

# OIL ANALYSIS REPORT

Sample Rating Trend


**DIRT**

 Machine Id  
**745852**

 Component  
**Diesel Engine**

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

## 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

All component wear rates are normal.

### ▲ Contamination

Elemental level of silicon (Si) above normal indicating ingress of seal material. Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components.

### 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>PCA0097360</b>	---	---
Sample Date	Client Info		<b>17 Nov 2023</b>	---	---
Machine Age	mls	Client Info	<b>27763</b>	---	---
Oil Age	mls	Client Info	<b>27763</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>	---	---
Water	WC Method	>0.2	<b>NEG</b>	---	---
Glycol	WC Method		<b>NEG</b>	---	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	<b>71</b>	---	---
Chromium	ppm	ASTM D5185m >20	<b>2</b>	---	---
Nickel	ppm	ASTM D5185m >4	<b>&lt;1</b>	---	---
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	---	---
Silver	ppm	ASTM D5185m >3	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m >20	<b>35</b>	---	---
Lead	ppm	ASTM D5185m >40	<b>5</b>	---	---
Copper	ppm	ASTM D5185m >330	<b>22</b>	---	---
Tin	ppm	ASTM D5185m >15	<b>4</b>	---	---
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	---	---
Cadmium	ppm	ASTM D5185m	<b>0</b>	---	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 2	<b>26</b>	---	---
Barium	ppm	ASTM D5185m 0	<b>6</b>	---	---
Molybdenum	ppm	ASTM D5185m 50	<b>13</b>	---	---
Manganese	ppm	ASTM D5185m 0	<b>7</b>	---	---
Magnesium	ppm	ASTM D5185m 950	<b>785</b>	---	---
Calcium	ppm	ASTM D5185m 1050	<b>1349</b>	---	---
Phosphorus	ppm	ASTM D5185m 995	<b>778</b>	---	---
Zinc	ppm	ASTM D5185m 1180	<b>866</b>	---	---
Sulfur	ppm	ASTM D5185m 2600	<b>2871</b>	---	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>▲ 45</b>	---	---
Sodium	ppm	ASTM D5185m	<b>6</b>	---	---
Potassium	ppm	ASTM D5185m >20	<b>110</b>	---	---

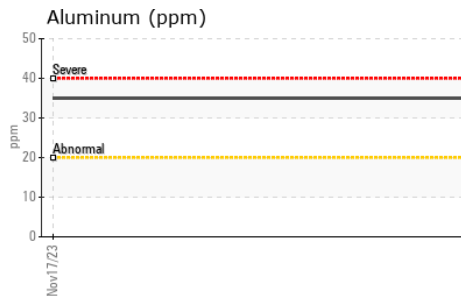
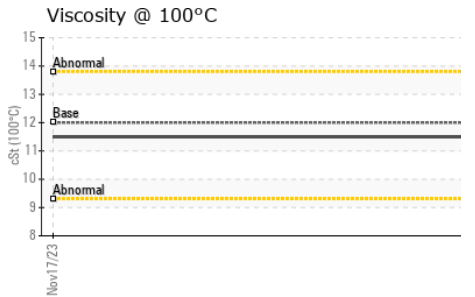
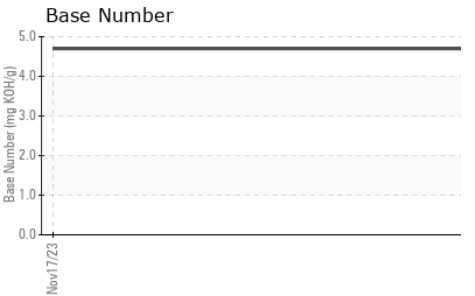
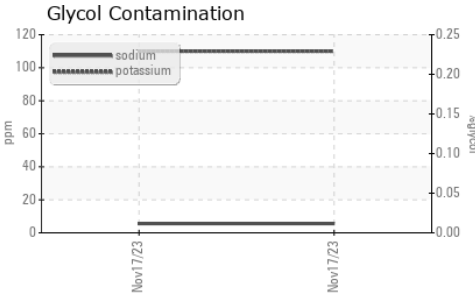
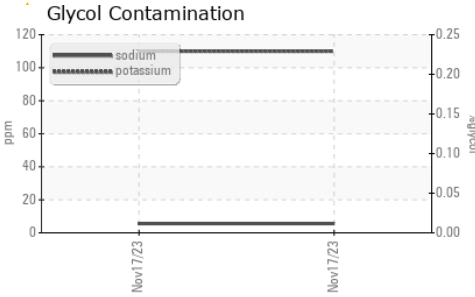
## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.3</b>	---	---
Nitration	Abs/cm	*ASTM D7624 >20	<b>11.6</b>	---	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>24.4</b>	---	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>23.3</b>	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	<b>4.7</b>	---	---

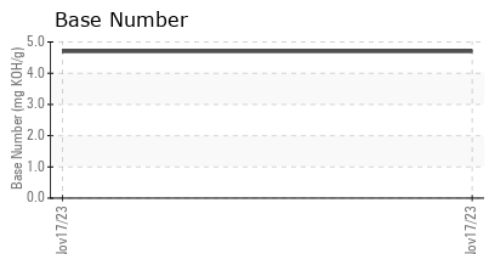
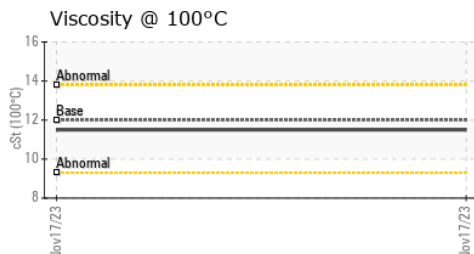
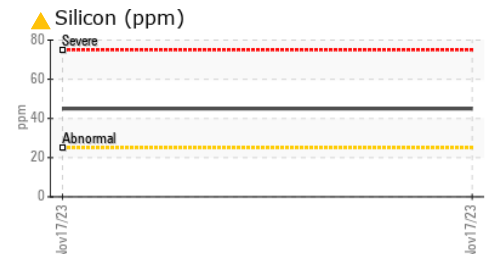
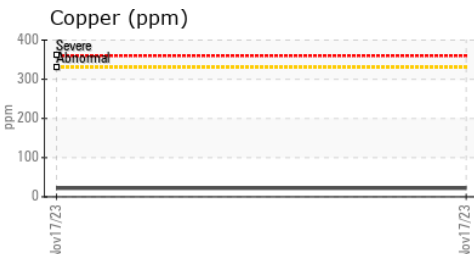
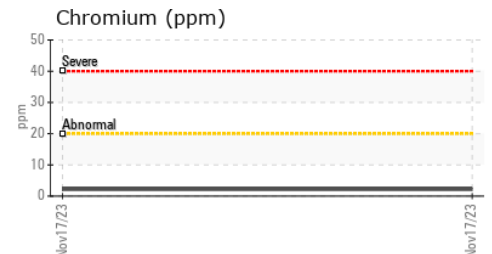
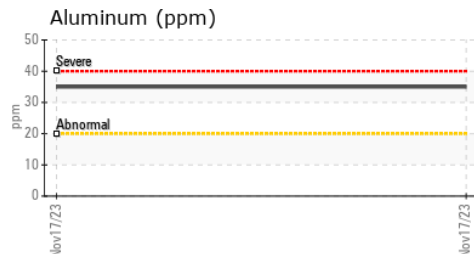
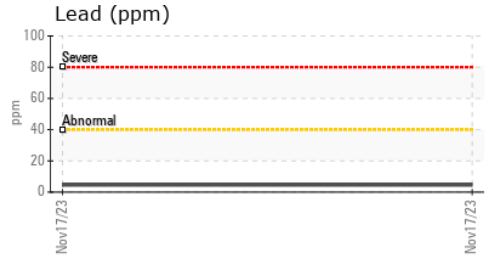
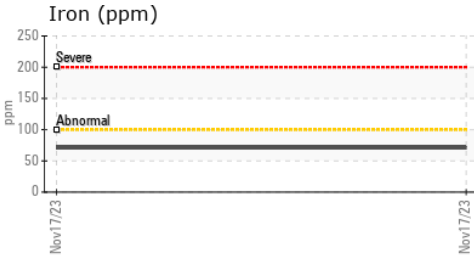
# OIL ANALYSIS REPORT



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	11.5	---

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0097360 **Received** : 29 Dec 2023  
**Lab Number** : 06047632 **Diagnosed** : 02 Jan 2024  
**Unique Number** : 10808240 **Diagnostician** : Don Baldrige  
**Test Package** : MOB 1 ( Additional Tests: TBN )

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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)