

Area
GFL2160
Machine Id
529028
Component
Diesel Engine
Fluid
CHEVRON DELO 400 LE 15W40 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0113895	GFL0111715	GFL0061858
Sample Date		Client Info		27 Mar 2024	13 Mar 2024	01 Dec 2022
Machine Age	kms	Client Info		368096	366473	287291
Oil Age	kms	Client Info		0	0	7520
Filter Age	kms	Client Info		0	0	7520
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	SEVERE	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>65	3	46	6
Chromium	ppm	ASTM D5185(m)	>5	0	1	<1
Nickel	ppm	ASTM D5185(m)	>3	0	<1	<1
Titanium	ppm	ASTM D5185(m)	>5	0	0	<1
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>35	2	16	6
Lead	ppm	ASTM D5185(m)	>10	0	<1	0
Copper	ppm	ASTM D5185(m)	>180	2	5	1
Tin	ppm	ASTM D5185(m)	>8	0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

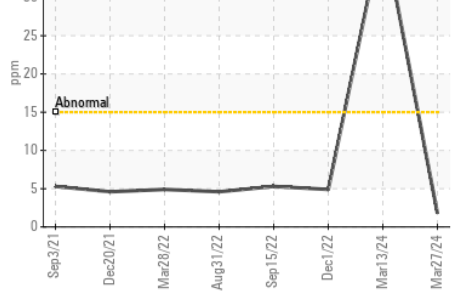
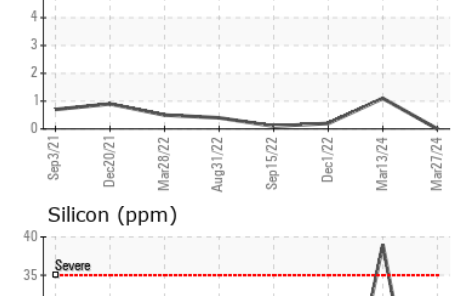
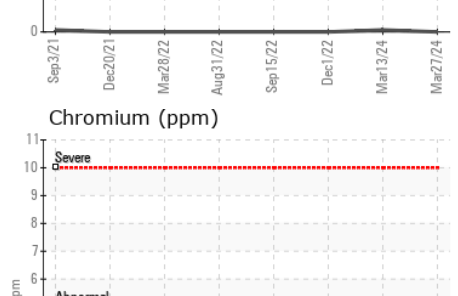
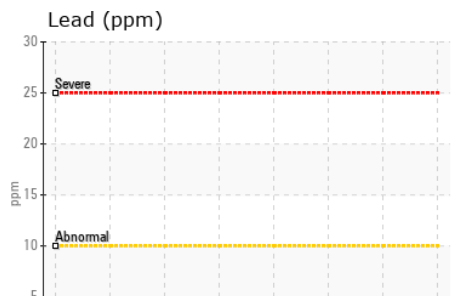
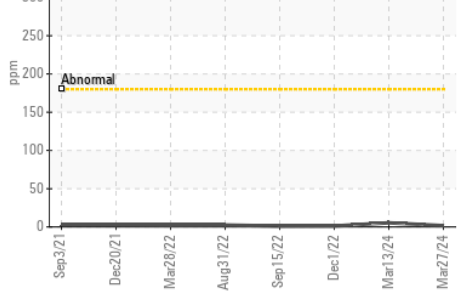
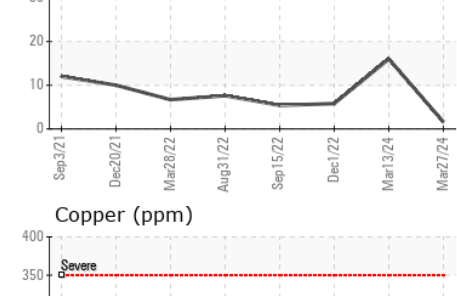
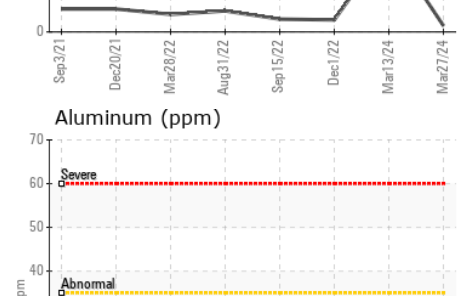
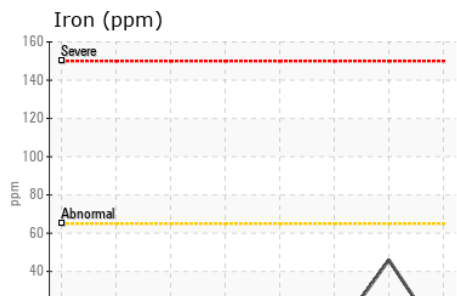
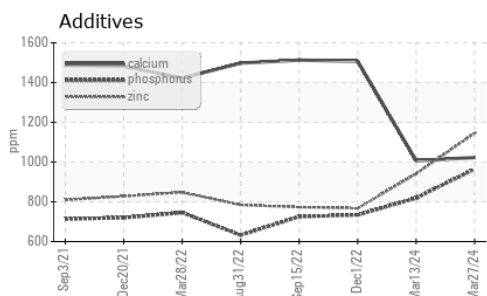
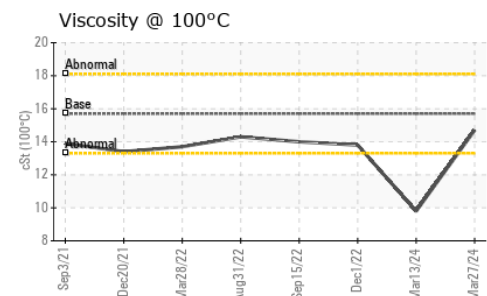
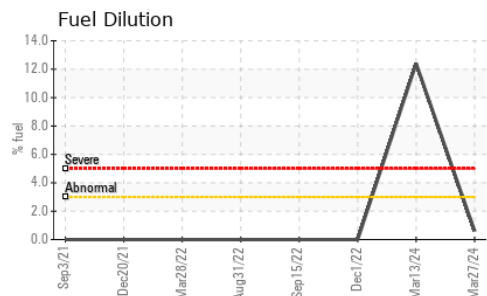
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>15	2	▲ 39	5
Potassium	ppm	ASTM D5185(m)	>20	<1	▲ 6	2
Fuel	%	ASTM D7593*	>3.0	0.6	▲ 12.4	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	▲ 0.023	NEG
Soot %	%	ASTM D7844*	>3	0.1	0.5	0.1
Nitration	Abs/cm	ASTM D7624*	>20	5.2	7.7	7.7
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.0	19.9	24.5
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		1	17	1
Boron	ppm	ASTM D5185(m)		4	6	239
Barium	ppm	ASTM D5185(m)		0	<1	0
Molybdenum	ppm	ASTM D5185(m)		59	57	120
Manganese	ppm	ASTM D5185(m)		0	<1	<1
Magnesium	ppm	ASTM D5185(m)		948	769	645
Calcium	ppm	ASTM D5185(m)		1023	1007	1507
Phosphorus	ppm	ASTM D5185(m)	1200	964	819	734
Zinc	ppm	ASTM D5185(m)	1300	1145	941	767
Sulfur	ppm	ASTM D5185(m)	3200	2515	2180	2073
Oxidation	Abs/.1mm	ASTM D7414*	>25	13.2	14.2	17.4
Visc @ 100°C	cSt	ASTM D7279(m)	15.7	14.7	▲ 9.8	13.8



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0113895
Lab Number : 02625963
Unique Number : 5759095
Test Package : MOB 1 (Additional Tests: PercentFuel)
Received : 02 Apr 2024
Tested : 03 Apr 2024
Diagnosed : 03 Apr 2024 - Kevin Marson

GFL Environmental - 252 - GTA Hauling
 3668 Weston Road
 North York, ON
 CA M9L 1W2
 Contact: Amanda Cipollone
 acipollone@gflenv.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.