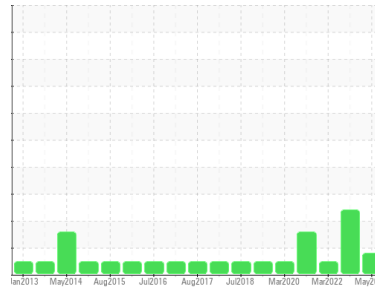




GREASE ANALYSIS

Sample Rating Trend



WEAR



Machine Id
TURBINA 15 (S/N 101290)

Component
Wind Turbine Gearbox

Fluid
FUCHS RENOLIN UNISYN CLP 320 (340 LTR)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

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

Contamination

There is no indication of any contamination in the oil. 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 suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0881124	WC0831534	WC12352764
Sample Date	Client Info		10 May 2024	10 Aug 2023	30 Mar 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	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2	
PQ	ASTM D8184	>50	15	14	21	
Iron	ppm	ASTM D5185m	>30	▲ 45	▲ 46	25
Chromium	ppm	ASTM D5185m	>3	<1	<1	<1
Nickel	ppm	ASTM D5185m	>3	<1	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0
Titanium	ppm	ASTM D5185m	>10	<1	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
Lead	ppm	ASTM D5185m	>15	<1	<1	<1
Copper	ppm	ASTM D5185m	>10	<1	<1	<1
Tin	ppm	ASTM D5185m	>10	<1	0	0
Silver	ppm	ASTM D5185m		0	0	0

ADDITIVES

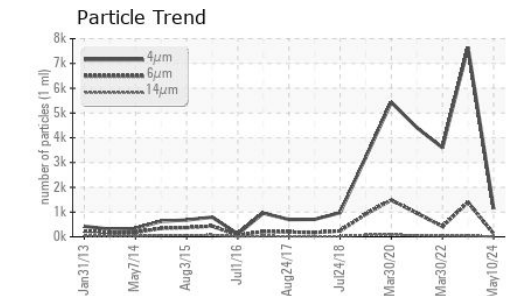
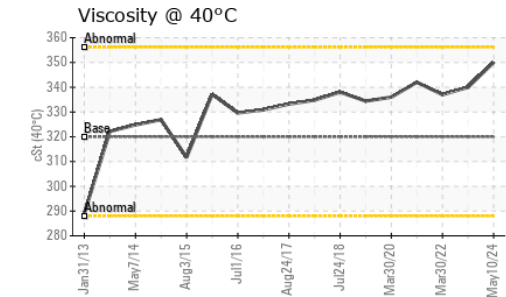
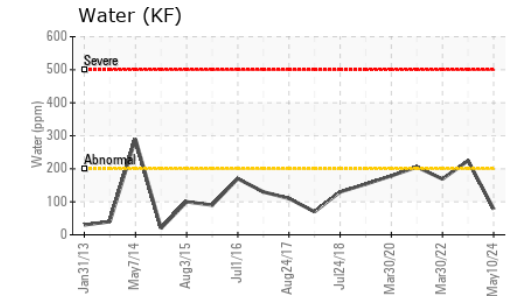
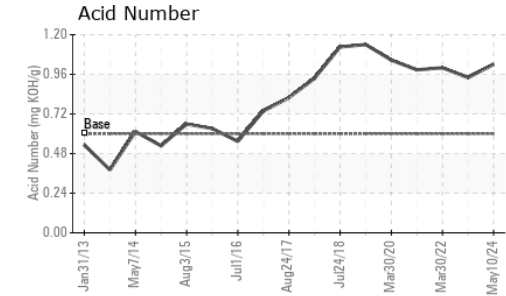
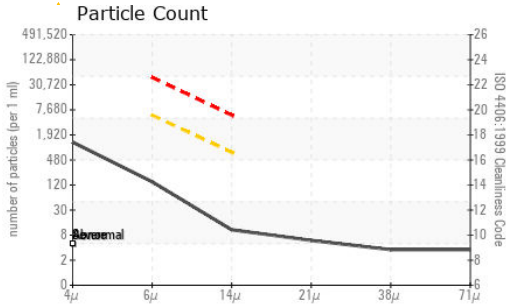
	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		0	0	
Magnesium	ppm	ASTM D5185m		<1	<1	
Manganese	ppm	ASTM D5185m		0	0	
Molybdenum	ppm	ASTM D5185m		<1	0	
Phosphorus	ppm	ASTM D5185m		192	193	132
Zinc	ppm	ASTM D5185m		124	116	87
Antimony	ppm	ASTM D5185m		---	---	---

