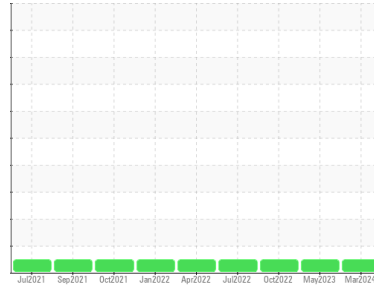




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**828061**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- LTR)**

## 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>GFL0113918</b>	GFL0079050	GFL0054932
Sample Date	Client Info	<b>27 Mar 2024</b>	26 May 2023	06 Oct 2022
Machine Age	hrs	<b>9683</b>	0	7742
Oil Age	hrs	<b>9683</b>	0	334
Oil Changed	Client Info	<b>Changed</b>	N/A	Changed
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 >120	<b>19</b>	25	9
Chromium	ppm ASTM D5185m >20	<b>0</b>	<1	<1
Nickel	ppm ASTM D5185m >5	<b>0</b>	<1	<1
Titanium	ppm ASTM D5185m >2	<b>0</b>	0	0
Silver	ppm ASTM D5185m >2	<b>0</b>	<1	<1
Aluminum	ppm ASTM D5185m >20	<b>2</b>	3	1
Lead	ppm ASTM D5185m >40	<b>0</b>	1	<1
Copper	ppm ASTM D5185m >330	<b>&lt;1</b>	14	1
Tin	ppm ASTM D5185m >15	<b>0</b>	<1	<1
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>8</b>	2	5
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>60</b>	61	63
Manganese	ppm ASTM D5185m 0	<b>0</b>	1	<1
Magnesium	ppm ASTM D5185m 1010	<b>943</b>	963	960
Calcium	ppm ASTM D5185m 1070	<b>1115</b>	1071	1165
Phosphorus	ppm ASTM D5185m 1150	<b>1017</b>	961	1008
Zinc	ppm ASTM D5185m 1270	<b>1237</b>	1264	1261
Sulfur	ppm ASTM D5185m 2060	<b>3565</b>	3137	3671

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>4</b>	6	5
Sodium	ppm ASTM D5185m	<b>3</b>	8	3
Potassium	ppm ASTM D5185m >20	<b>1</b>	4	2

## INFRA-RED

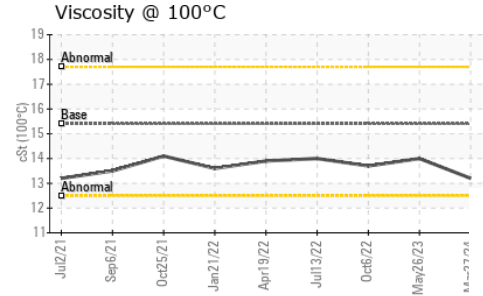
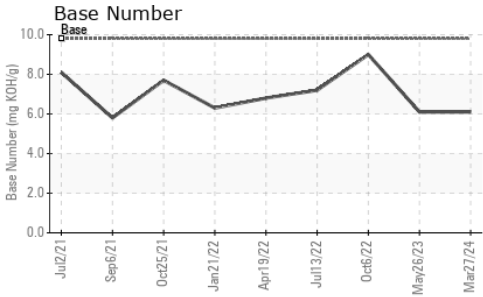
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >4	<b>1.2</b>	1.2	0.7
Nitration	Abs/cm *ASTM D7624 >20	<b>9.7</b>	10.9	9.2
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>19.3</b>	22.4	20.6

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>14.5</b>	16.2	16.0
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>6.1</b>	6.1	9.0



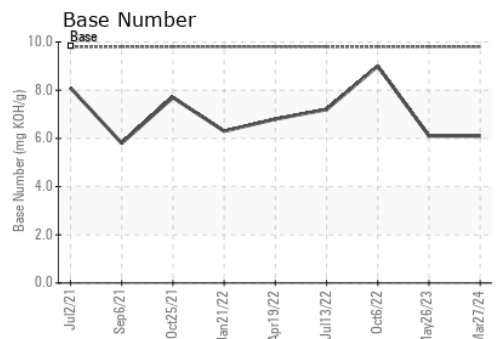
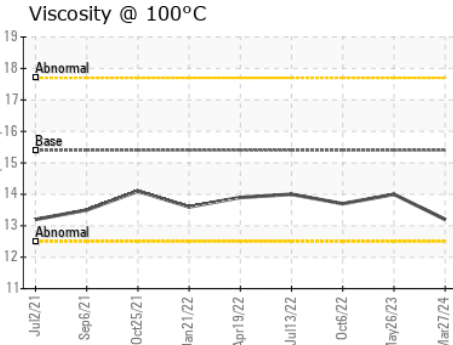
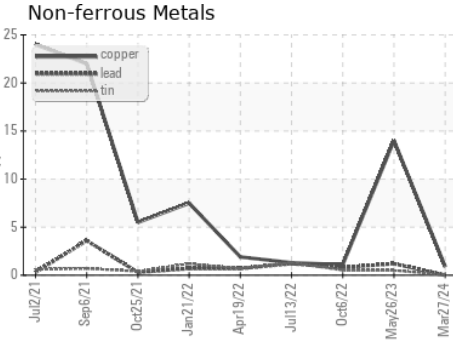
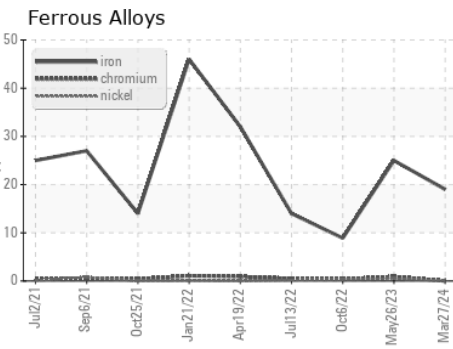
# OIL ANALYSIS REPORT



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>13.2</b>	14.0	13.7

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0113918  
**Lab Number** : **06135461**  
**Unique Number** : 10954926  
**Test Package** : FLEET  
**Received** : 01 Apr 2024  
**Tested** : 02 Apr 2024  
**Diagnosed** : 02 Apr 2024 - Wes Davis

**GFL Environmental - 029 - Wytheville**  
 2390 North 4th Street  
 Wytheville, VA  
 US 24382  
 Contact: CHARLES CORVIN  
 charles.corvin@gflenv.com; canastasio@wearcheckusa.com  
 T: (276)223-4476  
 F: (276)223-1283

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)