



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
424019-856
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON HP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0100024	GFL0115449	GFL0062212
Sample Date		Client Info		10 Jun 2024	29 Feb 2024	01 Aug 2023
Machine Age	hrs	Client Info		18097	17293	17293
Oil Age	hrs	Client Info		500	500	820
Filter Age	hrs	Client Info		500	0	820
Oil Changed		Client Info		Not Changd	Not Changd	Changed
Filter Changed		Client Info		Not Changd	Not Changd	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	36	43	35
Chromium	ppm	ASTM D5185m	>20	<1	<1	1
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	6	6	4
Lead	ppm	ASTM D5185m	>40	0	0	2
Copper	ppm	ASTM D5185m	>330	<1	1	2
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

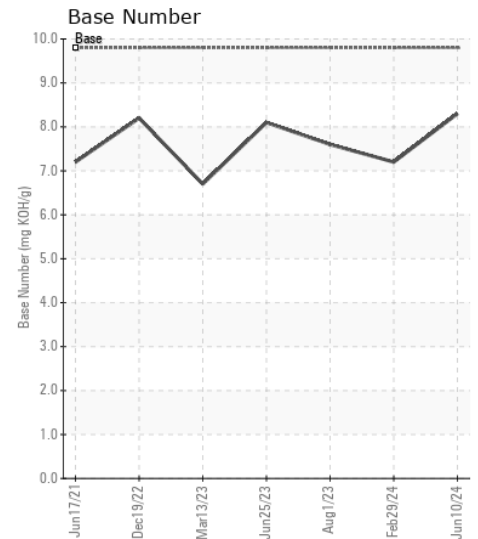
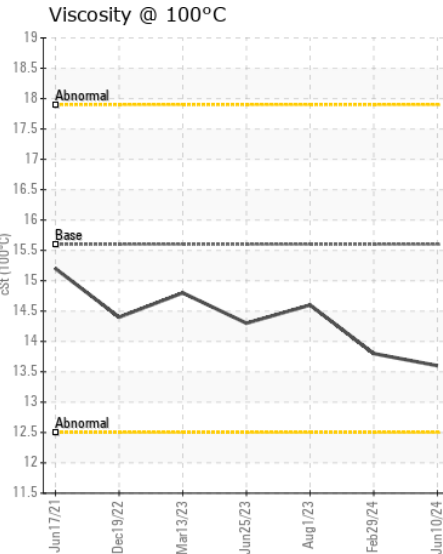
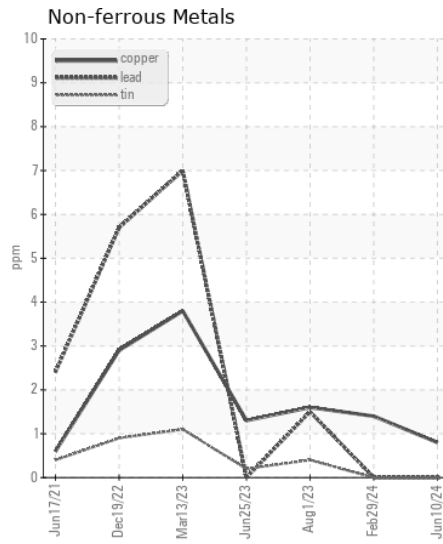
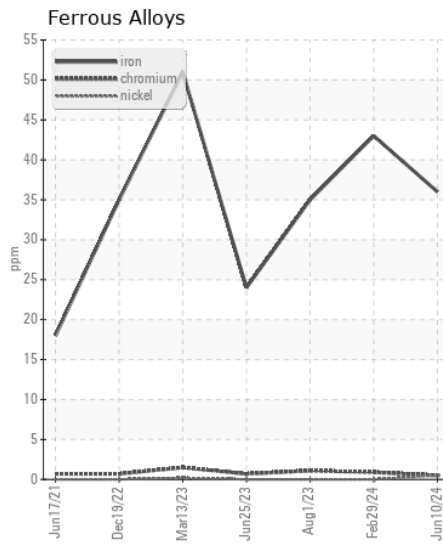
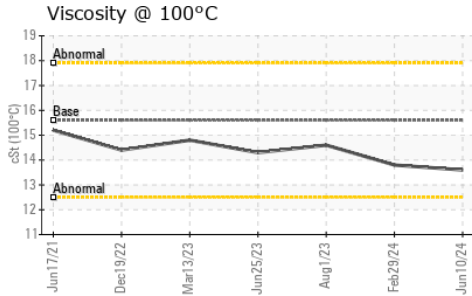
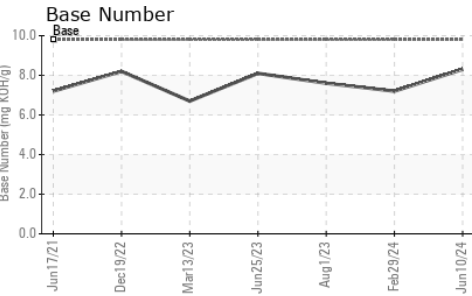
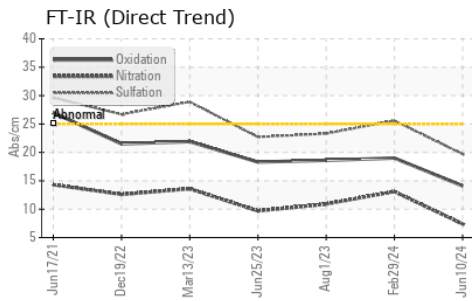
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	3	11	17
Potassium	ppm	ASTM D5185m	>20	9	7	6
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	0.7	2.1	1.4
Nitration	Abs/cm	*ASTM D7624	>20	7.4	13.1	10.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.7	25.6	23.3
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		4	6	4
Boron	ppm	ASTM D5185m		5	9	6
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		49	76	67
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		786	985	1048
Calcium	ppm	ASTM D5185m		902	1278	1280
Phosphorus	ppm	ASTM D5185m		875	1002	1115
Zinc	ppm	ASTM D5185m		1057	1229	1381
Sulfur	ppm	ASTM D5185m		2927	2873	3527
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.1	19.0	18.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.3	7.2	7.6
Visc @ 100°C	cSt	ASTM D445	15.6	13.6	13.8	14.6



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0100024
Lab Number : 06211288
Unique Number : 11084152
Test Package : FLEET

Received : 17 Jun 2024
Tested : 18 Jun 2024
Diagnosed : 18 Jun 2024 - Wes Davis

GFL Environmental - 626 - Cadillac Hauling
 1501 Ron Wilson St
 Cadillac, MI
 US 49601
 Contact: GARY BREWER
 gbrewerjr@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: