

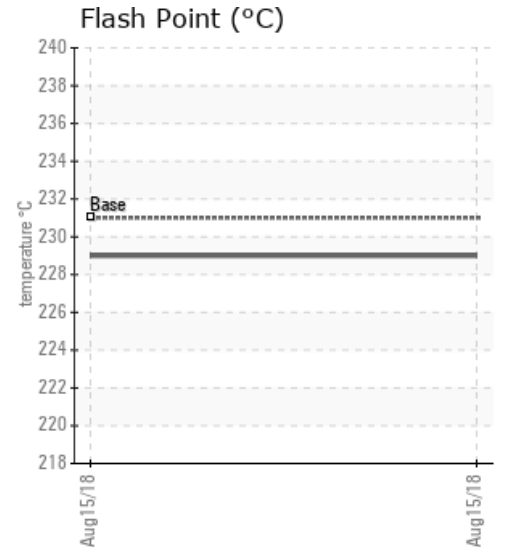
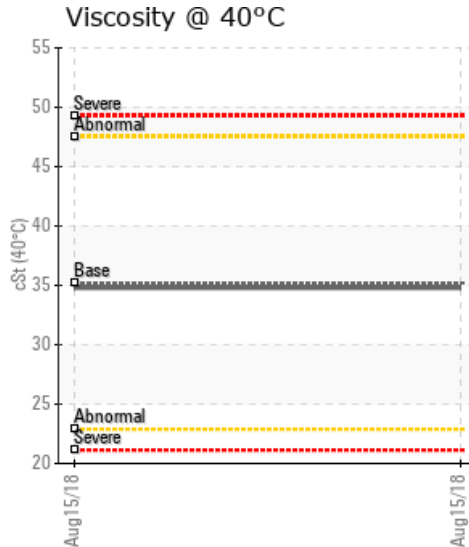
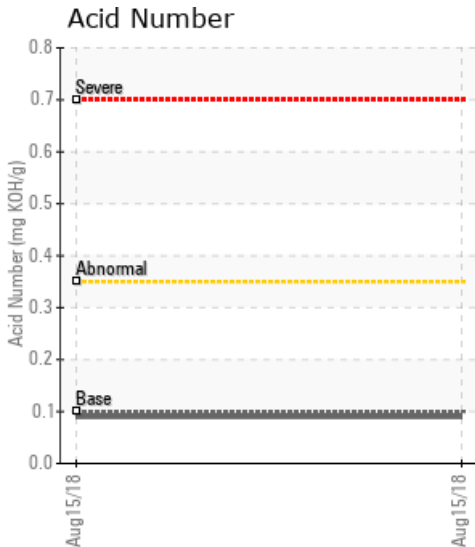
HOT OIL TANK TRUCK

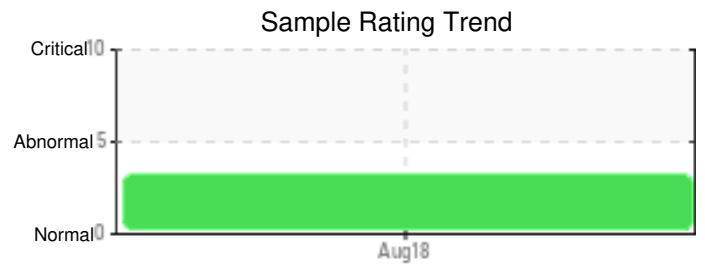
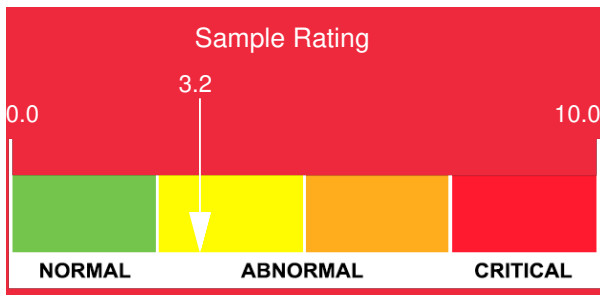
Customer: PTRHTF20196	System Information	Sample Information
SUNCOR ENERGY MACKAY RIVER PROJECT DOCK M FORT MCMURRAY, AB T9H 4W1 Canada Attn: Patrick Spargo Tel: (780)792-2977	System Volume: 0 gal Bulk Operating Temp: Not Specified Heating Source: Blanket: Fluid: PETRO CANADA CALFLO HTF Make:	Lab No: 02235065 Analyst: Benjamin Latorre Sample Date: 08/15/18 Received Date: 08/22/18 Completed: 09/04/18 To discuss this report contact Benjamin Latorre at (587)275-0499

Recommendation: 1. Check/correct source of water contamination. 2. When oil is loaded into the system, vent the expansion tank regularly (up to 2X a week) to reduce water level. 3. Wear metals, Pentane Insolubles and Acid Number are low/normal. 4. Resample periodically to check on trending of test values.

Comments: Water contamination levels are severely high.

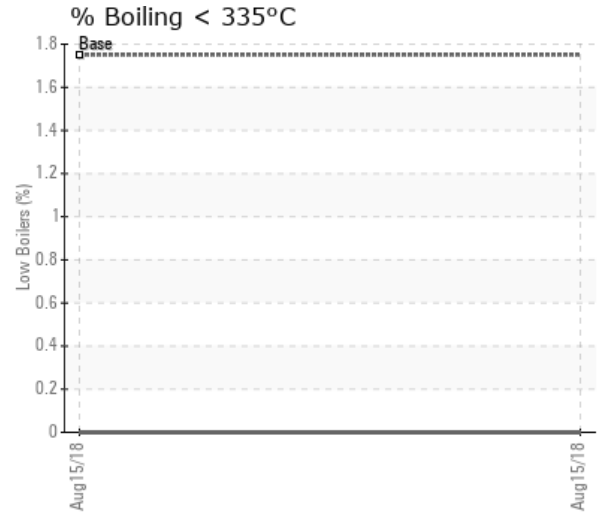
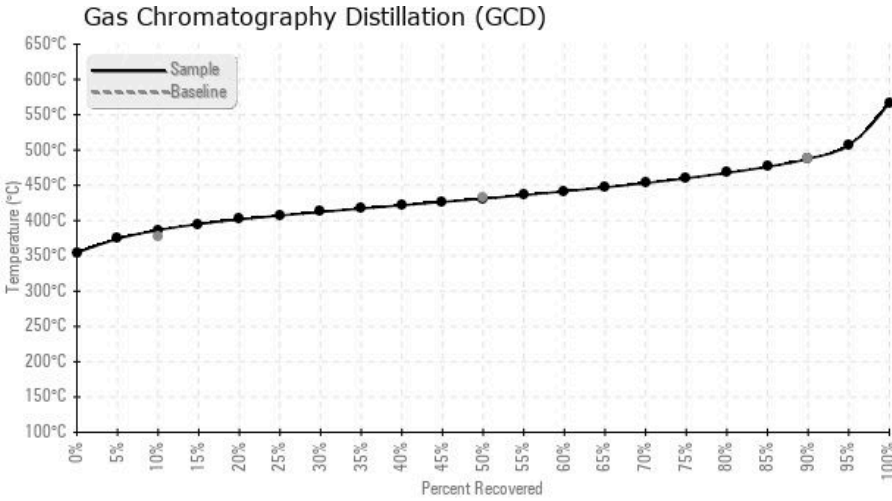
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
08/15/18	08/22/18	0h	IN/OUT SAMPLE POINT	444 / 229	2076.2	34.8	0.09	0.040	728 / 386	808 / 431	910 / 488	0.00
Baseline Data				448 / 231		35.20	.1		712 / 378	810 / 432	910 / 488	1.75





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
08/15/18	15	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	11	0
Baseline Data			0	0						0			0	0					0				280	

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



Historical Comments

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