



# OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Machine Id  
**714024**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

## DIAGNOSIS

### ▲ Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### ▲ Contamination

Elemental level of silicon (Si) above normal.

### 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	<b>GFL0116046</b>	---	---
Sample Date	Client Info	<b>12 Jun 2024</b>	---	---
Machine Age	hrs Client Info	<b>38</b>	---	---
Oil Age	hrs Client Info	<b>0</b>	---	---
Oil Changed	Client Info	<b>N/A</b>	---	---
Sample Status		<b>ABNORMAL</b>	---	---

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >3.0	<b>&lt;1.0</b>	---	---
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>31</b>	---	---
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	---	---
Nickel	ppm ASTM D5185m >5	<b>8</b>	---	---
Titanium	ppm ASTM D5185m >2	<b>0</b>	---	---
Silver	ppm ASTM D5185m >2	<b>1</b>	---	---
Aluminum	ppm ASTM D5185m >20	<b>9</b>	---	---
Lead	ppm ASTM D5185m >40	<b>0</b>	---	---
Copper	ppm ASTM D5185m >330	<b>137</b>	---	---
Tin	ppm ASTM D5185m >15	<b>2</b>	---	---
Vanadium	ppm ASTM D5185m	<b>0</b>	---	---
Cadmium	ppm ASTM D5185m	<b>0</b>	---	---

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>286</b>	---	---
Barium	ppm ASTM D5185m 0	<b>0</b>	---	---
Molybdenum	ppm ASTM D5185m 60	<b>106</b>	---	---
Manganese	ppm ASTM D5185m 0	<b>4</b>	---	---
Magnesium	ppm ASTM D5185m 1010	<b>619</b>	---	---
Calcium	ppm ASTM D5185m 1070	<b>1442</b>	---	---
Phosphorus	ppm ASTM D5185m 1150	<b>732</b>	---	---
Zinc	ppm ASTM D5185m 1270	<b>810</b>	---	---
Sulfur	ppm ASTM D5185m 2060	<b>2732</b>	---	---

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>▲ 91</b>	---	---
Sodium	ppm ASTM D5185m	<b>4</b>	---	---
Potassium	ppm ASTM D5185m >20	<b>25</b>	---	---

## INFRA-RED

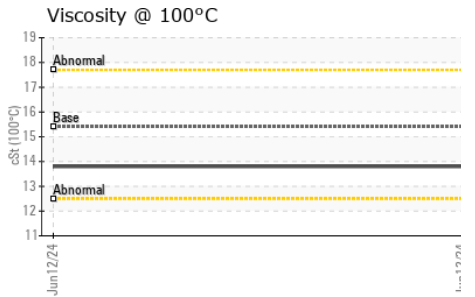
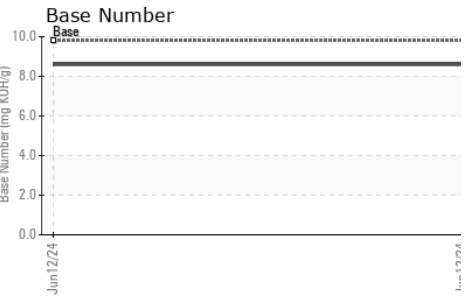
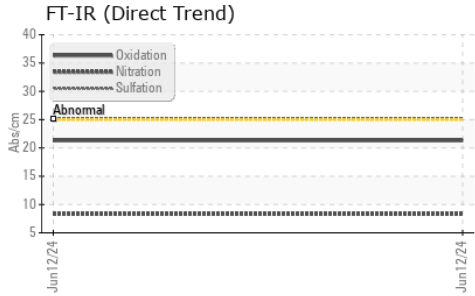
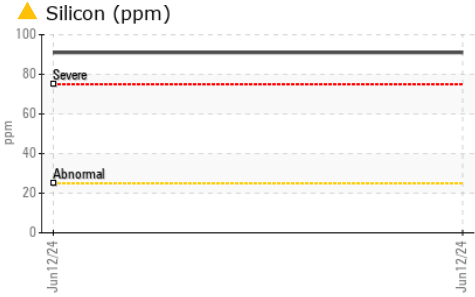
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >4	<b>0.3</b>	---	---
Nitration	Abs/cm *ASTM D7624 >20	<b>8.3</b>	---	---
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>25.1</b>	---	---

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>21.3</b>	---	---
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>8.6</b>	---	---



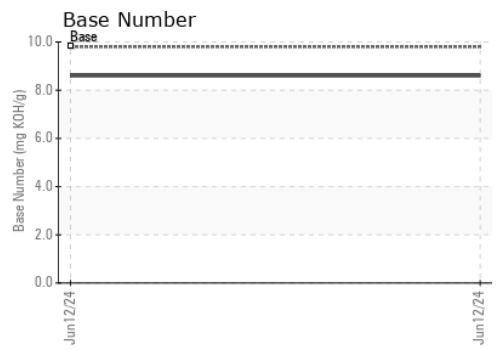
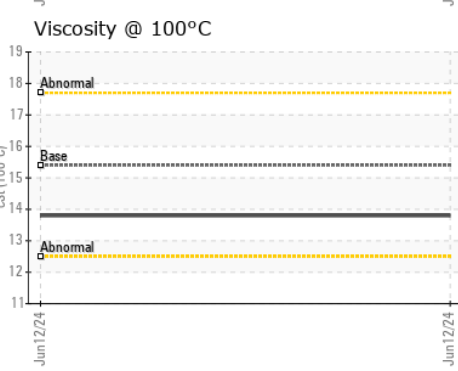
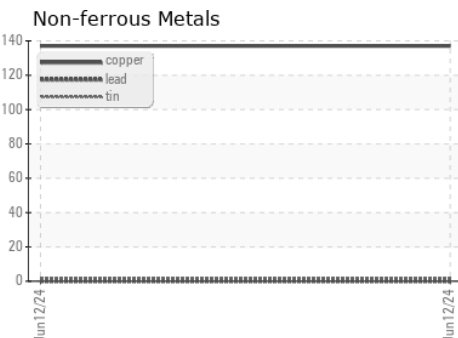
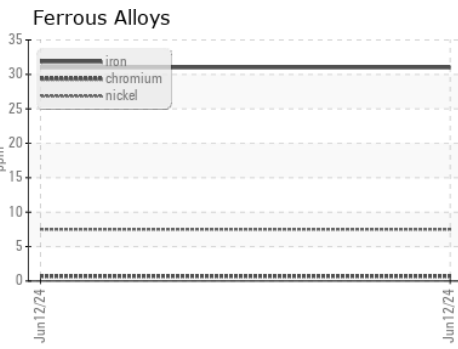
# OIL ANALYSIS REPORT



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	13.8	---

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0116046  
**Lab Number** : 06211261  
**Unique Number** : 11084125  
**Test Package** : FLEET

**Received** : 17 Jun 2024  
**Tested** : 18 Jun 2024  
**Diagnosed** : 18 Jun 2024 - Angela Borella

**GFL Environmental - 641 - Alpena**  
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 ALPENA, MI  
 US 49707  
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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)