

**GEOCHEMICAL & ENGINEERING EVALUATION
REPORT**

on the

YUKON SILVER PROPERTIES

SPENCER CREEK GROUPS

Whitehorse Mining Division, SE Yukon
Map 105-B-1, 60° 12' N - 130° 25' W.
10 miles north of Can-Alaska Hyw., Mi.693

- and -

CARIBOU LAKE GROUP

Whitehorse Mining Division, SE Yukon
Map 105-B-7, 60° 22' N - 130° 47' W.
20 miles north of Can-Alaska Hwy., Mi.710

August 24th to September 12th, 1967

for

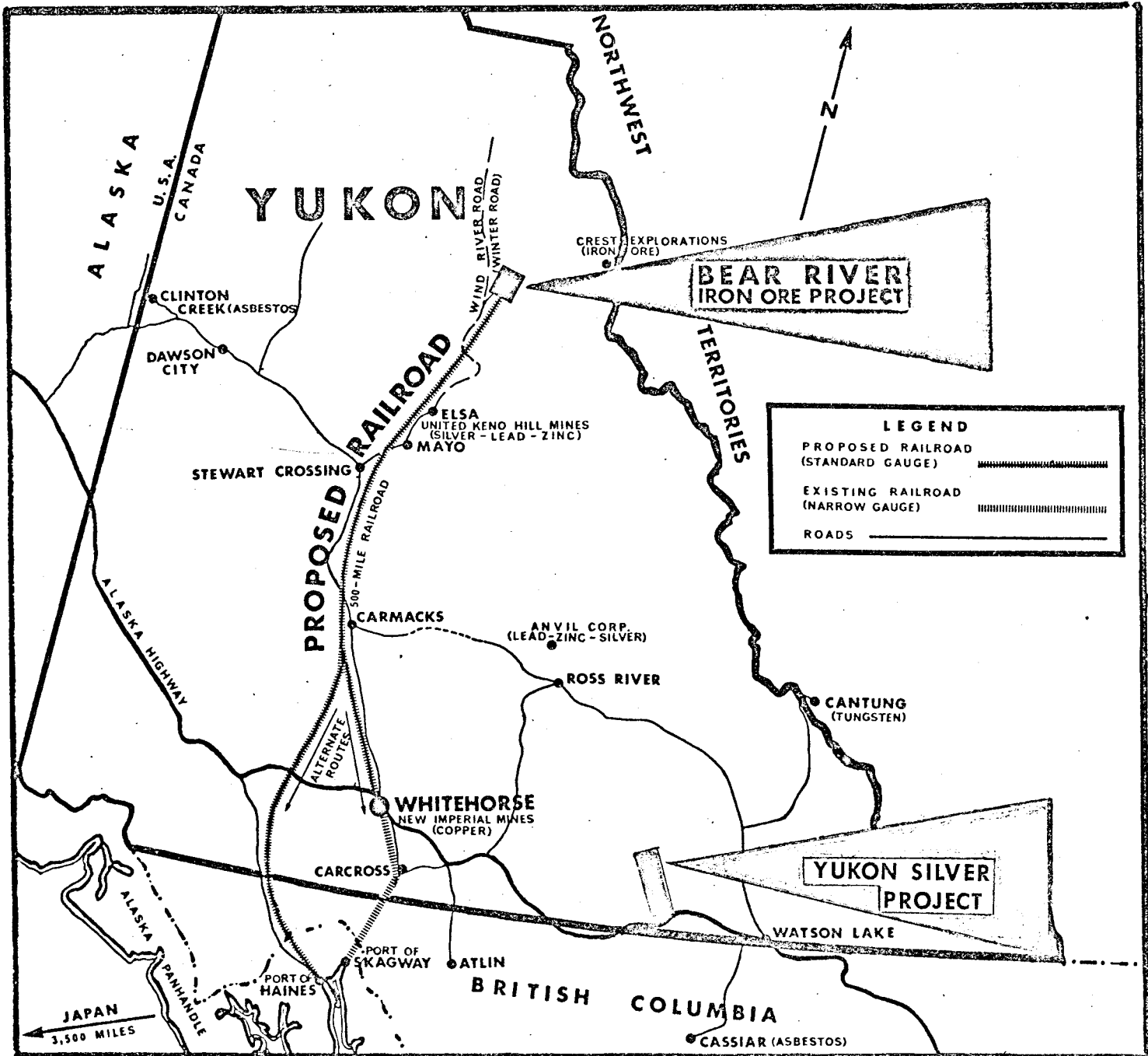
Pacific Giant Steel Ores Ltd.
355 Burrard Street
Vancouver - B.C.

Toronto, Ontario
November 3, 1967

E. D. Black,
Consulting Geologist

019589

Pacific Giant Steel Ores Ltd.



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S U M M A R Y

Pacific Giant Steel Ores Limited holds claims on two silver-lead-zinc prospects in the Spencer Creek area and a copper and silver-lead-zinc prospect in the Caribou Lake area, all in the south-eastern Yukon. The Spencer Creek prospects lie ten miles north of the Alaska Highway at Mile Post 693 - a total of 32 claims are held in this area; one group consisting of 24 contiguous claims and the other, one-half mile away, consists 8 contiguous claims. The Caribou Lake prospect, situated 20 miles north of the Highway at Mile Post 710, consists of one group comprising 6 contiguous claims, within one-half mile of a group of 6 contiguous claims recently staked by Union Carbide Explorations Limited.

On the Spencer Creek properties four showings of narrow (1-6 inch) silver-bearing galena veins have been located above the treeline (approx. 4,000 feet) in low mountainous terrain. The area of mineralization lies approximately 2 - 3 miles to the east of the Cassiar Batholith complex and the local host rock is a rusty weathered argillaceous schist. The lead-silver mineralization occupies narrow vertical gash veins that transect the schist in a northeasterly direction, practically at right angles to the schistosity of the host rock.

A programme of reconnaissance geochemical soil sampling, prospect sampling and bulldozer and hand trenching was carried out on the Spencer Creek properties during a 3 - week period between August 24th and September 12th of 1967. A total of 27,000 feet of claim and control line was surveyed geochemically at two-hundred foot intervals. Several areas of anomalous basemetal content (50-150 ppm, THM) were noted, some above the treeline areas of shallow soil cover and others below the treeline in areas of heavier overburden.

Because of the erratic behavior of the mineralized veins, their small dimensions and adverse silver to lead ratios, none of the known mineralized zones in the Spencer Creek area can be considered important from a commercial silver-ore standpoint. Best reported sample results contained 70.0 oz. of silver and 79.9% lead. Best sample results obtained from present work ran 0.02 oz. of gold, 44.38 oz. of silver, 37.28% lead and 6.10% zinc, across a 4-inch vein width (Showing No.3).

Assays of the silver-lead-zinc showing in the Caribou Lake area returned 2.7 oz. silver, 12.2% pb and 6.6% Zn over a width of 2½ feet. Neither grade nor width are sufficient to be considered economically important.

Despite the lack of discovery of economically important metal deposits in the local area, the showings found so far attract attention to the favourable geological environment and suggest the possibility that the general area could contain deposits resembling

those now under development at the Anvil and Canada Tungster Mines, less than 100 miles north and northeast of the present area of interest. In view of this possibility a programme of careful prospecting, reconnaissance geochemical soil sampling and followup hand-trenching is warranted for the general area, particularly over those areas underlain by sedimentary rocks, within a few miles of the important granite-sediment contact.

RECOMMENDATIONS

As part of a general prospecting effort in this area it is recommended that the Company consider the following programme for the 1968 field season. The importance of silver and basemetals in the Canadian Northwest and the existence of numerous local occurrences of these substances provide the incentive to launch a basic exploration programme of the type hereinafter proposed.

1) Geochemical Reconnaissance

Stream sediment sampling for total heavy metals by cold extraction field techniques over an area of 182 square miles. The area in view being a 26 mile by 7 mile rectangle lying north of the Alaska Highway between the Meister River and the granite mountains of the Cassiar Range.

2) Outcrop Prospecting

Helicopter supported prospecting of all accessible ground in the 182 square mile area of interest.

3) Detailed Followup

- a) Local detailed geochem followup using standard cold extraction methods to delimit important basemetal zones.
- b) Staking of important areas where geochem anomalies or mineral discoveries are found.
- c) Hand trenching of old and newly located mineralized zones. Except where access already exists, bulldozer trenching would not be warranted without a programme and appropriation revision.

PROVISIONAL EXPLORATION PROGRAMME

COST ESTIMATE

1) Geochemical Reconnaissance

182 square miles @ \$25	4,550
Helicopter 40 hrs @ \$135	5,400
Support 120 man-days @ \$15	1,800

2) Outcrop Prospecting

2 men 50 days @ \$25	2,500
Helicopter 25 hrs @ \$135	3,400
Support 100 man-days @ \$15	1,500

3) Detailed Follow-up

a) Detailed Geochem 100 line-miles @ \$50	5,000
b) Staking 100 claims @ \$125	12,500
c) Hand Trenching 60 man-days @ \$25	1,500
Helicopter 20 hrs @ \$135	2,700
Support 60 man-days @ \$15	900

4) Camp

6 - 8 man temporary camp	4,000
Vehicle 3 mon. @ \$500	1,500

Administration, consulting fees, travel, reports, etc.	3,500
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\$50,750

Contingency 10%

5,075

\$55,825

SPENCER CREEK AREA

---INTRODUCTION---

General

As an extension to the exploration operations being carried out by Pacific Giant Steel Ores Limited, toward the end of the field season Metals, Petroleum & Hydraulic Resources Consulting Ltd. was commissioned to carry out investigations of certain silver and basemetal prospects in the southeastern part of the Yukon. Among the properties examined are the presently reported silver-lead prospects in the Spencer Creek area, north of the Alaska Highway.

The properties were staked, bulldozer and hand trenched, sampled, and geochemically prospected during a two week period in the latter half of August. Mr. Jerry Ferrill, geologist for M P & H R, Toronto, carried out the technical work and supervised the claim staking and trenching done by Mr. Daryle Hepple of Whitehorse, Y.T., an employee of Pacific Giant Steel Ores Ltd.

The writer (E.D. Black) examined the prospect during a one-day excursion on August 20th (1967) and outlined the phases of work to be carried out. The contents of this report is based therefore on a personal examination of the showings before the new work was carried out and on the results of subsequent findings reported by Jerry Ferrill.

Property & Location

The properties consist of two blocks of mining claims in the Wolf Lake area of southeastern Yukon Territory. One block comprises 24 contiguous claims and the second 8 contiguous claims. These claim blocks are separated by a gap of approximately one half mile.

The claim blocks lie approximately one-mile north of Spencer Creek and ten miles to the north of the Alaska Highway at Mileage 693. Geographical reference coordinates passing through the claim area include $130^{\circ} 25'$ West longitude and $60^{\circ} 12'$ North latitude.

The two claim groups are made up of Yukon Silver claims Nos. 1 to 24, inclusive, and Yukon Silver claims Nos. 25 to 32, inclusive. All of the claims are held in good standing under the regulations of the Quartz Mining Act and all are on record at the District

Mining Recorders Office in Whitehorse, Y.T. Reference map is Department of Northern Affairs and National Resources Map 105-B-1.

Access

The property can best be reached by a bulldozed tote trail of approximately ten miles in length, leading north and west from the Alaska Highway at Mileage 693.

Staging points for local field work are, Transport, a truck stop at Mile 670, or the town of Watson Lake, at Mile 635 on the Highway. The properties are readily accessible by four wheel drive vehicle or helicopter from these staging points.

Topography

Both of the properties lie in an area of rather subdued mountains along the eastern flank of the Cassiar Mountain Plateau.

Local relief is in the order of 1,000 feet with the hilltops reaching elevations of 4,500 feet above sea level.

The area is drained by Spencer Creek which flows southeastward into the east flowing Rancheria River. The latter occupies the major valley system for the general area and flows eastward, parallel to the Alaska Highway, to join the Liard River near Watson Lake.

Climate & Vegetation

The climate is typical for the northern foothills area with cool wet summers and cold dry winters.

The treeline in the area is at an elevation of approximately 4,000 feet. Therefore, little vegetation of consequence occurs within the bulk of the claims' area. Below the treeline spruce and pine form a heavy forest along the lower slopes and the valley floors.

Resources

Water is scarce on the hills but can be obtained from creeks within a mile of the claim blocks.

Trees suitable for mine timbering are in fair abundance within a mile of the property and can be brought in by truck if necessary from excellent forest areas along the Highway.

Gravel is scarce on the properties but is relatively abundant along the access road, within a few miles of the claims. Moreover, the soils on the hillsides are generally composed of material satisfactory for access road building.

No power is available locally other than from the pole-line along the Highway. In general, mining operations in the area would find it necessary to install their own diesel driven power plants.

G E O L O G Y

Regional Geology

The present properties lie within the G.S.C.'s Wolf Lake map sheet No. 10 - 1960, which covers the southeastern Yukon between the coordinates 60° 00' to 61° 00' north latitude and 130° 00' to 132° 00' west longitude. Regional mapping and geology of the area is by W. H. Poole (1951-55) and J. A. Roddick and L. H. Green (1959).

According to the forgoing G.S.C. reports and maps, the general map-area occupies the northwestern end of the Cassiar Mountains where the range gives way to the Nisutlin Plateau in the northwestern quadrant and the Liard Plateau to the east. The Liard River Valley provides the topographic break between the main Cassiar Range and the Simpson Range - the latter lying in the northeastern extremity of the map sheet.

The properties occur on the eastern flank of the Cassiar Mountains in the part of the northwestern trending divide that has become known as the Dease Plateau.

Three dominant geological sub-provinces dominate the region. The central division which forms the northwest trending divide comprises the Jurassic and/or Cretaceous monzonites and granodiorites of the Cassiar Mountains. Flanking this highland to the southwest is a complex system of ranges comprising Devonian and Mississippian arenaceous and argillaceous sediments, intruded by Cretaceous and Tertiary granitic plutons.

The sub-province northeast of the Cassiar Range comprises a sequence of folded Cambrian and/or Precambrian quartzites and phyllites, overlain conformably by a light-grey limestone. The latter being identified as Lower Cambrian in age.

Intrusions of Cassiar-type granodiorites and monzonites are widely scattered throughout the Cambrian-Precambrian terrain.

Local Geology

Within this regional geological framework the present area of interest lies in a folded limestone-phyllite sequence presumed to be Lower Cambrian in age. The properties are within four miles of the Cassiar intrusive along its eastern boundary.

A general northwest strike predominates the local area but dips vary widely from a matter of a few degrees up to 75 degrees in either the northeast or southwest directions.

A number of major faults have been inferred in the general area and some local adjustment along cross-cutting fractures have been noted.

A number of major faults have been inferred in the general area and some local adjustment along cross-cutting fractures have been noted.

GEOCHEMICAL SURVEYS

Scope

In the Spencer Creek area geochemical surveys were carried out on the claim lines of the group comprising claims YS 1 to 24 inclusive (see Map Sheet 2 of 7), and along control picketlines in claims YS 2 and 4 and YS 30. (See Map Sheets 5 of 7 and 7 of 7).

Sample points were selected at 200-foot intervals on the claim line survey and at 100 or 200-foot intervals on the picketline surveys. Locally 25-foot intervals were used to delimit anomalous zones.

A total of 23,300 feet of line was geochemically surveyed at 200-foot sample intervals and 3,800 feet of line at 100-foot (or less) intervals.

Equipment and Technique

The geochemical method applied was the standard dithizone cold extraction colorimetric technique to determine total heavy metal content (THM) in the soils. A Mogensen Trail Kit was used with extraction reagent colors being noted at sample sites and sample fractions retained for future reference or analysis. Total heavy metal content of each sample was subsequently estimated in parts per million by Mogensen's colorimetric comparison charts. No followup laboratory soils analyses were done.

Samples were recovered by hand auger from a few inches to two feet below the surface, depending upon the available depth of overburden.

Results

The soil sampling carried out on the claim lines picked-up four areas where the total heavy metal content in the overburden is significantly higher than the general background. Values in the order of 50 to 150 ppm are considered important indicators of mineralization. Cold extraction techniques were employed in the field and the values are therefore only semiquantitative.

One of the anomalous areas lies to the east of Showing No.3 and may be due to vein extensions or a parallel structure in the same general area.

A second anomalous spot, located approximately halfway along the line between claims YS 9 and 10, gave a reading of 150 ppm (THM). This is probably due to a local vein that has not been exposed by trenching.

A third anomalous area has been found on the claim line between claims YS 21 and 23, at the south end of the property. This zone is below the treeline where no outcrop exposure has yet been found. Numerous samples were taken in this area at closer intervals, defining a fairly broad moderately high anomalous zone.

At the north end of the property the fourth notable anomalous area lies on the boundary between claims YS 13 and 14. Considering the usual northeast strike of the veins in the area this anomaly could be tied in with the mineralization in the No.3 showing. The latter lies about 3,000 feet to the northeast. This anomalous zone also lies below the treeline.

The close spaced picketline geochemical survey in the vicinity of Showing #3 and #4 tended to suggest some strike continuation of the exposed mineralized zones. In the case of Showing #4, possibly one or two mineralized zones parallel to those exposed by the trenching are suggested by the geochem THM anomalies.

TRENCHING & SAMPLING

Scope

In the Spencer Creek area some 820 linear feet of bulldozer trenching was carried out in 6 trenches over Showings #1, 2 and 3. At an average depth of 3 feet this represents an approximate 90 cubic yards of excavation.

Equipment and Technique

Standard bulldozer blade excavation was carried out with a D-7 Caterpillar tractor. Tractor and operator were rented from the owner of the Transport Cafe at Transport (Mile 670 on the Highway).

The showings were exposed over their continuous length, in as far as was physically possible with the equipment in use.

