ASSESSMENT REPORT

DECEMBER, 1990 AIRBORNE GEOPHYSICAL SURVEY

PURCELL PROPERTY

FORT STEELE MINING DIVISION
BRITISH COLUMBIA

NTS 82F/8E & 9E

Latitude 49° 30'N
Longitude 116° 04'N

OPERATOR: DRAGOON RESOURCES LTD.
OWNER: CHAPLEAU RESOURCES LTD

by

PETER KLEWCHUK
GEOLOGIST

MARCH 13, 1991

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1.00 INTRODUCTION

1.10 Location and Access

The 'Purcell Camp' claim group presently under option to Dragoon Resources Ltd. from Chapleau Resources Ltd. is located in the drainage areas of Moyie River and Perry Creek, approximately 20 kilometers due west of Cranbrook, B.C., in the Fort Steele Mining Division (Figure 1). The property centers on Latitude 49° 30'N and Longitude 116° 04'W.

Access to the property is via good active logging roads which join main highways in the Cranbrook area. All the tributary drainages of Moyie River and Perry Creek which occur on the claim block have some road access but areas at higher elevations along the ridge separating Moyie River and Perry Creek must be accessed on foot or by helicopter.

1.20 Physiography

The property is situated west of the Rocky Mountain Trench within the Moyie Range of the Purcell Mountains. Topography is moderate to steep with glacially rounded ridges; elevation ranges from 1220 to 2130 meters.

Vegetation cover varies from immature to mature forests of larch, pine, spruce and fir. Considerable clear-cut logging has occurred on the claim group in the recent past and the logged areas are in various stages of regeneration.

1.30 History of Previous Exploration

Moyie River, Perry Creek, and numerous of their tributary streams which drain the 'Purcell Camp' claim group have produced considerable placer gold. The Moyie River is presently being actively placer mined by Queenstake Resources Ltd. and many small placer operations are worked on a small scale basis. The knowledge of significant placer gold in the main drainages and tributaries of Moyie River and Perry Creek has resulted in long-standing exploration activity for bedrock sources, and the advent of historically high gold prices in the late 1970's prompted staking which blanketed these areas of known placer gold production.

Many small lode gold occurrences have been discovered in the general area of the Purcell property and a few have seen minor production. Virtually all of the lode gold has come from relatively small quartz veins, usually in association with minor base metal sulfides.

Exploration activity has been constrained by the extensive coverage of glacial drift, and although many small programs have been undertaken, few have been successful at delineating drill targets.

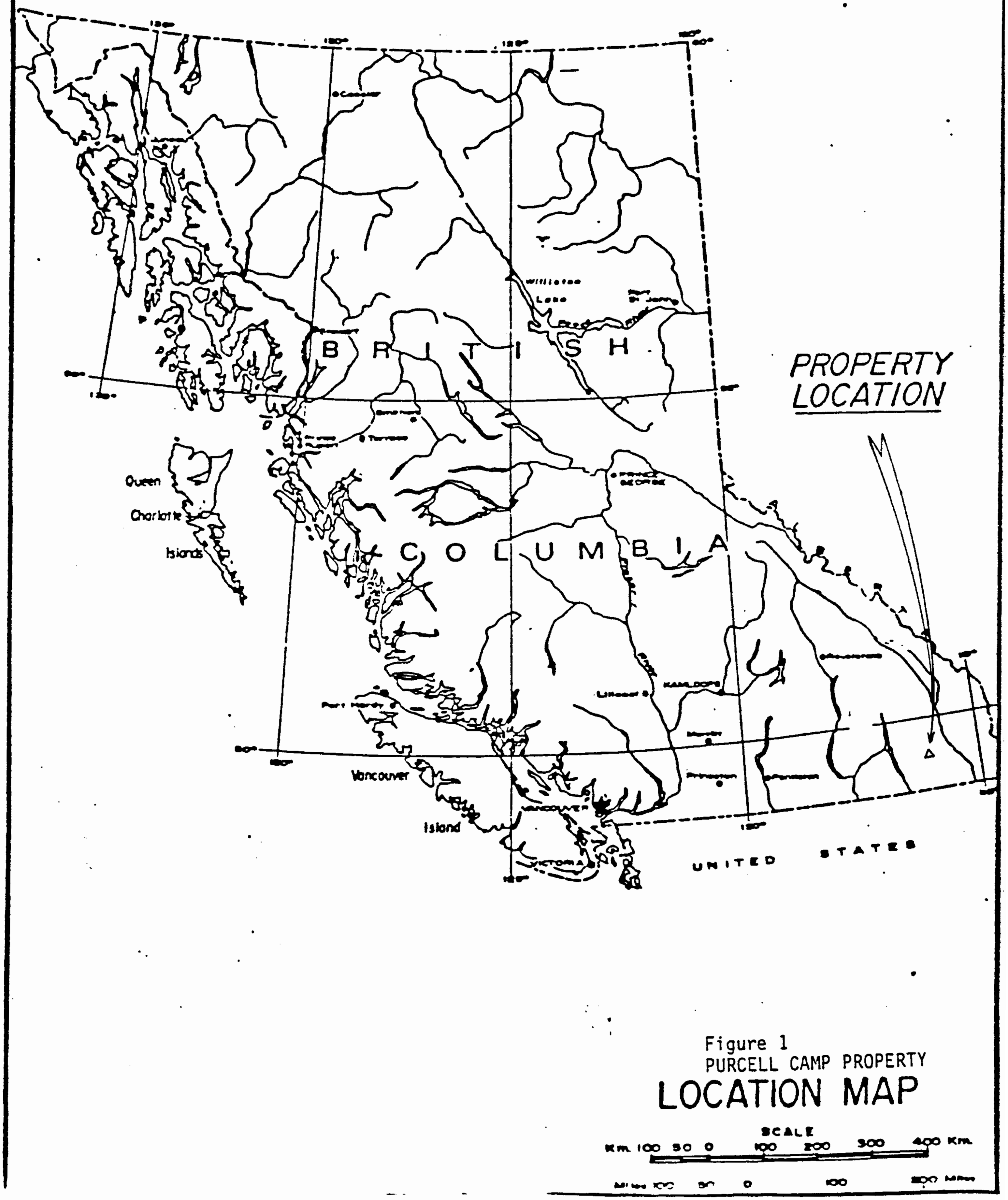


Figure 1
PURCELL CAMP PROPERTY
LOCATION MAP

Recent logging activity in the area has enhanced the exploration process by providing road access and exposing bedrock and float along haul roads, skid roads and in burned clear-cut areas.

Modern interest in the present 'Purcell Camp' area arose when prospecting discovered widespread quartz float with visible gold in the Palmer Bar Creek area. Since then the present claim block has been staked or optioned by Chapleau Resources ltd. Work on the claims since 1986 has produced a progressive understanding of sources of lode gold mineralization and of a genetic model for possible economic deposits.

1.40 Property

The 'Purcell Camp' consists of 450 units in 51 mineral claims (Figure 2) either wholly owned or under option to Chapleau Resources Ltd. In turn Dragoon Resources Ltd. has an option to acquire a majority interest in the entire property. Details of the claim block and ownership are as follows:

Claim Name	Record Number	Recorded Date	Expiry Date	No. of Units	Owner
LDM 1	751	79 Sep 05	92 Sep 05	4	Morgan
LDM 2	962	80 Jul 04	92 Jul 04	4	
LDM 4	1769	83 Apr 26	92 Apr 26	4	
LDM 5	1940	83 Sep 20	91 Sep 20	8	
LDM 6	1954	83 Sep 30	91 Sep 30	8	
LDM 7	2624	86 May 28	92 May 28	4	
LDM 8	2874	87 Apr 21	92 Apr 21	2	
LDM 9	2590	86 Mar 14	92 Mar 14	12	
LDM 10	2591	86 Mar 14	92 Mar 14	8	
LDM 11	2592	86 Mar 14	92 Mar 14	6	
LDM 12	2609	86 Apr 21	92 Apr 21	3	

Claim Name	Record Number	Recorded Date	Expiry Date	No. of Units	Owner
Racki 2	3015	87 Oct 05	92 Oct 05	3	Morgan
Racki 3	3016	87 Oct 05	92 Oct 05	2	
Racki 4	2307	84 Oct 22	91 Oct 91	10	
Racki 5	2326	84 Nov 26	91 Nov 26	10	
Racki 6	2380	85 Apr 22	92 Apr 22	9	
Racki 7	3017	87 Nov 09	92 Nov 09	20	
Racki 8	2450	85 Aug 30	91 Aug 30	9	
Racki 9	2451	85 Aug 30	91 Aug 30	3	
Racki 10	2557	86 Jan 14	92 Jan 14	12	
Racki 11	2558	86 Jan 14	92 Jan 14	1	
Racki 12	2593	86 Mar 14	92 Mar 14	2	
Racki 14	2610	86 Apr 25	92 Apr 25	12	
Racki 15	2611	86 Apr 25	92 Apr 25	6	
Racki 16	2648	86 Jul 02	92 Jul 02	1	
Racki 17	2649	86 Jul 02	92 Jul 02	1	
Racki 18	2873	87 Apr 21	92 Apr 25	8	
Palm	1862	83 Jul 04	92 Jul 04	6	Chapleau
Crystal	2271	84 Sep 24	92 Sep 24	20	
Lucky Bar 1	3002	87 Oct 08	94 Oct 08	4	
Lucky Bar 2	3003	87 Oct 08	92 Oct 08	18	
Steel 1	3092	88 May 16	92 May 16	18	
Bar	1896	83 Aug 12	92 Aug 12	16	
Bar Lode	1925	83 Sep 08	92 Sep 08	4	
Bar Lode 2	1926	83 Sep 08	92 Sep 08	1	
Bar Lode 3	1927	83 Sep 08	92 Sep 08	1	
Lucky Bar 3	3004	87 Oct 08	92 Oct 08	20	
Steel 2	3093	88 May 16	92 May 16	18	
BUCK GROUP 1					
Buck 1	2809	87 Feb 25	92 Feb 25	8	Kennelly
Buck 2	2810	87 Feb 25	92 Feb 25	15	
Buck 3	2811	87 Feb 25	92 Feb 25	14	
Buck 4	2832	87 Mar 17	92 Mar 17	14	
Buck 5	2833	87 Mar 17	92 Mar 17	18	
Buck 12	2812	87 Feb 25	92 Feb 25	6	
Buck 14	2860	87 Mar 30	92 Mar 30	15	
BUCK GROUP II					
Buck 6	2928	87 Jun 15	92 Jun 15	20	Kennedy
Buck 8	2929	87 Jun 15	92 Jun 15	3	
Buck 9	2930	89 Jun 15	92 Jun 15	15	
Buck 10	2931	87 Jun 15	92 Jun 15	8	
Buck 11	2926	87 Jun 15	92 Jun 15	8	
Buck 13	2927	87 Jun 15	92 Jun 15	8	

1.50 Objective of Survey

The airborne geophysical survey flown in December, 1991, over part of the Purcell claim block was done to help identify structure and magnetic parameters which might be related to gold mineralization

2.00 GEOLOGICAL SETTING

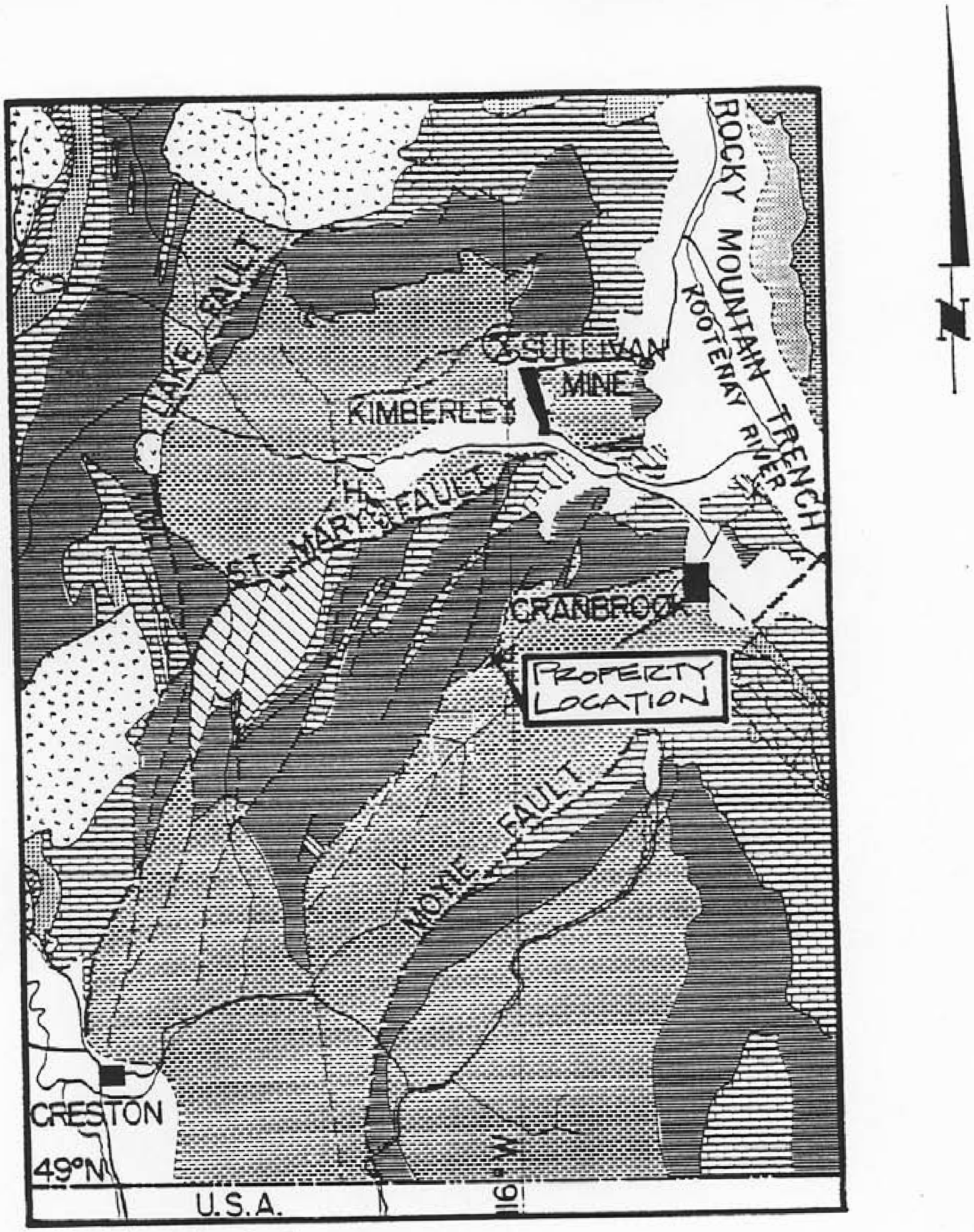
The Purcell property lies within the Purcell Anticlinorium, a geologic sub-province between the Rocky mountain Thrust and Fold Belt to the east and the Kootenay Arc to the west.

The core of the Purcell Anticlinorium is made up of the Purcell Supergroup, an eleven kilometer thick sequence of dominantly fine-grained clastic and carbonate rocks.

The lowest exposed part of the Purcell Supergroup is the Aldridge Formation, a thick section of basinal turbidites. These are successively overlain by shallow water quartzites and siltstones of the Creston Formation and siltstones and carbonates of the Kitchener Formation (Fig. 3).

These formations are intruded by Precambrian age diorite and gabbro composition sills and dykes of the Moyie Intrusions. Cretaceous quartz monzonite and granodiorite stocks occur just off the property to both east and west and related, fault-controlled syenite dykes are known on the property.

A complex system of NE to NNE striking normal and reverse faults occur parallel to the regional strike while a series of



~ LEGEND ~

MESOZOIC
- Granite Intrusions

PRECAMBRIAN
- Hellroaring Creek Stock

CAMBRIAN
- Eager Formation
- Cranbrook Formation

PROTEROZOIC
WINDERMERE SUPERGROUP
- Horsethief Creek Group
- Toby Formation

PURCELL SUPERGROUP
- Mount Nelson Formation
- Dutch Creek Formation
- Nicol Creek Formation
- Van Creek Formation
- Kitchener Formation

PROTEROZOIC
PURCELL SUPERGROUP
- Creston Formation
- Aldridge Formation
- Fort Steele Formation

0 5 10 15 25km

NOTE:
Geology after ~
Hoy. 1982
Leech. 1957, 1960
Reesor. 1958, 1981
Rice. 1941

DRAGOON RESOURCES LTD.		
PURCELL CAMP PROPERTY		
REGIONAL GEOLOGY MAP		
FT. STEELE MINING DIVISION		B.C.
BAPTY RESEARCH LIMITED		
SCALE Bar scale	N.T.S. 82 F/4	FIG. NO 3
DRAWN BY Noted by V.H.		
DATE March '91		

easterly-striking normal and reverse transverse faults cut across the regional trend at an oblique angle. This block-faulted area appears centered on the area of the best known placer gold and it seems probable that gold mineralization is genetically related to both the structural complexity and the spatially-associated felsic intrusives.

3.00 AIRBORNE SURVEY

During the period of December 12 to 16, 1990, Aerodat Limited flew a combined Helicopter-borne Magnetic, Electromagnetic and VLF Survey over two blocks of the Purcell Property west of Cranbrook, B.C.

The Aerodat report is appended to this report.

The survey results suggest that considerable geologic complexity exists in the area of the survey.

Survey lines were flown at a NW-SE orientation to cross regional NE-oriented bedding and major faults. A subordinate structural trend parallels the NW-SE oriented tributary drainages of Perry Creek and Moyie River.

The interpretation map (Map No.3) shows a number of interpreted geophysical trends which generally follow the NW or NE structural fabric. These features warrant more detailed evaluation to determine whether they do in fact represent structural breaks. Previous exploration within and near the Purcell Camp claim group has defined significant gold mineralization in structures of both trends.

4.00 CONCLUSIONS

The Aerodat Limited airborne geophysical survey has provided useful regional geophysical coverage of two blocks within the Purcell Camp claim group. The acquired magnetic, electromagnetic and VLF-EM survey data can be used to help define specific exploration targets within the claim block.

5.00 RECOMMENDATIONS

The Aerodat Limited airborne geophysical survey results should be combined with known geological and geochemical information on the property to establish target areas for detailed exploration.

Follow-up exploration should consist of ground geophsyics, soil and rock geochemistry, and detailed geological mapping. Specific targets should then be trenched and sampled and diamond drilled if warranted.

6.00 STATEMENT OF EXPENDITURES

Airborne Geophysical Survey	$30,000
Survey preparation and report writing 4 days @ $300/day	1,200
Drafting, typing, copying	250
Total Cost	**$31,450**

7.00 AUTHOR'S QUALIFICATION

I, Peter Klewchuk, certify that:

1. I am an independent consulting geologist with offices at 246 Moyie Street, Kimberley, British Columbia.

2. I am a graduate geologist with a BSc degree (1969) from the University of British Columbia and an MSc degree (1972) from the University of Calgary.

3. I am a Fellow in good standing of the Geological Association of Canada.

4. I have been actively involved in mining and exploration geology, primarily in the province of British Columbia, for the past 18 years.

5. I have been employed by major mining companies and provincial government geological departments.

Dated at Kimberley, British Columbia, this 23rd day of February, 1991.

Peter Klewchuk
Geologist

APPENDIX I

REPORT ON A
COMBINED HELICOPTER-BORNE
MAGNETIC, ELECTROMAGNETIC AND VLF SURVEY
CRANBROOK AREA
BRITISH COLUMBIA

FOR
BAPTY RESEARCH LIMITED
BY
AERODAT LIMITED
February 7, 1991

J9088

Richard Yee
Geophysicist

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(Scale 1:20,000)

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4. **TOTAL FIELD MAGNETIC CONTOURS;**
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6. **APPARENT RESISTIVITY CONTOURS;**
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   of the VLF Total Field response contoured at 2 percent intervals, on a Cronaflex base map.

1. INTRODUCTION

This report describes an airborne geophysical survey carried out on behalf of Bapty Research Limited by Aerodat Limited. Equipment operated during the survey included a four frequency electromagnetic system, a high sensitivity cesium vapour magnetometer, a two frequency VLF-EM system, a video tracking camera, and a radar altimeter. Electromagnetic, magnetic, and altimeter data were recorded both in digital and analog forms. Positioning data was encoded on VHS format video tape and marked on the flight path mosaic by the operator while in flight.

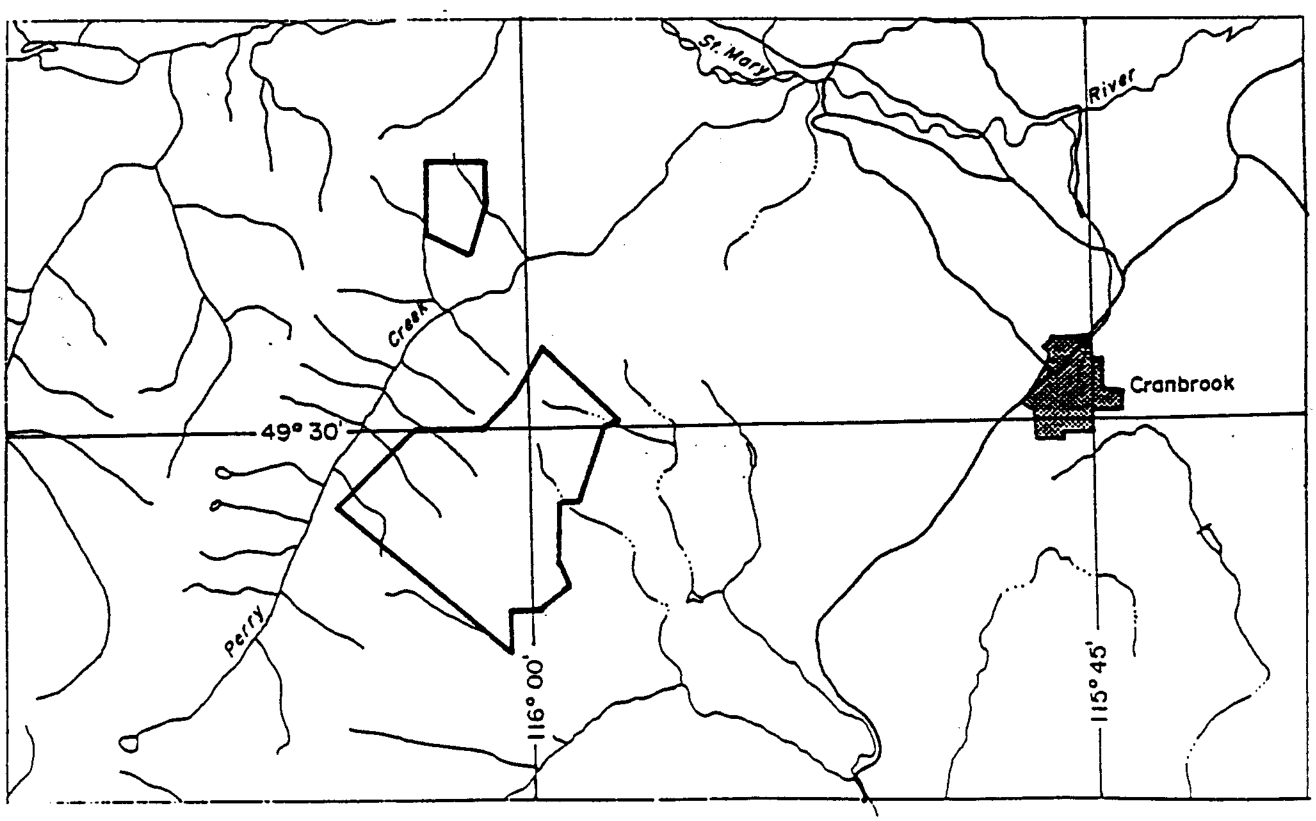
The survey area, comprising two survey blocks in southeastern British Columbia, approximately 15 kilometres west of Cranbrook, was flown during the period of December 12 to 16, 1990. Data from five flights were used to compile the survey results. The flight line orientation was southeast -northwest and the nominal flight line spacing was 250 metres for the southern block, and ESE-WNW and 200 metres respectively for the smaller northern block. Coverage and data quality were considered to be well within the specifications described in the service contract.

The purpose of the survey was to record airborne geophysical data over and around ground that is of interest to Bapty Research Limited. A total of 200 line kilometres of the recorded data were compiled in map form. The maps are presented as part of this report according to specifications laid out by Bapty Research Limited.

2. SURVEY AREA LOCATION

The Cranbrook Area is depicted on the index map shown below. The two blocks fall on either side of Perry Creek with the smaller north block about 3 kilometres immediately north of the major area. It is centred at approximate geographic latitude 49° 30' north, longitude 116° 02' west, approximately 15 kilometres west of Cranbrook, in the southeastern corner of British Columbia (NTS Reference Map Nos. 82F/8, 82F/9, 82G/5 and 82G/12).

The rugged terrain is part of the Purcell Mountains, with elevations in the two blocks varying from around 4700 feet to 7870 feet (at Mount Bigattini) above sea level. Both blocks, nevertheless, can be easily accessed by loose surface dry weather roads entering into the southern ends of the areas. Some trails also exist, but access into the cores of the blocks in this rugged terrain is best made by helicopter.



3. AIRCRAFT AND EQUIPMENT

3.1 Aircraft

Due to the rugged terrain, an Aerospatiale SA 315B Lama helicopter with Canadian registration C-GOLV, operated by Peace Helicopters Limited, was used for the survey. Installation of the geophysical and ancillary equipment was carried out by Aerodat. The survey helicopter was flown at a mean terrain clearance of 60 metres, while the EM sensors have a ground clearance of 30 metres.

3.2 Equipment

3.2.1 Electromagnetic System

The electromagnetic system was an Aerodat 4-frequency system. Two vertical coaxial coil pairs were operated at 935 Hz and 4600 Hz and two horizontal coplanar coil pairs at 4175 Hz and 32 kHz. The transmitter-receiver separation was 7 metres. Inphase and quadrature signals were measured simultaneously for the 4 frequencies with a time constant of 0.1 seconds. The electromagnetic bird was towed 30 metres below the helicopter.

3.2.2 VLF-EM System

The VLF-EM System was a Herz Totem 2A. This instrument measured the total field and quadrature component of the selected frequency. The sensor was towed in a bird 12 metres below the helicopter. The transmitting station used for the line direction was NLK, Seattle, Washington (24.8 kHz), while station NAA, Cutler, Maine, (24.0 kHz) was received in the orthogonal mode.

3.2.3 Magnetometer

The magnetometer employed was a Scintrex Model VIW-2321 H8 cesium, optically pumped sensor. The sensitivity of this instrument was 0.1 nanoTeslas at a 0.1 second sampling rate. The sensor was towed in a bird 20 metres below the helicopter.

3.2.4 Magnetic Base Station

An IFG (GEM 8) 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 KRA-10 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 camera was used to record flight path on standard VHS format video tapes. The system was operated in continuous mode and the flight number, real time and manual fiducials were registered on the picture frame for cross-reference to the analog and digital data.

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 Inphase Coaxial	25 ppm/cm
CXQ1	Low Frequency Quadrature Coaxial	25
CXI2	High Frequency Inphase Coaxial	25
CXQ2	High Frequency Quadrature Coaxial	25
CPI1	Mid Frequency Inphase Coplanar	100 ppm/cm
CPQ1	Mid Frequency Quadrature Coplanar	100
CPI2	High Frequency Inphase Coplanar	200
CPQ2	High Frequency Quadrature Coplanar	200
VLT	VLF-EM Total Field, Line	25%/cm
VLQ	VLF-EM Quadrature, Line	25%/cm
VOT	VLF-EM Total Field, Ortho	25%/cm
VOQ	VLF-EM Quadrature, Ortho	25%/cm
RALT	Radar Altimeter, (150 m at top of chart)	100 ft./cm
MAGF	Magnetometer, fine	25 nT/cm
MAGC	Magnetometer, coarse	250nT/cm

3.2.8 Digital Recorder

A DGR-33:16 data system recorded the survey on magnetic tape. Information recorded was as follows:

Equipment	Recording Interval
EM System	0.1 seconds
VLF-EM	0.2 seconds
Magnetometer	0.1 seconds
Altimeter	0.2 seconds
Power Line Monitor	0.2 seconds

4. DATA PRESENTATION

4.1 Base Map

A topographic base map at a scale of 1:20,000 was prepared by Aerodat. The geophysical data was prepared as overlays on an unscreened Cronaflex base. Registration points corresponding to the Universal Transmercator Grid are shown to ensure accurate registration with base topography.

4.2 Flight Path Map

The flight path map was recovered from the VHS video and operator's fiducials that were put on the base map during flight.

The flight lines have time and camera fiducials, flight numbers and line numbers for cross reference with the analog and digital data. Anomaly peaks picked from the 4600 Hz coaxial coils are shown with conductivity thickness ranges and inphase amplitudes.

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 the 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 showing flight lines, conductor axes anomaly peak locations and interpreted structure are presented on a cronaflex copy of the base map.

4.4 Total Field Magnetic Contours

The aeromagnetic data were corrected for diurnal variations by adjustment with the recorded base station data. There has been no correction for regional variation applied. The corrected profile data were interpolated onto a grid at a 25 metre true scale interval using an Akima spline technique. These data were the contoured at a 2 nanoTesla interval and presented on a Cronaflex copy of the base map.

4.5 Calculated Vertical Magnetic Gradient Contours

The vertical magnetic gradient was calculated from the gridded total field magnetic data. These data were then contoured at a 0.02 nT/m interval, and presented on a Cronaflex copy of the base map.

4.6 Apparent Resistivity Contours

The electromagnetic information was processed to yield a map of the apparent resistivity of the ground. The calculations are based on a half space model, i.e. assuming a geological unit with a thickness greater than 200m. The computer generates a resistivity that would be constant with the bird height and recorded amplitudes for the 4600 coaxial coils. The apparent resistivities calculated for this model were then interpolated onto a grid at a 25 m true scale interval using an Akima spline technique and are presented on a Cronaflex copy of the base map.

4.7 VLF-EM Total Field

The VLF-EM signals from NLK (Seattle, Washington), broadcasting at 24.8 kHz, were recorded and presented in contour form on the Cronaflex base map. The orthogonal signals were recorded digitally and may be processed and presented at a later date.

5. INTERPRETATION

No specific geological information was made available to the writing of this report by Bapty Research Limited. Nevertheless, fine amplitude and spatial resolution (0.1 nT accuracy and 0.1 second sampling rate, respectively) of the surveyed aeromagnetic data from the high sensitivity cesium vapour magnetometer have afforded a contour map that, with support from the derivative vertical gradient map, can be used as a pseudogeological map. Better yet, if this data set is combined with any existing geologic information, a much more precise and detailed mapping of the survey area can be achieved.

Both blocks of the Cranbrook Area have very moderate dynamic ranges of magnetic amplitude of under 500 nT. Their intricate distribution, however, reflects a complex geology that appears to be much folded and faulted as is common in mountainous terrain. There are several well distinct pockets of magnetic highs distributed about the two blocks. The apparent contacts of these suspected volcanic-related units with the lower magnetic, perhaps sedimentary units, are outlined on the interpretation map. Some of these magnetic highs have oval shape and relative isolation to suggest volcanic plutons or intrusions.

It is along the contacts of the volcanics with the metasediments and along structural faults and shears that gold and base metal mineralization are expected to be found in this geologic setting. Hence, to further aid the follow up program, the most apparent breaks, offsets and abrupt shifts of the magnetic total field and particularly the vertical gradient contour patterns are tentatively interpreted to reflect structural features of faults and shears and also noted on the interpretation map. Their preferred orientation appears to be around the northwest-southeast direction of the flight lines.

It should be noted that the structural analysis presented on the interpretation map is highly preliminary and incomplete. Further conclusions and insights can be drawn with the addition of geological information or ground follow-up support and by methods of data enhancement such as apparent susceptibility mapping and shadow mapping under the RTI (Real Time Imaging) system.

While the amplitude distribution of the total field magnetic map could be useful in separating different rock types, the calculated vertical magnetic gradient contours when used in conjunction, can provide valuable added structural and positional information. The gradient effectively removes the regional background levels, sharpening residual anomalies and resolving closely spaced bodies. Its zero contour level also coincides closely to the actual geological contacts. This is especially true for vertical bedding with the steeper structures having their contacts closer to their magnetic peaks. As well, breaks and offsets are more readily obvious on the gradient map. These pattern discontinuities are naturally often the result of faults, shears and lineaments. An example is on how well the gradient contours have isolated a strong narrow feature running NNE just inside the northwest boundary of the southern block and four, probably fault separated, northeast running trends in the northern block. These narrow magnetic highs most likely reflect dykes.

Under the optimum condition of relatively low surficial conductivity with sufficient bedrock conductivity, the apparent resistivity and VLF-EM contour maps can be effective tools and supplements to the magnetics for structural mapping. While there appears to be little correlation between the conductive and magnetic features of the southern block (where even the VLF and resistivity are poorly correlated), the generally higher magnetics of the WNW half of the northern block correlates well with the more resistive half of the area as shown by both the VLF and apparent resistivity contours, although the latter two contours' boundaries are shifted a little ESE from the observed magnetic contact. Mapped on the interpretation map as a simple contact, the abrupt and linear nature of this geophysical boundary on all these three contour maps suggest a faulted horizon as well.

In the smaller northern block, the VLF contours simply divided the area into two massive conductive and resistive halves as stated above with no resolution of any other structures, while the resistivity is better able to resolve narrower conductive trends such as the EM interpreted double band zone of B. Nevertheless, both the resistivity and VLF responses appear to be controlled at least as much by topography as by any possible underlying geology. Although this also seems true for the southern block, where the generally more resistive environment has yielded a much less definitive resistivity map, the VLF contours show much more complexity and perhaps structural information.

Although it doesn't quite correlate with the magnetic contours, the VLF is able to substantiate a couple of the inferred faults (the northern one, the perhaps significant one in the vicinity of the highly rated conductor 4 and the southern mapped fault). As well, the stronger positive VLF trend axes were mapped, some of which coincide or possibly extent the mapping of EM zones such as 2, 3, 4, 6 and 7. Many of these VLF high trends, however, also fall along drainage channels. Also, as expected, the VLF contours detected conductors with a SWS strike bias, in the general direction of the VLF transmitting station used, NLK (Jim Creek, Washington).

While the four mentioned contour map forms are useful for geologic and structural mapping purposes, the individual EM anomaly responses are better suited for isolating and detailing conductive mineralization. To accomplish this, the electromagnetic data of the two survey blocks were first checked by a line to line examination of the analog records. Record quality was good with a noise level approaching no more than 4 ppm and occasional sferics activity. Virtually all of the system noise was removed by an appropriate low pass filter while the few sferics responses present were rejected by a statistical filter.

Initially, potential anomalies were selected automatically with a proprietary computer program. Typically, this user flexible routine chose narrower well defined peaks, excluding most long wavelength quadrature dominant responses of overburden sources. Questionable anomalies were checked against the analogs for noise and each anomaly was then thoroughly evaluated mainly on shape definition, with only minor regards to apparent conductivity. In particular, the indication of a dipping source from a peak offset of the coaxial response with the coplanar would likely indicate an inclining narrower bedrock structure. Each EM anomaly would also be correlated with adjacent line EM responses along with any coincidental video, magnetic, VLF-EM, altimeter, cultural and geologic data available. Such a process ensured that any EM anomaly of bedrock potential would be selected for analysis and properly grouped with any adjacent responses into conductive zones which might have some geologic significance.

As a result, nine conductors of varying bedrock potential have been identified, with seven in the bigger southern block. Common among the conductors is a very low calculated conductivity thickness of under 0.5 mho. Combined with generally non-existent in-phase components and poorly defined quadrature response peaks that are visually masked by the surrounding surficial conductivity, the identification of any bedrock conductors, deemed to be either weakly conductive and/or deep, existing in the area is made more unsure. Many of these conductors occur at the margins of wider conductive zones and might simply be "edge effects" due to abrupt changes of resistivity at the contact edges of zones of different conductivity. They cannot be discarded, however, since the contact zones are favourable for mineralization. These questionable but potential targets include zones 2, 3, 5, 6, 7 and B.

Although like the general resistivity contours, there are no direct correlations of these conductors with magnetic bodies, the magnetics proved to be of significance in helping to identify possible bedrock conductors in this ambivalent EM environment. The three highest rated conductors of the area, 4, 5 and 1, also have clearly the best correlation with very well defined magnetic contact gradients.

In summary, the nine selected conductors are ranked and grouped into four priority levels based on geophysical characteristics which most likely reflect a bedrock existence, and briefly discussed below:

I - Conductor 4

Zone 4 is based mainly on the line 10180 anomaly at time fiducial 9:22:49 which has the only significant inphase response of the southern block. Combined with an enhanced coaxial quadrature peak superimposed on a flat coplanar response, a narrow moderately weak and steeply inclined bedrock conductor is suspected. It also has, encouragingly, one of the few significant modelled depths of source in the survey at 17 metres. The zone is interestingly located at the junction of a probable volcanic/intrusive contact and a mapped cross-fault. Although the attractive line 10180 EM anomaly is aligned with a much weaker line 10170 anomaly to the northeast and along the magnetic contact, a roughly east-west strike along the fault and a supporting VLF trend is also possible. The VLF conductor, however, might be the result of the coincidental London Creek.

II - Conductors B, 1 and 5

Of the remaining eight "possible bedrock" conductors, these three show the most potential and are deserving of second-priority follow-up after the "probable bedrock" conductor of 4.

The double banded conductor B of the northern block is the only other conductor in the survey besides 4 which demonstrates well defined inphase EM peaks.

However, this is within a relatively strong conductive envelope where the anomalies, in particular on the quadrature component, are made less distinctive than the more isolated line 10180 zone 4 anomaly. Perhaps Zone B represents the stronger bands of a mildly conductive formational unit as presented by the coincidental magnetic low on the southeast portion of the area, if not simply enhanced surficial edge effects.

The much weaker responses of Zones 1 and 5 of the southern block have no apparent inphase amplitude. Indeed, the line 10012 Zone 1 anomaly has narrow negative inphase peaks on all four frequencies to suggest a small magnetite source. The quadrature coaxial peak, however, is unusually sharp and well defined for a magnetite, and shows a northwest dip for the source.

Even weaker and more surficial like in its quadrature only response is conductor 5. Its four EM anomalies, however, align perfectly along the southeastern contact side of a narrow dyke like magnetic high. Hence, it is more the suspected favourable location of Zone 5 and Zone 1 along a suspected intrusive contact than their EM characteristics which warrant these conductors follow-up considerations.

III - Conductors A, 2 and 3

These three weak conductors show similar weak quadrature - only edge-effect like responses as Zone 5 but lack the desirable magnetic supported. The single line 20016 anomaly of A, however, is marginally more attractive with a narrow, more isolated and vertical dip hinting quadrature peak and a location within 200 metres southeast of the interpreted fault contact.

Zones 2 and 3 are similar dual-band conductors with more attractive northwest and southeast arms, respectively, from slightly better defined EM peaks and better support from coincidental VLF highs and magnetic trending.

IV - Conductors 6 and 7

Lastly, these two aligned, roughly north-south striking conductive trends in the southern part of the larger block appear more likely to be enhanced surficial EM responses with possible enhancement from nearby creek valleys. Zone 6 is made slightly more attractive by its correlation along the edge of a magnetic low unit.

6. CONCLUSION

In conclusion, the airborne geophysical survey over the two Cranbrook Area blocks in southeastern British Columbia has produced VLF, resistivity, and in particular, total field magnetic and calculated vertical magnetic gradient maps that should prove useful, when combined with known geology, in providing more detailed structural mapping information for the exploration program.

In addition, in spite of strictly low calculated conductivity-thickness responses of under 1 mho, the EM data has identified nine conductors of possible bedrock interest. Of these, only one is deserving of the "interpreted bedrock" classification. As such, Zone 4 of the southern block has the first priority for ground follow-up. Three other zones of B, 1 and 5 also have enough EM response geometry definition or favourable magnetic contact support to warrant initial follow-up recommendation. As well, conductors A, 2 and 3 are worthy of further consideration, taking into account perhaps of known geology and any available subsequent follow-up information of the higher priority zones. It should be noted, however, that the present conductor ranking is highly tentative and more concise follow-up prioritization is best left to those who can combine available geological information and objectives with the data provided by this survey and report.

Follow-up procedures would probably not require ground magnetic coverage unless the airborne positioning is in question, as the airborne magnetic data is of high resolution and probably as accurate as can be expected from a ground survey over these rugged terrains. Similarly, ground

VLF and normal ground EM methods are not recommended due to topography. Gradient Resistivity (such as Schlumberger arrays) or Induced Polarization profiling would be the preferred methods.

Respectfully submitted

REGISTERED PROFESSIONAL ENGINEER
D - C YEE
PROVINCE OF ONTARIO

Richard D.C. Yee
Consulting Geophysicist
for
AERODAT LIMITED
February 13, 1991

J9088

APPENDIX I

GENERAL INTERPRETIVE CONSIDERATIONS

Electromagnetic

The Aerodat four frequency system utilizes two different transmitter-receiver coil geometries. The traditional coaxial coil configuration is operated at two widely separated frequencies. The horizontal coplanar coil configuration is similarly operated at two different frequencies where one pair is 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 ration 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 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 measurable 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 to 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 - CRANBROOK AREA "A", B.C.

FLIGHT	LINE	ANOMALY	CATEGORY	AMPLITUDE (PPM) INPHASE	QUAD.	CONDUCTOR CTP MHOS	DEPTH MTRS	BIRD HEIGHT MTRS
3	10012	A	0	-1.7	7.1	0.0	0	28
3	10030	A	0	-0.5	8.3	0.0	0	40
3	10030	B	0	-0.2	18.9	0.0	0	24
3	10040	A	0	0.0	4.4	0.0	0	44
3	10050	A	0	-2.0	4.1	0.0	0	50
3	10050	B	0	-0.5	5.0	0.0	0	35
3	10060	A	0	1.0	3.9	0.0	14	38
3	10060	B	0	0.9	4.1	0.0	10	39
3	10070	A	0	-1.7	2.0	0.0	0	39
3	10070	B	0	-1.2	2.8	0.0	0	45
3	10080	A	0	-0.5	1.9	0.0	0	33
3	10080	B	0	0.1	2.7	0.0	0	43
4	10091	A	0	0.2	4.8	0.0	0	49
4	10091	B	0	-0.8	3.4	0.0	0	49
4	10100	A	0	-0.6	5.0	0.0	0	49
4	10111	A	0	-2.2	4.8	0.0	0	37
4	10111	B	0	-1.8	2.3	0.0	0	56
4	10120	A	0	0.0	4.4	0.0	0	36
4	10120	B	0	1.2	6.6	0.0	0	43
4	10131	A	0	-1.2	4.6	0.0	0	35
4	10170	A	0	-0.2	5.0	0.0	0	47
4	10180	A	0	3.7	6.8	0.2	17	36
3	10200	A	0	1.6	5.6	0.0	18	30
3	10201	A	0	0.6	5.9	0.0	4	29
3	10210	A	0	-0.3	2.7	0.0	0	34
3	10211	A	0	1.8	5.8	0.0	0	575
3	10221	A	0	1.3	4.4	0.0	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 - CRANBROOK AREA "A", B.C.

FLIGHT	LINE	ANOMALY	CATEGORY	AMPLITUDE (PPM) INPHASE	QUAD.	CONDUCTOR CTP MHOS	DEPTH MTRS	BIRD HEIGHT MTRS
3	10222	A	0	2.4	2.3	0.5	21	67
3	10230	A	0	0.5	6.0	0.0	0	36
4	10251	A	0	2.0	5.9	0.0	5	44
4	10311	A	0	1.6	9.0	0.0	7	28
4	10322	A	0	-2.2	9.8	0.0	0	38
2	10340	A	0	-0.8	11.5	0.0	0	26

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 - CRANBROOK AREA "B", B.C.

FLIGHT	LINE	ANOMALY	CATEGORY	AMPLITUDE (PPM) INPHASE	QUAD.	CONDUCTOR CTP MHOS	DEPTH MTRS	BIRD HEIGHT MTRS
5	20016	A	0	1.5	6.1	0.0	8	36
5	20111	A	0	3.3	17.6	0.0	0	33
5	20121	A	0	1.2	8.9	0.0	0	56
5	20131	A	0	8.1	39.5	0.1	0	22
5	20131	B	0	5.6	16.5	0.1	0	41
5	20131	C	0	5.1	13.9	0.1	0	37
5	20141	A	0	8.3	13.3	0.4	0	49
5	20141	B	0	4.1	12.9	0.1	0	44
5	20151	A	0	6.7	17.7	0.2	0	48
5	20151	B	0	8.2	21.3	0.2	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.

APPENDIX III

CERTIFICATE OF QUALIFICATIONS

I, RICHARD YEE, certify that: -

1. I am registered as a Professional Engineer in the Province of Ontario and work as a Professional Geophysicist.

2. I reside at 665 Windermere Avenue in the city of Toronto, Ontario.

3. I hold a Bachelor of Applied Science in Engineering Science from the University of Toronto, having graduated in 1978.

4. I have been continuously engaged in professional roles in the minerals industry in Canada and abroad for the past twelve years.

5. I have been an active member of the Society of Exploration Geophysicists since 1978 and hold memberships on other professional societies involved in the mineral exploration industry.

6. The accompanying report was prepared from published or publicly available information and material supplied by Bapty Research Ltd. and Aerodat Limited in the form of government reports and proprietary airborne exploration data. I have not personally visited the specific property.

7. I have no interest, direct or indirect, in the property described nor in Bapty Research Ltd.

8. 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 appropriate securities commission and/or other regulatory authorities.

Signed,

REGISTERED PROFESSIONAL ENGINEER
D - C YEE
PROVINCE OF ONTARIO

Richard D.C. Yee,
P. Eng. Consulting Geophysicist

J9088
Toronto, Ontario
February 13, 1991

APPENDIX IV

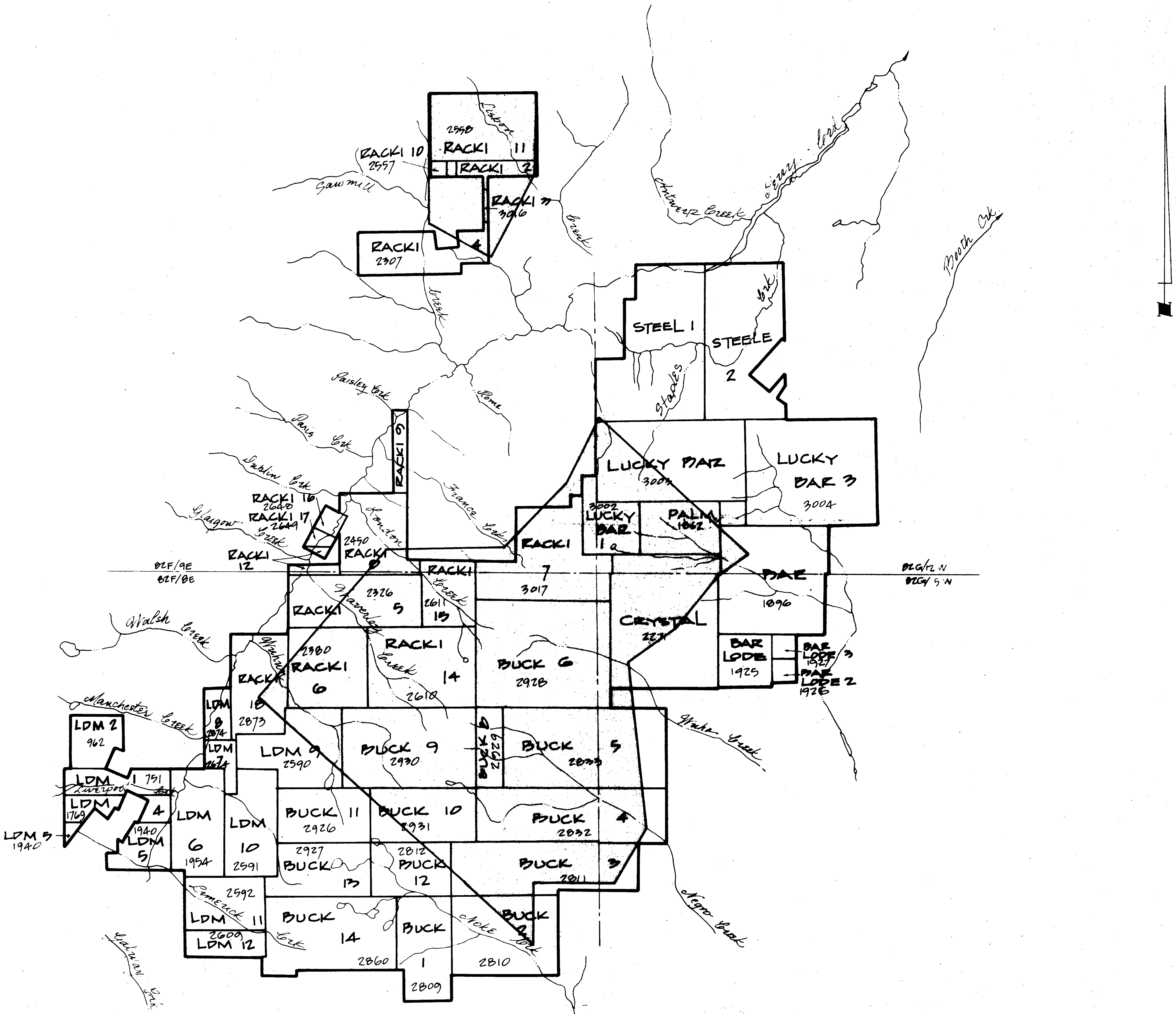
PERSONNEL

FIELD

Flown	December 12 to 16, 1990
Pilot	Bruce MacDonald
Operator	Steve Arstad

OFFICE

Processing	Ed Hamitlon Richard Yee George McDonald
Report	Richard Yee



GEOLOGICAL BRANCH
ASSESSMENT REPORT

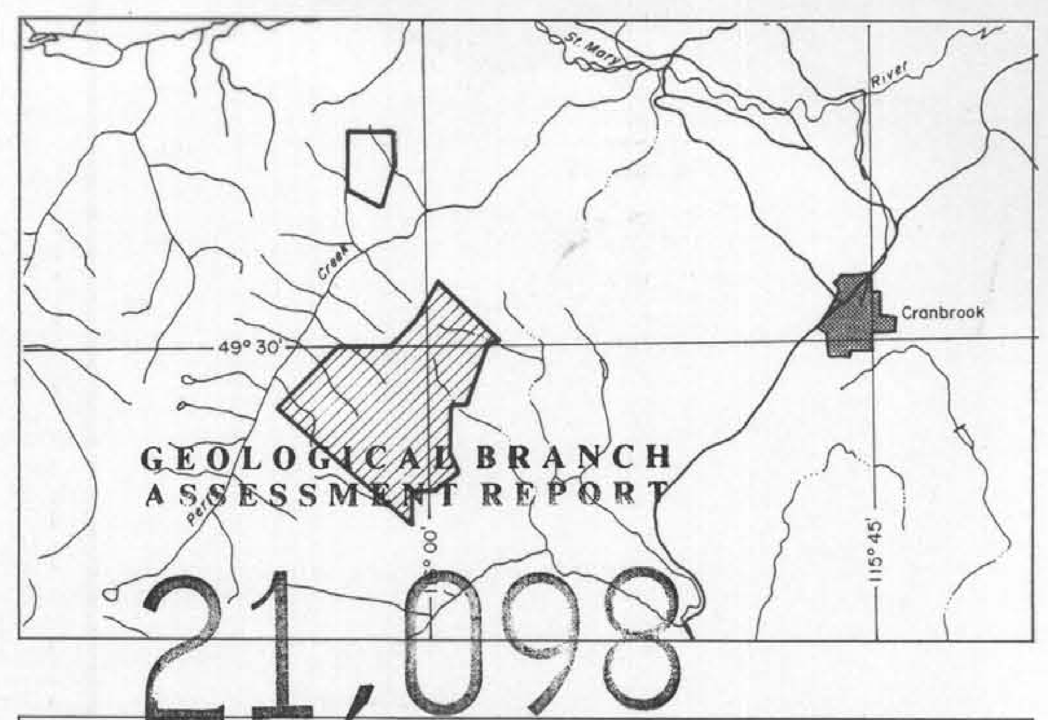
21,098

~ LEGEND ~

☐ · Area of Airborne survey

0 1000 2000 3000 m
500

DRAGOON RESOURCES LTD.	
CHAPLEAU CLAIMS SHOWING AREA of AIRBORNE GEOPHYSICAL SURVEY	
Ft. STEELE MINING DIVISION	BRITISH COLUMBIA
BAPTY RESEARCH LIMITED	
SCALE: 1:50 000	N.T.S. 82F/8E 9E 82G/12W, 5W
DRAWN BY: V Hutchings	
DATE: February '91	FIG. NO 2



BAPTY RESEARCH LTD.

BASE MAP

CRANBROOK B.C.

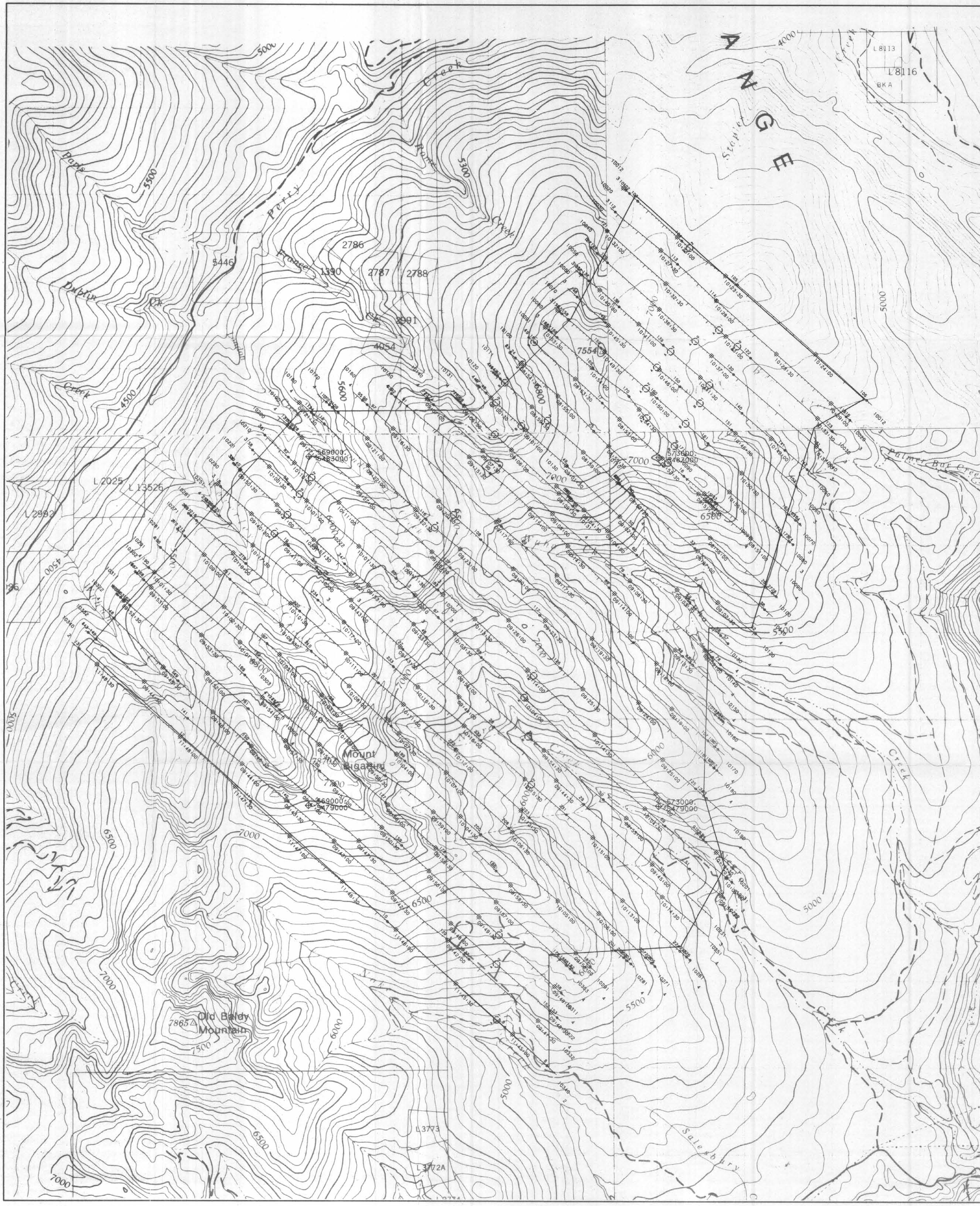
BRITISH COLUMBIA

SCALE 1:20,000

0 660 1320 2640 5280 Feet

0 200 400 1000 2000 Metres

AERODAT LIMITED	DATE:	DECEMBER 1990
	NTS No:	82G/5
	MAP No: 1	J9088 - 1



N

Flight Path

Flight path recovery from VHS video tape.

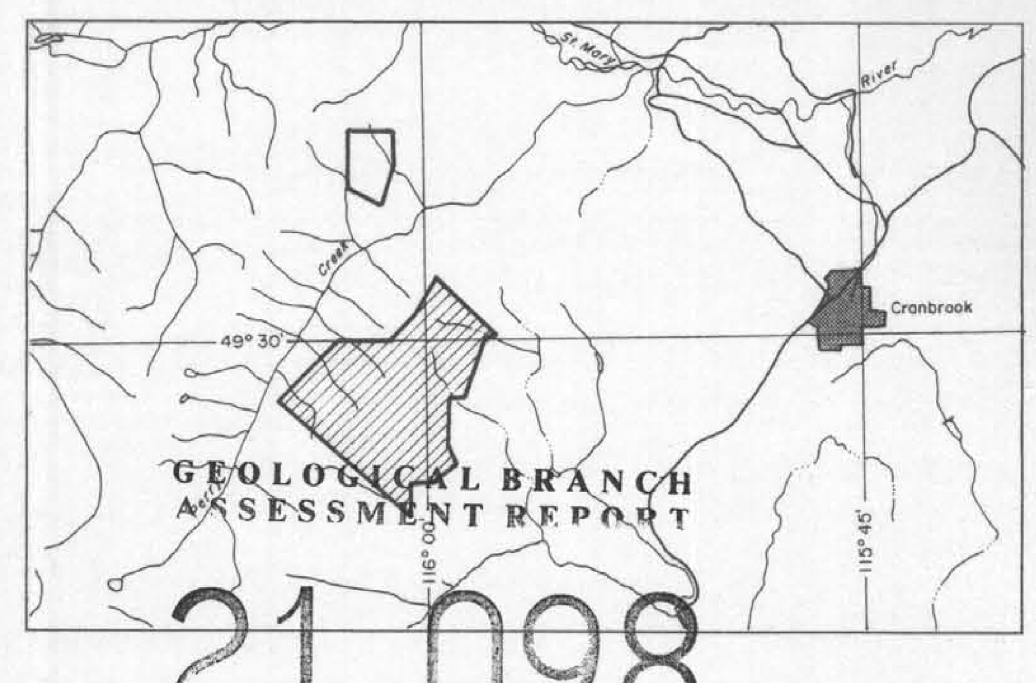
Average terrain clearance 60m
Average line spacing 250m

EM Anomalies

Conductivity Thickness (mhos)

◌	0 - 1
○	1 - 2
⊖	2 - 4
◐	4 - 8
◒	8 - 15
◕	15 - 30
●	> 30

EM Anomaly A, 4600 Hz inphase amplitude 7 ppm. Conductivity thickness 1-2 mhos (see code).



GEOLOGICAL BRANCH
ASSESSMENT REPORT

21,098

BAPTY RESEARCH LTD.

FLIGHT PATH

CRANBROOK B.C.

BRITISH COLUMBIA

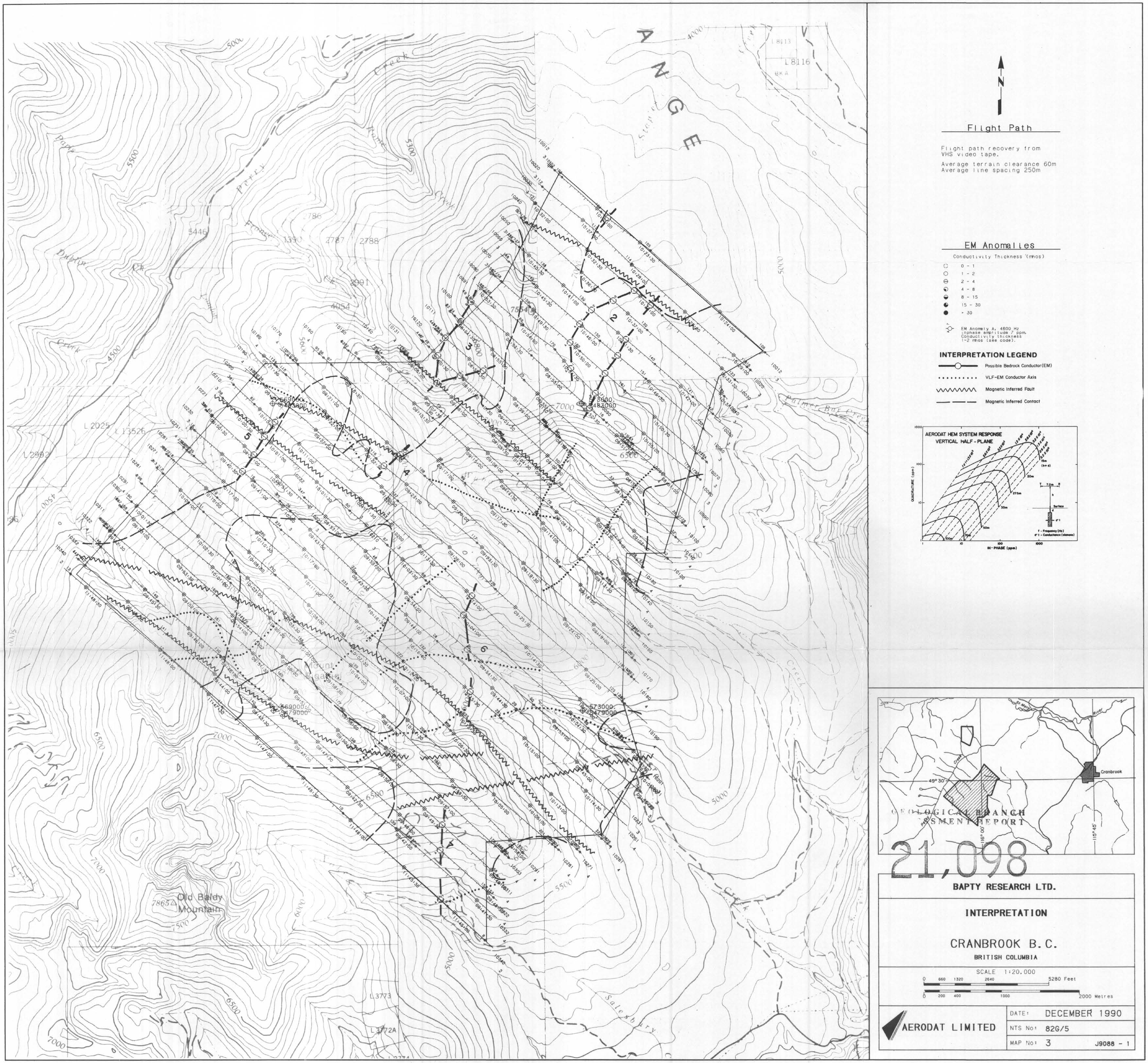
SCALE 1:20,000

0 660 1320 2640 5280 Feet

0 200 400 1000 2000 Metres

AERODAT LIMITED

DATE:	DECEMBER 1990
NTS No:	82G/5
MAP No:	2 J9088 - 1


N
Flight Path
Flight path recovery from VHS video tape.
Average terrain clearance 60m
Average line spacing 250m
EM Anomalies
Conductivity Thickness (mhos)
0 - 1
1 - 2
2 - 4
4 - 8
8 - 15
15 - 30
> 30
EM Anomaly A, 4600 Hz inphase amplitude 7 ppm. Conductivity thickness 1-2 mhos (see code).
INTERPRETATION LEGEND
Possible Bedrock Conductor(EM)
VLF-EM Conductor Axis
Magnetic Inferred Fault
Magnetic Inferred Contact
AERODAT HEM SYSTEM RESPONSE
VERTICAL HALF-PLANE
Cranbrook
GEOLOGICAL BRANCH
ASSESSMENT REPORT
21,098
BAPTY RESEARCH LTD.
INTERPRETATION
CRANBROOK B.C.
BRITISH COLUMBIA
SCALE 1:20,000
0 660 1320 2640 5280 Feet
0 200 400 1000 2000 Metres
AERODAT LIMITED
DATE: DECEMBER 1990
NTS No: 82G/5
MAP No: 3
J9088 - 1
Old Baldy Mountain
Mount Baker
Palmer Bar Creek
Salesbury

Flight Path

Flight path recovery from VHS video tape.

Average terrain clearance 60m
Average line spacing 250m

Magnetics

Total Field Magnetic Intensity Contours in nT.

Cesium high sensitivity magnetometer.

Sensor elevation 45m

Map contours are multiples of those listed below

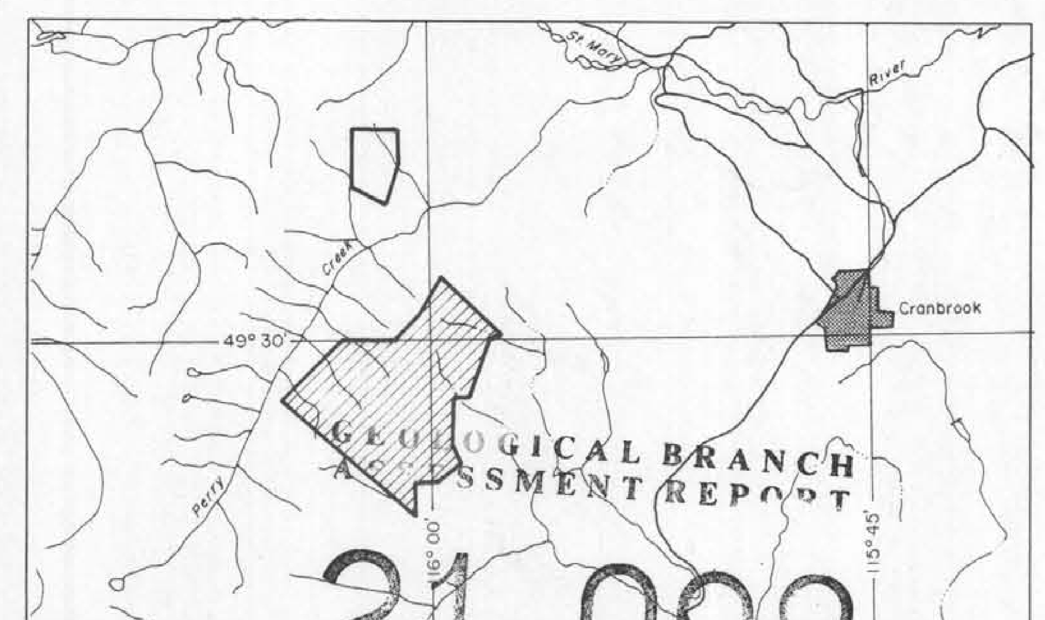
- 2 nT
- 10 nT
- 50 nT
- 250 nT
- 1000 nT

EM Anomalies

Conductivity Thickness (mhos)

- 0 - 1
- 1 - 2
- 2 - 4
- 4 - 8
- 8 - 15
- 15 - 30
- > 30

EM Anomaly A, 4600 Hz inphase amplitude 7 ppm. Conductivity thickness 1-2 mhos (see code).



BAPTY RESEARCH LTD.

TOTAL FIELD MAGNETIC CONTOURS

CRANBROOK B.C.

BRITISH COLUMBIA

SCALE 1:20,000

0 660 1320 2640 5280 Feet

0 200 400 1000 2000 Metres

AERODAT LIMITED

DATE:	DECEMBER 1990
NTS No:	82G/5
MAP No:	4 J9088 - 1

Flight Path

Flight path recovery from VHS video tape.

Average terrain clearance 60m
Average line spacing 250m

Vertical Gradient

Vertical Magnetic Gradient calculated from the total field magnetic intensity in nT/m.

Cesium high sensitivity magnetometer.

Sensor elevation 45m

Map contours are multiples of those listed below

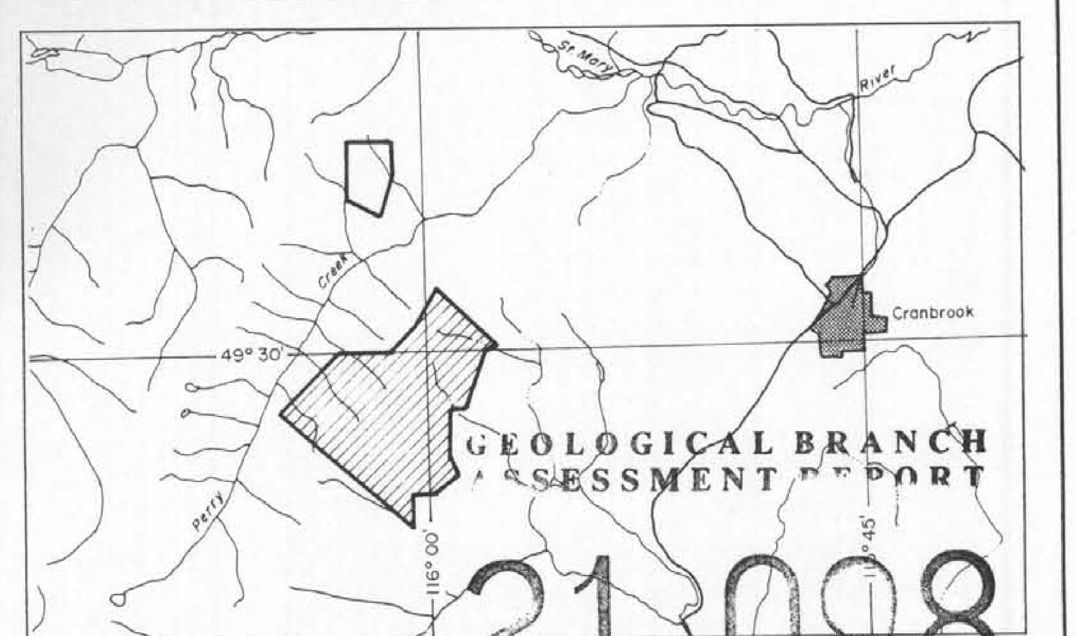
0.02 nT
0.10 nT
0.50 nT
2.50 nT
10.00 nT

EM Anomalies

Conductivity Thickness (mhos)

- 0 - 1
- 1 - 2
- 2 - 4
- 4 - 8
- 8 - 15
- 15 - 30
- > 30

EM Anomaly A, 4600 Hz inphase amplitude 7 ppm. Conductivity thickness 1-2 mhos (see code).



BAPTY RESEARCH LTD.

CALCULATED VERTICAL MAGNETIC GRADIENT

CRANBROOK B.C.

BRITISH COLUMBIA

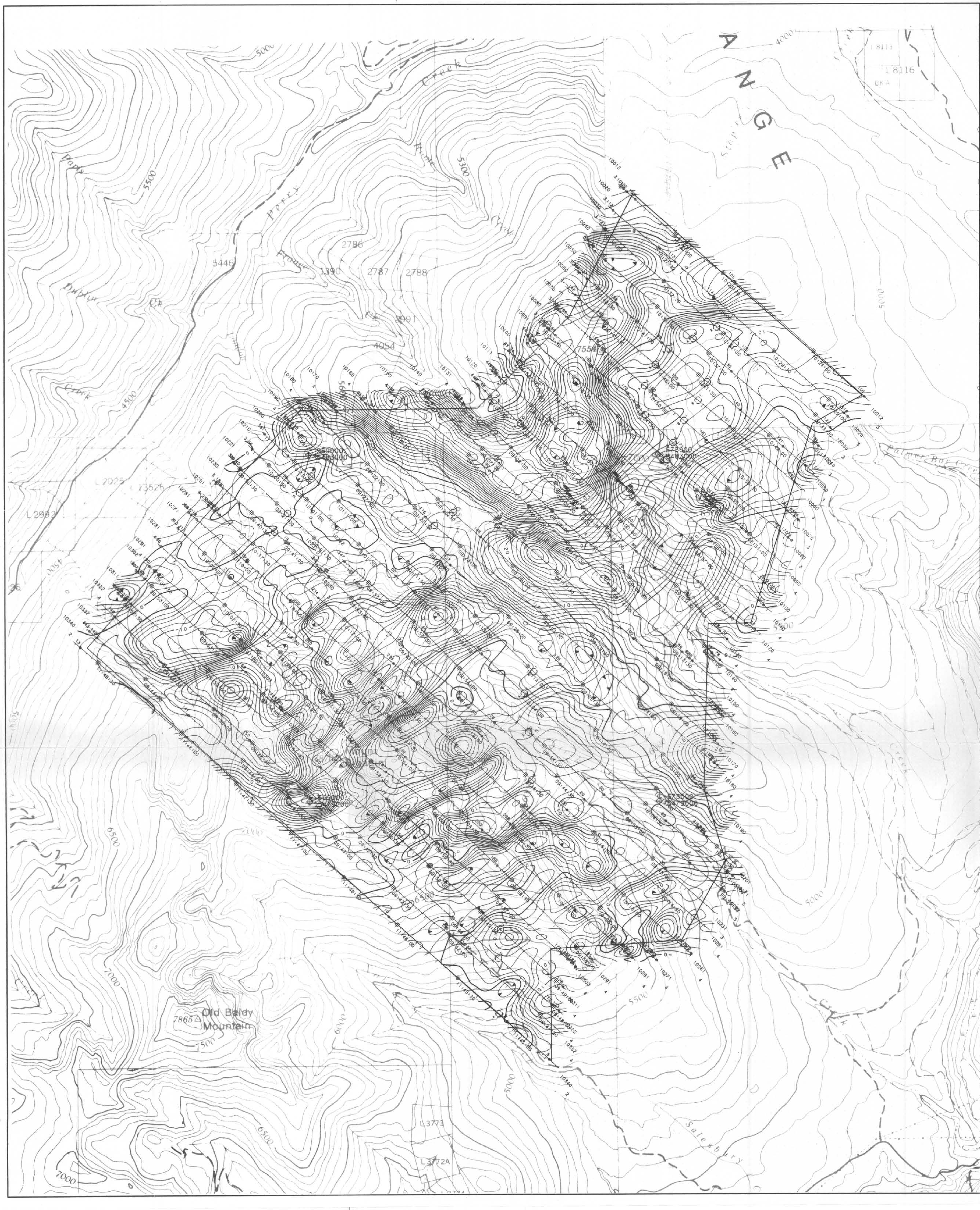
SCALE 1:20,000

0 660 1320 2640 5280 Feet

0 200 400 1000 2000 Metres

AERODAT LIMITED

DATE:	DECEMBER 1990
NTS No:	82G/5
MAP No:	5 J9088 - 1



N

Flight Path

Flight path recovery from VHS video tape.

Average terrain clearance 60m
Average line spacing 250m

VLF-EM

VLF-EM Total Field Intensity in percent.

Station: NLK
Jim Creek, Washingtom
24.8 kHz

Sensor elevation 45m

Map contours are multiples of those listed below

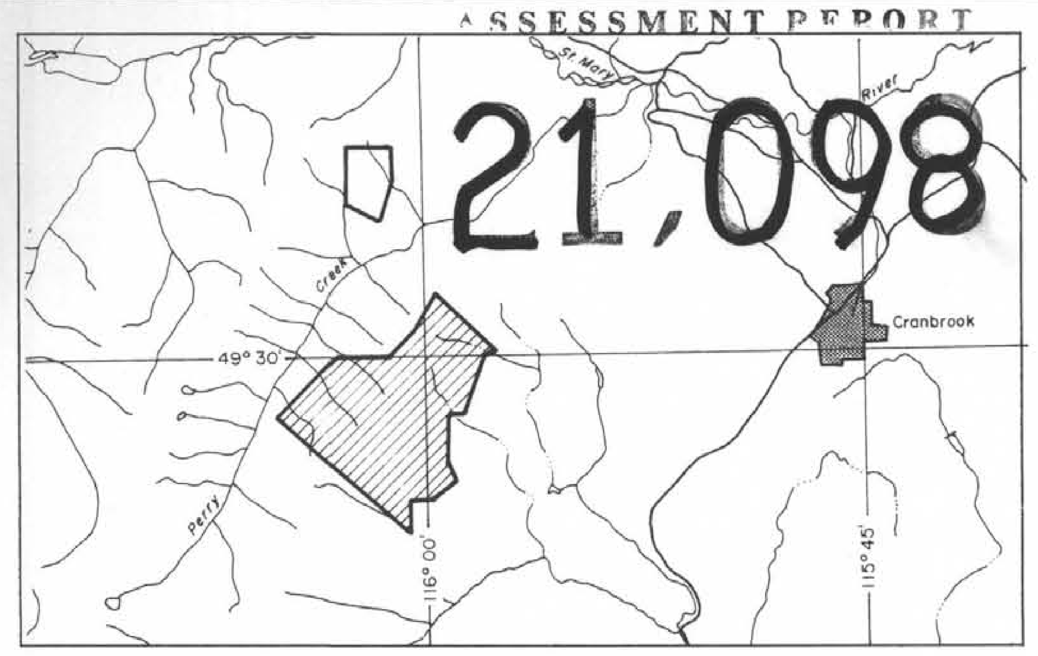
2 %
10 %
50 %
250 %

EM Anomalies

Conductivity Thickness (mhos)

0 - 1
1 - 2
2 - 4
4 - 8
8 - 15
15 - 30
> 30

EM Anomaly A, 4600 Hz inphase amplitude 7 ppm. Conductivity thickness 1-2 mhos (see code).



BAPTY RESEARCH LTD.

VLF-EM TOTAL FIELD CONTOURS (LINE CHANNEL)

CRANBROOK B.C.

BRITISH COLUMBIA

SCALE 1:20,000

0 660 1320 2640 5280 Feet

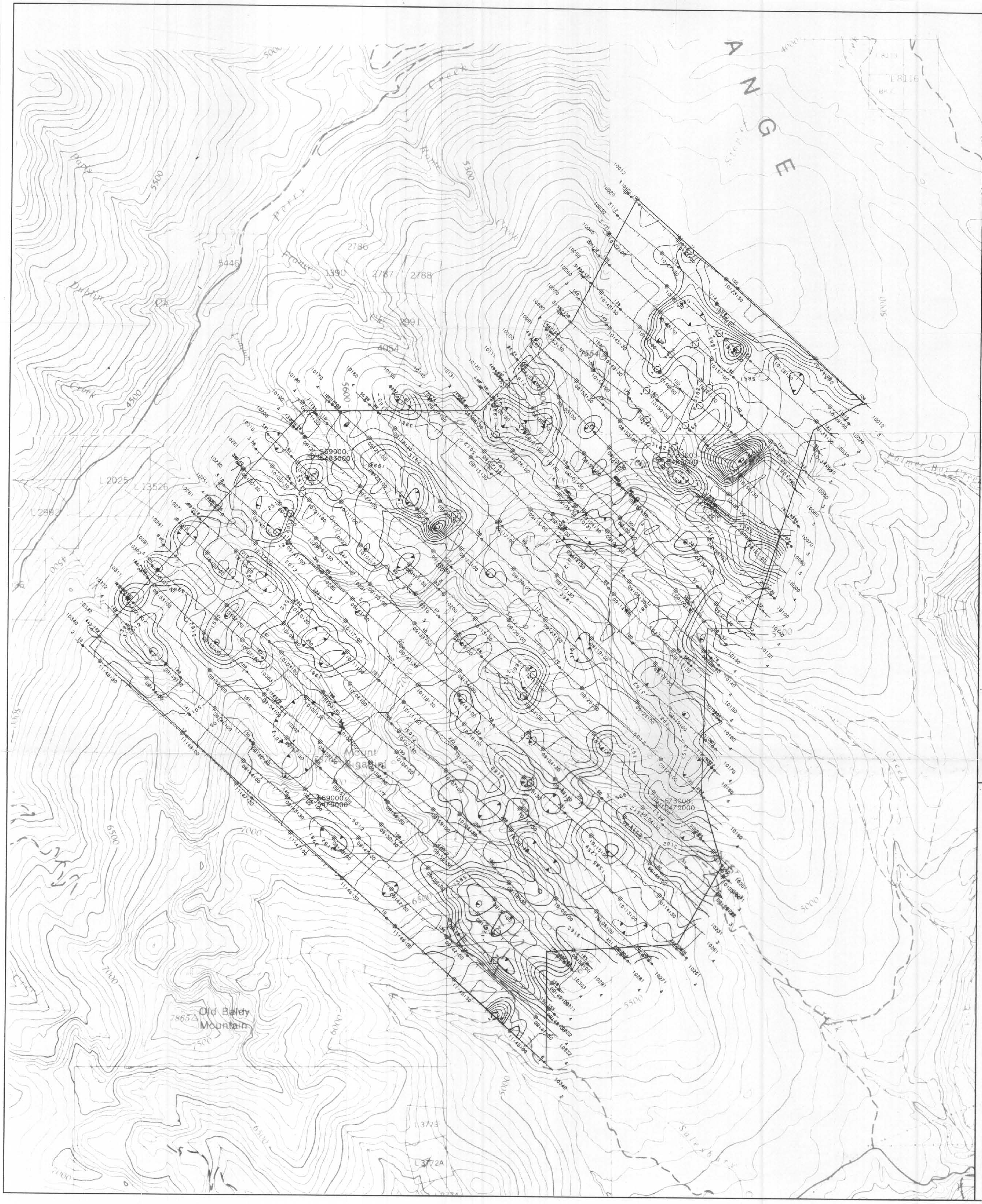
0 200 400 1000 2000 Metres

AERODAT LIMITED

DATE: DECEMBER 1990

NTS No: 82G/5

MAP No: 6 J9088 - 1



N

Flight Path

Flight path recovery from VHS video tape.

Average terrain clearance 60m
Average line spacing 250m

Apparent Resistivity

Calculated from 4600 Hz coaxial EM response assuming a 200 m conductive layer.

Contouring in ohm•m at logarithmic intervals.

Sensor elevation 30m

Map contours are multiples of those listed below

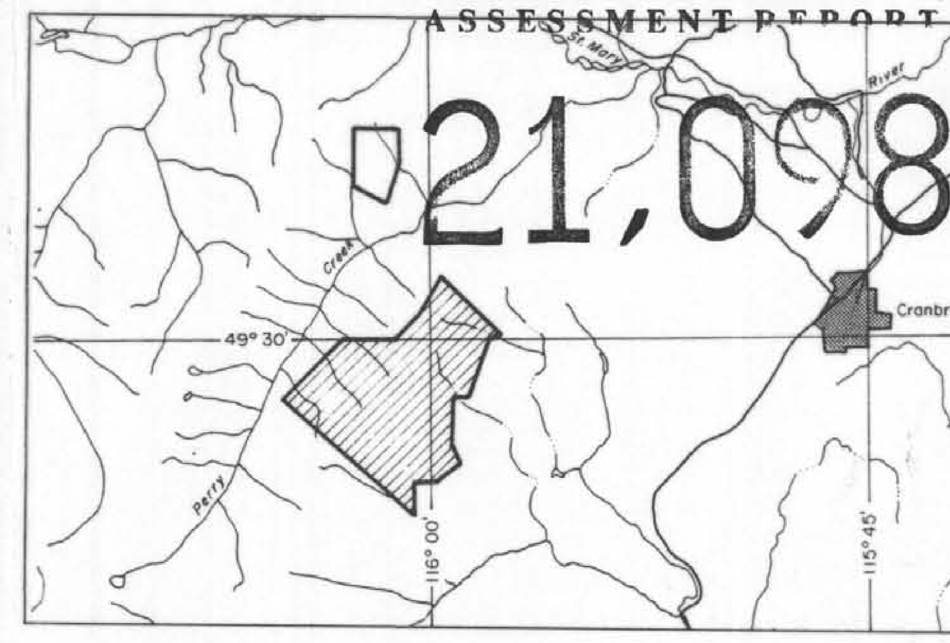
——	0.1 log(ohm•m)
——	0.5 log(ohm•m)
——	1.0 log(ohm•m)
——	5.00 log(ohm•m)

EM Anomalies

Conductivity Thickness (mhos)

◌	0 - 1
○	1 - 2
⊖	2 - 4
◔	4 - 8
◒	8 - 15
◕	15 - 30
●	> 30

EM Anomaly A, 4600 Hz inphase amplitude 7 ppm, Conductivity thickness 1-2 mhos (see code).



BAPTY RESEARCH LTD.

APPARENT RESISTIVITY CONTOURS (4600 Hz)

CRANBROOK B.C.

BRITISH COLUMBIA

SCALE 1:20,000

0 660 1320 2640 5280 Feet

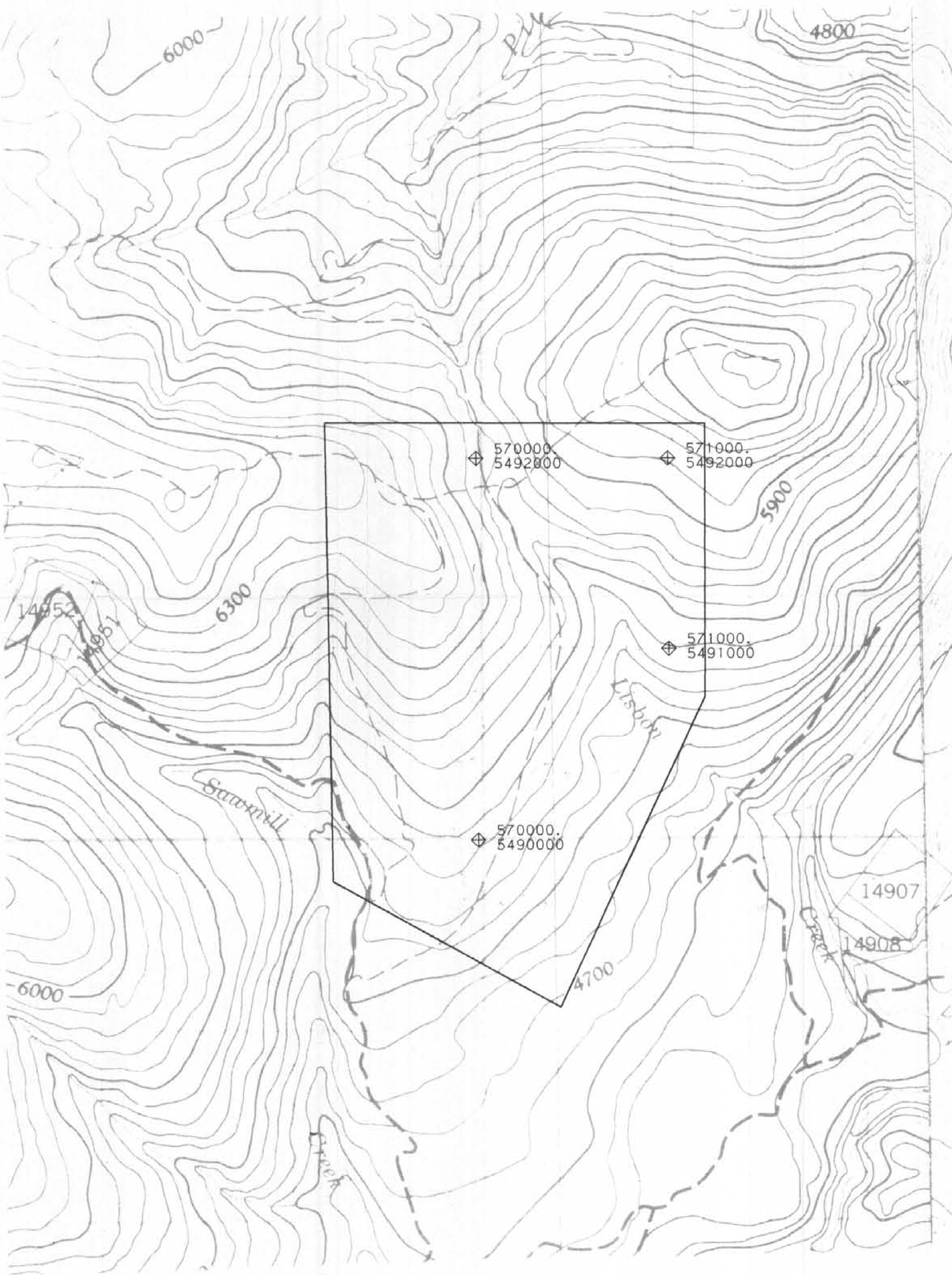
0 200 400 1000 2000 Metres

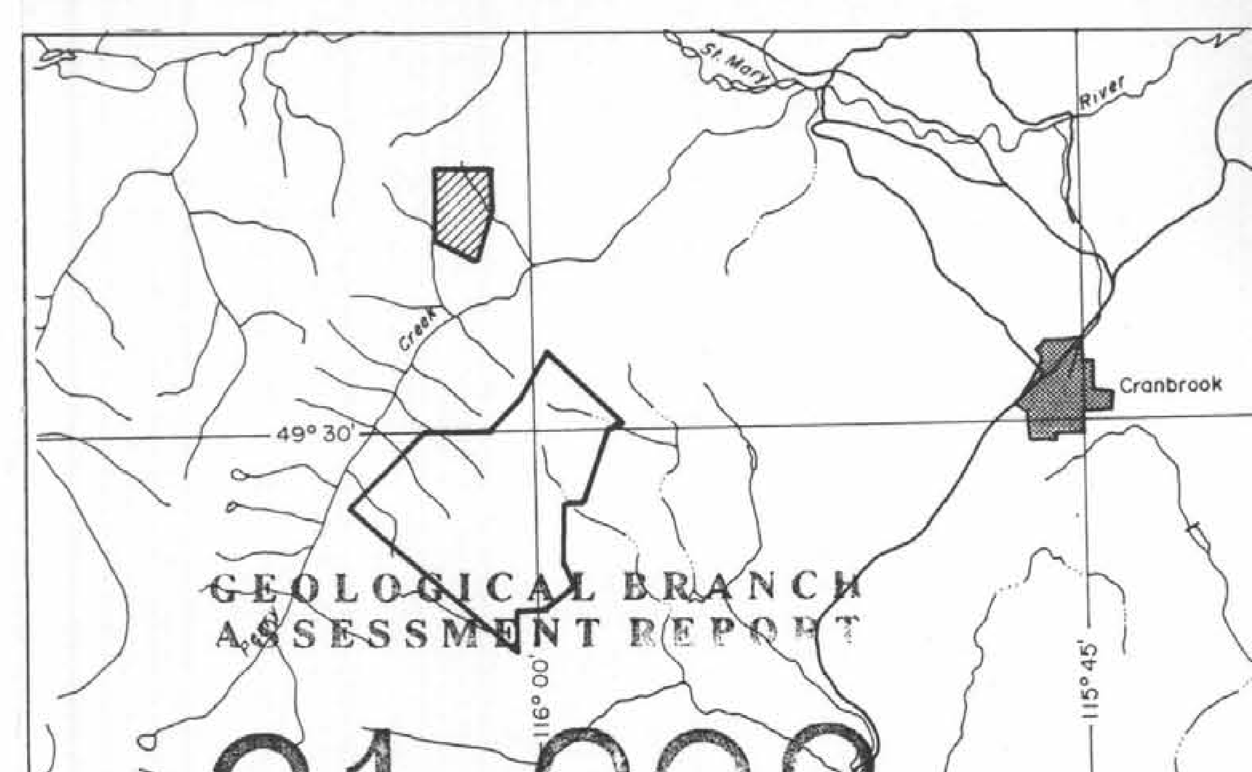
AERODAT LIMITED

DATE: DECEMBER 1990

NTS No: 82G/5

MAP No: 7 J9088 - 1





GEOLOGICAL BRANCH
ASSESSMENT REPORT

21,098

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BASE MAP

CRANBROOK B.C.

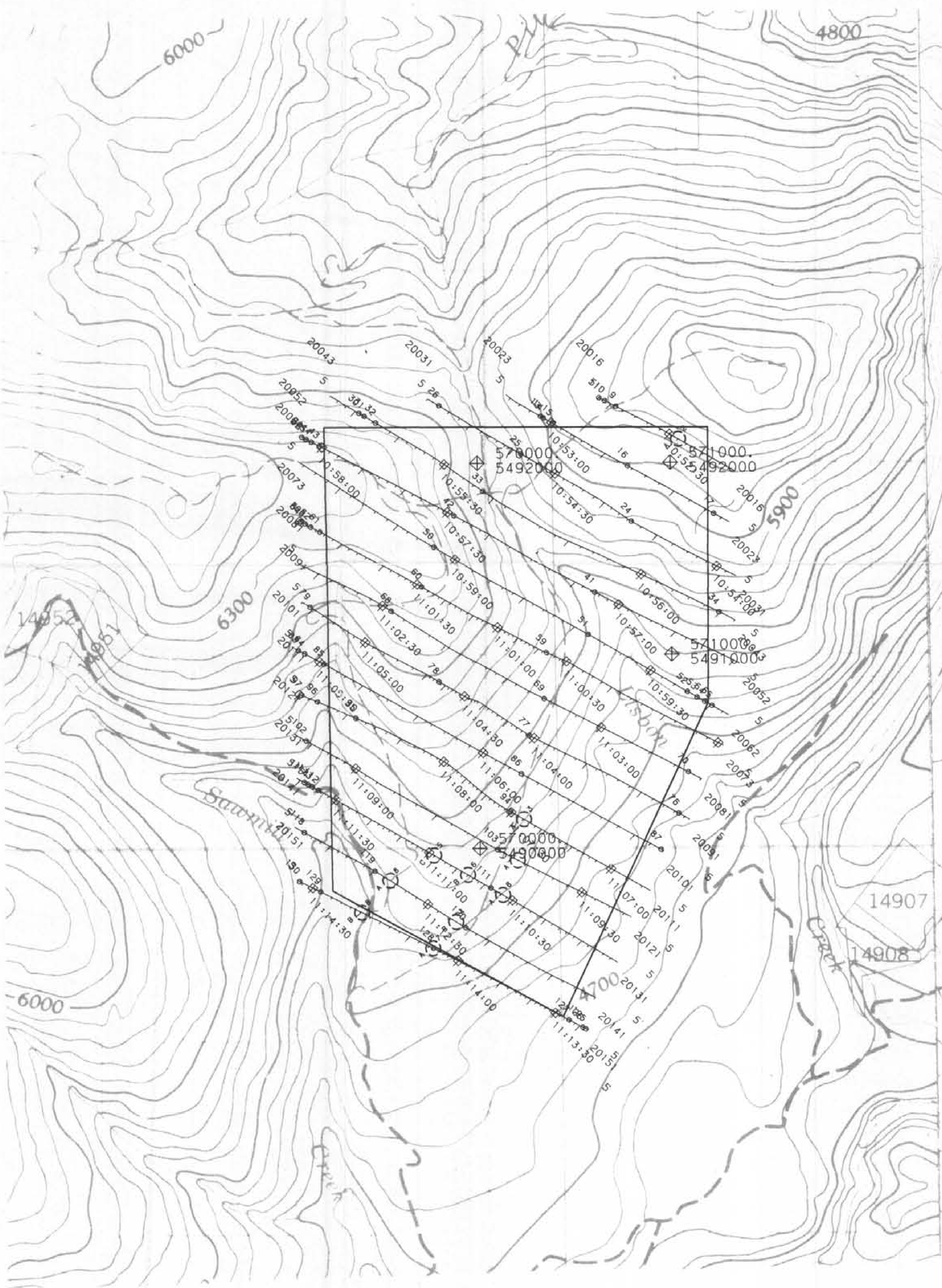
BRITISH COLUMBIA

SCALE 1:20,000

0 660 1320 2640 5280 Feet

0 200 400 1000 2000 Metres

AERODAT LIMITED	DATE: DECEMBER 1990
	NTS No: 82F/9
	MAP No: 1 J9088 - 1



Flight Path

Flight path recovery from VHS video tape.

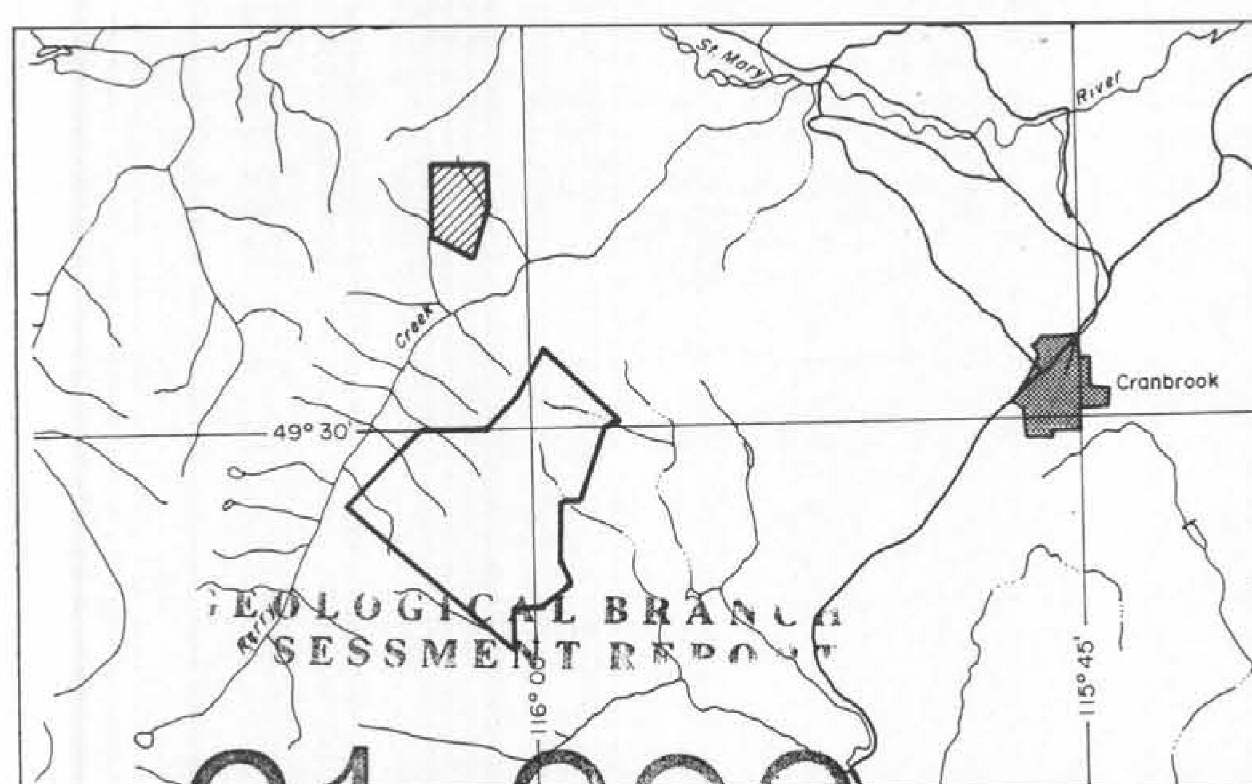
Average terrain clearance 60m
Average line spacing 200m

EM Anomalies

Conductivity Thickness (mhos)

- 0 - 1
- 1 - 2
- 2 - 4
- 4 - 8
- 8 - 15
- 15 - 30
- > 30

EM Anomaly A, 4600 Hz inphase amplitude 7 ppm. Conductivity thickness 1-2 mhos (see code).



GEOLOGICAL BRANCH
ASSESSMENT REPORT

21,098

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FLIGHT PATH

CRANBROOK B.C.

BRITISH COLUMBIA

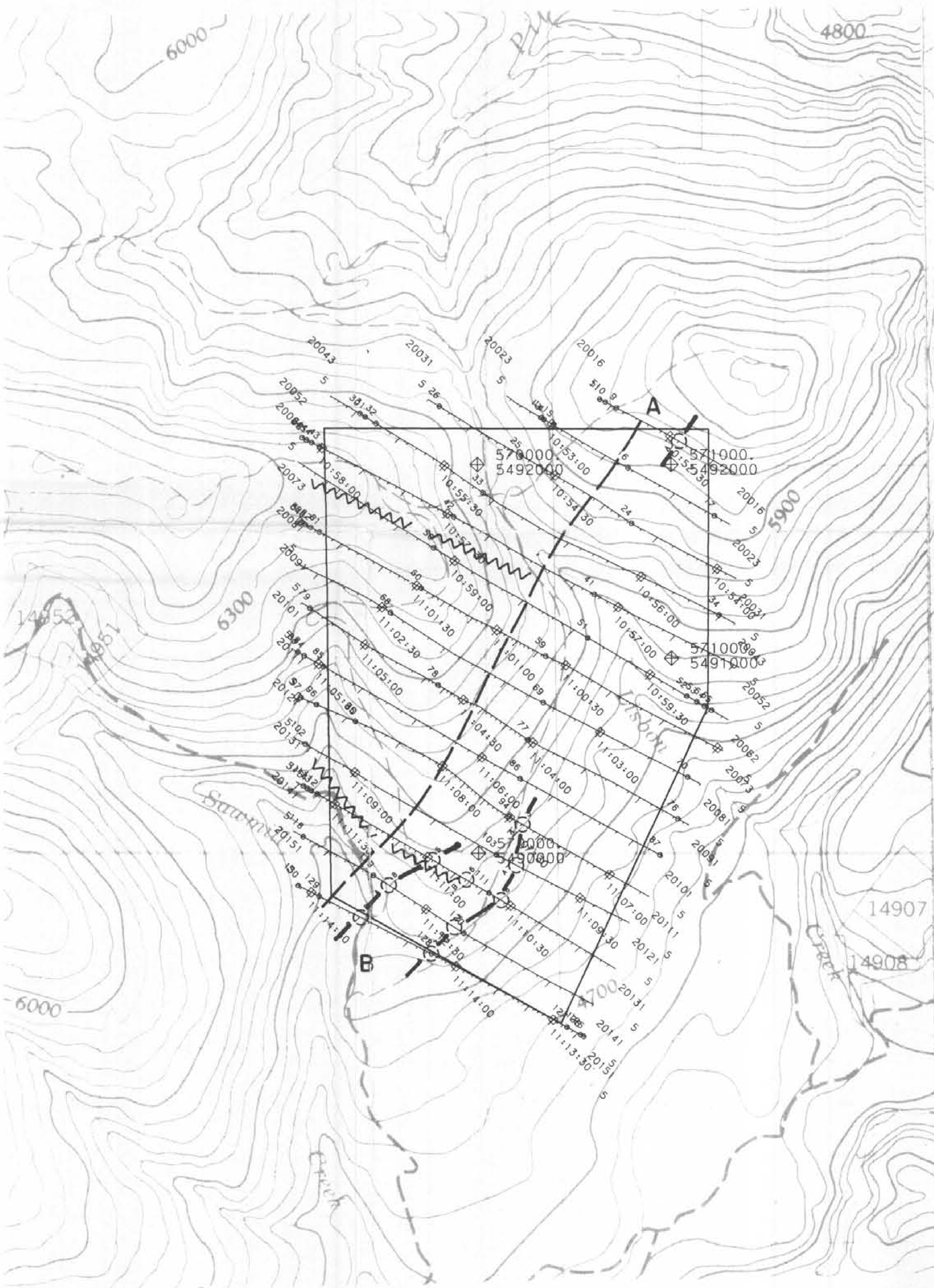
SCALE 1:20,000

0 660 1320 2640 5280 Feet

0 200 400 1000 2000 Metres

AERODAT LIMITED

DATE:	DECEMBER 1990
NTS No:	82F/9
MAP No:	2 J9088 - 1



N

Flight Path

Flight path recovery from VHS video tape.

Average terrain clearance 60m
Average line spacing 200m

EM Anomalies

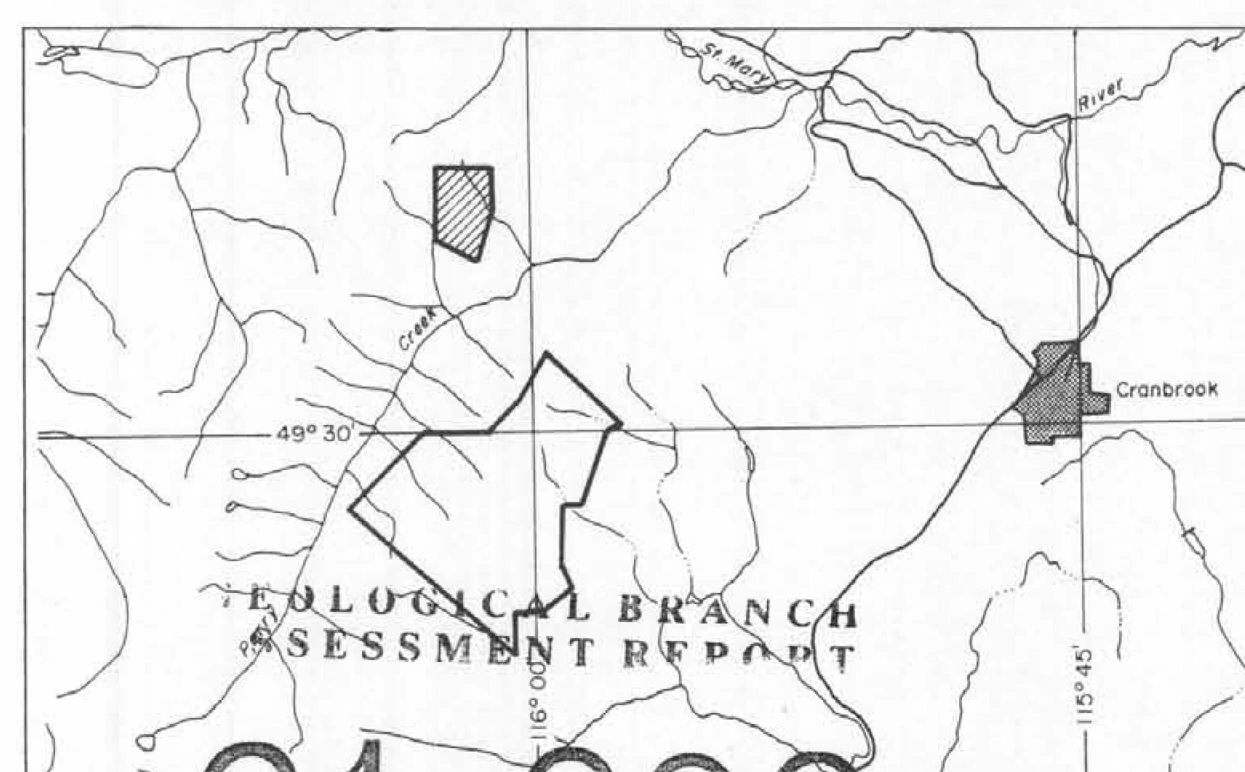
Conductivity Thickness (mhos)

- 0 - 1
- 1 - 2
- 2 - 4
- 4 - 8
- 8 - 15
- 15 - 30
- > 30

EM Anomaly A, 4600 Hz inphase amplitude 7 ppm. Conductivity thickness 1-2 mhos (see code).

INTERPRETATION LEGEND

- Possible Bedrock Conductor(EM)
- VLF-EM Conductor Axis
- Magnetic Inferred Fault
- Magnetic Inferred Contact



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INTERPRETATION

CRANBROOK B.C.

BRITISH COLUMBIA

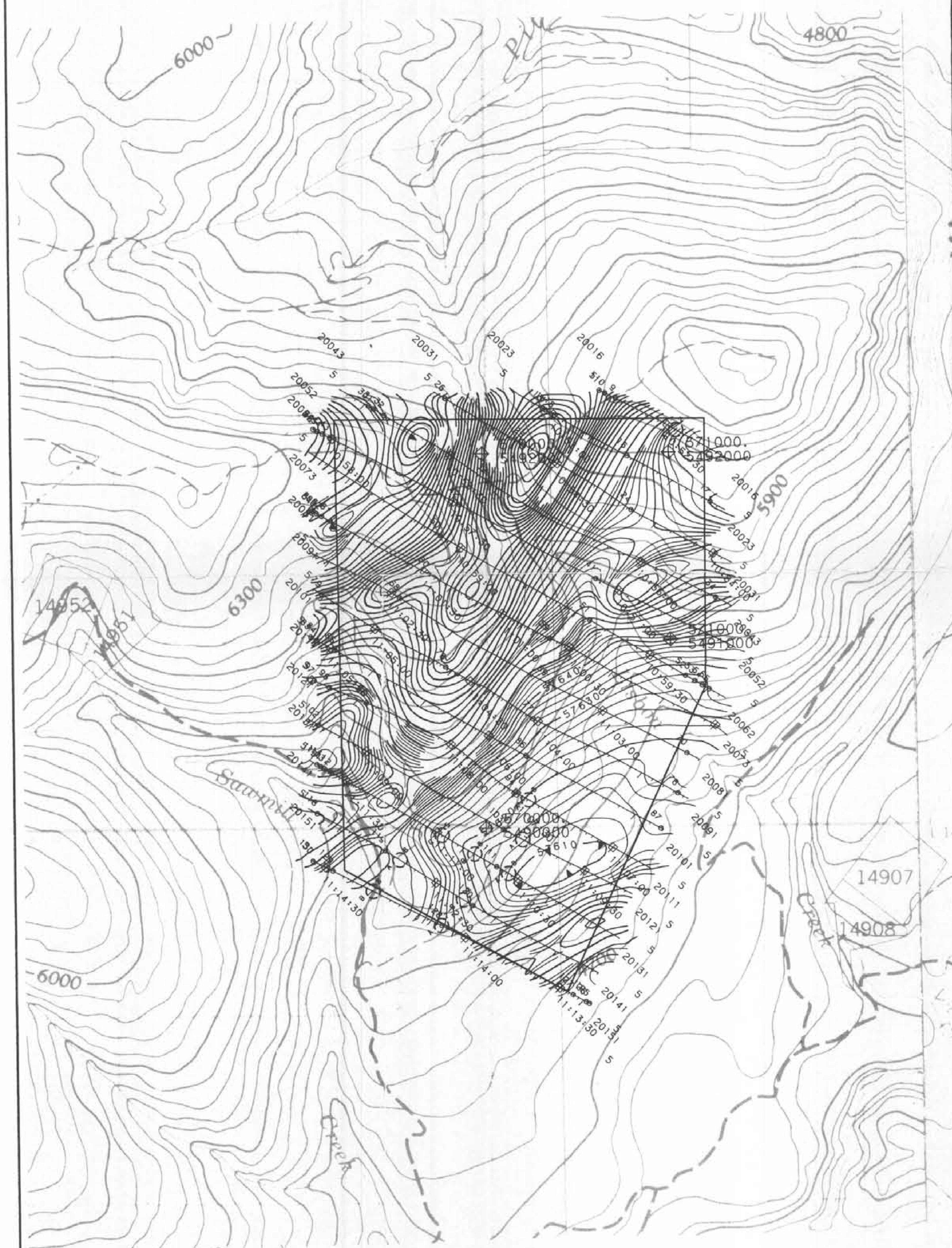
SCALE 1:20,000

0 660 1320 2640 5280 Feet

0 200 400 1000 2000 Metres

AERODAT LIMITED

DATE:	DECEMBER 1990
NTS No:	82F/9
MAP No:	3 J9088 - 1



Flight Path

Flight path recovery from VHS video tape.

Average terrain clearance 60m
Average line spacing 200m

N

EM Anomalies

Conductivity Thickness (mhos)

- 0 - 1
- 1 - 2
- 2 - 4
- 4 - 8
- 8 - 15
- 15 - 30
- > 30

EM Anomaly A, 4600 Hz inphase amplitude 7 ppm. Conductivity thickness 1-2 mhos (see code).

Magnetics

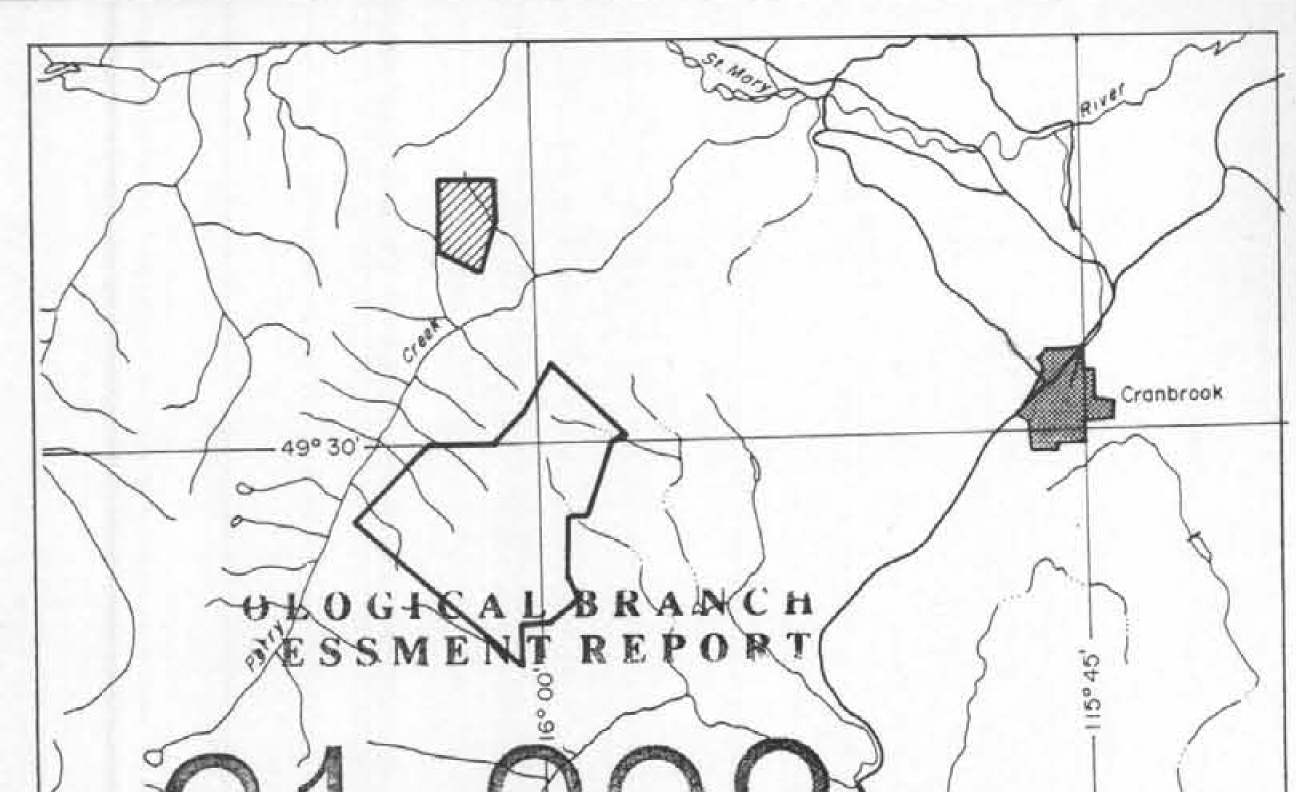
Total Field Magnetic Intensity Contours in nT.

Cesium high sensitivity magnetometer.

Sensor elevation 45m

Map contours are multiples of those listed below

- 2 nT
- 10 nT
- 50 nT
- 250 nT
- 1000 nT



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TOTAL FIELD MAGNETIC CONTOURS

CRANBROOK B.C.

BRITISH COLUMBIA

SCALE 1:20,000

0 660 1320 2640 5280 Feet

0 200 400 1000 2000 Metres

AERODAT LIMITED

DATE: DECEMBER 1990

NTS No: 82F/9

MAP No: 4 J9088 - 1

Flight Path

Flight path recovery from VHS video tape.

Average terrain clearance 60m
Average line spacing 200m

N

EM Anomalies

Conductivity Thickness (mhos)

- 0 - 1
- 1 - 2
- 2 - 4
- 4 - 8
- 8 - 15
- 15 - 30
- > 30

EM Anomaly A, 4600 Hz inphase amplitude 7 ppm. Conductivity thickness 1-2 mhos (see code).

Vertical Gradient

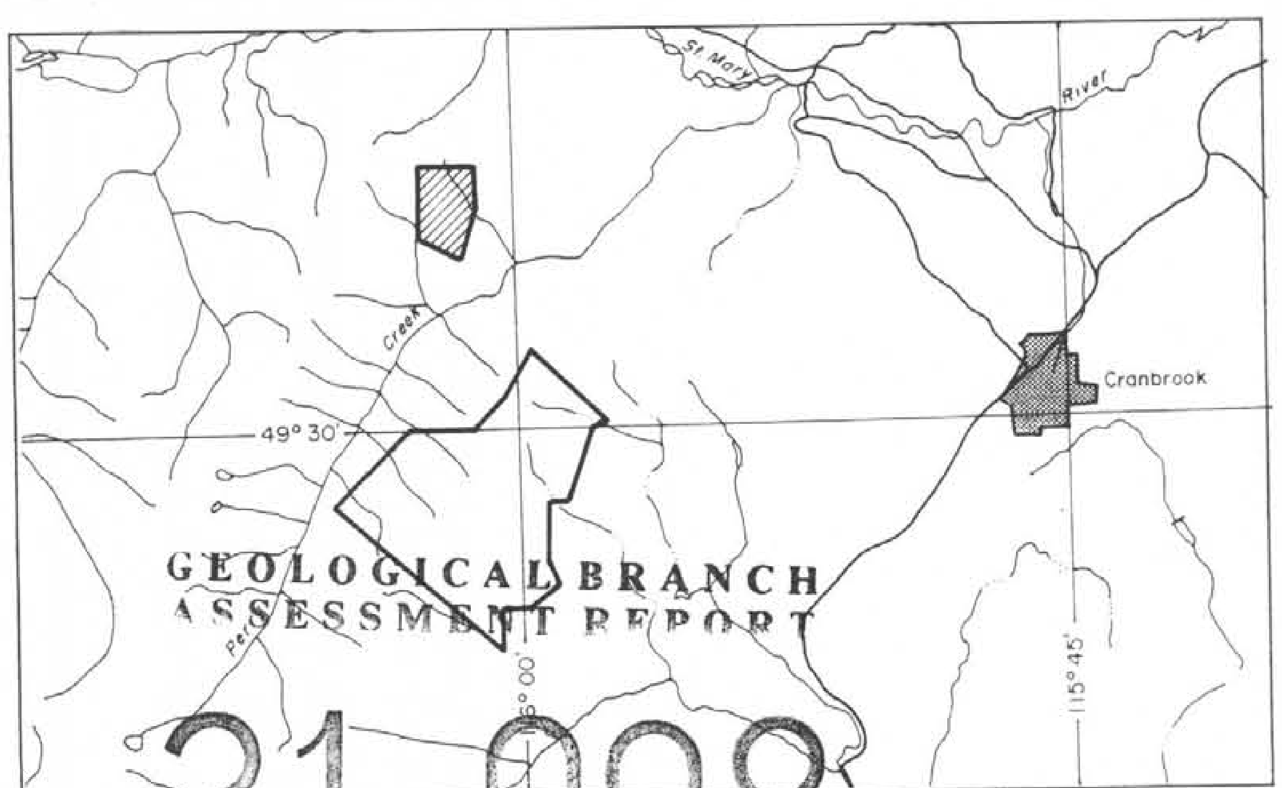
Vertical Magnetic Gradient calculated from the total field magnetic intensity in nT/m.

Cesium high sensitivity magnetometer.

Sensor elevation 45m

Map contours are multiples of those listed below

0.02 nT
0.10 nT
0.50 nT
2.50 nT
10.00 nT



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CALCULATED VERTICAL MAGNETIC GRADIENT

CRANBROOK B.C.

BRITISH COLUMBIA

SCALE 1:20,000

0 660 1320 2640 5280 Feet

0 200 400 1000 2000 Metres

AERODAT LIMITED

DATE:	DECEMBER 1990
NTS No:	82F/9
MAP No:	5 J9088 - 1

Flight Path

Flight path recovery from VHS video tape.

Average terrain clearance 60m
Average line spacing 200m

EM Anomalies

Conductivity Thickness (mhos)

- 0 - 1
- 1 - 2
- 2 - 4
- 4 - 8
- 8 - 15
- 15 - 30
- > 30

EM Anomaly A, 4600 Hz inphase amplitude 7 ppm. Conductivity thickness 1-2 mhos (see code).

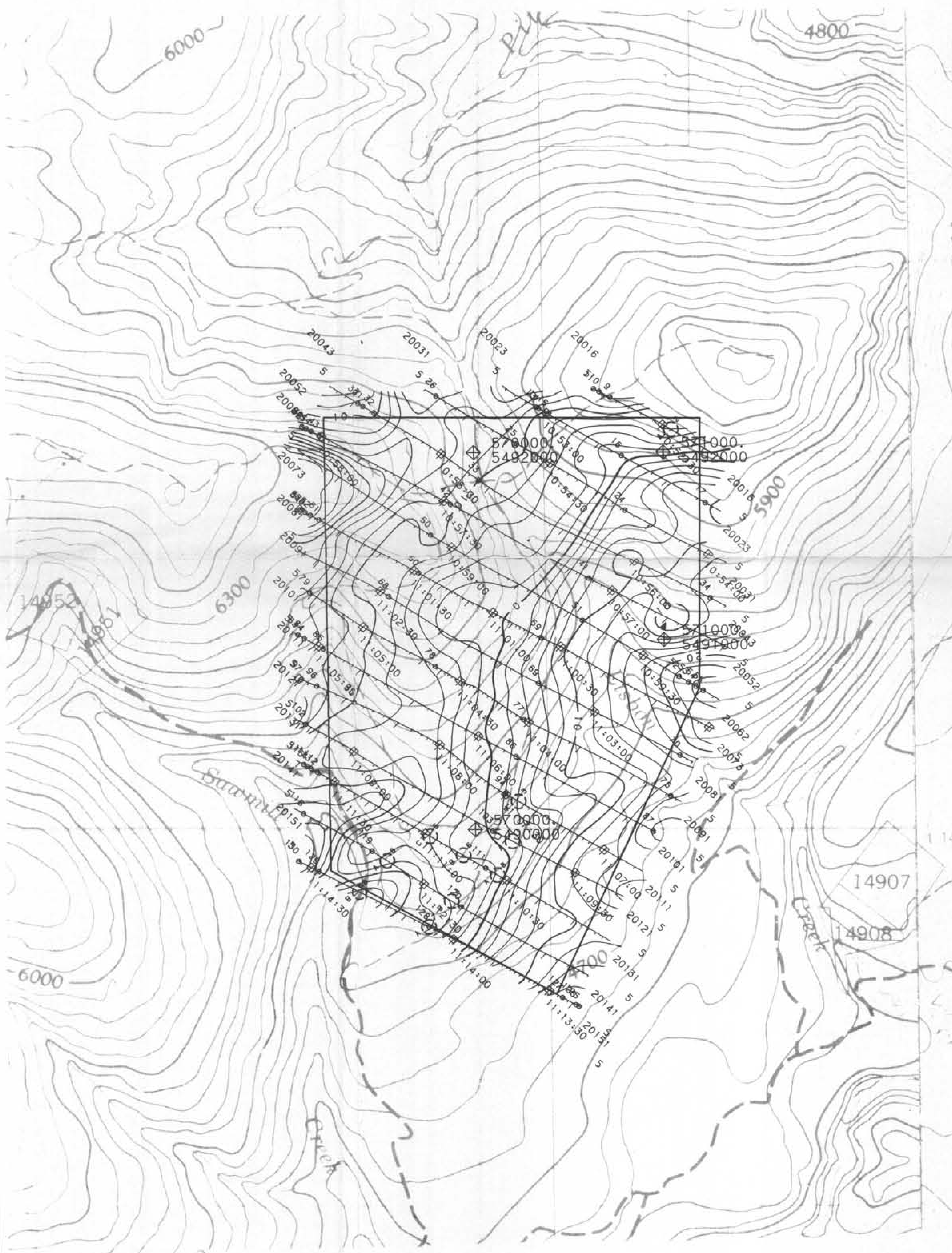
VLF-EM

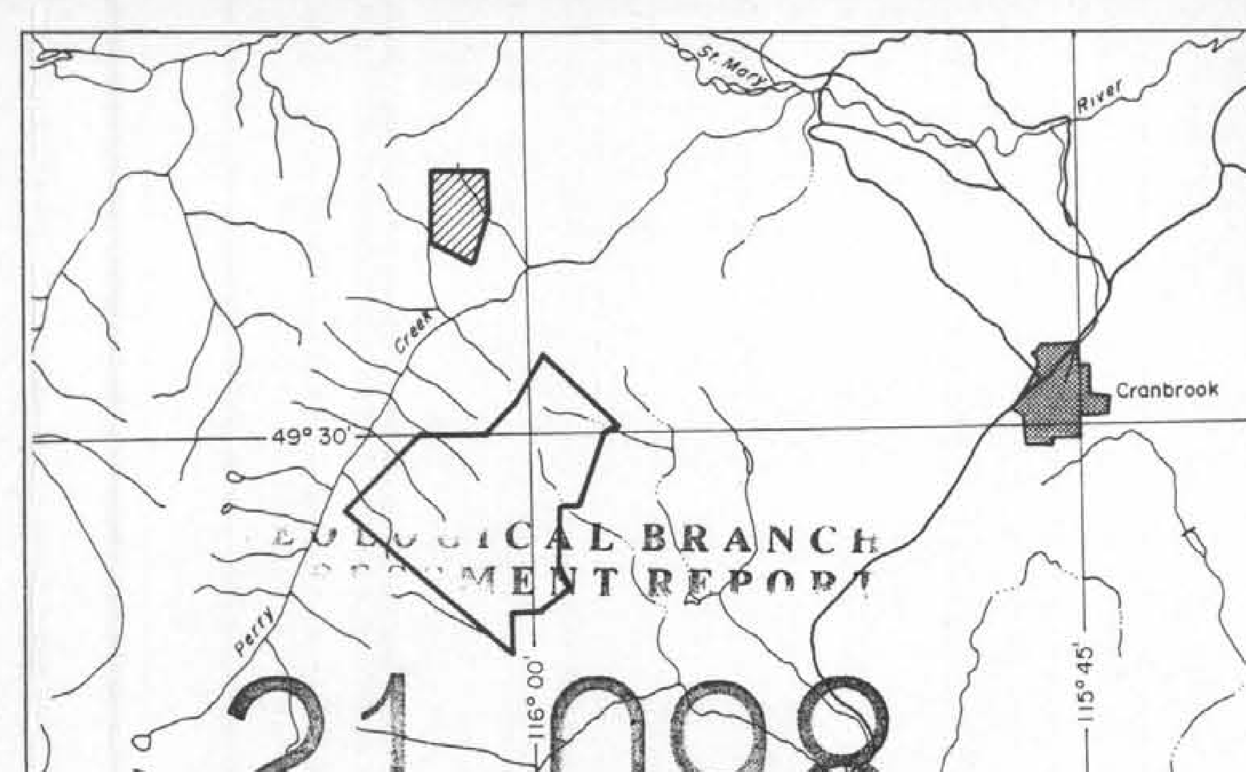
VLF-EM Total Field Intensity in percent.

Station: NLK
Jim Creek, Washingtom
24.8 kHz

Sensor elevation 45m

Map contours are multiples of those listed below
- 2 %
- 10 %
- 50 %
- 250 %





GEOLOGICAL BRANCH ASSESSMENT REPORT

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VLF-EM TOTAL FIELD CONTOURS (LINE CHANNEL)

CRANBROOK B.C.

BRITISH COLUMBIA

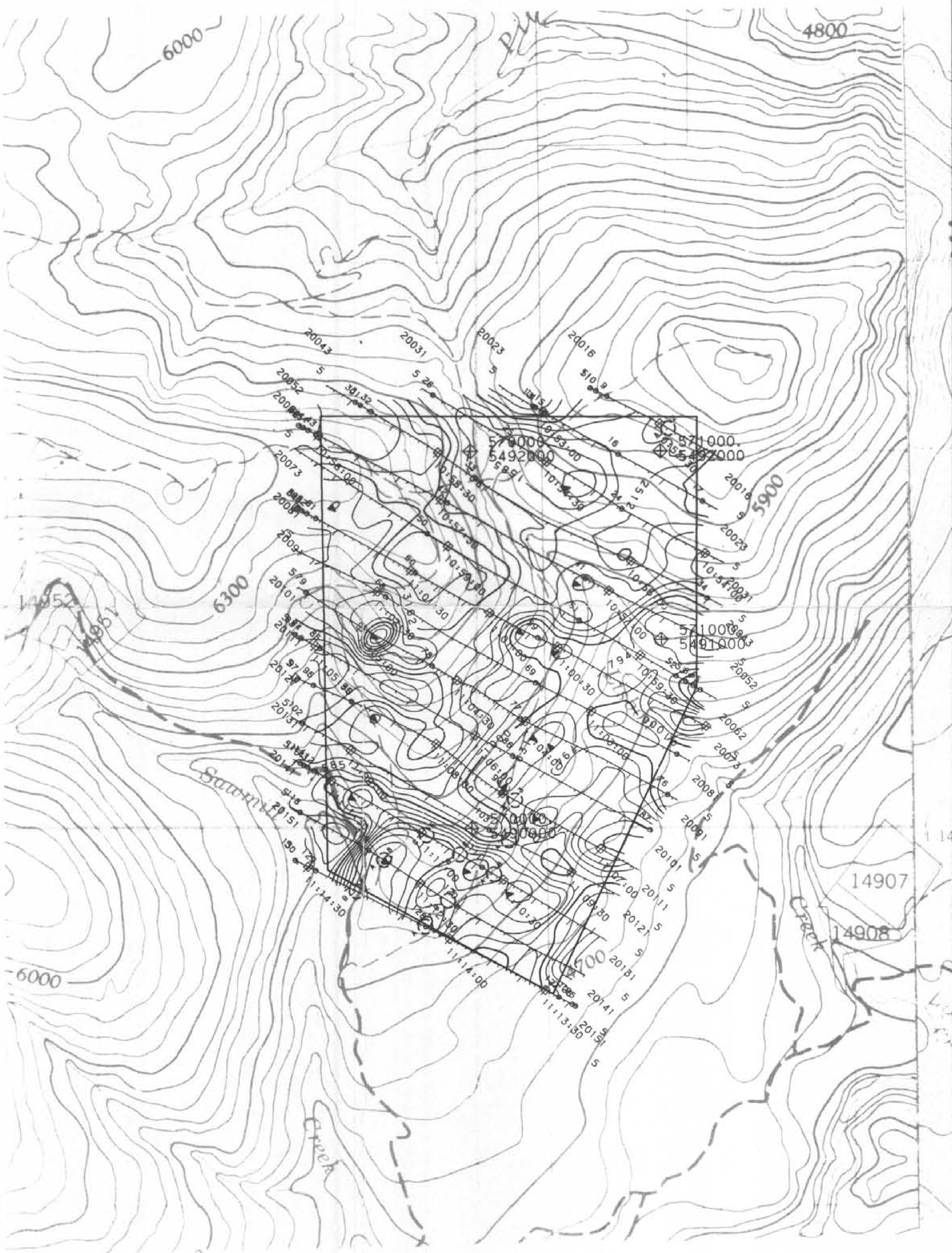
SCALE 1:20,000

0 660 1320 2640 5280 Feet

0 200 400 1000 2000 Metres

AERODAT LIMITED

DATE:	DECEMBER 1990
NTS No:	82F/9
MAP No: 6	J9088 - 1



Flight Path

Flight path recovery from VHS video tape.

Average terrain clearance 60m
Average line spacing 200m

N

EM Anomalies

Conductivity Thickness (mhos)

- 0 - 1
- 1 - 2
- 2 - 4
- 4 - 8
- 8 - 15
- 15 - 30
- > 30

EM Anomaly A, 4600 Hz inphase amplitude 7 ppm. Conductivity thickness 1-2 mhos (see code).

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- 0.5 log(ohm•m)
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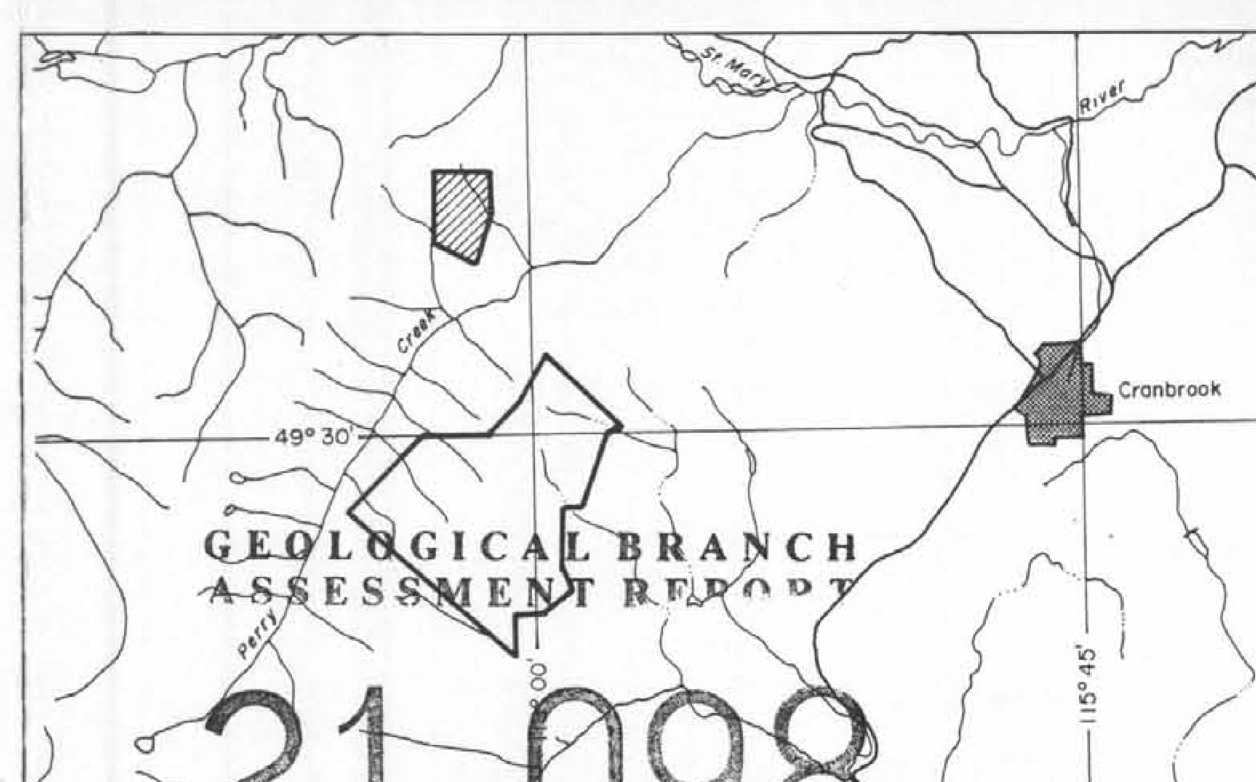

GEOLOGICAL BRANCH
ASSESSMENT REPORT

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BAPTY RESEARCH LTD.

APPARENT RESISTIVITY CONTOURS (4600 Hz)

CRANBROOK B.C.

BRITISH COLUMBIA

SCALE 1:20,000

0 660 1320 2640 5280 Feet

0 200 400 1000 2000 Metres

AERODAT LIMITED

DATE:	DECEMBER 1990
NTS No:	82F/9
MAP No:	7 J9088 - 1