



OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
726082

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

No evidence of coolant present in the oil. There is no indication of any contamination in the oil.

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.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0103599	GFL0085325	---
Sample Date	Client Info	11 Dec 2023	09 Jun 2023	---
Machine Age	hrs	Client Info	16808	16808
Oil Age	hrs	Client Info	603	355
Oil Changed	Client Info	N/A	Changed	---
Sample Status		NORMAL	SEVERE	---

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<1.0	<1.0	---
Water	WC Method >0.2	NEG	NEG	---

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	17	81
Chromium	ppm	ASTM D5185m >20	1	3
Nickel	ppm	ASTM D5185m >4	<1	2
Titanium	ppm	ASTM D5185m	0	<1
Silver	ppm	ASTM D5185m >3	0	0
Aluminum	ppm	ASTM D5185m >20	2	8
Lead	ppm	ASTM D5185m >40	3	4
Copper	ppm	ASTM D5185m >330	2	12
Tin	ppm	ASTM D5185m >15	0	<1
Vanadium	ppm	ASTM D5185m	<1	0
Cadmium	ppm	ASTM D5185m	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	1	587
Barium	ppm	ASTM D5185m 0	0	4
Molybdenum	ppm	ASTM D5185m 60	60	225
Manganese	ppm	ASTM D5185m 0	0	1
Magnesium	ppm	ASTM D5185m 1010	981	777
Calcium	ppm	ASTM D5185m 1070	1033	897
Phosphorus	ppm	ASTM D5185m 1150	954	887
Zinc	ppm	ASTM D5185m 1270	1267	1046
Sulfur	ppm	ASTM D5185m 2060	3021	2797

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	7	117
Sodium	ppm	ASTM D5185m	27	4995
Potassium	ppm	ASTM D5185m >20	1	73
Glycol	%	*ASTM D2982	NEG	0.20

INFRA-RED

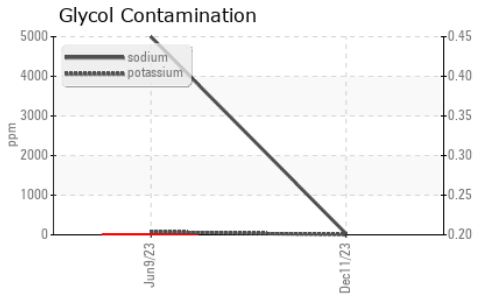
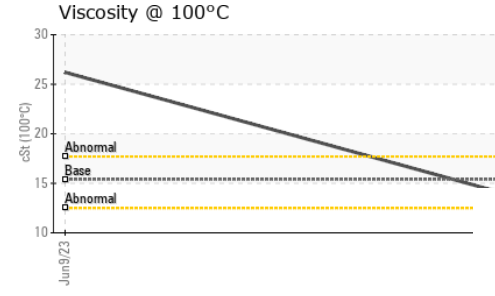
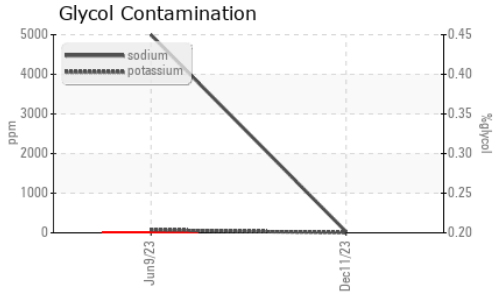
method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.3	0.5
Nitration	Abs/cm	*ASTM D7624 >20	10.3	20.4
Sulfation	Abs/.1mm	*ASTM D7415 >30	22.1	14.5

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	21.7	16.3
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	6.9	76.9



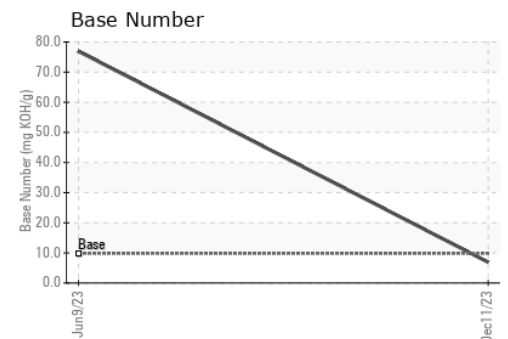
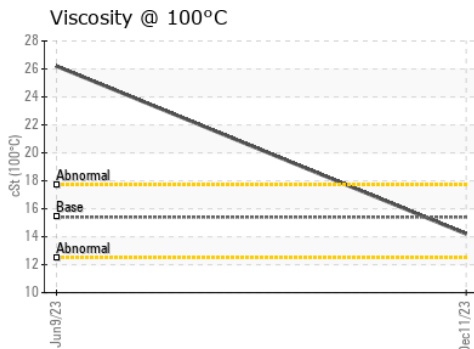
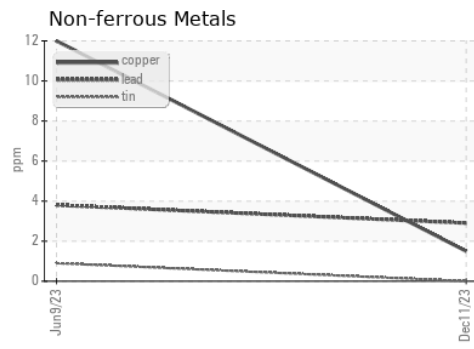
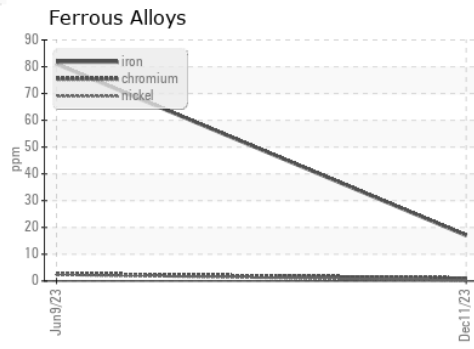
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	14.2	▲ 26.2

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0103599 **Recieved** : 19 Dec 2023
Lab Number : 06039960 **Diagnosed** : 21 Dec 2023
Unique Number : 10795189 **Diagnostician** : Jonathan Hester
Test Package : FLEET

GFL Environmental - 958 - Tri County HC Morton
 1090 W. Jefferson St.
 Morton, IL
 US 61550
 Contact: Bryan Link
 blink@gflenv.com

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)