



# OIL ANALYSIS REPORT

Sample Rating Trend

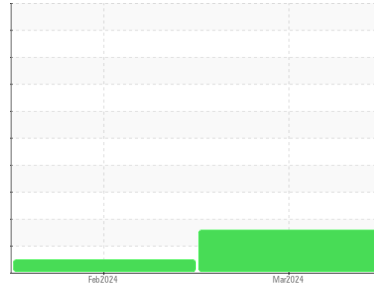
**WATER**



Machine Id  
**2359**

Component  
**Natural Gas Engine**

Fluid  
**VALVOLINE PREMIUM BLUE 9200 15W40 (--- GAL)**



## DIAGNOSIS

### Recommendation

We advise that you check for the source of water entry. 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. Please specify the component make and model with your next sample.

### Wear

All component wear rates are normal.

### Contamination

There is a moderate concentration of water present in the oil. Test for glycol is negative.

### Fluid Condition

The oil is no longer serviceable due to the presence of contaminants.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>WC0890882</b>	WC0890996	---
Sample Date	Client Info	<b>21 Mar 2024</b>	09 Feb 2024	---
Machine Age	kms	Client Info	<b>141119</b>	5856
Oil Age	kms	Client Info	<b>0</b>	0
Oil Changed	Client Info	<b>N/A</b>	N/A	---
Sample Status		<b>ABNORMAL</b>	NORMAL	---

## WEAR METALS

method	limit/base	current	history1	history2		
Iron	ppm	ASTM D5185(m)	>50	<b>4</b>	33	---
Chromium	ppm	ASTM D5185(m)	>4	<b>0</b>	<1	---
Nickel	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	<1	---
Titanium	ppm	ASTM D5185(m)		<b>0</b>	11	---
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185(m)	>9	<b>&lt;1</b>	4	---
Lead	ppm	ASTM D5185(m)	>30	<b>0</b>	1	---
Copper	ppm	ASTM D5185(m)	>35	<b>&lt;1</b>	14	---
Tin	ppm	ASTM D5185(m)	>4	<b>0</b>	<1	---
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	---

## ADDITIVES

method	limit/base	current	history1	history2		
Boron	ppm	ASTM D5185(m)		<b>46</b>	45	---
Barium	ppm	ASTM D5185(m)		<b>0</b>	2	---
Molybdenum	ppm	ASTM D5185(m)		<b>46</b>	36	---
Manganese	ppm	ASTM D5185(m)		<b>0</b>	12	---
Magnesium	ppm	ASTM D5185(m)		<b>780</b>	663	---
Calcium	ppm	ASTM D5185(m)		<b>1099</b>	1310	---
Phosphorus	ppm	ASTM D5185(m)		<b>652</b>	710	---
Zinc	ppm	ASTM D5185(m)		<b>782</b>	780	---
Sulfur	ppm	ASTM D5185(m)		<b>1869</b>	2642	---
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	---

## CONTAMINANTS

method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185(m)	>+100	<b>5</b>	42	---
Sodium	ppm	ASTM D5185(m)		<b>3</b>	4	---
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	4	---
Water	%	ASTM D6304*	>0.1	<b>▲ 0.524</b>	---	---
ppm Water	ppm	ASTM D6304*	>1000	<b>▲ 5248</b>	---	---
Glycol	%	ASTM D7922*		<b>0.0</b>	---	---

## INFRA-RED

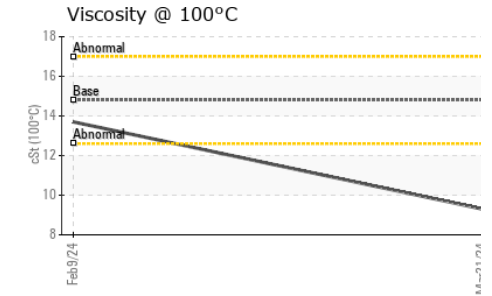
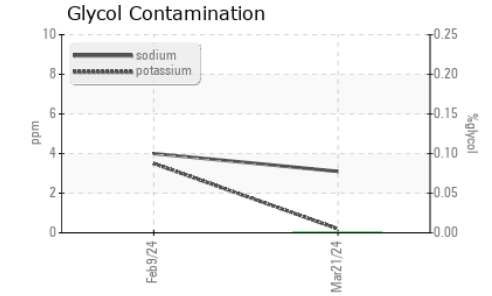
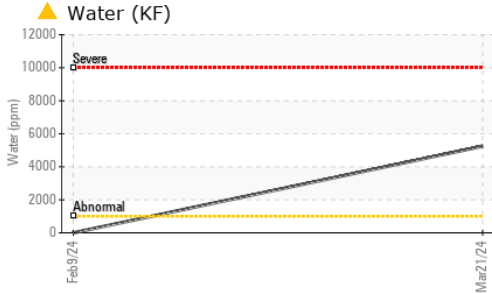
method	limit/base	current	history1	history2		
Soot %	%	ASTM D7844*		<b>0</b>	0	---
Nitration	Abs/cm	ASTM D7624*	>20	<b>7.6</b>	9.6	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>18.4</b>	19.9	---

## FLUID DEGRADATION

method	limit/base	current	history1	history2		
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>16.5</b>	14.5	---



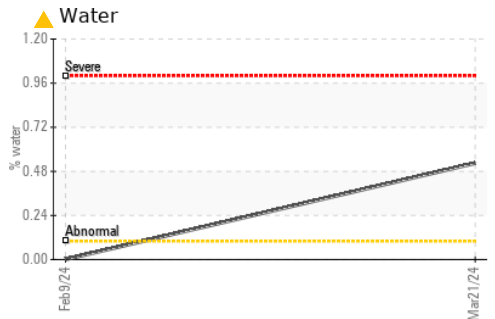
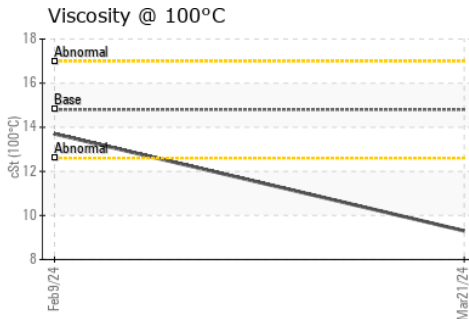
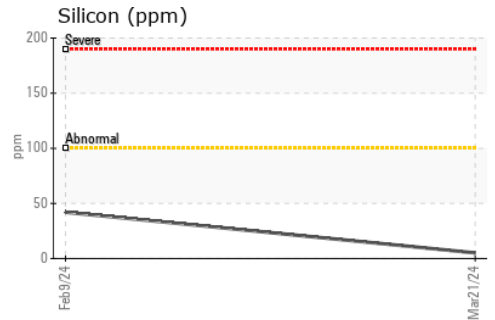
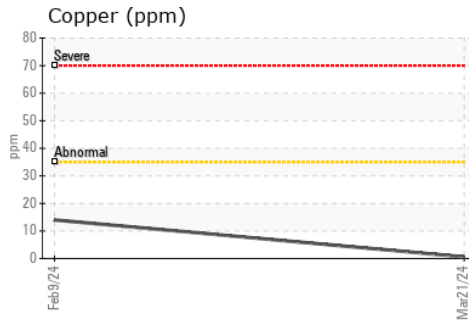
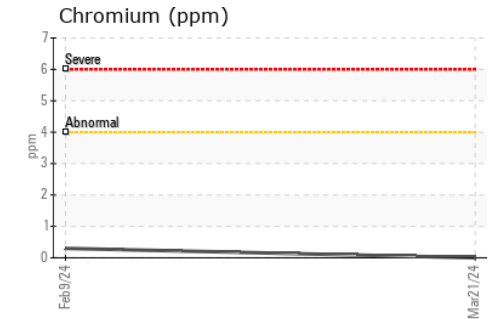
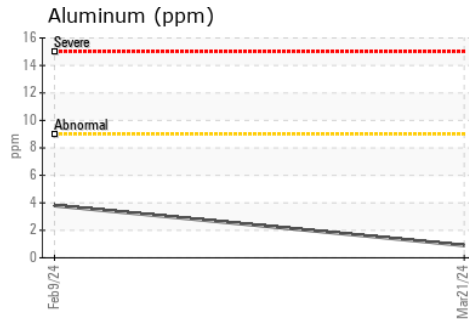
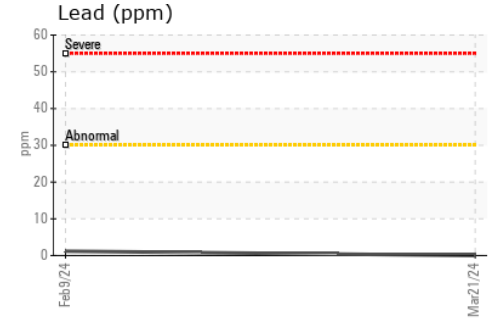
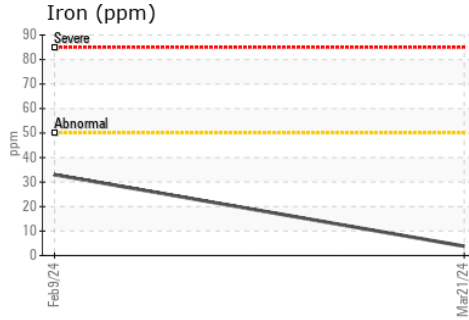
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.1	▲ .2%	NEG
Free Water	scalar	Visual*		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	14.8	9.3	13.7

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0890882 **Received** : 26 Mar 2024  
**Lab Number** : 02624652 **Tested** : 27 Mar 2024  
**Unique Number** : 5749771 **Diagnosed** : 27 Mar 2024 - Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: Glycol, KF )

**CITY OF HAMILTON**  
 2200 UPPER JAMES., MOUNTAIN TRANSIT STOREROOM  
 MOUNT HOPE, ON  
 CA L0R 1W0  
 Contact: Jeff Parr  
 jeff.parr@hamilton.ca  
 T: (905)546-2424  
 F: (905)679-4502

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.