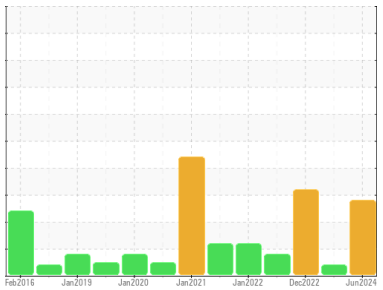
OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Area
RECOVERY
Machine Id
FLOC TK 2 (SOUTH) - AGITATOR
Component
Gearbox
Fluid
SHELL OMALA S4 WE 460 (1 GAL)

DIAGNOSIS

Recommendation
We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We advise that you inspect for the source(s) of wear. Resample at the next service interval to monitor.

Wear
The iron level is abnormal. All other component wear rates are normal.

Contamination
There is a high amount of particulates 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		**WC0915919**	WC0887331	WC0771449
Sample Date		Client Info		**05 Jun 2024**	14 Dec 2023	26 Dec 2022
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	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	▲ **398**	44	99
Chromium	ppm	ASTM D5185m	>15	**0**	<1	<1
Nickel	ppm	ASTM D5185m	>15	**2**	<1	1
Titanium	ppm	ASTM D5185m		**1**	<1	<1
Silver	ppm	ASTM D5185m		**<1**	0	<1
Aluminum	ppm	ASTM D5185m	>25	**5**	5	2
Lead	ppm	ASTM D5185m	>100	**0**	0	<1
Copper	ppm	ASTM D5185m	>200	**62**	21	▲ 116
Tin	ppm	ASTM D5185m	>25	**9**	5	▲ 25
Vanadium	ppm	ASTM D5185m		**<1**	<1	<1
Cadmium	ppm	ASTM D5185m		**<1**	<1	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	6	0
Barium	ppm	ASTM D5185m		**2**	10	0
Molybdenum	ppm	ASTM D5185m		**0**	0	<1
Manganese	ppm	ASTM D5185m		**12**	2	5
Magnesium	ppm	ASTM D5185m		**4**	<1	4
Calcium	ppm	ASTM D5185m		**10**	2	3
Phosphorus	ppm	ASTM D5185m		**396**	345	388
Zinc	ppm	ASTM D5185m		**8**	0	0
Sulfur	ppm	ASTM D5185m		**10**	0	24

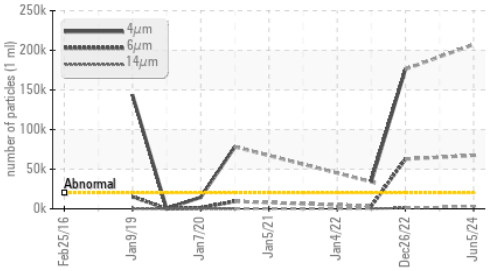
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	**8**	5	8
Sodium	ppm	ASTM D5185m		**0**	10	0
Potassium	ppm	ASTM D5185m	>20	**6**	1	2

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	▲ **207324**	---	▲ 176176
Particles >6µm		ASTM D7647	>5000	▲ **67454**	---	▲ 62754
Particles >14µm		ASTM D7647	>640	▲ **3366**	---	▲ 1017
Particles >21µm		ASTM D7647	>160	▲ **806**	---	54
Particles >38µm		ASTM D7647	>40	**42**	---	2
Particles >71µm		ASTM D7647	>10	**4**	---	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ **25/23/19**	---	▲ 25/23/17

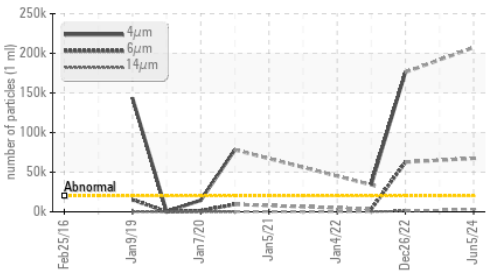
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.09**	0.19	0.20

OIL ANALYSIS REPORT

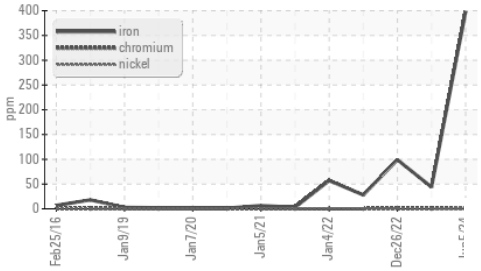
Particle Trend



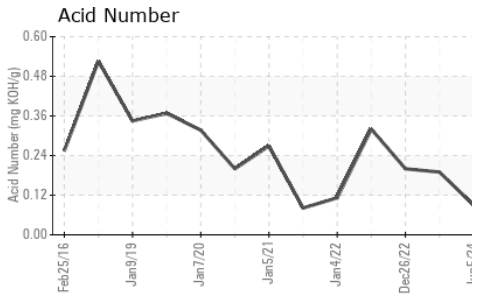
Particle Trend



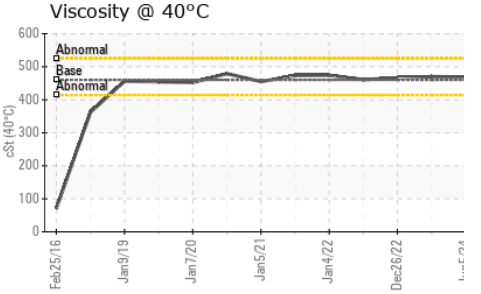
Ferrous Alloys



Acid Number

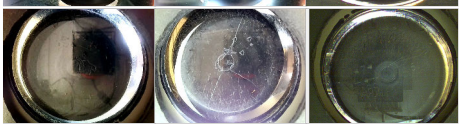


Viscosity @ 40°C



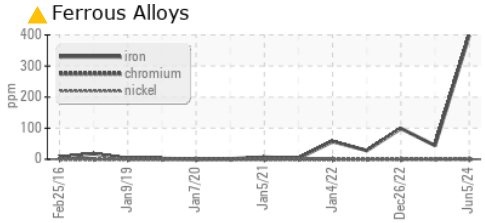
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	▲ MODER	NONE
Sand/Dirt	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	460	**469**	470	466

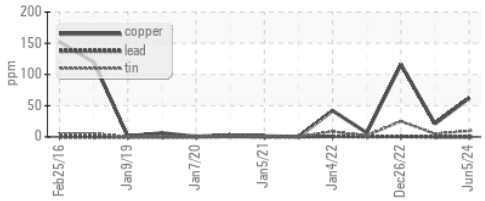
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

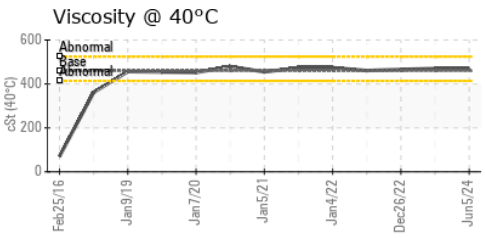
Ferrous Alloys



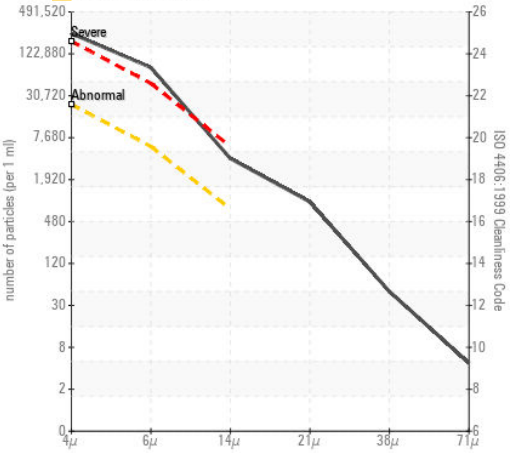
Non-ferrous Metals



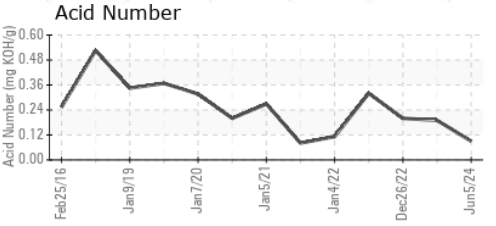
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0915919
Lab Number : 06204559
Unique Number : 11072020
Test Package : IND 2 (Additional Tests: PrtCount)

Received : 10 Jun 2024
Tested : 12 Jun 2024
Diagnosed : 12 Jun 2024 - Angela Borella

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)

LUBRIZOL ADVANCED MATERIALS INC
207 TELEGRAPH DR
GASTONIA, NC
US 28056
Contact: TIMOTHY DAVIS
timothy.davis@lubrizol.com
T: (704)915-4131
F: x: