

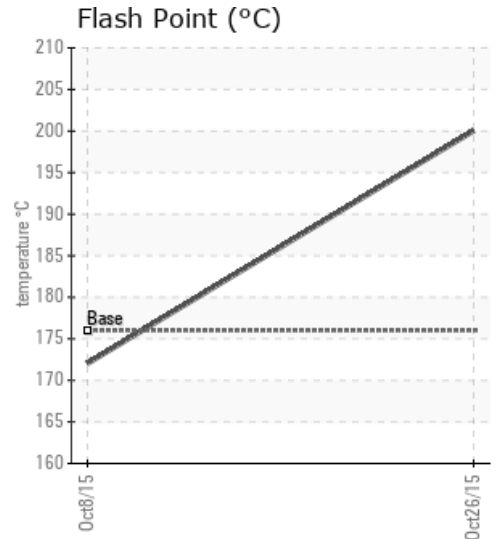
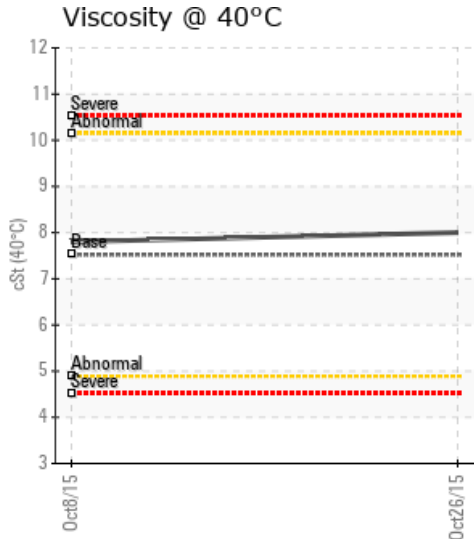
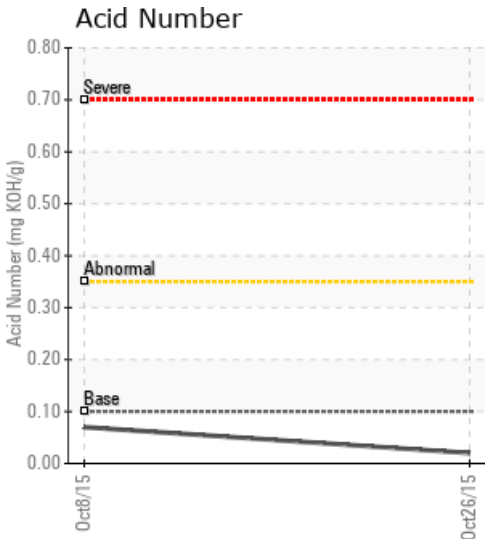
## [STAT OIL CANADA / LSD SE2-79-10W4] CALFLO - HEAT MEDIUM FLUID

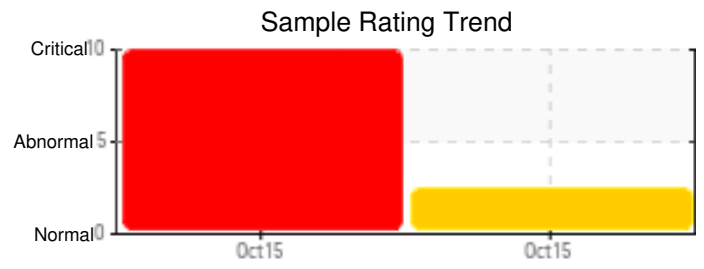
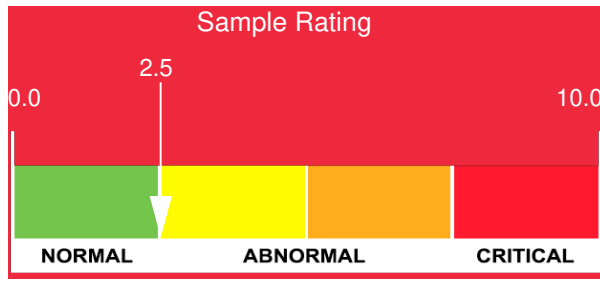
Customer: PTRHTF20133	System Information	Sample Information
ATHABASCA OIL CORP. LEISMER DEMONSTRATION PLANT LSD2-79-10-W4M NEAR CONKLIN, AB CA Attn: George Ball Tel: (587)233-1312 E-Mail: gball@atha.com	System Volume: 0 gal Bulk Operating Temp: 239F / 115C Heating Source: Blanket: Fluid: PETRO CANADA CALFLO LT Make:	Lab No: 02034542 Analyst: Peter Harteveld Sample Date: 10/26/15 Received Date: 11/12/15 Completed: 11/13/15 Peter Harteveld peter.harteveld@HFSinclair.com

Recommendation: Please label the fluid as Calflo LT when sending in the next sample. This to avoid confusion and limit the cost of analysis. The fluid is in good condition and suitable for further use. Fluid oxidation has resulted in a shift of the distillation curve towards higher GCD temperatures. This is not a problem. Please re-sample in 12 months.

Comments: (GCD) 90% Distillation Point is severely high. (GCD) 50% 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	%
10/26/15	11/12/15	13.0m	L5 HEAT MEDIUM SYS	392 / 200	39.3	8.0	0.02	0.032	613 / 323	674 / 357	798 / 426	35.95
10/08/15	10/20/15	1.7m	PUMP DISCHARGE	342 / 172	9.7	7.8	0.07	0.022	612 / 322	652 / 345	753 / 400	39.66
Baseline Data				349 / 176		7.52	0.1		604 / 318	640 / 338	734 / 390	35.0

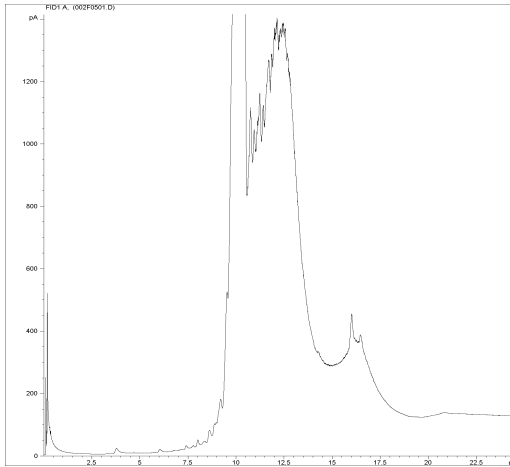




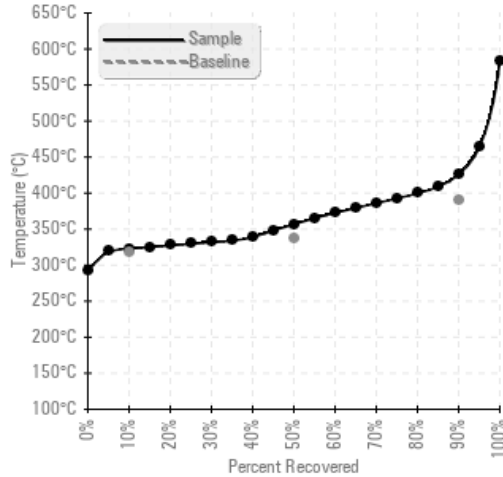
Sample Date	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc
10/26/15	22	0	0	0	0	0	0	0	0	0	5	1	0	0	0	0	0	0	3	0	0	0	256	0
10/08/15	30	0	0	0	0	0	0	0	0	0	5	1	0	0	0	0	0	0	2	0	1	0	260	0
Baseline Data			0	0						0		0	0						0				270	

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

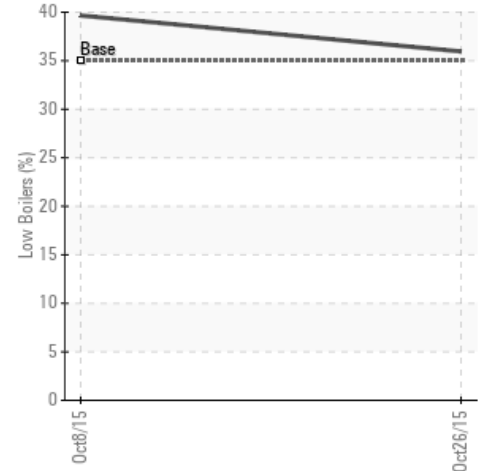
GCD Spectrum



Gas Chromatography Distillation



% Boiling < 335°C



Historical Comments

10/08/15	*** This product does not appear to be Petro-Canada Calflo HTF *** (GCD) % < 335°C is severely high. (GCD) 10% Distillation Point is severely low. (GCD) 50% Distillation Point is severely low. (GCD) 90% Distillation Point is severely low. Visc @ 40°C is severely low. COC Flash Point is abnormally low.
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