

General

The 1985 grid soil sampling covered all claims on the east side of Seymour Creek (EYM grid) and about 50% of those on the west side (ACK grid). The 1986 sampling increased the sample density and extended the coverage on the ACK grid so that approximately 75% of the claims on the west side of the creek are now sampled. Sampling on the EYM grid was described in the 1985 Freegold Venture Final Report.

There are four baselines on the ACK grid, three trending east-west and one northeast. The 1986 samples were taken at 50 m intervals on compass and topofil controlled lines spaced 100 m apart. Baselines are marked with 1 m wooden lath every 50 m, while sample locations are indicated by 0.5 m lath bearing aluminium tags inscribed with the sample number and grid coordinates.

Even numbered soil samples were sent to Chemex Labs of North Vancouver where they were screened to -35 mesh, crushed and geochemically analyzed for gold using a fire assay preparation and neutron activation analysis. Odd numbered samples are stored in Whitehorse and additional samples will be analyzed in early December to provide more detail in selected areas of interest.

Results

Generalized gold soil geochemical results for the entire property are compiled with geology on Figure F-1 while actual results obtained from the EYM and ACK grids are shown on Figures F-2 and 3 respectively, in the pockets.

Background values are in the range of 1 to 5 ppb Au, while weak, moderate and strong anomalous thresholds are 25, 50 and 100 ppb Au, respectively. The 1986 sampling on the ACK grid produced numerous anomalous values that form a series of clusters, collectively called the ACK Zone. These clusters exhibit west-northwesterly trends and are subparallel to the Northwest Zone and anomalies on the nearby Revenue and Goldstar properties. The highest values (up to 330 ppb Au) occur in two adjacent clusters that form a 150 to 300 m wide, 1200 m long belt that appears to be the extension of a large gold soil anomaly reported on the Revenue property. Fill-in sampling has shown that the weak 1985 soil anomaly on the west side of Seymour Creek is just one of several small subsidiary clusters flanking the main belt. The somewhat erratic nature of the ACK Zone values is not surprising considering that most of the samples were taken on heavily vegetated and frozen north-facing slopes.

CONCLUSIONS

The 1985 and 1986 gold soil geochemistry on the Stoddart property has outlined three distinct areas of anomalous values (Northwest, Castle and ACK Zones). Although these targets are not as large or intense as those associated with nearby gold deposits (Nucleus, Revenue and Antoniuk), they do exhibit good continuity and are untested. All three targets are located on heavily vegetated frozen slopes with few or no outcrops and little or nothing is known about bedrock grade or controls on mineralization. Considering the property's strategic location and the continued high level of exploration activity in the area, the property is an attractive target that warrants further work.

PART III

MINOR PROPERTIES

INTRODUCTION

On August 6, 1986, the Geological Survey of Canada (GSC) released Open Files 1219 and 1220 which document results of reconnaissance stream sediment and water sampling done on the Aishihik and Carmacks map sheets during summer 1985. Immediately following the release, Freegold Venture reviewed the results and selected three targets which were staked later that day. One of the properties (Field claims) was enlarged in September to ensure that the entire potential source area was adequately protected. The general location of the properties is shown on Figure FV-1 in the pocket. Claim data, property geology and geochemistry are briefly described on the following pages.

BAG PROPERTY

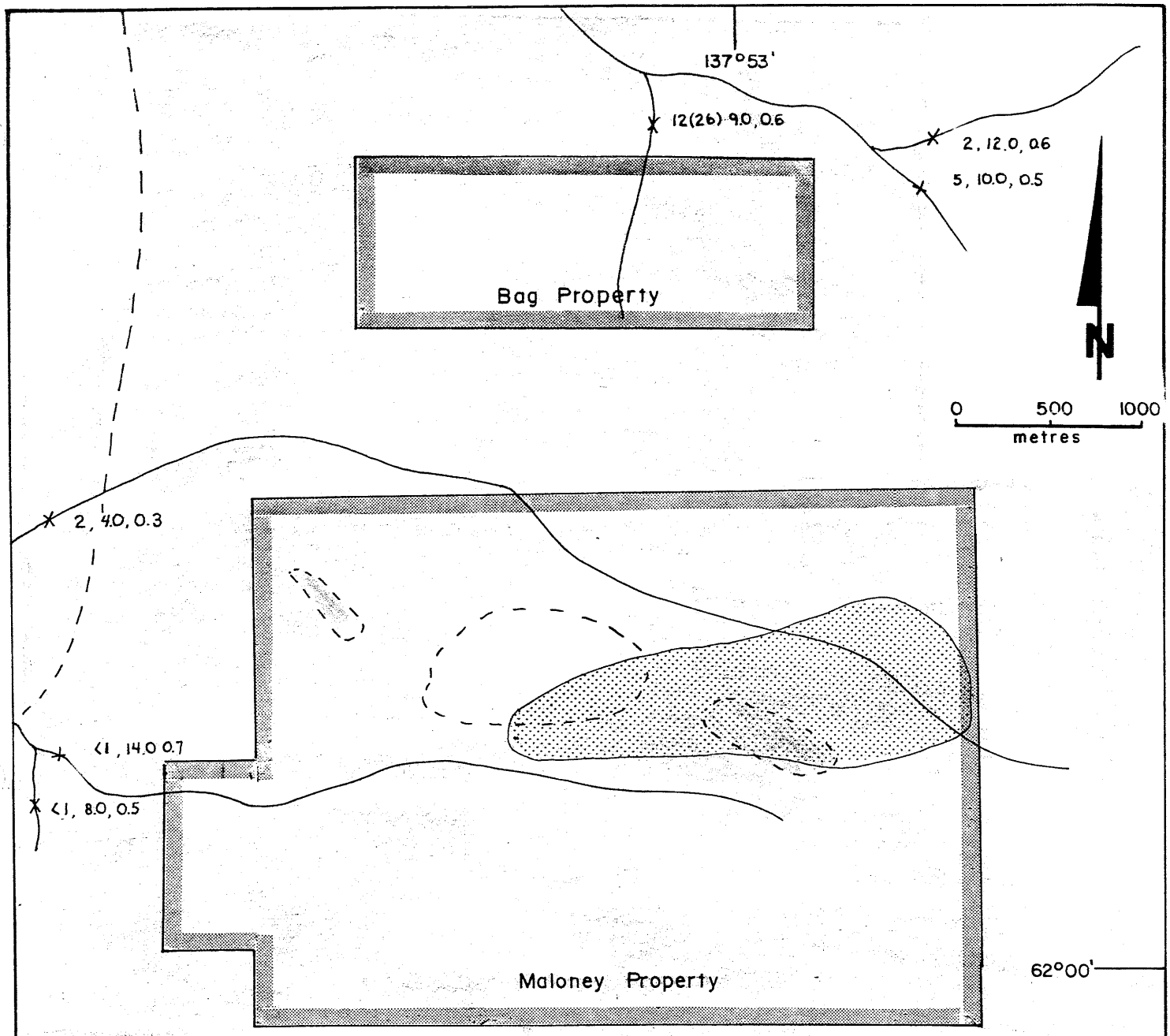
The Bag property consists of 10 contiguous claims registered in the name of Archer, Cathro & Associates (1981) Limited with the Whitehorse Mining Recorder as follows:

CLAIM NAME	GRANT NUMBERS	EXPIRY DATE
Bag 1-10	YA95922-YA95931	August 15, 1987

The claims are located 85 km west of Carmacks on NTS map sheet 115I/4 at latitude 62°02' and longitude 137°53', 1 km due north of FV's Maloney property. Access is by helicopter and the nearest road access is the Mt. Nansen property, 40 km to the east.

The property lies at an elevation of 1100 m on a north-facing hillside vegetated with stunted black spruce, buckbrush and moss. It is underlain by Paleozoic or older schists and there is no record of previous work or mineralization.

A stream sediment sample taken at the north of a short creek draining the property returned weakly to moderately anomalous gold values (12 and 26 ppb) with near background arsenic and antimony, as shown on Figure X-1 on the following page. The property was acquired principally because of its proximity to the Maloney property.



Cretaceous

Quartz porphyry

Granodiorite

Paleozoic (?)

Schists

× Stream sediment sample with gold (check assay gold) in ppb, arsenic and antimony in ppm.

Area with greater than 25 ppb grid soil results

Chevron Canada Resources Limited
Minerals Staff

GEOLOGY & GEOCHEMISTRY
BAG PROPERTY

FIGURE No. X-1		PROJECT No. F V	
DATE DEC/86	REVISIONS		SCALE 1:31,680
NTS No. 115 I-4			FILE No
COMPILED BY ARCHER, CATHRO & ASSOCIATES (1981) LIMITED			

FIELD PROPERTY

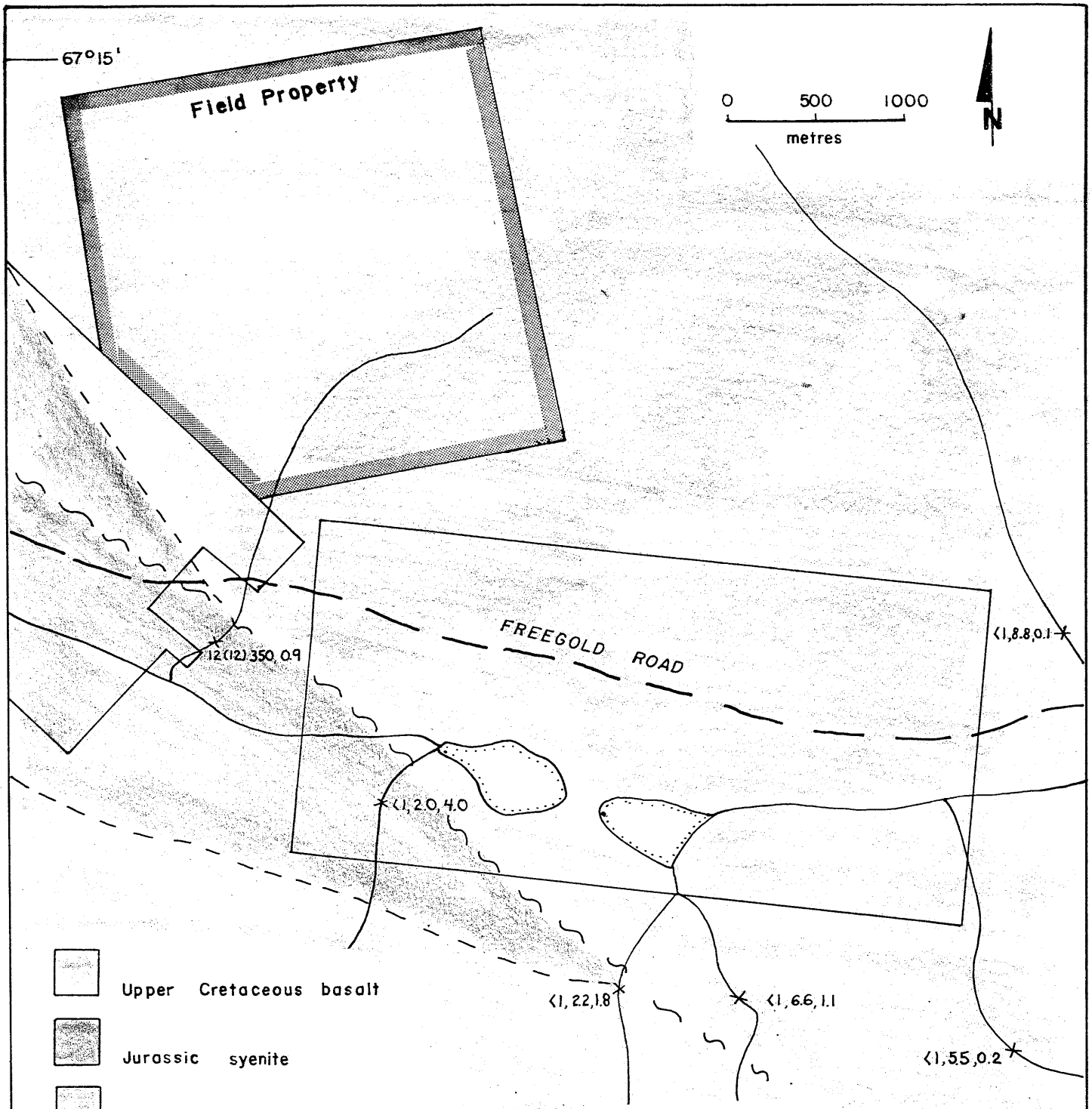
The Field property consists of 30 contiguous claims registered in the name of Archer, Cathro & Associates (1981) Limited with the Whitehorse Mining Recorder as follows:

CLAIM NAME	GRANT NUMBERS	EXPIRY DATE
Field 1-8	YA95914-YA95921	August 15, 1987
9-30	YA96233-YA96254	September 16, 1987

The claims are located 40 km northwest of Carmacks on NTS map sheet 115I/2 at latitude 62°14' and longitude 137°57'. Direct road access is available to within 0.5 km of the property using the gravel Freegold Road which is maintained by the Yukon Territorial Government.

The property lies between 1050 and 1300 m above sea level on a south-facing slope vegetated with spruce and poplar. It is underlain by Triassic granodiorites and is located immediately north of the junction between the Big Creek and Miller Creek Faults. There is no record of previous work or mineralization on the property.

A stream sediment sample taken at the mouth of the stream that bisects the property returned weakly anomalous gold (12 ppb from two separate analyses), intensely anomalous arsenic (350 ppm) and near background antimony values, as shown on Figure Y-1 on the following page.



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Minerals Staff

GEOLOGY & GEOCHEMISTRY
FIELD PROPERTY

FIGURE No. Y-1		PROJECT No. FV	
DATE DEC/86	REVISIONS		SCALE 1:31,680
NTS No. 115 I-2			FILE No.

COMPILED BY ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

TOAST PROPERTY

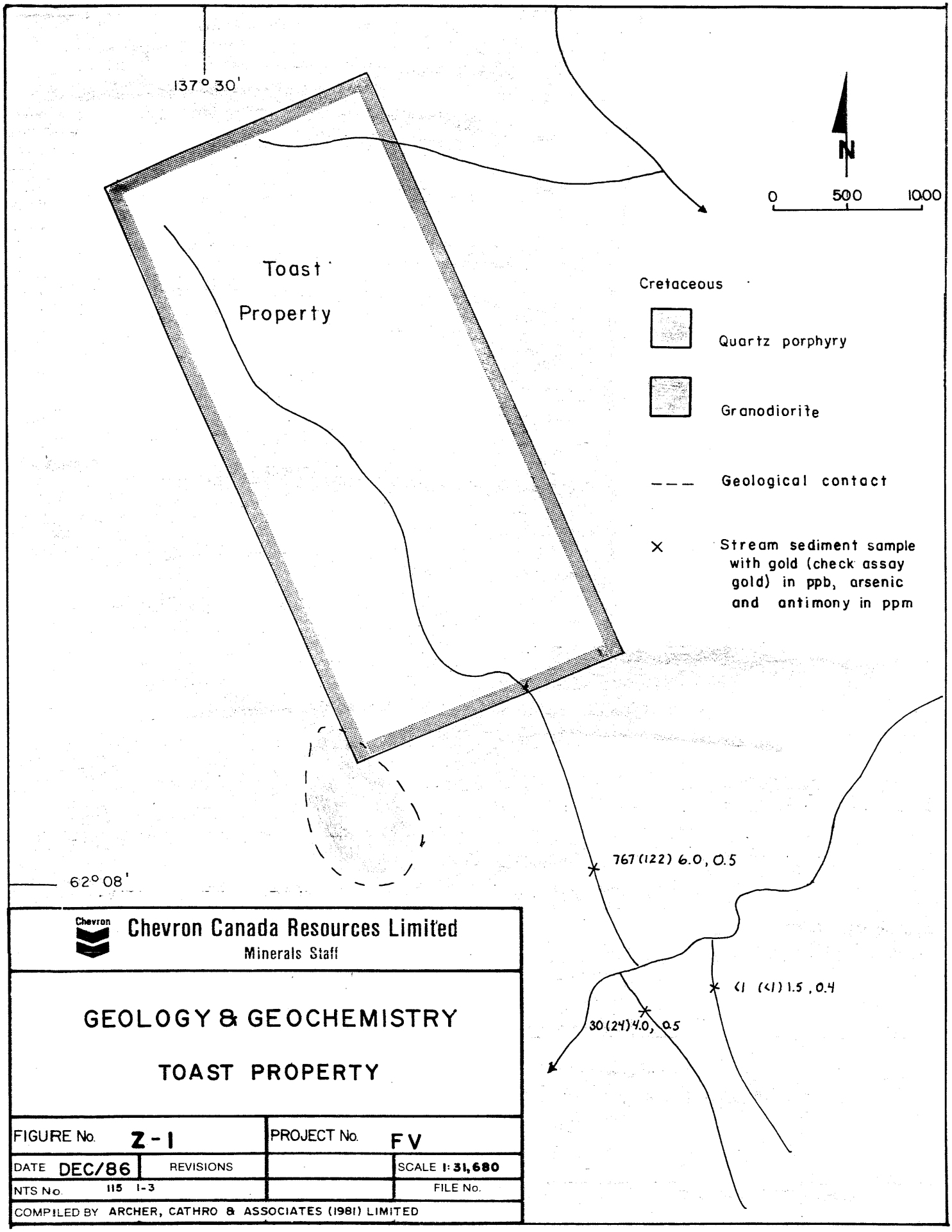
The Toast property consists of 36 contiguous claims registered in the name of Archer, Cathro & Associates (1981) Limited with the Whitehorse Mining Recorder as follows:

CLAIM NAME	GRANT NUMBERS	EXPIRY DATE
Toast 1-36	YA95932-YA95967	August 15, 1987

The claims are located 62 km west of Carmacks on NTS map sheet 115I/3 at latitude 62°10' and longitude 137°27'. Access is by helicopter and the nearest road access is FV's Tawa property, 12 km to the southeast.

The property lies between 1150 and 1500 m above sea level on the southeast-facing slope of Tritop Mountain. Mid-Cretaceous granodiorite underlies the entire property except for a 750 m in diameter feldspar porphyry plug in the extreme southwest corner, as shown on Figure Z-1 on the following page. There is no record of previous work or mineralization on the property but Kennco EL explored for gold in the early 1970's on a claim block 1 km to the northeast.

A stream sediment sample taken from the creek which bisects the Toast property returned strongly anomalous gold values (767 and 122 ppb) but only background values for arsenic and antimony.



Chevron Canada Resources Limited
Minerals Staff

GEOLOGY & GEOCHEMISTRY

TOAST PROPERTY

FIGURE No. Z-1		PROJECT No. FV	
DATE DEC/86	REVISIONS		SCALE 1: 31,680
NTS No. 115 I-3			FILE No.
COMPILED BY ARCHER, CATHRO & ASSOCIATES (1981) LIMITED			

TN27.48
C4
F73

ARCHER, CATHRO
& ASSOCIATES (1981) LIMITED
CONSULTING GEOLOGICAL ENGINEERS

1016 - 510 WEST HASTINGS STREET
VANCOUVER, B. C. V6B 1L8

(604) 688-2568

SUPPLEMENTARY GEOCHEMICAL REPORT

FREEGOLD VENTURE

FEBRUARY 6, 1987

M.J. Walls, B.Sc.

W.D. Eaton, B.A., B.Sc.

BOX 4127, 3125 THIRD AVENUE, WHITEHORSE, Y.T. Y1A 3S9

(403) 667-4415

LIST OF FIGURES IN POCKET

NO.	TITLE	POCKET
FV-1	Property Ownership, Project Boundaries and Restricted Areas	B
T-1	Geology, Tawa Property	C
T-2	Gold Geochemistry, Tawa Property	D
T-3	Fraser Filtered EM-16 Geophysical Data, Tawa Property	E
T-4	Trench Assays, Geophysical and Geochemical Compilation, Tawa Property	F
G-1	Geology, Goldstar Property	G
G-2	Gold Geochemistry, Goldstar Property	H
F-1	Geology and Geochemical Compilation, Stoddart and Goldstar Properties	I
F-2	Geology and Gold Geochemistry, EYM Claims, Stoddart Property	J
F-3	Gold Geochemistry, ACK Claims, Stoddart Property	K
	Supplementary Geochemical Report, February, 1987	L

INTRODUCTION

In December, 1986, Freegold Venture (FV) submitted 1,405 soil sample splits for 30 element ICP analyses at Chemex Labs in North Vancouver. The samples were collected in 1986 from a grid on FV's Tawa Property and were previously analyzed for gold. The ICP analyses were performed to obtain information for common pathfinder metals, principally silver, arsenic, lead, zinc and copper which have been used elsewhere in the Dawson Range to better define potential source areas and to infer the probable deposit type from which the metals were derived.

One hundred and sixteen samples collected in 1986 from FV's Stoddart Property were also submitted to Chemex Labs for gold analyses using a fire assay preparation and neutron activation finish. These samples provide increased sample density in areas where preliminary analyses outlined anomalous gold response.

TAWA PROPERTY

One thousand, four hundred and five soil samples collected on the Tawa Property have undergone 30 element ICP analyses. Figures T-5 to T-9 in the pocket illustrate contoured silver, arsenic, lead, copper and zinc results respectively, while Appendix I lists results for all 30 elements. Table 1 on the following page summarizes data from selected pathfinder metals.

The highest copper values occur on the southern slopes of the original Tawa 1-24 claims in a relatively continuous, 1,100 by 800 m zone. Moderately anomalous gold values are associated with the copper but silver, arsenic, lead and zinc values are generally low. Quartz feldspar porphyry float is abundant in the area of the copper anomaly. This rock type hosts the porphyry copper-molybdenum mineralization in the Mt. Nansen Porphyry Zone centered 2 km to the southeast and this anomaly probably represents the western fringe of the porphyry mineralization.

The central, western and northern two-thirds of the property are strongly anomalous for gold, silver, arsenic, lead and zinc. The metals are well correlated and outline a series of west-northwest trending linear targets that display excellent continuity over strike lengths of up to 2,000 m even on frozen, well vegetated north-facing slopes where sampling was difficult. These polymetallic targets parallel electromagnetic conductors and mineralized shear zones intersected in trenches and drill holes. The majority of the targets, particularly those on the north-facing slopes, are untested.

TABLE 1: TAWA GEOCHEMICAL SUMMARY

	Threshold Values			Highest Value	Comment
	Low	Med	High		
Au	25 ppb	50 ppb	1000 ppb	6582 ppb	continuous, very linear for strike lengths up to 2 km
Ag	1.0 ppm	2.0 ppm	4.0 ppm	28.6 ppm	excellent correlation with Au
As	50 ppm	100 ppm	200 ppm	1455 ppm	excellent correlation with Au
Pb	50 ppm	100 ppm	200 ppm	2640 ppm	excellent correlation with Au, but more wide spaced than As or Au
Cu	50 ppm	100 ppm	200 ppm	1265 ppm	restricted to S.E. portion of grid
Zn	200 ppm	100 ppm	800 ppm	972 ppm	high values correlate with Au, Ag,As & Pb
Sb	---	---	---	735 ppm	very few samples > 5 ppm
Bi	---	---	---	80 ppm	very few samples > 4 ppm

STODDART PROPERTY

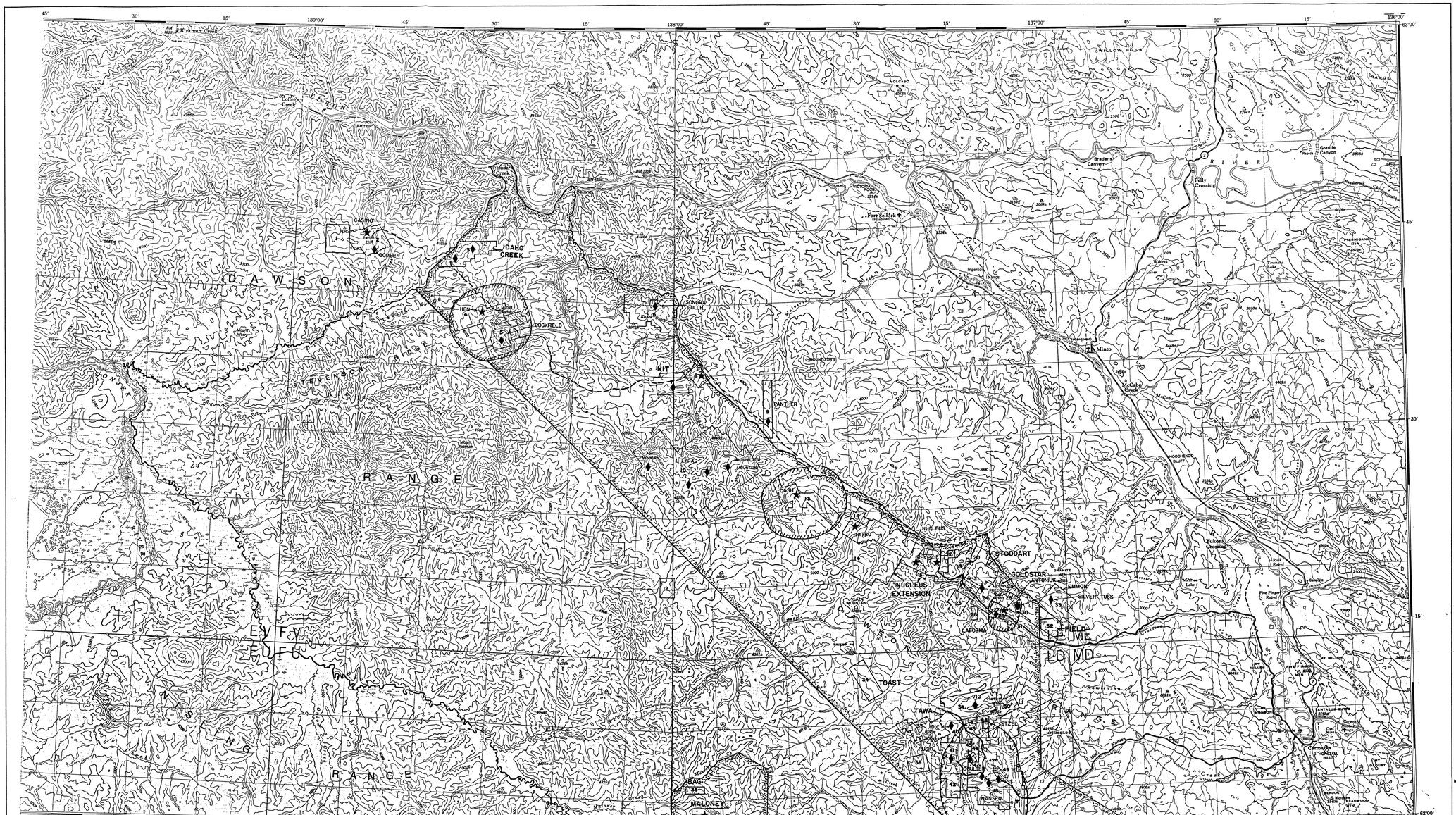
One hundred and sixteen soil samples (that were collected from the ACK grid and stored until results of samples taken at 100 by 100 m spacing where available) have been analyzed for gold to provide 50 by 100 m grid spacing in areas of anomalous response. The results agree well with the earlier data and produced little change in the contouring. A 2,000 by 1,000 m area on the west side of the grid (between Happy and Bowlidden Creeks) should be sampled as it lies between the ACK anomalies and those on the adjacent Revenue Property.

Respectfully submitted,

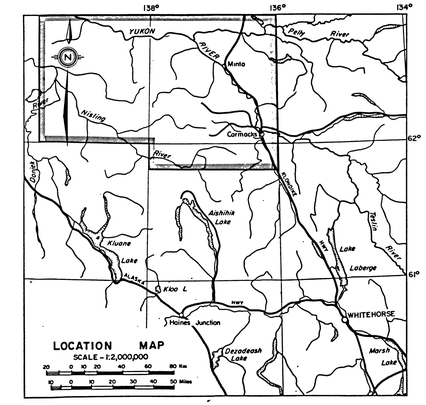
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

M.J. Walls, B.Sc.

W.D. Eaton, B.A., B.Sc.



1. Nordac Mg Corp
2. Casino Silver (opt to Nordac Mg Corp)
3. F.V. (opt to Silverquest Res L)
4. Nordac Mg Corp
5. Kerr Addison ML
6. Hayes Res Inc
7. F.V. (ont to Silverquest Res L)
8. D. Waugh
9. Inco
10. Nat J.V.
11. Kerr Addison ML
12. Kerr Addison ML
13. Nordac Mg Corp
14. F.V.
15. Nat J.V.
16. F.V.
17. Yukon Revenue ML (opt to Nordac Mg Corp)
18. Three Creek Res
19. F.V.
20. G. Harris
21. L. Lebedoff
22. R. Granger (opt to Durham Res L)
23. G. Harris
24. G. Harris & E. Wienecke (opt to F.V.)
25. Pauline LePage
26. Guder Mines
27. Discovery Mines
28. Nordac Mg Corp & Permian Res
29. Discovery Mines (opt to Nordac & Permian)
30. Noranda ML
31. Yukon Revenue (opt to Durham Res L)
32. F.V.
33. Placer Dev L (opt to Silver Tusk ML & Panther ML)
34. F.V.
35. F.V.
36. F.V.
37. Kerr Addison ML
38. Kerr Addison ML
39. G. Dickson (opt to Kerr Addison ML)
40. Cons. B.R.X. Mg & Pet Corp (opt to F.V.)
41. G. Dickson (opt to Chevron Can Res L)
42. G. Dickson
43. G. Dickson (opt to Pearl Res L)
44. G. Dickson
45. Chevron Canada Res L
46. G. Dickson (opt to Prochem L)
47. F. Goulter (opt to Prochem L)
48. B.Y.G. Nat Res Inc (opt to Chevron)
49. Chevron Canada Res L
50. Noranda ML
51. G. Dickson



★ Cu± Au porphyry deposit
♦ Epithermal vein
15 Property outline and ownership
Road, existing and proposed
Project boundary
Restricted area around Archer Cathro property
1985 project boundary
Restricted area around Mt Nansen option

SCALE 1:250,000
1 inch to 4 Miles Approximately
Miles 5 0 5 10 15 20 Miles
Kilometres 5 0 5 10 15 20 25 30 Kilometres

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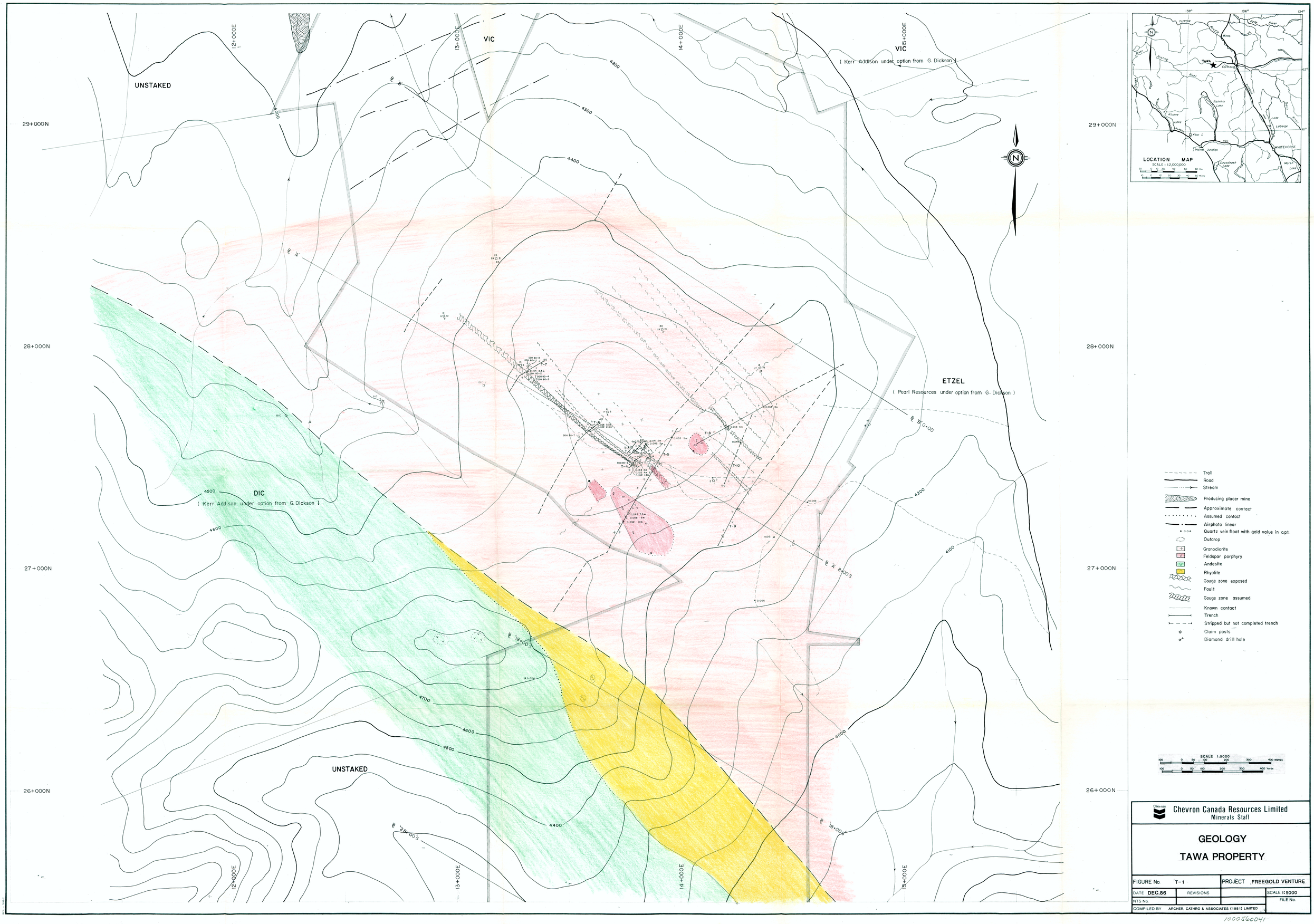
Minerals Staff

PROPERTY OWNERSHIP , PROJECT BOUNDARIES AND RESTRICTED AREAS

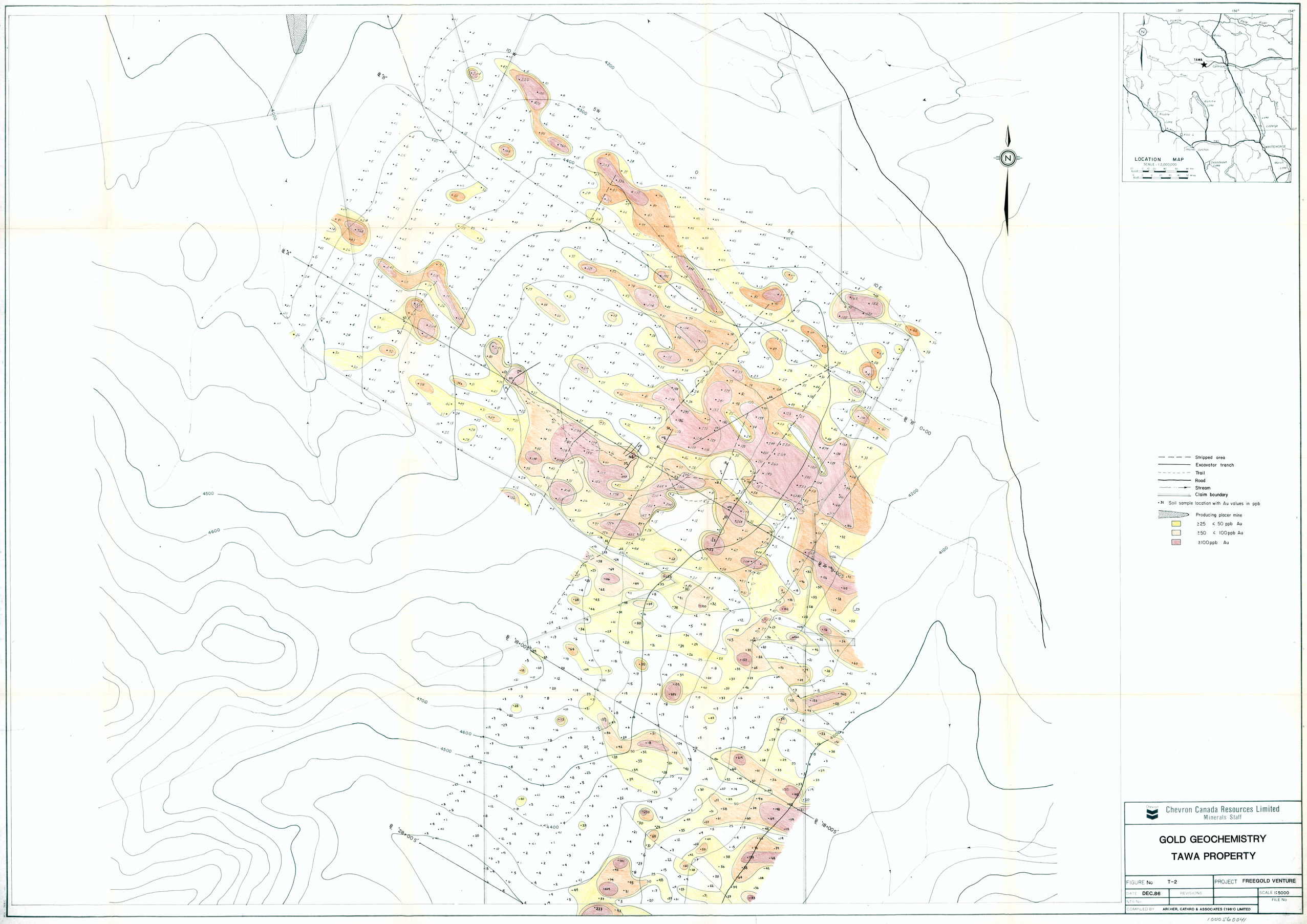
FIGURE No. FV-1		PROJECT FREEGOLD VENTURE	
DATE	REVISIONS		SCALE 1:250,000
NTS No			FILE No
COMPILED BY ARCHER, CATHRO & ASSOCIATES (1981) LIMITED			

100560041

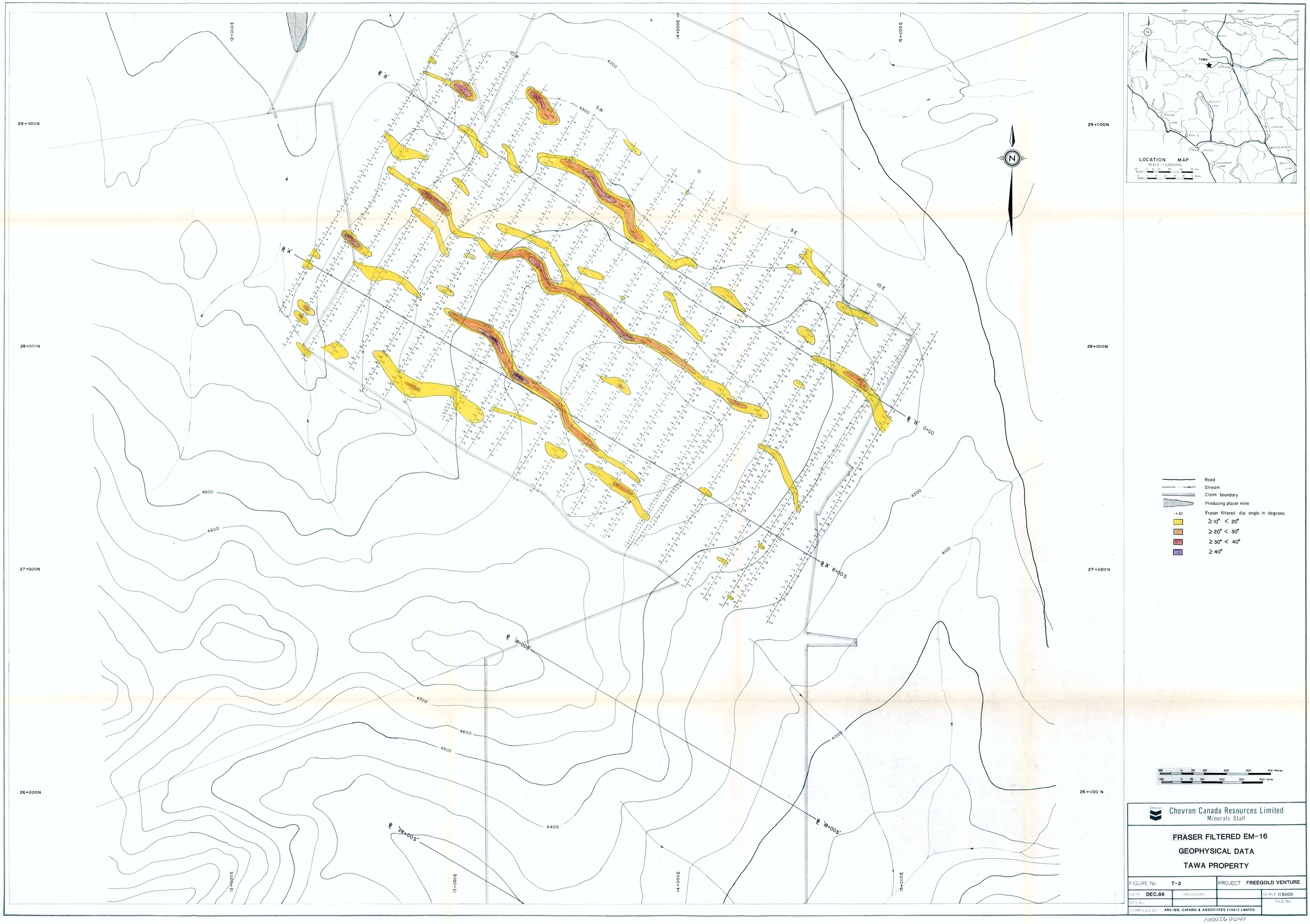


UNSTAKED
VIC
VIC
(Kerr Addison under option from G. Dickson)
ETZEL
(Pearl Resources under option from G. Dickson)
DIC
(Kerr Addison under option from G. Dickson)
UNSTAKED
29+000N
28+000N
27+000N
26+000N
12+000E
13+000E
14+000E
15+000E
4000
4100
4200
4300
4400
4500
4600
4700
LOCATION MAP
SCALE - 1:2,000,000
TAWA
WHITEHORSE
Trail
Road
Stream
Producing placer mine
Approximate contact
Assumed contact
Airphoto linear
Quartz vein float with gold value in o.p.t.
Outcrop
Granodiorite
Feldspar porphyry
Andesite
Rhyolite
Gouge zone exposed
Fault
Gouge zone assumed
Known contact
Trench
Stripped but not completed trench
Claim posts
Diamond drill hole
SCALE 1:5000
Chevron Canada Resources Limited
Minerals Staff
GEOLOGY
TAWA PROPERTY
FIGURE No. T-1
PROJECT FREEGOLD VENTURE
DATE DEC.86
REVISIONS
SCALE 1:5000
NTS No.
FILE No.
COMPILED BY ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

1000560041


LOCATION MAP
SCALE - 1:2,000,000
TAWA
Carmacks
Kluane Lake
Kloo L.
Haines Junction
Dezadeash Lake
Marsh Lake
WHITEHORSE
Lake Laberge
Stripped area
Excavator trench
Trail
Road
Stream
Claim boundary
Soil sample location with Au values in ppb
Producing placer mine
≥25 < 50 ppb Au
≥50 < 100 ppb Au
≥100 ppb Au
Chevron Canada Resources Limited
Minerals Staff
GOLD GEOCHEMISTRY
TAWA PROPERTY
FIGURE No T-2
PROJECT FREEGOLD VENTURE
DATE DEC.86
REVISIONS
SCALE 1:5000
NTS No.
FILE No.
COMPILED BY ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

1000560041



Road
Stream
Claim boundary
Producing placer mine
Fraser filtered dip angle in degrees
+21
≥ 10° < 20°
≥ 20° < 30°
≥ 30° < 40°
≥ 40°

100 0 50 100 200 300 400 Metres
100 0 50 100 200 300 400 Yards

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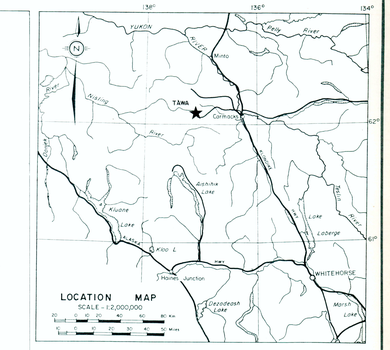
Minerals Staff

FRASER FILTERED EM-16 GEOPHYSICAL DATA TAWA PROPERTY

FIGURE No. T-3		PROJECT FREEGOLD VENTURE	
DATE DEC.86	REVISIONS		SCALE 1:5000
NTS No.			FILE No.
COMPILED BY ARCHER, CATHRO & ASSOCIATES (1981) LIMITED			

100056041



- Stripped area
- Excavator trench
- Trail
- Road
- Stream
- Claim boundary
- Trend of EM-16 conductor
- Producing placer mine
- ≥25 <50 ppb Au
- ≥50 <100 ppb Au
- ≥100 ppb Au

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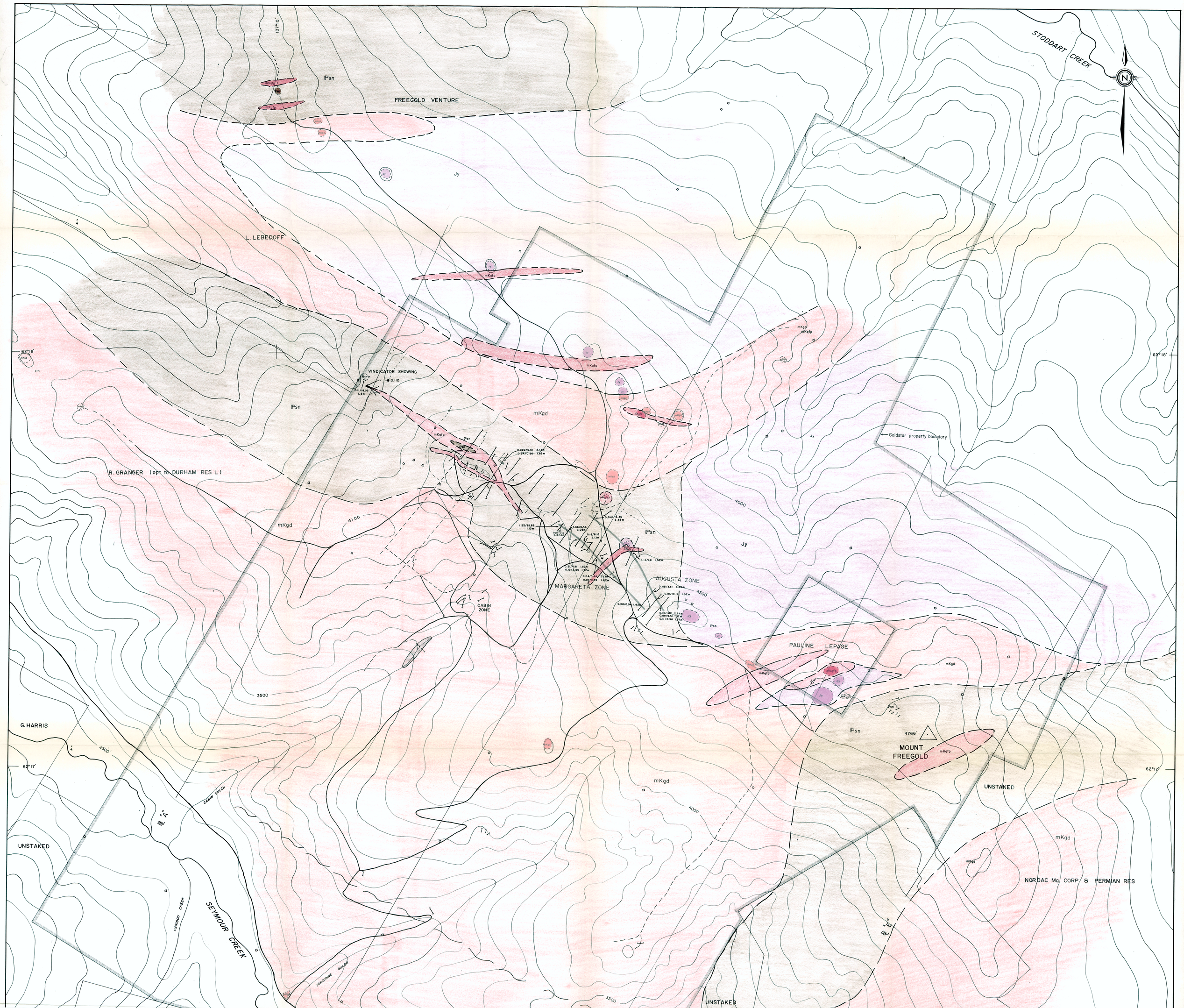
Minerals Staff

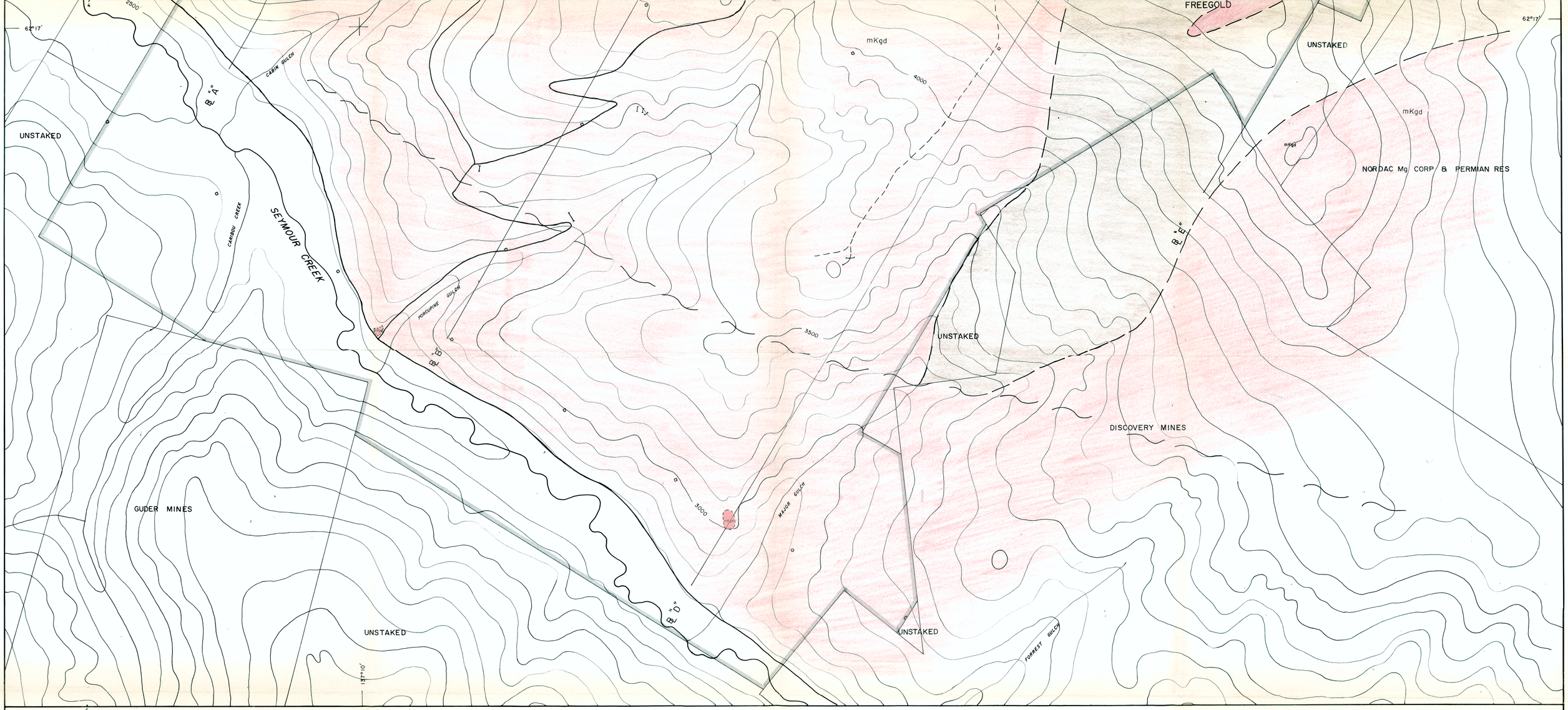
TRENCH ASSAYS
GEOPHYSICAL & GEOCHEMICAL COMPILATION
TAWA PROPERTY

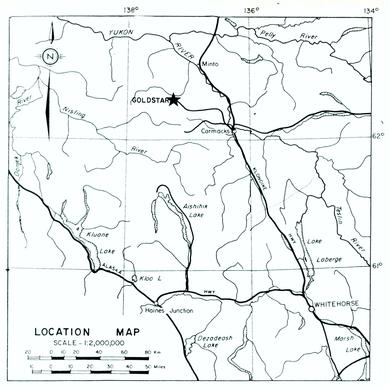
FIGURE No. T-4		PROJECT FREEGOLD VENTURE	
DATE DEC. 86	REVISIONS		SCALE 1:5000
NTS No.			FILE No.
COMPILED BY ARCHER, CATHRO & ASSOCIATES (1981) LIMITED			

100056004



STODDART CREEK
N
137°10'
Psn
FREEGOLD VENTURE
Jy
L. LEBEDOFF
mKgfp
62°18'
VINDICATOR SHOWING
0.112
mKgd
Goldstar property boundary
R. GRANGER (opt to DURHAM RES L)
4100
4000
4500
MARGARETA ZONE
AUGUSTA ZONE
CABIN ZONE
PAULINE LEPAGE
3500
G. HARRIS
2500
62°17'
4766'
MOUNT FREEGOLD
UNSTAKED
CABIN GULCH
B "A"
CARIBOU CREEK
SEYMOUR CREEK
PORCUPINE GULCH
NORDAC Mg CORP & PERMIAN RES
B "E"





Geological contact known, assumed

Fault

Road

Bulldozer trench

Hand trench or shallow bulldozer trench

Trail

Diamond drill hole

Shaft

Placer operation

Vein zone

Claim post

Shear zone

Outcrop

mKqfp — Middle Cretaceous quartz feldspar porphyry

mKgd — Middle Cretaceous granodiorite

Jy — Jurassic syenite

Psn — Paleozoic or older metamorphic rocks

0.112 — Grab sample with gold value in opt

0.15/3.51 1.83m — Au/Ag values in oz/ton with width in metres (Dynasty 1974)

Figure G-1

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

GEOLOGY

GOLDSTAR PROPERTY

FREEGOLD VENTURE

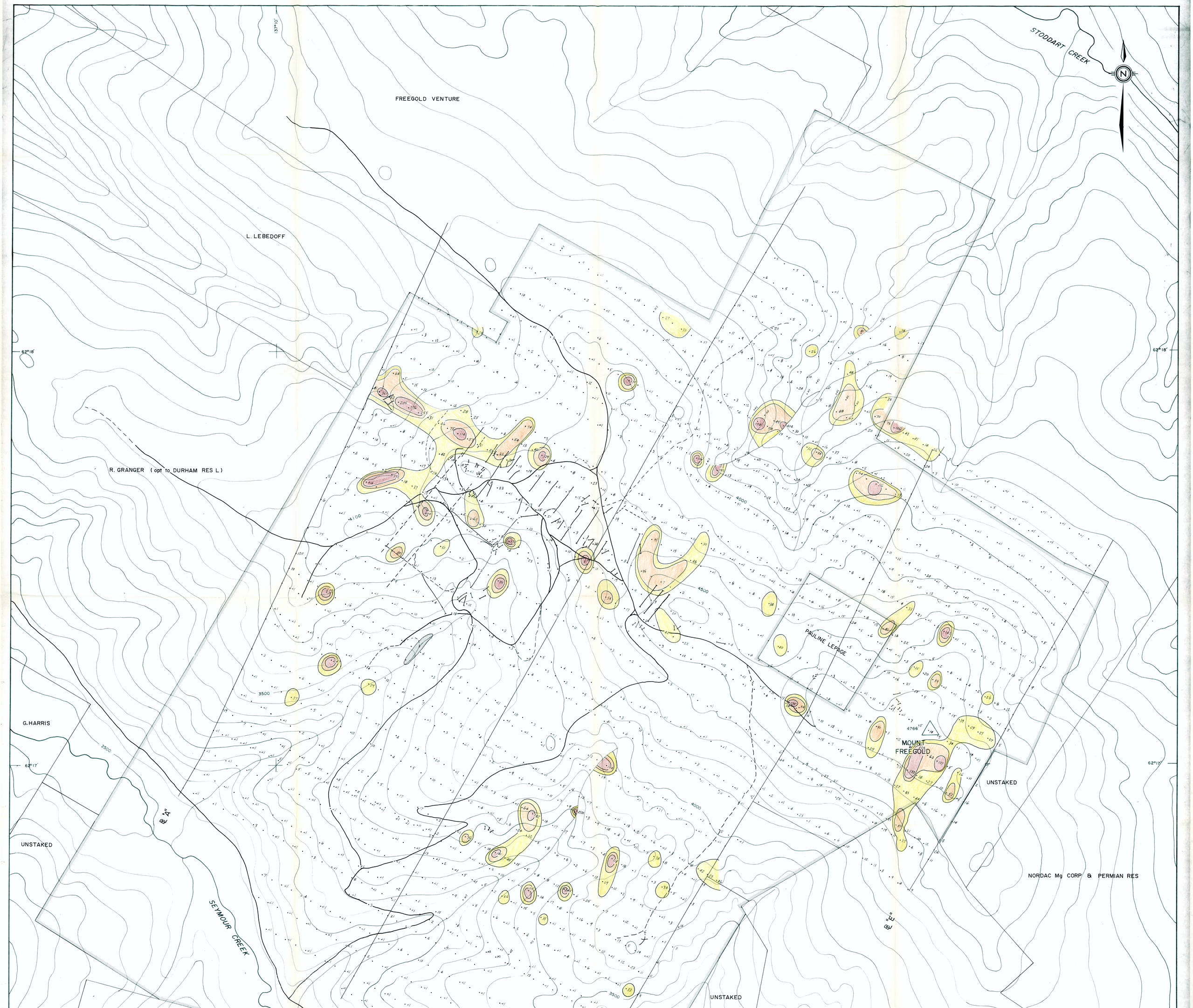
SCALE 1:5000

0 50 100 200 300 400 500 Metres

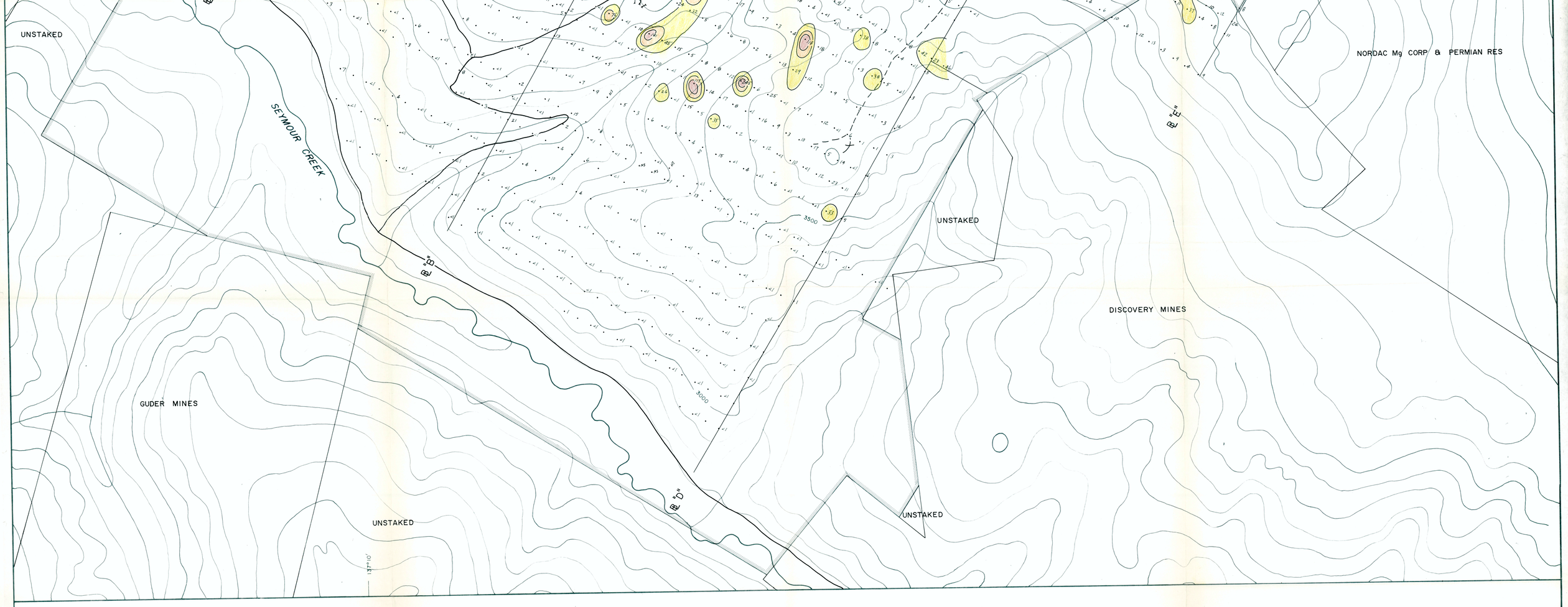
0 100 500 1000 1500 Feet

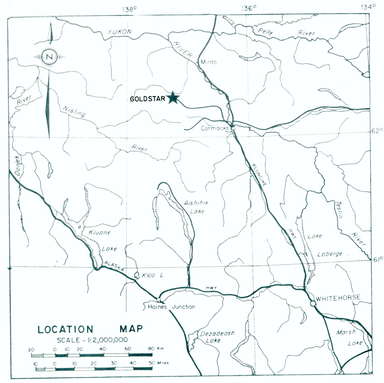
To accompany report dated December 1986

1000560041



STODDART CREEK
N
FREEGOLD VENTURE
L. LEBEDOFF
R. GRANGER (opt to DURHAM RES L)
PAULINE LEPAGE
MOUNT FREEGOLD
UNSTAKED
NORDAC Mg CORP & PERMIAN RES
G. HARRIS
UNSTAKED
SEYMOUR CREEK
UNSTAKED
62°18'
62°17'
137°10'
4100
4000
4500
3500
2500
4766





·15 Soil sample location with Au values in ppb

Property boundary

≥ 25 < 50

≥ 50 < 100

≥ 100

Road

Trail

Bulldozer trench

Hand trench or shallow bulldozer trench

Placer operation

Figure G-2

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

GOLD GEOCHEMISTRY

GOLDSTAR PROPERTY

FREEGOLD VENTURE

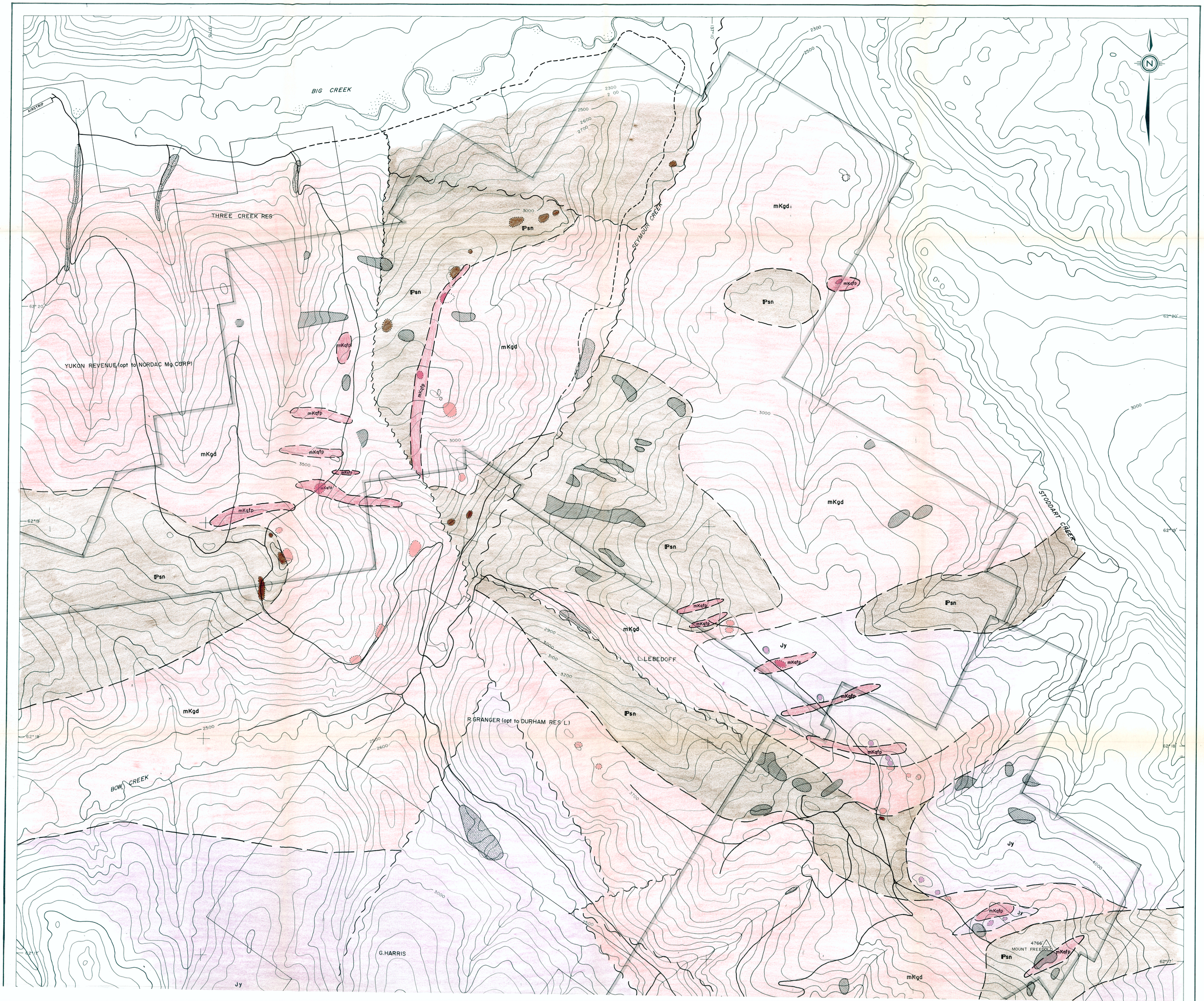
SCALE 1:5000

0 50 100 200 300 400 500 Metres

0 100 500 1000 1500 Feet

To accompany report dated December 1986

1000560041



BIG CREEK
AIRSTRIP
THREE CREEK RES
YUKON REVENUE (opt to NORDAC Mg CORP)
SEYMOUR CREEK
STODDART CREEK
BOW CREEK
L. LEBEDOFF
R. GRANGER (opt to DURHAM RES L)
G. HARRIS
MOUNT FREEGOLD
4766'
mKgd
mKqfp
Jy
Psn
N

BOW CREEK

G.HARRIS

SEYMOUR CREEK

GUDER MINES

DISCOVERY MINES

NORDAC Mg CORP & PERMIAN RES

MOUNT FREEGOLD 4766'

Jy

mKgd

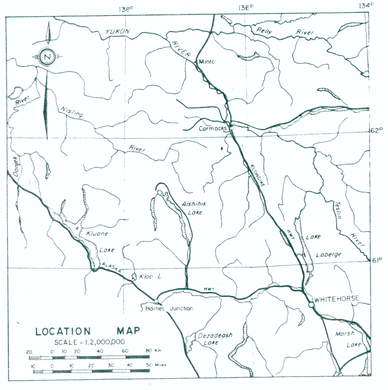
mKqfp

Psn

62°17'

62°18'

137°15'



- Outcrop
- Fault
- Geological contact
- mKqfp — Middle Cretaceous quartz feldspar porphyry
- mKgd — Middle Cretaceous granodiorite
- Jy — Jurassic syenite
- Psn — Paleozoic or older metamorphic rocks
- Geochemical anomaly with Au values ≥ 50 ppb
- Placer operation
- F.V. property boundary
- Property boundary
- Road

Figure F-1

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

GEOLOGICAL & GEOCHEMICAL COMPILATION

STODDART & GOLDSTAR PROPERTIES

FREEGOLD VENTURE

SCALE - 1:10,000

To accompany report dated DEC 86

100056041

137°10'

62°20'

Creek

EYM CLAIM BOUNDARY

KEN CLAIM BOUNDARY

BOW

Seymour

35E

31E

27E

23E

19E

15E

2500

3000

3500

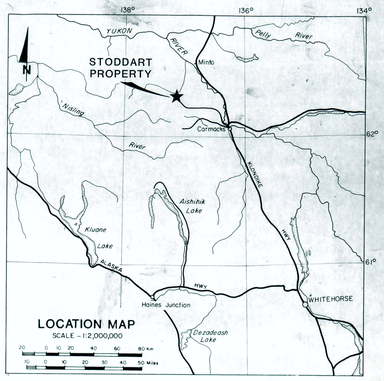
Kgd

Kmnr

Psn

Jy

1981 sample results:
– 80 Mesh screen technique used rather than –35 mesh for rest of grid



LEGEND

CRETACEOUS

- Kmn — Andesite dykes
- Kmnr — Quartz feldspar porphyry dykes and plugs
- Kgd — Casino Granodiorite
- Kg — Coffee Creek Granite

JURASSIC

- Jy — Big Creek Syenite

PALEOZOIC OR OLDER

- Psn — Pelly Gneiss: Undifferentiated schists, gneisses, amphibolites, marbles and/or quartzites

SYMBOLS

- Limit of outcrop
- Shear with attitude
- Geological contact: known, approximate
- Reconnaissance chip sample location with gold value in ppb
- Grab rock sample location with gold value in ppb
- Soil sample location with gold value in ppb
- Soil contour
- Old hand trench
- 4 wheel-drive road
- × 0.5,100.30 — 1972 DRJV Stream sediment sample location with Ag, As and Au values in ppm, ppm and ppb, respectively

1981 sample results:
– 80 Mesh screen technique used rather than –35 mesh for rest of grid

Jy

Psn

Kgd

Kmnr

Jy bx

Kmnr bx

EYM CLAIM BOUNDARY

Figure F2

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

GEOLOGY AND GOLD GEOCHEMISTRY

STODDART PROPERTY

FREEGOLD VENTURE

SCALE 1:5000

100 0 50 100 200 300 400 Metres

100 0 50 100 200 300 400 Yards

To accompany report dated December 1986

137°10'

1000560041



Claim boundary

Road

Trail

• 8 Soil sample location with Au values in ppb.

≥ 25 < 50 ppb Au

≥ 50 < 100 ppb Au

≥ 100 ppb Au

Figure F-3

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

GOLD GEOCHEMISTRY

ACK CLAIMS

FREEGOLD VENTURE

SCALE 1:5000

0 50 100 200 300 400 500 Metres

0 100 500 1000 1500 Feet

1000560041

To accompany report dated December 1986

137°15'

BIG CREEK

AIRSTRIP

REVENUE CREEK

BOWLIDDEN CREEK

HAPPY CREEK

HAPPY PROPERTY
(Three Creek Res)

REVENUE PROPERTY
(Yukon Revenue ML opt to Nordac Mg Corp)

62°20'

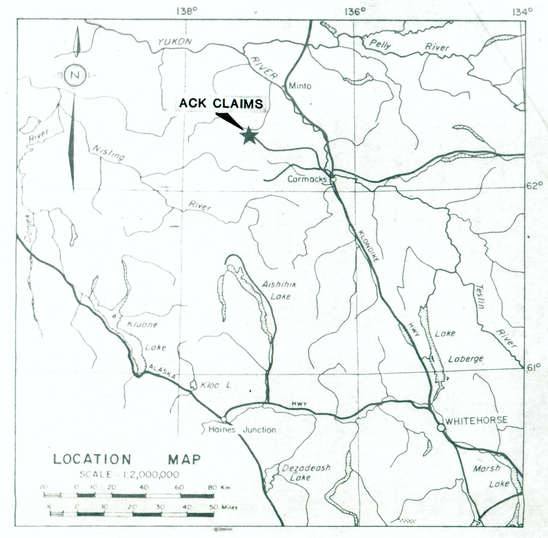
3000

3500

4000

.344 .18 .16 .44 .41 .41 .17 .26 .29 .14 .6 .15 .194 .55 .61 .21 .24 .4 .16 .16 .15 .4 .140 .2 .3 .13 .13 .9 .13 .2 .74 .NS .12 .10 .8 .4 .10 .2 .5 .3 .24 .8 .3 .7 .2 .1 .5 .20 .12 .3 .2 .1 .2 .41 .8 .13 .6 .55 .21 .4 .16 .4 .2 .5 .10 .12 .4 .3 .9 .4 .2 .10 .3 .NS .2 .10

137°15'



HAPPY PROPERTY
(Three Creek Res)

HAPPY CREEK

3000

3500

4000

62°20

SEYMOUR CREEK

2500

Claim boundary

Road

Trail

• 8 Soil sample location with Au values in ppb.

≥ 25 < 50 ppb Au

≥ 50 < 100 ppb Au

≥ 100 ppb Au

Figure F-4

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

GOLD GEOCHEMISTRY

ACK CLAIMS

FREEGOLD VENTURE

SCALE 1:5000

0 50 100 200 300 400 500 Metres

0 100 500 1000 1500 Feet

10005600041

To accompany report dated February 1986

137°15'

BIG CREEK

AIRSTRIP

REVENUE CREEK

BOWLIDDEN CREEK

HAPPY CREEK

HAPPY PROPERTY
(Three Creek Res)

REVENUE PROPERTY
(Yukon Revenue ML opt to Nordac Mg Corp)

62°20'

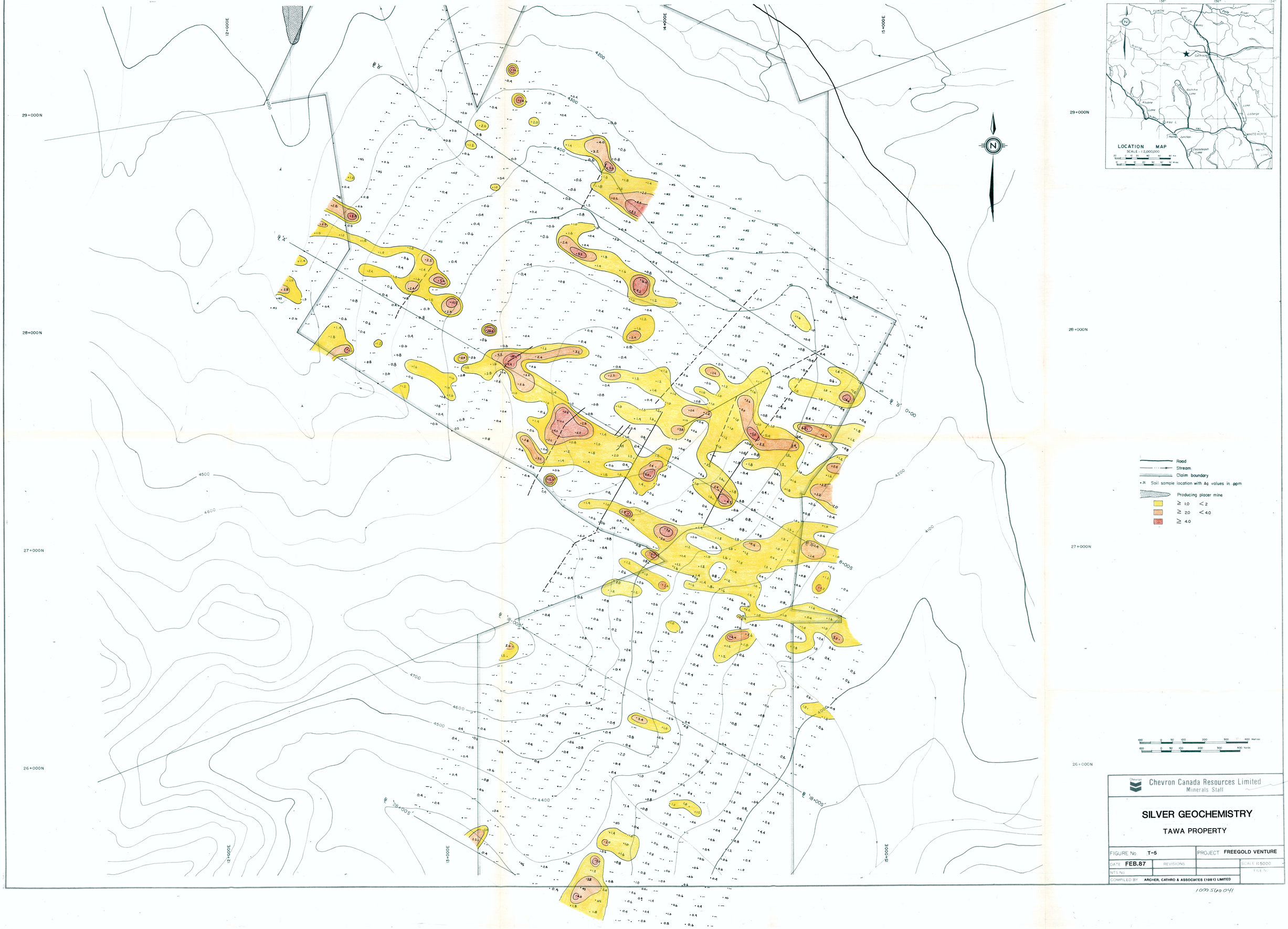
3000

3500

4000

3500

137°15'



