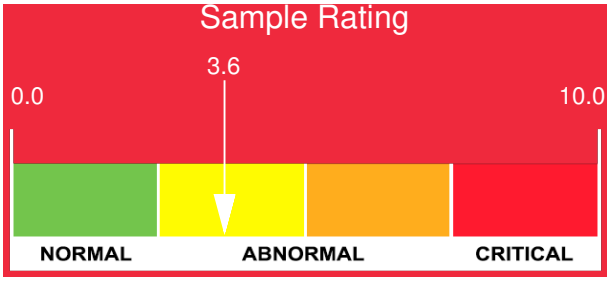
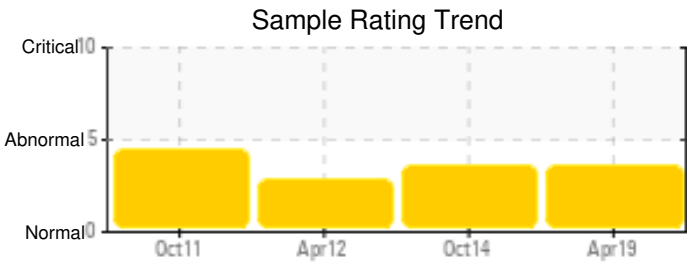




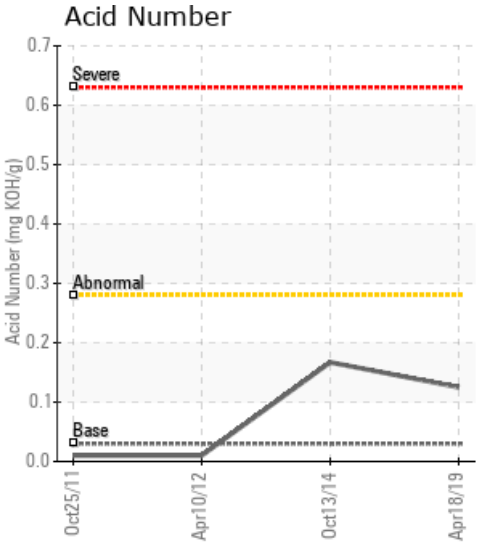
LINE RF-02 GODET BOILER

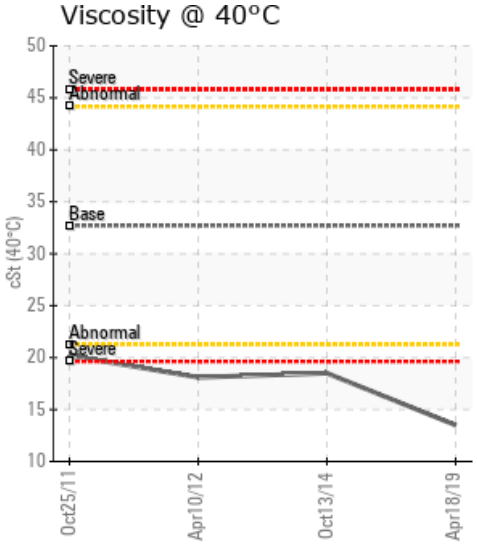
Customer: PTRHTF10057	System Information	Sample Information
PROPEX RINGGOLD PLANT 428 ROLLINS INDUSTRIAL BLVD RINGGOLD, GA 30736 USA Attn: STEWART DOMAINGUE Tel: (423)553-3843 E-Mail: stewart.domaingue@propexglobal.com	System Volume: 100 gal Bulk Operating Temp: 220F / 104C Heating Source: Blanket: Fluid: PETRO CANADA CALFLO AF Make:	Lab No: 02285041 Analyst: Jake Finn Sample Date: 04/18/19 Received Date: 05/14/19 Completed: 05/22/19

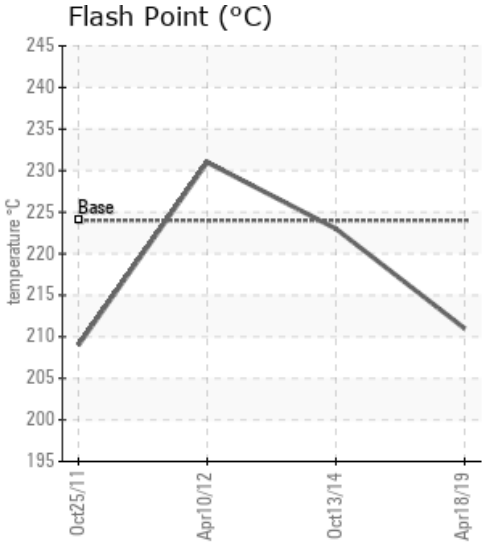
Recommendation: Oil is suitable for continued use, please re-submit sample in 1 year. Changing any system filters or kidney-loop filtering the fluid during any shutdown periods will remove any 'light debris' as seen by the lab. Please remember to include hours of use on oil and age of hot oil system when submitting samples for testing.

Comments: (GCD) 10% Distillation Point is severely high. Visc @ 40°C is severely low. (GCD) 90% Distillation Point is marginally high. Light debris is noted in lab comments. (GCD) 10% Distillation Point is severely high. Visc @ 40°C is severely low. (GCD) 90% Distillation Point is marginally high.

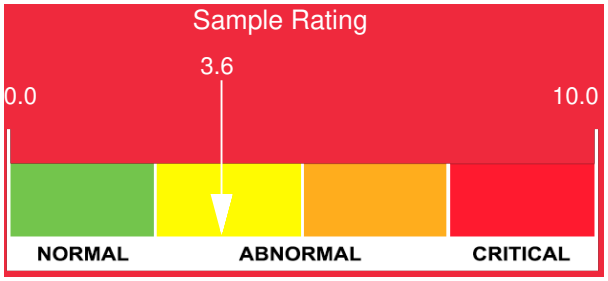
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
04/18/19	05/14/19	0h		412 / 211	25.5	13.5	0.125	0.024	768 / 409	804 / 429	909 / 487	0.31
10/13/14	10/23/14	0h	RETURN LINE	433 / 223	20.7	18.5	0.167	0.047	777 / 414	811 / 433	911 / 488	0.00
04/10/12	04/20/12	2009h	BLEEDER/PURGE VALV	448 / 231	74	18.1	0.01	0.013	772 / 411	795 / 424	898 / 481	0.883
10/25/11	11/02/11		NA	408 / 209	447	20.2	0.01	0.043	732 / 389	795 / 424	895 / 480	1.916
Baseline Data				435 / 224		32.7	0.03		693 / 367	790 / 421	887 / 475	2.5

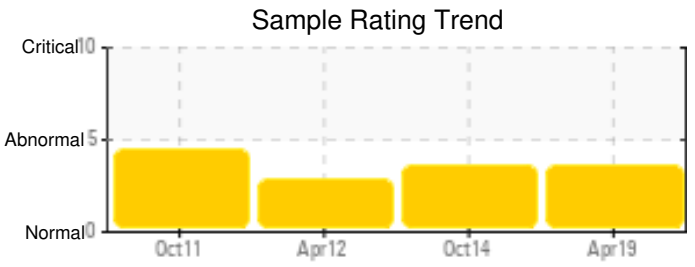






PETRO-CANADA LUBRICANTS

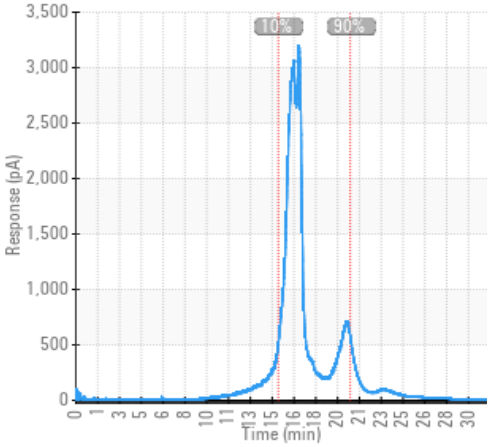




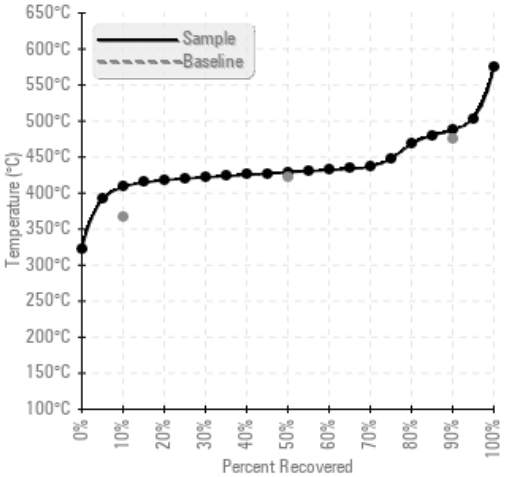
Sample Date	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc
04/18/19	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	0
10/13/14	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	21	0
04/10/12	1	0	0	0	0	0	1	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	30	0
10/25/11	19	0	0	0	1	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	30	2
Baseline Data			0	0						0			0	0					0				270	

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

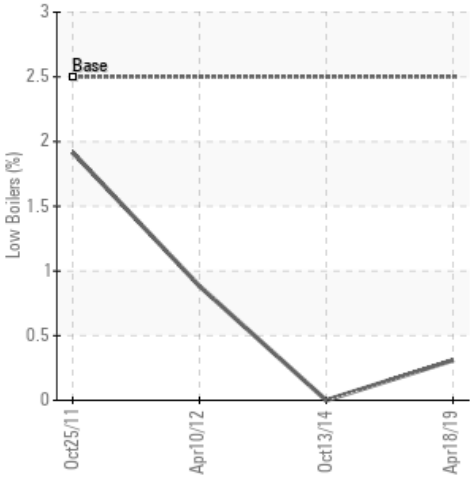
GCD Spectrum



Gas Chromatography Distillation



% Boiling < 335°C



Historical Comments

10/13/14	The viscosity is flagged as low because the system probably still contains a fair amount of the previous oil. In terms of contamination and degradation the oil looks good. PLease try to sample every year to monitor fluid condition and plan proper oil change frequency rather than running an overextended fluid and being faced with a costly system cleaning and flushing. (GCD) 10% Distillation Point is severely high. Visc @ 40°C is severely low. (GCD) 90% Distillation Point is marginally high.
04/10/12	The oil's low viscosity does not seem to match the high flash point and low amount of short chain low boilers observed. All in all the oil doesn't appear degraded and is suitable for further service. Re-sample in 6-9 months.
10/25/11	The oil doesn't look quite like Calflo AF. It appears to be a lower viscosity fluid hence the flagging with viscosity. The water is elevated but that might be due to a dirty sampling port. It's important to flush a sample valve with 4-5 times the amount of oil that it holds, so it may explain the iron particles too. If a decision is to be made on whether to change this fluid based on the results I would ask for a retest with a new sample after flushing the collection valve thoroughly.