



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**1821**  
Component  
**Diesel Engine**  
Fluid  
**SHELL ROTELLA T 15W40 (--- LTR)**

## RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill.  
Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0932494</b>	WC0905424	WC0887384
Sample Date		Client Info		<b>15 May 2024</b>	14 Feb 2024	08 Jan 2024
Machine Age	hrs	Client Info		<b>20319</b>	19231	18775
Oil Age	hrs	Client Info		<b>553</b>	457	514
Filter Age	hrs	Client Info		<b>553</b>	457	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	N/A	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	<b>21</b>	14	16
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	1	1
Lead	ppm	ASTM D5185(m)	>40	<b>0</b>	0	0
Copper	ppm	ASTM D5185(m)	>330	<b>3</b>	3	4
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---

## CONTAMINATION

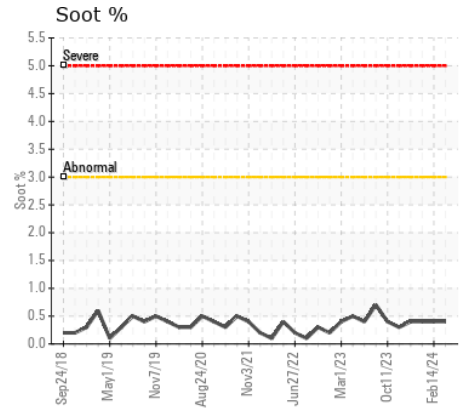
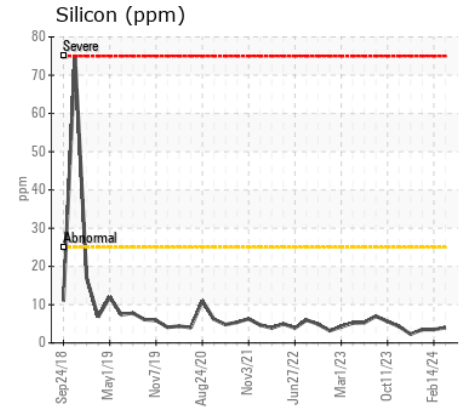
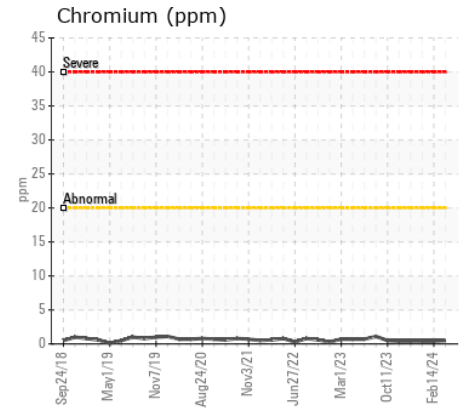
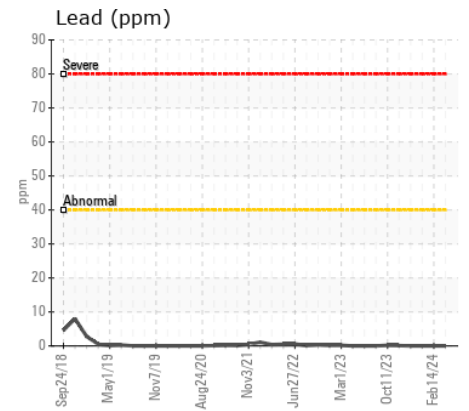
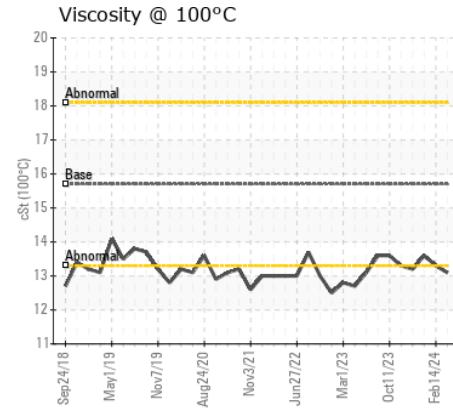
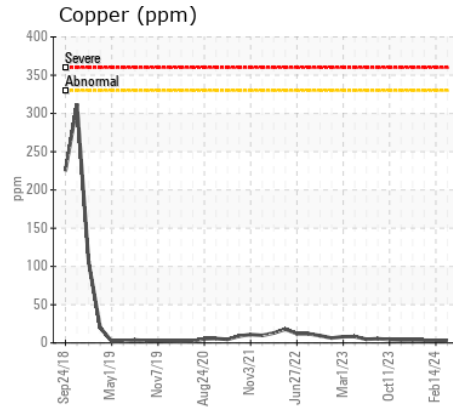
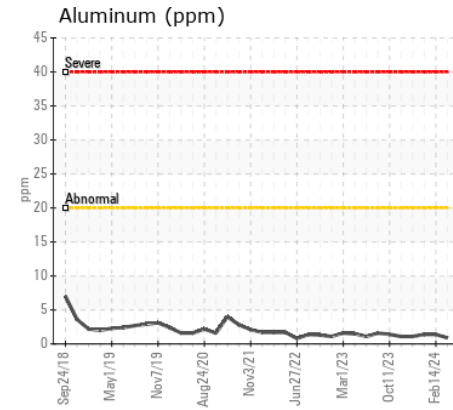
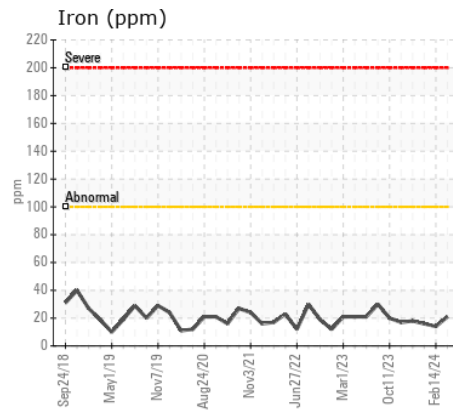
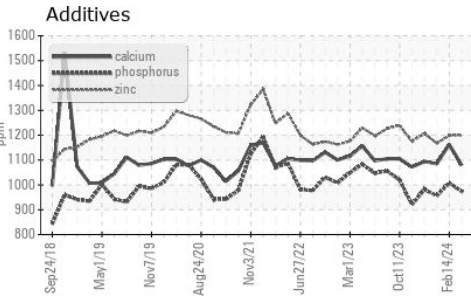
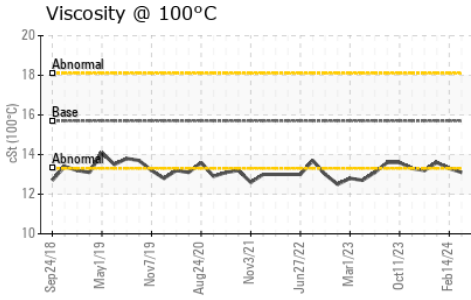
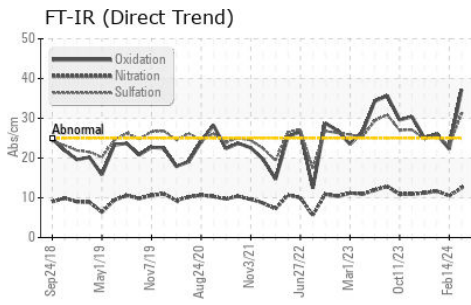
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>4</b>	4	4
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	0
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	ASTM D7844*	>3	<b>0.4</b>	0.4	0.4
Nitration	Abs/cm	ASTM D7624*	>20	<b>12.5</b>	10.5	11.7
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>31.1</b>	23.2	25.5
Silt	scalar	Visual*	NONE	<b>VLITE</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>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

Additive levels indicate the addition of a different brand, or type of oil.  
The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		<b>2</b>	2	1
Boron	ppm	ASTM D5185(m)	35	<b>2</b>	2	3
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	0	<b>61</b>	59	60
Manganese	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185(m)	10	<b>979</b>	956	966
Calcium	ppm	ASTM D5185(m)	2340	<b>1079</b>	1163	1085
Phosphorus	ppm	ASTM D5185(m)	1110	<b>974</b>	1008	956
Zinc	ppm	ASTM D5185(m)	1210	<b>1200</b>	1198	1168
Sulfur	ppm	ASTM D5185(m)	3890	<b>2410</b>	2767	2586
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>37.2</b>	22.3	26.0
Visc @ 100°C	cSt	ASTM D7279(m)	15.7	<b>13.1</b>	13.3	13.6



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0932494 **Received** : 27 May 2024  
**Lab Number** : 02637629 **Tested** : 27 May 2024  
**Unique Number** : 5786791 **Diagnosed** : 27 May 2024 - Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: Visual )

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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