



## The Coal Authority

This notice is not a call for competition. The Coal Authority intends to issue the call for competition on or after 14 November 2018

The Coal Authority was established by Parliament to undertake specific statutory duties, set out in the Coal Industry Act 1994, associated with licensing coal mining operations; managing property and the historic legacy arising from the ownership of the coal reserves and underground workings; settling subsidence damage claims not falling on coal mine operators and providing access to coal mining information. Part of the duties undertaken by the Coal Authority includes the remediation of coal mine waters, included on a priority list agreed with the environmental regulators, and more recently, metal mine waters in England.

This requirement will be for providing UKAS accredited laboratory analysis on a wide variety of water samples (e.g. mine waters, groundwaters, surface waters and sea waters etc.), in addition to solid matrix samples (e.g. ochre, mine tailings, sediments, soils etc.) for a range of inorganic analytes and metals.

More specialized analyses may also be required periodically, including but not limited to, gas analysis, particle size distribution, NORM concentrations, in addition to routine Environmental Health testing e.g. Legionella testing and Faecal Coliform analysis etc.

A typical number of 500 samples are submitted for testing each calendar year, but this figure is expected to grow over the life of the contract. The samples will be collected by either the Coal Authority, or an organization nominated by the Coal Authority, for which the successful laboratory will be required to arrange for sample collection, as well as delivery of sample bottles to an agreed list of locations. Please note, due to the unstable nature of mine water, we require the ability to acidify all water samples in the field – acidification upon receipt to the laboratory is not acceptable.

Samples for analysis are collected from a wide range of sites across England, Scotland and Wales; however the main focus of the sampling regimes are in the UK Coalfields (South Wales, West and East Midlands, North West England, Yorkshire, North East England, Central Belt of Scotland) and Ore Fields (SW England, Shropshire, Mid Wales, North Wales, Yorkshire Dales, North Pennines, Lake District, Cleveland, Southern Uplands) across the country.

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A variety of analytical techniques will be required to fulfil the range of LOD's required for our databases. For metal mine waters, the key metals include zinc, lead and cadmium, where LOD's in the order of 1-2µg/L (or 0.1µg/L in the case of cadmium) are required. For coal mines, key analytes include total, dissolved and ferrous iron to a LOD of 0.1mg/L, in addition to total alkalinity, total and cold acidity, suspended solids, sulphate (LOD 3mg/L) and chloride (LOD 1mg/L). Please note the composition of coal mine waters are highly variable, with iron concentrations ranging between <1mg/L to >150mg/L, chloride ranging between <50 - >20,000mg/L and sulphate ranging from <10mg/L to >3000mg/L.

For solid samples, similar detection limits as above will apply for key determinands and provision should be made for use of techniques include ICP (MS/OES), XRF and XRD analyses.

Many samples are collected from mine water treatment schemes, where we hold permits issued by the environmental regulators to discharge treated water. Part of this contract will therefore include provision to report early warnings against a list of trigger values where there is a risk that our permitted concentrations are being exceeded.

The contractor will be required to deliver data in a variety of forms, including, but not limited to: UKAS accredited certificates, individual excel files for each sample report, collated excel files (or similar) to allow efficient upload into our databases.

It is intended that this tender will consist of two lots.

Lot 1 will be concerned with laboratory analysis of received samples (including collection of samples from any UK address via appropriate courier and provision of sample bottles).

Lot 2 will be concerned with the provision of field analysis (e.g. pH, conductivity, temperature, redox potential, dissolved oxygen, total dissolved solids etc.), and sample taking resource across our UK sites.

As part of the tender process, the Coal Authority reserves the right to request some cross laboratory testing of mine water sample/s of their own choosing, in addition to CRM's, to allow a cross comparison of data at the tenderer's cost.

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**About the buyer**

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