



# OIL ANALYSIS REPORT

Sample Rating Trend

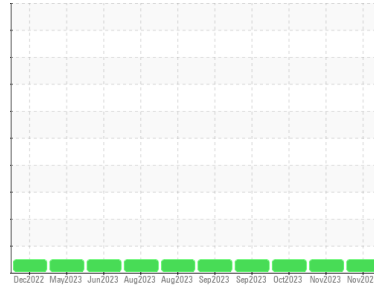
**NORMAL**



Machine Id  
**718002**

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>GFL0094772</b>	GFL0094789	GFL0086337
Sample Date	Client Info		<b>30 Nov 2023</b>	10 Nov 2023	24 Oct 2023
Machine Age	hrs	Client Info	<b>8774</b>	8622	0
Oil Age	hrs	Client Info	<b>152</b>	566	0
Oil Changed	Client Info		<b>N/A</b>	Changed	N/A
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 >110	<b>6</b>	13	15
Chromium	ppm	ASTM D5185m >4	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m >2	<b>&lt;1</b>	2	<1
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m >2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m >25	<b>2</b>	4	3
Lead	ppm	ASTM D5185m >45	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m >85	<b>1</b>	<1	1
Tin	ppm	ASTM D5185m >4	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	<1

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>21</b>	18	19
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	3
Molybdenum	ppm	ASTM D5185m 60	<b>91</b>	88	103
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m 1010	<b>956</b>	898	890
Calcium	ppm	ASTM D5185m 1070	<b>1062</b>	1011	1113
Phosphorus	ppm	ASTM D5185m 1150	<b>1034</b>	956	1023
Zinc	ppm	ASTM D5185m 1270	<b>1258</b>	1210	1215
Sulfur	ppm	ASTM D5185m 2060	<b>2920</b>	2850	3211

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >30	<b>4</b>	4	6
Sodium	ppm	ASTM D5185m	<b>2</b>	6	3
Potassium	ppm	ASTM D5185m >20	<b>11</b>	14	17

## INFRA-RED

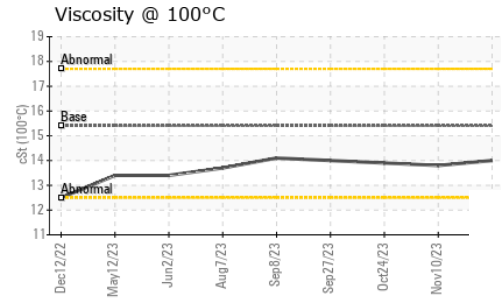
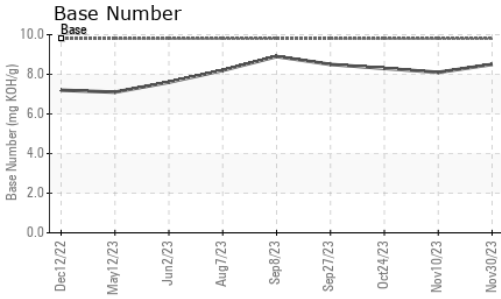
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.1</b>	0.3	0.2
Nitration	Abs/cm	*ASTM D7624 >20	<b>5.7</b>	7.7	7.5
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>17.8</b>	19.2	18.8

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>13.7</b>	15.2	14.9
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.5</b>	8.1	8.3



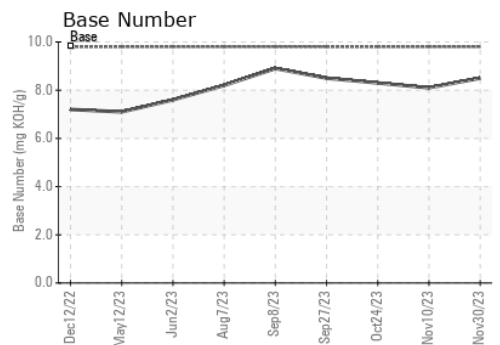
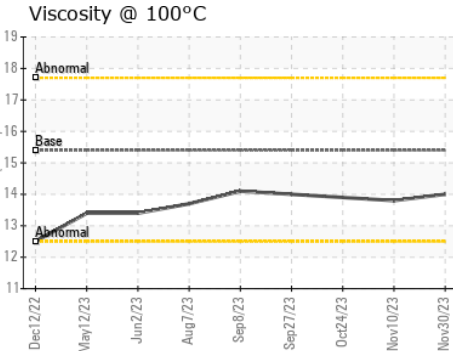
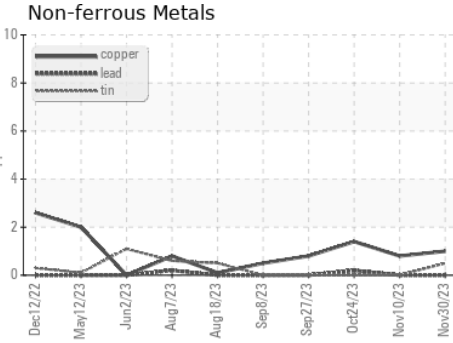
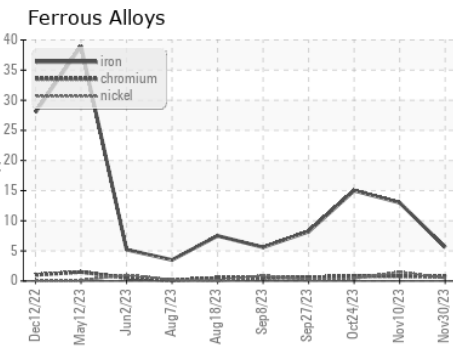
# OIL ANALYSIS REPORT



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>14.0</b>	13.8	13.9

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0094772 **Received** : 06 Dec 2023  
**Lab Number** : **06025994** **Diagnosed** : 07 Dec 2023  
**Unique Number** : 10775785 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL environmental - 867 - Trafford (Blount Hauling)**  
 1130 County Line Rd  
 Trafford, AL  
 US 35172  
 Contact: Jonathan Williams  
 jonathan.williams@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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