

WAIRAKEI GEOTHERMAL FIELD RESERVOIR ENGINEERING DATA*

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Systems, Science and Software (S³) has prepared an extensive collection of fundamental field information concerning the history of the Wairakei geothermal field in New Zealand. The purpose of the effort was to accumulate any and all pertinent data so that various theoretical reservoir simulation studies may be carried out in the future in a meaningful way. Categories of data considered include electrical resistivity measurements, magnetic force surveys, surface heat flow data and a catalog of surface manifestations of geothermal activity, geological and stratigraphic information, residual gravity anomaly surveys, laboratory measurements of formation properties, seismic velocity data, measurements of fluid chemical composition, monthly well-by-well **mass** and heat production histories for 1953 through 1976, reservoir pressure and temperature data, and measurements of subsidence and horizontal ground deformation. The information is presented in three forms. A review of all the data is contained in the final project **report**.¹ An abbreviated version of the final project report has also been prepared by S³ for wide distribution by the Lawrence Berkeley Laboratory (LBL).² In addition, a magnetic tape suitable for use on a computer has been prepared. The magnetic tape contains a bank of information for each well in the field, on a well-by-well basis. For each well, the tape contains the completion date, the surface altitude, the bottomhole depth, the geographic location, the slotted and perforated interval locations, the bottomhole diameter, locations of known casing breaks, the geologic drilling log, fault intersections, shut-in pressure measurements, and month-by-month production totals of both **mass** and heat for each month from January 1953 through December 1976. The magnetic tape, as well as the complete and **Summary** reports are available through the Lawrence Berkeley Laboratory.

REFERENCES

1. Pritchett, J. W., L. F. Rice and S. K. Garg, "Reservoir Engineering Data: Wairakei Geothermal Field, New Zealand," Systems, Science and Software Report, SSS-R-78-3591, March, 1978.
2. Pritchett, J. W., L. F. Rice and S. K. Garg, "Summary of Reservoir Engineering Data: Wairakei Geothermal Field, New Zealand," Lawrence Berkeley Laboratory Contractor Report, 1978.

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