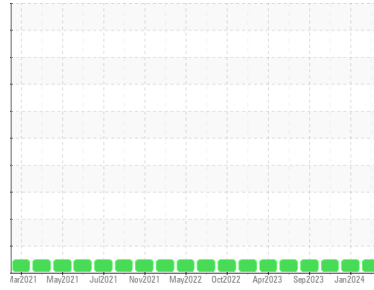




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id

**410006**

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>GFL0104075</b>	GFL0068106	GFL0068103
Sample Date	Client Info		<b>11 Apr 2024</b>	12 Jan 2024	02 Nov 2023
Machine Age	hrs	Client Info	<b>9644</b>	8887	8466
Oil Age	hrs	Client Info	<b>600</b>	600	600
Oil Changed	Client Info		<b>Changed</b>	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 >100	<b>&lt;1</b>	6	4
Chromium	ppm	ASTM D5185m >20	<b>0</b>	0	<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>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	1
Lead	ppm	ASTM D5185m >40	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m >330	<b>0</b>	<1	0
Tin	ppm	ASTM D5185m >15	<b>0</b>	<1	0
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>7</b>	7	5
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>54</b>	58	61
Manganese	ppm	ASTM D5185m 0	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>858</b>	958	929
Calcium	ppm	ASTM D5185m 1070	<b>1042</b>	1083	1050
Phosphorus	ppm	ASTM D5185m 1150	<b>981</b>	945	995
Zinc	ppm	ASTM D5185m 1270	<b>1141</b>	1222	1208
Sulfur	ppm	ASTM D5185m 2060	<b>3191</b>	3022	3033

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>2</b>	3	2
Sodium	ppm	ASTM D5185m	<b>19</b>	30	51
Potassium	ppm	ASTM D5185m >20	<b>15</b>	26	47

## INFRA-RED

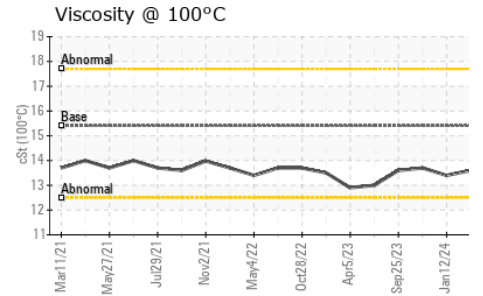
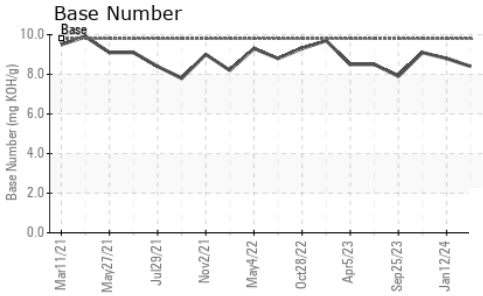
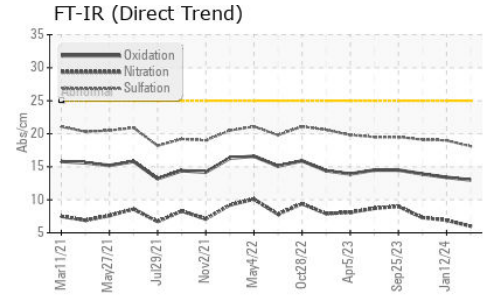
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.5</b>	0.8	0.7
Nitration	Abs/cm	*ASTM D7624 >20	<b>6.0</b>	6.9	7.3
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>18.1</b>	19.0	19.1

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>13.0</b>	13.4	13.9
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.4</b>	8.8	9.1



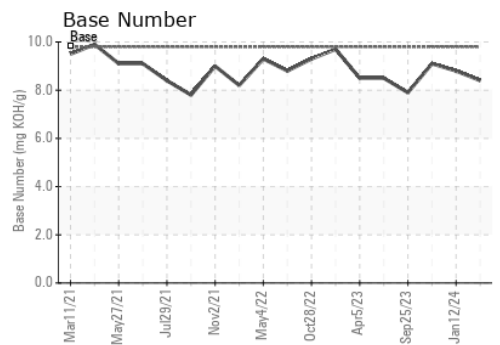
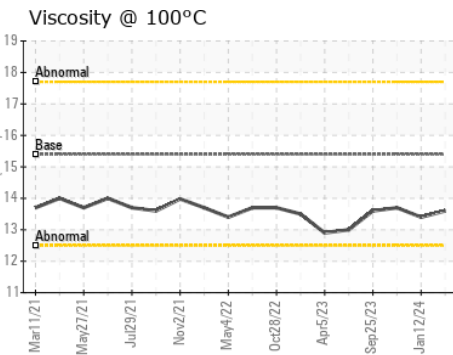
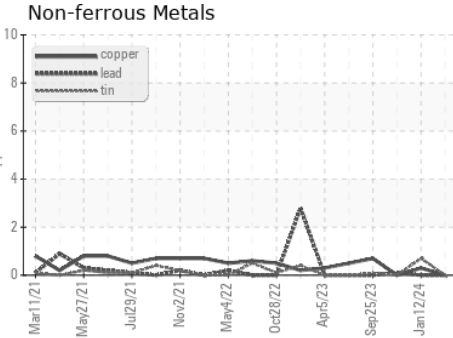
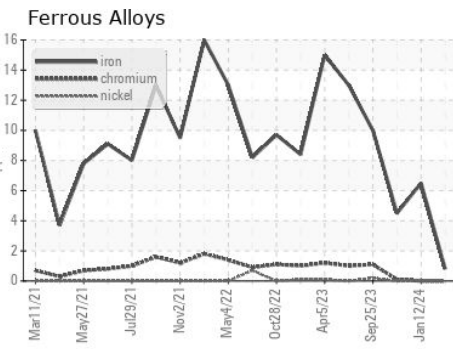
# OIL ANALYSIS REPORT



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>13.6</b>	13.4	13.7

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0104075      **Received** : 15 Apr 2024  
**Lab Number** : **06148286**      **Tested** : 15 Apr 2024  
**Unique Number** : 10978364      **Diagnosed** : 15 Apr 2024 - Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 028 - Weldon**  
 2211 US Highway 301  
 Halifax, NC  
 US 27839  
 Contact: TRAVIS PORCH  
 tporch@gflenv.com  
 T: (252)532-3344  
 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)