

# OIL ANALYSIS REPORT

Sample Rating Trend



**WEAR**



Machine Id  
**662010V**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 10W30 (--- QTS)**

## DIAGNOSIS

### ▲ Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

### ▲ Wear

Piston, ring and cylinder wear is indicated. All other component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### ▲ Fluid Condition

The oil viscosity is higher than normal. The BN result indicates that there is suitable alkalinity remaining in the oil.

## SAMPLE INFORMATION

	method	limit/base	current	history 1	history 2
Sample Number	Client Info		<b>PCA0097729</b>	---	---
Sample Date	Client Info		<b>22 May 2023</b>	---	---
Machine Age	mls	Client Info	<b>364177</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	history 1	history 2
Fuel	WC Method	>5	<b>&lt;1.0</b>	---	---
Glycol	WC Method		<b>NEG</b>	---	---

## WEAR METALS

	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m >100	<b>▲ 109</b>	---	---
Chromium	ppm	ASTM D5185m >20	<b>4</b>	---	---
Nickel	ppm	ASTM D5185m >4	<b>1</b>	---	---
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	---	---
Silver	ppm	ASTM D5185m >3	<b>&lt;1</b>	---	---
Aluminum	ppm	ASTM D5185m >20	<b>▲ 51</b>	---	---
Lead	ppm	ASTM D5185m >40	<b>&lt;1</b>	---	---
Copper	ppm	ASTM D5185m >330	<b>35</b>	---	---
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	---	---
Vanadium	ppm	ASTM D5185m	<b>0</b>	---	---
Cadmium	ppm	ASTM D5185m	<b>0</b>	---	---

## ADDITIVES

	method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m 2	<b>11</b>	---	---
Barium	ppm	ASTM D5185m 0	<b>3</b>	---	---
Molybdenum	ppm	ASTM D5185m 50	<b>36</b>	---	---
Manganese	ppm	ASTM D5185m 0	<b>2</b>	---	---
Magnesium	ppm	ASTM D5185m 950	<b>360</b>	---	---
Calcium	ppm	ASTM D5185m 1050	<b>2035</b>	---	---
Phosphorus	ppm	ASTM D5185m 995	<b>1077</b>	---	---
Zinc	ppm	ASTM D5185m 1180	<b>1221</b>	---	---
Sulfur	ppm	ASTM D5185m 2600	<b>3793</b>	---	---

## CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m >25	<b>11</b>	---	---
Sodium	ppm	ASTM D5185m	<b>2</b>	---	---
Potassium	ppm	ASTM D5185m >20	<b>11</b>	---	---

## INFRA-RED

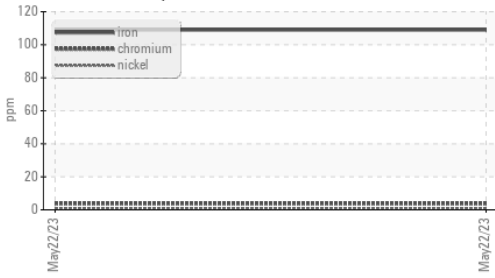
	method	limit/base	current	history 1	history 2
Soot %	%	*ASTM D7844 >3	<b>1</b>	---	---
Nitration	Abs/cm	*ASTM D7624 >20	<b>10.2</b>	---	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>22.5</b>	---	---

## FLUID DEGRADATION

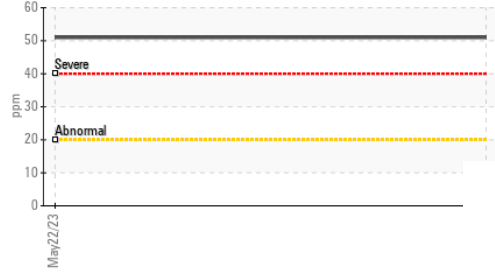
	method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>16.0</b>	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	<b>6.7</b>	---	---

# OIL ANALYSIS REPORT

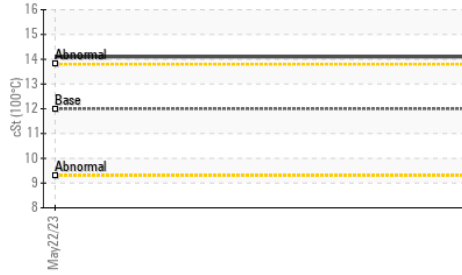
### ▲ Ferrous Alloys



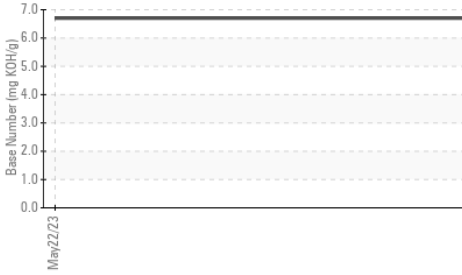
### ▲ Aluminum (ppm)



### ▲ Viscosity @ 100°C



### Base Number

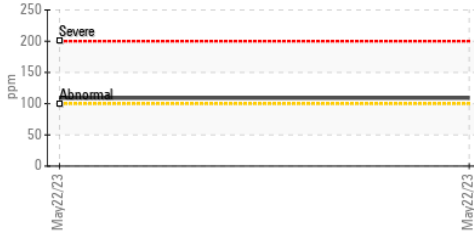


VISUAL	method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	*Visual NONE	<b>NONE</b>	---	---
Precipitate	scalar	*Visual NONE	<b>NONE</b>	---	---
Silt	scalar	*Visual NONE	<b>NONE</b>	---	---
Debris	scalar	*Visual NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	*Visual NONE	<b>NONE</b>	---	---
Appearance	scalar	*Visual NORML	<b>NORML</b>	---	---
Odor	scalar	*Visual NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	*Visual >0.2	<b>NEG</b>	---	---
Free Water	scalar	*Visual	<b>NEG</b>	---	---

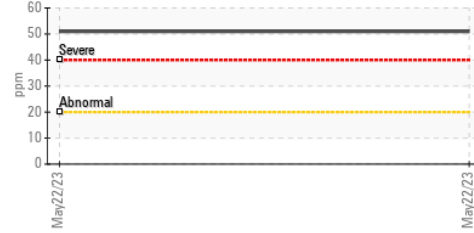
FLUID PROPERTIES	method	limit/base	current	history 1	history 2
Visc @ 100°C	cSt	ASTM D445 12.00	<b>▲ 14.1</b>	---	---

### GRAPHS

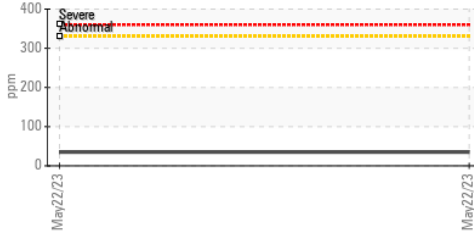
#### ▲ Iron (ppm)



#### ▲ Aluminum (ppm)



#### ▲ Copper (ppm)



#### ▲ Viscosity @ 100°C



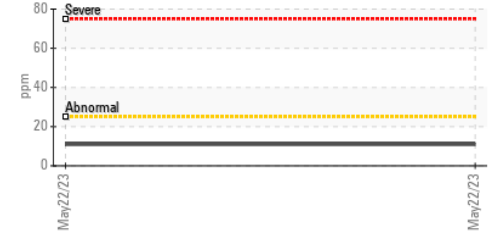
#### ▲ Lead (ppm)



#### ▲ Chromium (ppm)



#### ▲ Silicon (ppm)



#### ▲ Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0097729 **Received** : 03 Jul 2023  
**Lab Number** : 05888690 **Diagnosed** : 05 Jul 2023  
**Unique Number** : 10539173 **Diagnostician** : Don Baldrige  
**Test Package** : MOB 1 ( Additional Tests: TBN )

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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