



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
KENWORTH T880 5738 (S/N Y322770)
 Component
Diesel Engine
 Fluid
SHELL ROTELLA T 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0878960	WC0878899	---
Sample Date		Client Info		18 Apr 2024	06 Feb 2024	---
Machine Age	mls	Client Info		21374	13179	---
Oil Age	mls	Client Info		0	0	---
Filter Age	mls	Client Info		0	0	---
Oil Changed		Client Info		Changed	N/A	---
Filter Changed		Client Info		Changed	N/A	---
Sample Status				NORMAL	ATTENTION	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	23	37	---
Chromium	ppm	ASTM D5185m	>20	<1	<1	---
Nickel	ppm	ASTM D5185m	>4	<1	0	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m	>3	<1	<1	---
Aluminum	ppm	ASTM D5185m	>20	23	34	---
Lead	ppm	ASTM D5185m	>40	<1	0	---
Copper	ppm	ASTM D5185m	>330	5	9	---
Tin	ppm	ASTM D5185m	>15	1	2	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

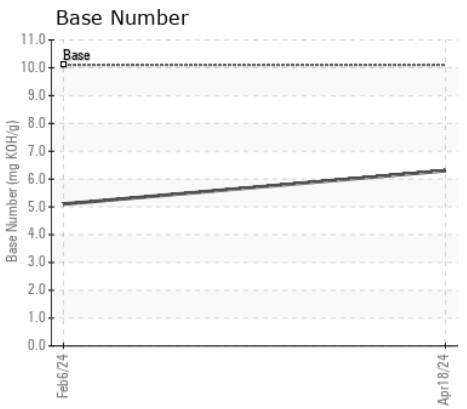
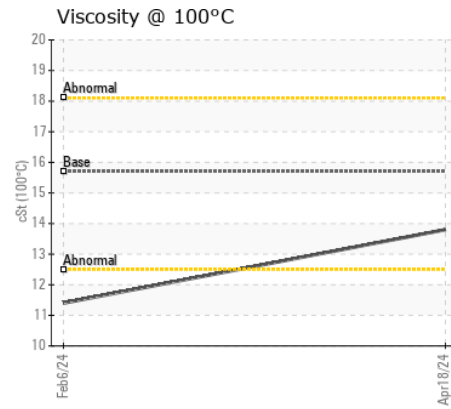
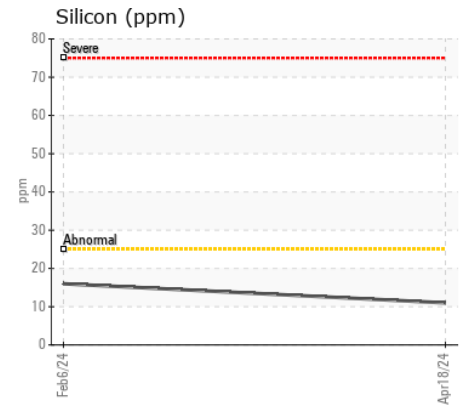
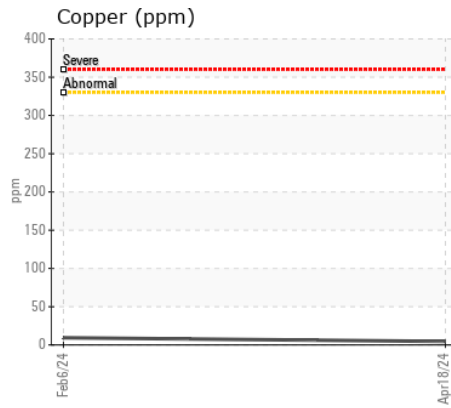
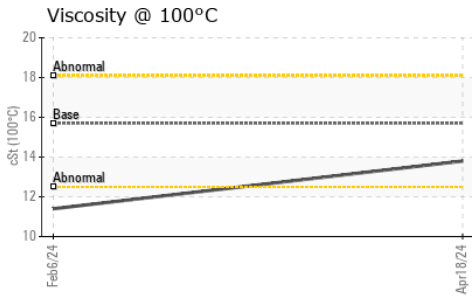
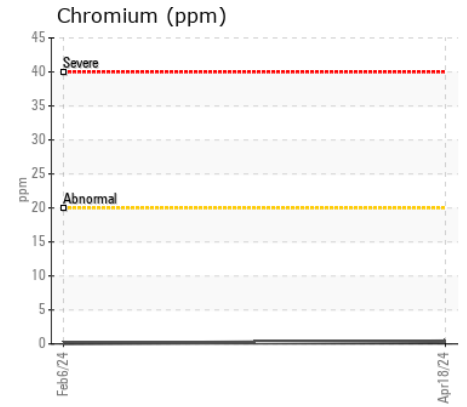
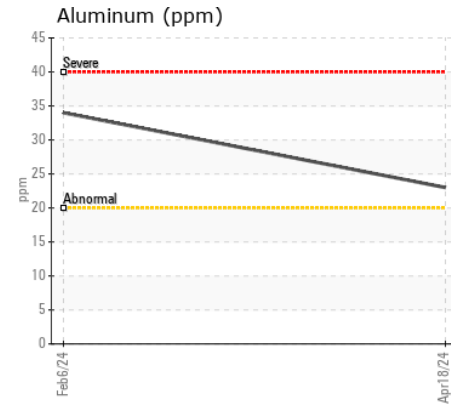
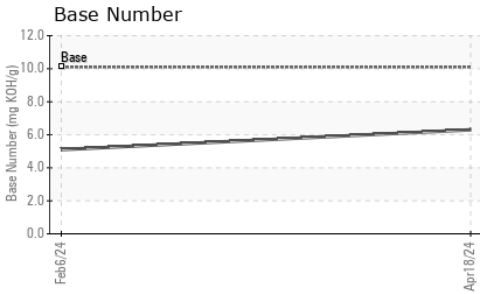
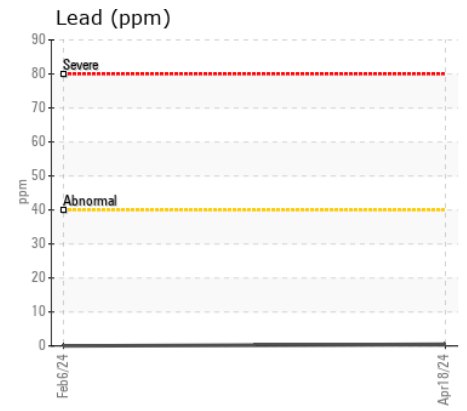
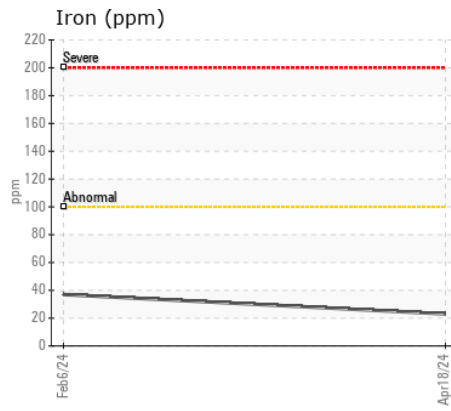
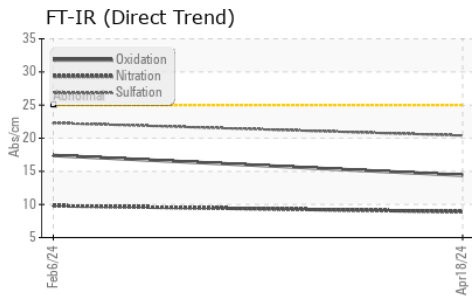
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	11	16	---
Potassium	ppm	ASTM D5185m	>20	64	103	---
Fuel		WC Method	>5	<1.0	0.5	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.2	0.2	---
Nitration	Abs/cm	*ASTM D7624	>20	8.9	9.8	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.4	22.3	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	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		2	3	---
Boron	ppm	ASTM D5185m	316	14	30	---
Barium	ppm	ASTM D5185m	0.0	0	<1	---
Molybdenum	ppm	ASTM D5185m	1.2	19	0	---
Manganese	ppm	ASTM D5185m		<1	2	---
Magnesium	ppm	ASTM D5185m	24	329	735	---
Calcium	ppm	ASTM D5185m	2292	1987	1196	---
Phosphorus	ppm	ASTM D5185m	1064	1002	700	---
Zinc	ppm	ASTM D5185m	1160	1113	805	---
Sulfur	ppm	ASTM D5185m	4996	3841	2795	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.4	17.4	---
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	6.3	5.1	---
Visc @ 100°C	cSt	ASTM D445	15.7	13.8	11.4	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0878960 **Received** : 19 Apr 2024
Lab Number : 06155116 **Tested** : 24 Apr 2024
Unique Number : 10990539 **Diagnosed** : 24 Apr 2024 - Jonathan Hester
Test Package : MOB 1 (Additional Tests: TBN)

JOHNSON BREEDERS
 3425 HWY 117N
 ROSE HILL, NC
 US 28458

Contact: GREG JONES
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F:

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)