



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**1475**  
 Component  
**Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL SAE 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>WC0905766</b>	WC0821339	WC0792874
Sample Date		Client Info		<b>25 Mar 2024</b>	26 Jun 2023	29 Mar 2023
Machine Age	mls	Client Info		<b>200047</b>	188993	184269
Oil Age	mls	Client Info		<b>0</b>	0	0
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Changed	Not Changd
Sample Status				<b>NORMAL</b>	ABNORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>15</b>	31	13
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	2	<1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>6</b>	8	8
Lead	ppm	ASTM D5185m	>40	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

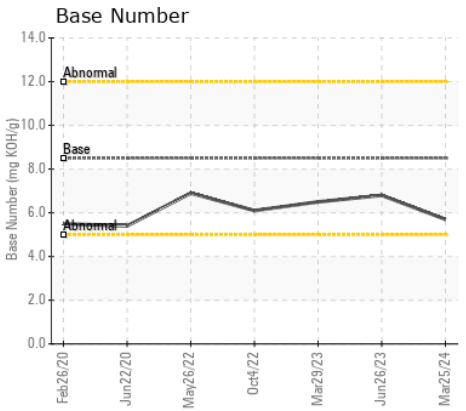
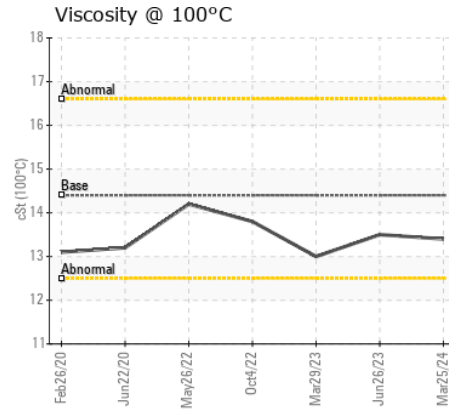
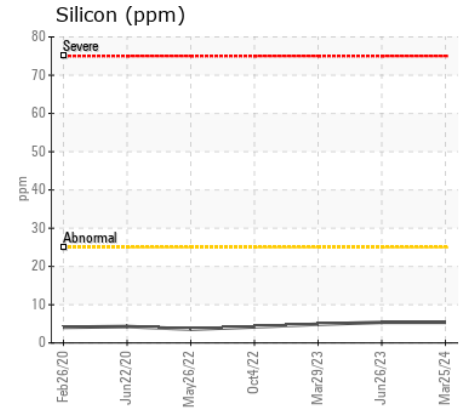
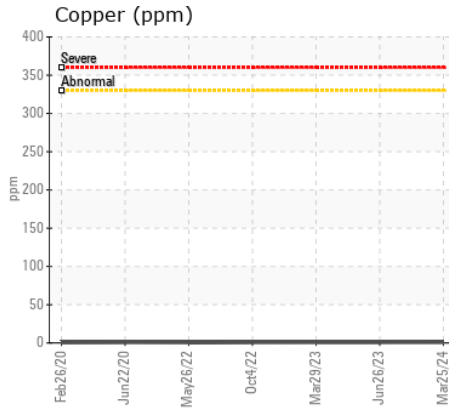
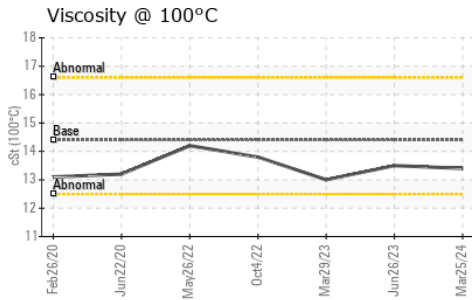
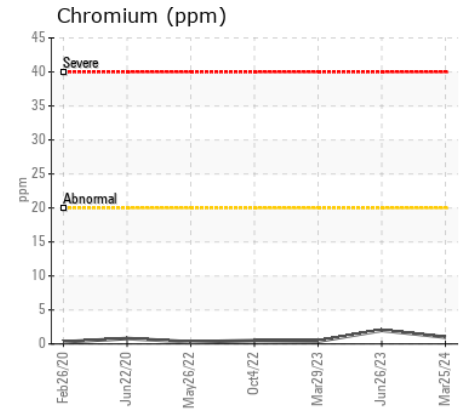
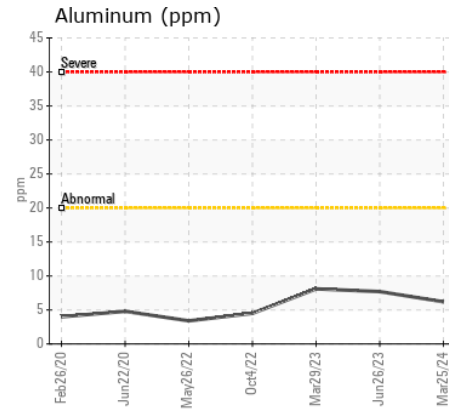
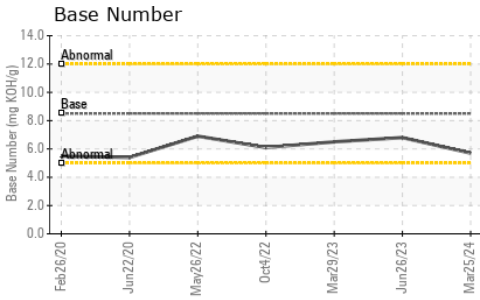
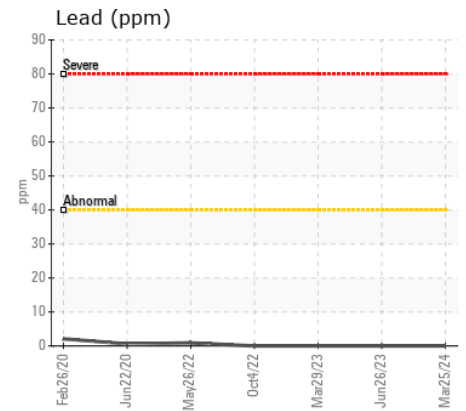
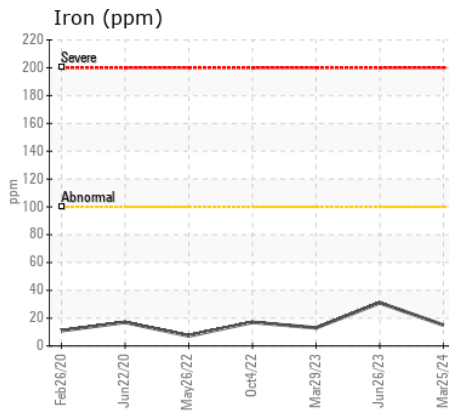
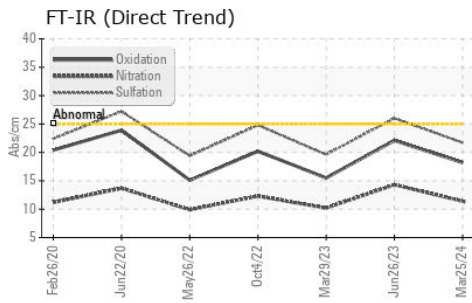
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>5</b>	5	5
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	▲ 189	6
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>0.7</b>	1	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.4</b>	14.3	10.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.7</b>	26.0	19.6
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	>158	<b>3</b>	▲ 171	2
Boron	ppm	ASTM D5185m	250	<b>22</b>	19	44
Barium	ppm	ASTM D5185m	10	<b>0</b>	0	3
Molybdenum	ppm	ASTM D5185m	100	<b>83</b>	106	92
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	450	<b>98</b>	71	62
Calcium	ppm	ASTM D5185m	3000	<b>1955</b>	2300	2247
Phosphorus	ppm	ASTM D5185m	1150	<b>951</b>	1017	1072
Zinc	ppm	ASTM D5185m	1350	<b>1158</b>	1265	1250
Sulfur	ppm	ASTM D5185m	4250	<b>3660</b>	4455	3727
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.2</b>	22.1	15.5
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>5.7</b>	6.8	6.5
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.4</b>	13.5	13.0



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0905766  
**Lab Number** : 06188984  
**Unique Number** : 11045736  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**Received** : 23 May 2024  
**Tested** : 24 May 2024  
**Diagnosed** : 24 May 2024 - Wes Davis

**WAKE COUNTY PUBLIC SCHOOL SYSTEM**  
 1551 ROCK QUARRY ROAD  
 RALEIGH, NC  
 US 27610

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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)