

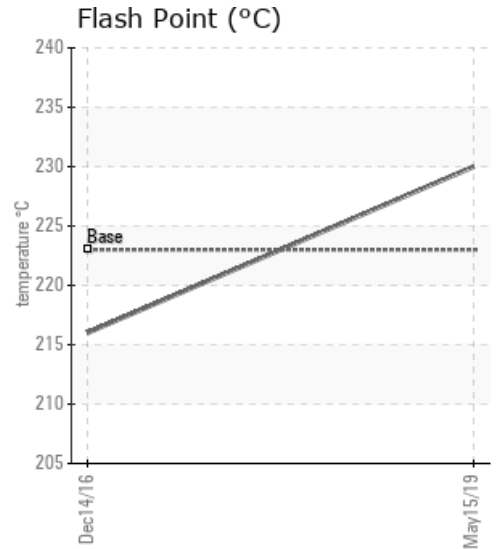
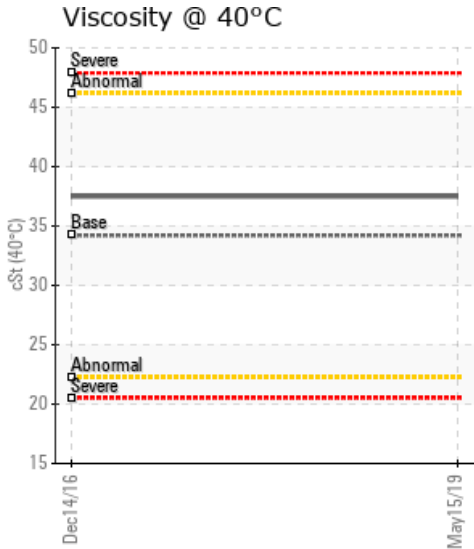
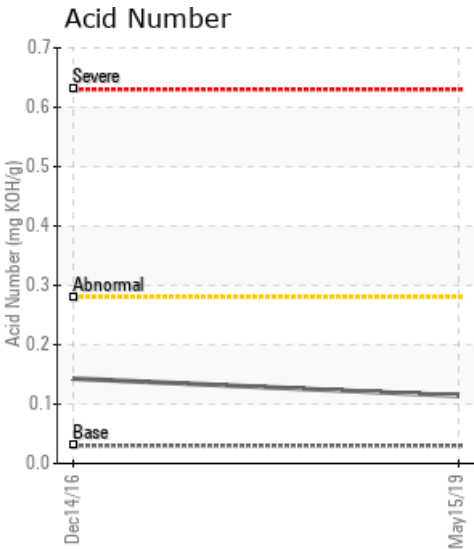
[12-31-53-19W5M] H-802

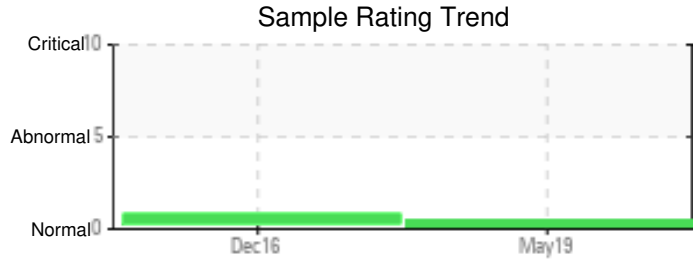
Customer: PTRHTF20124	System Information	Sample Information
PEYTO EXPLORATION BOX 7198 EDSON, AB T7E 1V4 Canada Attn: Brian Ford Tel: (780)712-0977 E-Mail: bford@peyto.com	System Volume: 7000 ltr Bulk Operating Temp: 392F / 200C Heating Source: Blanket: Fluid: PETRO CANADA PETRO-THERM Make: PROPAK	Lab No: 02286534 Analyst: Peter Hartevelde Sample Date: 05/15/19 Received Date: 05/22/19 Completed: 05/27/19

Recommendation: The fluid is in a good condition and suitable for further use. Please re-sample in 6 months.

Comments:

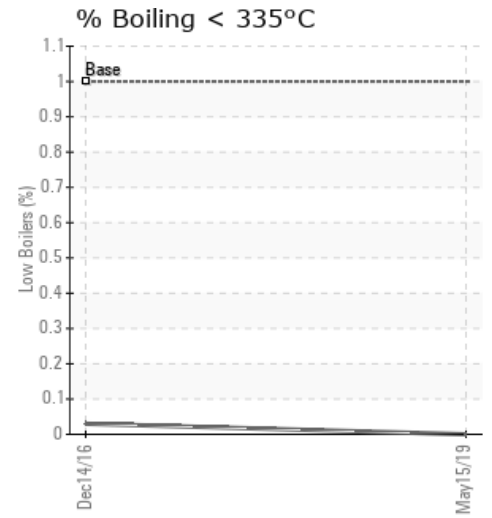
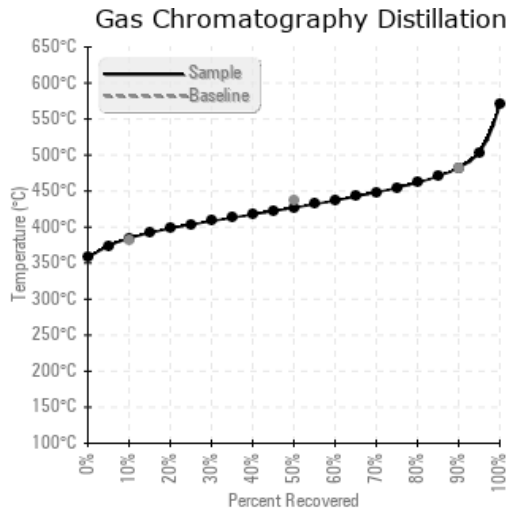
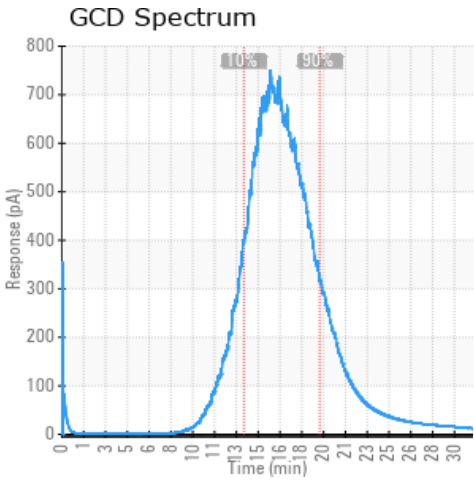
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
05/15/19	05/22/19	5y		446 / 230	43.7	37.5	0.114	0.204	724 / 384	800 / 427	900 / 482	0.00
12/14/16	12/19/16	3y	REBOILER BOTTOM	421 / 216	8.0	37.5	0.143	0.146	733 / 389	831 / 444	954 / 512	0.03
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
05/15/19	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12/14/16	17	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	
12/14/16	The fluid is in good condition and suitable for further use. The 90% GCD temperature has increased as a result of fluid oxidation or mixing with a heavier fluid. The level of oxidation is normal for a fluid that has 3 years of service life. Ensure blanket gas is in place to prevent contact between the hot fluid and outside air. Please re-sample in 12 months. (GCD) 90% Distillation Point is abnormally high.

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