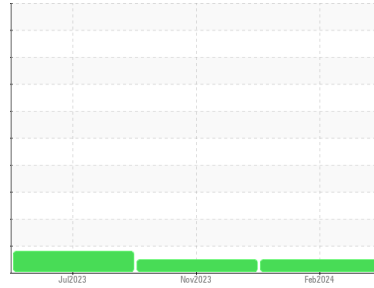




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
KENWORTH T800 3909 (S/N KCB65350)

Component
Diesel Engine

Fluid
SHELL ROTELLA T4 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0878922	WC0822267	WC0613635
Sample Date	Client Info			21 Feb 2024	03 Nov 2023	21 Jul 2023
Machine Age	mls	Client Info		990772	970011	939759
Oil Age	mls	Client Info		0	12000	0
Oil Changed	Client Info			Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<1.0	<1.0	<1.0
Water	WC Method	>0.2		NEG	NEG	NEG
Glycol	WC Method			NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	76	56	▲ 141
Chromium	ppm	ASTM D5185m	>20	1	<1	2
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	1	2	2
Lead	ppm	ASTM D5185m	>40	2	2	8
Copper	ppm	ASTM D5185m	>330	6	4	12
Tin	ppm	ASTM D5185m	>15	2	<1	3
Vanadium	ppm	ASTM D5185m		0	0	<1
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		13	15	8
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		46	56	66
Manganese	ppm	ASTM D5185m		<1	0	1
Magnesium	ppm	ASTM D5185m		513	637	903
Calcium	ppm	ASTM D5185m		1654	1452	1403
Phosphorus	ppm	ASTM D5185m		926	913	1070
Zinc	ppm	ASTM D5185m		1014	1228	1322
Sulfur	ppm	ASTM D5185m		2794	3211	3213

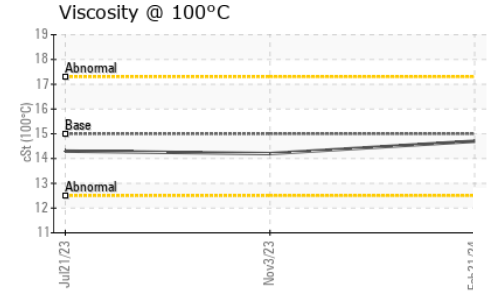
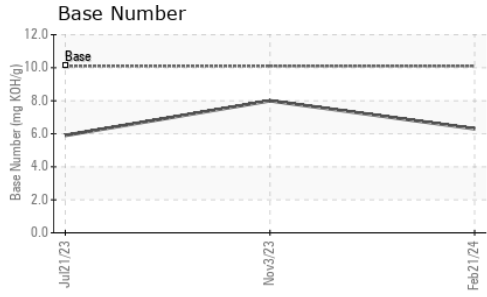
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	5	6	10
Sodium	ppm	ASTM D5185m		2	3	8
Potassium	ppm	ASTM D5185m	>20	0	2	2

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	1.1	0.9	1.5
Nitration	Abs/cm	*ASTM D7624	>20	9.7	8.2	11.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.1	20.6	25.7

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.1	15.6	21.9
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	6.3	8.0	5.9



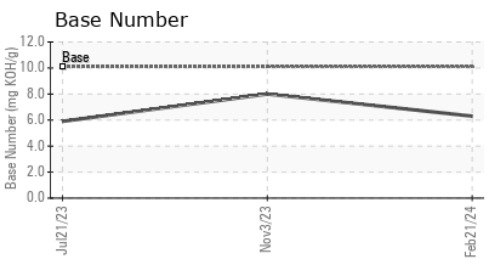
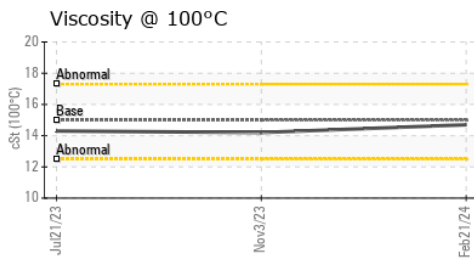
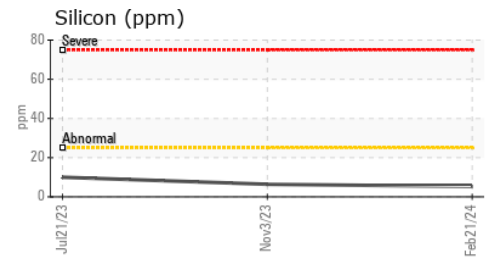
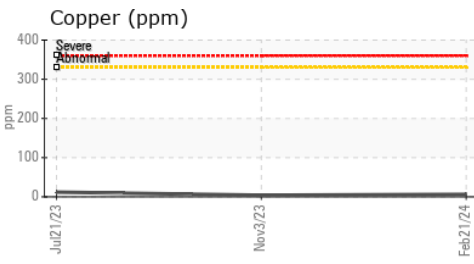
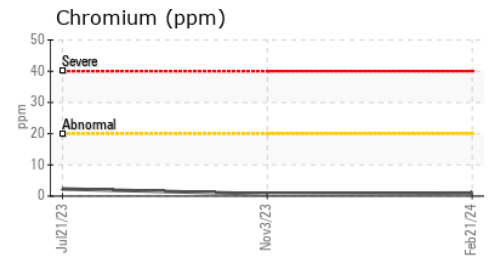
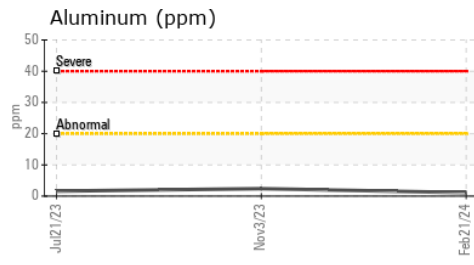
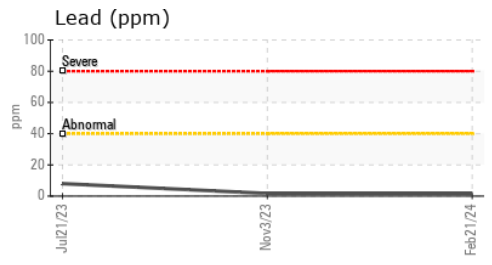
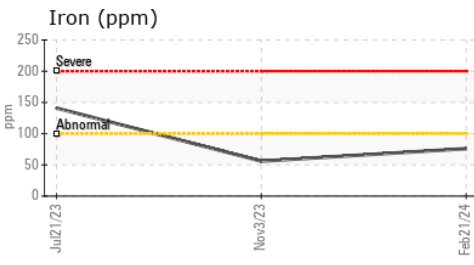
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
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
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15	14.7	14.2	14.3

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0878922 **Received** : 23 Feb 2024
Lab Number : 06098266 **Tested** : 26 Feb 2024
Unique Number : 10896496 **Diagnosed** : 26 Feb 2024 - Don Baldrige
Test Package : MOB 1 (Additional Tests: TBN)

JOHNSON BREEDERS
 3425 HWY 117N
 ROSE HILL, NC
 US 28458
 Contact: GREG JONES
 gregory.jones@houseofraeford.com
 T: (910)289-6884
 F:

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)