



OIL ANALYSIS REPORT

WEAR	MARGINAL
CONTAMINANTS	NORMAL
OIL CONDITION	NORMAL

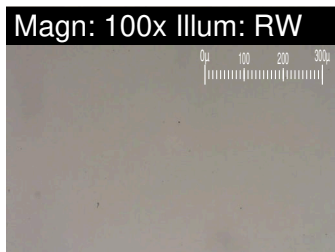
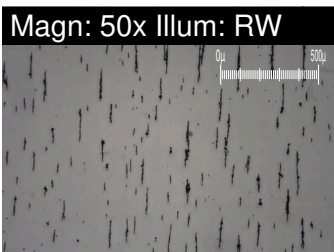
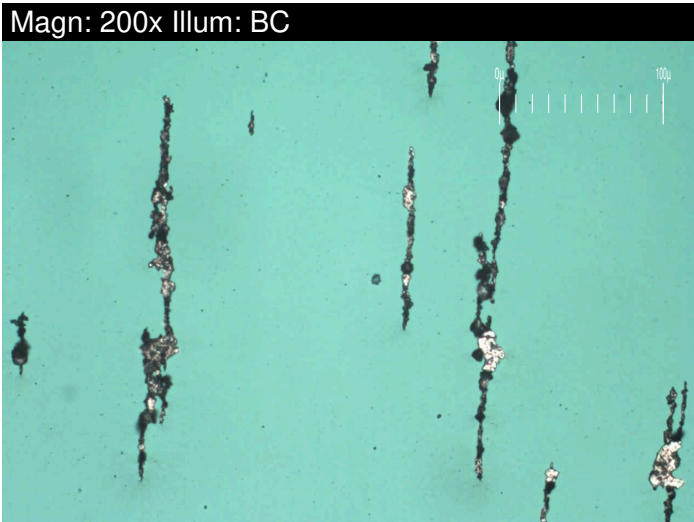
Area
[W.O. 26370]
 Machine Id
MCI 2102
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 10W30 (--- GAL)

RECOMMENDATION

We recommend an early resample to monitor this condition. No other corrective action is recommended at this time.

WEAR

Wear particle analysis indicates that the ferrous rolling particles are marginal. All other component wear rates are normal.



Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0907678	---	---
Sample Date		Client Info		01 Mar 2024	---	---
Machine Age	kms	Client Info		399905	---	---
Oil Age	kms	Client Info		0	---	---
Filter Age	kms	Client Info		0	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				MARGINAL	---	---
PQ		ASTM D8184*		0	---	---
Iron	ppm	ASTM D5185(m)	>90	13	---	---
Chromium	ppm	ASTM D5185(m)	>20	<1	---	---
Nickel	ppm	ASTM D5185(m)	>2	0	---	---
Titanium	ppm	ASTM D5185(m)	>2	0	---	---
Silver	ppm	ASTM D5185(m)	>2	0	---	---
Aluminum	ppm	ASTM D5185(m)	>20	3	---	---
Lead	ppm	ASTM D5185(m)	>40	0	---	---
Copper	ppm	ASTM D5185(m)	>330	<1	---	---
Tin	ppm	ASTM D5185(m)	>15	0	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Large Particles		DR-Ferr*		27.1	---	---
Small Particles		DR-Ferr*		7.2	---	---
Total Particles		DR-Ferr*	>---	34.3	---	---
Large Particles Percentage	%	DR-Ferr*		58	---	---
Severity Index		DR-Ferr*		539	---	---
Ferrous Rubbing	Scale 0-10	ASTM D7684*		4		
Ferrous Sliding	Scale 0-10	ASTM D7684*				
Ferrous Cutting	Scale 0-10	ASTM D7684*				
Ferrous Rolling	Scale 0-10	ASTM D7684*		2		
Ferrous Break-in	Scale 0-10	ASTM D7684*				
Ferrous Spheres	Scale 0-10	ASTM D7684*				
Ferrous Black Oxides	Scale 0-10	ASTM D7684*		1		
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

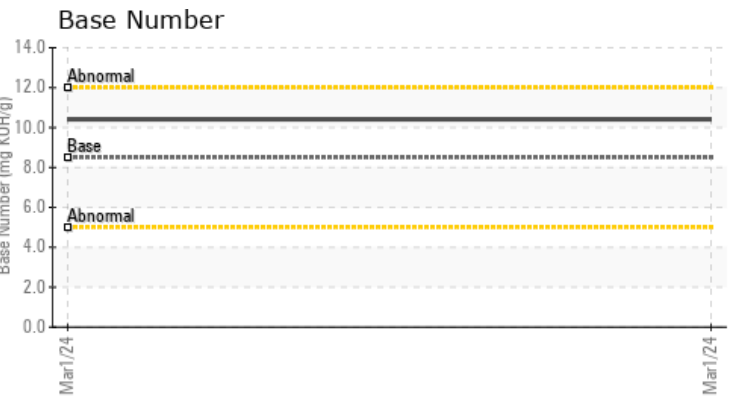
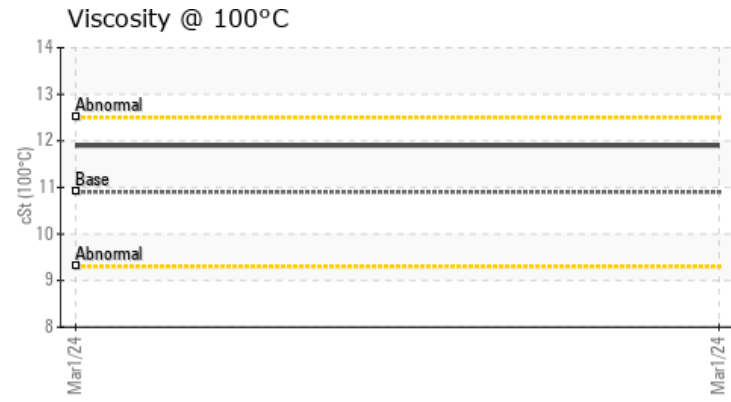
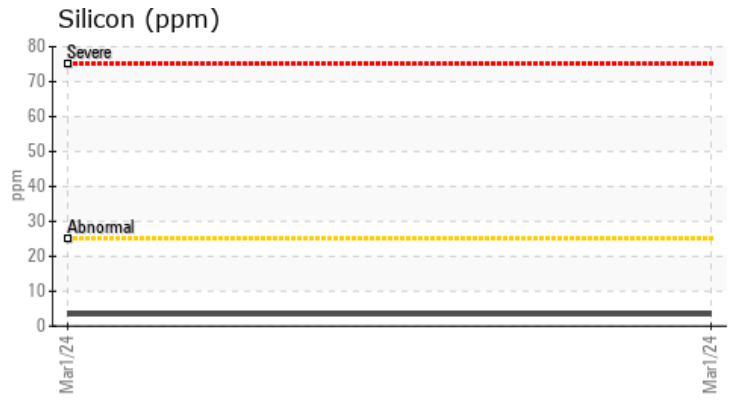
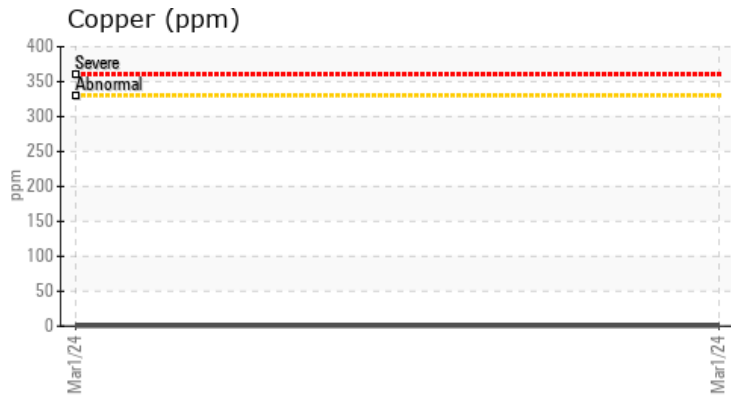
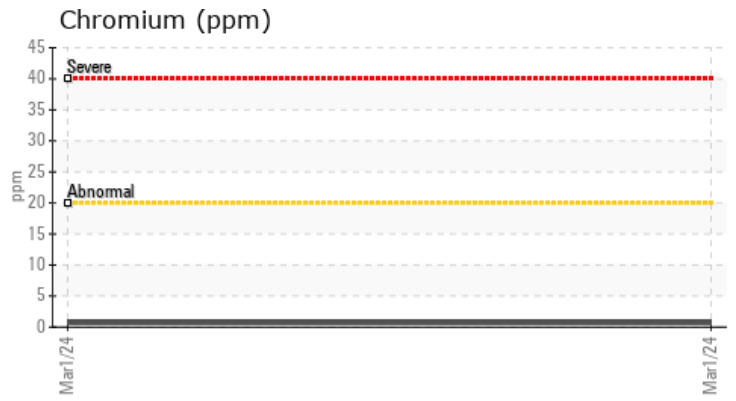
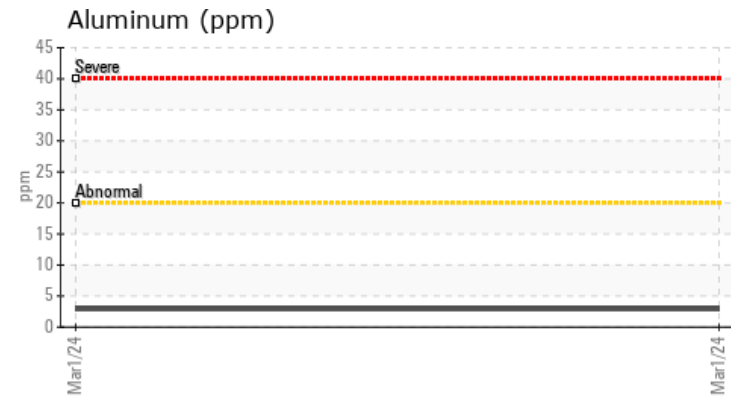
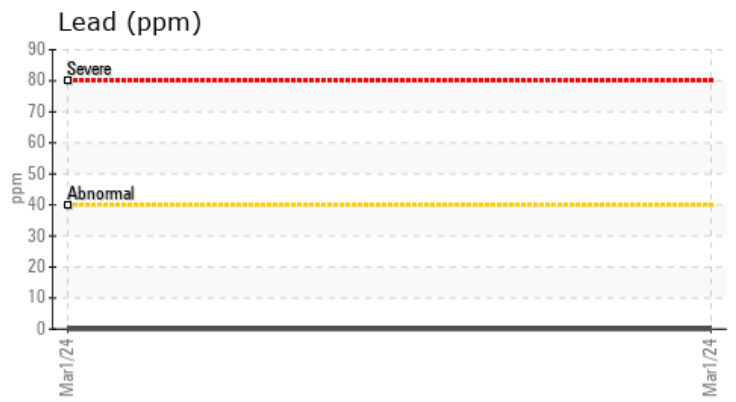
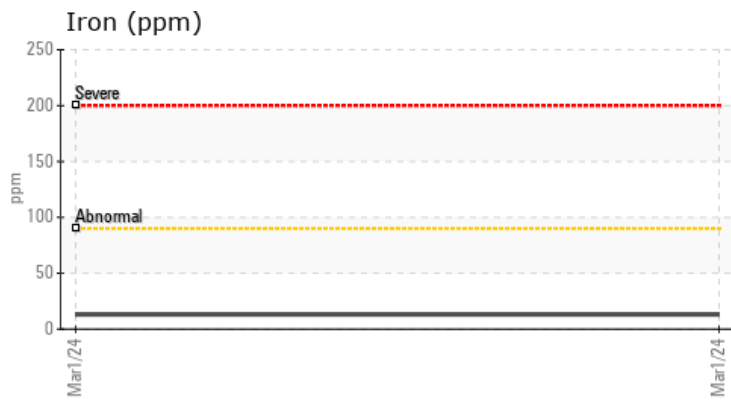
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	3	---	---
Potassium	ppm	ASTM D5185(m)	>20	3	---	---
Fuel		WC Method	>3.0	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	ASTM D7844*	>6	0.7	---	---
Nitration	Abs/cm	ASTM D7624*	>20	9.4	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.8	---	---
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	---	---
Emulsified Water	scalar	Visual*	>0.2	NEG	---	---
Carbonaceous Material	Scale 0-10	ASTM D7684*				
Sand/Dirt	Scale 0-10	ASTM D7684*		1		
Fibres	Scale 0-10	ASTM D7684*				
Spheres	Scale 0-10	ASTM D7684*				
Other	Scale 0-10	ASTM D7684*		1		

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)		2	---	---
Boron	ppm	ASTM D5185(m)	250	6	---	---
Barium	ppm	ASTM D5185(m)	10	0	---	---
Molybdenum	ppm	ASTM D5185(m)	100	15	---	---
Manganese	ppm	ASTM D5185(m)		0	---	---
Magnesium	ppm	ASTM D5185(m)	450	26	---	---
Calcium	ppm	ASTM D5185(m)	3000	2895	---	---
Phosphorus	ppm	ASTM D5185(m)	1150	1112	---	---
Zinc	ppm	ASTM D5185(m)	1350	1282	---	---
Sulfur	ppm	ASTM D5185(m)	4250	3852	---	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	13.8	---	---
Base Number (BN)	mg KOH/g	ASTM D2896*	8.5	10.41	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	10.9	11.9	---	---
Lubricant Degradation	Scale 0-10	ASTM D7684*				



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0907678
Lab Number : 02620161
Unique Number : 5737271
Test Package : MOB 3
Received : 06 Mar 2024
Tested : 07 Mar 2024
Diagnosed : 07 Mar 2024 - Kevin Marson

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 F:

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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