

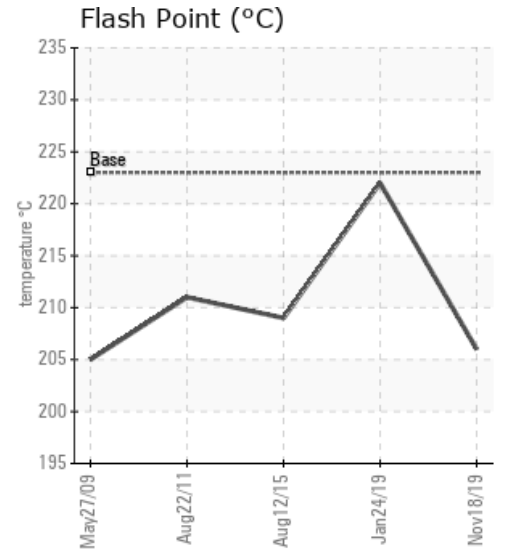
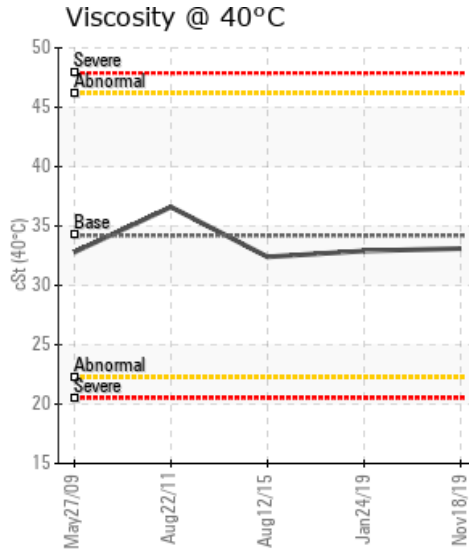
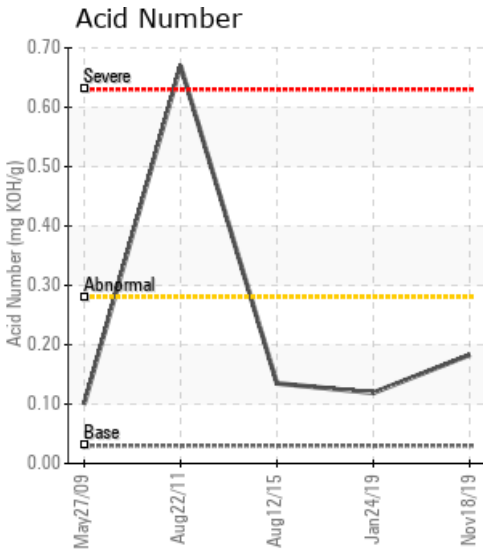
## HEAT TRANSFER SYSTEM

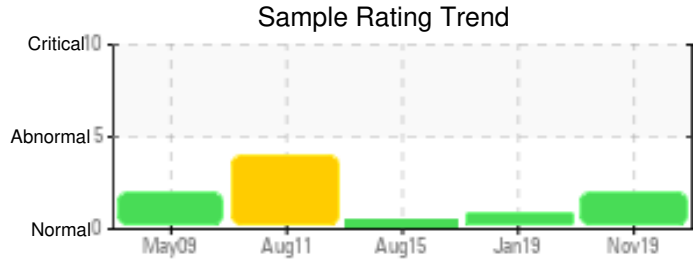
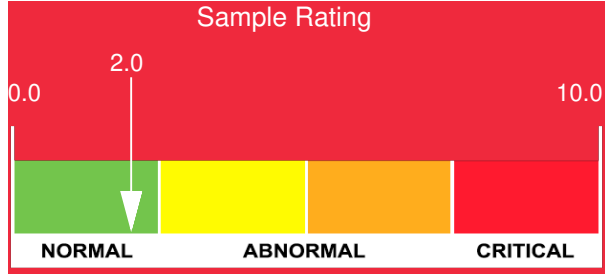
Customer: PTRHTF10021	System Information	Sample Information
LAKESIDE INDUSTRIES 6505 226TH PLACE S.E. #2 ISSAQUAH, WA 98027 US Attn: BILL DEMSEY Tel: (425)313-2686 E-Mail:	System Volume: 500 gal Bulk Operating Temp: 350F / 177C Heating Source: Blanket: Fluid: PETRO CANADA PETRO-THERM Make: GENCOR	Lab No: 02332800 Analyst: Ron LeBlanc Sample Date: 11/18/19 Received Date: 01/20/20 Completed: 01/23/20 Ron LeBlanc Ronald.LeBlancSr@HFSinclair.com

Recommendation: Pentane insoluble have increased compared to previous sample indicating possible contamination. Re-sample in 3 months. Be sure to purge oil before capturing sample in container.

