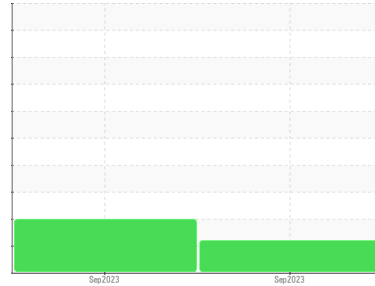


FUEL REPORT

Sample Rating Trend

ISO

Area
THE STATE GROUP [174787]
Machine Id
MTU 324002-1-2-0810 526105114 - GEN:BLUE
Component
Diesel Fuel
Fluid
No.2 DIESEL FUEL (ULTRALOW SULPHUR) (200 LTR)



DIAGNOSIS

Recommendation

Laboratory test indicate that this fuel is suitable for use and meets all test requirements. We advise that you filter this fluid before use. 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 moderate amount of silt (particulates < 14 microns in size) present in the fuel. The water content is negligible. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code.

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). The fuel is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WA0019635	WA0019634	---
Sample Date	Client Info			11 Sep 2023	11 Sep 2023	---
Machine Age	yrs	Client Info		0	0	---
Sample Status				ABNORMAL	ABNORMAL	---

PHYSICAL PROPERTIES		method	limit/base	current	history1	history2
Specific Gravity		ASTM D1298*	0.839	0.829	0.831	---
Fuel Color	text	Visual Screen*	Yllow	Pink	Pink	---
Visc @ 40°C	cSt	ASTM D7279(m)	3.0	2.1	2.2	---
Pensky-Martens Flash Point	°C	ASTM D7215*	52	59.2	59.7	---

SULFUR CONTENT		method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185(m)	10	12	14	---

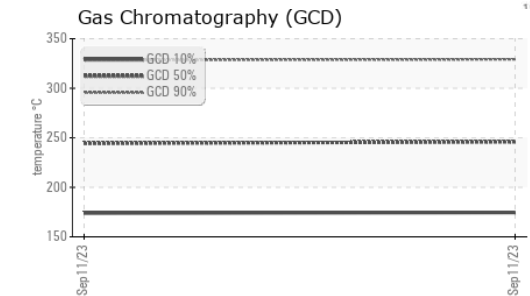
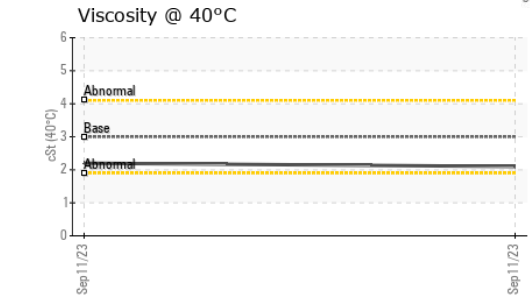
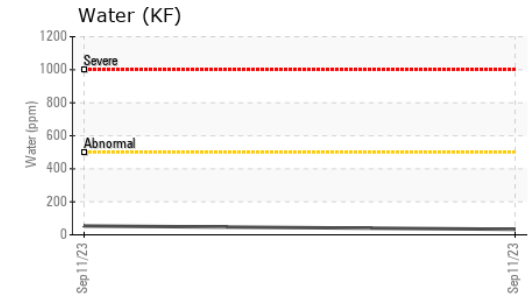
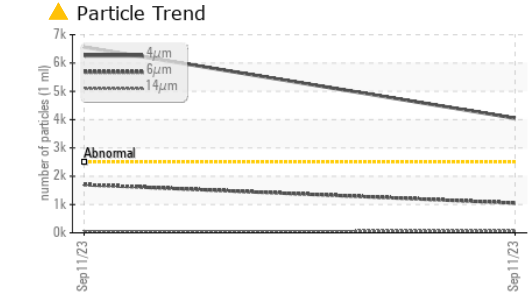
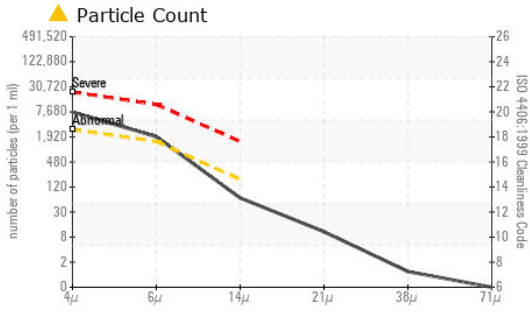
DISTILLATION		method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D2887*	165	169	171	---
5% Distillation Point	°C	ASTM D2887*		187	188	---
10% Distill Point	°C	ASTM D2887*	201	195	196	---
15% Distillation Point	°C	ASTM D2887*		201	202	---
20% Distill Point	°C	ASTM D2887*	216	207	208	---
30% Distill Point	°C	ASTM D2887*	230	219	220	---
40% Distill Point	°C	ASTM D2887*	243	231	232	---
50% Distill Point	°C	ASTM D2887*	255	243	244	---
60% Distill Point	°C	ASTM D2887*	267	256	258	---
70% Distill Point	°C	ASTM D2887*	280	270	271	---
80% Distill Point	°C	ASTM D2887*	295	287	287	---
85% Distillation Point	°C	ASTM D2887*		298	299	---
90% Distill Point	°C	ASTM D2887*	310	310	311	---
95% Distillation Point	°C	ASTM D2887*		330	330	---
Final Boiling Point	°C	ASTM D2887*	341	364	▲ 363	---

IGNITION QUALITY		method	limit/base	current	history1	history2
API Gravity		ASTM D1298*	37.7	39	38	---
Cetane Index		ASTM D4737*	<40.0	48	48	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	<1.0	0	0	---
Sodium	ppm	ASTM D5185(m)	<0.1	0	0	---
Potassium	ppm	ASTM D5185(m)	<0.1	<1	3	---
Water	%	ASTM D6304*	<0.05	0.003	0.005	---
ppm Water	ppm	ASTM D6304*	<500	33.6	53.6	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>2500	▲ 6562	▲ 4050	---
Particles >6µm		ASTM D7647	>1300	▲ 1701	1050	---
Particles >14µm		ASTM D7647	>160	58	64	---
Particles >21µm		ASTM D7647	>40	9	13	---
Particles >38µm		ASTM D7647	>10	1	1	---
Particles >71µm		ASTM D7647	>3	0	0	---
Oil Cleanliness		ISO 4406 (c)	>18/17/14	▲ 20/18/13	▲ 19/17/13	---

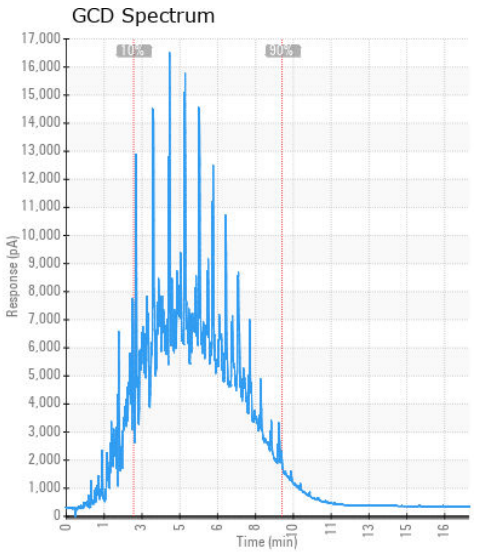
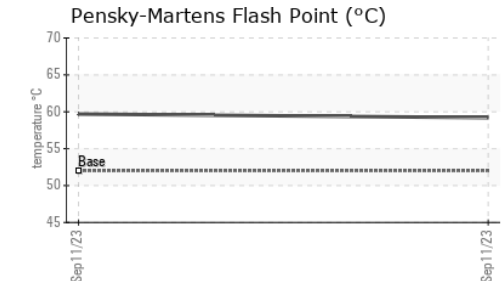
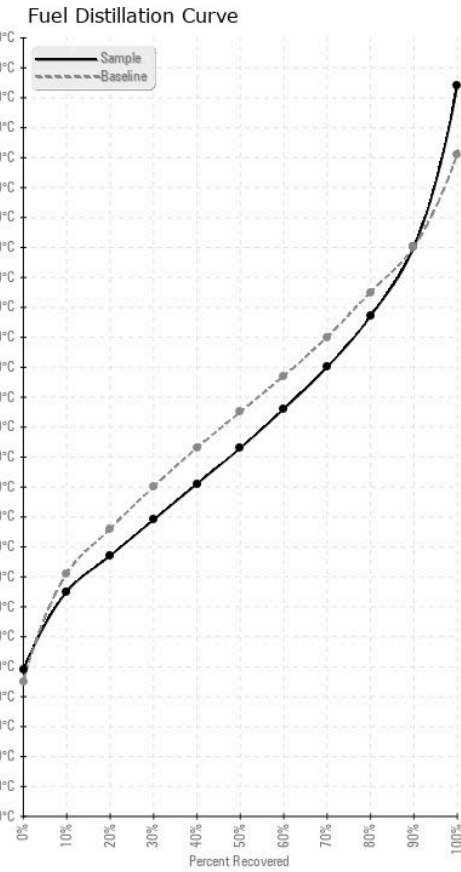
FUEL REPORT



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	▲ 2	---
Vanadium	ppm	ASTM D5185(m)	<0.1	0	---
Iron	ppm	ASTM D5185(m)	<0.1	<1	---
Calcium	ppm	ASTM D5185(m)	<0.1	<1	---
Magnesium	ppm	ASTM D5185(m)	<0.1	0	---
Phosphorus	ppm	ASTM D5185(m)	<0.1	<1	---
Zinc	ppm	ASTM D5185(m)	<0.1	<1	---

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

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WA0019635
Lab Number : 02586944
Unique Number : 5656010
Test Package : FUEL (Additional Tests: CC Flash, GC-PercFuel, PrtCount)

Received : 04 Oct 2023
Diagnosed : 06 Oct 2023
Diagnostician : 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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