

CHALLENGE

The Town of Lakeview utilizes a geothermal district heating system to heat local schools, the community hospital, the emergency services station, and a dental clinic. The system experienced a severe decrease in heat generation due to a 45% decrease in flow rate from the production well due to the build-up of goethite scale.

LOCATION

Oregon, USA

ENVIRONMENT

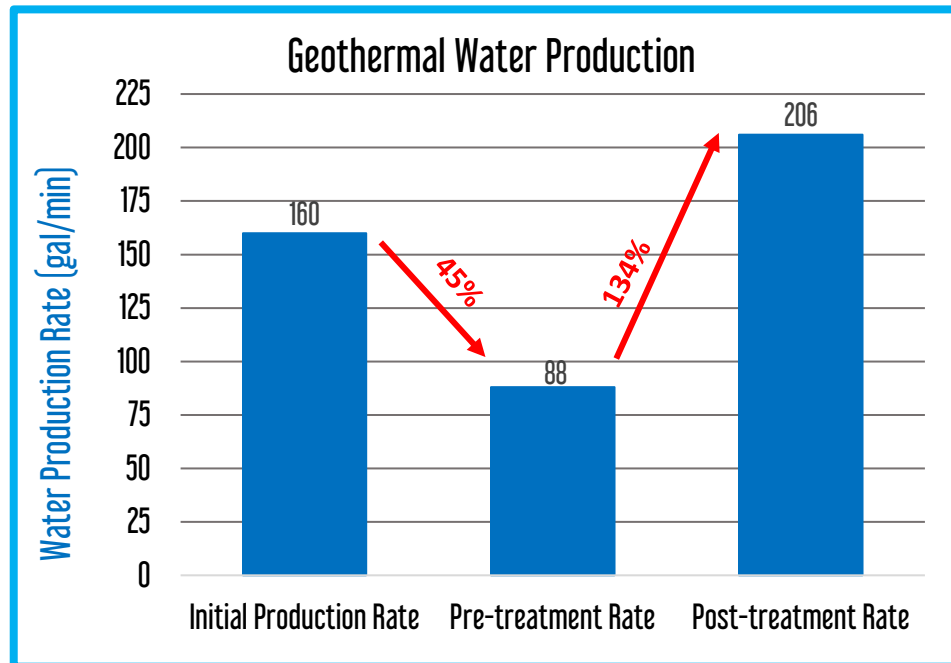
Vertically drilled
Open Hole completion
Igneous reservoir (basalt, ash)
Depth: 700 ft (213 m)
Temperature: 88 °C (190 °F)



OUTCOME

- The well production rate was increased 134% to 206 gpm (13.0 l/s), above the minimum required production rate of 130 gpm (8.2 l/s)
- Buildings that had to be shut down due to lack of heat are now operational

Geothermal production rate increases 134%



SOLUTION

Improve flow from the reservoir into the geothermal production well by removing goethite scale using electro-hydraulic pulsing technology.

- The BLUESPARK® 275 tool was run on a partner’s E-Line to the treatment interval
- Three intervals for a total of 105 ft (32 m) were selectively pulsed in a treatment time of 8 hours
- The well was placed back on-line immediately post the Blue Spark treatment



Scale Removal