



# OIL ANALYSIS REPORT

Sample Rating Trend

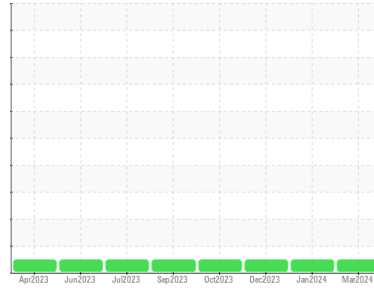
**NORMAL**



Machine Id  
**2224**

Component  
**Natural Gas Engine**

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



## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

### Wear

Metal levels are typical for a new component breaking in.

### Contamination

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>WC0877979</b>	WC0891066	WC0849893
Sample Date	Client Info		<b>05 Mar 2024</b>	25 Jan 2024	07 Dec 2023
Machine Age	kms	Client Info	<b>64948</b>	55676	47117
Oil Age	kms	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>50	<b>8</b>	9	9
Chromium	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>9	<b>2</b>	1	1
Lead	ppm	ASTM D5185(m)	>30	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>35	<b>&lt;1</b>	1	1
Tin	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	0	0
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)		<b>15</b>	14	13
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185(m)		<b>55</b>	55	55
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)		<b>795</b>	804	800
Calcium	ppm	ASTM D5185(m)		<b>1237</b>	1274	1257
Phosphorus	ppm	ASTM D5185(m)		<b>664</b>	695	666
Zinc	ppm	ASTM D5185(m)		<b>874</b>	891	893
Sulfur	ppm	ASTM D5185(m)		<b>2111</b>	2110	1970
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>+100	<b>4</b>	5	9
Sodium	ppm	ASTM D5185(m)		<b>3</b>	3	3
Potassium	ppm	ASTM D5185(m)	>20	<b>1</b>	<1	0

## INFRA-RED

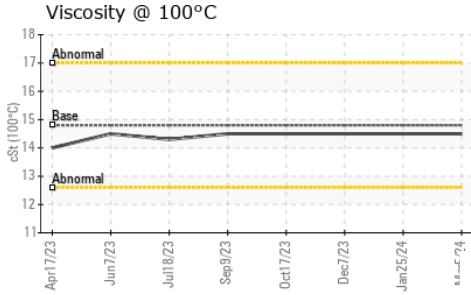
	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*		<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>11.7</b>	12.4	12.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>21.5</b>	22.3	21.8

## FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>19.2</b>	19.7	19.7



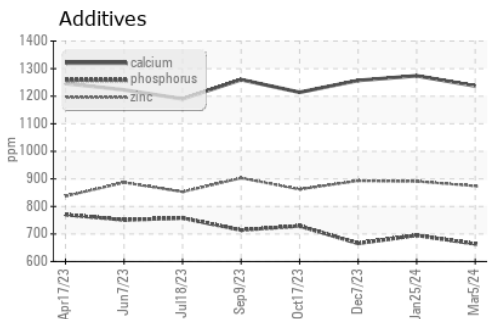
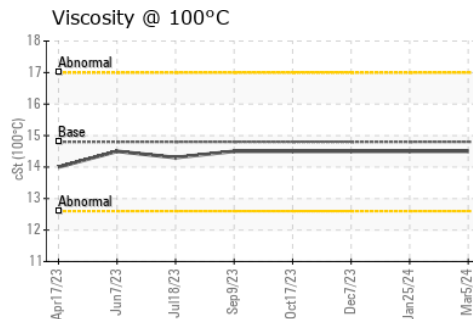
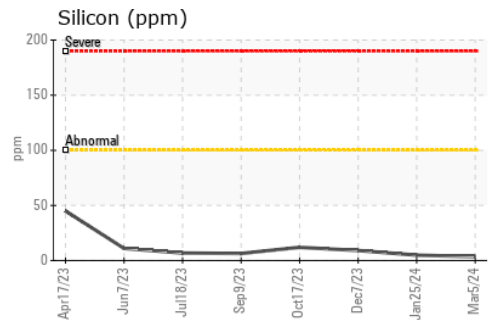
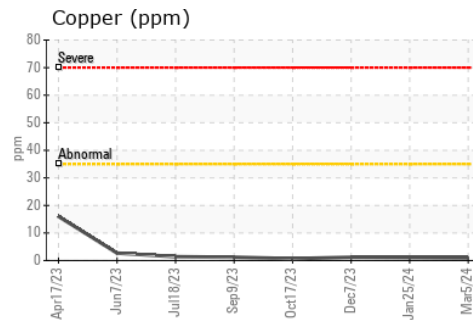
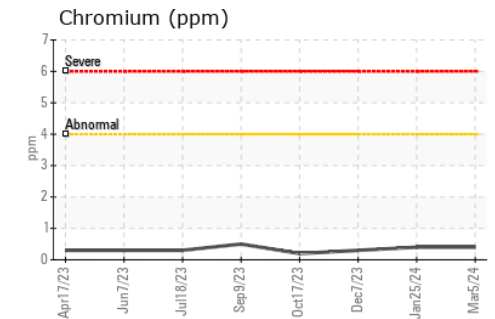
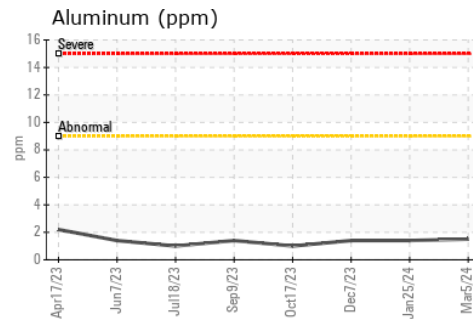
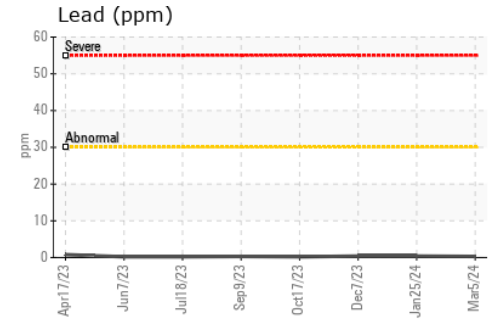
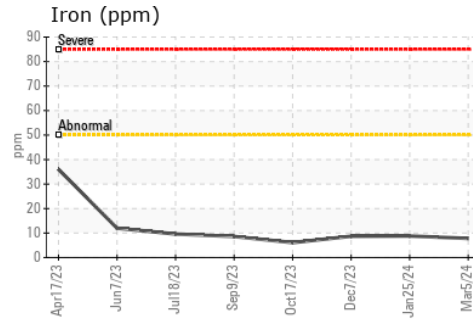
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	14.8	14.5	14.5

## GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
 Sample No. : WC0877979  
 Lab Number : 02621742  
 Unique Number : 5746861  
 Test Package : MOB 1  
 Received : 13 Mar 2024  
 Tested : 13 Mar 2024  
 Diagnosed : 13 Mar 2024 - Wes Davis

**CITY OF HAMILTON**  
 2200 UPPER JAMES., MOUNTAIN TRANSIT STOREROOM  
 MOUNT HOPE, ON  
 CA L0R 1W0  
 Contact: Cliff Bird  
 cliff.bird@hamilton.ca  
 T:  
 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.