Geothermal Engineer / Scientist

The purpose of the position is to provide technical leadership on greenfield geothermal developments and optimisation of producing fields for low to high enthalpy resources.

Position priorities and responsibilities

Key role

- Undertake work focused on the optimisation of geothermal energy use and applications
- Transfer reservoir characteristics to surface facility requirements
- Provide geothermal reservoir expertise on greenfield geothermal developments, and optimisation of producing fields
- Undertake commissioned research as required and complete reports to agreed scope, timeframe, and budget
- Work with GNS Science geophysicists, geologists, geochemists and modellers to assist in the geothermal work GNS Science undertakes
- Contribute and initiate research activities to promote sub-surface to surface geothermal applications development

Management and Leadership

- Engagement with the New Zealand and International Geothermal Community for geothermal development
- Participate in discussions and planning of research directions within GNS Science and, as appropriate, develop proposals for new research funding
- Responsible for financial and administrative aspects of programmes/projects
- Manage scientific project teams
- Act as a mentor for less experienced team members.

Reports to: Geothermal Geology and Modelling Team Leader
Department: Earth Resources and Materials
Group: Science
Tenure: Permanent
Location: Wairakei preferred, Avalon negotiable
Direct reports: Nil
Budget: Nil
Date: September 2020
Communication

- Publishing of research results through authoring or co-authoring scientific publications, paper or reports
- Representing GNS Science at conferences and seminars
- Stakeholder engagement
- When appropriate, work with Iwi/Maori groups and organisations to build relationships with the aim of facilitating Maori development

Responsibilities of all staff

- Comply with all GNS Science policies and procedures
- Contribute to making GNS Science a healthy and safe place to work by complying with the responsibilities and accountabilities outlined in the Health and Safety Management System Framework.

The responsibilities of this position will change over time to respond to changing needs. The incumbent will need the flexibility to adapt and develop as the company and its environment evolves.

Key working relationships

Internal:
- GNS Science Scientists
- Theme and Programme Leaders
- Stakeholder Relations Group

External:
- Stakeholders
- CRI’s and other science and research organisations
- Collaborators
- Customers
- MBIE, regional councils
- Iwi
- Geothermal industry

Person specification

Skills, knowledge and attributes

- Geothermal reservoir engineering (primary skill set)
- Understanding of geosciences and reservoir modelling as they apply to geothermal resources
- Interest in applications of Artificial Intelligence and Machine Learning
- Geothermal surface applications
- Production engineering

Experience

Essential:
10 years+ experience in the following areas:
- Substantial experience in the area of geothermal reservoir engineering
- Geothermal applications for power production and/or direct use
- Demonstrated expertise in the area of modelling and/or visualising complex physical systems
- Practical experience in a commercial/consulting environment
- Proven publication/reporting history

**Desirable:**
- Experience in production engineering
- Ability to transfer reservoir knowledge to optimum surface applications
- Developing research plans in consultation with senior staff
- Willingness to work and/or lead research projects
- Assisting with planning, execution and reporting of established projects
- Understanding of Maori relationship and development issues and an interest in Te Reo Maori.

**Qualifications**

**Essential:**
- Engineering qualifications, and/or a relevant PhD in Applied Science and Engineering
- Superior mathematical and analytical skills
- 10+ year relevant working experience in the Industry

**Desirable:**
- Geothermal reservoir expertise
- Geosciences understanding

**Other requirements**

**Essential:**
- Excellent writing and communication skills
- Excellent interpersonal skills
- Ability and willingness to work in multi-disciplinary team environment

**Desirable:**
- Leadership experience
- Project management skills
Competencies

The following competencies are expected of all staff:

- **Results Orientation**: The ability and commitment to achieve effective results, and work towards or exceed agreed goals.

- **Business Focus**: The ability and desire to apply appropriate principles and practices to maximise revenue, minimise cost, while meeting our obligations.

- **Relationship Management**: The ability and commitment to develop and maintain effective relationships with groups and individuals.

- **Communication**: The ability to express thoughts and ideas clearly and consistently (orally and in writing).

- **Innovation and Initiative**: The ability and commitment to seek and use better ways of doing things (to improve personal and GNS Science performance).

- **Teamwork**: The ability to establish and maintain effective and cooperative relationships.

- **Professional Integrity**: Act in a manner that conveys high personal and professional standards.

- **Technical Expertise**: The ability to maintain and develop technical expertise.

- **Leadership and Management Skills**: The ability to inspire others to achieve desired results and to develop and enable others to realise their full potential.