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REPORT ON A

MULTIFREQUENCY ELECTROMAGNETIC AND MAGNETIC SURVEY

ON THE HAPPY CLAIM GROUP

IN THE BOWSER RIVER AREA, B.C.

FOR OWNER AND OPERATOR

TENAJON SILVER CORPORATION

Latitude: 56°16'30'N Longitude: 130°02 W

N.T.S.: 104 B8 and 104 B1

Mining Division: Skeena

Survey Dates: September 5 and 7, 1983

September 21, 1983
Vancouver, British Columbia

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Apex Airborne Surveys Ltd.
Ronald F. Sheldrake, B.Sc.

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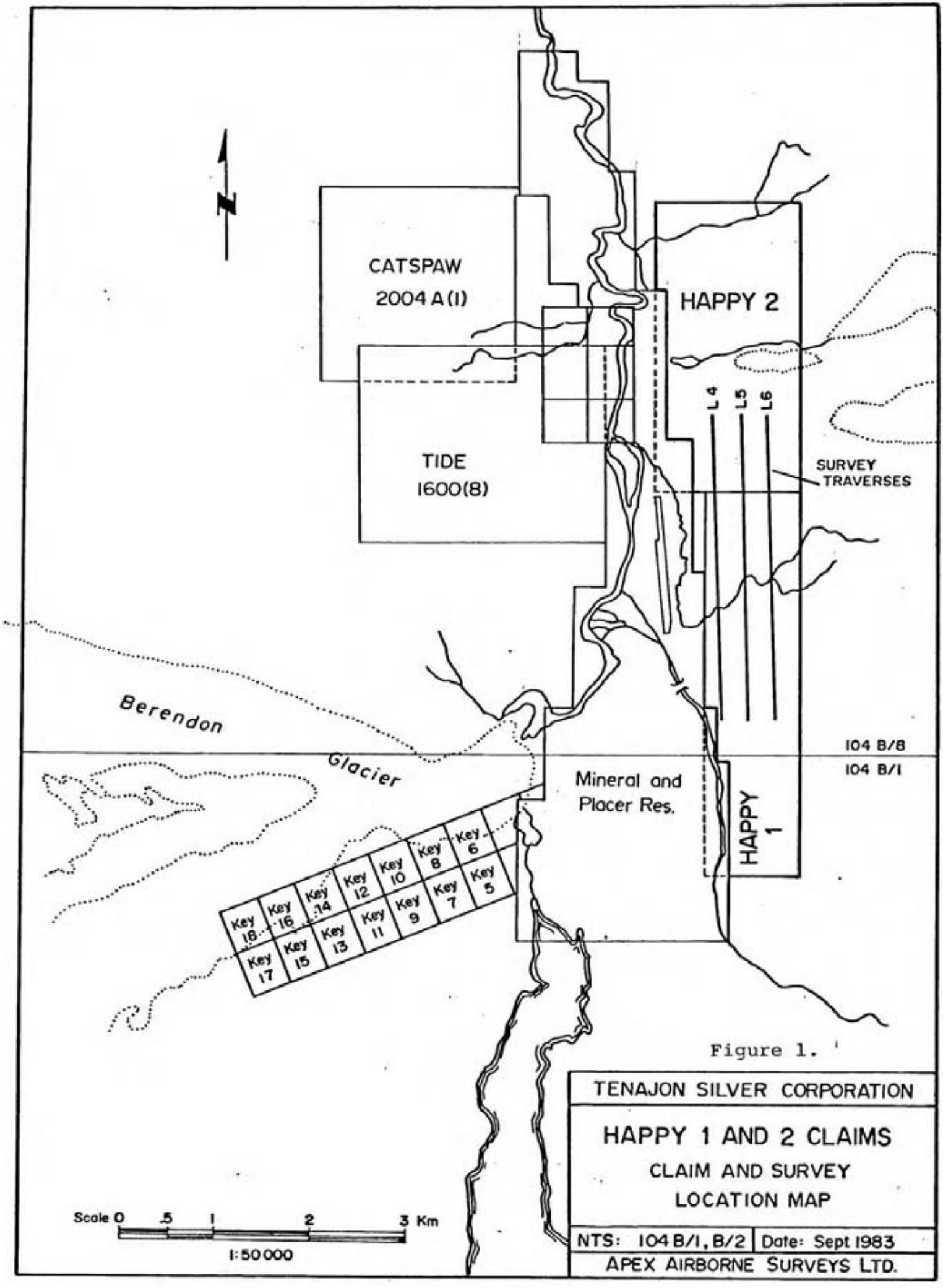

Figure 1.

TENAJON SILVER CORPORATION

HAPPY 1 AND 2 CLAIMS

CLAIM AND SURVEY LOCATION MAP

NTS: 104 B/1, B/2 | Date: Sept 1983

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1. SUMMARY

The helicopter electromagnetic survey detected no anomalies that were indicative of massive sulphide mineralization. A magnetic anomaly is evident from the magnetic contour map but because of the limited survey area, its significance is not known.

2. INTRODUCTION

The survey was flown to test the HAPPY CLAIMS for the presence of massive sulphide veins. Three traverses separated by about 200 meters totalling 9 kilometers were flown using a Bell 206 L Long Ranger as a geophysical platform.

The HAPPY CLAIMS are located in moderately rugged terrain and range in elevation from 750 meters to 1100 meters.

The electromagnetic instrumentation used on this survey utilized both coplanar and coaxial coil configurations at two different frequencies.

The system comprises of two sets of receivers and transmitters as follows:

(1) COAXIAL PAIR - The coaxial transmitter-receiver pair are separated by 6 meters and utilize a "low frequency" signal of 950 Hz. This configuration couples best with vertical dike or vein-like targets.

(2) COPLANAR PAIR - The coplanar transmitter-receiver pair are separated by 5.5. meters and utilize a "high fgrequency" of 4050 Hz. This configuration couples best with flat lying and tabular targets.

The transmitter and receiver coils for the two frequencies are located at the ends of the six meter bird. The bird is towed 30 meters below the helicopter by means of a suitable cable which also carries the electric signals to and from the bird.

Changes in the alternating magnetic field at the receiver coil, caused by eddy currents in the subsurface rock are recorded. These changes are expressed in ratios of the normal undistorted primary field. They are so small as to be expressed in parts per millions (p.p.m.).

The magnetometer used on this survey was a Geometrics Corp. G803. It is a total field nuclear precision instrument which measures the magnetic field strength

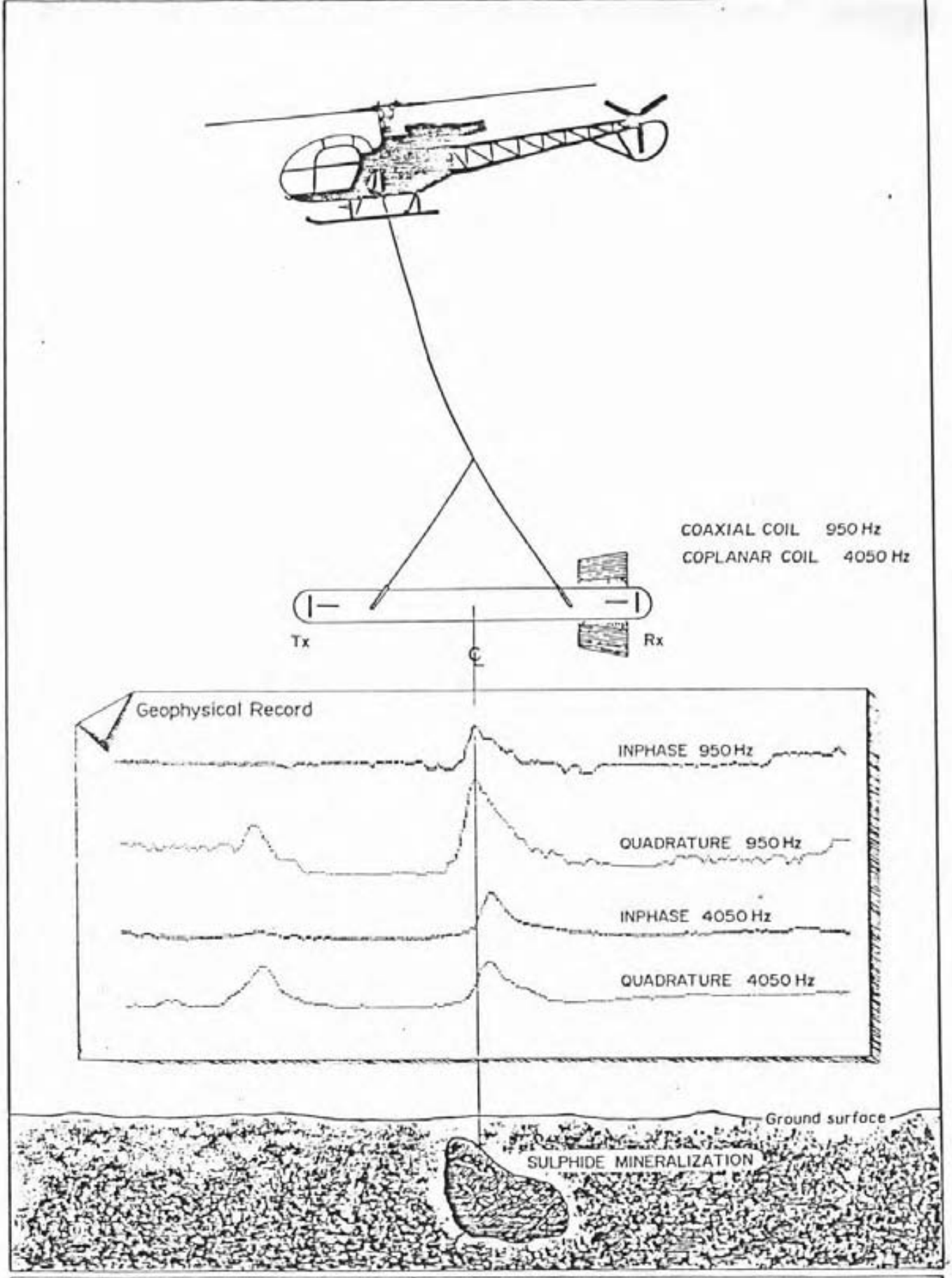

FIGURE 2

SCHEMATIC OF TWO FREQUENCY-CONFIGURATION H.E.M. SYSTEM

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with a resolution of 1 gamma. The sensor is toroidal and is positioned half way between the helicopter and the E.M. bird.

The measuring technique of the proton magnetometer can be understood by making the proton analogous to a tiny bar magnet spinning about its longitudinal axis, which has the properties of both a magnetized needle and gyroscope. The spinning magnet tries to align itself along the lines of force but the gyroscopic properties oppose this and the spinning magnet gyrates. The essential characteristic of the system is that the rate of gyration is proportional to the ambient magnetic intensity. This rate is measured electronically, multiplied by a suitable factor then displayed on the chart.

Appendix I gives details of the geophysical equipment used for this survey. Appendix II described the flight record and flight patch recovery process.

CLAIMS:

The claims covered by the geophysical survey are:

HAPPY 1
HAPPY 2

LOCATION AND ACCESS

The claim block is located about 2 km. north of the Granduc Mines mill site. Access can be made to the Granduc Mine Area by road from Stewart, B.C.

GEOLOGY

* The HAPPY CLAIM GROUP is underlain with volcanic agglomerates, tuffs with some sedimentary units.

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*Personal Communication, Mr. James McLeod, Northair Group.

3. DATA PRESENTATION

A contour map of the total field magnetometer values has been provided at a scale of 1:15,000. The data have been corrected for diurnal variation but are uncorrected for regional gradient. The contour interval is 10 gammas.

Computer plots of each of the 3 traverses that comprise this survey are bound with this report. The profiles are corrected for flight speed variations and are plotted at the scale of the base map. The profiles display the following:

magnetic profile	55 gammas/cm
e.m. 1 coaxial coil in-phase	5 ppm/cm
e.m. 2 coaxial coil quadrature	5 ppm/cm
e.m. 3 coplanar coil in-phase	5 ppm/cm
e.m. 4 coplanar coil quadrature	5 ppm/cm
radar altimeter (helicopter)	275 ft/cm
sferics and powerline monitor	

4. DISCUSSION OF RESULTS

The electromagnetic data that were collected on the 3 traverses over the HAPPY CLAIMS indicate that the rocks underlying those traverses do not contain massive sulphide veins.

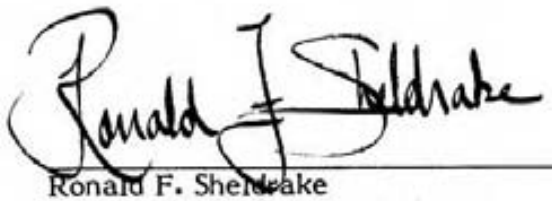
However, the magnetic data map a broad feature in the area of L.50 between fiducials 540 and 550 and L 6.0 between fiducials 605 and 625. This feature is singular to the data that was collected but insufficient area has been surveyed to know its significance.

5. CONCLUSION AND RECOMMENDATIONS

Although the present helicopter survey identified no responses that could be caused by massive sulphide veins, the claim group has not been tested thoroughly with this technique.

If ground techniques are inappropriate to test this area in detail, it is recommended that a helicopter survey be flown over the claim group at 100 meter line intervals.

Respectfully Submitted



Ronald F. Sheldrake
Apex Airborne Surveys Ltd.

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M.K. Gosh and G.F. West - A.E.M. Analogue Model Studies, produced by Norman Paterson & Associates Limited, Toronto.

Vacquier V., Steenland, N.C.- and Henderson, R.G. - Interpretation of Aeromagnetic Maps, Geological Society of America, Memoir No. 47.

Douglas C. Fraser - The Multicoil II Airborne Electromagnetic System, Geophysics, Vol. 44, No. 8, August 1979, pp. 1367 - 1394.

Mr. James McLeod - Personal communication, September 26, 1983

APPENDIX I

INSTRUMENTATION

Electromagnetic Instrument

Type: Helicopter mounted in-phase - quadrature instrument. Coplanar coils - 4050/hz. Coaxial coils 950 hz. Manufactured by Geonics Ltd., Toronto.

Coils: Coplanar - 5.5 meter separation 4050 hz.
Coaxial - 6.0 meter separation 950 hz.

Noise Level: Less than 1.0 ppm peak to peak (0.6 sec. time constant)

Magnetometer

Type: Towed sensor type, proton precession model G803 manufactured by Geometrics Corporation, Toronto.

Cycling Time: 1.0 second.

Sensing Head Design: 5 inch diameter toroid.

Ancillary Equipment:

UDAS Digital Acquisition System with recorder.
Geocam 35 mm Flight Path Camera
Geometics G806 Magnetic Base Station and recorder.

Helicopter: Bell 206 L supplied by Vancouver Island Helicopters, Stewart, B.C.

APPENDIX II

THE "ANALOGUE" CHART AND FLIGHT PATH RECOVERY

The in-flight tape is a roll of chart paper which moves through the digital printer at a speed of 5.48 cm per minute.

The digital printer chart facilitates the use of a full alpha-numeric system. All "header" sensitivity and fiducial information is printed automatically.

The chart is 520 dots wide as follows:

DOTS	
0 - 10	powerline and spherics monitor
0 - 60	Altimeter - 10 feet per dot (0-600 feet)
60 - 160	quadrature - high frequency - ¼ ppm/dot
160 - 260	in phase - high frequency - ¼ ppm/dot
260 - 360	quadrature - low frequency - ¼ ppm/dot
360 - 460	in phase - low frequency - ¼ ppm/dot
460 - 520	magnetometer 2 gammas/dot

The helicopter flight path is recovered from 35 mm film, which is exposed at 2.0 second intervals during the flight traverses. After processing and anotating, recognizable fiducials are pin-pointed on a photomosaic map.

APPENDIX III

Survey Personnel:

Field Geophysicist:	-	Ronald F. Sheldrake 1271 W. 22nd Street North Vancouver, B.C.
Field Technician:	-	Michael Magee c/o Apex Airborne Surveys Ltd. Vancouver, B.C.
Helicopter Pilot	-	Kevin Dawson c/o Vancouver Island Helicopters Stewart, B.C.

APPENDIX IV

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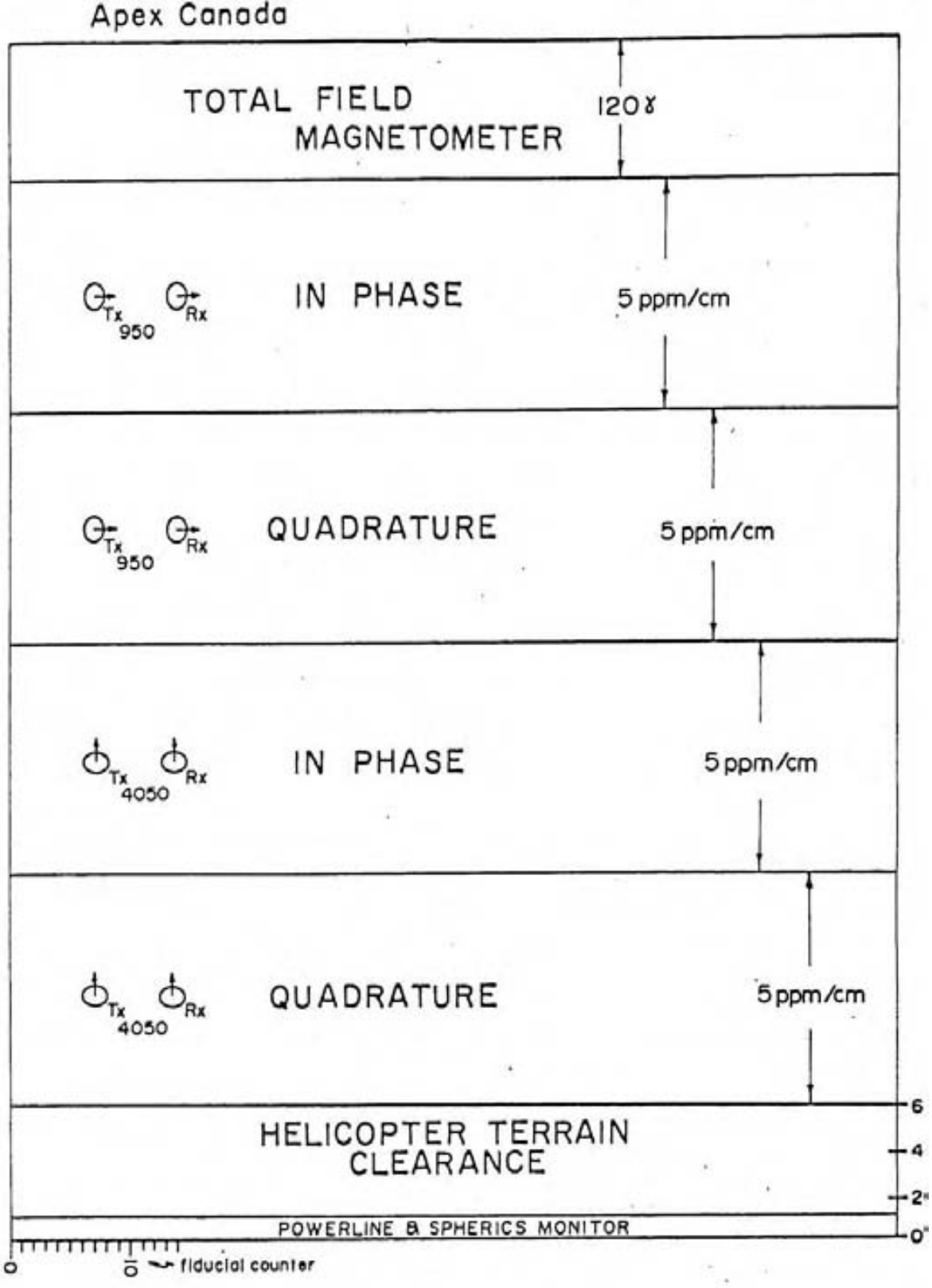

UDAS REPLOT PROGRAM VER.181282

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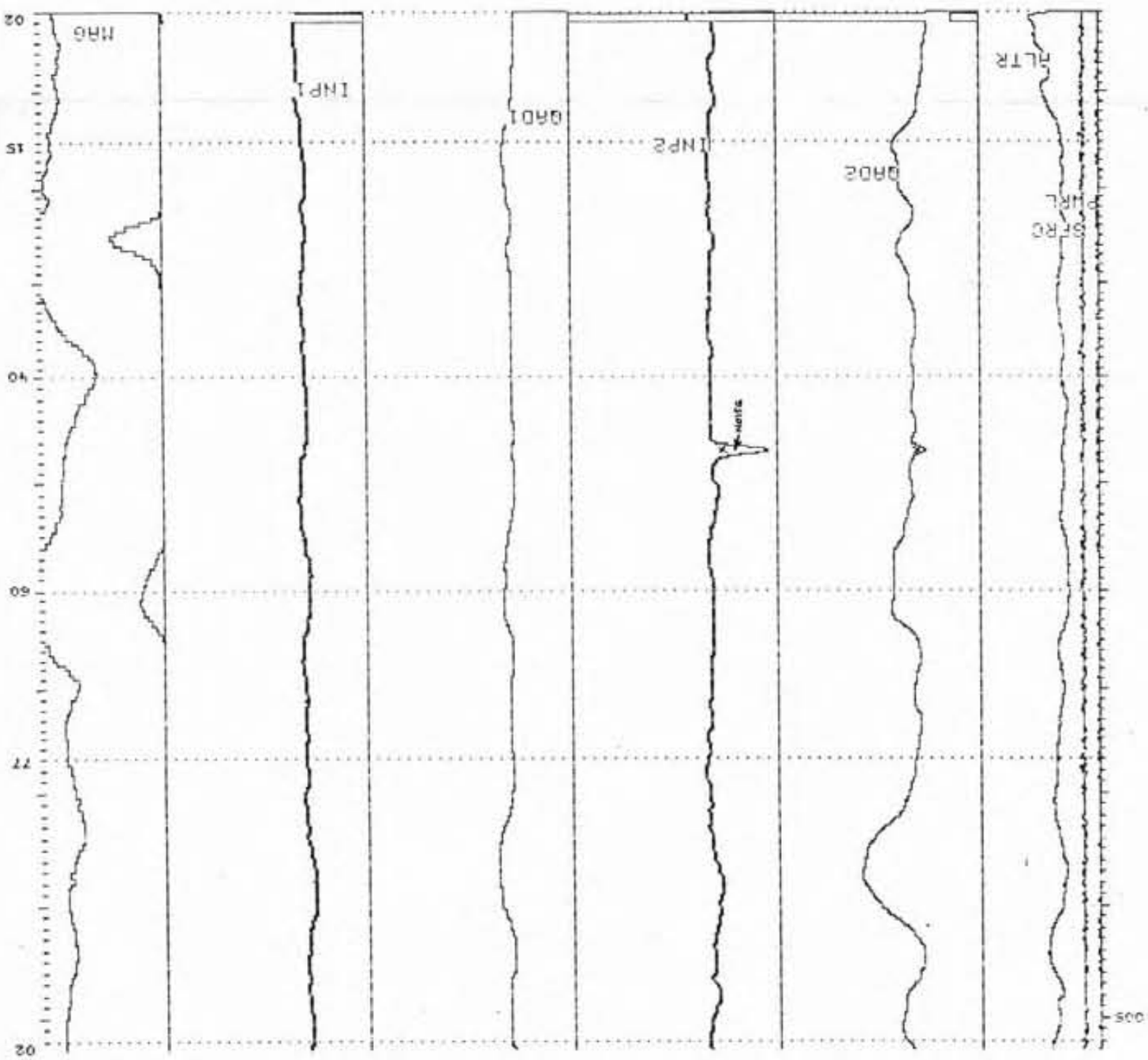
LN 004



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IDAS REPLOT PROGRAM VER.101282

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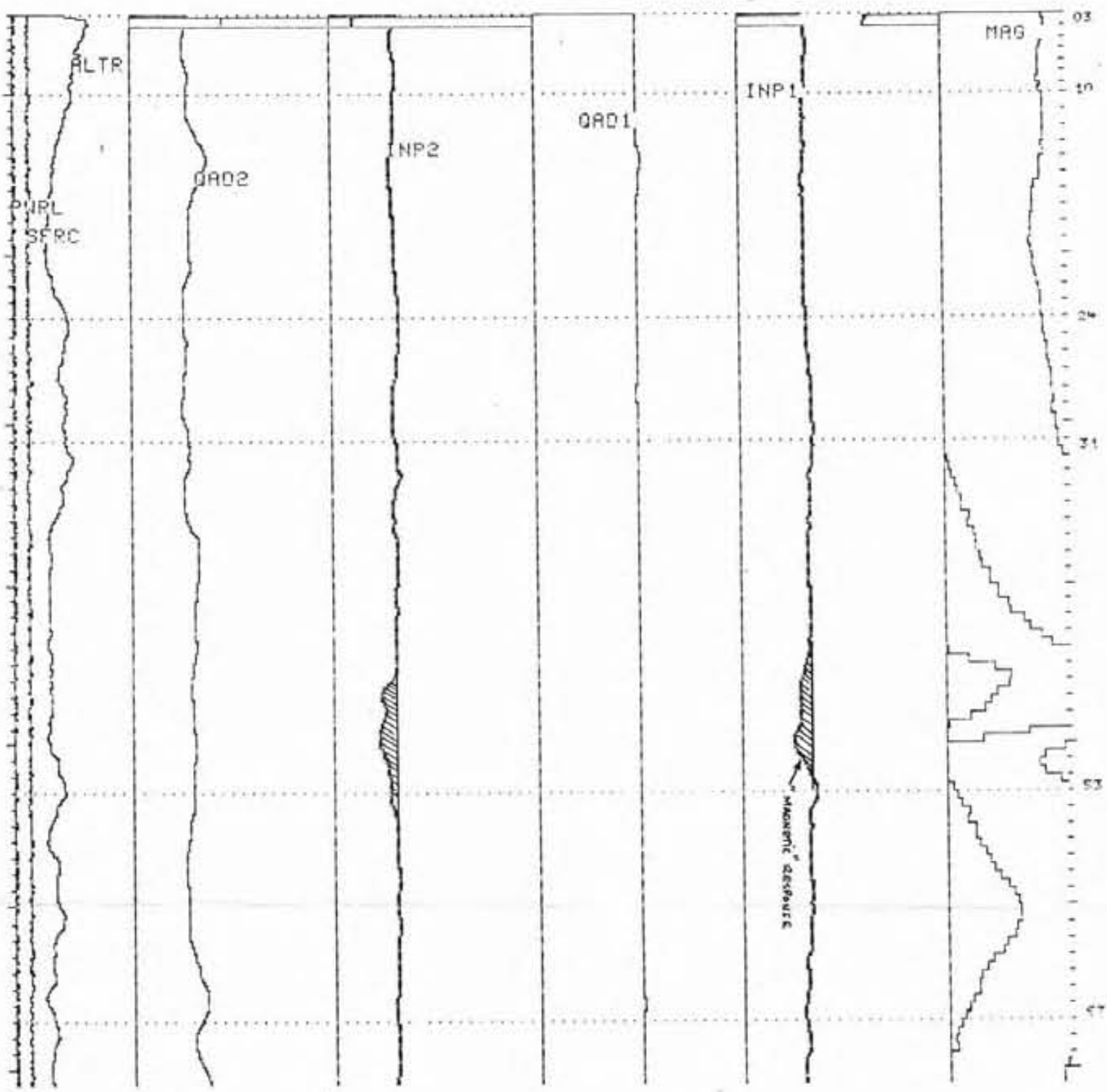
LN 005



