



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

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		KL0014302	KL0013732	KL0013942
Sample Date		Client Info		03 Apr 2024	05 Mar 2024	06 Feb 2024
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>200	40	47	59
Chromium	ppm	ASTM D5185m	>10	0	0	<1
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	<1	3	5
Lead	ppm	ASTM D5185m	>50	0	0	0
Copper	ppm	ASTM D5185m	>200	3	4	5
Tin	ppm	ASTM D5185m	>10	0	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

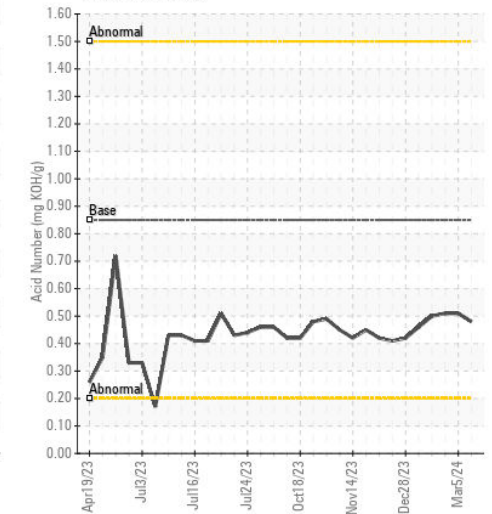
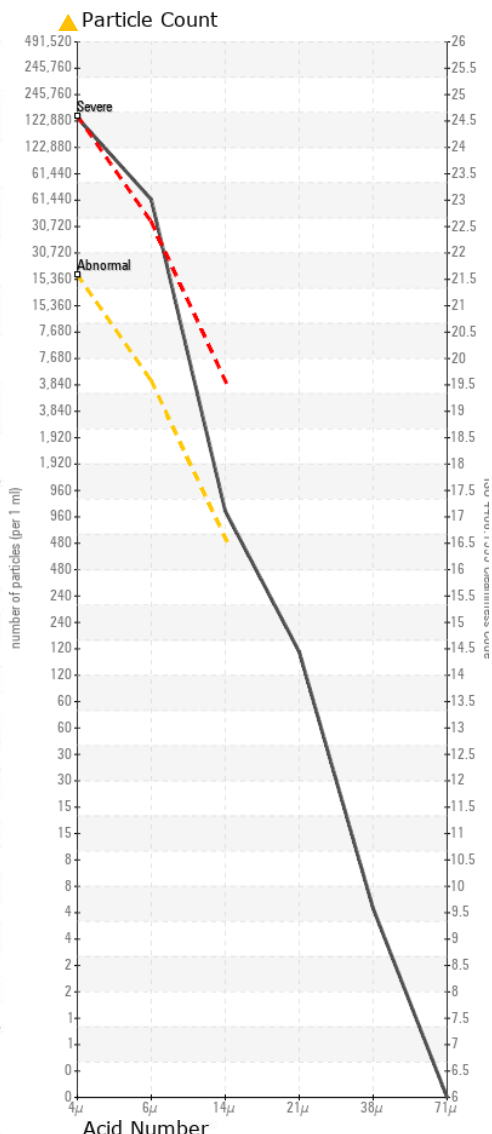
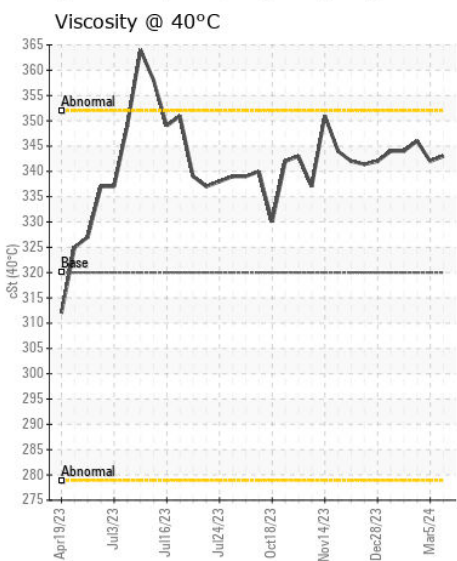
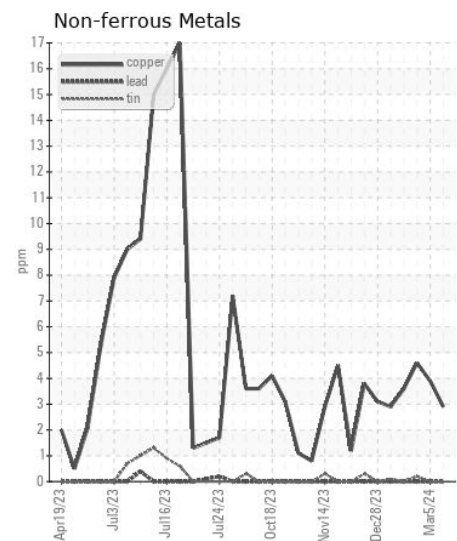
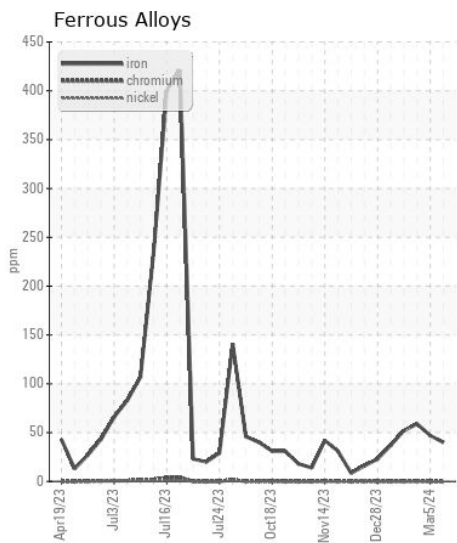
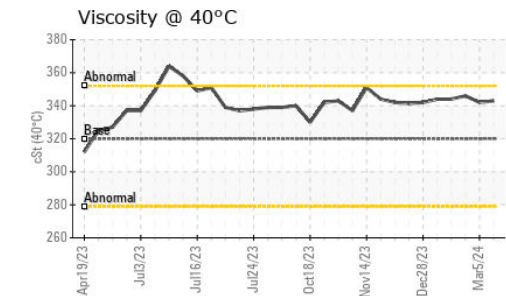
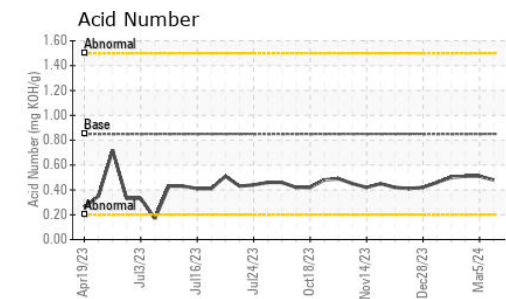
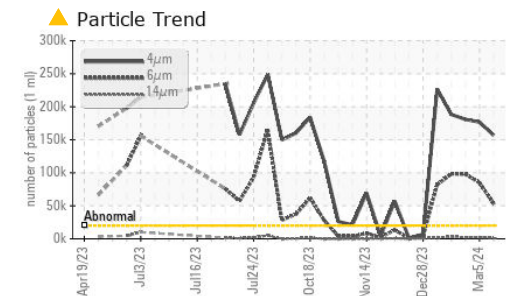
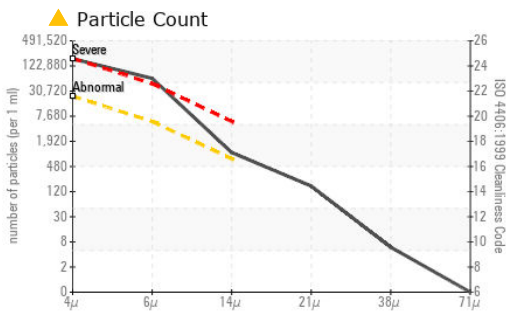
There is a high amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>50	12	18	25
Potassium	ppm	ASTM D5185m	>20	<1	0	2
Water		WC Method	>0.2	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>20000	▲ 156838	▲ 176742	▲ 180816
Particles >6µm		ASTM D7647	>5000	▲ 53519	▲ 84787	▲ 97750
Particles >14µm		ASTM D7647	>640	▲ 909	▲ 2264	▲ 2193
Particles >21µm		ASTM D7647	>160	▲ 144	▲ 310	▲ 195
Particles >38µm		ASTM D7647	>40	5	3	3
Particles >71µm		ASTM D7647	>10	0	1	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ 24/23/17	▲ 25/24/18	▲ 25/24/18
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		24	85	69
Boron	ppm	ASTM D5185m	50	4	4	4
Barium	ppm	ASTM D5185m	15	5	3	18
Molybdenum	ppm	ASTM D5185m	15	0	<1	1
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m	50	4	0	10
Calcium	ppm	ASTM D5185m	50	31	44	141
Phosphorus	ppm	ASTM D5185m	350	129	95	131
Zinc	ppm	ASTM D5185m	100	60	61	95
Sulfur	ppm	ASTM D5185m	12500	9849	8408	8120
Acid Number (AN)	mg KOH/g	ASTM D8045	0.85	0.48	0.51	0.51
Visc @ 40°C	cSt	ASTM D445	320	343	342	346



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KL0014302 **Received** : 11 Apr 2024
Lab Number : 06145837 **Tested** : 12 Apr 2024
Unique Number : 10975915 **Diagnosed** : 15 Apr 2024 - Don Baldrige
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)