

McQuillan Gold Ltd. '81-#304-
Oliver Resources Ltd. #9126
Jan Resources Ltd.

GEOPHYSICAL REPORT

on an

Airborne VLF-Electromagnetometer and
Magnetometer Survey

Crow, Levi, Sue, Mar, Jan, Rand, Remy claims

Alberni & Victoria Mining Divisions

Latitude 49°07'N Longitude 124°40'W

NTS 92F/2E

AUTHORS: E Trent Pezzot B.Sc. Geophysicist

Glen E White B.Sc., P.Eng.,

Consulting Geophysicist

DATE OF WORK: Feb 17/81, Feb 28 to Mar 2/81

DATE OF REPORT: April 08, 1981

INDEXED
REPORT
9126

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INTRODUCTION

Western Geophysical Aero Data Ltd. conducted an airborne magnetometer and VLF-EM survey as a joint venture for, McQuillan Gold Ltd. (50%), Jan Resources Ltd. (25%), and Oliver Resources Ltd. (25%), over their Mt. McQuillan project. Highly unpredictable weather patterns and persistent valley fog necessitated flying the survey in short intervals over a number of days. Approximately 350 km of pre-determined flight lines were required to cover the claims area. The purpose of the survey was to map magnetic and conductive trends across the properties to assist in geological mapping of regional structures and also locate any isolated features which may be related to either magnetic rich skarns or localized sulphide lenses responsible for the copper, silver and gold mineralization observed.

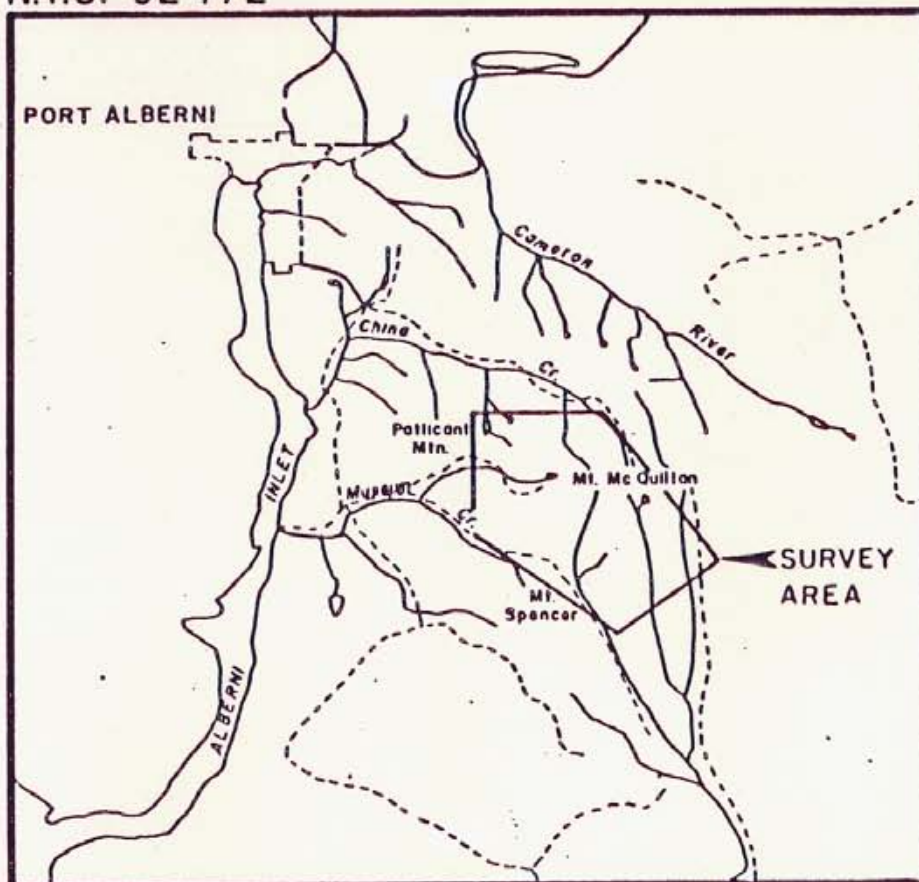
LOCATION AND ACCESS

The claim block is located approximately 18 km south-east of Port Alberni, at latitude $49^{\circ}07'N$ and longitude $124^{\circ}40'W$ in N.T.S. 92F/2E (Figure 1). The property straddles the boundary between the Alberni and Victoria Mining Divisions as shown on Figure 2.

Access to the property is via a series of logging roads leading from Port Alberni along Museum Creek and Franklin River to the more westerly claims. Numerous logging roads, passable by four wheel drive vehicles, provide access to various parts of the claim area.

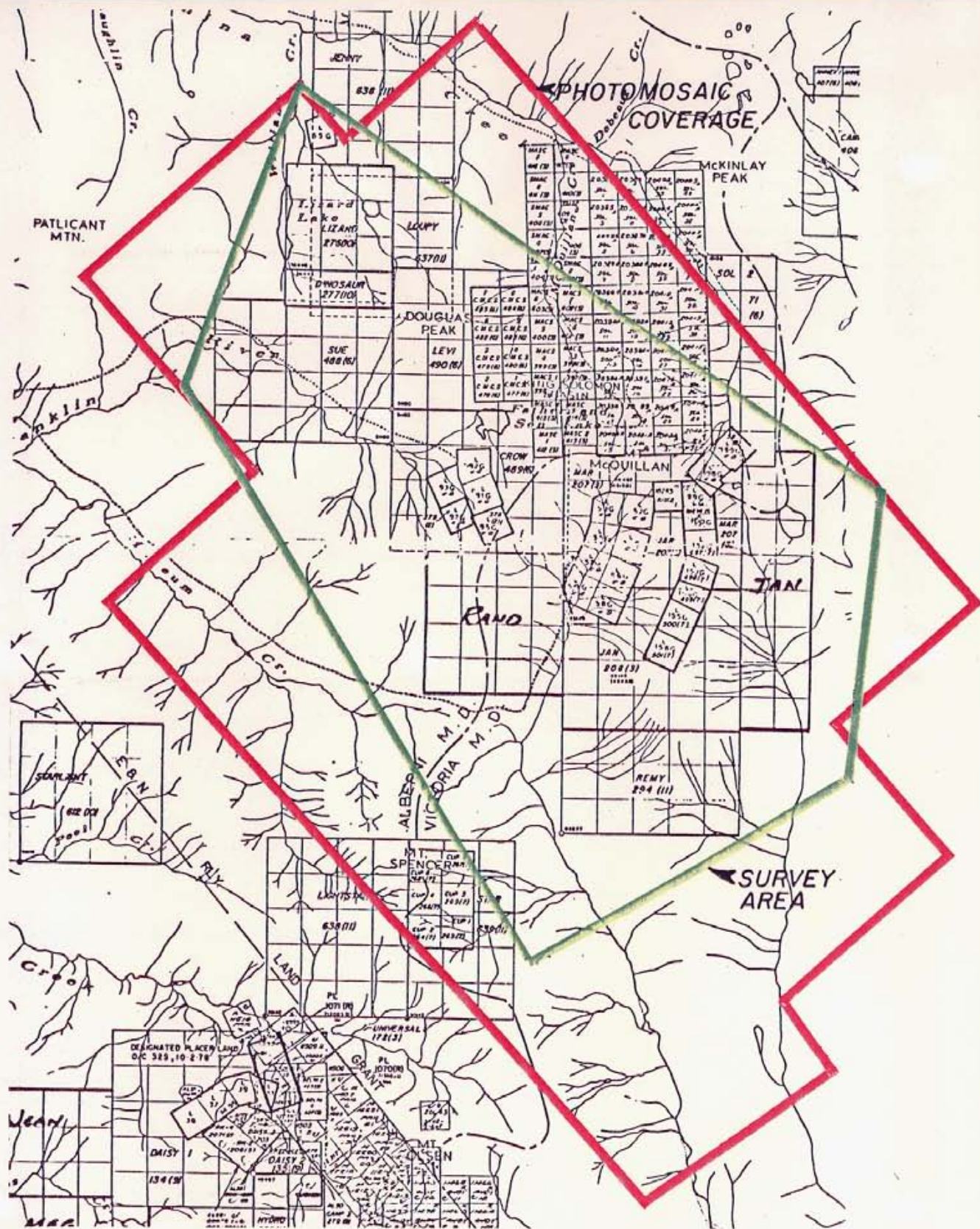


N.T.S. 92 F/2



JAN RESOURCES LTD.
 OLIVER RESOURCES LTD.
 McQUILLAN GOLD LTD.
 MT. McQUILLAN PROJECT
 LOCATION MAP

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 McQUILLAN GOLD LTD.

CLAIMS MAP

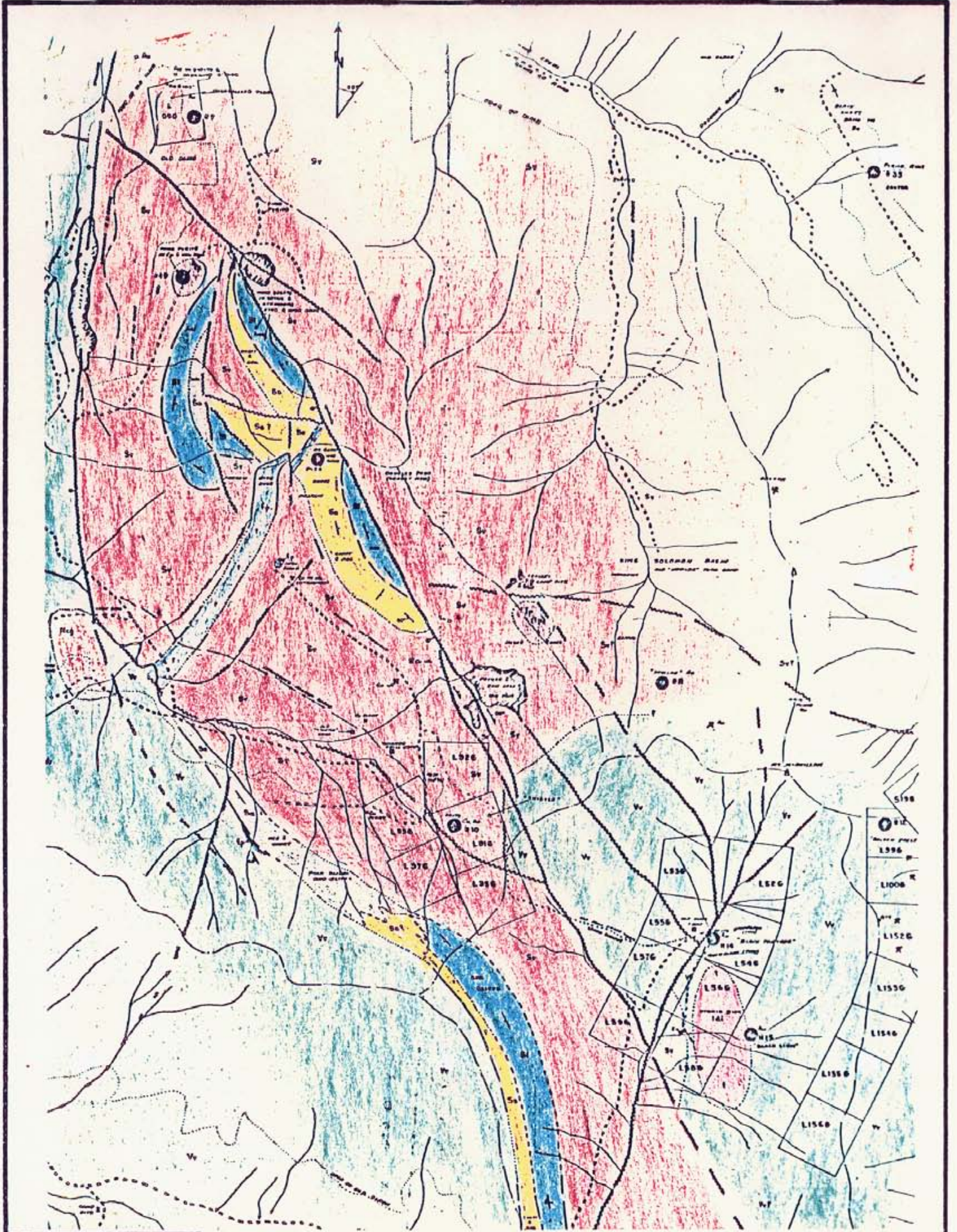
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PROPERTY

A claims map illustrating the survey area is presented as Figure 2. McQuillan Gold Ltd. owns the Sue (record number 488), Crow (record number 489) and Levi (record number 490) claims which comprise 60 contiguous units in the north-west portion of the survey area. Oliver Resources Ltd. and Jan Resources Ltd. own claims in the south-east half of the surveyed area.

GENERAL GEOLOGY - MINERALIZATION

From 1963 to 1965 inclusive this area was explored by Gunnex Ltd. and reported on by H. Laanela. The following excerpt from his work and Plate 1 summarize the general geology, mineralization, history and production in the claims area. A more complete description is available in a geological assessment report by Sawyer Consultants Inc. dated February 29, 1980.



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General Geology:

The area was first mapped by Stevenson (map in 1944 report), and later, in 1962, by Jones of Hunting's Survey, who also did some field work in the area and visited the mine.

Stevenson has the area mapped as "older sediments" (Sicker group?) with "China Creek andesite", a group of older volcanics (apparently equivalent with Sicker volcanics) about 1/2 mile to the south.

Jones, who based his mapping on aeromagnetic interpretation, but also corrected some of Stevenson's mapping in the China Creek - Franklin River area, has mapped the mine area as Sicker volcanics, with a band of Sicker sediments to the NE curving around Father-and-Son Lake and a wider belt of Sicker sediments to the south. There is a contact with Vancouver volcanics to the east.

Muller's map, 1963, shows however, an opposite picture, with the mine in Vancouver volcanics and Sicker volcanics to the east, with a belt of Kanaimo sediments in-between.

Since it is hard to say who is right, not much can be said about the general geology at present.

Geology on workings:

The country rock, however, in the area appears to be mostly volcanic, in which are shear zones mineralized with pyrite and chalcopyrite.

According to Stevenson (1944) the Thistle deposit consists of two chalcopyrite replacement ore bodies found along two shear zones about 130' apart, in a 200' wide band of altered limestone with attitude N20°E/60°-75°SW. The limestone is enclosed on 3 sides, NE, SE and SW, and in part underlain by fine-grained diorite. The limestone has been largely replaced by fine-grained diopside, resulting in a dense, light-green rock that may be referred to as diopside rock. Although some small remnants of crystalline limestone, from a few inches to a few feet in maximum diameter, escaped replacement by the diopside many of them were later replaced by ore-minerals.

Strong faults are found along the ore-bodies and extend downward beyond the limits of known ore.

The ore consists mainly of chalcopyrite and some pyrite in a gangue of dirty grey calcite and a little quartz. Very fine magnetite is dispersed through such of the calcite; some of the magnetite has been oxidized to hematite, giving a dull reddish colour to calcite which encloses it.

Jones, 1962, mentions chloritic volcanic rocks and bedded tuffs (Sicker volcanics) NE of above, with outcrops of hornblende diorite in minor coarse phase of hornblende to the west of the property. Toward Father-and-Son Lake are lavas with scattered pyrite. Some volcanic agglomerate and limestone was also seen near mine.

SUMMARY OF WORK: (After J.S. Stevenson, 1941-44)

Production:

The property has been idle since 1942. Between 1938 and 1942 6,867 tons of high-grade ore was mined out, containing: 2,667 oz. of gold; 1,607 oz. of silver and 225,500 lbs. of copper.

History:

The original staking of Thistle was done in 1896. By 1899 the "300" adit had been driven 90' and the "500" adit 65 feet. Access to property in 1901 was still by trail from Underwood Cove on Alberni Canal.

In 1901 a San Francisco Syndicate took over the property, did considerable development work and undertook to build a road from Alberni Canal to the mine, keeping some 200 men working for about two months. Due to weather, only half of the road was finished.

Very little mining was done from then until 1938, when property was acquired by United Prospectors Limited, of Victoria, who then finished the road and drove the adits to their present faces.

The ore was shipped between 1938 and 1942, by United Prospectors Limited, its lessees and Vancouver Island Diamond Drilling and Exploration Company, Limited, also of Victoria, an affiliated company. The latter company ceased operations at the Thistle in July, 1942, and since then the property has been idle.

PREVIOUS WORK

The claims area is centered upon the former Thistle Mine from which 6,860 tons of high grade copper, silver and gold ore were shipped between the years 1938 and 1942. In the early 1960's the prospecting rights for part of the area were acquired by Gunnex Ltd. This company conducted an aero-magnetic survey and a regional geochemical soil and silt sampling program. The area appears to have been optioned to Vananda Explorations Ltd. A report by F.J. Hemsworth for Vananda Explorations Ltd. dated January 1966, describes a soil sampling program, a ground magnetometer survey and diamond drilling of four holes for a total of 1744 feet.

A reconnaissance geochemical soil sampling program was conducted by Glen E. White Geophysical Consulting and Services Ltd. for Kargen Development Corporation in October 1979 and described in a report by Glen E. White, P.Eng. dated February 05, 1980.

The most recent information available to the authors at this time is a geological assessment report by Sawyer Consultants Inc. dated February 29, 1980 which compiles and summarizes the work done to that date.

SURVEY GRID

The survey grid initially established consisted of 48 lines spaced 200 meters apart and striking N15°E. Thirteen of these lines (labelled A through M) were flown over the northern portion of the project area on February 17, 1981. The response over these lines and new geolo-

gical input recommended the flight direction be changed to $N45^{\circ}E$. Retaining the 200 meter line spacing the remainder of the claims area was surveyed from February 28 to March 02, 1981. The video flight path recovery system was used to accurately locate the survey lines as shown on Figures 3 and 4.



AIRBORNE VLF-ELECTROMAGNETIC AND MAGNETIC SURVEY

This survey system simultaneously monitors and records the output signal from a proton precession magnetometer and two VLF-EM receivers installed in a bird designed to be towed 50 feet below a helicopter. A gimbal and shock mounted TV camera, fixed to the helicopter skid, provides input signal to a video cassette recorder allowing for accurate flight path recovery by correlation between the flight path cassette and air photographs of the survey area. A Bonzer radar altimeter allows the pilot to continually monitor and control terrain clearance along any flight path.

Continuous measurements of the earth's total magnetic field intensity and of the total horizontal VLF-EM field strength of two transmission frequencies are stored in two independent modes: an analogue strip chart recorder and a digital video recovery system. A three-pen analogue power recorder provides direct, unfiltered recordings of the three geophysical instrument output signals. Correlation between the strip chart and the video flight path recovery tape is controlled via fiducial marks common to both systems. The magnetic and electromagnetic data is also processed through the onboard micro-computer, incorporating an analogue to digital converter and a character generator, then superimposed along with real time and terrain clearance upon the actual flight path video recording to allow exact correlation between geophysical data and ground location. An optional time-averaging filter of 1, 2, 3, 4 or 5 seconds is available on the VLF-EM data to provide more easily contourable values in noisy areas. The continuous input magnetic signal is processed at the maximum A/D converter rate, averaged and updated on the video display every second. Line identification, flight direction and pertinent survey information are recorded on the audio track of the video recording tape.

DISCUSSION OF RESULTS

I MAGNETIC SURVEY

The results of the magnetic survey are presented in contour form over a photomosaic base of the claims area as Figure 3. The magnetic intensity observed ranges from 53,300 gammas to 58,700 gammas and delineates a number of major lithologic units as described by H. Laanela of Gunnex Ltd.

The relatively low magnetic background values (less than 57,000 gammas) dominate the map area and reflect the Sicker Group Volcanic Formation. A magnetic dipole trend observed to extend from line 46 north through Mt. McQuillan to line 21 (Figure 5) reflects a zone of Vancouver Group volcanics. Within this host a high amplitude magnetic dipole trend, extending from line 34 through line 29, coincides with a narrow zone of dioritic Coast Intrusion. The Sicker Group volcanics are bordered on the west by a second magnetic dipole response reflecting another zone of Vancouver Group volcanics (Figure 6). The magnetic response in this area displays an abrupt discontinuity between lines G and H. This lineament is aligned with the longitudinal axis of Lizard Lake to the north suggesting the presence of a sizeable north-south trending fault in this location. Approximately 1 km south-east of Lizard Lake and due west of Douglas Peak is a north-south trending magnetic high. (Figure 7) This feature occurs in the vicinity of mapped Sicker Group sediments which would be expected to respond with the same or slightly lower magnetic intensity than the surrounding volcanics. Minor amounts of epidote have been found along logging roads in the area, which along with the anomalous magnetic values, suggests a possible unmapped intrusive in this area.

Although it is extremely difficult to maintain in the steep terrain of the area, the survey was flown with an average terrain clearance of 100 meters. This low level flying was conducted in order to allow for the detection of small, highly conductive or magnetic zones above the background of the more regional response trends. The expected responses from these sources are high amplitude, high spatial frequency signal increases observable across one or two lines. Both the high amplitude anomalies on line 32 north of Summit Lake (Figure 8) and on line 29 (Figure 9) display a similar dipole response to the one observed across the coast dioritic intrusive to the west and likely reflect a similar geological environment. The narrow high amplitude feature due north on lines 24 through 22, (Figure 10) may represent a similar intrusion or possibly a narrow zone of magnetite. A high frequency anomaly is observed on lines 22 and 23 (Figure 11) approximately 400 meters south of the Thistle Mine site. The Black Lion, Golden Eagle, Lakeview and Havilah showings are all located in the vicinity of the Sicker Group - Vancouver Group contact and are all associated with some nearby high frequency magnetic responses as shown on Figure 3. If these magnetic responses can be shown to correlate with the geological environment generating the mineralization, then the similar anomalies observed throughout the Sicker volcanics could exhibit similar mineralization. The high frequency anomalies originate from very narrow zones which cannot be precisely located by an airborne survey and a followup ground survey in the immediate vicinity of an airborne anomaly is necessary to determine the exact size, position, configuration and strike of any such feature.



II VLF-EM SURVEY

In addition to the magnetic survey, two total field intensity VLF-EM receivers were used to detect conductive, near surface features. The major topographic highs: Limestone Mountain, Mount McQuillan and Douglas Peak, are reflected as dramatic increases in the electromagnetic field intensity (Figure 12). This effect is partially a result of varying overburden and geology but more directly due to a decrease in the terrain clearance of the receivers across these features. Additional background noise is also introduced as the helicopter slows to climb these slopes. As the helicopter changes velocity the suspended bird tends to oscillate about the horizontal plane causing a background sinusoidal signal in the VLF-EM data (Figure 13). Although this noise restricts the use of field intensity contours it does not mask anomalous conductive responses which appear as abrupt field strength increases above localized background levels.

Anomalous VLF-EM responses can be placed into one of three classifications: anomalous trends, anomalous areas or isolated features. These anomalies are illustrated in contour form as a percent field intensity increase above local background levels on the interpretation map Figure 4.

A VLF-EM trend is defined in this text as a series of anomalous responses which can be correlated on the basis of location, character and amplitude across a sufficient number of lines to provide a reliable estimate of size and orientation of a conductive zone. The most definitive trend observed in this survey extends from line 33

through 28 (Figures 14,15) and is coincident with a high magnetic trend initially believed to represent a dioritic intrusion within Vancouver Group volcanics. The VLF-EM field intensity increases as much as 70% across the magnetic anomaly and exhibits weaker increases to the north on lines 27 through 25. The strong correlation between magnetic and conductivity anomalies infers the presence of pyrrhotite or magnetite and sulphide mineralization. The geophysical results in this area are extremely encouraging since they are likely reflecting either a geological environment favorable for mineralization or mineralization directly. To the immediate east of this trend, along lines 35 through 31 another anomalous electromagnetic trend is observed (Figure 16). The intensity of this anomaly averages 30% however it is exaggerated by a superimposed terrain effect. The western slope of Limestone Mountain hosts a northwest striking anomalous zone with an average 30% field intensity increase across 1 kilometer from line 20 through L (Figure 17). Immediately southeast of the Thistle Mine workings a moderately strong trend is observed on lines 20 through 23 (Figure 18). Douglas Peak is flanked on either side by anomalous trends which extend from line 11 north to line 8 (Figure 19). These trends appear to merge in this vicinity and weak responses observed to the north on lines 6 and 4 may represent their continuation. A strong east-west striking trend is observed on lines D and F, 700 meters south of Lizard Lake (Figure 21). A coincident topographic ridge may be the source of this anomaly.

Two areas are noted to contain a large number of narrow and weak electromagnetic responses which do not display any obvious line to line correlation. The first area lies 1.5 km southeast of Lizard Lake (lines H through K)

and is coincident with an anomalously high magnetic trend. The second area is coincident with the high magnetic trend reflecting the westernmost zone of Vancouver Group volcanics. The data is generally noisy in this area but a number of unexplained, narrow, electromagnetic responses are observed across the steep westerly facing slope. The electromagnetic responses in this area likely reflect complex near surface fault patterns.

Many of the isolated weak and narrow electromagnetic responses can be seen on the video data recovery system to originate from topographic features such as streams, ridges, hills or ravines. The following anomalies cannot be related to any such features and reflect near surface zones of localized conductivity increase:

- i) line 32 near Summit Lake (Figure 8). This anomaly is associated with a strong magnetic response and is near the old Lakeview showings. Numerous streams and ravines are noted in the area but they do not appear related to the electromagnetic anomaly.
- ii) line 24 on the north slope of Mt. McQuillan (Figure 12). This feature may be related to terrain clearance effects but is well defined and requires ground confirmation.
- iii) line 20 - eastern end (Figure 22). Both Seattle and Annapolis electromagnetic frequencies respond to two closely spaced, narrow conductors over background terrain clearance noise.
- iv) lines 15 and 16 - central portion (Figure 23). These responses are relatively weak but appear to correlate with a weak magnetic anomaly on line 12.
- v) lines 14 and 13 - east end. This feature is relatively weak at 15%.
- vi) line 8 - east end. This feature is relatively weak at 15%.

SUMMARY AND CONCLUSIONS

Western Geophysical Aero Data Ltd. conducted approximately 350 km of airborne VLF-EM and magnetometer survey on behalf of Jan Resources Ltd, Oliver Resources Ltd. and McQuillan Gold Ltd. over the Mt. McQuillan project area. Due to unfavorable weather conditions the survey was extended over four days.

The magnetic survey clearly delineates the boundaries between the Vancouver Group volcanics, Sicker Group volcanics and dioritic Coast Intrusions as described in a report by H. Laanela for Gunnex Ltd. The survey implies that a previously unmapped zone of Vancouver Group volcanics and/or dioritic intrusion is located approximately 1 km southeast of Lizard Lake, due west of Douglas Peak. If present a dioritic intrusive could be the source of the high gold values observed in the vicinity of Lizard Lake. In addition, numerous isolated magnetic anomalies of varying size and intensity are observed throughout the survey area. On the basis of coincidence an as yet unexplained relationship is implied between anomalous magnetic responses and the occurrence of the Thistle, Havalah, Black Lion, Golden Eagle and Lakeview workings.

Six major electromagnetic defined conductive trends are observed across the survey area, the strongest of which correlates with a mapped dioritic intrusion, 2.5 km southeast of Father and Son Lake. The combined magnetic and electromagnetic responses over this area, suggest an extremely favorable site for mineralization. The other trends occur 1 km north of Black Lake, along the western slope of Limestone Mountain, 200 meters southeast

of the Thistle Mine, surrounding Douglas Peak and 700 meters south of Lizard Lake.

The westernmost Vancouver Group volcanic unit and the newly interpreted zone 1 km southeast of Lizard Lake exhibit numerous high spatial frequency, weak electromagnetic responses. These are believed to represent areas of complex, near surface faulting.

A number of isolated electromagnetic anomalies are observed across the survey area as listed in the text of this report. They do not appear to be a result of topographic features such as streams, ridges or ravines and are classified as zones of near surface localized conductivity increases. Although these responses are generally weak they could be reflecting sulphide mineralization.

RECOMMENDATIONS

Followup ground surveys should be conducted to precisely locate all the magnetic and electromagnetic anomalies observed. Particular interest should be concentrated in the area of the dioritic intrusion, 2.5 km southeast of Father and Son Lake. The isolated anomalies on the east end of line 29 and due north of Summit Lake are likely reflections of a similiar environment and should be included in an exploration program consisting of ground magnetometer and electromagnetometer surveying to precisely locate the anomalous features and detailed geologic mapping to identify them.

Efforts should be made to identify the magnetic anomalies in the vicinity of past mining activity in order to determine if they represent the geological environment responsible for the observed mineralization. If a relationship can be established the other magnetic anomalies observed should be examined by ground surveys to search for similiar mineralization.

The results of recent drilling should be correlated to this survey in order to establish any relationship between mineralization or favorable geological environments and the geophysical responses.

Respectfully submitted,



E. Trent Peppers, B.Sc., Geophysicist



Glen E. White, B.Sc., P.Eng.,
Consulting Geophysicist

Instrument Specifications

DATA RECORDING SYSTEM

i) Chart Recorder

Type: Esterline Angus Miniservo III Bench AC Ammeter -
 Voltmeter Power Recorder
 Model: MS 413 B
 Specification: S-22719, 3-pen servo recorder
 Amplifiers: Three independent isolated DC amplifiers (1 per
 channel) providing range of acceptable input
 signals
 Chart: 10 cm calibrated width 2-fold chart
 Chart Drive: Multispeed stepper motor chart drive, Type D850,
 with speeds of 2, 5, 10, 15, 30 and 60 cm/hr.
 and cm/min.
 Controls: Separate front mounted slide switches for power on-
 off, chart drive on-off, chart speed cm/hr - cm/min.
 Six position chart speed selector. Individual
 front zero controls for each channel.
 Power Requirements: 115/230 volts AC at 50/60 H_Z (Approx-
 imately 30 VA)
 Writing System: Disposable fibre tipped ink cartridge
 (variable colors)
 Dimensions: 38.6 cm x 16.5 cm x 43.2 cm
 Weight: 9.3 Kg.

ii) Digital Video Recording System

Type: L.H. Microcontrols Ltd. Microprocessor Control Data
 Acquisition System
 Model: DADG - 68
 Power Requirements: 10 - 14 volts dc, Maximum 2 amps
 Input Signal: 3, 0 - 100 mvolt d c signals
 1, 0 - 25 volt d c signal
 Microprocessor: Motorola MC-6800
 CRT Controller: Motorola MC-6845
 Character Generator: Motorola MCM-6670
 Analogue/Digital Converter: Intersil 7109
 Multiplexer: Intersil IH 6208
 Digital Clock: National MM 5318 chip
 9 volt internal rechargeable nickle-cadmium
 battery
 Fiducial Generator: internally variable time set controls
 relay contact and audio output
 Dimensions: 30 cm x 30 cm x 13 cm
 Weight: 3 Kg

COST BREAKDOWN

<u>Personnel</u>	<u>Date</u> <u>Fieldwork</u>	<u>Office</u>	<u>Wages</u>
J. Behenna	Feb 17,28-March 2	March 9-20/81	\$ 1,500.00
N. McGarry	Feb 17,28-March 2	March 9-20/81	\$ 1,000.00
T. Pezzot- Geophysicist		March 20-31/81	\$ 1,750.00
Photomosaic and Materials			\$ 550.00
Drafting and Reproduction			\$ 1,525.00
Instrument Lease			\$ 850.00
Interpretation and Report			\$ 1,250.00
Helicopter - 13 hrs. @ \$375.00			\$ 4,875.00
Total			\$13,300.00

STATEMENT OF QUALIFICATIONS

NAME: PEZZOT, E. Trent

PROFESSION: Geophysicist - Geologist

EDUCATION: University of British Columbia -
B.Sc. - Honors Geophysics and Geology

PROFESSIONAL
ASSOCIATIONS: Society of Exploration Geophysicists

EXPERIENCE: Three years undergraduate work in
geology - Geological Survey of Canada,
consultants.

Three years Petroleum Geophysicist,
Senior Grade, Amoco Canada Petroleum
Co. Ltd.

Two years consulting geophysicist,
Consulting geologist - B.C., Alberta,
Saskatchewan, N.W.T., Yukon, western
U.S.A.

Two years geophysicist with Glen E.
White Geophysical Consulting & Ser-
vices Ltd.

STATEMENT OF QUALIFICATIONS

NAME: WHITE, Glen E., P.Eng.

PROFESSION: Geophysicist

EDUCATION: B.Sc. Geophysics - Geology
University of British Columbia

PROFESSIONAL ASSOCIATIONS: Registered Professional Engineer,
Province of British Columbia

Associate member of Society of Exploration Geophysicists.

Past President of B.C. Society of Mining Geophysicists

EXPERIENCE: Pre-Graduate experience in Geology -
Geochemistry - Geophysics with Anaconda
American Brass

Two years Mining Geophysicist with Sulmac
Exploration Ltd. and Airborne Geophysics
with Spartan Air Services Ltd.

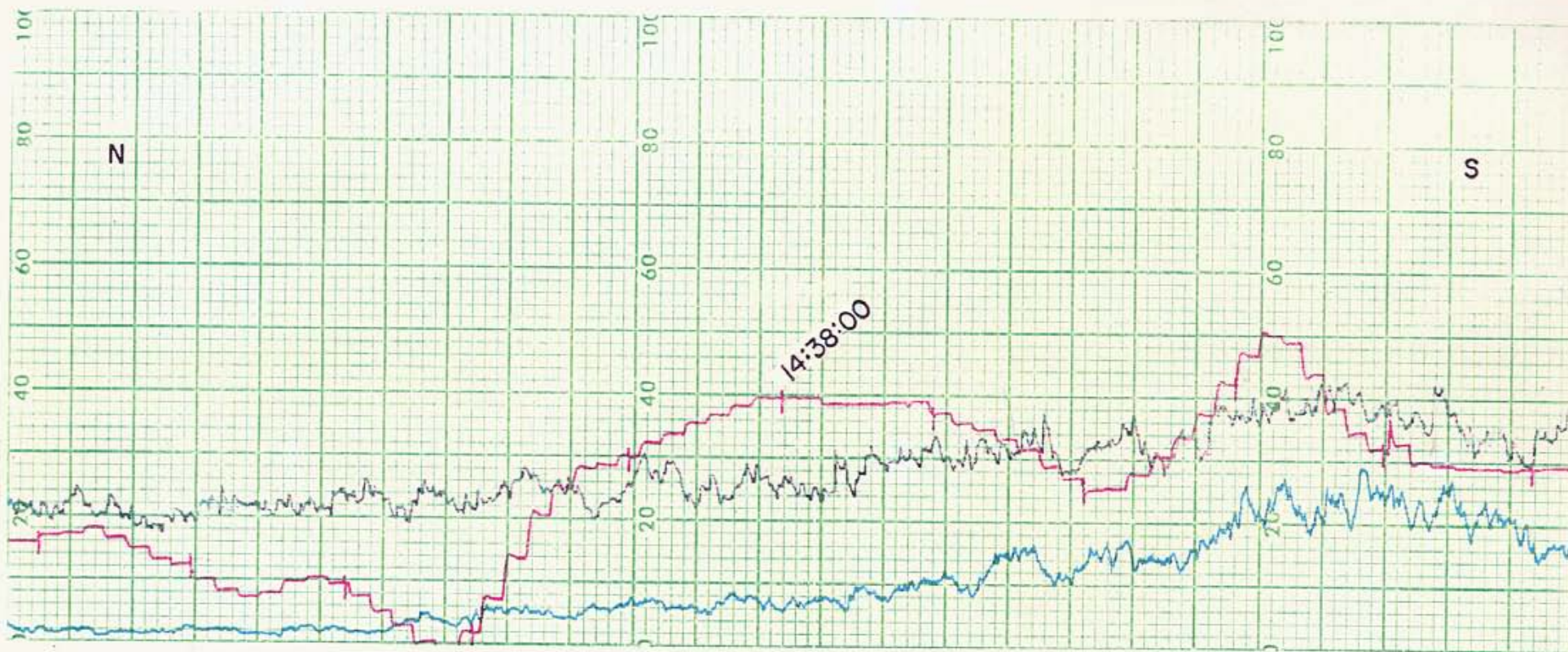
One year Mining Geophysicist and Technical
Sales Manager in the Pacific north-west
for W. P. McGill and Associates

Two years Mining Geophysicist and super-
visor Airborne and Ground Geophysical
Divisions with Geo-X Surveys Ltd.

Two years Chief Geophysicist Tri-Con
Exploration Surveys Ltd.

Ten years Consulting Geophysicist

Active experience in all Geologic provinces
of Canada



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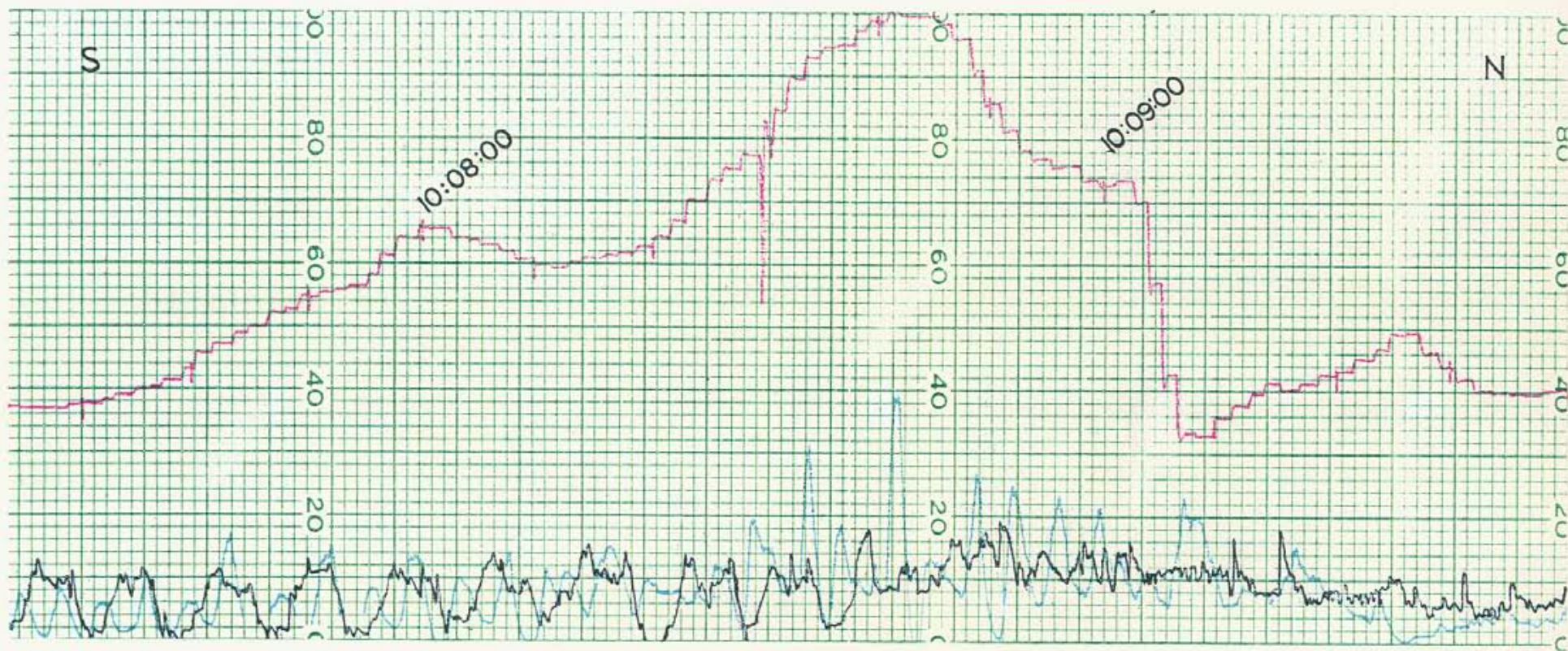
MT. McQUILLAN PROJECT
 LINE — 40 —

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MAGNETOMETER : VERTICAL SCALE 1cm = 200 gammas
 VLF-EM : VERTICAL SCALE 1cm = 10%

MAGNETOMETER : RED
 VLF-EM (SEATTLE) : BLUE
 VLF-EM (ANNAPOLIS) : BLACK

FIG. 5



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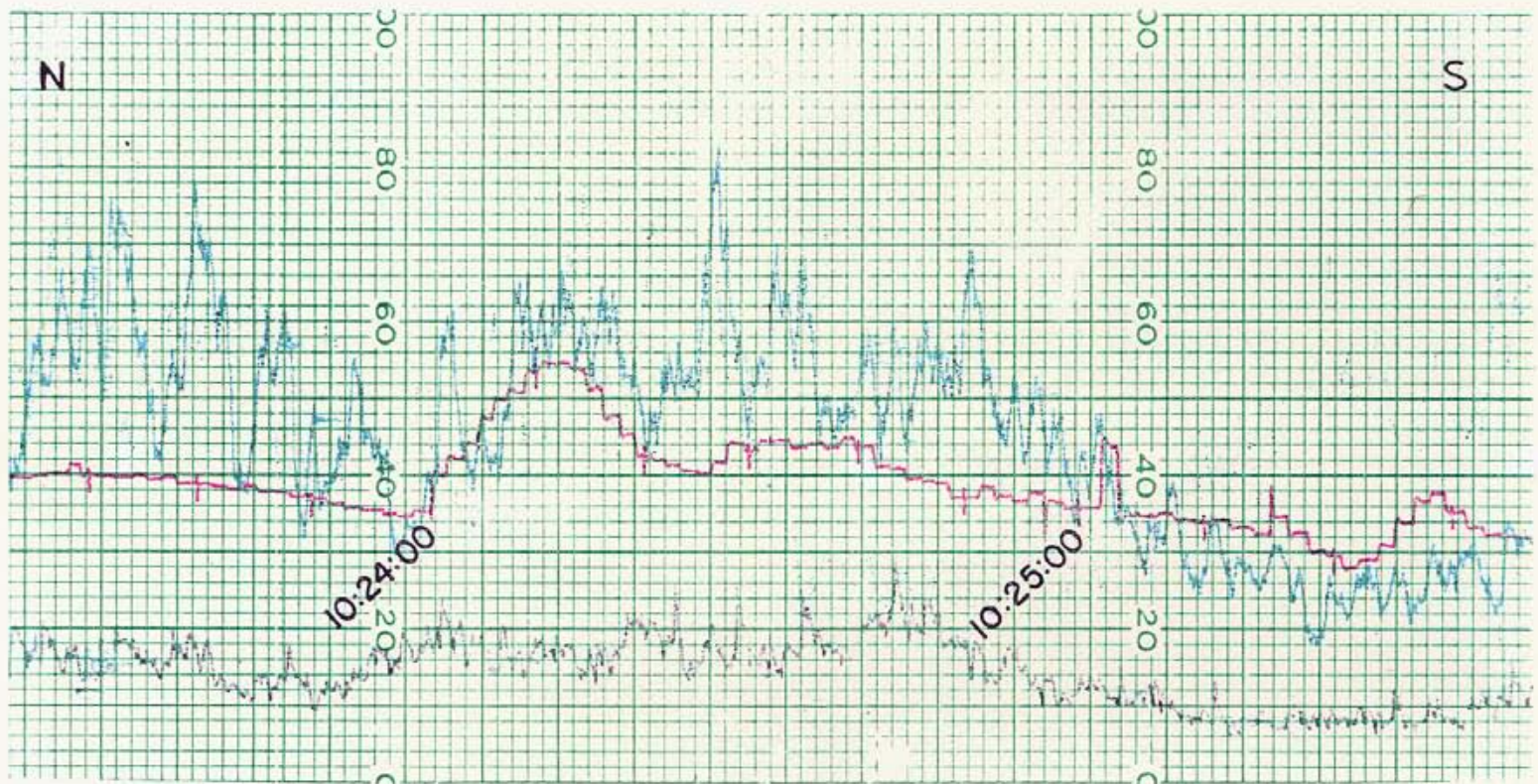
MT. McQUILLAN PROJECT
 LINE — E —

WESTERN
 GEOPHYSICAL AERO DATA
 LTD.

MAGNETOMETER : VERTICAL SCALE 1 cm = 200 gammas
 VLF-EM : VERTICAL SCALE 1 cm = 10%

MAGNETOMETER : RED
 VLF-EM (SEATTLE) : BLUE
 VLF-EM (ANNAPOLIS) : BLACK

FIG 6



JAN RESOURCES LTD.
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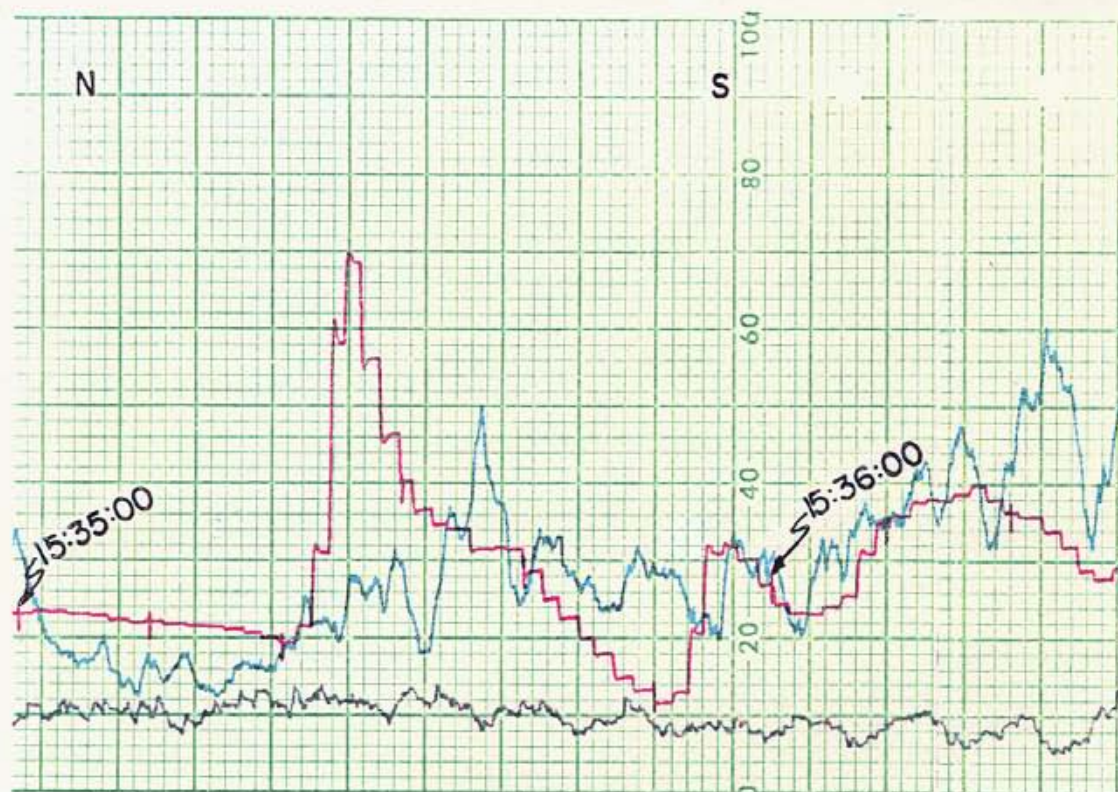
MT. McQUILLAN PROJECT
 LINE — H —

WESTERN
 GEOPHYSICAL AERO DATA
 LTD.

MAGNETOMETER : VERTICAL SCALE 1 cm = 200 gammas
 VLF-EM : VERTICAL SCALE 1 cm = 10%

MAGNETOMETER : RED
 VLF-EM (SEATTLE) : BLUE
 VLF-EM (ANNAPOLIS) : BLACK

FIG 7



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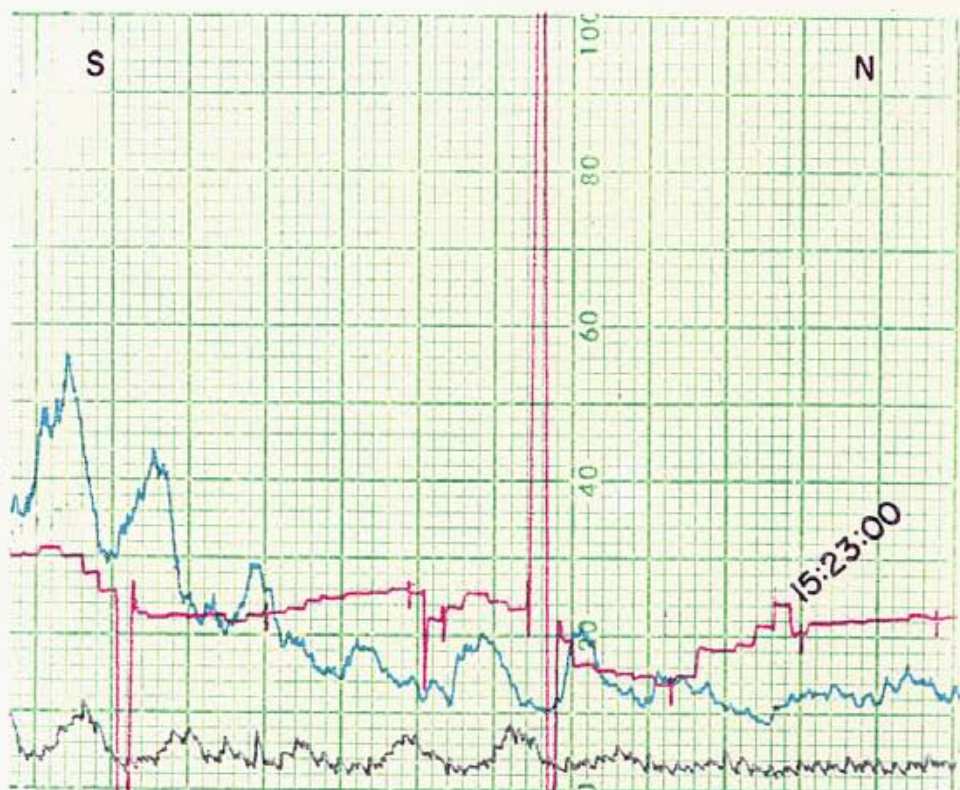
MT. McQUILLAN PROJECT
 LINE — 32 —

WESTERN
 GEOPHYSICAL AERO DATA
 LTD.

MAGNETOMETER : VERTICAL SCALE 1cm = 200 gammas
 VLF-EM : VERTICAL SCALE 1cm = 10%

MAGNETOMETER : RED
 VLF-EM (SEATTLE) : BLUE
 VLF-EM (ANNAPOLIS) : BLACK

FIG 8



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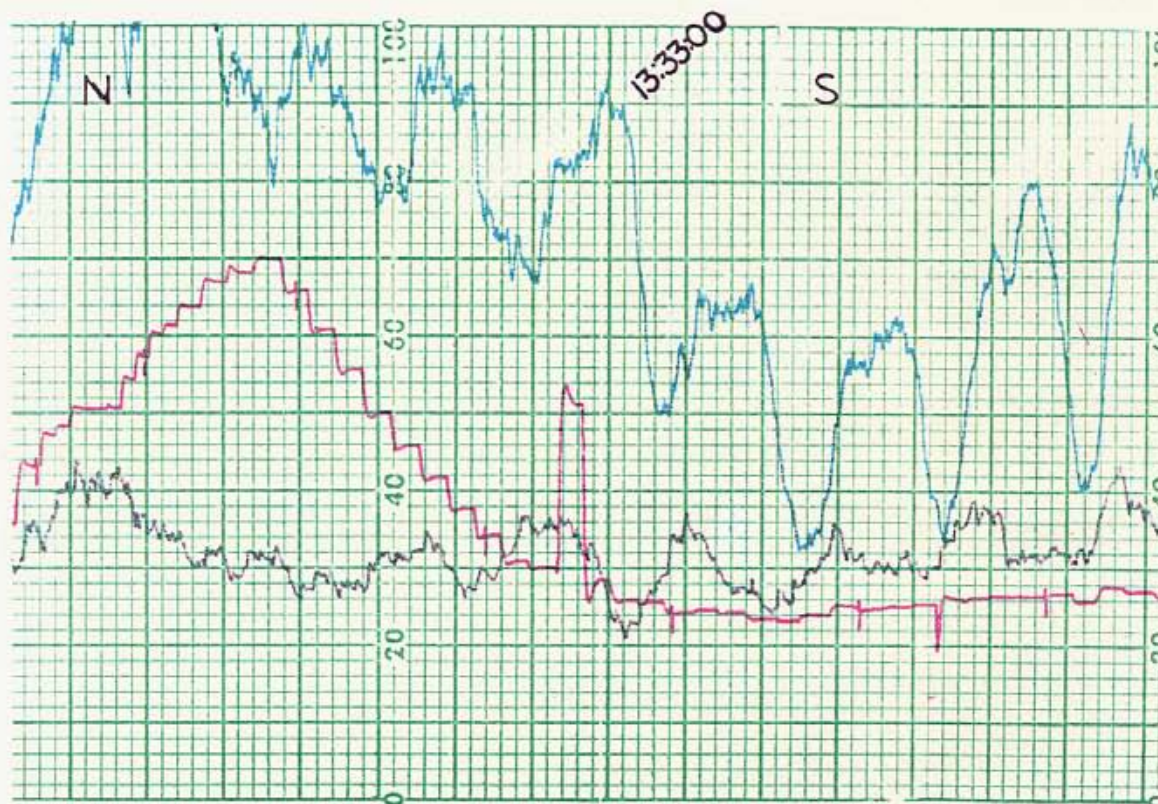
MT. McQUILLAN PROJECT
 LINE — 29 —

WESTERN
 GEOPHYSICAL AERO DATA
 LTD.

MAGNETOMETER : VERTICAL SCALE 1cm = 200 gammas
 VLF-EM : VERTICAL SCALE 1cm = 10%

MAGNETOMETER : RED
 VLF-EM (SEATTLE) : BLUE
 VLF-EM (ANNAPOLIS) : BLACK

FIG 9



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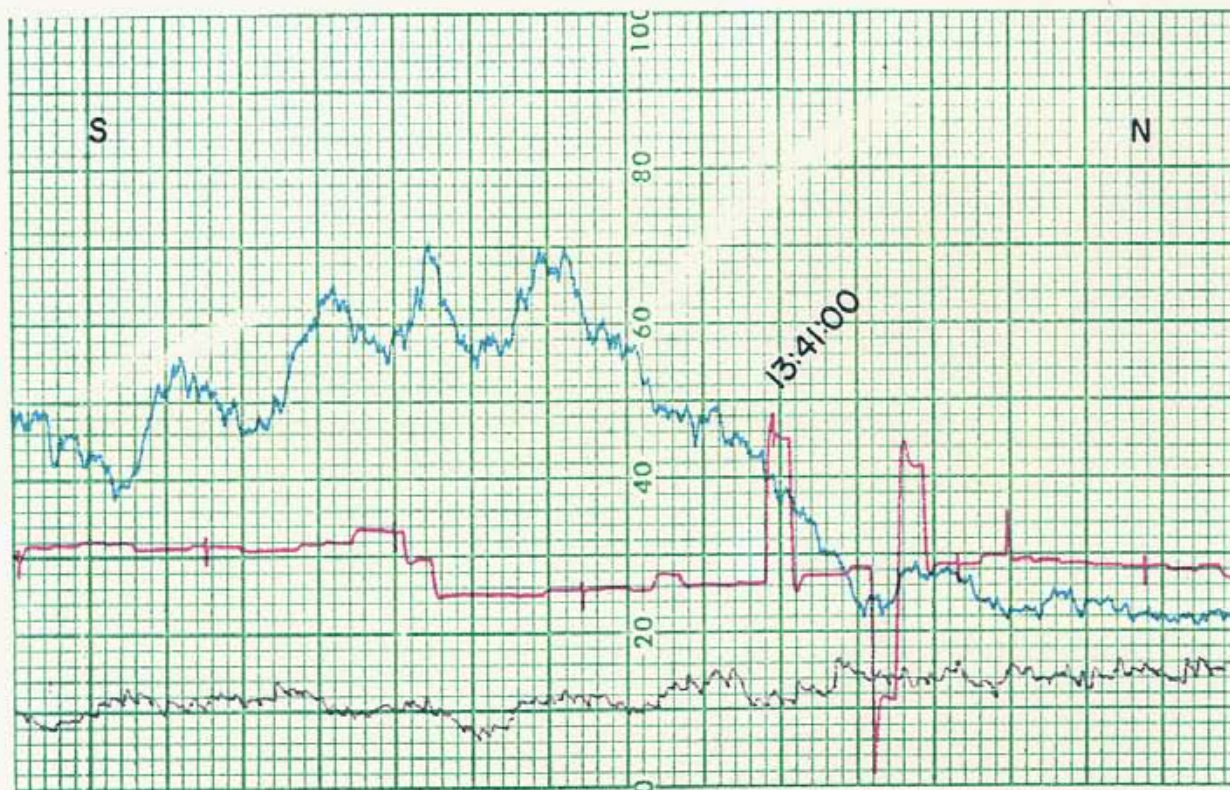
MT. McQUILLAN PROJECT
 LINE — 22 —

WESTERN
 GEOPHYSICAL AERO DATA
 LTD.

MAGNETOMETER : VERTICAL SCALE 1 cm = 200 gammas
 VLF-EM : VERTICAL SCALE 1 cm = 10%

MAGNETOMETER : RED
 VLF-EM (SEATTLE) : BLUE
 VLF-EM (ANNAPOLIS) : BLACK

FIG. 10



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 McQUILLAN GOLD MINES LTD.

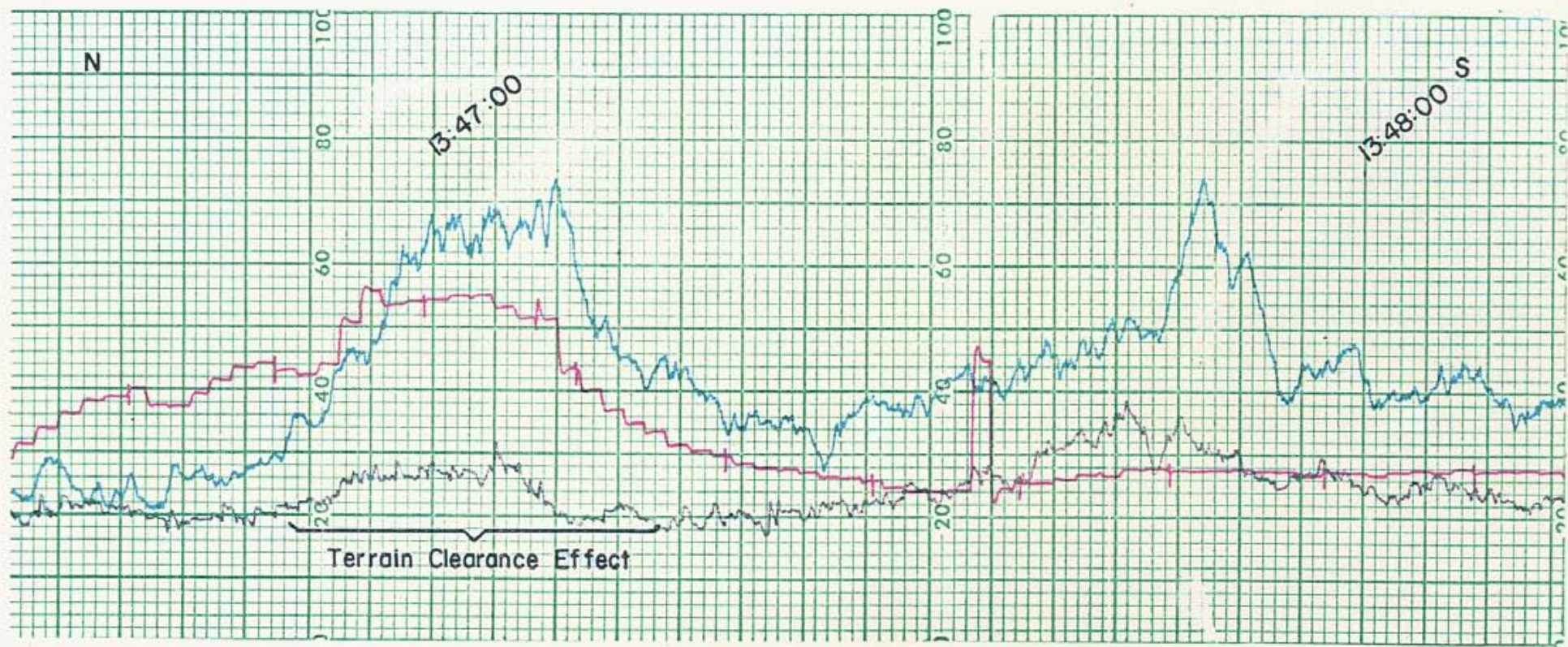
MT. McQUILLAN PROJECT
 LINE — 23 —

WESTERN
 GEOPHYSICAL AERO DATA
 LTD.

MAGNETOMETER : VERTICAL SCALE 1 cm = 200 gammas
 VLF - EM : VERTICAL SCALE 1 cm = 10%

MAGNETOMETER : RED
 VLF - EM (SEATTLE) : BLUE
 VLF - EM (ANNAPOLIS) : BLACK

FIG. 11



JAN RESOURCES LTD.
 OLIVER RESOURCES LTD.
 McQUILLAN GOLD MINES LTD.

MT. McQUILLAN PROJECT
 LINE — 24 —

WESTERN
 GEOPHYSICAL AERO DATA
 LTD.

MAGNETOMETER : VERTICAL SCALE 1 cm = 200 gammas
 VLF-EM : VERTICAL SCALE 1 cm = 10%

MAGNETOMETER : RED
 VLF-EM (SEATTLE) : BLUE
 VLF-EM (ANNAPOLIS) : BLACK

FIG 12



JAN RESOURCES LTD.
 OLIVER RESOURCES LTD.
 McQUILLAN GOLD MINES LTD.

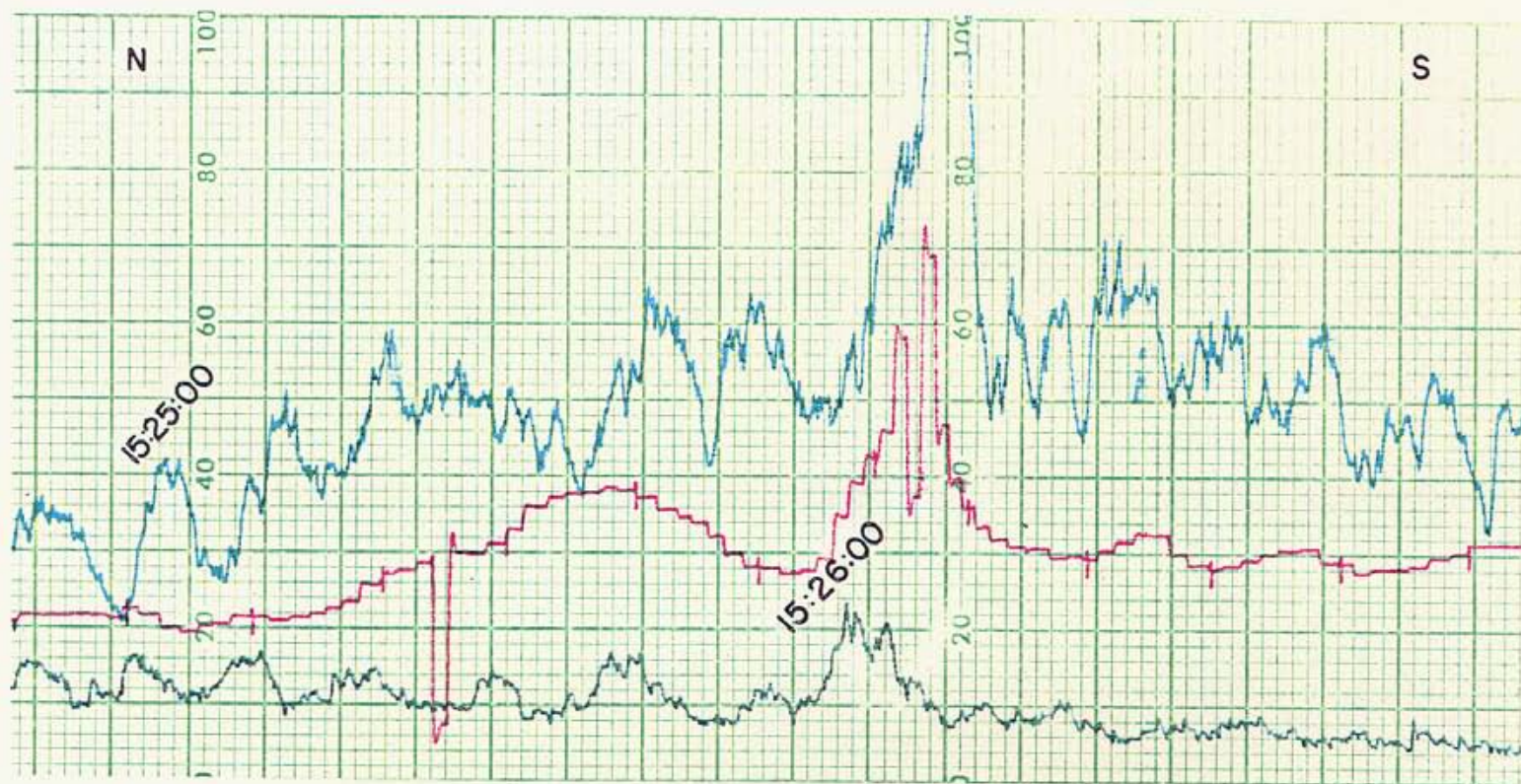
MT. McQUILLAN PROJECT
 LINE — 43 —

WESTERN
 GEOPHYSICAL AERO DATA
 LTD.

MAGNETOMETER : VERTICAL SCALE 1cm = 200 gammas
 VLF-EM : VERTICAL SCALE 1cm = 10%

MAGNETOMETER : RED
 VLF-EM (SEATTLE) : BLUE
 VLF-EM (ANNAPOLIS) : BLACK

FIG 13



JAN RESOURCES LTD.
 OLIVER RESOURCES LTD.
 McQUILLAN GOLD MINES LTD.

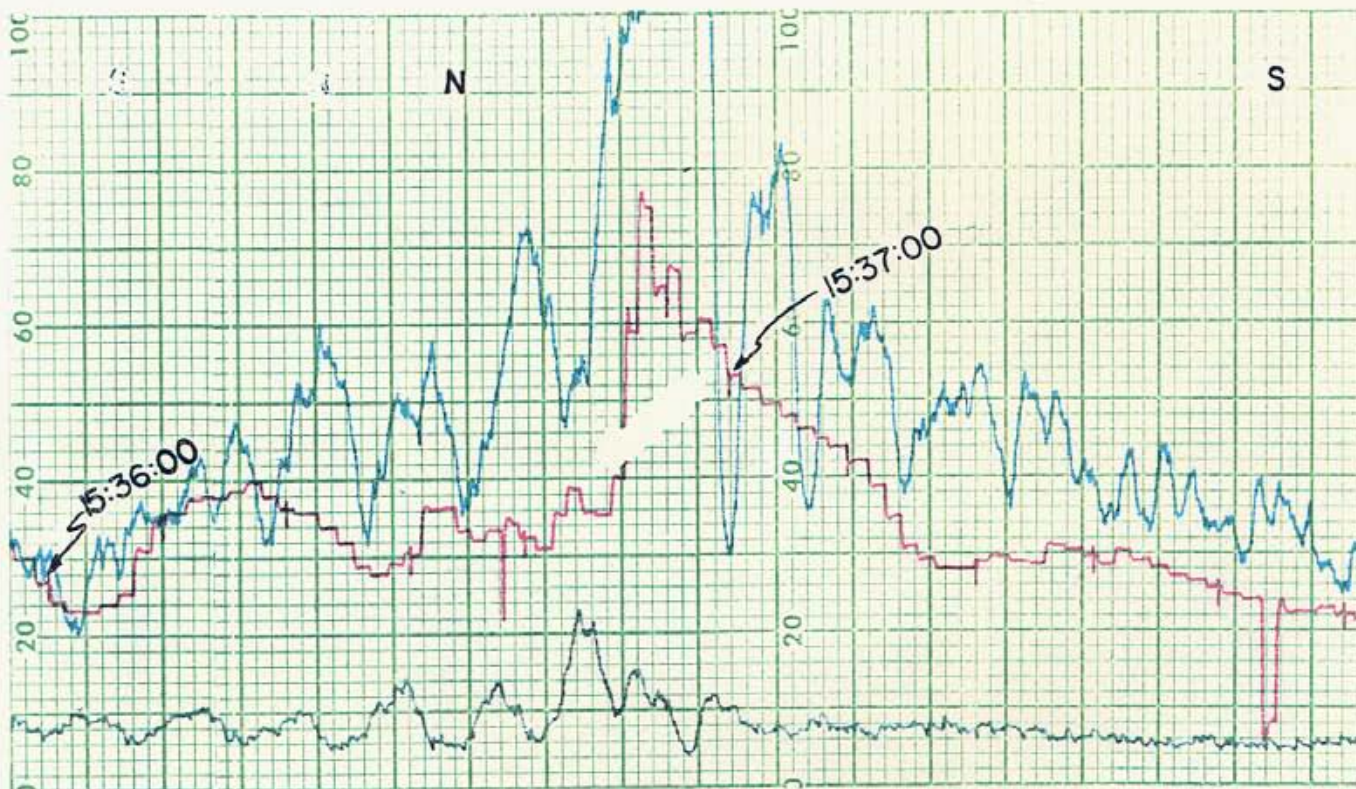
MT. McQUILLAN PROJECT
 LINE — 30 —

WESTERN
 GEOPHYSICAL AERO DATA
 LTD.

MAGNETOMETER : VERTICAL SCALE 1 cm = 200 gammas
 VLF-EM : VERTICAL SCALE 1 cm = 10%

MAGNETOMETER : RED
 VLF-EM (SEATTLE) : BLUE
 VLF-EM (ANNAPOLIS) : BLACK

FIG. 14



JAN RESOURCES LTD.
 OLIVER RESOURCES LTD.
 McQUILLAN GOLD MINES LTD.

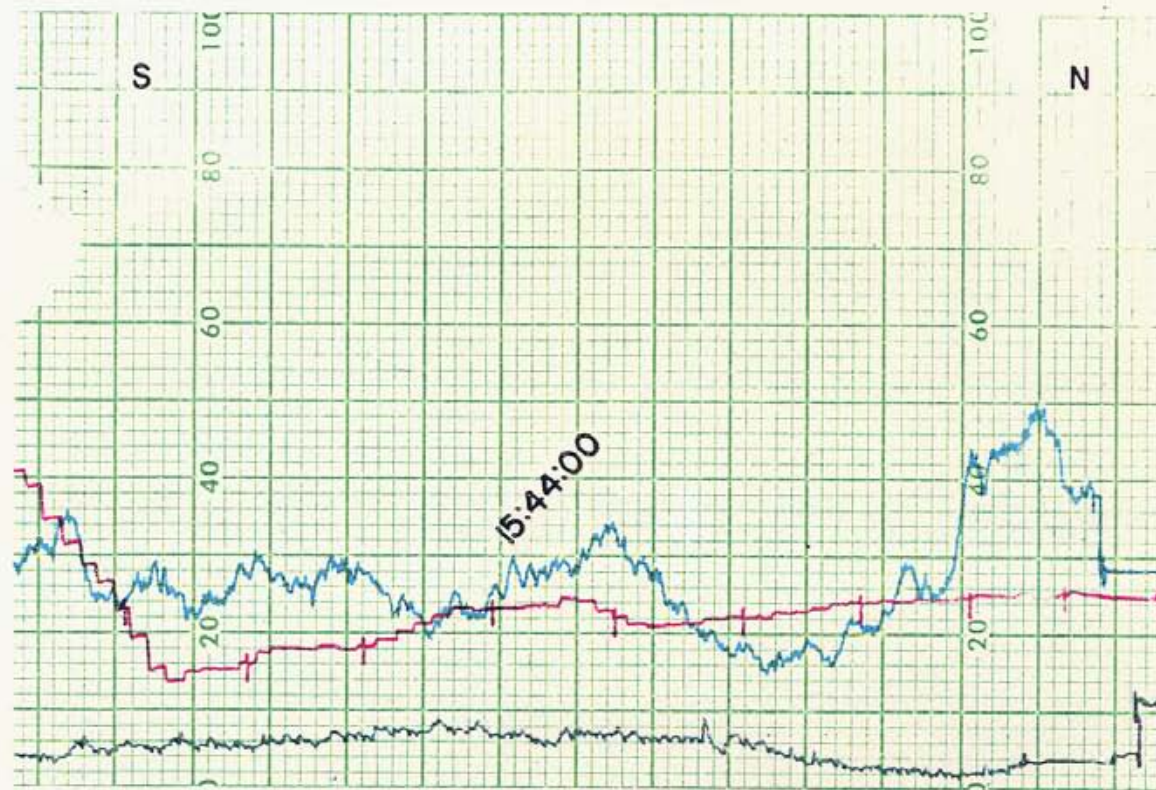
MT. McQUILLAN PROJECT
 LINE — 32 —

WESTERN
 GEOPHYSICAL AERO DATA
 LTD.

MAGNETOMETER : VERTICAL SCALE 1 cm = 200 gammas
 VLF-EM : VERTICAL SCALE 1 cm = 10%

MAGNETOMETER : RED
 VLF-EM (SEATTLE) : BLUE
 VLF-EM (ANNAPOLIS) : BLACK

FIG 15



JAN RESOURCES LTD.
 OLIVER RESOURCES LTD.
 McQUILLAN GOLD MINES LTD.

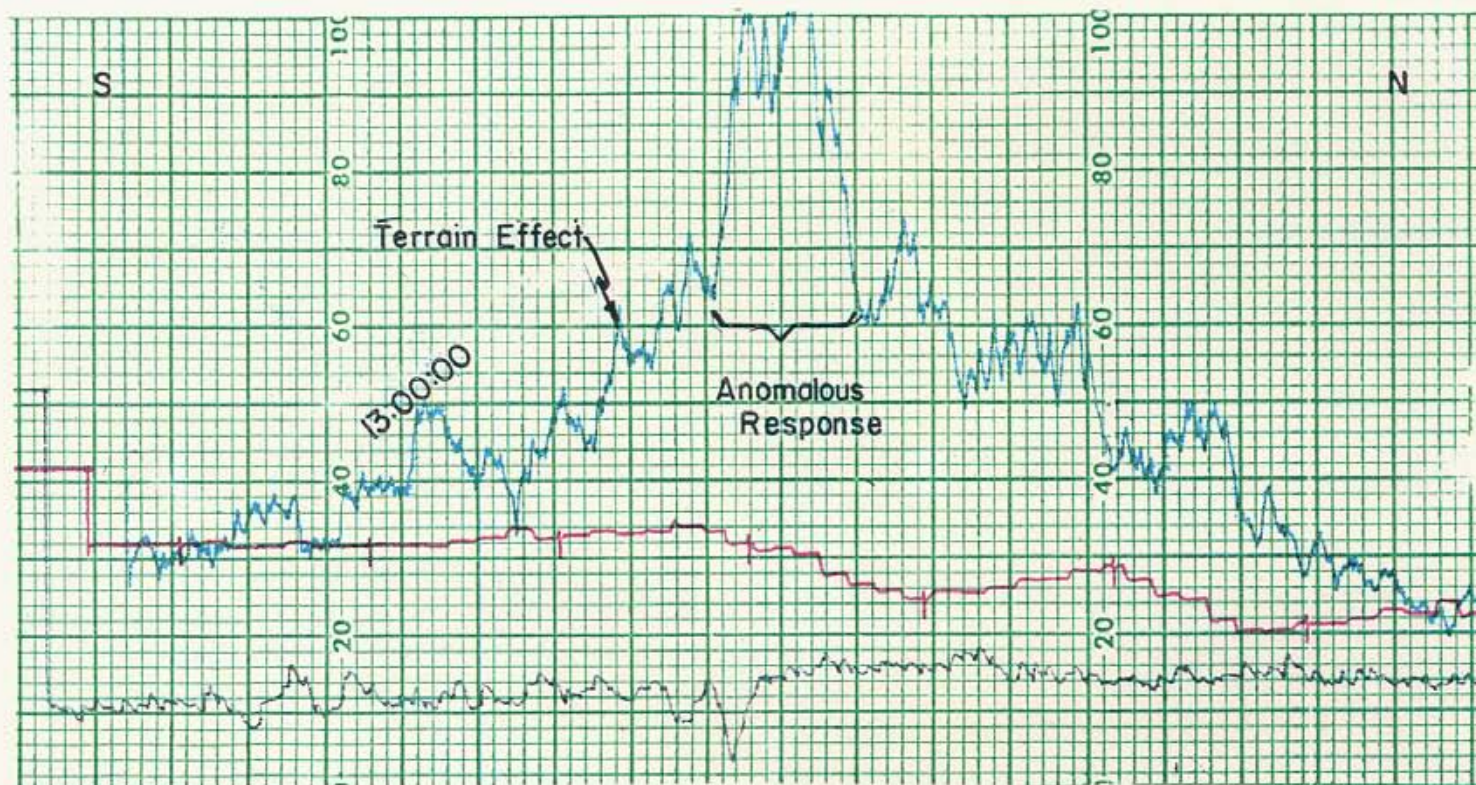
MT. McQUILLAN PROJECT
 LINE — 33 —

WESTERN
 GEOPHYSICAL AERO DATA
 LTD.

MAGNETOMETER : VERTICAL SCALE 1cm = 200 gammas
 VLF-EM : VERTICAL SCALE 1cm = 10%

MAGNETOMETER : RED
 VLF-EM (SEATTLE) : BLUE
 VLF-EM (ANNAPOLIS) : BLACK

FIG. 16



JAN RESOURCES LTD.
 OLIVER RESOURCES LTD.
 McQUILLAN GOLD MINES LTD.

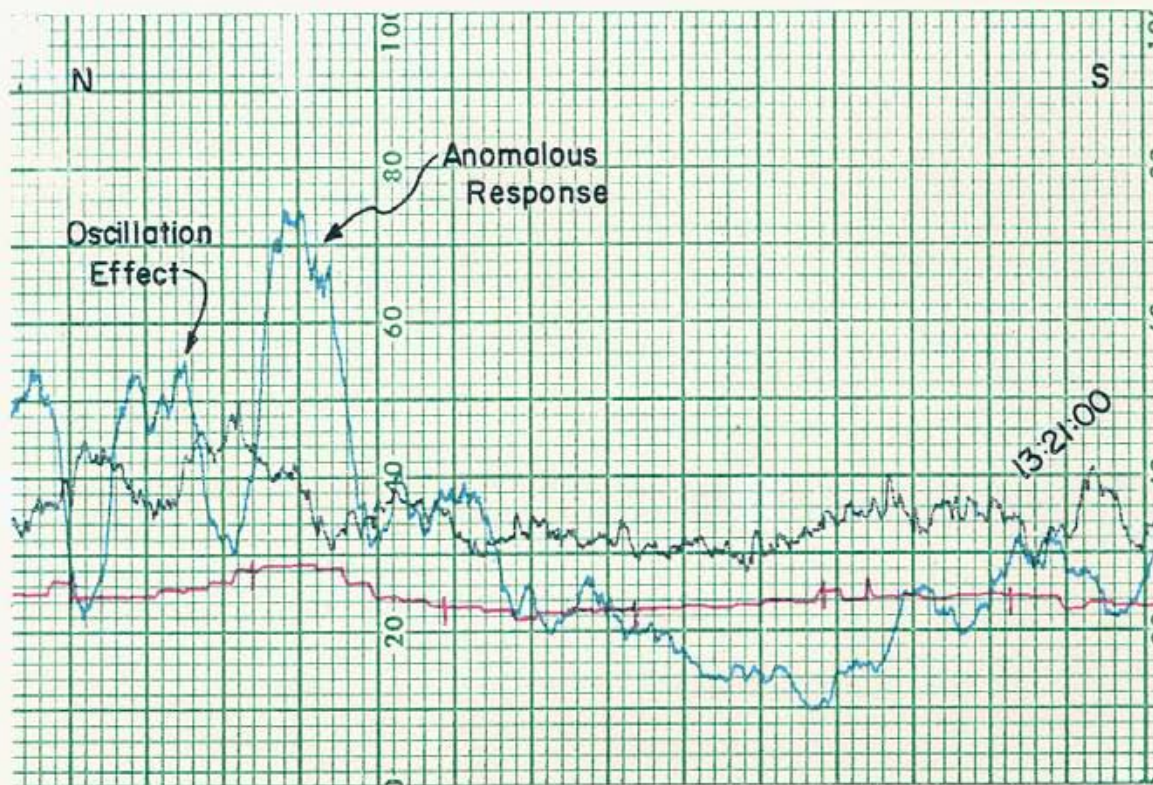
MT. McQUILLAN PROJECT
 LINE — 17 —

WESTERN
 GEOPHYSICAL AERO DATA
 LTD.

MAGNETOMETER : VERTICAL SCALE 1cm = 200 gammas
 VLF-EM : VERTICAL SCALE 1cm = 10%

MAGNETOMETER : RED
 VLF-EM (SEATTLE) : BLUE
 VLF-EM (ANNAPOLIS) : BLACK

FIG 17



JAN RESOURCES LTD.
 OLIVER RESOURCES LTD.
 McQUILLAN GOLD MINES LTD.

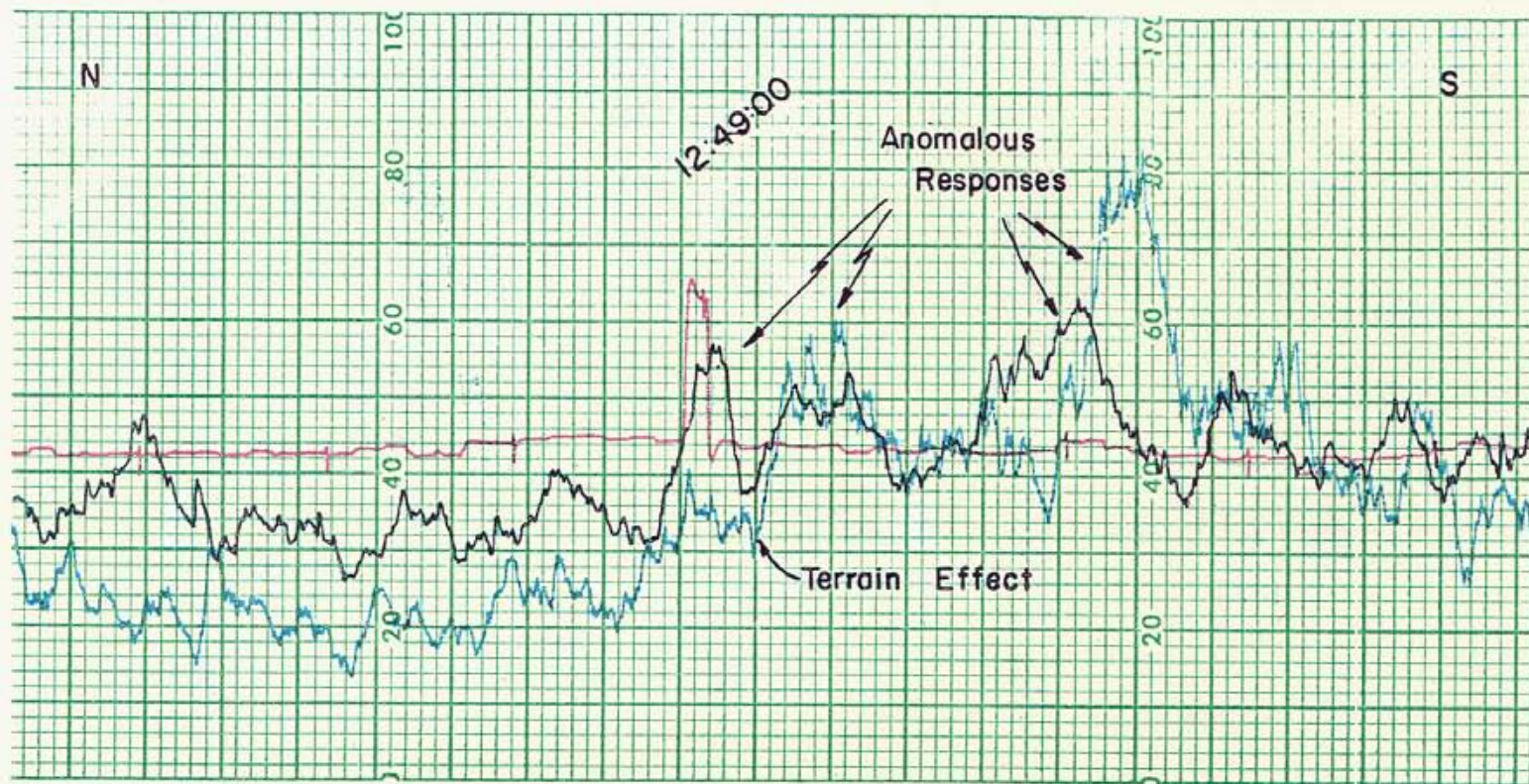
MT. McQUILLAN PROJECT
 LINE — 20 —

WESTERN
 GEOPHYSICAL AERO DATA
 LTD.

MAGNETOMETER : VERTICAL SCALE 1 cm = 200 gammas
 VLF-EM : VERTICAL SCALE 1 cm = 10%

MAGNETOMETER : RED
 VLF-EM (SEATTLE) : BLUE
 VLF-EM (ANNAPOLIS) : BLACK

FIG 18



JAN RESOURCES LTD.
 OLIVER RESOURCES LTD.
 McQUILLAN GOLD MINES LTD.

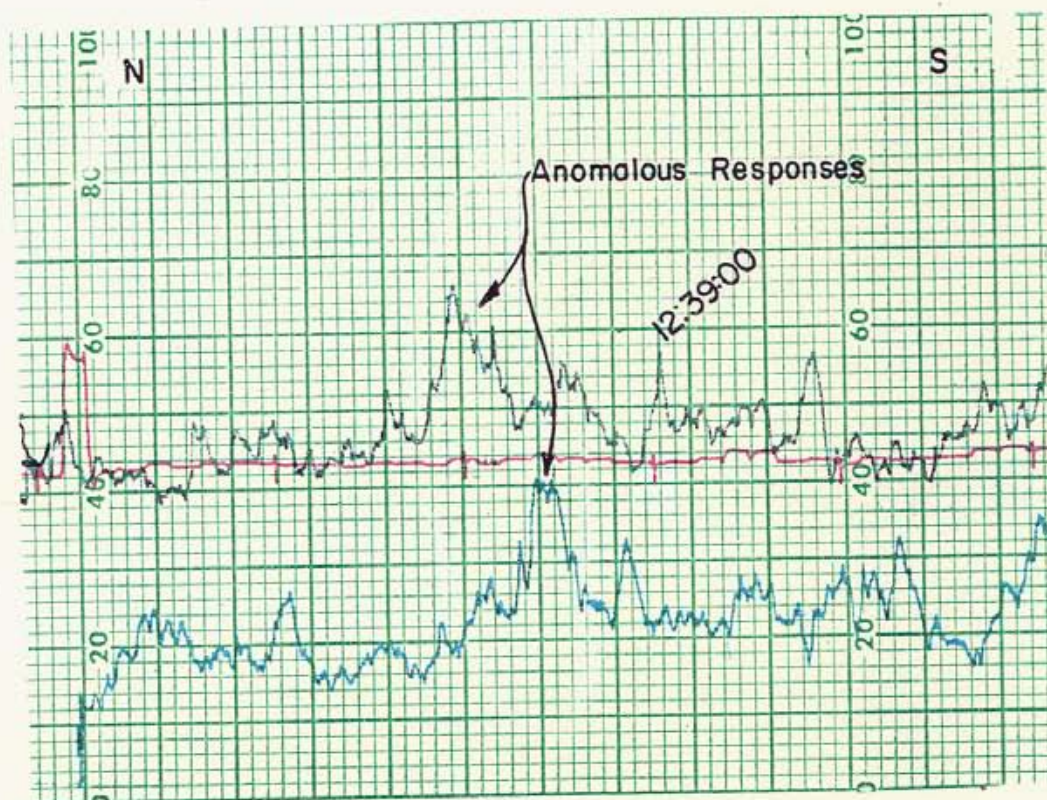
MT. McQUILLAN PROJECT
 LINE — 10 —

WESTERN
 GEOPHYSICAL AERO DATA
 LTD.

MAGNETOMETER : VERTICAL SCALE 1 cm = 200 gammas
 VLF-EM : VERTICAL SCALE 1 cm = 10%

MAGNETOMETER : RED
 VLF-EM (SEATTLE) : BLUE
 VLF-EM (ANNAPOLIS) : BLACK

FIG. 19



JAN RESOURCES LTD.
 OLIVER RESOURCES LTD.
 McQUILLAN GOLD MINES LTD.

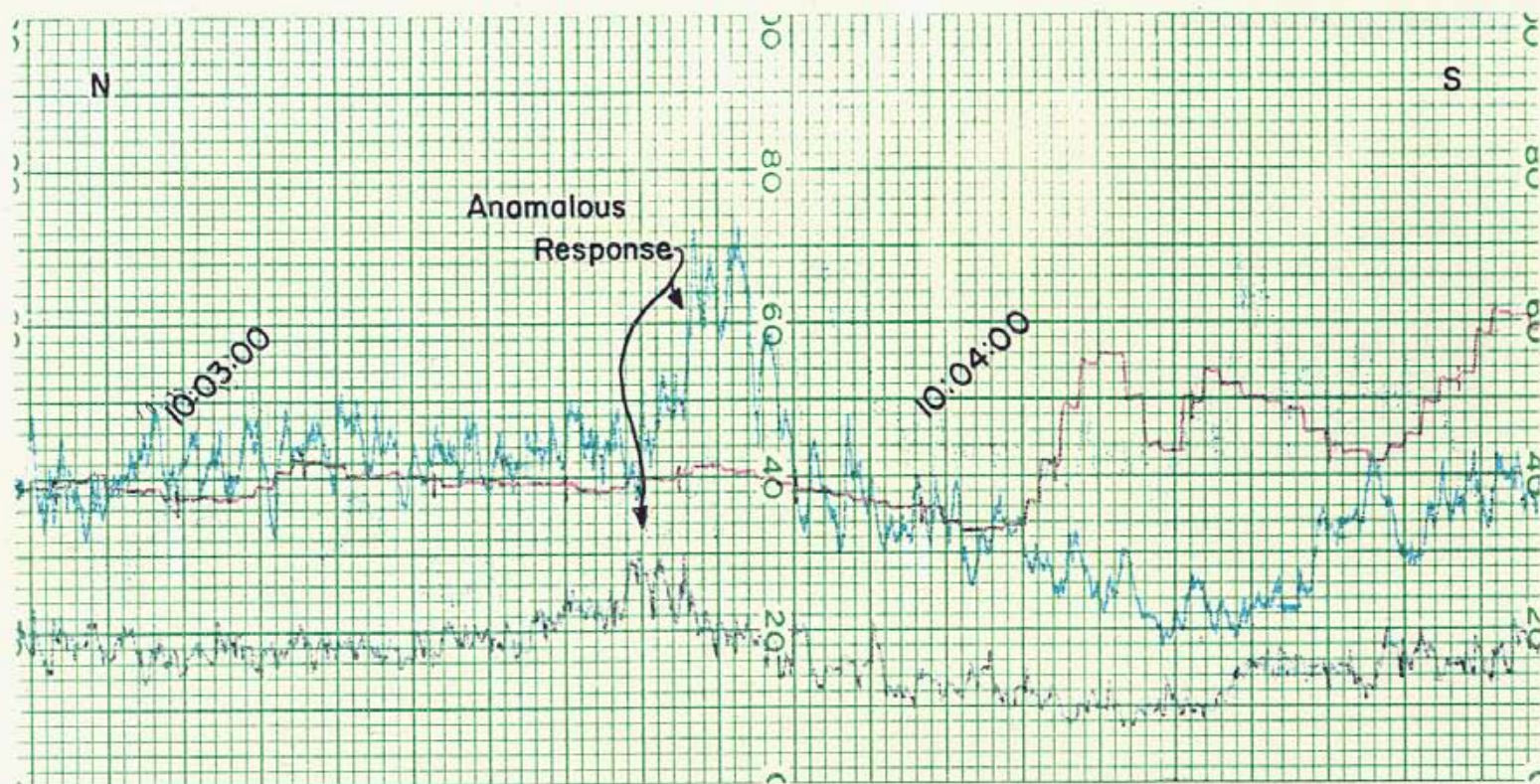
MT. McQUILLAN PROJECT
 LINE — 6 —

WESTERN
 GEOPHYSICAL AERO DATA
 LTD.

MAGNETOMETER : VERTICAL SCALE 1 cm = 200 gammas
 VLF-EM : VERTICAL SCALE 1 cm = 10%

MAGNETOMETER : RED
 VLF-EM (SEATTLE) : BLUE
 VLF-EM (ANNAPOLIS) : BLACK

FIG.20



JAN RESOURCES LTD.
 OLIVER RESOURCES LTD.
 McQUILLAN GOLD MINES LTD.

MT. McQUILLAN PROJECT
 LINE — D —

WESTERN
 GEOPHYSICAL AERO DATA
 LTD.

MAGNETOMETER : VERTICAL SCALE 1cm = 200 gammas
 VLF-EM : VERTICAL SCALE 1cm = 10%

MAGNETOMETER : RED
 VLF-EM (SEATTLE) : BLUE
 VLF-EM (ANNAPOLIS) : BLACK

FIG. 21



JAN RESOURCES LTD.
 OLIVER RESOURCES LTD.
 McQUILLAN GOLD MINES LTD.

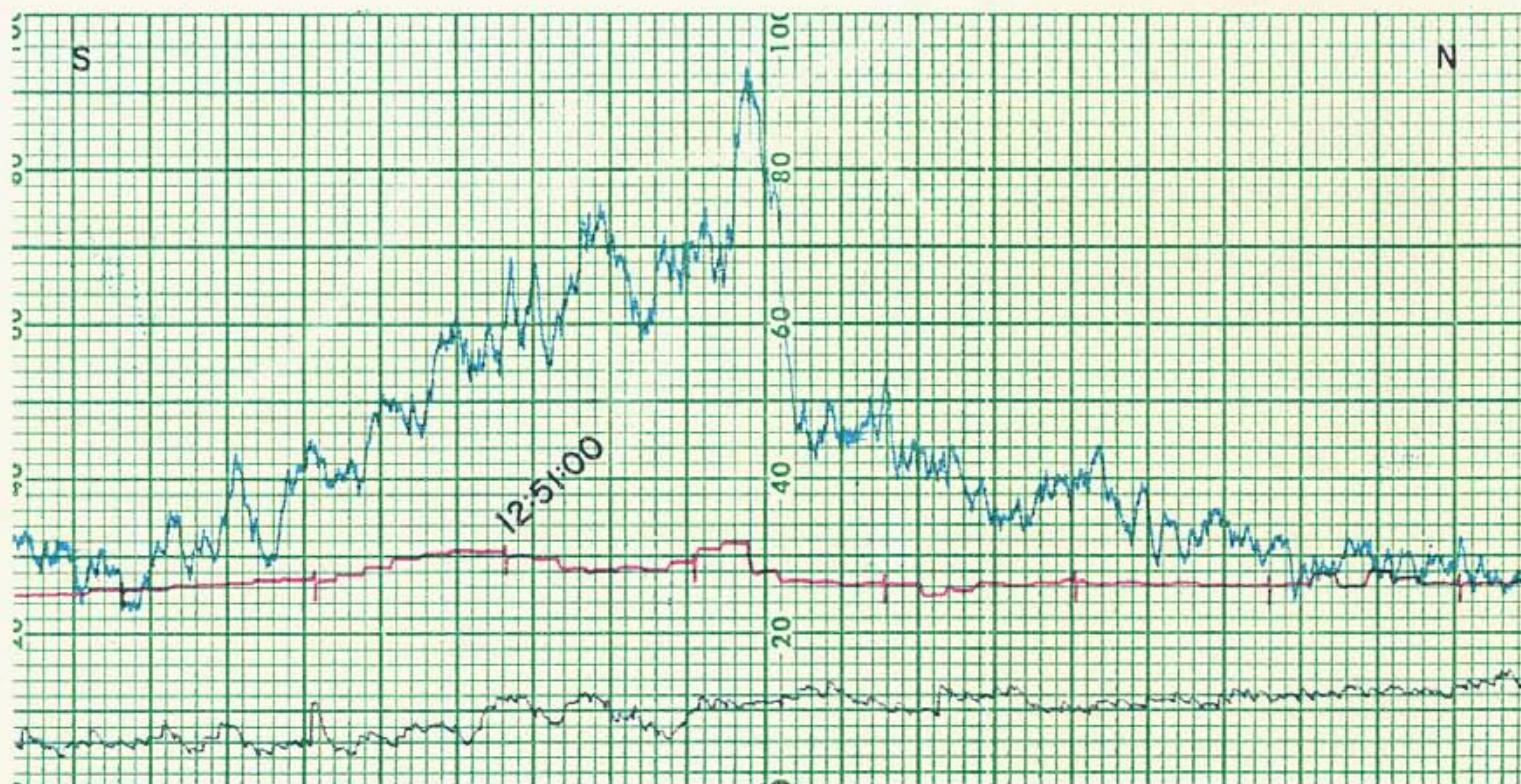
MT. McQUILLAN PROJECT
 LINE — 20 —

WESTERN
 GEOPHYSICAL AERO DATA
 LTD.

MAGNETOMETER : VERTICAL SCALE 1cm = 200 gammas
 VLF-EM : VERTICAL SCALE 1cm = 10%

MAGNETOMETER : RED
 VLF-EM (SEATTLE) : BLUE
 VLF-EM (ANNAPOLIS) : BLACK

FIG.22



JAN RESOURCES LTD.
 OLIVER RESOURCES LTD.
 McQUILLAN GOLD MINES LTD.

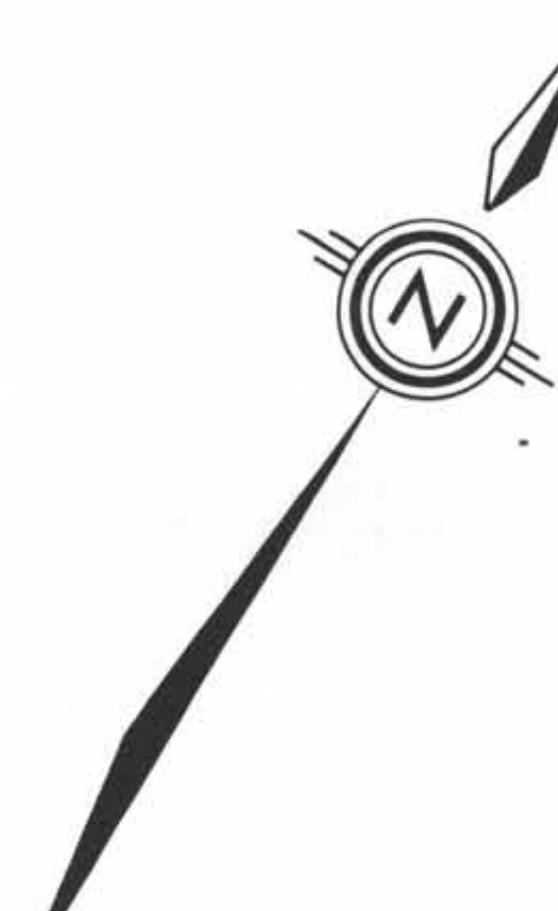
MT. McQUILLAN PROJECT
 LINE — 15 —

WESTERN
 GEOPHYSICAL AERO DATA
 LTD.

MAGNETOMETER : VERTICAL SCALE 1 cm = 200 gammas
 VLF-EM : VERTICAL SCALE 1 cm = 10%

MAGNETOMETER : RED
 VLF-EM (SEATTLE) : BLUE
 VLF-EM (ANNAPOLIS) : BLACK

FIG.23



LINE 'A' WAS FLOWN NORTH
OF AIR PHOTO COVERAGE

BC7792 NE 122

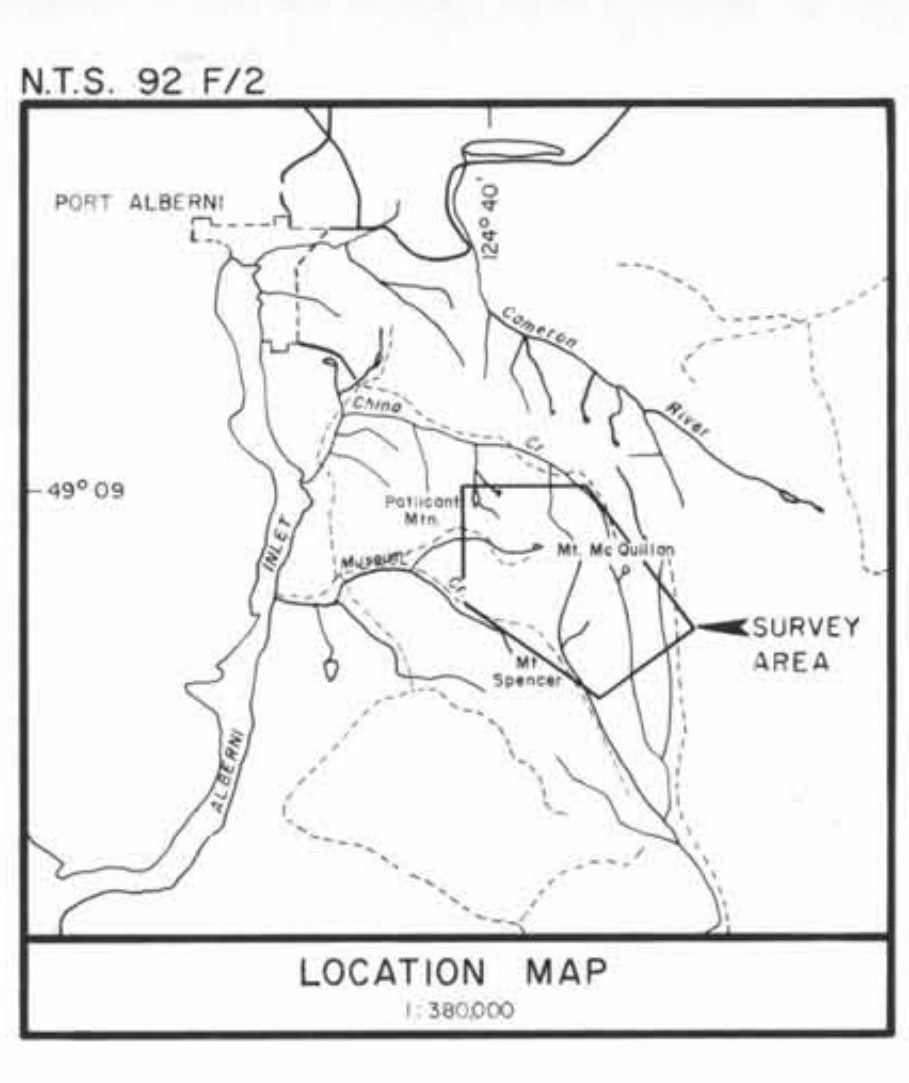
BC7792 NE 283



MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
9126
110

- LEGEND**
- Flight Lines
 - Contour Interval
 - Total Magnetic Field Intensity Contours
 - Approximate Mine Location

INSTRUMENTS
Sibra Airborne Magnetometer



McQUILLAN GOLD LTD.
JAN RESOURCES LTD.
OLIVER RESOURCES LTD.
VICTORIA & ALBERNI MINING DIVISION - BRITISH COLUMBIA

**TOTAL MAGNETIC FIELD INTENSITY
(GAMMAS)**
- CONTOUR INTERVAL 100 OR 200 GAMMAS -

Drawn By: N.L.P.
Checked By: G.E.W.
Date: APRIL 98
Fig No: 3

Western Geophysical
New York Ltd.

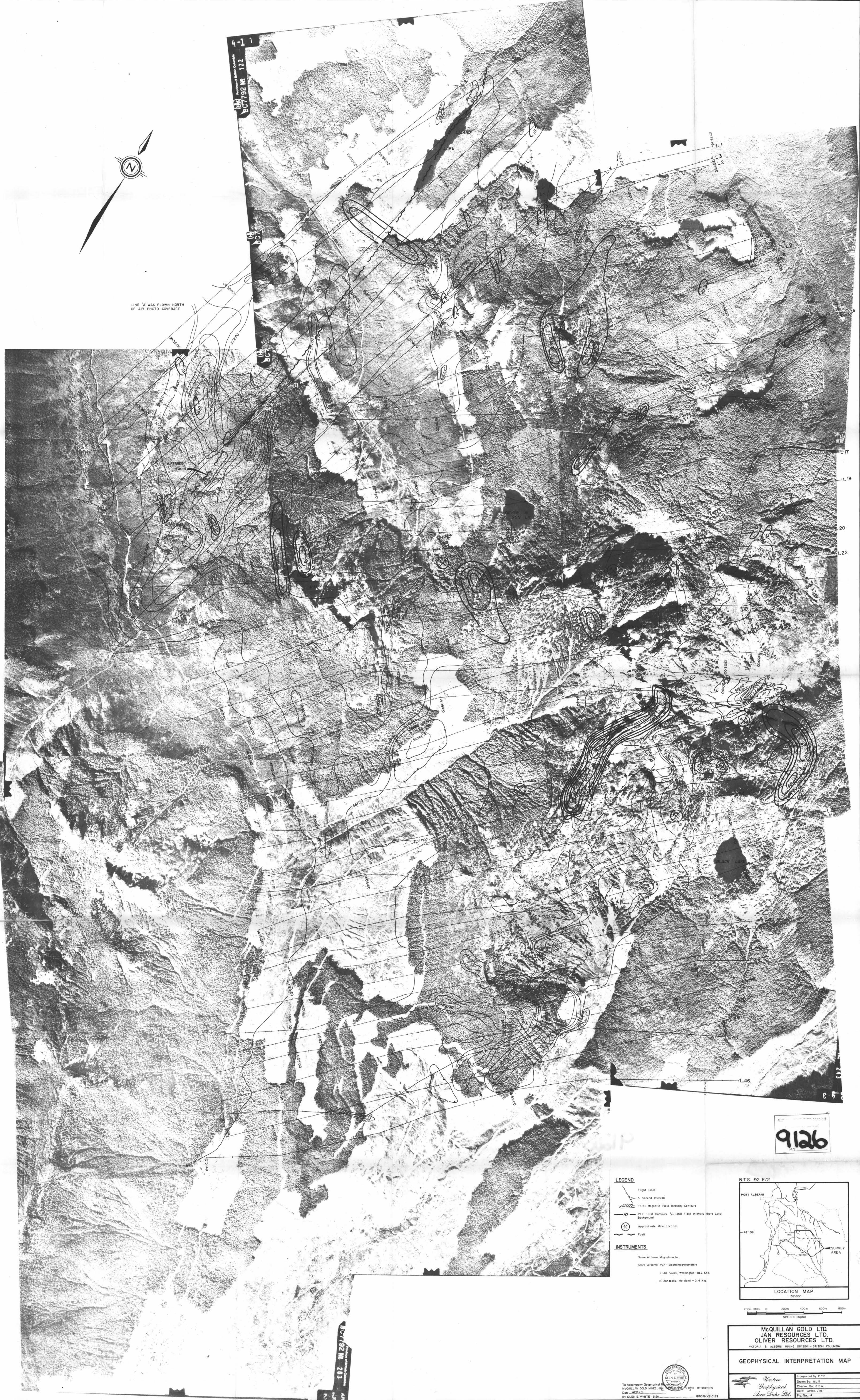
To Accompany Geophysical
McQUILLAN GOLD LTD. MINING
Data: 1998.08.
By: GLEN E. WHITE, B.Sc.
GEOPHYSICIST



LINE 'A' WAS FLOWN NORTH OF AIR PHOTO COVERAGE

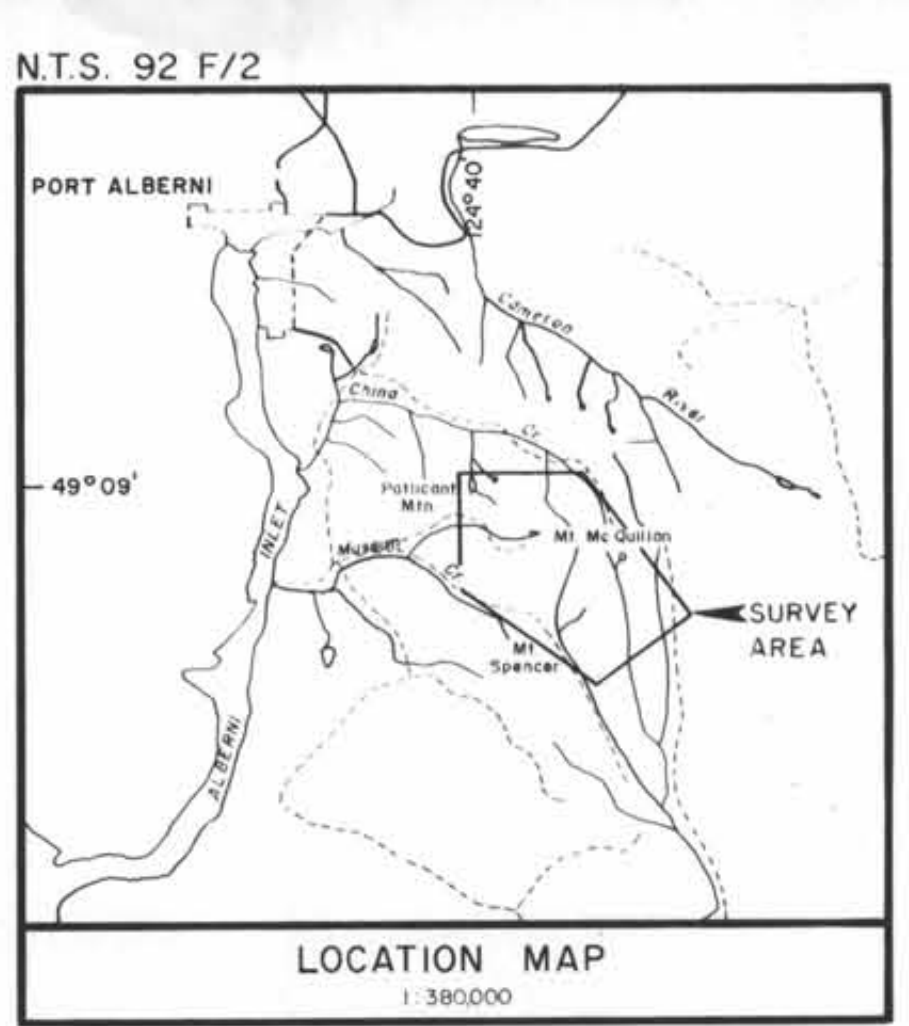
BC 7792 NR 122

BC 7792 NR 233



- LEGEND**
- Flight Lines
 - 5 Second Intervals
 - Total Magnetic Field Intensity Contours
 - VLF - EM Contours, % Total Field Intensity Above Local Background
 - Approximate Mine Location
 - Fault
- INSTRUMENTS**
- Sobro Airborne Magnetometer
 - Sobro Airborne VLF - Electromagneters
 - 1 Jam Creek, Washington - 18.6 KHz
 - 11 Annapolis, Maryland - 21.4 KHz

9126



SCALE 1:15000

McQUILLAN GOLD LTD.
JAN RESOURCES LTD.
OLIVER RESOURCES LTD.
VICTORIA & ALBERNI MINING DIVISION - BRITISH COLUMBIA

GEOPHYSICAL INTERPRETATION MAP

To Accompany Geophysical
McQUILLAN GOLD MINES, INC.
Date: APR 78
By: GLEN E. WHITE, B.Sc.
GEOPHYSICIST

Interpreted By: E.T.P.
Drawn By: N.L.P.
Checked By: E.T.P.
Date: APR 78
Fig. No. 4