

Other *onsen* hot springs are found on Fukue Island, but most are a result of drilling 1,000 meters or more down in search of hot water. Arakawa *Onsen* Hot Spring is the area's only natural hot spring.

Arakawa is interesting geologically because it is a non-volcanic hot spring, which is unusual, as most island hot springs tend to be volcanic in origin. In a non-volcanic hot spring, water seeps into the Earth, where it is heated and then pushed back up to the surface by subterranean gas pressure.

Hot springs have different geological origins, and Arakawa is categorized as a “green tuff” type. In this type, the hot water originates in an underground layer of greenish-hued volcanic ash (tuff) that accumulated after an eruption and was compacted into rock over time. Green tuff is found all along the coast of the Sea of Japan. It was formed at the bottom of a giant lowland area that existed perhaps 20 million years ago between the Eurasian continent and what is now the Sea of Japan. Many volcanic eruptions occurred within that lowland area, and the material ejected as ash eventually became green tuff.