Chevron Canada Resources Limited
Minerals Staff

SILVER GEOCHEMISTRY

TAWA PROPERTY

FIGURE No. T-5		PROJECT FREEGOLD VENTURE	
DATE FEB.87	REVISIONS		SCALE 1:5000
NTS No.			FILE No.
COMPILED BY ARCHER, CATHRO & ASSOCIATES (1981) LIMITED			

1000560041

12+000E
13+000E
14+000E
15+000E
29+000N
28+000N
27+000N
26+000N
L 12+00S
L 13+00S
L 14+00S
L 15+00S
L 16+00S
L 17+00S
L 18+00S
4200
4300
4400
4500
4600
4700
4100
4000



Road
Stream
Claim boundary
•.31 Soil sample location with As values in ppm
Producing placer mine
≥ 50 < 100
≥ 100 < 200
≥ 200

100 0 50 100 200 300 400 Metres
100 0 50 100 200 300 400 Yards

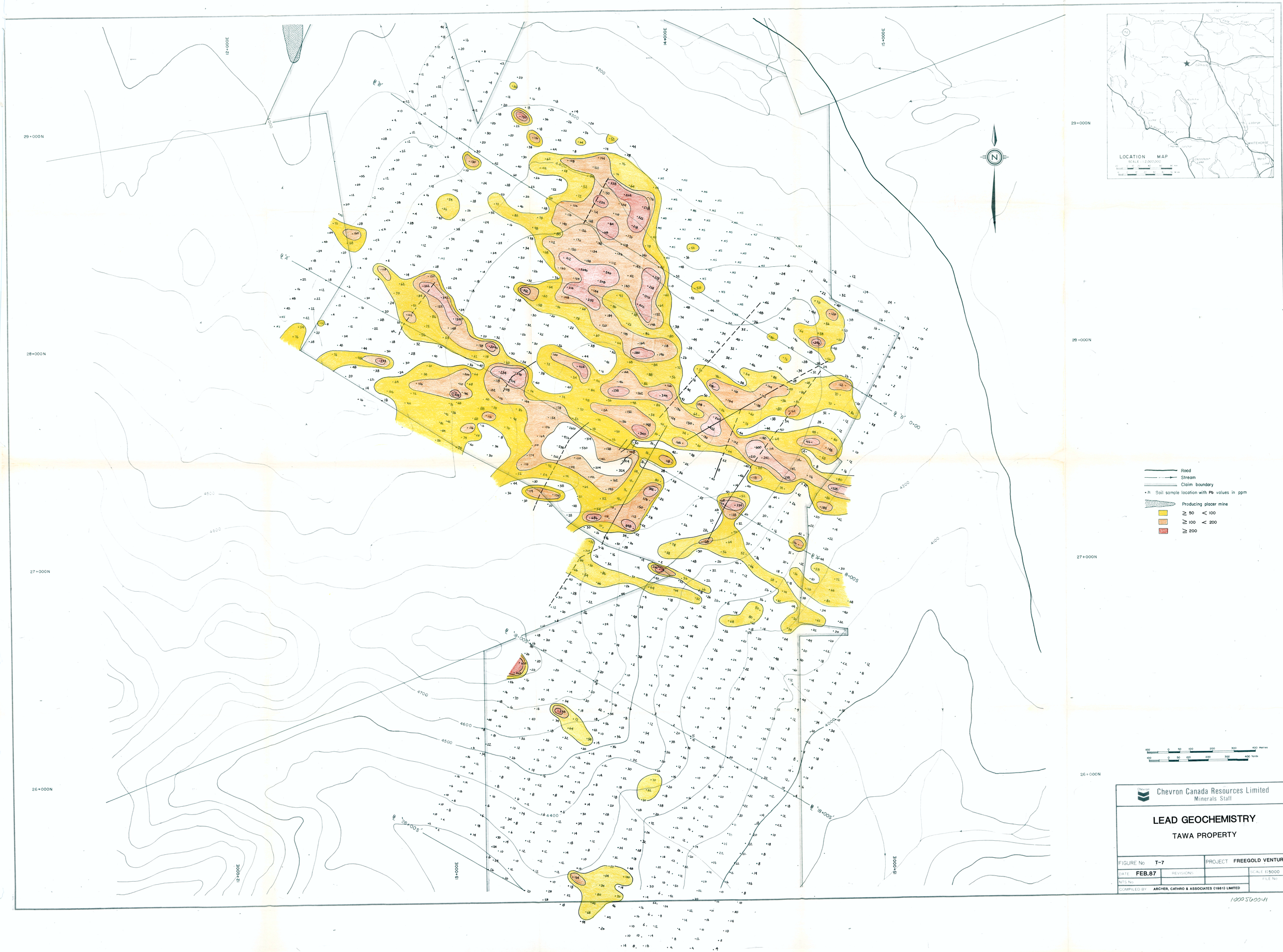
Chevron Canada Resources Limited
Minerals Staff

ARSENIC GEOCHEMISTRY

TAWA PROPERTY

FIGURE No. T-6		PROJECT FREEGOLD VENTURE	
DATE FEB.87	REVISIONS	SCALE 1:5000	
NTS No.		FILE No.	
COMPILED BY ARCHER, CATHRO & ASSOCIATES (1981) LIMITED			

1000560041



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LEAD GEOCHEMISTRY

TAWA PROPERTY

FIGURE No. T-7		PROJECT FREEGOLD VENTURE	
DATE FEB.87	REVISIONS:		SCALE 1:5000
NTS No:			FILE No.
COMPILED BY: ARCHER, CATHRO & ASSOCIATES (1981) LIMITED			

100560041

12+000E
13+000E
14+000E
15+000E
29+000N
28+000N
27+000N
26+000N
4200
4300
4400
4500
4600
4700
4800
4900
5000
5100
5200
5300
5400
5500
5600
5700
5800
5900
6000
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6200
6300
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6500
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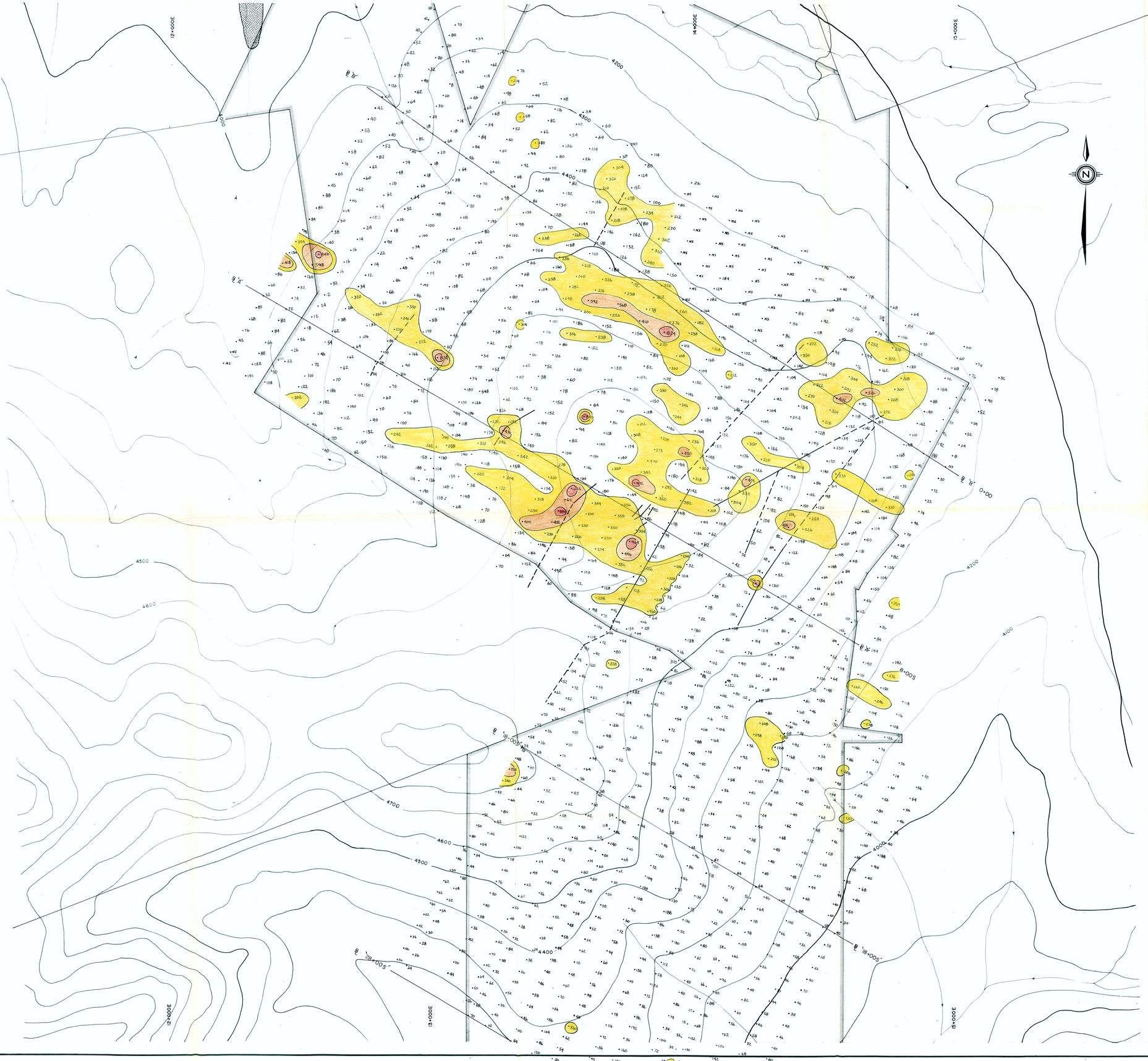
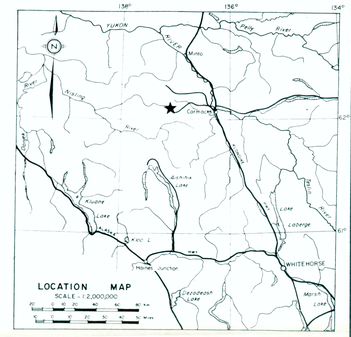
7700
7800
7900
8000
8100





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ZINC GEOCHEMISTRY
TAWA PROPERTY

FIGURE No. T-9		PROJECT FREEGOLD VENTURE	
DATE FEB.87	REVISIONS		SCALE 1:5000
NTS No.			FILE No.
COMPILED BY ARCHER, CATHRO & ASSOCIATES (1981) LIMITED			

10005600 41