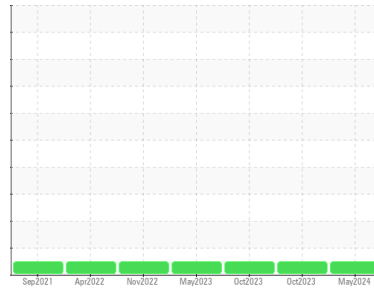




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
731046
 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

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		GFL0117134	GFL0097767	GFL0097758
Sample Date	Client Info		17 May 2024	31 Oct 2023	03 Oct 2023
Machine Age	hrs	Client Info	6474	5352	5491
Oil Age	hrs	Client Info	1200	1200	1200
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	17	15	11
Chromium	ppm	ASTM D5185(m)	>4	2	2	<1
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		<1	0	0
Silver	ppm	ASTM D5185(m)	>3	0	0	<1
Aluminum	ppm	ASTM D5185(m)	>9	2	2	2
Lead	ppm	ASTM D5185(m)	>30	5	9	3
Copper	ppm	ASTM D5185(m)	>35	2	2	1
Tin	ppm	ASTM D5185(m)	>4	<1	<1	<1
Antimony	ppm	ASTM D5185(m)		0	0	0
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	0	<1	<1
Molybdenum	ppm	ASTM D5185(m)	50	59	66	65
Manganese	ppm	ASTM D5185(m)	0	<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	560	652	679	602
Calcium	ppm	ASTM D5185(m)	1510	1765	1821	1661
Phosphorus	ppm	ASTM D5185(m)	780	752	784	705
Zinc	ppm	ASTM D5185(m)	870	1009	1057	949
Sulfur	ppm	ASTM D5185(m)	2040	2083	2230	2086
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>+100	3	6	4
Sodium	ppm	ASTM D5185(m)		9	10	8
Potassium	ppm	ASTM D5185(m)	>20	<1	0	<1

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*		0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	12.8	12.2	11.2
Sulfation	Abs.1mm	ASTM D7415*	>30	26.9	26.5	23.4

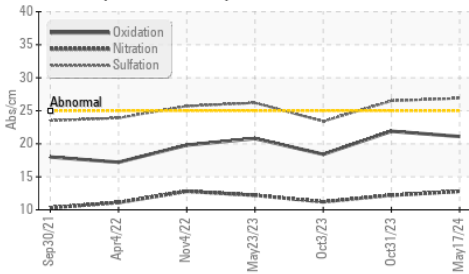
FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs.1mm	ASTM D7414*	>25	21.1	21.9	18.4

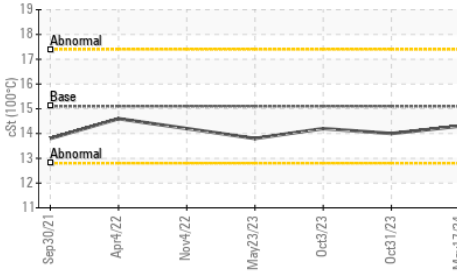


OIL ANALYSIS REPORT

FT-IR (Direct Trend)



Viscosity @ 100°C

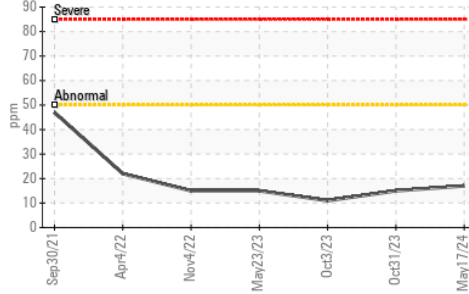


VISUAL	method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

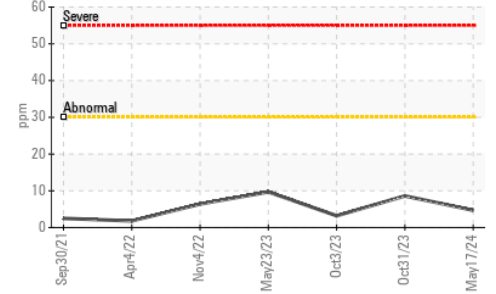
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.1	14.3	14.0

GRAPHS

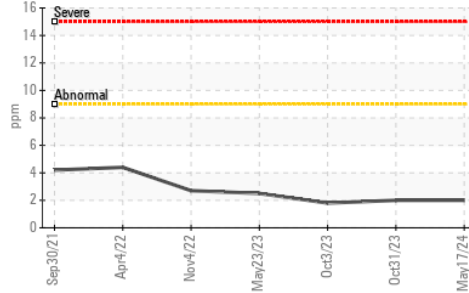
Iron (ppm)



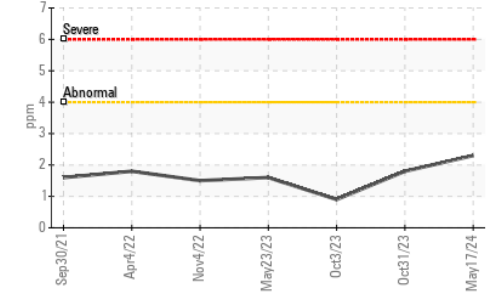
Lead (ppm)



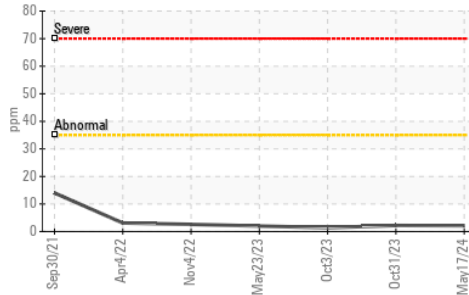
Aluminum (ppm)



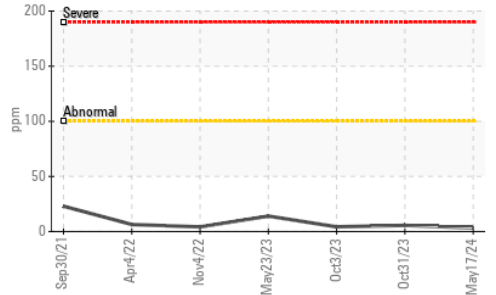
Chromium (ppm)



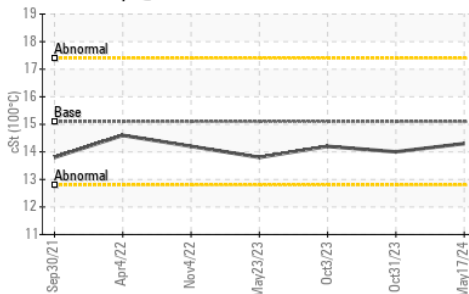
Copper (ppm)



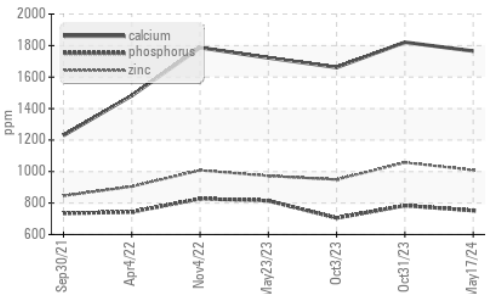
Silicon (ppm)



Viscosity @ 100°C



Additives



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0117134
Lab Number : 02637395
Unique Number : 5786557
Test Package : MOB 1

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

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.