Schedule of Accreditation

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United Kingdom Accreditation Service

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Accredited to ISO/IEC 17025:2017

Alfred H Knight Energy Services Ltd

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Testing performed by the Organisation at the locations specified below

Locations covered by the organisation and their relevant activities

Laboratory locations:

Location details		Activity	Location code
Address Unit 1 Palmermount Industrial Estate Bypass Road Dundonald Kilmarnock Ayrshire KA2 9BL	**Local contact** Mr John Watt Tel: +44 (0)1563 850375 Email: john.watt@ahkgroup.com Website: www.ahkgroup.com	Fuels - Chemical and Physical Tests	A
Address Units B3 - B4 Olympic Business Park Dundonald Kilmarnock Ayrshire KA2 9BE	**Local contact** Mr John Watt Tel: +44 (0)1563 850375 Email: john.watt@ahkgroup.com Website: www.ahkgroup.com	Fuels - Chemical and Physical Tests	B
Address Temple House Unit 1, Farfield Park Manvers Way Wath upon Dearne Rotherham S63 5DB	**Local contact** Sorrelle Reed Tel: +44(0) 1709 871 315 E-Mail: sorrelle.reed@ahkgroup.com Website: www.ahkgroup.com	Sampling and Sample Preparation of Solid Recovered Fuels and Refuse Derived Fuels	D

Site activities performed away from the locations listed above:

Location details	Activity	Location code
Premises away from the main Laboratories	Fuels – Sampling Sampling of Solid Recovered Fuels and Refuse Derived Fuels	E

DETAIL OF ACCREDITATION

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
	Chemical and Physical Tests		
COAL, COKE	Sampling	Documented In-House Method KES/93/Prep-C conforming to: BS ISO 18283:2022 ASTM D2234 (location E)	A, B, E
	Sample Preparation	Documented In-House Method LMA/93/Prep-C conforming to: BS ISO 18283:2022 ASTM D2013 (location B)	B,
	Hardgrove Grindability Index (HGI)	Documented In-House Method SM041 (using Hardgrove Machine) based on: BS ISO 5074:2015; and ASTM D409:2016	A,
	Free Swelling Index (Crucible Swelling Number)	Documented In-house Method SM010 based BS ISO 501:2012	A
	Total Moisture	Documented In-House Method based on ASTM D3302:2022	A, B
	Analysis Moisture	Documented In-House Method based on ASTM D3173:2021	A
COAL	Trace Elements: As, Ba, Be, Cd, Co, Cr, Cu, Hg, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn, B, Ti, U, Sn, Te	Documented In-House Method SM044 (using ICP-MS) conforming to: BS ISO 23380:2022; and ASTM D6357:2021	A
ASH	Trace Elements: As, Be, Cd, Co, Cr, Cu, Hg, Mn, Ni, Pb, Sb, Se, Sn, V, Zn	Documented In-House Method SM044 (using ICP-MS) conforming to BS EN ISO 16968:2015	A
SOLID BIOFUELS	Sampling	Documented In-House Method KES/93/Prep-B conforming to: BS EN 18135:2017; BS EN ISO 14780:2017 + A1 2019	A, B, E

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
	Chemical and Physical Tests (cont'd)		
SOLID BIOFUELS (cont'd)	Sample Preparation	Documented In-House Method KES/93-Prep-B conforming to: BS EN 18135:2017 BS EN ISO 14780:2017+ A1 2019	B
	Minor Elements: As, Ba, Be, Cd, Co, Cr, Cu, Hg, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn, B, Ti, U, Sn, Te	Documented In-House Method SM044 (using ICP-MS) conforming to: BS EN ISO 16967:2015; and ISO BS EN 16968:2015	A
	Particle Size Distribution	Documented In-House Method SM048 conforming to BS EN ISO 17827:Part 1 :2016	B
SOLID BIOFUELS (including WOOD PELLETS) and ASH	Particle Size Distribution: <3.15mm	Documented In-House Method SM049 conforming to BS EN ISO 17827: Part 2:2016	B
SOLID BIOFUELS	Particle Size Distribution of Disintegrated Pellets	Documented In-House Method SM049 conforming to BS EN ISO 17830:2024	B
WOOD PELLETS	Length Diameter	Documented In-House Method SM048 conforming to BS EN ISO 17829:2015	B
WOOD PELLETS COMPRESSED FUELS	Particle Density	Documented In-House Method SM054, BS EN ISO 18847:2016	A
SOLID BIOFUELS (including WOOD PELLETS), ASH and SOLID RECOVERED FUELS	Bulk Density	Documented In-House Method SM050 conforming to: BS EN ISO 17828:2015 and DD CEN/TS 15401:2010	B

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
	Chemical and Physical Tests (cont'd)		
SOLID RECOVERED FUELS, REFUSE DERIVED FUELS, MUNICIPAL SOLID WASTE	Sample Preparation	Documented In-House Method KES/93/Prep-S conforming to: BS EN ISO 21646:2022	B
SOLID RECOVERED FUELS, REFUSE DERIVED FUELS, MUNICIPAL SOLID WASTE	Minor Elements: As, Ba, Be, Cd, Co, Cr, Cu, Hg, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn, B, Ti, U, Sn, Te	Documented In-House Method SM044 (using ICP-MS) conforming to: BS EN 15410:2011; and BS EN 15411:2011	A
COAL, COKE, SOLID BIOFUELS, PEAT, SOLID RECOVERED FUELS, REFUSE DERIVED FUELS, MUNICIPAL SOLID WASTE	Chlorine and Fluorine	Documented In-House Method SM045 (using Ion Chromatography) conforming to:BS EN ISO 16994:2016 and BS EN 15408:2011	A
COAL, COKE, SOLID BIOFUELS, SOLID RECOVERED FUELS, REFUSE DERIVED FUELS, MUNICIPAL SOLID WASTE, PEAT, SOILS, COLLIERY SPOIL and HIGH ASH MATERIALS	Total Moisture	Documented In-House Method SM030 (Gravimetric Determination) conforming to: ISO 589;2008 ISO 579:2013 BS EN ISO 18134-2:2024 CEN/TS 15414, Part 2; 2010	A, B
COAL, COKE, SOLID BIOFUELS, SOLID RECOVERED FUELS, REFUSE DERIVED FUELS, MUNICIPAL SOLID WASTE, PEAT, SOILS, COLLIERY SPOIL and HIGH ASH MATERIALS	Analysis Moisture	Documented In-House Method SM031 (Gravimetric Determination) conforming to: ISO 11722;:2013 ISO 687:2010 BS EN ISO 18134-3:2023 BS EN ISO 21660-3:2021	A
	Ash	Documented In-House Method SM033 Gravimetric Based on ISO1171:2024, ASTM D3174:2012, BS EN ISO 18122:2022, BS EN ISO 21656:2021	A

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
	Chemical & Physical Tests	Documented In House Methods	
COAL, COKE, SOLID BIOFUELS, SOLID RECOVERED FUELS, REFUSE DERIVED FUELS, MUNICIPAL SOLID WASTE, PEAT, SOILS, COLLIERY SPOIL and HIGH ASH MATERIALS (cont'd)	Total Sulphur	Documented In-House Method SM 034 (using combustion Infra-Red Analyser) conforming to: ASTM D4239:2021 and ; ISO 17247:2020; BS EN ISO 16994:2016, and BS EN ISO 21663:2020	A
	Volatile Matter	Documented In-House Method SM032 (Gravimetric Determination) conforming to: BS ISO 562:2024 ASTM D3175:2020; BS EN ISO 18123:2023 BS EN ISO 22167:2021	A
	Carbon Hydrogen Nitrogen	Documented In-House Method SM 035 (based on Instrumental Determination) conforming to: ASTM D5373:2021; ISO BS EN 16948:2015 BS EN ISO 21663:2020 BS ISO 29541:2010	A
	Gross Calorific Value	Documented In-House Method SM 036 (using Bomb Calorimetry) conforming to: BS ISO 1928:2020 BS EN ISO 18125:2017 BS EN ISO 21654:2021 ASTM D5865:2019;	A
COAL, COKE, SOLID BIOFUELS, SOLID RECOVERED FUELS, REFUSE DERIVED FUELS, MUNICIPAL SOLID WASTE	Chloride	Documented In-House Method SM039 (Ion Selective Electrode Testing of aqueous residue from Test SM036) conforming to: BS EN 16994:2016, ASTM D4208:2019 & BS EN 15408:2011	A

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
	Chemical & Physical Tests	Documented In House Methods	
COAL, COKE, SOLID BIOFUELS, SOLID RECOVERED FUELS, REFUSE DERIVED FUELS, MUNICIPAL SOLID WASTE, PEAT, SOILS, COLLIERY SPOIL and HIGH ASH MATERIALS	Calculation of Net Calorific Value	Documented In-House Method SM 037 conforming to: BS ISO 1928:2020 BS EN ISO 18125:2017 BS EN ISO 21654:2021 ASTM D5865 :2019	A
COAL, COKE, SOILS, COLLIERY SPOIL and HIGH ASH MATERIALS	Calculation of Fixed Carbon	Documented In-House Method SM 022 conforming to: BS 1016, Part 100:1994 ASTM D3172:2021	A
BIOFUELS, SOLID RECOVERED FUELS, REFUSE DERIVED FUELS, MUNICIPAL SOLID WASTE and other CARBONACEOUS MATERIALS	Biomass Content expressed As; Mass, by Energy Content (gross or net calorific value), or Carbon Content	Documented In-House Method SM 042 (using Selective Dissolution Method) conforming to BS EN ISO 21644:2021 (Annex B)	A
	Biomass and Fossil Energy Content	Documented In-House Method SM 046 based on “Template Methodology for measuring fossil derived contamination within waste wood” Ofgem Guidance Note 9 November 2013	B
SOLID BIOFUELS: PELLETS and BRIQUETTES	Mechanical Durability	Documented In-House Method SM 043 (using Pellet Tester) conforming to: ISO BS EN 17831-1:2015	B
	Determination of Fines Content	Documented In-House Method SM 053 conforming to: BS EN ISO 5370:2023	B
COAL, SOLID BIOFUEL and SOLID RECOVERED FUELS, REFUSE DERIVED FUELS, MUNICIPAL SOLID WASTE	Carbonate Content and Calculation of Organic Carbon Content	Documented In-House Method SM 047 (by Titrimetry) conforming to: BS 1377-3:2018+A1 2021	A

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
	Chemical & Physical Tests	Documented In House Methods	
COAL, SOLID BIOFUEL and SOLID RECOVERED FUELS, REFUSE DERIVED FUELS, MUNICIPAL SOLID WASTE	Ash Fusion Temperature	Documented In-House Method SM017 (using Ash Fusion Furnace) conforming to: ISO 540:2008; ASTM D1857:2018; and BS EN ISO 21404:2020CEN/TS 15404:2010	A
COAL, COKE, SOLID BIOFUELS, SOLID RECOVERED FUELS, REFUSE DERIVED FUELS, MUNICIPAL SOLID WASTE	Loss on Ignition at specified temperatures inc 440°C, 550°C, 815°C	Documented In-House Method SM052 based on BS ISO 1171:2024, BS ISO 18122:2022, BS EN ISO 21656:2021 and BS EN 15935:2021	A
TROMMEL FINES	Loss on Ignition at specified temperatures inc 440°C, 550°C, 815°C	Documented In-House Method SM052 in accordance with HMRC document LFT1:2023	A
SOLID RECOVERED FUELS, REFUSE DERIVED FUELS, SOLID MUNICIPAL WASTE	Sampling and Sample Preparation		
	Sampling of Solid Recovered Fuels	Documented in-house proceedure QOP06 based on BS EN 21645:2021	D, E
	Sample Preparation of Solid Recovered Fules (sample division, oven drying, grinding, shredding)	Documented in-house procedure TCM010 based on BS EN ISO 21646:2022	D
	Total Moisture	Documented in house proceedure TCM01 based on BS EN 15414-1:2020	D
	Calculation of Net Calorific Value	Documented in-house procedure LM20 (calculation) based on BS EN ISO 21654:2021	D
END			