

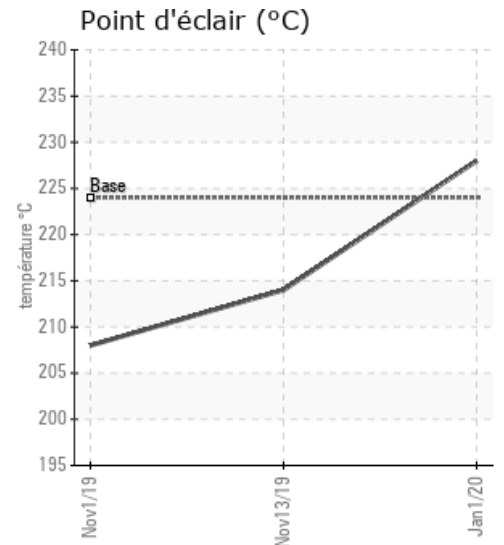
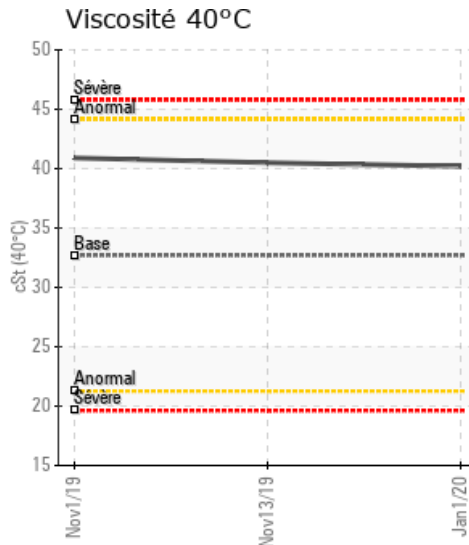
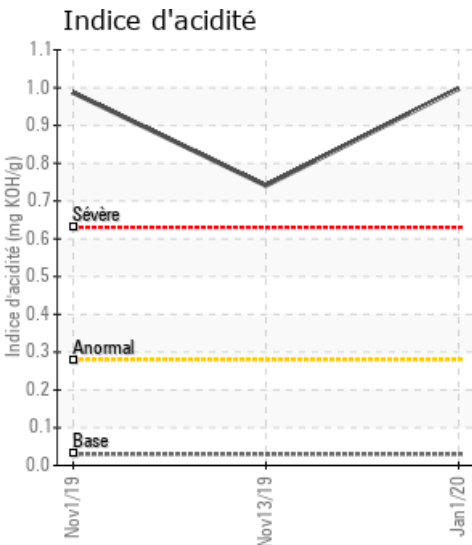
202

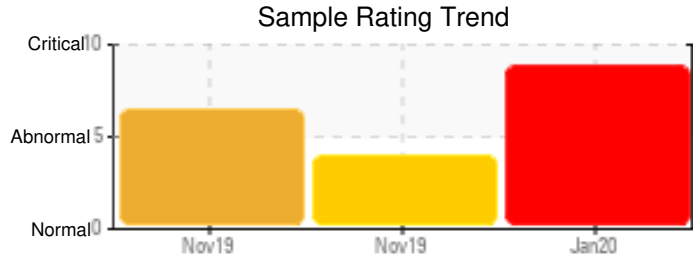
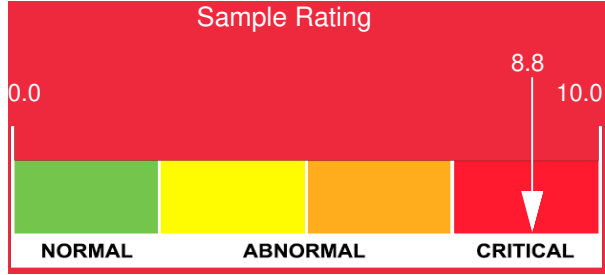
Customer: PTRHTF30151	System Information	Sample Information
LES-ENT-P.E.B. 1190, 1 AVENUE LAC-ST-CHARLES QUEBEC, QC G3G 2S9 Canada Attn: Mike Rheume Tel: (418)849-2841 E-Mail: mikerheume@entpeb.com	System Volume: 2255 ltr Bulk Operating Temp: 325F / 163C Heating Source: Blanket: Fluid: PETRO CANADA CALFLO AF Make: HY-WAY	Lab No: 02344793 Analyst: Jean Lacharite Sample Date: 01/01/20 Received Date: 03/20/20 Completed: 03/24/20 Jean Lacharite jean.lacharige@petrocanadalsp.com

Recommendation: le TAN ou AN aujourd'hui est a 0.998. cela nous indique que l'huile est oxydé et à changer. Le (GCD) 90% distillation point indique aussi que les fractions Lourdes augmentent; présence d'oxydation. l'huile est acidifié. GCD 10% a aussi augmenté, les fractions légères diminuent et les fractions Lourdes augmentent. les insoluble sont élevés. les trois elements AN, GCD 90% et pentane insoluble sont l'indication que l'huile est en fin de vie donc à changer. SVP faire le changement serait l'option.

