86-338-14857
06/87

GEOLOGICAL BRANCH
ASSESSMENT REPORT

14,857

Owner/Operator: ROJOLL EXPLORATIONS LTD.

GEOPHYSICAL REPORT
AIRBORNE MAGNETOMETER and VLF-EM SURVEY
on the
RANDEB CLAIM GROUP

HOPE AREA
NEW WESTMINSTER MINING DIVISION
HOPE, BRITISH COLUMBIA

N. Lat. 49° 28' 00" W. Long. 121° 23' 00"

NTS 92 - H / 6W

FILMED

by

Al E. HUNTER, B.A.Sc. / Robert R. ARNOLD, M.Sc., P. Geol.

STRATO GEOLOGICAL ENGINEERING LTD.
3566 King George Highway
Surrey, British Columbia V4A 5B6

FEBRUARY 28, 1986

STRATO GEOLOGICAL ENGINEERING LTD.

SUMMARY

The Rojoll Explorations Ltd. property is located on the eastern bank of the Fraser River, some 10km due north of Hope, British Columbia.

The objective of the airborne magnetic and electromagnetic survey was to confirm and extend anomalous ground magnetic readings delineated during the late spring of 1985 by Strato Geological Engineering Ltd.

The airborne survey detected high magnetic anomalies associated with northwesterly trending conductive zones located in the northwest quarter of the Randeb Claim Group.

Further exploration work, including ground geophysical surveys, geological mapping, and geochemical sampling, is recommended on the property, especially in the vicinity of Showings No. 2 and Showing No. 3.

Respectfully submitted
Strato Geological Engineering Ltd.

A. E. Hunter
Geophysicist

R.R. Arnold, M.Sc., P.Geol.

February 28, 1986

PROFESSIONAL GEOLOGIST ALBERTA
ROBERT R. ARNOLD

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1. - INTRODUCTION

1.1 Objectives

Pursuant to a request by the Directors of Rojoll Explorations Ltd., 3566 King George Highway, Surrey , British Columbia, an airborne magnetic and electromagnetic survey was carried out over the Randeb Claim Group by Strato Geological Engineering Ltd.

Field work was completed February 25, 1986 using a 206 Jet Ranger III helicopter based at Agassiz, B.C. and the Sabre Electronics Airborne system.

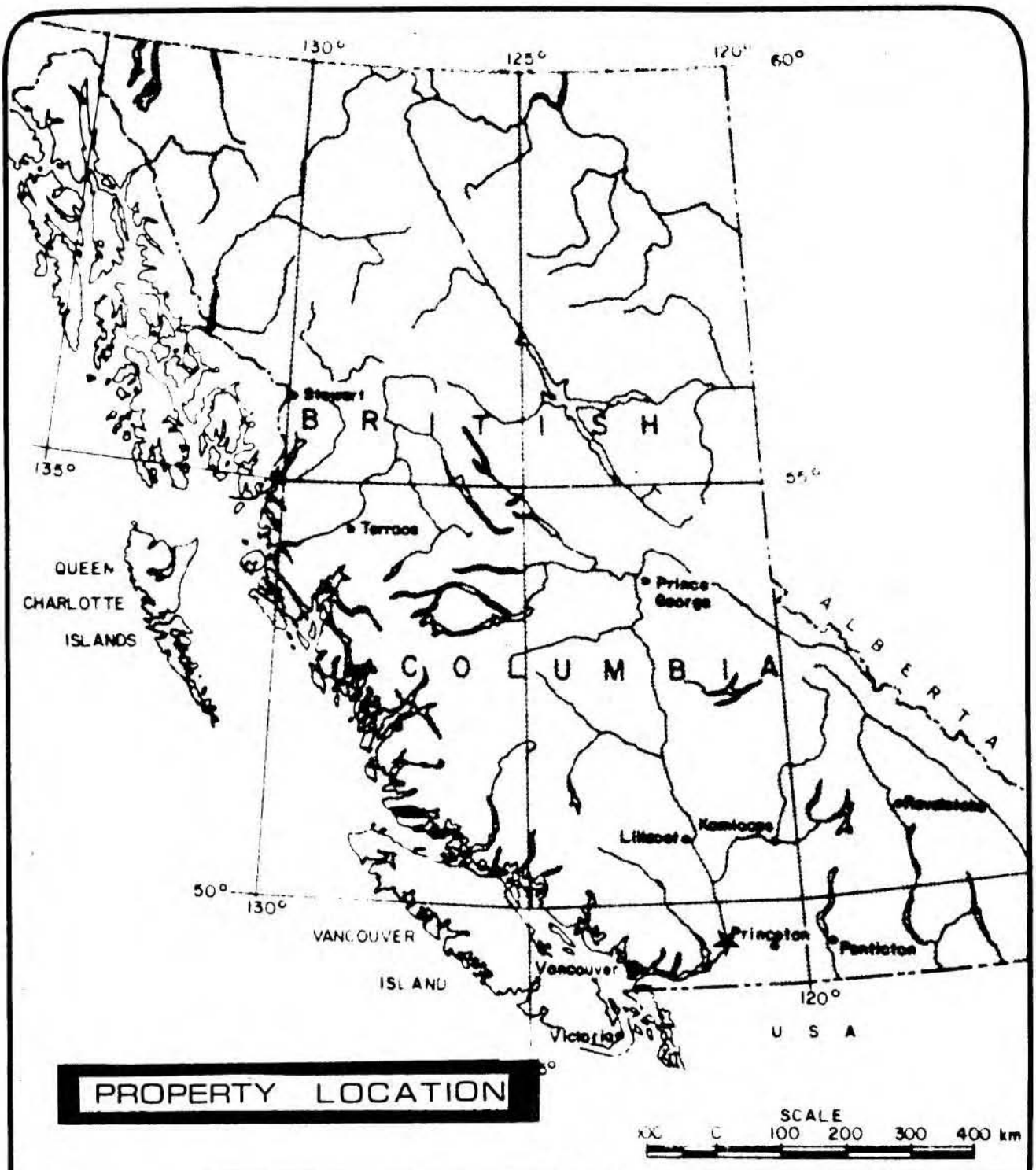
1.2 Location and Access
(See Figures 1 and 2)

