

From the Mineral Inventory Files

Gold From a Cream Pot?

A recent Prospectors Association of Nova Scotia field trip in the Yarmouth area provided me with an interesting topic for this issue of the *Minerals Update*. For a couple of years I have known about the gold-bearing sands at Foote Cove (sometimes called Gold Sand Beach) near Cranberry Head, Yarmouth County (see map). However, until this field trip I did not fully appreciate how impressive it is. The former Cream Pot Gold Mine to the north is often considered as the likely source of the gold, but let's examine this connection further.

Cream Pot Gold Mine

Gold was discovered in a northeast-trending fissure quartz vein exposed along the seashore at Cranberry Head in 1868. The site became the Cream Pot Mine (sometimes called the Cranberry Head Gold Mine) and operated sporadically from three production shafts and an open cut until the early 1900s. Approximately 2,000 tons of quartz grading 1-5 oz. of gold/ton were produced.

The mine's geology is characterized by

marked differences from a 'typical' Meguma-hosted gold deposit. Native gold occurs with galena and chalcopyrite in a single fissure vein intruding a shear in green-grey slate of the Halifax Formation. The vein is at a low angle to bedding and dips 60° southeast. The vein pinches and swells up to 50 cm thick, and has been traced along strike for some 450 m. Sericite and arsenopyrite alteration is well developed in the foot-wall slates but much less so in the hanging wall. Impressive and consistent gold assays have been common along this vein, both during the period of mining and in the course of more contemporary exploration. This includes an effort in the late 1980s where the vein carrying visible gold was intersected in 7 of 9 diamond-drill holes and the host shear structure was intersected in all 9 holes.

Foote Cove or Gold Sand Beach

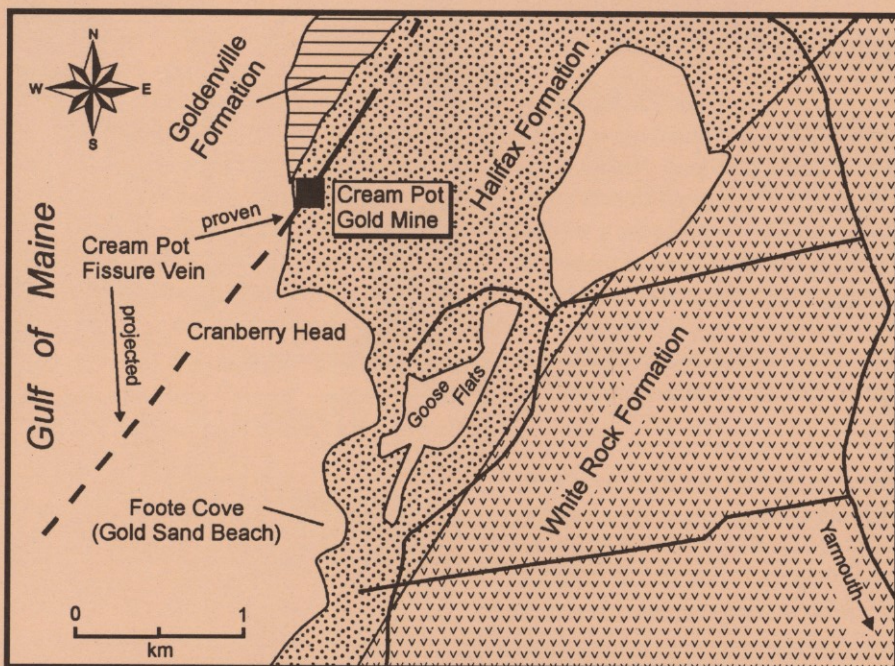
In 1920 Faribault indicated a "Gold Sand Beach" on his geology map of the Cranberry Head area. The beach is 2 km south of the Cream Pot Mine and the outcrop headland of Cranberry Head. A

visit to the beach is sure to impress any veteran gold panner. Geologist John O'Sullivan and prospector Reg Boudreau first brought the beach to my attention a couple of years ago after they were able to obtain visible gold grains from virtually any location on the beach. I personally observed fine gold in all but one of my pans. One location, in the mixed boulder and sand part of the beach, yielded a minimum of 60 grains.

Source of the Gold

Is the gold at Foote Cove from the Cream Pot vein? I discussed the origin of the sands with Robert Taylor, a shoreline geomorphologist at the Bedford Institute of Oceanography. The prevailing ocean current direction in the Cranberry Head area is toward the north but this is not necessarily the major factor in beach formation. In fact, after he reviewed a video-taped scan of the shoreline from that area, Taylor concluded that the beach sands most likely originated from off-shore deposits and from Cranberry Head. Since the strike extension of the Cream Pot fissure vein falls a short distance off-shore of Foote Cove, it could be the source of the gold. One also has to consider that there may be other gold-bearing veins in this interval. Mr. Taylor further suggested that if sand deposits occur in the back-barrier lagoon behind the beach, in the area now known as Goose Flats, then those sands may also be auriferous.

To add a bit of uncertainty to the story, it should be noted that Reg Boudreau has panned gold from till banks actively eroding along the beach. Glacial till adjacent to the beach is a likely contributor to the beach sands; however, what is the source of the gold in the till? Gold in the local till is not only a suggestion of a gold source in the area, it suggests the source is from the immediate area.



Geology of the Cranberry Head area, Yarmouth County.

George O'Reilly