



# WEAR CHECK

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Area

**2H28**

Machine Id

**KENWORTH T370 JTK9733 (S/N 6511385142)**

Component

**Diesel Engine**

Fluid

**DIESEL ENGINE OIL SAE 15W30 (15 QTS)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>ARI0007872</b>	ARI0007413	ARI0007357
Sample Date		Client Info		<b>30 May 2024</b>	06 Jan 2024	14 Nov 2023
Machine Age	mls	Client Info		<b>0</b>	109375	106667
Oil Age	mls	Client Info		<b>0</b>	2708	4804
Filter Age	mls	Client Info		<b>0</b>	2708	4804
Oil Changed		Client Info		<b>N/A</b>	Changed	Changed
Filter Changed		Client Info		<b>N/A</b>	Not Changed	Not Changed
Sample Status				<b>ATTENTION</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>17</b>	17	35
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>7</b>	5	18
Lead	ppm	ASTM D5185m	>40	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>1</b>	<1	<1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	2	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

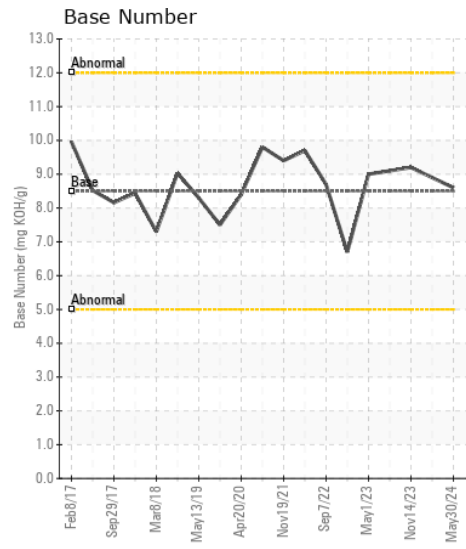
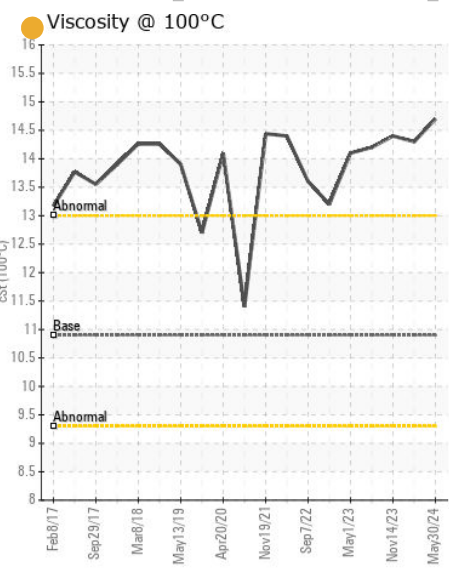
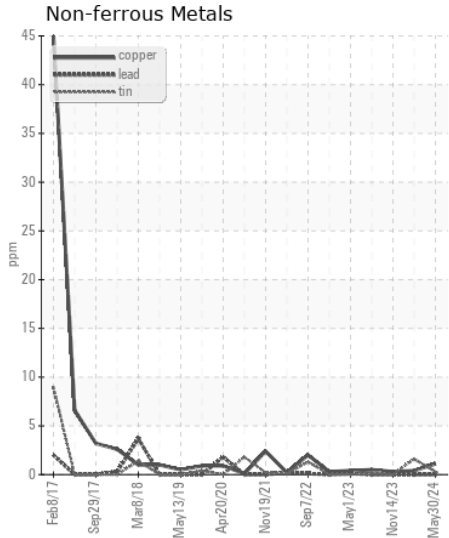
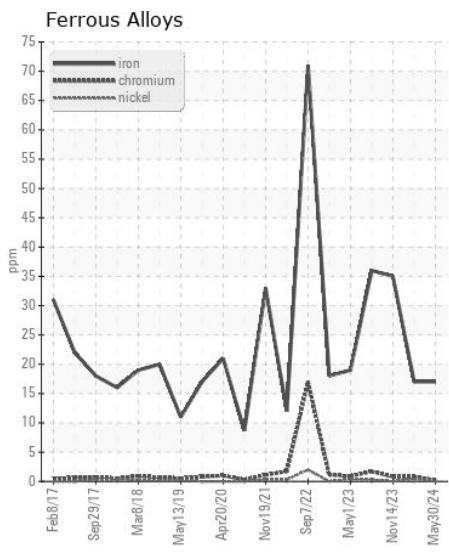
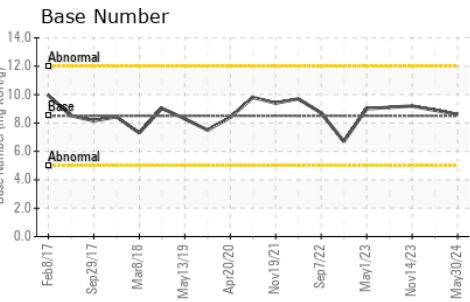
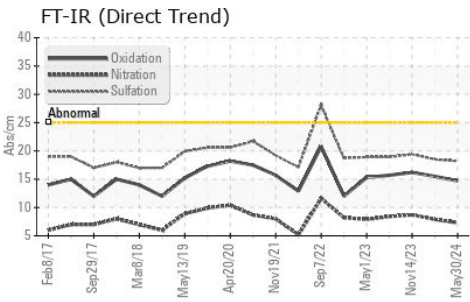
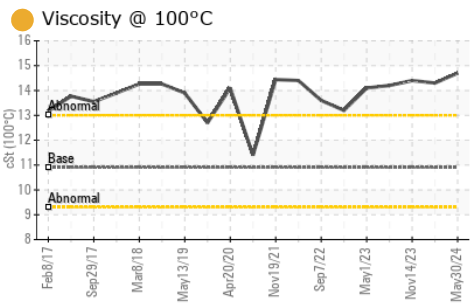
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>5</b>	3	7
Potassium	ppm	ASTM D5185m	>20	<b>8</b>	10	57
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>	0.3	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.3</b>	7.9	8.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.2</b>	18.5	19.4
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 oil viscosity is higher than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m	>25	<b>1</b>	2	0
Boron	ppm	ASTM D5185m	250	<b>7</b>	0	<1
Barium	ppm	ASTM D5185m	10	<b>0</b>	0	3
Molybdenum	ppm	ASTM D5185m	100	<b>58</b>	56	61
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m	450	<b>951</b>	967	907
Calcium	ppm	ASTM D5185m	3000	<b>1065</b>	1056	1020
Phosphorus	ppm	ASTM D5185m	1150	<b>1085</b>	979	991
Zinc	ppm	ASTM D5185m	1350	<b>1239</b>	1234	1183
Sulfur	ppm	ASTM D5185m	4250	<b>3564</b>	3483	3357
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.7</b>	15.5	16.2
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>8.6</b>	8.9	9.2
Visc @ 100°C	cSt	ASTM D445	10.9	<b>14.7</b>	14.3	14.4



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ARI0007872  
**Lab Number** : 06196254  
**Unique Number** : 11058377  
**Test Package** : CONST ( Additional Tests: TBN )

**INSITUFORM TECHNOLOGIES, INC**  
 253F WORCESTER ROAD  
 CHARLTON, MA  
 US 01507

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)

**Received** : 31 May 2024  
**Tested** : 03 Jun 2024  
**Diagnosed** : 03 Jun 2024 - Don Baldrige

Contact: NELSON LEITE  
 NLEITE@INSITUFORM.COM  
 T: (774)364-1927  
 F: (508)248-1709