



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area  
**CN RAIL [152552]**

Machine Id  
**G1**

Component  
**Diesel Engine**

Fluid  
**VALVOLINE PREMIUM BLUE EXTREME 5W40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>CU0022452</b>	---	---
Sample Date		Client Info		<b>08 Jan 2024</b>	---	---
Machine Age	hrs	Client Info		<b>1450</b>	---	---
Oil Age	hrs	Client Info		<b>0</b>	---	---
Filter Age	hrs	Client Info		<b>0</b>	---	---
Oil Changed		Client Info		<b>Changed</b>	---	---
Filter Changed		Client Info		<b>Changed</b>	---	---
Sample Status				<b>NORMAL</b>	---	---

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>90	<b>33</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>2</b>	---	---
Lead	ppm	ASTM D5185(m)	>40	<b>6</b>	---	---
Copper	ppm	ASTM D5185(m)	>330	<b>99</b>	---	---
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	---	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	---	---

## CONTAMINATION

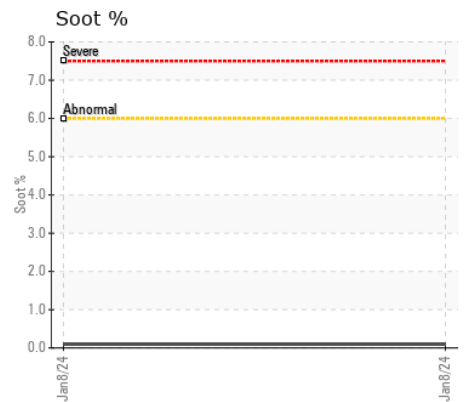
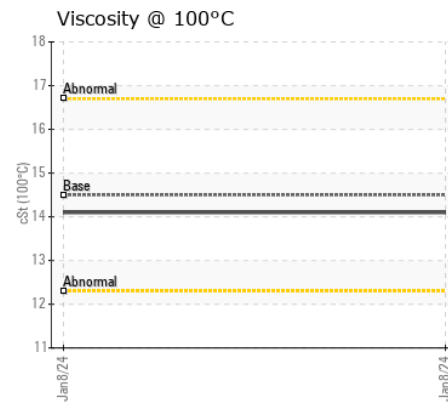
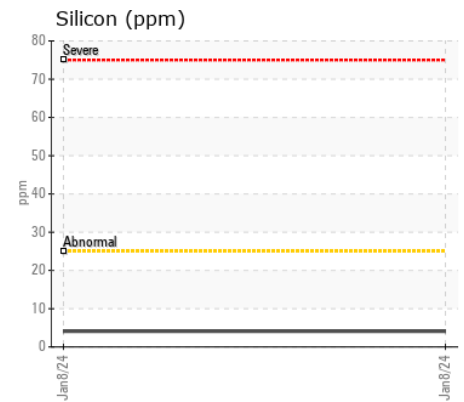
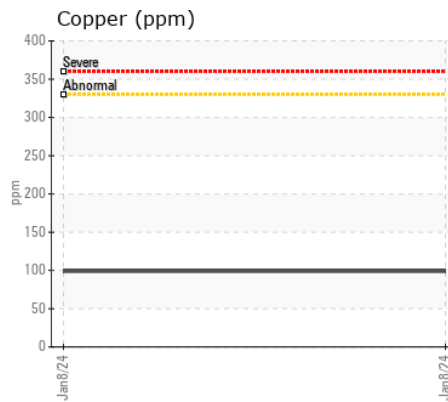
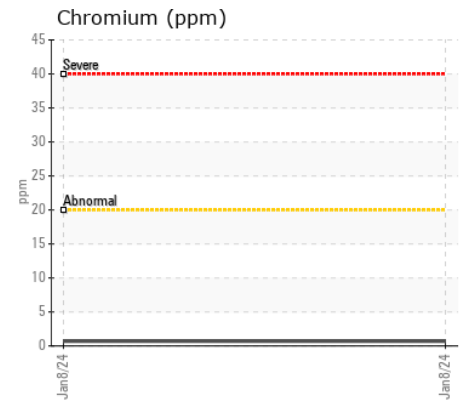
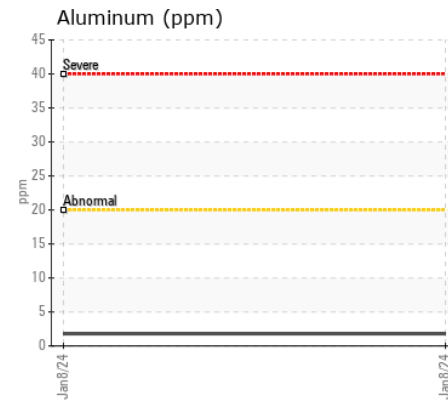
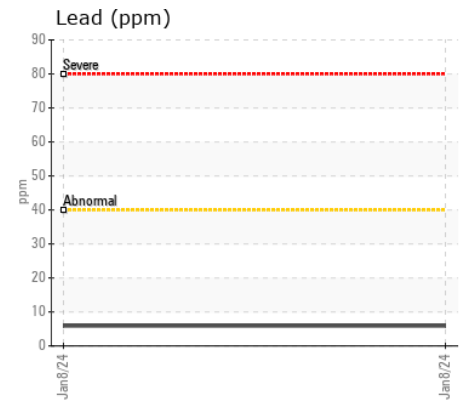
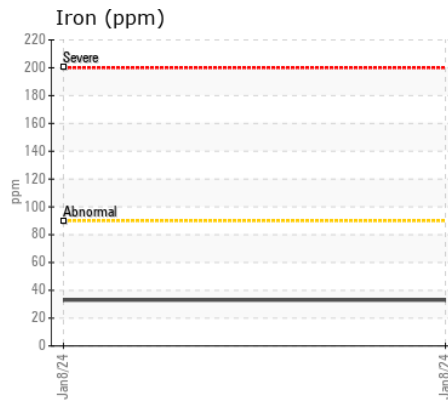
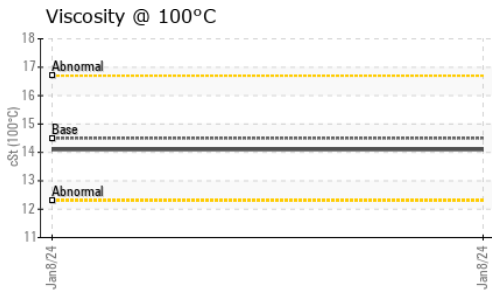
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>4</b>	---	---
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	---	---
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	---	---
Water		WC Method	>0.2	<b>NEG</b>	---	---
Glycol		WC Method		<b>NEG</b>	---	---
Soot %	%	ASTM D7844*	>6	<b>0.1</b>	---	---
Nitration	Abs/cm	ASTM D7624*	>20	<b>12.0</b>	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>24.3</b>	---	---
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	---	---

## FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		<b>5</b>	---	---
Boron	ppm	ASTM D5185(m)		<b>29</b>	---	---
Barium	ppm	ASTM D5185(m)		<b>&lt;1</b>	---	---
Molybdenum	ppm	ASTM D5185(m)		<b>66</b>	---	---
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	---	---
Magnesium	ppm	ASTM D5185(m)		<b>1154</b>	---	---
Calcium	ppm	ASTM D5185(m)		<b>884</b>	---	---
Phosphorus	ppm	ASTM D5185(m)		<b>987</b>	---	---
Zinc	ppm	ASTM D5185(m)		<b>1239</b>	---	---
Sulfur	ppm	ASTM D5185(m)		<b>2603</b>	---	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>27.6</b>	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	14.5	<b>14.1</b>	---	---



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 CUMMINS CANADA ULC - GENERATOR DIVISION  
**Sample No.** : CU0022452 **Received** : 22 Jan 2024 7175 PACIFIC CIRCLE  
**Lab Number** : 02610142 **Diagnosed** : 22 Jan 2024 MISSISSAUGA, ON  
**Unique Number** : 5711228 **Diagnostician** : Kevin Marson CA L5T 2A5  
**Test Package** : MOB 1

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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