

Date: 27/07/2011

SGS Oil, Gas and Chemicals
SGS Vostok Limited, Central Branch,
Executing Office:
Novokuybyshevsk. Russia

Preliminary:Analytical Report NK11-01322.001

PRODUCT DESCRIPTION:	Fuel Oil	SGS SAMPLE No:	6208
SAMPLE SOURCE:	As Supplied	SGS ORDER N° :	01-0622/R-SA-11
SOURCE ID:	N/A	SAMPLE RECEIVED:	27/07/2011
LOCATION:	Petropavlovsk, Kazakhstan	SAMPLE ANALYSED:	27/07/2011
SAMPLE TYPE:	Unknown	SAMPLE BY:	Client
		DATE SAMPLED:	Not available

ARBITRATION SAMPLE 898560
SEAL NO:
SAMPLE DETAILS: 2 of 5 Litre Plastic Container

METHOD	PROPERTY	RESULT	Units	
ASTM D4294	Total Sulphur Content	0.965	% (m/m)	
ASTM D445	Kinematic Viscosity at 50°C (122°F)	200.6	mm²/s	
ASTM D1298	Density at 15°C	0.9537	g/cm³	
ASTM D1159 & ASTM D1160	Bromine Number - 360°C Cut	5.8	gBr2/100g	
ASTM D1159 & ASTM D1160	Recovered @ AET 360°C	8.0	% (v/v)	
ASTM D1159 & ASTM D1160	Pressure @ 360°C Cut	2	mm Hg	
SMS 1600-83	P-Value	<1.00	---	
IP 390 (Procedure A)	Total Sediments in Residual Fuels -Thermal Ageing	0.69	% (m/m)	#
ASTM D97	Pour Point	6	°C	
ASTM D93 (Method B)	Pensky-Martens Flash Point (Closed cup)	142.0	°C	
ASTM D482	Ash from Petroleum Products			
	Ash Content	0.042	% (m/m)	
ASTM D4530	Carbon Residue - Micro Method	7.52	% (m/m)	
IP 470	Vanadium Content	22	ppm (m/m)	
IP 470	Sodium Content	3	ppm (m/m)	
IP 470	Nickel Content	14	ppm (m/m)	
ASTM D95	Water Content	0.05	% (m/m)	
ASTM D473	Sediment By Extraction Content	0.22	% (m/m)	
AMS (Exxon) 79-004	Toluene Equivalence	Does not pass	% (v/v)	
BP 230/75	Xylene Equivalent	96/100	%	
ASTM D4868	Gross Calorific Value	43.55	MJ/kg	
ASTM D4868	Net Calorific Value	41.10	MJ/kg	

****End of Analytical Results****

REPORT COMMENT:

The sample(s) to which the findings recorded herein (the "Findings") relate was (were) drawn and /or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativeness of any goods and strictly relate to the sample(s).The Company accepts no liability with regard to the origin or source from which the sample(s) is /are said to be extracted.

The results shown in this test report specifically refer to the sample(s) tested as received unless otherwise stated. All tests have been performed using the latest revision of the methods indicated, unless specifically marked otherwise on the report. Precision parameters apply in the determination of the above results. Users of the data shown on this report should refer to the latest published revisions of ASTM D-3244; IP 367; ISO 4259 and Appendix E of IP Standard Methods for Analysis and Testing when utilising the test data to determine conformance with any specification or process requirement. This Test Report is issued under the Company's General Conditions of Service (copy available upon request or on the company website at www.sgs.com). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein . This report shall not be reproduced except in full, without the written approval of the laboratory.

- Result reported outside published test method limits

Authorised Signatory

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Authorised Signatory

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