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A REPORT ON THE PROPERTY OF
TRIUMPH MINES INC.,
AINSWORTH, B. C.

Vancouver, B.C.
July 11, 1956.

C. J. Brown

A REPORT ON THE PROPERTY OF TRIUMPH MINES INC.
AINSWORTH, B. C.

Introduction:

Seven days were spent in the Ainsworth area examining the property owned or optioned by Triumph Mines Inc., of Seattle, Wash. This examination was conducted at a time when Dr. Mathews was mapping in detail the adjoining property held by Highland-Bell Limited. Dr. Mathews was called upon frequently to assist in the correlation and interpretations of the various results obtained in the field. Mr. Orton Perry, manager of Highland Bell Mine visited the property after all information was compiled and assessed the results obtained.

Field mapping was done on a scale of 400 ft. to one inch, and underground mapping on a scale of 20 ft. to one inch. A topographic map with 50 ft. contour interval was used in conjunction with a 100 ft. to the inch transit survey owned by Triumph Mines Inc., as a ground control.

Conclusions:

It is possible with an expenditure of up to \$25,000. to indicate a limited tonnage of \$30. to \$35. ore. It is not possible at this date with the limited amount of development work to give an exact estimate of tonnage; however there is in excess of 2,000 tons developed and a maximum of 5,000 tons to be expected on further development.

To engage in additional development work would be expensive because of the erratic nature of the ore occurrence, which would require close and systematic exploration. The area has been well prospected by surface pits and trenches. The ore exposed by these workings has been proved to be irregular and to be controlled by local fractures rather than by a bedded replacement of a chemical nature.

The ore seen on Triumph ground has an entirely different structural relationship with the country rock than that exposed at Western Mines and at Yale Lead and Zinc.

In view of the nature of the financial structure of Triumph Mines Inc., and the preliminary expenditure necessary for Highland-Bell to option this property together with the limited prospects for developing additional orebodies, it is recommended that this property be given no further consideration.

Location:

This property is located in the northern part of the Ainsworth Mining camp. The ground controlled by Triumph Mines Inc., is located between Cedar Creek and the north fork of Woodbury Creek, between elevations 3500' to 4200'.

Claims & Ownership:

Triumph Mines Inc. own outright or have options on ten Crown-granted mineral claims and seven claims held by location. These claims are known as:

Crown Grants:

Ayesha M.C.	Lot 143, Group 1.
No. 5	" 3655, Group 1
No. 5 Fr.	" 3656, " 1
Anna May	" 4804, " 1
Free Silver	" 4377, " 1
Glen Ellen	" 4379, " 1
Harrison	" 4380, " 1
Silver Glance	" 4339, " 1
Number Nine	

Held by Location:

Ayesha Fr.
Anna May Fr.
Fraction No. 1
Anna May Fr. No. 2
Hercules (Pataka)
Sullivan (Ellen)
Noranda (Bugaboo)

Within the borders of the Triumph property are six independently held claims. Four of these are on the southern boundary and two on the northern boundary and consist of:

Attended M. C.	Gov't Agent, Kaslo, B.C. (Trustee)
Buckeye) Guichon Copper.
Buckeye #2 M.C.	
Kate M. C.	Privately held
Gallagher	"
Let Her Go Gallagher	"

General Geology:

Reference is made to Map No.1 appended to this report. The geology of the area has been described by S⁽¹⁾. Schofield 1920 and H.M.E. Rice⁽²⁾ 1943. The underlying rocks of the area may be described as a sequence of sedimentary and volcanic rocks which have been altered by regional metamorphism to hornblende, biotite, staurolite and andalusite schists interbedded with quartzites and limestones. The whole of this assemblage has been intruded by dykes and sills of granite, pegmatite and lamprophyre. This complex has been folded to such a degree that it is difficult to tell one horizon from another. These formations trend in a northerly direction and dip moderately westward, although locally, strikes and dips vary greatly.

Throughout this succession the various limestone members have been used with moderate success as horizon markers. There are five major limestone members within the Ainsworth area comprising from Oldest to Youngest.

Detailed Geology.

Surface mapping was conducted on a 400 ft. scale and consisted mainly of walking the various limestone beds and establishing where possible the footwall and hangingwall contacts. This type of mapping was

chosen in preference to the running of traverses normal to the strike of the
(1) S.J.Schofield: "Geology & Ore Deposits of the Ainsworth Mining Camp. GSC Mem.117.
(2) H.M.A.Rice: "Notes on Geology & Mineral Deposits at Ainsworth, B.C." GSC Paper 44-13, 1943.

beds in order to locate the structure present and if possible relate it to the known mineral deposits.

Lower Star Limestone:

The most northerly outcrop of this limestone on the Triumph ground is exposed in a rock cut, 726 ft. east of the Silver Glance adit. This exposure may be on ground held by Highland-Bell. The cut exposed 91 ft. of limestone indicating a true width of about 75 ft. A six inch stringer of lead-zinc mineralization is present in the hangingwall occupying a minor bedded fracture. The mineralization was erratic and discontinuous in the exposure, and for the major part of the fracture exposed it was absent. The Lower Star limestone was traced with reasonable accuracy over a distance of 7800', a short distance south of the Ayesha M.C. It was found to be present on the Harrison, Noranda, Sullivan, Hercules, Buckeye, Anna May and Ayesha mineral claims and the New York Fraction.

Surface mapping in the vicinity of the Ayesha M.C. indicates a complex fold pattern to exist. Severe isoclinal folding was present in the individual lime beds mapped underground, the limbs of which folds in most cases paralleled the bedding. The surface expression of the limestone would infer that the axial planes of these isoclinal folds have been in turn folded in such a fashion that the individual folds are not recognizable as such outside of the "Z"-shaped structure of the unit itself. In this vicinity a detailed survey produced some evidence that the Upper and Lower Star limestones may be part of the same horizon, however lack of outcrop northward from this area prevented the establishment of this fact. A structure of this nature may have been brought about by either isoclinal folding along a N-S axis with a repetition of beds, or that one horizon was drag-folded into the other.

