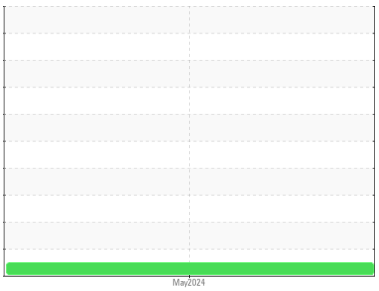
FUEL REPORT

Sample Rating Trend



NORMAL

Machine Id
KIOTI CS2520 CS2520 Kellett (S/N PY88A0478)
Component
Tank Diesel Fuel
Fluid
No.2 DIESEL FUEL (ULTRALOW SULPHUR) (--- GAL)

DIAGNOSIS

Recommendation
We advise that you filter this fluid before use. All laboratory tests indicate that this sample meets specifications for No.2 ultra-low-sulfur diesel fuel. (Customer Sample Comment: Rush)

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

Contaminants
There is a high amount of particulates present in the fuel. The water content is negligible. There is no bacteria or fungus (yeast and/or mold) indicated 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		**KT0000442**	---	---
Sample Date		Client Info		**06 May 2024**	---	---
Machine Age	hrs	Client Info		**8**	---	---
Sample Status				**NORMAL**	---	---

PHYSICAL PROPERTIES		method	limit/base	current	history1	history2
Fuel Color	text	*Visual Screen	Yllow	**Yllow**	---	---
ASTM Color	scalar	*ASTM D1500		**L3.0**	---	---
Visc @ 40°C	cSt	ASTM D445	3.0	**2.34**	---	---
Pensky-Martens Flash Point	°C	*PMCC Calculated	52	**56.4**	---	---

SULFUR CONTENT		method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185m	10	**5**	---	---
Sulfur (UVF)	ppm	ASTM D5453		**12**	---	---

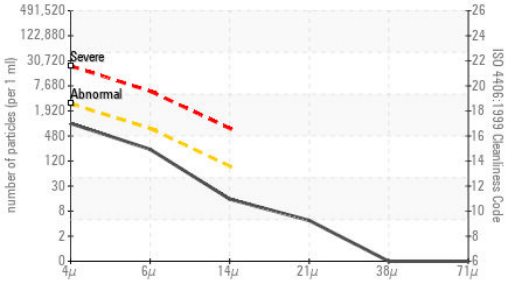
DISTILLATION		method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D86	165	**163**	---	---
5% Distillation Point	°C	ASTM D86		**185**	---	---
10% Distill Point	°C	ASTM D86	201	**195**	---	---
15% Distillation Point	°C	ASTM D86		**204**	---	---
20% Distill Point	°C	ASTM D86	216	**214**	---	---
30% Distill Point	°C	ASTM D86	230	**231**	---	---
40% Distill Point	°C	ASTM D86	243	**247**	---	---
50% Distill Point	°C	ASTM D86	255	**262**	---	---
60% Distill Point	°C	ASTM D86	267	**278**	---	---
70% Distill Point	°C	ASTM D86	280	**293**	---	---
80% Distill Point	°C	ASTM D86	295	**309**	---	---
85% Distillation Point	°C	ASTM D86		**320**	---	---
90% Distill Point	°C	ASTM D86	310	**330**	---	---
95% Distillation Point	°C	ASTM D86		**345**	---	---
Final Boiling Point	°C	ASTM D86	341	**357**	---	---

IGNITION QUALITY		method	limit/base	current	history1	history2
API Gravity		ASTM D7777	37.7	**41**	---	---
Cetane Index		ASTM D4737	<40.0	**57**	---	---

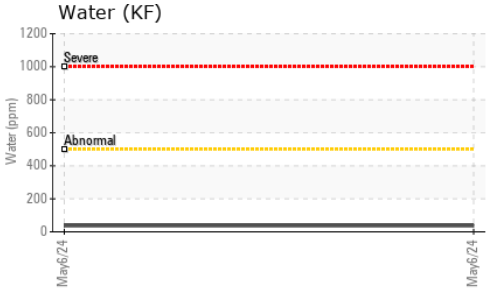
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	<1.0	**<1**	---	---
Sodium	ppm	ASTM D5185m	<0.1	**1**	---	---
Potassium	ppm	ASTM D5185m	<0.1	**<1**	---	---
Water	%	ASTM D6304	<0.05	**0.003**	---	---
ppm Water	ppm	ASTM D6304	<500	**37**	---	---
% Gasoline	%	*In-House	<0.50	**0.0**	---	---
% Biodiesel	%	*In-House	<20.0	**0.0**	---	---

FUEL REPORT

Particle Count

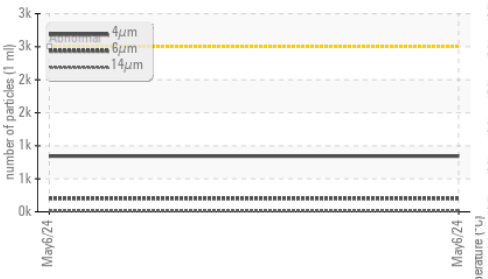


Water (KF)

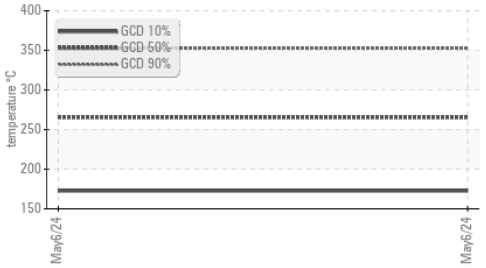


Viscosity @ 40°C

Particle Trend

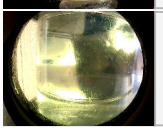


Gas Chromatography (GCD)



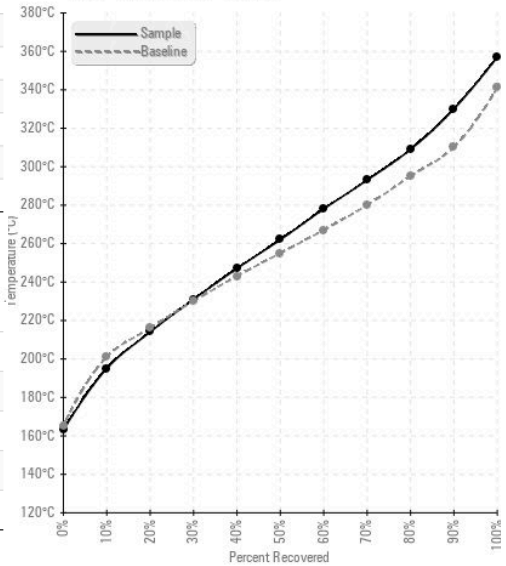
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>2500	**843**	---	---
Particles >6µm		ASTM D7647	>640	**202**	---	---
Particles >14µm		ASTM D7647	>80	**13**	---	---
Particles >21µm		ASTM D7647	>20	**4**	---	---
Particles >38µm		ASTM D7647	>4	**0**	---	---
Particles >71µm		ASTM D7647	>3	**0**	---	---
Oil Cleanliness		ISO 4406 (c)	>18/16/13	**17/15/11**	---	---

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	**<1**	---	---
Phosphorus	ppm	ASTM D5185m	<0.1	**<1**	---	---
Zinc	ppm	ASTM D5185m	<0.1	**<1**	---	---

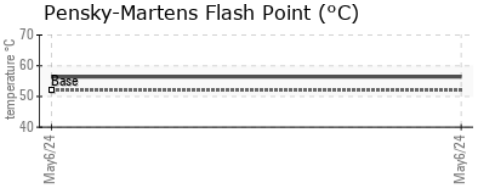
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				*no image*	*no image*
Bottom				*no image*	*no image*

GRAPHS

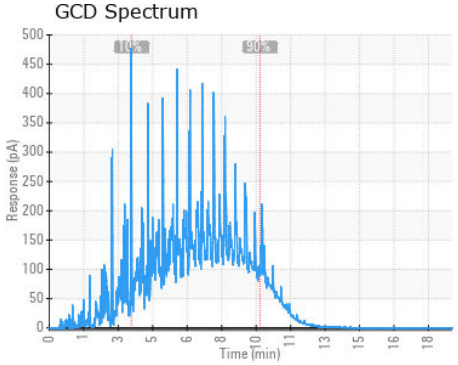
Fuel Distillation Curve



Pensky-Martens Flash Point (°C)



GCD Spectrum



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KT0000442
Lab Number : 06178277
Unique Number : 11029603
Test Package : DF-2 (Additional Tests: Fuel, Screen)

Received : 13 May 2024
Tested : 28 May 2024
Diagnosed : 28 May 2024 - Doug Bogart

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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