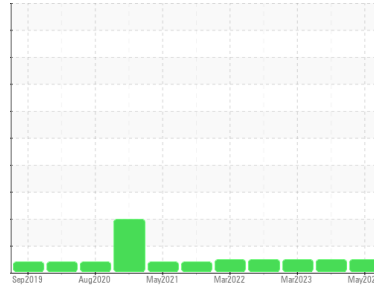




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area

**Fermentation**

Machine Id

**Lightnin FFG20DB01 Dosing Tank, Agitator**

Component

**Gearbox**

Fluid

**JAX FGG-AW ISO 220 (4 GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

### 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	<b>WC0888631</b>	WC0842999	WC0697843
Sample Date	Client Info	<b>31 May 2024</b>	26 Sep 2023	07 Mar 2023
Machine Age	hrs Client Info	<b>0</b>	0	0
Oil Age	hrs Client Info	<b>0</b>	0	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >200	<b>5</b>	10	8
Chromium	ppm ASTM D5185m >15	<b>0</b>	0	0
Nickel	ppm ASTM D5185m >15	<b>0</b>	0	0
Titanium	ppm ASTM D5185m	<b>0</b>	0	0
Silver	ppm ASTM D5185m	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >25	<b>0</b>	<1	<1
Lead	ppm ASTM D5185m >100	<b>0</b>	0	0
Copper	ppm ASTM D5185m >200	<b>0</b>	<1	0
Tin	ppm ASTM D5185m >25	<b>0</b>	0	0
Vanadium	ppm ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m	<b>0</b>	0	0
Barium	ppm ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m	<b>0</b>	0	0
Manganese	ppm ASTM D5185m	<b>0</b>	<1	<1
Magnesium	ppm ASTM D5185m	<b>0</b>	0	<1
Calcium	ppm ASTM D5185m	<b>8</b>	0	1
Phosphorus	ppm ASTM D5185m	<b>595</b>	624	554
Zinc	ppm ASTM D5185m	<b>0</b>	0	2
Sulfur	ppm ASTM D5185m	<b>669</b>	636	660

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >50	<b>0</b>	<1	<1
Sodium	ppm ASTM D5185m	<b>&lt;1</b>	<1	<1
Potassium	ppm ASTM D5185m >20	<b>0</b>	0	<1
Water	% ASTM D6304 >0.2	<b>0.003</b>	0.005	0.005
ppm Water	ppm ASTM D6304 >2000	<b>37</b>	56.6	53.4

## FLUID CLEANLINESS

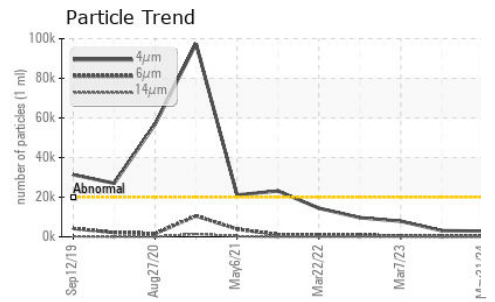
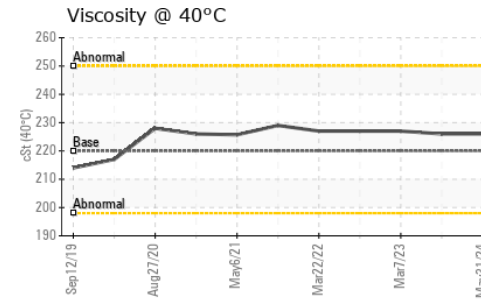
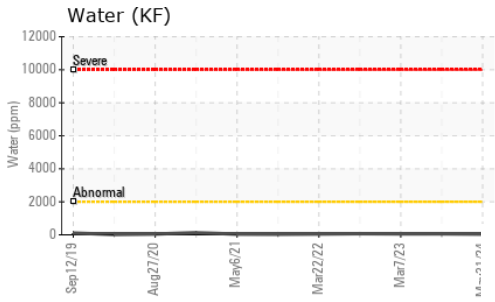
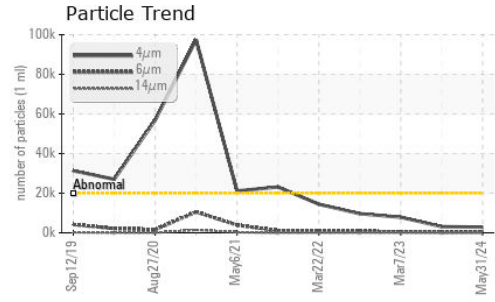
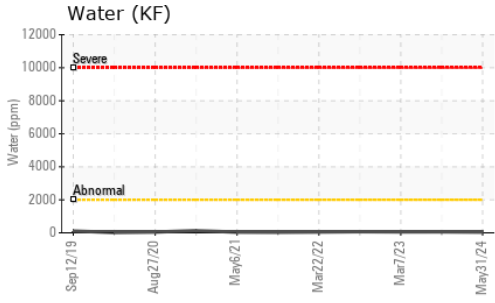
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >20000	<b>2877</b>	3096	7892
Particles >6µm	ASTM D7647 >5000	<b>534</b>	384	583
Particles >14µm	ASTM D7647 >640	<b>39</b>	23	19
Particles >21µm	ASTM D7647 >160	<b>10</b>	5	3
Particles >38µm	ASTM D7647 >40	<b>1</b>	0	0
Particles >71µm	ASTM D7647 >10	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c) >21/19/16	<b>19/16/12</b>	19/16/12	20/16/11

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D8045	<b>0.67</b>	0.68	0.69



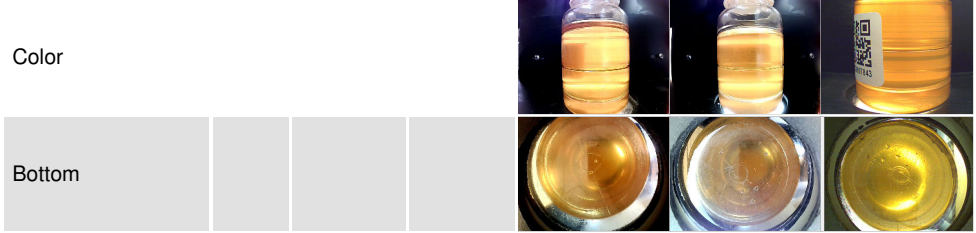
# OIL ANALYSIS REPORT



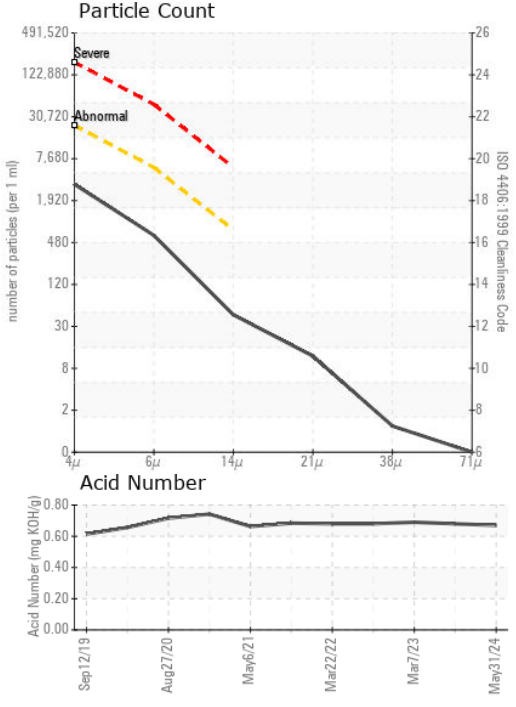
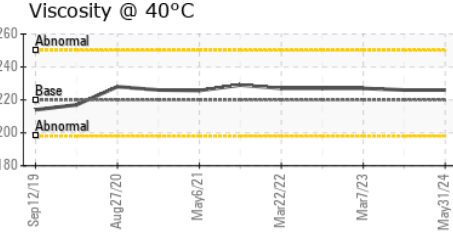
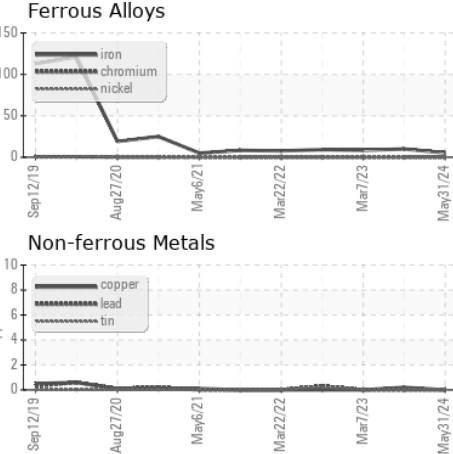
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	220	226	226

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0888631 **Received** : 03 Jun 2024  
**Lab Number** : 06197621 **Tested** : 04 Jun 2024  
**Unique Number** : 11059744 **Diagnosed** : 04 Jun 2024 - Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**NOVOZYMES**  
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 FRANKLINTON, NC  
 US 27525  
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 brct@novozymes.com  
 T: (919)494-3146  
 F: (919)494-3456

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)