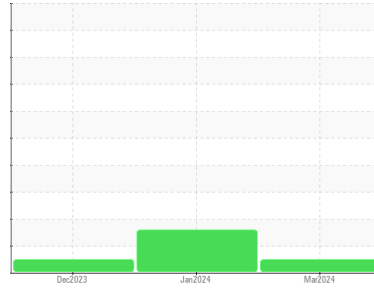




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
2263

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		WC0917395	WC0890915	WC0877975
Sample Date	Client Info		12 Mar 2024	23 Jan 2024	12 Dec 2023
Machine Age	kms	Client Info	23785	14139	4330
Oil Age	kms	Client Info	0	2263	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			NORMAL	ABNORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	NEG	NEG	NEG
Glycol	WC Method		---	0.0	---

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>50	9	20	30
Chromium	ppm	ASTM D5185(m)	>4	<1	<1	0
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	0	<1
Aluminum	ppm	ASTM D5185(m)	>9	2	2	1
Lead	ppm	ASTM D5185(m)	>30	<1	<1	1
Copper	ppm	ASTM D5185(m)	>35	2	4	17
Tin	ppm	ASTM D5185(m)	>4	<1	<1	<1
Antimony	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)		14	11	30
Barium	ppm	ASTM D5185(m)		0	<1	3
Molybdenum	ppm	ASTM D5185(m)		54	55	52
Manganese	ppm	ASTM D5185(m)		0	2	11
Magnesium	ppm	ASTM D5185(m)		793	809	796
Calcium	ppm	ASTM D5185(m)		1219	1268	1213
Phosphorus	ppm	ASTM D5185(m)		655	727	709
Zinc	ppm	ASTM D5185(m)		846	885	840
Sulfur	ppm	ASTM D5185(m)		2042	2090	1946
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>+100	6	14	46
Sodium	ppm	ASTM D5185(m)		2	4	5
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	<1

INFRA-RED

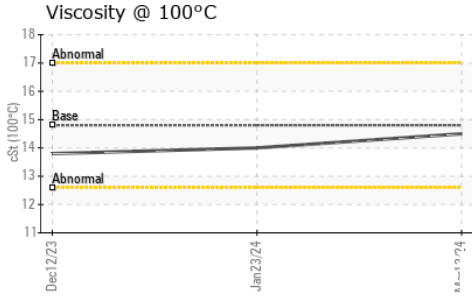
	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*		0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	12.1	13.2	9.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.5	23.0	20.3

FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	19.3	20.2	18.3



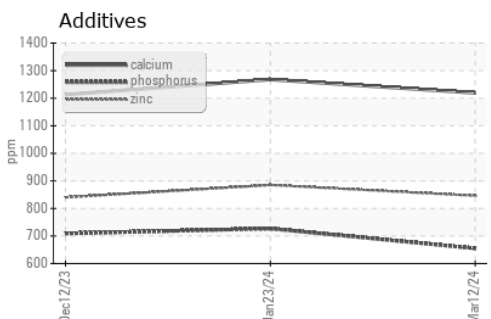
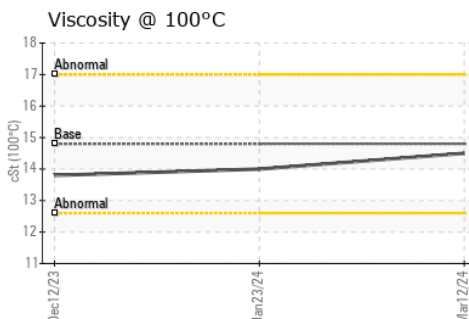
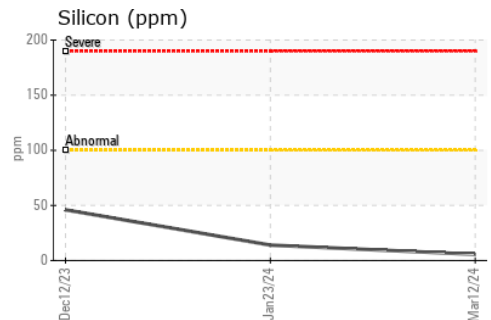
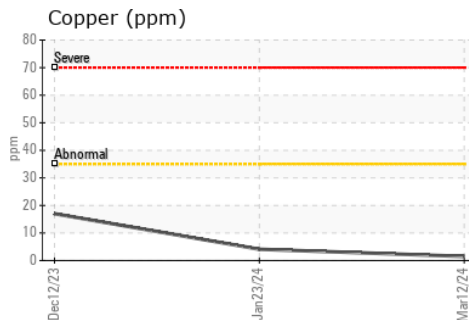
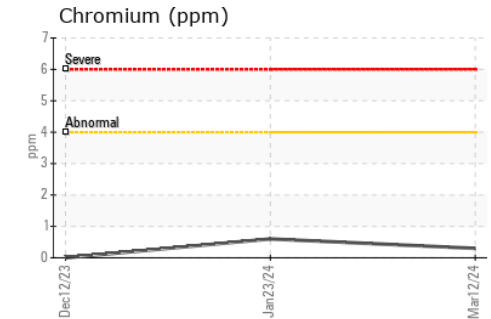
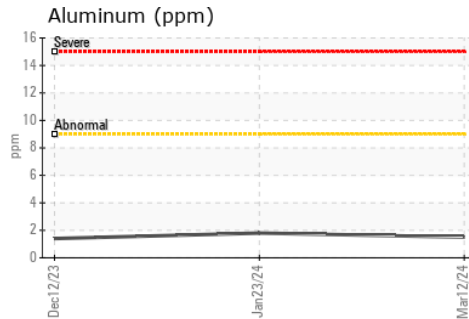
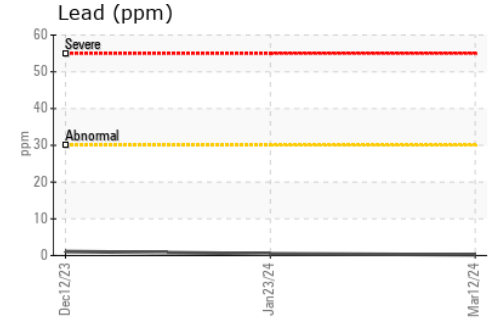
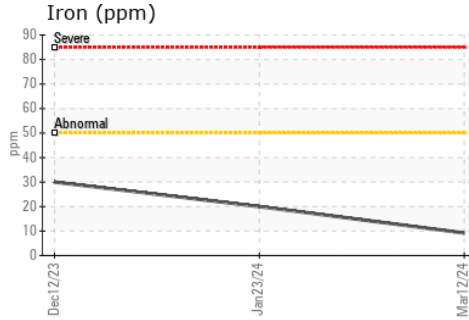
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.1	NEG	.2%
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	14.0	13.8

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0917395
Lab Number : **02621971**
Unique Number : 5747090
Test Package : MOB 1
Received : 14 Mar 2024
Tested : 14 Mar 2024
Diagnosed : 14 Mar 2024 - Wes Davis

CITY OF HAMILTON
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 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.