

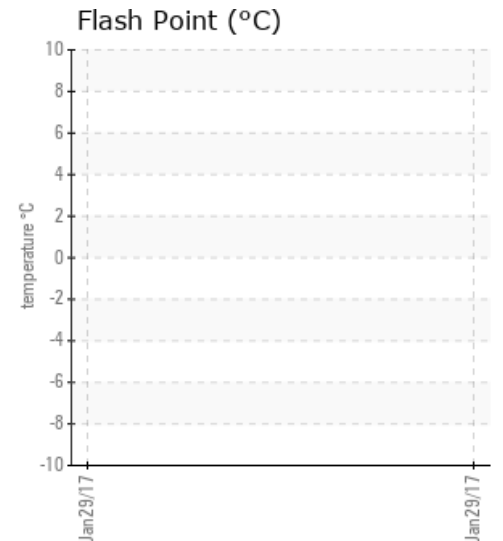
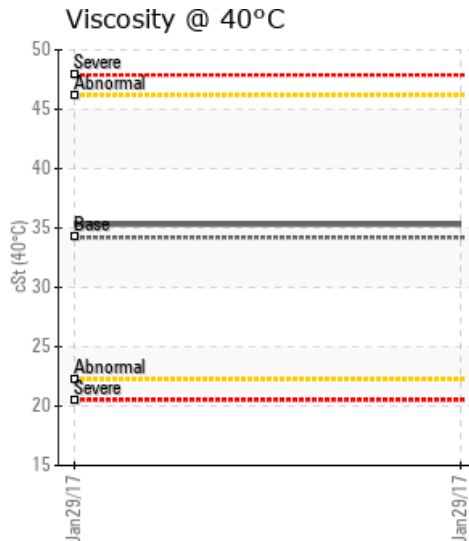
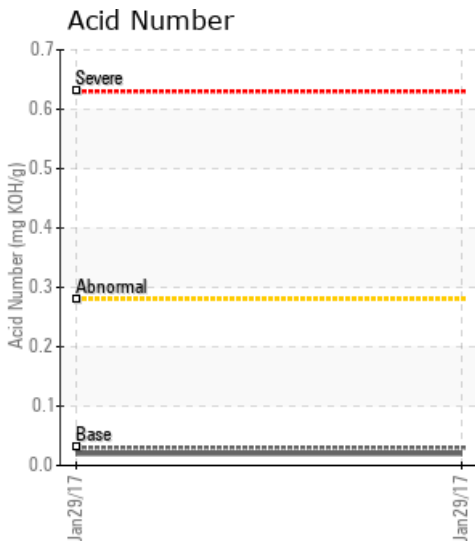
## ACIPCO WEST 2017

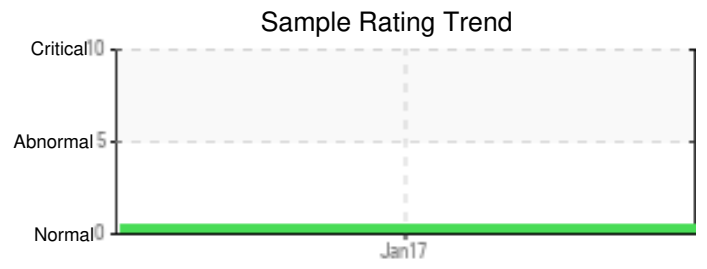
Customer: PTRHTF10182	System Information	Sample Information
American Cast Iron Pipe Co. 2930 NO 16th St. Birmingham, AL 35207 USA Attn: Jeremy Mowry Tel: (205)325-7905 E-Mail: jmowry@american-usa.com	System Volume: 5875 gal Bulk Operating Temp: Not Specified Heating Source: Blanket: Fluid: PETRO CANADA PETRO-THERM Make: WUERZ	Lab No: 02218011 Analyst: Manny Garcia Sample Date: 01/29/17 Received Date: 05/24/18 Completed: 05/25/18 To discuss this report contact Manny Garcia at 954-384-7259

Recommendation: Fluid is suitable for continued use. Please re-sample in May, 2019. Fluid could be filtered during a safe time to reduce the light debris seen in the sample. Please include the time on the Petrotherm fluid and the time on the system during the next sample submission.

Comments: (GCD) 90% Distillation Point is marginally high. This value can be mitigated by 'venting' the system. Some very light debris seen in the sample. (GCD) 90% Distillation Point is marginally high.

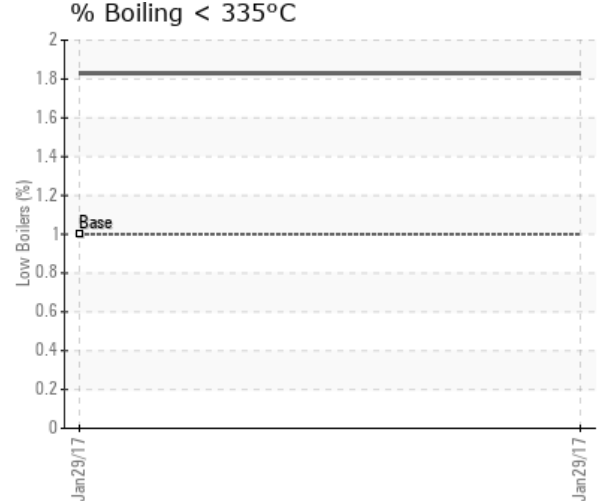
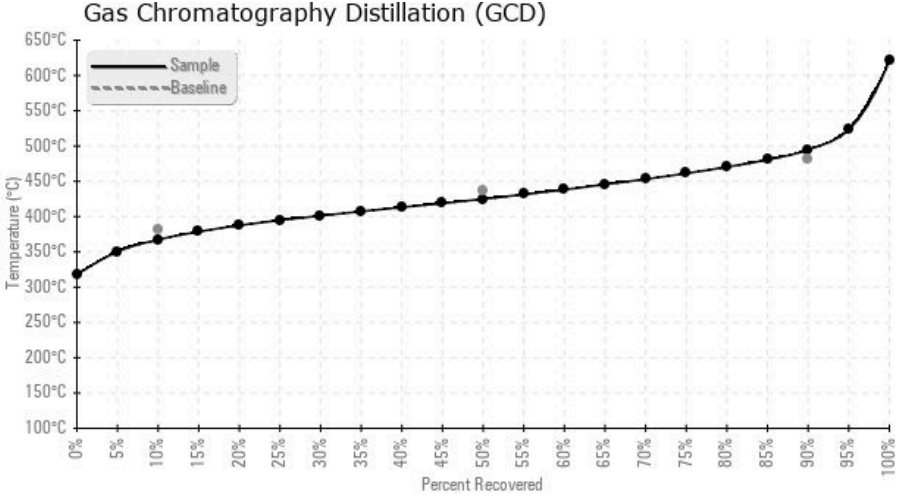
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
01/29/17	05/24/18	0h			10.7	35.3	0.02	0.036	693 / 367	797 / 425	922 / 495	1.83
Baseline Data				433 / 223		34.2	0.03		720 / 382	817 / 436	900 / 482	1.00





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
01/29/17	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
<b>Baseline Data</b>			0	0						0			0	0					0				0	

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



### Historical Comments
