



# OIL ANALYSIS REPORT

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

Machine Id  
**KENWORTH T880 T-888 (S/N 1XKZD40X5PJ225507)**

Component  
**Diesel Engine**

Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

## 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>WC0934684</b>	WC0865158	WC0804122
Sample Date		Client Info		<b>04 May 2024</b>	20 Nov 2023	03 Jul 2023
Machine Age	mls	Client Info		<b>111750</b>	80095	0
Oil Age	mls	Client Info		<b>0</b>	0	0
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>27</b>	29	35
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	2	2
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>3	<b>1</b>	<1	<1
Aluminum	ppm	ASTM D5185m	>20	<b>8</b>	9	11
Lead	ppm	ASTM D5185m	>40	<b>3</b>	1	4
Copper	ppm	ASTM D5185m	>330	<b>2</b>	2	5
Tin	ppm	ASTM D5185m	>15	<b>2</b>	<1	2
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

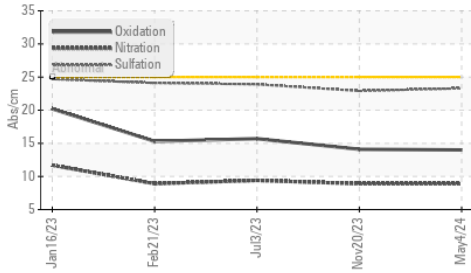
Silicon	ppm	ASTM D5185m	>25	<b>8</b>	8	13
Potassium	ppm	ASTM D5185m	>20	<b>16</b>	23	25
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.5</b>	0.5	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.9</b>	8.9	9.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>23.3</b>	22.9	23.9
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

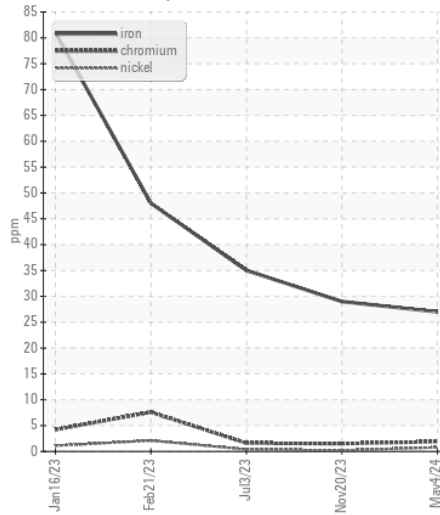
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>158	<b>5</b>	7	3
Boron	ppm	ASTM D5185m	250	<b>2</b>	0	1
Barium	ppm	ASTM D5185m	10	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m	100	<b>4</b>	2	4
Manganese	ppm	ASTM D5185m		<b>1</b>	1	1
Magnesium	ppm	ASTM D5185m	450	<b>56</b>	67	105
Calcium	ppm	ASTM D5185m	3000	<b>2384</b>	2363	2544
Phosphorus	ppm	ASTM D5185m	1150	<b>946</b>	940	973
Zinc	ppm	ASTM D5185m	1350	<b>1116</b>	1155	1172
Sulfur	ppm	ASTM D5185m	4250	<b>3691</b>	3755	4482
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.0</b>	14.1	15.7
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>5.1</b>	5.1	5.2
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.0</b>	13.6	13.1

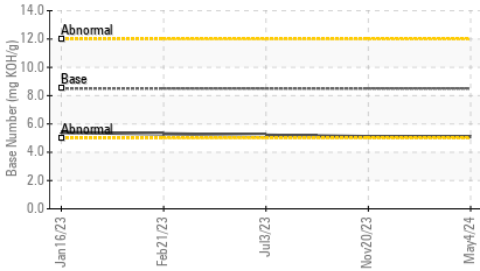
**FT-IR (Direct Trend)**



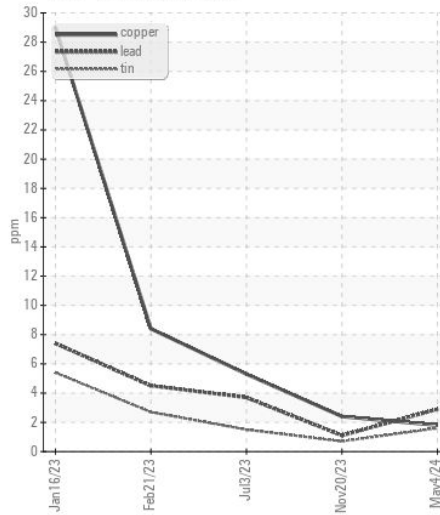
**Ferrous Alloys**



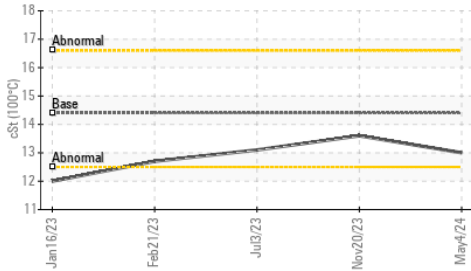
**Base Number**



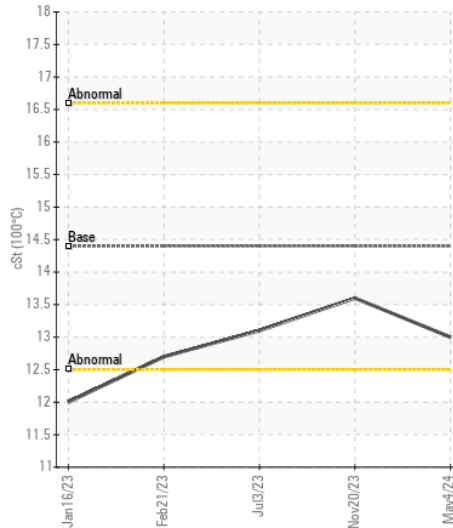
**Non-ferrous Metals**



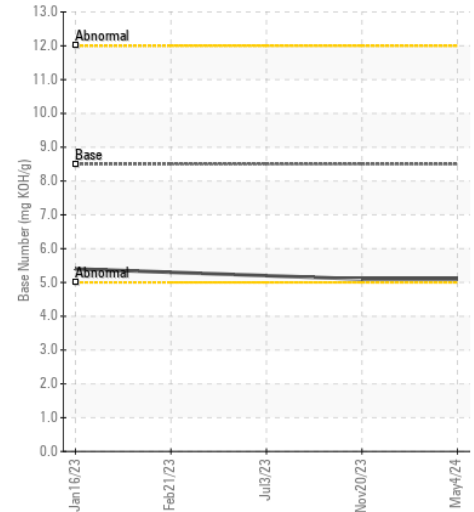
**Viscosity @ 100°C**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0934684 **Received** : 28 May 2024  
**Lab Number** : 06192029 **Tested** : 29 May 2024  
**Unique Number** : 11048781 **Diagnosed** : 29 May 2024 - Wes Davis  
**Test Package** : CONST ( Additional Tests: TBN )

**EAI EQUIPMENT A DIV OF PLEASANT CONSTRUCTION INC**  
 24024 FREDERICK ROAD  
 CLARKSBURG, MD  
 US 20871  
 Contact: Service Manager

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)

T:  
F: