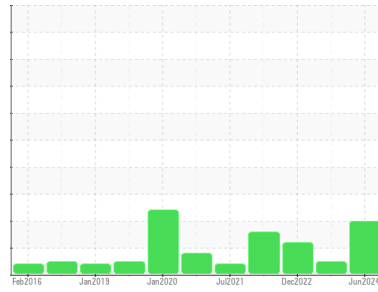




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area
RECOVERY

Machine Id
FLOC TK 1 (NORTH) - AGITATOR

Component
Gearbox

Fluid
SHELL OMALA S4 WE 460 (1 GAL)

DIAGNOSIS

Recommendation

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

Wear

All 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 suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0915917	WC0887330	WC0771452
Sample Date	Client Info		05 Jun 2024	14 Dec 2023	21 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	NORMAL	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	36	4	30
Chromium	ppm	ASTM D5185m	>15	0	<1	0
Nickel	ppm	ASTM D5185m	>15	<1	<1	<1
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m		1	0	<1
Aluminum	ppm	ASTM D5185m	>25	2	2	<1
Lead	ppm	ASTM D5185m	>100	0	0	1
Copper	ppm	ASTM D5185m	>200	6	2	10
Tin	ppm	ASTM D5185m	>25	2	<1	3
Vanadium	ppm	ASTM D5185m		<1	<1	<1
Cadmium	ppm	ASTM D5185m		<1	0	0

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		<1	0	0
Barium	ppm	ASTM D5185m		1	10	0
Molybdenum	ppm	ASTM D5185m		0	0	<1
Manganese	ppm	ASTM D5185m		2	0	1
Magnesium	ppm	ASTM D5185m		4	0	2
Calcium	ppm	ASTM D5185m		6	1	2
Phosphorus	ppm	ASTM D5185m		434	342	381
Zinc	ppm	ASTM D5185m		6	0	0
Sulfur	ppm	ASTM D5185m		24	0	25

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>50	11	5	9
Sodium	ppm	ASTM D5185m		1	4	0
Potassium	ppm	ASTM D5185m	>20	8	2	1

FLUID CLEANLINESS

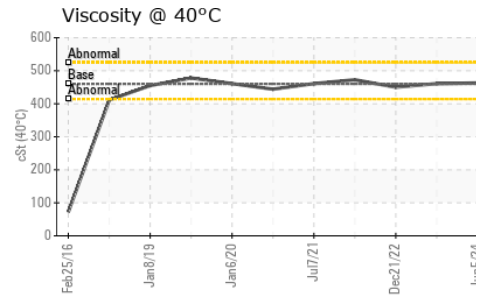
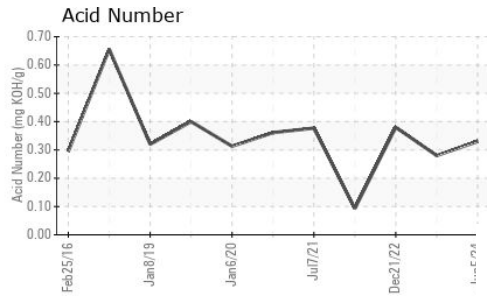
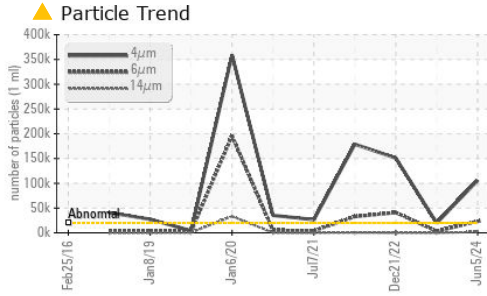
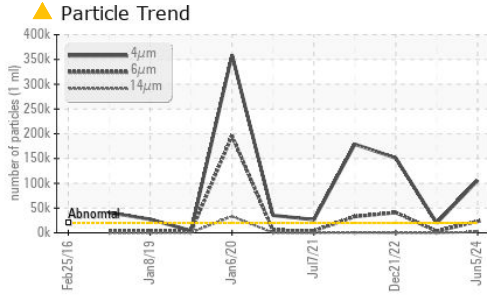
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	▲ 105829	19669	▲ 151009
Particles >6µm	ASTM D7647	>5000	▲ 23393	3254	▲ 41072
Particles >14µm	ASTM D7647	>640	▲ 1620	76	186
Particles >21µm	ASTM D7647	>160	▲ 343	14	34
Particles >38µm	ASTM D7647	>40	17	0	3
Particles >71µm	ASTM D7647	>10	4	0	0
Oil Cleanliness	ISO 4406 (c)	>21/19/16	▲ 24/22/18	21/19/13	▲ 24/23/15

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.33	0.28	0.38



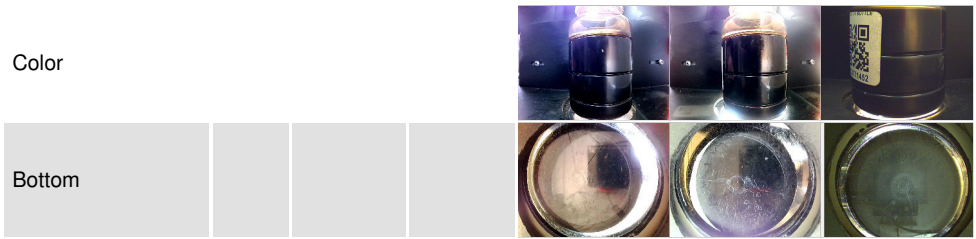
OIL ANALYSIS REPORT



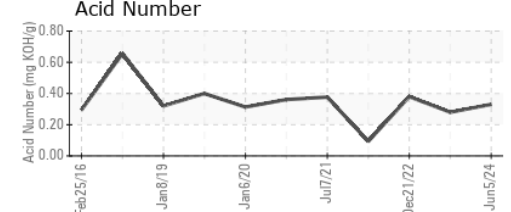
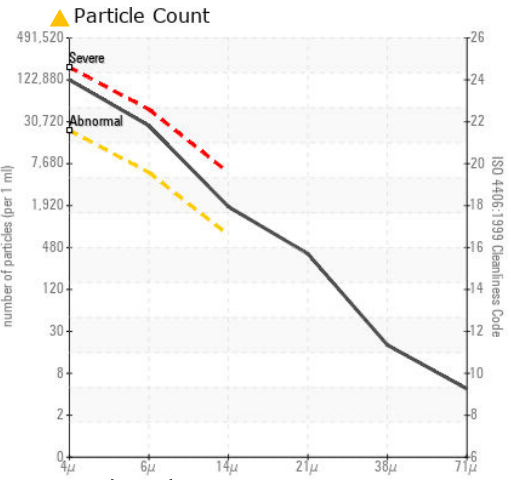
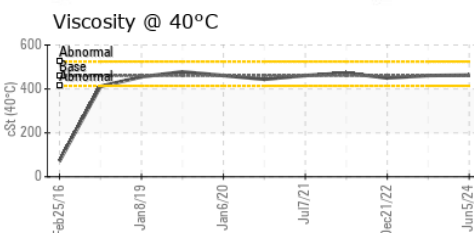
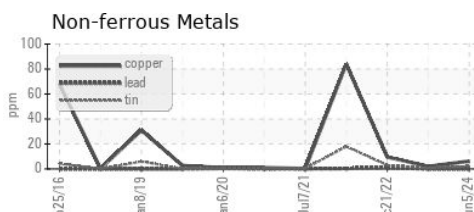
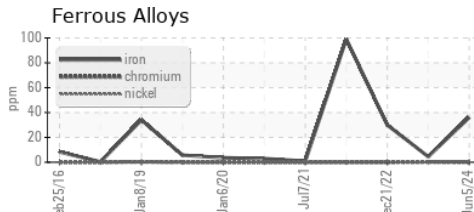
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 460	463	461	450

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0915917
Lab Number : 06204562
Unique Number : 11072023
Test Package : IND 2 (Additional Tests: PrtCount)

Received : 10 Jun 2024
Tested : 11 Jun 2024
Diagnosed : 12 Jun 2024 - Angela Borella

LUBRIZOL ADVANCED MATERIALS INC
 207 TELEGRAPH DR
 GASTONIA, NC
 US 28056

Contact: TIMOTHY DAVIS
 timothy.davis@lubrizol.com
 T: (704)915-4131

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)

F: x: