

EXPLORATION
NTS: 103P/5

COMINCO LTD.

WESTERN DISTRICT
4 December 1981

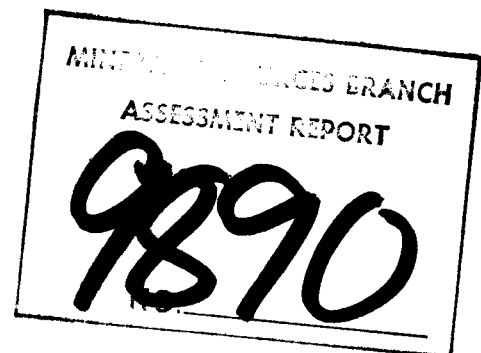
ASSESSMENT REPORT OF SOIL AND ROCK

GEOCHEMISTRY ON THE ANYOX PROPERTY

GRANBY BAY, SKEENA M.D.

WORK PERFORMED AUGUST 5 - 10, 1981

LATITUDE: 55°25'N; LONGITUDE: 129°50'W



DECEMBER 1981

M.J. OSATENKO

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ATTACHMENTS(in pockets)

Plate 1	Location map; 1:2,000,000
Plate 2	Claim boundaires; 1:1,200
Plate 3	Copper in soils and rocks; 1:1,200
Plate 4	Silver in soils and rocks; 1:1,200
Plate 5	Gold in soil and rocks; 1:1,200
Plate 6	Copper, silver and gold in rocks; 1:1,200

ASSESSMENT REPORT OF SOIL AND ROCK
GEOCHEMISTRY ON THE ANYOX PROPERTY
GRANBY BAY, SKEENA M.D.

I. SUMMARY

The Anyox property is located 130 km miles north of Prince Rupert. It is owned by Cominco Ltd., but is under option to Mitsui.

This report discusses the results of a soil and rock geochemical survey (Cu, Ag and Au) in the immediate footwall area of the old Hidden Creek Mine. Numerous strong copper soil anomalies (+500 ppm) were found with the largest one (250 x 550 m) located adjacent on the west to the old glory holes. This anomaly and the one at the south end of line 12+00W overlie known copper mineralization in chloritized basalts. However, it is likely that the magnitude and extent of the largest anomaly is affected to some degree by the past mining activity. Ag and Au in the soils show one anomaly, but it is probably caused by the mining activity. The rocks collected are too few to give meaningful geochemical patterns.

It is recommended to extend the soil grid to cover the area between the two grid areas.

II. INTRODUCTION

This report discusses the results of a soil and rock geochemical survey on the Anyox property. The work was done by S. Noakes and D. Hamilton from August 5th to 10th, 1981. It consisted of 6.2 km of grid marking/linecutting and the collection of 359 soil and 42 rock samples in an area just to the west of the old Hidden Creek Mine.

III. LOCATION AND ACCESS

The Anyox property is located 130 km north of Prince Rupert, on the west side of Observatory Inlet, B.C. Access is by float plane or helicopter from either Prince Rupert or Kitsault (Plate 1).

IV. PROPERTY AND OWNERSHIP

The Anyox property consists of 123 crown granted and located claims. It is owned by Cominco Ltd., but it is under option to Mitsui. Plate 2 shows the crown grants in the surveyed area.

2.

V. GEOLOGY

A. Regional

The Anyox area is underlain by an assemblage of northerly trending basic volcanic and sedimentary rocks which forms a large roof pendant (14 x 10 km) in the Coast Range batholith. Carter and Grove (1972) suggest a Jurassic age for the pendant rocks with the granitic rocks of probable late Mesozoic to early Tertiary age. The Anyox property lies on the east side of the pendant.

B. Property

The geology of the property is discussed in detail in a previous assessment report (6137). Briefly pyrite, pyrrhotite and chalcopyrite occur in chert; biotitic, volcanoclastic sediments or in highly fractured and chloritized basalts at or near a contact of pillow basalts with argillaceous sediments.

VI. GEOCHEMISTRY

The soil and rock survey covered an area 600 x 900 m in the immediate footwall sequence of the old Hidden Creek Mine. Soil samples were collected from the B horizon at a depth of about 45 cm, to minimize the possibility of contamination from the smelter, while the rock samples were taken at stations where no soil samples were possible and consisted of 2 m chips of unweathered material. These samples were analyzed for Cu, Ag, and Au at Cominco's laboratory in Vancouver. Cu and Ag were determined by atomic absorption spectrophotometry after an aqua regia digestion while Au analyses were obtained by atomic absorption after an aqua regia digestion and a solvent extraction. The coefficient of variation for Cu and Ag is 10% while for Au it is about 20%. Histograms suggest that the threshold of anomaly for Cu, Ag and Au is 150 ppm, 1 ppm and 50 ppb respectively for both soils and rocks.

Plate 3 shows a plot of the copper values. The areas of strongly anomalous values (500 ppm copper or greater) show a number of discrete anomalies with the largest one (250 x 550 m) found adjacent on the west to the old glory holes. This anomaly and the one at the south end of line 12+00W overlie known copper mineralization in chloritized basalts. There is, however, no doubt that the magnitude and extent of the largest anomaly is affected to some degree by the past mining activity, especially from 2+00S to 6+00N on line 2+00E, 4+00S to 11+00N on line 4+00E and 1+00E to 8+00E on tie line 0+00.

Plates 4 and 5 show the distribution of Ag and Au values. The only anomalous area is on line 4+00E and tie line 0+00. It is likely that it is caused by the mining activity, but this is by no means certain. Plate 6 is a composite map showing the Cu, Ag and Au values in the rocks, principally basalts, but sediments south of the 6 pit on line 0+00 and in the north part of lines 12+00W and 14+00W. The high values at the south end of line 0+00 is likely to be from material not in place, otherwise the rest of the samples are believed to represent actual concentrations in the bedrock.

VII. CONCLUSIONS AND RECOMMENDATIONS

Despite the obvious disturbance caused by the past mining activity in the eastern part of the grid the anomalies found here and over the rest of the grid are for the most part being derived from the underlying bedrock or close by and as such provide valuable information on the distribution of copper sulphides beneath the overburden. This work should be extended to cover the area between the two grid areas.

VIII. REFERENCES

1. Carter, N.D. and Grove, E.W., 1972, Geological compilation map of the Stewart, Anyox Alice Arm and Terrace areas, B.C.D.M. preliminary Map 8.

Report by: M. Osatenko
M.J. Osatenko
Senior Geologist

Approved for
Release by: M. J. Harden for
G. Harden, Manager
Exploration
Western District

MJO/vmk

Distribution:

APPENDIX "A"STATEMENT OF EXPENDITURESGEOCHEMICAL SURVEYAUGUST 5-10, 1981Salaries

S. Noakes	- 6 days @ \$105/day	\$630.00	
Darren Hamilton	- 6 days @ \$ 87/day	<u>522.00</u>	<u>\$1,152.00</u>

Transportation

Flight Vancouver - Prince George (return) 2 men		\$709.60	
Helicopter (Vancouver Island)		557.50	
Fuel		<u>67.50</u>	<u>\$1,334.60</u>

Food and Accommodation

2 men x 6 days x \$30.00			\$ 360.00
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Geochemical Analysis


401 Soil and Rock Samples Au Ag Cu @ \$6.85 - Cominco Lab			\$2,746.85
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<u>Freight Cost of Samples</u>			\$ 89.03
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Report Preparation

M.J. Osatenko, Senior Geologist - 2 days @ \$210.00/day			<u>\$ 420.00</u>
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TOTAL			<u><u>\$6,102.48</u></u>
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M.J. Osatenko
Senior Geologist

APPENDIX "B"STATEMENT OF QUALIFICATIONS

I, MYRON J. OSATENKO, OF THE CITY OF VANCOUVER, BRITISH COLUMBIA,
HEREBY CERTIFY:

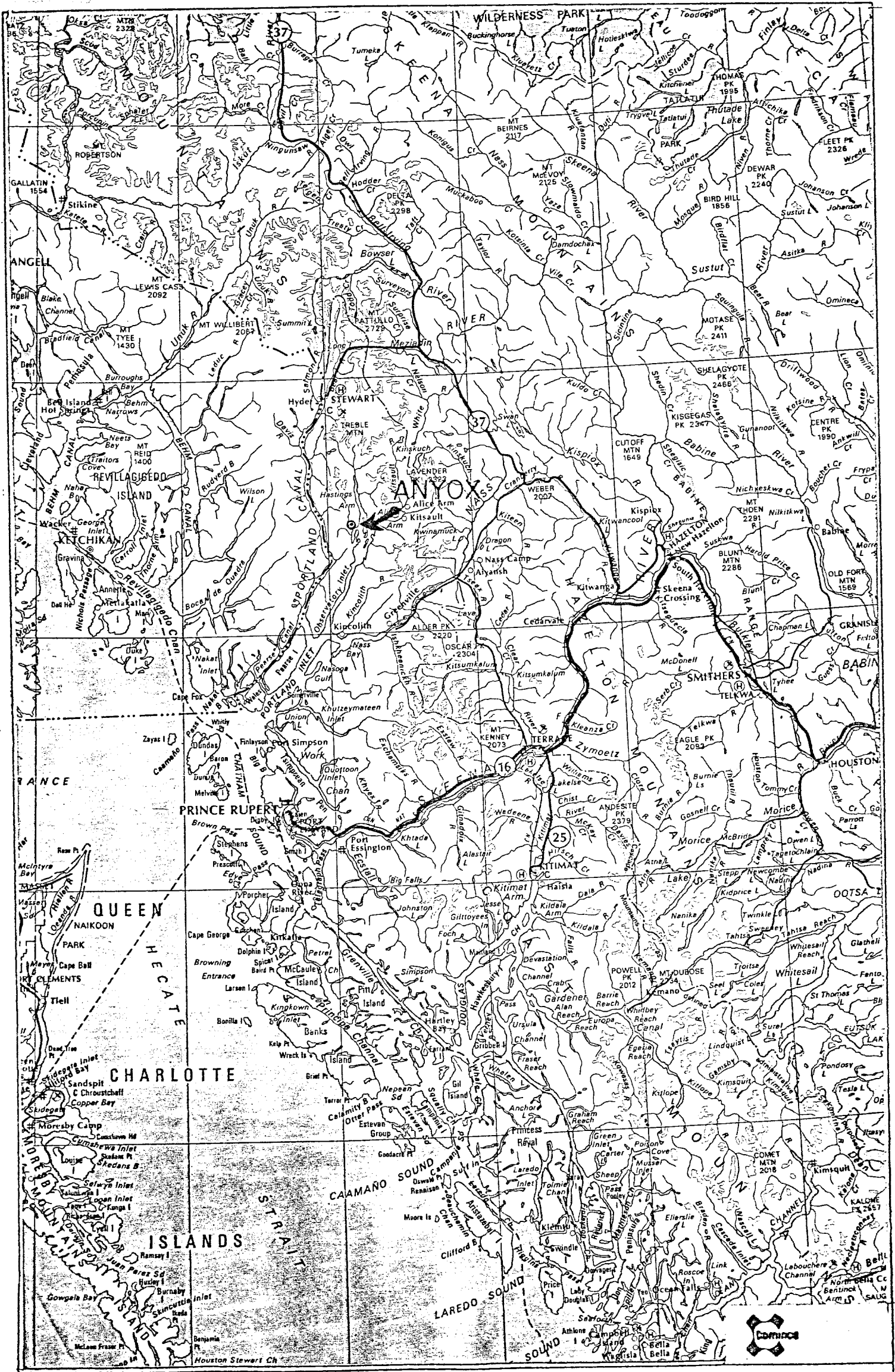
1. THAT, I am a geologist residing at 6481 McKenzie Drive,
Delta, British Columbia with a business address at 700 - 409
Granville Street, Vancouver, British Columbia.
2. THAT, I graduated with B.Sc. and M.Sc. degrees in geology from
the University of British Columbia in 1965 and 1967, respectively.
3. THAT, I have practised geology with Cominco Ltd. from 1967 to
present.

Dated this 7 day of December, 1981
at Vancouver, British Columbia.



M.J. Osatenko
Senior Geologist

MJO/vmk



Drawn by:		Traced by:	
Revised by	Date	Revised by	Date

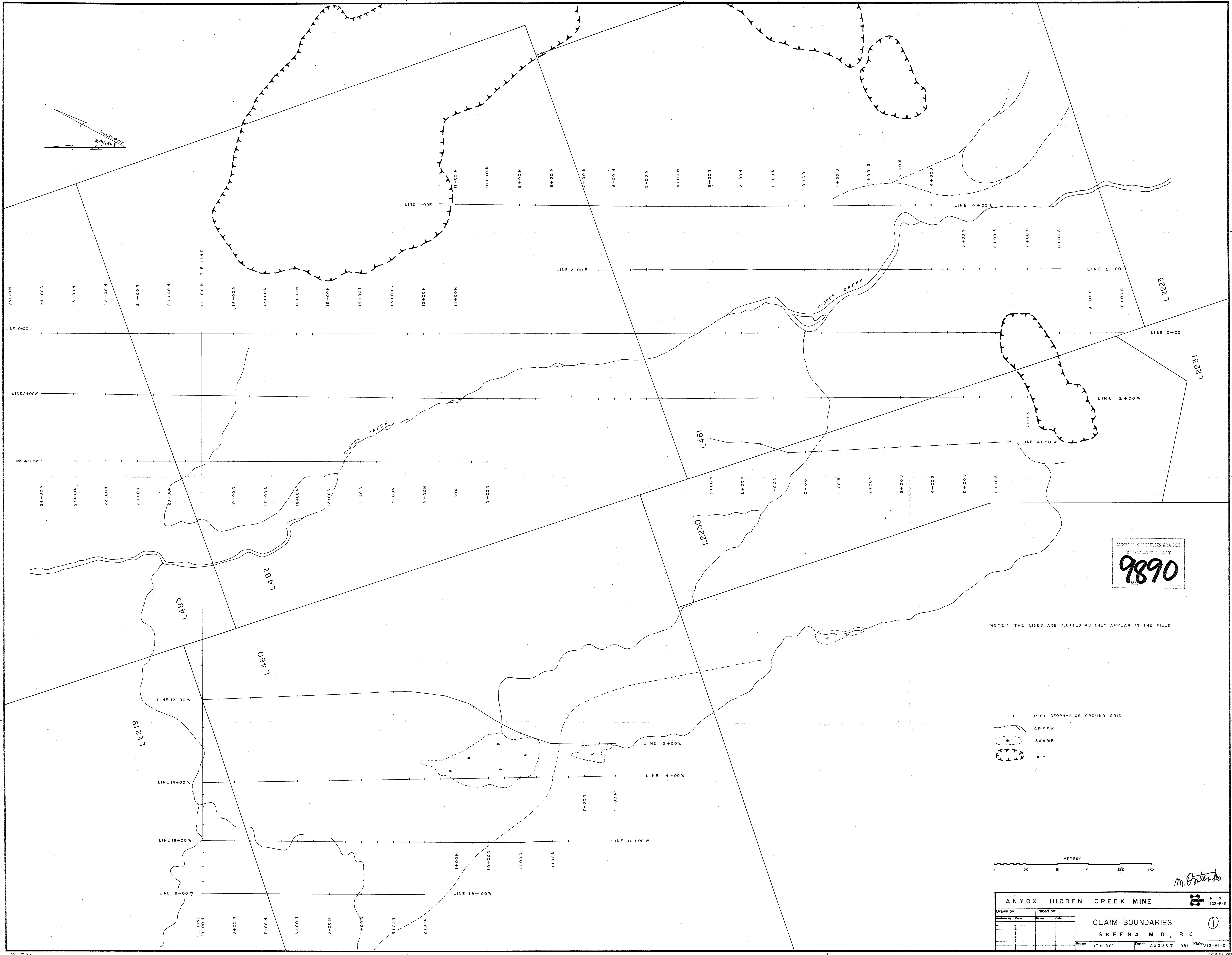
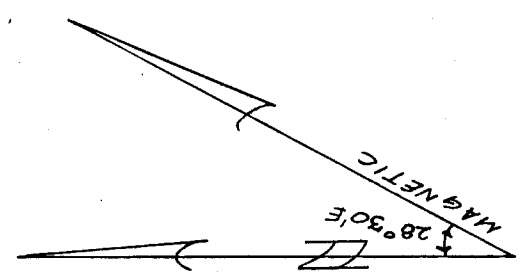
LOCATION MAP-ANYOX

