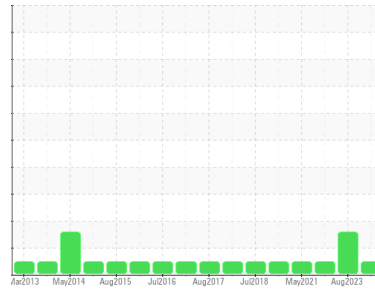




# GREASE ANALYSIS

Sample Rating Trend



**NORMAL**



Machine Id  
**TURBINA 08 (S/N 101295)**

Component  
**Wind Turbine Gearbox**

Fluid  
**FUCHS RENOLIN UNISYN CLP 320 (340 LTR)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is 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>WC0881124</b>	WC0831545	WC05582414
Sample Date	Client Info			<b>14 May 2024</b>	14 Aug 2023	02 Apr 2022
Machine Age	yrs	Client Info		<b>1</b>	2	18
Oil Age	yrs	Client Info		<b>1</b>	2	0
Oil Changed	Client Info			<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	ABNORMAL	NORMAL

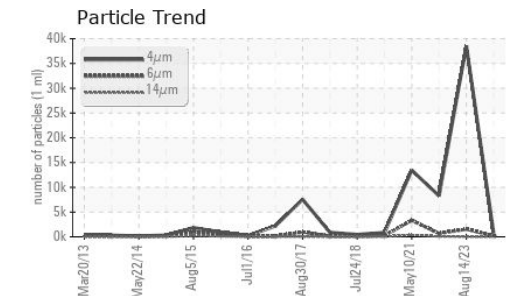
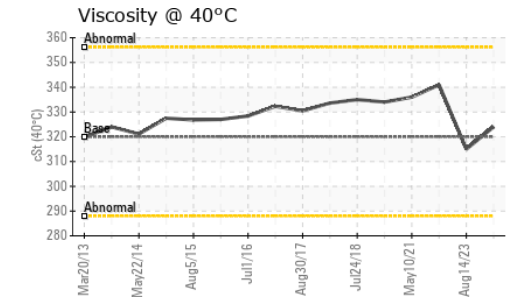
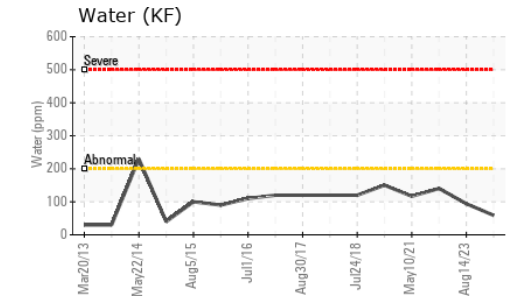
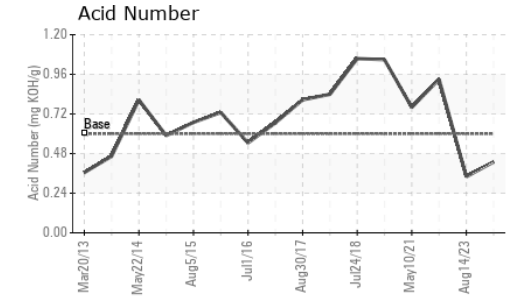
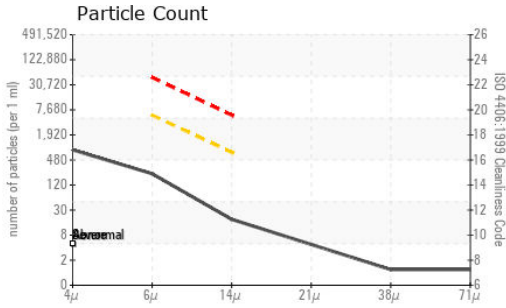
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184	>50	<b>14</b>	13	16
Iron	ppm	ASTM D5185m	>30	<b>10</b>	6	16
Chromium	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Lead	ppm	ASTM D5185m	>15	<b>1</b>	2	<1
Copper	ppm	ASTM D5185m	>10	<b>&lt;1</b>	1	<1
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>1</b>	<1	0
Manganese	ppm	ASTM D5185m		<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Phosphorus	ppm	ASTM D5185m		<b>204</b>	202	163
Zinc	ppm	ASTM D5185m		<b>44</b>	4	34
Antimony	ppm	ASTM D5185m		<b>---</b>	---	---

THICKENER/SOAP		method	limit/base	current	history1	history2
Aluminum	ppm	ASTM D5185m		<b>1</b>	0	<1
Barium	ppm	ASTM D5185m		<b>4</b>	6	0
Calcium	ppm	ASTM D5185m		<b>26</b>	21	4
Sodium	ppm	ASTM D5185m		<b>6</b>	0	<1
Sulfur	ppm	ASTM D5185m		<b>4923</b>	8100	4512

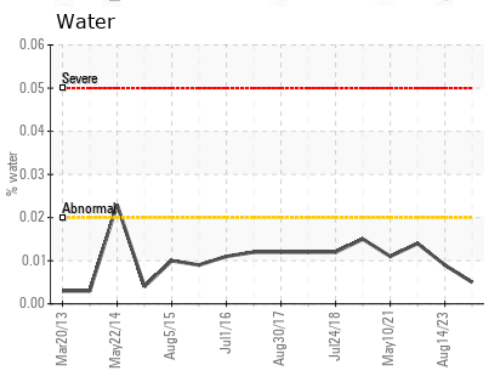
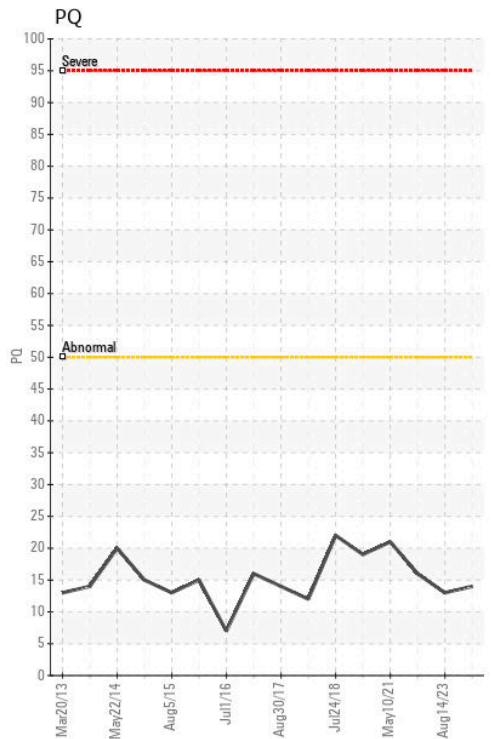
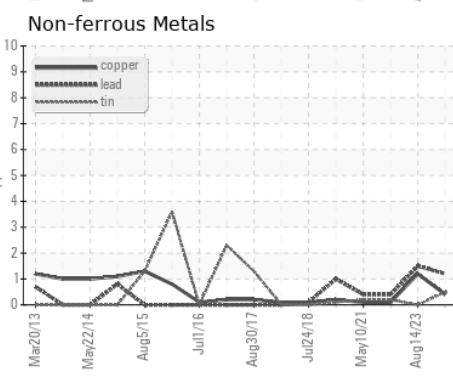
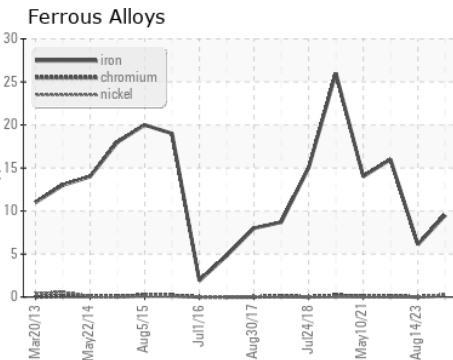
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>+15	<b>4</b>	▲ 29	<1
Potassium	ppm	ASTM D5185m		<b>2</b>	<1	0
Water	%	ASTM D6304	>0.02	<b>0.005</b>	0.009	0.014
ppm Water	ppm	ASTM D6304	>200	<b>59</b>	94.2	140.4

# GREASE ANALYSIS



SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					
PrtFilter			no image	no image	no image

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0881124      **Received** : 29 May 2024  
**Lab Number** : 06194673      **Tested** : 31 May 2024  
**Unique Number** : 11056796      **Diagnosed** : 31 May 2024 - Angela Borella  
**Test Package** : GRS 1 ( Additional Tests: Consistency, FilterPatch, GreaseColor, ICP, KF, KV40, PQ, PrtCount, SORFEN )  
 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)