



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Area  
**Store 9 - Marietta**  
Machine Id  
**KENWORTH 1026**  
Component  
**Diesel Engine**  
Fluid  
**SHELL ROTELLA T 15W40 (10 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LEC0051472</b>	LEC0050203	LEC0048347
Sample Date		Client Info		<b>01 Jul 2024</b>	14 May 2024	22 Mar 2024
Machine Age	hrs	Client Info		<b>51547</b>	51110	50625
Oil Age	hrs	Client Info		<b>400</b>	400	400
Filter Age	hrs	Client Info		<b>400</b>	400	400
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>11</b>	13	13
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>2</b>	2	2
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	1	<1
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	3	3
Lead	ppm	ASTM D5185m	>40	<b>3</b>	6	27
Copper	ppm	ASTM D5185m	>330	<b>2</b>	2	2
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	1	1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

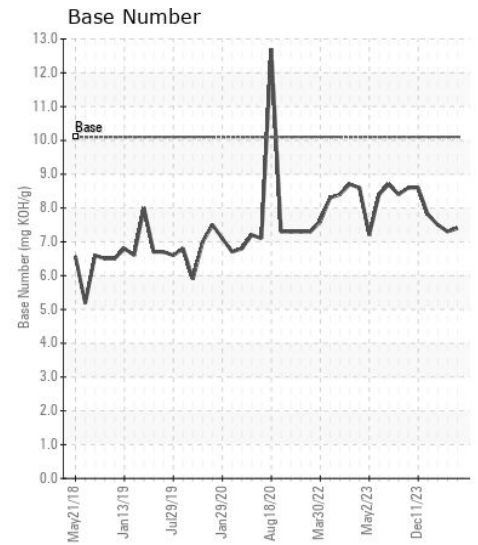
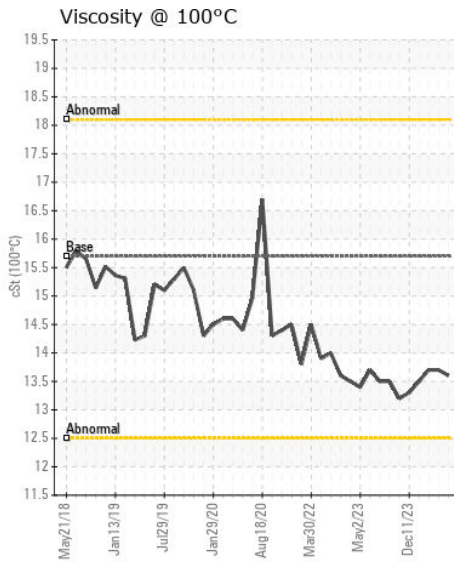
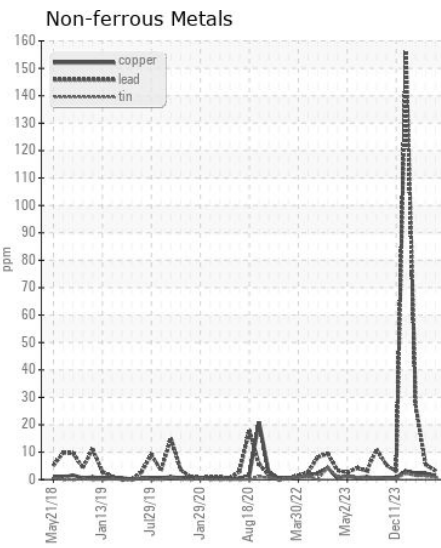
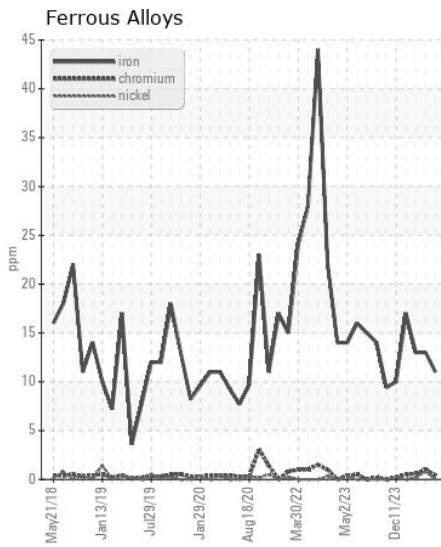
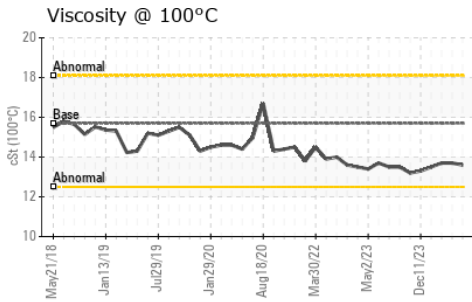
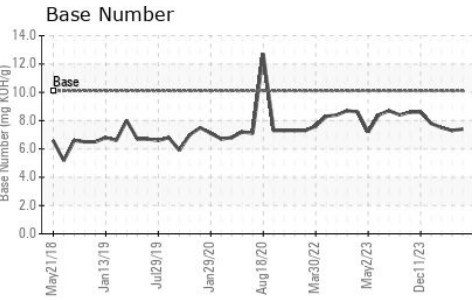
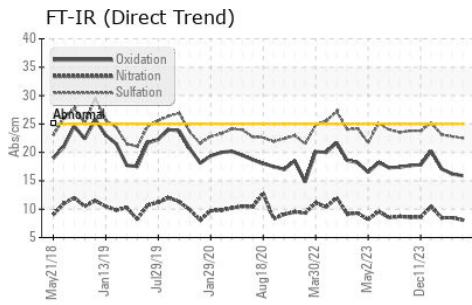
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>120	<b>5</b>	7	8
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	2	2
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>0.4</b>	0.5	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.1</b>	8.5	8.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.5</b>	22.8	23.1
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 acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>0</b>	2	<1
Boron	ppm	ASTM D5185m	316	<b>377</b>	348	301
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	1.2	<b>86</b>	92	108
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	24	<b>412</b>	470	570
Calcium	ppm	ASTM D5185m	2292	<b>1441</b>	1439	1518
Phosphorus	ppm	ASTM D5185m	1064	<b>992</b>	961	872
Zinc	ppm	ASTM D5185m	1160	<b>1221</b>	1162	1063
Sulfur	ppm	ASTM D5185m	4996	<b>3167</b>	3547	3026
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.9</b>	16.2	17.1
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	<b>7.4</b>	7.3	7.5
Visc @ 100°C	cSt	ASTM D445	15.7	<b>13.6</b>	13.7	13.7



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LEC0051472 **Received** : 18 Jul 2024  
**Lab Number** : 06239920 **Tested** : 18 Jul 2024  
**Unique Number** : 11128754 **Diagnosed** : 19 Jul 2024 - Don Baldridge  
**Test Package** : CONST ( Additional Tests: 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)