Office Of The Supervising Mining Recorder
OCT - 1 1974
WHITEHORSE
Yukon Territory

RECEIVED
OCT 01 1974
MINING
INSPECTORS OFFICE
WHITEHORSE, Y.T.

COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

NTS: 106 C/8

GEOLOGICAL AND GEOCHEMICAL

ASSESSMENT REPORT

HA CLAIM GROUP

SEPTEMBER 12, 1974

STEPHEN B. BUTRENCHUK

This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of $5600.00

Resident Geologist or
~~Resident Mining Engineer~~

Considered as representation work under Section 53 (4) Yukon Quartz Mining Act.

Commissioner of Yukon Territory

GEOLOGICAL AND GEOCHEMICAL REPORT ON THE HA
GROUP OF MINERAL CLAIMS SITUATE AT:

64^{o} 25' Latitude
132^{o} 15' Longitude

IN THE MAYO MINING DISTRICT OF THE YUKON TERRITORY

Located claims on which assessment credits are requested:

CLAIM	RECORD NUMBER	DATE RECORDED	ASSESSMENT CREDIT	AMOUNT
HA 1	Y85034	Sept. 4/73	1 year	$100
HA 2	Y85035	Sept. 4/73	1 year	$100
HA 3	Y85036	Sept. 4/73	1 year	$100
HA 4	Y85037	Sept. 4/73	1 year	$100
HA 5	Y85038	Sept. 4/73	1 year	$100
HA 6	Y85039	Sept. 4/73	1 year	$100
HA 7	Y85040	Sept. 4/73	1 year	$100
HA 8	Y85041	Sept. 4/73	1 year	$100
HA 9	Y85042	Sept. 4/73	1 year	$100
HA 10	Y85043	Sept. 4/73	1 year	$100
HA 11	Y85044	Sept. 4/73	1 year	$100
HA 12	Y85045	Sept. 4/73	1 year	$100
HA 13	Y85046	Sept. 4/73	1 year	$100
HA 14	Y85047	Sept. 4/73	1 year	$100
HA 15	Y85048	Sept. 4/73	1 year	$100
HA 16	Y85049	Sept. 4/73	1 year	$100
HA 17	Y85050	Sept. 4/73	1 year	$100
HA 18	Y85051	Sept. 4/73	1 year	$100
HA 19	Y85052	Sept. 4/73	1 year	$100
HA 20	Y85053	Sept. 4/73	1 year	$100
HA 21	Y85054	Sept. 4/73	1 year	$100
HA 22	Y85055	Sept. 4/73	1 year	$100
HA 23	Y85056	Sept. 4/73	1 year	$100
HA 24	Y85057	Sept. 4/73	1 year	$100
HA 25	Y85058	Sept. 4/73	1 year	$100
HA 26	Y85059	Sept. 4/73	1 year	$100
HA 27	Y85060	Sept. 4/73	1 year	$100
HA 28	Y85061	Sept. 4/73	1 year	$100
HA 29	Y85062	Sept. 4/73	1 year	$100
HA 30	Y85063	Sept. 4/73	1 year	$100
HA 31	Y85064	Sept. 4/73	1 year	$100
HA 32	Y85065	Sept. 4/73	1 year	$100
HA 33	Y85066	Sept. 4/73	1 year	$100
HA 34	Y85067	Sept. 4/73	1 year	$100
HA 35	Y85068	Sept. 4/73	1 year	$100
HA 36	Y85069	Sept. 4/73	1 year	$100

CLAIM	RECORD NUMBER	DATE RECORDED	ASSESSMENT CREDIT	AMOUNT
HA 37	Y85070	Sept. 4/73	1 year	$100
HA 38	Y85071	Sept. 4/73	1 year	$100
HA 39	Y85072	Sept. 4/73	1 year	$100
HA 40	Y85073	Sept. 4/73	1 year	$100
HA 41	Y85074	Sept. 4/73	1 year	$100
HA 42	Y85075	Sept. 4/73	1 year	$100
HA 43	Y85076	Sept. 4/73	1 year	$100
HA 44	Y85077	Sept. 4/73	1 year	$100
HA 45	Y85078	Sept. 4/73	1 year	$100
HA 46	Y85079	Sept. 4/73	1 year	$100
HA 47	Y85080	Sept. 4/73	1 year	$100
HA 48	Y85081	Sept. 4/73	1 year	$100
HA 49	Y85082	Sept. 4/73	1 year	$100
HA 50	Y85083	Sept. 4/73	1 year	$100
HA 51	Y85084	Sept. 4/73	1 year	$100
HA 52	Y85085	Sept. 4/73	1 year	$100
HA 53	Y85086	Sept. 4/73	1 year	$100
HA 54	Y85087	Sept. 4/73	1 year	$100
HA 55	Y85088	Sept. 4/73	1 year	$100
HA 56	Y85089	Sept. 4/73	1 year	$100

Work was done on these claims during the period June 9, 1974 to June 29, 1974, inclusive.

Report by: Stephen B. Butrenchuk

Stephen B. Butrenchuk

Under the
Supervision of:

D. W. Heddle

D. W. Heddle, P.Eng.

TABLE OF CONTENTS

COMINCO LTD.

EXPLORATION | WESTERN DISTRICT

INTRODUCTION

The HA group of mineral claims located in the Duo Creek area of the Yukon were staked in September, 1973 following the announcement of a significant lead-zinc discovery in the Bonnet Plume River - Goz Creek area of the Yukon by Barrier Reef Resources Ltd. Fifty-six claims were located to cover potentially favourable ground.

SUMMARY

During the period June 9, 1974 to June 29, 1974 geological mapping and a geochemical soil survey consisting of 398 samples were done on the property.

The HA group is underlain by strata of the Sheepbed Formation of Hadrynian Age. Geological units present on the property include argillite-shale, quartzite and limestone. No significant mineralization was observed on the property.

A total of 398 soil samples was collected and analyzed for lead and zinc. No significant lead or zinc geochemical anomalies were found to be present on the property.

LOCATION AND ACCESS:

The HA group of mineral claims is located in the Duo Creek area of the Yukon approximately 120 miles north-northeast of Mayo. Access to the property is via fixed-wing aircraft from Mayo to a small lake, locally known as Porter Puddle, and then via helicopter, a distance of 16 miles, to the property.

GEOLOGY

General Statement:

The Bonnet Plume River - Duo Creek area is underlain by a general northwesterly succession of carbonate and clastic sedimentary rocks of Hadrynian to Lower Cambrian Age. This sedimentary succession consists of strata belonging to the Rapitan Group, Keele Formation, Sheepbed Formation and Backbone Ranges Formation. These strata appear to have been deposited under shallow-water conditions. Most of this succession is believed to be conformable although local disconformities may be present. An unconformity exists between the Sheepbed Formation and Backbone Ranges Formation.

Local Geology:

The HA Group is underlain by a succession of strata that are tentatively assigned to the Sheepbed Formation of Hadrynian Age - Lower Cambrian Age. This strata consists of siltstone, argillite, sandstone, quartzite and limestone. It is estimated that this stratigraphic succession is greater than 1000 feet thick. As a large proportion of the property is covered by overburden an accurate measurement of the stratigraphic thickness was not possible.

The oldest unit observed on the property is a white and grey, dense quartzite unit that is restricted in its occurrence to the northwest corner of the property. This quartzite is composed almost exclusively of quartz. Occasional layers of quartzite pebbles and conglomerate are present within this unit.

Overlying the above unit is a dark grey, silty argillite of undeterminable thickness. For the most part this is a recessive weathering unit and underlays a major proportion of the property. Common features that occur on bedding planes are load costs, flute costs and animal trails. Numerous hard siltstone layers are also present within this unit. These siltstone layers range in thickness from 5 to 20 feet and are generally rusty weathering, dark grey and finely laminated. Occasional thin sandy layers are present within the siltstone.

Overlying the argillite is a thin quartzite horizon that is approximately 75 to 100 feet thick. The contact between the underlying argillite and quartzite is gradational. The quartzite is light-grey and pink, and cross-bedded in places and composed essentially of quartz. In places thin argillite and arenite layers are present.

The above argillite unit is overlain by a limestone unit with an approximate thickness of 300 feet. This unit is dark-grey to buff and weathers a light-grey to buff colour. Present within this unit are irregular mottles and fragments of limestone.

A second limestone unit occurs in the northeast corner of the property. Since this unit is mainly bounded by thrust faults a measurement of its thickness was impossible. This unit is grey, massive, sandy and in part oolitic and brecciated. Dolomitic horizons are also present.

STRUCTURAL GEOLOGY

Rock units on the HA group have a general west-northwesttrend with dips generally in a northeasterly direction. Locally, this trend changes due to small minor folds that are present.

Numerous small normal faults are present. Displacements on these faults are generally small. Along the northern boundary of the property three thrust faults are present. These thrust faults trend east-west and dip to the north.

GEOCHEMISTRY

General Statement

A 10,800 foot baseline was laid out using chain and compass. Stations were flagged and marked every 200 feet along this baseline. Cross-lines were turned-off every 400 feet along the baseline. Samples were collected every 400 feet along these cross-lines.

Samples were sieved and the minus 80 mesh fraction was analyzed for lead and zinc using a hot aqua regia solution for extraction and analyzing the sample by atomic absorption techniques. A total of 398 samples was collected and analyzed for lead and zinc.

ZINC GEOCHEMISTRY

Results for the zinc content in soils on the HA group are generally low. High zinc values are sporadic and no significant anomalies are interpreted to be present. A few high values do occur along a southerly flowing creek in the center of the property. These values are sporadic and are not believed to be indicative of significant mineralization.

LEAD GEOCHEMISTRY

For the most part lead values in the soils follow the zinc values. As for the zinc, lead values are generally low. High lead values are generally sporadic and probably not indicative of sulphide mineralization.

CONCLUSIONS

Neither the geological mapping nor the geochemical survey indicate the presence of significant mineralization on the HA group.

Report by: Stephen B. Butrenchuk

Stephen B. Butrenchuk

Under the Supervision of: D. W. Heddle

D. W. Heddle, P.Eng.

Approved for release by: W. T. Irvine

W. T. Irvine, P.Eng.,
Manager, Exploration
Western District

SBB/pm

IN THE MATTER OF THE

YUKON QUARTZ MINING ACT

AND

IN THE MATTER OF A GEOCHEMICAL AND GEOLOGICAL SURVEY
CARRIED OUT ON MINERAL CLAIMS HA 1-56 LOCATED IN
THE MAYO MINING DISTRICT OF THE

YUKON TERRITORY

MORE PARTICULARLY, NTS 106 C/8

A F F I D A V I T

I, S.B.Butrenchuk of the City of Vancouver in the Province of British Columbia, geologist, make oath and say:

1. that I am employed as a geologist by Cominco Ltd. and, as such, have a personal knowledge of the facts to which I hereinafter depose;

2. that annexed hereto and marked as "Exhibit A" to this my Affidavit is a true copy of expenditures on a geochemical and geological survey carried out on mineral claims HA 1-56;

3. that the said expenditures were incurred between the 9th day of June, 1974, and the 29th day of June 1974, for the purpose of mineral exploration on the above noted claim group.

Sworn Before Me at the City
of Vancouver in the Province
of British Columbia this
12 of September, 1974

M S Brown

A NOTARY PUBLIC IN AND FOR THE
PROVINCE OF BRITISH COLUMBIA

Stephen B. Butrenchuk

Stephen B. Butrenchuk

EXHIBIT "A"

Geological and Geochemical report on the HA Group of mineral claims situated at:

64^{o} 25'	Latitude
132^{o} 15'	Longitude
NTS	106 C/8

Salaries:

M. Lomenda	(10 days)	$ 388.66
R. Thompson	(8 days)	$ 224.26
L. Price	(10 days)	$ 241.66
M. Cogill	(8 days)	$ 247.46
S. Leung	(8 days)	$ 255.20
G. Bloy	(8 days)	$ 216.53

Transportation:	helicopter and fixed wing	$3409.40
Camp Costs:	food	$ 693.20
Analyses:	lead and zinc	$ 696.50
		$6,372.87

Signed: Stephen B. Butrenchuk.
Stephen B. Butrenchuk

THIS IS EXHIBIT "A" TO THE STATUTORY DECLARATION OF EXPENDITURES TO THE GEOLOGICAL AND GEOCHEMICAL SURVEY DECLARED BEFORE ME 12 DAY OF SEPTEMBER 1974 A.D.

