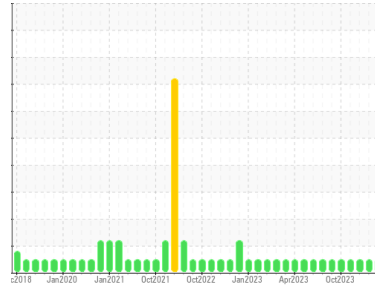




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**(D582HW)**

Machine Id  
**10681**

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>GFL0098955</b>	GFL0098995	GFL0098951
Sample Date	Client Info	<b>03 Jan 2024</b>	12 Dec 2023	21 Nov 2023
Machine Age	hrs	<b>18768</b>	18476	18476
Oil Age	hrs	<b>18144</b>	18616	18144
Oil Changed	Client Info	<b>Changed</b>	N/A	N/A
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >3.0	<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 >75	<b>41</b>	30	29
Chromium	ppm ASTM D5185m >5	<b>&lt;1</b>	1	<1
Nickel	ppm ASTM D5185m >4	<b>0</b>	<1	0
Titanium	ppm ASTM D5185m >2	<b>0</b>	<1	0
Silver	ppm ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >15	<b>2</b>	2	3
Lead	ppm ASTM D5185m >25	<b>&lt;1</b>	<1	0
Copper	ppm ASTM D5185m >100	<b>&lt;1</b>	1	<1
Tin	ppm ASTM D5185m >4	<b>0</b>	<1	0
Vanadium	ppm ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm ASTM D5185m	<b>0</b>	<1	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>0</b>	<1	0
Barium	ppm ASTM D5185m 0	<b>3</b>	12	0
Molybdenum	ppm ASTM D5185m 60	<b>66</b>	65	68
Manganese	ppm ASTM D5185m 0	<b>0</b>	<1	0
Magnesium	ppm ASTM D5185m 1010	<b>1062</b>	976	1044
Calcium	ppm ASTM D5185m 1070	<b>1196</b>	1113	1145
Phosphorus	ppm ASTM D5185m 1150	<b>1100</b>	1016	1068
Zinc	ppm ASTM D5185m 1270	<b>1342</b>	1269	1360
Sulfur	ppm ASTM D5185m 2060	<b>3427</b>	3159	2937

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>9</b>	8	8
Sodium	ppm ASTM D5185m	<b>50</b>	43	35
Potassium	ppm ASTM D5185m >20	<b>39</b>	33	22

## INFRA-RED

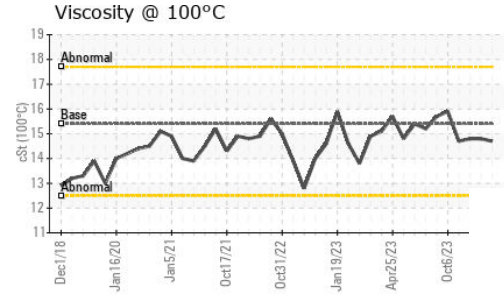
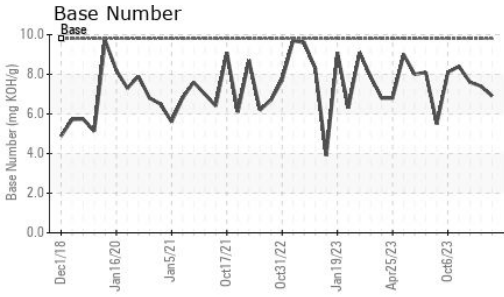
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >6	<b>0.7</b>	0.6	0.6
Nitration	Abs/cm *ASTM D7624 >20	<b>12.5</b>	11.2	11.4
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>24.9</b>	23.6	23.3

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>23.3</b>	20.8	20.7
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>6.9</b>	7.4	7.6



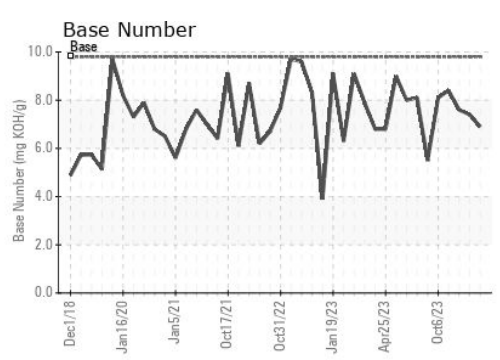
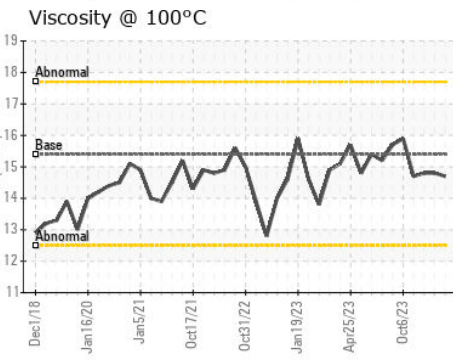
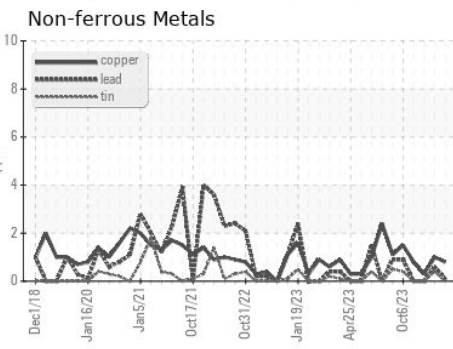
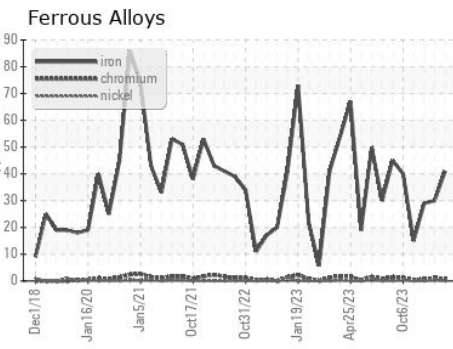
# OIL ANALYSIS REPORT



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>14.7</b>	14.8	14.8

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0098955 **Received** : 18 Jan 2024  
**Lab Number** : **06064008** **Diagnosed** : 19 Jan 2024  
**Unique Number** : 10835390 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 084 - Clarksville**  
 699 Jack Miller Boulevard  
 Clarksville, TN  
 US 37042  
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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)