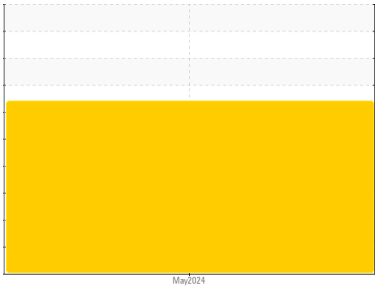
PROBLEM SUMMARY

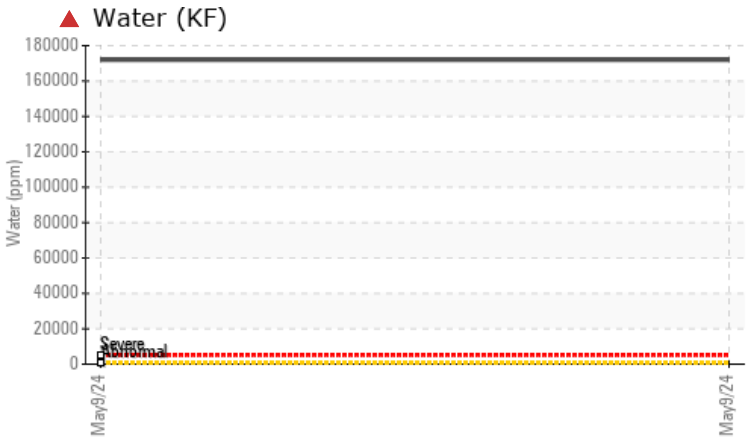
Sample Rating Trend

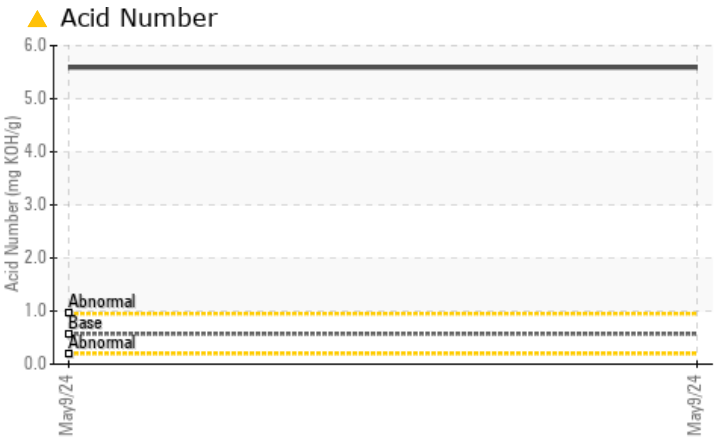


WATER

Area
[S-ORD193083]
Machine Id
Matsu
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 46 (275 GAL)

COMPONENT CONDITION SUMMARY





RECOMMENDATION

We advise that you check for the source of water entry. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. (Customer Sample Comment: Sample for additive content, viscosity, and ISO count review.)

PROBLEMATIC TEST RESULTS

Sample Status				**SEVERE**	---	---
Water	%	ASTM D6304	>0.05	▲ **17.2**	---	---
ppm Water	ppm	ASTM D6304	>500	▲ **172000**	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	▲ **5.59**	---	---
Silt	scalar	*Visual	NONE	▲ **MODER**	---	---
Debris	scalar	*Visual	NONE	▲ **MODER**	---	---
Emulsified Water	scalar	*Visual	>0.05	▲ **0.2%**	---	---

Customer Id: KIMNAS
Sample No.: WC0542722
Lab Number: 06195396
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Sean Felton +1 919-379-4092
sfelton@wearcheckusa.com

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

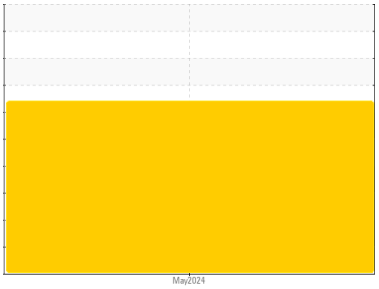
RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	We recommend that you drain the oil from the component if this has not already been done.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Water Access	---	---	?	We advise that you check for the source of water entry.

HISTORICAL DIAGNOSIS

OIL ANALYSIS REPORT

Sample Rating Trend



WATER

Area
[S-ORD193083]
Machine Id
Matsu
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 46 (275 GAL)

DIAGNOSIS

▲ Recommendation
We advise that you check for the source of water entry. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. (Customer Sample Comment: Sample for additive content, viscosity, and ISO count review.)

Wear
All component wear rates are normal.

▲ Contamination
Appearance is hazy. There is a high concentration of water present in the oil. Moderate concentration of visible dirt/debris present in the oil. There is a moderate amount of visible silt present in the sample.

▲ Fluid Condition
The AN level is above the recommended limit. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0542722**	---	---
Sample Date		Client Info		**09 May 2024**	---	---
Machine Age	hrs	Client Info		**0**	---	---
Oil Age	hrs	Client Info		**0**	---	---
Oil Changed		Client Info		**N/A**	---	---
Sample Status				**SEVERE**	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	**2**	---	---
Chromium	ppm	ASTM D5185m	>20	**<1**	---	---
Nickel	ppm	ASTM D5185m	>20	**<1**	---	---
Titanium	ppm	ASTM D5185m		**<1**	---	---
Silver	ppm	ASTM D5185m		**0**	---	---
Aluminum	ppm	ASTM D5185m	>20	**3**	---	---
Lead	ppm	ASTM D5185m	>20	**2**	---	---
Copper	ppm	ASTM D5185m	>20	**13**	---	---
Tin	ppm	ASTM D5185m	>20	**3**	---	---
Vanadium	ppm	ASTM D5185m		**<1**	---	---
Cadmium	ppm	ASTM D5185m		**<1**	---	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	**0**	---	---
Barium	ppm	ASTM D5185m	5	**<1**	---	---
Molybdenum	ppm	ASTM D5185m	5	**<1**	---	---
Manganese	ppm	ASTM D5185m		**0**	---	---
Magnesium	ppm	ASTM D5185m	25	**7**	---	---
Calcium	ppm	ASTM D5185m	200	**7**	---	---
Phosphorus	ppm	ASTM D5185m	300	**98**	---	---
Zinc	ppm	ASTM D5185m	370	**69**	---	---
Sulfur	ppm	ASTM D5185m	2500	**711**	---	---

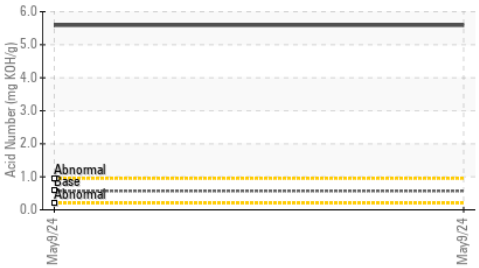
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**1**	---	---
Sodium	ppm	ASTM D5185m		**6**	---	---
Potassium	ppm	ASTM D5185m	>20	**3**	---	---
Water	%	ASTM D6304	>0.05	▲ **17.2**	---	---
ppm Water	ppm	ASTM D6304	>500	▲ **172000**	---	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	▲ **5.59**	---	---

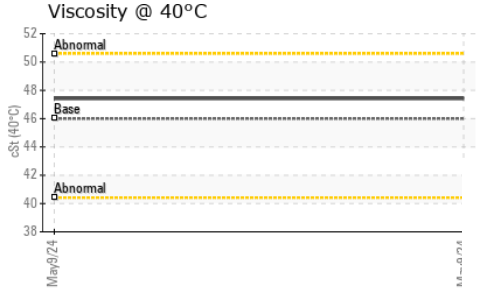
OIL ANALYSIS REPORT

Water (KF)

Acid Number



Viscosity @ 40°C



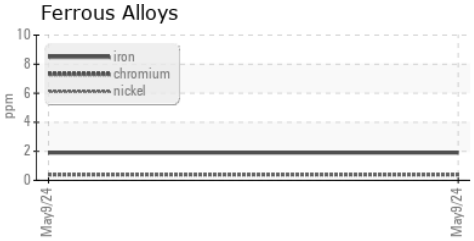
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	---	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	---	---
Precipitate	scalar	*Visual	NONE	**NONE**	---	---
Silt	scalar	*Visual	NONE	▲ **MODER**	---	---
Debris	scalar	*Visual	NONE	▲ **MODER**	---	---
Sand/Dirt	scalar	*Visual	NONE	**NONE**	---	---
Appearance	scalar	*Visual	NORML	● **HAZY**	---	---
Odor	scalar	*Visual	NORML	**NORML**	---	---
Emulsified Water	scalar	*Visual	>0.05	▲ **0.2%**	---	---
Free Water	scalar	*Visual		**NEG**	---	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	**47.42**	---	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				*no image*	*no image*
Bottom				*no image*	*no image*

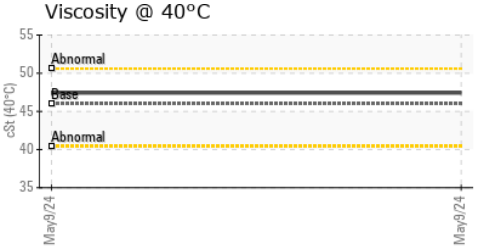
GRAPHS

Ferrous Alloys

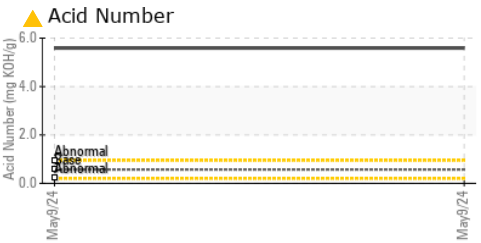


Non-ferrous Metals

Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0542722 **Received** : 30 May 2024
Lab Number : 06195396 **Tested** : 17 Jun 2024
Unique Number : 11057519 **Diagnosed** : 17 Jun 2024 - Sean Felton
Test Package : IND 2 (Additional Tests: KF)

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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Report Id: KIMNAS [WUSCAR] 06195396 (Generated: 06/21/2024 11:36:04) Rev: 1

Submitted By: JERRY BAILEY