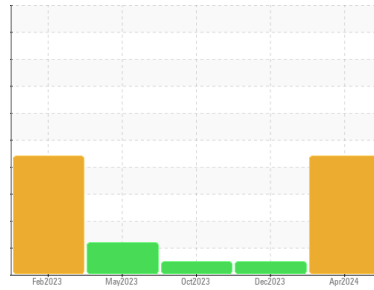


FUEL REPORT

Sample Rating Trend



WATER



Machine Id
MIDSHIPCRANE

Component
Diesel Fuel

Fluid
No.2 DIESEL FUEL (LOW-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 advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition.

Contaminants

There is a moderate amount of particulates (2 to 100 microns in size) present in the fuel. Excessive free water present. There is no bacteria or fungus (yeast and/or mold) present in the sample. Small amount of bacteria present. No reportable mold present. No reportable yeast present.

Fuel Condition

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	PC	PC	PC
Sample Date	Client Info	06 Apr 2024	18 Dec 2023	05 Oct 2023
Machine Age	hrs	0	0	0
Sample Status		ABNORMAL	NORMAL	NORMAL

PHYSICAL PROPERTIES

method	limit/base	current	history1	history2		
Specific Gravity	ASTM D1298*	0.839	0.851	0.844	0.843	
Fuel Color	text	Visual Screen*	Yellow	Yellow	Yellow	
Visc @ 40°C	cSt	ASTM D7279(m)	3.0	2.9	2.8	2.8
Pensky-Martens Flash Point	°C	ASTM D7215*	52	63.4	62.6	62.3

SULFUR CONTENT

method	limit/base	current	history1	history2		
Sulfur	ppm	ASTM D5185(m)	250	12	20	20

DISTILLATION

method	limit/base	current	history1	history2		
Initial Boiling Point	°C	ASTM D2887*	165	175	174	173
5% Distillation Point	°C	ASTM D2887*		200	198	197
10% Distill Point	°C	ASTM D2887*	201	211	210	209
15% Distillation Point	°C	ASTM D2887*		220	218	218
20% Distill Point	°C	ASTM D2887*	216	228	227	227
30% Distill Point	°C	ASTM D2887*	230	243	242	242
40% Distill Point	°C	ASTM D2887*	243	255	255	255
50% Distill Point	°C	ASTM D2887*	255	267	268	268
60% Distill Point	°C	ASTM D2887*	267	279	281	281
70% Distill Point	°C	ASTM D2887*	280	292	295	294
80% Distill Point	°C	ASTM D2887*	295	306	310	309
85% Distillation Point	°C	ASTM D2887*		317	322	320
90% Distill Point	°C	ASTM D2887*	310	328	333	331
95% Distillation Point	°C	ASTM D2887*		346	352	350
Final Boiling Point	°C	ASTM D2887*	341	365	381	372

IGNITION QUALITY

method	limit/base	current	history1	history2	
API Gravity	ASTM D1298*	37.7	34	---	36
Cetane Index	ASTM D4737*	<40.0	46	---	49

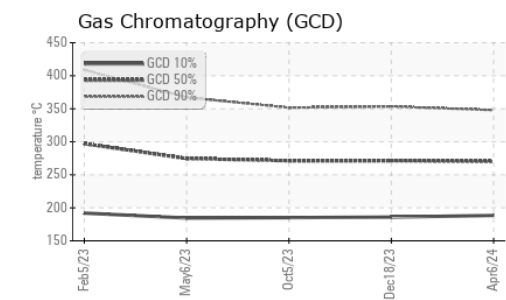
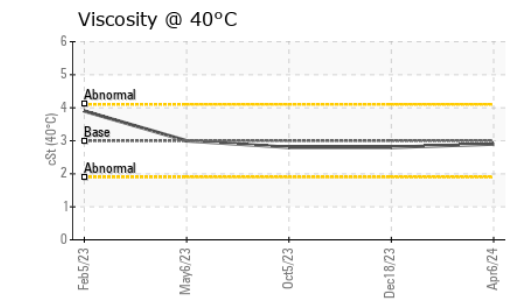
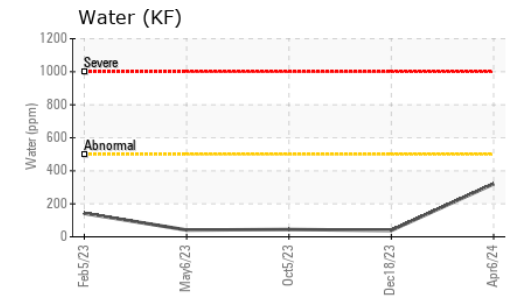
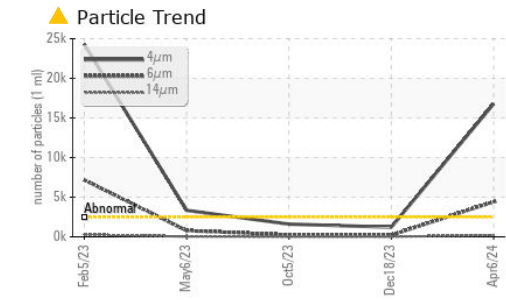
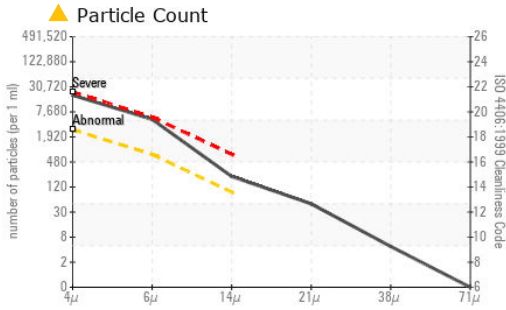
CONTAMINANTS

method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185(m)	<1.0	<1	0	0
Sodium	ppm	ASTM D5185(m)	<0.1	<1	<1	0
Potassium	ppm	ASTM D5185(m)	<0.1	1	<1	<1
Water	%	ASTM D6304*	<0.05	0.032	0.003	0.004
ppm Water	ppm	ASTM D6304*	<500	321	39	44.3

FLUID CLEANLINESS

method	limit/base	current	history1	history2	
Particles >4µm	ASTM D7647	>2500	▲ 16791	1215	1604
Particles >6µm	ASTM D7647	>640	▲ 4424	221	237
Particles >14µm	ASTM D7647	>80	▲ 190	7	5
Particles >21µm	ASTM D7647	>20	▲ 42	1	1
Particles >38µm	ASTM D7647	>4	4	0	0
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>18/16/13	▲ 21/19/15	17/15/10	18/15/10

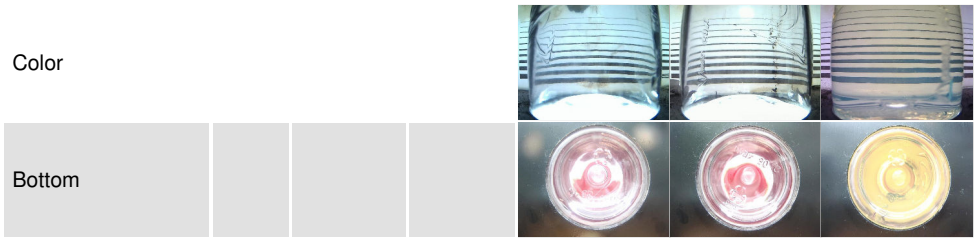
FUEL REPORT



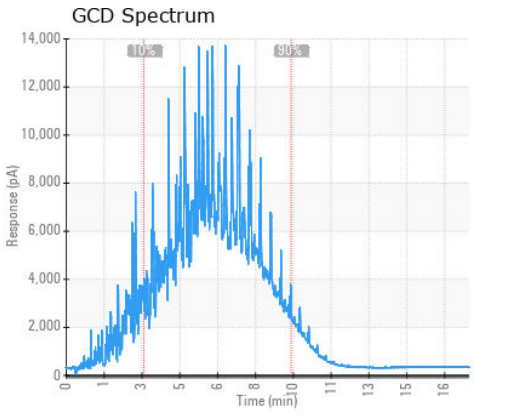
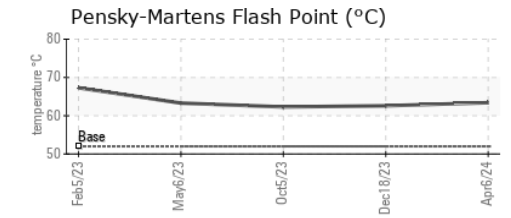
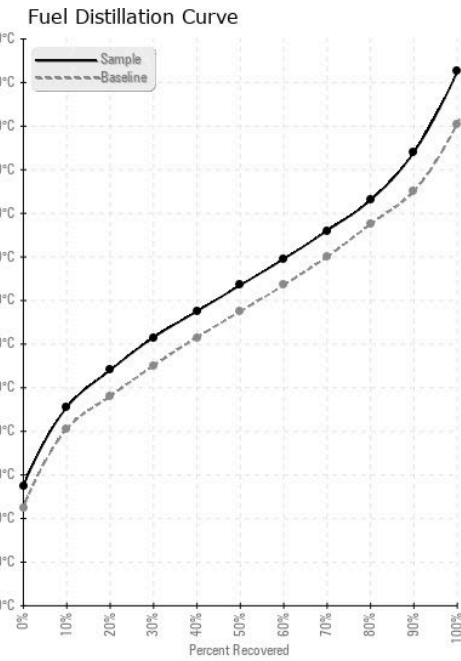
MICROBIAL	method	limit/base	current	history1	history2
Bacteria	CFU/ml ASTM D6469*	>=100000	100	---	---
Yeast	CFU/ml ASTM D6469*	>=100000	0	---	---
Mold	Colonies ASTM D6469*	MODER	NONE	---	---

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	0	0	0
Vanadium	ppm ASTM D5185(m)	<0.1	0	0	0
Iron	ppm ASTM D5185(m)	<0.1	0	<1	<1
Calcium	ppm ASTM D5185(m)	<0.1	0	0	0
Magnesium	ppm ASTM D5185(m)	<0.1	0	0	<1
Phosphorus	ppm ASTM D5185(m)	<0.1	<1	<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
Sample No. : PC
Lab Number : 02634787
Unique Number : 5775940
Test Package : FUEL (Additional Tests: Bacteria, CC Flash, PrtCount)
Received : 10 May 2024
Tested : 14 May 2024
Diagnosed : 14 May 2024 - Kevin Marson

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 St. John's, NL
 CA A1C 1B6
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 dbadcock@suncor.com
 T: (709)778-3843
 F: (709)724-2784

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.