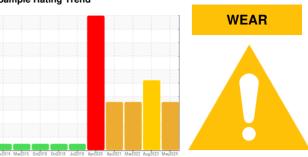


## **GREASE ANALYSIS**

Sample Rating Trend



Machine Id

# TURBINA 18 - REAR BEARING (S/N 101292) Component 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.

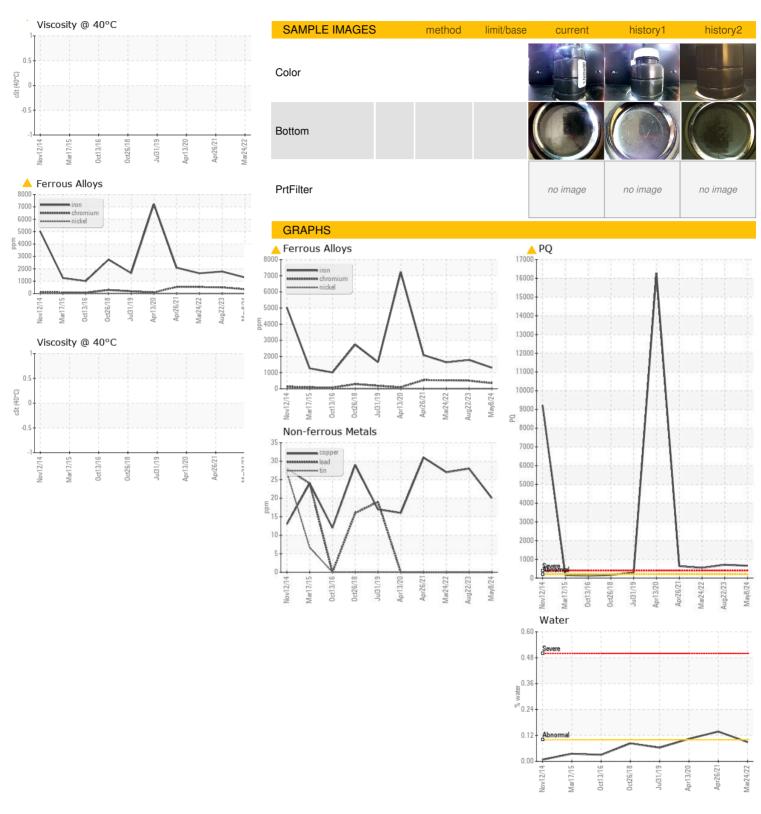
#### Contaminants

There is no indication of any contamination in the grease.

Novd014 Mud015 Ocd016 Ocd018 Jul013 April020 April021 Mud022 Augl023 Mud024 Mud024						
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0881120	WC0831519	WC05582741
Sample Date		Client Info		08 May 2024	22 Aug 2023	24 Mar 2022
Machine Age	yrs	Client Info		12	11	6
Grease Age	yrs	Client Info		1	1	0
Grease Serviced		Client Info		N/A	N/A	N/A
Sample Status				MARGINAL	ABNORMAL	MARGINAL
CONTAMINATIO	V	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	<b>660</b>	<b>△</b> 708	<u></u> 544
Iron	ppm	ASTM D5185m	>250	<b>1301</b>	<b>△</b> 1782	<u>▲</u> 1636
Chromium	ppm	ASTM D5185m	>10	<b>4</b> 348	<b>497</b>	<u></u> 523
Nickel	ppm	ASTM D5185m	>5	0	0	0
Cadmium	ppm	ASTM D5185m		0	0	<1
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	28	27
Tin	ppm	ASTM D5185m	>5	0	0	0
Silver	ppm	ASTM D5185m	>5	0	<1	4
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 162	history1 215	history2 195
Boron	ppm		limit/base			
Boron Magnesium	ppm	ASTM D5185m	limit/base	162	215	195
Boron Magnesium Manganese	ppm ppm	ASTM D5185m ASTM D5185m	limit/base	162 0	215 1	195 2
Boron Magnesium Manganese Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	162 0 19 2818	215 1 24 3513	195 2 24 2418
Boron Magnesium Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	162 0 19	215 1 24	195 2 24
Boron Magnesium Manganese Molybdenum Phosphorus	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	162 0 19 2818 530	215 1 24 3513 618	195 2 24 2418 452
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	162 0 19 2818 530 238	215 1 24 3513 618 215	195 2 24 2418 452 165
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		162 0 19 2818 530 238 	215 1 24 3513 618 215	195 2 24 2418 452 165
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		162 0 19 2818 530 238	215 1 24 3513 618 215 	195 2 24 2418 452 165 
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m		162 0 19 2818 530 238  current 0	215 1 24 3513 618 215 history1 0	195 2 24 2418 452 165 history2
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m		162 0 19 2818 530 238  current 0 9	215 1 24 3513 618 215 history1 0 10	195 2 24 2418 452 165 history2 11 10
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium Calcium	ppm	ASTM D5185m		162 0 19 2818 530 238  current 0 9	215 1 24 3513 618 215 history1 0 10 111	195 2 24 2418 452 165 history2 11 10 145
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium Calcium Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m		162 0 19 2818 530 238  current 0 9 98 37	215 1 24 3513 618 215 history1 0 10 111 54	195 2 24 2418 452 165 history2 11 10 145 48
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium Calcium Sodium Lithium	ppm	ASTM D5185m		162 0 19 2818 530 238  current 0 9 98 37 2468 4712	215 1 24 3513 618 215 history1 0 10 111 54 3034 6379	195 2 24 2418 452 165 history2 11 10 145 48 2166
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium Calcium Sodium Lithium Sulfur	ppm	ASTM D5185m	limit/base	162 0 19 2818 530 238 current 0 9 98 37 2468 4712 current	215 1 24 3513 618 215 history1 0 10 111 54 3034 6379 history1	195 2 24 2418 452 165 history2 11 10 145 48 2166 5647
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium Calcium Sodium Lithium Sulfur CONTAMINANTS	ppm	ASTM D5185m	limit/base	162 0 19 2818 530 238  current 0 9 98 37 2468 4712	215 1 24 3513 618 215 history1 0 10 111 54 3034 6379	195 2 24 2418 452 165 history2 11 10 145 48 2166 5647 history2
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium Calcium Sodium Lithium Sulfur CONTAMINANTS Silicon	ppm	ASTM D5185m	limit/base	162 0 19 2818 530 238 current 0 9 98 37 2468 4712 current 128	215 1 24 3513 618 215 history1 0 10 111 54 3034 6379 history1  492	195 2 24 2418 452 165 history2 11 10 145 48 2166 5647 history2 48
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	162 0 19 2818 530 238 current 0 9 98 37 2468 4712 current 128 6	215 1 24 3513 618 215 history1 0 10 111 54 3034 6379 history1  492 5	195 2 24 2418 452 165 history2 11 10 145 48 2166 5647 history2 48
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	162 0 19 2818 530 238 current 0 9 98 37 2468 4712 current 128 6 current	215 1 24 3513 618 215 history1 0 10 111 54 3034 6379 history1  492 5 history1	195 2 24 2418 452 165 history2 11 10 145 48 2166 5647 history2 48 5 history2



## **GREASE ANALYSIS**







Laboratory Sample No.

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

: WC0881120 Lab Number : 06194931

Unique Number : 11057054

Received : 29 May 2024 **Tested** : 13 Jun 2024 Diagnosed

: 13 Jun 2024 - Doug Bogart

DEL SEMAFORO DEL CLUB TERRAZA, 1 CUADRA AL SUR

MANAGUA, ZZ NI Contact: Rafael Bermudez

**EOLO DE NICARAGUA S.A.** 

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)

Contact/Location: Rafael Bermudez - EOLOMAN

T:

F: