

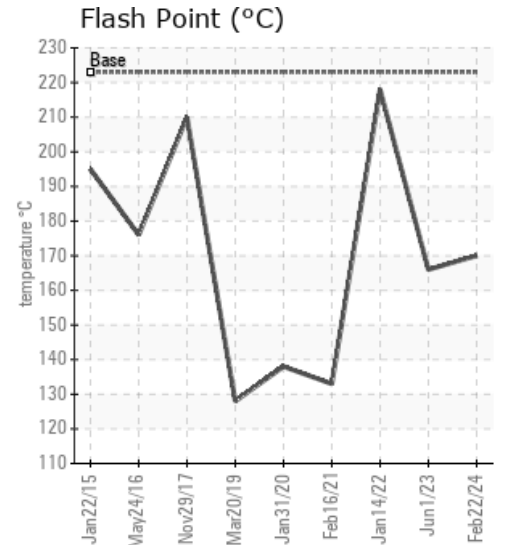
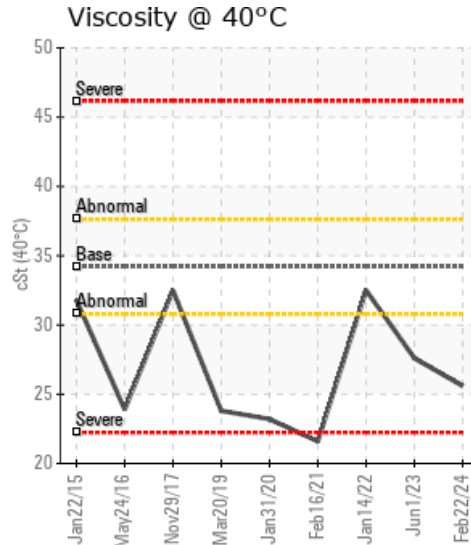
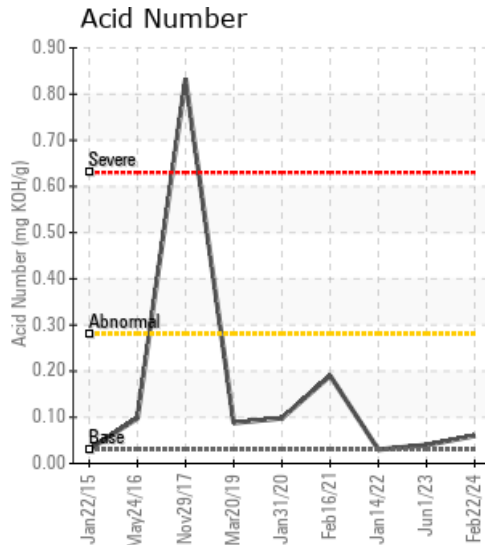
## WANSON450 NEW SYSTEM

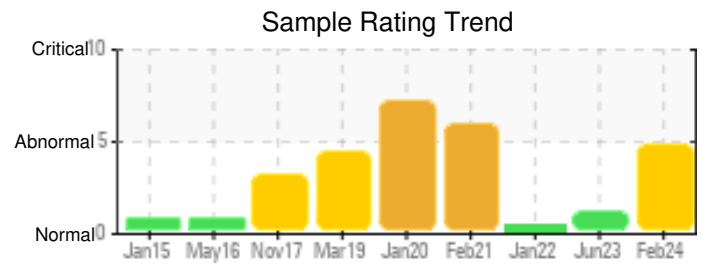
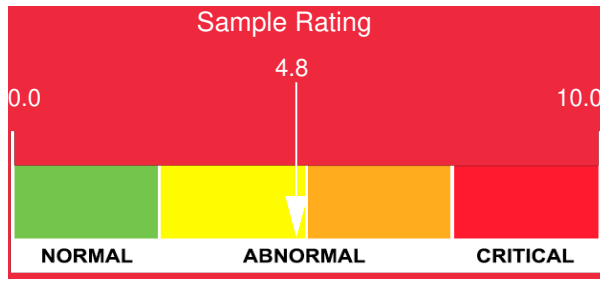
Customer: PTRHTF40022	System Information	Sample Information
MAYONNA BV NOORDGAT 1 FLEVOLAND URK, FLE NL Attn: Maintenance Manager Tel: E-Mail:	System Volume: 1400 ltr Bulk Operating Temp: 500F / 260C Heating Source: Blanket: Fluid: PETRO CANADA PETRO-THERM Make: WANSON	Lab No: 02618538 Analyst: Bill Quesnel CLS,OMA II,MLA-III,LLA-I Sample Date: 02/22/24 Received Date: 02/27/24 Completed: 03/05/24 Bill Quesnel CLS,OMA II,MLA-III,LLA-I

**Recommendation:** We recommend that you vent the expansion tank to remove low boilers which assists in restoring the flash point of the fluid. We recommend an early resample to monitor this condition.

**Comments:** (GCD) 90% Distillation Point is abnormally high. COC Flash Point is abnormally low. Visc @ 40°C is abnormally low. (GCD) % < 335°C is marginally high. (GCD) 10% Distillation Point is marginally low.

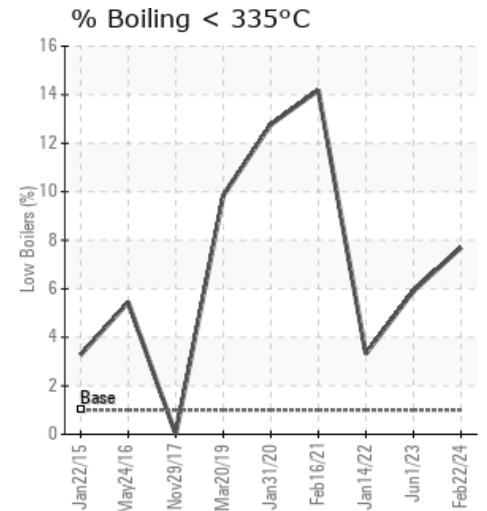
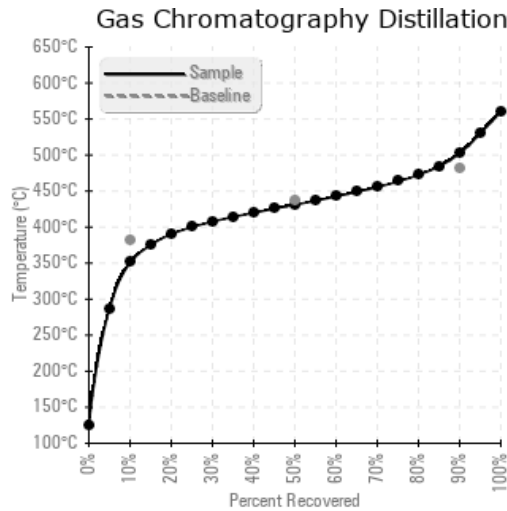
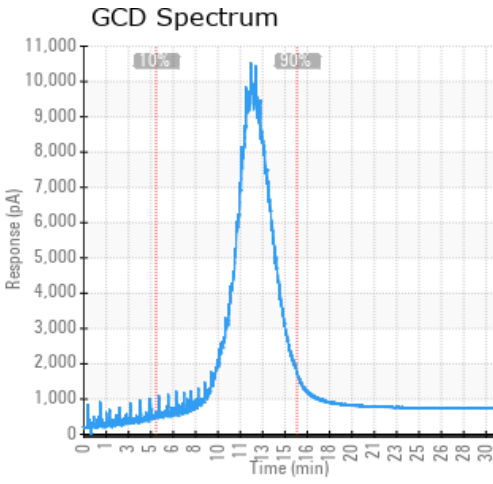
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
02/22/24	02/27/24	2.5y		338 / 170	25	25.6	0.06	0.115	663 / 351	808 / 431	936 / 502	7.70
06/01/23	06/07/23	1.5y		331 / 166	40.8	27.6	0.04	0.096	686 / 364	808 / 431	904 / 485	5.90
01/14/22	01/20/22	0.0y		424 / 218	19.8	32.5	0.03	0.053	712 / 378	811 / 433	904 / 484	3.32
02/16/21	02/22/21	8.0y		271 / 133	19.4	21.6	0.19	0.207	568 / 298	784 / 418	913 / 489	14.18
01/31/20	02/11/20	7.0y		280 / 138	20.6	23.2	0.098	0.084	606 / 319	756 / 402	872 / 467	12.77
<b>Baseline Data</b>				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
02/22/24	25	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
06/01/23	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
01/14/22	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02/16/21	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01/31/20	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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

06/01/23	We recommend that you vent the expansion tank to remove low boilers which assists in restoring the flash point of the fluid. The fluid is suitable for further service. Resample at the next service interval to monitor. COC Flash Point is abnormally low. Visc @ 40°C is abnormally low.
01/14/22	Resample at the next service interval to monitor. There is no indication of any contamination in the fluid. The condition of the fluid is suitable for further service.
02/16/21	Fluid shows signs of severe degradation and, again, recommend this fluid is changed, including a clean and flush. There is clear evidence of thermal cracking, and also a viscosity loss that would also support this somewhat. The flash point is severely low and has been for some time. The 'shape' of the GCD curve supports the thermal cracking. Recommend fluid change, clean, flush (GCD) 10% Distillation Point is severely low. COC Flash Point is severely low. (GCD) % < 335°C is abnormally high. Visc @ 40°C is abnormally low.
01/31/20	Fluid continues to deteriorate in rating. Viscosity very low showing formation of lighter molecules and flash point, although recovered slightly from last sample, remains severely low. Strong evidence of cracking on the distillation curve. Recommend fluid change out (GCD) 10% Distillation Point is severely low. COC Flash Point is severely low. (GCD) % < 335°C is abnormally high. (GCD) 90% Distillation Point is abnormally low. (GCD) 50% Distillation Point is marginally low.