FUEL KIT

FUEL REPORT

CORROSION	NORMAL
CONTAMINANTS	ABNORMAL
FUEL CONDITION	NORMAL

Area
UNIVERSITY OF TORONTO [156860]
Machine Id
25466055
Component
Diesel Fuel
Fluid
No.2 DIESEL FUEL (ULTRALOW SULPHUR) (--- GAL)

RECOMMENDATION

Laboratory test indicate that this fuel is suitable for use and meets all test requirements. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We advise that you filter this fluid before use. We recommend an early resample to monitor this condition.

CORROSION

{not applicable}

CONTAMINANTS

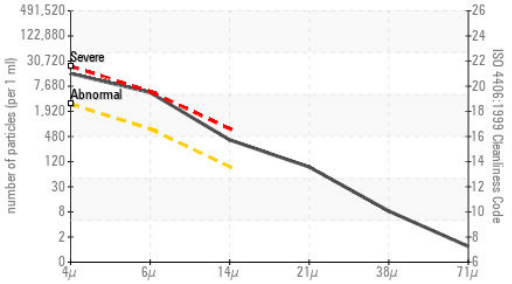
There is a moderate amount of particulates (2 to 100 microns in size) present in the fuel. The water content is negligible.

FUEL CONDITION

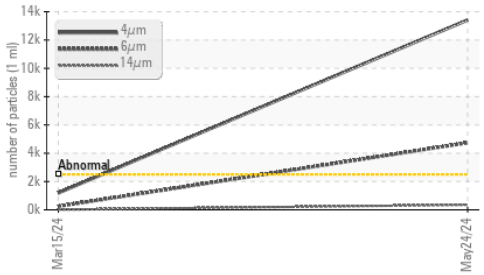
The fuel is still serviceable provided that the contaminant(s) can be reduced to acceptable levels. All laboratory tests indicate that this sample meets specifications for No.2 ultra-low-sulfur diesel fuel (US EPA/CGSB-3.517-3 type B).

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		CU0022319	CU0022902	---
Sample Date		Client Info		24 May 2024	15 Mar 2024	---
Machine Age	hrs	Client Info		0	32	---
Sample Status				ABNORMAL	SEVERE	---
Aluminum	ppm	ASTM D5185(m)	<0.1	0	0	---
Nickel	ppm	ASTM D5185(m)	<0.1	0	0	---
Lead	ppm	ASTM D5185(m)	<0.1	<1	<1	---
Vanadium	ppm	ASTM D5185(m)	<0.1	0	0	---
Iron	ppm	ASTM D5185(m)	<0.1	0	0	---
Silicon	ppm	ASTM D5185(m)	<1.0	0	0	---
Sodium	ppm	ASTM D5185(m)	<0.1	0	<1	---
Potassium	ppm	ASTM D5185(m)	<0.1	<1	0	---
Water	%	ASTM D6304*	<0.05	0.00	0.004	---
ppm Water	ppm	ASTM D6304*	<500	0	46	---
Particles >4µm		ASTM D7647	>2500	▲ 13418	1193	---
Particles >6µm		ASTM D7647	>640	▲ 4735	244	---
Particles >14µm		ASTM D7647	>80	▲ 349	10	---
Particles >21µm		ASTM D7647	>20	▲ 79	2	---
Particles >38µm		ASTM D7647	>4	● 7	0	---
Particles >71µm		ASTM D7647	>3	1	0	---
Oil Cleanliness		ISO 4406 (c)	>18/16/13	▲ 21/19/16	17/15/10	---
Calcium	ppm	ASTM D5185(m)	<0.1	0	0	---
Magnesium	ppm	ASTM D5185(m)	<0.1	0	0	---
Phosphorus	ppm	ASTM D5185(m)	<0.1	<1	0	---
Zinc	ppm	ASTM D5185(m)	<0.1	0	0	---
Specific Gravity		ASTM D1298*	0.839	0.843	0.841	---
Fuel Color	text	Visual Screen*	Yllow	Orang	Red	---
Visc @ 40°C	cSt	ASTM D7279(m)	3.0	2.5	2.4	---
Pensky-Martens Flash Point	°C	ASTM D7215*	52	---	▲ 23	---
Sulfur	ppm	ASTM D5185(m)	10	9	10	---
Initial Boiling Point	°C	ASTM D2887*	165	148	144	---
10% Distill Point	°C	ASTM D2887*	201	201	199	---
20% Distill Point	°C	ASTM D2887*	216	219	217	---
30% Distill Point	°C	ASTM D2887*	230	235	233	---
40% Distill Point	°C	ASTM D2887*	243	249	247	---
50% Distill Point	°C	ASTM D2887*	255	263	260	---
60% Distill Point	°C	ASTM D2887*	267	276	274	---
70% Distill Point	°C	ASTM D2887*	280	290	288	---
80% Distill Point	°C	ASTM D2887*	295	307	304	---
90% Distill Point	°C	ASTM D2887*	310	329	323	---
Final Boiling Point	°C	ASTM D2887*	341	379	354	---
API Gravity		ASTM D1298*	37.7	36	36	---
Cetane Index		ASTM D4737*	<40.0	47	47	---

