ASSESSMENT REPORT ON THE

AIRBORNE MAGNETIC, ELECTROMAGNETIC AND VLF SURVEY

OVER THE

SKOOK 3 to 6 and SKOOK 16 MINERAL CLAIMS,

FORT ST. JAMES AREA, BRITISH COLUMBIA

OMINECA MINING DIVISION
NTS 93N/1W, 2E

Latitude: 55°12' Longitude: 124°30'

Owner: Nation River Resources Ltd.
Site 480, R.R. #4,
Courtenay, B.C.
V9N 7J3

Operator: BP Resources Canada Limited
700 - 890 West Pender Street
Vancouver, B.C.
V6C 1K5

BPVR 90-15

Neil Humphreys
March, 1991

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF APPENDICES

1. SUMMARY

The SKOOK 3 to 6 and SKOOK 16 claims are located 90 km north of Fort St. James in north-central British Columbia.

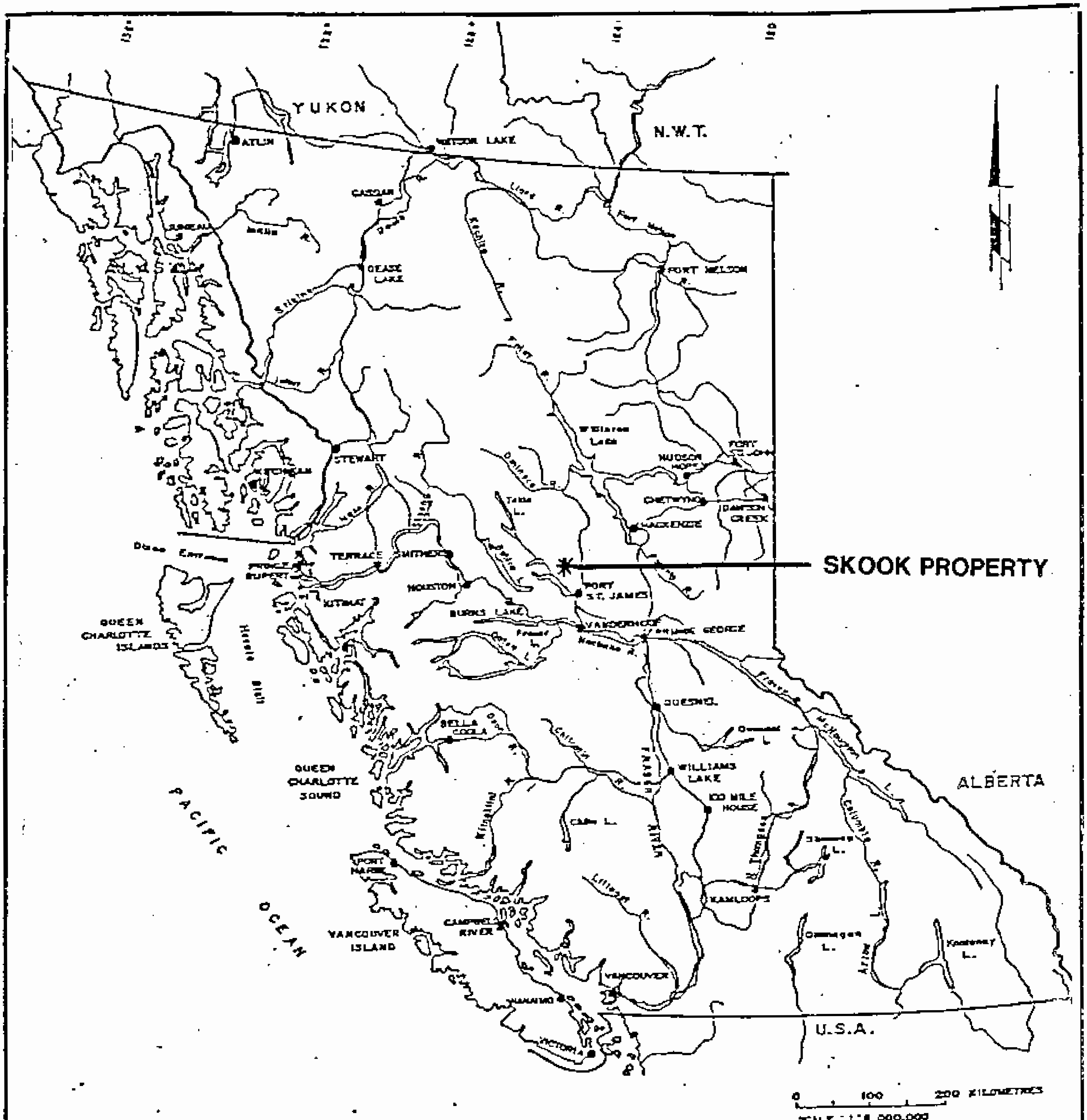
Between December 2 to 6, 1990, a helicopter-borne electromagnetic-VLF-EM survey comprising 210 line kilometers was flown over the claims by Aerodat Limited of Mississaugua, Ontario. The purpose of the survey was to find magnetic-bearing intrusions that may host alkalic porphyry copper-gold deposits.

The results of the survey suggest that favourable intrusions may be present on the SKOOK claims and ground followup is recommended to explore these targets.

A total of $29,000 has been applied as assessment on the claims.

2. LOCATION AND ACCESS

The SKOOK claims are located about 90 km north of Fort St. James in north-central British Columbia. Access to the property is by way of an all-weather gravel road from Fort St. James. Much of the property has been logged and secondary logging roads give excellent access to most of the central area of the claims.



BP Resources Canada Limited

MINING DIVISION

LOCATION MAP

SCALE:		DRAWN BY:	FIG. 1
DATE:	REV:	DRAFTED BY:	
N T S	PROJ	REPORT: BPVR	

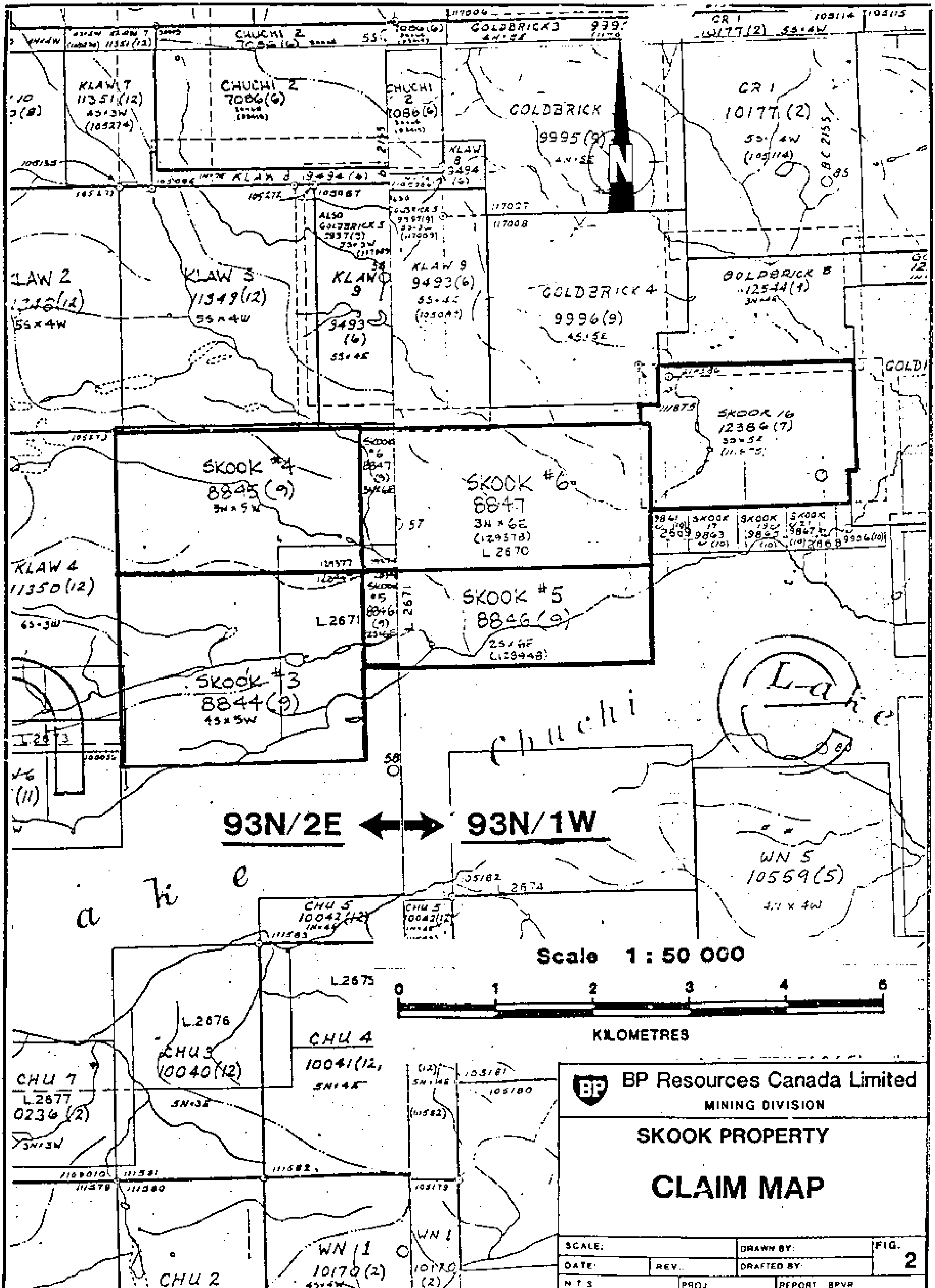
The property consists of low rounded hills with a maximum elevation of 1150 m. Areas that have not been logged support stands of jackpine, spruce and, in poorly drained areas, balsam and alder.

