



# WEAR CHECK

## OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**167760**  
Component  
**Diesel Engine**  
Fluid  
**MOBIL 15W40 (--- QTS)**

### RECOMMENDATION

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>WC0904504</b>	WC0861128	WC0815438
Sample Date		Client Info		<b>24 Apr 2024</b>	26 Oct 2023	23 Jul 2023
Machine Age	mls	Client Info		<b>0</b>	236928	218356
Oil Age	mls	Client Info		<b>0</b>	30000	19000
Filter Age	mls	Client Info		<b>0</b>	30000	19000
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>10</b>	8	8
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	1
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	2	<1
Lead	ppm	ASTM D5185m	>40	<b>1</b>	1	<1
Copper	ppm	ASTM D5185m	>330	<b>4</b>	2	3
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

There is no indication of any contamination in the oil.

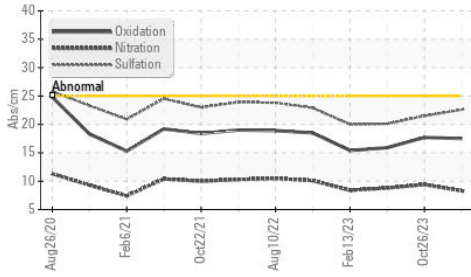
Silicon	ppm	ASTM D5185m	>25	<b>5</b>	4	4
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	2	3
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.4</b>	0.4	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.3</b>	9.4	8.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.6</b>	21.5	20.1
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

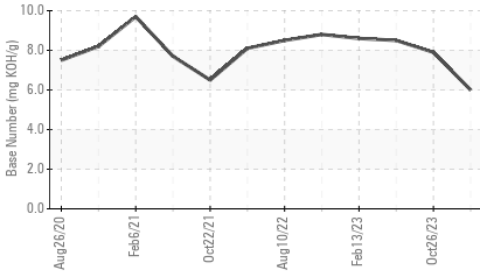
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>118	<b>4</b>	8	8
Boron	ppm	ASTM D5185m		<b>188</b>	3	<1
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>82</b>	57	66
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>508</b>	887	1016
Calcium	ppm	ASTM D5185m		<b>1260</b>	1032	1148
Phosphorus	ppm	ASTM D5185m		<b>1069</b>	1078	1031
Zinc	ppm	ASTM D5185m		<b>1218</b>	1199	1260
Sulfur	ppm	ASTM D5185m		<b>3254</b>	3077	3872
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.5</b>	17.7	15.9
Base Number (BN)	mg KOH/g	ASTM D2896		<b>6.0</b>	7.9	8.5
Visc @ 100°C	cSt	ASTM D445		<b>12.9</b>	12.9	12.6

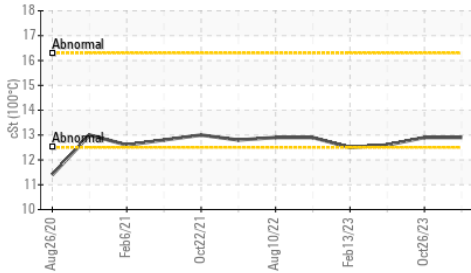
FT-IR (Direct Trend)



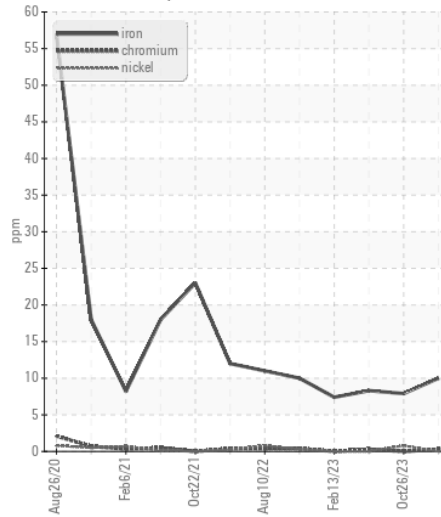
Base Number



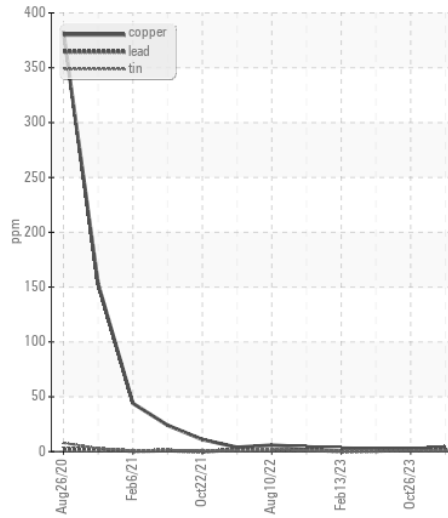
Viscosity @ 100°C



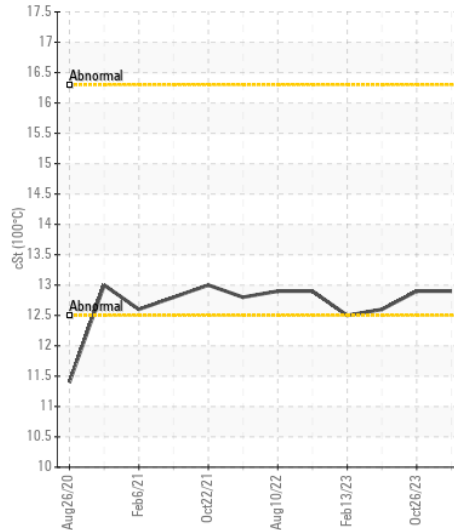
Ferrous Alloys



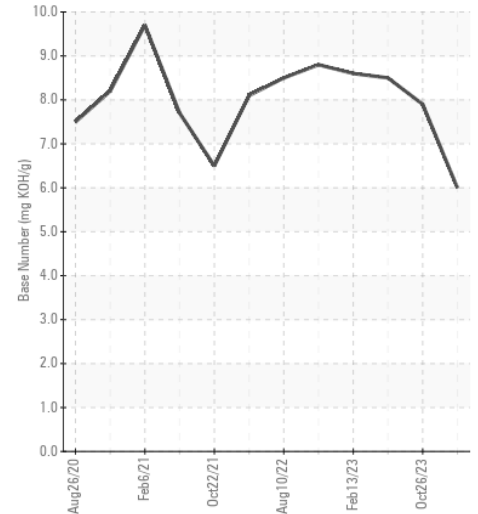
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : WC0904504  
 Lab Number : 06174848  
 Unique Number : 11020901  
 Test Package : FLEET

Received : 09 May 2024  
 Tested : 10 May 2024  
 Diagnosed : 10 May 2024 - Wes Davis

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 198 PARK PLAZA DRIVE  
 WINSTON SALEM, NC  
 US 27105

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F: x:

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)