



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

[Z20830]

Machine Id

KENWORTH TLL42

Component

Diesel Engine

Fluid

VALVOLINE PREMIUM BLUE (48 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC06176864	WC06047321	WC05918215
Sample Date		Client Info		15 Mar 2024	18 Dec 2023	25 Jul 2023
Machine Age	kms	Client Info		540225	486922	421461
Oil Age	kms	Client Info		53303	65461	57120
Filter Age	kms	Client Info		53303	65461	57120
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	12	13	12
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	<1	<1	<1
Titanium	ppm	ASTM D5185m	>2	<1	1	0
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	2	2	3
Lead	ppm	ASTM D5185m	>40	2	3	2
Copper	ppm	ASTM D5185m	>330	1	1	<1
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

There is no indication of any contamination in the oil.

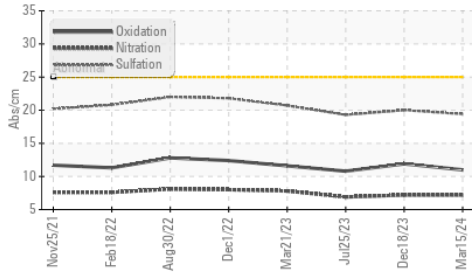
Silicon	ppm	ASTM D5185m	>25	5	6	4
Potassium	ppm	ASTM D5185m	>20	4	2	3
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	0.3	0.3	0.4
Nitration	Abs/cm	*ASTM D7624	>20	7.2	7.2	6.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.4	20.0	19.3
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

FLUID CONDITION

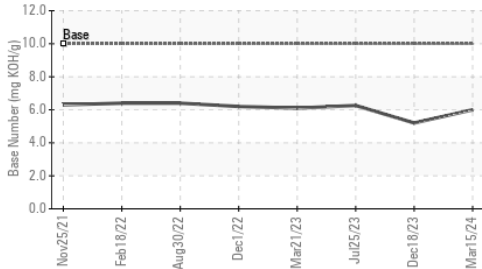
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		0	<1	2
Boron	ppm	ASTM D5185m	2.9	2	2	2
Barium	ppm	ASTM D5185m	0.1	1	10	0
Molybdenum	ppm	ASTM D5185m	0.0	3	2	1
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	18	25	17	17
Calcium	ppm	ASTM D5185m	2936	2579	2432	2726
Phosphorus	ppm	ASTM D5185m	998	1040	902	1017
Zinc	ppm	ASTM D5185m	1095	1137	1114	1193
Sulfur	ppm	ASTM D5185m	5469	4066	3655	3999
Oxidation	Abs/.1mm	*ASTM D7414	>25	11.0	11.9	10.8
Base Number (BN)	mg KOH/g	ASTM D2896	10.0	6.0	5.2	6.26
Visc @ 100°C	cSt	ASTM D445	15.2	13.7	13.4	13.6

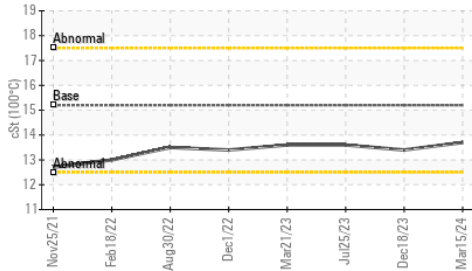
FT-IR (Direct Trend)



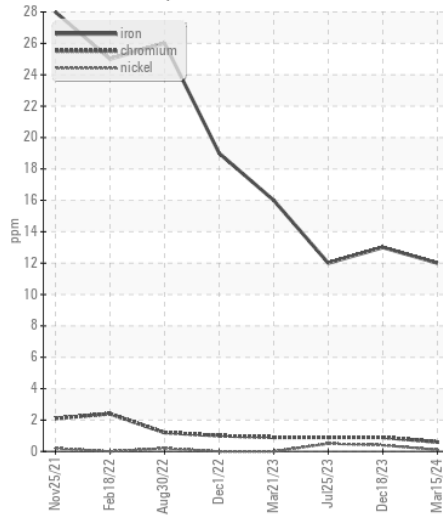
Base Number



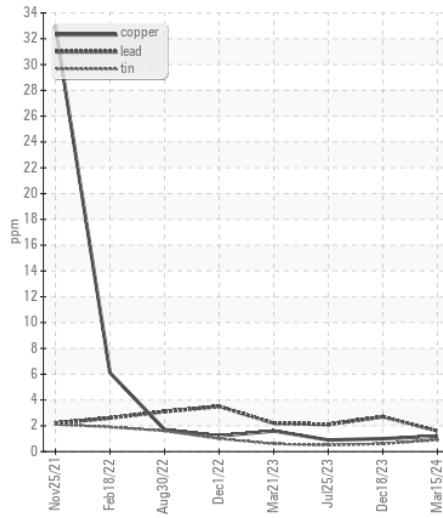
Viscosity @ 100°C



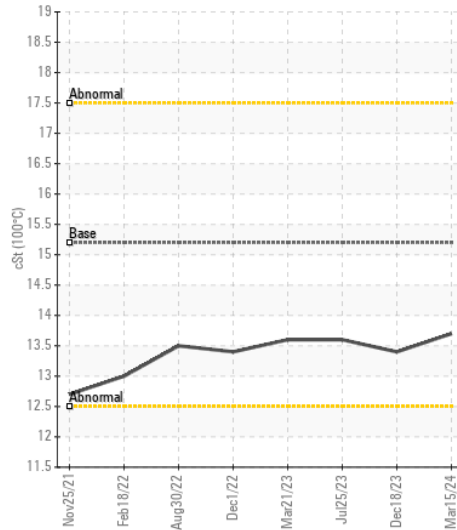
Ferrous Alloys



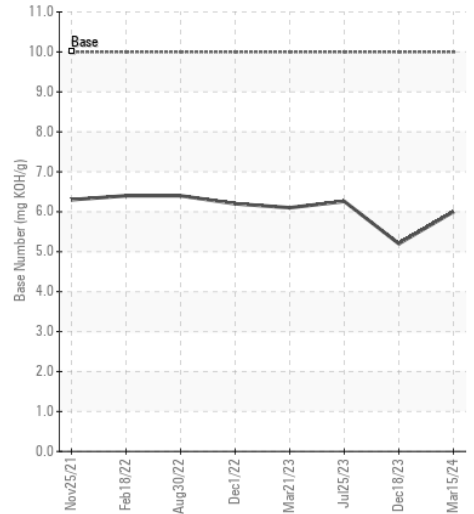
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

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

Sample No. : WC06176864

Lab Number : 06176864

Unique Number : 11022917

Test Package : FLEET

Received : 13 May 2024

Tested : 14 May 2024

Diagnosed : 14 May 2024 - Wes Davis

TRANZLIQUID
81 HEWLETTS RD
MOUNT MAUNGANUI, ZZ
NZ

Contact: AARON LOYE
aaron@truckline.co.nz

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: