



Machine Id  
**25073 (P142)**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON HP 15W40 (--- GAL)**



**DIAGNOSIS**

**Recommendation**

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

**Wear**

Iron ppm levels are abnormal. Cylinder, crank, or cam shaft wear is indicated.

**Contamination**

There is no indication of any contamination in the oil.

**Fluid Condition**

The oil is no longer serviceable as a result of the abnormal and/or severe wear.

**SAMPLE INFORMATION** method limit/base current history1 history2

Sample Number	Client Info	<b>PC0075233</b>	---	---
Sample Date	Client Info	<b>30 Aug 2023</b>	---	---
Machine Age	hrs	Client Info	<b>7816</b>	---
Oil Age	hrs	Client Info	<b>0</b>	---
Oil Changed	Client Info	<b>Not Changed</b>	---	---
Sample Status		<b>ABNORMAL</b>	---	---

**CONTAMINATION** method limit/base current history1 history2

Fuel	WC Method	>3.0	<b>&lt;1.0</b>	---	---
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**WEAR METALS** method limit/base current history1 history2

PQ	ASTM D8184*		<b>0</b>	---	---
Iron	ppm	ASTM D5185(m)	>75	<b>▲ 79</b>	---
Chromium	ppm	ASTM D5185(m)	>5	<b>2</b>	---
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	---
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	---
Silver	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	---
Aluminum	ppm	ASTM D5185(m)	>15	<b>6</b>	---
Lead	ppm	ASTM D5185(m)	>25	<b>&lt;1</b>	---
Copper	ppm	ASTM D5185(m)	>100	<b>5</b>	---
Tin	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	---
Antimony	ppm	ASTM D5185(m)		<b>0</b>	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	---
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	---
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	---

**ADDITIVES** method limit/base current history1 history2

Boron	ppm	ASTM D5185(m)	0	<b>2</b>	---	---
Barium	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	---	---
Molybdenum	ppm	ASTM D5185(m)	60	<b>64</b>	---	---
Manganese	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	---	---
Magnesium	ppm	ASTM D5185(m)	1010	<b>986</b>	---	---
Calcium	ppm	ASTM D5185(m)	1070	<b>1078</b>	---	---
Phosphorus	ppm	ASTM D5185(m)	1150	<b>1028</b>	---	---
Zinc	ppm	ASTM D5185(m)	1270	<b>1244</b>	---	---
Sulfur	ppm	ASTM D5185(m)	2060	<b>2343</b>	---	---
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	---	---

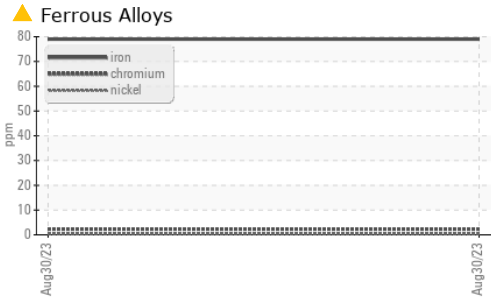
**CONTAMINANTS** method limit/base current history1 history2

Silicon	ppm	ASTM D5185(m)	>25	<b>15</b>	---	---
Sodium	ppm	ASTM D5185(m)		<b>18</b>	---	---
Potassium	ppm	ASTM D5185(m)	>20	<b>7</b>	---	---
Glycol	%	ASTM D7922*		<b>0.0</b>	---	---

**INFRA-RED** method limit/base current history1 history2

Soot %	%	ASTM D7844*	>6	<b>1.8</b>	---	---
Nitration	Abs/cm	ASTM D7624*	>20	<b>17.7</b>	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>36.9</b>	---	---

# OIL ANALYSIS REPORT

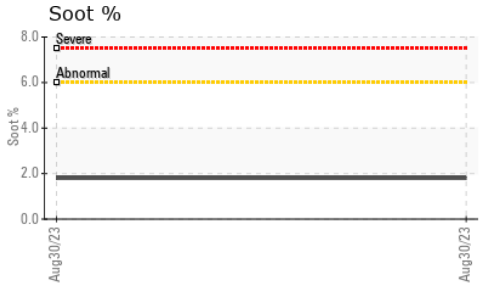
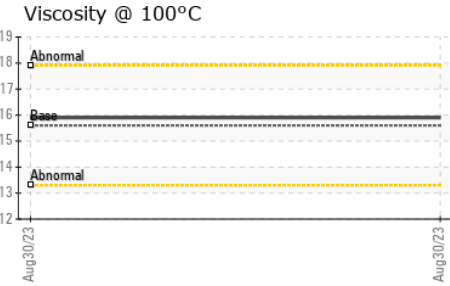
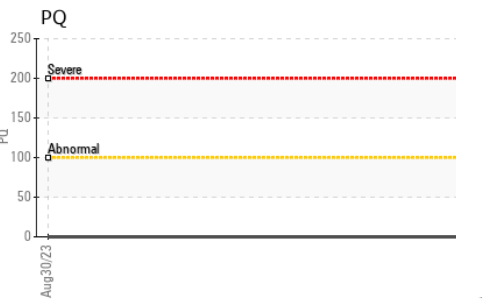
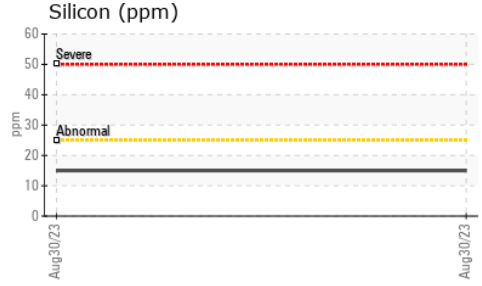
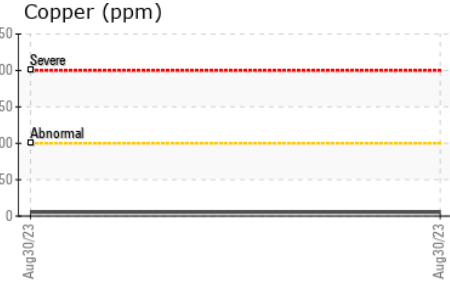
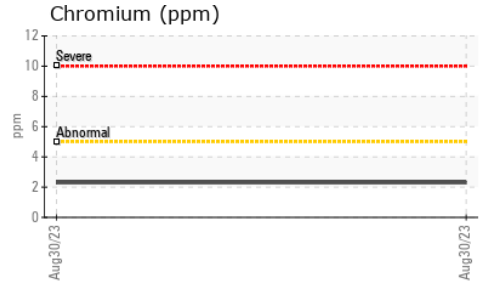
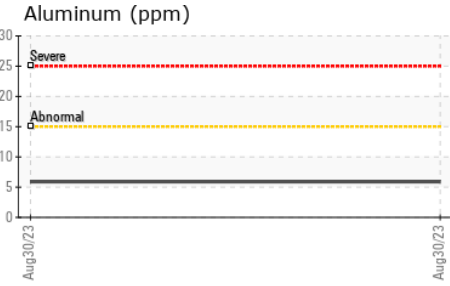
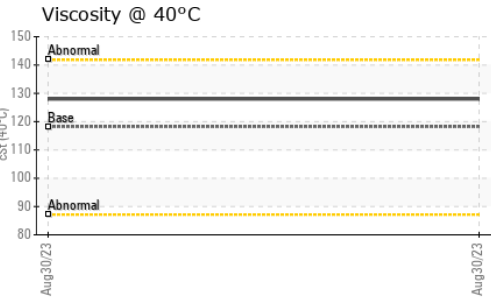
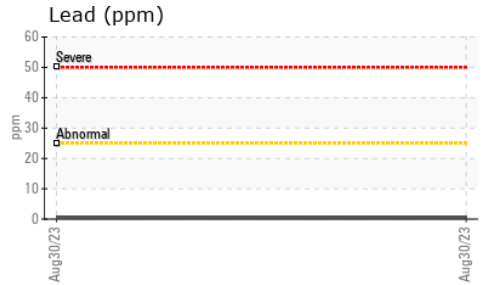
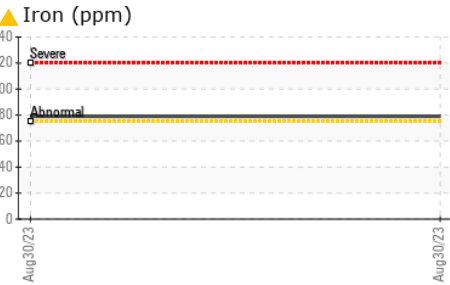
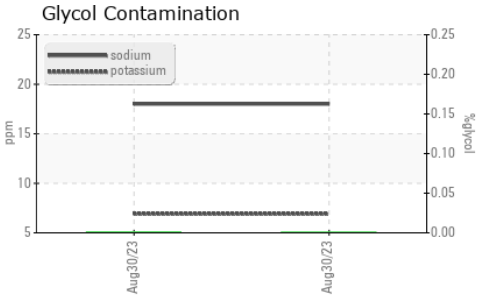


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>41.2</b>	---	---

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	---	---
Free Water	scalar	Visual*		<b>NEG</b>	---	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	118.2	<b>128</b>	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	<b>15.9</b>	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	139	<b>131</b>	---	---

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0075233 **Received** : 06 Nov 2023  
**Lab Number** : **02594121** **Diagnosed** : 07 Nov 2023  
**Unique Number** : 5671200 **Diagnostician** : Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: Glycol, KV40, PQ, VI )

**TORONTO FIRE SERVICES**  
 40 TORYORK DRIVE  
 TORONTO, ON  
 CA M9L 1X6  
 Contact: Eric Landman  
 elandma@toronto.ca  
 T: (416)338-9237  
 F: (416)540-7729

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.