ARIS SUMMARY SHEET

District Geologist, Smithers

Off Confidential: 89.04.15

ASSESSMENT REPORT 17595 MINING DIVISION: Omineca

PROPERTY: Eric
LOCATION: LAT 57 12 00 LONG 126 41 00
UTM 09 6341816 639966
NTS 094E02E
CLAIM(S): Dawn
OPERATOR(S): Can. Venture
AUTHOR(S): Woods, D.V.;Hermary, R.G.
REPORT YEAR: 1988, 28 Pages
GEOLOGICAL SUMMARY: The underlying rocks consist of basalt flows and breccia of the Upper Triassic Takla Group and Middle Jurassic Toodoggone Volcanics. The Toodoggone rocks include Adoogatcho Creek Formation crystal ash tuffs, Moyez Creek conglomerate, greywacke, bedded crystal tuff and epiclastic sedimentary rocks. These rocks are intruded by Jurassic granodiorite and quartz diorite. The majority of faults trend northeast and other faults tend to be cross-cutting.

WORK DONE: Geophysical
EMAB 50.0 km; VLF
Map(s) - 2; Scale(s) - 1:10 000
MAGA 50.0 km
Map(s) - 1; Scale(s) - 1:10 000
MINFILE: 094E 057

CANADIAN VENTURE CORPORATION

GEOPHYSICAL REPORT ON AN
AIRBORNE MAGNETIC AND VLF-EM SURVEY
ERIC AND DAWN CLAIM
OMINECA MINING DIVISION
LATITUDE: 57° 12'N LONGITUDE: 126° 41'W
NTS 94E/2E

AUTHORS: Richard G. Hermary, B.Sc.,
Geophysicist
Dennis V. Woods, Ph.D., P.Eng.
Consulting Geophysicist

DATE OF WORK: 8 April 1988
DATE OF REPORT: 15 June 1988

GEOLOGICAL BRANCH
ASSESSMENT REPORT

17,595

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ILLUSTRATIONS

INTRODUCTION

On April 8, 1988 an airborne magnetic and VLF-EM survey was conducted over the **Eric** and **Dawn** claims for the **Canadian Venture Corporation.** The claims are situated in the Toodoggone River area approximately 280 kilometres north of Smithers, B.C.

The intention of this survey is to direct further exploration to any favorable anomalous zones and assist in the geological mapping of the area. Approximately 50 line kilometres of magnetic and VLF-EM data was gathered over the claims. The airborne magnetic and VLF-EM data has been examined in detail to evaluate the subject property.

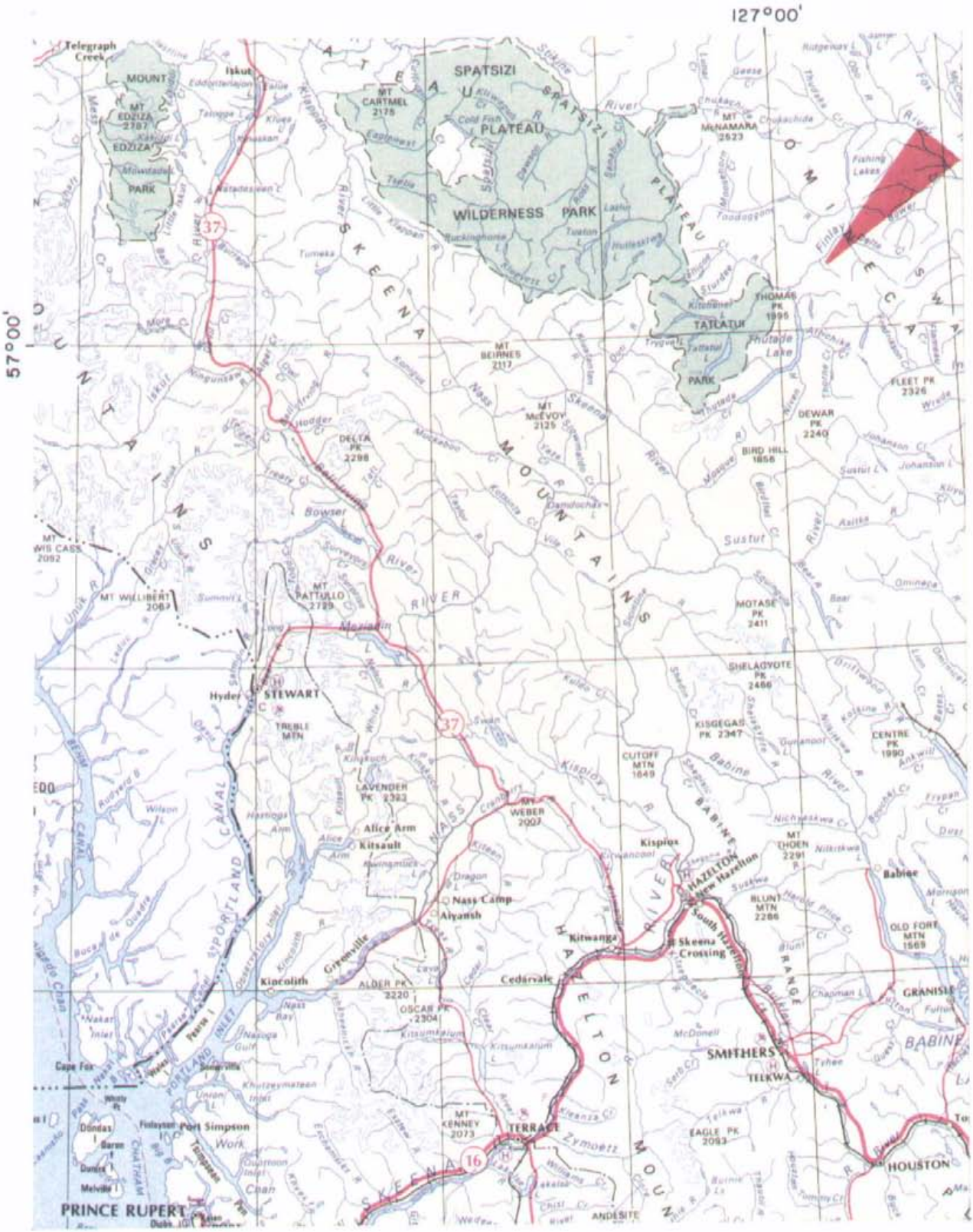
PROPERTY

The **Eric** and **Dawn** claims are owned and operated by the **Canadian Venture Corporation.** The claims are described in the table below and illustrated in Figure 2.

Claim Name	Units	Record No.	Expiry Date
Eric	12	7467	February 12, 1989
Dawn	16	8311	April 16, 1989

LOCATION AND ACCESS

The **Eric** and **Dawn** claims are located in the Toodoggone River area approximately 280 kilometers north of Smithers, B.C. The claims lie thirty four kilometers southeast of the Lawyers deposit operated by Cheni Gold Mines Inc. The claims are situated southeast of the Finlay River and northeast of Thutade Lake. They are located sixteen kilometres northeast of the confluence of the Firesteel and Finlay Rivers. The claims are situated within the Omineca Mining Division of B.C. The NTS map



CANADIAN VENTURE CORPORATION

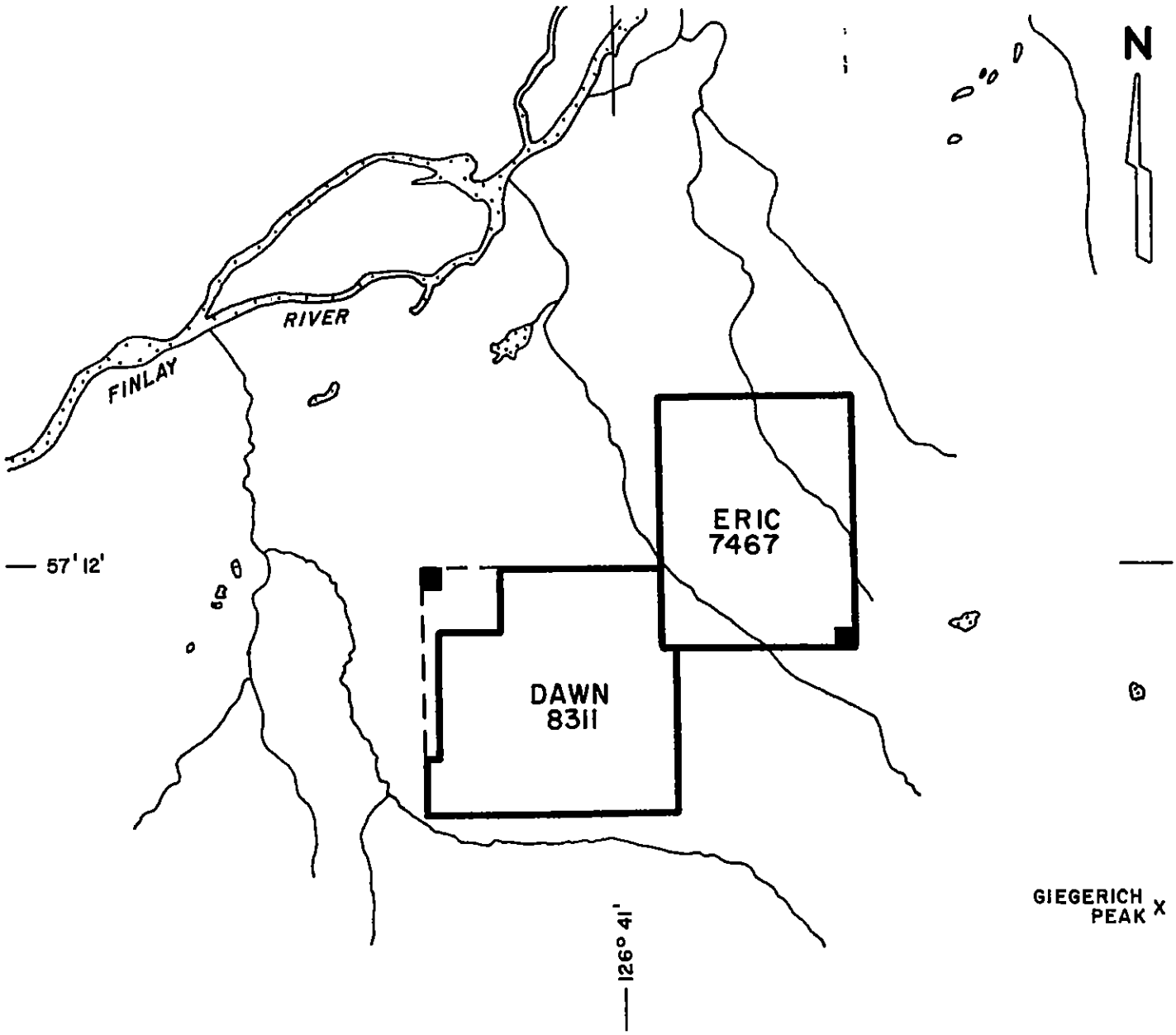
DAWN & ERIC CLAIMS

LOCATION MAP

N.T.S. 94E/2E

Scale = 1:2000000

FIG. 1



CANADIAN VENTURE CORPORATION

DAWN & ERIC CLAIMS

CLAIMS MAP

N.T.S. 94E/2E

FIG. 2

coordinates of the Eric and Dawn claims is 94E/2E. The approximate geographical coordinates are a latitude of 57° 12'N and a longitude of 126° 41'W.

Access to the area is usually achieved by fixed wing aircraft from Smithers, B.C. to the Sturdee River airstrip and then by helicopter to the specific claim area. The helicopters are usually based at the Sturdee River airstrip during the summer.

HISTORY AND PREVIOUS WORK

The Toodoggone area was investigated for placer gold in the 1920's and 1930's. A public company, Two Brothers Valley Gold Mines Ltd., undertook considerable test work, including drilling in 1934. Most of this work was directed towards extensive gravel deposits principally near the junction of McClair Creek and the Toodoggone River.

Gold-silver mineralization was discovered on the Chappelle (Baker Mine) property by Kennco Explorations (Western) Ltd. in 1969. DuPont of Canada Exploration Ltd. acquired the property in 1974 and began production at a milling rate of 100 tonnes per day in 1980. The mine closed in 1982 due to exhaustion of the known ore reserves.

Numerous other gold-silver discoveries were made in the 1970's and 1980's, including the Lawyers deposit which was discovered by Kennco in 1973 and optioned by SEREM Ltd. in 1979. Work on this property to date has included trenching, drilling and underground development. The mine is scheduled to begin production in late 1988 at a rate of 550 tonnes per day.

The gold-silver deposits on the Al property were discovered by Kidd Creek Mines Ltd. in the late 1970's. This property, together with the Moose and JD claims immediately to the east are now held by Energex Minerals Ltd. - the largest land holding in

the Toodoggone area. Energex have outlined numerous showings and potential ore zones including the Thesis I and II, Bonanza and B.V. deposits. Open pit production is scheduled for late 1988 or early 1989.

Within the belt, three properties show ore reserves: Lawyers deposit (Serem Inc.) 2,000,000 tonnes 0.2 oz/tonne Au, 7.1 oz/tonne Ag, Al property (Energex Minerals Ltd.) 1,000,000 tonnes 0.2 oz/tonne Au, and the Shas deposit (International Shasta/Esso Minerals) 250,000 tonnes 0.21 oz/tonne Au.

The Toodoggone area has been the scene of intense exploration activity during the past four years with numerous companies exploring over 3,000 mineral claim units. Exploration and development expenditures to 1988 are estimated to be in the order of $150 million.

Previous work on the **Eric** and **Dawn** claim (mostly the **Eric** claim) has consisted of a review of the available published data and reconnaissance exploration work. The most recent work was a review of published data for a "Report on the Eric Mineral Claim" for the Toodoggone Syndicate by D.L. Cooke in September 1986. The reconnaissance exploration work was carried out by Cominco Ltd. in 1977 and 1981.

The exploration work in 1977 consisted of geological mapping, and soil and rock chip sampling for copper and molybdenum mineralization. The rock and soil samples showed anomalous values in copper, molybdenum and gold (Caelles, 1978). In 1981 Cominco Ltd. did additional rock and soil sampling. This work confirmed the presence of significant gold and silver values in association with copper and iron within a porphyry system on the **Eric** claim (Sharp,1981).

REGIONAL GEOLOGY

The general geology of the area is shown on Preliminary Map 61, B.C. Ministry of Energy, Mines and Petroleum Resources by L.J. Diakow, A.Panteleyev and T.G.Schroeder, 1985 and an Open File, Geologic Survey of Canada, by H.Gabrielse, C.J.Dodds, J.L.Mansy and G.H.Eisbacher, 1976.

The Toodoggone River area is set within the Intermontaine Belt. The main geologic units are the Upper Cretaceous Sustut Group, the Lower to Middle Jurassic Toodoggone Volcanics, the Upper Triassic Talka Group and Permian carbonate units thought to belong to the Asitka Group. Several intrusive bodies of quartz monzonitic to granodioritic composition, irregular in size and shape (belonging to the Omineca Intrusives) intruded the volcanic -sedimentary complex in several localities. Swarms of dykes and small stocks are related to these intrusions.

The Asitka group limestones were deposited in a marine environment. The Talka rocks are the product of a volcanic event that may have been accompanied by an uplift of the whole area (possibly changing the environment from submarine to sub-areal). The result is a complex of interlayered volcanic and sedimentary units. This was followed by a period of regression and related deformations culminating in a volcanic episode during which the cyclic Toodoggone Volcanic rocks were formed. The Toodoggone volcanics started with a quartzose acidic extrusion, followed by a mafic extrusion, and then by several intermediate extrusions. Much of the volcanics were porphyritic flows but within each cycle there are pyroclastic units and conglomerates, lahars and sandstones (reworked pyroclastics).

Of the structural elements, the most prominent are three fault zones, trending northwest-southeast, which are intermittently exposed where outcrop is developed and are clearly outlined by the airborne geophysics. They had a major role not only in

distribution of geologic units, but also in the emplacement of minerals. The same, northwest-southeast trend is also the general strike of the majority of the lithostratigraphic members.

Local uplifts accompanying intrusions resulted in several dome like structures, characterized by a circular distribution of volcanic-sedimentary units surrounding an intrusive core.

The Toodoggone River area is an important host of numerous precious metal and base metal prospects. Four main mineral deposit types have been identified:

- porphyry - occurring mainly in Talka Group volcanics and Omineca intrusives.
- skarn - contact of limestones (Asitka, and some in Talka with intrusives.
- stratabound - occurring in Talka limestones interbedded with cherts.
- epithermal - occurring mainly in Toodoggone Volcanics and in Talka rocks.

