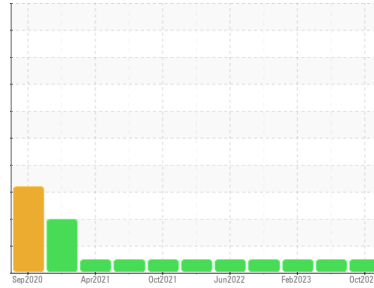




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**112238**

Component  
**Diesel Engine**

Fluid  
**SHELL ROTELLA T 15W40 (--- QTS)**

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>IL0032763</b>	IL0027497	IL0027424
Sample Date	Client Info			<b>26 Oct 2023</b>	23 Jun 2023	28 Feb 2023
Machine Age	mls	Client Info		<b>447847</b>	406558	369044
Oil Age	mls	Client Info		<b>41289</b>	37514	42574
Oil Changed	Client Info			<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method		>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Glycol	WC Method			<b>NEG</b>	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>90	<b>34</b>	23	43
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	2
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	1	7
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	<1	3
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m	>15	<b>1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	316	<b>34</b>	42	35
Barium	ppm	ASTM D5185m	0.0	<b>20</b>	11	0
Molybdenum	ppm	ASTM D5185m	1.2	<b>36</b>	23	66
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	1
Magnesium	ppm	ASTM D5185m	24	<b>177</b>	136	53
Calcium	ppm	ASTM D5185m	2292	<b>1941</b>	1728	2244
Phosphorus	ppm	ASTM D5185m	1064	<b>967</b>	806	949
Zinc	ppm	ASTM D5185m	1160	<b>1180</b>	1039	1265
Sulfur	ppm	ASTM D5185m	4996	<b>4261</b>	3122	3729

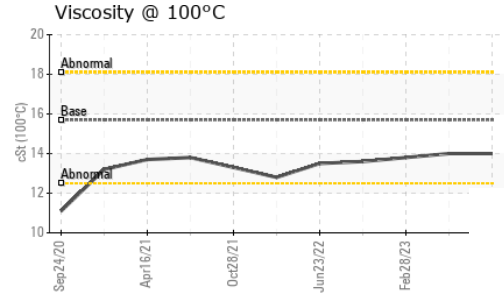
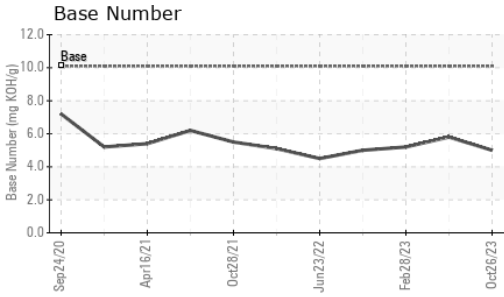
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>5</b>	5	7
Sodium	ppm	ASTM D5185m		<b>5</b>	2	3
Potassium	ppm	ASTM D5185m	>20	<b>15</b>	8	14

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>6	<b>0.6</b>	0.6	0.6
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.4</b>	11.7	12.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>26.7</b>	27.3	27.4

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>22.8</b>	23.3	22.0
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	<b>5.0</b>	5.8	5.2



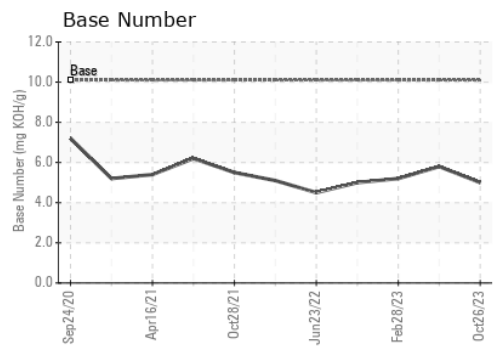
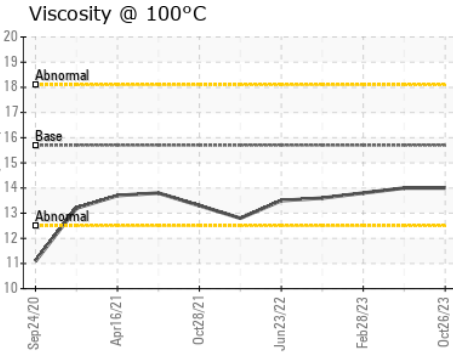
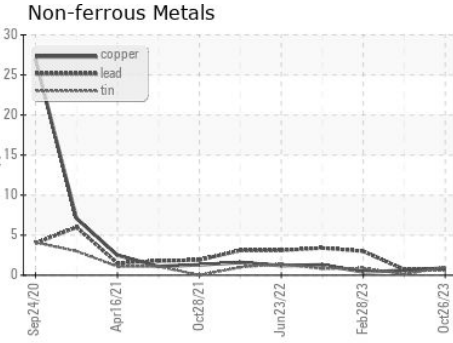
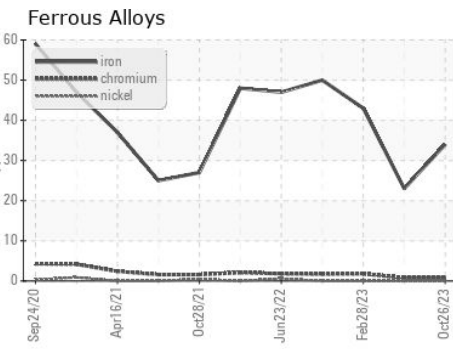
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.7	<b>14.0</b>	14.0	13.8

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : IL0032763 **Received** : 31 Oct 2023  
**Lab Number** : **05993998** **Diagnosed** : 01 Nov 2023  
**Unique Number** : 10722358 **Diagnostician** : Don Baldrige  
**Test Package** : FLEET

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To discuss this sample report, contact Customer Service at 1-800-237-1369.  
 \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.  
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)