



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>ABNORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Area  
**RIG 879**  
Machine Id  
**R879-MP-02**

Component  
**Gearbox**  
Fluid  
**GEAR OIL ISO 320 (--- GAL)**

## RECOMMENDATION

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>KL0013964</b>	KL0013147	KL0013945
Sample Date		Client Info		<b>07 Jan 2024</b>	28 Dec 2023	14 Dec 2023
Machine Age	hrs	Client Info		<b>0</b>	43803	0
Oil Age	hrs	Client Info		<b>0</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>ABNORMAL</b>	ATTENTION	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>200	<b>37</b>	23	16
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	0	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>2</b>	<1	2
Lead	ppm	ASTM D5185m	>50	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>200	<b>3</b>	3	4
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	<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

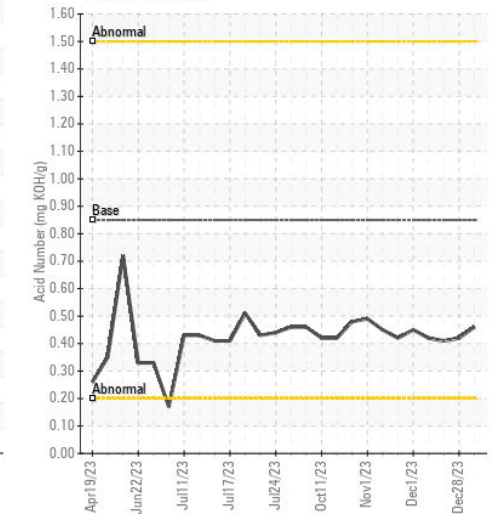
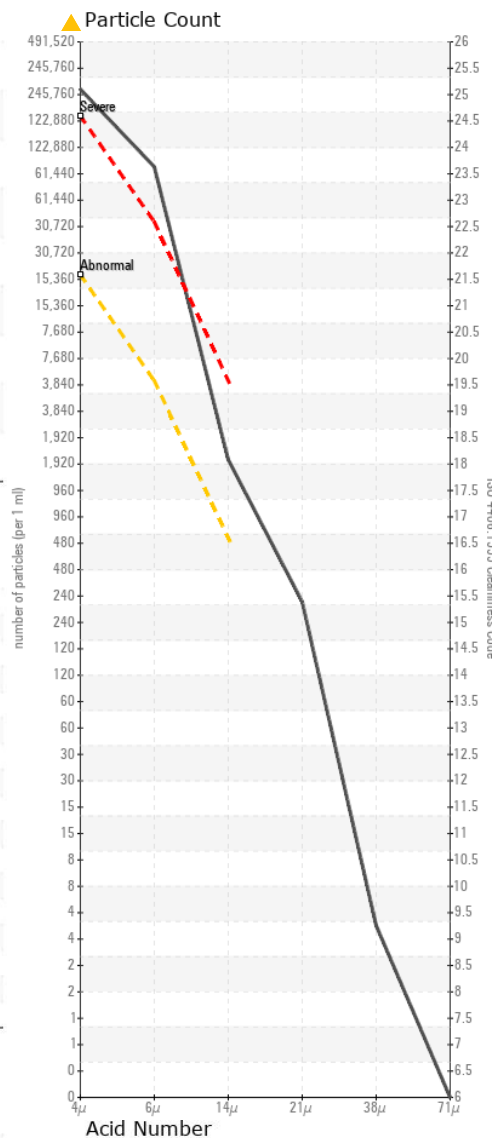
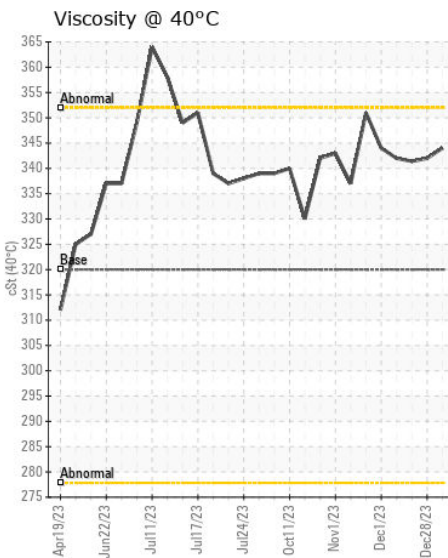
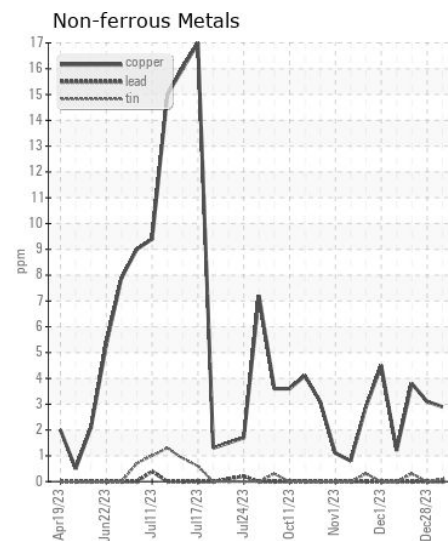
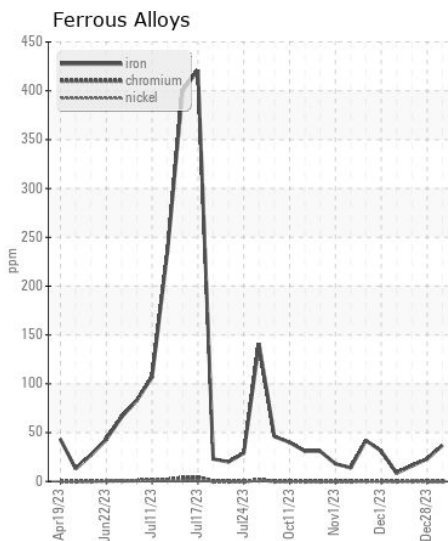
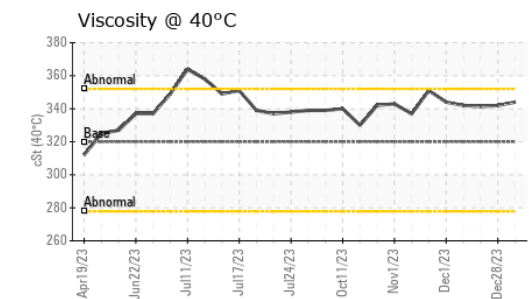
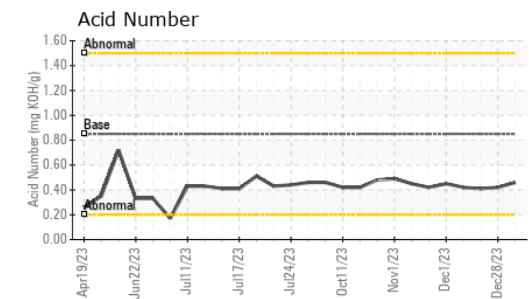
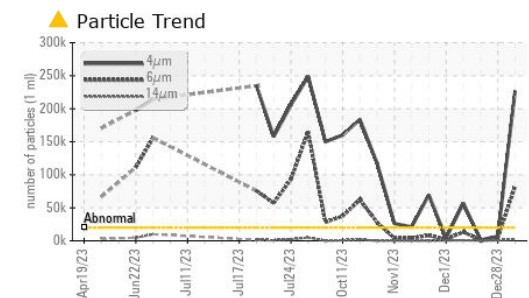
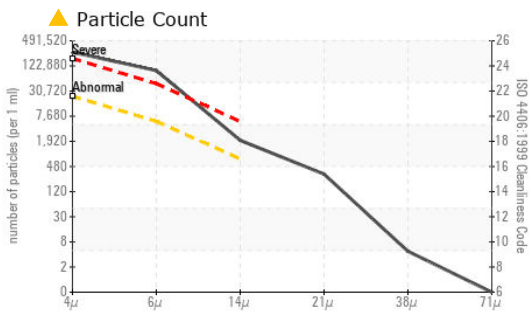
There is a high amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>50	<b>15</b>	10	12
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	<1	1
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>20000	<b>▲ 226686</b>	6942	1262
Particles >6µm		ASTM D7647	>5000	<b>▲ 82161</b>	3782	687
Particles >14µm		ASTM D7647	>640	<b>▲ 1779</b>	▲ 644	117
Particles >21µm		ASTM D7647	>160	<b>▲ 277</b>	▲ 217	39
Particles >38µm		ASTM D7647	>40	<b>4</b>	33	6
Particles >71µm		ASTM D7647	>10	<b>0</b>	3	1
Oil Cleanliness		ISO 4406 (c)	>21/19/16	<b>▲ 25/24/18</b>	▲ 20/19/17	17/17/14
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>	0.2%	0.2%

## FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>45</b>	32	6
Boron	ppm	ASTM D5185m	50	<b>4</b>	3	4
Barium	ppm	ASTM D5185m	15	<b>2</b>	3	3
Molybdenum	ppm	ASTM D5185m	15	<b>0</b>	<1	2
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m	50	<b>9</b>	3	2
Calcium	ppm	ASTM D5185m	50	<b>55</b>	32	16
Phosphorus	ppm	ASTM D5185m	350	<b>149</b>	136	207
Zinc	ppm	ASTM D5185m	100	<b>79</b>	71	104
Sulfur	ppm	ASTM D5185m	12500	<b>8785</b>	8848	12767
Acid Number (AN)	mg KOH/g	ASTM D8045	0.85	<b>0.46</b>	0.42	0.41
Visc @ 40°C	cSt	ASTM D445	320	<b>344</b>	342	341.4



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KL0013964 **Received** : 10 Jan 2024  
**Lab Number** : 06056633 **Diagnosed** : 11 Jan 2024  
**Unique Number** : 10822582 **Diagnostician** : Doug Bogart  
**Test Package** : MOB 2 ( Additional Tests: PrtCount )

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)

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