



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINANTS	NORMAL
OIL CONDITION	NORMAL

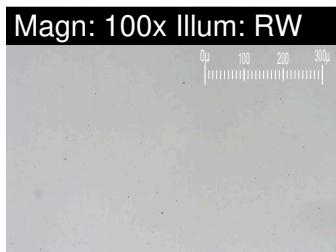
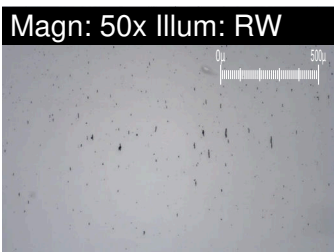
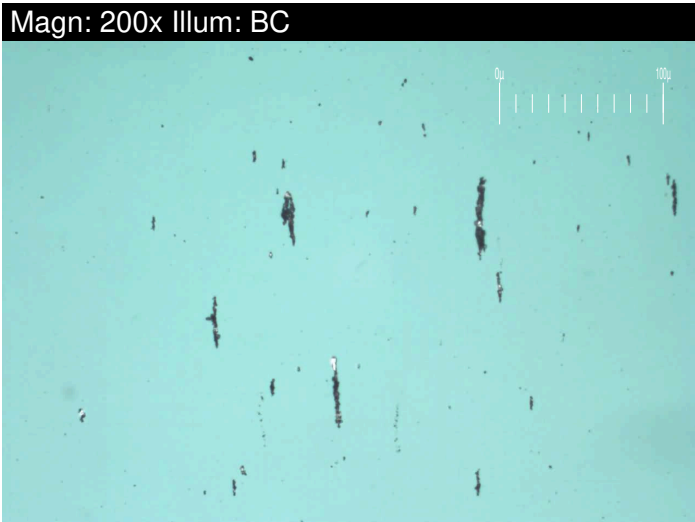
Machine Id  
**MCI B1901**  
 Component  
**Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL SAE 10W30 (40 LTR)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

**WEAR**

Metal levels are typical for a new component breaking in. The ferrography results are normal indicating no abnormal wear in the system.



Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0916723</b>	AP99997	---
Sample Date		Client Info		<b>29 Apr 2024</b>	14 Jan 2019	---
Machine Age	kms	Client Info		<b>616331</b>	31485	---
Oil Age	kms	Client Info		<b>24000</b>	0	---
Filter Age	kms	Client Info		<b>0</b>	0	---
Oil Changed		Client Info		<b>Changed</b>	Changed	---
Filter Changed		Client Info		<b>Changed</b>	Changed	---
Sample Status				<b>NORMAL</b>	NORMAL	---
PQ		ASTM D8184*		<b>0</b>	---	---
Iron	ppm	ASTM D5185(m)	>100	<b>11</b>	26	---
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	2	---
Nickel	ppm	ASTM D5185(m)	>4	<b>0</b>	<1	---
Titanium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	---
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185(m)	>20	<b>3</b>	2	---
Lead	ppm	ASTM D5185(m)	>40	<b>2</b>	4	---
Copper	ppm	ASTM D5185(m)	>330	<b>3</b>	88	---
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	1	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	---
White Metal	scalar	Visual*	NONE	<b>VLITE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Large Particles		DR-Ferr*		<b>5.2</b>	---	---
Small Particles		DR-Ferr*		<b>2.5</b>	---	---
Total Particles		DR-Ferr*	>---	<b>7.7</b>	---	---
Large Particles Percentage	%	DR-Ferr*		<b>35.1</b>	---	---
Severity Index		DR-Ferr*		<b>14</b>	---	---
Ferrous Rubbing	Scale 0-10	ASTM D7684*		<b>2</b>		
Ferrous Sliding	Scale 0-10	ASTM D7684*				
Ferrous Cutting	Scale 0-10	ASTM D7684*				
Ferrous Rolling	Scale 0-10	ASTM D7684*		<b>1</b>		
Ferrous Break-in	Scale 0-10	ASTM D7684*				
Ferrous Spheres	Scale 0-10	ASTM D7684*				
Ferrous Black Oxides	Scale 0-10	ASTM D7684*				
Ferrous Red Oxides	Scale 0-10	ASTM D7684*				
Ferrous Corrosive	Scale 0-10	ASTM D7684*				
Ferrous Other	Scale 0-10	ASTM D7684*				
Nonferrous Rubbing	Scale 0-10	ASTM D7684*				
Nonferrous Sliding	Scale 0-10	ASTM D7684*				
Nonferrous Cutting	Scale 0-10	ASTM D7684*				
Nonferrous Rolling	Scale 0-10	ASTM D7684*				
Nonferrous Other	Scale 0-10	ASTM D7684*				

## CONTAMINANTS

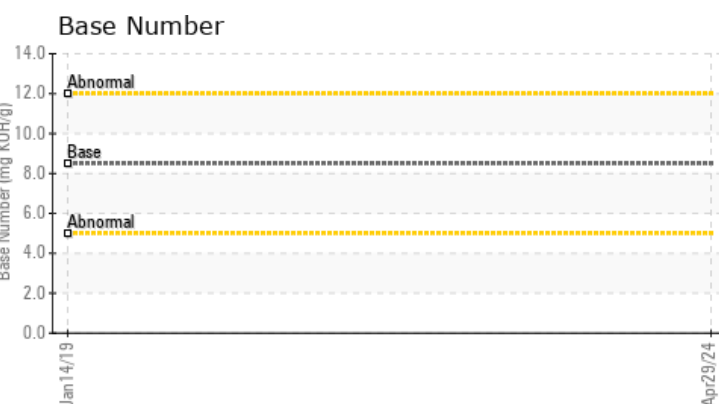
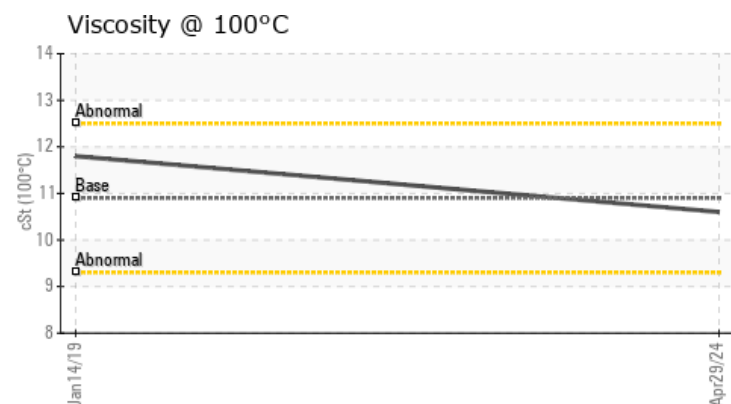
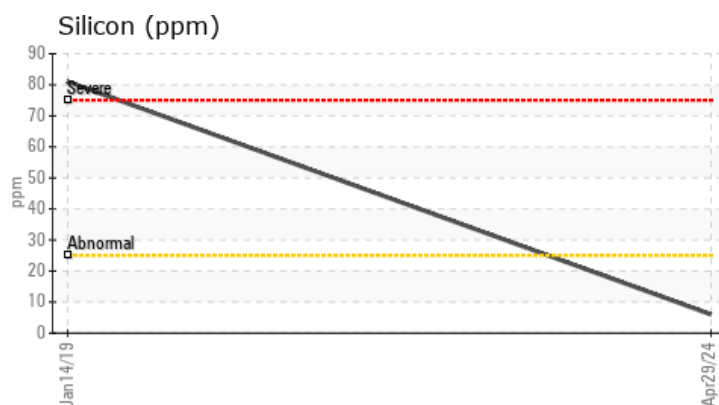
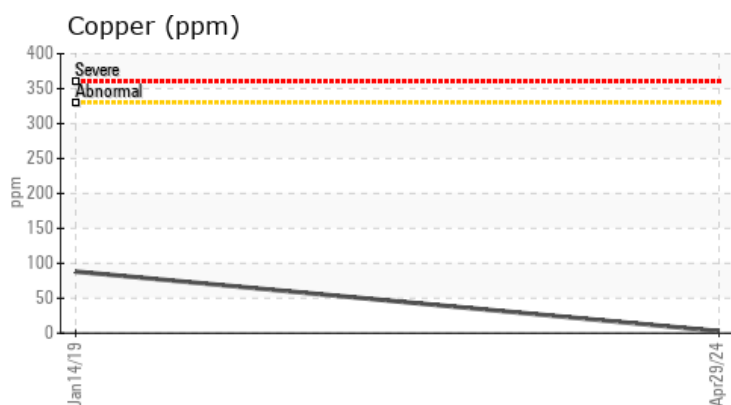
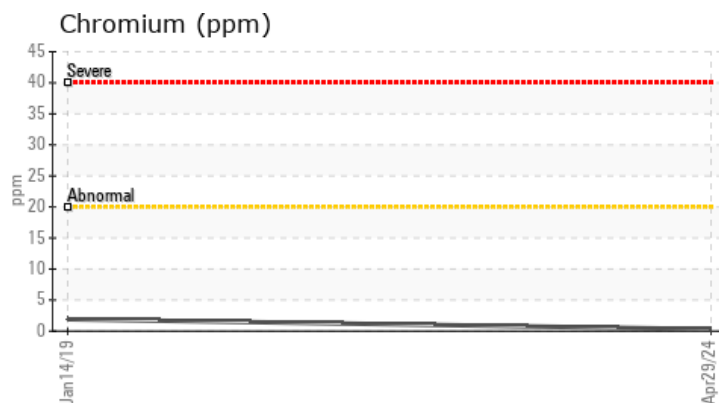
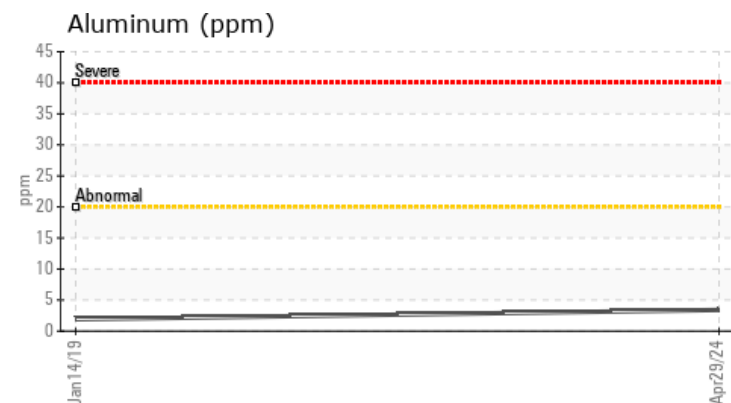
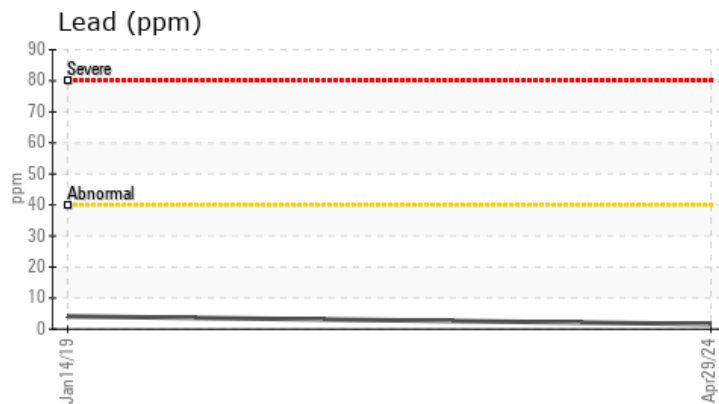
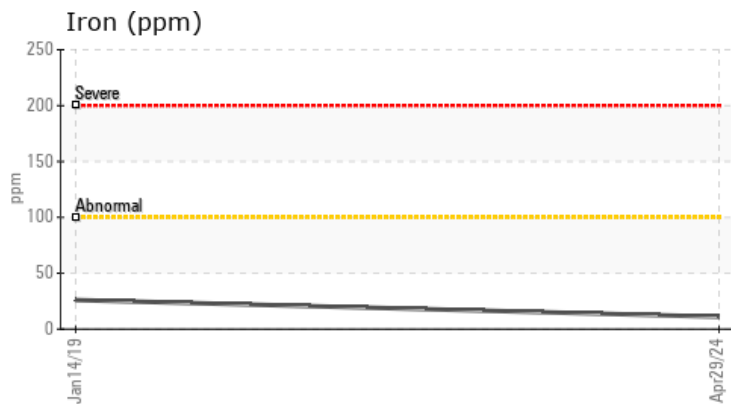
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>6</b>	81	---
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	4	---
Fuel		WC Method	>5	<b>&lt;1.0</b>	0.2	---
Water		WC Method	>0.2	<b>NEG</b>	NEG	---
Glycol		WC Method		<b>NEG</b>	NEG	---
Soot %	%	ASTM D7844*	>3	<b>0.1</b>	0.1	---
Nitration	Abs/cm	ASTM D7624*	>20	<b>10.0</b>	10.0	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>20.8</b>	23.4	---
Silt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	---	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	---
Carbonaceous Material	Scale 0-10	ASTM D7684*				
Sand/Dirt	Scale 0-10	ASTM D7684*		<b>1</b>		
Fibres	Scale 0-10	ASTM D7684*				
Spheres	Scale 0-10	ASTM D7684*				
Other	Scale 0-10	ASTM D7684*		<b>1</b>		

## OIL CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185(m)		<b>2</b>	8	---
Boron	ppm	ASTM D5185(m)	250	<b>37</b>	35	---
Barium	ppm	ASTM D5185(m)	10	<b>0</b>	4	---
Molybdenum	ppm	ASTM D5185(m)	100	<b>82</b>	38	---
Manganese	ppm	ASTM D5185(m)		<b>0</b>	3	---
Magnesium	ppm	ASTM D5185(m)	450	<b>95</b>	440	---
Calcium	ppm	ASTM D5185(m)	3000	<b>2216</b>	1829	---
Phosphorus	ppm	ASTM D5185(m)	1150	<b>976</b>	782	---
Zinc	ppm	ASTM D5185(m)	1350	<b>1159</b>	962	---
Sulfur	ppm	ASTM D5185(m)	4250	<b>2961</b>	2109	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>16.5</b>	22.2	---
Base Number (BN)	mg KOH/g	ASTM D2896*	8.5	<b>7.66</b>	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	10.9	<b>10.6</b>	11.8	---
Lubricant Degradation	Scale 0-10	ASTM D7684*				



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0916723  
**Lab Number** : 02633091  
**Unique Number** : 5774244  
**Test Package** : MOB 3  
**Received** : 03 May 2024  
**Tested** : 07 May 2024  
**Diagnosed** : 07 May 2024 - Kevin Marson

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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.

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