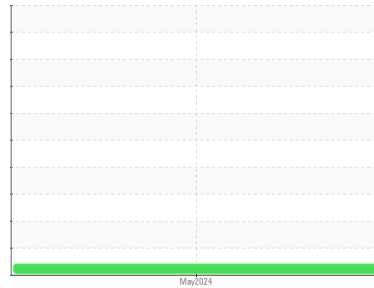




OIL ANALYSIS REPORT

Sample Rating Trend



VIS DEBRIS



Area
BLACKJACK CREEK [200007683]

Machine Id
WEA88410 - A-06

Component
Wind Turbine Gearbox

Fluid
FUCHS RENOLIN UNISYN CLP 320 (--- LTR)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Wear

All component wear rates are normal.

Contamination

Moderate concentration of visible dirt/debris 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		NX015633	---	---
Sample Date	Client Info		21 May 2024	---	---
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	10	---	---
Iron	ppm	ASTM D5185m	>30	38	---
Chromium	ppm	ASTM D5185m	>3	<1	---
Nickel	ppm	ASTM D5185m	>3	<1	---
Titanium	ppm	ASTM D5185m	>10	<1	---
Silver	ppm	ASTM D5185m		0	---
Aluminum	ppm	ASTM D5185m	>30	2	---
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		<1	---
Molybdenum	ppm	ASTM D5185m		0	---
Manganese	ppm	ASTM D5185m		1	---
Magnesium	ppm	ASTM D5185m		<1	---
Calcium	ppm	ASTM D5185m		15	---
Phosphorus	ppm	ASTM D5185m		214	---
Zinc	ppm	ASTM D5185m		10	---
Sulfur	ppm	ASTM D5185m		4664	---

CONTAMINANTS

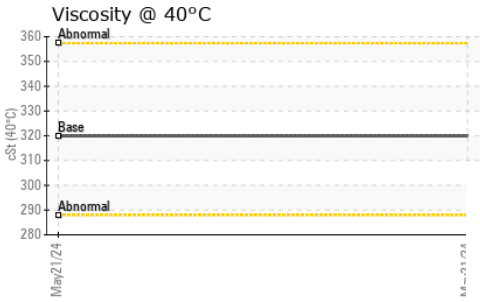
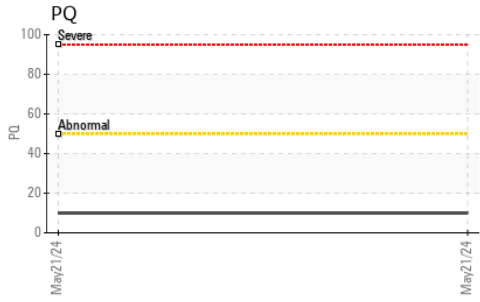
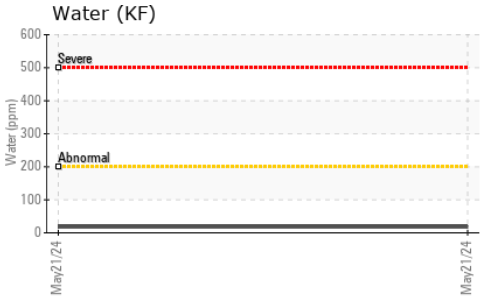
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>+15	11	---
Sodium	ppm	ASTM D5185m		2	---
Potassium	ppm	ASTM D5185m	>20	2	---
Water	%	ASTM D6304	>0.02	0.002	---
ppm Water	ppm	ASTM D6304	>200	18	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.6	0.37	---



OIL ANALYSIS REPORT



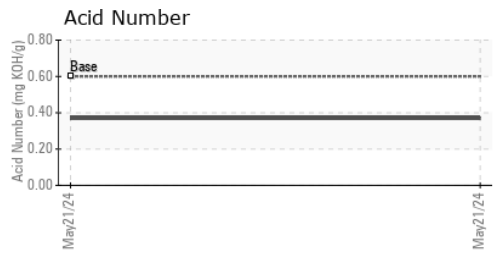
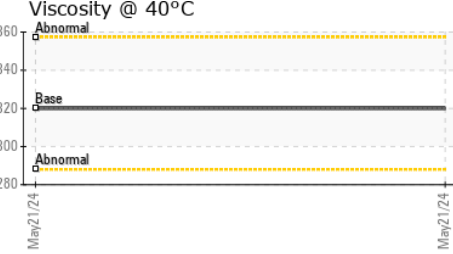
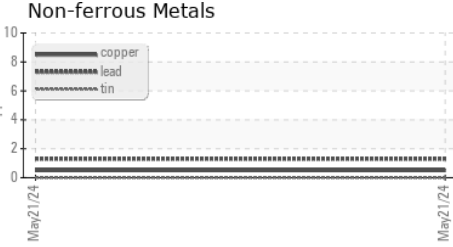
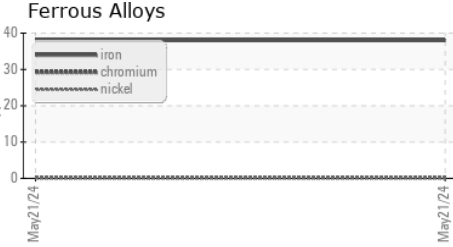
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	---	---
Precipitate	scalar	*Visual	NONE	---	---
Silt	scalar	*Visual	NONE	---	---
Debris	scalar	*Visual	▲ MODER	---	---
Sand/Dirt	scalar	*Visual	NONE	---	---
Appearance	scalar	*Visual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

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

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

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : NX015633
Lab Number : 06210763
Unique Number : 11083627
Test Package : IND 2 (Additional Tests: KF, PQ, PrtCount)

Received : 14 Jun 2024
Tested : 19 Jun 2024
Diagnosed : 19 Jun 2024 - Angela Borella

NORDEX USA - Chicago
 300 SOUTH WACKER DRIVE, SUITE 1500
 CHICAGO, IL
 US 60606

Contact: DEVIN LINEHAN
 DLinehan@nordex-online.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)

T: (312)386-4124

F: (312)386-7102