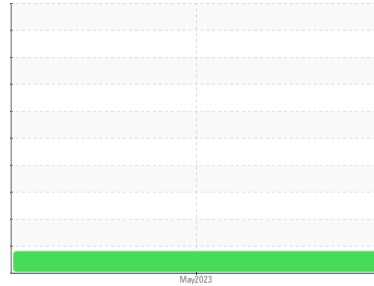


# PROBLEM SUMMARY

Sample Rating Trend



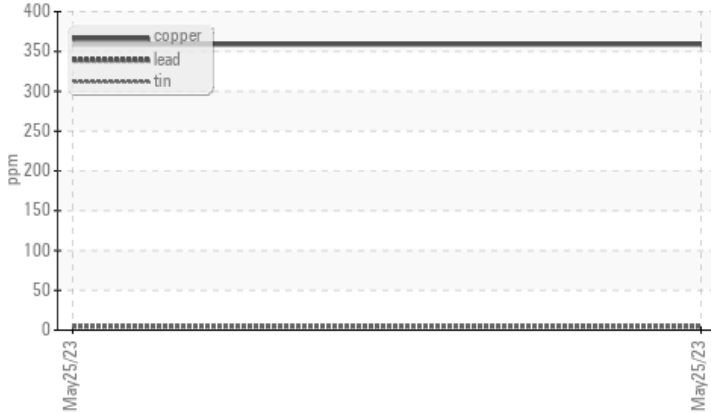
**WEAR**



Machine Id  
**2227005**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 10W30 (--- QTS)**

## COMPONENT CONDITION SUMMARY

### ▲ Non-ferrous Metals



## RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

Sample Status	ABNORMAL	---	---
Copper	ppm	ASTM D5185m	>330
	▲ 359	---	---

**Customer Id:** PERBRIDE  
**Sample No.:** PCA0099150  
**Lab Number:** 05930714  
**Test Package:** FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Sean Felton +1 919-379-4092  
[sfelton@wearcheckusa.com](mailto:sfelton@wearcheckusa.com)

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
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.

## HISTORICAL DIAGNOSIS

# OIL ANALYSIS REPORT

Sample Rating Trend



**WEAR**



Machine Id  
**2227005**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 10W30 (--- QTS)**

## DIAGNOSIS

### ▲ Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

### ▲ Wear

The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All other metal levels are typical for a new component breaking in.

### 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 acceptable for the time in service.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>PCA0099150</b>	---	---
Sample Date	Client Info	<b>25 May 2023</b>	---	---
Machine Age	mls Client Info	<b>19813</b>	---	---
Oil Age	mls Client Info	<b>0</b>	---	---
Oil Changed	Client Info	<b>Changed</b>	---	---
Sample Status		<b>ABNORMAL</b>	---	---

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<b>&lt;1.0</b>	---	---
Glycol	WC Method	<b>NEG</b>	---	---

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	<b>52</b>	---	---
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	---	---
Nickel	ppm ASTM D5185m >4	<b>1</b>	---	---
Titanium	ppm ASTM D5185m	<b>&lt;1</b>	---	---
Silver	ppm ASTM D5185m >3	<b>0</b>	---	---
Aluminum	ppm ASTM D5185m >20	<b>16</b>	---	---
Lead	ppm ASTM D5185m >40	<b>5</b>	---	---
Copper	ppm ASTM D5185m >330	<b>▲ 359</b>	---	---
Tin	ppm ASTM D5185m >15	<b>6</b>	---	---
Vanadium	ppm ASTM D5185m	<b>0</b>	---	---
Cadmium	ppm ASTM D5185m	<b>0</b>	---	---

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 2	<b>109</b>	---	---
Barium	ppm ASTM D5185m 0	<b>0</b>	---	---
Molybdenum	ppm ASTM D5185m 50	<b>124</b>	---	---
Manganese	ppm ASTM D5185m 0	<b>5</b>	---	---
Magnesium	ppm ASTM D5185m 950	<b>672</b>	---	---
Calcium	ppm ASTM D5185m 1050	<b>1499</b>	---	---
Phosphorus	ppm ASTM D5185m 995	<b>700</b>	---	---
Zinc	ppm ASTM D5185m 1180	<b>862</b>	---	---
Sulfur	ppm ASTM D5185m 2600	<b>2290</b>	---	---

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>57</b>	---	---
Sodium	ppm ASTM D5185m	<b>3</b>	---	---
Potassium	ppm ASTM D5185m >20	<b>57</b>	---	---

