



[16-2-20-01W4] PEMBINA PIPELINE CORP

Customer: PTRHTF20038	System Information	Sample Information
UNIVAR CANADA LTD 4220 78 AVE SE CALGARY, AB T2C 2Z5 Canada Attn: Ashlyn Campbell Tel: (403)342-1523 E-Mail: ashlyn.campbell@univarcanda.com	System Volume: 10000 ltr Bulk Operating Temp: 343F / 173C Heating Source: Blanket: Fluid: PETRO CANADA PETRO-THERM Make:	Lab No: 02284797 Analyst: Kevin McDermott Sample Date: 04/29/19 Received Date: 05/13/19 Completed: 05/15/19

Recommendation: Fluid is in very good condition. The viscosity and GCD 90% distillation points are higher than new Petro-Therm. If this fluid is in fact 15 years old that is normal. Petro-Therm prior to 2006 was a higher viscosity fluid.

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	%
04/29/19	05/13/19	15y	FILTER UPSTREAM	444 / 229	1.0	41.1	0.016	0.041	731 / 388	841 / 449	968 / 520	0.00
Baseline Data				433 / 223		34.2	0.03		720 / 382	817 / 436	900 / 482	1.00



