

Machine Id  
**FREIGHTLINER 2033**  
Component  
**Diesel Engine**  
Fluid  
**DISEL ENGINE OIL SAE 10W30 (--- GAL)**

**DIAGNOSIS**

**Recommendation**

Resample at the next service interval to monitor.

**Wear**

All component wear rates are normal.

**Contamination**

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			<b>PC0066006</b>	---	---
Sample Date	Client Info			<b>22 Jun 2023</b>	---	---
Machine Age	kms	Client Info		<b>945330</b>	---	---
Oil Age	kms	Client Info		<b>25000</b>	---	---
Oil Changed	Client Info			<b>N/A</b>	---	---
Sample Status				<b>NORMAL</b>	---	---

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<b>&lt;1.0</b>	---	---
Glycol	WC Method			<b>NEG</b>	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	<b>13</b>	---	---
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	---	---
Nickel	ppm	ASTM D5185(m)	>4	<b>0</b>	---	---
Titanium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185(m)	>20	<b>1</b>	---	---
Lead	ppm	ASTM D5185(m)	>40	<b>1</b>	---	---
Copper	ppm	ASTM D5185(m)	>330	<b>3</b>	---	---
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	---	---
Antimony	ppm	ASTM D5185(m)		<b>0</b>	---	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	---	---

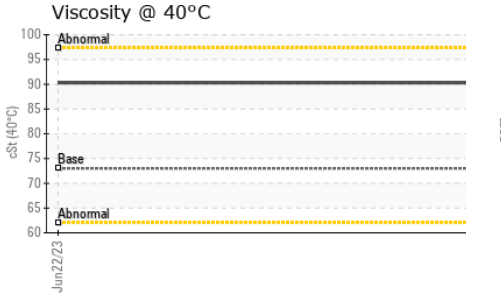
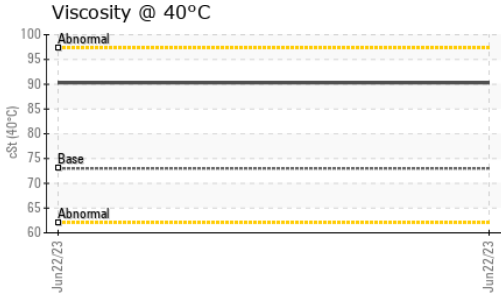
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	250	<b>7</b>	---	---
Barium	ppm	ASTM D5185(m)	10	<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185(m)	100	<b>57</b>	---	---
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	---	---
Magnesium	ppm	ASTM D5185(m)	450	<b>973</b>	---	---
Calcium	ppm	ASTM D5185(m)	3000	<b>1121</b>	---	---
Phosphorus	ppm	ASTM D5185(m)	1150	<b>1090</b>	---	---
Zinc	ppm	ASTM D5185(m)	1350	<b>1211</b>	---	---
Sulfur	ppm	ASTM D5185(m)	4250	<b>2586</b>	---	---
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	<b>3</b>	---	---
Sodium	ppm	ASTM D5185(m)		<b>3</b>	---	---
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	---	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	<b>0</b>	---	---
Nitration	Abs/cm	ASTM D7624*	>20	<b>6.8</b>	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>18.8</b>	---	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>14.3</b>	---	---

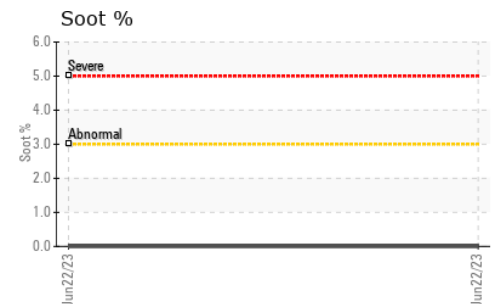
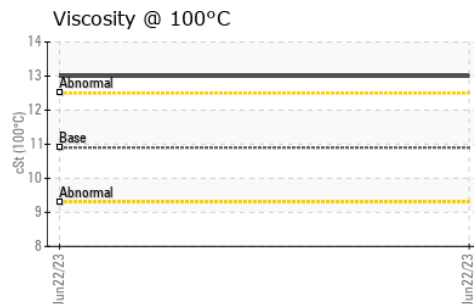
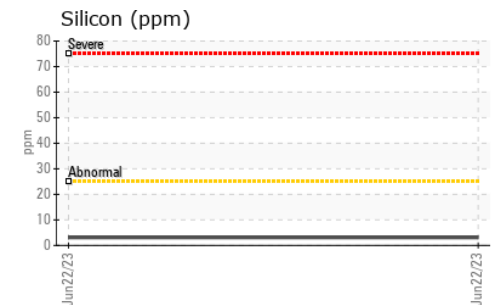
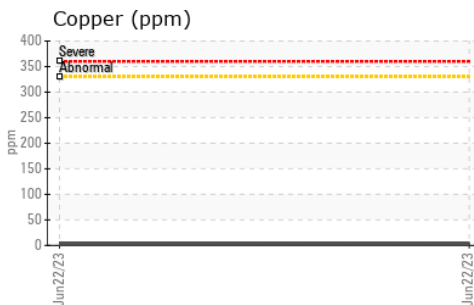
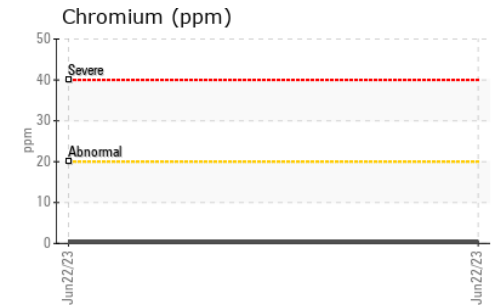
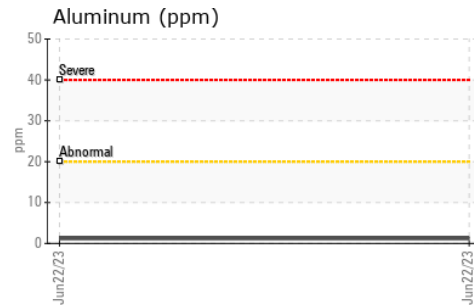
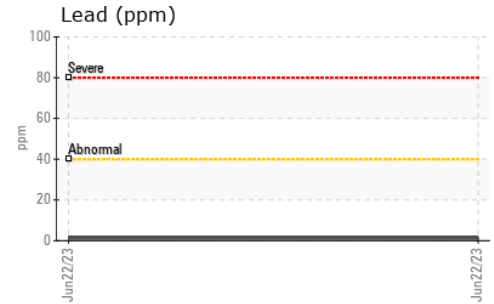
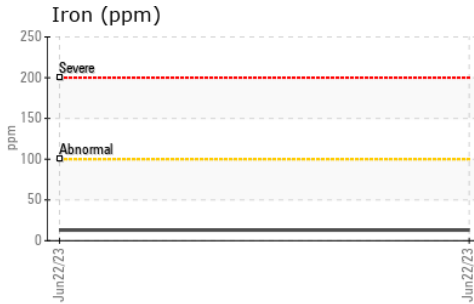
# OIL ANALYSIS REPORT



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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	73	<b>90.3</b>	---
Visc @ 100°C	cSt	ASTM D7279(m)	10.9	<b>13.0</b>	---
Viscosity Index (VI)	Scale	ASTM D2270*	138	<b>142</b>	---

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0066006 **Received** : 13 Jul 2023  
**Lab Number** : **02569650** **Diagnosed** : 13 Jul 2023  
**Unique Number** : 5606696 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: KV40, 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.