

THE KUSP OPTION
for
Dome Exploration (Canada) Ltd.

by
J.R. Woodcock and Dennis Gore
J.R. Woodcock Consultants Ltd.
806-602 West Hastings St.
Vancouver, B.C.
May 12th, 1980

861565

J.R. Woodcock Consultants Ltd.

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May 16th, 1980

Mr. Wally Bruce
Dome Exploration (Canada) Ltd.
Suite 600 - 365 Bay St.
Toronto, Ontario M5H 2V9

Dear Wally:

Enclosed is a copy of the report on the 1979 work at the Kusp property. Please excuse the delay.

The recommendations that I have made for further work include an examination of Strebchuck's molybdenum-zinc mineralization on his Stan group and an examination of the soil geochemical anomaly (Target 2) on the southern slopes of Rugged Peak. This should involve about two days of work.

Since the delay in getting this information to you is my fault and since the targets recommended do not warrant any major option payments, I will again postpone any necessary option payments to Canbrika Developments until 1981 at which time we should have some information on these two targets.

I assume that you do not wish to do further drilling on the main Kusp zone. Also, I will allow the Box Claim to lapse unless you have objections.

Please let me know if you are in agreement with the conclusions and recommendations of this letter. Again my sincere apologies for the delay in the report.

Yours very truly

J.R. Woodcock

J.R. Woodcock

JRW/em

Encl.

*away till
June 12th.*

GSWB LBH DRS EAP

PROJECT

FI JUN 6 1980 LE

PROPERTY DRILLING
 L. CUTTING LEGAL
 TECHNICAL MISC.
 OTHER 4481

4481

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TABLE OF CONTENTS

| | <u>Page No.</u> |
|--|-----------------|
| INTRODUCTION..... | 1 |
| LOCATION AND ACCESS..... | 1 |
| CLAIMS AND OWNERSHIP..... | 2 |
| SUMMARY OF FIELD WORK..... | 3 |
| GEOLOGY AT KUSP CLAIMS | |
| General..... | 4 |
| Stratigraphic Units..... | 5 |
| Distribution of the Bleached White Tuff..... | 6 |
| Structural Geology..... | 7 |
| Rock Slides..... | 8 |
| GEOLOGY AT BOX MOUNTAIN..... | 9 |
| GEOCHEMISTRY..... | 10 |
| CONCLUSIONS AND RECOMMENDATIONS..... | 11 |
| REFERENCES..... | 13 |

TABLES

| | |
|-------------------------|----|
| TABLE I KUSP CLAIM DATA | 2a |
|-------------------------|----|

FIGURES

| | |
|---|-----------|
| Figure 1 Claim Map (scale 1:50,000) | In Pocket |
| Figure 2 Geology of Kusp Property (scale 1 in. = 20 chains) | In Pocket |
| <u>Regional Geochemistry (scale 1:50,000)</u> | |
| Figure 3 Sample Numbers and Box Mountain Geology | In Pocket |
| Figure 4 Copper | In Pocket |
| Figure 5 Lead | In Pocket |
| Figure 6 Zinc | In Pocket |

cont'd.

FIGURES CONT'D.

| | <u>Page No.</u> |
|---------------------|-----------------|
| Figure 7 Molybdenum | In Pocket |
| Figure 8 Silver | In Pocket |

Kusp Property Geochemistry (Scale 1 in. = 20 chains)
(Silts and Soils)

| | |
|-------------------------|----|
| Figure 9 Sample Numbers | 9a |
| Figure 10 Copper | 9b |
| Figure 11 Lead | 9c |
| Figure 12 Zinc | 9d |
| Figure 13 Silver | 9e |

Kusp Property Geochemistry (Scale 1 in. - 20 chains)
(Rock)

| | |
|--------------------------|----|
| Figure 14 Sample Numbers | 9f |
| Figure 15 Copper | 9g |
| Figure 16 Lead | 9h |
| Figure 17 Zinc | 9i |
| Figure 18 Silver | 9j |

THE KUSP OPTION

INTRODUCTION

In the summer of 1977, J.R. Woodcock observed a large gossan zone and associated bleached areas during an aerial reconnaissance. Silt samples taken along the foot of the steep mountain slope from the creeks draining this gossan area yielded some highly anomalous values in copper, lead and zinc. The Kusp claims were staked for Canbrika Developments Ltd. to cover the anomalous drainages and their source area. Subsequently, Woodcock returned to the property with a helicopter to get additional silt samples and rock samples; to examine the bleached rock and to verify that the anomalous metal values in the silts come mainly from the bleached zone.

Although this property is only 15 miles northwest of the New Denver area, a center of silver exploration for many years, the claim maps revealed no recent claim holdings along the gossan zone. During the mapping of 1978, some scattered flagging tape was noted; this was placed by Mr. Dave Peterson of Rio Tinto Canadian Exploration Ltd., who had been carrying out some preliminary geochemical investigations. Mr. Strebchuck, a prospector who had been prospecting in the area, subsequently staked adjoining claims to the west of the Kusp claims to cover a pyritic zone which carries traces of base metals.

Early in 1978, Dome Exploration (Canada) Ltd. and Ranworth Explorations Ltd. optioned the property. After the 1978 exploration program, Ranworth suspended its financial support for the exploration program on the Kusp claims, but maintained an interest in the Canbrika option through a separate agreement with Dome. Dome financed the 1979 program and for this program the area of influence was extended a short distance to the northwest to cover an area of similar geology and gossan.

Because of the widespread exploration activity in the region in 1979, a 20-unit claim was staked to cover an intense gossan on Box Mountain in the northwest part of the area of influence. Geochemical and geological data were subsequently obtained for this target and the surrounding area.

LOCATION AND ACCESS

The Kusp Property is at latitude 50° 08.5' N, longitude 117° 36.5' W, on Map 82K-4E. Summit Lake lies along Bonanza Creek, just north of the property.

The claims extend from the bottom of the valley of Bonanza Creek southward up the steep slopes to the top of some very rugged mount-

ains (Rugged Peak, Big Sister Mountain). Over a horizontal distance of 1 3/4 miles (2.8 km) elevations rise from 2500 feet (830 meters) to almost 8000 feet (2670 meters). The slopes on the south side of the rugged mountains are less steep and are drained by McDonald Creek.

The very steep north-facing slopes have been subjected to a severe forest fire and an almost complete burn. Subsequently a dense growth of brush and young evergreen trees has returned, making access up the slopes extremely difficult. Tops of peaks are above timber line.

Outcrops are abundant at the tops of the rugged peaks and in the head of the cirques which drain northward through various small streams into Bonanza Creek. On the forest-covered slopes, outcrops occur in the creek beds and also in places on the steep interfluvial areas.

Although roads exist quite close to the property, access at present must be by helicopter. The closest helicopter is at Revelstoke 65 miles (100 km) to the northwest. Also, planes and helicopters are based at Kelowna, 90 miles (140 km) to the west. An airstrip exists near Nakusp, ten miles southwest of the property, and this is generally serviced in the summer months by scheduled flights from Revelstoke and Kelowna.

A paved highway (No. 6) passes along the valley of Bonanza Creek, less than one mile from the north edge of the property. Canadian Pacific Railway has an unused line also along the bottom of the valley. The closest access roads are logging roads in the upper parts of McDonald Creek. These roads have been built to within two miles (3 km) of the bleached zone.

CLAIMS AND OWNERSHIP

The Kusp 1, 2, 4, 5, and 6 were staked and recorded in the name of John R. Woodcock; however the initial project was paid for by Canbrika Developments Ltd. Early in 1978, the property was optioned from Canbrika by Dome Exploration (Canada) Ltd. and Ranworth Explorations Ltd., both of Toronto. All of the claims are still in the name of John R. Woodcock except for the Kusp 1 claim which had been transferred to Canbrika Developments Ltd.

The data for the claims is presented in Table I.

On August 2, 1978, eight units of Kusp 2 claim and eight units of Kusp 4 claim were abandoned. The remaining units of these two claims plus the 20 units of Kusp 1 claim were included in the Kusp Group for assessment work purposes.

TABLE I

KUSP CLAIM DATA

| <u>Name</u> | <u>No. of Units</u> | <u>Tag Number</u> | <u>Record Number</u> | <u>Date Staked</u> | <u>Date Recorded</u> |
|-------------|---------------------|-------------------|----------------------|-------------------------|----------------------|
| Kusp 1 | 20 | 12052 | 450 | July 17/77 | Aug. 9/77 |
| Kusp 2 | 20 | 12053 | 451 | July 18/77 | Aug. 9/77 |
| Kusp 4 | 16 | 12055 | 452 | Aug. 2/77 | Aug. 9/77 |
| Kusp 5 | 10 | 12056 | 504 | Sept. 22/77 | Sept. 30/77 |
| Kusp 6 | 18 | 07138 | 598 | March 23/78 | March 28/78 |
| Box 1 | 20 | 38244 | 1352 | July 19- July 24 /79 | July 25/79 |

Because of the assessment work done in 1977 and 1978, the Kusp 1 claim is in good standing until 1988 and the Kusp 2 and Kusp 4 claims are in good standing until 1983. The Kusp 5 and Kusp 6 claims were allowed to expire.

In the period July 19 - July 29, 1979, the Box 1 claim (20 units) was staked by P. Stanneck, agent for J.R. Woodcock (see Table I for claim data). The claim is located about 8 kilometers WNW of the Kusp property on Box Mountain.

Also in 1979, Alex F. Strebchuck acquired the Anton 2, 3, 4, 5 and 6 claims (returned by Cominco Ltd.) and staked the A3 claim. Mr. D. Griffith of Vancouver staked the adjoining A5, A6, and A7 claims; he is presumably associated with Mr. Strebchuck. These claims are located to the south of the Kusp Property. In the same vicinity, Mr. Strebchuck also owns the previously acquired Moly 1, Moly 4 and Moly 5 claims and two crown grants.

The Anton and Moly claims cover a molybdenum prospect and the two crown grants (L 14471, L 14472) cover precious metal veins. The A claims surround the crown grants.

In addition Mr. Strebchuck also owns the Stan 1, Stan 2, Stan 3, and Stan 4 claims adjoining the Kusp property to the west.

SUMMARY OF FIELD WORK

In 1978, a detailed examination of the main zone of interest was undertaken for Dome and Ranworth. This included geological, geochemical and geophysical work followed by a limited drill program. The geological work permitted a classification of rock types and units and the mapping of the main geological structures. Geochemical data included detailed follow-up along some of the anomalous streams in the area and soil samples on two small grids placed over two bleached alteration zones. Geophysical work, consisting of 500 meters of survey along a grid over the main anomalous zone, detected two conductors. The main anomalous target was then tested with 1012 feet of diamond drilling.

Work in 1979, consisted primarily of geological mapping although some silt and soil sampling was done to the east and west of the area investigated in 1977 and 1978. The additional mapping was done mainly by Mr. Dennis Gorc.

The 1979 program concentrated on acquiring a better geological picture of the property as well as the discovery of additional bleached tuff zones and/or mineralization. In addition, silt and soil samples were taken to the south in the MacDonald Creek drainage.

Also during 1979, the red gossans on Box Mountain was investigated and staked. Work in the area was limited to 15 rock chip and soil samples taken in the vicinity of the gossans as well as 17 rock chip and silt samples taken along Dog Creek and 16 silt and gully samples taken along the base of Box Mountain.

GEOLOGY AT KUSP CLAIMS

General

The mountains south of Summit Lake owe their high and rugged topography to the resistant volcanic rocks which underlie this part of the Lardeau map sheet. Geological Survey maps (Hyndman 1968 and Reid 1975) show an area eight miles (13 km) long and up to two miles (3.2 km) wide underlain by the volcanic rocks that form the backbone of these rugged mountains. These geologists assign the volcanic rocks to the Slocan Group (Triassic to Lower Jurassic). This group includes augite metabasalt and andesite flows and tuffs. Surrounding this volcanic group are some sedimentary rocks also included in the Slocan Group and presumably underlying the volcanic rocks. These include the gray to black phyllite, argillite, quartzite with minor tuffaceous sediments near the top. In order to get an elliptical outline to the volcanic area (terminating at both ends) the geologists have suggested a synclinal structure.

Woodcock prefers to regard this as a basin of volcanic deposition which has subsequently been thrust into a southerly dipping overturned anticline.

To facilitate mapping and report writing, the strata of the mountain block is divided into three belts of rocks trending WNW and dipping SW. A northernmost belt forming the lower vegetated slopes of the mountain, consists of the well-bedded phyllitic black slates and minor volcanics of the Slocan Group. The central belt is characterized by rapid lateral facies changes within units of sedimentary clastics, volcanic pyroclastics and some volcanic flows. The southern belt, which forms the backbone of the ridge and the peaks of the mountain range, includes fairly massive porphyritic volcanic flow rocks.

In order to facilitate communication, the creeks have been labelled. From west to east these are:

Creek A, in the vicinity of the logging road switchbacks, Creek B, Creek C (formerly called Lake Creek), Creek D (Camp Creek), Creeks E and F (the location of most of the 1979 mapping) and Creek G.

Most of the mapping was done in the headwaters of Creeks C, D, E, and F, along the ridgetop to the south of these creeks, and along the access roads to the west. Westward the overburden depth and the vegetation cover increase making it difficult to trace the individual rock units.

Stratigraphic Units

Rock types found in the area of mapping have been divided into eight units, as shown on the geological map. Each unit contains a predominant rock type; however, lesser amounts of additional other rock types may also be included.

Unit 1

Well foliated black slates underlie the northern lower slope of the ridge. This includes some thin interbedded volcanic members, possibly fine-grained tuffs.

Unit 2

This includes non-porphyrific, light gray volcanics. Some of these are pyroclastics and contain fragments of black volcanics and other volcanic rocks. Carbonate and sericite alteration within the unit is variable. In places the volcanics are well foliated.

Unit 3

Another unit of black slate separates the main pyroclastic units from a central or underlying clastic unit. These black slates are essentially identical in appearance to those of Unit 1; however, a greater variety of additional rock types are also present, including some grits and minor conglomerates.

Unit 2a-3a

Underlying the sedimentary clastic (Unit 4) is a horizon of black to gray slate which forms the core of the anticline. Some volcanic rocks similar to those found in Unit 2 have been mapped along the southern border of this slate horizon.

Unit 4

Coarse clastic sediments including grits, greywacks and conglomerates crop out in the central parts of the anticline, generally west of Camp Creek (D). Variations in grain size occur over short distances, both laterally along strike and across bedding. The size of fragments varies greatly and cobbles up to four inches are common within the conglomerates. Most of the boulders and cobbles within the conglomerate are angular to sub-angular; parts of this could be called a sharpstone conglomerate.

Unit 5

Black pyroclastic rocks predominate in this unit, although the unit does contain a wide variety of other volcanic pyroclastics. The dark volcanic rock is distinctive. It is black and contains shiny orthopyroxine (?) phenocrysts.

The weathered surface is nobby because of variations in the degree of weathering of the different rock types. No bedding is apparent in outcrop. The weathered surface has a thick layer of limonite because of abundant fine-grained iron sulfide. However, this sulfide is too fine-grained to be readily visible in hand specimen.

Unit 6

A porphyritic dark gray volcanic rock, containing phenocrysts of augite and hornblende, forms much of the ridge along the south of the property. This resistant rock is much more massive and uniform than the other volcanic units and probably consists largely of flows. Only traces of pyrite are present; however, thin section work on some of the rock did indicate abundant carbonate alteration in this fresh appearing rock.

Unit 7

Bleached white tuff is important as it occurs adjacent to the mineralized tuffs at the main anomaly. In the area of the main anomaly, this white tuff has abundant disseminated pyrite. It weathers to a white sticky clay which slumps readily. In places, the abundant pyrite yields yellow jarosite; however, much of the limonite has been leached from the surface. In the vicinity of the main anomalous zone, this tuff stratigraphically overlies a carbonate-rich gray clastic (probably a water-laid tuff) which also contains pyrite, traces of base metals and silver.

To the east (headwaters of Creek E) the amount of white tuff increases and is interbedded with minor foliated gray volcanics.

Distribution of the Bleached White Tuff

As mentioned previously, the white tuff at the main anomaly lies in the uppermost part of the volcanic horizon of tuffaceous rocks, adjacent to the black slates of Unit 1. Further to the west (near Creek C) Dennis Gore has mapped an exposure of white tuffs which appears to occur within the black slates of Unit 3. Another exposure of white tuffs occurs along the ridge about 2000 meters SSW of the main anomalous zone. These also lie within the slates (Unit 3) but adjacent to the clastic horizon (Unit 4).

Further to the east, in the headwaters of Creek F, a more extensive zone of white tuff is found in what appears to be a lower stratigraphic horizon. This zone is somewhat different in that the white tuff is interbedded with foliated gray volcanics and little, if any, associated pyrite is present. This horizon is stratigraphically underlain by a thin pyroclastic member to the south and stratigraphically overlain by a foliated gray volcanics to the north.

Other scattered exposures of white tuffs have been mapped within the volcanic units between Creeks D and E, including the small metal anomalous exposure found and mapped in 1978 just to the east

of Creek D. These exposures however, do seem to be of a more limited size.

Several explanations for the erratic distribution of the white tuff beds are suggested:

- (1) In a subsequent section the structure of the area will be described including the overturned anticline which appears to plunge westerly. The two limbs of the anticline are clearly indicated by the two layers of clastic sedimentary rocks. If the white tuff horizons were all in one stratigraphic horizon, they should follow around the nose of this clastic member. Some of the tuff exposures in the western part of the mapped area could do this.
- (2) There are some indications that the white tuff horizon of the main anomalous zone and that of the lesser anomalous zone just across the valley to the east are on regional strike with one another. These could lie along the sole of the thrust fault along which the anticline has been overthrust. Such a position could conceivably account for apparent alignment of many of the zones of the white tuff.
- (3) The most logical interpretation is that the discontinuous lenses of white tuff occur at several stratigraphic horizons within or near the volcanic units.

Structural Geology

In the 1978 work J.R. Woodcock suggested that the stratigraphic units in the vicinity of the main anomalous zone and to the west of it are overturned and that these units are part of the northern limb of an overturned anticline that dips to the south. This interpretation was based on an exposure of graded-bedding and of cross-bedding found about 1500 meters west of the main anomalous zone.

In 1979 mapping, other exposures of graded-bedding, found near the headwaters of Creek C, indicated that these southerly dipping beds in this part of the area are not overturned.

In addition, the coarse sedimentary clastic unit occurs in two bands which merge to the south. These two bands represent the same bed which is exposed along the two limbs of the westerly plunging anticline. The lack of this coarse clastic material in the rugged area to the east further confirms this interpretation. Thus the main structure within this area is an overturned anticline which dips south and plunges westerly.

Shearing near the white tuff horizon of the main anomalous zone could

indicate that the mineralized zone is adjacent to a thrust fault which dips 40° - 50° south and bounds the overturned anticline on its north. Evidence for this is not complete; this is merely a suggestion.

Drastic lateral facies changes occur within the coarse-clastic and the pyroclastic units of the central belt. These coarse clastic units disappear to the west. Some finer grained clastic (?) rock types have been found to the west and are shown as equivalent units on the geological map. The coarse clastic sedimentary unit terminates eastward due to the structural implications of the anticline as mentioned previously. In addition to the lateral facies changes within all of the sedimentary clastics, there are also sharp lateral changes within the pyroclastic units.

The distribution of the rock units of the central belt including their interfingering and their drastic lateral facies changes suggest that these volcanic and sedimentary rocks were deposited in a basin or along the edge of a basin and that the basin extended westerly from the source area.

Some of the drastic changes along stratigraphic strike are due to cross-faults. One such fault occurs in the headwaters of Creek E, indicated by the linear nature of the valley. This fault juxtaposes the units of black slates and pyroclastics against the units of massive volcanic flow rocks to the east.

Another northerly trending fault may occur along or near Creek B. This is suggested by the linear that passes along the creek and through the mountain ridge at this point. Outcrops are scarce in this area and so its presence could not be confirmed.

Some northwesterly striking faults may also be present. Such a fault is indicated in the southeastern part of the map area, north of Rugged Peak. This is marked by a thin zone of tectonic (?) breccia. The fragments within the breccia are of the same massive grey volcanic rock found along its walls.

Rock Slides

A hummocky topography at mineral Zone 1, including little closed basins, on such steep slopes indicates rock slides. These can be seen on the photographs with the aid of the stereoscope. The approximate outline of the overall area of sliding is shown on the geological map. Thus much of the anomalous zone is underlain by rubble which has moved down hill. Even the cliffs with apparent uniform dip to the southeast appear to have had some downhill movement as small enclosed basins in places lie on top and back from these cliffs of exposed rock. The continuity of geological contacts interpreted from the EM 16 work indicates that movement of the so-called outcrops has not been great.

Relatively subdued examples of this peculiar and distinctive hummocky topography also occur in the two adjacent valleys (Creeks C and F). Although the evidence is not as conclusive as the slide of Creek D, air photo examination indicates that these two valleys also contain similar rock slides with a scarp and a corresponding mound of debris lower down the creek. The slide on Creek C is also adjacent to the clay-rich white tuff.

These slides could also be localized near the portulated thrust fault.

GEOLOGY AT BOX MOUNTAIN

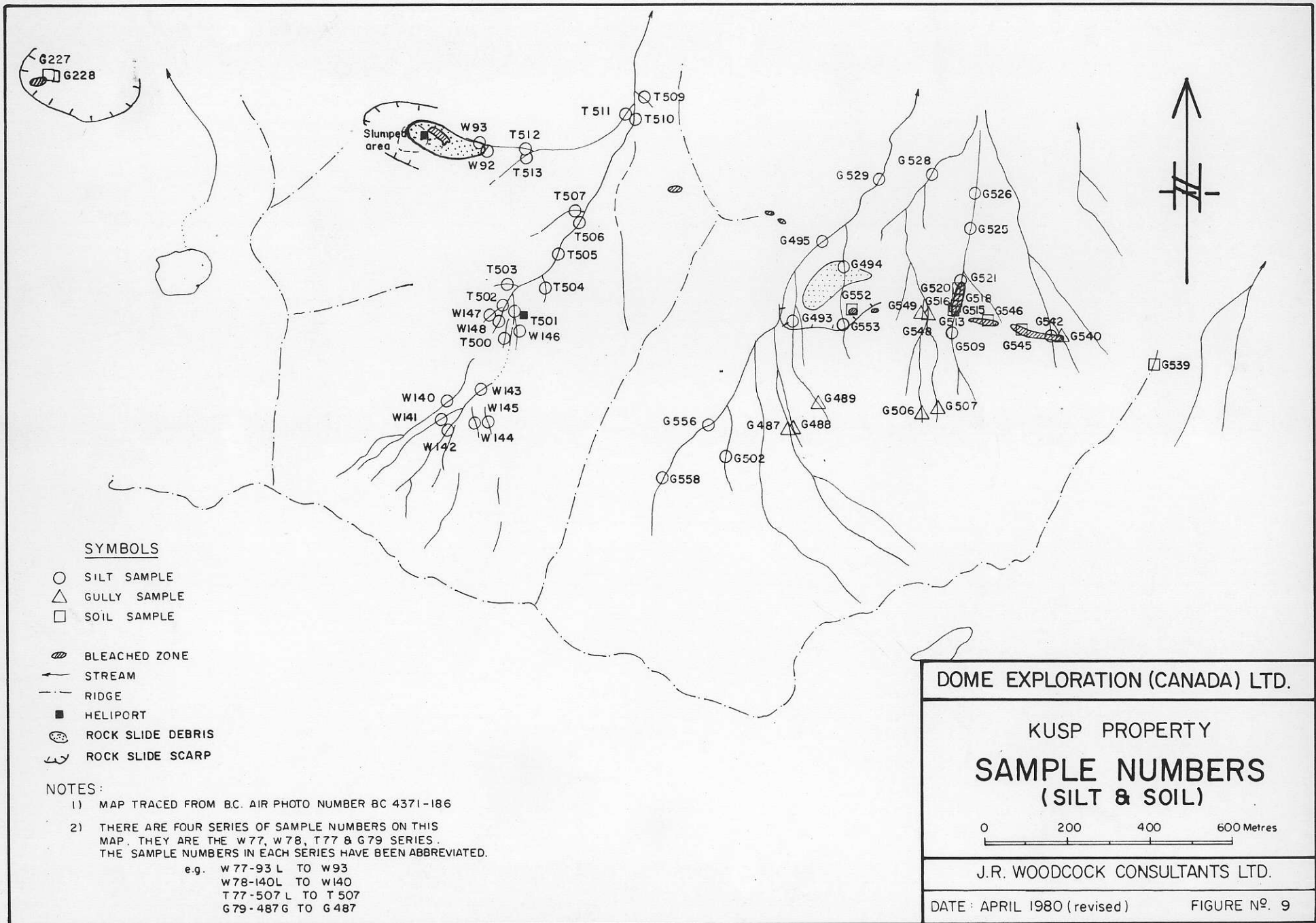
The published geological map by Hyndman shows that the geology of Box Mountain is dominated by the Box Mountain Stock, composed of medium to coarse-grained syenite low in mafic minerals. This stock is cut by dykes of aplite and leucocratic granite, especially in its southern part near the quartz monzonite. Adjacent to the Box Mountain Stock is a second intrusive which Hyndman has assigned to the older Kuskanax Batholith. These intrusions occur in argillites and phyllites of the Slocan Group and volcanics of the Rossland Group. Adjacent to the intrusions, the rocks are altered. Sericitized porphyroblasts of andalusite occur in the pelitic rocks and crystals of actinolite occur in the volcanic rocks.

The work in 1979, shows that the syenite stock and also the adjacent rocks, especially to the east, produce a conspicuous gossan. Traverses across the stock and intruded rocks were made to collect rock chip samples and hand specimens. Examination of these hand specimens indicated four main rock types including two phases of volcanic rock, a syenite, and a quartz monzonite.

The volcanics are predominantly dark grey in colour, containing varying amounts of disseminated iron sulfides. These volcanics, mapped as andesites, generally contain disseminated pyrite and minor pyrrhotite. In places the volcanic is somewhat vuggy with rusty pockets and fractures. A few of the specimens contain veinlets of quartz or of gypsum.

West of the stock and adjacent to Upper Arrow Lake, the volcanics are dark grey in colour and have some cleavage. This cleavage development could be related to some regional faulting along or adjacent to Arrow Lake.

The specimens collected in the northern part of the traverse area are coarse-grained syenite in which there is no alteration and essentially no pyrite. The mafic content is generally low, in places it is slightly chloritized.



SYMBOLS

- SILT SAMPLE
- △ GULLY SAMPLE
- SOIL SAMPLE
- ▨ BLEACHED ZONE
- STREAM
- - - RIDGE
- HELIPORT
- ⊙ ROCK SLIDE DEBRIS
- ⤴ ROCK SLIDE SCARP

NOTES:

- 1) MAP TRACED FROM B.C. AIR PHOTO NUMBER BC 4371-186
- 2) THERE ARE FOUR SERIES OF SAMPLE NUMBERS ON THIS MAP. THEY ARE THE W 77, W 78, T 77 & G 79 SERIES. THE SAMPLE NUMBERS IN EACH SERIES HAVE BEEN ABBREVIATED.
 e.g. W 77-93 L TO W 93
 W 78-140 L TO W 140
 T 77-507 L TO T 507
 G 79-487 G TO G 487

DOME EXPLORATION (CANADA) LTD.

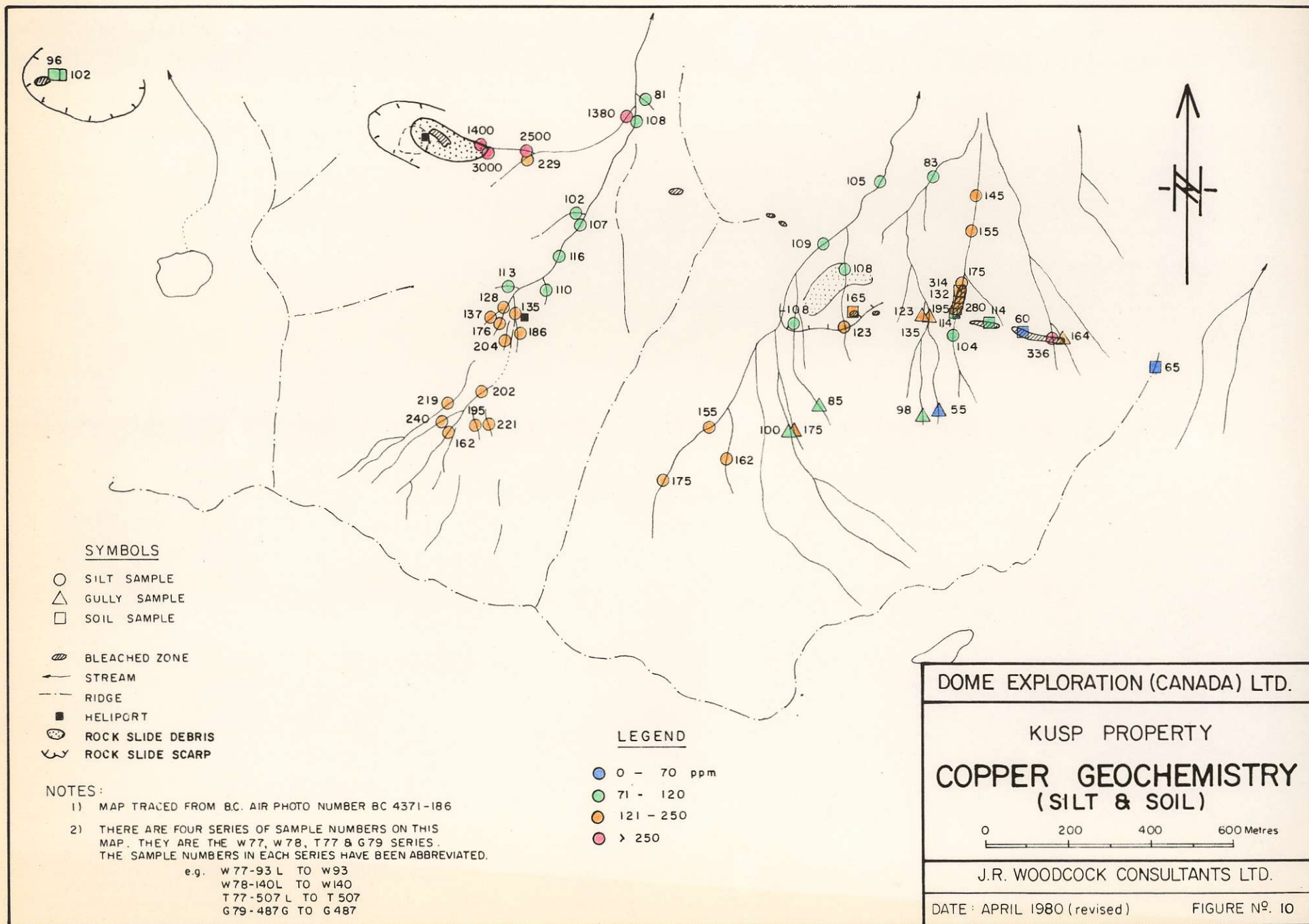
**KUSP PROPERTY
 SAMPLE NUMBERS
 (SILT & SOIL)**

