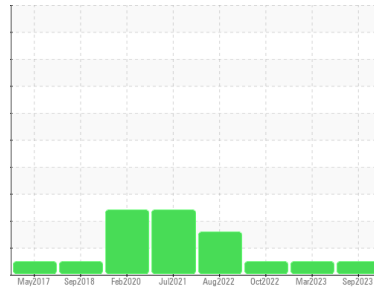




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
9172
 Component
Natural Gas Engine
 Fluid
PETRO CANADA DURON GEO LD 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

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		GFL0085905	GFL0064334	GFL0061003
Sample Date	Client Info		28 Sep 2023	22 Mar 2023	04 Oct 2022
Machine Age	kms	Client Info	275225	1584	235489
Oil Age	kms	Client Info	2400	600	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	17	23	17
Chromium	ppm	ASTM D5185(m) >4	<1	2	2
Nickel	ppm	ASTM D5185(m) >2	0	<1	<1
Titanium	ppm	ASTM D5185(m)	0	<1	<1
Silver	ppm	ASTM D5185(m) >3	<1	0	0
Aluminum	ppm	ASTM D5185(m) >9	2	5	4
Lead	ppm	ASTM D5185(m) >30	2	1	1
Copper	ppm	ASTM D5185(m) >35	18	6	3
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	29	10	11
Barium	ppm	ASTM D5185(m) 5	<1	0	0
Molybdenum	ppm	ASTM D5185(m) 50	108	54	50
Manganese	ppm	ASTM D5185(m) 0	<1	<1	<1
Magnesium	ppm	ASTM D5185(m) 560	121	575	567
Calcium	ppm	ASTM D5185(m) 1510	1817	1700	1607
Phosphorus	ppm	ASTM D5185(m) 780	653	767	797
Zinc	ppm	ASTM D5185(m) 870	812	941	911
Sulfur	ppm	ASTM D5185(m) 2040	2169	2042	2067
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >+100	13	10	4
Sodium	ppm	ASTM D5185(m)	3	8	7
Potassium	ppm	ASTM D5185(m) >20	0	0	0

INFRA-RED

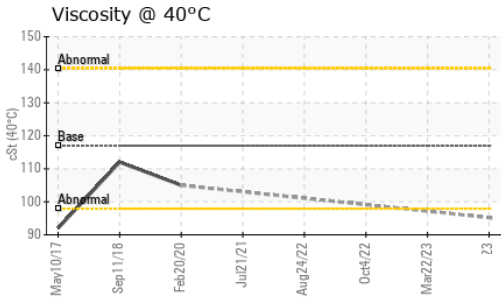
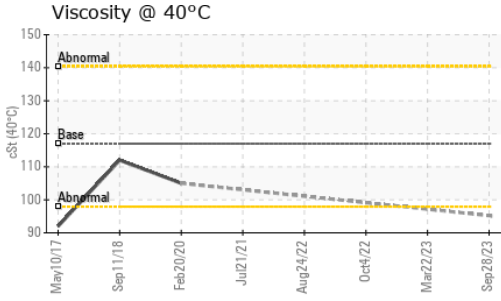
	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	11.8	10.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	26.5	20.2

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	19.9	17.6



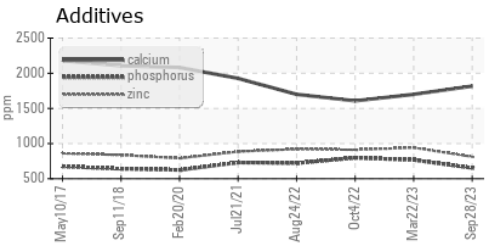
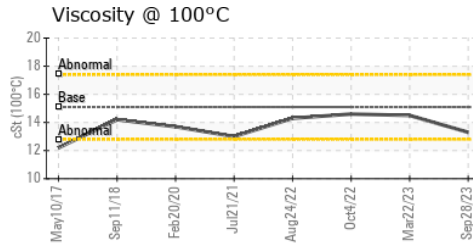
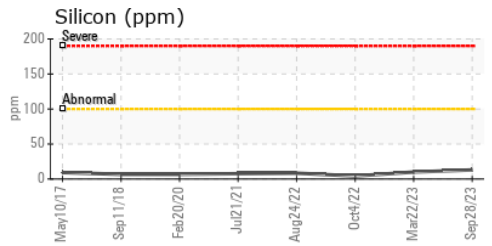
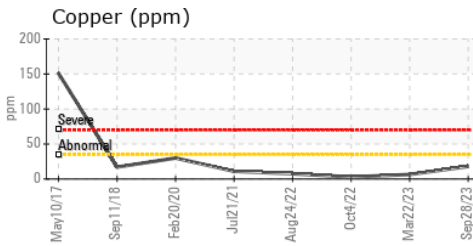
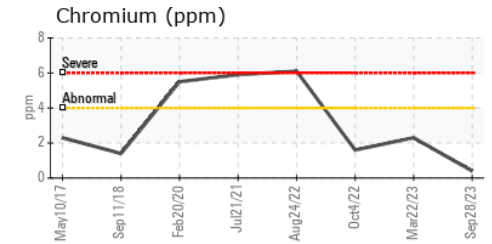
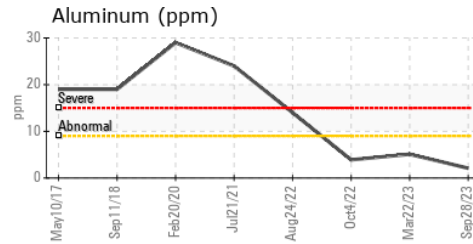
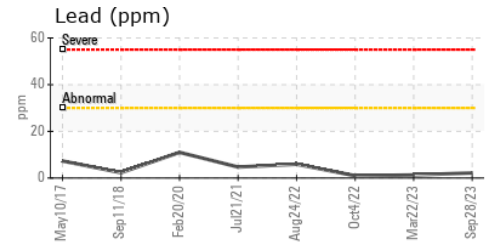
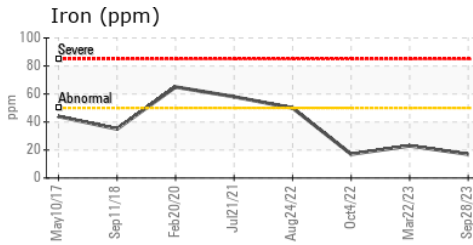
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	---
Precipitate	scalar	Visual*	NONE	NONE	---
Silt	scalar	Visual*	NONE	NONE	---
Debris	scalar	Visual*	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	117.0	95.2	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.1	13.3	14.5
Viscosity Index (VI)	Scale	ASTM D2270*	134	139	---

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 209 - Hamilton**
Sample No. : GFL0085905 **Received** : 03 Oct 2023
Lab Number : 02586310 **Diagnosed** : 03 Oct 2023
Unique Number : 5655376 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: KV40, VI, Visual)

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.

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