CALIFORNIA STATE SCIENCE FAIR
2002 PROJECT SUMMARY

Name(s)
Karina B. Mudd

Project Number
22040

Project Title
Testing Variables that May Affect Geysers

Abstract

Objectives/Goals
To find out what variables might affect the eruption cycles of geysers.

Methods/Materials
In this project, different variables were tested in a simulation geyser, to see how they affect the geyser#s eruption process. The geyser was made from a 1 liter flask and a funnel, connected by clear, plastix tubing. When the structure was filled with water, and heated to a high temperature by a hot plate, x eruption cycle began, similar to a real geyser#s. The variables were,
- length and diameter of the tubing, which simulates the underground passageways of a geyser
- the presence of salt, which is plentiful in geysers
- the presence of chicken parts, which simulates when a wild animal falls into a geyser

Results
In summery:
The larger the volume of the structure, the longer it took to heat the water to the point of eruption and the larger the eruption. The various added substances also had different affects on the behavior of the geyser.

Conclusions/Discussion
The larger the volume of the structure, (i.e. the longer and wider the tubing,) the longer it took to heat up the water, and the eruption intervals were made longer. The chicken parts had a significant affect on the behavior of the eruptions, and the salt also created some changes. All of the tested variables had some type of affect on the geyser#s eruption cycle, which suggests that geysers are very sensitive naturax features.

Summary Statement
Testing variables that may affect a geyser's eruption cycle

Help Received
Used band saw and lathe in Dad's shop (under supervision)