

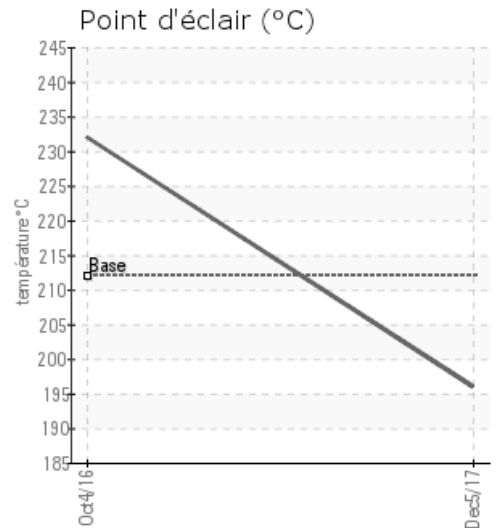
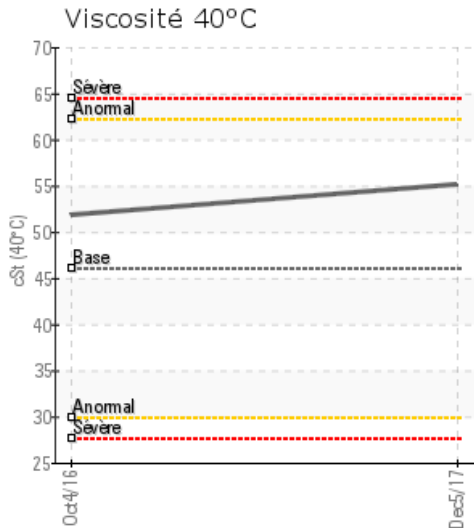
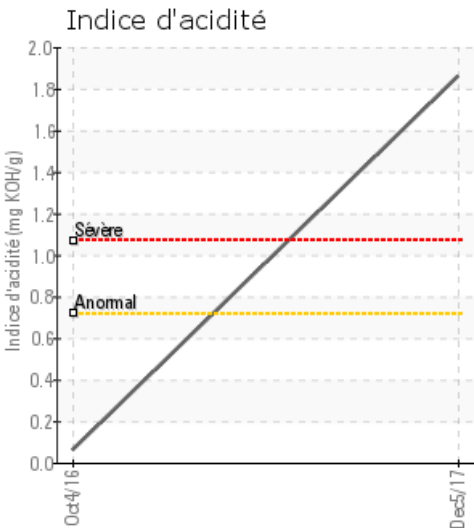
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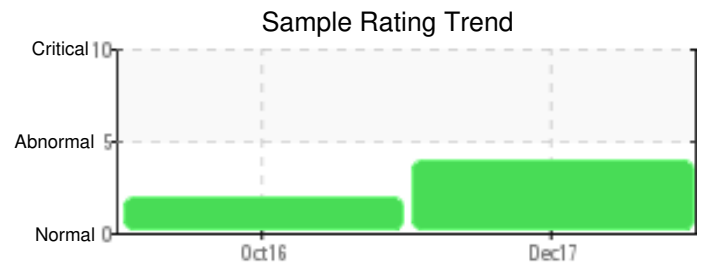
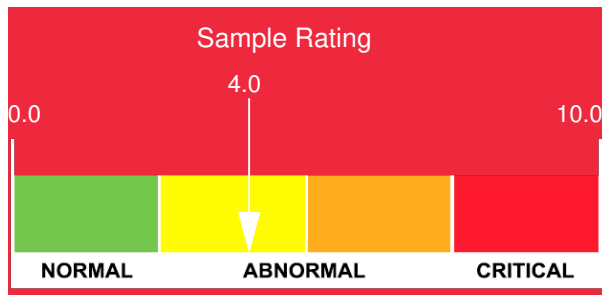
Customer: PTRHTF30091	System Information	Sample Information
PM Fabrication 17250 Cote St. Antoine Mirabel, QC J7J 2G9 Canada Attn: Guy Legault Tel: (514)771-9546 E-Mail: glegault@pmrivenord.com	System Volume: 1000 ltr Bulk Operating Temp: 342F / 172C Heating Source: Blanket: Fluid: ESSO THERMOIL 46 Make:	Lab No: 02186973 Analyst: Pierre Castagne Sample Date: 12/05/17 Received Date: 12/08/17 Completed: 12/15/17 To discuss this report contact Pierre Castagne at 450-981-0693

Recommendation: Il y a trace de Bitume, les fractions lourdes (GCD 90%) sont élevées, celle-ci augmente la viscosité, favorise les dépôts de carbone. Le point d'éclair est bas. La viscosité est élevée. Reprendre un échantillon dans 6 mois.

Comments:

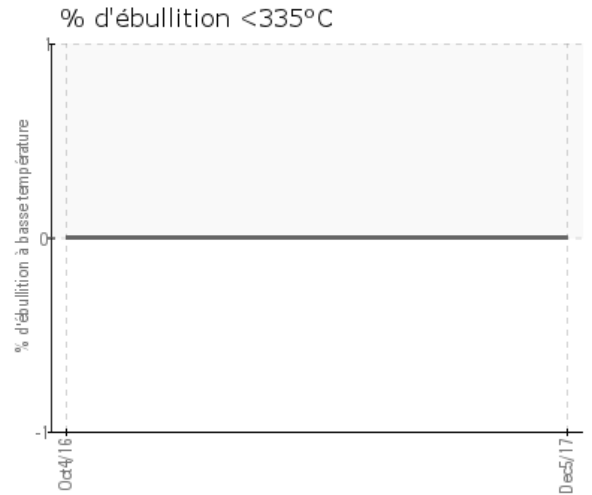
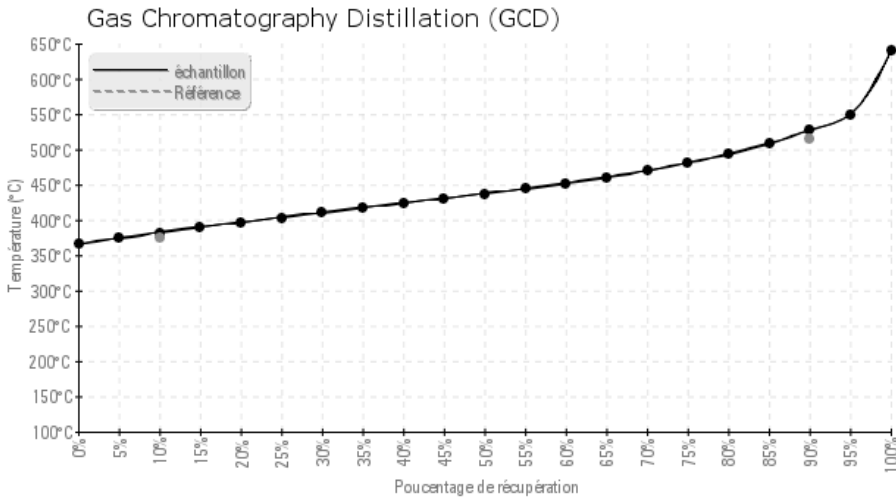
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
12/05/17	12/08/17	0y		385 / 196	74.4	55.1	1.86	1.33	720 / 382	819 / 437	981 / 527	0.00
10/04/16	10/17/16	3y	ALIMENTATION RES	450 / 232	15.3	51.9	0.06	0.053	747 / 397	855 / 457	987 / 531	0.00
Baseline Data				414 / 212		46.07			709 / 376		961 / 516	





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
12/05/17	2	0	0	0	8	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	23
10/04/16	0	0	0	0	1	0	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Baseline Data													0						0				0	

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



Historical Comments	
10/04/16	On constate la présence de fractions Lourdes (GCD @90°C), les fractions lourdes favorisent les dépôts de carbone ainsi qu'une augmentation de la viscosité. Il y a présence de fractions légères (GCD @10°C), les fractions légères abaissent le point de déclair, augmentent la pression de vapeur et abaissent la viscosité. On constate une trace d'asphalte (Vanadium) dans l'échantillon. Il y a des additifs dans l'échantillon qui ne font pas partie des additifs typiques d'un fluide caloporteur. Vérifier que vous utilisez des pompes de transfert dédiées uniquement au fluide caloporteur.

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