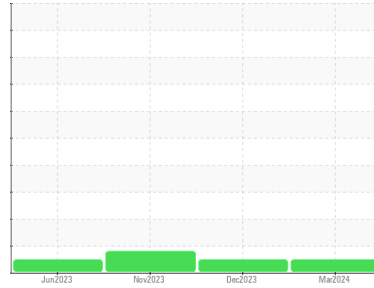




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**829085**

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>GFL0103578</b>	GFL0103590	GFL0085304
Sample Date	Client Info		<b>06 Mar 2024</b>	21 Dec 2023	22 Nov 2023
Machine Age	hrs	Client Info	<b>5629</b>	5629	5629
Oil Age	hrs	Client Info	<b>510</b>	596	610
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>NORMAL</b>	NORMAL	ATTENTION

## 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>15</b>	6	19
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185m >4	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m >20	<b>&lt;1</b>	3	2
Lead	ppm	ASTM D5185m >40	<b>1</b>	<1	1
Copper	ppm	ASTM D5185m >330	<b>30</b>	34	150
Tin	ppm	ASTM D5185m >15	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	<1

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>2</b>	2	4
Barium	ppm	ASTM D5185m 0	<b>0</b>	9	0
Molybdenum	ppm	ASTM D5185m 60	<b>60</b>	59	61
Manganese	ppm	ASTM D5185m 0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m 1010	<b>1010</b>	917	972
Calcium	ppm	ASTM D5185m 1070	<b>1106</b>	1046	1101
Phosphorus	ppm	ASTM D5185m 1150	<b>1048</b>	1044	939
Zinc	ppm	ASTM D5185m 1270	<b>1278</b>	1178	1223
Sulfur	ppm	ASTM D5185m 2060	<b>3449</b>	3257	2911

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>4</b>	3	6
Sodium	ppm	ASTM D5185m	<b>4</b>	<1	<1
Potassium	ppm	ASTM D5185m >20	<b>0</b>	2	2

## INFRA-RED

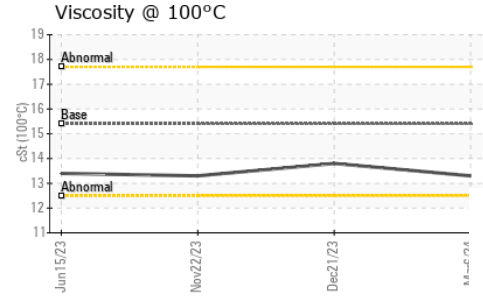
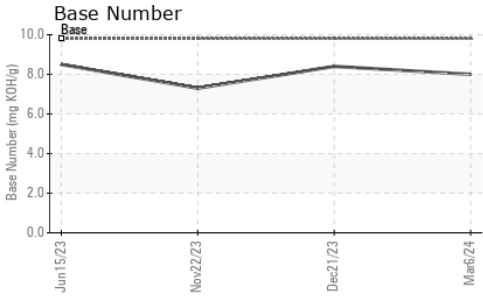
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.4</b>	0.2	0.5
Nitration	Abs/cm	*ASTM D7624 >20	<b>7.3</b>	5.8	8.8
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.9</b>	18.6	20.9

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>15.7</b>	14.2	17.6
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.0</b>	8.4	7.3



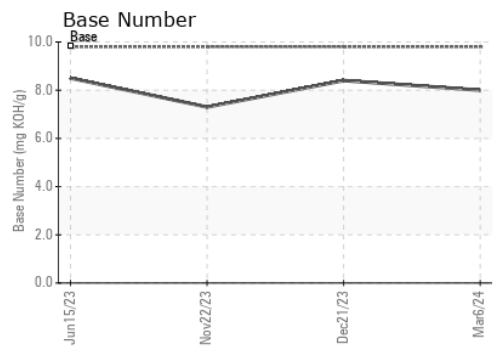
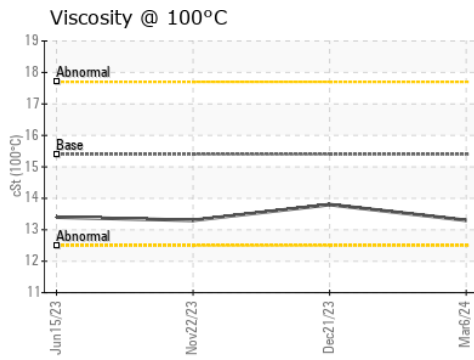
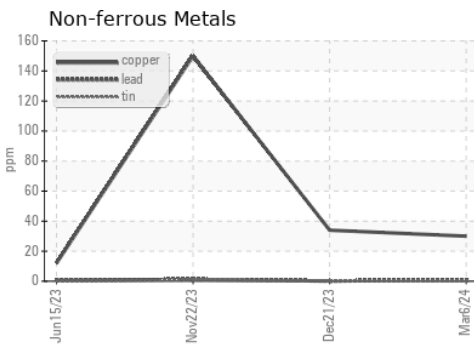
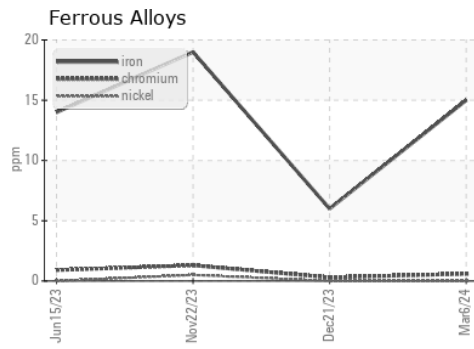
# OIL ANALYSIS REPORT



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	13.3	13.8

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0103578  
**Lab Number** : 06114962  
**Unique Number** : 10923795  
**Test Package** : FLEET  
**Received** : 11 Mar 2024  
**Tested** : 12 Mar 2024  
**Diagnosed** : 12 Mar 2024 - Wes Davis

**GFL Environmental - 958 - Tri County HC Morton**  
 1090 W. Jefferson St.  
 Morton, IL  
 US 61550  
 Contact: Bryan Link  
 blink@gflenv.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: