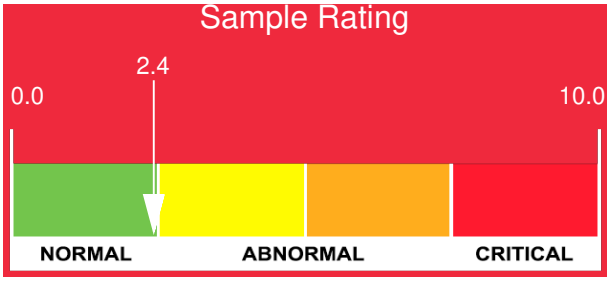
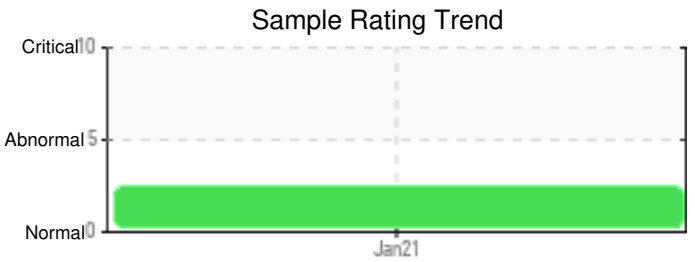




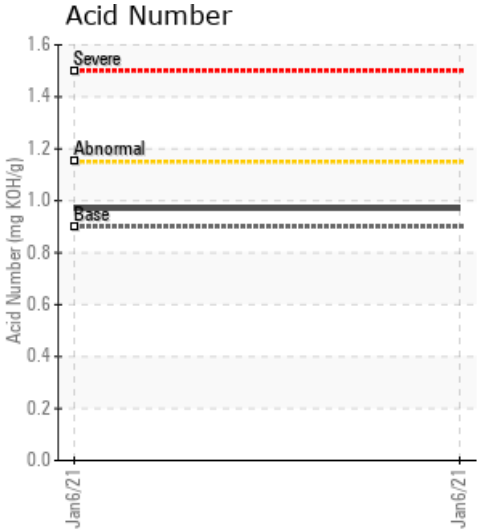
HEAT TRANSFER

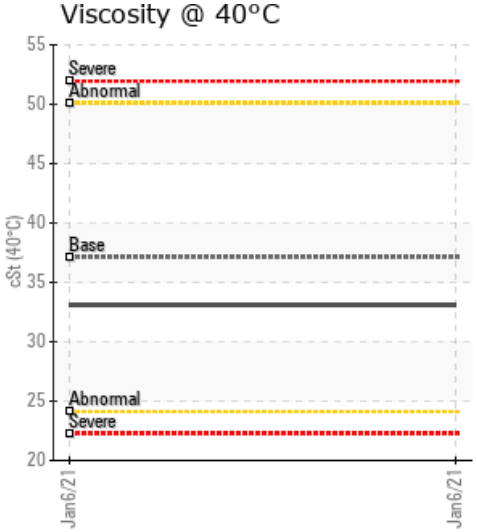
Customer: PTRHTF40134	System Information	Sample Information
EUROPA CUISSON 14 RUE DE LA TERRE A BRISQUES TOURNAI, 7522 Belgium Attn: Fabrice Duhamel Tel: (326)976-5050 E-Mail: fabrice.duhamel@europacuisson.com	System Volume: 6000 ltr Bulk Operating Temp: 509F / 265C Heating Source: Blanket: Fluid: PETRO CANADA PURITY FG HEAT TRANSFER FLUID Make: GARIONI	Lab No: 02396801 Analyst: Philip Riley Sample Date: 01/06/21 Received Date: 01/11/21 Completed: 01/14/21 Philip Riley philip.riley@petrocanadalsp.com

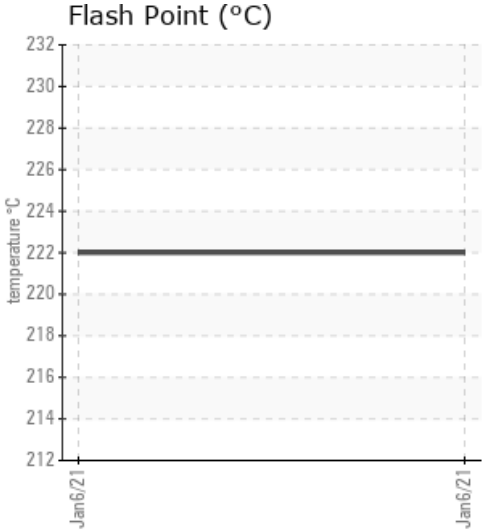
Recommendation: Generally in good condition with the exception of the water content that will cause issues. This may also be a root cause of the pentane insoluble being high, as the stress of water present in the system can lead to degradation, and is already showing emulsification. Please look to remove the water and perhaps bring in filtration if it is possible to conduct this safely. Once done this fluid will last a longer period of time. Other parameters are all as expected and the fluid, with the recommendations, is fit for further use.

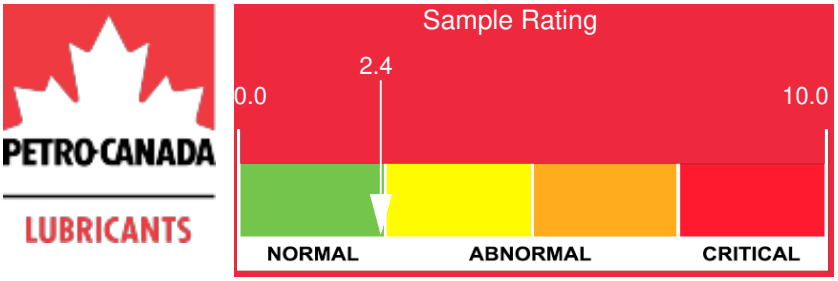
Comments: Water contamination levels are abnormally high. Water contamination levels are abnormally high.. ppm Water contamination levels are abnormally high. Pentane Insolubles levels are abnormally high.

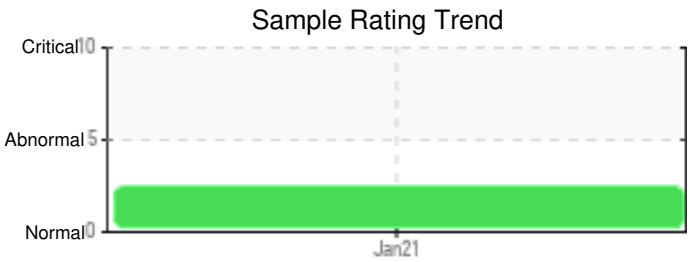
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
01/06/21	01/11/21	5y	Generator	432 / 222	844.1	33.1	0.97	0.453	716 / 380	809 / 432	905 / 485	2.55
Baseline Data				459 / 237		37.12	0.90		721 / 383	807 / 431	892 / 478	1.5





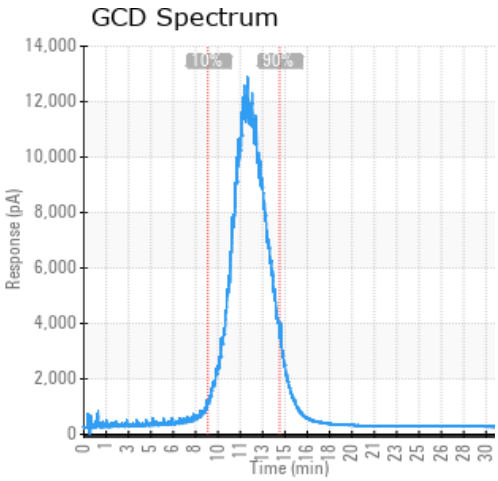


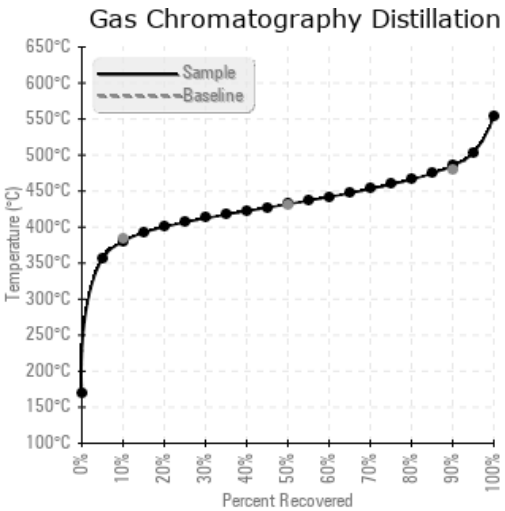


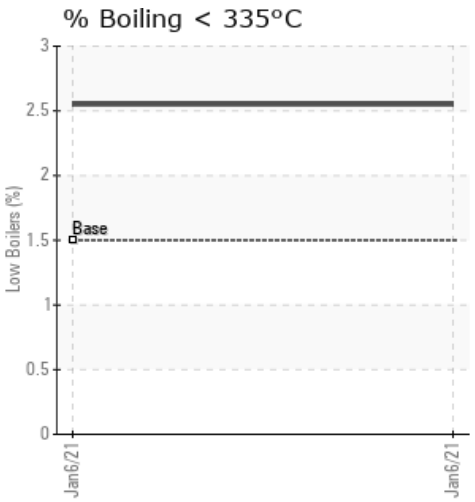


Sample Date	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc
01/06/21	15	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	79	4
Baseline Data			0	0						0			0	0				0	0				230	

Elemental anaysis results (above) in parts per million (ppm). [10,000 ppm = 1.0%]







Historical Comments