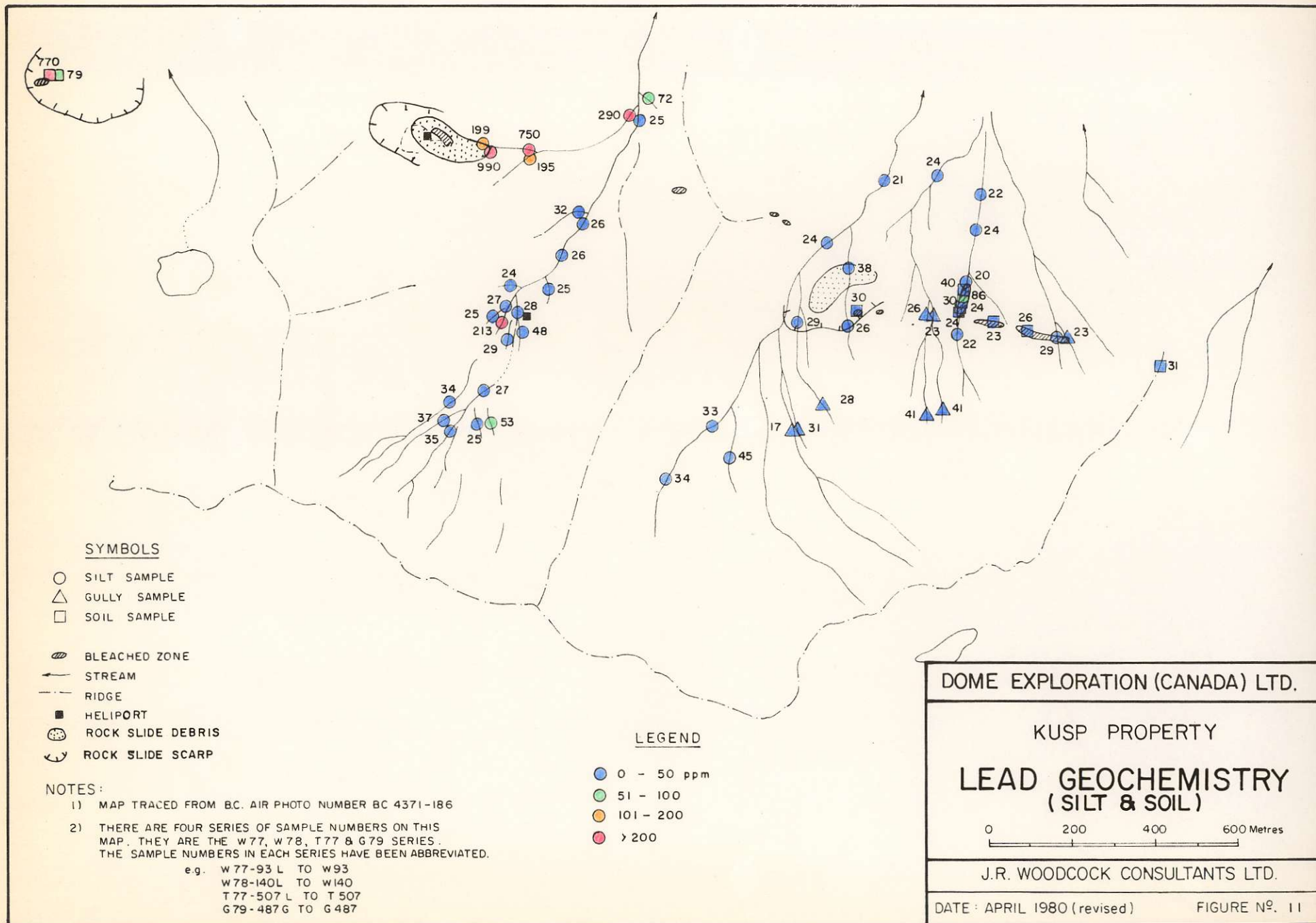
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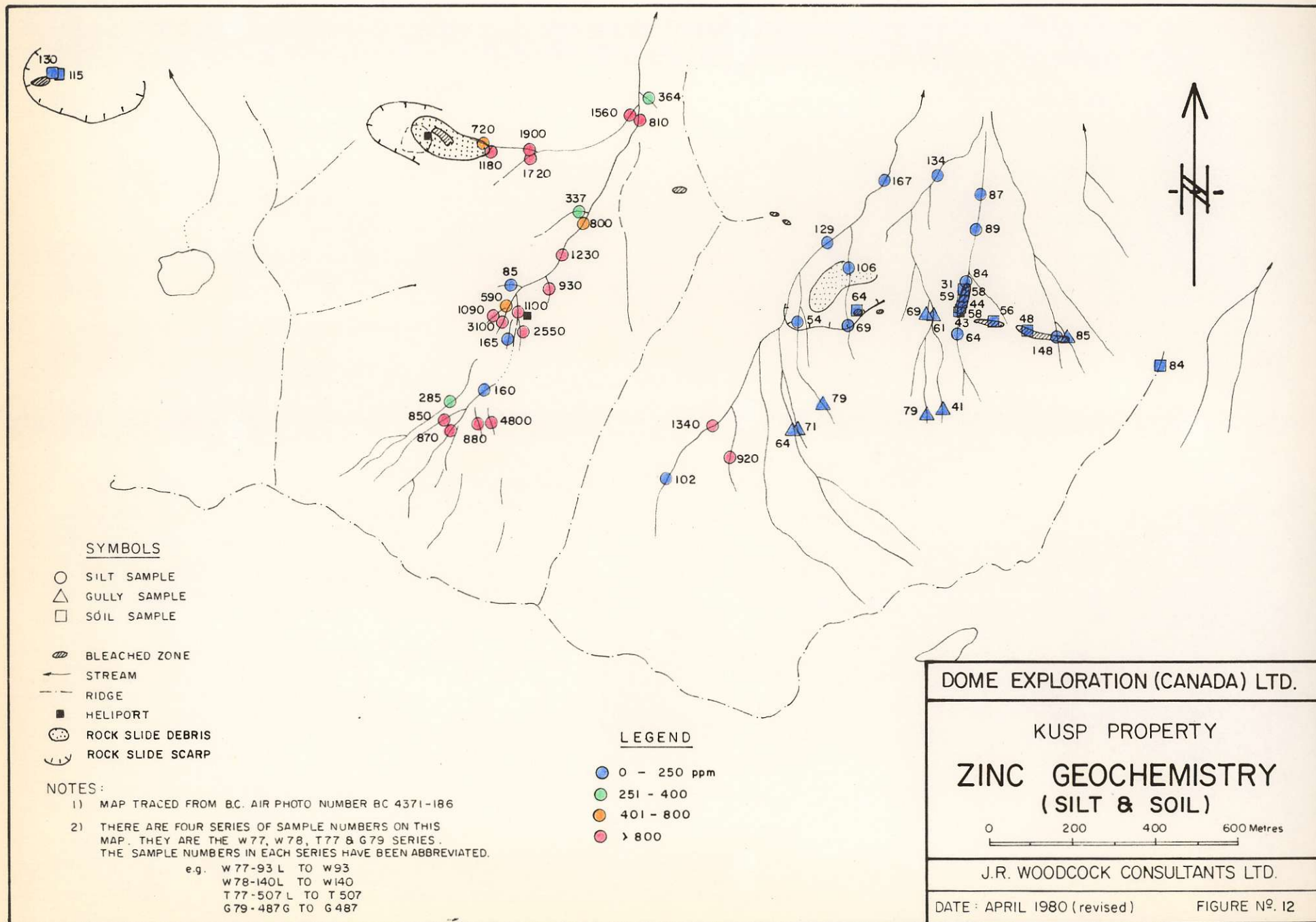
J.R. WOODCOCK CONSULTANTS LTD.

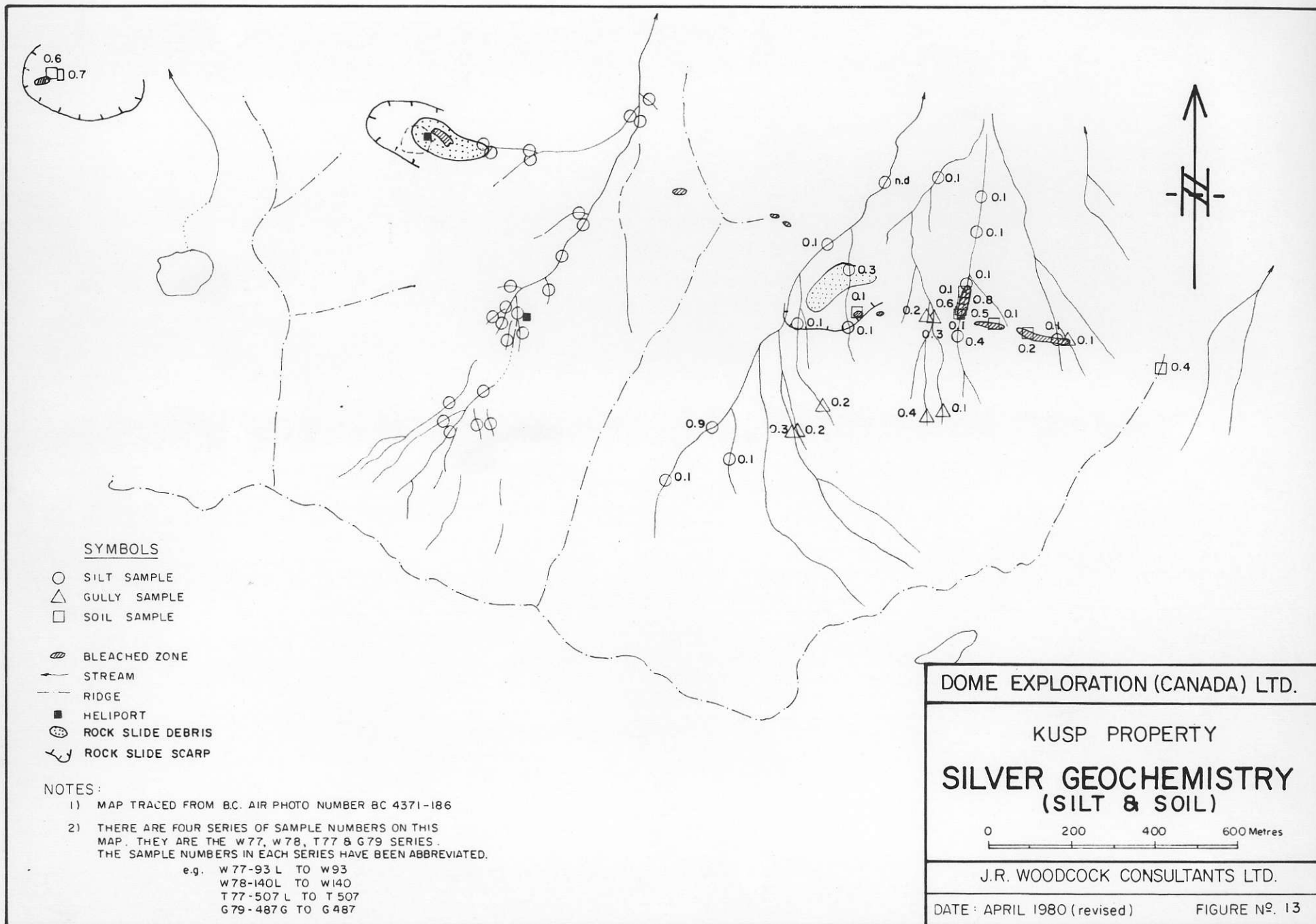
DATE: APRIL 1980 (revised)

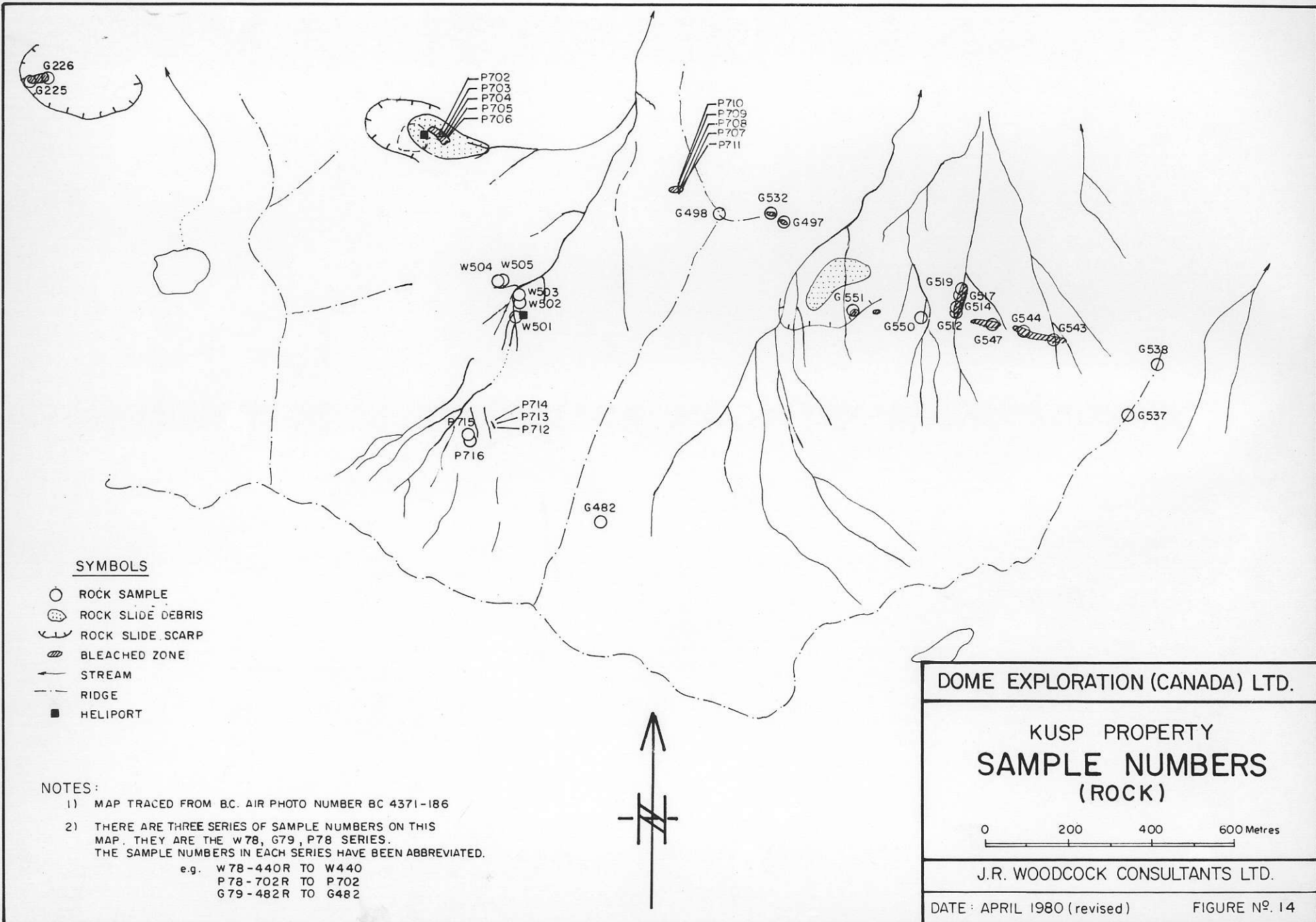
FIGURE No. 9











SYMBOLS

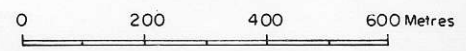
- ROCK SAMPLE
- ROCK SLIDE DEBRIS
- ⤴ ROCK SLIDE SCARP
- ▨ BLEACHED ZONE
- STREAM
- - - RIDGE
- HELIPORT

NOTES:

- 1) MAP TRACED FROM BC. AIR PHOTO NUMBER BC 4371-186
- 2) THERE ARE THREE SERIES OF SAMPLE NUMBERS ON THIS MAP. THEY ARE THE W78, G79, P78 SERIES. THE SAMPLE NUMBERS IN EACH SERIES HAVE BEEN ABBREVIATED.
 e.g. W78-440R TO W440
 P78-702R TO P702
 G79-482R TO G482

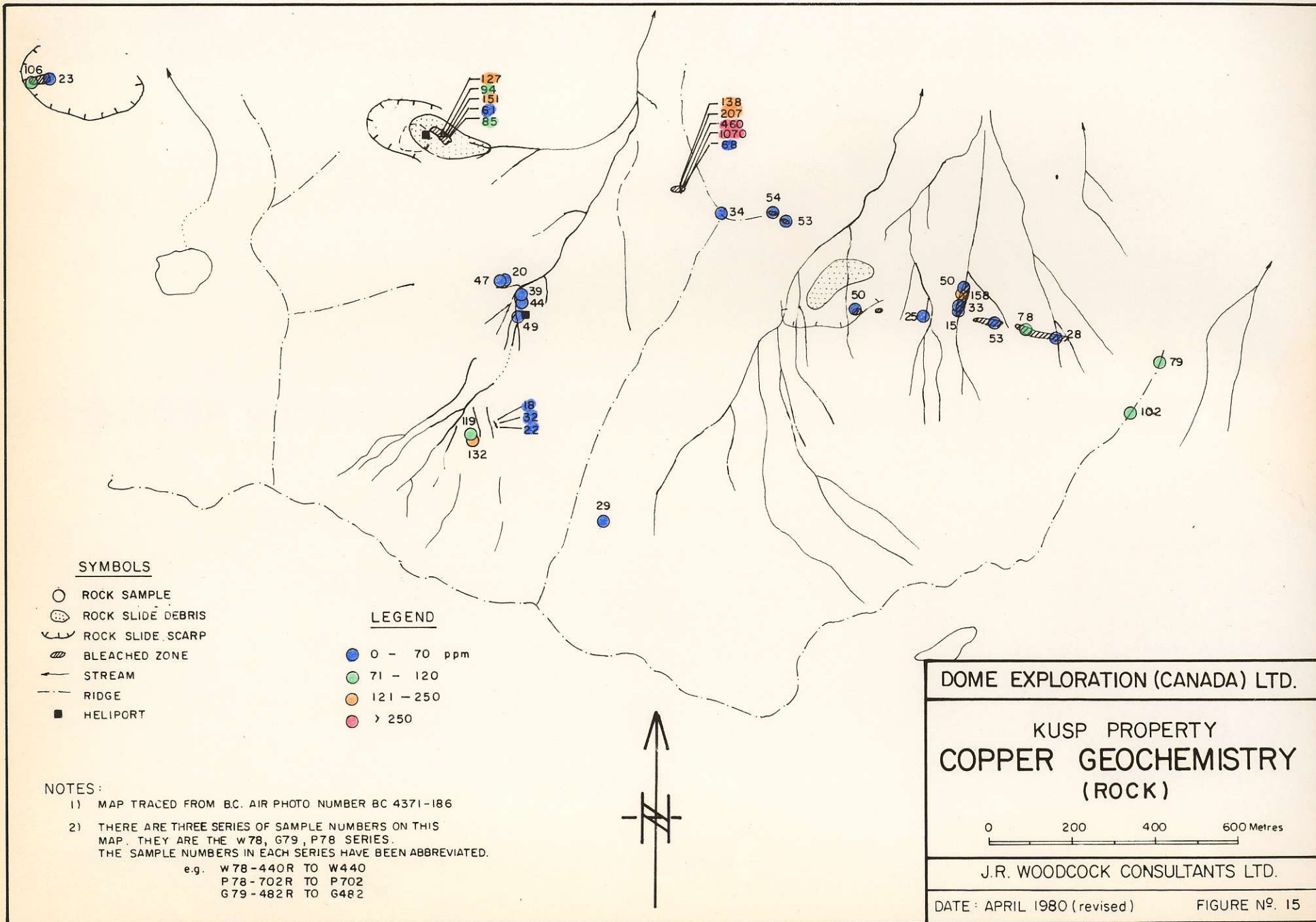
DOME EXPLORATION (CANADA) LTD.

KUSP PROPERTY
**SAMPLE NUMBERS
 (ROCK)**



J.R. WOODCOCK CONSULTANTS LTD.

DATE: APRIL 1980 (revised) FIGURE NO. 14



-98-

SYMBOLS

- ROCK SAMPLE
- ROCK SLIDE DEBRIS
- ⌋ ROCK SLIDE SCARP
- ▨ BLEACHED ZONE
- STREAM
- - - RIDGE
- HELIPORT

LEGEND

- 0 - 70 ppm
- 71 - 120
- 121 - 250
- > 250

NOTES:

- 1) MAP TRACED FROM B.C. AIR PHOTO NUMBER BC 4371-186
- 2) THERE ARE THREE SERIES OF SAMPLE NUMBERS ON THIS MAP. THEY ARE THE W78, G79, P78 SERIES. THE SAMPLE NUMBERS IN EACH SERIES HAVE BEEN ABBREVIATED.
 e.g. W 78-440R TO W440
 P 78-702R TO P702
 G 79-482R TO G482

DOME EXPLORATION (CANADA) LTD.

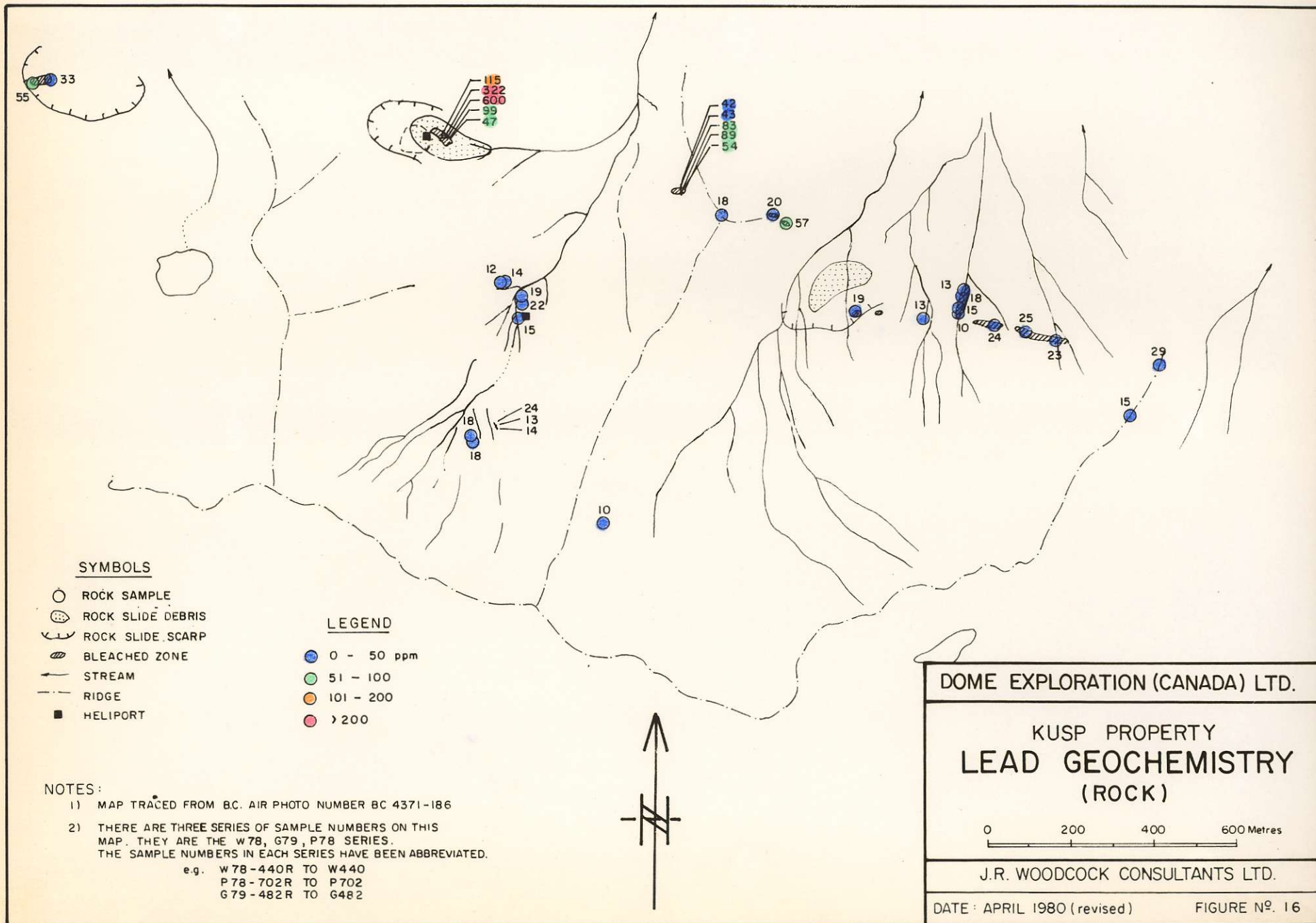
KUSP PROPERTY
**COPPER GEOCHEMISTRY
 (ROCK)**

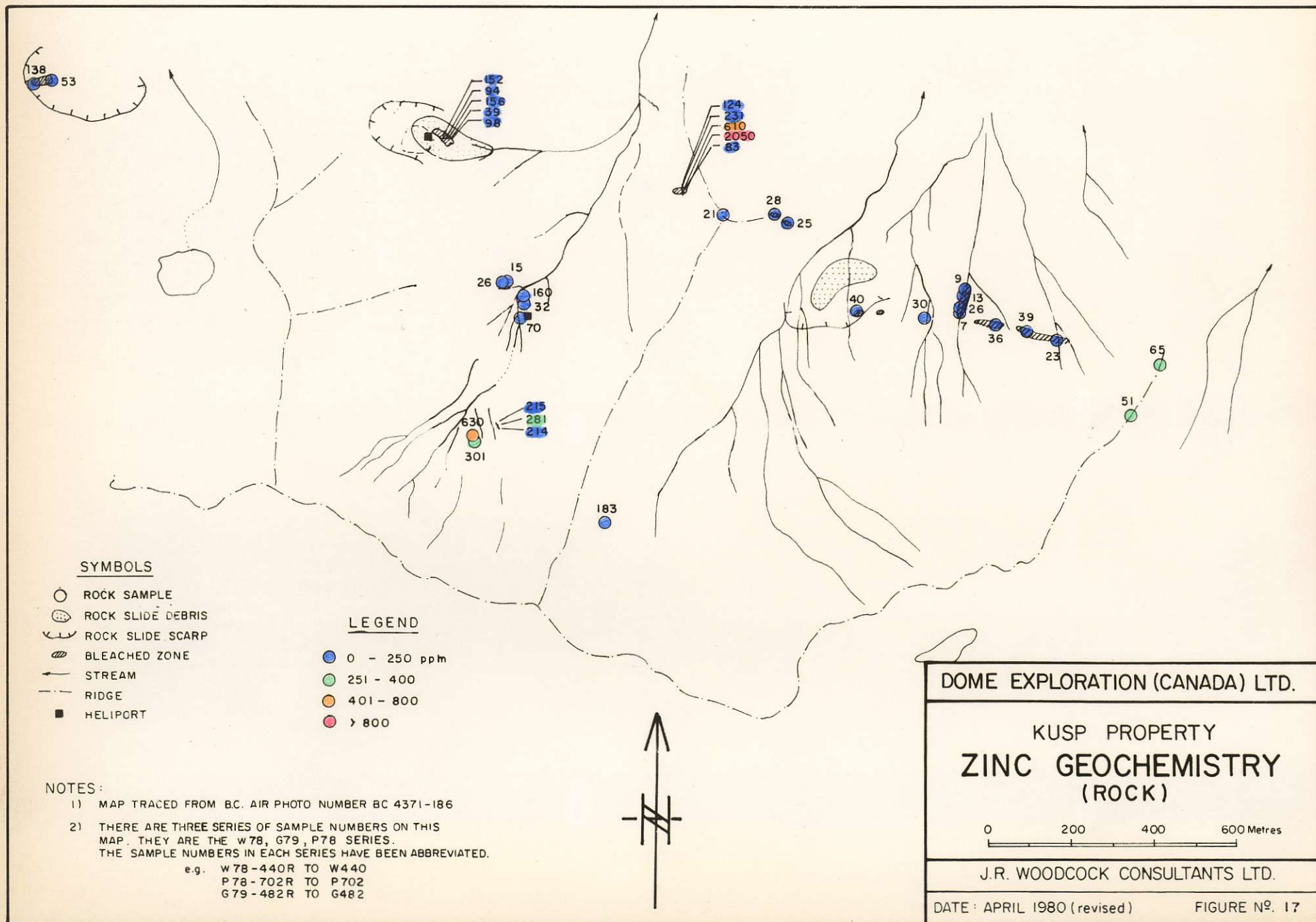
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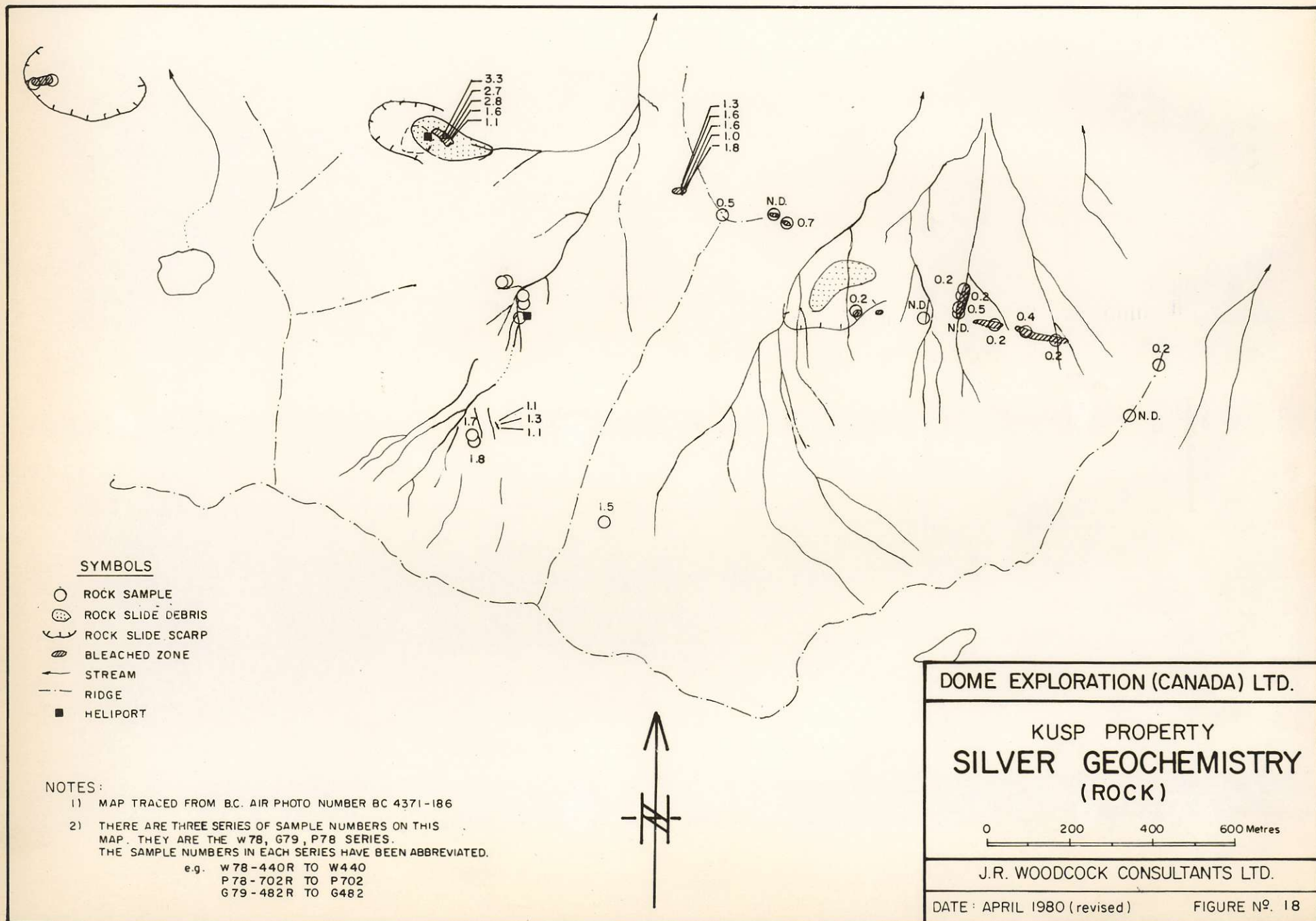
J.R. WOODCOCK CONSULTANTS LTD.

DATE : APRIL 1980 (revised)

FIGURE NO. 15







Quartz monzonite is found over a small area within the volcanic region. Much of the brilliant gossan and some of the slightly anomalous rock samples occur adjacent to this small intrusion. This rock is light coloured and composed of white feldspar with minor mafic minerals and minor quartz. It is medium-grained phaneritic with a somewhat sugary texture. The sulfide content is generally low but the limonite composition indicates that locally moderate pyrite has been present.

GEOCHEMISTRY

The regional geochemistry of the Kusp - Box Mountain area includes samples from most of the stream drainages in addition to soil samples taken along a number of traverses. This intermittent coverage extends from the Arrow Lake area (west slope of Box Mountain) almost to Slocan Lake. Three targets have been indicated and will be described separately. Target No. 1 is on the Kusp property and includes the highly anomalous silt samples found in 1977 plus the samples taken subsequently in 1978 and 1979. Target No. 2 includes some anomalous soil samples from the southern slopes of Rugged Peak and Target No. 3 includes a few anomalous rock samples found on Box Mountain. (Figures 3 to 8)

The more detailed silt and soil sampling on the Kusp Target (No. 1) is shown on maps drawn from the 20-chain air photos. Rock sample results are presented on separate maps. These maps show that the highly anomalous values of 1977, found in Creek D, are contributed by many of the little subsidiary streams at the head of this creek, including the cirque streams at its head and the bleached zone along its westerly tributary. The cirque area contributes anomalous copper and zinc. Prospecting in this area failed to indicate any sulfides as a source; however, there was some indication that the metal values came from areas of black slates interbedded with the pyroclastic units. (Figures 9 to 13)

The western tributary of Creek D contains highly anomalous lead, copper, zinc and silver. These are contributed by the bleached and mineralized zone which was drilled in 1978. The magnitude of the values is partly caused by the broken nature of the mineralized slide rock.

A similar exposure of clay-rich white tuff also occurs along the east side of Creek D. Soil sampling in 1978 proved that this zone is also anomalous in copper, lead, and zinc.

Another exposure of white tuff is found just west of Creek B. Chip samples from this zone also returned anomalous copper, lead, and zinc. (Figures 14 to 18)

Mapping in the Creek C basin, further to the east, disclosed a white tuff interbedded with other volcanic rock. This bed of white tuff is of greater thickness than that noted in the main slide area of Creek D. However, geochemical samples from these exposures and from the streams draining them returned only background values for lead and for zinc and some moderately anomalous values for copper (up to 336 ppm). A few silt samples from upper parts of Creek C, further to the southwest, returned some anomalous zinc values (920 ppm, 1340 ppm) and some slightly anomalous copper values (162 ppm, 155 ppm), with only background lead values.

Target No. 2 includes some soil samples taken along the southern slope of Rugged Peak in the drainage basin of MacDonald Creek. Some of these soil samples are anomalous in zinc (135 to 180 ppm) in molybdenum (7 ppm to 17 ppm), and in zinc (380 ppm to 750 ppm). These anomalous values have not been investigated; however, the combination is unusual. In connection with this unexplained anomaly, one must note that Strebchuck, a local prospector, has found sedimentary rocks on his Stan claims (west of the Kusp property) which do carry some molybdenite and sphalerite.

Target No. 3 is on Box Mountain and includes some slightly anomalous rock chip samples, including one sample of quartz monzonite and several samples of intruded volcanic rock. These samples are slightly anomalous in molybdenum (5 ppm to 31 ppm), but zinc, copper and lead are not anomalous. The anomalous values seem to correspond to the zone of most brilliant gossan on the property. They also appear to be related to the small area of quartz monzonite which has been included in an outlier of the Kuskanax Batholith by Hyndman.

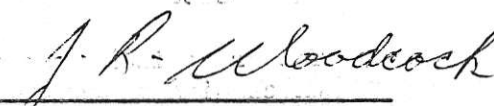
The row of soil samples taken along the foot of the slope west of Box Mountain did return some slightly anomalous zinc values. This can be expected in view of the large gossan area of Box Mountain.

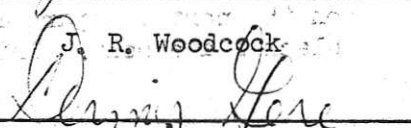
CONCLUSIONS AND RECOMMENDATIONS

1. Strata of the Kusp property can generally be divided into three belts. These include the central belt of pyroclastic rock and the interfingering black shales and clastic sedimentaries, bounded on the north by a sedimentary formation which is largely black slates and a few lesser volcanic layers, and bounded to the south by andestic volcanic flows which form the ridge of the mountain.
2. The predominant structure in this area is an overturned anticline which dips to the south and is possibly bounded by a thrust fault on the north, separating the central pyroclastic belt from the black slate belt. This anticline plunges easterly.

3. The drastic and sharp lateral facies changes with the pyroclastic units and within the interbedded sedimentary units precludes projection of any of these formations along strike to the west.
4. Much of the central belt is anomalous in copper and zinc. Also some of the clastic horizons associated with white tuffs are highly anomalous in copper, lead, zinc, and silver. The most highly anomalous bed was that found in 1977 and drilled in 1978. A second lens on the east side of the same valley, also found and mapped in 1978, is also highly anomalous in all base metals. Another lens checked and sampled in 1979 (along Creek C to the west) also has some anomalous values for all base metals. However, a larger exposure of similar tuff, found in Creek E, has only slightly anomalous copper.
5. The mapping in 1979 increased the knowledge of the geology and confirmed the presence of an overturned anticline. However, it was not successful in locating additional exploration targets. On the Kusp property itself the best property is still the No. 1 Zone which was drilled in 1978. Any further work on this target should be an attempt to intersect the zone at a greater depth, down-dip and up-slope to the south of the 1978 drill holes. This suggestion was made after completion of the 1978 work. no.
6. Strebchuck has found mineralization in similar strata to the west of the Kusp property. Selected specimens sent by this prospector to J.R. Woodcock returned assays up to 0.24% Mo, 0.85% Zn, 0.84oz./ton Ag, 0.003oz./ton Au. This mineralization should be examined to determine the merits of his specific mineralized zone and to obtain more information on the general mineralization of the area and its stratigraphic control. yes
7. A quick visit should be made to the headwaters of MacDonald Creek to try and determine the source of the geochemical anomaly (molybdenum, zinc, copper) found in target 2. yes
8. The Box Mountain target (No. 3) does not merit further work and the Box claim should be forfeited.

May 12th, 1980



 J. R. Woodcock


 Dennis Gorc

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