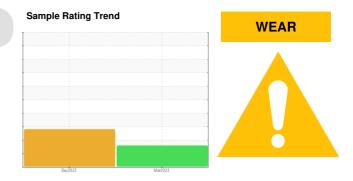


# **PROBLEM SUMMARY**

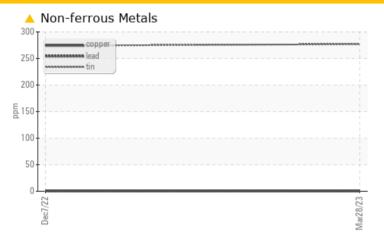
AF01-0821PP01-C

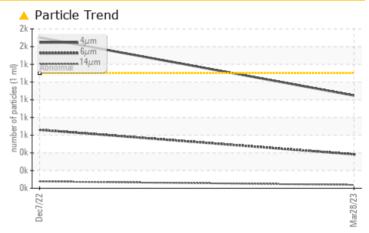
Component **Hydraulic System** 

**KLUBER SUMMIT HYSYN FG 46 (500 GAL)** 









## RECOMMENDATION

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

PROBLEMATIC TEST RESULTS												
Sample Status				ATTENTION	ABNORMAL							
Tin	ppm	ASTM D5185m	>20	<u> </u>	<u>^</u> 274							
Particles >6µm		ASTM D7647	>320	<b>383</b>	<b>△</b> 660							
Oil Cleanliness		ISO 4406 (c)	>17/15/12	<b>17/16/12</b>	<b>18/17/13</b>							

Customer Id: FLAMONNC Sample No.: WC0761391 Lab Number: 05806193 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Doug Bogart +1 (800)237-1369 x4016 dougb@wearcheckusa.com

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

# **RECOMMENDED ACTIONS**

There are no recommended actions for this sample.

# HISTORICAL DIAGNOSIS

07 Dec 2022 Diag: Don Baldridge

WEAR

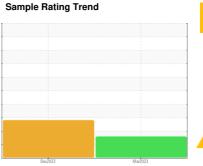


We recommend you service the filters on this component. Resample at the next service interval to monitor. Tin level is noted as an additive. All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid.





# **OIL ANALYSIS REPORT**



**WEAR** 



AF01-0821PP01-C

Component

**Hydraulic System** 

**KLUBER SUMMIT HYSYN FG 46 (500 GAL)** 

# **DIAGNOSIS**

### Recommendation

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

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

# Contamination

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

### **Fluid Condition**

The AN level is acceptable for this fluid.

)			Dec2022	Mar2023		
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0761391	WC0764199	
Sample Date		Client Info		28 Mar 2023	07 Dec 2022	
Machine Age	hrs	Client Info		0	0	
Oil Age	hrs	Client Info		0	0	
Oil Changed	1110	Client Info		Not Changd	N/A	
Sample Status		Oliciti IIIIo		ATTENTION	ABNORMAL	
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		25	14	
Iron	ppm	ASTM D5185m	>20	2	2	
Chromium	ppm	ASTM D5185m	>20	0	0	
Nickel	ppm	ASTM D5185m		<1	0	
Titanium	ppm	ASTM D5185m	720	0	0	
Silver		ASTM D5185m		0	0	
	ppm		00	-		
Aluminum	ppm	ASTM D5185m	>20	<1	0	
Lead	ppm	ASTM D5185m	>20	<1	<1	
Copper	ppm	ASTM D5185m	>20	<1	<1	
Tin	ppm	ASTM D5185m	>20	<u> </u>	<u>^</u> 274	
Vanadium	ppm	ASTM D5185m		0	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	
Barium	ppm	ASTM D5185m		0	1	
Molybdenum	ppm	ASTM D5185m		0	0	
Manganese	ppm	ASTM D5185m		0	0	
Magnesium	ppm	ASTM D5185m		0	<1	
Calcium	ppm	ASTM D5185m		0	<1	
Phosphorus	ppm	ASTM D5185m		172	186	
Zinc	ppm	ASTM D5185m		14	13	
Sulfur	ppm	ASTM D5185m		788	772	
CONTAMINANTS	3	method	limit/base		Internal	history2
			IIIIIII basc	current	nistory i	
Silicon	ppm				history1	
Silicon	ppm	ASTM D5185m	>15	3	3	
Sodium	ppm	ASTM D5185m ASTM D5185m	>15	3 0	3	
Sodium Potassium	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	>15 >20	3 0 <1	3 0 <1	
Sodium Potassium Water	ppm	ASTM D5185m ASTM D5185m	>15	3 0	3	
Sodium Potassium	ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304	>15 >20 >0.05	3 0 <1 0.033	3 0 <1 0.026 261.6	
Sodium Potassium Water ppm Water	ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304	>15 >20 >0.05 >500	3 0 <1 0.033 336.7	3 0 <1 0.026	  
Sodium Potassium Water ppm Water FLUID CLEANLIN	ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 method ASTM D7647	>15 >20 >0.05 >500 limit/base >1300	3 0 <1 0.033 336.7 current	3 0 <1 0.026 261.6 history1 ▲ 1703	    history2
Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 method ASTM D7647 ASTM D7647	>15 >20 >0.05 >500 limit/base	3 0 <1 0.033 336.7 current 1048 ▲ 383	3 0 <1 0.026 261.6 history1	   history2
Sodium Potassium Water ppm Water  FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 method ASTM D7647 ASTM D7647 ASTM D7647	>15  >20  >0.05  >500  limit/base  >1300  >320  >40	3 0 <1 0.033 336.7 current 1048 383 38	3 0 <1 0.026 261.6 history1 ▲ 1703 ▲ 660 ▲ 77	  history2
Sodium Potassium Water ppm Water  FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm	ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 method ASTM D7647 ASTM D7647 ASTM D7647	>15  >20 >0.05 >500  limit/base >1300 >320 >40 >10	3 0 <1 0.033 336.7 current 1048 383 38	3 0 <1 0.026 261.6 history1 ▲ 1703 ▲ 660 ▲ 77 ▲ 13	   history2
Sodium Potassium Water ppm Water  FLUID CLEANLIN Particles >4µm Particles >6µm Particles >21µm Particles >38µm	ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304  method ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>15  >20 >0.05 >500  limit/base >1300 >320 >40 >10 >3	3 0 <1 0.033 336.7 current 1048 • 383 38 11	3 0 <1 0.026 261.6 history1 △ 1703 △ 660 △ 77 △ 13 0	history2
Sodium Potassium Water ppm Water  FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm	ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304  method ASTM D7647	>15  >20 >0.05 >500  limit/base >1300 >320 >40 >10 >3 >3 >3	3 0 <1 0.033 336.7 current 1048 383 38 11 0	3 0 <1 0.026 261.6 history1 ▲ 1703 ▲ 660 ▲ 77 ▲ 13 0	history2
Sodium Potassium Water ppm Water  FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm Particles >71µm	ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304  method ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>15  >20 >0.05 >500  limit/base >1300 >320 >40 >10 >3	3 0 <1 0.033 336.7 current 1048 • 383 38 11	3 0 <1 0.026 261.6 history1 △ 1703 △ 660 △ 77 △ 13 0	history2

