



## Occurrence Details

**Occurrence Number:** 105F 141

**Occurrence Name:** Garnet Greisen

**Occurrence Type:** Hard-rock

**Status:** Showing

**Date printed:** 8/6/2025 1:46:16 AM

## General Information

**Primary Commodities:** rare earths

**Secondary Commodities:** niobium, zirconium

**Aliases:** Guano

**Deposit Type(s):** Skarn

**Location(s):** 61°30'10.32" N - -132°26'29.14" W

**NTS Mapsheet(s):** 105F08

**Location Comments:** Based on showing location in AR 095343

**Hand Samples Available:** No

**Last Reviewed:**

### Capsule

#### Regional Geology

The occurrence is located on the Cassiar Platform, a curvilinear shelf that formed in the early Paleozoic, roughly parallel to the western margin of the North American craton but separated from it by the Selwyn Basin. Shallow marine miogeoclinal sediments were emplaced on the platform until Late Devonian time. Block faulting and local uplift during the Late Devonian and Mississippian resulted in deposition of carbonaceous shale and chert pebble conglomerate in the Selwyn Basin and across the platform. Local explosive volcanism produced volcanoclastic material and flows of the Pelly Mountains volcanic belt. The belt comprises localized submarine volcanic centres generated in an extensional environment that are separated by basins infilled with sediments and volcanoclastic rocks. Several cogenetic syenite and trachyte domes and small stocks are the remains of vent areas. Subsequent deformation is a result of Mesozoic thrust faulting related to the Cordilleran orogeny, emplacement of Cretaceous intrusions and Tertiary strike-slip movement along the major northwest-trending Tintina Fault, 30 km to the northeast.

#### Property Geology

The occurrence was first identified as Garnet Skarn in Archer, 1977 (AR 090269). The showing consists of very coarse crystals within the syenitic True Blue Pluton. The mineralization has been identified as greisen, an endoskarn. XRD mineral identification confirmed that the main minerals are subhedral, pale, clear, orange grossularite in a medium to fine grained matrix of mica, augite and kaolin. The adjacent syenite has also been altered, with a conspicuous red-altered phase primarily formed of plagioclase. The occurrence of grossularite and plagioclase indicates that the fluids were calcium-rich. A grab sample of the calcium-feldspar altered rock returned 1.24% TREO, 0.07% ZrO<sub>2</sub> and 0.07% Nb<sub>2</sub>O<sub>5</sub> (AR 095343).

Fluorite has been identified within the host syenite in the area.

### Work History

Date	Work Type	Comment
12/13/2010	Geochemistry	Contour soil sampling line downhill from the occurrence
12/13/2010	Airborne Geophysics	Great Western Minerals options the claims from True North Gems
12/13/2010	Airborne Geophysics	
12/13/2009	Geochemistry	McEvoy Geosciences performed exploration work on behalf of True North Gems
12/13/2002	Other	Restaked as Shark 1-94 claims in 2002 and 2003 by Archer Cathro on behalf of True North Gems
12/13/1987	Other	Restaked as White 1-123 cl in Aug/87 by Mountain Province Mining Inc.
12/13/1977	Airborne Geophysics	Contour line airborne radiometrics
12/13/1977	Geochemistry	
12/13/1977	Ground Geophysics	
12/13/1976	Geochemistry	
12/13/1976	Geology	
12/13/1976	Other	Staked as Guano claims by Ukon Joint Venture (Chevron and Kerr Addison)

### Related References

Number	Title	Page(s)	Reference Type	Document Type
<a href="#">YEG1979 8</a>	Rare earth elements in the Guano-Guayes skarn property Pelly Mountains,		Indian & Northern Affairs Canada/Department of Indian & Northern Development:	Annual

<a href="#">0-pg55</a>	Yukon Territory		Exploration & Geological Services Division	Report Paper
<a href="#">MIR1976</a>	Mineral Industry Report 1976		Indian & Northern Affairs Canada/Department of Indian & Northern Development: Geology	Annual Report
<a href="#">1979Chroni c</a>	Geology of the Guano-Guayes rare earth element bearing skarn property, Pelly Mountains, Yukon Territory		University of British Columbia	MSc Thesis