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GEOPHYSICAL REPORT

on the

LC-1 and HOM 1 to 6 Claims

Logan Lake Area
Kamloops Mining Division

92I-7E
(50° 26' N. Lat., 120° 42' W. Long.)

for

GRANT F. CROOKER
Box 404
Keremeos, B.C.
VOX 1N0
(OWNER AND OPERATOR)

by

GRANT F. CROOKER, B.Sc., P.Geo.,
CONSULTING GEOLOGIST

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

May, 1992

22,366

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SUMMARY AND RECOMMENDATIONS

The Dupont Lake property consists of one modified grid and six two post mineral claims covering 26 units in the Kamloops Mining Division. The property is located approximately 14 kilometers southeast of Logan Lake in southern British Columbia. Grant Crooker of Keremeos B.C., is the owner of the property.

The general area of Kamloops-Merritt has been the scene of intense exploration and mining activity for over 100 years. The exploration culminated with the discovery and development of the bulk tonnage copper-molybdenum deposits at Craigmont, Afton and the Highland Valley.

Exploration has been carried out in the vicinity of the Dupont Lake property since the late 1880's with six mineral occurrences (figure 5) having been documented. These include the Bertha/Molly, Plug (Meadow Creek), Chatrands, JHC, Rhyolite and Pom Pom. Shaft sinking, trenching, drilling, prospecting and geological, geochemical and geophysical surveying have been carried out on the showings.

The Dupont Lake property covers the area of the Bertha/Molly and JHC showings. Upper Triassic Nicola Group volcanic and sedimentary rocks underlie the property. Copper mineralization occurs within shears and as fracture fillings within the Nicola Group. Previous work on the showings up until the 1970's has included shaft sinking, trenching and diamond drilling.

During the period 1986 through 1988 Western Resource Technologies Inc. carried out geological, geochemical and geophysical surveys over the Dupont Lake Grid (figure 4). This work outlined a number of copper soil geochemical anomalies in the general vicinity of the Bertha/Molly showing. An Induced Polarization survey over the Bertha/Molly showing indicated a low intensity chargeability zone which could be caused by concentrations of sulphide minerals such as pyrite and chalcopyrite.

The 1992 program consisted of establishing fill in grid lines south of the Bertha/Molly showing and carrying out magnetometer and VLF-EM surveys on them.

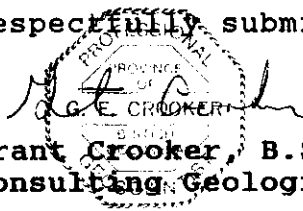
Magnetic data indicated high magnetic data over the survey area and most magnetic trends strike northwest-southeast. The magnetic highs are mostly narrow, linear features probably indicating more basic volcanic units within the volcanic pile. The magnetic lows are also narrow, linear features caused by less basic volcanic units or structural features. A number of the magnetic lows occur coincidentally with VLF-EM conductors.

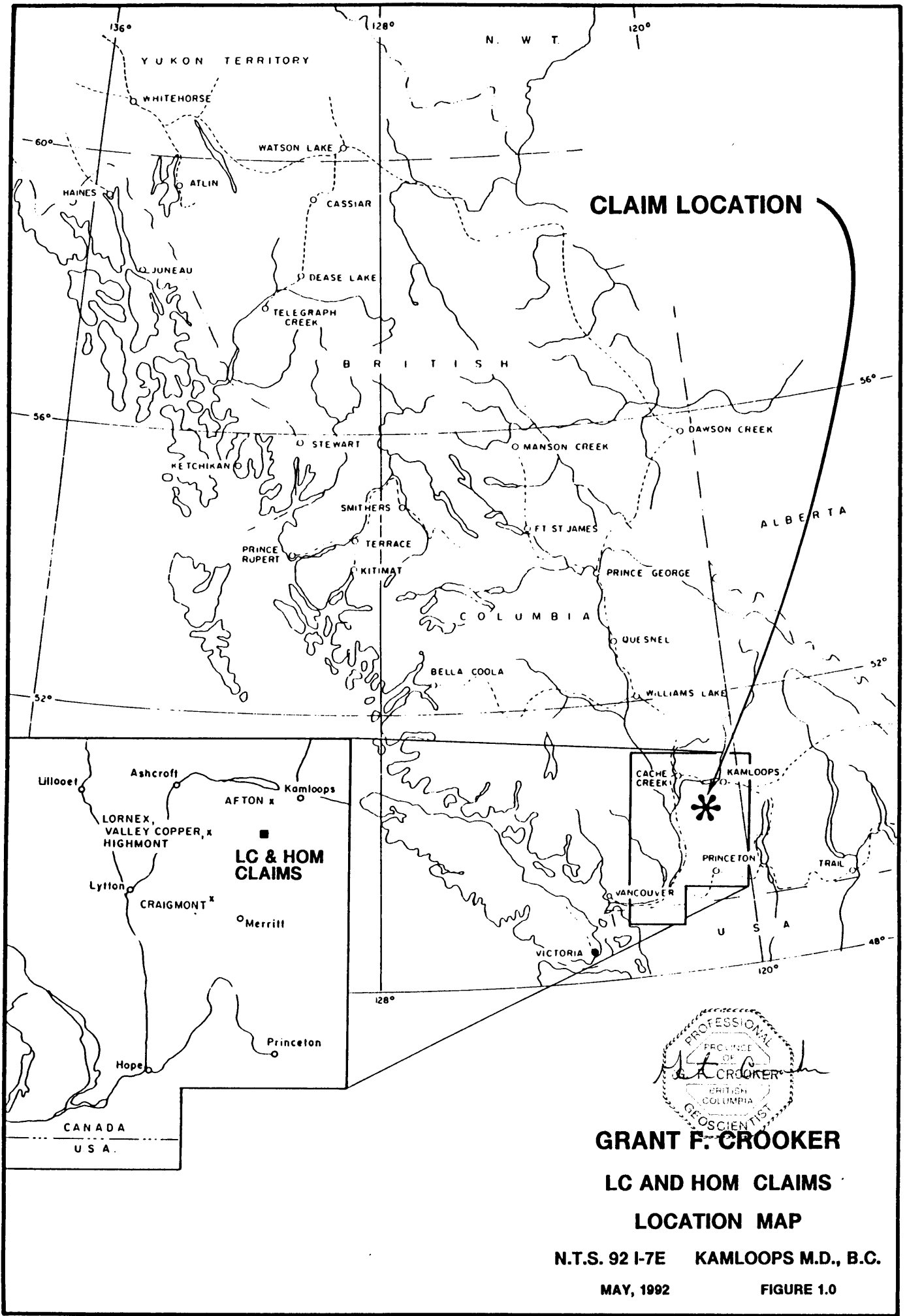
A large number of mainly weak to moderate, northwest-southeast trending VLF-EM conductors were outlined by the survey. Many of the conductors coincide with magnetic trends and are therefore considered to represent bedrock conditions. Several of the conductor systems occur coincidentally with the linear magnetic lows and are probably outlining fracture or shear zones, or faults.

Recommendations are as follows:

- 1) The grid should be extended several lines to the north to cover the Bertha/Molly and an unnamed showing, and magnetometer and VLF-EM surveys carried out over the grid lines.
- 2) Geological mapping and prospecting should be carried over the property, with particular emphasis on checking the geophysical features outlined by this survey and the Induced Polarization survey carried out in 1988.
- 3) A soil geochemical survey should be carried out over the grid.

Respectfully submitted,


Grant Crooker, B.Sc., P. Geo.,
Consulting Geologist



CLAIM LOCATION

LC & HOM CLAIMS



GRANT F. CROOKER

LC AND HOM CLAIMS

LOCATION MAP

N.T.S. 92 I-7E KAMLOOPS M.D., B.C.

MAY, 1992

FIGURE 1.0

1.0 INTRODUCTION

1.1 GENERAL

Field work was carried out on the property by Grant Crooker, geologist from May 3 to May 6 1992.

The work program consisted of establishing grid lines and carrying out VLF-EM and magnetometer surveying.

1.2 LOCATION AND ACCESS

The property (figure 1) is located approximately 14 kilometers southeast of Logan Lake in southern British Columbia. The property lies between 50°25'40" and 50°26'40" north latitude and 120°41' and 120°43' west longitude (NTS 92I-7E).

A network of roads give excellent access to the property. The Logan Lake-Kamloops Highway passes approximately 5 kilometers north of the claims and the Coquihalla Highway passes 6 kilometers east of the claims.

Access to the property is first along the Surrey Lake forest access road which turns off the Logan Lake-Kamloops Highway 14 kilometers east of Logan Lake and then along a four wheel drive road on a B.C. Hydro powerline. A number of four wheel drive roads give access to all areas of the property.

1.3 PHYSIOGRAPHY

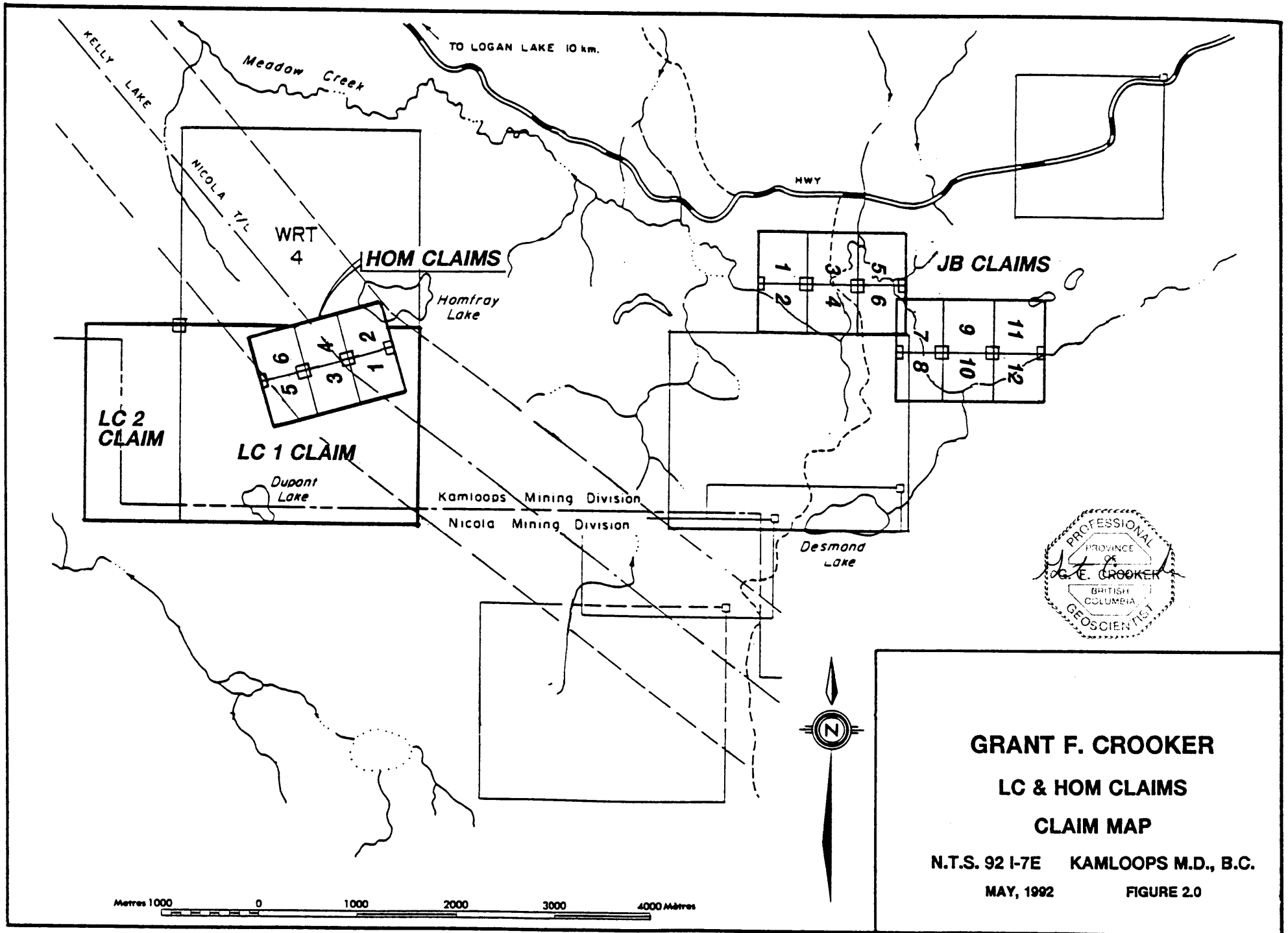
The property is located in the Interior Plateau of southern British Columbia. Topography is gentle to moderate with several steeper hills and elevation varies from 1280 to 1525 meters above sea level. Numerous swamps are found on the property and Dupont Lake is within the southern boundary of the LC-1 claim with Homfray Lake at the northeast corner of the property.

Vegetation varies from open grassy meadows to a forest cover of jackpine and fir trees.

1.4 PROPERTY AND CLAIM STATUS

The LC-1 and Hom 1 to 6 mineral claims (figure 2) are owned by Grant Crooker of Keremeos, B.C..

The property is located in the Kamloops Mining Division and consists of 1 modified grid claim and 6 two post claims covering 26 units.



GRANT F. CROOKER
LC & HOM CLAIMS
CLAIM MAP

N.T.S. 92 I-7E KAMLOOPS M.D., B.C.
MAY, 1992 **FIGURE 2.0**

Claim	Units	Mining Division	Tenure Number	Record Date	Expiry Date
LC-1	20	Kamloops	219911	05/10/91	05/10/95*
Hom-1	1	Kamloops	304771	09/17/91	09/17/95*
Hom-2	1	Kamloops	304772	09/17/91	09/17/95*
Hom-3	1	Kamloops	304773	09/17/91	09/17/95*
Hom-4	1	Kamloops	304774	09/17/91	09/17/95*
Hom-5	1	Kamloops	304775	09/17/91	09/17/95*
Hom-6	1	Kamloops	304776	09/17/91	09/17/95*

* Upon Acceptance of this report.

1.5 AREA AND PROPERTY HISTORY

The area encompassed by a triangle with apices at Ashcroft, Kamloops and Merritt has been, over the past century the scene of intense exploration activity. This activity culminated with the discovery and development of the porphyry copper-molybdenum mines in the Highland Valley, the Craigmont mine near Merritt and the Afton mine near Kamloops. Earlier smaller mines with good copper-gold values were worked south of Kamloops Lake.

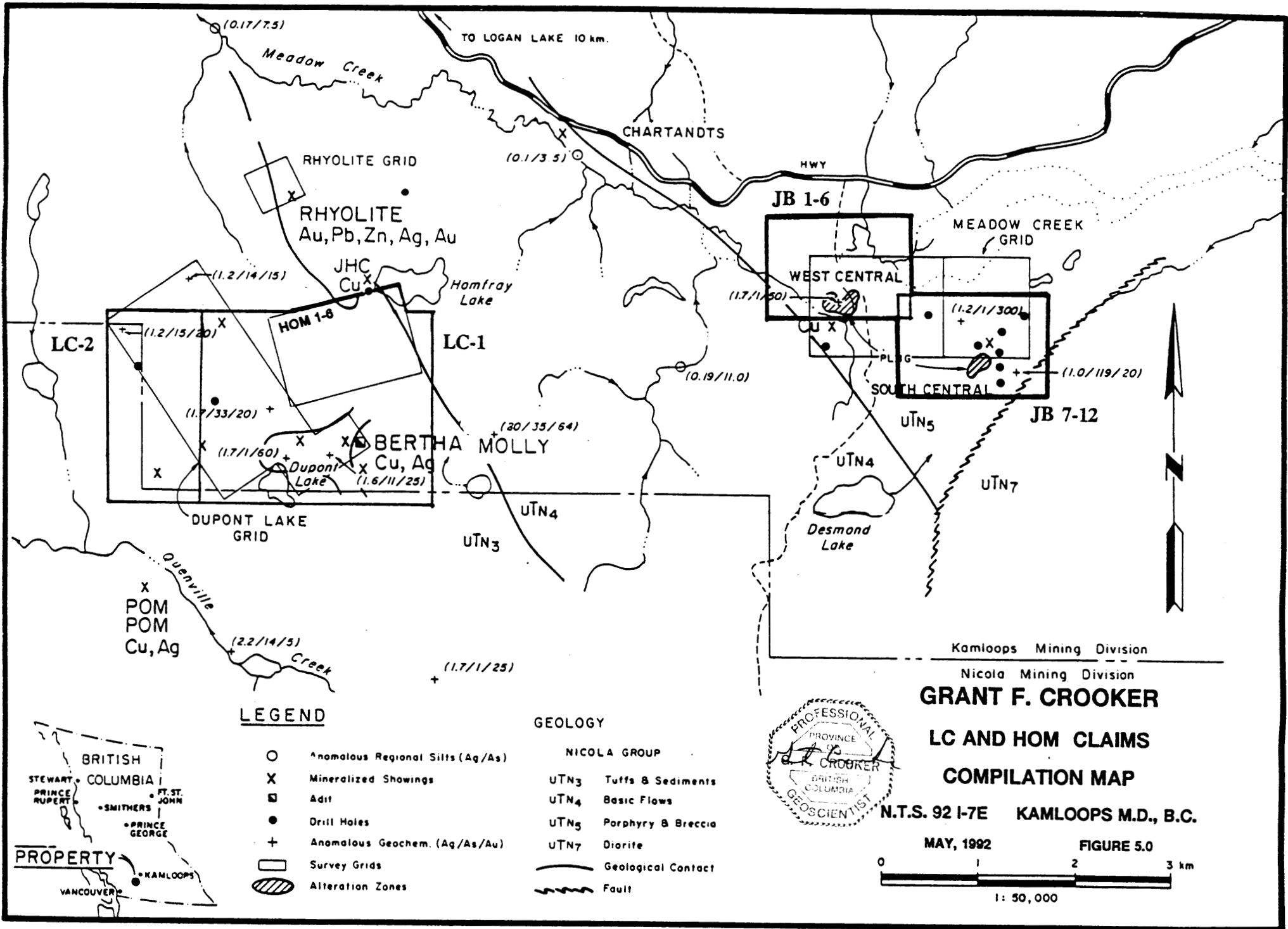
Prospecting and development has been carried out in the vicinity of the property for almost 100 years. The documented showings near the property (figure 5) include the Pom Pom, Chatrandts, Plug and Rhyolite. The LC-1 and Hom claims cover the former Bertha/Molly and JHC showings.

Trenching, shaft sinking, drilling, prospecting and geophysical and geochemical surveys have been carried out on the showings adjacent to the property. A brief summary of the showings is given below.

Plug Showing

In 1972 Texada Mines Ltd. acquired the claims in the area of the Plug showing (west central and south central zones, Meadow Creek Grid). Texada conducted geological mapping, magnetic and induced polarization surveying and soil geochemical sampling (Cu, Zn, Ag) over 14 line miles of grid. The coincidental targets were percussion drilled with eight holes totalling 1400 feet. The results are not documented and presumed to be unsuccessful in locating economic concentrations of copper.

During the period 1985 through 1988 Western Resource Technologies Inc. carried out prospecting and geochemical and geophysical surveys on the Meadow Creek grid. Anomalous copper, lead, zinc, gold, silver and arsenic values were found in the silt and soil surveys. Rock sampling in old trenches also gave gold and silver values of 7500 ppb (0.282 oz per ton) and 67.5 ppm respectively.



Pom Pom Showing

Newmont Mining Corporation of Canada staked the Pom Pom claims in 1973 after copper mineralization grading 0.17% Cu was discovered. A small grid was established and mapping, geochemical sampling and magnetic and IP surveying (one line mile) were conducted. Follow-up investigations were not conducted.

Chatrandts Showing

The Minister of Mines Report for 1916 describes the showing as consisting of several deep open cuts and a 40 foot long adit. The location is not well documented and no further information is available on the showing.

Rhyolite Showing

A number of old trenches were found during the staking of the WRT claims for Western Resource Technologies Inc. during 1985. Work programs carried out between 1985 and 1988 consisted of geological mapping, prospecting, soil and rock geochemical sampling and VLF-EM, magnetometer and Induced Polarization geophysical surveying.

The showing occurs near a flow-pyroclastic contact within Nicola volcanics. A coincidental copper-zinc soil geochemical anomaly has been outlined and mineralization is related to quartz-carbonate veinlets and shearing within basalt. Pyrite is present in concentrations up to 20%, with minor chalcopyrite, azurite, malachite and sphalerite. Sampling indicated weakly anomalous gold (41 ppb), silver (4.1 ppm), copper (3770 ppm) and zinc (2183 ppm) values.

The LC and Hom claims cover the old Bertha/Molly (Dupont Lake Grid) and JHC showings. A brief description of the historical information available on the showings is given below.

Bertha/Molly Showing

This showing was first staked in 1888 by Wright and Fletcher. A shaft was sunk on the Main Showing (No. 1 Showing) and lodes 3 feet to 4.5 feet in thickness were discovered. In 1928 Meadow Creek Mines worked the Number 1 Showing and a few tons of high grade copper ore were sorted for shipment. Dunmore Mines Ltd. carried out road building, trenching and diamond drilling in 1954. A small mill was erected but the supergene copper minerals were not amenable to gravity concentration. Dunmore Mines reported drilling 17 diamond drill holes with no information retained but F.J. Hemsworth reported in 1957 that the holes encountered only sparse mineralization.

Highhawk Mines Ltd. and Consolidated Standard Mines Ltd. acquired ground in the vicinity in 1972. Approximately 17 line miles of grid was established northwest of Dupont Lake to encompass Showings No.2 and No.4. Soil geochemical and Induced Polarization surveys were conducted and two diamond drill holes totalling 750 feet were drilled to test the IP anomalies flanking copper geochemical responses. Both holes encountered fracture related and disseminated pyrite with no visible copper mineralization. The holes were not assayed and the claims were allowed to lapse.

Western Resource Technologies Inc. carried out soil geochemical surveys and VLF-EM, magnetometer and Induced Polarization geophysical surveys over the Dupont Lake grid. The soil geochemical survey gave a number of geochemical responses for copper, silver and gold. These responses are concentrated on lines 0+00 through 4+88S. The Induced Polarization survey in the vicinity of the Bertha/Molly showing indicated a low intensity zone of high chargeability which could be caused by disseminated sulphides such as pyrite and chalcopyrite within bedrock.

JHC Showing

Vanex Minerals Ltd. acquired claims covering the JHC showing in 1958. They conducted magnetic surveys and physical work under the direction of Hill, Stark and Associates, Consulting Engineers. In 1959 Vanex drilled two holes in the JHC Showing area:

Hole No. 1

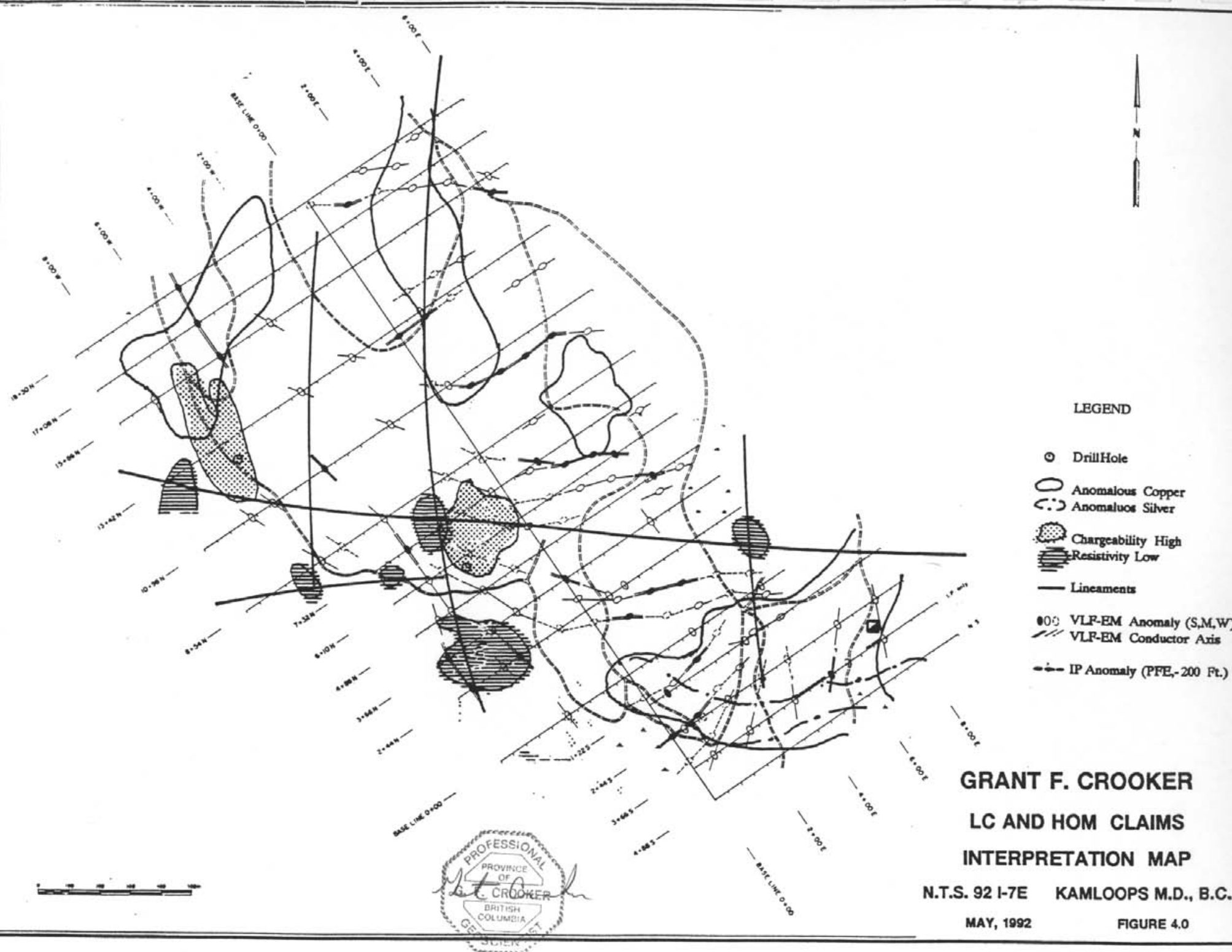
This hole was located approximately 3000 feet north of Homfray Lake and was drilled vertically to a depth of 358 feet to test a magnetic high. The lower portion of the hole encountered a silicious, altered grey-green rock with considerable pyrite. No assays were reported but the recommendation was made to extend the hole to 1000 feet.

Hole No. 2

This hole was located on the west shore of Homfray Lake and was drilled at minus 45 degrees to a depth of at least 293 feet. Altered volcanics were noted but no mineralization was reported and no reason was given for drilling the hole.

Craigmont Mines Limited staked claims in the area of the JHC showing in 1970. A small survey consisting of geological mapping, geochemical sampling and magnetic and IP surveying was conducted. Two holes totalling 800 feet were drilled but the location and results of the drilling are unknown.

Western Resource Technologies Inc. carried out a small program of soil geochemical sampling in the area with limited results.



LEGEND

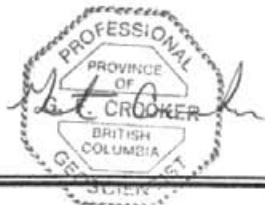
- Drill Hole
- Anomalous Copper
- Anomalous Silver
- Chargeability High
- Resistivity Low
- Lineaments
- VLF-EM Anomaly (S,M,W)
- VLF-EM Conductor Axis
- IP Anomaly (PFE,-200 Ft.)

GRANT F. CROOKER
LC AND HOM CLAIMS
INTERPRETATION MAP

N.T.S. 92 I-7E KAMLOOPS M.D., B.C.

MAY, 1992

FIGURE 4.0



2.0 EXPLORATION PROCEDURE

During this program fill in grid lines were put in on the Dupont Lake grid previously established by Western Resource Technologies Inc. VLF-EM and magnetometer surveys were then carried out over the grid lines.

GRID PARAMETERS

- baseline direction 145°-325°
- declination 21½°
- survey lines perpendicular to baseline
- survey line separation 122 meters
- survey station spacing 25 meters
- survey total - 7.4 kilometers

GEOPHYSICAL SURVEY PARAMETERS

TOTAL FIELD MAGNETIC SURVEY

- survey line separation 122 meters
- survey sample spacing 25 meters
- survey total - 7.4 kilometers
- measured total magnetic field in nanoteslas (gammas)
- instrument - Scintrex MP-2 Magnetometer
- instrument accuracy ± 1 nanotesla

Readings were taken along the baseline to obtain standard readings for all baseline stations. All loops ran off the baseline were then corrected to these standard values by the straight line method. The operator faced north for all readings.

The total field magnetic contours were plotted on figure 6 at a scale of 1:5,000 and the data listed in Appendix II.

VLF-EM SURVEY

- survey line separation 122 meters
- survey station spacing 25 meters
- survey total - 7.1 kilometers
- transmitting station - Cutler - 24.0 KHz
- direction faced - southerly
- instrument - Geonics EM-16
- in-phase (dip angle) and out-of-phase (quadrature) components measured in percent at each station

The VLF-EM profiles were plotted on figure 7 at a scale of 1:5,000 and the data listed in appendix II.

3.0 GEOLOGY AND MINERALIZATION

3.1 GEOLOGY

The property lies within the Intermontane Belt of the Canadian Cordillera and is underlain by Triassic Nicola volcanic rocks. This belt of Nicola volcanics are in contact with the Jurassic Guichon Batholith to the west and the Jurassic Nicola Batholith to the east.

The property is underlain by the Nicola Group volcanics of Upper Triassic age (Figure 3) and these rocks are subdivided into two sub-units (UTN4 and UTN5).

UTN3

Most of the property is underlain by this unit which is a plagioclase, plagioclase-augite intermediate pyroclastic and epiclastic breccia, conglomerate, tuff, sandstone, local shale; carbonate clasts common. Local augite porphyry bodies which are probably feeders to the volcanics also occur. These rocks host the Bertha/Molly showing.

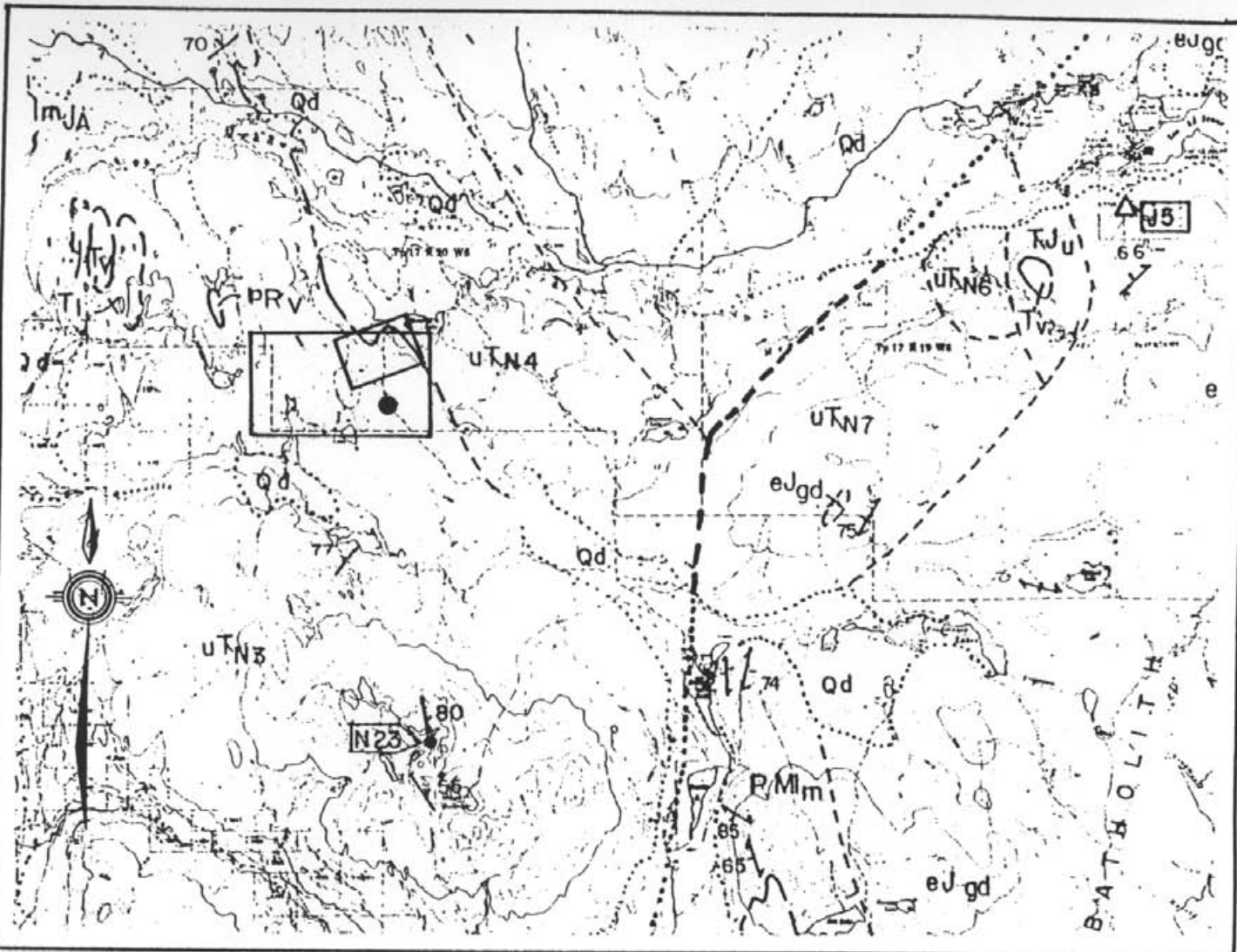
UTN4

The northeast portion of the property is underlain by this unit. It is an aphanitic pillowed basic flow and the contact with UTN3 hosts the JHC showing.

3.2 MINERALIZATION

The mineralization on the property appears to be confined to the copper minerals (malachite, azurite, chalcopyrite and cuprite) and pyrite. They are hosted by shears and fracture fillings in vesicular volcanics and red tuffs. The linear north-south depressions appear to have been favourable structural controls although Hemsworth (private report) notes that at Dupont Lake the zone of the copper mineralization appears to have a long axis running east-west. He reports surface assays of over 1% copper over widths ranging from 6 to 25 feet. He also reports that a drill hole, No. 17, returned two sludge assays of 0.35% and 0.50% copper over intervals of 40 and 27 feet respectively.

A common alteration noted is calcite and epidote with silicification stronger at depth.



LEGEND

KARNIAN AND NORIAN

- uT_N NICOLA GROUP: undifferentiated
- uT_{N1,10} NICOLA GROUP: basic to acidic, mainly volcaniclastic rocks and intercalated argillite; la acidic flows and volcaniclastics; local schistose equivalents mainly along Thompson River valley
- uT_{N2} NICOLA GROUP: carbonate
- uT_{N3} NICOLA GROUP: plagioclase, plagioclase-augite intermediate pyroclastic and epiclastic breccia, conglomerate, tuff, sandstone, local shale; carbonate clasts common. Local augite porphyry bodies probably feeders to N5 volcanics
- uT_{N4} NICOLA GROUP: aphanitic, pillowed basic flows
- uT_{N5} NICOLA GROUP: augite porphyry, augite-plagioclase porphyry volcaniclastic breccia and tuff; interbedded argillite
- uT_{N6} NICOLA GROUP: argillite, siltstone, volcanic sandstone, local intercalated tuff. Pocks along north Thompson River contain interbedded chert pebble conglomerate, chert arenite local carbonate, and minor augite/hornblende porphyry. Northeast of Kamloops, these strata are as old as Middle Triassic
- uT_{N7} NICOLA GROUP: variably foliated diorite, amphibolite, metasedimentary rocks, probably equivalent to N5, N6; associated with Nicola, Wild Horse and Pennask Batholiths
- Geological boundary (defined, approximate, assumed)
- - - - - Fault (defined, approximate, assumed, extension beneath drift)



KILOMETRES



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LC & HOM CLAIMS

GEOLOGY MAP

N.T.S. 92 I-7E KAMLOOPS M.D., B.C.

MAY, 1992

FIGURE 3.0

● **BERTHA MOLLY SHOWING (Cu-Ag)**

4.0 GEOPHYSICS

4.1 MAGNETOMETER SURVEY

A total field magnetic survey was carried out on lines 488S, 610S, 732S and 854S (figure 6). The magnetic response was moderate with total field magnetic values ranging from 56953 to 58017 nT.

Magnetic data indicate high magnetic activity over the survey area and most magnetic trends strike northwest-southeast. The magnetic highs are mostly narrow, linear trends possibly indicating more basic volcanic units within the volcanic pile.

A number of narrow, linear magnetic lows were also indicated by the survey. These may be caused by less basic volcanic units or structural features. The most prominent of these are from 488S & 1250E to 854S & 1275E, 488S & 900E to 854S & 850E, 488S & 750E to 854S & 750E and 488S & 250E to 854S & 325E. Several of the linear magnetic lows coincide with VLF-EM conductors and are probably structural features.

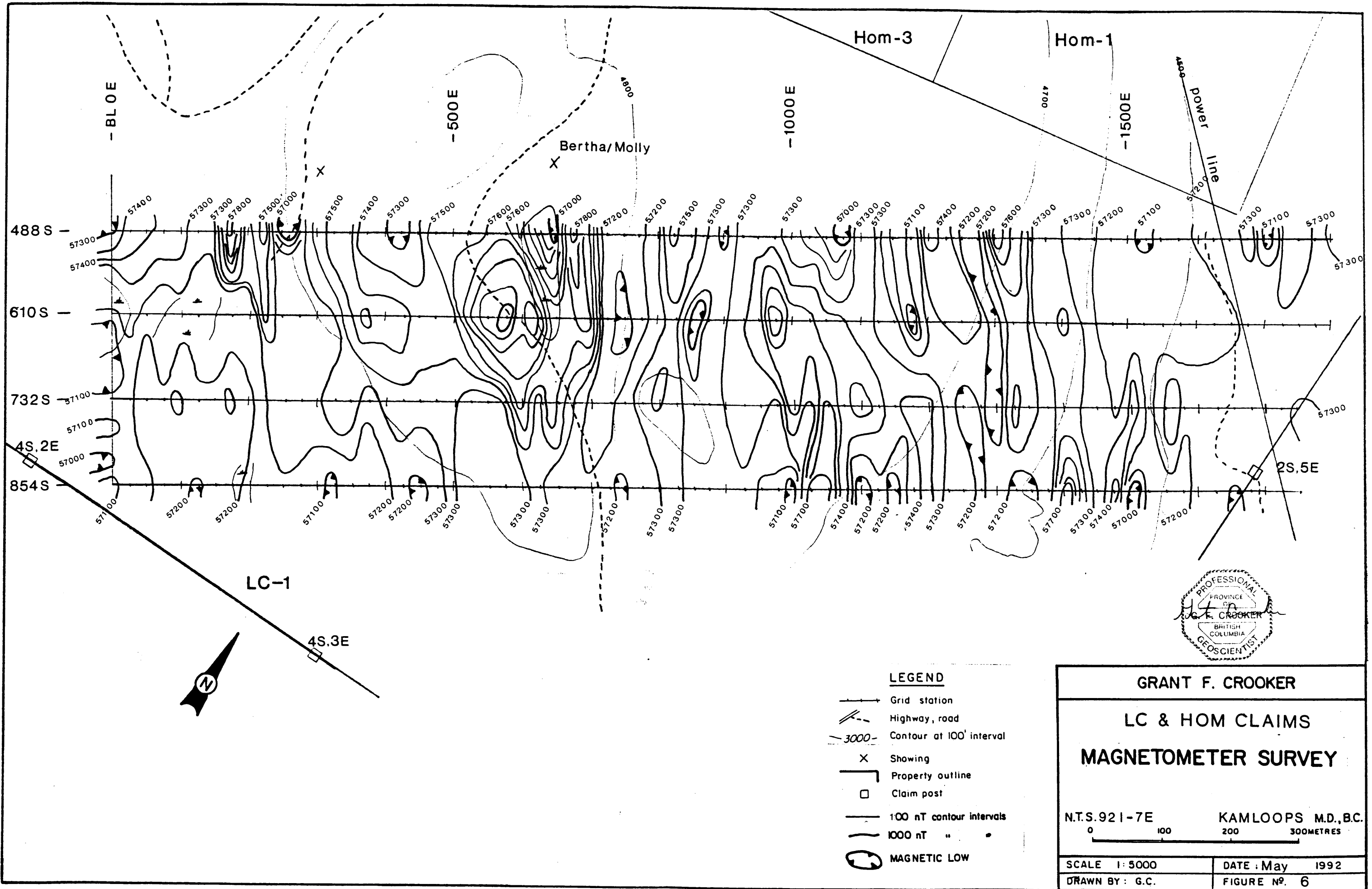
4.2 VLF-EM SURVEY

The VLF-EM survey was carried out over lines 488S, 610S, 732S and 854S (figure 7). The VLF-EM profiles were not generally influenced by topography as the survey area has little relief. Most of the conductors are weak to moderate and exhibit short wavelengths.

A number of northwest-southeast trending conductor systems were outlined by the survey. Many of these conductor systems coincide with magnetic trends and are therefore considered to represent bedrock material, probably fracture or shear zones.

Three conductor systems, A, B, and C were delineated by the survey. Conductor A is moderate to strong and caused by the cultural effect of a B.C. Hydro Transmission Line. Conductors B and C are weak to strong and occur coincidentally with linear magnetic lows. These two conductors are probably outlining fault or shear zones.

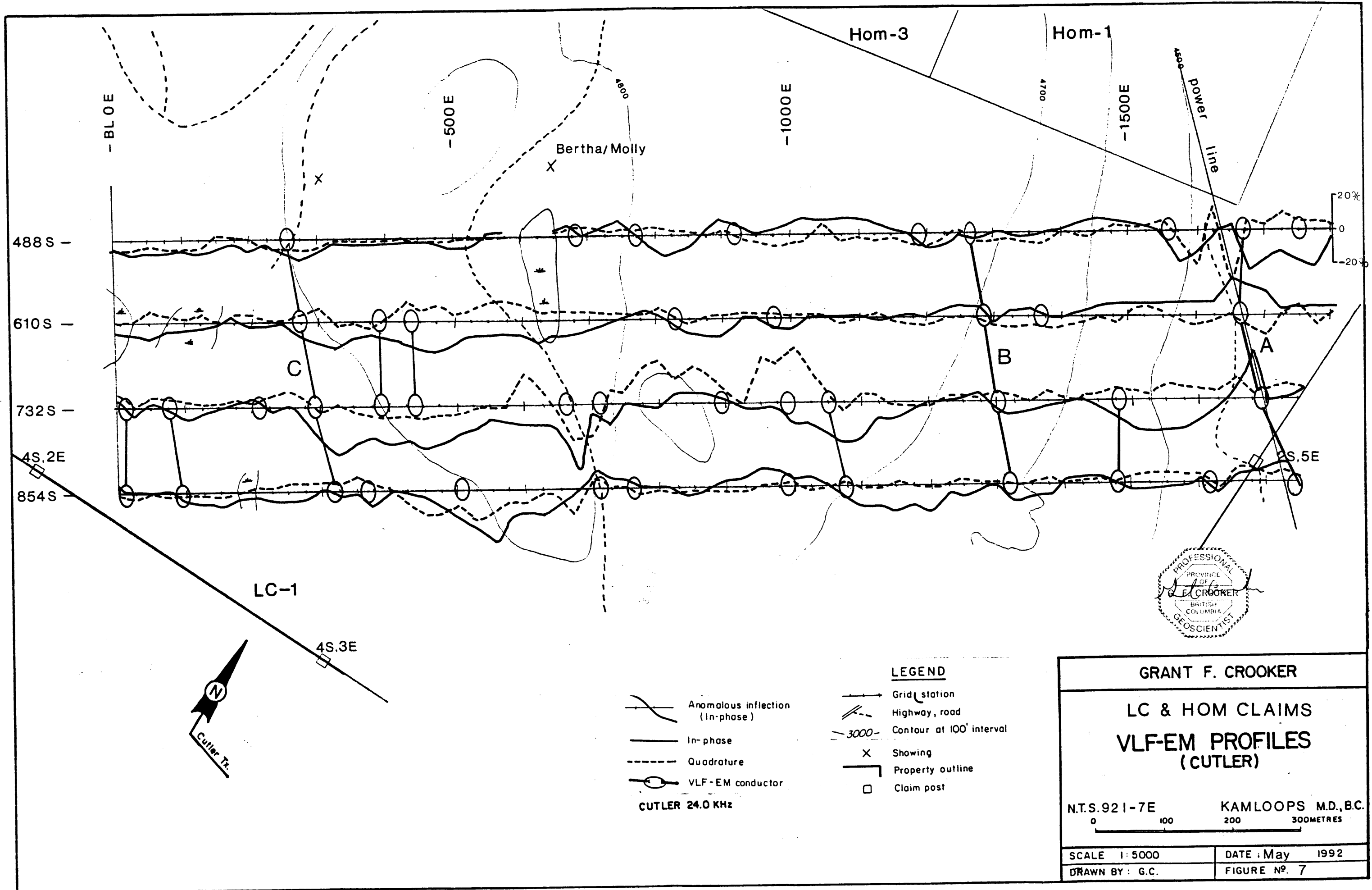
A number of individual conductors occur coincidentally with magnetic highs and lows.



LEGEND

- Grid station
- Highway, road
- Contour at 100' interval
- Showing
- Property outline
- Claim post
- 100 nT contour intervals
- 1000 nT " "
- MAGNETIC LOW

GRANT F. CROOKER	
LC & HOM CLAIMS	
MAGNETOMETER SURVEY	
N.T.S. 921-7E	KAMLOOPS M.D., B.C.
SCALE 1:5000	DATE: May 1992
DRAWN BY: G.C.	FIGURE Nº. 6



- BLOE

- 500 E

- 1000 E

- 1500 E

Hom-3

Hom-1

Bertha/Molly

4500 power line

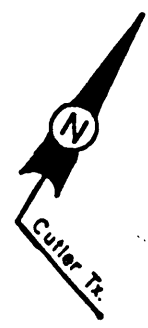
488 S
610 S
732 S
854 S

4S.2E

4S.5E

LC-1

4S.3E



- Anomalous inflection (In-phase)
- In-phase
- Quadrature
- VLF-EM conductor

CUTLER 24.0 KHz

LEGEND

- Grid station
- Highway, road
- Contour at 100' interval
- Showing
- Property outline
- Claim post



GRANT F. CROOKER	
LC & HOM CLAIMS VLF-EM PROFILES (CUTLER)	
N.T.S. 921-7E	KAMLOOPS M.D., B.C.
SCALE 1:5000	DATE: May 1992
DRAWN BY: G.C.	FIGURE NO. 7

5.0 CONCLUSIONS AND RECOMMENDATIONS

The 1992 program consisted of establishing grid lines southeast of the Bertha/Molly showing and carrying out magnetometer and VLF-EM surveys on them.

Magnetic data indicated high magnetic data over the survey area and most magnetic trends strike northwest-southeast. The magnetic highs are mostly narrow, linear features probably indicating more basic volcanic units within the volcanic pile. The magnetic lows are also narrow, linear features caused by less basic volcanic units or structural features. A number of the magnetic lows occur coincidentally with VLF-EM conductors.

A large number of mainly weak to moderate, northwest-southeast trending VLF-EM conductors were outlined by the survey. Many of the conductors coincide with magnetic trends and are therefore considered to represent bedrock conditions. Several of the conductor systems occur coincidentally with the linear magnetic lows and are probably outlining fracture or shear zones, or faults.

Recommendations are as follows:

- 1) The grid should be extended several lines to the north to cover the Bertha/Molly and an unnamed showing, and magnetometer and VLF-EM surveys carried out over the grid lines.
- 2) Geological mapping and prospecting should be carried over the property, with particular emphasis on checking the geophysical features outlined by this survey and the Induced Polarization survey carried out in 1988.
- 3) A soil geochemical survey should be carried out over the grid.

Respectfully submitted,


Grant Crocker, B.Sc., P. Geo.,
Consulting Geologist

6.0 REFERENCES

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_____ (June 1959): Report on the Holdings of Vanex Minerals Limited.

Leith, H.C.B., (March 1959): Report of Visit to Meadow Creek Prospect, Vanex Holdings.

National Geochemical Reconnaissance Survey (19081): 92I Ashcroft B.C., B.C. Ministry of Energy Mines and Petroleum Resources and Geological Survey of Canada.

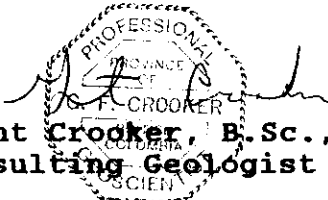
Tough, T.R., (April 27, 1972): Geological Report on the Homfray Lake Property Kamloops Mining Division for Highhawk Mines Ltd. and Consolidated Standard Mines Ltd.

7.0 CERTIFICATE OF QUALIFICATIONS

I, Grant F. Crooker, of Upper Bench Road, Keremeos, in the Province of British Columbia, hereby certify as follows:

1. That I graduated from the University of British Columbia in 1972 with a Bachelor of Science Degree in Geology.
2. That I have prospected and actively pursued geology prior to my graduation and have practised my profession since 1972.
3. That I am a member of the Canadian Institute of Mining and Metallurgy.
4. That I am a Fellow of the Geological Association of Canada.
5. That I am a Professional Geoscientist registered with the Association of Professional Engineers and Geoscientists of the Province of British Columbia (No. 18,961).
6. That I am the owner of the LC-1 and Hom 1 to 6 claims.

Dated this 6th day of June, 1992, at Keremeos, in the Province of British Columbia.


Grant Crooker, B.Sc., P.Geo.,
Consulting Geologist

Appendix I

GEOPHYSICAL EQUIPMENT SPECIFICATIONS

GEONICS LIMITED
VLF EM 16

Source of Primary Field VLF transmitting stations

Transmitting Stations Used: Any desired station frequency can be supplied with the instrument in the form of plug-in tuning units. Two tuning units can be plugged in at one time. A switch selects either station.

Operating Frequency Range: About 15-25 Hz.

Parameters Measured: 1- The vertical in-phase component (tangent of the tilt angle of the polarization ellipsoid).
 2- The vertical out-of-phase (quadrature) component (the short axis of the polarization ellipsoid compared to the long axis).

Method of Reading: In-phase from a mechanical inclinometer and quadrature from a calibrated dial. Nulling by audio tone

Scale Range: In-phase $\pm 150\%$; quadrature $\pm 40\%$

Readability: $\pm 1\%$

Operating Temperature Range: -40 to 50° C.

Operating Controls: ON-OFF switch, battery testing push button, station selector, switch, volume control, quadrature dial $\pm 40\%$, inclinometer $\pm 150\%$

Power Supply: 6 size AA alkaline cells ≈ 200 hrs.

Dimensions: 42 x 14 x 9 cm (16 x 5.5 x 3.5 in)

Weight: 1.6 kg. (3.5 lbs)

Instrument Supplied With: Monotonic speaker, carrying case, manual of operation, 3 station selector plug-in tuning units (additional frequencies are optional) set of batteries.

Manufacturer: Geonics Limited
 1745 Meyerside Drive/Unit 8
 Mississauga, Ontario
 L5T 1C5

MP-2 PROTON PRECESSION MAGNETOMETER

Resolution: 1 gamma

Total Field Accuracy: \pm gamma over full operating range

Range: 20,000 to 100,000 gammas in 25 overlapping steps.

Internal Measuring Program: A reading appears 1.5 seconds after depression of Operate Switch & remains displayed for 2.2 secs. Recycling feature permits automatic repetitive readings at 3.7 sec. intervals.

External Trigger: External trigger input permits use of sampling intervals longer than 3.7 seconds.

Display: 5 digit LED readout displaying total magnetic field in gammas or normalized battery voltage.

Data Output: Multiplied precession frequency and gate time outputs for base station recording using interfacing optionally available from Scintrex.

Gradient Tolerance: Up to 5,000 gammas/meter.

Power Source: 8 size D cells \approx 25,000 readings at 25° C under reasonable conditions.

Sensor: Omnidirectional, shielded, noise-cancelling dual coil, optimized for high gradient tolerance.

Harness: Complete for operation with staff or back pack sensor.

Operating Temperature Range: -35 to +60° C.

Size: Console, 8 x 16 x 25 cm; Sensor, 8 x 15 cm; Staff 30 x 66 cm;

Weights: Console, 1.8 kg; Sensor, 1.3 kg; Staff, 0.6 kg;

Manufacturer: Scintrex
222 Snidercroft Road
Concord, Ontario

Appendix II

MAGNETOMETER AND VLF-EM DATA

Grant Crooker Data Listing Line & Station + = northing/easting
 Area: LC and Hom Claims - = southing/westing
 Grid: Dupont File Name: dupont .xyz
 Date: May, 1992 VLF-EM and magnetometer surveys
 Instrument Type: Details
 Scintres MP-2 Corrected total field magnetic values
 Geonics EM-16 Facing southerly, Cutler
 Data Types #1 Corrected total field magnetic values
 #2 VLF-EM In-Phase Values, Cutler
 #3 VLF-EM Quadrature Values, Cutler

N/S	E/W						
Line #	Station	# 1.	# 2.	# 3.	# 4.	# 5.	# 6.
line -488							
-488	000	57206	-6	-5			
-488	025	57450	-9	-7			
-488	050	57432	-8	-4			
-488	075	57381	-8	-6			
-488	100	57376	-6	-6			
-488	175	57226	-8	-5			
-488	150	57026	-5	2			
-488	175	57822	-3	1			
-488	200	57336	-7	0			
-488	225	57510	-4	-5			
-488	250	56991	-8	-4			
-488	275	57001	-13	-5			
-488	300	57403	-8	-7			
-488	325	57550	-3	-3			
-488	350	57582	-4	-2			
-488	375	57356	-4	-3			
-488	400	57312	-5	-3			
-488	425	57226	-3	-2			
-488	450	57357	-3	-3			
-488	475	57525	-3	-3			
-488	500	57515	-7	-2			
-488	525	57593	-7	0			
-488	550	57599	0	-1			
-488	575	57657	1	1			
-488	600						
-488	625						
-488	650	56960	3	2			
-488	675	57832	6	4			
-488	700	57508	1	5			
-488	725	57113	5	2			
-488	750	57130	8	3			
-488	775	57140	-1	3			
-488	800	57285	-9	4			
-488	825	57511	-11	2			
-488	850	57493	-7	1			
-488	875	57300	2	-1			
-488	900	57190	8	1			
-488	925	57335	4	-2			
-488	950	57393	1	-4			
-488	975	57349	3	-6			

-488	1000	57237	6	-6
-488	1025	57207	9	-4
-488	1050	57077	8	6
-488	1075	56978	9	-4
-488	1100	57986	9	-2
-488	1125	57298	7	-4
-488	1150	57076	3	-2
-488	1175	57149	0	-5
-488	1200	57429	-9	-7
-488	1225	57373	-8	-2
-488	1250	57186	-2	1
-488	1275	57132	-4	-5
-488	1300	57603	0	-4
-488	1325	57461	-1	-4
-488	1350	57299	-3	-5
-488	1375	57357	-1	-5
-488	1400	57297	1	1
-488	1425	57273	6	-1
-488	1450	57195	8	-1
-488	1475	57108	6	4
-488	1500	57124	4	3
-488	1525	57094	3	2
-488	1550	57121	-3	6
-488	1575	57197	-19	-5
-488	1600		-14	-21
-488	1625		-3	14
-488	1650		3	-28
-488	1675	57314	-24	6
-488	1700	57015	-17	2
-488	1725	57343	-15	9
-488	1750	57318	-19	3
-488	1775	57292	-23	4
-488	1800	57312	-7	2
line	-610			
-610	000	57025	-6	0
-610	025	57214	-7	0
-610	050	57194	-9	6
-610	075	57086	-4	4
-610	100	57163	-4	2
-610	125	57081	-4	4
-610	150	57066	-1	-1
-610	175	57099	2	3
-610	200	57073	-2	4
-610	225	57441	-2	-1
-610	250	57241	-1	1
-610	275	57299	-9	4
-610	300	57250	-13	8
-610	325	57273	-15	-3
-610	350	57458	-10	-1
-610	375	57604	-8	-3
-610	400	57569	-11	1
-610	425	57568	-12	11
-610	450	57427	-17	5
-610	475	57446	-19	9

-610	500	57438	-13	3
-610	525	57791	-9	6
-610	550	57941	-9	9
-610	575	58017	-8	11
-610	600	57831	-10	9
-610	625	57985	-14	4
-610	650	57505	-9	4
-610	675	57551	-9	4
-610	700	57616	-7	5
-610	725	57134	-3	2
-610	750	57029	0	3
-610	775	57187	3	3
-610	800	57225	3	6
-610	825	57382	-2	1
-610	850	56973	-9	-2
-610	875	57221	-8	2
-610	900	57286	-9	2
-610	925	57360	1	4
-610	950	57485	1	4
-610	975	57753	-5	4
-610	1000	57542	-6	2
-610	1025	57518	2	1
-610	1050	57440	1	1
-610	1075	57414	1	-3
-610	1100	57353	2	-1
-610	1125	57272	-1	2
-610	1150	57283	1	-1
-610	1175	56982	3	-3
-610	1200	57220	0	-3
-610	1225	57304	5	-1
-610	1250	57344	8	0
-610	1275	57297	7	0
-610	1300	57113	-4	-5
-610	1325	57358	4	-6
-610	1350	57295	5	-4
-610	1375	57358	0	-6
-610	1400	57404	-1	-6
-610	1425	57294	3	-4
-610	1450	57198	5	-1
-610	1475	57150	7	-3
-610	1500	57142	7	1
-610	1525	57138	7	6
-610	1550	57140	8	1
-610	1575	57149	8	-3
-610	1600	57158	7	-6
-610	1625	57140	8	-2
-610	1650		21	-1
-610	1675		16	-8
-610	1700		14	-12
-610	1725	57281	4	3
-610	1750	57283	5	5
-610	1775	57248	4	-6
-610	1800	57236	3	0

line -732

-732	000	57135	5	8
-732	025	57178	-5	1
-732	050	57276	3	7
-732	075	57214	-3	6
-732	100	57302	-7	3
-732	125	57225	-2	2
-732	150	57261	0	2
-732	175	57315	3	5
-732	200	57226	5	2
-732	225	57189	-2	6
-732	250	57268	0	9
-732	275	57221	-9	4
-732	300	57280	-20	-4
-732	325	57383	-28	1
-732	350	57316	-22	-3
-732	375	57209	-18	-6
-732	400	57320	-23	-7
-732	425	57361	-20	-6
-732	450	57321	-25	-8
-732	475	57315	-24	-6
-732	500	57332	-17	-6
-732	525	57268	-15	-2
-732	550	57261	-9	-1
-732	575	57222	-12	-1
-732	600	57647	-13	19
-732	625	57396	-13	7
-732	650	57558	-16	20
-732	675	57327	-28	-22
-732	700	57186	-6	-18
-732	725	57197	-11	10
-732	750	57282	0	6
-732	775	57307	-1	21
-732	800	57403	-2	26
-732	825	57379	5	14
-732	850	57217	8	21
-732	875	57277	5	16
-732	900	57306	2	6
-732	925	57471	-3	-3
-732	950	57306	-2	27
-732	975	57293	-3	23
-732	1000	57587	-12	32
-732	1025	57363	-12	19
-732	1050	57660	-18	6
-732	1075	57472	-23	-5
-732	1100	57537	-21	5
-732	1125	57435	-11	5
-732	1150	57343	-11	-1
-732	1175	57420	-5	-3
-732	1200	57415	0	-1
-732	1225	57280	1	3
-732	1250	57142	2	3
-732	1275	57211	4	2
-732	1300	57171	-3	4
-732	1325	57413	-8	3

-732	1350	57356	-6	0
-732	1375	57203	-2	6
-732	1400	57375	-2	-1
-732	1425	57261	1	2
-732	1450	57279	-4	4
-732	1475	57179	-8	8
-732	1500	57342	-15	6
-732	1525	57136	-19	3
-732	1550	57397	-18	10
-732	1575	57207	-16	8
-732	1600	57272	-13	7
-732	1625		-4	6
-732	1650		8	13
-732	1675		28	5
-732	1700		0	7
-732	1725		0	9
-732	1750	57383	5	6
line	-854			
-854	000	57036	4	-1
-854	025	57125	-1	-2
-854	050	57164	1	1
-854	075	57255	2	-1
-854	100	57289	-4	-1
-854	125	57188	-6	-2
-854	150	57280	-8	-3
-854	175	57236	-3	-1
-854	200	57197	-3	2
-854	225	57180	-6	2
-854	250	57193	-5	4
-854	275	57195	-6	4
-854	300	57121	1	5
-854	325	57093	-3	4
-854	350	57157	-3	7
-854	375	57146	-10	3
-854	400	57165	0	1
-854	425	57255	3	-9
-854	450	57160	-5	-14
-854	475	57245	-12	-14
-854	500	57314	-17	-10
-854	525	57210	-23	-19
-854	550	57207	-33	-15
-854	575	57282	-17	-8
-854	600	57273	-15	-8
-854	625	57314	-17	-3
-854	650	57291	-7	-6
-854	675	57239	-3	-15
-854	700	57206	10	7
-854	725	57256	4	0
-854	750	57181	5	0
-854	775	57247	-1	-4
-854	800	57269	0	-2
-854	825	57328	-3	-3
-854	850	57274	-5	-2
-854	875	57293	-1	-2

-854	900	57276	4	-3
-854	925	57242	5	-3
-854	950	57198	10	1
-854	975	57174	9	1
-854	1000	57076	4	3
-854	1025	57785	5	-2
-854	1050	57766	1	-1
-854	1075	57443	-6	2
-854	1100	57149	-12	-1
-854	1125	57285	-12	-1
-854	1150	57160	-16	1
-854	1175	57375	-12	-1
-854	1200	57435	-16	-1
-854	1225	57281	-5	1
-854	1250	57286	-7	2
-854	1275	57186	-2	1
-854	1300	57269	-1	1
-854	1325	57122	-11	-1
-854	1350	57167	-8	2
-854	1375	57296	-6	3
-854	1400	57339	3	1
-854	1425	57435	4	1
-854	1450	57228	4	2
-854	1475	57441	1	1
-854	1500	56953	-3	4
-854	1525	57111	-3	7
-854	1550	57166	-2	7
-854	1575	57150	-2	6
-854	1600	57239	3	6
-854	1625	57278	-4	-6
-854	1650	57180	6	10
-854	1675		7	8
-854	1700		11	5
-854	1725		12	8
-854	1750		0	2

tie 000

000	-488	57206
000	-500	57279
000	-525	57408
000	-550	56953
000	-575	57962
000	-600	57025
000	-610	57182
000	-625	57043
000	-650	57077
000	-675	57023
000	-700	57061
000	-732	57135
000	-750	57074
000	-775	57187
000	-800	57066
000	-825	56954
000	-854	57036

Appendix III

COST STATEMENT

COST STATEMENT

SALARIES

- Grant Crooker, Geologist
April 23, May 3-9, 1992
8 days @ \$ 400.00/day \$ 3,200.00

MEALS AND ACCOMODATION

- Grant Crooker - 4 days @ \$ 60.00/day 240.00

TRANSPORTATION

- Vehicle Rental (Ford 3/4 ton 4x4)
4 days @ \$ 60.00/day 240.00
- Gasoline 95.00

EQUIPMENT RENTAL

- VLF-EM - Geonics EM-16
May 3-5, 1992
3 days @ \$ 25.00/day 75.00
- Magnetometer - Scintrex MP-2
May 4-6, 1992
3 days @ \$ 25.00/day 75.00

SUPPLIES

- Hipchain thread, flagging, geochem bags, etc. 60.00

DRAUGHTING

185.00

PREPARATION OF REPORT

- Secretarial, reproduction, telephone,
office overhead etc.

Total 285.00
\$ 4,455.00