


Schedule of Accreditation

issued by

United Kingdom Accreditation Service

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

 <p>UKAS TESTING</p> <p>2179</p> <p>Accredited to ISO/IEC 17025:2017</p>	<h3>Wood Group UK Limited</h3> <p>Issue No: 022 Issue date: 06 December 2019</p>	
	<p>Laboratory SAGE Gas Terminal St Fergus Aberdeenshire AB42 3EP</p>	<p>Contact: No Commercial Enquiries</p>
<p>Testing performed at the above address only</p>		

DETAIL OF ACCREDITATION

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p>GASES</p> <p>- Natural Gases</p>	<p><u>Sampling and Chemical/Physical Tests</u></p> <p>Compositional analysis:</p> <p>Nitrogen 0.01 - 12 mol %</p> <p>Methane 64 - 98 mol %</p> <p>Carbon Dioxide 0.05 - 8 mol %</p> <p>Ethane 0.1 - 14 mol %</p> <p>Propane 0 - 20%</p> <p>i-butane 0.01 - 1.2 mol %</p> <p>n-butane 0.01 - 1.2 mol %</p> <p>Neo-pentane 0.001 - 0.35 mol %</p> <p>i-pentane 0.005 - 0.35 mol %</p> <p>n-pentane 0.005 - 0.5 mol %</p> <p>Cyclo-pentane 0.001 - 0.10 mol %</p> <p>Hexanes 0.001 - 0.50 mol %</p> <p>Heptanes 0.001 - 0.30 mol %</p>	<p>Documented In-House Methods in the series 16-WI-00-00-00-00 as listed below:</p> <p>IP 345/80 (obsolete) (16-WI-06-08-02-12) by Gas Chromatography</p>



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GASES (cont'd)	<u>Sampling and Chemical/Physical Tests (cont'd)</u>	
- Natural Gases (cont'd)	Octanes 0.001 - 0.12 mol %	
	Sampling Low Pressure gases 1 - 74 barg	16-WI-06-08-05-02
	Sampling High Pressure gases 74 - 200 barg	16-WI-06-08-05-04
	Moisture Dew Point - 80 to + 20 °C	ASTM D1142-95 (2012) (16-WI-06-08-05-10/12)
- Natural Gas Liquids	Compositional Analysis:	IP 345/80 (obsolete) (16-WI-06-08-02-05) by Gas Chromatography
	Ethane 0.5 - 25 mol %	
	Methane 0.005 - 0.2 mol %	
	Propane 0.001 - 70 mol %	
	i-butane 5 - 10 mol %	
	n-butane 15 - 30 mol %	
	Neo-pentane 0.001 - 0.35 mol %	
	i-pentane 1 - 10 mol %	
	n-pentane 1 - 10 mol %	
	Cyclo-pentane 0.001 - 1 mol %	
	Hexanes 0.001 - 8 mol %	
	Heptanes 0.001 - 5 mol %	
	Octanes 0.001 - 1 mol %	



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GASES (cont'd)	<u>Sampling and Chemical/Physical Tests (cont'd)</u>	
- Natural Gas Liquids (cont'd)	Moisture content 0 to 0.10 wt %	16-WI-06-08-06-02 by Karl Fischer
	Sampling - Shell and STE only - BP NGL	16-WI-06-08-05-03 16-WI-06-08-05-01
CHEMICAL INORGANIC	<u>Chemical/ Physical Tests</u>	
- Amine Solution	CO ₂ Content 0.01 - 15.0 nM ³ , tonne ⁻¹	16-WI-06-08-03-02
	Piperzine content 0.01 - 100 mass %	16-WI-06-08-03-05
	Total Amine 0.01 - 100 mass %	16-WI-06-08-03-08
	Water content 0.01 - 100 mass %	16-WI-06-08-03-01
- Glycol Solution	Water content 0.01 - 100%	16-WI-06-08-03-04
WATERS	<u>Sampling and Chemical/Physical Tests</u>	
- Trade effluent (to controlled waters)	Chemical Oxygen Demand 15 - 1000 mg/l O ₂	16-WI-06-08-01-03
	Conductivity 0 - 12880 µs/cm	16-WI-06-08-01-04
	Non-Volatile Matters 0 - 50 mg/l	16-WI-06-08-01-07
	Total Suspended Solids 0 - 100 mg/l	16-WI-06-08-01-13
	Sampling	16-WI-06-08-01-16



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WATERS (cont'd) - Process Waters (boiler, condensate and incinerator waters)	<u>Sampling and Chemical/Physical Tests (cont'd)</u> Caustic Alkalinity 0 - 500 mg/l as Ca CO ₃ P-Alkalinity 0 - 500 mg/l as Ca CO ₃ Chloride Content 0 - 500 mg/l Hardness 0 - 5 ppm (v/v) as Ca CO ₃ pH 0 - 14 Total Dissolved Solids 0 - 3500 mg/l Sampling	16-WI-06-08-04-01 16-WI-06-08-04-01 16-WI-06-08-04-02 16-WI-06-08-04-03 ASTM D1293-18 (16-WI-06-08-01-08) 16-WI-06-08-01-04 16-WI-06-08-04-06
END		