

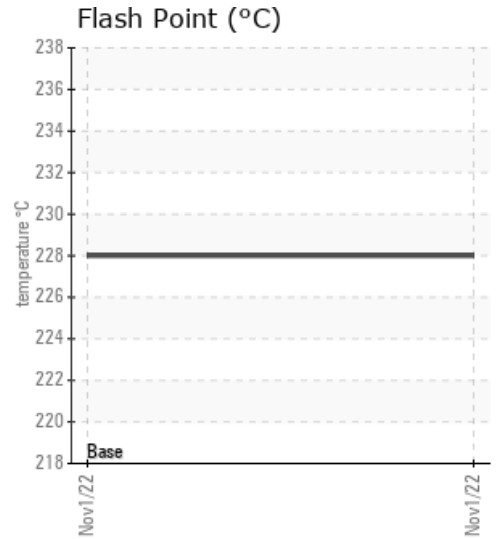
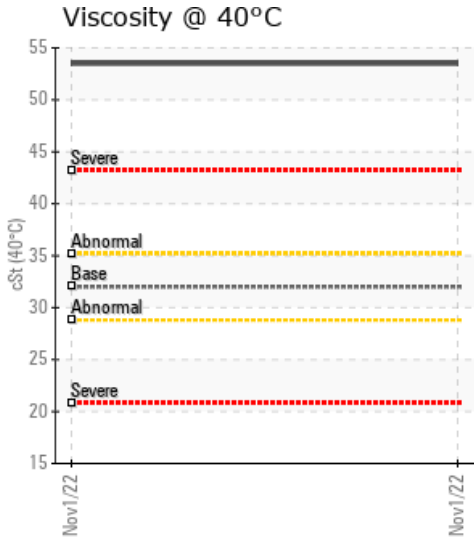
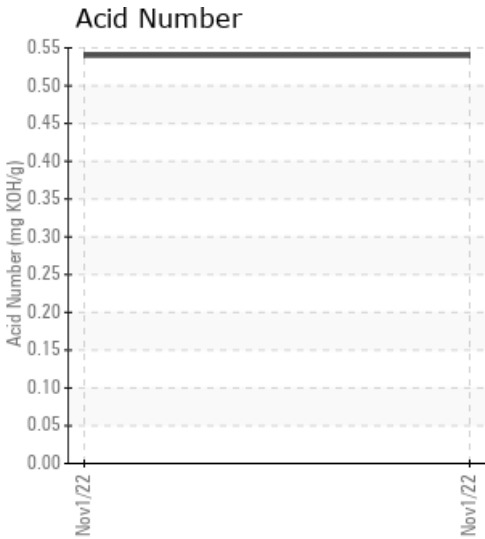
29TH ST ASPLHALT PLANT

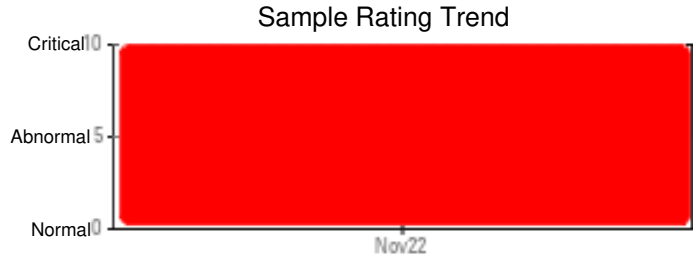
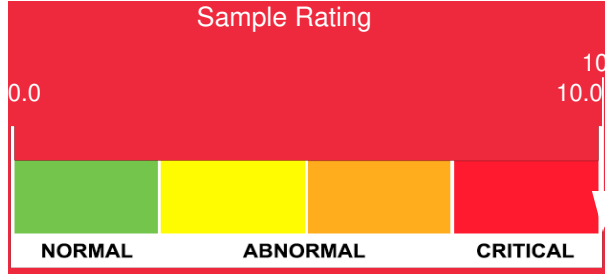
Customer: PTRHTF10265	System Information	Sample Information
PEARSON MATERIALS 3400 N WEST ST WICHITA, KS 67205 USA Attn: Josh Landers Tel: (316)300-4366 E-Mail: jlanders@pearsonconstructionllc.com	System Volume: 0 gal Bulk Operating Temp: Not Specified Heating Source: Blanket: Fluid: DYNA-PLEX 21C ALCOR 628 ISO 32 Make:	Lab No: 02544415 Analyst: Garrett Bapp Sample Date: 11/01/22 Received Date: 03/10/23 Completed: 04/04/23 Garrett Bapp Garrett.Bapp@HFSinclair.com

Recommendation: Fluid is no longer fit for use and needs to be discarded. Signs of contamination indicated along with Insolubles being over our threshold of 0.5% mean we need to perform a clean of this system. Calflo Cleaner is a excellent cleaner that will clean up any old degraded fluid, carbonaceous deposits and other contaminates within the system. At minimum, I am recommending a flush of the system to rid it of old degraded fluid and contaminants. One the system is clean, final fluid selection will need to occur. Due to the low operating temperature of this system, I would recommend refilling with Calflo LT due to its better operating characteristics at the 180-190F this system operates at. The fluid will get up to temperature easier vs using a fluid like Petro-Therm that could possible oxidize if trying to rapidly accelerate heating of the system. Petro-Therm would also work in this system, but isn't ideal for the operating range and will not be as efficient in heat transfer at the 180-190F range as Calflo LT will be.

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

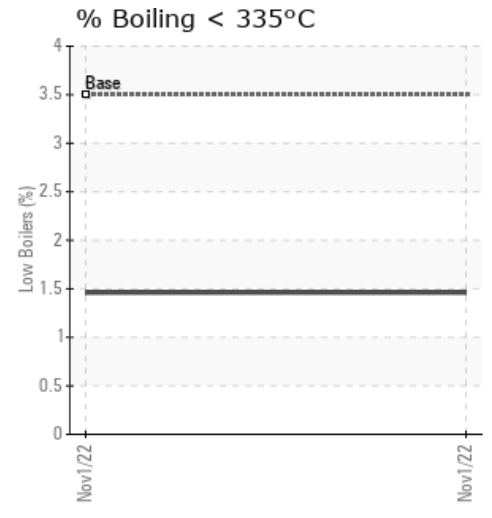
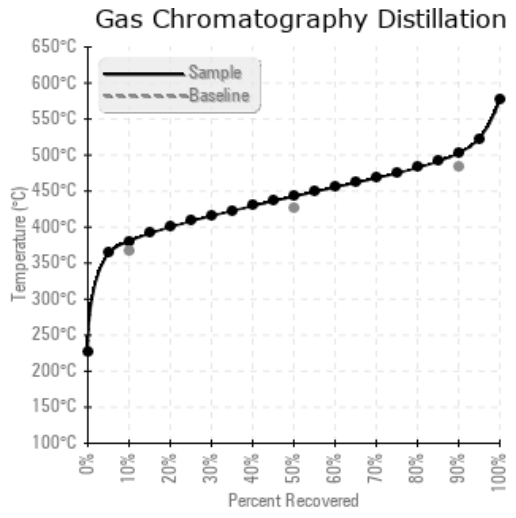
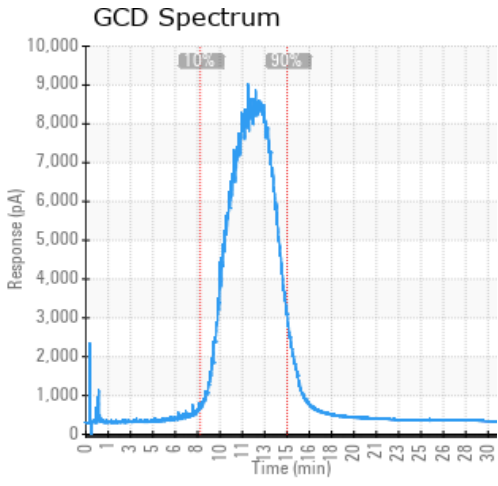
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
11/01/22	03/10/23	0.0m		442 / 228	83.2	53.5	0.54	1.23	716 / 380	828 / 442	937 / 503	1.46
Baseline Data				415 / 213		32			693 / 367	799 / 426	903 / 484	3.5





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	
11/01/22	16	0	0	0	0	0	1	0	0	0	2	340	0	0	0	0	0	0	0	0	3	842	0	3	4
Baseline Data			0	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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