



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
920114-1475
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		GFL0103532	GFL0103533	GFL0103560
Sample Date		Client Info		21 Jun 2024	21 Jun 2024	07 Feb 2024
Machine Age	mls	Client Info		100149	100310	92568
Oil Age	mls	Client Info		92568	0	92568
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	10	61	7
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	<1	0	0
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	<1	<1	<1
Aluminum	ppm	ASTM D5185m	>20	2	▲ 30	1
Lead	ppm	ASTM D5185m	>40	<1	14	<1
Copper	ppm	ASTM D5185m	>330	2	26	2
Tin	ppm	ASTM D5185m	>15	0	3	<1
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

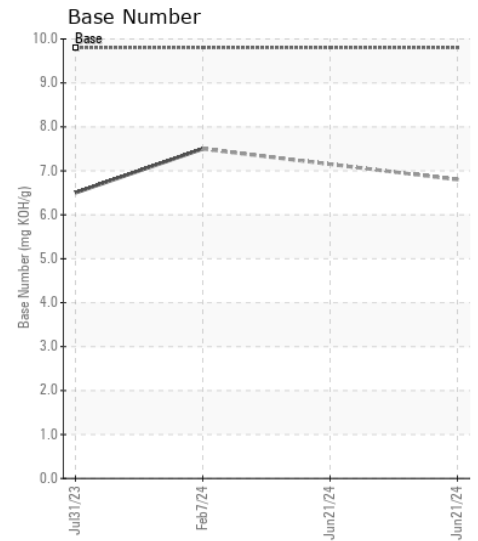
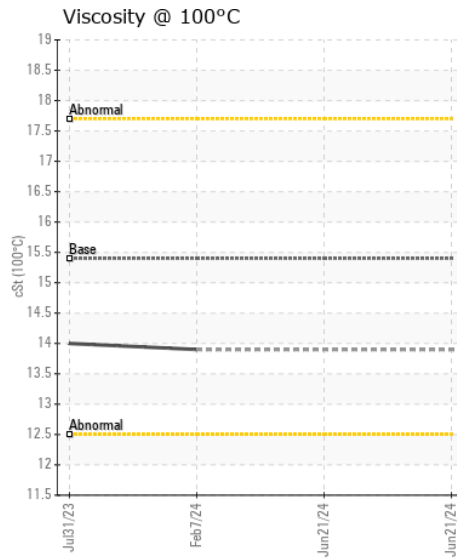
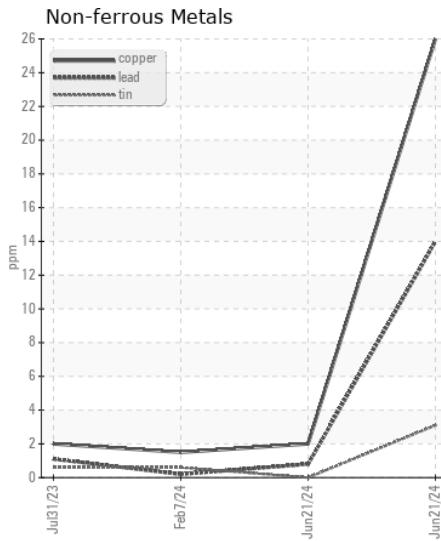
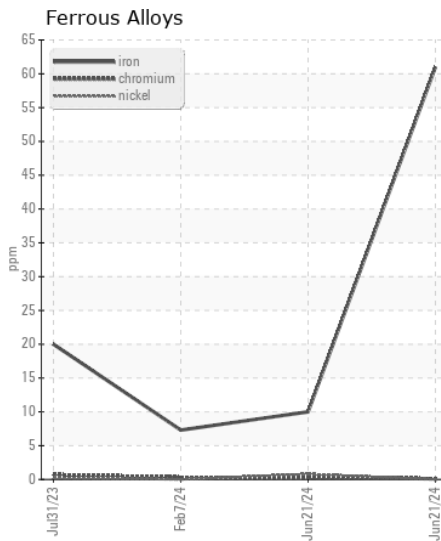
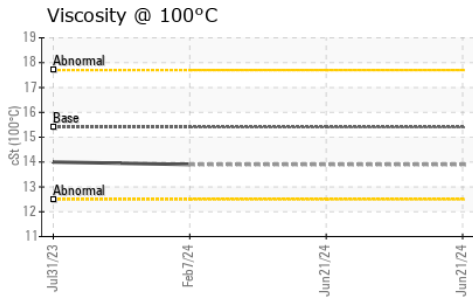
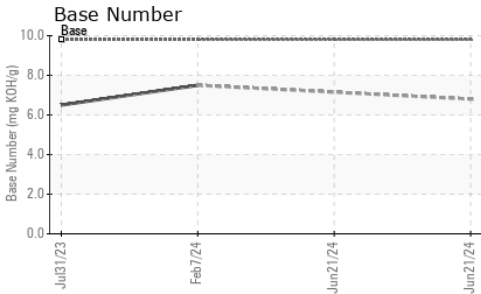
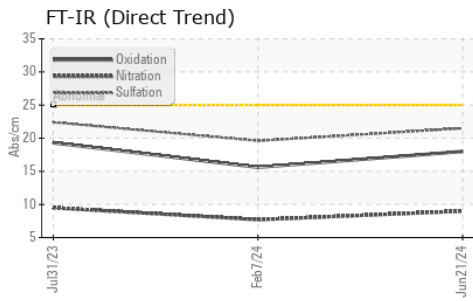
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	4	6	3
Potassium	ppm	ASTM D5185m	>20	3	<1	<1
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>4	0.7	---	0.5
Nitration	Abs/cm	*ASTM D7624	>20	9.0	---	7.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.5	---	19.6
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		6	7	4
Boron	ppm	ASTM D5185m	0	3	● 74	1
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	62	● 0	58
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	1052	● 0	1006
Calcium	ppm	ASTM D5185m	1070	1161	● 100	1049
Phosphorus	ppm	ASTM D5185m	1150	1036	● 229	1015
Zinc	ppm	ASTM D5185m	1270	1383	● 5	1240
Sulfur	ppm	ASTM D5185m	2060	3281	1612	2832
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.0	---	15.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	6.8	---	7.5
Visc @ 100°C	cSt	ASTM D445	15.4	13.9	---	13.9



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0103532
Lab Number : 06223057
Unique Number : 11101254
Test Package : FLEET

Received : 27 Jun 2024
Tested : 28 Jun 2024
Diagnosed : 28 Jun 2024 - Wes Davis

GFL Environmental - 958A - Chillicothe Wigan
 19908 N. State Rd 29
 Chillicothe, IL
 US 61523
 Contact: Bryan Link
 blink@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: