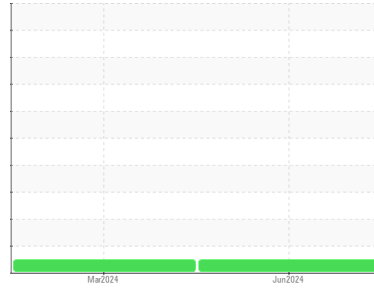




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id

501027

Component

Diesel Engine

Fluid

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

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination 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		GFL0116394	GFL0107918	---
Sample Date	Client Info		24 Jun 2024	11 Mar 2024	---
Machine Age	kms	Client Info	441506	11839	---
Oil Age	kms	Client Info	0	0	---
Oil Changed	Client Info		Changed	Changed	---
Sample Status			NORMAL	NORMAL	---

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>2.0	<1.0	<1.0	---
Water	WC Method	>0.2	NEG	NEG	---
Glycol	WC Method		NEG	NEG	---

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>100	18	15	---
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	---
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	---
Titanium	ppm	ASTM D5185(m)		0	0	---
Silver	ppm	ASTM D5185(m)	>3	<1	0	---
Aluminum	ppm	ASTM D5185(m)	>20	2	2	---
Lead	ppm	ASTM D5185(m)	>40	<1	<1	---
Copper	ppm	ASTM D5185(m)	>330	2	2	---
Tin	ppm	ASTM D5185(m)	>15	0	<1	---
Antimony	ppm	ASTM D5185(m)		0	0	---
Vanadium	ppm	ASTM D5185(m)		0	0	---
Beryllium	ppm	ASTM D5185(m)		0	0	---
Cadmium	ppm	ASTM D5185(m)		0	0	---

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	2	2	<1	---
Barium	ppm	ASTM D5185(m)	0	0	0	---
Molybdenum	ppm	ASTM D5185(m)	50	61	62	---
Manganese	ppm	ASTM D5185(m)	0	<1	0	---
Magnesium	ppm	ASTM D5185(m)	950	1002	1008	---
Calcium	ppm	ASTM D5185(m)	1050	1079	1084	---
Phosphorus	ppm	ASTM D5185(m)	995	1012	1062	---
Zinc	ppm	ASTM D5185(m)	1180	1239	1240	---
Sulfur	ppm	ASTM D5185(m)	2600	2509	2747	---
Lithium	ppm	ASTM D5185(m)		<1	<1	---

CONTAMINANTS

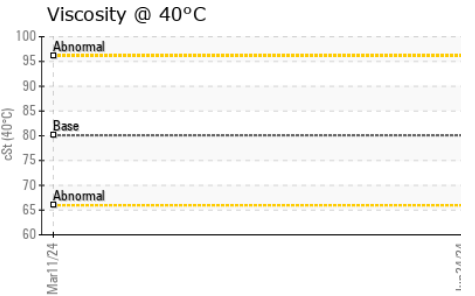
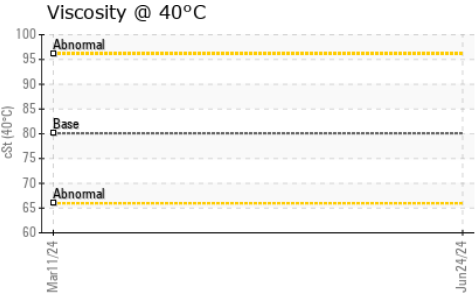
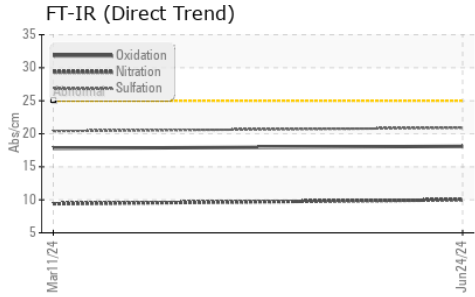
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	3	4	---
Sodium	ppm	ASTM D5185(m)		5	4	---
Potassium	ppm	ASTM D5185(m)	>20	<1	2	---

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	0.5	0.3	---
Nitration	Abs/cm	ASTM D7624*	>20	10.0	9.4	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.9	20.4	---



OIL ANALYSIS REPORT

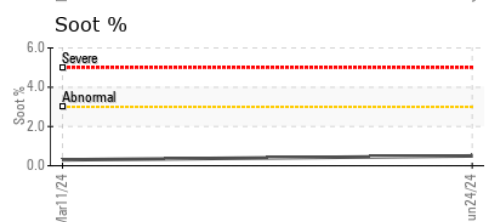
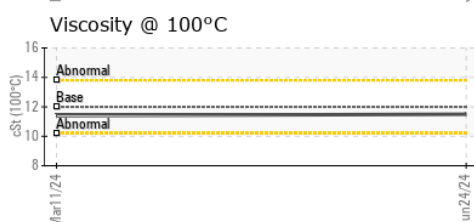
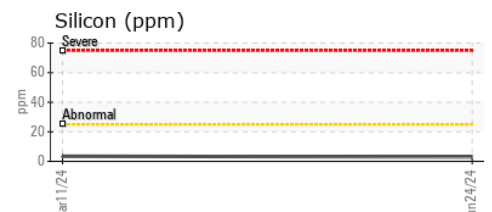
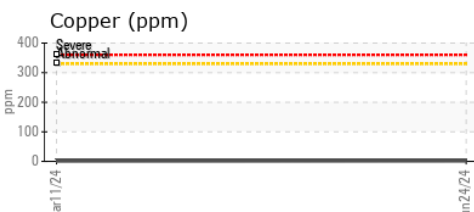
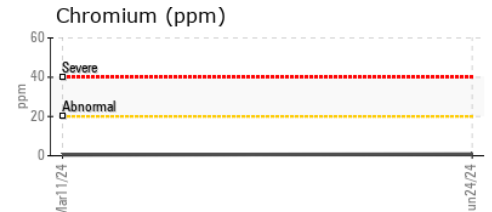
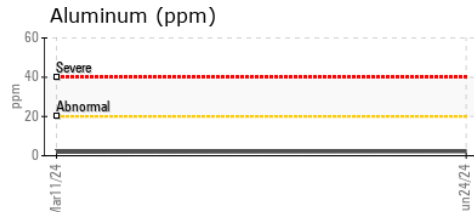
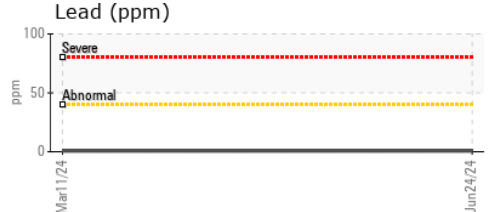
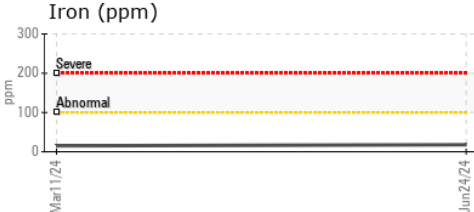


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	18.1	17.8	---

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	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	NORML	---
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	---
Free Water	scalar	Visual*		NEG	NEG	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	80.1	77.0	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	11.5	11.4	---
Viscosity Index (VI)	Scale	ASTM D2270*	144	141	---	---

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0116394 **Received** : 02 Jul 2024
Lab Number : **02644756** **Tested** : 02 Jul 2024
Unique Number : 5802295 **Diagnosed** : 02 Jul 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: KV40, VI, Visual)

GFL Environmental - 350 - Emeral Park Regina
 2B Industrial Drive,, Great Plains Industrial Park,
 Emerald Park, SK
 CA S4L 1B6

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.

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