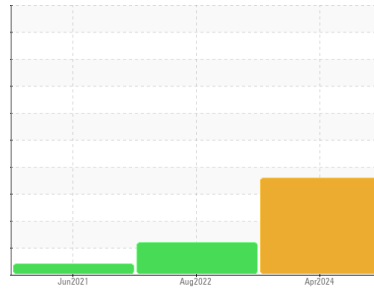




PROBLEM SUMMARY

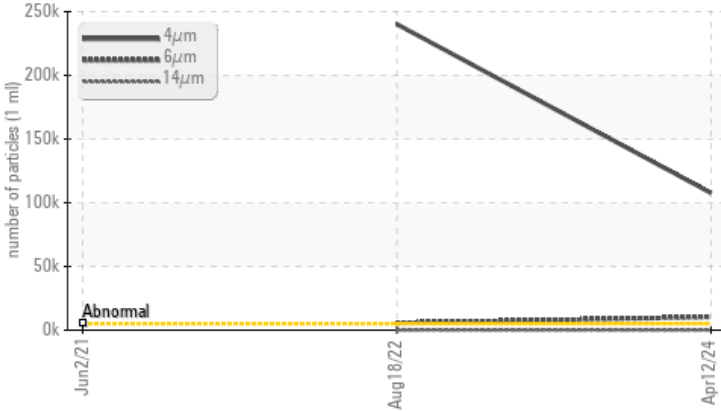
Area
ZANI
 Machine Id
MITSUBISHI 210 14
 Component
Hydraulic System
 Fluid
AW HYDRAULIC OIL ISO 46 (--- GAL)

Sample Rating Trend



COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

PROBLEMATIC TEST RESULTS

Sample Status			SEVERE	ABNORMAL	ABNORMAL
Particles >4µm	ASTM D7647	>5000	▲ 107687	▲ 240155	---
Particles >6µm	ASTM D7647	>1300	▲ 10267	▲ 5647	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 24/21/12	▲ 25/20/13	---

Customer Id: ZANWIN
 Sample No.: KFS0002833
 Lab Number: 06156875
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Wes Davis +1 905-569-8600 x223
wesd@wearcheck.ca

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 Filter	---	---	?	We recommend you service the filters on this component.
Resample	---	---	?	Resample in 30-45 days to monitor this situation.
Information Required	---	---	?	Please specify the brand, type, and viscosity of the oil on your next sample. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.
Check Breathers	---	---	?	The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather.
Check Seals	---	---	?	Check seals and/or filters for points of contaminant entry.

HISTORICAL DIAGNOSIS

ISO



18 Aug 2022 Diag: Jonathan Hester

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



VIS DEBRIS



02 Jun 2021 Diag: Don Baldrige

We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample. All component wear rates are normal. Moderate concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

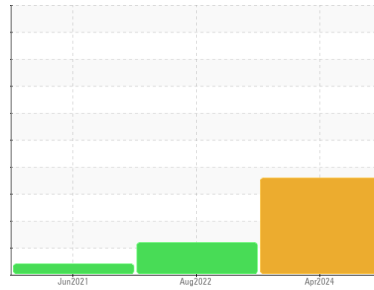
view report





OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area

ZANI

Machine Id

MITSUBISHI 210 14

Component

Hydraulic System

Fluid

AW HYDRAULIC OIL ISO 46 (--- GAL)

DIAGNOSIS

Recommendation

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

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

Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		KFS0002833	KFS0001612	KFS0000448
Sample Date	Client Info		12 Apr 2024	18 Aug 2022	02 Jun 2021
Machine Age	hrs	Client Info	0	0	0
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			SEVERE	ABNORMAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	<1	6	5
Chromium	ppm	ASTM D5185m >10	<1	0	<1
Nickel	ppm	ASTM D5185m >10	<1	<1	<1
Titanium	ppm	ASTM D5185m	<1	0	0
Silver	ppm	ASTM D5185m	<1	0	<1
Aluminum	ppm	ASTM D5185m >10	3	<1	0
Lead	ppm	ASTM D5185m >10	<1	<1	<1
Copper	ppm	ASTM D5185m >75	7	10	9
Tin	ppm	ASTM D5185m >10	<1	0	<1
Antimony	ppm	ASTM D5185m	---	---	0
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	<1	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 5	0	0	2
Barium	ppm	ASTM D5185m 5	0	0	0
Molybdenum	ppm	ASTM D5185m 5	<1	<1	<1
Manganese	ppm	ASTM D5185m	<1	0	0
Magnesium	ppm	ASTM D5185m 25	2	<1	<1
Calcium	ppm	ASTM D5185m 200	41	46	45
Phosphorus	ppm	ASTM D5185m 300	323	337	323
Zinc	ppm	ASTM D5185m 370	415	448	420
Sulfur	ppm	ASTM D5185m 2500	844	1196	1027

