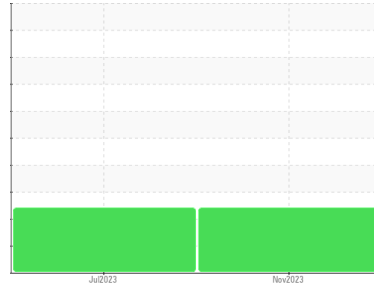




PROBLEM SUMMARY

Sample Rating Trend



DIRT



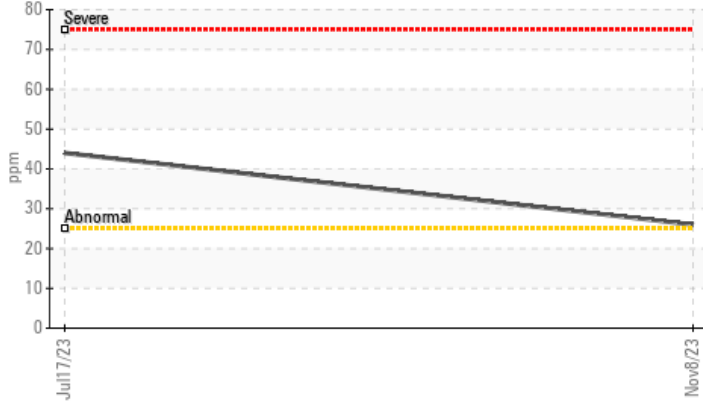
Machine Id
SS0156

Component
Diesel Engine

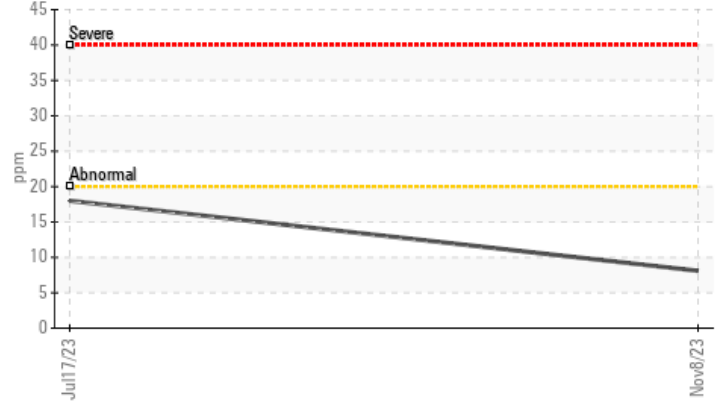
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Silicon (ppm)



▲ Aluminum (ppm)



RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Resample at the next service interval to monitor. (Customer Sample Comment: Sample only)

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	ABNORMAL	---
Aluminum	ppm	ASTM D5185m	>20	▲ 8	▲ 18	---
Silicon	ppm	ASTM D5185m	>25	▲ 26	▲ 44	---

Customer Id: GFL625
Sample No.: GFL0094863
Lab Number: 06006239
Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldrige +1
don.b505@comcast.net

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Check Dirt Access	---	---	?	We advise that you check the air filter, air induction system, and any areas where dirt may enter the component.

HISTORICAL DIAGNOSIS

17 Jul 2023 Diag: Don Baldrige

DIRT



We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

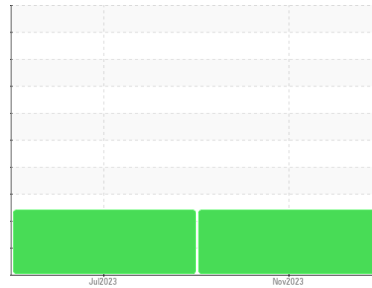
view report





OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Machine Id
SS0156

Component
Diesel Engine

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

DIAGNOSIS

Recommendation

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Resample at the next service interval to monitor. (Customer Sample Comment: Sample only)

Wear

All component wear rates are normal.

Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0094863	GFL0077502	---
Sample Date	Client Info	08 Nov 2023	17 Jul 2023	---
Machine Age	hrs	Client Info	3124	3081
Oil Age	hrs	Client Info	43	0
Oil Changed	Client Info	Not Chngd	Changed	---
Sample Status		ABNORMAL	ABNORMAL	---

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	21	48	---
Chromium	ppm ASTM D5185m >20	10	22	---
Nickel	ppm ASTM D5185m >4	0	<1	---
Titanium	ppm ASTM D5185m	1	4	---
Silver	ppm ASTM D5185m >3	0	0	---
Aluminum	ppm ASTM D5185m >20	▲ 8	▲ 18	---
Lead	ppm ASTM D5185m >40	<1	<1	---
Copper	ppm ASTM D5185m >330	<1	2	---
Tin	ppm ASTM D5185m >15	<1	<1	---
Vanadium	ppm ASTM D5185m	0	<1	---
Cadmium	ppm ASTM D5185m	0	0	---

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	16	22	---
Barium	ppm ASTM D5185m 0	0	0	---
Molybdenum	ppm ASTM D5185m 60	46	24	---
Manganese	ppm ASTM D5185m 0	<1	1	---
Magnesium	ppm ASTM D5185m 1010	687	369	---
Calcium	ppm ASTM D5185m 1070	1384	1979	---
Phosphorus	ppm ASTM D5185m 1150	1009	925	---
Zinc	ppm ASTM D5185m 1270	1206	1153	---
Sulfur	ppm ASTM D5185m 2060	3308	4210	---

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	▲ 26	▲ 44	---
Sodium	ppm ASTM D5185m	4	5	---
Potassium	ppm ASTM D5185m >20	5	5	---

INFRA-RED

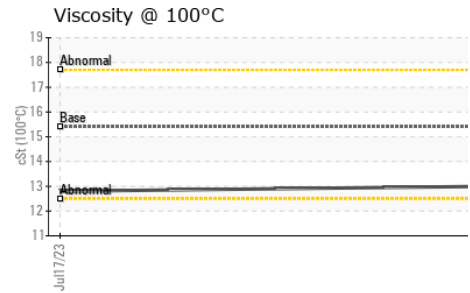
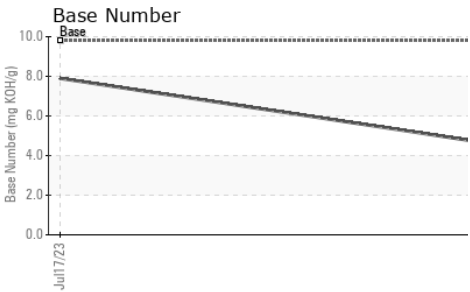
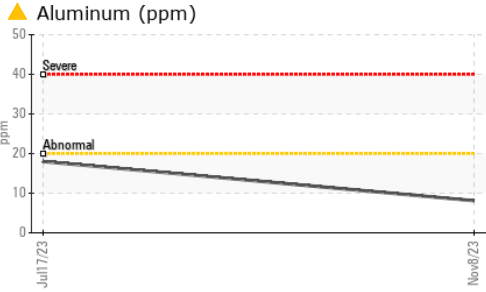
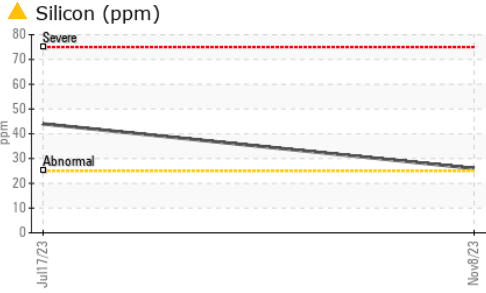
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	0.5	0.1	---
Nitration	Abs/cm *ASTM D7624 >20	10.6	8.9	---
Sulfation	Abs/.1mm *ASTM D7415 >30	25.9	18.3	---

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	21.8	13.3	---
Base Number (BN)	mg KOH/g ASTM D2896 9.8	4.6	7.9	---



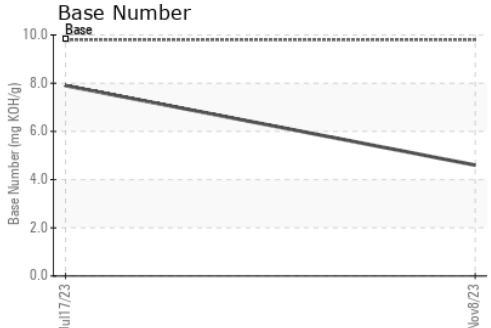
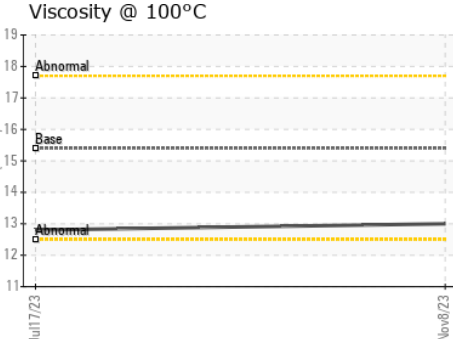
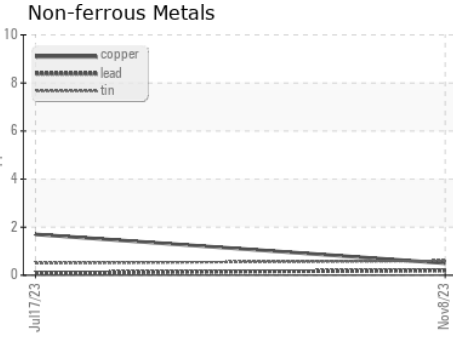
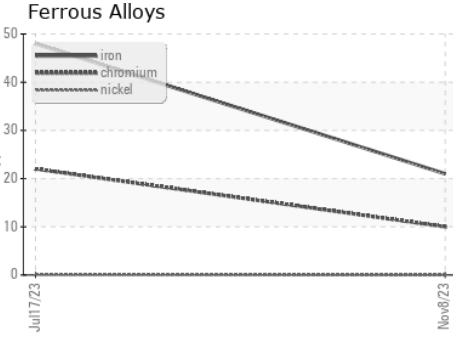
OIL ANALYSIS REPORT



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	13.0	12.8

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0094863 **Received** : 13 Nov 2023
Lab Number : 06006239 **Diagnosed** : 15 Nov 2023
Unique Number : 10740001 **Diagnostician** : Don Baldrige
Test Package : FLEET

GFL Environmental - 625 - Harrison Hauling
 4102 Industrial Pkwy
 Harrison, MI
 US 48625
 Contact: RON TROJANEK
 ront@northern1.com
 T: (231)624-0372
 F:

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)