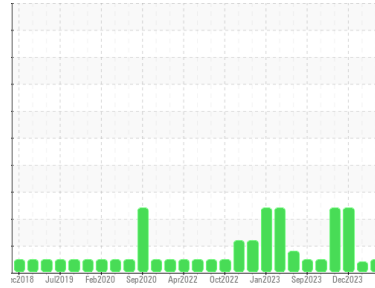




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**GFL836**  
 Machine Id  
**425062-402315**  
 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>GFL0109859</b>	GFL0103328	GFL0103366
Sample Date	Client Info	<b>06 Feb 2024</b>	18 Jan 2024	20 Dec 2023
Machine Age	hrs	<b>25130</b>	24978	24793
Oil Age	hrs	<b>0</b>	0	0
Oil Changed	Client Info	<b>Not Changed</b>	Not Changd	Not Changed
Sample Status		<b>NORMAL</b>	ATTENTION	SEVERE

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<b>&lt;1.0</b>	0.6	13.7
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>1</b>	7	39
Chromium	ppm ASTM D5185m >20	<b>0</b>	<1	2
Nickel	ppm ASTM D5185m >4	<b>0</b>	3	0
Titanium	ppm ASTM D5185m	<b>&lt;1</b>	0	0
Silver	ppm ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>0</b>	6	3
Lead	ppm ASTM D5185m >40	<b>0</b>	0	2
Copper	ppm ASTM D5185m >330	<b>&lt;1</b>	4	3
Tin	ppm ASTM D5185m >15	<b>&lt;1</b>	<1	<1
Vanadium	ppm ASTM D5185m	<b>&lt;1</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>4</b>	55	<1
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>56</b>	17	52
Manganese	ppm ASTM D5185m 0	<b>0</b>	<1	<1
Magnesium	ppm ASTM D5185m 1010	<b>867</b>	877	825
Calcium	ppm ASTM D5185m 1070	<b>1001</b>	1262	883
Phosphorus	ppm ASTM D5185m 1150	<b>981</b>	781	870
Zinc	ppm ASTM D5185m 1270	<b>1145</b>	909	1067
Sulfur	ppm ASTM D5185m 2060	<b>2895</b>	2467	2374

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>1</b>	4	8
Sodium	ppm ASTM D5185m	<b>2</b>	2	3
Potassium	ppm ASTM D5185m >20	<b>0</b>	4	0

## INFRA-RED

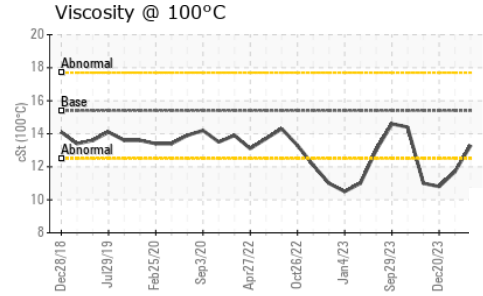
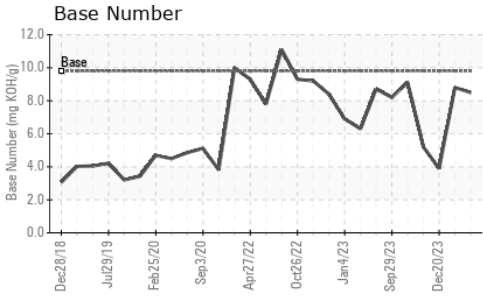
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.1</b>	0.2	1.2
Nitration	Abs/cm *ASTM D7624 >20	<b>5.7</b>	8.9	14.0
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>18.0</b>	21.9	28.3

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>14.2</b>	19.5	30.5
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>8.5</b>	8.8	3.9



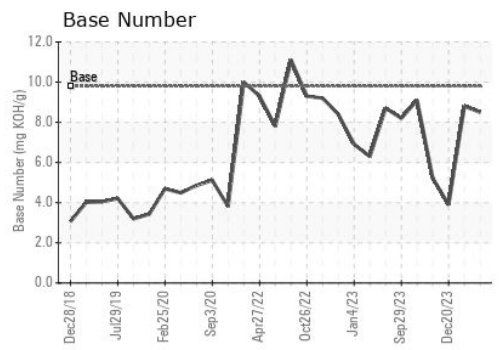
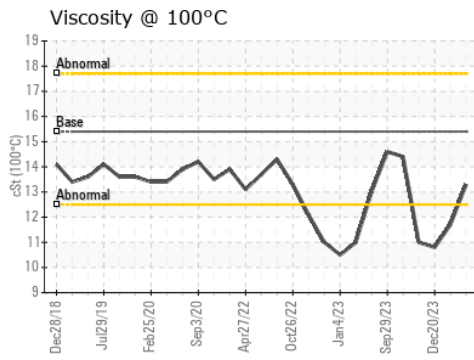
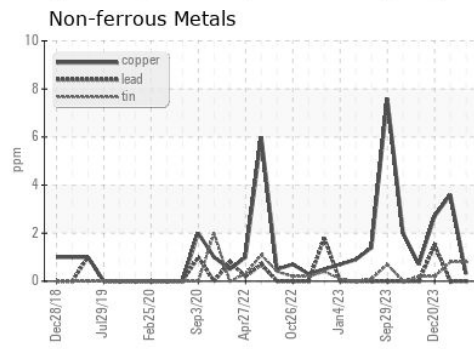
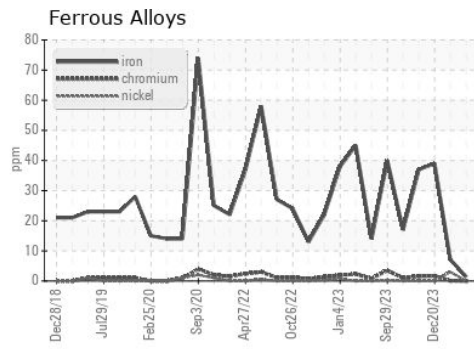
# OIL ANALYSIS REPORT



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	<b>13.3</b>	▲ 11.7	▲ 10.8

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0109859      **Received** : 08 Feb 2024  
**Lab Number** : 06083284      **Tested** : 08 Feb 2024  
**Unique Number** : 10870729      **Diagnosed** : 08 Feb 2024 - Wes Davis  
**Test Package** : FLEET

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

Certificate L2367  
 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)