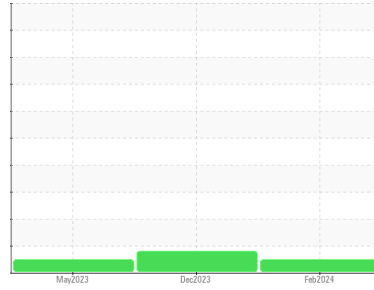




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
KENWORTH T800 1534 (S/N 063547)

Component
Diesel Engine

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

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

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		WC0878920	WC0850985	WC0613668
Sample Date	Client Info		15 Feb 2024	14 Dec 2023	10 May 2023
Machine Age	mls	Client Info	38409	35289	164477
Oil Age	mls	Client Info	12000	0	0
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	ABNORMAL	NORMAL

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	11	46	22
Chromium	ppm	ASTM D5185m	>20	<1	2	1
Nickel	ppm	ASTM D5185m	>4	0	1	<1
Titanium	ppm	ASTM D5185m		0	<1	2
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	<1	2	1
Lead	ppm	ASTM D5185m	>40	1	3	2
Copper	ppm	ASTM D5185m	>330	58	474	148
Tin	ppm	ASTM D5185m	>15	<1	1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	0
Cadmium	ppm	ASTM D5185m		0	<1	0

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	316	34	31	18
Barium	ppm	ASTM D5185m	0.0	0	12	0
Molybdenum	ppm	ASTM D5185m	1.2	39	59	56
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	24	362	673	782
Calcium	ppm	ASTM D5185m	2292	1750	1311	1200
Phosphorus	ppm	ASTM D5185m	1064	929	947	999
Zinc	ppm	ASTM D5185m	1160	1118	1177	1206
Sulfur	ppm	ASTM D5185m	4996	3212	2607	3211

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>25	4	10	18
Sodium	ppm	ASTM D5185m		2	4	5
Potassium	ppm	ASTM D5185m	>20	0	3	1

INFRA-RED

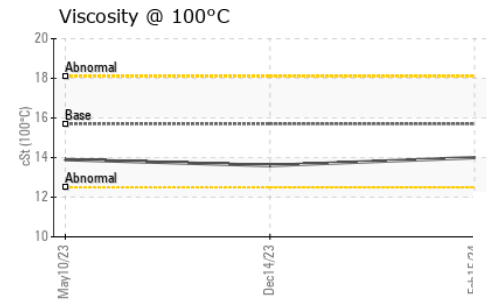
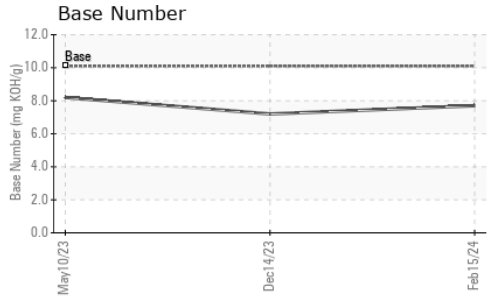
	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>3	0.2	0.7	0.4
Nitration	Abs/cm	*ASTM D7624	>20	7.0	9.1	7.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.4	21.1	20.6

FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.2	17.4	16.4
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	7.7	7.2	8.2



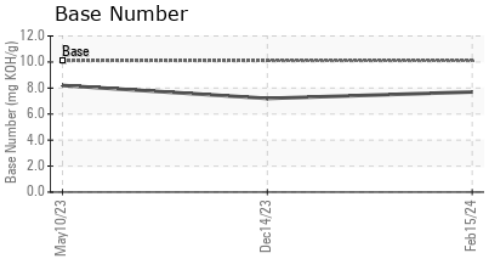
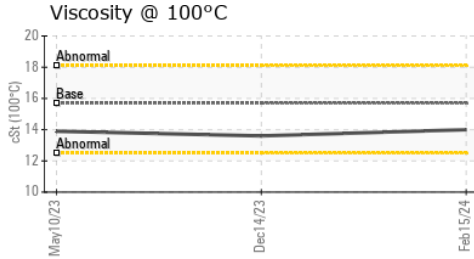
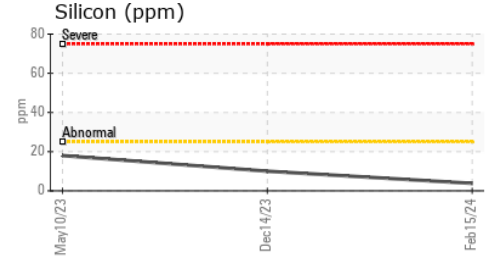
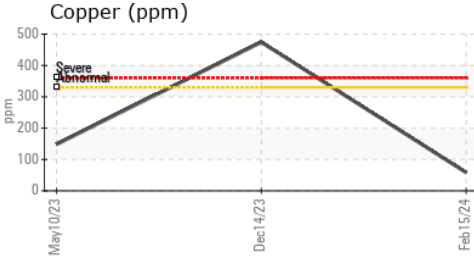
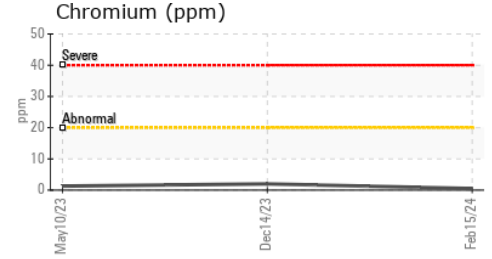
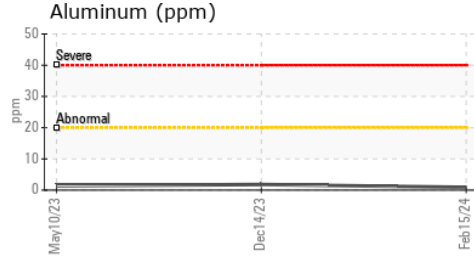
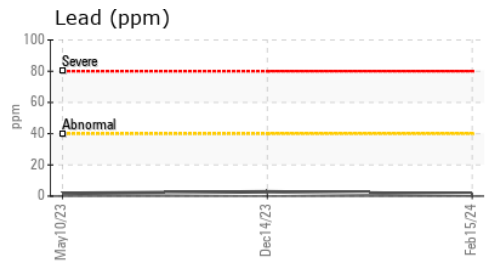
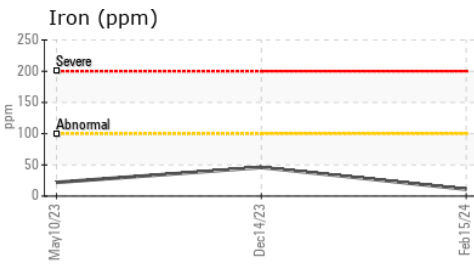
OIL ANALYSIS REPORT



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	15.7	14.0	13.6	13.9

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0878920 **Received** : 22 Feb 2024
Lab Number : 06097456 **Tested** : 23 Feb 2024
Unique Number : 10890309 **Diagnosed** : 23 Feb 2024 - Wes Davis
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:

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)