

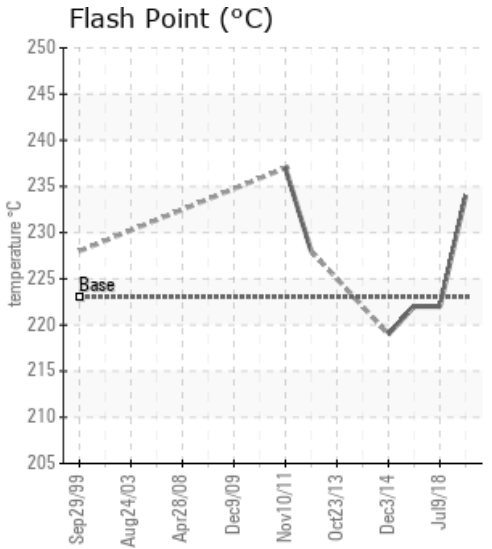
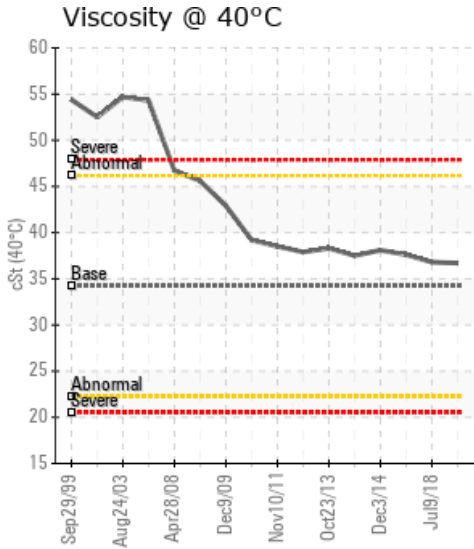
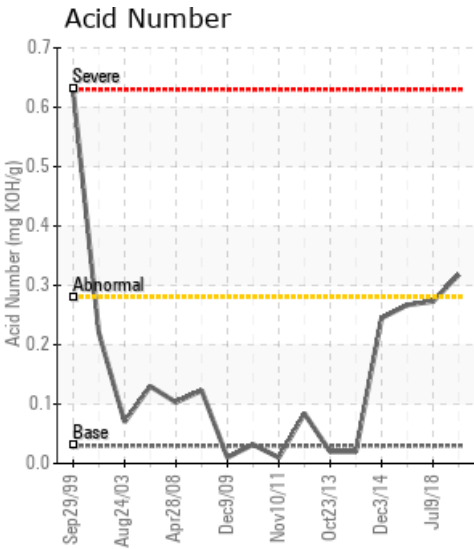
## B7 BURNER

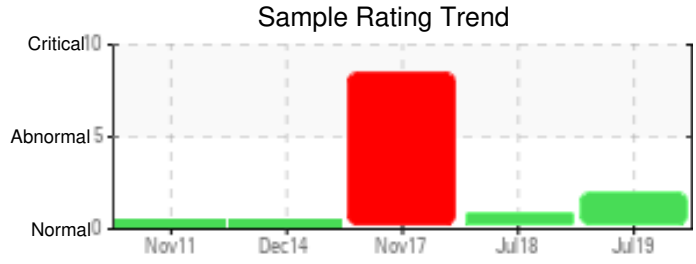
Customer: PTRHTF30052	System Information	Sample Information
I G MACHINES AND FIBER 87 ORENDA RD. BRAMPTON, ON L6W 1V7 Canada Attn: Alan Zhao Tel: (905)457-2880 E-Mail: alan.zhao@iko.com	System Volume: 10000 ltr Bulk Operating Temp: Not Specified Heating Source: Blanket: Fluid: PETRO CANADA PETRO-THERM Make:	Lab No: 02302192 Analyst: Lynn Billings Sample Date: 07/30/19 Received Date: 08/12/19 Completed: 08/22/19

Recommendation: The acid number is increasing and the pentane insolubles are still high. Thus the fluid appears to have acidic components in the fluid indicative of oxidation, which can create more deposits. To reduce acid number, you could try 'sweetening' the system (partial oil replacement). Suggest checking filters and changing if possible. Filtration systems will help to keep these levels lower. The sodium level still indicates the residual presence of the soap from previous issues.

Comments: Pentane Insolubles levels are abnormally high. Acid Number (AN) is abnormally high.

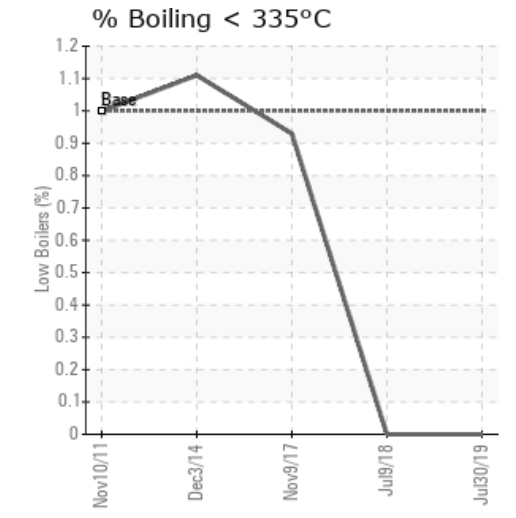
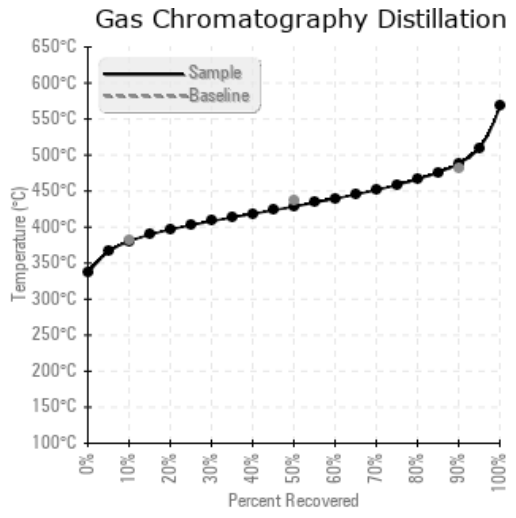
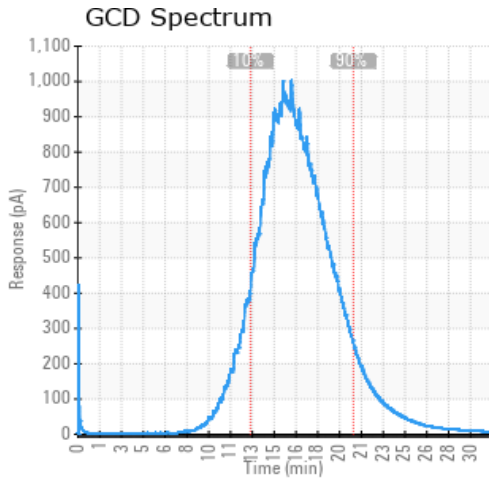
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
07/30/19	08/12/19	24m	PIPE	453 / 234	55.9	36.7	0.318	0.434	716 / 380	803 / 429	910 / 488	0.00
07/09/18	07/24/18	10m	BRANCH LINE	432 / 222	42.7	36.8	0.273	0.431	724 / 385	795 / 424	898 / 481	0.00
11/09/17	11/10/17	1m		432 / 222	67.8	37.6	0.267	0.595	707 / 375	784 / 418	872 / 466	0.93
12/03/14	12/03/14	0m		426 / 219	9.3	38.1	0.245	0.070	706 / 374	810 / 432	917 / 492	1.11
11/19/14	11/20/14	0m				37.5	0.02					
10/23/13	10/24/13	0m				38.3	0.02					
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
07/30/19	11	0	0	0	1	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	1	0	0	3
07/09/18	15	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0	0	0	0	1	2	0	0	0
11/09/17	37	0	0	0	0	0	0	0	0	0	0	72	3	0	0	0	2	0	0	1	1	0	0	0
12/03/14	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/19/14	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	1
10/23/13	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	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	
07/09/18	Fluid in system has improved from last test. The pentane insoluble are still slightly high and the sodium level has been significantly reduced. Acid number and flash point are relatively stable. Suggest to retest system in 9 months. Pentane Insolubles levels are abnormally high.
11/09/17	This fluid still indicates contamination from the soap that was mistakenly put in the system. (Sodium and Potassium level are abnormal). A discussion with the customer is recommended. Pentane Insolubles levels are severely high. Sodium ppm levels are severely high. (GCD) 90% Distillation Point is abnormally low.
12/03/14	Routine Monitoring - no action required at this time. Resample again in 12 months.
11/19/14	Resample at the next service interval to monitor. WearCheck recommends using HTTFL sample kits for heat transfer fluids. Please contact us at 1-800-268-2131 and provide a purchase order for \$245 + HST in order to conduct additional testing (boiling points @ 10%, 50%, and 90%, percent boiling < 335°C, and solids) to determine the suitability for continued use. All component wear rates are normal. There is no indication of any contamination in the component. There is no indication of any contamination in the component (unconfirmed). The AN level is acceptable for this fluid. The condition of the fluid is suitable for further service.
10/23/13	Resample at the next service interval to monitor. WearCheck recommends using HTTFL sample kits for heat transfer fluids. Please contact us at 1-800-268-2131 and provide a purchase order for \$245 + HST in order to conduct additional testing (boiling points @ 10%, 50%, and 90%, percent boiling < 335°C, and solids) to determine the suitability for continued use. (not applicable) There is no indication of any contamination in the component (unconfirmed). The AN level is acceptable for this fluid. The condition of the fluid is acceptable for the time in service (unconfirmed).

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