



# OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id  
**814021**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

## DIAGNOSIS

### ▲ Recommendation

No corrective action is recommended at this time. 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.

### ▲ 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		<b>GFL0078298</b>	---	---
Sample Date	Client Info		<b>12 Feb 2024</b>	---	---
Machine Age	hrs	Client Info	<b>151</b>	---	---
Oil Age	hrs	Client Info	<b>0</b>	---	---
Oil Changed	Client Info		<b>Not 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 D5185m >120	<b>21</b>	---	---
Chromium	ppm	ASTM D5185m >20	<b>1</b>	---	---
Nickel	ppm	ASTM D5185m >5	<b>3</b>	---	---
Titanium	ppm	ASTM D5185m >2	<b>&lt;1</b>	---	---
Silver	ppm	ASTM D5185m >2	<b>&lt;1</b>	---	---
Aluminum	ppm	ASTM D5185m >20	<b>5</b>	---	---
Lead	ppm	ASTM D5185m >40	<b>&lt;1</b>	---	---
Copper	ppm	ASTM D5185m >330	<b>11</b>	---	---
Tin	ppm	ASTM D5185m >15	<b>3</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>425</b>	---	---
Barium	ppm	ASTM D5185m 0	<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m 60	<b>125</b>	---	---
Manganese	ppm	ASTM D5185m 0	<b>5</b>	---	---
Magnesium	ppm	ASTM D5185m 1010	<b>656</b>	---	---
Calcium	ppm	ASTM D5185m 1070	<b>1379</b>	---	---
Phosphorus	ppm	ASTM D5185m 1150	<b>686</b>	---	---
Zinc	ppm	ASTM D5185m 1270	<b>779</b>	---	---
Sulfur	ppm	ASTM D5185m 2060	<b>2676</b>	---	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>▲ 88</b>	---	---
Sodium	ppm	ASTM D5185m	<b>0</b>	---	---
Potassium	ppm	ASTM D5185m >20	<b>7</b>	---	---
Fuel	%	ASTM D3524 >3.0	<b>0.4</b>	---	---

## INFRA-RED

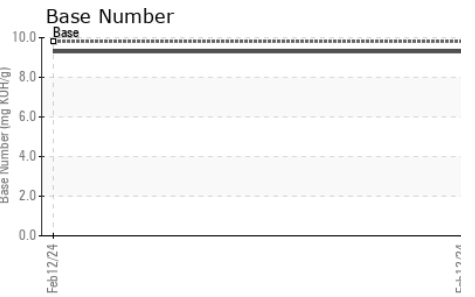
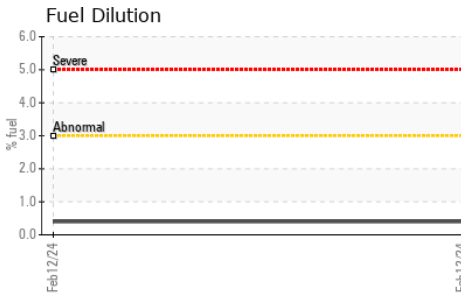
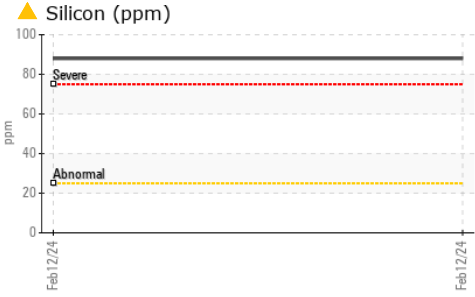
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	<b>0.1</b>	---	---
Nitration	Abs/cm	*ASTM D7624 >20	<b>6.9</b>	---	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>26.0</b>	---	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>20.8</b>	---	---
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>9.3</b>	---	---



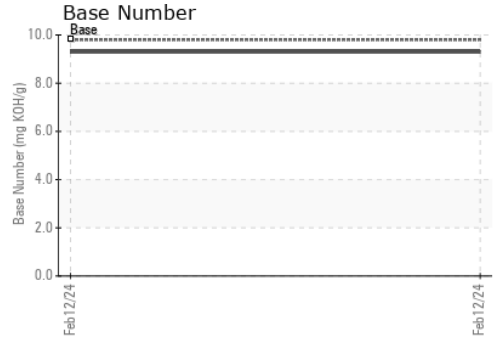
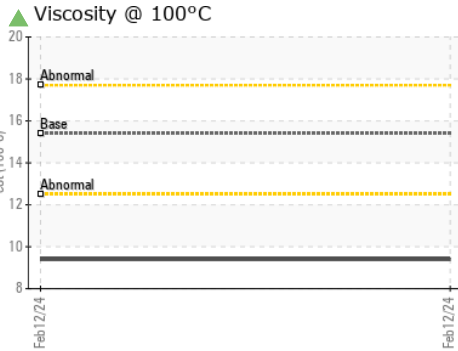
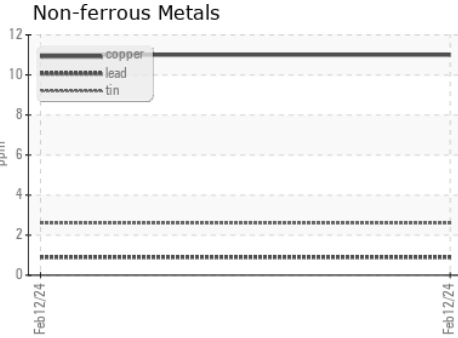
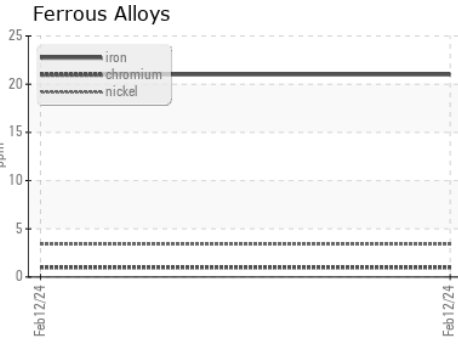
# OIL ANALYSIS REPORT



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 ▲ 9.4	---	---

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0078298 **Received** : 15 Feb 2024  
**Lab Number** : 06090754 **Tested** : 19 Feb 2024  
**Unique Number** : 10883607 **Diagnosed** : 19 Feb 2024 - Don Baldrige  
**Test Package** : FLEET ( Additional Tests: FuelDilution, PercentFuel )

**GFL Environmental - 846 - Mayfield Hauling**  
 3426 State Route 45  
 Mayfield, KY  
 US 42066  
 Contact: Jack Lindsey  
 jack.lindsey@gflenv.com  
 T: (270)970-3690  
 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)