Schedule of Accreditation

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Accredited to ISO/IEC 17025:2005

Natural Resource Management Ltd

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Testing performed at the above address only

DETAIL OF ACCREDITATION

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
SOILS	Chemical Tests	Documented In-House Methods:
	Boron (Hot Water Soluble)	JAS-084 by ICP-OES
	Carbon, Nitrogen and Sulphur	JAS-373 by Total Combustion Analyser
	Chromium (hexavalent)	JAS-384 by Colorimetry
	Conductivity (Saturated $CaSO_4$)	JAS-058 by Conductivity Meter
	Conductivity (Water 1:2.5)	JAS-058 by Conductivity Meter
	Metals: Aluminium Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Molybdenum Nickel Phosphorous Potassium Vanadium Zinc	JAS-300 by ICP-OES
	Mercury	JAS-454 by Hydride - AFS
	Selenium	JAS 455 by Hydride - AFS

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
SOILS (cont'd)	Chemical Tests (cont'd)	Documented In-House Methods:
	pH	JAS-398 by a Potentiometry
	Sulphate (Acid Soluble) as S	JAS-397 by ICP-OES
	Sulphate (Water Soluble 1:2)	JAS-397 by ICP-OES
	Sulphate (Water Soluble 1:2.5)	JAS-397 by ICP-OES
	Sulphate (Water Soluble 1:5)	JAS-397 by ICP-OES
	Sulphide (Acid Volatile)	JAS-352 by Colorimetry
	Sulphur (Elemental S)	JAS-410 by HPLC
	Magnesium (Available) Potassium (Available)	JAS-399 by AAS
	Organic Matter	JAS-93 by Titration (Walkley-Black)
	Loss on Ignition	JAS-255 by Gravimetry
	Phosphorous (Available)	JAS-400 by Flow Injection
	Total, complex and easily liberated cyanide	JAS-462 by steam distillation and rapid colorimetric flow analysis
	Monohydric phenols	JAS-464 by steam distillation and rapid colorimetric flow analysis
	Extractable Phosphate	JAS 0489 Morgans method (Sodium acetate extractant) by automated colorimetry
	Potassium Magnesium	JAS 0489 Morgans method (Sodium acetate extractant) by Atomic absorption spectrometry
	pH in Sikora Buffer extract	JAS 0490 by potentiometry

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
SOILS (cont'd)	Chemical Tests (cont'd)	Documented In-House Methods
	Banded Gasoline-Range Organics (C_5-C_{10}), including: Aliphatic bands: C_5-C_6 C_6-C_8 C_8-C_{10} Aromatic bands: C_5-C_6 C_6-C_7 C_7-C_8 C_8-C_{10} Total hydrocarbon bands: C_5-C_6 C_6-C_8 C_8-C_{10} Total GRO C_5-C_{10} MTBE Benzene Toluene Ethylbenzene o-Xylene (m+p)-Xylenes	JAS-467 by Headspace GC-MS Documented In-House Methods to meet the requirements of the Environment Agency MCERTS performance standard - chemical testing of soil
	Loss on Ignition	JAS-255
	Total cyanide	JAS-462 by steam distillation and rapid colorimetric flow analysis
	Monohydric phenols	JAS-464 by steam distillation and rapid colorimetric flow analysis
	Hot Water-soluble boron	JAS-084 by ICP-OES
	Acid-soluble sulphate	JAS-397 by ICP-OES
	Elemental sulphur	JAS-410 by HPLC-UV
	pH	JAS-398 by Potentiometry

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
SOILS (cont'd)	Chemical Tests (cont'd)	Documented In-House Methods to meet the requirements of the Environment Agency MCERTS performance standard - chemical testing of soil (cont'd)
	Water-soluble Sulphate	JAS-397 by ICP-OES
	Metals: Arsenic Barium Beryllium Cadmium Chromium Copper Lead Nickel Vanadium Zinc	JAS-300 by ICP-OES
	Mercury	JAS-454 by hydride-AFS
	Selenium	JAS-455 by hydride-AFS
	Polynuclear Aromatic Hydrocarbons: Naphthalene Acenaphthylene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a)anthracene Chrysene Benzo(k)fluoranthene Benzo(a)pyrene Benzo(b)fluoranthene Indeno(1,2,3-c,d)pyrene Dibenzo(a,h)anthracene Benzo(g,h,i)perylene Benzo(j)fluoranthene Coronene Total PAHs (total of 16) Total PAHs (total of 16 + Benzo(j)fluoranthene) Total PAHs (total of 16 + Benzo(j)fluoranthene + Coronene)	JAS-349 by GC-MS

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
SOILS (cont'd)	Chemical Tests (cont'd)	Documented In-House Methods to meet the requirements of the Environment Agency MCERTS performance standard - chemical testing of soil (cont'd)
	Polychlorinated Biphenyls: PCB 18 PCB 52 PCB 101 PCB 118 PCB 138 PCB 153 PCB 180 Total PCBs (sum of 7 congeners)	JAS-354 by GC-MS
	Extractable Petroleum Hydrocarbons (C_{10} - C_{40}) including diesel range organics and mineral oil	JAS-383 by GC-FID
WATERS	Chemical Tests	Documented In-House Methods:
Ground water, surface water and landfill leachate	Anions: Ammonium Chloride Nitrate Nitrite Ortho-phosphate Sulphate	JAS-0491 by discrete colorimetry
Ground water, surface water and landfill leachate	pH	JAS-0516 by pH meter
Ground water, surface water and landfill leachate	Electrical Conductivity	JAS-0517 by conductivity meter
Ground water, surface water and landfill leachate	Total Suspended Solids	JAS-0518 by gravimetry
Ground water, surface water and landfill leachate	Chemical Oxygen Demand	JAS-0138 by colorimetry
Ground water, surface water and landfill leachate	Filtered Non Purgeable Organic Carbon	JAS-513 by TOC analyser

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
FOOD AND FEEDSTUFFS	Chemical Tests	Documented In-House Methods:
Feeds, Diets and Pet Foods	Arsenic	JAS-0372 (microwave digestion) and JAS-0501 (determination by atomic fluorescence spectrometry)
Feed Pre-Mixes Including Mineral Supplements	Arsenic	JAS-0500 (hot block digestion) and JAS-0501 (determination by atomic fluorescence spectrometry)
Green Leafy Vegetables	Nitrate	JAS-417 by colorimetry
Feeds, Diets and Pet Foods	Mercury	JAS-0372 (microwave digestion) and JAS-0454 (determination by cold vapour atomic fluorescence spectrometry)
Feed Pre-Mixes Including Mineral Supplements	Mercury	JAS-0500 (hot block digestion) and JAS-0454 (determination by cold vapour atomic fluorescence spectrometry)
Feeds, Diets, Pet Foods, Meat, Meat Based Products, Plant Tissue and Bread	Selenium	JAS-0372 (microwave digestion) and JAS-0455 (determination by atomic fluorescence spectrometry)
Feed Pre-Mixes Including Mineral Supplements	Selenium	JAS-0500 (hot block digestion) and JAS-0455 (determination by atomic fluorescence spectrometry)
Feed Pre-Mixes Including Mineral Supplements	Selenium	JAS-0500 (hot block digestion) and JAS-0379 (determination by ICP-MS)
Feeds, Diets and Feed Pre-Mixes	Fluoride	JAS-502 using ISE
Feeds and Diets	Metals Cadmium Cobalt Molybdenum Lead	JAS-372 (Microwave digestion and JAS379 (determination by ICP-MS)
Feed Pre-Mixes	Metals Cadmium Cobalt Molybdenum Lead	JAS-501 (Hotblock digestion) and JAS 379 (determination by ICP-MS)

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
FOOD AND FEEDSTUFFS (cont'd) Feeds and Diets	Chemical Tests (cont'd) Organochlorine Pesticides Aldrin cis-Chlordane trans-Chlordane oxy-Chlordane 2,4'-DDD 4,4'-DDD 2,4'-DDE 4,4'-DDE 2,4'-DDT 4,4'-DDT Dieldrin alpha-Endosulfan beta-Endosulfan Endosulfan Sulphate Endrin Endrin Ketone alpha-HCH beta-HCH gamma-HCH Heptachlor cis-Heptachlor Epoxide Hexachlorobenzene	Documented In-House Methods: JAS-519 using QuEChERS Extraction and determination by GC-MS
END		