

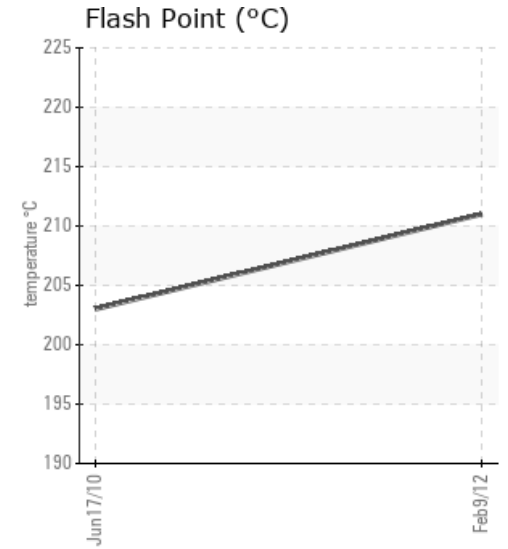
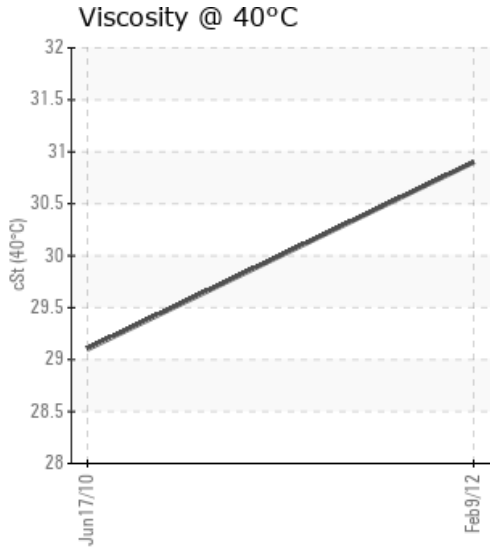
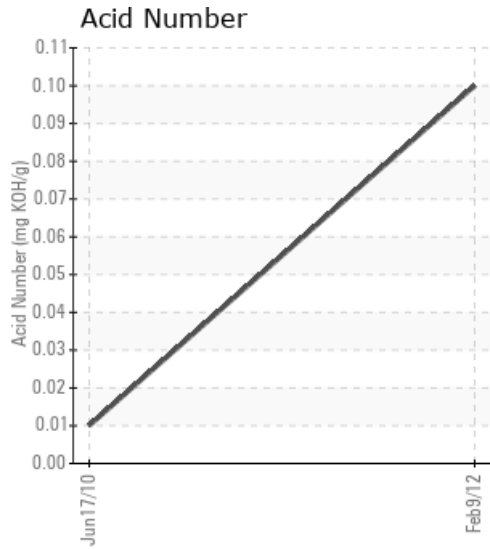
# LONGVIEW ASPHALT PLANT HTF

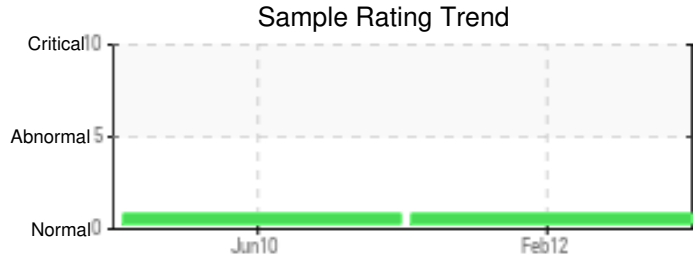
Customer: PTRHTF10045	System Information	Sample Information
LAKESIDE INDUSTRIES 500 TENNANT WAY LONGVIEW, WA 98362 US Attn: ROB STANLEY Tel: (360)425-9155 E-Mail:	System Volume: 150 gal Bulk Operating Temp: 320F / 160C Heating Source: Blanket: Fluid: Make:	Lab No: I-593607 Analyst: Gaston Arseneault Sample Date: 02/09/12 Received Date: 02/23/12 Completed: 02/28/12 Gaston Arseneault gaston.arseneault@HFSinclair.com

Recommendation: The oil seems to be ok but we have to warn against the use of zinc-containing hydraulic oils in heat transfer systems. Zinc based additives degrade into a noxious gas above 280-300F. We would definitely suggest to use a heat transfer oil or a R&O turbine oil to get away from the zinc.

Comments: Water is at a MINOR LEVEL. Iron is at a MODERATE LEVEL;

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	%
02/09/12	02/23/12	5.0h	EXPANSION TANK	412 / 211	229	30.9	0.1	0.089	703 / 373	803 / 429	913 / 490	2.855
06/17/10	06/28/10	3.0h	NA	397 / 203	111	29.1	0.01	0.017	694 / 368	794 / 423	896 / 480	3.696
Baseline Data												

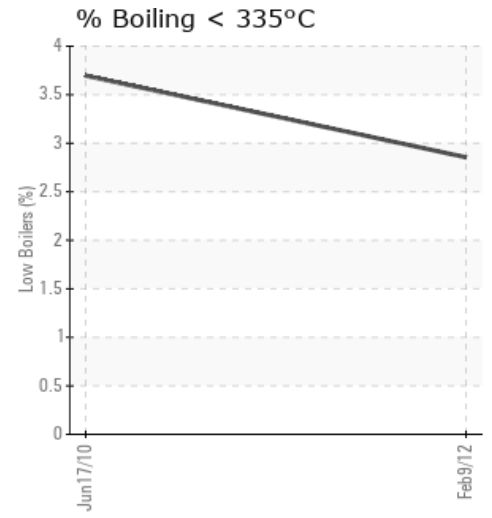
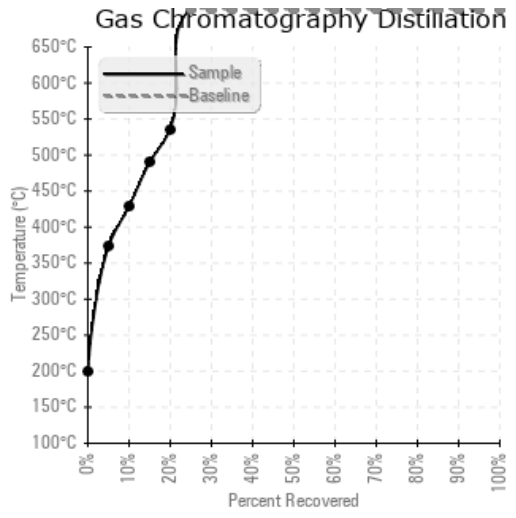




Sample Date	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc	
02/09/12	55	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0	2	0	102	0	96	46	
06/17/10	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	
Baseline Data																									

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

GCD Spectrum



Historical Comments	
06/17/10	This fluid does not look like Chevron's AW hydraulic oil since it does not show any zinc nor phosphorus. Nonetheless, the fluid appears to be in good condition with a high flash point and fresh oil-like properties. Keep up the good work.

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