Province :	British Columbia
Area :	Hope
Mining Division :	New Westminster
NTS :	92 - H / 6
Latitude :	49 degrees 28' 00" N
Longitude :	121 degrees 23' 00" W
Property Name :	RANDEB Claim Group
Disposition Holders :	ROJOLL EXPLORATIONS LTD.

The Randeb Claim Group is located on the eastern bank of the Fraser River, some 10km due north of Hope, British Columbia.

Access to the property is available using gravel roads along the east side of the Fraser River, a road distance of approximately 16 kilometers. Due to partially washed-out areas on the road, a 4WD vehicle is necessary

The main line of the Canadian National Railway follows the east bank of the Fraser River through the RANDEB II claim area.



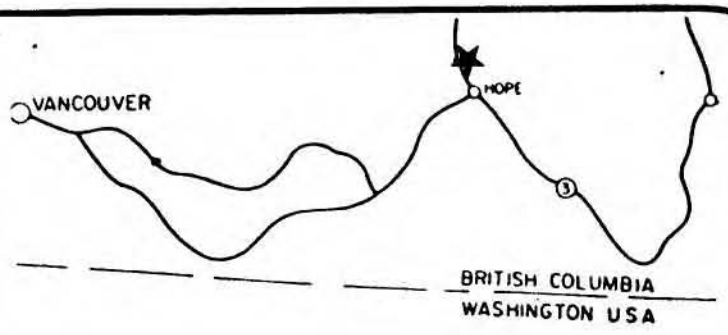


FIGURE 1

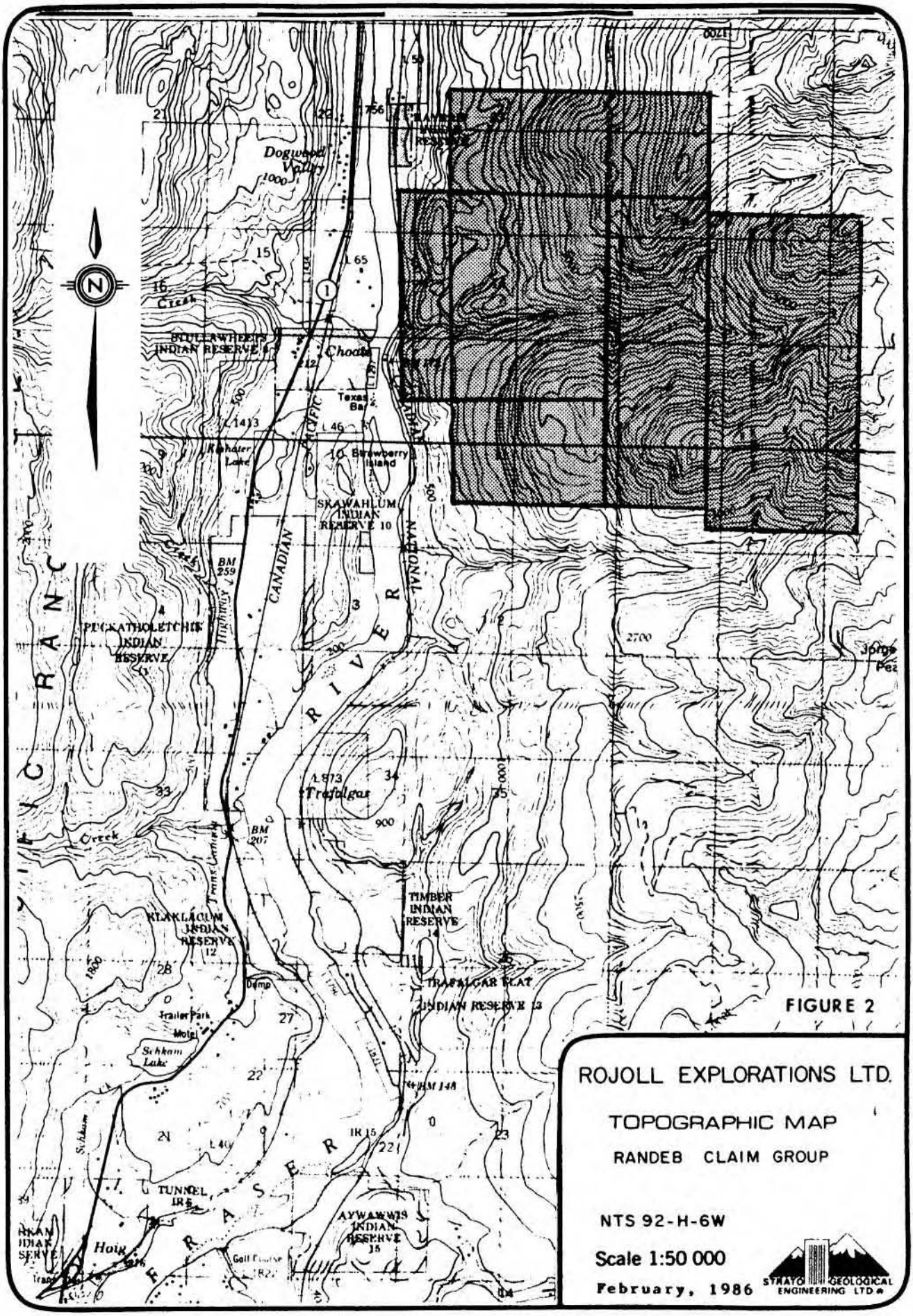
ROJOLL EXPLORATIONS LTD.

LOCATION MAP

RANDEB CLAIM GROUP

February, 1986

STRATO GEOLOGICAL ENGINEERING LTD.


Dogwood Valley
Creek
BULLAWHEEN'S INDIAN RESERVE 6
Choate
Texas Bar
Rainbow Lake
Strawberry Island
SKAWAHLUM INDIAN RESERVE 10
CANADIAN NATIONAL RAILWAY
Trans Canada Highway
BM 259
PEKATHOLETCHIE INDIAN RESERVE
FRASER RIVER
Trafalgar
BM 207
Creek
KLAKLACUM INDIAN RESERVE 12
TIMBER INDIAN RESERVE 14
TRAFALGAR FLAT INDIAN RESERVE 13
Dump
Trailer Park
Motel
Schkam Lake
BM 148
TUNNEL IR 5
AYWAWIS INDIAN RESERVE 15
Golf Course
Hope
FIGURE 2
ROJOLL EXPLORATIONS LTD.
TOPOGRAPHIC MAP
RANDEB CLAIM GROUP
NTS 92-H-6W
Scale 1:50 000
February, 1986
STRATOS GEOLOGICAL ENGINEERING LTD.

1.3 Operations and Communications

The airborne geophysical survey was flown from the Agassiz base of Highland Helicopters Ltd. by Mr. J. Freeman. A 206 Jet Ranger III helicopter was used. Mr. A. E. Hunter (geophysicist) provided navigational control and Mr. R. J. Englund (B.Sc.) operated the instrumentation.

An attempt to gain access to the property by road made on February 14-15, 1986 was negated by an unusually heavy snow fall. The crew was unable to complete planned ground work at that time.

1.4 Physiography

Elevations on the property range between 60m (200') at the Fraser River on the western boundary of the claim area and 1675m (5500') above sea-level in the eastern sector of Randeb VII claim near the Squeah Mountain.

The topography is moderate to steep and the drainage is westerly to the Fraser River. Texas Bar Creek traverses the central portion of the claim area.

The claims are covered with marketable timber, some of which has been logged in recent years.

1.5 Property Status

The Randeb claim group consists of six mineral claims containing 62 claim units located in the New Westminster Mining Division some 10 kilometers of Hope, British Columbia.

The claims are shown on the British Columbia Mineral Titles Map M 92-H/6W (Figure 3). Information on file with the Gold Commissioner at New Westminster is as follows:

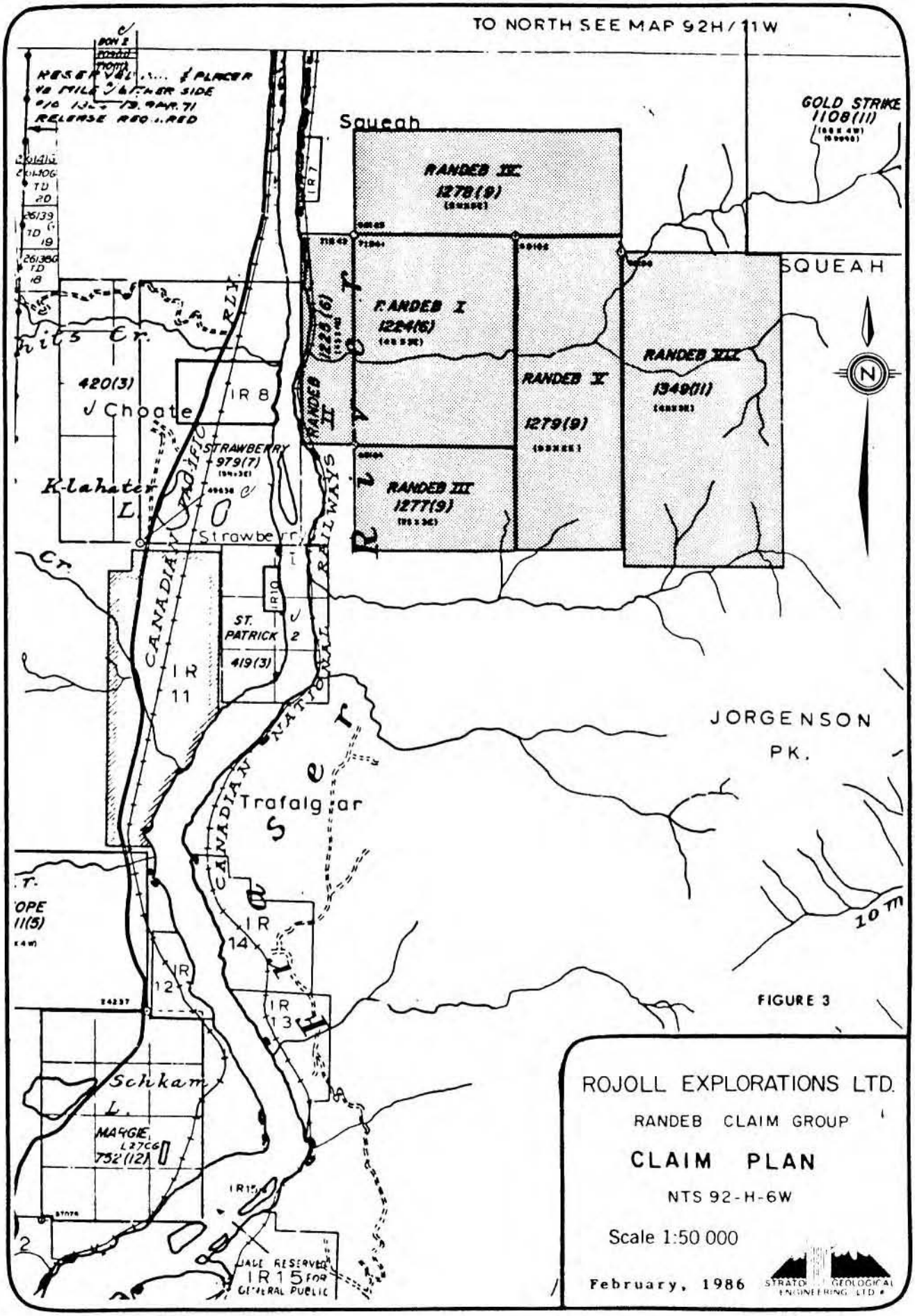


FIGURE 3

ROJOLL EXPLORATIONS LTD.

RANDEB CLAIM GROUP

CLAIM PLAN

NTS 92-H-6W

Scale 1:50 000

February, 1986

STRATOS GEOLOGICAL ENGINEERING LTD.

CLAIM	RECORD NO.	UNITS	RECORD HOLDERS	EXPIRY DATE
RANDEB I	1224 (6)	12	Rojoll Expl. Ltd.	June 12, 1986
RANDEB II	1225 (6)	4	Rojoll Expl. Ltd.	June 19, 1986
RANDEB III	1277 (9)	6	Rojoll Expl. Ltd.	Sept. 16,1987
RANDEB IV	1278 (9)	10	Rojoll Expl. Ltd.	Sept. 16,1986
RANDEB V	1279 (9)	12	Rojoll Expl. Ltd.	Sept. 16,1986
RANDEB VII	1349 (11)	18	Rojoll Expl. Ltd.	Nov. 9, 1986

2. - HISTORY

The history of the claims area is fully described by D.W. Tully (Engineering Report dated August 24, 1982) and by R.J. Englund (Report on a Magnetometer and VLF-EM survey dated August 21, 1985) and is not recapitulated in the present report.

Strato Geological Engineering Ltd. conducted a geophysics survey (Magnetometer and VLF-EM) during June of 1985. Neither method was successful in delineating the particular mineralization thus far recognized on the property. However geophysical methods appear to be a very useful tool in delineating geological units and are considered useful in assisting with geological mapping in overburden covered areas.

3. - GEOLOGY

D.W. Tully and R.J. Englund have fully described the geological setting and local mineralization in their reports dated respectively August 24, 1982 and August 21, 1985.

The geology therefore need not to be recapitulated for the purpose of this report.

4. - GEOPHYSICS

4.1 Survey Procedures

An idealized survey grid comprised 19 north-south lines spaced at 200 and 400 metre intervals was drawn on a 1:10 000 scale topography map of the area and used as a guide to direct the helicopter survey. A sufficient number of topographical features, roads, and cultural features allowed for easy ground positioning of fiducial points and survey lines. Actual survey flight paths are illustrated on the topographical map which is also used as a base map for presentation of survey results (Figure 4). In total, over 110 kilometers of VLF-EM and magnetometer survey data was collected.

The survey system simultaneously monitors and records the output from a total field proton precession magnetometer and two VLF electromagnetic receivers. Instrumentation consisted of the Sabre Electronics Proton Magnetometer and a two channel, omnidirectional, VLF-Electromagnetic receiver tuned to both the Seattle and Annapolis transmitter stations. Data output is through analog meters onto a three channel analog strip chart recorder. Instrument specifications are provided in Appendix I.

The aerial platform was a 206 Jet Ranger III helicopter owned by Highland Helicopters Ltd. based out of Abbotsford, B. C. and piloted by Mr. J. Freeman. Visual ground reference was excellent in all areas of the survey grid and flight line positioningis considered to be accurate. Topography underlying the survey was generally steep and several canyons, trending through the survey area, negated the maintaining of constant air speed and fixed terrain clearance in many areas. The net result is that there is a certain amount of terrain noise inherent in the data which must be considered in the interpretation.

Flight line locations and fiducials are shown on the accompanying geophysical map. Magnetic data was picked from analog strip charts, prorated between fiducial marks and plotted on a 1 : 10,000 topographic base map for each flight line (Figure 5). Plotted magnetic values were adjusted for crossline closure and drift. For this purpose, two tie lines were flown down the two east-west creeks in the survey area. Final magnetic values were contoured on a topographic base map. VLF-EM data was interpreted from analog strip charts and the conductors were indicated over the magnetic contour map. The results are presented on the Aeromagnetic VLF-EM Survey Map (Figure 4).

4.2 Discussion of Results

The results of the magnetic survey are presented in contour form over a topographic base of the claim area (Figure 4). The magnetic intensity observed varied from 56440 to 57200 gammas and delineated several major lithological units. The results of the electromagnetic survey (VLF-EM) are presented along with the magnetic survey results. The VLF-EM survey employed two total field intensity receivers to detect conductive, near surface features. Three areas of moderate to very weak conductors were detected. Noise was introduced into the VLF-EM data as the helicopter changed speed when approaching ridges or creeks. The change in speed introduced a recognized sinusoidal pattern in the data.

A northerly trending aeromagnetic anomaly is located between 1.1 and 2.5 kilometers east of the Fraser River. The average width of this zone is 1 km. In the southern half of this anomaly, the response is relatively weak, 100 to 200 gammas above background. In the northern half, the reponse is up to 650 gammas above background. This anomaly is truncated in the centre of the survey area where Texas Bar Creek cuts through the property and is attribuated to a topographic effect, since it was not possible to maintain a constant elevation above the ground over this canyon. This anomaly corresponds to a geologic unit mapped as foliated granodiorite or quartz diorite. (J. W. H. Monger, G. S. C. Paper 69-47). Two northwesterly trending, moderate to very weak, conductors are associated with the northern part of this anomaly. The VLF-EM conductor, that is furthest north of the two, exhibits a very broad pattern (from 500 to 900 metres) on Lines 12E and 14E. This data is distinct from the topographic anomalies encountered elsewhere over ridges. On Line 16E, the zone is characterized by an extremely noisy VLF-EM response. The western portion of this conductor is close to the No. 3 Showing (R. J. Englung, 1985).

Previous fieldwork (R. J. Englund, 1985) examined Showing No. 2 which is located 200 metres west and 400 metres north of the point common to mineral claims RANDEB I, IV and V. A total field magnetic anomaly characterized by readings 500 gammas above background coincides with the northern half of the northerly trending aeromagnetic anomaly. The rocks encountered in the anomalous area were of basic composition. Granodiorite/quartz diorite was encountered off the east end of the anomalous zone. A northwesterly trending fault/shear zones was also located.

In the northeast corner of the survey area there is an aeromagnetic anomaly characterized by readings up to 300 gammas above background. These coincide roughly with areas mapped as foliated granodiorite/quartz diorite (J. W. H. Monger, G. S. C. Paper 69-47). Peridotite float was encountered downslope from this area in the Showing No. 2 area (R. J. Englund, 1985). A very weak, westerly trending VLF-EM conductor, with a response on two lines, is located just south of the Randeb II claim.

A weak magnetic gradient trends west to east over the survey area with background values ranging from 56450-56500 gammas on Lines 00 - 12E to around 57000 gammas in the eastern survey area. This trend probably reflects a change in lithology from gneissic units in the west to more basic volcanic rocks of the Hozameen Group in the east (Monger, G.S.C. Paper 69-47).

5. - CONCLUSIONS AND RECOMMENDATIONS

The aeromagnetic and VLF-EM survey encountered an area of anomalous magnetic readings with associated northwesterly trending conductive zones in the northwest quarter of the the survey area. These results confirmed and extended previous ground work in the area of and between the No. 2 and No. 3 Showings.

It is recommended that ground follow-up geological, geochemical, and geophysical work be concentrated in the anomalous areas outlined by the airborne survey. It is recommended that the steep topography will make this difficult in places. The SE-88 GENIE is a horizontal loop electromagnetic system designed for rugged terrain and should be used here. A self potential survey could also prove useful in delineating mineralization in these areas.

Respectfully submitted
Strato Geological Engineering Ltd.

A.E. Hunter
Geophysicist

R.R. Arnold, M.Sc., P.Geol.

February 28, 1986

STRATO GEOLOGICAL ENGINEERING LTD.

6. - REFERENCES

Englund, R.J. (1985)
Report on a Magnetometer and VLF Electromagnetic Survey on the Randeb Claim Group, New Westminster M.D., Hope, B.C. for Rojoll Explorations Ltd.

Tully, D.W. (1982)
Report on the Randeb I, II, III, IV, V, and VII Claims, New Westminster M.D., Hope, B.C. for Rojoll Explorations Ltd.

Dawson, A.H. (1970)
Report on the Wetteshow Nickel Claims, Hope, B.C.

G.S.C. Memoir 190 (1936)
Geology and Mineral Deposits at the Mine of B.C. Nickel Mines Limited, Yale District, B.C. by H.C. Horwood.

G.S.C. Paper 69-47 and Map 12-1969.

G.S.C. Paper 36-4 and Map 737A.

7. - CERTIFICATE

I, ROBERT R. ARNOLD, of the City of North Vancouver, Province of British Columbia, hereby certify that:

1. I am a geologist employed by Strato Geological Engineering Ltd. My office is at 3566 King George Highway, Surrey, B.C. V4A 5B6, Canada.

2. I obtained a Bachelor of Science degree in Geology from the University of Geneva, Switzerland, in 1976 and a Master of Science in Geological Engineering, from the same university in 1978.

3. I am a Registered Professional Geologist, in good standing, of the Association of Professional Engineers, Geologists and Geophysicists of Alberta since 1981.

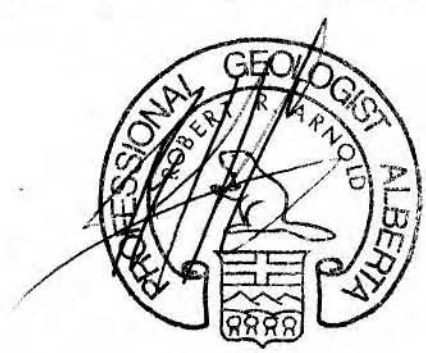
4. I am a Fellow member of the Geological Association of Canada, an associate member of the Mineralogical Association of Canada, and the Society of Economic Geologists.

5. I have been practising my profession as a geologist since 1978.

6. I have not received, nor do I expect to receive, any interest, direct or indirect, or contingent, in the securities or properties of Rojoll Explorations Limited, and I am not an insider of any company having an interest in the Randeb Mineral Claim Group.

Dated at Surrey, Province of British Columbia this 28th day of February, 1986

Robert R. Arnold, M.Sc., P.Geol.



STRATO GEOLOGICAL ENGINEERING LTD.

7. - CERTIFICATE

I, Al E. HUNTER, of Vancouver, British Columbia, Canada, do hereby certify the following.

1. I will receive the degree of Bachelor of Applied Science with Specialization in Geophysics from the University of British Columbia, Vancouver, British Columbia in 1986.

2. Since leaving university I have practised my profession in western and northern Canada for approximately 5 years.

3. I have no direct, indirect or contingent interest, nor do I expect to receive such interest, in the securities or properties of Rojoll Explorations Ltd.

Dated at Surrey, British Columbia, this 28th day of February, 1986.

A. E. Hunter, Geophysicist

8. - TIME-COST DISTRIBUTION

An airborne VLF electromagnetic and magnetometer survey was carried out over the Randeb Claim Group on February 25, 1986 after two aborted attempts to gain access to the property for sampling and geophysical test work on February 11, and 14, 15/1986.

A listing of personnel and distribution of costs is as follows:

Personnel:

R. R. Arnold, M.Sc., P. Geol.	Geologist
R. J. Englund, B.Sc.	Senior Geophysicist
A. Hunter, B.A.Sc.	Geophysicist
G. Smith, B.A.	Field Assistant

Cost Distribution:

TO: Attempted ground exploration work - R. Arnold (Feb. 11, 14, 15), A. Hunter - G. Smith (Feb. 14, 15)	
- Field crew, transportation (4WD), room and board, expenses	$ 1,742.35
TO: Airborne Survey	
- Job preparation, maps, flight line layouts, etc. - A. Hunter, R. Englund	787.50
- Helicopter Survey - equipment, personnel, transportation, etc. - 110 line km @ $55/km	6,050.00
- Data reduction, processing, plotting, etc. (22 hours @ $24/hr.)	528.00
- Maps and report - drafting, typing, reproduction, copying, etc.	917.00
- Interpretation and report	2,100.00
Total	$ 12,124.85

Signed _____
Strato Geological Engineering Ltd.

STRATO GEOLOGICAL ENGINEERING LTD.

APPENDIX I

INSTRUMENT SPECIFICATIONS

INSTRUMENT SPECIFICATIONS

Sabre Electronics Airborne VLF Electromagnetic System

The bird, towed 15 meters below the aircraft, contains two, simultaneously operating omni-directional VLF-EM receivers and amplifiers tuned to separate very low frequency submarine, long range radio transmitting stations. This unit is currently tuned to the following two stations:

Seattle, Washington	18.6 KHz
Annapolis, Maryland	21.4 KHz

The instrument measures horizontal field strength of the very low frequency electromagnetic fields initiated from designated radio stations. The primary electromagnetic field propogated in undisturbed area is horizontal. Conductivity contrasts within the earth create secondary fields resulting in variations in net field strength. These field strength variations yield the VLF anomalies which are recorded by this instrument.

Sensors: Ferrite antennae coils, one for each frequency, mounted in bird.

INSTRUMENT SPECIFICATION (continued)

Output: 0-100 percent field strength analog meters, one for each frequency;

: terminals for data output to any desired data recording system;

: analog strip chart recorder with variable scale deflection (standard setting is 100% for full scale) and separate pens for each frequency.

Sabre Electronics Airborne Magnetometer

The Proton Precession Magnetometer sensor is towed in a bird some 15 meters below the aircraft.

Sensitivity: ± 1 gamma.

Output: Total field, 20,000 - 100,000 gammas, potentiometer control and analog meter (4 position selector switch from 100 - 10,000 F.S.D.)

: Terminals for data output to any desired data recording system.

: Analog strip chart recorder with variable scale deflection (standard setting is 100 full scale).

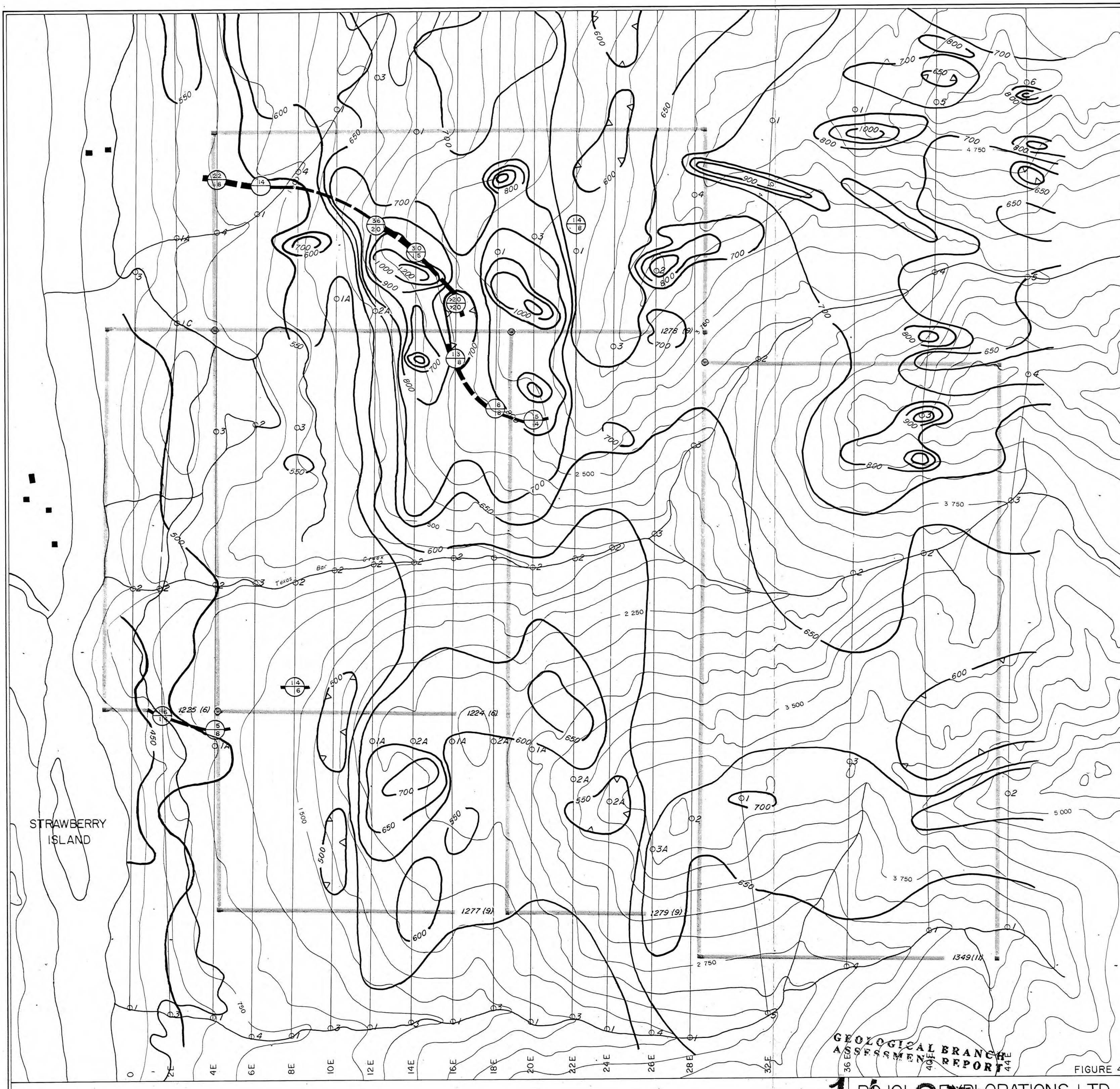


FIGURE 4

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ROJOLL EXPLORATIONS LTD.

RANDEB CLAIM GROUP

NEW WESTMINSTER M.D. NTS 92 H/6W

AEROMAGNETIC VLF-EM SURVEY

- ϕ3 Fiducial points
- —300— Magnetometer contour
- Roads
- Creeks
- Property boundry

- (10/9) VLF-EM field strength (Seattle / Annopolis)
- Moderate EM conductor
- Weak EM conductor
- Very weak EM conductor

NOTES:
- Total field magnetic survey — Datum 56 000 gammas
- Instruments - Sabre Electronics Airborne Proton Magnetometer
  - VLF-EM 2 Channel receiver (Seattle & Annopolis)
- Contour interval 50 and 100 gammas

PROFESSIONAL GEOLOGIST ALBERTA — ROBERT R. ARNOLD

SCALE: 1:1000
100 0 200 400 600 800

To accompany a report by A.E. Hunter, Geophysicist, R.R. Arnold, P. Geologist.

DRAWN BY: TS/AEH | DATE: February, 1986

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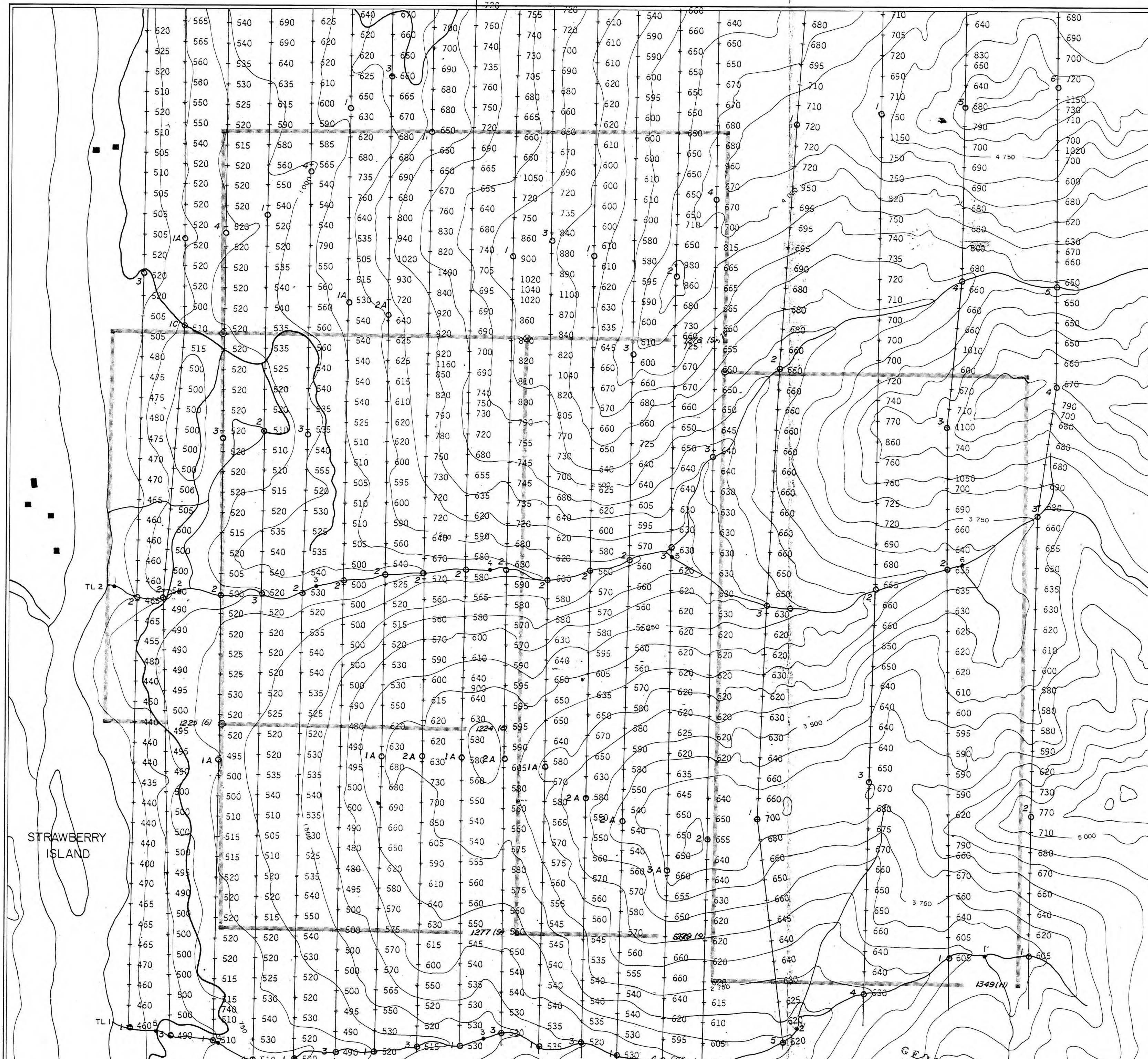

FIGURE 5

6 ⌽ 510 Fiducial and magnetometer reading (gammas)

5 • Tie line fiducial markers

TL I Tie line (flown on creek)

Roads

Creeks

Property boundry

NOTES:

- Total field magnetic survey — Datum 56 000 gammas
- Instruments - Sabre Electronics Airborne Proton Magnetometer
  - VLF—EM 2 Channel receiver (Seattle & Annopolis)

PROFESSIONAL GEOLOGIST ALBERTA ROBERT R. ARNOLD

SCALE: 1:1000

100 0 200 400 600 800

ROJOLL EXPLORATIONS LTD.

RANDEB CLAIM GROUP

NEW WESTMINSTER M.D. NTS 92 H/6W

AEROMAGNETIC DATA MAP

To accompany a report by A.E. Hunter, Geophysicist, R.R. Arnold, P.Geologist.

DRAWN BY: TS/AEH | DATE: February, 1986

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