



[HIAWATHA PIT] HEAT TRANSFER SYSTEM

Customer: PTRHTF10239	System Information	Sample Information
Central Washington Asphalt 53847 Walla Walla River Rd Milton-Freewater, OR 97862 USA Attn: Ron Jones Tel: (541)938-5205 E-Mail: ron@cwainc.us	System Volume: 220 gal Bulk Operating Temp: Not Specified Heating Source: Blanket: Fluid: VALVOLINE R&O HYDRAULIC OIL 46 Make:	Lab No: 02388205 Analyst: Ron LeBlanc Sample Date: 10/28/20 Received Date: 11/19/20 Completed: 11/26/20 Ron LeBlanc Ronald.LeBlancSr@petrocanadalsp.com

Recommendation: TAN is abnormally high which indicates sludge deposits and system corrosion if the fluid is run beyond condemning limits. New oil TAN <0.2 typical. Condemning limit >1.0. Pentane insolubles can indicate contamination.

Comments: Pentane Insolubles levels are severely high. 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	%
10/28/20	11/19/20	10y	PORT	439 / 226	18.6	54.0	1.64	1.68	732 / 389	835 / 446	940 / 505	0.39
Baseline Data				410 / 210		44			711 / 377	824 / 440	927 / 497	3



