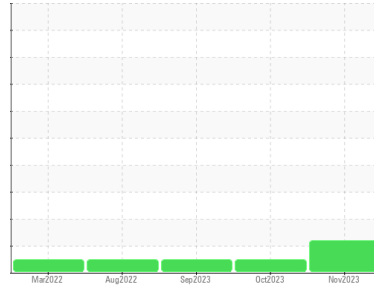




# PROBLEM SUMMARY

Sample Rating Trend



## DEGRADATION



Machine Id  
**4611M**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (36 QTS)**

## COMPONENT CONDITION SUMMARY

No relevant graphs to display

## RECOMMENDATION

The oil is near the end of its useful service life, recommend schedule an oil change. Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	NORMAL	NORMAL
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	▲ 3.2	6.1	7.6

Customer Id: GFL410  
 Sample No.: GFL0059245  
 Lab Number: 06010588  
 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Don Baldrige +1  
[don.b505@comcast.net](mailto:don.b505@comcast.net)

To change component or sample information:  
 Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Service/change Fluid	---	---	?	The oil is near the end of it's useful service life, recommend schedule an oil change.

## HISTORICAL DIAGNOSIS

23 Oct 2023 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report



26 Sep 2023 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report



08 Aug 2022 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report





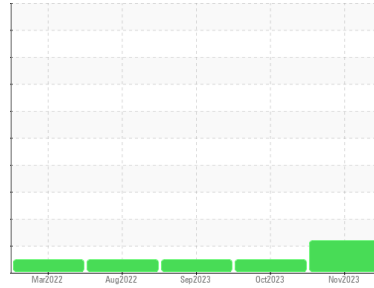
# OIL ANALYSIS REPORT

Sample Rating Trend

DEGRADATION



Machine Id  
**4611M**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (36 QTS)**



## DIAGNOSIS

### Recommendation

The oil is near the end of its useful service life, recommend schedule an oil change. 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 level is low. The condition of the oil is acceptable for the time in service.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>GFL0059245</b>	GFL0059135	GFL0084991
Sample Date	Client Info	<b>15 Nov 2023</b>	23 Oct 2023	26 Sep 2023
Machine Age	hrs	<b>21061</b>	20937	20775
Oil Age	hrs	<b>21061</b>	20937	20775
Oil Changed	Client Info	<b>Not Chngd</b>	Changed	N/A
Sample Status		<b>ABNORMAL</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 >90	<b>87</b>	14	40
Chromium	ppm ASTM D5185m >20	<b>4</b>	<1	2
Nickel	ppm ASTM D5185m >2	<b>&lt;1</b>	<1	1
Titanium	ppm ASTM D5185m >2	<b>0</b>	<1	0
Silver	ppm ASTM D5185m >2	<b>&lt;1</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>8</b>	8	6
Lead	ppm ASTM D5185m >40	<b>2</b>	1	1
Copper	ppm ASTM D5185m >330	<b>4</b>	1	1
Tin	ppm ASTM D5185m >15	<b>2</b>	<1	1
Vanadium	ppm ASTM D5185m	<b>0</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>5</b>	3	3
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>63</b>	58	61
Manganese	ppm ASTM D5185m 0	<b>1</b>	<1	<1
Magnesium	ppm ASTM D5185m 1010	<b>957</b>	899	944
Calcium	ppm ASTM D5185m 1070	<b>1110</b>	1058	1079
Phosphorus	ppm ASTM D5185m 1150	<b>1045</b>	921	1047
Zinc	ppm ASTM D5185m 1270	<b>1310</b>	1199	1291
Sulfur	ppm ASTM D5185m 2060	<b>2604</b>	2320	2997

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>14</b>	12	12
Sodium	ppm ASTM D5185m	<b>11</b>	63	31
Potassium	ppm ASTM D5185m >20	<b>&lt;1</b>	2	15

## INFRA-RED

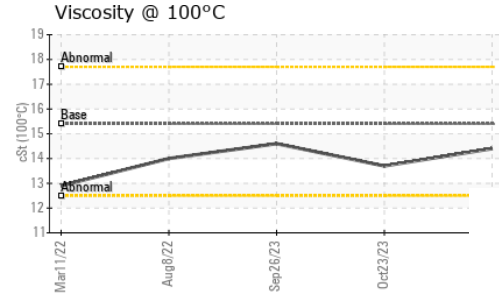
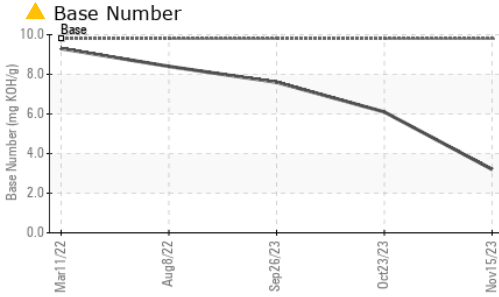
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >6	<b>1.6</b>	0.6	1.7
Nitration	Abs/cm *ASTM D7624 >20	<b>16.8</b>	9.4	13.1
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>30.1</b>	21.9	24.3

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>31.5</b>	18.8	21.2
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>3.2</b>	6.1	7.6



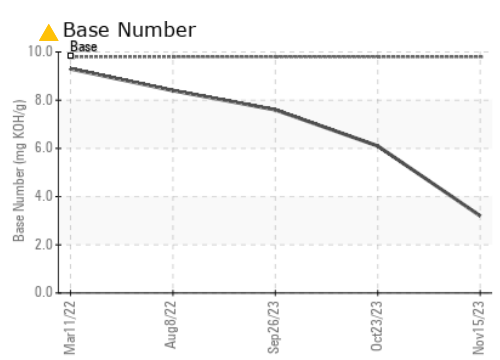
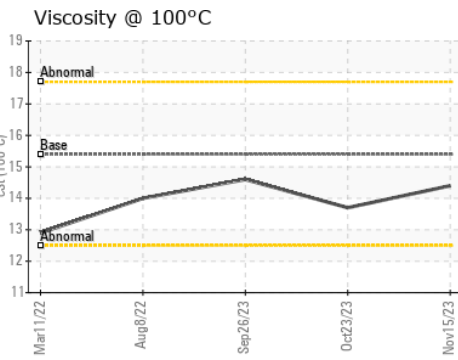
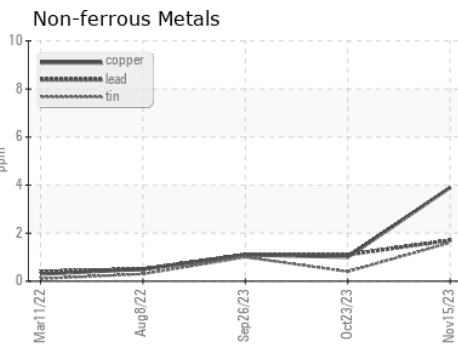
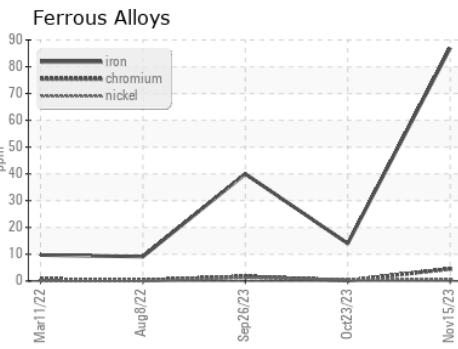
# OIL ANALYSIS REPORT



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	<b>14.4</b>	13.7	14.6

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0059245 **Received** : 17 Nov 2023  
**Lab Number** : **06010588** **Diagnosed** : 20 Nov 2023  
**Unique Number** : 10749732 **Diagnostician** : Don Baldrige  
**Test Package** : FLEET

**GFL Environmental - 410 - Michigan West**  
 39000 Van Born Rd  
 Wayne, MI  
 US 48184  
 Contact: Belal Dgheish  
 bdgheish@gflenv.com  
 T: (734)714-2340  
 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)