



# WEAR CHECK

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**27272**  
Component  
**Diesel Engine**  
Fluid  
**{not provided} (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>KL0013219</b>	KL0012114	KL0011942
Sample Date		Client Info		<b>30 Jan 2024</b>	31 Oct 2023	27 Jul 2023
Machine Age	hrs	Client Info		<b>62768</b>	59192	56988
Oil Age	hrs	Client Info		<b>59192</b>	0	0
Filter Age	hrs	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>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>19</b>	11	45
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	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>3</b>	2	5
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	<1	2
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

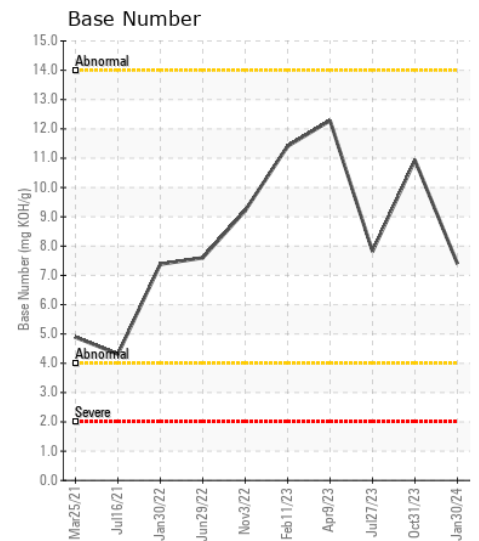
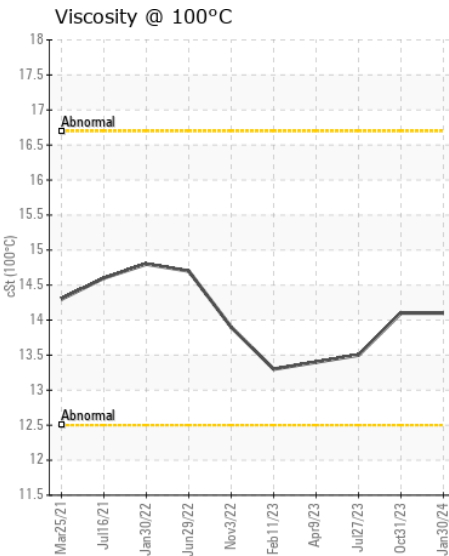
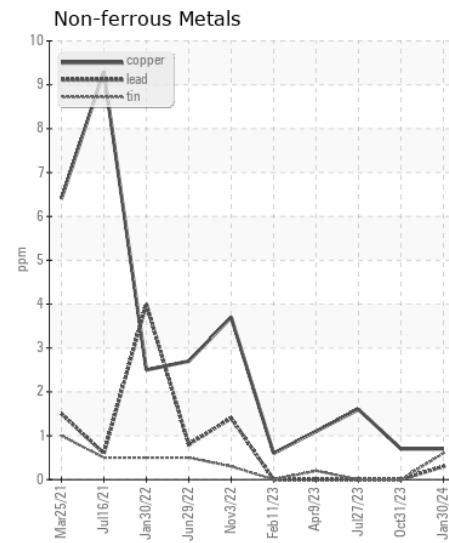
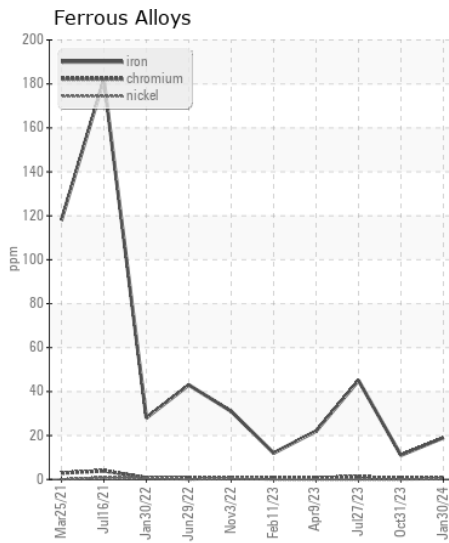
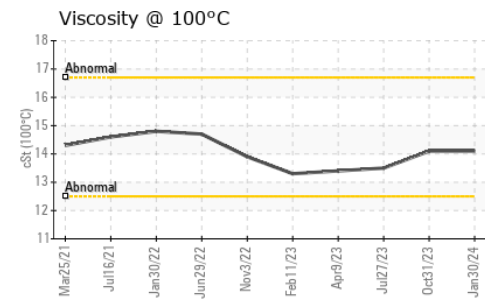
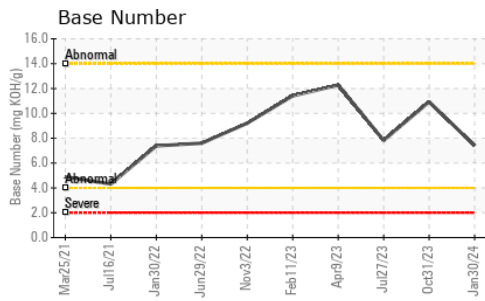
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>9</b>	6	6
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	3	7
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.7</b>	0.4	1.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.8</b>	7.8	12.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>24.0</b>	21.4	28.2
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 suitable for further service.

Sodium	ppm	ASTM D5185m		<b>2</b>	3	4
Boron	ppm	ASTM D5185m		<b>39</b>	78	24
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>62</b>	61	64
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>1073</b>	1138	1089
Calcium	ppm	ASTM D5185m		<b>920</b>	1003	999
Phosphorus	ppm	ASTM D5185m		<b>1070</b>	1145	1009
Zinc	ppm	ASTM D5185m		<b>1300</b>	1366	1310
Sulfur	ppm	ASTM D5185m		<b>3244</b>	3611	3852
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>22.9</b>	18.7	29.8
Base Number (BN)	mg KOH/g	ASTM D2896		<b>7.4</b>	10.93	7.82
Visc @ 100°C	cSt	ASTM D445		<b>14.1</b>	14.1	13.5



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KL0013219  
**Lab Number** : 06089451  
**Unique Number** : 10876896  
**Test Package** : FLEET  
**Received** : 14 Feb 2024  
**Tested** : 15 Feb 2024  
**Diagnosed** : 16 Feb 2024 - Don Baldrige

**CITY & COUNTY HONOLULU**  
 99-999 IWAENA RD  
 AIEA, HI  
 US 96701  
 Contact: CLYDE OMIJA  
 comija@honolulu.gov  
 T: (575)623-9952  
 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)