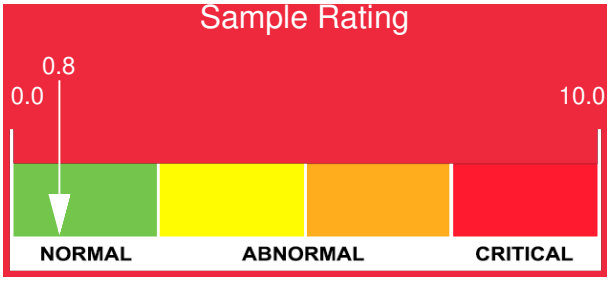
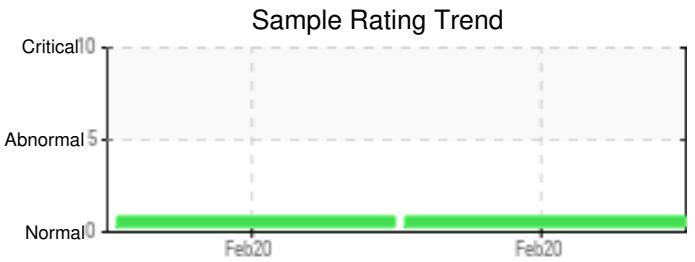




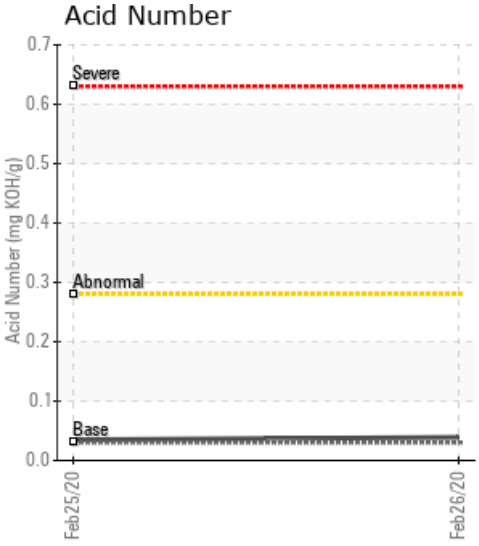
[LSD / 1-14-85-13W6] CNRL FLORAL GAS PLANT

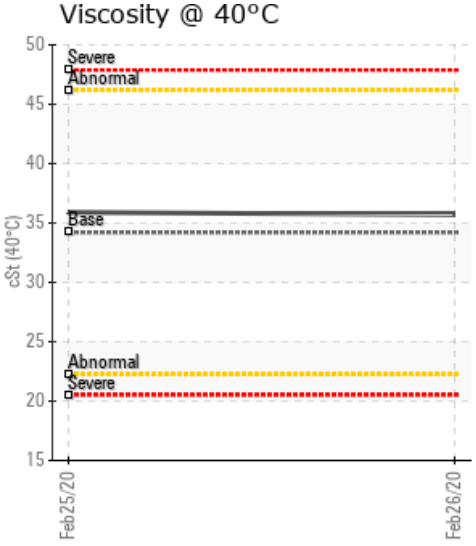
Customer: PTRHTF20237	System Information	Sample Information
CNRL Floral Gas Plant 10924-92 Ave Box 1179 FAIRVIEW, AB T0H 1L0 Canada Attn: Marcel Landry Tel: (780)518-3777 E-Mail: marcel.landry@cnrl.com	System Volume: 0 gal Bulk Operating Temp: 388F / 198C Heating Source: Blanket: Fluid: PETRO CANADA PETRO-THERM Make:	Lab No: 02341087 Analyst: Clinton Buhler Sample Date: 02/26/20 Received Date: 03/03/20 Completed: 03/11/20 Clinton Buhler Clinton.Buhler@PetroCanadaLSP.com

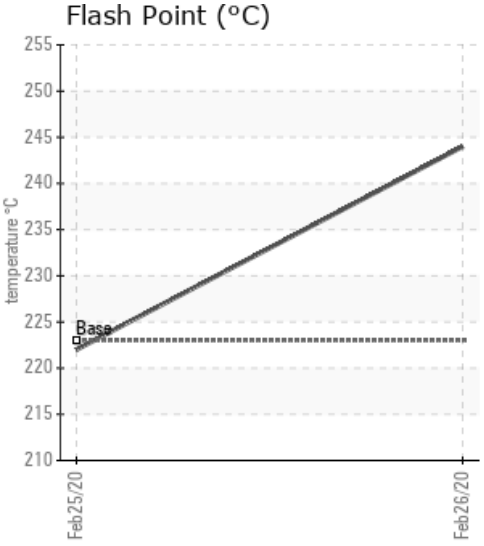
Recommendation: Sample results indicate that the fluid is suitable for continued service.Understanding that there has been ongoing pump mechanical seal failures, we had the lab run ISO Particle count to understand the condition of fluid cleanliness as the Solids content of the fluid is 0.124%; typically, solids content is flagged when it reaches 0.5% and beyond. ISO 4406= 21/19/13. This is not atypical cleanliness for a heat transfer system as most systems do not utilize filtration.Please re-sample in 12 months

Comments:

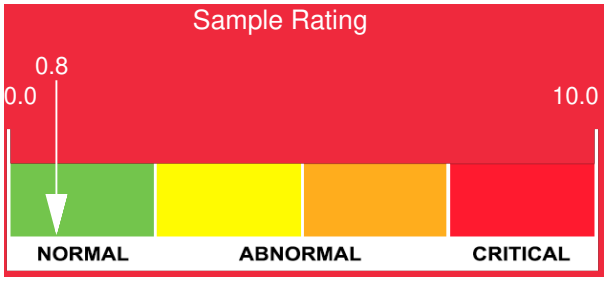
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
02/26/20	03/03/20	11y	SEAL FLUSH LINE	471 / 244	0.00	35.7	0.039	0.124	729 / 387	830 / 443	933 / 501	0.00
02/25/20	03/02/20	10y	PUMP DISCHARGE	432 / 222	2.2	35.9	0.035	0.163	748 / 398	810 / 432	900 / 482	0.41
Baseline Data				433 / 223		34.2	0.03		720 / 382	817 / 436	900 / 482	1.00

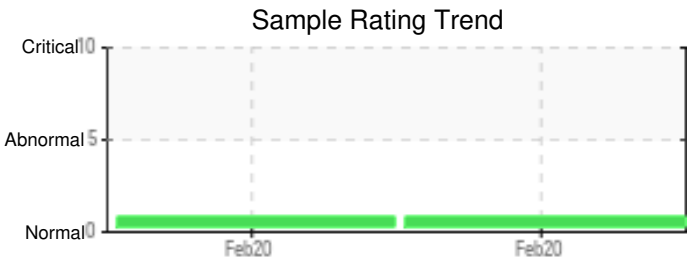






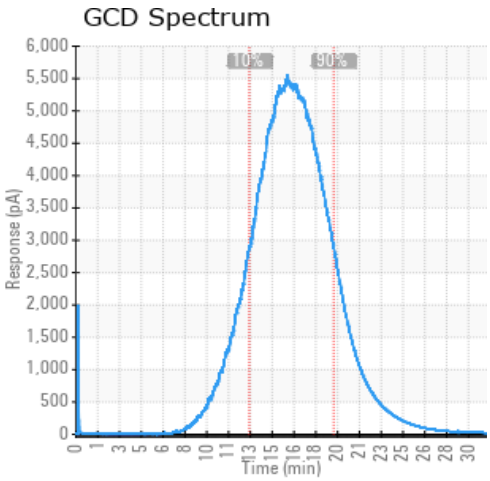
PETRO-CANADA LUBRICANTS

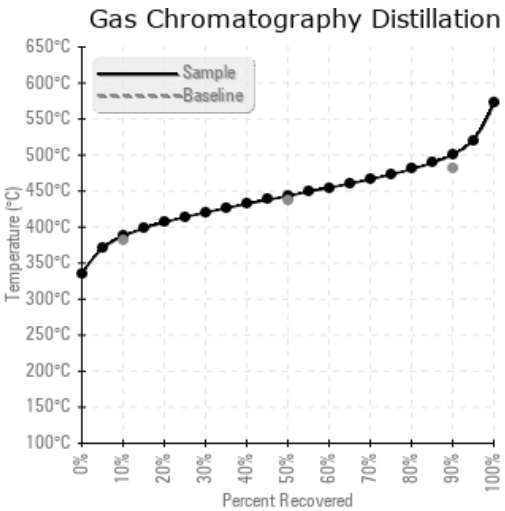


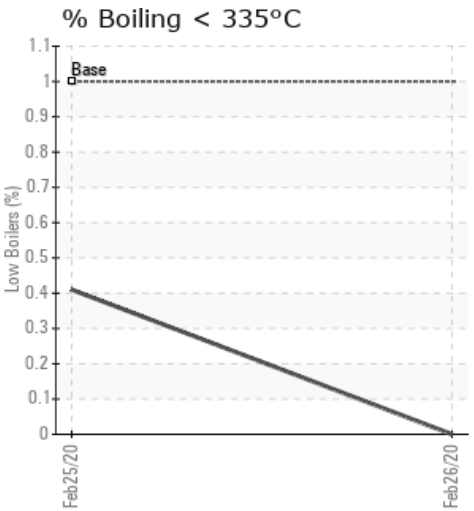


Sample Date	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc
02/26/20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02/25/20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Baseline Data			0	0						0			0	0					0				0	

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







Historical Comments

02/25/20	Sample results indicate that the heat transfer fluid is suitable for continued service and appears to be in good condition. (GCD) 10% Distillation Point is marginally high but does not impact the overall health of the fluid.