



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
1588
 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		WC0906146	WC0792942	WC0671078
Sample Date		Client Info		21 Feb 2024	02 Mar 2023	23 Feb 2022
Machine Age	mls	Client Info		219896	204073	186157
Oil Age	mls	Client Info		0	0	0
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Not Changd	Not Changd
Sample Status				NORMAL	ABNORMAL	SEVERE

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	9	32	26
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	9	2	7
Lead	ppm	ASTM D5185m	>40	2	0	0
Copper	ppm	ASTM D5185m	>330	<1	22	<1
Tin	ppm	ASTM D5185m	>15	0	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

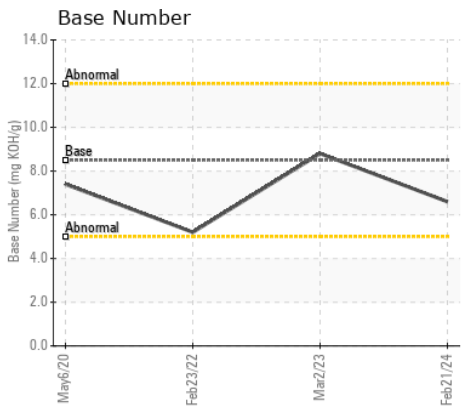
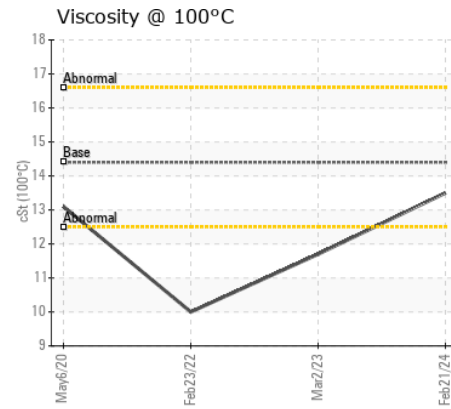
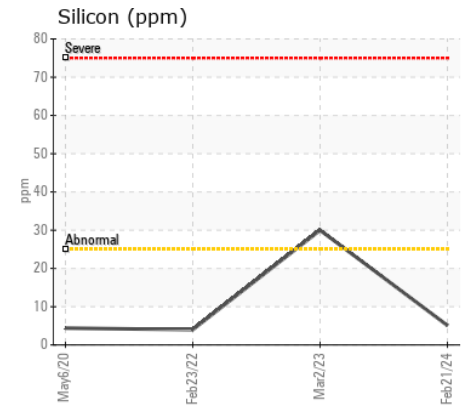
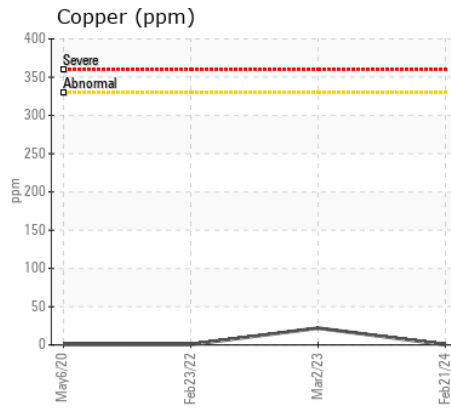
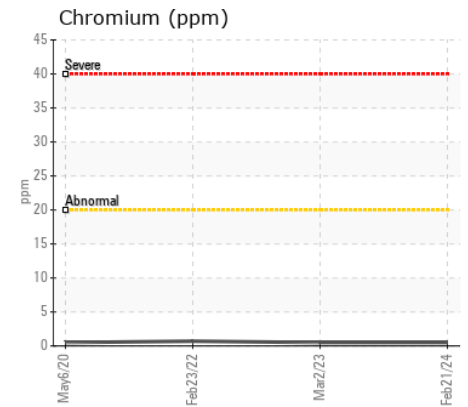
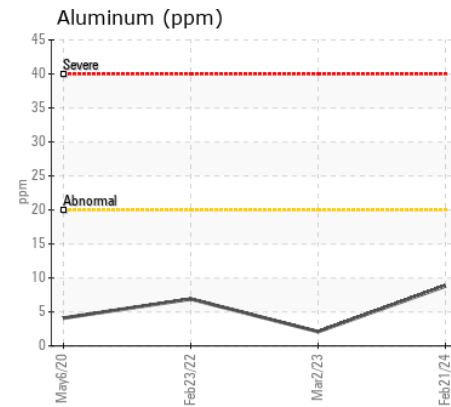
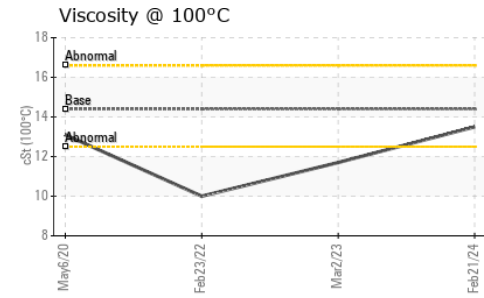
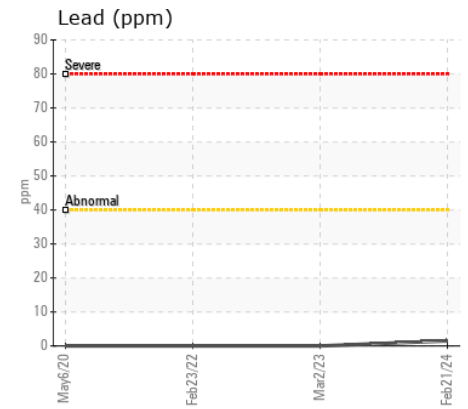
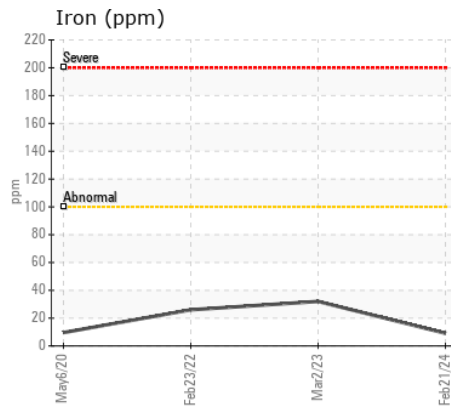
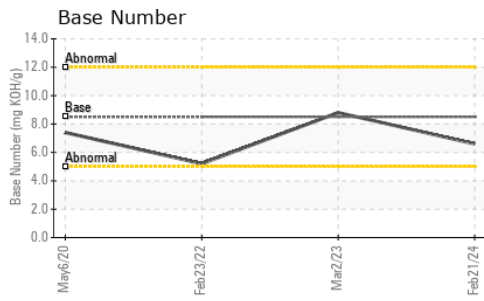
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	5	▲ 30	4
Potassium	ppm	ASTM D5185m	>20	4	5	6
Fuel		WC Method	>5	<1.0	0.4	● 20.2
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	1.3	0.1	1.1
Nitration	Abs/cm	*ASTM D7624	>20	11.3	5.9	12.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.6	19.4	26.5
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	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	3	4	0
Boron	ppm	ASTM D5185m	250	25	207	21
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	83	25	73
Manganese	ppm	ASTM D5185m		<1	4	0
Magnesium	ppm	ASTM D5185m	450	132	198	0
Calcium	ppm	ASTM D5185m	3000	2047	1949	1735
Phosphorus	ppm	ASTM D5185m	1150	1064	930	722
Zinc	ppm	ASTM D5185m	1350	1257	1175	872
Sulfur	ppm	ASTM D5185m	4250	3488	3808	1931
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.7	15.4	25.1
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	6.6	8.8	5.2
Visc @ 100°C	cSt	ASTM D445	14.4	13.5	▲ 11.7	▲ 10.0



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : WC0906146

Lab Number : 06100798

Unique Number : 10899028

Test Package : MOB 1 (Additional Tests: TBN)

Received : 26 Feb 2024

Tested : 27 Feb 2024

Diagnosed : 27 Feb 2024 - Wes Davis

WAKE COUNTY PUBLIC SCHOOL SYSTEM

1551 ROCK QUARRY ROAD

RALEIGH, NC

US 27610

Contact: DEVIN WEBER

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T: (919)856-8076

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)