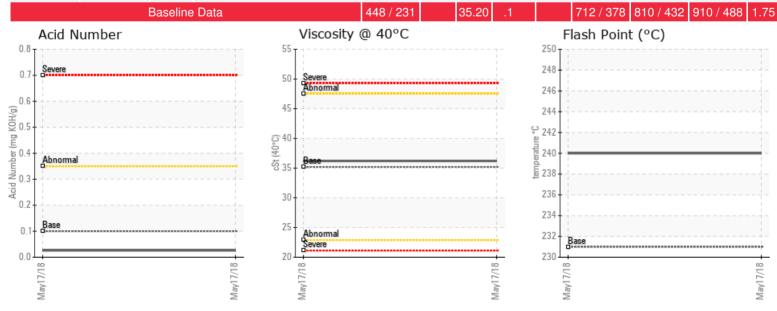


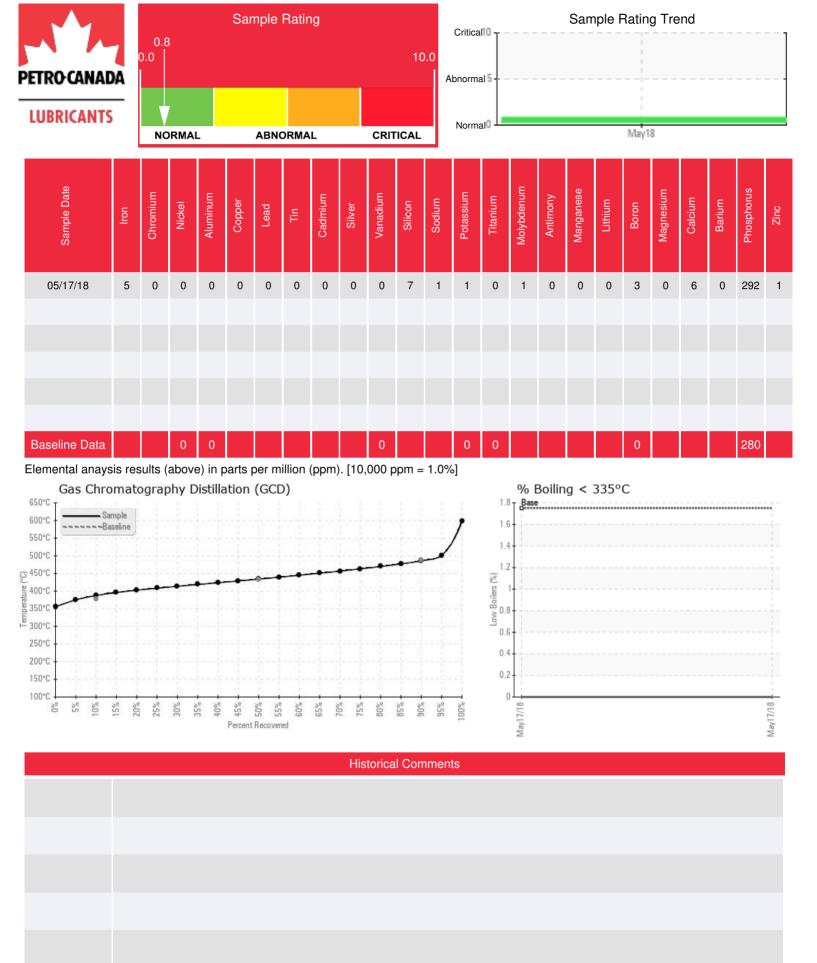
Customer: PTRHTF20196	System Information	Sample Information			
SUNCOR ENERGY	System Volume: 13000 ltr	Lab No: 02218642			
MACKAY RIVER PROJECT	Bulk Operating Temp: 518F / 270C	Analyst: Benjamin Latorre			
DOCK M	Heating Source:	Sample Date: 05/17/18			
FORT MCMURRAY, AB T9H 4W1	Blanket:	Received Date: 05/28/18			
Canada	Fluid: PETRO CANADA CALFLO HTF	Completed: 08/28/18			
Attn: Patrick Spargo	Make:	To discuss this report contact Benjamin			
Tel: (780)792-2977		Latorre at (587)275-0499			

Recommendation: 1. Locate and correct source of recurring water contamination. Check heat exchanger for leaks.2. Check low lying areas of the system, such as the expansion tank, where water can be trapped.3. Consider removal of water vapor by venting and addition of nitrogen to the expansion tank head space. Resample initially at 500 hours after correcting source/removal of water contamination. If it has stopped, resample oil at longer intervals.

Comments: Water contamination levels are severely high. Water contamination levels are severely high.. ppm Water contamination levels are severely 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	%
05/17/18	05/28/18	2d	HOT TANK OIL #1	464 / 240	4968.5	36.2	0.026	0.034	729 / 387	813 / 434	906 / 486	0.00





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