



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Machine Id
929093-260366

Component
Diesel Engine

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

RECOMMENDATION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0109210	GFL0098326	GFL0098309
Sample Date		Client Info		23 Jan 2024	03 Jan 2024	14 Nov 2023
Machine Age	hrs	Client Info		11645	11470	11124
Oil Age	hrs	Client Info		175	700	700
Filter Age	hrs	Client Info		0	700	700
Oil Changed		Client Info		Not Changd	Changed	Changed
Filter Changed		Client Info		Not Changd	Changed	Changed
Sample Status				ATTENTION	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	31	7	11
Chromium	ppm	ASTM D5185m	>20	1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	2	2
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	<1	<1	<1
Tin	ppm	ASTM D5185m	>15	0	0	<1
Vanadium	ppm	ASTM D5185m		0	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

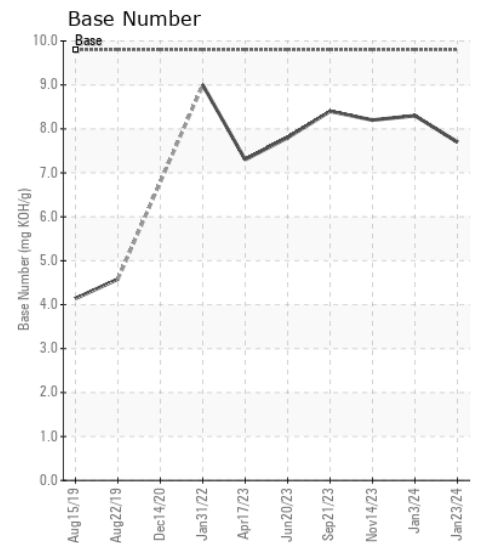
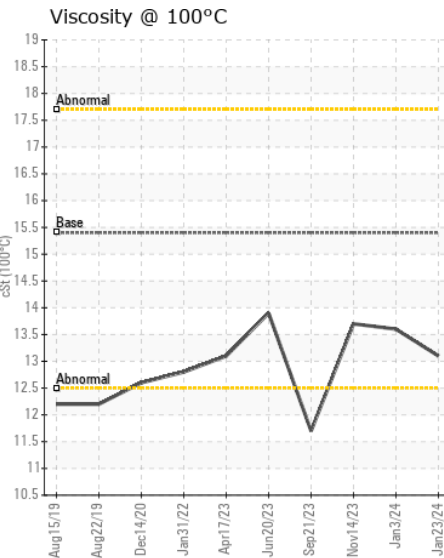
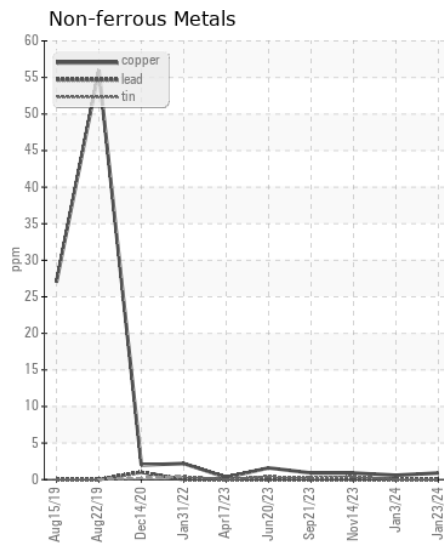
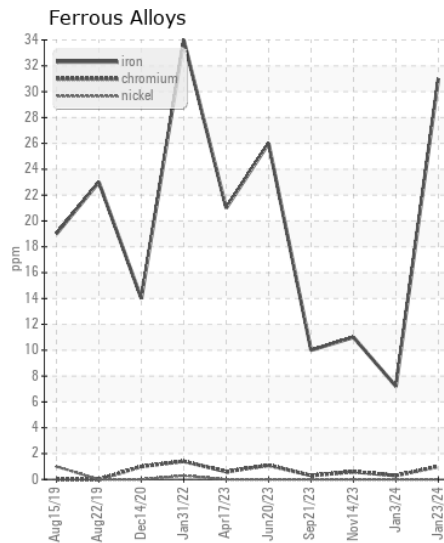
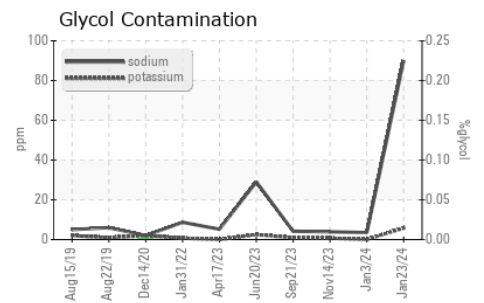
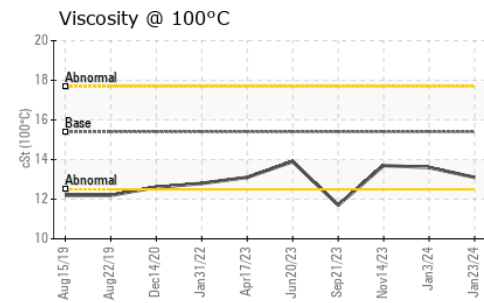
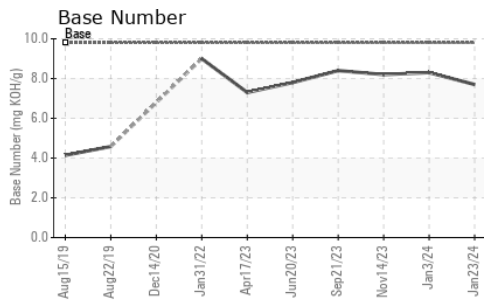
Sodium and/or potassium levels are high. Test for glycol is negative.

Silicon	ppm	ASTM D5185m	>25	4	3	4
Potassium	ppm	ASTM D5185m	>20	6	0	<1
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.6	0.5	0.7
Nitration	Abs/cm	*ASTM D7624	>20	8.1	6.8	7.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.7	18.4	19.5
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	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		▲ 90	4	4
Boron	ppm	ASTM D5185m	0	0	<1	2
Barium	ppm	ASTM D5185m	0	12	0	0
Molybdenum	ppm	ASTM D5185m	60	55	57	57
Manganese	ppm	ASTM D5185m	0	0	<1	<1
Magnesium	ppm	ASTM D5185m	1010	760	1009	990
Calcium	ppm	ASTM D5185m	1070	836	1063	1070
Phosphorus	ppm	ASTM D5185m	1150	864	1079	1078
Zinc	ppm	ASTM D5185m	1270	1021	1322	1288
Sulfur	ppm	ASTM D5185m	2060	2622	3204	3067
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.5	13.7	14.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.7	8.3	8.2
Visc @ 100°C	cSt	ASTM D445	15.4	13.1	13.6	13.7



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : GFL0109210

Lab Number : 06088569

Unique Number : 10876014

Test Package : FLEET (Additional Tests: Glycol)

Received : 14 Feb 2024

Tested : 15 Feb 2024

Diagnosed : 15 Feb 2024 - Jonathan Hester

GFL Environmental - 822 - Springfield Hauling

2120 West Bennett Street

Springfield, MO

US 65807

Contact: Dennis Moore

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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)