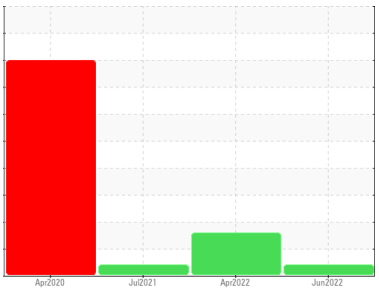
OIL ANALYSIS REPORT

Sample Rating Trend



VIS DEBRIS

Area
RIG 2
Machine Id
R2-TD-G-NKL
Component
Gearbox
Fluid
GEAR OIL SAE 80 (--- GAL)

DIAGNOSIS

Recommendation
We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Wear
All component wear rates are normal.

Contamination
Moderate concentration of visible dirt/debris present in the oil.

Fluid Condition
The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**KL0008008**	KL0004438	KL0005743
Sample Date		Client Info		**02 Jun 2022**	01 Apr 2022	09 Jul 2021
Machine Age	days	Client Info		**44721**	44649	44384
Oil Age	days	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.2	**NEG**	NEG	NEG

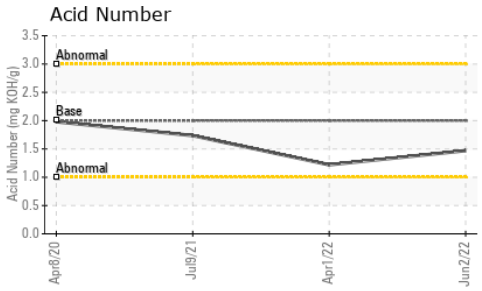
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	**119**	149	36
Chromium	ppm	ASTM D5185m	>10	**<1**	1	<1
Nickel	ppm	ASTM D5185m		**0**	3	<1
Titanium	ppm	ASTM D5185m		**<1**	<1	<1
Silver	ppm	ASTM D5185m		**<1**	12	<1
Aluminum	ppm	ASTM D5185m	>25	**3**	5	<1
Lead	ppm	ASTM D5185m	>50	**<1**	<1	0
Copper	ppm	ASTM D5185m	>200	**10**	9	4
Tin	ppm	ASTM D5185m	>10	**0**	<1	<1
Antimony	ppm	ASTM D5185m		**---**	---	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**<1**	2	0

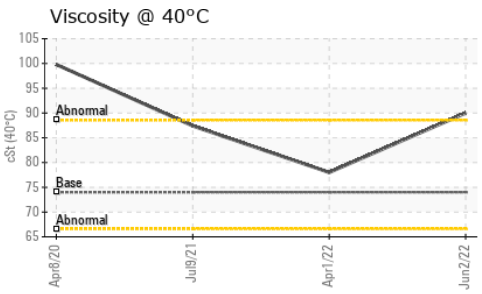
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	400	**93**	40	145
Barium	ppm	ASTM D5185m	200	**9**	24	0
Molybdenum	ppm	ASTM D5185m	12	**5**	<1	<1
Manganese	ppm	ASTM D5185m		**1**	2	<1
Magnesium	ppm	ASTM D5185m	12	**7**	9	6
Calcium	ppm	ASTM D5185m	150	**26**	54	30
Phosphorus	ppm	ASTM D5185m	1650	**1147**	999	1140
Zinc	ppm	ASTM D5185m	125	**107**	147	100
Sulfur	ppm	ASTM D5185m	22500	**18201**	13744	15626

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	**8**	17	6
Sodium	ppm	ASTM D5185m		**28**	103	21
Potassium	ppm	ASTM D5185m	>20	**4**	7	<1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		**---**	195893	98763
Particles >6µm		ASTM D7647	>5000	**---**	▲ 30405	▲ 10769
Particles >14µm		ASTM D7647	>640	**---**	669	228
Particles >21µm		ASTM D7647	>160	**---**	131	31
Particles >38µm		ASTM D7647	>40	**---**	2	4
Particles >71µm		ASTM D7647	>10	**---**	0	0
Oil Cleanliness		ISO 4406 (c)	>19/16	**---**	▲ 22/17	▲ 21/15

OIL ANALYSIS REPORT



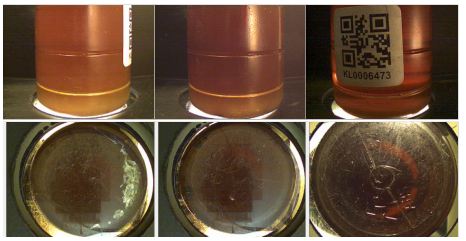


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	2.00	**1.47**	1.22	1.736

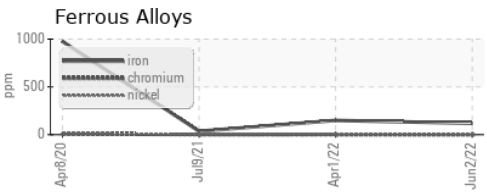
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**MODER**	LIGHT	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	▲ **MODER**	LIGHT	NONE
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
Free Water	scalar	*Visual		**NEG**	NEG	NEG

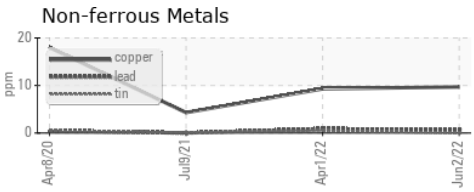
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	74	**90.0**	78.0	87.4

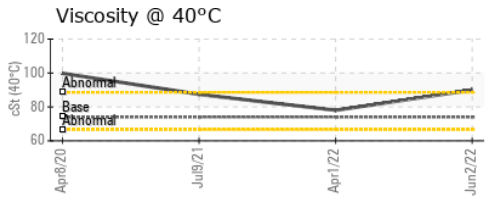
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

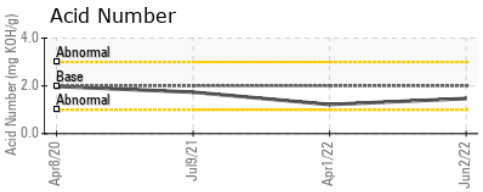


GRAPHS









Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KL0008008
Lab Number : 05567148
Unique Number : 10011548
Test Package : MOB 2 (Additional Tests: PrtCount)

Received : 13 Jun 2022
Tested : 15 Jun 2022
Diagnosed : 15 Jun 2022 - Don Baldridge

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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