



PROBLEM SUMMARY

Sample Rating Trend



DIRT

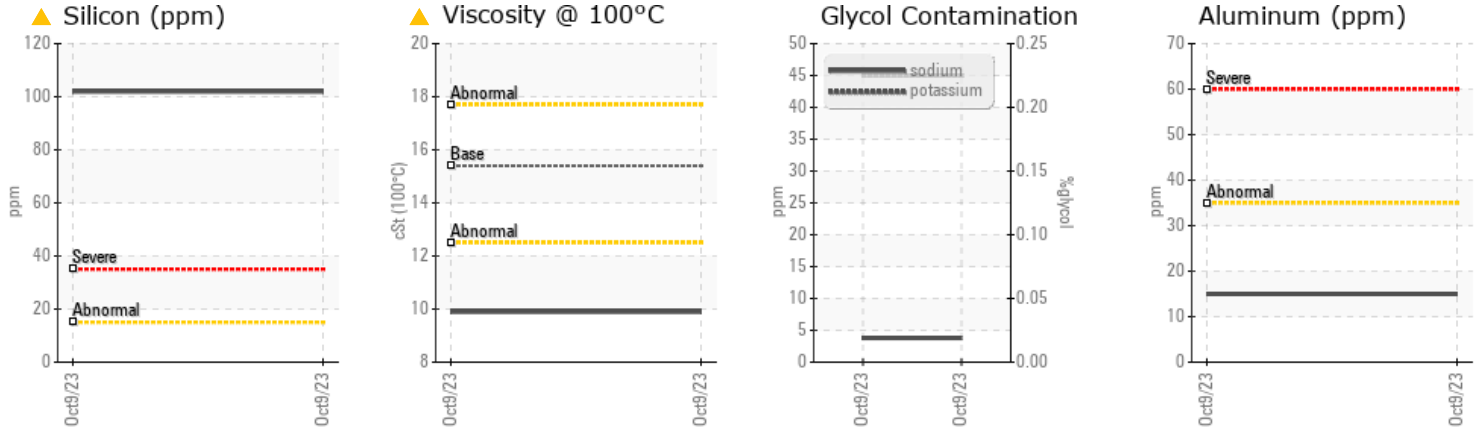


Machine Id
713013

Component
Diesel Engine

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

COMPONENT CONDITION SUMMARY



RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status	Value	Limit	Status
Silicon	ppm	ASTM D5185m >15	ABNORMAL ---
Visc @ 100°C	cSt	ASTM D445 15.4	ABNORMAL ---

Customer Id: GFL650
Sample No.: GFL0077812
Lab Number: 05978794
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

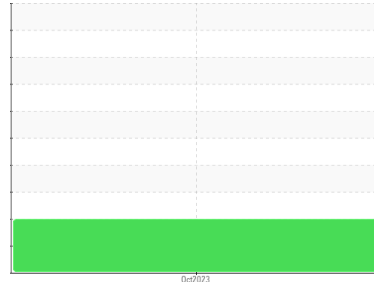
Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.

HISTORICAL DIAGNOSIS



OIL ANALYSIS REPORT

Sample Rating Trend



DIRT

Machine Id
713013

Component
Diesel Engine

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

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Fuel content negligible. Elemental level of silicon (Si) above normal indicating ingress of seal material. Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components.

Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0077812	---	---
Sample Date	Client Info	09 Oct 2023	---	---
Machine Age	hrs	Client Info	352	---
Oil Age	hrs	Client Info	352	---
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 >65	36	---
Chromium	ppm	ASTM D5185m >5	1	---
Nickel	ppm	ASTM D5185m >3	5	---
Titanium	ppm	ASTM D5185m >5	<1	---
Silver	ppm	ASTM D5185m >2	1	---
Aluminum	ppm	ASTM D5185m >35	15	---
Lead	ppm	ASTM D5185m >10	<1	---
Copper	ppm	ASTM D5185m >180	47	---
Tin	ppm	ASTM D5185m >8	3	---
Vanadium	ppm	ASTM D5185m	<1	---
Cadmium	ppm	ASTM D5185m	0	---

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	306	---
Barium	ppm	ASTM D5185m 0	12	---
Molybdenum	ppm	ASTM D5185m 60	114	---
Manganese	ppm	ASTM D5185m 0	4	---
Magnesium	ppm	ASTM D5185m 1010	654	---
Calcium	ppm	ASTM D5185m 1070	1392	---
Phosphorus	ppm	ASTM D5185m 1150	694	---
Zinc	ppm	ASTM D5185m 1270	850	---
Sulfur	ppm	ASTM D5185m 2060	2363	---

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	▲ 102	---
Sodium	ppm	ASTM D5185m	4	---
Potassium	ppm	ASTM D5185m >20	45	---
Fuel	%	ASTM D3524 >3.0	0.4	---

INFRA-RED

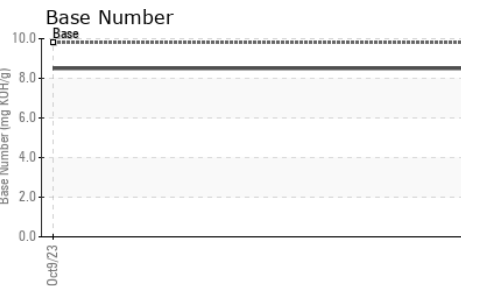
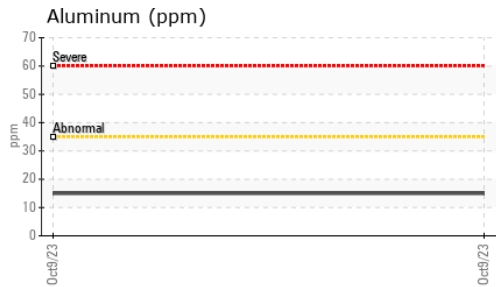
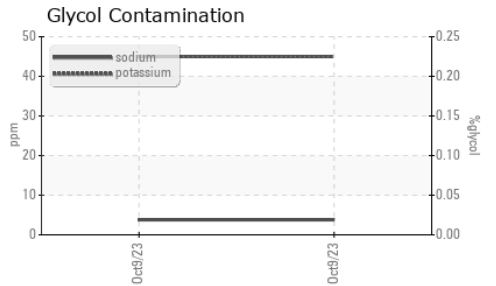
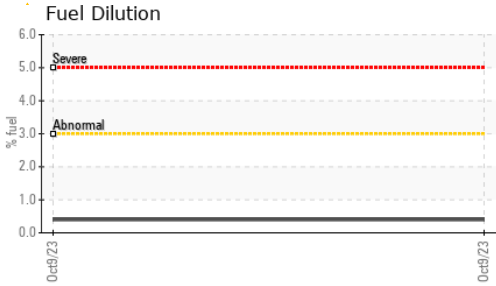
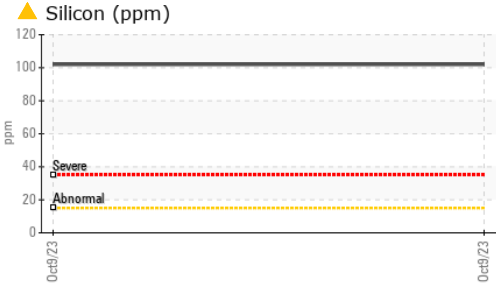
method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.1	---
Nitration	Abs/cm	*ASTM D7624 >20	7.5	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	24.3	---

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	20.4	---
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	8.5	---



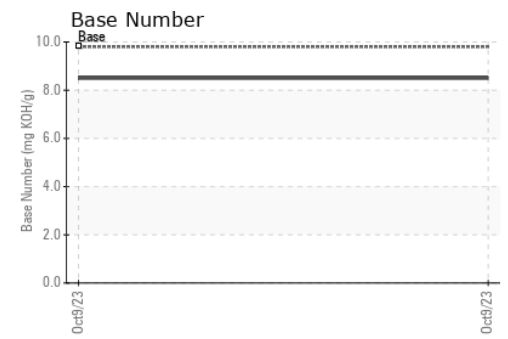
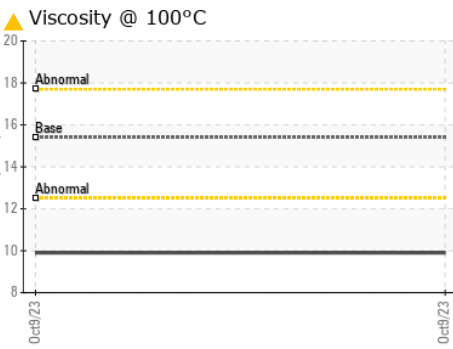
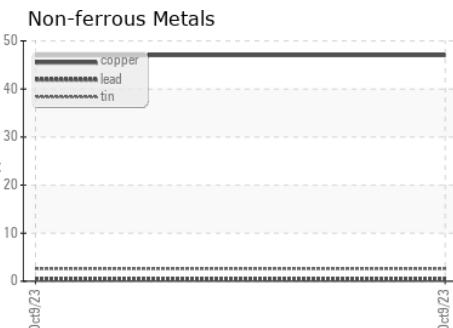
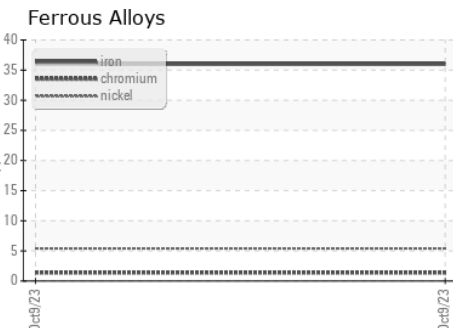
OIL ANALYSIS REPORT



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	▲ 9.9	---	---

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0077812 **Received** : 13 Oct 2023
Lab Number : **05978794** **Diagnosed** : 17 Oct 2023
Unique Number : 10696089 **Diagnostician** : Don Baldrige
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

GFL Environmental - 650 - West Point Hauling
 7825 Parham Landing Road
 West Point, VA
 US 23181
 Contact: Jason Smith
 jasonsmith@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)