



FUEL REPORT

CORROSION	NORMAL
CONTAMINANTS	NORMAL
FUEL CONDITION	NORMAL

Area

STEAM CHILLER

Machine Id

DUKE HOSPITAL 250000 GALLON TANK

Component

Diesel Fuel

Fluid

No.2 DIESEL FUEL (ULTRALOW SULPHUR) (250000 GAL)

RECOMMENDATION

All laboratory tests indicate that this sample meets specifications for No.2 ultra-low-sulfur diesel fuel.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC05303119	WC04753258	WC03897545
Sample Date		Client Info		14 Jul 2021	11 Jul 2019	07 Jan 2016
Machine Age	hrs	Client Info		0	0	0
Sample Status				NORMAL	NORMAL	NORMAL

CORROSION

All metal levels are normal indicating no corrosion in the system.

Aluminum	ppm	ASTM D5185m	<0.1	0	<1	0
Nickel	ppm	ASTM D5185m	<0.1	0	0	<1
Lead	ppm	ASTM D5185m	<0.1	0	0	1
Vanadium	ppm	ASTM D5185m	<0.1	0	0	0
Iron	ppm	ASTM D5185m	<0.1	0	<1	<1

CONTAMINANTS

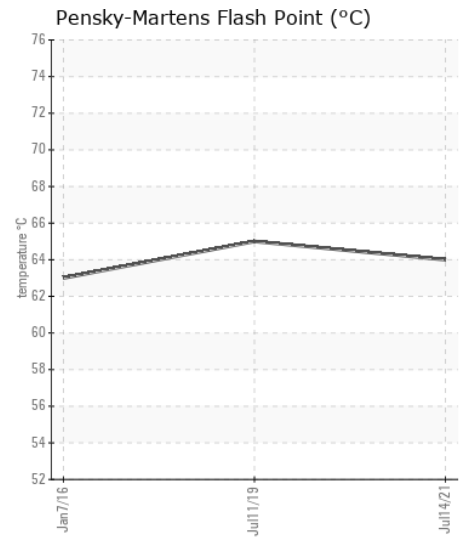
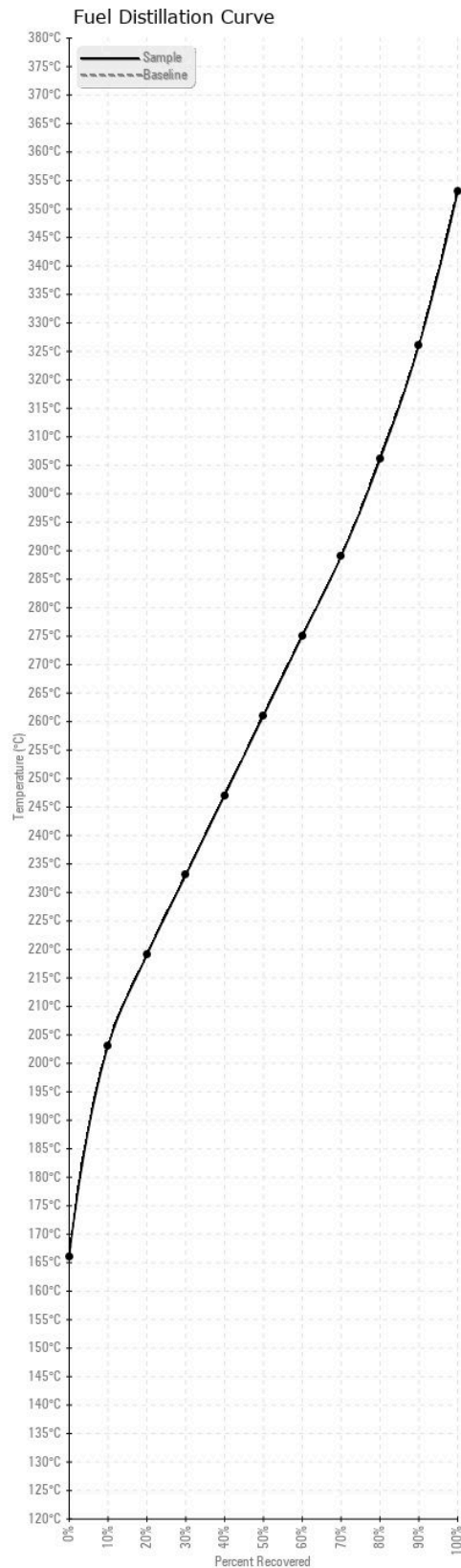
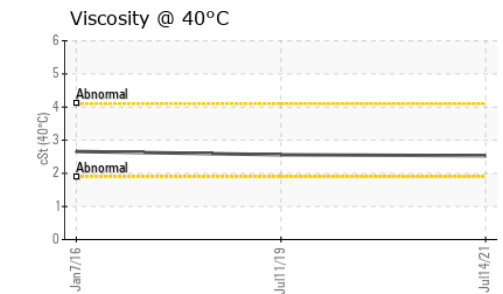
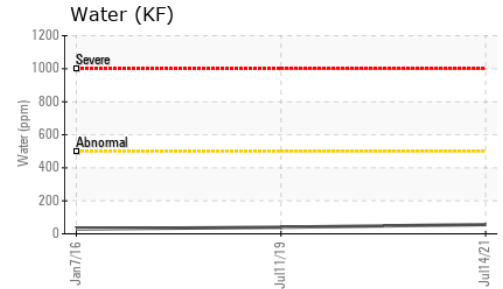
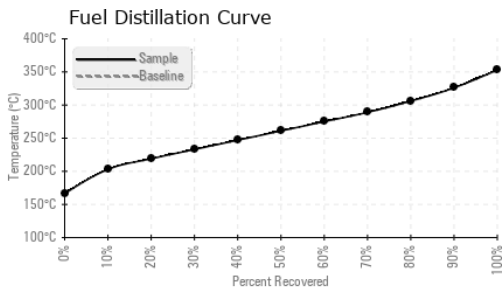
There is no Bacteria, Yeast and/or Fungus indicated in the sample. The water content is negligible. There is no indication of any contamination in the fuel.

