

DET NORSKE VERITAS

To : XBEE
 Attn : Mr Kai Juopperi
 Email : kai.juopperi@wartsila.com
 C/o : Mr Ronan Ponceau
 Email : ronan.ponceau@xbec.com

Your ref. : SFA UNDO7112
 From : DNV Petroleum Services, Norway
 Date : 04 January 2008
 Our ref. : N107001374-DATRO

Subject : Analysis of sample from XBEE

Please find enclosed identification and results of analysis of 1 sample (4 bottles) received at laboratory on 04 December 2007.

The sample was sent from FRANCE and has been identified and registered with reference to SFA.

The sample was assigned DNVPS sample number: N107001374.

The sample has been analysed according to the short form agreement (SFA) UNDO7112.

In addition we have tested for Carbon, Hydrogen, Oxygen and Nitrogen at a sub-contracted

Please do not hesitate to contact us if you have any questions regarding the analysis results.

Best regards,

For Det Norske Veritas AS

Eng Tønnes Rønnevik

DNV Petroleum Services

Reference to parts of this report which may lead to misinterpretation is prohibited.



DET NORSKE VERITAS AS
 1200 Petroleum Services
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 N-1202 Oslo, Norway
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 www.dnv.com

TEST REPORT

From : DNV Petroleum Services, Norway
 Our ref. : N107001374
 Name : XBEE

Sample Information
 Sample number : N107001374
 Product type : Diesel Additive
 Description : XBEE
 Sampling date : -
 Sample container : Plastic
 Seal date : No Seal

Test Results	Unit	Method	N107001374
Density @ 15°C	kg/m ³	ISO 12185	800.5
Viscosity @ 40°C	mm ² /s	ISO 3104	1.823
Water Content	% V/V	ASTM D6304 Proc. C	<0.10
Micro Carbon Residue	% m/m	ISO 10370	<0.10
Sulfur	% m/m	ISO 8754	<0.05
Total Sediment Accelerated	% m/m	ISO 10307-2	<0.01
Total Sediment Existent	% m/m	ISO 10307-1	<0.01
Total Sediment Potential	% m/m	ISO 10307-2	<0.01
Ash	% m/m	LP 1001	<0.01
Vanadium	mg/kg	IP 501	<1
Sodium	mg/kg	IP 501	<1
Aluminium	mg/kg	ISO 10478	<1
Silicon	mg/kg	ISO 10478	<1
Iron	mg/kg	IP 501	<1
Nickel	mg/kg	IP 501	<1
Calcium	mg/kg	IP 501	<1
Magnesium	mg/kg	LP 1101	<1
Lead	mg/kg	LP 1101	<1
Zinc	mg/kg	IP 501	<1
Phosphorus	mg/kg	IP 501	<1
Potassium	mg/kg	LP 1101	<1
Flash Point	°C	ISO 2719, Procedure A	>70
Pour Point	°C	ISO 3016	<0
Asphaltene	% m/m	ASTM D3279	<0.20
Acid Number	mg KOH/g	ASTM D664	0.01
Base Number	mg KOH/g	ASTM D2896	0.00
Carbon	% m/m	ASTM D5291	85.49
Hydrogen	% m/m	ASTM D5291	14.52
Nitrogen	% m/m	ASTM D3228	0.002
Oxygen	% m/m	ASTM D5291	<0.10

WÄRTSILÄ FINLAND OY

Janvier 2008. XBEE, suite à une première expérience positive avec leur filiale française, a contacté Wärtsilä Finland Oy afin de leur présenter la technologie.

Le chef du département des fluides du groupe Wärtsilä, Kai Juopperi, a demandé une analyse de XBEE pur afin de prouver que le produit est tout à fait inoffensif. Cette analyse a été menée par le DNV Petroleum Services le 4 janvier 2008.

Le rapport démontre clairement que XBEE ne contient aucun produit chimique, ni alcools, ni acides, ni métaux, ni cendres. Ainsi, l'usage des enzymes dans tous les moteurs Wärtsilä, et ceux du groupe, est officiellement autorisé.

Par conséquent, Wärtsilä Finland Oy a publié un courrier de non-objection en date du 16 mai 2008. Ce courrier a ensuite été renouvelé le 19 mars 2013, puis le 16 mai 2018 et plus récemment le 14 novembre 2022.

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XBEE

Attn. Mr. Ronan Penneç

LETTER OF NO OBJECTION

Subject: Fuel additive

Brand: XBEE

Dear Sir,

The information submitted to us of the above mentioned XBEE fuel additive has been evaluated by Wärtsilä. In consideration of the information, You have disclosed to us concerning the composition and properties of this product, we have no objection to the use of this fuel additive in the following engine types:

Wärtsilä® 20, 26, 32, 38, 46, 46F, 64, Vasa 22, 22/26, 32/32LN and Sulzer ZA 40

No Objection for the use of the above mentioned fuel additive in other older Wärtsilä® engine types manufactured by Wärtsilä can be requested from Wärtsilä Services units being responsible for a particular engine type in question.

Based on the information received from XBEE company, the additive can be classed as an ashless product being considered to be harmless for an engine. The additive treat rate is not considered to be harmful to the engine or its operation when used in terms of the given recommendations. Further, the fuel quality at engine inlet must meet the relevant Wärtsilä requirements under all operating conditions.

Wärtsilä does not assume any responsibility for the function of this additive and does not guarantee that e.g. improvements concerning reductions in the fuel consumption / emissions / engine component wear rate / deposit formation rate are achievable in the Wärtsilä® engine types mentioned above.

Wärtsilä disclaims any and all responsibility for damage or losses in case a customer uses the above mentioned fuel additive during the engine warranty period and thereafter.

The supplying fuel additive company XBEE along with other possible manufacturers and distributors of the product in question undertakes any and all responsibility for the performance of the fuel additive in service of Wärtsilä® engines listed above to the exclusion of any liability of Wärtsilä.

Nothing in this Letter of No Objection shall affect any rights of Wärtsilä or any company belonging to Wärtsilä group, neither shall this Letter of No Objection provide the XBEE or other possible manufacturers and distributors of the product in question with any right or license under any patents, copyrights, trade secrets, or trademarks. XBEE along with other possible manufacturers and distributors of the product in question shall honour and refrain from using or referring to the trademarks or trade names (as for example Wärtsilä®) owned or generally used by Wärtsilä and any company belonging to Wärtsilä group. XBEE along with other possible manufacturers and distributors of the product in question is not allowed to use the name “Wärtsilä” in its reference list without the prior written consent of the authorized representative Wärtsilä.

The validity of this Letter of No Objection is confined to max. twenty four (24) months after the date of publication unless a further notice is given before that. Based on the gathered experience the validity can be extended after the expiry date. Wärtsilä shall at its sole discretion have the right at any time to withdraw this Letter of No Objection.

Yours faithfully,

Wärtsilä Finland Oy
Marine Power, Power Supply, R&D and Engineering



Kai Juoperi
Chief Expert, Engine Fluids