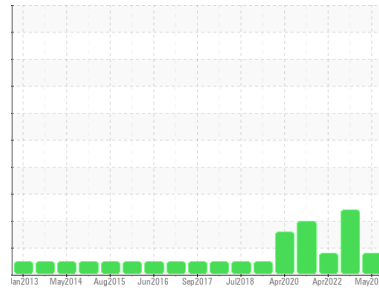




GREASE ANALYSIS

Sample Rating Trend



WEAR



Machine Id
TURBINA 09 (S/N 101311)

Component
Wind Turbine Gearbox

Fluid
FUCHS RENOLIN UNISYN CLP 320 (320 LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

The iron level is abnormal. All other component wear rates are normal.

Contamination

The amount and size of particulates present in the system are acceptable.

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		WC0881128	WC0831517	WC05582421
Sample Date	Client Info		09 May 2024	14 Aug 2023	08 Apr 2022
Machine Age	yrs	Client Info	12	11	72
Oil Age	yrs	Client Info	9	7	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184	>50	15	11	21
Iron	ppm	ASTM D5185m	>30	▲ 33	▲ 35
Chromium	ppm	ASTM D5185m	>3	<1	0
Nickel	ppm	ASTM D5185m	>3	<1	0
Cadmium	ppm	ASTM D5185m		<1	0
Titanium	ppm	ASTM D5185m	>10	<1	0
Vanadium	ppm	ASTM D5185m		0	0
Lead	ppm	ASTM D5185m	>15	<1	0
Copper	ppm	ASTM D5185m	>10	<1	0
Tin	ppm	ASTM D5185m	>10	<1	0
Silver	ppm	ASTM D5185m		0	0

ADDITIVES

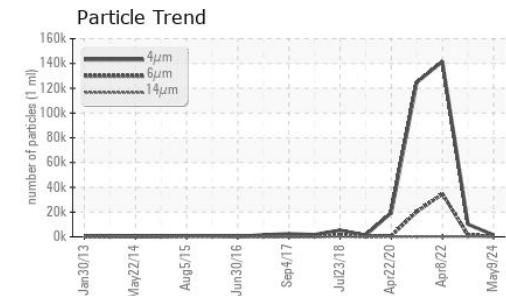
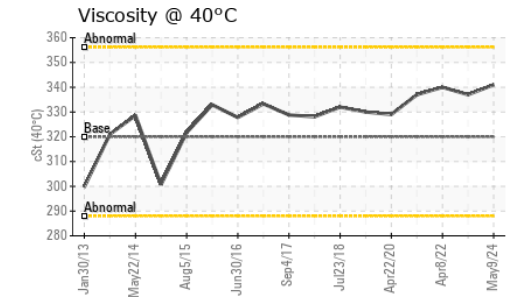
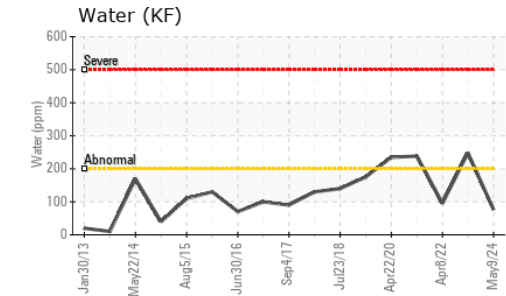
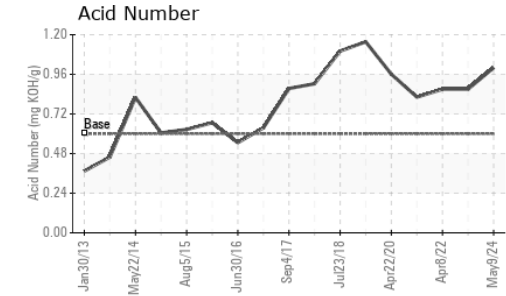
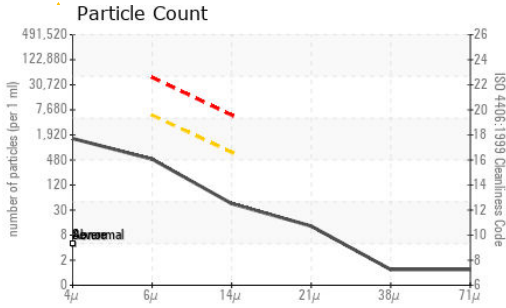
	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0
Magnesium	ppm	ASTM D5185m		<1	0
Manganese	ppm	ASTM D5185m		0	0
Molybdenum	ppm	ASTM D5185m		<1	0
Phosphorus	ppm	ASTM D5185m		163	174
Zinc	ppm	ASTM D5185m		79	106
Antimony	ppm	ASTM D5185m		---	---

THICKENER/SOAP

	method	limit/base	current	history1	history2
Aluminum	ppm	ASTM D5185m		1	0
Barium	ppm	ASTM D5185m		1	2
Calcium	ppm	ASTM D5185m		8	4
Sodium	ppm	ASTM D5185m		2	0
Sulfur	ppm	ASTM D5185m		4845	5871

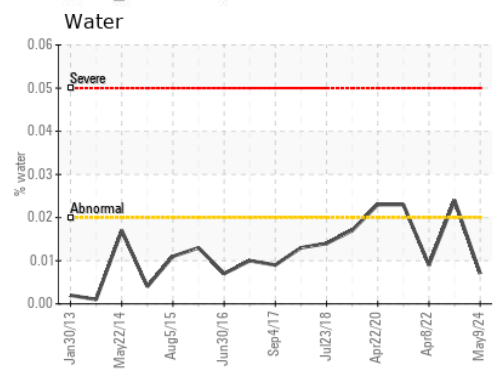
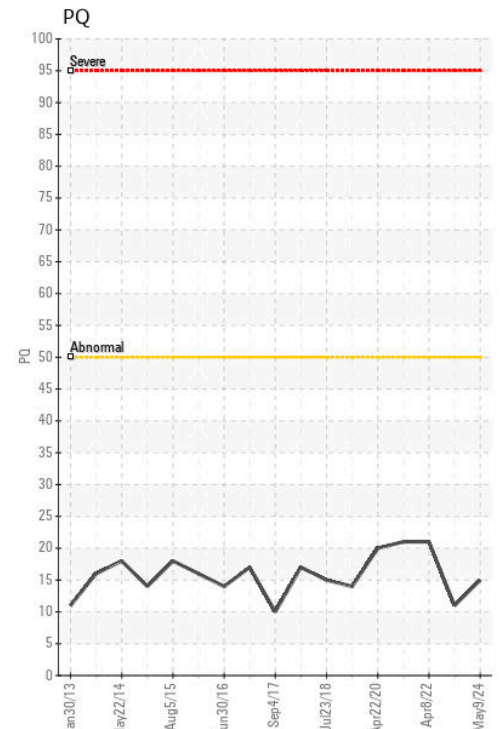
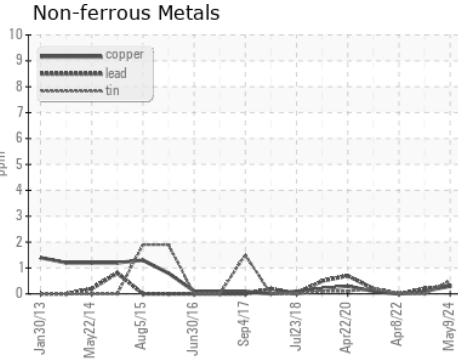
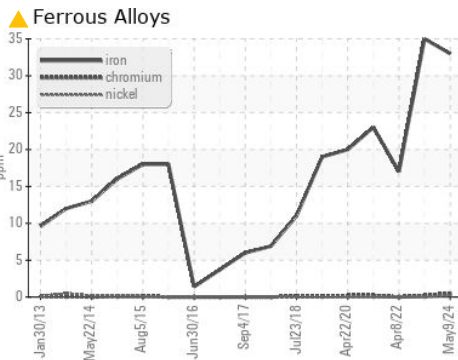
CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>+15	2	11
Potassium	ppm	ASTM D5185m		<1	0
Water	%	ASTM D6304	>0.02	0.007	▲ 0.024
ppm Water	ppm	ASTM D6304	>200	76	▲ 248.2



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

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0881128
Lab Number : 06194666
Unique Number : 11056789
Test Package : GRS 1 (Additional Tests: Consistency, FilterPatch, GreaseColor, ICP, KF, KV40, PQ, PrtCount, SORBCN)

EOLO DE NICARAGUA S.A.
 DEL SEMAFORO DEL CLUB TERRAZA, 1 CUADRA AL SUR
 MANAGUA, ZZ
 NI
 SOFREN Rafael Bermudez

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:
F: