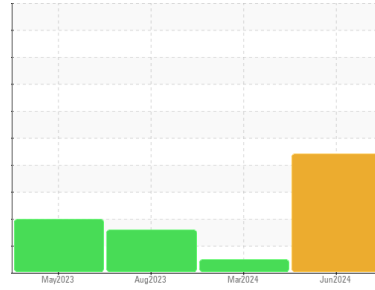




OIL ANALYSIS REPORT

Sample Rating Trend



WATER



Area

Paper Machine

#1 Unit Stretcher Roll

Component

Gearbox

Fluid

MOBIL MOBILGEAR SHC 320 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check for the source of water entry. 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 perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition.

Wear

An increase in the iron level is noted. All other component wear rates are normal.

Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil. Appearance is hazy. There is a light concentration of water 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		WC0776487	WC0776518	WC0776565
Sample Date	Client Info		06 Jun 2024	04 Mar 2024	11 Aug 2023
Machine Age	mths	Client Info	6	0	6
Oil Age	mths	Client Info	6	0	6
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ABNORMAL	NORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >200	153	40	50
Chromium	ppm	ASTM D5185m >15	<1	0	<1
Nickel	ppm	ASTM D5185m >15	2	<1	<1
Titanium	ppm	ASTM D5185m	0	0	<1
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >25	1	0	<1
Lead	ppm	ASTM D5185m >100	0	0	<1
Copper	ppm	ASTM D5185m >200	9	1	41
Tin	ppm	ASTM D5185m >25	<1	0	0
Vanadium	ppm	ASTM D5185m	0	0	<1
Cadmium	ppm	ASTM D5185m	<1	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	6	0
Barium	ppm	ASTM D5185m	<1	2	0
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	2	0	1
Magnesium	ppm	ASTM D5185m	2	3	3
Calcium	ppm	ASTM D5185m	2	<1	12
Phosphorus	ppm	ASTM D5185m	464	450	453
Zinc	ppm	ASTM D5185m	49	31	19
Sulfur	ppm	ASTM D5185m	5582	3361	2565

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	21	13	46
Sodium	ppm	ASTM D5185m	9	<1	7
Potassium	ppm	ASTM D5185m >20	5	0	3
Water	%	ASTM D6304 >0.2	0.373	0.004	0.161
ppm Water	ppm	ASTM D6304 >2000	3730	50	1610

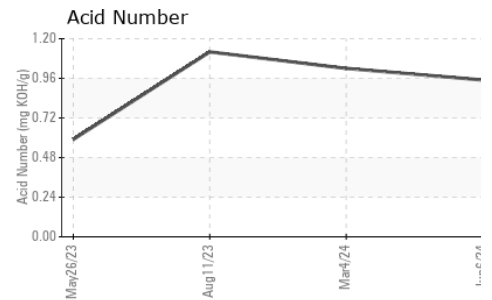
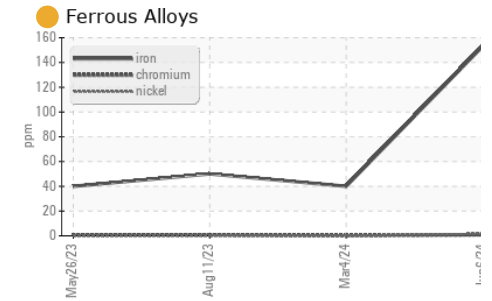
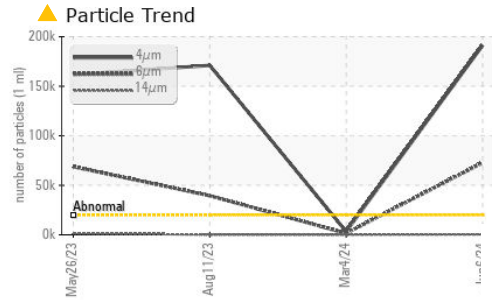
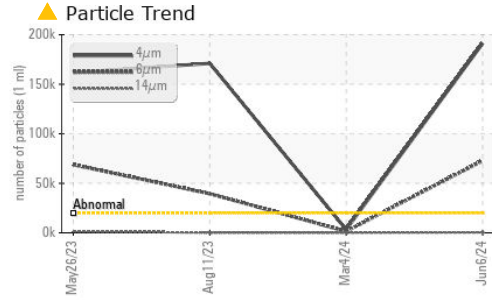
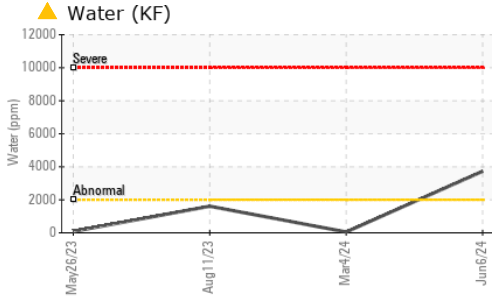
FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	191246	3280	171044
Particles >6µm	ASTM D7647	>5000	72783	1498	39489
Particles >14µm	ASTM D7647	>640	368	88	173
Particles >21µm	ASTM D7647	>160	13	6	11
Particles >38µm	ASTM D7647	>40	2	0	0
Particles >71µm	ASTM D7647	>10	1	0	0
Oil Cleanliness	ISO 4406 (c)	>21/19/16	25/23/16	19/18/14	25/22/15

