

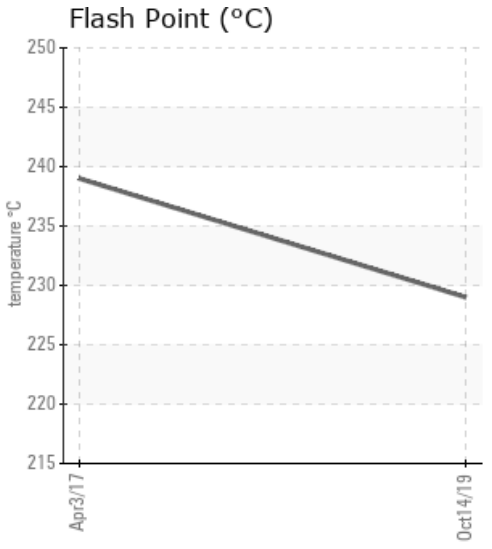
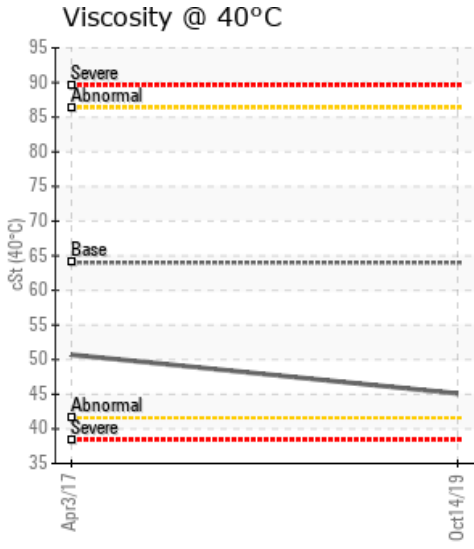
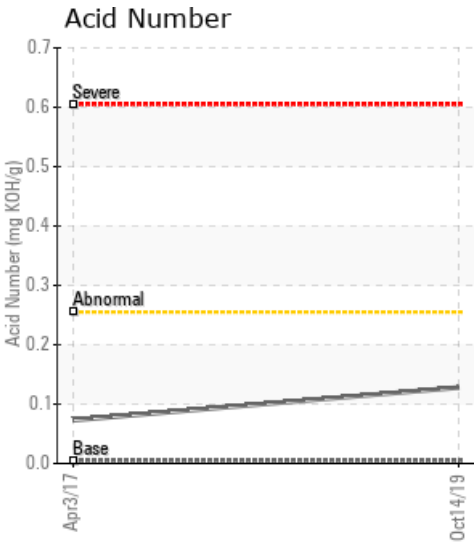
VAPER POWER

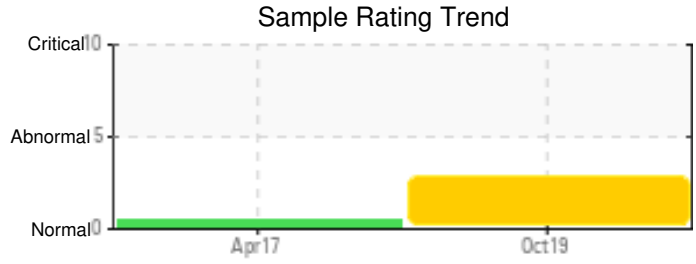
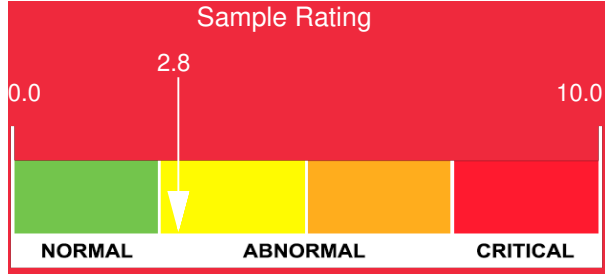
Customer: PTRHTF10186	System Information	Sample Information
Bitumar USA Inc 7982 Huey Road Douglasville, GA 30134 USA Attn: Mike Walsh Tel: E-Mail: mike.walsh@bitumar.com	System Volume: 0 gal Bulk Operating Temp: 350F / 177C Heating Source: Blanket: Fluid: SHELL THERMIA OIL C Make: VAPER POWER	Lab No: 02315203 Analyst: Manny Garcia Sample Date: 10/14/19 Received Date: 10/18/19 Completed: 10/29/19

Recommendation: Fluid is safe to top up with premium 'virgin' Petro-Therm heat transfer Fluid. Condition of the existing fluid/age may warrant a full fluid change-out.

Comments: (GCD) 90% Distillation Point is severely low. COC Flash Point is marginally low.

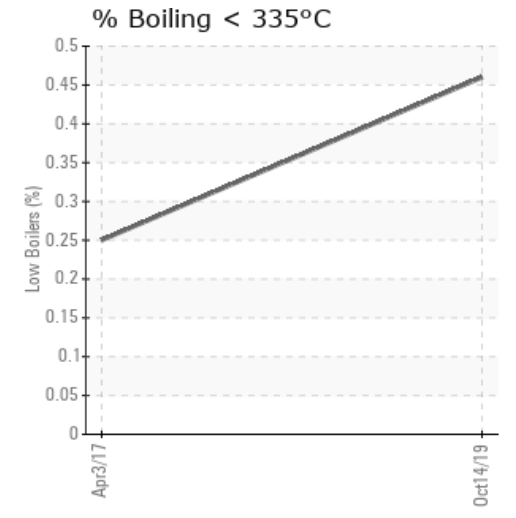
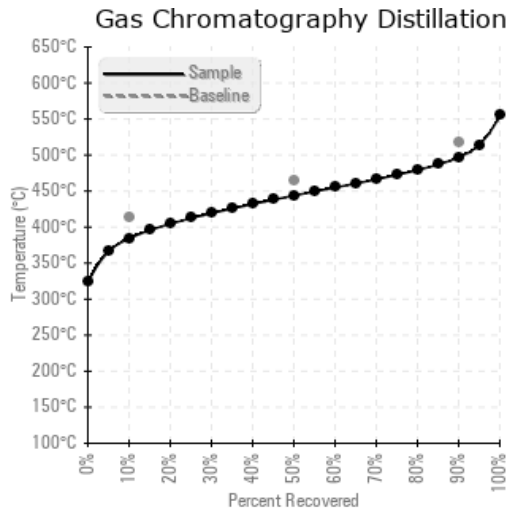
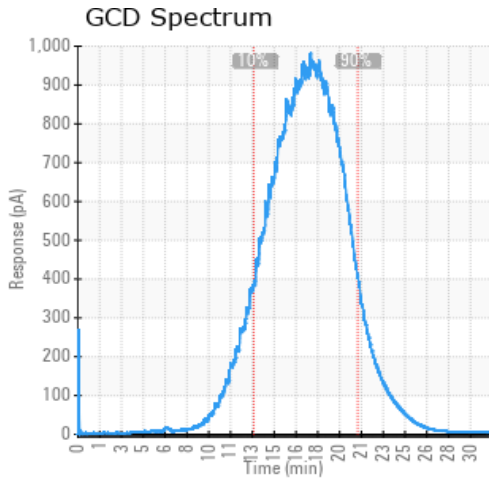
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
10/14/19	10/18/19	0y		444 / 229	5.8	45.1	0.128	0.072	723 / 384	831 / 444	926 / 497	0.46
04/03/17	04/24/17	8y	PUMP SUCTION	462 / 239	11.1	50.7	0.073	0.042	748 / 398	862 / 461	951 / 510	0.25
Baseline Data				500 / 260		64	0.005		777 / 414	867 / 464	964 / 518	0.00





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
10/14/19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/03/17	6	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Baseline Data			0	0						0		0	0					0				0		

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



Historical Comments	
04/03/17	Heat Transfer fluid appears to be in good condition; Please re-submit sample in 12 months Wear metals are satisfactory; Contaminant levels are satisfactory; Water is low; Viscosity is good; COC flash point is satisfactory; Pentane insoluble are low

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