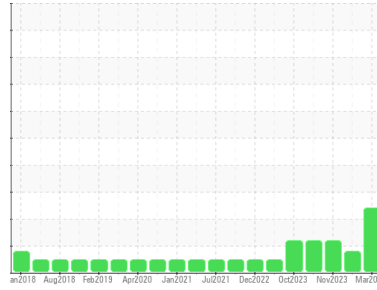




OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id
801047
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (19 LTR)

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		GFL0111727	WC0875082	WC0875072
Sample Date	Client Info		11 Mar 2024	22 Nov 2023	16 Nov 2023
Machine Age	hrs	Client Info	10256	9850	10045
Oil Age	hrs	Client Info	0	0	78
Oil Changed	Client Info		Changed	Not Changd	Changed
Sample Status			SEVERE	MARGINAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
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)	>80	21	4	14
Chromium	ppm	ASTM D5185(m)	>5	<1	0	<1
Nickel	ppm	ASTM D5185(m)	>2	<1	0	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	<1	<1
Aluminum	ppm	ASTM D5185(m)	>30	4	2	6
Lead	ppm	ASTM D5185(m)	>30	0	0	0
Copper	ppm	ASTM D5185(m)	>150	1	<1	<1
Tin	ppm	ASTM D5185(m)	>5	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	18	37	51
Barium	ppm	ASTM D5185(m)	0	0	0	<1
Molybdenum	ppm	ASTM D5185(m)	60	55	58	59
Manganese	ppm	ASTM D5185(m)	0	0	0	0
Magnesium	ppm	ASTM D5185(m)	1010	795	871	798
Calcium	ppm	ASTM D5185(m)	1070	948	1024	1010
Phosphorus	ppm	ASTM D5185(m)	1150	845	957	918
Zinc	ppm	ASTM D5185(m)	1270	1029	1143	1085
Sulfur	ppm	ASTM D5185(m)	2060	2315	2538	2328
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

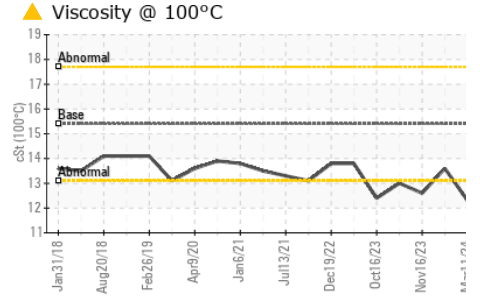
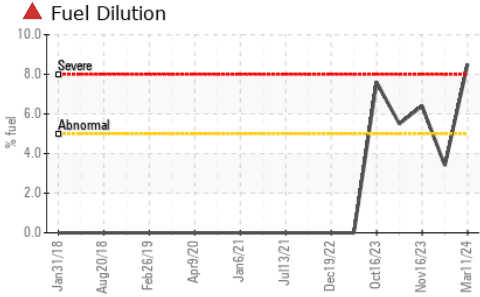
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>20	6	3	4
Sodium	ppm	ASTM D5185(m)		6	3	5
Potassium	ppm	ASTM D5185(m)	>20	4	1	9
Fuel	%	ASTM D7593*	>5	▲ 8.5	▲ 3.4	▲ 6.4

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	0.6	0	0.3
Nitration	Abs/cm	ASTM D7624*	>20	11.7	5.4	8.7
Sulfation	Abs.1mm	ASTM D7415*	>30	23.0	18.6	20.8



OIL ANALYSIS REPORT

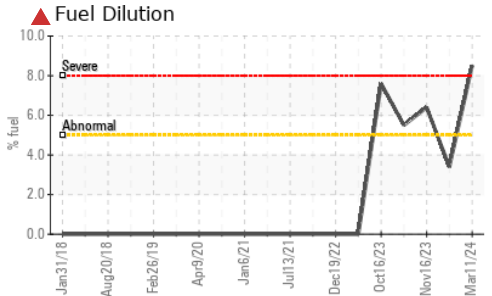
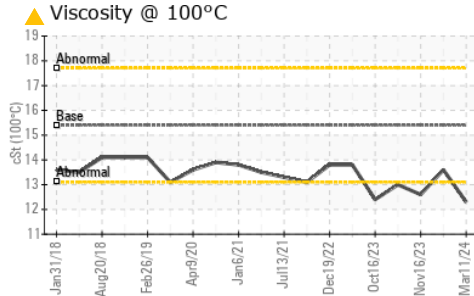
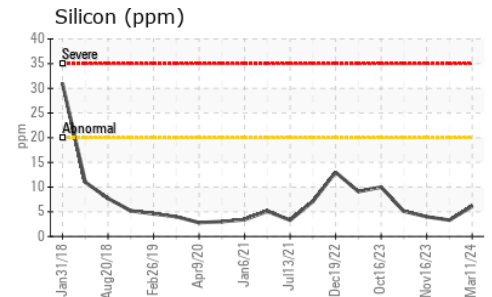
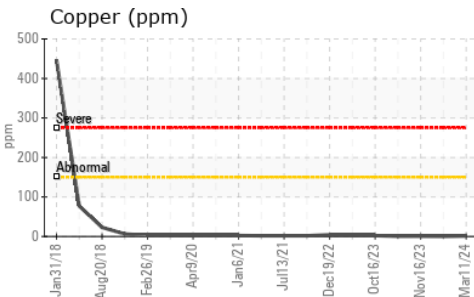
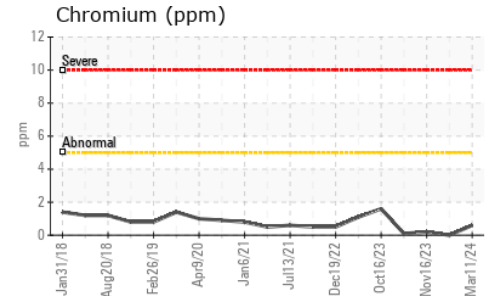
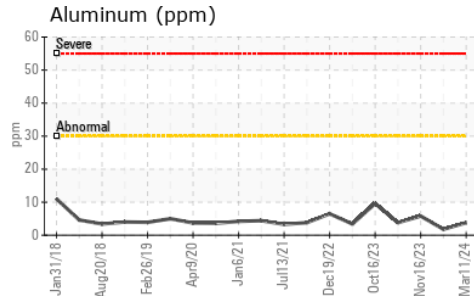
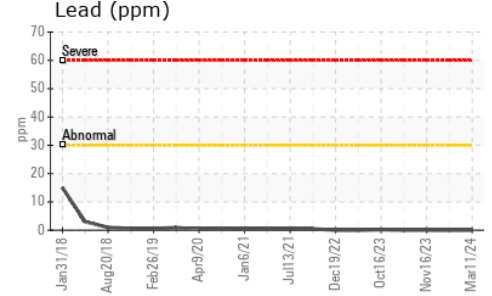
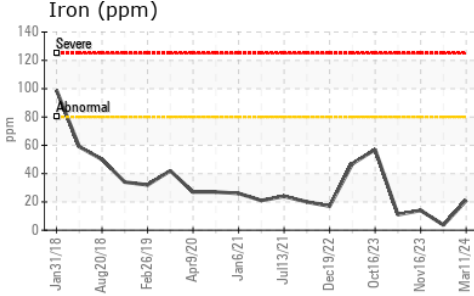


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	19.9	13.6	16.9

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	13.6	▲ 12.6

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0111727
Lab Number : 02621320
Unique Number : 5746439
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel)
Received : 12 Mar 2024
Tested : 13 Mar 2024
Diagnosed : 13 Mar 2024 - Wes Davis

GFL Environmental - 217 - Aurora
 14131 BAYVIEW AVE, AURORA YARD
 AURORA, ON
 CA L4G 0K6
 Contact: Mike Havens
 MHavens@gflenv.com
 T:
 F: (905)713-2445

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.