



## Radioanalytical Services

For effective radiological monitoring, dose assessment and control, Cefas provides a comprehensive radioanalytical service for a wide range of food, environmental and effluent samples.

Our customers include UK environment agencies, foreign governments and private companies in the nuclear industry and food importers.

### **Our capability**

Managing the risk from radioactivity requires the accurate measurement of activity concentrations in the environment. Cefas has over 50 years of experience in the collection, preparation and radioanalysis of environmental samples. We routinely perform quantitative and qualitative analysis for alpha-, beta- and gamma-emitting radionuclides on a large number of samples and for a number of national and international customers. Our services range from the initial design and implementation of complex sampling and radioanalytical programmes to the final interpretation of derived dose assessments.

### **Tailored service**

- All radioanalytical services are tailored specifically to the needs of the customer
- Dedicated team of specialist staff
- Rapid sample turn around
- High sample throughput
- Radioanalysis criteria and results can be formatted to suit customer requirements
- Interpretation of results

### Extensive state-of-the-art facilities

- Dedicated sample preparation suite
- Alpha, Beta and Gamma radiation counting systems
- Quantitative analysis over a range of activity concentrations (mBq to MBq)
- Very low level Alpha Spectrometry Analysis
- Low background High-Resolution Gamma-Ray Spectrometry Analysis (HpGe detectors)
- Mobile monitoring unit (gamma-ray) and a team of specialist staff for emergency response capability
- Extensive capability for deep-freeze storage of samples



Figure 1: Crab sampling in the laboratory

### Sample matrices

Cefas is experienced in the collection, preparation and radioanalysis across a wide range of sample matrices in both the aquatic and terrestrial environments, including:

- Soil and sediment
- Rain, river, lake, drinking and groundwaters
- Plant and animal tissue
- Milk and food products
- Effluents

### Quality policy

The radioanalytical data produced by Cefas are amongst the most reliable produced by expert laboratories anywhere in the world.

- Standard Operating Procedures and quality control programmes (internal and external) prepared to UKAS standards
- High precision and accuracy to recognised international and national levels
- Regular participation in international and national inter-comparison proficiency schemes (IAEA, NPL, etc.)

Radioanalytical services have method accreditation in accordance with the recognised International Standard ISO/IEC 17025 General Requirements for the competence of testing and calibration laboratories. The Radiological Protection area is TESTING LABORATORY No. 1875.

Our UKAS accreditation schedule is given here: [http://www.ukas.org/testing/lab\\_detail.asp?lab\\_id=1762&location\\_id=&vMenuOption=3](http://www.ukas.org/testing/lab_detail.asp?lab_id=1762&location_id=&vMenuOption=3)

### Enquiries

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Figure 2: Banks of alpha spectrometry detectors