

# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**KENWORTH 2046**

Component  
**Diesel Engine**

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

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

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. There is no indication of any contamination in the oil.

### Fluid Condition

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>PC0075839</b>	---	---
Sample Date	Client Info			<b>17 Aug 2023</b>	---	---
Machine Age	kms	Client Info		<b>143500</b>	---	---
Oil Age	kms	Client Info		<b>25000</b>	---	---
Oil Changed	Client Info			<b>Changed</b>	---	---
Sample Status				<b>NORMAL</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 D5185(m)	>100	<b>33</b>	---	---
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	---	---
Nickel	ppm	ASTM D5185(m)	>4	<b>0</b>	---	---
Titanium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Silver	ppm	ASTM D5185(m)	>3	<b>&lt;1</b>	---	---
Aluminum	ppm	ASTM D5185(m)	>20	<b>23</b>	---	---
Lead	ppm	ASTM D5185(m)	>40	<b>&lt;1</b>	---	---
Copper	ppm	ASTM D5185(m)	>330	<b>2</b>	---	---
Tin	ppm	ASTM D5185(m)	>15	<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>	---	---

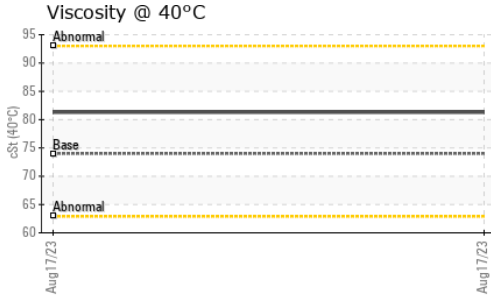
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	1	<b>3</b>	---	---
Barium	ppm	ASTM D5185(m)	1	<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185(m)	1	<b>61</b>	---	---
Manganese	ppm	ASTM D5185(m)	1	<b>0</b>	---	---
Magnesium	ppm	ASTM D5185(m)	10	<b>991</b>	---	---
Calcium	ppm	ASTM D5185(m)	2942	<b>1132</b>	---	---
Phosphorus	ppm	ASTM D5185(m)	1102	<b>1019</b>	---	---
Zinc	ppm	ASTM D5185(m)	1351	<b>1246</b>	---	---
Sulfur	ppm	ASTM D5185(m)	3903	<b>2389</b>	---	---
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	<b>6</b>	---	---
Sodium	ppm	ASTM D5185(m)		<b>3</b>	---	---
Potassium	ppm	ASTM D5185(m)	>20	<b>51</b>	---	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	<b>0.4</b>	---	---
Nitration	Abs/cm	ASTM D7624*	>20	<b>9.3</b>	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>20.4</b>	---	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>16.5</b>	---	---

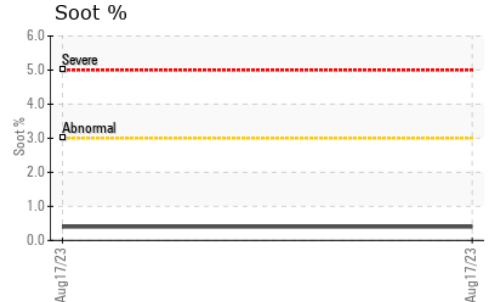
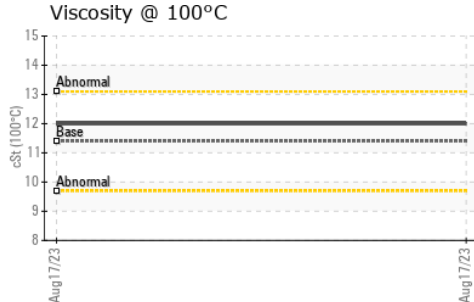
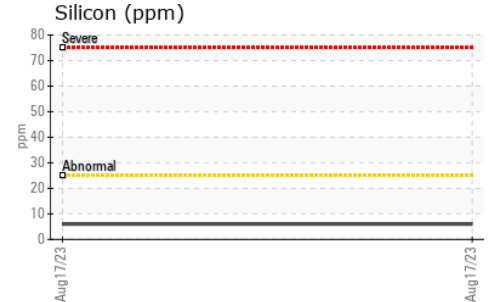
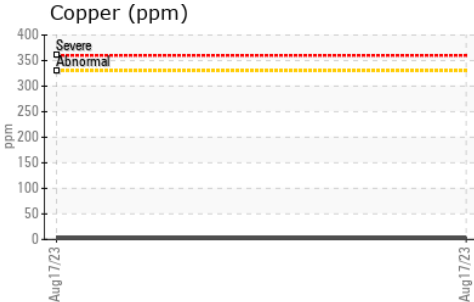
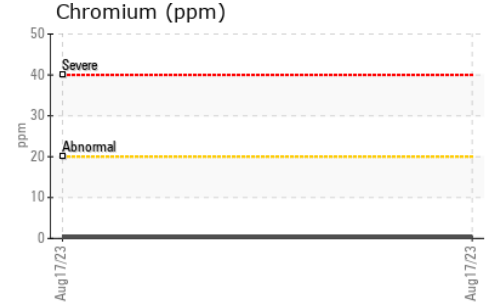
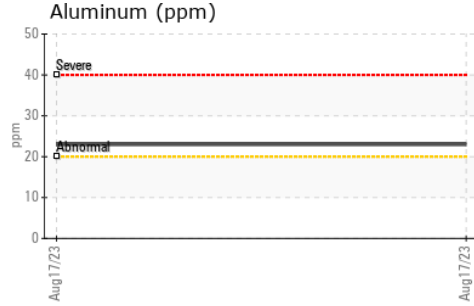
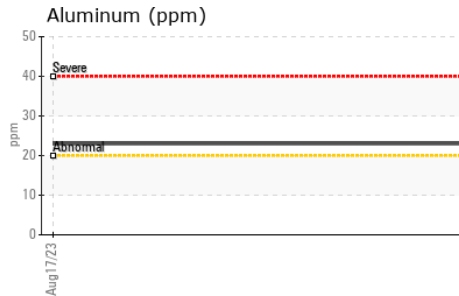
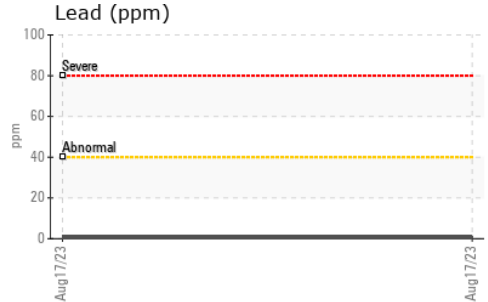
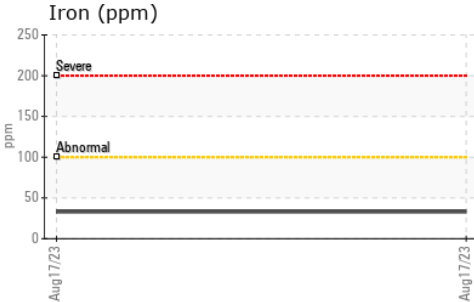
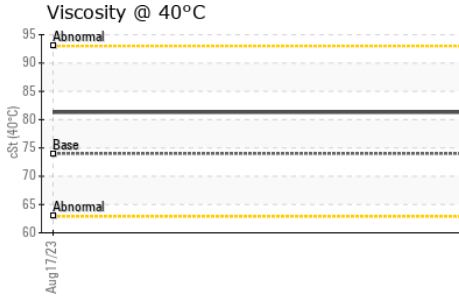
# OIL ANALYSIS REPORT



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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	74.0	<b>81.3</b>	---
Visc @ 100°C	cSt	ASTM D7279(m)	11.4	<b>12.0</b>	---
Viscosity Index (VI)	Scale	ASTM D2270*	146	<b>142</b>	---

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0075839 **Received** : 25 Sep 2023  
**Lab Number** : **02584819** **Diagnosed** : 25 Sep 2023  
**Unique Number** : 5645884 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: KV40, VI )

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 Contact: Steve M.  
 stevem@bfregeau.com

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.