



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**CR1224**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0952140</b>	WC0951999	WC0704591
Sample Date		Client Info		<b>26 Jun 2024</b>	21 Jun 2024	15 Jun 2022
Machine Age	hrs	Client Info		<b>2495</b>	2495	825
Oil Age	hrs	Client Info		<b>522</b>	815	563
Filter Age	hrs	Client Info		<b>0</b>	0	563
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>6</b>	14	19
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	<1	<1
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	3	1
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	1	1
Copper	ppm	ASTM D5185m	>330	<b>4</b>	11	37
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	1	1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

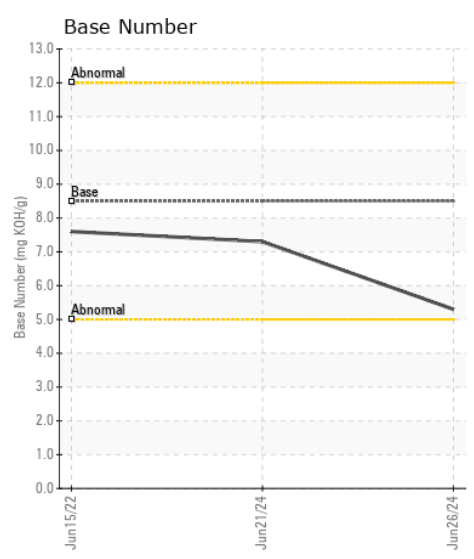
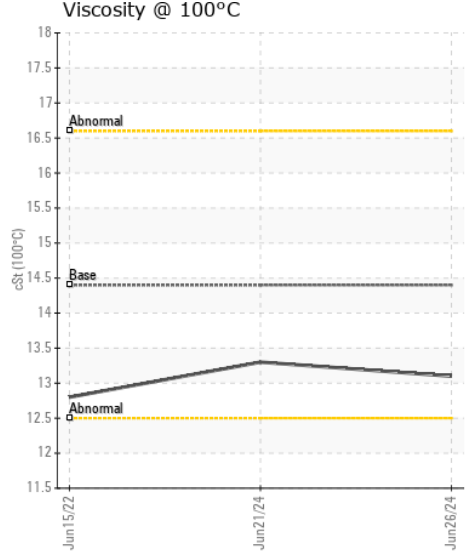
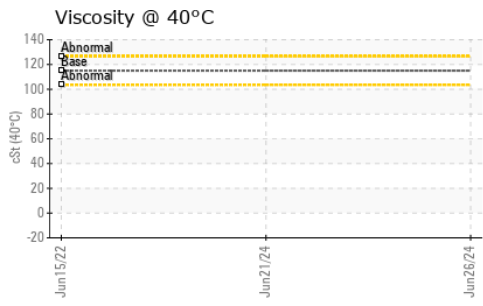
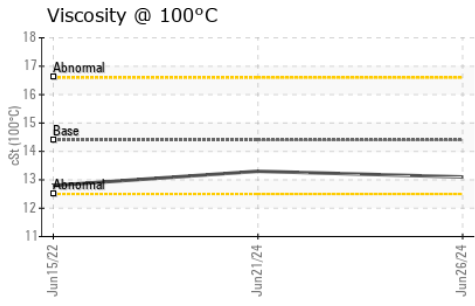
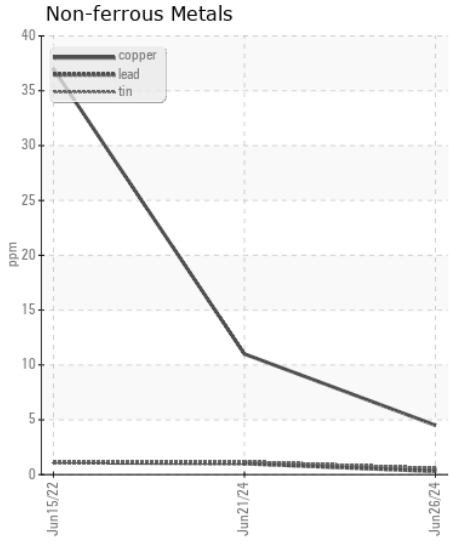
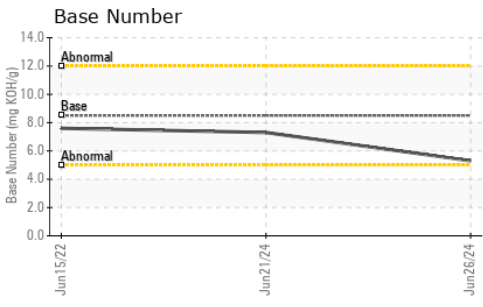
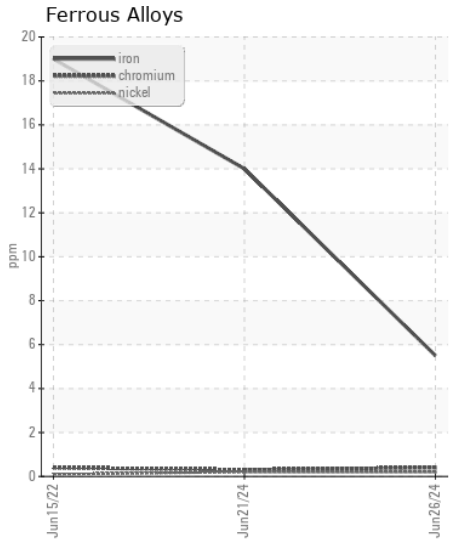
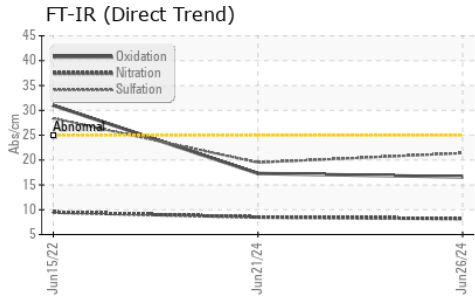
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>7</b>	5	10
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	2	0
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>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.2</b>	8.5	9.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.4</b>	19.5	28.4
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>&lt;1</b>	2	2
Boron	ppm	ASTM D5185m	250	<b>106</b>	61	55
Barium	ppm	ASTM D5185m	10	<b>&lt;1</b>	<1	5
Molybdenum	ppm	ASTM D5185m	100	<b>13</b>	51	49
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	2
Magnesium	ppm	ASTM D5185m	450	<b>144</b>	839	850
Calcium	ppm	ASTM D5185m	3000	<b>2072</b>	1095	1326
Phosphorus	ppm	ASTM D5185m	1150	<b>915</b>	1018	865
Zinc	ppm	ASTM D5185m	1350	<b>1113</b>	1196	1103
Sulfur	ppm	ASTM D5185m	4250	<b>2883</b>	3070	3201
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.6</b>	17.3	31.0
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>5.3</b>	7.3	7.6
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.1</b>	13.3	12.8



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0952140 **Received** : 02 Jul 2024  
**Lab Number** : 06226029 **Tested** : 05 Jul 2024  
**Unique Number** : 11109522 **Diagnosed** : 05 Jul 2024 - Jonathan Hester  
**Test Package** : CONST ( Additional Tests: TBN, KV40 )

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Certificate L2367  
 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)