

ARIS SUMMARY SHEET

District Geologist, Smithers

Off Confidential: 89.02.05

ASSESSMENT REPORT 17059

MINING DIVISION: Liard

PROPERTY: E&L
 LOCATION: LAT 56 35 00 LONG 130 40 00
 UTM 09 6272035 397626
 NTS 104B10E

CLAIM(S): E&L 1-41
 OPERATOR(S): Cons. Silver Standard Mines
 AUTHOR(S): Hermary, R.G.; White, G.E.
 REPORT YEAR: 1988, 28 Pages

COMMODITIES
 SEARCHED FOR: Copper, Nickel, Iron

GEOLOGICAL
 SUMMARY: The E and L property is underlain by andesitic tuffs and breccias, argillites and cherts assigned to the Jurassic Hazelton volcanic and sedimentary sequence. These rocks trend northwesterly with a steep to vertical southwesterly dip. At Nickel Mountain, the Hazelton sequence is intruded by an olivine gabbro stock which is part of an east-west trending, intermittently exposed mile-long belt of gabbros. These rocks in turn are bounded by large granite masses. The geology is further complicated by at least one major fault and several dykes.

WORK
 DONE: Geophysical
 EMAB 100.0 km; VLF
 Map(s) - 2; Scale(s) - 1:10 000
 GEOL 4.0 ha
 Map(s) - 1; Scale(s) - 1:600
 MAGA 100.0 km
 Map(s) - 1; Scale(s) - 1;10 000
 MINFILE: 104B 006

2/39

**CONSOLIDATED SILVER STANDARD MINES LIMITED
GEOPHYSICAL REPORT ON AN
AIRBORNE MAGNETIC AND VLF-EM SURVEY
E AND L CLAIMS**

LIARD MINING DIVISION

**LATITUDE: 56°35'N LONGITUDE: 130°40'W
NTS 104B/10E**

**AUTHORS: Richard G. Hermary, B.Sc.,
Geophysicist
Glen E. White, B.Sc., P.Eng.,
Consulting Geophysicist**

DATE OF WORK: August 2, 1987

DATE OF REPORT: January 27, 1988

LOG NO: 0210	RD.
ACTION:	
FILE NO:	

SUB-REORDER PROGRAM
FEB 5 1988
M.R. # _____ \$ _____
VANCOUVER, B.C.

FILMED

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

17,059



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INTRODUCTION

On August 2, 1987 an airborne magnetic and VLF-EM survey was conducted over the E and L claims for Consolidated Silver Standard Mines Ltd. The E and L claims are situated approximately 115 kilometers northwest of Stewart, 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 one hundred line kilometers 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 properties.

PROPERTY

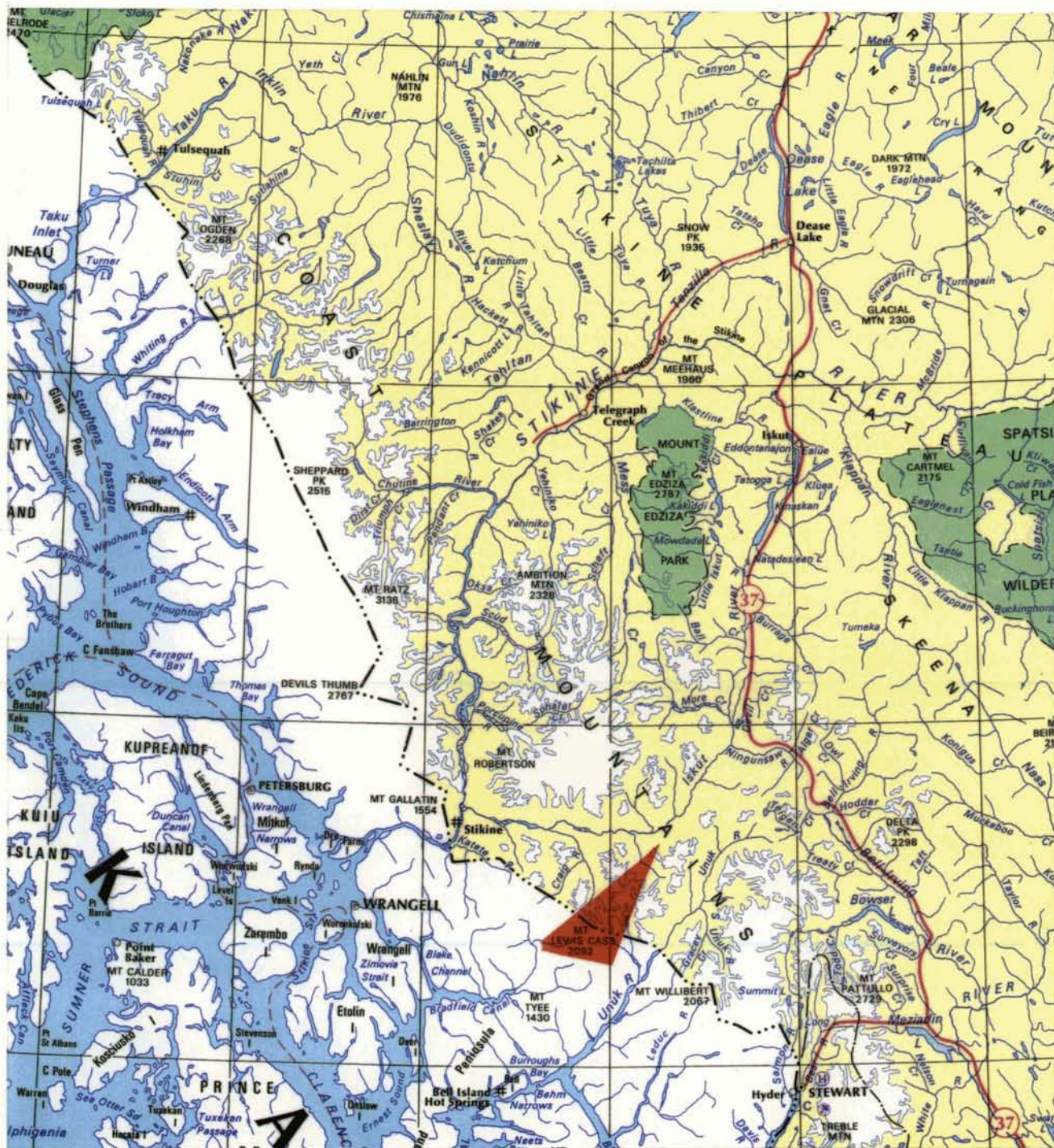
The E and L claims are owned and operated by Consolidated Silver Standard Mines Ltd. They are described in the table below and illustrated in Figure 2.

CLAIM NAME	UNITS	RECORD NO.	EXPIRY DATE
E & L 1-2	2 by 1	7319-7320	Aug. 26, 1992
E & L 3-28	26 by 1	16691-16716	Feb. 17, 1992
E & L 30-40	11 by 1	24946-24956	Sept. 30, 1990
E & L 41	Fractional	28357	Sept. 22, 1992

LOCATION AND ACCESS

The E and L claims are located in the Iskut River area. This area is located approximately 115 kilometers northwest of Stewart, B.C. The E and L claims are located 5 kilometers east of Snippaker Creek Airstrip and 16 kilometers southeast of the confluence of the Snippaker





131°00'

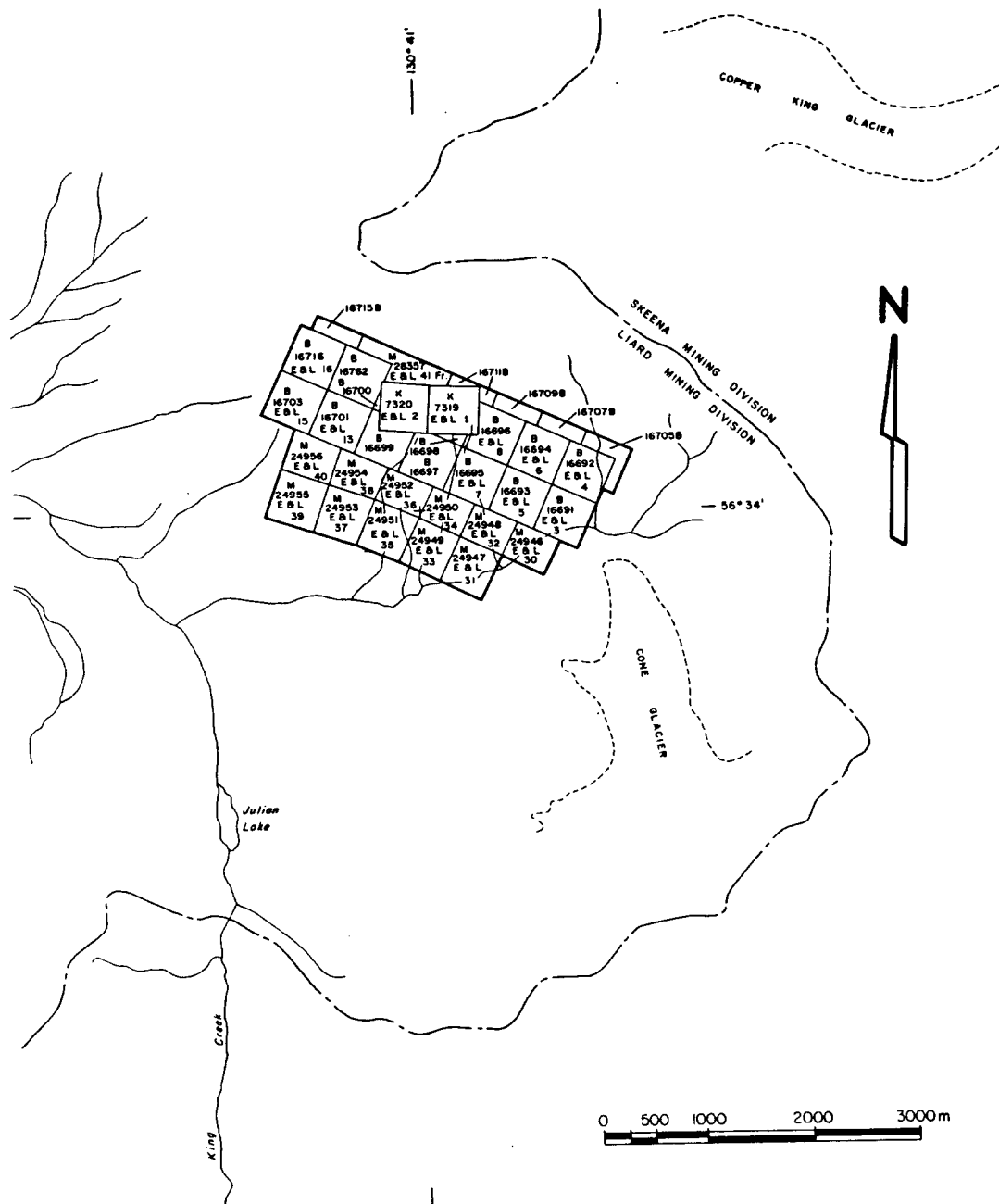
56°00'

Consolidated Silver Standard Mines Ltd.
E and L Claims
LOCATION MAP

Scale : 1 : 2 000 000

N.T.S. 104B/10E

FIG. 1



Consolidated Silver Standard Mines Ltd.
E and L Claims
CLAIMS MAP
N.T.S. 104B/10E

Creek and Iskut River. The claims are on the east side of Snippaker Creek. They are situated within the Liard Mining Division of B.C. The NTS map coordinates of the E and L claims are 104B/10E. The approximate geographical coordinates are a latitude of 53°35'N and a longitude of 130°40'W.

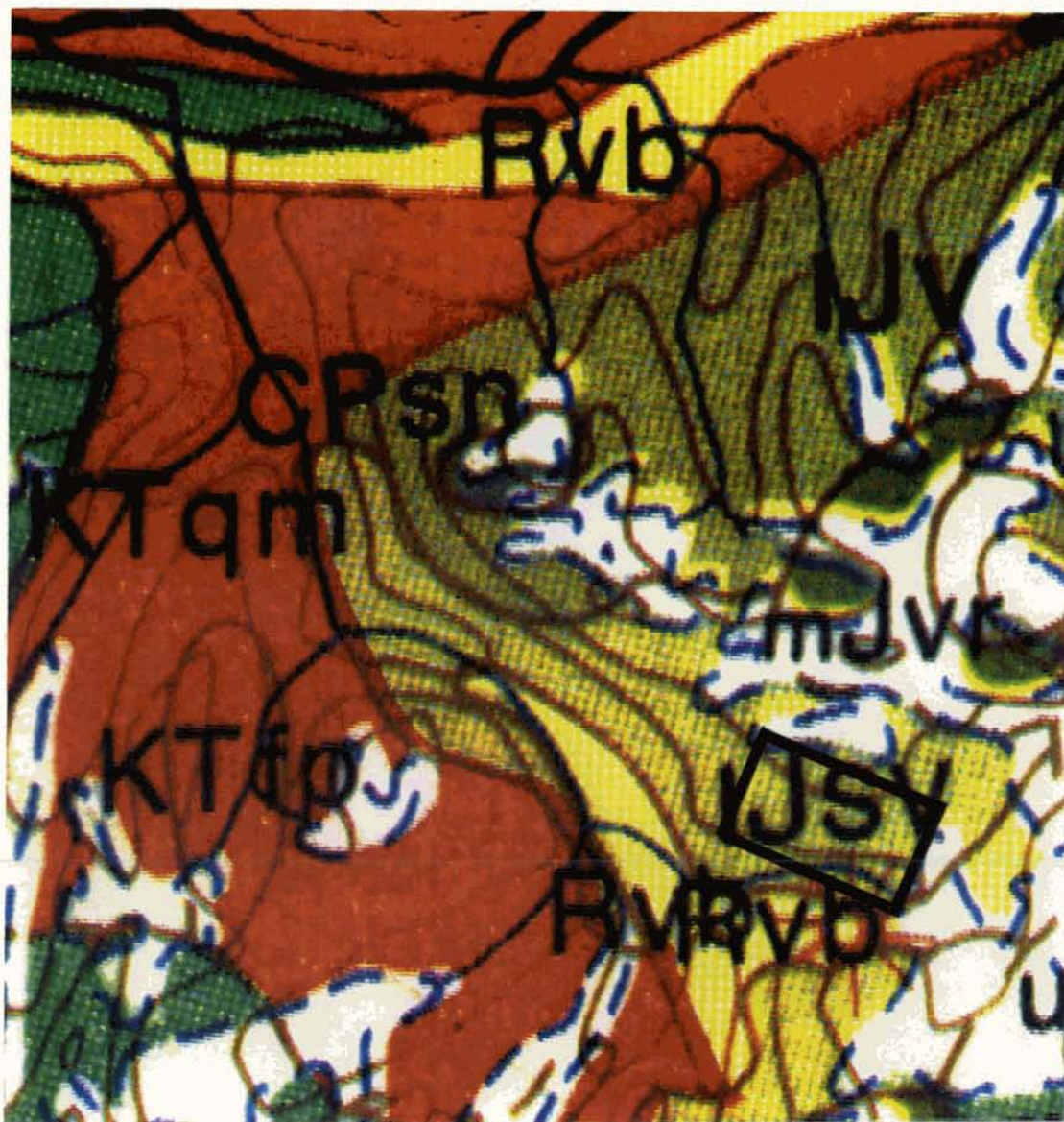
Access to the area is usually achieved by fixed wing aircraft from Terrace, B.C. to the Snippaker Creek airstrip and then via helicopter to the claim area. The helicopters are usually based in the area during the field season. Alternately, the claims may be accessed by helicopter from Bob Quinn Lake on the Stewart-Cassiar Highway.

REGIONAL GEOLOGY

The regional geology is described by E.W. Grove in his report on the REG property dated April 3, 1985 and is excerpted as follows:

"The writer's detailed and regional studies in the Stewart District have extended from the Iskut River to Alice Arm and have resolved many of the perplexing stratigraphic and lithostructural problems which still confuse most of the current workers. During the past four years the writer has been studying several mineral deposits found along the Iskut River east of Craig River. These rocks were mapped as pre-Permian and Triassic by Kerr on the basis of appearance. The shaly units forming Snippaker Mountain are fossiliferous and appear to represent variably deformed thick slabs of Carboniferous strata trending along the river and dipping northerly down the slope very much like the zone west of Craig River. The ridge east of Snippaker was also mapped in some detail in 1983 and 1984 and deformed units which include blocks of crinoidal Mississippian limestone form the crude dip slope. The property mapping provides information which suggests that these Carboniferous slope forming slabs unconformably overlie correlatives of the Middle Jurassic Betty





QUATERNARY RECENT

Rvb basalt, cinders, ash

MIDDLE JURASSIC

mJsv volcanic breccia, conglomerate, sandstone, tuff
 mJvb basalt, pillow lava, tuff, volcaniclastic rocks
 mJvr rhyolite, breccia, tuff, andesite

LOWER AND MIDDLE JURASSIC

JL LABERGE GROUP: greywacke, conglomerate
 JI INKLIN: greywacke, siltstone
 Jic INKLIN: limestone
 Jp shale

Jr TAKWAHONI: conglomerate, grit, greywacke, sandstone, shale
 Jcg conglomerate, grit, greywacke

CARBONIFEROUS AND PERMIAN

CPm chlorite schist, amphibole gneiss
 CPn schist, gneiss

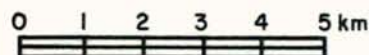
CRETACEOUS AND TERTIARY

KTfp felsite, feldspar porphyry
 KTy leucocratic syenite
 KTgp granite porphyry, granophyre, syenite
 KTqm quartz monzonite
 KTgd granodiorite
 KTgdn foliated granodiorite
 KTqd quartz diorite
 KTbh leucogabbro, leuconorite

JURASSIC AND CRETACEOUS

JKg granite
 JKqm quartz monzonite
 JKgd granodiorite
 JKqd quartz diorite, granodiorite
 JKdi diorite, hornblende diorite
 JKb gabbro, minor diorite and ultramafic

**Consolidated Silver Standard Mines Ltd.
 E and L Claims
 REGIONAL GEOLOGY**



N.T.S. 104B/IOE

FIG. 3

Creek Formation and Lower Jurassic Unuk River Formation mapped as extending from Tom McKay Lake southeasterly through Stewart to Alice Arm.

The highly contorted, deformed nature of the Carboniferous strata can be seen in the steep cliffs between Bronson Creek and Snippaker Creek. The unconformable nature of the Carboniferous Middle Jurassic overlap is well exposed on both sides of Snippaker Ridge north of Snippaker Peak. The same unconformable relationship between these major rock units appears to extend from Forrest Kerr Creek west along the Iskut River to the Stikine River junction. Present interpretation suggests an east-west trending thrust along the axis of the Iskut River which like the King Salmon Thrust Fault pushed up and over to the south. However, this is probably only part of the explanation of the Iskut River Structural Zone, and only part of the tectonic record exposed in the area.

Together these geological studies including the detailed mineral deposit programs have served to define a geo-entity termed the Stewart Complex which along with the Bowser Basin, the Coast Plutonic Complex, and a number of other features combine to form the framework of this part of northwestern British Columbia.

The Stewart Complex lies along the contact between the Coast Plutonic Complex on the west, the Bowser Basin on the east, Alice Arm on the south and the Iskut River on the north. The western limit of the Stewart Complex, including the Anyox and georgie River pendants extends from Belle Bay north along the Portland Canal to Stewart, then swings northwesterly to intersect the Iskut River. Portland Canal separates the massive, granitic Hyder pluton, localized along the eastern margin of the Coast Plutonic Complex, from the gneiss complex between Belle Bay and Stewart. At Stewart, the Portland Canal lineament extends inland along the Bear River-American Creek Valley and intersects the Bowser River lineament at the Todd Creek junction where it is offset to the east, and continues northerly along Scott Creek. In the Bear River valley at Stewart, the Portland Canal lineament is marked by the narrow Bear River cataclasite zone. In the American Creek and Scott Creek areas a graphite shear zone marks the presence of the lineament. The field data



indicates that the Portland Canal lineament which forms the southwest boundary of the Stewart Complex, represents a normal fault over a large part of its length.

The northerly boundary of the Stewart Complex is approximately along the Iskut River. Extensive chlorite to sericite schists developed along the easterly trending Iskut River Valley indicate a major fault which has offset the northerly trending Forrest Kerr-Harrymel Creek fault. The focus of the easterly trending Iskut River zone, the northerly Forrest Kerr-Harrymel zone and the north-northeasterly Iskut River zone forms the vent of the Quaternary Iskut River lava flow. The southerly limit of the Stewart Complex is marked by the line of Quaternary volcanic flows that occur just south of the east-northeasterly trending Alice Arm-Illiance River lineament."

LOCAL GEOLOGY

The local geology and mineralization is best described by R.A. Quartermain in his report on the E & L claims dated January 1987 and is excerpted as follows:

"The E and L property is underlain by andesitic tuffs and breccias, argillites and cherts assigned to the Jurassic Hazelton volcanic and sedimentary sequence. These rocks trend northwesterly with a steep to vertical southwesterly dip. At Nickel Mountain, the Hazelton Sequence is intruded by an olivine gabbro stock which is part of an east-west trending, intermittently exposed mile-long belt of gabbros. These rocks in turn are bounded by large granite masses. The geology is further complicated by at least one major fault and several dykes.

Mineralization consists of pyrrhotite, pentlandite and chalcopyrite with lesser amounts of pyrite, and magnetite. Mineralization appears to be confined to a band, 20 feet to 50 feet in width around the circumference of the gabbro



plug. The mineralization occurs both as massive pods and disseminations of 1%-5% sulfides."

HISTORY AND PREVIOUS WORK

The history of the area can be condensed from E.W. Groves report of April, 1985.

The first reference to activity in the Iskut River area occurs in 1907 when nine claims were recorded on Johnny Mountain. Work including drifting, and trenching continued until 1920 by the Iskut Mining Company. Galena and gold-silver bearing mineralization were reported in veins and stringers.

In 1954 Hudsons Bay Mining and Smetling prospectors located the Pick Axe Showing and high grade silver-lead-zinc float on the upper slopes of Johnny Mountain. Some drilling was undertaken.

In 1964 the area was investigated by Cominco, Copper Soo Mining Ltd., and Tuksi Mining and Development Co. Ltd. Geological mapping and drilling were carried out episodically through the 1960's. Texas Gulf Inc. examined the area in 1973 and 1974.

In the early 1980's Skyline Exploration Ltd., Placer Development Ltd. and Anaconda Canada Ltd. did extensive prospecting, geological mapping, ground and airborne geophysical surveying and drilling in the Iskut River area, namely around Mount Johnny. Several economical gold zones were located.

The most recent work done on the E & L claims was a two day program carried out in 1986. The 1986 program consisted of



a magnetic survey over the glacier and rock sampling of existing trenches.

Earlier work on the E & L claims is best summarized by R.A. Quartermain in his 1987 report.

"The E and L claims were discovered and staked in 1958. In 1965 and 1966, 8 hand trenches totalling 353 feet and 12 packsack drill holes totalling 873 feet were completed. In 1970 the property was leased to Sumitomo under a profit-sharing agreement. Between 1970 and 1971, Sumitomo drove a 1478-foot long adit 1000 feet below the mineralization and drilled 9 underground holes totalling 7444 feet with disappointing results."

AIRBORNE VLF-ELECTROMAGNETIC AND MAGNETIC SURVEY

This survey simultaneously monitors and records the output signal from a proton precession magnetometer and a dual frequency VLF-EM receiver installed in a bird designed to be towed 30 meters below a helicopter. A gimbal and shock 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 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 of the earth's total magnetic field and the total field strength of two VLF-EM transmission frequencies are stored in three independent modes: an analogue strip chart recorder, digital magnetic tapes and a digital video recovery system. A three-pen analogue power recorder provides direct, unfiltered recordings of the three



geophysical instrument output signals. A Hewlett-Packard 9875 tape drive system digitally records all information as it is processed through an onboard micro-computer. The magnetic and electromagnetic data is also processed through the onboard micro-computer, incorporating an analogue to digital converter and a character generator, then superimposed along with the date, real 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 averaged and updated on the video display every second.

Correlation between the strip chart, digital tape 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 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 time of day fiducial, on magnetic cassettes in a format compatible with the Hewlett-Packard 9845 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 this data.

Total field intensity magnetic information is routinely edited for noise spikes and corrected for any diurnal variations recorded on a base magnetometer located in the survey area.

Total field intensity VLF-EM signals are sensitive to topographic changes and sensor oscillation. Oscillation



effects can be 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.

The total field intensity of both the magnetic and VLF-EM data is computered contoured and plotted. Computed contours levels are determined by contouring the original data at several different incremental contour levels with the final version being the one giving the most information and detail allowed by the original data.

DISCUSSION OF RESULTS

The **E and L** claims were surveyed on August 2, 1987. One hundred line kilometers of airborne magnetic and VLF-EM survey data has been recovered and examined in detail to evaluate the **E and L** claims.

Survey lines were flown north-south on 100 meter centres with data being digitally recorded at one second intervals, providing an average sample spacing of 25 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 5. The total field VLF-EM data is presented in contour form as Figures 6 and 7 representing the Hawaii and Seattle 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 argilleous



graphitic horizons, conductive clays, water saturated fault and shear zones, or massive conductive mineralized bodies.

There are three distinctive magnetic features observed across the survey area. Firstly, intrusions appear as sharp magnetic highs; typically with an intensity of greater than 100 to 200 nT than the surrounding magnetic data.

Secondly, major faults, fractures and shear zones appear as steep magnetic gradients. Finally, lithological contacts appear as shallow magnetic gradients associated with broad magnetic responses. The combination of these three signatures are observed on the **E and L** 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 two intrusive bodies or possible further mineralization, two north-south and one east-west trending faults and a possible lithological contact. Two sharp magnetic highs are found in the central portion of the survey area. The two high amplitude magnetic responses in the center of the survey area may reflect either olivine gabbro plugs and dykes, or possibly diorite dykes and plugs of a feeder system for the Jurassic Hazelton Group volcanic rocks. More likely though, the two sharp magnetic highs are probably caused by further mineralization and the presence of magnetite. Furthermore, both magnetic highs are also in close proximity to the known mineral showing.

Two north-south and one east-west trending faults are interpreted from both the magnetic data and the aerial photographs as illustrated on Figure 5. Two of these faults cut across contacts and bisect intrusive bodies. This suggests that these faults are the most recent geological



event. The broad magnetic response and shallow magnetic gradient in the northeast portion of the survey area indicates a lithological contact with possibly volcanic rocks consisting of rhyolite, breccia, tuff and andesite.

The VLF-EM data is presented in contour form on Figures 6 and 7 representing the Hawaii and Seattle frequency information respectively. Anomalous conductivity responses have been marked on the appropriate maps and also transferred to Figure 5 for comparison to the magnetic data.

A long wavelength VLF-EM anomaly has been marked and is purely due to topographic features like ridges and hill tops. The VLF-EM conductive zones trend in an east-west direction with the exception of two conductive zones trending northeast. One VLF-EM conductive zone and an intense magnetic high appear to be related and are located over the known mineral showing. The strong responses probably reflect the enrichment of mineralization of the showing. The strong VLF-EM response is probably due to the good conductivity of the showing. The strong magnetic response is most likely caused by the presences of magnetite in the showing.

The interpretation of the magnetic data, VLF-EM data and known geology indicates that faulting has occurred recently and is associated with intrusions. This combination of geological events and the presences of VLF-EM conductors and high amplitude magnetic responses offers excellent potential for mineralization.



SUMMARY AND CONCLUSIONS

On August 2, 1987 an airborne magnetic and VLF-EM survey was conducted over the **E and L** claims. One hundred line kilometres of geophysical data was gathered and processed to evaluate the **E and L** claims.

The magnetic data indicates two possible intrusions or possible further mineralization. The intrusions appear to be made up of dykes or plugs. These intrusions may consist of either olivine gabbro or diorite. The intrusions may also form a part of a feeder system for the Jurassic Hazelton Group volcanic rocks. More likely though, the two magnetic highs, which have very similar magnetic characteristics, may represent further mineralization on the claims because of their close proximity to the known mineral showings.

Two north-south and one east-west trending faults are inferred from the magnetic data and aerial photographs. A lithological contact is also inferred from the broad magnetic response and shallow magnetic gradient in the northeast portion of the survey area.

Several moderately conductive lineations are mapped in the survey area. One conductive zone appears to be related to a magnetic high and occurs over the mineral showing.

More geological mapping is required for a more comprehensive and conclusive interpretation. However, the airborne magnetic and VLF-EM survey has clearly indicated areas of potential mineralization. Potential areas of mineralization on the **E and L** claims would be along fault zones associated with intrusions or VLF-EM conductive zones.



RECOMMENDATIONS

Based on this and previous reports, and recent work in the surrounding area, the E and L claims have a good potential for mineralization. The airborne survey has indicated areas where mineralization may occur, specifically close to fault systems associated with intrusion or VLF-EM conductive zones.

Initial follow-up work should consist of prospecting of new areas within the claims, detailed and extensive geological mapping and, soil and rock sampling with geochemical analysis for precious and base metals. Efforts should be focused on the faults associated with magnetic highs or VLF-EM conductive zones. Contingent upon encouraging results from the geology and geochemistry, advanced geophysical programs utilizing induced polarization, resistivity or conventional electromagnetic techniques may be warranted to delineate anomalous zones. Eventually, trenching and diamond drilling may be justified.

Respectfully submitted,



Richard G. Hermary, B.Sc.,
Geophysicist



Glen E. White, B.Sc., P.Eng.,
Consulting Geophysicist



INSTRUMENT SPECIFICATIONSHERZ TOTEM - 2A VLF-EM SYSTEM

Source of Primary Field: -Global network of VLF "OMEGA"
radio stations in the frequency
range of 14 KHz to 30 KHz

Number of Channels: Two; Field selectable by 100 Hz
steps. Ex:
Seattle, Washington at 24.8 KHz
Annapolis, Maryland at 21.4 KHz

Type of Measurement: Total Field Strength
(Location of Conductors)
Vertical Quadrature
(useful in interpreting the
quality and depth to a
conductor)
Horizontal Quadrature
(orientation of field &
structures)

Type of Sensor: Ferrite antennae array of 3
orthogonal coils mounted in a
fiberglass bird with preamp.

Output: -0 to \pm 1000 mV displayed on two
switch selectable analogue meters.
-noise monitoring light.
- audio monitor speaker.



INSTRUMENT SPECIFICATIONSBARRINGER AIRBORNE MAGNETOMETER

MODEL: Nimbin M-123
 TYPE: Proton Precession
 RANGE: 20,000 to 100,000 gammas
 ACCURACY: ± 1 gamma at 24 V d.c.
 SENSITIVITY: 1 gamma throughout range
 CYCLE RATES:
 Continuous - 0.6, 0.8, 1.2 and 1.9 seconds
 Automatic - 2 seconds to 99 minutes in 1 second steps
 Manual - Pushbutton single cycling at 1.9 seconds
 External - Actuated by a 2.5 to 12 volt pulse longer than 1 millisecond.

OUTPUTS:
 Analogue - 0 to 99 gammas or 0 to 990 gammas
 - automatic stepping
 Visual - 5 digit numeric display directly in gammas

EXTERNAL OUTPUTS:
 Analogue - 2 channels, 0 to 99 gammas or 0 TO 990 gammas at 1 m.a. or 1 volt full scale deflection.
 Digital - BCD 1, 2, 4, 8 code, TTL compatible

SIZE: Instrument set in console
 30 cm X 10 cm X 25 cm

WEIGHT: 3.5 Kg.

POWER REQUIREMENTS: 12 to 30 volts dc, 60 to 200 milliamps maximum.

DETECTOR: Noise cancelling torroidal coil installed in air foil.



INSTRUMENT SPECIFICATIONSFLIGHT PATH RECOVERY SYSTEMi) T.V. Camera:

Model: RCA TC2055 Vidicon
Power Supply: 12 volt DC
Lens: variable, selected on basis of
expected terrain clearance.
Mounting: Gimbal and shock mounted in
housing, mounted on helicopter
skid.

ii) Video Recorder:

Model: Sony SLO-340
Power Supply: 12 volt DC / 120 volt AC (60Hz)
Tape: Betamax 1/2" video cassette -
optional length.
Dimensions: 30 cm X 13 cm X 35 cm
Weight: 8.8 Kg
Audio Input: Microphone in - 60 db low
impedance microphone
Video Input: 1.0 volt P-P, 75 Ω unbalanced, sync
negative from camera.

iii) Altimeter:

Model: KING KRA-10A Radar Altimeter
Power Supply: 27.5 volts DC
Output: 0-25 volt (1 volt /1000 feet) DC
signal to analogue meter,
0-10 v (4mv/ft) analogue signal to
microprocessor.
Mounting: fixed to T.V. camera housing,
attached to helicopter skid.



INSTRUMENT SPECIFICATIONSDATA RECORDING SYSTEMi) Chart Recorder

Type:	Esterline Angus Miniservo III Bench AC Ammeter - Voltmeter Power Recorder.
Model:	MS 413B
Specification:	S-22719, 3-pen servo recorder
Amplifiers:	Three independent isolated DC amplifiers (1 per channel) providing range of acceptable input signals.
Chart:	10 cm calibrated width z-fold chart.
Chart Drive:	Multispeed stepper motor chart drive, Type D850, with speeds of 2,5,10,15,30 and 60 cm/hr. and cm/min.
Controls:	Separate front mounted slide switches for power on-off, chart drive on-off, chart speed cm/hr. - cm/min. Six position chart speed selector individual front zero controls for each channel.
Power Requirements:	115/230 volts AC at 50/60 Hz (Approximately 30 W).
Writing System:	Disposable fibre tipped ink cartridge (variable colors)
Dimensions:	38.6 cm X 16.5 cm X 43.2 cm
Weight:	9.3 kg.



ii) Digital Video Recording System

Type: L.M. Microcontrols Ltd.
Microprocessor Control Data
Acquisition System.

Model: DADG - 68

Power Requirements: 10 - 14 volts DC, Maximum 2
amps.

Input Signal: 3,0 - 100 mvolt DC signals
1,0 - 25 DC signals

Microprocessor: Motorola MC-6800

CRT Controller: Motorola MC-6845

Character Generator: Motorola MCM-6670

Analogue/Digital
Convertor: Intersil 7109

Multiplexer: Intersil IH 6208

Digital Clock: National MM 5318 chip
9 volt internal rechargeable
nickle-cadmium battery.

Fiducial Generator: internally variable time set
controls relay contact and
audio output.

Dimensions: 30 cm X 30 cm X 13 cm

Weight: 3 kg.

iii) Digital Magnetic Tape

Type: Hewlett Packard cartridge
tape unit.

Model: 9875A

Power Requirements: 24 volt d.c.

Data Format: HP'S Standard Interchange
Format (SIF)



Tape Cartridge: HP 98200A 225K byte cartridge
compatible with HP Series
9800 desktop computers.

Tape Drive: Dual tape drives providing up
to 8 hours continual
recording time.

Controller: Internal micro-computer
provides 23 built in commands
External computer generated
commands.



COST BREAKDOWN

The geophysical data was analyzed, geological information researched and compiled, and this report prepared for an all inclusive fee of \$6,500.00. This total is based on a cost of \$54/km for total magnetic and two station VLF-EM data.

100 km of Magnetometer data @ \$54/km	\$5,400.00
Interpretation & report	<u>1,100.00</u>
TOTAL	\$6,500.00

TOTAL ASSESSMENT VALUE OF THIS REPORT **\$6,500.00**

Apportioned Costs:

- i. Statement of Exploration and Development filed February 4, 1988.

August 1987 Work	\$5,400.00
PAC Withdrawal	<u>1,600.00</u>
TOTAL	\$7,000.00

- ii. Statement of Exploration and Development filed February 5, 1988.

January 1988 Work	\$1,100.00
PAC Withdrawal	<u>300.00</u>
TOTAL	\$1,400.00



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



STATEMENT OF QUALIFICATIONS

NAME: WHITE, Glen E., P.Eng.

PROFESSION: Geophysicist

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

PROFESSIONAL ASSOCIATIONS: Registered Professional Engineer,
Province of British Columbia.

Associate Member of Society of Exploration Geophysicists.

Past President of B.C. Society of Mining Geophysicists.

EXPERIENCE: -Pre-Graduate experience in Geology -
Geochemistry - Geophysics with Anaconda American Brass.

-Two years Mining Geophysicist with Sulmac Exploration Ltd. and Airborne Geophysics with Spartan Air Services Ltd.

-One year Mining Geophysicist and Technical Sales Manager in the Pacific north-west for W.P. McGill and Associates.

-Two years Mining Geophysicist and supervisor airborne and ground geophysical divisions with Geo-X Surveys Ltd.

-Two years Chief Geophysicist Tri-Con Exploration Surveys Ltd.

-Fourteen years Consulting Geophysicist.

-Active experience in all Geologic provinces of Canada.



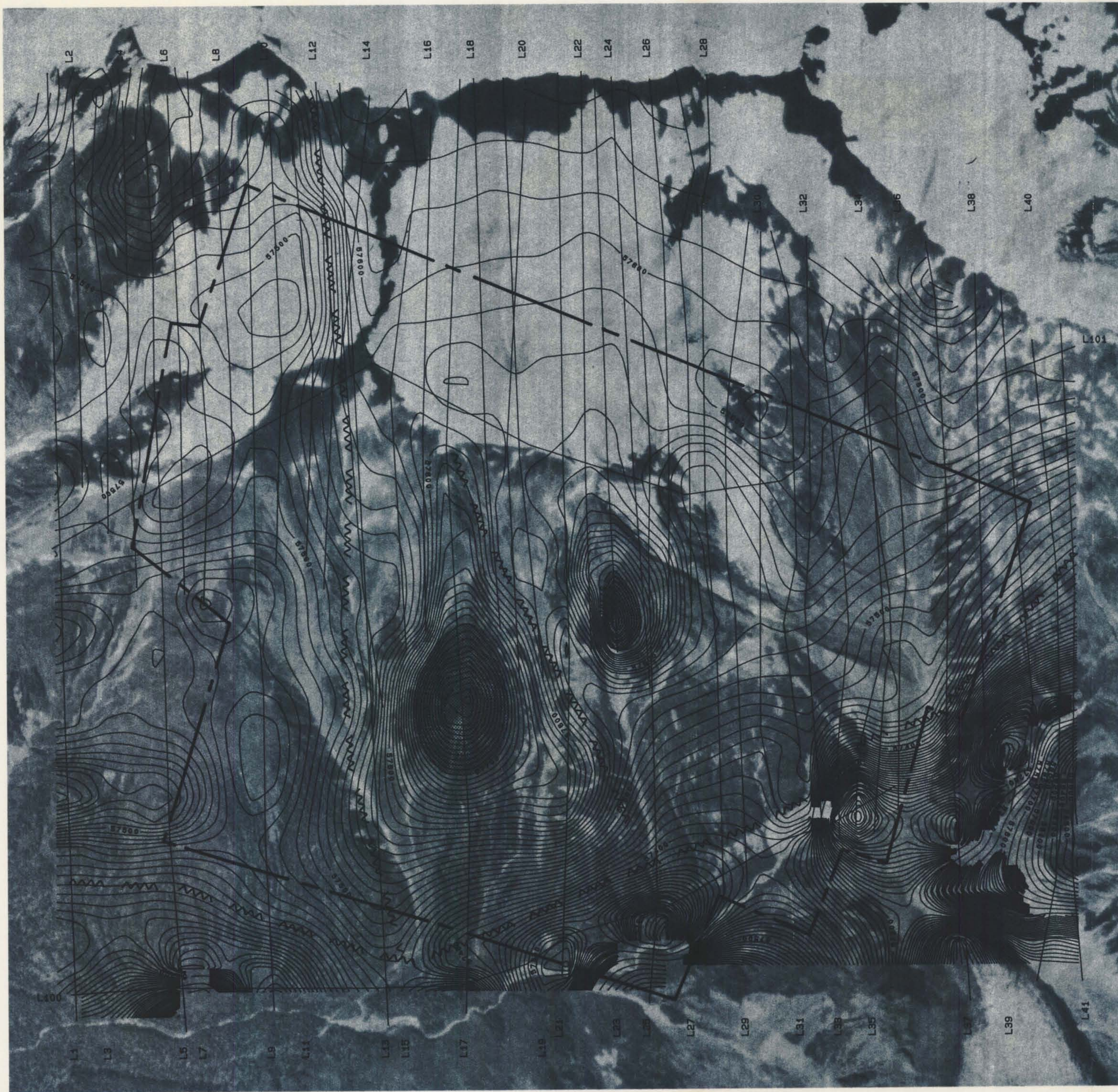
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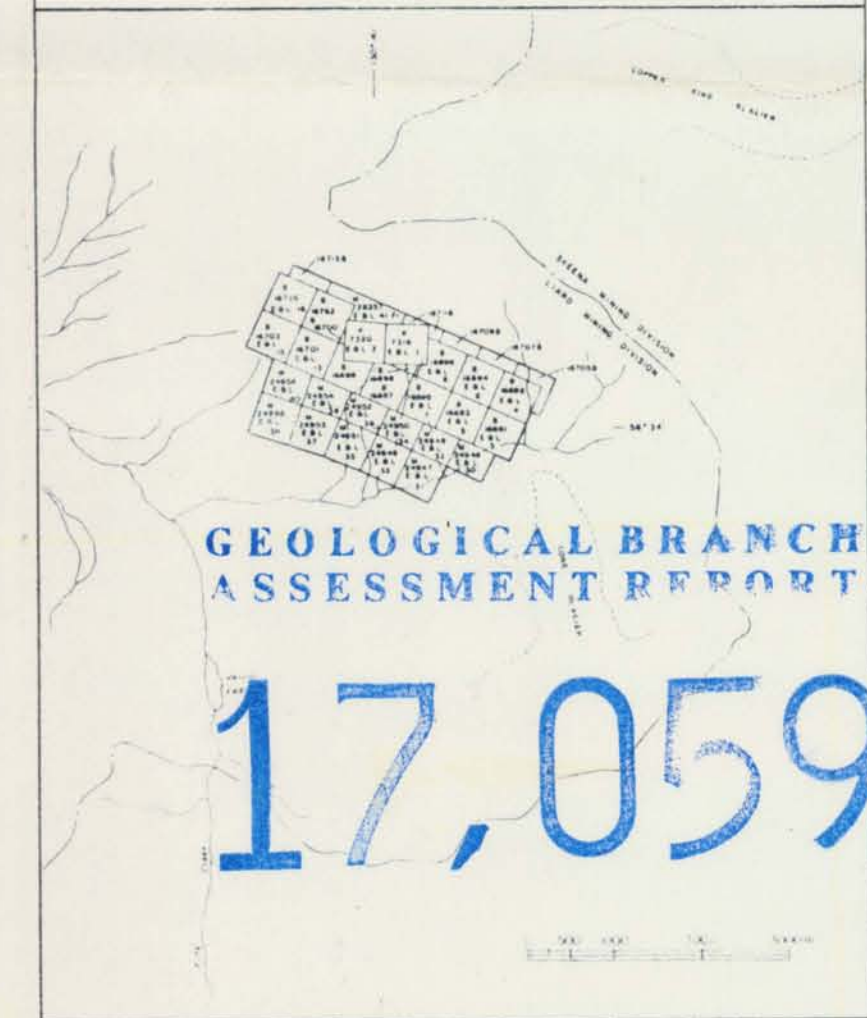
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 Inferred faults
 Anomalous magnetic high



CONSOLIDATED SILVER STANDARD MINES LTD.
 E AND L CLAIMS
 AIRBORNE MAGNETIC AND VLF-EM SURVEY
 CONTOURED TOTAL FIELD MAGNETICS
 Scale 1: 10000.0
 Date: AUG. 1987
 FIG. 5
 WESTERN GEOPHYSICAL AERO DATA LTD.



LEGEND

- 3 Ultrabasic dyke
- 2 Gabbro
- 1 Argillite
- 2 Well mineralized by Po + Co
- 2 Sparsely disseminated by Po + Co
- Fault (probable)
- Fractures strike and dip
- Strike and dip of bedding + dyke
- Outcrop
- Boundary of rock definite / probable
- Diamond-drill hole (1966)
- Diamond-drill hole (1965)
- Trench
- Chip sample (1966)
- Snow field
- Brow of steep slopes, cliffs

N.T.S. I04B / IOE

Geology Location

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

17,059

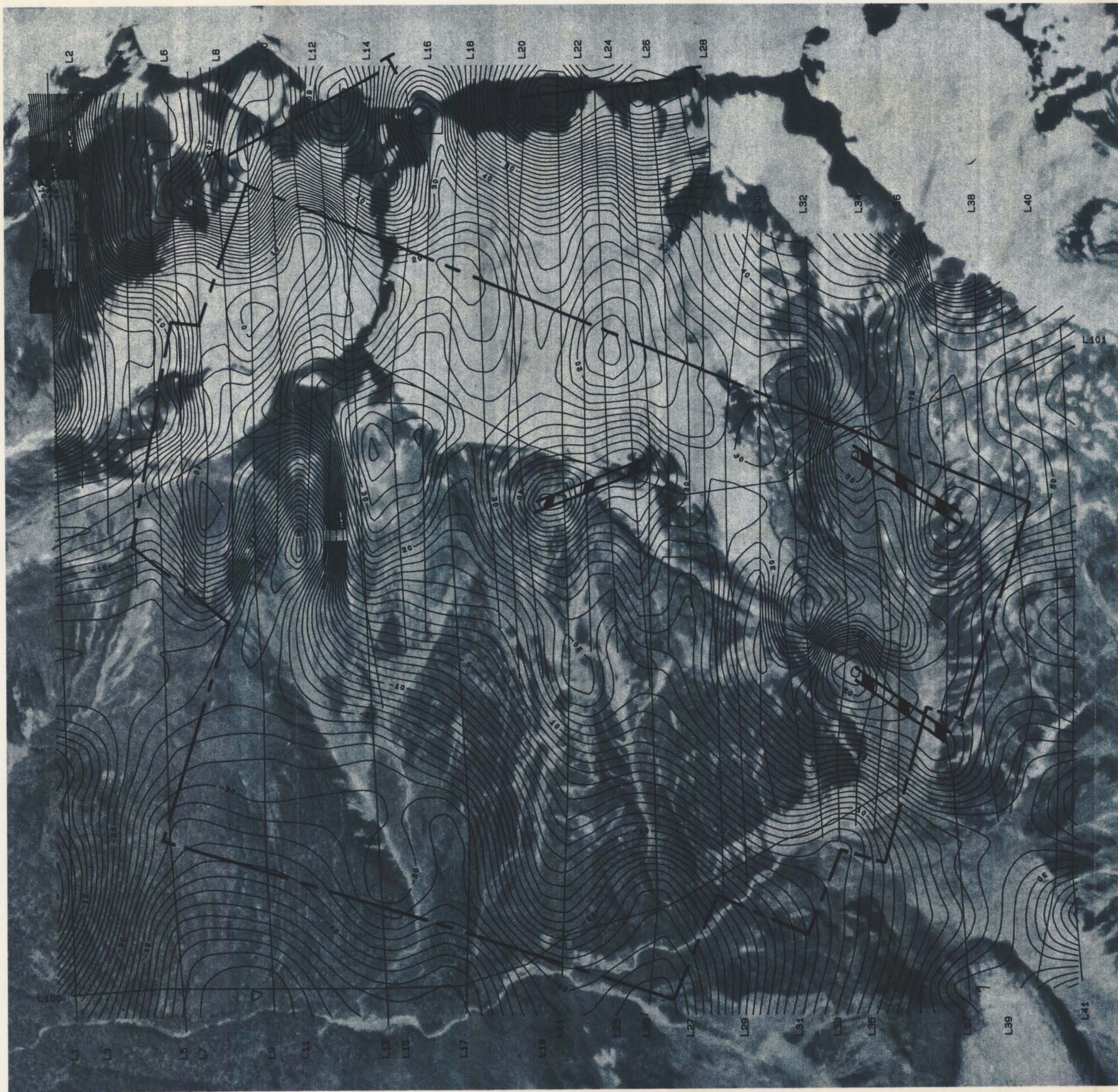
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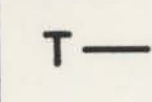
NICKEL MOUNTAIN PROPERTY

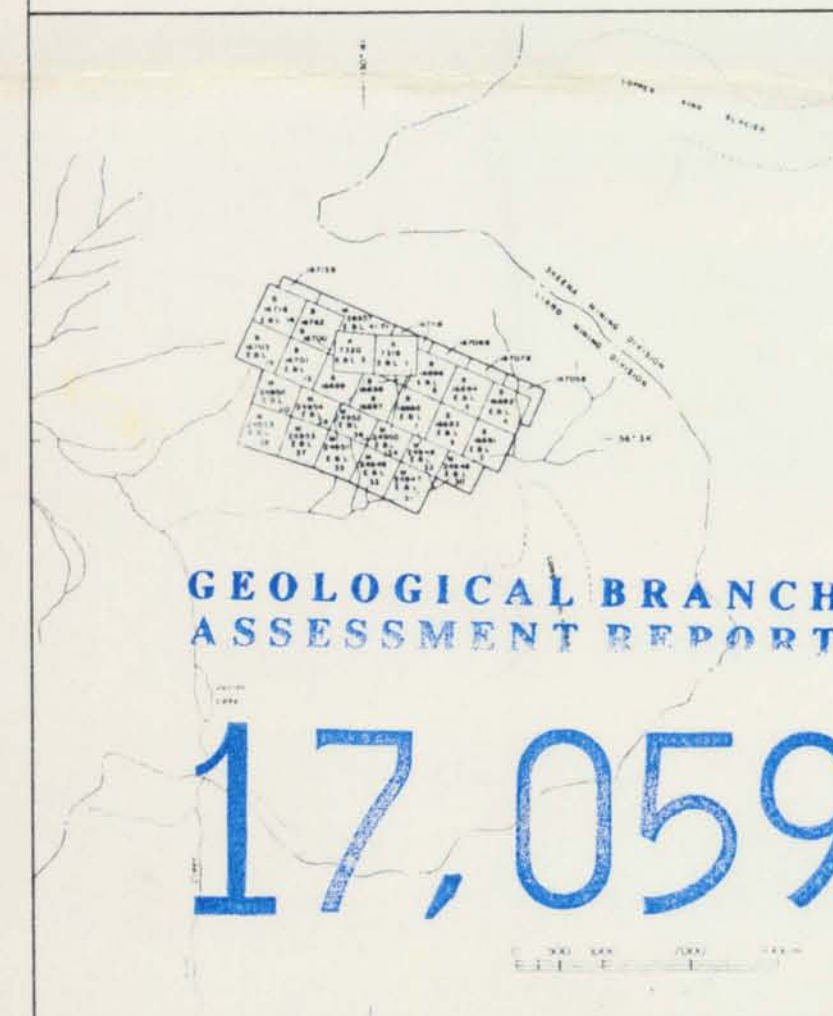
GEOLOGY AND TRENCH LOCATIONS

FEET 0 100 200

SCALE 1"=50' NTS DATE JAN 1987 FIG. 4

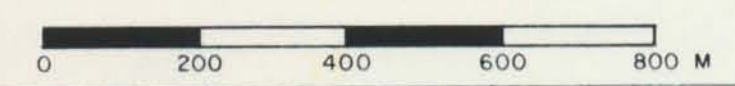


 Possible VLF-EM conductors
 VLF-EM anomalies most likely caused by topographic features



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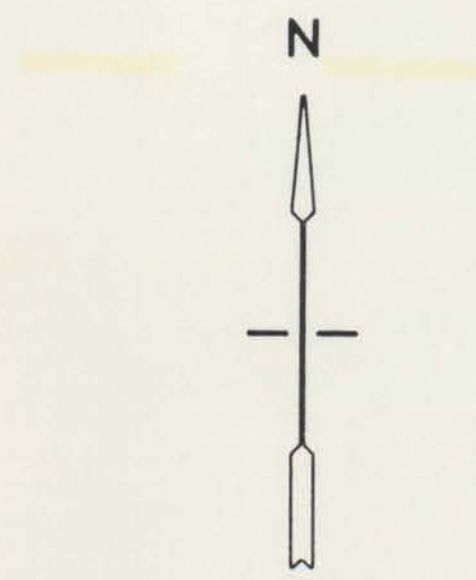
E AND L CLAIMS
 AIRBORNE MAGNETIC AND VLF-EM SURVEY
 CONTOURED TOTAL FIELD VLF-EM (SEATTLE)
 Scale 1: 10000.0




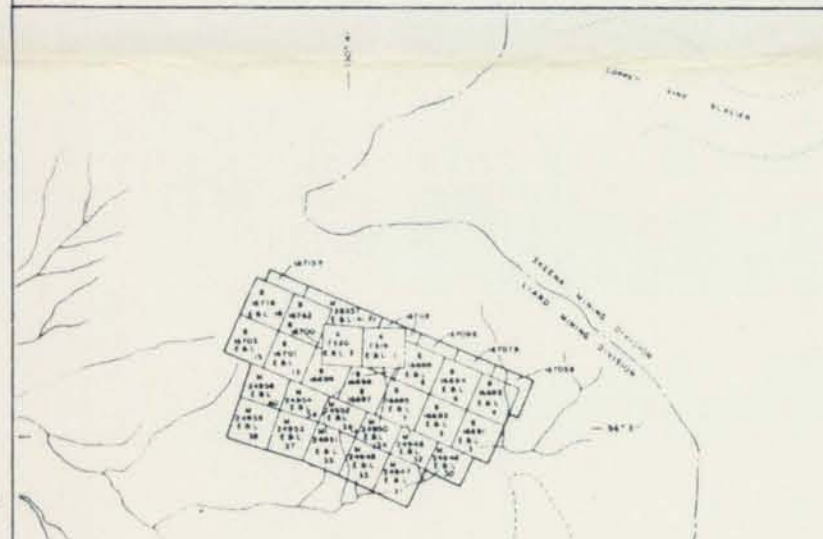
Date: AUG. 1987

FIG. 7

WESTERN GEOPHYSICAL AERO DATA LTD.



 Possible VLF-EM conductors



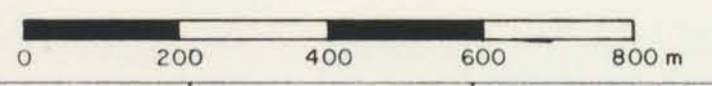
**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

17,059

CONSOLIDATED SILVER STANDARD MINES LTD.

E AND L CLAIMS
AIRBORNE MAGNETIC AND VLF-EM SURVEY
CONTOURED TOTAL FIELD VLF-EM (HAWAII)

Scale 1: 10000.0



Date: AUG. 1987

FIG. 6

WESTERN GEOPHYSICAL AERO DATA LTD.