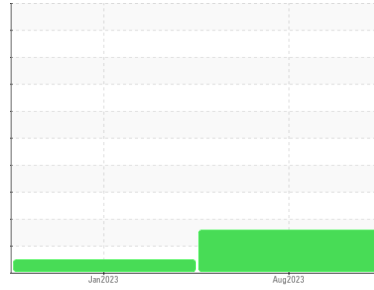




PROBLEM SUMMARY

Sample Rating Trend



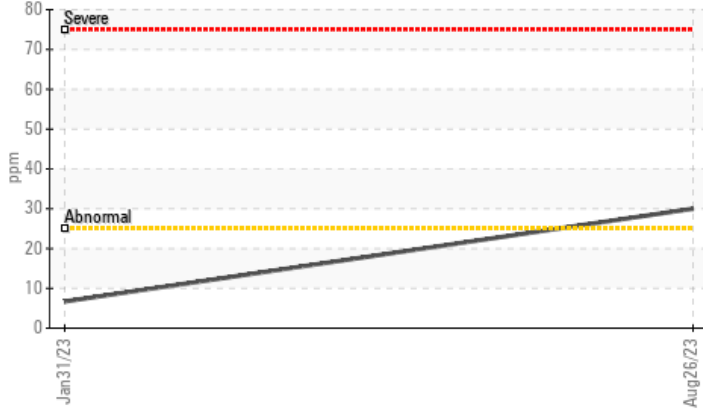
Machine Id
427191 - SW4738

Component
Diesel Engine

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

COMPONENT CONDITION SUMMARY

▲ Silicon (ppm)



RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	NORMAL	---
Silicon	ppm	ASTM D5185m	>25	▲ 30	7	---

Customer Id: GFL983
Sample No.: GFL0089460
Lab Number: 05940075
Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
Sean Felton +1 919-379-4092
sfelton@wearcheckusa.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.

HISTORICAL DIAGNOSIS

31 Jan 2023 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

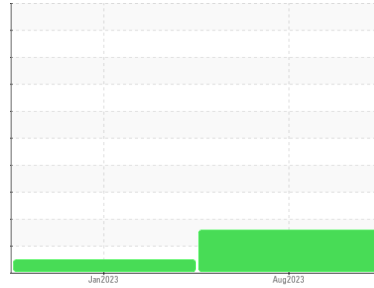
view report





OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id
427191 - SW4738

Component
Diesel Engine

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

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Elemental level of silicon (Si) above normal indicating ingress of seal material.

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	GFL0089460	GFL0065827	---
Sample Date	Client Info	26 Aug 2023	31 Jan 2023	---
Machine Age	mls	Client Info	340693	330902
Oil Age	mls	Client Info	340693	0
Oil Changed	Client Info	Changed	N/A	---
Sample Status		ABNORMAL	NORMAL	---

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	<1.0
Glycol	WC Method		NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>100	12	13
Chromium	ppm	ASTM D5185m	>20	1	<1
Nickel	ppm	ASTM D5185m	>4	<1	0
Titanium	ppm	ASTM D5185m		0	0
Silver	ppm	ASTM D5185m	>3	<1	0
Aluminum	ppm	ASTM D5185m	>20	1	1
Lead	ppm	ASTM D5185m	>40	0	<1
Copper	ppm	ASTM D5185m	>330	15	<1
Tin	ppm	ASTM D5185m	>15	0	<1
Vanadium	ppm	ASTM D5185m		0	0
Cadmium	ppm	ASTM D5185m		0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	0	456	<1
Barium	ppm	ASTM D5185m	0	13	0
Molybdenum	ppm	ASTM D5185m	60	74	61
Manganese	ppm	ASTM D5185m	0	5	<1
Magnesium	ppm	ASTM D5185m	1010	511	751
Calcium	ppm	ASTM D5185m	1070	1409	1862
Phosphorus	ppm	ASTM D5185m	1150	1083	1145
Zinc	ppm	ASTM D5185m	1270	1329	1408
Sulfur	ppm	ASTM D5185m	2060	4235	4033

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>25	▲ 30	7
Sodium	ppm	ASTM D5185m		4	1
Potassium	ppm	ASTM D5185m	>20	3	3

INFRA-RED

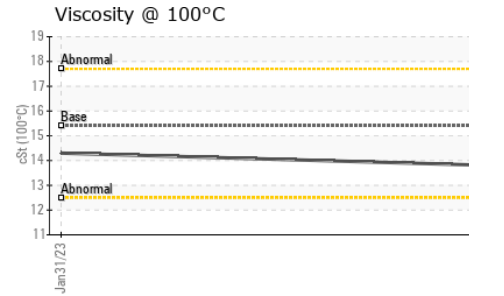
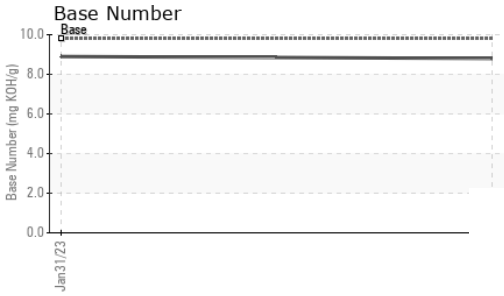
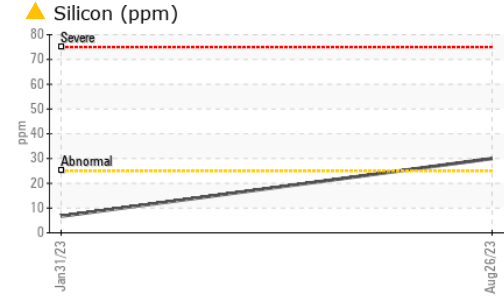
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>3	0.1	0.4
Nitration	Abs/cm	*ASTM D7624	>20	5.1	10.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.6	21.8

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.5	16.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.8	8.9



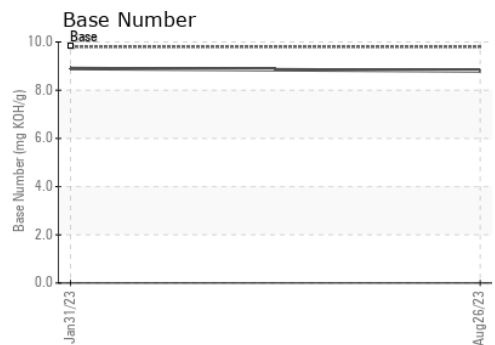
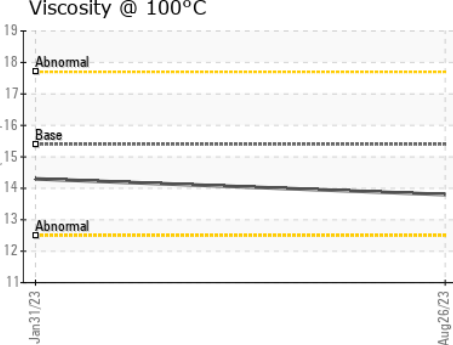
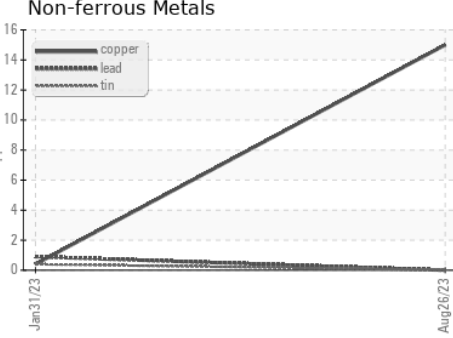
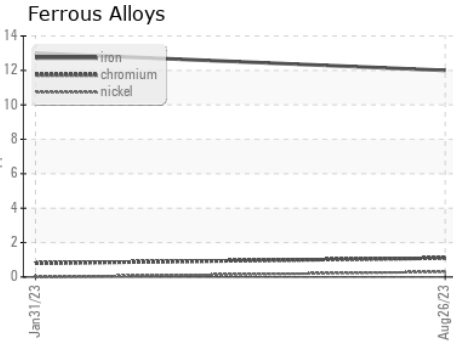
OIL ANALYSIS REPORT



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	13.8	14.3

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0089460 **Received** : 31 Aug 2023
Lab Number : 05940075 **Diagnosed** : 05 Sep 2023
Unique Number : 10630687 **Diagnostician** : Sean Felton
Test Package : FLEET

GFL Environmental - 983 - Sugar Land Hauling
 16011 West Belfort Street
 Sugar Land, TX
 US 77498
 Contact: Gino Griego
 ggriego@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)