


Schedule of Accreditation

issued by

United Kingdom Accreditation Service

21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

	Intertek Sunbury Technology Centre	
	Issue No: 034 Issue date: 27 June 2005	
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Testing performed at permanent laboratory premises		

SUMMARY OF ACCREDITATION

CHEMICALS & CHEMICAL PRODUCTS

Organic chemicals & products
Chemical & physical

ENVIRONMENTAL SAMPLES

Leachates
Organic extractables
Water, process
Metals

FUELS, OILS & LUBRICANTS

Petroleum products & lubricants/oils/
greases
Acidity/alkalinity/acid base number/
basicity/conductivity/neutralisation
value/pH
Ageing/corrosiveness/oxidation/
storage stability/air release value
Appearance/colour/haze/miscibility/
odour/refractive index
Asphaltene
Boiling range/distillation/vapour
pressure
Carbon content/carbon(ate) residue/
char value/residue/iodine value
Cloud/fire/burning/handling/pour point
Demulsification number
Distillation vapour pressure
Elemental analysis
Filterability/filter blocking/plugging/
pumpability
Flash/freezing/melting/evaporation/
smoke point
Foaming characteristics/saponification
Hydrocarbon types
Metals/solids/particulates/sediment salt
Other tests
Sediment
Specific gravity/viscosity
Sulphur/sulphurated ash/hydrogen
sulphide
Water content/water reaction/washout
characteristics
Waxing/dewaxing



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DETAIL OF ACCREDITATION

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
PETROLEUM and PETROLEUM PRODUCTS	<u>Chemical and Physical Tests</u>	<u>*IP-ASTM Joint Methods</u>
	Acidity of petroleum products	MT/FLC/06
	Air saturated vapour pressure	IP 394/01
	Aromatic hydrocarbons	IP 391/01
	Aromatic hydrocarbon types in aviation fuels by HPLC with RI	IP 436/01*ASTM D6379-99
	Asphaltenes - heptane insolubles	IP 143/04(04)*ASTM D6560-00
	Basic nitrogen content of lubricant base oils	IP 276/95 (mod)
	Boiling range of products	IP 406/99*ASTM D2887-02 IP 480/02 IP 507/04 IP PM-CF/98
	Calculation of viscosity index from kinematic viscosity	IP 226/04*ASTM D2270-93(98)
	Carbon residue of petroleum products (micro method)	ASTM D4530-03
	Cloud point of petroleum oils: (Auto) (Manual) (Manual)	ASTM D5771-04 ASTM D2500-02 IP 219/94(04)
	Cold filter plugging point of distillate fuels	IP 309/99
	Colour (ASTM rating)	ASTM D1500-03
	Colour ratings of aviation turbine fuels	IP 216/97(04) (Annex B)
	Colour stability of kerosine and light gas oil products	MT/FLC/01
Composition of aliphatic and aromatic hydrocarbons	Documented In-House Method using Mass Spectrometry MT/CMS/12	



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PETROLEUM and PETROLEUM PRODUCTS (cont'd)	<u>Chemical and Physical Tests</u> (cont'd)	
	Copper corrosion from petroleum products by the copper strip tarnish test	IP 154/00*ASTM D130-94(2000)e1 ISO 2160:1998
	Crude oil - heptane insolubles	IP 143/01 (modified)
	Density and relative density of liquids by digital density meter	IP 365/97(04) ASTM D4052-96(2002)e1
	De-waxing raffinates	MT/FLC/03
	Dialysis and separation of lubricants	MT/FLC/11
	Distillation of crude petroleum using Fischer 800 distillation units	ASTM D2892-03a
	Distillation of petroleum products	IP 123/01 ASTM D86-04b
	Doctor test	IP 30/92(04)
	Electrical conductivity of aviation and distillate fuels containing a static dissipater additive	IP 274/99*ASTM D2624-02
	Existent gum in fuels by jet evaporation	IP 131/99*ASTM D381-01
	Filter flow of aviation fuels at low temperatures	ASTM D4305-98a (2004) e1 IP 422/96(04)
	Filtration time	MIL-T-83133E
	Flashpoint by Abel closed cup	IP 170/99
	Flash point by Pensky-Martens closed tester	IP 34/03*ASTM D93-02
Freezing point of aviation fuels (automated optical method)	ASTM D5901-03	
Freezing point of aviation fuels (Manual Methods)	IP 16/98(04) ASTM D2386-03	
Furfural extraction of waxy distillates	MT/FLC/04	
Heat of combustion (net) of aviation fuels	ASTM D3338-00	



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PETROLEUM and PETROLEUM PRODUCTS (cont'd)	<u>Chemical and Physical Tests</u> (cont'd)	
	Hydrocarbon types and oxygenates in petrol-multi dimensional gas chromatographic method	EN 14517
	Hydrocarbon types in liquid petroleum products by Fluorescent Indicator Absorption	IP 156/04*ASTM D1319-02
	Icing inhibitor in ATK by HPLC	IP 424-96(04)
	Kinematic viscosity of transparent and opaque liquids and the calculation of dynamic viscosity	IP 71Section 1/97*ASTM D445-01 IP71 Section 2/95(04)*ASTM D446-00
	Lead in gasoline by X-ray spectrometry	IP 228/72(04)
	Mercaptan sulphur in gasoline, kerosene, aviation turbine and distillate fuels (potentiometric method)	IP 342/00*ASTM D3227-02
	Naphthalene hydrocarbons in aviation turbine fuels by UV spectrophotometry	ASTM D1840-03
	Neutralisation number by colour indicator titration	IP 139/98(04)*ASTM D974-02
	Neutralisation number - potentiometric titration method	IP 177/96(04)*ASTM D664-01
	Oxidation stability of aviation fuels, potential residue method	IP 138/02 ASTM D873-02
	Oxidation stability of gasoline, induction period method	IP 40/97(04)*ASTM D525-01
Particulate contaminant of aviation turbine fuels: by line sampling	IP 216/97(04) (Annexe A & Annexe B)* ASTM D2276-00	
by laboratory filtration	IP 423/99*ASTM D5452-00	
Polycyclic aromatics in base oils by dimethylsulphoxide-refractive index method	MT/CMS/07	



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PETROLEUM and PETROLEUM PRODUCTS (cont'd)	<p><u>Chemical and Physical Tests</u> (cont'd)</p> <p>Pour point: (Manual) (Auto)</p> <p>Quantitative analysis for chlorine, lead, nickel and vanadium</p> <p>Qualitative and quantitative analysis to determine composition: Aliphatic hydrocarbons Oxygenated compounds</p> <p>Refraction index of hydrocarbon liquids</p> <p>Saturated aromatic and polar compounds by TLC with FI detection</p> <p>Smoke point of aviation turbine fuels</p> <p>Sulphur</p> <p>Sulphur in petroleum products by energy-dispersive X-ray fluorescence</p> <p>TBN of petroleum products by potentiometric perchloric acid titration</p> <p>Thermal oxidation stability of aviation turbine fuels</p> <p>Total acidity in aviation turbine fuel</p> <p>Total salts content of crude oil - conductivity method</p> <p>Total solids content</p>	<p>ASTM D97-04 ASTM D5950-02</p> <p>Documented In-House Methods using Wavelength Dispersive X-ray Fluorescence MT/ELE/07, 05 and 06</p> <p>Documented In-House Method using gas chromatography techniques including capillary and multicolumn systems, on-column injection and Flame Ionisation MT/CMS/03</p> <p>MT/FLC/02</p> <p>IP 469/01</p> <p>IP 57/95(03) ASTM D1322-97(2002)e1</p> <p>ASTM D2622-03 ISO 14596:1988 IP 447/99</p> <p>ASTM D4294-03 ISO 8754:1992</p> <p>IP 276/95(04)*ASTM D2896-01 e1</p> <p>IP 323/00*ASTM D3241-02</p> <p>IP 354/98(04)*ASTM D3242-01</p> <p>IP 265/01(04)</p> <p>MIL-T-83133E</p>



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PETROLEUM and PETROLEUM PRODUCTS (cont'd)	<u>Chemical and Physical Tests</u> (cont'd) Vapour pressure of petroleum products (Reid method) Water content - distillation method Water in crude oil - coulometric Karl Fischer titration Water reaction of aviation fuels Water separation characteristics of aviation turbine fuels by portable separometer Wax content of petroleum products Xylene equivalent	IP 69/01 ASTM D95-99 e1 IP 386/99 (modified) ASTM D4928-00 e1 IP 289/02 ASTM D1094-00 ASTM D3948-99a Documented In-House Method MT/FLC/07 MT/FLC/05
ENVIRONMENTAL SAMPLES - Water Leachates	<u>Chemical Tests</u> Organic substances by GC/MS	BS 6920-4:2001
PETROLEUM PRODUCTS, CHEMICALS, CATALYSTS, LIQUIDS and SOLIDS - Aqueous and Organic Samples	Quantitative analysis for: Aluminium Barium Boron Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Molybdenum Nickel Phosphorus Potassium Silicon Silver	Documented In-House Methods using Inductively Coupled Plasma Optical Emission Spectrometry MT/ELE/01 to 03



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PETROLEUM PRODUCTS, CHEMICALS, CATALYSTS, LIQUIDS and SOLIDS (cont'd) - Aqueous and Organic Samples (cont'd)	<u>Chemical Tests</u> (cont'd) Quantitative analysis for: (cont'd) Sodium Strontium Sulphur Tin Titanium Vanadium Zinc Quantitative analysis for Carbon Chlorine Hydrogen Nitrogen	Documented In-House Methods using High Temperature Combustion, Oxidative Combustion, Microcoulometry, UV Fluorescence, Chemiluminescence MT/ELE/11 to 13
Ethanolamine	N-Nitrosodiethanolamine by HPLC and IC	MT/CMS/15
PETROLEUM PRODUCTS, OILS and GREASES	Qualitative and quantitative analysis to determine composition: Carbon type Hydrocarbons Nitration products	Documented In-House Methods using Infra-red and Fourier Transform Infra-red Spectroscopy MT/FLC/12, 08
	END	