

Exploration History

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Currently, the proposed SMA area covers the Calahan, Big Sqid, and Adam&Erin placer claims in good standing in the south central portion of the proposed SMA. P42028 has a registered owner of Tracie Decin Guidolin and an expiry date of 2006/05/29. P47089 and P47090 are also owned by T. Guidolin and have current expiry dates of 2002/06/25 and 2002/06/27 respectfully. Work on these properties to date has been exploratory in nature with no reported production figures. Backhoe trenching on the properties was conducted in 2001 (M. Burke pers com).

Geologists Mike Burke and Jeff Bond of the Yukon Geology Program visited the property in 2000. Jeff conducted a simple terrain analysis, interpreting the aerial photographs to better define the glacial history of the area for the claim owner. The property is located over a glacial outwash channel composed of mostly intrusive rock debris and native gold placers. The source for these coarse grained gold nuggets is not defined and the glacial history of the area is poorly understood.

At the Tarfu minfile occurrence (#105C007), quartz claims were held by Kerr-Addison in 1963 & 1964 but today no hard rock claims are valid in this area. Quartz claims were staked in 1980 at the Lisa minfile occurrence (#105C039) however they have since lapsed. In 1987, the Hannka minfile occurrence (#105C053) was held under valid mineral claim and again in 1997 but there are currently no valid claims in this area. A description of each mineral occurrence is located in Appendix 1.

Regional Geology

Regional 1:250 000 scale bedrock mapping of the area was carried out by the Geological Survey of Canada between 1994 & 1997 by S. Gordy and R. Stevens and reported in GSC open file 2886. Their work updated efforts by R. Mulligan in 1950-1953, also 1:250 000 scale mapping (GSC memoir 321). The regional geology is shown on the accompanying figure 3 and taken from the digital compilation by S. Gordy and A. Makepeace in 2001 (GSC open file 3754). No 1:50 000 scale bedrock geological mapping is reported in this area.

The proposed Snafu/Tarfu SMA is located in oceanic Cache Creek Terrane rocks of south central Yukon. Cache Creek Terrane is composed of structurally complex succession of Mississippian to Permian basalt, carbonate, chert and greywacke and ultramafic units. These rocks are overlain by a package of structurally imbricated interbedded chert and greywacke of Triassic to Early Jurassic age (YEG, 1995).

Locally crinoidal Carboniferous to Jurassic grey limestone of the Cache Creek Group underlies the northwestern portion of the proposed SMA. A small roof pendant of strongly magnetic ultramafic Cache Creek group rocks (map unit CTrC₁) is exposed in the north, northeast corner of the proposed SMA.

The majority of the proposed SMA is underlain by well-bedded ribbon chert interbedded with shale, siltstone and greywacke that is middle Triassic to lower Jurassic in age (mTrIJC). The southwest corner of the proposed SMA is underlain by Mid-Jurassic Bryde Suite granitic rocks predominantly hornblende +/- biotite monzodioritic in composition (MJgB).

Regional Mineral Potential

A regional mineral assessment study of the southwest Yukon (including the proposed SMA area) was completed in December of 2001 by YTG's Mineral Resources Branch of the Department of Economic Development. During the regional mineral assessment process, tracts composed of similar geological units (consisting of approximately 1000 km² in area) were ranked with respect to each other. The proposed SMA covers portion of two tracts ranked moderate to lowest relative regional mineral potential (figure 4).

Expert panelists assessed the area covered by the proposed SMA for the potential to host the following deposit types: gold-quartz vein, copper-gold quartz vein, polymetallic vein, epithermal gold-silver, copper skarn, and porphyry molybdenum deposits. Descriptions of the deposit models used are appended (Appendix II) to this report (B.C.G.S. open file 1996-13).

Table 1. Mineral potential tract results for the proposed SMA.

Tract #	Relative Tract Rank	Au-quartz Veins	Poly-Metallic Veins	Copper-gold Quartz Vein	Copper Skarn	Porphyry Molybdenum	High-S Epithermal Au-Ag
26	Moderate	Yes	Yes	Yes	Yes	Yes	Yes
21	Lowest	Yes	Yes				Yes

Limitations

Mineral potential maps portray the best estimation at the time of the assessment. Since mineral potential studies assess for a hidden resource, it is important to realize that the geological knowledge base is in a constant state of growth, and mineral deposits may one day be found in rocks that were once thought to have lower potential.

Minfile Occurrences

Three Yukon minfile occurrences are within the boundary of the proposed SMA and an active placer operation is located on the access road in the southern end of the proposed SMA boundary.

Table 2. Minfile Occurrences within the proposed Special Management Area.

Minfile Number	Name	Status	Target	Commodity
105C007	TARFU	Drilled Prospect	Geophysical anomalies	Unknown
105C039	LISA	Trenched	Unknown	Unknown
105C053	HANNKA	Unknown	Unknown	Unknown