Crowsnest
882147

FOX GEOLOGICAL CONSULTANTS LTD.
1409 - 409 Granville Street
Vancouver, BC V6C 1T8
Telephone # (604) 669-5736
Fax # (604) 681-3920

TO: BC EMPR

ATTENTION: TOM SCHROETER FAX # 775-0313

FROM: ROB CAMPBELL DATE: MAY 31/93

NO. OF PAGES (including cover) : 5

REMARKS:

AGE DATE DATA FOR HAZELTON INTRUSIVES - SAMPLE FROM DRILL CORE OF SYENITE JUST WEST OF TRACHYTE RIDGE. SORRY ABOUT THE QUALITY OF THE TWO DATA PAGES I HOPE THAT CAN STILL BE OK SEE YOU THIS SUMMER

Rob

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

Your file / Votre référence

Our file / Notre référence

5 June 89

Dear Dave:

Please find enclosed the long awaited U/Pb data on your Howell Creek syenite. My apologies for the long wait; too many things on the go seems to be a characteristic trait of geochronologists. Anyway, as I understand that you're not so concerned with these data anymore, perhaps you can pass it on to whomever you feel would be most interested.

DG-F-87-3: Howell Cr. syenite

The two points which we ran produced lower and upper intercepts which agree well with other similar rocks from the region; further work would likely produce a more precise age, but is not really necessary due to the internal agreement with these other data. The two points indicate a significant contribution of old, inherited Pb. The age of this Pb is Early Proterozoic, similar to the age of inheritance from other intrusions in the region. The lower intercept (the crystallization age) is approximately 100 Ma.

So good luck on your future pursuits. If you have any questions, I'm going to be in the office (666-1128) during the first two weeks of July; I leave in a couple of days for the field for the rest of the summer, except for those days in July.

Cheers,

Don Murphy

LOG NO: 890609 CR
ACTION: original to Andrew Leggon
copy to Vic Preto
copy to R. Cameron
FILE NO: copy for me

(Fox Geological Consultants Ltd
1409 - 409 Granville St.
Vancouver V6C 1T8)

Canada

Sample Name or Number: [illegible] Sheet

Split Mineral	ppm U	ppm Pb	206	207	208	204	Meas. 206/204	Mole % Blank Pb	Rad. Pb / Rad+ComPb	Common Pb Age
[illegible]	303	49	106	14.3623	12.4241	0.0011	5222	1.0	.999	160/20

206Pb/238U ratio ±	207Pb/235U ratio ±	207Pb/206Pb ratio ±	206Pb/238U date ±	207Pb/235U date ±	207Pb/206Pb date ±
0.1493 ± [illegible]	[illegible]	0.1428 ± 0.00007	897.1 ± 3.1	1392.7 ± 2.9	2262.4 ± 0.8

Split Mineral	ppm U	ppm Pb	206	207	208	204	Meas. 206/204	Mole % Blank Pb	Rad. Pb / Rad+ComPb	Common Pb Age
[illegible]	684	24	100	10.8625	17.7533	0.0455	1550	1.02	0.974	160 ± 30

206Pb/238U ratio ±	207Pb/235U ratio ±	207Pb/206Pb ratio ±	206Pb/238U date ±	207Pb/235U date ±	207Pb/206Pb date ±
0.0316 ± [illegible]	0.4472 ± 0.00166	0.10238 ± 0.00017	201.1 ± 0.6	375.3 ± 1.2	1667.7 +3.0/−3.1

Split Mineral	ppm U	ppm Pb	206	207	208	204	Meas. 206/204	Mole % Blank Pb	Rad. Pb / Rad+ComPb	Common Pb Age

206Pb/238U ratio ±	207Pb/235U ratio ±	207Pb/206Pb ratio ±	206Pb/238U date ±	207Pb/235U date ±	207Pb/206Pb date ±
±	±	±	±	±	±

Split Mineral	ppm U	ppm Pb	206	207	208	204	Meas. 206/204	Mole % Blank Pb	Rad. Pb / Rad+ComPb	Common Pb Age

206Pb/238U ratio ±	207Pb/235U ratio ±	207Pb/206Pb ratio ±	206Pb/238U date ±	207Pb/235U date ±	207Pb/206Pb date ±
±	±	±	±	±	±

Split Mineral	ppm U	ppm Pb	206	207	208	204	Meas. 206/204	Mole % Blank Pb	Rad. Pb / Rad+ComPb	Common Pb Age

206Pb/238U ratio ±	207Pb/235U ratio ±	207Pb/206Pb ratio ±	206Pb/238U date ±	207Pb/235U date ±	207Pb/206Pb date ±
±	±	±	±	±	±

[illegible]

Isotopic composition of blank: [ ] S&K Modern Pb (6/4:18.7, 7/4:15.63, 8/4:38.63) or [X] Other (6/4:17.75 7/4:15.5 8/
Isotopic composition of common Pb based on S&K growth curve: 6/4=11.152, 7/4=12.998, 8/4=31.23 at 3.7Ga with 238U/204Pb=9.74, 232Th/204Pb=37.19; decay constants 0.155125, 0.98485, 137.88; or [ ] Other (6/4: 7/4:

U-Pb

☒ Concordia interpretation
Mineral or rock isochron

Sample Number(s) and Reference(s)
Lab No: DG-F-87-3

Ref:

Record No:
Suite No:
Sample Name:
Howell Cr Syenite

decay constant
☐ old: 0.1537/0.9722/0.0499/137.8
☑ new: 0.155125/0.98485/0.049475/137.88
☐ other:
☐ not reported

Upper Intercept — 2σ error
Computed ☑
Assumed ☐ 2346.84 ± 22 Ma

Lower Intercept — 2σ error
Computed ☑
Assumed ☐ 98.47 ± 10 Ma

$^{238}U-^{206}Pb$ date — Ma

$^{235}U-^{207}Pb$ date — Ma

$^{207}Pb/^{206}Pb$ date — Ma

$^{232}Th-^{208}Pb$ date — Ma

Number of Points: n=

Latitude: Longitude: (X° Y' Z" or X° Y.Y')
(c 49° N, 114° 36' W) Elevation:

UMT Zone E N Province:

Sec. T. R. Co., State

NTS 82G/2E Map Area (1:250,000)

Location: [illegible] claims of [illegible]
Source Type: Drill core
Rock Types: Syenite
Geologic Unit:
Geologic Setting:
Material Analysed: Zircon

Comment on Analyses:

Interpretation: Lower intercept ~100 Ma agrees with K/Ar ages from similar rocks in the region and from chemically similar Crowsnest Volcanics

Collected by: Dave Grieve BCGM
Dated by: [illegible]