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.95	1.02	1.12

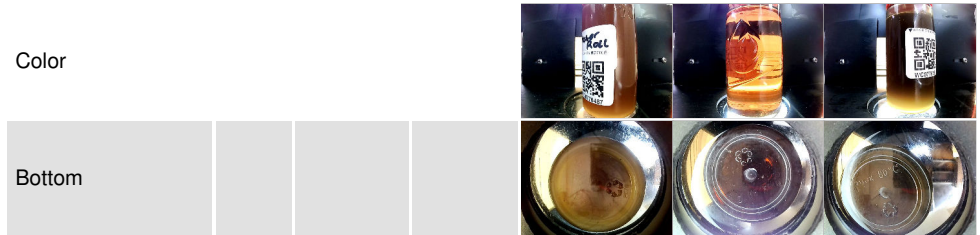
OIL ANALYSIS REPORT



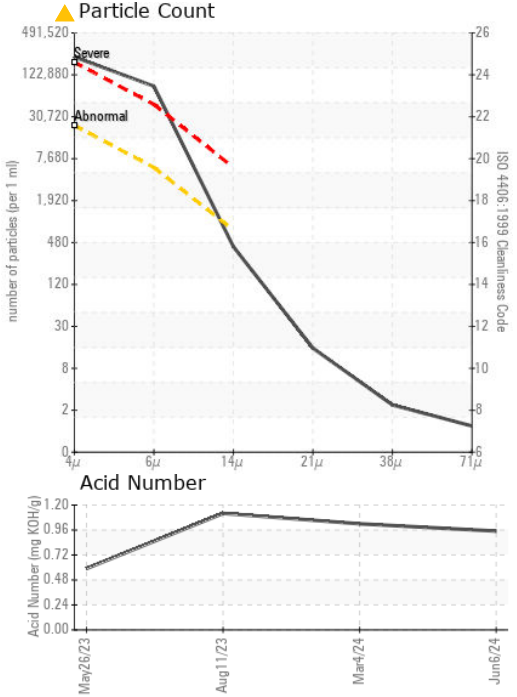
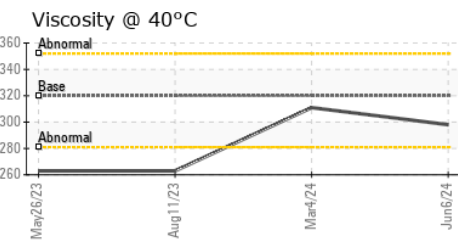
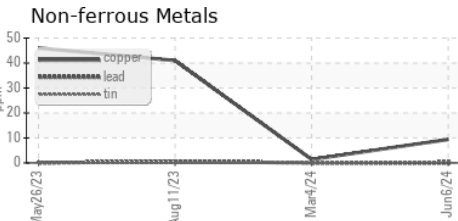
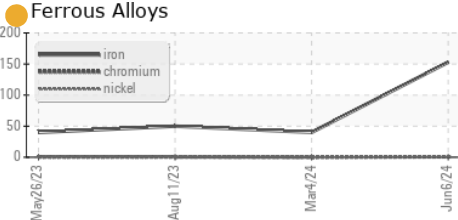
VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	*Visual	NONE	NONE	NONE	
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
Precipitate	scalar	*Visual	NONE	NONE	NONE	
Silt	scalar	*Visual	NONE	NONE	NONE	
Debris	scalar	*Visual	NONE	NONE	NONE	
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D445	320	298	311	263

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0776487
Lab Number : 06204615
Unique Number : 11072076
Test Package : PLANT
Received : 10 Jun 2024
Tested : 17 Jun 2024
Diagnosed : 17 Jun 2024 - Angela Borella

CASCADES CONTAINERBOARD PACKAGING - BEARPACK PROJECT
 10026 OLD RIDGE ROAD
 ASHLAND, VA
 US 23005
 Contact: MARC-ANDRE HUBERT
 marc-andre_hubert@cascades.com

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)