

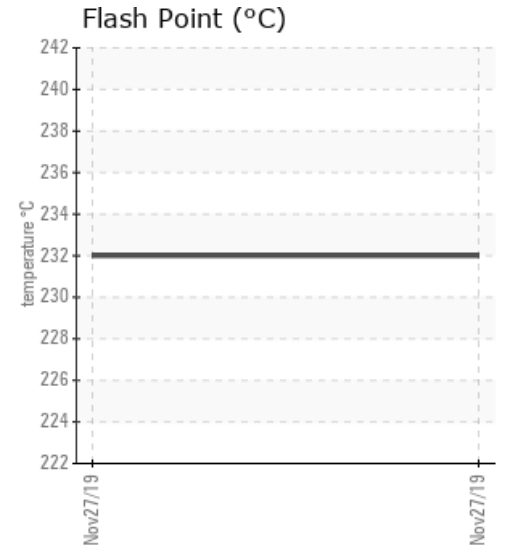
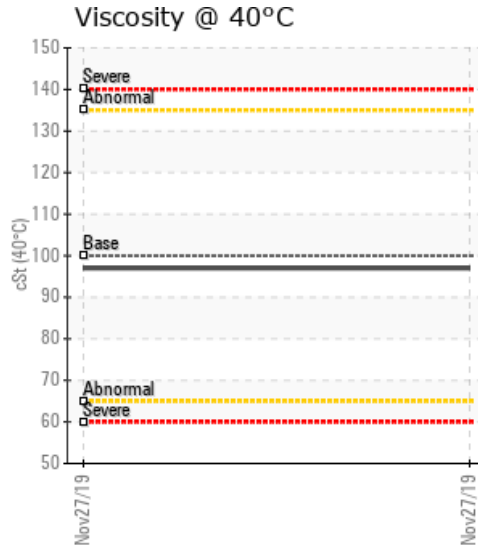
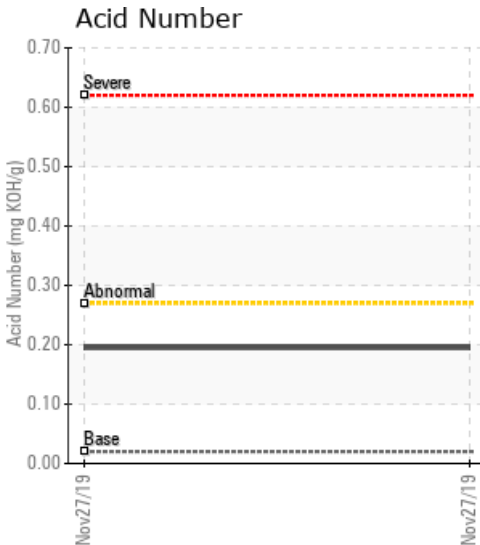
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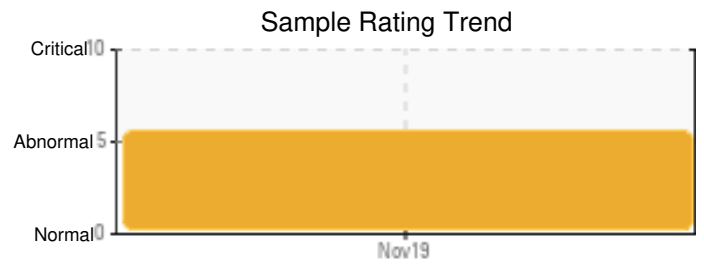
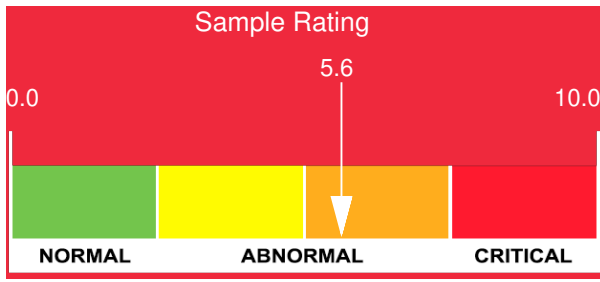
Customer: PTRHTF20234	System Information	Sample Information
Louisiana Pacific P. O. BOX 2338 MILE 3 ALASKA HWY DAWSON CREEK, BC V1G 4P2 Canada Attn: Rod Folster Tel: (250)782-1616 E-Mail: rod.folster@lpcorp.com	System Volume: 24450 gal Bulk Operating Temp: 530F / 277C Heating Source: Blanket: Fluid: ESSO TERESSTIC ISO 100 Make: SALTON	Lab No: 02323476 Analyst: Clinton Buhler Sample Date: 11/27/19 Received Date: 11/28/19 Completed: 01/06/20 Clinton Buhler Clinton.Buhler@HFSinclair.com

Recommendation: Sample results would seem to indicate that the fluid is suitable for continued service. The slightly elevated % boil-off <335C and reduced 10% distillation temperature may be an indication of thermal degradation (creates low boiling vapors). It is recommended practice to vent off low boiling vapors regularly. Please take note of the presence of sodium, calcium and phosphorus as these elements likely do not belong in this fluid and indicate contamination. This fluid is an ISO 100 viscosity grade. It may be worthwhile to investigate if this fluid viscosity is required for this system as a lower viscosity fluid can provide more efficient heat transfer. Please re-sample in 12 months

Comments: (GCD) 10% Distillation Point is severely low. Calcium ppm levels are abnormally high. Sodium ppm levels are notably high. (GCD) % < 335°C is marginally high.

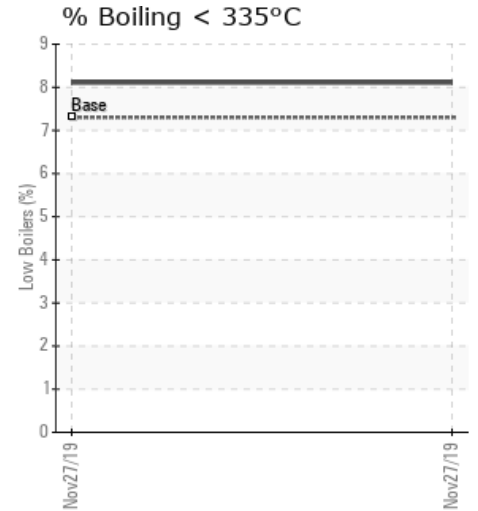
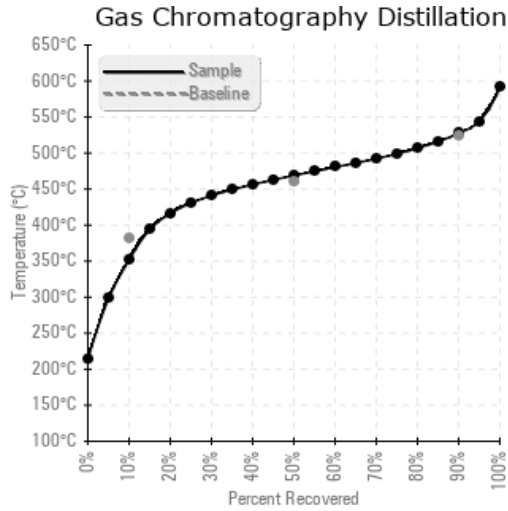
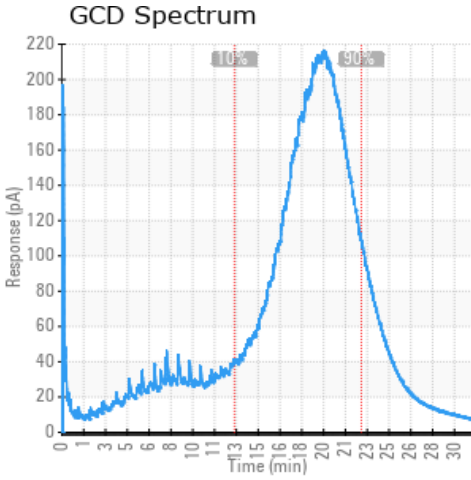
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
11/27/19	11/28/19	3.5y	BYPASS	450 / 232	91.5	97.0	0.195	0.111	664 / 351	876 / 469	981 / 527	8.11
Baseline Data				486 / 252		100	0.02		720 / 382	860 / 460	975 / 524	7.3





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
11/27/19	39	0	0	0	0	0	0	0	0	0	0	112	1	0	0	0	0	0	0	0	33	0	29	0
Baseline Data			0	0						0			0	0					0				2	

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



Historical Comments

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