

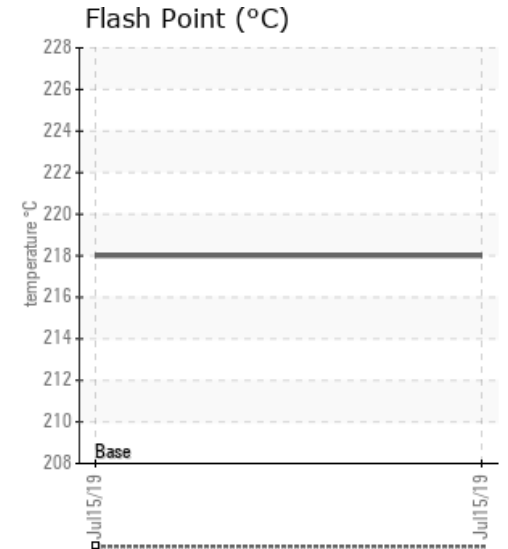
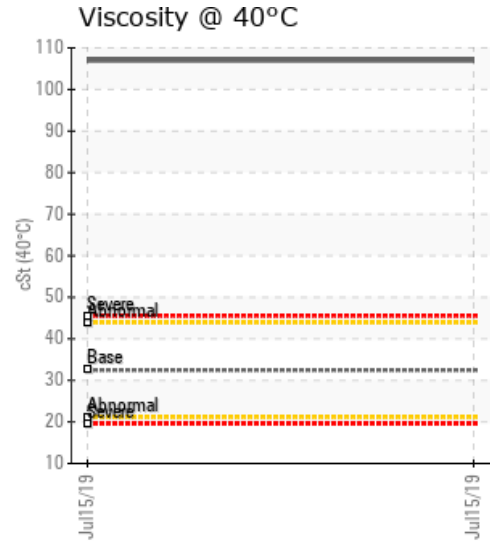
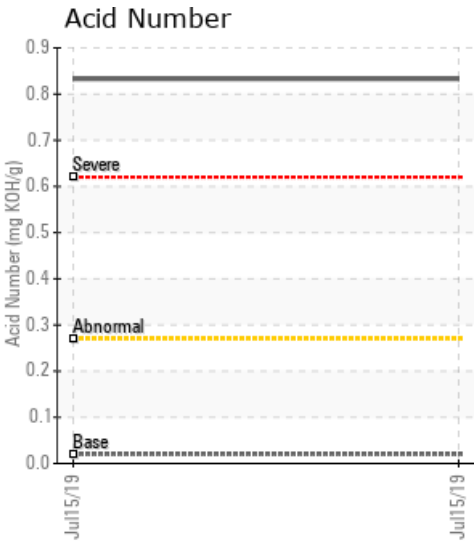
HEAT TRANSFER FLUID

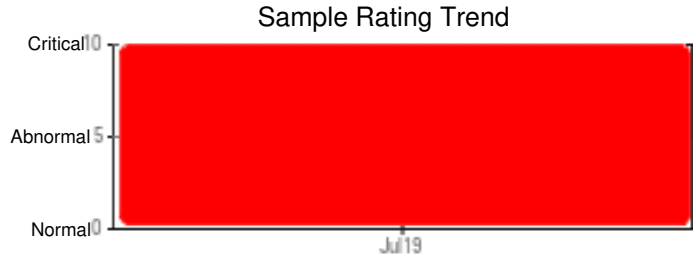
Customer: PTRHTF30132	System Information	Sample Information
McAsphalt Industries LTD 40 Bayside Drive Saint John, NB E2J 1A2 Canada Attn: Greg Hiltz Tel: (506)642-5122 E-Mail: ghiltz@mcasphalt.com	System Volume: 1800 ltr Bulk Operating Temp: 400F / 204C Heating Source: Blanket: Fluid: ESSO ESSOTHERM N32 Make: HEATEC	Lab No: 02297965 Analyst: Behshad Sabah Sample Date: 07/15/19 Received Date: 07/19/19 Completed: 08/08/19

Recommendation: High TAN, very high viscosity at 40, and extremely high pentane insoluble are the indication of sever oxidation. the high viscosity will reduce the heat transfer and affect the system overall performance and efficiency. the oil need to be changed. the presence of Na and K are the indication of the cleaner leak into the oil.

Comments: Potassium ppm levels are severely high. Pentane Insolubles levels are severely high. Sodium ppm levels are severely high. Acid Number (AN) is severely high. Visc @ 40°C is severely high.

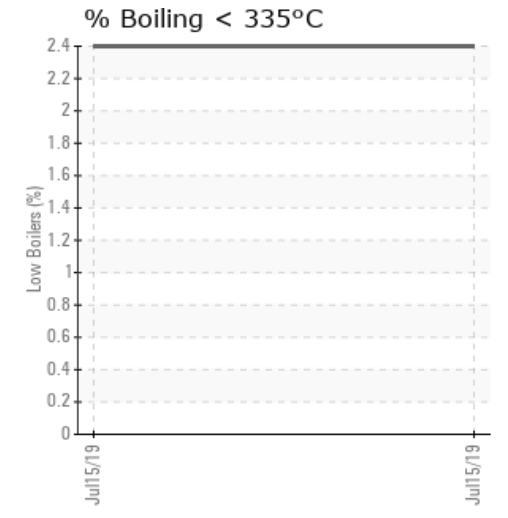
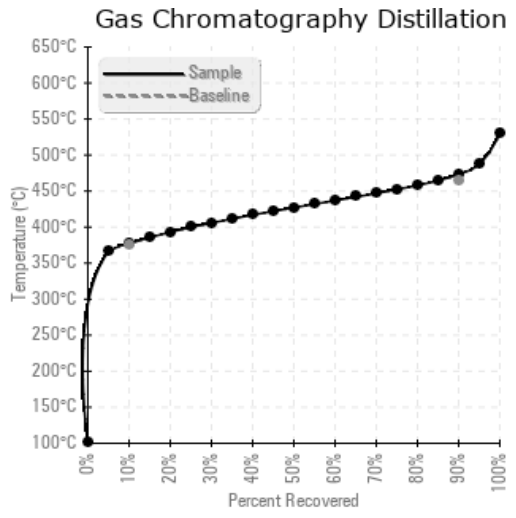
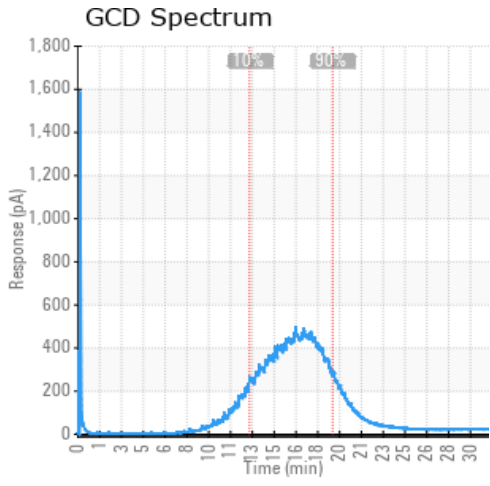
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
07/15/19	07/19/19	10y		424 / 218	96.0	107	0.833	2.24	710 / 377	801 / 427	884 / 473	2.40
Baseline Data				399 / 204		32.45	0.02		707 / 375		869 / 465	





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
07/15/19	86	0	3	0	1	1	0	0	0	8	2	84	65	0	0	0	1	0	0	0	16	0	6	7
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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