



Machine Id
831040
Component
Natural Gas Engine
Fluid
PETRO CANADA DURON GEO LD 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0112499	GFL0101696	GFL0093905
Sample Date		Client Info		11 May 2024	19 Dec 2023	02 Oct 2023
Machine Age	hrs	Client Info		6085	5201	0
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Changed	N/A
Filter Changed		Client Info		N/A	Changed	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>50	20	11	13
Chromium	ppm	ASTM D5185(m)	>4	2	1	1
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>9	3	3	2
Lead	ppm	ASTM D5185(m)	>30	7	<1	1
Copper	ppm	ASTM D5185(m)	>35	6	5	8
Tin	ppm	ASTM D5185(m)	>4	0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

There is no indication of any contamination in the oil.

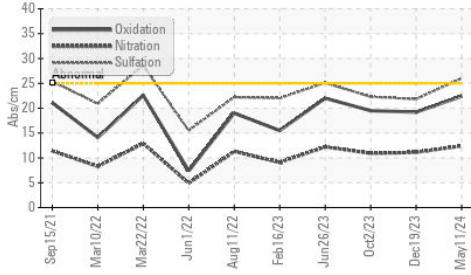
Silicon	ppm	ASTM D5185(m)	>+100	3	3	3
Potassium	ppm	ASTM D5185(m)	>20	4	3	3
Water		WC Method	>0.1	NEG	NEG	NEG
Soot %	%	ASTM D7844*		0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	12.4	11.1	10.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	26.0	21.8	22.3
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	NEG

FLUID CONDITION

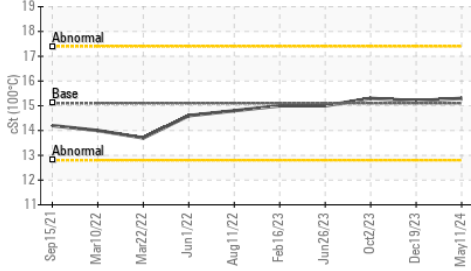
The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		11	8	9
Boron	ppm	ASTM D5185(m)	50	7	8	7
Barium	ppm	ASTM D5185(m)	5	0	0	<1
Molybdenum	ppm	ASTM D5185(m)	50	54	52	53
Manganese	ppm	ASTM D5185(m)	0	<1	0	<1
Magnesium	ppm	ASTM D5185(m)	560	573	532	546
Calcium	ppm	ASTM D5185(m)	1510	1661	1605	1645
Phosphorus	ppm	ASTM D5185(m)	780	674	648	642
Zinc	ppm	ASTM D5185(m)	870	889	872	908
Sulfur	ppm	ASTM D5185(m)	2040	1847	2011	1843
Oxidation	Abs/.1mm	ASTM D7414*	>25	22.4	19.2	19.5
Visc @ 100°C	cSt	ASTM D7279(m)	15.1	15.3	15.2	15.3

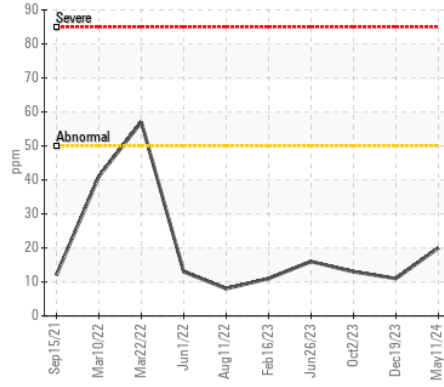
FT-IR (Direct Trend)



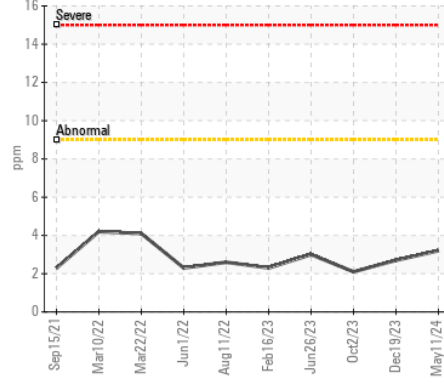
Viscosity @ 100°C



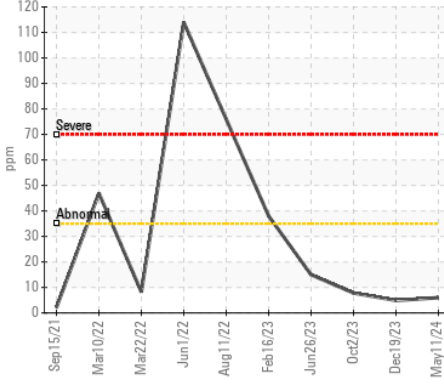
Iron (ppm)



