



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
228025-2001

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0054117	GFL0029270	---
Sample Date		Client Info		01 Feb 2024	21 Sep 2021	---
Machine Age	hrs	Client Info		12063	8193	---
Oil Age	hrs	Client Info		1562	753	---
Filter Age	hrs	Client Info		1562	753	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		N/A	Changed	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>110	20	45	---
Chromium	ppm	ASTM D5185m	>4	<1	2	---
Nickel	ppm	ASTM D5185m	>2	0	0	---
Titanium	ppm	ASTM D5185m		2	3	---
Silver	ppm	ASTM D5185m	>2	0	<1	---
Aluminum	ppm	ASTM D5185m	>25	7	5	---
Lead	ppm	ASTM D5185m	>45	3	4	---
Copper	ppm	ASTM D5185m	>85	<1	<1	---
Tin	ppm	ASTM D5185m	>4	2	<1	---
Vanadium	ppm	ASTM D5185m		0	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

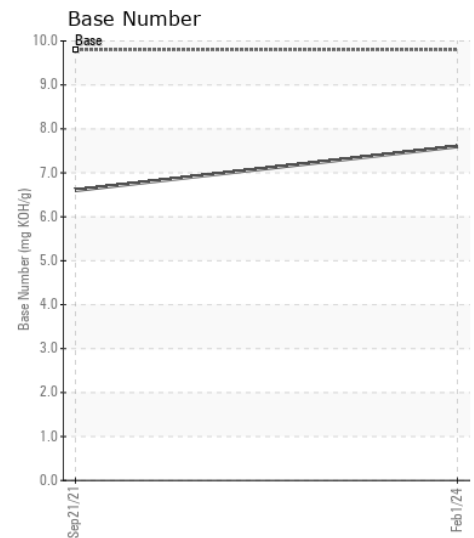
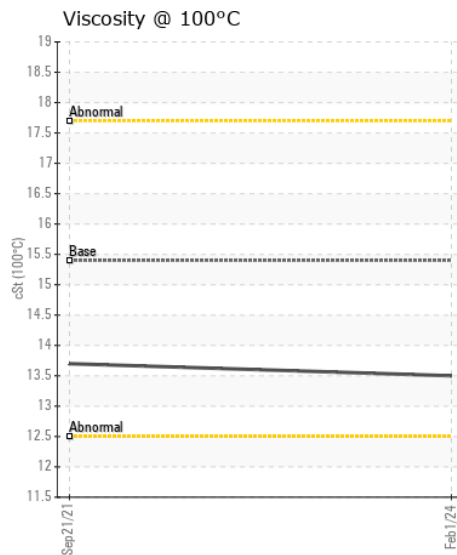
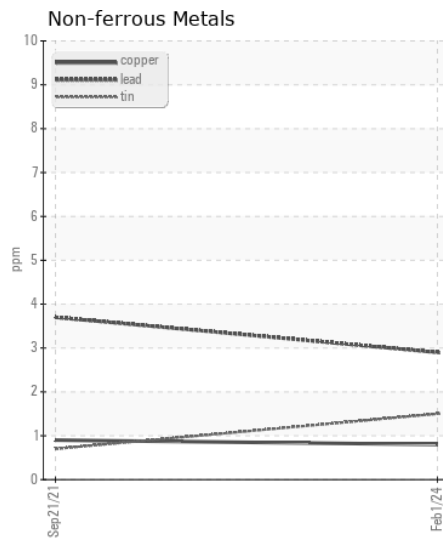
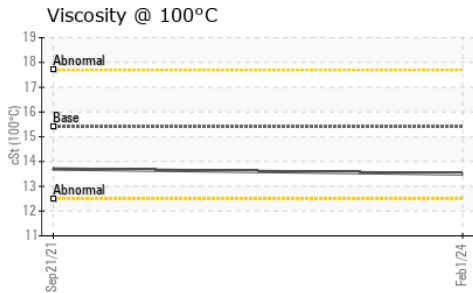
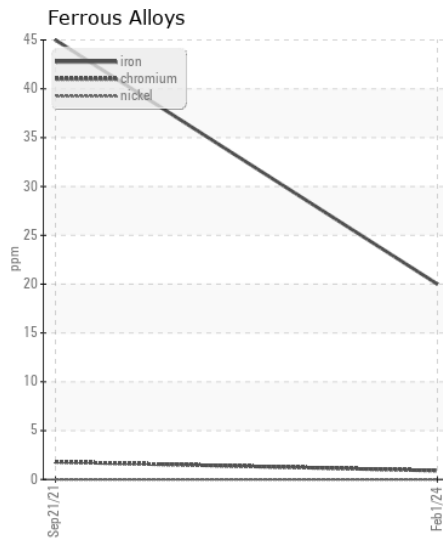
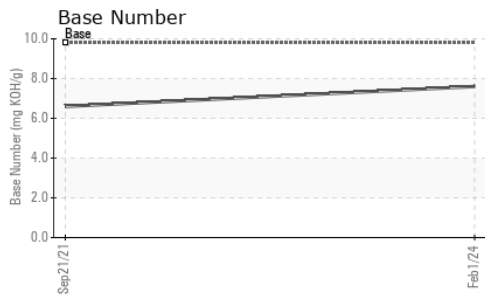
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>30	24	5	---
Potassium	ppm	ASTM D5185m	>20	6	9	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.2	0.9	---
Nitration	Abs/cm	*ASTM D7624	>20	8.1	12.6	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.4	24	---
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. Confirm oil type. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		2	5	---
Boron	ppm	ASTM D5185m	0	142	9	---
Barium	ppm	ASTM D5185m	0	0	0	---
Molybdenum	ppm	ASTM D5185m	60	11	66	---
Manganese	ppm	ASTM D5185m	0	<1	<1	---
Magnesium	ppm	ASTM D5185m	1010	104	1008	---
Calcium	ppm	ASTM D5185m	1070	1959	1216	---
Phosphorus	ppm	ASTM D5185m	1150	984	1093	---
Zinc	ppm	ASTM D5185m	1270	1187	1331	---
Sulfur	ppm	ASTM D5185m	2060	3298	2770	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.5	19.4	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.6	6.6	---
Visc @ 100°C	cSt	ASTM D445	15.4	13.5	13.7	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0054117
Lab Number : 06082969
Unique Number : 10870414
Test Package : FLEET

Received : 07 Feb 2024
Tested : 08 Feb 2024
Diagnosed : 09 Feb 2024 - Don Baldrige

GFL Environmental - 630 - Northern A1 PA
 117 Moonlite Dr
 Smithfield, PA
 US 15478

Contact: MIKE NEWMAN
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T: (231)564-2362

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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