



Machine Id
514004
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 10W30 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0115566	GFL0098568	---
Sample Date		Client Info		11 Jun 2024	21 Dec 2023	---
Machine Age	kms	Client Info		120235	69450	---
Oil Age	kms	Client Info		0	0	---
Filter Age	kms	Client Info		0	0	---
Oil Changed		Client Info		Changed	N/A	---
Filter Changed		Client Info		Changed	N/A	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>120	36	68	---
Chromium	ppm	ASTM D5185(m)	>20	<1	1	---
Nickel	ppm	ASTM D5185(m)	>5	<1	<1	---
Titanium	ppm	ASTM D5185(m)	>2	0	0	---
Silver	ppm	ASTM D5185(m)	>2	0	<1	---
Aluminum	ppm	ASTM D5185(m)	>20	8	28	---
Lead	ppm	ASTM D5185(m)	>40	1	6	---
Copper	ppm	ASTM D5185(m)	>330	66	175	---
Tin	ppm	ASTM D5185(m)	>15	2	7	---
Vanadium	ppm	ASTM D5185(m)		0	0	---

CONTAMINATION

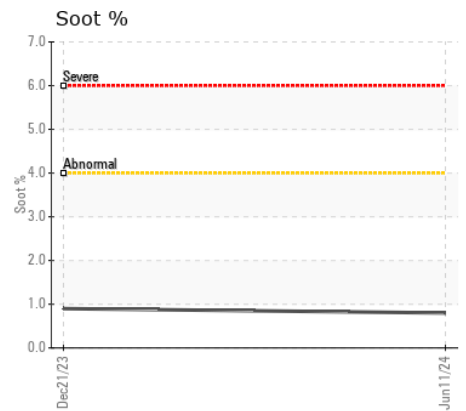
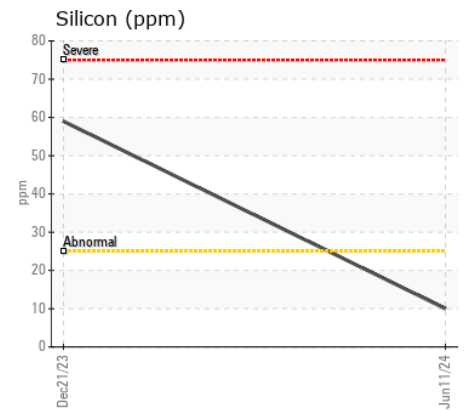
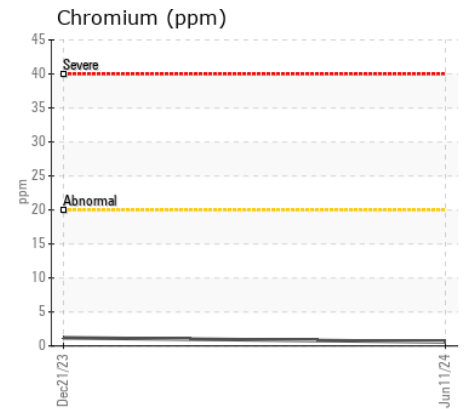
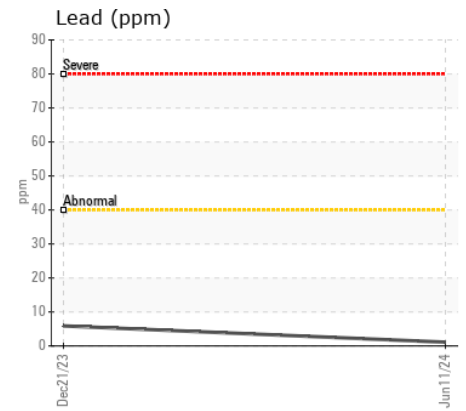
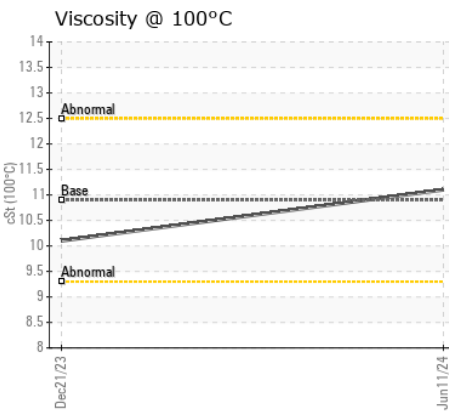
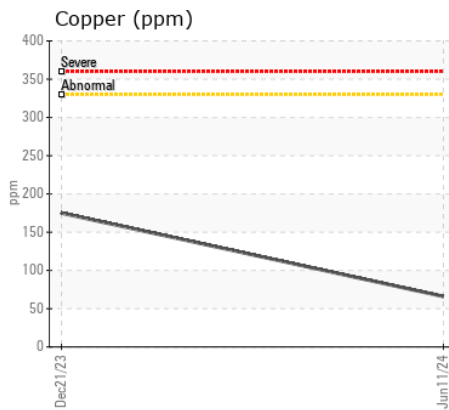
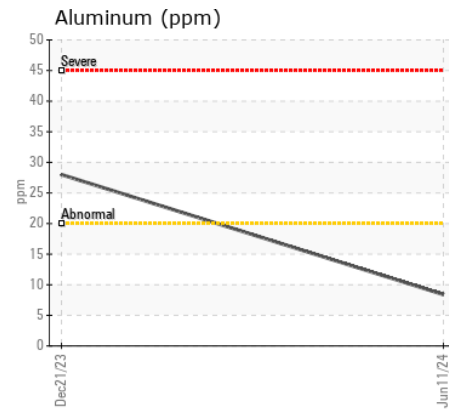
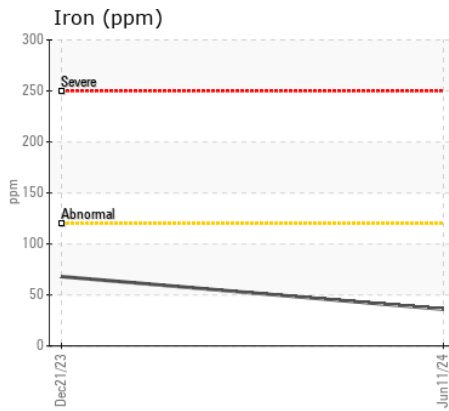
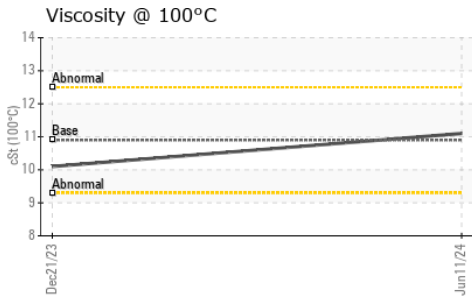
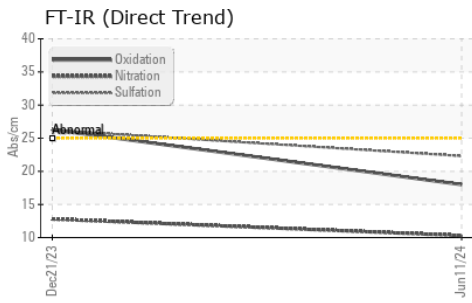
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	10	59	---
Potassium	ppm	ASTM D5185(m)	>20	20	62	---
Fuel		WC Method	>3.0	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	ASTM D7844*	>4	0.8	0.9	---
Nitration	Abs/cm	ASTM D7624*	>20	10.3	12.8	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	22.3	26.2	---
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	---

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		5	4	---
Boron	ppm	ASTM D5185(m)	250	4	30	---
Barium	ppm	ASTM D5185(m)	10	0	<1	---
Molybdenum	ppm	ASTM D5185(m)	100	67	122	---
Manganese	ppm	ASTM D5185(m)		1	4	---
Magnesium	ppm	ASTM D5185(m)	450	927	727	---
Calcium	ppm	ASTM D5185(m)	3000	1206	1481	---
Phosphorus	ppm	ASTM D5185(m)	1150	874	641	---
Zinc	ppm	ASTM D5185(m)	1350	1116	756	---
Sulfur	ppm	ASTM D5185(m)	4250	2002	1787	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	18.0	26.3	---
Visc @ 100°C	cSt	ASTM D7279(m)	10.9	11.1	10.1	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0115566 **Received** : 13 Jun 2024
Lab Number : 02641599 **Tested** : 13 Jun 2024
Unique Number : 5799138 **Diagnosed** : 13 Jun 2024 - Wes Davis
Test Package : MOB 1

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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.