Position Description – Research Associate in Geochemistry

Updated 20 November 2025

POSITION DETAILS	
College	**College of Science and Engineering**
Organisational Unit	**Physics and Molecular sciences**
Supervisor	**Professor Sarah Harmer**
Classification	**Research (Academic) Level A**
Employment Type	**Fixed-term, full-time**

POSITION SUMMARY

The Research Associate will undertake research in geochemistry under the direction of the Chief Investigator. In working with Professor Sarah Harmer and Dr Gujie Qian, the incumbent will assist in leading the design and execution of the Geochemistry of Compacted Tailings project supported by MMG and the Co-operative Research Centre (CRC) *Transformation in Mining Economies (TiME)* project 3.10.

The two projects will focus on acid mine drainage (AMD) in tailings and waste rocks from a range of ore bodies and climatic zones and long-term storage of mine waste. The projects utilise both mineralogy and microbiology for the assessment and remediation of mine waste through examination of their behaviour at laboratory and mesoscales. The research will be supported by academics and industry partners at Flinders University, Adelaide, Australia. The researcher will work to improve the prediction, assessment of acid and metalliferous drainage from mine waste and develop remediation/storage strategies.

The incumbent may assist in leading students involved in the research Project, according to the University's policies, practices and standards.

UNIVERSITY EXPECTATIONS AND VALUES

All staff at Flinders are responsible for understanding their obligations and responsibilities as set out in the University's code of conduct and are expected to:

- demonstrate commitment to the University's values of Integrity, Courage, Innovation, Excellence and the underlying ethos of being Student Centred;
- contribute to the efficient and effective functioning of the team or work unit in order to meet the University's objectives. This includes demonstrating appropriate and professional workplace behaviours, providing assistance to team members if required and undertaking other key responsibilities or activities as directed by one's supervisor;
- promote and support an inclusive workplace culture which values diversity and embraces the principles of equal opportunity;
- perform their responsibilities in a manner which reflects and responds to continuous improvement; and
- familiarise themselves and comply with the University's Work Health and Safety, Injury Management and Equal Opportunity policies.

KEY POSITION RESPONSIBILITIES

The Research Associate in Geochemistry is accountable for:

- Assisting in leading the Project by collaborating with the Project Research Team to successfully deliver project milestones and Key Performance Indicators.
- Contribute to the planning and execution of research by offering new ideas, reviewing relevant literature and other sources of information, actively participating in the production of data and attending seminars, meetings and conferences.
- Work collaboratively with a broad range of groups, including traditional owners, mining personnel national and international students and scientists and other industry partners
- Contribute to supervision of Honour students and Higher Degree by Research students (as appropriate).
- Contributing to the coordinating, planning and executing the project tasks required to collaborate with industry partners.
- Contributing to ethical, high quality and innovative research and evaluation through activities such as scholarship, quality publication, external grant acquisition and presentations that aligns with the College areas of research strength and focus.
- Any other responsibilities in line with the level of the position as assigned by Professor Sarah Harmer and/or the University.

A Nationally Coordinated Criminal History Check (NCCHC) which is satisfactory to the University will be required by Flinders University before the successful applicant can commence in this position.

KEY POSITION CAPABILITIES

- PhD in Chemistry, Geology or Environmental Science.
- Demonstrated emerging research experience in terms of publications and presentations at a national and/or international level in acid mine drainage
- Demonstrated experience in qualitative geochemistry research methodologies including QXRD, MLA, ANC etc.
- Demonstrate the ability to construct experiments to drive changes in mine wastes and/or soil chemistry
- Demonstrated ability to deliver project targets on time.
- Demonstrated well-developed interpersonal skills and the capacity to collaborate and engage with diverse stakeholders and industry partners.
- Demonstrated ability to critically review the literature in relevant fields.
- Demonstrated ability to undertake collaborative interdisciplinary research
- Demonstrated excellent oral and written communication skills in an academic environment.