



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**HC2221**  
Component  
**Diesel Engine**  
Fluid  
**SHELL ROTELLA T6 5W40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor. CAUSE OF RISE IN OIL LEVEL IS NOT INDICATED.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0923024</b>	WC0923083	WC0810395
Sample Date		Client Info		<b>12 Jun 2024</b>	28 Mar 2024	16 Jul 2023
Machine Age	hrs	Client Info		<b>3374</b>	3284	2837
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changd</b>	Changed	Changed
Filter Changed		Client Info		<b>Not Changd</b>	N/A	Changed
Sample Status				<b>NORMAL</b>	ATTENTION	ATTENTION

## WEAR

All component wear rates are normal.

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

## CONTAMINATION

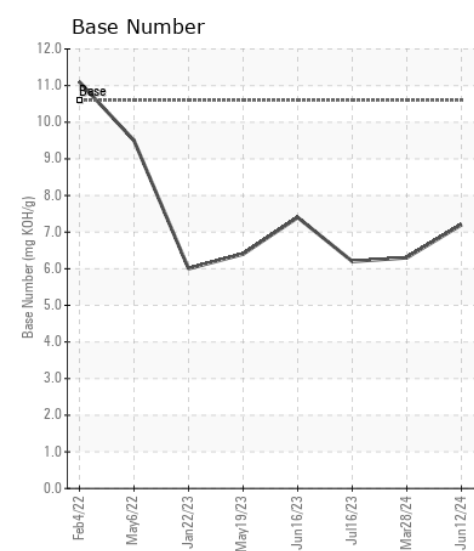
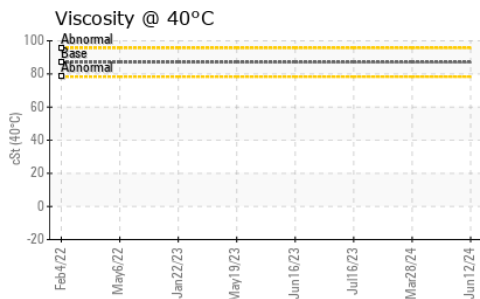
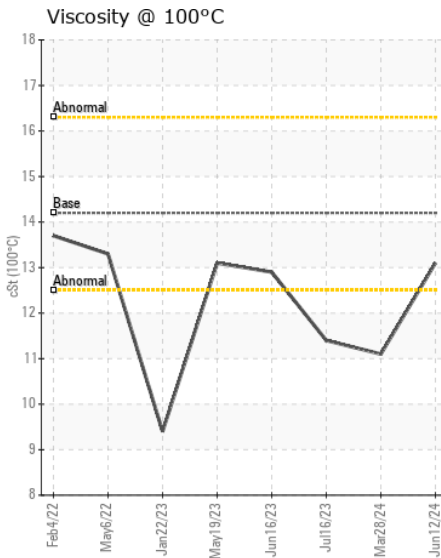
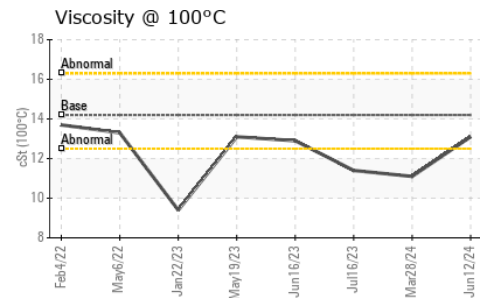
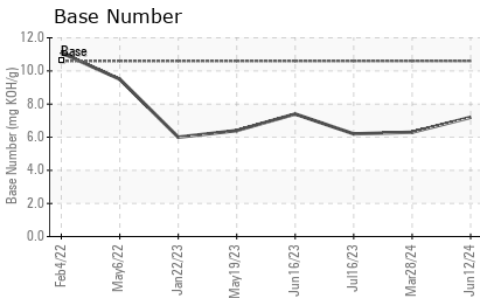
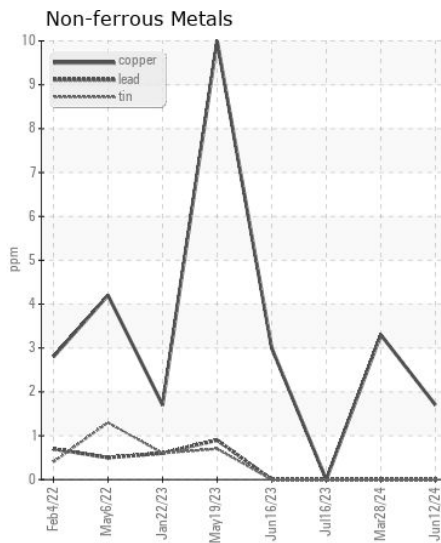
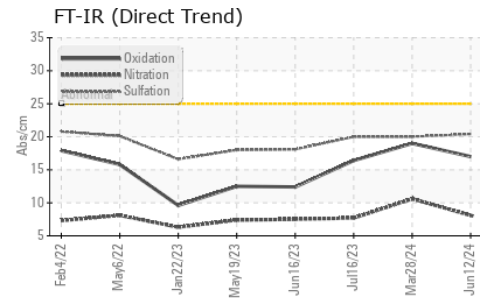
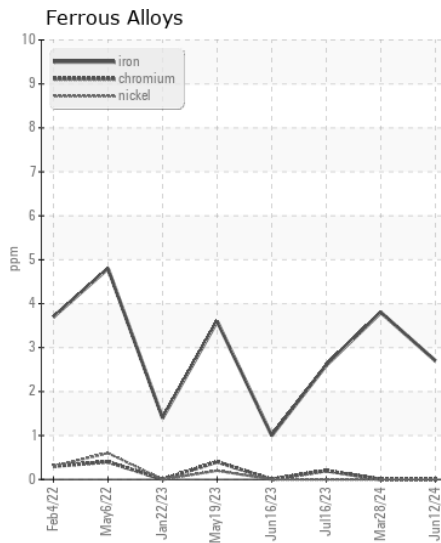
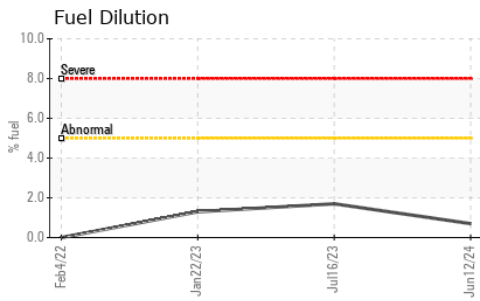
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>8</b>	8	4
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	<1	2
Fuel	%	ASTM D3524	>5	<b>0.7</b>	<1.0	1.7
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.1</b>	10.6	7.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.4</b>	20.0	20.0
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		<b>2</b>	3	0
Boron	ppm	ASTM D5185m		<b>115</b>	46	153
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>18</b>	42	0
Manganese	ppm	ASTM D5185m		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m		<b>362</b>	668	42
Calcium	ppm	ASTM D5185m		<b>1724</b>	1420	2254
Phosphorus	ppm	ASTM D5185m		<b>954</b>	761	1010
Zinc	ppm	ASTM D5185m		<b>1041</b>	891	1299
Sulfur	ppm	ASTM D5185m		<b>3555</b>	2904	4672
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.0</b>	19.0	16.4
Base Number (BN)	mg KOH/g	ASTM D2896	10.6	<b>7.2</b>	6.3	6.2
Visc @ 100°C	cSt	ASTM D445	14.2	<b>13.1</b>	● 11.1	● 11.4



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0923024 **Received** : 17 Jun 2024  
**Lab Number** : 06211262 **Tested** : 18 Jun 2024  
**Unique Number** : 11084126 **Diagnosed** : 18 Jun 2024 - Doug Bogart  
**Test Package** : CONST ( Additional Tests: FUELDILUTION, KV40, PercentFuel, TBN )

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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)