Comments: (GCD) % < 335°C is marginally high.

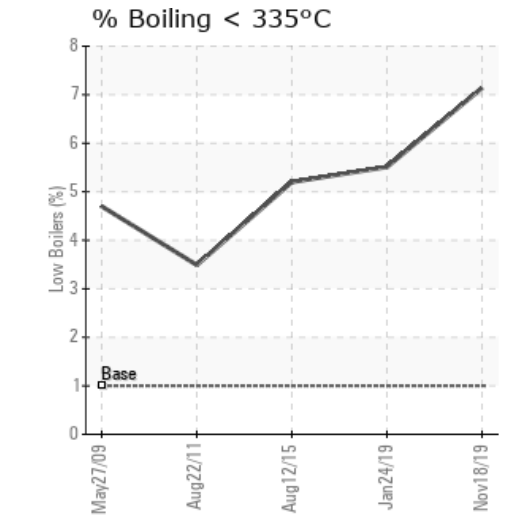
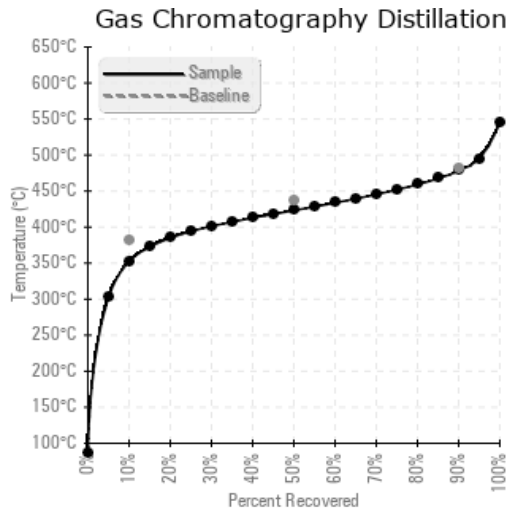
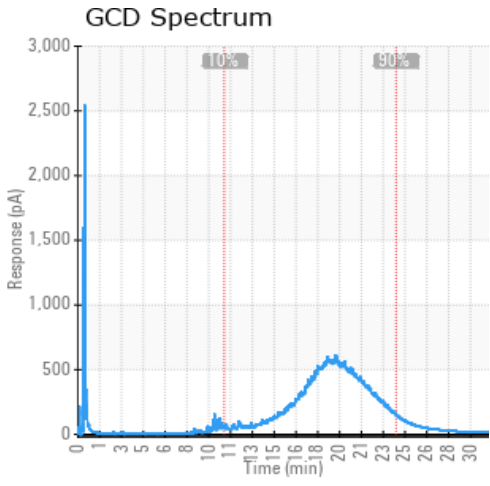
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
11/18/19	01/20/20	0.0y	FILTER BLEEDER	403 / 206	60.5	33.1	0.183	0.085	667 / 353	794 / 423	893 / 478	7.14
01/24/19	02/08/19	0.0y		432 / 222	554.4	32.9	0.119	0.042	670 / 354	782 / 417	881 / 472	5.51
08/12/15	08/28/15	3.0y	BEFORE FLTR ON RTURN	408 / 209	14.7	32.4	0.135	0.069	685 / 363	809 / 431	908 / 486	5.20
08/22/11	08/29/11		BEFORE FILTER	412 / 211	47	36.6	0.67	0.089	702 / 372	812 / 433	918 / 492	3.49
05/27/09	05/27/09			401 / 205	108	32.8	0.1	0.12	687 / 364		932 / 500	4.7
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
11/18/19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01/24/19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08/12/15	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
08/22/11	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	4	0	0	0	3	1	
05/27/09	0	0	0	0	0	0	0	0	0	0	0	10		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	
01/24/19	(GCD) 90% Distillation Point is marginally low. Re-sample in 3 months to check this result. Be sure to purge at least a gallon of oil before taking sample. (GCD) 90% Distillation Point is marginally low.
08/12/15	Sample appears to be normal. Resample at normal interval.
08/22/11	
05/27/09	

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