

NEW ZEALAND GEOTHERMAL STAMPS

John W. Lund
Geo-Heat Center

The North Island of New Zealand has long been a source of natural geothermal activity in the form of fumaroles, boiling springs, mud pots and volcanic eruptions. One of the more famous eruptions, Mt. Tarawera, occurred in 1886 killing over 100 people and burying the famous Pink and White Terraces on the edge of Lake Rotomahana. These terraces, composed of beautiful fan-shaped staircases of silica, had fortunately been captured by artists of the time, and later reproduced on stamps. The Maori were the first to see and use these natural wonders, and later the Europeans changed the thermal energy into electric power. Today, New Zealand is a leader in the development and utilization of geothermal energy, receiving about seven percent of their total energy needs from this indigenous energy resource. One of the more famous geothermal cities in the world is Rotorua in the center of the North Island Taupo Volcanic Zone. It is the sister city to Klamath Falls, and has direct-use development for space heating similar to our city. The Maori Trust owns and manages the Whakarewarewa Thermal Reserve, including the famous Pohutu Geyser, on the edge of town.

To celebrate and display New Zealand's natural geothermal activity and its utilization, the New Zealand Post has issued stamps depicting the various phenomena. A recent issue of "Thermal Wonders" was the latest in this series of stamps and is presented here along with several of the earlier issues.



The Pink Terrace at Lake Rotomahana (1898).



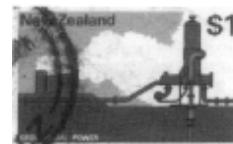
The White Terrace at Lake Rotomahana (1900).



Lake Rotomahana today.



Maori Woman Cooking in Boiling Springs (1935) - one of the few stamps depicting direct utilization of geothermal energy.



Geothermal power depicting the Wairakei power generating field (1990).



Ngauruhoe Volcano, Tongariro N.P. and Chateau(1960).

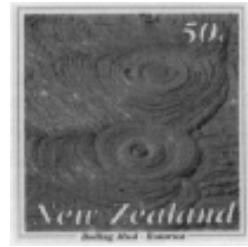


Pohuto Geyser at Rotorua (1967).

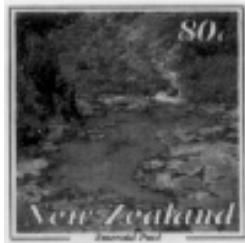
From the "Thermal Wonders" series:



The Champagne Pool at the Waiotapu Thermal Reserve just south of Rotorua. This 2000-square meter pool is agitated by myriad of tiny carbon dioxide bubbles--like a hugh glass of champagne.



The Boiling Mud from Hell's Gate at Tikitere north of Rotorua. Steam has altered the surface rock into a gray clay and boiling mud. The activity produces a delightful "geothermal symphony."



The Emerald Pool in the Southern Crater of Waimangu Valley. It is one of the craters produced by the 1886 eruption of Mt. Tarawera, which is no longer active. This is a cold water pool and colors vary with time.



Hakereteke Steam (better known as Kerosene Creek), near the Waiotapu Thermal Area, produces these thermal Hakereteke Falls used as a shower by many locals and visitors.



Warbrick Terrace named after a noted guide, is near Lake Rotomahana in Waimangu Valley. Hot springs flow over terrances of white silica streaked by colors produced from minerals and algae.



Pohutu Geyser in Rotorua sends scalding steam and water over 30 meters in the air about every hour. Located in the Whakarewarewa Thermal Reserve, it is a favorite tourist attraction.