

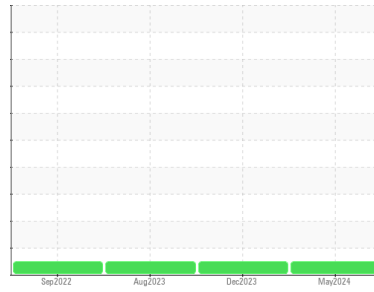


OIL ANALYSIS REPORT



Machine Id
OR872
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

Sample Rating Trend



NORMAL



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		GFL0100619	GFL0076991	GFL0077025
Sample Date	Client Info		20 May 2024	01 Dec 2023	10 Aug 2023
Machine Age	hrs	Client Info	22057	21348	20882
Oil Age	hrs	Client Info	300	466	795
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	0.9	<1.0
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	0.0

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >100	6	9	8
Chromium	ppm	ASTM D5185(m) >20	<1	<1	<1
Nickel	ppm	ASTM D5185(m) >2	0	0	0
Titanium	ppm	ASTM D5185(m) >2	0	0	0
Silver	ppm	ASTM D5185(m) >2	0	<1	0
Aluminum	ppm	ASTM D5185(m) >25	<1	1	1
Lead	ppm	ASTM D5185(m) >40	0	<1	0
Copper	ppm	ASTM D5185(m) >330	<1	<1	1
Tin	ppm	ASTM D5185(m) >15	0	0	0
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) 0	3	77	93
Barium	ppm	ASTM D5185(m) 0	0	<1	0
Molybdenum	ppm	ASTM D5185(m) 60	63	24	13
Manganese	ppm	ASTM D5185(m) 0	0	0	0
Magnesium	ppm	ASTM D5185(m) 1010	1031	384	205
Calcium	ppm	ASTM D5185(m) 1070	1106	1794	2056
Phosphorus	ppm	ASTM D5185(m) 1150	1072	987	1059
Zinc	ppm	ASTM D5185(m) 1270	1254	1185	1179
Sulfur	ppm	ASTM D5185(m) 2060	2758	2908	2990
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

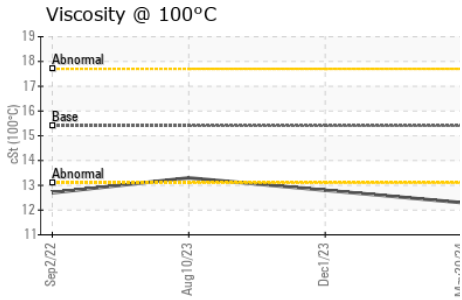
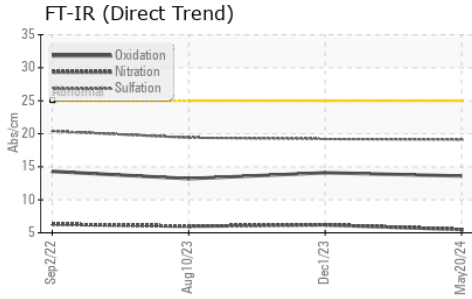
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	10	3	3
Sodium	ppm	ASTM D5185(m)	1	2	2
Potassium	ppm	ASTM D5185(m) >20	<1	3	6

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >3	0.2	0.3	0.2
Nitration	Abs/cm	ASTM D7624* >20	5.5	6.2	6.0
Sulfation	Abs/.1mm	ASTM D7415* >30	19.1	19.2	19.4



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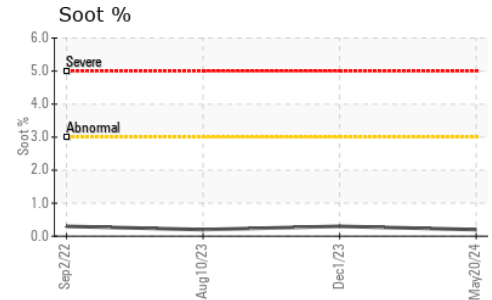
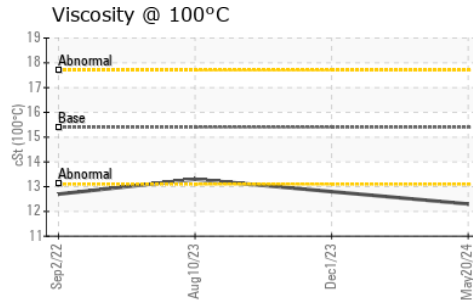
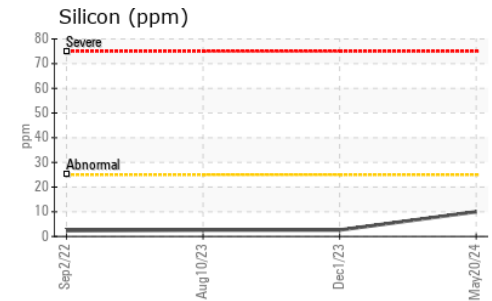
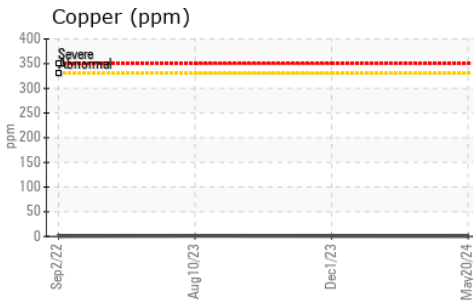
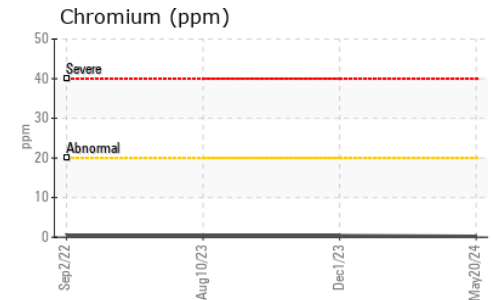
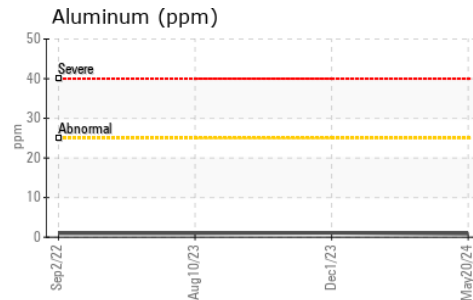
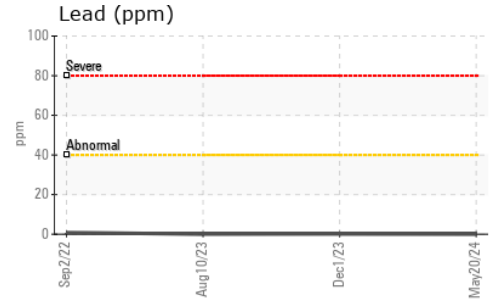
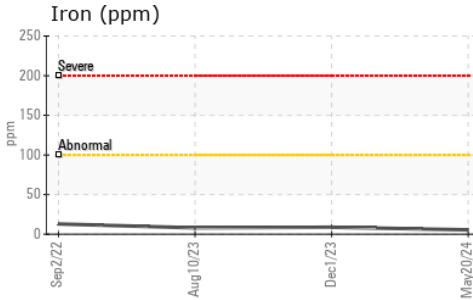


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	13.6	14.1	13.2

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	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)	15.4	12.3	12.8	13.3

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0100619
Lab Number : 02636901
Unique Number : 5786063
Test Package : MOB 1

GFL Environmental - 575 - Squamish Hauling
 38950 Queens Way,
 Squamish, BC
 CA V8B 0K8
 Contact: Dean Imbeau
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 F: (604)892-5238

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.