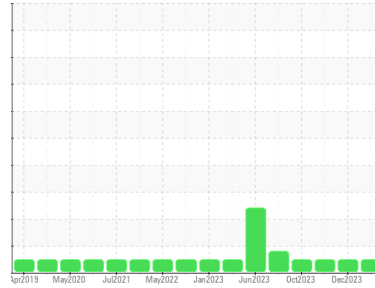




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**725056-310015**

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>GFL0098321</b>	GFL0098303	GFL0079361
Sample Date	Client Info	<b>29 Dec 2023</b>	01 Dec 2023	07 Nov 2023
Machine Age	hrs	<b>22869</b>	22725	22578
Oil Age	hrs	<b>700</b>	700	0
Oil Changed	Client Info	<b>Changed</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 >80	<b>1</b>	6	5
Chromium	ppm ASTM D5185m >5	<b>&lt;1</b>	<1	<1
Nickel	ppm ASTM D5185m >2	<b>0</b>	0	<1
Titanium	ppm ASTM D5185m	<b>0</b>	0	<1
Silver	ppm ASTM D5185m >3	<b>0</b>	0	<1
Aluminum	ppm ASTM D5185m >30	<b>&lt;1</b>	<1	2
Lead	ppm ASTM D5185m >30	<b>&lt;1</b>	0	1
Copper	ppm ASTM D5185m >150	<b>0</b>	0	<1
Tin	ppm ASTM D5185m >5	<b>&lt;1</b>	0	<1
Vanadium	ppm ASTM D5185m	<b>0</b>	0	<1
Cadmium	ppm ASTM D5185m	<b>0</b>	0	<1

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>&lt;1</b>	0	0
Barium	ppm ASTM D5185m 0	<b>0</b>	0	<1
Molybdenum	ppm ASTM D5185m 60	<b>54</b>	54	62
Manganese	ppm ASTM D5185m 0	<b>0</b>	0	<1
Magnesium	ppm ASTM D5185m 1010	<b>899</b>	905	941
Calcium	ppm ASTM D5185m 1070	<b>996</b>	958	1062
Phosphorus	ppm ASTM D5185m 1150	<b>1050</b>	945	997
Zinc	ppm ASTM D5185m 1270	<b>1176</b>	1177	1239
Sulfur	ppm ASTM D5185m 2060	<b>3114</b>	2947	2971

## CONTAMINANTS

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

## INFRA-RED

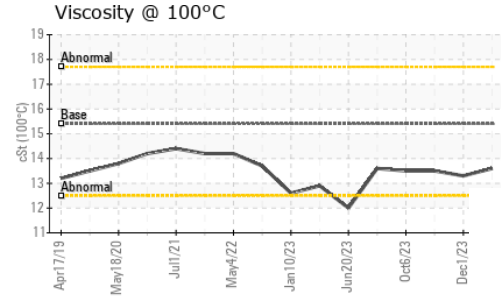
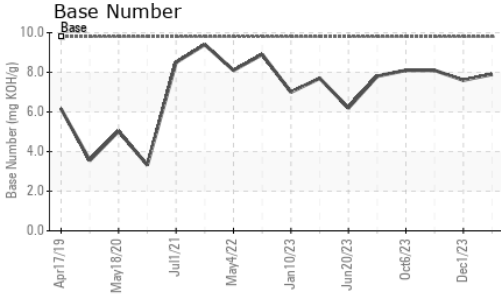
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.1</b>	0.3	0.3
Nitration	Abs/cm *ASTM D7624 >20	<b>4.2</b>	6.8	6.6
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>17.8</b>	18.1	18.5

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>13.0</b>	14.3	14.1
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>7.9</b>	7.6	8.1



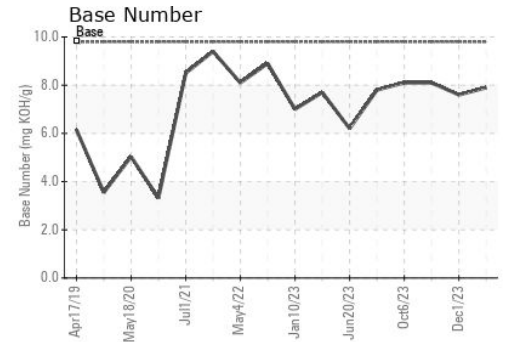
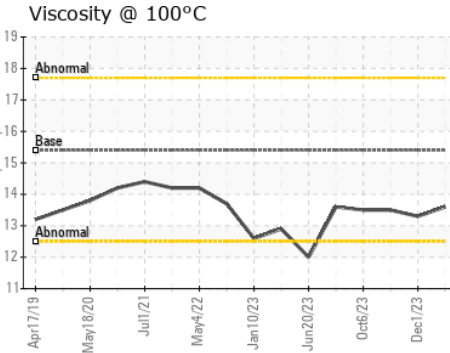
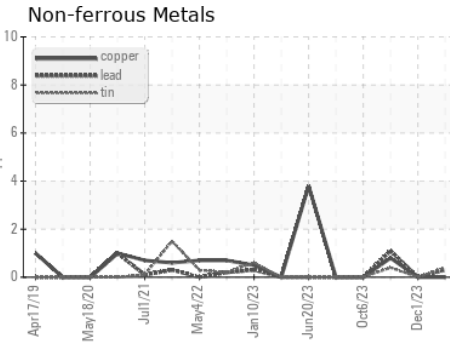
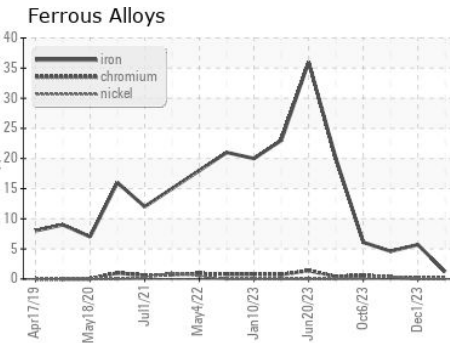
# OIL ANALYSIS REPORT



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>13.6</b>	13.3	13.5

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0098321 **Received** : 08 Jan 2024  
**Lab Number** : **06053478** **Diagnosed** : 09 Jan 2024  
**Unique Number** : 10819427 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 822 - Springfield Hauling**  
 2120 West Bennett Street  
 Springfield, MO  
 US 65807  
 Contact: Dennis Moore  
 dennis.moore@gflenv.com  
 T: (417)403-3641  
 F:

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)