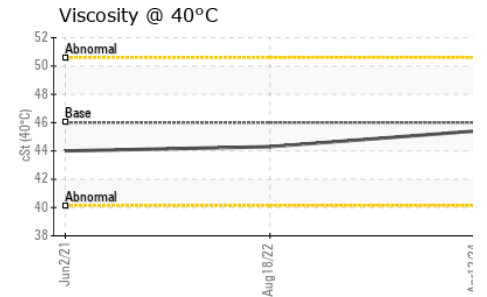
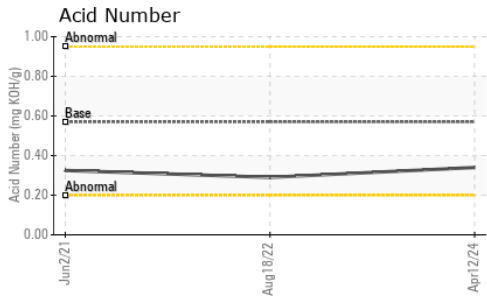
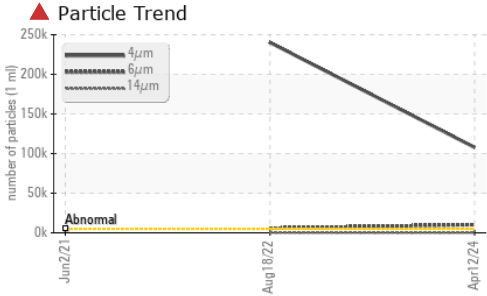
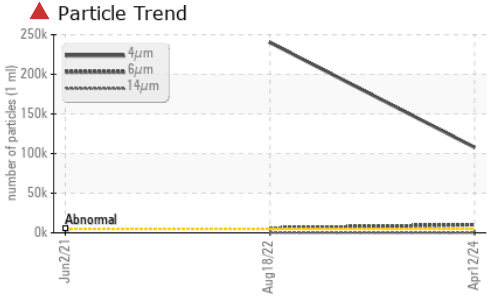
CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	2	<1	0
Sodium	ppm	ASTM D5185m	0	<1	<1
Potassium	ppm	ASTM D5185m >20	2	<1	0

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	▲ 107687	▲ 240155	---
Particles >6µm	ASTM D7647	>1300	▲ 10267	▲ 5647	---
Particles >14µm	ASTM D7647	>160	29	42	---
Particles >21µm	ASTM D7647	>40	10	14	---
Particles >38µm	ASTM D7647	>10	0	1	---
Particles >71µm	ASTM D7647	>3	0	0	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 24/21/12	▲ 25/20/13	---

OIL ANALYSIS REPORT

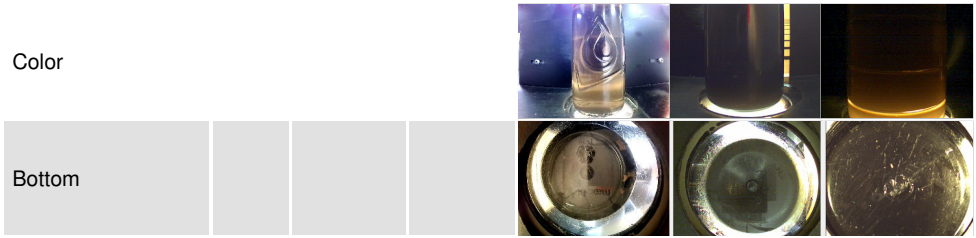


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	0.34	0.29	0.325

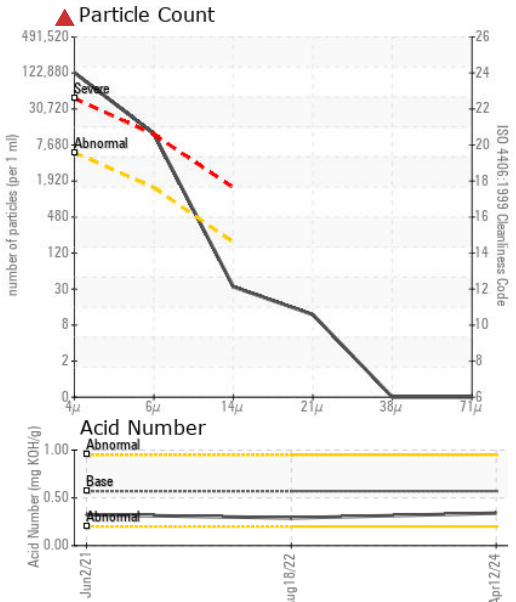
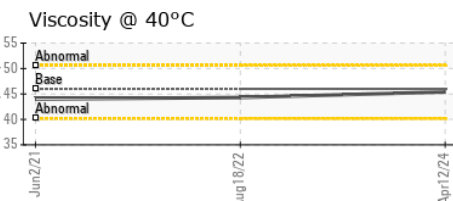
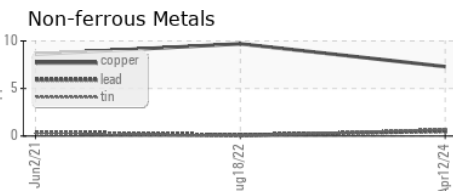
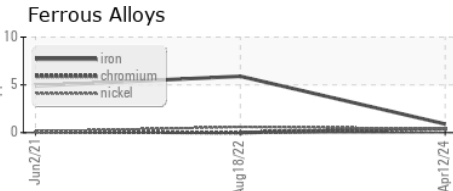
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	NONE	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	45.4	44.3	44.0

SAMPLE IMAGES		method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KFS0002833 **Received** : 22 Apr 2024
Lab Number : **06156875** **Tested** : 23 Apr 2024
Unique Number : 10992298 **Diagnosed** : 23 Apr 2024 - Wes Davis
Test Package : IND 2

ZANINI
 840 INDUSTRIAL DR
 WINCHESTER, TN
 US 37398
 Contact: TIM DOTY
 tdoty@tn.zanini.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)