

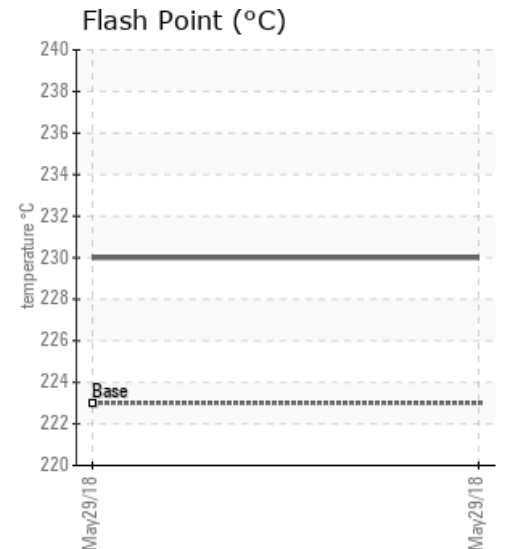
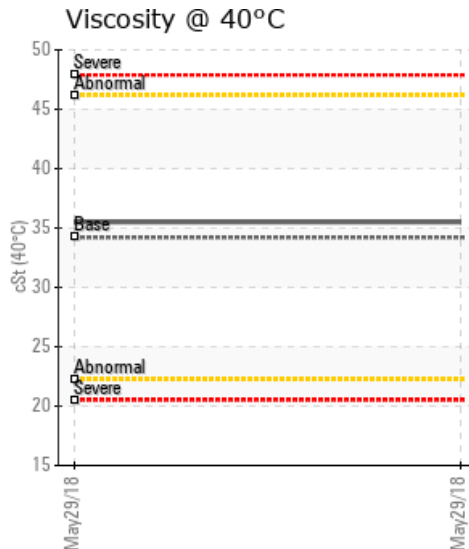
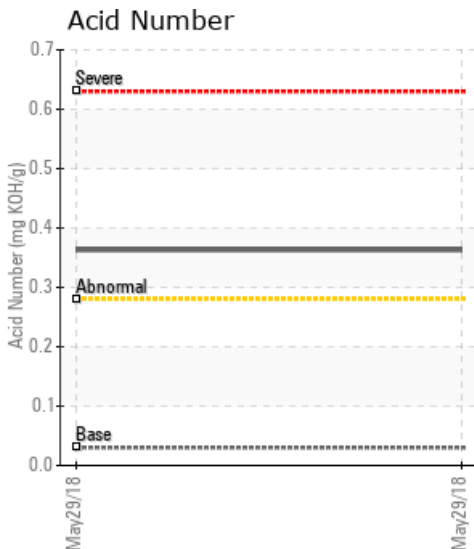
## H-920 STABILIZER 100/6-12-44-13W5

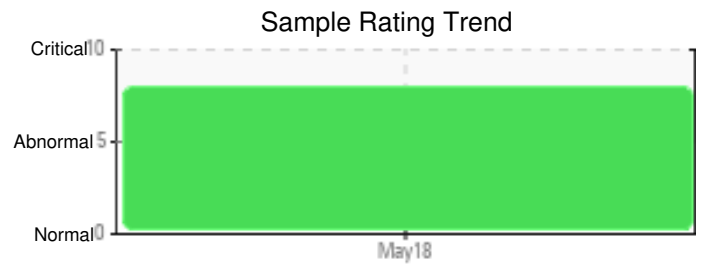
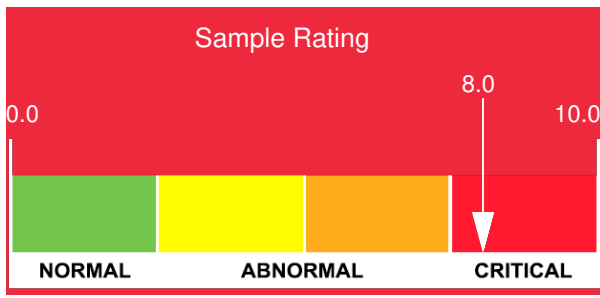
Customer: PTRHTF20124	System Information	Sample Information
PEYTO EXPLORATION 11-17-55-21W5 BOX 7198 EDSON, AB T7E 1V4 Canada Attn: Brian Ford Tel: (780)712-2177 E-Mail: bford@peyto.com	System Volume: 500 ltr Bulk Operating Temp: Not Specified Heating Source: Blanket: Fluid: PETRO CANADA PETRO-THERM Make: ALCO	Lab No: 02219733 Analyst: Peter Harteveld Sample Date: 05/29/18 Received Date: 05/31/18 Completed: 06/01/18 To discuss this report contact Peter Harteveld at (780)967-4234

Recommendation: The fluid has a high water content. Percentage boil-off is elevated. AN is high for a fluid with only 2 service hours. The distillation curve is not representative for Petro-Therm. The 90% GCD temperature is low. All of these can be related to the high water content. Please boil-off the water and re-sample after doing this. When sending in the next sample please list the operating temperature of the fluid.

Comments: Water contamination levels are severely high. Water contamination levels are severely high.. ppm Water contamination levels are severely high. (GCD) 90% Distillation Point is severely low. Acid Number (AN) is abnormally high.

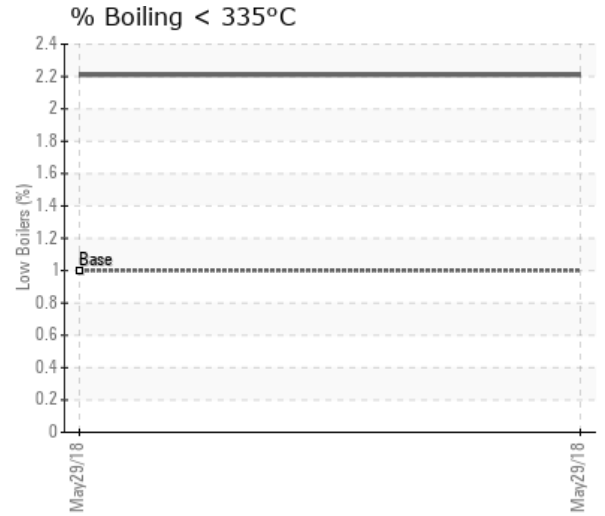
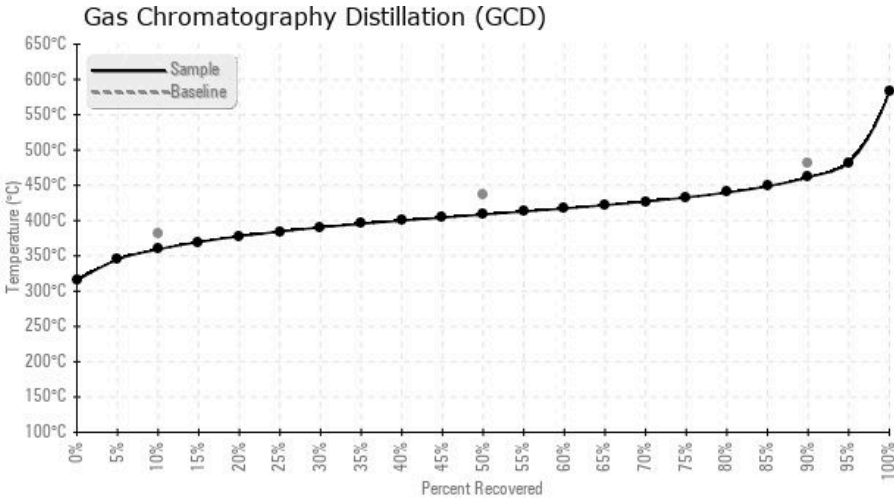
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
05/29/18	05/31/18	2h	REBOILER BOTTOMS	446 / 230	59360.8	35.5	0.363	0.239	679 / 359	767 / 409	863 / 461	2.21
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
05/29/18	8	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	6	0	0	0	0	0
<b>Baseline Data</b>			0	0						0			0	0					0				0	

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



### Historical Comments


Petro-Canada makes no representation or warranty of any kind, either express or implied, as to the accuracy or completeness of the analysis and assumes no responsibility and shall have no liability whatsoever with respect to such analysis, or a party's use of it. Petro-Canada is a division of HollyFrontier Corporation.