Schedule of Accreditation

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

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Accredited to ISO/IEC 17025:2017

Envirolab Limited

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Envirolab Limted
Hattersley Science and Technology Park
Housesteads
Off Stockport Road
Hattersley
SK14 3QU

Contact: Ms D Bescoby
Tel: +44 (0)161 368 4921
Fax: +44 (0)161 368 5287
E-Mail: dbescoby@envlab.co.uk
Website: www.envlab.co.uk

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 Method to meet the requirements of the Environment Agency MCERTS Performance Standard - Chemical testing of soil
	Chloride Sulphate	A-T-026 by Colorimetry
	Hot Block Aqua Regia extractable Metals: Arsenic Cadmium Cobalt Copper Chromium Lead Manganese Molybdenum Nickel Selenium Vanadium Zinc	A-T-024 by ICP-OES
	Acid Soluble Sulphate	A-T-028 by ICP-OES
	Elemental Sulphur	A-T-029 by HPLC
	Free Cyanide Total Cyanide	A-T-042 by Colorimetry A-T-042 by Continuous Flow Analyser (Skalar)
	Loss on Ignition	A-T-030 by Gravimetry
	Water-soluble Boron	A-T-027 by ICP-OES

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 Method to meet the requirements of the Environment Agency MCERTS Performance Standard - Chemical testing of soil (cont'd)
	Complex Cyanide	By calculation from Free and total Cyanide
	pH	A-T-031 by meter A-T-031 by manual probe
	Total Organic Carbon (TOC)	A-T-032 by Combustion
	Polychlorinated Biphenyls: PCB 28 PCB 52 PCB 101 PCB 81 PCB 77 PCB 123 PCB 118 PCB 114 PCB 153 PCB 105 PCB 138 PCB 126 PCB 167 PCB 156 PCB 157 PCB 180 PCB 169 PCB 189	A-T-004 using automated preparation and GC-MS
	Polychlorinated Biphenyls: PCB 28 PCB 52 PCB 101 PCB 118 PCB 153 PCB 138 PCB 180	A-T-004 using solvent extraction and 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 Method to meet the requirements of the Environment Agency MCERTS Performance Standard - Chemical testing of soil (cont'd)
	Poly Aromatic Hydrocarbons (PAH): Acenaphthene Acenaphthylene Fluorene Phenanthrene Anthracene Fluoranthene Naphthalene Pyrene Benzo(a)anthracene Chrysene Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Indeno(123cd)pyrene Dibenzo(ah)anthracene Benzo(ghi)perylene	A-T-019 using automated preparation and GC-MS
	Polynuclear Aromatic Hydrocarbons (Total sum of EPA 16)	A-T-019 using automated preparation and GC-MS
	Poly Aromatic Hydrocarbons (PAH): Acenaphthene Acenaphthylene Fluorene Phenanthrene Anthracene Fluoranthene Naphthalene Pyrene Benzo(a)anthracene Chrysene Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Indeno(123cd)pyrene Dibenzo(ah)anthracene Benzo(ghi)perylene	A-T-019 using solvent extraction and GC-MS
	Polynuclear Aromatic Hydrocarbons (Total sum of EPA 16)	A-T-019 using solvent extraction and 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 Method to meet the requirements of the Environment Agency MCERTS Performance Standard - Chemical testing of soil (cont'd)
	Total Petroleum Hydrocarbons >C6-C40:- >C6-C8 >C6-C10 >C8-C10 >C10-C12 >C10-C25 >C12-C15 >C12-C16 >C15-C16 >C16-C20 >C16-C21 >C20-C21 >C21-C24 >C21-C40 >C24-C25 >C25-C28 >C25-C40 >C28-C30 >C30-C32 >C32-C35 Total >C6-C40	A-T-007 by GC-FID
	Extractable Petroleum Hydrocarbons >C8-C40: - Ali >C10-12 Ali >C12-16 Ali >C16-21 Aro >C16-21 Ali >C21-35 Total EPH >C8-40	A-T055 by GCxGC-FID

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
SOILS ONLY	<u>Chemical Tests</u> Volatile Organic Compounds: 1,1,1-trichloroethane 1,1,2-trichloroethane 1,1-dichloroethane 1,1-dichloroethene 1,1-dichloropropene 1,2,3-trichloropropane 1,2,4-trimethylbenzene 1,2-dibromoethane 1,2-dichlorobenzene 1,2-dichloroethane 1,2-dichloropropane 1,3,5-trimethylbenzene 1,3-dichloropropane 1,4-dichlorobenzene 2,2-dichloropropane 2-chlorotoluene 4-chlorotoluene 4-isopropyltoluene Benzene Bromobenzene Bromochloromethane Bromodichloromethane Bromoform (Tribromomethane) Bromomethane carbon disulphide Carbon Tetrachloride (Tetrachloromethane) Chlorobenzene Chloroethane Chloroform (Trichloromethane) cis 1,2-dichloroethene (Z) cis 1,3-dichloropropene (Z) Dibromochloromethane Dibromomethane	Documented In-House Methods identified by method number A-T-006 using GCMS with Headspace

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
SOILS ONLY (cont'd)	Chemical Tests (cont'd)	Documented In-House Methods identified by method number
	Volatile Organic Compounds (cont'd): Ethylbenzene Hexachloro-1,3-butadiene Isopropylbenzene m&p-xylene n-butylbenzene n-propylbenzene o-xylene sec-butylbenzene Styrene tert-butylbenzene Tetrachloroethene Toluene trans 1,2-dichloroethene (E) Trans 1,3-dichloropropene (E) Trichloroethene Trichlorofluromethane (CFC-11) Vinylchloride	A-T-006 using GCMS with Headspace
	Volatile Petroleum Hydrocarbons: Speciated aliphatic banding: >C5-C6 >C6-C8 Speciated aromatic banding: >C5-C7 >C7-C8	A-T-022 using GC-MS
	Volatile Petroleum Hydrocarbons: MTBE Benzene Toluene Ethylbenzene m/p-xylenes o-xylene	A-T-022 using GC-MS

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
SOILS ONLY (cont'd)	Chemical Tests (cont'd)	Documented In-House Methods identified by method number
	Total Petroleum Hydrocarbons >C6-C44:- >C35-C36 >C36-C40	A-T-007 by GC-FID
	Total >C6-C40	
	Hot Block Aqua Regia extractable Metals: Barium	A-T-024 by ICP-OES
INCINERATOR ASH	Aqua Regia extractable Metals: Cadmium Copper Lead Manganese Nickel Zinc	A-T-024 by ICP-OES
SURFACE & GROUNDWATER	Chemical Tests	Documented In-House Methods identified by method number
	Poly Aromatic Hydrocarbons (PAH): Acenaphthene Acenaphthylene Anthracene Fluorene Phenanthrene Fluoranthene Naphthalene Pyrene Benzo(a)anthracene Chrysene Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Benzo(ghi)perylene Dibenzo(ah)anthracene Indeno(123-cd)pyrene	A-T-019 using GC-MS

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
SURFACE & GROUNDWATER (cont'd)	Chemical Tests (cont'd) Volatile Petroleum Hydrocarbons: Speciated aliphatic banding: >C5-C6 >C6-C8 Speciated aromatic banding: >C5-C7 >C7-C8 >C8-C9 >C9-C10 Volatile Petroleum Hydrocarbons: MTBE Benzene Toluene Ethylbenzene m/p-xylenes o-xylene	Documented In-House Methods identified by method number A-T-022 using GC-MS
SURFACE, GROUNDWATER & INDUSTRIAL EFFLUENT	Chemical Tests Volatile Organic Compounds: 1,1,1-trichloroethane 1,1,2-trichloroethane 1,1-dichloroethane 1,1-dichloroethene 1,1-dichloropropene 1,2,3-trichlorobenzene 1,2,3-trichloropropane 1,2,4-trichlorobenzene 1,2,4-trimethylbenzene 1,2-dibromo-3-chloropropane 1,2-dibromoethane 1,2-dichlorobenzene 1,2-dichloroethane 1,2-dichloropropane 1,3,5-trimethylbenzene 1,3-dichlorobenzene 1,3-dichloropropane 1,4-dichlorobenzene 2,2-dichloropropane 2-chlorotoluene 4-chlorotoluene	Documented In-House Methods identified by method number A-T-006 using GCMS with Headspace

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
SURFACE, GROUNDWATER & INDUSTRIAL EFFLUENT (cont'd)	Chemical Tests (cont'd) Volatile Organic Compounds: (cont'd) 4-isopropyltoluene Benzene Bromobenzene Bromochloromethane Bromodichloromethane Bromoform (Tribromomethane) Bromomethane carbon disulfide Carbon Tetrachloride (Tetrachloromethane) Chlorobenzene Chloroethane Chloroform (Trichloromethane) cis 1,2-dichloroethene (Z) cis 1,3-dichloropropene (Z) Dibromochloromethane Dibromomethane Ethylbenzene Hexachloro-1,3-butadiene Isopropylbenzene m&p-xylene n-butylbenezene n-propylbenzene o-xylene sec-butylbenzene Styrene tert-butylbenzene Tetrachloroethene Toluene trans 1,2-dichloroethene (E) Trans 1,3-dichloropropene (E) Trichloroethene Trichlorofluromethane (CFC-11) Vinylchloride	Documented In-House Methods identified by method number A-T-006 using GCMS with Headspace (cont'd)

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
GROUNDWATER, SURFACE WATER, TRADE EFFLUENTS	<u>Chemical Tests (cont'd)</u> Total Petroleum Hydrocarbons >C6-C40:- >C6-C8 >C6-C10 >C8-C10 >C10-C12 >C10-C25 >C12-C15 >C12-C16 >C15-C16 >C16-C20 >C16-C21 >C20-C21 >C21-C24 >C21-C40 >C24-C25 >C25-C28 >C25-C40 >C28-C30 >C30-C32 >C32-C35 >C35-C36 >C36-C40 Total >C6-C40 Extractable Petroleum Hydrocarbons >C8-C40:- Ali >C8-C10 Aro >C8-C10 Ali >C10-12 Aro >C10-12 Ali >C12-16 Aro >C12-16 Ali >C16-21 Aro >C16-21 Ali >C21-35 Aro >C21-35 Total Aliphatic >C8-C40 Total Aromatic >C8-C40 Total EPH >C8-40	Documented In-House Methods identified by method number A-T-007 by GC-FID A-T-055 by GCxGC-FID

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
SURFACE, GROUNDWATER & INDUSTRIAL EFFLUENT (cont'd)	Chemical Tests (cont'd)	Documented In-House Methods identified by method number
	Polychlorinated Biphenyls: PCB 28 PCB 52 PCB 101 PCB 118 PCB 138 PCB 153 PCB 180	A-T-004 using GC-MS
SURFACE, GROUND and TRADE EFFLUENT WATERS	Chemical Tests	Documented In-House Methods identified by method number
	Dissolved Organic Carbon (DOC)	A-T-032 by Combustion
	Dissolved Metals: Antimony Arsenic Barium Berylium Boron Cadmium Cobalt Copper Chromium Iron Lead Manganese Mercury Molybdenum Nickel Selenium Thallium Vanadium Zinc	A-T-025 by ICP-MS
	Total dissolved solids	A-T-035 by Gravimetry
	Fluoride Chloride Nitrite Phosphate Sulphate	A-T-026 by Colorimetry and discrete analyser

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
SURFACE, GROUND and TRADE EFFLUENT WATERS	Chemical Tests (cont'd)	Documented In-House Methods identified by method number
	Nitrate	A-T-026 by Colorimetry and discrete analyser
SURFACE & GROUND WATERS, TRADE EFFLUENTS	Fluoride Chloride Nitrite Bromide Nitrate Phosphate Sulphate	A-T-060 by Ion Chromatography
GROUNDWATER, SURFACE WATER and TRADE EFFLUENTS	Poly Aromatic Hydrocarbons (PAH): Acenaphthene Acenaphthylene Fluorene Phenanthrene Anthracene Fluoranthene Naphthalene Pyrene Benzo(a)anthracene Chrysene Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Indeno(123cd)pyrene Dibenzo(ah)anthracene Benzo(ghi)perylene	A-T-019 using GC-MS
GROUNDWATER, SURFACE WATER, TRADE EFFLUENTS	Free Cyanide Total Cyanide Complex Cyanide	A-T-042 by Continuous Flow Analyser (Skalar) By calculation from Free and total Cyanide
GROUNDWATER, SURFACE WATER and TRADE EFFLUENTS	pH	A-T-031 by meter and manual probe
	Chemical Oxygen Demand (COD) (Settled and Total)	A-T-034 by Colorimetry

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
GROUNDWATER, SURFACE WATER and TRADE EFFLUENTS (cont'd)	<u>Chemical Tests (cont'd)</u>	Documented In-House Methods identified by method number
	Suspended Solids	A-T-036 by Gravimetry
	Ammonical Nitrogen	A-T-033 by Colorimetry
	Conductivity	A-T-037 by Meter
	Hexavalent Chromium	A-T-040 by Colorimetry and discrete analyser
	Alkalinity	A-T-038 by Colorimetry and discrete analyser
	Dissolved metals: Calcium Magnesium Potassium Sodium	A-T-049 by ICP-OES
	Total Hardness (by calculation)	A-T-049
	<u>Health and Hygiene</u>	Health and Safety Executive - Asbestos: The Analysts' Guide (HSG 248) – 2021
ASBESTOS IN BULK MATERIALS including materials and products suspected of containing asbestos	Identification of: Amosite Chrysotile Crocidolite Fibrous Actinolite Fibrous Anthophyllite Fibrous Tremolite	Documented In-House Method AT-045 using stereo-microscopy, polarised light optical microscopy and dispersion staining based on HSG 248
ASBESTOS IN SOILS – The Identification of Asbestos fibres in bulk samples of Soil, *specifically*: *Soil*	Identification of: Amosite Chrysotile Crocidolite Fibrous Actinolite Fibrous Anthophyllite Fibrous Tremolite	Documented In-House Method AT-045 using stereo-microscopy, polarised light optical microscopy and dispersion staining based on HSG 248
END		