Of the four, the epithermal type is the most important, and has been subdivided into two subtypes: fissure vein deposits associated with fracture zones and possibly caldera formations, and hydrothermally altered and mineralized deposits (associated with major fault zones).

Most common ore minerals in epithermal type deposits are argentite, electrum, native gold and silver. Baker Mine and Lawyers Deposit are the two most prominent deposits of this type in the area.

LOCAL GEOLOGY

The property geology of **Eric** and **Dawn** claims is best summarized from D.L. Cooke (1986) and is excerpted as follows:

MINISTRY MAPPING 1971 TO 1984 MAINLY 1981-1984 ADDITIONAL SOURCES OF INFORMATION ASSESSMENT REPORTS GEOLOGICAL SURVEY OF CANADA OPEN FILE 483 1977 RADIOMETRIC DATING (K Ar) BY J HARAKAL THE UNIVERSITY OF BRITISH COLUMBIA

LEGEND

QUATERNARY

PLEISTOCENE AND RECENT

UNCONSOLIDATED GLACIAL FLUVIOGLACIAL ALLUVIAL AND COLLUVIAL DEPOSITS

CRETACEOUS

UPPER CRETACEOUS

SUSTUT GROUP *(TANGO CREEK FORMATION)*

K — POLYMICTIC CONGLOMERATE SANDSTONE SHALE CARBONACEOUS MUDSTONE

JURASSIC

LOWER AND (?) MIDDLE JURASSIC

"TOODOGGONE VOLCANICS" (?) HAZELTON GROUP

9 — UNDIVIDED PREDOMINANTLY GREY GREEN PURPLE AND ORANGE BROWN HORNBLENDE PLAGIOCLASE AND PLAGIOCLASE PHYRIC ANDESITE PORPHYRY FLOWS TUFFS BRECCIA SOME LAHAR CONGLOMERATE GREYWACKE SILTSTONE RARE RHYOLITE PERLITE INCLUDES SOME DYKES AND SILLS

LOWER TO MIDDLE JURASSIC

"TOODOGGONE VOLCANICS" (CARTER, 1972)

GREY DACITE

8 — DARK TO PALE GREY OR GREEN QUARTZOSE BIOTITE HORNBLENDE PLAGIOCLASE ASH FLOWS OF ANDESITIC AND RARELY DACITIC COMPOSITION VARIABLY WELDED WITH LOCALLY WELL DEVELOPED COMPACTION LAYERING CONTAINS ABUNDANT GREY DACITE AND RARE GRANITIC CLASTS OUTCROPS ARE COMMONLY BLOCKY AND STRONGLY JOINTED — 182 ± 8, 183 ± 8 Ma (GSC) HORNBLENDE

8A — POLYMICTIC CONGLOMERATE WITH ABUNDANT TAKLA AND GREY DACITE CLASTS IN A QUARTZOSE SANDSTONE MATRIX

8B — GREYWACKE CONGLOMERATE DERIVED ENTIRELY FROM GREY DACITE

TODOGGONE CRYSTAL ASH TUFFS AND FLOWS

7 — RECESSIVE GREY MAUVE PURPLE QUARTZOSE PLAGIOCLASE CRYSTAL TUFF LAPILLI TUFF AND BRECCIA WITH LESSER AGGLOMERATE LAHAR AND EPICLASTIC BEDS INCLUDES SOME WELDED TUFFS AND PYROXENE HORNBLENDE FELDSPAR PORPHYRY FLOWS WHICH ARE LOCALLY DOMINANT SOME MEMBERS CONTAIN NO QUARTZ PINK WEATHERING WHERE LAUMONTITE IS ABUNDANT — 189 ± 8 Ma HORNBLENDE

7A — *EPICLASTIC RED BEDS* — ARKOSIC SANDSTONE SILTSTONE CONGLOMERATE AND SLIDE DEBRIS CONTAINS SOME CRYSTAL TUFF

TUFF PEAK FORMATION

6 — PALE PURPLE GREY AND GREEN BIOTITE AUGITE HORNBLENDE PLAGIOCLASE PORPHYRY FLOWS SOME AUTOBRECCIATED FLOWS MINOR SILLS AND PLUGS SOME CRYSTAL AND LAPILLI TUFF — 197 ± 7 Ma BIOTITE, 200 ± 7 Ma HORNBLENDE

6A — CONGLOMERATE OR LAHAR DERIVED FROM UNITS 6 AND 6B WITH GRADED AND CROSSLAMINATED MUDSTONE AND SANDSTONE INTERBEDS DEBRIS FLOWS LAPILLI AND CRYSTAL TUFFS

6B — FLOWS SIMILAR TO UNIT 6 BUT CONTAINING SPARSE ORTHOCLASE MEGACRYSTS

McCLAIR CREEK FORMATION

5 — PURPLE LAVENDER GREY RARELY GREY GREEN CROWDED FINE TO MEDIUM GRAINED PLAGIOCLASE PORPHYRITIC FLOWS INCLUDES SOME LAPILLI TUFF BRECCIA AND MINOR EPICLASTIC BEDS

5A — INTRUSIVE DOME WITH AUTOBRECCIATED CARAPACE AND FLANKING BRECCIA

MAFIC FLOW AND TUFF UNIT

4 — *BASALT FLOWS*—THIN BEDDED PURPLE TO DARK GREEN COMMONLY EPIDOTIZED FINE GRAINED PYROXENE BASALT FLOWS AND TUFFS INCLUDES SOME SILLS AND DYKES

4A — PURPLE TO MAUVE MEDIUM GRAINED PORPHYRITIC BASALT LOCALLY MAUVE TO PINK ZEOLITIZED WITH LAUMONTITE POSSIBLE INTRUSIVE (LACCOLITH)

4B — LAPILLI CRYSTAL AND ASH TUFF WELL BEDDED INCLUDES MINOR THINLY BEDDED SANDSTONE AND RARE CALCAREOUS SILTSTONE (MARL) TOTALLY OR IN PART EQUIVALENT TO UNIT 7

4C — PYROXENE BIOTITE HORNBLENDE PORPHYRY FLOWS WITH TRACES OF QUARTZ AND K FELDSPAR INTERBEDDED MINOR BRECCIA AND LAPILLI TUFF TOTALLY OR IN PART EQUIVALENT TO UNIT 6

JURASSIC *(CONTINUED)*

LOWER TO MIDDLE JURASSIC *(CONTINUED)*

"TOODOGGONE VOLCANICS" (CARTER, 1972) *(CONTINUED)*

LAWYERS—METSANTAN QUARTZOSE ANDESITE

3 — GREEN TO GREY QUARTZOSE PYROXENE (?) BIOTITE HORNBLENDE PLAGIOCLASE PORPHYRY FLOWS AND TUFFS QUARTZ CONTENT RANGES FROM NEGLIGIBLE TO ABOUT 3 PER CENT IN THE NORTH FLOWS PREDOMINATE WITH LOCAL FLOW BRECCIA LAPILLI TUFF AND RARE WELDED TUFF UNITS TOWARD THE SOUTH ASH FLOWS ARE COMMON INCLUDING RARE SURGE DEPOSITS THE UNIT CONTAINS EXTENSIVE ZONES OF EPIDOTIZED PYRITIC ROCK WITH CHARACTERISTIC SALMON PINK AND ORANGE PLAGIOCLASE CRYSTALS — 188 ± 8 Ma HYDROTHERMAL ADULARIA

MOYEZ CREEK VOLCANICLASTICS

2 — CONGLOMERATE WITH SOME GRANITIC CLASTS GRADED CROSS BEDDED GREYWACKE WELL-BEDDED CRYSTAL TUFF EPICLASTIC SEDIMENTS LOCAL LAMINATED CALCAREOUS SILT (MARL) RARE THIN LIMESTONE AND CHERT LOCAL COARSE LANDSLIDE DEBRIS AND LAHAR IN PART OR TOTALLY EQUIVALENT TO UNIT 6A

2A — CRYSTAL TUFFS IN THIN WELL LAYERED UNITS SOME EPICLASTIC SANDSTONE AND MUDSTONE RARE PLANT FRAGMENTS IN SOME BEDS MINOR LAPILLI TUFF

ADDOOGATCHO CREEK FORMATION

1 — PALE REDDISH GREY TO DARK RED BROWN QUARTZOSE BIOTITE HORNBLENDE PHYRIC ASH FLOWS THE ROCKS CONTAIN MINOR SANIDINE AND RARE AUGITE WELDING IS WIDESPREAD AND RANGES FROM INCIPIENT TO EUTAXITIC LOCALLY ORANGE TO BROWN VITROPHYRIC CLASTS ARE COMMON INCLUDES LAPILLI TUFF AND BRECCIA UNITS AS WELL AS MINOR LAYERED GROUND SURGE DEPOSITS — 199 - 7, 202 ± 7 Ma BIOTITE, 200 ± 7 Ma HORNBLENDE, 190 ± 7 Ma HYDROTHERMAL ALUNITE (WHOLE ROCK)

1A — CRYSTAL ASH TUFF LAPILLI TUFF AND RARE AGGLOMERATE WITH INTERSPERSED EPICLASTIC BEDS TUFFACEOUS SEDIMENTS AND MINOR CONGLOMERATE THAT LOCALLY CONTAINS GRANITIC CLASTS MINOR HORNBLENDE PLAGIOCLASE PHYRIC FLOWS FORMING SINGLE OR THIN COMPOSITE FLOW UNITS — 204 ± 7 Ma BIOTITE

1B — *QUARTZOSE PLAGIOCLASE PORPHYRY*— JOINTED DOMAL INTRUSION (?) OF HOMOGENOUS APPEARING GREY TO GREEN CHLORITIZED AND EPIDOTE ALTERED ROCK CONTAINING ABUNDANT INCLUSIONS OF TAKLA VOLCANICS AND RARE METAMORPHIC ROCK CLASTS

TRIASSIC

UPPER TRIASSIC

TALKA GROUP

Tr — DARK GREEN AUGITE PORPHYRY BASALT FLOWS AND BRECCIAS WITH LESSER FINE GRAINED ANDESITE TO BASALT FLOWS AND MINOR INTERBEDDED SILTSTONE TUFFACEOUS SEDIMENTS AND CHERT CONTAINS LIMESTONE LENSES THAT MAY BE PART OF THE ASITKA GROUP

PALEOZOIC

PERMIAN

P — ASITKA GROUP?

PREDOMINANTLY LIMESTONE (INCLUDING MARBLE AND MINOR SKARN) WITH SOME ARGILLITE BLACK SHALE AND CHERT UNITS COMPOSED OF LIMESTONE CHERT ARGILLITE AND BASALT (Pv c) MAY BE IN PART OR TOTALLY TAKLA GROUP

INTRUSIVE ROCKS

JURASSIC

LOWER JURASSIC (DYKES, SILLS, AND SMALL PLUGS)

A — BASALT

B — AUGITE HORNBLENDE PORPHYRY — BASALTIC STOCK DOMAL INTRUSION (OR TAKLA INLIER) — 210 ± 8 Ma HORNBLENDE

C — BIOTITE HORNBLENDE DIORITE GABBRO

D — PYROXENE PLAGIOCLASE PORPHYRY

LOWER TO MIDDLE JURASSIC (DYKES AND STOCKS)

E — QUARTZ MONZONITE GRANODIORITE—MEGACRYSTIC IN PART MINOR SYENITE OR QUARTZOSE SYENITE ALONG CONTACTS

E1 — GRANODIORITE QUARTZ DIORITE — MEDIUM GRAINED PORPHYRITIC FOLIATED IN PART

F — FELDSPAR PORPHYRY, HORNBLENDE FELDSPAR PORPHYRY — DYKES AND PLUGS RARE QUARTZ FELDSPAR PORPHYRY

SYMBOLS

MINERAL OCCURRENCE (MINERAL INVENTORY FILE NUMBER) — × 43

MINERAL PROSPECT (MINERAL INVENTORY FILE NUMBER) — ⚒ 34

EXPLORATION CAMP — ⊖

PLACER WORKINGS — ⁂

PARK BOUNDARY — — —

ROAD — ———

MAIN OUTCROP AREAS — ⋯

FAULT (OBSERVED, INFERRED) — ——— ———

THRUST OR REVERSE FAULT (OBSERVED, INFERRED) — ▲▲▲▲▲▲ ▲▲▲▲▲▲

GEOLOGIC CONTACT (DEFINED, ASSUMED) — ——— ———

BEDDING, LAYERING, FOLIATION (HORIZONTAL, INCLINED, VERTICAL) — + 10 / ⁄

FOLD AXES — ⌒ +

FOSSIL LOCALITY (PLANT DEBRIS) — Ⓕ

RADIOMETRIC DATE SAMPLE SITE, AGE IN Ma — Ⓐ104

VOLCANIC VENT — ✲

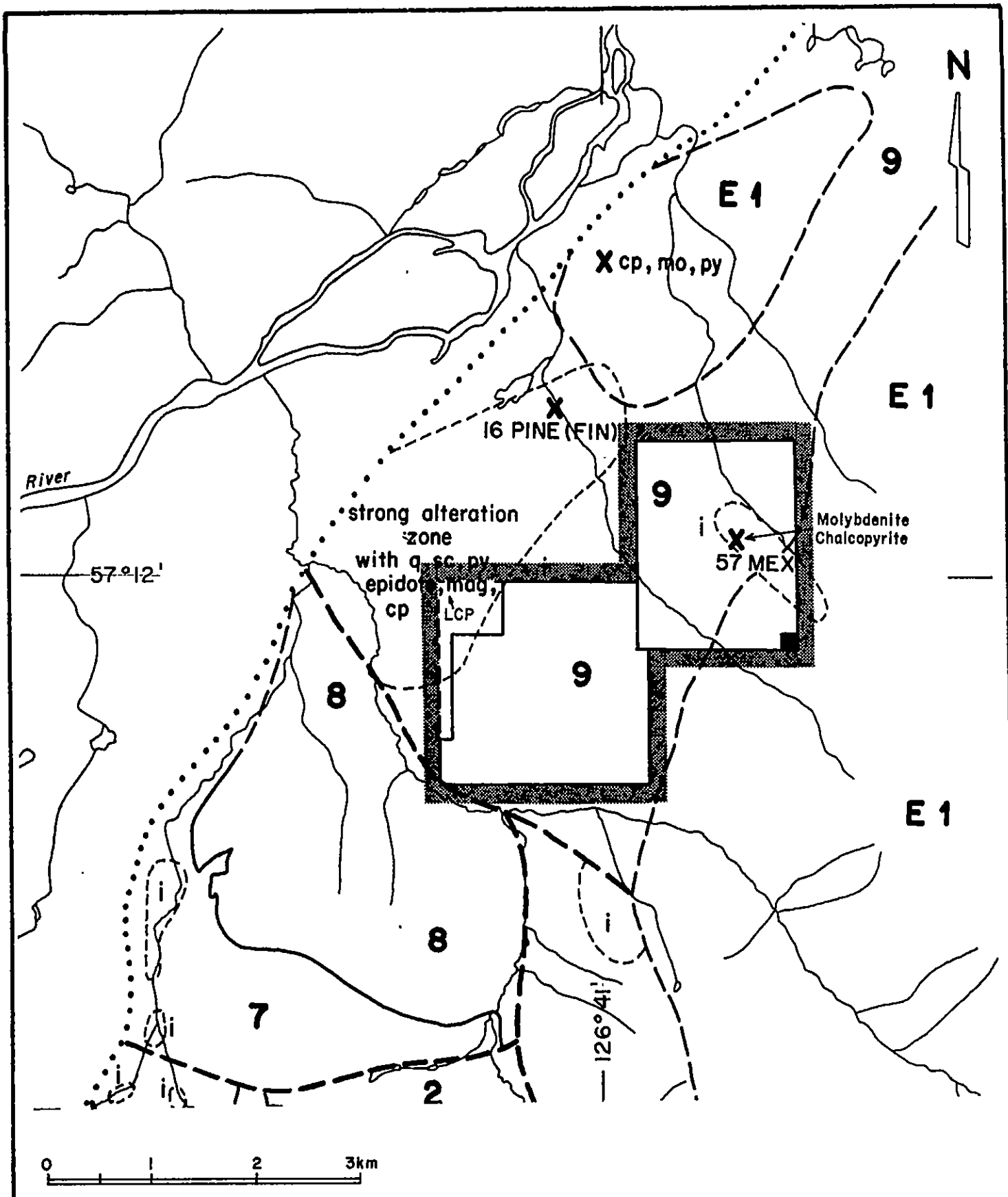
HYDROTHERMAL ALTERATION

FERRICRETE, QUATERNARY FERRUGINOUS BRECCIA — (IV)

SILICA, CLAY MINERALS ± ALUNITE, BARITE — (III)

CLAY MINERALS ± ALUNITE, SILICA, HEMATITE — (II)

GOSSAN, LIMONITIC ZONE — (I)



CANADIAN VENTURE CORPORATION

DAWN & ERIC CLAIMS

GEOLOGY

N.T.S. 94E/2E

FIG. 3

" The regional map of the Toodoggone area shows the Eric claim to be underlain by lower Jurassic acid and intermediate volcanics of the Toodoggone Group, intruded by a middle Jurassic batholith (Diakow, et.al., 1985). In detail the volcanic-intrusive contact area consists of a complex array of intrusive and sub-volcanic rock types. The batholith, which occurs to the east, consists of coarse-grained granodiorite and quartz diorite. The sub-volcanic sequence consists of fine-grained to porphyritic monzonite, quartz monzonite, syenite, andesite porphyry and rhyolite.

A leached and altered breccia zone, approximately 100 metres wide at the top of ridge forms the core of this intrusive complex. It is surrounded by successively less altered monzonite and quartz monzonite. Sericite alteration permeates the breccia. This is surrounded by a zone of silicification and pyrite mineralization, followed by an outer shell of magnetite and propylitic alteration."

MINERALIZATION

The mineralization of **Eric** and **Dawn** claims, mostly the **Eric** claim, is best summarized from D.L. Cooke (1986) and is excerpted as follows:

"A broad zone of pyrite mineralization results in a gossan zone 1000 x 500 metres in surface dimension. Here pyrite occurs in fracture-fillings and disseminations in amounts varying from 1% to 7%. Minor amounts of chalcopyrite and secondary chalcocite are associated with the pyrite over an area of 400 x 250 metres.

Reconnaissance rock chip sampling along two lines has shown anomalous gold values in the range of <10 to 710 ppb Au in association with the sulphides. Soil sampling of talus fines in the same general area returned values of <10 to 3260 ppb gold (0.095 oz/T). Silver values range from 0.4 to 11.2 ppm Ag within the anomalous area. Although anomalous gold values appear to be associated with copper and pyrite mineralization, they also occur within silicified and prophylitized monzonite and quartz monzonite. Magnetite seems to be a common constituent of the prophylitized rock."

AIRBORNE VLF-ELECTROMAGNETIC AND MAGNETIC SURVEY

This survey simultaneously monitors and records the output signal from a Delvco tri-axis ringcore magnetometer and a Herz Totem 2A dual frequency VLF-EM receiver. The sensors are installed in an aerodynamically stable bird which is towed thirty metres below a helicopter. A shock and gimbal mounted TV camera, fixed to the helicopter skid, provides an input signal to a video cassette recorder allowing for accurate flight path recovery by correlation between the flight path video cassette and air photographs of the survey area. A KING KRA-10A radar altimeter allows the pilot to continually monitor and control terrain clearance along any flight path.

Continuous measurements are made of the earth's magnetic field and of two VLF-EM fields of two different frequencies. These measurements provide the magnitude of the earth's total magnetic field, the magnitude of the two VLF-EM fields, and the quadrature component of the two VLF-EM fields. This data and other pertinent survey information are recorded in three independent modes: as printed text or profiles, on three and a half inch magnetic diskettes in ASCII format, and superimposed on the video image and recorded on video cassettes.

Control of data quality is maintained by the operator scanning a printed output of direct and unfiltered recordings of all the geophysical instrumentation output signals. A portable Compaq computer acts as a system controller for a Hewllet-Packard 3852A data acquisition unit. The computer also processes all the incoming data and survey information and records it on three and a half inch diskettes. Furthermore, the magnetic and very low frequency electromagnetic data is superimposed along with the flight line number, fiducial number, date, time and terrain clearance upon the actual flight path video recording to allow exact correlation between geophysical data and ground location. The input signals are continuously updated on the video display every half second.

Correlation between the printed output, the ASCII data diskettes and the video flight path recovery tape is controlled via fiducial marks common to all systems. Line identification, flight direction and pertinent survey information are also recorded on the audio track of the video recording tape and in the operator's field notes.

DATA PROCESSING

Field data is digitally recorded, with the line number, fiducial number, date, time and the data, on magnetic diskettes in a format compatible with the Compaq Portable II computer. The recovered flight path locations are digitized and the field data is processed to produce plan maps of each of the parameters. A variety of formats are available in which to display the data.
All the survey data is routinely edited for spurious noise spikes. The total field intensity magnetic information is also corrected for any diurnal variations recorded on a base magnetometer located in the survey area.

Both the total field and quadrature components of the VLF-EM signal are sensitive to topographic changes and sensor oscillation. Oscillation effects are reduced by filters tuned to the dominant period. Long period effects attributable to topography can be removed by high pass filtering of the planimetric data.

All pertinent geophysical data is processed and plotted by computers. The processing and plotting is done in such a manner as to maximize the amount of information and detail allowed by the original data.

DISCUSSION OF RESULTS

The **Eric** and **Dawn** claims were surveyed on April 8,1988. Approximately 50 line kilometers of airborne magnetic and VLF-EM survey data has been recovered and examined in detail to evaluate the **Eric** and **Dawn** claims.

Survey lines were flown east-west on 200 meter centres with data being digitally recorded at half second intervals, providing an average sample spacing of 15 metres. The sensors were towed beneath the helicopter and maintained a terrain clearance of approximately 60 meters. The magnetic data is presented in contour form on a photomosaic base map of the area as Figure 4. The total field VLF-EM data is presented in contour form along with the quadrature VLF-EM data in profile form as Figures 5 and 6 representing the Annapolis and Hawaii frequency information respectively.

The magnetic data is a useful tool for mapping both regional and local geological structures. Many localized magnetic variations are observed which are attributed to lithological changes.

The VLF-EM data is useful for mapping conductive zones. These conductive zones usually consist of argillaceous graphitic horizons, conductive clays, water saturated fault and shear zones, or massive conductive mineralized bodies.

There are four distinctive magnetic features observed across the survey area. Firstly, Jurassic intrusions appear as large broad magnetic highs; typically with a relative intensity of greater than 100 to 1500 nT than the surrounding magnetic data. Secondly, limonitic gossan zones appear as sharp local magnetic highs; typically with a relative intensity of greater than 100 to 200 nT than the surrounding magnetic data. Thirdly, major faults, fractures and shear zones appear as steep magnetic gradients. Finally, possible hydrothermal alterations appear as low magnetic responses. The combination of these four signatures are observed on the **Eric** and **Dawn** claims. The magnetic response is interpreted as reflecting only the general geological environment of the area and does not map any mineralization directly.

The magnetic data indicates possible intrusives bodies, a series of limonitic gossan zones, several faults and possible hydrothermal alteration. A large intense magnetic high, trending northwest, is found in the centre of the survey area. The high amplitude magnetic response is probably due to a monzonite or synetic plug within the sub-volcanic sequence described by Cooke (1986). It lies adjacent to the mapped granodiorite and quartz diorite intrusives and in contact to the gossan zone. The plug is near the surface and continues at depth because of the sharpness and the breadth of the magnetic high. Half-width calculations show the intrusive body to extend downward at least 500 meters. Two small magnetic highs found in the lower southeast half of the survey area may be due to be Jurassic intrusions of granodiorite or quartz diorite composition.

A series of north-west trending, localized high amplitude magnetic responses, just northeast of the larger magnetic high and in the upper southeast corner of the survey area, may be related to the porphyritic mineralized zones discussed by Cooke (1986). Small, sharp magnetic highs are found to be associated with limonitic gossan zones throughout the Toodoggone River area. The high magnetic responses of these zones are probably due to localized remobilization of disseminated magnetite combined with localized alteration effects.

Several faults are interpreted from the magnetic data, the known geology and the aerial photographs as illustrated on Figure 4. The majority of the faults trend northwest and northeast. Other faults tend to be cross cutting. None of these faults are appear on the mapped geology, however, the faults do parallel and are consistent with the regional geology of the Toodoggone River area. One of the interpreted faults appears to form a northwest-southeast trending contact between the large magnetic high and the limonitic gossan zone along a ridge axis.

The low magnetic responses found in the upper northeast corner and lower southwest corner of the survey area may be due to hydrothermal alteration or possibly thermal alteration of the country rock by the large inferred intrusive. The cause of the magnetic lows is indeterminate because more detailed geology information is required.

The VLF-EM data is presented on Figures 5 and 6 representing the Annapolis and Hawaii frequency information respectively. Anomalous conductive responses have been marked on the appropriate maps.

Long wavelength VLF-EM anomalies have been indicated on the maps as being caused by topographic features like ridges and hill tops. Northwest-southeast trending ridges primarily effect the Hawaii station and east-west trending mountains are more apparent

in the Annapolis data. Other total field highs and quadrature inflections, not directly correlatable to topography, are interpreted to be bedrock conductors. These conductors trend in an northwest and northeast direction paralleling the inferred faults and regional geology. Most of the conductive zones are adjacent to, or coincide with, magnetical highs and inferred faults. Some of the conductors are mapped over the large intrusive and the gossan. Several of the conductors are apparent on both VLF-EM transmitting stations, indicating a fairly conductive medium is present.

SUMMARY AND CONCLUSIONS

On April 8,1988 an airborne magnetic and VLF-EM survey was conducted over the **Eric** and **Dawn** claims. Approximately 50 line kilometres of geophysical data was gathered and processed to evaluate the **Eric** and **Dawn** claims.

The magnetic data indicates a large intrusive plug of monzonitic or synetic composition adjacent to a mapped limonitic gossan zone (Figure 3). The intrusion is interpreted to be at the surface and to extend downward at least 500 meters.

A series of localized, sharp magnetic anomalies within the limonitic gossan zone may be due to remobilized magnetite or to alteration. The gossan may have formed within the large intrusive or as secondary enrichment after the intrusion event.

Several faults are inferred from the total field magnetic data, the known geology and the aerial photographs. The majority of faults trend northeast and northwest paralleling the regional geology. Other faults tend to be cross cutting. One major fault occurs along a ridge between the large magnetic high and the gossan zone.

Several conductive lineations are mapped in the survey area. The conductive zones trend generally northeast and northwest. The conductive zones appear to correlate with magnetic highs and inferred faults. Some of the conductive zones appear to correlate to the limonitic gossan zone.

The interpretation of the magnetic data and VLF-EM data generally does not confirm the preliminary geological mapping by Diakow, et. al., (1985), however the geophysical data has indicated, extensions of the mapped gossan and intrusives. Furthermore extensive faulting and possible areas of hydrothermal alteration have also been identified. In this geological setting, and with the presence of VLF-EM conductors, this property has an excellent potential for porphyry and epithermal gold mineralization.

RECOMMENDATIONS

Based upon this report, and from previous work, the **Eric** and **Dawn** claims warrants further exploration. However, the first recommendation is to stake the ground south of the **Eric** claim and east of the **Dawn** claim because the airborne survey has indicated that the geological unit associated with the Mex showing extends into this area. The airborne survey has clearly delineated an area where mineralization most likely occurs, specifically along the magnetic highs associated with the limonitic gossan zone and the Mex mineral showing. Other potential ground targets would be around the perimeter of the large magnetic high intrusives, near VLF-EM conductors, and along the magnetically inferred faults.

The initial follow-up work should be a detailed ground magnetic and VLF-EM survey to precisely locate the ground targets and give a more detailed geophysical signature of the mineralization. Following the ground magnetics and VLF-EM, an extensive rock and soil sampling program along with geochemical analysis for copper, molybdenum, silver, gold and other precious metals should be carried out. Finally, a program utilizing induced polarization

and resistivity, will assist in delineating anomalous zones of sulphide mineralization and in identifying drill targets. Contingent upon encouraging results from the geochemistry and geophysics a trenching and diamond drilling program will probably be warranted.

Respectfully submitted,

R. Hermary

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Geophysicist

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
D. V. WOODS

Dennis V. Woods, Ph.D., P.Eng.
Consulting Geophysicist

REFERENCES

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INSTRUMENT SPECIFICATIONS

DELVCO RINGCORE MAGNETOMETER

Model:	1210
Sensor:	3-axis ringcore fluxgate
Orthogonality:	±1° degree with respect to other axes and reference surface
Sensitivity:	0.0025 Milligauss (0.25 gamma)
Range:	±1000, ±300, ±100, ±30, ±10, ±3 mG
Analog Output:	±5V dc for above ranges
Output Impedance:	600 ohms
Zero Field Offset:	< ±7 mG absolute
Linearity:	±0.5%
Noise:	0.1 to 1 Hz, 0.0025 mG peak-to-peak 1.0 to 10 Hz, 0.0025 mG peak-to-peak 1.0 to 100 Hz, 0.01 mG peak-to-peak
Gain Stability:	±3%, 0 to +60° C
Field Nulling:	±0.04 mG to full scale
Low-Pass Filtering:	Switch selectable 1, 10, 100 and 500 Hz (-3 dB with -18 dB/octave roll-off, Butterworth response)
High-Pass Filtering:	Dc, 0.1, and 1Hz (-3 dB with -18 dB/octave roll-off, Butterworth response)
Notch Filter:	40-dB notch at 60 Hz, switch selectable, in or out
Battery Life:	25-hour minimum, rechargeable
AC Power:	115-230V; 1/4 A
Size:	Sensor: 3.2 cm x 3.5 cm x 10.16 cm Control Unit: 43 cm x 13 cm x 41 cm
Weight:	Sensor Probe: 0.62 kg Control Unit: 13.6 kg

INSTRUMENT SPECIFICATIONS

CONTROLLER AND RECORDING SYSTEM

Type:	Compaq Portable II
	An 80286 microprocessor
	640 Kbytes of RAM
	2 three and a half inch 720 Kbyte drives
	one 20-Megabyte fixed disk drive
	Monochrome, dual-mode, 9-inch internal monitor
	Asynchronous communications interface
	Parallel interface
	Composite-video monitor interface
	RGB monitor interface
	RF modulator interface
	Two expansion slots
	Real-time clock
	An 80287 coprocessor
	A HPIB Interface Card
Data Storage:	3 1/2 inch diskettes in ASCII
	Roland 1012 printer for printed output
	Beta I video cassettes
Power Requirements:	115 Volt AC at 60 Hz
Weight:	11 kg
Dimensions:	45 cm x 25 cm x 30 cm

INSTRUMENT SPECIFICATIONS

DATA ACQUIISITION UNIT

Model:	HP-3852A
Mainframe Supports:	Eight function module slots Data acquisition operating system System timer Measurement pacer Full alphanumeric keyboard, command and result displays
Number of Channels:	20 channel relay multiplexer HP44708A/H
Voltmeter:	5 1/2 to 3 1/2 digit intergrating voltmeter HP44701A measures: DC voltage resistance AC voltage Range ±30V, ±0.008%, +300uV Intergration Time 16.7 msec Number of converted digits 6 1/2 Reading rate (readings/ sec) 57 Min-Noise rejection (dB) Normal Mode Rejection at 60 Hz ±0.09% 60 DC Common Mode Rejection with 1 KΩ in low lead 120 Effective Common Mode Rejection at 60 Hz ±0.09% with 1 KΩ in low lead 150
Communication:	HPIB interface with Compaq
Power Requirements:	110/220 Volts AC at 60/50 Hz
Dimensions:	45.7 cm x 25.4 cm x 61.0 cm
Weight:	9.5 kg.

STATEMENT OF QUALIFICATIONS:

NAME: HERMARY, Richard G.

PROFESSION: Geophysicist

EDUCATION: University of British Columbia -
B.Sc. - Major Geophysics

PROFESSIONAL
ASSOCIATIONS: B.C. Society of Exploration Geophysicist

EXPERIENCE: Six months as field geophysicist,
A & M Exploration Ltd.

One year with Western Geophysical Aero Data Ltd.

STATEMENT OF QUALIFICATIONS

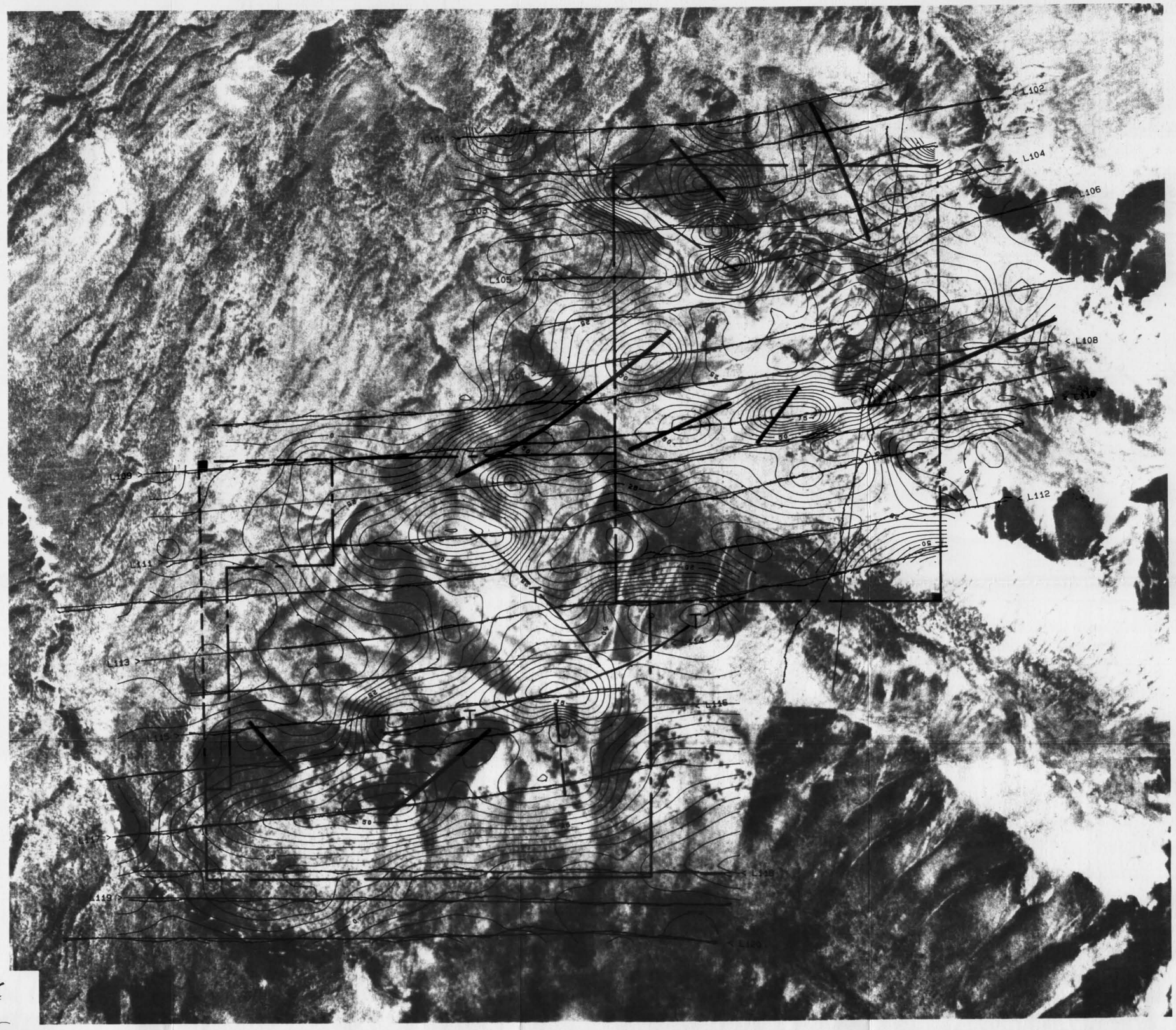
NAME:	WOODS, Dennis V.
PROFESSION:	Geophysicist
EDUCATION:	B.Sc. Applied Geology Queen's University
	M.Sc. Applied Geophysics Queen's University
	Ph.D. Geophysics Australian National University
PROFESSIONAL ASSOCIATIONS:	Registered Professional Engineer Province of British Columbia
	Society of Exploration Geophysicists
	Canadian Society of Exploration Geophysicists
	Australian Society of Exploration Geophysicists
	President, B.C. Geophysical Society
EXPERIENCE:	1971-79 - Field Geologist with St. Joe Mineral Corp. and Selco Mining Corp. (summers). - Teaching assistant at Queen's University and the Australian National University.
	1979-86 - Professor of Applied Geophysics at Queen's University. - Geophysical consultant with Paterson Grant & Watson Ltd., M.P.H. Consulting Ltd., James Neilson and Assoc. Ltd., Foundex Geophysics Ltd. - Visiting research scientist at Geological Survey of Canada and the University of Washington.
	1986-88 - Project Geophysicist with Inverse Theory and Applications Inc. - Chief Geophysicist with White Geophysical Inc.

COST BREAKDOWN

The geophysical data was analyzed, geological information researched and compiled, and this report prepared for an all inclusive fee of $3,850.00. This total is based on a cost of $47/km for total field magnetic and two station VLF-EM data. The survey was carried out by Ian Briadek and Bob Acheson.

Mob/Demob - truck rental,helicopter ferry	$ 500.00
Survey - 50 km of magnetics and 2 stations of VLF-EM data at $47/km	$2,350.00
Report/Interpretation	$1,000.00
TOTAL	**$3,850.00**

TOTAL ASSESSMENT VALUE OF THIS REPORT **$3,850.00**



N

LEGEND :

VLF - EM conductor caused by topographic features — T —

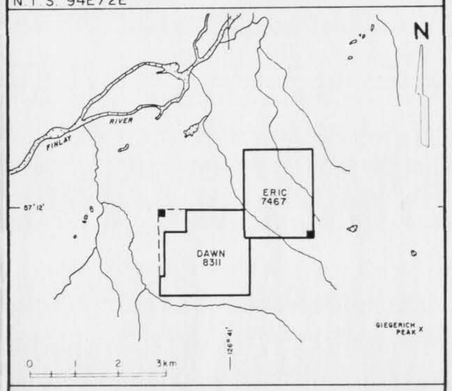
VLF - EM conductor

VLF - EM quadrature profile Scale = 20% / cm

GEOLOGICAL BRANCH ASSESSMENT REPORT

17,595

N.T.S. 94E/2E



CANADIAN VENTURE CORPORATION

ERIC AND DAWN CLAIMS

AIRBORNE MAGNETIC AND VLF-EM SURVEY

VLF - EM TOTAL FIELD CONTOURS AND QUADRATURE PROFILES (ANNAPOLIS)