Acid Number (AN)

mg KOH/g ASTM D8045

2.12

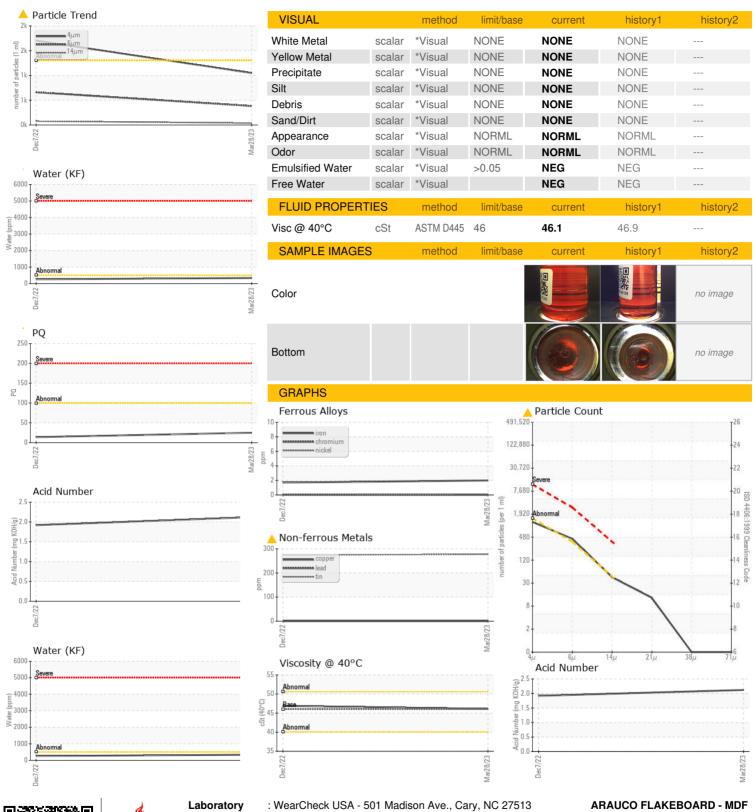
1.92

Report Id: FLAMONNC [WUSCAR] 05806193 (Generated: 11/22/2023 10:22:35) Rev: 1

Contact/Location: CHRISTOPHER JACKSON - FLAMONNC



# **OIL ANALYSIS REPORT**





Certificate L2367

Sample No. Lab Number **Unique Number** 

: WC0761391 : 05806193

: 10403722

Received Diagnosed Diagnostician

: 30 Mar 2023 : 11 Apr 2023 : Doug Bogart

Test Package : IND 2 (Additional Tests: KF, PQ) 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)

985 CORINTH RD MONCURE, NC

US Contact: CHRISTOPHER JACKSON

christopher.jackson@arauco.com

T:

F: