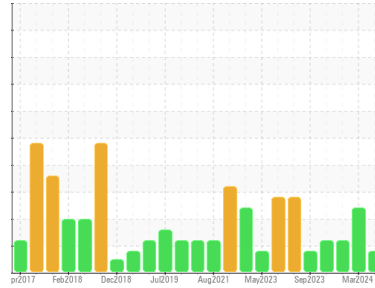




OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id

7822

Component

Diesel Engine

Fluid

PETRO CANADA DURON SHP 10W30 (--- LTR)

DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

Wear

All component wear rates are normal.

Contamination

Light fuel dilution occurring. No other contaminants were detected 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	GFL0118989	GFL0102682	GFL0093886
Sample Date	Client Info	03 Jul 2024	11 Mar 2024	22 Oct 2023
Machine Age	hrs	18741	18272	0
Oil Age	hrs	0	0	0
Oil Changed	Client Info	Changed	Changed	N/A
Sample Status		MARGINAL	SEVERE	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) >110	6	38	7
Chromium	ppm ASTM D5185(m) >4	<1	1	<1
Nickel	ppm ASTM D5185(m) >2	0	0	0
Titanium	ppm ASTM D5185(m)	0	0	0
Silver	ppm ASTM D5185(m) >2	0	0	<1
Aluminum	ppm ASTM D5185(m) >25	<1	4	1
Lead	ppm ASTM D5185(m) >45	0	0	<1
Copper	ppm ASTM D5185(m) >85	<1	3	<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	13	1	4
Barium	ppm ASTM D5185(m) 0	0	0	<1
Molybdenum	ppm ASTM D5185(m) 50	51	50	54
Manganese	ppm ASTM D5185(m) 0	<1	0	0
Magnesium	ppm ASTM D5185(m) 950	782	812	861
Calcium	ppm ASTM D5185(m) 1050	942	877	930
Phosphorus	ppm ASTM D5185(m) 995	869	845	913
Zinc	ppm ASTM D5185(m) 1180	991	982	1060
Sulfur	ppm ASTM D5185(m) 2600	2305	2102	2326
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

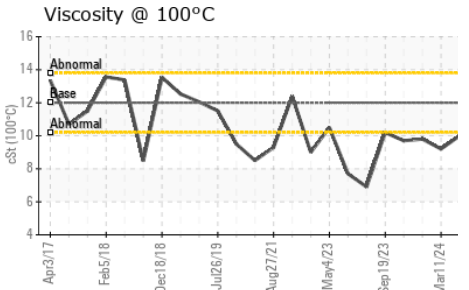
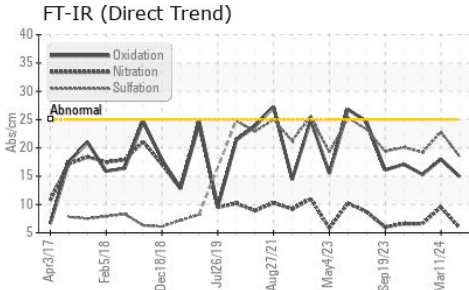
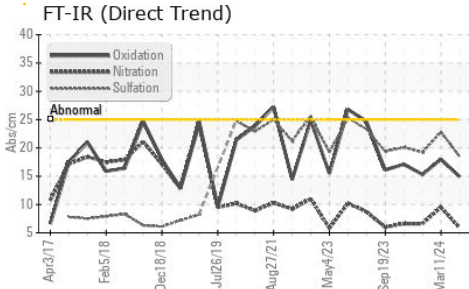
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >30	3	6	3
Sodium	ppm ASTM D5185(m)	3	4	3
Potassium	ppm ASTM D5185(m) >20	0	<1	0
Fuel	% ASTM D7593* >5	▲ 3.6	▲ 9.7	▲ 7.3

INFRA-RED

method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >3	0.1	0.8	0.4
Nitration	Abs/cm ASTM D7624* >20	5.9	9.5	6.6
Sulfation	Abs./1mm ASTM D7415* >30	18.5	22.8	19.2



OIL ANALYSIS REPORT

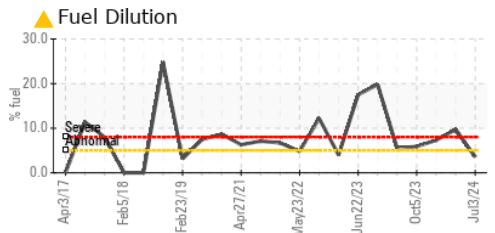
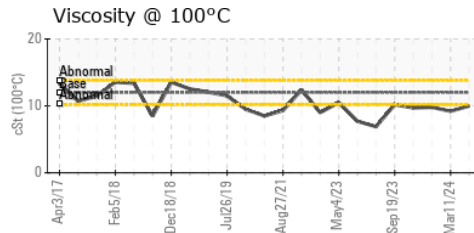
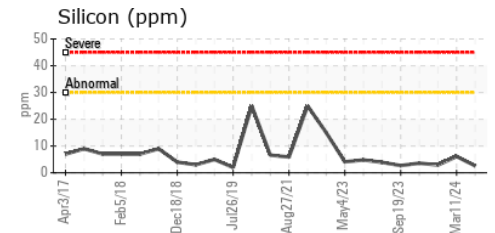
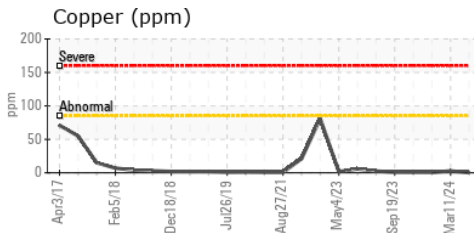
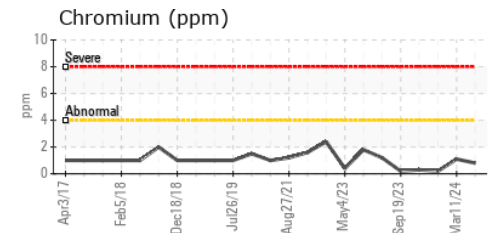
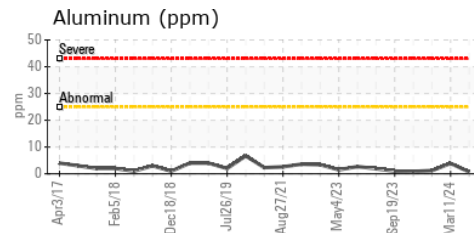
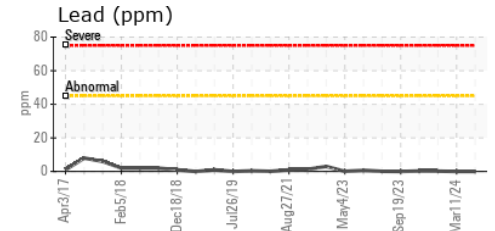
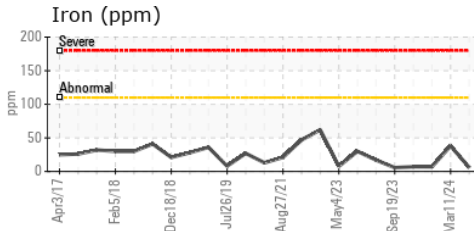


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	14.9	18.0	15.3

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	VLITE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Precipitate	scalar	Visual*	NONE	NONE	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
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	10.0	▲ 9.2	▲ 9.8

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0118989
Lab Number : **02648607**
Unique Number : 5814159
Test Package : MOB 1 (Additional Tests: PercentFuel, Visual)

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.