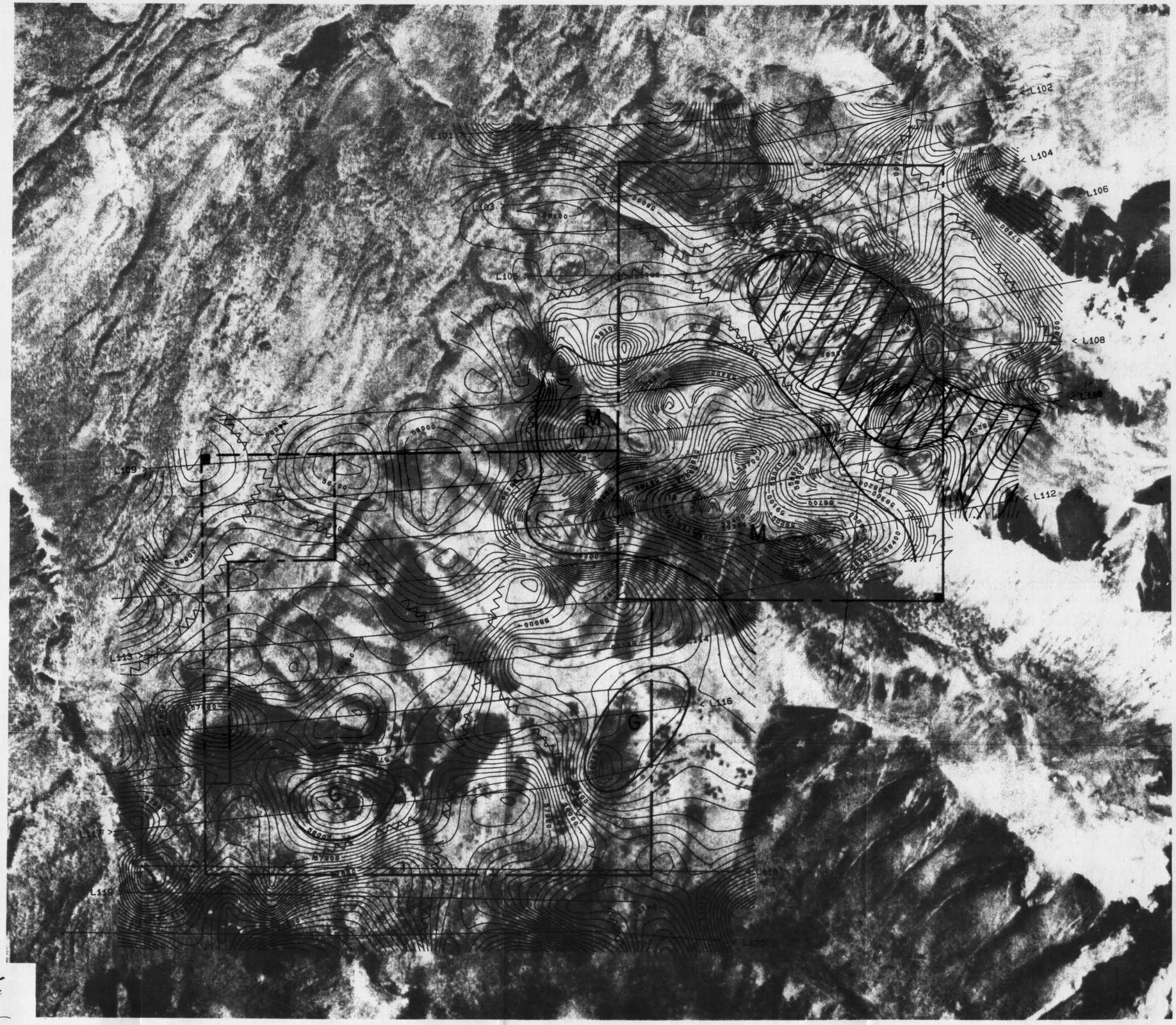
Scale 1: 10000.0

0 200 400 600 800 1000 M

Date: July 1988	Survey: April 1988	Figure 5

WESTERN GEOPHYSICAL AERO DATA LTD.

WESTERN GEOPHYSICAL AERO DATA LTD.



N

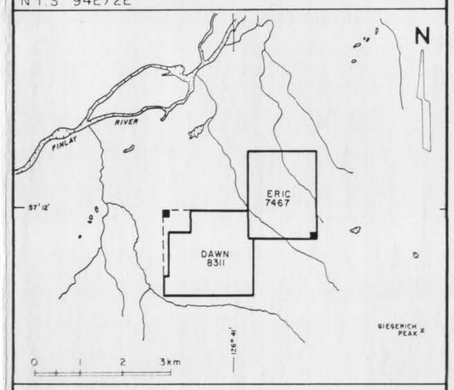
LEGEND

- Inferred fault
- Magnetically inferred limonitic gossan zone
- Intrusive granodiorite or quartz diorite — G
- Monzonite or syenite — M

GEOLOGICAL BRANCH
ASSESSMENT REPORT

17,595

N.T.S 94E/2E



CANADIAN VENTURE CORPORATION

ERIC AND DAWN CLAIMS

AIRBORNE MAGNETIC AND VLF-EM SURVEY

CONTOURED TOTAL FIELD MAGNETICS (

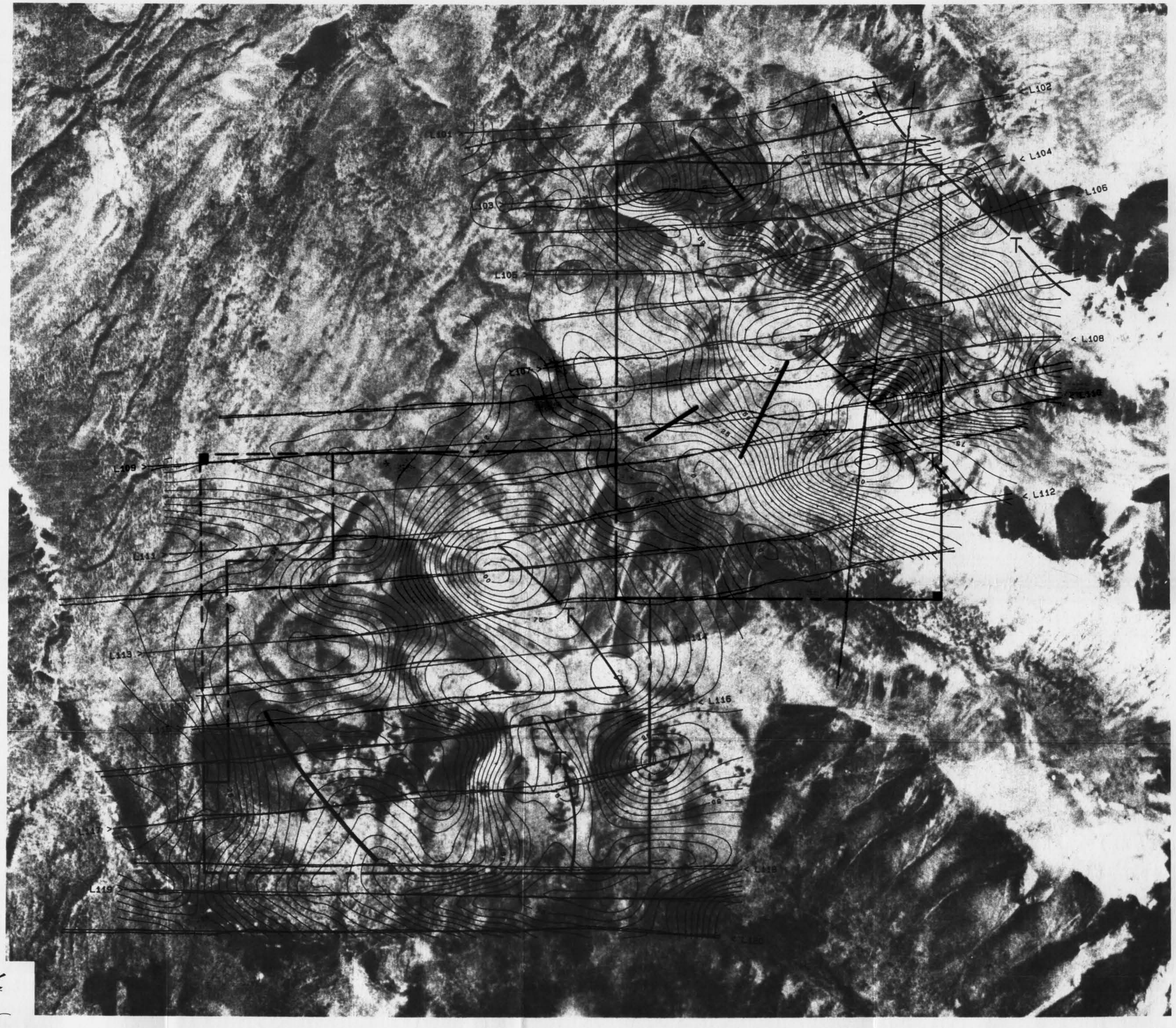
Scale 1: 10000.0

0 200 400 600 800 1000 M

Date: July 1988	Survey: April 1988	Figure 4

WESTERN GEOPHYSICAL AERO DATA LTD.

PROFESSIONAL ENGINEER D. V. WOODS



N

LEGEND

VLF - EM conductor caused by topographic features —T—

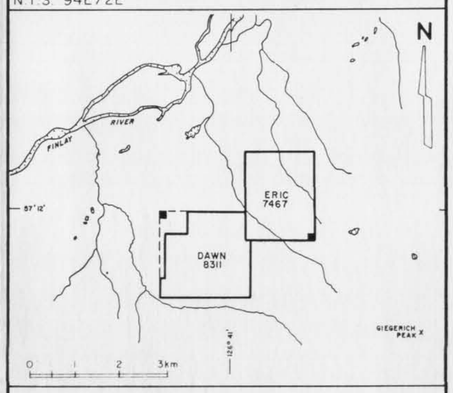
VLF - EM conductor ———

VLF - EM quadrature profile Scale = 20% /cm +———+

GEOLOGICAL BRANCH
ASSESSMENT REPORT

17,595

N.T.S. 94E/2E



CANADIAN VENTURE CORPORATION

ERIC AND DAWN CLAIMS

AIRBORNE MAGNETIC AND VLF-EM SURVEY

VLF-EM TOTAL FIELD CONTOURS AND QUADRATURE PROFILES (HAWAII)

Scale 1: 10000.0

0 200 400 600 800 1000 M

Date: July 1988	Survey: April 1988	Figure 6

WESTERN GEOPHYSICAL AERO DATA LTD.

WESTERN GEOPHYSICAL AERO DATA LTD.