



Machine Id
731102
Component
Natural Gas Engine
Fluid
PETRO CANADA DURON GEO LD 15W40 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0110222	GFL0064288	GFL0054891
Sample Date		Client Info		10 Jan 2024	07 Feb 2023	25 Aug 2022
Machine Age	hrs	Client Info		6636	4433	3292
Oil Age	hrs	Client Info		1200	1200	0
Filter Age	hrs	Client Info		1200	1200	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ATTENTION	NORMAL	NORMAL

WEAR

Lead ppm levels are noted. All other component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>50	15	11	13
Chromium	ppm	ASTM D5185(m)	>4	1	1	<1
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	<1	<1
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>9	3	2	2
Lead	ppm	ASTM D5185(m)	>30	▲ 14	1	2
Copper	ppm	ASTM D5185(m)	>35	1	1	2
Tin	ppm	ASTM D5185(m)	>4	1	<1	1
Vanadium	ppm	ASTM D5185(m)		0	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.

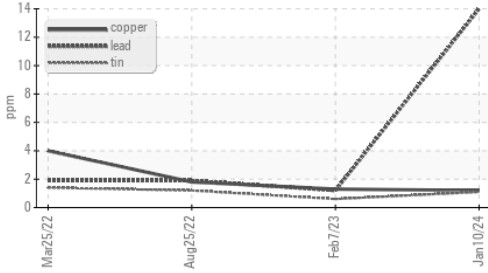
Silicon	ppm	ASTM D5185(m)	>+100	12	4	5
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	8
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol	%	ASTM D7922*		0.0	---	---
Soot %	%	ASTM D7844*		0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	13.2	6.0	12.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	28.3	16.8	25.2
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	NEG

FLUID CONDITION

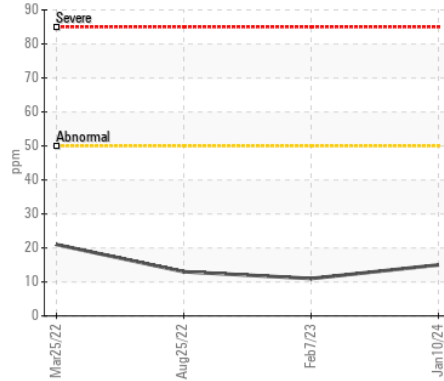
The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		10	7	9
Boron	ppm	ASTM D5185(m)	50	6	9	7
Barium	ppm	ASTM D5185(m)	5	0	0	0
Molybdenum	ppm	ASTM D5185(m)	50	60	55	55
Manganese	ppm	ASTM D5185(m)	0	<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	560	650	604	595
Calcium	ppm	ASTM D5185(m)	1510	1794	1664	1694
Phosphorus	ppm	ASTM D5185(m)	780	818	778	724
Zinc	ppm	ASTM D5185(m)	870	1003	994	960
Sulfur	ppm	ASTM D5185(m)	2040	2211	2160	2147
Oxidation	Abs/.1mm	ASTM D7414*	>25	23.2	9.3	20.2
Visc @ 100°C	cSt	ASTM D7279(m)	15.1	14.2	14.5	14.5

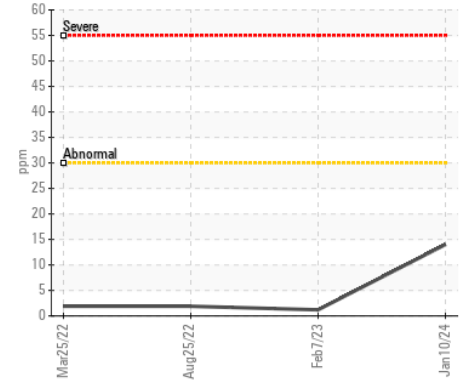
▲ Non-ferrous Metals



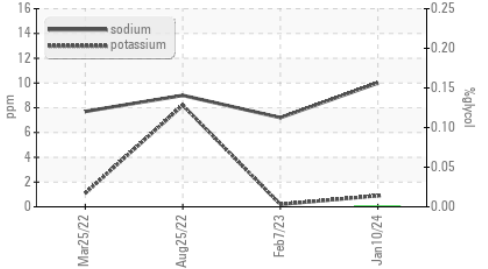
Iron (ppm)



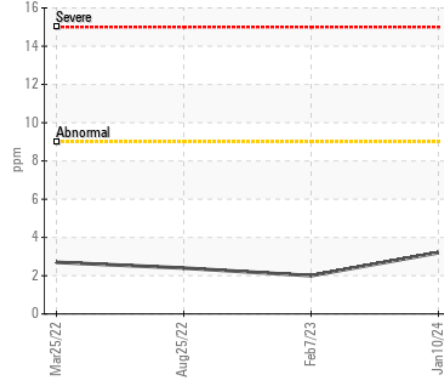
▲ Lead (ppm)



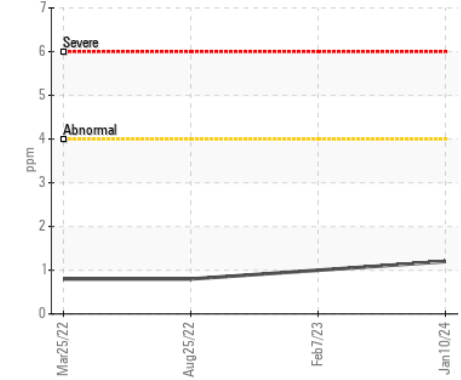
Glycol Contamination



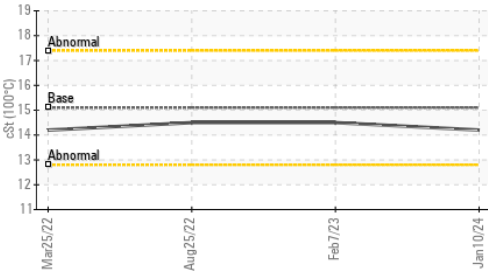
Aluminum (ppm)



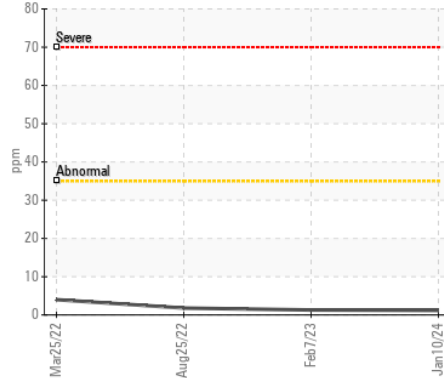
Chromium (ppm)



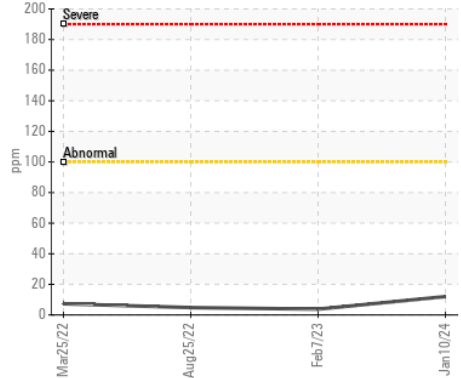
Viscosity @ 100°C



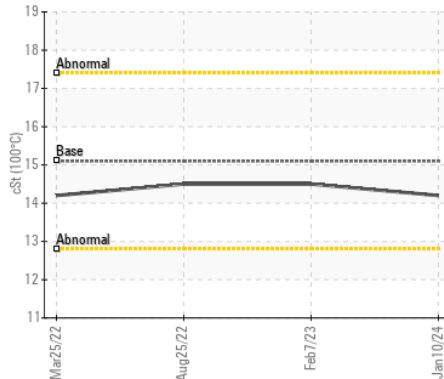
Copper (ppm)



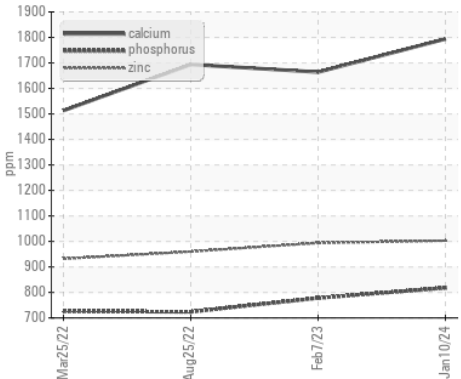
Silicon (ppm)



Viscosity @ 100°C



Additives



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 209 - Hamilton**
Sample No. : GFL0110222 **Received** : 12 Jan 2024
Lab Number : 02608355 **Diagnosed** : 15 Jan 2024
Unique Number : 5709441 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: GLYCOL)

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.

560 Seaman Street
 Stoney Creek, ON
 CA L8E 3X7
 Contact: Fred Carleton
 fred.carleton@gflenv.com
 T: (289)925-6693
 F: (905)664-9008