



# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**414129**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (10 GAL)**



## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

### Wear

Metal levels are typical for a components first oil change.

### Contamination

Fuel content negligible. 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. There is no indication of any contamination in the oil.

### Fluid Condition

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

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>GFL0090043</b>	---	---
Sample Date	Client Info	<b>22 Mar 2024</b>	---	---
Machine Age	hrs Client Info	<b>1162</b>	---	---
Oil Age	hrs Client Info	<b>1162</b>	---	---
Oil Changed	Client Info	<b>Not Chngd</b>	---	---
Sample Status		<b>NORMAL</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 D5185m >100	<b>54</b>	---	---
Chromium	ppm ASTM D5185m >20	<b>2</b>	---	---
Nickel	ppm ASTM D5185m >4	<b>1</b>	---	---
Titanium	ppm ASTM D5185m	<b>&lt;1</b>	---	---
Silver	ppm ASTM D5185m >3	<b>&lt;1</b>	---	---
Aluminum	ppm ASTM D5185m >20	<b>27</b>	---	---
Lead	ppm ASTM D5185m >40	<b>1</b>	---	---
Copper	ppm ASTM D5185m >330	<b>18</b>	---	---
Tin	ppm ASTM D5185m >15	<b>2</b>	---	---
Vanadium	ppm ASTM D5185m	<b>&lt;1</b>	---	---
Cadmium	ppm ASTM D5185m	<b>&lt;1</b>	---	---

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>22</b>	---	---
Barium	ppm ASTM D5185m 0	<b>2</b>	---	---
Molybdenum	ppm ASTM D5185m 60	<b>11</b>	---	---
Manganese	ppm ASTM D5185m 0	<b>4</b>	---	---
Magnesium	ppm ASTM D5185m 1010	<b>716</b>	---	---
Calcium	ppm ASTM D5185m 1070	<b>1429</b>	---	---
Phosphorus	ppm ASTM D5185m 1150	<b>760</b>	---	---
Zinc	ppm ASTM D5185m 1270	<b>928</b>	---	---
Sulfur	ppm ASTM D5185m 2060	<b>3051</b>	---	---

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>10</b>	---	---
Sodium	ppm ASTM D5185m	<b>2</b>	---	---
Potassium	ppm ASTM D5185m >20	<b>87</b>	---	---
Fuel	% ASTM D3524 >5	<b>0.3</b>	---	---

## INFRA-RED

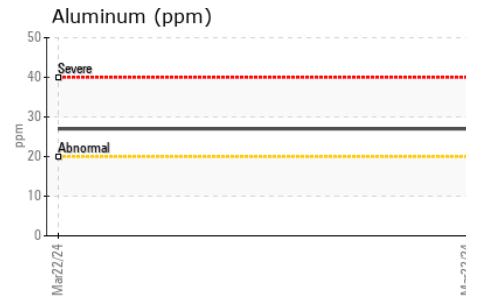
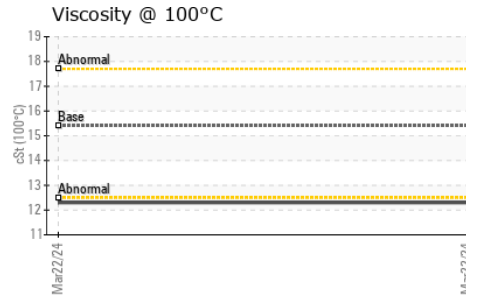
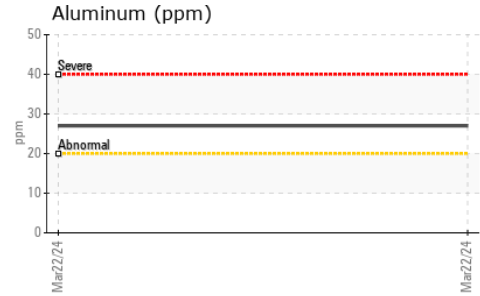
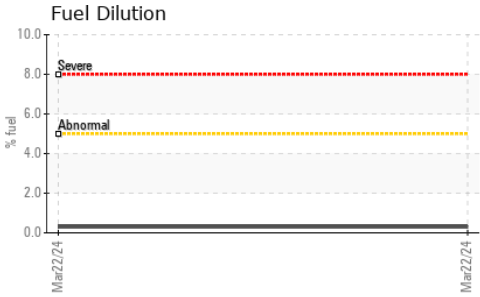
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.5</b>	---	---
Nitration	Abs/cm *ASTM D7624 >20	<b>11.7</b>	---	---
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>25.6</b>	---	---

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>21.6</b>	---	---
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>4.8</b>	---	---



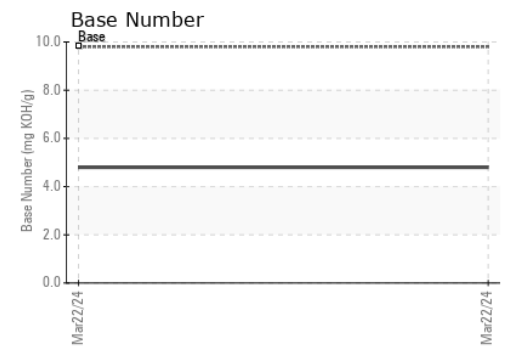
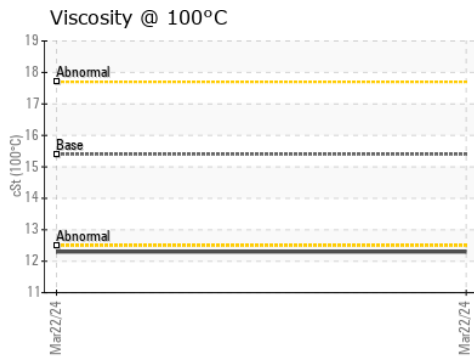
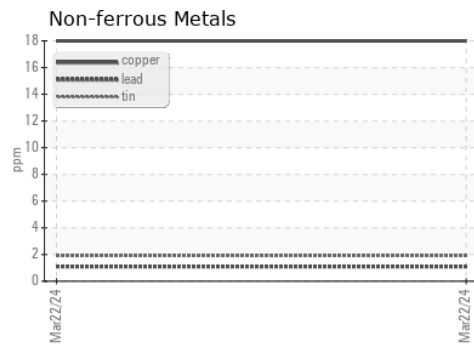
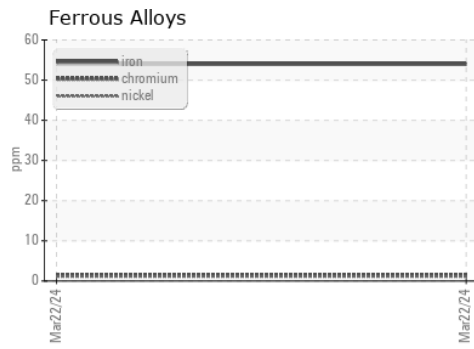
# OIL ANALYSIS REPORT



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	12.3	---	---

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0090043 **Received** : 25 Mar 2024  
**Lab Number** : 06127505 **Tested** : 27 Mar 2024  
**Unique Number** : 10941656 **Diagnosed** : 27 Mar 2024 - Wes Davis  
**Test Package** : FLEET ( Additional Tests: FuelDilution, PercentFuel )

**GFL Environmental - 018 - Fayetteville**  
 4621 Marracco Drive  
 Hope Mills, NC  
 US 28348  
 Contact: CHRIS HALL  
 christopherh@gflenv.com

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)