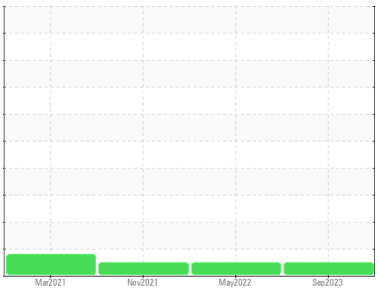
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
831000
Component
Natural Gas Engine
Fluid
PETRO CANADA DURON GEO LD 15W40 (--- LTR)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor.

Wear
Metal levels are typical for a new component breaking in.

Contamination
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		**GFL0093910**	GFL0038989	GFL0039031
Sample Date		Client Info		**20 Sep 2023**	30 May 2022	15 Nov 2021
Machine Age	kms	Client Info		**110415**	3367	0
Oil Age	kms	Client Info		**0**	0	0
Oil Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**NORMAL**	NORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>50	**12**	14	18
Chromium	ppm	ASTM D5185(m)	>4	**<1**	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	<1
Aluminum	ppm	ASTM D5185(m)	>9	**2**	2	3
Lead	ppm	ASTM D5185(m)	>30	**<1**	2	2
Copper	ppm	ASTM D5185(m)	>35	**1**	3	4
Tin	ppm	ASTM D5185(m)	>4	**<1**	1	1
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	**6**	6	6
Barium	ppm	ASTM D5185(m)	5	**<1**	0	<1
Molybdenum	ppm	ASTM D5185(m)	50	**59**	59	60
Manganese	ppm	ASTM D5185(m)	0	**<1**	1	2
Magnesium	ppm	ASTM D5185(m)	560	**617**	654	546
Calcium	ppm	ASTM D5185(m)	1510	**1833**	1724	1643
Phosphorus	ppm	ASTM D5185(m)	780	**741**	812	775
Zinc	ppm	ASTM D5185(m)	870	**1005**	1029	958
Sulfur	ppm	ASTM D5185(m)	2040	**2037**	2155	1972
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>+100	**4**	5	6
Sodium	ppm	ASTM D5185(m)		**10**	10	8
Potassium	ppm	ASTM D5185(m)	>20	**<1**	1	1

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		**0**	0	0
Nitration	Abs/cm	ASTM D7624*	>20	**12.1**	4.7	11.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	**25.6**	16.2	26.6

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**21.6**	7.7	21.3

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

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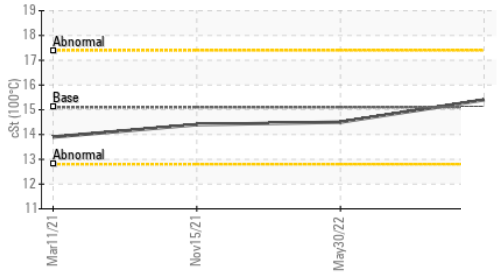
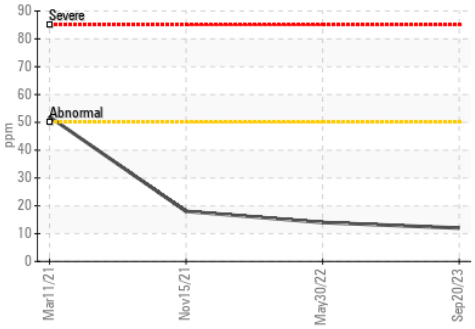
Viscosity @ 100°C



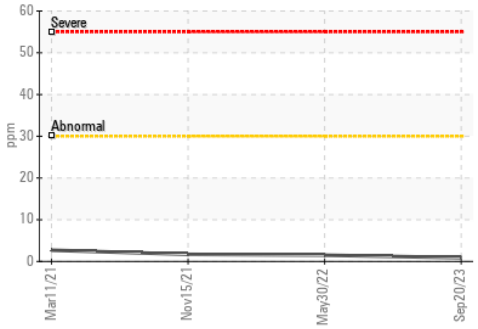
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.1	**15.4**	14.5	14.4

GRAPHS

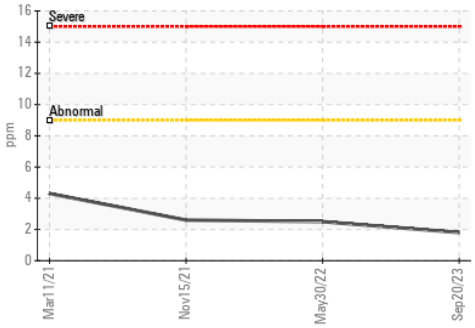
Iron (ppm)



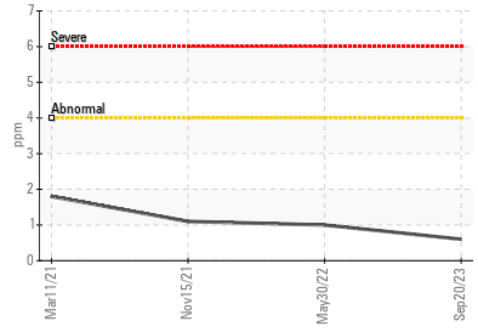
Lead (ppm)



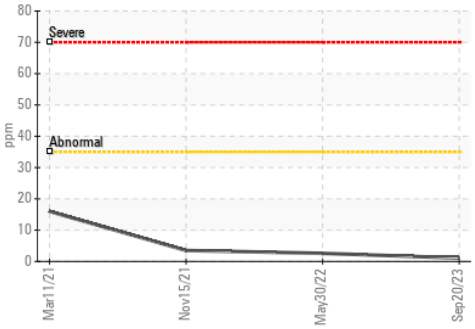
Aluminum (ppm)



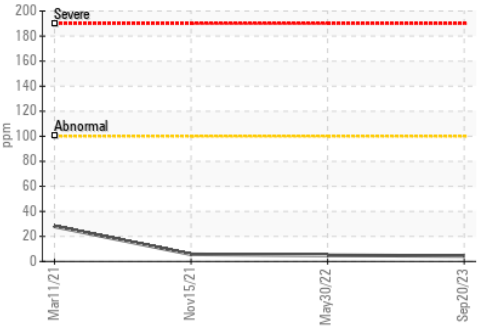
Chromium (ppm)



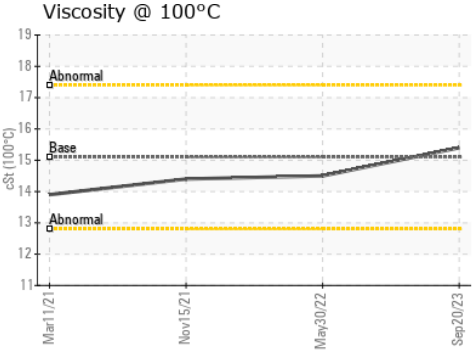
Copper (ppm)



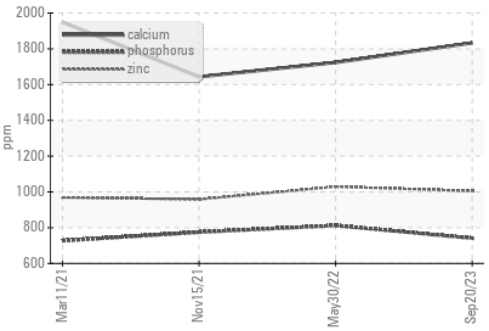
Silicon (ppm)



Viscosity @ 100°C



Additives



ISO 17025:2017 Accredited Laboratory

Laboratory	: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 554 - Edmonton SW**		
Sample No.	: GFL0093910	**Received**	: 03 Oct 2023
Lab Number	: 02586312	**Diagnosed**	: 03 Oct 2023
Unique Number	: 5655378	**Diagnostician**	: Wes Davis
Test Package	: MOB 1		

8409 -15th Street NW
Edmonton, AB
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Contact: Tim Greig
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T:
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.