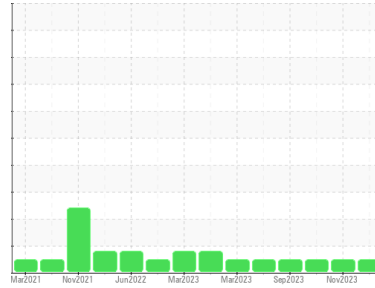




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**827037-1041**

Component  
**Diesel Engine**

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

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. ( Customer Sample Comment: Sampled oil )

### Wear

All component wear rates are normal.

### Contamination

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>GFL0110307</b>	GFL0102784	GFL0090477
Sample Date	Client Info	<b>05 Mar 2024</b>	30 Nov 2023	08 Nov 2023
Machine Age	hrs	<b>6688</b>	6601	6592
Oil Age	hrs	<b>96</b>	6592	580
Oil Changed	Client Info	<b>Not Changed</b>	Not Changed	Changed
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<b>&lt;1.0</b>	<1.0	<1.0
Water	WC Method >0.2	<b>NEG</b>	NEG	NEG
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >80	<b>42</b>	12	71
Chromium	ppm ASTM D5185m >5	<b>2</b>	<1	2
Nickel	ppm ASTM D5185m >2	<b>&lt;1</b>	<1	<1
Titanium	ppm ASTM D5185m	<b>0</b>	0	<1
Silver	ppm ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >30	<b>3</b>	2	2
Lead	ppm ASTM D5185m >30	<b>1</b>	<1	3
Copper	ppm ASTM D5185m >150	<b>2</b>	<1	3
Tin	ppm ASTM D5185m >5	<b>&lt;1</b>	<1	<1
Vanadium	ppm ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>8</b>	8	2
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>61</b>	59	63
Manganese	ppm ASTM D5185m 0	<b>0</b>	<1	<1
Magnesium	ppm ASTM D5185m 1010	<b>892</b>	904	953
Calcium	ppm ASTM D5185m 1070	<b>1043</b>	1058	1086
Phosphorus	ppm ASTM D5185m 1150	<b>947</b>	1058	1021
Zinc	ppm ASTM D5185m 1270	<b>1175</b>	1272	1305
Sulfur	ppm ASTM D5185m 2060	<b>2686</b>	3105	2583

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >20	<b>8</b>	3	5
Sodium	ppm ASTM D5185m	<b>8</b>	3	8
Potassium	ppm ASTM D5185m >20	<b>2</b>	1	2

## INFRA-RED

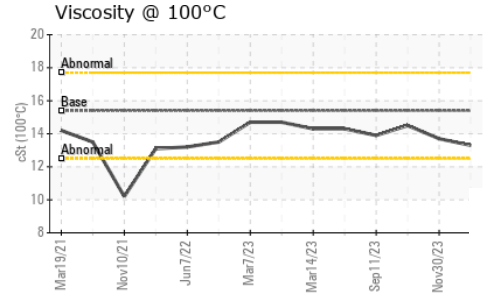
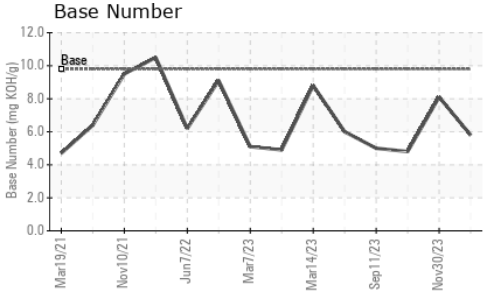
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.9</b>	0.3	0.2
Nitration	Abs/cm *ASTM D7624 >20	<b>12.4</b>	8.0	9.6
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>23.5</b>	18.8	21.7

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>22.1</b>	15.2	20.2
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>5.8</b>	8.1	4.8



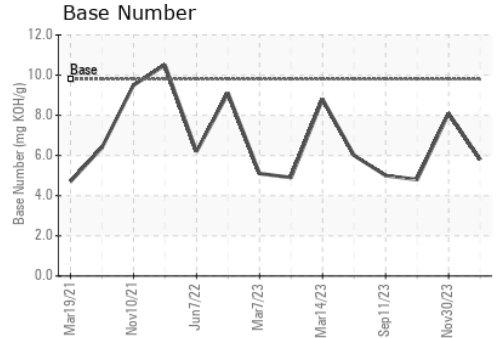
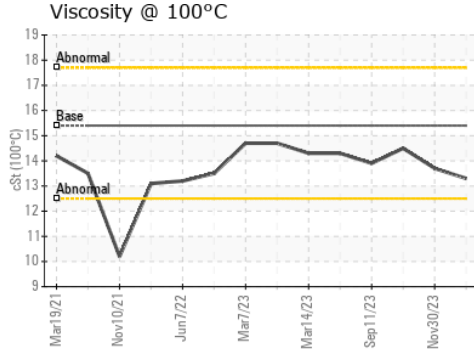
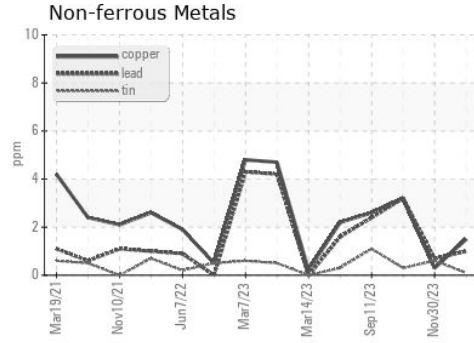
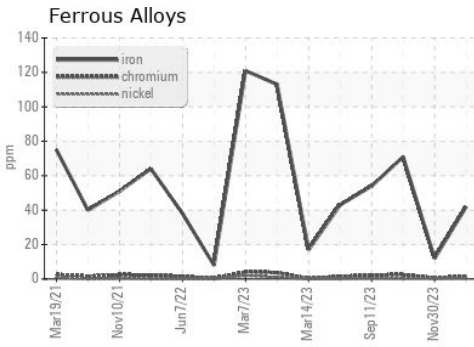
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.3</b>	13.7	14.5

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0110307  
**Lab Number** : **06113373**  
**Unique Number** : 10916870  
**Test Package** : FLEET

**GFL Environmental - 622 - Traverse City Hauling**  
 160 Hughes Dr  
 Traverse City, MI  
 US 49686  
 Contact: GARY BREWER

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)

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F: