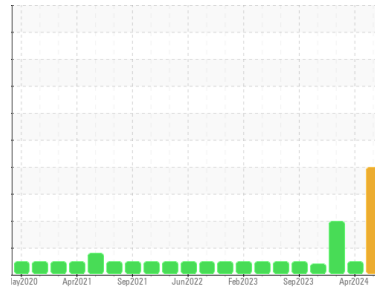




OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Machine Id
727009
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check for the source of the coolant leak. We recommend that you drain the oil from the component if this has not already been done. We advise that you flush the component thoroughly before re-filling with oil. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition. The fluid was specified as PETRO CANADA DURON SHP 15W40, however, a fluid match indicates that this fluid is SAE 30 Diesel Engine Oil. Please confirm the oil type and grade on your next sample.

Wear

All component wear rates are normal.

Contamination

Test for glycol is positive. Light fuel dilution occurring. There is a moderate concentration of glycol present in the oil. No other contaminants were detected in the oil.

Fluid Condition

This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0113205	GFL0113246	GFL0097314
Sample Date	Client Info	18 Jun 2024	18 Apr 2024	11 Jan 2024
Machine Age	hrs	0	0	0
Oil Age	hrs	18416	40759	17390
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		ABNORMAL	NORMAL	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) >120	7	9	58
Chromium	ppm ASTM D5185(m) >20	0	0	2
Nickel	ppm ASTM D5185(m) >5	<1	0	<1
Titanium	ppm ASTM D5185(m) >2	0	0	0
Silver	ppm ASTM D5185(m) >2	0	0	<1
Aluminum	ppm ASTM D5185(m) >20	2	1	24
Lead	ppm ASTM D5185(m) >40	0	0	5
Copper	ppm ASTM D5185(m) >330	<1	<1	20
Tin	ppm ASTM D5185(m) >15	<1	0	3
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	87	8	33
Barium	ppm ASTM D5185(m) 0	0	0	5
Molybdenum	ppm ASTM D5185(m) 60	6	53	13
Manganese	ppm ASTM D5185(m) 0	0	0	6
Magnesium	ppm ASTM D5185(m) 1010	69	845	731
Calcium	ppm ASTM D5185(m) 1070	2000	1020	1298
Phosphorus	ppm ASTM D5185(m) 1150	849	885	693
Zinc	ppm ASTM D5185(m) 1270	1034	1037	761
Sulfur	ppm ASTM D5185(m) 2060	2613	2291	2411
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

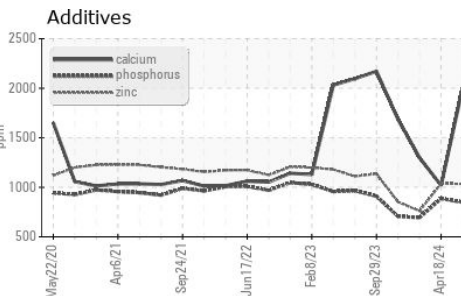
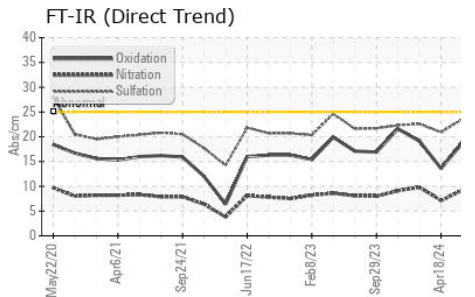
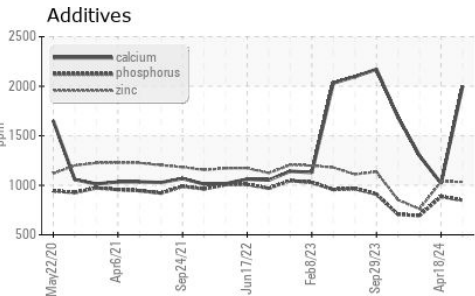
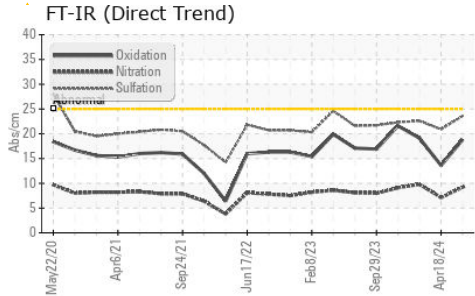
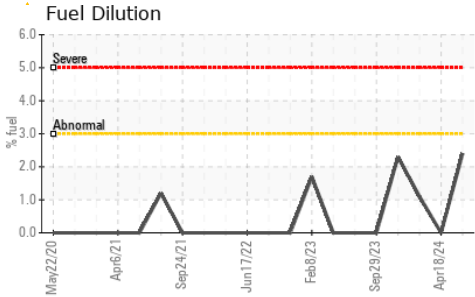
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >25	3	<1	▲ 43
Sodium	ppm ASTM D5185(m)	8	1	6
Potassium	ppm ASTM D5185(m) >20	▲ 14	0	70
Fuel	% ASTM D7593* >3.0	2.4	<1.0	1.1
Glycol	% ASTM D7922*	▲ 0.08	NEG	NEG

INFRA-RED

method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >4	0.2	1.7	0.1
Nitration	Abs/cm ASTM D7624* >20	9.2	7.1	9.8
Sulfation	Abs./1mm ASTM D7415* >30	23.6	20.9	22.6



OIL ANALYSIS REPORT

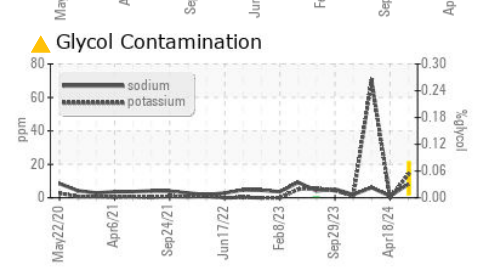
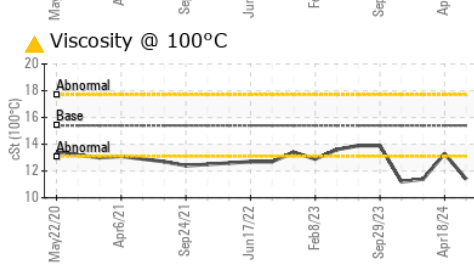
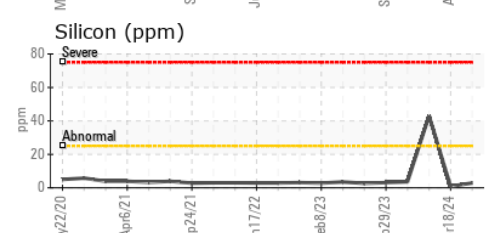
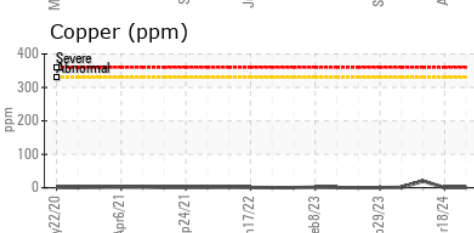
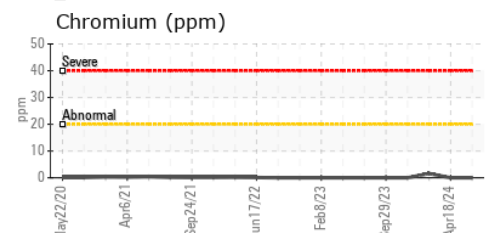
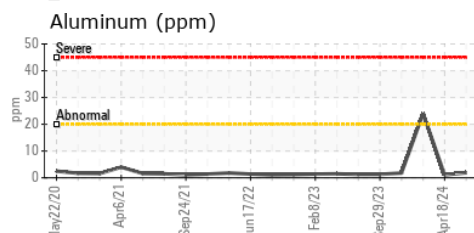
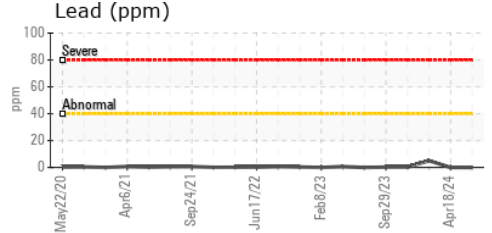
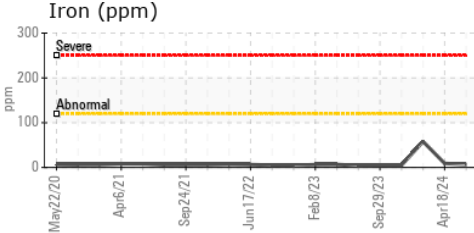


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	18.8	13.6	19.1

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Precipitate	scalar	Visual*	NONE	NONE	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	VLITE	---	---
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)	15.4	▲ 11.4	13.3	▲ 11.4

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0113205
Lab Number : 02643181
Unique Number : 5800720
Test Package : MOB 1 (Additional Tests : FuelDilution, Glycol, PercentFuel, Visual)

GFL Environmental - 246 - Windsor
 2700 Deziel Dr
 Windsor, ON
 CA N8W 5H8

Received : 20 Jun 2024
Tested : 21 Jun 2024
Diagnosed : 21 Jun 2024 - Wes Davis
 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.

Contact: Dave Varga
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 F: