

VICTOR NISLING OEX REPORT

N.T.S. 115-J,G,J,I

ATLAS EXPLORATIONS LIMITED

G.H.K. Pearse, Dec. 1970

013033

VICTOR NISLING OEX REPORT

N.T.S. Sheets

115-J-1,2,3,6,7,8,9,

115-G-8,9,10,14,15,16,

115-H-5,12,13,14,

115-I-2,3,4,5,6

Work done during the period
May, 1970 - August, 1970

By:

G.H.K. PEARSE

ATLAS EXPLORATIONS LIMITED

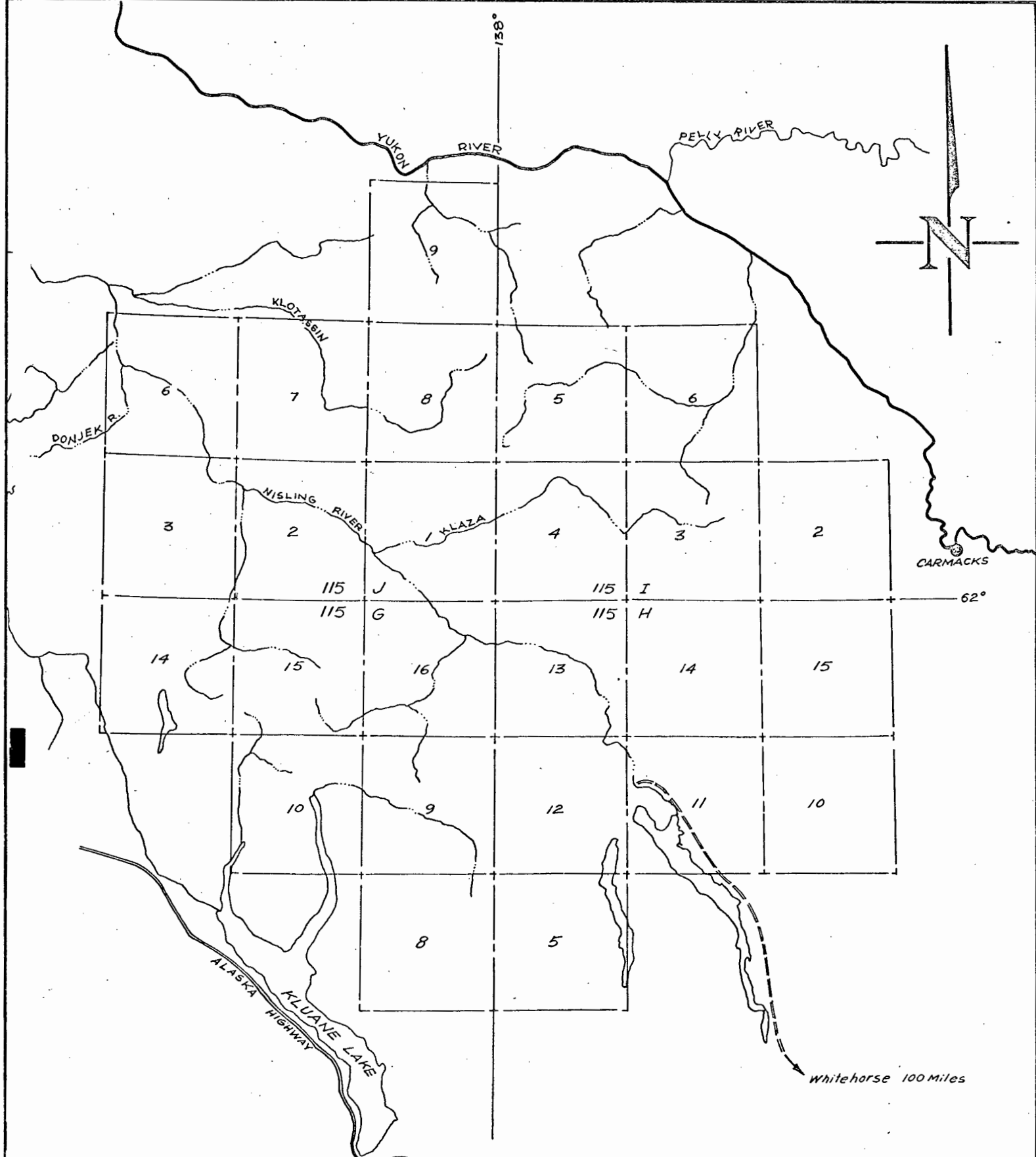
December, 1970.

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KEY MAP

VICTOR NISLING AREA

Scale 1" = 16mi.

ATLAS EXPLORATIONS LIMITED

330 MARINE BUILDING
355 BURRARD STREET
VANCOUVER 1, B.C.

VICTOR NISLING OEX REPORT

INTRODUCTION

An area of approximately 7000 square miles centred on $62^{\circ}\text{N } 138^{\circ}\text{W}$. (junction of N.T.S. Sheets 115-G, H, I, J) was explored between May 28th and August 26th, 1970 for porphyry copper-moly mineralization.

An OEX party under K. M. Dawson was scheduled to work the Thistle Creek and Sixty Mile areas for the first half of the summer and to cover the Nisling River area during the remainder of the season. Several promising priority targets were located in the Nisling area during a reconnaissance program in mid-May and, due to the presence of competitors, a second party was quickly organized and put into operation with G. H. K. Pearse as party chief. Operations commenced from base camp #1 at the junction of Klaza and Nisling rivers on May 28th. Base was relocated to the head of Tyrrell Creek July 1st and the final camp set up on Lonely Creek southwest of Mount Nansen at the end of July.

The basic party consisted of two geologists, four samplers, two prospectors, cook and helicopter crew. The party was split for the month of July to provide a property crew for Max claims and personnel changes were numerous throughout the summer in response to requirements of various other Atlas projects.

Logistics support was provided by various helicopters and fixed-wing aircraft. A Bell G-2 was used for the month of June as a stop-gap until the OEX contract B-2 was freed from Sixty Mile. Jet Ranger helicopters were used for staking, fuel hauls and moving crews and gear on some occasions. Casual fixed-wing aircraft were used for bringing supplies from Whitehorse to convenient nearby lakes.

Interest was primarily directed to the region by the similarities in geologic environment to the Dawson Range. Coast Range type granodioritic rocks, Tertiary volcanics and associated porphyry stocks are abundant in the area.

Pre-season preparation included photogeology, assembly of all known geologic and geochemical data and laying out of flight circuits and landing spots. The results from the reconnaissance indicated several targets. The method of investigation adopted included detailed stream sediment sampling and geologic coverage of priority areas with reconnaissance fill-in in adjacent terrain. Promising areas so indicated were followed up immediately with soil sampling and finally staking where warranted.

The southwestern quarter of 115-I (Carmacks) was considered attractive because of the occurrence of porphyry plugs in an area of major block faulting. Because of White River Ash cover in excess of a foot, poor exposure and the experience at Klazan to the north of mineralization being detected by soil geochemistry only, the approach to exploration was altered accordingly. Deep soil sampling at 1000 ft. spacing along both sides of the long broad linear valleys was done and stream sediments were collected on helicopter reconnaissance circuits.

Max and Mim Groups were located early in the season and property work was initiated on them to accrue as much assessment work as possible because of the limited time for appraisal that would be available next season. A third property, Pam Group, was staked over Lonely Creek valley which is underlain by a quartz feldspar porphyry plug and associated acid dykes. Time did not permit follow up of several other anomalous areas. These will be examined during the 1971 season.

SUMMARY

In priority areas drainages were sampled and geologically mapped in detail. Adjacent areas were mapped and sampled on a reconnaissance scale by helicopter hop. Immediate follow up contour soil sampling usually on 500 ft. spacing was done where good geochemical response was obtained from the stream sediment survey. In the low country in southwestern 115-I emphasis was placed on soil sampling as a primary tool because stream draining areas of known mineralization gave little or no response.

One mile sheet coverage is as follows:

1. (115-J-1)
2. (115-J-2) eastern two-thirds
3. (115-J-3) one locality at the bend in Nisling River in the northeast corner.
4. (115-J-6) a few samples at the eastern boundary.
5. (115-J-7) southern two-thirds
6. (115-J-8) southern half
7. (115-G-8) two headwaters northeast corner
8. (115-G-9) all but southwest corner
9. (115-G-10) northeast corner and south-central part at headwaters of Mineral Creek.
10. (115-G-14) east-central part
11. (115-G-15) all but southwest corner

12. (115-G-16) all but northeastern quarter
13. (115-H-5) northern half
14. (115-H-12) all but southeast corner
15. (115-H-13) all but east-central and west-central portions
16. (115-H-14) few drainages in south-central H-14
(115-H-11) and northeastern corner of H-11.
17. (115-I-2) southwestern quarter
18. (115-I-3)
19. (115-I-4)
20. (115-I-5) southern quarter
21. (115-I-6) southern border area.

One mile geology is shown on enclosed geologic map (Appendix Several prospecting camps were set up in the area for detailed sampling and coverage from these is shown on Fig.

Three properties were staked in the area. The Max and Mim Groups were followed up by detailed geologic mapping, geochemical sampling on selected grids and on the Max Group a selected grid was surveyed with a magnetometer and a barometer. Minor chalcopyrite, pyrite, pyrrhotite and molybdenite were found within and around small plugs and dykes of quartz feldspar porphyry on the Mim claims. Numerous chalcopyrite, pyrrhotite and molybdenite showings were found on the Max Group over a belt of high geochemical anomalies some 3 miles long which is underlain by Yukon Group schists, gneisses and quartzite. This belt has been intruded by small quartz monzonite plugs, large masses of alaskite and related quartz porphyry and a profusion of acid dykes. Further work on the Max Group is warranted leading to the development of drill targets.

Several anomalous areas have yet to be evaluated and follow up work on these is proposed for 1971.

CONCLUSIONS AND RECOMMENDATIONS

Porphyry copper-moly mineralization is the primary economic potential of the area. Lead-silver-gold mineralization may be important on the Carmacks Sheet. Although most of the anomalous areas were followed up, delay in geochemical returns from the laboratory resulted in several anomalous areas being outlined after having moved to a new location.

Localities to be investigated in 1971 are:

1. Talbot Creek - 115-G-9

A high priority target occurs in the headwater area of two main tributaries of Dwarf Birch Creek at reconnaissance station VR 36. A long tongue of porphyry complex modified in form by faulting extends westward from a main alaskite-quartz-porphyry stock. The western extremity contacts Yukon Group quartzose schist for a large part beneath alluvium of a wide valley believed to be fault-controlled in the area of interest.

Two breccia pipes have been located, one within the border area of the intrusive on the south side of the valley, and one within Yukon Group on a rounded mountain on the north side of the valley. The former is a mixture of schist and felsite fragments and the latter appears to be predominantly fine grained intrusive rock fragments with large vuggy cavities which in places contain a canary yellow ochre believed to be jarosite (no Mo response). Creeks draining both pipes responded moderately in copper. Molybdenite occurs on dry fractures in a red-buff fine grained highly potassic intrusive rock at two localities (see Geologic Map - Talbot Creek 115-G-9). Minor chalcopyrite and pyrite was observed in the bordering schists.

Follow up geochemistry (see Detailed Geochemistry 115-G-9) indicates a possible mineralized body in the contact area beneath the valley.

The area warrants examination as soon as possible. It should be staked, a good grid of 400 ft. spaced lines run, and carefully geologically mapped. Geochemistry is not likely to be of value over the valley and mag. and I.P. are recommended to appraise this area.

2. Victor Mountain - 115-I-3

- (a) A quartz-porphyry stock occurs south of Victor Mountain and between the headwaters of Victoria and Nansen Creeks cutting Mount Nansen volcanics and biotite-hornblende granite. Soil sampling along the valley walls of these creeks yielded copper anomalies coincident with the eastern and western margins of the plug. Lead-silver veins occur two miles to the south. The area is staked but the holder should be approached with a view to assessing the potential of the plug.
- (b) Three copper anomalies in soils from near the headwaters of Rowlinson Creek occur over an area mapped by Bostock as Carmacks Volcanics. This area should be sampled on a grid by conscientious samplers, ensuring that sample depths are greater than 18 inches. Description of the samples should be recorded. The geology should be carefully mapped to determine the source of the anomalies.
- (c) Four samples weakly to moderately anomalous in Mo, one of which responded in copper, occur near the angle bend in Klaza River north of Mount Nansen. They are flanked by zinc and lead-zinc anomalies some of which are likely vein mineralization. This area should be gridded and sampled with care. The area is largely overburden covered.

3. Tritop Peak - 115-I-4

- (a) The headwaters south of the centre of the sheet of a northeasterly flowing creek is anomalous in copper-zinc. The area is underlain by Yukon Group rocks cut by quartz porphyry dykes. Contour soil sampling on three lines from the ridge top down to the main creek valley should be sufficient to assess this anomaly. Samples should be collected at 500 ft. intervals and should be taken at greater than 18 inches in depth.
- (b) Three weak molybdenum anomalies flanked by zinc anomalies occur on the south flank of the stream mentioned above near its junction with Klaza River. This area should be sampled on four lines parallel to the valley, three from the ridge down to the creek on the south side and one near the creek on the north side. Samples should be at 500 ft. intervals and at a depth greater than 18 inches.
- (c) A moderate molybdenum anomaly occurs on the north wall of Klaza River valley, about 2 miles north of anomaly (b) above. Careful soil sampling on three lines from the base of slope upwards, lines being spaced at 1000 ft. and sampled at 500 ft. intervals.
- (d) Four copper anomalies in the Magpie Creek area should be tested by contour sampling at 500 ft. intervals. One of the samples lies on the southern border of 115-I-5.

Several Pb and Pb, Zn anomalies in the Carmacks Sheet likely reflect vein mineralization. No immediate work is proposed for these localities.

4. Albert Creek - 115-H-12

A prominent gossan occurs at the eastern contact of a quartz porphyry plug just west of the south end of Stevens Lake. The rock, both intrusive and Yukon Group, is highly pyritized and yielded one high Mo value (122 ppm) during the Empress program. Follow up work during 1970 field season yielded some high lead, one moderate copper and a few weak molybdenum anomalies. The gossan lies within a well defined magnetic low and borders on a flat swampy lowland of glacial terrain. The possibility that the gossan with pyrite and high lead values is an exposed part of an otherwise buried halo around a porphyry deposit cannot be ignored. Geochemical sampling is likely of no use in exploring this possibility and detailed magnetometer and I.P. are proposed to evaluate the low ground.

LOCATION AND ACCESS

The Nisling area is centred on 62°N. latitude, 138°W. longitude which is the junction of Snag (115-J), Kluane Lake (115-G), Aishihik Lake (115-H) and Carmacks (115-I) sheets. The region is traversed through its centre by the Nisling River which flows northwesterly from Aishihik Lake to Donjek River. The northeastern half is traversed by the Dawson Range and the southwestern part of the Nisling Range. The Carmacks-Mount Nansen road, Aishihik Lake road and the Casino road (passable only in winter) give access to the eastern, southeastern and western parts of the area. Alaska Highway passes along the southwest shore of Kluane Lake within 20 miles of the southwest boundary. Service is afforded by fixed-wing on wheels to Aishihik and Nansen strips and by float plane to several small lakes in the southern part of the area. Elsewhere, the only means of rapid access is by helicopter. Max Claims lie only 5 miles east of Casino road.

The area was worked from three centres - the junction of Nisling and Klaza Rivers, headwaters of Tyrrell Creek and Lonely Creek southwest of Mount Nansen.

HISTORY

Placer gold was mined in the Carmacks Sheet in the early days. Lode deposits containing gold, silver, lead, zinc, copper and antimony were discovered during the thirties. Elsewhere in the Nisling area there is no record of mining activity. Placer gold and lode silver-lead has been worked in the Casino area to the north for many years but little interest was stimulated until the discovery recently of the porphyry copper deposit at Casino.

Atlas Explorations moved into the Dawson Range in late summer of 1969 and conducted a broad reconnaissance of the region. More detailed mapping and geochemical sampling was done in the favourable northwest trending belt containing the Casino deposit and several claim groups were staked. Work was continued in two areas this season; northwest of the previous work up into Sixty Mile country and the Nisling area some 75 miles south of Casino on a parallel belt of favourable geology. Three claim groups were staked in the latter area and property work was done on two, the Max and Mim Groups.

GENERAL GEOLOGY

The oldest rocks recognized in the Nisling area are Yukon Group metasediments believed to be Precambrian or younger. Latest metamorphism is dated at Jurassic to Early Tertiary which coincides with the development of Coast Range-type batholith. The most common rock types are pure, macaceous and graphitic quartzites, quartz-biotite schists, amphibolite schists and gneisses with occasional garnets possibly of

volcanic origin. White coarse grained marble and limey schists occur as lenses at a few localities within the arenaceous metasediments. A broad limestone belt occurs which is broken up by intrusion of the Ruby Range batholith north of Kluane Lake.

The dominant rock type in the region is hornblende biotite and biotite hornblende granodiorite and quartz monzonite of the Ruby Range and Klotassin batholiths of probable Jurassic to Early Tertiary age. These rocks are Yukon equivalent of the Coast Intrusions of British Columbia.

Numerous Tertiary stocks of quartz porphyry, quartz feldspar porphyry, alaskite and biotite granite and associated felsitic dykes occur primarily along the borders of the batholiths intruding Yukon Group rocks. Attention is focussed on these rocks for their possible porphyry copper-moly potential.

Two periods of volcanism are evident in the area. Mount Nansen volcanics are typically andesitic to basaltic in composition, and are shown to be no older than Jurassic in age. Dips are low over much of the Dawson Range but to the northeast in the Carmacks Sheet folding and faulting have occurred. Carmacks volcanics which are predominantly andesite with lesser acid members unconformably overlie Mount Nansen group rocks and are probably as young as Middle Tertiary. These rocks are gently dipping to flat lying. Quartz porphyry intrusions of Tertiary age cut Carmacks volcanics in places and are believed to be closely related in space and time with the volcanics.

STRUCTURAL GEOLOGY

The Dawson, Nisling and Ruby Ranges are part of a north-westerly trending broad major arch bounded by Shakwak and Tintina Trenches which is an extension of the Coast Range Geanticline of B.C.

Three major fault directions have been mapped in the Victor Nisling Area: a northeast trending set which cross-cuts the regional grain, a northwesterly set parallel to the arch and less commonly a northerly trending set. These faults are traceable for 20 miles or more.

No indications of movement directions on the faults were observed in outcrop but from field relations both strike slip and vertical components are evident. The northeasterly set appears to be left lateral and vertical movements do not appear to be consistent in direction. Northwesterly faults may be more numerous than indicated on the maps as these are parallel to the regional trend and difficult to detect. Movement directions appear to be right lateral with southwest side down dropped. Northerly fault movements are not established with any degree of confidence. In detail numerous minor faults observable on photos and mapped on properties occur and are parallel to the major faults.

On Kluane Lake Sheet (115-G) and Carmacks (115-I) regular intersecting faults of northeast and northwest trends undoubtedly represent block faulting in which movements are largely or wholly vertical. The most striking example occurs in 115-I-4 where Klaza River makes a right angle bend. The block to the south bounded by the Klaza has been down dropped preserving a large area of Yukon Group rocks.

The northwesterly regional trend is accentuated by the foliation, most common lineations and the long axes of the intrusive bodies. Strikes and dips are meagre but indications are that the dominant fold directions in the Yukon Group is parallel to the regional trend.

ECONOMIC GEOLOGY

Attention was focussed on stocks of fine grained biotite granite, quartz, and quartz feldspar porphyry, quartz monzonite and alaskite of probable Tertiary age which are numerous throughout the Dawson and Nisling Ranges. In detail composite stocks such as that containing the Casino deposit hold the most promise and faulting, fracturing and brecciation appear to be important parameters. Spatially related volcanics of similar age occur. These are important in other porphyry copper districts and are likely parameters here. Peripheral silver-lead-zinc veins and gold and tungsten placers are a feature of Casino and other deposits and are a valuable target indicator.

Max (217 claims) and Mim (112 claims) groups were staked over favourable geochemistry, geology and visible chalcopyrite, pyrite, pyrrhotite and molybdenite mineralization in 115-G-15 and 115-J-7 respectively. The Pam Group (115-I-s) was staked in a rush with a competitor and was subsequently dropped when discouraging geochemical results were obtained.

Numerous other anomalous areas in 115-G, H and J were followed up immediately and except in one case were found to reflect minor mineralization at contacts between stocks and Yukon Group rocks. Much of the work in 115-I was done in the latter part of the season and many anomalous areas were outlined, most of which have yet to be examined.

GEOCHEMISTRY

A helicopter reconnaissance was carried out in early May and soil, rock and a few silt samples were collected at sites predetermined from photogeology and a compilation of all geologic and geochemical data available.

Priority areas outlined during the recce were silt sampled in detail and fill in silt sampling was done on a reconnaissance scale in intervening areas. Soil sampling was done as a follow up method to outline anomalous areas prior to and during staking.

Analytical Methods

After drying, all silt and soil samples were sieved to -80 mesh and the fines retained for analysis. Rock samples were crushed in a jaw crusher and then pulverized in a grinder equipped with steel plates. The resulting powder was reduced by quartering to a 20-30 g. working sample.

0.5 g. of each sample was digested with aqua regia, diluted to 10 mls. and allowed to settle. The concentrations of Cu, Pb and Zn in the solutions were determined with a Perkin-Elmer 303 AA spectrophotometer. Molybdenum content was estimated colourimetrically by the thiocyanate-stannous chloride method using isopropyl ether for extraction of the coloured Mo complex. Interferences were often encountered in this test, particularly when analyzing soil, due to the organic matter extracted by the solvent along with molybdenum. A number of Mo determinations were carried out at Whitehorse Assay Office with a Techrom AA 4 atomic absorption unit using acetylene-nitrous oxide flame.

Analytical reproducibility was controlled by including a soil sample, selected as standard, with every 20 samples analyzed. Average precision derived there from was \pm 30% for Cu and Zn and \pm 50% for Pb. Mo precision was not controlled due to the lack of a suitable standard.

Presentation of Data

General coverage is represented on one mile sheets and values for copper, lead, zinc and molybdenum are recorded. As a visual aid, small circles are divided into quadrants each corresponding with an element (copper - northwest quadrant, lead - southwest, etc.). Moderately anomalous elements are represented by a dot in the corresponding quadrants and highly anomalous elements are shown by solid black quadrant fill ins.

Detailed follow up work and prospecting work are shown on one-half mile maps.

Interpretation of Results

Threshold values for copper, lead, zinc and molybdenum were chosen as 50, 50, 100 and 4 ppm respectively. Results, coverage and interpretation are discussed sheet by sheet.

Klaza River - 115-J-1

Nearly all drainages on 115-J-1 were sampled. No anomalies of consequence were detected.

Onion Creek - 115-J-2

Almost all drainages in the eastern three-quarters of the sheet were sampled. A 90 ppm Cu and 95 ppm Pb occurs on a ridge near the centre of the sheet. Mo anomalies ranging from 4 to 20 ppm occur in the northern one-third of the sheet. These were in one batch and are therefore suspected of error or unusually high background.

Lynx City - 115-J-6

Six silt samples were taken at the eastern border area, all were moderately to strongly anomalous in molybdenum (one 20 ppm). These are believed to be part of the batch mentioned above.

Mount Pattison - 115-J-7

Most of the southern three-quarters of the sheet has been silt sampled. Several Cu values above 100 ppm in east-central 115-J-7 on a ridge led to staking of the Mim Group. Details of geochemistry on the Mim is contained in a report by W. O. Karvinen. Numerous moderate Mo anomalies occur across the sheet. These are attributed to analytical error or high background.

Apex Mountain - 115-J-8

The southern half of 115-J-8 was covered and no anomalous values were obtained.

Gladstone Creek - 115-G-8

One silt sample was taken at the northern boundary of this sheet and was anomalous in copper and molybdenum reflecting mineralization in an alaskite body in the headwaters area of Rockslide Creek. The area has been thoroughly staked by competitors.

Talbot Creek - 115-G-9

All but the southwestern segment of the sheet has been sampled. Copper-molybdenum anomalies occur on numerous drainages throughout the entire area and in all but one case were found to be due to minor mineralization at porphyry-Yukon Group contacts. The exception is the area at the headwaters of the most southerly extending tributary drainage of Dwarf Birth Creek in the northwest quadrant of the sheet. Here a long apophysis from the

Blue L. Claims.

main porphyry-alaskite stock terminates in contact with Yukon Group rocks beneath valley alluvium. Two small breccia pipes one on either side of the valley occur. Some visible molybdenite was observed on dry fractures in potassic intrusive rock. Contour soils on either side of the valley and stream silt samples yielded good copper and molybdenum values. The area has not been staked.

Serpenthead Lake - 115-G-10

Drainages in the northeast quarter above Talbot Creek were sampled. No significant results were obtained.

Redtail Lake - 115-G-15

High copper-molybdenum and copper-lead-zinc anomalies were detected in the east-central part of the sheet. This area is covered by the Max claims. Here a profusion of acid dykes, small plugs and bordering large bodies of alaskite and quartz porphyry intrude fractured and faulted Yukon Group quartzose metasediments. Numerous copper and molybdenum showings have been located. Peripheral to the Max property, zinc and copper-zinc anomalies occur. Elsewhere moderate molybdenum anomalies are associated with minor contact enrichment.

Rhyolite Creek - 115-G-16

Several anomalous drainages occur in the southern half of the sheet. The west-central area is a high adjacent to the Max Group and elsewhere anomalies show a relation to intrusive contacts.

Sekulmun Lake - 115-H-5

Most drainages in the northern half of the sheet were sampled. One moderately anomalous copper value was obtained on a creek draining a fault three miles west of Sekulmun Lake.

Elsewhere the area is unusually high in zinc with values commonly over 300 ppm. No follow up work was done to determine sources but because of the broad area over which these anomalies occur it probably indicates a general high background in Yukon Group rocks.

Albert Creek - 115-H-12

All but the southeast corner of the sheet was sampled. A gossan west of the southern end of Stevens Lake is highly pyritized rock in the contact area of a quartz porphyry plug. Empress project geochemistry shows anomalous values in lead, zinc and molybdenum. Detailed work during the 1970 program yielded some high lead, one moderate copper and a few weak molybdenum anomalies. No other significant values were obtained elsewhere on the sheet.

Schist Creek - 115-H-13

Drainages in a belt 6 miles wide extending from the southwest corner of the north boundary at Schist Creek was sampled to check Empress project anomalies. A few moderate copper values occur in streams draining a porphyry-Yukon Group contact area in the southwest. No significant mineralization was observed in follow up work and the area has been recently staked by a competitor. Several moderate copper anomalies were detected in the central part of the sheet which is underlain by Yukon Group rocks. Only minor pyrite was observed in places.

A drainage into Schist Creek sampled during the Empress program yielded 50 ppm copper and a recce soil sample on a ridge at the head of the creek (VR-48) is moderately anomalous in copper. Detailed follow up failed to outline any significant anomalous areas. White River Ash in the area is in excess of one ft. and samples taken were of poor quality.

Mount Nansen Area - 115-I

Special problems were posed by the low lying area of interest in the southwestern quadrant of the Carmacks Sheet (115-I). White River Ash cover is in excess of 18 inches over much of the country, the geology is poorly exposed and experience at Klaza property indicated that mineralization may not be detected using stream sediment sampling. For these reasons soil lines with sample spacing of 1000 ft. and sampling depths in excess of 18 inches were run in areas of interest. Numerous anomalous sites were detected. At a glance the anomalies appear to be isolated and spotty but it should be borne in mind that a mineralized zone up to 2000 ft. wide may be detected in only one sample. Furthermore, in spite of the care taken in sampling, many sites yielded poor samples because of frost, felsenmeer and/or excessive thicknesses of ash. For these reasons, low values obtained in sites adjacent to anomalous sites do not preclude the possibility of mineralized rock beneath.

Consideration should be given to considering 40 ppm Cu as threshold in view of the conditions mentioned above.

Victor Mountain - 115-I-3

The most interesting anomalous (copper) area on the sheet lies between the headwaters of Victoria and Nansen Creeks south of Victoria Mountain. The area is underlain by a porphyry plug. The anomalous segment along each of the two creeks coincides with the western and eastern extremities of the intrusion. The area is staked but lies two miles north of the ground being worked for lead-silver and no known showings have been reported from this locality.

Three soil samples near the headwaters of Rowlinson Creek, 3 miles northeast of Victoria Mountain, are anomalous in copper. Bostock's map shows the area as underlain by Carmacks Volcanics. The area is not staked.

Four soil samples near an angle bend in Klaza River north of Mount Nansen are weakly to moderately anomalous in molybdenum; the easternmost sample is also weakly anomalous in copper. This anomaly is flanked by zinc and lead-zinc anomalies, one of which is likely due to vein mineralization (8, 170, 690, 0). This ground is not staked.

Three lead anomalies in the north-central part and three lead-zinc anomalies in the west-central part of the sheet may indicate vein mineralization.

The southernmost sample in the southeast corner is weakly anomalous in copper. Bostock's map shows Yukon Group rocks in this area.

A few scattered weak copper and zinc anomalies occur in the southwest quarter of the sheet.

Tritop Peak - 115-I-4

Headwater tributaries of a northeasterly flowing creek south of the centre of the sheet are anomalous in zinc and copper-zinc. The area is underlain by Yukon Group rocks cut by quartz porphyry dykes.

Three samples weakly anomalous in molybdenum and flanked by zinc anomalies occur downstream on the same creek near its junction with Klaza River.

One moderate molybdenum anomaly occurs in the east-central part on the east side of Klaza River. The area is mapped as Yukon Group near a contact with biotite-hornblende granite.

A series of zinc and copper-zinc anomalies occur in the northwest, south of Klaza River. The area is underlain by Yukon Group with horizons of marble. Follow up work did not give encouraging results.

Three weak copper anomalies occur in the north-central part of the sheet near the lower reaches of Magpie Creek over biotite-hornblende granite and argillaceous altered feldspar porphyry. Anomalous zinc values occur above the bend (north-central area) in Klaza River over Mount Nansen volcanicis.

Prospector Mountain - 115-I-5

Two copper anomalies occur in the south-central border of the sheet, one near Cindy Creek and the other near the large tributary of Magpie Creek. The anomalies lie over rocks mapped as biotite-hornblende granite.

Respectfully submitted,

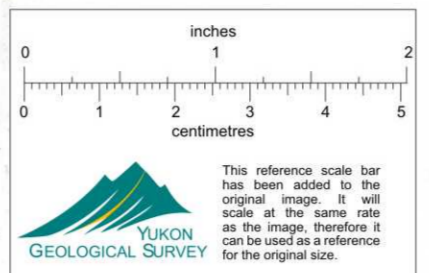
G. H. K. Pearce,
Geologist

November, 1970.

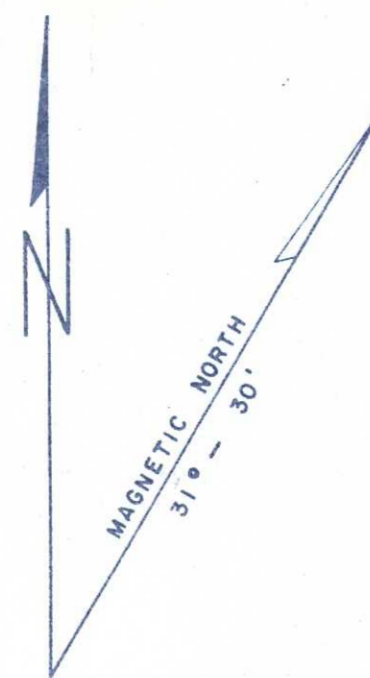
SHEET 1151-3

NOTICE

THIS MAP IS ISSUED AS A PRELIMINARY GUIDE AND WHILE THE DEPARTMENT OF NORTHERN AFFAIRS AND NATIONAL RESOURCES WILL ACCEPT NO RESPONSIBILITY FOR ANY ERRORS, DISCREPANCIES OR OMISSIONS WHATSOEVER, IT IS ADVISED THAT SURVEYS HAVE BEEN MADE.



SCALE 1/2 MILE TO 1 INCH
1500 0 1500 3000 4500 6000 7500 9000 10500 FT.



1151-5	1151-6	1151-7
1151-4	1151-3	1151-2
1151-13	1151-14	1151-15

WHITEHORSE, Y.T. FEBRUARY 17, 1970
FEBRUARY 10, 1970

FOR PLACER SEE ALSO NANSEN CREEK & 1151-3 PLACER

5th EDITION

