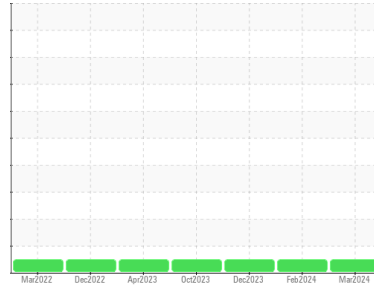




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**(V99117)**  
Machine Id  
**229032-630254**  
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

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>GFL0101844</b>	GFL0101986	GFL0101959
Sample Date	Client Info	<b>20 Mar 2024</b>	13 Feb 2024	28 Dec 2023
Machine Age	hrs	<b>11856</b>	11761	11672
Oil Age	hrs	<b>0</b>	0	0
Oil Changed	Client Info	<b>Not Changed</b>	Not Changed	Not 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 >100	<b>5</b>	5	18
Chromium	ppm ASTM D5185m >20	<b>0</b>	<1	0
Nickel	ppm ASTM D5185m >4	<b>0</b>	0	0
Titanium	ppm ASTM D5185m	<b>&lt;1</b>	<1	<1
Silver	ppm ASTM D5185m >3	<b>&lt;1</b>	<1	<1
Aluminum	ppm ASTM D5185m >20	<b>2</b>	2	2
Lead	ppm ASTM D5185m >40	<b>0</b>	0	0
Copper	ppm ASTM D5185m >330	<b>1</b>	1	<1
Tin	ppm ASTM D5185m >15	<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>6</b>	3	4
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>55</b>	57	60
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm ASTM D5185m 1010	<b>901</b>	974	1031
Calcium	ppm ASTM D5185m 1070	<b>1010</b>	1051	1131
Phosphorus	ppm ASTM D5185m 1150	<b>983</b>	1049	1122
Zinc	ppm ASTM D5185m 1270	<b>1191</b>	1267	1305
Sulfur	ppm ASTM D5185m 2060	<b>3346</b>	3205	3624

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>4</b>	4	5
Sodium	ppm ASTM D5185m	<b>4</b>	<1	1
Potassium	ppm ASTM D5185m >20	<b>1</b>	<1	<1

## INFRA-RED

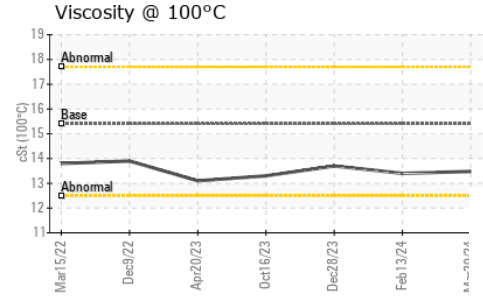
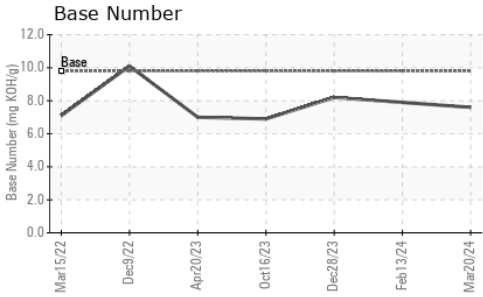
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.3</b>	0.2	0.2
Nitration	Abs/cm *ASTM D7624 >20	<b>8.7</b>	7.5	6.5
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>19.4</b>	19.1	18.3

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>17.3</b>	16.3	15.3
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>7.6</b>	7.9	8.2



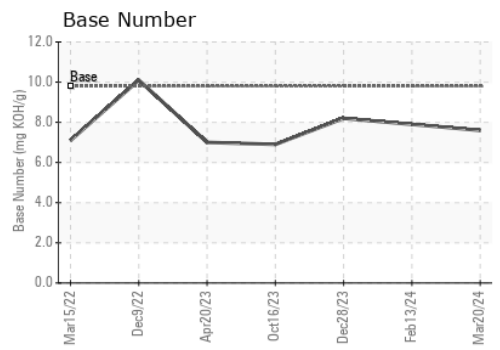
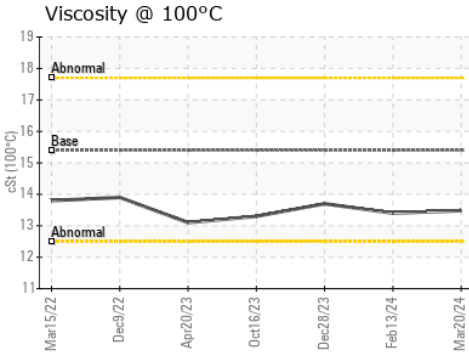
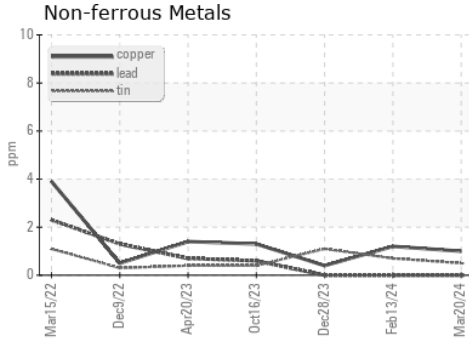
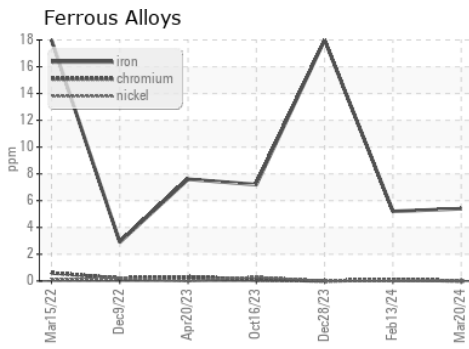
# OIL ANALYSIS REPORT



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>13.48</b>	13.4	13.7

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0101844  
**Lab Number** : **06126284**  
**Unique Number** : 10940435  
**Test Package** : FLEET  
**Received** : 22 Mar 2024  
**Tested** : 28 Mar 2024  
**Diagnosed** : 28 Mar 2024 - Don Baldrige

**GFL Environmental - 892 - Pauls Valley Hauling**  
 1910 S CHICKASAW STREET  
 Pauls Valley, OK  
 US 73075  
 Contact: Tony Graham  
 tgraham2@wcamerica.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)

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F: