

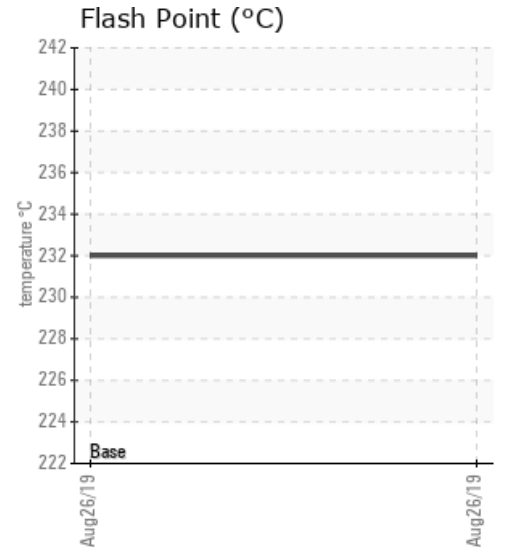
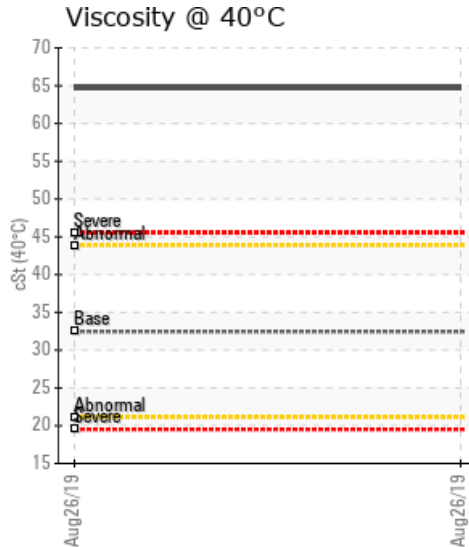
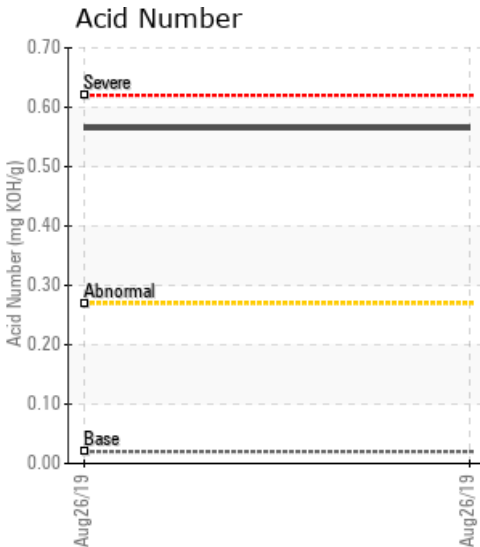
MAIN LINE

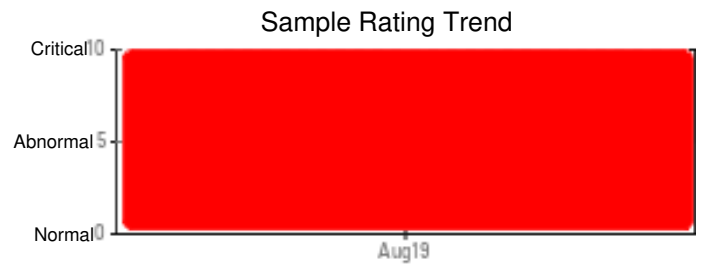
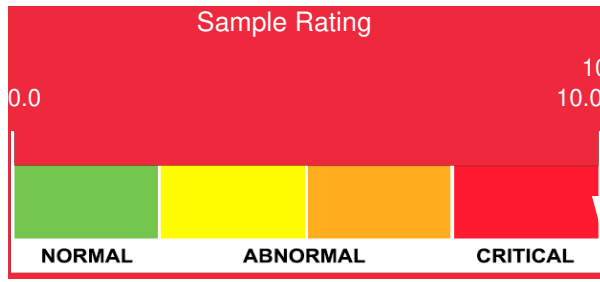
Customer: PTRHTF30140	System Information	Sample Information
McAsphalt Industries LTD 1351 Aroostook Rd. Perth-Andover, NB E7H 1A7 CA Attn: Stephen Leonard Tel: (506)273-2259 E-Mail: sleonard@mcasphalt.com	System Volume: 8000 ltr Bulk Operating Temp: 400F / 204C Heating Source: Blanket: Fluid: ESSO ESSOTHERM N32 Make: HEATEC	Lab No: 02305296 Analyst: Behshad Sabah Sample Date: 08/26/19 Received Date: 08/28/19 Completed: 09/17/19 Behshad Sabah behshad.sabah@HFSinclair.com

Recommendation: High TAN, Viscosity at 40 C , and Pentane Insoluble indicate the high oil oxidation. High Iron shows the corrosion of the piping. High Sodium means the contamination with the cleaner. please change the oil

Comments: Iron ppm levels are severe. PQ levels are abnormal. Pentane Insolubles levels are severely high. Sodium ppm levels are severely high. Visc @ 40°C is severely high. Acid Number (AN) is abnormally high.

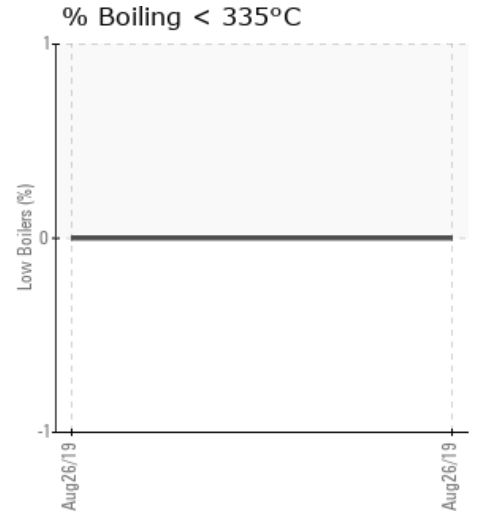
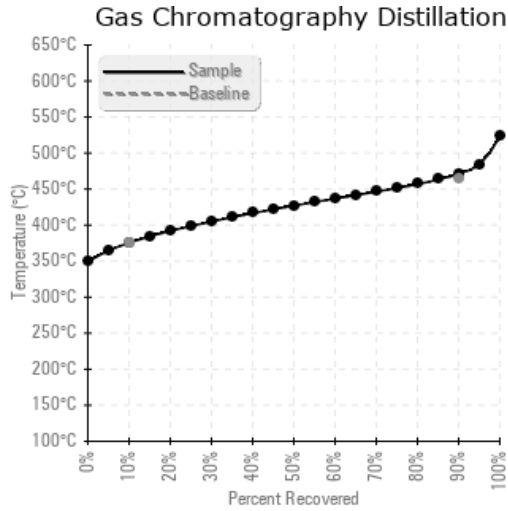
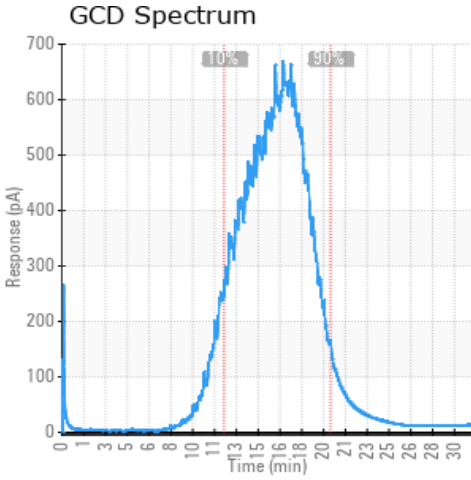
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
08/26/19	08/28/19	10.0y		450 / 232	94.6	64.7	0.565	1.29	708 / 375	800 / 427	880 / 471	0.00
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
08/26/19	501	4	0	0	0	1	0	0	0	0	2	133	0	0	0	0	8	0	3	0	22	0	15	16
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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