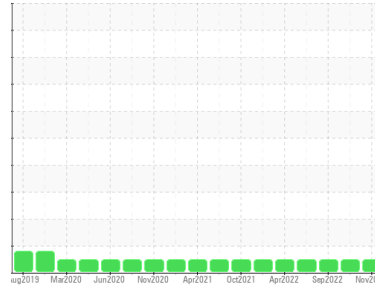




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
201113

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 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		GFL0101088	GFL0085251	GFL0059413
Sample Date	Client Info		28 Nov 2023	12 Jul 2023	29 Sep 2022
Machine Age	kms	Client Info	181960	175580	8438
Oil Age	kms	Client Info	0	0	0
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	<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) >100	12	16	9
Chromium	ppm	ASTM D5185(m) >20	<1	1	<1
Nickel	ppm	ASTM D5185(m) >4	0	<1	0
Titanium	ppm	ASTM D5185(m)	0	0	<1
Silver	ppm	ASTM D5185(m) >3	<1	0	0
Aluminum	ppm	ASTM D5185(m) >20	3	4	4
Lead	ppm	ASTM D5185(m) >40	<1	0	0
Copper	ppm	ASTM D5185(m) >330	2	4	2
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	2	3	3
Barium	ppm	ASTM D5185(m) 0	<1	0	0
Molybdenum	ppm	ASTM D5185(m) 60	59	60	58
Manganese	ppm	ASTM D5185(m) 0	0	<1	<1
Magnesium	ppm	ASTM D5185(m) 1010	969	994	929
Calcium	ppm	ASTM D5185(m) 1070	1060	1063	1069
Phosphorus	ppm	ASTM D5185(m) 1150	1010	1047	1069
Zinc	ppm	ASTM D5185(m) 1270	1176	1202	1178
Sulfur	ppm	ASTM D5185(m) 2060	2469	2388	2610
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

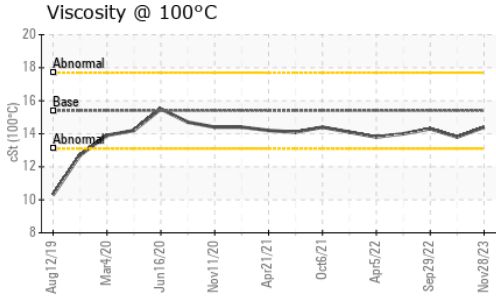
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	5	6	4
Sodium	ppm	ASTM D5185(m)	2	2	2
Potassium	ppm	ASTM D5185(m) >20	1	4	4

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >3	0.3	0.4	0
Nitration	Abs/cm	ASTM D7624* >20	7.4	9.1	7.3
Sulfation	Abs/.1mm	ASTM D7415* >30	19.1	20.8	19.2



OIL ANALYSIS REPORT



FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs./1mm ASTM D7414*	>25	17.6	15.2

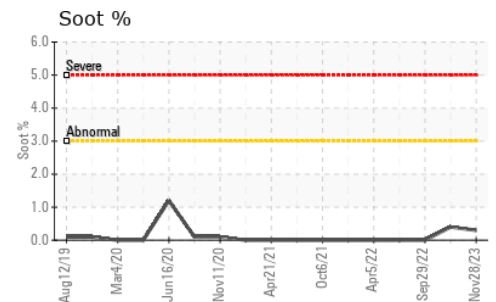
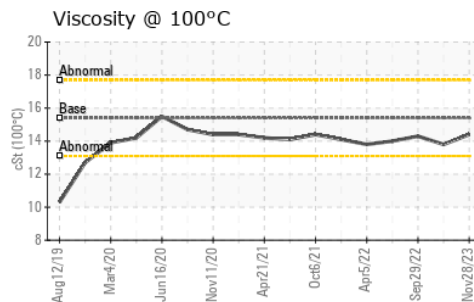
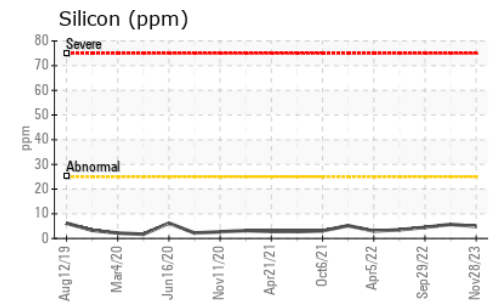
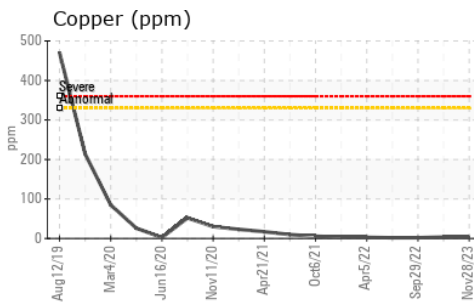
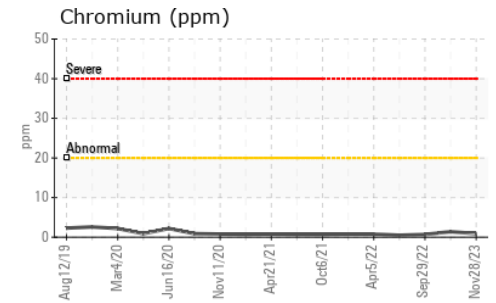
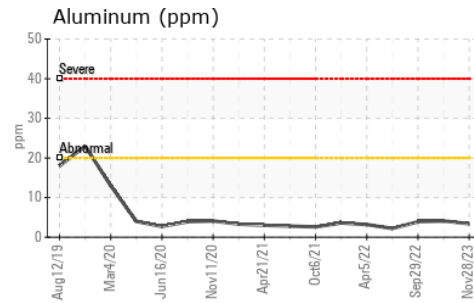
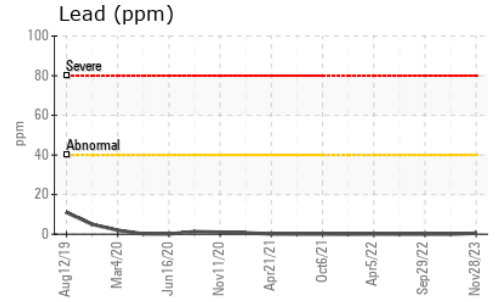
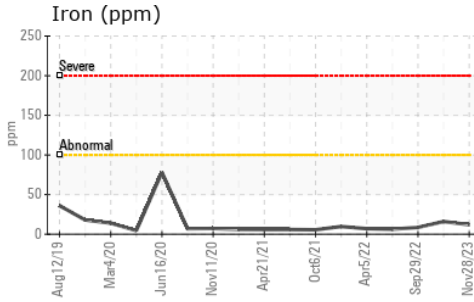
VISUAL

method	limit/base	current	history1	history2
Emulsified Water	scalar Visual*	>0.2	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	14.4	13.8

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0101088
Lab Number : 02599828
Unique Number : 5684908
Test Package : MOB 1

GFL Environmental - 201 - Pick LQ
 1070 Toy Ave,
 Pickering, ON
 CA L1W 3P1
 Contact: Shane Cater
 scater@gflenv.com

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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F: