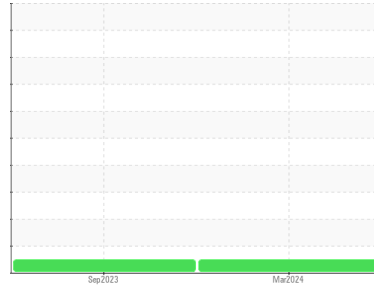




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
MACK 929109
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- 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		GFL0115516	GFL0096330	---
Sample Date	Client Info		04 Mar 2024	25 Sep 2023	---
Machine Age	hrs	Client Info	9537	8960	---
Oil Age	hrs	Client Info	600	600	---
Oil Changed	Client Info		Changed	Changed	---
Sample Status			NORMAL	NORMAL	---

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<1.0	<1.0	---
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) >120	17	9	---
Chromium	ppm	ASTM D5185(m) >20	<1	0	---
Nickel	ppm	ASTM D5185(m) >5	0	0	---
Titanium	ppm	ASTM D5185(m) >2	0	0	---
Silver	ppm	ASTM D5185(m) >2	0	<1	---
Aluminum	ppm	ASTM D5185(m) >20	2	2	---
Lead	ppm	ASTM D5185(m) >40	<1	<1	---
Copper	ppm	ASTM D5185(m) >330	1	4	---
Tin	ppm	ASTM D5185(m) >15	<1	<1	---
Antimony	ppm	ASTM D5185(m)	0	<1	---
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) 0	6	15	---
Barium	ppm	ASTM D5185(m) 0	0	<1	---
Molybdenum	ppm	ASTM D5185(m) 60	61	63	---
Manganese	ppm	ASTM D5185(m) 0	0	0	---
Magnesium	ppm	ASTM D5185(m) 1010	933	926	---
Calcium	ppm	ASTM D5185(m) 1070	1045	1069	---
Phosphorus	ppm	ASTM D5185(m) 1150	990	944	---
Zinc	ppm	ASTM D5185(m) 1270	1164	1126	---
Sulfur	ppm	ASTM D5185(m) 2060	2735	2513	---
Lithium	ppm	ASTM D5185(m)	<1	<1	---

CONTAMINANTS

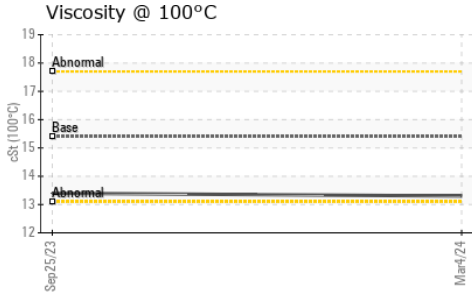
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	2	3	---
Sodium	ppm	ASTM D5185(m)	1	3	---
Potassium	ppm	ASTM D5185(m) >20	2	0	---

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >4	0.2	0.4	---
Nitration	Abs/cm	ASTM D7624* >20	9.1	8.2	---
Sulfation	Abs./1mm	ASTM D7415* >30	18.2	18.5	---



OIL ANALYSIS REPORT



FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	14.3	14.3

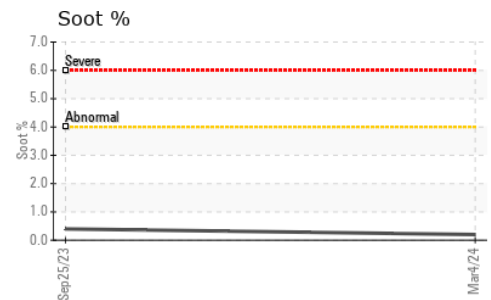
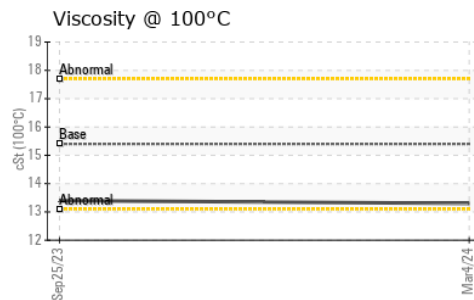
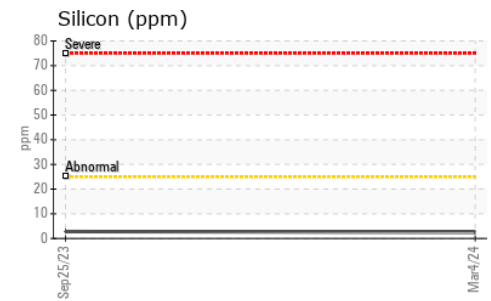
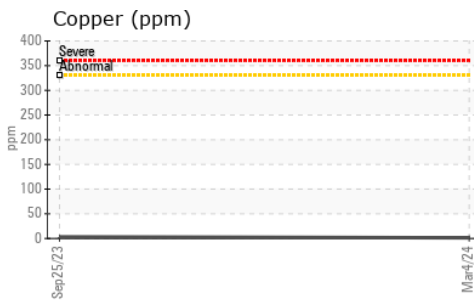
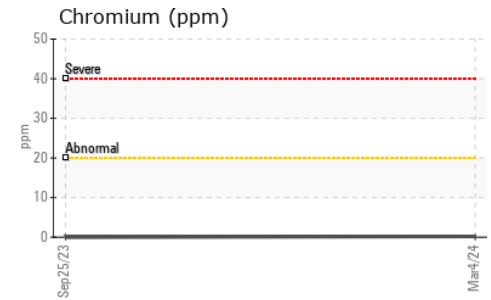
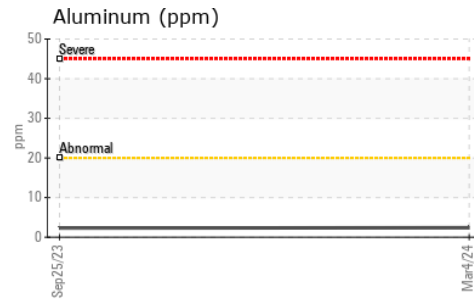
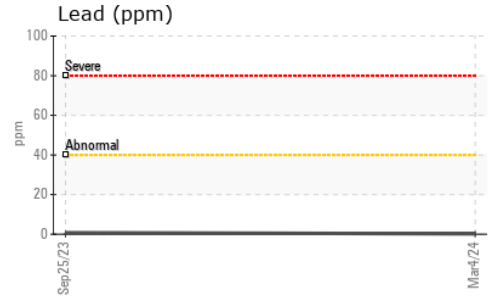
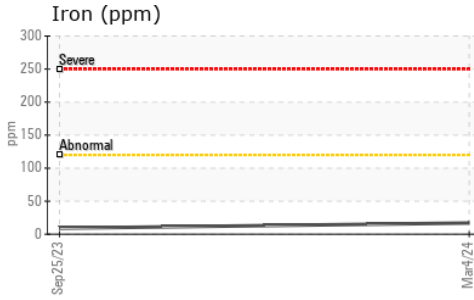
VISUAL

	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 @ 100°C	cSt	ASTM D7279(m)	15.4	13.3	13.4

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0115516 **Received** : 13 Mar 2024
Lab Number : 02621669 **Tested** : 13 Mar 2024
Unique Number : 5746788 **Diagnosed** : 13 Mar 2024 - Wes Davis
Test Package : MOB 1

GFL Environmental - 527
 740 Pine Street South
 Timmins, ON
 CA P4N 8S9
 Contact: Martin St-Pierre
 martinstpierre@gflenv.com
 T: (705)264-8700
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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.