Handwork including blasting, cleaning and sampling of the bulldozer exposed mineralized zones was carried out by Hepple and Ferrill. Sampling included chip or channel samples across the structure in vein or wall rock material as the mineralization in each showing dictated. Sample assays for gold, silver, lead and occasionally copper were run at Technical Service Laboratories Ltd. in Toronto.

Results

Reasonable trenching depth was obtained in the friable schist host rocks but some "blinding" was produced by the action of the bulldozer blade. Considerable hand cleaning was necessary to gain good exposure and to sample the mineralized zones. Assay data is shown on attached sheets included as an appendix to this report and on the maps of the pertinent showings.

MINERALIZATION

Four silver bearing galena showings have been located in the claim groups and reconnaissance geochemical prospecting along the claim-lines has indicated three other sectors where the basemetal content in the overburden is notably high. Manganese staining and/or calcite veins are the common surface manifestations of lead-silver mineralization in this area.

Showing No.1

Situated on the projected east-west claim boundary between Yukon Silver claims No.6 and No.8, this showing comprises a strong 4-inch galena vein traced by trenching for a strike length of ninety feet.

Strike of the vein is northeast and the dip is approximately vertical.

The following values were obtained from various samples taken along the strike of the vein:-

Sample No.	Location	Au (oz)	Ag (oz)	Pb (%)	Zn (%)	Remarks
1474	5 Ft NE	Tr	37.50	52.82	2.34	4" galena vein plus 1" HW. 1" FW.
1476	5 Ft NE	-	8.02	-	-	1 ft of HW.
1477	12 Ft NE	0.01	35.89	60.32	1.17	5" galena vein
1475	50 Ft NE	Tr	2.36	2.94	25.49	Grab sample of 4" mineralized zone

A narrow rusty weathered calcite stringer system cuts across the centre of the lead-silver vein in a north-south direction. No mineralization was found in this zone except at its junction with the main vein. This calcite zone may also be mineralized at depth.

Approximately 100 feet to the north and roughly parallel to the main vein is a zone of discontinuous manganese stained pods - ten to twenty feet in width and over one hundred feet in strike length. Traces of galena were found in hand excavations made in decomposed outcrop material to a depth of two feet. No assays were made on this mineralized zone.

Showing No.2

This showing occurs approximately 500 feet along strike from Showing No.1, on the same barren hilltop.

A bulldozed trench exposed a manganese stained zone in the schists over a length of 150 feet and widths of 20 to 50 feet. A blasted and hand dug glory-hole, put down 50 feet from the southwest end of the trench, located a 4 to 5-inch vein of massive galena at a 2-foot depth. The general strike of this vein is northeast and the dip is more-or-less vertical. Analyses of galena reported by Mr. Leverman to have come from this pit gave the following values:

Sample No.	Ag (oz)	Pb (%)	Remarks
1	63.1	77.0	Grab sample 5" galena vein
2	70.0	79.9	Grab sample 5" galena vein

The mineralization zone is discontinuous beyond the bulldozer trenched zone.

Showing No.3

This showing consists of two veins in schists each traced by trenching for approximately 100 feet.

Most important of these two structures is a vertical 6-inch galena bearing vein in the southwest quadrant of the showing area. The mineralized vein is somewhat erratic, varying from a three inch wide mass of galena to an eight inch wide vein made up of several one inch stringers of massive galena and intercollated weathered calcite.

Bulldozer trenching along the strike of this vein exposed the structure for seventy-five feet. Continuity beyond this length is not clearly seen. At one point the vein has been displaced five feet along a narrow shear zone parallel to the schistosity of the outcrop. Its continuation beyond this shear zone is well established.

Values for a single sample taken across 6 inches of vein material at the north end of the structure reported the following metal content:

Sample No.	An (oz)	Ag (oz)	Pb (%)	Zn (%)	Remarks
1471	0.02	20.48	26.56	1.95	Chip sample across 6" vein.

Some manganese staining occurs along schist planes running out from the mineralized vein. A little galena has been found in these manganite zones by hand trenching.

The secondary zone of mineralization in this showing consists of a discontinuous shear paralleling the schistosity and containing calcite stringers over a minimum length of 100 feet. The zone was exposed by bulldozer trenching over a length of 125 feet.

Blasting and hand trenching at the north end of the structure exposed a 3 to 4 inch vein of galena with minor associated chalcopryrite and malachite. Assays of vein material reported the following metal content:

Sample No.	An (oz)	Ag (oz)	Pb (%)	Zn (%)	Cu (%)	Remarks
1470	0.02	44.38	37.28	6.10	0.64	3 - 4 inch vein at 2½ ft depth.

Showing No.4

In the separate block of eight contiguous claims lying approximately one-half mile to the northwest of the claim group discussed in the previous section, a system of parallel veins has been traced over a distance of approximately 700 feet. Because of its proximity and general similarity to the other showings it has been included as Showing No.4.

Heavy manganite staining on the surface provides evidence of a continuous mineralized zone transecting the local schistosity over a northeast strike length of seven hundred feet. A series of old bulldozer trenches cross the mineralized zone at various intervals over its length. Recent hand work by Ferrill and Hepple (in trenches near the extremities, i.e. trenches No.3 and No.8) confirmed the presence of two or more parallel veins of silver-lead-zinc mineralization approximately 6 inches in width and 5 to 10 feet apart. As no new bulldozer work was carried out the zone was examined and sampled with difficulty. The attitude of the veins has not been reported. Grab samples from the mineralization returned the following assays:

Sample Location	Sample Number	Ag (oz)	Pb (%)	Zn (%)	Remarks
Tr #3	1472	1.18	1.63	1.27	Grab sample Vein #1
Tr #8	1473	0.46	0.37	0.98	Grab sample Vein #2

Two lines of reconnaissance geochemical sampling carried out at right angles to the direction of the mineralized zone, one hundred feet beyond the ends of the trenches, showed high basemetal content in soils directly along strike. Other values 100 - 150 ppm were located approximately 100 feet to the northwest, up-slope from the showing, possibly indicating other parallel mineralized zones.

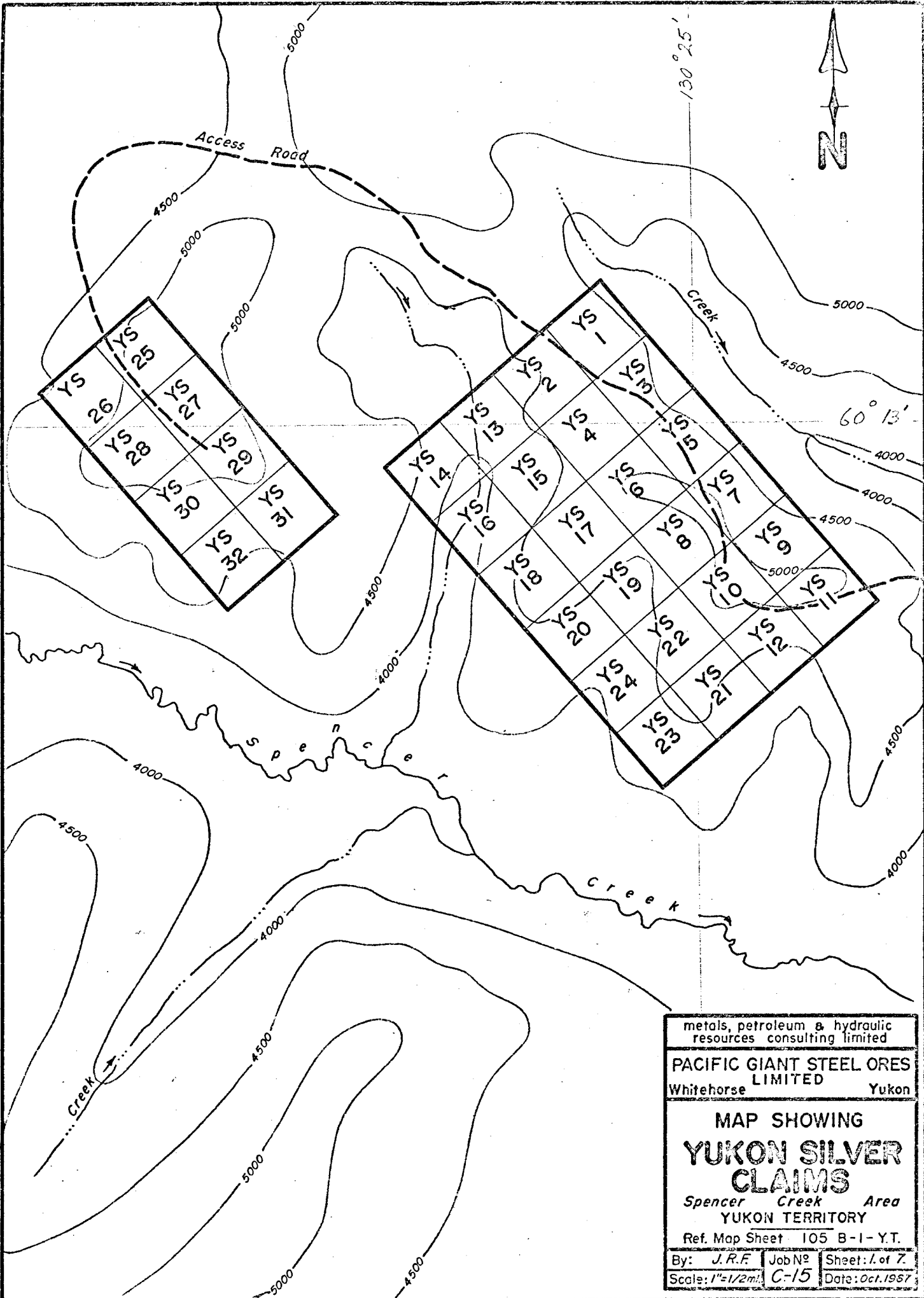
Another geochem high (100 pph - THM) was picked-up approximately 350 feet to the southeast, along the sample line east of the trenches. The significance of this anomaly is not known but it could indicate a third parallel mineralization zone on the down-slope side of the trenched showing.

Conclusions

All four of the showings are similar. Characteristically, they are all weathered, vertical or nearly vertical, calcite veins from 3 to 12 inches thick. Some consist of discontinuous veinlets, others, masses of silver-bearing galena up to 6 inches in thickness. All strike in a general northeast direction and most display haloes of surface manganese stain and occasionally have discontinuous off-sets along the direction of foliation in their schistose host rock.

It is reasonable to conclude that these veins occupy dilation zones or fissures in the schists, and that the schists were hydrothermally mineralized by impregnating solutions related to underlying or adjacent granitic intrusives of the type found immediately to the west of the area in the Cassiar Mountains.

Because the veins are dimensionally small and erratic on surface the present known veins hold little promise of having important depth continuity. Moreover their tendency to contain only a 1:1 silver to lead ratio renders them equally unimportant from an ore standpoint. Therefore, unless further geochemical prospecting and trenching leads to the discovery of new mineralized zones of better size and grade the properties hold little economic promise. The significance of showings such as these, lies not with their individual ore-making possibilities but, rather, with the attention they draw to the area, which is easy of access and lends itself to simple surface prospecting with grub hoe or reconnaissance geochemical methods. It must not be overlooked that this area could contain major basemetal deposits related to the Cassiar Batholithic intrusives.



metals, petroleum & hydraulic resources consulting limited		
PACIFIC GIANT STEEL ORES LIMITED		
Whitehorse		Yukon
MAP SHOWING		
YUKON SILVER CLAIMS		
Spencer Creek Area		
YUKON TERRITORY		
Ref. Map Sheet 105 B-1-Y.T.		
By: J.R.F.	Job N°	Sheet: 1 of 7.
Scale: 1"=1/2mi.	C-15	Date: Oct. 1967

CARIBOU LAKE AREA

INTRODUCTION

General

As a further extension of Pacific Giant Steel's "Yukon Silver" project Jerry Ferrill, field geologist for MP&HR, carried out a one-day helicopter visit, examination and staking job on a silver-lead showing formerly held by local prospector, John Kubiak, in the Caribou Lake area, 15 miles to the north of the Spencer Creek properties. Kubiak and Mr. G. Leverman accompanied and assisted Ferrill in this project.

Kubiak's claims on the copper showing (El Capitan 1 to 20), lapsed on the day of their visit and had been re-staked on behalf of Union Carbide Explorations Ltd. prior to their arrival. Two claims (YS 11 and 12) were tacked on to the south end of the Union Carbide group to cover a supposed extension of the mineralized zone. However, these two claims, staked by D. Hepple for Pacific Giant Steel, were never recorded.

Six new claims - YS 1 to 4 and YS 13 and 14 were staked on a silver-lead-zinc showing John Kubiak had once found lower down on the north slope of the copper-bearing ridge.

Both prospects were examined and mapped in a preliminary fashion during Ferrill's short visit.

The present report is based on details from Ferrill's field notes.

Property and Location

The Caribou Lake property consists of one group of six claims located approximately 20 miles due north of the Alaska Highway at Mile Post 710 (Rancheria) and four miles southwest of Caribou Lake on the Meister River drainage system. These claims are situated within the Recorder's Map No. 157 - B7.

Topography and Access

The mineralized zone is situated above the treeline on a ridge of 5,000 to 6,000 feet in elevation. The valleys on both sides of the ridge are at an approximate elevation of 4,500 feet and drain northeastward into the Meister River.

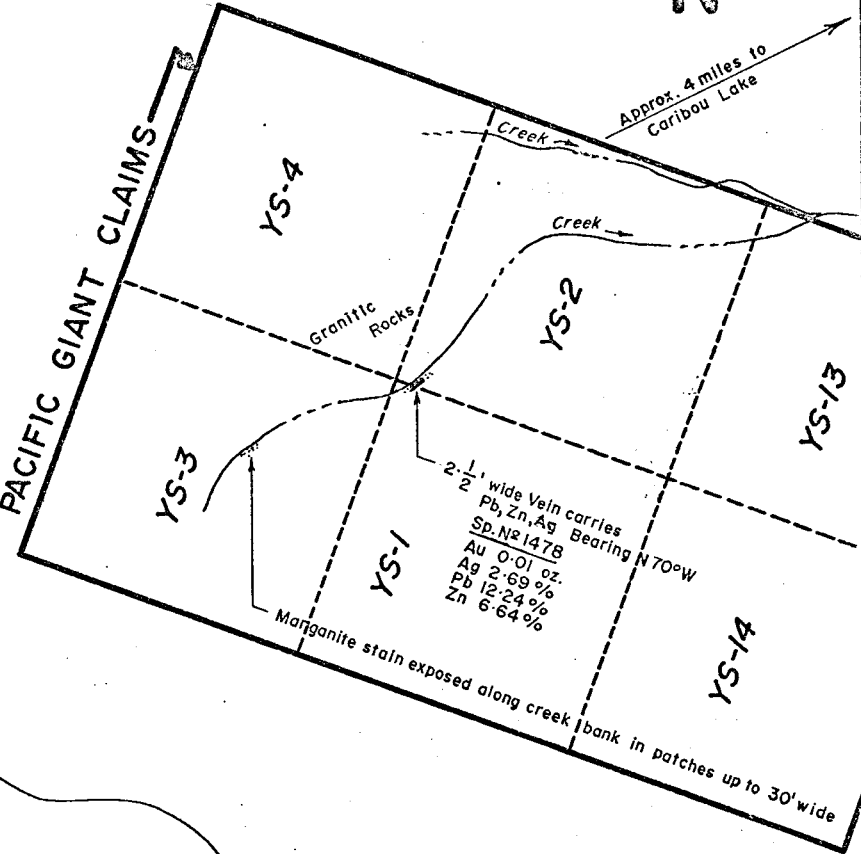
The area is accessible only by helicopter and the mineralization is easily reached by landing on the ridge. Almost twenty miles of tote road would have to be constructed to reach the area by overland travel.

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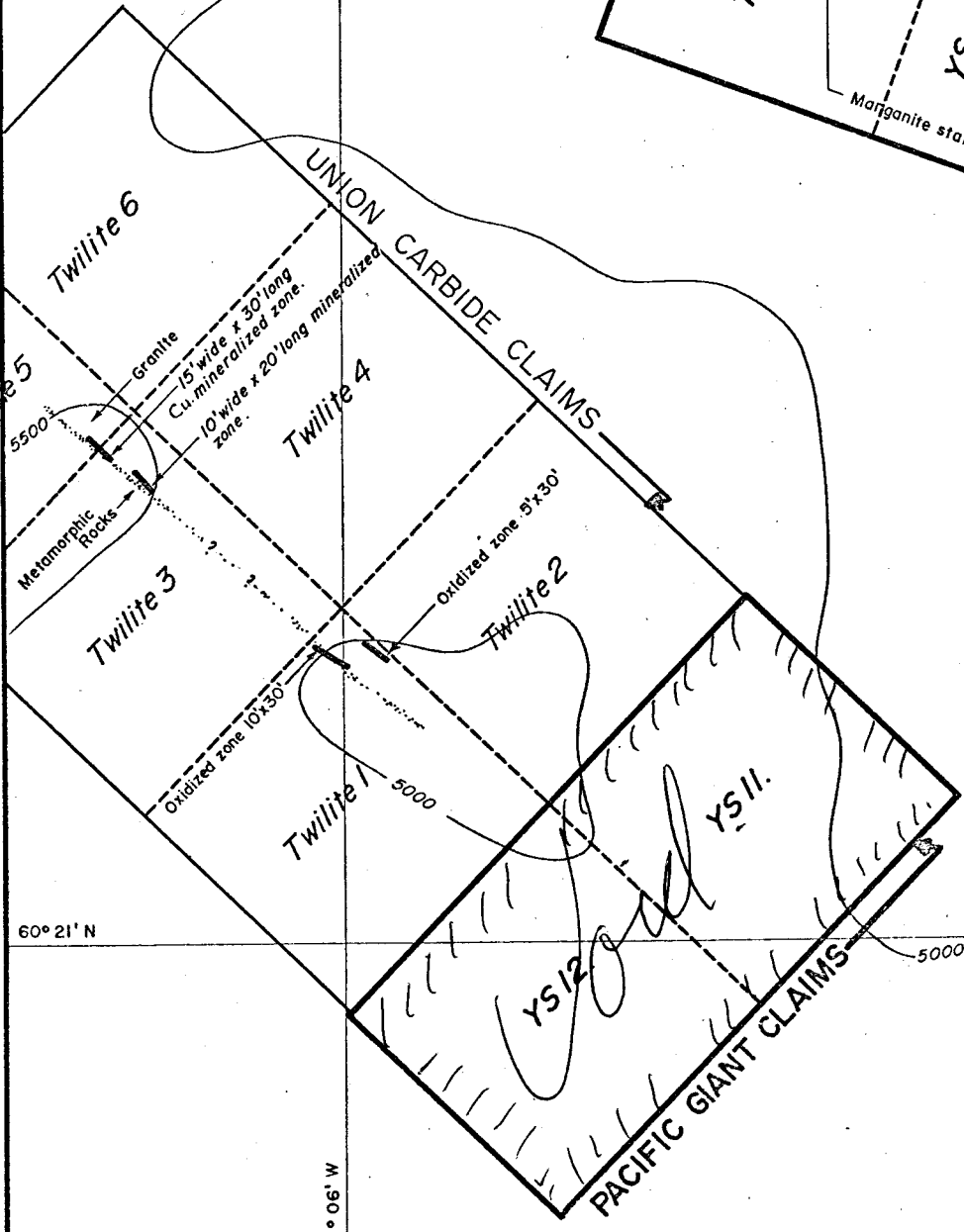


