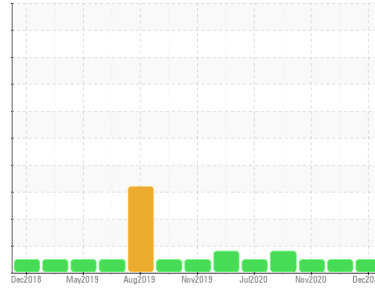




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**728045-361691**

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>GFL0065746</b>	GFL0054458	GFLI-684960
Sample Date	Client Info	<b>17 Dec 2023</b>	30 Nov 2022	19 Nov 2020
Machine Age	hrs	Client Info	10057	6314
Oil Age	hrs	Client Info	0	455
Oil Changed	Client Info	<b>Changed</b>	Not Changd	Changed
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	1.8
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>	29	9
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	5	0
Nickel	ppm ASTM D5185m >4	<b>0</b>	<1	2
Titanium	ppm ASTM D5185m	<b>0</b>	<1	0
Silver	ppm ASTM D5185m >3	<b>0</b>	2	0
Aluminum	ppm ASTM D5185m >20	<b>2</b>	5	4
Lead	ppm ASTM D5185m >40	<b>0</b>	1	0
Copper	ppm ASTM D5185m >330	<b>&lt;1</b>	1	1
Tin	ppm ASTM D5185m >15	<b>0</b>	<1	0
Antimony	ppm ASTM D5185m	<b>---</b>	---	0
Vanadium	ppm ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm ASTM D5185m	<b>0</b>	<1	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>8</b>	23	223
Barium	ppm ASTM D5185m 0	<b>0</b>	0	1
Molybdenum	ppm ASTM D5185m 60	<b>61</b>	55	122
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	0
Magnesium	ppm ASTM D5185m 1010	<b>1014</b>	618	597
Calcium	ppm ASTM D5185m 1070	<b>1113</b>	1671	1888
Phosphorus	ppm ASTM D5185m 1150	<b>1034</b>	793	831
Zinc	ppm ASTM D5185m 1270	<b>1285</b>	1007	946
Sulfur	ppm ASTM D5185m 2060	<b>3173</b>	2988	---
Lithium	ppm ASTM D5185m	<b>---</b>	---	0

## CONTAMINANTS

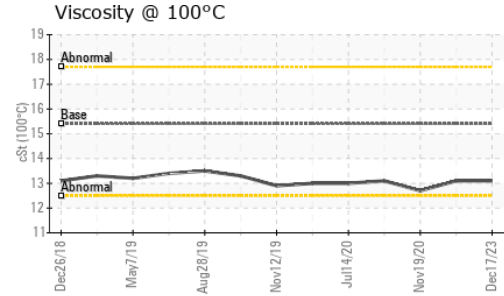
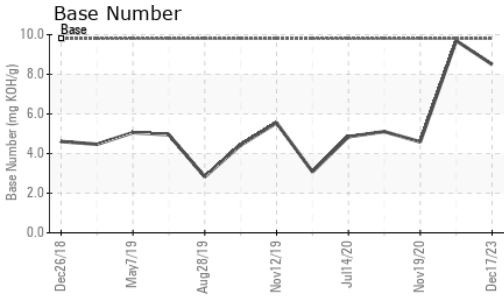
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>6</b>	10	8
Sodium	ppm ASTM D5185m	<b>6</b>	7	2
Potassium	ppm ASTM D5185m >20	<b>11</b>	1	0

## INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.4</b>	0.5	0.2
Nitration	Abs/cm *ASTM D7624 >20	<b>7.5</b>	8.1	8
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>18.9</b>	19.8	---



# OIL ANALYSIS REPORT

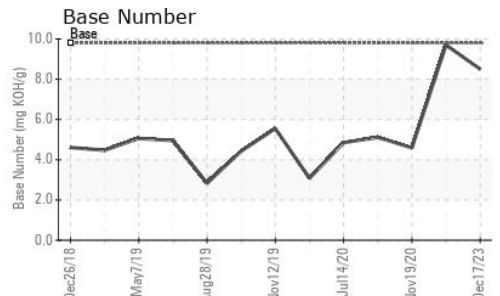
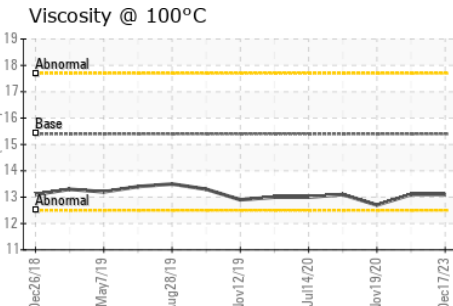
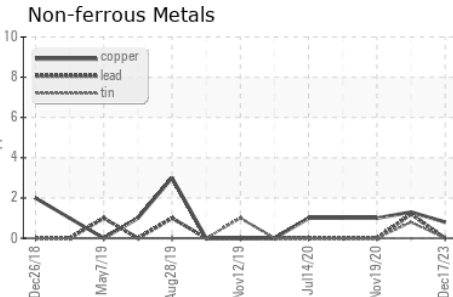
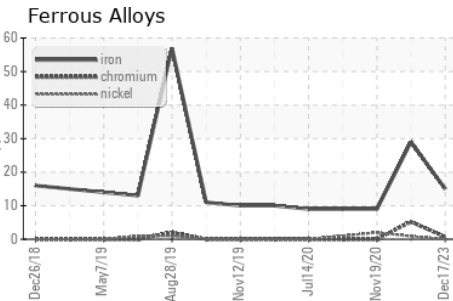


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	*ASTM D7414	>25	<b>14.2</b>	14.9	13
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.5</b>	9.7	4.59

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Precipitate	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	---
Free Water	scalar	*Visual		<b>NEG</b>	NEG	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.1</b>	13.1	12.7

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0065746 **Received** : 02 Jan 2024  
**Lab Number** : 06049400 **Diagnosed** : 04 Jan 2024  
**Unique Number** : 10810008 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 823 - Central Missouri Hauling**  
 24461 Oak Grove Lane  
 Sedalia, MO  
 US 65301  
 Contact: Terry Randolph  
 trandolph@gflenv.com  
 T: (660)631-2116  
 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)