



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINANTS	<b>NORMAL</b>
OIL CONDITION	<b>NORMAL</b>

Area

[26717]

Machine Id

5609

Component

Diesel Engine

Fluid

DIESEL ENGINE OIL SAE 10W30 (--- GAL)

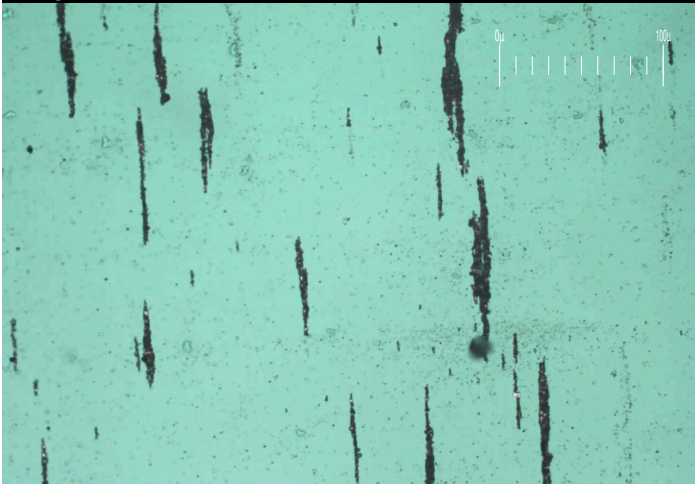
## RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

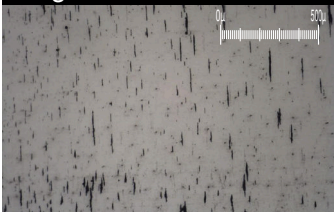
## WEAR

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

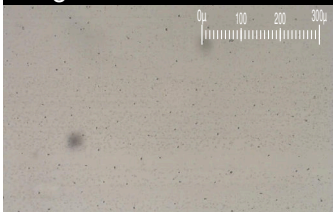
Magn: 200x Illum: BC



Magn: 50x Illum: RW



Magn: 100x Illum: RW



Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0916685	WC0308105	---
Sample Date		Client Info		02 Apr 2024	02 May 2019	---
Machine Age	kms	Client Info		700129	202900	---
Oil Age	kms	Client Info		24000	0	---
Filter Age	kms	Client Info		24000	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	NORMAL	---
PQ		ASTM D8184*		0	---	---
Iron	ppm	ASTM D5185(m)	>100	16	17	---
Chromium	ppm	ASTM D5185(m)	>20	<1	2	---
Nickel	ppm	ASTM D5185(m)	>4	0	<1	---
Titanium	ppm	ASTM D5185(m)		<1	2	---
Silver	ppm	ASTM D5185(m)	>3	0	<1	---
Aluminum	ppm	ASTM D5185(m)	>20	2	4	---
Lead	ppm	ASTM D5185(m)	>40	9	7	---
Copper	ppm	ASTM D5185(m)	>330	1	3	---
Tin	ppm	ASTM D5185(m)	>15	0	0	---
Vanadium	ppm	ASTM D5185(m)		0	<1	---
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Large Particles		DR-Ferr*		0.8	---	---
Small Particles		DR-Ferr*		1.4	---	---
Total Particles		DR-Ferr*	>---	2.2	---	---
Large Particles Percentage	%	DR-Ferr*		0	---	---
Severity Index		DR-Ferr*		0	---	---
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

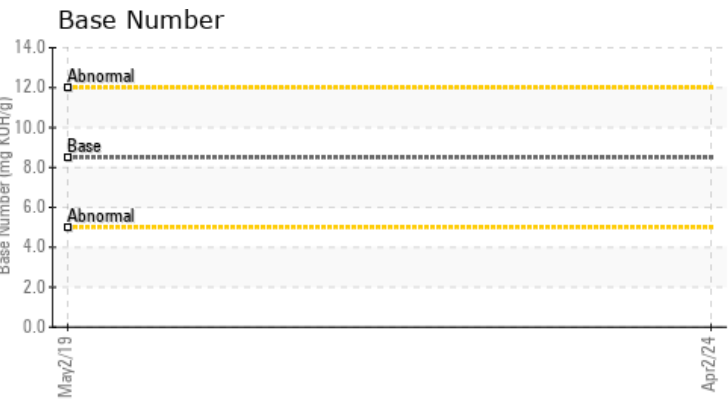
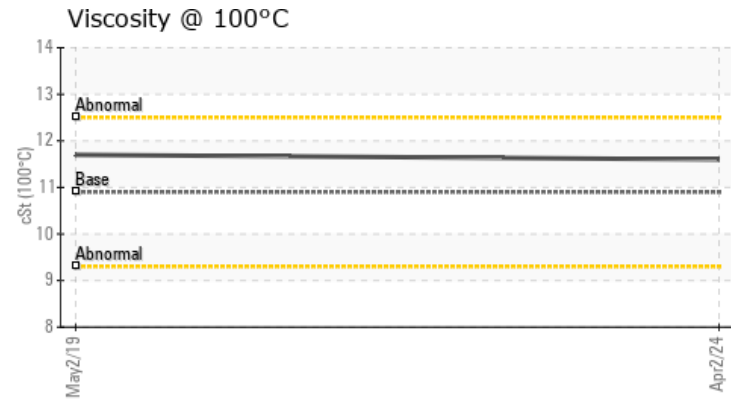
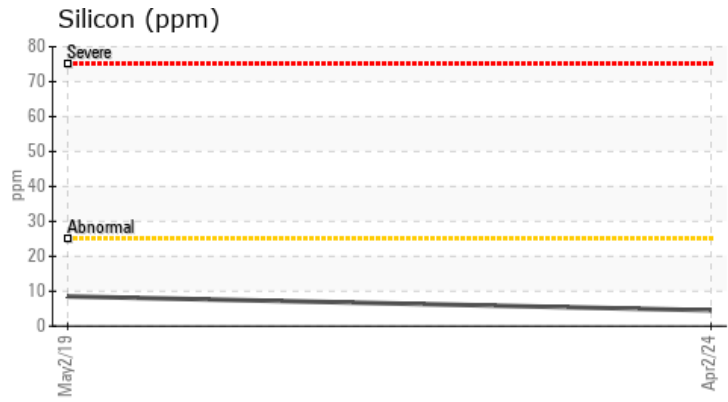
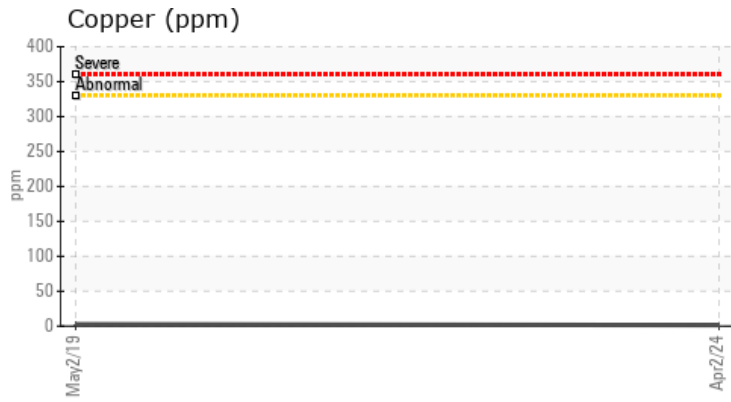
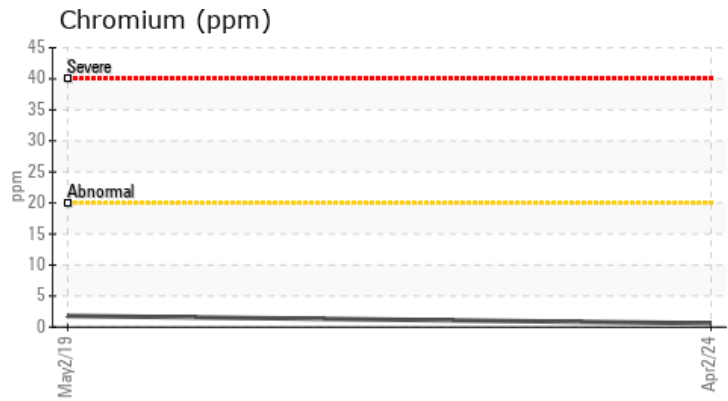
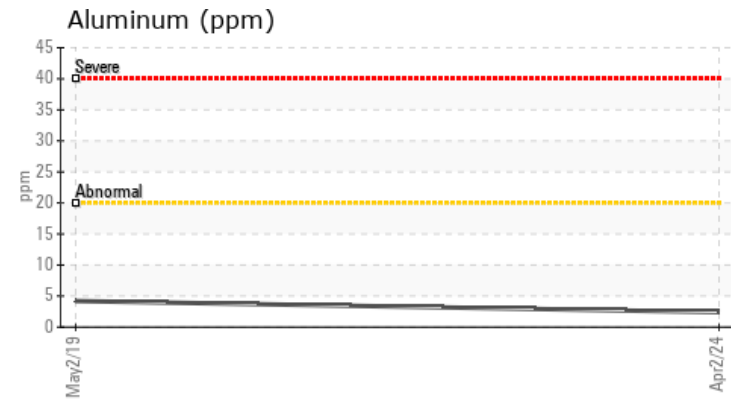
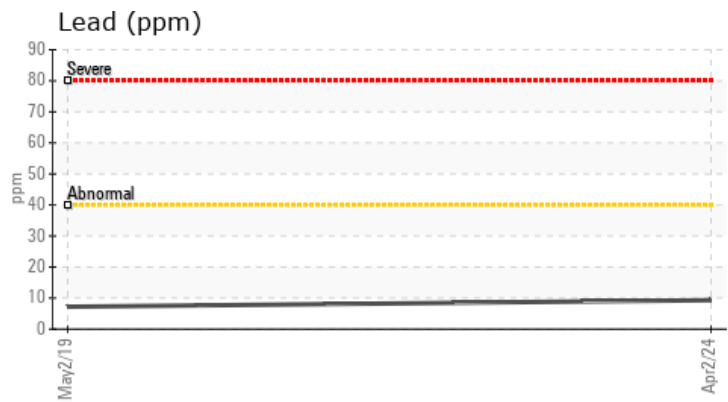
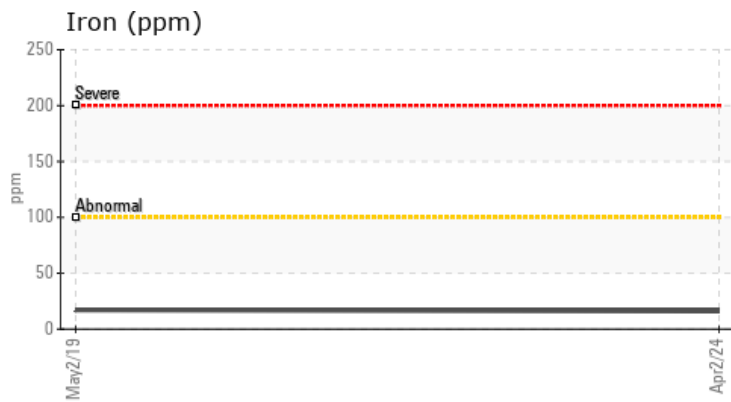
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	4	8	---
Potassium	ppm	ASTM D5185(m)	>20	2	2	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	ASTM D7844*	>3	0.2	0.2	---
Nitration	Abs/cm	ASTM D7624*	>20	11.8	10.4	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	26.6	25.9	---
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	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)		3	5	---
Boron	ppm	ASTM D5185(m)	250	9	17	---
Barium	ppm	ASTM D5185(m)	10	0	0	---
Molybdenum	ppm	ASTM D5185(m)	100	15	17	---
Manganese	ppm	ASTM D5185(m)		0	<1	---
Magnesium	ppm	ASTM D5185(m)	450	30	211	---
Calcium	ppm	ASTM D5185(m)	3000	3202	2411	---
Phosphorus	ppm	ASTM D5185(m)	1150	1172	955	---
Zinc	ppm	ASTM D5185(m)	1350	1403	1141	---
Sulfur	ppm	ASTM D5185(m)	4250	3827	3014	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	19.1	17.7	---
Base Number (BN)	mg KOH/g	ASTM D2896*	8.5	7.84	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	10.9	11.6	11.7	---
Lubricant Degradation	Scale 0-10	ASTM D7684*				



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0916685  
**Lab Number** : 02628339  
**Unique Number** : 5761471  
**Test Package** : MOB 3  
**Received** : 12 Apr 2024  
**Tested** : 18 Apr 2024  
**Diagnosed** : 19 Apr 2024 - Kevin Marson

**ONTARIO NORTHLAND GARAGE**  
 567 WALLACE RD  
 NORTH BAY, ON  
 CA P1A 3T3  
 Contact: Scott Curran  
 scott.curran@ontarionorthland.ca  
 T: (705)499-5184  
 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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