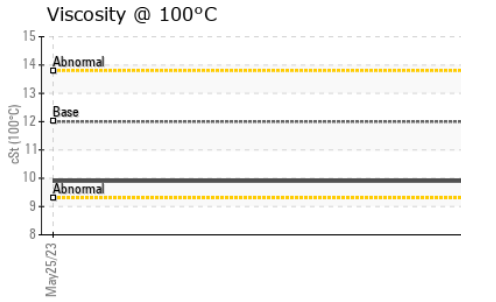
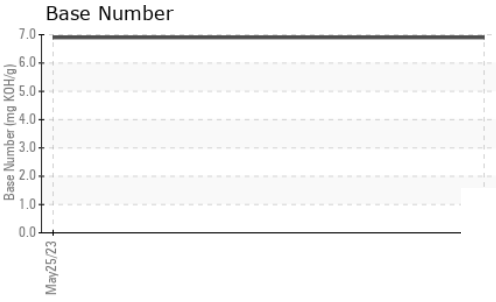
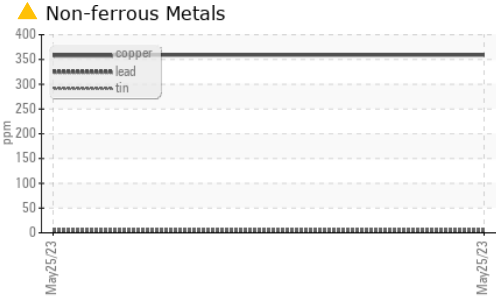
## INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.5</b>	---	---
Nitration	Abs/cm *ASTM D7624 >20	<b>12.0</b>	---	---
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>23.6</b>	---	---

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>24.2</b>	---	---
Base Number (BN)	mg KOH/g ASTM D2896	<b>6.9</b>	---	---

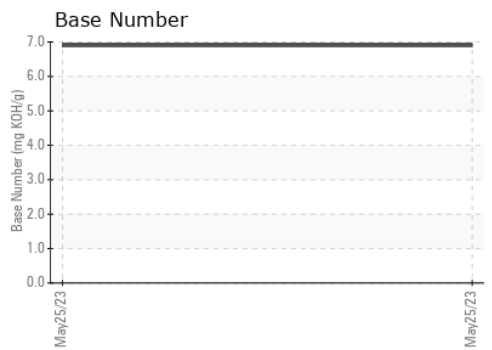
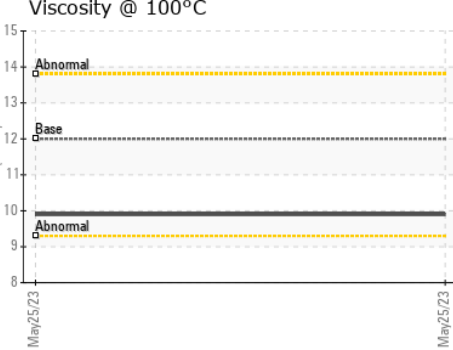
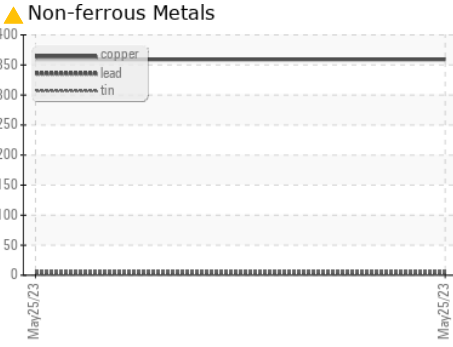
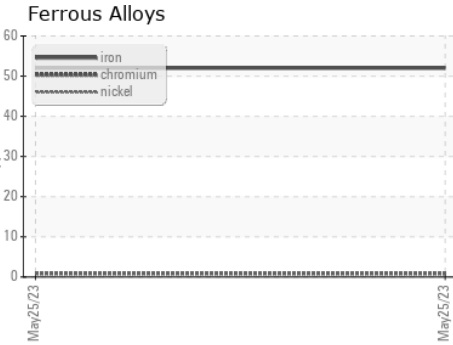
# OIL ANALYSIS REPORT



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	12.00	9.9	---

### GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0099150 **Received** : 22 Aug 2023  
**Lab Number** : 05930714 **Diagnosed** : 23 Aug 2023  
**Unique Number** : 10615985 **Diagnostician** : Sean Felton  
**Test Package** : FLEET

**PERDUE FARMS - BRIDGEVILLE**  
 8634 E NEWTON RD  
 BRIDGEVILLE, DE  
 US 19933  
 Contact: GEORGE LACATES

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)

T:  
F: