

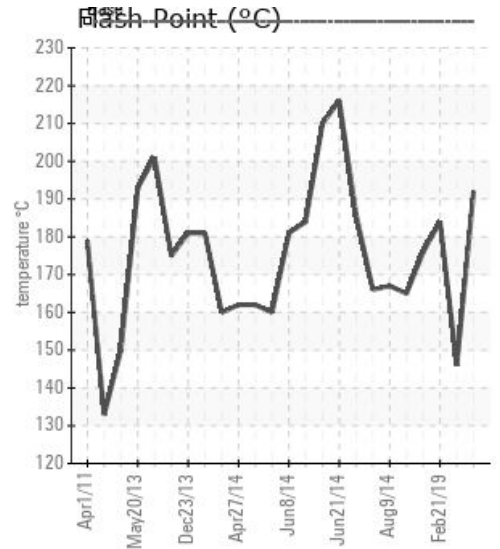
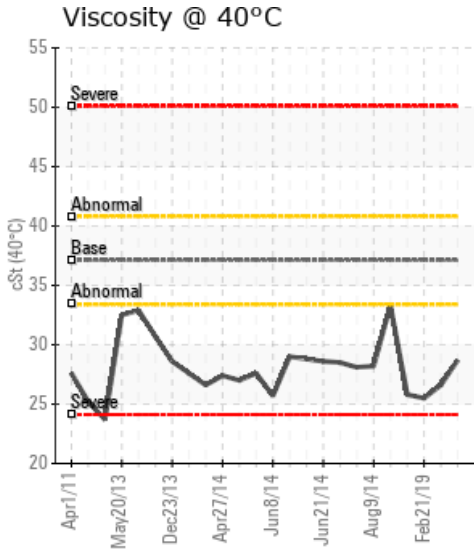
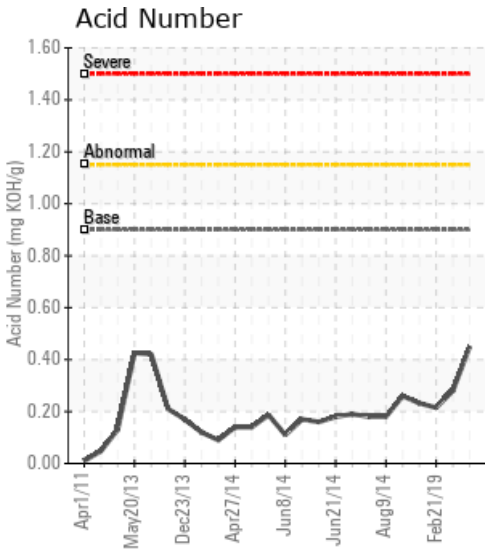
[THAILAND] CARGILL MEAT

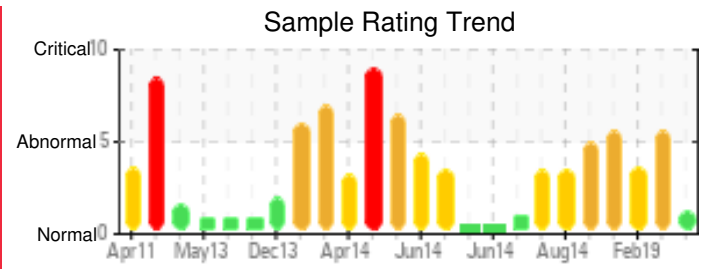
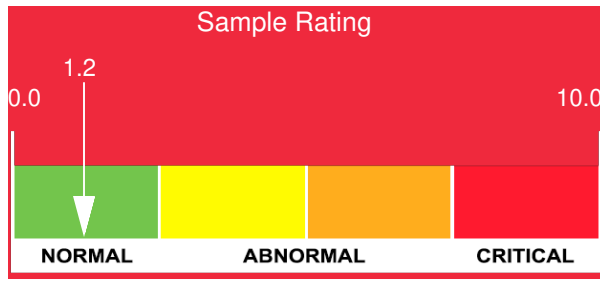
Customer: PTRHTF60010	System Information	Sample Information
SYNLUBE INTERNATIONAL CO LTD 76/1 MOO.7 THACHIN MUANG SAMUTSAKHON, 74000 THAILAND Attn: CHERNPORN CHOBKUI Tel: 034421290 E-Mail: chernporn@synlube.co.th	System Volume: 9225 ltr Bulk Operating Temp: 554F / 290C Heating Source: Blanket: Fluid: PETRO CANADA PURITY FG HEAT TRANSFER FLUID Make: WANSON	Lab No: 02506461 Analyst: Bill Quesnel CLS,OMA II,MLA-III,LLA-I Sample Date: 08/02/22 Received Date: 08/22/22 Completed: 08/25/22 Bill Quesnel CLS,OMA II,MLA-III,LLA-I

Recommendation: If system venting was carried out this has been successful in removing some low boilers and increasing the product flash point. Recommend that you perform more venting of the expansion tank to further reduce the low boilers. Resample in 6 months to monitor.

Comments: COC Flash Point is low.

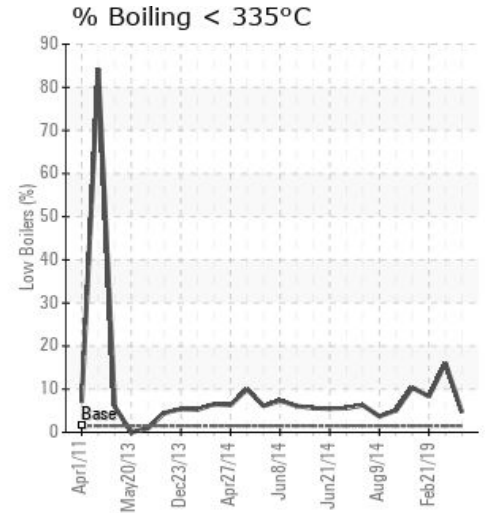
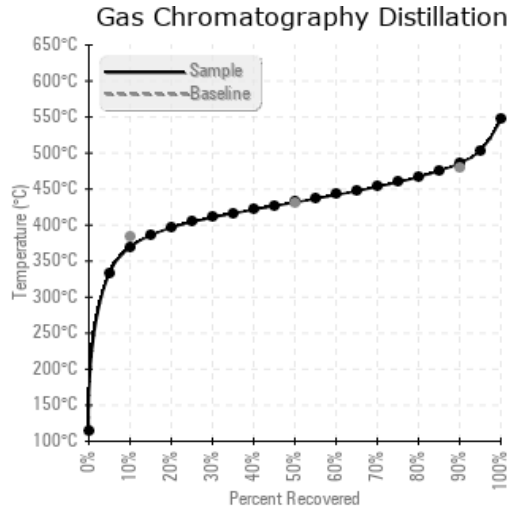
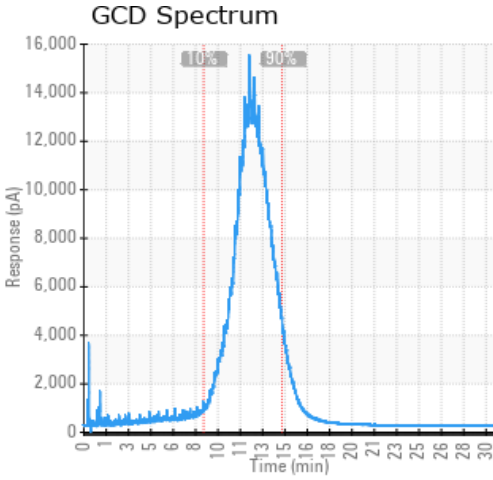
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
08/02/22	08/22/22	15.0d	SUPPLY AND RETURN	378 / 192	6.5	28.7	0.45	0.033	697 / 369	809 / 432	907 / 486	4.62
06/18/22	06/28/22	28.0d	supply and return	295 / 146	11.8	26.6	0.28	0.039	590 / 310	775 / 413	883 / 473	16.04
02/21/19	03/05/19	34.0d	RETURN	363 / 184	7.2	25.5	0.215	0.055	650 / 343	787 / 420	880 / 471	8.32
02/20/19	03/05/19	34.0d	SUPPLY	349 / 176	9.9	25.8	0.232	0.080	623 / 328	783 / 417	880 / 471	10.32
01/11/17	01/23/17	9.0d	SUPPLY/RETURN	329 / 165	9.7	33.3	0.26	0.042	688 / 364	803 / 428	897 / 480	5.05
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
08/02/22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	1
06/18/22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0
02/21/19	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0
02/20/19	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0
01/11/17	4	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	15	0
Baseline Data			0	0						0			0	0				0	0				230	

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



Historical Comments

06/18/22	Recommend is for a system change, including a clean and flush of the system upon change. Flash Point is very low and the viscosity is equally very low from the fresh fluid. Sample looks to be the first one for the system since last change out so no history for trending and interim actions. (GCD) 10% Distillation Point is severely low. COC Flash Point is severely low. (GCD) % < 335°C is abnormally high.
02/21/19	The current fluid has minimum oxidation, very low solid contents and very low third party contaminants such as the water and dirt particles. The oil viscosity and flash point are all lower than the fresh oil mainly due to the thermal cracking at high bulk temperature conditions. Please plan and conduct the system venting as soon as possible. Please run the current fluid and take one sample in 6 months to monitor the conditions. COC Flash Point is low. (GCD) % < 335°C is high. (GCD) 10% Distillation Point is low.
02/20/19	The current fluid has minimum oxidation, very low solid contents and very low third party contaminants such as the water and dirt particles. The oil viscosity and flash point are all lower than the fresh oil mainly due to the thermal cracking at high bulk temperature conditions. Please plan and conduct the system venting as soon as possible. Please run the current fluid and take one sample in 6 months to monitor the conditions. (GCD) 10% Distillation Point is low. COC Flash Point is low. (GCD) % < 335°C is high.
01/11/17	Please confirm where this sample was taken from? The test results indicate the oil has decent viscosity, TAN, Solid content and the GCD points. However, the flash point is very low due to the thermal cracking. The low boiler of the fluid needs to be vented from the system as soon as possible. Please confirm if the system was modified to allow the efficient venting. Please also confirm what is the AIT test result to address the safety concerns.