

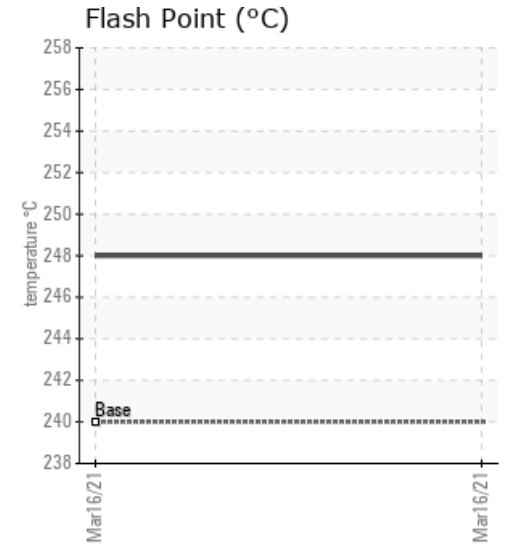
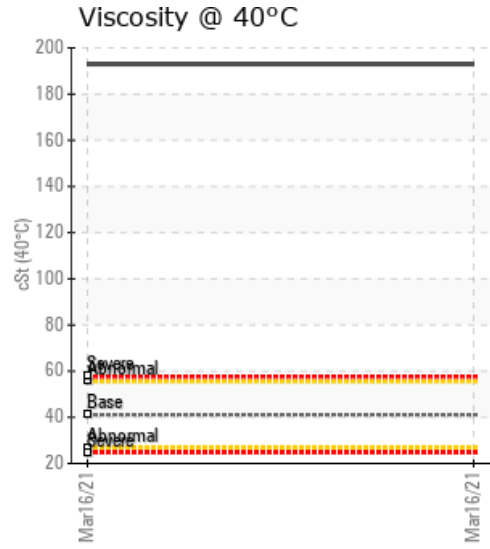
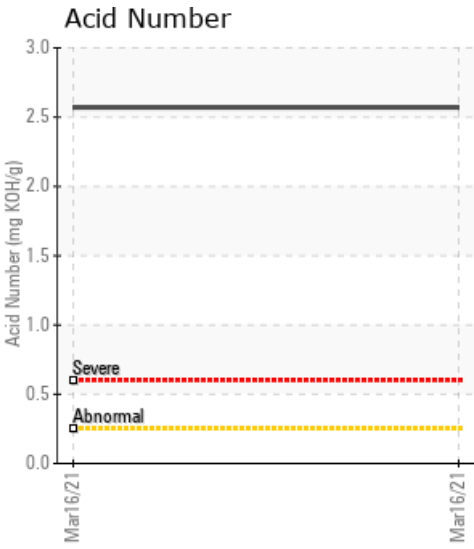
[SEATTLE WA] GENCOR HYWAY 200

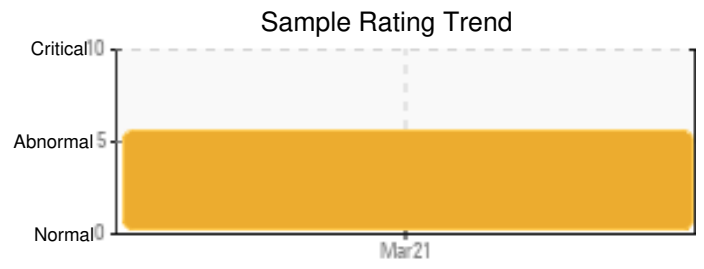
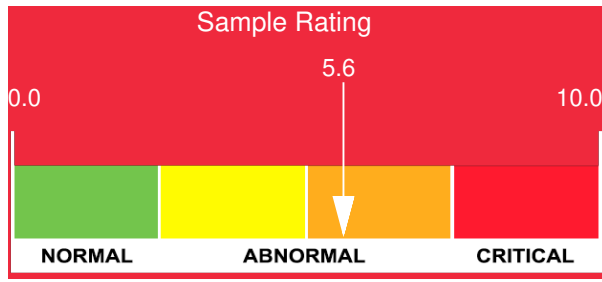
Customer: PTRHTF10245	System Information	Sample Information
ICON MATERIALS 1115 S 96TH ST SEATTLE, WA 98108 USA Attn: Pat Healy Tel: (253)261-4473 E-Mail: patrick.healy@iconmaterials.com	System Volume: 600 gal Bulk Operating Temp: 425F / 218C Heating Source: Blanket: Fluid: CHEVRON HEAT TRANSFER OIL 46 Make:	Lab No: 02411282 Analyst: Ron LeBlanc Sample Date: 03/16/21 Received Date: 03/25/21 Completed: 03/31/21 Ron LeBlanc Ronald.LeBlancSr@hollyfrontier.com

Recommendation: Viscosity is extremely high due to extended life of the fluid. The AN is extremely high indicating oil has been oxidized for an extended time. Pentane insolubles indicate deposits possible in the oil. System should be cleaned, flushed and refilled with fresh oil when time permits. Cleaning/flushing instructions will be given to customer.

Comments: Pentane Insolubles levels are severely high. Acid Number (AN) is severely high. Visc @ 40°C is severely high.

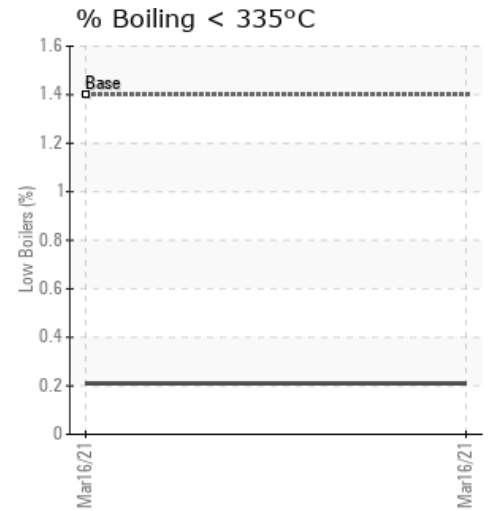
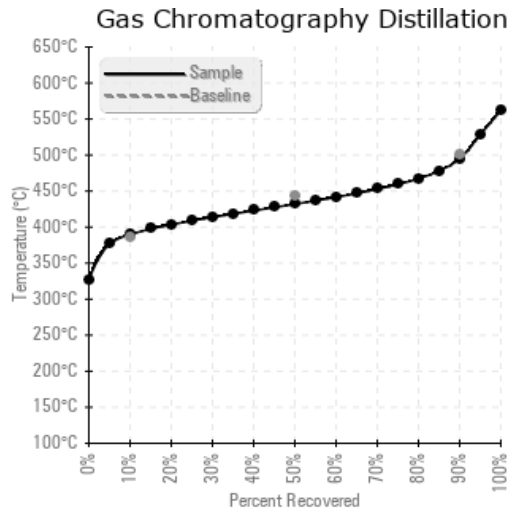
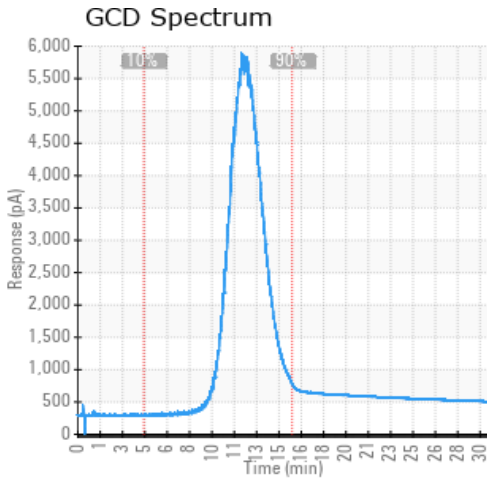
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
03/16/21	03/25/21	10.0y		478 / 248	87.1	193	2.57	8.68	733 / 390	810 / 432	922 / 495	0.21
Baseline Data				464 / 240		41.1			727 / 386	828 / 442	932 / 500	1.4





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
03/16/21	188	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	6	4	0	2
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

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