

## INTRODUCTION:

The Toobally Group is composed of 20 claims, known as the Too claim group, which cover a large transported gossan. The area lies approximately one hundred miles northeast of Watson Lake, Yukon Territory. The property is on an unnamed tributary to the Beaver River about twenty miles north of Toobally Lake. Transportation to the area is only by air. The nearest highway is the Alaska Highway at Watson Lake.

The topography of the area is characterized by low flat relief with deeply incised drainages. Much of the area is covered by deep glacial till. Outcrops are scarce and the stream drainages provide nearly all the outcrop which is found in the area.

The area was first worked on in 1963 by the Francis River syndicate. They did regional geo-chem sampling in the area, and staked the Too ground on the basis of lead and zinc indications. The property was subsequently staked by Atlas Explorations Ltd. in March, 1966 and is currently held by Atlas.

Regionally the area is a series of sedimentary horizons intruded by several plutonic stocks. The Toobally Lakes lie within a major structural linament which strikes just east of the Too claim group. This structure and associated structures could provide channels for ore bearing solutions.

## ROCK UNITS:

The oldest rock in the area is a pink quartzite, which contains pink and green siltstone lenses up to a foot in thickness. The quartzite is locally pebbly. The pebbles are also quartz and simply represent an increase in the size of detritus during deposition. The quartzites contain some pyrite, but were lacking in any other mineralization.

Stratigraphically overlying the quartzites are very white calcareous siltstones. These siltstones upon weathering produce deposits of chalky nearly pure calcium. Interbedded with, and apparently cross cutting bedding, are lenses of limonite up to six inches in thickness.

The youngest rocks in the area are conglomerates and coarse pebbly sandstones. The conglomerates contain well rounded pebbles, cobbles, and boulders up to two feet in diameter. This material appears to be predominantly grey quartzite as do the pebbles in the sandstones. These rocks are generally loosely consolidated except where they have been cemented by limonite.

## STRUCTURAL GEOLOGY:

The rock units of the Too group are homoclinally northeast dipping at about 40 degrees. The general trend of strike is to the northwest. No evidence for faulting was seen in the area. Slight discrepancies in the attitudes of the various rock units would suggest that there are angular unconformities between each of the units.

ECONOMIC GEOLOGY:

Although geo-chemical sampling by the Francis River Syndicate in 1963 indicated a potential lead-zinc deposit associated with the Toobally gossan, a reconnaissance geo-chemical survey carried out by Atlas Explorations Ltd. in August, 1966, failed to give any anomalous mineral values. The source of the limonite is questionable. It is hard to conceive ~~of~~ a primary sedimentary process for the deposition of limonite in these rocks. It would seem that a secondary emplacement of pyrite in the calcareous siltstones, at the time of the pyritization of the quartzites, and subsequent leaching and oxidation could produce the gossan in question. It would therefore appear at this time that there is no mineralization of economic value associated with the Toobally limonite deposits.

Respectfully submitted,

*Jay W. Staniford*

Jay W. Staniford

August, 1966