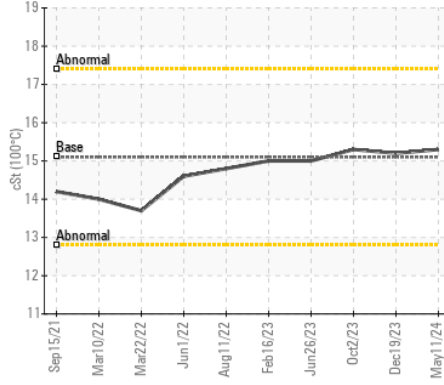
Aluminum (ppm)



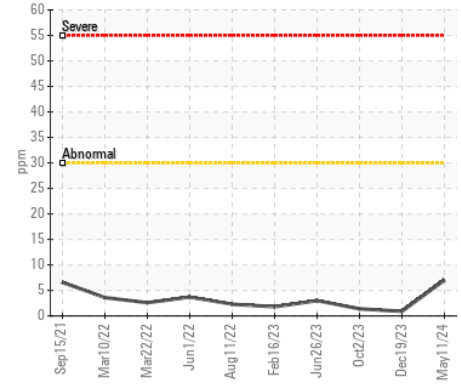
Copper (ppm)



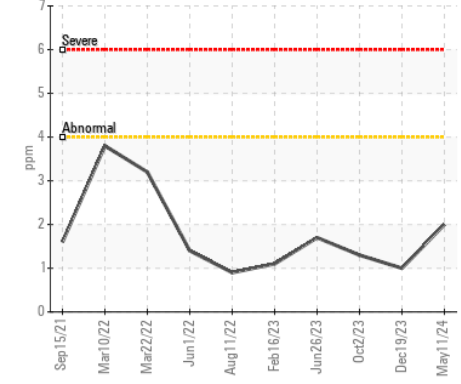
Viscosity @ 100°C



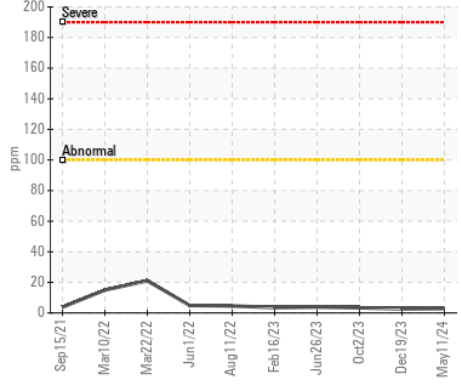
Lead (ppm)



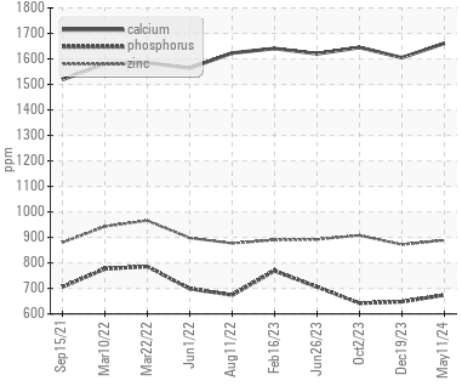
Chromium (ppm)



Silicon (ppm)



Additives



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0112499
Lab Number : 02637112
Unique Number : 5786274
Test Package : MOB 1

Received : 23 May 2024
Tested : 23 May 2024
Diagnosed : 23 May 2024 - Wes Davis

GFL Environmental - 554 - Edmonton SW
 8409 -15th Street NW
 Edmonton, AB
 CA T6P 0B8
 Contact: Tim Greig
 tgreig@gflenv.com
 T: (780)231-0521
 F:

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.