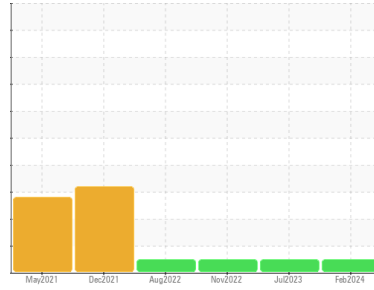




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
351077

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

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		GFL0100600	GFL0077035	GFL0054663
Sample Date	Client Info		14 Feb 2024	26 Jul 2023	28 Nov 2022
Machine Age	kms	Client Info	6276	236819	5451
Oil Age	kms	Client Info	0	0	559
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<1.0	<1.0	<1.0
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >90	24	25	33
Chromium	ppm	ASTM D5185(m) >20	<1	<1	<1
Nickel	ppm	ASTM D5185(m) >2	<1	0	<1
Titanium	ppm	ASTM D5185(m) >2	0	0	<1
Silver	ppm	ASTM D5185(m) >2	0	0	0
Aluminum	ppm	ASTM D5185(m) >20	3	2	4
Lead	ppm	ASTM D5185(m) >40	0	0	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	<1	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) 0	3	3	2
Barium	ppm	ASTM D5185(m) 0	0	0	0
Molybdenum	ppm	ASTM D5185(m) 60	59	60	61
Manganese	ppm	ASTM D5185(m) 0	0	<1	<1
Magnesium	ppm	ASTM D5185(m) 1010	974	1010	987
Calcium	ppm	ASTM D5185(m) 1070	1084	1061	1132
Phosphorus	ppm	ASTM D5185(m) 1150	1022	1080	1094
Zinc	ppm	ASTM D5185(m) 1270	1187	1230	1236
Sulfur	ppm	ASTM D5185(m) 2060	2626	2529	2561
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

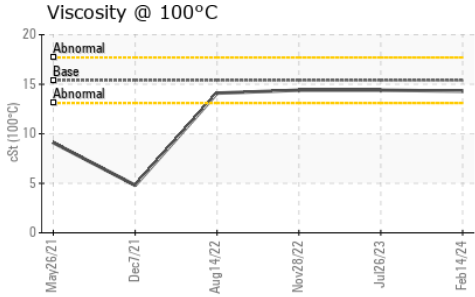
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	4	4	4
Sodium	ppm	ASTM D5185(m)	1	2	2
Potassium	ppm	ASTM D5185(m) >20	1	<1	2

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >6	0	0	0
Nitration	Abs/cm	ASTM D7624* >20	7.2	8.0	8.8
Sulfation	Abs./1mm	ASTM D7415* >30	18.7	19.7	20.8



OIL ANALYSIS REPORT



FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs./1mm ASTM D7414*	>25	15.8	17.8

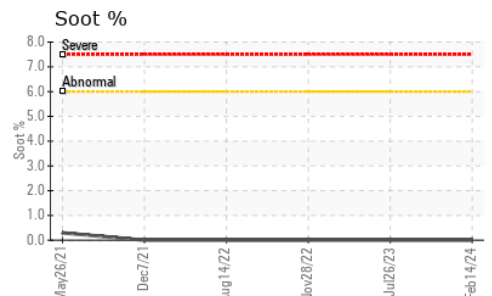
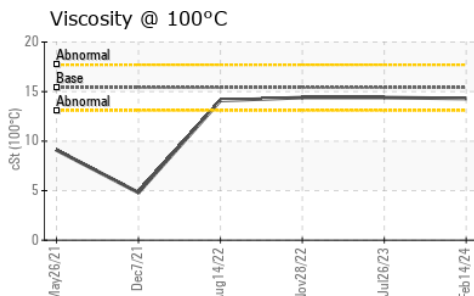
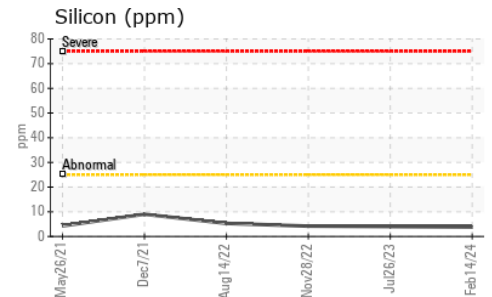
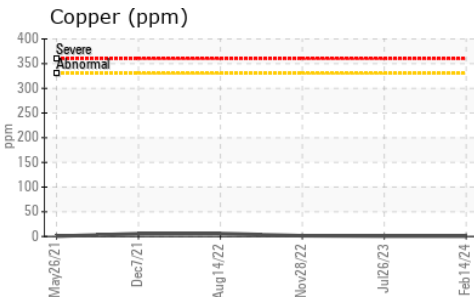
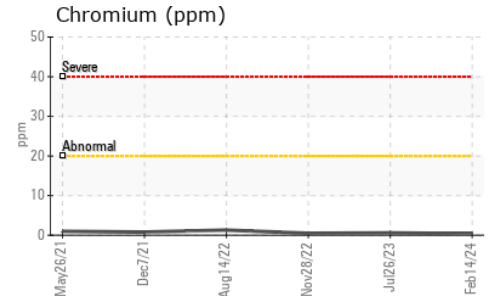
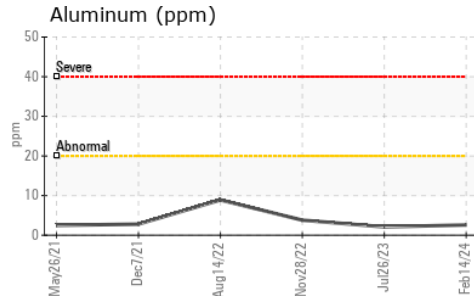
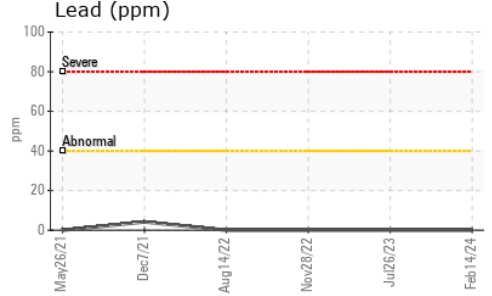
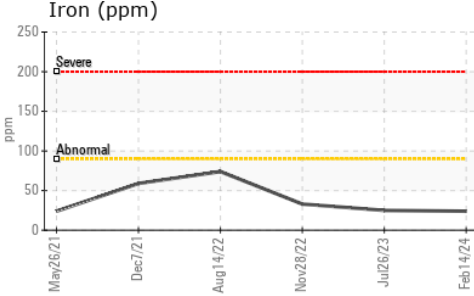
VISUAL

method	limit/base	current	history1	history2
Emulsified Water	scalar Visual*	>0.2	NEG	NEG
Free Water	scalar Visual*		NEG	NEG

FLUID PROPERTIES

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

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0100600
Lab Number : 02616930
Unique Number : 5734040
Test Package : MOB 1
Received : 21 Feb 2024
Tested : 21 Feb 2024
Diagnosed : 21 Feb 2024 - Wes Davis

GFL Environmental - 575 - Squamish Hauling
 38950 Queens Way,
 Squamish, BC
 CA V8B 0K8
 Contact: Dean Imbeau
 dimbeau@gflenv.com
 T: (604)892-5604
 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.