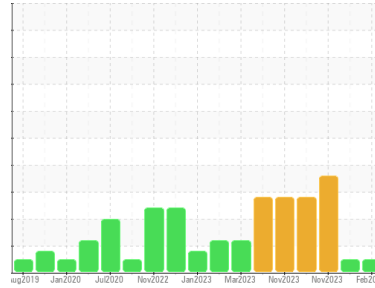




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**(80J3TW) GFL837**  
 Machine Id  
**722023-310031**

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>GFL0109847</b>	GFL0103268	GFL0098591
Sample Date	Client Info		<b>26 Feb 2024</b>	25 Jan 2024	28 Nov 2023
Machine Age	hrs	Client Info	<b>22685</b>	22512	22181
Oil Age	hrs	Client Info	<b>600</b>	0	0
Oil Changed	Client Info		<b>Changed</b>	Not Changd	Changed
Sample Status			<b>NORMAL</b>	NORMAL	SEVERE

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<b>&lt;1.0</b>	1.1	▲ 21.4
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>17</b>	6	43
Chromium	ppm	ASTM D5185m >20	<b>2</b>	<1	2
Nickel	ppm	ASTM D5185m >4	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m >3	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m >20	<b>3</b>	2	3
Lead	ppm	ASTM D5185m >40	<b>0</b>	2	<1
Copper	ppm	ASTM D5185m >330	<b>&lt;1</b>	0	25
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	<1
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>8</b>	6	<1
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>59</b>	56	39
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m 1010	<b>867</b>	883	680
Calcium	ppm	ASTM D5185m 1070	<b>1154</b>	1043	809
Phosphorus	ppm	ASTM D5185m 1150	<b>997</b>	972	695
Zinc	ppm	ASTM D5185m 1270	<b>1214</b>	1214	913
Sulfur	ppm	ASTM D5185m 2060	<b>3169</b>	2993	1661

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>4</b>	3	7
Sodium	ppm	ASTM D5185m	<b>27</b>	26	16
Potassium	ppm	ASTM D5185m >20	<b>2</b>	<1	3

## INFRA-RED

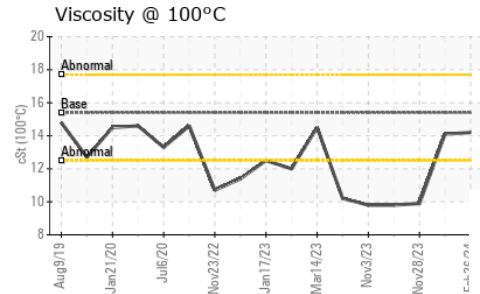
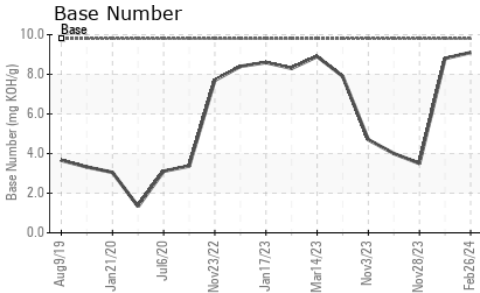
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>1.3</b>	0.5	1
Nitration	Abs/cm	*ASTM D7624 >20	<b>8.5</b>	5.8	12.8
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>21.2</b>	18.4	26.7

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>15.5</b>	13.5	33.2
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>9.1</b>	8.8	▲ 3.5



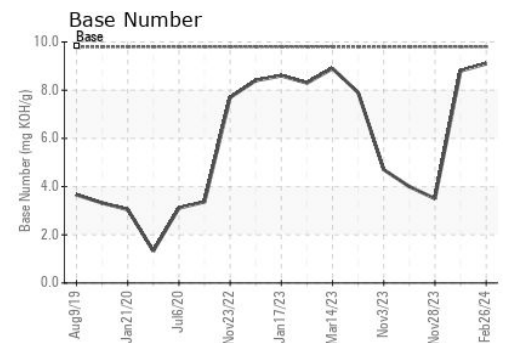
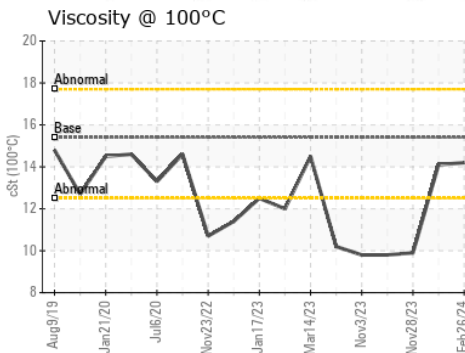
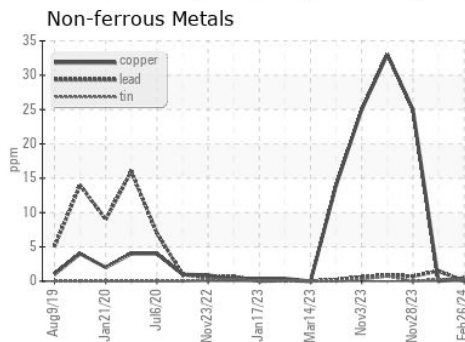
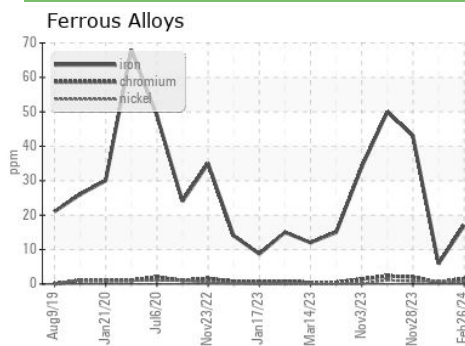
# OIL ANALYSIS REPORT



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	14.2	14.1 ▲ 9.9

## GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : GFL0109847  
 Lab Number : 06102812  
 Unique Number : 10901042  
 Test Package : FLEET

Received : 28 Feb 2024  
 Tested : 29 Feb 2024  
 Diagnosed : 29 Feb 2024 - Wes Davis

GFL Environmental - 836 - Kansas City Hauling  
 7801 East Truman Road  
 Kansas City, MO  
 US 64126  
 Contact: Loyce Stewart  
 loyce.stewart@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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