3. CLAIM STATUS

Claim Name	No. of Units	Record No.	Staking/Anniversary Date
SKOOK 3	20	8844	September 2, 1987
SKOOK 4	15	8845	September 2, 1987
SKOOK 5	12	8846	September 2, 1987
SKOOK 6	18	8847	September 2, 1987
SKOOK 16	15	12386	July 21, 1990
Total	80 Units		

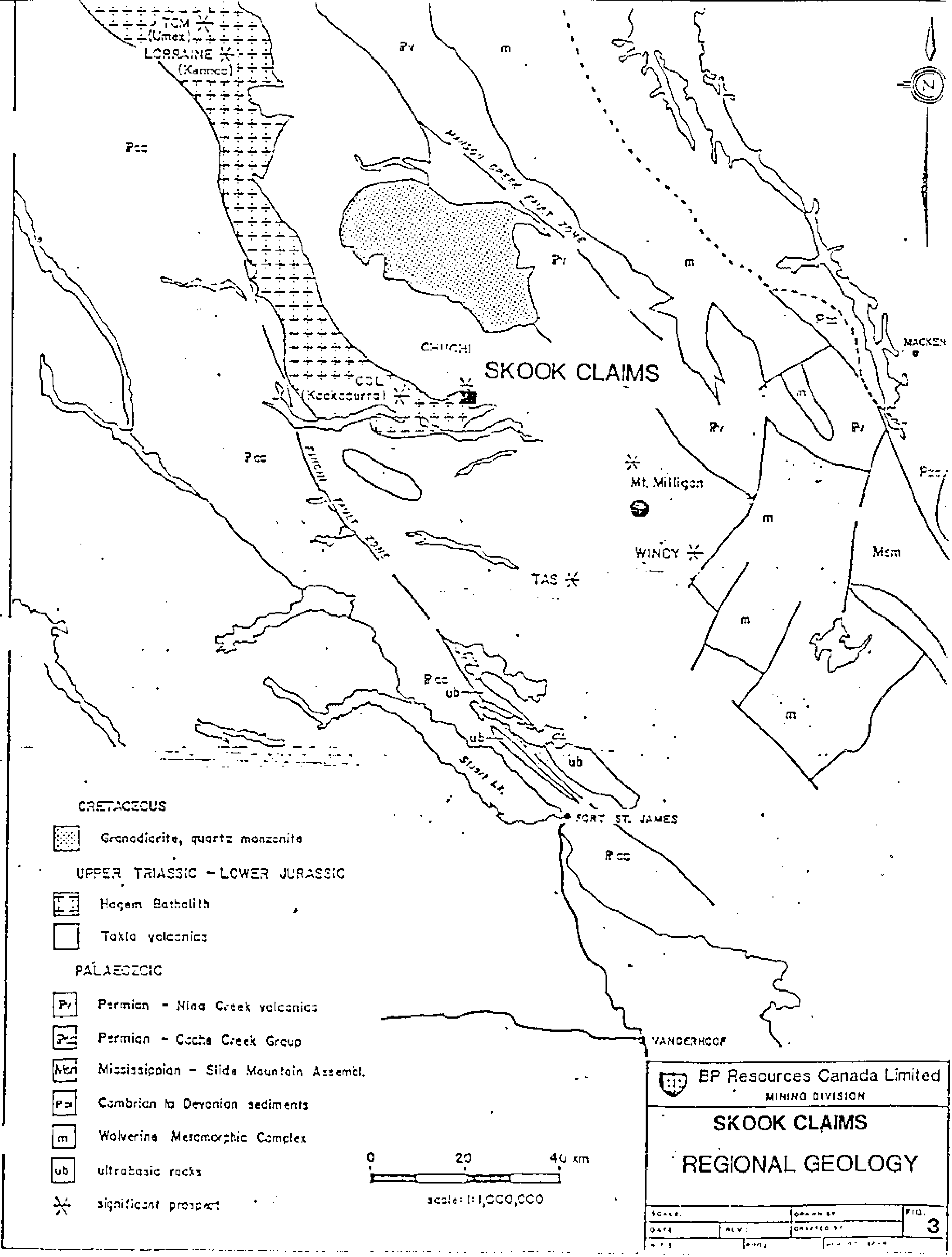
4. REGIONAL GEOLOGY

The property is located within the Quesnel Trough, a northwesterly-trending, fault-bounded block of Lower Mesozoic volcanic and related rocks. The volcanic rocks are called the Takla Group in central B.C. and are primarily sub-alkalic to alkalic andesites and basalts of island-arc affinity. In the area of the claims, the western margin of the Takla Group is the Pinchi Fault, while the eastern margin is in the part formed by the Manson Creek Fault.



CHUCHI 2
7086(6)
KLAW 7
11351(12)
CHUCHI 2
7086(6)
GOLDBRICK
9995(9)
GOLDBRICK 3
CR 1
10177(2)
KLAW 8
9494(4)
KLAW 8
3494
KLAW 2
KLAW 3
11349(12)
55×4W
KLAW 9
9493(6)
ALSO GOLDBRICK 5
GOLDBRICK 4
9996(9)
GOLDBRICK 5
12544(4)
SKOOK 16
12386(7)
SKOOK #4
8845(9)
3N×5W
SKOOK #6
8847
3N×6E
(129378)
L.2670
SKOOK #6
8847
SKOOK 17
SKOOK #5
8846(9)
L.2671
KLAW 4
11350(12)
SKOOK #5
8846(9)
2S×6E
(129448)
Skook #3
8844(9)
4S×5W
L.2673
Chuchi
Lake
93N/2E
93N/1W
WN 5
10559(5)
L.2674
CHU 5
10042(12)
CHU 5
10042(12)
Scale 1 : 50 000
0 1 2 3 4 5
KILOMETRES
L.2675
L.2676
CHU 3
10040(12)
CHU 4
10041(12)
CHU 7
L.2677
0236(2)
WN 1
10170(2)
WN 1
10170
(2)
CHU 2
BP Resources Canada Limited
MINING DIVISION
SKOOK PROPERTY
CLAIM MAP
SCALE:
DATE:
REV.
N.T.S.
PROJ.
DRAWN BY:
DRAFTED BY:
REPORT: BPVR
FIG.
2

The property straddles the southern contact of the Hogem Batholith, a composite intrusion 170 km long by 40 km wide. Small stocks and dyke swarms related to the Hogem Batholith are common in the Takla volcanic rocks but are too small to be shown on Figure 3.


TCM
(Umex)
LORRAINE
(Kennco)
SKOOK CLAIMS
CHUCHI
COL
(Kookacurra)
Mt. Milligan
WINDY
TAS
FORT ST. JAMES
VANDERHOOF
MACKEN
Stuart Lk.
CRETACEOUS
Granodiorite, quartz monzonite
UPPER TRIASSIC - LOWER JURASSIC
Hogem Batholith
Takla volcanics
PALAEOZOIC
Permian - Nina Creek volcanics
Permian - Cache Creek Group
Mississippian - Slide Mountain Assembl.
Cambrian to Devonian sediments
Wolverine Metamorphic Complex
ultrabasic rocks
significant prospect
0
20
40 km
scale: 1:1,000,000
EP Resources Canada Limited
MINING DIVISION
SKOOK CLAIMS
REGIONAL GEOLOGY
FIG.
3

5. HISTORY

Showings of copper-lead-zinc with associated gold and silver values have been known since the 1930's in the SKOOK claims area. In the 1960's, Noranda owned or operated claims over the central portion of the present property (Dirom, 1968) and drilled five AX diamond drill holes. Botel (1965) estimated the drilled zone to contain 20,000 tons probable ore grading 7.5% combined lead-zinc plus some silver values. Royal Canadian Ventures Limited later conducted IP, magnetic, and soil geochemical surveys as well as geological mapping (Woodward, 1968 and Vollo, 1967).

Nation River Resources staked the SKOOK 3 to 6 claims in 1987 to cover the old showings. They put in a 7.5 km grid, collected 173 soil and 93 rock samples and did 1:5,000 geological mapping and some hand trenching (Campbell, 1988). The results indicated four partially defined zones of interest. Grab samples returned up to 13.4 ppm Au, 16.6 ppm Ag and 2.3% Zn. Chip samples across one metre returned values up to 4.3 ppm Au and 53 ppm Ag.

6. AIRBORNE GEOPHYSICAL SURVEY

Between December 2 to 6, 1990, a combined helicopter-borne electromagnetic-magnetic-VLF-EM survey comprising 210 line-kilometers was flown by Aerodat Limited of Mississauga, Ontario. A detailed report on the survey, including the survey maps, is included in Appendix III.

The results of the magnetic survey show a pronounced east-west pattern of magnetic highs. The largest anomaly in the centre of the claims probably marks the edge of the Hogem Batholith - Takla Group volcanic contact.

Isolated magnetic highs in the northeastern and southwestern corners of the survey area could indicate buried stocks and are thus targets that warrant ground followup. Of particular interest is the elongate anomaly in the southwestern corner that has associated weak EM conductors (conductors 6 to 9). These conductors could indicate mineralized fault zones related to the inferred stock.

Of the other EM conductors discussed in Appendix III, conductors No. 1 and No. 3 are of interest due to their association with discrete magnetic highs. These anomalies should also be checked with ground surveys.

7. REFERENCES

Botel, W.G., (1965): Chuchi Option - Chuchi Lake, B.C. Private reports commissioned by Noranda Exploration Ltd.

Campbell, C., (1988): Preliminary Geochemical and Geological Report on the SKOOK 3-6 Mineral Claims, B.C.D.M. Assessment Report No. 18073.

Dirom, G.A., (1968): Jay Group Geochemical Soil Survey, B.C.D.M. Assessment Report No. 1215.

Vollo, N.B., (1967): Geological, Geophysical and Geochemical Report on the 93N/1 Chuchi 1 and 2 Groups, B.C.D.M. Assessment Report No. 1119.

Woodward, J.A., (1968): Induced Polarization Survey for Royal Canadian Ventures Ltd. on the 93N/1 Chuchi Group, B.C.D.M. Assessment Report No. 1660.

APPENDIX 1

STATEMENT OF QUALIFICATIONS

Statement of Qualifications

I, Neil Humphreys of 3028 W. 14th Avenue, in Vancouver in the Province of British columbia, do hereby state:

1. That I have received a B.Sc degree in geology from the University of Saskatchewan in 1976 and an M.Sc degree in Mineral Exploration from Queen's University in 1982.

2. That I have been active in mineral exploration since 1975 in Canada and the U.S.A.

3. That I have been employed by major mining companies until 1988. From 1988 until the present I have been a consulting geologist directing exploration projects in British Columbia.

Neil Humphreys

Vancouver
March, 1991

APPENDIX II

Statement of Costs

Statement of Costs

1. Airborne Magnetic Electromagnetic - VLF Survey

(Aerodat Limited)

210 line km @ $138.10 per line km $29,000.00

APPENDIX III

Report on the Combined Helicopter-borne Magnetic, Electromagnetic and VLF-EM Survey by AERODAT LIMITED

Note: The survey described in this report covered the nearby ANOM claims as well as the SKOOK property. The complete report on the ANOM property, including maps, is available as an assessment report (BPVR 90-14), filed at the same time as this report.

REPORT ON A
COMBINED HELICOPTER-BORNE
MAGNETIC, ELECTROMAGNETIC AND VLF SURVEY
ANOM AND SKOOK BLOCKS
BRITISH COLUMBIA

FOR
BP RESOURCES CANADA LIMITED
BY
AERODAT LIMITED
January 2, 1991

J9085

Richard Yee
Geophysicist

TABLE OF CONTENTS

List of Maps
(Scale 1:10,000)

Basic Maps: (As described under Appendix B of the Contract)

1. **TOPOGRAPHIC BASE MAP;**
   Showing registration crosses corresponding to NTS coordinates on survey maps, on stable Cronaflex film.

2. **FLIGHT LINES;**
   Photocombination of flight lines, anomalies and fiducials with base map.

3. **AIRBORNE ELECTROMAGNETIC SURVEY INTERPRETATION MAP;**
   showing conductor axes and anomaly peaks along with conductivity thickness values; on a Cronaflex base; Interpretation Report.

4. **TOTAL FIELD MAGNETIC CONTOURS;**
   Showing magnetic values contoured at 5 nanoTesla intervals; on a Cronaflex base map.

5. **CALCULATED VERTICAL MAGNETIC GRADIENT CONTOURS;**
   Showing magnetic gradient values at 0.2 nanoTesla per metre intervals showing flight lines and fiducials; on a Cronaflex base map.

6. **APPARENT RESISTIVITY CONTOURS;**
   calculated from the 4600 Hz coaxial coil pair and contoured in logarithmic intervals (ohm-metres), on the base map.

7. **VLF-EM TOTAL FIELD CONTOURS;**
   of the VLF Total Field response contoured at 2 percent intervals, on a Cronaflex base map.

1. INTRODUCTION

A helicopter borne geophysical survey was carried out for BP Resources Canada Limited by Aerodat Ltd. during the period of December 2 to 6, 1990. Survey equipment included a four frequency electromagnetic system, a cesium vapour high sensitivity magnetometer, a two frequency VLF - EM system and a video tracking camera. The electromagnetic, magnetic, and altimeter data were recorded in both digital and analog forms. The positioning data were encoded on VHS video as well as being marked on the flight path map by the operator. This report and the accompanying maps describe the data collected in this survey.

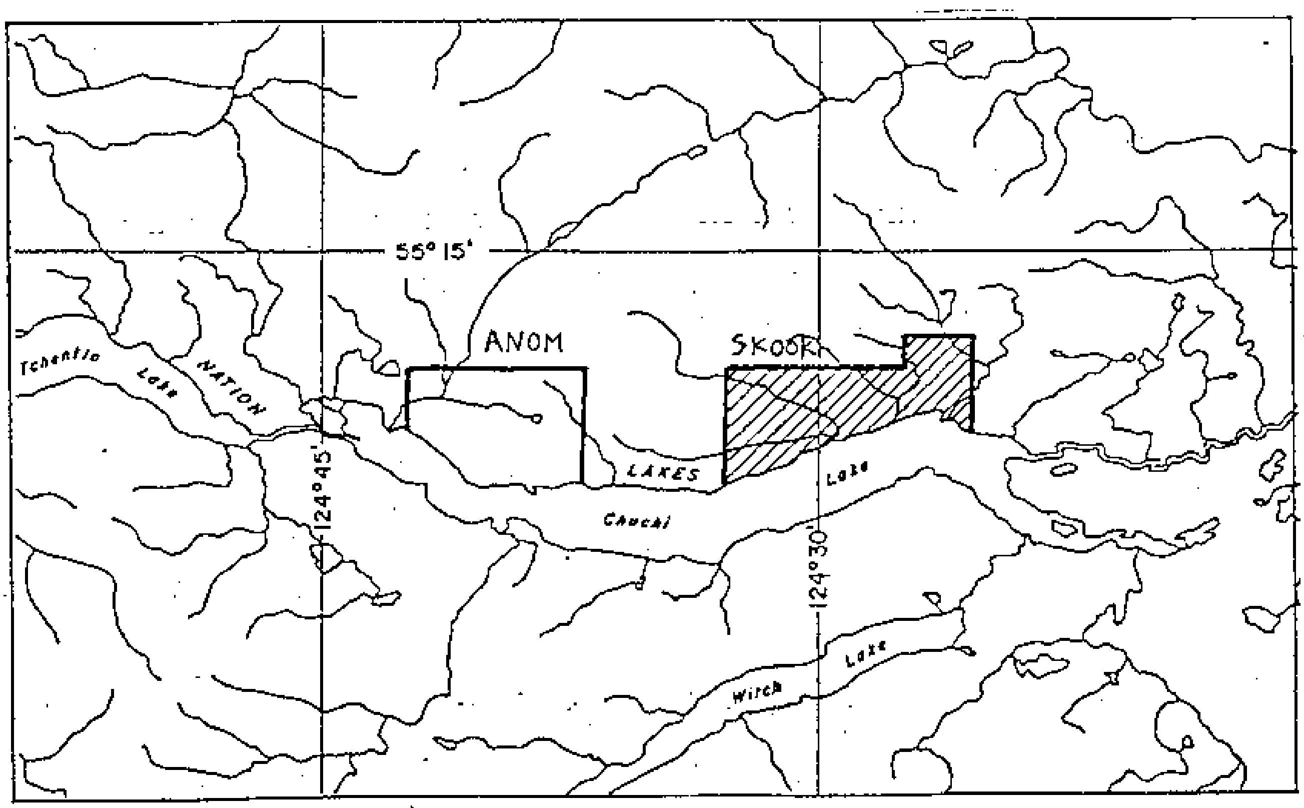
The survey consisted of two separate areas in British Columbia: the Anom Block and the Skook Block. The two areas were covered in 4 flights with an average line spacing of 100 metres. A north-south flight line direction was used in both blocks. The data quality and coverage are considered to be within the contract specifications.

Aerodat Ltd. was contracted to acquire data over and around ground of interest to BP Resources Canada Limited, and outline any electromagnetic/magnetic anomalies in the survey blocks. A total of 207 kilometres of VLF/magnetic data in the Anom Block and 210 kilometres of VLF/magnetic/electromagnetic data in the Skook Block were acquired, compiled, and presented with this report in accordance with specifications laid out by BP Resources Canada Limited.

2. SURVEY AREA LOCATION

The two survey blocks lie along the northern shore of the elongated Chuchi Lake of British Columbia with the Anom Block less than 5 km. west of the Skook Block, both centred at about 124 degrees 35 minutes east and 55 degrees 23 minutes north.

The two blocks are situated in moderately rough terrain, starting in the south along the lower flatter lakeshore at just under 900 feet, rising north towards Lhole Tse Mountain to nearly 1200 feet. Both areas can be reached by a loose surface, dry weather road which comes from the east through the northeast corner of Skook Block, then along the northern shore of Chuchi Lake.



3. AIRCRAFT AND EQUIPMENT

3.1 Aircraft

Due to the rugged terrain, an Aerospatiale SA 315B Lama helicopter, (GOLV) and an Aerostar helicopter (XYM), both operated by Peace Helicopters, were 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 are 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 2 A. This instrument measures 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 Anom Block was NPM, Lualualei, Hawaii, broadcasting at 23.4 kHz, while NLK, Seattle, Washington (24.8 kHz) was used for the Skook Block. Station NAA, Cutler, Maine, (24.0 kHz) was received for both areas in the orthogonal mode.

3.2.3 Magnetometer

The magnetometer employed 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 12 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 flight path recording system was used to record the 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 was 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	100ppm/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)	100ft/cm
MAGF	Magnetometer, fine	25nT/cm
MAGC	Magnetometer, coarse	250nT/cm

3.2.8 Digital Recorder

A DGR 33:16 data system recorded the survey data 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 1:10,000 was prepared by Aerodat from existing 1:20,000 scale topographic maps. 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 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 Interpretation Map

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

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

The signal to noise ratio was further enhanced by the application of a low pass digital filter. It has a zero phase shift which prevents any lag or peak displacement from occurring, and it suppresses only the 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. This correction 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 presented. This filtered and levelled data was used in the electromagnetic interpretation. 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 have been corrected for diurnal variation by adjustment with the digitally recorded base station data. There has been no correction for regional variation applied. The corrected profile data have been interpolated onto a grid at a 25 m true scale interval using an Akima spline technique. These data were then contoured at a 5 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 0.2 nanoTesla per metre interval and presented on a Cronaflex copy of the base map.

4.6 Apparent Resistivity Contours

The electromagnetic data 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 200 m. 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 topographic base map.

