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218-744 West Hastings Street, Vancouver, British Columbia, Canada, V6C 1A5  
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SUMMARY REPORT

on the

ORO PROPERTY

WATSON LAKE MINING DISTRICT

YUKON TERRITORY

**091878**

for

YUKON MINERALS CORPORATION

510 ELLIOT STREET,  
WHITEHORSE, YUKON  
Y1A 2A5.

&

11003 84th AVENUE  
EDMONTON, ALBERTA  
T6G 0V6

Latitude: 60°12'N

Longitude: 130°27'W

N.T.S. 105 B/1W

by

PETER G. DASLER, M.Sc.

&

F. MARSHALL SMITH, P.Eng.

NOVEMBER 21, 1986



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## TABLE OF CONTENTS

SUMMARY.....	2
INTRODUCTION.....	3
LOCATION AND ACCESS.....	3
HISTORY.....	3
PHYSIOGRAPHY AND VEGETATION.....	4
PROPERTY .....	5
REGIONAL GEOLOGY.....	6
PROPERTY GEOLOGY.....	7
MINERALIZATION.....	8
GEOPHYSICAL AND GEOCHEMICAL SURVEYS.....	11
CONCLUSIONS .....	13
RECOMMENDATIONS.....	13
BUDGET .....	14
CERTIFICATE OF QUALIFICATIONS.....	15
BIBLIOGRAPHY .....	17
APPENDIX, DRILL SUMMARY .....	18
List of Figures	
Figure 1 Location Map.....	Following 3
Figure 2 Claim Map.....	Following 5
Figure 3 Regional Geology Map.....	Following 6
Figure 4 Property Geology Map.....	Following 7
Figure 5 Geology of Trenches 1-13.....	Following 10
Figure 6 Diamond Drill Holes 1,2 & 6.....	Following 10
Figure 7 Diamond Drill Holes 4 & 5.....	Following 10

## SUMMARY

The ORO property, in southeastern Yukon Territory, is 16 miles southeast of the recently discovered highgrade silver mineralization on the CMC claims (Hart Property) of Silver Hart Mines Ltd.

The property shows quartz-calcite veins trending 050°-070° transgressing a sequence of metavolcanics and limestone. The veining shows galena and sphalerite mineralization with associated manganese wall rock flooding and vein infill. Silver is associated with the galena as tetrahedrite and freibergite and surface samples to 63.13 oz/ton silver were obtained during 1986.

Trenching and drilling was attempted this past field season on one of the previously noted vein systems. The programme identified the mineralization as similar in style and mineralogy to the Silver Hart property and the adjacent Jack Group property. On these properties silver values in excess of 250 oz/ton silver have been obtained from beneath weathered surface zones. In most cases unweathered samples have shown over a 100 fold increase in silver content to samples from surface.

At the ORO property 10 diamond drill holes were directed through the vein system over a strike length of 300 meters. The drilling intersected the veining at depths up to 83 meters from surface, however even at these depths there was considerable weathering of the veins. Drill hole intercepts of galena and sphalerite mineralization did not exceed 2.28 oz/ton silver.

The geochemical and geophysical programmes conducted with prospecting on the property during the 1986 field season established strong anomalies and samples of oxidized vein mineralization along the continuation of the existing zone and from a number of parallel zones. These areas are the proposed targets for exploration in 1987.

A budget for trenching (Phase I) to locate further veining related to what has already been established as a major shear system, is proposed in the report. Drilling, (Phase II), will be attempted on significant surface veining developed from this programme.

The total recommended expenditure for the ORO project is \$220,000, and is detailed in this report.

## INTRODUCTION

Mr. T. McCrory, President of Yukon Minerals Corporation, requested the writers prepare this report on the ORO Group property. Mr. Marshall Smith, P.Eng. is very familiar with the property as well as the other silver bearing deposits in the district. Mr. Smith visited the property prior to the drill programme and examined the core in Whitehorse following the drill programme. Mr. Peter Dasler, has not visited the property, but was working on similar silver mineralization on the adjacent Zulu property during the ORO 1986 drilling programme, and is familiar with the other silver properties in the district.

This report utilizes the drilling and trenching data collected by Mr. Alan Frew, geologist for Yukon Minerals during the 1986 field season, notes by Mr. Marshall Smith, taken during his inspections, and the authors observations and research.

## LOCATION AND ACCESS

The ORO property of Yukon Minerals Corporation is located to the north side of the headwaters of Spencer Creek, within the Watson Lake Mining District of Southeastern Yukon, Figure 1. The centre of the property is situated at 60° 12' North latitude and 130° 27' West longitude of Map Sheet 105B/1W.

The property is approximately 27 km (16 miles) by means of a gravel bush road from mile 692 of the Alaska Highway. The access road follows a general northwesterly direction along the north side of Spencer Creek.

The nearest settlement, Rancheria, has lodging accommodations and restaurant service available on a 24 hour basis. There is also a service station, which besides the routine supplies, offers limited mechanical repair. Rancheria is at mile 710 on the Alaska Highway approximately 160 km (100 miles) west of Watson Lake.

The towns of Watson Lake and Whitehorse (300km northeast) are the service centers of the district. Whitehorse is served on a regular basis by Canadian Pacific Airlines and Pacific Western Airlines.

## HISTORY

The property was originally staked in 1951 as the Hardtack property. At that time, some hand trenching was carried out. In 1967, Pacific Giant Steel Ores performed soil sampling and bulldozer trenching. Spencer Creek Mines conducted mapping, geophysical surveys and bulldozer trenching from 1968-1970.

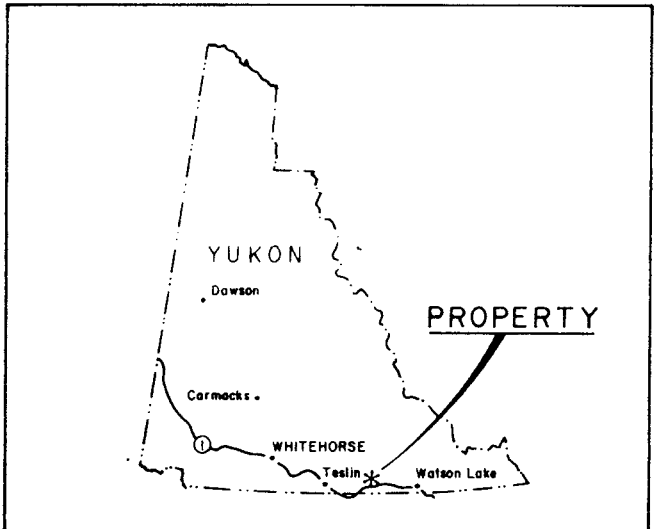
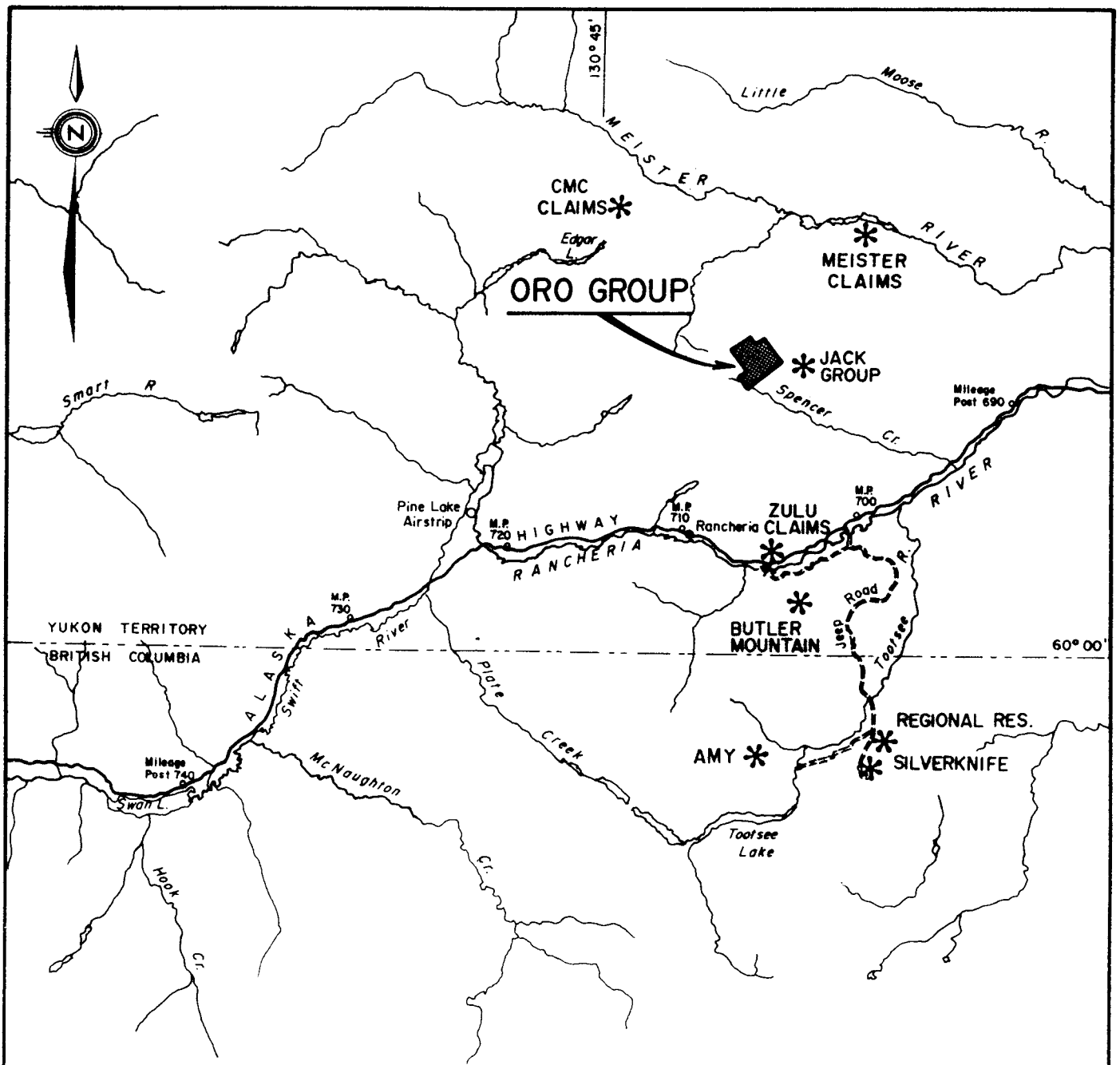


FIGURE 1

YUKON MINERALS CORP.
ORO CLAIMS WATSON LAKE MINING DISTRICT, YUKON TERRITORY
<b>LOCATION MAP</b>
KILOMETRES 0      10      20
F. MARSHALL SMITH CONSULTING INC.

In 1969, P. Sevensma, P.Eng., uncovered silver-lead-zinc mineralization of which he stated: "an extremely encouraging assay was received from this narrow zone and together with its possibility of great length this becomes a showing of good merit." This mineralization assayed 42 oz/ton silver and 65.5% lead across 16 inches.

In 1984, Douglas Schellenberg restaked the property and carried out a soil geochemical survey, along lines at 750 ft. (228 m) spacings, parallel to the claim lines, with samples taken at 200 foot (60 m.) intervals. The results indicated two widely spaced lead anomalies which have a general N 55° E trend.

Interest in the area has been rekindled in the past three years due to the discovery of the large reserves of massive sulphide mineralization on the Regional Resources claims to the south and the highgrade silver mineralization on the Hart property of Silver Hart Mines Ltd., to the west.

The similarity of the property's mineralization prompted Mr. Anthony Rich to option the property from Schellenberg in September 1985. He then excavated two D-8 tractor trenches 30 meters apart on the southern soil anomaly. These trenches showed that the silver mineralization was associated with galena and sphalerite veining but the extent of the veining was not determined as trenching was limited by permafrost.

In July 1986 Yukon Minerals Corporation conducted a programme of trenching and drilling on this same showing, and prospected for further similar zones using test patterns of geophysics and limited soil sampling.

## PHYSIOGRAPHY AND VEGETATION

The ORO mineral claims are located over a high alpine to sub-alpine ridge which occupies the western half of the property, and an inter-ridge valley which occupies the eastern half. The ridge is rounded to subdued, and lies mostly above tree line.

The lower slopes, as well as the valley are tree covered. The vegetation consists of sparse alpine balsam spruce to more thickly forested with scrub conifers, alder and ground birch on hillsides.

Most of the property has a thin to moderate covering of glacial overburden, however this thickens considerably in the central valley area.

## PROPERTY

The property referred to as the ORO Group consists of 30 contiguous Yukon Quartz claims (ORO 1-30), all of which are in Watson Lake Mining District, on Map Sheet 105B/1W.

The claims included in the ORO Group and covered by this report are as below:

<u>CLAIMS</u>	<u>RECORD NUMBERS</u>	<u>RECORD DATE &amp; EXPIRY</u>
ORO 1-4	YA70186-YA70189	JULY 5, 1986.
ORO 5-8	YA90275-YA90278	SEPTEMBER 13, 1986.
ORO 9-14	YA70204-YA70209	JULY 6, 1986.
ORO 15-16	YA70210-YA70211	JULY 13, 1986.
ORO 17-24	YA70194-YA20201	JULY 5, 1986.
ORO 25-26	YA70630-YA70631	OCTOBER 3, 1986.
ORO 27-30	YA73640-YA73643	AUGUST 9, 1986.

All of the above claims have been renewed until at least 1991 by the application of the 1986 work. The acceptance of work has validated the claims.

Posts examined by Smith were located according to the Yukon Quartz Mining Act.



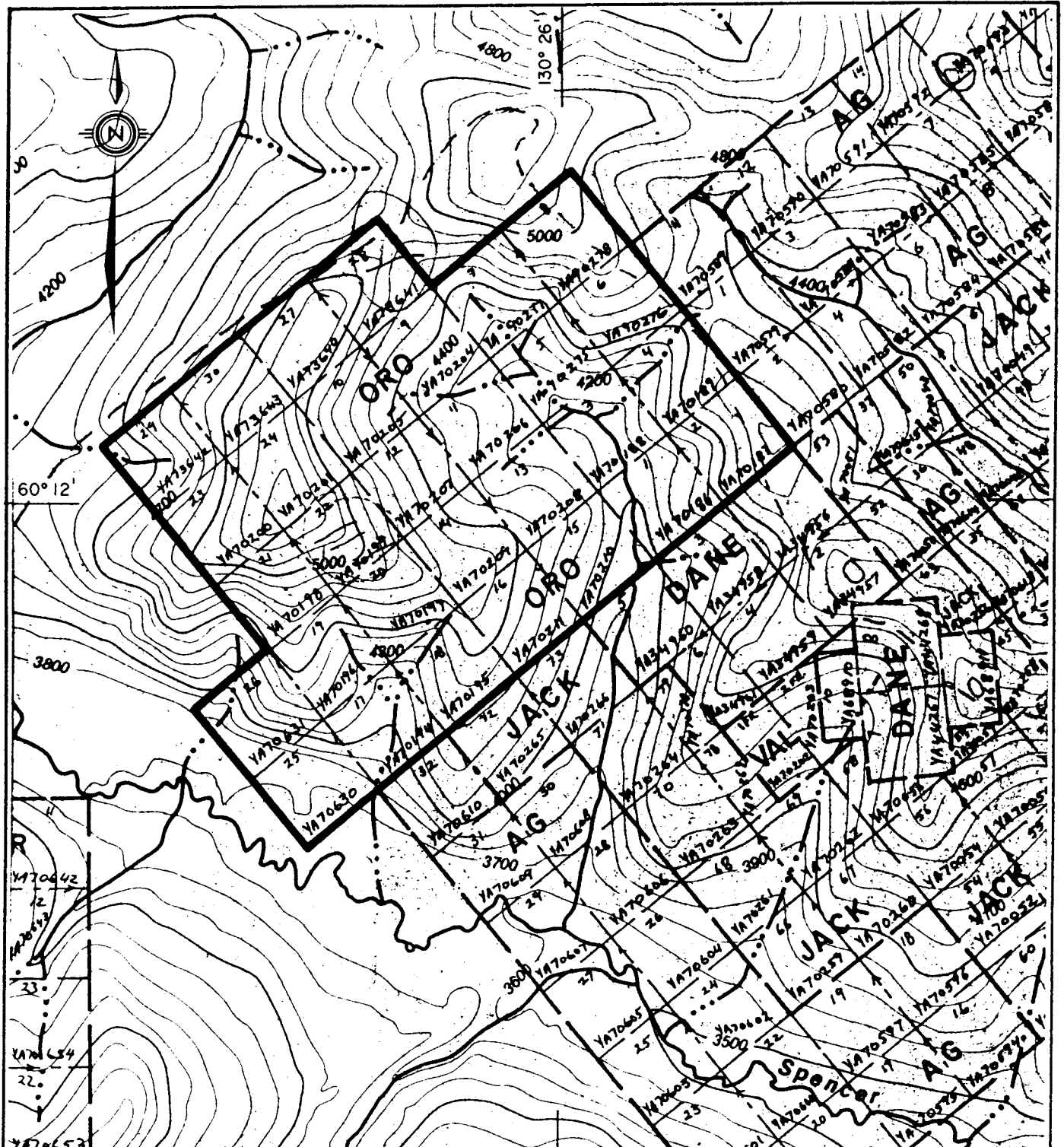


FIGURE 2

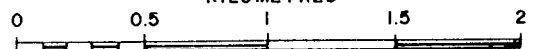
YUKON MINERALS CORP.

ORO CLAIMS

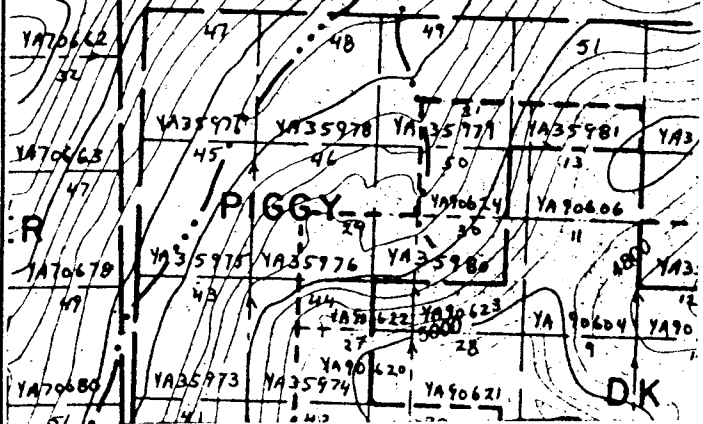
WATSON LAKE MINING DISTRICT, YUKON TERRITORY

CLAIM MAP

KILOMETRES



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## REGIONAL GEOLOGY

The regional geology is described in the Geological Survey of Canada publication Map 10-1960, Wolf Lake, Yukon Territory, Sheet 105B<sup>1</sup>. The rocks underlying the area in the vicinity of the ORO Group belong to a Lower Cambrian age limestone, dolomite, slate and phyllite sequence (Unit 3, figure 3). The mineralization revealed by trenching and subsequently by diamond drilling on the property, occurs in this unit.

A small diorite stock possibly related the Cassiar batholith outcrops to the east of the claims on the Jack Property. The eastern edge of the batholith is 1.8km to the west of the claim block. No intrusive stocks have been found on the property to date.

The regional structures show major transcurrent faults oriented generally in a northwest-southeast direction with nearly isoclinal folds and numerous shears systems. Silver mineralization on surrounding properties tends to follow the north-east trending conjugate shear patterns related to this major fault system.

Mineralization at the Hart property lies within the Cassiar Batholith and Unit 1 (metamorphosed phyllites and limy sediments of figure 3) adjacent to the Batholith. Unit 1 according to the Geological Survey mapping is probably the equivalent of Unit 2. Detail mapping on the Hart and the Jack properties indicates that the mineralized sedimentary units are the same lithology with limestone hosting replacement zinc sulphides on both properties. This pattern is repeated on the ORO group.

The silver mineralization in the district occurs in shears and quartz veins cutting silicified schistose country rock, or sometimes the batholith itself. Massive to banded (rapid precipitation) galena is often present and associated with limonite, manganiferous wad, and goethite in tear faults and quartz veins up to 1 meter wide. Oxide material with boxwork textures after massive galena are abundant and smithsonite is also common in the oxidized rubble outcroppings and in drill core.

Replacement mineralization occurs in limy horizons in all ages of sedimentary rocks with dark sphalerite common and with lesser coarse galena and low silver values (<2.5 opt) silver.

The map shown in figure 3 was completed by the Geological Survey as a very broad reconnaissance project and many changes of dates (ages of formations) have been proposed by recent investigations. Also the minor volcanic components within the sedimentary rocks were unrecognized by this early mapping.

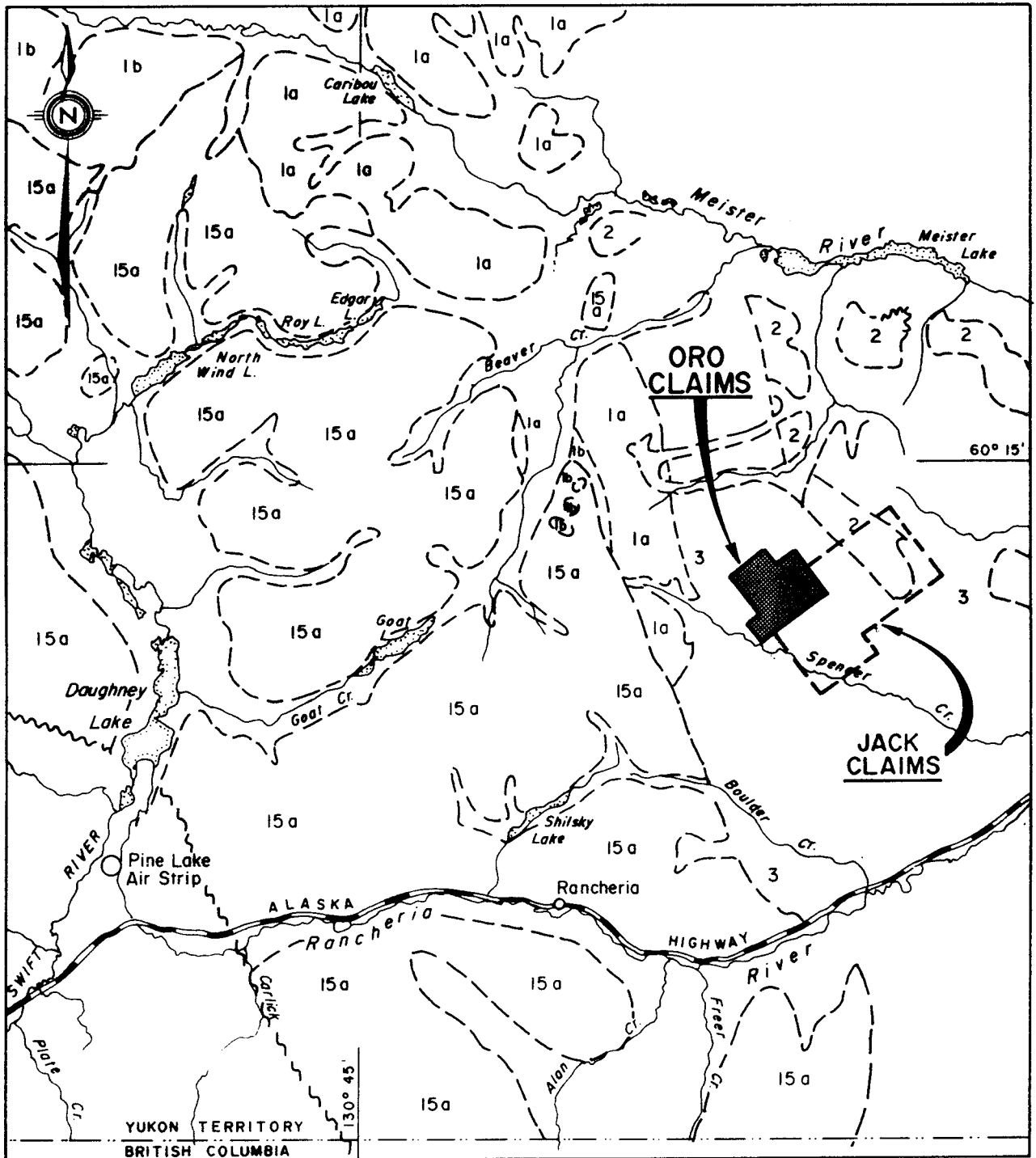


FIGURE 3

CRETACIOUS

15 CASSIAR BATHOLITH - quartz monzonite

CAMBRIAN AND (?) EARLIER

2 Quartzite, minor slate and phyllite, quartz grit and fine pebble conglomerate  
2a, phyllite, minor slate; 2b, hornfels.

3 Limestone minor slate and phyllite.

1 Probably metamorphic equivalents of 2;  
1a, biotite schist and quartzite; 1b, marble and skarn; 1c, biotite schist and quartzite with sills, dykes, and irregular bodies of pegmatite; 1d, biotite schist and gneiss.

PRECAMBRIAN(?)  
AND PALAEOZOIC

YUKON MINERALS CORP.

ORO CLAIMS

WATSON LAKE MINING DISTRICT, YUKON TERRITORY

REGIONAL GEOLOGY

KILOMETRES



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Recent age dating and geochemical investigations indicate that Unit 1 (sedimentary suite) has anomalous values in lead, zinc, and silver. The margins of the Cretaceous age batholiths and outliers often contain sphalerite and galena replacement and/or skarn zones with low silver values. The north easterly striking conjugate faults host Eocene age dykes of andesite or aplite. Alteration around, and some of the lead ages within, the veins usually give Eocene ages. The best grade of silver occurs in vein/faults near the contact of the Cretaceous age granite, either within the granite or within the adjacent sedimentary rocks.

### PROPERTY GEOLOGY

The property has as yet not been mapped in detail. The reconnaissance mapping/prospecting performed in 1985 and 1986 consisted of attempting to locate further zones of mineralization similar to the main zone where the previous trenching had been attempted.

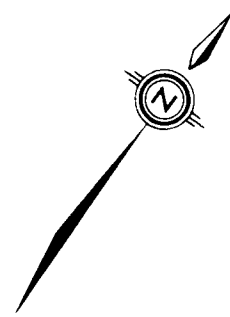
The property is underlain by a series of calcareous phyllites, limestones and slates of Lower Cambrian age. Quartzite is present but is of undetermined extent. Younger, probably Eocene age, basic and felsic volcanic dykes intrude this sequence of rocks, usually in the Northeasterly set of faults.

Polyphase deformation occurs throughout the general area, and is clearly shown in the trench area. Major faulting of varying ages and orientations has a dominant northeast-southwest trend.

Narrow quartz veins are seen at widely spaced locations throughout the property. Most are barren, white, massive bull-quartz, yet a few are coarsely crystalline milky quartz containing coarse grained galena which assays two to three ounces per ton silver. These appear to be related to Cretaceous age intrusions.

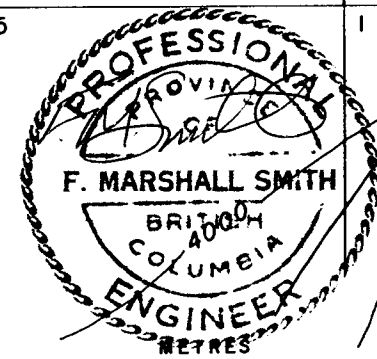
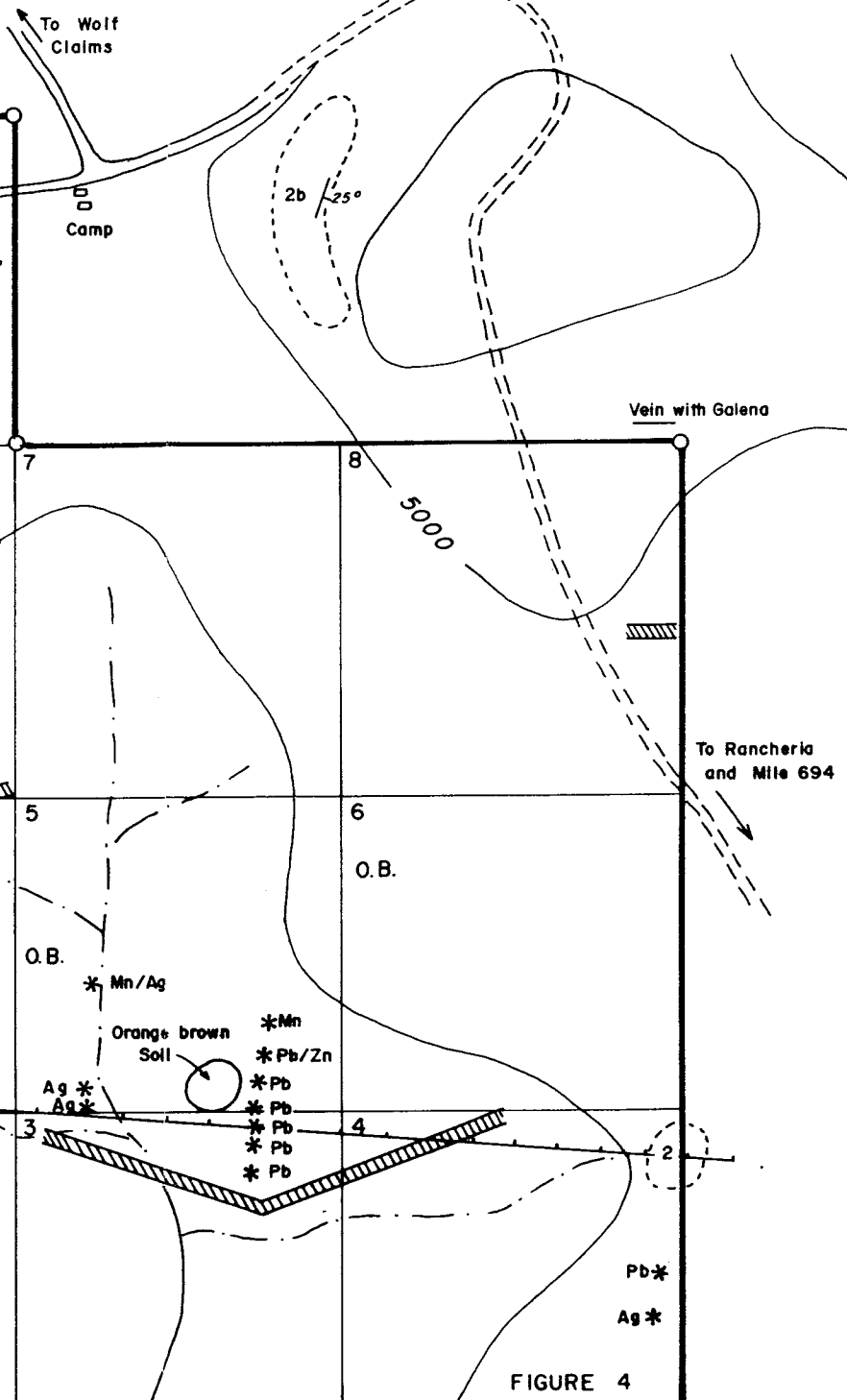
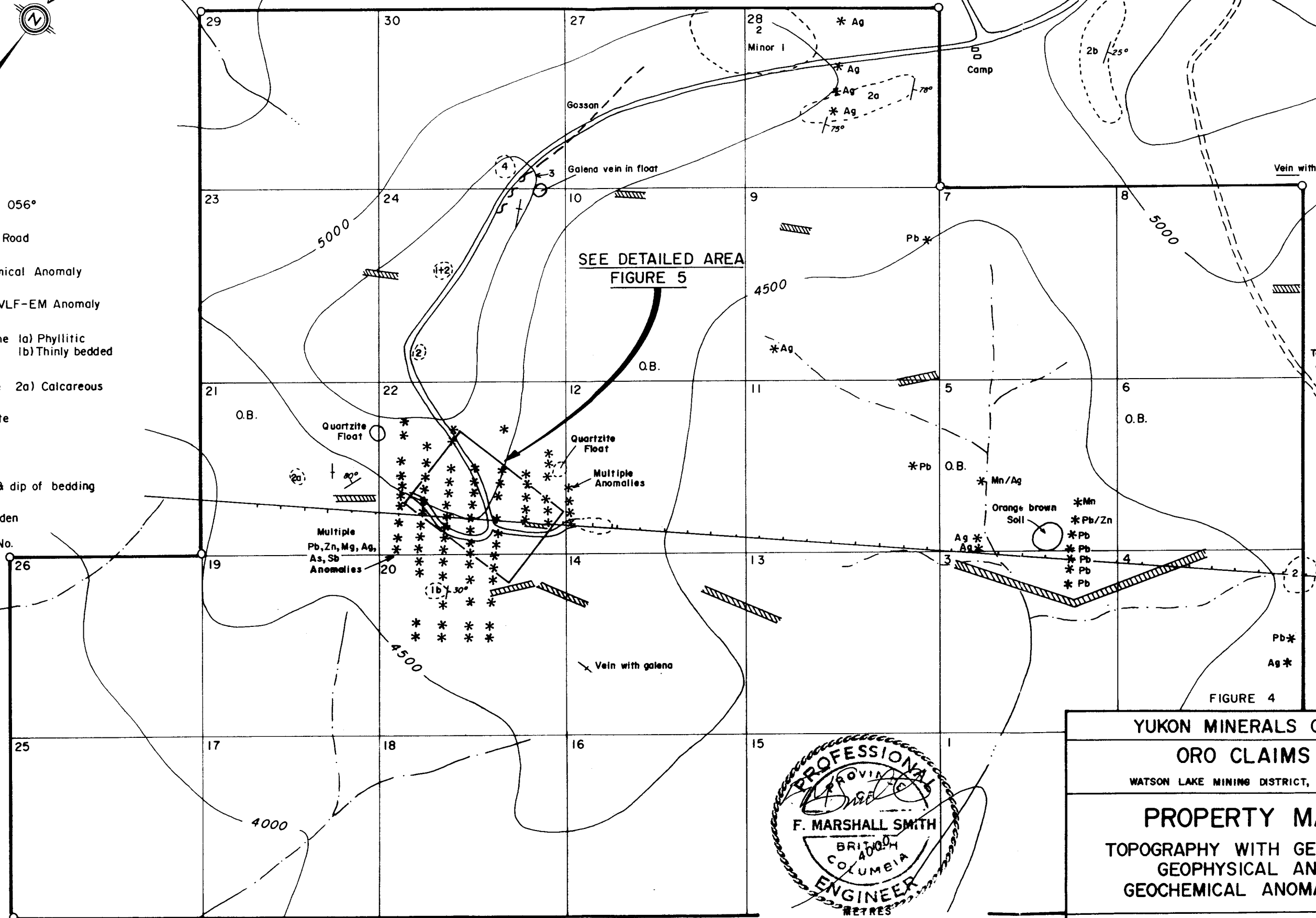
The dominant attitude of the sedimentary rocks is from  $150^{\circ}$  to  $170^{\circ}$  Azimuth with low dips to the east; steeper dips are present close to crests of folds. The attitude of the faults and dykes ranges between  $040^{\circ}$  and  $070^{\circ}$  Azimuth and are dipping steeply to vertical.

An oxidized gossan zone, located in the southwestern part of the property (near the south boundary of claims ORO 19 and 20), occurs within a major shear zone which transects the property in a general northeast-southwest orientation. The oxidized zone has been traced by trenching for a distance of 400 meters. The shear zone has been traced for a distance of 800 meters and has an indicated length of over 2600 meters.



**LEGEND**

- Baseline 056°
- Access Road
- \*Ag Geochemical Anomaly
- Strong VLF-EM Anomaly
- 1 Limestone (a) Phyllitic (b) Thinly bedded
- 2 Phyllite 2a) Calcareous
- 3 Quartzite
- 4 Shale
- 75° Strike & dip of bedding
- O.B. Overburden
- 2 Claim No.



0 100 200 300 400 METRES

<b>YUKON MINERALS CORP.</b>	
<b>ORO CLAIMS</b>	
WATSON LAKE MINING DISTRICT, YUKON	
<b>PROPERTY MAP</b>	
TOPOGRAPHY WITH GEOLOGY, GEOPHYSICAL AND GEOCHEMICAL ANOMALIES	
F. MARSHALL SMITH CONSULTING INC.	
DATE: NOVEMBER, 1996	SCALE: 1:10,000

## MINERALIZATION

The surface outcrop and trenches show massive sulphide mineralization in the limestone. There is some evidence of replacement textures in the sphalerite mineralization indicating the sulphides are after the limestone and related to the manganiferous alteration of the limestone. This view was proposed by Mr. Grant Abbott of the Department of Indian Affairs and Northern Development when he visited the adjacent Jack Group claims<sup>2</sup>.

The 1986 diamond drill programme showed the continuation of the surface galena and sphalerite mineralization to depths of over 83 meters in a near vertical vein system (figures 4 & 5), however at this depth there was still too much oxidation of the sulphides to produce mineable grades of silver mineralization. The drilling was confined to the area of trenches 1-13, (line 2+00E-line 3+00W), and totaled 610 meters using HQ core. The next stage of drilling is contingent upon the location of less weathered areas.

At the surface the oxidized zone related to the silver mineralization ranges in width from 1 meter to 6.5 meters. It consists of iron and manganese oxides intermixed with manganiferous silicified limestone and phyllite fragments, vuggy quartz veins and quartz fragments, varying sized fragments of altered dyke material, massive argentiferous "steel" galena nodules, galena veins and vein remnants and lead and zinc oxidation products.

Along the trenches minor fracture fillings and fracture surface coatings of crystalline black sphalerite are present in lesser quantities than the argentiferous galena. Small irregular blebs and disseminations of chalcopyrite are present within some of the galena veins. Carbonate veins of varying widths (up to 25 cm.) occur along the oxidized zone, with highest concentrations towards the west. They consist of coarse crystalline white calcite, black manganiferous calcite and to a lesser extent, siderite.

The iron oxides of goethite, limonite and hematite produce colors ranging from various shades of brown, orange, black to purple. The manganese oxides are mostly black sooty material and finely crystalline black and steel grey pyrolusite and psilomelane. Dendritic coatings on fracture surfaces are common.

Galena nodules, coated with weathered products and cerussite, and ranging in size from 2 cm. to 10 cm. were found during the trenching. Locally there are veins of argentiferous galena up to 30 cm. wide. These veins are most often fault bounded and occur within or adjacent to altered basic dykes. The galena is dominantly fine to medium grained "steel" galena showing banded, arcuate crystals with associated tetrahedrite (freibergite). It often occurs as fracture fillings in manganiferous, silicified limestone.

The oxidized zone is most often bounded by basic and felsic dykes. The dykes strike between 040° and 070° and occupy pre-existing sutures which have been reopened by later faulting. The later faults are either parallel or are cutting the dykes at low angles. These dykes appear to represent the 'heat engine' for the mineralization as they have been noted in the district<sup>3</sup> both in the sedimentary rocks and in the Cassiar Batholith proximal to highgrade silver mineralization<sup>4</sup>.

On fresh surfaces, the dykes are medium grey-green to dark green, medium to fine grained (almost aphanitic groundmass) containing phenocrysts of black-rimmed white feldspar, dark green to black pyroxene (or hornblende) and widely spaced 2 mm. diameter quartz-eyes. Finely disseminated pyrite occurs in varying concentrations throughout most of the dykes.

Where fractured, faulted or sheared, the dykes have been intensely altered. They have been extensively kaolinized, carbonitization, and leached. Sericitization is strong, but not in all dykes. Colors range from buff to orange-brown. Fracture surfaces are coated with dendritic manganese minerals and along the margins of the dykes, the limestone has been silicified and replaced by manganese. The fine, 'clayey' fault gouge bounding most dykes indicates either movement contemporaneous with emplacement or, most likely, post-emplacement movement.

The mineralization in the area of trenching and drilling is virtually identical to that at the CMC claims and reported by Cathro et al.<sup>4</sup>. The association of the manganiferous alteration of the carbonates proximal to the vein, with the sulphide replacement zones along faults and the dark green dykes filling faults in the area of the mineralization appears to be linked to the development of silver bearing sulphide rich veins in the district.

The following list of samples were collected by Mr A. Frew, geologist, from the surface trenches during the 1986 programme:

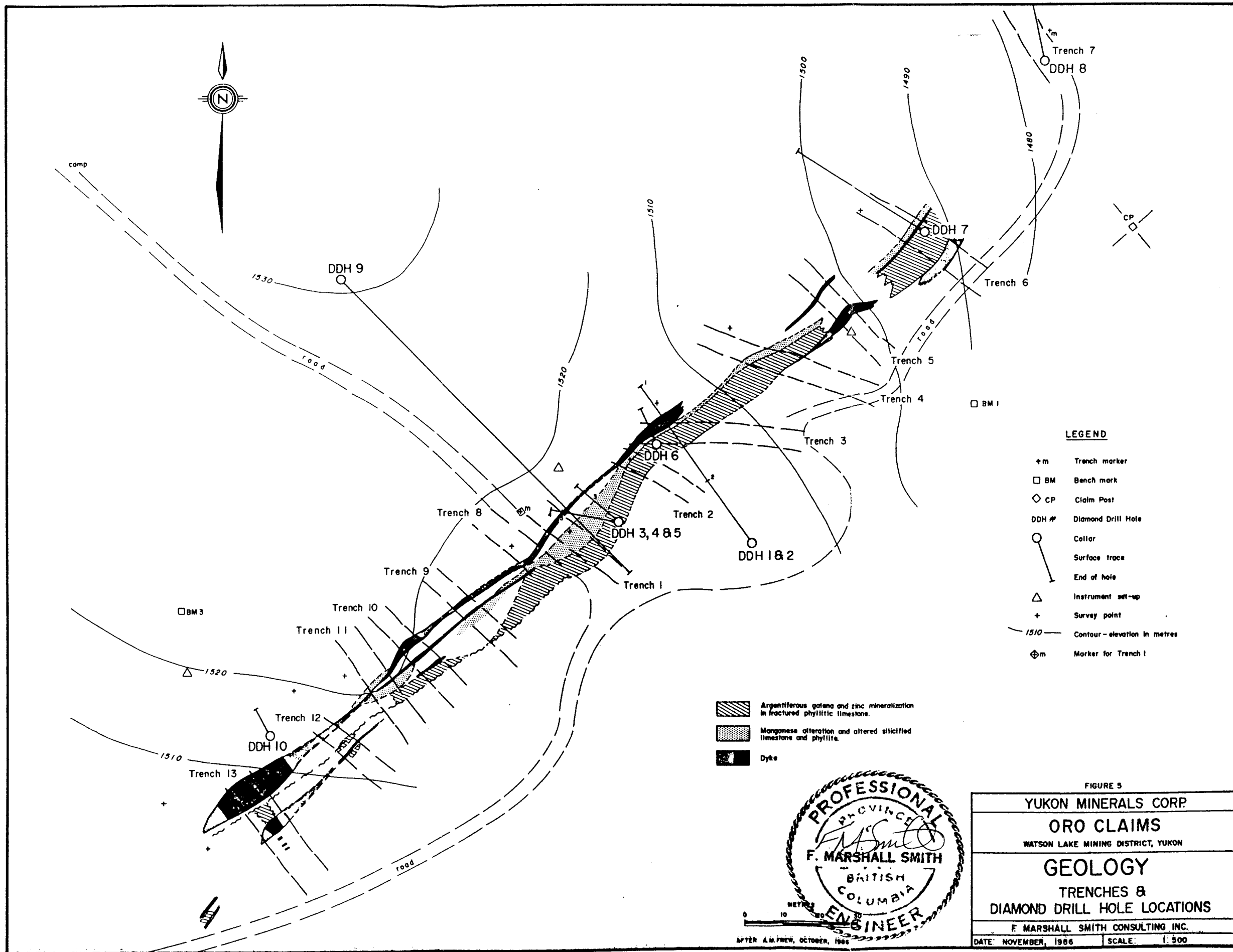
Trench	Sample Width	Ag oz./ton	Pb. %	Zn. %
Tr. 1	.3m	0.75	0.52	0.80
" "	0.8m	2.40	2.15	4.81
" "	0.25m	1.98	3.93	1.35
" "	0.50m	0.72	1.68	0.64
" "	2.6m	0.37	0.52	2.48
" "	0.55m	0.30	1.02	4.07
" "	1.0m	0.21	0.19	2.07
" "	0.30m	0.54	1.29	3.98
" "	1.0m	0.61	0.96	2.27
" "	Grab	58.88	0.96	2.27
Tr. 3	0.18m*	45.60	69.88	1.83
" "	0.15m*	35.24	50.32	10.09
" "	0.61m*	0.51	1.23	3.24
" "	0.25m*	3.13	69.28	1.39
" "	assoc.wad.*	1.09	2.15	2.81
" "	0.46m	0.49	0.36	0.71
" "	1.0m	0.26	0.29	2.09
" "	0.61m	0.50	0.64	2.84
Tr. 4	0.5m*	18.52	39.6	0.49
" "	0.4m*	23.88	37.92	2.86
" "	0.4m*	25.04	43.77	3.78
" "	0.5m*	2.68	3.95	8.72
Tr. 6	1.3m	0.02	0.52	0.43
" "	1.2m	6.64	9.18	2.19
Tr. 7	6.0m	0.20	0.18	0.55
" "	Grab	5.30	-	-

\* contiguous samples.

The surface sampling indicated a range of silver values indicative of weathering of tetrahedrite/freibergite from the outcrop. Locally the presence of lime in the sediments adjacent to the veining would have increased the loss of some of the silver bearing minerals.

Prospecting along the strike of the VLF-EM conductor at 810 meters N, line 0+00E, produced a small stringer of galena in float material, but its source was not determined. There was also heavy manganese wad and basic dyke fragments along the western extension of the drilled zone at 8+00W, but thick overburden hindered exploration.





- LEGEND**
- +m Trench marker
  - BM Bench mark
  - ◇ CP Claim Post
  - DDH # Diamond Drill Hole
  - Collar
  - Surface trace
  - End of hole
  - △ Instrument set-up
  - + Survey point
  - 1510 Contour - elevation in metres
  - ◇m Marker for Trench 1

- Argentiferous galena and zinc mineralization in fractured phyllitic limestone.
- Manganese alteration and altered silicified limestone and phyllite.
- Dyke



FIGURE 5

YUKON MINERALS CORP.	
ORO CLAIMS	
WATSON LAKE MINING DISTRICT, YUKON	
GEOLOGY	
TRENCHES & DIAMOND DRILL HOLE LOCATIONS	
F. MARSHALL SMITH CONSULTING INC.	
DATE: NOVEMBER, 1986	SCALE: 1:500

AFTER A.M. PHEN, OCTOBER, 1986

ELEVATION  
5000'

Azimuth 324°

Baseline

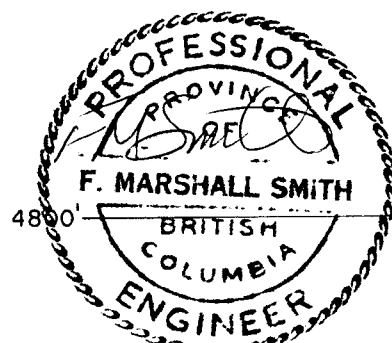
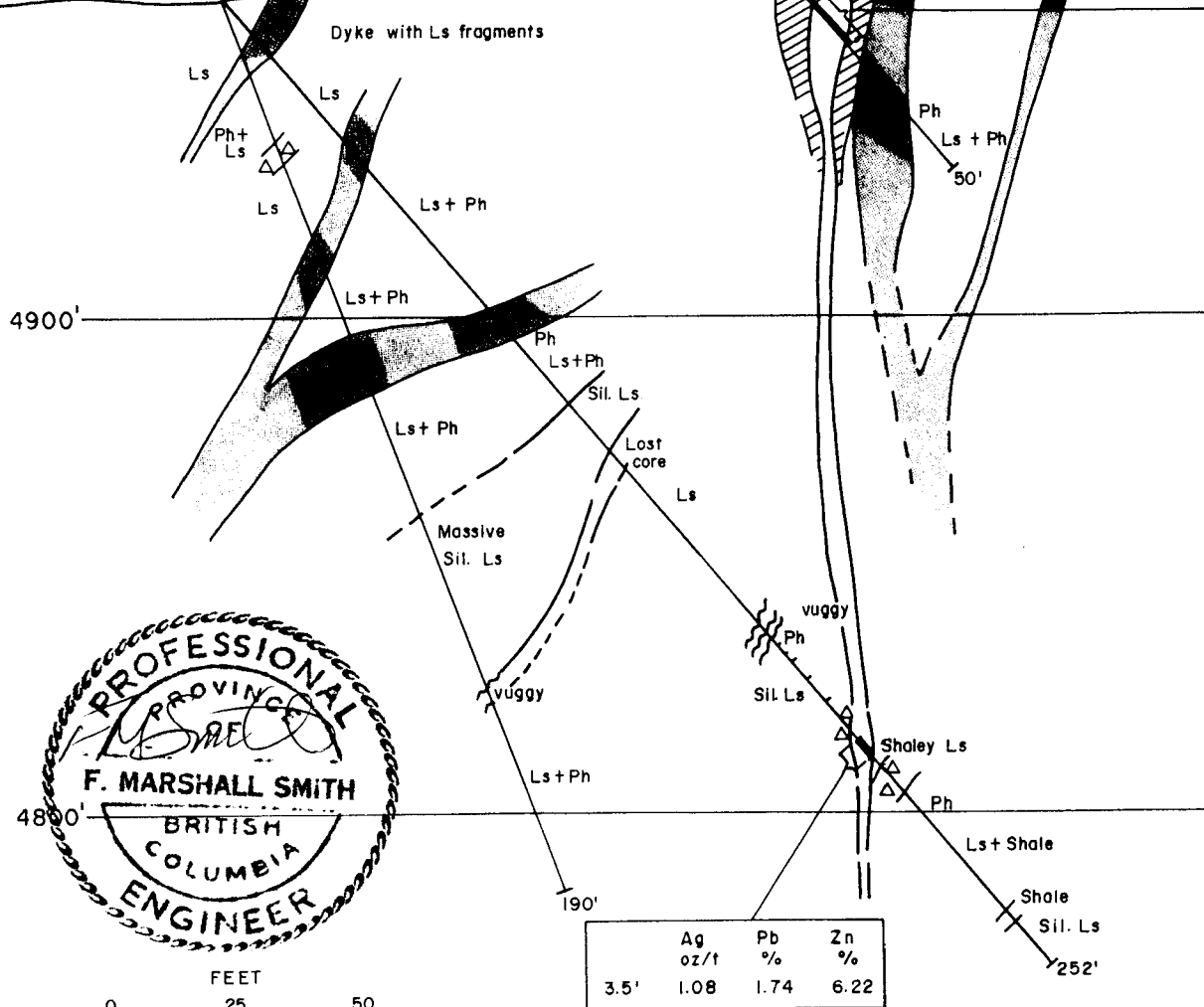
DDH AF86-1 (-50°)  
DDH AF86-2 (-70°)

DDH AF86-6 (-50°) (0.7m East of Section)  
SURFACE OXIDIZED ZONE

	Ag oz/t	Pb %	Zn %
7.5' - 12.5' = 5'	1.06	1.08	2.88
12.5' - 16' = 3.5'	1.20	1.25	5.62
16' - 18' = 2'	0.84	0.88	5.29
18' - 22.9" = 4.9"	0.30	0.30	4.57

**LEGEND**

- △ △ Breccia
- ▬ Dyke
- ▨ Manganese, Limonite Alteration
- Galena Mineralization
- Ls Limestone
- Ph Phyllite
- Sil. Ls Silicified Limestone
- ~ Shearing / Faulting



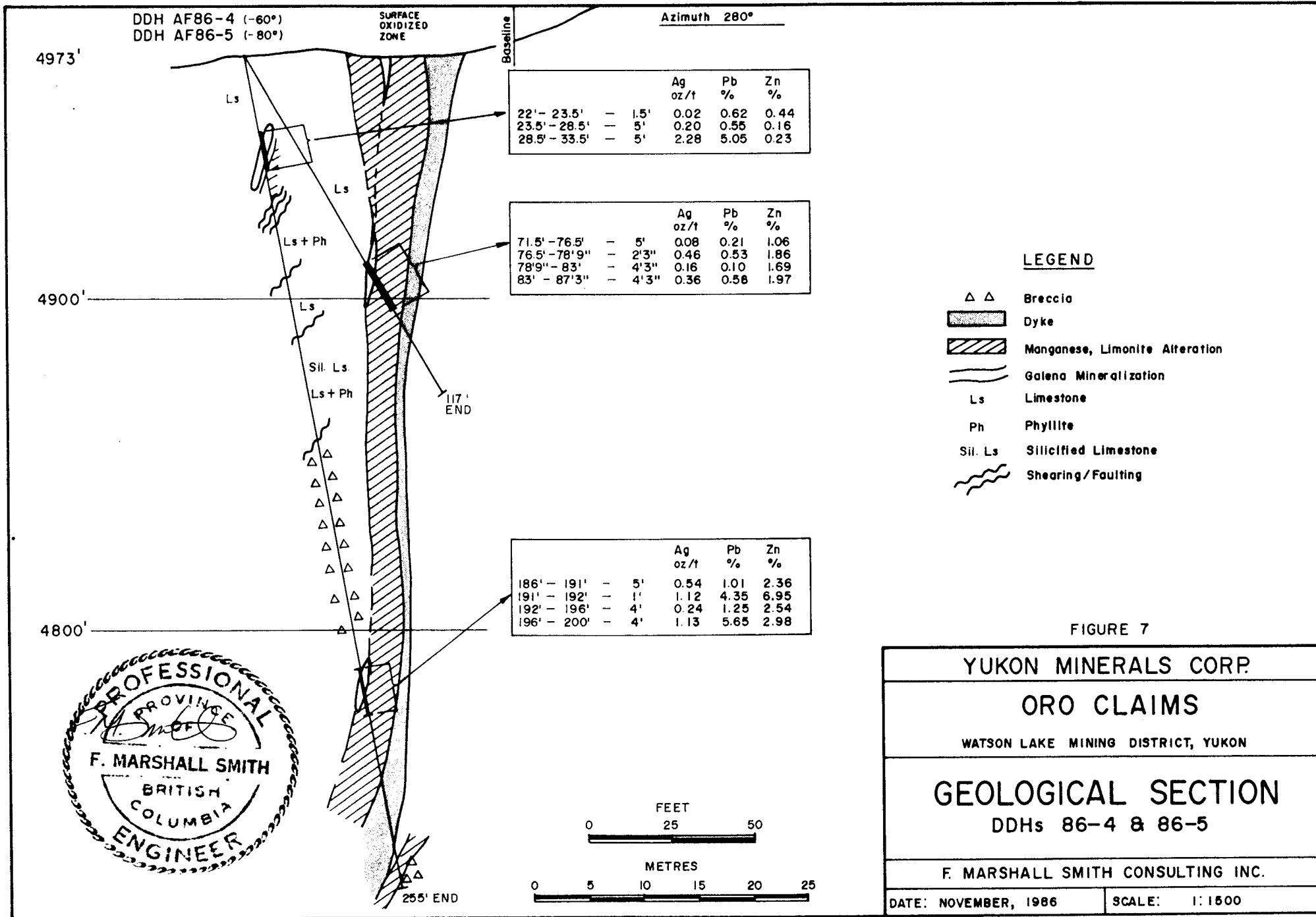
FEET  
0 25 50

METRES  
0 5 10 15 20 25

	Ag oz/t	Pb %	Zn %
3.5'	1.08	1.74	6.22

FIGURE 6

YUKON MINERALS CORP.	
ORO CLAIMS	
WATSON LAKE MINING DISTRICT, YUKON	
<b>GEOLOGICAL SECTION</b>	
DDHs 86-1, 86-2 & 86-6	
F. MARSHALL SMITH CONSULTING INC.	
DATE: NOVEMBER, 1986	SCALE: 1:1500



Galena bearing veins with low silver content were found on claim block 20, (here a four inch vuggy quartz vein with coarse galena assayed 2.02 oz/ton silver), and on claim 8, (20cm @ 2.30oz/ton silver). These low silver values would be caused by weathering.

## **GEOPHYSICAL AND GEOCHEMICAL SURVEYS**

### **GEOPHYSICAL TESTWORK.**

A Proton Magnetometer was tested at the site of the trenching, but was not used to survey the property as the mineralization appeared to have no magnetic response.

The very low frequency (VLF) electromagnetic survey over the trenches was encouraging. The survey results were plotted using Fraser filtering, which strongly indicated the oxidized zone and the fault structure, and related wallrock alteration.

A number of moderate to strong linear conductors were defined on the property using the VLF. These are shown on figure 4. In the north of the property a broad anomaly indicated a local change in rock type and/or linear structures. The linear conductors were generally oriented northeast-southwest, but a subset of conductors were noted at angles of 30<sup>0</sup>-40<sup>0</sup> to this main trend.

The work programme in this report recommends further work on these conductive zones.

### **GEOCHEMICAL TESTWORK**

The 1986 soil survey was limited to areas of anomalous geophysical results, due to cost considerations. Sampling was carried out at 30 or 60 meter centers with analyses for silver, lead, zinc, manganese, and antimony.

A summary of the survey is shown in figure 4. This summary has defined the anomalous zones as those displaying responses at, or close, to the following threshold levels: Silver, +1.2ppm; lead, +100ppm; zinc, +315ppm; manganese, +500ppm; antimony, +50ppm.

Within the area to the west of the trenching isolated values of +1000ppm were defined for lead, zinc and manganese, and values to 2.6ppm for silver. This area showed high responses both uphill and down from the strike of the exposed veining, indicating sub parallel veining to the main zone.

On the eastern and northern geophysical anomalies the sample spacing was increased to 60 meters. The results showed a different pattern of metal distribution, with areas of silver or lead anomalies only. This pattern can partially be attributed to high background levels of these two elements in the sediments, but the high level of the anomalies warrant these areas be investigated further.

## CONCLUSIONS

The diamond drilling in 1986 failed to intersect economic grades of silver mineralization because intense weathering of the veins to a depth of over 83 meters.

The significant mineralization located within the district has manganese, lead, and zinc replacement deposits within similar sedimentary rocks as at the ORO Group. These replacement zones are along strike of the known high grade silver vein subcrops.

Normal grid soil sampling would be too expensive as the sample interval would have to be very small. To date geological mapping to locate the zones is clearly of no use as the zones are seldom either in outcrop or show a physical shape recognizable to the usual scale of mapping.

Geophysical surveys of the VLF-EM type potentially can locate veins in the granite subcrop areas, but to the authors would not be effective in the sedimentary subcrop areas due to the variable but high graphite content in many of the interbedded shales. The VLF anomalies on the property have yet to be shown to represent veining. Further excavations on the anomalous zones will be needed to verify the premise.

## RECOMMENDATIONS

The optimum method of following the known veins is with cat trenches and/or backhoe made outcrop along the favourable structures. New zones should be located by prospecting and reconnaissance geology for the dykes, manganese alteration and the replacement sphalerite/galena zones in carbonate rocks.

New zones located by mapping and prospecting should have detail soil geochemical sampling to pinpoint the optimum sites for trenching. Detail sampling of trenched veins appears to give the best estimate of the grade of the zone. Soil geochemistry may not be effective in lower elevation areas or in areas of thick till but there probably would be no float vein pieces at surface as well. Frost boils give the most representative view of the subcrop and mineralization.

Any areas of vegetation 'kill zones' occur on hillsides within the claimed area may represent areas with concentrations of lead and zinc sulphides or barite associated with sulphide zones.

BUDGET

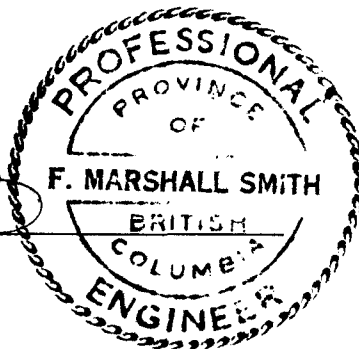
## Phase I

Test Geophysical Survey	\$3,000
Geology	\$10,000
Assays	\$6,000
Trenching	\$40,000
Room and Board	\$12,000
Travel	\$3,000
Support and Supervision	\$8,000
Contingencies	<u>\$8,000</u>
Total Phase I	\$90,000

## Phase II (contingent on locating significant mineralization in Phase I.)

Drilling	\$56,000
Assays	\$7,000
Trenching and drill roads	\$28,000
Room and Board	\$10,000
Travel	\$4,000
Reports	\$4,000
Support and Supervision	\$10,000
Contingencies	<u>\$11,000</u>
Total Phase II	\$130,000
Programme Total (Phases I & II)	\$220,000


*F.M. Smith*  
 F. Marshall Smith, P.Eng.  
 NOVEMBER 21, 1986.

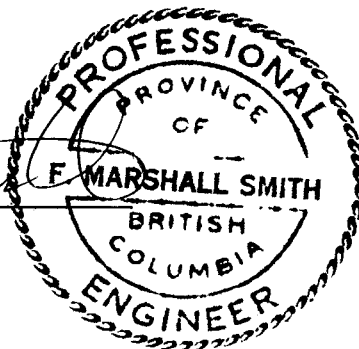


CERTIFICATE

I, F. Marshall Smith, do hereby certify that:

1. I am a consulting geologist and geochemist with offices at 6580 Mayflower Drive Richmond, British Columbia.
2. I am a graduate at the University of Toronto with a degree of B.Sc., Honors Geology.
3. I am a member in good standing of the Association of Professional Engineers of the Province of British Columbia.
4. I have practiced my profession continuously since 1967.
5. This report is based on reports by Professional Engineers and others working for the present and past owners and operators of the property, and personal examinations of the claims in 1986.
6. I have no interest, direct or indirect, in the property or shares of Yukon Minerals Corporation.

  
F. Marshall Smith, P.Eng.  
November 21, 1986.

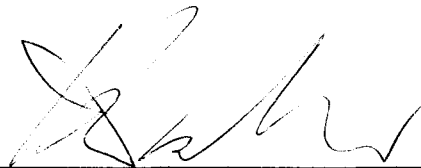




**CERTIFICATE OF QUALIFICATIONS**

I, Peter G. Dasler, do hereby certify that:

1. I am a geologist for Searchlight Resources Inc. with offices at 218-744 West Hastings Street, Vancouver, British Columbia.
2. I am a graduate at the University of Canterbury, Christchurch, New Zealand with a degree of M.Sc., Geology.
3. I am an Associate Member in good standing of the Australasian Institute of Mining and Metallurgy, and a Member of the Geological Society of New Zealand.
4. I have practiced my profession continuously since 1975.
5. This report is based on information received from field surveys and drill reports by Yukon Minerals Geologists, inspections by F.M.Smith during 1986 and reports by Professional Engineers and others working for the previous owners and operators of the property.
6. I have no interest in the property or shares of Yukon Minerals Corporation, nor in any of the companies with contiguous property to the ORO Project claims.



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Peter G. Dasler, M.Sc.

November 25, 1986.

**BIBLIOGRAPHY**

- 1 Poole, W.H.; Roddick, J.A.; and Green, L.H., 1951-59, Map 10-1960, Geological Survey of Canada, Wolf Lake, 105B.
- 2 Abbott, G. as 1 above.
- 3 Personal communication, 1983, Getty Mines Ltd., Meister property.
- 4 Smith, F.M., 1978, examination of silver mineralization, B. Poulan claims, Rancheria, B.C.

**APPENDIX 1**

**DRILL SUMMARY**

Yukon Minerals Corporation

ORO Project 1986

Table - Diamond Drilling Data

Hole #	coordinates	elevation	dip	azimuth	core size	depth	started	completed	logged by
AF 86-1	47m.E 48.8m.S	1512.7m 4963'	-50°	324°	0-95 NQ 95-166 HW 166-252 NQ	252'	Aug 18,86	Aug 20	A M Frew
AF 86-2	"	"	-70°	324°	0-190 HW	190'	Aug 20	Aug 21	A M Frew
AF 86-3	24.5m.E 24.7m.S	1515.8m 4973'	-70°	310°	0-52 HW	129'	Aug 21	Aug 22	R Wilson A M Frew
AF 86-4	"	"	-60°	280°	0-117 HW	117'	Aug 22	Aug 23	R Wilson A M Frew
AF 86-5	"	"	-80°	280°	0-175 HW 175-257 NQ	257'	Aug 23	Aug 25	R Wilson checked by A Frew
AF 86-6	45m.E 11.7m.S	1513.9m 4967'	-50°	332°	0-50' HW	50'	Aug 25	Aug 26	R Wilson
AF 86-7	139m.E 17.5m.S	1492.5m 4897'	-50°	302°	0-202 HW	202'	Aug 26	Aug 27	R Wilson
AF 86-8	190m.E 2m.S	1473m 4833'	-55°	347°	0-152 HW	152'	Aug 27	Aug 28	R Wilson & A M Frew
AF 86-9	2m.E 78m.N	1530m 5020'	-50°	135°	0-194 HW 194-252 NQ 252-532 BQ	532'	Aug 29	Sept 5	R Wilson & A M Frew
AF 86-10	73.5mW	1514.8m	-80°	332°	0-117 HW	117'	Sept 5	Sept 6	A M Frew

Elevations are based on arbitrary elevation of 5,000 feet which was assigned the baseline marker located near the end of Trench #1

Coordinates and directions are relative to the established grid.

## Yukon Minerals Corporation

## ORO Project 1986

## Diamond Drill Core Assay Results

Sample #	Hole #	Footage	Interval (feet)	Ag oz/t	Au oz/t	Pb %	Zn %	Rock type
7201	86-1	184.25 - 186	1.75	0.16	tr	0.04	0.04	fault breccia
7202	86-1	186 - 191	5.0	tr	tr	0.06	0.13	"
7203	86-1	191 - 193.5	2.5	0.02	tr	0.11	0.25	oxidized zone
7204	86-1	193.5 - 197	3.5	1.08	.014	1.74	6.22	fault breccia
7205	86-1	205 - 209	4.0	0.06	tr	0.10	0.56	"
7206	86-1	209 - 211.75	2.75	tr	tr	0.13	0.15	"
7207	86-3	86 - 87	3.0	1.44		0.73	3.51	wad + limonite
7208	86-4	71.5 - 76.	5.0	0.08		0.21	1.06	sheared limonitic phyllite black-purple-brown wad
7209	86-4	76.5 - 78.75	2.25	0.46		0.53	1.86	yellow sandy pug, limonite & wad
7210	86-4	78.75 - 83	4.25	0.16		0.10	1.69	sheared phyllite; wad; green- grey limonitic and yellow gouge
7211	86-4	83 - 87.25	4.25	0.36		0.58	1.97	wad, limonitic sheared phyllite pug & black sooty material
7212	86-5	22 - 23.5	1.5	0.02		0.62	0.44	vuggy limestone w. carbonate filling
7213	86-5	23.5 - 28.5	2.0	0.20		0.55	0.16	crumbly fragmented limestone pug, limonite & xstalline carbonate
7214	86-5	28.5 - 33.5	5.0	2.28		5.05	0.23	sandy gouge, wad, black pug; small galena veins, cerussite, siliceous limestone & phyllite
7215	86-5	165 - 167.75	2.75	0.20	tr	0.41	0.39	tight breccia, cracks with black filling & limonite
7216	86-5	186 - 191	5.0	0.54		1.01	2.36	brown sandy gouge & pods of black sooty material
7217	86-5	191 - 192	1.0	1.12		4.35	6.95	black sooty material with limonite pods
7218	86-5	192 - 196	4.0	0.24		1.25	3.54	sandy gouge pug & limonite
7219	86-5	196 - 200	4.0	1.13		5.65	2.98	sandy gouge & limonite
7220	86-6	7.5 - 12.5	5.0	1.06		1.08	2.88	pug & wad w limestone fragments & limonite
7221	86-6	12.5 - 16	3.5	1.20		1.25	5.62	wad, siliceous l.stone & phyllite pyrolusite w. blebs of galena
7222	86-6	16 - 18	2.0	0.84		0.88	5.29	brown sandy gouge w. limonite & wad fragments
7223	86-6	18 - 22.75	4.75	0.30		0.30	4.57	sheared phyllite, sandy gouge, pug + wad fragments
7224	86-6	38.75 - 41	2.25	0.58		0.87	2.32	" "
7225	86-5	240 - 244.5	4.5	0.12		0.04	0.91	vuggy l.stone, wad + limonite
7226	86-7	33.75 - 38	4.25	0.18		0.76	2.05	sil. l.stone, phyllite, wad + pug
7227	86-7	38 - 42	4.0	0.10		0.58	2.30	l.stone, limonite, phyllite, wad
7228	86-7	107.5 - 109.5	2.0	0.62		0.63	1.45	wad; sheared phyllite
7229	86-8	36.5 - 40.5	4.0	0.24		0.03	0.05	brecciated limestone & phyllite
7230	86-8	40.5 - 42.5	2.0	tr		0.13	0.37	wad + fault gouge
7231	86-10	36 - 38.5	2.5	0.20		0.04	3.76	oxidized calc phyllite. Mn altn
7232	86-10	38.5 - 40.5	2.0	0.08		0.04	1.44	oxidized zone
7233	86-10	42 - 46.5	4.5	tr		0.41	0.88	"
7234	86-10	66.5 - 71.5	5.0	0.28		0.14	0.86	"