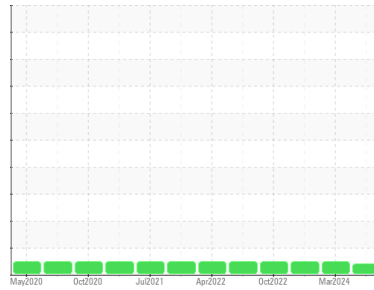




OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Machine Id
426011
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. 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

Tests indicate that there is no fuel present in the oil. There is no indication of any contamination in the oil.

Fluid Condition

Viscosity of sample indicates oil is within SAE 30 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0113210	GFL0102899	GFL0071331
Sample Date	Client Info		08 Jul 2024	15 Mar 2024	14 Feb 2023
Machine Age	hrs	Client Info	19676	19066	17116
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ABNORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	0.0	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>120	6	4	6
Chromium	ppm	ASTM D5185(m)	>20	0	0	<1
Nickel	ppm	ASTM D5185(m)	>5	1	1	4
Titanium	ppm	ASTM D5185(m)	>2	0	0	<1
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	2	2	2
Lead	ppm	ASTM D5185(m)	>40	<1	<1	1
Copper	ppm	ASTM D5185(m)	>330	<1	<1	2
Tin	ppm	ASTM D5185(m)	>15	0	0	<1
Antimony	ppm	ASTM D5185(m)		0	0	<1
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	28	123	2
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	37	6	59
Manganese	ppm	ASTM D5185(m)	0	<1	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	461	66	955
Calcium	ppm	ASTM D5185(m)	1070	1626	2171	1106
Phosphorus	ppm	ASTM D5185(m)	1150	775	990	1110
Zinc	ppm	ASTM D5185(m)	1270	898	1134	1196
Sulfur	ppm	ASTM D5185(m)	2060	2143	3124	2719
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

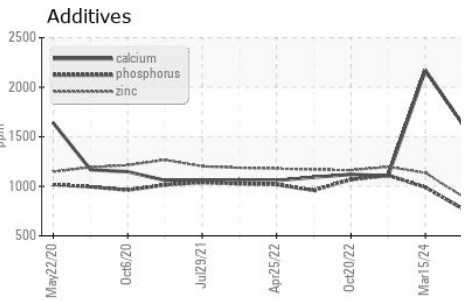
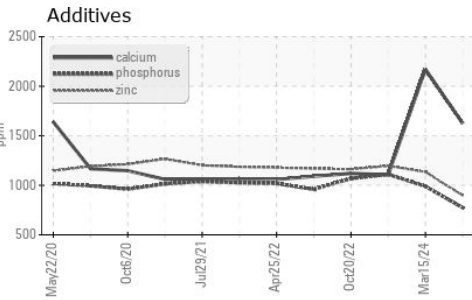
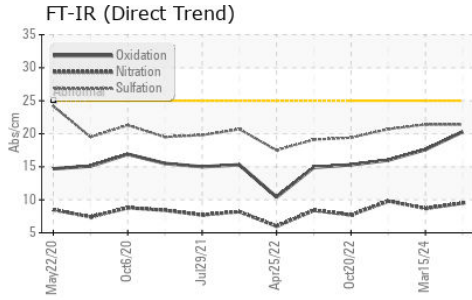
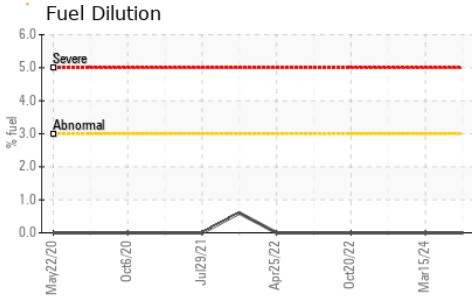
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	3	2	3
Sodium	ppm	ASTM D5185(m)		3	3	2
Potassium	ppm	ASTM D5185(m)	>20	1	8	2
Fuel	%	ASTM D7593*	>3.0	0.0	<1.0	<1.0

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>4	0.4	0.2	0.3
Nitration	Abs/cm	ASTM D7624*	>20	9.5	8.7	9.8
Sulfation	Abs.1mm	ASTM D7415*	>30	21.4	21.4	20.7



OIL ANALYSIS REPORT

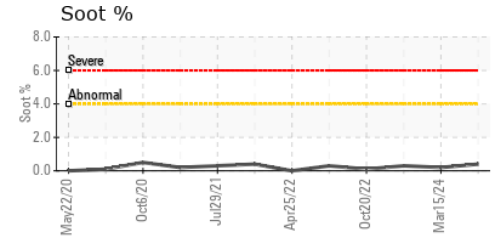
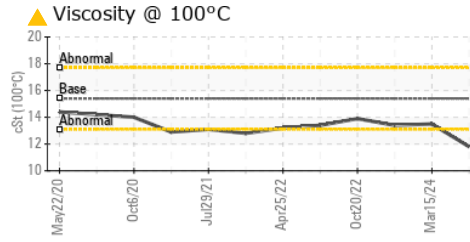
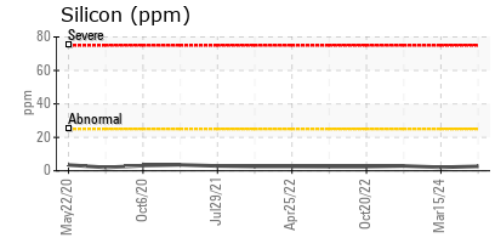
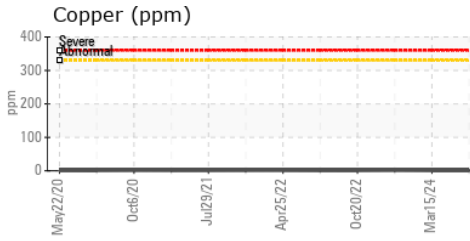
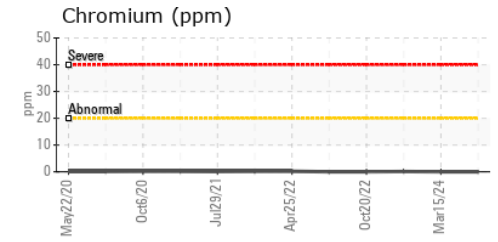
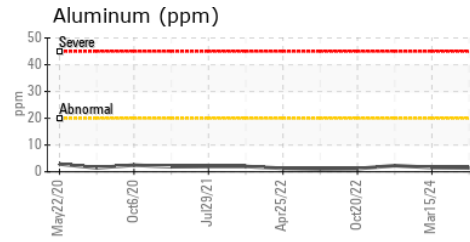
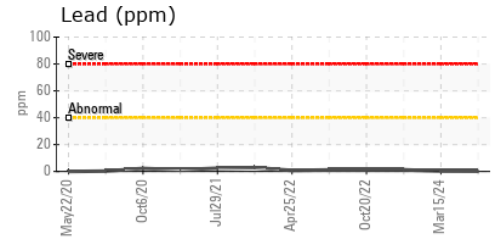
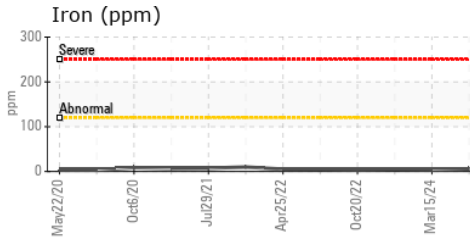


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	20.3	17.6	16.0

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)	15.4	▲ 11.8	13.5	13.4

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0113210
Lab Number : 02646661
Unique Number : 5812213
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel, Visual)

GFL Environmental - 246 - Windsor
 2700 Deziel Dr
 Windsor, ON
 CA N8W 5H8
 Contact: Dave Varga
 dvarga@gflenv.com
 T: (519)944-8009
 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.