# Position Details

## Research Projects- CSOF5

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| The following information is for applicants | |
| Advertised Job Title | Spatial Mineralogist |
| Job Reference | 84097 |
| Tenure | Specified Term of 12 months  Full-time |
| Salary Range | AU$102k to AU$111k pa (pro-rata for part-time) + up to 15.4% superannuation |
| Location(s) | Perth (Kensington), WA  Whadjuk Noongar Country |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | * Onshore Candidates |
| Position reports to the | Team Leader, Mineral Footprints |
| Client Focus – Internal | 20% |
| Client Focus – External | 80% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Jessica Stromberg via email at jessica.stromberg@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](mailto: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

The role of Research Projects staff in CSIRO is to collaborate in scientific and technological activities with other research staff usually by assisting with detailed planning, undertaking, or assisting with experimental, observational or technology development work, and in carrying out the more practical aspects of the work.

CSIRO Mineral Resources (CMR) is one of the largest minerals research and development groups in the world, with a proud track-record of delivering innovative solutions across the mineral resources value chain. Our multidisciplinary expertise and specialised research techniques and equipment are used to solve the challenging and complex problems faced by minerals mining and exploration companies, as well as mining equipment, technology, and services (METS) companies. We work collaboratively with government, universities, and industry stakeholders. We value the diversity of our researchers and non-research staff, as diversity brings a depth of knowledge, experience and creativity that ignites our innovative research and fosters a healthy and supportive work environment.

As a member of the CMR Discovery Program, the Spatial Mineralogist will work as part of a multidisciplinary group of CSIRO researchers, external clients, including industry, CRCs, and other government agencies, on research relevant to the mineral exploration industry. The role will be focused on applying and developing advanced mineralogical techniques and applications at a range of scales from regional to prospect, to micron scale to better understand mineral systems.

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. The position will be based at the Australian Resources Research Centre in Perth (on Wadjuk Noongar Country), Western Australia, which offers world-class laboratory facilities in a dynamic research environment. 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 a member of the Science in Australia Gender Equity (SAGE) pilot and 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 Islanders Peoples’. CSIRO also 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’.

### Duties and Key Result Areas

* Acquisition, collation, and interpretation a range of geoscience data sets including but not limited to field and lab-based mineralogy, geochemistry, and structural data.
* Contribute to communicating research or technological results in internal and external forums, technical reports, and scientific papers.
* 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.
* 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.
* Work collaboratively as part of a multi-disciplinary, research team to carry out tasks in support of CSIRO’s scientific objectives.
* Liaise with clients to determine their needs and take personal responsibility for client satisfaction.
* Other duties as directed.

## **Selection Criteria**

#### Essential

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

1. A PhD in Applied Geoscience.
2. Demonstrated experience collecting, processing, and interpreting data from electron beam-based mineralogy techniques including EBSD-EDX, SEM-EDX and FE-SEM for mineral systems applications.
3. Demonstrated experience in preparing geological samples for microanalysis including coring, cutting, polishing, thin section preparation, and etching.
4. Experience in using The Spectral Geologist software for working with hyperspectral datasets.
5. Expertise in the development and application of automated mineral strain and fabric pattern analysis approaches via ImageJ, and MATLABTM toolboxes FracPaQ and GBPaQ and interface with model output from ELLE.
6. Experience in the planning and execution of rock deformation experiments with impact on crystallographic preferred orientation, shape preferred orientation and hydration reactions.
7. Willingness to undertake field work and learn new data acquisition and processing methods that may include state-of-the-art quantitative mineralogical equipment, drone-based measurements, LiDAR, machine learning, and new space-borne spectral data systems.
8. 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.

## **Desirable**

1. Experience working with and visualizing spatial mineralogical datasets in ArcGIS or QGIS.
2. Experience using laser ablation inductively coupled plasma mass spectrometry (LA-ICP-MS) coupled to an ultraviolet laser system.
3. Experience working in/with the minerals industry or research projects with industry support, focusing on multi-scale data integration for mineral exploration.
4. Experience in operating a 4WD off-road, conducting field work including field mapping (either in Australia or overseas) and willingness to conduct field work in remote locations in Australia as part of this position.
5. Experience in other geoscientific software.

## **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 team 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:** Sets up and maintains effective and efficient work teams and manages performance and resources, to achieve objectives. Chooses appropriate management strategies and communication styles to maintain high levels of motivation and productivity. Gives feedback for development purposes and provides support and direction for improvement.
* **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.

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.

* The successful candidate will be asked to obtain and provide evidence of a National Police Clearance or equivalent. Please note that individuals 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 [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)