

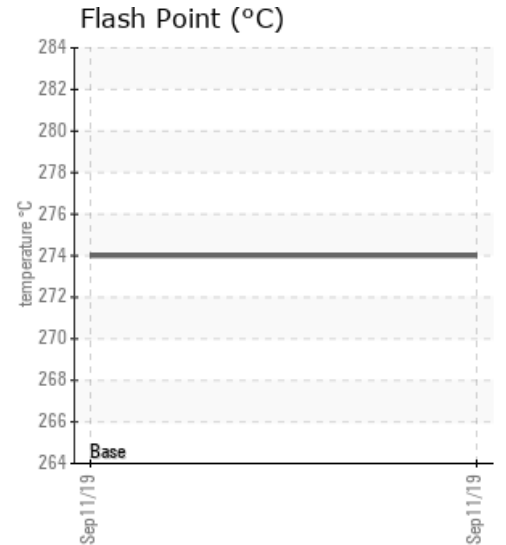
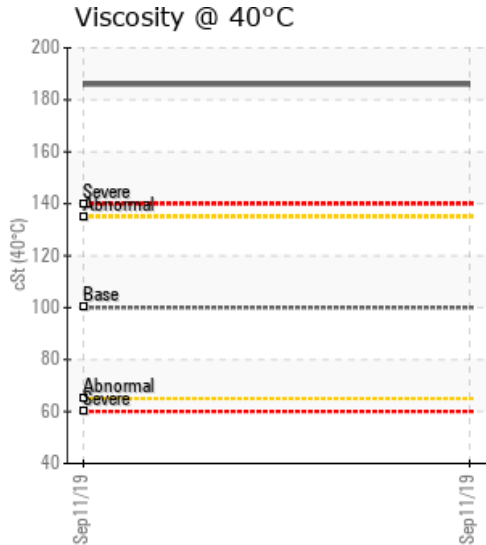
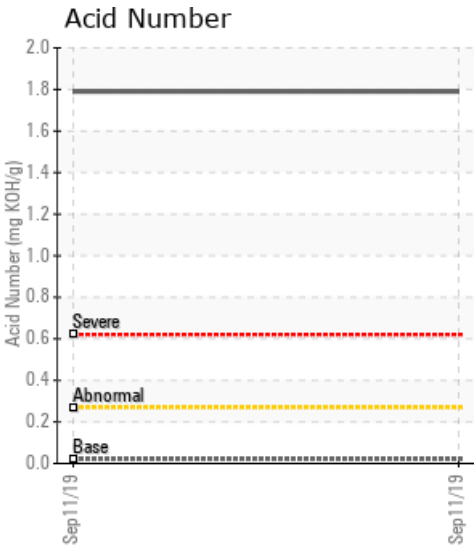
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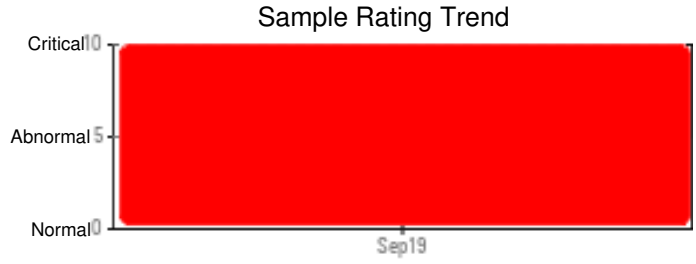
Customer: PTRHTF30142	System Information	Sample Information
McAsphalt Industries Ltd. 15 McCurdy Avenue Dartmouth, NS B3B 1C4 Canada Attn: Tim Bona Tel: (902)210-0070 E-Mail: tbona@mcasphalt.com	System Volume: 500 gal Bulk Operating Temp: 360F / 182C Heating Source: Blanket: Fluid: ESSO TERESSTIC ISO 100 Make: HEATEC	Lab No: 02308714 Analyst: Behshad Sabah Sample Date: 09/11/19 Received Date: 09/16/19 Completed: 10/28/19

Recommendation: High TAN, Acid number and Pentane Insoluble ,and high viscosity indicate highly oxidized oil. the high iron PPM shows the piping corrosion. recommend to change the oil as there is a chance of pinhole and oil leak.

Comments: PQ levels are abnormal. Iron ppm levels are abnormal. Pentane Insolubles levels are severely high. Sodium ppm levels are severely high. Acid Number (AN) is severely high. (GCD) 10% Distillation Point is severely high. (GCD) 50% Distillation Point is severely high. (GCD) 90% Distillation Point is severely high. Visc @ 40°C is severely high.

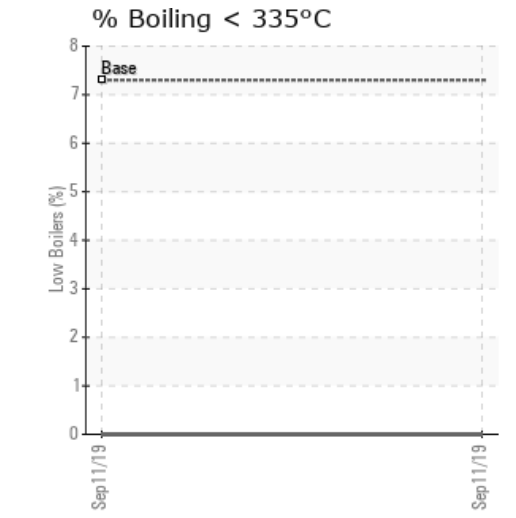
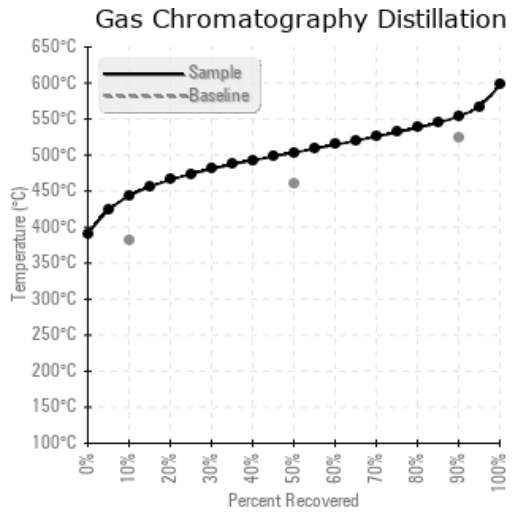
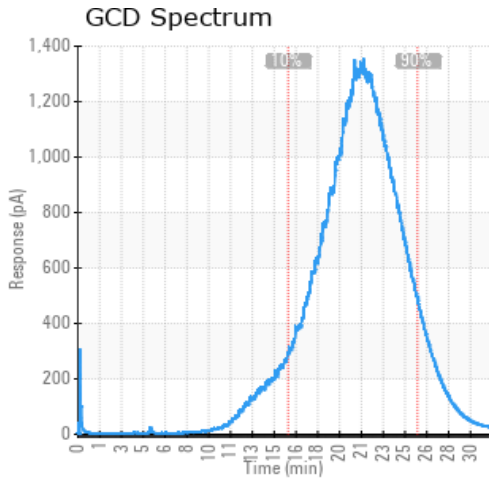
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
09/11/19	09/16/19	5y		525 / 274	118.4	186	1.79	3.20	829 / 443	938 / 503	1029 / 554	0.00
Baseline Data				486 / 252		100	0.02		720 / 382	860 / 460	975 / 524	7.3





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
09/11/19	235	0	0	0	0	4	0	0	0	0	1	187	7	0	0	0	3	0	0	0	8	2	23	4
Baseline Data			0	0						0			0	0				0					2	

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



Historical Comments

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