

LOG NO: JUL 19 1993 RD.
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FILE NO.

VLF-EM and Magnetometer Survey Assessment Report

on the

Contact and Anna Claim

SUB-RECORDER
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JUN 22 1993
M.R. #..... \$.....
VANCOUVER, B.C.

Harrison Lake Area
(New Westminster M.D.)

(N.T.S. 92H/5E)

Latitude: 49° 17' North
Longitude: 121° 44' West

for

Owner

Les Demczuk
1835 East 13th Ave.
Vancouver, B.C. V5N 2B9

and

Operator

Pickwick Explorations Ltd.
3894 West 37th Ave.
Vancouver, B.C. V6N 2W3

David L. Cooke, Ph.D., P. Eng.
D.L. Cooke and Associates Ltd.
811 - 675 West Hastings Street
Vancouver, B.C.
V6B 1N2

October 31, 1992

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Summary

The Contact and Anna mineral claims (29 claim units) cover skarn mineralization at the southeast end of Harrison Lake, 100 kilometers east of Vancouver, B.C.

The area of the claims is rugged, with elevations ranging from 60 to 800 meters. Access is by paved road, 8 kilometers northeast of Agassiz, B.C. The recorded owner is Les Demczuk of Vancouver, B.C.

Previous work between 1917 and 1922 consisted of a short adit and two open cuts within garnet-tremolite skarn on the south slope of Bear Mtn. High grade copper samples collected during this period returned minor gold and silver values. The mineralization was reported as copper carbonates, chalcopyrite, and chalcocite at the contact of crystalline limestone and granodiorite. At least three adits were driven on the adjacent Empress claims to the west, where the contact skarn contained copper and molybdenum.

In the Harrison Lake area, precious metal deposits and prospects occur in Middle Jurassic volcanic and sedimentary rocks within a major northwest structural belt, and in close proximity to mid-Tertiary diorite and quartz diorite plutons. Volcanogenic massive sulphide deposits also occur within the Middle Jurassic rocks. Contact skarns, containing copper with lesser molybdenum, gold and silver, occur in pre-Jurassic limestones.

This geophysical survey was carried out to complement a geochemical survey covering the same area. Three VLF - EM linears found on the property should be investigated further.

Introduction

A VLF-EM and magnetometer survey was carried out to complement a soil survey completed earlier in the year on the contact claim. The soil grid was extended south onto the Anna claim.

Property

The property consists of the Contact and Anna claims. The government claim data is as follows:

<u>Claim</u>	<u>Units</u>	<u>Record Number</u>	<u>Date of Record</u>
Contact	9	300545	June 1, 1991
Anna	20	309406	May 21, 1992

Les Demczuk of Vancouver, B.C. is the recorded owner of the Contact and Anna claims.

The Contact claim covers the area previously held by a claim of the same name.

Location and Access

Latitude: 49° 17'N; Longitude: 121° 44'W
New Westminster M.D. N.T.S. 92H/5E

The Contact and Anna mineral claims are located on the southwest side of Bear Mtn. in the New Westminster Mining Division. The claim is situated approximately 8 kilometers northeast of Agassiz, B.C. and 3 kilometers southeast of Harrison Hot Springs, B.C.

The claim may be reached by paved road (Highway 7) which runs east from Agassiz, via the Seabird Island community. Old fourwheel drive roads provide good access within the claim block. The property lies approximately 100 kilometers east of Vancouver, B.C., as the crow flies.

The topography of the claims is rugged, with elevations ranging from 60 metres at the Fraser River to 800 metres at the highest point on Bear Mtn. The area is moderately forested with a mixture of conifers and deciduous trees. The climate is generally wet and mild year-round. Snowfall is minimal and exploration work may be conducted on the claims throughout the year.

Harrison Hot Springs, Agassiz and Mission, B.C. provide excellent infrastructure and power to support exploration and mining in the area. The Canadian Pacific rail line from Agassiz to Vancouver passes through the southeastern corner of the property. The Lougheed Highway runs adjacent to the railway line.

History of the Property

Placer gold was discovered in river bars of the Fraser River near Yale in 1958. This encouraged continuous active exploration for lode gold deposits in the Hope Harrison Lake area since that time. In the immediate Harrison Lake area two precious metal deposits (Doctor's Point and RN-Geo) and one massive sulphide deposit (Seneca) were discovered in the past 20 years.

The first record of work on the Contact claim appeared in the 1922 B.C. Minister of Mines Report (p. N253). Work at the time consisted of two open cuts on lenses and fissures of chalcopyrite mineralization. A glory hole was excavated to a depth of 5.5 metres, with surface dimensions of 8.5 by 5.5 metres. Assays of 15% Cu, 5.6 oz.Ag and 0.02 oz.Au were reported from some of this skarn mineralization located in a crystalline limestone unit. There is no record of other significant exploration work on this property in recent times, except for geological and geochemical work reported in a report by Cooke, 1992.

1992 Exploration Program

The existing soil grid (Cooke 1992) was extended south of line 700N to include lines 600, 500 and 450N using hip-chain and compass. Stations were marked at 25m intervals. Due to overhead power lines, however, reliable data could not be obtained south of line 900N.

A Scintrex IGS-2 VLF-EM-Magnetometer was used to survey the area from line 900 north. Profiles and contoured maps of this data are located in the pocket of this report. The Hawaii transmitting station was used for the VLF-EM survey.

Work on the property was carried out on September 1 and 2, 1992.

Geology

Regional Geology (Figure 3)

The most prominent geological feature of the area is the Harrison Lake fracture system (Figure 3). This is the major northwest trending fault system, which separates older rocks on the east side from younger and contrasting rocks on the west side of Harrison Lake. Pennsylvanian to Permian limestones and sediments (Chilliwack Group) occur, together with gneissic rocks, on the east side of Harrison Lake (Ray, 1984, p.43). By contrast the rocks on the southwest side of the fracture system are generally younger and less deformed. These younger rocks consist of a variety of volcanic flows, volcanoclastic and sedimentary rocks of Mesozoic age, intruded by plutonic rocks of granite to diorite composition.

The Harrison Lake Group is the main lithology on the southwest side of Harrison Lake, consisting predominantly of andesites and dacites of Middle Jurassic age. The Fire Lake Group, located northwest of Harrison Lake, is lower Cretaceous in age and consists of coarse and fine-grained sedimentary rocks with a lesser volcanic component.

Precious metal mineralization and hot spring activity are associated with the Harrison Lake fracture

system (Figure 3). The gold is hosted by sulphide-bearing quartz veins and stockworks that cut metasedimentary, volcanic and associated quartz diorite and diorite plutons of mid-Tertiary age. Gold occurs in the free state and as silver and bismuth tellurides with or without base metals. The three main deposits which have been outlined to date in the Harrison Lake area by drilling are:

<u>Deposit</u>	<u>Reserves (Tons)</u>	<u>oz. Au/T</u>
RN-Geo	2,400,000 (probable)	0.12
Doctor's Point	132,000 (probable)	0.10
Seneca	1,660,000 3.6% Zn 0.63% Cu 1.20 oz.Ag/T	0.024

Property Geology and Mineralization (Figure 4)

The property geology comprises a package of Permian or Pennsylvanian carbonates, sandstones and minor volcanics of the Chilliwack Group, within the area covered by most of the grid. These units strike approximately 300° with a 70° easterly dip, and they are overlain to the east by Jurassic sandstones which occur just east of the grid.

The sedimentary units are intruded by a large body of hornblende-biotite granodiorite (unit B, Oligocene Chilliwack Batholith) extensively developed south of Line 1,000N, and west of the baseline to 1,500N. A small intrusion of Unit B, found on line 1600N, indicates that the sedimentary package may be a septum or roof pendant virtually engulfed by granodiorite and hence intensely metamorphosed. The crystalline nature of quartz-rich metasediments suggest an intense contact metamorphic event has occurred. The limestone bed has been converted to marble containing zones of tremolite, diopside, garnet and wollastonite.

Copper mineralization found on the property is confined to the two open cuts on Line 1,300N and consists of chalcopyrite and malachite within garnet-diopside or garnet-tremolite skarn developed over several metres. These lenses were the focus of early exploration of the property.

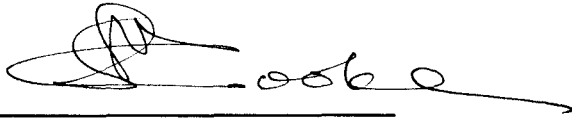
Geophysics (Figure 1-4 in pocket)

Profiles and contour maps presenting the information obtained using a Scintnex IGS-2 instrument are located in the pocket. Quest Canada Exploration Services Ltd. carried out the geophysical survey.

Conclusions and Recommendations

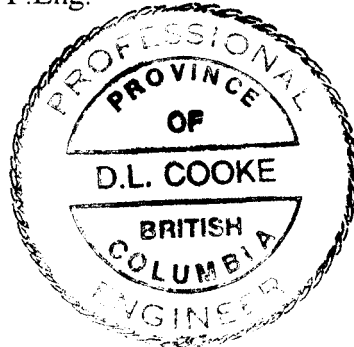
Magnetometer contours generally corroborate previous mapping. Three VLF-EM linear trends evident on the Fraser filtered map should be investigated further.

Reported by:
D.L. Cooke & Associates Ltd.



David L. Cooke, Ph.D., P.Eng.

October 31, 1992



Statement of Exploration Expenses

Geologist	L.Demczuk, P.Geo	Grid layout & supervision	2 days @ \$325	\$ 650.00
Geophysics	Quest Canada Exploration Services Ltd., Contract			\$ 959.75
	Robert Brown, Operator. 7.8 line-km			
4x4 Truck	3 days @ \$125			\$ 375.00
Domicile	4 man days @ \$50			\$ 200.00
Field Supplies				\$ 25.00
Mobilization -Demobilization				\$ 250.00
Report				<u>\$ 600.00</u>
			<u>Total</u>	<u>\$3,059.75</u>

References

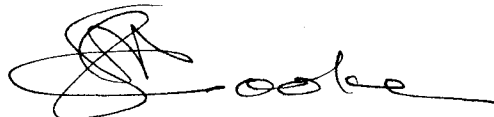
- Annual Report of the Minister of Mines, Province of British Columbia, 1922; Anna Group, p. N253.
- Annual Report of the Minister of Mines, Province of British Columbia, 1931; Empress Group, p. A176.
- Airborne Magnetic Survey, 1972; Map 7687G, Hope, B.C., Department of Energy, Mines and Resources, Ottawa.
- Cooke, D.L. 1992. Geochemical Assessment Report on the Contact Claim. For owner L. Demiczuk. Filed for assessment.
- Ray, G.E., 1986, Gold Associated with a Regionally Developed Mid-Tertiary Plutonic Event in the Harrison Lake Area, Southwestern B.C., B.C. Ministry of Energy, Mines and Petroleum Resources, Geological Fieldwork 1985, Paper 1986-1, pp. 95 - 97.
- Ray G.E., 1985, Geological Summaries of Gold Deposits in the Harrison Lake Area, Southwestern B.C., B.C. Ministry of Mines - Summaries of Activities 1981-1989.

Appendix III

Statement of Qualifications

I, David Lawrence Cooke, of the Municipality of Surrey in the Province of British Columbia, hereby certify:

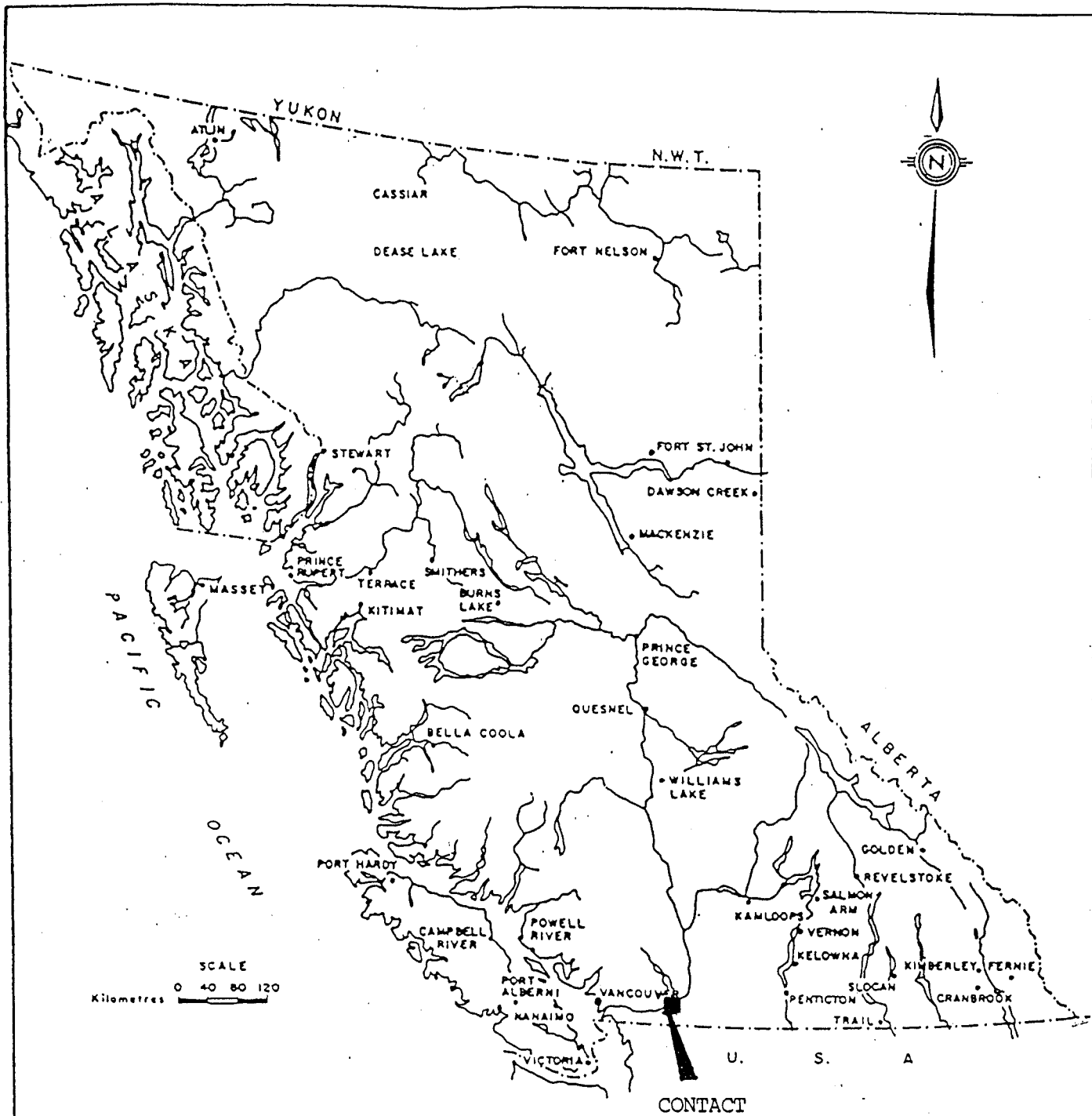
1. That I am a Consulting Geologist, residing at 10667 Arbutus Wynd, Surrey, B.C., V4N 1W5, with a business office at 811-675 West Hastings Street, Vancouver, B.C., V6B 1N2.
2. That I graduated with a B.Sc degree in Geology from the University of New Brunswick in 1959, with M.A. and Ph.D. degrees in Geology from the University of Toronto in 1961 and 1966 respectively.
3. That I have practiced my profession as an exploration geologist from 1959 to the present time in Canada, the U.S.A., Mexico, the Caribbean and South America. _____
4. That I have been a registered member since the 1970 of the Association of Professional Engineers and Geoscientists of the Province of British Columbia.
5. That I am personally familiar with the geology of the Harrison Lake area, the RN-Geo and Seneca deposits, and that I examined the Contact mineral claim on June 22, 1992.
6. That I have no interest in the Contact mineral claim.



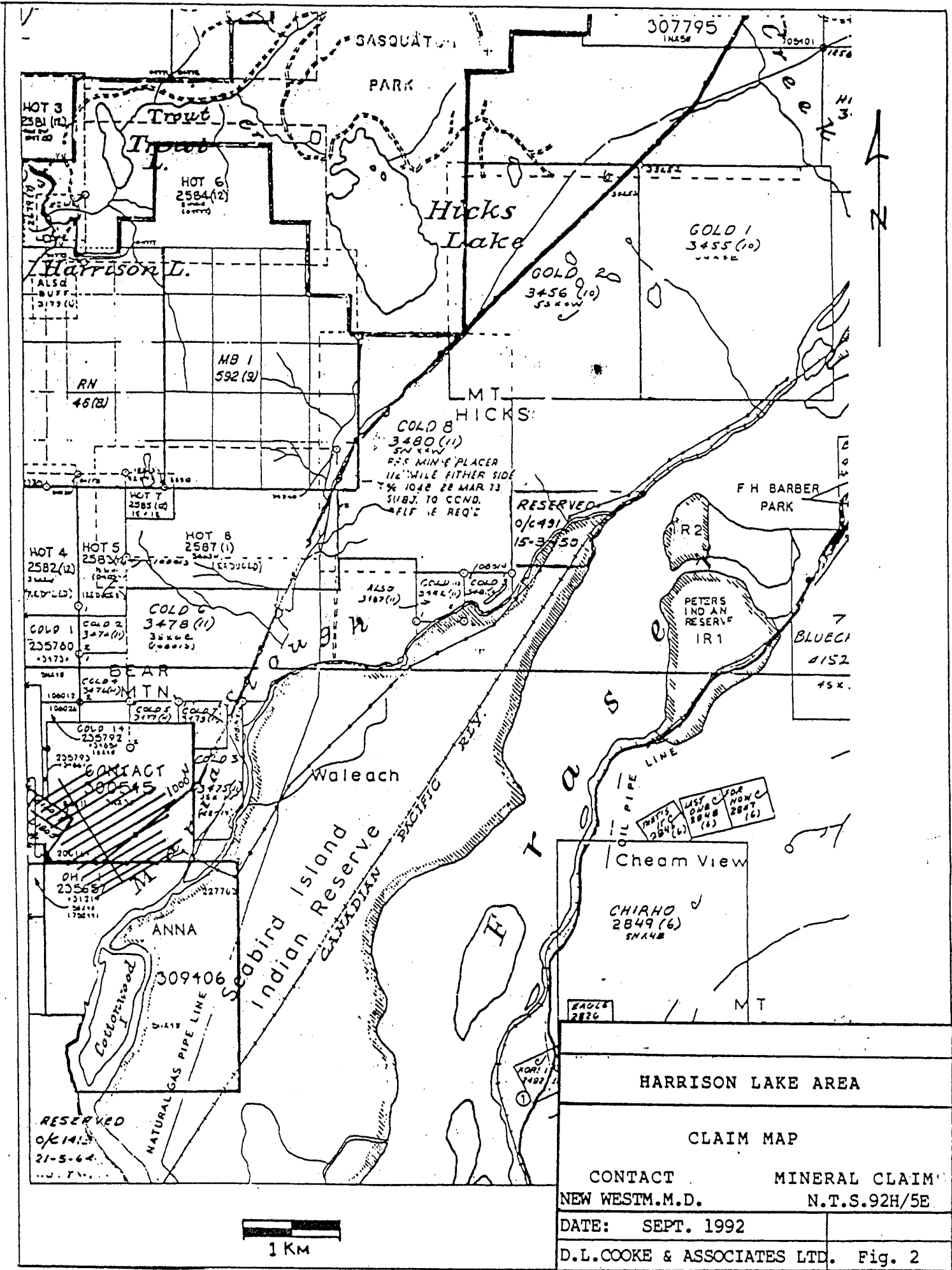
David L. Cooke, Ph.D., P. Eng.

October 1, 1992





EQUITABLE ENTERPRISES CORP.	
HARRISON LAKE AREA	
LOCATION MAP	
CONTACT AND ANNA MINERAL CLAIMS	
New Westminster M.D.	
NTS 92H/5E	
D. L. COOKE & ASSOCIATES LTD.	OWN. BY: _____
CHK. BY: _____	DATE: Sept/92
SCALE: AS SHOWN	FIGURE 1



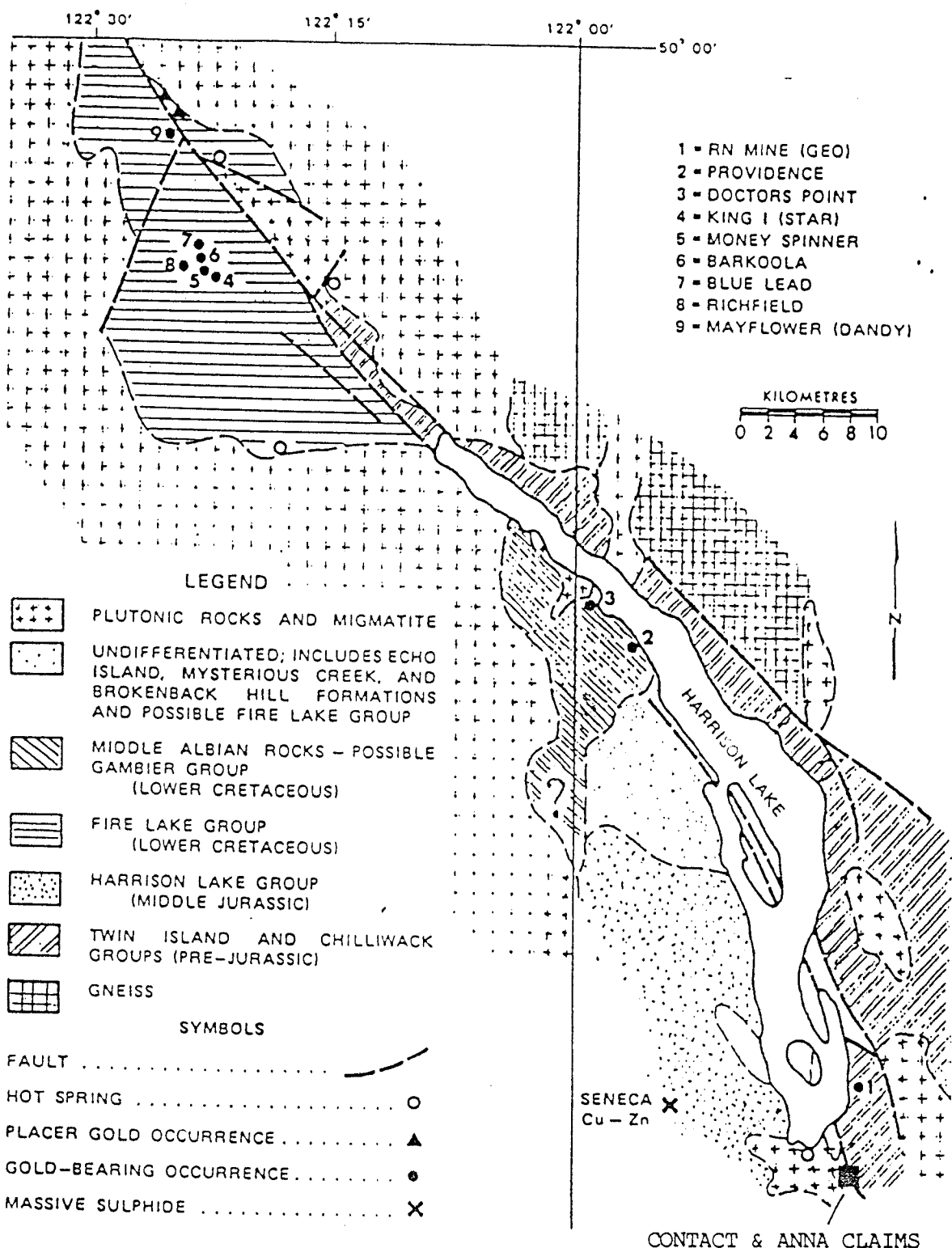
HARRISON LAKE AREA

CLAIM MAP

CONTACT MINERAL CLAIM
 NEW WESTM.M.D. N.T.S.92H/5E

DATE: SEPT. 1992

D.L.COOKE & ASSOCIATES LTD. Fig. 2



- 1 - RN MINE (GEO)
- 2 - PROVIDENCE
- 3 - DOCTORS POINT
- 4 - KING I (STAR)
- 5 - MONEY SPINNER
- 6 - BARKOOLA
- 7 - BLUE LEAD
- 8 - RICHFIELD
- 9 - MAYFLOWER (DANDY)



LEGEND

- PLUTONIC ROCKS AND MIGMATITE
- UNDIFFERENTIATED; INCLUDES ECHO ISLAND, MYSTERIOUS CREEK, AND BROKENBACK HILL FORMATIONS AND POSSIBLE FIRE LAKE GROUP
- MIDDLE ALBIAN ROCKS - POSSIBLE GAMBIER GROUP (LOWER CRETACEOUS)
- FIRE LAKE GROUP (LOWER CRETACEOUS)
- HARRISON LAKE GROUP (MIDDLE JURASSIC)
- TWIN ISLAND AND CHILLIWACK GROUPS (PRE-JURASSIC)
- GNEISS

SYMBOLS

- FAULT
- HOT SPRING
- PLACER GOLD OCCURRENCE
- GOLD-BEARING OCCURRENCE
- MASSIVE SULPHIDE

SENECA
Cu - Zn

CONTACT & ANNA CLAIMS

HARRISON LAKE AREA	
REGIONAL GEOLOGY	
New Westminster M.D. N.T.S.92H/5E	
Date: Sept. 1992	
D.L.COOKE & ASSOCIATES	Fig. 3

LEGEND

f₆₀ - Strike and dip, compositional layering

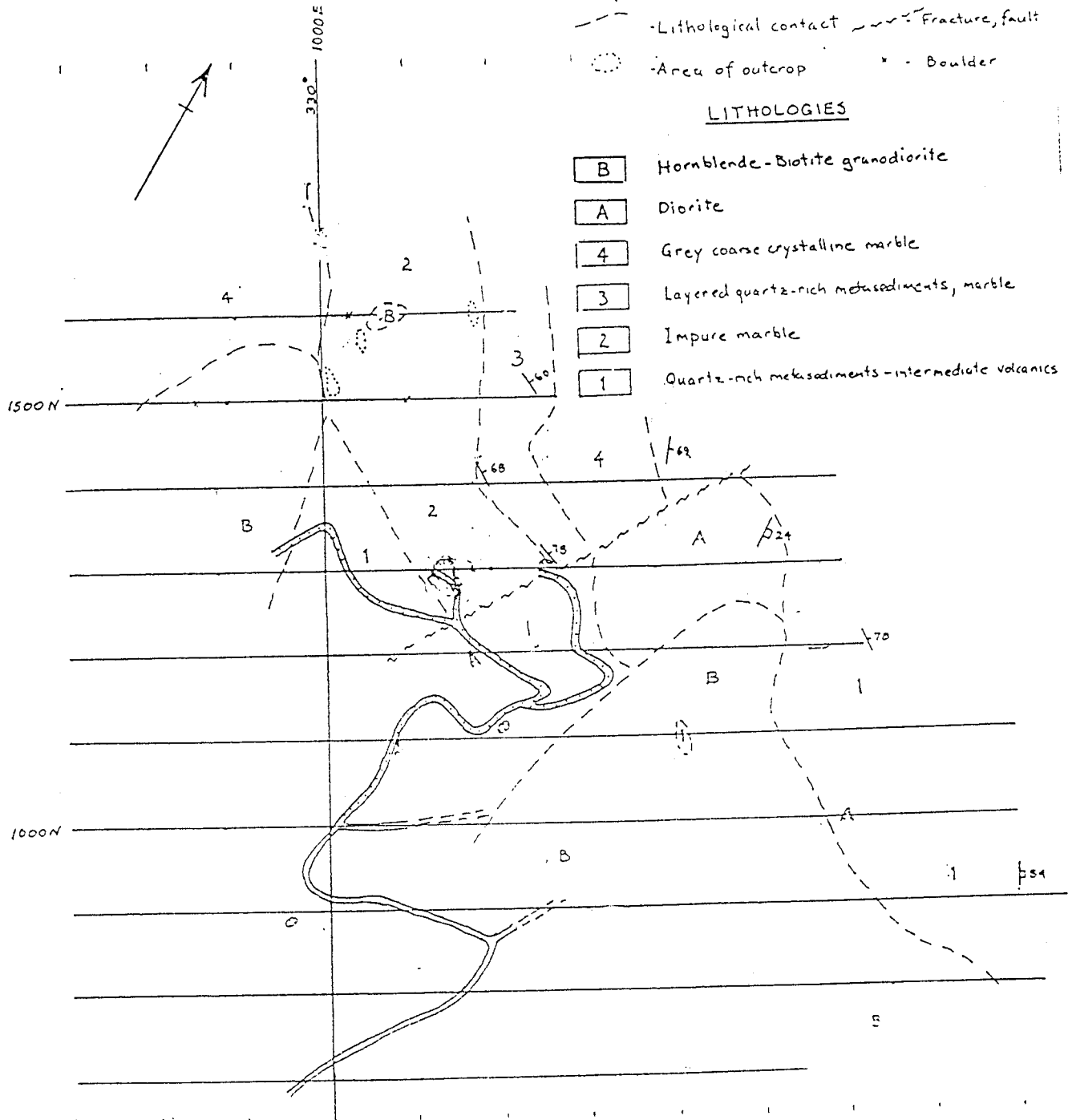
f₇₀ - Strike and dip, fracture

- - - Lithological contact - - - Fracture, fault

○ Area of outcrop * - Boulder

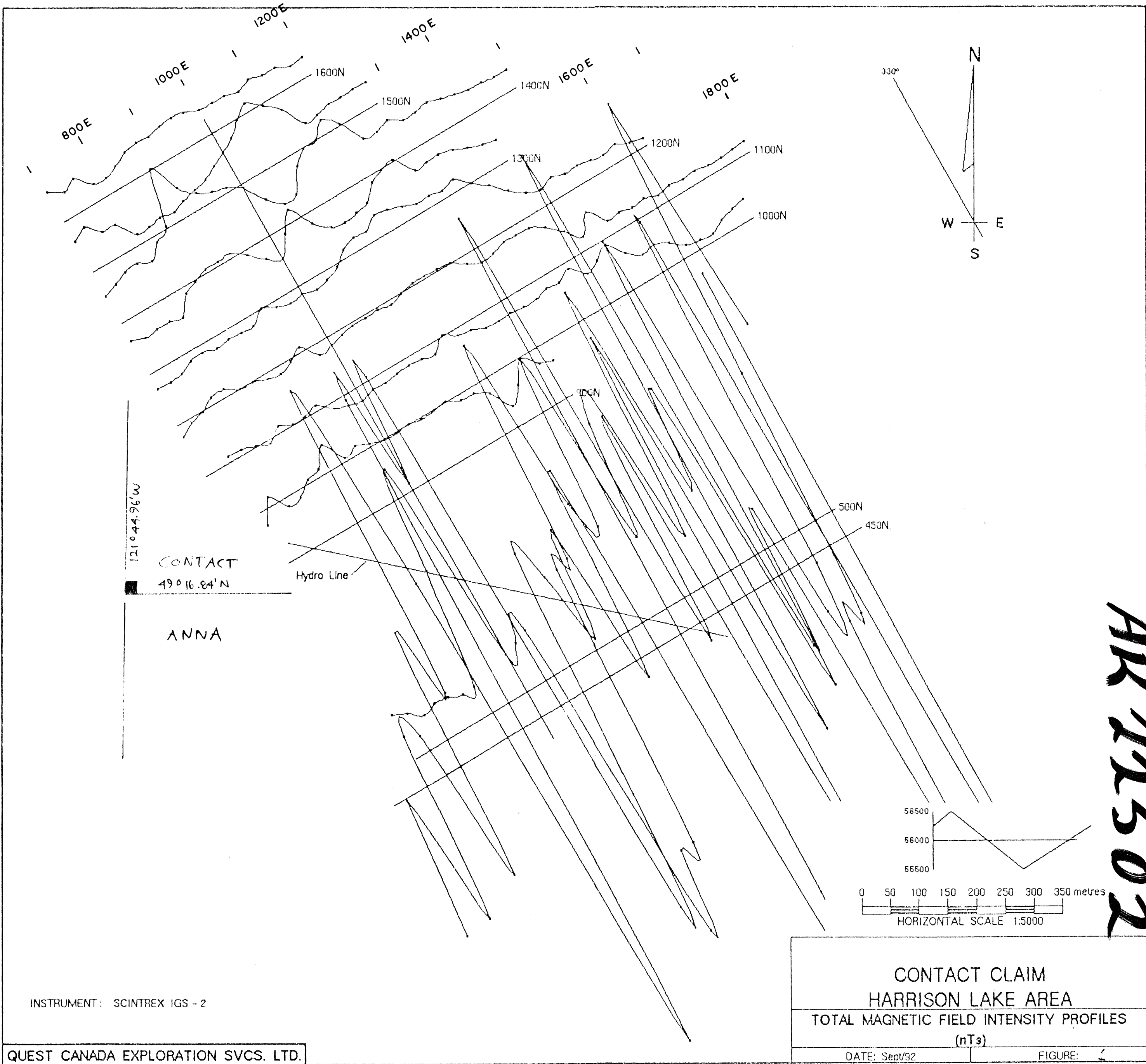
LITHOLOGIES

- B Hornblende-Biotite granodiorite
- A Diorite
- 4 Grey coarse crystalline marble
- 3 Layered quartz-rich metasediments, marble
- 2 Impure marble
- 1 Quartz-rich metasediments - intermediate volcanics



— Access road
 - - - Overgrown road, impassable

HARRISON LAKE AREA	
SIMPLIFIED PROPERTY GEOLOGY	
NEW WESTM. M.D.	N.T.S.92H/5E
DATE: SEPT. 1992	
D.L.COOKE & ASSOCIATES	Figure 4

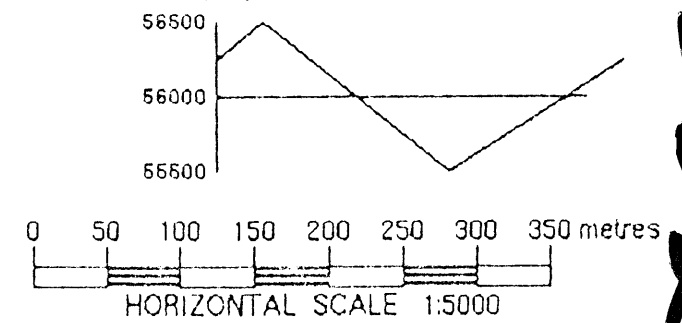


121°44.96'W

CONTACT
49°16.84'N

ANNA

Hydro Line

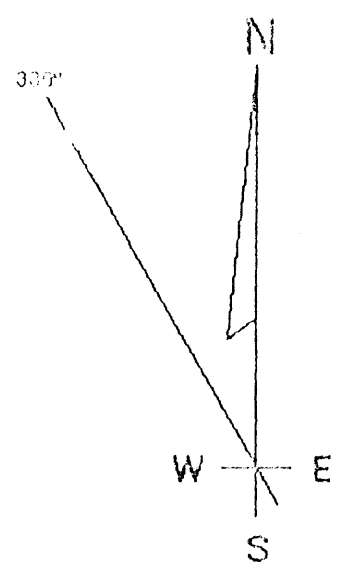
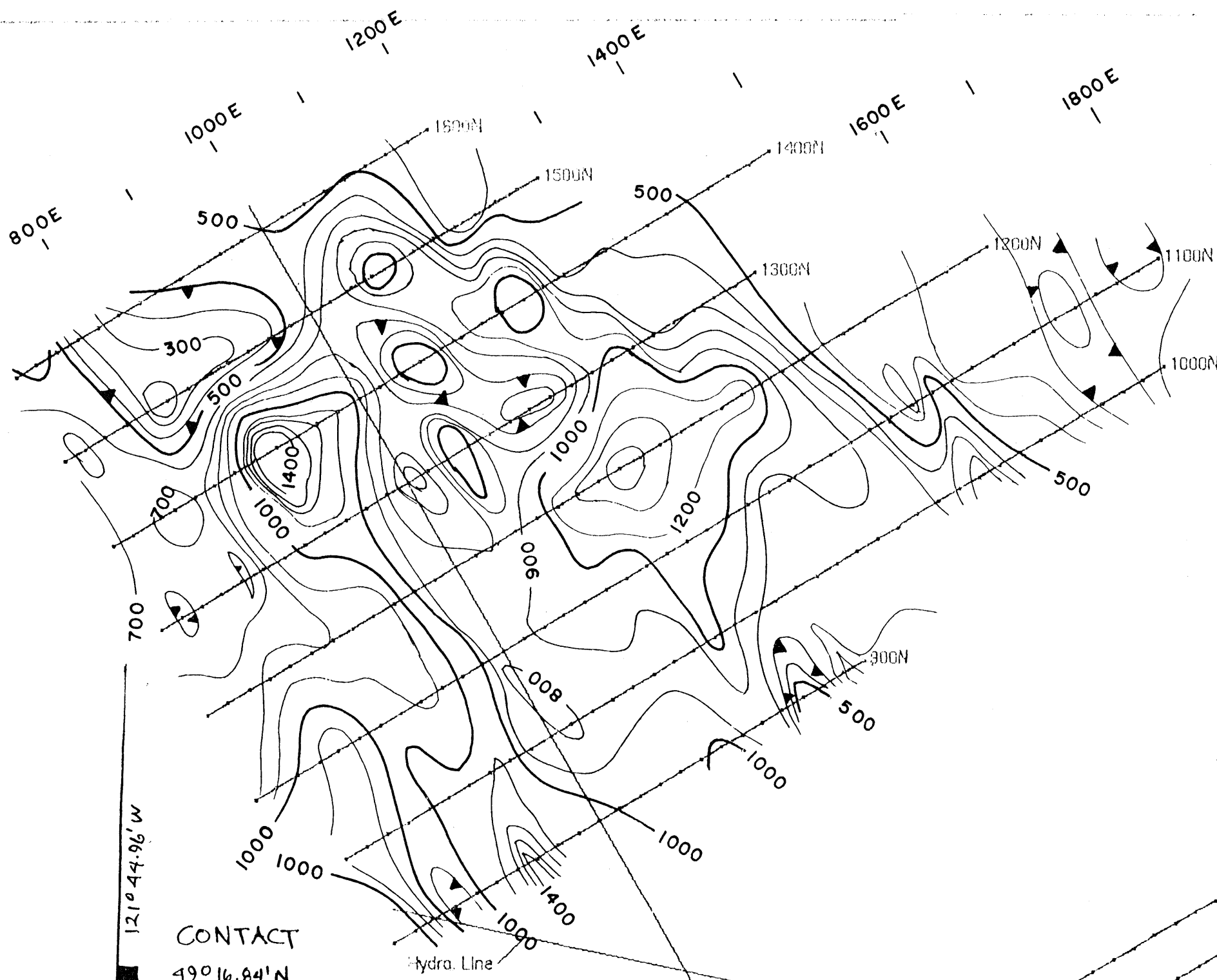


AR 11502

INSTRUMENT: SCINTREX IGS - 2

QUEST CANADA EXPLORATION SVCS. LTD.

CONTACT CLAIM
HARRISON LAKE AREA
TOTAL MAGNETIC FIELD INTENSITY PROFILES
(nT_z)
DATE: Sep/92 FIGURE: 4



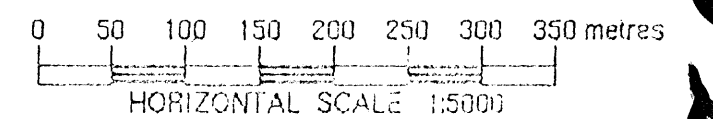
CONTACT
121° 44.96' W
49° 16.84' N

ANNA

hydra. Line

KEY

MAGNETIC BASE: 56000 nTs
CONTOUR INTERVAL: 100nTs

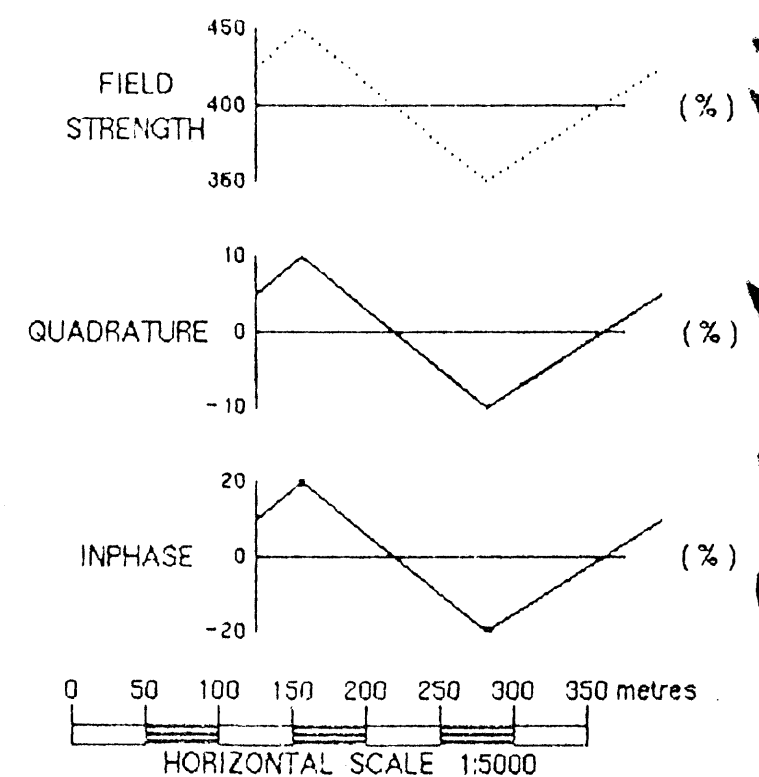
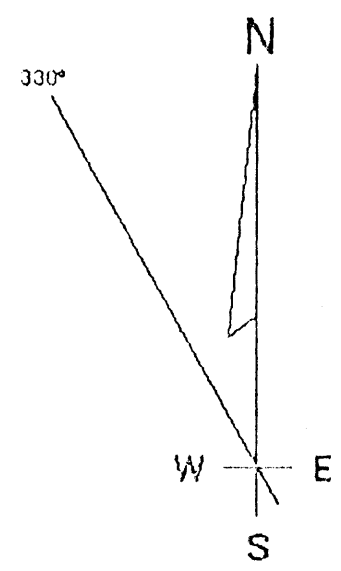
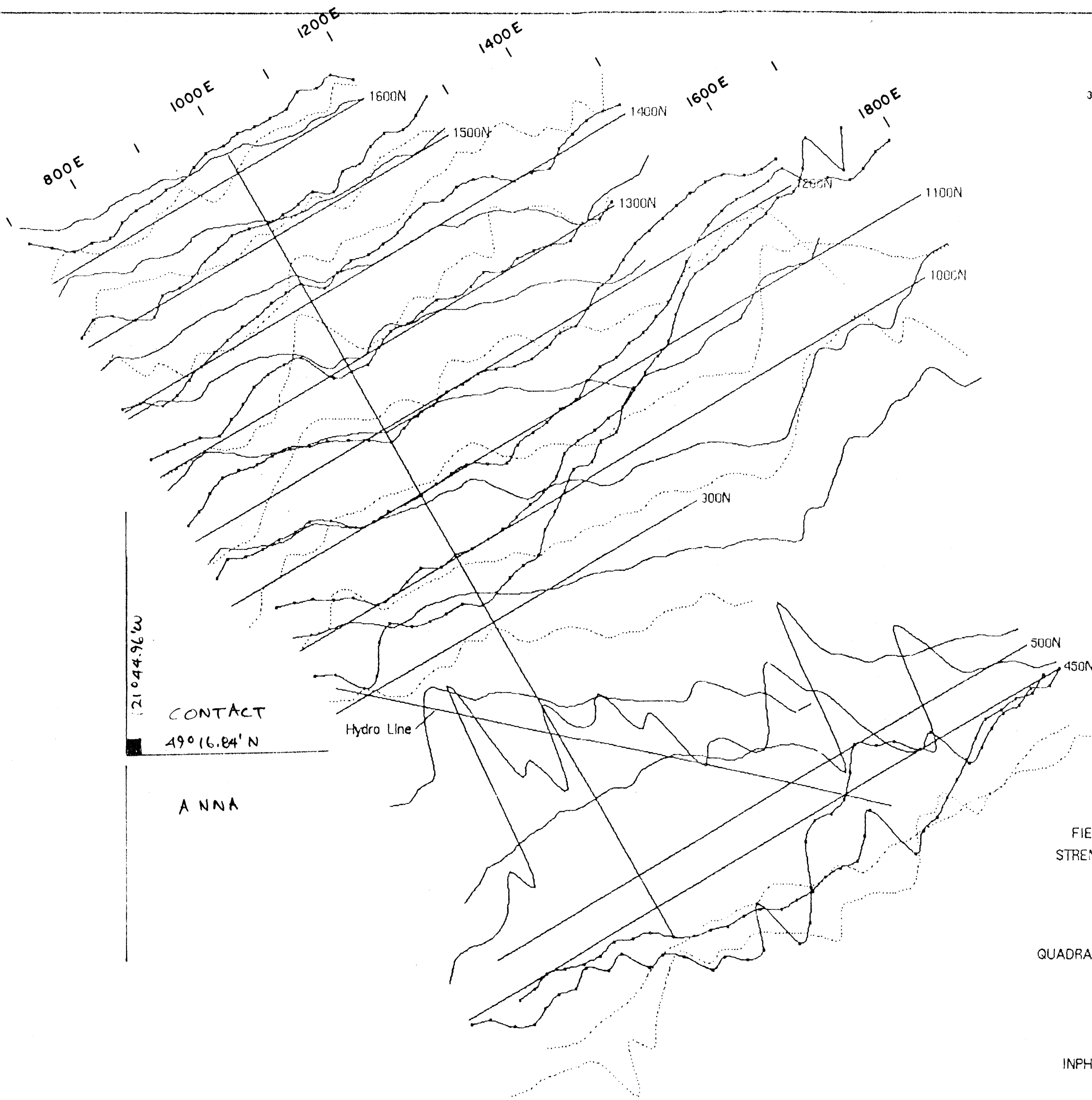


INSTRUMENT: SCINTREX IGS - 2

QUEST CANADA EXPLORATION SVCS. LTD.

CONTACT CLAIM HARRISON LAKE AREA TOTAL MAGNETIC FIELD INTENSITY CONTOUR MAP	
DATE: Sept/92	FIGURE: 2

AR 22502

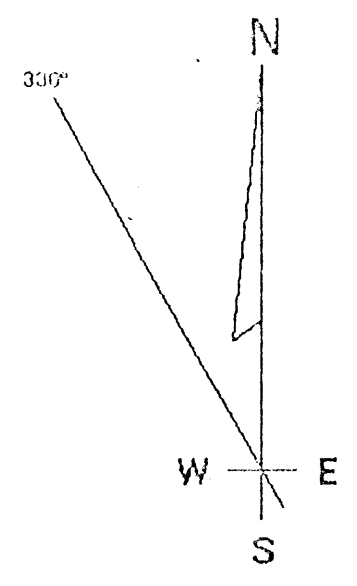
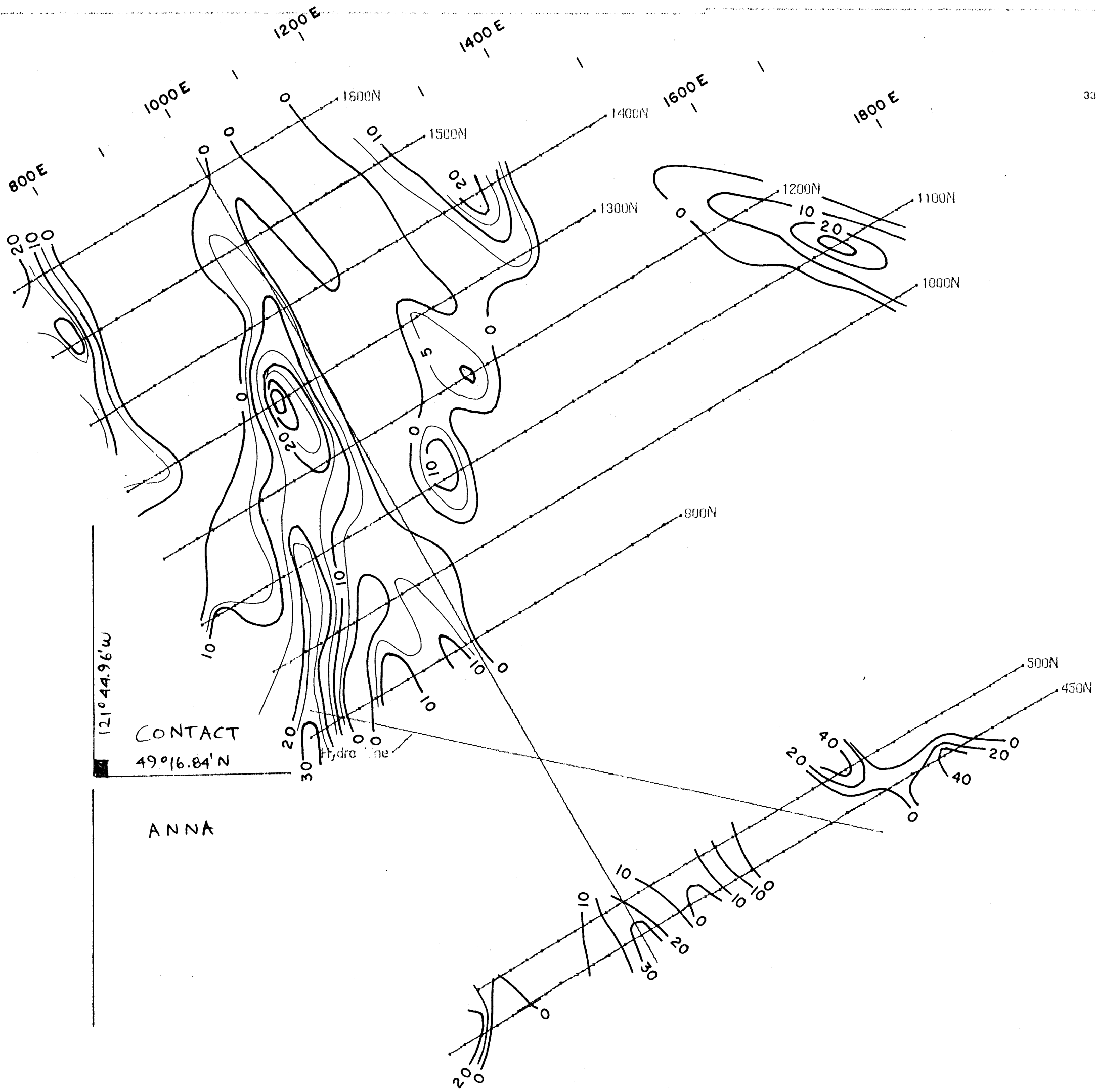


INSTRUMENT: SCINTREX IGS - 2

QUEST CANADA EXPLORATION SVCS. LTD.

CONTACT CLAIM
 HARRISON LAKE AREA
 VLF - EM PROFILES
 DATE: Sept/92 FIGURE: 3

AR 22502

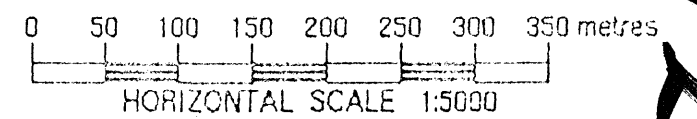


121°44.96'W

CONTACT
49°16.84'N

ANNA

Hydro line



INSTRUMENT: SCINTREX IGS - 2

QUEST CANADA EXPLORATION SVCS. LTD.

CONTACT CLAIM
HARRISON LAKE AREA
VLF - EM SEATTLE (24.8 kHz)
FRASER FILTERED INPHASE CONTOUR MAP
DATE: Sept/92 FIGURE: 4

AR 12502