



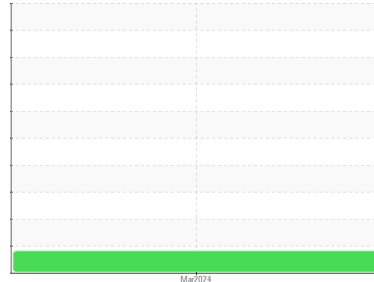
FUEL REPORT

Sample Rating Trend

OFF SPEC



Area
UNIVERSITY OF TORONTO [152451]
 Machine Id
25466055
 Component
Diesel Fuel
 Fluid
No.2 DIESEL FUEL (ULTRALOW SULPHUR) (--- GAL)



DIAGNOSIS

▲ Recommendation

We advise that you check all areas where contaminants can enter the system. We recommend that you drain the fuel from the component if this has not already been done. NOTE: The sample flashed at room temperature indicating the presence of a highly flammable contaminant.

▲ Contaminants

The flash point is lower than normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible.

▲ Fuel Condition

Laboratory tests indicate that this sample does NOT meet specifications for No.2 diesel fuel, low sulfur (CGSB-3.517-3 type A). The fuel is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		CU0022902	---	---
Sample Date	Client Info		15 Mar 2024	---	---
Machine Age	hrs	Client Info	32	---	---
Sample Status			SEVERE	---	---

PHYSICAL PROPERTIES

	method	limit/base	current	history1	history2
Specific Gravity	ASTM D1298*	0.839	0.841	---	---
Fuel Color	text	Visual Screen*	Yellow	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	3.0	---	---
Pensky-Martens Flash Point	°C	ASTM D7215*	▲ 23	---	---

SULFUR CONTENT

	method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185(m)	10	---	---

DISTILLATION

	method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D2887*	165	---	---
5% Distillation Point	°C	ASTM D2887*	184	---	---
10% Distill Point	°C	ASTM D2887*	201	---	---
15% Distillation Point	°C	ASTM D2887*	208	---	---
20% Distill Point	°C	ASTM D2887*	216	---	---
30% Distill Point	°C	ASTM D2887*	230	---	---
40% Distill Point	°C	ASTM D2887*	243	---	---
50% Distill Point	°C	ASTM D2887*	255	---	---
60% Distill Point	°C	ASTM D2887*	267	---	---
70% Distill Point	°C	ASTM D2887*	280	---	---
80% Distill Point	°C	ASTM D2887*	295	---	---
85% Distillation Point	°C	ASTM D2887*	313	---	---
90% Distill Point	°C	ASTM D2887*	310	---	---
95% Distillation Point	°C	ASTM D2887*	337	---	---
Final Boiling Point	°C	ASTM D2887*	341	---	---

IGNITION QUALITY

	method	limit/base	current	history1	history2
API Gravity	ASTM D1298*	37.7	36	---	---
Cetane Index	ASTM D4737*	<40.0	47	---	---

CONTAMINANTS

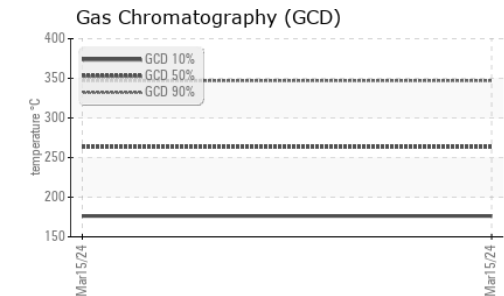
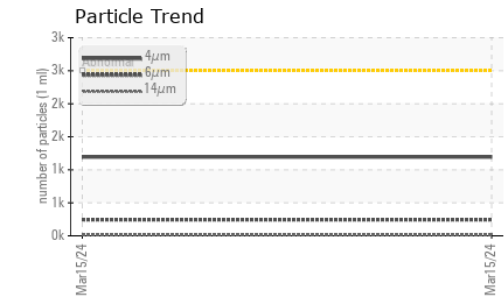
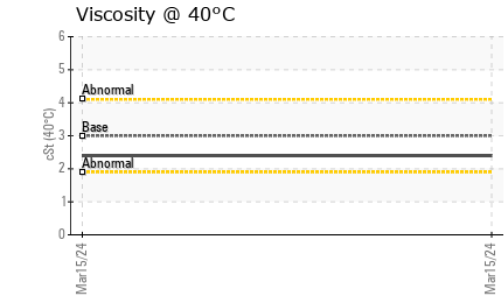
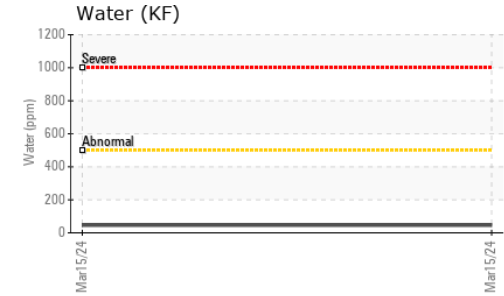
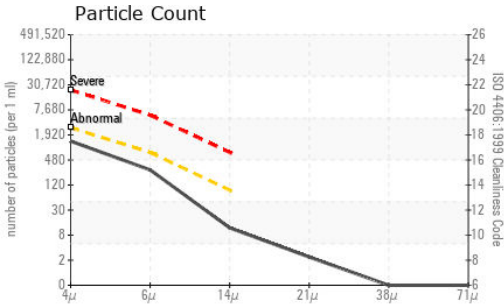
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	<1.0	---	---
Sodium	ppm	ASTM D5185(m)	<0.1	---	---
Potassium	ppm	ASTM D5185(m)	<0.1	---	---
Water	%	ASTM D6304*	<0.05	---	---
ppm Water	ppm	ASTM D6304*	<500	---	---

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	1193	---	---
Particles >6µm	ASTM D7647	>640	244	---	---
Particles >14µm	ASTM D7647	>80	10	---	---
Particles >21µm	ASTM D7647	>20	2	---	---
Particles >38µm	ASTM D7647	>4	0	---	---
Particles >71µm	ASTM D7647	>3	0	---	---
Oil Cleanliness	ISO 4406 (c)	>18/16/13	17/15/10	---	---



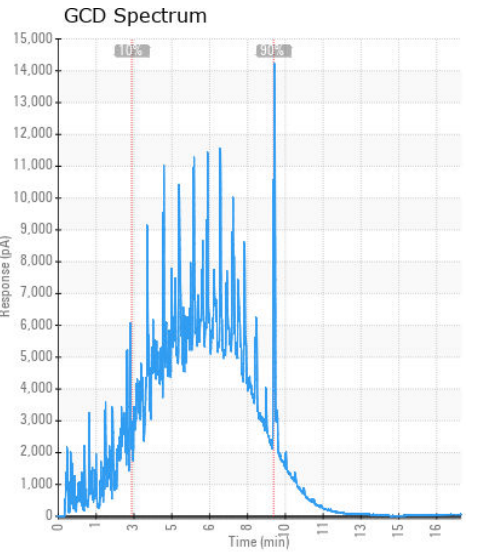
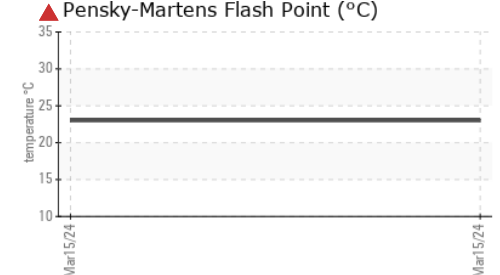
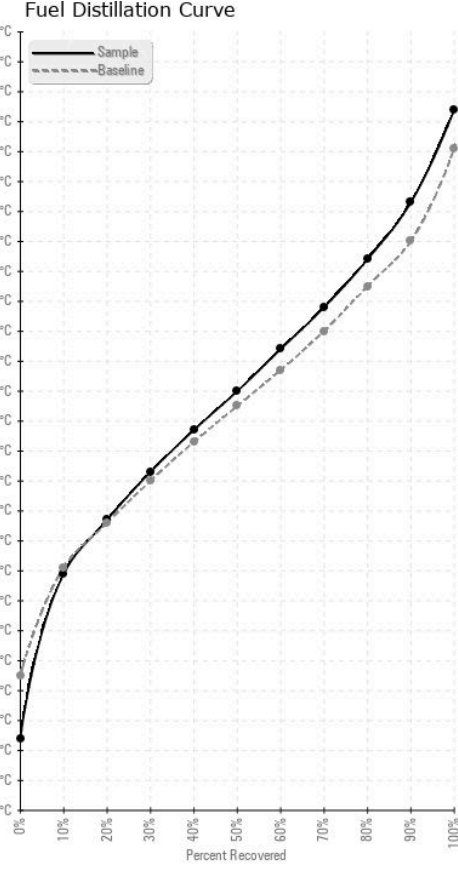
FUEL REPORT



HEAVY METALS	method	limit/base	current	history1	history2	
Aluminum	ppm	ASTM D5185(m)	<0.1	0	---	---
Nickel	ppm	ASTM D5185(m)	<0.1	0	---	---
Lead	ppm	ASTM D5185(m)	<0.1	<1	---	---
Vanadium	ppm	ASTM D5185(m)	<0.1	0	---	---
Iron	ppm	ASTM D5185(m)	<0.1	0	---	---
Calcium	ppm	ASTM D5185(m)	<0.1	0	---	---
Magnesium	ppm	ASTM D5185(m)	<0.1	0	---	---
Phosphorus	ppm	ASTM D5185(m)	<0.1	0	---	---
Zinc	ppm	ASTM D5185(m)	<0.1	0	---	---

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

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **CUMMINS CANADA ULC - GENERATOR DIVISION**
Sample No. : CU0022902 **Received** : 18 Mar 2024 **7175 PACIFIC CIRCLE**
Lab Number : 02622885 **Tested** : 20 Mar 2024 **MISSISSAUGA, ON**
Unique Number : 5748004 **Diagnosed** : 20 Mar 2024 - Kevin Marson **CA L5T 2A5**
Test Package : FUEL (Additional Tests: CC Flash, GC-PercFuel, PrtCount, SpecGravity) **Contact: Elisia Johnson**
To discuss this sample report, contact Customer Service at 1-800-268-2131. **elisia.johnson@cummins.com**
Test denoted () outside scope of accreditation, (m) method modified, (e) tested at external lab.* **T: (905)795-0050**
Validity of results and interpretation are based on the sample and information as supplied. **F: (905)795-9252**