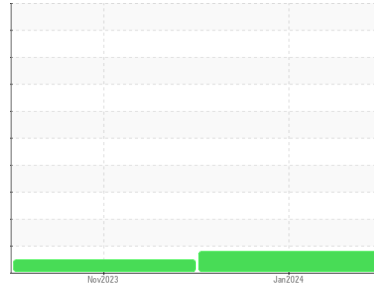




OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id
2364

Component
Natural Gas Engine

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

DIAGNOSIS

▲ Recommendation

We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please provide more complete information on your next sample.

▲ Wear

Nickel ppm levels are marginal. An increase in the iron level is noted. An increase in the copper level is noted. All other 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		WC0891042	WC0877913	---
Sample Date	Client Info		03 Jan 2024	03 Nov 2023	---
Machine Age	kms	Client Info	197269	0	---
Oil Age	kms	Client Info	0	0	---
Oil Changed	Client Info		N/A	N/A	---
Sample Status			MARGINAL	NORMAL	---

CONTAMINATION

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

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>50	28	6	---
Chromium	ppm	ASTM D5185(m)	>4	<1	0	---
Nickel	ppm	ASTM D5185(m)	>2	▲ 2	<1	---
Titanium	ppm	ASTM D5185(m)		0	0	---
Silver	ppm	ASTM D5185(m)	>3	0	<1	---
Aluminum	ppm	ASTM D5185(m)	>9	3	2	---
Lead	ppm	ASTM D5185(m)	>30	3	1	---
Copper	ppm	ASTM D5185(m)	>35	17	2	---
Tin	ppm	ASTM D5185(m)	>4	<1	0	---
Antimony	ppm	ASTM D5185(m)		0	0	---
Vanadium	ppm	ASTM D5185(m)		0	0	---
Beryllium	ppm	ASTM D5185(m)		0	0	---
Cadmium	ppm	ASTM D5185(m)		0	0	---

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)		13	40	---
Barium	ppm	ASTM D5185(m)		0	<1	---
Molybdenum	ppm	ASTM D5185(m)		68	49	---
Manganese	ppm	ASTM D5185(m)		3	2	---
Magnesium	ppm	ASTM D5185(m)		999	755	---
Calcium	ppm	ASTM D5185(m)		1562	1133	---
Phosphorus	ppm	ASTM D5185(m)		956	685	---
Zinc	ppm	ASTM D5185(m)		1033	778	---
Sulfur	ppm	ASTM D5185(m)		2063	1847	---
Lithium	ppm	ASTM D5185(m)		<1	<1	---

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>+100	13	8	---
Sodium	ppm	ASTM D5185(m)		7	3	---
Potassium	ppm	ASTM D5185(m)	>20	1	0	---

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*		0	0	---
Nitration	Abs/cm	ASTM D7624*	>20	16.7	7.6	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	43.8	22.6	---

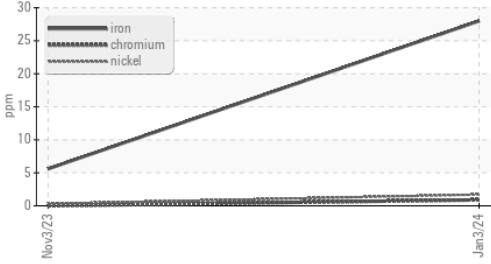
FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	65.9	20.5	---

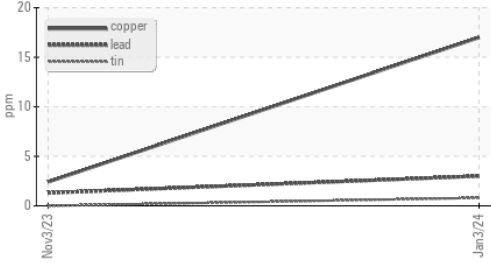


OIL ANALYSIS REPORT

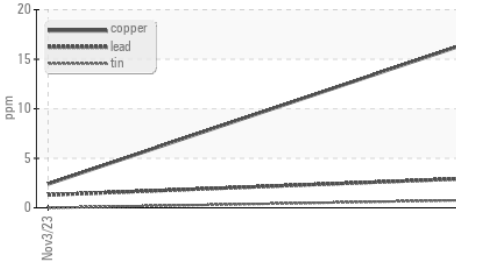
▲ Ferrous Alloys



Non-ferrous Metals



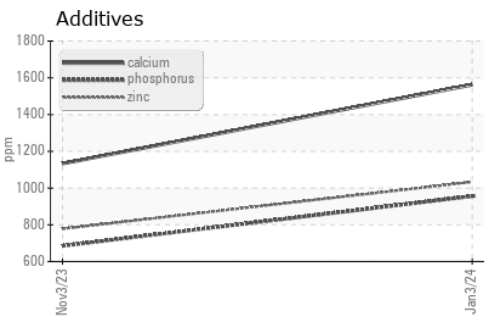
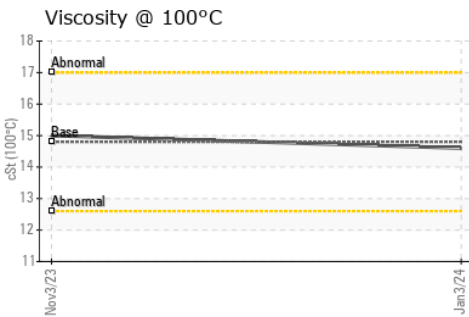
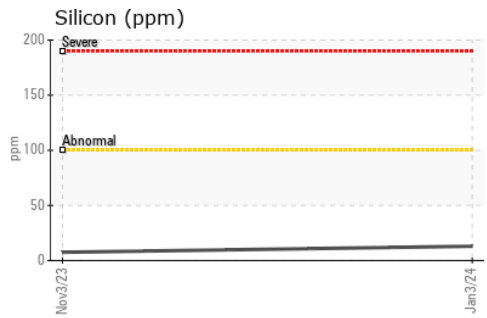
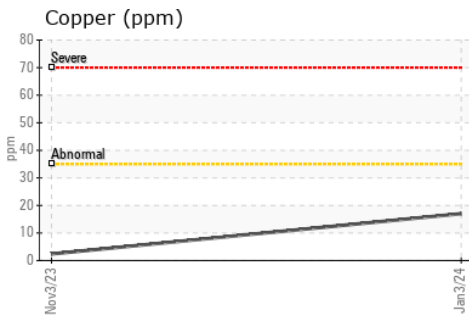
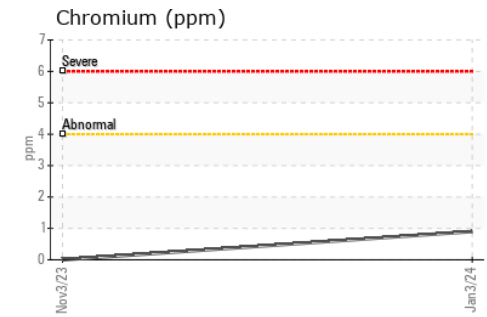
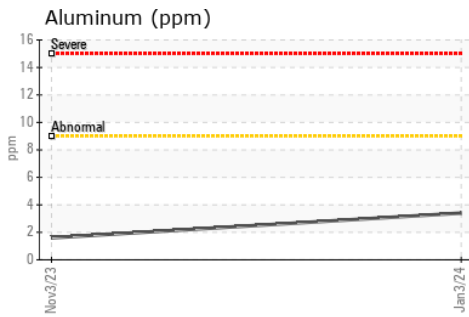
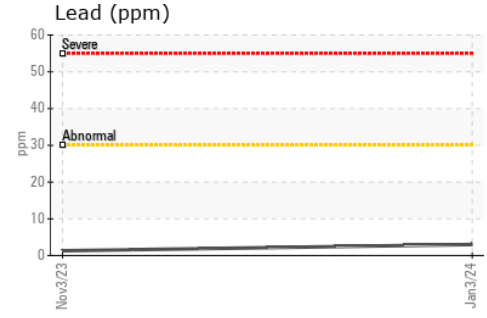
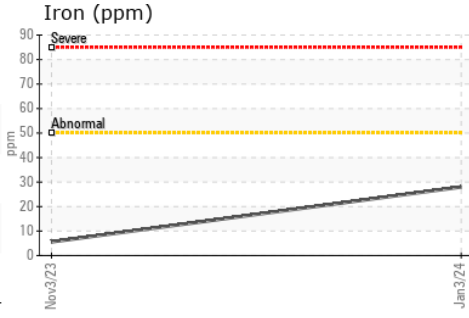
Non-ferrous Metals



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	14.6	15.0

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0891042 **Received** : 09 Jan 2024
Lab Number : 02607374 **Diagnosed** : 09 Jan 2024
Unique Number : 5708460 **Diagnostician** : Kevin Marson
Test Package : MOB 1

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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.