It can be stated that this complex fold structure has little bearing on the various vein fractures seen, the location of which fractures being governed by the relative ability of the various rock units to fracture.

Upper Star Limestone.

This stratographic unit was traced with limited success over the same distance as the Lower Star limestone. Structures similar to the one described are thought to exist throughout the various rock units in the area.

Inter Limestone Formation.

For the purpose of this examination limited time was spent mapping the non-calcareous rock units within the area. Hornblende schist which, in some cases, has been altered to a chlorite schist, was found to be the most abundant rock. Stauroelite and andalusite schist were also noted. Quartzite was found to be abundant in the vicinity of the No. 5 Fractional M.C. where the only mineral deposit was seen to occur within these quartzites and schists

Intrusives.

One granitic sill was noted underground in the No. 1 adit on the No. 5 M.C. This sill was found to be siliceous and to contain abundant phenocrysts of hornblende. Two lamprophyre sills were also seen. These intrusives seem to have little structural or mineralogical significance on the vein origin or pattern. From information elsewhere in the district they are believed to be pre-mineral in origin.

Fractures and Related Mineralization:

A group of N-W trending fractures has been explored along the footwall and hangingwall of the Lower Star limestone. In all, 13 fractures were examined and mapped over the 7800' distance. These fractures were found to be localized by the more competent limestones and in most cases when passing

into the schist are refracted into the schistosity and die out, or the movement being taken up along the schist planes rather than in one fault plane. All movements noted were normal with a large dip slip component. A 30 ft. horizontal displacement was noted on the footwall of the Lower Star limestone by the vein fracture as exposed in the Noranda workings. Two cross fractures on the Ayesha claim also indicated a similar displacement.

Associated with these cross fractures are longitudinal fractures which occasionally occur on the hangingwall or footwall of the limestone. These fractures are of short strike length and emanate from the cross fractures and pinch out or terminate a few tens of feet away from them.

The mineralization seen on the Triumph ground is confined to these fractures. Fracture replacement and vein filling is well illustrated in the Noranda workings. The extent of mineralization is believed to be governed by the extent of fracture and crushing adjacent to the fault planes. This mineralization can be seen to replace the fracture cleavage and drag folds in a stripped fashion. These strips are commonly at about 30° to the bedding planes. In most cases mineralization seen elsewhere was confined to deposition along a single fracture with minor replacement of the wall rocks.

The minerals noted were sphalerite, galena, chalcopyrite, in a gangue of calcite-quartz and ankerite. Ankeritic replacement of the wall rocks is common and at times forms the only visible vein mineral present.

Description of Workings:

Silver Glance Adit. This working is the most northerly and is being driven in a S-E direction in the hopes of intersecting the mineralization down dip from the Noranda Adit. This adit when last seen was 740' long. The

remaining distance to the Lower Star limestone is open to speculation. The limestone as projected should have been intersected at about 720 ft. The workings are entirely in a hornblende schist. Small bedded fractures have been intersected from time to time and efforts to follow them have not been successful. At times these fractures are filled with quartz or calcite. A small raise was driven on one such fracture and six tons of hand-picked ore was shipped yielding values in silver only (23 oz. per ton).

Noranda Adit. Reference is made to Map No. 2 appended to this report. These workings were the only ones seen that would prevent the possibility of blocking out a reasonable tonnage of ore. The ore as exposed by the workings is completely fracture-controlled. A westerly vein fracture was exposed for a length of 350 ft. This fracture displaced the footwall of the limestone 30 feet. At an point halfway between the displaced walls a mineralized fracture enters the main fracture from the footwall. From this point to the face of the crosscut, a distance of 80 ft. an ore chute was developed. A fracture on the hangingwall of the limestone extends southeasterly from the main fracture and developed ore for 35 ft. at which point the mineralization pinches out. The drift continues until it intersects another cross fracture which is unmineralized except for limonite which is present on the fault plane. A description of the assay values has previously been given by Mr. Macrae and it suffices to say that the potential of this mineralization is calculated to be 34 tons per slope ft; giving 2,000 tons of proven ore above adit level. This ore cannot be expected to continue for more than 100 ft. slope distance below adit level. It may be possible to block out about a total of 7,000 tons of ore providing the vein fractures stay within the limestone bed.

Hercules Workings. Reference is made to Map No. 3 appended to this report. These two tunnels were driven into the Star Limestone 1100 ft. south of the Noranda workings and explore cross fractures found in surface pits 60 ft. above the adits. These pits were examined and found to contain oxidized mineralization over widths of up to 3 ft. at the widest part. On the surface the most promising cross fracture was opened up for a distance of 10 ft. The mineralization was seen to pinch at the east end to less than a foot in width. A tunnel (Adit No. 5) driven on the fracture 60 ft. below the pit failed to encounter any appreciable mineralization although evidence of mineral was present within the fault planes; and at one locality a 2 ft. area adjacent to the cross fracture was lightly mineralized with sphalerite and galena. The second tunnel (Adit No. 4) 250 ft. south of the one described was driven on a less promising surface showing and similar results were met with. These workings indicate that the mineralization located in the pits above pinches out before it reaches adit level. There are no indications of ore chutes of commercial possibilities existing in these workings. It is in the vicinity of these workings that the Asbestos Corpn. did a limited amount of shallow drilling with little success.

Ayesha Workings. Reference is made to Map No. 4 appended to this report. These workings are located some 5300 ft. south of the Hercules workings and are situated within the Lower Star limestone. Surface pits indicated two cross fractures trending N.W. approximately 200 ft. apart cutting the hanging-wall of the limestone and displacing it normally for 20 ft. In the southerly-most pit a cross fracture is mineralized up to 3 ft. in width. Two ft. inside the hangingwall of the limestone 2.5 ft. of mineralization occurs parallel to the hangingwall of the limestone adjacent to a bedded fracture. The

northerly pit is a repetition of the southern one. Extensive underground workings explore these fractures and fractures similar to them. At no place was mineralization similar to the surface exposures seen. Forty ft. from the end of the drift a fracture was followed northerly along strike for 80 ft. Mineralization was noted along the fracture plane in width up to 2". At the junction of the drifts a two ft. width was noted for a length of 5 ft. A small raise was driven on this showing proved it to pinch out 7 ft. above drift level. A raise from the south end of this drift followed up the fracture and broke through to the surface in the southerly pit. The raise was in poor condition. However, at 40 ft. above drift level the mineralization had widened to 6 inches. Evidence of drilling was seen underground and indicated that this drilling intersected nothing of interest.

These workings are the best example to show the erratic nature of the mineralization within the Lower Stat limestone. Although fracture-controlled the mineral occurs in small pods within the fractured area and the distance between the pods is considerable.

Workings on the No. 5 Fracture. Reference is made to Maps 5 & 6 appended.

These showings occur wholly outside the limestone belts and in the hornblende schists and quartzite. Two adits explore a fissure striking in a northerly direction and paralleling the bedding. The fractures change strike and dip quickly after swinging into the bedding and schistosity. At two localities a small amount of vein mineral was noted consisting chiefly of pyrite and vein quartz over widths of 1 to 2 inches. These reasons for these extensive workings was to explore a fissure exposed in an old prospect shaft above the workings. A few pieces of galena ^{WERE} ~~was~~ noted about the collar of the shaft. These workings although extensive present no possibility for the development of commercial mineral.

Pits and Surface Workings.

Numerous pits and trenches were encountered in traverses made on the surface. Most of these pits are located within the Star limestone and explore small fractures containing various amounts of galena and sphalerite. In all cases the fracture exposed was of small strike length and erratically mineralized and fully developed making further trenching on them useless.

Assays and Values:

These are base metal deposits in which case it is possible to make a visual estimate of metal content. This fact coupled with the fact that no area of continuous mineralization or of mineable widths outside of the Noranda workings ^{WERE} was seen and therefore would not justify the time and expense of systematically assaying the various workings. The Noranda workings had previously been sampled by Triumph Mines Inc. and checked by Rod Macrae.

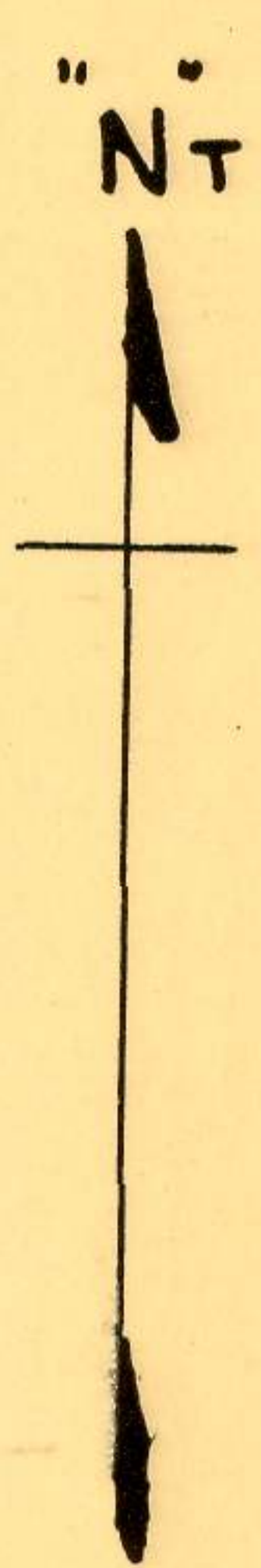
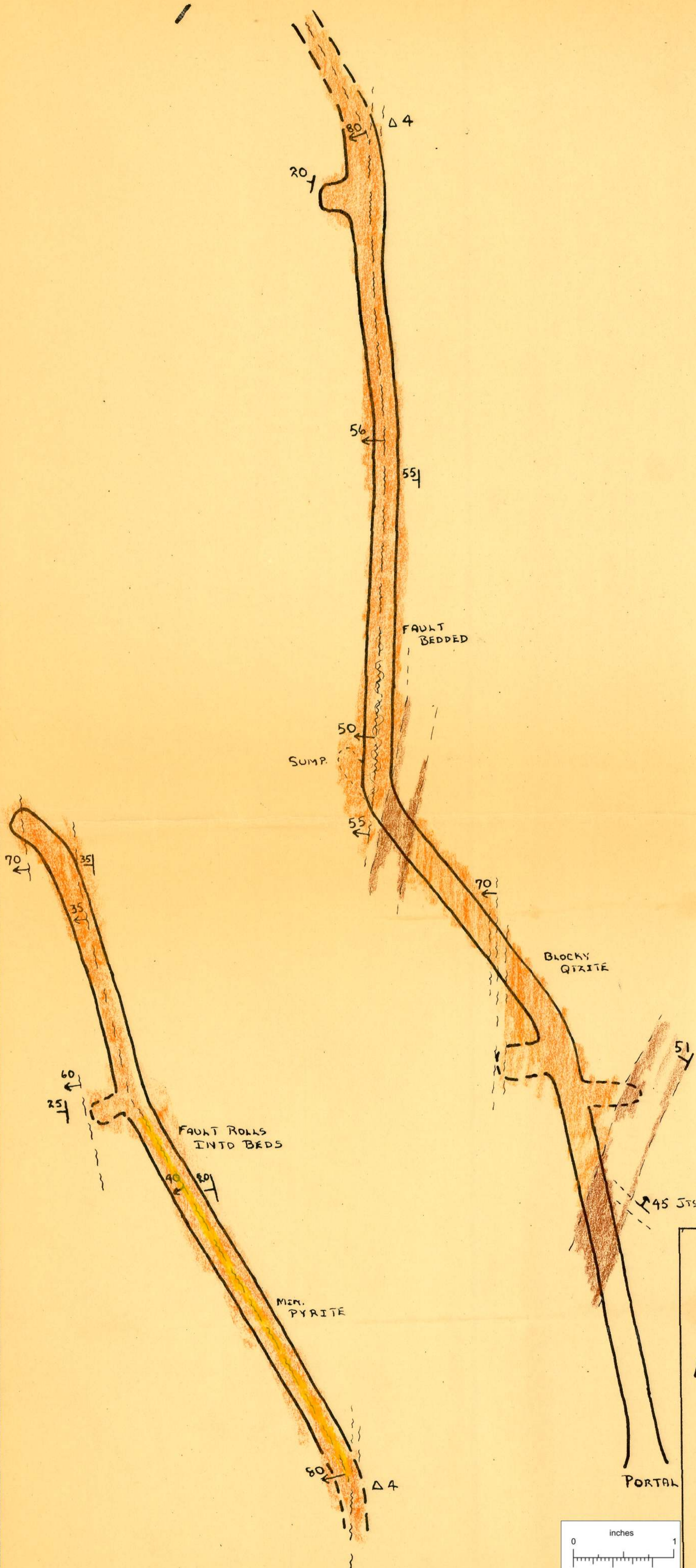
Summary:

The geology of the area is represented by a complex series of folded and contorted sedimentary and volcanic rocks. No relationship could be seen locally between the fracture pattern and the fold structures. The majority of workings on the Triumphground are located within the Star limestone. Fractures of various attitudes were seen and in some cases locally mineralized with lead and zinc. The ore occurs as fracture fillings and fracture replacement. The fractures are local and of small displacements and in most places confined to the more competent rocks. The occurrence of ore is erratic within the fractures and except at the Noranda workings none of commercial value is exposed to date. The deposits differ from those of the Western Mines and Yale Lead & Zinc. A possibility of finding additional ore exists however it is felt that the amount of ore possible to find would not justify the heavy exploration expenses necessary.

Respectfully submitted,

July 11, 1956.
Vancouver, B.C.

C. J. Brown



TRIUMPH MINES INC.
GEOLOGICAL PLAN
ADIT NO. 1 NO. 5 M.C.
LEGEND

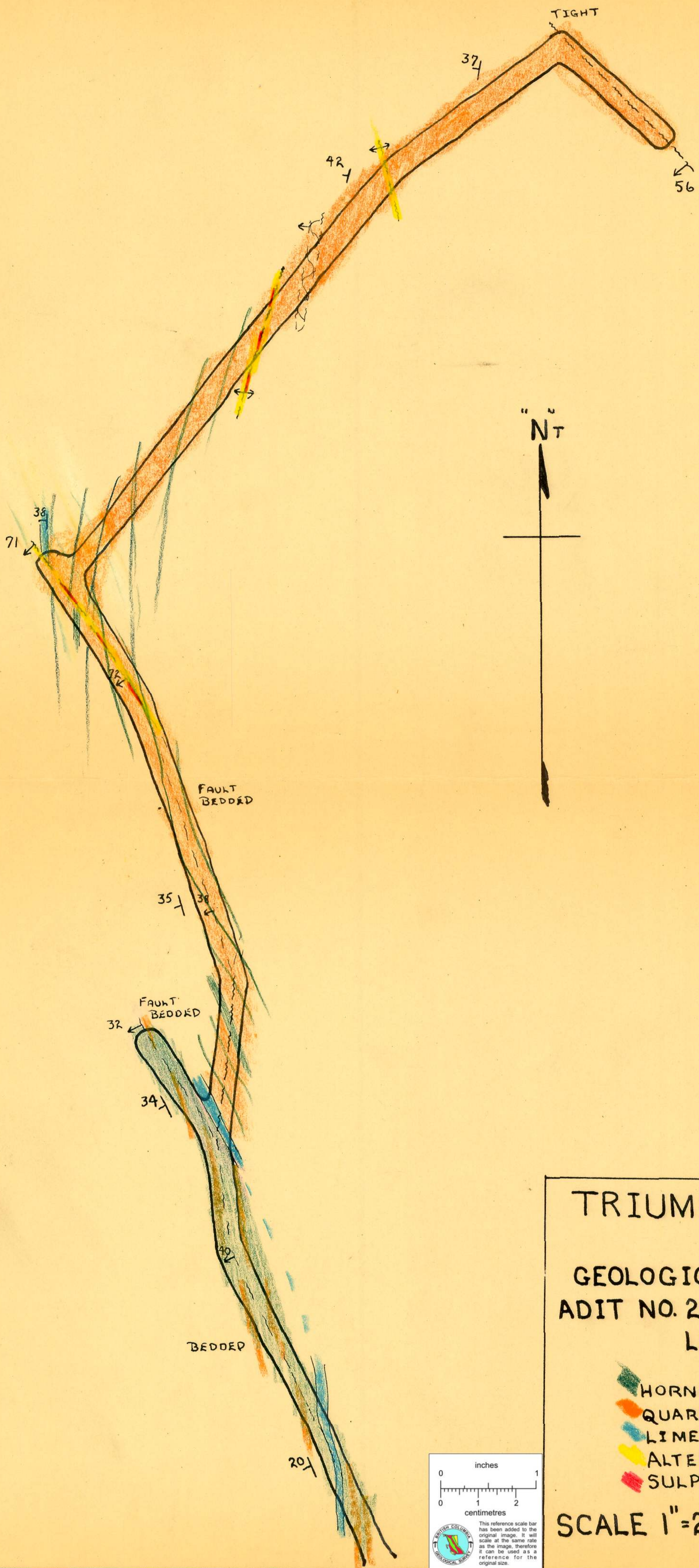
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- █ QUARTZITE
- █ GRANITIC SILL
- █ ALTERATION
- █ SULPHIDES



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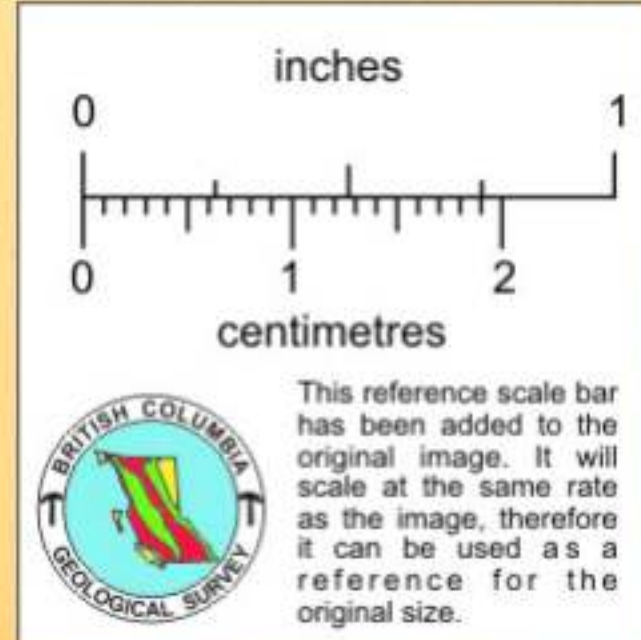
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Handwritten initials/signature



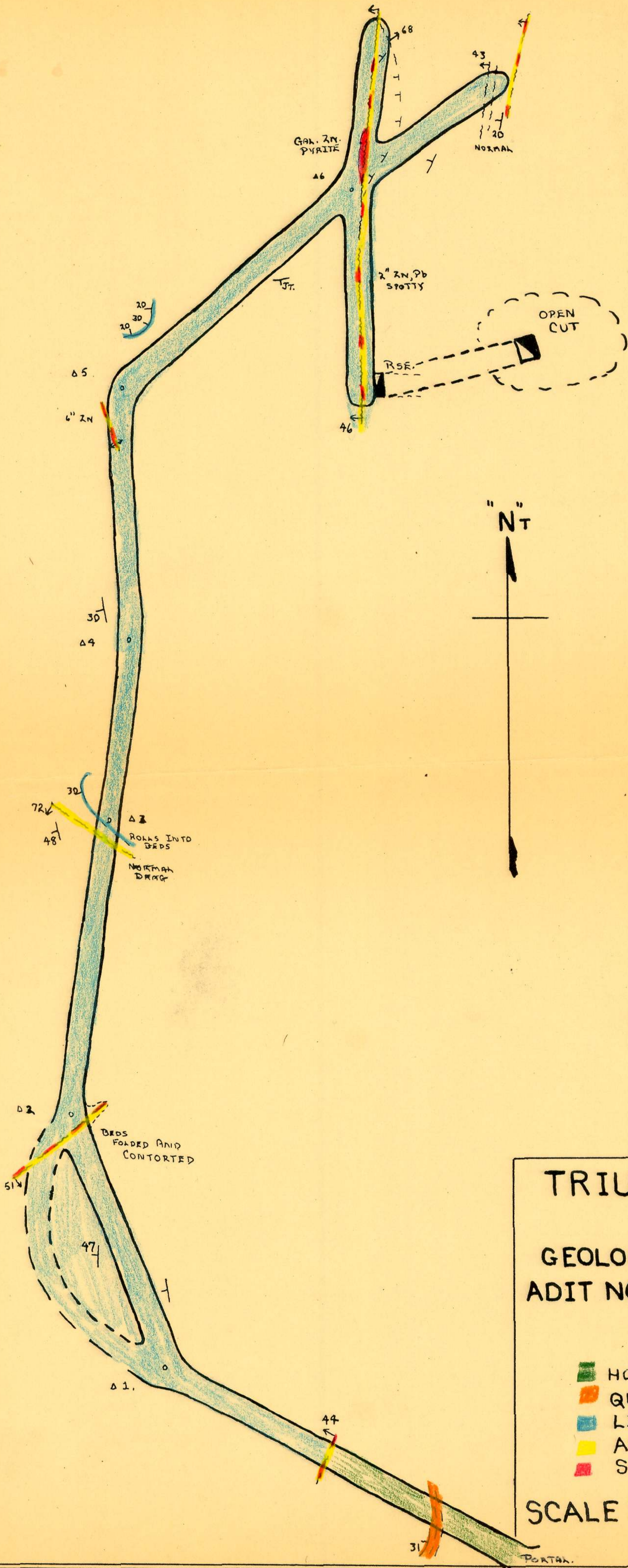
TRIUMPH MINES
 INC.
 GEOLOGICAL PLAN
 ADIT NO. 2 NO. 5 M.C.
 LEGEND

- █ HORNBLENDE SCHIST
- █ QUARTZITE
- █ LIMESTONE
- █ ALTERATION
- █ SULPHIDES



SCALE 1"=20' JULY/56

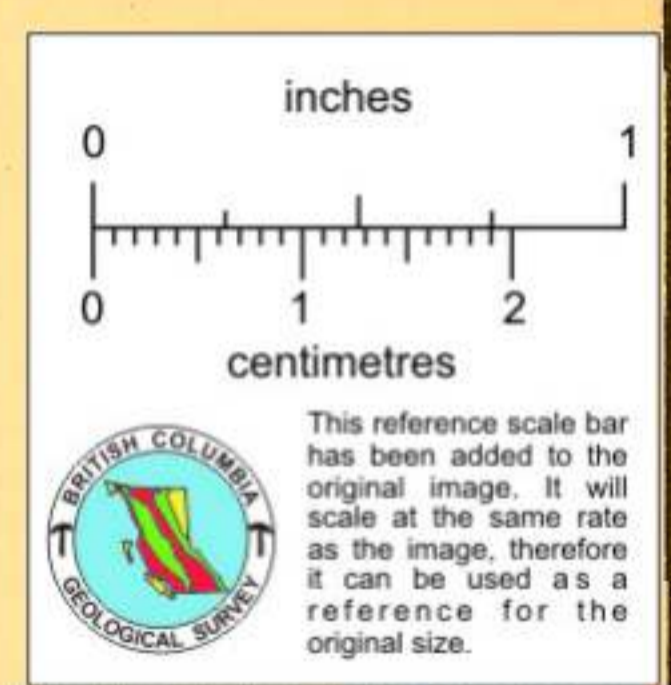