McBrown

A NOTARY PUBLIC IN AND FOR THE
PROVINCE OF BRITISH COLUMBIA

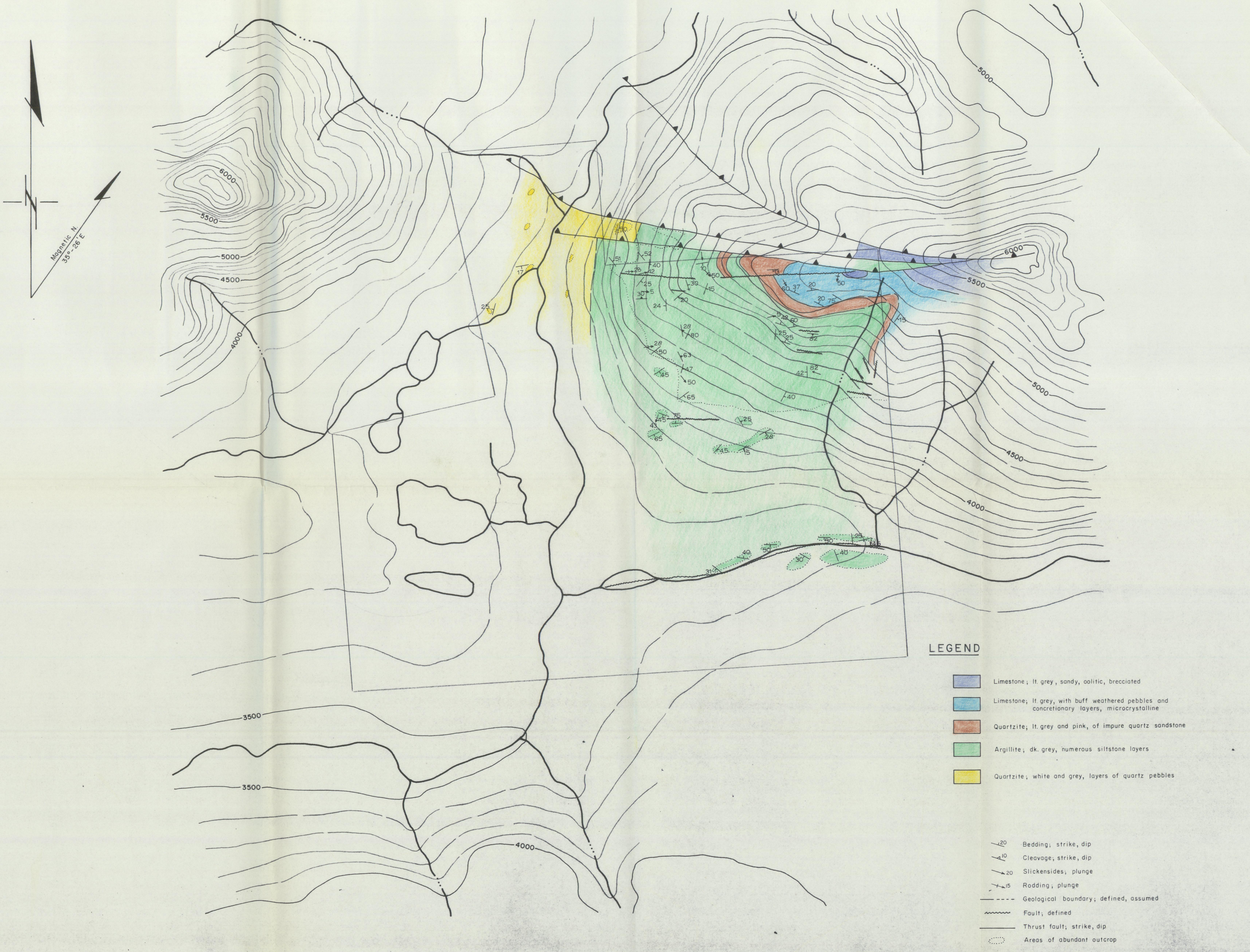
* * * * *

Drawn by:		Traced by:	
	Date	Revised by	Date

LOCATION MAP

HA CLAIMS

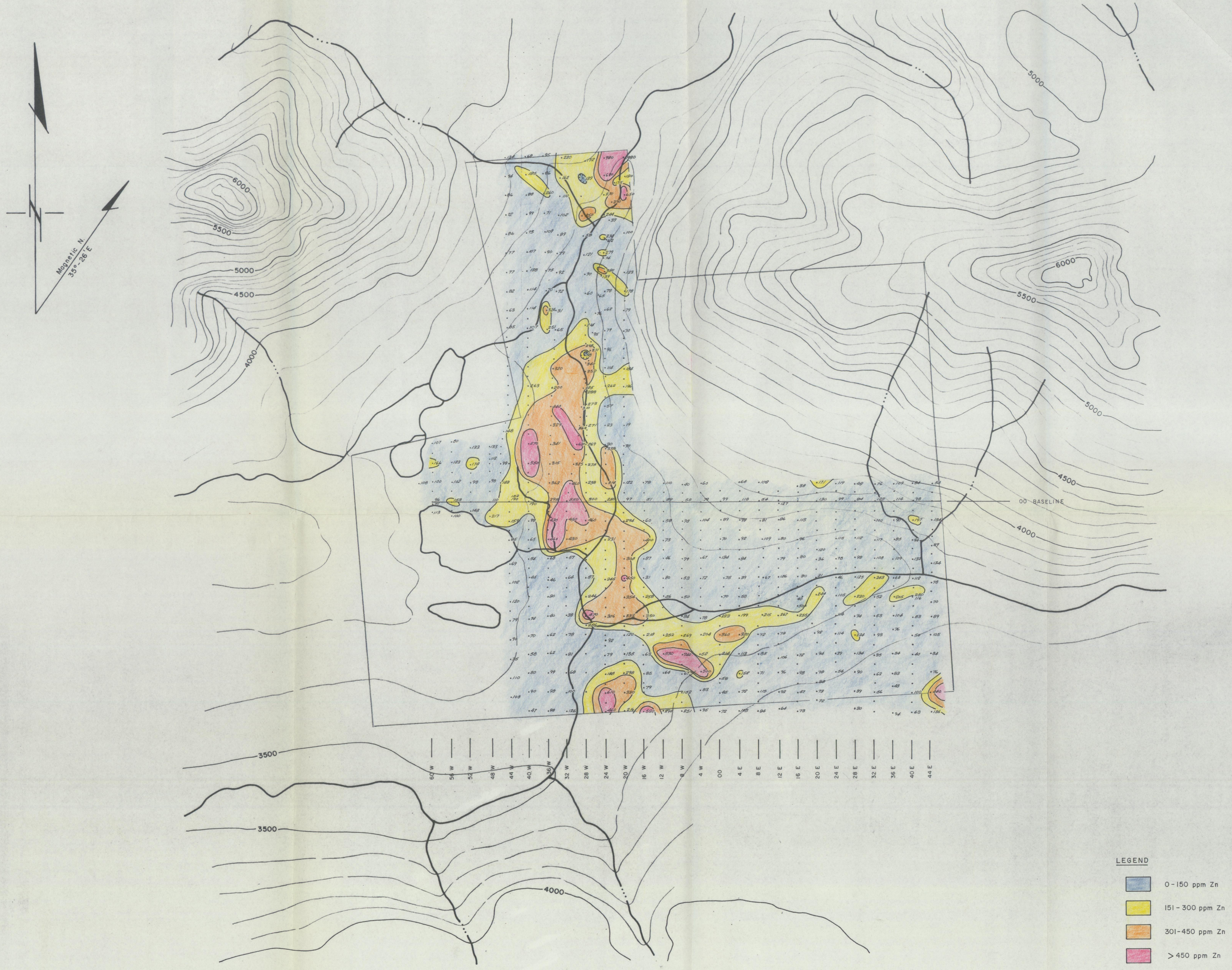
Scale: 1" = 1 MILE | Date: SEPTEMBER, 1974 | HA-2



HA GROUP				106 C/8
Drawn by:	Traced by: P.my	GEOLOGY MAP		
Revised by / Date	Revised by / Date			
		Scale: 1" = 1000'	Date: JULY 1974	Plate: HA

Base Map: MRM 106 C/8 - 1" = 1/2 Mile

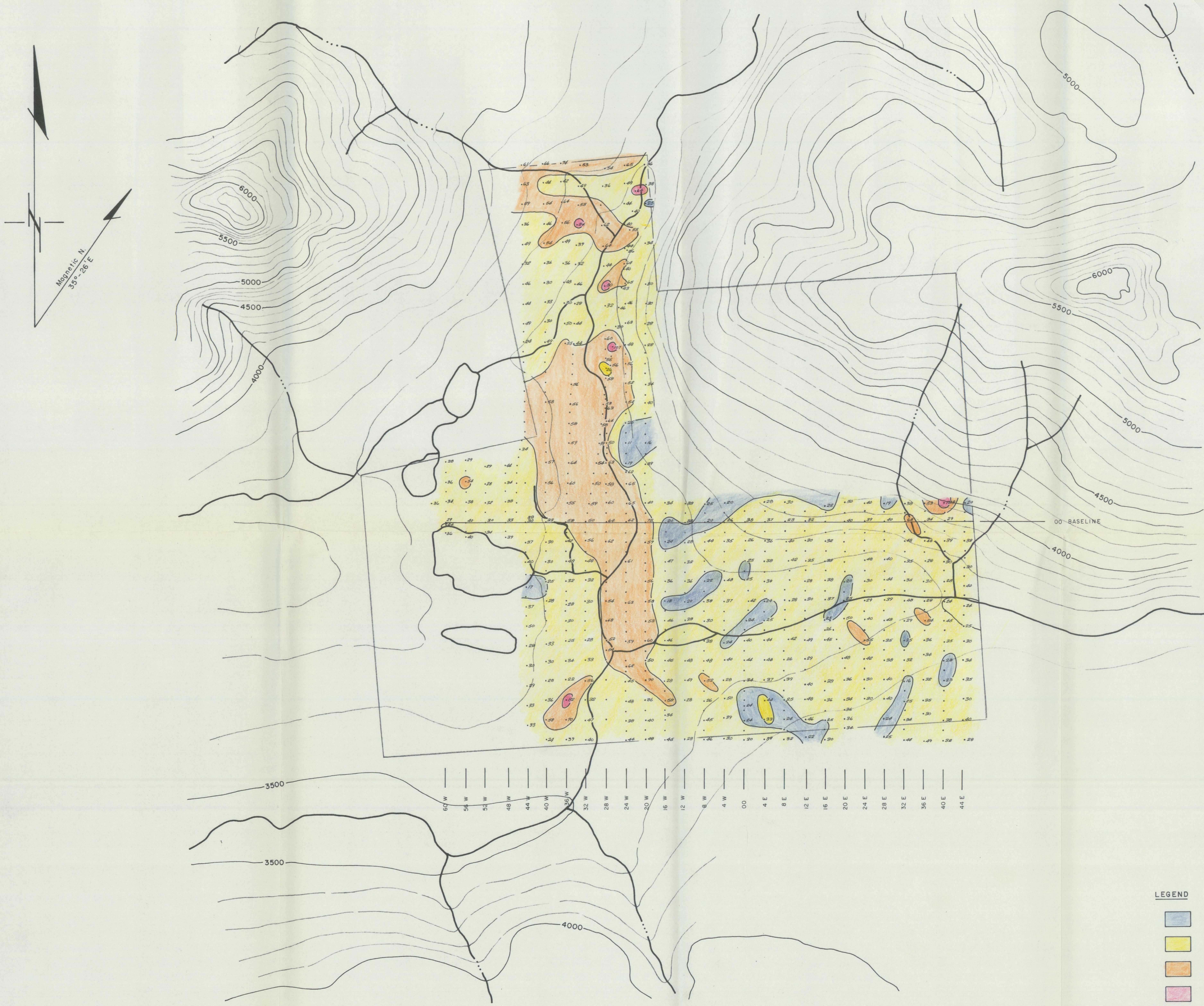
FORM 210-0660



Base Map: MRM 106 C/8 - 1" = 1/2 Mile

HA GROUP		106 C/8
Drawn by:	Traced by:	ZINC GEOCHEMISTRY in PPM
Revised by / Date	Revised by / Date	
Scale: 1" = 1000'	Date: JULY, 1974	Plate:

FORM 210-0660



Base Map: MRM 106 C/8 - 1" = 1/2 Mile

HA GROUP		106 C/8
Drawn by:	Traced by:	LEAD GEOCHEMISTRY in PPM
Revised by / Date	Revised by / Date	
Scale: 1" = 1000'	Date: JULY, 1972	Plate:

FORM 210.0660