



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
MACK 821044-100547
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0074710	GFL0037691	GFLH-404668
Sample Date		Client Info		03 Mar 2023	05 Nov 2021	22 Apr 2020
Machine Age	hrs	Client Info		20226	20028	0
Oil Age	hrs	Client Info		20226	450	0
Filter Age	hrs	Client Info		0	450	---
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	SEVERE

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	35	10	8
Chromium	ppm	ASTM D5185m	>20	<1	<1	0
Nickel	ppm	ASTM D5185m	>5	2	<1	0
Titanium	ppm	ASTM D5185m	>2	<1	<1	0
Silver	ppm	ASTM D5185m	>2	0	<1	13
Aluminum	ppm	ASTM D5185m	>20	2	3	3
Lead	ppm	ASTM D5185m	>40	0	<1	0
Copper	ppm	ASTM D5185m	>330	25	<1	0
Tin	ppm	ASTM D5185m	>15	<1	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

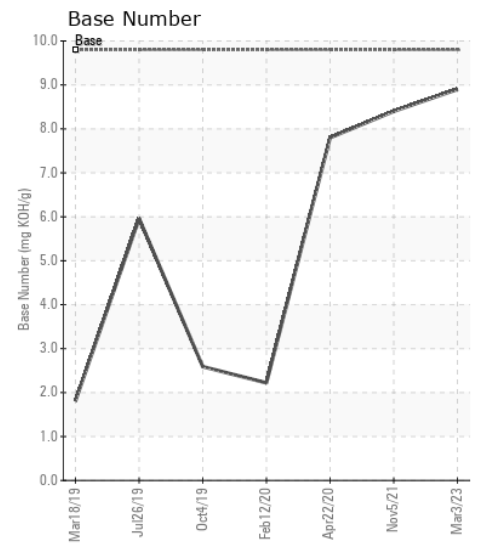
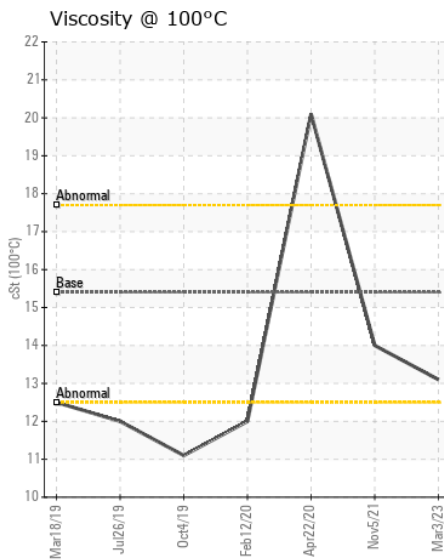
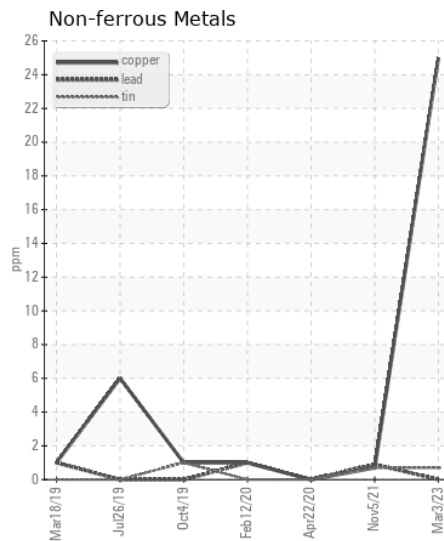
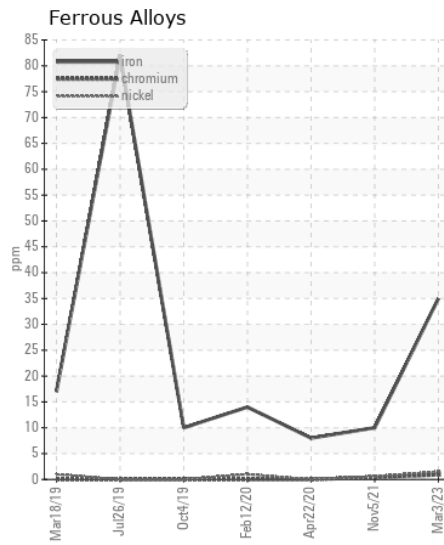
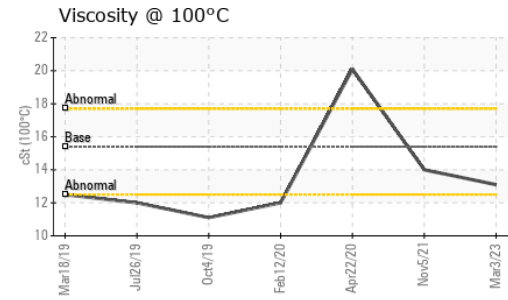
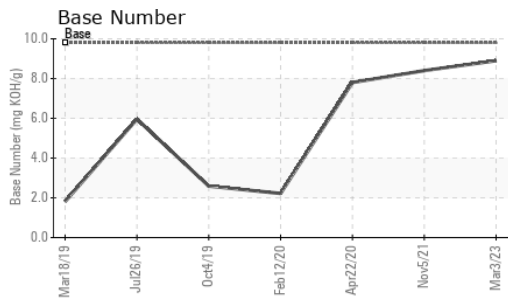
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	6	8	14
Potassium	ppm	ASTM D5185m	>20	0	<1	9
Fuel		WC Method	>5	<1.0	<1.0	0.5
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>4	0.2	0.2	0
Nitration	Abs/cm	*ASTM D7624	>20	6.9	5.8	23
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.9	17.6	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	---

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.

Sodium	ppm	ASTM D5185m		8	1	547
Boron	ppm	ASTM D5185m	0	9	16	262
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	59	59	124
Manganese	ppm	ASTM D5185m	0	<1	<1	0
Magnesium	ppm	ASTM D5185m	1010	875	921	550
Calcium	ppm	ASTM D5185m	1070	1036	1059	1293
Phosphorus	ppm	ASTM D5185m	1150	946	1001	623
Zinc	ppm	ASTM D5185m	1270	1148	1150	762
Sulfur	ppm	ASTM D5185m	2060	3467	2693	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.8	12.9	21
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.9	8.4	7.8
Visc @ 100°C	cSt	ASTM D445	15.4	13.1	14.0	20.1



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0074710 **Received** : 06 Mar 2023
Lab Number : 05784397 **Diagnosed** : 07 Mar 2023
Unique Number : 10364067 **Diagnostician** : Wes Davis
Test Package : FLEET

GFL Environmental - 9999 - Moved No Longer Used Units

US
Contact:

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)

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F: