



# OIL ANALYSIS REPORT

Sample Rating Trend

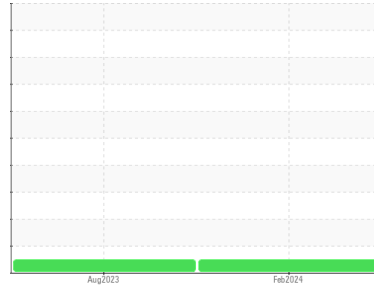
**NORMAL**



Machine Id  
**724033**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**



## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

Light fuel dilution occurring. No other contaminants were detected 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>GFL0103537</b>	GFL0085335	---
Sample Date	Client Info	<b>13 Feb 2024</b>	28 Aug 2023	---
Machine Age	hrs	Client Info	<b>0</b>	0
Oil Age	hrs	Client Info	<b>159</b>	542
Oil Changed	Client Info	<b>Not Chngd</b>	N/A	---
Sample Status		<b>NORMAL</b>	NORMAL	---

## CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method	>0.2	<b>NEG</b>	NEG
Glycol	WC Method		<b>NEG</b>	NEG

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>100	<b>41</b>	75
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	4
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	<1
Aluminum	ppm	ASTM D5185m	>20	<b>9</b>	5
Lead	ppm	ASTM D5185m	>40	<b>4</b>	15
Copper	ppm	ASTM D5185m	>330	<b>3</b>	21
Tin	ppm	ASTM D5185m	>15	<b>1</b>	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0

## ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	0	<b>4</b>	15
Barium	ppm	ASTM D5185m	0	<b>0</b>	0
Molybdenum	ppm	ASTM D5185m	60	<b>54</b>	38
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	3
Magnesium	ppm	ASTM D5185m	1010	<b>832</b>	633
Calcium	ppm	ASTM D5185m	1070	<b>990</b>	1517
Phosphorus	ppm	ASTM D5185m	1150	<b>960</b>	785
Zinc	ppm	ASTM D5185m	1270	<b>1132</b>	996
Sulfur	ppm	ASTM D5185m	2060	<b>2781</b>	2912

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>25	<b>4</b>	12
Sodium	ppm	ASTM D5185m		<b>8</b>	13
Potassium	ppm	ASTM D5185m	>20	<b>8</b>	6
Fuel	%	ASTM D3524	>2.0	<b>1.8</b>	<1.0

## INFRA-RED

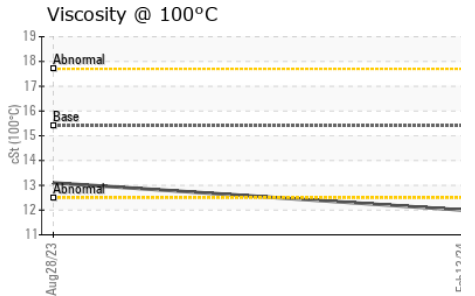
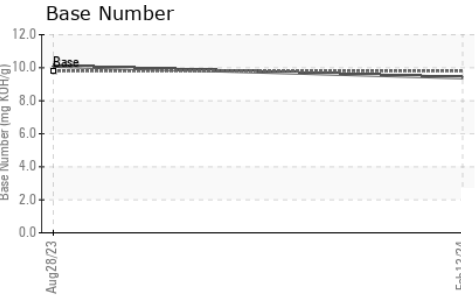
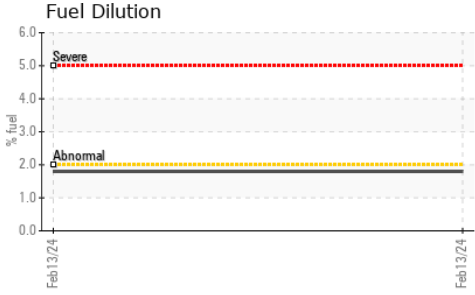
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>3	<b>0.8</b>	2.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.4</b>	12.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.9</b>	27.9

## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.2</b>	24.1
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>9.4</b>	10.1



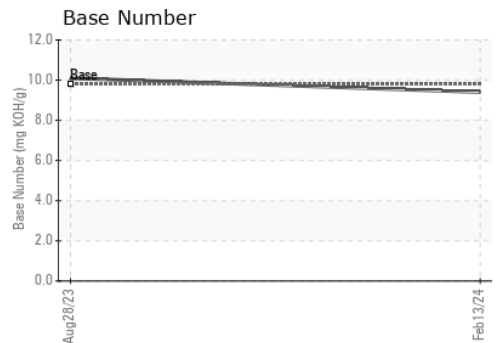
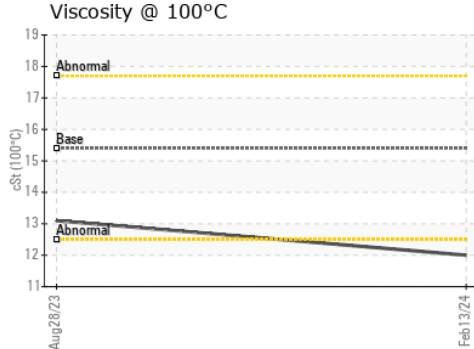
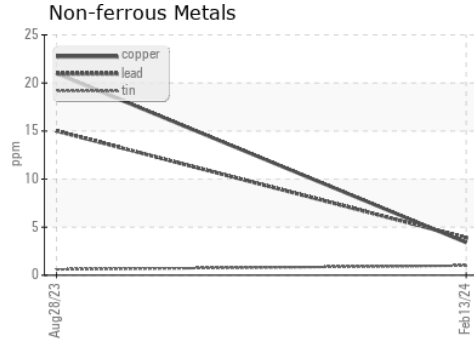
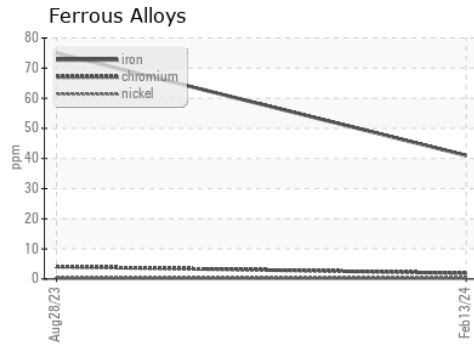
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.4	<b>12.0</b>	13.1	---

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0103537  
**Lab Number** : 06096108  
**Unique Number** : 10888961  
**Test Package** : FLEET ( Additional Tests: FuelDilution, PercentFuel )

**GFL Environmental - 958A - Chillicothe Wigan**  
 19908 N. State Rd 29  
 Chillicothe, IL  
 US 61523  
 Contact: Bryan Link  
 blink@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: