



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**REED T0A-107-T4B-ST 5400061 (S/N 44510-01)**  
 Component  
**Diesel Engine**  
 Fluid  
**SHELL ROTELLA T 15W40 (--- QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0919179</b>	WC0641783	WC0602111
Sample Date		Client Info		<b>15 May 2024</b>	02 Dec 2022	24 Sep 2021
Machine Age	hrs	Client Info		<b>4034</b>	2807	1775
Oil Age	hrs	Client Info		<b>498</b>	300	250
Filter Age	hrs	Client Info		<b>498</b>	300	250
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>12</b>	10	7
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	2	3
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	1	0
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	2	<1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

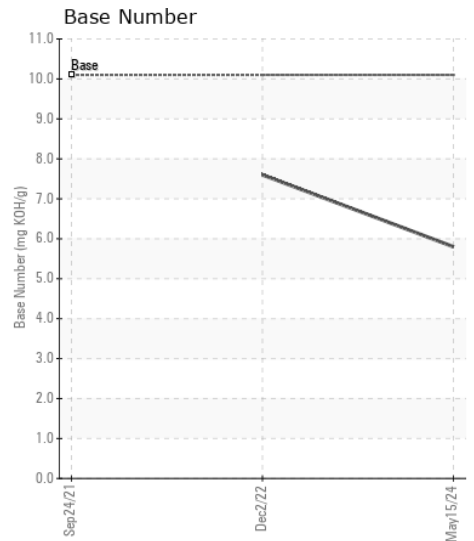
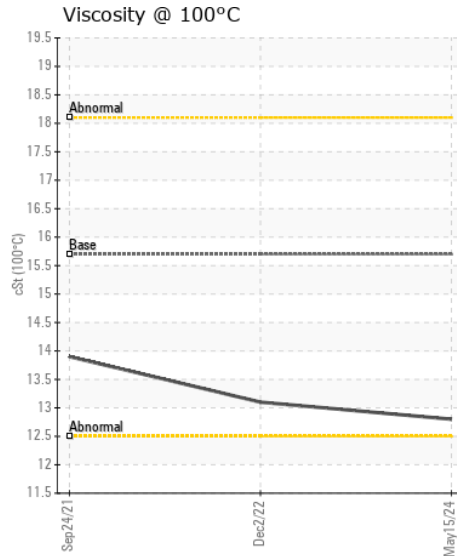
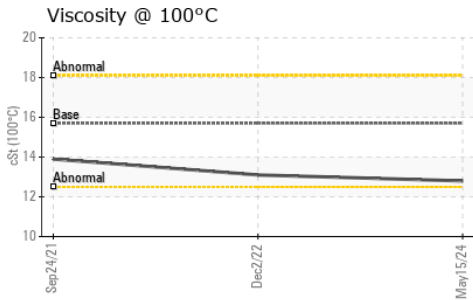
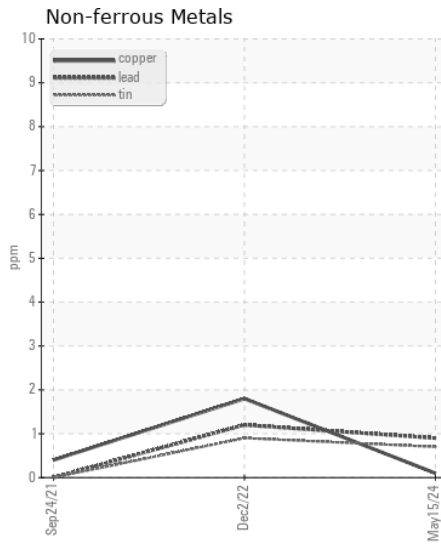
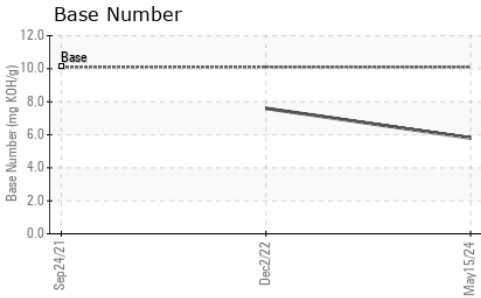
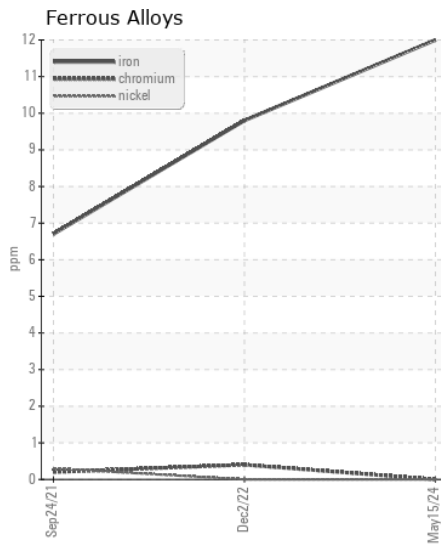
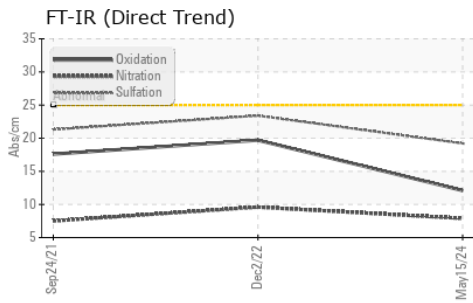
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>7</b>	4	5
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	8	8
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>	0.4	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.9</b>	9.6	7.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.2</b>	23.4	21.3
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>1</b>	2	6
Boron	ppm	ASTM D5185m	316	<b>12</b>	144	179
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	1.2	<b>7</b>	<1	<1
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	24	<b>83</b>	19	33
Calcium	ppm	ASTM D5185m	2292	<b>2070</b>	2282	2276
Phosphorus	ppm	ASTM D5185m	1064	<b>850</b>	990	999
Zinc	ppm	ASTM D5185m	1160	<b>1009</b>	1230	1151
Sulfur	ppm	ASTM D5185m	4996	<b>3645</b>	4225	3168
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>12.1</b>	19.7	17.6
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	<b>5.8</b>	7.6	---
Visc @ 100°C	cSt	ASTM D445	15.7	<b>12.8</b>	13.1	13.9



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0919179 **Received** : 21 May 2024  
**Lab Number** : 06187042 **Tested** : 23 May 2024  
**Unique Number** : 11043794 **Diagnosed** : 23 May 2024 - Sean Felton  
**Test Package** : CONST ( Additional Tests: TBN )

**KELLER-NA - KERNERSVILLE**  
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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)