

OIL ANALYSIS REPORT

IRON STAR [200006142] Machine Id 15WEA88308

Component

Wind Turbine Gearbox

{not provided} (--- LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

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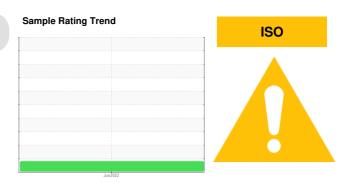
All component wear rates are normal.

Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Fluid Condition

Confirm oil type. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.



SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		NX05596453		
Sample Date		Client Info		10 Jun 2022		
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	15		
Iron	ppm	ASTM D5185m	>30	9		
Chromium	ppm	ASTM D5185m	>3	0		
Nickel	ppm	ASTM D5185m	>3	0		
Titanium	ppm	ASTM D5185m	>10	0		
Silver	ppm	ASTM D5185m		<1		
Aluminum	ppm	ASTM D5185m	>30	<1		
Lead	ppm	ASTM D5185m	>15	<1		
Copper	ppm	ASTM D5185m	>10	<1		
Tin	ppm	ASTM D5185m		<1		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
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ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		9		
Barium	ppm	ASTM D5185m		0		
Molybdenum	ppm	ASTM D5185m		0		
Manganese	ppm	ASTM D5185m		<1		
Magnesium	ppm	ASTM D5185m		<1		
Calcium	ppm	ASTM D5185m		17		
Phosphorus	ppm	ASTM D5185m		176		
Zinc	ppm	ASTM D5185m		3		
Sulfur	ppm	ASTM D5185m		4568		
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>+15	4		
Sodium	ppm	ASTM D5185m		2		
Potassium	ppm	ASTM D5185m	>20	1		
Water	%	ASTM D6304	>0.02	0.010		
ppm Water	ppm	ASTM D6304	>200	104.3		
FLUID CLEANLIN	ESS	method	limit/base	current	history1	history2
Particles >4μm		ASTM D7647		23722		
Particles >6µm		ASTM D7647	>320	^ 698		
Particles >14µm		ASTM D7647	>40	18		
Particles >21µm		ASTM D7647	>10	5		
Particles >38μm		ASTM D7647	>3	1		
Particles >71µm		ASTM D7647	>3	0		
Oil Cleanliness		ISO 4406 (c)	>/15/12	<u> </u>		
FLUID DEGRADA	TION	method	limit/base	current	history1	history2



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