



# WEAR CHECK

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

**2H28**

Machine Id

**KENWORTH T270-T370 JTK8744 (S/N EM407130)**

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>ARI0007675</b>	ARI0006390	ARI0006431
Sample Date		Client Info		<b>09 May 2024</b>	20 Dec 2023	04 Oct 2022
Machine Age	mls	Client Info		<b>101621</b>	98455	84885
Oil Age	mls	Client Info		<b>3166</b>	13570	0
Filter Age	mls	Client Info		<b>3166</b>	13570	0
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>27</b>	26	4
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>0</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	4	7
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185m	>330	<b>1</b>	8	<1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<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.

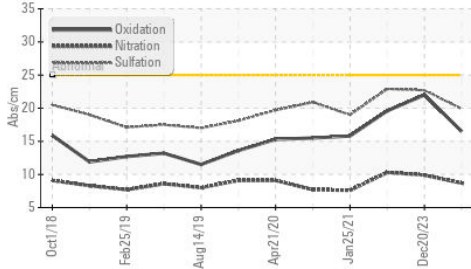
Silicon	ppm	ASTM D5185m	>25	<b>6</b>	7	4
Potassium	ppm	ASTM D5185m	>20	<b>34</b>	32	2
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	0.4
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	%	*ASTM D2982		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.5</b>	0.6	0.7
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.7</b>	9.9	10.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.9</b>	22.7	22.9
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

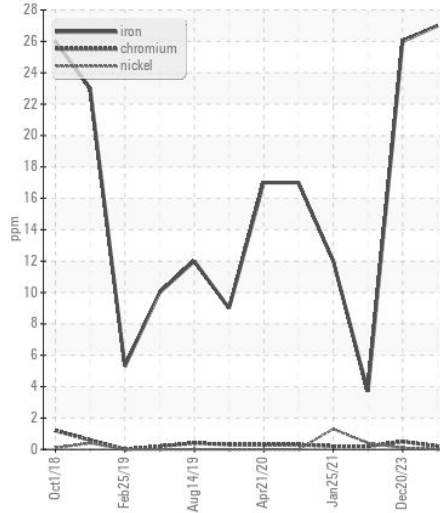
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>158	<b>27</b>	23	<1
Boron	ppm	ASTM D5185m	250	<b>6</b>	36	343
Barium	ppm	ASTM D5185m	10	<b>0</b>	3	0
Molybdenum	ppm	ASTM D5185m	100	<b>60</b>	44	107
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	450	<b>920</b>	486	587
Calcium	ppm	ASTM D5185m	3000	<b>1128</b>	1720	1402
Phosphorus	ppm	ASTM D5185m	1150	<b>1078</b>	756	651
Zinc	ppm	ASTM D5185m	1350	<b>1221</b>	938	763
Sulfur	ppm	ASTM D5185m	4250	<b>3488</b>	2884	2216
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.5</b>	22.0	19.6
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>9.5</b>	8.7	9.6
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.5</b>	12.9	15.2

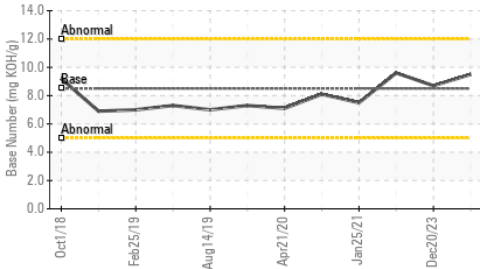
**FT-IR (Direct Trend)**



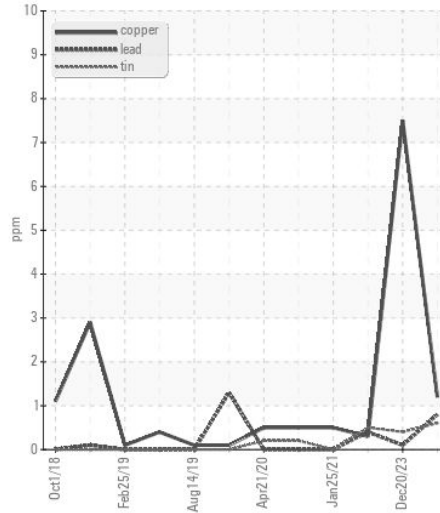
**Ferrous Alloys**



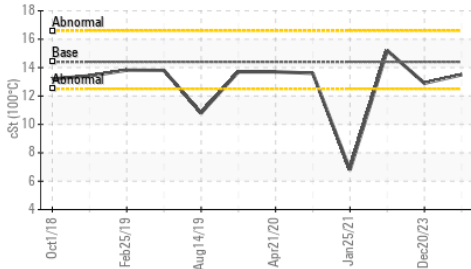
**Base Number**



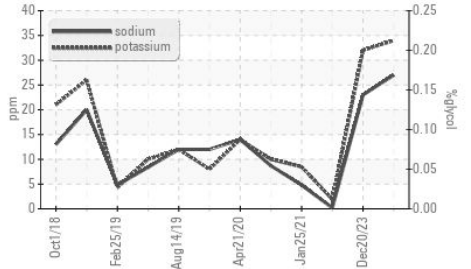
**Non-ferrous Metals**



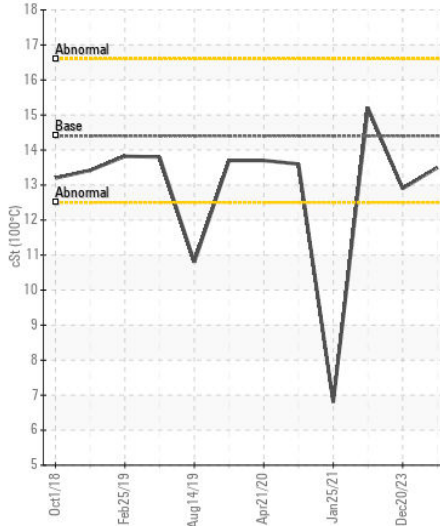
**Viscosity @ 100°C**



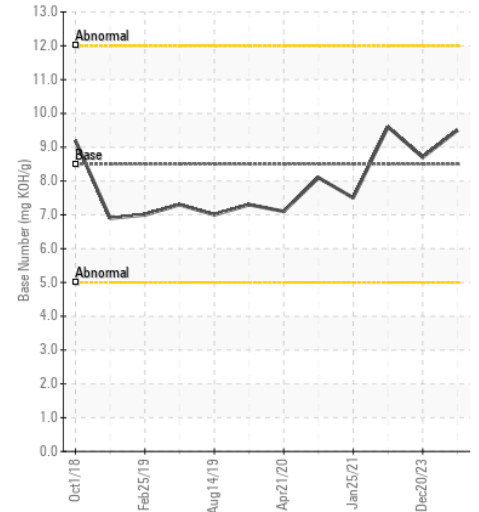
**Glycol Contamination**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ARI0007675 **Received** : 29 May 2024  
**Lab Number** : 06193814 **Tested** : 31 May 2024  
**Unique Number** : 11055937 **Diagnosed** : 31 May 2024 - Jonathan Hester  
**Test Package** : CONST ( Additional Tests: Glycol, 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)