THICKENER/SOAP

	method	limit/base	current	history1	history2	
Aluminum	ppm	ASTM D5185m		1	0	<1
Barium	ppm	ASTM D5185m		1	2	0
Calcium	ppm	ASTM D5185m		8	5	2
Sodium	ppm	ASTM D5185m		2	0	<1
Sulfur	ppm	ASTM D5185m		3745	4270	3102

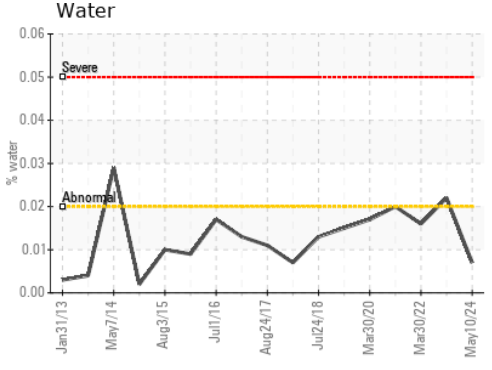
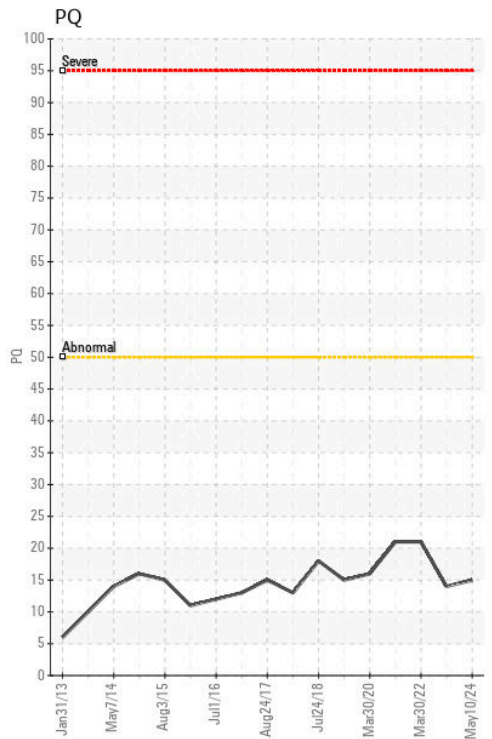
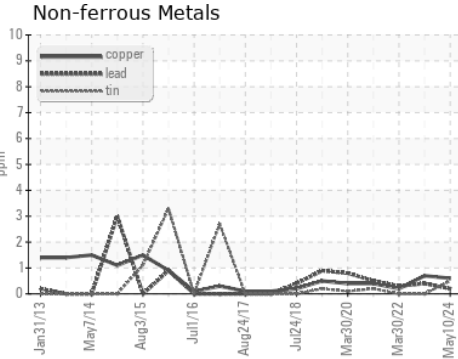
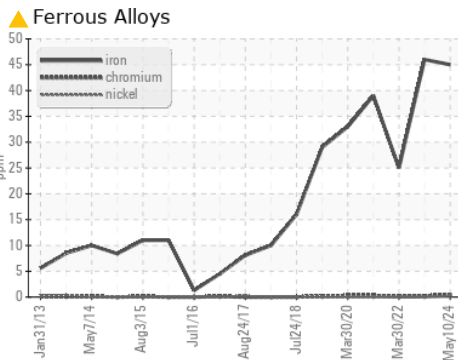
CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>+15	1	2	<1
Potassium	ppm	ASTM D5185m		1	<1	0
Water	%	ASTM D6304	>0.02	0.007	▲ 0.022	0.016
ppm Water	ppm	ASTM D6304	>200	78	▲ 224.7	168.9



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. : WC0881124
Lab Number : 06194677
Unique Number : 11056800
Test Package : GRS 1 (Additional Tests: Consistency, FilterPatch, GreaseColor, ICP, KF, KV40, PQ, PrtCount, SORBEK)

Received : 29 May 2024
Tested : 31 May 2024
Diagnosed : 31 May 2024 - Jonathan Hester

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: