

IKO BURNER

Customer: PTRHTF30052
 I G MACHINES AND FIBER
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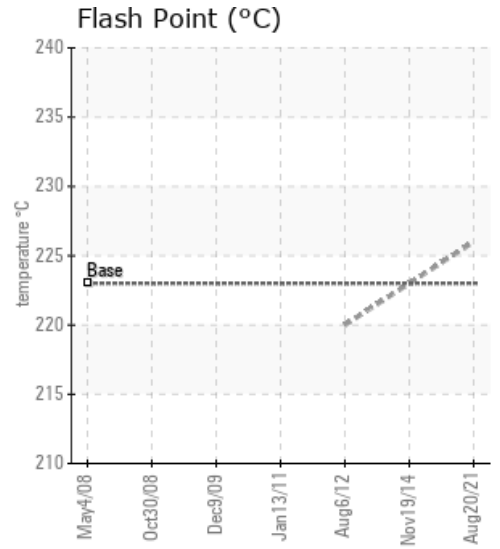
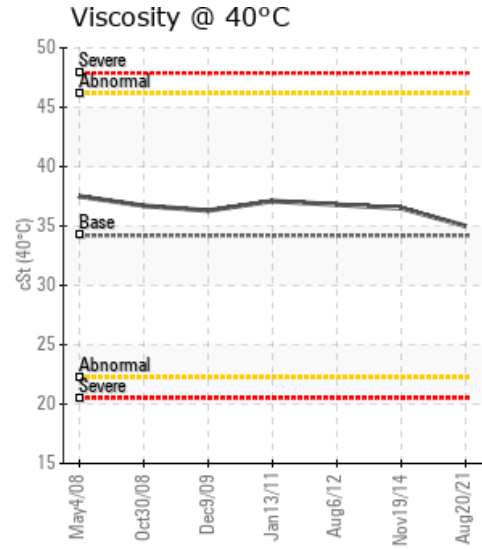
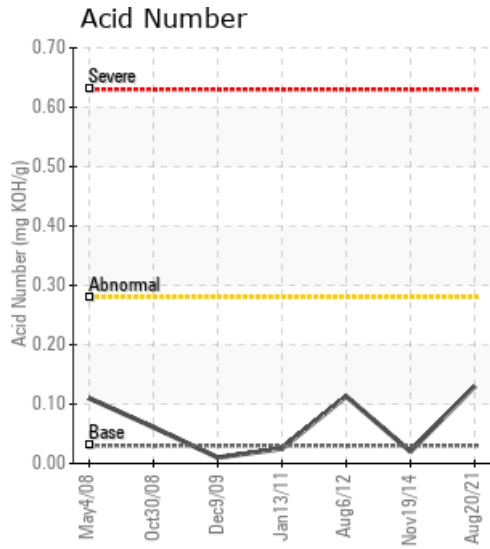
System Information
 System Volume: 10000 ltr
 Bulk Operating Temp: Not Specified
 Heating Source:
 Blanket:
 Fluid: PETRO CANADA PETRO-THERM
 Make:

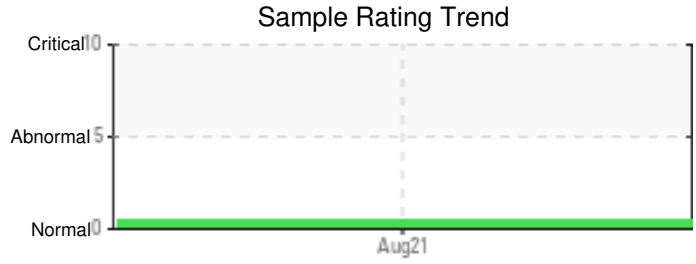
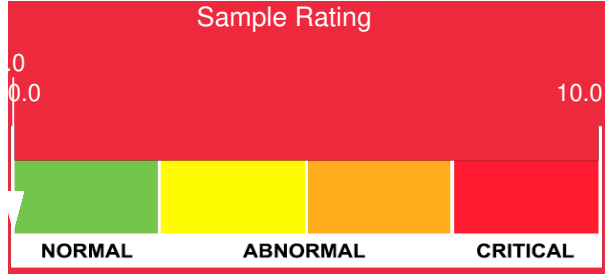
Sample Information
 Lab No: 02440263
 Analyst: Adam Koscielak
 Sample Date: 08/20/21
 Received Date: 08/24/21
 Completed: 09/07/21
 Adam Koscielak
 adam.koscielak@hollyfrontier.com

Recommendation: Analysis indicates the fluid results are typical for Petro-Therm in service. GCD data is typical for Petro-Therm in service, no appreciable level of low boilers detected. Flash point is typical. Pentane insolubles content is at 0.055, typical for fluid in service. Fluid is suitable for continued service. Sample at next yearly frequency.

Comments:

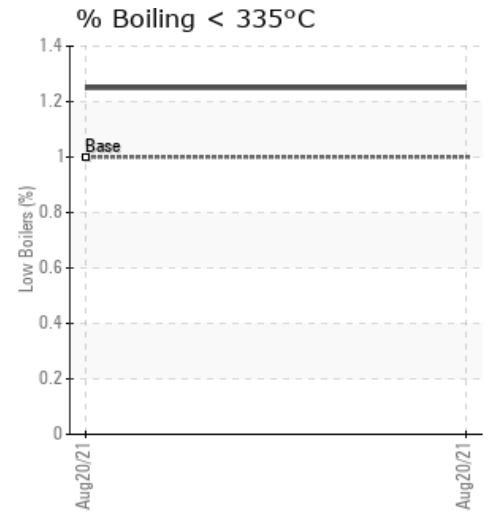
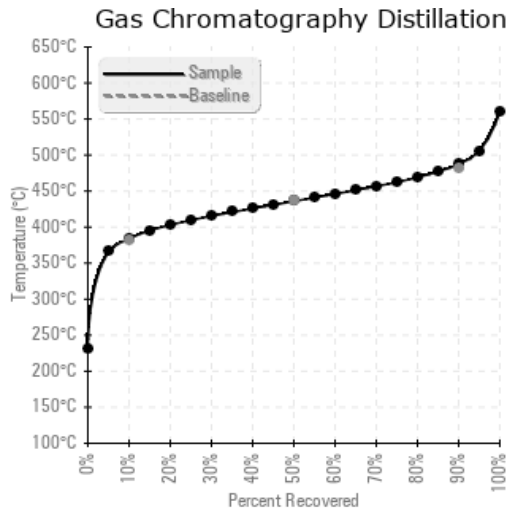
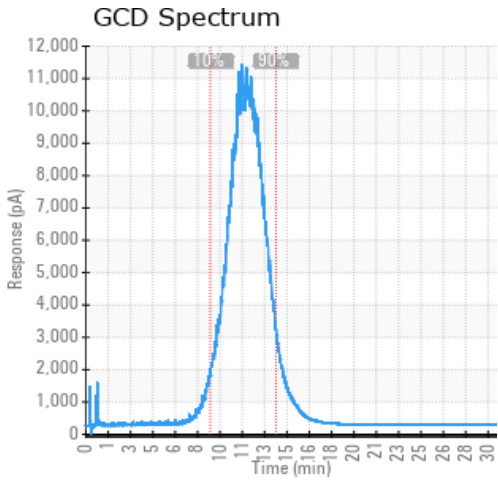
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
08/20/21	08/24/21	0.0h		439 / 226	26.7	35.0	0.13	0.055	723 / 384	817 / 436	909 / 487	1.25
11/19/14	11/20/14	0.0h			45.0	36.5	0.02					
08/06/12	08/07/12	0.0h		428 / 220		36.8	0.113					
01/13/11	01/14/11	0.0h				37.1	0.025					
12/09/09	12/10/09	0.0h				36.3	0.01					
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
08/20/21	0	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	30	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	3	0	2	2
08/06/12	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01/13/11	5	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
12/09/09	3	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 analysis results (above) in parts per million (ppm). [10,000 ppm = 1.0%]



Historical Comments	
11/19/14	Resample at the next service interval to monitor. WearCheck recommends using HTFL 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.
08/06/12	Resample at the next service interval to monitor. NOTE: Not enough sample submitted to perform particle count, therefore fluid cleanliness levels were not determined. 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 TAN level is acceptable for this fluid. The condition of the fluid is suitable for further service.
01/13/11	We recommend you service the filters on this component. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition. Cleanliness target codes are in part dependent on the system filter micron ratings. Please provide the micron rating of the filters in this system for future samples. All component wear rates are normal. There is a moderate amount of particulates (5 to >100 microns in size) present in the oil. The condition of oil is suitable for further service.
12/09/09	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. Cleanliness target codes are in part dependent on the system filter micron ratings. Please provide the micron rating of the filters in this system for future samples. All component wear rates are normal. There is a moderate amount of particulates (5 to 25 microns in size) present in the oil. The condition of oil is suitable for further service.

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