



ENVIRONMENTAL ANALYSIS



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ENVIRONMENTAL ANALYSIS



We have a deep expertise in monitoring for contamination in both natural and built environments. Our analysis covers a wide variety of complex matrices such as air, water, soil, sediment and building materials.

We hold a Plant Health licence to allow the import of soils from outside the European Union as well as explosive, chemical agent and drug licences to allow us to handle a wide variety of potential contaminants.

RPS also has an extensive network of partner laboratories worldwide that enables us to receive testing samples from across the globe.

Water analysis

From routine environmental monitoring projects to large scale surface and wastewater testing and monitoring programmes, RPS provides an extensive range of water analysis.

Sediments

With over 20 years of experience in marine sediment analysis, we produce high-quality and accurate data for our clients, helping them to gather key information on the condition of their marine environment. We are also ISO 17025, MMO approved and take part in NMBAQC and Quasimeme marine PT schemes.

Landfills

RPS provides specialist landfill leachate analysis for routine monitoring, scoping and efforts towards research and development. We can provide pragmatic solutions for our clients, including regulators, consultants, operators and universities as well.

Sewage sludge

RPS provides analysis of priority pollutants and emerging substances in wastewater treatment, sewage sludge and biosolids applied to land.

Stack emissions analysis

Environmental concerns are at an all-time high across the world. RPS has decades of demonstrable experience and knowledge in delivering stack emissions analysis, performed to a UKAS and MCERTS accredited standard.

Explosives and chemical weapons

We support the Defence sector, enabling them to meet their objective of good environmental stewardship, and assisting contractors in the safe decommissioning and remediation of legacy sites.

We conduct explosives and chemical weapons analysis, and other toxic substances in line with regulatory requirements, are ISO17025 and MCERTS accredited and are licensed to store and handle these materials.

Building materials

RPS has deep expertise in testing of a wide variety of materials from plastics to foams and also building materials. We are pragmatic in our approach to materials analysis and can help our clients facilitate disposal, reuse or recycling, as required.

Air analysis

From routine environmental monitoring, to custom targeted air analysis, RPS offers solutions to all your site monitoring requirements.

WATER ANALYSIS



We provide a complete water analysis service for our clients, from project management, sampling services, refrigerated transport, analysis, data management and reporting.

This provides our clients confidence that they receive high quality data within their expected timescales.

Our testing covers the full range of analyses, from routine environmental pollutants through to priority pollutants, emerging contaminants and endocrine disrupting chemicals (for example, PFAS, Dechloranes, Chloroalkanes, Antimicrobials and Olfactory parameters). We are UKAS accredited and our methods are also set up to cover

drinking water (non-regulatory), ground waters, surface waters, influents, final treated effluents, leachates and crude sewage.

Industrial Emissions Directive (IED)

Providing comprehensive analytical services for IED regulatory compliance for matrices such as sludge, runoff and trade discharge.

Specific Pollution Standards (SPS)

Providing analysis that achieves the Environmental Quality Standards (EQS) and 10% of EQS where applicable for each individual analyte in both freshwater and estuarine water Specific and Priority Pollutants.

Our experience

We have decades of deep expertise in water analysis having worked alongside a number of water utility companies on their Chemical Investigation Programme (CIP) testing, through CIP1, CIP2 and CIP3.

We also work for a number of other clients ranging from other consultancies through to the Environment Agency, Defra, Natural Resources Wales and the UK Water Industry Research body UKWIR.

Our laboratories specialise in trace and ultra-trace analysis of priority pollutants and emerging contaminants and our site teams provide sampling and refrigerated transport of samples in compliance with various regulatory guidelines.

The laboratories hold ISO/IEC 17025 accreditation for a range of priority pollutants in water to comply with Environmental Quality Standards (EQS) and the Water Framework Directive (WFD).

Typical pollutants we analyse:

- Cypermethrin
- Hexabomocyclododecane
- PFAS, PFOS and PFOA
- Tributyltin (TBT)
- Glyphosate and AMPA
- Steroids
- Surfactants
- Pharmaceuticals
- Heavy metals total and dissolved
- Low level hexavalent chromium
- Low level mercury
- Flame retardants
- Antimicrobials
- Olfactory contaminants
- Chloroalkanes & Polychloronaphthalenes
- Routine Inorganics
- Microbiology
- Chlorophyll and phaeophytin
- Dechloranes & Siloxanes
- Phthalates
- PAHs and PCBs
- Endocrine disruptors
- Personal care by-products
- Insecticides, Herbicides and Fungicides
- Algicides and biocides
- Phenols
- Chelating agents (EDTA, NTA
- Nitrosamines, THMS, haloacetic acids, chlorate, chlorite, bromate)
- Perchlorate
- Triclosan

PFAS ANALYSIS



PFAS (Perfluoroalkyl-and polyfluoroalkyl substances) are a broad group of man-made chemicals that have been used in a wide variety of products and applications, due to their water repellent and non-stick properties.

They are known as 'forever chemicals' because they do not break down in the environment. These chemicals are found in food packaging, cookware, cosmetics, carpets and mattresses and fire-fighting foams, to name just a few industrial applications.

RPS can provide PFAS analysis for soil, sediments, wastewater, food and animal tissues. Our Bedford laboratory was one of the first laboratories in the UK to gain UKAS accreditation for the analysis of a range of PFAS chemicals following the monitoring required at the Buncefield oil terminal.

Our laboratory team has been instrumental in providing analytical support during the extensive remediation and clean-up project and then providing routine monitoring.

We have also been providing ISO 17025 accredited analysis of both PFOS and PFOA as part of the UK Chemicals Investigation Programme for the last 12 years in line with EU AA-EQS targets and with limits of detection for both substances in water, down to 0.09ng/L. This is roughly equivalent to detecting a single drop of PFOS in 44 Olympic size swimming pools.

We carry out analysis of PFAS chemicals in line with the European Drinking Water Directive list of 20 and the UK Drinking Water Inspectorate list of 47 which we have now extended to include 54 targeted PFAS chemicals as 0.1ng/L. As shorter chain PFASs (<C7) are less retained by granulated activated carbon treatment systems, we have been providing analytical support to water companies, consultancies and university pilot trials in order to monitor a wide range of PFASs.

This has helped our clients to evaluate their treatment options and understand the risks posed by other currently unregulated substances.

EU DWD PFAS 20 List analysis

In line with the new proposed EU council amendment to Directive 98/83/EC Annex I and III, which now includes 20 PFAS compounds and sets a Sum of PFAS limit of 0.1ug/L, this reflects the World Health Organisation's recommendations. Using LC-MS/MS, RPS can detect sub nanogram levels of these PFAS compounds in drinking water, surface water, groundwater, final effluent and raw sewage.

PFAS 54 suite including the DWI PFAS 47 List

The UK drinking water inspectorate as of the 31st December 2021 requires that all drinking water is monitored for a list of 47 PFAS compounds in order to gather further information on their levels and prevalence in UK supplies. RPS has developed a targeted method to detect 54 PFAS compounds in one run to assist water companies and private supplies to meet this new regulatory requirement.

We are known for our deep expertise in a wide range of scientific analysis, monitoring and compliance services from independent laboratory facilities in the United Kingdom and Europe. Using state-of-the-art instrumentation, we customise chemical investigation and analysis solutions to help clients comply with international quality standards, maximum residue limits (MRLs), environmental regulations and more.

Founded in 1970, RPS is now part of Tetra Tech, a leading provider of consulting and engineering services worldwide. Our experts define, design and manage projects that create shared value to a complex, urbanising and resource-scarce world. With 28,000 associates in 550 offices in more than 100 countries on 7 continents, Tetra Tech has the resources of a multi-billion-dollar company and can move at the speed of a 20-person office.

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