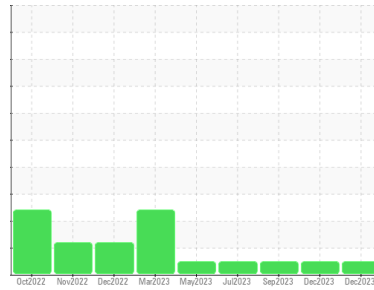




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**913034**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (11 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>GFL0103408</b>	GFL0092455	GFL0083650
Sample Date	Client Info		<b>21 Dec 2023</b>	04 Dec 2023	28 Sep 2023
Machine Age	hrs	Client Info	<b>1818</b>	1668	1170
Oil Age	hrs	Client Info	<b>0</b>	546	526
Oil Changed	Client Info		<b>Changed</b>	Changed	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>3</b>	8	10
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m >5	<b>&lt;1</b>	1	1
Titanium	ppm	ASTM D5185m >2	<b>0</b>	0	<1
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>2</b>	<1	1
Lead	ppm	ASTM D5185m >40	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m >330	<b>&lt;1</b>	1	2
Tin	ppm	ASTM D5185m >15	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>9</b>	5	2
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>63</b>	63	65
Manganese	ppm	ASTM D5185m 0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m 1010	<b>886</b>	948	927
Calcium	ppm	ASTM D5185m 1070	<b>1045</b>	1072	1045
Phosphorus	ppm	ASTM D5185m 1150	<b>857</b>	988	973
Zinc	ppm	ASTM D5185m 1270	<b>1151</b>	1221	1227
Sulfur	ppm	ASTM D5185m 2060	<b>2998</b>	2802	2834

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>2</b>	4	4
Sodium	ppm	ASTM D5185m	<b>&lt;1</b>	4	3
Potassium	ppm	ASTM D5185m >20	<b>2</b>	0	1

## INFRA-RED

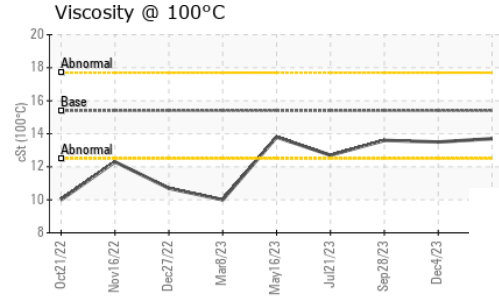
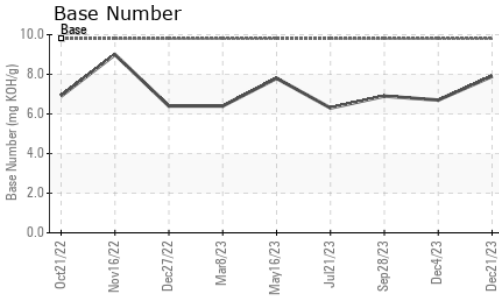
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	<b>0.2</b>	0.4	0.5
Nitration	Abs/cm	*ASTM D7624 >20	<b>6.1</b>	8.7	8.5
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>17.7</b>	19.8	19.8

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>13.9</b>	15.9	16.2
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>7.9</b>	6.7	6.9



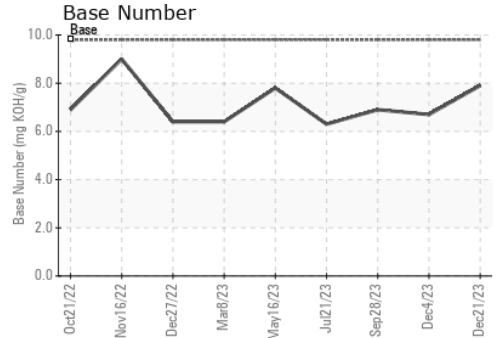
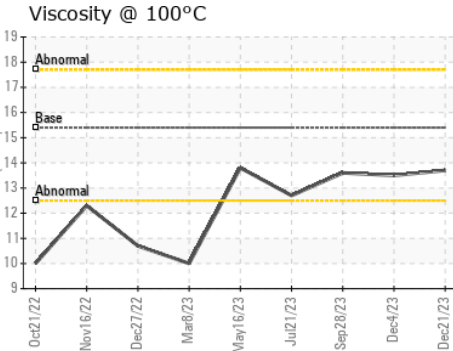
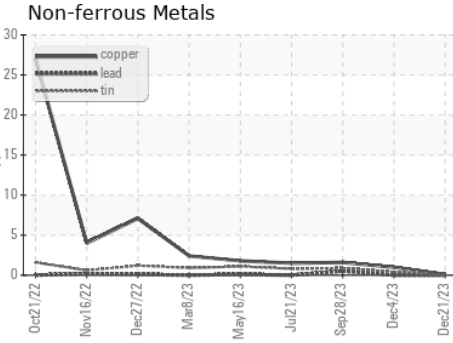
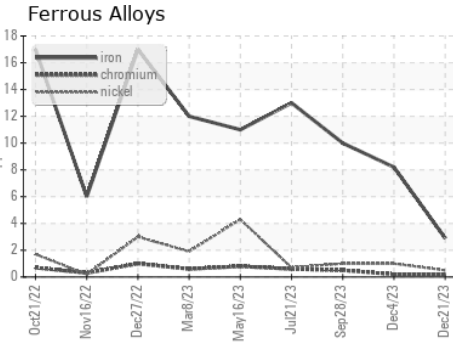
# OIL ANALYSIS REPORT



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>13.7</b>	13.5	13.6

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0103408 **Received** : 27 Dec 2023  
**Lab Number** : **06046585** **Diagnosed** : 28 Dec 2023  
**Unique Number** : 10807193 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 095 - Atlanta West**  
 2699 Cochran Industrial Blvd  
 Douglasville, GA  
 US 30127-1332  
 Contact: Darrell Welch  
 darrell.welch@gflenv.com  
 T: (800)207-6618  
 F:

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)