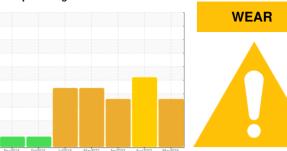


GREASE ANALYSIS

Sample Rating Trend



Machine Id

TURBINA 11 - REAR BEARING

Grease

KLUBER KLUBERPLEX BEM 41-141 (--- LTR)

DIAGNOSIS

Recommendation

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

Wear

All component wear rates appear stable.

Grease Condition

The condition of the grease is acceptable for the time in service.

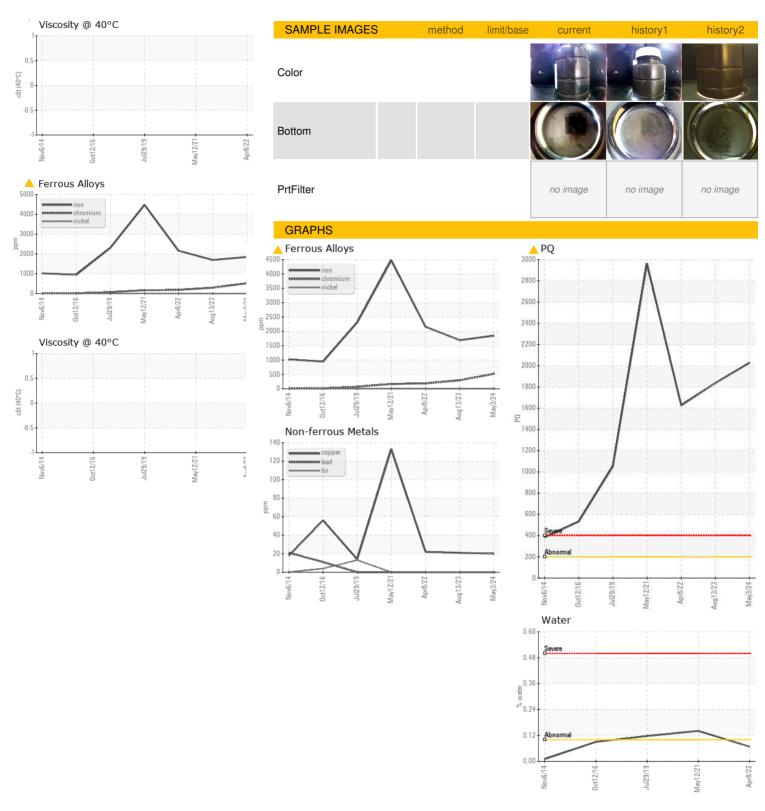
Contaminants

There is no indication of any contamination in the grease.

R)		Nov2014	Oct2016 Jul2019 I	May2021 Apr2022 Aug2023	May2024	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0881148	WC0419925	WC05582725
Sample Date		Client Info		03 May 2024	13 Aug 2023	08 Apr 2022
Machine Age	yrs	Client Info		12	11	0
Grease Age	yrs	Client Info		1	1	6
Grease Serviced		Client Info		N/A	N/A	N/A
Sample Status				MARGINAL	ABNORMAL	ABNORMAL
CONTAMINATION	N	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184	>200	2028	<u> </u>	<u>▲</u> 1626
Iron	ppm	ASTM D5185m	>250	<u> </u>	<u>▲</u> 1692	<u>^</u> 2158
Chromium	ppm	ASTM D5185m	>10	<u> </u>	<u>^</u> 294	△ 184
Nickel	ppm	ASTM D5185m	>5	0	0	0
Cadmium	ppm	ASTM D5185m		0	<1	0
Titanium	ppm	ASTM D5185m		1	<1	<1
Vanadium	ppm	ASTM D5185m		1	1	<1
Lead	ppm	ASTM D5185m	>25	0	0	0
Copper	ppm	ASTM D5185m	>75	20	21	22
Tin	ppm	ASTM D5185m	>5	0	0	0
Silver	ppm	ASTM D5185m	>5	0	3	0
ADDITIVES	• • • • • • • • • • • • • • • • • • • •	ام مالم مما	limit/base	ourromt.	foto to mod	hiotory
		method	IIIIII/Dase	current	history1	HISTOLYZ
Boron	ppm	ASTM D5185m	IIIIII/Dase	173	213	history2 234
Boron	ppm		IIIIIIVDase			
Boron Magnesium	ppm	ASTM D5185m	IIIIII/Dase	173	213	234
Boron Magnesium Manganese	ppm ppm	ASTM D5185m ASTM D5185m	IIIIIIVDase	173 0	213 0	234 10
Boron Magnesium Manganese Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	iiiii/base	173 0 21 3752	213 0 15 3736	234 10 21 3014
Boron Magnesium Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	illill/base	173 0 21	213 0 15	234 10 21 3014 601
Boron Magnesium Manganese Molybdenum Phosphorus	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	illill/base	173 0 21 3752 604	213 0 15 3736 710	234 10 21 3014
Boron Magnesium Manganese Molybdenum Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	173 0 21 3752 604	213 0 15 3736 710 194	234 10 21 3014 601 316
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		173 0 21 3752 604 274 	213 0 15 3736 710 194 	234 10 21 3014 601 316
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA	ppm ppm ppm ppm ppm ppm	ASTM D5185m		173 0 21 3752 604 274 current	213 0 15 3736 710 194 history1	234 10 21 3014 601 316 history2
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m		173 0 21 3752 604 274 current 0 9	213 0 15 3736 710 194 history1 0 10	234 10 21 3014 601 316 history2 10
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium Calcium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m		173 0 21 3752 604 274 current 0 9 54	213 0 15 3736 710 194 history1 0 10 72	234 10 21 3014 601 316 history2 10 14 129
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium Calcium Sodium	ppm	ASTM D5185m		173 0 21 3752 604 274 current 0 9 54 29	213 0 15 3736 710 194 history1 0 10 72 14	234 10 21 3014 601 316 history2 10 14 129 62
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium Calcium Sodium Lithium	ppm	ASTM D5185m		173 0 21 3752 604 274 current 0 9 54 29 2904	213 0 15 3736 710 194 history1 0 10 72 14 3280	234 10 21 3014 601 316 history2 10 14 129 62 2647
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium Calcium Sodium Lithium Sulfur	ppm	ASTM D5185m	limit/base	173 0 21 3752 604 274 current 0 9 54 29 2904 5024	213 0 15 3736 710 194 history1 0 10 72 14 3280 6292	234 10 21 3014 601 316 history2 10 14 129 62 2647 6772
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium Calcium Sodium Lithium Sulfur CONTAMINANTS	ppm	ASTM D5185m	limit/base	173 0 21 3752 604 274	213 0 15 3736 710 194 history1 0 10 72 14 3280 6292 history1	234 10 21 3014 601 316 history2 10 14 129 62 2647 6772 history2
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium Calcium Sodium Lithium Sulfur CONTAMINANTS Silicon	ppm	ASTM D5185m	limit/base	173 0 21 3752 604 274 current 0 9 54 29 2904 5024 current 208	213 0 15 3736 710 194 history1 0 10 72 14 3280 6292 history1 460	234 10 21 3014 601 316 history2 10 14 129 62 2647 6772 history2 74
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium Calcium Sodium Lithium Sulfur CONTAMINANTS Silicon Potassium	ppm	ASTM D5185m	limit/base limit/base >150	173 0 21 3752 604 274	213 0 15 3736 710 194 history1 0 10 72 14 3280 6292 history1 460 3	234 10 21 3014 601 316 history2 10 14 129 62 2647 6772 history2 74 5
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium Calcium Sodium Lithium Sulfur CONTAMINANTS Silicon Potassium GREASE CONDIT	ppm	ASTM D5185m MEthod ASTM D5185m MEthod ASTM D5185m METHOD	limit/base limit/base >150 limit/base	173 0 21 3752 604 274 current 0 9 54 29 2904 5024 current 208 5	213 0 15 3736 710 194 history1 0 10 72 14 3280 6292 history1 ▲ 460 3 history1	234 10 21 3014 601 316 history2 10 14 129 62 2647 6772 history2 74 5 history2
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium Calcium Sodium Lithium Sulfur CONTAMINANTS Silicon Potassium GREASE CONDIT	ppm	ASTM D5185m method ASTM D5185m ASTM D5185m method *Visual	limit/base limit/base >150	173 0 21 3752 604 274 current 0 9 54 29 2904 5024 current 208 5 current Brown	213 0 15 3736 710 194 history1 0 10 72 14 3280 6292 history1 460 3 history1	234 10 21 3014 601 316 history2 10 14 129 62 2647 6772 history2 74 5 history2
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium Calcium Sodium Lithium Sulfur CONTAMINANTS Silicon Potassium GREASE CONDIT	ppm	ASTM D5185m MEthod ASTM D5185m MEthod ASTM D5185m METHOD	limit/base limit/base >150 limit/base	173 0 21 3752 604 274 current 0 9 54 29 2904 5024 current 208 5	213 0 15 3736 710 194 history1 0 10 72 14 3280 6292 history1 ▲ 460 3 history1	234 10 21 3014 601 316 history2 10 14 129 62 2647 6772 history2 74 5 history2



GREASE ANALYSIS







Laboratory Sample No.

: WC0881148 Lab Number : 06194935

Unique Number : 11057058

: WearCheck USA - 501 Madison Ave., Cary, NC 27513

Received : 29 May 2024 **Tested** : 13 Jun 2024 Diagnosed : 13 Jun 2024 - Doug Bogart

EOLO DE NICARAGUA S.A. DEL SEMAFORO DEL CLUB TERRAZA, 1 CUADRA AL SUR

MANAGUA, ZZ NI Contact: Rafael Bermudez

Test Package : GRS 1 (Additional Tests: KV40, SCREEN) Certificate 12367 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)

F:

T: