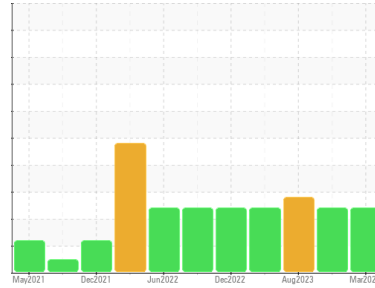




OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Area
[1242973]
 Machine Id
816002

Component
Diesel Engine
 Fluid

PETRO CANADA DURON SHP 15W40 (--- LTR)

DIAGNOSIS

▲ Recommendation

We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

▲ Contamination

There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

▲ Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0093962	GFL0093929	GFL0062935
Sample Date	Client Info	15 Mar 2024	25 Oct 2023	11 Aug 2023
Machine Age	hrs	17765	17225	16863
Oil Age	hrs	0	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		SEVERE	SEVERE	SEVERE

CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.2	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >100	35	21	40
Chromium	ppm ASTM D5185(m) >20	2	<1	2
Nickel	ppm ASTM D5185(m) >4	<1	<1	<1
Titanium	ppm ASTM D5185(m)	0	0	0
Silver	ppm ASTM D5185(m) >3	0	<1	0
Aluminum	ppm ASTM D5185(m) >20	6	2	4
Lead	ppm ASTM D5185(m) >40	0	0	<1
Copper	ppm ASTM D5185(m) >330	1	<1	2
Tin	ppm ASTM D5185(m) >15	0	0	0
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) 0	5	5	6
Barium	ppm ASTM D5185(m) 0	0	<1	0
Molybdenum	ppm ASTM D5185(m) 60	50	50	58
Manganese	ppm ASTM D5185(m) 0	0	0	<1
Magnesium	ppm ASTM D5185(m) 1010	769	769	860
Calcium	ppm ASTM D5185(m) 1070	903	884	993
Phosphorus	ppm ASTM D5185(m) 1150	782	806	938
Zinc	ppm ASTM D5185(m) 1270	944	968	1060
Sulfur	ppm ASTM D5185(m) 2060	1909	1999	2178
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

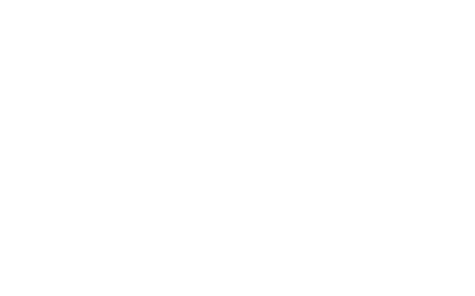
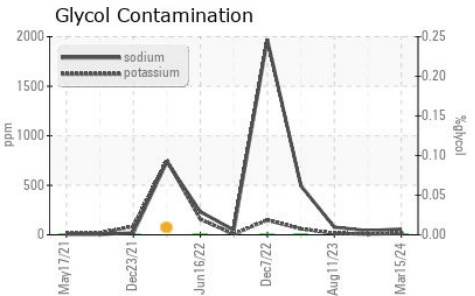
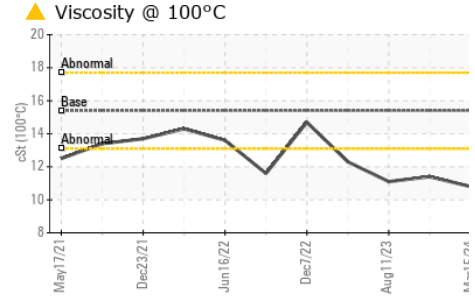
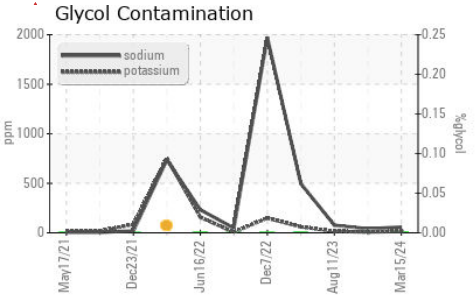
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >25	7	5	12
Sodium	ppm ASTM D5185(m)	58	41	77
Potassium	ppm ASTM D5185(m) >20	14	8	15
Fuel	% ASTM D7593* >5	▲ 13.3	▲ 9.3	▲ 10.4
Glycol	% ASTM D7922*	0.0	0.0	0.0

INFRA-RED

method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >3	0.9	0.6	1.1
Nitration	Abs/cm ASTM D7624* >20	14.0	10.9	12.4
Sulfation	Abs./1mm ASTM D7415* >30	25.5	21.8	26.2



OIL ANALYSIS REPORT

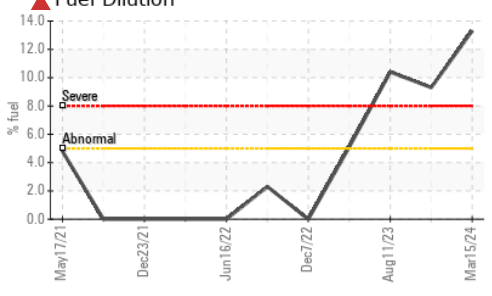
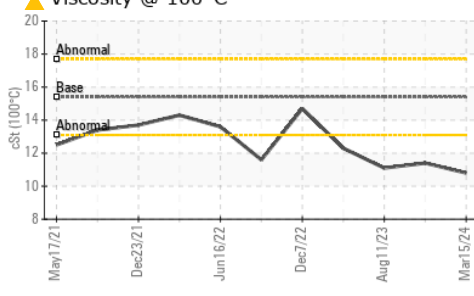
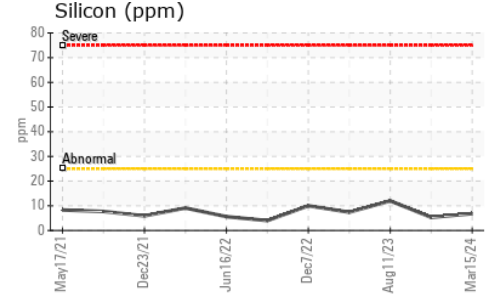
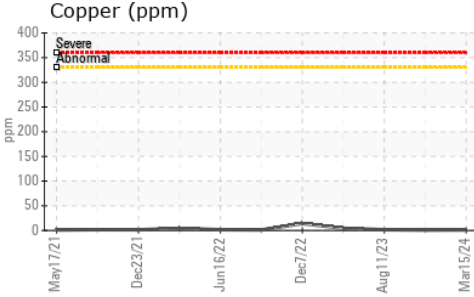
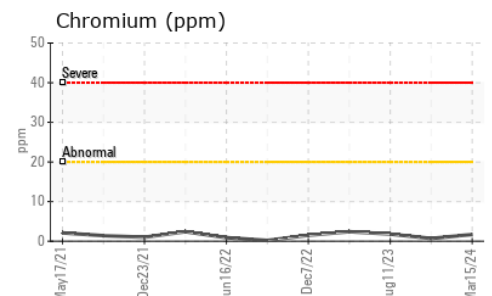
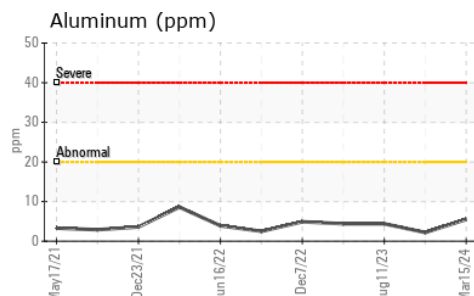
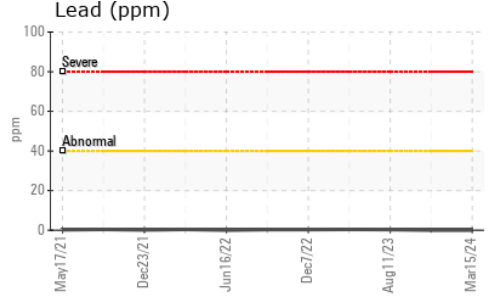
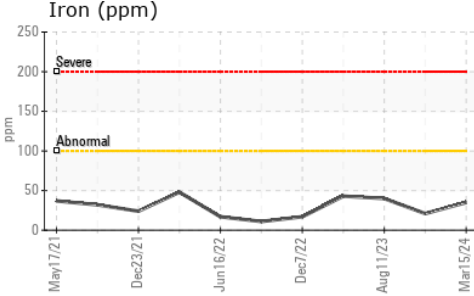


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	27.0	20.0	24.0

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	▲ 10.8	▲ 11.4	▲ 11.1

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0093962
Lab Number : 02624128
Unique Number : 5749247
Test Package : MOB 1 (Additional Tests: Glycol, PercentFuel)
Received : 25 Mar 2024
Tested : 26 Mar 2024
Diagnosed : 26 Mar 2024 - Kevin Marson

GFL Environmental - 777 - Belleville-Municipal waste
 197 Putman Industrial Road
 Belleville, ON
 CA K8N 4Z6
 Contact: Andrea Michael
 amichael@gflenv.com
 T: (613)962-7144
 F: (613)962-1994

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.