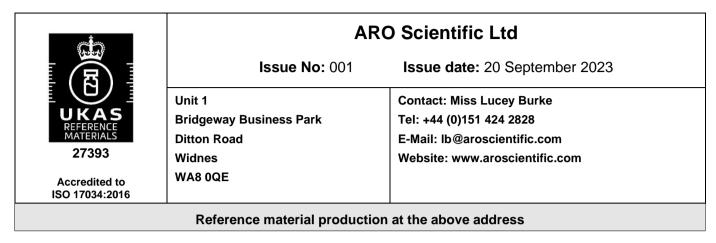
Schedule of Accreditation

issued by

United Kingdom Accreditation Service

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



DETAIL OF ACCREDITATION				
Matrix / Artefact	Property Value(s) / Identity / Characterisation Range	Characterisation Procedure / Technique	Type* (CRM / RM)	
Certified Reference Materials with Density Properties				
Petroleum Products, Base, Blended and Fuel Oils	0.6 g/ml to 1.65 g/ml	Measurement by a method specific, interlaboratory study ASTM D4052 IP365 ISO12185	CRM	
Certified Reference Materials with Flash Point Properties				
Petroleum Products, Base, Blended and Fuel Oils	Flash point, Pensky-Martens closed cup	Measurement by a method specific, interlaboratory study ASTM D93 Procedure A & B IP 34 ISO 2719	CRM	
Petroleum Products, Base, Blended and Fuel Oils	Flash point, Cleveland open cup	Measurement by a method specific, interlaboratory study ASTM D92 IP36 ISO 2592 EN 2592	CRM	
Petroleum Products, Base, Blended and Fuel Oils	Abel Flash Point	Measurement by a method specific, interlaboratory study IP 170, ISO 13736, or technically equivalent	CRM	

DETAIL OF ACCREDITATION

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(ð)	2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK
	ARO Scientific Ltd
REFERENCE MATERIALS 27393	Issue No: 001 Issue date: 20 September 2023
Accredited to ISO 17034:2016	

Reference material certification performed at main address only			
Matrix / Artefact	Property Value(s) / Identity / Characterisation Range	Characterisation Procedure / Technique	Type* (CRM / RM)
Secondary Working Standard Reference Materials with Flash Point Properties			
Petroleum Products, Base, Blended and Fuel Oils	Flash Point, Pensky-Martens Closed Cup	Measurement by a single primary method at ARO in accordance with ASTM D93 Procedure A and B, IP 34, ISO 2719, or technically equivalent.	CRM
Petroleum Products, Base, Blended and Fuel Oils	Flash Point, Cleveland Open Cup	Measurement by a single primary method at ARO in accordance with ASTM D92, IP 36, ISO 2592, EN 2592, or technically equivalent.	CRM
Certified Reference Materials with Pour Point Properties			
Petroleum Products, Base, Blended and Fuel Oils	Pour Point	Measurement by a method specific, interlaboratory study ASTM D97, IP 15, ISO 3016, BS 2000: Part 15, or technically equivalent.	CRM
Certified Reference Materials with Cloud Point Properties			
Petroleum Products, Base, Blended and Fuel Oils	Cloud Point	Measurement by a method specific, interlaboratory study ASTM D2500, IP 219, ISO 3015, EN 23015, or technically equivalent.	CRM
Certified Reference Materials with Cold Filter Plugging Point Properties			
Petroleum Products, Base, Blended and Fuel Oils	Cold Filter Plugging Point (CPPP) -	Measurement by a method specific, interlaboratory study ASTM D6371, IP 309, EN 116, BS 2000: Part 309, or technically equivalent.	CRM

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Property Value(s) / Identity /

Characterisation Range

Characterisation Procedure /

Technique

Certified Reference Materials with Distillation Properties			
Petroleum Products, Base, Blended and Fuel Oils	Distillation Properties	Measurement by a method specific, interlaboratory study ASTM D86, IP 123, ISO 3405, EN ISO 3405, or technically equivalent.	CRM
Certified Reference Materials with Colour Properties			
Petroleum Products, Base, Blended and Fuel Oils	ASTM Colour	Measurement by a single, primary, method at a laboratory (spectrophotometry) ASTM D6045 ASTM D1500	CRM
Petroleum Products, Base, Blended and Fuel Oils	Saybolt Colour	Measurement by a single, primary, definitive method at a laboratory (spectrophotometry) ASTM D6045 ASTM D156	CRM
Petroleum Products, Base, Blended and Fuel Oils	Gardner colour	Measurement by a single, primary, definitive method at a laboratory (spectrophotometry) ASTM D6166 ASTM D1544	CRM
Certified Reference Materials with Other Properties			
Petroleum Products, Base, Blended and Fuel Oils	Acid Number (AN) Total Acid Number (TAN)	Measurement by single primary method at ARO in accordance with ASTM D664	CRM
Petroleum Products, Base, Blended and Fuel Oils	Base Number (BN) Total Base Number (TBN)	Measurement by single primary method at ARO in accordance with ASTM D2896	CRM
Petroleum Products, Base,	Sulfur content	Measurement by Gravimetric	CRM

Smoke Point

preparation

equivalent

Measurement by a method

specific, interlaboratory study ASTM D1322, or technically

Kerosene and Aviation Turbine Fuels

Blended and Fuel Oils

Matrix / Artefact

CRM

Type* (CRM / RM)

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UKAS REFERENCE MATERIALS 27393	ARO Scientific Ltd Issue No: 001 Issue date: 20 September 2023	
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Matrix / Artefact	Property Value(s) / Identity / Characterisation Range	Characterisation Procedure / Technique	Type* (CRM / RM)
Certified Reference Materials with Other Properties cont'd) Aviation Fuels	Freezing Point	Measurement by a method specific, interlaboratory study ASTM D2386, IP 16, or technically equivalent	CRM
END			

***Type** CRM = Certified Reference Material(s) RM = Reference Material(s) *Refer to ISO 17034 for full definitions*