



# OIL ANALYSIS REPORT

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

Machine Id  
**KENWORTH 3012**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 10W30 (--- QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0906923</b>	WC0906939	WC0663157
Sample Date		Client Info		<b>11 Mar 2024</b>	17 Feb 2024	02 Oct 2023
Machine Age	mls	Client Info		<b>388958</b>	384104	363286
Oil Age	mls	Client Info		<b>25673</b>	363285	46623
Filter Age	mls	Client Info		<b>25673</b>	20819	46623
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Changed
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	Changed
Sample Status				<b>NORMAL</b>	ATTENTION	ATTENTION

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>14</b>	23	98
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	2
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	5	0
Lead	ppm	ASTM D5185m	>40	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>330	<b>3</b>	6	19
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

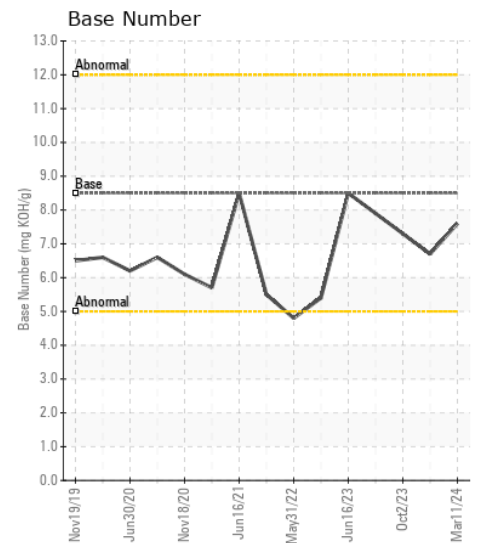
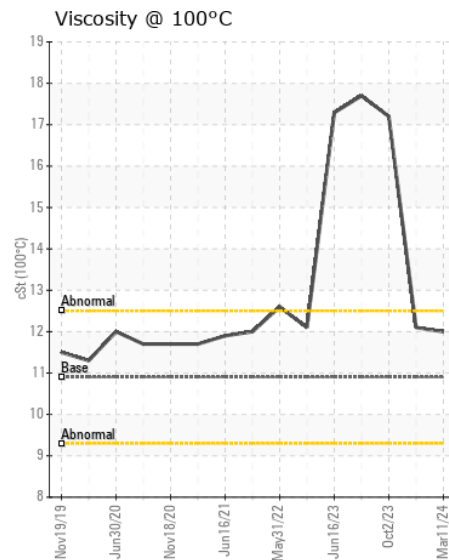
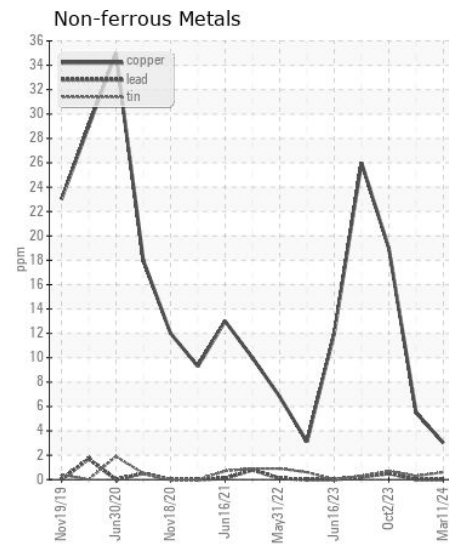
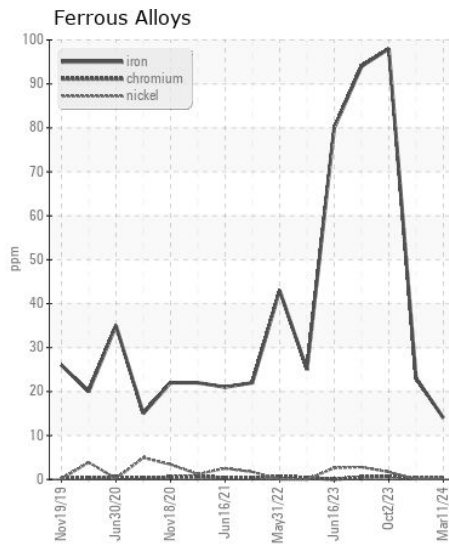
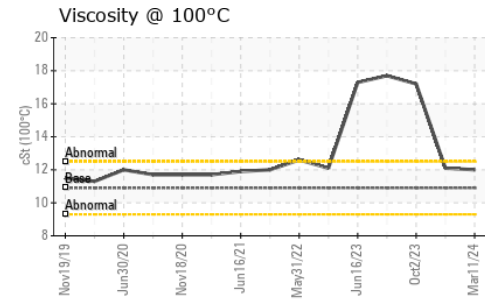
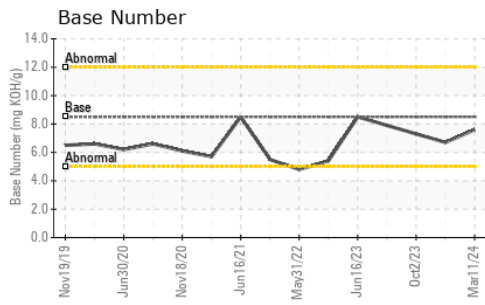
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>5</b>	7	8
Potassium	ppm	ASTM D5185m	>20	<b>8</b>	6	5
Fuel		WC Method	>5	<b>&lt;1.0</b>	0.4	<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>0.3</b>	0.4	0.6
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.2</b>	9.1	7.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.4</b>	21.0	26.5
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>&lt;1</b>	4	3
Boron	ppm	ASTM D5185m	250	<b>62</b>	39	20
Barium	ppm	ASTM D5185m	10	<b>1</b>	0	2
Molybdenum	ppm	ASTM D5185m	100	<b>6</b>	4	2
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	2
Magnesium	ppm	ASTM D5185m	450	<b>719</b>	666	347
Calcium	ppm	ASTM D5185m	3000	<b>1380</b>	1229	642
Phosphorus	ppm	ASTM D5185m	1150	<b>696</b>	747	1048
Zinc	ppm	ASTM D5185m	1350	<b>817</b>	692	428
Sulfur	ppm	ASTM D5185m	4250	<b>3275</b>	2792	3970
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.0</b>	15.7	17.4
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>7.6</b>	6.7	7.3
Visc @ 100°C	cSt	ASTM D445	10.9	<b>12.0</b>	12.1	17.2



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : WC0906923

**Lab Number** : 06125375

**Unique Number** : 10939526

**Test Package** : FLEET

**Received** : 21 Mar 2024

**Tested** : 24 Mar 2024

**Diagnosed** : 24 Mar 2024 - Wes Davis

**LTI/MILKY WAY - SUNNYSIDE**

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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)