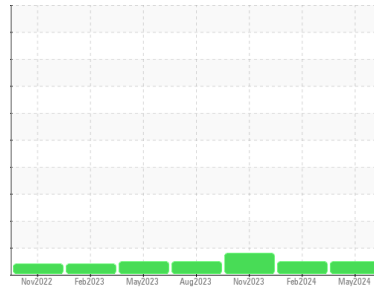




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id

**813015**

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>GFL0121135</b>	GFL0103117	GFL0103098
Sample Date	Client Info		<b>10 May 2024</b>	09 Feb 2024	24 Nov 2023
Machine Age	hrs	Client Info	<b>3151</b>	2646	2186
Oil Age	hrs	Client Info	<b>505</b>	600	484
Oil Changed		Client Info	<b>N/A</b>	Changed	Not Chngd
Sample Status			<b>NORMAL</b>	NORMAL	ABNORMAL

## 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>17</b>	15	23
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	2
Nickel	ppm	ASTM D5185m >5	<b>3</b>	8	▲ 32
Titanium	ppm	ASTM D5185m >2	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m >2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m >20	<b>&lt;1</b>	2	<1
Lead	ppm	ASTM D5185m >40	<b>&lt;1</b>	1	<1
Copper	ppm	ASTM D5185m >330	<b>&lt;1</b>	4	17
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	2	2
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	<1

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>8</b>	<1	3
Barium	ppm	ASTM D5185m 0	<b>0</b>	13	<1
Molybdenum	ppm	ASTM D5185m 60	<b>65</b>	58	61
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	1
Magnesium	ppm	ASTM D5185m 1010	<b>1056</b>	892	954
Calcium	ppm	ASTM D5185m 1070	<b>1200</b>	1017	1070
Phosphorus	ppm	ASTM D5185m 1150	<b>1117</b>	991	941
Zinc	ppm	ASTM D5185m 1270	<b>1367</b>	1136	1205
Sulfur	ppm	ASTM D5185m 2060	<b>3614</b>	3221	3070

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>7</b>	5	8
Sodium	ppm	ASTM D5185m	<b>3</b>	<1	3
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	2	2

## INFRA-RED

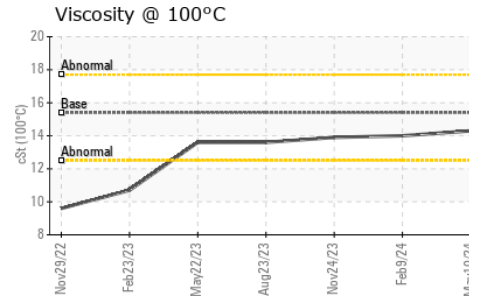
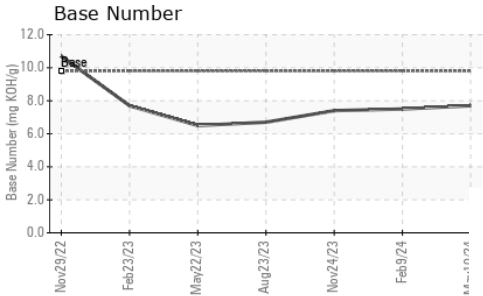
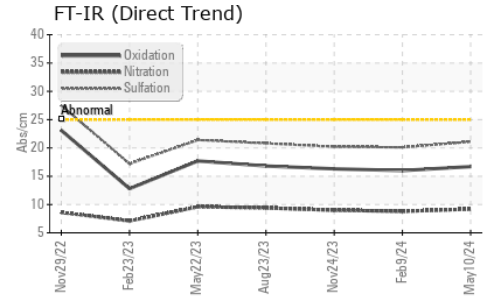
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	<b>0.8</b>	0.7	0.8
Nitration	Abs/cm	*ASTM D7624 >20	<b>9.2</b>	8.8	9.0
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>21.1</b>	20.1	20.2

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>16.7</b>	16.0	16.3
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>7.7</b>	7.5	7.4



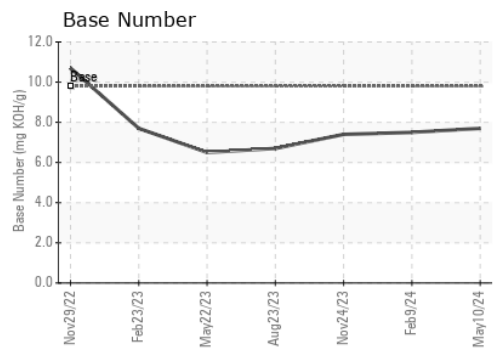
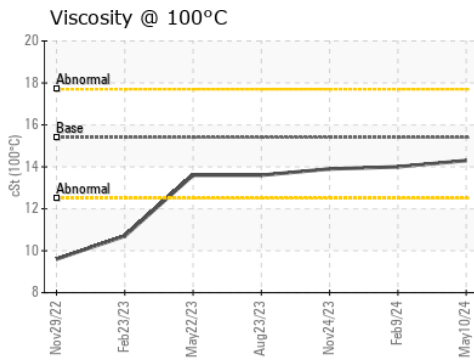
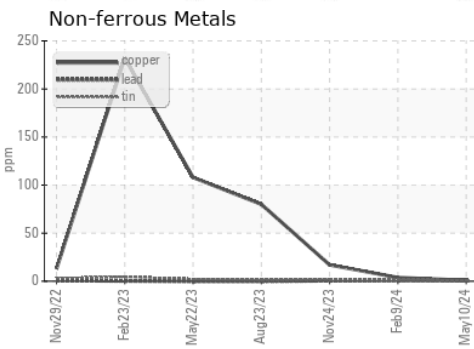
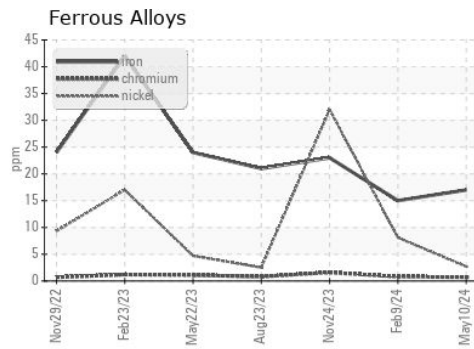
# OIL ANALYSIS REPORT



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	14.3	14.0

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0121135      **Received** : 13 May 2024  
**Lab Number** : 06176881      **Tested** : 14 May 2024  
**Unique Number** : 11022934      **Diagnosed** : 14 May 2024 - Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 683 - Ruckersville Hauling**  
 261 INDUSTRIAL DR  
 Ruckersville, VA  
 US 22698  
 Contact: Jaf Finney  
 jfinney@gflenv.com  
 T: (434)990-4972  
 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)