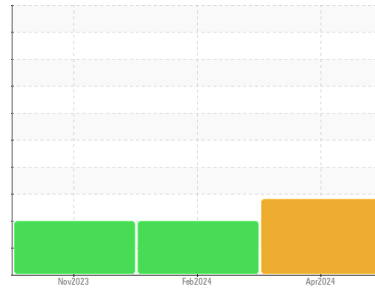




OIL ANALYSIS REPORT

Sample Rating Trend



WATER



Machine Id

821HP01-C

Component

Reservoir Hydraulic System

Fluid

KLUBER SUMMIT HYSYN FR 46 (--- GAL)

DIAGNOSIS

Recommendation

The filter change at the time of sampling has been noted. We advise that you inspect for the source(s) of metal. We recommend an early resample to monitor this condition. We were unable to perform a particle count due to metal particles present in this sample.

Wear

Moderate concentration of visible metal present. All component wear rates are normal.

Contamination

There is a trace of moisture present in the oil.

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		WC0806876	WC0773253	WC0842378
Sample Date	Client Info		17 Apr 2024	07 Feb 2024	08 Nov 2023
Machine Age	hrs	Client Info	0	0	0
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		Not Changed	Not Changed	Not Changed
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184		22	17	20
Iron	ppm	ASTM D5185m >20	1	5	2
Chromium	ppm	ASTM D5185m >20	0	<1	<1
Nickel	ppm	ASTM D5185m >20	<1	0	0
Titanium	ppm	ASTM D5185m	0	0	<1
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >20	<1	1	2
Lead	ppm	ASTM D5185m >20	0	<1	0
Copper	ppm	ASTM D5185m >20	<1	3	<1
Tin	ppm	ASTM D5185m >20	244	225	230
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	<1	0
Barium	ppm	ASTM D5185m	0	0	5
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	<1	0	0
Magnesium	ppm	ASTM D5185m	0	<1	0
Calcium	ppm	ASTM D5185m	0	51	0
Phosphorus	ppm	ASTM D5185m	173	213	185
Zinc	ppm	ASTM D5185m	30	34	13
Sulfur	ppm	ASTM D5185m	862	680	762

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	6	6	4
Sodium	ppm	ASTM D5185m	2	2	0
Potassium	ppm	ASTM D5185m >20	2	<1	1
Water	%	ASTM D6304 >0.05	▲ 0.051	0.025	0.021
ppm Water	ppm	ASTM D6304 >500	▲ 513	257	216

FLUID CLEANLINESS

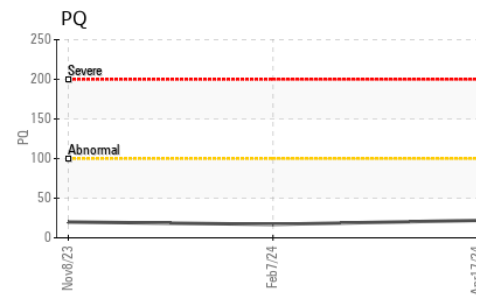
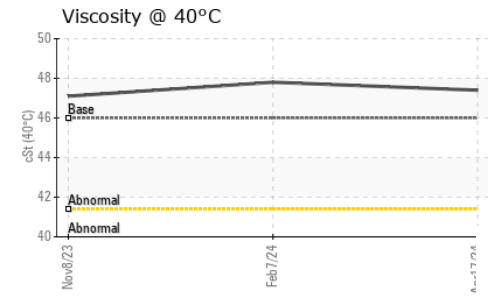
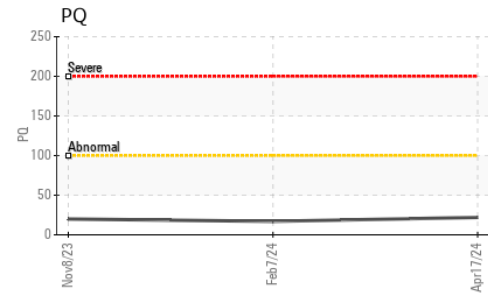
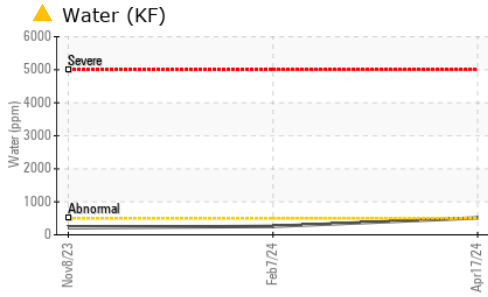
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>640	---	▲ 24955	▲ 35061
Particles >6µm	ASTM D7647	>160	---	▲ 8830	▲ 10890
Particles >14µm	ASTM D7647	>20	---	▲ 367	▲ 442
Particles >21µm	ASTM D7647	>4	---	▲ 62	▲ 81
Particles >38µm	ASTM D7647	>3	---	2	2
Particles >71µm	ASTM D7647	>3	---	0	0
Oil Cleanliness	ISO 4406 (c)	>16/14/11	---	▲ 22/20/16	▲ 22/21/16

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 2.0	2.85	2.83	2.30



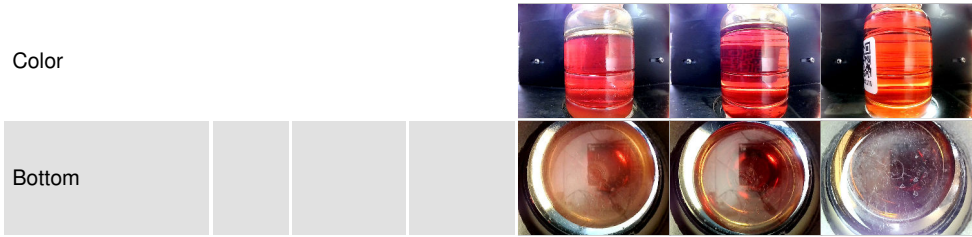
OIL ANALYSIS REPORT



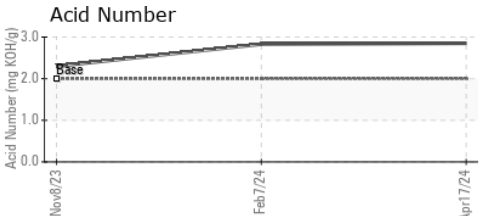
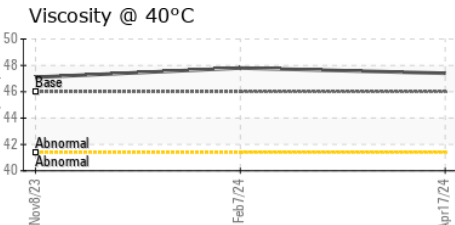
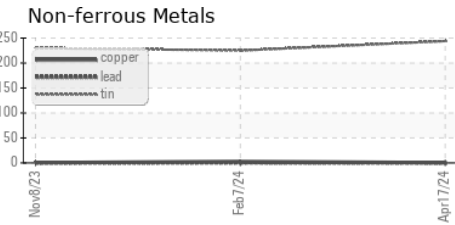
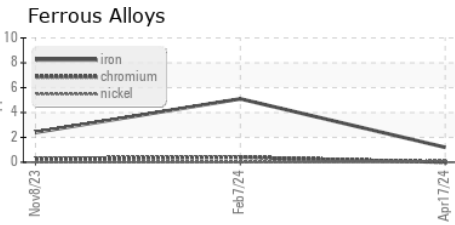
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	▲ MODER	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	47.4	47.8

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0806876 **Received** : 24 Jun 2024
Lab Number : 06218233 **Tested** : 26 Jun 2024
Unique Number : 11096430 **Diagnosed** : 26 Jun 2024 - Don Baldrige
Test Package : IND 2 (Additional Tests: KF, PQ)

ARAUCO FLAKEBOARD - MDF
 985 CORINTH RD
 MONCURE, NC
 US
 Contact: CHRISTOPHER JACKSON
 christopher.jackson@arauco.com

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: