CELEBRATING 10 YEARS!

YUKON GEOLOGY PROGRAM

'WHAT ABOUT THOSE EMERALDS, EH?'

Geological Setting of Emeralds At Regal Ridge (SE Yukon) Provides Clues to Their Origin - And To Other Places To Explore

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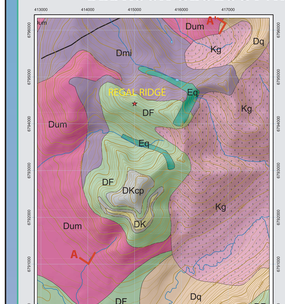
In 1998, a new occurrence of emeralds was discovered in Finlayson Lake area, southeastern Yukon. Emeralds occur in the alteration selvages of quartz-tourmaline (-scheelite-muscovite-beryl) veins cutting biotite-chlorite metavolcanic schist in the metamorphic aureole around one of the area's largest bodies of mid-Cretaceous granite. In the area of the showing, the mafic schist, part of the widespread Upper Devonian Fire Lake unit, is meta-basalt of boninitic composition (see spidergram below) which overlies a thick, laterally tapering slab of variably serpentinized mafic and ultramafic meta-plutonic rocks. Using various geometric and geological criteria, this slab is inferred to be a sill, comagmatic with the Fire Lake unit, which intruded laterally from feeder dykes localized along a nearby syn-volcanic fault.

BEDROCK GEOLOGY AT REGAL RIDGE



LEGEND

Intrusive Rocks

Tertiary
- Eq quartz porphyry

Cretaceous
- Kg granite

Late Devonian
- Dum serpentinized ultramafic rocks
- Dmi leuco-amphibolite

Layered Rocks

Upper Devonian
Kudz Ze Kayah unit
- DK felsic schist or phyllite
- DKcp carbonaceous phyllite

Fire Lake unit
- DF biotite-chlorite schist

Upper Devonian and Older
- Dq psammitic and metapelitic schist

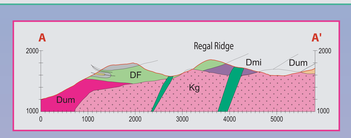
A — A' Line of cross-section (below)

0 1 2 Km

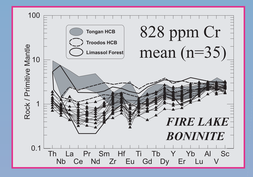
Projection: UTM Zone 9, Nad 83
DRAFT PLOTTED: January 8, 2003

Scale 1: 30 000

(Location of map indicated on Finlayson map at right)



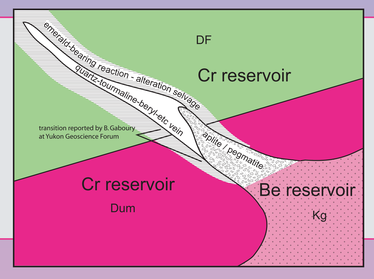
The orientations of the western granite contact and the contact between the Fire Lake unit and the co-magmatic mafic and ultramafic sill are such that the granite likely intrudes through the ultramafic sill at depth. Furthermore, the gentle orientation and local map trace of the granite contact suggests that the exposed granite is near its roof, ideal for the concentration of volatile-rich fluids.



The map trace of the western contact of the granite lies about 2 km east of the Crown showing. The granite is biotite-muscovite-bearing, discordant with respect to planar fabrics of the host metamorphic rocks, yet locally weakly foliated, indicating late- to post-kinematic emplacement. As with most Cretaceous granites in the area, tourmaline is a common accessory phase, occurring disseminated throughout the body or in quartz vein arrays both in and around the granite. The western contact of the granite is observed to be gently west-dipping, underlying the Crown showing at a relatively shallow depth.

EMPIRICAL MODEL FOR THE FORMATION OF EMERALDS AT REGAL RIDGE

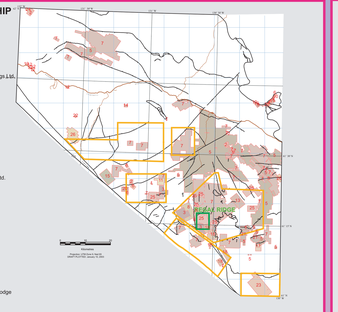
The intrusion of relatively evolved granite into rocks of Cr-rich rocks (mafic and ultramafic composition) seems an ideal setting for the formation of emeralds. The alteration of host mafic and ultramafic rocks by hot, volatile-rich fluids emanating via vein arrays off the roof of the granite would put Be in the same place as Cr, an obvious, but geologically difficult to attain, precondition for emerald formation.



Prospective Areas for EMERALDS in Finlayson Lake Area

Areas with GOOD GEOLOGY for EMERALDS

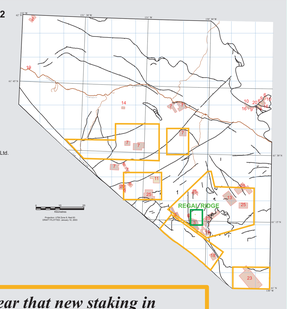
ACTIVE CLAIM OWNERSHIP



1 - Alex McMillan
2 - Archer, Cathro & Associates
3 - Arcturus Ventures Inc.
4 - Claude Audet
5 - Cominco Mining Worldwide Holdings Ltd.
6 - Denis Jacob
7 - Expatriate Resources Ltd.
8 - Firestone Ventures Inc.
9 - Gordon Peter
10 - Harold John
11 - Hinterland Exploration Ltd.
12 - Hudson Caesar
13 - International Arimex Resources Ltd.
14 - Ivan Elash
15 - Jim Dodge
16 - Junior Dicaire
17 - Pacific Bay Minerals Ltd.
18 - Pacific Ridge Exploration Ltd.
19 - Peter Johnson Stone
20 - Raymond Quesnel
21 - Ron Berdahl
22 - Solomon Resources Ltd. & Jim Dodge
23 - Strategic Metals Ltd.
24 - Tanana Exploration Inc. & Ivan Elash
25 - True North Gems Inc.
26 - YGC Resources Ltd.

All claim information courtesy of Bill Souter, Mineral Rights, DIAND

CLAIMS STAKED IN 2002



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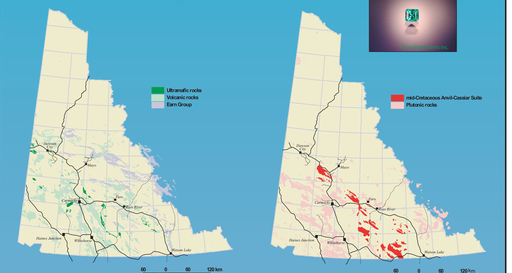
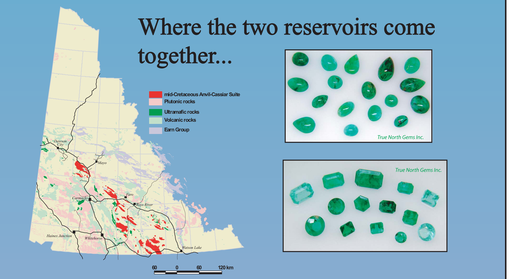
23 - Strategic Metals Ltd.
25 - True North Gems Inc.

It's pretty clear that new staking in the area was done with geology in mind...

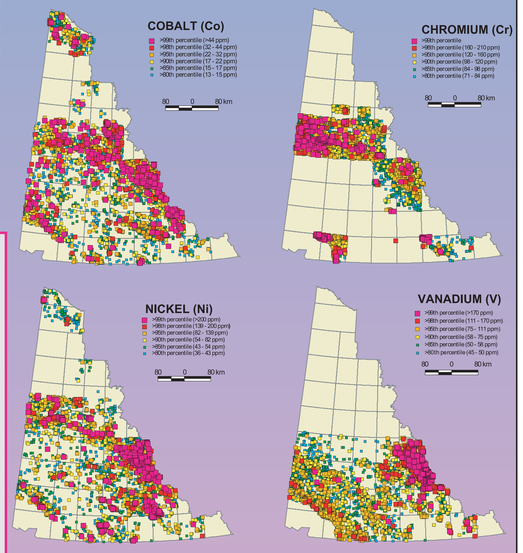
And the Rest of the Yukon.....?





Mid-Cretaceous granite and mafic and ultramafic rocks occur together elsewhere locally in the Finlayson Lake area but also regionally throughout Yukon. This combination is an attractive exploration target for emeralds.

Relevant RGS Data



Yukon Government

Canada