FUEL REPORT

CORROSION	NORMAL
CONTAMINANTS	ABNORMAL
FUEL CONDITION	NORMAL

Machine Id
TOWN OF CARY 3516
Component
Diesel Fuel
Fluid
{not provided} (--- GAL)

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 system.

CONTAMINANTS

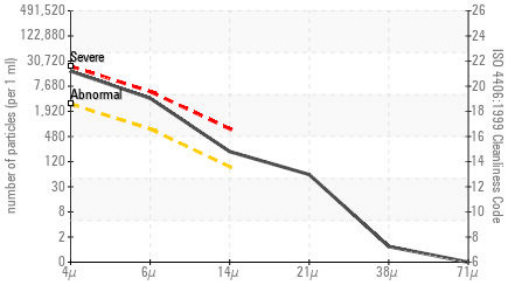
There is a high amount of particulates present in the fuel. There is a light concentration of water present in the fuel. There is no bacteria or fungus (yeast and/or mold) present in the sample.

FUEL CONDITION

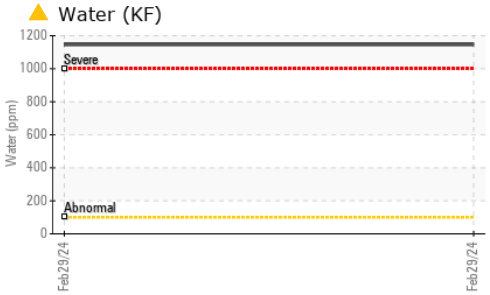
Sulfur value derived by ASTM D5453 method for ULSD validation.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC06105679	---	---
Sample Date		Client Info		29 Feb 2024	---	---
Machine Age	hrs	Client Info		0	---	---
Sample Status				ABNORMAL	---	---
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	<1	---	---
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	▲ 0.114	---	---
ppm Water	ppm	ASTM D6304	<500	1146	---	---
Particles >4µm		ASTM D7647	>2500	▲ 15302	---	---
Particles >6µm		ASTM D7647	>640	▲ 3442	---	---
Particles >14µm		ASTM D7647	>80	▲ 184	---	---
Particles >21µm		ASTM D7647	>20	▲ 52	---	---
Particles >38µm		ASTM D7647	>4	1	---	---
Particles >71µm		ASTM D7647	>3	0	---	---
Oil Cleanliness		ISO 4406 (c)	>18/16/13	▲ 21/19/15	---	---
% Gasoline	%	*In-House	<0.50	0.0	---	---
% Biodiesel	%	*In-House	<20.0	1.5	---	---
Bacteria	CFU/ml	WC-Method	>=100000	0	---	---
Yeast	CFU/ml	WC-Method	>=100000	0	---	---
Mold	Colonies	WC-Method	MODER	---	---	---
Calcium	ppm	ASTM D5185m	<0.1	2	---	---
Magnesium	ppm	ASTM D5185m	<0.1	0	---	---
Phosphorus	ppm	ASTM D5185m	<0.1	0	---	---
Zinc	ppm	ASTM D5185m	<0.1	0	---	---
Specific Gravity		*ASTM D1298		0.844	---	---
Fuel Color	text	*Visual Screen		Red	---	---
ASTM Color	scalar	*ASTM D1500		L4.5	---	---
Visc @ 40°C	cSt	ASTM D445		2.59	---	---
Pensky-Martens Flash Point	°C	*PMCC Calculated		65	---	---
Sulfur	ppm	ASTM D5185m		107	---	---
Sulfur (UVF)	ppm	ASTM D5453		96	---	---
Initial Boiling Point	°C	ASTM D86		176	---	---
10% Distill Point	°C	ASTM D86		206	---	---
20% Distill Point	°C	ASTM D86		220	---	---
30% Distill Point	°C	ASTM D86		235	---	---
40% Distill Point	°C	ASTM D86		247	---	---
50% Distill Point	°C	ASTM D86		262	---	---
60% Distill Point	°C	ASTM D86		276	---	---
70% Distill Point	°C	ASTM D86		291	---	---
80% Distill Point	°C	ASTM D86		307	---	---
90% Distill Point	°C	ASTM D86		327	---	---
Final Boiling Point	°C	ASTM D86		350	---	---
Distillation Residue	%	ASTM D86		1.4	---	---
Distillation Loss	%	ASTM D86		0.2	---	---
API Gravity		ASTM D7777		36.2	---	---
Cetane Index		ASTM D4737	<40.0	47.5	---	---

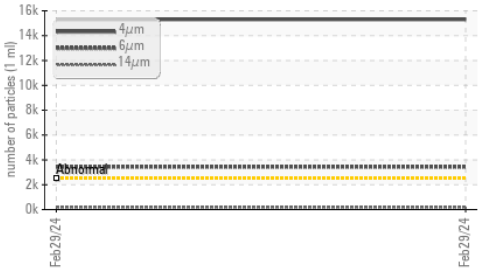
Particle Count



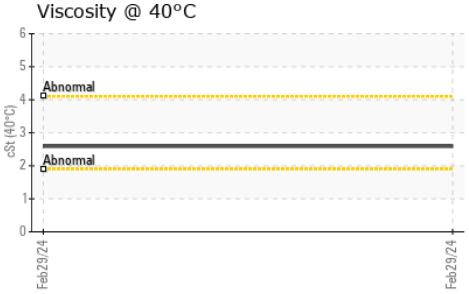
Water (KF)



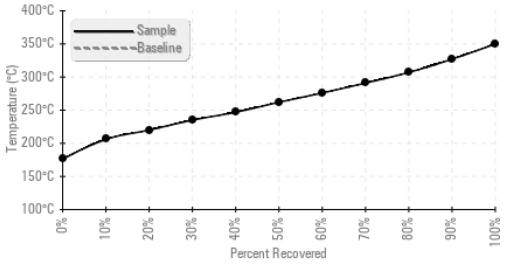
Particle Trend



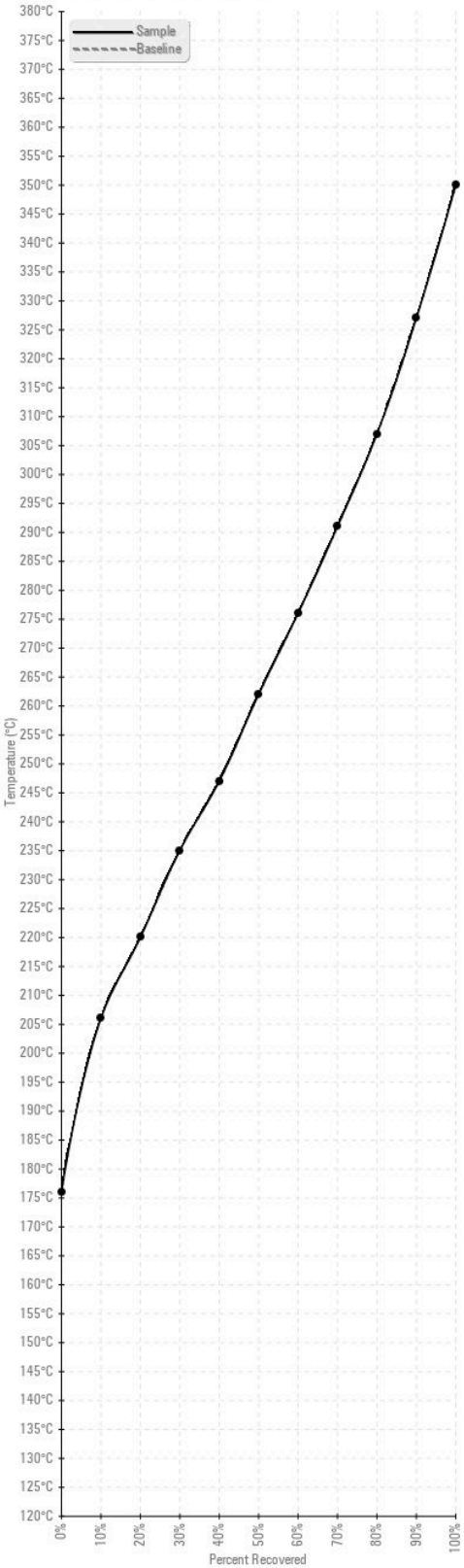
Viscosity @ 40°C



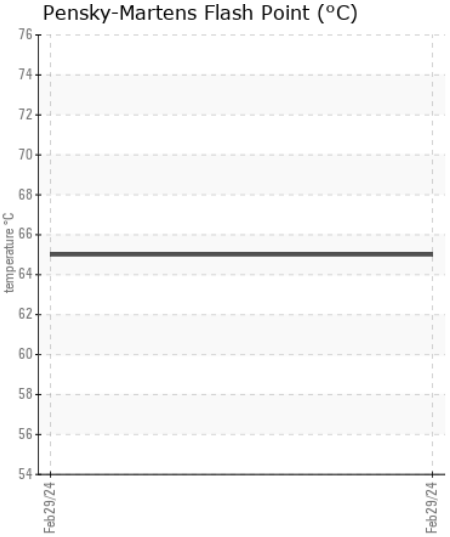
Fuel Distillation Curve



Fuel Distillation Curve



Pensky-Martens Flash Point (°C)



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC06105679 **Received** : 29 Feb 2024
Lab Number : 06105679 **Tested** : 08 Mar 2024
Unique Number : 10903909 **Diagnosed** : 08 Mar 2024 - Doug Bogart
Test Package : DF-2 (Additional Tests: Bacteria, 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)

COUCH OIL COMPANY
2907 HILLSBOROUGH RD
DURHAM, NC
US 27705
Contact: JESSE BROWN
jesse@couchoilcompany.com
T: (919)285-5408
F: