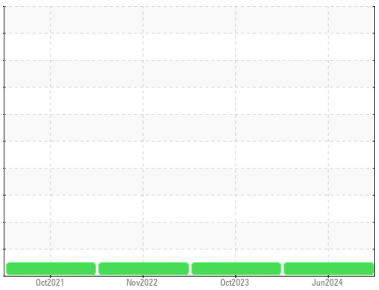
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
731057
Component
Natural Gas Engine
Fluid
PETRO CANADA DURON GEO LD 15W40 (--- LTR)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

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.

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		**GFL0117123**	GFL0097770	GFL0060993
Sample Date		Client Info		**07 Jun 2024**	24 Oct 2023	10 Nov 2022
Machine Age	hrs	Client Info		**6611**	5505	3470
Oil Age	hrs	Client Info		**1200**	1200	1100
Oil Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**NORMAL**	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.1	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>50	**16**	13	28
Chromium	ppm	ASTM D5185(m)	>4	**1**	1	2
Nickel	ppm	ASTM D5185(m)	>2	**<1**	<1	2
Titanium	ppm	ASTM D5185(m)		**<1**	0	<1
Silver	ppm	ASTM D5185(m)	>3	**0**	<1	0
Aluminum	ppm	ASTM D5185(m)	>9	**4**	5	14
Lead	ppm	ASTM D5185(m)	>30	**7**	8	13
Copper	ppm	ASTM D5185(m)	>35	**<1**	<1	4
Tin	ppm	ASTM D5185(m)	>4	**<1**	<1	2
Antimony	ppm	ASTM D5185(m)		**0**	0	<1
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Beryllium	ppm	ASTM D5185(m)		**0**	0	0
Cadmium	ppm	ASTM D5185(m)		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	50	**8**	6	9
Barium	ppm	ASTM D5185(m)	5	**<1**	<1	0
Molybdenum	ppm	ASTM D5185(m)	50	**59**	61	66
Manganese	ppm	ASTM D5185(m)	0	**<1**	0	2
Magnesium	ppm	ASTM D5185(m)	560	**670**	628	674
Calcium	ppm	ASTM D5185(m)	1510	**1799**	1696	1748
Phosphorus	ppm	ASTM D5185(m)	780	**788**	758	877
Zinc	ppm	ASTM D5185(m)	870	**1022**	967	1051
Sulfur	ppm	ASTM D5185(m)	2040	**2094**	2085	2168
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

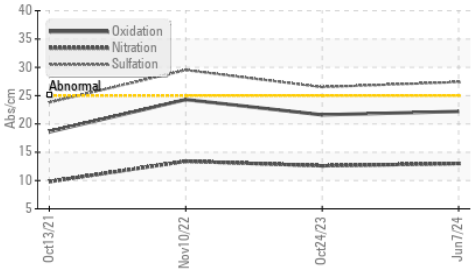
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>+100	**3**	4	6
Sodium	ppm	ASTM D5185(m)		**9**	8	9
Potassium	ppm	ASTM D5185(m)	>20	**8**	12	34

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		**0**	0	0
Nitration	Abs/cm	ASTM D7624*	>20	**13.0**	12.6	13.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	**27.4**	26.5	29.5

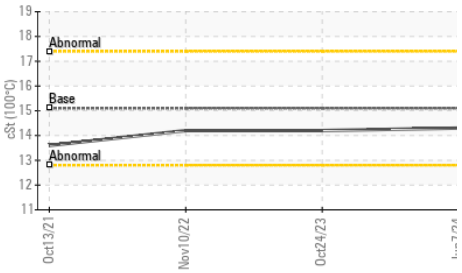
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**22.2**	21.6	24.3

OIL ANALYSIS REPORT

FT-IR (Direct Trend)



Viscosity @ 100°C

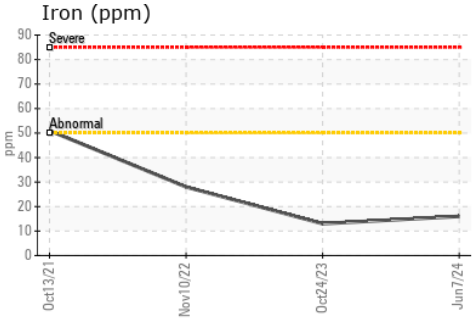


VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.1	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

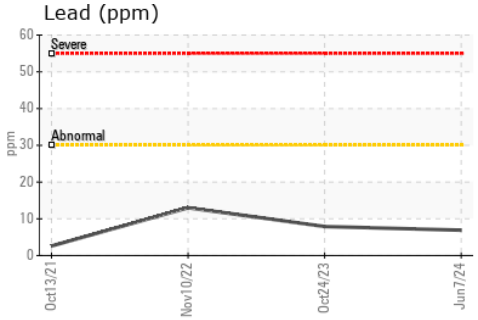
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.1	**14.3**	14.2	14.2

GRAPHS

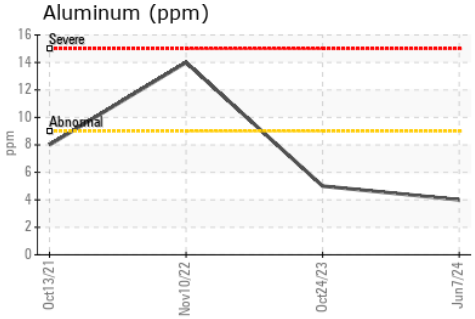
Iron (ppm)



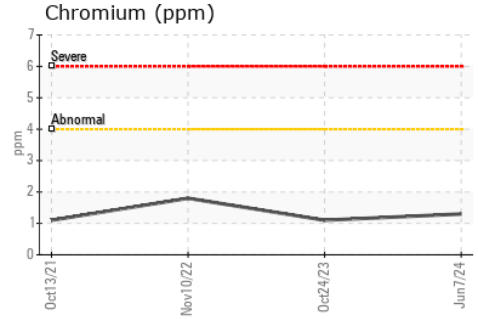
Lead (ppm)



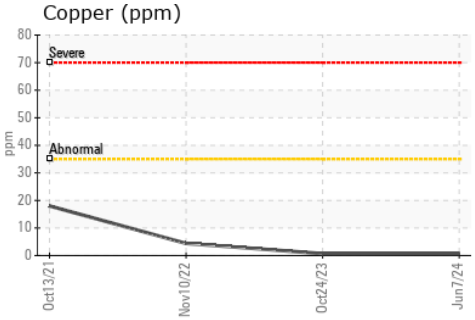
Aluminum (ppm)



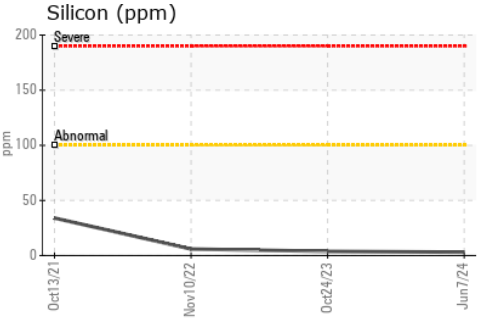
Chromium (ppm)



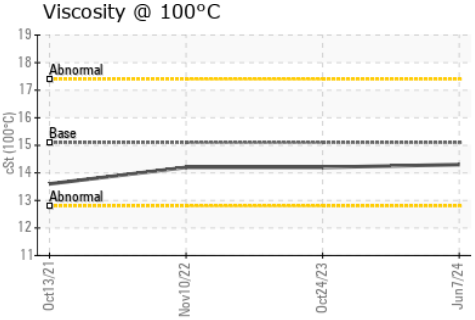
Copper (ppm)



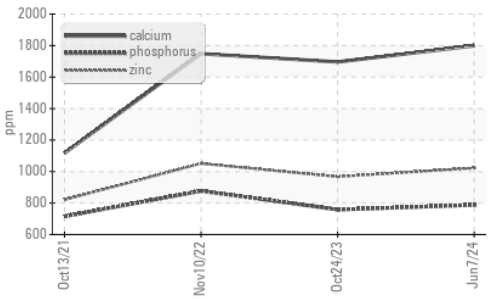
Silicon (ppm)



Viscosity @ 100°C



Additives



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0117123
Lab Number : 02640983
Unique Number : 5798522
Test Package : MOB 1

Received : 11 Jun 2024
Tested : 11 Jun 2024
Diagnosed : 11 Jun 2024 - Wes Davis

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.

GFL Environmental - 209 - Hamilton
560 Seaman Street
Stoney Creek, ON
CA L8E 3X7
Contact: Fred Carleton
fred.carleton@gflenv.com
T: (289)925-6693
F: (905)664-9008