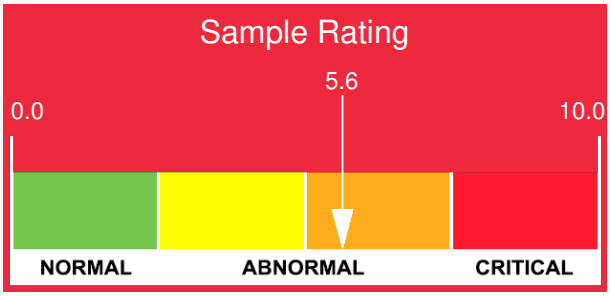
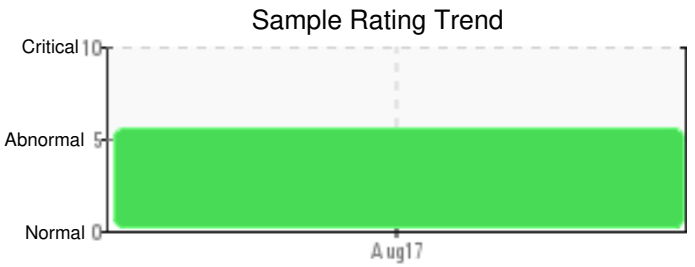


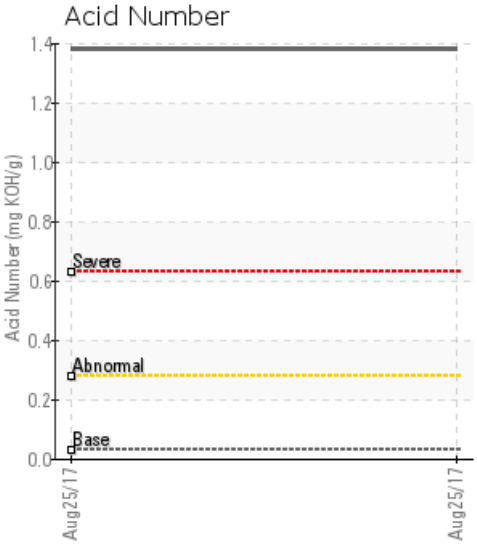


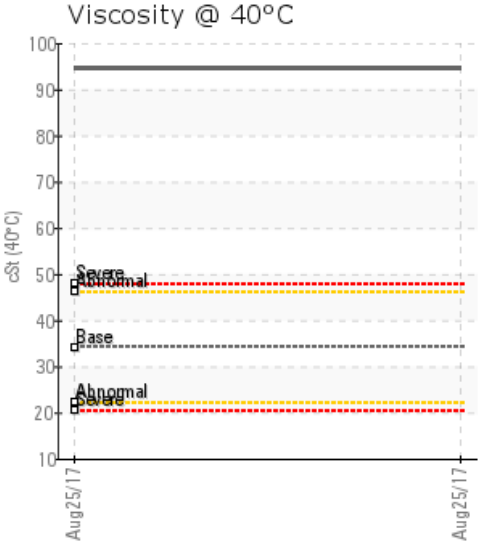
HEAT EXCHANGER

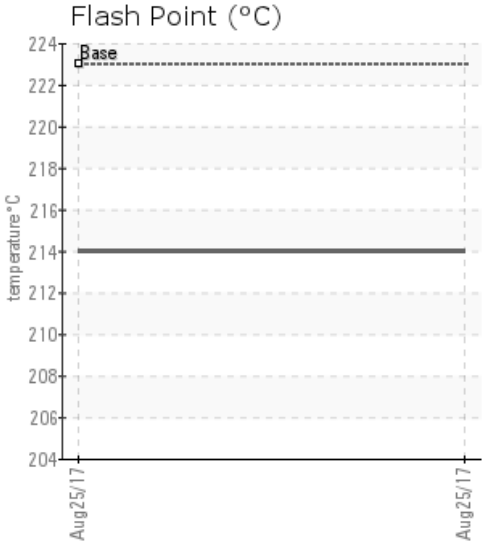
Customer: PTRHTF40125	System Information	Sample Information
PKP - UKRAINE GAGRINA STR 39 RIVNE, 33003 Ukraine Attn: Sergey Protsyk Tel: E-Mail: eugenia@pkpua.com	System Volume: 0 gal Bulk Operating Temp: 392F / 200C Heating Source: Blanket: Fluid: PETRO CANADA PETRO-THERM Make: GURMAKSAN	Lab No: 02169340 Analyst: Alexander Panov Sample Date: 08/25/17 Received Date: 09/13/17 Completed: 11/30/17 To discuss this report contact Alexander Panov at (496)214-4586269

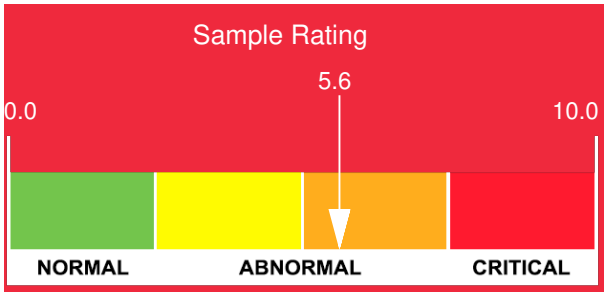
Recommendation: Fluid conditions show oxidation due to contact with air. Review the system conditions and operation and if possible eliminate air contact with fluid. Fluid change is recommended.Contamination: Pentane Insolubles levels are severely high. Oil Condition: Acid Number (AN) is severely high. Visc @ 40°C is severely high. 29-11-17 (PRILEY) - Insolubles very high, demonstrating degradation and breakdown. Acid number very high which will encourage fluid breakdown and stress out the fluid further. Extremely high viscosity which means fluid will not circulate as effective, nor will it have the ability to cool as effectively. Strongly recommend a fluid change plus flush of the system to remove degraded product

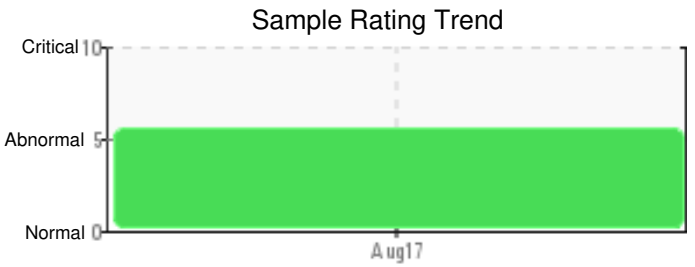
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
08/25/17	09/13/17	1800h	GENERATOR OIL	417 / 214	153.4	94.5	1.38	5.36	725 / 385	812 / 433	915 / 491	0.78
Baseline Data				433 / 223		34.2	0.03		720 / 382	817 / 436	900 / 482	1.00





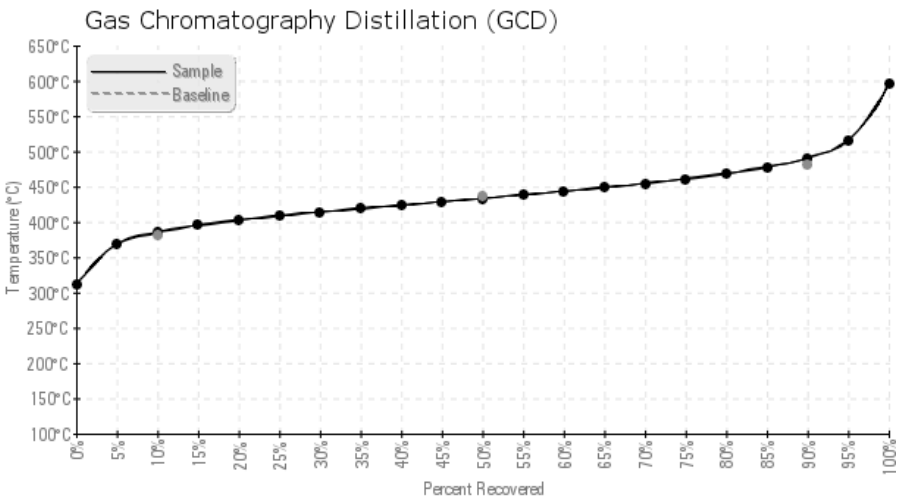


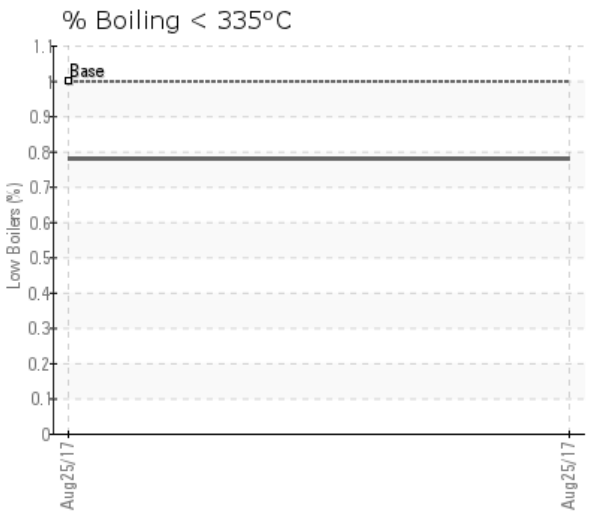




Sample Date	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc
08/25/17	22	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Baseline Data			0	0						0			0	0					0				0	

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





Historical Comments