4.7 VLF-EM Total Field Contours

The VLF-EM signals from NPM (Lualualei, Hawaii) broadcasting at 23.4 kHz for the Anom Block and from NLK (Seattle, Washington) at 24.8 kHz for the Skook Block 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

Although no geological information was supplied to Aerodat by BP Resources Canada Limited, the fine amplitude and spatial resolutions (0.1 nT accuracy and 0.1 second sampling interval, respectively) of the aeromagnetic data from the high sensitivity cesium vapour magnetometer can produce a contour map that, with support from the derivative vertical magnetic gradient map, can be used as a pseudo-geological map. As well, when combined with any existing geological information, the geological mapping of the survey area could then be substantially more refined and detailed.

Both survey blocks have moderately high dynamic ranges of magnetic amplitude of around 2000 nT (57737 to 59586 nT in Anom and 57871 to 60166 nT in Skook). The magnetic high of the Skook Block occurs on Line 10580 along the prominent magnetic high region which covers much of the northern portion of the area, perhaps reflecting the volcanic origins of the Lhole Tse Mountain lying immediately to the north. Two smaller, less intense magnetic elliptical bodies are situated on the northeast and southwest corners of the Skook Block. The latter body is perhaps the eastern projection of the major magnetic high region which covers the southern portion of the Anom Block. Just north of this body is situated the most distinctive magnetic feature of the two blocks, a NWW striking narrow well-defined negative magnetic feature of about 500 metres wide. The lowest magnetic value of the survey occurs on this feature at Line 20530. This distinctive magnetic bedding is seen to project into the west-central part of the Skook Block.

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.

Since tectonic activities of varying degrees can be important in the search for gold mineralization, any obvious contour shifts of significant extent should be considered as possible faults and subsequently checked on the ground. The most obvious apparent fault of the survey occurs in the central part of the Skook Block. A distinctive break in the gradient map is seen to run NNW from the southern end of Line 10400 to the northern end of Line 10440. Many other less definitive, shorter and questionable shifts occur throughout the two blocks.

Under the optimum condition of relatively low surficial conductivity, plus for VLF, flat terrain, significant physical extend of conductors and properly selected coupling of VLF station signal direction with conductor and flight line strikes, 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 Skook Block (where even the VLF and resistivity are poorly correlated), the generally higher magnetics of the southern portion is correlated with stronger VLF responses of the Anom Block, separated from the lower magnetic and corresponding negative VLF amplitudes of the north by the aforementioned distinctive low magnetic linear feature.

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 Skook Block was 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, desired bedrock type anomalies and geological/surficial noise peaks were selected automatically with a proprietary computer program. Typically, this user flexible routine chose narrower well defined anomalies, excluding long wavelength quadrature dominant responses of overburden sources and the infrequent negative inphase profile deviations from high susceptibility magnetite sources of the area.

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 and any coincidental video, magnetic, VLF-EM, altimeter, cultural, and geological data available. Such a process ensured that any EM anomaly of bedrock potential would be selected for the final interpretation map and properly grouped with any similar neighbouring responses into conductive zones which would have some geological meaning.

As a result, ten conductors of varying bedrock potential have been identified. This relatively low number and the general absence of any clearly defined EM bedrock response is reflective of the weakly conductive but prevalent overburden which appears to cover the whole area. Under the given modelling assumption of a 200 metre homogeneous conductive layer responding to the 4600 Hz coaxial EM coil, the apparent resistivity is seen to vary mostly in the 1000 to 4000 ohm-m range.

Most of this conductive variation appears on the resistivity contours to be of the spurious and poorly defined surficial nature, with an obvious conductivity increase southwards to Chuchi Lake, where its surficial deposits have lowered the resistivity to around 20 ohm-m. A couple of other more minor conductivity patches might have more profound geological meaning, however. In the western margin of Skook, two adjoining conductive areas contain the three most promising bedrock zones of the area (Zone 6, 7 and 9), as well as conductor 8. The distinctive north protruding tongue of conductivity in the middle of the block (on Lines 10440 to 10490) has possible bedrock conductors 3 and 10 on either end. To the east, another conductive patch has zone 2 as a possible edge effect. The few other noticeable resistivity lows have no anomalies selected and appear totally surficial in nature. The lack of magnetic correlation of these conductive zones is further proof that surficial, rather than geologic structures are generally mapped by the resistivity contours.

Common among the ten selected conductors is a very low calculated conductivity thickness of around 1 mho. Combined with generally low amplitude and poorly defined in-phase response peaks that are further masked by the prevalent 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.

Although like the general resistivity contours there are no direct correlations of these conductors with magnetic bodies, with a possible exception of conductor 1, the magnetics proved to be of significance in helping to identify possible bedrock conductors in this ambivalent EM environment. The two highest rated conductors of the area, 6 and 9, also have clearly the best correlation with very well defined magnetic contact gradients. Indeed, along with the possible magnetic zone 1, and three other conductors (3, 7 and 10) possibly lying along magnetic contacts the six best EM defined of the ten identified conductors also have the best magnetic support. Hence, despite questionable EM bedrock characteristics, the magnetics nevertheless suggest some likelihood of geologic origins for these six conductors.

In summary, the ten selected conductors are ranked and grouped into three priority levels based on geophysical characteristics which most likely reflect a bedrock existence:

I - Conductor 6

Although masked somewhat by the lake originated surficial to the south, zone 6 is distinctively separate on the resistivity map and distinguished by the only in-phase anomalies of the area with sufficient amplitude and shape to reflect a dipping (vertical to southerly) bedrock structure. As well, its low calculated 1 mho conductance should be several times higher if its surficial (mostly quadrature) component is removed before the calculations. Its perfect location along a very straight and sharp magnetic boundary reflects a possible fault-contact origin. Subzone 6a is either a possible weaker continuation of this bedrock or just an extension of the likely surficial zone 5 to the south.

II - Conductors 9, 7 and 1

These three zones have less pronounced or broader inphase EM peaks, but demonstrate some weak dip indication with their quadrature responses.

Conductors 7 and 9 lie favourably subparallel north of bedrock 6 and are also supported by correlations along apparent magnetic contacts, particularly well defined on zone 9. The correlation of the weakly conductive but possibly vertical dipping zone 1 with a magnetic high is more questionable because the apparent strike of the conductor is shifted more in a southwest direction.

III - Conductors 10, 3, 8, 2, 5 and 4

- These last six zones show no indications of dipping sources and their slightly enhanced

EM peaks might only reflect edge effects of surrounding surficial sources.

- Conductors 3 and 10 are the most noteworthy. Located on the opposite ends of the distinctive conductive tongue protruding northward from the lake surficial, zone 10 has pronounced EM peaks correlated nicely with a similarly arched magnetic gradient edge, zone 3 is interestingly located on the southern edge of a localized magnetic high oval body and its subzone 3a has the best calculated conductance of 2.5 mhos and attractive estimated depth of up to over 40 metres.

- Conductor 8 is favourably situated among the higher potentialed zones 6, 8 and 9 group but is much weaker EM defined and might be superficially enhanced by the river which runs along it.

- Conductor 2 appears to be a slightly enhanced edge of a localized conductive surficial patch and likewise zones 4 and 5 with their locations along the northern shore of Chuchi Lake.

6. CONCLUSION

In conclusion, the airborne geophysical survey over the Anom and Skook Blocks of British Columbia has provided VLF and in particular, total field magnetic and calculated vertical magnetic gradient maps which should prove useful when combined with known geology to yield more detailed structural mapping information for the exploration program.

In addition, in spite of strictly low conductance responses of under 2 mhos, the EM data in the Skook Block has identified ten conductors of possible bedrock interest. Of these, only zone 6 can be confidently interpreted as bedrock. Its ground follow-up, however, should be extended northward to potential subparallel bedrock conductors of 7 and 9. As well, the weaker but more isolated zone 1 in the east is worthy of follow-up considerations. Although this conductor might be associated with a magnetic high, its weak conductivity thickness, as with the rest of the identified conductors is not conducive to massive sulphide exploration. Nevertheless, in the search for gold, where location along a contact or fault plane, as might be the case for the magnetic contact situated zones of 6, 9, 7, 10 and 3, is of more significance than conductivity, any of the ten noted conductors can be of potential if proven bedrock. For this reason, the noted 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,

Richard D.C. Yee
P. Eng. Consulting Geophysicist
AERODAT LIMITED
January 11, 1991.

J9085

APPENDIX I

GENERAL INTERPRETIVE CONSIDERATIONS

Magnetics

A digital base station magnetometer was used to detect fluctuations in the magnetic field during flight times. The airborne magnetic data was levelled by removing these diurnal changes. The Total Field Magnetic map shows the levelled magnetic contours, uncorrected for regional variation.

The Calculated Vertical Gradient map shows contours of the magnetic gradient as calculated from the total field magnetic data. The zero contour shows changes in the magnetic lithologies and will coincide closely with geologic contacts assuming a steeply dipping interface. Thus this data may be used as a pseudo-geologic map.

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 ellipically 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 thisaltered 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 - SKOOK AREA

FLIGHT	LINE	ANOMALY	CATEGORY	AMPLITUDE (PPM) INPHASE	QUAD.	CONDUCTOR CTP MHOS	DEPTH MTRS	BIRD HEIGHT MTRS
1	10150	A	0	1.8	10.6	0.0	5	27
1	10160	A	0	2.8	9.3	0.0	11	29
1	10170	A	0	3.2	3.4	0.5	50	26
1	10190	A	0	3.3	3.8	0.5	38	34
1	10230	A	0	12.2	30.0	0.3	2	27
1	10240	A	0	7.1	37.3	0.0	2	19
1	10250	A	0	3.7	21.9	0.0	4	21
1	10410	A	2	5.3	2.3	2.5	42	41
1	10430	A	1	9.3	6.8	1.5	23	37
2	10440	A	0	2.6	14.0	0.0	8	22
2	10450	A	0	3.9	11.5	0.1	16	23
2	10450	B	1	14.9	13.4	1.3	18	29
2	10450	C	1	13.6	11.0	1.5	0	64
2	10460	A	1	15.2	12.8	1.4	0	60
2	10460	B	1	15.2	14.5	1.2	23	23
2	10460	C	0	4.4	12.7	0.1	11	27
2	10470	A	0	2.9	15.4	0.0	10	19
2	10470	B	1	11.6	10.0	1.3	0	72
2	10480	A	1	11.5	9.9	1.3	3	50
2	10480	B	0	8.3	11.5	0.5	14	33
2	10490	A	0	7.0	10.8	0.4	25	22
2	10500	A	0	9.1	10.0	0.8	15	36
2	10500	B	0	5.7	9.5	0.3	8	41
2	10510	A	0	3.4	7.6	0.1	17	32
2	10520	A	0	7.2	7.6	0.8	29	28
3	10590	A	1	16.3	14.1	1.4	9	37

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 - SKOOK AREA

FLIGHT	LINE	ANOMALY	CATEGORY	AMPLITUDE (PPM) INPHASE	QUAD.	CONDUCTOR CTP MHOS	DEPTH MTRS	BIRD HEIGHT MTRS
3	10600	A	1	10.5	8.0	1.4	1	56
3	10610	A	1	10.7	9.3	1.2	0	59
3	10620	A	1	8.7	8.3	1.0	0	67
3	10630	A	1	24.4	28.1	1.1	0	39
3	10650	A	0	28.0	38.0	0.9	0	40
3	10650	B	1	36.1	42.0	1.3	0	39
3	10670	A	0	9.1	20.8	0.3	0	55
3	10670	B	1	29.9	27.0	1.7	0	56
3	10680	A	1	34.1	31.1	1.7	0	44
3	10680	B	0	22.4	34.6	0.7	0	34
3	10680	C	0	3.4	11.1	0.1	0	62
3	10690	A	0	2.2	13.2	0.0	0	58
3	10690	B	0	-0.6	6.5	0.0	0	53
3	10690	C	0	13.2	27.2	0.4	0	54
3	10690	D	1	33.7	32.6	1.6	0	47
3	10700	A	0	5.9	22.6	0.1	0	37
3	10700	B	0	-1.7	9.9	0.0	0	39
3	10700	C	0	12.7	41.3	0.2	0	34
3	10710	A	0	10.5	27.9	0.2	0	40
3	10710	B	0	1.0	11.8	0.0	0	63
3	10710	C	0	8.0	18.3	0.2	0	38
3	10710	D	1	28.2	28.9	1.4	0	51
3	10720	A	0	15.7	23.9	0.6	0	48
3	10720	B	0	6.3	13.6	0.2	0	44
3	10720	C	0	-1.6	7.7	0.0	0	43
3	10720	D	0	3.3	11.2	0.1	0	62
3	10720	E	0	11.6	32.7	0.2	0	32
3	10730	A	0	4.9	18.4	0.1	0	43
3	10730	B	0	1.0	7.7	0.0	0	73
3	10730	C	0	-1.9	11.6	0.0	0	36
3	10730	D	0	6.6	14.4	0.2	0	46
3	10730	E	1	28.2	31.6	1.2	0	51
3	10740	A	0	9.1	9.1	0.9	0	75

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 - SKOOK AREA

FLIGHT	LINE	ANOMALY	CATEGORY	AMPLITUDE (PPM) INPHASE	QUAD.	CONDUCTOR CTP MHOS	DEPTH MTRS	BIRD HEIGHT MTRS
3	10740	B	0	7.9	20.9	0.2	0	36
3	10740	C	0	1.9	15.6	0.0	0	38
3	10740	D	0	0.6	14.6	0.0	0	37
3	10740	E	0	2.1	7.5	0.0	0	68
3	10740	F	0	7.8	26.5	0.1	0	35
3	10750	A	0	3.6	20.1	0.0	0	34
3	10750	B	0	-1.9	23.6	0.0	0	27
3	10750	C	0	1.9	20.4	0.0	0	32
3	10750	D	0	11.1	34.7	0.2	0	31
3	10750	E	0	12.6	26.9	0.3	0	49
3	10750	F	0	16.1	22.1	0.7	0	49
3	10760	A	0	12.3	14.3	0.8	0	64
3	10760	B	0	8.2	21.3	0.2	0	41
3	10770	A	0	7.3	21.4	0.1	0	40
3	10770	B	0	10.9	14.5	0.7	0	63
3	10780	A	1	12.9	12.2	1.2	0	209
3	10780	B	0	7.7	13.8	0.4	0	50
3	10790	A	0	6.9	17.7	0.2	0	40

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 BP Resources Canada Limited 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 BP Resources Canada Limited.

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,

J9085
Toronto, Ontario
January 3, 1991

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

APPENDIX IV

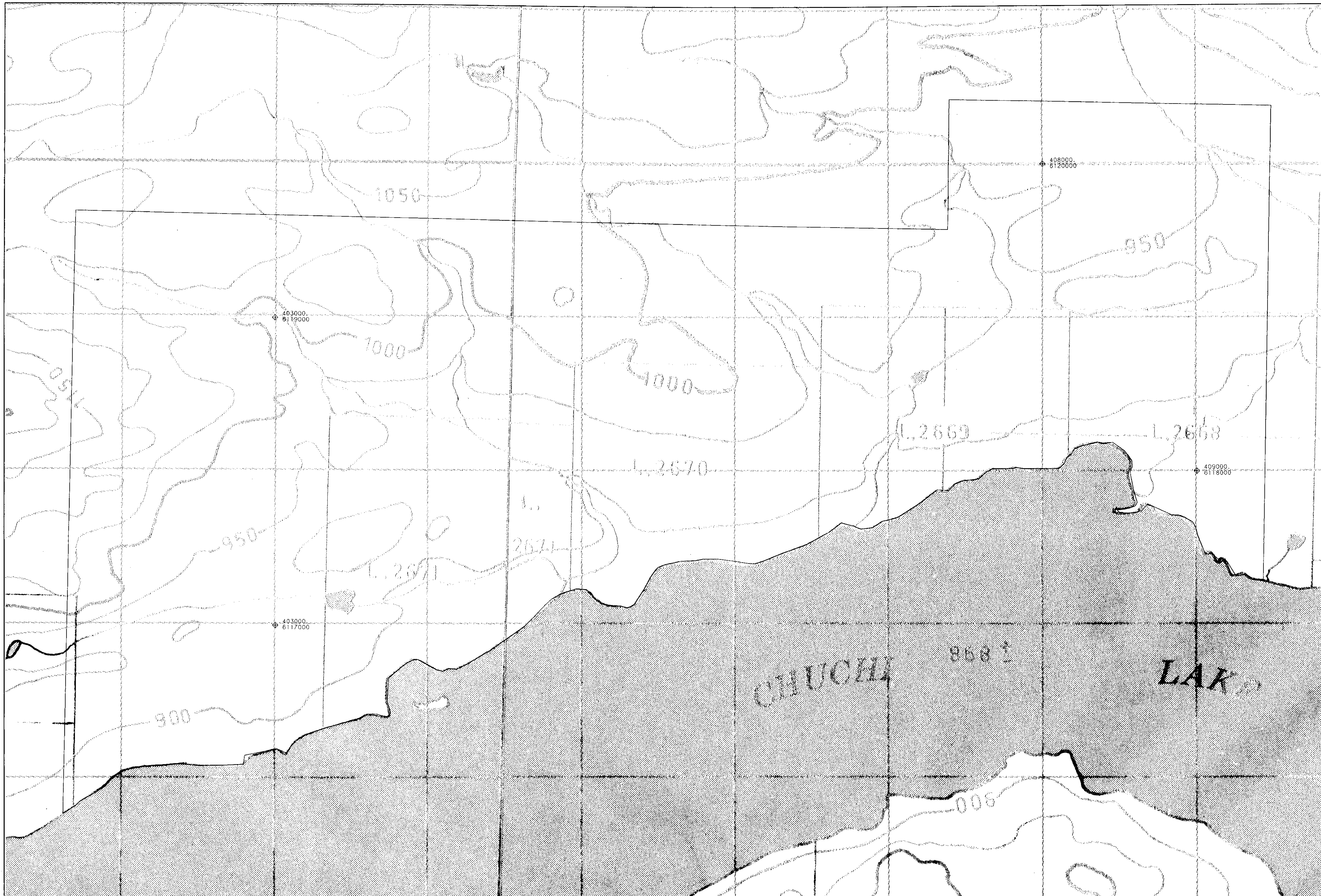
PERSONNEL

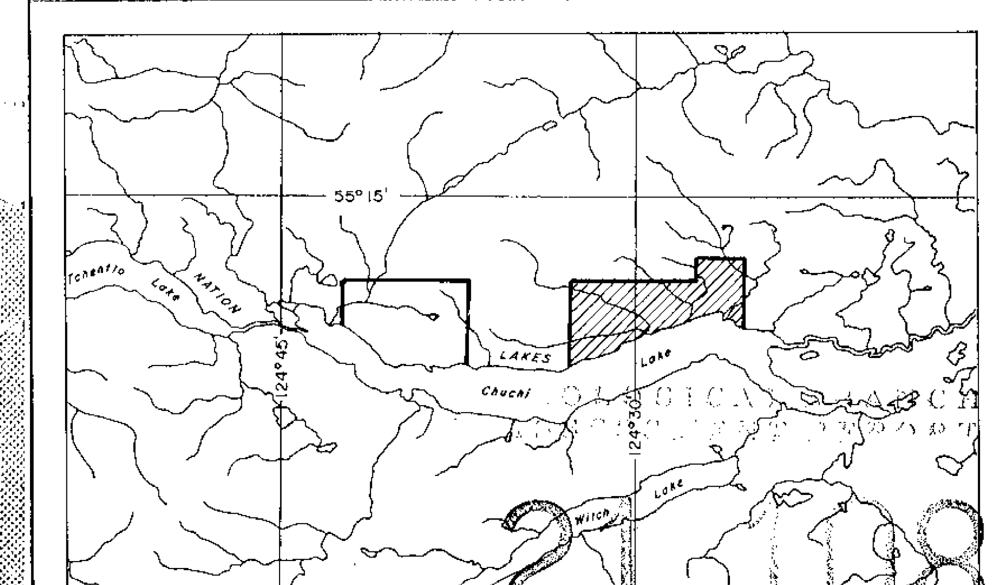
FIELD

Flown	December 2 to 6, 1990
Pilot	Bruce MacDonald
Operator	Steve Arstad

OFFICE

Processing	Adriana Carbone Richard Yee George McDonald
Report	Richard Yee





BP RESOURCES CANADA

BASE MAP

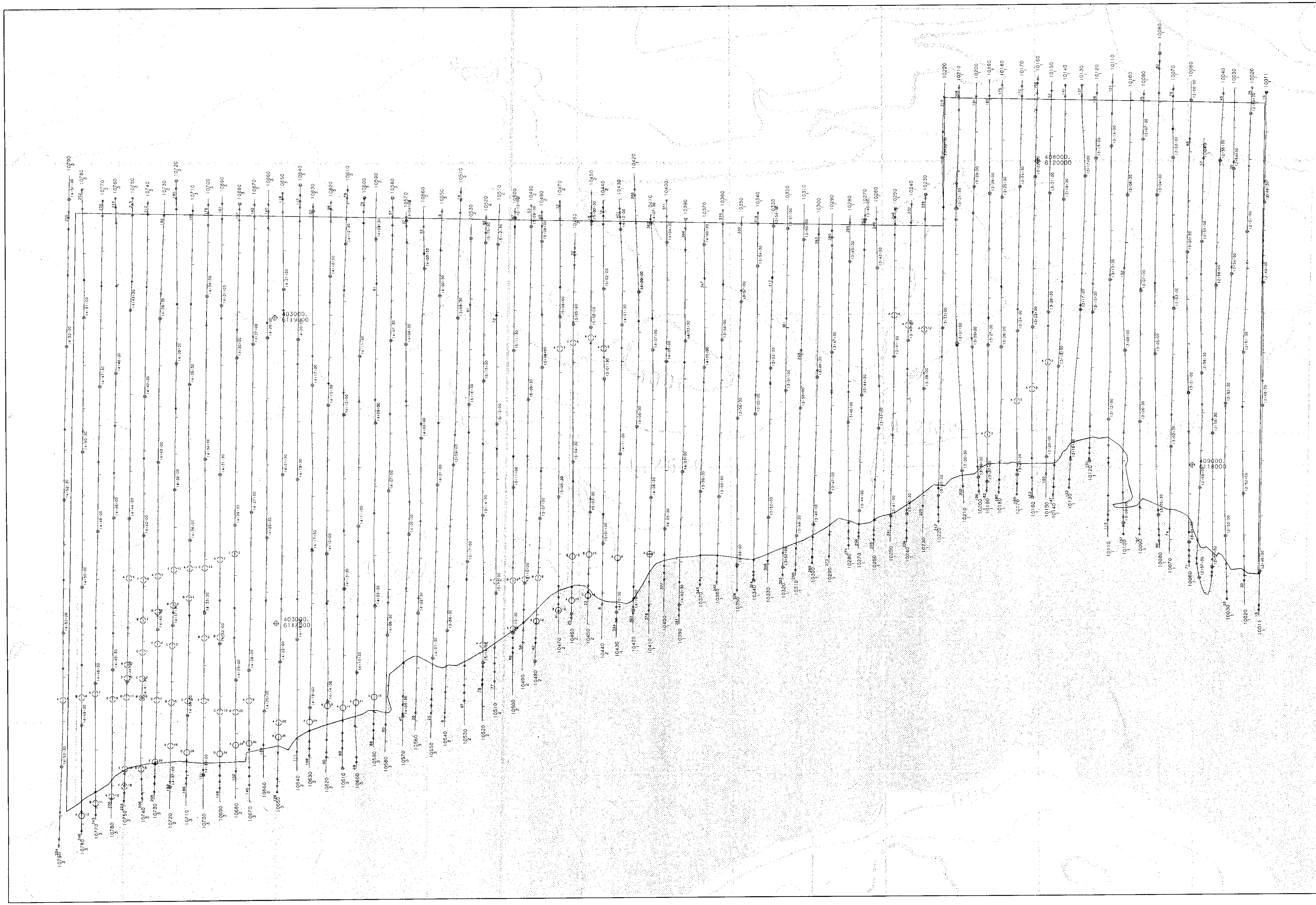
SKOOK BLOCK

BRITISH COLUMBIA

SCALE 1:10,000

AERODAT LIMITED

DATE:	DECEMBER 1990
NTS No:	93 N
MAP No:	1 J9085 - 1



N

Flight Path

Flight path recovery from VHS video tape.

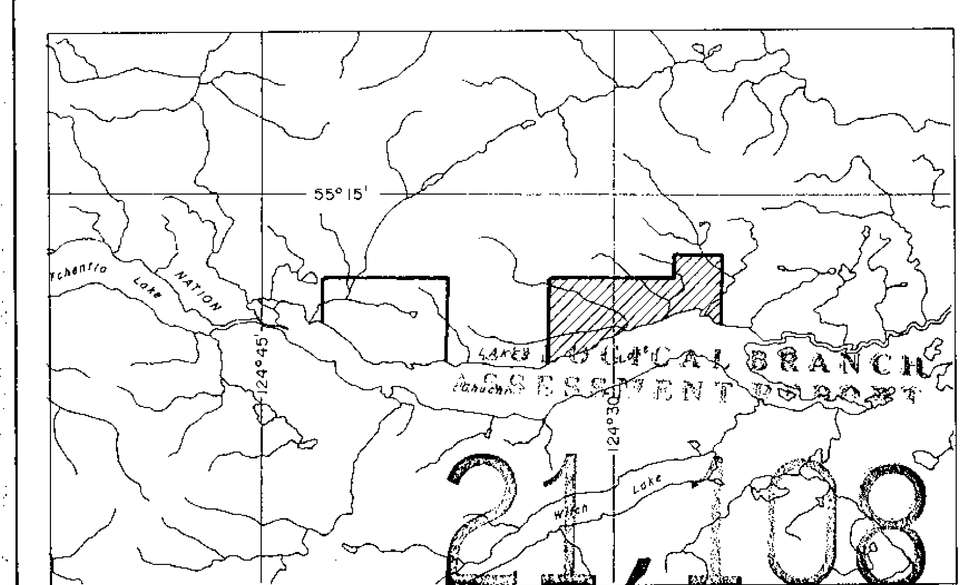
Average terrain clearance 60m
Average line spacing 100m

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 / ppm. Conductivity thickness 1 2 mhos (see code).



BP RESOURCES CANADA

FLIGHT PATH

SKOOK BLOCK

BRITISH COLUMBIA

SCALE 1:10,000

0 330 660 1320 2640 Feet

0 100 200 500 1000 Metres

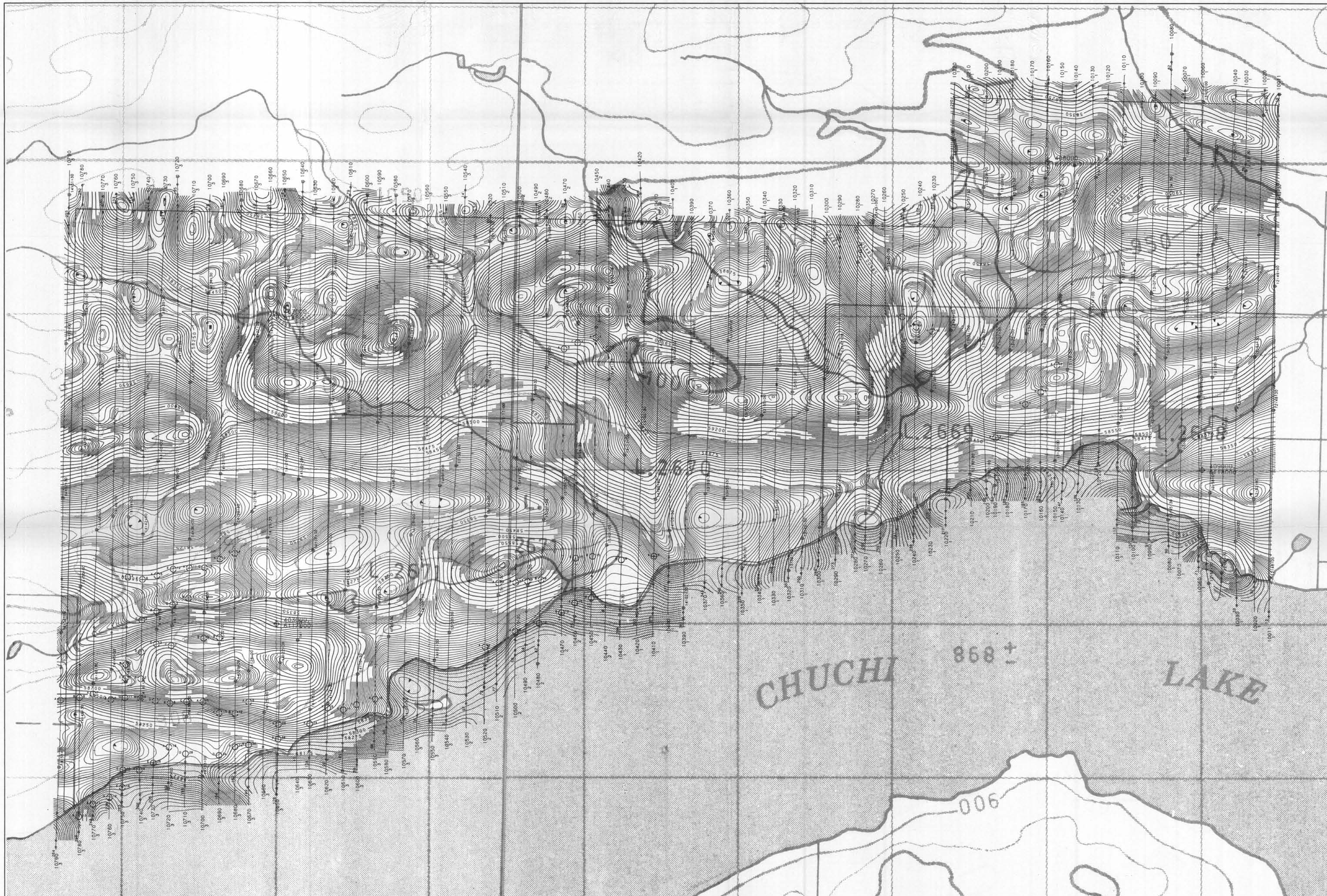
AERODAT LIMITED

DATE: DECEMBER 1990

NTS No: 93 N

MAP No: 2 J9085 - 1

N
Flight Path
Navigation and recovery using a Motorola Mini-Ranger (MRS III) navigation system.
Average terrain clearance 60m
Average line spacing 100m
INTERPRETATION LEGEND
Interpreted bedrock conductor axis
Possible bedrock conductor axis
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).
AERODAT HEM SYSTEM RESPONSE
VERTICAL HALF - PLANE
SKOOK BLOCK
BRITISH COLUMBIA
SCALE 1:10,000
2640 Feet
1000 Metres
21,108
BP RESOURCES CANADA
INTERPRETATION
AERODAT LIMITED
DATE: DECEMBER 1990
NTS No: 93 N
MAP No: 3
J9085 - 1



Flight Path

Flight path recovery from VHS video tape.

Average terrain clearance 60m
Average line spacing 100m

Magnetics

Total Field Magnetic Intensity Contours in nT.

Cesium high sensitivity magnetometer.

Sensor elevation 45m

Map contours are multiples of those listed below

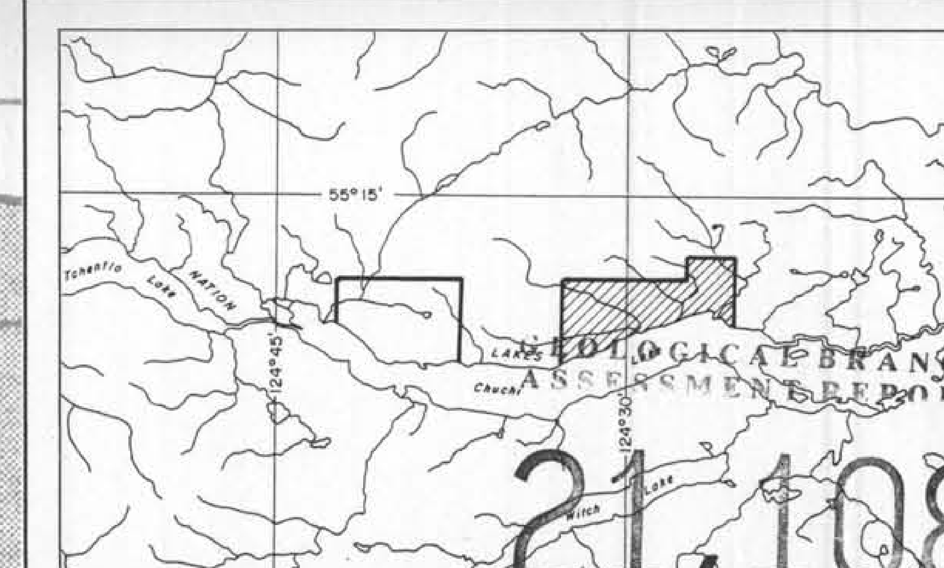
- 5 nT
- 25 nT
- 100 nT
- 500 nT
- 2000 nT

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).



BP RESOURCES CANADA

TOTAL FIELD MAGNETIC CONTOURS

SKOOK BLOCK

BRITISH COLUMBIA

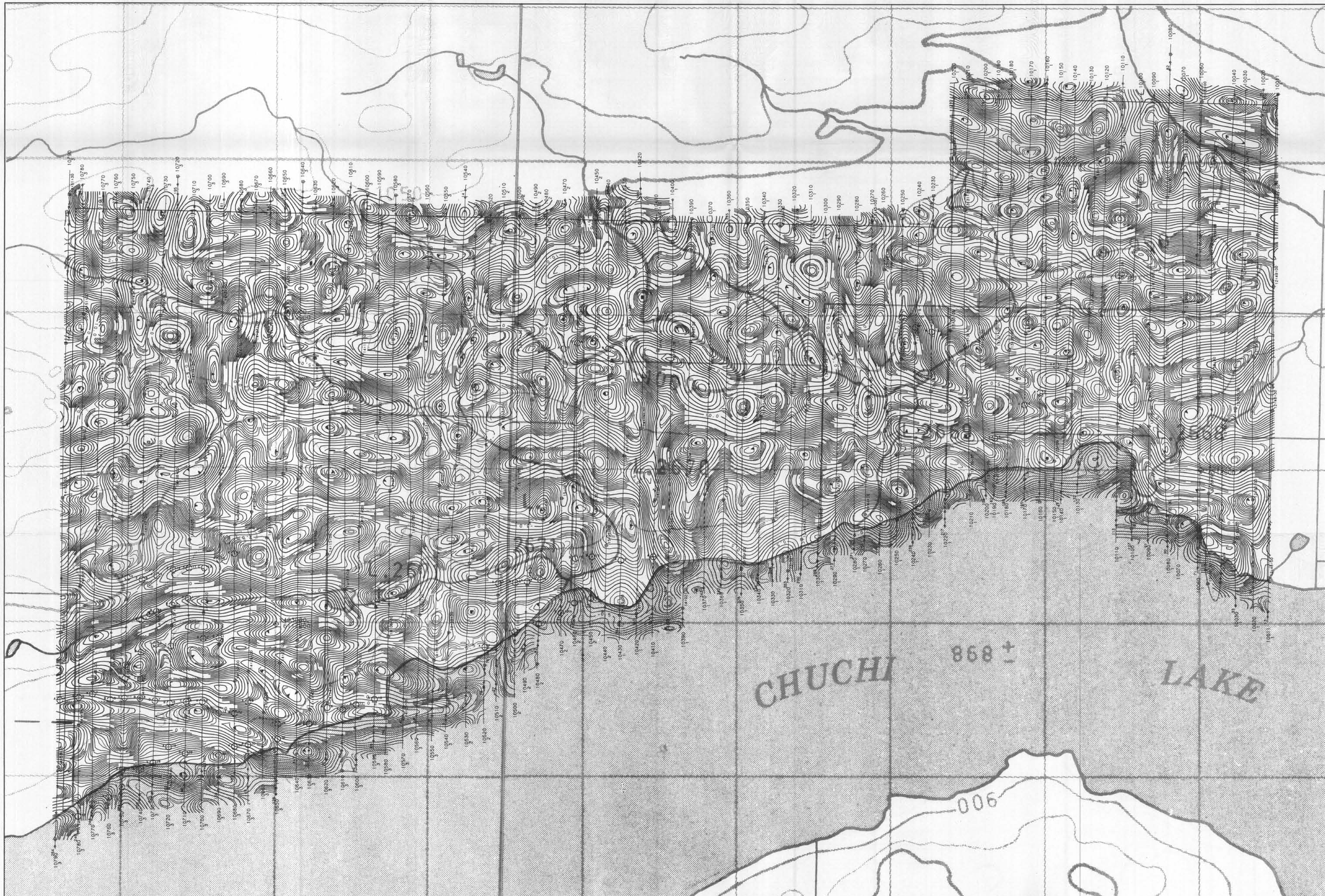
SCALE 1:10,000

0 330 660 1320 2640 Feet

0 100 200 500 1000 Metres

AERODAT LIMITED

DATE:	DECEMBER 1990
NTS No:	93 N
MAP No:	4 J9085 - 1



N

Flight Path

Flight path recovery from VHS video tape.

Average terrain clearance 60m
Average line spacing 100m

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

0.05 nT
0.25 nT
1.00 nT
5.00 nT
25.00 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).

21,108

BP RESOURCES CANADA

CALCULATED VERTICAL MAGNETIC GRADIENT

SKOOK BLOCK

BRITISH COLUMBIA

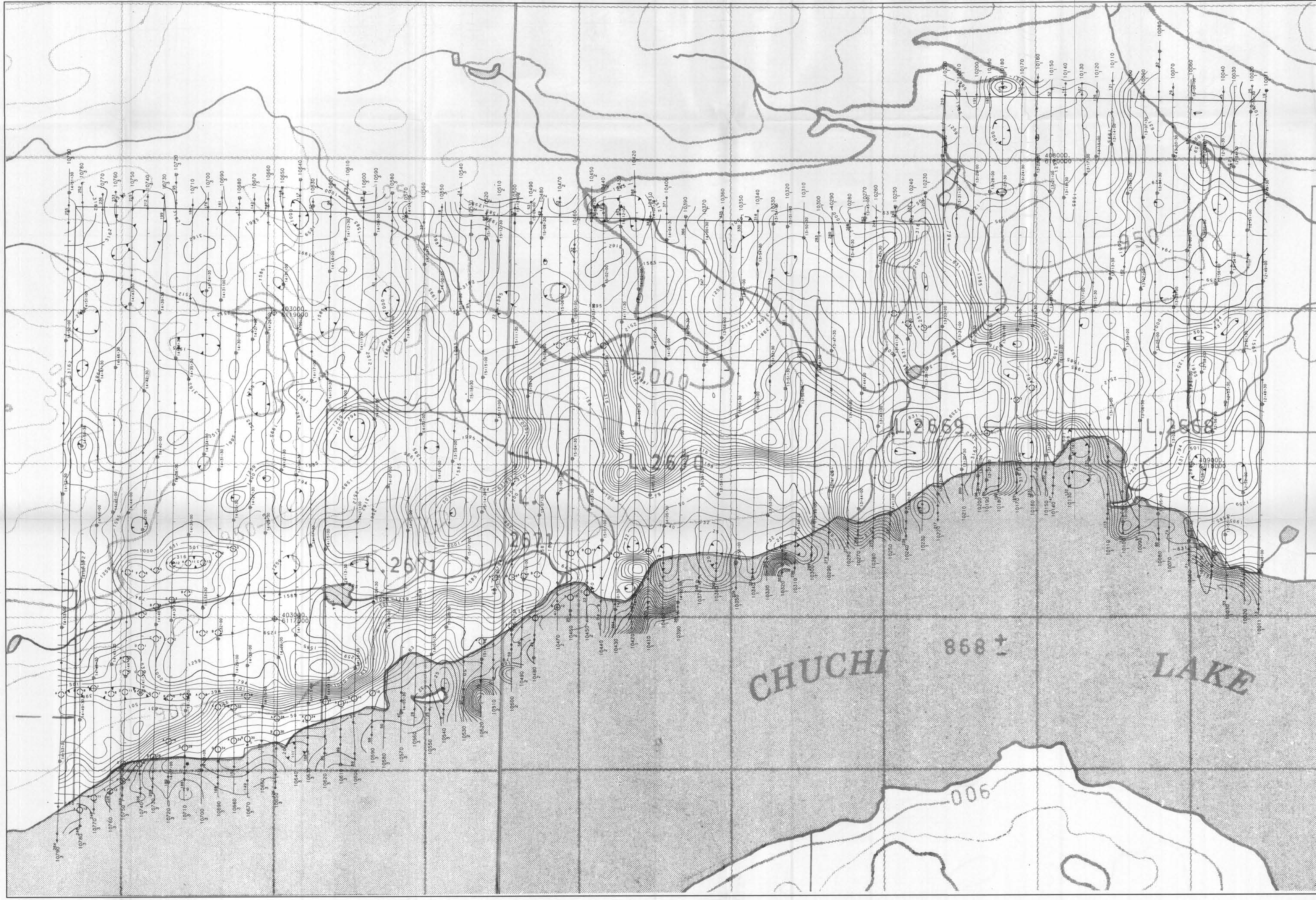
SCALE 1:10,000

0 330 660 1320 2640 Feet

0 100 200 500 1000 Metres

AERODAT LIMITED

DATE:	DECEMBER 1990
NTS No:	93 N
MAP No:	5 J9085 - 1



N

Flight Path

Flight path recovery from VHS video tape.

Average terrain clearance 60m
Average line spacing 100m

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

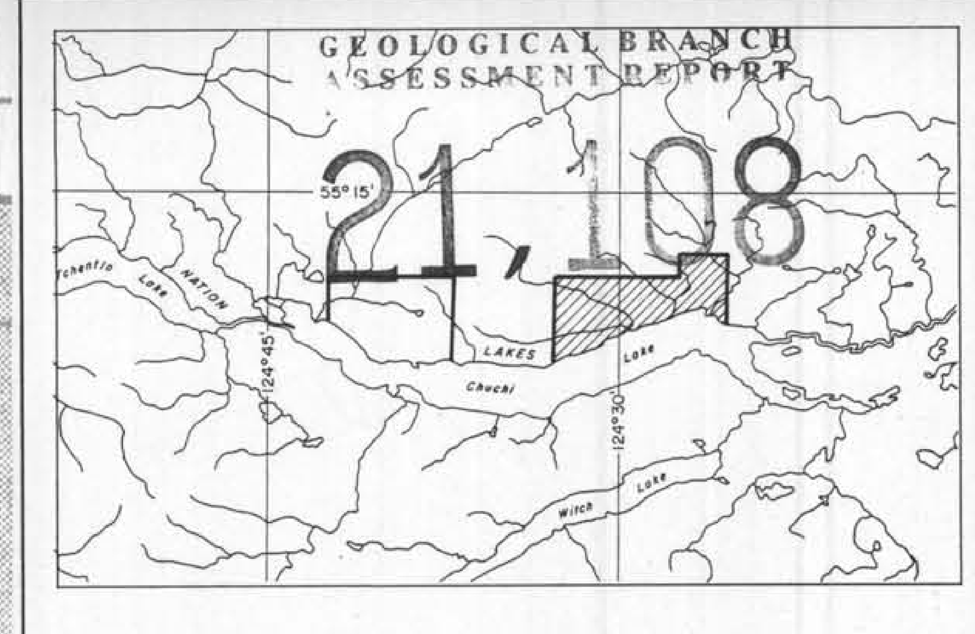
- 0.1 log(ohm•m)
- 0.5 log(ohm•m)
- 1.0 log(ohm•m)
- 5.00 log(ohm•m)

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).



BP RESOURCES CANADA

APPARENT RESISTIVITY CONTOURS (4600 Hz)

SKOOK BLOCK

BRITISH COLUMBIA

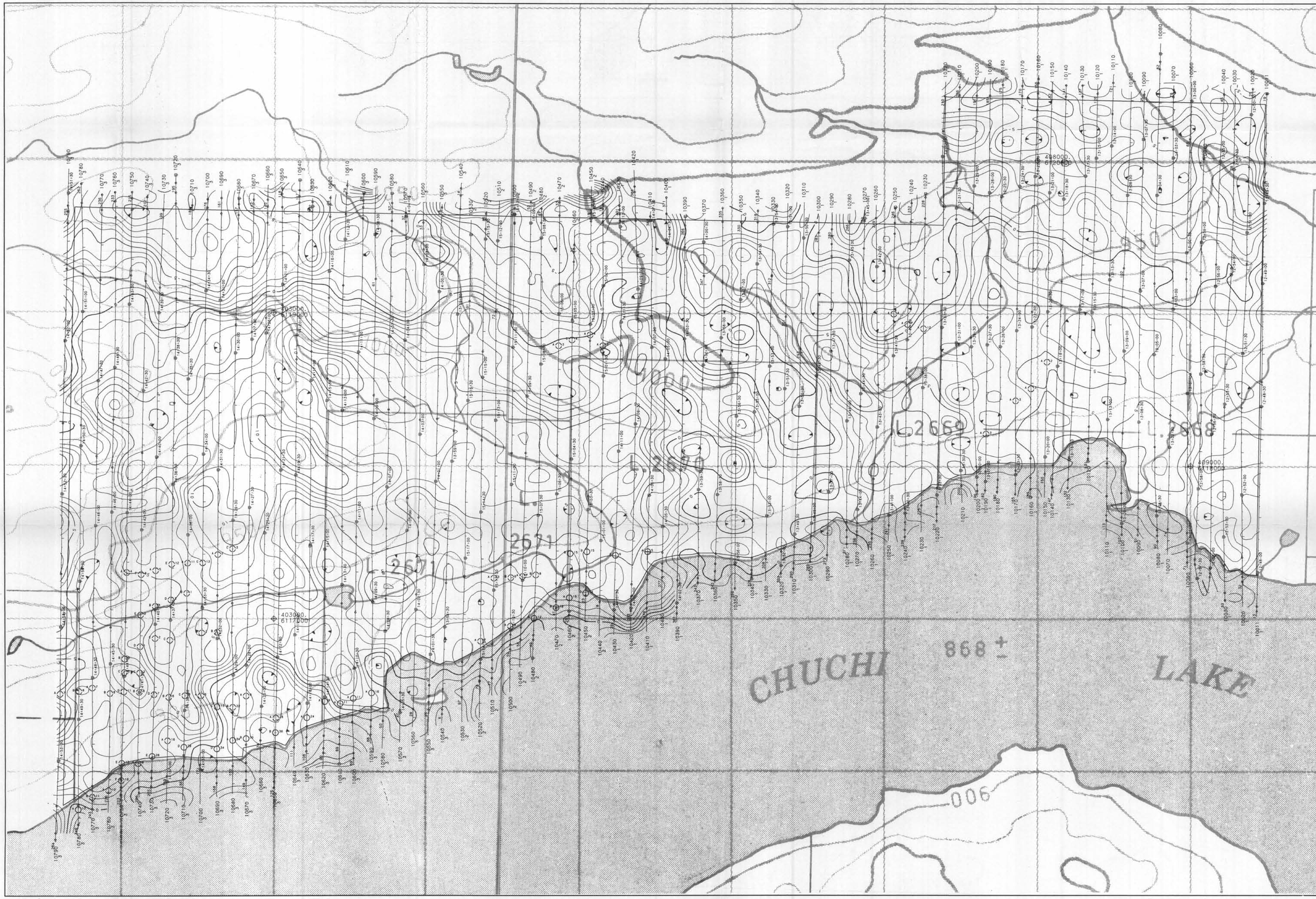
SCALE 1:10,000

0 330 660 1320 2640 Feet

0 100 200 500 1000 Metres

AERODAT LIMITED

DATE:	DECEMBER 1990
NTS No:	93 N
MAP No:	6 J9085 - 1



Flight Path

Flight path recovery from VHS video tape.

Average terrain clearance 60m
Average line spacing 100m

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

1 %
5 %
25 %
100 %

EM Anomalies

Conductivity Thickness (mhos)

Symbol	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

21,108

BP RESOURCES CANADA

VLF-EM TOTAL FIELD CONTOURS (LINE CHANNEL)

SKOOK BLOCK

BRITISH COLUMBIA

SCALE 1:10,000

0 330 660 1320 2640 Feet

0 100 200 500 1000 Metres

AERODAT LIMITED

DATE: DECEMBER 1990

NTS No: 93 N

MAP No: 7 J9085 - 1