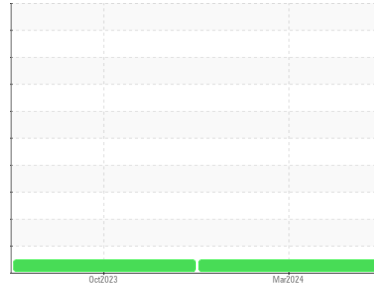




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**SANDVIK DD321 JUM010**  
 Component  
**Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL SAE 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>WC0914386</b>	WC0840191	---
Sample Date	Client Info		<b>01 Mar 2024</b>	02 Oct 2023	---
Machine Age	hrs	Client Info	<b>1239</b>	1180	---
Oil Age	hrs	Client Info	<b>250</b>	250	---
Oil Changed	Client Info		<b>Changed</b>	Changed	---
Sample Status			<b>NORMAL</b>	NORMAL	---

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<b>&lt;1.0</b>	<1.0	---
Water	WC Method	>0.2	<b>NEG</b>	NEG	---
Glycol	WC Method		<b>NEG</b>	NEG	---

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>100	<b>2</b>	4	---
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	---
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	0	---
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	<1	---
Aluminum	ppm	ASTM D5185(m)	>20	<b>1</b>	1	---
Lead	ppm	ASTM D5185(m)	>40	<b>0</b>	<1	---
Copper	ppm	ASTM D5185(m)	>330	<b>&lt;1</b>	2	---
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	0	---
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)	250	<b>59</b>	98	---
Barium	ppm	ASTM D5185(m)	10	<b>0</b>	<1	---
Molybdenum	ppm	ASTM D5185(m)	100	<b>39</b>	22	---
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	---
Magnesium	ppm	ASTM D5185(m)	450	<b>507</b>	262	---
Calcium	ppm	ASTM D5185(m)	3000	<b>1616</b>	1870	---
Phosphorus	ppm	ASTM D5185(m)	1150	<b>776</b>	826	---
Zinc	ppm	ASTM D5185(m)	1350	<b>844</b>	950	---
Sulfur	ppm	ASTM D5185(m)	4250	<b>2273</b>	2476	---
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	---

## CONTAMINANTS

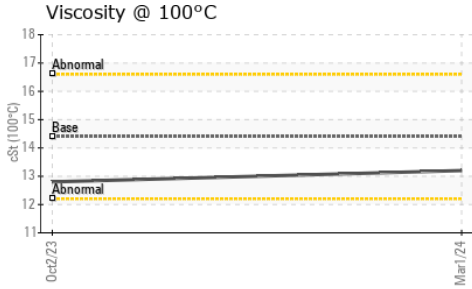
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	<b>7</b>	4	---
Sodium	ppm	ASTM D5185(m)	>158	<b>2</b>	3	---
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	3	---

## INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	<b>0</b>	0	---
Nitration	Abs/cm	ASTM D7624*	>20	<b>4.7</b>	5.8	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>21.2</b>	21.0	---



# OIL ANALYSIS REPORT



FLUID DEGRADATION		method	limit/base	current	history1	history2
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Oxidation	Abs./1mm	ASTM D7414*	>25	<b>18.2</b>	17.7	---
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VISUAL		method	limit/base	current	history1	history2
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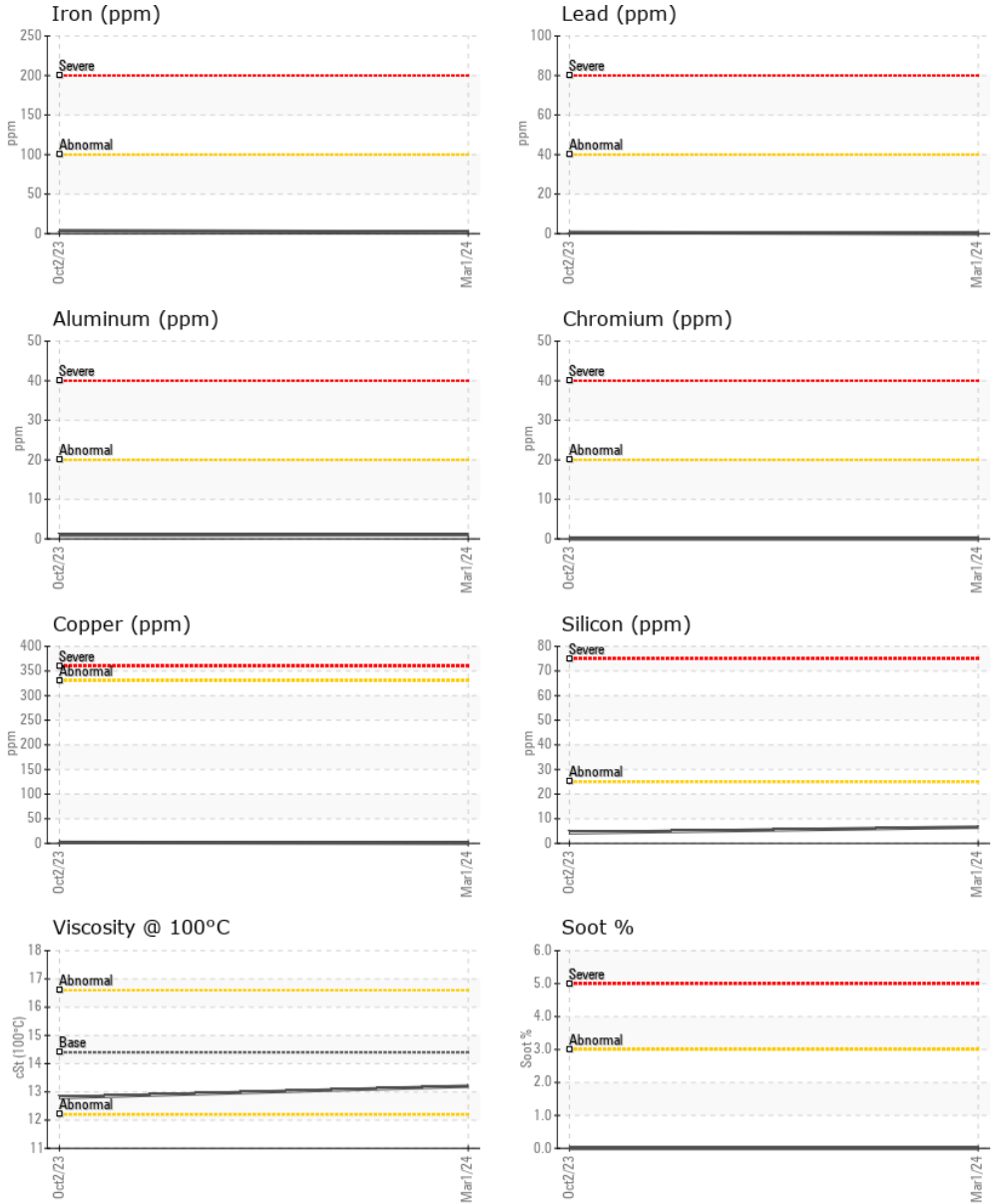
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	---
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Free Water	scalar	Visual*		<b>NEG</b>	NEG	---
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FLUID PROPERTIES		method	limit/base	current	history1	history2
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Visc @ 100°C	cSt	ASTM D7279(m)	14.4	<b>13.2</b>	12.8	---
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## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0914386 **Received** : 18 Mar 2024  
**Lab Number** : **02622596** **Tested** : 18 Mar 2024  
**Unique Number** : 5747715 **Diagnosed** : 18 Mar 2024 - Wes Davis  
**Test Package** : MOB 1

**Agnico Eagle Canada**  
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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.