

## WANSON BH/INC 1200

**Customer: PTRHTF40127**  
 Dalco Foods B.V  
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 Oosterhout, 4902TT Netherlands  
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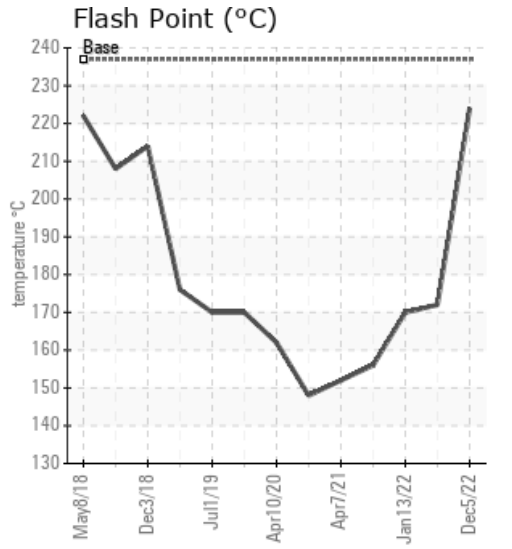
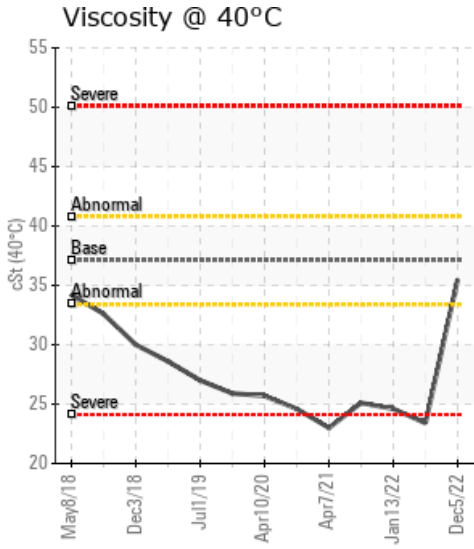
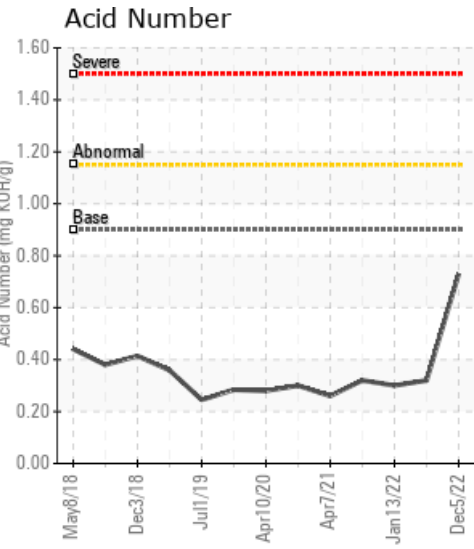
**System Information**  
 System Volume: 4200 gal  
 Bulk Operating Temp: 518F / 270C  
 Heating Source:  
 Blanket:  
 Fluid: PETRO CANADA PURITY FG HEAT TRANSFER FLUID  
 Make: WANSON

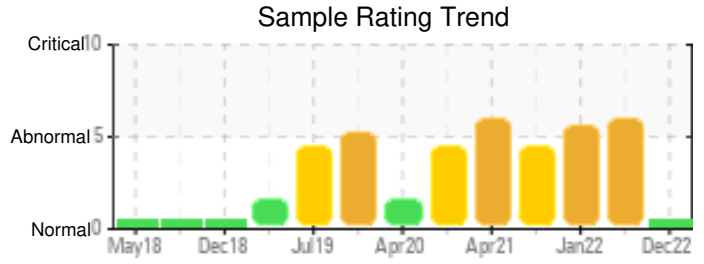
**Sample Information**  
 Lab No: 02528285  
 Analyst: Bill Quesnel CLS,OMA II,MLA-III,LLA-I  
 Sample Date: 12/05/22  
 Received Date: 12/12/22  
 Completed: 12/20/22  
 Bill Quesnel CLS,OMA II,MLA-III,LLA-I

Recommendation: If expansion tank venting was carried out, this has successfully restored the flash point of the fluid. Vent expansion tank every three months to remove light ends from the fluid. Fluid is suitable for continued use. Resample at next normal interval to monitor.

