



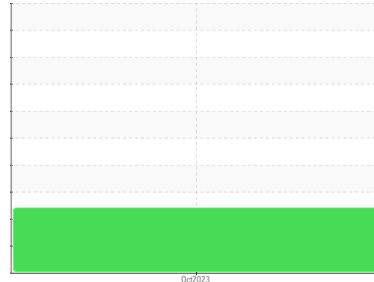
OIL ANALYSIS REPORT

Sample Rating Trend

GLYCOL



Machine Id
3374M
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (7 GAL)



DIAGNOSIS

▲ Recommendation

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

Wear

All component wear rates are normal.

▲ Contamination

Sodium and/or potassium levels are high. Test for glycol is negative.

▲ 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		GFL0041813	---	---
Sample Date	Client Info		30 Oct 2023	---	---
Machine Age	hrs	Client Info	0	---	---
Oil Age	hrs	Client Info	600	---	---
Oil Changed	Client Info		Changed	---	---
Sample Status			ABNORMAL	---	---

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<1.0	---	---
Water	WC Method	>0.2	NEG	---	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >120	9	---	---
Chromium	ppm	ASTM D5185m >20	0	---	---
Nickel	ppm	ASTM D5185m >5	0	---	---
Titanium	ppm	ASTM D5185m >2	0	---	---
Silver	ppm	ASTM D5185m >2	0	---	---
Aluminum	ppm	ASTM D5185m >20	2	---	---
Lead	ppm	ASTM D5185m >40	<1	---	---
Copper	ppm	ASTM D5185m >330	6	---	---
Tin	ppm	ASTM D5185m >15	<1	---	---
Vanadium	ppm	ASTM D5185m	0	---	---
Cadmium	ppm	ASTM D5185m	0	---	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	4	---	---
Barium	ppm	ASTM D5185m 0	0	---	---
Molybdenum	ppm	ASTM D5185m 60	15	---	---
Manganese	ppm	ASTM D5185m 0	<1	---	---
Magnesium	ppm	ASTM D5185m 1010	190	---	---
Calcium	ppm	ASTM D5185m 1070	1917	---	---
Phosphorus	ppm	ASTM D5185m 1150	952	---	---
Zinc	ppm	ASTM D5185m 1270	1069	---	---
Sulfur	ppm	ASTM D5185m 2060	3448	---	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	5	---	---
Sodium	ppm	ASTM D5185m	▲ 78	---	---
Potassium	ppm	ASTM D5185m >20	▲ 54	---	---
Glycol	%	*ASTM D2982	NEG	---	---

INFRA-RED

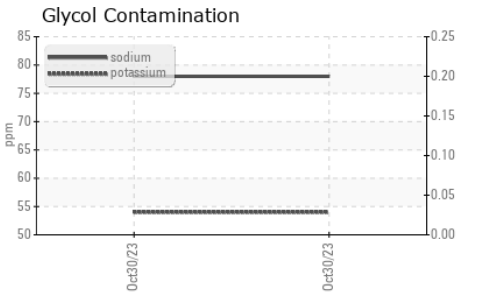
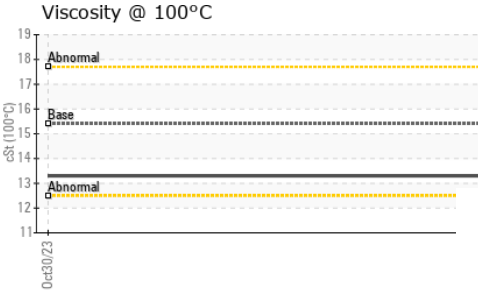
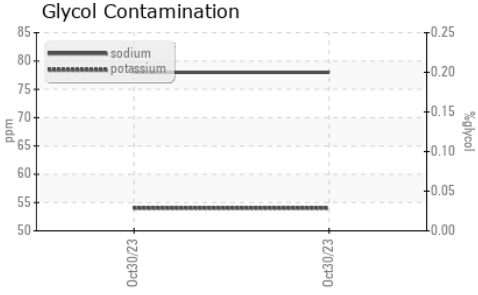
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	0.1	---	---
Nitration	Abs/cm	*ASTM D7624 >20	6.5	---	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	16.1	---	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	10.1	---	---
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	7.9	---	---



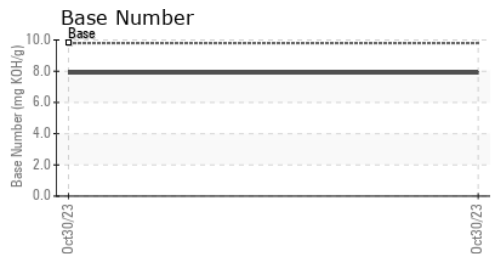
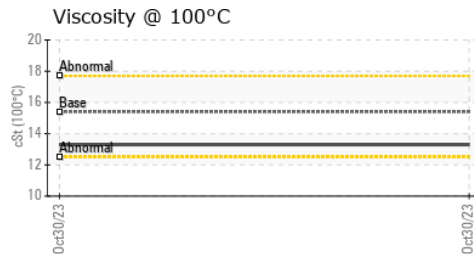
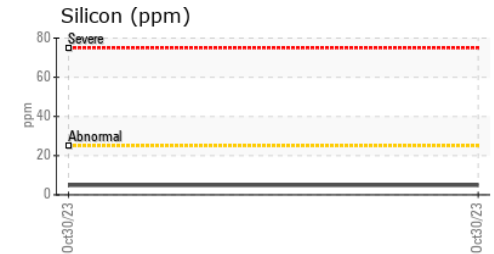
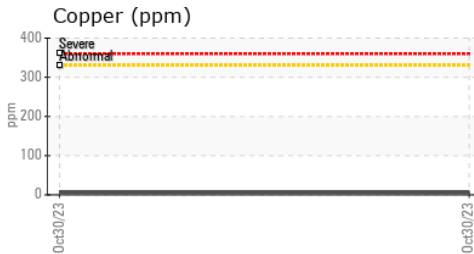
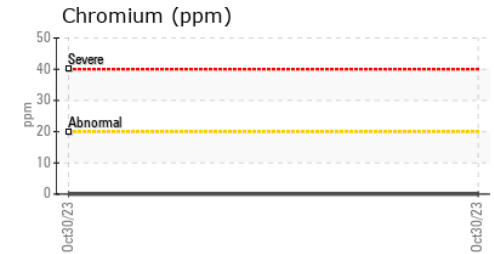
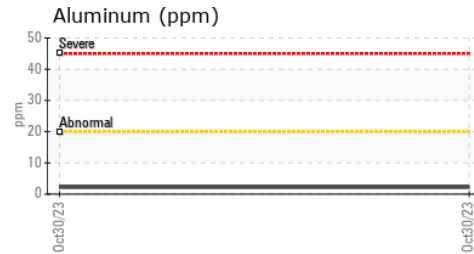
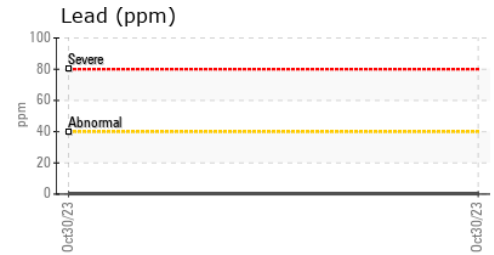
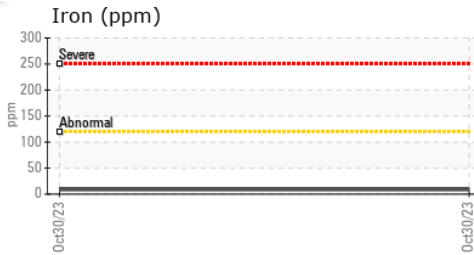
OIL ANALYSIS REPORT



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	13.3	---

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0041813 **Received** : 16 Jan 2024
Lab Number : 06060766 **Diagnosed** : 17 Jan 2024
Unique Number : 10832148 **Diagnostician** : Jonathan Hester
Test Package : MOB1+ (Additional Tests: Glycol)

GFL Environmental - 461 - Smith Hauling
 3239 W. M 28
 Brimley, MI
 US 49715
 Contact: Jim Smith
 jim.smith@gflenv.com
 T: (906)635-3380
 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)