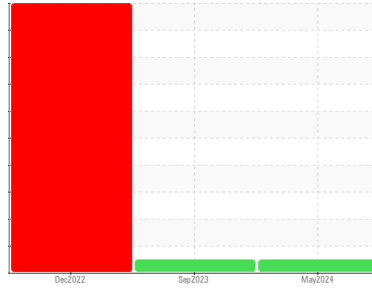




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**(TB7322)**

Machine Id  
**812030**

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>GFL0069963</b>	GFL0069948	GFL0069996
Sample Date	Client Info		<b>19 May 2024</b>	20 Sep 2023	28 Dec 2022
Machine Age	hrs	Client Info	<b>6082</b>	4362	2458
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	SEVERE

## 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>7</b>	9	▲ 831
Chromium	ppm	ASTM D5185m >20	<b>0</b>	0	▲ 61
Nickel	ppm	ASTM D5185m >4	<b>0</b>	0	▲ 22
Titanium	ppm	ASTM D5185m	<b>0</b>	0	<1
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>2</b>	<1	● 20
Lead	ppm	ASTM D5185m >40	<b>0</b>	0	▲ 52
Copper	ppm	ASTM D5185m >330	<b>0</b>	<1	▲ 137
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	0	10
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	<1
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>2</b>	<1	297
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>64</b>	60	284
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	0	6
Magnesium	ppm	ASTM D5185m 1010	<b>1002</b>	1007	807
Calcium	ppm	ASTM D5185m 1070	<b>1071</b>	1118	1003
Phosphorus	ppm	ASTM D5185m 1150	<b>1044</b>	1012	936
Zinc	ppm	ASTM D5185m 1270	<b>1297</b>	1279	1113
Sulfur	ppm	ASTM D5185m 2060	<b>3487</b>	3067	2523

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>3</b>	2	▲ 267
Sodium	ppm	ASTM D5185m	<b>&lt;1</b>	1	▲ 7083
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	2	▲ 72

## INFRA-RED

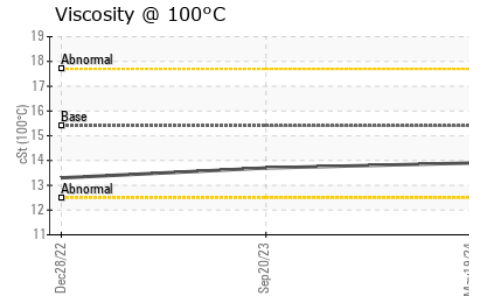
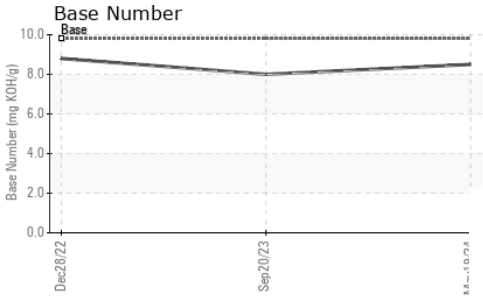
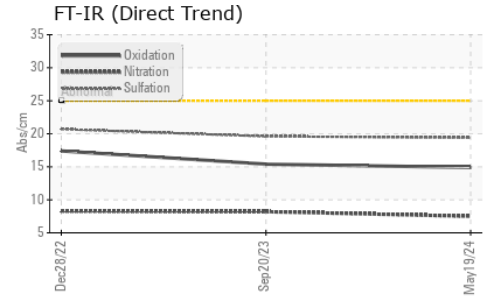
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.5</b>	0.8	0.6
Nitration	Abs/cm	*ASTM D7624 >20	<b>7.5</b>	8.2	8.3
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.4</b>	19.6	20.7

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>14.9</b>	15.4	17.4
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.5</b>	8.0	8.8



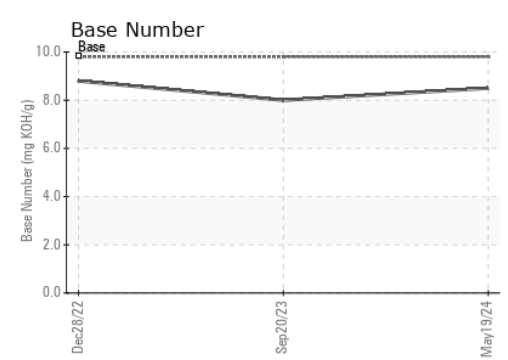
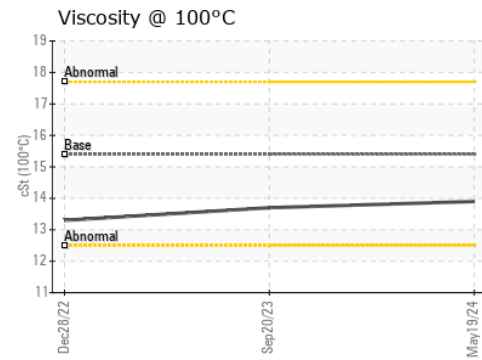
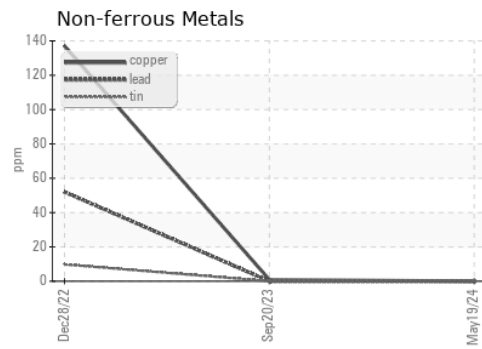
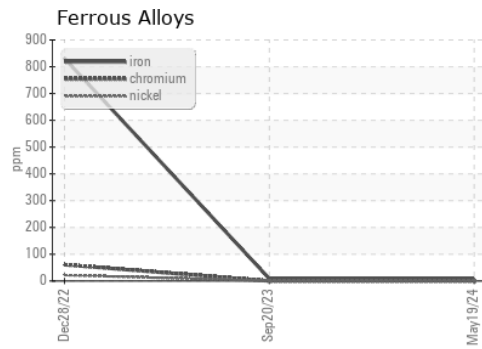
# OIL ANALYSIS REPORT



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	13.9	13.7	13.3

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0069963      **Received** : 23 May 2024  
**Lab Number** : 06188948      **Tested** : 24 May 2024  
**Unique Number** : 11045700      **Diagnosed** : 24 May 2024 - Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 902 - Chilton HC**  
 428 High St  
 Chilton, WI  
 US 53014

Certificate L2367      **Contact:** Keith Mueller  
 To discuss this sample report, contact Customer Service at 1-800-237-1369.      keith.mueller@gflenv.com  
 \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.      T: (920)374-1404  
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)      F: