

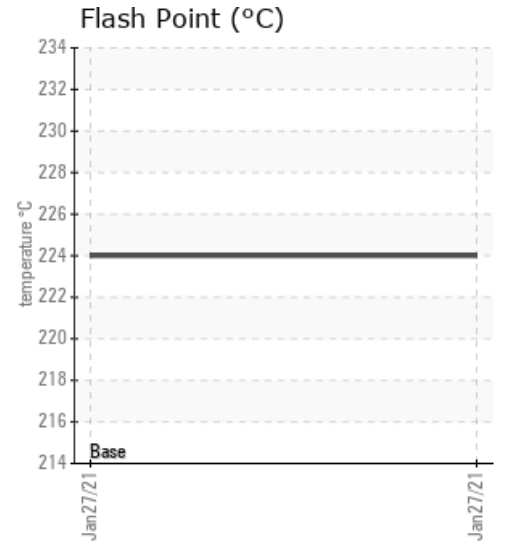
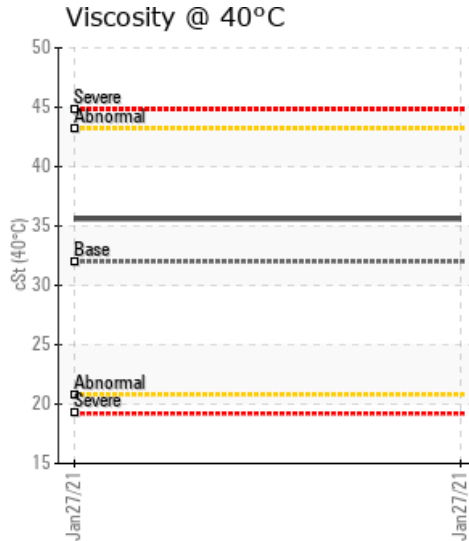
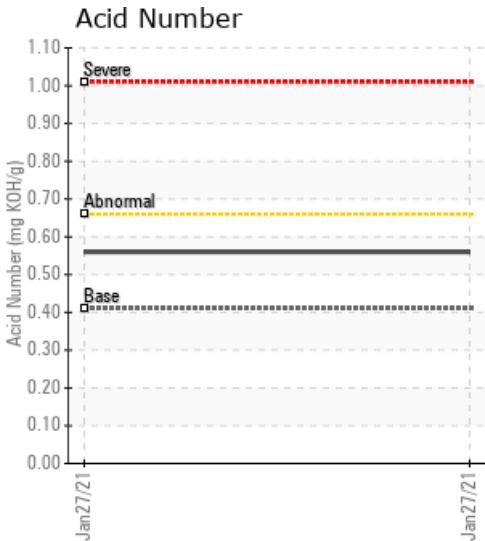
[CRAFCO INC] HEATER #1 SOUTH

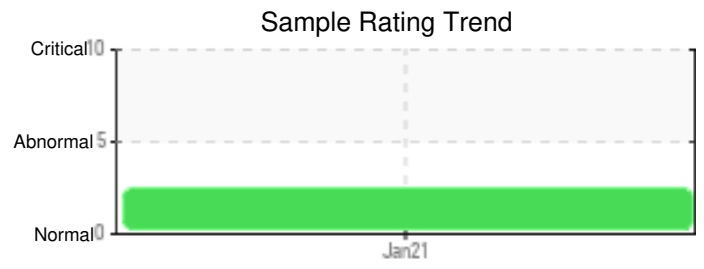
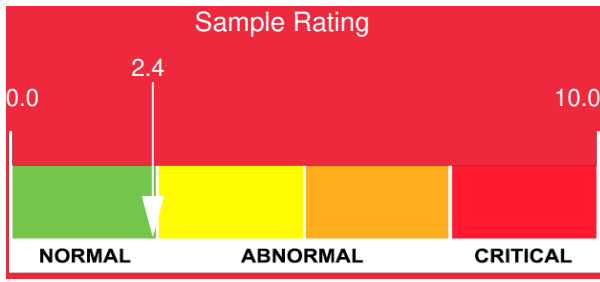
Customer: PTRHTF10243	System Information	Sample Information
Allied Oil & Supply 4491 8th Avenue Marion, IA 52302 USA Attn: Thomas Cruise Tel: E-Mail: tcruise@allied-oil.com	System Volume: 12000 gal Bulk Operating Temp: 450F / 232C Heating Source: Blanket: Fluid: HEAT TRANSFER FLUID ISO 32 Make: CEI SYSTEM	Lab No: 02403466 Analyst: Neil Buchanan Sample Date: 01/27/21 Received Date: 02/11/21 Completed: 02/16/21 Neil Buchanan neil.buchanan@hollyfrontier.com

Recommendation: Sample is dry, flash point is acceptable, GCD is acceptable, acid number (AN) is moderately high for a large system but still below the condemning limit of >1.0, pentane insolubles are higher than desirable but below the condemning limit of 0.5. Resample next interval to monitor.

Comments:

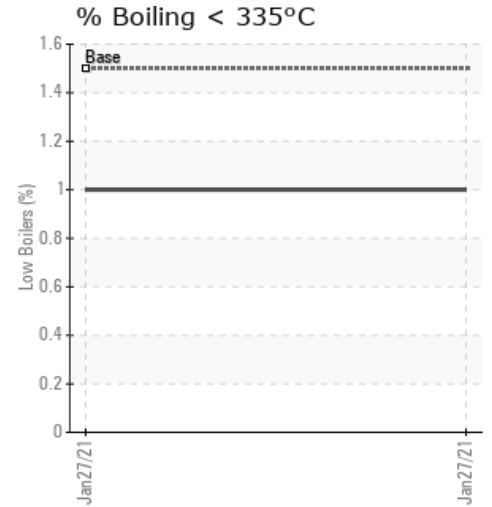
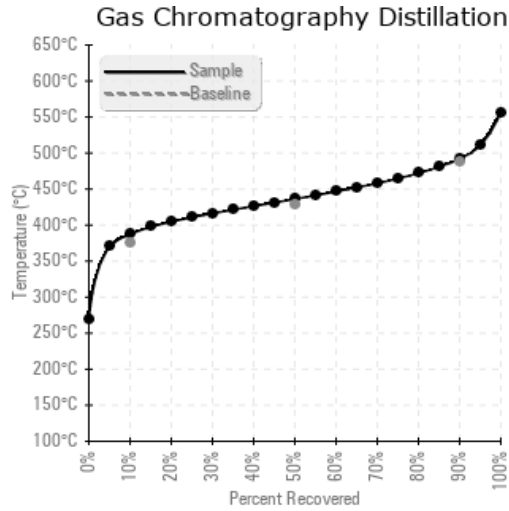
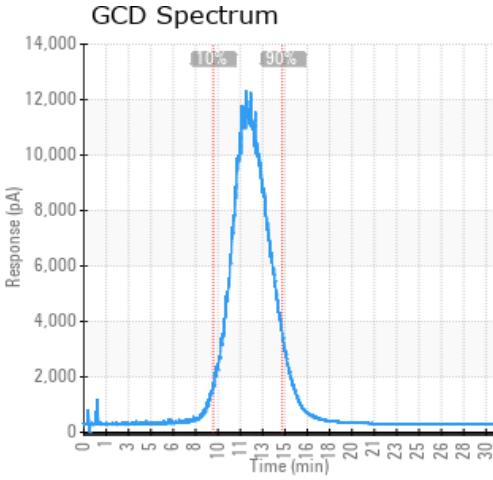
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
01/27/21	02/11/21	18.0y	Dekalk, return line	435 / 224	1.3	35.6	0.56	0.135	729 / 387	817 / 436	918 / 492	1.00
Baseline Data				410 / 210		32	0.41		707 / 375	802 / 428	910 / 488	1.5





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
01/27/21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0
Baseline Data				0	0					0			0	0					5				250	

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



Historical Comments

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