84-#146 - 11990
02/85

GEOPHYSICAL REPORT

on the

TWIN 1, TWIN 2, TWIN 3

MINERAL CLAIMS

Kamloops Mining Division

British Columbia

NTS 82 M/4W
51° 08' north latitude, 119° 47' west longitude

OWNER

APEX ENERGY CORPORATION
1502 - 750 West Pender Street
Vancouver, B.C.
V6C 2T8

OPERATOR

AUSTIN RESOURCES INC.
1440 - 625 Howe Street
Vancouver, B.C.
V6C 2T6

PREPARED BY

SPIREX INTERPRISES LTD.
3433 West 12th Avenue
Vanmcouver, B.C.
V6R 2N2

March 12, 1984

Author: Ralph Shearing
Consulting Geologist

TABLE OF CONTENTS

INTRODUCTION

During December 1983, Spirex Enterprises Ltd. personnel conducted ground magnetometer and VLF-EM geophysical surveys on the Twin Claim Group, Kamloops Mining Division, B.C. A total of 26.4 line km were electromagnetically surveyed and 28.75 line km were magentically surveyed. A picketed and flagged grid totalling 33 km was used for these surveys. The gird was established by Beaver Lake Contracting Ltd. during November and December, 1983. The following is a description of this work, as well as a summary of the geology and history of the Twin property and surrounding area.

LOCATION AND ACCESS (See Figure 1)

The Twin claim group is located about 60 kilometres north-northeast of the city of Kamloops, B.C. and 5 kilometres north of Adams Lake. The approximate geographic coordinates at the claim centre are: 51° 08' north latitude and 119° 47' west longitude. The property lies within the Adams Plateau map sheet, 82 M/4W.

The claims are readily accessible from Skwaam Bay via a well maintained logging road which follows the west side of Adams Lake for 9 kilometres to a secondary logging road. Along this secondary logging road the claims are approximately 13 kilometres northwesterly up the south and southwestern side of Sanatosum Mountain.

Skwaam Bay is easily reached by two different routes from Kamloops. The first is via Highway 5 to Louis Creek, 58 kilometres north of Kamloops. From Louis Creek, Skwaam Bay is approximately 35 kilometres east along the Sinnax Valley road. The second route is via Highway 1 to Squilax, about 95 kilomtres east of Kamloops; then, north through the town of Adams Lake along the west side of Adams Lake for about 35 kilometres to Skwaam Bay.

PHYSIOGRAPHY

The subject claims cover the southern plateau region of Samatosum Mountain around the headwaters of Homestake Creek. Elevations within the claims range from approximately 1060 to 1740 metres above mean sea level. Topographic relief varies from gentle to moderate southerly slopes to very steep southerly and southeasterly slopes.

The climate is moderate with annual temperatures ranging between -25°C to +30°C. Precipitation is usually moderate to heavy. The exploration season may extend from May to November.

The area is well vegetated with fir, balsam, spruce and poplar. The underbrush is moderate to heavy. Local logging operations have recently cleared much of the claim area providing further access and rock exposure.

PROPERTY AND OWNERSHIP (See Figure 2)

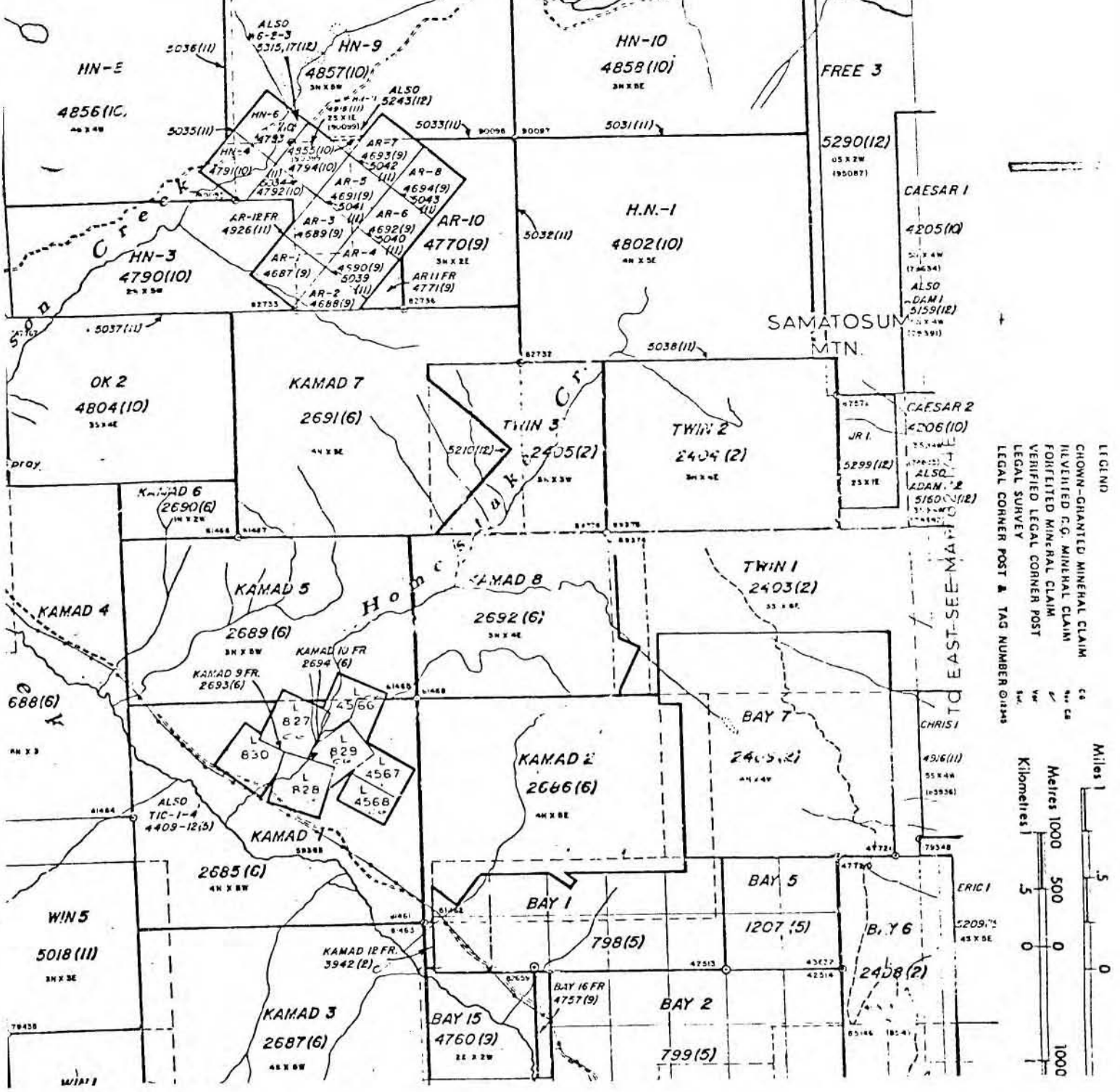
The Twin property is comprised of three M.G.S. mineral claims totalling 39 units. All claims are contiguous and are located in the Kamloops Mining Division of south-central British Columbia. The claims were grouped in December, 1981 and are known as the Twin Group (N/G #1849). Table I summarizes all pertinent mineral claim data.

Claim Name	Record No.	Units	Recorded	Owner
Twin 1	2403	18	Feb. 13, 1980	Apex Energy Corp.
Twin 2	2404	12	Feb. 13, 1980	Apex Energy Corp.
Twin 3	2405	9	Feb. 13, 1980	Apex Energy Corp.

The property area was first staked in December, 1936. It was then known as the Twin Mountain Property. In 1952, C.C. Keller restaked the property and optioned it to Camoose Mines Ltd. During this time an access road was built to the claim from Skwaam Bay and two exploration tunnels were driven on the property. The claims subsequently lapsed and were restaked in 1966 by Mr. Keller and optioned to Sinmax Mines Ltd. Sinmax conducted geochemcial, geophysical and geological surveys on the property. Some of these results are available and are noted in the bibliography of this report.

In February, 1980, the Twin claims were staked by C. Graf to cover the old Sinmax ground. All interest in the claims was sold to J.K. Ralfs in March, 1981. During August, 1981, Nevin Sadlier-Brown Goodbrand Ltd. conducted geochemical and geological surveys on the property for Apex Energy Corp. Apex Energy Corp. subsequently purchased all interest in the claims in February, 1982.

In 1983, Apex Energy Corp. entered into an option agreement with Austin Resources Inc. In December of 1983, the geophysical surveys described in this report were conducted at the request of Austin Resources Inc. Since that time, Apex Energy Corp. and Austin Resources Inc. have optioned the property to Corporation Falconbridge Copper.



AUSTIN RESOURCES INC.	
VANCOUVER, BRITISH COLUMBIA	
CLAIM MAP	
TWIN CLAIMS	
Kamloops Mining Division, B.C.	
Drawn by:	Scale: 1:50,000
Date: Feb. 1984	Figure No: 2

REGIONAL GEOLOGY (See Figure 3)

The Barrier Lakes - Adams Plateau region has been geologically mapped by a number of government workers; the most definitive and recent published works have been by V.A. Preto, G.P. McLaren and P.A. Schiarizza, (1980) and V.A. Preto, (1981). Much of the following text is based on the results of these recent works.

This region is underlain by a weakly to moderately-metamorphosed assemblage of sedimentary and volcanic strata belonging to the Late Devonian to Early Mississippian age Eagle Bay formation. Regionally, the Eagle Bay formation appears to stratigraphically overlie the Late Devonian Fennell Formation. Both of these major formations have received granodiorite orthogneiss to biotite quartz monzonite intrusions ranging in age from Late Devonian to Cretaceous. Locally, the metamorphosed strata and intrusions are overlain by olivine basalt flows of Pleistocene to Recent age.

Structural features of the region are a result of at least two periods of deformation (Preto et al., 1979). An early period of folding with axes trending north to northwest, occurred prior to a later folding event which has a north-trending fold axes.

There are numerous base-metal occurrances known in the region. Many are obviously syngenetic stratabound massive sulphide deposits. Such polymetallic deposits, commonly with associated barite and procious metal values, are most abundant in the Birk Creek North-Barriere Lake, Johnson Lake-Sinmax Creek and Adams Plateau areas, (Preto, 1979).

PROPERTY GEOLOGY (See Figure 4)

The Twin claims are underlain by an intercalated sequence of volcanic and sedimentary rocks of the Late Devonian to Early Misssissippian age Eagle Bay Formation. S. Croft, T. Sadlier-Brown, and B. Fairbank, (1981), describe the rocks as: a greenschist assemblage of metamorphosed volcanic rocks with numerous thin limestone and dolomite layers, as well as remnant pillow basalt structures. As shown on figure 4, the southwest portion of the Twin 3 may be underlain by a rusty,

feldspathic intermediate phyllite, and the extreme northeast corner of the Twin 2 may be underlain by the Tshinakin limestone and dolomite.

