Schedule of Accreditation

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Accredited to ISO/IEC 17025:2005

Makpetrol AD Skopje

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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
PETROLEUM PRODUCTS and LUBRICANTS	Chemical and Physical Tests	Flexible scope enabling new versions of existing accredited standard test methods to be introduced in accordance with documented in house procedure MQP:001(Document Control)
	Acid number	IP 177, ASTM D664
	Ash content	ASTM D482
	Base Number (TBN)	IP 276, ASTM D2896
	Benzene content in spark-ignition engine fuels	ASTM D6277
	Cloud point	IP 444, ASTM D5771
	Conductivity electrical - of aviation and distillate fuels	IP 274, ASTM D2624
	Copper corrosion	IP 154, ASTM D130
	Composition of LPG	ASTM D2163-91(1996) (withdrawn)
	Colour Saybolt	ASTM D156
	Cold Filter Plugging Point (CFPP) of diesel fuels	IP 309, EN 116
	Conradson carbon residue	ASTM D189
	Contamination in Middle Distillates	IP 440, EN 12662

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
PETROLEUM PRODUCTS and LUBRICANTS (cont'd)	Chemical and Physical Tests (cont'd)	Flexible scope enabling new versions of existing accredited standard test methods to be introduced in accordance with documented in house procedure MQP:001(Document Control) (cont'd)
	Density	IP 365 ASTM D4052
	Distillation	IP 123 ASTM D86
	Determination of FAME in middle distillates - infrared spectroscopy methods	EN 14078
	Existent gum of light and middle distillate fuels	IP 131, ASTM D381
	Flash point - Abel - Pensky Martin	 IP 170 IP 34, ASTM D93
	Freezing point of aviation fuels	IP 16, ASTM D2386
	Hydrocarbon types	IP 156, ASTM D1319
	Kinematic viscosity	IP 71 S1, ASTM D445
	Lead content in gasoline EDXRF	IP 352
	Lubricity of diesel fuels	IP 450, EN 12156-1
	Mercaptan sulphur	ASTM D3227
	Oxygenate content (MTBE, ETBE, TAME, DIPE) in gasoline	ASTM D5845
	Particulate contamination in aviation turbine fuels	ASTM D5452, IP 423
	Pour point	ASTM D5950
	Sediment by extraction	IP 53, ASTM D473

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
PETROLEUM PRODUCTS and LUBRICANTS (cont'd)	Chemical and Physical Tests (cont'd)	Flexible scope enabling new versions of existing accredited standard test methods to be introduced in accordance with documented in house procedure MQP:001(Document Control) (cont'd)
	Smoke point of kerosene and aviation turbine fuel	ASTM D1322
	Sulfated Ash	ISO 3987, ASTM D984, IP 163
	Sulfur content by EDXRF	IP 336 ASTM D4294
	Sulfur content in automotive fuels by Combustion UVF	EN 20846, IP 490 ASTM D5453
	Thermal oxidation stability of aviation turbine fuels (JFTOT)	ASTM D3241, IP 323
	Vapour pressure (DVPE)	ASTM D5191
	Vapour Lock Index (Calculation)	EN 228
	Water content by Distillation	ASTM D95
	Water content of products by Karl Fischer	IP 438
	Water reaction of aviation fuels	IP 289 ASTM D1094
	Water separation characteristics of aviation turbine fuels (MSEP)	ASTM D3948
FAT AND OIL DERIVATIVES - Fatty Acid Methyl Esters (FAME)	Chemical and Physical Tests	Flexible scope enabling new versions of existing accredited standard test methods to be introduced in accordance with documented in house procedure MQP:001(Document Control)
	Acid number	EN 14104
	Copper corrosion	IP 154, ASTM D130, EN 2160

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
FAT AND OIL DERIVATIVES - Fatty Acid Methyl Esters (FAME) (cont'd)	Chemical and Physical Tests (cont'd)	Flexible scope enabling new versions of existing accredited standard test methods to be introduced in accordance with documented in house procedure MQP:001(Document Control) (cont'd)
	Cold Filter Plugging Point (CFPP) of diesel fuels	IP 309 EN 116
	Calcium and Magnesium content	EN 14538
	Contamination in Middle Distillates	IP 440 EN 12662
	Density	IP 365, EN 12185
	Ester and linolenic acid methyl ester contents	EN 14103
	Flash point - Pensky Martin	IP 34, ASTM D93, EN 2719
	Free and total glycerol and mono-, di-, triglyceride contents	EN 14105
	Iodine number	EN 14111
	Kinematic viscosity	IP 71 S1, ASTM D445, EN 3104
	Methanol content	EN 14110 (Modified) By direct on column injection
	Oxidation stability	EN 14112
	Oxidation stability of FAME/Diesel blends	EN 15751
	Phosphorus content	EN 14107
	Potassium content	EN 14109
	Sodium content	EN 14108
	Sulfated Ash	ISO 3987, ASTM D984, IP 163

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
FAT AND OIL DERIVATIVES - Fatty Acid Methyl Esters (FAME) (cont'd)	Chemical and Physical Tests (cont'd)	Flexible scope enabling new versions of existing accredited standard test methods to be introduced in accordance with documented in house procedure MQP:001(Document Control) (cont'd)
	Sulfur content in automotive fuels by Combustion UVF	EN 20846, IP 490
	Water content of products by Karl Fischer	IP 438, EN 12937
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