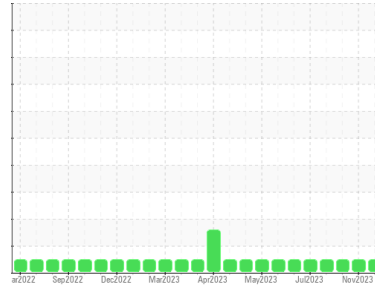




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**426120-381**

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>GFL0100217</b>	GFL0100175	GFL0087898
Sample Date	Client Info	<b>15 Jan 2024</b>	24 Nov 2023	08 Sep 2023
Machine Age	hrs	<b>0</b>	16650	315874
Oil Age	hrs	<b>600</b>	200	600
Oil Changed	Client Info	<b>Not Changed</b>	Not Changed	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	<1.0
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 >100	<b>17</b>	6	2
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	<1	<1
Nickel	ppm ASTM D5185m >4	<b>2</b>	<1	<1
Titanium	ppm ASTM D5185m	<b>0</b>	0	0
Silver	ppm ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>3</b>	2	2
Lead	ppm ASTM D5185m >40	<b>1</b>	<1	1
Copper	ppm ASTM D5185m >330	<b>10</b>	5	<1
Tin	ppm ASTM D5185m >15	<b>0</b>	0	0
Vanadium	ppm ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>0</b>	<1	2
Barium	ppm ASTM D5185m 0	<b>3</b>	2	2
Molybdenum	ppm ASTM D5185m 60	<b>71</b>	57	65
Manganese	ppm ASTM D5185m 0	<b>0</b>	0	<1
Magnesium	ppm ASTM D5185m 1010	<b>1174</b>	863	953
Calcium	ppm ASTM D5185m 1070	<b>1163</b>	995	1096
Phosphorus	ppm ASTM D5185m 1150	<b>1164</b>	931	1083
Zinc	ppm ASTM D5185m 1270	<b>1438</b>	1147	1288
Sulfur	ppm ASTM D5185m 2060	<b>3920</b>	4447	3553

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>11</b>	4	4
Sodium	ppm ASTM D5185m	<b>&lt;1</b>	<1	<1
Potassium	ppm ASTM D5185m >20	<b>4</b>	1	<1

## INFRA-RED

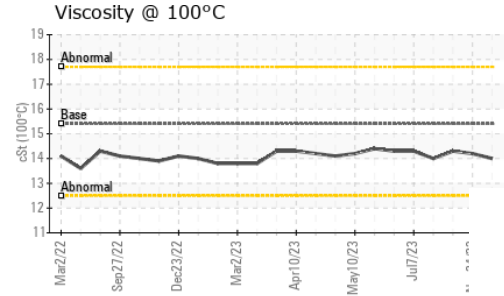
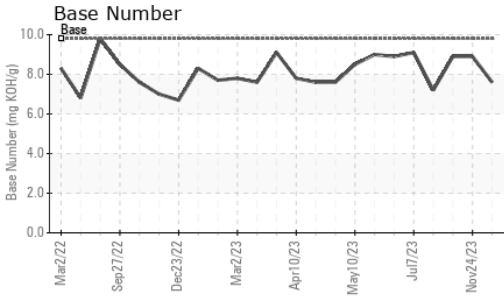
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.7</b>	0.4	0.3
Nitration	Abs/cm *ASTM D7624 >20	<b>9.6</b>	7.6	6.0
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>19.1</b>	18.5	18.1

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>16.3</b>	14.8	14.1
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>7.6</b>	8.9	8.9



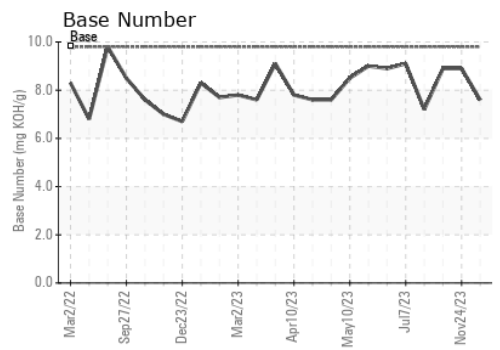
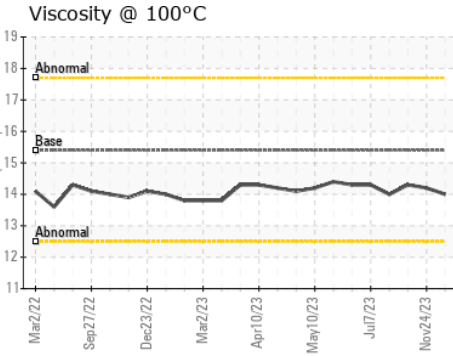
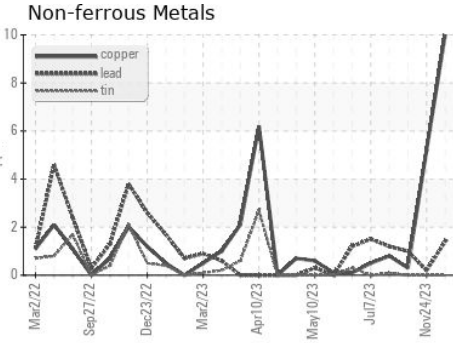
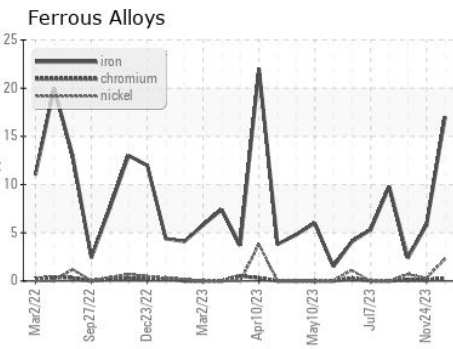
# OIL ANALYSIS REPORT



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>14.0</b>	14.2	14.3

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0100217 **Received** : 18 Jan 2024  
**Lab Number** : **06064135** **Diagnosed** : 20 Jan 2024  
**Unique Number** : 10835517 **Diagnostician** : Don Baldridge  
**Test Package** : FLEET

**GFL Environmental - 166 - Phenix City**  
 18 Old Brickyard Rd  
 Phenix City, AL  
 US 36869  
 Contact: EDWARD CASHMAN  
 ecashman@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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F: