

Machine Id
FREIGHTLINER 2090

Component
Diesel Engine

Fluid
PETRO CANADA DURON SAE 10W30 (--- GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Fuel content negligible. There is no indication of any contamination in the oil.

Fluid Condition

The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			PC0083176	PC0046910	---
Sample Date	Client Info			05 Mar 2024	27 Jun 2022	---
Machine Age	hrs	Client Info		470811	10466	---
Oil Age	hrs	Client Info		14000	250	---
Oil Changed	Client Info			Changed	N/A	---
Sample Status				NORMAL	SEVERE	---

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.2	NEG	NEG	---
Glycol	WC Method			NEG	NEG	---

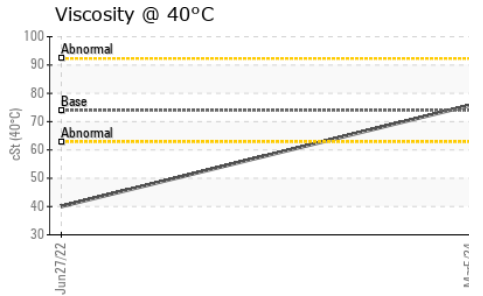
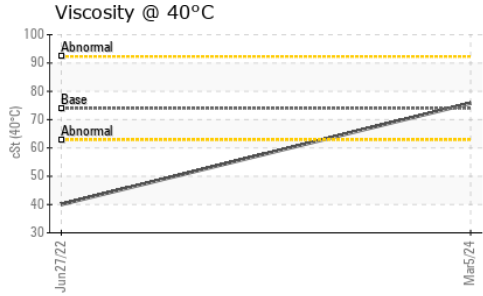
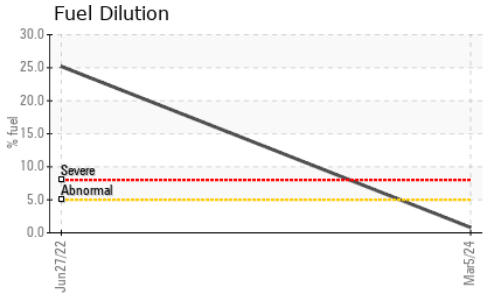
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>80	11	30	---
Chromium	ppm	ASTM D5185(m)	>5	<1	1	---
Nickel	ppm	ASTM D5185(m)	>2	0	<1	---
Titanium	ppm	ASTM D5185(m)		0	<1	---
Silver	ppm	ASTM D5185(m)	>3	0	0	---
Aluminum	ppm	ASTM D5185(m)	>30	2	2	---
Lead	ppm	ASTM D5185(m)	>30	2	4	---
Copper	ppm	ASTM D5185(m)	>150	<1	1	---
Tin	ppm	ASTM D5185(m)	>5	<1	1	---
Antimony	ppm	ASTM D5185(m)		0	0	---
Vanadium	ppm	ASTM D5185(m)		0	0	---
Beryllium	ppm	ASTM D5185(m)		0	0	---
Cadmium	ppm	ASTM D5185(m)		0	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	1	3	6	---
Barium	ppm	ASTM D5185(m)	1	0	0	---
Molybdenum	ppm	ASTM D5185(m)	1	58	34	---
Manganese	ppm	ASTM D5185(m)	1	0	<1	---
Magnesium	ppm	ASTM D5185(m)	10	950	533	---
Calcium	ppm	ASTM D5185(m)	2942	1137	910	---
Phosphorus	ppm	ASTM D5185(m)	1102	1051	662	---
Zinc	ppm	ASTM D5185(m)	1351	1214	796	---
Sulfur	ppm	ASTM D5185(m)	3903	2760	1829	---
Lithium	ppm	ASTM D5185(m)		<1	<1	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>20	4	5	---
Sodium	ppm	ASTM D5185(m)		<1	2	---
Potassium	ppm	ASTM D5185(m)	>20	2	2	---
Fuel	%	ASTM D7593*	>5	0.8	▲ 25.2	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	0	0.3	---
Nitration	Abs/cm	ASTM D7624*	>20	7.6	12.0	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.3	21.5	---

OIL ANALYSIS REPORT

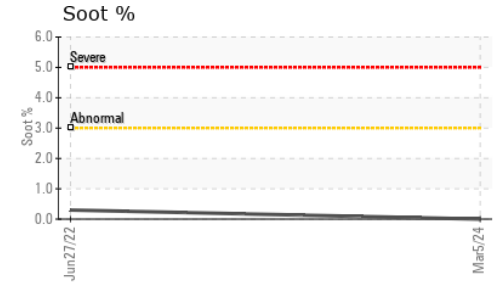
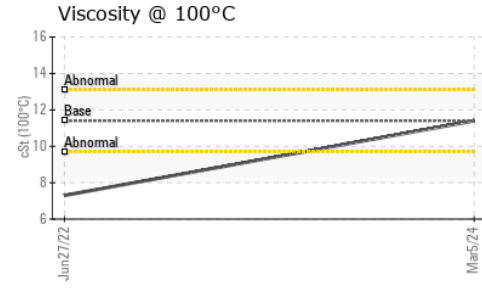
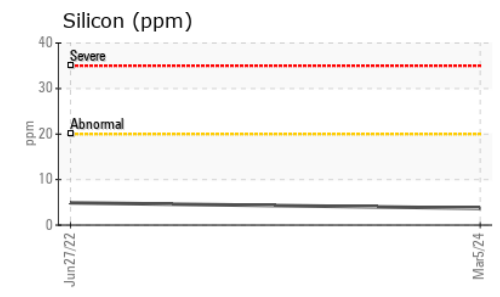
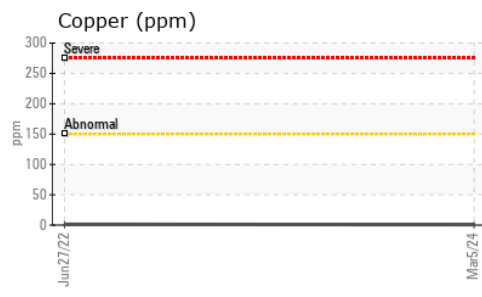
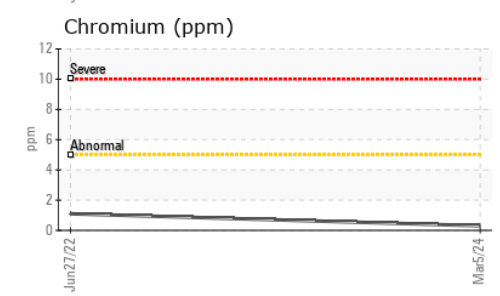
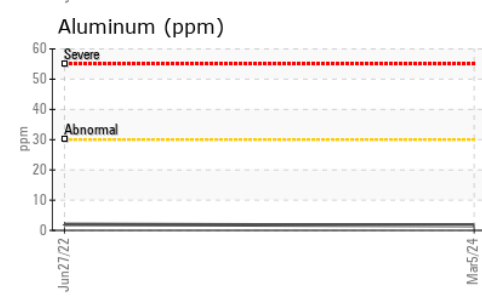
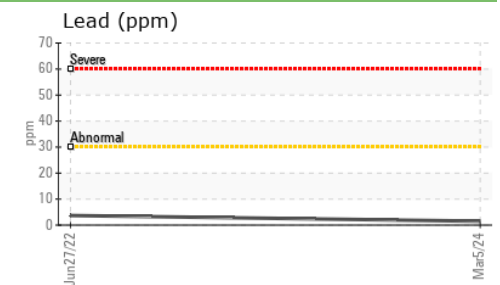
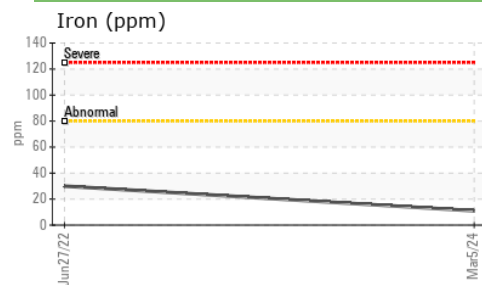


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	15.9	19.1	---

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	---
Free Water	scalar	Visual*		NEG	NEG	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	74.0	75.8	▲ 40	---
Visc @ 100°C	cSt	ASTM D7279(m)	11.4	11.4	▲ 7.3	---
Viscosity Index (VI)	Scale	ASTM D2270*	146	142	148	---

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0083176 **Received** : 08 Mar 2024
Lab Number : **02620751** **Tested** : 11 Mar 2024
Unique Number : 5737861 **Diagnosed** : 11 Mar 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: KV40, PercentFuel, VI)

B FREGEAU & FILS INC
 402 RUE ST DENIS
 ST ALEXANDRE, QC
 CA J0J 1S0
 Contact: Steve M.
 stevem@bfregeau.com

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.