

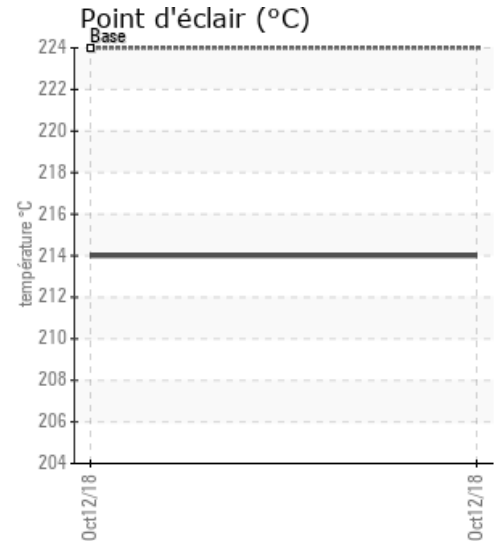
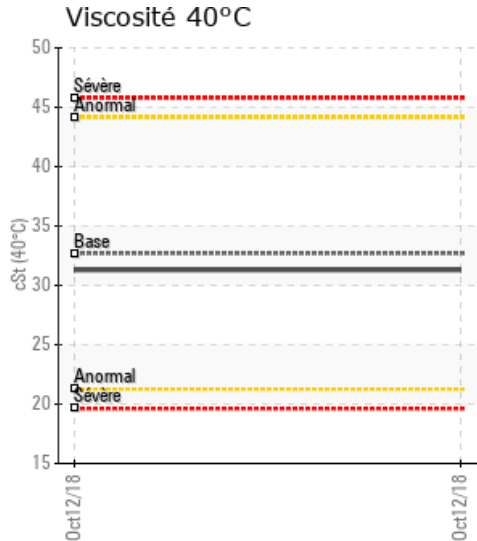
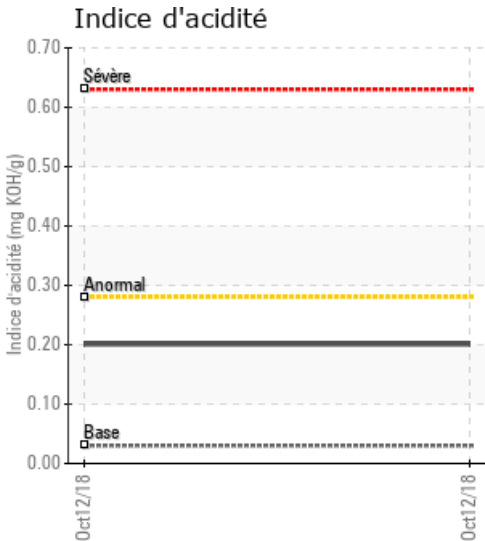
825 HX 001

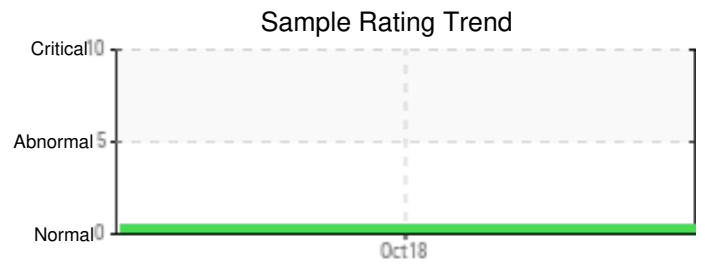
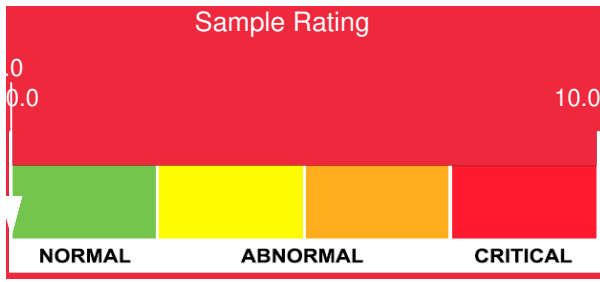
Customer: PTRHTF30002	System Information	Sample Information
Alcoa - Aluminerie Deschambault 1 Boulevard Des Sources DESCHAMBAULT, QC G0A 1S0 Canada Attn: GHYSLAIN BELAND Tel: (418)286-5287 E-Mail: ghislain.beland@alcoa.com	System Volume: 5000 ltr Bulk Operating Temp: 226F / 108C Heating Source: Blanket: Fluid: PETRO CANADA CALFLO AF Make:	Lab No: 02245585 Analyst: Claude Bureau Sample Date: 10/12/18 Received Date: 10/17/18 Completed: 10/19/18 Claude Bureau claude.bureau@hollyfrontier.com

Recommandation: Tous les paramètres sont normaux. Nous recommandons de continuer de suivre la procédure habituelle de ventilation des fractions légères à travers le réservoir d'expansion. SVP re-échantillonner dans 9 à 12 mois et faire analyser pour suivre l'évolution des fractions légères dans le system caloporteur.

Comments: Aucuns métaux d'usures détectés Aucune contamination détectée L'huile est en bonne condition d'opération.

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	%
10/12/18	10/17/18	0.0h		417 / 214	35.2	31.3	0.201	0.034	704 / 373	800 / 427	894 / 479	0.00
Baseline Data				435 / 224		32.7	0.03		693 / 367	790 / 421	887 / 475	2.5

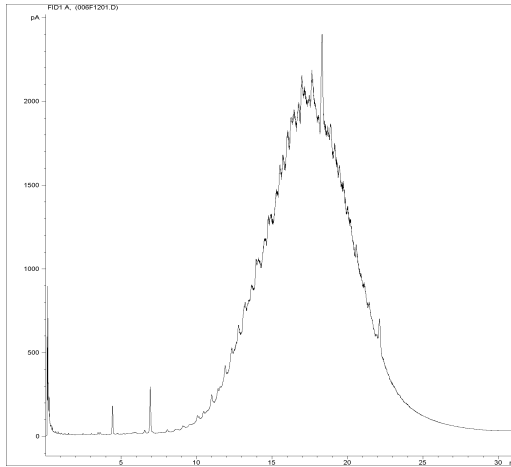




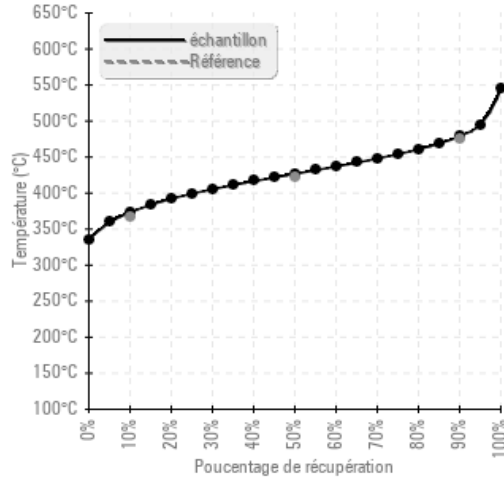
Sample Date	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc	
10/12/18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	76	0
Baseline Data			0	0						0			0	0					0					270	

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

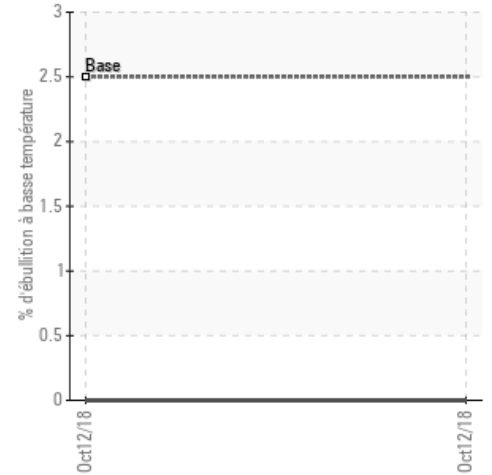
GCD Spectrum



Gas Chromatography Distillation



% d'ébullition <335°C



Historical Comments

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