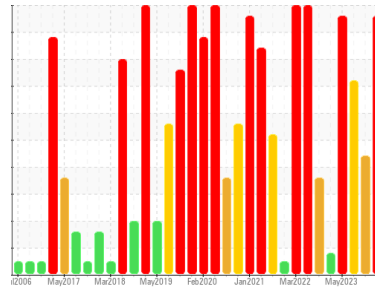




# FUEL REPORT

Sample Rating Trend



ISO



Area  
**System 61 - Diesel**  
 Machine Id  
**F-6101A EAST RAW**

Component  
**Diesel Fuel**  
 Fluid  
**No.2 DIESEL FUEL (ULTRALOW SULPHUR) (--- LTR)**

## DIAGNOSIS

### Recommendation

We advise that you filter this fluid before use. We advise that you follow the water drain-off procedure for this component. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation.

### Corrosion

(not applicable)

### Contaminants

There is a high amount of particulates (2 to 100 microns in size) present in the fuel. Free water present. There is no bacteria or fungus (yeast and/or mold) present in the sample.

### Fuel Condition

The fuel is still serviceable provided that the contaminant(s) can be reduced to acceptable levels. 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	<b>14 Oct 2023</b>	23 Jul 2023	07 Jun 2023
Machine Age	hrs	0	0	1930
Sample Status		<b>SEVERE</b>	ABNORMAL	ABNORMAL

## PHYSICAL PROPERTIES

method	limit/base	current	history1	history2		
Specific Gravity	ASTM D1298*	0.839	<b>0.838</b>	0.837	0.837	
Fuel Color	text	Visual Screen*	<b>Yellow</b>	Yellow	Yellow	
Visc @ 40°C	cSt	ASTM D7279(m)	3.0	<b>2.7</b>	2.7	2.7
Pensky-Martens Flash Point	°C	ASTM D7215*	52	<b>64.5</b>	64.5	63.5
Cloud Point	°C	ASTM D2500*		<b>-15</b>	-15	-15

## SULFUR CONTENT

method	limit/base	current	history1	history2		
Sulfur	ppm	ASTM D5185(m)	10	<b>6</b>	6	6

## DISTILLATION

method	limit/base	current	history1	history2		
Initial Boiling Point	°C	ASTM D2887*	165	<b>175</b>	175	174
5% Distillation Point	°C	ASTM D2887*		<b>195</b>	196	195
10% Distill Point	°C	ASTM D2887*	201	<b>206</b>	208	206
15% Distillation Point	°C	ASTM D2887*		<b>214</b>	216	215
20% Distill Point	°C	ASTM D2887*	216	<b>223</b>	225	223
30% Distill Point	°C	ASTM D2887*	230	<b>238</b>	241	239
40% Distill Point	°C	ASTM D2887*	243	<b>251</b>	254	252
50% Distill Point	°C	ASTM D2887*	255	<b>265</b>	267	266
60% Distill Point	°C	ASTM D2887*	267	<b>279</b>	281	280
70% Distill Point	°C	ASTM D2887*	280	<b>293</b>	295	294
80% Distill Point	°C	ASTM D2887*	295	<b>309</b>	310	310
85% Distillation Point	°C	ASTM D2887*		<b>320</b>	321	321
90% Distill Point	°C	ASTM D2887*	310	<b>331</b>	332	332
95% Distillation Point	°C	ASTM D2887*		<b>349</b>	349	350
Final Boiling Point	°C	ASTM D2887*	341	<b>370</b>	367	374

