How old is the rainwater that feeds Beppu's hot springs?

Beppu's hot springs are fed primarily by rainwater that has soaked into the ground. This water collects in natural aquifers as groundwater and is later heated by magma before it rises to the surface. The entire rain-to-spring cycle takes about 50 years, so the hot spring water you see now fell as rain roughly half a century ago.

To ensure groundwater will be available to feed the local hot springs for many years to come, both Beppu and Umi Jigoku management have taken measures to protect a healthy rain-to-spring cycle. The city has begun paving roads with a material that allows rainwater to readily seep through to the ground. At Umi Jigoku, the neighboring forested slopes are preserved in a natural state to prevent excess runoff, facilitating the storage of rain as groundwater.