



WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	NORMAL

Machine Id
428015-901
 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		GFL0101651	GFL0100049	GFL0062202
Sample Date		Client Info		13 Mar 2024	04 Dec 2023	04 Aug 2023
Machine Age	hrs	Client Info		17027	17021	17020
Oil Age	hrs	Client Info		16850	191	191
Filter Age	hrs	Client Info		0	191	191
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				MARGINAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	19	8	5
Chromium	ppm	ASTM D5185m	>20	<1	<1	0
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	2	2	<1
Lead	ppm	ASTM D5185m	>40	<1	0	<1
Copper	ppm	ASTM D5185m	>330	2	<1	<1
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

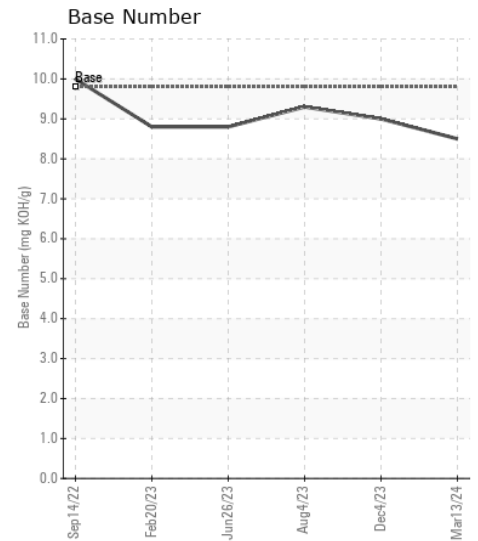
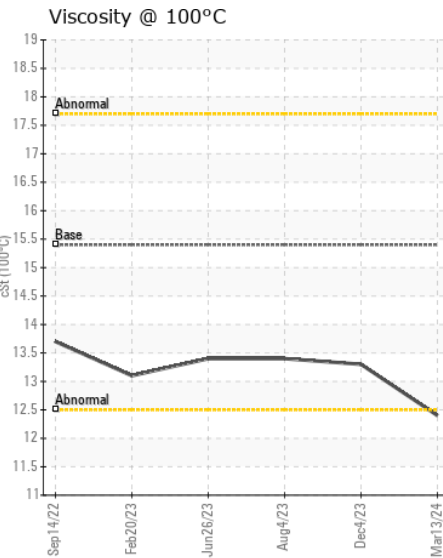
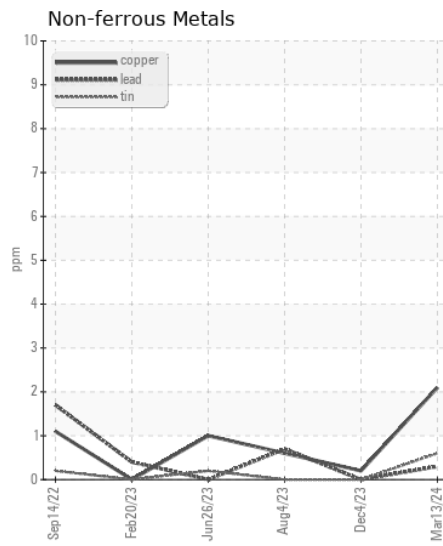
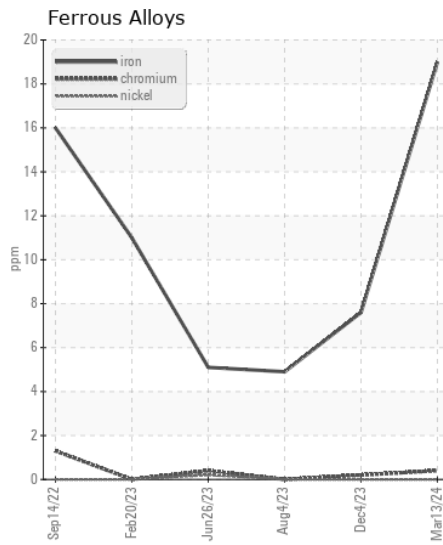
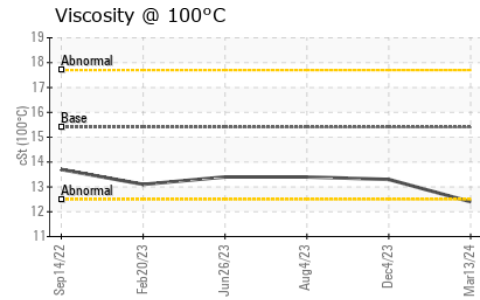
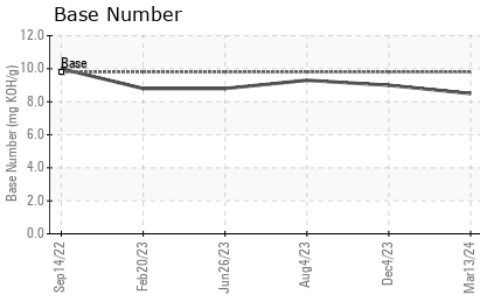
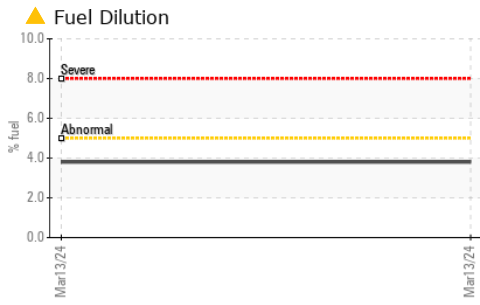
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185m	>25	5	4	2
Potassium	ppm	ASTM D5185m	>20	4	3	3
Fuel	%	ASTM D3524	>5	▲ 3.8	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	8.5	6.2	6.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.8	17.6	17.7
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		17	12	3
Boron	ppm	ASTM D5185m	0	10	10	8
Barium	ppm	ASTM D5185m	0	0	0	2
Molybdenum	ppm	ASTM D5185m	60	60	64	65
Manganese	ppm	ASTM D5185m	0	<1	0	0
Magnesium	ppm	ASTM D5185m	1010	865	901	886
Calcium	ppm	ASTM D5185m	1070	1041	1077	1165
Phosphorus	ppm	ASTM D5185m	1150	986	950	1025
Zinc	ppm	ASTM D5185m	1270	1177	1204	1221
Sulfur	ppm	ASTM D5185m	2060	3343	3139	3418
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.6	13.7	14.1
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.5	9.0	9.3
Visc @ 100°C	cSt	ASTM D445	15.4	12.4	13.3	13.4



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0101651
Lab Number : 06124213
Unique Number : 10938364
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

Received : 20 Mar 2024
Tested : 22 Mar 2024
Diagnosed : 22 Mar 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: