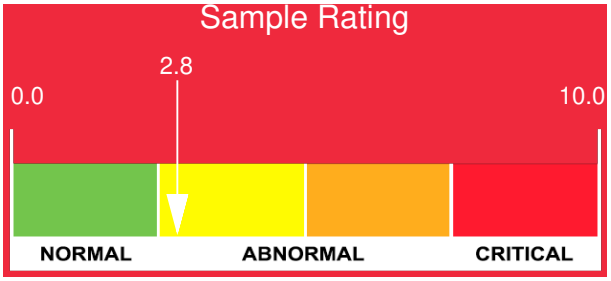
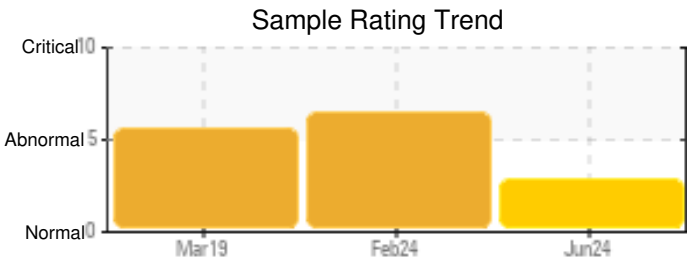




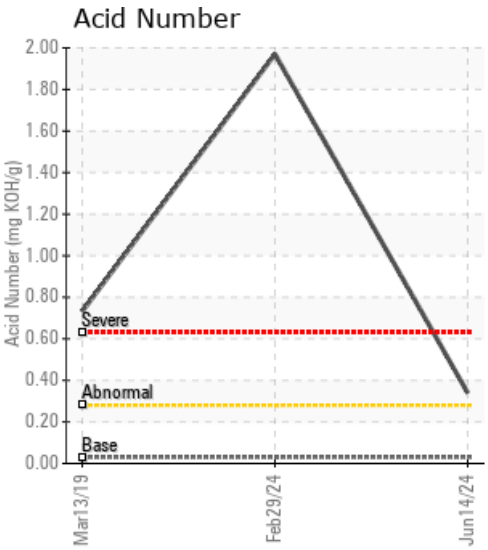
GL VENEER

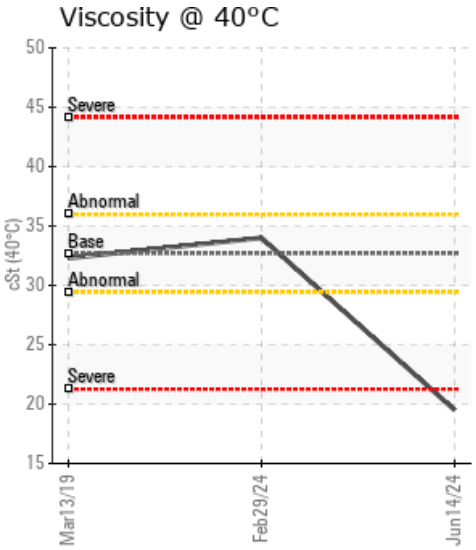
Customer: PTRHTF10012	System Information	Sample Information
GL VENEER 2224 E. SLAUSON AVENUE HUNTINGTON PARK, CA US Attn: Maintenance Manager Tel: E-Mail:	System Volume: 600 gal Bulk Operating Temp: 300F / 149C Heating Source: Blanket: Fluid: PETRO CANADA CALFLO AF Make:	Lab No: 02643284 Analyst: Carlos Nazario Sample Date: 06/14/24 Received Date: 06/20/24 Completed: 06/24/24 Carlos Nazario Carlos.Nazario@hfsinclair.com

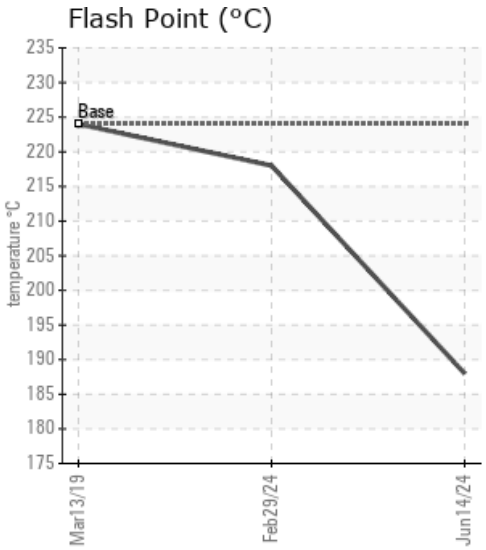
Recommendation: Based on test results, it should be considered to drain and refill the system with fresh oil. It is strongly recommended to clean and flush the system to remove all residues and sludge from system. Samples should be taken every 6 months for the first year. Please contact your Petro-Canada TSA for further drain and clean/flushing procedures.

Comments: Visc @ 40°C is severely low. Acid Number (AN) is abnormally high. COC Flash Point is marginally low.

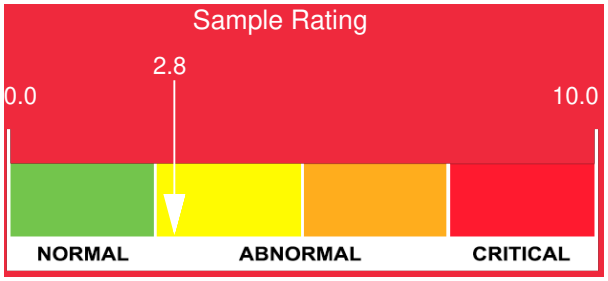
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
06/14/24	06/20/24	0.0h		370 / 188	41	19.5	0.34	0.127	644 / 340	749 / 398	872 / 467	8.42
02/29/24	06/13/24	48.0h		424 / 218	81	34.0	1.97	1.90	702 / 372	799 / 426	907 / 486	2.16
03/13/19	04/04/19	0.0h		435 / 224	41.6	32.3	0.732	0.917	690 / 366	794 / 424	905 / 485	2.44
Baseline Data				435 / 224		32.7	0.03		693 / 367	790 / 421	887 / 475	2.5

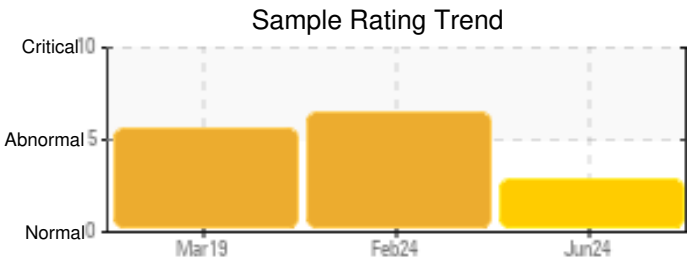






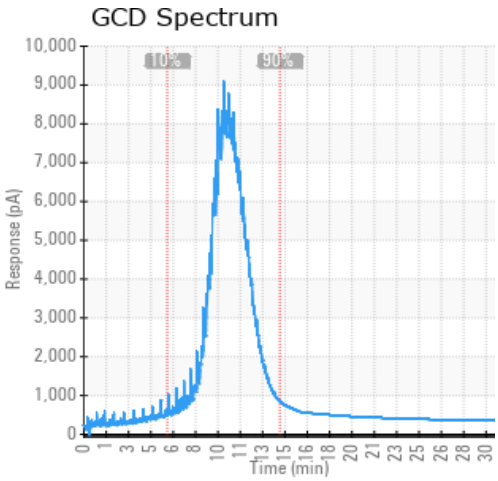
PETRO-CANADA LUBRICANTS

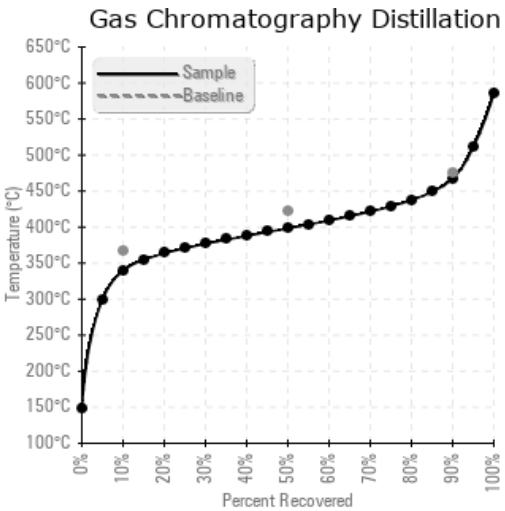


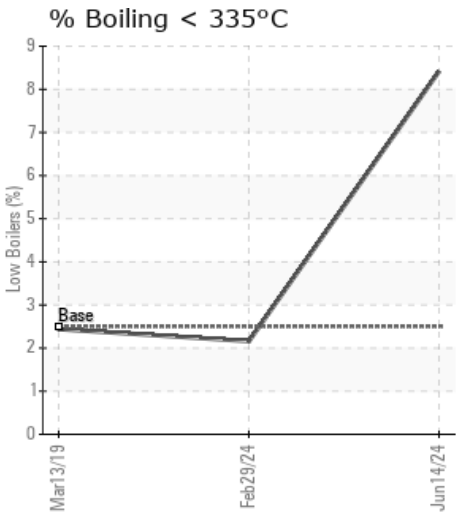


Sample Date	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc
06/14/24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02/29/24	218	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	261	2
03/13/19	342	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	4	0	0	0	2	0	259	4
Baseline Data			0	0						0			0	0					0				270	

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







Historical Comments

02/29/24	Based on test results, lubricant is getting to the end of its useful life and needs to be replaced. Drain, clean, flush and refill will be needed soon to prevent excessive sludge and residues formation in the system; CalFlo Cleaning and Calflo Flushing fluids are recommended. If the next equipment shutdown is planned for the next 6-12 months, then, system should be sweetened by draining 50-60% of current oil and refill it with fresh oil to continue operating till the next equipment shutdown happens. Please contact your designated PCA tech service (TSA : Carlos Nazario) for further discussion.Iron ppm levels are abnormal. Pentane Insolubles levels are severely high. Acid Number (AN) is severely high. (GCD) 90% Distillation Point is marginally high.
03/13/19	The acid number and pentane insolubles are severely high. Iron levels are also very high. First determine where the iron is coming from and correct the problem. Next, review the system and determine how the exposure to air can be minimized. Subsequently drain, clean and flush the system before refilling with new heat transfer fluid. A partial replacement of the fluid won't correct the acid number and pentane insoluble issues.Iron ppm levels are abnormal. Pentane Insolubles levels are severely high. Acid Number (AN) is severely high.