

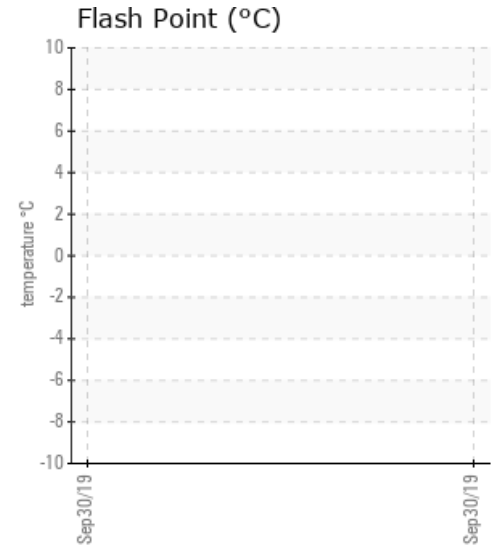
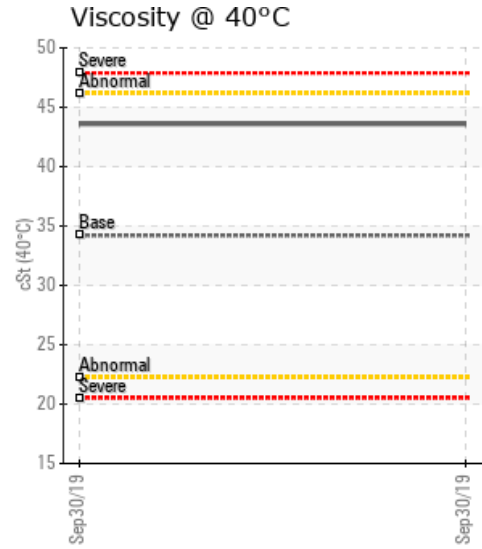
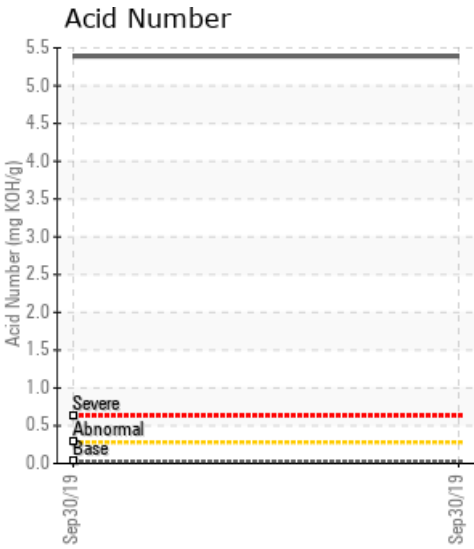
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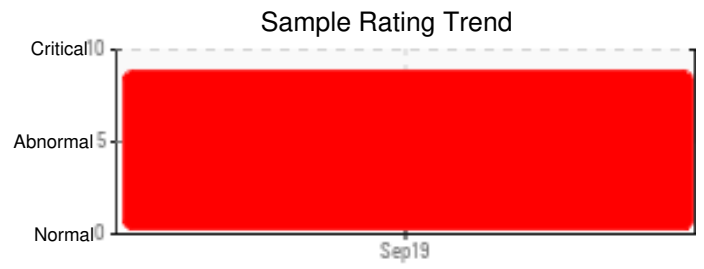
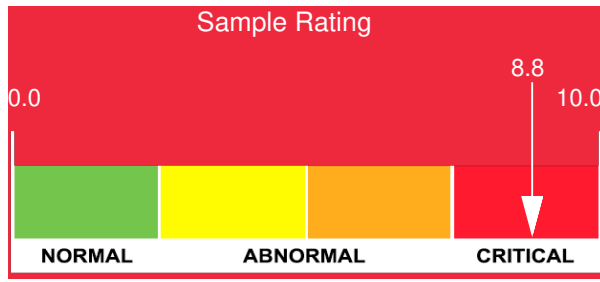
Customer: PTRHTF10220	System Information	Sample Information
OMG MIDWEST/DES MOINES ASPHALT AND ... 5109 NW BEAVER DR JOHNSTON, IA 50131 USA Attn: Neil Buchanan Tel: (515)231-3035 E-Mail:	System Volume: 300 gal Bulk Operating Temp: Not Specified Heating Source: Blanket: Fluid: PETRO CANADA PETRO-THERM Make: ASTEC	Lab No: 02313433 Analyst: Neil Buchanan Sample Date: 09/30/19 Received Date: 10/09/19 Completed: 11/19/19

Recommendation: *** NOTE: Water concentration too high to perform flash point test *** Sample is in VERY poor condition. Water content is extremely high. Oil is completely oxidized with large amounts of insoluble material. Condemning limit for Acid Number (AN) is anything greater than 1.0 and sample is at 5.39. Condemning limit for Pentane Insolubles is greater than 0.5% and sample is at 3.47%. Oil should be changed and system cleaned.

Comments: Water contamination levels are severely high. Water contamination levels are severely high.. ppm Water contamination levels are severely high. Pentane Insolubles levels are severely high. Acid Number (AN) is severely high. (GCD) 90% Distillation Point is marginally high.

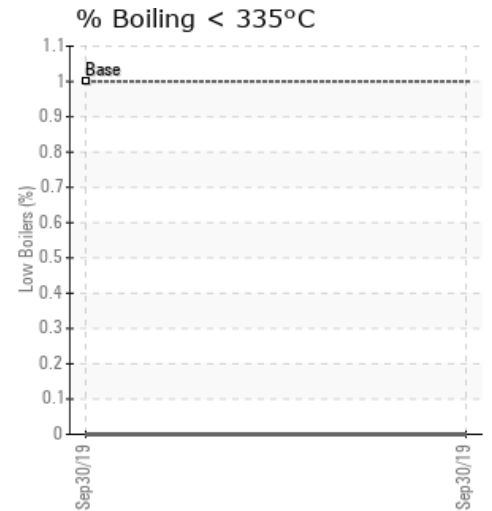
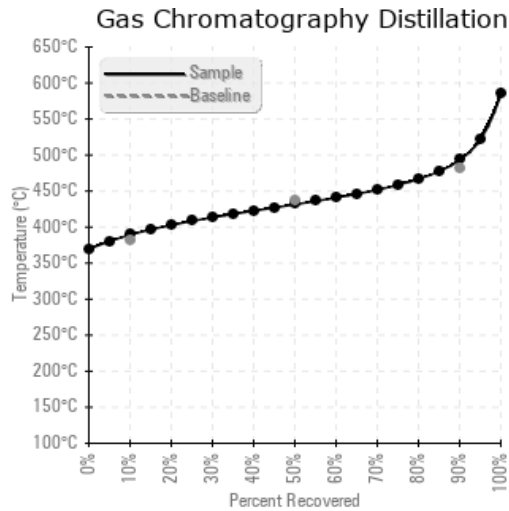
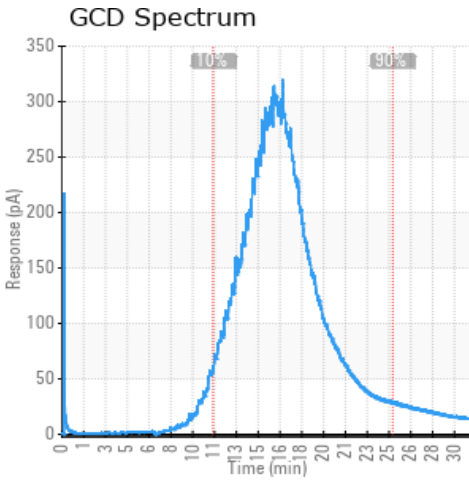
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
09/30/19	10/09/19	0h			207709	43.6	5.39	3.47	733 / 389	809 / 432	919 / 493	0.00
Baseline 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
09/30/19	167	0	0	0	0	0	1	0	0	0	3	0	1	0	0	0	3	0	2	0	4	0	11	2
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

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