Comments:

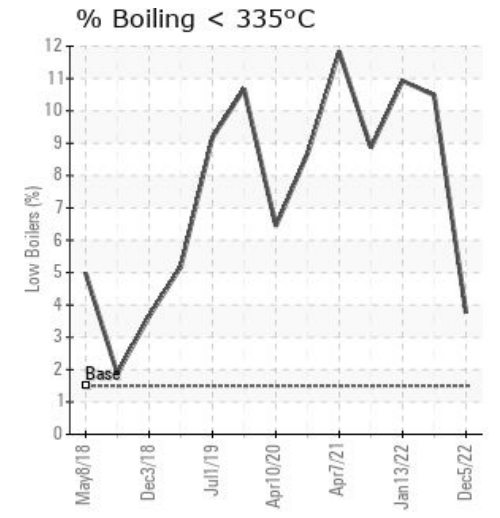
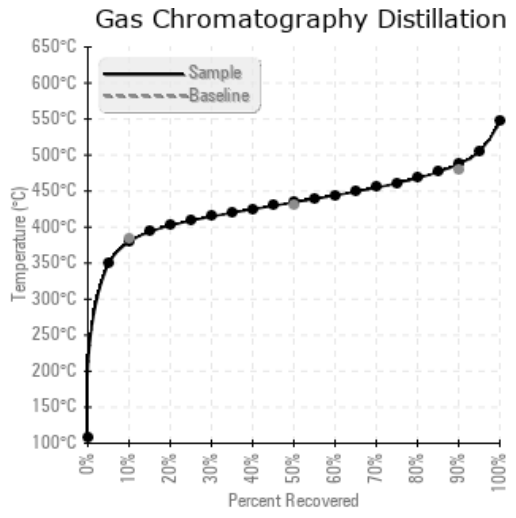
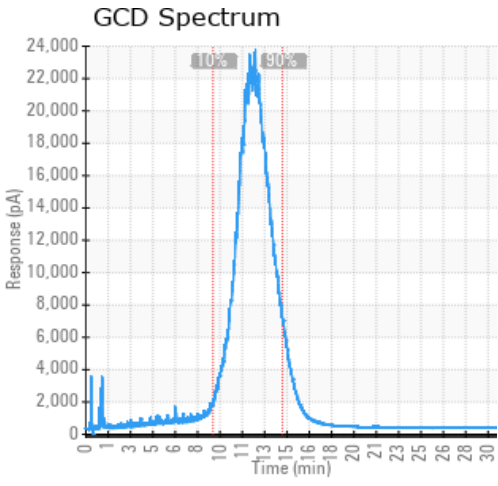
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
12/05/22	12/12/22	1.0d		435 / 224	15.7	35.5	0.73	0.085	715 / 380	814 / 434	910 / 488	3.75
07/20/22	07/26/22	4.3d		342 / 172	31.5	23.4	0.32	0.233	619 / 326	793 / 423	897 / 481	10.48
01/13/22	01/20/22	3.8d		338 / 170	20.2	24.6	0.30	0.145	611 / 322	792 / 422	897 / 480	10.93
07/30/21	08/04/21	3.3d		313 / 156	26.1	25.1	0.32	0.136	647 / 341	797 / 425	896 / 480	8.86
04/07/21	04/13/21	3.0d		306 / 152	22.8	23.0	0.26	0.128	592 / 311	788 / 420	908 / 486	11.83
Baseline Data				459 / 237		37.12	0.90		721 / 383	807 / 431	892 / 478	1.5





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
12/05/22	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62	0
07/20/22	44	0	0	0	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	46	2
01/13/22	36	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	45	1
07/30/21	16	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	0
04/07/21	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	0
<b>Baseline Data</b>			0	0						0			0	0				0	0				230	

Elemental analysis results (above) in parts per million (ppm). [10,000 ppm = 1.0%]



Historical Comments	
07/20/22	Flash Point (COC) is very low and off specification. Recommend venting the system in order to reduce number of low boilers and recover flash point. Recommend resampling in six months to monitor. COC Flash Point is severely low. (GCD) 10% Distillation Point is abnormally low. (GCD) % < 335°C is marginally high.
01/13/22	Flash Point (COC) is very low and off specification. Recommend venting the system in order to reduce number of low boilers and recover flash point. Recommend resampling in six months to monitor. COC Flash Point is severely low. (GCD) 10% Distillation Point is abnormally low. (GCD) % < 335°C is marginally high.
07/30/21	Flash Point (COC) is very low and off specification. Recommend venting the system in order to reduce number of low boilers and recover flash point. COC Flash Point is severely low. (GCD) 10% Distillation Point is abnormally low. (GCD) % < 335°C is marginally high.
04/07/21	Flash Point continues to be very low. Viscosity has decreased and evidence of cracking of the oil. Viscosity reduction is consistent and the value is distant from what we expect to see, it supports the theory of lower viscosity molecules being produced. Please try safe venting and check for recovery. Several warnings now on flash point and if recovery attempts have failed, recommend to look towards change. (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.

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