



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
912023
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		GFL0117660	GFL0108833	GFL0105652
Sample Date		Client Info		11 Apr 2024	09 Jan 2024	07 Dec 2023
Machine Age	hrs	Client Info		5918	5804	5563
Oil Age	hrs	Client Info		5804	600	5392
Filter Age	hrs	Client Info		0	600	5392
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Filter Changed		Client Info		Not Changd	Changed	Not Changd
Sample Status				NORMAL	SEVERE	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	24	61	21
Chromium	ppm	ASTM D5185m	>20	1	3	<1
Nickel	ppm	ASTM D5185m	>5	5	<1	7
Titanium	ppm	ASTM D5185m	>2	<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	9	4	1
Lead	ppm	ASTM D5185m	>40	2	1	2
Copper	ppm	ASTM D5185m	>330	4	2	4
Tin	ppm	ASTM D5185m	>15	1	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

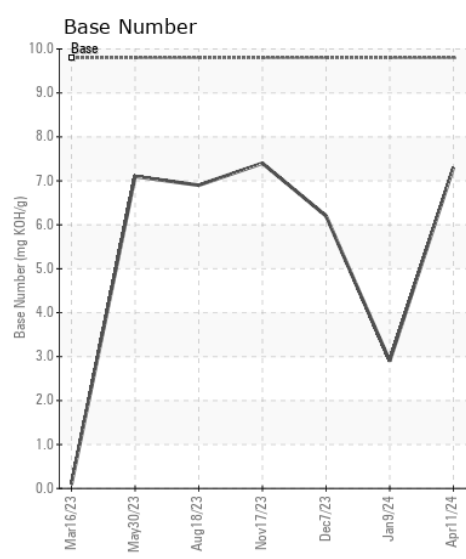
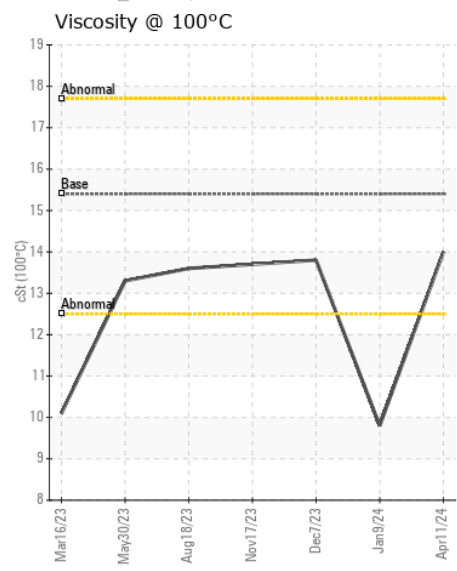
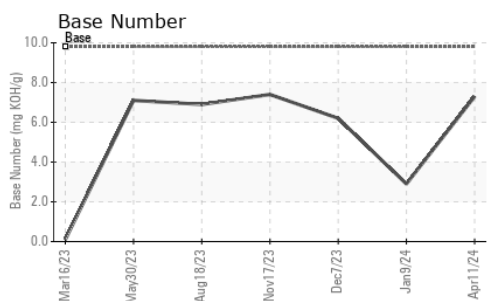
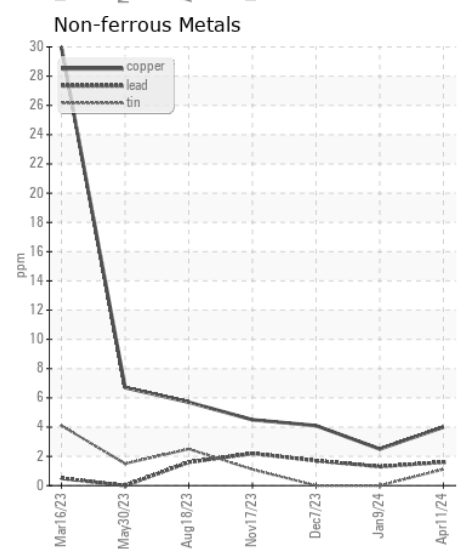
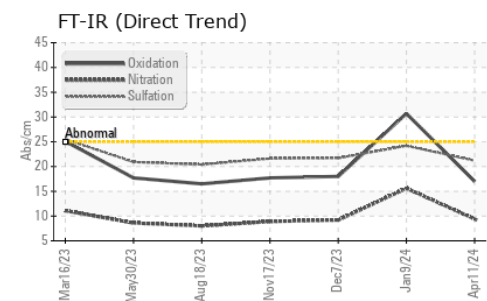
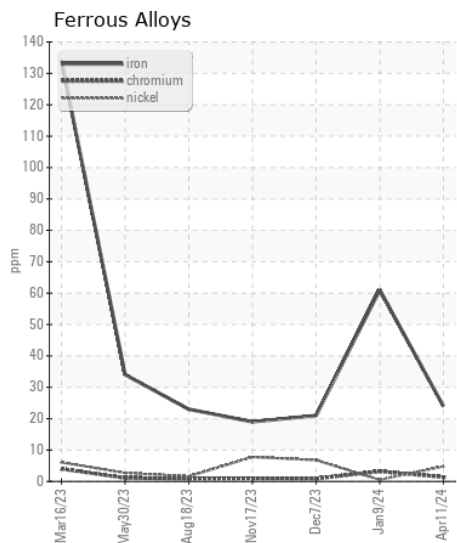
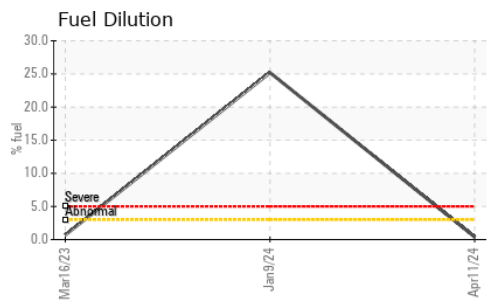
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	5	14	4
Potassium	ppm	ASTM D5185m	>20	23	1	0
Fuel	%	ASTM D3524	>3.0	0.4	▲ 25.2	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>4	1.1	0.8	1.1
Nitration	Abs/cm	*ASTM D7624	>20	9.4	15.6	9.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.2	24.2	21.7
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		2	4	4
Boron	ppm	ASTM D5185m	0	0	0	0
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	65	38	59
Manganese	ppm	ASTM D5185m	0	<1	0	<1
Magnesium	ppm	ASTM D5185m	1010	1002	634	947
Calcium	ppm	ASTM D5185m	1070	1174	701	1062
Phosphorus	ppm	ASTM D5185m	1150	1118	662	832
Zinc	ppm	ASTM D5185m	1270	1296	886	1226
Sulfur	ppm	ASTM D5185m	2060	3170	1838	2653
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.0	30.7	18.0
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.3	▲ 2.9	6.2
Visc @ 100°C	cSt	ASTM D445	15.4	14.0	▲ 9.8	13.8



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0117660 **Received** : 15 Apr 2024
Lab Number : 06148397 **Tested** : 17 Apr 2024
Unique Number : 10978475 **Diagnosed** : 17 Apr 2024 - Wes Davis
Test Package : FLEET (Additional Tests: PercentFuel)

GFL Environmental - 415 - Michigan East
 6200 Elmridge
 Sterling Heights, MI
 US 48313
 Contact: Frank Wolak
 fwolak@gflenv.com
 T: (586)825-9514
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Certificate L2367
 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)