

675098

GSC 88-

SERICITE, MUSC.

160 \pm 2 Ma

Wt % K = 8.899

Rad. Ar = 5.791 \times 10⁻⁵ cc/cm

% Atmos. Ar = 8.6

K-Ar 3733

NTS = (41 J 1) rock type: From a sericite alteration envelope on Mo vein.NTS 104 N/12 Location: 7.8 km SE of Athin, B.C.In valley midway between Union and Monarch
Mtns.Lat/Long: 59° 32' 15" N; 133° 35' 20" W

Sample DY-2957

Collected and interpreted by K.M. DAWSON

Interpretation and References:

A small, previously unmapped granite stock that intrudes Cache Creek ~~granite~~ Group greenstone, serpentized peridotite, chert and argillite was dated (#KAr, 3734b, : 167 \pm 3 Ma), along with sericite envelopes from one of six quartz-molybdenite-pyrite veins; 130-140/90. Mineralization is 7 Ma younger than the host pluton. Mo mineralization at Adanae porphyry Mo deposit 22 km to northeast is notably younger: Mo-bearing phases of the Surprise Lake batholith average 71 Ma (Christopher, 1982). The stock may be a northwestern extension of the Middle Jurassic Three Sisters plutonic suite (G. Woodsworth, pers. comm., 1988)

GSC 85-

Biotite
167 ± 3 Ma

Wt % K = 6.187
Rad. Ar = 4.199 * 10⁻⁵ cc/cm
% Atmos. Ar = 8.1

K-Ar 3734

NTS = ~~(41 J +)~~ rock type: From a Biotite granite

NTS = 104 N/12

Location: 7.8 km SE of Atlin, BC

In valley midway between Union and Monarch Mtns

Lat/Long: 59° 32' 15" N 133° 35' 20" W

Sample DY-2958

Collected and interpreted by K.M. DAWSON

Interpretation and References:

A small granite stock, about 750 m in diameter, was located during mineral deposit studies in the Atlin area. It was not mapped previously by Atkin (~~1960~~¹⁹⁵⁹).

The rock is a porphyritic K-feldspar-biotite granite that contains: pale pink ~~K~~ K-feldspar phenocrysts up to 2 cm (40%); in a medium-grained matrix of quartz (35%); white plagioclase (An₁₀₋₁₅) (15%); brown biotite (unaltered) 8%; accessory sphene, magnetite (2%).

The stock intrudes andesitic gneiss, serpentized peridotite, chert and argillite of the Pennsylvanian and Permian Cache Creek Group. The stock is intruded by aplite and hornblende porphyry dykes, and is veined by six quartz-molybdenite-pyrite veins enveloped by sericite (# 3733m, KAr: 160 ± 2 Ma)

A shear zone, 120/90, adjacent to the stock contact contains an assemblage of quartz-pyrite-galena-minor Au similar to other lode Au occurrences in the Atlin area. Galena-Pb isotopes from this occurrence are concordant with galena-Pb from 3 other Au veins in the camp.

The granite stock and Mo mineralization are of Middle Jurassic age, notably older than the phases of the Surprise Lake batholith associated with the Adanac porphyry Mo deposit, 22 km to the northeast that were dated by P.E. Christopher (KAr, biotite, average of 7 : 71 Ma; 1982)

Au-Pb mineralization is interpreted to be related to the Middle Jurassic stock and/or dykes. Au-bearing veins occur on nearby Monarch and Union Mountains, associated with undated minor granitoid intrusions and hosted by rocks of the Cache Creek Group. The stock may be a ~~northwestern~~^{western} extension of the Middle Jurassic Three Sisters plutonic suite (G. Woodsworth, pers. comm. 1988)

References

Aitken, J.D.

1959: Atlas Map-Area, British Columbia (104N); Geological Survey of Canada, Memoir 307, 89 p.

Christopher, P.A.

1982: Preliminary map no. 52 Geology of the Ruby Creek - Baulden Creek area (Adanac Polymetallic Deposit); British Columbia Ministry of Energy, Mines and Petroleum Resources, 5 sheets.

February 10, 1988

To: *K. M. Dawson*

I am now preparing the compilation of K-Ar ages for our 1988 Report. My records indicate that you are responsible for their interpretation. If this is not the case then could you please forward them to those that are responsible.

Attached are two sheets. One is the original requisition that you filled out prior to submitting your samples. This is for you reference. The second is a form that approximates the final published K-Ar data. Could you please fill out the missing sections that pertain to the NTS, rock type, location, and Lat/Long. The final section is an interpretation of the results and the accompanying reference. The text should be typed and in a form suitable for publication with a minimum of editing. Please attach it to the data sheet.

We have a very strict deadline for our publication, therefore, could you please return this form by March 31, 1988. If you foresee a problem returning the data by the above deadline, please contact me as soon as possible to make alternate arrangements. If you have any questions please do not hesitate to call me at (613) 995-4354.

mailed Feb 18/88

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