



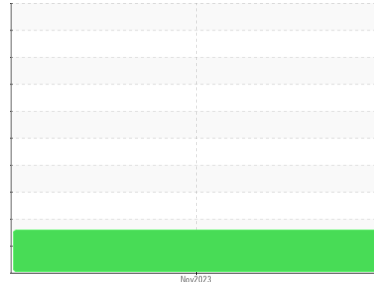
OIL ANALYSIS REPORT

Sample Rating Trend

DIRT



Machine Id
801103
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON XL SYN BLEND 15W40 (--- GAL)



DIAGNOSIS

Recommendation

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. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is a moderate concentration of dirt present in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0091600	---	---
Sample Date	Client Info		07 Nov 2023	---	---
Machine Age	hrs	Client Info	5258	---	---
Oil Age	hrs	Client Info	0	---	---
Oil Changed	Client Info		Changed	---	---
Sample Status			ABNORMAL	---	---

CONTAMINATION

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

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>80	9	---	---
Chromium	ppm	ASTM D5185(m)	>5	<1	---	---
Nickel	ppm	ASTM D5185(m)	>2	0	---	---
Titanium	ppm	ASTM D5185(m)		0	---	---
Silver	ppm	ASTM D5185(m)	>3	<1	---	---
Aluminum	ppm	ASTM D5185(m)	>30	2	---	---
Lead	ppm	ASTM D5185(m)	>30	0	---	---
Copper	ppm	ASTM D5185(m)	>150	<1	---	---
Tin	ppm	ASTM D5185(m)	>5	0	---	---
Antimony	ppm	ASTM D5185(m)		0	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
Beryllium	ppm	ASTM D5185(m)		0	---	---
Cadmium	ppm	ASTM D5185(m)		0	---	---

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	1	3	---	---
Barium	ppm	ASTM D5185(m)	1	<1	---	---
Molybdenum	ppm	ASTM D5185(m)	60	55	---	---
Manganese	ppm	ASTM D5185(m)	1	0	---	---
Magnesium	ppm	ASTM D5185(m)	1010	915	---	---
Calcium	ppm	ASTM D5185(m)	1070	1039	---	---
Phosphorus	ppm	ASTM D5185(m)	1150	978	---	---
Zinc	ppm	ASTM D5185(m)	1270	1135	---	---
Sulfur	ppm	ASTM D5185(m)	2060	2496	---	---
Lithium	ppm	ASTM D5185(m)		<1	---	---

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>20	▲ 25	---	---
Sodium	ppm	ASTM D5185(m)		1	---	---
Potassium	ppm	ASTM D5185(m)	>20	0	---	---

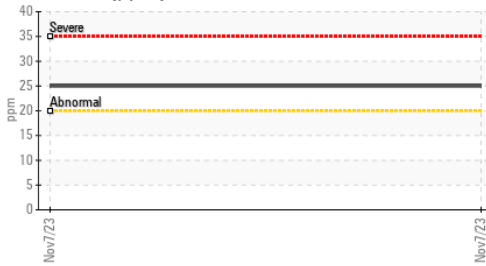
INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	0	---	---
Nitration	Abs/cm	ASTM D7624*	>20	5.2	---	---
Sulfation	Abs./1mm	ASTM D7415*	>30	18.3	---	---



OIL ANALYSIS REPORT

▲ Silicon (ppm)



FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm ASTM D7414*	>25	13.2	---
Base Number (BN)	mg KOH/g ASTM D2896*	9.6	8.65	---

VISUAL

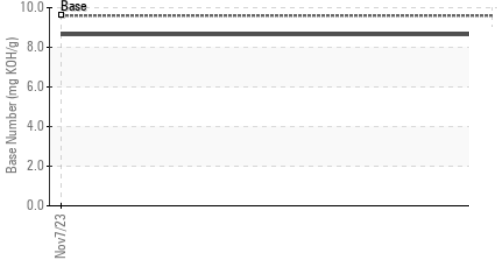
method	limit/base	current	history1	history2
Emulsified Water	scalar Visual*	>0.2	NEG	---
Free Water	scalar Visual*		NEG	---

FLUID PROPERTIES

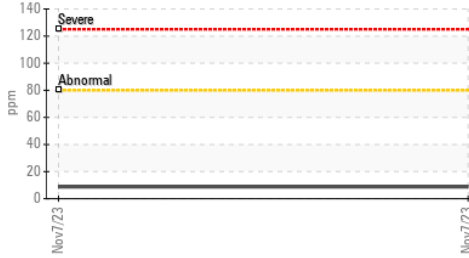
method	limit/base	current	history1	history2
Visc @ 100°C	cSt ASTM D7279(m)	15.5	13.8	---

GRAPHS

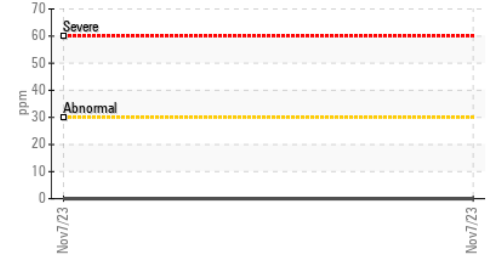
Base Number



Iron (ppm)



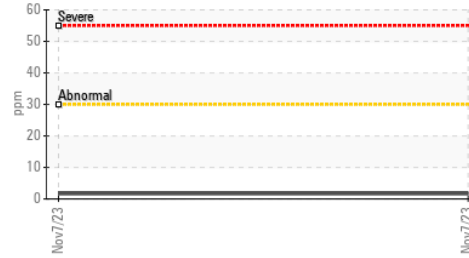
Lead (ppm)



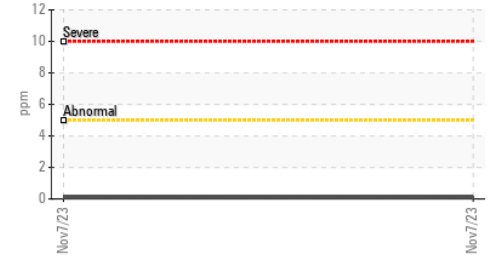
Viscosity @ 100°C



Aluminum (ppm)



Chromium (ppm)



Copper (ppm)



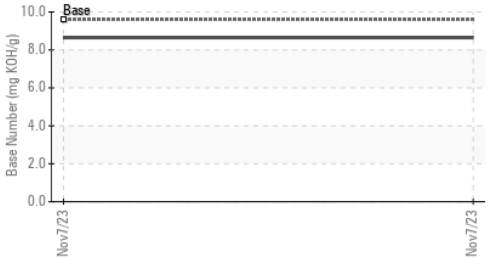
▲ Silicon (ppm)



Viscosity @ 100°C



Base Number



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 550 - Rocky View County
Sample No. : GFL0091600 **Received** : 15 Nov 2023
Lab Number : 02596481 **Diagnosed** : 15 Nov 2023
Unique Number : 5681561 **Diagnostician** : Kevin Marson
Test Package : MOB 2

To discuss this sample report, contact Customer Service at 1-800-268-2131.

Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.

Validity of results and interpretation are based on the sample and information as supplied.

Contact: GFL Calgary calgarymaintenance@gflenv.com

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