Approx. 4 miles to Caribou Lake

PACIFIC GIANT CLAIMS



UNION CARBIDE CLAIMS



5000

5000

5500

5500

5000

5000

60° 21' N

131° 06' W

metals, petroleum & hydraulic resources consulting limited

PACIFIC GIANT STEEL ORES LIMITED

Whitehorse Yukon

MAP SHOWING CLAIMS AND MINERALIZATION

on Yukon Silver, Copper, Lead Zinc Property

Caribou Lake Area Yukon Territory

(Ref. map 105-B-7 Y.T.)

By: J.R.F.	Job No: C-15	Sheet:
Scale: 1"=1000'		Date: Oct 1957

GEOLOGY

Regional and Local Geology

The Caribou Lake claim groups lie along the eastern edge of the granitic complex that forms the backbone of the Cassiar Mountains. Although local pendants of relic sediments may control the mineralization the zones of interest appear to be within the granites or digested sediments rather than within the flanking unaltered sedimentary belt. The regional and local structural trend parallels the axis of the Batholithic intrusive, i.e. the trend is generally northwest-southeast.

Local contact zones and metamorphosed sedimentary remnants are in evidence. It would appear that a contact between metamorphosed sediments and granite provides the control for the localization of the copper mineralization on the top of the ridge, however, the silver-lead-zinc showing is in altered granitic rocks.

MINERALIZATION

Silver-Lead-Zinc Showing

The silver-lead-zinc showing is exposed in a creek bed approximately $1\frac{1}{2}$ miles northeast of Union Carbide's copper zone. A $2\frac{1}{2}$ foot wide vein of mineralized rock containing galena, sphalerite, quartz and calcite stringers in a massive zone of manganese staining can be seen striking N. 70° W. across the creek bed. The vein is exposed on both banks of the creek. The mineralization is reminiscent of the silver-lead veins in the Spencer Creek area.

The host rock is a light coloured, altered, granite of the type seen on the top of the ridge.

CONCLUSIONS

The mineralization in the Caribou Lake property is not large enough or of sufficient metal tenor to be considered of economic importance. On the other hand, it tends to attract attention to the area and suggest that intensified prospecting in the area may lead to the discovery of other deposits of greater importance. The area lends itself well to geochemical and basic outcrop prospecting and could be included in a regional exploration programme based on this approach.

CERTIFICATE

I, E. D. Black, of Suite 907, 100 Adelaide Street West, Toronto, Ontario, certify that:

- 1) I am a graduate of McGill University in Montreal, Quebec, and hold a degree of Master of Science in Geology.
- 2) I am a member of the Geological Association of Canada and have practiced my profession for twelve years.
- 3) I have based my Summary and Recommendations on my experience and from knowledge gained during a visit to the properties, information provided by G. R. Ferrill, staff geologist, and the various governmental reports on the area sited in the present report.
- 4) I hold no interest directly or indirectly in this property nor do I expect to receive any interest directly or indirectly in this property or the companies referred to in this report.



E. D. Black, M.Sc.

Toronto, Ontario.
November 3, 1967.

REFERENCES

Map 105-B-1

- Department of Northern Affairs
and National Resources.

Map 105-B-7

- Department of Northern Affairs
and National Resources.

Map 10-1960

- Wolf Lake Map Sheet.

PACIFIC GIANT STEEL ORES LTD

PROJECT C - 15

SCHEDULE OF EXPENSES

PHASE	PERSONNEL	DATES FROM - TO	DAYS	TOTAL EXPENDITURES
Property Examination & Rec. Geology	E. D. Black	Aug. & Sept./67	8½	1,062.50
Geochemical Survey	J. R. Ferrill	Aug. 24-Sept. 14/67	22	1,000.00
Wages	D. Hepple	Aug. 24-Sept. 12/67	20	400.00
Consulting & Supervision	E. D. Black	Aug. -Dec. /67	3	375.00
	Cordilleran Eng.		1	65.00
	W. H. Riddell		1	125.00
Airfare & Travel Exp.	E. D. Black			393.27
Field Equip & Supplies				593.28
Vehicle & Transport				269.77
Flying				585.00
Bulldozing				600.00
Field Personnel Support				1,248.13
Drafting & Map Reprod.				313.83
Analyses				229.50
Telephone & Telegraph				128.89
				<u>\$7,389.17</u>

THIS STATEMENT IS CERTIFIED CORRECT -

Ian C. Campbell C.A.

Ian C. Campbell

Aug. 16/68.

TECHNICAL SERVICE LABORATORIES

DIVISION OF BURGNER TECHNICAL ENTERPRISES LIMITED

355 KING ST. W., TORONTO 2B, ONT., CANADA

TELEPHONE : 362-4248

Representing ...

JARRELL-ASH COMPANY
 HILGER & WATTS LIMITED
 SÄOTLER RESEARCH
 ULTRA CARBON CORPORATION
 METALS RESEARCH LIMITED

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM **Metals Petroleum & Hydraulic Resources
 Laboratory Limited.**

REPORT NO.

T-08447

SAMPLE(S) OF
 ROCK

Attn: Mr. E.D. Black

<u>Sample No.</u>	<u>Copper (Cu)%</u>	<u>Lead (Pb)%</u>	<u>Zinc (Zn)%</u>	<u>Nickel (Ni)%</u>
1470	0.64	37.28	6.10	--
1471	--	26.56	1.95	--
1472	--	1.63	1.27	--
1473	--	0.37	0.98	--
1474	--	52.82	2.34	--
1475	--	2.94	25.49	--
1477	--	60.32	1.17	--
1478	--	12.24	6.64	--
1482	--	0.15	4.59	--
1483	--	6.94	1.27	--
1485	0.02	41.56	1.56	--
1486	0.09	--	--	0.02
1487	0.06	--	--	0.01
1488	0.42	--	--	0.02

Samples, Pulps and Rejects discarded after six months

DATE Sept. 21 '67

SIGNED C.S. Joyce
 C.S. JOYCE, B.Sc., Manager of Laboratories

VANCOUVER - TSL LABORATORIES LTD., 325 HOWE ST., VANCOUVER 1, B.C.



- CHEMICAL RESEARCH AND ANALYSIS
- INSTRUMENT SALES AND SERVICE

TECHNICAL SERVICE LABORATORIES

DIVISION OF BURGNER TECHNICAL ENTERPRISES LIMITED

355 KING ST. W., TORONTO 2B, ONT., CANADA

TELEPHONE: 362-4248

Representing ...

JARRELL-ASH COMPANY
HILGER & WATTS LIMITED
SADTLER RESEARCH
ULTRA CARBON CORPORATION
METALS RESEARCH LIMITED

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM **Metals Petroleum & Hydraulic Resources
Laboratory Limited,
907 - 100 Adelaide St.,
Toronto 1, Ont.**

REPORT NO.
T-08447

SAMPLE(S) OF

ROCK

Attn: Mr. E.D. Black

<u>Sample No.</u>	<u>Gold (Au) oz: ton</u>	<u>Silver (Ag) oz: ton</u>
1470	0.02	44.38
1471	0.02	20.48
1472	--	1.18
1473	--	0.46
1474	trace	37.50
1475	trace	2.36
1476	--	8.02
1477	0.01	35.89
1478	0.01	2.69
1482	trace	0.50
1483	0.01	1.81
1485	trace	18.50
1486	trace	trace
1487	trace	---
1488	trace	trace

Samples, Pulps and Rejects discarded after six months

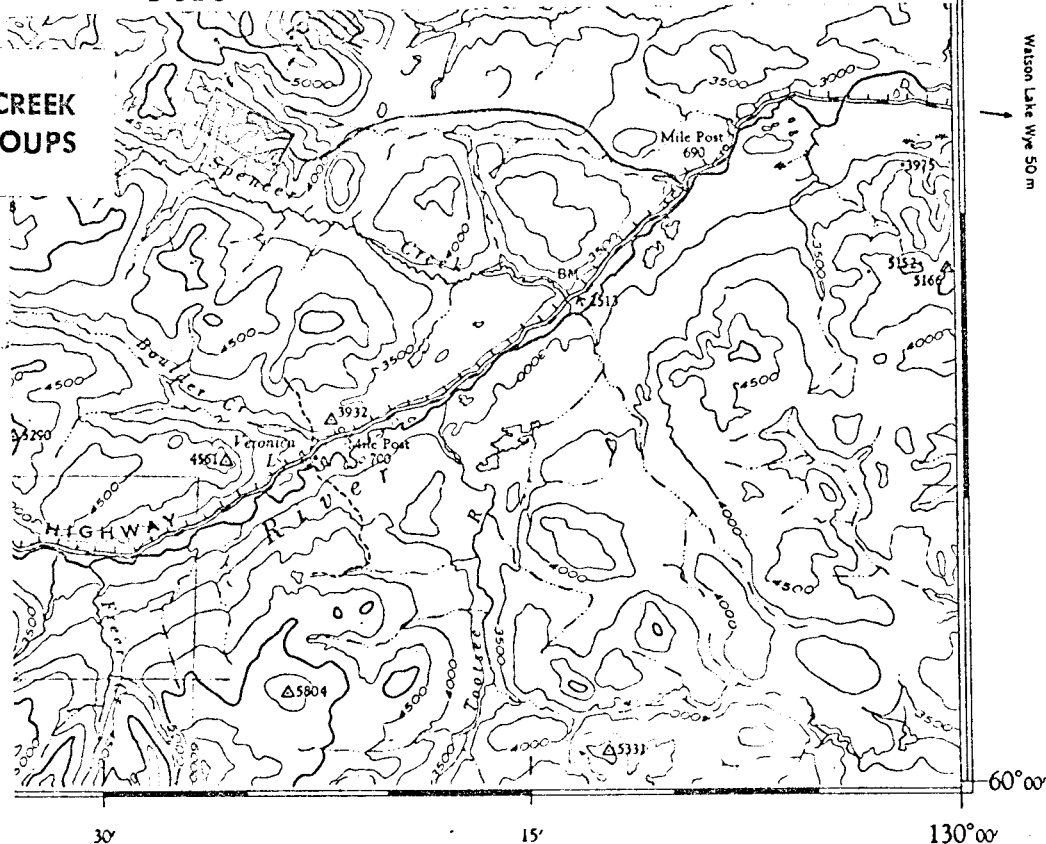
DATE Sept. 21 '67

SIGNED C.S. Joyce
C.S. JOYCE, B.Sc., Manager of Laboratories

VANCOUVER - TSL LABORATORIES LTD., 325 HOWE ST., VANCOUVER 1, B.C.

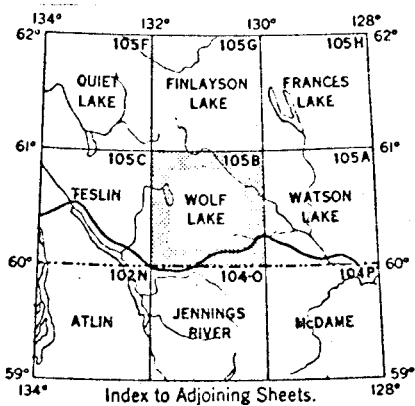
PACIFIC GIANT STEEL ORES LTD.

SPENCER CREEK CLAIM GROUPS



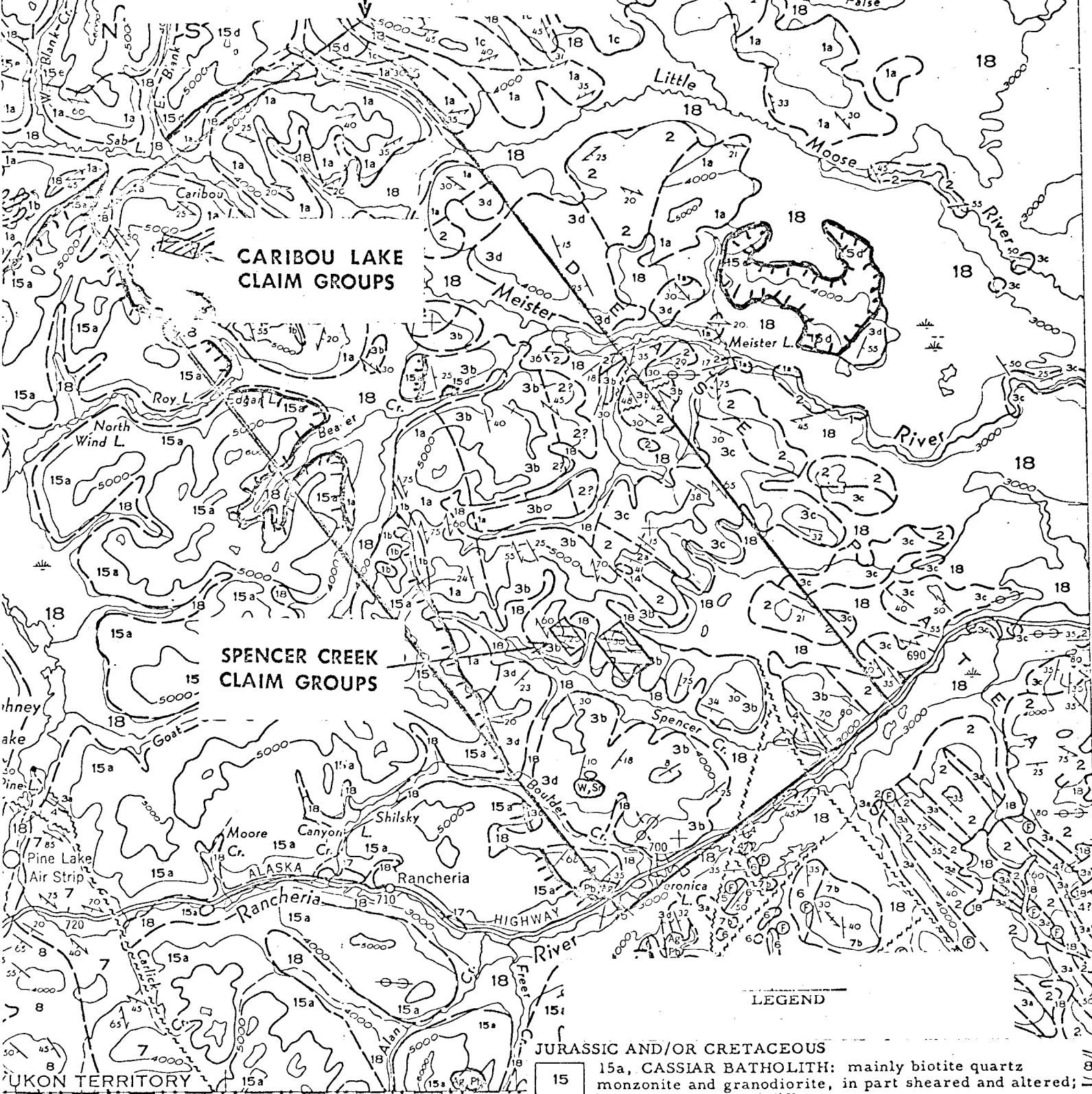
REFERENCE

Building	Fire Lookout Tower	Contours, Elevation
School	Wireless Station	Contours, Approximate
Post Office	Mine	Contours, Depression
Church	Cliff	Esker
Stream, Indefinite or Unsurveyed	Wooded Areas	
Stream, Intermittent	Navigable Canal	
Stream, in Dry River Bed	Rapids and Falls	
Braided Stream	Ferry	
Marsh or Swamp	Dam	
Marsh or Swamp, in water	Lighthouse	
Glacier or Snowfield	Aerodrome (Elevation in feet)	
Sand, Gravel or Mud	Seaplane Anchorage	



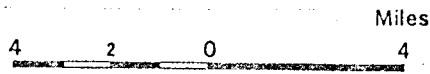
PROPERTY LOCATION MAP

AREA OF PROPOSED RECON EXPLORATION



GEOLOGY
WOLF LAKE
YUKON TERRITORY

- LEGEND**
- JURASSIC AND/OR CRETACEOUS**
 - 15** 15a, CASSIAR BATHOLITH: mainly biotite quartz monzonite and granodiorite, in part sheared and altered;
 - 30** CAMBRIAN
 - LOWER CAMBRIAN**
 - 3** 3a, grey limestone; minor dolomite, slate, and phyllite; 3b, unfossiliferous, probably equivalent to 3a; 3c, limestone minor grey and green argillite and slate, dolomite; may be older than 2; 3d, marble, skarn
 - CAMBRIAN AND (?) EARLIER**
 - LOWER CAMBRIAN AND (?) EARLIER**
 - 2** Quartzite, minor slate and phyllite, quartz grit and fine pebble conglomerate; 2a, phyllite, minor slate; 2b, hornfels
 - 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

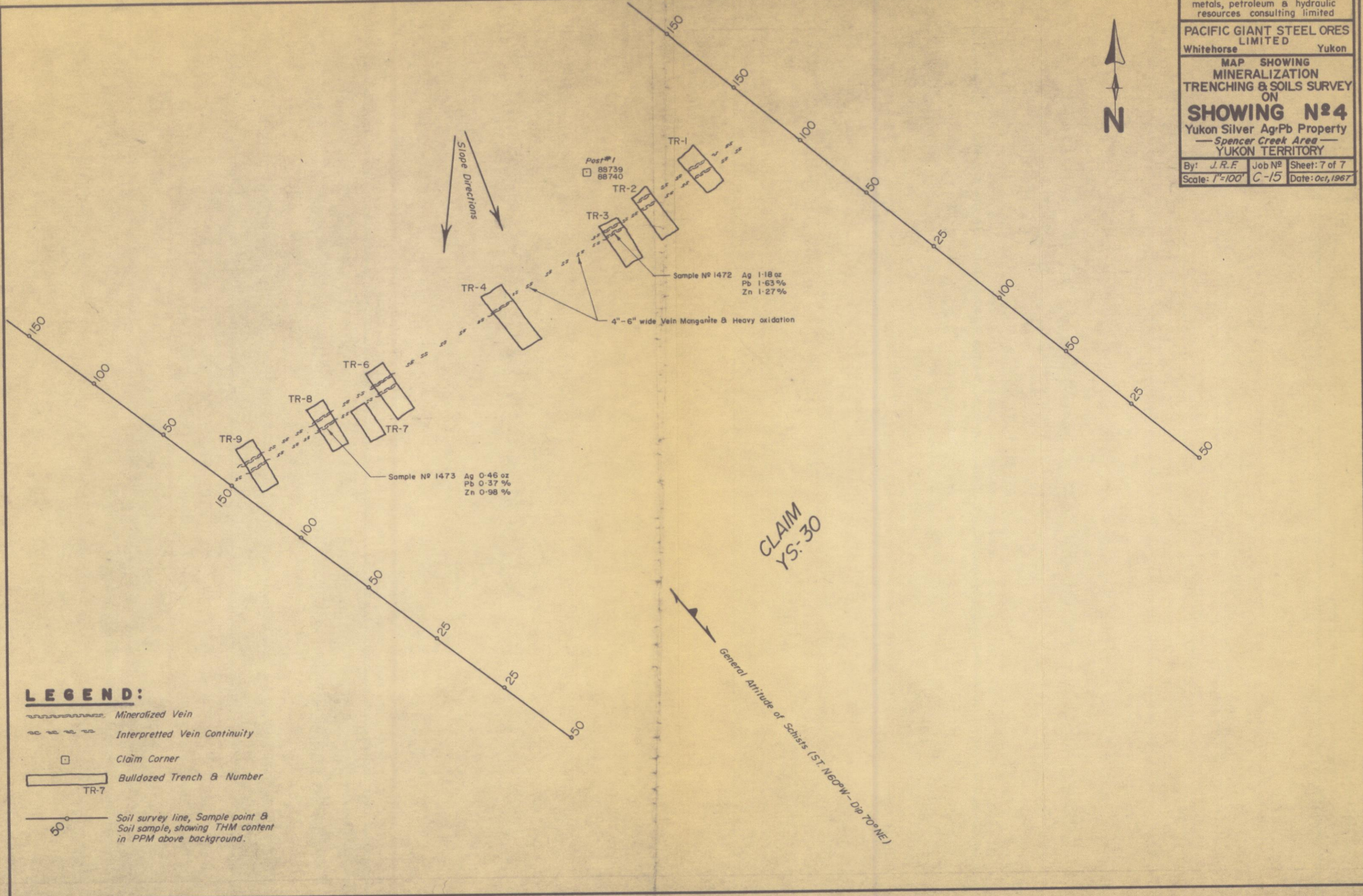


metals, petroleum & hydraulic resources consulting limited




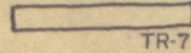
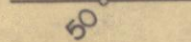
PACIFIC GIANT STEEL ORES LIMITED
Whitehorse Yukon

MAP SHOWING MINERALIZATION TRENCHING & SOILS SURVEY ON **SHOWING N24** Yukon Silver Ag-Pb Property — Spencer Creek Area — YUKON TERRITORY

By: J.R.F. Job No: C-15 Sheet: 7 of 7
Scale: 1"=100' Date: Oct, 1967



LEGEND:

-  Mineralized Vein
-  Interpreted Vein Continuity
-  Claim Corner
-  Bulldozed Trench & Number
-  Soil survey line, Sample point & Soil sample, showing THM content in PPM above background.

CLAIM
YS-30

General Attitude of Schists (ST. NEOPW - Dip 70° NE)

metals, petroleum & hydraulic resources consulting limited

PACIFIC GIANT STEEL ORES LIMITED
 Whitehorse Yukon

MAP SHOWING Claim Location & Soils Survey
 Yukon Silver Ag-Pb Property
 Spencer Creek Area
 YUKON TERRITORY

By: J.R.F.	Job No: C-15	Sheet: 2 of 7
Scale: 1"=1000'		Date: Oct. 1967



- LEGEND:**
- 5000 Topo contour
 - Claim line & Claim corner
 - Showing map area
 - YS-25 Yukon Silver Claims
 - Soil survey line, Sample point & Soil sample, showing THM content in PPM above background. (25)

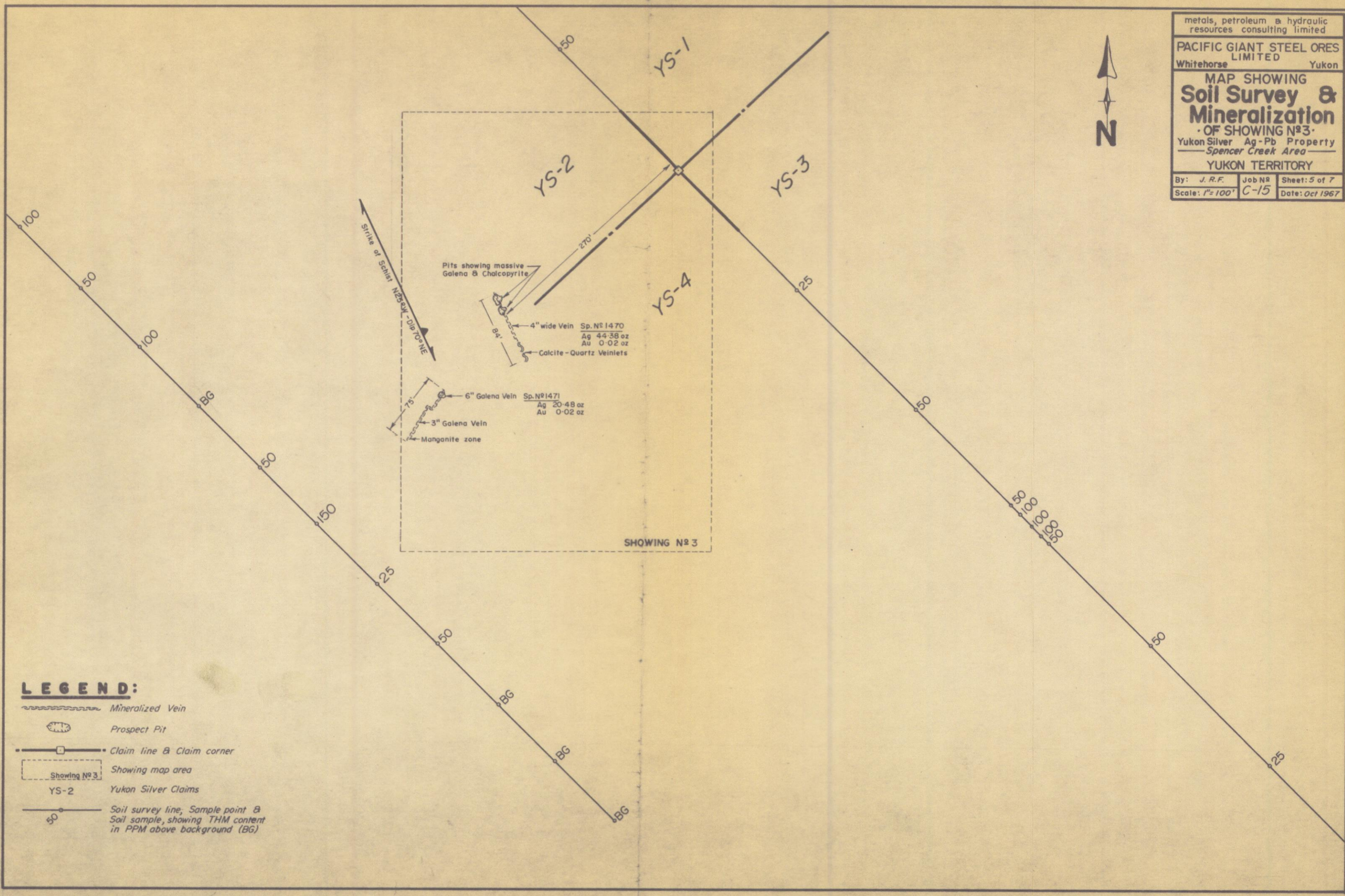
10 Miles to "Mile 692.5"
 Alaska Highway →

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PACIFIC GIANT STEEL ORES LIMITED
Whitehorse Yukon

MAP SHOWING
Soil Survey & Mineralization
OF SHOWING N^o 3
Yukon Silver Ag-Pb Property
Spencer Creek Area
YUKON TERRITORY

By: J. R. F. Job N^o C-15 Sheet: 5 of 7
Scale: 1" = 100' Date: Oct 1967



LEGEND:

- Mineralized Vein
- Prospect Pit
- Claim line & Claim corner
- Showing map area
- Yukon Silver Claims
- Soil survey line, Sample point & Soil sample, showing THM content in PPM above background (BG)

019589

CLAIM LINE



Claim YS-2

General attitude of Schist
(ST. N25°W-Dip 70°NE)

Pits exposing massive Galena,
Chacopyrite & Malachite at
depth of 2-5 feet

3"-4" Vein of Galena

Sp. No 1470

Au 0.02 oz
Ag 44.38 oz
Pb 37.28 %
Zn 6.10 %
Cu 0.64 %

Calcite & Quartz Stringers

6" Vein of massive Galena Sp. No 1471

Au 0.02 oz
Ag 20.48 oz
Pb 26.56 %
Zn 1.95 %



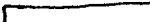


8" zone of Galena Stringers

3" Vein of massive Galena

Manganite stained outcrop area

Claim YS-4

LEGEND

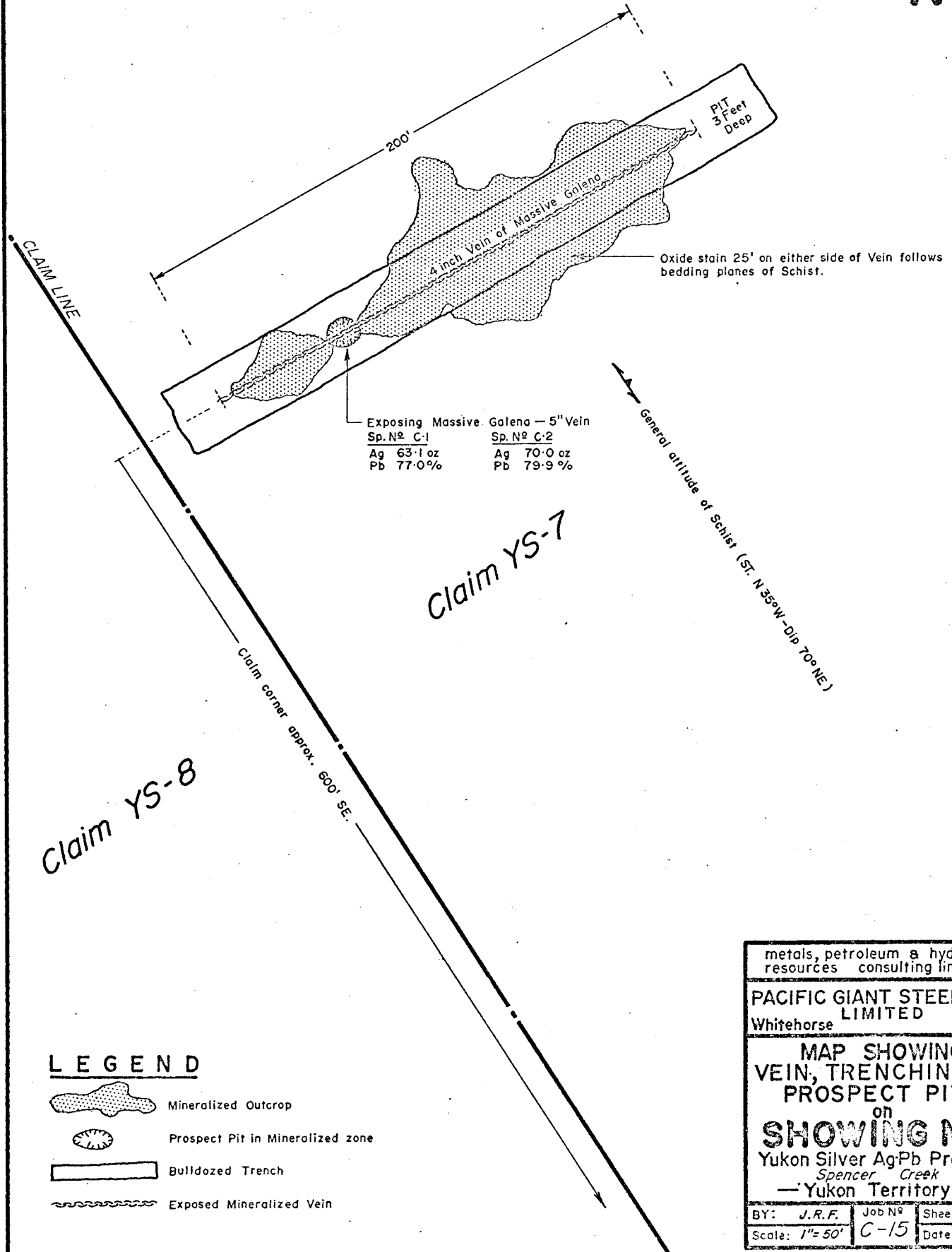
-  Mineralized Outcrop
-  Prospect Pit in Mineralized zone
-  Bulldozed Trench
-  Exposed Mineralized Vein
-  Stringers & Veinlets

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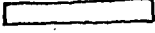

**PACIFIC GIANT STEEL ORES
LIMITED**
Whitehorse Yukon

MAP SHOWING
VEIN, TRENCHES AND
PROSPECT PITS
on
SHOWING N23
Yukon Silver Ag-Pb Property
Spencer Creek
— Yukon Territory —

By: J.R.F. Job No C-15 Sheet: 6 of 7
Scale: 1"=50' Date: Oct. 1967



LEGEND

-  Mineralized Outcrop
-  Prospect Pit in Mineralized zone
-  Bulldozed Trench
-  Exposed Mineralized Vein

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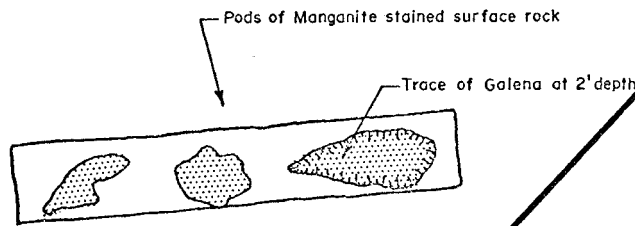
PACIFIC GIANT STEEL ORES LIMITED
Whitehorse Yukon

MAP SHOWING VEIN, TRENCHING AND PROSPECT PITS on **SHOWING N^o 2** Yukon Silver Ag-Pb Property Spencer Creek — Yukon Territory —

BY: J.R.F.	Job N ^o C-15	Sheet: 4 of 7
Scale: 1"=50'		Date: Oct, 1967

Claim YS-6

CLAIM LINE



Prospect Pit 3'x10'x3'

Chip sample across 5" Galena Vein
Sp. N^o 1477
Ag 35.89 oz
Au 0.01 oz
Pb 60.32 %
Zn 1.17 %

Chip sample across 1 foot of H.W.
Sp. N^o 1476
Ag 8.02 oz

100' of rusty wd. Calcite Stringers & Veinlets

Grab Sample of 4" mineralized Vein 1'-5' below surface Sp. N^o 1475
Ag 2.36 oz
Au Trace
Pb 2.94 %
Zn 25.49 %

50' of rusty mineralized Calcite Vein

40' of 4" Galena Vein and mineralized wall rock 1'-2' wide.



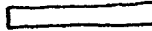
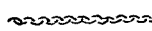

Grab sample of 4" Galena Vein plus 1" H.W. & 1" F.W.
Sp. N^o 1474
Ag 37.50 oz
Au Trace
Pb 52.82 %
Zn 2.34 %

Claim YS-8

CLAIM LINE

General Attitude of Schists (ST. N35°W - DIP 70°NE)

LEGEND

-  Mineralized Outcrop
-  Prospect Pit in Mineralized zone
-  Bulldozed Trench
-  Exposed Mineralized Vein
-  Stringers & Veinlets

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PACIFIC GIANT STEEL ORES LIMITED
Whitehorse Yukon

MAP SHOWING VEIN, TRENCHES AND PROSPECT PITS on **SHOWING N^o 1.** Yukon Silver Ag-Pb Property Spencer Creek — Yukon Territory —

By: J.R.F.	Job N ^o C-15	Sheet: 3 of 7
Scale: 1"=50'		Date: Oct. 1967