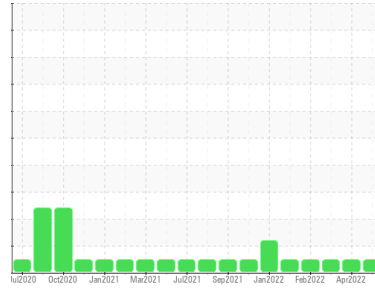




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id

**3897**

Component

**Diesel Engine**

Fluid

**PETRO CANADA DURON SHP 15W40 (30 QTS)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

### 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>GFL0049150</b>	GFL0041925	GFL0041920
Sample Date	Client Info	<b>26 Jan 2023</b>	29 Apr 2022	14 Apr 2022
Machine Age	hrs	<b>9289</b>	7809	7656
Oil Age	hrs	<b>600</b>	645	522
Oil Changed	Client Info	<b>Changed</b>	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
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	<b>21</b>	9	6
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	<1	<1
Nickel	ppm ASTM D5185m >4	<b>0</b>	0	0
Titanium	ppm ASTM D5185m	<b>0</b>	0	0
Silver	ppm ASTM D5185m >3	<b>0</b>	<1	<1
Aluminum	ppm ASTM D5185m >20	<b>4</b>	3	1
Lead	ppm ASTM D5185m >40	<b>0</b>	<1	0
Copper	ppm ASTM D5185m >330	<b>6</b>	1	<1
Tin	ppm ASTM D5185m >15	<b>&lt;1</b>	<1	<1
Antimony	ppm ASTM D5185m	<b>---</b>	---	---
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>4</b>	30	38
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>60</b>	71	49
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm ASTM D5185m 1010	<b>903</b>	964	622
Calcium	ppm ASTM D5185m 1070	<b>1100</b>	1182	1647
Phosphorus	ppm ASTM D5185m 1150	<b>957</b>	1028	819
Zinc	ppm ASTM D5185m 1270	<b>1192</b>	1228	926
Sulfur	ppm ASTM D5185m 2060	<b>3149</b>	2736	2258

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>6</b>	3	3
Sodium	ppm ASTM D5185m	<b>5</b>	5	26
Potassium	ppm ASTM D5185m >20	<b>0</b>	<1	<1

## INFRA-RED

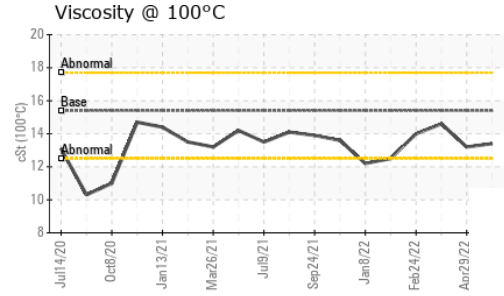
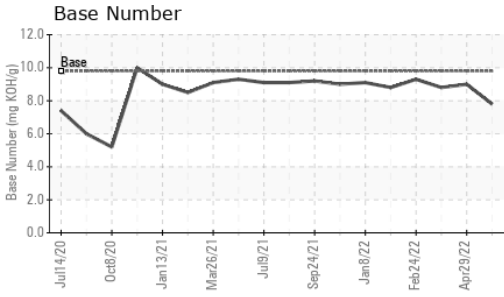
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.8</b>	0.5	0
Nitration	Abs/cm *ASTM D7624 >20	<b>10.3</b>	9.1	7.9
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>21.2</b>	21.7	20.0

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>17.0</b>	18.0	16.9
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>7.8</b>	9	8.8



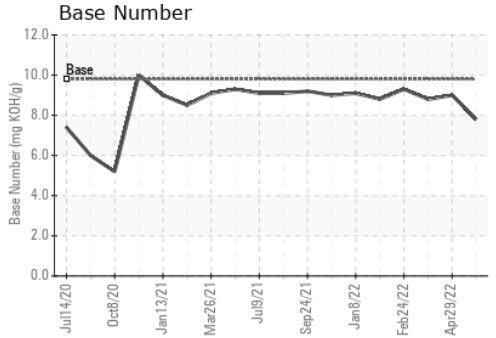
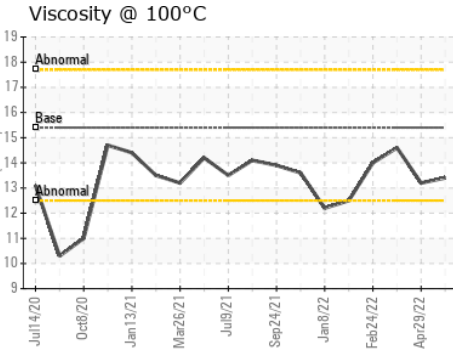
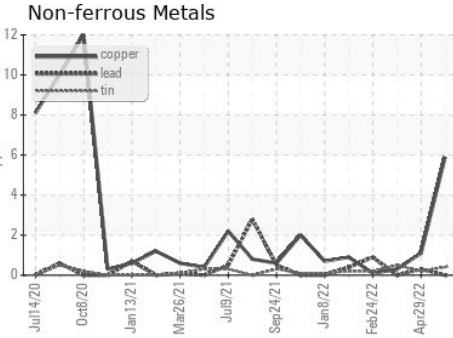
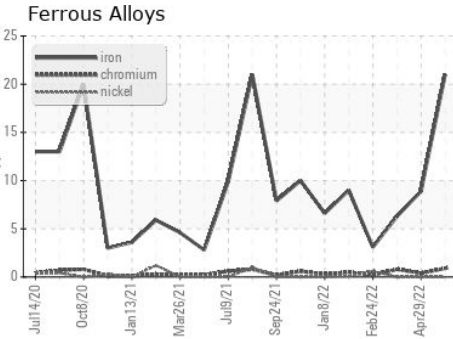
# OIL ANALYSIS REPORT



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>13.4</b>	13.2	14.6

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0049150 **Received** : 02 Feb 2023  
**Lab Number** : **05756823** **Diagnosed** : 03 Feb 2023  
**Unique Number** : 10321430 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 030 - Conway Myrtle Beach**  
 3010 HWY 378  
 Conway, SC  
 US 29527  
**Contact: CHET STROSCHINE**  
 cstroschine@gflenv.com  
 T:  
 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)