REPORT ON
COMBINED HELICOPTER BORNE
MAGNETIC, ELECTROMAGNETIC AND VLF
SURVEY
ANTLER CREEK/BARKERVILLE AREA
BRITISH COLUMBIA

LATITUDE: 52°58' NORTH LONGITUDE: 121°26' WEST
NTS: 93A/14W

OWNER: RISE RESOURCES INC.
OPERATOR: RISE RESOURCES INC.
CONTRACTOR: AERODAT LIMITED

PART 1 OF 2

J8770

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Consulting Geophysicist

February 19, 1988.

See next page for LIST OF CLAIMS SURVEYED.

LIST OF CLAIMS SURVEYED

CLAIMS	RECORD NUMBERS	UNITS	ANNIVERSARY
DAN	8545	20	July 20
C12	7890	14	August 26
DOWSETT	8204	20	January 02
LUKE	7831	20	August 05
MATT	7891	01	August 26
ORO	8205	20	January 02
AU3	3169	15	February 24
GEN FRANK	3183	20	March 03
HI RUN	3154	18	February 06
INDEPENDENCE	3168	20	February 20
SIL DOLLAR 1	6677	01	December 17
SIL DOLLAR 2	6678	01	December 17
SILVER DAWN 1	2056	01	October 21
SILVER DAWN 2	2057	01	October 21
SILVER DAWN 3	2058	01	October 21
SILVER DAWN 4	2059	01	October 21
SILVER LAY 1	2095	01	November 13
SILVER LAY 2	2096	01	November 13
SILVER LAY 3	2097	01	November 13
SILVER LAY 4	2098	01	November 13
SURE SHOT 1	4085	01	October 01
SURE SHOT 2	4086	01	October 01

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(Scale 1:10,000)

MAPS: (As listed under Appendix "B" of the Agreement)

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prepared from an uncontrolled photo laydown, showing registration crosses corresponding to NTS co-ordinates on survey maps.

2. FLIGHT LINE MAP;
showing all flight lines and fiducials.

3. AIRBORNE ELECTROMAGNETIC SURVEY INTERPRETATION MAP;
showing flight lines, fiducials conductor axes and anomaly peaks along with inphase amplitudes and conductivity thickness ranges for the 4600 Hz coaxial coil system.

4. TOTAL FIELD MAGNETIC CONTOURS;
showing magnetic values contoured at 2 nanoTesla intervals, flight lines and fiducials.

5. VERTICAL MAGNETIC GRADIENT CONTOURS;
showing magnetic gradient values contoured at 0.2 nanoTeslas per metre.

6. APPARENT RESISTIVITY CONTOURS;
showing contoured resistivity values, flight lines and fiducials.

7. VLF-EM TOTAL FIELD CONTOURS;
showing relative contours of the VLF Total Field response, flight lines and fiducials.

1. INTRODUCTION

This report describes an airborne geophysical survey carried out on behalf of Rise Resources Incorporated by Aerodat Limited. Equipment operated included a three frequency electromagnetic system, a high sensitivity cesium vapour magnetometer, a two frequency VLF-EM system, a film tracking camera, and an altimeter. Electromagnetic, magnetic and altimeter data were recorded both in digital and analog form.

The survey area, comprising a block of ground in the Cariboo Mining District of British Columbia, is located along the southern boundary of Bowron Provincial Forest and approximately 13 kilometres south-southeast of Barkerville, B.C. Four flights, which were flown between October 26 and 27, 1987, were required to complete the survey with flight lines oriented at an Azimuth of 045-225 degrees and flown at a nominal spacing of 100 metres. Coverage and data quality were considered to be well within the specifications described in the contract.

The survey objective is the detection and location of mineralized zones which can be directly or indirectly related to precious metal exploration targets. Of importance, therefore, are poorly mineralized conductors, displaying weak conductivity, which may represent structural features which can sometimes play an essential role in the eventual location of primary minerals.

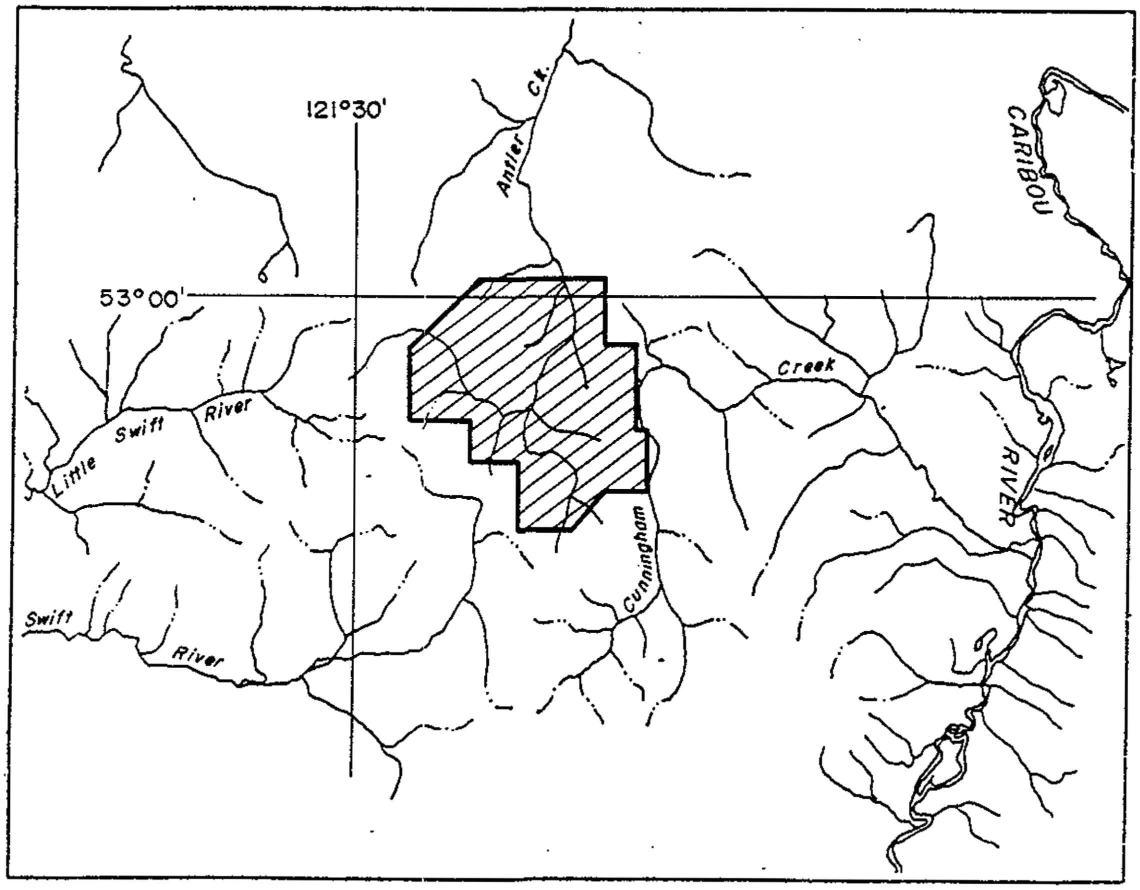
In regard to base metal targets, short, isolated or flanking conductors displaying good conductivity and having either magnetic or no magnetic correlation, are all considered to be areas of extreme interest.

A total of 419 kilometres of the recorded data were compiled in map form and are presented as part of this report according to specifications outlined by Rise Resources Incorporated.

2. SURVEY AREA LOCATION

The survey area is depicted on the index map shown. It is centred at Latitude 52 degrees 58.5 minutes north, Longitude 121 degrees 25 minutes west, approximately 13 kilometres south-southeast of Barkerville, British Columbia in the Cariboo Mining District of northern British Columbia (NTS Reference Map No. 93 A/14, 93H/3). There are no major highways leading into or traversing in close proximity to the survey area. A secondary road cuts through the middle of the survey area, in a north-south direction, traversing parallel to the Antler Creek. As well, another secondary road passes by the extreme east boundary and somewhat parallel to the Cunningham Creek. Referring to the photomosaic base map, it will be seen that lumbering has not taken place within the survey area. It will, therefore, be difficult to access most areas within the survey. Access by helicopter from the Town of Quesnel may be the only way.

The terrain is rough and hilly with a terrain elevation of 4,400 feet along Sawflat Creek and a peak of 6,000 feet near Antler Mountain.


121°30'
53°00'
Antler Ck.
CARIBOU
RIVER
Creek
Little Swift River
Swift River
Cunningham

3. AIRCRAFT AND EQUIPMENT

3.1 Aircraft

An Aerospatiale A-Star 350D helicopter, (C-GBBX), owned and operated by Ranger Helicopters Limited, was used for the survey. Installation of the geophysical and ancillary equipment was carried out by Aerodat. The survey aircraft was flown at a mean terrain clearance of 60 metres.

3.2 Equipment

3.2.1 Electromagnetic System

The electromagnetic system was an Aerodat 3-frequency system. Two vertical coaxial coil pairs were operated at 935 Hz and 4600 Hz and a horizontal coplanar coil pair at 4175 Hz. The transmitter-receiver separation was 7 metres. Inphase and quadrature signals were measured simultaneously for the 3 frequencies with a time constant of 0.1 seconds. The electromagnetic bird was towed 30 metres below the transmitter.

3.2.2 VLF-EM System

The VLF-EM System was a Herz Totem 2A. This instrument measures the total field and quadrature components of two selected transmitters, preferably oriented at right angles to one another. The sensor was towed in a bird 12 metres below the helicopter. The transmitters monitored were NLK, Jim Creek, Washington, broadcasting at 24.8 kHz for the Line station and NAA, Cutler, Maine broadcasting at 24.0 kHz for the Orthogonal station.

3.2.3 Magnetometer

The magnetometer employed a Scintrex Model VIW-2321 H8 cesium, optically pumped magnetometer sensor. The sensitivity of this instrument was 0.1 nanoTeslas at a 0.2 second sampling rate. The sensor was towed in a bird 12 metres below the helicopter.

3.2.4 Magnetic Base Station

An IFG-2 proton precession magnetometer was operated at the base of operations to record diurnal variations of the earth's magnetic field. The clock of the base station was synchronized with that of the airborne system to facilitate later correlation.

3.2.5 Radar Altimeter

A King Air HRA-100 radar altimeter was used to record terrain clearance. The output from the instrument is a linear function of altitude for maximum accuracy.

3.2.6 Tracking Camera

A Panasonic video tracking camera was used to record flight path on VHS video tape. The camera was operated in continuous mode and the fiducial numbers and time marks for cross reference to the analog and digital data were encoded on the video tape.

3.2.7 Analog Recorder

An RMS dot-matrix recorder was used to display the data during the survey. In addition to manual and time fiducials, the following data were recorded:

Channel	Input	Scale
CXI1	Low Frequency Coaxial Inphase	2 ppm/mm
CXQ1	Low Frequency Coaxial Quadrature	2 ppm/mm
CXI2	High Frequency Coaxial Inphase	2 ppm/mm
CXQ2	High Frequency Coaxial Quadrature	2 ppm/mm
CPI1	Mid Frequency Coplanar Inphase	8 ppm/mm
CPQ1	Mid Frequency Coplanar Quadrature	8 ppm/mm
PWRL	Power Line	60 Hz
VLT	VLF-EM Total Field, Line	2.5%/mm

Channel	Input	Scale
VLQ	VLF-EM Quadrature, Line	2.5%/mm
VOT	VLF-EM Total Field, Ortho	2.5%/mm
VOQ	VLF-EM Quadrature, Ortho	2.5%/mm
ALT	Altimeter	10 ft./mm
MAGF	Magnetometer, Fine	2.5 nT/mm
MAGC	Magnetometer, Coarse	25 nT/mm

3.2.8 Digital Recorder

A DGR 33 data system recorded the survey on magnetic tape. Information recorded was as follows:

Equipment	Recording Interval
EM system	0.1 seconds
VLF-EM	0.5 seconds
Magnetometer	0.2 seconds
Altimeter	1.0 seconds

4. DATA PRESENTATION

4.1 Base Map

A photomosaic base at a scale of 1:10,000 was prepared from a photo lay down map, supplied by Aerodat, on a screened mylar base.

4.2 Flight Path Map

The flight path was manually recovered onto the photomosaic base using the VHS video tape. The recovered points were then digitized, transformed to a local metric grid and merged with the data base. The flight path map showing all flight lines, is presented on a Cronaflex copy of the base map, with camera frame and navigator's manual fiducials for cross reference to both the analog and digital data.

4.3 Airborne Electromagnetic Survey Interpretation Map

The electromagnetic data were recorded digitally at a sample rate of 10 per second with a time constant of 0.1 seconds. A two stage digital filtering process was carried out to reject major sferic events and to reduce system noise.

Local sferic activity can produce sharp, large amplitude events that cannot be removed by conventional filtering procedures. Smoothing or stacking will reduce their amplitude but leave a broader residual response that can be confused with geological phenomena. To avoid this possibility, a computer algorithm searches out and rejects the major sferic events.

The signal to noise ratio was further enhanced by the application of a low pass digital filter. It has zero phase shift which prevents any lag or peak displacement from occurring, and it suppresses only variations with a wavelength less than about 0.25 seconds. This low effective time constant permits maximum profile shape resolution.

Following the filtering process, a base level correction was made. The correction applied is a linear function of time that ensures the corrected amplitude of the various inphase and quadrature components is zero when no conductive or permeable source is present. The filtered and levelled data were used in the interpretation of the electromagnetics.

An interpretation map was prepared showing peak locations of anomalies and conductivity thickness ranges along with the

Inphase amplitudes (computed from the 4600 Hz coaxial response) and conductor axes. The anomalous responses of the three coil configurations along with the interpreted conductor axes were plotted on a Cronaflex copy of the photo base map.

4.4 Total Field Magnetic Contours

The aeromagnetic data were corrected for diurnal variations by adjustment with the digitally recorded base station magnetic values. No correction for regional variation was applied. The corrected profile data were interpolated onto a regular grid at a 20 metre true scale interval using an Akima spline technique. The grid provided the basis for threading the presented contours at a 2 nanoTesla interval.

The contoured aeromagnetic data have been presented on a Cronaflex copy of the photomosaic base map.

4.5 Vertical Magnetic Gradient Contours

The vertical magnetic gradient was calculated from the gridded total field magnetic data. Contoured at a 0.2 nT/m interval, the gradient data were presented on a Cronaflex copy of the photomosaic base map.

4.6 Apparent Resistivity Contours

The electromagnetic information was processed to yield a map of the apparent resistivity of the ground.

The approach taken in computing apparent resistivity was to assume a model of a 200 metre thick conductive layer (i.e., effectively a half space) over a resistive bedrock. The computer then generated, from nomograms for this model, the resistivity that would be consistent with the bird elevation and recorded amplitude for the coplanar frequency pair used. The apparent resistivity profile data were interpolated onto a regular grid at a 20 metres true scale interval using an Akima spline technique.

The contoured apparent resistivity data were presented on a Cronaflex copy of the photomosaic base map with the flight path.

4.7 VLF-EM Total Field Contours

The VLF-EM signals from NLK, Jim Creek, Washington broadcasting at 24.8 kHz. for the Line Station were compiled in contour map form and presented on a Cronaflex copy of the photomosaic base map.

5. INTERPRETATION

5.1 Geology

There were no geology maps for the survey area available to the writer so that a geological-geophysical interpretation was not possible. However, a limited amount of interesting background was obtained from a paper by D.A. Barr, of DuPont of Canada Exploration Limited, titled 'Gold in the Canadian Cordillera', and taken from the Adams Club 8th Annual Special Symposium, 1979.

Most of the lode and placer gold production in the Canadian Cordillera has been derived from mines and placers in the Intermontane and Omineca Belts. Gold has been produced from rocks of Precambrian to Eocene age, the preferred host environment containing Upper Paleozoic to Upper Jurassic eugeosynclinal or arc-type sedimentary and volcanic rocks adjacent to plutonic complexes of varying size and composition. Auriferous quartz lodes occur in fissures and shear zones which are commonly subsidiary to strong fault zones. In common with most vein-type deposits, structural complexities are an essential part of the mine environment.

Two past producers, for their gold content, were the Cariboo Gold Quartz Mine and the Island Mountain Mine. Both of these mines are situated near the town of Wells in the Barkerville area, about 80 kilometres east of Quesnel in east-central British Columbia.

The area first attracted prospecting activity during the Cariboo gold rush in 1860 when rich placer gold was discovered in the district. Gold bearing quartz veins were discovered in the 1870's but initial lode gold production did not commence until 1933 at Cariboo Gold Quartz and 1934 at Island Mountain.

This may not be true within the survey area but the principal rocks in the mine area are sedimentary formations of the Cariboo Group of probable Lower Cambrian age. There are two formations, one being the Snowshoe Formation, which consists of micaceous quartzite, phyllite and a thin limestone and phyllite bed (Baker limestone beds). It conformably overlies the Midas Formation which consists of phyllite, slate, argillite, metasiltstone and thinly bedded limestone. The nearest intrusive rocks are sills and dykes which intrude the Cariboo Group and younger rocks.

There are numerous faults in the mine area and they play an important role in the formation of ore deposits.

The mineralogy of the quartz veins and replacement bodies is similar. Metallic minerals consist of auriferous pyrite and associated free gold with minor galena, sphalerite, cosalite, bismuthinite, scheelite, pyrrhotite, arsenopyrite and chalcopyrite. Commercial veins normally contained 15 to 25 percent of pyrite which assayed 1 to 2 ounces gold per ton or more. Replacement ore normally consisted of massive fine grained pyrite, the finest grained pyrite being the most auriferous, assaying as much as 5 ounces gold per ton. Gangue minerals are quartz, ankerite and muscovite in the veins and ankerite with some quartz in the replacement bodies. Both the Cariboo Gold Quartz Mine and Island Mountain Mine contained replacement ore.

Because of the proximity of the survey area to the Barkerville mining camp, it is possible that some of the aforementioned geological deliberations can be related to the geological prospective within the survey area.

Off the northeast edge of the survey boundary, there would appear to have been some workings related to gold placer mining. This is the area in close proximity to Wolf Creek. Another area is off the northern edge of the survey area, just north of Antler Mountain. The writer does not have any background for either of these areas but it may not be presumptuous to conclude that the source for these placer emplacements could be from higher ground close to Antler Mountain. To the southeast of the survey area, it is believed that Imperial Metals Corporation is carrying out an exploration program on what has been described as the Cunningham Creek zone. It is also known as the Cariboo Hudson mine. The mineralization is gold and silver within quartz veins and sulphide replacement zones.

It is understood that Lyon Lake Mines has plans to rehabilitate the former Mosquito Creek and Island Mountain properties which are located to the northwest of the survey area near Barkerville. The gold mineralization is thought to be contained within the Aurum limestone and the so-called Main Band limestone.

5.2 Magnetics

The high intensity magnetic features located in the northwest and eastern portions of the survey block are areas thought to be reflecting the density of intrusive rocks which intrude the Cariboo Group and younger rocks.

It is felt that several of the elongated magnetic features, which tend to be striking northwest-southeast, are related to dikes of some Cariboo Group and younger intrusive rocks. An observation in comparing the topographic map of the survey area and the magnetic map will reveal a good correlation or similarity. It is obvious that the inferred intrusive rocks, containing appreciable amounts of magnetite, are quite resis-tive.

Areas of lower magnetic intensity could be related to Midas Formation phyllite, slate, argillite, metasiltstone and thinly bedded limestone.

Structurally, the writer has indicated a few faults which seem to cross cut the geology as opposed to being stratigraphically related. There are definitely other areas of weakness within the survey area but an attempt to delineate them all is beyond the scope of this report.

5.3 Vertical Magnetic Gradient Contours

This presentation has clearly defined those areas mentioned previously, as well as delineating a somewhat northwest-southeast lithology. It seems to have "broken-up" into unique zones those areas that may be related to alteration zones containing a higher content of magnetite.

The boundaries of the inferred intrusive rocks near Antler Mountain and Nugget Mountain have been outlined with some degree of accuracy. As well, basic intrusive dikes and plug-like bodies have also been outlined.

As mentioned previously in Section 5.2, Magnetics, there is no question of the number of faults within the survey area. It is this type of data processing which enhances structural features such as faults, certainly much more so than the magnetic total field. As well, it is this structural effect which plays an important role in the formation of ore deposits.

It should also be noted that the zero contour interval coincides directly or very close to geological contacts. It is because of this phenomenon that the calculated vertical gradient map can be compared to a pseudo-geological map.

By using known or accurate geological information and combining this data with the vertical gradient data, one can use the presented map as a pseudo-geological map. Obviously, the more that is known about an area geologically, the closer this type of presentation is to what the rock types are.

5.4 Electromagnetics

The electromagnetic data was first checked by a line-by-line examination of the analog records. Record quality was good with minor noise levels on the low frequency coaxial trace. This was readily removed by an appropriate smoothing filter. Instrument noise was well within specifications. Geologic noise, in the form of surficial conductors, is present on the higher frequency responses and to a minor extent, on both the low frequency inphase and quadrature response.

Anomalies were picked off the analog traces of the low and high frequency coaxial responses and then validated on the coplanar profile data. These selections were then checked with a proprietary computerized selection program which can be adjusted for ambient and instrumental noise. The data were then edited and re-plotted on a copy of the profile map. This procedure ensured that every anomalous response spotted on the analog data was plotted on the final map and allowed for the rejection - or inclusion if warranted - of obvious surficial conductors. Each conductor or group of conductors was evaluated on the bases of magnetic (and lithologic, where applicable) correlations apparent on the analog data and man made or surficial features not obvious on the analog charts.

RESULTS

As a result of this airborne survey being carried out, it is very clear that the entire area, with few exceptions, is overlain by a thin layer of conductive overburden. If one assumes a constant level of conductivity, throughout the survey area, then changes in amplitude, especially with the high frequency quadrature response, can be related to a thickening or thinning of the overburden cover.

There is no question of the abrupt change in the electromagnetic response for the eastern portion of the survey block. Not having access to any geological information for this particular area, it is difficult for the writer, at this point in time, to interpret the source for this high conductivity. It would appear, at first glance, that it is not related to the magnetics, as the zone of high conductivity is correlating with both magnetic highs as well as magnetic lows. There is a small degree of comparison between the magnetics and the high conductivity. If this was to be the case, then the magnetics, in this area, is not related to previously mentioned intrusive rocks as was the case near Antler Mountain. It is not likely that conductive overburden is the source. Could the source be from pyrite and graphite within a phyllite, slate, argillite and limestone geological horizon? There may be pyrrhotite involved as well, as there is excellent magnetic correlation for some of the trends. It is also not a source that can be attributable to conductive overburden. Otherwise, other areas within the survey would display similar responses.

The comment has been made that commercial veins containing gold ore normally contained 15 to 25 percent of pyrite which assayed 1 to 2 ounces of gold per ton. It is also known that pyrrhotite exists within these horizons as well. However, it is probably not as prevalent as the pyrite.

As mentioned, the writer has outlined several bedrock conductors on the map and have been designated on the interpretation map with a number, as a reference only. Not having access to any detailed geological maps, it is impossible for the writer to give any geological - geophysical deliberations on these targets. There are also some weaker conductive trends on the EM map where the writer feels further work is definitely warranted. Again, not having access to any geology maps makes it difficult to render an informative correlation with the geophysical responses.

In reference to the target numbers designated on the map, the writer has assigned numbers to the same conductors which were intercepted in an airborne survey flown for Rise Resources Inc. in February, 1987.

A few comments follow.

Zone 1 is definitely an isolated target displaying a reasonable electromagnetic response. Its association with a magnetic low suggests that perhaps pyrite is the source. It may be related to the same source as that which is the host for Zone 4. Zone 2 is a conductor having reasonably good conductivity but with no magnetic association. In fact, the trend is quite close to the flank of a magnetic feature suggesting a possible relationship with a geological contact. The EM responses are somewhat indicating a wide conductor. Zones 3 and 4 display weak electromagnetic responses and both are correlating with magnetic lows. The broadness of the EM responses for Zone 3 may be due to the flight line having been flown at an oblique angle to the strike of the conductor. Zone 4 is not due to creek bottom silts and is definitely related to a bedrock source.

The EM anomalies for both Zones 5 and 6 display similar responses. They each have broad, low amplitude responses with no magnetic association. Reconnaissance surveys are warranted. Zone 7 displays good conductivity and is correlating with a magnetic high which has an intensity in the order of 60 gammas. Could pyrrhotite be the source? The writer suspects that Zone

7 may be an offset of Zone 29 as a result of a fault zone. Both the electromagnetic responses and the magnetics are similar for both zones.

Zones 8 and 9 display fair to poor conductivity and do not appear to have any magnetic association. The south end of Zone 8 may have been affected by the interpreted major fault zone. A similar relationship can be applied for Zone 9. Any further work on Zone 12 should be carried out in the vicinity of intercept 360K. It displays fair conductivity and has reasonable amplitude. The conductor does not seem to have any direct magnetic association.

Zone 14 displays a fair to poor electromagnetic response but one that is definitely related to a bedrock source. Zone 16 displays very poor conductivity. A bedrock source is thought to be the cause of Zone 19. It is correlating with a magnetic low suggesting that pyrite is the source. Zones 20 and 21 are weak conductors with only Zone 20 having any magnetic association. Zone 20 may also be associated with a fault zone. Zones 23, 25 and 26 display fair to poor conductivity and it is suspected that the northern portion of Zone 26 should be given further attention while in the field.

Zones 28 and 29 are thought to be the same conductor but have been offset by a fault zone. As well, as mentioned earlier, the southern end of Zone 29 may be the offset portion of Zone 7. This is something that should be kept in mind when following up on both conductors. A dip to the north is suspected. Zone 30 is a weak conductor but is considered to be bedrock related.

Zones 31 to 33 are all considered to be related to bedrock conductors. There is no magnetic association with Zone 31, however, there are subtle magnetic features with Zones 32 and 33. Zones 31, 32 and 33 may have been affected by fault zones.

Zones 34 to 37 all display weak amplitude electromagnetic responses, however, they still represent bedrock conductors. Interestingly enough, each conductor has fair magnetic association suggesting that pyrrhotite may be the source. Fault zones seem to have played an important role in the structural make-up of the area and this fact alone makes these conductors quite interesting.

Zones 38 to 43 are all weak conductors each having good magnetic association, except for Zone 40. The latter would seem to be correlating with the flank of a magnetic trend suggesting a relationship with a geological contact.

Zones 44 to 51 are long, linear trends each displaying fair to good conductivity. In some cases, there is good magnetic correlation. The writer wonders if any or all of these conductors are related to the same source that is the cause of the wide band of conductivity to the east. As well, has faulting played a major role? Reconnaissance surveys are warranted for each of the conductors.

Zone 52 displays quite a weak electromagnetic response and one that is correlating with a geological contact. Could it be the same geological horizon as that for Zone 1?

Zones 53 and 54 display similar EM characteristics, that is, weak and relatively broad responses. For both zones, there is no magnetic association. These are certainly low priority targets.

Towards the western portion of the survey block, in a region of low magnetic activity, four conductors have been outlined. Zones 55 and 56 display the better conductivity and in each case, there is a subtle magnetic trend correlating. There is no magnetic association at all with either Zones 57 or 58. It is believed that the conductors, especially Zones 55 and 56, are dipping towards the south-southwest.

Zone 59 may be associated with the same source as that for Zone 20. There is good magnetic correlation. The EM response is rather broad and this may be due to the flight line being at an oblique angle to the strike of the conductor. Zone 60 is an extremely poor conductor.

Zone 61 is quite a poor conductor which seems to be correlating with the peak of a magnetic trend. A mineralized zone containing pyrrhotite may be the source. Zones 62 and 63 display somewhat better electromagnetic responses but do not seem to have any magnetic association. Much the same synopsis can be made for Zones 64 and 65.

It is interesting to note the number of conductors involved in the area of high intensity magnetics towards the northwest, an area previously described as being an intrusive. Could it be that this area is not an intrusive but a large metasedimentary iron formation? Or could these conductors be related to fracture zones or alteration zones containing sulphides within an intrusive complex?

Zone 66 is an extremely poor conductor having no magnetic association. It is quite possible that it is related to the same geological environment as that for Zone 31. Zone 67 is an isolated anomaly displaying a fair EM response and also having a subtle magnetic feature associated with it.

Zones 68 and 69 are both bedrock conductors displaying reasonable conductivity. There is no magnetic association. It is also thought that the two conductors are caused by a bedrock source which is completely different from that which is the cause of the high conductivity to the east. However, Zones 70 and 71 may be related to this high conductivity source, even though they are located near the contact of this environment.

The writer has interpreted Zone 72 as one long conductor.

However, it is quite possible that two separate trends are involved here. Note the magnetic low on line 200. It is possible that a flight recovery problem exists here. A reconnaissance survey is definitely warranted.

Note the relationship between some of the fault zones and the conductors. As mentioned previously in Section 5.1, these structural features may play an important role in the deposition of economic mineralization. It is also clear that auriferous quartz lodes occur in fissures and shear zones which are commonly subsidiary to stronger fault zones. This should be kept in mind when investigating the electrical conductors, both the stronger trends as well as the weaker ones.

5.5 Apparent Resistivity

The apparent resistivity contour map gives a fair depiction of the surficial resistivities over the survey area and provides, in some areas, an additional method of assessing the various lithological units. Using all existing geological information, one can correlate some of this data with the apparent resistivity contour map to derive a pseudo-geological map of the area.

Besides outlining the known bedrock conductors, this presentation has also outlined what appears to be creek bottom silts. As well, the eastern portion of the survey block which displays exceptionally high conductivity is outlined quite clearly in the apparent resistivity presentation. It is perhaps this map presentation which most clearly defines the boundaries or extent of this highly conductive environment.

In general, the resistivity values are quite high throughout the survey area indicating both a resistive basement rock type as well as a rather resistive overburden cover.

5.6 VLF-EM Total Field

The VLF data shows only faint correlation with the magnetics. The general strike direction of the bedrock units in this area tends to be northwest-southeast whereas the VLF-EM data tends to be oriented more north-south. In certain areas, there is fair correlation between the VLF data and the frequency EM anomalies. However, in a good many areas, there does not appear to be any similarities whatsoever.

In the area of the extremely high conductive environment, there is only fair correlation. In fact, along the western edge of this horizon, the VLF actually shows up as a VLF low where there are EM anomalies. So this again points out to the dissimilarities between the two sets of data.

After further studies of the VLF data, it may be found that the data may present some interesting structural features such as fault zones. Poorly mineralized faults or shear zones may respond to the VLF systems, although the resolution of the airborne system versus the ground VLF system is naturally not as good. However, major events can be detected.

Another interesting observation is the correlation between the VLF and apparent resistivity data with the river bottom and creek bottom silts. In both cases, a low value signature prevails. This seems to be a contradiction and is quite puzzling to the writer. According to the VLF, it suggests that surrounding areas away from the creeks and rivers are more conductive than the rivers and creeks themselves which is which is opposite to what the apparent resistivity indicates.

It is believed that the VLF lows along the rivers and creeks are a result of a topographic effect, where the VLF signals are extremely weak in the valleys and a little stronger on the mountain peaks. VLF tends to be an awkward system when operated in the mountains.

5.7 Recommendations

It is strongly recommended to the client that a complete and comprehensive evaluation be made of the magnetic data and especially the calculated vertical gradient magnetic data. All available geological information should be obtained, either through geological maps, diamond drill holes or through the assessment files. Once such information is obtained, a broad scale geological map should be compiled and then, in reference to the calculated vertical gradient magnetic map, a reasonable pseudo-geological map can then be prepared.

Further structural information should also be obtained through a more comprehensive evaluation of both the VLF and magnetic data. Strike slip faults are extremely important with respect to any mineralogical controls and as such, the development of these structures through interpreting the magnetic data, will be strongly advised. Cross cutting faults are evident throughout the survey area and these too will play an important role in any future ground follow-up.

It is suggested that the assessment of the magnetics should be made before any serious follow-up of the electrical conductors is made. This will certainly make things easier, once a pseudo-geological map has been established.

In regards to structural effects, it is recommended that one should pay particular attention to fault zones, whether they be strike slip or cross-cutting, that are in close proximity to felsic intrusives. These may have been the channels for migration for any auriferous materials where the intrusive may have acted as the host. Therefore, any of the conductors in close proximity to these intrusives should be investigated. Soil geochemical sampling could be carried out in areas of strong conductivity and high intensity magnetics. If results are encouraging, then an induced polarization (IP) survey is recommended. Make sure ground cut lines are at least 200 metres on either side of the interpreted conductor.

Within most of the survey area, there is a thin, sometimes thick, layer of conductive overburden, especially in areas near the rivers and creeks. There may have been some areas where this has hampered the detection of bedrock conductors.

However, for the most part, this has not been a problem. There are a number of anomalies which displayed rather broad EM responses. It is quite possible that depth to the top of the conductors may have contributed to this type of response.

Any ground follow-up on any of the conductors, should be carried out utilizing either a Genie EM or Max Min EM system, possibly with a 150 metre cable. It should be remembered that in areas of highly conductive overburden, one should be using as low a frequency as possible, while in highly resistive areas, the tendency is to go with as high a frequency as possible. It should also be remembered that the longer the cable length that is used, the less the resolution that is achieved. However, if one is going after a conductor that is deep, then this is the cable to use. Once a conductor is found, it may be worthwhile to try a shorter cable in order to establish any continuity of multiple conductors. It is also suggested that if one cannot locate a well defined airborne anomaly, one should resort to changing the cable lengths.

As mentioned previously, gold has been produced from rocks of Precambrian to Eocene age, the preferred host environment containing Upper Paleozoic to Upper Jurassic eugeosynclinal or arc-type sedimentary and volcanic rocks adjacent to plutonic complexes of varying size and composition. Also, auriferous quartz lodes occur in fissures and shear zones which are commonly subsidiary to strong fault zones.

The writer has given brief comments on most conductors and it is within this area of the report where the client will establish some feeling for the type of conductor referred to.

There is no question of the existence of bedrock conductors within the survey area. It is a matter of using all resources, including geophysics, drill information and the compilation of a pseudo-geological map. Geochemical soil sampling may render additional information, for some areas, that will lead to an exciting exploration program.

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February 12, 1988

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APPENDIX I

GENERAL INTERPRETIVE CONSIDERATIONS

Electromagnetic

The Aerodat three frequency system utilizes two different transmitter-receiver coil geometries. The traditional coaxial coil configuration is operated at two widely separated frequencies and the horizontal coplanar coil pair is operated at a frequency approximately aligned with one of the coaxial frequencies.

The electromagnetic response measured by the helicopter system is a function of the "electrical" and "geometrical" properties of the conductor. The "electrical" property of a conductor is determined largely by its electrical conductivity, magnetic susceptibility and its size and shape; the "geometrical" property of the response is largely a function of the conductor's shape and orientation with respect to the measuring transmitter and receiver.

Electrical Considerations

For a given conductive body the measure of its conductivity or conductance is closely related to the measured phase shift between the received and transmitted electromagnetic field. A small phase shift indicates a relatively high conductance, a large phase shift lower conductance. A small phase shift results in a large inphase to quadrature ratio and a large phase shift a low ratio. This relationship is shown quantitatively for a non-magnetic vertical half-plane model on the accompanying phasor diagram. Other physical models will show the same trend but different quantitative relationships.

The phasor diagram for the vertical half-plane model, as presented, is for the coaxial coil configuration with the amplitudes in parts per million (ppm) of the primary field as measured at the response peak over the conductor. To assist the interpretation of the survey results the computer is used to identify the apparent conductance and depth at selected anomalies. The results of this calculation are presented in table form in Appendix II and the conductance and inphase amplitude are presented in symbolized form on the map presentation.

The conductance and depth values as presented are correct only as far as the model approximates the real geological situation. The actual geological source may be of limited length, have significant dip, may be strongly magnetic, its conductivity and thickness may vary with depth and/or strike and adjacent bodies and overburden may have modified the response. In general the conductance estimate is less affected by these limitations than is the depth estimate, but both should be considered as relative rather than absolute guides to the anomaly's properties.

Conductance in mhos is the reciprocal of resistance in ohms and in the case of narrow slab-like bodies is the product of electrical conductivity and thickness.

Most overburden will have an indicated conductance of less than 2 mhos; however, more conductive clays may have an apparent conductance of say 2 to 4 mhos. Also in the low conductance range will be electrolytic conductors in faults and shears.

The higher ranges of conductance, greater than 4 mhos, indicate that a significant fraction of the electrical conduction is electronic rather than electrolytic in nature. Materials that conduct electronically are limited to certain metallic sulphides and to graphite. High conductance anomalies, roughly 10 mhos or greater, are generally limited to sulphide or graphite bearing rocks.

Sulphide minerals, with the exception of such ore minerals as sphalerite, cinnabar and stibnite, are good conductors; sulphides may occur in a disseminated manner that inhibits electrical conduction through the rock mass. In this case the apparent conductance can seriously underrate the quality of the conductor in geological terms. In a similar sense the relatively non-conducting sulphide minerals noted above may be present in significant consideration in association with minor conductive sulphides, and the electromagnetic response only relate to the minor associated mineralization. Indicated conductance is also of little direct significance for the identification of gold mineralization. Although gold is highly conductive, it would not be expected to exist in sufficient quantity to create a recognizable anomaly, but minor accessory sulphide mineralization could provide a useful indirect indication.

In summary, the estimated conductance of a conductor can provide a relatively positive identification of significant sulphide or graphite mineralization; however, a moderate to low conductance value does not rule out the possibility of significant economic mineralization.

Geometrical Considerations

Geometrical information about the geologic conductor can often be interpreted from the profile shape of the anomaly. The change in shape is primarily related to the change in inductive coupling among the transmitter, the target, and the receiver.

In the case of a thin, steeply dipping, sheet-like conductor, the coaxial coil pair will yield a near symmetric peak over the conductor. On the other hand, the coplanar coil pair will pass through a null couple relationship and yield a minimum over the conductor, flanked by positive side lobes. As the dip of the conductor decreased from vertical, the coaxial anomaly shape changes only slightly, but in the case of the coplanar coil pair the side lobe on the down dip side strengthens relative to that on the up dip side.

As the thickness of the conductor increases, induced current flow across the thickness of the conductor becomes relatively significant and complete null coupling with the coplanar coils is no longer possible. As a result, the apparent minimum of the coplanar response over the conductor diminishes with increasing thickness, and in the limiting case of a fully 3 dimensional body or a horizontal layer or half-space, the minimum disappears completely.

A horizontal conducting layer such as overburden will produce a response in the coaxial and coplanar coils that is a function of altitude (and conductivity if not uniform). The profile shape will be similar in both coil configurations with an amplitude ratio (coplanar:coaxial) of about 4:1*.

In the case of a spherical conductor, the induced currents are confined to the volume of the sphere, but not relatively restricted to any arbitrary plane as in the case of a sheet-like form. The response of the coplanar coil pair directly over the sphere may be up to 8* times greater than that of the coaxial pair.

In summary, a steeply dipping, sheet-like conductor will display a decrease in the coplanar response coincident with the peak of the coaxial response. The relative strength of this coplanar null is related inversely to the thickness of the conductor; a pronounced null indicates a relatively thin conductor. The dip of such a conductor can be inferred from the relative amplitudes of the side-lobes.

Massive conductors that could be approximated by a conducting sphere will display a simple single peak profile form on both coaxial and coplanar coils, with a ratio between the coplanar to coaxial response amplitudes as high as 8*.

Overburden anomalies often produce broad poorly defined anomaly profiles. In most cases, the response of the coplanar coils closely follows that of the coaxial coils with a relative amplitude ratio of 4*.

Occasionally, if the edge of an overburden zone is sharply defined with some significant depth extent, an edge effect will occur in the coaxial coils. In the case of a horizontal conductive ring or ribbon, the coaxial response will consist of two peaks, one over each edge; whereas the coplanar coil will yield a single peak.

* It should be noted at this point that Aerodat's definition of the measured ppm unit is related to the primary field sensed in the receiving coil without normalization to the maximum coupled (coaxial configuration). If such normalization were applied to the Aerodat units, the amplitude of the coplanar coil pair would be halved.

Magnetics

The Total Field Magnetic Map shows contours of the total magnetic field, uncorrected for regional variation. Whether an EM anomaly with a magnetic correlation is more likely to be caused by a sulphide deposit than one without depends on the type of mineralization. An apparent coincidence between an EM and a magnetic anomaly may be caused by a conductor which is also magnetic, or by a conductor which lies in close proximity to a magnetic body. The majority of conductors which are also magnetic are sulphides containing pyrrhotite and/or magnetite. Conductive and magnetic bodies in close association can be, and often are, graphite and magnetite. It is often very difficult to distinguish between these cases. If the conductor is also magnetic, it will usually produce an EM anomaly whose general pattern resembles that of the magnetics. Depending on the magnetic permeability of the conducting body, the amplitude of the inphase EM anomaly will be weakened, and if the conductivity is also weak, the inphase EM anomaly may even be reversed in sign.

VLF Electromagnetics

The VLF-EM method employs the radiation from powerful military radio transmitters as the primary signals. The magnetic field associated with the primary field is elliptically polarized in the vicinity of electrical conductors. The Herz Totem uses three coils in the X, Y, Z configuration to measure the total field and vertical quadrature component of the polarization ellipse.

The relatively high frequency of VLF (15-25) kHz provides high response factors for bodies of low conductance. Relatively "disconnected" sulphide ores have been found to produce measureable VLF signals. For the same reason, poor conductors such as sheared contacts, breccia zones, narrow faults, alteration zones and porous flow tops normally produce VLF anomalies. The method can therefore be used effectively for geological mapping. The only relative disadvantage of the method lies in its sensitivity to conductive overburden. In conductive ground the depth of exploration is severely limited.

The effect of strike direction is important in the sense of the relation of the conductor axis relative to the energizing electromagnetic field. A conductor aligned along a radius drawn from a transmitting station will be in a maximum coupled orientation and thereby produce a stronger response than a similar conductor at a different strike angle. Theoretically, it would be possible for a conductor, oriented tangentially to the transmitter to produce no signal. The most obvious effect of the strike angle consideration is that conductors favourably oriented with respect to the transmitter location and also near perpendicular to the flight direction are most clearly rendered and usually dominate the map presentation.

The total field response is an indicator of the existence and position of a conductivity anomaly. The response will be a maximum over the conductor, without any special filtering, and strongly favour the upper edge of the conductor even in the case of a relatively shallow dip.

The vertical quadrature component over steeply dipping sheet-like conductor will be a cross-over type response with the cross-over closely associated with the upper edge of the conductor.

The response is a cross-over type due to the fact that it is the vertical rather than total field quadrature component that is measured. The response shape is due largely to geometrical rather than conductivity considerations and the distance between the maximum and minimum on either side of the cross-over is related to target depth. For a given target geometry, the larger this distance the greater the depth.

The amplitude of the quadrature response, as opposed to shape is function of target conductance and depth as well as the conductivity of the overburden and host rock. As the primary field travels down to the conductor through conductive material it is both attenuated and phase shifted in a negative sense. The secondary field produced by this altered field at the target also has an associated phase shift. This phase shift is positive and is larger for relatively poor conductors. This secondary field is attenuated and phase shifted in a negative sense during return travel to the surface. The net effect of these 3 phase shifts determine the phase of the secondary field sensed at the receiver.

A relatively poor conductor in resistive ground will yield a net positive phase shift. A relatively good conductor in more conductive ground will yield a net negative phase shift. A combination is possible whereby the net phase shift is zero and the response is purely in-phase with no quadrature component.

A net positive phase shift combined with the geometrical cross-over shape will lead to a positive quadrature response on the side of approach and a negative on the side of departure. A net negative phase shift would produce the reverse. A further sign reversal occurs with a 180 degree change in instrument orientation as occurs on reciprocal line headings. During digital processing of the quadrature data for map presentation this is corrected for by normalizing the sign to one of the flight line headings.

APPENDIX II

ANOMALY LIST

E.M. ANOMALY LIST - BARKERVILLE/ANTLER CREEK AREA, B.C.

FLIGHT	LINE	ANOMALY	CATEGORY	AMPLITUDE (PPM) INPHASE	AMPLITUDE (PPM) QUAD.	CONDUCTOR CTP MHOS	CONDUCTOR DEPTH MTRS	BIRD HEIGHT MTRS
4	10	A	1	8.3	6.0	1.4	4	59
4	10	B	1	9.5	6.5	1.6	6	54
4	10	C	0	3.8	3.3	0.8	22	54
4	20	A	0	6.5	8.1	0.6	7	47
4	20	B	1	11.2	11.0	1.0	18	32
4	20	C	0	17.9	21.8	0.9	4	34
4	20	D	0	8.3	18.1	0.3	8	28
4	20	E	0	4.8	12.3	0.1	11	28
4	20	F	0	9.6	10.8	0.8	10	39
4	20	G	1	11.2	7.6	1.7	10	47
4	20	H	0	5.7	6.4	0.6	0	62
4	30	A	0	3.9	3.5	0.8	2	74
4	30	B	0	3.7	3.2	0.8	18	59
4	30	C	1	6.1	5.1	1.0	7	59
4	30	D	0	4.0	4.1	0.6	12	58
4	40	A	0	3.9	4.9	0.4	13	51
4	40	B	0	1.4	2.8	0.1	28	43
4	40	C	1	7.4	5.5	1.3	11	53
4	40	D	0	4.7	4.6	0.7	0	67
4	50	A	0	7.5	9.0	0.6	21	31
4	50	B	1	5.8	4.2	1.2	13	58
4	50	C	2	5.5	2.1	3.0	18	64
4	50	D	0	7.2	8.2	0.7	16	38
4	50	E	1	18.3	13.8	1.8	5	41
4	50	F	0	5.4	5.9	0.6	12	49
4	60	A	0	7.0	10.5	0.4	0	52
4	60	B	1	7.2	5.0	1.4	14	52
4	60	C	0	4.8	4.8	0.7	23	44
4	60	D	1	8.0	5.3	1.6	22	43
4	60	E	1	5.2	4.2	1.0	4	66
4	70	A	0	5.1	5.7	0.6	18	44
4	70	B	0	9.0	9.5	0.9	22	30
4	80	A	0	14.0	25.6	0.5	0	36
4	80	B	0	6.1	5.4	0.9	21	44
4	80	C	0	3.3	6.1	0.2	10	45
4	90	A	0	7.2	18.8	0.2	4	30

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

E.M. ANOMALY LIST - BARKERVILLE/ANTLER CREEK AREA, B.C.

FLIGHT	LINE	ANOMALY	CATEGORY	AMPLITUDE (PPM) INPHASE	QUAD.	CONDUCTOR CTP MHOS	DEPTH MTRS	BIRD HEIGHT MTRS
4	90	B	0	6.3	5.9	0.9	5	57
4	90	C	0	6.4	7.1	0.7	21	37
4	90	D	1	12.0	10.7	1.2	18	33
4	90	E	0	10.2	11.0	0.9	0	51
4	100	A	0	6.1	7.8	0.5	5	49
4	100	B	1	6.5	3.7	1.8	25	47
4	110	A	0	6.5	6.2	0.9	24	37
4	110	B	0	13.4	16.5	0.8	0	42
4	120	A	1	13.9	13.1	1.2	12	35
4	120	B	1	18.3	18.9	1.2	5	35
4	120	C	1	3.3	2.1	1.2	36	53
4	120	D	0	4.4	4.2	0.7	29	41
4	130	A	2	3.8	1.4	2.8	56	38
4	130	B	0	6.9	6.7	0.9	19	41
4	130	C	1	4.4	2.3	1.8	33	51
4	130	D	1	21.4	16.0	1.9	7	37
4	130	E	2	22.2	14.1	2.4	5	40
4	130	F	1	16.0	11.8	1.8	8	41
3	140	A	2	17.7	10.6	2.4	5	45
3	140	B	1	16.7	12.8	1.7	7	40
3	140	C	1	14.0	13.0	1.2	8	39
3	140	D	0	3.9	3.7	0.7	24	49
3	140	E	1	4.7	3.8	1.0	13	60
3	140	F	0	7.2	10.3	0.5	21	27
3	140	G	1	7.3	4.8	1.5	30	37
3	150	A	2	6.1	2.8	2.4	34	43
3	150	B	0	7.2	6.9	0.9	17	42
3	150	C	1	5.7	3.9	1.3	28	44
3	150	D	3	29.8	13.0	4.5	14	30
3	150	E	3	23.1	8.8	4.9	1	49
3	150	F	1	9.1	6.8	1.4	3	57
3	160	A	0	11.2	12.3	0.9	18	30
3	160	B	3	32.5	12.7	5.3	4	40
3	160	C	3	43.1	18.0	5.3	0	44
3	160	D	0	9.3	12.4	0.6	15	30
3	160	E	0	4.5	3.7	0.9	15	59
3	160	F	1	5.1	4.1	1.0	23	48
3	170	A	1	8.3	6.6	1.2	19	42

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

E.M. ANOMALY LIST - BARKERVILLE/ANTLER CREEK AREA, B.C.

FLIGHT	LINE	ANOMALY	CATEGORY	AMPLITUDE (PPM) INPHASE	AMPLITUDE (PPM) QUAD.	CONDUCTOR CTP MHOS	CONDUCTOR DEPTH MTRS	BIRD HEIGHT MTRS
3	170	B	2	12.2	5.5	3.2	5	55
3	170	C	1	5.8	4.5	1.1	22	47
3	170	D	0	8.8	12.3	0.6	16	30
3	170	E	0	6.2	9.6	0.4	15	33
3	170	F	0	7.6	8.0	0.8	13	43
3	170	G	1	15.3	14.0	1.3	6	40
3	170	H	1	16.6	12.2	1.8	9	39
3	170	J	3	26.9	9.6	5.6	2	45
3	170	K	3	27.9	9.9	5.7	4	42
3	180	A	0	4.1	5.1	0.5	22	41
3	180	B	2	22.5	12.1	3.1	13	34
3	180	C	2	29.0	14.3	3.7	0	44
3	180	D	3	37.2	16.2	4.8	7	35
3	180	E	3	40.2	15.7	5.7	11	29
3	180	F	3	32.0	11.4	6.0	14	31
3	180	G	1	13.6	9.1	1.9	20	34
3	180	H	1	10.0	10.0	1.0	1	50
3	180	J	0	4.2	7.7	0.2	2	48
3	180	K	0	5.6	5.8	0.7	18	44
3	180	M	0	5.8	7.7	0.5	12	42
3	190	A	1	5.2	3.0	1.6	2	76
3	190	B	1	5.9	3.4	1.7	9	66
3	190	C	0	2.9	5.3	0.2	0	58
3	190	D	0	12.3	13.3	0.9	22	25
3	190	E	0	4.8	7.1	0.4	21	34
3	190	F	2	16.6	8.7	2.9	13	40
3	190	G	3	15.9	6.4	4.1	10	46
3	190	H	3	14.3	4.5	5.5	14	46
3	190	J	3	12.4	3.5	6.1	0	68
3	190	K	3	12.8	4.2	5.0	0	62
3	190	M	3	12.0	3.8	5.1	6	57
3	190	N	1	6.8	4.8	1.4	32	35
3	200	A	1	9.2	6.7	1.5	21	39
3	200	B	3	18.2	6.3	5.2	6	49
3	200	C	2	24.5	13.6	3.0	2	44
3	200	D	3	29.6	11.0	5.5	0	49
3	200	E	3	28.7	13.0	4.2	7	38
3	200	F	2	13.1	5.2	3.9	26	35
3	200	G	2	16.6	6.9	3.9	12	43
3	200	H	3	29.4	12.1	4.8	12	33
3	200	J	2	27.6	14.2	3.5	13	31
3	200	K	0	7.4	13.7	0.3	7	34

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

E.M. ANOMALY LIST - BARKERVILLE/ANTLER CREEK AREA, B.C.

FLIGHT	LINE	ANOMALY	CATEGORY	AMPLITUDE (PPM) INPHASE	QUAD.	CONDUCTOR CTP MHOS	DEPTH MTRS	BIRD HEIGHT MTRS
3	200	M	1	4.4	2.3	1.8	26	58
3	200	N	1	5.8	3.2	1.8	13	63
3	210	A	0	6.0	8.7	0.4	6	45
3	210	B	1	5.8	4.2	1.2	27	44
3	210	C	1	6.3	4.7	1.2	18	49
3	210	D	0	8.3	8.3	0.9	20	35
3	210	E	0	2.9	5.1	0.2	7	52
3	210	F	3	15.7	5.6	4.8	14	44
3	210	G	3	22.1	8.0	5.2	13	38
3	210	H	3	17.7	6.0	5.3	19	36
3	210	J	3	13.8	4.8	4.7	22	38
3	210	K	2	13.3	5.6	3.6	14	46
3	210	M	3	20.6	7.6	5.0	1	51
3	210	N	3	24.1	8.6	5.4	4	45
3	220	A	0	10.3	12.6	0.7	34	13
3	220	B	0	12.5	15.1	0.8	34	9
3	220	C	1	21.8	23.7	1.2	6	31
3	220	D	1	22.2	25.6	1.1	4	32
3	220	E	3	33.2	11.2	6.5	7	37
3	220	F	3	26.9	9.8	5.5	11	36
3	220	G	3	24.7	11.0	4.1	18	30
3	220	H	3	17.6	5.1	6.5	19	37
3	220	J	3	17.5	4.4	7.9	19	38
3	220	K	3	23.6	7.8	6.0	12	38
3	220	M	3	22.4	6.8	6.6	16	35
3	220	N	0	8.1	9.1	0.7	17	35
3	220	O	0	6.7	10.3	0.4	6	41
3	220	P	1	6.0	4.6	1.1	26	42
3	220	Q	1	8.1	5.1	1.7	25	41
3	220	R	1	8.6	5.6	1.7	23	40
3	230	A	3	12.7	4.0	5.3	9	53
3	230	B	0	4.1	5.7	0.4	9	51
3	230	C	0	3.1	5.4	0.2	14	44
3	230	D	0	1.8	6.7	0.0	18	25
3	230	E	0	4.8	7.1	0.4	22	32
3	230	F	0	8.0	7.8	0.9	24	33
3	230	G	0	5.1	6.0	0.6	26	35
3	230	H	1	7.5	5.9	1.2	18	45
3	230	J	2	14.6	7.5	2.8	22	34
3	230	K	3	22.4	7.5	5.8	13	38
3	230	M	3	32.5	10.0	7.3	9	36
3	230	N	3	38.8	14.6	5.9	13	28

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

E.M. ANOMALY LIST - BARKERVILLE/ANTLER CREEK AREA, B.C.

FLIGHT	LINE	ANOMALY	CATEGORY	AMPLITUDE (PPM) INPHASE	QUAD.	CONDUCTOR CTP MHOS	DEPTH MTRS	BIRD HEIGHT MTRS
3	230	O	3	40.4	16.1	5.5	17	24
3	230	P	2	34.0	17.1	3.8	14	28
3	230	Q	3	25.3	9.8	5.0	9	39
3	230	R	3	22.3	9.4	4.2	4	45
3	230	S	3	34.6	10.9	7.2	0	46
3	230	T	1	8.0	4.8	1.8	25	42
3	230	U	1	9.7	8.2	1.2	7	48
3	240	A	0	14.0	16.1	0.9	25	17
3	240	B	3	76.3	30.9	6.6	4	29
3	240	C	4	96.9	34.9	8.2	0	33
3	240	D	3	46.7	22.9	4.4	10	27
3	240	E	3	30.3	11.1	5.6	7	38
3	240	F	3	25.1	11.1	4.1	10	37
3	240	G	3	23.6	9.8	4.4	13	36
3	240	H	3	38.2	12.3	7.2	6	36
3	240	J	3	27.3	10.0	5.5	15	32
3	240	K	1	7.7	4.5	1.9	21	46
3	240	M	0	6.8	6.4	0.9	15	45
3	240	N	0	2.7	3.6	0.3	22	49
3	240	O	0	2.5	5.1	0.1	20	37
3	240	P	0	4.5	8.4	0.2	10	39
3	240	Q	0	3.6	6.3	0.2	4	51
3	240	R	2	11.9	7.5	2.0	16	41
3	250	A	0	4.0	4.3	0.6	19	50
3	250	B	0	6.4	7.9	0.6	4	50
3	250	C	0	5.4	5.8	0.7	21	41
3	250	D	1	9.1	5.9	1.7	20	43
3	250	E	0	6.3	5.9	0.9	3	59
3	250	F	2	9.8	5.1	2.4	24	40
3	250	G	2	13.2	5.6	3.5	17	42
3	250	H	3	28.1	9.6	6.1	17	30
3	250	J	2	29.1	18.6	2.7	14	28
3	250	K	3	30.6	10.9	5.9	9	36
3	250	M	3	39.9	14.8	6.0	7	34
3	250	N	3	38.5	14.8	5.7	3	39
3	250	O	3	37.6	12.3	7.0	0	44
3	250	P	4	71.3	21.2	9.6	0	34
3	250	Q	4	61.4	19.6	8.4	5	31
3	250	R	1	10.5	9.5	1.1	20	33
3	260	A	1	17.5	12.5	1.9	16	32
3	260	B	3	26.9	10.0	5.3	12	35
3	260	C	3	27.8	9.0	6.5	6	41

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

E.M. ANOMALY LIST - BARKERVILLE/ANTLER CREEK AREA, B.C.

FLIGHT	LINE	ANOMALY	CATEGORY	AMPLITUDE (PPM) INPHASE	AMPLITUDE (PPM) QUAD.	CONDUCTOR CTP MHOS	CONDUCTOR DEPTH MTRS	BIRD HEIGHT MTRS
3	260	D	3	45.0	14.9	7.3	0	40
3	260	E	3	57.4	19.9	7.4	1	35
3	260	F	3	51.0	19.0	6.5	9	29
3	260	G	3	31.0	10.7	6.2	13	32
3	260	H	3	16.3	6.2	4.4	17	39
3	260	J	2	13.1	6.2	3.0	20	39
3	260	K	2	16.1	9.1	2.6	21	31
3	260	M	2	6.4	3.2	2.2	28	46
3	260	N	2	5.4	2.7	2.0	32	47
3	270	A	0	5.7	5.1	0.9	17	49
3	270	B	0	6.1	5.8	0.8	22	41
3	270	C	1	4.9	3.0	1.5	20	58
3	270	D	2	12.4	5.3	3.4	20	41
3	270	E	2	10.4	5.5	2.4	18	44
3	270	F	3	13.0	5.0	4.0	17	44
3	270	G	3	18.2	5.8	5.8	10	45
3	270	H	4	24.2	6.3	8.3	0	59
3	270	J	4	27.3	6.9	9.0	0	59
3	270	K	3	27.6	7.8	7.8	0	53
3	270	M	3	36.3	11.4	7.3	6	37
3	270	N	3	20.2	6.8	5.6	12	41
3	270	O	3	22.3	7.1	6.2	9	43
3	270	P	1	15.4	12.1	1.6	10	38
3	270	Q	1	10.6	9.1	1.2	22	32
3	280	A	1	8.1	7.4	1.0	25	33
3	280	B	3	21.6	6.1	7.2	10	42
3	280	C	3	32.4	9.8	7.4	7	38
3	280	D	3	41.2	14.6	6.5	11	30
3	280	E	3	36.6	14.9	5.2	7	35
3	280	F	3	33.8	13.7	5.1	5	38
3	280	G	3	44.7	16.4	6.4	0	41
3	280	H	3	49.5	16.5	7.4	2	36
3	280	J	3	41.2	13.2	7.4	6	35
3	280	K	2	19.7	10.3	3.0	18	32
3	280	M	2	13.7	9.0	2.0	14	39
3	280	N	3	23.8	10.6	4.0	17	31
3	280	O	0	4.3	5.4	0.5	10	52
3	290	A	0	3.2	5.4	0.2	29	29
3	290	B	1	7.5	6.5	1.1	26	34
3	290	C	2	12.2	6.8	2.4	18	40
3	290	D	1	8.4	6.6	1.3	18	42
3	290	E	3	29.8	11.1	5.5	8	38

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E.M. ANOMALY LIST - BARKERVILLE/ANTLER CREEK AREA, B.C.

FLIGHT	LINE	ANOMALY	CATEGORY	AMPLITUDE (PPM) INPHASE	AMPLITUDE (PPM) QUAD.	CONDUCTOR CTP MHOS	CONDUCTOR DEPTH MTRS	BIRD HEIGHT MTRS
3	290	F	3	51.3	16.4	7.9	0	39
3	290	G	3	58.1	20.8	7.1	0	42
3	290	H	3	36.6	17.6	4.2	17	23
3	290	J	3	35.2	16.2	4.4	10	31
3	290	K	3	34.2	11.2	6.8	4	40
3	290	M	3	34.2	11.2	6.8	6	38
3	300	A	1	14.7	11.7	1.5	10	39
3	300	B	1	15.4	12.1	1.6	16	33
3	300	C	3	27.3	9.3	6.0	6	41
3	300	D	3	34.8	10.6	7.5	1	43
3	300	E	4	37.8	11.0	8.2	5	38
3	300	F	3	28.1	12.7	4.2	7	38
3	300	G	3	21.1	7.3	5.4	0	52
3	300	H	4	20.2	5.1	8.2	0	61
3	300	J	3	29.0	13.4	4.1	0	46
3	300	K	0	8.3	10.1	0.7	19	31
3	300	M	1	11.6	11.8	1.0	13	35
3	300	N	0	14.4	16.3	0.9	18	25
3	300	O	0	4.2	8.0	0.2	15	34
3	310	A	0	5.9	10.1	0.3	2	45
3	310	B	0	9.9	10.8	0.8	22	28
3	310	C	0	8.8	8.6	0.9	20	35
3	310	D	2	44.8	27.3	3.3	3	33
3	310	E	3	53.0	23.4	5.2	16	20
3	310	F	3	19.9	5.9	6.6	2	51
3	310	G	3	30.6	12.4	5.0	4	41
3	310	H	2	26.4	16.6	2.6	7	36
3	310	J	2	27.5	17.2	2.7	7	36
3	310	K	2	28.7	14.4	3.7	4	40
3	310	M	3	45.9	19.7	5.2	6	33
3	310	N	3	62.7	26.0	6.0	10	25
2	320	A	3	28.1	11.8	4.6	12	33
2	320	B	3	54.0	19.3	7.0	11	26
2	320	C	3	66.9	26.0	6.6	12	22
2	320	D	3	53.1	26.1	4.6	11	24
2	320	E	2	21.3	10.8	3.3	12	37
2	320	F	3	34.5	13.9	5.2	9	34
2	320	G	3	38.3	16.3	5.0	11	30
2	320	H	3	31.0	11.1	5.9	3	42
2	320	J	2	23.9	11.9	3.5	14	34
2	320	K	2	22.3	10.7	3.6	14	34
2	320	M	0	5.3	4.7	0.9	27	41

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E.M. ANOMALY LIST - BARKERVILLE/ANTLER CREEK AREA, B.C.

FLIGHT	LINE	ANOMALY	CATEGORY	AMPLITUDE (PPM) INPHASE	QUAD.	CONDUCTOR CTP MHOS	DEPTH MTRS	BIRD HEIGHT MTRS
2	320	N	0	5.2	5.9	0.6	24	37
2	320	O	0	3.1	5.6	0.2	2	55
2	330	A	0	3.3	6.3	0.2	19	35
2	330	B	0	7.8	11.1	0.5	0	49
2	330	C	0	5.3	7.9	0.4	19	34
2	330	D	0	5.8	5.6	0.8	25	38
2	330	E	2	11.2	5.2	3.0	11	51
2	330	F	3	19.0	6.5	5.4	7	47
2	330	G	3	25.6	9.0	5.7	6	42
2	330	H	3	24.6	9.0	5.3	8	41
2	330	J	3	23.1	8.8	4.9	8	42
2	330	K	3	26.0	8.8	6.0	9	39
2	330	M	2	12.3	4.9	3.8	13	48
2	340	A	1	12.2	9.2	1.6	22	32
2	340	B	2	17.3	8.2	3.3	20	34
2	340	C	3	23.8	7.6	6.3	8	42
2	340	D	3	13.4	4.4	5.1	0	62
2	340	E	3	16.7	5.4	5.5	10	46
2	340	F	3	20.2	7.5	4.9	11	41
2	340	G	3	18.6	6.7	5.0	5	49
2	340	H	2	12.1	7.2	2.2	10	48
2	350	A	1	11.3	7.2	1.9	14	44
2	350	B	3	15.6	5.7	4.6	12	45
2	350	C	3	16.7	5.6	5.3	12	44
2	350	D	3	14.4	4.7	5.2	12	48
2	350	E	3	24.3	9.2	5.0	9	39
2	350	F	3	23.8	10.2	4.2	7	41
2	350	G	3	24.8	9.3	5.1	10	39
2	350	H	3	24.3	8.4	5.7	2	47
2	350	J	2	22.3	12.2	3.0	11	36
2	360	A	2	16.8	7.0	3.9	9	46
2	360	B	3	24.0	10.1	4.4	11	37
2	360	C	3	18.4	7.1	4.5	8	45
2	360	D	3	14.6	5.8	4.0	12	46
2	360	E	3	18.5	7.7	4.1	10	43
2	360	F	3	14.6	5.4	4.4	9	49
2	360	G	3	16.5	6.4	4.3	10	45
2	360	H	2	13.8	9.0	2.0	13	40
2	360	J	0	7.4	12.1	0.4	13	31
2	360	K	1	15.4	15.7	1.1	5	39
2	370	A	1	6.4	5.3	1.1	6	59

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E.M. ANOMALY LIST - BARKERVILLE/ANTLER CREEK AREA, B.C.

FLIGHT	LINE	ANOMALY	CATEGORY	AMPLITUDE (PPM) INPHASE	QUAD.	CONDUCTOR CTP MHOS	DEPTH MTRS	BIRD HEIGHT MTRS
2	370	B	0	4.5	6.4	0.4	3	54
2	370	C	0	4.9	4.4	0.8	20	49
2	370	D	2	9.4	4.8	2.4	10	54
2	370	E	3	14.9	5.5	4.5	9	49
2	370	F	2	18.5	9.2	3.2	8	44
2	370	G	2	23.4	11.3	3.6	8	40
2	370	H	3	23.0	9.8	4.2	7	42
2	370	J	2	18.6	10.5	2.7	15	35
2	370	K	2	15.6	9.5	2.3	11	41
2	380	A	3	17.0	5.7	5.3	13	43
2	380	B	3	18.0	6.3	5.1	15	40
2	380	C	2	20.6	9.5	3.7	9	41
2	380	D	3	23.3	10.2	4.1	17	32
2	380	E	3	15.7	4.7	6.0	12	47
2	380	F	3	12.8	3.0	7.9	10	54
2	380	G	2	12.1	4.8	3.8	15	46
2	380	H	0	4.2	3.8	0.8	13	59
2	380	J	0	4.6	3.9	0.9	37	36
2	380	K	1	5.4	4.4	1.0	33	37
2	380	M	0	4.3	3.7	0.8	35	39
2	390	A	0	5.2	4.5	0.9	10	59
2	390	B	0	5.7	5.1	0.9	19	46
2	390	C	1	6.0	5.1	1.0	20	46
2	390	D	3	13.7	4.5	5.1	10	51
2	390	E	3	14.8	5.0	5.0	9	49
2	390	F	2	11.5	4.5	3.8	13	50
2	390	G	2	18.8	8.3	3.8	8	44
2	390	H	3	24.6	8.7	5.6	6	43
2	390	J	3	21.7	7.4	5.6	16	36
2	390	K	3	16.0	6.0	4.5	11	45
2	400	A	3	16.5	4.7	6.6	14	43
2	400	B	4	16.0	3.7	8.6	18	41
2	400	C	3	20.2	8.2	4.3	11	40
2	400	D	3	18.7	7.5	4.3	20	33
2	400	E	3	16.8	5.6	5.3	12	44
2	400	F	3	18.2	5.1	6.9	9	47
2	400	G	2	12.5	6.3	2.7	10	49
2	400	H	1	7.8	4.5	1.9	21	47
2	400	J	0	6.9	7.2	0.8	26	31
2	400	K	0	9.0	9.1	0.9	19	34
2	400	M	0	7.3	7.1	0.9	10	49
2	410	A	1	5.1	3.5	1.3	25	50

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E.M. ANOMALY LIST - BARKERVILLE/ANTLER CREEK AREA, B.C.

FLIGHT	LINE	ANOMALY	CATEGORY	AMPLITUDE (PPM) INPHASE	QUAD.	CONDUCTOR CTP MHOS	DEPTH MTRS	BIRD HEIGHT MTRS
2	410	B	0	6.2	5.6	0.9	22	41
2	410	C	2	20.7	9.3	3.8	11	39
2	410	D	3	20.1	8.7	4.0	11	40
2	410	E	3	15.7	6.1	4.2	11	46
2	410	F	3	11.4	3.8	4.7	12	52
2	410	G	2	12.4	5.7	3.1	12	48
2	410	H	2	36.6	20.3	3.5	17	23
2	410	J	3	46.6	21.1	4.9	17	21
2	410	K	3	41.9	14.6	6.7	10	30
2	410	M	3	36.4	12.4	6.6	9	34
2	410	N	3	28.7	8.8	7.0	7	41
2	420	A	2	10.4	5.1	2.7	16	47
2	420	B	2	17.3	8.5	3.2	13	39
2	420	C	2	13.0	8.0	2.1	15	41
2	420	D	2	16.9	7.2	3.8	15	40
2	420	E	2	16.8	9.6	2.6	17	35
2	420	F	2	23.8	16.0	2.3	18	26
2	420	G	2	49.8	29.5	3.5	11	24
2	420	H	2	50.5	28.7	3.7	9	26
2	420	J	3	48.4	23.5	4.5	12	25
2	420	K	3	33.2	13.4	5.1	7	37
2	420	M	2	21.0	14.5	2.1	15	30
2	420	N	2	13.7	8.4	2.2	16	39
2	420	O	1	10.1	6.6	1.8	13	47
2	430	A	1	3.6	1.9	1.6	34	56
2	430	B	1	7.9	5.3	1.6	14	50
2	430	C	2	14.2	9.4	2.0	11	42
2	430	D	3	19.7	6.0	6.3	8	45
2	430	E	3	31.4	15.0	4.0	10	33
2	430	F	1	25.5	21.8	1.7	15	24
2	430	G	2	50.0	29.1	3.6	14	21
2	430	H	1	18.8	17.1	1.4	20	23
2	430	J	2	28.3	21.4	2.1	13	26
2	430	K	1	10.1	7.3	1.5	13	45
2	440	A	2	9.1	3.6	3.4	21	48
2	440	B	2	18.3	7.9	3.9	17	36
2	440	C	2	16.3	7.5	3.4	17	37
2	440	D	3	27.8	12.3	4.3	9	37
2	440	E	3	30.2	11.9	5.1	14	31
2	440	F	3	30.6	11.6	5.4	8	37
2	440	G	2	20.1	13.4	2.2	14	33
2	440	H	2	7.7	3.9	2.3	21	49

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E.M. ANOMALY LIST - BARKERVILLE/ANTLER CREEK AREA, B.C.

FLIGHT	LINE	ANOMALY	CATEGORY	AMPLITUDE (PPM) INPHASE	AMPLITUDE (PPM) QUAD.	CONDUCTOR CTP MHOS	CONDUCTOR DEPTH MTRS	BIRD HEIGHT MTRS
2	440	J	1	3.3	1.9	1.4	52	39
2	440	K	0	2.9	3.6	0.4	35	37
2	440	M	1	2.6	1.2	1.7	49	54
2	450	A	0	5.2	6.8	0.5	20	37
2	450	B	1	4.9	3.3	1.3	32	44
2	450	C	0	3.4	3.0	0.7	31	48
2	450	D	0	3.7	5.1	0.4	27	35
2	450	E	2	6.5	2.8	2.7	20	56
2	450	F	2	12.1	5.0	3.6	17	45
2	450	G	4	20.3	4.6	9.5	8	47
2	450	H	3	32.9	12.4	5.6	8	36
2	450	J	3	36.0	14.8	5.1	9	33
2	450	K	2	31.8	18.1	3.2	12	29
2	450	M	2	14.4	6.6	3.3	17	40
2	450	N	3	12.7	4.5	4.5	15	46
2	450	O	2	8.2	3.9	2.6	20	49
2	460	A	2	18.7	11.4	2.4	16	33
2	460	B	2	15.2	9.0	2.4	21	32
2	460	C	3	35.6	12.5	6.3	5	38
2	460	D	3	36.5	13.3	6.0	5	37
2	460	E	2	23.8	11.4	3.7	17	30
2	460	F	2	14.2	7.0	3.0	11	46
2	460	G	2	10.2	5.7	2.2	14	48
2	460	H	0	6.4	7.5	0.6	23	32
2	460	J	0	3.0	3.5	0.4	27	47
2	460	K	2	4.0	1.8	2.1	39	50
2	470	A	1	3.8	1.8	1.9	34	56
2	470	B	0	6.2	6.6	0.7	23	36
2	470	C	0	4.5	6.1	0.4	23	36
2	470	D	3	15.2	4.1	6.9	8	51
2	470	E	3	79.5	40.9	4.9	8	23
2	470	F	3	74.7	36.5	5.1	8	24
2	470	G	3	58.8	29.5	4.6	11	23
2	470	H	2	40.4	22.6	3.5	9	30
2	470	J	2	33.7	21.1	2.9	13	27
2	470	K	2	35.3	26.6	2.3	14	22
2	470	M	1	19.2	15.5	1.7	24	20
2	470	N	1	15.0	12.2	1.5	21	27
2	480	A	0	5.4	5.0	0.8	26	40
2	480	B	2	17.8	8.0	3.6	16	37
2	480	C	3	20.9	6.9	5.8	9	43

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

E.M. ANOMALY LIST - BARKERVILLE/ANTLER CREEK AREA, B.C.

FLIGHT	LINE	ANOMALY	CATEGORY	AMPLITUDE (PPM) INPHASE	AMPLITUDE (PPM) QUAD.	CONDUCTOR CTP MHOS	CONDUCTOR DEPTH MTRS	BIRD HEIGHT MTRS
2	480	D	3	13.1	4.3	5.0	11	51
2	480	E	3	17.1	5.3	5.9	11	45
2	480	F	2	12.0	6.5	2.4	15	44
2	480	G	1	7.5	4.6	1.7	18	49
2	490	A	1	6.4	4.0	1.6	23	48
2	490	B	1	4.8	2.7	1.6	27	53
2	490	C	2	25.7	14.1	3.1	12	33
2	490	D	3	28.3	11.9	4.6	11	34
2	490	E	2	25.7	12.2	3.8	8	38
2	490	F	3	31.3	14.4	4.2	5	38
2	490	G	3	30.0	14.3	4.0	7	37
2	490	H	2	13.0	5.8	3.3	15	44
2	500	A	3	13.3	5.1	4.1	19	41
2	500	B	3	19.3	7.3	4.7	15	38
2	500	C	3	29.6	12.6	4.6	12	33
2	500	D	3	32.9	14.5	4.5	10	33
2	500	E	4	24.1	6.4	8.1	11	39
2	500	F	3	11.3	4.2	4.0	20	44
2	500	G	3	6.2	1.8	4.7	26	55
2	500	H	3	5.4	1.4	5.2	28	57
2	500	J	2	13.4	8.7	2.0	16	38
2	510	A	1	6.5	5.6	1.0	17	46
2	510	B	0	4.8	5.7	0.5	18	43
2	510	C	2	7.7	4.0	2.2	27	42
2	510	D	3	11.3	3.8	4.6	19	46
2	510	E	2	13.5	6.6	2.9	18	40
2	510	F	1	11.2	7.6	1.7	17	40
2	510	G	3	18.2	5.5	6.2	13	42
2	510	H	3	27.7	11.9	4.4	11	35
2	520	A	3	16.9	4.7	6.8	20	38
2	520	B	3	27.4	9.9	5.6	13	34
2	520	C	3	15.1	3.8	7.6	21	39
2	520	D	2	6.1	2.3	3.2	22	57
2	520	E	3	6.0	1.2	7.8	23	61
2	520	F	0	0.5	0.7	0.1	70	55
2	520	G	1	7.0	4.4	1.6	30	38
2	520	H	0	4.9	5.8	0.5	16	45
2	520	J	0	7.1	6.8	0.9	15	44
2	530	A	0	4.4	4.3	0.7	30	39
2	530	B	0	2.4	3.4	0.3	17	54

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

E.M. ANOMALY LIST - BARKERVILLE/ANTLER CREEK AREA, B.C.

FLIGHT	LINE	ANOMALY	CATEGORY	AMPLITUDE (PPM) INPHASE	AMPLITUDE (PPM) QUAD.	CONDUCTOR CTP MHOS	CONDUCTOR DEPTH MTRS	BIRD HEIGHT MTRS
2	530	C	1	10.9	8.3	1.5	23	32
2	530	D	2	16.6	7.2	3.7	16	39
2	530	E	3	22.3	8.0	5.3	17	34
2	530	F	3	21.4	7.8	5.1	18	33
2	530	G	3	17.9	7.0	4.4	24	30
2	530	H	3	22.2	8.2	5.1	9	41
2	530	J	3	25.7	11.3	4.2	15	32
2	530	K	4	42.7	11.3	9.7	6	35
2	530	M	3	37.2	12.0	7.1	9	34
2	530	N	3	15.7	5.6	4.8	17	40
1	540	A	2	6.8	3.4	2.2	17	56
1	540	B	3	16.9	6.5	4.4	6	49
1	540	C	3	31.7	9.9	7.1	7	39
1	540	D	3	38.4	17.7	4.5	9	31
1	540	E	3	33.7	15.9	4.2	9	33
1	540	F	2	27.4	16.9	2.7	10	33
1	540	G	2	23.3	11.5	3.5	18	29
1	540	H	2	25.7	15.2	2.8	13	31
1	540	J	2	26.9	13.7	3.5	15	30
1	540	K	0	5.6	8.0	0.4	15	38
1	540	M	1	11.0	10.6	1.1	14	37
1	540	N	0	5.8	9.8	0.3	3	44
1	540	O	0	6.0	8.1	0.5	9	44
1	550	A	0	4.7	6.1	0.5	10	49
1	550	B	0	9.0	9.3	0.9	13	39
1	550	C	0	6.4	8.3	0.5	13	40
1	550	D	2	16.6	7.8	3.3	8	46
1	550	E	2	19.1	8.6	3.7	19	32
1	550	F	2	20.5	9.3	3.7	16	34
1	550	G	2	18.7	8.6	3.6	8	44
1	550	H	2	24.9	12.6	3.4	10	36
1	550	J	3	30.5	10.6	6.1	7	38
1	550	K	2	26.4	19.1	2.2	21	21
1	550	M	1	26.9	22.2	1.8	18	21
1	560	A	2	13.6	7.4	2.5	18	39
1	560	B	2	16.9	7.5	3.6	13	41
1	560	C	3	19.5	8.3	4.0	11	41
1	560	D	2	18.2	8.7	3.4	19	33
1	560	E	2	20.3	13.7	2.2	20	27
1	560	F	2	17.2	10.9	2.2	25	25
1	560	G	2	19.6	11.6	2.6	18	30
1	560	H	2	18.8	9.2	3.3	13	39

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

E.M. ANOMALY LIST - BARKERVILLE/ANTLER CREEK AREA, B.C.

FLIGHT	LINE	ANOMALY	CATEGORY	AMPLITUDE (PPM) INPHASE	QUAD.	CONDUCTOR CTP MHOS	DEPTH MTRS	BIRD HEIGHT MTRS
1	560	J	2	27.7	13.7	3.7	11	33
1	560	K	3	38.0	15.3	5.3	5	36
1	560	M	2	26.4	14.0	3.3	10	35
1	560	N	0	7.8	8.6	0.8	22	32
1	560	O	0	3.2	7.8	0.1	9	37
1	560	P	0	5.5	5.9	0.7	20	42
1	570	A	0	6.3	8.9	0.5	14	37
1	570	B	0	6.8	7.5	0.7	13	43
1	570	C	3	16.5	6.2	4.5	9	46
1	570	D	3	19.3	7.5	4.5	10	43
1	570	E	3	25.1	9.9	4.8	4	44
1	570	F	3	30.2	13.9	4.2	16	28
1	570	G	2	27.8	21.4	2.0	22	18
1	570	H	2	61.2	45.0	2.8	16	15
1	570	J	2	45.4	28.8	3.1	17	18
1	570	K	2	29.9	14.9	3.7	20	24
1	570	M	2	20.0	11.4	2.7	21	27
1	570	N	1	8.4	6.8	1.2	15	45
1	580	A	1	8.4	5.7	1.6	28	35
1	580	B	2	17.9	8.1	3.6	18	34
1	580	C	3	15.1	4.9	5.3	18	41
1	580	D	3	16.5	6.2	4.5	18	38
1	580	E	3	22.3	7.3	6.0	18	33
1	580	F	4	26.8	7.2	8.2	5	44
1	580	G	3	25.3	8.7	5.8	6	42
1	580	H	3	21.0	5.8	7.4	11	42
1	580	J	0	4.9	5.3	0.6	27	37
1	580	K	0	4.7	4.8	0.7	22	44
1	590	A	1	8.5	7.2	1.1	21	38
1	590	B	0	6.5	10.2	0.4	0	48
1	590	C	0	7.1	10.9	0.4	1	45
1	590	D	3	23.9	8.1	5.8	12	37
1	590	E	3	25.7	9.0	5.7	9	39
1	590	F	4	49.5	14.8	8.6	6	33
1	590	G	3	34.7	14.1	5.1	16	27
1	590	H	3	23.6	8.9	5.0	18	31
1	590	J	2	20.3	9.5	3.6	21	29
1	590	K	2	22.6	10.3	3.8	23	26
1	590	M	2	27.1	15.5	3.0	18	26
1	590	N	1	6.5	5.5	1.0	2	63
1	600	A	0	6.2	6.3	0.8	4	56

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E.M. ANOMALY LIST - BARKERVILLE/ANTLER CREEK AREA, B.C.

FLIGHT	LINE	ANOMALY	CATEGORY	AMPLITUDE (PPM) INPHASE	QUAD.	CONDUCTOR CTP MHOS	DEPTH MTRS	BIRD HEIGHT MTRS
1	600	B	2	16.4	8.6	2.9	14	39
1	600	C	3	21.3	8.4	4.6	13	38
1	600	D	3	27.6	9.1	6.3	12	35
1	600	E	4	33.4	9.1	8.6	5	40
1	600	F	3	21.1	7.8	5.0	9	42
1	600	G	0	6.6	11.0	0.4	0	48
1	600	H	0	6.6	11.4	0.3	0	49
1	600	J	0	8.8	8.6	0.9	15	40
1	610	A	0	5.5	9.5	0.3	0	49
1	610	B	0	5.2	10.3	0.2	3	42
1	610	C	3	30.5	14.0	4.2	9	35
1	610	D	3	44.4	17.0	6.0	3	36
1	610	E	3	44.8	16.3	6.4	7	33
1	610	F	3	26.3	8.7	6.2	10	38
1	610	G	2	13.6	6.0	3.4	18	41
1	610	H	2	15.7	7.3	3.3	18	37
1	610	J	2	13.8	7.4	2.6	17	40
1	620	A	2	15.6	9.2	2.4	20	33
1	620	B	2	20.0	8.9	3.8	21	30
1	620	C	3	24.8	9.4	5.1	17	31
1	620	D	3	33.0	13.7	4.9	15	29
1	620	E	2	31.7	16.0	3.7	13	30
1	620	F	3	50.6	19.2	6.3	2	36
1	620	G	3	42.2	15.9	6.0	5	35
1	620	H	0	4.5	9.5	0.2	5	40
1	620	J	0	5.5	9.8	0.3	9	38
1	620	K	0	4.6	6.2	0.4	18	41
1	620	M	0	3.7	8.4	0.2	11	36
1	630	A	0	4.4	11.1	0.1	12	28
1	630	B	0	4.3	5.4	0.5	9	53
1	630	C	0	4.5	5.9	0.4	17	42
1	630	D	0	6.0	10.9	0.3	1	44
1	630	E	2	26.2	12.5	3.8	8	37
1	630	F	3	42.9	14.2	7.2	5	36
1	630	G	3	30.1	12.6	4.7	10	34
1	630	H	3	16.7	6.3	4.5	15	41
1	630	J	1	8.7	5.2	1.9	15	49
1	640	A	2	18.1	10.0	2.7	26	25
1	640	B	3	18.6	5.9	5.9	22	32
1	640	C	4	33.7	9.4	8.4	9	36
1	640	D	3	35.6	15.3	4.8	11	31

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

E.M. ANOMALY LIST - BARKERVILLE/ANTLER CREEK AREA, B.C.

FLIGHT	LINE	ANOMALY	CATEGORY	AMPLITUDE (PPM) INPHASE	AMPLITUDE (PPM) QUAD.	CONDUCTOR CTP MHOS	CONDUCTOR DEPTH MTRS	BIRD HEIGHT MTRS
1	640	E	4	70.3	20.6	9.8	2	32
1	640	F	3	36.7	11.9	7.0	3	40
1	640	G	0	3.5	4.5	0.4	14	52
1	640	H	1	3.9	2.8	1.1	33	48
1	640	J	1	4.4	3.5	1.0	27	49
1	640	K	0	3.8	11.2	0.1	15	23
1	650	A	0	4.9	7.4	0.4	3	50
1	650	B	1	6.0	4.6	1.1	34	34
1	650	C	0	4.5	5.4	0.5	25	37
1	650	D	3	24.2	6.9	7.4	11	40
1	650	E	3	29.6	8.9	7.3	9	38
1	650	F	3	17.5	4.9	6.8	4	52
1	650	G	4	13.2	3.0	8.3	3	61
1	650	H	4	11.9	2.3	10.1	5	61
1	650	J	4	18.5	3.2	13.4	1	56
1	660	A	3	36.3	12.1	6.8	13	30
1	660	B	3	33.9	13.7	5.1	14	29
1	660	C	3	26.3	7.8	7.2	16	33
1	660	D	2	21.5	12.9	2.6	16	31
1	660	E	2	23.8	12.0	3.4	21	26
1	660	F	3	24.3	10.9	4.0	16	32
1	660	G	3	26.3	9.9	5.2	18	29
1	660	H	3	21.2	6.1	7.0	4	49
1	660	J	3	21.0	7.0	5.7	9	43
1	660	K	0	4.6	6.3	0.4	18	40
1	660	M	0	4.2	4.2	0.7	22	48
1	660	N	0	2.9	7.8	0.1	16	29
1	670	A	0	4.8	7.7	0.3	8	44
1	670	B	0	5.6	5.9	0.7	24	38
1	670	C	0	6.2	8.8	0.5	21	30
1	670	D	3	24.1	8.6	5.4	11	39
1	670	E	3	29.4	9.3	6.8	10	37
1	670	F	3	25.2	8.4	6.1	11	38
1	670	G	3	14.8	4.7	5.5	11	48
1	670	H	2	12.3	5.2	3.5	8	53
1	670	J	3	10.8	3.8	4.3	10	55
1	670	K	3	12.7	3.1	7.5	3	61
1	670	M	4	15.2	3.5	8.5	1	59
1	670	N	4	12.9	3.0	8.0	6	58
1	680	A	0	7.0	7.8	0.7	23	33
1	680	B	0	6.0	9.7	0.4	0	48

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

E.M. ANOMALY LIST - BARKERVILLE/ANTLER CREEK AREA, B.C.

FLIGHT	LINE	ANOMALY	CATEGORY	AMPLITUDE (PPM) INPHASE	QUAD.	CONDUCTOR CTP MHOS	DEPTH MTRS	BIRD HEIGHT MTRS
1	680	C	2	18.7	9.8	3.0	16	35
1	680	D	2	25.7	12.7	3.6	9	37
1	680	E	2	23.7	15.1	2.5	16	29
1	680	F	3	34.6	17.1	4.0	15	27
1	680	G	3	24.4	8.3	5.8	14	36
1	680	H	3	23.2	7.9	5.7	11	39
1	680	J	3	25.3	9.9	4.9	13	35
1	680	K	0	3.3	5.7	0.2	2	55
1	690	A	0	5.3	9.7	0.3	15	32
1	690	B	1	7.9	5.6	1.4	20	44
1	690	C	3	22.6	9.1	4.5	10	40
1	690	D	3	21.7	9.0	4.3	6	45
1	690	E	3	21.2	7.3	5.5	12	40
1	690	F	3	16.7	6.4	4.4	4	52
1	690	G	1	14.4	11.0	1.6	14	36
1	690	H	3	28.1	12.8	4.1	10	35
1	700	A	3	23.8	10.4	4.1	17	31
1	700	B	1	15.3	10.6	1.9	21	30
1	700	C	2	14.4	6.3	3.5	28	30
1	700	D	3	20.6	5.7	7.3	10	43
1	700	E	3	27.6	8.1	7.4	11	37
1	700	F	3	27.0	9.6	5.7	12	35
1	700	G	2	7.9	3.8	2.5	30	40
1	700	H	0	6.0	8.0	0.5	16	37
1	700	J	0	3.1	4.5	0.3	13	51
1	710	A	2	17.9	9.5	2.9	23	28
1	710	B	2	15.1	7.1	3.2	29	27
1	710	C	3	30.1	12.6	4.7	15	30
1	710	D	3	44.4	15.0	7.1	10	30
1	710	E	3	27.6	8.7	6.7	19	29
1	710	F	3	22.0	6.2	7.3	19	33
1	710	G	3	25.7	9.2	5.5	20	28
1	710	H	2	13.4	5.3	3.9	30	30
1	720	A	3	43.3	22.0	4.1	0	47
1	720	B	3	41.8	20.9	4.1	0	50
1	720	C	2	28.9	14.1	3.8	0	63
1	720	D	3	78.0	33.6	6.1	0	71
1	720	E	3	78.8	35.1	5.8	0	66
1	720	F	4	101.4	36.9	8.2	0	66
1	720	G	3	55.9	19.1	7.5	0	72
1	720	H	2	25.8	15.5	2.8	0	70

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

E.M. ANOMALY LIST - BARKERVILLE/ANTLER CREEK AREA, B.C.

FLIGHT	LINE	ANOMALY	CATEGORY	AMPLITUDE (PPM) INPHASE	AMPLITUDE (PPM) QUAD.	CONDUCTOR CTP MHOS	CONDUCTOR DEPTH MTRS	BIRD HEIGHT MTRS
1	720	J	2	19.4	14.0	2.0	0	68
1	720	K	0	8.2	11.3	0.5	0	58
1	720	M	0	6.8	11.2	0.4	0	53
1	720	N	0	7.5	13.7	0.3	0	44
1	730	A	1	7.6	5.9	1.2	14	48
1	730	B	2	6.3	2.8	2.6	19	58
1	730	C	4	20.9	5.4	8.1	0	62
1	730	D	3	32.3	10.2	7.0	0	62
1	730	E	3	44.2	14.1	7.6	0	68
1	730	F	3	27.9	11.9	4.5	0	77
1	730	G	3	46.6	16.9	6.5	0	72
1	730	H	3	54.9	29.1	4.2	0	69
1	730	J	3	54.4	27.5	4.4	0	77
1	740	A	3	28.7	11.1	5.2	19	27
1	740	B	3	39.1	16.2	5.2	12	29
1	740	C	3	40.7	15.0	6.1	16	25
1	740	D	3	40.3	19.1	4.4	15	25
1	740	E	3	55.6	22.8	5.9	12	24
1	740	F	3	49.9	16.8	7.4	9	29
1	740	G	4	30.2	7.5	9.5	6	41
1	740	H	3	17.0	5.0	6.3	15	41
1	740	J	2	7.4	3.6	2.4	26	45
1	740	K	1	8.8	7.4	1.2	11	47
1	750	A	0	4.0	8.3	0.2	21	27
1	750	B	1	9.5	8.6	1.1	17	38
1	750	C	3	9.9	2.5	6.6	32	38
1	750	D	3	13.0	3.5	6.6	23	40
1	750	E	3	30.3	12.1	5.0	16	29
1	750	F	3	38.5	11.9	7.6	13	29
1	750	G	3	43.2	15.7	6.4	8	32
1	750	H	3	33.9	14.5	4.8	13	30
1	750	J	3	15.8	5.4	5.1	29	28
1	760	A	3	17.2	6.1	4.9	33	22
1	760	B	3	45.5	21.5	4.6	12	26
1	760	C	3	78.0	35.0	5.8	11	20
1	760	D	3	75.8	28.6	7.2	12	21
1	760	E	3	24.5	9.0	5.3	13	36
1	760	F	5	12.3	1.5	19.1	21	46
1	760	G	4	8.5	1.5	10.3	32	42
1	760	H	1	5.4	3.6	1.3	25	49
1	760	J	0	6.7	9.0	0.5	16	36

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

E.M. ANOMALY LIST - BARKERVILLE/ANTLER CREEK AREA, B.C.

FLIGHT	LINE	ANOMALY	CATEGORY	AMPLITUDE (PPM) INPHASE	QUAD.	CONDUCTOR CTP MHOS	DEPTH MTRS	BIRD HEIGHT MTRS
1	770	A	1	6.2	4.3	1.3	29	41
1	770	B	4	8.6	1.5	10.5	27	47
1	770	C	3	8.9	2.7	4.9	24	46
1	770	D	3	15.9	4.0	7.7	16	43
1	770	E	3	19.5	5.5	7.0	12	42
1	770	F	1	19.2	14.3	1.9	26	20
1	770	G	4	44.9	10.6	11.4	3	38
1	770	H	4	45.6	12.2	9.7	0	51
1	770	J	4	52.5	13.6	10.5	0	43
1	780	A	4	57.1	16.4	9.4	0	37
1	780	B	4	92.1	27.5	10.3	0	34
1	780	C	4	81.4	22.0	11.3	0	33
1	780	D	1	17.2	12.5	1.9	22	26
1	780	E	3	14.1	3.4	7.8	15	47
1	780	F	3	14.0	3.5	7.5	19	42
1	780	G	3	10.7	3.2	5.4	20	47
1	780	H	3	13.6	3.6	6.8	19	43
1	780	J	3	11.0	4.1	4.0	25	40
1	780	K	1	6.0	4.5	1.2	29	40
1	790	A	1	6.2	5.3	1.0	25	40
1	790	B	2	11.2	5.2	3.0	19	43
1	790	C	2	13.1	5.7	3.4	12	47
1	790	D	3	17.2	5.2	6.1	0	66
1	790	E	3	18.4	6.4	5.2	0	57
1	790	F	3	21.6	8.7	4.5	6	44

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

APPENDIX III

CERTIFICATE OF QUALIFICATIONS

I, ROBERT J. DE CARLE, certify that: -

1. I hold a B. A. Sc. in Applied Geophysics with a minor in geology from Michigan Technological University, having graduated in 1970.

2. I reside at 28 Westview Crescent in the town of Palgrave, Ontario.

3. I have been continuously engaged in both professional and managerial roles in the minerals industry in Canada and abroad for the past eighteen years.

4. I have been an active member of the Society of Exploration Geophysicists since 1967 and hold memberships on other professional societies involved in the minerals extraction and exploration industry.

5. The accompanying report was prepared from information published by government agencies, materials supplied by Rise Resources Incorporated and from a review of the proprietary airborne geophysical survey flown by Aerodat Limited for Rise Resources Incorporated. I have not personally visited the property.

6. I have no interest, direct or indirect, in the property described nor do I hold securities in Rise Resources Incorporated.

7. I hereby consent to the use of this report in a Statement of Material Facts of the Company and for the preparation of a prospectus for submission to the British Columbia Securities Commission and/or other regulatory authorities.

Signed,

Robert J. de Carle

Palgrave, Ontario
February 12, 1988

Robert J. de Carle
Consulting Geophysicist

APPENDIX IV

PERSONNEL

FIELD

Flown	- October, 1987
Pilot	- Norm Couteau
Operator	- Steve Arstad

OFFICE

Processing	- Richard Yee
Interpretation & Report	- R. J. de Carle Consulting Geophysicist

APPENDIX V

COST STATEMENT

AERODAT	369LKM @ $75.00	$27,675.00
	50LKM @ $20.00	$ 1,000.00
Mark Management,Planning,Research,Supervision		$ 4,301.25
TOTAL		$32,976.25

Flight Path

Flight path derived from VHS video tape.

Average terrain clearance 60m
Line spacing = 100m

GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,990

PART 1 OF 2

RISE RESOURCES INC.

FLIGHT PATH

ANTLER CREEK / BARKERVILLE (2)
BRITISH COLUMBIA

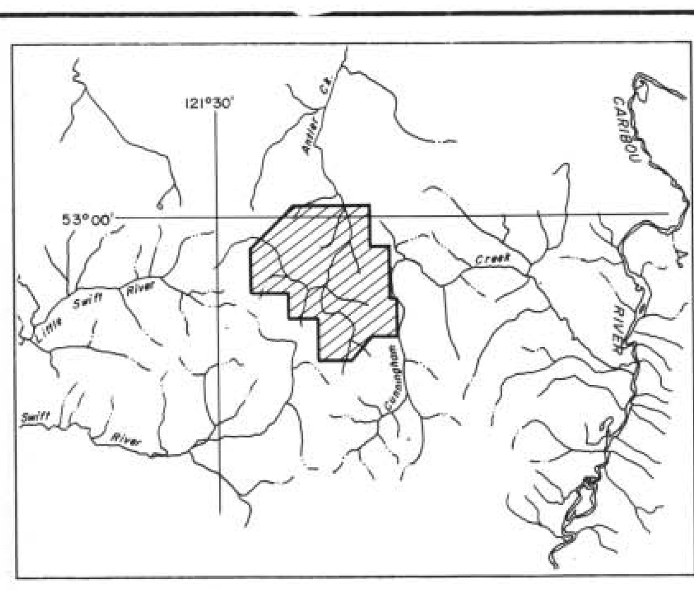
SCALE 1:10,000

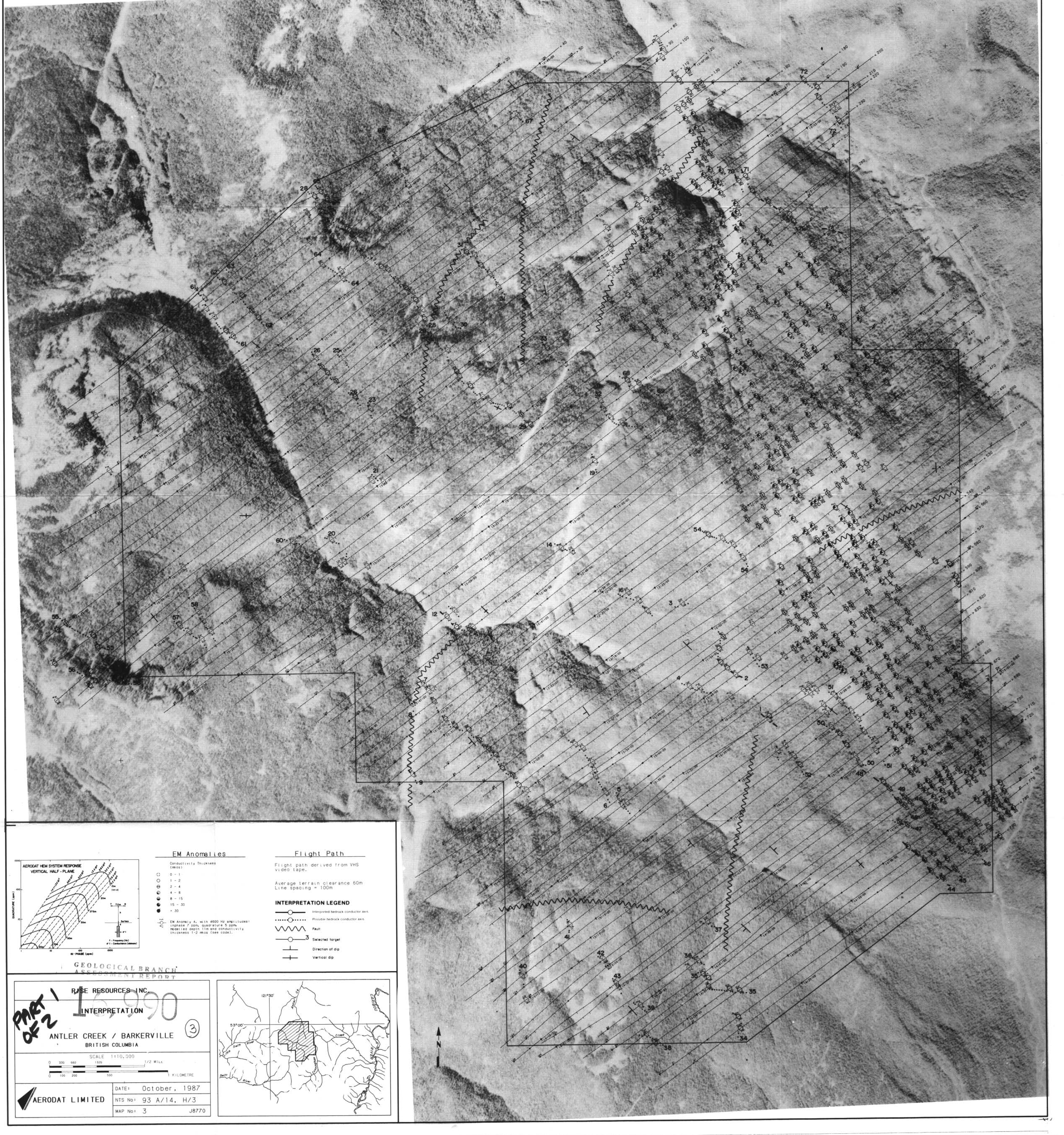
0 330 660 1320 1/2 MILE

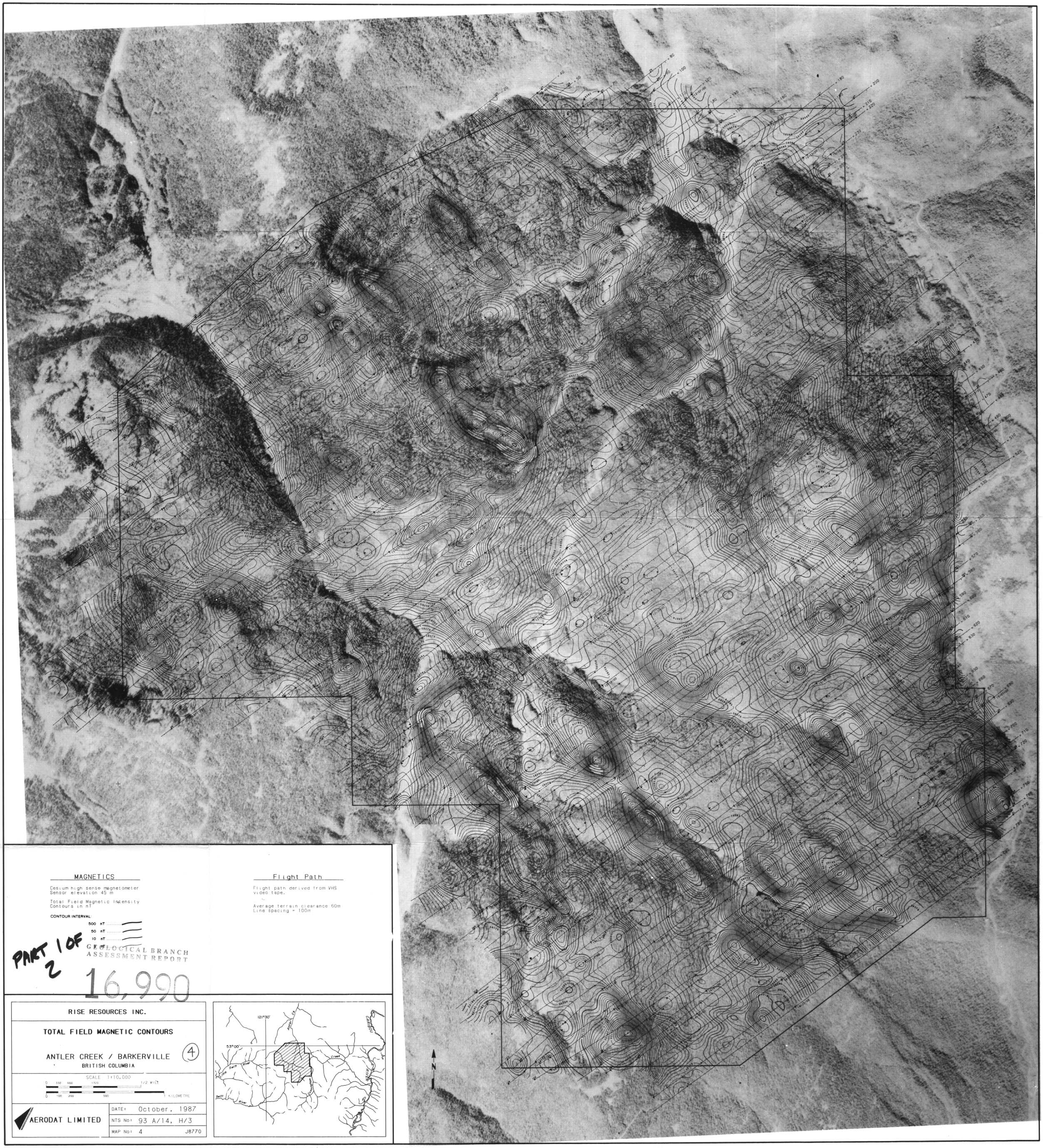
0 100 200 500 1 KILOMETRE

AERODAT LIMITED

DATE:	October, 1987
NTS No:	93 A/14, H/3
MAP No:	2 J8770




AERODAT HEM SYSTEM RESPONSE
VERTICAL HALF-PLANE
QUADRATURE (ppm)
IN-PHASE (ppm)
f - Frequency (Hz)
σ t - Conductance (siemens)
EM Anomalies
Conductivity Thickness (mhos)
0 - 1
1 - 2
2 - 4
4 - 8
8 - 15
15 - 30
> 30
EM Anomaly A, with 4600 Hz amplitudes: inphase 7 ppm, quadrature 5 ppm, modelled depth 11m and conductivity thickness 1-2 mhos (see code).
Flight Path
Flight path derived from VHS video tape.
Average terrain clearance 60m
Line spacing = 100m
INTERPRETATION LEGEND
Interpreted bedrock conductor axis
Possible bedrock conductor axis
Fault
Selected target
Direction of dip
Vertical dip
GEOLOGICAL BRANCH
ASSESSMENT REPORT
16,990
PART 1 OF 2
RISE RESOURCES INC.
INTERPRETATION
ANTLER CREEK / BARKERVILLE
BRITISH COLUMBIA
SCALE 1:10,000
0 330 660 1320 1/2 MILE
0 100 200 500 1 KILOMETRE
AERODAT LIMITED
DATE: October, 1987
NTS No: 93 A/14, H/3
MAP No: 3 J8770
121°30'
53°00'
Antler Ck.
CARIBOU RIVER
Creek
Little Swift River
Swift River
Cunningham
N



MAGNETICS

Cesium high sense magnetometer
Sensor elevation 45 m

Total Field Magnetic Intensity
Contours in nT

CONTOUR INTERVAL:

500 nT ....
50 nT ....
10 nT ....

Flight Path

Flight path derived from VHS video tape.

Average terrain clearance 60m
Line spacing = 100m

PART 1 OF 2

GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,990

RISE RESOURCES INC.

TOTAL FIELD MAGNETIC CONTOURS

ANTLER CREEK / BARKERVILLE (4)

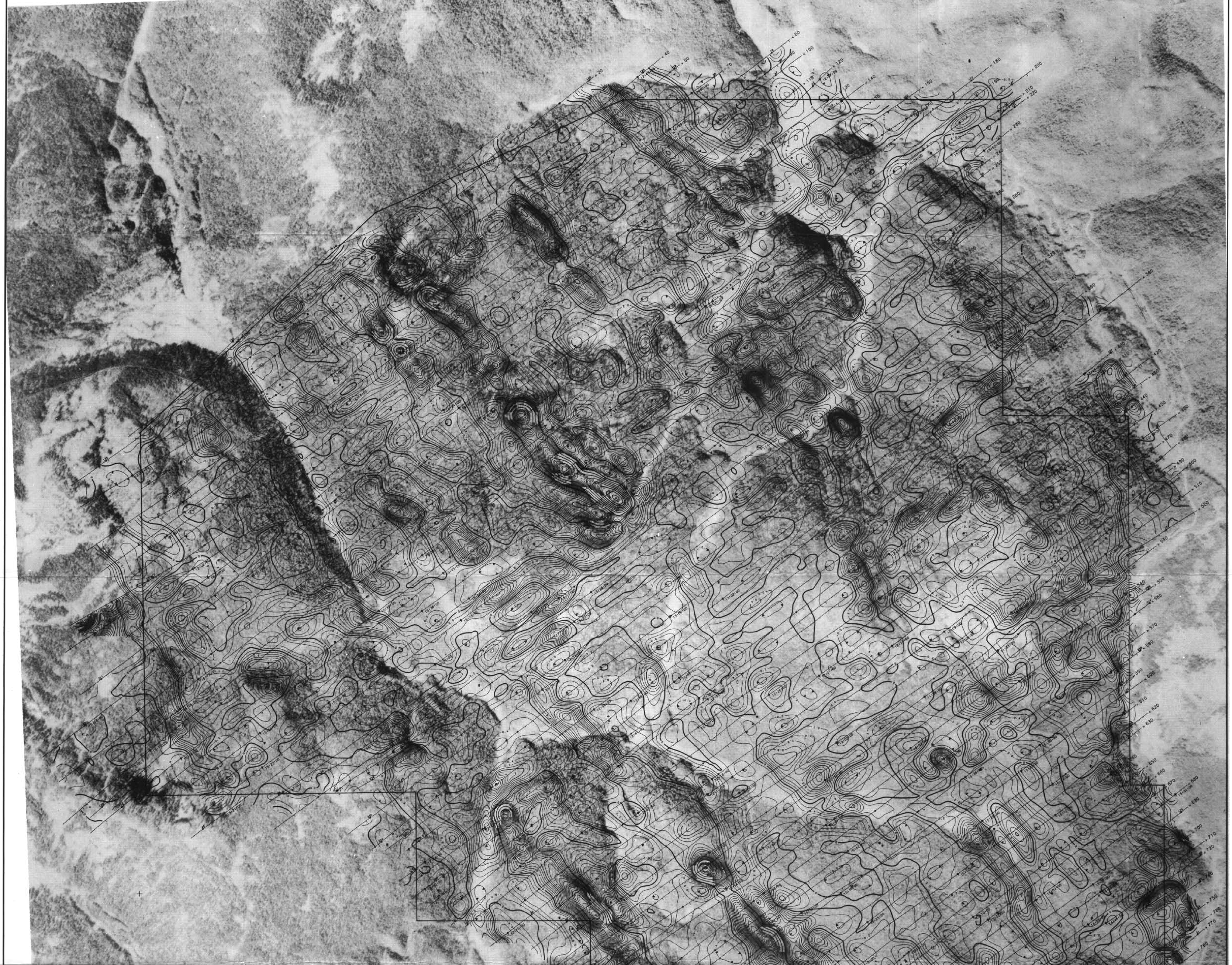
BRITISH COLUMBIA

SCALE 1:10,000

0 330 660 1320 1/2 MILE
0 100 200 500 1 KILOMETRE

AERODAT LIMITED

DATE:	October, 1987
NTS No:	93 A/14, H/3
MAP No:	4 J8770



VERTICAL GRADIENT

Vertical magnetic gradient calculated from the total field magnetic intensity

Contours in nT/m

Cesium high sense magnetometer
Sensor elevation 45 m

CONTOUR INTERVAL

5.0 nT/m
1.0 nT/m
0.2 nT/m

GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,990

PART 1 OF 2

Flight Path

Flight path derived from VHS video tape.

Average terrain clearance 60m
Line spacing = 100m

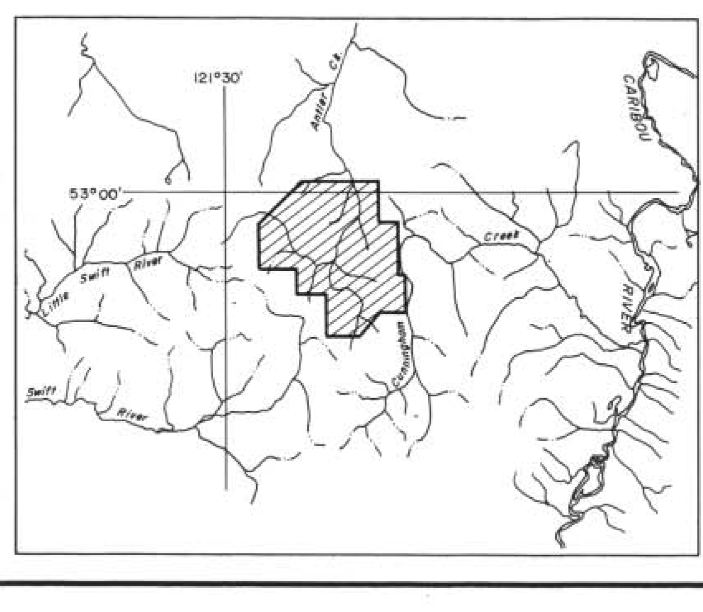
RISE RESOURCES INC.

CALCULATED VERTICAL MAGNETIC GRADIENT

ANTLER CREEK / BARKERVILLE (5)
BRITISH COLUMBIA

SCALE 1:10,000

0 330 660 1320 1/2 MILE
0 100 200 500 1 KILOMETRE



AERODAT LIMITED

DATE:	October, 1987
NTS No:	93 A/14, H/3
MAP No:	5 J8770

Apparent RESISTIVITY

Contours - in ohm-m

Calculated from 4600 Hz coplanar response using a 200 m model

Sensor elevation 30 m

10 ND OHM-M N-1,2,3...9

10 NM OHM-M M-1,2,3...9

Flight Path

Flight path derived from VHS video tape.

Average terrain clearance 60m
Line spacing = 100m

PART 1 OF 2

RISE RESOURCES INC.

APPARENT RESISTIVITY CONTOURS

ANTLER CREEK / BARKERVILLE (6)
BRITISH COLUMBIA

SCALE 1:10,000

0 330 660 1320 1/2 MILE

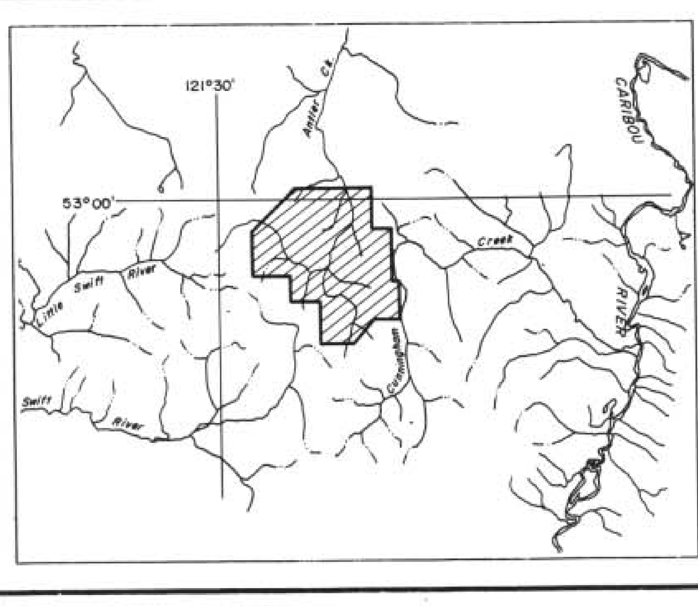
0 100 200 500 1 KILOMETRE

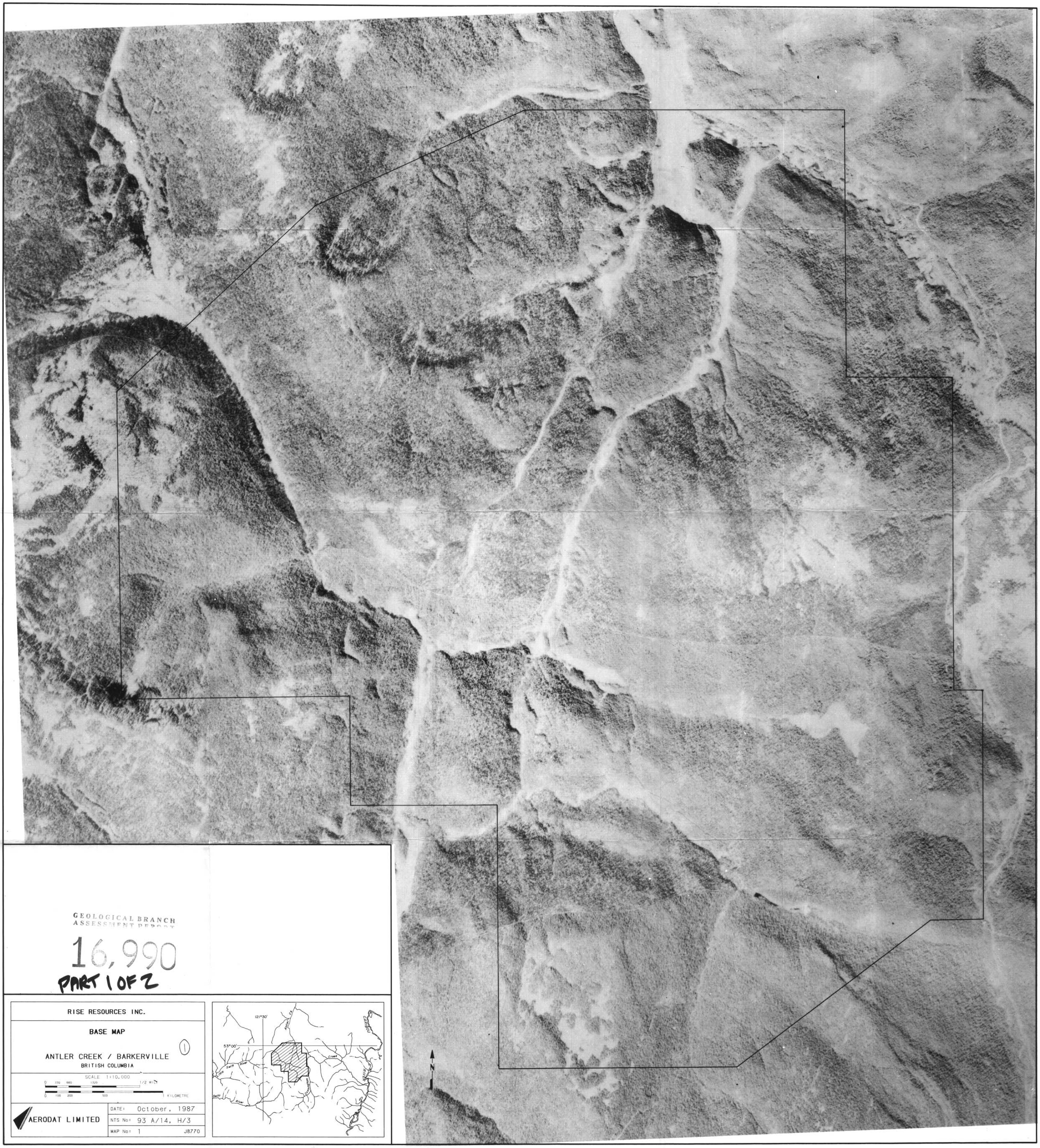
AERODAT LIMITED

DATE: October, 1987

NTS No: 93 A/14, H/3

MAP No: 6 J8770





RISE RESOURCES INC.

BASE MAP

(1)

ANTLER CREEK / BARKERVILLE
BRITISH COLUMBIA

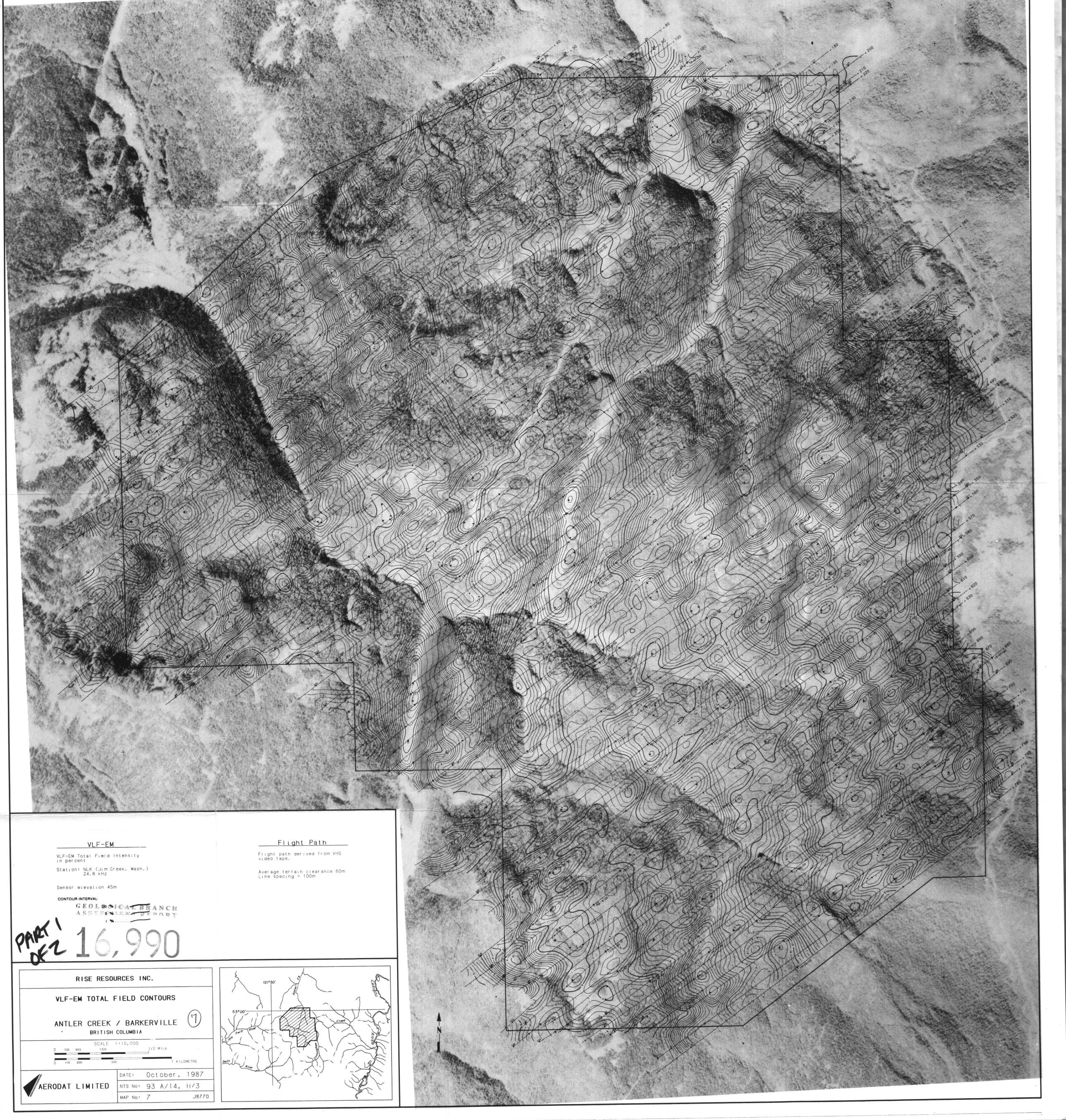
SCALE 1:10,000

0 330 660 1320 1/2 MILE

0 100 200 500 1 KILOMETRE

AERODAT LIMITED

DATE:	October, 1987
NTS No:	93 A/14, H/3
MAP No:	1 J8770



VLF-EM

VLF-EM Total Field Intensity in percent

Station: NLK (Jim Creek, Wash.)
24.8 kHz

Sensor elevation 45m

CONTOUR INTERVAL:

20 %
5 %
1 %

Flight Path

Flight path derived from VHS video tape.

Average terrain clearance 60m
Line spacing = 100m

RISE RESOURCES INC.

VLF-EM TOTAL FIELD CONTOURS

ANTLER CREEK / BARKERVILLE (7)

BRITISH COLUMBIA

SCALE 1:10,000

0 330 660 1320 1/2 MILE

0 100 200 500 1 KILOMETRE

AERODAT LIMITED

DATE:	October, 1987
NTS No:	93 A/14, H/3
MAP No:	7 J8770