



LUBE PLUS+

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
KENWORTH R10
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 10W30 (40 QTS)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LP0001333	LP0001110	LP0000585
Sample Date		Client Info		09 Jan 2024	16 Oct 2023	07 Aug 2023
Machine Age	hrs	Client Info		8989	8536	8136
Oil Age	hrs	Client Info		450	433	420
Filter Age	hrs	Client Info		450	433	420
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	14	10	13
Chromium	ppm	ASTM D5185m	>20	0	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	<1	0
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	3	2
Lead	ppm	ASTM D5185m	>40	0	<1	0
Copper	ppm	ASTM D5185m	>330	<1	<1	<1
Tin	ppm	ASTM D5185m	>15	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

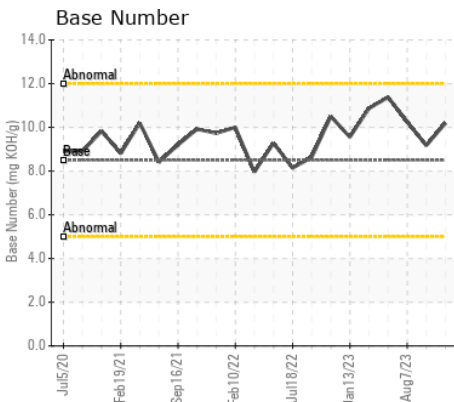
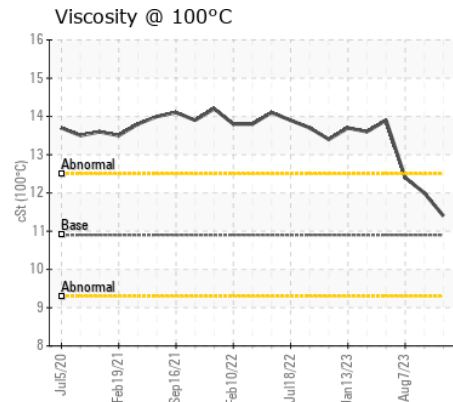
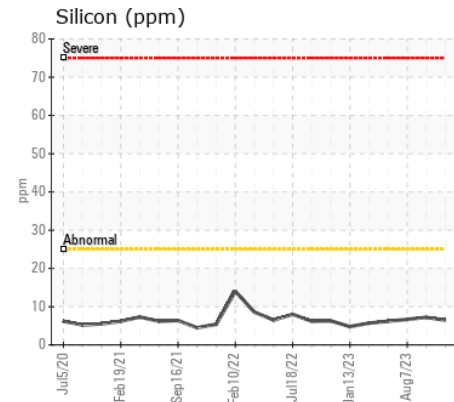
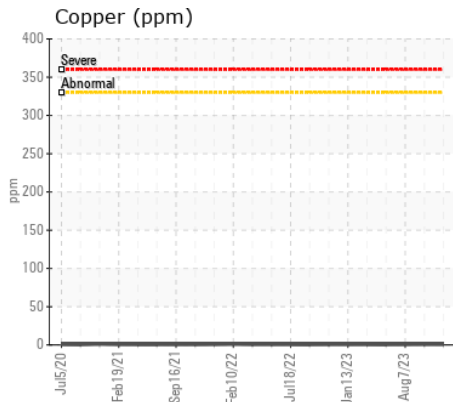
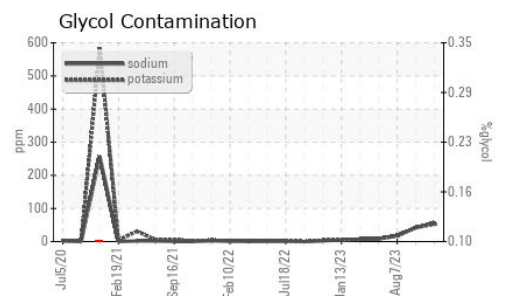
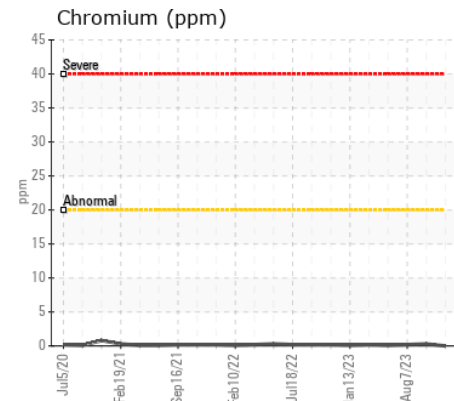
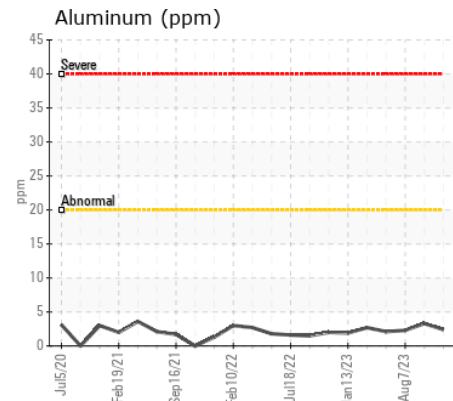
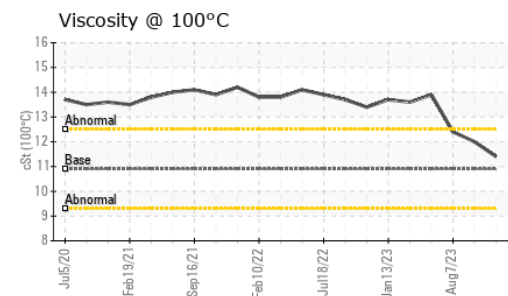
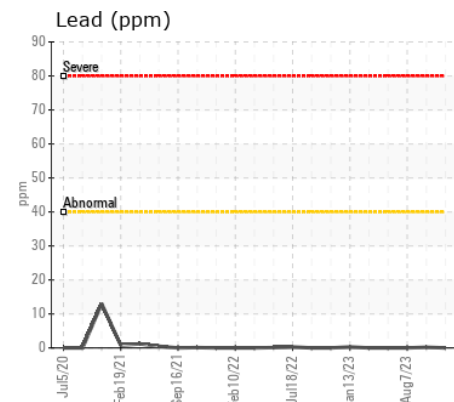
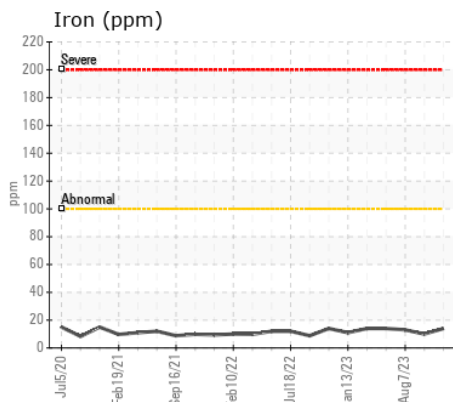
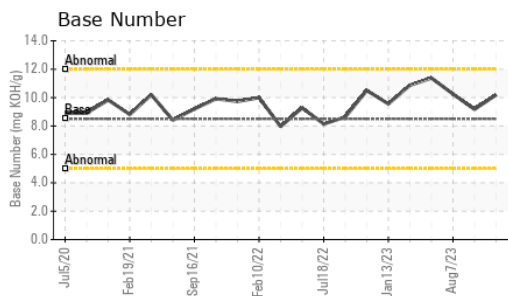
Test for glycol is negative. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	6	7	7
Potassium	ppm	ASTM D5185m	>20	52	42	17
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.4	0.4
Nitration	Abs/cm	*ASTM D7624	>20	7.7	7.7	7.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.6	18.8	18.9
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		57	42	18
Boron	ppm	ASTM D5185m	250	6	1	2
Barium	ppm	ASTM D5185m	10	0	10	2
Molybdenum	ppm	ASTM D5185m	100	66	75	66
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m	450	987	1061	974
Calcium	ppm	ASTM D5185m	3000	1068	1177	1136
Phosphorus	ppm	ASTM D5185m	1150	1044	1232	1078
Zinc	ppm	ASTM D5185m	1350	1251	1426	1308
Sulfur	ppm	ASTM D5185m	4250	3403	4116	3536
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.2	14.8	14.7
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	10.19	9.17	10.25
Visc @ 100°C	cSt	ASTM D445	10.9	11.4	12.0	12.4



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LP0001333 **Received** : 17 Jan 2024
Lab Number : 06063794 **Diagnosed** : 22 Jan 2024
Unique Number : 10835176 **Diagnostician** : Doug Bogart
Test Package : MOB 2 (Additional Tests: Glycol)

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Certificate L2367
 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)