



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
KENWORTH 3942
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL 10W40 (40 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0906896	WC0863252	WC0663165
Sample Date		Client Info		06 Apr 2024	20 Dec 2023	09 Oct 2023
Machine Age	mls	Client Info		373572	351488	336809
Oil Age	mls	Client Info		351487	274055	26704
Filter Age	mls	Client Info		22085	77433	26704
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Filter Changed		Client Info		Not Changd	Changed	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	19	46	37
Chromium	ppm	ASTM D5185m	>20	0	0	<1
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	6	14	14
Lead	ppm	ASTM D5185m	>40	0	<1	0
Copper	ppm	ASTM D5185m	>330	5	3	7
Tin	ppm	ASTM D5185m	>15	<1	2	1
Vanadium	ppm	ASTM D5185m		0	<1	<1
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.

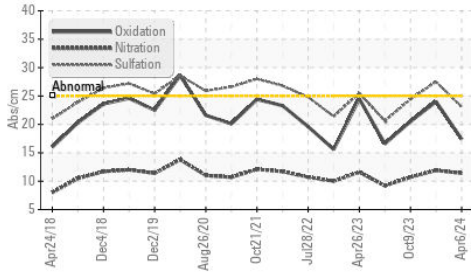
Silicon	ppm	ASTM D5185m	>25	7	9	10
Potassium	ppm	ASTM D5185m	>20	11	23	24
Fuel	%	ASTM D3524	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.5	1	0.8
Nitration	Abs/cm	*ASTM D7624	>20	11.4	11.9	10.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.1	27.5	24.4
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

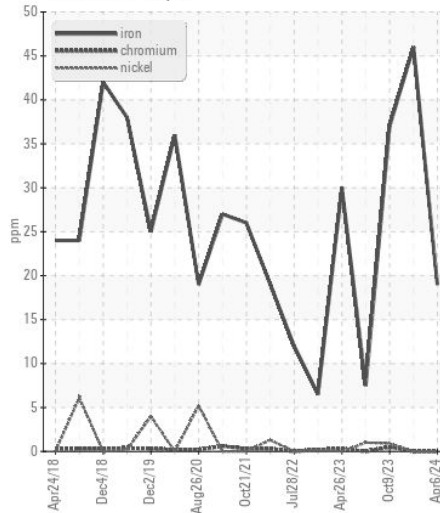
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		64	19	18
Boron	ppm	ASTM D5185m	250	22	20	25
Barium	ppm	ASTM D5185m	10	0	0	3
Molybdenum	ppm	ASTM D5185m	100	8	4	4
Manganese	ppm	ASTM D5185m		<1	<1	1
Magnesium	ppm	ASTM D5185m	450	798	846	702
Calcium	ppm	ASTM D5185m	3000	1435	1512	1339
Phosphorus	ppm	ASTM D5185m	1150	791	779	664
Zinc	ppm	ASTM D5185m	1350	887	907	755
Sulfur	ppm	ASTM D5185m	4250	3644	3154	2619
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.4	24.0	20.5
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	6.8	4.7	5.0
Visc @ 100°C	cSt	ASTM D445	14.4	11.8	12.3	12.1

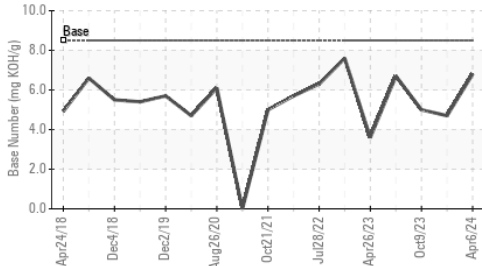
FT-IR (Direct Trend)



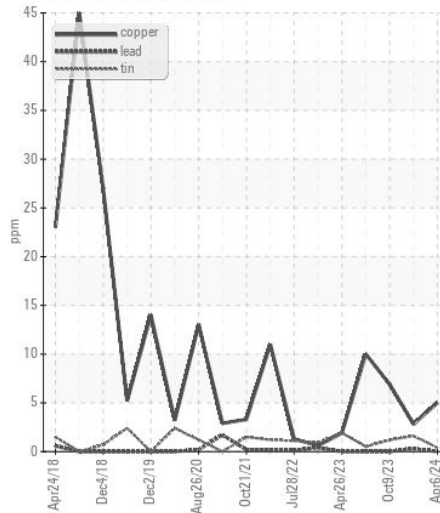
Ferrous Alloys



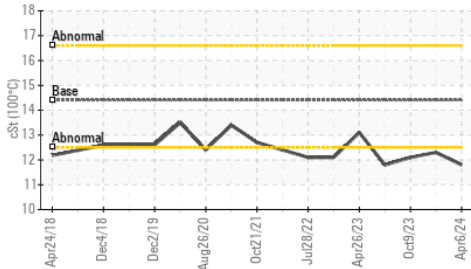
Base Number



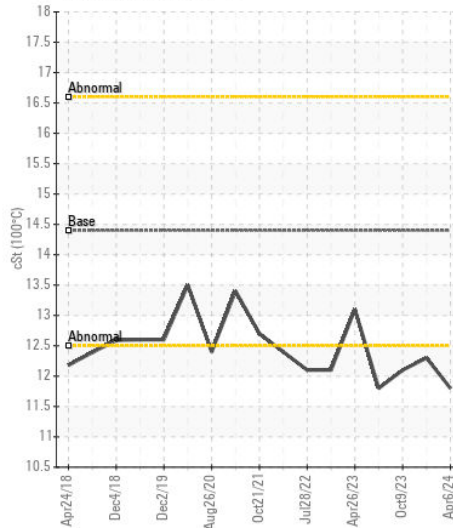
Non-ferrous Metals



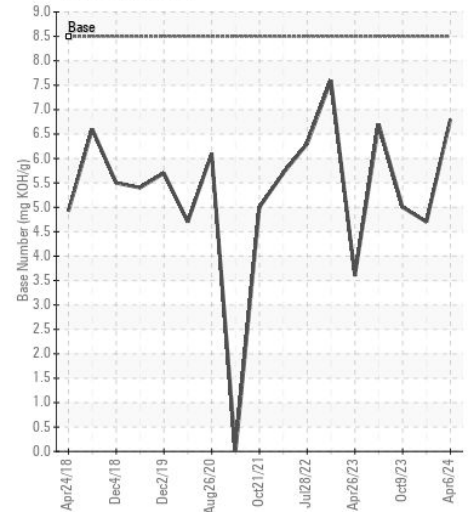
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0906896 **Received** : 11 Apr 2024
Lab Number : 06146498 **Tested** : 15 Apr 2024
Unique Number : 10976576 **Diagnosed** : 15 Apr 2024 - Sean Felton
Test Package : FLEET (Additional Tests: FuelDilution)

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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)