

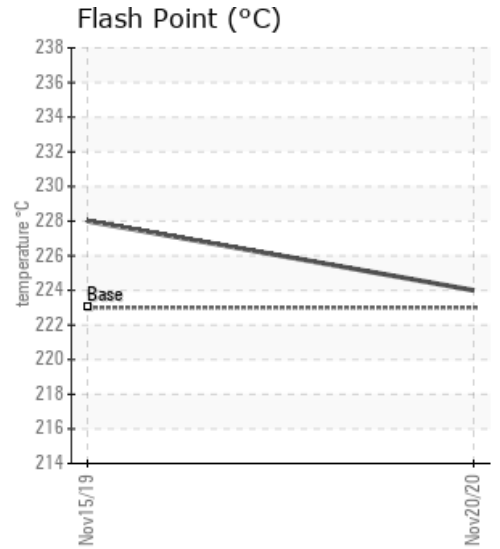
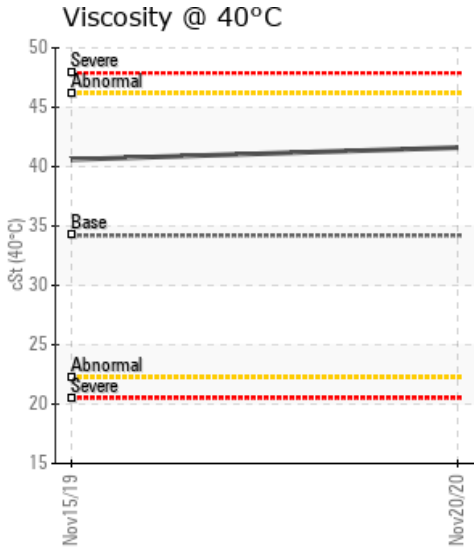
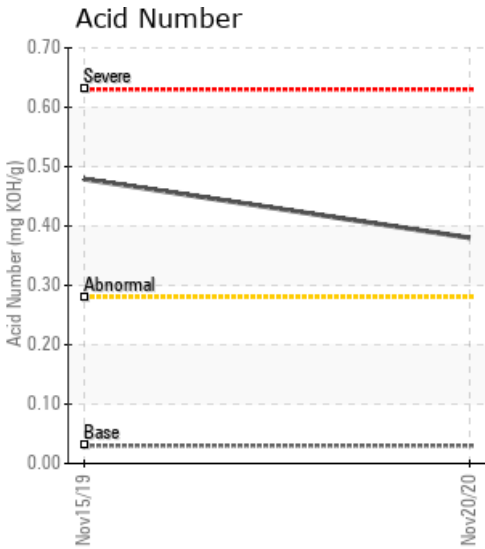
HEATTRANSFER

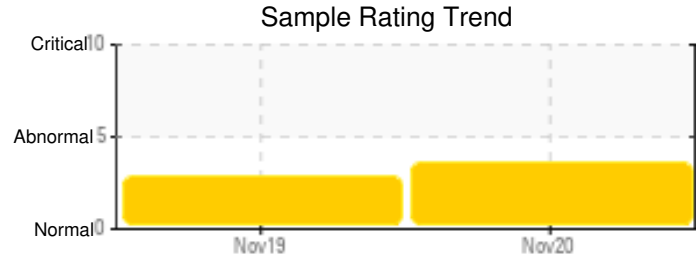
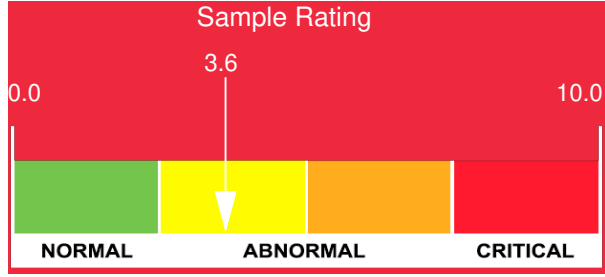
Customer: PTRHTF10226	System Information	Sample Information
LAKESIDE INDUSTRIES 8198 Old Hwy 99 North Rd Burlington, WA 98233 US Attn: Rex Bebee Tel: E-Mail: rex.beebe@lakesideindustries.com	System Volume: 0 gal Bulk Operating Temp: Not Specified Heating Source: Blanket: Fluid: PETRO CANADA PETRO-THERM Make:	Lab No: 02402528 Analyst: Ron LeBlanc Sample Date: 11/20/20 Received Date: 02/08/21 Completed: 02/11/21 Ron LeBlanc Ronald.LeBlancSr@HFSinclair.com

Recommendation: The (GCD) 90% Distillation Point is high indicating high boilers are above the new fluid levels. These can lead to deposits. Pentane insolubles and water level is high indicating contamination. Check strainer/filter for contamination. Resample in 3 months.

Comments: Pentane Insolubles levels are severely high. Acid Number (AN) is abnormally high. (GCD) 90% Distillation Point is marginally high.

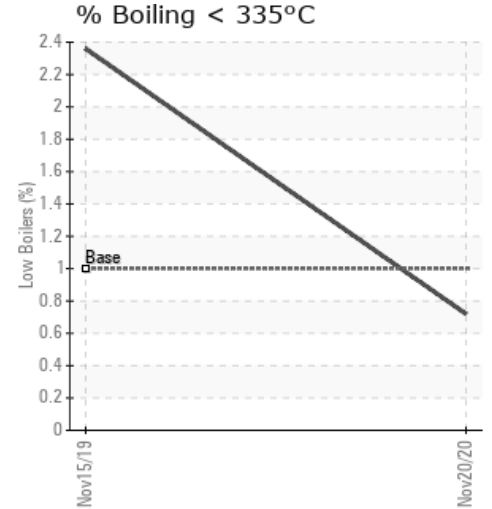
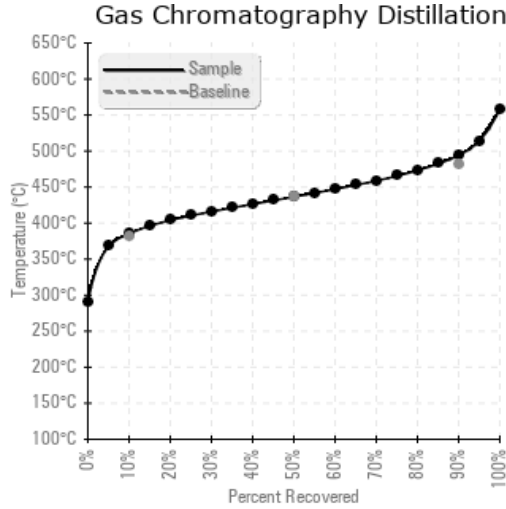
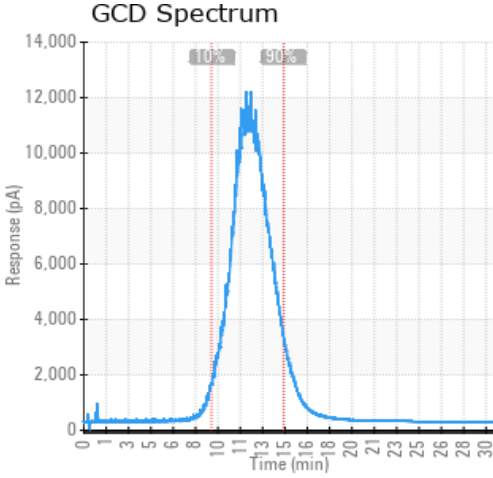
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
11/20/20	02/08/21	0.0y		435 / 224	42.0	41.6	0.38	0.628	725 / 385	818 / 437	921 / 494	0.72
11/15/19	01/20/20	0.0y		442 / 228	22.8	40.6	0.479	0.658	727 / 386	796 / 424	887 / 475	2.36
Baseline Data				433 / 223		34.2	0.03		720 / 382	817 / 436	900 / 482	1.00





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
11/20/20	8	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0
11/15/19	4	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
Baseline Data			0	0						0		0	0					0				0		

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



Historical Comments

11/15/19	AN is slightly elevated. The oil appears to be slightly oxidized. Re-sample in 3 months. Be sure to purge oil from collection point before filling sample container to insure quality of sample. Pentane Insolubles levels are severely high. Acid Number (AN) is abnormally high.
----------	--