INTERPRETATION REPORT

on an

AIRBORNE MAGNETOMETER, ELECTROMAGNETOMETER and RADIOMETRIC SURVEY

on the

FEATHER LAKE, NORTH JUSKATLA, WEST JUSKATLA CLAIM BLOCKS

SKEENA MINING DIVISION, BRITISH COLUMBIA

NTS 103F/8,9

Latitude: 53°30'N, Longitude: 132°20'W

Prepared for:

MISTY MOUNTAIN GOLD LIMITED

Prepared by:

E. Trent Pezzot, P. Geo.

Date of Survey: April, 1995

Date of Report: March, 1997

2 of 2

SJ Geophysics Ltd./S.J.V. Consultants Ltd. 11762 - 94th Ave., Delta, B.C. Canada

tel (604) 582-1100 fax (604) 589-7466 E-mail: syd_visser@mindlink.net

25,064

TABLE OF CONTENTS

Introduction

S.J.V. Consultants Ltd. was commissioned by Misty Mountain Gold Limited to review and interpret the data from an airborne magnetometer, electromagnetometer and radiometric survey conducted across the Feather Creek, North Juskatla and West Juskatla claim blocks in the Queen Charlotte Islands. The survey was flown in the spring of 1995 and encompassed some 3,954 kilometers on east-west oriented lines spaced nominally at 100 metre intervals.

The survey data were provided in digital form in line, grid, Ipower and surview formats. Additionally, topographic contours were provided as digital AutoCad files.

These data were processed through Geopak and RTICAD software for analysis, interpretation and plotting.

Data Presentation

All the geophysical data is overlain on a topographic base. The following maps have been plotted at a 1:50000 scale and are stored in pockets at the back of this report under Appendix 3.

Plate	Description
G-0a	Claim Map
	Flight Path Recovery Map
G-1a	Total Magnetic Field Intensity Contours (nT)
G-1b	Total Magnetic Field Intensity Contours (nT)
	Geophysical Interpretation
G-2a	EM Profile Map
	7200 Hz coplanar coils
	Geophysical Interpretation
G-3a	Calculated Resistivity Contours (ohm-m)
	(7200 Hz coplanar EM coils)
G-3b	Calculated Resistivity Contours (ohm-m)
	(7200 Hz coplanar EM coils)
	Geophysical Interpretation
G-4a	Potassium Isotope Contours (cps)
	Geophysical Interpretation
G-5a	Geophysical Compilation and Interpretation Map

Discussion of Results

The maps accompanying this report cover an area approximately 30 kilometres by 30 kilometres. The south-eastern quadrant of these maps is referred to as the Feather Lake Block. The north-eastern quadrant includes the Specogna gold deposit and is referred to as the North Juskatla block. The north-western quadrant extends east of Juskatla Inlet and is referred to as the West Juskatla Block. Plate G-0a overlays the claim outlines and survey flight lines on a topographic base.

Magnetic Model Study

Ten magnetic profiles were generated from the gridded data across linear trends of interest. These profiles were studied using a 2-D modelling routine to provide estimates of the shape, size, susceptibility and attitude of the causative bodies. The results of this study are presented in Appendix 2 and are discussed in the text of this report as applicable.

Magnetics

The magnetic data is presented in two contour formats. Plate G-1a displays the data contoured at 25 nT intervals to highlight subtle gradients and contacts within the Yakoun Formation volcanics and sediments. Plate G-1b displays the data at larger contour intervals to highlight the regional trends and formations. The geophysical interpretation is superimposed across this larger display.

Three dominant characters are evident in the magnetic data which correspond to known geological formations:

1. The north-eastern and eastern portion of the map is dominated by relatively quiet magnetic responses. Variations are gradual and intensities fall within a 100 nT range, from 55900 to 56000 nT. This response is typical of sedimentary lithologies and is interpreted as reflecting the Skonun Formation.
2. The northern and north-western portion of the map exhibits highly variable responses, with an intensity range of over 1000 nT. This character is typical of volcanic rocks and is believed to reflect the Masset Formation. The volcanic response contains several large areas of uniform magnetic low intensity. These responses likely reflect a

sedimentary facies within the Masset formation. Patterns are evident within the volcanic responses, indicating areas with complex structures (folding and faulting).

3. The southeastern portion of the map exhibits variations between the two extremes described above. Intensities typically span 400-500 nT, although small spot highs and lows are found. The magnetic trends are clearly formed into north-westerly oriented bands. Geological mapping shows this response reflects the Yakoun formation, which is primarily a volcanic unit dominated by pyroclastic rocks but includes volcanic sandstone, conglomerate, shale, siltstone and minor coal.
4. A wedge of Haida Formation rocks (Cretaceous sandstone, shale and siltstone) is mapped near the junction of the Masset, Skonun and Yakoun formations (centered near UTM 685000E/5930000N). This response is magnetically very similar to the Yakoun Formation.

The Skonun response is dominated by large, undulating magnetic trends, reflecting the thickening overburden covering this basin. A relatively large magnetic high elongated east-west (in the vicinity of Blackbear Creek and Hoodoo Creek) may be caused by a thin surficial layer (model F4) which thickens gradually to the east. There are a few high frequency lineations mapped within this response, to the east of the Specogna deposit. These are most obvious on a shadow image of the data and are interpreted as reflecting near surface faulting. These lineations are illustrated on Plate G-1b and G-5a.

The magnetic banding evident across the Yakoun Formation is interpreted as reflecting the layering within the formation. These bands generally strike N40°W to N45°W. Modelling across two of these bands suggests the lithologies have a susceptibility contrast on the order of 1% to 1.5% magnetite equivalent and that the bands dip to the north-east. Dips appear to be steep (~84°) along the west edge of the map (Model B) and shallow to the east (~ 71° and 48° on Model A). This may indicate that these bands are located along the north-easterly dipping arm of an antiform, with the central axis to the west of the survey grid. The magnetic bands are offset and abruptly terminated in numerous locations. This is strong evidence of extensive north-easterly oriented faulting, some of which cross and offset the Sandspit fault. This fault interpretation is supported by both the EM and radiometric data and is presented on Plates G-1b and G-5a.

The magnetic response across the Masset volcanic formation is very complex however the general fabric reflects a predominantly NW trending geological strike. These trends are evident as linears, elongated magnetic lows and in some places as a series of discontinuous lows. These NW trends often terminate abruptly resulting in the appearance of NE trending faults, varying between N20°E and N70°E. There is very poor correlation between the magnetic responses and the geology within the Masset Formation as mapped by Hickson. For the most part, the magnetic trends cross the geological contacts as drawn.

There are six large magnetic lows in this area, five of which are interpreted as reflecting a facies of sedimentary rocks. One of these, a north-south oriented low mapped along the west side of Mamin Creek, is confirmed by geological mapping as a window of Yakoun sediments. Models were run across three of these anomalies. Model profiles D and E cross magnetic lows near the southern and south-eastern edges of the Masset formation. Both are interpreted as being caused by a relatively thin (50-100 metre), flat lying, surficial layer of low susceptibility material. Modelling suggests the edges of these layers dip very shallowly (8° - 15°) towards the centre of the basin. Model profile F runs across the north-easternmost large magnetic low. In this instance, the magnetic feature is interpreted as reflecting a steep, north-easterly dipping geological contact. The contact dips approximately 75°NE and is likely tied to the Specogna Fault (as identified by Hickson) and separates the Masset and Skonun Formations.

Geological mapping across the north-western portion of the grid (east of Juskatla Inlet) shows the area to be underlain by Masset Formation volcanics. The magnetic data however shows a distinct character change from general Masset Formation response observed to the east. Although the magnetic intensities mapped are of similar amplitude, variations are more subdued, giving the impression of more uniform lithologies. This general area includes a large magnetic high mapped along Mamin Creek, near UTM 671900E/5932000N. This response is not explained by the geological mapping and may be reflecting a large intrusive. The calculated resistivity in this area supports this interpretation. This anomaly is open to the south and west. The eastern flank is well defined in both the magnetic and radiometric data and appears as a linear contact striking ~ N38°W. A profile across this inflection shows a linear gradient which extends for approximately 1400 metres. Magnetic modelling (Profile C) shows that in order to generate this type of gradient, a vertical contact between lithologies with a magnetic susceptibility contrast of ~ 3% magnetite equivalent, would have to be buried at over 1000 metres depth. A more realistic interpretation is that the intrusion is closer to the ground surface and its' top dips some 20^{o} to the NE. At depth, the north-eastern edge of the intrusion is likely near vertical.

The compilation map (Plate G-5a) and the reduced magnetic contour map (Plate G-1b) highlight the magnetic linear patterns. Many of the more subtle features, particularly within the Skonun sediments, are best illustrated on shadow image maps. The NE trending linears likely reflect fault activity while the NW trends could reflect either faults or contacts.

Radiometrics

Measurement of the potassium (K), thorium (Th), uranium (U) and total count (TC) isotopes were recorded during the course of the survey. Responses are generally best defined in the K isotope. The total count display typically reflects a smoothed (filtered) rendition of the K isotope response.

Several interesting lineations and regional trends are observed as weak to moderate responses. Most tend to follow mapped roads and drainage systems. The most likely explanation is that the increased radiometric counts are due to changes in the ground cover, probably as a result of logging, road building and/or natural clearings. Changes in thickness and/or the type of overburden cover could also generate these responses. The patterns evident on Plate G-4a should be checked against recent air photography or, if not available, by ground investigations.

A strong anomaly is evident over the Specogna deposit. All of the measured isotopes increase, suggesting the anomaly may be caused by change in the ground cover. However, the U and Th isotopes are only present over the northern portion of the anomaly and the K isotope high extends considerably farther south. The most likely explanation is that the radiometrics are mapping a potassic rich alteration zone.

There are a number of trends and isolated anomalies which do not appear to be related to roads or streams. These anomalies warrant ground verification. They include:

R-1: This trend is composed of several concentric linears which wrap around the southern and south-western flanks of the mountain north of Gold Creek and Marie Lake (centered near UTM 679000E/5931000N). These could be reflecting areas of outcrop along the steeper slopes.

R-2: This is a narrow zone which extends both NE and SW from the Specogna deposit. The trend to the SW follows the topographic contours and is likely part of the concentric linears described above. The Hickson geological base map shows the trend to the NE of Specogna is coincident with a topographic low. It is possible that the radiometric high is associated with changes in the type and amount of forest cover. However, this trend is associated with several EM conductors and an anomalous magnetic gradient. It is also possible that these geophysical signatures are reflecting a north-easterly trending fault. If present, this fault likely strikes N40°E through the Specogna deposit (based on EM responses) and continues in this direction for some 2.0 km where it changes strike to N48°E. A small potassium isotope anomaly is mapped at the point where the strike changes.

R-3: This is another narrow zone which parallels R-2, some 2 kilometres to the southeast. Like R-2, it is also associated with EM conductors along its' length.

R-4: This anomalous potassium response is located immediately west of Canyon Creek, centered near UTM 686500E/5927400N. The anomaly is elongated NW-SE and is approximately 1000 metres x 750 metres in size. Both the magnetics and calculated resistivity data suggests the anomaly is centered on a N51°E trending fault. This response is particularly anomalous in that it is noted in the potassium isotope only. The lack of any increase in the Th or U isotopes infers a geological source rather than a change in the ground cover. An anomalous gold geochemical sample in this area upgrades this anomaly.

R-5: This narrow potassium response runs roughly N-S in the vicinity of Florence Creek near UTM 682700E/5940800N. It is mapped for some 1500 metres strike length and is particularly anomalous in that it is associated with a well defined, high conductivity EM anomaly. A coincident Th response and the proximity of Florence Creek tend to downgrade this anomaly.

R-6 to R-10 are located in the northwest corner of the survey block. All these anomalies are similar in that they tend to follow a specific topographic contour. It is likely that the geology is relatively flat lying in this area and that the radiometric responses are differentiating between discrete lithological units as they outcrop or approach the surface.

R-6: This relatively large area of anomalously high radiometric counts is located along the eastern facing slopes of the mountain immediately west of Sheila Lake. The magnetic and calculated resistivity maps suggest a lithological change in this area, possibly related to intrusive activity.

R-7: This anomalous response is located on the south side of Blackwater Creek near UTM 672100E/5936500N. It is anomalous in that a larger trend, which follows a road along Blackwater Creek, is restricted to the north side of the creek.

R-8: This NE trending anomaly is centered near UTM 669000E/5935200N. It generally follows the topographic contour along a northerly facing slope and is likely mapping either a discrete geological unit or an area of thin forest and/or overburden cover.

R-9: This response is anomalous in that it tends to strike NW across a topographic high and joins NE trends which follow the roads along Breakwater Creek and Juskatla Inlet.

R-10: This trend is traced for some 3 km strike length, and follows a northerly facing slope. It is likely mapping a lithological unit.

A subtle NW trending lineation (R-11) evident on the K isotope map is mapped for some 15 kilometres, from 688000E/5934400N to 676000E/5941700N and crosses both the Masset and Skonun formations, suggesting it is related to a recent structure. A segment of this trend coincides with the sharp magnetic gradient interpreted as reflecting the Specogna Fault. The lineation appears as discontinuities along the background trends as opposed to a discrete radiometric high. This lineation crosses R-1 at the small radiometric anomaly located some 2 kilometres NE of the Specogna deposit.

Electromagnetics

An algorithm used by DIGHEM has identified over a thousand EM anomalies across this survey grid. The majority of these anomalies exhibit low conductance (1-5 siemens), flat-lying sources. These are likely related to overburden variations and are not considered exploration targets. The conductance parameter cited by DIGHEM is a measure of the conductivity - thickness product for the source body.

Analysis of the EM data in profile form allows a comparison of the inphase and quadrature components of the anomalous responses which can be a measure of the relative conductivity of the source body. I reviewed the EM profiles on a line by line basis for all five frequencies measured. Most of the conductors are visible on the 56000 Hz frequency, although some are evident on only one particular frequency or configuration. 594 conductor segments were picked from the EM profiles and are highlighted on a topographic base and the profile data for the 7200 Hz coplanar coils (Plate G-2a). Of these, 153 are classified as poor conductivity, 270 as moderate conductivity and 171 as good conductivity sources. This distinction is based on the relative amplitude of the inphase and quadrature components of the measured responses as observed on the 56000 Hz coplanar coils and may vary if calculated from a different frequency.

All of these responses are considered anomalous and any one of them could be reflecting a viable geological target. However, 164 of these anomalies coincide with roads, streams or lakes and can be downgraded as exploration targets. Many of the segments coincide with regional trends (magnetic and/or resistivity) and likely tie to a distinct geological horizon or contact. In these instances, changes in the conductivity or amplitude of the response along the trend should be the initial focus of attention. There are several areas where a multitude of EM anomalies are clustered together. This could be an indication of a lithology which is comprised of closely spaced layers or strata and more detailed ground surveys will likely be necessary to isolate conductors.

EM anomalies which do not tie to known topographic and/or cultural features are presented on the interpretation and compilation map Plate G-5a. Several of these which exhibit anomalous amplitude and/or conductivity, or are associated with other anomalous geophysical or geological responses have been selected as "Areas of Interest" and are recommended for ground follow-up investigations. The factors which govern the prioritisation of these anomalies will likely change as the exploration program matures and more specific geological targets are determined. A detailed re-evaluation of the EM data is recommended over any areas which are still considered as exploration targets after the initial ground investigations.

Calculated Resistivity

The coplanar EM data can be processed to generate a calculated apparent resistivity of the near surface. This procedure was completed for both the 900 Hz and 7200 Hz data. More local variations are seen in the higher frequency data set, however both sets highlight the same regional trends. The 7200 Hz calculated resistivity is presented on Plates G-3a and G-3b.

The most distinctive feature on the calculated resistivity maps is a sharp gradient which follows the Sandspit Fault across the south-eastern portion of the survey grid. This structure is described in detail under the Structures heading below.

The Yakoun volcanics and sediments are readily distinguished from the Skonun and Masset Formations on the basis of higher resistivity (100 - 4000 ohm-metres) and a linear, banded character, similar to that observed in the magnetic data. The Masset and Skonun Formations reflect very similar, low resistivity values of less than 100 ohm-metres. Extremely low resistivities of less than 25 ohm-metres appear to be restricted to the Skonun sediments. The response across the Masset Formation appears to be slightly more chaotic than across the Skonun Formation, however, these two lithologies can not be readily distinguished from each other on the basis of the calculated resistivity.

One large anomalously high resistivity zone is observed within what is geologically and magnetically mapped as Masset Formation volcanics. A roughly circular shaped feature, some 3 kilometres across is centred south-west of the Specogna deposit, near UTM 683000E/5933300N. This may be an indication that the Masset unit is covered by a thin, resistive overburden layer. Two other smaller areas of high resistivity are located to the north-west of this large feature and are likely reflecting the same geological condition.

A large resistivity high crosses the western edge of the map, immediately west of Marie Lake and Pam Lake. This response is associated with a strong magnetic high in the vicinity of Mamin Creek which could be reflecting an intrusive body. The resistivity high extends slightly further to the north-west (up to Blackwater Creek) than the magnetic high.

Structures

Sandspit Fault

The most dramatic structure evident in the geophysical data is the Sandspit fault. In the south-eastern portion of the grid, where it separates the Skonun and Yakoun formations, it is clearly outlined as a strong gradient on the magnetic and calculated resistivity maps. It is also evident as a weak, intermittent lineation in the radiometric data. Geophysical evidence shows a distinct change in the orientation of the fault at a point some 3.3 kilometres north of Feather Lake. To the south-east of this point the fault is mapped for some 9.5 kilometres (open to the south-east) on an azimuth of N42°W. To the north-west, the fault is traced along an azimuth of N54°W for some 7 kilometres where it either terminates against the Masset Formation volcanics or is diverted abruptly to the north.

Over most of the strike length, the magnetic profiles across this structure appear as a simple inflection suggesting a single fault. There are however, some locations where inflections on the profiles imply the system may be comprised of two or more closely spaced, sub-parallel fault planes. Magnetic modelling completed in the Feather Lake and Survey Creek areas suggest two distinct dips to the fault. The near surface rocks at, and immediately west of, the fault appear to dip 41° to 49° NE. Farther to the east and at depth the fault plane appears to dip some 62° to 74° NE.

Skonun Formation

The geophysical reflection of structures within the Skonun formation are relatively subdued. Weak magnetic gradients and EM anomalies tend to align north-westerly, generally paralleling the Sandspit and Specogna fault systems. Weak magnetic lineations are observed to the east and north-east of the Specogna deposit. These gradients are interpreted as reflecting north-easterly oriented fault patterns.

Yakoun Formation

The Yakoun formation is mapped across the south-eastern quadrant of the map, to the west of the Sandspit Fault and south of the Masset volcanics. Contour maps of the magnetic data shows the dominant structural orientation is ~N42°W. Magnetic modelling suggests the rock units dip steeply (~84° NE) along the west edge of the map and shallow to approximately 48° NE in the area of the Sandspit Fault. This may be indicating these bands are located along the north-easterly dipping arm of an antiform, with the central axis to the west of the survey grid.

Both magnetic and calculated resistivity data show the north-westerly trending bands within the Yakoun formation are displaced and offset in numerous locations by north-easterly trending faults. The majority of these geophysically defined faults strike N60°E although there are several clear representations of faults which strike from north to N30°E. Several of these faults cross and offset the Sandspit and Specogna fault systems, suggesting they are younger events.

Masset Formation

Complex magnetic patterns are characteristic of the Masset formation volcanics. North-westerly oriented lineations varying from N45°W to N65°W reflect the dominant geological strike. A considerable amount of north-easterly oriented faulting is interpreted. Preferential strike directions of approximately N6°E, N45°E and N68°E are observed for these faults.

Recommendations

This project area, with the exception of the immediate area around the Specogna deposit, is considered to be at a grass roots exploration stage. Seven areas of interest have been selected on the basis of the geophysical anomalies. Particular attention was afforded to structurally complex areas (intersecting faults) and areas with similar geophysical signatures to those observed across the Specogna gold deposit. Detailed ground evaluation of these areas will likely be required, however, it should be preceded by a review of the geophysical interpretation by the project geologist. This review should compare the geophysical interpretation with known geological and geochemical data.

The high potassium isotope responses could be indicative of alteration zones similar to that observed at the Specogna gold deposit. The trends outlined on Plate G-4a should be compared with air photography (contemporary with the 1995 survey). Any radiometric anomalies which do not coincide with an obvious change in the forest cover, resulting from logging, road works and/or natural clearings should be flagged for ground investigation.

In several areas, anomalous EM conductors appear in clusters. In these situations, it is unlikely that the airborne data is resolving individual horizons. Ground investigations will likely reveal closely spaced lenses or layers. Resolution of these zones will depend on the complexity of the structures and on the survey parameters (line spacing and station separation) chosen.

The following areas are recommended for initial consideration:

A-1 : 686500E/5927400N: This area is centred on an anomalous potassium isotope anomaly hosted in the Yakoun formation, immediately west of Canyon Creek. The radiometric signature is similar to the response observed across the Specogna deposit and may be reflecting an area of potassic alteration. Magnetic and calculated resistivity data show the anomaly straddles a north-easterly trending fault. A reported gold geochemical anomaly in this area upgrades this target.

A-2 : This area encompasses radiometric trend R-1 which extends north-easterly from the Specogna deposit for a distance of some 4.5 kilometres. The trend is coincident with a number of EM defined conductor segments and is interpreted as following a north-easterly trending fault. An anomalously high potassium count located on this trend, some 2 kilometres NE of the Specogna deposit, is of specific interest. A northerly trending, high amplitude EM anomaly, located at the north-eastern edge falls along a projected extension of a stream but is currently unexplained.

A-3 : This area encompasses radiometric trend R-2 which parallels R-1 some 2 kilometres to the south. Like R-1, this anomaly is coincident with several EM conductors. Subtle magnetic lineations in this area suggest the presence of north-easterly oriented faulting.

A-4 : 682400E/5940000N: This area in the vicinity of Florence Creek is selected because of its' geophysical similarity to the Specogna deposit. It extends north-easterly from the Masset/Skonun contact (Specogna Fault), centred about a north-easterly trending fault. As seen at the Specogna deposit, the north-easterly oriented fault is associated with high potassium isotope values and high to moderate conductivity segments. A high amplitude EM response striking N37°W intersects the north-easterly trending fault. Prospecting reports of rhyolite in the area upgrade this target.

A-5 : 679800E/5935400N: This area is located within the Masset volcanics in a structurally complex area. It is selected primarily on the basis of a very high amplitude EM anomaly which is traced for 1.7 km along an azimuth N35°E. The zone is located at high elevations and although it generally follows the terrain, it does not appear to be controlled by the topography. The zone appears to follow along the north-western flank of a magnetic high, suggesting the conductor may be located along a geological contact or fault. The EM profiles are complex in this area and detailed ground surveys will be required to separate conductive targets.

A-6 : 679300E/5933000N: This area is immediately south of A-5 and selected for the same reasons; anomalously high amplitude EM responses associated with complex structural patterns and faulting.

A-7 : 683000E/5936900: This area includes two high amplitude, high conductivity EM anomalies located some 1.6 km and 2.4 km NW of the Specogna deposit. The anomalies are located in a structurally complex area, near the Masset/Skonun contact. They could be downgraded because they are located within the Masset volcanics.

Respectfully submitted

per S.J.V. Consultants Ltd.

E. Trent Pezzot, B.Sc., P.Geo.

Geophysics, Geology

Appendix 1

Statement of Qualifications

I, E. Trent Pezzot, of the city of Surrey, Province of British Columbia, hereby certify that:

- I graduated from the University of British Columbia in 1974 with a B.Sc. degree in the combined Honours Geology and Geophysics program.

- I have practised my profession continuously from that date.

- I am a registered member of the Association of Professional Engineers and Geoscientists of British Columbia.

- I have no interest in Misty Mountain Gold Ltd. or any of their subsidiaries or related companies, nor do I expect to receive any.

March 5, 1997

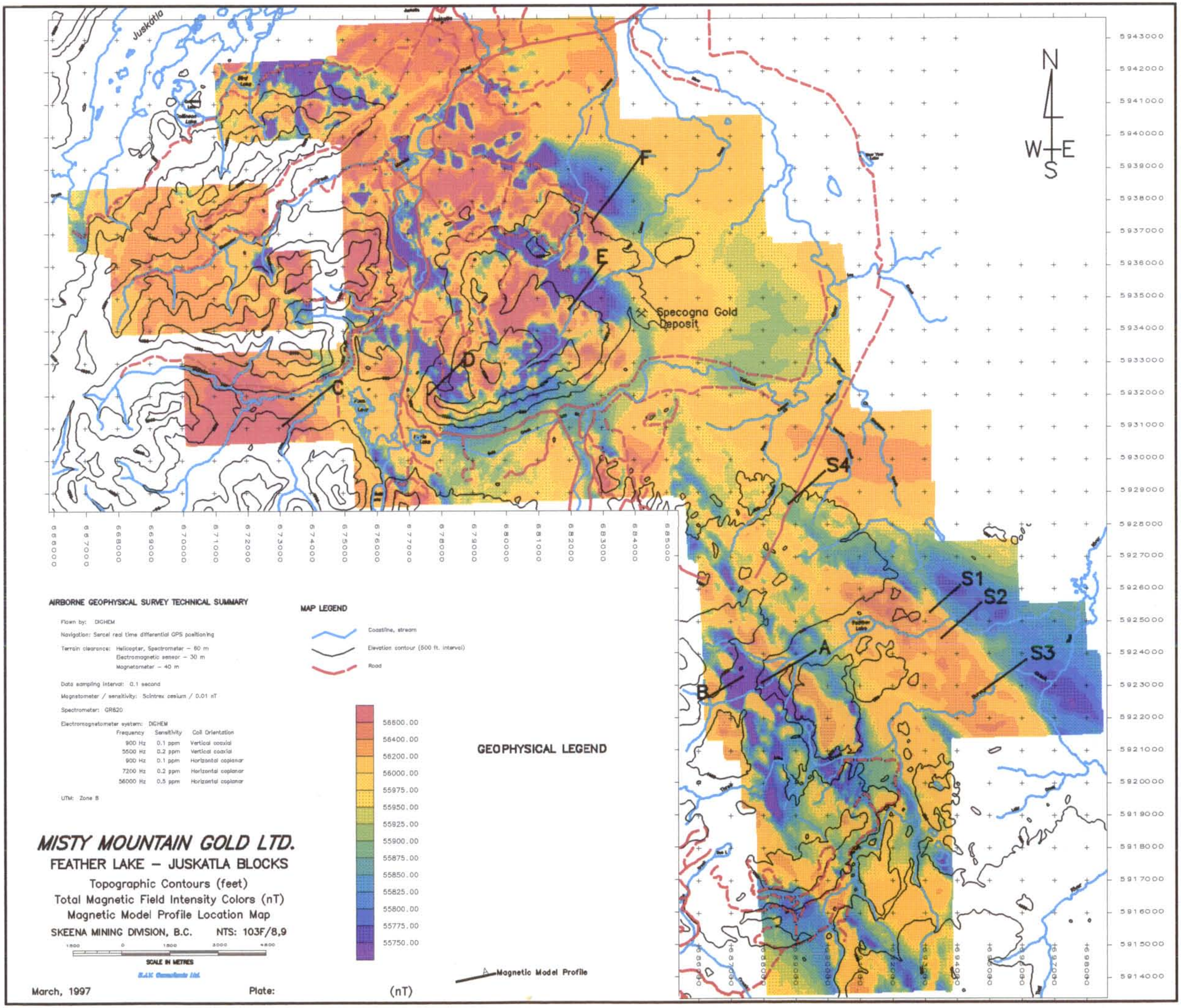
PROFESSIONAL PROVINCE OF E. T. PEZZOT BRITISH COLUMBIA GEOSCIENTIST

E. Trent Pezzot, B.Sc., P.Geo.

Appendix 2

Magnetic Model Study

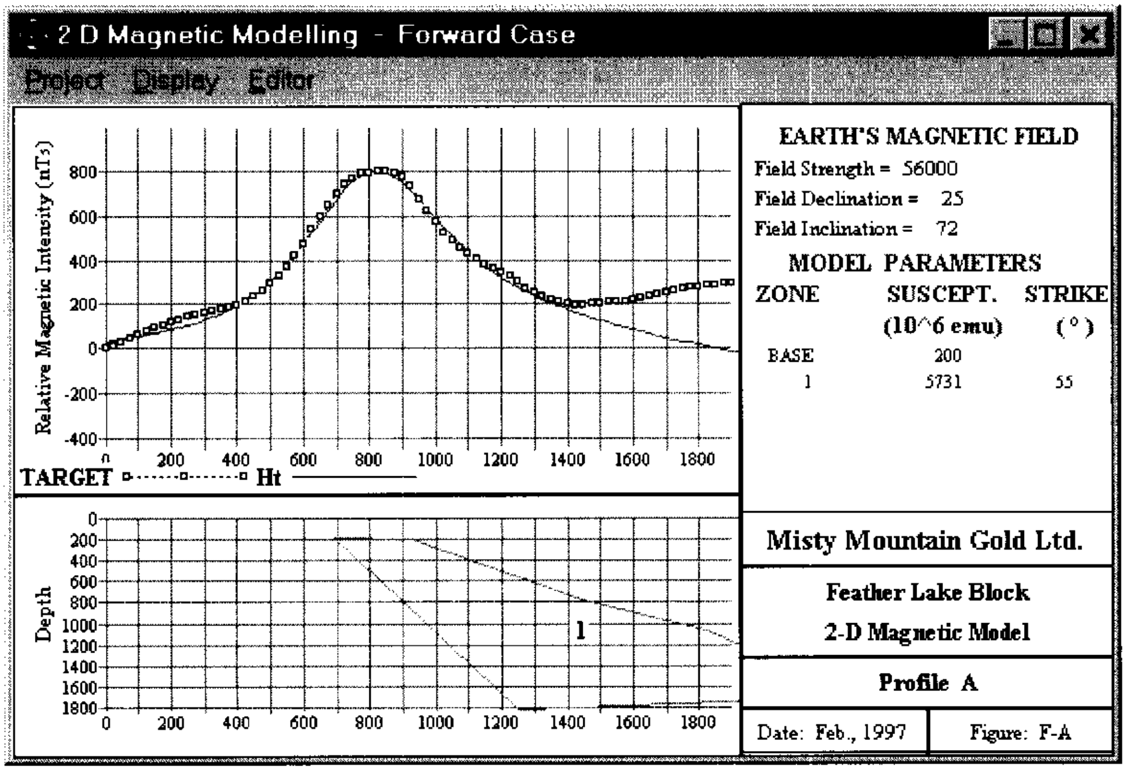
tel (604) 582-1100 fax (604) 589-7466 E-mail: syd_visser@mindlink.net


Juskatla
N
W E
S
F
E
D
C
Specogna Gold Deposit
S4
S1
S2
S3
A
B
AIRBORNE GEOPHYSICAL SURVEY TECHNICAL SUMMARY
Flown by: DIGHEM
Navigation: Sercel real time differential GPS positioning
Terrain clearance: Helicopter, Spectrometer – 60 m
Electromagnetic sensor – 30 m
Magnetometer – 40 m
Data sampling interval: 0.1 second
Magnetometer / sensitivity: Scintrex cesium / 0.01 nT
Spectrometer: GR820
Electromagnetometer system: DIGHEM
Frequency Sensitivity Coil Orientation
900 Hz 0.1 ppm Vertical coaxial
5500 Hz 0.2 ppm Vertical coaxial
900 Hz 0.1 ppm Horizontal coplanar
7200 Hz 0.2 ppm Horizontal coplanar
56000 Hz 0.5 ppm Horizontal coplanar
UTM: Zone 8
MAP LEGEND
Coastline, stream
Elevation contour (500 ft. interval)
Road
56600.00
56400.00
56200.00
56000.00
55975.00
55950.00
55925.00
55900.00
55875.00
55850.00
55825.00
55800.00
55775.00
55750.00
(nT)
GEOPHYSICAL LEGEND
Magnetic Model Profile
MISTY MOUNTAIN GOLD LTD.
FEATHER LAKE – JUSKATLA BLOCKS
Topographic Contours (feet)
Total Magnetic Field Intensity Colors (nT)
Magnetic Model Profile Location Map
SKEENA MINING DIVISION, B.C. NTS: 103F/8,9
SCALE IN METRES
March, 1997
Plate:

Profile A

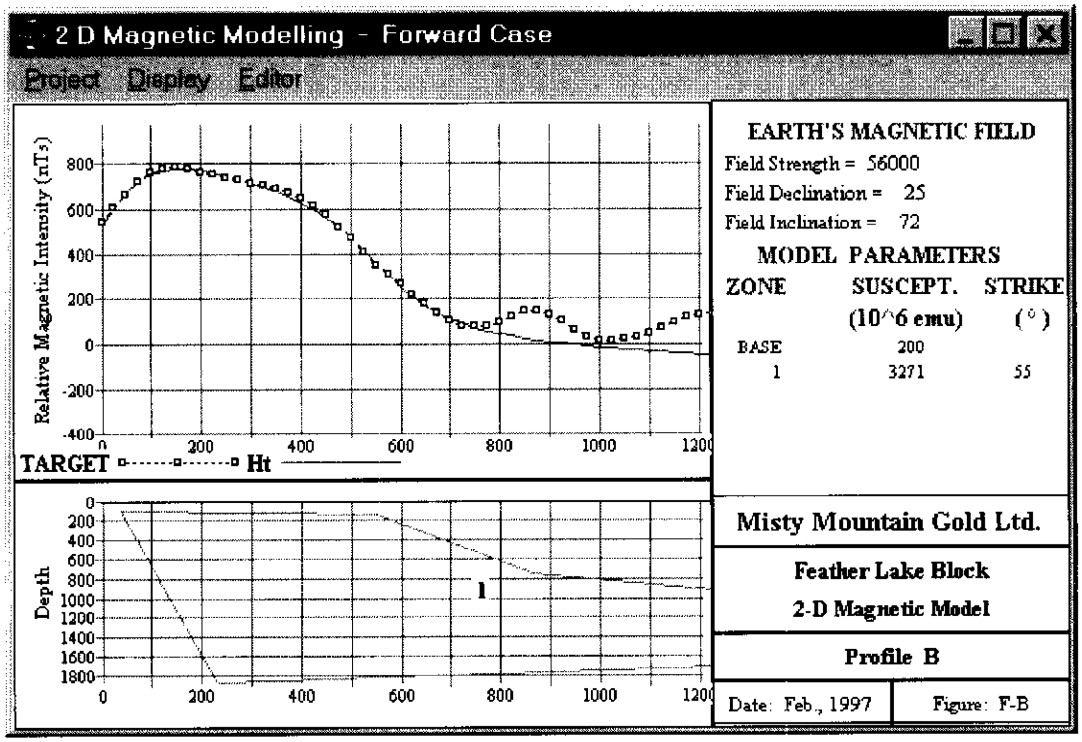
This profile crosses a NW striking magnetic high linear within the Yakoun Formation. The profile shows a regional gradient component which could be caused by the presence of a parallel zone or of a regional bedrock dip to the SW.

Ignoring the regional leaves an asymmetric profile, steeper slope to the SW. It can be effectively modeled as large body which dips to the northeast and is buried approximately 200 metres below the sensors. The west flank is estimated to dip ~ 71° NE while the east flank dips ~ 48° NE.



Profile B

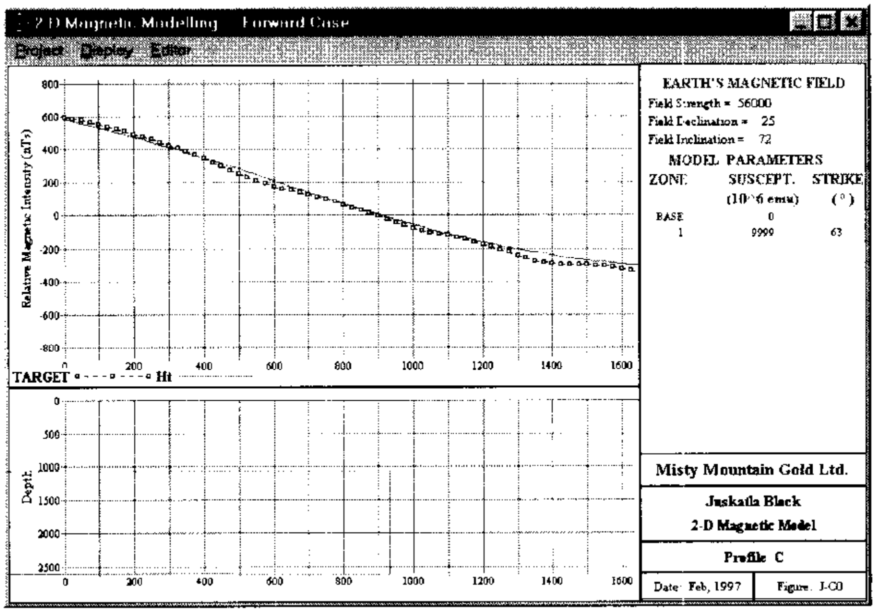
This profile shows a gradient observed along the eastern flank of a NW trending magnetic high within the Yakoun Formation. The survey did not extend far enough to the west to completely model the western flank of the source however, it appears to have a very steep dip which is estimated as 84° NE . The minor undulations to the east of the inflection are not modeled.



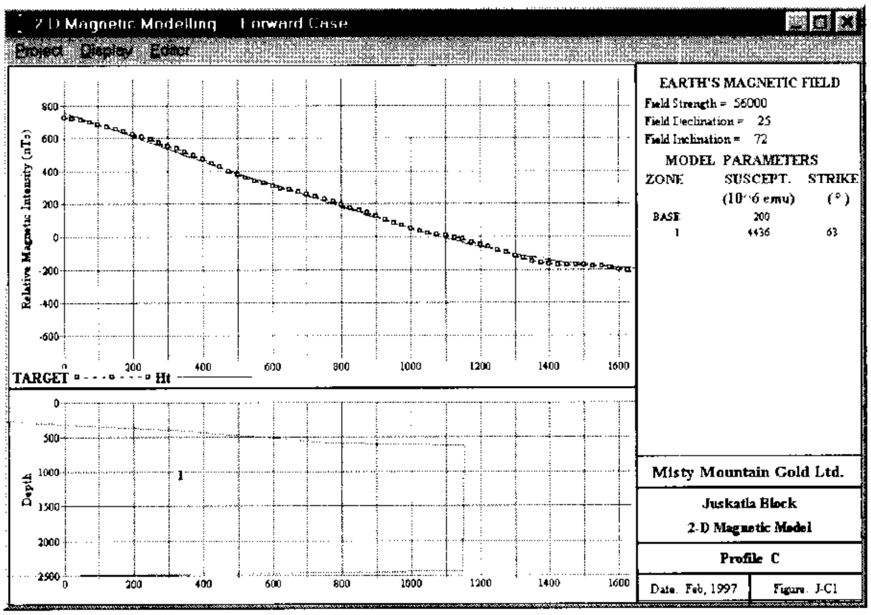
Profile C

This profile crosses a linear gradient associated with the eastern flank of a large magnetic high. The gradient remains linear across some 1400 metres distance. Minor undulations observed to the NE are likely due to localized, near surface changes.

In order to be caused by a simple near vertical contact, the high susceptibility rock unit to the southeast would have to be buried near 1000 metres depth



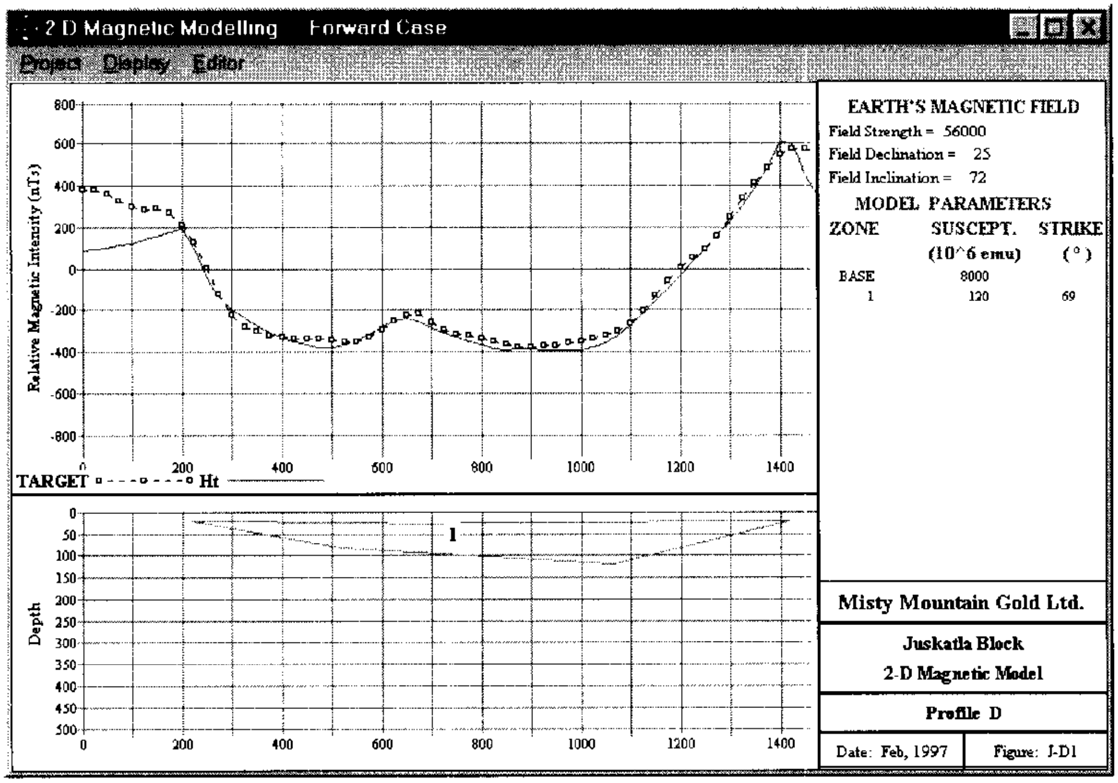
A more realistic interpretation retains the near vertical dip at depth, but shows the top surface of the intrusive as dipping shallowly (~20^o) to the north-east.



Profile D

This profile crosses one of the broad, northwesterly elongated magnetic lows mapped within the Masset Formation volcanics. The broad response can be described as a flat basin, ~ 800 metres across with a steep inflection to SW and more shallow inflection to the NE.

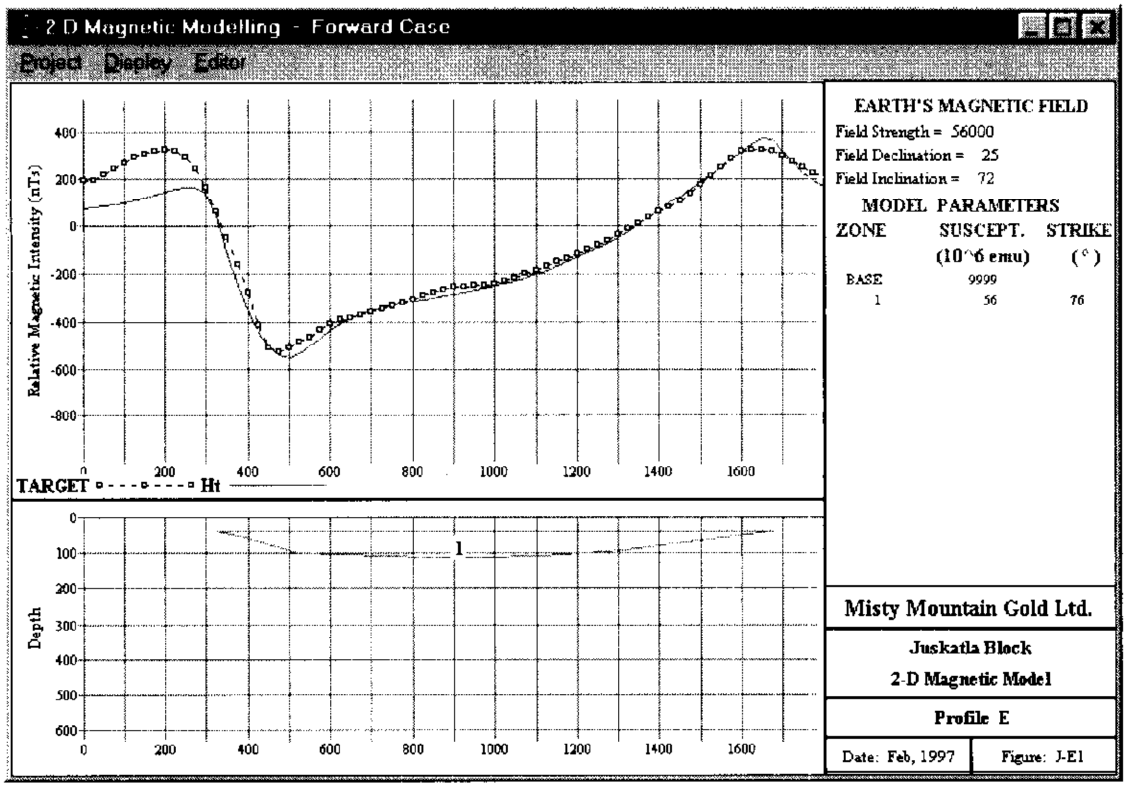
This profile can be effectively modeled as a thin (75m thick), low susceptibility (~2.5% magnetite equivalent) layer lying at the surface. The small magnetic high in the centre of the basin is the natural response to the model, caused by interference patterns from contact responses at each end. It can be enhanced by very minor changes in terrain clearance. The steeper inflection on the SW (left) side is a result of the inclination of the primary magnetic field. The SW edge is estimated to dip ~ 11° NE while the NE edge dips ~ 16° SW.



Profile E

Like D, this profile crosses one of the broad, northwesterly elongated magnetic lows mapped within the Masset Formation volcanics. The profile shows a very steep inflection on SW side and a stepped, more gradual gradient to NE.

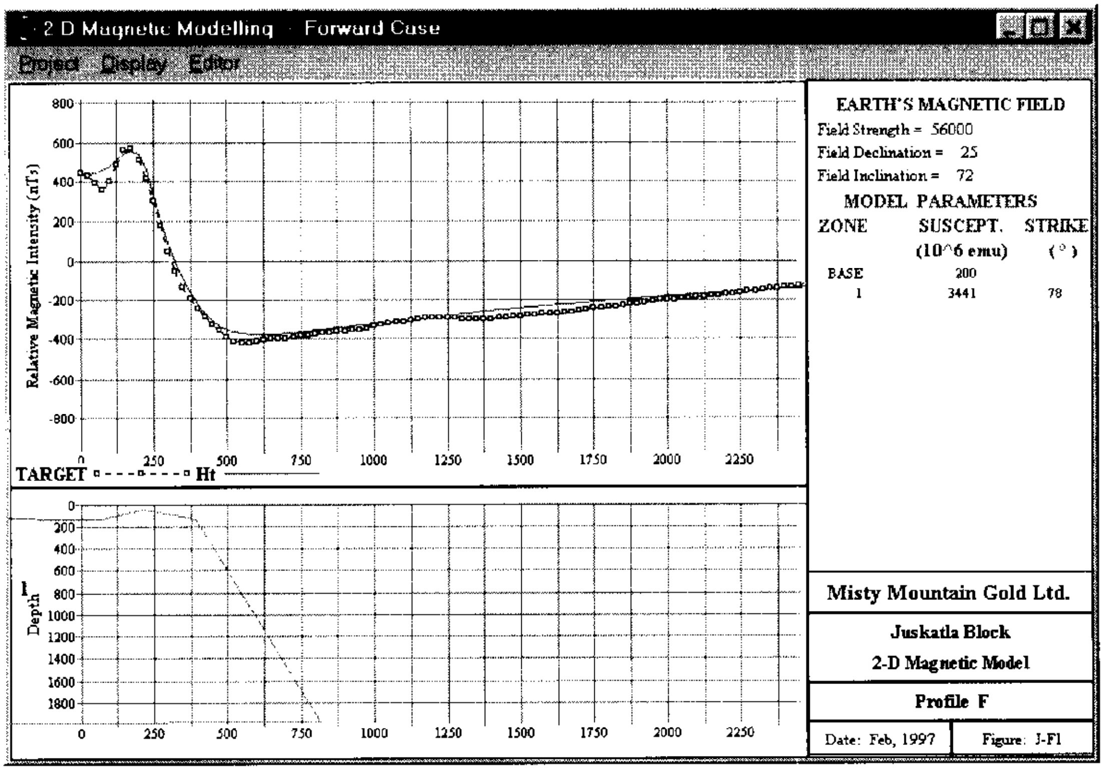
It can be effectively modeled as a surficial, low susceptibility layer with a slightly steeper contact at the SW edge (~16° NE) and a more gradual (~ 8° SW) contact to the NE.



Profile F

This profile crosses the NW trending magnetic low, the southwestern edge of which maps the Specogna Fault, separating Masset and Skonun Formation rocks. The profile shows a very steep inflection on SW end and gradual, regional climbing to the NE.

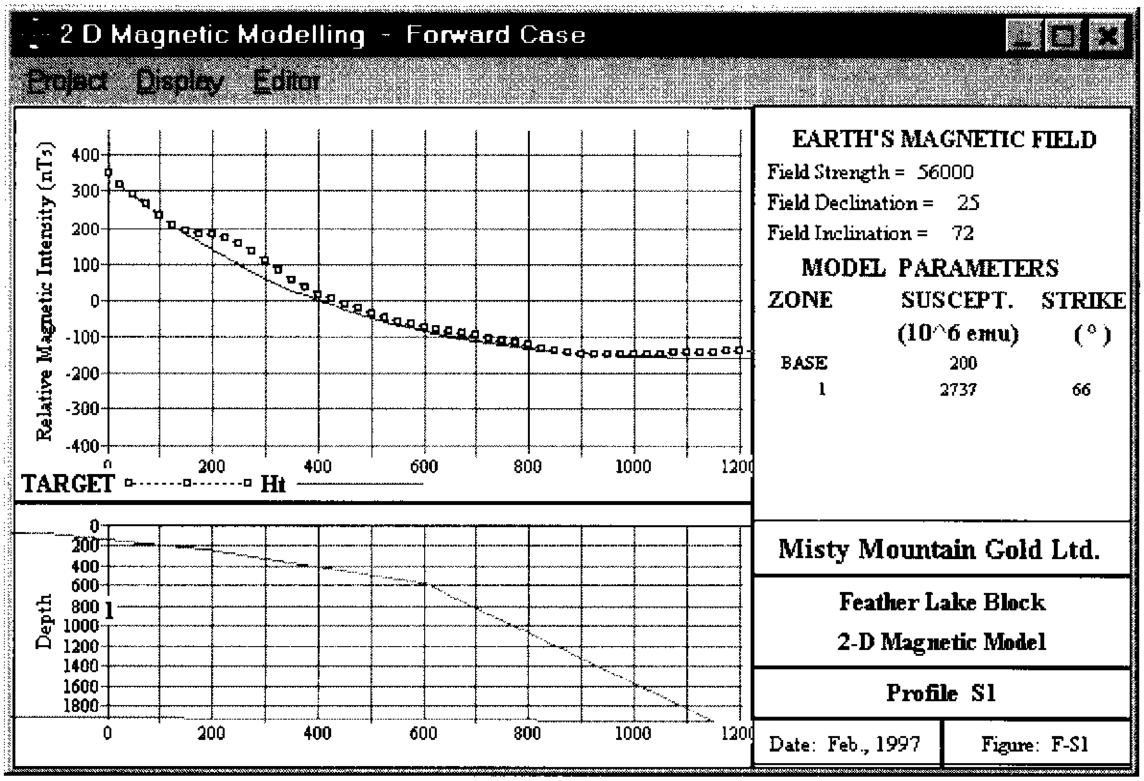
The gradual gradient to the NE is the natural result of the contact response. Abrupt changes at the crest of the profile are due to minor changes in near surface and could easily be attributed to terrain clearance and/or topography. The model study suggests the main fault plane dips approximately 75° NE in this area.



Profile S1

This profile crosses the Sandspit Fault.

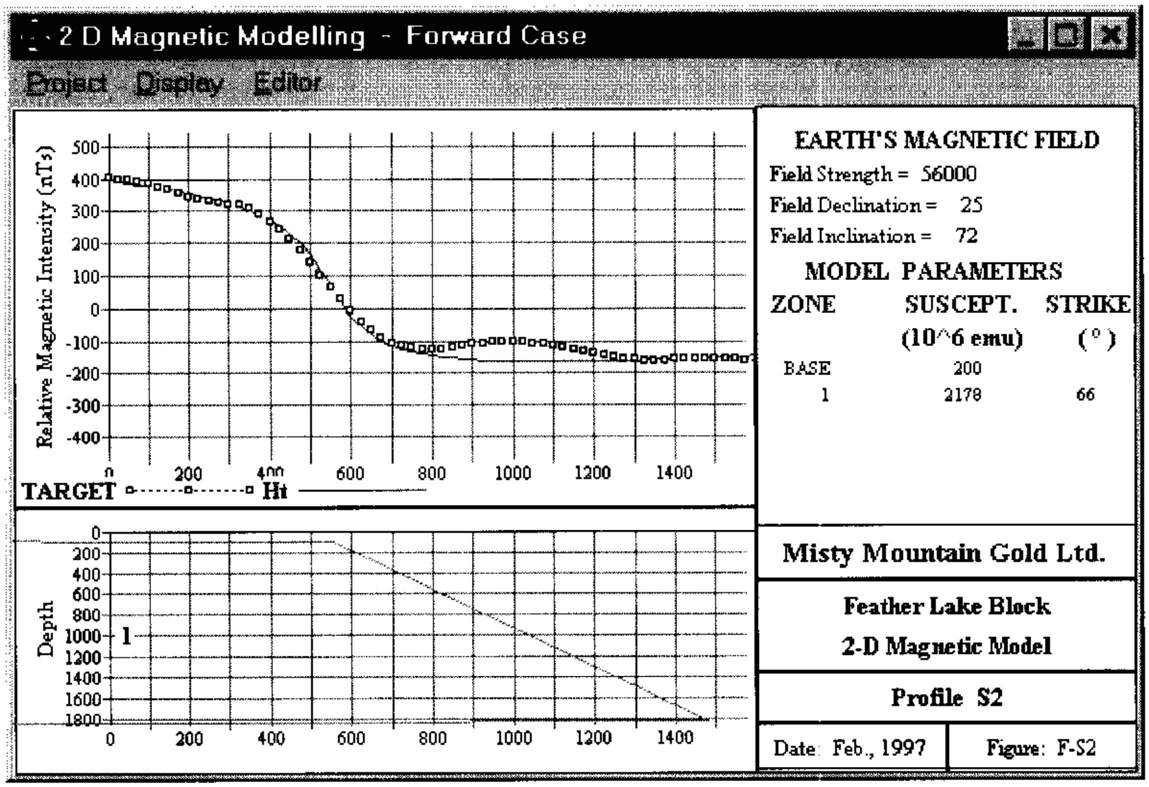
Modeling shows the fault dips ~ 68° NE at depth. The near surface rocks appear to dip more moderately (~41° NE). A minor undulation is observed on the profile near the 250 metre station. This is a high frequency response and is likely related to a topographic or terrain clearance effect.



Profile S2

This profile crosses the Sandspit fault. The magnetic profile displays a steeper inflection than was observed on S1.

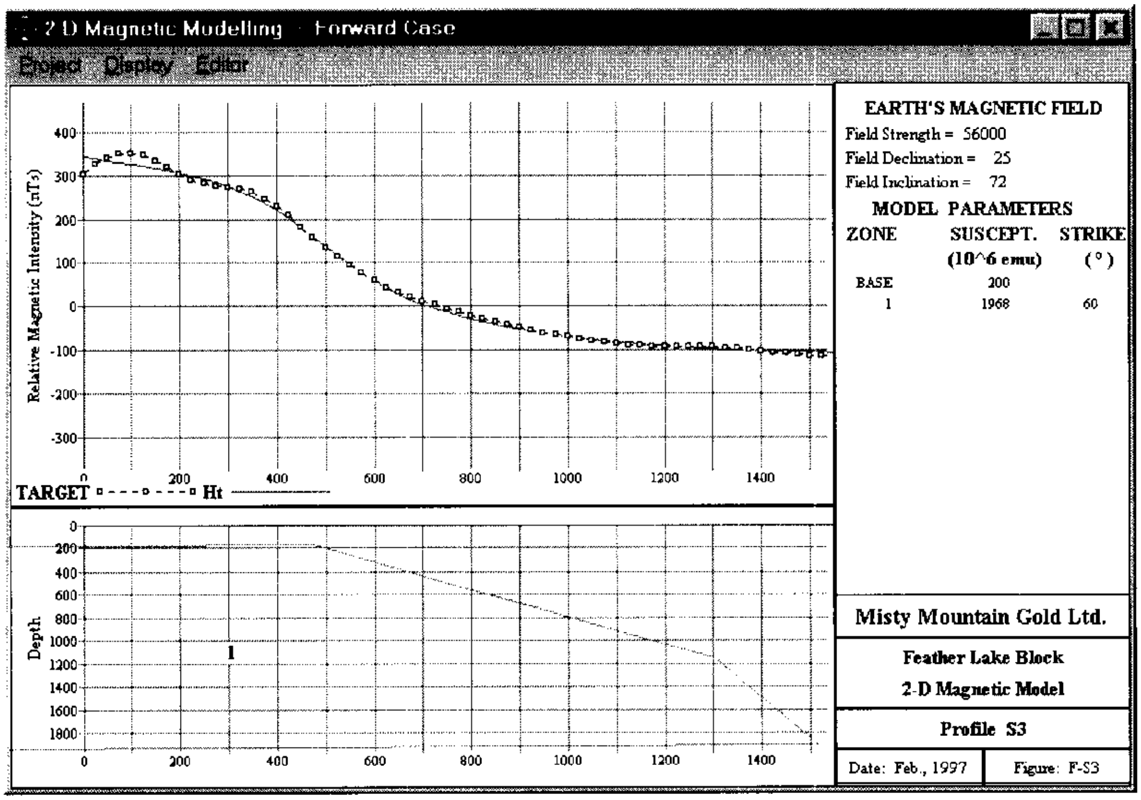
Modeling suggests a similar contact (fault) source with a north-easterly dip of approximately 62°.



Profile S3

This profile crosses the Sandspit fault.

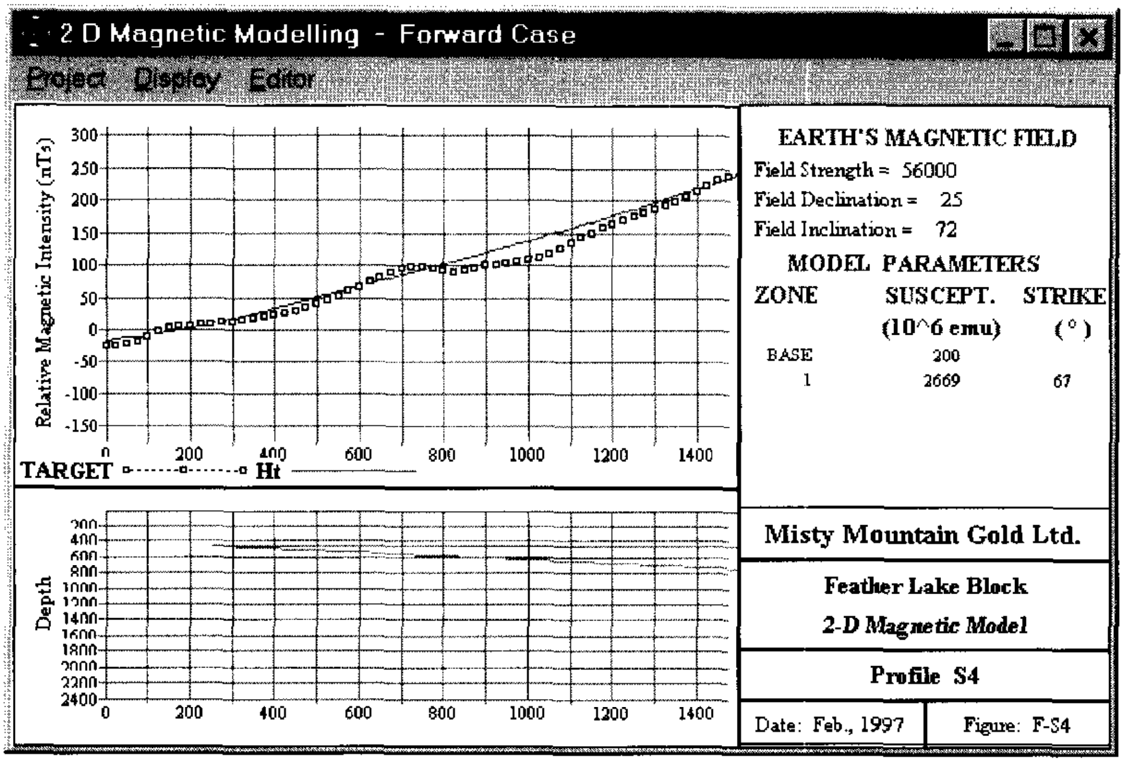
The model study suggests a similar source to the one modeled for profile S1 with a shallower (~ 49° NE) dip near the surface and a steeper (~ 74° NE) dip at depth.



Profile S4

This profile also crosses the Sandspit fault but is the reverse of the previous three model studies, with higher magnetic intensities observed to the north-east of the fault.

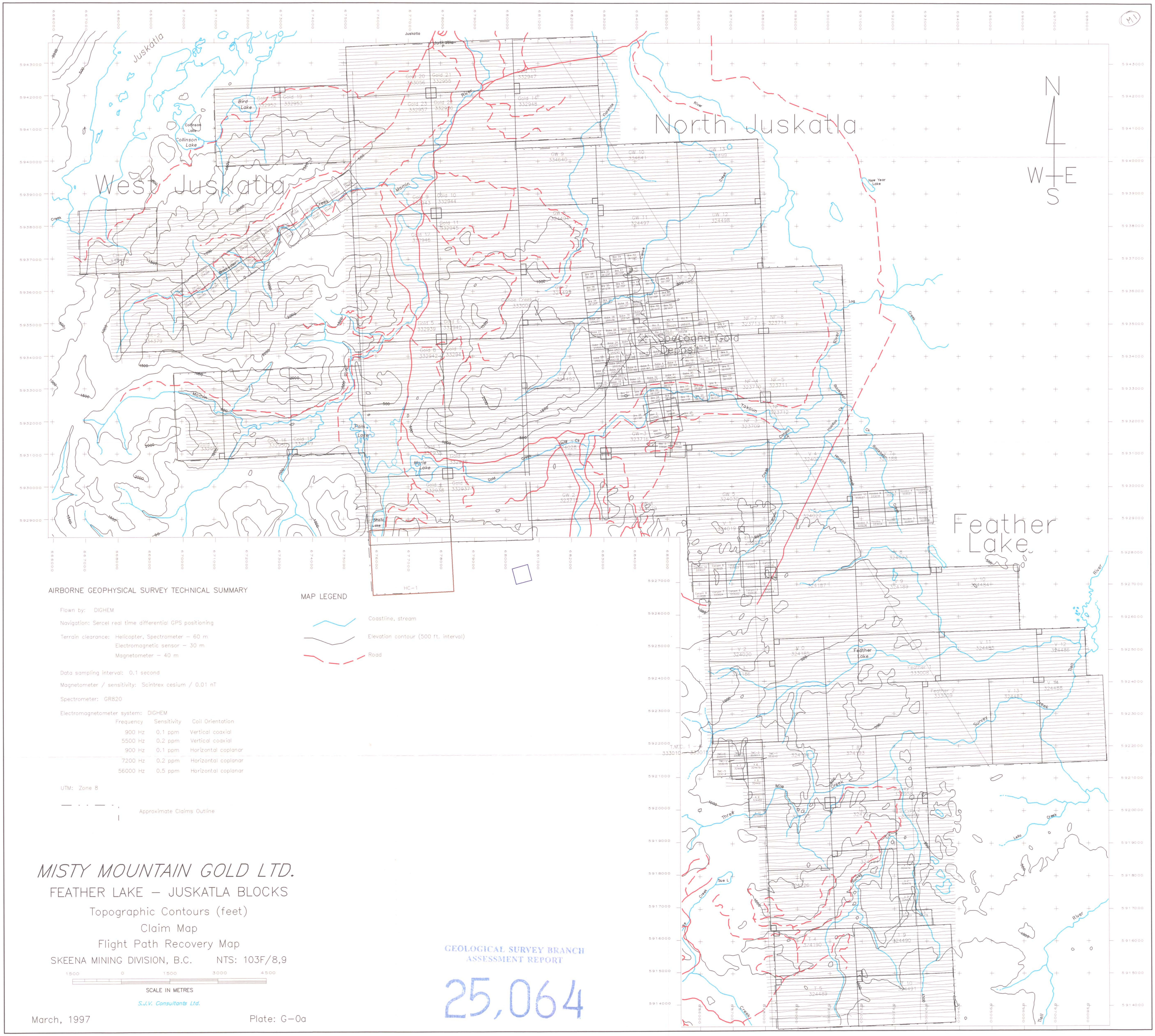
It is difficult to apply a simple model because the profile changes along strike. The best fit is obtained for the model of a thickening wedge of high susceptibility material to the NE. The undulations on the regional gradient are a result of near surface changes which have not been modeled.



Appendix 3

Geophysical Maps

Plate	Description
G-0a	Claim Map
	Flight Path Recovery Map
G-1a	Total Magnetic Field Intensity Contours (nT)
G-1b	Total Magnetic Field Intensity Contours (nT)
	Geophysical Interpretation
G-2a	EM Profile Map
	7200 Hz coplanar coils
	Geophysical Interpretation
G-3a	Calculated Resistivity Contours (ohm-m)
	(7200 Hz coplanar EM coils)
G-3b	Calculated Resistivity Contours (ohm-m)
	(7200 Hz coplanar EM coils)
	Geophysical Interpretation
G-4a	Potassium Isotope Contours (cps)
	Geophysical Interpretation
G-5a	Geophysical Compilation and Interpretation Map



AIRBORNE GEOPHYSICAL SURVEY TECHNICAL SUMMARY

Flown by: DIGHEM

Navigation: Sercel real time differential GPS positioning

Terrain clearance: Helicopter, Spectrometer – 60 m
Electromagnetic sensor – 30 m
Magnetometer – 40 m

Data sampling interval: 0.1 second

Magnetometer / sensitivity: Scintrex cesium / 0.01 nT

Spectrometer: GR820

Electromagnetometer system: DIGHEM

Frequency	Sensitivity	Coil Orientation
900 Hz	0.1 ppm	Vertical coaxial
5500 Hz	0.2 ppm	Vertical coaxial
900 Hz	0.1 ppm	Horizontal coplanar
7200 Hz	0.2 ppm	Horizontal coplanar
56000 Hz	0.5 ppm	Horizontal coplanar

UTM: Zone 8

Approximate Claims Outline

MAP LEGEND

Coastline, stream

Elevation contour (500 ft. interval)

Road

MISTY MOUNTAIN GOLD LTD.

