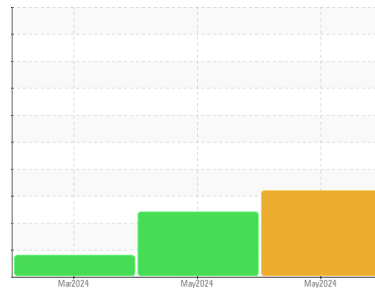




FUEL REPORT

Sample Rating Trend



OFF SPEC



Area
UNIVERSITY OF TORONTO [156860]
 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	CU0023816	CU0022319	CU0022902
Sample Date	Client Info	24 May 2024	24 May 2024	15 Mar 2024
Machine Age	hrs	Client Info	0	0
Sample Status			SEVERE	ABNORMAL

PHYSICAL PROPERTIES

method	limit/base	current	history1	history2
Specific Gravity	ASTM D1298*	0.839	0.843	0.843
Fuel Color	text	Visual Screen*	Yellow	Orang
Visc @ 40°C	cSt	ASTM D7279(m)	3.0	2.5
Pensky-Martens Flash Point	°C	ASTM D7215*	52	▲ 37.6

SULFUR CONTENT

method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185(m)	10	9

DISTILLATION

method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D2887*	165	149
5% Distillation Point	°C	ASTM D2887*		187
10% Distill Point	°C	ASTM D2887*	201	202
15% Distillation Point	°C	ASTM D2887*		211
20% Distill Point	°C	ASTM D2887*	216	220
30% Distill Point	°C	ASTM D2887*	230	235
40% Distill Point	°C	ASTM D2887*	243	249
50% Distill Point	°C	ASTM D2887*	255	263
60% Distill Point	°C	ASTM D2887*	267	277
70% Distill Point	°C	ASTM D2887*	280	291
80% Distill Point	°C	ASTM D2887*	295	307
85% Distillation Point	°C	ASTM D2887*		318
90% Distill Point	°C	ASTM D2887*	310	329
95% Distillation Point	°C	ASTM D2887*		346
Final Boiling Point	°C	ASTM D2887*	341	380

IGNITION QUALITY

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

CONTAMINANTS

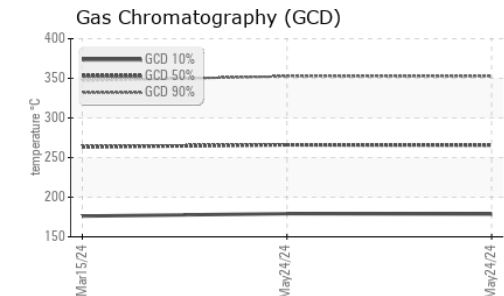
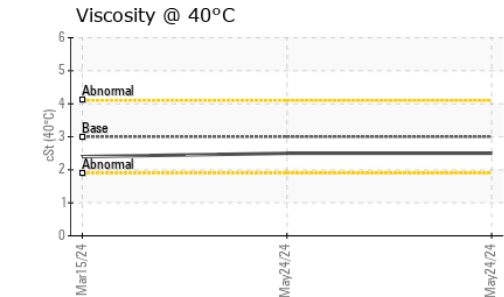
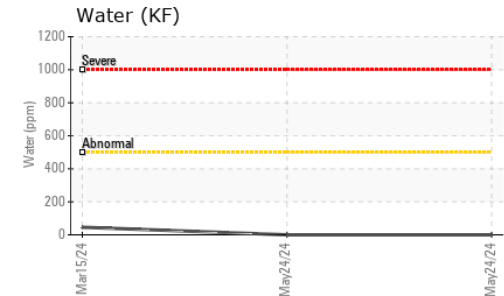
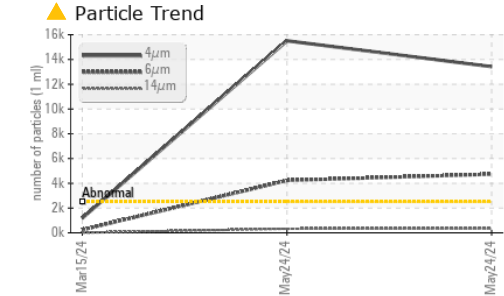
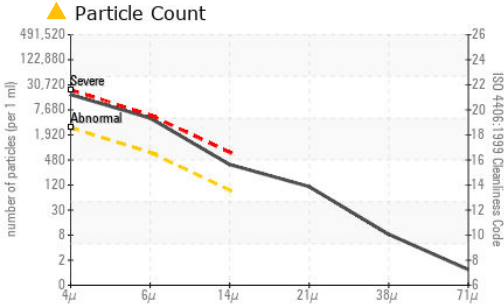
method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	<1.0	0
Sodium	ppm	ASTM D5185(m)	<0.1	0
Potassium	ppm	ASTM D5185(m)	<0.1	0
Water	%	ASTM D6304*	<0.05	0.00
ppm Water	ppm	ASTM D6304*	<500	0

FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	▲ 15507	▲ 13418
Particles >6µm	ASTM D7647	>640	▲ 4230	▲ 4735
Particles >14µm	ASTM D7647	>80	▲ 328	▲ 349
Particles >21µm	ASTM D7647	>20	▲ 97	▲ 79
Particles >38µm	ASTM D7647	>4	● 7	● 7
Particles >71µm	ASTM D7647	>3	1	1
Oil Cleanliness	ISO 4406 (c)	>18/16/13	▲ 21/19/16	▲ 21/19/16



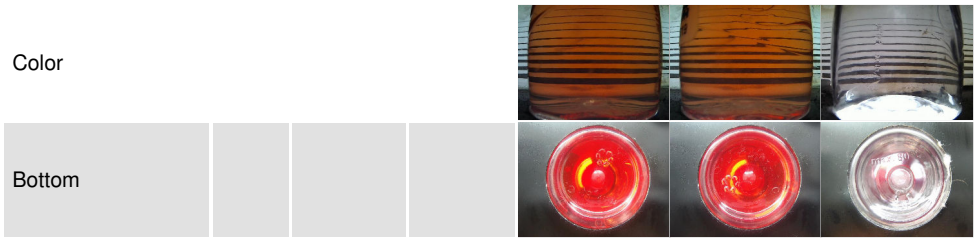
FUEL REPORT



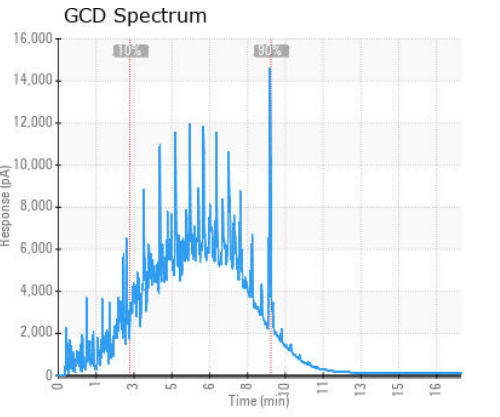
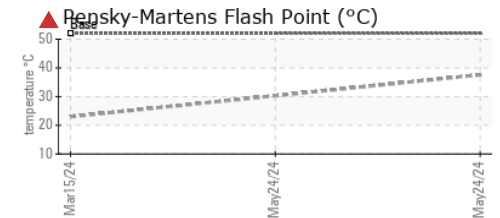
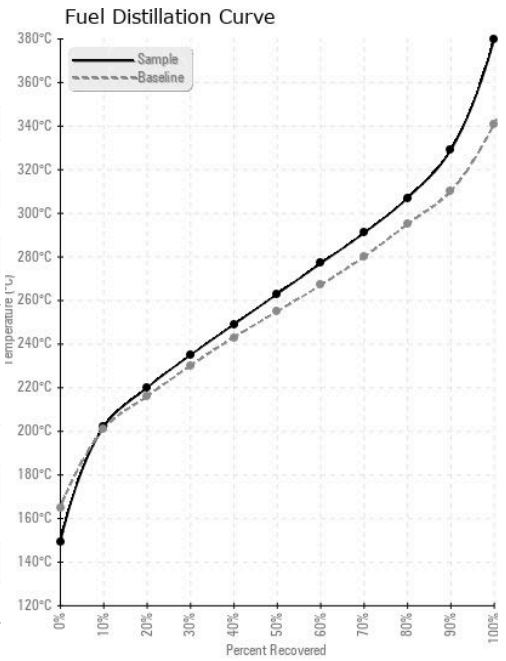
MICROBIAL	method	limit/base	current	history1	history2
Bacteria	CFU/ml ASTM D6469*	>=100000	0	---	---
Yeast	CFU/ml ASTM D6469*	>=100000	0	---	---
Mold	Colonies ASTM D6469*	MODER	NONE	---	---

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

SAMPLE IMAGES



GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **CUMMINS CANADA ULC - GENERATOR DIVISION**
Sample No. : CU0023816 **Received** : 21 Jun 2024 **7175 PACIFIC CIRCLE**
Lab Number : 02643565 **Tested** : 28 Jun 2024 **MISSISSAUGA, ON**
Unique Number : 5801104 **Diagnosed** : 28 Jun 2024 - Kevin Marson **CA L5T 2A5**
Test Package : FUEL (Additional Tests: Bacteria, CC Flash, PrtCount) **Contact: Elisia Johnson**
elisia.johnson@cummins.com

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.