# Position Details

## Research Scientist/Engineer- CSOF5

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| The following information is for applicants |
| Advertised Job Title | Regolith Scientist/Hydrogeochemist |
| Job Reference | 65845 |
| Tenure | Specified Term of 3 yearsFull-time |
| Salary Range | AU$98,735 to AU$106,848 pa (pro-rata for part-time) + up to 15.4% superannuation |
| Location(s) | Kensington, WA |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | All Candidates |
| Position reports to the | Team Leader for Minerals and Water |
| Client Focus – Internal | 20% |
| Client Focus – External | 80% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Sam Spinks via email at sam.spinks@csiro.au or phone +61 8 6436 8590 |
| 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. |

### Role Overview

The role of Research Scientist Staff in CSIRO is to conduct innovative research leading to scientific achievements that are aligned with CSIRO’s strategies. You may be engaged in scientific activity ranging from fundamental research to the investigation of specific industry or community problems. You will have the opportunity to build and maintain networks, play a lead role in securing project funds, provide scientific leadership and pursue new ideas and approaches that create new concepts.

This role is aligned with the strategy of CSIRO Mineral Resources and the Discovery Program focusing on Exploration Through Cover, mainly on regolith and hydrogeochemistry applied to sensing and identifying lithology and mineralisation through deep cover. The focus of this role will be to develop means of efficiently mapping buried geology and mineral deposits by understanding their expression in cover sequences and define and understand the relationships between cover, basement (including depth to crystalline basement) and their regolith through new knowledge of mineralogy, geochemistry, petrophysics, hydrology and geochronology to reconstruct landscape evolution through time. The primary aim for the researcher in this role will be to understand the relationships between basement (including basins where appropriate) and regolith through new knowledge of regolith and hydrogeochemistry. This will include an improved understanding of element migration processes (physical and chemical) within current landscape environments and translation into element dispersion in palaeolandscapes.

The skill set required for the role is a combination of the knowledge of soil science, geology, regolith, geochemistry, hydrogeochemistry, and landscape evolution.

### Duties and Key Result Areas:

* Investigate architecture of transported cover and in situ regolith for interpreting the physical and chemical signature of buried mineralisation within and beneath the cover sequences;
* Conduct experimental studies of the solid and aqueous geochemistry of selected major and trace elements of geological interest in order to deduce mechanisms responsible for their dispersion (solubilization, mobilization and precipitation) relevant to Australian weathering environments;
* Conduct local to district-scale geochemical orientation and dispersion studies focused on selected mineral deposits;
* Conduct field work in local and remote locations;
* Liaise with clients to determine their needs and take personal responsibility for client satisfaction;
* Under limited direction, assist in the planning and preparation of research proposals and carry out research investigations, requiring originality, creativity and innovation;
* Present results in a meaningful format, prepare reports for clients and/or write scientific papers for publication;
* Address problems promptly and in a constructive manner, selecting the most profitable lines of attack upon a problem, preparing detailed design proposals and experimental protocols;
* Undertake experimental and/or observational research activities, often requiring the supervision and/or training of others to ensure experiments are established in accordance with research design;
* Draw on professional expertise, knowledge of other disciplines and research experience, recognise opportunities for innovation and generate new perspectives by pursuing new ideas/approaches and networking with scientific colleagues across a range of disciplines;
* 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, 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 plans and policies, Diversity initiatives and Zero Harm 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, preferably in regolith geology/exploration geochemistry/ hydrogeochemistry/ soil science (or a related discipline), with experience and/or a keen interest in developing exploration methods for regolith-dominated terrains.
2. Excellent oral, written and presentation skills, with a track record of publication of articles, preferably in international journals.
3. Demonstrated experience working in multi-disciplinary research teams.
4. A willingness to travel to, and work in the field in Australia, and potentially overseas.
5. Demonstrated ability to work under limited supervision and adapt to changing circumstances in order to prioritise and address problems in a constructive professional manner.
6. Demonstrated track record of initiative and communication within a team environment, both internally and externally, and formation and maintenance of effective working relationships with a range of colleagues and collaborators.
7. A current driver licence (Open Australian class C driver licence).
8. Working knowledge of GIS (e.g. ArcGIS, QGIS) software.
9. Exposure to geochemical software packages (e.g. IoGAS, Geochemists Workbench).

## **Desirable:**

1. Experience with a range of analytical equipment, including pXRF, XRD, SEM.
2. Experience with collecting and/or utilising stable isotope data in surface sample media.
3. Understanding of the issues of quality control when outsourcing analyses
4. Four-wheel drive experience

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.

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