

OIL ANALYSIS REPORT

BLACKJACK CREEK 12WEA88416 - C-01 (S/N 11585998) Component

Wind Turbine Gearbox

FUCHS RENOLIN UNISYN CKC ISO 320 (--- LTR)

SAMPLE INFORMATION method limit/base current history1 history2 NX011543 Sample Number **Client Info** 05 Jan 2023 Sample Date Client Info Client Info 2426 Machine Age hrs Oil Age hrs Client Info 0 Oil Changed N/A **Client Info** Sample Status ABNORMAL WEAR METALS method limit/base current history1 history2 PQ >40 23 ASTM D8184 ASTM D5185m >55 40 Iron ppm Chromium ppm ASTM D5185m >2 0 ASTM D5185m >2 Nickel 0 ppm Titanium ppm ASTM D5185m >10 0 Silver ASTM D5185m 0 ppm Aluminum ASTM D5185m >15 0 ppm Lead ASTM D5185m >3 <1 ppm Copper ppm ASTM D5185m >7 <1 ASTM D5185m >3 0 Tin ppm Vanadium ppm ASTM D5185m 0 Cadmium ASTM D5185m 0 ppm **ADDITIVES** method limit/base current historv1 historv2 Boron ppm ASTM D5185m 25 6 ASTM D5185m 0 Barium ppm 0 Molvbdenum ppm ASTM D5185m Manganese ASTM D5185m <1 ppm Magnesium ASTM D5185m <1 ppm Calcium ppm ASTM D5185m 17 19 Phosphorus ASTM D5185m 200 216 ppm Zinc ASTM D5185m 9 ppm Sulfur ASTM D5185m 5000 4797 ppm CONTAMINANTS method limit/base current history1 history2 Silicon ASTM D5185m >35 ppm 10 Sodium ASTM D5185m 0 ppm >20 2 Potassium ppm ASTM D5185m % >0.02 0.010 Water ASTM D6304 ppm Water ppm ASTM D6304 >200 109.3 **FLUID CLEANLINESS** method limit/base history1 history2 current 293971 Particles >4µm ASTM D7647 Particles >6µm ASTM D7647 >320 132920 Particles >14µm ASTM D7647 >40 Particles >21µm ASTM D7647 >10 ASTM D7647 4 Particles >38µm >3 ---0 Particles >71um ASTM D7647 >3 **Oil Cleanliness** ISO 4406 (c) >--/15/12 25/24/17 **FLUID DEGRADATION** method limit/base history1 history2 current

Acid Number (AN)

mg KOH/g ASTM D8045 0.9

Contact/Location: DEVIN LINEHAN - NORDEX

0.39

Report Id: NORDEX [WUSCAR] 05744628 (Generated: 03/08/2024 05:54:48) Rev: 1

DIAGNOSIS

Recommendation

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

Wear

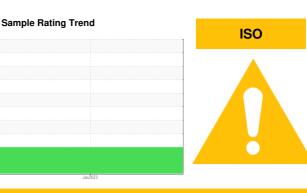
All component wear rates are normal.

Contamination

There is a high amount of particulates present in the oil.

Fluid Condition

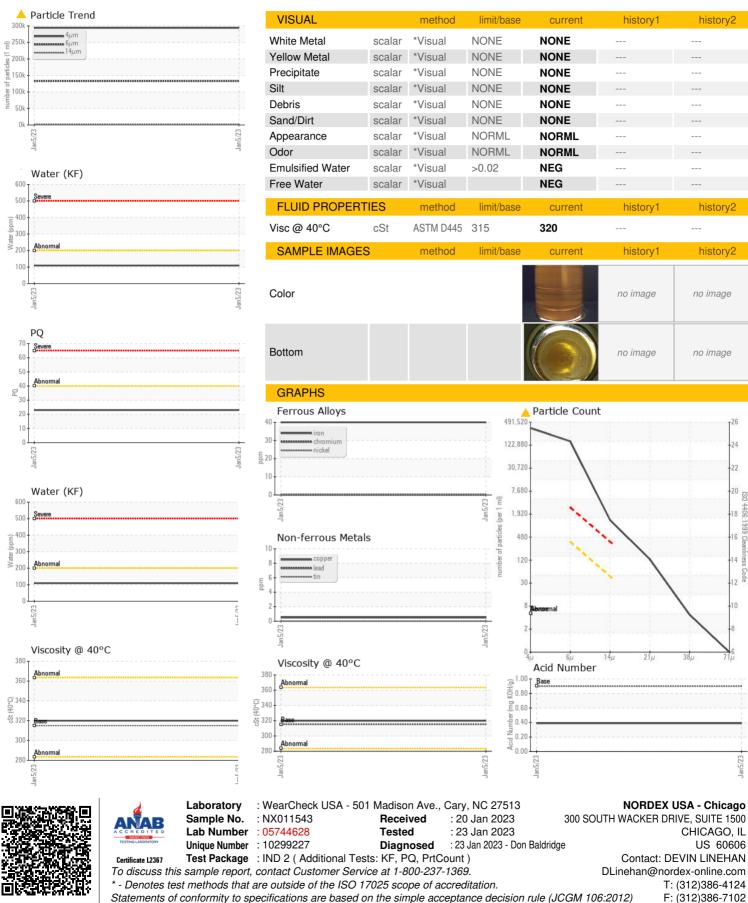
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.





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NORDEX USA - Chicago

history1

history

history1

history2

history

history2

no image

no image

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