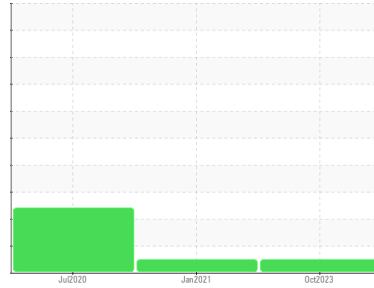




FUEL REPORT

Sample Rating Trend



NORMAL



Machine Id
MPG A

Component
Diesel Fuel

Fluid
No.2 DIESEL FUEL (ULTRALOW SULPHUR) (--- GAL)

DIAGNOSIS

Recommendation

Laboratory test indicate that this fuel is suitable for use and meets all test requirements. Resample at the next service interval to monitor.

Corrosion

{not applicable}

Contaminants

There is no bacteria or fungus (yeast and/or mold) present in the sample. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. There is no indication of any contamination in the diesel fuel.

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	PP	PP	PP
Sample Date	Client Info	29 Oct 2023	02 Jan 2021	16 Jul 2020
Machine Age	hrs	0	0	0
Sample Status		NORMAL	NORMAL	ABNORMAL

PHYSICAL PROPERTIES

method	limit/base	current	history1	history2		
Specific Gravity	ASTM D1298*	0.839	0.837	0.820	0.847	
Fuel Color	text	Visual Screen*	Yllow	Yllow	Yllow	
Visc @ 40°C	cSt	ASTM D7279(m)	3.0	2.8	2.8	2.6
Pensky-Martens Flash Point	°C	ASTM D7215*	52	64.6	65.6	69
Cloud Point	°C	ASTM D2500*		-12	-15	-15

SULFUR CONTENT

method	limit/base	current	history1	history2		
Sulfur	ppm	ASTM D5185(m)	10	6	9	5

DISTILLATION

method	limit/base	current	history1	history2		
Initial Boiling Point	°C	ASTM D2887*	165	175	163	179
5% Distillation Point	°C	ASTM D2887*		195	193	202
10% Distill Point	°C	ASTM D2887*	201	206	205	212
15% Distillation Point	°C	ASTM D2887*		215	214	220
20% Distill Point	°C	ASTM D2887*	216	223	223	228
30% Distill Point	°C	ASTM D2887*	230	239	237	242
40% Distill Point	°C	ASTM D2887*	243	252	251	254
50% Distill Point	°C	ASTM D2887*	255	265	263	266
60% Distill Point	°C	ASTM D2887*	267	279	275	279
70% Distill Point	°C	ASTM D2887*	280	294	290	292
80% Distill Point	°C	ASTM D2887*	295	309	309	306
85% Distillation Point	°C	ASTM D2887*		320	318	316
90% Distill Point	°C	ASTM D2887*	310	332	330	326
95% Distillation Point	°C	ASTM D2887*		350	343	344
Final Boiling Point	°C	ASTM D2887*	341	371	353	▲ 361

IGNITION QUALITY

method	limit/base	current	history1	history2	
API Gravity	ASTM D1298*	37.7	37	41	---
Cetane Index	ASTM D4737*	<40.0	51	57	47

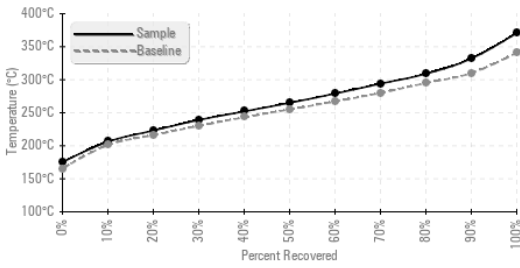
CONTAMINANTS

method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185(m)	<1.0	0	0	0
Sodium	ppm	ASTM D5185(m)	<0.1	0	<1	<1
Potassium	ppm	ASTM D5185(m)	<0.1	<1	0	0
Water	%	ASTM D6304*	<0.05	0.003	0.002	0.003
ppm Water	ppm	ASTM D6304*	<500	27.0	17.2	33.4
Sediment	%	ASTM D1796(e)*	<0.05	0.044	0.049	0.005



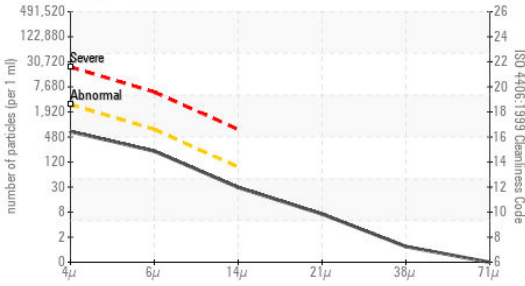
FUEL REPORT

Fuel Distillation Curve



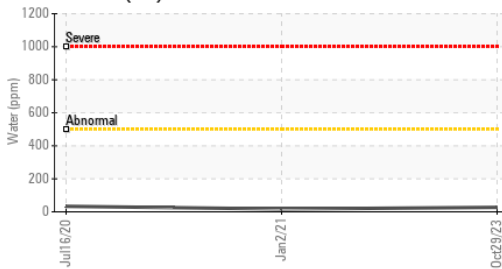
FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	567	463	971
Particles >6µm	ASTM D7647	>640	193	161	190
Particles >14µm	ASTM D7647	>80	26	36	12
Particles >21µm	ASTM D7647	>20	6	16	5
Particles >38µm	ASTM D7647	>4	1	3	0
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>18/16/13	16/15/12	16/15/12	17/15/11

Particle Count



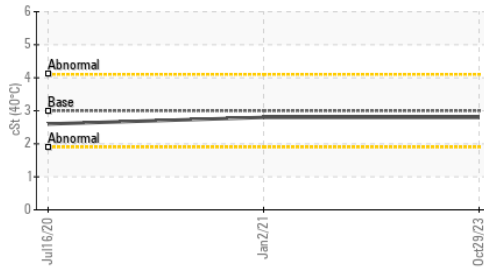
MICROBIAL	method	limit/base	current	history1	history2
Bacteria	CFU/ml ASTM D6469*	>=100000	0	0	▲ 10000
Yeast	CFU/ml ASTM D6469*	>=100000	0	0	0
Mold	Colonies ASTM D6469*	MODER	NONE	NONE	NONE

Water (KF)

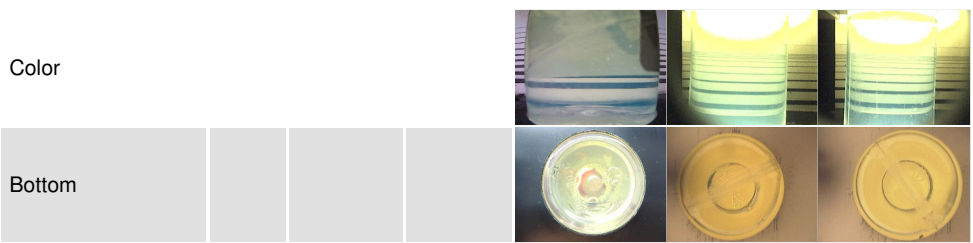


HEAVY METALS	method	limit/base	current	history1	history2
Aluminum	ppm ASTM D5185(m)	<0.1	0	0	0
Nickel	ppm ASTM D5185(m)	<0.1	0	0	<1
Lead	ppm ASTM D5185(m)	<0.1	0	0	0
Vanadium	ppm ASTM D5185(m)	<0.1	0	0	0
Iron	ppm ASTM D5185(m)	<0.1	<1	<1	<1
Calcium	ppm ASTM D5185(m)	<0.1	0	0	0
Magnesium	ppm ASTM D5185(m)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

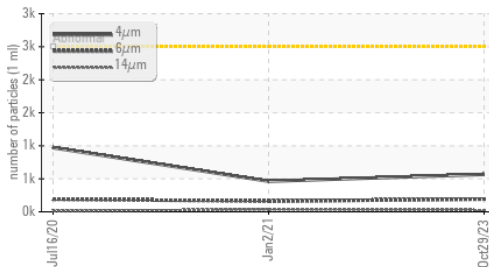
Viscosity @ 40°C



SAMPLE IMAGES



Particle Trend



ISO 17025:2017
Accredited
Laboratory

Laboratory Sample No.
Lab Number
Unique Number
Test Package

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 HIBERNIA MGMT & DEVELOPMENT CO. LTD
: PP
: **02592776**
: 5669855
: FUEL (Additional Tests: Bacteria, CC Flash, CldPt, GC-PerFuel, PrtCount, Sediment)

Received : 30 Oct 2023
Diagnosed : 03 Nov 2023
Diagnostician : Kevin Marson

SUITE 1000,, 100 NEW GOWER STREET
ST.JOHNS, NL
CA A1C 6K3

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.

Contact: Sam Nash
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