



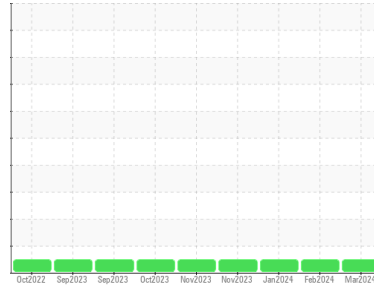
# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**710011**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (25 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>GFL0104282</b>	GFL0110090	GFL0104187
Sample Date	Client Info		<b>04 Mar 2024</b>	02 Feb 2024	04 Jan 2024
Machine Age	hrs	Client Info	<b>12278</b>	12025	11702
Oil Age	hrs	Client Info	<b>600</b>	600	11702
Oil Changed	Client Info		<b>Changed</b>	Changed	N/A
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<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 >120	<b>14</b>	8	1
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m >5	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m >2	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>2</b>	2	0
Lead	ppm	ASTM D5185m >40	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >330	<b>&lt;1</b>	0	<1
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	0	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>&lt;1</b>	2	<1
Barium	ppm	ASTM D5185m 0	<b>0</b>	5	0
Molybdenum	ppm	ASTM D5185m 60	<b>57</b>	57	53
Manganese	ppm	ASTM D5185m 0	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m 1010	<b>922</b>	910	925
Calcium	ppm	ASTM D5185m 1070	<b>957</b>	969	985
Phosphorus	ppm	ASTM D5185m 1150	<b>996</b>	920	926
Zinc	ppm	ASTM D5185m 1270	<b>1200</b>	1164	1248
Sulfur	ppm	ASTM D5185m 2060	<b>2707</b>	3031	2904

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>4</b>	5	1
Sodium	ppm	ASTM D5185m	<b>5</b>	0	<1
Potassium	ppm	ASTM D5185m >20	<b>2</b>	2	<1

## INFRA-RED

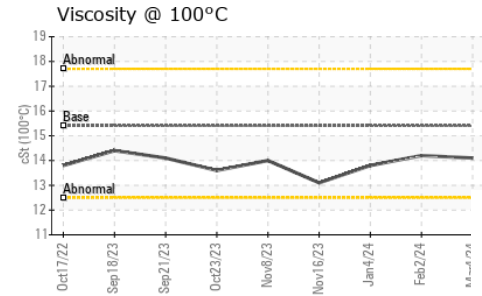
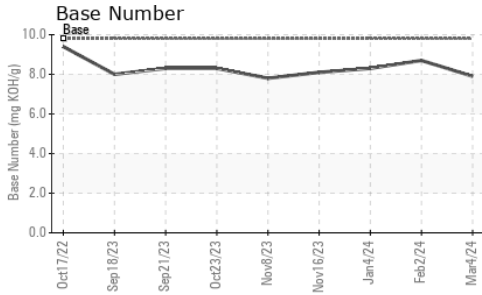
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	<b>0.6</b>	0	0.2
Nitration	Abs/cm	*ASTM D7624 >20	<b>10.2</b>	4.5	5.7
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>20.6</b>	17.8	18.3

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>19.7</b>	13.1	14.0
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>7.9</b>	8.7	8.3



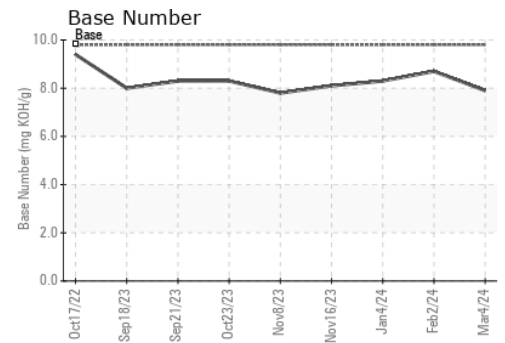
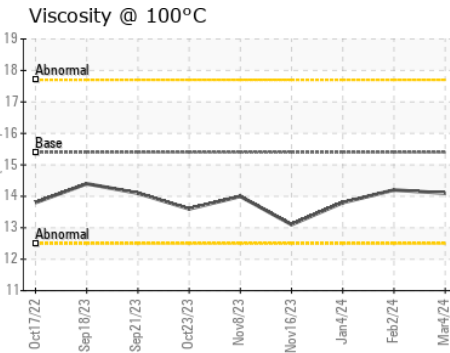
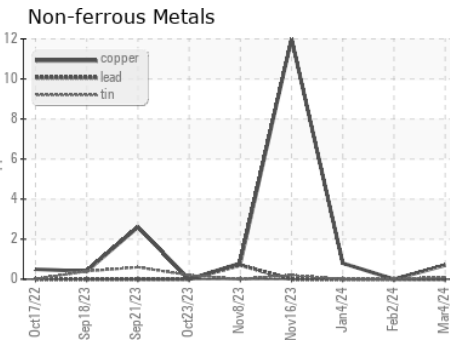
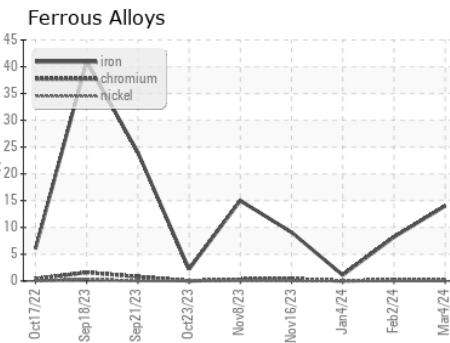
# OIL ANALYSIS REPORT



PARAMETER	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>14.1</b>	14.2	13.8

## GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : GFL0104282  
 Lab Number : **06109921**  
 Unique Number : 10913418  
 Test Package : FLEET

Received : 06 Mar 2024  
 Tested : 07 Mar 2024  
 Diagnosed : 07 Mar 2024 - Wes Davis

GFL Environmental - 410 - Michigan West  
 39000 Van Born Rd  
 Wayne, MI  
 US 48184

Contact: Belal Dgheish  
 bdgheish@gflenv.com

T: (734)714-2340

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)