



PROBLEM SUMMARY

Sample Rating Trend

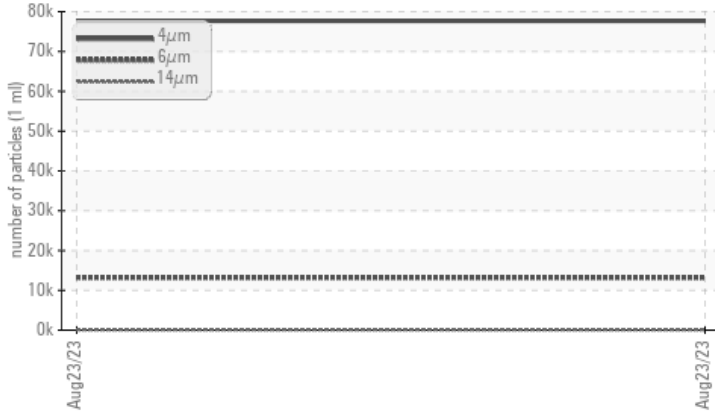
ISO

Area
IRON STAR [200006142]
 Machine Id
E03-WEA88328
 Component
Wind Turbine Gearbox
 Fluid
NOT GIVEN (--- LTR)



COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

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

PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	---	---
Particles >6µm	ASTM D7647	>320	▲ 13192	---	---
Particles >14µm	ASTM D7647	>40	▲ 102	---	---
Particles >21µm	ASTM D7647	>10	▲ 21	---	---
Oil Cleanliness	ISO 4406 (c)	>--/15/12	▲ 23/21/14	---	---

Customer Id: NORDEX
 Sample No.: NX05933521
 Lab Number: 05933521
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component if applicable.

HISTORICAL DIAGNOSIS



OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area
IRON STAR [200006142]
 Machine Id
E03-WEA88328
 Component
Wind Turbine Gearbox
 Fluid
NOT GIVEN (--- LTR)

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		NX05933521	---	---
Sample Date	Client Info		23 Aug 2023	---	---
Machine Age	hrs	Client Info	0	---	---
Oil Age	hrs	Client Info	0	---	---
Oil Changed	Client Info		N/A	---	---
Sample Status			ABNORMAL	---	---

WEAR METALS	method	limit/base	current	history1	history2
PQ	ASTM D8184	>50	16	---	---
Iron	ppm	ASTM D5185m	>30	27	---
Chromium	ppm	ASTM D5185m	>3	0	---
Nickel	ppm	ASTM D5185m	>3	0	---
Titanium	ppm	ASTM D5185m	>10	0	---
Silver	ppm	ASTM D5185m		0	---
Aluminum	ppm	ASTM D5185m	>30	0	---
Lead	ppm	ASTM D5185m	>15	1	---
Copper	ppm	ASTM D5185m	>10	<1	---
Tin	ppm	ASTM D5185m	>10	0	---
Vanadium	ppm	ASTM D5185m		0	---
Cadmium	ppm	ASTM D5185m		0	---

ADDITIVES	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		4	---
Barium	ppm	ASTM D5185m		2	---
Molybdenum	ppm	ASTM D5185m		0	---
Manganese	ppm	ASTM D5185m		<1	---
Magnesium	ppm	ASTM D5185m		<1	---
Calcium	ppm	ASTM D5185m		18	---
Phosphorus	ppm	ASTM D5185m		206	---
Zinc	ppm	ASTM D5185m		7	---
Sulfur	ppm	ASTM D5185m		5112	---

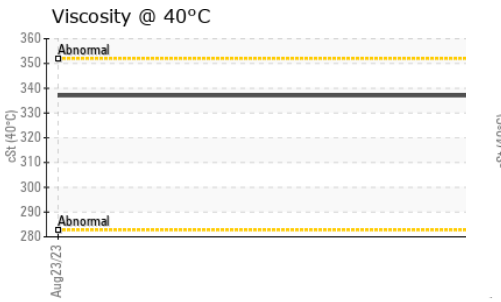
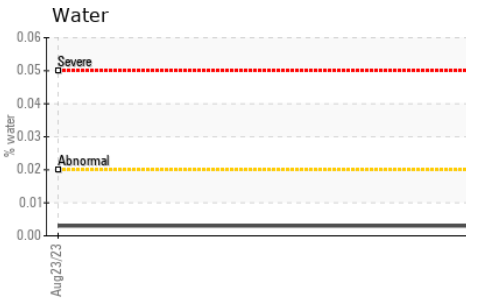
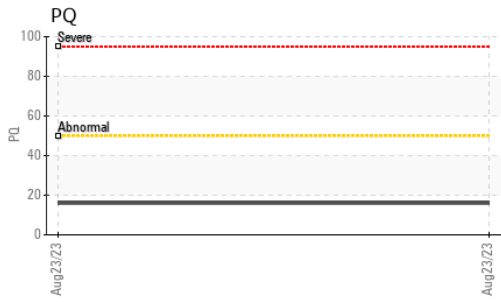
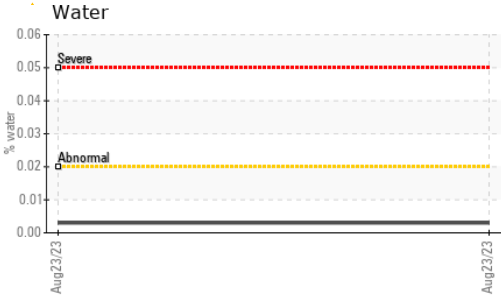
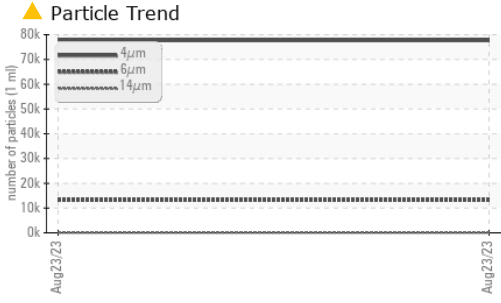
CONTAMINANTS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>+15	11	---
Sodium	ppm	ASTM D5185m		0	---
Potassium	ppm	ASTM D5185m	>20	2	---
Water	%	ASTM D6304	>0.02	0.003	---
ppm Water	ppm	ASTM D6304	>200	32.4	---

FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		77674	---	---
Particles >6µm	ASTM D7647	>320	▲ 13192	---	---
Particles >14µm	ASTM D7647	>40	▲ 102	---	---
Particles >21µm	ASTM D7647	>10	▲ 21	---	---
Particles >38µm	ASTM D7647	>3	1	---	---
Particles >71µm	ASTM D7647	>3	1	---	---
Oil Cleanliness	ISO 4406 (c)	>--/15/12	▲ 23/21/14	---	---

FLUID DEGRADATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.39	---



OIL ANALYSIS REPORT



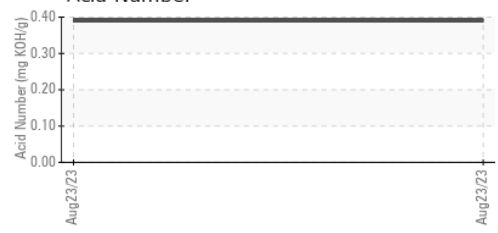
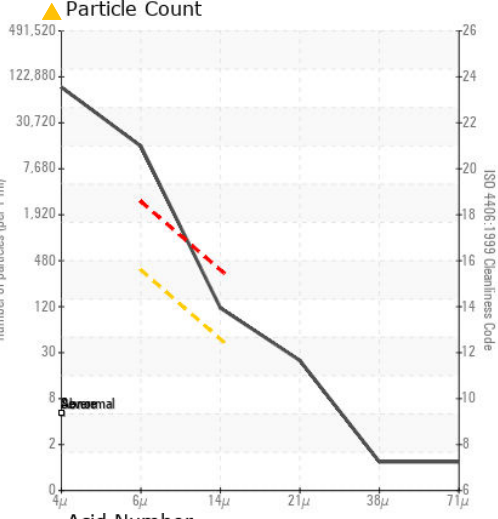
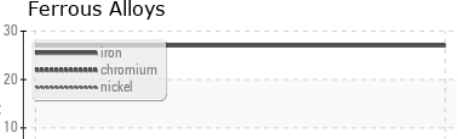
VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Precipitate	scalar	*Visual	NONE	NONE	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.02	NEG	---	---
Free Water	scalar	*Visual		NEG	---	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	337	---	---

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

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : NX05933521 **Received** : 24 Aug 2023
Lab Number : 05933521 **Diagnosed** : 28 Aug 2023
Unique Number : 10618792 **Diagnostician** : Jonathan Hester
Test Package : IND 2 (Additional Tests: KF, PQ, PrtCount)

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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)