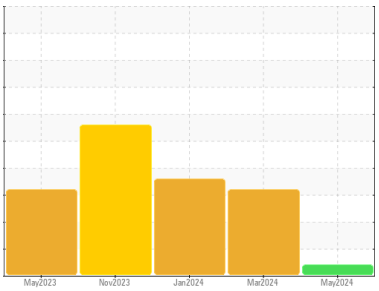
OIL ANALYSIS REPORT

Sample Rating Trend



VIS DEBRIS

Area
TM 7
Machine Id
TM 7 SHORT FIBER
Component
Gearbox
Fluid
SHELL 220 (--- 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. The water content is negligible.

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**RP0037948**	RP0030305	RP0030322
Sample Date		Client Info		**28 May 2024**	24 Mar 2024	11 Jan 2024
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	ABNORMAL	SEVERE

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		**20**	13	13
Iron	ppm	ASTM D5185m	>200	**20**	13	10
Chromium	ppm	ASTM D5185m	>15	**0**	0	0
Nickel	ppm	ASTM D5185m	>15	**0**	0	0
Titanium	ppm	ASTM D5185m		**<1**	0	<1
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>25	**0**	0	0
Lead	ppm	ASTM D5185m	>100	**0**	0	0
Copper	ppm	ASTM D5185m	>200	**2**	<1	0
Tin	ppm	ASTM D5185m	>25	**0**	0	0
Vanadium	ppm	ASTM D5185m		**<1**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	1	2
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**0**	0	0
Manganese	ppm	ASTM D5185m		**<1**	0	<1
Magnesium	ppm	ASTM D5185m		**0**	0	0
Calcium	ppm	ASTM D5185m		**105**	111	124
Phosphorus	ppm	ASTM D5185m		**995**	1009	1033
Zinc	ppm	ASTM D5185m		**1174**	1169	1280

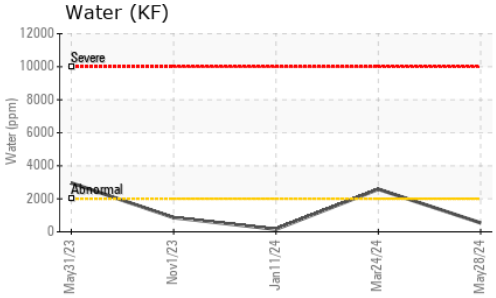
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	**22**	16	8
Sodium	ppm	ASTM D5185m		**5**	4	<1
Potassium	ppm	ASTM D5185m	>20	**0**	0	<1
Water	%	ASTM D6304	>0.2	**0.053**	▲ 0.258	0.015
ppm Water	ppm	ASTM D6304	>2000	**539**	▲ 2580	155

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	**---**	---	▲ 56724
Particles >6µm		ASTM D7647	>5000	**---**	---	▲ 5641
Particles >14µm		ASTM D7647	>640	**---**	---	249
Particles >21µm		ASTM D7647	>160	**---**	---	65
Particles >38µm		ASTM D7647	>40	**---**	---	3
Particles >71µm		ASTM D7647	>10	**---**	---	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	**---**	---	▲ 23/20/15

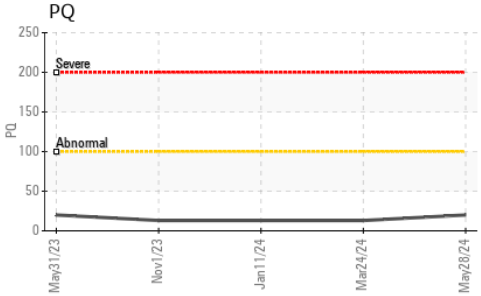
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**1.22**	1.20	1.06

OIL ANALYSIS REPORT

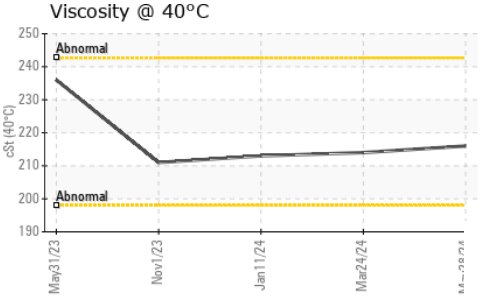
Water (KF)



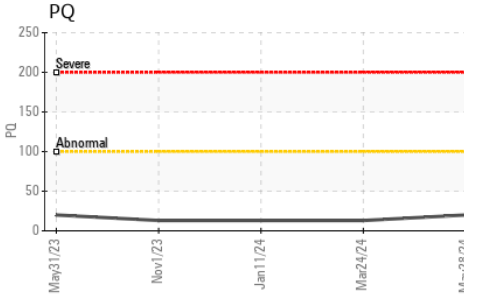
PQ



Viscosity @ 40°C

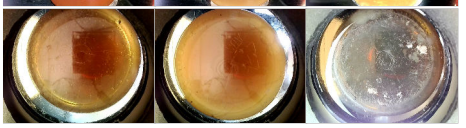


PQ



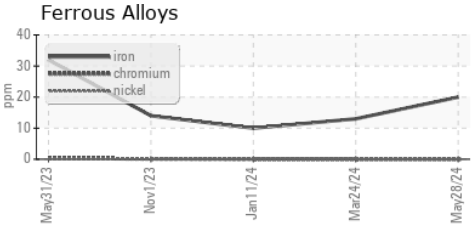
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	▲ MODER	NONE
Debris	scalar	*Visual	NONE	▲ **MODER**	LIGHT	LIGHT
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	● MILKY	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	**NEG**	0.2%	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		**216**	214	213

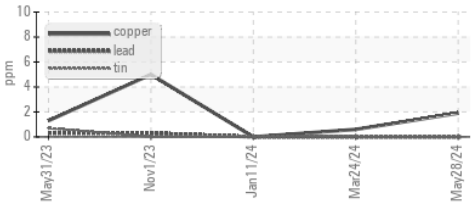
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

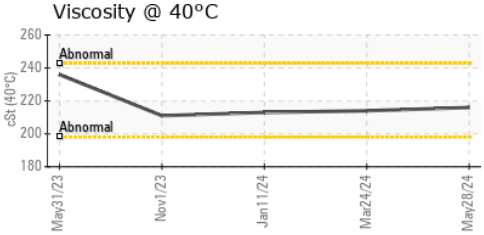
Ferrous Alloys



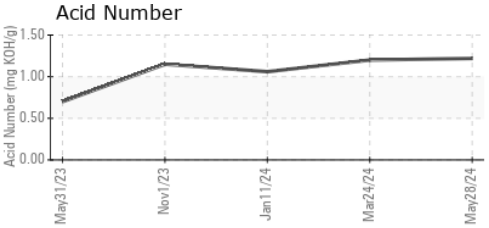
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0037948
Lab Number : 06205368
Unique Number : 11072829
Test Package : IND 2 (Additional Tests: PQ, PrtCount)

Received : 10 Jun 2024
Tested : 10 Jul 2024
Diagnosed : 10 Jul 2024 - Sean Felton

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)

Kimberly-Clark - Mobile - TM 7
200 BAYBRIDGE RD
MOBILE, AL
US 36610
Contact: BRAD SNOW
brad.snow@kcc.com
T:
F: (251)452-6335

Report Id: KIMMOBTM7 [WUSCAR] 06205368 (Generated: 07/10/2024 14:19:11) Rev: 1

Contact/Location: BRAD SNOW - KIMMOBTM7