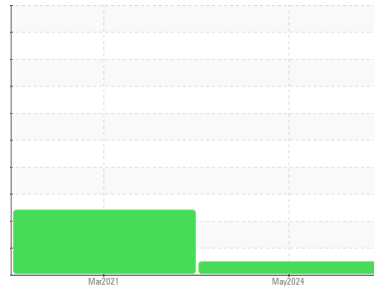




OIL ANALYSIS REPORT

Area
(BC71104)
Machine Id
345M
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

Sample Rating Trend



NORMAL



DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Fuel content negligible. There is no indication of any contamination in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0101002	GFL0016186	---
Sample Date	Client Info		17 May 2024	18 Mar 2021	---
Machine Age	hrs	Client Info	19386	19386	---
Oil Age	hrs	Client Info	19386	19386	---
Oil Changed	Client Info		Changed	Changed	---
Sample Status			NORMAL	SEVERE	---

CONTAMINATION

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

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >120	7	10	---
Chromium	ppm	ASTM D5185m >20	0	<1	---
Nickel	ppm	ASTM D5185m >5	0	<1	---
Titanium	ppm	ASTM D5185m >2	0	<1	---
Silver	ppm	ASTM D5185m >2	0	0	---
Aluminum	ppm	ASTM D5185m >20	4	4	---
Lead	ppm	ASTM D5185m >40	<1	0	---
Copper	ppm	ASTM D5185m >330	0	1	---
Tin	ppm	ASTM D5185m >15	<1	0	---
Antimony	ppm	ASTM D5185m	---	0	---
Vanadium	ppm	ASTM D5185m	0	0	---
Cadmium	ppm	ASTM D5185m	0	0	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	7	4	---
Barium	ppm	ASTM D5185m 0	0	0	---
Molybdenum	ppm	ASTM D5185m 60	59	52	---
Manganese	ppm	ASTM D5185m 0	<1	<1	---
Magnesium	ppm	ASTM D5185m 1010	898	855	---
Calcium	ppm	ASTM D5185m 1070	978	971	---
Phosphorus	ppm	ASTM D5185m 1150	968	911	---
Zinc	ppm	ASTM D5185m 1270	1178	1047	---
Sulfur	ppm	ASTM D5185m 2060	3263	2082	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	4	6	---
Sodium	ppm	ASTM D5185m	4	7	---
Potassium	ppm	ASTM D5185m >20	<1	12	---
Fuel	%	ASTM D3524 >3.0	0.6	▲ 9.2	---

INFRA-RED

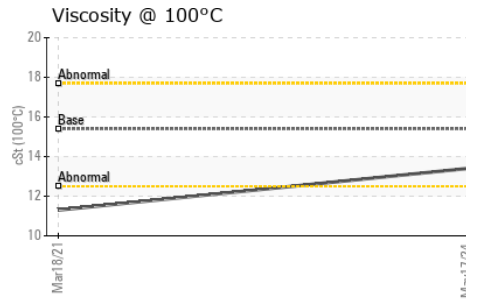
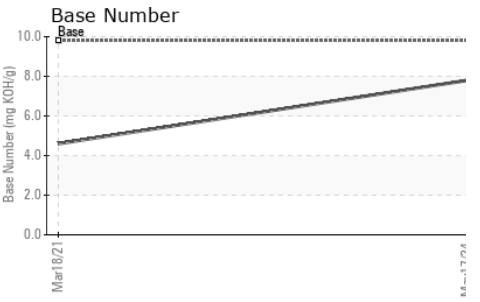
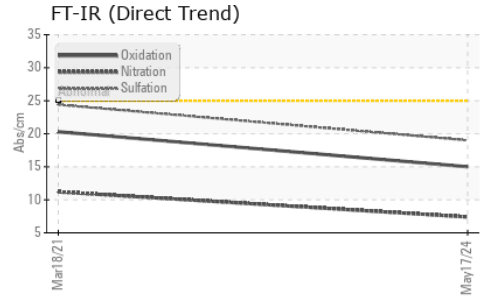
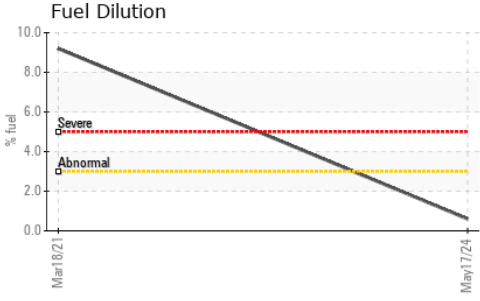
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	0.3	0.3	---
Nitration	Abs/cm	*ASTM D7624 >20	7.4	11.2	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	19.0	24.4	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	15.0	20.3	---
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	7.8	4.6	---



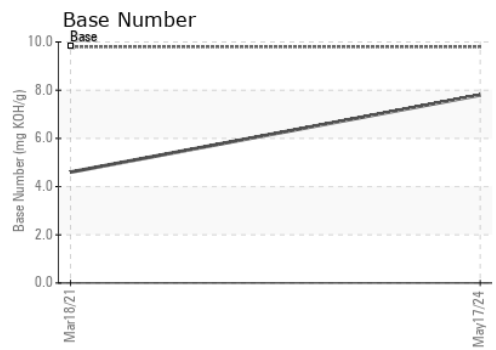
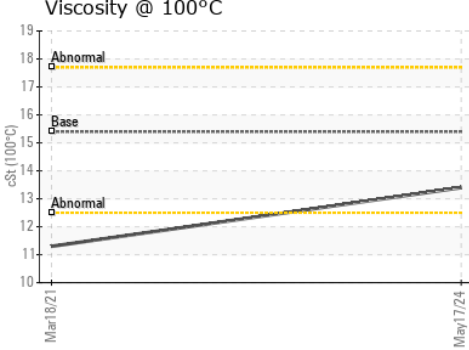
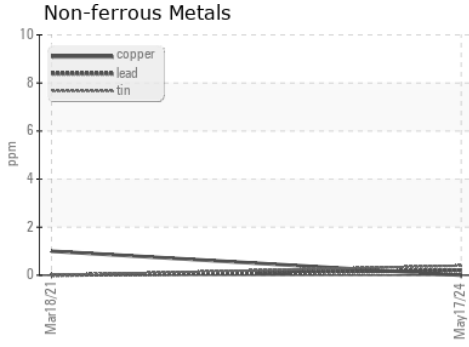
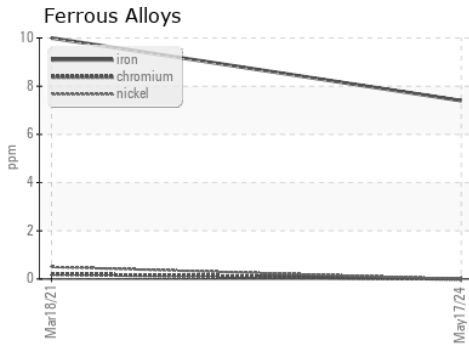
OIL ANALYSIS REPORT



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	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.4	▲ 11.3

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0101002 **Received** : 23 May 2024
Lab Number : 06188900 **Tested** : 28 May 2024
Unique Number : 11045652 **Diagnosed** : 28 May 2024 - Wes Davis
Test Package : FLEET (Additional Tests: PercentFuel)

GFL Environmental - 455 - Flint
 2051 W. Bristol Rd
 Flint Township, MI
 US 48507
 Contact: MARK WOMBLE
 mwomble@gflenv.com
 T: (586)825-9514
 F:

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)