FEATHER LAKE – JUSKATLA BLOCKS

Topographic Contours (feet)

Claim Map

Flight Path Recovery Map

SKEENA MINING DIVISION, B.C. NTS: 103F/8,9

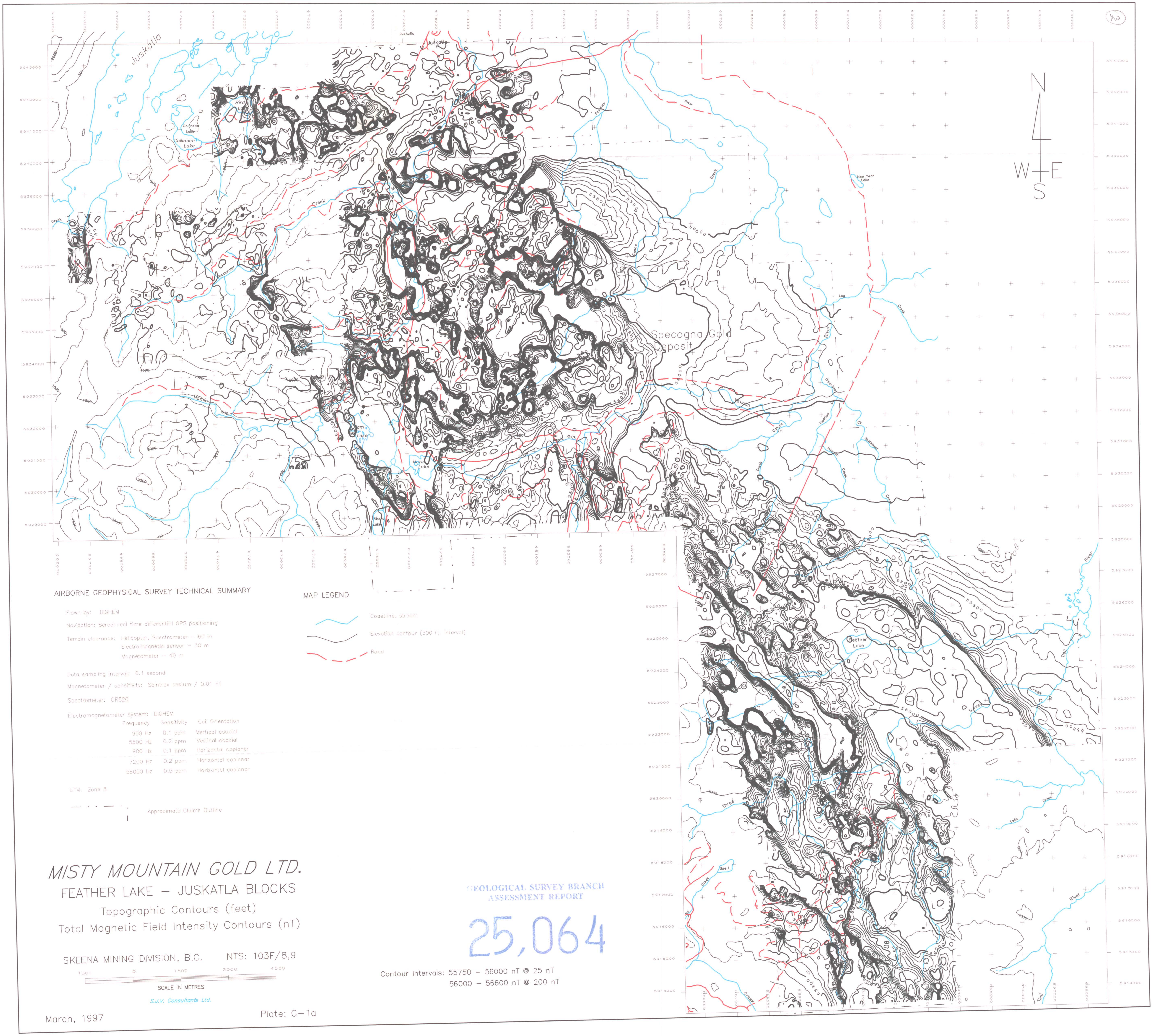
1500 0 1500 3000 4500

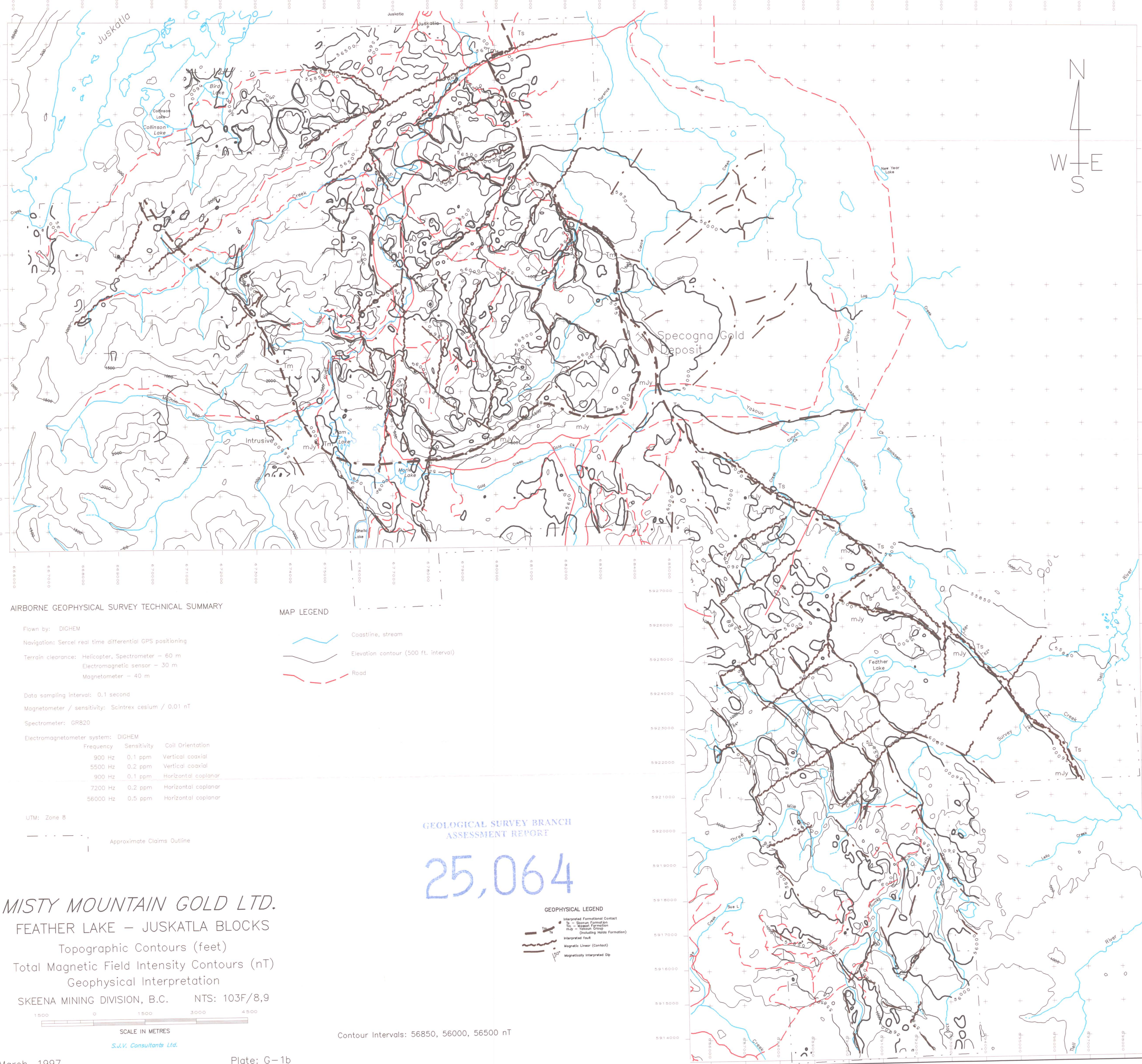
SCALE IN METRES

S.J.V. Consultants Ltd.

March, 1997

Plate: G–0a


AIRBORNE GEOPHYSICAL SURVEY TECHNICAL SUMMARY
Flown by: DIGHEM
Navigation: Sercel real time differential GPS positioning
Terrain clearance: Helicopter, Spectrometer – 60 m
Electromagnetic sensor – 30 m
Magnetometer – 40 m
Data sampling interval: 0.1 second
Magnetometer / sensitivity: Scintrex cesium / 0.01 nT
Spectrometer: GR820
Electromagnetometer system: DIGHEM
Frequency Sensitivity Coil Orientation
900 Hz 0.1 ppm Vertical coaxial
5500 Hz 0.2 ppm Vertical coaxial
900 Hz 0.1 ppm Horizontal coplanar
7200 Hz 0.2 ppm Horizontal coplanar
56000 Hz 0.5 ppm Horizontal coplanar
UTM: Zone 8
Approximate Claims Outline
MAP LEGEND
Coastline, stream
Elevation contour (500 ft. interval)
Road
Specogna Gold Deposit
Juskatla
Feather Lake
N
W E
S
MISTY MOUNTAIN GOLD LTD.
FEATHER LAKE – JUSKATLA BLOCKS
Topographic Contours (feet)
Total Magnetic Field Intensity Contours (nT)
SKEENA MINING DIVISION, B.C.
NTS: 103F/8,9
1500 0 1500 3000 4500
SCALE IN METRES
S.J.V. Consultants Ltd.
March, 1997
Plate: G–1a
GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT
25,064
Contour Intervals: 55750 – 56000 nT @ 25 nT
56000 – 56600 nT @ 200 nT



AIRBORNE GEOPHYSICAL SURVEY TECHNICAL SUMMARY

Flown by: DIGHEM

Navigation: Sercel real time differential GPS positioning

Terrain clearance: Helicopter, Spectrometer – 60 m
Electromagnetic sensor – 30 m
Magnetometer – 40 m

Data sampling interval: 0.1 second

Magnetometer / sensitivity: Scintrex cesium / 0.01 nT

Spectrometer: GR820

Electromagnetometer system: DIGHEM

Frequency	Sensitivity	Coil Orientation
900 Hz	0.1 ppm	Vertical coaxial
5500 Hz	0.2 ppm	Vertical coaxial
900 Hz	0.1 ppm	Horizontal coplanar
7200 Hz	0.2 ppm	Horizontal coplanar
56000 Hz	0.5 ppm	Horizontal coplanar

UTM: Zone 8

Approximate Claims Outline

MAP LEGEND

Coastline, stream

Elevation contour (500 ft. interval)

Road

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

25,064

GEOPHYSICAL LEGEND

Interpreted Formational Contact
Ts – Skonun Formation
Tm – Masset Formation
mJy – Yakoun Group
(including Haida Formation)

Interpreted fault

Magnetic Linear (Contact)

Magnetically Interpreted Dip

MISTY MOUNTAIN GOLD LTD.

FEATHER LAKE – JUSKATLA BLOCKS

Topographic Contours (feet)
Total Magnetic Field Intensity Contours (nT)
Geophysical Interpretation

SKEENA MINING DIVISION, B.C. NTS: 103F/8,9

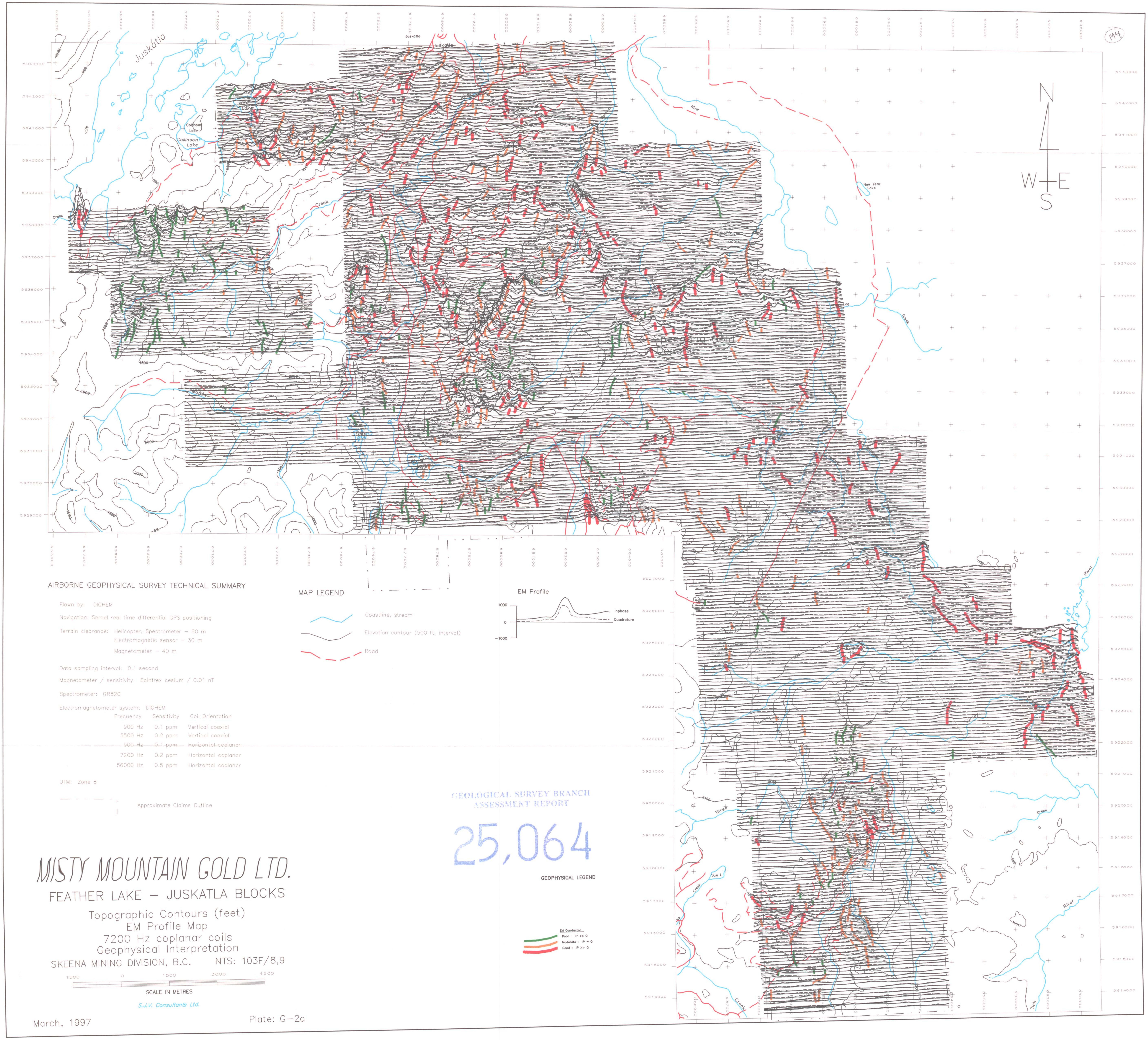
1500 0 1500 3000 4500
SCALE IN METRES

S.J.V. Consultants Ltd.

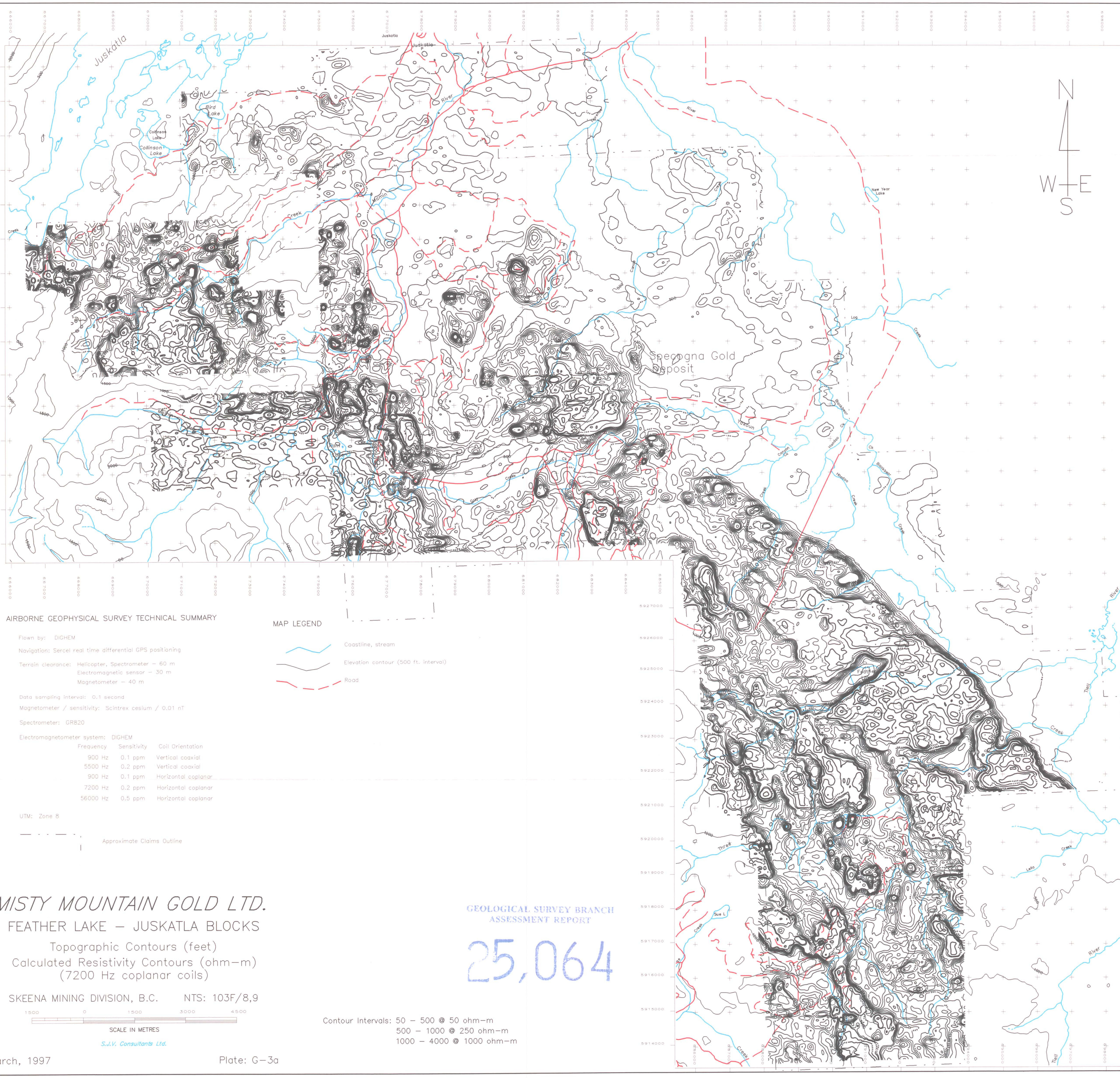
Contour Intervals: 56850, 56000, 56500 nT

March, 1997

Plate: G–1b



AIRBORNE GEOPHYSICAL SURVEY TECHNICAL SUMMARY
Flown by: DIGHEM
Navigation: Sercel real time differential GPS positioning
Terrain clearance: Helicopter, Spectrometer – 60 m
Electromagnetic sensor – 30 m
Magnetometer – 40 m
Data sampling interval: 0.1 second
Magnetometer / sensitivity: Scintrex cesium / 0.01 nT
Spectrometer: GR820
Electromagnetometer system: DIGHEM
Frequency Sensitivity Coil Orientation
900 Hz 0.1 ppm Vertical coaxial
5500 Hz 0.2 ppm Vertical coaxial
900 Hz 0.1 ppm Horizontal coplanar
7200 Hz 0.2 ppm Horizontal coplanar
56000 Hz 0.5 ppm Horizontal coplanar
UTM: Zone 8
Approximate Claims Outline
MAP LEGEND
Coastline, stream
Elevation contour (500 ft. interval)
Road
EM Profile
1000
0
–1000
Inphase
Quadrature
GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT
25,064
GEOPHYSICAL LEGEND
EM Conductor
Poor : IP << Q
Moderate : IP = Q
Good : IP >> Q
MISTY MOUNTAIN GOLD LTD.
FEATHER LAKE – JUSKATLA BLOCKS
Topographic Contours (feet)
EM Profile Map
7200 Hz coplanar coils
Geophysical Interpretation
SKEENA MINING DIVISION, B.C.
NTS: 103F/8,9
1500 0 1500 3000 4500
SCALE IN METRES
S.J.V. Consultants Ltd.
March, 1997
Plate: G-2a
N
W
E
S
M4
Juskatla
Collinson Lake
River
Creek
New Year Lake



AIRBORNE GEOPHYSICAL SURVEY TECHNICAL SUMMARY

Flown by: DIGHEM

Navigation: Sercel real time differential GPS positioning

Terrain clearance: Helicopter, Spectrometer – 60 m
Electromagnetic sensor – 30 m
Magnetometer – 40 m

Data sampling interval: 0.1 second

Magnetometer / sensitivity: Scintrex cesium / 0.01 nT

Spectrometer: GR820

Electromagnetometer system: DIGHEM

Frequency	Sensitivity	Coil Orientation
900 Hz	0.1 ppm	Vertical coaxial
5500 Hz	0.2 ppm	Vertical coaxial
900 Hz	0.1 ppm	Horizontal coplanar
7200 Hz	0.2 ppm	Horizontal coplanar
56000 Hz	0.5 ppm	Horizontal coplanar

UTM: Zone 8

Approximate Claims Outline

MAP LEGEND

Coastline, stream

Elevation contour (500 ft. interval)

Road

MISTY MOUNTAIN GOLD LTD.

FEATHER LAKE – JUSKATLA BLOCKS

Topographic Contours (feet)
Calculated Resistivity Contours (ohm–m)
(7200 Hz coplanar coils)

SKEENA MINING DIVISION, B.C. NTS: 103F/8,9

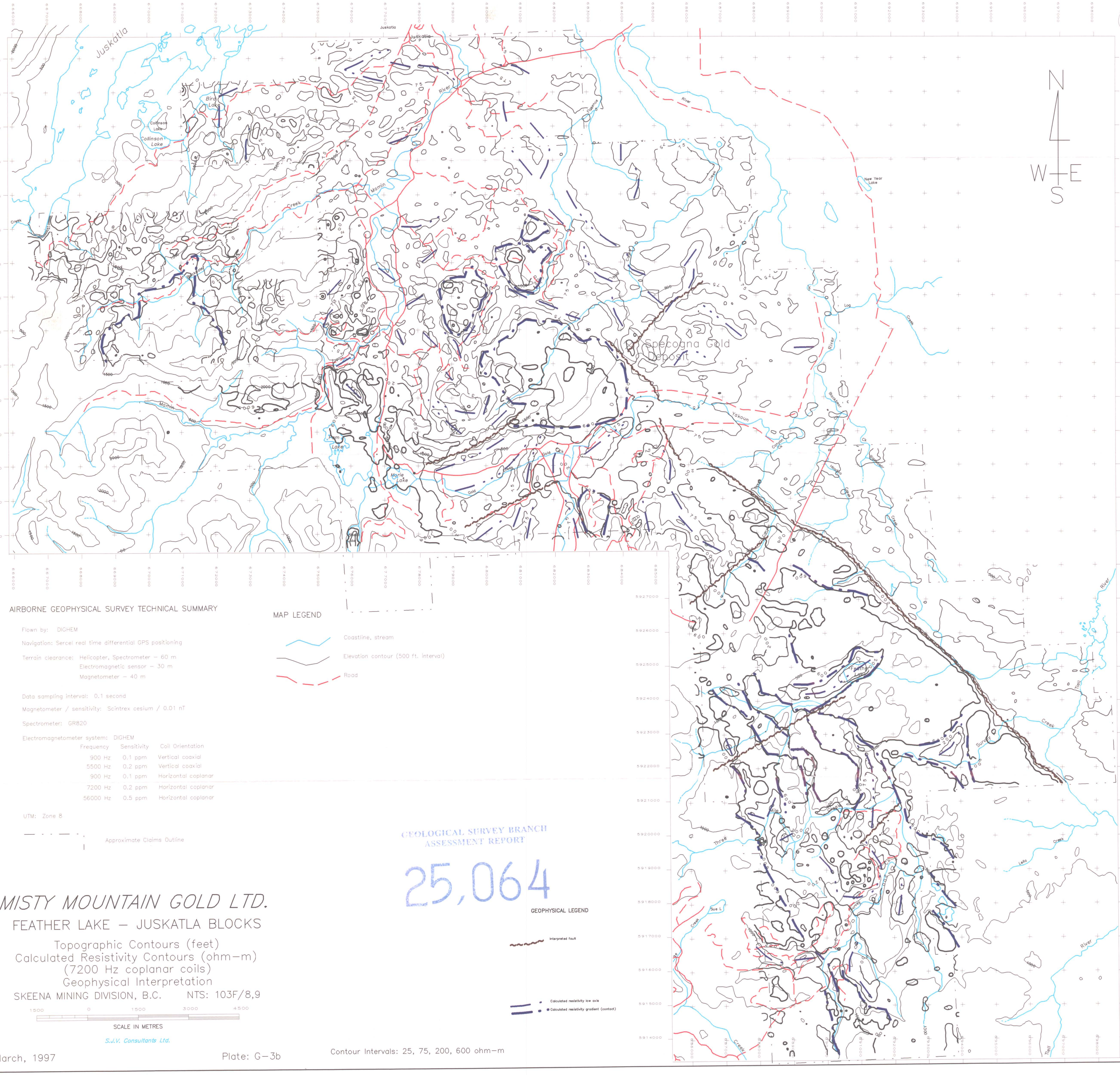
1500 0 1500 3000 4500
SCALE IN METRES

S.J.V. Consultants Ltd.

Contour Intervals: 50 – 500 @ 50 ohm–m
500 – 1000 @ 250 ohm–m
1000 – 4000 @ 1000 ohm–m

March, 1997

Plate: G–3a



AIRBORNE GEOPHYSICAL SURVEY TECHNICAL SUMMARY

Flown by: DIGHEM

Navigation: Sercel real time differential GPS positioning

Terrain clearance: Helicopter, Spectrometer – 60 m
Electromagnetic sensor – 30 m
Magnetometer – 40 m

Data sampling interval: 0.1 second

Magnetometer / sensitivity: Scintrex cesium / 0.01 nT

Spectrometer: GR820

Electromagnetometer system: DIGHEM

Frequency	Sensitivity	Coil Orientation
900 Hz	0.1 ppm	Vertical coaxial
5500 Hz	0.2 ppm	Vertical coaxial
900 Hz	0.1 ppm	Horizontal coplanar
7200 Hz	0.2 ppm	Horizontal coplanar
56000 Hz	0.5 ppm	Horizontal coplanar

UTM: Zone 8

Approximate Claims Outline

MAP LEGEND

Coastline, stream

Elevation contour (500 ft. interval)

Road

GEOPHYSICAL LEGEND

Interpreted fault

Calculated resistivity low axis

Calculated resistivity gradient (contact)

MISTY MOUNTAIN GOLD LTD.

FEATHER LAKE – JUSKATLA BLOCKS

Topographic Contours (feet)
Calculated Resistivity Contours (ohm–m)
(7200 Hz coplanar coils)
Geophysical Interpretation
SKEENA MINING DIVISION, B.C. NTS: 103F/8,9

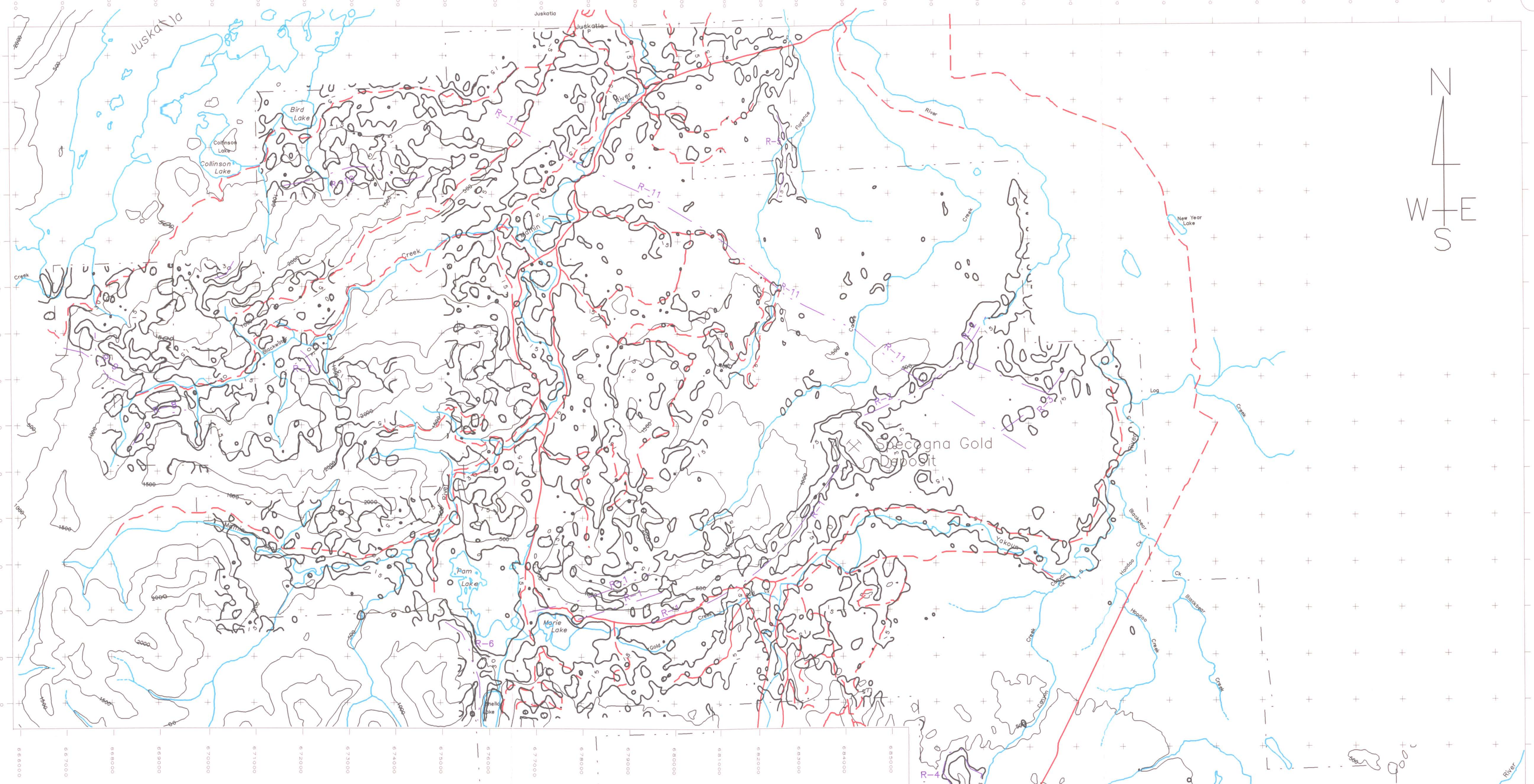
1500 0 1500 3000 4500
SCALE IN METRES

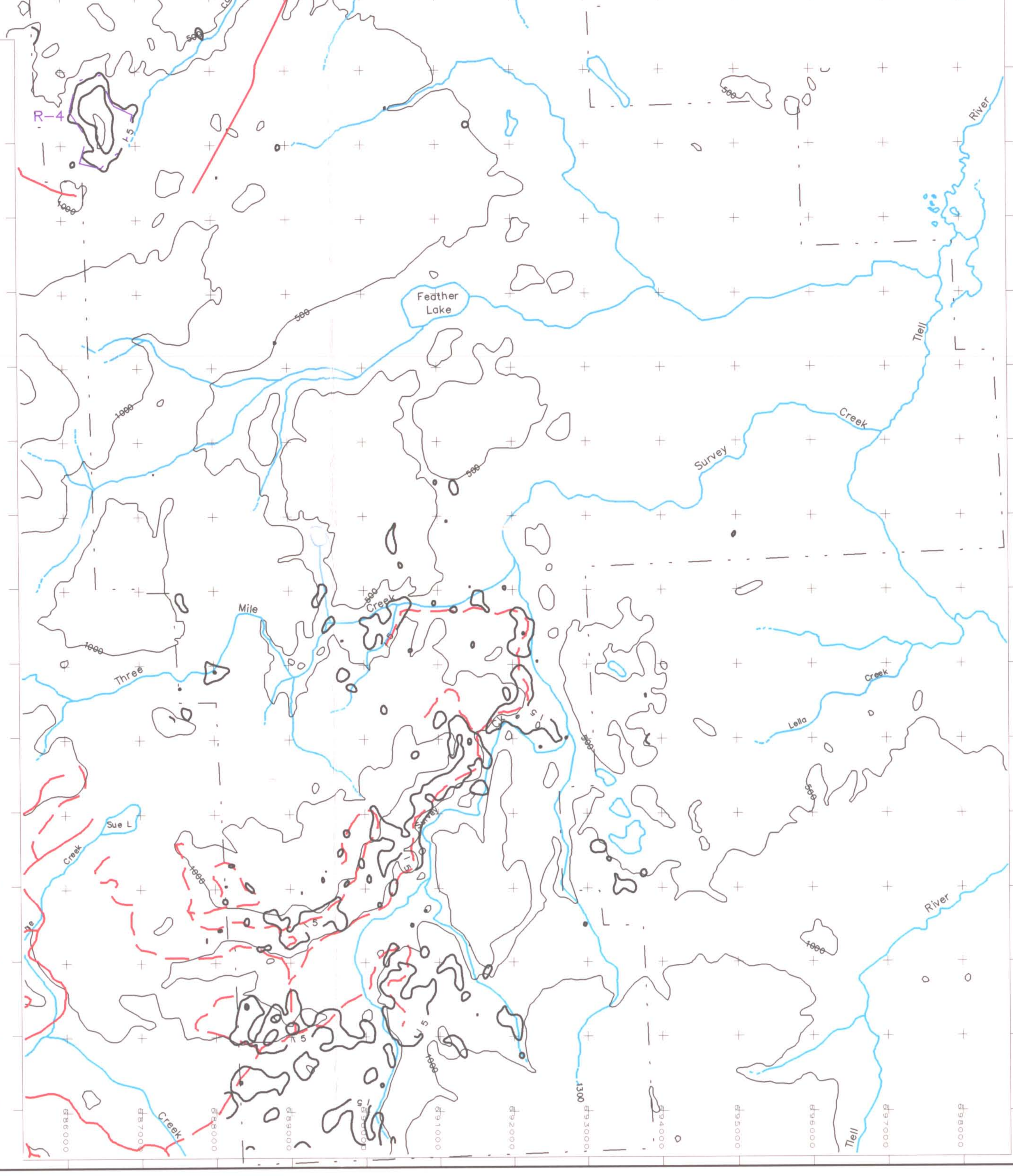
S.J.V. Consultants Ltd.

March, 1997

Plate: G–3b

Contour Intervals: 25, 75, 200, 600 ohm–m





AIRBORNE GEOPHYSICAL SURVEY TECHNICAL SUMMARY

Flown by: DIGHEM

Navigation: Sercel real time differential GPS positioning

Terrain clearance: Helicopter, Spectrometer – 60 m
Electromagnetic sensor – 30 m
Magnetometer – 40 m

Data sampling interval: 0.1 second

Magnetometer / sensitivity: Scintrex cesium / 0.01 nT

Spectrometer: GR820

Electromagnetometer system: DIGHEM

Frequency	Sensitivity	Coil Orientation
900 Hz	0.1 ppm	Vertical coaxial
5500 Hz	0.2 ppm	Vertical coaxial
900 Hz	0.1 ppm	Horizontal coplanar
7200 Hz	0.2 ppm	Horizontal coplanar
56000 Hz	0.5 ppm	Horizontal coplanar

UTM: Zone 8

Approximate Claims Outline

MAP LEGEND

Coastline, stream

Elevation contour (500 ft. interval)

Road

MISTY MOUNTAIN GOLD LTD.

FEATHER LAKE – JUSKATLA BLOCKS

Topographic Contours (feet)

Potassium Isotope Contours (cps)

Geophysical Interpretation

SKEENA MINING DIVISION, B.C. NTS: 103F/8,9

1500 0 1500 3000 4500

SCALE IN METRES

S.J.V. Consultants Ltd.

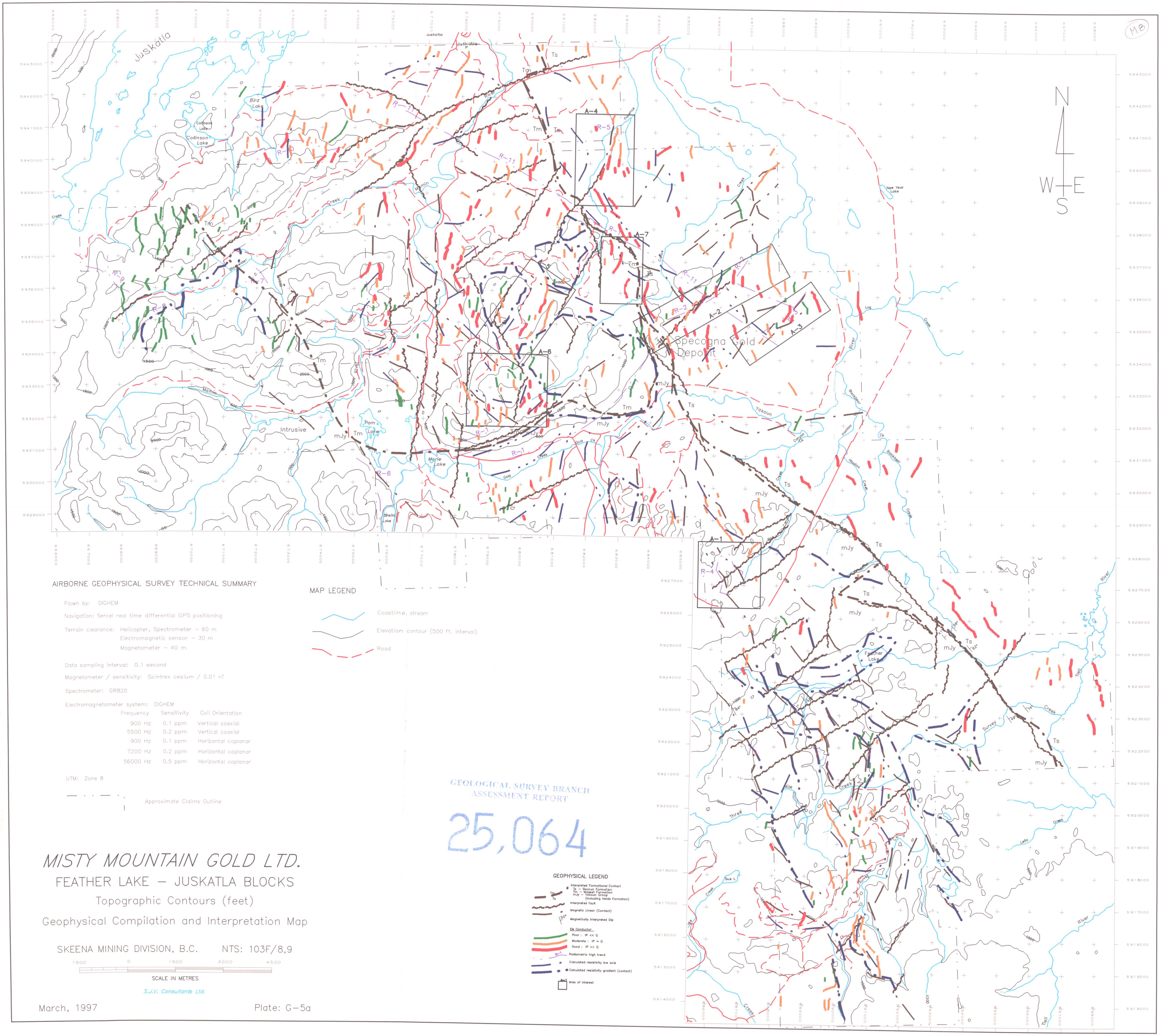
March, 1997

Plate: G–4a

GEOPHYSICAL LEGEND

Radiometric high trend

Contour Intervals: 15, 30 cps



AIRBORNE GEOPHYSICAL SURVEY TECHNICAL SUMMARY

Flown by: DIGHEM

Navigation: Sercel real time differential GPS positioning

Terrain clearance: Helicopter, Spectrometer – 60 m
Electromagnetic sensor – 30 m
Magnetometer – 40 m

Data sampling interval: 0.1 second

Magnetometer / sensitivity: Scintrex cesium / 0.01 nT

Spectrometer: GR820

Electromagnetometer system: DIGHEM

Frequency	Sensitivity	Coil Orientation
900 Hz	0.1 ppm	Vertical coaxial
5500 Hz	0.2 ppm	Vertical coaxial
900 Hz	0.1 ppm	Horizontal coplanar
7200 Hz	0.2 ppm	Horizontal coplanar
56000 Hz	0.5 ppm	Horizontal coplanar

UTM: Zone 8

Approximate Claims Outline

MAP LEGEND

Coastline, stream

Elevation contour (500 ft. interval)

Road

GEOPHYSICAL LEGEND

Interpreted Formational Contact
Ts – Skonun Formation
Tm – Masset Formation
mJy – Yakoun Group (including Haida Formation)

Interpreted fault

Magnetic Linear (Contact)

Magnetically Interpreted Dip

EM Conductor

Poor : IP << Q

Moderate : IP = Q

Good : IP >> Q

Radiometric high trend

Calculated resistivity low axis

Calculated resistivity gradient (contact)

Area of Interest

MISTY MOUNTAIN GOLD LTD.

FEATHER LAKE – JUSKATLA BLOCKS

Topographic Contours (feet)

Geophysical Compilation and Interpretation Map

SKEENA MINING DIVISION, B.C. NTS: 103F/8,9

1500 0 1500 3000 4500

SCALE IN METRES

S.J.V. Consultants Ltd.

March, 1997

Plate: G–5a