

UDDEVALLA KRAFT AB
STROMBERGET
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Sweden
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Attention of : Mr. M. Stake

Analysis Report

Report number : 11601/00037559.3/L/15 Date of sampling : 2015-10-27
Main Object : 302 Place of sampling : Brattåsverket
Report Date : 2015-11-13 Date received : 2015-10-28
Date of issue : 2015-11-13 Date completed : 2015-11-13
Sample object : 302 Sample number : 2957669
Sample type : Sampled
Sample submitted as : Mixed Fatty Acid
Marked : Shore tank 302 running

NAME	METHOD	UNIT	RESULT
Ash Content at 925°C	ASTM D 482m	mass %	0.035
Pour point (upper) Q	ASTM D 97	°C	9
Kinematic Viscosity at 40°C Q	ASTM D 7042	mm ² /s	15.60
Total Nitrogen by Kjeldahl Q	ASTM D 3228	mg/kg	200
Heat of Combustion	ASTM D 240		
Gross Heat of Combustion		MJ/kg	37.64
Net Heat of Combustion		MJ/kg	35.03
Elemental analysis	ASTM D 5291		
Hydrogen		mass %	12.3
pH on water extr. at 25°C		pH	2.5
Viscosity at 50°C Q	ASTM D 7042	mm ² /s	11.38
Viscosity at 65°C Q	ASTM D 7042	mm ² /s	7.499
Density at 50 °C Q	EN ISO 12185	kg/m ³	879.1
Water and sediment	ISO 3734	vol %	0.15
Sulphur (S) Q	EN ISO 8754	mass %	0.035
Additive and Wear metals	ASTM D 5185		
Nickel (Ni)		mg/kg	<1
Acid Number	ASTM D 664		
Total Acid Number		mg KOH/g	60.2

Lab comments:

Q Accredited Analysis. Analysis marked with "Q" are part of the scope of the ISO 17025 accreditation number 1352 of SWEDAC.

Signed by: Stefan Andersson - Laboratory Operations
Issued by: Saybolt Sweden
Place and date of issue: Göteborg - 2015-11-13

Uncertainties apply in the evaluation of the test results. Where available and for convenience purposes, the tested sample has been checked for compliance with supplied specifications, without accepting any liability. In case of dispute or uncertainty, we refer to the interpretation of test results as defined in ASTM D3244, IP 367 or ISO 4259.