

ERROL B. ANDERSON

Director / Geothermal Resource Analyst, GSDS Ltd.

Years of Experience

42 (8 with Gradient Resources/Gradient Geodata/GSDS, 26 with GENZL/PB Power, 8 with others).

Date of Birth

3 August 1947

Nationality

New Zealand

Languages

English, Spanish

Country Experience

Azores (Portugal), Colombia, Ecuador, El Salvador, Fiji, Greece, Indonesia, Japan, Kenya, Mexico, New Zealand, Papua New Guinea, Philippines, Reunion (France), USA, Vanuatu, Yugoslavia.

Education

M.Sc., Physics, University of Auckland, New Zealand, 1971

B.Sc., University of Auckland, New Zealand, 1968

Reservoir Engineering short course, Geothermal Institute, University of Auckland, 1991

Professional Affiliations

IGA, NZGA, NZ Geophysical Association

Key Qualifications

Errol Anderson, a practising scientist for over 40 years, has extensive experience in geothermal geophysics and geoscience. He has worked in a large number of geothermal fields in many countries, for both scientific field surveys and resource assessment studies. While specialising in the geothermal interpretation of geophysical data, Errol has expertise in reservoir assessment and in the integration of data from all scientific disciplines. In Indonesia, he has been a team member for geothermal resource assessments of at least 15 different geothermal fields. Errol has been project leader for geophysical surveys, responsible for both execution and interpretation, in the Azores, Ecuador, Japan, Kenya and Vanuatu. He acted as project manager for a comprehensive scientific study, including geology, geochemistry and geophysics, in El Salvador, and more recently in Reunion.

Errol has also coordinated the development of a range of specialised geothermal software, including GeoData Manager, a cross discipline program to facilitate the interpretation and integrated assessment of geothermal data, SteamField Manager, designed to provide long term management of all data collected from an operating geothermal steamfield and power plant, and WellSim, a sophisticated geothermal wellbore simulator. He has been project manager for two software development projects for clients in Japan. He has regularly lectured at the Geothermal Institute, University of Auckland, on MT methods and data management, and has given numerous courses in Latin America, Japan, Indonesia and Italy on geothermal technology and software.

Professional career:

Gradient Resources (2006 to 2014): as Geothermal Resource Analyst. Duties include planning and supervision of geophysical surveys, collation and entry of geothermal data, assistance with design and monitoring well discharge tests and regular integrated interpretation and development of conceptual geothermal models.

Gradient GeoData (2006 to 2014): as Software Development Manager. Duties include development, worldwide marketing and sales of geothermal software, installation and training courses.

Geothermal Scientific and Data Services (2007 to present): as Director. Projects include Geophysical Director for Tufiño and Chacana MT surveys, Ecuador, review of MT at Blue Mountain, Nevada for Nevada Geothermal Power, review of MT survey at Takara geothermal

prospect, Vanuatu for SKM, short training courses for Contact Energy and SKM, New Zealand.

PB Power (1997 to 2006): as Chief Scientist. Involved in many scientific field surveys, resource assessment and due diligence studies as both Project Manager and team member. While specialising in the geothermal interpretation of geophysical data, has expertise in reservoir assessment and in the integration of data from all scientific disciplines.

GENZL (1981 to 1997): as Geophysicist and Senior Scientist. Involved in many scientific studies of geothermal fields around the world.

Geothermal Assessment - Indonesia

- Team member for scientific review of Ulubelu, Lumut Balai and Tompaso geothermal prospects, Indonesia, for SKM (2010).
- Team member for scientific review of Sarulla geothermal fields, Sumatra, Indonesia, with responsibility for MT, for PB Power, New Zealand (2007).
- Team member for scientific review of Seulawah Agam geothermal prospect, Aceh, Indonesia, for SKM (2007).
- Team member involved in a number of comprehensive assessments, including simulation studies and reserves estimates, of the Darajat geothermal field, Indonesia, for Amoseas. (1997-1999)
- Scientific supervisor and team member for evaluation and assessment of Hu'u and Sokoria geothermal prospects, Eastern Indonesia for NZ Government. (1997)
- Senior scientist of a team who carried out a due diligence study of Cibuni geothermal field, Indonesia for investment bank. (1997)
- Chief geophysicist and member of a team who conducted a scientific review, resource assessment and prioritisation of seven geothermal prospects in Java, Indonesia for Amoseas. (1996-1997)
- Member of a team involved in comprehensive resource assessment of a number of geothermal fields, including Sibayak, Suoh Sekincau, Hulu Lais, Lumut Balai and others, for various clients. (1995-1997)
- Team leader for conducting a numerical simulation and reserves assessment of Kamojang geothermal field, Indonesia, for Pertamina. (1991-1992)
- Member of a geoscientific team involved in a total re-evaluation of all scientific information from the Dieng geothermal field, Indonesia. (1983)

Selected Publications

Co-author, "Bulls eye! – Simple Resistivity Imaging to Reliably Locate the Geothermal Reservoir". Proceedings World Geothermal Congress, 2000.

Co-author, "Coexisting Volcanism and Hydrothermal Activity at Kelimutu, Flores Island, Eastern Indonesia". Proceedings World Geothermal Congress, 2000.

Co-author, "Understanding the Resistivities Observed in Geothermal Systems". Proceedings World Geothermal Congress, 2000.

Co-author, "GD Manager software: for the storage, manipulation and integration of data from geothermal resources". Proceedings World Geothermal Congress, 2000.

Co-author, "Computer Modelling of Gas and Liquid Tracers in Geothermal Reservoirs". Proceedings 25th Workshop Reservoir Engineering, Stanford, 2000.

Co-author, "An Automated Well Test Analysis System (AWTAS)". Proceedings 25th Workshop Reservoir Engineering, Stanford, 2000.

Co-author, "As Plain as the Nose on Your Face: Geothermal Systems Revealed by Deep Resistivity". Proceedings of 21st New Zealand Geothermal Workshop, 1999.

Co-author, "Sokoria, East Indonesia: A Classic Volcano Hosted Hydrothermal System". Proceedings of the 20th New Zealand Geothermal Workshop, 1998.

Co-author, "Exploration of Geothermal Systems Through the Eyes of a Geothermal Consulting Company". Proceedings of the World Geothermal Congress, 1995.

- Co-author, "Design and Implementation of the GD Manager Geothermal Data Management System". Proceedings of the World Geothermal Congress, 1995.
- Co-author, "A Geothermal Reservoir Revealed Magnetotelluric and Data Management Techniques in a Potent Combination". Proc. of the World Geothermal Congress, 1995.
- Co-author, "The Berlin Geothermal System - From the Surface to the Magma Chamber?" Proceedings of the 16th New Zealand Geothermal Workshop, 1994.
- Co-author, "GD Manager, an Integrated Geothermal Data Management System". Proceedings of the 14th New Zealand Geothermal Workshop, 1992.
- Co-author, "Magnetic Modelling of the Olkaria Geothermal Field, Kenya". Proceedings of the 9th New Zealand Geothermal Workshop, 1987.
- Co-author, "Factors Influencing Geothermal Exploration of Small Volcanic Islands. An example from Efate Island, Vanuatu". Proceedings of the 8th New Zealand Geothermal Workshop, 1986.
- Co-author, "Interpretation of Head-On Resistivity Data from Olkaria, Kenya". Proceedings of the 6th New Zealand Geothermal Workshop, 1984.
- Co-author, "Geophysical Survey of the Pico Alto Geothermal Prospect, Terceira Island, Azores". Proceedings of the 4th New Zealand Geothermal Workshop, 1982.