



# OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id

**7503**

Component

**Diesel Engine**

Fluid

**DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

## DIAGNOSIS

### ▲ Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

### Wear

Metal levels are typical for a new component breaking in.

### ▲ 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. Light fuel dilution occurring.

### ▲ Fluid Condition

Fuel is present in the oil and is lowering the viscosity. 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>WC0796585</b>	---	---
Sample Date	Client Info		<b>16 Nov 2023</b>	---	---
Machine Age	kms	Client Info	<b>70706</b>	---	---
Oil Age	kms	Client Info	<b>0</b>	---	---
Oil Changed	Client Info		<b>Changed</b>	---	---
Sample Status			<b>ABNORMAL</b>	---	---

## CONTAMINATION

	method	limit/base	current	history1	history2
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 D5185(m)	>90	<b>25</b>	---
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	---
Nickel	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	---
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	---
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	---
Aluminum	ppm	ASTM D5185(m)	>20	<b>14</b>	---
Lead	ppm	ASTM D5185(m)	>40	<b>&lt;1</b>	---
Copper	ppm	ASTM D5185(m)	>330	<b>3</b>	---
Tin	ppm	ASTM D5185(m)	>15	<b>0</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)	250	<b>45</b>	---
Barium	ppm	ASTM D5185(m)	10	<b>0</b>	---
Molybdenum	ppm	ASTM D5185(m)	100	<b>2</b>	---
Manganese	ppm	ASTM D5185(m)		<b>0</b>	---
Magnesium	ppm	ASTM D5185(m)	450	<b>717</b>	---
Calcium	ppm	ASTM D5185(m)	3000	<b>1322</b>	---
Phosphorus	ppm	ASTM D5185(m)	1150	<b>652</b>	---
Zinc	ppm	ASTM D5185(m)	1350	<b>730</b>	---
Sulfur	ppm	ASTM D5185(m)	4250	<b>2566</b>	---
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	<b>5</b>	---
Sodium	ppm	ASTM D5185(m)	>158	<b>3</b>	---
Potassium	ppm	ASTM D5185(m)	>20	<b>18</b>	---
Fuel	%	ASTM D7593*	>3.0	<b>▲ 2.1</b>	---

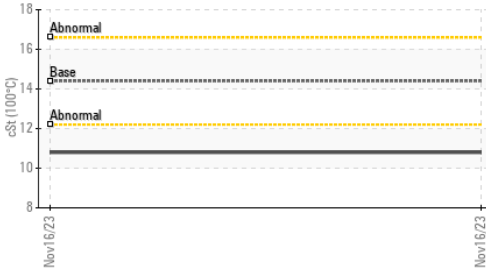
## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>6	<b>0.1</b>	---
Nitration	Abs/cm	ASTM D7624*	>20	<b>10.1</b>	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>21.3</b>	---



# OIL ANALYSIS REPORT

### ▲ Viscosity @ 100°C



### FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs./1mm ASTM D7414*	>25	17.3	---

### VISUAL

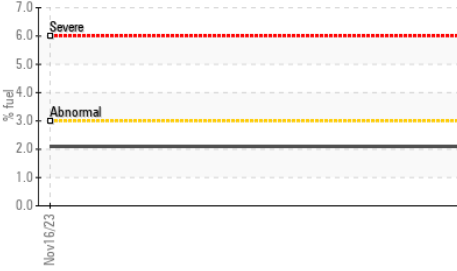
method	limit/base	current	history1	history2
Emulsified Water	scalar Visual*	>0.2	NEG	---
Free Water	scalar Visual*		NEG	---

### FLUID PROPERTIES

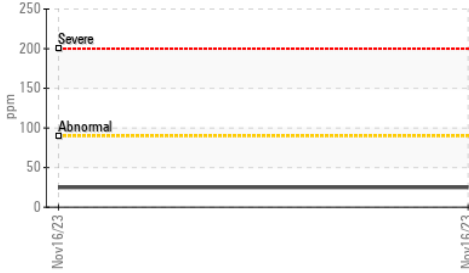
method	limit/base	current	history1	history2
Visc @ 100°C	cSt ASTM D7279(m)	14.4	▲ 10.8	---

### GRAPHS

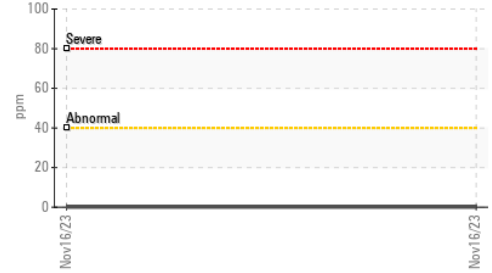
### ▲ Fuel Dilution



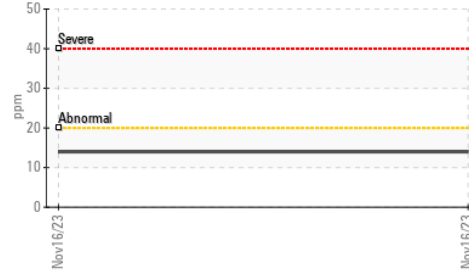
### Iron (ppm)



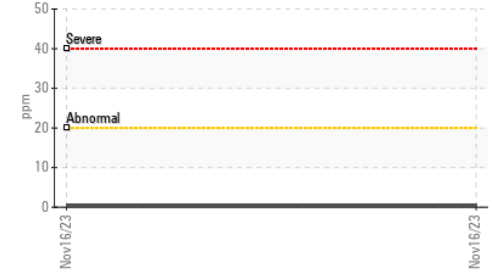
### Lead (ppm)



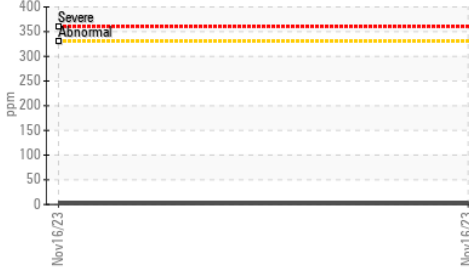
### Aluminum (ppm)



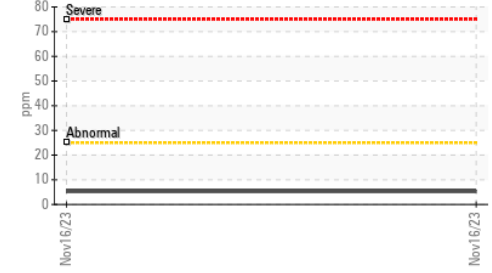
### Chromium (ppm)



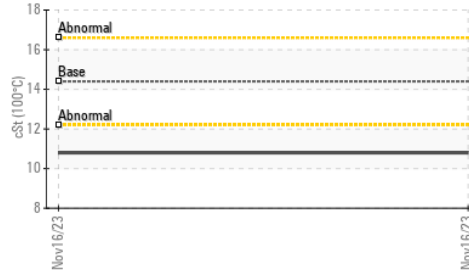
### Copper (ppm)



### Silicon (ppm)



### ▲ Viscosity @ 100°C



### ▲ Fuel Dilution



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0796585 **Received** : 09 Jan 2024  
**Lab Number** : 02607460 **Diagnosed** : 10 Jan 2024  
**Unique Number** : 5708546 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, PercentFuel )

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.

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