# Position Description

## Technical Services – CSOF3

The following information is for applicants

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| Advertised Job Title**:** | Hydrochemist/Analytical Chemist – Seagoing |
| Job Reference: | 79641 |
| Relocation Assistance**:** | Will be provided to the successful candidate if required. |
| Applications Are Open To: | Australian/New Zealand Citizens and Australian Permanent Residents Only |
| Percentage of Client Focus - Internal: | 100% |
| Percentage of Client Focus - External: | 0% |
| Reports to the: | Team Leader, Hydrochemistry |
| Number of Direct Reports: | 0 |
| Name and Contact Details For Applicant Enquiries: | Cassie Schwanger – [cassie.schwanger@csiro.au](mailto:cassie.schwanger@csiro.au) or 03 6232 5042 |
| Contact Details For Applying: | Call 1300 984 220 or email [careers.online@csiro.au](mailto:careers.online@csiro.au) |
| How to Apply: | To be considered for this position please provide a cover letter, CV, and address the Selection Criteria. Apply online at [jobs.csiro.au](https://jobs.csiro.au/) and enter the requisition number**.**  Internal applicants please apply via ‘Jobs Central’ through the ‘People Hub’ icon. |

## Role Overview:

The role of Technical Staff in CSIRO is to provide support for scientific research in a diverse range of laboratory and field situations across a range of different research projects. This support consists of the application of accepted technical practices and the development of new practices. The work is usually carried out as a member of a centralised service.

The Hydrochemist will sit within the Engineering and Analytics Group as part of the Engineering and Technology Program in CSIRO’s National Collections and Marine Infrastructure (NCMI). The role will provide support to the Marine National Facility (MNF) research vessel, RV *Investigator*, and Hobart shore laboratory through sample collection, chemical analysis, data interpretation and detailed quality-controlled data reports. Additionally, this role will support a variety of strategic projects and improvements to existing processes.

The position will be based in the CSIRO Laboratories in Hobart. Onshore, role requirements include following existing standard operating procedures, performing laboratory analyses, maintaining laboratory instrumentation and calibrations, preparation for voyages, and discussion of results and data quality with clients. As part of this role, you will participate in coastal fieldwork based on small boats including sample collection and in situ nutrient analysis.

**A requirement of the role is to provide up to 85 days per year of seagoing support on voyages that are typically 2 to 6 weeks in duration**. Whilst at sea, the Hydrochemist will work closely with the science party to oversee sample collection and perform laboratory analysis of low-level nutrient, high precision salinity, and dissolved oxygen.

On-the-job training and mentoring will be provided.

## Duties and Key Result Areas:

* Analytical Chemistry
  + Collect and analyse seawater samples for a variety of nutrient species including nitrate, nitrite, ammonia, phosphate and silicate, and salinity and dissolved oxygen whilst at sea, and with the application of rigorous quality control and quality assurance procedures.
  + Under technical direction maintain sampling equipment and calibrate analytical equipment in the laboratory and on research vessels.
  + Adapt and/or develop original techniques/procedures/equipment/concepts/ideas to support existing research and further our understanding of existing methods.
  + Process analytical results and apply quality measures in alignment with best practices, including statistical data analysis and report writing
  + Liaise with clients, scientists and stakeholders and other experts concerning data collection, processing, archiving and problem resolution
  + Troubleshoot and document issues with instrumentation
* Teamwork as part of a multi-disciplinary, regionally dispersed research team.
* Carry out tasks under limited direction in support of scientific research to fulfil CSIRO scientific objectives.
* 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 Code of Conduct, Health, Safety and Environment plans and policies, Diversity initiatives and Zero Harm goals.
* Other duties as directed.

## CSIRO Competencies:

1. **Teamwork and Collaboration: Proactively seeks and considers the ideas and opinions of others from within and outside the team to help form decisions, plans or actions.**
2. **Influence and Communication: Puts forward ideas by presenting factual information supported by data, definitions, examples, illustrations or other aids which will assist in conveying meaning.**
3. **Resource Management/Leadership: Provides instruction and assists other staff to complete allocated tasks and activities.**
4. **Judgement and Problem Solving:** Identifies and considers the implications of a range of available alternatives in order to select the most appropriate response to problems of a familiar or recurring nature.
5. **Independence: Recognises and makes immediate changes to improve performance (faster, better, lower cost, more efficiently, better quality, improved client satisfaction).**
6. **Adaptability:** Willingness to change ideas or perceptions based on new information, contrary evidence or other people's points of view. Prepared to try out different approaches.

## Selection Criteria:

**Essential:**

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

1. Be an Australian citizen or permanent resident with a tertiary qualification in Chemistry or equivalent experience in chemistry with an emphasis on analytical chemistry and/or marine chemistry
2. Demonstrated 2+ years of chemical laboratory skills as follows:
   1. Operation of chemical instrumentation
   2. Use of basic laboratory equipment and preparation of reagents and calibration standards
   3. Experience processing and interpreting analytical results
3. Excellent interpersonal, oral and written communications skills, including demonstrated ability to clearly document methods, data reports and detailed manuals.
4. Demonstrated ability to work collaboratively and interact effectively, sometimes from remote locations, as part of a highly competent and committed team.
5. A strong customer-centric support ethic with the ability to provide a high level of technical support and operate laboratory at sea for the duration of voyages (up to 85 days per year, typically 2 to 6 weeks in duration).

## Desirable:

1. Experience with flow chemistry and/or measuring nutrients and/or assessing nutrient datasets in a research setting
2. Familiarity with Microsoft Excel, LIMS/database and/or Python, Matlab, or R.
3. Experience with automated or semi-automated chemistry instruments operated by software (examples - Seal AA3, Seal AA100, Guildline Autosal and Metrohm based titration systems)
4. Experience at sea – professionally or recreationally
5. Experience reviewing and understanding data using quality controls. Experience of measurement uncertainty, and performing statistical analysis on datasets
6. Experience providing customer facing support.
7. Experience troubleshooting and resolving technical issues with instrumentation.

## Special Requirements:

The appointee to this role must have the ability and willingness to:

1. Work at sea and to travel extensively in order to provide operational support in domestic or foreign ports (up to 85 days per year of seagoing support on voyages that are typically 2 to 6 weeks in duration).
2. Obtain a Certificate of Medical Fitness to a standard required by the Australian Antarctic Division for seagoing operations and a Maritime Security Identification Card.

## About CSIRO:

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