

POSITION DESCRIPTION

Position Title:	Research Scientist - Contaminant Geochemistry Nuclear Science and Technology / Research / Environment
Cluster / Business Unit / Division	Theme
Section or Unit:	Contaminant Impacts
Classification:	Band 6
Job Family:	Research / Science
Position Description Number:	PD-2211
Work Contract Type:	Professional (Scientist)
STEMM/NON-STEMM:	STEMM

POSITION PURPOSE

The primary objective of the position is to provide specialised expertise and to undertake original research in contaminant chemistry in soils and groundwater, leading to significant research outcomes aligned with ANSTO's strategic imperatives. The role will deliver scientific and technical advice, inform the management of contaminated sites, and engage in commercial applications of the research.

ORGANISATIONAL ENVIRONMENT

Australian Nuclear Science and Technology Organisation (ANSTO) is home to Australia's most significant nuclear science and technology infrastructure. The Nuclear Science and Technology business unit focuses on undertaking leading edge research, delivering innovative scientific services and specialised advice to government, industry, academia and other research organisations.

The Environment Research Theme uses its nuclear expertise, capabilities and access to unique research infrastructure to support water resource management decisions, build capacity to understand how our environment is changing and inform the management of human impacts on the geosphere. Our vision is to provide environmental outcomes that benefit Australia and support a sustainable world. Our purpose is to understand and respond to environmental challenges through research programs focused in the areas of water resource sustainability, contaminant impacts and environmental change by using our unique nuclear science expertise and capabilities. In the research theme, we undertake high impact environmental research for national benefit to improve the understanding of contaminant pathways and impacts on humans, biota and the broader geosphere.

ACCOUNTABILITIES & RESPONSIBILITIES

Key Accountabilities

- Undertake laboratory experiments, field experiments, and apply nuclear techniques to understand the distributions and behaviour of contaminants, particularly radionuclides, in soils.
- Apply high level specialist knowledge and experience in the geochemistry of contaminants to assist in the management of contaminated sites and nuclear facilities.
- Produce research of emerging international standard, publications in refereed journals and other reputable publications and participation in professional fora.
- Provide trusted advice and specialised services which meets stakeholder and customer requirements, including those related to nationally significant projects.
- Take a leading role in solving highly complex, conceptual scientific problems by seeking knowledge and alternative solutions and developing new techniques, methods and experimental capabilities.

- Seek out and develop opportunities for new projects including those generating external revenue for ANSTO.

Decision Making

- The ANSTO values, organisational corporate plan, business plan, operational excellence program, NST strategy, and Environment Theme Strategic Plan provide the context for the position.
- The position holder works within a framework of legislation, policies, professional standards and resource parameters.
- The position contributes scientific knowledge and technical expertise towards the accuracy, integrity and quality of the content of advice provided to the Program Manager, Project Lead and other staff across ANSTO and is required to ensure that decisions are based on sound evidence.
- Daily work priorities are determined within the context of agreed work plans and the position holder will consult with the line manager on complex, sensitive and major issues.
- The levels of authority delegated to this position are those approved and issued by the Chief Executive Officer. All delegations will be in line with the ANSTO Delegation Manual AS-1682 (as amended or replaced).

Key Challenges

The major challenges for this position include:

- Working in a highly regulated environment with radioactive and hazardous materials, and may include operating complex scientific equipment.
- Undertaking field work and collecting samples at remote and/or potentially contaminated sites
- Developing and expanding reputation and expertise in advancing knowledge related to contaminated sites across Australia.
- Management of any potentially sensitive or confidential aspects of the work.
- Establishing communication and knowledge sharing networks with internal and external collaborators, potential clients, and stakeholders.

KEY RELATIONSHIPS

Who	Purpose
Internal	
Line Manager/Executive	<ul style="list-style-type: none"> • Ensure that organisational objectives guide the work undertaken in this role • Provide expert, authoritative and evidence-based advice • Negotiate and report on budgets and resources consistent with strategic plans and goals • Recommend and gain endorsement for plans and goals and other initiatives
Work area team members	<ul style="list-style-type: none"> • Provide expert advice and analysis on findings of research • Contribute to group decision making processes, planning and goals • Collaborate and share accountability • Negotiate and resolve conflicts • Participate in mentoring and mutual learning and development • Contribute fully to group outputs such as reports, journal papers and presentations
Direct Reports / students	<ul style="list-style-type: none"> • Provide leadership, guidance and support • Evaluate and interpret experimental data as required • Mentor and guide ANSTO graduates and PhD students
Other departments	<ul style="list-style-type: none"> • Interact and advise ANSTO operational areas including facilities management and waste operations, which will utilise the advice and knowledge generated by this position

	<ul style="list-style-type: none"> Utilise and enhance the capabilities of ANSTO platforms which provide specialised analytical services and nuclear techniques to the project
External	
	<ul style="list-style-type: none"> Seek and implement productive interactions with universities and students Understand the needs and provide requested advice to Australian Government agencies and regulatory authorities Work collaboratively with external research institutes Participate and collaborate with international organisations such as the IAEA Develop and maintain positive relationships with industry partners, particularly those concerned with evaluation and remediation of contaminated sites

POSITION DIMENSIONS

Staff Data	
Reporting Line	Program Manager (Contaminant Impacts Program)
Direct Reports	Nil
Indirect Reports	Nil

Financial Data (2021/2022)	
Revenue / Grants	N/A
Operating Budget	N/A
Staffing Budget	N/A
Capital Budget	N/A
Assets	N/A

Special / Physical Requirements	
Location:	Lucas Heights Working in different areas of designated site/campus as needed
Travel:	May be required travel to other ANSTO sites Potential travel both internationally and nationally Field work including remote locations
Physical:	Office based, laboratory and field-work will be part of this role Wearing personal protective equipment for the handling of hazardous and/or radioactive materials
Radiation areas:	May be required to work in radiation areas under tightly regulated conditions Perform duties in an area where radioactive materials are handled under tightly controlled safety conditions Perform duties with and in an area where hazardous chemicals or materials are handled under tightly controlled safety conditions
Hours:	After hours work or varied working hours may be required for short and infrequent periods
Clearance requirements:	Satisfy ANSTO Security and Medical clearance requirements

Workplace Health & Safety

Specific role/s as specified in AP-2362 of the ANSTO WHS Management System

Conform with ANSTO WH&S requirements applicable to all Workers
Individuals are responsible for undertaking their activities in a safe manner and cooperating with OHSE requirements to improve OHSE in their workplace by;

- Reporting unsafe work practices, equipment, incidents and near misses;
 - Working safely to reduce risk to self and others;
 - Using appropriate controls; and
 - Taking a proactive approach to OHSE.
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ORGANISATIONAL CHART



KNOWLEDGE, SKILLS AND EXPERIENCE

- PhD in Environmental Chemistry, Geochemistry, Soil Science, Environmental Engineering or related discipline.
- Expertise in relevant topic areas such as interpretation, analysis and modelling of contaminant behaviour in the soil environment.
- Broad knowledge of standard sample collection and preparation techniques, and practical experience in preparation of water, rock and soil samples for isotope and chemical analyses.
- Experience in one or more of the following: evaluation of contaminated sites, design of waste disposal facilities, management and disposal of waste materials.
- Experience relevant to radioactive contaminated sites, uranium mining, or radioactive waste management, would be an advantage.
- Experience in groundwater and solute geochemical modelling would be an advantage.
- Experience in developing and applying innovative solutions for technical, scientific or engineering problems.
- Demonstrated ability to perform independent leading-edge research, with an excellent publication track record commensurate with experience and opportunities.
- Proven experience in the development and maintenance of productive research relationships and networks.
- Experience in and willingness to follow policy, procedures & guidelines.
- Demonstrated personal qualities that will add value to the work group and assist in the mentoring and development of students and researchers.