

[SE 1/4 SECTION 32 TWP109 RANGE 19W5M] THERMAL ENERGY SYSTEM

Customer: PTRHTF20250
 TOLKO INDUSTRIES
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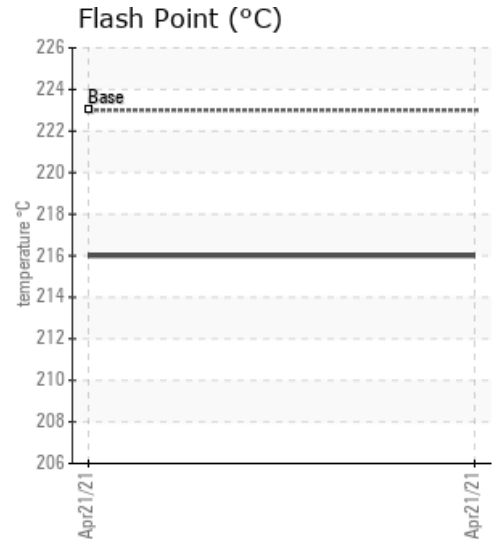
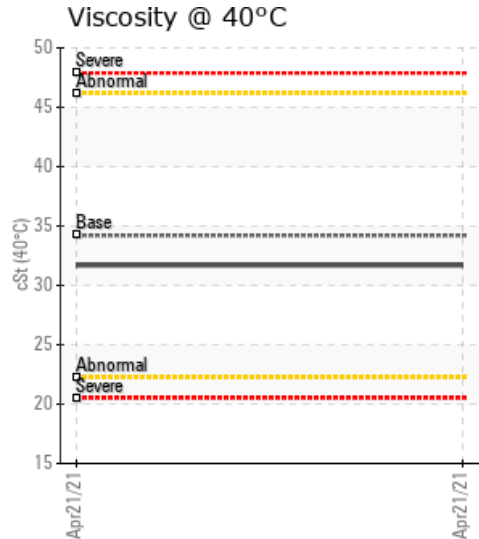
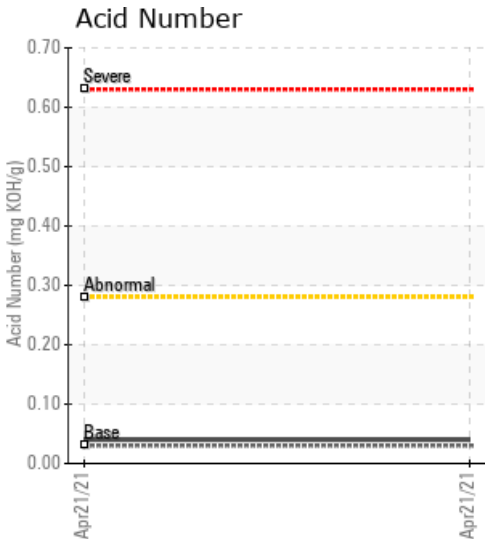
System Information
 System Volume: 228000 ltr
 Bulk Operating Temp: 560F / 293C
 Heating Source:
 Blanket:
 Fluid: PETRO CANADA PETRO-THERM
 Make: WELLONS INC

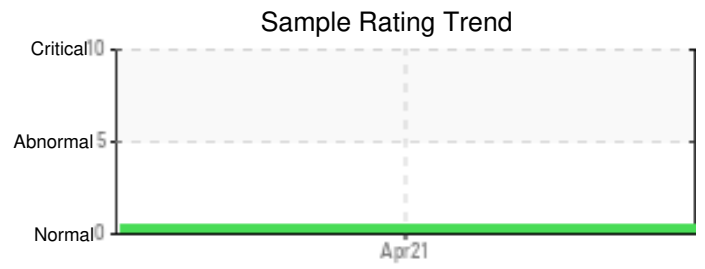
Sample Information
 Lab No: 02417993
 Analyst: Paul Hetherington
 Sample Date: 04/21/21
 Received Date: 04/29/21
 Completed: 05/19/21
 Paul Hetherington
 paul.hetherington@hollyfrontier.com

Recommendation:

Comments: Oil analysis results show that the oil is in very good condition. No action required at this time. Resample at normal interval (i.e. 1/year).

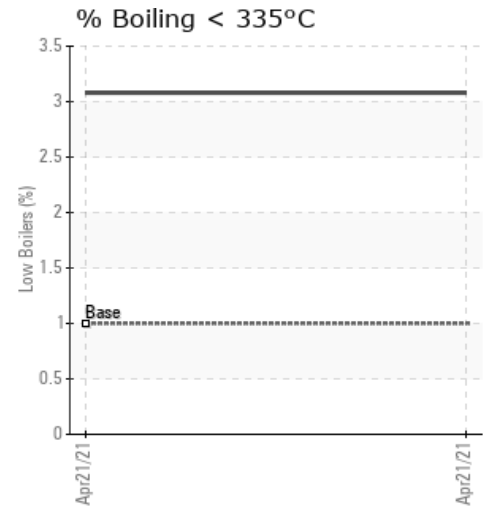
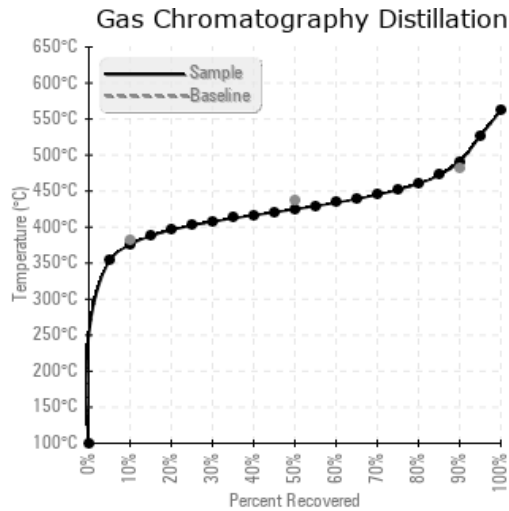
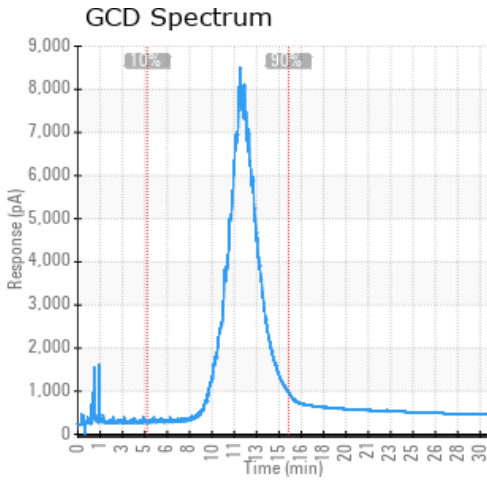
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
04/21/21	04/29/21	19.0m	primary pump 3	421 / 216	27.9	31.7	0.04	0.033	708 / 376	797 / 425	915 / 491	3.08
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
04/21/21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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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