

Service update: Off-specification fuel quality report

Applicability: Lloyd's Register FOBAS clients

Information: Between 15th and 28th February 2019 FOBAS identified 73 instances where a result was outside the 95% confidence limit of either ISO 8217 6th edition test parameter or a value given by the BDN or sample label

Port	Characteristic	ISO 8217 Limit or Advised Value	Final result	Unit
Amsterdam	Viscosity at 50°C	377.0**	661.2	cSt
Antwerp	Flash point	60.0***	58.50	°C
Antwerp	Flash point	60.0***	59.00	°C
Antwerp	Viscosity at 50°C	434.6**	654.8	cSt
Antwerp	Viscosity at 50°C	699.5**	732.1	cSt
Antwerp	Viscosity at 50°C	699.5**	741.7	cSt
Antwerp	Water	0.50*	1.20	% Volume
Antwerp	Flash point	60.0***	59.00	°C
Augusta	Density at 15°C	0.9889**	0.9963	kg/l
Augusta	Water	0.50*	0.70	% Volume
Balboa	Density at 15°C	0.9910**	0.9920	kg/l
Bari	Viscosity at 50°C	176.2**	192.0	cSt
Bremen	Vanadium	150*	213	mg/kg
Busan	Sulphur	0.04**	0.15	% Mass
Cayo Arcas Terminal	Vanadium	150*	195	mg/kg
Europoort	Viscosity at 50°C	699.4**	762.8	cSt
Fujairah	Aluminium + Silicon	60*	191	mg/kg
Fujairah	Sulphur	3.48**	3.72	% Mass

Ghent (Gent)	Viscosity at 50°C	178.0**	246.0	cSt
Guayaquil	Viscosity at 50°C	380.0**	422.4	cSt
Guayaquil	Viscosity at 50°C	380.0**	400.6	cSt
Houston	Aluminium + Silicon	60*	85	mg/kg
Houston	Aluminium + Silicon	60*	76	mg/kg
Houston	Ash	0.100*	0.511	% Mass
Houston	Sodium	100*	117	mg/kg
Houston	ULO	Detected	Detected	
Huizhou	ULO	Detected	Detected	
Istanbul	Viscosity at 50°C	367.4**	398.4	cSt
Jacksonville	Density at 15°C	0.9855**	0.9927	kg/l
Kaohsiung	Sulphur	0.10**	0.12	% Mass
Kaohsiung	Viscosity at 50°C	180.0**	356.4	cSt
Koh Si Chang Transhipment Area	Viscosity at 50°C	380.0**	399.1	cSt
Laem Chabang	Viscosity at 50°C	351.1**	410.4	cSt
La Libertad	Viscosity at 50°C	380.0**	398.1	cSt
Las Palmas	Viscosity at 50°C	180.0**	196.6	cSt
Lazaro Cardenas	Water	0.50*	0.75	% Volume
Manzanillo	Water	0.50*	0.70	% Volume
Naantali	Viscosity at 50°C	324.0**	408.2	cSt
Naantali	Viscosity at 50°C	324.0**	401.0	cSt
Paranagua	Water	0.50*	1.60	% Volume
Pendik	Total Sediment Potential	0.10*	0.32	% Mass
Philadelphia	Viscosity at 50°C	360.0**	398.4	cSt
Philadelphia	Viscosity at 50°C	372.0**	401.7	cSt
Port Angeles	Density at 15°C	0.9900**	0.9944	kg/l
Port Angeles	Viscosity at 50°C	328.0**	601.1	cSt
Puebla Del Caraminal	Flash point	60.0***	58.50	°C
Puerto Bolivar	Viscosity at 50°C	380.0**	397.4	cSt

Rotterdam	Sulphur	0.09**	0.13	% Mass
Rotterdam	Viscosity at 40°C	5.87**	6.0	cSt
Rotterdam	Viscosity at 50°C	372.5**	468.1	cSt
Rotterdam	Viscosity at 50°C	379.0**	401.9	cSt
Rotterdam	Viscosity at 50°C	372.0**	406.1	cSt
Seattle	Density at 15°C	0.9903**	0.9963	kg/l
Singapore	Cetane index	40**	37	Index
Singapore	Pour point	0*	6	oC
Singapore	Pour point	0*	6	oC
Singapore	Pour point	0*	6	oC
Singapore	Sodium	100*	164	mg/kg
Singapore	Viscosity at 50°C	375.9**	402.0	cSt
Singapore	Water	0.50*	1.55	% Volume
Singapore	Water	Trace*	1.85	% Volume
Singapore	Water	0.50*	0.65	% Volume
St Petersburg	Viscosity at 50°C	352.1**	415.1	cSt
St Petersburg	Viscosity at 50°C	360.0**	414.3	cSt
St Petersburg	Water	0.50*	1.90	% Volume
Taman	Water	0.50*	0.80	% Volume
Tokyo	MCR 10% bottom	0.30*	0.37	% Mass
Tuapse	Viscosity at 50°C	371.0**	400.9	cSt
Tuapse	Viscosity at 50°C	37.0**	402.1	cSt
Valparaiso	Vanadium	150*	180	mg/kg
Venice	Viscosity at 50°C	380.0**	406.8	cSt
Yalova - Aksa Kimya	Total Sediment Potential	0.10*	0.38	% Mass
Yalova - Aksa Kimya	Total Sediment Potential	0.10*	0.27	% Mass
Yosu	Water	0.50*	0.65	% Volume

*ISO 8217 6th edition limit

**Advised value from BDN or sample label.

***Due to the statutory significance of Flash Point the 95% confidence limit is not applied.

This report contains selected parameters taken from the FOBAS routine analysis data of ship drawn as bunkered samples. These reports will provide progressive snap shot of information every two weeks on the problematic quality characteristics of marine fuels as tested but should not be viewed in isolation. The results given, of course, do not necessarily reflect the overall quality of fuels delivered at a particular port. Note 95% confidence limit as per ISO 4259 Petroleum products: Determination and application of precision data in relation to methods of test

Note: This report has been prepared against ISO 8217 6th edition, as published March 2017. See CIMAC FAQ doc on ISO 8217 for more details (available in our technical library at www.fobas.com).

However, we fully recognise that many of the fuel deliveries covered by this report will have been specified and delivered against earlier versions of ISO 8217 or other specifications and hence will include instances where the fuel 'as bunkered' was fully within the purchaser's required specification. As has always been the case for FOBAS, it is recognised that there is an important distinction between a fuel not meeting, or meeting,

a specification requirement and its suitability for use in particular cases.

This report contains privileged information intended only for Lloyds Register clients. The information contained in this report should not be disclosed or distributed to third parties without the prior written consent of Lloyd's Register.

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

Southampton, United Kingdom
Tel: +44 (0)330 414 1000
E fobas@lr.org

Redcar, United Kingdom
Tel: +44 (0)1642 440991
E fobas@lr.org

Singapore
Tel: +65 3163 0888
E fobas@lr.org

Piraeus, Greece
Tel: +30 210 4580 932
E fobas@lr.org