



# OIL ANALYSIS REPORT

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

Machine Id  
**337258**  
 Component  
**Diesel Engine**  
 Fluid  
**MOBIL 15W40 (--- QTS)**

## RECOMMENDATION

We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0904396</b>	---	---
Sample Date		Client Info		<b>10 Apr 2024</b>	---	---
Machine Age	mls	Client Info		<b>62050</b>	---	---
Oil Age	mls	Client Info		<b>0</b>	---	---
Filter Age	mls	Client Info		<b>0</b>	---	---
Oil Changed		Client Info		<b>N/A</b>	---	---
Filter Changed		Client Info		<b>N/A</b>	---	---
Sample Status				<b>ABNORMAL</b>	---	---

## WEAR

Cylinder, crank, or cam shaft wear is indicated.

Iron	ppm	ASTM D5185m	>100	<b>▲ 147</b>	---	---
Chromium	ppm	ASTM D5185m	>20	<b>6</b>	---	---
Nickel	ppm	ASTM D5185m	>4	<b>2</b>	---	---
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	---	---
Aluminum	ppm	ASTM D5185m	>20	<b>24</b>	---	---
Lead	ppm	ASTM D5185m	>40	<b>13</b>	---	---
Copper	ppm	ASTM D5185m	>330	<b>41</b>	---	---
Tin	ppm	ASTM D5185m	>15	<b>6</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---

## CONTAMINATION

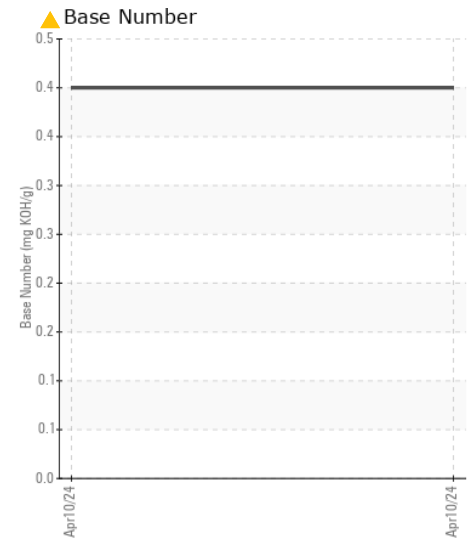
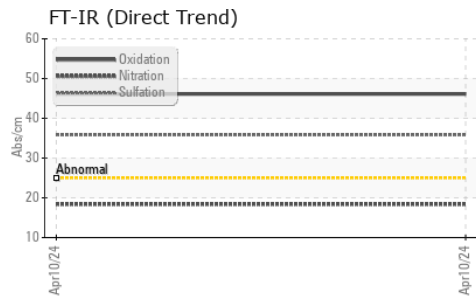
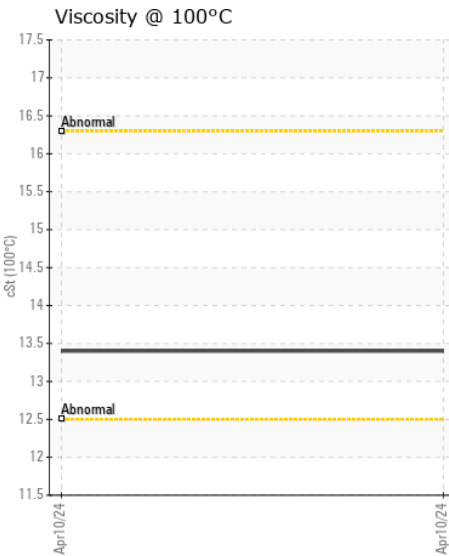
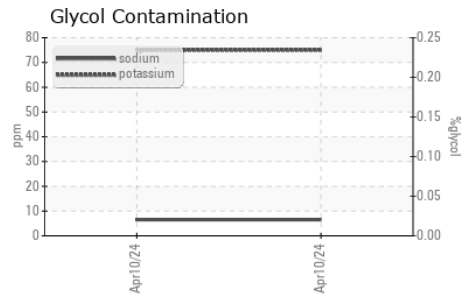
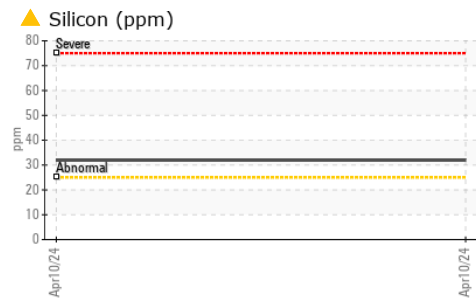
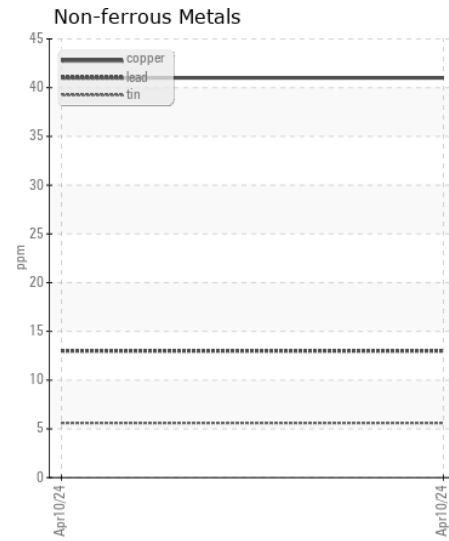
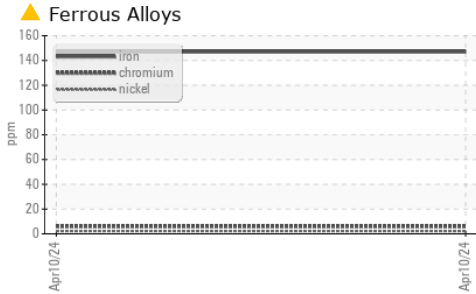
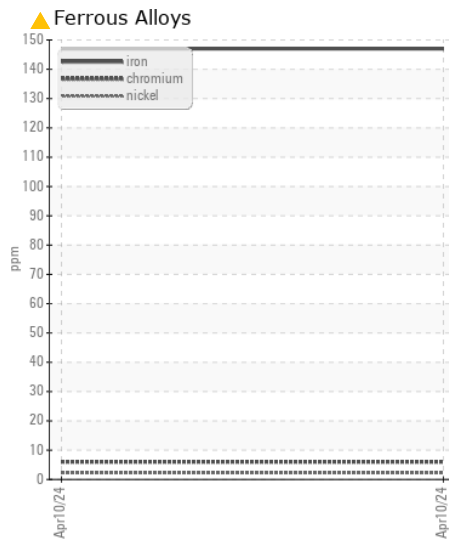
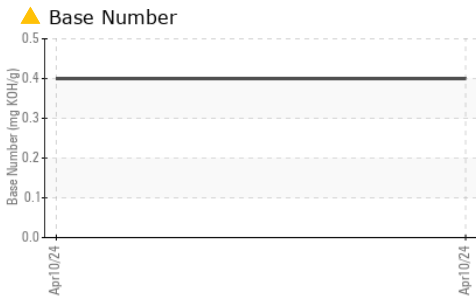
Elemental level of silicon (Si) above normal indicating ingress of seal material. Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components.

Silicon	ppm	ASTM D5185m	>25	<b>▲ 32</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>75</b>	---	---
Fuel		WC Method	>5	<b>&lt;1.0</b>	---	---
Water		WC Method	>0.2	<b>NEG</b>	---	---
Glycol		WC Method		<b>NEG</b>	---	---
Soot %	%	*ASTM D7844	>3	<b>0.5</b>	---	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>18.4</b>	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>35.8</b>	---	---
Silt	scalar	*Visual	NONE	<b>NONE</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>	---	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	---	---

## FLUID CONDITION

The BN level is low. The oil is no longer serviceable.

Sodium	ppm	ASTM D5185m	>118	<b>6</b>	---	---
Boron	ppm	ASTM D5185m		<b>35</b>	---	---
Barium	ppm	ASTM D5185m		<b>5</b>	---	---
Molybdenum	ppm	ASTM D5185m		<b>63</b>	---	---
Manganese	ppm	ASTM D5185m		<b>7</b>	---	---
Magnesium	ppm	ASTM D5185m		<b>431</b>	---	---
Calcium	ppm	ASTM D5185m		<b>1863</b>	---	---
Phosphorus	ppm	ASTM D5185m		<b>1111</b>	---	---
Zinc	ppm	ASTM D5185m		<b>1323</b>	---	---
Sulfur	ppm	ASTM D5185m		<b>3235</b>	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>46.1</b>	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		<b>▲ 0.4</b>	---	---
Visc @ 100°C	cSt	ASTM D445		<b>13.4</b>	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0904396  
**Lab Number** : 06152571  
**Unique Number** : 10982649  
**Test Package** : FLEET

**Received** : 17 Apr 2024  
**Tested** : 18 Apr 2024  
**Diagnosed** : 22 Apr 2024 - Don Baldrige

**SALEM NATIONALEASE CORPORATION**  
 198 PARK PLAZA DRIVE  
 WINSTON SALEM, NC  
 US 27105

Contact: Audrey Hopkins  
 Audrey.Hopkins@salemcorp.com  
 T: (336)767-9642

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)

F: x: