# Position Details

## Research Scientist/Engineer- CSOF5

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| The following information is for applicants |
| Advertised Job Title | Ore Body Specialist – Mineral Systems |
| Job Reference | 85373 |
| Tenure | Specified Term of 36 months Full-time  |
| Salary Range | AU $102,724 to AU$111,165 per annum (pro-rata for part-time), plus up to 15.4% superannuation |
| Location(s) | Kensington, WA, Whadjak CountryCSIRO Kensington, Australian Resources Research Centre (ARRC)  |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | * All Candidates
 |
| Position reports to the | Team Leader Basins |
| Client Focus – Internal | 20% |
| Client Focus – External | 80% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Nishka Piechocka via email at Nishka.Piechocka@csiro.au |
| How to apply | Apply online at <https://jobs.csiro.au/> Internal applicants please apply via **Jobs Central**If you experience difficulties when applying, please email careers.online@csiro.au or call 1300 984 220. |

### Acknowledgement of Country

CSIRO acknowledges the Traditional Owners of the land, sea and waters, of the area that we live and work on across Australia. We acknowledge their continuing connection to their culture and pay our respects to their Elders past and present. View our [vision towards reconciliation](https://www.csiro.au/en/about/Indigenous-engagement/Reconciliation-Action-Plan).

### Role Overview

CSIRO Mineral Resources (CMR) is one of the largest minerals research and development groups globally, with a proud track record in delivering innovation and solutions across the mineral resources value chain. We thrive on innovation harnessed by the diversity of the minds and lived experiences of our team and apply our expert knowledge and specialised research to provide innovation that solves the complex problems faced by minerals companies, mining equipment, technology, and services (METS) companies, government, and other industry stakeholders. The CMR Discovery Program aims to be a truly diverse team that reflects the diversity that we see in society, and comprises an enthusiastic multidisciplinary team of STEM researchers, all focused on developing new technologies and concepts for exploration through cover and advancing orebody knowledge.

A stable supply of and sovereign capability around critical minerals (e.g. Ni, PGEs, REE, Cu) are key objectives of the Australian Government’s 2022 Critical Mineral Strategy. CSIRO Mineral Resources is therefore seeking to grow its capabilities around the holistic characterisation of mineral resources during exploration and processing. The Ore Body specialist with experience in characterising mineralisation using a range of different techniques will select, apply and develop appropriate methodologies to recover ore body parameters of relevance to exploration and production and ultimately have the opportunity to fuse a wide range of geoscience data to progress the formulation of deposit models. While ore body characterisation will be the key responsibility of the role, being based at CSIRO (Kensington) in Perth the position will involve deployment in a wide range of projects driven by research needs. The exposure to a wide range of related fields will in turn mean that the successful candidate is poised to play a key role around integrating information from other sources of information such as geophysical data to develop new methods of ore body characterisation.

The team recognises that Aboriginal and Torres Strait Islander peoples have made and will continue to make extraordinary contributions to Australian culture, economy and science and we aim to promote and support the vision of ‘A science landscape in respectful partnership with Indigenous Australia delivering innovative, sustainable, holistic solutions to meet our greatest national challenges’.

While working at CSIRO, you will be able to create a dynamic career path leveraging from your own experiences and identity. You will have access to a range of world-class facilities based at local universities where CSIRO has collaborative arrangements in place, and at other CSIRO sites across Australia. CSIRO provides an attractive remuneration package that includes a generous superannuation scheme, flexible work options, travel, and multiple leave options including paid maternity and parental leave.

CSIRO is also a member of the Science in Australia Gender Equity (SAGE) pilot, holds Gold Employer Status through the AWEI (Australian Workplace Equality Index), which sets a comparative benchmark for LGBTIQ+ inclusion for employers across all sectors and is committed to reconciliation with Aboriginal and Torres Strait Islander Peoples’.

### Duties and Key Result Areas

* Identify, refine and develop methodologies to holistically characterise an orebody.
* Independently design and perform analytical work using appropriate methods and workflows to optimally characterise an orebody.
* Integrate and interpret analytical, geological and geophysical data to develop static and ultimately genetic orebody models for a range of deposits.
* Undertake field work in remote areas when required.
* Play a significant role in communicating research or technological results in internal and external forums and, where applicable, contribute to and/or generate scientific papers.
* Initiate and maintain collaborative relationships with researchers internally and with external groups such as government, universities, and industry.
* Communicate openly, effectively and respectfully with all staff, clients and suppliers in the interests of good business practice, collaboration and enhancement of CSIRO’s reputation.
* Work collaboratively as part of a multi-disciplinary, regionally dispersed research team to carry out tasks in support of CSIRO’s scientific objectives.
* Adhere to the spirit and practice of CSIRO’s Values, Code of Conduct, Health, Safety and Environment procedures and policy, Diversity initiatives and Making Safety Personal goals.
* Other duties as directed.

## **Required Competencies:**

* **Teamwork and Collaboration:** Cooperates with others to achieve organisational objectives and may share team resources in order to do this. Collaborates with other teams as well as industry colleagues.
* **Influence and Communication:** Uses knowledge of other party's priorities and adapts presentations or discussions to appeal to the interests and level of the audience. Anticipates and prepares for others reactions.
* **Resource Management/Leadership:** Allocates activities, directs tasks and manages resources to meet objectives. Provides coaching and on the job training, recognises and supports staff achievements and fosters open communication in the team.
* **Judgement and Problem Solving:** Investigates underlying issues of complex and ill-defined problems and develops appropriate response by adapting/creating and testing alternative solutions.
* **Independence:** Plans, sets and works to meet challenging standards and goals for self and/or others. Recognises where endeavours will make the most impact or difference, decides on desired outcome and sets realistic goals to reach this target.
* **Adaptability:**Copes with ambiguity or situations that lack clarity. Adapts readily to changing circumstances and new responsibilities (which may include activities outside own preferences) in the interests of achieving team objectives. Recognises the need for and undertakes personal development as a result of changes.

## **Selection Criteria**

#### Essential

*Under CSIRO policy only those who meet all essential criteria can be appointed.*

1. A PhD degree and a minimum of 3 years post-PhD experience in the geosciences or equivalent applied research/industry experience.
2. A proven track record around using a diverse range of analytical methods including but not limited to Scanning Electron Microscopy (SEM), Raman Spectroscopy, Fourier-transform infrared spectroscopy (FTIR), Micro X-ray Fluorescence Microscopy (XFM), Laser Ablation Inductively Coupled Plasms Spectrometry (LA-ICP-MS) and Secondary Ion Mass Spectroscopy (SIMS).
3. Demonstrated ability to identify, design and execute appropriate analytical approaches and workflows to optimally characterise an orebody.
4. Understanding of the formation, architecture and derivation of the exploration and production relevant properties of Ni, REE, PGE’s, Au, Zn, Cu, Pb deposits.
5. Experience with the use of isotope geochemistry methods in the context of resource characterisation for exploration and production.
6. Demonstrated ability to work within a multidisciplinary and diverse research team, and the motivation and discipline to carry out independent research to achieve organisational goals.
7. A capability to build and maintain effective working relationships with stakeholders from a range of backgrounds including industry, education, government and academia.
8. High level written and oral communication skills with the ability to represent the research team effectively internally and externally, including the presentation of research outcomes at national and international conferencesand publishing the results in high impact journals.
9. A record of science innovation and creativity, including the ability & willingness to incorporate novel ideas and approaches into scientific investigations.

## **Desirable**

1. Competency in electron probe microanalysis (EPMA), electron backscatter diffraction analysis (EBSD), Focussed Ion Beam (FIB), and X-ray Powder Diffraction (XRD).
2. Understanding of black smoker pipe type deposits and the interdependence between hydrothermal vent microbial communities and the chemical processes related to the interaction of seawater and magma.
3. Experience working in/with the minerals industry or research projects with industry support, focusing on multi-scale data integration for mineral exploration.

Special Requirements

Appointment to this role may be subject to conditions including provision of a national police check as well as other security/medical/character clearance requirements.

Include if relevant:

* The successful candidate will be asked to obtain and provide evidence of a National Police Check or equivalent. Please note that people with criminal records are not automatically deemed ineligible. Each application will be considered on its merits.
* If the successful candidate is not an Australian Citizen or Permanent Resident, they may be required to undergo additional security clearances, which may include medical examinations and an international standardised test of English language proficiency (i.e. IELTS test).- https://ielts.com.au/

## **About CSIRO:**

We solve the greatest challenges through innovative science and technology. To find out more visit us at [CSIRO Online](http://www.csiro.au/)

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

* 1. People First
	2. Further Together
	3. Making it Real
	4. Trusted

Find out more about CSIRO [Mineral Resources](https://www.csiro.au/en/Research/MRF).