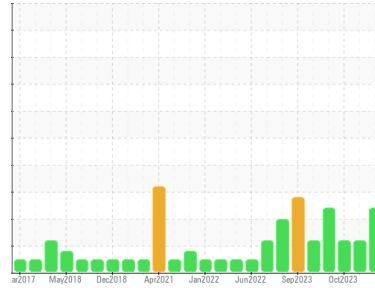




OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id
9973

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 10W30 (--- GAL)

DIAGNOSIS

▲ Recommendation

We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. 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	GFL0102673	GFL0102644	GFL0093885
Sample Date	Client Info	20 Mar 2024	07 Jan 2024	22 Oct 2023
Machine Age	hrs	29231	28678	0
Oil Age	hrs	0	0	0
Oil Changed	Client Info	Changed	N/A	N/A
Sample Status		SEVERE	ABNORMAL	ABNORMAL

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) >110	40	26	4
Chromium	ppm ASTM D5185(m) >4	2	1	0
Nickel	ppm ASTM D5185(m) >2	0	<1	0
Titanium	ppm ASTM D5185(m)	0	0	0
Silver	ppm ASTM D5185(m) >2	0	0	<1
Aluminum	ppm ASTM D5185(m) >25	6	5	1
Lead	ppm ASTM D5185(m) >45	1	<1	0
Copper	ppm ASTM D5185(m) >85	1	1	<1
Tin	ppm ASTM D5185(m) >4	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) 2	2	5	7
Barium	ppm ASTM D5185(m) 0	0	0	<1
Molybdenum	ppm ASTM D5185(m) 50	50	56	56
Manganese	ppm ASTM D5185(m) 0	0	0	0
Magnesium	ppm ASTM D5185(m) 950	788	853	881
Calcium	ppm ASTM D5185(m) 1050	858	965	979
Phosphorus	ppm ASTM D5185(m) 995	798	910	937
Zinc	ppm ASTM D5185(m) 1180	960	1061	1088
Sulfur	ppm ASTM D5185(m) 2600	1999	2437	2422
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

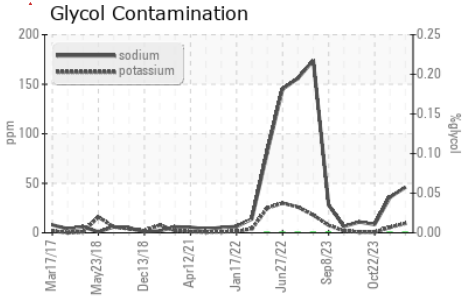
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >30	5	7	3
Sodium	ppm ASTM D5185(m)	46	36	8
Potassium	ppm ASTM D5185(m) >20	9	6	<1
Fuel	% ASTM D7593*	▲ 13.9	▲ 7.5	▲ 6.9
Glycol	% ASTM D7922*	0.0	0.0	NEG

INFRA-RED

method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >3	1.2	0.6	0.1
Nitration	Abs/cm ASTM D7624* >20	11.7	10.5	5.8
Sulfation	Abs/.1mm ASTM D7415* >30	22.4	21.0	18.4



OIL ANALYSIS REPORT

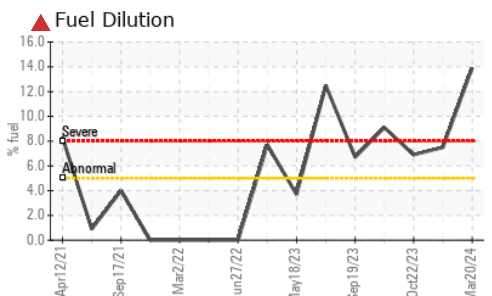
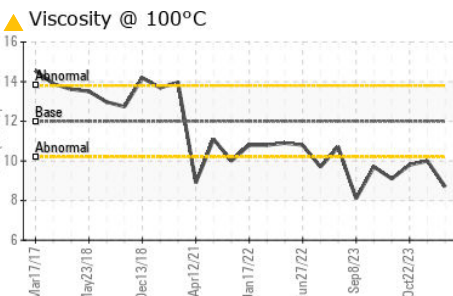
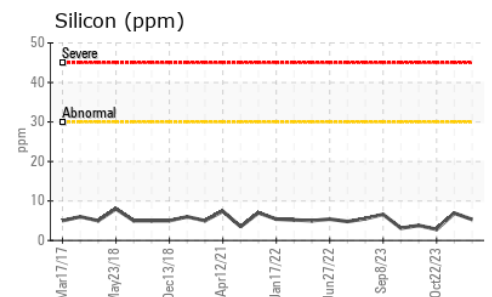
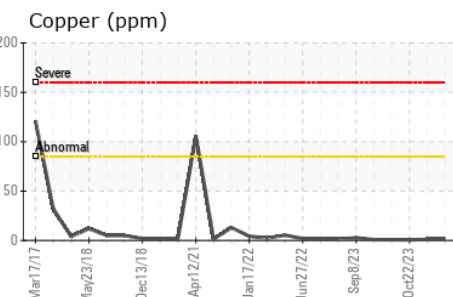
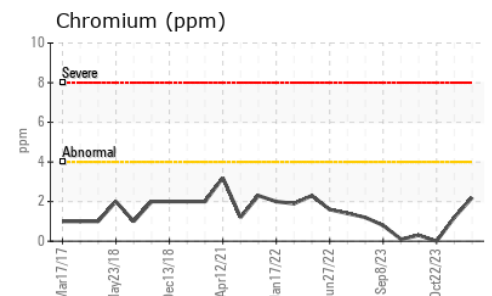
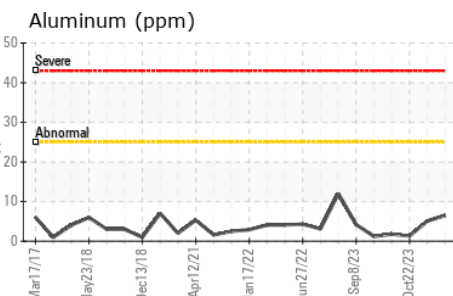
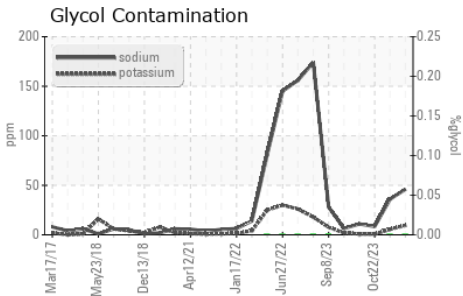
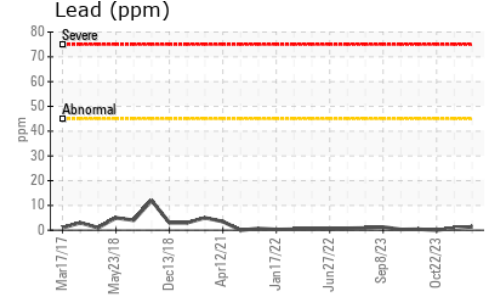
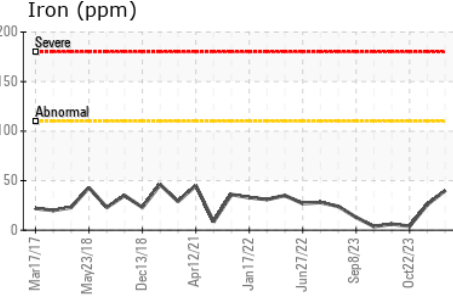
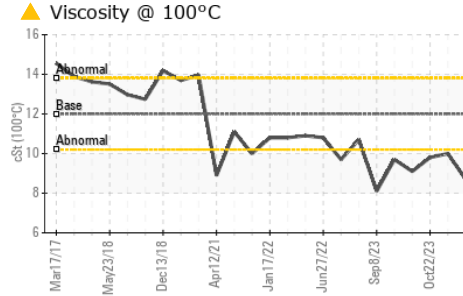


FLUID DEGRADATION	method	limit/base	current	history1	history2	
Oxidation	Abs./1mm	ASTM D7414*	>25	19.4	18.1	14.2

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)	12.00	▲ 8.7	▲ 10.0	▲ 9.8

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0102673
Lab Number : 02624846
Unique Number : 5749965
Test Package : MOB 1 (Additional Tests: Glycol, PercentFuel)

GFL Environmental - 554 - Edmonton SW
 8409 -15th Street NW
 Edmonton, AB
 CA T6P 0B8
 Contact: Tim Greig
 tgreig@gflenv.com
 T: (780)231-0521
 F:

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.