



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
713021
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. (Customer Sample Comment: Service completed)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0094874	GFL0088296	GFL0077539
Sample Date		Client Info		04 Jan 2024	16 Oct 2023	03 Aug 2023
Machine Age	hrs	Client Info		2841	2296	1739
Oil Age	hrs	Client Info		621	557	611
Filter Age	hrs	Client Info		621	557	611
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	11	14	17
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	2	1	2
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	<1	<1	0
Aluminum	ppm	ASTM D5185m	>20	1	1	1
Lead	ppm	ASTM D5185m	>40	<1	<1	2
Copper	ppm	ASTM D5185m	>330	6	41	225
Tin	ppm	ASTM D5185m	>15	1	1	1
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

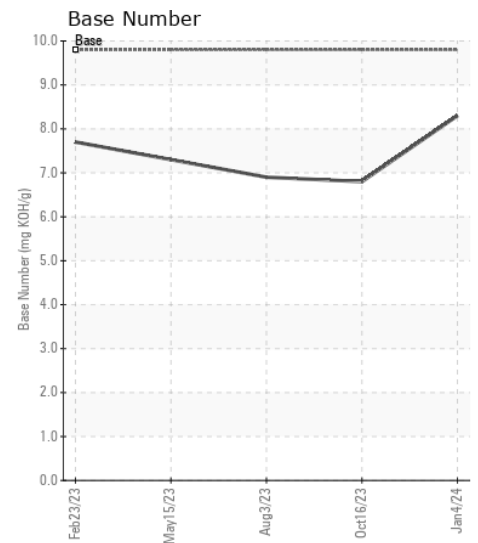
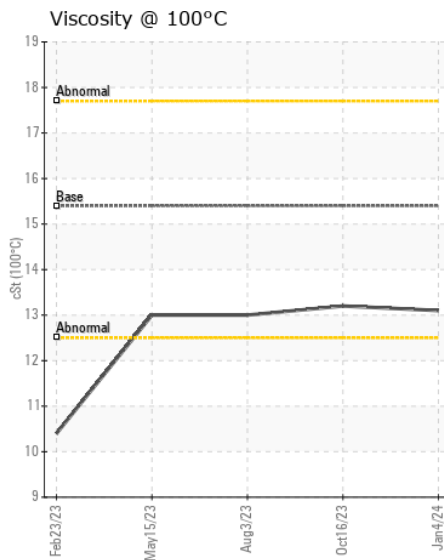
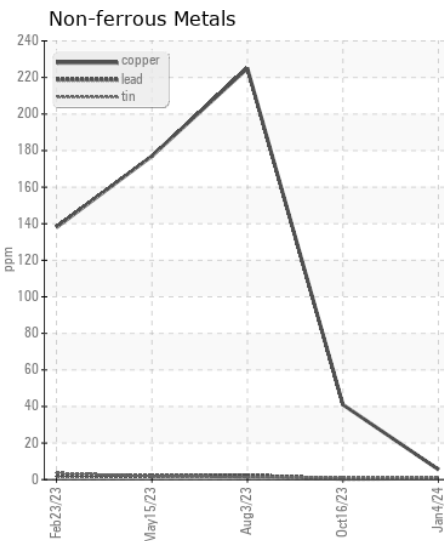
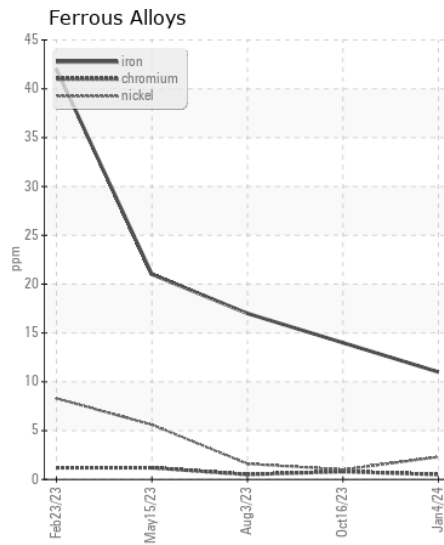
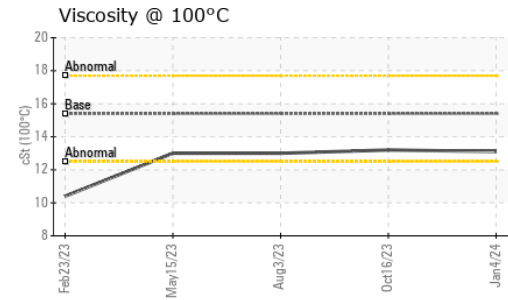
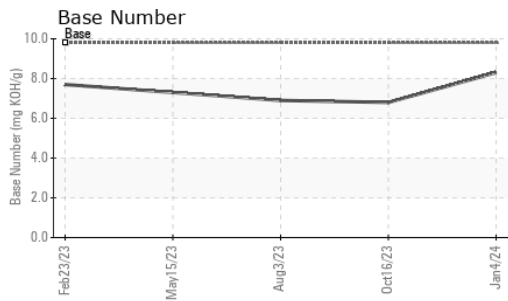
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	4	5	5
Potassium	ppm	ASTM D5185m	>20	3	2	0
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.5	0.6	0.6
Nitration	Abs/cm	*ASTM D7624	>20	7.3	7.7	7.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.1	18.9	18.6
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		3	4	4
Boron	ppm	ASTM D5185m	0	4	<1	2
Barium	ppm	ASTM D5185m	0	0	3	0
Molybdenum	ppm	ASTM D5185m	60	61	59	65
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	953	854	985
Calcium	ppm	ASTM D5185m	1070	1079	1017	1179
Phosphorus	ppm	ASTM D5185m	1150	1127	891	993
Zinc	ppm	ASTM D5185m	1270	1323	1085	1228
Sulfur	ppm	ASTM D5185m	2060	3111	2302	2987
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.9	14.5	14.4
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.3	6.8	6.9
Visc @ 100°C	cSt	ASTM D445	15.4	13.1	13.2	13.0



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0094874 **Received** : 08 Jan 2024
Lab Number : 06054623 **Diagnosed** : 10 Jan 2024
Unique Number : 10820572 **Diagnostician** : Sean Felton
Test Package : FLEET

GFL Environmental - 625 - Harrison Hauling
 4102 Industrial Pkwy
 Harrison, MI
 US 48625
 Contact: Glenda Standen
 gstanden@gflenv.com

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: