FUEL REPORT

Sample Rating Trend

ISO

Machine Id
KIOTI CK2610 XL9500860
Component
Diesel Fuel
Fluid
No.2 DIESEL FUEL (ULTRALOW SULPHUR) (--- GAL)

DIAGNOSIS

Recommendation
We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.

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

Contaminants
There is a high amount of particulates present in the fuel. The water content is negligible. No evidence of fuel present in the fuel.

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		**KT0000912**	---	---
Sample Date		Client Info		**11 Apr 2024**	---	---
Machine Age	hrs	Client Info		**253**	---	---
Sample Status				**ABNORMAL**	---	---

PHYSICAL PROPERTIES		method	limit/base	current	history1	history2
Fuel Color	text	*Visual Screen	Yllow	**Yllow**	---	---
ASTM Color	scalar	*ASTM D1500		**L2.5**	---	---
Visc @ 40°C	cSt	ASTM D445	3.0	**2.59**	---	---
Pensky-Martens Flash Point	°C	*PMCC Calculated	52	**61**	---	---

SULFUR CONTENT		method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185m	10	**20**	---	---
Sulfur (UVF)	ppm	ASTM D5453		**11**	---	---

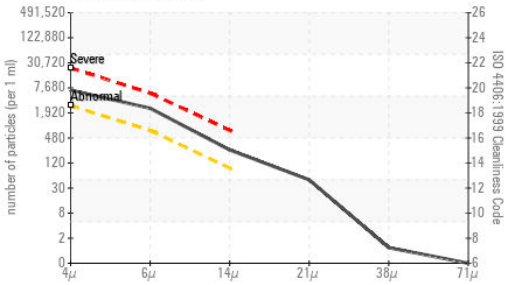
DISTILLATION		method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D86	165	**171**	---	---
5% Distillation Point	°C	ASTM D86		**194**	---	---
10% Distill Point	°C	ASTM D86	201	**204**	---	---
15% Distillation Point	°C	ASTM D86		**212**	---	---
20% Distill Point	°C	ASTM D86	216	**220**	---	---
30% Distill Point	°C	ASTM D86	230	**235**	---	---
40% Distill Point	°C	ASTM D86	243	**249**	---	---
50% Distill Point	°C	ASTM D86	255	**262**	---	---
60% Distill Point	°C	ASTM D86	267	**276**	---	---
70% Distill Point	°C	ASTM D86	280	**289**	---	---
80% Distill Point	°C	ASTM D86	295	**304**	---	---
85% Distillation Point	°C	ASTM D86		**314**	---	---
90% Distill Point	°C	ASTM D86	310	**325**	---	---
95% Distillation Point	°C	ASTM D86		**343**	---	---
Final Boiling Point	°C	ASTM D86	341	**357**	---	---

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

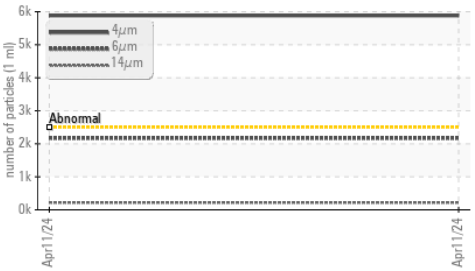
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	<1.0	**0**	---	---
Sodium	ppm	ASTM D5185m	<0.1	**1**	---	---
Potassium	ppm	ASTM D5185m	<0.1	**0**	---	---
Water	%	ASTM D6304	<0.05	**0.004**	---	---
ppm Water	ppm	ASTM D6304	<500	**49**	---	---
% Gasoline	%	*In-House	<0.50	**0.0**	---	---
% Biodiesel	%	*In-House	<20.0	**0.0**	---	---

FUEL REPORT

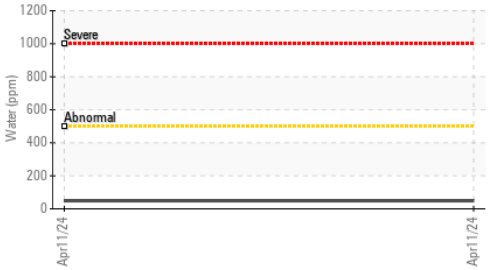
Particle Count



Particle Trend

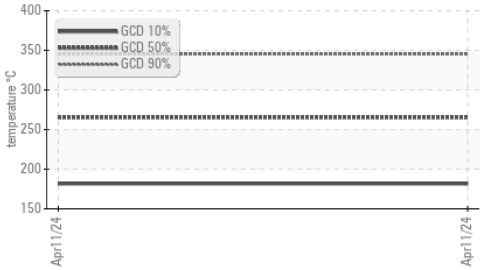


Water (KF)



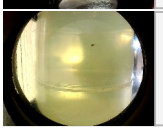
Viscosity @ 40°C

Gas Chromatography (GCD)



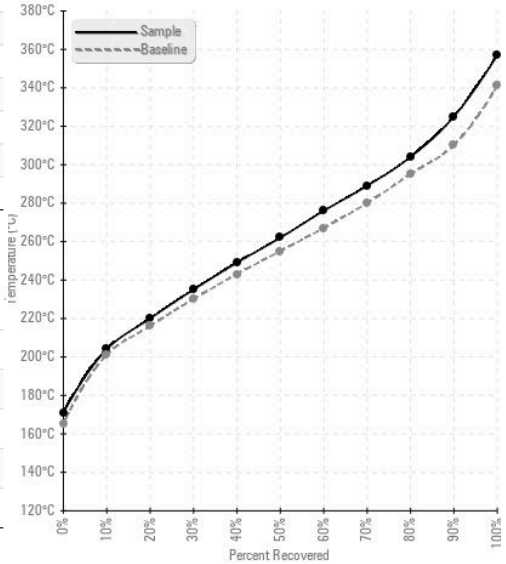
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>2500	▲ **5880**	---	---
Particles >6µm		ASTM D7647	>640	▲ **2171**	---	---
Particles >14µm		ASTM D7647	>80	▲ **218**	---	---
Particles >21µm		ASTM D7647	>20	▲ **42**	---	---
Particles >38µm		ASTM D7647	>4	**1**	---	---
Particles >71µm		ASTM D7647	>3	**0**	---	---
Oil Cleanliness		ISO 4406 (c)	>18/16/13	▲ **20/18/15**	---	---

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	**0**	---	---
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*

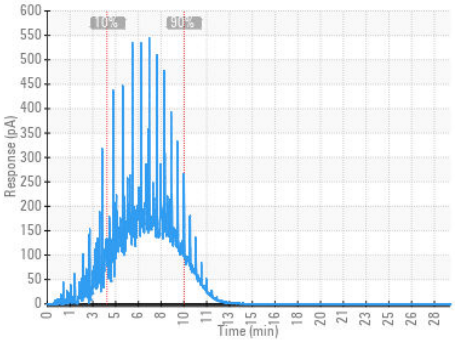
GRAPHS

Fuel Distillation Curve



Pensky-Martens Flash Point (°C)

GCD Spectrum



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KT0000912 **Received** : 15 Apr 2024
Lab Number : 06149743 **Tested** : 26 Apr 2024
Unique Number : 10979821 **Diagnosed** : 26 Apr 2024 - Angela Borella
Test Package : DF-2 (Additional Tests: 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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