

GOSSAN #3  
(G. Sanford)

013613

Gossan #3 was observed during helicopter reconnaissance in late August, 1969. It lies at 132° 40'W and 62° 47'N, about seven miles northeast of Two Pete Mountain on a southward flowing creek, three miles above its junction with the Tay River. This gossan was examined on August 26th.

During the examination, soil samples were collected at 100 ft. intervals along 1000 ft. lines running northwest, southeast, northeast and southwest from the gossan. Only a few samples were collected along the southeast line as it extended across the creek which was too large to cross.

The area is mapped as unconsolidated glacial and alluvial deposits, but in several places the creek has exposed small bedrock outcrops along its banks. At the gossan itself, a cliff approximately 30 ft. high and 60 ft. long has been formed along the bank. Most of this cliff is inaccessible and it cannot be observed closely.

At the base of the cliff is six feet of well weathered and broken folded black slates. The slates are overlain by eight to ten ft. of unconsolidated river deposits. Boulders up to one foot in diameter are common in this material. These deposits are overlain by ten to fifteen ft. of a limonite cemented conglomerate. The largest noted fragments in the conglomerate were pebble sized but the average size was much smaller, around 2-3 mm. This conglomerate has formed from iron rich ground waters flowing towards the creek.

At another exposure one half mile upstream, thirty vertical feet of bedded limestones are overlain by about seventy ft. of black slates and cherts. The bedding in the limestones is northwest-southeast with a steep dip to the southwest. The dips become slightly shallower in the slates to the west. A small wedge of limonite cemented gravels overlies the cherts and slates. This wedge is overlain by recent alluvium.

The limestone varies from dark crystalline fairly pure limestone to dark limestone with 1 cm. diameter chert pebbles. Some of the limestone beds are fossiliferous. Brachiopod shells (probably spiriferoids) and crinoid columnals are fairly common. Rounded nodules of barite up to four inches in diameter can be found in the black slates and cherts.

Several outcrops were noted along the creek for one half mile below the gossan. All these outcrops consisted of sheared and well weathered black slates, argillites and cherts. Considerable small scale faulting was noted in some of these outcrops and consequently some opposing dips were obtained.

No mineralization was noted. Soil samples should indicate if further work is required to the north of the gossan, the probable direction of ground water movements.