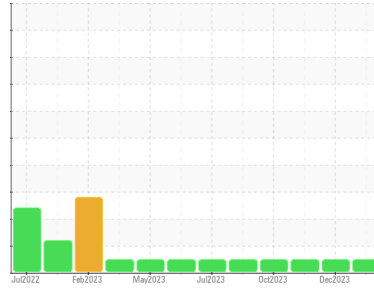




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**912036**  
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>GFL0103513</b>	GFL0094777	GFL0078688
Sample Date	Client Info		<b>08 Jan 2024</b>	14 Dec 2023	22 Nov 2023
Machine Age	hrs	Client Info	<b>5542</b>	5407	5270
Oil Age	hrs	Client Info	<b>1021</b>	886	0
Oil Changed	Client Info		<b>N/A</b>	Not Changd	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 >120	<b>8</b>	9	2
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m >5	<b>1</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 >20	<b>2</b>	4	<1
Lead	ppm	ASTM D5185m >40	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >330	<b>2</b>	2	<1
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>10</b>	12	15
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>89</b>	87	85
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185m 1010	<b>963</b>	888	923
Calcium	ppm	ASTM D5185m 1070	<b>1154</b>	1034	1093
Phosphorus	ppm	ASTM D5185m 1150	<b>1015</b>	960	1043
Zinc	ppm	ASTM D5185m 1270	<b>1260</b>	1179	1217
Sulfur	ppm	ASTM D5185m 2060	<b>2920</b>	3128	3045

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>5</b>	4	4
Sodium	ppm	ASTM D5185m	<b>4</b>	1	4
Potassium	ppm	ASTM D5185m >20	<b>9</b>	13	7

## INFRA-RED

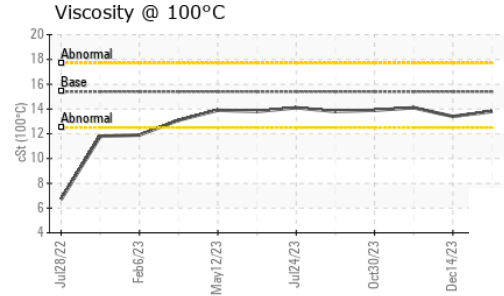
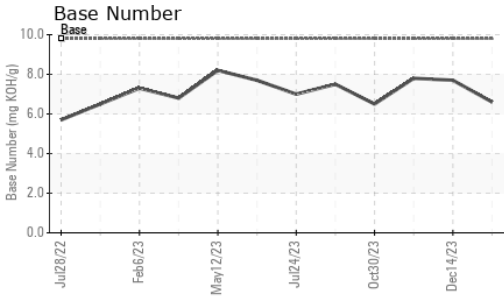
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	<b>0.5</b>	0.4	0.2
Nitration	Abs/cm	*ASTM D7624 >20	<b>9.5</b>	7.5	6.5
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>21.0</b>	19.7	18.9

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>17.0</b>	15.7	14.8
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>6.6</b>	7.7	7.8



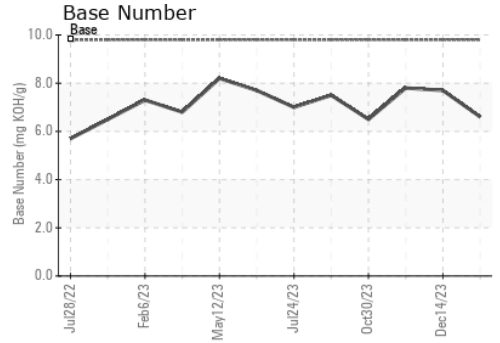
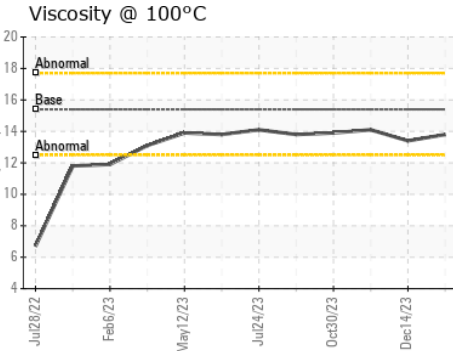
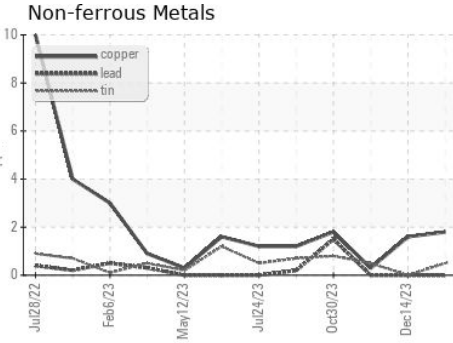
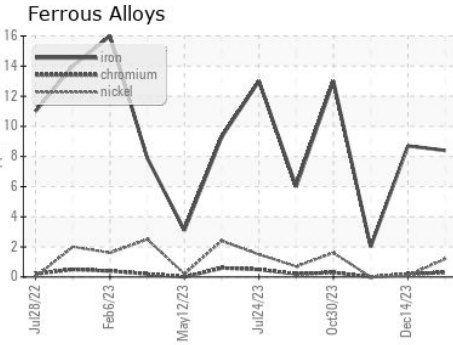
# OIL ANALYSIS REPORT



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>13.8</b>	13.4	14.1

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0103513 **Received** : 17 Jan 2024  
**Lab Number** : **06062325** **Diagnosed** : 18 Jan 2024  
**Unique Number** : 10833707 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL environmental - 867 - Trafford (Blount Hauling)**  
 1130 County Line Rd  
 Trafford, AL  
 US 35172  
 Contact: Jonathan Williams  
 jonathan.williams@gflenv.com

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)