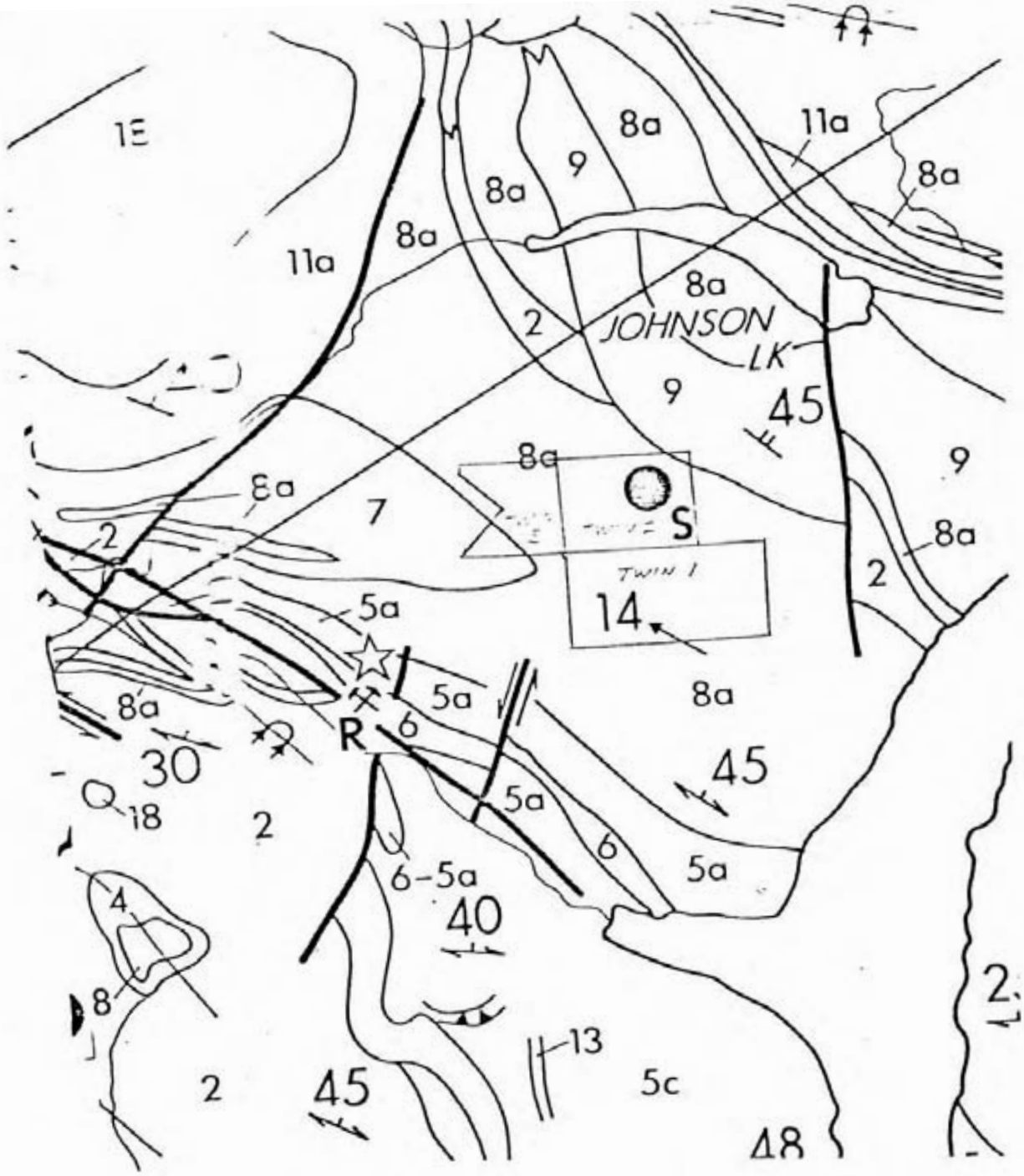
ECONOMIC MINERALIZATION

Regionally, the Eagle Bay Formation hosts numerous scattered base metal occurrences. Locally, these rocks host two noteable massive sulphide showings with associated precious metal values. Approximately 3 km to the southwest is the Homestake mine owned by Kamad Silver. Here massive sulphide mineralization with high silver values is hosted in the intensely deformed felsic Homestake Schist. Less than 1 km to the northwest is the recent Rea Gold Hilton Discovery. Here massive sulphide mineralization occcurs in an overturned sequence of submarine exhalative volcanics and sediments consisting of felsic lapilli tuffs, cherty exhalative tuffs and breccias, argillaceous mafic lapilli tuffs and volcanoclastic sediments of graphitic argillite to mixed pebble conglomerate. This discovery has indicated reserves of 150,000 tons grading 0.43 oz Au/ton, 3.5 oz Ag/ton, 0.7% cu, 3.6% Zn and 3.1% Pb.

To date, mineralization on the Twin claims has been uneconomic. However, previous workers have interpreted this mineralization as being "vein-type" despite being conformable with bedding.

The Rea Gold Hilton discovery is clearly a syngenetic stratbound massive sulphide deposit. The minerology, style of mineralization and the geological environment are indicative of "Kuroko-type" massive sulphide deposit. This deposit is directly on strike to mineralized zones on the Twin property.

With the above in mind, the potential for the discovery of economic mineralization, similar to that found on the Rea Gold Hilton Discovery, within the Twin claims is considered excellent.



AUSTIN RESOURCES INC.	
VANCOUVER, BRITISH COLUMBIA	
PROPERTY GEOLOGY	
TWIN CLAIMS	
Kamloops Mining Division, B. C.	
Drawn by: V.A. Preto	Scale: 1:100,000
Date: 1981	Figure No.: 4

LEGEND

PLEISTOCENE AND/OR EARLIER

[18] OLIVINE BASALT, MUDSTONE

MIOCENE AND /OR PLIOCENE

[17] PLATEAU BASALT

EOCENE AND LATER (?)

[16] SKULL HILL FORMATION – VESICULAR ANDESITE

[15] CHU CHUA FORMATION – CONGLOMERATE, SANDSTONE, SHALE

CRETACEOUS

14 [a] GRANITE, QUARTZ MONZONITE

[b] QUARTZ FELDSPAR PORPHYRY

JURASSIC AND TRIASSIC

[13] DIORITE

UPPER TRIASSIC (?)

[C] AUGITE PORPHYRY BRECCIA

AGE UNKNOWN

[B] SERPENTINITE

UPPER MISSISSIPPIAN AND (?) OLDER TO LATEST PERMIAN AND (?) YOUNGER

12 FENNELL FORMATION

[a] MASSIVE AND PILLOW BASALT

[b] CHERT

[c] QUARTZ FELDSPAR PORPHYRY

[d] CONGLOMERATE

[e] PELITE, SANDSTONE

[f] MARBLE

[g] GABBRO AND DIORITE

LATE DEVONIAN

[A] GRANODIORITE ORTHOGNEISS

LATE DEVONIAN AND (?) OLDER TO LATE MISSISSIPPIAN AND (?) YOUNGER

1–11 EAGLE BAY FORMATION

11 [a] BLACK PHYLLITE; INTERBEDDED GRIT, SANDSTONE, SILTSTONE, AND LIMESTONE

[b] CALCAREOUS BLACK PHYLLITE WITH CALCITE AND LIMESTONE LENSES

[10] LIMESTONE, DOLOMITE

[9] TSHINAKIN LIMESTONE AND DOLOMITE

8 [a] GREENSCHIST

[b] TUFF, CHLORITE–PHYLLITE, STRIPED AMPHIBOLE, SKARN

7 RUSTY, FELDSPATHIC, INTERMEDIATE PHYLLITE

6 HOMESTAKE SCHIST – PLATY SERITICE–PYRITE–QUARTZ SCHIST

5 a FELSIC PHYLLITE AND SCHIST

b CHERTY TUFF, CHERT, CALC–SILICATE

c FELSIC TUFF AND BRECCIA

d RHYOLITE

4 QUARTZITE

3 PYRITE–CHLORITOID–SERICITE–QUARTZ SCHIST

2 METASEDIMENTARY PHYLLITE, GRIT, QUARTZITE

1 AMPHIBOLITE, QUARTZITE, MARBLE, SILLIMANITE–GARNET–BIOTITE SCHIST

SYMBOLS

BEDDING: TOPS KNOWN, UNKNOWN .....

EARLY SCHISTOSITY .....

FOLD AXES: EARLY, LATE .....

EARLY AXIAL TRACE:
SYNFORM: UPRIGHT, OVERTURNED .....
ANTIFORM: UPRIGHT, OVERTURNED .....

LATE AXIAL TRACE:
SYNFORM: UPRIGHT, OVERTURNED .....
ANTIFORM: UPRIGHT, OVERTURNED .....

RADIOMETRIC AGE LOCALITY .....

FOSSIL LOCALITY .....

PROSPECT; MINE .....

MINERAL DEPOSITS

A REXSPAR (U, F)
B FOGHORN (Ag, Pb, Zn, Cu)
C LYDIA (Pb, Zn)
D JUDY (Mo, Cu)
E WINDPASS (Au, Cu, Bi, Ag)
F SWEET HOME (Au, Cu, Bi)
G GOLD HILL (Au, Pb, Cu, Zn, Ag)
H QUEEN BESS (Pb, Zn, Ag)
I C.C. (Cu, Zn)
J HARPER (Cu, Pb, Zn)
K RAINBOW (Cu, Pb, Zn)
L BROKEN RIDGE (Cu, Zn)
M COPPER CLIFF (Pb, Zn, Cu)
N MAY (Cu, Zn)
O ENARGITE (Pb, Zn)
P EBL (Cu)
Q KAJUN (JUNE) (Ag, Pb, Zn, Cu)
R HOMESTAKE (Ag, Pb, Zn, Au, Cu, Barite)
S TWIN MOUNTAIN (Ag, Pb, Zn, Au, Cu, Barite)
T KING TUT (Ag, Pb, Zn, Au)
U ELSIE (Pb, Zn, Ag, Au)
V LUCKY COON (Pb, Zn, Ag, Au, As)
W PET (Pb, Zn)
X SPAR (Pb, Au, Ag, Cu)
Y BC (Cu, Pb, Zn)
Z MOSQUITO KING (Pb, Zn, Ag)

GEOPHYSICAL SURVEYS

All geophysical surveys were conducted on the grid established by Beaver Lake Contracting Ltd. The old baseline of previous surveys was recut and grid lines were run as near as possible to the old grid. A total of 33 kilometres of blazed, flagged and picketed grid was established. Lines were 130 m apart and pickets were placed every 30 m on these lines. Readings for all the geophysical surveys were taken every 15 metres on the lines. The 15 metre mid-station between pickets was estimated by pacing. Due to heavy snow conditions the steep northeastern part of the grid could not be surveyed.

PROTON MAGNETOMETER SURVEY

A Barringer Research Limited portable proton magnetometer, model GM-122, was used for this survey. The specifications and a description of the principle of operation is given in the appendix of this report.

Data was corrected for diurnal drift by conducting looped traverses to previously established control stations along the baseline. Field data was reduced relative to the previously established values.

Results of the magnetometer survey are largely inconclusive (see drawing No. 2). Values range from 57,700 gammas to 58,500 gammas. From line 1560 NW to line 2990 NW values obtained are generally low and erratic. No clear pattern can be distinguished. East of line 1560 NW a marked change occurs in the magnetics. A relatively strong magnetic high occurs over seven lines trending approximately north. The cause of this anomaly is unknown. However, one can say that it is not likely a significant mineralized zone due to the lack of a coincident VLF-EM response. More probably it is due to a change in rock type.

VLF-EM SURVEY

A Geonics Limited, model EM-16 was used for the EM surveys. Instrument specifications and the prinicples of operations are presented in the appendix.

Two surveys were conducted. The most effective survey used a transmitter station located in Cutler, Maine, U.S.A. (see drawing No. 3 and 4). The other survey used a station located in Seattle, Washington, U.S.A. (see drawing No. 5 and 6). The transmitter stations operate at a frequency of 17.8 kHz and 24.8 kHz, respectively.

The results of the two EM surveys are very similar. However, the survey using the Seattle transmitter produced results of lower magnitude and less detail with anomalies being broader and poorly defined. Therefore the following interpretation is based on data obtained using the transmitter station located in Cutler, Maine, U.S.A.

Several strong EM Conductors have been delineated over the grid. The strongest conductors are located in the central-western grid area and at the south-central grid area. Other, less strong, conductors are located throughout the property.

Some of these conductors may reflect massive sulphide zones. On the other hand, graphite is associated with the mineralized zone and with the volcanoclastic sediments which structurally underly the mineralized zone on the nearby Rea Gold property.

It is possible that some conductors reflect graphite zones. At this stage of exploration, on the Twin claims, it is not possible to say what the cause of the EM conductors are. Further exploration is needed to determine this.

CONCLUSIONS

The potential for the discovery of stratiform massive sulphide bodies within the Twin claims is considered excellent. These claims are ideally situated with respect to the nearby Rea Gold Hilton Discovery. Favourable host rocks are shown to occur throughout the claims. VLF-EM surveys show a number of strong conductors throughout the claims. A staged exploration program is recommended to test the economic potential of the Twin property.

RECOMMENDATIONS

Stage I

(1) Detailed geological mapping should be conducted, preferably at the same scale as the geophysical plans (1:2,500).

(2) Detailed geochemical soil sampling should be conducted over the entire grid. Samples should be collected every 15 m over those areas with the strongest VLF-EM conductors as outlined in text and every 30 m over the remainder of the grid. Samples should be analysed for gold, silver, copper, lead, zinc and arsenic.

(3) Any geologically, geochemically and/or geophysically anomalous zones should be investigated by surface trenching to define the source. All mineralized zones should be properly mapped, sampled and analysed.

Stage II

If the above work is successful in defining suitable target zones, these zones should be diamond drilled.

Respectfully submitted by
SPIREX ENTERPRISES LTD.

Ralph Shearing
Consulting Geologist

March 12, 1984

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Campbell, R.B., 1963: Adams Lake, G.S.C. Map 48-163.

Croft, S., Sadlier-Brown, T., Fairbank, B., 1981: Geological and Geochemical Report on the Twin (1-3) Claims for Apex Energy Corp.

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Preto, V.A. et al, 1979: Barrier Lakes-Adams Plateau Area, B.C.M.E.M. P.R. Paper 79-1, pp. 31 - 37.

Read, W.S., 1968: Geochemical-Geophysical Report. Star 1-14 and Adjoining Mineral Claims, for Sinmax Mines Ltd.

To: AUSTIN RESOURCES LTD.
1440 - 625 Howe Street
Vancouver, B.C. V6C 2T6

STATEMENT OF COSTS

RE: Magnetometer and EM-VLF Surveys on the Twin 1, Twin 2 and Twin 3 Mineral Claims, Kamloops Mining Division, B.C.

To all professional services rendered on your behalf in connection with the above referenced matter, including the following:

Proton magentometer sruvey, EM-VLF survey, and Twin grid tie line survey. Period covered Dec. 3 - Dec. 18/83.

Total Time:		
Magentometer survey	10 days @ $270/00/day	$ 1,700.00
EM-VLF survey (2 stations)	15 days @ $170.00/day	2,550.00
Tie line survey	1 day	170.00
Supervising Geologist	2 days @ $200.00/day	400.00
Map preparation	3 man days @ $170.00/day	510.00
Disbursements		
Geophysical Equipment Rental		
Magnetometer	10 days @ $25.00/day	250.00
EM-16	15 days @ $23.00/day	345.00
Vehicle Expenses		
4 x 4 Scout (P. McLean)	16 days @ $35.00/day	560.00
mileage	2,396 km @ $0.35/km	838.60
Accommodation		
32 man days @ $100.00 week for 2 men		228.57
tax 6%		13.71
Food		
32 man days @ $23.25/day		744.00
Drafting paper		18.00
Miscellaneous field supplies		10.00
Batteries for equipment		68.96
TOTAL		$ 8,406.84

I, Ralph Shearing, DO HEREBY CERTIFY THAT the above costs were incurred while performing the geophysical surveys.

Ralph Shearing.

Ralph Shearing
Consulting Geologist

March 12, 1984

STATEMENT OF QUALIFICATIONS

I, Ralph Shearing, of 3433 West 12th Avenue, Vancouver, B.C. V6R 2N2,

DO HEREBY CERTIFY THAT:

(1) I am president of Spirex Enterprises Ltd., a geological services company with business office at 3433 West 12th Avenue, Vancouver, B.C. V6R 2N2.

(2) I am a graduate of the University of British Columbia with a degree of B.Sc. Geology.

(3) I have been active in mineral exploration since 1979.

(4) My experience in mineral exploration has encompassed a wide range of geological environments and techniques. I have also gained considerable experience in geophysical exploration methods.

(5) This report is based on data obtained by personnel employed by Spirex Enterprises Ltd., under my direct supervision, during December 1983, as well as on available reports and maps for the area.

DATED at Vancovuer, British Columbia, this 12th day of March 1984.

Ralph Shearing

Ralph Shearing
Consulting Geologist

COASTAL MOUNTAIN ENGINEERING LTD.
3626 West 1st Avenue
Vancouver, B.C. Canada
V6R 1H2

D.J. COPELAND, P.ENG.
(604) 736-3186

Chief Gold Commissioner
Ministry of Energy, Mines
and Petroleum Resources
Parliament Buildings
Victoria, B.C.
V8V 1X4

March 9, 1984

Dear Sir:

Re: Report on Austin-Apex's Twin Claims, Adams Plateau, Kamloops Mining Division, British Columbia, by Mr. Ralph Shearing

---

This report and field work was prepared and carried out by Mr. Ralph Shearing working under my direction. I have reviewed the field work in the field and I have reviewed the report.

The writer has known Mr. Shearing since 1981 and has had several opportunities to direct and review his work. Mr. Shearing's work and recommendations are highly regarded by the writer and I consider him to be a very competent exploration geologist.

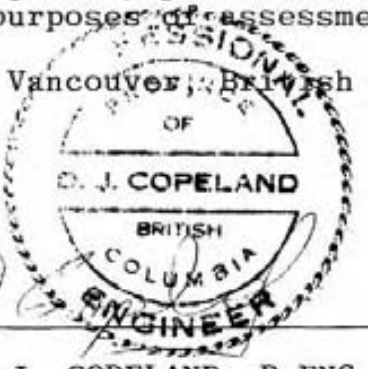
The writer has examined the area geology of the Twin Claims in detail as well as the adjoining Rea Gold and Kamad Silver properties.

I am a consulting geological engineer, registered with the Association of Professional Engineers of British Columbia since 1979. I am a graduate of the University of British Columbia with a Bachelor of Science degree in Geology, 1970. Since graduating I have been engaged in mineral exploration in Canada, United States of America, Mexico, South America, Australia, New Guinea and South East Asia.

I am retained on a consulting basis by Austin Resources Inc.

I hereby give my permission for the submission of this report for the purposes of assessment work.

Dated at Vancouver, British Columbia, this 9th day of March 1984.



DAVID J. COPELAND, P.ENG.

/hoo

APPENDICES

APPENDIX I

Section 1

SPECIFICATIONS	GM-122 PROTON MAGNETOMETER
Range:	20,000 to 99,999 in 12 ranges
Accuracy:	$\pm$ 1 γ through operating temperature range.
Sensitivity:	1 γ
Gradient Tolerance:	600 γ /ft.
Power:	12 "D" cells
Power Consumption:	50 Joules (Wsec) per reading.
Polarizing Power:	0.8 A @ 13.5 V for 1.5 sec. (3 second cycle). 0.8 A @ 13.5 V for 3 sec. (6 second cycle).
Number of Readings with 1 Battery Set:	2,000 - 10,000 depending on type of batteries
Frequeny of Readings:	1 every 3 seconds. 1 every 6 seconds.
Controls:	Pushbutton switch - Slide switch for 3 and 6 sec. located on P/C Board.
Output:	5 digit incandescent filament readout.
Indicators:	LED point. Lock Indicator - last three digits of the display blanked off when phaselock not achieved. Segment Function Indicator - all segments light up to permit visual inspection of the display function.

APPENDIX II

GM-122 PROTON MAGNETOMETER

General Description, Principle of Operation

If a proton rich fluid such as kerosene, jet fuel, heptane, etc. is placed into a magnetic field the protons will align along the magnetic field vector. The magnetic field is induced in the sensor upon depressing the pushbutton. Then this field is suddenly removed. Protons which behave as elementary gyroscopes will start precessing around the remaining magnetic field - that of the earth. The precession frequency is directly proportional to the magnetic field of the earth. The magnetometer counts this frequency, divides it by the appropriate constant to obtain a reading in gammas (1 $= 10^{-5}$ gauss) and displays the reading in the form of a 5 digit number.

APPENDIX III

EM 16 SPECIFICATIONS

Measured Quantity	Inphase and quad-phase components of vertical magnetic field as a percentage of horizontal primary field (i.e., tangent of the tilt angle and ellipticity).
Sensitivity	Inphase: ±150% Quad-phase: ±40%
Resolution	±1%
Output	Nulling by audio tone. Inphase indication from mechanical inclinometer and quad-phase from a graduated dial.
Operating Frequency	15 - 25 kHz VLF Radio Band. Station selection done by means of plug-in units.
Operator Controls	ON/OFF switch, battery test push button, station selector switch, audio volume control, quadrature dial, inclinometer.
Power Supply	6 disposable 'AA' cells.
Dimensions	42 x 14 x 9 cm.
Weight	Instrument: 1.6 kg Shipping: 5.5 kg.

APPENDIX IV

EM-16 VLF-EM METER

Principles or Operation

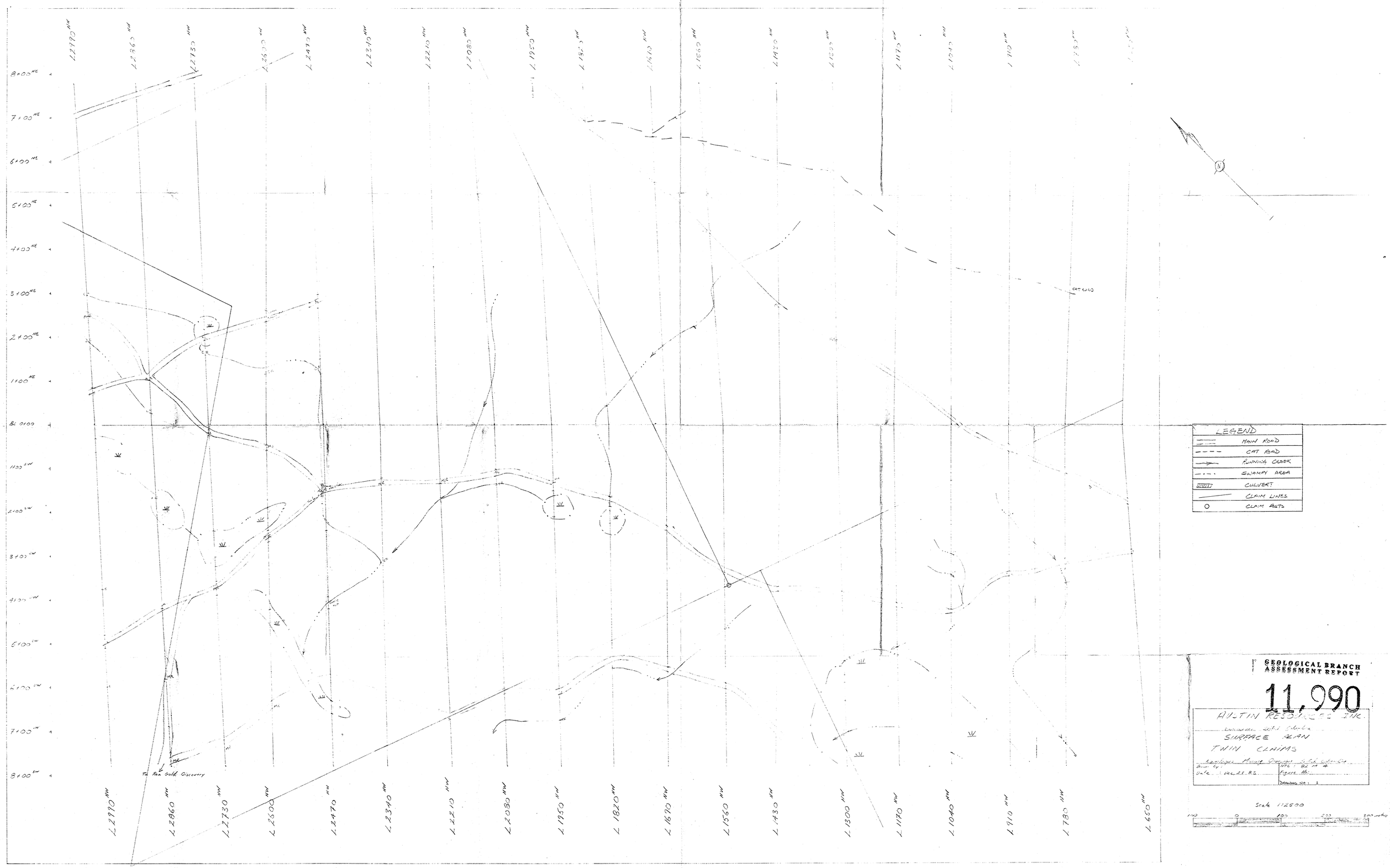
The VLF-trensmitting stations operating for communications with submarines have a vertical antenna. The Antenna current is thus vertical, creating a concentric horizontal magentic field around them. When these magnetic fields meet conductive bodies in the ground, there will be secondary fields radiating from these bodies. This equipment measures the vertical components of these secondary fields.

The EM-16 is simply a sensitive receiver covering the frequency band of the VLF-transmitting stations with means of measuring the vertical field components.

The receiver has two inputs, with two receiving coils built into the instrument. One coil has normally vertical axis and the other is horizontal.

The signal from one of the coils (vertical axis) is first minimized by tilting the instrument. The tilt-angle is calibrated in percentage. The remaining signal in this coil is finally balanced out by a measured percentage of a signal from the other coil, after being shifted by 90°. This coil is normally parallel to the primary field.

Thus, if the secondary signals are small compared to the primary horizontal field, the mechanical tilt-angel is an accurate measure of the vertical real-component, and the compensation $\pi/2$-signal from the horizontal coil is a measure of the quadrature vertical signal.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L 1300 NW
L 1170 NW
L 1040 NW
L 910 NW
L 780 NW
L 650 NW
CAT ROAD
To New Gold Discovery
LEGEND
MAIN ROAD
CAT ROAD
RUNNING CREEK
SWAMPY AREA
CULVERT
CLAIM LINES
CLAIM POSTS
GEOLOGICAL BRANCH
ASSESSMENT REPORT
11,990
HILTIN RESOURCES INC.
SURFACE PLAN
TWIN CLAIMS
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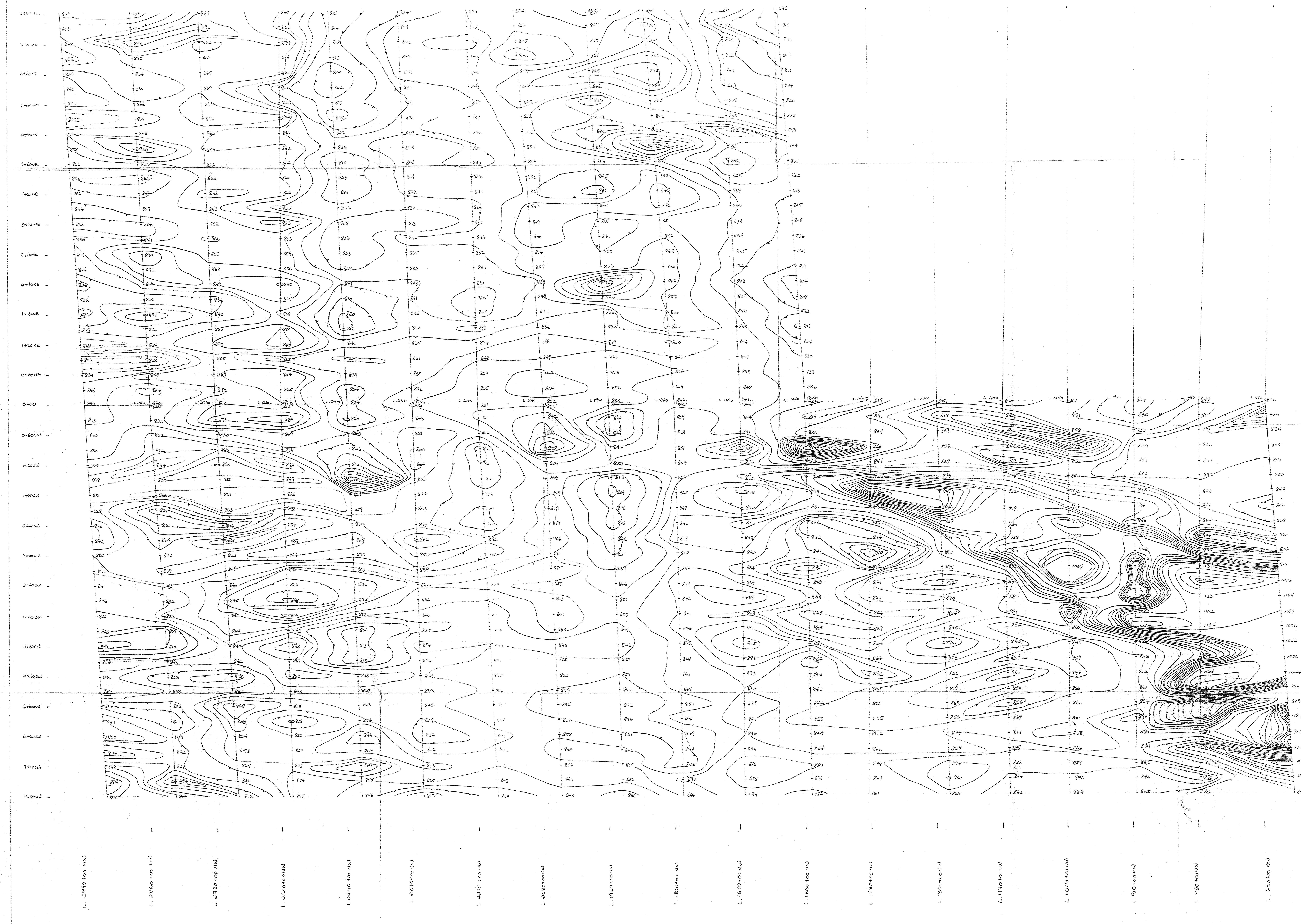


MAGNETOMETER SURVEY

PROPERTY : TWIN

INSTRUMENTATION : BARRINGER GM-122 PROTON MAG.

SURVEY DATES : DEC 4TH - 15TH

PERSONNEL : ROB McLEAN, PHILIP McLEAN, PAUL CHUNG

BASELINE AZIMUTH : 135°

LINE SPACING : 130 m

STATION INTERVAL : 30 m

DATUM SUBTRACTED : 57000 γ

CONTOUR INTERVAL : 57000 - 58000 γ ..... 10 γ
58000 γ UP ...... 100 γ

SCALE : 1 : 2500

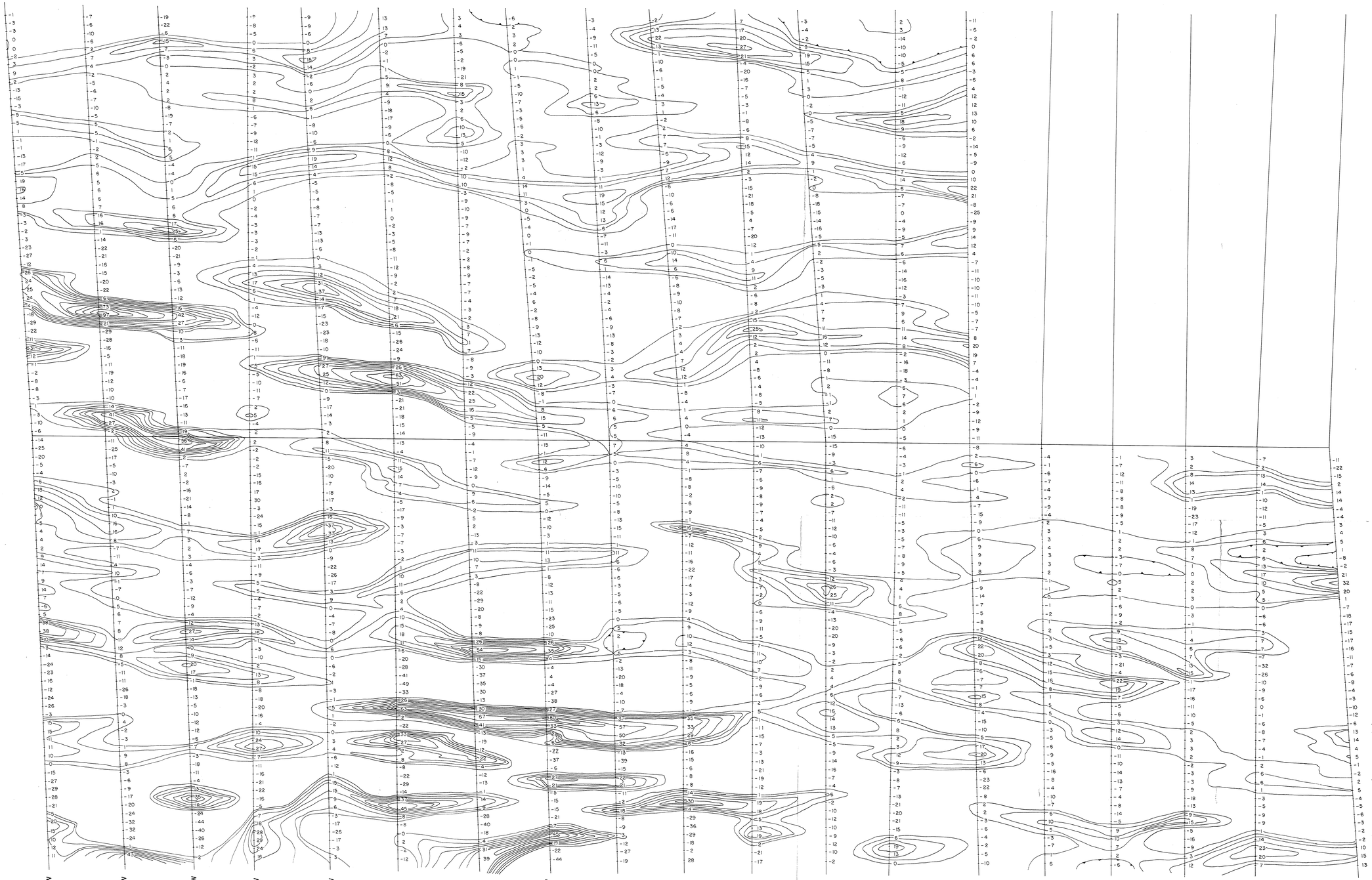
AUSTIN RESOURCES INC.
VANCOUVER BRITISH COLUMBIA

MAGNETOMETER SURVEY
TWIN CLAIMS
KAMLOOPS MINING DIVISION BRITISH COLUMBIA

Drawn by :	NTS : 82 M/14
Date : Dec 27th 1983	Scale : 1:2500
	Drawing No : 2
Survey Conducted by : Spirex Enterprises Ltd.	

GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,990



EM VLF SURVEY	FRAZER PLOT
PROPERTY	TWIN
INSTRUMENTATION	GEONICS EM-16
TRANSMITTING STATION	CUTLER, MAINE (17.8 KHz)
BASELINE AZIMUTH	135°
LINE INTERVAL	130 M
STATION INTERVAL	15 M
SURVEY CONDUCTED BY	SPIREX ENTERPRISES LTD
SURVEY DATES	DEC. 3rd - 15th, 1983
PERSONNEL	PHILIP McLEAN, PAUL CHUNG
CONTOUR INTERVAL	0-30 - 5 UNITS >30 - 10 UNITS

GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,990

SCALE: 100 80 60 40 20 0 200M 300M

AUSTIN RESOURCES INC.

VANCOUVER, BRITISH COLUMBIA

SURVEY CONDUCTED BY: SPIREX ENTERPRISES LTD.

EM VLF FRAZER PLOT
TWIN CLAIMS

KAMLOOPS MINING DIVISION, BRITISH COLUMBIA

DRAWN	E. B. CATAPIA
DATE	JANUARY 1984
CHECKED	
APPROVED	
SCALE	1 : 2500

DRAWING NO. 4

EM-VLF SURVEY
% DIP ANGLE PLOT
PROPERTY : TWIN

STATION : CUTLER MAINE (17.8 KHz)
INSTRUMENTATION : Geonics, EM-16
SURVEY DATE : DEC 3rd – 12th 1983
BASELINE AZIMUTH : 135°
STATION INTERVAL : 15m
LINE INTERVAL : 130m
SURVEY CONDUCTED BY : SPIREX ENTERPRISES LTD
PERSONNEL : PHILIP McLEAN & PAUL CHUNG
PLOTTED BY : PAUL CHUNG

(SW) (–) 0 (+) (NE)

SCALE : 1:2500

0 100m 200m 300m 400m

GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,990

AUSTIN RESOURCES INC.
Vancouver, British Columbia

EM-VLF % Dip Angle Plot
TWIN CLAIMS

Kamloops Mining Division, British Columbia

Drawn by :	NTS : 82 M/4
Date : Dec 23 83	Scale 1:2500
	Drawing No : 3

Survey conducted by Spirex Enterprises Ltd.


EM-VLF % Dip Angle
Instrumentation : Geonic EM-16
Transmitter station : Seattle Washington USA
Frequency : 24.8 KHz
Line interval : 130 meters
Station interval : 15 meters
Base line azmuth : 135°
Personnel : P. McLean + P. Chang
Survey conducted by : Spirex Ent
Survey dates : Dec 3-15 1983
(-% Dip) (+% Dip)
GEOLOGICAL BRANCH
ASSESSMENT REPORT
11,990
AUSTIN RESOURCES INC
Vancouver British Columbia
EM-VLF % Dip Angle
TWIN CLAIMS
Kamloops Mining Division, British Columbia
Drawn by:
NTS 82 M 4
Date Dec 27 83
Drawing No: 5
Survey conducted by Spirex Enterprises Ltd
scale 1:2500
100 0 100 200 300 meters
BL 0+00 (135°)

GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,990

EM-VLF SURVEY
Fraser
PROPERTY TWIN
Transmitter station : Seattle Washington USA
Frequency :
INSTRUMENTATION : Geonics EM-16
Survey dates : Oct 3 to Oct 15 1988
Grid line azimuth : 135°
Station interval : 15m
Line interval : 100m
Survey conducted by : Scott Fulkerson Ltd
Personnel : Phillip McLean, Rod Casey

Scale 1:2500

100 0 100 200 300 metres

AUSTIN RESOURCES INC
Vancouver British Columbia
EM-VLF & FRASER PLOT
TWIN CLAIMS
Kamloops Mining Division B.C.
Surveyed by: Oct 23 88
NTS 82 M/4
Scale 1:2500
Drawing No. 6
Drawn, checked by Scott Enterprises Ltd