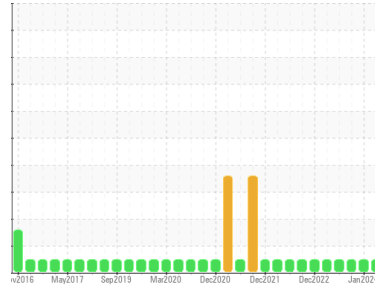




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**NOVA BUS 1617**

Component  
**Natural Gas Engine**

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

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### 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>WC0917535</b>	WC0891154	WC0849781	
Sample Date	Client Info	<b>24 Mar 2024</b>	03 Jan 2024	28 Sep 2023	
Machine Age	kms	Client Info	<b>485383</b>	468715	0
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>10</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	0
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>1</b>	2	1
Lead	ppm	ASTM D5185(m) >30	<b>&lt;1</b>	2	2
Copper	ppm	ASTM D5185(m) >35	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185(m) >4	<b>0</b>	<1	<1
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>18</b>	19	16
Barium	ppm	ASTM D5185(m)	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185(m)	<b>58</b>	53	56
Manganese	ppm	ASTM D5185(m)	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)	<b>940</b>	841	898
Calcium	ppm	ASTM D5185(m)	<b>1357</b>	1259	1361
Phosphorus	ppm	ASTM D5185(m)	<b>788</b>	710	763
Zinc	ppm	ASTM D5185(m)	<b>935</b>	886	966
Sulfur	ppm	ASTM D5185(m)	<b>2014</b>	2067	2012
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>3</b>	4	4
Sodium	ppm	ASTM D5185(m)	<b>3</b>	4	4
Potassium	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	0	0

## INFRA-RED

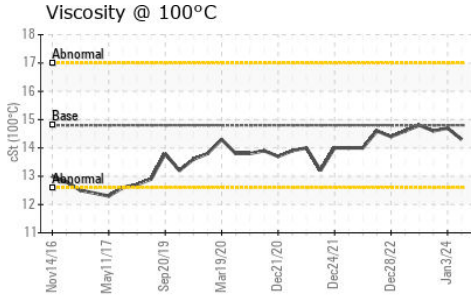
method	limit/base	current	history1	history2		
Soot %	%	ASTM D7844*	<b>0</b>	0	0	
Nitration	Abs/cm	ASTM D7624*	>20	<b>12.1</b>	11.1	11.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>23.7</b>	24.1	23.8

## FLUID DEGRADATION

method	limit/base	current	history1	history2		
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>19.9</b>	20.9	20.0



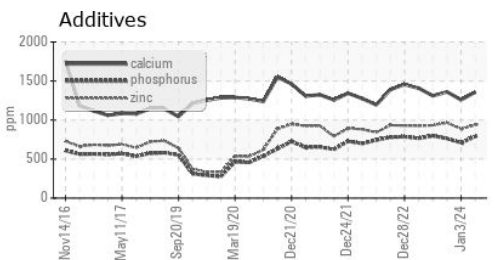
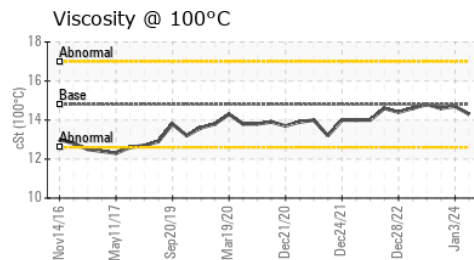
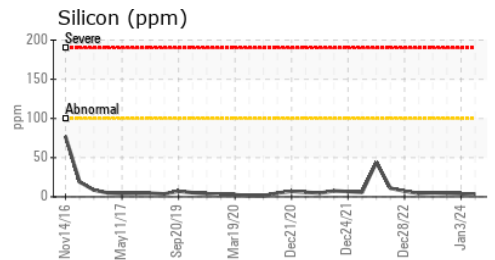
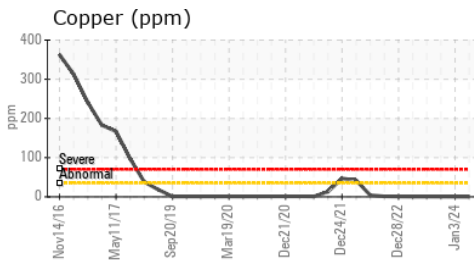
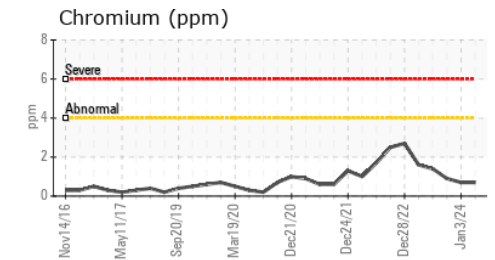
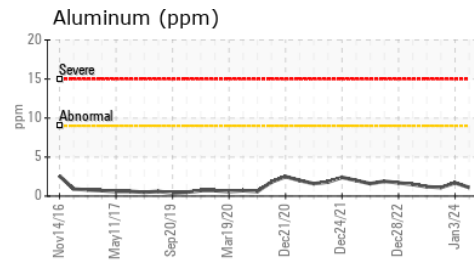
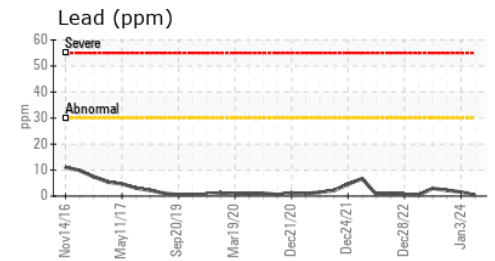
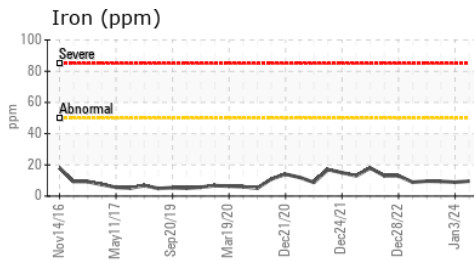
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	---
Precipitate	scalar	Visual*	NONE	NONE	---
Silt	scalar	Visual*	NONE	NONE	---
Debris	scalar	Visual*	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	NORML
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	<b>14.3</b>	14.7	14.6

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0917535 **Received** : 01 Apr 2024  
**Lab Number** : **02625667** **Tested** : 01 Apr 2024  
**Unique Number** : 5750786 **Diagnosed** : 01 Apr 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: Visual )

**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.