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Product Name :

Product Code: LBNY-0005-1250009



Description:

A near-surface geothermal plant uses the thermal energy stored below the earths surface. Using a two-well system, for example, thermal energy is extracted from the near-surface groundwater for heating purposes. The scope of geothermal energy is the study and use of the heat and the temperature distribution in the ground. It demonstrates the operation of such a two-well system.

Learning objectives/experiments:

Hydraulic properties of the ground

Determination of the usable heat capacity

Fundamentals of geothermal use

Fundamentals and energy balance of a simulated heat pump

Operating behaviour of a two-well system.

Technical Specification:

Demonstration and operation of a two-well system for using geothermal energy

Measurement of temperature and flow rate to determine the transmitted heat capacity

Multi-tube manometer for visualising the groundwater levels

Temperature-controlled groundwater circuit

Height-adjustable overflows for adjusting the groundwater flow

Calculation of the transmitted heat capacity and simulation of the energy balance of a heat pump

Adjustable flow rate of the pump in the production well

Supply of the working medium via laboratory supply or the water chiller.



Laboratory Instrument India