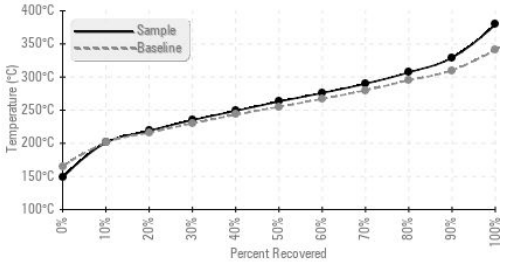
Particle Count



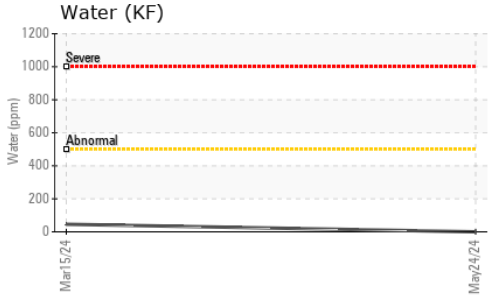
Particle Trend



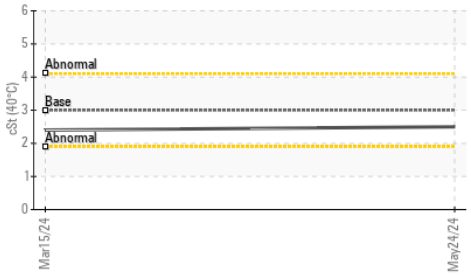
Fuel Distillation Curve



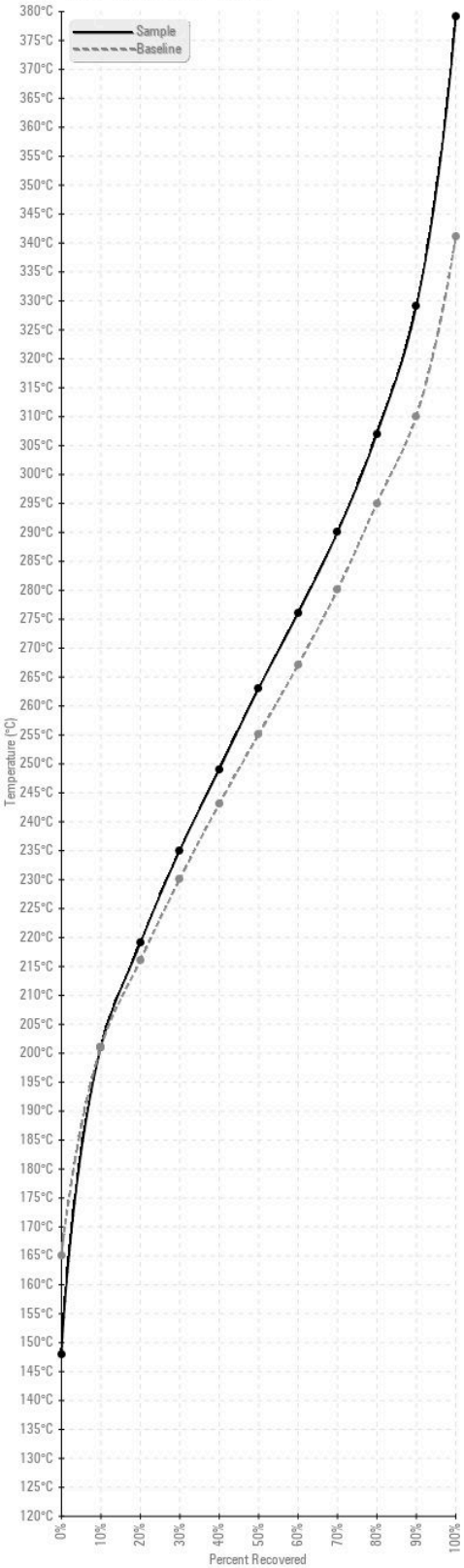
Water (KF)



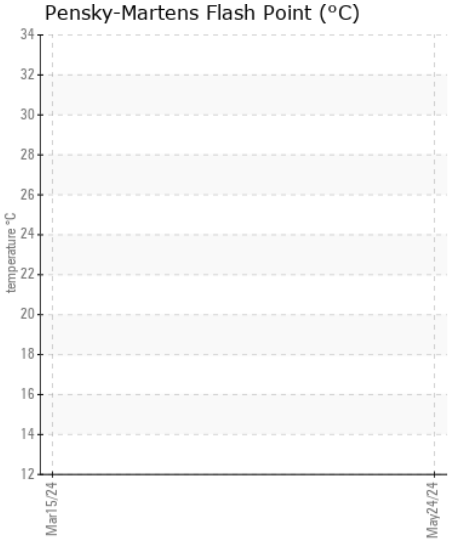
Viscosity @ 40°C



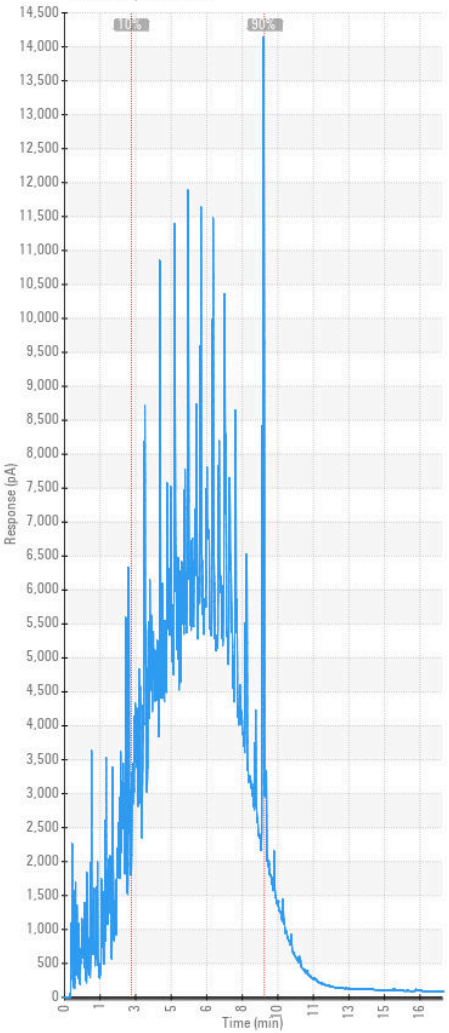
Fuel Distillation Curve



Pensky-Martens Flash Point (°C)



GCD Spectrum



CALA
ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : CU0022319
Lab Number : 02643562
Unique Number : 5801101
Test Package : FUEL (Additional Tests: CC Flash, PrtCount)

Received : 21 Jun 2024
Tested : 27 Jun 2024
Diagnosed : 27 Jun 2024 - Kevin Marson

To discuss this sample report, contact Customer Service at 1-800-268-2131.
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
Validity of results and interpretation are based on the sample and information as supplied.

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