


Schedule of Accreditation

issued by

United Kingdom Accreditation Service

2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

 <p>7541</p> <p>Accredited to ISO/IEC 17025:2017</p>	<p>James Hutton Ltd trading as James Hutton Institute Scientific Services</p> <p>Issue No: 029 Issue date: 16 March 2026</p>	
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<p>Testing performed at the above address only</p>		

DETAIL OF ACCREDITATION

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
BIOLOGICAL MATERIALS	<p><u>Chemical Tests</u></p> <p>Moisture Content and Loss of Material on Ignition</p> <p>Isotopes: ¹³C, ¹⁵N, Total Carbon, Total Nitrogen</p> <p>Qualitative identification / composition</p>	<p>Documented In-House Methods</p> <p>DM007 using Gravimetry</p> <p>AM002 using Continuous Flow Isotope Ratio Mass Spectrometry (CF-IRMS)</p> <p>FM001 using Fourier Transform - Infra Red Spectroscopy (FTIR)</p>
BOTANICAL MATERIAL AND ANIMAL FEEDINGSTUFFS	<p><u>Chemical Tests</u></p> <p>Total Carbon and Total Nitrogen</p> <p><u>Isotopic Tests</u></p> <p>Isotopes: ¹³C, ¹⁵N, Total Carbon and Total Nitrogen</p>	<p>Documented In-House Methods</p> <p>DM001 using Elemental Analyser / Dumas Combustion</p> <p>Documented In-House Methods</p> <p>AM002 using Continuous Flow Isotope Ratio Mass Spectrometry (CF-IRMS)</p>



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CHEMICAL PRODUCTS, CHEMICALS: ORGANIC CHEMICALS: INORGANIC	<u>Chemical Tests</u>	Documented In-House Methods
	Qualitative identification / composition	EM001 using Scanning Electron Microscopy (SEM) FM001 using FTIR
	Qualitative identification / characterisation	GM001 and GM003 using XRD EM002 using EDS and SEM
	Quantitative estimation of phase composition	GM004 using X-ray Diffraction (XRD)
	<u>Isotopic Tests</u>	Documented In-House Methods
Isotopes: ¹³ C, ¹⁵ N, Total Carbon and Total Nitrogen	AM002 using Continuous Flow Isotope Ratio Mass Spectrometry (CF-IRMS)	
FIBRE PRODUCTS – NATURAL / ARTIFICIAL	<u>Chemical Tests</u>	Documented In-House Methods
	Qualitative identification / composition	EM001 using SEM FM001 using FT-IR EM002 using SEM and Energy Dispersing Spectroscopy (EDS)
PLASTICS AND PRODUCTS	<u>Chemical Tests</u>	Documented In-House Methods
	Qualitative identification / composition	FM001 using FTIR



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ROCKS / GEOLOGICAL MATERIALS, SEDIMENTS AND SOILS, CLAY AND CLAY PRODUCTS	<u>Geological Tests</u>	Documented In-House Methods
	Semi-quantitative mineralogical composition	GM005 using XRD
	Qualitative identification / characterisation	GM001 and GM003 using XRD FM001 using FTIR EM001 using SEM EM002 using EDS and SEM
	Quantitative estimation of mineralogical composition	GM002 and GM004 using X-ray Diffraction (XRD)
	Cation Exchange Capacity using Cobalt Hexamine Trichloride	GM006 by colorimetry using a Discrete Analyser
ROCKS / GEOLOGICAL MATERIALS, SEDIMENTS AND SOILS	<u>Isotopic Tests</u>	Documented In-House Methods
	Isotopes: Sr	AM005 using Thermal Ionisation Mass Spectrometry (TIMS)
SEDIMENTS AND SOILS	<u>Chemical Tests</u>	Documented In-House Methods
	Moisture Content and Loss of Material on Ignition	DM007 using Gravimetry
	Total Carbon and Total Nitrogen	DM001 using Elemental Analyser / Dumas Combustion
	pH	DM006 using Glass Electrode
	<u>Isotopic Tests</u>	Documented In-House Methods
	Isotopes: 13C and 15N Total Carbon Total Nitrogen	AM002 using Continuous Flow Isotope Ratio Mass Spectrometry (CF-IRMS)



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WATER / WATERS	<u>Chemical Tests</u> pH	Documented In-House Methods DM006 using Glass Electrode
WATERS (and soil extracts)	<u>Chemical Tests</u> Conductivity Total Organic Carbon (TOC) Total Nitrogen (TN) <u>Isotopic Tests</u> Isotopes: Sr	Documented In-House Methods DM012 by Glass Electrode BM019 using Non-dispersive Infra-Red Spectroscopy and Chemiluminescence Documented In-House Methods AM005 using Thermal Ionisation Mass Spectrometry (TIMS)
CHEMICAL PRODUCTS Glacial Acetic Acid	Analysis using the following techniques: pH Presence / Absence of acetates Clarity Colour Freezing Point Presence/Absence of reducing substances Chloride Sulphate Residue Iron Titration Assay	In-House Method BM024 based upon European Pharmacopeia 11.0, monograph 0590 (01/2017) By pH Electrode (DM006) By Precipitation By Turbidimeter By Comparison By Potassium permanganate reaction By Silver Nitrate reaction By Barium Chloride reaction By Evaporation By Citric Acid & Monoglycolic Acid reaction By Manual and Automated methods



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<p>FLEXIBLE SCOPE ENCOMPASSING: ROCKS / GEOLOGICAL MATERIALS, SEDIMENTS, SOILS, ANIMAL TISSUE, LEACHATES, WATERS, CHEMICAL PRODUCTS (Liquids, Solids, Organic, Inorganic) ANIMAL FEEDINGSTUFFS, BOTANICAL MATERIAL, CROPS</p> <p>FLEXIBLE SCOPE: NON-TURBID WATER AND WATER BASED SAMPLES</p>	<p><u>Chemical Tests</u></p> <p>Inorganic elements <i>The organisation holds a flexible scope of accreditation for these tests. Please contact the organisation for details of the further individual determinands they can analyse using this method.</i></p> <p>Inorganic analytes <i>The organisation holds a flexible scope of accreditation for these tests. Please contact the organisation for details of the further individual determinands they can analyse using this method.</i></p>	<p>Documented In-House Method by acid digestion method DM009 and Inductively Coupled Plasma – Optical Emission Spectroscopy (ICP-OES), Developed and Validated according to Method BM014 (flexible scope)</p> <p>Documented In-House Method acid digestion method DM009 and by Inductively Coupled Plasma – Mass Spectrometry (ICP-MS), Developed and Validated according to Method BM015 (flexible scope)</p> <p>Documented In-House Method by discrete colorimetric analyser, developed and validated according to Method BM023 (flexible scope)</p>
END		