Silicon	ppm	ASTM D5185m	<1.0	1	2	4
Sodium	ppm	ASTM D5185m	<0.1	0	<1	0
Potassium	ppm	ASTM D5185m	<0.1	0	10	12
Water	%	ASTM D6304	<0.05	0.005	0.004	0.003
ppm Water	ppm	ASTM D6304	<500	56.2	40	30
% Gasoline	%	*In-House	<0.50	0.0	0.0	---
% Biodiesel	%	*In-House	<20.0	0.0	0.4	---
Calcium	ppm	ASTM D5185m	<0.1	0	0	<1
Magnesium	ppm	ASTM D5185m	<0.1	0	0	<1
Phosphorus	ppm	ASTM D5185m	<0.1	0	0	1
Zinc	ppm	ASTM D5185m	<0.1	0	0	1

FUEL CONDITION

Sulfur value derived by ASTM D4294 method for ULSD validation. Sulfur level is acceptable for ULSD specification.

Specific Gravity		*ASTM D1298		0.842	0.842	0.840
Fuel Color	text	*Visual Screen		Red	Red	Red
ASTM Color	scalar	*ASTM D1500		5.0	L5.5	---
Visc @ 40°C	cSt	ASTM D445		2.53	2.56	2.66
Pensky-Martens Flash Point	°C	*PMCC Calculated		64	65	63
Sulfur	ppm	ASTM D5185m		0	5	10
Sulfur (UVF)	ppm	ASTM D5453		10	10	---
Initial Boiling Point	°C	ASTM D86		166	166	173
10% Distill Point	°C	ASTM D86		203	203	205
20% Distill Point	°C	ASTM D86		219	219	220
30% Distill Point	°C	ASTM D86		233	233	234
40% Distill Point	°C	ASTM D86		247	246	248
50% Distill Point	°C	ASTM D86		261	260	261
60% Distill Point	°C	ASTM D86		275	274	275
70% Distill Point	°C	ASTM D86		289	289	290
80% Distill Point	°C	ASTM D86		306	305	306
90% Distill Point	°C	ASTM D86		326	326	326
Final Boiling Point	°C	ASTM D86		353	352	354
Distillation Residue	%	ASTM D86		1.4	1.4	1.4
Distillation Loss	%	ASTM D86		0.7	0.8	0.5
API Gravity		ASTM D7777		36.6	36.6	37.0
Cetane Index		ASTM D4737	<40.0	47.9	48.0	49.2



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC05303119 **Received** : 14 Jul 2021
Lab Number : **05303119** **Tested** : 20 Jul 2021
Unique Number : 9582079 **Diagnosed** : 20 Jul 2021 - Doug Bogart
Test Package : DF-2 (Additional Tests: Fuel, Screen)

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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