

## **OIL ANALYSIS REPORT**

### Area INDIANA CROSSROADS II [200008339] T10 (S/N W-124523)

Wind Turbine Gearbox

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

#### DIAGNOSIS

#### Recommendation

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

#### Wear

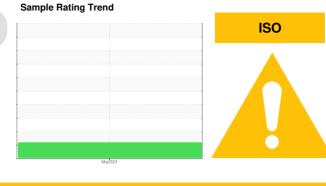
All component wear rates are normal.

#### Contamination

There is a high amount of silt (particulates < 14 microns in size) 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 INFORM	<b>IATION</b>	method	limit/base	current	history1	history2
Sample Number		Client Info		NX06151081		
Sample Date		Client Info		07 Mar 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	>80	20		
Iron	ppm	ASTM D5185m	>150	12		
Chromium	ppm	ASTM D5185m	>5	0		
Nickel	ppm		>10	<1		
Titanium	ppm	ASTM D5185m	>10	0		
Silver	ppm	ASTM D5185m		0		
Aluminum	ppm	ASTM D5185m	>10	۰ <1		
Lead	ppm	ASTM D5185m	>20	<1		
Copper	ppm	ASTM D5185m	>20 >50	2		
Tin		ASTM D5185m	>3	2 <1		
Vanadium	ppm	ASTM D5185m	<i>&gt;</i> 0	<1		
	ppm			-		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		8		
Barium	ppm	ASTM D5185m		0		
Molybdenum	ppm	ASTM D5185m		0		
Manganese	ppm	ASTM D5185m		2		
Magnesium	ppm	ASTM D5185m		1		
Calcium	ppm	ASTM D5185m		23		
Phosphorus	ppm	ASTM D5185m		236		
Zinc	ppm	ASTM D5185m		0		
Sulfur	ppm	ASTM D5185m		6373		
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	5		
Sodium	ppm	ASTM D5185m	>20	4		
Potassium	ppm	ASTM D5185m	>20	3		
Water	%	ASTM D6304	>0.05	0.001		
ppm Water	ppm	ASTM D6304	>500	6		
FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	<b>6</b> 58108		
Particles >6µm		ASTM D7647	>1300	<u> </u>		
Particles >14µm		ASTM D7647	>160	15		
Particles >21µm		ASTM D7647	>40	2		
Particles >38µm		ASTM D7647	>10	0		
Particles >71µm		ASTM D7647	>3	0		
Particles >/1µm Oil Cleanliness			>3 >19/17/14	0 <b>2</b> 3/19/11		

Acid Number (AN)

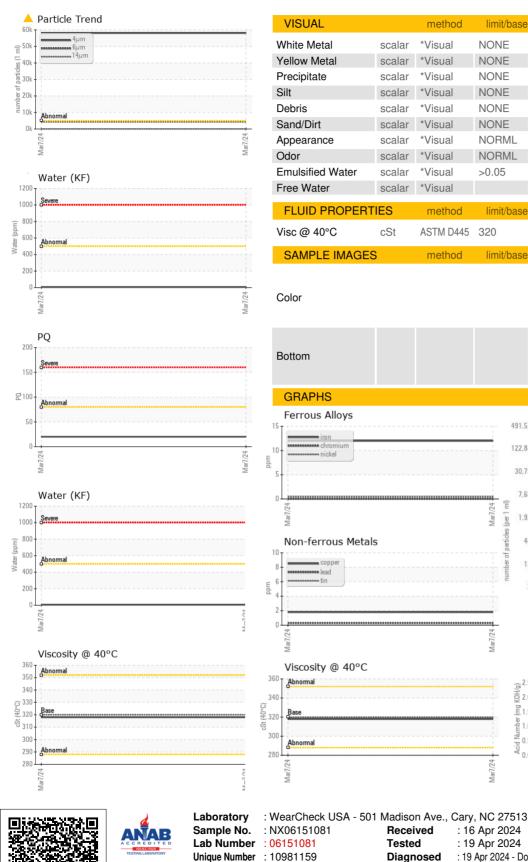
Report Id: NORDEX [WUSCAR] 06151081 (Generated: 04/19/2024 23:06:20) Rev: 2

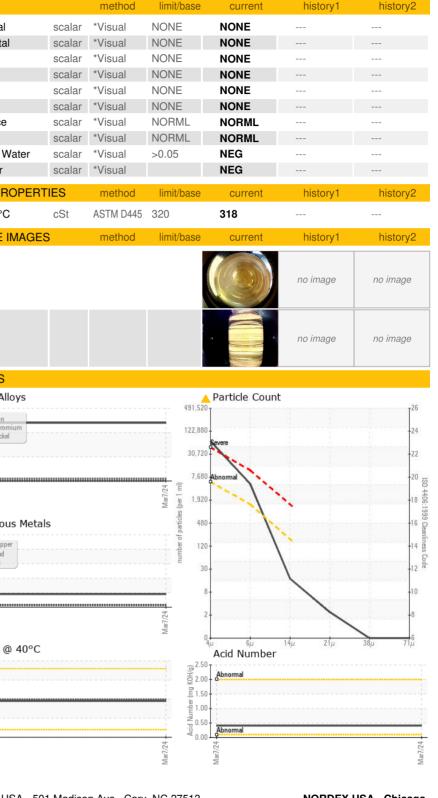
mg KOH/g ASTM D8045

0.41 Contact/Location: DEVIN LINEHAN - NORDEX



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: 16 Apr 2024

: 19 Apr 2024

Test Package : IND 2 (Additional Tests: KF, PQ, PrtCount)

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.



**NORDEX USA - Chicago** 300 SOUTH WACKER DRIVE, SUITE 1500 CHICAGO, IL : 19 Apr 2024 - Don Baldridge US 60606 Contact: DEVIN LINEHAN DLinehan@nordex-online.com T: (312)386-4124 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (312)386-7102

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Certificate 12367

Contact/Location: DEVIN LINEHAN - NORDEX