

1982 Assessment Report  
Geochemical Survey

Property: EDITH LAKE

Claims: SUNNY

Commodity: Copper, Silver, Gold

Location: Edith lake - Kamloops M.D.  
NTS 92 I 9W  
120 20.5'W 50 34.5'N

Owner and  
Operator: Argenta Resources Ltd.  
1406-1055 West Georgia Street  
Vancouver, B.C., V6E 3P3

Author and  
Consultant: L. Sookochoff, P.Eng.  
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Dates of Work: May 18-19, 1982

Submittal Date: June 14, 1982

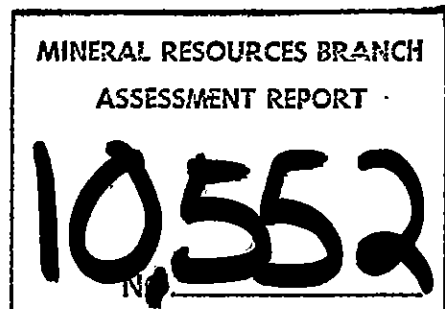


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# Report on a Geochemical Survey

## SUNNY CLAIM

### Part A

#### SUMMARY AND CONCLUSIONS

The Sunny Claim is situated along the southwestern edge of the Iron Mask - Nicola Volcanic contact, 10 km south of Kamloops B.C.

The Iron Mask Batholith is host to a number of copper-gold-silver showings which have been explored to varying degrees. Former producers include the Iron Mask Mine, 10 km to the northwest from which five million pounds of copper in addition to gold and silver were produced.

The Afton Mine located 13 km northwest at the site of old exploratory workings, is presently producing from an original 30 million ton orebody containing one percent copper with gold and silver values.

The old Fargo workings located within one km north of the Sunny claim include two shallow shafts from which "one carload of ore running about two percent copper and 0.06 ounces of gold per ton is reported to have been made."

Former exploration on a portion of the ground covered by the Sunny claim disclosed a weak I.P. anomalous zone which coincides with high copper geochem values.

A Nicola volcanic - Iron Mask diorite contact trends northwesterly along the eastern edge of Edith Lake. Associated with the contact and for 300 meters north within the diorite is a zone of argillic alteration. Chalcopyrite occurs within quartz veins in the altered zone.

Samples from the mineralized area returned .40% and .03% Cu.

A 1980 geochemical and geophysical survey revealed a number of correlative anomalous areas.

The E.M. survey indicated an anomalous zone correlating with the contact in addition to other anomalous zones within the intrusive.

Copper geochemical results revealed a sub-anomalous zone correlating with known mineralization and extending to the north and south.

In the detailed 1982 geochemical survey, a central copper-zinc anomalous area covering an area of 200 X 200 meters was delineated. The anomalous area is within an area of the Iron-Mask Nicola contact which is a known localizing feature of ore zones peripheral to the Iron Mask Intrusive.

#### RECOMMENDATIONS

It is recommended that an I.P. survey be completed over the anomalous area to localize a specific target zone to test by diamond or percussion drilling.

Respectfully submitted,  
  
Laurence Sookchoff, P.Eng.  
Consulting Engineer

Vancouver, B.C.  
June 14, 1982

# Geochemical Report

on the

SUNNY CLAIM

Part B

## INTRODUCTION

During May 1982 a localized geochemical survey was carried out on the Sunny Claim. The purpose of the survey was to detail an anomalous area delineated in a 1980 survey in order to establish specific target areas for trenching and/or drilling.

This report is to provide information on the survey procedure, results and conclusions as to the survey in addition to establishing a correlative information with the 1980 surveys.

PROPERTY

The property is comprised of one claim of nine units.

Particulars are as follows:

<u>Claim Name</u>	<u>Record No.</u>	<u>Expiry Date</u>
Sunny	3488	May 19, 1982

Any legal aspects of the claim are beyond the scope of this report.

LOCATION AND ACCESS

The claim is located 10 km south of Kamloops and covers the eastern portion of Edith Lake.

Access is provided via a secondary road branching off to the south at Knutsford. The Edith Lake cut-off is taken to the west for three and one half km to the claim.

WATER AND POWER

Sufficient water for all phases of the exploration program would be available from lakes and streams covered or in the immediate area of the property.

Commercial power sources would be available from within 10 km.

TRANSPORTATION AND SUPPLIES

Railroad facilities are available in Kamloops where all supplies would be obtainable. Kamloops is served daily by Pacific Western Airlines from Vancouver.

PHYSIOGRAPHY

The property lies within the physiographic area known as the Thompson Plateau. Elevations on the property are up to 1040 meters above sea level with a relief of 75 meters.



AREA HISTORY

The Kamloops area has been explored for copper-gold-silver since the turn of the century. Scattered occurrences of mineralization occur within a band of Nicola rocks stretching from Kamloops to the south of Princeton. Production from ore zones within the Nicola series occur at Princeton and at Merritt. However near Kamloops, the Iron Mask Batholith is of greater geological significance as the more significant mineral occurrences found to date are located within this intrusive.

The Iron Mask Mine - a former producer is located within the Iron Mask Batholith 10 km to the northwest. The producing Afton Mine is 13 km to the northwest.

On the Sunny claim, former exploration work included the following:

1. In 1970 and geochemical survey carried out by Erin Explorations Ltd. which included the southern three units of the Sunny claim, a 700 meter wide northwesterly trending anomalous copper geochem zone was delineated along the central unit. Values within this anomaly ranged up to 200 ppm Cu in a Background of 52 ppm Cu. A 1972 I.P. survey over the same area disclosed a weak chargeability anomaly (approximately three times background) which was concluded to coincide with high copper geochemical values (of the 1970 survey).

2. In 1973, Plaza Resources Ltd. completed a geochemical survey on ground adjacent to the Sunny claim on the west and north. Spotty anomalous copper values up to 324 ppm were indicated within 20 meters north along the northern boundary from the northwest corner of the Sunny claim.

Former workings on the Fargo Group within one kilometer of the northern boundary of the Sunny claim include two shallow shafts from which "one carload of ore running about 2 percent copper and 0.06 ounces of gold a ton is reported to have been made".

In June and July, 1980, Jocelyn Resources Ltd. completed geophysical, geochemical and geological surveys on the Sunny claim.

In 1982 Argenta purchased the property.

GENERAL GEOLOGY

The property lies along the eastern boundary of a north-south arcuate trending band of Nicola rocks extending from Princeton in the south through Merritt and beyond Kamloops Lake to the north. Peripheral rocks are predominantly intrusives in addition to cappings of younger sediments and volcanics. Stacks and plugs of intrusives occur throughout the Nicola band.

Numerous mineral occurrences - predominantly copper with gold and silver values - occur within the Nicola rocks of Upper Triassic sediments and volcanics. The Similkameen deposit in Princeton and the Craigmont deposit at Merritt occur within Nicola rocks and are associated with intrusives.

Adjacent and to the north and east of the Sunny claim is the Iron Mask Batholith with which are associated a number of significant mineralized zones.

The Iron Mask Mine which was worked to around 1930 produced some five million pounds of copper in addition to gold and silver and is located within the Iron Mask Batholith.

Recently, Afton Mines has placed a property in production at the northwest end of the Iron Mask Batholith. The ore body reportedly contains 30 million tons of 1% Cu, and is associated with the Cherry Creek Intrusives which are enveloped by the Iron Mask and Nicola rocks.

In the Jacko Lake area, five km to the northwest, Cominco has reportedly blocked out a zone of copper mineralization within the Iron Mask intrusive.

The Sunny claim according to geological map 886 A is indicated to cover a Nicola-Iron Mask northwesterly trending contact zone.

Old trenches on a mineralized zone just north of the Sunny claim indicate a mineral zone to trend southerly to the property. The trenching is on the former Fargo group where the showings reportedly consist of veins in the Iron Mask diorite.

RESULTS OF THE 1980 EXPLORATION WORK PERFORMED ON THE SUNNY  
CLAIM

1. A geological survey indicated a Nicola-Iron Mask contact trending northwesterly through the central portion of the property. Propylitic to argillic alteration in addition to quartz flooding and copper mineralization occurs along and peripheral to the contact.
2. A VLF-EM survey indicated an anomalous area generally correlating with the contact zone in addition to north-south anomalous zones within the Iron Mask intrusive.
3. A magnetometer survey generally indicated magnetic highs enveloped by E.M. anomalies, possibly indicating the magnetic lows as structural or altered zones where a deterioration of magnetic minerals has occurred.
4. A central sub-anomalous copper zone correlating with the contact and with a peripheral zinc zone could reflect mineralization associated with the contact.

MINERALIZATION

Mineralization consists of blebs and patches of chalcopyrite hosted by quartz veins within the Iron Mask diorite. The mineralization occurs along the Iron Mask Nicola contact at the southeastern portion of Edith Lake. Chip sample assays from two locations along the zone returned 4,000 ppm Cu (.4% Cu) and 330 ppm Cu (.033% Cu).

The mineralization occurs within an argillic altered zone which is evident for up to 300 meters northeast of the contact.

## GEOCHEMICAL SURVEY

### 1. Survey Procedure

The 1980 grid system and results thereof are utilized in determining the location of and extent of the detailed survey. Five lines of less than 500 meters were located to detail a general anomalous area as delineated from a previous survey. At 30 meter stations along the lines, soil samples were picked up utilizing a shovel. Soil from the B horizon which is a sandy-loam brown forest soil from a depth of 24 to 30 centimeters was placed in a brown wet-strength paper bag with the grid co-ordinates marked thereon. A total of 65 samples were taken in the survey.

### 2. Testing Procedure

All samples were tested by Acme Analytical Laboratories Ltd. of Burnaby, B.C. The testing procedure is to first thoroughly dry and sift the sample through a -80 mesh screen. A measured amount of the sifted material is then placed into a test tube, aqua regia added, heated, and the parts per million (ppm) metal measured by atomic absorption. The samples were analysed in this manner for two metals - copper and zinc.

### 3. Treatment of Data

The background, subanomalous and anomalous values were determined basically from the values utilized from the 1980 survey. This method was used predominantly because of the low number of sample results available which would create a question as to substantiality if these results were utilized for that purpose. In addition, the range of these results were comparable to the range from the 1980 survey.

Thus the following parameters were utilized for the values.

	Background	Sub-anomalous	Anomalous
Copper	105	140	190
Zinc	48	57	65



DISCUSSION OF RESULTS

In plotting the results of the 1982 survey and correlating the information with the results of the 1980 survey, an excellent correlation is evident.

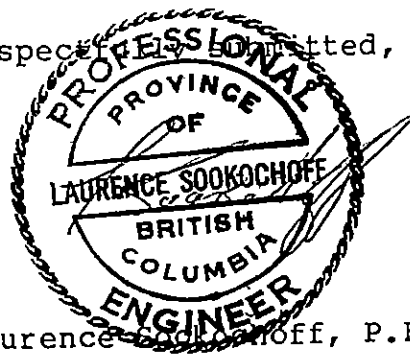
In assessing the total results a central anomalous area has been delineated containing both copper and zinc anomalous values. In assessing the nature of the anomalies, it appears that mineralization from a cross structure intersecting at the center of the anomaly could express deeper seated mineralization. The indicated structures trend northeasterly and northwesterly with the N.W. structures paralleling the known trend of the Iron Mask-Nicola contact in this area.

The localized anomalous area covers an area of 200 X 200 meters.

RECOMMENDED EXPLORATION PROGRAM AND ESTIMATED COST

An I.P. survey to locate a prime target area which would be tested by diamond or percussion drilling is estimated to cost \$15,000 (all inclusive).

Respectfully submitted,



Laurence Sookchoff, P.Eng.  
Consulting Geologist

Vancouver, B.C.  
June 14, 1982

REFERENCES

BRUSSET, R.U. - Assessment Report Percussion Drilling, Wildrose Mineral Claim. Edith Lake Area, Kamloops M.D. September 10, 1978 Assessment Report No. 6991

COCKFIELD, W.E. - Geology and Mineral Deposits of Nicola Map-Area, British Columbia Memoir 249 G.S.C.

SOOKOCHOFF, L. - Progress Report on the Sunny Claim for Jocelyn Resources Ltd., July 22, 1980.

STADNYK, M.P. - Report on a Geochemical Survey on ACE, MOT Mineral claims, Edith Lake, British Columbia for Erin Explorations Ltd., February 19, 1971. Assessment Report No. 2871

TULLY, D.W. - Report on a Geochemical Survey of the Rose claims for Plaza Resources Ltd., January 1973

WHITE, G.E. - Geophysical Report on an Induced Potential Survey on behalf of Erin Explorations Ltd. (N.P.L.) Mot claim group. April 27, 1972. Assessment report No. 4018

## Certificate of Expenditure

Geochemical Survey-Sunny Claim, Kamloops M.D.

L. Sookochoff 2 days at \$250	\$ 500.00
May 18-19, 1982	
Car rental 2 days at \$35	70.00
Gas	77.82
Kilometerage - 1208 km at 14	169.12
Room	30.74
Meals	77.50
Assays	230.75
Drafting - final	55.00
Typing	40.00
Compilation of data and rough drafting	200.00
Report	<u>850.00</u>
	\$2,300.93

CERTIFICATE

I, Laurence Sookochoff, of the City of Vancouver, in the Province of British Columbia, do hereby certify:

That I am a Consulting Geologist with the firm of Pan-American Consultants Ltd. of 1406-1055 West Georgia Street, Vancouver, B.C.

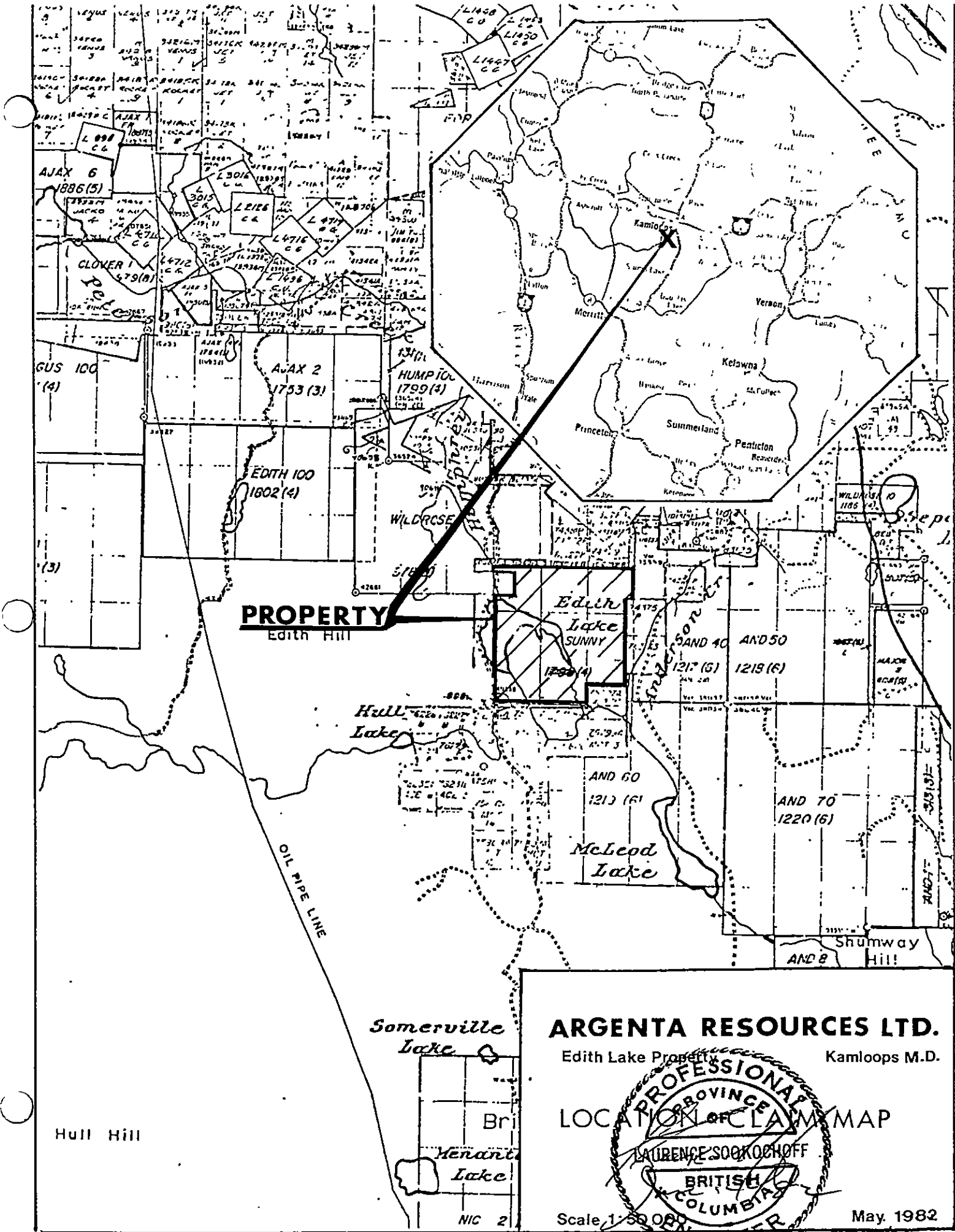
I further certify that:

1. I am a graduate of the University of British Columbia (1966) and hold a B.Sc. degree in Geology.
2. I have been practising my profession for the past sixteen years.
3. I am registered with the Association of Professional Engineers of British Columbia.
4. The information for the accompanying report was obtained from pertinent publications, from work the writer performed on the property for Jocelyn Resources in 1980 and from the geochemical survey of 1982.



Laurence Sookochoff, P.Eng.  
Consulting Geologist

Vancouver, B.C.  
June 14, 1982



**PROPERTY**  
Edith Hill

**ARGENTA RESOURCES LTD.**

Edith Lake Property Kamloops M.D.

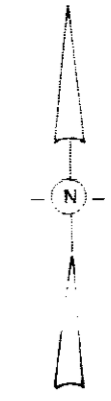
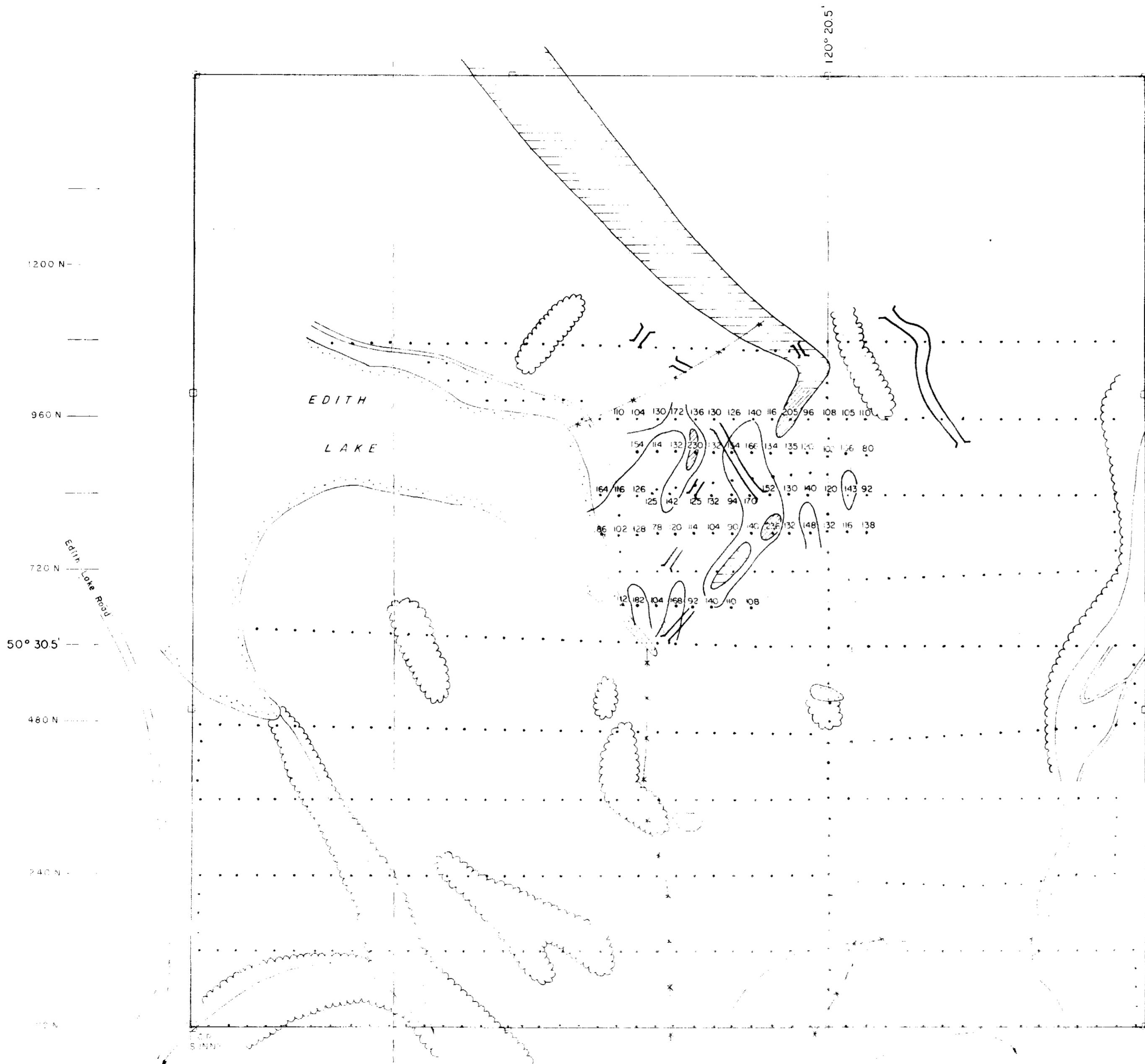
LOCATION OF CLAIM MAP



Scale 1" = 500' May, 1982

Hull Hill

NIC 2



LEGEND

- ROAD
- TRENCH
- FENCE
- CREEK
- SURVEY STATION
- CLAIM POST
- TREE LIMIT
- LAKE

COPPER VALUE IN PPM

- BACKGROUND - 105
- SUBANOMALOUS - 140
- ANOMALOUS - 190
- 1980 SURVEY ANOMALY

MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT

**10552**

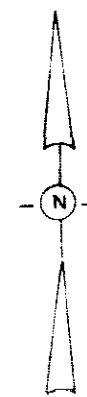
NO.



MAP 2

ARGENTA RESOURCES LTD.  
EDITH LAKE PROPERTY  
KAMLOOPS M.D., B.C.

**GEOCHEMICAL RESULTS**



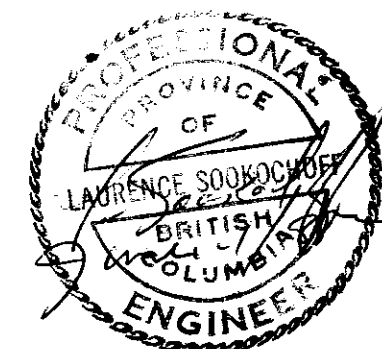
LEGEND

- ROAD
- TRENCH
- FENCE
- CREEK
- SURVEY STATION
- CLAIM POST
- TREE LIMIT
- LAKE

ZINC VALUE IN PPM

- BACKGROUND - 48
- SUBANOMALOUS - 57
- ANOMALOUS - 65
- 1980 SURVEY ANOMALY

MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**10552**  
NO.



MAP 3

ARGENTA RESOURCES LTD.  
EDITH LAKE PROPERTY  
KAMLOUS M.D., B.C.  
**GEOCHEMICAL RESULTS**  
**ZINC**

SCALE 1:5000 901-9A JUNE 1982

