

MAP NO.	ASSESSMENT REPORT	X	DOCUMENT NO.:	092547
	PROSPECTUS		MINING DISTRICT:	MAYO
	CONFIDENTIAL	X	TYPE OF WORK:	GEOLOGY
105 0 1	OPEN FILE			

REPORT FILED UNDER:		Canadian Industrial Gas and Oil Ltd	
DATE PERFORMED:	August 24-29, 1970	DATE FILED:	November 6, 1970
LOCATION:	LAT.: 63°10'N	AREA:	Keele Peak
	LONG.: 130°30'W	VALUE \$:	
CLAIM NAME & NO.:	ALP 1-5		

WORK DONE BY:	H. Mogensen
WORK DONE FOR:	Canadian Industrial Gas and Oil Ltd

DATE TO GOOD STANDING	REMARKS:	#4 ALP

CANADIAN INDUSTRIAL GAS & OIL LTD.

GEOLOGICAL REPORT

ON THE

ALP CLAIMS

HESS MOUNTAIN AREA, YUKON

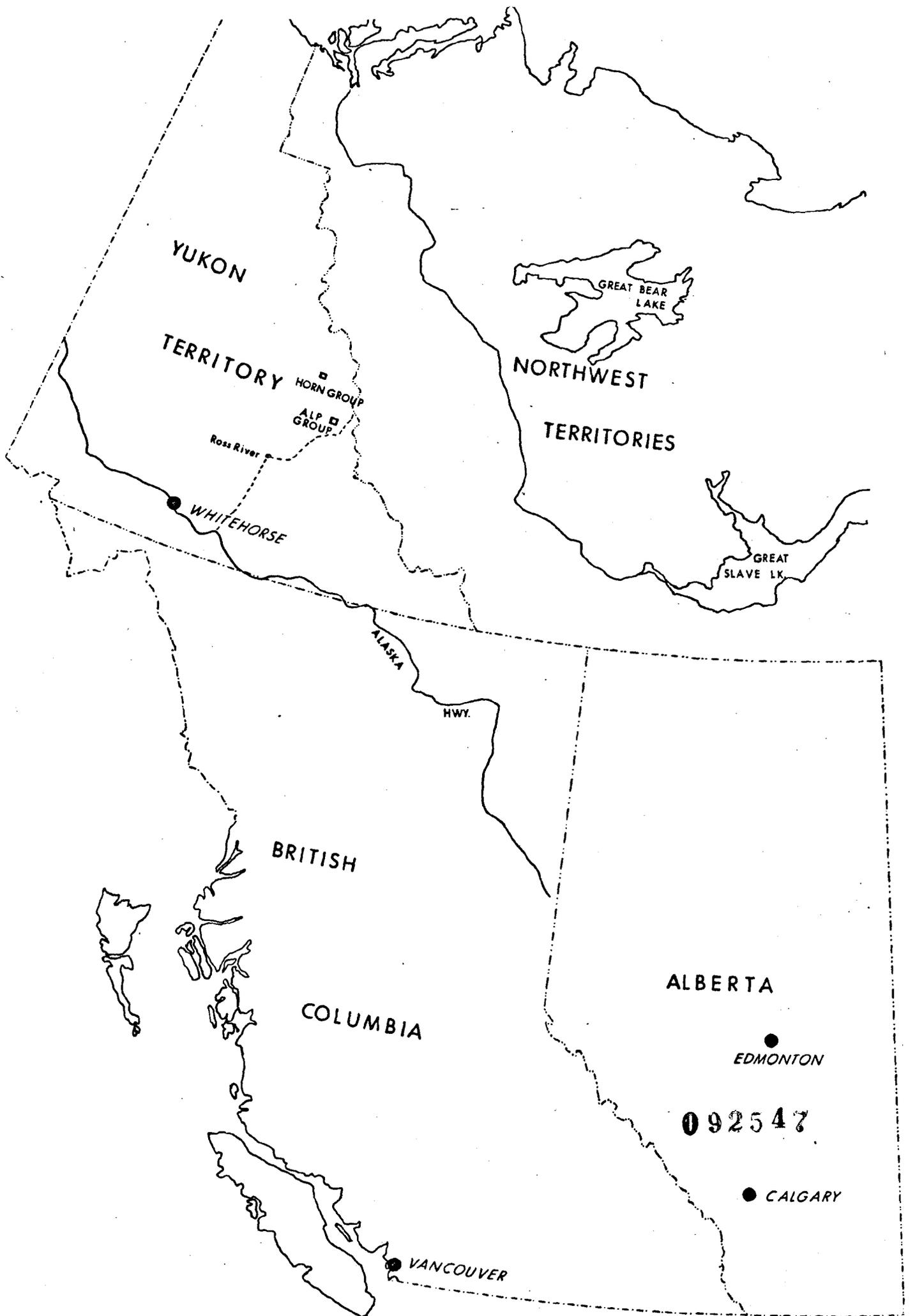
MAYO MINING DIVISION

by

P. G. MARSHALL

NOVEMBER 6, 1970

092547



YUKON

TERRITORY

HORN GROUP

ALP GROUP

Ross River

WHITEHORSE

NORTHWEST

TERRITORIES

GREAT BEAR LAKE

GREAT SLAVE LK.

ALASKA

HWY.

BRITISH

COLUMBIA

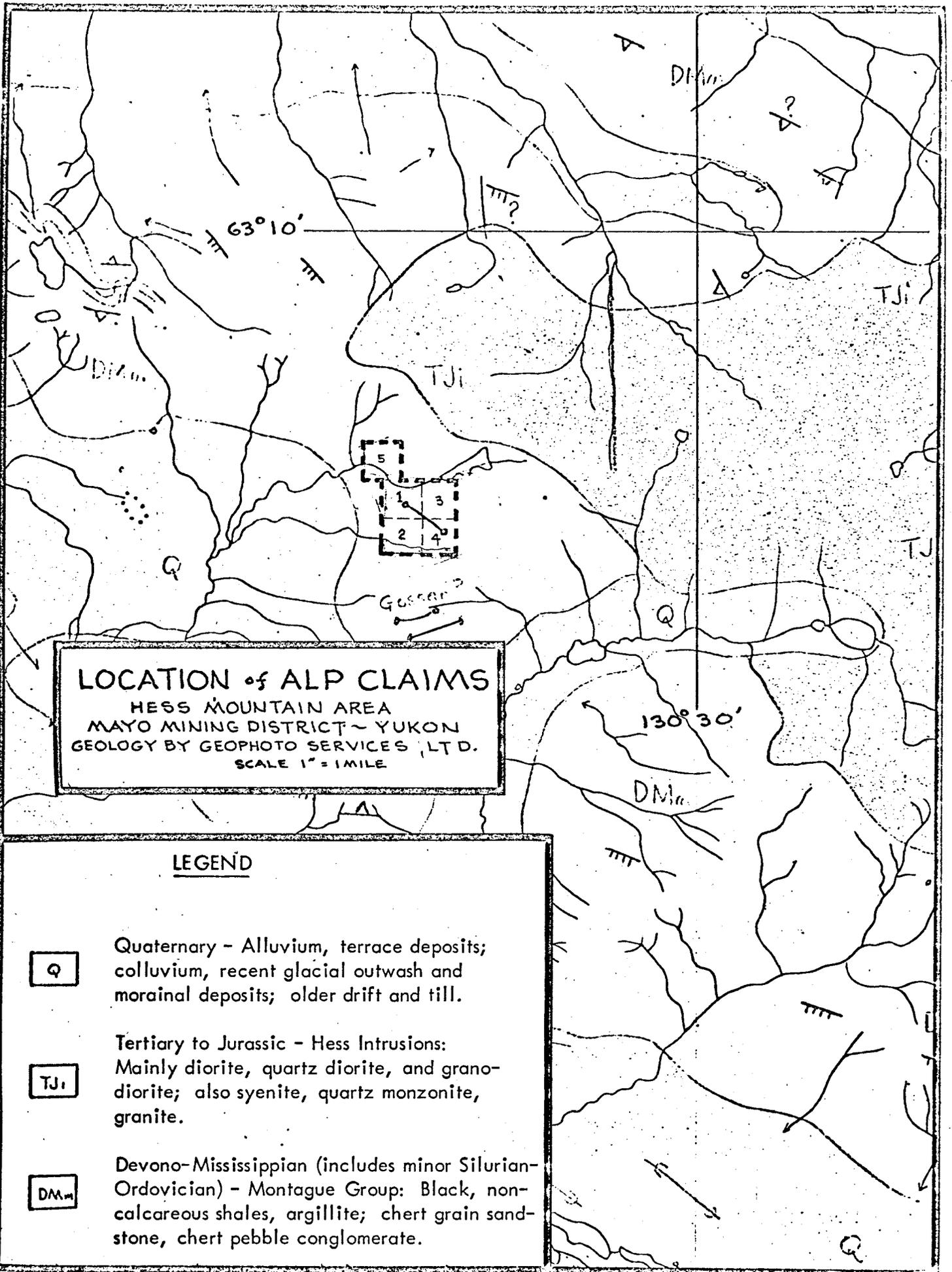
ALBERTA

EDMONTON

092547

CALGARY

VANCOUVER



LOCATION of ALP CLAIMS
 HESS MOUNTAIN AREA
 MAYO MINING DISTRICT - YUKON
 GEOLOGY BY GEOPHOTO SERVICES, LTD.
 SCALE 1" = 1 MILE

LEGEND

Q

Quaternary - Alluvium, terrace deposits; colluvium, recent glacial outwash and morainal deposits; older drift and till.

TJi

Tertiary to Jurassic - Hess Intrusions: Mainly diorite, quartz diorite, and granodiorite; also syenite, quartz monzonite, granite.

DMa

Devono-Mississippian (includes minor Silurian-Ordovician) - Montague Group: Black, non-calcareous shales, argillite; chert grain sandstone, chert pebble conglomerate.

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340-6

Location and Access

The Alp Group of five claims, staked by the writer on 17 October 1969, lies on a west facing cirque and arete ridge, about 12 miles south of Keele Peak, a well known landmark in this region. The area, in the southeastern portion of the Yukon Territory, in the northeast corner of N.T.S. quad 105-0-1, falls under the jurisdiction of the Mayo District Mines Recorder.

Access to the property was by helicopter from a base at Sheldon Lake, a distance of about 60 miles. Access to Sheldon Lake is by road from Whitehorse, or Watson Lake to Ross River, and from there a distance of about 100 miles over the newly re-opened Canol Road.

Work Done

The writer was on the property a total of six days. A summary of his activities follows.

On 24 August 1970, a helicopter reconnaissance was made to the area and a camp site was selected. A general look at the surrounding area, especially along intrusive contacts, was made.

From 25 August until 29 August 1970 the writer and an assistant camped on the property, during which time prospecting, mapping and channel sampling of an arsenopyrite vein were undertaken.

Topography and Vegetation

The claims straddle a long easterly trending arete ridge between two large cirques. The crest begins at an elevation of 5000' ASL, and rises

with about a 30° angle to an elevation of 6500' ASL, and can be traversed throughout its length quite easily.

The north face of the ridge has undergone extensive "ice plucking" by post-Pleistocene mountain glaciation, and presents an extremely "jagged" near vertical series of crumbling cliffs. The south slope presents a much gentler topography with an overall drop-off about 45°, although it is almost completely covered with a blanket of felsenmeer, which rapidly accumulates into extensive talus deposits.

Immediately to the east of the 6500' peak the mountain drops abruptly a distance of about 1000'. This is possibly due to erosion between different rock units. A large deep rock glacier originates at the foot of the cliff, and extends about 1000' northwards, the tongue ending in a small ice blue, elongate tarn.

The claims area is well above the 4000' tree line, but in sheltered locations within the cirque an occasional clump of gnarled fir trees is present. The floor of the cirque has reasonably thick growths of ground willow, mosses, various grasses and leafy shrubs. The occasional caribou was noted grazing in this area.

Geology

The claims are underlain by the Montague Group of Devonian-Mississippian age.¹ The rock is essentially a dark grey, extremely fissile pyrite bearing shale, exhibiting a generally eastward strike, and vertical to near vertical dips, representing an upended series of beds. Fracturing and jointing is quite common, and localized areas of small scale folding and faulting are common.

¹ As per Geophoto Services Ltd. Report 1969, Minerals Exploration Program in the Hess Mountain Area.

