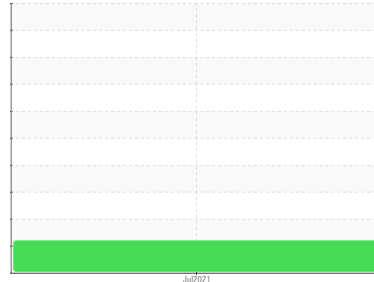




# OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id  
**201019**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 10W30 (--- GAL)**

## DIAGNOSIS

### ▲ Recommendation

The oil 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 amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

### ▲ Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>GFL0024260</b>	---	---
Sample Date	Client Info		<b>15 Jul 2021</b>	---	---
Machine Age	hrs	Client Info	<b>10564</b>	---	---
Oil Age	hrs	Client Info	<b>470</b>	---	---
Oil Changed	Client Info		<b>Changed</b>	---	---
Sample Status			<b>ABNORMAL</b>	---	---

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	<b>NEG</b>	---	---
Glycol	WC Method		<b>NEG</b>	---	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >100	<b>32</b>	---	---
Chromium	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	---	---
Nickel	ppm	ASTM D5185(m) >4	<b>&lt;1</b>	---	---
Titanium	ppm	ASTM D5185(m)	<b>0</b>	---	---
Silver	ppm	ASTM D5185(m) >3	<b>&lt;1</b>	---	---
Aluminum	ppm	ASTM D5185(m) >20	<b>6</b>	---	---
Lead	ppm	ASTM D5185(m) >40	<b>&lt;1</b>	---	---
Copper	ppm	ASTM D5185(m) >330	<b>2</b>	---	---
Tin	ppm	ASTM D5185(m) >15	<b>&lt;1</b>	---	---
Antimony	ppm	ASTM D5185(m)	<b>&lt;1</b>	---	---
Vanadium	ppm	ASTM D5185(m)	<b>0</b>	---	---
Beryllium	ppm	ASTM D5185(m)	<b>0</b>	---	---
Cadmium	ppm	ASTM D5185(m)	<b>0</b>	---	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) 2	<b>2</b>	---	---
Barium	ppm	ASTM D5185(m) 0	<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185(m) 50	<b>58</b>	---	---
Manganese	ppm	ASTM D5185(m) 0	<b>&lt;1</b>	---	---
Magnesium	ppm	ASTM D5185(m) 950	<b>975</b>	---	---
Calcium	ppm	ASTM D5185(m) 1050	<b>1087</b>	---	---
Phosphorus	ppm	ASTM D5185(m) 995	<b>1099</b>	---	---
Zinc	ppm	ASTM D5185(m) 1180	<b>1233</b>	---	---
Sulfur	ppm	ASTM D5185(m) 2600	<b>2699</b>	---	---
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	---	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	<b>5</b>	---	---
Sodium	ppm	ASTM D5185(m)	<b>1</b>	---	---
Potassium	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	---	---
Fuel	%	ASTM D7593* >2.0	<b>▲ 2.6</b>	---	---

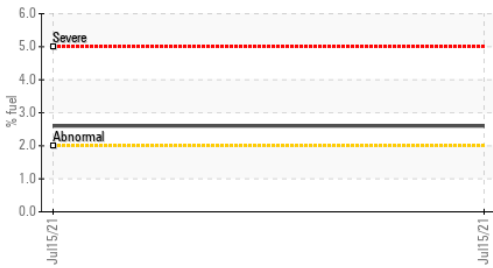
## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >3	<b>0.3</b>	---	---
Nitration	Abs/cm	ASTM D7624* >20	<b>9.4</b>	---	---
Sulfation	Abs/.1mm	ASTM D7415* >30	<b>19.7</b>	---	---



# OIL ANALYSIS REPORT

## Fuel Dilution



## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs:1mm ASTM D7414*	>25	16.6	---	---

## VISUAL

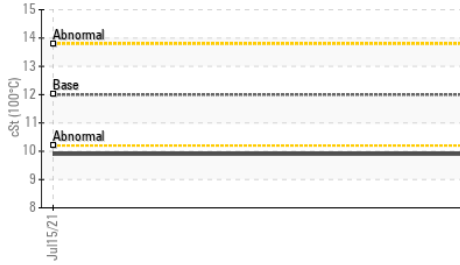
method	limit/base	current	history1	history2	
Emulsified Water	scalar Visual*	>0.2	NEG	---	---
Free Water	scalar Visual*		NEG	---	---

## FLUID PROPERTIES

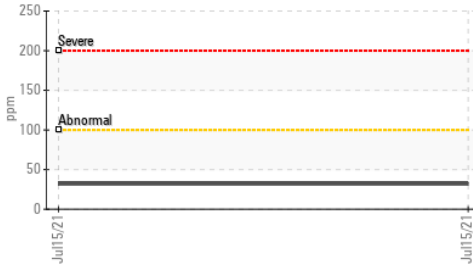
method	limit/base	current	history1	history2	
Visc @ 100°C	cSt ASTM D7279(m)	12.00	▲ 9.9	---	---

## GRAPHS

## Viscosity @ 100°C



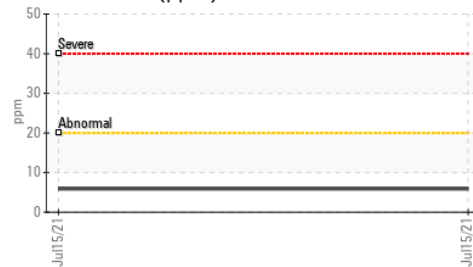
## Iron (ppm)



## Lead (ppm)



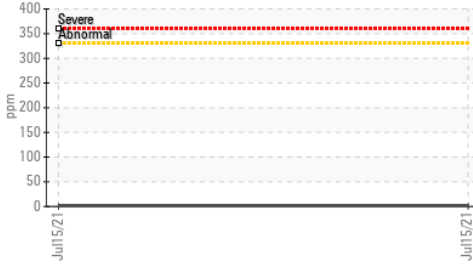
## Aluminum (ppm)



## Chromium (ppm)



## Copper (ppm)



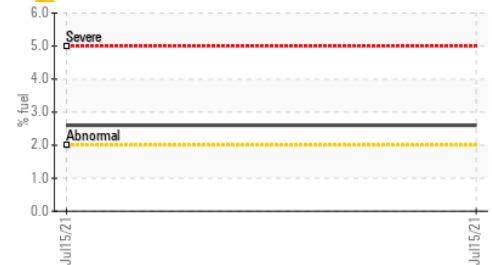
## Silicon (ppm)



## Viscosity @ 100°C



## Fuel Dilution



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 355 - Saskatoon  
**Sample No.** : GFL0024260 **Received** : 03 Sep 2021 100 Cory Road  
**Lab Number** : 02442249 **Diagnosed** : 07 Sep 2021 Saskatoon, SK  
**Unique Number** : 5277781 **Diagnostician** : Wes Davis CA S7K 3J7  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, PercentFuel )  
 Contact: Ryan Polichuk  
 rpolichuk@gflenv.com

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.

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