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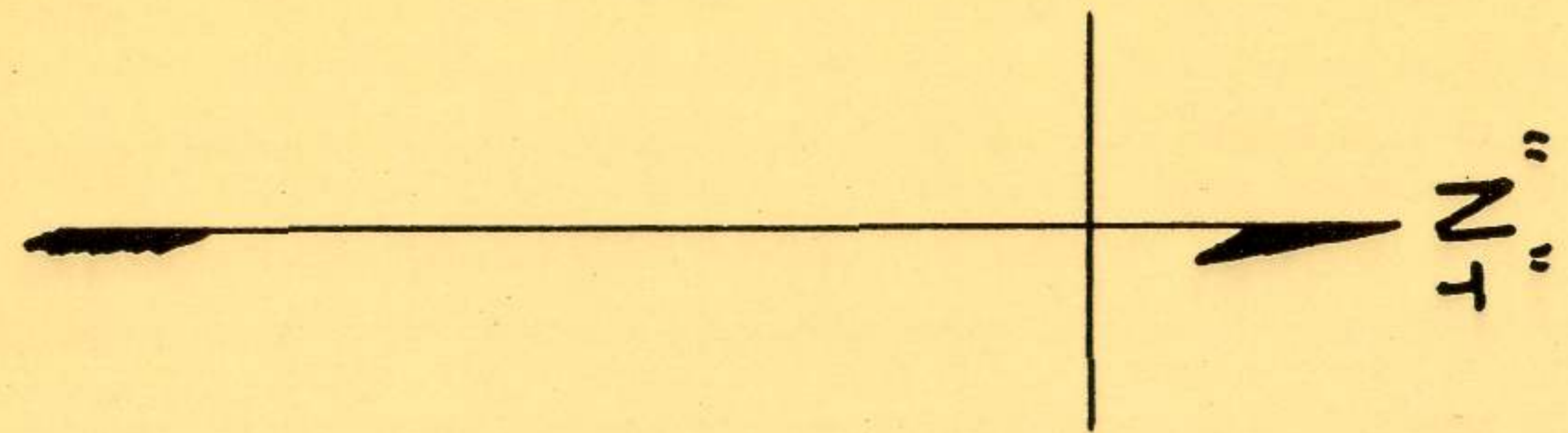
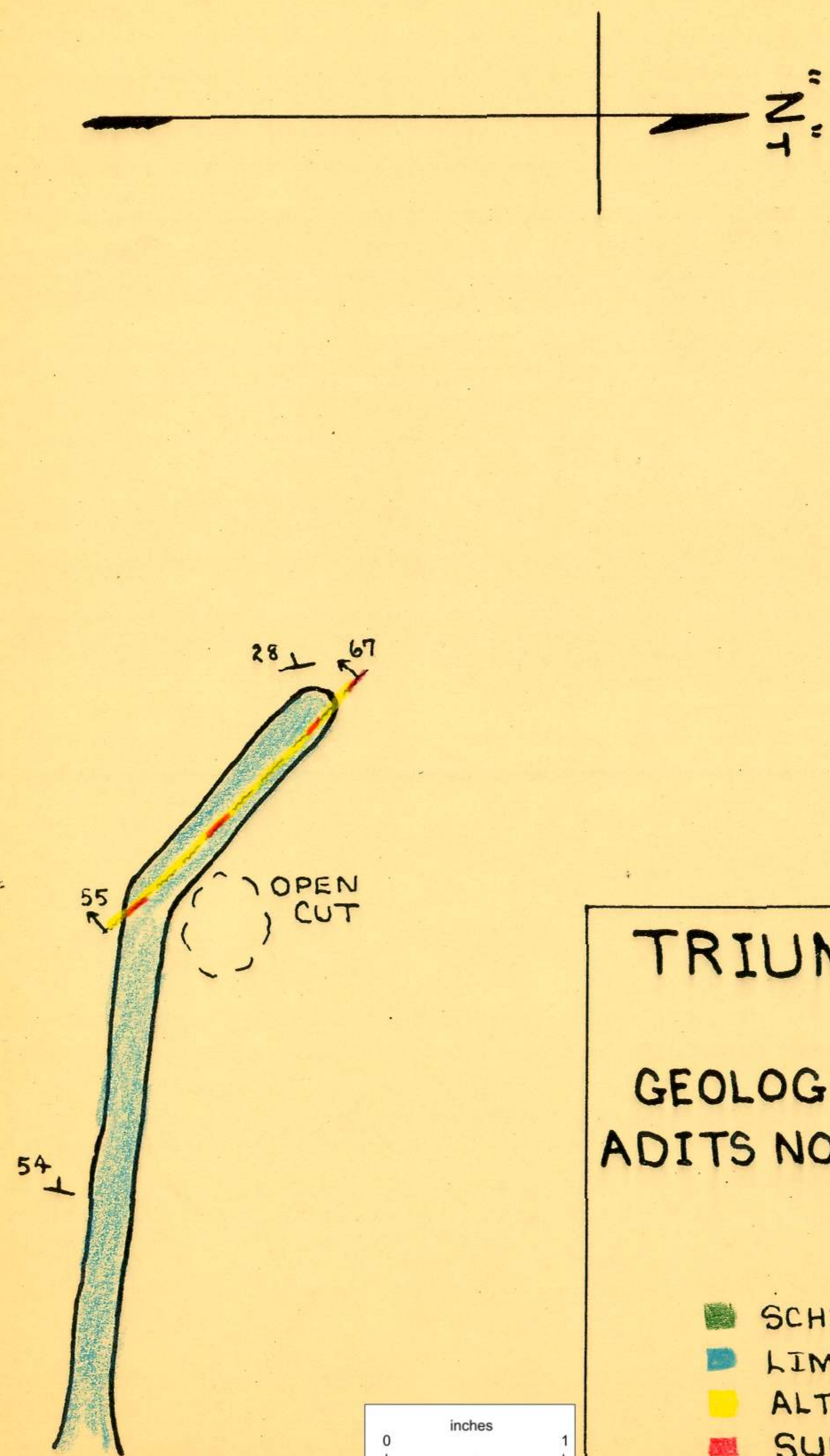
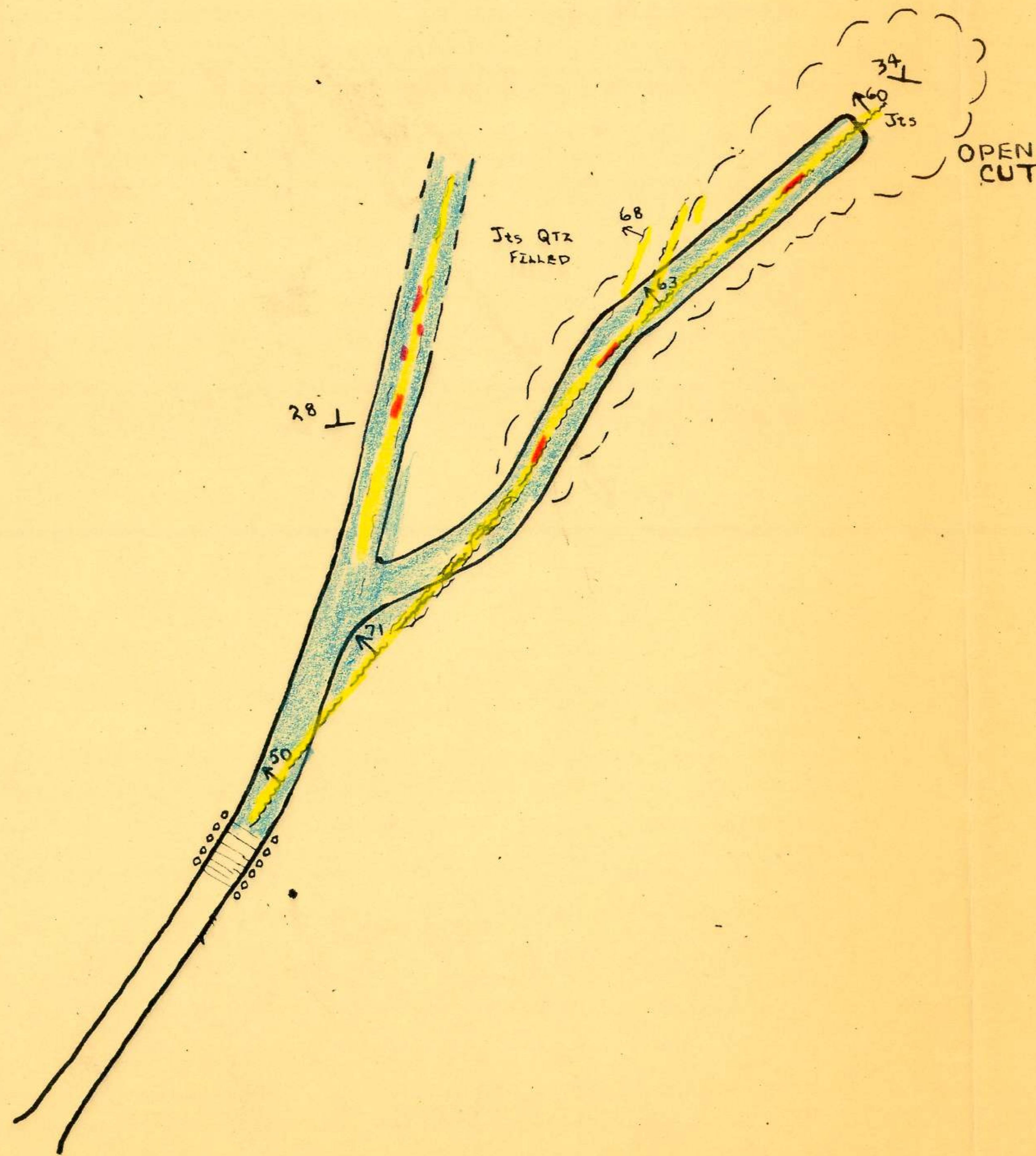
TRIUMPH MINES INC.
GEOLOGICAL PLAN
ADIT NO. 3 AYESHA M.C.
LEGEND

- HORNBLLENDE SCHIST
- QUARTZITE
- LIMESTONE
- ALTERATION
- SULPHIDES

SCALE 1"=20' JULY/56



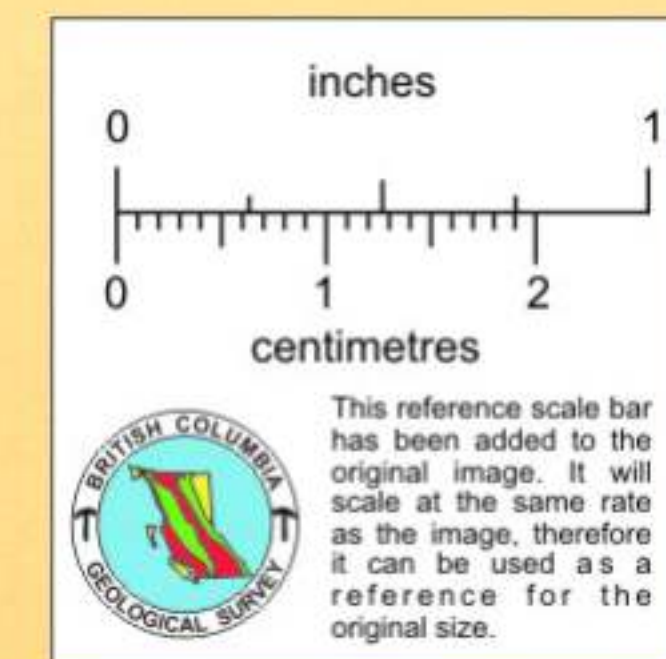
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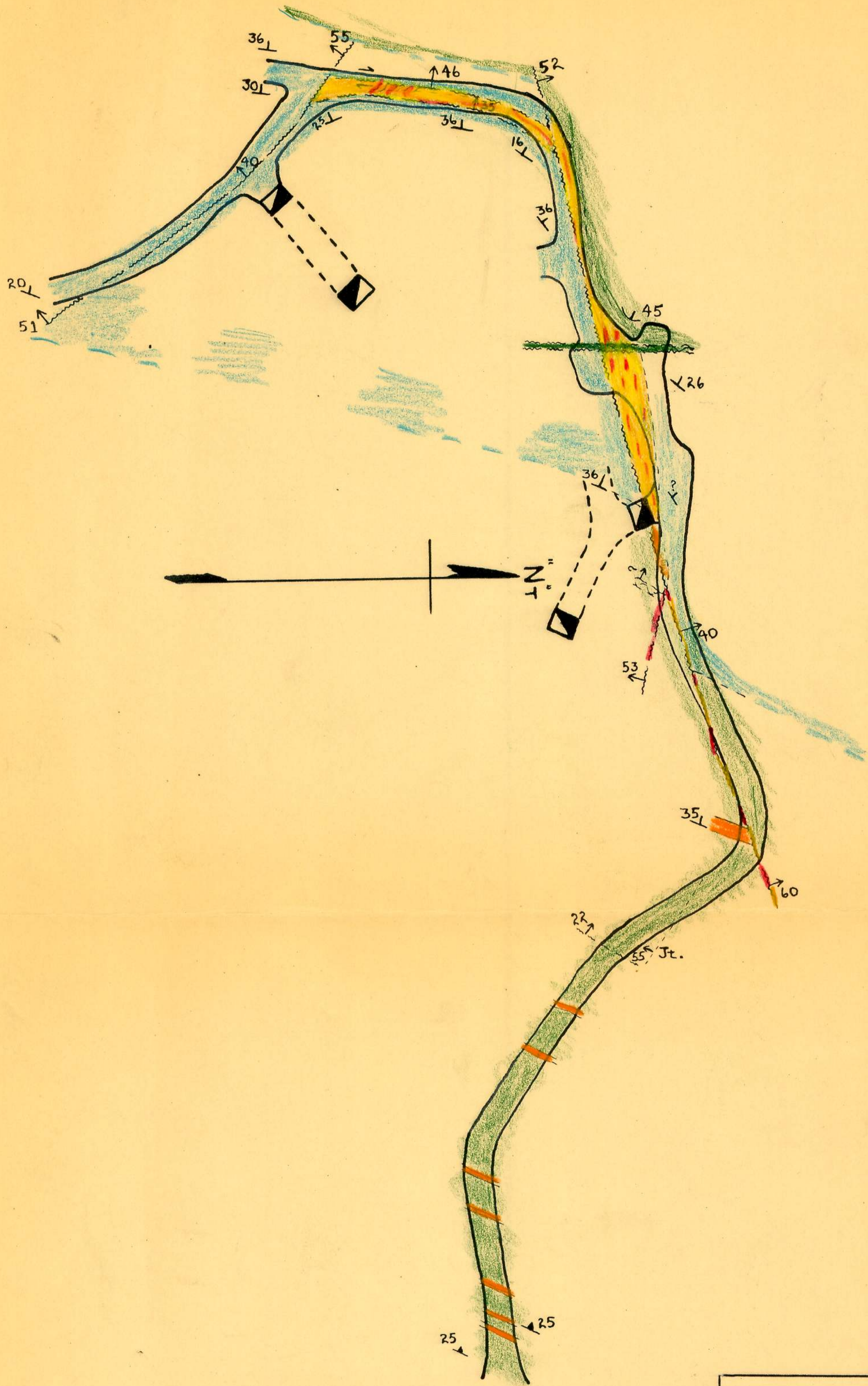


TRIUMPH MINES
 INC.
 GEOLOGICAL PLAN
 ADITS NO. 4+5 SULLIVAN
 M.C.
 LEGEND

- SCHIST
- LIMESTONE
- ALTERATION
- SULPHIDES

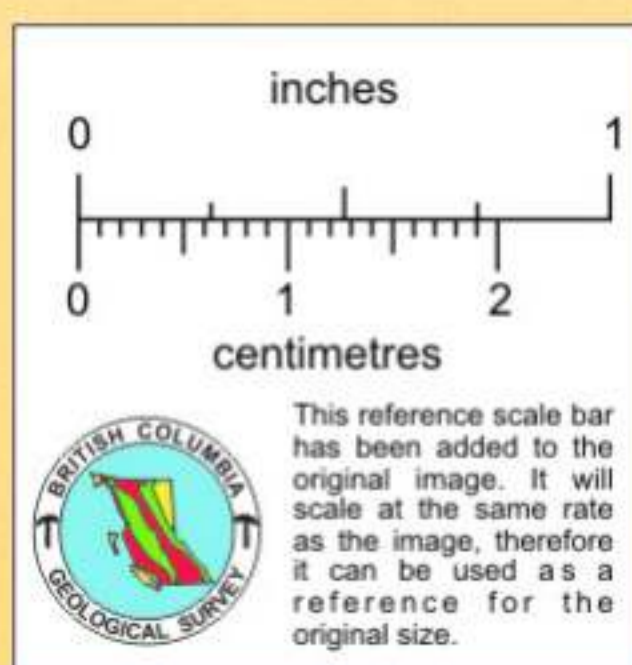
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TRIUMPH MINES
 INC.
 GEOLOGICAL PLAN
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 LEGEND

- HORNBLENDE SCHIST
- QUARTZITE
- LIMESTONE
- ALTERATION
- SULPHIDES



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