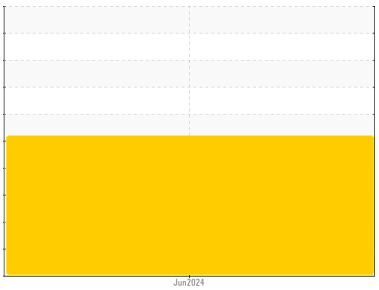
FUEL REPORT

Sample Rating Trend



WATER

Area
CITY OF ROCK HILL [18603]
Machine Id
[CITY OF ROCK HILL] MANCHESTER INTER 1
Component
Diesel Fuel
Fluid
No.2 DIESEL FUEL (ULTRALOW SULPHUR) (660 GAL)

DIAGNOSIS

Recommendation
We advise that you follow the water drain-off procedure for this component, and use off-line filtration to improve the cleanliness of the system fluid. There is too much contamination present in this sample to perform a particle count.

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

Contaminants
Free water present. Light concentration of visible dirt/debris present in the fuel. There is no bacteria or fungus (yeast and/or mold) present in the sample.

Fuel Condition
Sulfur value derived by ASTM D5453 method for ULSD validation. Sulfur level is acceptable for ULSD specification.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC06220306**	---	---
Sample Date		Client Info		**06 Jun 2024**	---	---
Machine Age	hrs	Client Info		**0**	---	---
Sample Status				**SEVERE**	---	---

PHYSICAL PROPERTIES		method	limit/base	current	history1	history2
Fuel Color	text	*Visual Screen	Yllow	**Red**	---	---
ASTM Color	scalar	*ASTM D1500		**L4.5**	---	---
Visc @ 40°C	cSt	ASTM D445	3.0	**2.4**	---	---
Pensky-Martens Flash Point	°C	*PMCC Calculated	52	**58.6**	---	---

SULFUR CONTENT		method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185m	10	**0**	---	---
Sulfur (UVF)	ppm	ASTM D5453		**8**	---	---

DISTILLATION		method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D86	165	**169**	---	---
5% Distillation Point	°C	ASTM D86		**192**	---	---
10% Distill Point	°C	ASTM D86	201	**201**	---	---
15% Distillation Point	°C	ASTM D86		**209**	---	---
20% Distill Point	°C	ASTM D86	216	**217**	---	---
30% Distill Point	°C	ASTM D86	230	**231**	---	---
40% Distill Point	°C	ASTM D86	243	**245**	---	---
50% Distill Point	°C	ASTM D86	255	**258**	---	---
60% Distill Point	°C	ASTM D86	267	**272**	---	---
70% Distill Point	°C	ASTM D86	280	**286**	---	---
80% Distill Point	°C	ASTM D86	295	**302**	---	---
85% Distillation Point	°C	ASTM D86		**313**	---	---
90% Distill Point	°C	ASTM D86	310	**324**	---	---
95% Distillation Point	°C	ASTM D86		**343**	---	---
Final Boiling Point	°C	ASTM D86	341	**358**	---	---

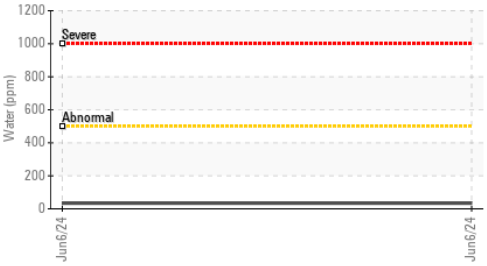
IGNITION QUALITY		method	limit/base	current	history1	history2
API Gravity		ASTM D7777	37.7	**37**	---	---
Cetane Index		ASTM D4737	<40.0	**49**	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	<1.0	**<1**	---	---
Sodium	ppm	ASTM D5185m	<0.1	**<1**	---	---
Potassium	ppm	ASTM D5185m	<0.1	**<1**	---	---
Water	%	ASTM D6304	<0.05	**0.003**	---	---
ppm Water	ppm	ASTM D6304	<500	**34**	---	---
% Gasoline	%	*In-House	<0.50	**0.0**	---	---
% Biodiesel	%	*In-House	<20.0	**0.0**	---	---

MICROBIAL		method	limit/base	current	history1	history2
Bacteria	CFU/ml	WC-Method	>=100000	**0**	---	---
Yeast	CFU/ml	WC-Method	>=100000	**0**	---	---
Mold	Colonies	WC-Method	MODER	**---**	---	---

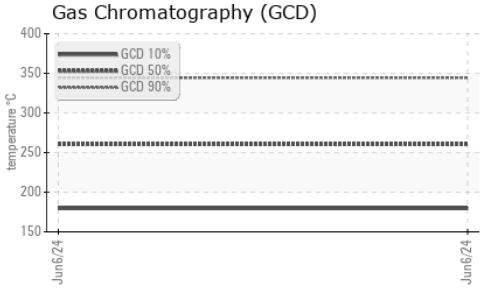
FUEL REPORT

Water (KF)

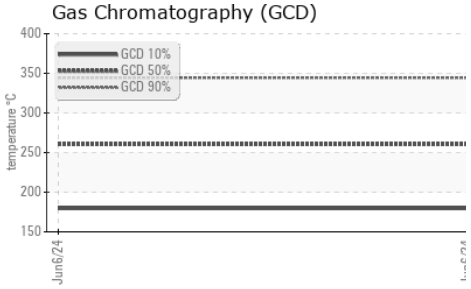


Viscosity @ 40°C

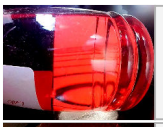
Gas Chromatography (GCD)



Gas Chromatography (GCD)

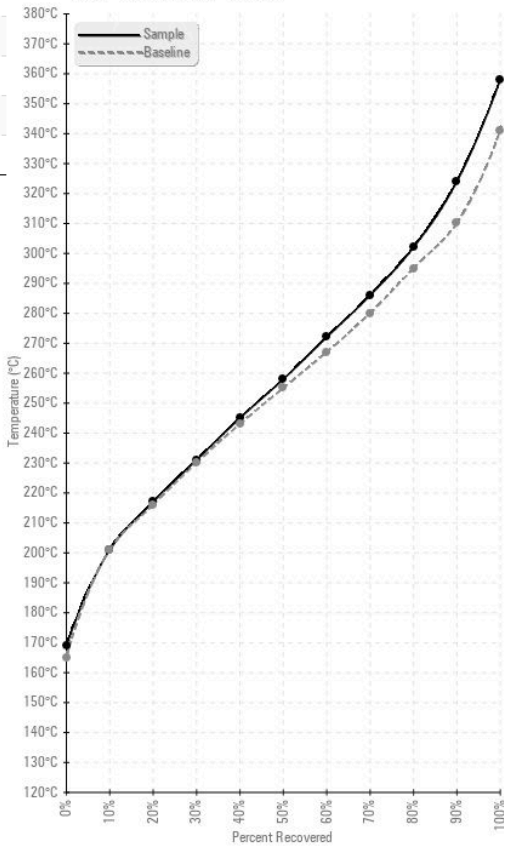


HEAVY METALS		method	limit/base	current	history1	history2
Aluminum	ppm	ASTM D5185m	<0.1	**0**	---	---
Nickel	ppm	ASTM D5185m	<0.1	**0**	---	---
Lead	ppm	ASTM D5185m	<0.1	**0**	---	---
Vanadium	ppm	ASTM D5185m	<0.1	**<1**	---	---
Iron	ppm	ASTM D5185m	<0.1	**0**	---	---
Calcium	ppm	ASTM D5185m	<0.1	**0**	---	---
Magnesium	ppm	ASTM D5185m	<0.1	**0**	---	---
Phosphorus	ppm	ASTM D5185m	<0.1	**0**	---	---
Zinc	ppm	ASTM D5185m	<0.1	**0**	---	---

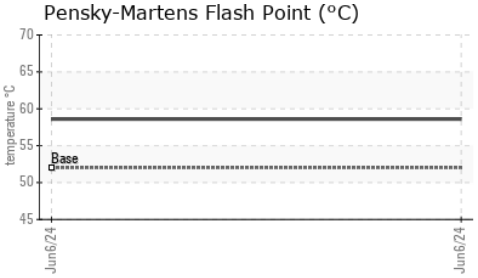
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				*no image*	*no image*
Bottom				*no image*	*no image*

GRAPHS

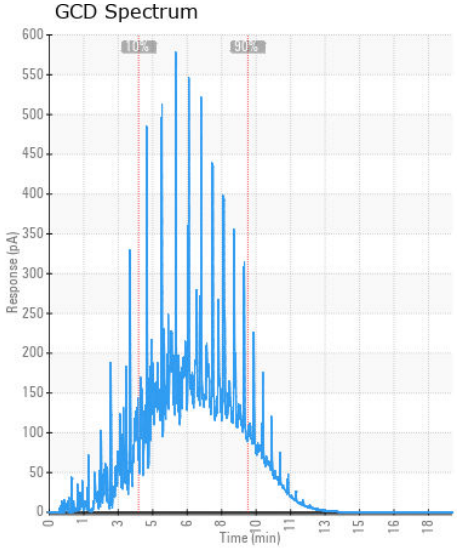
Fuel Distillation Curve



Pensky-Martens Flash Point (°C)



GCD Spectrum



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC06220306 **Received** : 25 Jun 2024
Lab Number : 06220306 **Tested** : 02 Jul 2024
Unique Number : 11098503 **Diagnosed** : 02 Jul 2024 - Doug Bogart
Test Package : DF-2 (Additional Tests: Bacteria, Fuel, Screen)

Certificate L2367

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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