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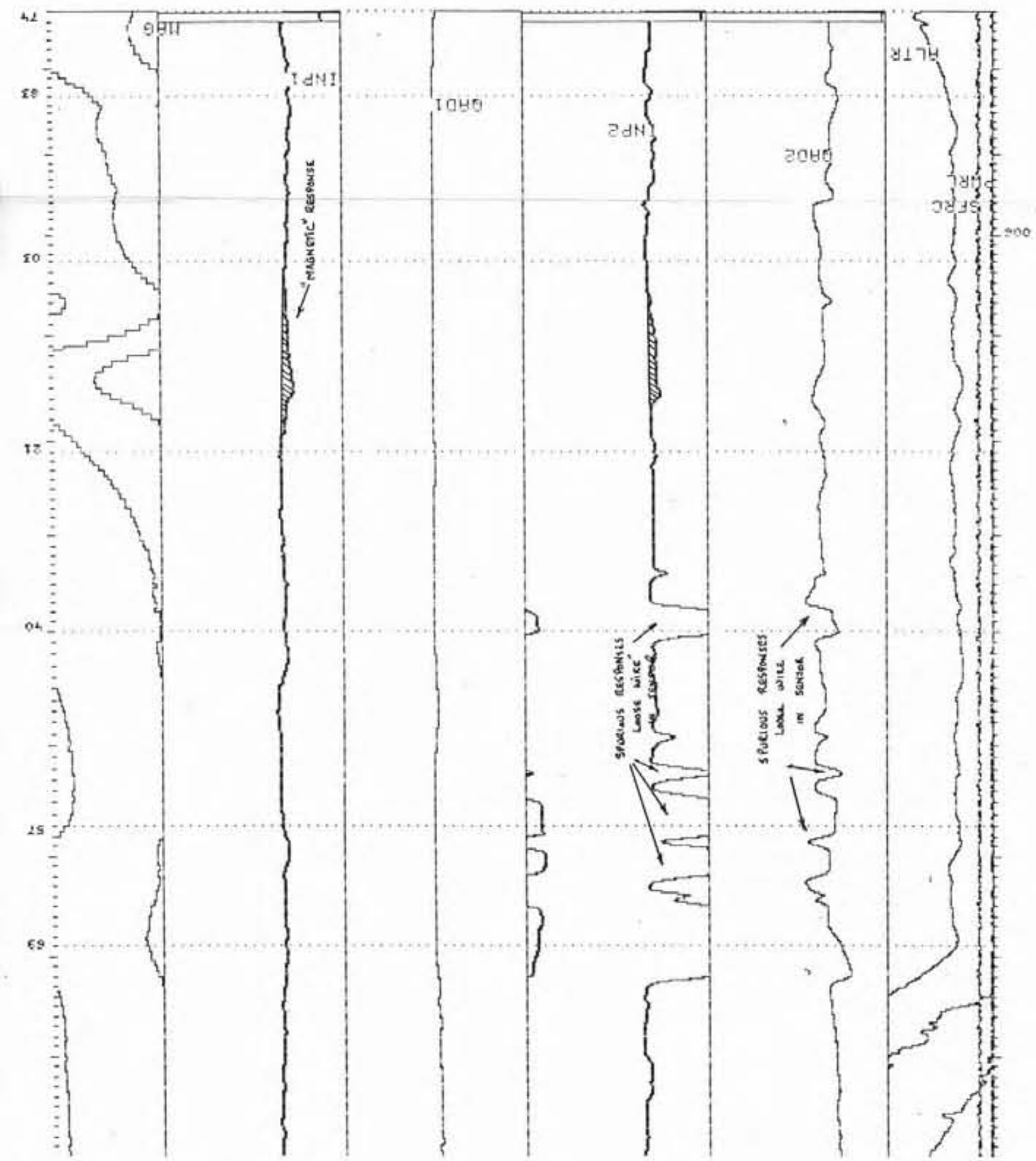
LN 006



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CERTIFICATION

I, RONALD F. SHELDRAKE, of the City of Vancouver, Province of British Columbia, hereby certify as follows:

1. I am President of **Apex Airborne Surveys Ltd.** a company incorporated under the laws of the Province of British Columbia.

2. The Vancouver Office of **Apex Airborne Surveys Ltd.** is located at Suite 514 -625 Howe Street, Vancouver, British Columbia.

3. I received my B.Sc., in Geophysics from the University of British Columbia in May, 1974.

4. I have practised my profession since that date.

5. I have no interest, direct or indirect, in the properties or claims of **Tenajon Silver Corporation,** nor do I expect to receive any.

6. I consent to the use of this report in or in connection with engineering reports or in a Statement of Material Facts.

Ronald F. Sheldrake

Ronald F. Sheldrake

Apex Airborne Surveys Ltd.

September 21, 1983

September 21, 1983

STATEMENT OF COSTS

Type of Survey:	Electromagnetic-Magnetic Helicopter Platform
Date(s) of Fieldwork:	September 7 and 9, 1983
Survey Kilometers:	9 Kilometers
Cost per Linear Kilometer:	$235.45
Additional Charges:	None
Total Cost of Survey:	$2,119.00

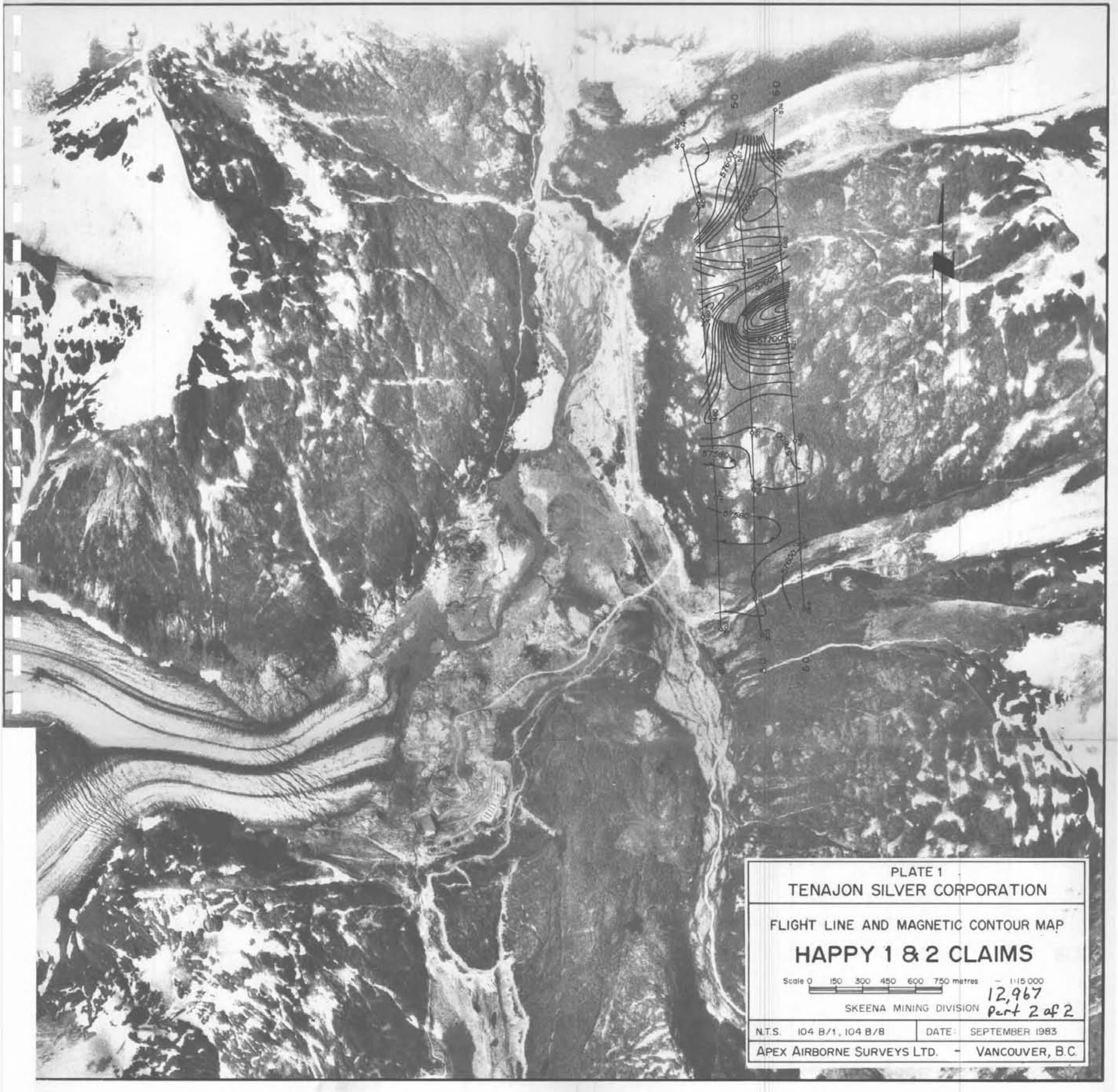

PLATE 1

TENAJON SILVER CORPORATION

FLIGHT LINE AND MAGNETIC CONTOUR MAP

HAPPY 1 & 2 CLAIMS

Scale 0 150 300 450 600 750 metres — 1:15 000

SKEENA MINING DIVISION

12,967
Part 2 of 2

N.T.S. 104 B/1, 104 B/8	DATE: SEPTEMBER 1983

APEX AIRBORNE SURVEYS LTD. - VANCOUVER, B.C.