FUEL REPORT

Sample Rating Trend

WATER

Machine Id
CUMMINS Onsort Material Cummins
Component
Diesel Fuel
Fluid
No.2 DIESEL FUEL (ULTRALOW SULPHUR) (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check for the source of water entry. We advise that you filter this fluid before use. We advise that you follow the water drain-off procedure for this component. We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

Corrosion

{not applicable}

Contaminants

There is a light amount of silt (particulates < 14 microns in size) present in the fuel. There is a moderate concentration of water present in the fuel. There is no bacteria or fungus (yeast and/or mold) present in the sample.

Fuel Condition

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).

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0849208**	---	---
Sample Date		Client Info		**09 Aug 2023**	---	---
Machine Age	hrs	Client Info		**0**	---	---
Sample Status				**ABNORMAL**	---	---

PHYSICAL PROPERTIES		method	limit/base	current	history1	history2
Specific Gravity		ASTM D1298*	0.839	**0.845**	---	---
Fuel Color	text	Visual Screen*	Yllow	**Red**	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	3.0	**3**	---	---
Pensky-Martens Flash Point	°C	ASTM D7215*	52	**68.8**	---	---

SULFUR CONTENT		method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185(m)	10	**13**	---	---

DISTILLATION		method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D2887*	165	**182**	---	---
5% Distillation Point	°C	ASTM D2887*		**214**	---	---
10% Distill Point	°C	ASTM D2887*	201	**225**	---	---
15% Distillation Point	°C	ASTM D2887*		**233**	---	---
20% Distill Point	°C	ASTM D2887*	216	**240**	---	---
30% Distill Point	°C	ASTM D2887*	230	**253**	---	---
40% Distill Point	°C	ASTM D2887*	243	**264**	---	---
50% Distill Point	°C	ASTM D2887*	255	**274**	---	---
60% Distill Point	°C	ASTM D2887*	267	**285**	---	---
70% Distill Point	°C	ASTM D2887*	280	**296**	---	---
80% Distill Point	°C	ASTM D2887*	295	**309**	---	---
85% Distillation Point	°C	ASTM D2887*		**320**	---	---
90% Distill Point	°C	ASTM D2887*	310	**331**	---	---
95% Distillation Point	°C	ASTM D2887*		**350**	---	---
Final Boiling Point	°C	ASTM D2887*	341	**366**	---	---

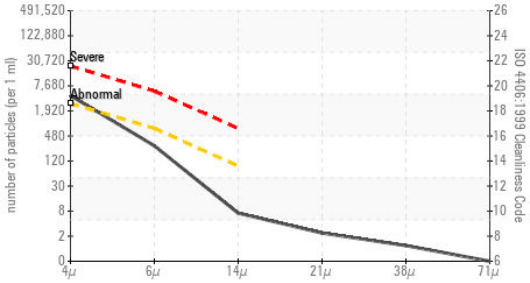
IGNITION QUALITY	method	limit/base	current	history1	history2
API Gravity	ASTM D1298*	37.7	**35**	---	---
Cetane Index	ASTM D4737*	<40.0	**50**	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	<1.0	**1**	---	---
Sodium	ppm	ASTM D5185(m)	<0.1	**<1**	---	---
Potassium	ppm	ASTM D5185(m)	<0.1	**<1**	---	---
Water	%	ASTM D6304*	<0.05	**0.001**	---	---
ppm Water	ppm	ASTM D6304*	<500	**13.3**	---	---

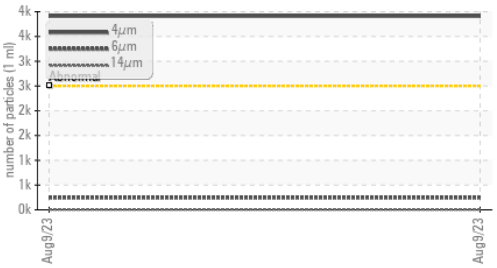
FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	▲ **3911**	---	---
Particles >6µm	ASTM D7647	>640	**246**	---	---
Particles >14µm	ASTM D7647	>80	**6**	---	---
Particles >21µm	ASTM D7647	>20	**2**	---	---
Particles >38µm	ASTM D7647	>4	**1**	---	---
Particles >71µm	ASTM D7647	>3	**0**	---	---
Oil Cleanliness	ISO 4406 (c)	>18/16/13	▲ **19/15/10**	---	---

FUEL REPORT

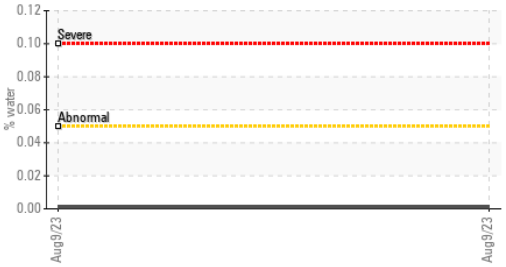
Particle Count



Particle Trend

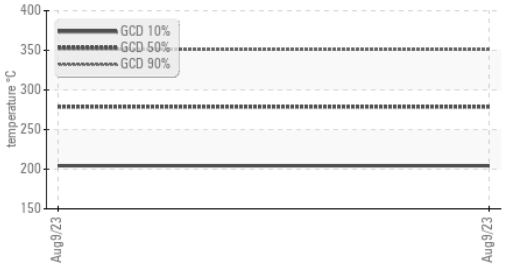


Water



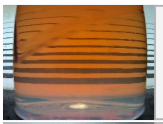
Viscosity @ 40°C

Gas Chromatography (GCD)



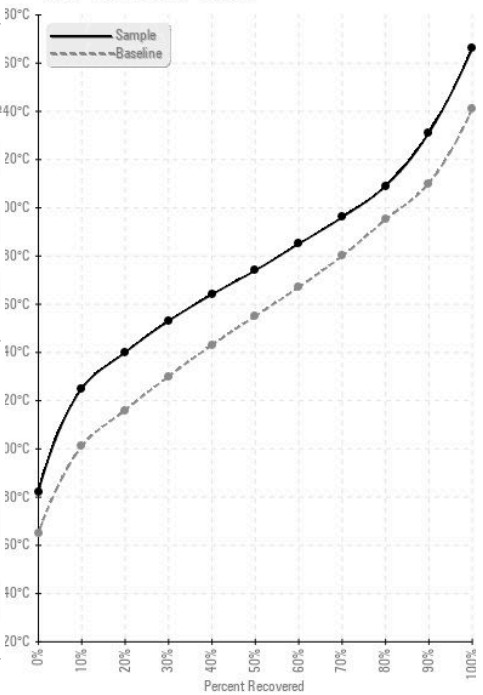
MICROBIAL		method	limit/base	current	history1	history2
Bacteria	CFU/ml	ASTM D6469*	>=100000	**0**	---	---
Yeast	CFU/ml	ASTM D6469*	>=100000	**0**	---	---
Mold	Colonies	ASTM D6469*	MODER	**NONE**	---	---

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

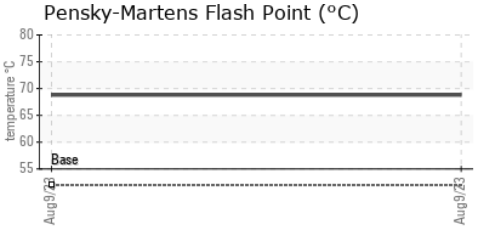
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				*no image*	*no image*
Bottom				*no image*	*no image*

GRAPHS

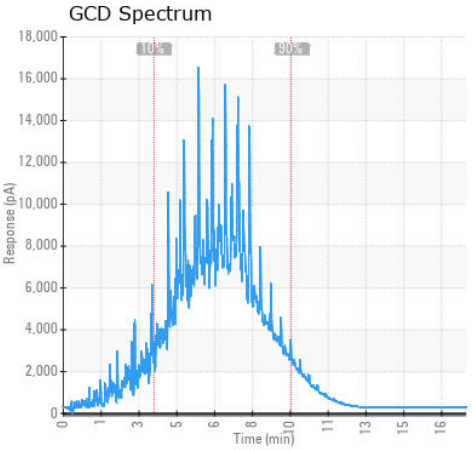
Fuel Distillation Curve



Pensky-Martens Flash Point (°C)



GCD Spectrum



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0849208 **Received** : 24 Aug 2023
Lab Number : 02578270 **Diagnosed** : 01 Sep 2023
Unique Number : 5631330 **Diagnostician** : Kevin Marson
Test Package : FUEL (Additional Tests: Bacteria, CC Flash, Cool, GC-PercFuel, Hardness, PrtCount)

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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