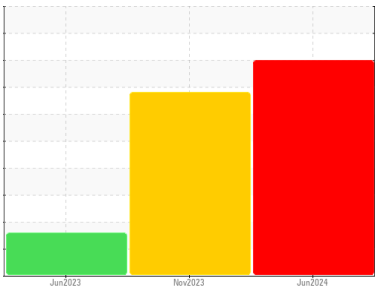
PROBLEM SUMMARY

Sample Rating Trend

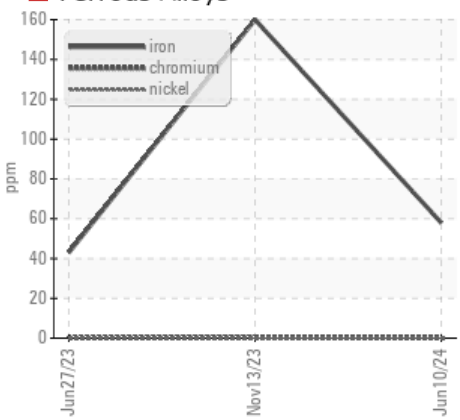


WEAR

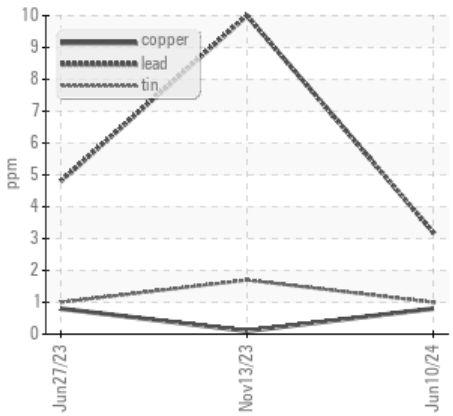
Machine Id
[] WC-9990-0201-5 Chiller #1
Component
Chiller
Fluid
{not provided} (--- GAL)

COMPONENT CONDITION SUMMARY

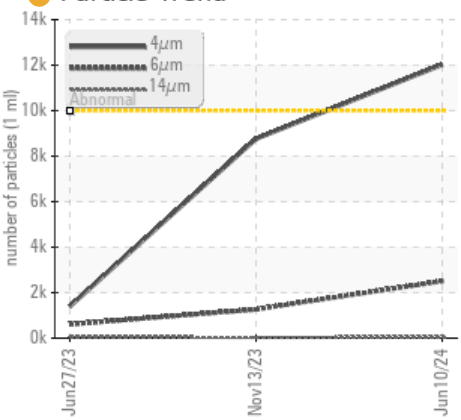
▲ Ferrous Alloys



▲ Non-ferrous Metals



● Particle Trend



RECOMMENDATION

We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				**SEVERE**	SEVERE	ABNORMAL
Iron	ppm	ASTM D5185m	>8	▲ **58**	▲ 160	▲ 43
Lead	ppm	ASTM D5185m	>2	▲ **3**	▲ 10	▲ 5

Customer Id: CHUANN
Sample No.: WC0827422
Lab Number: 06208744
Test Package: PLANT

To manage this report scan the QR code

To discuss the diagnosis or test data:
Angela Borella +1 800-237-1369
angela.borella@wearcheckusa.com

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Inspect Wear Source	---	---	?	We advise that you inspect for the source(s) of wear.
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

WEAR

13 Nov 2023 Diag: Doug Bogart

We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.The iron level is abnormal. The lead level is abnormal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

view report

WEAR

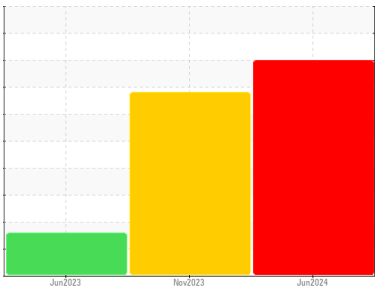
27 Jun 2023 Diag: Angela Borella

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.Iron and lead ppm levels are abnormal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Machine Id
[] WC-9990-0201-5 Chiller #1
Component
Chiller
Fluid
{not provided} (--- GAL)

DIAGNOSIS

▲ Recommendation
We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

▲ Wear
The iron level is abnormal. The lead level is abnormal. Bearing wear is indicated.

● Contamination
There is a moderate amount of particulates 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		**WC0827422**	WC0836490	WC0784794
Sample Date		Client Info		**10 Jun 2024**	13 Nov 2023	27 Jun 2023
Machine Age	hrs	Client Info		**111941**	110897	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**SEVERE**	SEVERE	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>8	▲ **58**	▲ 160	▲ 43
Chromium	ppm	ASTM D5185m	>2	**0**	<1	0
Nickel	ppm	ASTM D5185m		**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m	>2	**0**	0	0
Aluminum	ppm	ASTM D5185m	>3	**0**	0	0
Lead	ppm	ASTM D5185m	>2	▲ **3**	▲ 10	▲ 5
Copper	ppm	ASTM D5185m	>8	**<1**	<1	<1
Tin	ppm	ASTM D5185m	>4	**1**	2	1
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**	0	0
Barium	ppm	ASTM D5185m		**0**	0	<1
Molybdenum	ppm	ASTM D5185m		**0**	0	0
Manganese	ppm	ASTM D5185m		**<1**	2	<1
Magnesium	ppm	ASTM D5185m		**0**	<1	0
Calcium	ppm	ASTM D5185m		**0**	0	0
Phosphorus	ppm	ASTM D5185m		**0**	2	0
Zinc	ppm	ASTM D5185m		**4**	0	3
Sulfur	ppm	ASTM D5185m		**0**	37	0

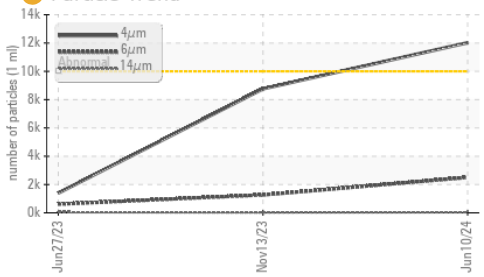
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**2**	4	2
Sodium	ppm	ASTM D5185m		**0**	0	0
Potassium	ppm	ASTM D5185m	>20	**0**	0	<1
Water	%	ASTM D6304	>0.01	**0.044**	0.024	0.055
ppm Water	ppm	ASTM D6304	>100	**447**	247.8	558.9

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	● **12023**	8761	1397
Particles >6µm		ASTM D7647	>2500	● **2504**	1265	609
Particles >14µm		ASTM D7647	>320	**39**	29	42
Particles >21µm		ASTM D7647	>80	**4**	4	6
Particles >38µm		ASTM D7647	>20	**0**	0	1
Particles >71µm		ASTM D7647	>4	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>20/18/15	● **21/19/12**	20/17/12	18/16/13

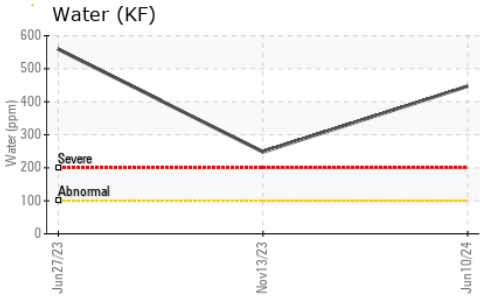
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.402**	0.115	0.087

OIL ANALYSIS REPORT

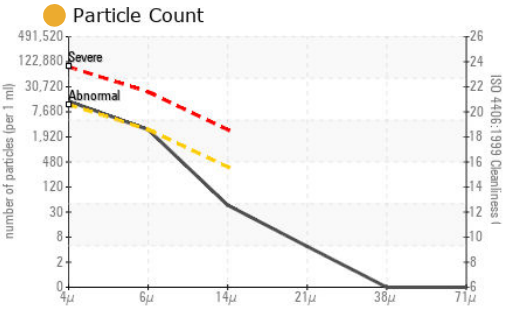
Particle Trend



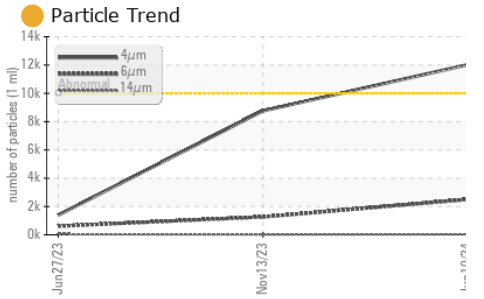
Water (KF)



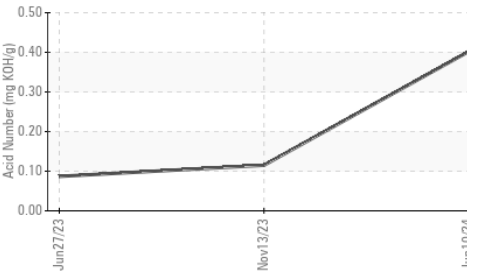
Particle Count



Particle Trend



Acid Number



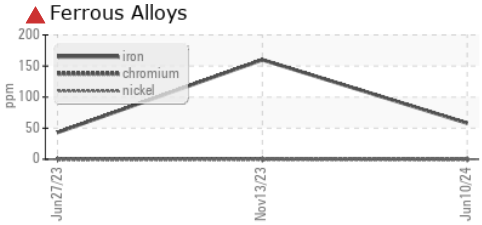
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.01	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		**64.4**	59.1	61.6

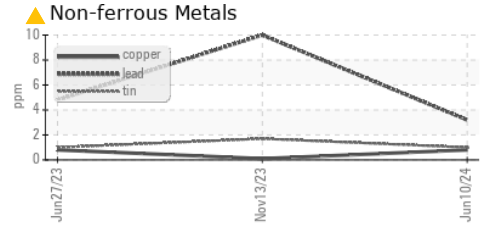
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

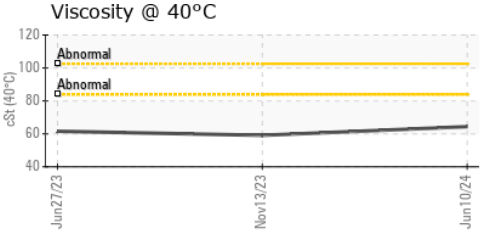
Ferrous Alloys



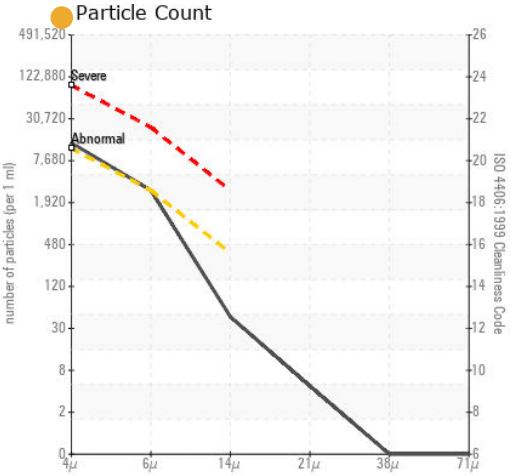
Non-ferrous Metals



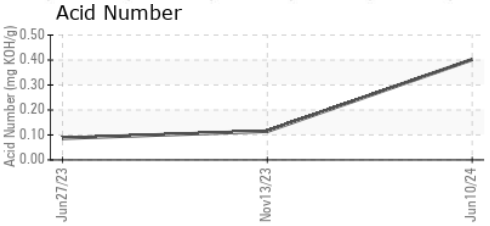
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0827422
Lab Number : 06208744
Unique Number : 11076205
Test Package : PLANT

Received : 13 Jun 2024
Tested : 19 Jun 2024
Diagnosed : 19 Jun 2024 - Angela Borella

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)

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