

COMINCO LTD.

EXPLORATION
93 L 6

WESTERN DISTRICT

LOG NO:	JAN 22	RD.
ACTION:		
FILE NO:		

ASSESSMENT REPORT
GEOCHEMICAL SOIL SAMPLING

SUB-RECORDER RECEIVED JAN 14 1992 M.R. #..... \$..... VANCOUVER, B.C.

MSJ 1-4 MINERAL CLAIMS

Record No's 10083-86

Omineca Mining Division

Latitude: 54 deg. 25' N Longitude: 127 deg. 24' W

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

22,058

2 December 1991

A. M. Pauwels

ASSESSMENT REPORT
GEOCHEMICAL SOIL SAMPLING

MSJ 1-4 MINERAL CLAIMS

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COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

GEOCHEMICAL SOIL SAMPLING MSJ 1-4 MINERAL CLAIMS

I SUMMARY

Soil samples were systematically taken over a 10,000 by 5,000 feet chargeability high. Higher values were found, especially for zinc, over the western portion of the area.

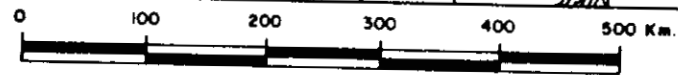
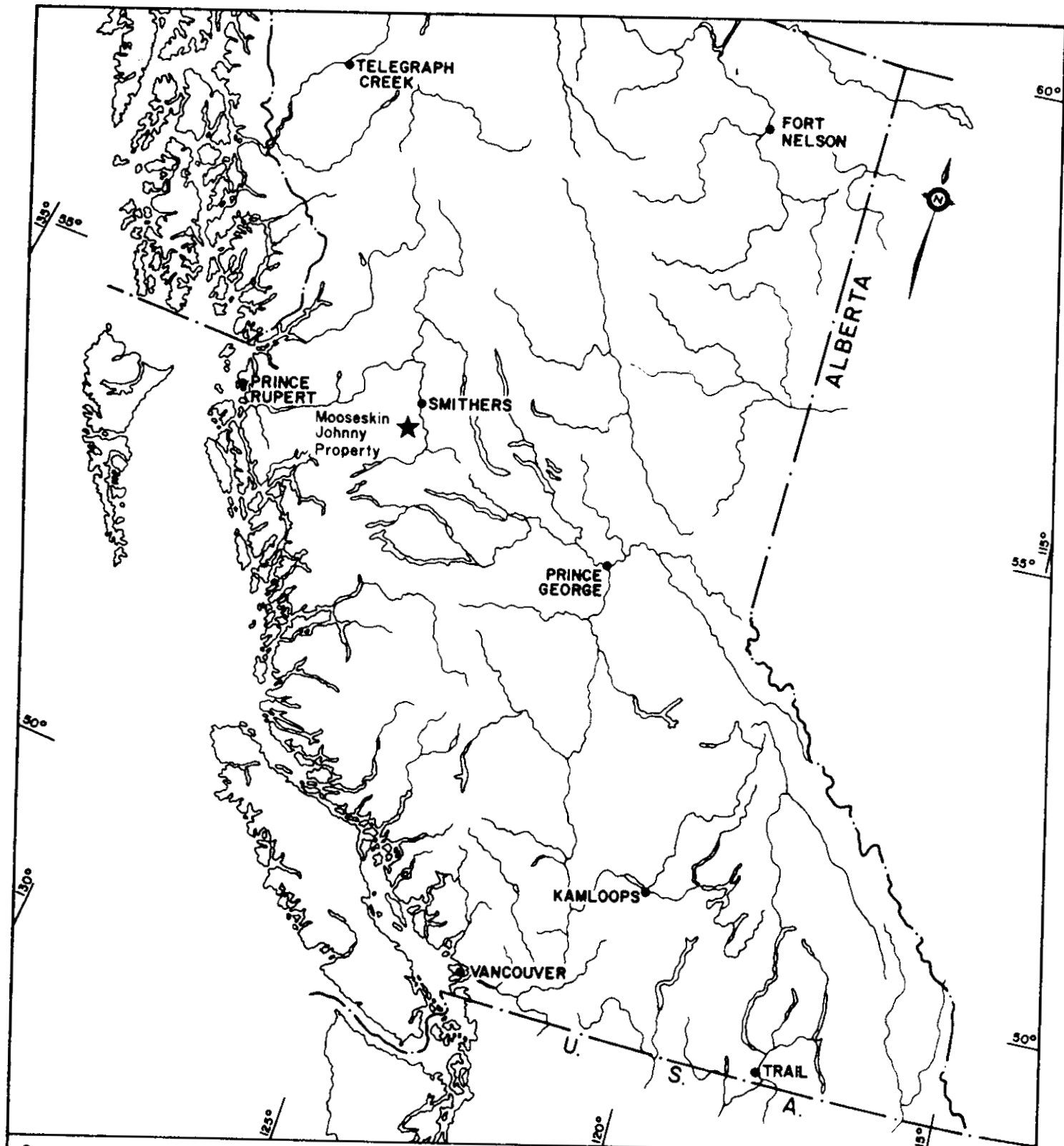
II INTRODUCTION


The Mooseskin Johnny property is located 45 km southwest of Smithers (See figure 1 and 2). Access is by helicopter. A rough bulldozed trail comes within 5 km of the northern boundary of the claims. The claims cover a mountain range of moderate relief west of the Thautil river.

Exploration work this summer was done from september 4 to 14 1991. The fieldwork consisted of geochemical soil sampling and was done by Minequest Exploration Associates Ltd. of Vancouver on behalf of Cominco ltd. The crew of three (George Vernon, crew chief) mobilized to Smithers from Vancouver and back by truck, flew into the property by helicopter and camped during the sampling. Samples were analyzed at Cominco's Exploration and Research Laboratory, 1486 E. Pender street, Vancouver. The project was planned by A.M.Pauwels, B.Sc, senior geologist.

III PREVIOUS EXPLORATION

The earliest known activity on the property dates back to 1966 and 1968 when respectively Phelps Dodge and Bethex staked claims. In both instances no work was recorded and the claims were allowed to lapse on their first anniversary. Both companies at that time explored mineralization 5 to 7 km north of the present claims. In 1974 Hudson's Bay Oil and Gas co. Ltd staked the ground and did a 20 km IP/Resisistivity survey on 1000 feet spaced lines covering all of the present ground. A large chargeability high, measuring 5,000 by 10,000 feet was detected, mostly in overburden covered terrain except for a few altered (quartz-sericite-pyrite) outcrops in Trail creek. No further work was recorded and the claims lapsed in 1975. The area was then open untill 1989 when the present claims were staked on behalf of A. Schmidt. A geochemical investigation was done at that time by Placer Dome Inc. They found anomalous copper and gold in rock samples, silt samples and bulk silt samples. The property was optioned later in 1990 to Golden Dragon Resources Ltd who in turn contacted Cominco Ltd. Cominco optioned the property in August 1991.



 93 L/6

Drawn by: A.M.P.		Traced by: a. m. a.	
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MSJ PROPERTY PROPERTY LOCATION MAP

OMINECA M.D., B.C.

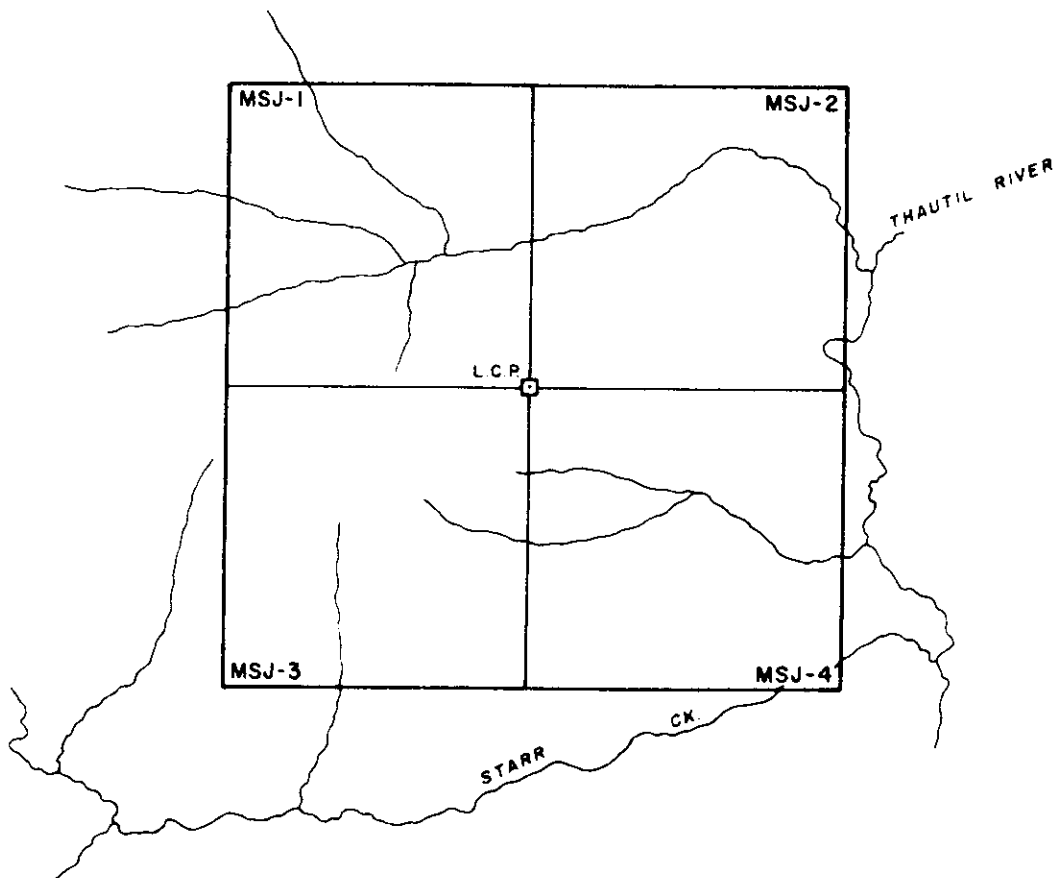
Scale: 1 : 6,370,000 Date: Oct. 8, 1991 Plate:

127°25'

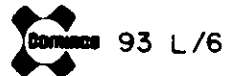


54°25'

54°25'



127°25'



Drawn by: A.M.P. Traced by: a. m. a.

Revised by	Date	Revised by	Date

MSJ PROPERTY CLAIM LOCATION MAP

OMINECA M.D., B.C.

Scale: 1 : 50,000

Date: Oct. 8, 1991

Plate:

IV TENURE

The property consists of four Claims, MSJ 1 to 4, Record No's: 10083-86. The claims were all recorded on February 16, 1989 and their present due date is February 1992. The claims are owned by Golden Dragon Resources Ltd. and under option to Cominco Ltd. Expenditures in 1989 totalled \$ 17,887.54, details are given in appendix I.

V GEOLOGY

The best description of the area geology is in O.File 1990-5 by E. Desjardins e.a.. The area is underlain by volcanic rocks belonging to the Middle to Lower Jurassic Hazelton Group. On the property these rocks consist of red and green colored lapilli tuffs and ash tuffs. These volcanoclastic rocks in turn are intruded by monzonite of either Cretaceous or Eocene age. Outcrops on the property are sparse and are confined to the western edge of the IP high detected in 1974 (above 4600') and to the vicinity of Trail creek, along the northern edge of the IP anomaly. Along the western edge of the IP high red lapilli tuffs are found, all with varying intensities of propylitic alteration consisting of chloritization and veins/patches of epidote with pyrite. Malachite stain was found in one locality at 300w-100E. An area of crumbly cliffs overlooking Trail creek and stretching from 200-600W along line 200 N, consists of red tuffs with small quartz porphyry dykes. Alteration is more intensely propylitic with small areas of intense argillic alteration associated with some of the dykes. Mineralization is mostly pyrite with chalcopyrite, associated with epidote, seen in two locations. A few specks of molybdenite were noted in quartz associated with argillic alteration. The remaining outcrops are found in Trail creek (near 1000N, 100E) and consist of monzonite with intense quartz-sericite-pyrite alteration.

VI GEOCHEMICAL SAMPLING

Method

Lines were established with compass and topochain, and stations marked with flagging every 50 m along the lines. A total of 24.1 km of lines, oriented East-west were established approximately 200 or 400 m apart. Samples were collected on 21.8 km of the lines at 100 m intervals. A total of 201 sites were sampled.

Samples were taken with a mattock and where possible B horizon was sampled. At the sample site detailed sample description were noted on the Kraft paper bag. Samples were analysed for Cu, Ag, Pb, Zn by standard acid digestion (20% HNO₃) and AAS, analysis for Au was done through aqua regia digestion, solvent extraction and AAS.

Results

The sample descriptions and results are illustrated on figures 3 to 7. Values for copper, gold and silver are mostly low to very low. For copper a few values over 100 ppm occur in the western portion of the grid. These higher values of copper coincide with sparse chalcopyrite mineralization described above and found along the western edges of the IP high. In the same area a few values for both gold and silver are over detection levels. Higher values for zinc (over 100 ppm) are more abundant and form a cluster in the same area as the higher copper, gold and silver values. During sampling it was noted that soils in the eastern part of the grid consist of clay. Metal values in such soils are all very low.

VII CONCLUSIONS AND RECOMMENDATIONS

Soil sampling for copper, gold, lead and zinc over a large chargeability high found weakly anomalous values for all these metals in the western portions of the gridded area. Most widespread are values of zinc over 100 ppm. The presence of clay soils over portions of the grid probably means that surficial soil samples taken over these portions poorly reflect metal values in underlying bedrock.


It is recommended to sample and prospect in more detail the area with higher metal values in soils. Deeper sampling (power auger) should be done in the areas with clay in soils in an attempt to penetrate below the clay horizons.

Reported by



Andre M. Pauwels
Senior Geologist

Approved for Release



W. J. Wolfe
Manager, Exploration
Western Canada.

REFERENCES

P. Desjardins e.a Geology of the Thautil River Area B.C. Geological Survey 1990.File
1990-5

L.A. Homeniuk Geophysical Report on the MSJ claims, Hudson's Bay Oil and 1974 Gas Co
Ltd A.R. 5208

A.J. Schmidt Geochemical Report on the MSJ Mineral claims 1989 Assessment report

Dist: Central Files (1)
Mining Recorder (2)
Golden Dragon (1)
Administration

APPENDIX I
EXPENDITURES

Planning, supervision, Report A.M. Pauwels, 2 days @ \$ 445.57/day	991.14
Lines, Sampling Minequest Expl. Assoc. As per invoice	11,465.00
Helicopter As per invoice	2,681.40
Analysis 200 samples, Au,Cu,Ag,Pb,Zn @ \$ 11.25	2,250.00
Drafting 2 days @ \$ 250	500.00
 TOTAL	 17,887.54

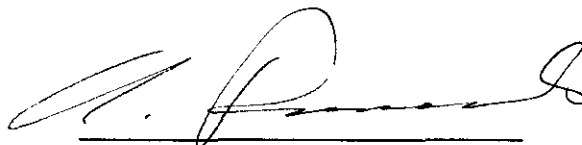
APPENDIX II

STATEMENTS OF QUALIFICATIONS

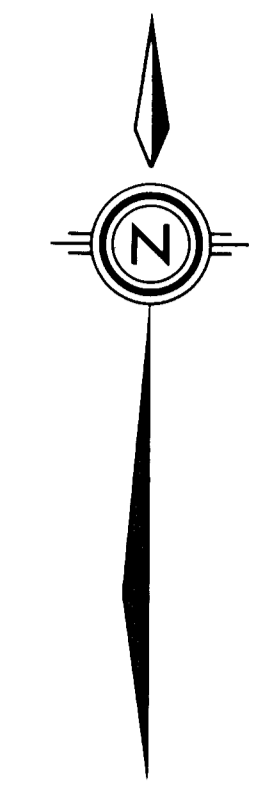
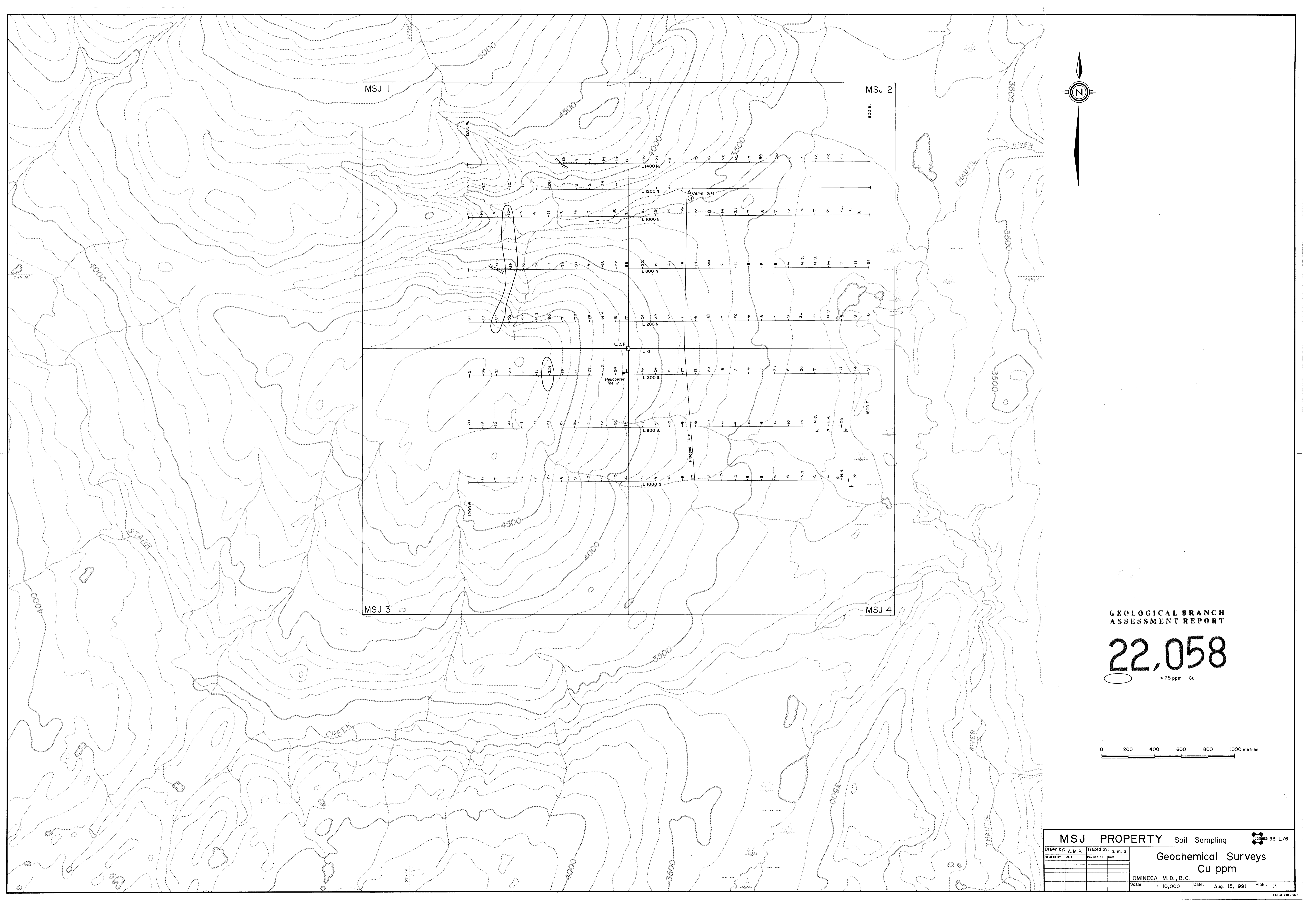
I, ANDRE M. PAUWELS, 4900 Mariposa Court, Richmond, B.C. hereby declare that I:

1. Graduated from State University of Ghent, Belgium with a B.Sc., Geology in July, 1970.
2. Have been engaged in mineral exploration as a Geologist:
 - in Ontario from September, 1970 until April, 1972 with Union Miniere Explorations and Mining Corporation Limited.
 - in British Columbia and Yukon Territories since May, 1972 until December, 1980 with Union Miniere Exploration and Mining Corporation Limited.
 - with Bethlehem Copper Corporation from January until May 1, 1981.
 - presently with Cominco Limited since May 1, 1981.
3. Was engaged from 1970 until present in numerous geological, geochemical, geophysical and drilling programmes for mineral exploration in Ontario, British Columbia, the Yukon Territory, Northwest Territories, Arizona and Peru.

DATE: 2 December 1991

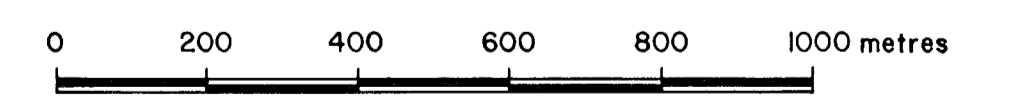


A.M. Pauwels
Senior Geologist

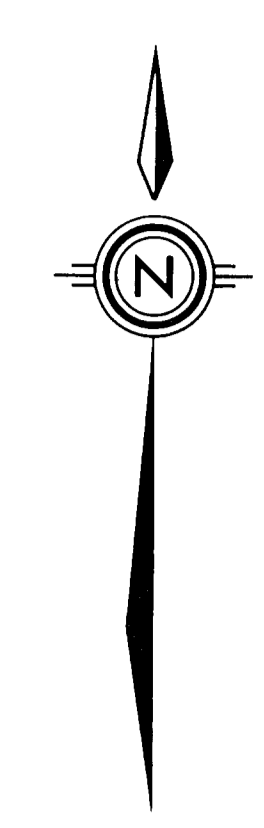
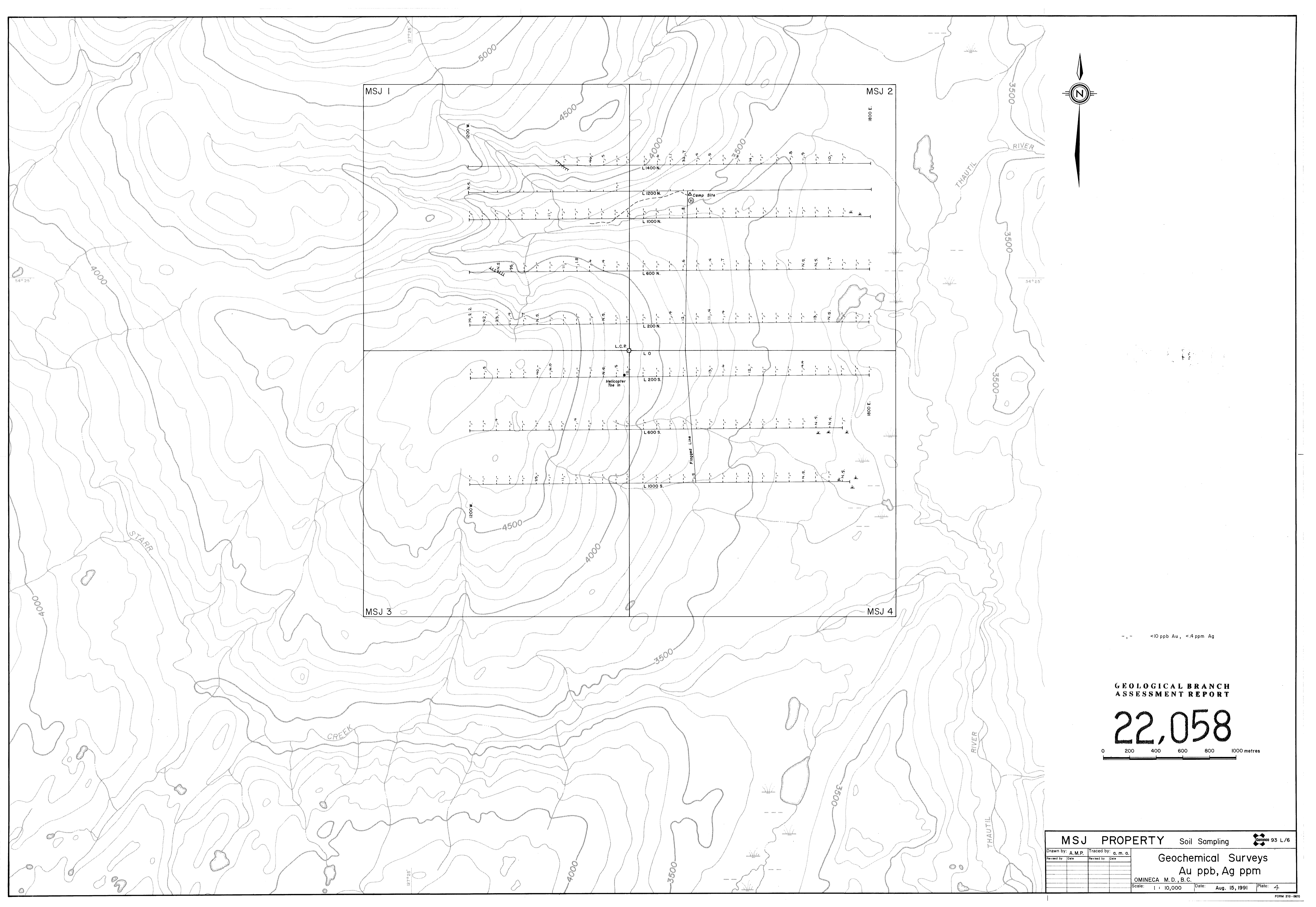


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22,058
 > 75 ppm Cu



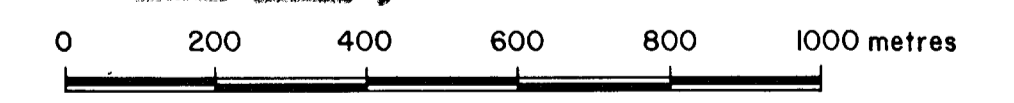
MSJ PROPERTY Soil Sampling		Geomatics 93 L/6
Drawn by: A.M.P.	Traced by: g.m.a.	
Revised by: []	Date: []	Revised by: []
Geochemical Surveys Cu ppm		
OMNECA M.D., B.C.		
Scale: 1 : 10,000	Date: Aug. 15, 1991	Plate: 3



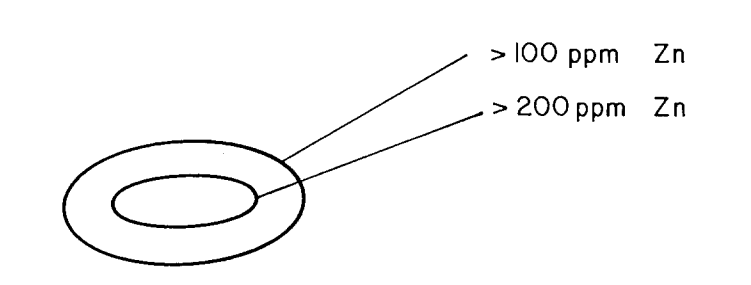
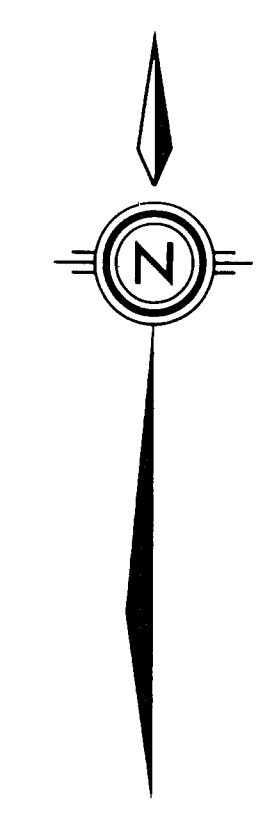
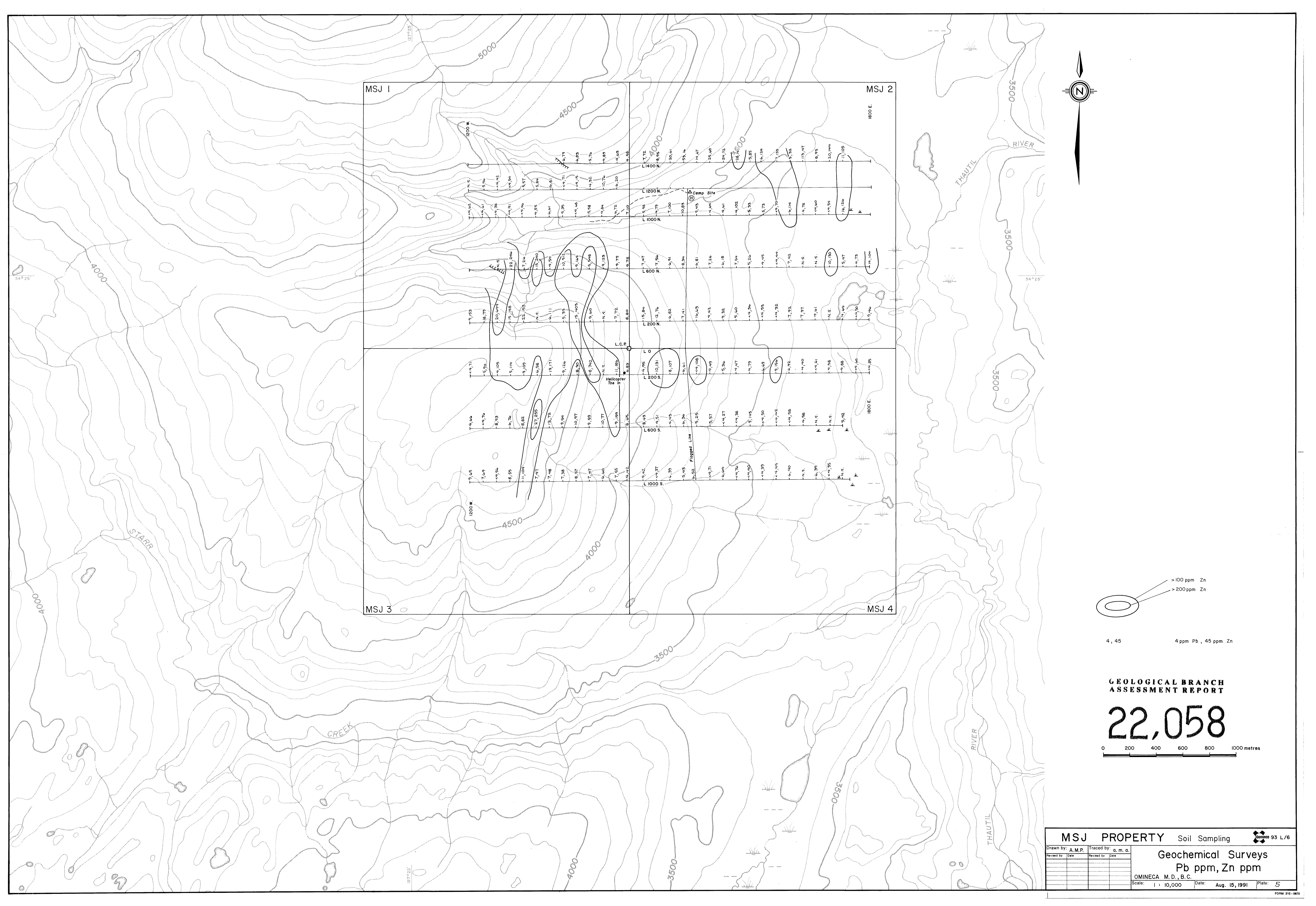
- - <10 ppb Au, <4 ppm Ag

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MSJ PROPERTY		Soil Sampling	93 L/6
Drawn by: A.M.P.	Traced by: a.m.g.		
Revised by: []	Date: []	Revised by: []	Date: []
		Geochemical Surveys	
		Au ppb, Ag ppm	
		OMINECA M.D., B.C.	
Scale: 1 : 10,000	Date: Aug. 15, 1991	Plate: 4	



4, 45 4 ppm Pb, 45 ppm Zn

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MSJ PROPERTY		Soil Sampling	93 L/6
Drawn by: A.M.P.	Traced by: a.m.g.		
Revised by: []	Date: []	Revised by: []	Date: []
Geochemical Surveys		Pb ppm, Zn ppm	
		OMINECA M.D., B.C.	
Scale: 1 : 10,000	Date: Aug. 15, 1991	Plate: 5	