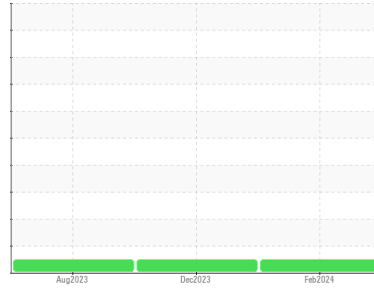




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**(TK163OJU)**  
Machine Id  
**713037**  
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>GFL0109015</b>	GFL0096882	GFL0091717
Sample Date	Client Info		<b>08 Feb 2024</b>	08 Dec 2023	10 Aug 2023
Machine Age	hrs	Client Info	<b>0</b>	0	1215
Oil Age	hrs	Client Info	<b>600</b>	600	600
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>7</b>	11	4
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m >5	<b>3</b>	4	<1
Titanium	ppm	ASTM D5185m >2	<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m >2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>1</b>	2	0
Lead	ppm	ASTM D5185m >40	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m >330	<b>3</b>	2	<1
Tin	ppm	ASTM D5185m >15	<b>0</b>	1	<1
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	<1	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>2</b>	4	60
Barium	ppm	ASTM D5185m 0	<b>0</b>	12	0
Molybdenum	ppm	ASTM D5185m 60	<b>65</b>	60	41
Manganese	ppm	ASTM D5185m 0	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>974</b>	927	616
Calcium	ppm	ASTM D5185m 1070	<b>1063</b>	1120	1712
Phosphorus	ppm	ASTM D5185m 1150	<b>991</b>	994	808
Zinc	ppm	ASTM D5185m 1270	<b>1246</b>	1207	988
Sulfur	ppm	ASTM D5185m 2060	<b>3026</b>	2991	3242

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>2</b>	4	11
Sodium	ppm	ASTM D5185m	<b>0</b>	0	2
Potassium	ppm	ASTM D5185m >20	<b>2</b>	2	2

## INFRA-RED

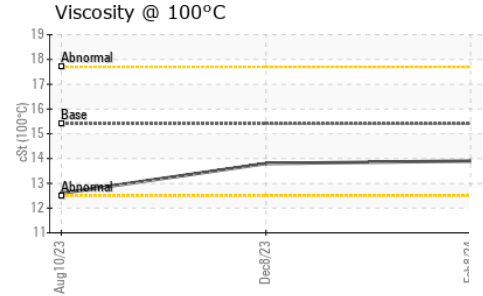
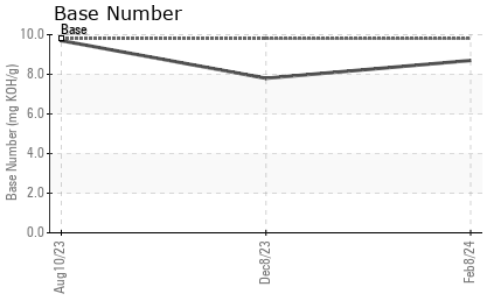
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	<b>0.2</b>	0.3	0.1
Nitration	Abs/cm	*ASTM D7624 >20	<b>7.1</b>	8.2	6.9
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>18.3</b>	19.8	21.5

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>14.3</b>	16.1	18.9
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.7</b>	7.8	9.7



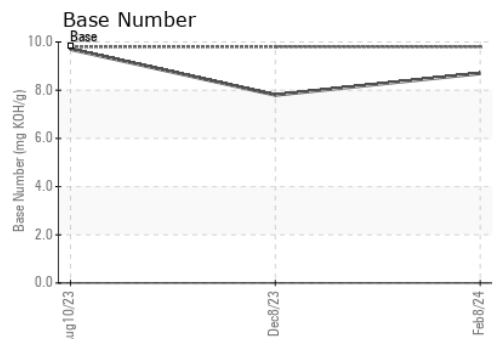
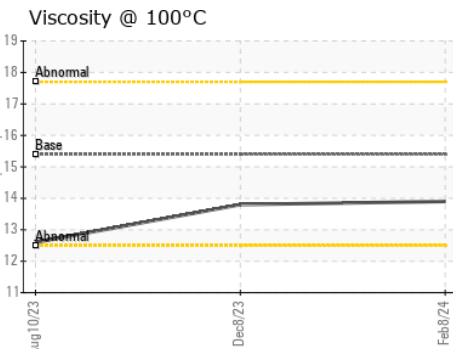
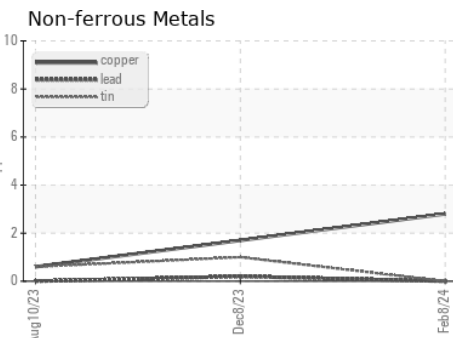
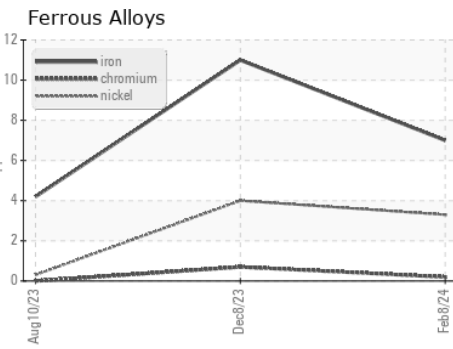
# OIL ANALYSIS REPORT



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>13.9</b>	13.8	12.6

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0109015      **Received** : 13 Feb 2024  
**Lab Number** : 06087050      **Tested** : 14 Feb 2024  
**Unique Number** : 10874495      **Diagnosed** : 14 Feb 2024 - Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 401 - Fort Wayne Hauling**  
 4429 ALLEN MARTIN DR  
 FORT WAYNE, IN  
 US 46806  
 Contact: Zachory Roehm  
 zroehm@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)