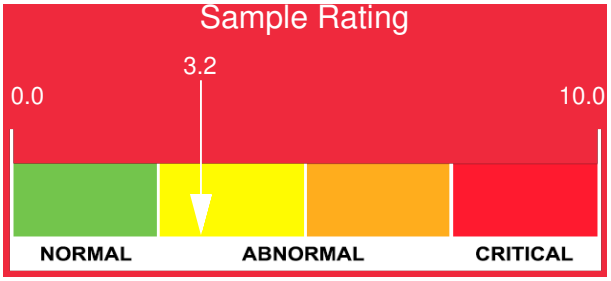
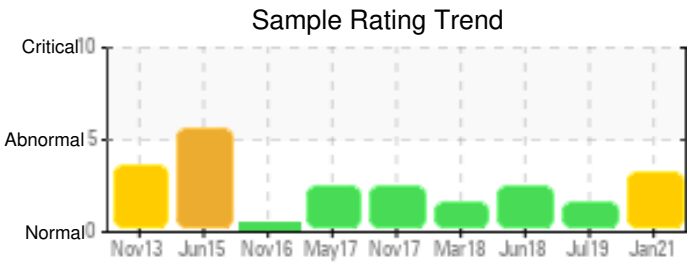




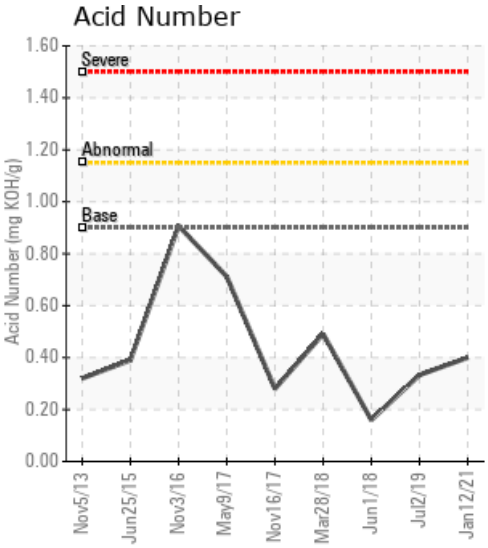
TPC 800 LNE

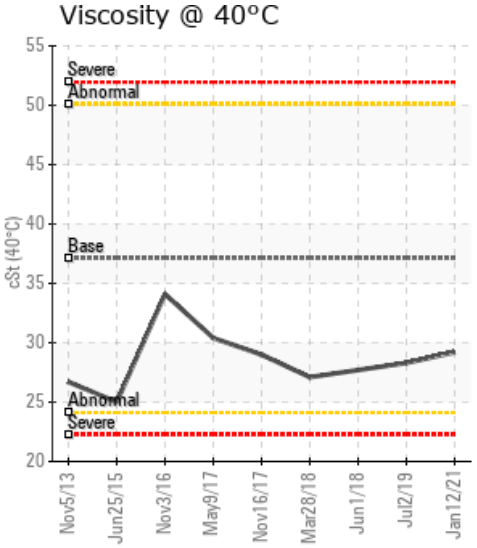
Customer: PTRHTF40011	System Information	Sample Information
ENKCO FOODGROUP BV WAAGWEG 5 OVERIJSSEL HOLTEN, OVE NETHERLANDS Attn: Maintenance Manager Tel: E-Mail:	System Volume: 2500 ltr Bulk Operating Temp: 545F / 285C Heating Source: Blanket: Fluid: PETRO CANADA PURITY FG HEAT TRANSFER FLUID Make: WANSON	Lab No: 02398201 Analyst: Matthias Voss Sample Date: 01/12/21 Received Date: 01/18/21 Completed: 01/20/21 Matthias Voss Matthias.Voss@petrocanadalsp.com

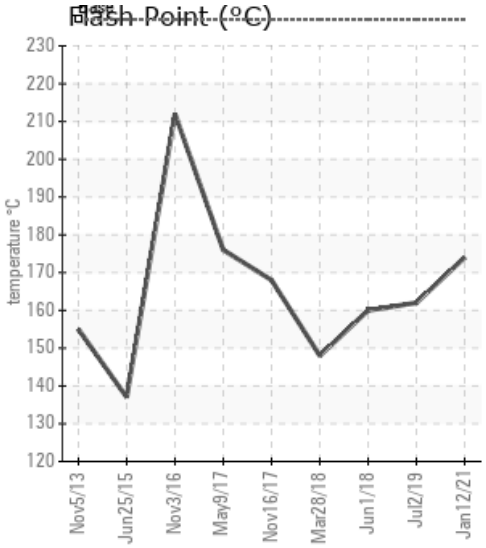
Recommendation: COC Flash Point low but GCD % 335 °C abd GCD 10% still ok. Recommend to vent off the system (safely) and see if the flash point can be raised. If not consider changing the oil.

Comments: Pentane Insolubles levels are severely high. COC Flash Point is severely low. (GCD) 90% Distillation Point is marginally high.

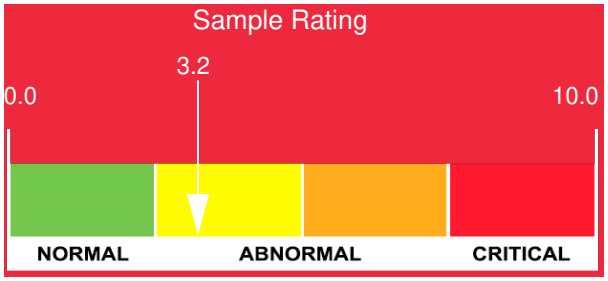
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
01/12/21	01/18/21	4y		345 / 174	66.8	29.2	0.40	0.616	696 / 369	807 / 430	913 / 489	5.08
07/02/19	07/09/19	3y		324 / 162	54.6	28.3	0.333	0.361	677 / 358	800 / 426	910 / 488	6.35
06/01/18	06/08/18	2y		320 / 160	18.9	27.7	0.16	0.173	686 / 363	778 / 414	858 / 459	3.27
03/28/18	04/09/18	1y		298 / 148	16.0	27.1	0.491	0.199	686 / 363	799 / 426	895 / 480	5.53
11/16/17	11/21/17	1y		334 / 168	30.5	29.0	0.28	0.240	694 / 368	803 / 428	896 / 480	4.89
Baseline Data				459 / 237		37.12	0.90		721 / 383	807 / 431	892 / 478	1.5

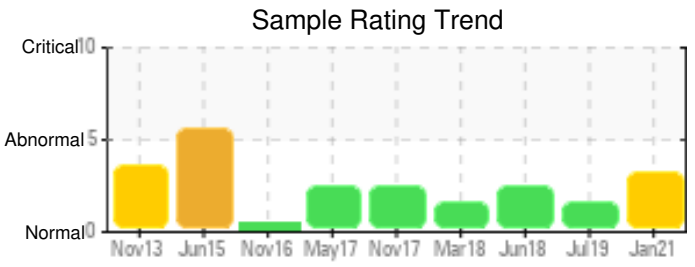






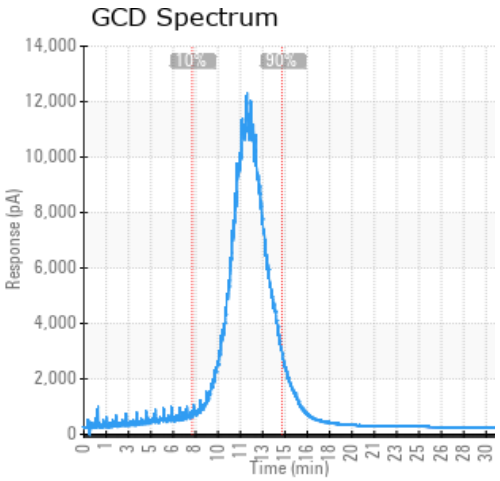
PETRO-CANADA LUBRICANTS

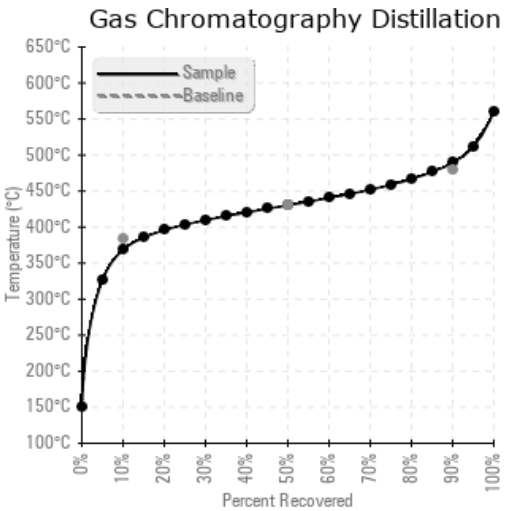


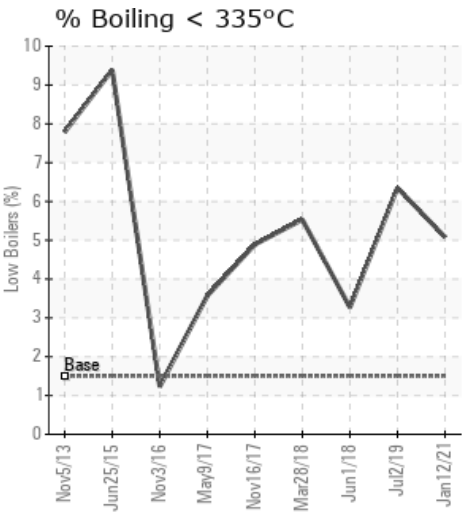


Sample Date	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc
01/12/21	151	0	0	0	4	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	49	0
07/02/19	89	0	0	0	4	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	29	0
06/01/18	55	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	0
03/28/18	36	0	0	0	13	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	35	0
11/16/17	46	0	0	0	34	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	49	1
Baseline Data			0	0						0			0	0				0	0				230	

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







Historical Comments

07/02/19	COC Flash Point low. GCD backs up by showing high presence of light end materials. Recommend to vent off the system (safely) and see if the flash point can be raised. If not consider changing the oil. COC Flash Point is severely low. (GCD) 90% Distillation Point is abnormally low.
06/01/18	COC Flash Point very low indeed. GCD backs up by showing high presence of light end materials. Recommend an oil change but if not possible then recommend to vent off the system (safely) and see if the flash point can be raised. This may have been done as it has improved from last sample. I would re-sample following venting to check COC Flash Point is severely low. (GCD) 90% Distillation Point is abnormally low.
03/28/18	Recommend Fluid change, flush and refill based on the flash point that has progressively reduced sample after sample. GCD backs up presence of a wide range of lower weight molecules COC Flash Point is severely low.
11/16/17	Recommend fluid change. Copper can act as oxidation catalyst and encourage degradation. Significant low boiling point molecules present affecting flash point that has deteriorated since previous sampleCopper ppm levels are abnormal. COC Flash Point is severely low.