



# WEAR CHECK

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**35171**  
Component  
**Diesel Engine**  
Fluid  
**{not provided} (--- QTS)**

### RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>KL0013214</b>	KL0012118	KL0012011
Sample Date		Client Info		<b>01 Feb 2024</b>	10 Nov 2023	25 Jul 2023
Machine Age	mls	Client Info		<b>51831</b>	42684	32943
Oil Age	mls	Client Info		<b>42684</b>	0	0
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	ABNORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>65</b>	52	40
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	2	2
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>13</b>	10	8
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>52</b>	52	53
Tin	ppm	ASTM D5185m	>15	<b>3</b>	2	1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

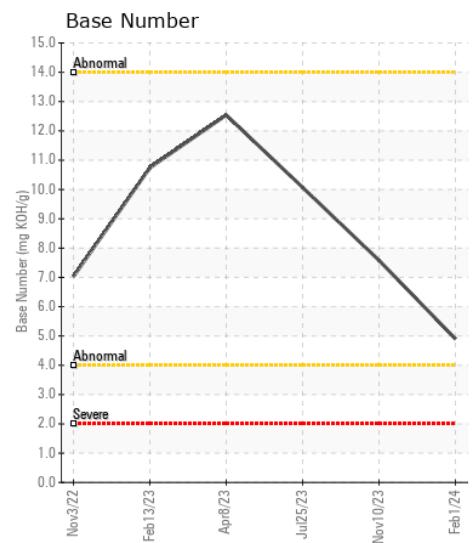
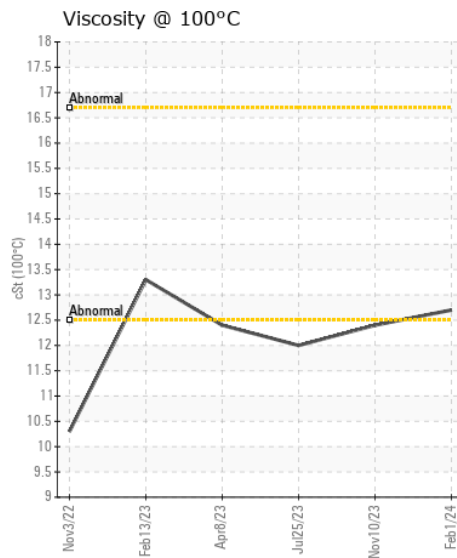
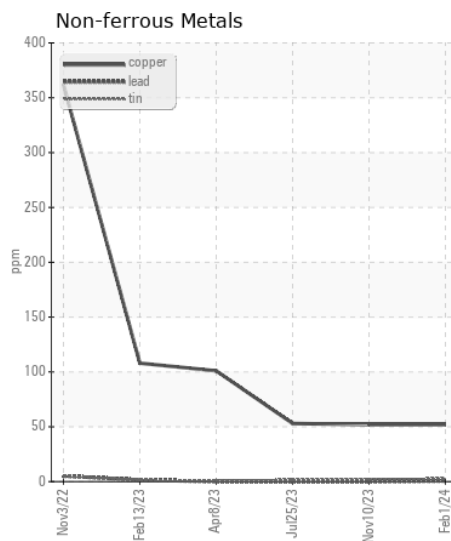
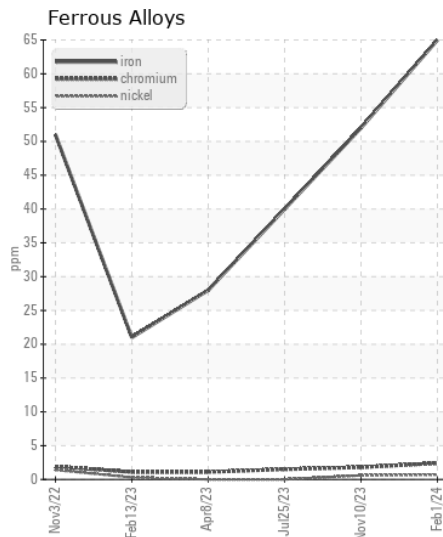
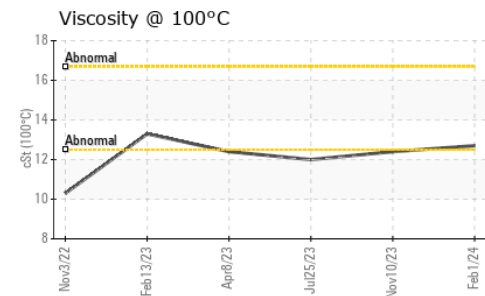
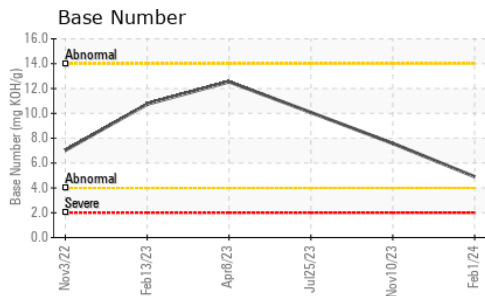
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>12</b>	9	7
Potassium	ppm	ASTM D5185m	>20	<b>25</b>	19	18
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	0.3
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>1.2</b>	0.9	0.6
Nitration	Abs/cm	*ASTM D7624	>20	<b>13.8</b>	11.0	10.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>26.9</b>	21.9	22.1
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		<b>9</b>	5	4
Boron	ppm	ASTM D5185m		<b>13</b>	16	28
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>52</b>	50	53
Manganese	ppm	ASTM D5185m		<b>2</b>	2	1
Magnesium	ppm	ASTM D5185m		<b>960</b>	987	1042
Calcium	ppm	ASTM D5185m		<b>1211</b>	1226	1251
Phosphorus	ppm	ASTM D5185m		<b>1007</b>	985	990
Zinc	ppm	ASTM D5185m		<b>1238</b>	1221	1240
Sulfur	ppm	ASTM D5185m		<b>2647</b>	2641	3351
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>27.2</b>	21.4	19.9
Base Number (BN)	mg KOH/g	ASTM D2896		<b>4.9</b>	7.58	10.07
Visc @ 100°C	cSt	ASTM D445		<b>12.7</b>	12.4	12.0



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KL0013214 **Received** : 14 Feb 2024  
**Lab Number** : 06089454 **Tested** : 15 Feb 2024  
**Unique Number** : 10876899 **Diagnosed** : 16 Feb 2024 - Don Baldrige  
**Test Package** : FLEET

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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)