



[PEYTO EXPLORATION 9-34-53-20] PLANT 1 STABALIZER

Customer: PTRHTF20124	System Information	Sample Information
PEYTO EXPLORATION 11-17-55-21W5 BOX 7198 EDSON, AB T7E 1V4 Canada Attn: Cory Pambrub Tel: (780)712-0217 E-Mail: cpambrun@peyto.com	System Volume: 5000 ltr Bulk Operating Temp: 392F / 200C Heating Source: Blanket: Fluid: PETRO CANADA PETRO-THERM Make: ALCO	Lab No: 02236636 Analyst: Peter Harteveld Sample Date: 08/24/18 Received Date: 08/29/18 Completed: 09/03/18 To discuss this report contact Peter Harteveld at (780)967-4234

Recommendation: The combination of low viscosity, low Flash Point, low 10% GCD temperature and high low boiler vapor content (GCD%<335C.) indicates thermal degradation of the fluid. Part of the high low boiler vapor content could be ingress of blanket gas when fuel gas is used as the gas blanket, especially when the blanket gas pressure is too high (recommended is 2-3 psig) The fluid is suitable for further use but it is recommended to vent-off the low boiler vapors to atmosphere on a regular basis. This should be part of preventive maintenance. After venting twice per week for 3 months.(4 to 6 hours at a time), please re-sample.

Comments: (GCD) % < 335°C is severely high. (GCD) 10% Distillation Point is severely low. COC Flash Point is abnormally low.

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	%
08/24/18	08/29/18	3y	BOTTOM DRAIN	331 / 166	19.7	22.4	0.040	0.051	557 / 292	766 / 408	898 / 481	17.11
Baseline Data				433 / 223		34.2	0.03		720 / 382	817 / 436	900 / 482	1.00



