

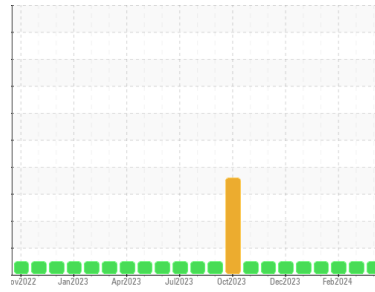


# OIL ANALYSIS REPORT



Area  
**(61AC798)**  
 Machine Id  
**428039-402371**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

Sample Rating Trend



**NORMAL**



## 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>GFL0113709</b>	GFL0113689	GFL0100446
Sample Date	Client Info		<b>25 Mar 2024</b>	26 Feb 2024	05 Feb 2024
Machine Age	hrs	Client Info	<b>15078</b>	14937	14798
Oil Age	hrs	Client Info	<b>553</b>	412	273
Oil Changed	Client Info		<b>Changed</b>	N/A	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>7</b>	2	3
Chromium	ppm	ASTM D5185m >20	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m >5	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m >2	<b>0</b>	0	<1
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m >20	<b>2</b>	2	1
Lead	ppm	ASTM D5185m >40	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >330	<b>&lt;1</b>	<1	<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>2</b>	3	2
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>64</b>	66	57
Manganese	ppm	ASTM D5185m 0	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m 1010	<b>981</b>	941	790
Calcium	ppm	ASTM D5185m 1070	<b>1115</b>	1031	918
Phosphorus	ppm	ASTM D5185m 1150	<b>1044</b>	1000	879
Zinc	ppm	ASTM D5185m 1270	<b>1249</b>	1241	1036
Sulfur	ppm	ASTM D5185m 2060	<b>3212</b>	2865	2628

## CONTAMINANTS

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

## INFRA-RED

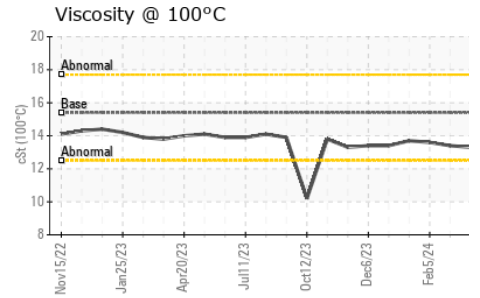
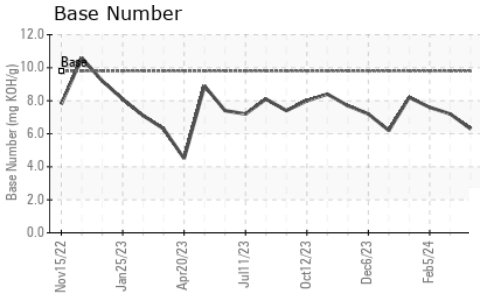
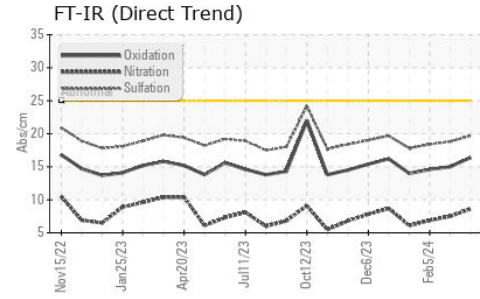
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	<b>0.3</b>	0.2	0.2
Nitration	Abs/cm	*ASTM D7624 >20	<b>8.6</b>	7.5	6.9
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.7</b>	18.8	18.4

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>16.4</b>	15.0	14.6
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>6.3</b>	7.2	7.6



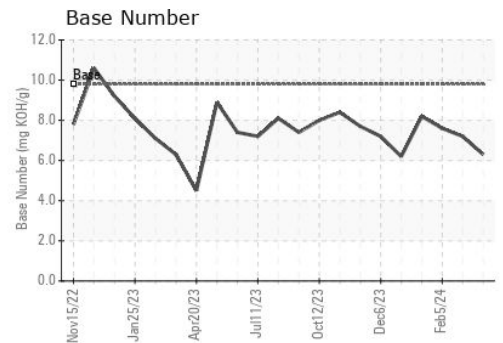
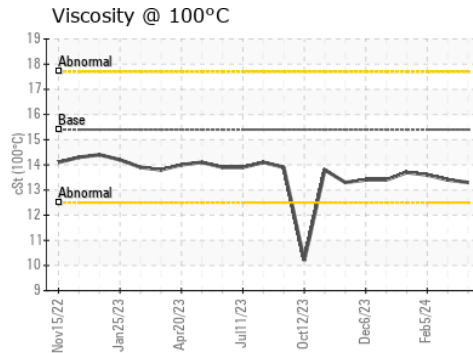
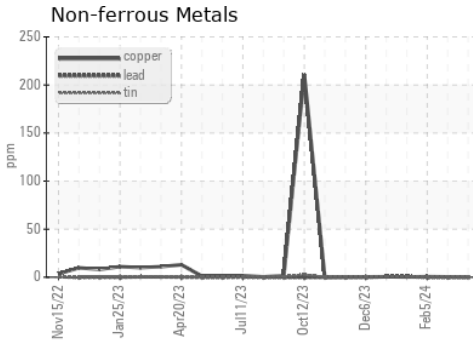
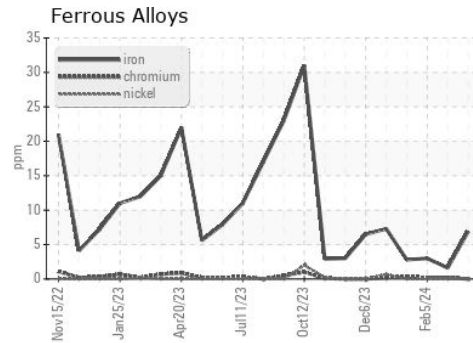
# OIL ANALYSIS REPORT



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	13.3	13.4

## GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : GFL0113709  
 Lab Number : 06140818  
 Unique Number : 10965626  
 Test Package : FLEET

Received : 08 Apr 2024  
 Tested : 08 Apr 2024  
 Diagnosed : 08 Apr 2024 - Wes Davis

GFL Environmental - 868 - Childersburg Fines Hauling (Alpine)  
 13737 Plant Rd  
 Childersburg, AL  
 US 35044

Contact: JONATHAN WILLIAMS  
 jonathan.williams@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: