



Energy, Mines and  
Resources Canada  
Geological Survey of Canada  
100 West Pender, Vancouver  
V6B 1R8

Énergie, Mines et  
Ressources Canada  
Commission géologique du Canada  
100, ouest, rue Pender, Vancouver  
V6B 1R8

675104  
104N/12  
AtlinGold

Your file    Votre référence

Our file    Notre référence

To Cathy Anderson:

Feb 2/85

Atlin Pb isotope analyses received from George  
Cummings, UoA, Jan 18/85

Spec No & Description	206/204	207/204	208/204
<u>DY 2960</u> Golden View, Cabin zone Sheared quartz-pyrite-galena vein adjacent to aplite dike & sheared Vale's	18.879	15.635	38.607
<u>DY 2987</u> Surprise vein, Spruce Mtn. coarse grained galena, pyrite, visible Au (trace) near adit portal	18.834	15.647	38.661
<u>DY 2987A</u> S-isotope specimen run for Pb by mistake. Duplicate re-run	18.835 18.828	15.660 15.658	38.686 38.698
<u>DY 2990</u> Discovery vein, Headwaters of Spruce + McKee Cks: small quartz-galena-pyrite (oxidized) carbonate vein from Trench 20-2	18.886	15.654	38.706

Kenneth M. Dawson

Geologic Jan 20/85

Report # 3

No.	$\frac{206Pb}{204Pb}$	$\frac{207Pb}{204Pb}$	$\frac{208Pb}{204Pb}$	SAMPLE I.D.
1	18.446	15.638	38.353	SP4503(pol. thin sec.) Yana
2	18.326	15.615	38.191	SP4530(pol. thin sec.) Yana
3	18.189	15.611	38.115	LS-SI-I-464 Cape Breton
	18.187	15.611	38.136	repeat * " "
<i>Cuzn WISn skn</i> 4	18.740	15.652	38.641	DY1161 (comm. 1) CIN-BAR (ck) <sup>(boulder)</sup>
5	19.331	15.708	39.780	DY2914 <i>Rancheria</i>
6	19.582	15.739	39.805	DY2918 <i>CMC deposit, Swift R.</i>
7	19.635	15.746	39.833	DY2919 <i>YP deposit, midway Dist.</i>
8	19.643	15.763	39.865	DY2920 " " " "
9	19.667	15.765	39.871	DY2921 " " " "
10	18.334	15.638	38.376	DY2935 <i>Cottonwood, Dakota zone</i>
11	18.831	15.661	38.672	DY2950B <i>Lakeview vein, Atlin</i>
	18.834	15.668	38.705	repeat " "
12	18.879	15.635	38.607	DY2960 <i>Golden View, Cabin zone, Atlin</i>
13	18.834	15.647	38.661	DY2987 <i>Surprise vein, Atlin</i>
14	18.835	15.660	38.686	DY2987A <i>Surprise vein, Atlin</i>
	18.828	15.658	38.698	repeat * " "
15	18.886	15.654	38.706	DY2990 <i>Discovery vein, Atlin</i>
16	18.085	15.616	38.127	LS-S#2-693 <i>Cape Breton</i>
<i>One Hill, New Hamp.</i> 17	18.073	15.557	37.785	TQ84-11
" " " 18	18.070	15.551	37.770	TQ84-12
<i>St. Pierre, Lab Trough</i> 19	15.001	15.203	35.296	TQ84-76
<i>Billy Boy, Man.</i> 20	15.404	15.139	35.001	TQ84-152
<i>Wright Mine, Cobalt</i> 21	14.692	15.090	34.300	TQ84-153
<i>Agassiz, Man</i> 22	15.474	15.186	35.063	TQ84-154 (comm. 2)
" " 23	15.493	15.198	35.100	TQ84-155
<i>Walters Twp., Ont</i> 24	14.698	15.054	34.431	TQ84-156 <i>Jellicoe Area</i>
<i>Athona mine, Sask.</i> 25	16.120	15.433	35.372	TQ84-158
<i>Box Mine, Sask.</i> 26	23.092	16.313	38.400	TQ84-159 (comm. 3)
<i>South Bay</i> { 27	13.272	14.427	33.100	TQ83-102 (fraction A)
<i>mine</i> { 28	13.271	14.425	33.098	" (fraction B)
<i>Lac Brisson</i> 29	15.315	15.140	35.552	PYR81-0128 } <i>Strange Lake, Lab.</i>
" " 30	15.680	15.176	37.014	PYR81-0214 }
31	18.576	15.669	38.625	PCHR-7553 }
32	18.640	15.676	38.705	XYHP JB 83* } <i>for Jonasson</i>
	18.632	15.669	38.695	repeat } <i>Howards Pass area,</i>
33	18.553	15.662	38.578	XY29-317 } <i>Yukon</i>
34	18.640	15.670	38.688	XY29-562
35	18.618	15.673	38.682	ANNIV 3A3*
	18.626	15.679	38.697	repeat
36	13.311	14.517	33.132	TQ83-117(fraction A)(comm. 4)
<i>Trout Bay, Ont.</i> { 37	13.343	14.525	33.170	" ( " B)
38	13.287	14.515	33.108	" ( " C)
39	13.507	14.563	33.370	" ( " D)

Trace lead

<i>Cochran Mine</i> 40	13.472	14.613	33.233	TQ83-101 Jamesonite(pol. sec.)
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\* - preferred value



## COMMENTS

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Comm. 1

DY1161

CIN-BAR

Sample consists of mainly Py, possibly some Cpy and much silicates. Very few small grains of Gn are present. Picked out few tiny crystals of Gn under the microscope.

Comm. 2

TQ84-154 Sample consists of mainly Sph and well crystallized Gn. Picked out few grains of Gn under the microscope.

Comm. 3

TQ84-159 Sample consists of Qtz, Sph, Py and some Gn. Picked out few Gn grains for analysis.

Comm. 4

TQ84-117 Sample consists of Py, possibly Cpy, large amount of clear and honey coloured silicate grains. Very few fine grains which are difficult to pick were present. Fractions A and B were treated as if all of the material was Gn. Fraction C was an attempt to obtain Gn rich separate. Fraction D was material left over after picking out the Gn grains. There is no more material left.

Route to:

Initials

Date

K-Ar 3733m

Head, Geochronology Section  
Age Determination Committee  
Chief, R & EG Division

Age det. prog.   
or  
'Spot age'

Project No.: 740098 Project Officer: Dr K.M. Dawson Date: 19/09/84

AGE DETERMINATION METHOD:

Isotope system: Rb - Sr -  K - Ar -  U-Th-Pb -  Other: \_\_\_\_\_  
Type: Isochron -  Single determination -  Concordia  Test -   
Material: Whole rock  Mineral(s) - : Sericite (muscovite)

SAMPLE INFORMATION:

Collected by: K.M. Dawson Field Note Reference: DY 2957 - Athin.

Sample No.: DY 2957 Specimen No.: DY 2957 Thin Section No.: DY 2957

Nos. of related samples submitted for age det. -  DY 2958

OR  
Sample Nos. submitted for isochron test -  DY 2960 Plaisance, galena, Cabin zone  
DY 2960A S isotopes, galena + pyrite, "

For single samples:

Specimen -  Grab -  Chip -  Mineral -  Other: \_\_\_\_\_  
Fresh -  Altered -  Weathered -  Any weathered surfaces? \_\_\_\_\_

If in rock, content of mineral(s) to be dated: Sericite 20%; \_\_\_\_\_, \_\_\_\_%. Approximate sample weight: 2 lb.

LOCATION AND REFERENCE:

UTM: Zone- E- N-

Province: BC NTS: 104N/12 Longitude: 59° 32' 15" W; Latitude: 59° 32' 15" N

Topographic location: Small stock in vicinity of small lakes midway between Union and Monarch Mts, Athin. On Golden View property of Del Norte M.L.

If applicable, map-unit No.: \_\_\_\_\_, & reference: Newly recognized platon.

GEOLOGICAL INFORMATION: Geological setting (rock association, structure, etc.):

Small granite plug intrudes Cache Ck Gr Ultrabasic + sediments, volcanics. Contains 6 qtz-molybdenite veins 130-140/90. Enclosed by sericite. Mo32 as coarse rosettes; minor pyrite, no visible Au.

Macroscopic description (rock name, type, grain size, texture, etc.): Sericitized granite - pyrite, quartz.

Microscopic description (mineral composition, etc., with special reference to the mineral(s) to be dated): Thin section in preparation.

AGE PROBLEM: Obtain KAr date on sericite to determine age of molybdenite mineralization relative to (1) age of granite (see DY 2958) and (2) age of Au-quartz veins (DY 2953, 2954, 2966 and 2967). Compare to Pete Christopher's Surprise L Bath. data.

Comments by Geochronology Section:

mica is visible + separable proceed.

Route to: \_\_\_\_\_ Initials \_\_\_\_\_ Date: K-Ar 3734B  
 Head, Geochronology Section \_\_\_\_\_ Age det. prog.   
 Age Determination Committee \_\_\_\_\_ or  
 Chief, R & EG Division \_\_\_\_\_ 'Spot age'

Project No.: 740098 Project Officer: Dr KM Dawson Date: 19/09/84

AGE DETERMINATION METHOD:

Isotope system: Rb - Sr -  K - Ar -  U-Th-Pb -  Other: \_\_\_\_\_  
 Type: Isochron -  Single determination -  Concordia  Test -   
 Material: Whole rock  Mineral(s) - : Biotite

SAMPLE INFORMATION:

Collected by: KM Dawson Field Note Reference: DY 2958 - Athin

Sample No.: DY 2958 Specimen No.: DY 2958 Thin Section No.: DY 2958

Nos. of related samples submitted for age det. -  DY 2957

OR Sample Nos. submitted for isochron test -  DY 2960: Pb isotopes on galena vein Cabinzone  
DY 2960A S isotopes on PbS, FeS2 " "

For single samples:

Specimen -  Grab -  Chip -  Mineral -  Other: \_\_\_\_\_

Fresh -  Altered -  Weathered -  Any weathered surfaces? \_\_\_\_\_

If in rock, content of mineral(s) to be dated: biotite 15%; \_\_\_\_\_, \_\_\_\_\_%. Approximate sample weight: 5/16

LOCATION AND REFERENCE:

UTM: Zone  E  N

Province: BC NTS: 104N/12 or Longitude: 133°35'20" W; Latitude: 59°32'15" N

Topographic location: Small unmapped granite stock in vicinity of small lakes in valley midway between Union & Monarch Mtns, Athin.

If applicable, map-unit No.: \_\_\_\_\_, & reference: Newly recognized pluton

GEOLOGICAL INFORMATION: Geological setting (rock association, structure, etc.):

Small granite plug ~750m diameter, intruded Cache Ck greenstone (andesite), ultramafics & sediment. Aplite & hornblende porphyry dikes. Sheared host rock to at E side (Cabinzone) at ~120/90

Macroscopic description (rock name, type, grain size, texture, etc.):

porphyritic granite, K-spar phenocrysts to 2cm, fine to medium grained quartz-biotite-plagioclase matrix. Accessory sphene(?) + garnet(?). Biotite fresh.

Microscopic description (mineral composition, etc., with special reference to the mineral(s) to be dated):

Thin section in preparation.

AGE PROBLEM:

Obtain KAr date on biotite to establish pluton age relative to other plutonic rocks in vicinity  
 ② qtz-moly veins  
 ③ qtz-Au veins and related alteration. Compare to Surprise & Bathurst age.

Comments by Geochronology Section:

proceed - ok for bi