A.R. # 9890

Scale: 1:2,000,000

Date:

Plate: 1



MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
9890

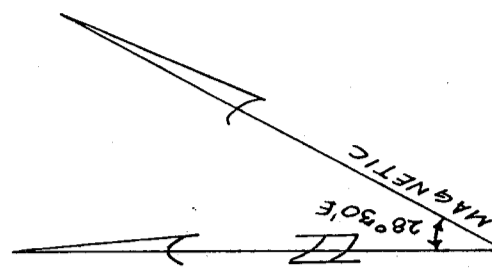
NOTE: THE LINES ARE PLOTTED AS THEY APPEAR IN THE FIELD

- 1981 GEOPHYSICS GROUND GRID
- CREEK
- SWAMP
- PIT



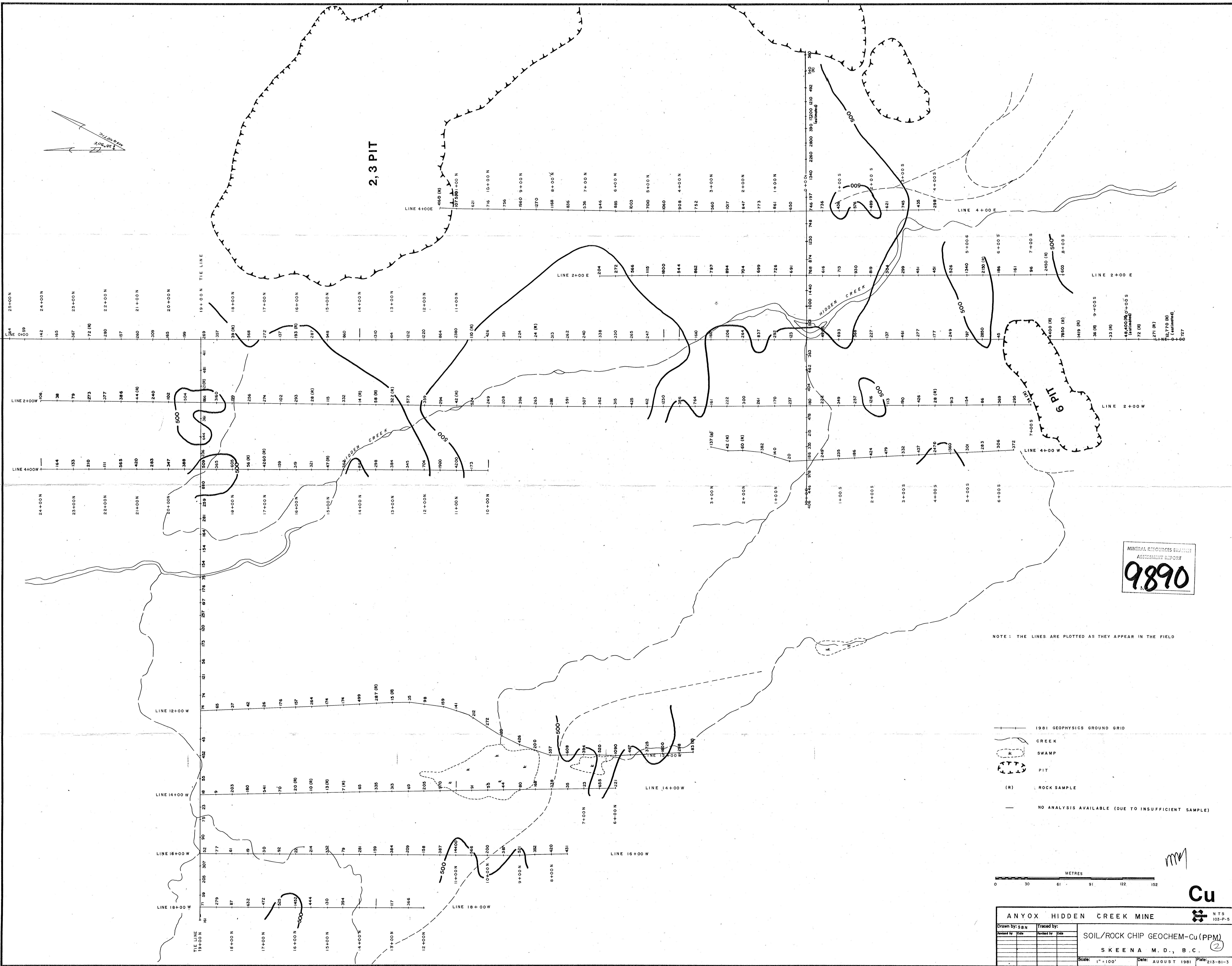
M. Osterbo

DRAWN BY:		TRACED BY:	
ANYOX HIDDEN CREEK MINE			
CLAIM BOUNDARIES			
SKEENA M. D., B. C.			
Scale: 1" = 100'	Date: AUGUST 1981	Plate: 213-81-2	NTS 103-P-5



2, 3 PIT

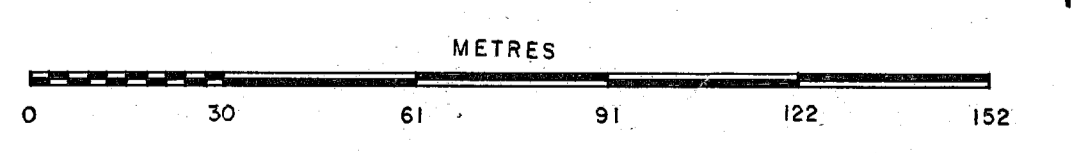
6 PIT



MINERAL RESOURCES BRANLEY
ASSESSMENT REPORT
9890

NOTE: THE LINES ARE PLOTTED AS THEY APPEAR IN THE FIELD

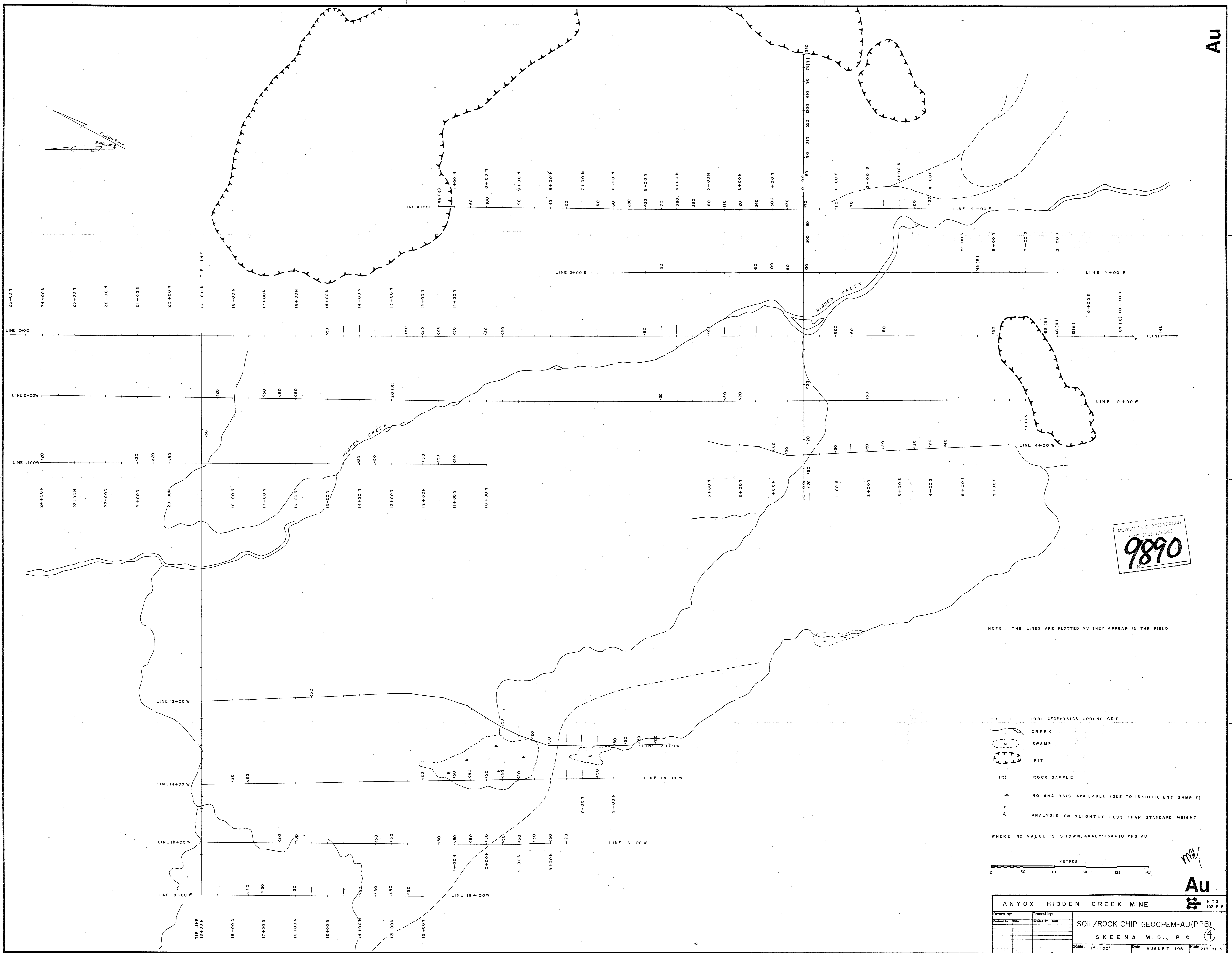
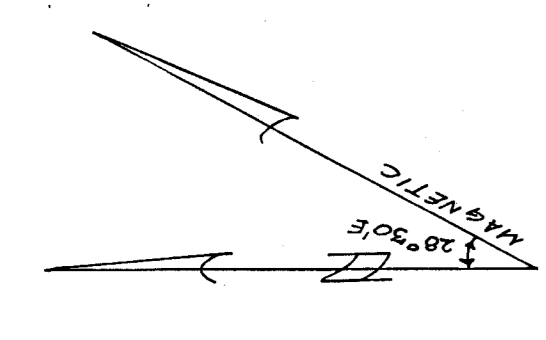
- 1981 GEOPHYSICS GROUND GRID
- CREEK
- SWAMP
- PIT
- (R) ROCK SAMPLE
- NO ANALYSIS AVAILABLE (DUE TO INSUFFICIENT SAMPLE)



mm

Cu
NTS
103-P-5

ANYOX HIDDEN CREEK MINE		SOIL/ROCK CHIP GEOCHEM-Cu (PPM)	
Drawn by: s n	Traced by:	SKEENA M. D., B. C. (2)	
Revised by: []	Revised by: []	Scale: 1" = 100'	Date: AUGUST 1981
			Plate: 213-81-3



MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
9890
No.

NOTE: THE LINES ARE PLOTTED AS THEY APPEAR IN THE FIELD

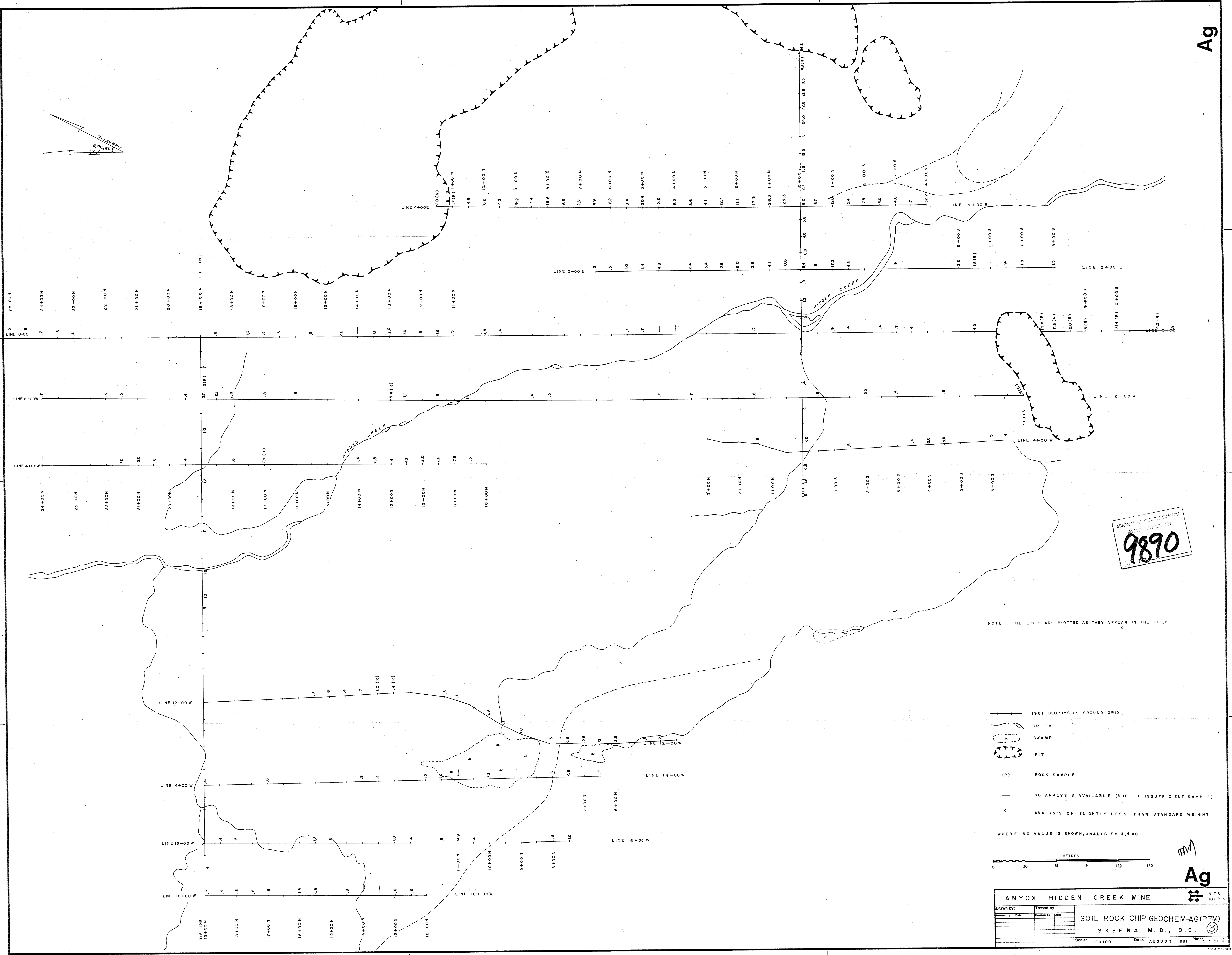
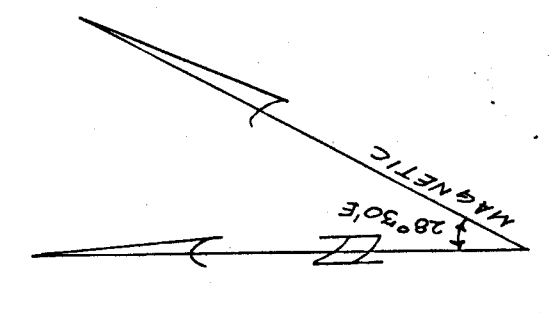
- 1981 GEOPHYSICS GROUND GRID
- CREEK
- SWAMP
- PIT
- (R) ROCK SAMPLE
- NO ANALYSIS AVAILABLE (DUE TO INSUFFICIENT SAMPLE)
- ANALYSIS ON SLIGHTLY LESS THAN STANDARD WEIGHT

WHERE NO VALUE IS SHOWN, ANALYSIS < 10 PPB AU



ANYOX HIDDEN CREEK MINE		NTS 103-P-5	
Drawn by:	Traced by:	SOIL/ROCK CHIP GEOCHEM-AU (PPB)	
Revised by:	Revised by:	SKEENA M. D., B. C.	
		Scale: 1" = 100'	Date: AUGUST 1981

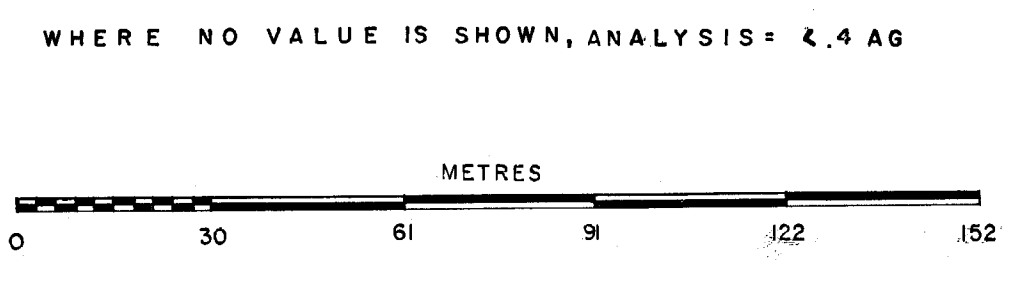
MW
Au



ANNUAL REPORTS BRANCH
ASSESSMENT REPORT
9890

NOTE: THE LINES ARE PLOTTED AS THEY APPEAR IN THE FIELD

- 1981 GEOPHYSICS GROUND GRID
- CREEK
- SWAMP
- PIT
- (R) ROCK SAMPLE
- NO ANALYSIS AVAILABLE (DUE TO INSUFFICIENT SAMPLE)
- < ANALYSIS ON SLIGHTLY LESS THAN STANDARD WEIGHT

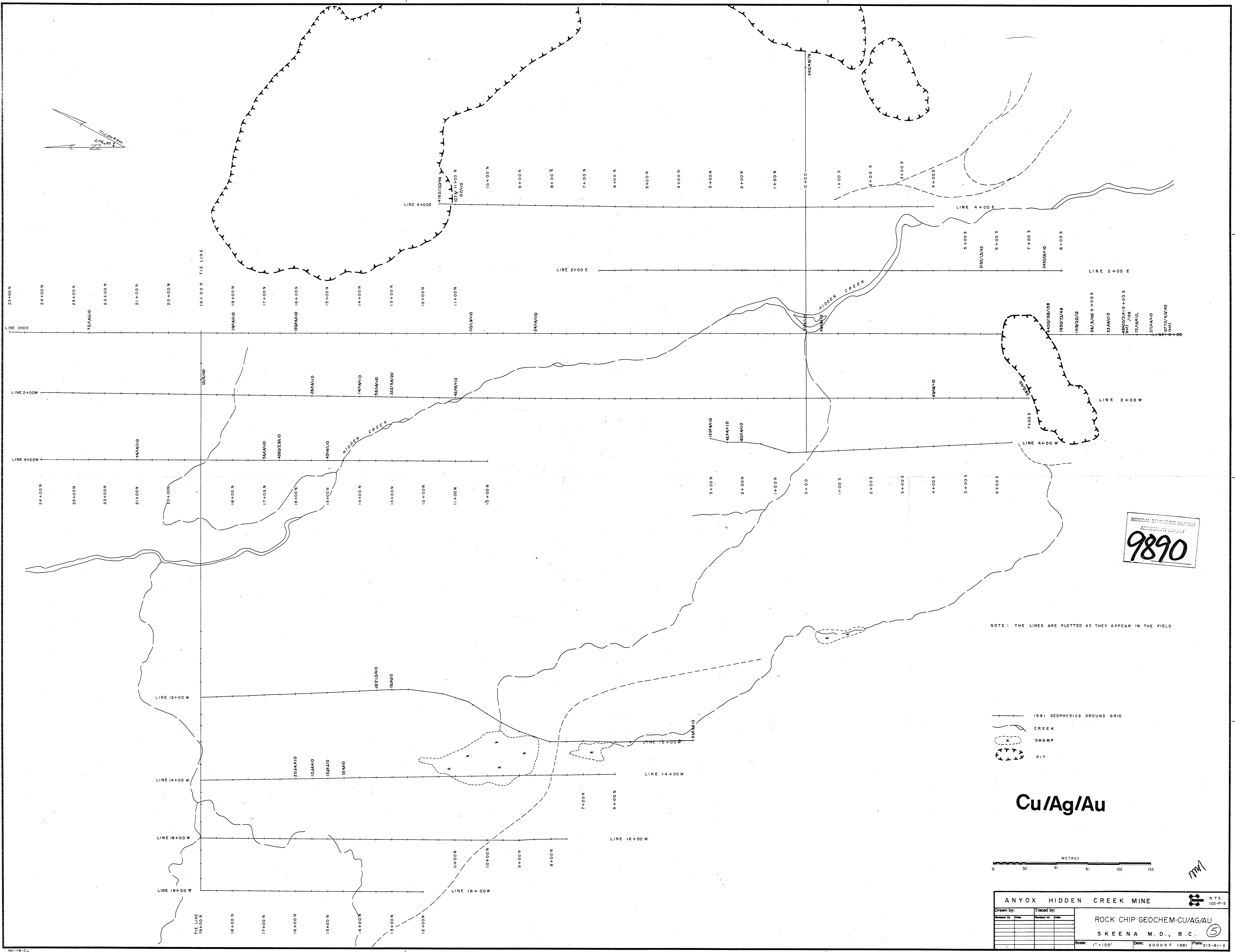
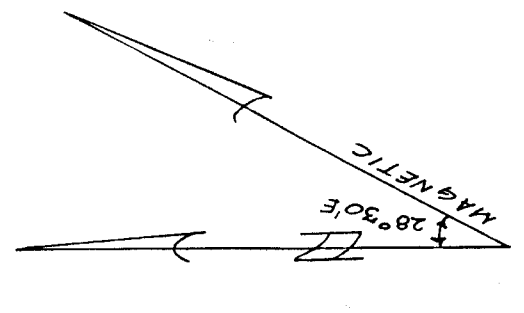


ANYOX HIDDEN CREEK MINE

Drawn by:	Traced by:
Checked by:	Reviewed by:

SOIL ROCK CHIP GEOCHEM-AG (PPM)
SKEENA M.D., B.C.

Scale: 1" = 100' Date: AUGUST 1981 Plate: 213-B1-4



MINERAL RESOURCES BRANCH
ACCESSIBILITY REPORT
9890

NOTE: THE LINES ARE PLOTTED AS THEY APPEAR IN THE FIELD

- 1981 GEOPHYSICS GROUND GRID
- CREEK
- SWAMP
- PIT

Cu/Ag/Au



ANYOX HIDDEN CREEK MINE				NTS 103-P-5
Drawn by:	Traced by:			
Revised by:	Revised by:			
ROCK CHIP GEOCHEM-CU/AG/AU				
SKEENA M. D., B. C.				5
Scale: 1" = 100'		Date: AUGUST 1981	Plate: 213-B1-5	

TMM