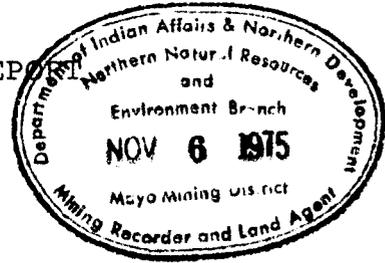


PRELIMINARY GEOLOGICAL REPORT

on the

GYR, ADD AND ETC
MINERAL CLAIMS



Latitude 64° 40' N

Longitude 132° 40' W

NTS. 106C-10



for

HARMAN SYNDICATE
(1974)



by

R. J. DARNEY, GEOLOGIST

CHARLES K. IKONA, P. ENG.

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 \$7000.00

[Signature]
Resident Geologist or
~~Resident Mining Engineer~~

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

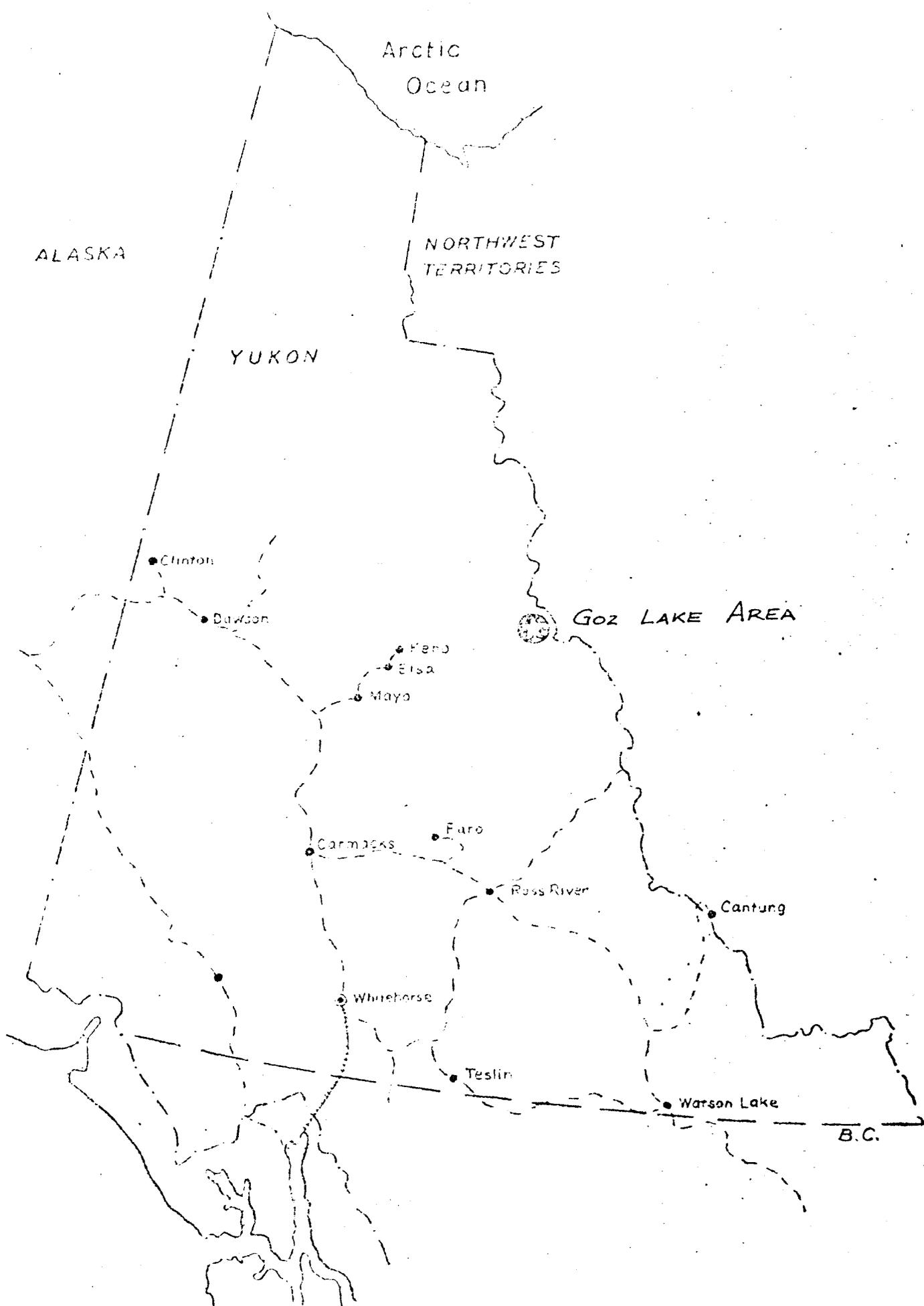
[Signature]
C. J. BAXTER
Supervising Mining Recorder
Commissioner of Yukon Territory

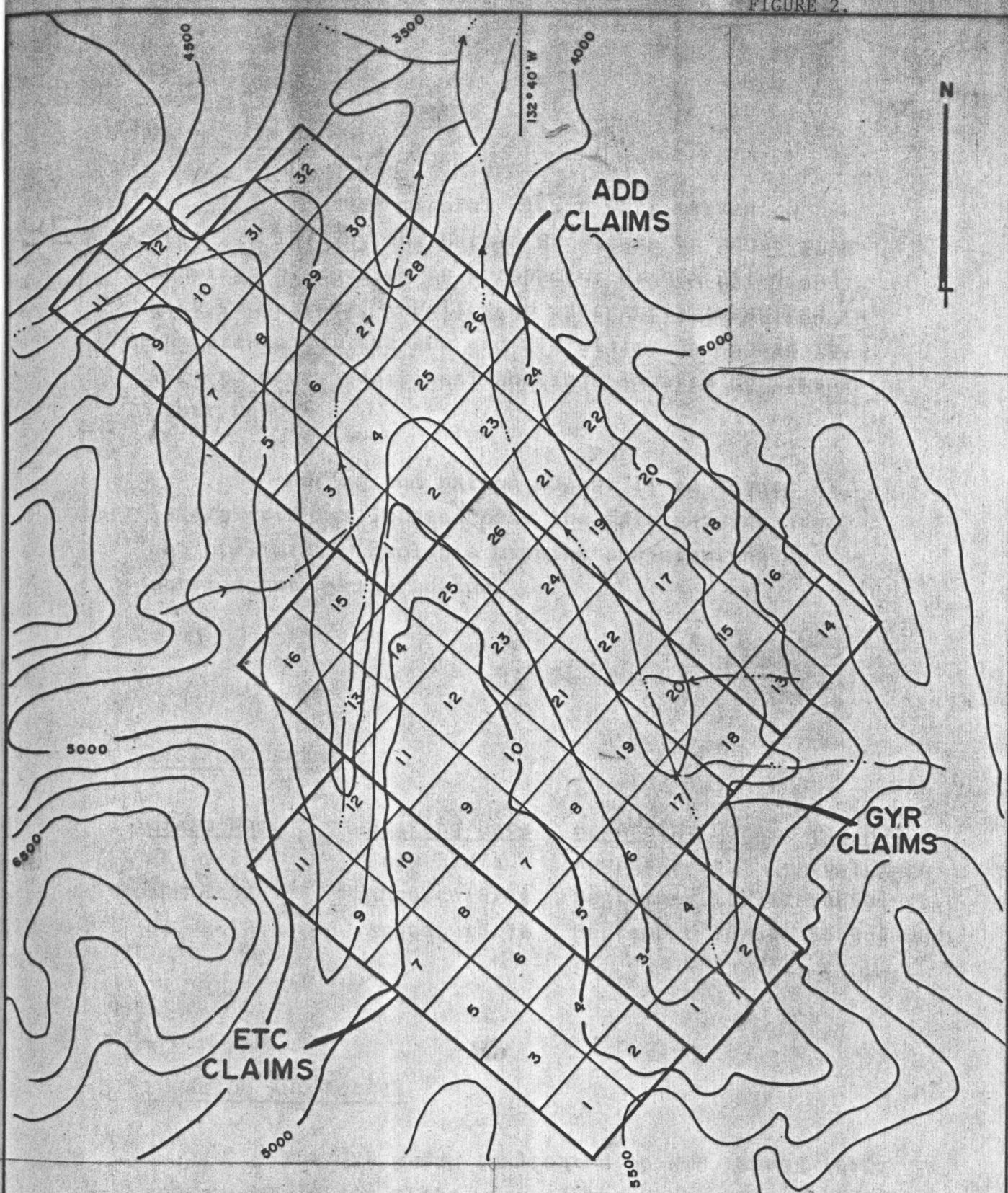
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GYR, ADD AND ETC MINERAL CLAIMS

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CLAIMS	TAG Nos.	DATE REC'D
GYR 1-26	Y 95701-Y 95726	9 Aug.
ADD 1-32	Y 96921-Y 96952	10 Spt.
ETC 1-12	Y 96909-Y 96920	10 Spt.

64° 40' N

HARMAN SYNDICATE		
GYR, ADD & ETC MINERAL CLAIMS		
NTS 106 C/10		
CLAIM LOCATION MAP		
DRAWN BY PDT DRAFTING SERVICES	SCALE 1" = 1/2 MILE	DATE NOV. 1974

INTRODUCTION

The GYR mineral claims were staked on July 21, 1974 by the Harman Syndicate to cover zinc showings discovered by prospector Graham Baird and Mike Toporowski. Follow-up prospecting resulted in the staking of the ADD and ETC claims on August 15, 1974 to cover additional showings located by prospector Elmer DeBock.

During the period August 11 to August 23, 1974 a grid was located over the main showing area, and preliminary geologic mapping and sampling was carried out by the author.

LIST OF CLAIMS

<u>Claim Name</u>	<u>Staking Date</u>	<u>Recording Date</u>	<u>Tag Number</u>
GYR 1-26	July 21/74	August 9/74	Y95701-26
ADD 1-32	August 15/74	September 10/74	Y96921-52
ETC 1-12	August 15/74	September 10/74	Y96909-20

LOCATION AND ACCESS

The GYR group is located on NTS. Sheet 106C, approximately six miles west of the Snake River, 135 miles

northeast of Mayo, Yukon Territory, at latitude $64^{\circ} 40' N$, longitude $132^{\circ} 40' W$. Access for the 1974 season was maintained by combined fixed wing and helicopter transport. Men and equipment were flown from Mayo to Goz Lake, a distance of 130 miles, helicopter support was then used to shuttle 15 miles northwest to the property. Goz Lake is the closest lake suitable for float equipped aircraft, however, a level bench of glacial gravels, approximately 1000 feet in length, occurs within the ADD claims. Such a ready made strip may be utilized for short take off-landing type wheeled aircraft with a minimal amount of work. This airstrip would then enable flight and supplies to be lifted to within two miles of the mineralized areas and should therefore be considered an alternate access route in the event of continued exploration on the property.

TOPOGRAPHY AND VEGETATION

The GYR group of claims covers an area of relatively flat lying carbonates, which have been deeply incised by recent alpine type glaciation. Topography may be described as moderately rugged with elevations ranging from 4000 to 6000 feet above sea level. Slopes are normally 20° - 30° , however, numerous cliffs range from approximately 10-100 feet in height in the central part of the group. One cliff on the

west side of the ridge where the showing is located, is approximately 500 feet in height and the entire northwest edge of the claims area is more rugged than the remainder of the property.

Timberline in the general area is at approximately 4000 feet, consequently most of the claim group is covered only by moss and low grasses. The only timber consists of sparse stands of scrub spruce just north of the property.

During the program period, ample water for drilling was available. However, in the event of a dry field season, water would have to be pumped from a creek on the valley floor.

REGIONAL GEOLOGY

The GYR group lies within a narrow belt of gently dipping mid-Paleozoic carbonates, immediately west of the upper reaches of the Snake River.

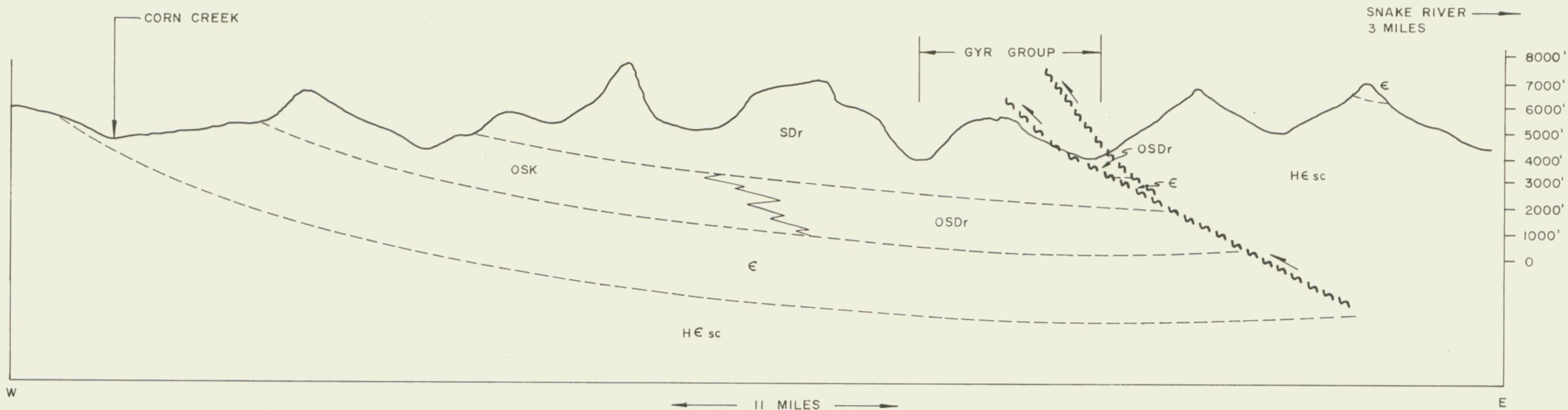
The area falls relatively close to the Upper Cambrian-Devonian margin of the Selwyn Basin near its northern edge. The absence of mid-Paleozoic strata on both the east and west sides of the area suggest it was a narrow inlet throughout most of the Paleozoic period.

Although the basin was not wide during this period, it has been further narrowed to its present configuration by a major northwest-southeast thrust fault parallel to the Snake River valley, which has brought Upper Proterozoic and Lower Cambrian rocks in contact over a distance of some 40 miles.

Figure I shows one possible interpretation of the restricted basin. Although overly simplified, it is designed primarily to show the structural relationship of the old strata on each side of the basin.

The succession on the western flanks appears conformable throughout, with gently east dipping pisolitic dolomites, quartzites, shales, thin-bedded dolomites and limestones of the Backbone Ranges and Sekwi Formations overlying the Upper Proterozoic rocks of the Sheepbed Formation. The succession then passes through a relatively undivided sequence of Ordovician-Upper Devonian platform carbonates of the Camsell Formation, which are in turn covered by Upper Devonian-Mississippian black-brown shales of the Besa River Formation.

The presence of black shales of the Ordovician Road River Formation in a valley south of the property, indicates a slight deepening of the depositional basin away from the west margins, and a possible "shale-out" of Mt. Kindle carbonates of the same age.



DIAGRAMATIC CROSS-SECTION OF PROPOSED
REGIONAL GEOLOGY

EAST-WEST SECTION THROUGH GYR GROUP
FROM CORN CREEK - SNAKE RIVER

LEGEND

- SDr SILURIAN - DEVONIAN CARBONATES
- OSK UPPER ORDOVICIAN - SILURIAN CARBONATES
- OSDr UPPER ORDOVICIAN - SILURIAN BLACK SHALES
- E LOWER CAMBRIAN - DOLOMITES, SHALES, QUARTZITES
- HEsc HADRYNIAN (?) CAMBRIAN SLATES, QUARTZITES

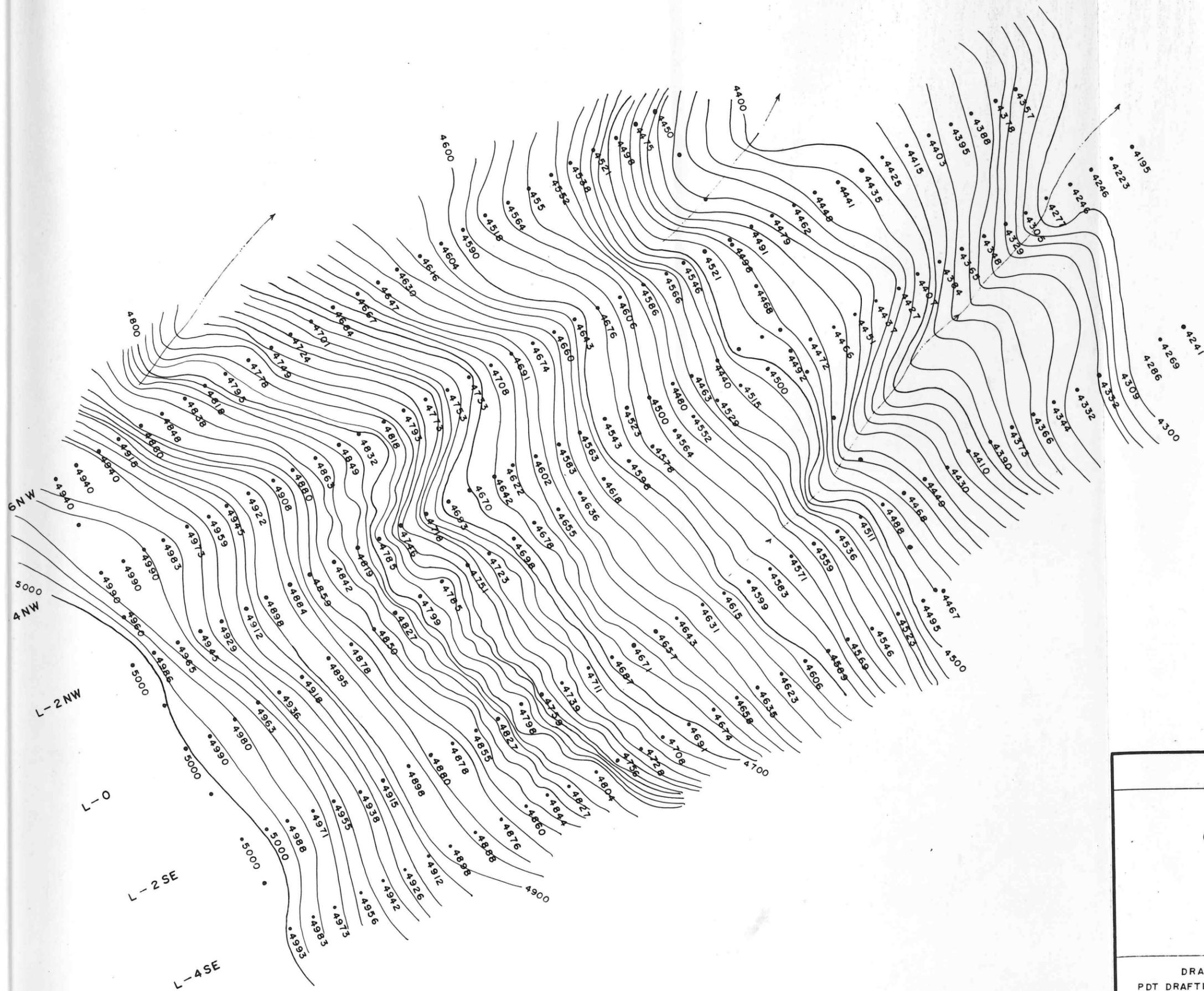
HARMAN SYNDICATE			
GYR GROUP GYR, ADD & ETC MINERAL CLAIMS NTS 106/C9			
REGIONAL CROSS SECTION			
DRAWN : PDT DRAFTING SERVICES	SCALE 1 : 50,000	DATE NOVEMBER '74	FIG. 1

Along the eastern flank, the thrust fault mentioned earlier, was possibly one of multiple thrusting which succeeded in leaving small wedges of Ordovician strata along the thrust plane.

LOCAL GEOLOGY

With the aid of data provided on the Geological Survey of Canada Map 106C, a preliminary geological map at 1" = 1000' (Figure 2) was prepared for the claims area. Further detailed mapping was carried out at 1" = 200' (Figure 3) within a small area of important zinc showings in the southeastern section of the group. A clinometer survey of the grid area appears on Figure 4 at 1" = 200'.

The claims are underlain by a thick sequence of gently dipping mid-Devonian platform carbonates, which are included in the Camsell Formation. However, stratigraphic position and lithology suggest the presence of the Landry Formation. The carbonates consist primarily of well bedded, light grey, fine grained limestones with interbedded units of slightly darker grey more argillaceous or siliceous varieties. Highly fossiliferous members are common, although these appear locally and are not pervasive throughout the section.



HARMAN SYNDICATE			
GYR GROUP GYR, ADD & ETC MINERAL CLAIMS NTS 106/C9			
CLINOMETER SURVEY GRID AREA			
DRAWN : PDT DRAFTING SERVICES	SCALE 1" = 200'	DATE NOVEMBER '74	FIG. 4

The carbonate section is terminated to the east by a low angle thrust fault, which passes through the east and northeast portion of the claims area. This thrust has brought a thick sequence of late Proterozoic-Cambrian (?) shales, siltstones and quartzites of the Sheepbed Formation in contact with the younger carbonates. It has also left small remnants of Ordovician Road River shales in almost conformable contact above the carbonates in the east central portion of the claims.

Mapping within the grid has outlined an irregular area of highly fossiliferous limestones overlain by a uniform, thickly bedded unit of light grey, fine grained limestone, Photo 1.

Locally, the fossiliferous area appears brecciated and frequently conglomeritic due to the semi-rounded shapes of many fragments. The fragments, which seem elliptical in shape range from approximately 1"-12" in size, and appear to lie with long axis parallel to planes which conflict with those of the regional trend. Several attitudes measured where elongate fragments parallel "dip slopes" were quite similar at $290^{\circ}/50^{\circ}$ NE.

The abundance of fragment coral, bryozoon and brachiopoda remains conforming to a fairly uniform dip and strike pattern, which is markedly different from the regional trends in the carbonate sequence, suggests a possible reef slope type of environment

where fossil fragments broken from reef structures have accumulated on reef flanks. Such a buildup of fragmental material would be extremely porous and easily susceptible to flooding by secondary carbonates and sulphide minerals.

MINERALIZATION

Numerous zinc-lead showings occur within the claims area at irregular intervals along a zone which approximately parallels the major north-south thrust fault.

Attention was focused upon one group of zinc occurrences in the southeastern portion of the claims, where a grid was established for close control. Most of the remaining known showings were examined and found to have many characteristics similar to the main showings, however, time did not permit detailed mapping of each zone.

The main zone lies on the eastern slope of a narrow north-south ridge, passing through the central portion of the claims. Mineralization has been examined between the elevations of 4300-4950 feet, although, prospecting indicates some scattered mineralization to the valley floor at approximately 4000 feet.

The main zone of zinc mineralization is centered near 5+50 NE and in plan, covers an area approximately 1000' x 200' in size.

The mineralogy consists mainly of pale yellow-amber coloured sphalerite with very minor galena. Secondary zinc carbonates on weathered surfaces are common in most outcrops within the showing area. Mapping of the showing indicated three types of zinc mineralization, which are described as follows:

1. Where brecciation within the fossiliferous limestones is intense, sphalerite occurs with crystalline limestone and calcite as a matrix around breccia fragments, which range from a fraction of an inch to greater than 1 foot in size. These fragments appear sub-angular to semi-rounded, probably due to either rounding during downslope migration on reef flanks or partial assimilation during mobilization of the matrix minerals. Spaces between the fragments range from hairline to several inches, and may possess almost any sphalerite to carbonate ratio, although in several places, including LO 5+50S and L2SE 20+00NE, the matrix consists of almost massive sphalerite;
2. As narrow veinlets or hairline fracture fillings normally associated with calcite. This type of occurrence may be similar to the first type in cases where tight brecciation

is present with only fine fracture fillings surrounding them. However, cross cutting veinlets and stringers are present and range from <1mm to approximately $\frac{3}{4}$ " in width. In many outcrops it is difficult to determine the amount of sphalerite mineralization, since surface weathering has caused oxidization, leaving many fractures open and barren of sulphides, while positive zinc tests can be obtained in most cases;

3. and, as massive or disseminated replacement of fossil fragments in localized zones where fossil remains are abundant. This type of mineralization is the least abundant but was seen in several places near LO 5+00S.

ASSAYS

Twelve samples were collected from several locations within the mineralized zone. Since the character of the mineralization does not readily lend itself to surface sampling, many of the samples were taken from float and intended primarily for reconnaissance purposes.

The samples were all shipped to Chemex Labs Ltd. in North Vancouver, where they were assayed for lead, zinc and silver. A certificate of the assays

RD 1-12 is contained in Appendix I.

A brief description of the assays and their locations is given below:

<u>Sample</u>	<u>Assay % Zinc</u>	<u>Approximate Locations</u>	<u>Description</u>
RD 1	1.15%	6+25 NW 2+00 NE	Collected from talus chips below an outcrop which contained minor sphalerite in a network of calcite stringers, approximately 1" apart.
RD 2	2.26%	L6NE△2NE	Float sample approximately 3" x 4" in size containing pale yellow sphalerite in narrow irregular stringers. Approximately 5% of talus within this area contained some mineralization.
RD 3	0.72%	4+75 NW 4+00 NE	Chips from several pieces of float where very little sphalerite could be seen, but positive zinc tests present in most cases.
RD 4	1.09%	1+00 SE 7+25 NE	Two chip samples across 6' of apparent thickness in mineralized zone. Good sphalerite visible in outcrop. Each chip sample bagged together.
RD 5	4.43%	0+25 SE 5+50 NE	Two chip samples across 8' of apparent thickness in main showing. Samples were taken 8' apart and bagged together. Good sphalerite visible in outcrop.

<u>Sample</u>	<u>Assay % Zinc</u>	<u>Approximate Locations</u>	<u>Description</u>
RD 6	1.95%	0+20 NW 5+25 NE	Chips taken within area 10' x 10' on irregular outcrop face within the main showing. The face exposed approximately 10' of apparent thickness.
RD 7	1.37%	5+00 NW 13+00 NE	Several chips collected from face of outcrop. The outcrop which contains sphalerite in fine stringers lies just below the shale-limestone contact.
RD 8	9.20%	LO 19+60 NE	Two well mineralized pieces of float approximately 4" x 4" x 6" bagged together. Well mineralized float abundant, but no outcrop available for sampling.
RD 9	3.26%	LO 18+50 NE	Four chip samples each 25' in length along face of outcrop. No definite attitude of the mineralized zone could be obtained, although it was felt the samples were collected along the strike of the zone.
10	2.22%		
11	0.60%		
12	2.60%		

CONCLUSIONS

The GYR, ADD and ETC claims cover an area which contains several occurrences of sphalerite and minor galena. The most encouraging zone was mapped over an area approximately 1000' x 200' with possible off grid extensions to the northwest and east.

To date, geologic mapping has not determined any positive controls for the main zone. Evidence for both a large breccia zone or reef flank conglomerate zone exist, but only small scale features could be used in attempting to bring forth some conclusions on the attitude of the zone.

The mineralization in the showing was found to be irregularly distributed, but where the degree of brecciation or fossil fragment buildup is abundant, grades of economic significance occur.

The mineralized surface exposure, combined with assays indicating zones of economic importance, makes the GYR group an excellent target for the possible development of a large tonnage deposit.

Any further programs should be designed to delineate the entire surface expression of the showing through geologic mapping, with light core drilling to sample grades and thickness within the zone.

RECOMMENDATIONS

1. a. preparation of 1" = 800' air photo blowup from existing government photos to cover the central portion of the GYR claims;
- b. preparation of 1" = 400' topographic map of the same area;

c. extension of existing grid baseline northwest and southeast as topography will allow:

- extend existing crosslines from 20+00S to valley floor.
- location of new grid lines at 200' intervals in areas of baseline extensions.

These lines should run northeast from baseline and attempt to cover the topographic high immediately northwest of the existing grid;

- d. partial stadia survey on the grid to tie it to the proposed topographic map;
- e. geologic mapping at 1" = 200' to complete mapping of all new grid extensions.

2. Trenching, employing a "cobra type" rock drill and explosives to enable samples of several hundred pounds to be taken. Sites for this trenching to be located on site. A minimum of 8-10 trenches is anticipated.

3. Diamond drilling: Short hole diamond drilling should be conducted initially within areas where surface exposures indicate the existence of better grade mineralization. Initially, drilling must be considered exploratory and as a method of testing thickness of the zone and of sample collections. Drill sites should be

chosen on location, although the LO 6+00NE
and 2SE-19NE deserve immediate attention.

Two thousand feet of core drilling should
adequately cover the existing target area
as the first phase of drilling.

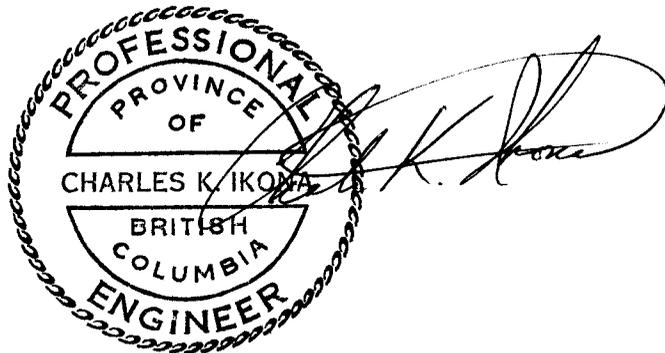
Respectfully submitted,



R. J. Darney, Geologist.

Charles K. Ikona, P. Eng.

November 1974





CHEMEX LABS LTD.

APPENDIX I
212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA
TELEPHONE: 985-0648
AREA CODE: 604

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

TO: Harman Explorations
821 - 602 W. Hastings,
Vancouver, B. C.

CERTIFICATE NO. 23363
INVOICE NO. 12464
RECEIVED Sept. 4/74
ANALYSED Sept. 10/74

ATTN:

SAMPLE NO. :		% Lead	% Zinc
Rd 1		< 0.01	1.15
2		< 0.01	2.26
3		< 0.01	0.72
4		0.03	1.09
5		< 0.01	4.43
6		< 0.01	1.95
7		< 0.01	1.37
8		< 0.01	9.20
9		< 0.01	3.26
10		< 0.01	2.22
11		< 0.01	0.60
12		< 0.01	2.60



MEMBER
CANADIAN TESTING
ASSOCIATION

REGISTERED ASSAYER, PROVINCE OF BRITISH COLUMBIA

GYR, ADD, ETC MINERAL CLAIMS
STATEMENT OF EXPENDITURES
OCTOBER 30, 1974

Wages	\$ 2,720.00
Geologic Fees	1,990.00
Helicopter Support	6,280.00
Fixed Wing Support	2,121.78
Camp Costs Expense	1,458.00
Equipment Supplies Expense	399.21
Travel and Accomodation	140.75
Sundry and Administration	227.85
Geochemical Supplies	87.58
	<hr/>
TOTAL EXPENDITURES:	\$15,425.17

CANADA) In the matter of a geological and geochemical survey
) and report on the GYR 1-26; ADD 1-32; ETC 1-12
) mineral claims Group on behalf of Harman Syndicate
 TO WIT:)

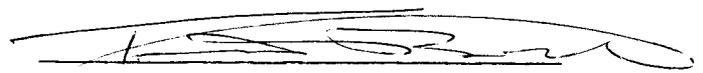
I, Timothy Brock of Harman Exploration Ltd., #506 - 675 West Hastings Street, Vancouver, B.C. do solemnly declare that a geologic mapping and detailed prospecting survey program was conducted on the GYR 1-26; ADD 1-32; ETC 1-12 mineral claims during the period July 21 to August 23, 1974.

The following expenses were incurred during the course of this work and in the compilation and reporting of the results:

Wages	\$ 2,700.00
Geologic Fees	1,990.00
Helicopter Support	6,280.00
Fixed Wing Support	2,121.78
Equipment Supplies Expense	399.21
Camp Costs Expense	1,458.00
Travel and Accomodation Expense	140.75
Sundry and Administration Expense	227.85
Geochemical Supplies	87.58
	<hr/>
Total Expenditures:	\$15,425.17

And I make this solemn declaration conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath and by virtue of the Canada Evidence Act.

Declared before me at Vancouver)
 in the Province of British ^{B.C.})
 Columbia this ^{3rd} day of NOVEMBER)
~~August~~, 1975. ^{P.A.})



Brian P. Bandal
 A commissioner for Oaths for TAKING
 AFFIDAVITS WITHIN THE
 PROVINCE OF or Notary Public
 for the BRITISH COLUMBIA.

APPENDIX IV

LIST OF PERSONNEL EMPLOYED ON THE GYR, ADD AND ETC
MINERAL CLAIMS

R. Darney, Geologist
605 - 850 West Hastings St.
Vancouver, B.C.

August 8-18, 1974
October 3- 6, 1974

C. Ikona, P. Eng.
605 - 850 West Hastings St.,
Vancouver, B.C.

August 14, 15, 1974
October 6, 1974

G. Baird, Prospector
74 Withrow Ave.,
Ottawa, Ontario

July 21- August 5, 1974

M. Toporowski, Prospector Assistant
812 Seafair Place,
Richmond, B.C.

July 21 - August 5, 1974

V. Guinet, Prospector
R.R. #1, Cottonwood Island,
Prince George, B.C.

August 5-23, 1974

D. Fulcher, Prospector Assistant
918 Leovista Ave.,
North Vancouver, B.C.

August 5-23, 1974

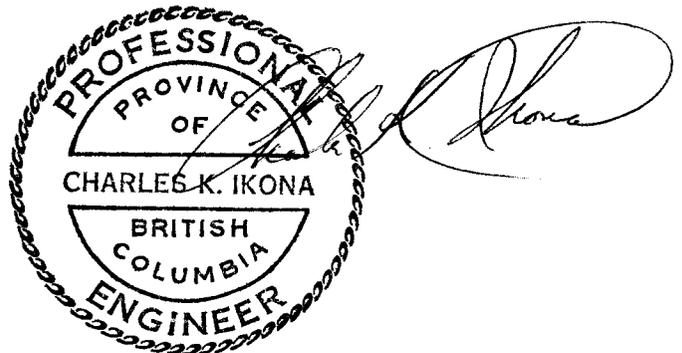
ENGINEERS CERTIFICATE

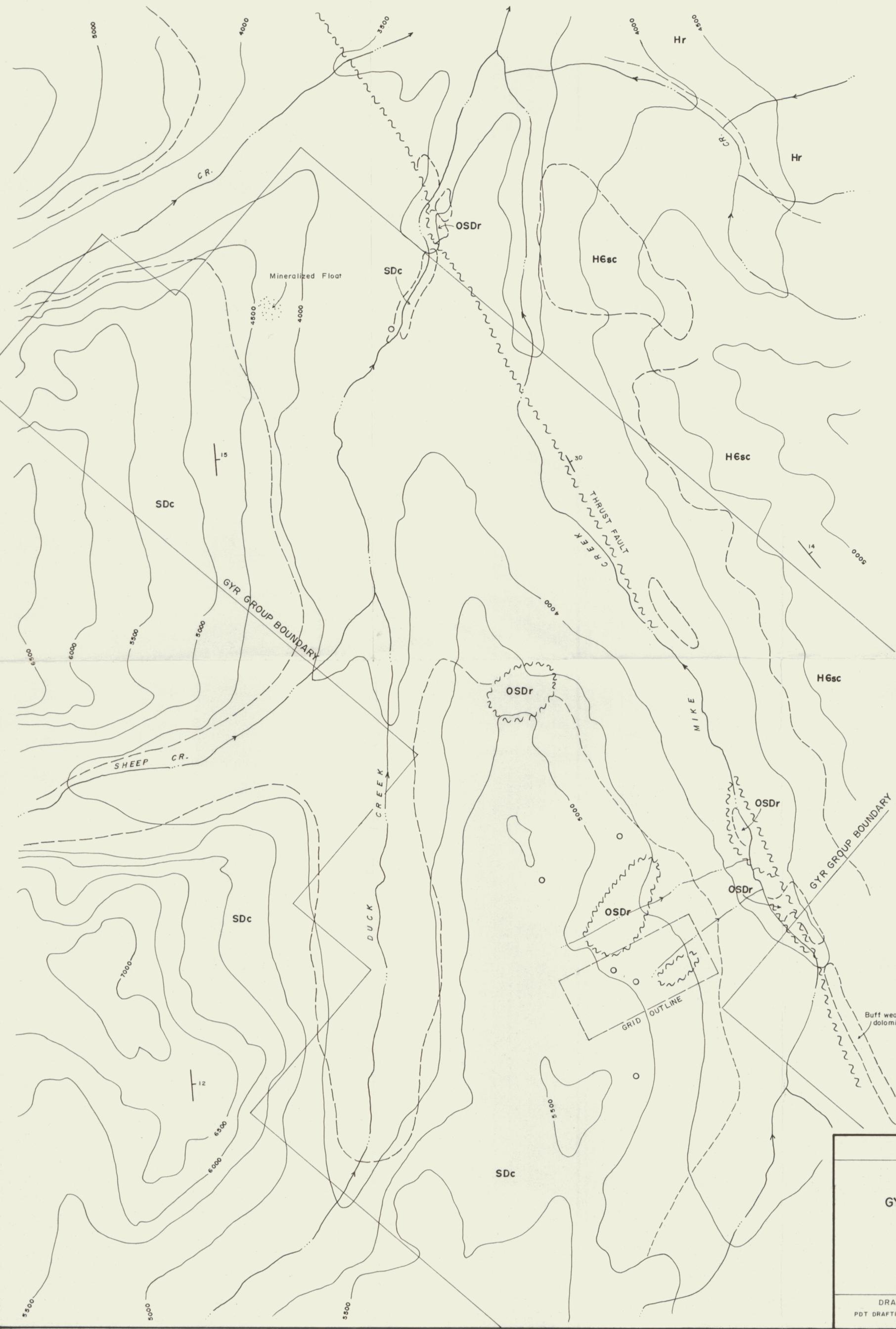
I, CHARLES K. IKONA of 2614 St. John's St., Port Moody, in the Province of British Columbia do hereby certify that:

1. I am a Consulting Mining Engineer with offices at 609 - 850 West Hastings St., Vancouver, B.C.
2. I am a graduate at the University of British Columbia with a degree in Mining Engineering.
3. I am a member in good standing at the Association of Professional Engineers of the Province of British Columbia.
4. The work described in the accompanying report on the GYR 1--26, ADD 1-32, ETC 1-12 Claim Groups was performed under my supervision.

Dated this day of August, 1975 at

Charles K. Ikona, P. Eng.





LEGEND

- SILURIAN-DEVONIAN**
UNDIVIDED CAMSELL-NAHANNI FORMATIONS
 MASSIVE LIMESTONE
- ORDOVICIAN**
ROAD RIVER FORMATION
 BLACK SHALE (CALCAREOUS)
- HADRYNIAN & (?) CAMBRIAN**
SHEEPBED FORMATION
 BROWN & BLACK SLATE, SILTSTONE, MINOR QUARTZITE
- HADRYNIAN**
RAPITAN FORMATION
 SHALE & SILTSTONE, CONGLOMERATIC MUDSTONE & CARBONATE CONGLOMERATE.

- ~~~~~ FAULT
- SPHALERITE MINERALIZATION
- 15 BEDDING ATTITUDE
- OUTCROP BOUNDARY



HARMAN SYNDICATE 090022

GYR GROUP
 GYR, ADD & ETC MINERAL CLAIMS
 NTS 106 C

PRELIMINARY GEOLOGY

DRAWN PDT DRAFTING SERVICES	SCALE 1" = 1000'	DATE NOVEMBER '74	SHEET FIG. 2
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