

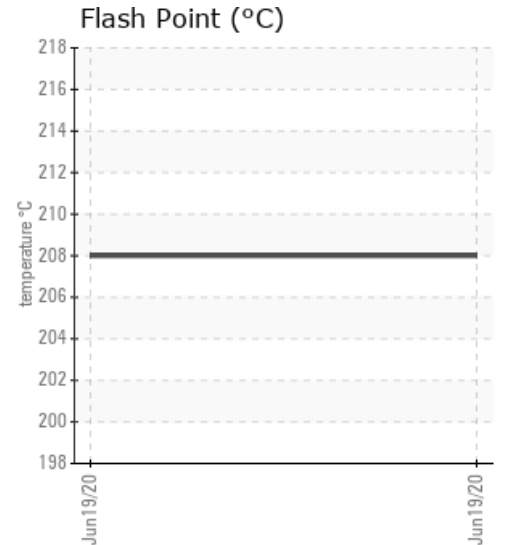
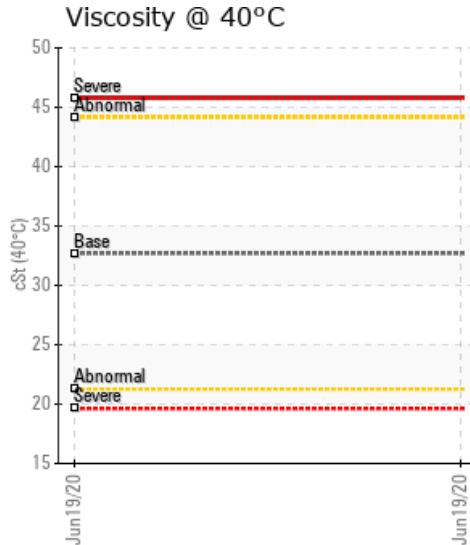
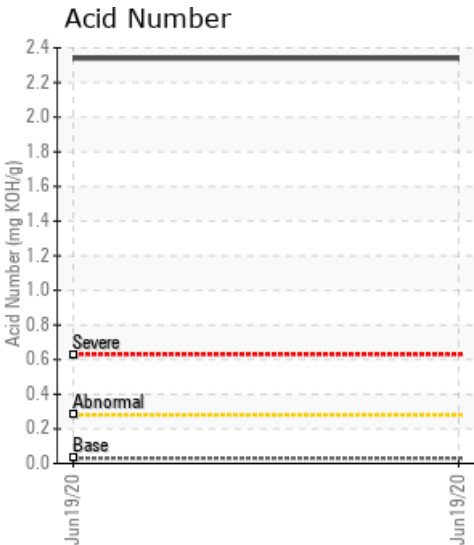
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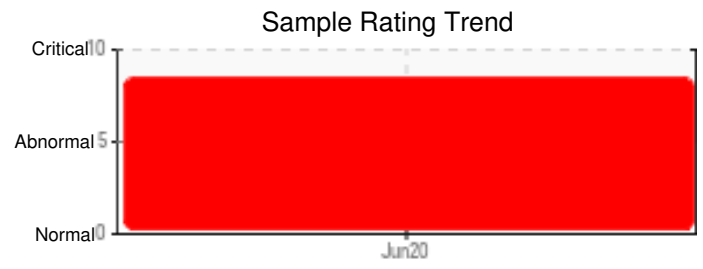
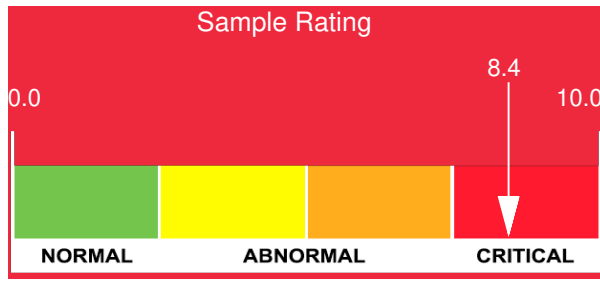
Customer: PTRHTF60023	System Information	Sample Information
INDUSTRIAS del PETROLEO CANAD. SA Contiguo FANAL frente a la Autopista Bernardo Soto Grecia, A Costa Rica Attn: Mariana Gutiérrez Tel: 1(115)062-1598	System Volume: 410 ltr Bulk Operating Temp: 266F / 130C Heating Source: Blanket: Fluid: PETRO CANADA CALFLO AF Make: PARKER BOILER	Lab No: 02374692 Analyst: Behshad Sabah Sample Date: 06/19/20 Received Date: 09/09/20 Completed: 09/18/20 Behshad Sabah behshad.sabah@petrocanadalsp.com

Recommendation: test results show high Total Acid number, Pentane insoluble, and viscosity, all indication of severe oil oxidation. the Fe9 iron) PPM indicates that the formed acid is corroding the pipe line. if you turn off the system for any reasons, please keep the pump running at least 1 hr. after you shut down the heat source. A sweetening will also help. you can take 100 liters of total fluid out and add 100 liters of fresh Calflo AF. at this moment the flash point is not a concern.

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

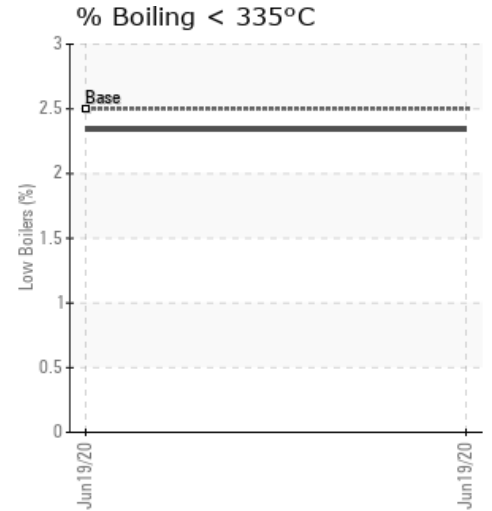
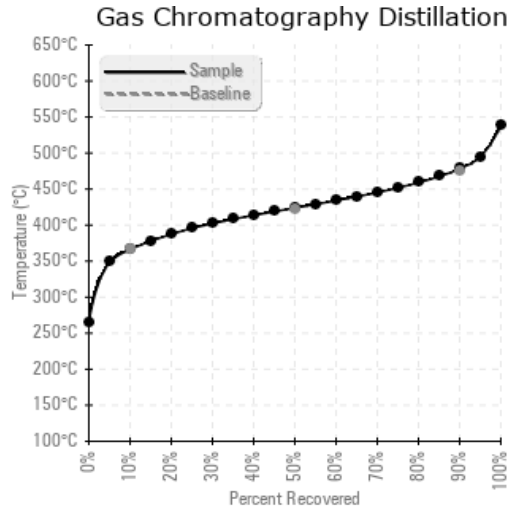
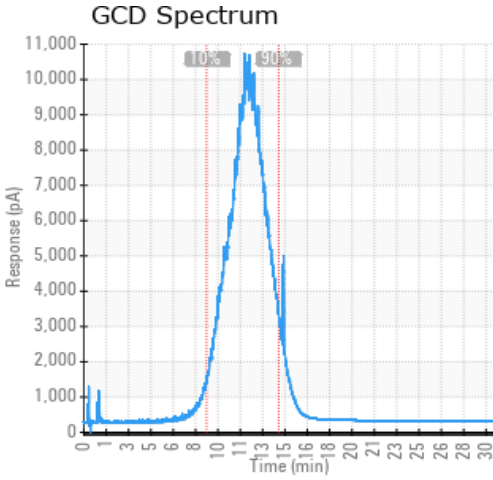
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
06/19/20	09/09/20	0m	DEPOSITO	406 / 208	271.9	45.8	2.34	16.1	691 / 366	795 / 424	893 / 478	2.34
Baseline Data				435 / 224		32.7	0.03		693 / 367	790 / 421	887 / 475	2.5





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	
06/19/20	220	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	272	14	
Baseline Data			0	0						0			0	0					0					270	

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



Historical Comments

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