Comments:

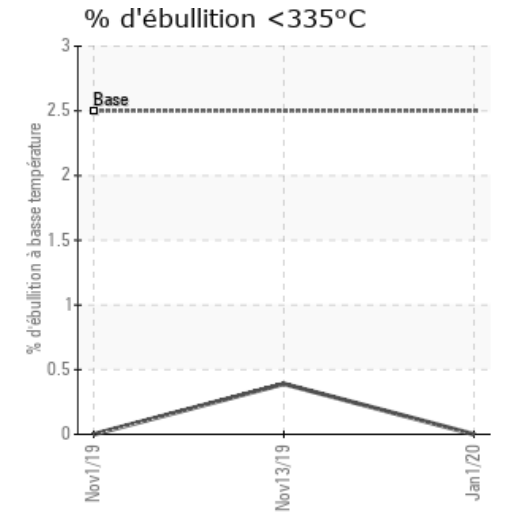
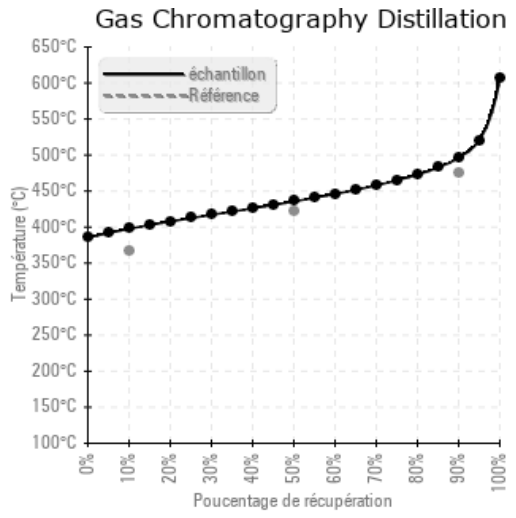
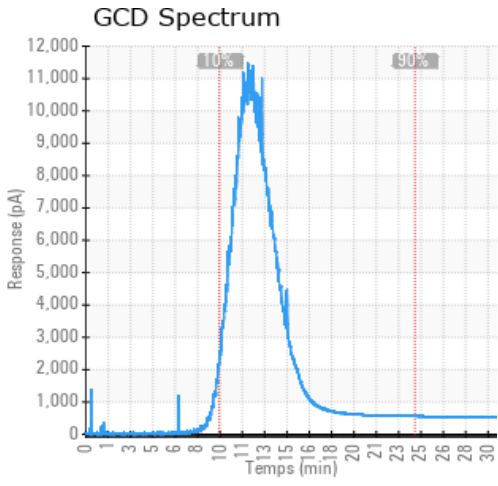
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
01/01/20	03/20/20	7y	APRES LE BRULER	442 / 228	47.5	40.2	0.998	0.592	748 / 398	816 / 436	925 / 496	0.00
11/13/19	12/09/19	7y		417 / 214	24.1	40.5	0.741	0.534	696 / 369	788 / 420	901 / 483	0.39
11/01/19	03/20/20	7y	LIGNE A BITUME	406 / 208	46.0	40.9	0.987	0.676	740 / 393	811 / 433	919 / 493	0.00
Baseline Data				435 / 224		32.7	0.03		693 / 367	790 / 421	887 / 475	2.5





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
01/01/20	11	0	0	0	1	0	0	0	0	0	6	0	0	0	0	0	0	0	0	1	10	0	110	5
11/13/19	11	0	0	0	2	0	0	0	0	0	6	0	0	0	0	0	0	0	0	1	10	0	111	5
11/01/19	11	0	0	0	2	0	0	0	0	0	6	0	1	0	0	0	0	0	0	1	10	0	111	5
Baseline Data			0	0						0		0	0					0					270	

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



### Historical Comments

11/13/19	il y a une elevation du fer, du AN et de la viscosite qui devraient etre pret de 32 Cst. La courbe est normal et le GCD aussi, mais on semble avoir une augmentation de l'oxidation de la Calflo AF, refaire une analyse prise dans un secteur different dans 4-5 mois.
11/01/19	

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