# Position Details

## Research Scientist/Engineer- CSOF5

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| The following information is for applicants |
| Advertised Job Title | Basin Analyst - Sedimentologist |
| Job Reference | 94082 |
| Tenure | Specified Term of 3 years Full-time |
| Salary Range | AU$105,806 - AU$114,500 per annum (pro-rata for part-time)plus up to 15.4% superannuation |
| Location(s) | Perth (Kensington), Western Australia |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | * All Candidates
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| Position reports to the | Team Leader, Structures and Basins |
| Client Focus – Internal | 20% |
| Client Focus – External | 80% |
| Number of Direct Reports | None |
| Enquire about this job | Contact Helen McFarlane via email at helen.mcfarlane@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 areas 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).

**Child Safety**

CSIRO is committed to the safety and wellbeing of all children and young people involved in our activities and programs. View our [Child Safe Policy](https://www.csiro.au/en/about/policies/child-safe-policy).

### Role Overview

The Basin Analyst/Sedimentologist will be part of CSIRO’s Discovery Program Structures and Basins Team. The Discovery Program primarily focuses on providing solutions for the challenge of sustainable prosperity from mineral resources. The role will engage in applied research involving the integration of sedimentological, mineralogical, geochemical, geochronological, structural, and geophysical data for basin analysis and sediment-hosted metal resource characterisation across multiple scales towards geodynamic modelling of sedimentary basins. The Basin Analyst/Sedimentologist will need to understand basin-scale geological and geodynamic processes that may lead to formation of mineral deposits, particularly for copper and critical minerals.

The role will require the completion of field work and core logging, learning new data acquisition, integration and processing methods that may include machine learning, python coding, and stratigraphic forward modelling tools. Core activities will be continental and regional-scale basin analysis, particularly deciphering the sequence stratigraphic framework and depositional environments as part of the basin evolution. On the job training will be provided as necessary.

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 people.

### Duties and Key Result Areas:

* Sedimentological logging of core for sequence stratigraphic interpretation and definition of facies association in various depositional environments.
* Undertake field work/mapping and integrate field/core studies with regional datasets (e.g., geophysics, geochemistry, tectonostratigraphy).
* Integrate multi-source datasets to create higher-level geoscience products, e.g., 3D basin models, sedimentary facies maps and surfaces, stratigraphic forward models.
* Produce high-quality technical reports and client presentations as well as scientific papers suitable for publication in peer-reviewed international journals, communicate research at national and international conferences.
* Communicate research results to clients and the scientific community through oral and written reports, which may include the preparation of documents for patent applications.
* Demonstrating a considerable degree of originality, creativity and innovation in solving problems and introducing new directions and approaches to mineral exploration in basin settings.
* Communicate openly, effectively and respectfully with all staff, clients and suppliers.
* Work collaboratively as part of a multi-disciplinary, often regionally dispersed research team, and business unit to carry out tasks in support of CSIRO’s scientific objectives.
* Adhere to the spirit and practice of CSIRO’s Code of Conduct, Health, Safety and Environment procedures and policy, Diversity initiatives and Making Safety Personal goals.
* Other duties as directed.

## **Selection Criteria**

#### Essential

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

1. A PhD degree or equivalent applied research/industry experience in the field of geosciences and several years post-PhD experience or equivalent, as well as a record of high-quality reports and/or publications in peer-reviewed journals.
2. Experience in the application of sedimentology and/or sequence stratigraphy towards basin analysis through lithological logging or mapping.
3. Experience in at least one or more criteria including, 3D basin modelling, structural geology, diagenesis, geophysics, isotope geochemistry, geochronology, or stratigraphic forward modelling.
4. Knowledge of one or more of the following software packages: GoCAD, Leapfrog 3D, ArcGIS, QGIS, Geosoft, or equivalents.
5. Demonstrated ability to work within a multi-disciplinary research team, plus the motivation and discipline to carry out autonomous research, to achieve organisational goals.

**Desirable**

1. Experience in Proterozoic deformed basins and orogenic belts.
2. Experience in sediment-hosted mineral systems.
3. Experience in python coding.

## **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 responses 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 change.

Special Requirements

Appointment to this role is subject to provision of a pre-employment background check and may be subject to other security/medical/character clearance requirements.

* 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. Visit [CSIRO Online](http://www.csiro.au/) and [Mineral Resources](https://www.csiro.au/en/about/people/business-units/Mineral-Resources) for more information.

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

* People First
* Further Together
* Making it Real
* Trusted