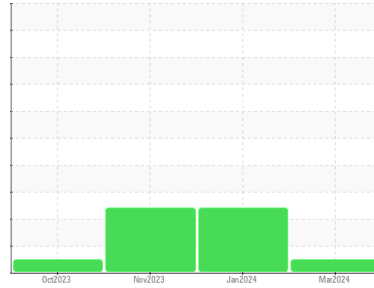




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**1710**  
 Component  
**Diesel Engine**  
 Fluid  
**DISEL ENGINE OIL SAE 15W40 (--- GAL)**

## 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>WC0894051</b>	WC0893983	WC0868074
Sample Date	Client Info			<b>30 Mar 2024</b>	16 Jan 2024	10 Nov 2023
Machine Age	mls	Client Info		<b>0</b>	0	0
Oil Age	mls	Client Info		<b>0</b>	0	0
Oil Changed	Client Info			<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	ABNORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
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>	0.0	0.0

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	<b>7</b>	16	13
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	3	3
Lead	ppm	ASTM D5185m	>40	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>330	<b>14</b>	2	<1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	<1	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	<b>44</b>	3	7
Barium	ppm	ASTM D5185m	10	<b>2</b>	0	0
Molybdenum	ppm	ASTM D5185m	100	<b>44</b>	55	64
Manganese	ppm	ASTM D5185m		<b>7</b>	<1	<1
Magnesium	ppm	ASTM D5185m	450	<b>740</b>	831	879
Calcium	ppm	ASTM D5185m	3000	<b>1085</b>	971	1052
Phosphorus	ppm	ASTM D5185m	1150	<b>705</b>	991	1027
Zinc	ppm	ASTM D5185m	1350	<b>828</b>	1077	1234
Sulfur	ppm	ASTM D5185m	4250	<b>2629</b>	3138	3034

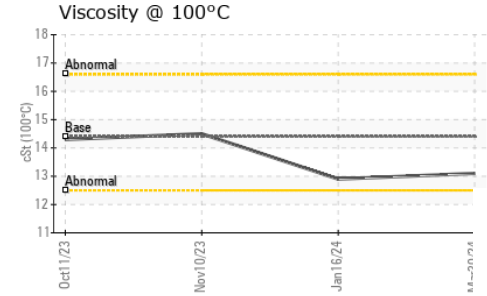
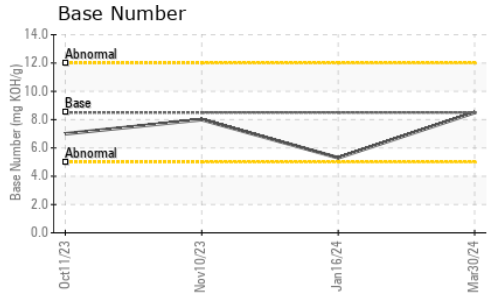
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>22</b>	7	7
Sodium	ppm	ASTM D5185m	>158	<b>4</b>	▲ 125	▲ 147
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	▲ 70	▲ 107

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	0.6	0.9
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.3</b>	10.4	10.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.6</b>	25.7	21.8

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>20.8</b>	29.5	19.2
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>8.5</b>	5.3	8.0



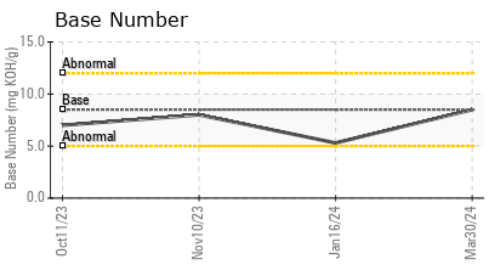
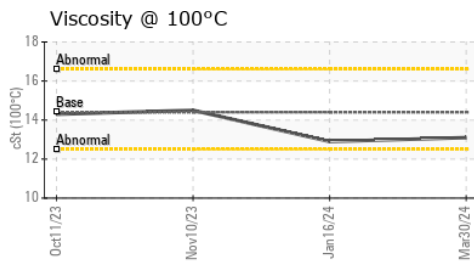
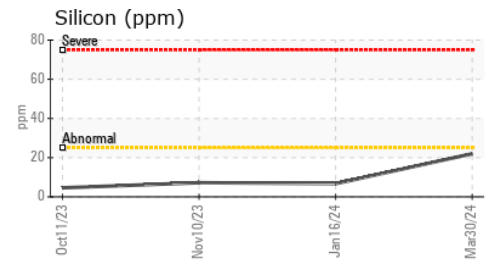
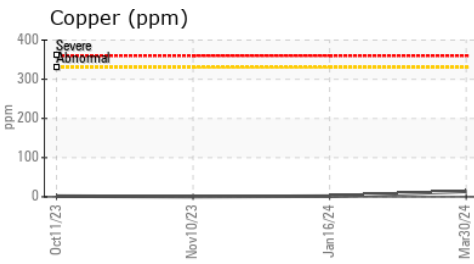
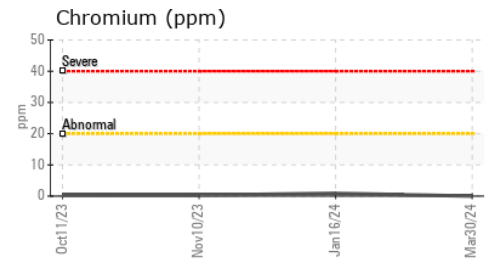
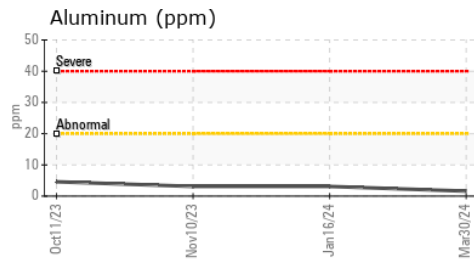
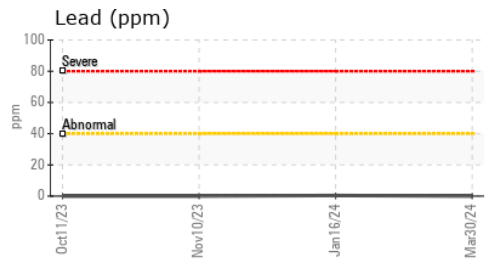
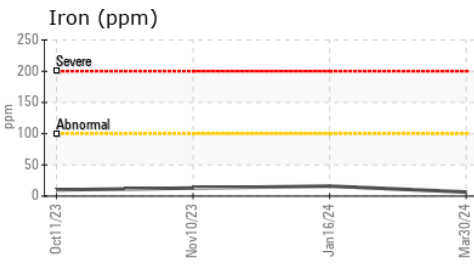
# OIL ANALYSIS REPORT



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	14.4	<b>13.1</b>	12.9	14.5

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0894051      **Received** : 03 Apr 2024  
**Lab Number** : **06137114**      **Tested** : 03 Apr 2024  
**Unique Number** : 10956579      **Diagnosed** : 03 Apr 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**GO DURHAM - RAPT**  
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 DURHAM, NC  
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 Robert.iosiniecki@ratpdev.com  
 T:  
 F:

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)