

EARLY DAYS OF THE GEOTHERMAL INSTITUTE

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After serious geothermal exploration commenced at Wairakei in 1949, New Zealand soon became leaders in the development of hot water geothermal fields. Overseas scientists and engineers frequently came to inspect the developments or gain experience by working in New Zealand for short periods, but no systematic training courses were devised. The work was carried out by the Departments of Works and Development and Scientific and Industrial Research, on behalf of the Electricity Department.

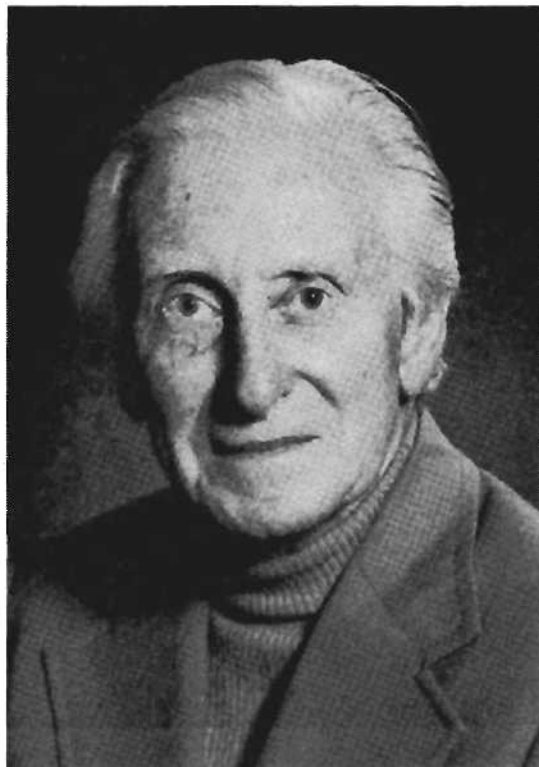
Mr. W.B. Harland, a New Zealand engineer in the UNDP administration, had requested that a New Zealand geothermal expert be sent to Chile in 1964 to report on a request received for a geothermal project. I was selected for the purpose, and spent two months in Chile and Central America in company with a UNDP representative, Mr. D.G. Fallon Bailey. New Zealand became deeply involved in the UNDP Chilean project, and later in other UNDP geothermal projects as a result of this initial request.

Following my participation in the UN Symposium on the Development and Use of Geothermal Resources, San Francisco, May 19-29, 1975, I spent a few days in New York and called to see Mr. Harland. This time, he asked if New Zealand would be interested in training geothermal personnel from Central America. It rather took my breath away, and I told him I expected that New Zealand could hardly be less interested in Central America, but I was aware that NZ had just undertaken to train geothermal personnel from the Philippines and Indonesia involved in bilateral aid projects so it could conceivably work and I undertook to make unofficial enquiries and let him know.

Considering the number and types of disciplines involved in geothermal exploration and utilisation, a comprehensive geothermal training course is a problem for any university. None in New Zealand had so far shown particular interest in geothermal developments, but Associate Professor Manfred Hochstein had recently joined the Geology Department at Auckland University. He had worked extensively on geothermics in the D.S.I.R. and in overseas projects, so here was obviously the place to commence enquiries. When I returned to Auckland some mornings later, I went straight to the University to talk with Manfred. I explained the situation, and suggested that there could be a chance of developing something like an international geothermal institution that could bring spin-off to New Zealand. After further discussion he said "Let's go and talk to Nick" (Professor R.N. Brothers), and we adjourned to his office. After further discussion, he in turn said "Let's go and talk with Colin" (Vice-Chancellor Dr. C.J. Maiden), and I finished up having lunch with the three of them, all receptive to the idea.

Over the next few days I called the Ministry of Foreign Affairs (MFA), the Chief Geothermal Engineer of MWD, and the Geothermal Co-ordinator (DSIR), all receptive to the idea in general. By 24th July 1975, Brothers and Hochstein had put together preliminary ideas for a geothermal post graduate course, which I received on 14th August 1975 and circulated to interested parties.

On 7th August 1975 I attended a meeting called by Mr. O'Brien (MFA) to discuss geothermal training within the technical assistance programme. Also present were Messrs. Bolton and Dench (MWD), Messrs. Studt and Healy (DSIR), Mr. Wintringham (TREASURY), and Mr. Seal (ENEX). I presented notes on geothermal training at levels defined by "on the job", technical institutes, and university. The immediate requirements were for Indonesia and the Philippines at the first two levels. The need for university training was recognised, but further information was needed from the University



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and from additional countries that might be involved. I was asked to make enquiries during a pending visit to Central America. After the meeting, Terence O'Brien asked me to write to Bruce Harland, tell him that New Zealand is interested, and seek further details, which I did. He replied that he considered the University proposal excellent.

Later, MFA suggested that the scope of the project could perhaps be reduced, because students with high qualifications often used them to seek other jobs. I strongly objected on the grounds that those put forward for the course would want to assist their own country. This was later confirmed to me by Gabriel Dengo, a leading earth scientist in Central America.

In October 1976, UNDP advised Gordon Shroff at the NZ Mission in New York that they intended to organise a mission by their Inter-regional Training Adviser, Mr. Maurice Idoux, to investigate the training requirements for geothermal development in developing countries, and wished to include a New Zealand expert. I was appointed, and left New Zealand on 18th April 1977 to visit Turkey and Ethiopia with Maurice Idoux, Mexico, Guatemala, El Salvador, Managua, Peru and Chile with Willem Groeneveld-Meijer (UNDP), and Tanzania and India on my own. Discussions were held on two occasions en route in New York with Mr. Mashler (UNDP/DGIP) and others.

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I submitted two reports after returning to New Zealand. The first, "Geothermal Training Mission, 1977", was essentially a tour diary, with accounts of people and groups visited, geothermal status and future plans in each country, with reactions to the proposed Diploma Course with firm and estimated numbers of students. The second report was "Preparatory Mission on Training in the development of Geothermal Energy. Mission Report". It is a condensed report of the discussions and data, but dealing also with specific technical and other problems, together with recommendations by Healy and Idoux, developed from discussions on the job and a report submitted

by the latter. The field discussions had been greatly assisted by a preparatory document "Diploma in Energy Technology (Geothermal)" by Professor Brothers and Associate Professor Hochstein for the University of Auckland. In the meantime a contract for training had already been prepared by the Division of Global and Inter-regional Projects (DGIP) at UNDP and funds had been voted for the project (UNDP INT/76/007) which started at the University of Auckland on 1st August 1978, the "birthday" of the Geothermal Institute.