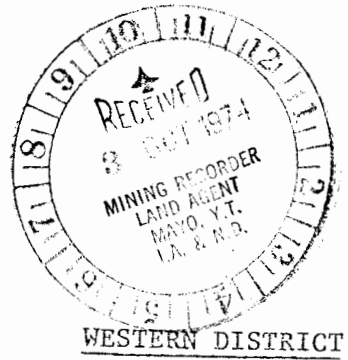


COMINCO LTD.



EXPLORATION

NTS: 106 C/11



GEOLOGICAL AND GEOCHEMICAL

ASSESSMENT REPORT

ON THE DEA CLAIM GROUP



SEPTEMBER 16, 1974

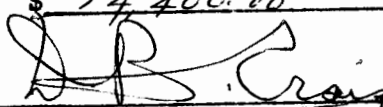
STEPHEN B. BUTRECHUK

PERIOD OF WORK

JUNE 1, 1974 TO JULY 20, 1974

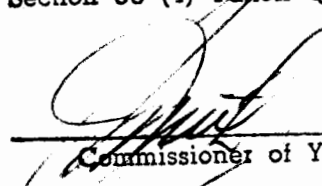
This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of

\$ 14,400.00



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 DEA GROUP

OF MINERAL CLAIMS SITUATE AT:

64° 43' Latitude
133° 00' Longitude

IN THE MAYO MINING DISTRICT OF THE YUKON TERRITORY
LOCATED CLAIMS ON WHICH ASSESSMENT CREDITS ARE REQUESTED:

<u>CLAIM</u>	<u>RECORD NUMBER</u>	<u>DATED RECORDED</u>	<u>ASSESSMENT CREDIT</u>	<u>AMOUNT</u>
DEA 1	Y85646	Sept. 25, 1973	2 years	\$ 200
DEA 2	Y85647	Sept. 25, 1973	3 years	\$ 300
DEA 3	Y85648	Sept. 25, 1973	2 years	\$ 300
DEA 4	Y85649	Sept. 25, 1973	2 years	\$ 300
DEA 5	Y85650	Sept. 25, 1973	2 years	\$ 300
DEA 6	Y85651	Sept. 25, 1973	3 years	\$ 300
DEA 7	Y85652	Sept. 25, 1973	2 years	\$ 200
DEA 8	Y85653	Sept. 25, 1973	2 years	\$ 200
DEA 9	Y85654	Sept. 25, 1973	2 years	\$ 200
DEA 10	Y85655	Sept. 25, 1973	2 years	\$ 200
DEA 11	Y85656	Sept. 25, 1973	2 years	\$ 200
DEA 12	Y85657	Sept. 25, 1973	2 years	\$ 200
DEA 13	Y85658	Sept. 25, 1973	2 years	\$ 200
DEA 14	Y85659	Sept. 25, 1973	2 years	\$ 200
DEA 15	Y85660	Sept. 25, 1973	2 years	\$ 200
DEA 16	Y85661	Sept. 25, 1973	2 years	\$ 200
DEA 17	Y85662	Sept. 25, 1973	2 years	\$ 200
DEA 18	Y85663	Sept. 25, 1973	2 years	\$ 200
DEA 19	Y85664	Sept. 25, 1973	2 years	\$ 200
DEA 20	Y85665	Sept. 25, 1973	2 years	\$ 200
DEA 21	Y85666	Sept. 25, 1973	2 years	\$ 200
DEA 22	Y85667	Sept. 25, 1973	2 years	\$ 200
DEA 23	Y85668	Sept. 25, 1973	2 years	\$ 200
DEA 24	Y85669	Sept. 25, 1973	2 years	\$ 200
DEA 25	Y85670	Sept. 25, 1973	2 years	\$ 200
DEA 26	Y85671	Sept. 25, 1973	2 years	\$ 200
DEA 27	Y85672	Sept. 25, 1973	2 years	\$ 200
DEA 28	Y85673	Sept. 25, 1973	2 years	\$ 200
DEA 29	Y85674	Sept. 25, 1973	2 years	\$ 200
DEA 30	Y85675	Sept. 25, 1973	2 years	\$ 200
DEA 31	Y85676	Sept. 25, 1973	2 years	\$ 200
DEA 32	Y85677	Sept. 25, 1973	2 years	\$ 200
DEA 33	Y85678	Sept. 25, 1973	2 years	\$ 200
DEA 34	Y85679	Sept. 25, 1973	2 years	\$ 200
DEA 35	Y85680	Sept. 25, 1973	2 years	\$ 200
DEA 36	Y85681	Sept. 25, 1973	2 years	\$ 200
DEA 37	Y85682	Sept. 25, 1973	2 years	\$ 200
DEA 38	Y85683	Sept. 25, 1973	2 years	\$ 200

<u>CLAIM</u>	<u>RECORD NUMBER</u>	<u>DATE RECORDED</u>	<u>ASSESSMENT CREDIT</u>	<u>AMOUNT</u>
DEA 39	Y85684	Sept. 25, 1973	2 years	\$ 200
DEA 40	Y85685	Sept. 25, 1973	2 years	\$ 200
DEA 41	Y85686	Sept. 25, 1973	2 years	\$ 200
DEA 42	Y85687	Sept. 25, 1973	2 years	\$ 200
DEA 43	Y85688	Sept. 25, 1973	2 years	\$ 200
DEA 44	Y85689	Sept. 25, 1973	2 years	\$ 200
DEA 45	Y85690	Sept. 25, 1973	2 years	\$ 200
DEA 46	Y85691	Sept. 25, 1973	2 years	\$ 200
DEA 47	Y85692	Sept. 25, 1973	2 years	\$ 200
DEA 48	Y85693	Sept. 25, 1973	2 years	\$ 200
DEA 49	Y85694	Sept. 25, 1973	2 years	\$ 200
DEA 50	Y85695	Sept. 25, 1973	2 years	\$ 200
DEA 51	Y85696	Sept. 25, 1973	2 years	\$ 200
DEA 52	Y85697	Sept. 25, 1973	2 years	\$ 200
DEA 53	Y85698	Sept. 25, 1973	2 years	\$ 200
DEA 54	Y85699	Sept. 25, 1973	2 years	\$ 200
DEA 55	Y85700	Sept. 25, 1973	2 years	\$ 200
DEA 56	Y85701	Sept. 25, 1973	2 years	\$ 200
DEA 57	Y85702	Sept. 25, 1973	2 years	\$ 200
DEA 58	Y85703	Sept. 25, 1973	2 years	\$ 200
DEA 59	Y85704	Sept. 25, 1973	2 years	\$ 200
DEA 60	Y85705	Sept. 25, 1973	2 years	\$ 200
DEA 61	Y85706	Sept. 25, 1973	2 years	\$ 200
DEA 62	Y85707	Sept. 25, 1973	2 years	\$ 200
DEA 63	Y85708	Sept. 25, 1973	2 years	\$ 200
DEA 64	Y85709	Sept. 25, 1973	2 years	\$ 200
DEA 65	Y85710	Sept. 25, 1973	2 years	\$ 200
DEA 66	Y85711	Sept. 25, 1973	2 years	\$ 200
DEA 67	Y85712	Sept. 25, 1973	2 years	\$ 200
DEA 68	Y85713	Sept. 25, 1973	2 years	\$ 200
DEA 69	Y85714	Sept. 25, 1973	2 years	\$ 200
DEA 70	Y85715			
DEA 71			1 year	\$ 100
DEA 72			1 year	\$ 100
				<u>\$ 14,400</u>

Work was done on these claims from June 1, 1974 to July 20, 1974 inclusive.

Report by: Stephen B. Butrenchuk
Stephen B. Butrenchuk

Under the Supervision
Of: D. W. Heddle
D. W. Heddle, P.Eng.

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ATTACHMENTS:

AFFIDAVIT

EXHIBIT "A" - Statement of Expenditures

STATEMENT OF QUALIFICATIONS

LOCATION MAP	Scale 1" = 1 mile
GEOLOGY MAP	Scale 1" = 1000 feet
ZINC GEOCHEMISTRY	Scale 1" = 1000 feet
LEAD GEOCHEMISTRY	Scale 1" = 1000 feet

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INTRODUCTION

The Dea Group, of mineral claims, located in the Corn Creek area of the Yukon, were staked in September, 1973 following an announcement by Barrier Reef Resources Ltd. that significant lead-zinc mineralization had been discovered in the Bonnet Plume River-Goz Creek area of the Yukon. Seventy claims were staked to cover potentially favourable ground.

SUMMARY

During the 1974 field season geological mapping, a geochemical survey consisting of 275 soil samples and hand trenching at two locations were done on the property.

Geological mapping on the Dea Group revealed that the property is underlain by clastic and carbonate strata of the Rapitan Group, carbonate strata of the Keele Formation and clastic strata of the Sheepbed Formation. A number of lead-zinc mineral occurrences are present on the property and occur within the Keele Formation. Hand trenching was done on two of these occurrences. The resulting assays indicated only low-grade mineralization.

Results from the geochemical soil survey revealed the presence of two coincident lead-zinc anomalies.

LOCATION AND ACCESS

The Dea Group of mineral claims is located in the Corn Creek area of the Yukon, approximately 110 miles north-northeast of Mayo. Access into the property is via fixed-wing aircraft from Mayo to Pinguicula Lake and then by helicopter, a distance of 12 miles, to the property.

GEOLOGY

General Statement

A belt of Upper Proterozoic clastic and carbonate strata occur along the northern section of Corn Creek. These strata belong to the Rapitan Group, Keele Formation and Sheepbed Formation. This sequence of sedimentary strata appears to be mainly conformable. Locally, disconformities and unconformities may be present. All strata appear to have been deposited under shallow-water conditions.

The general trend of these sedimentary rocks is north-south with gentle to moderate dips to the east. Numerous faults are present along the west side of Corn Creek. Folding of any significance is rare.

Local Geology

The Dea Group is underlain by an essentially conformable sequence of clastic and sedimentary strata belonging to the Rapitan Group, Keele Formation and Sheepbed Formation. These sedimentary strata were deposited in shallow-water under moderate to turbulent water conditions. The exposed stratigraphic thickness exposed on the property is in the order of approximately 3000 feet.

The oldest strata exposed on the Dea Group belong to the Rapitan Group and consist of dolomite, conglomerate, shale and very minor limestone. Minor sandstone and quartzite are also present. Within the Rapitan Group four lithologic units are present.

Within the Rapitan Group the oldest unit is an orange weathering, grey dolomite. This unit is restricted in its occurrence to the northwest corner of the property. The lower section is stromatolitic and the upper section consists of thin to medium dolomite with shale interbeds.

Overlying this unit is a grey weathering, grey dolomite. This unit is thin bedded to finely laminated. Common features that are present include graded bedding, cross-bedding and ripple marks.

The youngest unit within the Rapitan Group consists of an interbedded sequence of dolomite and shale. Sandstone and grit horizons are also present. These strata are generally thin to medium bedded. Locally, thick bedded strata are present.

Stratigraphically equivalent to the two youngest Rapitan units is a rusty weathering quartzite-boulder conglomerate. This unit is approximately 400 to 500 feet thick. It consists primarily of quartzite boulders and cobbles in a sandy matrix. Dolomite pebbles and cobbles are locally abundant. Within this unit beds of sandstone up to 20 feet thick are present.

Overlying the Rapitan Group is a thick sequence of dolomite strata assigned to the Keele Formation. For the most part the contact between the Rapitan Group and Keele Formation appears to be conformable. Only where the Rapitan conglomerate is in contact with Keele Formation strata is there a suggestion of a slight angular unconformity. The Keele Formation on the property has a minimum thickness of 1500 feet.

The base of the Keele Formation is placed at the bottom of a grey weathering, light grey to grey dolomite. This unit is approximately 700 to 800 feet thick. Locally, within this unit stromatolites are present. In general this unit is thin to medium bedded, dense and locally contains a few vugs.

Overlying this unit is an orange weathering, light grey to grey dolomite that is approximately 200 feet thick. A few thin shale partings are also present.

The next unit in this section is a dark grey to black, finely-laminated dolomite. This unit has a maximum thickness of 50 feet. Along strike to the south this unit disappears.

Overlying this unit grey dolomite that is approximately 200 feet thick. Sections of breccia are common within this unit. The fragments generally consist of finely-laminated black dolomite. The matrix consists of very coarse-grained dolospar. In places this dolospar comprises 50% of the rock.

A prominent ridge-forming grey dolomite overlies the above unit. This unit is approximately 700 feet thick and consists of a thin to medium-bedded, fine to medium-grained dolomite that locally contains a few stromatolites.

A thin discontinuous pisolitic dolomite forms the lower unit of the upper section of the Keele Formation. This unit rarely exceeds 50 feet in thickness. The characteristic feature of this unit are the presence of dolomite and siliceous pisolites in a dolomitic matrix.

This unit in turn is overlain by a stromatolitic dolomite. The exact thickness of this unit was not determined but it has a minimum thickness of approximately 200 feet.

Overlying the stromatolitic dolomite is an orange weathering, grey dolomite. This unit has a characteristic flaggy appearance due to the fracturing present in the rock. Locally, this unit is brecciated.

A band of grey slaty dolomite is also present in this unit.

Locally, lenses of quartz and chert sandstone and grit occur in the upper section of the Keele Formation. These lenses have a limited extent and are believed to be channel fillings within the dolomite sequence.

The uppermost unit of the Keele Formation is a buff to buff-grey, cryptocrystalline dolomite. In part this unit is vuggy. Commonly these vugs are filled with secondary dolomite.

Overlying the Keele Formation are argillite and shale of the Sheepbed Formation. The occurrence of this unit is restricted to the eastern edge of the property. These argillaceous rocks are grey and weakly calcareous.

MINERALIZATION

Sphalerite and galena mineralization occur at a number of localities on the property. This mineralization generally occurs along thin fractures. Trenching was done at two mineralized localities. This trenching revealed only low grade mineralization.

GEOCHEMISTRY

General Statement

A soil geochemical survey was done over a portion of the property. A northerly 8400 foot baseline was laid out using chain and compass. Stations were located every 200 feet along the baseline and cross-lines were turned off at 400 foot intervals. Samples were collected at 200 foot intervals along these cross-lines. Approximately 275 samples were collected and analyzed for lead and zinc using a hot aqua regia extraction and were analyzed using atomic absorption techniques.

Zinc Geochemistry

A threshold value of 1000 ppm was determined using statistical methods. Two zinc anomalies were revealed to be present on the property. The larger of these two anomalies measures 3000 feet by 1200 feet and has values up to 3100 ppm. zinc. The smaller anomaly measures 1200 feet by 800 feet and contains values up to 1460 ppm. zinc.

Lead Geochemistry

A threshold value of 750 ppm. was selected for lead values. Two anomalous lead areas are present and coincident with the previously mentioned zinc anomalies. Anomalous lead values are in the range 750 to 3040 ppm. lead.

CONCLUSIONS

The 1974 exploration program on the DEA group was successful in locating a number of low grade zinc-lead occurrences. Two coincident lead-zinc soil geochemical anomalies are present. These two anomalies require further evaluation.

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.

IN THE MATTER OF THE
YUKON QUARTZ MINING ACT

AND

IN THE MATTER OF A GEOCHEMICAL AND GEOLOGICAL SURVEY
CARRIED OUT ON MINERAL CLAIMS DEA 1-72

Located in the Mayo Mining District of the
Yukon Territory
More Particularly, NTS 106C/11

A F F I D A V I T

I, S.B.BUTRECHUK 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 DEA 1-72;
3. THAT THE SAID EXPENDITURES WERE INCURRED BETWEEN THE 1st DAY OF JUNE, 1974, AND THE 20th DAY OF JULY, 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)
26th day of September, 1974.)

Margaret 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
DEA GROUP OF MINERAL CLAIMS SITUATED AT

64^o 43' Latitude
133^o 00' Longitude

NTS 106 C/11

SALARIES:

S.B. Butrenchuk	50 days	\$ 2,550.00
B. Wong	50 days	\$ 1,401.00
N. Leggatt	32 days	\$ 853.00
M.S. Travis	16 days	\$ 535.00
G. Popp	16 days	\$ 448.00
S. Leung	6 days	\$ 191.00
G. Bloy	6 days	\$ 168.00
G. Vickers	30 days	\$ 825.00

TRANSPORTATION:

Helicopter and fixed wing aircraft \$ 3,783.76

CAMP COSTS:

Food, camp equipment \$ 5,438.18

GEOCHEMISTRY:

275 samples at 1.75/sample \$ 481.25
TOTAL: \$16,684.19

Signed: Stephen B. Butrenchuk
Stephen B. Butrenchuk

THIS IS EXHIBIT "A" TO THE STATUTORY DECLARATION OF EXPENDITURES RELATING
TO THE GEOLOGICAL AND GEOCHEMICAL SURVEY DECLARED BEFORE ME THIS 26th
DAY OF SEPTEMBER, 1974, A.D.

Maynard Brown

A NOTARY PUBLIC IN AND FOR THE
PROVINCE OF BRITISH COLUMBIA

STATEMENT OF QUALIFICATIONS

I, Stephen B. Butrenchuk with business address 2200-200 Granville Square, Vancouver, British Columbia, do hereby certify that I have supervised the field work and have assessed and interpreted the data resulting from this geological and geochemical survey on the Dea mineral claims.

I also certify that:

1. I am a graduate of the University of Manitoba, B.Sc. (1966) and M.Sc. (1970),
2. I have engaged in mineral exploration since graduation.

Respectfully submitted:

Stephen B. Butrenchuk
Stephen B. Butrenchuk

Vancouver, B.C.

Stephen B. Butrenchuk was responsible for supervising the geological and geochemical survey described herein. Mr. Butrenchuk received his B.Sc. in 1966 from the University of Manitoba and his M.Sc. in 1970 from the University of Manitoba. He has been a permanent employee with Cominco since January, 1970. I consider him a competent geologist.

Signed by:

W. T. Irvine

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

24 September 1974



106 C/II



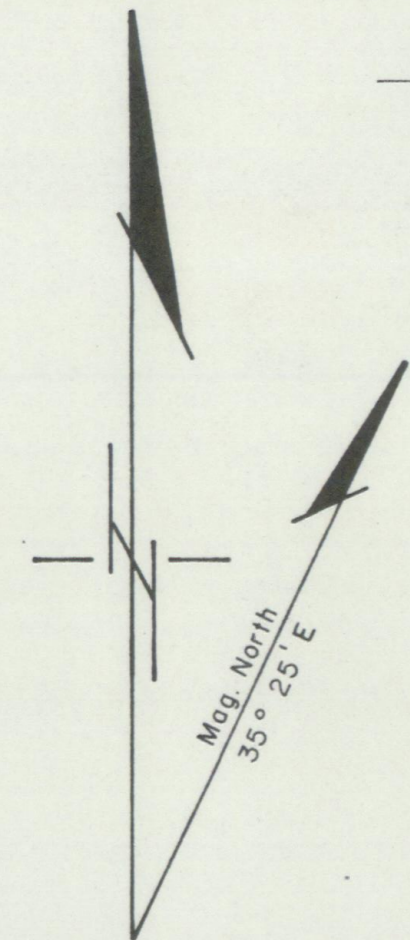
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LOCATION MAP
DEA CLAIMS

1" = 1 MILE

SEPTEMBER, 1974

DEA-2

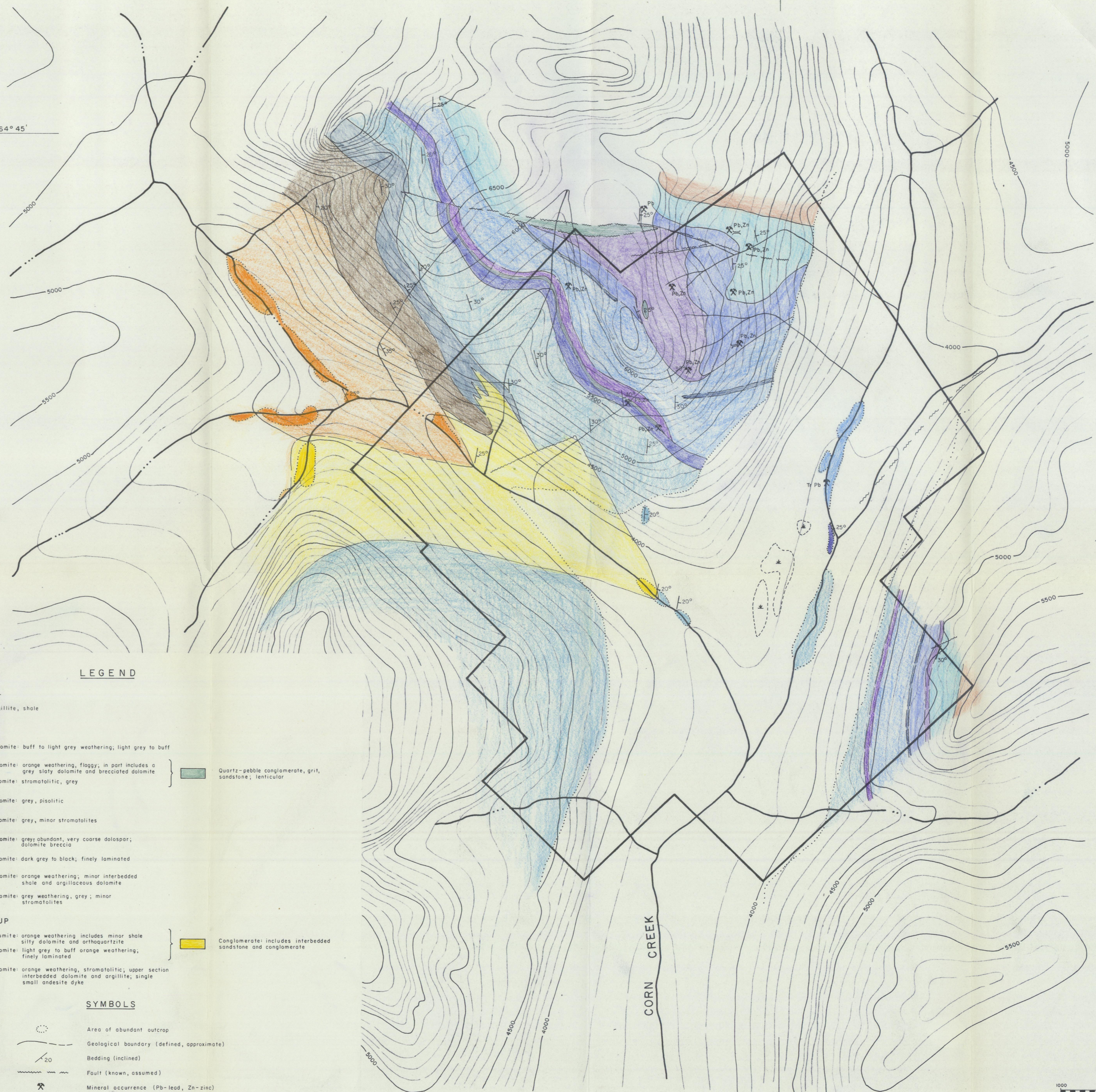


64° 45'

64° 45'

133° 00'

133° 00'



LEGEND

SHEEPBED FM.

- Argillite, shale

KEELE FM.

- Dolomite: buff to light grey weathering; light grey to buff
- Dolomite: orange weathering, floggy; in part includes a grey slaty dolomite and brecciated dolomite
- Dolomite: stromatolitic, grey
- Dolomite: grey, pisolitic
- Dolomite: grey, minor stromatolites
- Dolomite: grey; abundant, very coarse dolospar; dolomite breccia
- Dolomite: dark grey to black; finely laminated
- Dolomite: orange weathering; minor interbedded shale and argillaceous dolomite
- Dolomite: grey weathering, grey; minor stromatolites

- Quartz-pebble conglomerate, grit, sandstone; lenticular

RAPITAN GROUP

- Dolomite: orange weathering includes minor shale silty dolomite and orthoquartzite
- Dolomite: light grey to buff orange weathering; finely laminated
- Dolomite: orange weathering, stromatolitic; upper section interbedded dolomite and argillite; single small andesite dyke

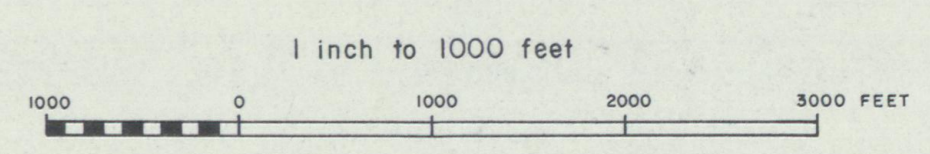
- Conglomerate: includes interbedded sandstone and conglomerate

SYMBOLS

- Area of abundant outcrop
- Geological boundary (defined, approximate)
- Bedding (inclined)
- Fault (known, assumed)
- Mineral occurrence (Pb-lead, Zn-zinc)
- Muskeg, swamp
- Trench

HADRYNIAN

CORN CREEK



0601001

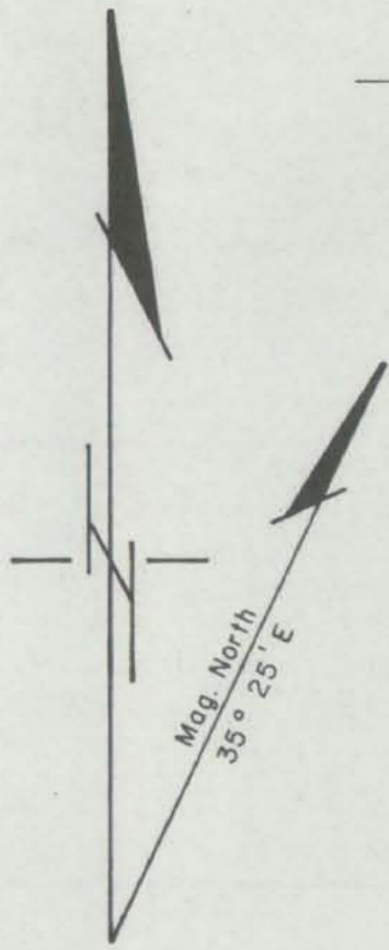
DEA GROUP

106 C/II

GEOLOGY MAP

Drawn by: SBB	Traced by: <i>Romy</i>
Revised by: _____	Revised by: _____
Date: _____	Date: _____

Scale: 1" = 1000' Date: SEPT. 1974 Plate: _____



64° 45'

64° 45'

133° 00'

133° 00'



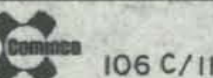
LEGEND

- 0 - 500 ppm █
- 501 - 1000 ppm █
- > 1000 ppm █

CORN CREEK

B.L.

DEA GROUP

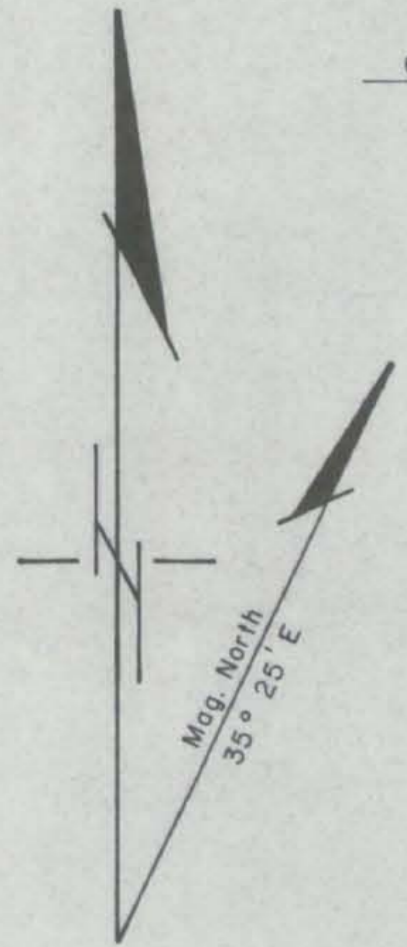


Drawn by:	Traced by: <i>Rang</i>
Revised by:	Revised by:

ZINC GEOCHEMISTRY
in PPM

Scale: 1" = 1000' Date: JULY, 1974 Plate: DEA-

Base Map: 1" = 1/2 Mile MRM 106 C/11



64° 45'

64° 45'

133° 00'

133° 00'



LEGEND

- 0 - 500 ppm █
- 501 - 1000 ppm █
- 1001 - 1500 ppm █
- > 1500 ppm █

DEA GROUP				106 C/11
Drawn by:	Traced by: <i>Rony</i>			
Revised by:	Date:	Revised by:	Date:	
LEAD GEOCHEMISTRY				
in PPM				
Scale: 1" = 1000'		Date: AUG., 1974	Plate: DEA-	