



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	NORMAL

Machine Id  
**27267**  
Component  
**Diesel Engine**  
Fluid  
**{not provided} (--- GAL)**

## RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>KL0012144</b>	KL0012112	KL0011940
Sample Date		Client Info		<b>02 Feb 2024</b>	31 Oct 2023	27 Jul 2023
Machine Age	mls	Client Info		<b>59794</b>	59339	56390
Oil Age	mls	Client Info		<b>59339</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>ATTENTION</b>	NORMAL	ATTENTION

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>25</b>	15	61
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	2
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>5</b>	4	14
Lead	ppm	ASTM D5185m	>40	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	<1	2
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

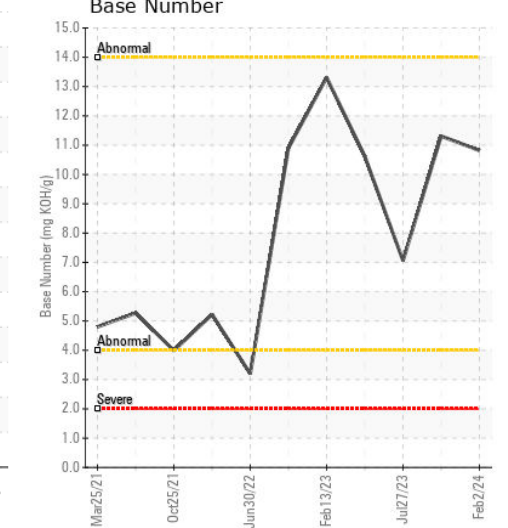
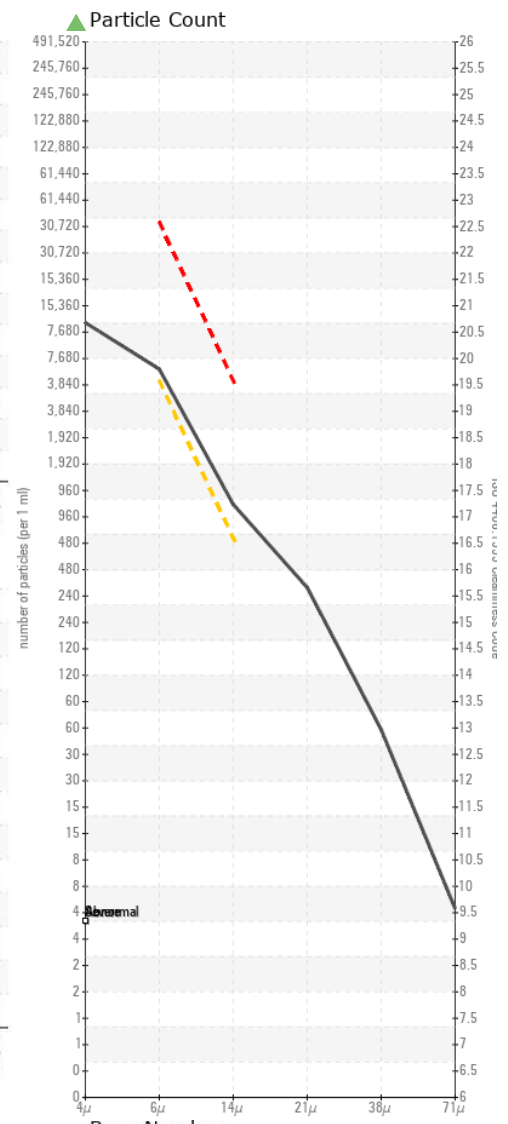
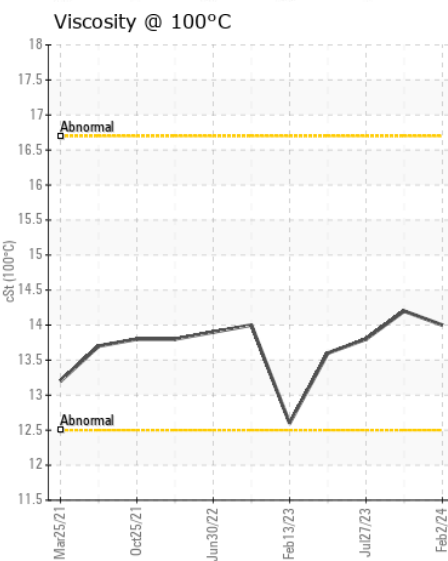
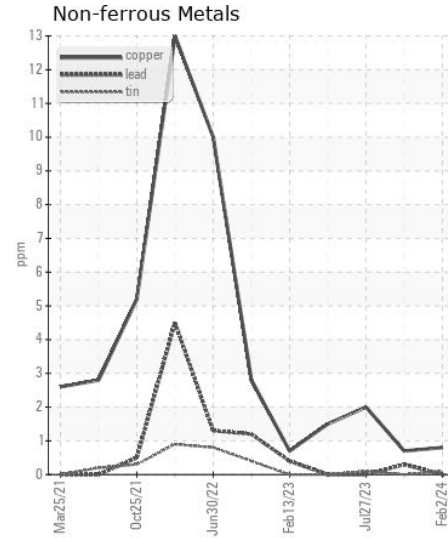
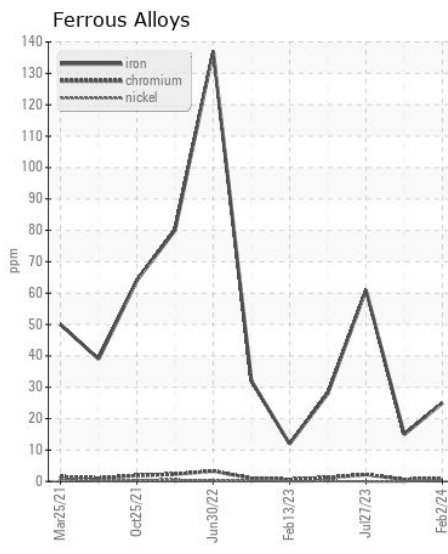
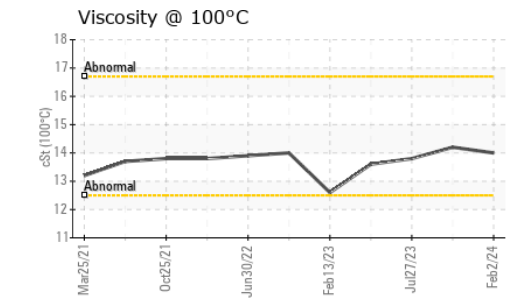
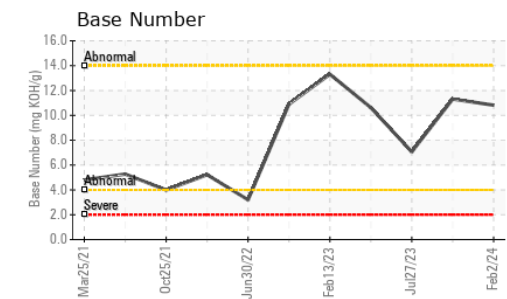
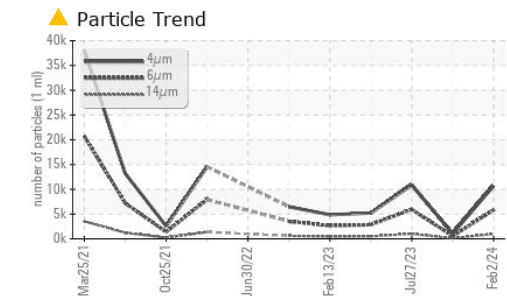
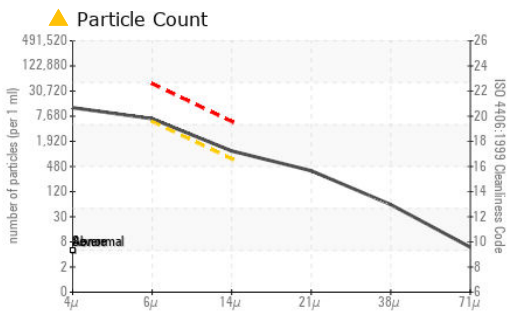
There is a moderate amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>6</b>	5	12
Potassium	ppm	ASTM D5185m	>20	<b>6</b>	8	23
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>0.6</b>	0.5	1.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.5</b>	8.1	14.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.9</b>	21.7	31.3
Particles >4µm		ASTM D7647		<b>10683</b>	1044	10875
Particles >6µm		ASTM D7647	>5000	<b>▲ 5820</b>	569	▲ 5924
Particles >14µm		ASTM D7647	>640	<b>▲ 990</b>	97	▲ 1008
Particles >21µm		ASTM D7647	>160	<b>▲ 334</b>	33	▲ 340
Particles >38µm		ASTM D7647	>40	<b>▲ 52</b>	5	▲ 52
Particles >71µm		ASTM D7647	>10	<b>5</b>	1	5
Oil Cleanliness		ISO 4406 (c)	>19/16	<b>▲ 20/17</b>	16/14	▲ 20/17
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>3</b>	4	7
Boron	ppm	ASTM D5185m		<b>48</b>	93	20
Barium	ppm	ASTM D5185m		<b>5</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>52</b>	61	66
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>875</b>	1153	1120
Calcium	ppm	ASTM D5185m		<b>768</b>	1001	1082
Phosphorus	ppm	ASTM D5185m		<b>826</b>	1159	1085
Zinc	ppm	ASTM D5185m		<b>1041</b>	1364	1356
Sulfur	ppm	ASTM D5185m		<b>2934</b>	3674	4038
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.9</b>	18.6	32.0
Base Number (BN)	mg KOH/g	ASTM D2896		<b>10.82</b>	11.31	7.06
Visc @ 100°C	cSt	ASTM D445		<b>14.0</b>	14.2	13.8



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KL0012144 **Received** : 14 Feb 2024  
**Lab Number** : 06089616 **Tested** : 15 Feb 2024  
**Unique Number** : 10877061 **Diagnosed** : 16 Feb 2024 - Sean Felton  
**Test Package** : MOB 2 ( Additional Tests: PrtCount )

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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)