



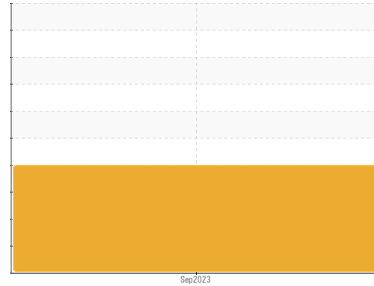
PROBLEM SUMMARY

Sample Rating Trend

DEGRADATION

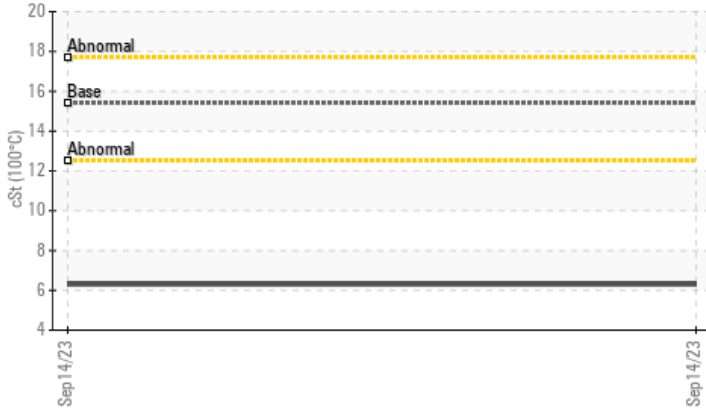


Machine Id
914052
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (36 LTR)

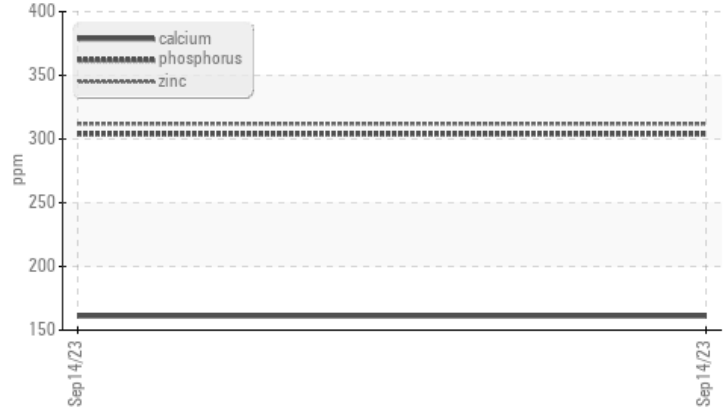


COMPONENT CONDITION SUMMARY

▲ Viscosity @ 100°C



▲ Additives



RECOMMENDATION

Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	---	---
Molybdenum	ppm	ASTM D5185m	60	▲ 6	---	---
Magnesium	ppm	ASTM D5185m	1010	▲ 56	---	---
Calcium	ppm	ASTM D5185m	1070	▲ 161	---	---
Phosphorus	ppm	ASTM D5185m	1150	▲ 304	---	---
Zinc	ppm	ASTM D5185m	1270	▲ 312	---	---
Sulfur	ppm	ASTM D5185m	2060	▲ 1250	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	▲ 1.8	---	---
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 6.3	---	---

Customer Id: GFL410
 Sample No.: GFL0084899
 Lab Number: 05955130
 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
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jhester@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.
Resample	---	---	?	We recommend an early resample to monitor this condition.

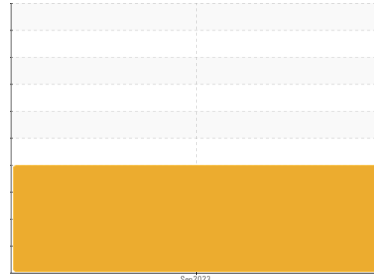
HISTORICAL DIAGNOSIS



OIL ANALYSIS REPORT

Sample Rating Trend

DEGRADATION



Machine Id
914052
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (36 LTR)

DIAGNOSIS

▲ Recommendation

Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

Metal levels are typical for a new component breaking in.

Contamination

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

▲ Fluid Condition

The oil viscosity is lower than normal. Additive levels indicate the addition of a different brand, or type of oil. The BN level is low. Confirm oil type.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0084899	---	---
Sample Date	Client Info		14 Sep 2023	---	---
Machine Age	hrs	Client Info	280	---	---
Oil Age	hrs	Client Info	280	---	---
Oil Changed	Client Info		Changed	---	---
Sample Status			ABNORMAL	---	---

CONTAMINATION

	method	limit/base	current	history1	history2
Glycol	WC Method		NEG	---	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >120	14	---	---
Chromium	ppm	ASTM D5185m >20	1	---	---
Nickel	ppm	ASTM D5185m >5	0	---	---
Titanium	ppm	ASTM D5185m >2	<1	---	---
Silver	ppm	ASTM D5185m >2	0	---	---
Aluminum	ppm	ASTM D5185m >20	4	---	---
Lead	ppm	ASTM D5185m >40	<1	---	---
Copper	ppm	ASTM D5185m >330	4	---	---
Tin	ppm	ASTM D5185m >15	0	---	---
Vanadium	ppm	ASTM D5185m	0	---	---
Cadmium	ppm	ASTM D5185m	0	---	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	10	---	---
Barium	ppm	ASTM D5185m 0	0	---	---
Molybdenum	ppm	ASTM D5185m 60	▲ 6	---	---
Manganese	ppm	ASTM D5185m 0	<1	---	---
Magnesium	ppm	ASTM D5185m 1010	▲ 56	---	---
Calcium	ppm	ASTM D5185m 1070	▲ 161	---	---
Phosphorus	ppm	ASTM D5185m 1150	▲ 304	---	---
Zinc	ppm	ASTM D5185m 1270	▲ 312	---	---
Sulfur	ppm	ASTM D5185m 2060	▲ 1250	---	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	8	---	---
Sodium	ppm	ASTM D5185m	52	---	---
Potassium	ppm	ASTM D5185m >20	1	---	---
Fuel	%	ASTM D3524 >3.0	1.2	---	---

INFRA-RED

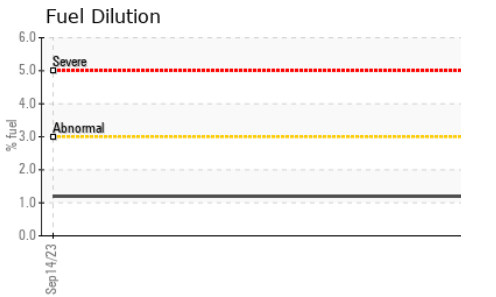
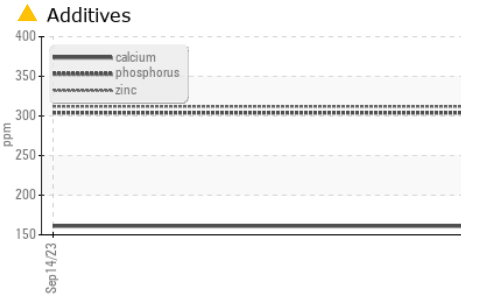
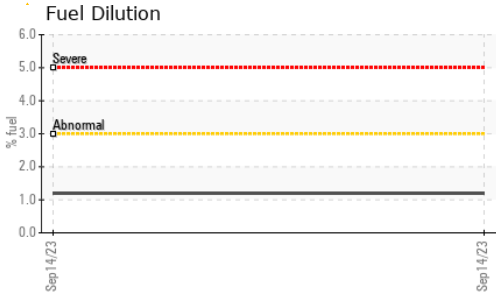
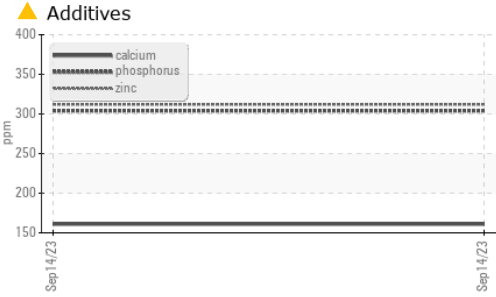
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	0.1	---	---
Nitration	Abs/cm	*ASTM D7624 >20	3.6	---	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	20.6	---	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	17.6	---	---
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	▲ 1.8	---	---



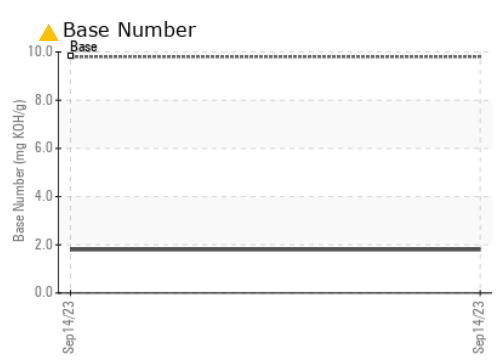
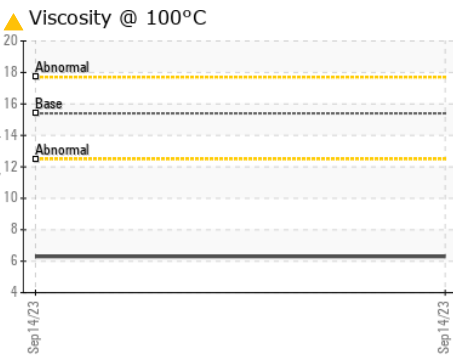
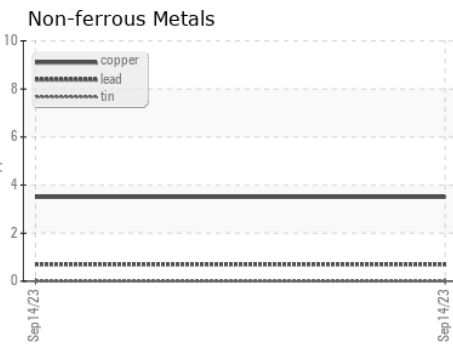
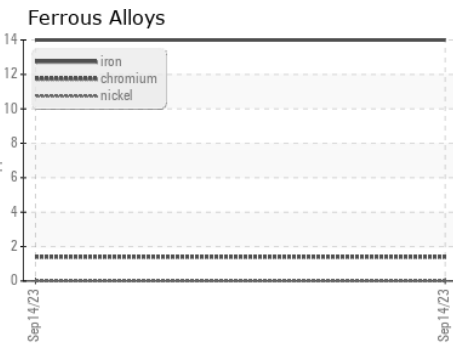
OIL ANALYSIS REPORT



PARAMETER	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	▲ 6.3	---

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0084899 **Received** : 19 Sep 2023
Lab Number : 05955130 **Diagnosed** : 21 Sep 2023
Unique Number : 10656343 **Diagnostician** : Jonathan Hester
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

GFL Environmental - 410 - Michigan West
 39000 Van Born Rd
 Wayne, MI
 US 48184
 Contact: Tony Esquina
 tesquina@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)