## IGNITION QUALITY

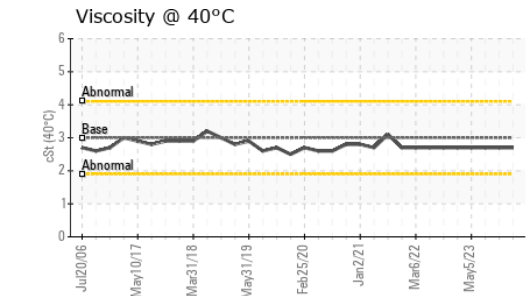
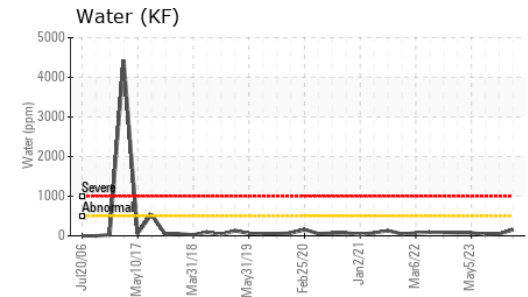
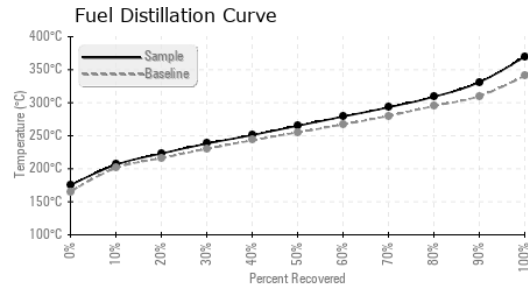
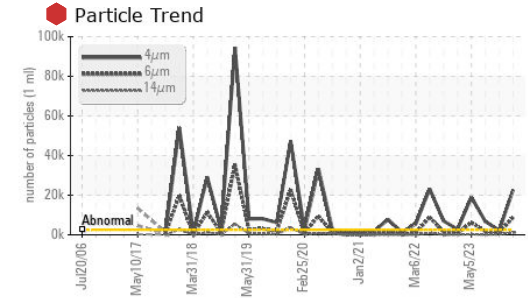
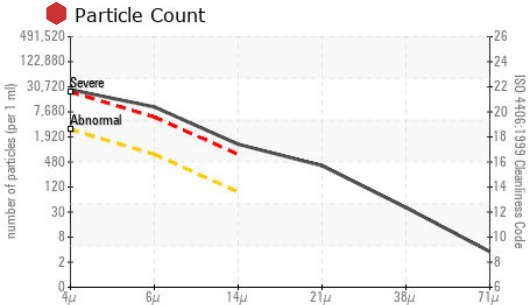
method	limit/base	current	history1	history2	
API Gravity	ASTM D1298*	37.7	<b>37</b>	37	37
Cetane Index	ASTM D4737*	<40.0	<b>50</b>	51	51

## CONTAMINANTS

method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185(m)	<1.0	<b>0</b>	0	0
Sodium	ppm	ASTM D5185(m)	<0.1	<b>0</b>	0	0
Potassium	ppm	ASTM D5185(m)	<0.1	<b>&lt;1</b>	<1	<1
Water	%	ASTM D6304*	<0.05	<b>0.015</b>	0.004	0.003
ppm Water	ppm	ASTM D6304*	<500	<b>150.6</b>	49.9	38.5
Sediment	%	ASTM D1796(e)*	<0.05	<b>0.034</b>	0.091	0.003



# FUEL REPORT



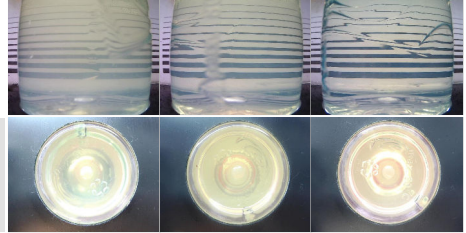
**Laboratory Sample No.** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 HIBERNIA MGMT & DEVELOPMENT CO. LTD  
**Lab Number** : 02592774 **Received** : 30 Oct 2023  
**Unique Number** : 5669853 **Diagnosed** : 03 Nov 2023  
**Test Package** : FUEL ( Additional Tests: Bacteria, CC Flash, CldPt, GC-PerFuel, PrtCount, Sediment ) **Diagnostician** : Kevin Marson

FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	22680	2226	6790
Particles >6µm	ASTM D7647	>640	8778	882	1772
Particles >14µm	ASTM D7647	>80	1119	219	81
Particles >21µm	ASTM D7647	>20	343	134	14
Particles >38µm	ASTM D7647	>4	34	13	0
Particles >71µm	ASTM D7647	>3	3	0	0
Oil Cleanliness	ISO 4406 (c)	>18/16/13	22/20/17	18/17/15	20/18/14

MICROBIAL	method	limit/base	current	history1	history2
Bacteria	CFU/ml	ASTM D6469* >=100000	0	100	10000
Yeast	CFU/ml	ASTM D6469* >=100000	0	0	0
Mold	Colonies	ASTM D6469* MODER	NONE	NONE	LIGHT

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	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	0	0
Phosphorus	ppm	ASTM D5185(m) <0.1	0	0	0
Zinc	ppm	ASTM D5185(m) <0.1	0	0	0

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					



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.