A Tertiary or Jurassic ¹ intrusive body occurs immediately to the east and north of the claims. The material examined along the contact to the shales revealed a fresh appearing, white, coarse grained, granitic textured rock. The mineral content was mainly: unaltered, white, euhedral feldspar displaying no evidence of polysynthetic twinning; colorless anhedral to interstitial quartz; and black pseudo-hexagonal "book-like" crystals of biotite up to 1/8" in size.

Pyrite, as 1/32" well formed cubes, was rarely noted as inclusions within the granitic material.

Fracturing, lined with secondary veins of individual monoclinic crystals and tabular crystalline crusts of a zeolite mineral, probably stilbite, is quite common, especially near the contacts.

A traverse along the intrusive to shale contact failed to uncover any effects of contact metamorphism, except for small scale induration of the shales.

The essentially vertical cleavage of the shales allows water ready access to the abundant pyrite content, which has been broken down into iron oxide or iron hydroxide and has been re-deposited where the water emerges. The talus accumulations over much of the floor of the cirque have been cemented into a "clinker-like" mass or conglomerate by the iron oxide.

Mineralization

The zone of interest is a southeasterly striking, altered feldspar-quartz vein, dipping from near vertical to 70° to the southwest, and ranging from 8' to 15' in width.

The vein is exposed just above the accumulation of talus near the foot of an easterly trending arete ridge (used by the writer as a centre line for the claims), and intersects the ridge about 50' west of the centre claim posts.

The vein continues along strike, across the bowl of a cirque, is exposed on the crest of the next ridge and is terminated 300' further at a contact to a different rock unit.

Although the bowl of the cirque is obscured by talus, the continuation of the vein is indicated by accumulations of vein material in the talus, generally downslope from its projected location.

The total estimated length of the vein is about 1300' as paced, where possible along strike.

About 150' downslope from the main vein on the second ridge is a generally similar parallel vein, about 20' wide, and traced for a length of about 150'.

The vein is composed of up to 60% by volume of both kaolinized and unaltered white feldspar. The matrix of the vein is white compacted kaolinite, and kaolinite pseudomorphs after feldspar. White euhedral crystals, up to 1/4", of feldspar are disseminated throughout the vein; some of these crystals show evidence of polysynthetic twinning.

Up to 35% of the volume is made up of subhedral to euhedral quartz crystals, sometimes doubly terminated, scattered throughout the main vein. Quartz veinlets are also common, some show vuggy areas lined with 1/4" limpid quartz crystals. Numerous quartz crystals have been fractured, and "healed" with white

kaolinite indicating movement of the vein as a "crystalline mush". Sericite as tiny flakes and small irregular veinlets is quite common.

Sulphide mineralization in the form of arsenopyrite is present in tensional fractures that cut across the width of the vein. These fractures, ranging in width from under 1" to in excess of 6", are spaced from 5' to 50' apart and are noted throughout the length of the vein.

The arsenopyrite is present as steel grey masses and large blebs filling the tensional fractures, and as disseminated euhedral crystals up to 1/4" long near the contacts of the fractures to the vein.

Much of the arsenopyrite is weathered and leached out near the surface, and an "apple-green" amorphous secondary alteration product coats much of the vein material on the surface.

The second vein exhibits a similar overall mineralization, but instead of arsenopyrite in tensional fractures, it contains disseminated magnetic grains of pyrrhotite comprising about 2% of the volume.

Samples

The following samples were collected and sent to Loring Laboratories Ltd. of Calgary. A copy of the assay results is included with this report.

PM-70-A A 5' channel sample taken above the point where the vein is obscured by talus, at the 5300' level.

PM-70-B A 2' channel sample continuous from sample PM-70-A, into the shale hanging wall.

- PM-70-C A 12.5' channel sample collected up strike at an elevation of 5335' ASL. Arsenopyrite in a small tensional fracture crosses this zone.
- PM-70-D A 12' channel sample at an elevation of 5385' ASL. Minor visible arsenopyrite noted.
- PM-70-E A 12' channel sample across the vein where it intersects the first arete ridge at an elevation of 5900' ASL.
- PM-70-F A 15' channel sample across the vein where it intersects the second arete ridge at an elevation of 6150' ASL. Minor arsenopyrite noted.
- PM-70-G A 6' channel sample taken on a small parallel vein, 45' down slope from PM-70-F.
- PM-70-H A 20' channel sample taken on the described second vein, 150' down slope from PM-70-F. Disseminated pyrite noted.

Conclusions

The gold bearing vein on the Alp Claim group, although traced for a length of about 1300', is considered by the writer to be of a definite sub-economic nature because of the mode of the mineralization.

Arsenopyrite, containing gold, occurs merely as tensional fracture fillings, rather than as a more massive vein component. These arsenopyrite bearing

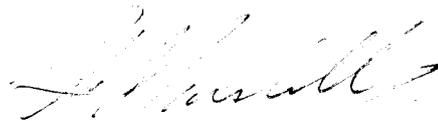
fractures are scattered from 5' to 50' apart, and do not make up a significant portion of the total volume of the vein.

The assays generally were very low, and especially so in areas of the vein where no obvious fracture filling occurred. Even the best assay of 0.120 oz. of gold per ton, with 0.14 oz. of silver per ton, is too low to be of economic interest.

Prospecting around the intrusive contact failed to locate any additional mineralized vein, or mineralized skarn zones.

Recommendations

In view of the above conclusions the writer feels that any additional work or expense on the property is unwarranted, and that the claims should be allowed to lapse.



P. G. MARSHALL

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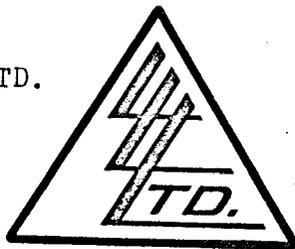
To: CANADIAN INDUSTRIAL GAS AND OIL LTD.

Tenth Floor,

640 - 8th Ave. S.W.

Calgary 2, Alberta.

H. Mogensen



File No. 3446

Date October 25th 1970

Samples Grab

Certificate of
ASSAY OF

LORING LABORATORIES LTD.

SAMPLE No.	OZ./TON GOLD	OZ./TON SILVER	Cu %	Ni %
PM-H-1	---	---	.06	Trace
PM-H-2	---	---	.13	Trace
PM-H-3	---	---	.21	Trace
PM-H-4	---	---	.49	Trace
PM-70-A	.020	.14	---	---
PM-70-B	Trace	.14	---	---
PM-70-C	.040	1.16	---	---
PM-70-D	Trace	Trace	---	---
PM-70-E	Trace	Trace	---	---
PM-70-F	Trace	.16	---	---
PM-70-G	.120	.14	---	---
PM-70-H	Trace	.10	---	---

I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE
ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

Rejects Retained one month.

Pulps Retained one month
unless specific arrangements
made in advance.

Edm. J. Mac
Licensed Assayer of British Columbia

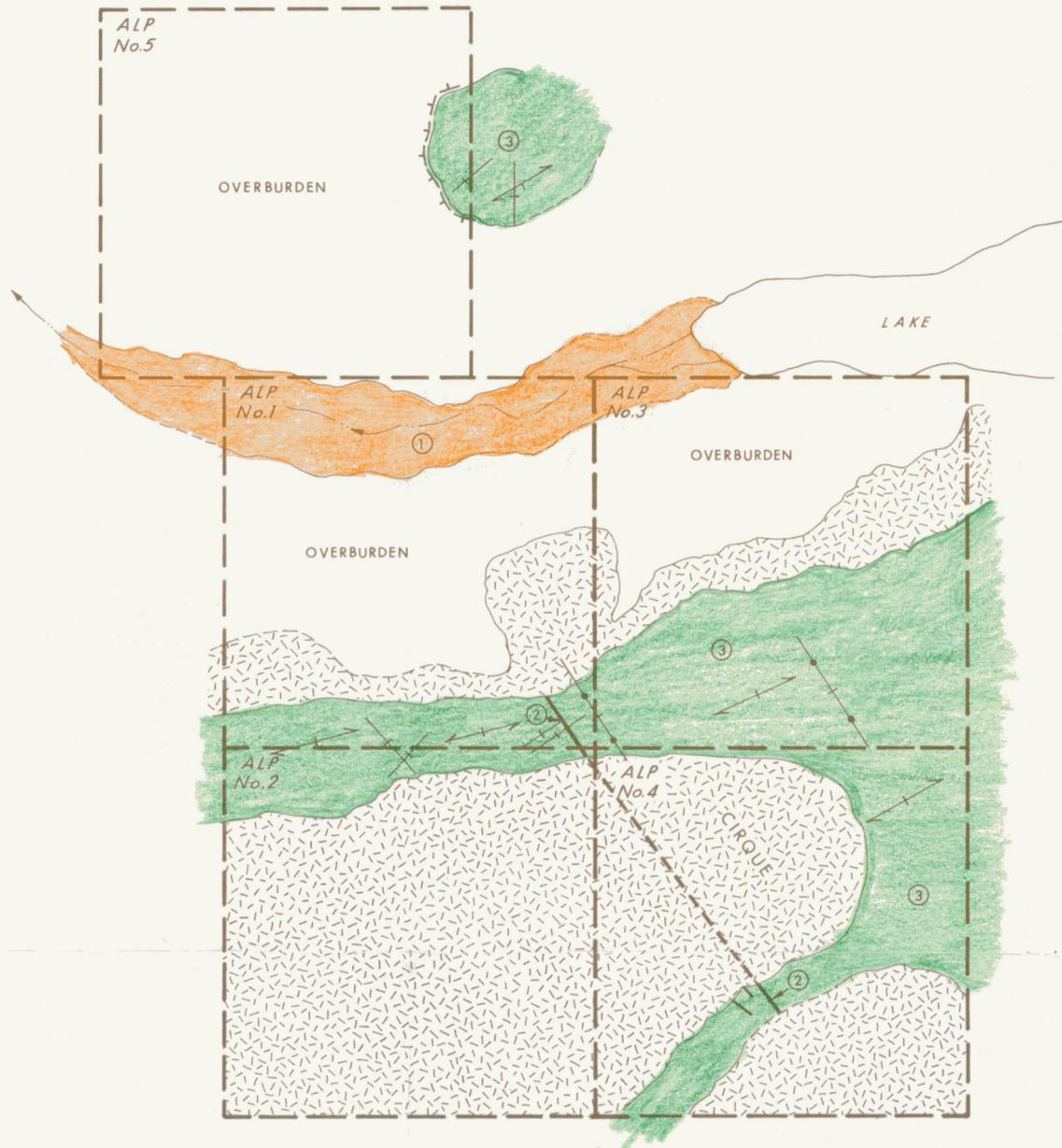
CERTIFICATE

I, HUGH MOGENSEN, of the City of Calgary, in the Province of Alberta, HEREBY CERTIFY:

1. THAT I am a registered Professional Geologist in the Province of Alberta.
2. THAT I am a graduate of the University of Alberta with a degree of Bachelor of Science (1956).
3. THAT I am Minerals and Foreign Exploration Manager with Canadian Industrial Gas & Oil Ltd. of 640 - Eighth Avenue S.W., Calgary 2, Alberta.
4. THAT I have visited the property discussed in this report.
5. THAT I have practiced as a geologist for more than 13 years, examining and reporting on properties in North America and Europe.
6. THAT the work described in this report was carried out under my supervision.

DATED at Calgary, this twenty-first day of December, 1970.


Hugh Mogensen P. Geol.



092547

LEGEND

- ① CONGLOMERATE - Presently being formed by iron oxide cement and talus material.
- ② ALTERED FELDSPAR-QUARTZ VEIN - Containing arsenopyrite in tensional fractures.
- ③ SHALE (MONTAGUE GROUP) - Dark grey, fissile upended beds containing disseminated pyrite.
- ↗ Strike and dip beds.
- ↖ Jointing
- ↔ Major fracture
- Talus and rock glacier material.

CANADIAN INDUSTRIAL GAS & OIL LTD.

GEOLOGY OF
THE ALP CLAIM GROUP
HESS MOUNTAIN AREA
MAYO MINING DISTRICT

YUKON TERRITORY

NTS QUAD 105-O-1

SCALE : 1"=500'

TO ACCOMPANY GEOLOGICAL REPORT BY P.G. MARSHALL
NOV. 6, 1970