# Position Details

Role summary for potential applicants

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| **Advertised Job Title:** | Senior Research Scientist - Hydraulic Fracturing |
| **Reference Number:** | VIC12/04786 |
| **Classification:** | CSOF7 |
| **Salary Range:** | $123K-$136K per annum plus up to 15.4% superannuation |
| **Location:** | Clayton, VIC |
| **Tenure:** | Indefinite/Ongoing |
| **Relocation Assistance:** | ☒ May be provided to the successful candidate **or**<br>☐ No not provided |
| **Residency Status:** | ☐ Australian Citizens Only<br>☐ Australian Citizens and Permanent Residents Only<br>☒ All Candidates |

**Role Overview:**

CSIRO Earth Science and Resource Engineering is an independent supplier of R&D to Australia's resources industry. CESRE provides sustainable, innovative science and engineering solutions for the continuing growth of Australia's resources industry whilst deliver benefits to the economy, society and the environment.

The Senior Research Scientist will be required to utilise a range of investigative approaches including laboratory experimentation, numerical modelling, and analytical methods in order to improve the effectiveness and sustainability of hydraulic fracturing with an emphasis on applications in coal seam and shale gas stimulation, Engineered/Enhanced Geothermal Systems, and novel mining methods.

Candidates with less leadership experience & scientific reputation may be considered for appointment at a lower level.

**Duties and Key Result Areas:**

- Applying laboratory, numerical, and analytical methods to produce rigorous and useful research outcomes
- Collaborating with both external and CSIRO partners in the deployment of new technology and securing ongoing research funds
- Communicating of research via presentations, peer-reviewed journal and conference papers, and client reports
- Provide scientific or engineering leadership to colleagues and students and coordinate, allocate and manage resources (people, equipment, facilities, and funds).
- Create and foster an environment in which there is a high level of cooperation within and between teams
- Undertake leading edge scientific research and maintain active research collaborations in order to access/share leading edge concepts and technology to advance project goals. Lead the strategic research component of projects, contribute original ideas and concepts and determine the most appropriate strategies to achieve project goals.
- Maintain active national and/ or international research collaborations in order to access/share leading edge concepts and technology to advance projects. Identify trends in research and development to inform portfolio analysis and influence the Division's research directions.

## Selection Criteria:

*Please note: Under CSIRO policy only applicants who meet all the essential criteria can be appointed*

***Essential Criteria:***

1. PhD with a strong background in solid and/or fluid mechanics as well as extensive relevant scientific/industrial experience.
2. Research experience in hydraulic fracturing and/or wellbore/reservoir geomechanics, preferably spanning analytical, numerical and experimental investigations
3. Excellent research track record evidenced by publications, presentations, research projects, and successful proposals that are driven by the candidate's ambition and capability
4. Communication abilities of a high order evidenced by presentation and negotiation skills and an outstanding capacity to express scientific ideas and findings in plain English.
5. Demonstrated management and leadership capability as well as the ability to generate and lead new projects.

***Desirable Criteria:***

1. Strong existing professional network within petroleum, mining, and/or geothermal industry, as well as productive existing collaborations with academic and/or research institutions

**CSIRO is a values based organisation. In your application and at interview you will need to demonstrate behaviours aligned to our values of:**

- Integrity of Excellent Science
- Trust & Respect
- Creative Spirit
- Delivering on Commitments
- Health, Safety & Sustainability

**Other Information:**

**How to Apply:** Please apply for this position online at www.csiro.au/careers. You may be asked to provide additional information (online) relevant to the selection criteria. If so, then responding will enhance your application so please take the time to provide relevant succinct answers. Applicants who do not provide the information when requested may not be considered.

If you experience difficulties applying online call 1300 301 509 and someone will be able to assist you. Outside business hours please email: csiro-careers@csiro.au. Please note only two documents can be attached to your application.

**Referees:** If you do not already have the names and contact details of two previous supervisors or academic / professional referees included in your resume/CV please add these before uploading your CV.

**Contact:** If after reading the selection documentation you require further information please contact Dr Andrew Bunger by email Andrew.Bunger@csiro.au or phone at 03 9545 8334.

*Please do not email your application directly to Dr Bunger. Applications received via this method will not be considered.*

**About CSIRO:** Australia is founding its future on science and innovation. Its national science agency, CSIRO is a powerhouse of ideas, technologies and skills for building prosperity, growth, health and sustainability. It serves governments, industries, business and communities across the nation. Find out more! www.csiro.au.

**About CSIRO Earth Science and Resource Engineering (CESRE)**

CESRE provides science and engineering solutions for the continuing growth of Australia's resources industry whilst delivering benefits to the economy, society and the environment.

**The Geomechanics Group within** CESRE consists of nearly 20 scientists, engineers, and technicians who conduct research in hydraulic fracturing, wellbore stability, and drilling mechanics for the petroleum, mining, and geothermal industries.

For further information on CESRE please visit http://www.csiro.au/en/Organisation-Structure/Divisions/Earth-Science--Resource-Engineering.aspx